

ELMARK[®]

The Brand of Electricity



ELECTRICAL
CATALOGUE | 2023

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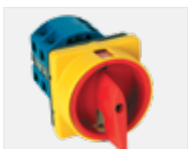


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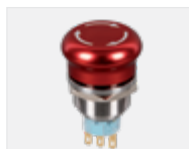


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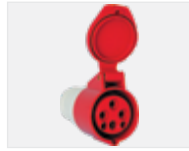
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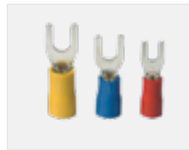


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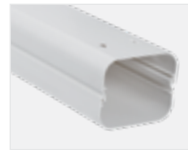
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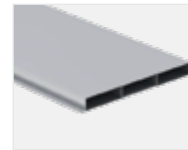
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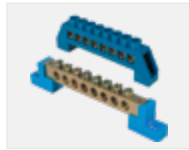


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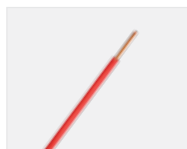
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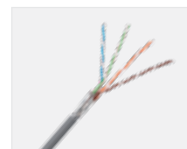
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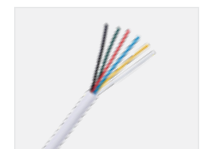
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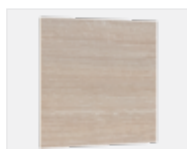
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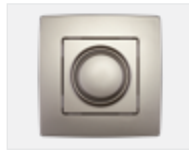
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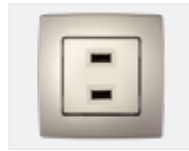
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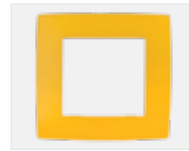
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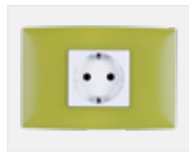
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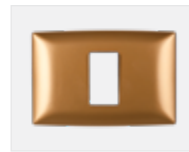
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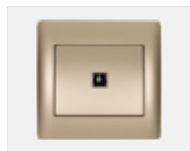


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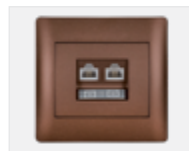
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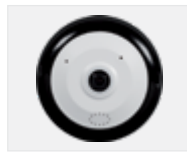
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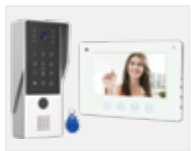


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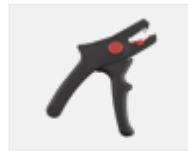
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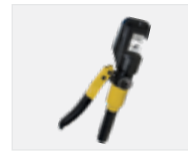
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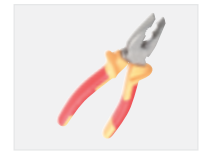
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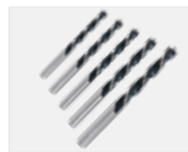
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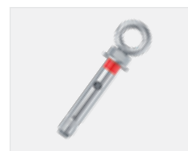
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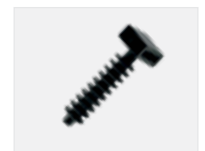
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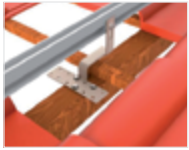


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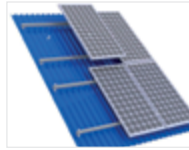


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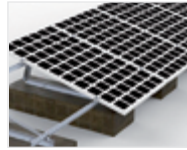
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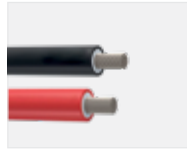
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ELMARK[®]

The Brand of Electricity

ELMARK ENSURES HIGH RELIABILITY AND COST-EFFECTIVE SOLUTIONS WORLDWIDE

ELMARK is a leading manufacturer and distributor in Europe and a reliable international partner.



„The business concept is always winning if you put the needs of your customers first.

We do constantly improve our business model in the direction to increase customer`s profit.”

Jelez Georgiev
CEO of ELMARK Holding SE



20 000m²
FACTORY
AREA

3 500m²
HEADQUARTERS
PREMISES

11 000m²
WAREHOUSE
SPACE

OUR MISSION

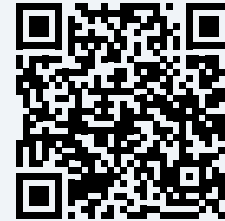
The company's long-term goals are aimed to implement the latest digital solutions for fast and easy management of the supply chain. We continue ensuring high-effective solutions for every household and business structure.

OUR VALUES

We believe that for running a successful business it is necessary to build a solid foundation which drives business growth. Our main core values are: Expert approach, High efficiency, Security, Trust, Striving for improvement.

OUR COMPANY PRODUCES UNDER BRAND **ELMARK**:

- » Full range of professional electrical equipment
- » Products for automation and control
- » Components for electricals installation
- » Smart home solutions
- » Solar systems
- » LED decorative and indoor lighting
- » Outdoor and industrial lighting



Scan & watch
company video
presentation

PRODUCTION & LOGISTICS

PRODUCTIONS

ELMARK`s production is tailored to market`s needs in terms of quality, functionality and safety requirements. Our product portfolio includes over 10,000+ solutions for every household and business, distributed in the main areas of electrical equipment and lighting, developed in response to customer`s demand and expectations.

WAREHOUSE & LOGISTICS

The strategically located factory and warehouse in Dobrich, covering an area of over 10,000 m² , provide quick and easy access to major transport lines, as well as direct access to European and international markets. The production buildings of the company have modern equipment and the necessary infrastructure for the needs of production. The logistics structure is build of interconnected distribution and partner networks, which transport to over 60 countries around the world.

PRODUCT QUALITY & GUARANTEES

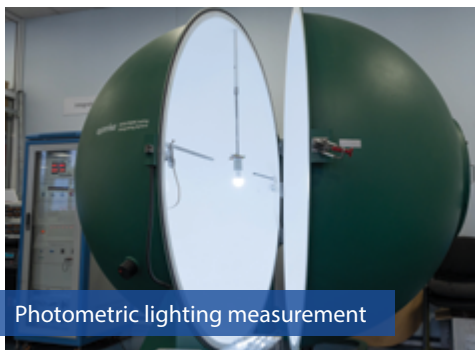
Manufactured in accordance with all European standards and requirements, the ELMARK product line follows the global trends for high efficiency and quality. Our production passes everyday tests and has proven parameters for safety and security, and proof are the international certificates obtained over the years, among which is the INTERTEK certificate which help to ensure quality and safety of our production.



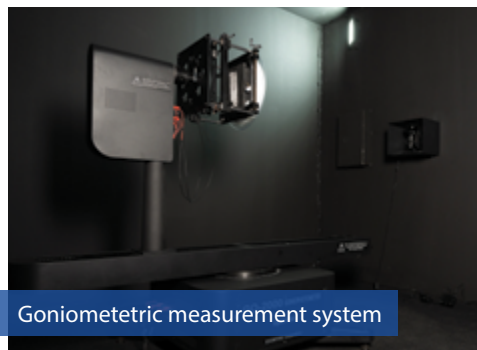
MCB testing line



Contactors testing line



Photometric lighting measurement



Goniometric measurement system

The ELMARK provides up to 7 years warranty for products with the ELMARK brand.

ALLIANZ GERMANY recognize our brand for the lack of claims for more than 17 consecutive years in regard of insurance "Product liability".



Product portfolio
10000+



Up to 7 years
warranty



European
manufacturer



Certified
quality

QUALITY & INSURANCE CERTIFICATES

All available certificates can be found at
www.elmarkholding.eu

Bureau Veritas Certification

ELMARK INDUSTRIES AD

2, Dobruzhka Str., 9300, Dobrich, Bulgaria

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

Production and trade of Miniature Circuit Breakers (MCB), Molded Case Circuit Breakers (MCCB), Residual Current Devices (RCD) and Contactors and Devices for Control and Protection of Electrical Motors. Assembly and testing of industrial and LED lighting. Assembly and testing of decorative lighting.

Original cycle start date: 07-04-2009

Expiry Date of Previous Cycle: 16-03-2021

Certification / Recertification Audit date: 02-03-2021

Certification/Recertification Cycle Start Date: 17-03-2021

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 16-03-2024

Certificate No.: **BG001733** Version: **2** Issue Date: 26-03-2021



0008

Rozina Khatirava

Signed on behalf of BVCH SAS UK Branch

Certification Body Address: 5th Floor, 66 Prescott Street, London, E1 6NG, United Kingdom
Local Office: 81A, Bulgaria Blvd., 1424 Sofia, Bulgaria

Further identification regarding the scope and validity of this certificate, and the applicability of the management system requirements, please call +339 (0) 905 00 00



ALLIANZ BULGARIA INSURANCE CO. LTD.

GENERAL INSURANCE

TO WHOM IT MAY CONCERN

CERTIFICATE OF COVER

This is to certify that we, "Allianz Bulgaria" Insurance Co., Ltd., Bulgaria, Sofia, BN 040638060, in our capacity as Insurers, have issued an insurance Policy No 13000230390000001 and effected Product Liability insurance as follows:

ASSURED:	ELMARK INDUSTRIES AD , BULSTAT No. 124834156, Dobrich, Dobruzhka 2 Boul.
Interest	Production of Miniature Circuit Breakers (MCB), Molded Case Circuit Breakers (MCCB), Residual Current Devices (RCD) and Contactors, Thermomagnetic automatic breakers, Thermal overload relays and Devices for Control and Protection of Electrical Motors, Assembly and testing of Decorative, Luminescent, Industrial and LED lighting.
Limits:	1 500 000 EUR any one occurrence 1 500 000 EUR in aggregate for the insurance period
PERIOD:	TWELVE MONTHS with effect from 01-01-2023
Territorial Scope:	Worldwide except USA and Canada and the territories under their jurisdiction

Warranties, if any:

In the event that the Assured or anyone acting on his behalf uses the above information as evidence for insurance or evidence of financial responsibility under any applicable law relating to financial responsibility, or otherwise shows or offers it to any other party as evidence of insurance, it must be clearly understood that this confirmation relates only to the dates set out above and that such insurance is subject to General Conditions of "Allianz Bulgaria", attached clauses and terms, conditions, limitations, exclusions and other provisions of the Insurance Policy issued.

Issued on December 29th 2022

Place of issue: Varna, Bratya Mladrovi 68 Str., General representation 030, varna.center@allianz.bg, tel: +359 52 668 100



"ALLIANZ BULGARIA" INS CO., LTD.

Certificate

 for European Product Safety

Reference No. 1814486

Circuit-breakers with overcurrent protection


Type designation C61N, C62N, C63N, C64N
 Certificate holder Elmark Industries SC
 2 Dobrudzha Blvd., Dobrich,
 BULGARIA
 The product complies with the standard(s) EN 60898-1:2003+A1+A11+A12+A13
 Date of expiry 16 August 2023
 EU Directive information According to the principle of presumption of conformity, this certificate constitutes support for an EC Declaration of Conformity and CE marking according to the Low Voltage Directive 2014/35/EU.

Additional information in Appendix.

Certification Body Intertek Semko AB, Product Certification Place Kista - Stockholm
 Signed  Date 16 August 2018
 Bo Bergdahl Page 1 of 3

This certificate is issued in accordance with the terms and conditions set out in the Appendix.

Certificate

 for European Product Safety

Reference No. 1815647

Moulded Case Circuit-Breakers

Type designation DS 1
 Certificate holder Elmark Industries SC
 2 Dobrudzha Blvd., Dobrich,
 BULGARIA
 The product complies with the standard(s) EN 60947-2:2017
 Date of expiry 13 September 2023
 EU Directive information According to the principle of presumption of conformity, this certificate constitutes support for an EC Declaration of Conformity and CE marking according to the Low Voltage Directive 2014/35/EU.

Additional information in Appendix.

Certification Body Intertek Semko AB, Product Certification Place Kista - Stockholm
 Signed  Date 13 September 2018
 Fredrik Wennersten Page 1 of 2

This certificate is issued in accordance with the terms and conditions set out in the Appendix.

Certificate

 for European Product Safety

Reference No. 1817903

Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs)

Type designation JEL1
 Certificate holder Elmark Industries SC
 2 Dobrudzha Blvd., Dobrich,
 BULGARIA
 The product complies with the standard(s) EN 61008-2-1:1994+A11
 EN 61008-1:2012+A1+A2+A11+A12
 Date of expiry 31 October 2023
 EU Directive information According to the principle of presumption of conformity, this certificate constitutes support for an EC Declaration of Conformity and CE marking according to the Low Voltage Directive 2014/35/EU.

Additional information in Appendix.

Certification Body Intertek Semko AB, Product Certification Place Kista - Stockholm
 Signed  Date 31 October 2018
 Helen Gustafsson Page 1 of 2

This certificate is issued in accordance with the terms and conditions set out in the Appendix.

Certificate

 for European Product Safety

Reference No. 1817119

AC Contactor

Type designation LT1-D4011, LT1-D5011, LT1-D6011, LT1-D8011, LT1-D6011
 Certificate holder Elmark Industries SC
 2 Dobrudzha Blvd., Dobrich,
 BULGARIA
 The product complies with the standard(s) EN 60947-4-1:2010+A1
 EN 60947-5-1:2017
 Date of expiry 15 October 2023
 EU Directive information According to the principle of presumption of conformity, this certificate constitutes support for an EC Declaration of Conformity and CE marking according to the Low Voltage Directive 2014/35/EU.

Additional information in Appendix.

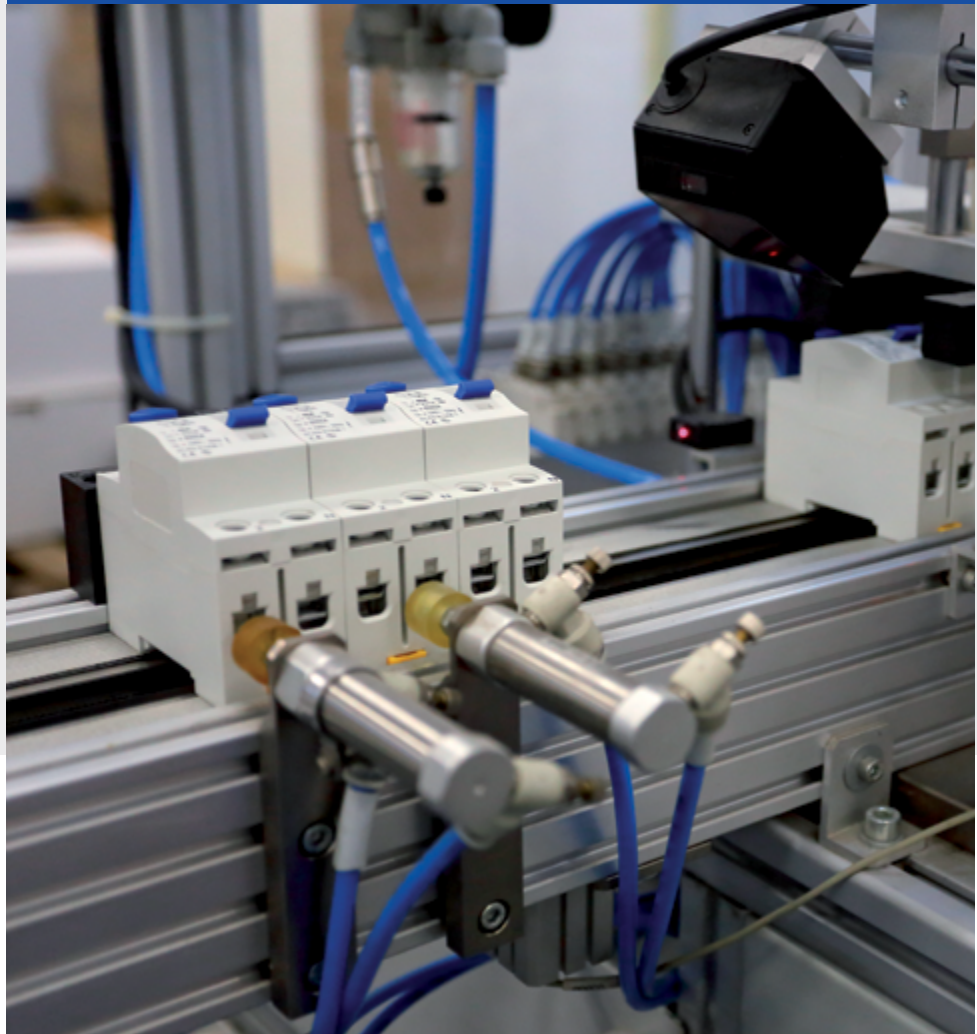
Certification Body Intertek Semko AB, Product Certification Place Kista - Stockholm
 Signed  Date 15 October 2018
 Bo Bergdahl Page 1 of 3

This certificate is issued in accordance with the terms and conditions set out in the Appendix.



AUTOMATION

- MINIATURE CIRCUIT BREAKERS & ACCESSORIES
- HIGH POWER SAFETY DEVICES & ISOLATING SWITCHES
- SWITCH DISCONNECTORS
- ISOLATING SWITCHES
- MOULDED CASE CIRCUIT BREAKERS
- RESIDUAL CURRENT DEVICES
- SURGE ARRESTERS
- LOW VOLTAGE CONTACTORS
- THERMAL OVERLOAD RELAYS
- STARTERS
- FREQUENCY INVERTERS
- TIMERS
- TRANSFORMERS
- INDUSTRIAL RELAYS
- MEASUREMENT DEVICES
- LIMIT SWITCHES
- SENSORS
- ROTARY SWITCHES
- BUTTONS & INDICATORS
- WARNING LIGHTS & TOWERS



MINIATURE CIRCUIT BREAKERS SERIES C40N

C4xN
 ┌── number of poles (1,2,3)
 └── breaking capacity in (kA)
 ┌── tripping curve C
 C x
 └── rated current in (A)
 ┌── tripping curve C

Documents corresponding to the product:

Standard EN60898-1
 EN60947-2

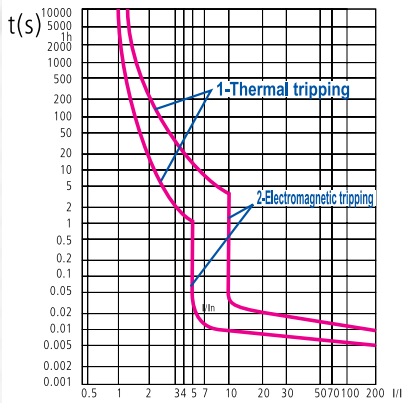


FUNCTIONS

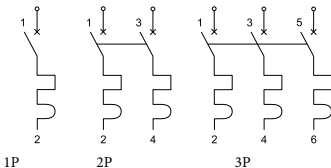
- Protection of the electrical circuits from overload or short circuits of the outer circuit
- It can be used as a device for commutation and control of electrical circuits
- In combination with auxiliary devices it allows remote control, commutation or indication of the protected circuit
- For mounting in residential and industrial buildings
- For mounting at a distance from the transformer post from 150 to 850 m
- Allows protection of consumers generating short circuit currents up to 4500 A

TECHNICAL DATA

- Rated voltage: 230/400V; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 4500A
- Rated breaking capacity $I_{cs} = 75\% I_{cu}$
- Isolating voltage: $\geq 2000V$
- Electrical wear resistance (number of cycles): 4000
- Mechanical (number of cycles): 20000
- Class of current limiting: 3
- IP code: IP>20
- Tripping:
 - C – the maximum current release breaks between 5 and 10 In; used to protect main power supply cables and conventional consumers
- Joining terminal: flat (tunnel) screw terminal with composition 1.5 coldly draw-plated plane Q235– A
- Plastic box – not keeping the burning material nylon PA66, UV rays wear resistance
- Box permittivity strength: >18MV/m
- Abnormal heating wear resistance and fire of the outer parts: 960°C /3s
- Maximum current release containing:
 - Copper coil - composition: pure copper T2 type
 - Resistance: from 0.6 to 180m
 - Welding effort: <150 000 N/mm
 - Bimetal plate – composition: 5J158 to TB180 depending on the current
 - Thickness: 0.6mm (up to 40A) and 0.8mm (up to 63A)
 - Magnetic core – composition: coldly draw-plated metal wire (1Gr18Ni9)
 - Thickness: 1.15 to 2.24µm
 - Drawing effort: from 200 to 400N/mm
 - Contact head of the movable contact – composition: silver graphite CAg(5)
 - Dimension 3x3x0.8 (up to 40A) and 4x4x0.8 (up to 63A)
 - Static contact – composition: pure copper T2Y2
 - Composition of the contact head: silver graphite CAg(5)
- Power supply (conducting)
 - Power supply busbar 1P63, 2P63, 3P63
 - Rigid conductors up to 25 mm
 - Flexible conductors up to 16 mm
- Tightening moment: 1.33Nm



C type

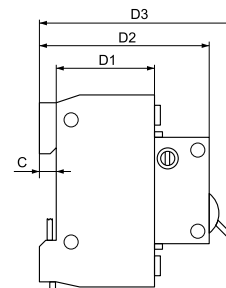
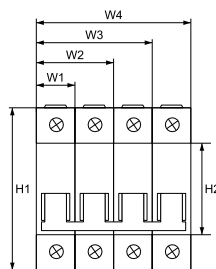


MOUNTING

- Vertical
- DIN-rail
- For mounting in housing or industrial environment without serious interference
- Ambient temperature: -5°C to + 65°C±2° C

Dimensions (mm)

C	D1	D2	D3	H1
5	40	65	72	78
H2	W1	W2	W3	W4
45	18	36	54	72



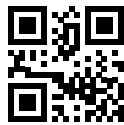
7 YEARS TOTAL WARRANTY
 + 7 standard
 0 extended
* for industrial usage
 3 years warranty

1P MINIATURE CIRCUIT BREAKERS C40N



AC current type

Catalogue number	Type	Number of poles	Rated current I _n (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41660C	C41N / 2A	1	2	4.5	1.0	12/240
41661C	C41N / 4A	1	4	4.5	1.0	12/240
41651C	C41N / 6A	1	6	4.5	1.0	12/240
41652C	C41N / 10A	1	10	4.5	1.5	12/240
41653C	C41N / 16A	1	16	4.5	2.5	12/240
41654C	C41N / 20A	1	20	4.5	2.5	12/240
41655C	C41N / 25A	1	25	4.5	4.0	12/240
41656C	C41N / 32A	1	32	4.5	6.0	12/240
41657C	C41N / 40A	1	40	4.5	10.0	12/240
41658C	C41N / 50A	1	50	4.5	10.0	12/240
41659C	C41N / 63A	1	63	4.5	10.0	12/240



2P MINIATURE CIRCUIT BREAKERS C40N



AC current type

Catalogue number	Type	Number of poles	Rated current I _n (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41670C	C42N / 6A	2	6	4.5	1.0	6/120
41671C	C42N / 10A	2	10	4.5	1.5	6/120
41672C	C42N / 16A	2	16	4.5	2.5	6/120
41673C	C42N / 20A	2	20	4.5	2.5	6/120
41674C	C42N / 25A	2	25	4.5	4.0	6/120
41675C	C42N / 32A	2	32	4.5	6.0	6/120
41676C	C42N / 40A	2	40	4.5	10.0	6/120
41677C	C42N / 50A	2	50	4.5	10.0	6/120
41678C	C42N / 63A	2	63	4.5	10.0	6/120



3P MINIATURE CIRCUIT BREAKERS C40N



AC current type

Catalogue number	Type	Number of poles	Rated current I _n (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41641C	C43N / 6A	3	6	4.5	1.0	4/80
41642C	C43N / 10A	3	10	4.5	1.5	4/80
41643C	C43N / 16A	3	16	4.5	2.5	4/80
41644C	C43N / 20A	3	20	4.5	2.5	4/80
41645C	C43N / 25A	3	25	4.5	4.0	4/80
41646C	C43N / 32A	3	32	4.5	6.0	4/80
41647C	C43N / 40A	3	40	4.5	10.0	4/80
41648C	C43N / 50A	3	50	4.5	10.0	4/80
41649C	C43N / 63A	3	63	4.5	10.0	4/80



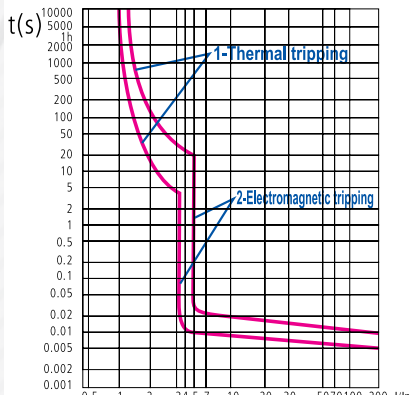
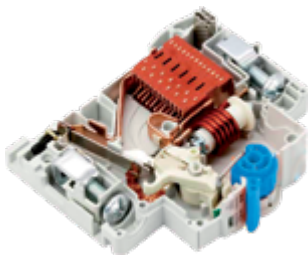
7 YEARS TOTAL WARRANTY
+ 7 standard 0 extended
* for industrial usage 3 years warranty

MINIATURE CIRCUIT BREAKERS SERIES C60N

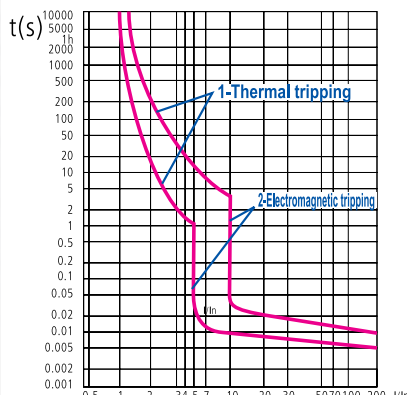
- C6xN
- └─ number of poles (1,2,3,4)
 - └─ breaking capacity in (kA)
 - └─ tripping curve C
- C x
- └─ rated current in (A)
 - └─ tripping curve C,B

Documents corresponding to the product:

Standard EN60898-1



B type



C type

FUNCTIONS

- Protection of the electrical circuits from overload or short circuits of the outer circuit
- It can be used as a device for commutation and control of electrical circuits
- In combination with auxiliary devices it allows remote control, commutation or indication of the protected circuit
- For mounting in industrial buildings with high contamination level of the electric systems
- For mounting at a distance from the transformer post from 150 to 850 m
- Allows protection of consumers generating short circuit currents up to 6000 A

TECHNICAL DATA

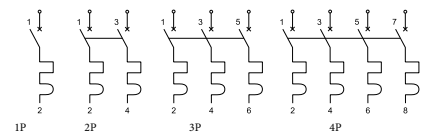
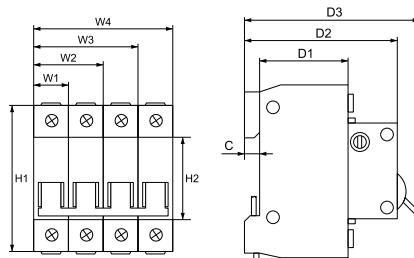
- Rated voltage: 230/400V; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 6000A
- Rated breaking capacity Ics= 75% Icu
- Isolating voltage: ≥2000V
- Electrical wear resistance (number of cycles): 8000
- Mechanical (number of cycles): 50000
- Class of current limiting: 3
- IP code: IP>20
- Tripping curve:
 - B – the maximum current release breaks between 3 and 5 In; used to protect long circuits and generators
 - C – the maximum current release breaks between 5 and 10 In; used to protect main power supply cables and conventional consumers
- Joining terminal: Combined screw clamp made of 1.5 cold extruded Q235-A material with additional coating
- Plastic box – nylon glass filled FR material
- Status indicator
- Box permittivity strength: >18MV/m
- Abnormal heating wear resistance and fire of the outer parts: 960°C / 3s
- Heat resistance of internal non-electrical components: 850°C / 10 s
- Maximum current release containing:
 - coil: solenoid
 - resistance: from 0.6 to 180m
 - welding effort: <150 000 N/mm
 - bimetal plate – composition: 5J158 to TB180 depending on the current
 - thickness: 0.6mm (up to 40A) and 0.8mm (up to 63A)
 - thickness: 1.15 to 2.24µm
 - drawing effort: from 200 to 400N/mm
 - contact head of the movable contact – composition: silver graphite CAg(5)
 - dimension 3x3x0.8 (up to 40A) and 4x4x0.8 (up to 63A)
 - static contact – composition: pure copper T2Y2
 - composition of the contact head: silver graphite CAg(5)
- Power supply (conducting)
 - power supply busbar 1P63, 2P63, 3P63
 - rigid conductors up to 25 mm
 - flexible conductors up to 16 mm
- Tightening moment: 1.33Nm

MOUNTING

- Vertical
- DIN-rail
- For mounting in housing or industrial environment without serious interference
- Ambient temperature: -5°C to + 65°C±2° C

Dimensions (mm)

C	D1	D2	D3	H1
5	50	65	72	81
H2	W1	W2	W3	W4
45	18	36	54	72



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

1P MINIATURE CIRCUIT BREAKERS C60N



AC current type

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41100C	41501C	C61N / 1A	1	1	6	1.0	12/240
41102C	41502C	C61N / 2A	1	2	6	1.0	12/240
41104C	41504C	C61N / 4A	1	4	6	1.0	12/240
41106C	41506C	C61N / 6A	1	6	6	1.0	12/240
41110C	41510C	C61N / 10A	1	10	6	1.5	12/240
41116C	41516C	C61N / 16A	1	16	6	2.5	12/240
41120C	41520C	C61N / 20A	1	20	6	2.5	12/240
41125C	41525C	C61N / 25A	1	25	6	4.0	12/240
41132C	41532C	C61N / 32A	1	32	6	6.0	12/240
41140C	41540C	C61N / 40A	1	40	6	10.0	12/240
41150C	41550C	C61N / 50A	1	50	6	10.0	12/240
41163C	41563C	C61N / 63A	1	63	6	10.0	12/240



2P MINIATURE CIRCUIT BREAKERS C60N



AC current type

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41202C	41602C	C62N / 2A	2	2	6	1.0	6/120
41204C	41604C	C62N / 4A	2	4	6	1.0	6/120
41206C	41606C	C62N / 6A	2	6	6	1.0	6/120
41210C	41610C	C62N / 10A	2	10	6	1.5	6/120
41216C	41616C	C62N / 16A	2	16	6	2.5	6/120
41220C	41620C	C62N / 20A	2	20	6	2.5	6/120
41225C	41625C	C62N / 25A	2	25	6	4.0	6/120
41232C	41632C	C62N / 32A	2	32	6	6.0	6/120
41240C	41640C	C62N / 40A	2	40	6	10.0	6/120
41250C	41650C	C62N / 50A	2	50	6	10.0	6/120
41263C	41663C	C62N / 63A	2	63	6	10.0	6/120





AC current type

3P MINIATURE CIRCUIT BREAKERS C60N

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41302C	41702C	C63N / 2A	3	2	6	1.0	4/80
41304C	41704C	C63N / 4A	3	4	6	1.0	4/80
41306C	41706C	C63N / 6A	3	6	6	1.0	4/80
41310C	41710C	C63N / 10A	3	10	6	1.5	4/80
41316C	41716C	C63N / 16A	3	16	6	2.5	4/80
41320C	41720C	C63N / 20A	3	20	6	2.5	4/80
41325C	41725C	C63N / 25A	3	25	6	4.0	4/80
41332C	41732C	C63N / 32A	3	32	6	6.0	4/80
41340C	41740C	C63N / 40A	3	40	6	10.0	4/80
41350C	41750C	C63N / 50A	3	50	6	10.0	4/80
41363C	41763C	C63N / 63A	3	63	6	10.0	4/80



4P MINIATURE CIRCUIT BREAKERS C60N



AC current type

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41402C	41802C	C64N / 2A	4	2	6	1.0	3/60
41404C	41804C	C64N / 4A	4	4	6	1.0	3/60
41406C	41806C	C64N / 6A	4	6	6	1.0	3/60
41410C	41810C	C64N / 10A	4	10	6	1.5	3/60
41416C	41816C	C64N / 16A	4	16	6	2.5	3/60
41420C	41820C	C64N / 20A	4	20	6	2.5	3/60
41425C	41825C	C64N / 25A	4	25	6	4.0	3/60
41432C	41832C	C64N / 32A	4	32	6	6.0	3/60
41440C	41840C	C64N / 40A	4	40	6	10.0	3/60
41450C	41850C	C64N / 50A	4	50	6	10.0	3/60
41463C	41863C	C64N / 63A	4	63	6	10.0	3/60



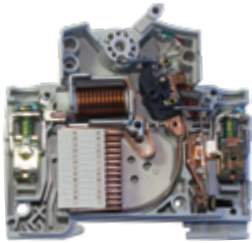
7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

MINIATURE CIRCUIT BREAKERS SERIES C100L

C10xL
 └─ number of poles (1,2,3)
 └─ breaking capacity in (kA)
 └─ tripping curve B, C
 C x
 └─ rated current in (A)
 └─ tripping curve C, B

Documents corresponding to the product:

Standard EN60898-1
EN60947-2



FUNCTIONS

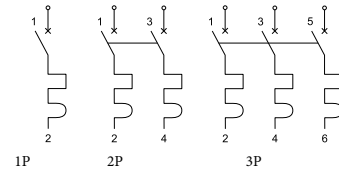
- Protection of the electrical circuits from overload or short circuits of the outer circuit
- It can be used as a device for commutation and control of electrical circuits
- In combination with auxiliary devices it allows remote control, commutation or indication of the protected circuit

TECHNICAL DATA

- Rated voltage: 230/400V; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 10000A
- Rated breaking capacity $I_{cs} = 75\% I_{cu}$
- Isolating voltage: $\geq 2000V$, 1 min at impulse wave 1.2/50 μs
- Electrical wear resistance (number of cycles): ≥ 4000
- Mechanical wear resistance (number of cycles): ≥ 20000
- Class of current limiting: 3
- IP code: IP > 20
- Tripping curve: C

MOUNTING

- Vertical
- DIN-rail
- Possibility for labeling



1P MINIATURE CIRCUIT BREAKERS C100L



AC current type

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current I_n (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41101C	41101C/B	C101L/6A	1	6	10	1.0	12/240
41103C	41103C/B	C101L/10A	1	10	10	1.5	12/240
41105C	41105C/B	C101L/16A	1	16	10	2.5	12/240
41107C	41107C/B	C101L/20A	1	20	10	2.5	12/240
41108C	41108C/B	C101L/25A	1	25	10	4.0	12/240
41109C	41109C/B	C101L/32A	1	32	10	6.0	12/240
41111C	41111C/B	C101L/40A	1	40	10	10.0	12/240
41112C	41112C/B	C101L/50A	1	50	10	10.0	12/240
41113C	41113C/B	C101L/63A	1	63	10	16.0	12/240



7 YEARS TOTAL WARRANTY
 + 7 standard
 0 extended
 * for industrial usage
 3 years warranty



AC current type

2P MINIATURE CIRCUIT BREAKERS C100L

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41201C	41201C/B	C102L/6A	2	6	10	1.0	6/120
41203C	41203C/B	C102L/10A	2	10	10	1.5	6/120
41205C	41205C/B	C102L/16A	2	16	10	2.5	6/120
41207C	41207C/B	C102L/20A	2	20	10	2.5	6/120
41208C	41208C/B	C102L/25A	2	25	10	4.0	6/120
41209C	41209C/B	C102L/32A	2	32	10	6.0	6/120
41211C	41211C/B	C102L/40A	2	40	10	10.0	6/120
41212C	41212C/B	C102L/50A	2	50	10	10.0	6/120
41213C	41213C/B	C102L/63A	2	63	10	16.0	6/120



3P MINIATURE CIRCUIT BREAKERS C100L



AC current type

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41301C	41301C/B	C103L/6A	3	6	10	1.0	4/80
41303C	41303C/B	C103L/10A	3	10	10	1.5	4/80
41305C	41305C/B	C103L/16A	3	16	10	2.5	4/80
41307C	41307C/B	C103L/20A	3	20	10	2.5	4/80
41308C	41308C/B	C103L/25A	3	25	10	4.0	4/80
41309C	41309C/B	C103L/32A	3	32	10	6.0	4/80
41311C	41311C/B	C103L/40A	3	40	10	10.0	4/80
41312C	41312C/B	C103L/50A	3	50	10	10.0	4/80
41313C	41313C/B	C103L/63A	3	63	10	16.0	4/80



4P MINIATURE CIRCUIT BREAKERS C100L



AC current type

Catalogue number Curve C	Catalogue number Curve B	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41401C	41401C/B	C104L/6A	4	6	10	1.0	3/60
41403C	41403C/B	C104L/10A	4	10	10	1.5	3/60
41405C	41405C/B	C104L/16A	4	16	10	2.5	3/60
41407C	41407C/B	C104L/20A	4	20	10	2.5	3/60
41408C	41408C/B	C104L/25A	4	25	10	4.0	3/60
41409C	41409C/B	C104L/32A	4	32	10	6.0	3/60
41411C	41411C/B	C104L/40A	4	40	10	10.0	3/60
41412C	41412C/B	C104L/50A	4	50	10	10.0	3/60
41413C	41413C/B	C104L/63A	4	63	10	16.0	3/60



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

MINIATURE CIRCUIT BREAKERS DP1N (1P + E)

FUNCTIONS

- Protection of the electrical circuits from overload or short circuit of the outer circuit
- It can be used as a device for commutation and control of electrical circuits
- It breaks simultaneously the lead and the neutral conductor as the heat protection is only at the lead conductor

TECHNICAL DATA

- Rated voltage: 230V; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 4500 A
- Rated breaking capacity Ics = 50% Icu
- Insulating voltage: $\geq 2000V$
- Tripping curve: C – the maximum current release breaks between 5 and 10 I_n; used to protect main power supply
- Cables and conventional consumers

CONNECTING

- Joining terminal: flat (tunnel) screw terminal
- Power supply (conducting):
 - power supply busbar DP1N
 - flexible or rigid conductor
- Mounting: on DIN-rail



AC current type



Catalogue number Curve C	Type	Number of poles	Rated current I _n (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41006C	DP1N/6	1P+N	6	4.5	1.0	12/240
41010C	DP1N/10	1P+N	10	4.5	1.5	12/240
41016C	DP1N/16	1P+N	16	4.5	2.5	12/240
41020C	DP1N/20	1P+N	20	4.5	2.5	12/240
41025C	DP1N/25	1P+N	25	4.5	4.0	12/240
41032C	DP1N/32	1P+N	32	4.5	6.0	12/240

7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

MINIATURE CIRCUIT BREAKERS SERIES C100M

C100M constructive series
 L number of poles (1;2;3;4)
 D x rated current
 L tripping curve C, D, B

Documents corresponding to the product:

Standard EN60898-1
 EN 60947-2



FUNCTIONS

- Protection of the electrical circuits from overload or short circuits of the outer circuit
- It can be used as a device for commutation and control of electrical circuits
- In combination with auxiliary devices it allows remote control, commutation or indication of the protected circuit

TECHNICAL DATA

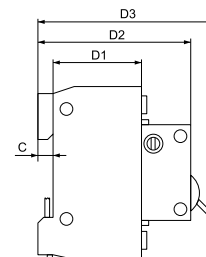
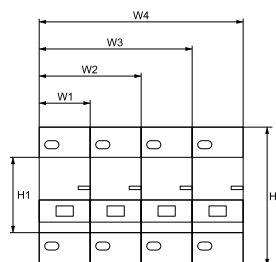
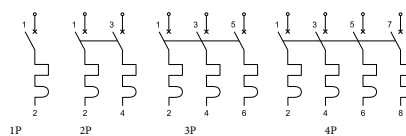
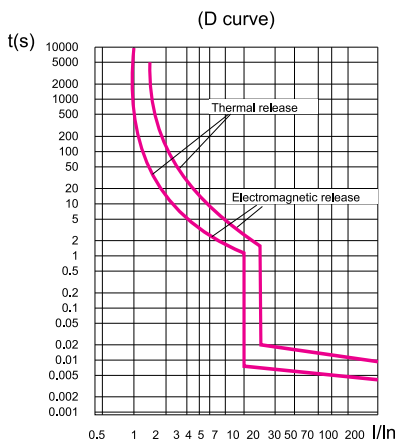
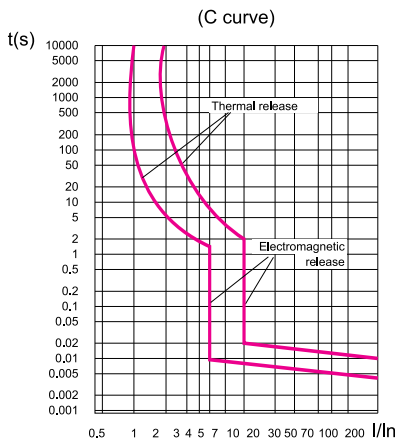
- Rated voltage: 230/400V; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 10000A
- Rated breaking capacity $I_{cs} = 75\% I_{cu}$
- Isolating voltage: $\geq 2000V$
- Electrical wear resistance (number of cycles): ≥ 4000
- Mechanical wear resistance (number of cycles): ≥ 20000
- Class of current limiting: 3
- IP code: IP>20
- Tripping curve: C,D
- Joining terminal: flat (tunnel) screw terminal with composition 1.5 coldly draw-plated plane Q235 – A
- Plastic box – not keeping the burning material nylon PA66, UV rays wear resistance
- Box permittivity strength: $>18MV/m$
- Abnormal heating wear resistance and fire of the outer parts: $960^{\circ}C / 3s$
- Maximum current release containing:
 - > copper coil - composition: pure copper T2 type
 - > resistance: from 148 to 230m
 - > welding effort: $<400 N$
 - > bimetal plate – composition: TB180/0.5
 - > thickness: 0.8mm
 - > magnetic core – composition: coldly draw-plated metal wire (1Gr18Ni9)
 - > thickness: 1.15 to 2.24 μm
 - > drawing effort: 20N/mm²
 - > contact head of the movable contact – composition: silver graphite CAg(5)
 - > dimension 6x6x1
 - > static contact – composition: pure copper T2Y2
 - > composition of the contact head: silver graphite CAg(5)
- Power supply (conducting)
 - > power supply busbar
 - > rigid conductors up to 50
 - > rigid conductors up to 50
- Tightening moment: 1.33Nm

MOUNTING

- Vertical
- DIN-rail
- Possibility for labeling
- For mounting in industrial environment
- Ambient temperature: $-5^{\circ}C$ to $+65^{\circ}C \pm 2^{\circ}C$

Dimensions (mm)

C	D1	D2	D3	H1
5	50	65	74	45
H2	W1	W2	W3	W4
81	27	54	81	108



7 YEARS TOTAL WARRANTY
 + 7 standard
 0 extended
 * for industrial usage
 3 years warranty

1P MINIATURE CIRCUIT BREAKERS C100M



AC current type

Catalogue number Curve C	Catalogue number Curve B	Catalogue number Curve D	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Packing/Box (pcs)
41180	41180B	41180D	C100M	1	80	10	9/180
41190	41190B	41190D	C100M	1	100	10	9/180
41195	41195B	41195D	C100M	1	125	10	9/180



2P MINIATURE CIRCUIT BREAKERS C100M



AC current type

Catalogue number Curve C	Catalogue number Curve B	Catalogue number Curve D	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Packing/Box (pcs)
41280	41282	41281	C100M	2	80	10	6/120
41290	41292	41291	C100M	2	100	10	6/120



3P MINIATURE CIRCUIT BREAKERS C100M



AC current type

Catalogue number Curve C	Catalogue number Curve B	Catalogue number Curve D	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Packing/Box (pcs)
41380	41382	41381	C100M	3	80	10	4/60
41390	41392	41391	C100M	3	100	10	4/60



4P MINIATURE CIRCUIT BREAKERS C100M



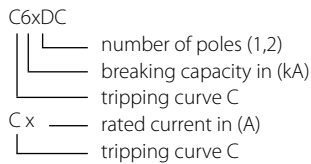
AC current type

Catalogue number Curve C	Catalogue number Curve B	Catalogue number Curve D	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Packing/Box (pcs)
41480	41482	41481	C100M	4	80	10	3/60
41490	41492	41491	C100M	4	100	10	3/60



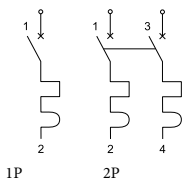
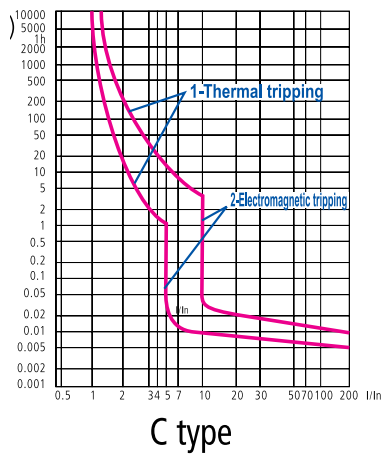
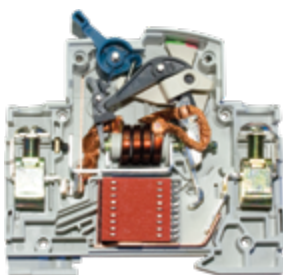
7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

DC MINIATURE CIRCUIT BREAKERS (MCB)



Documents corresponding to the product:

Standard EN60898-1
EN60898-2



MINIATURE CIRCUIT BREAKERS C60DC

FUNCTIONS

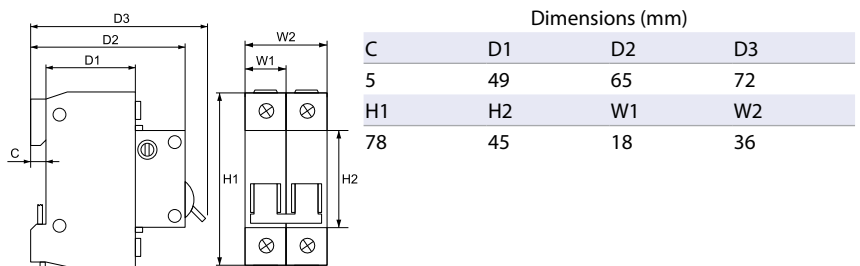
- For lowering constant current voltaic arc and use of the breaker at constant current consumer protection
- Protection of the electrical circuits from overload or short circuit of the outer circuit at alternating current and constant current power supply circuits
- For commutation and control of electrical circuits
- In combination with auxiliary alternating current devices for remote control, commutation or indication of the protected circuit
- For mounting in industrial buildings
- For protection of consumers generating short circuit currents to 6000 A at alternating current power supply

TECHNICAL DATA

- Rated voltage: 240V; AC/DC
- Breaking capacity (cycle O -CO) in accordance with standard EN 60 898- 1: 6000A
- Rated breaking capacity $I_{cs}=75\% I_{cu}$
- Insulating voltage: $\geq 2000V$
- Electrical wear resistance (number of cycles): ≥ 4000
- Mechanical wear resistance (number of cycles): ≥ 20000
- Class of current limiting: 3
- IP code: IP>20
- Tripping curve: C – the maximum current release breaks between 5 and 10 In; used to protect power supply cables and conventional consumers
- Joining terminal: flat (tunnel) screw terminal with composition 1.5 coldly draw-plated plane Q235– A
- Plastic box – nylon glass filled FR material
- Box permittivity strength: $> 18MV/m$
- Abnormal heating wear resistance and fire of the outer parts: $960^{\circ}C / 3s$
- Maximum current release containing:
 - > Coil: solenoid
 - > resistance: from 0.6 to 180m
 - > welding effort: $< 150\ 000\ N/mm$
 - > bimetal plate – composition: 5J158 to TB180 according to the current
 - > thickness: 0.6mm (up to 40A) and 0.8mm (up to 63A)
 - > thickness: 1.15 to 2.24 μm
 - > drawing effort: from 200 to 400N/mm
 - > contact head of the movable contact – composition: silver graphite CAg(5)
 - > dimension 3x3x0.8 (up to 40A) and 4x4x0.8 (up to 63A)
 - > static contact – composition: pure copper T2Y2
 - > composition of the contact head: silver graphite CAg(5)
 - > metal magnetic plate for lowering the constant current arc
- Conducting:
 - > power supply busbar 1P63, 2P63
 - > rigid conductors up to 25 mm
 - > flexible conductors up to 16 mm
- Tightening moment: 1.33Nm

MOUNTING

- Vertical
- DIN-rail
- For mounting in housing or industrial environment without serious current interference
- Ambient temperature: $-5^{\circ}C$ to $+ 65^{\circ}C \pm 2^{\circ} C$



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

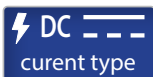
1P MINIATURE CIRCUIT BREAKERS C60DC

Catalogue number	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41164C	C61DC / 1A	1	1	6	1.0	12/240
41165C	C61DC / 2A	1	2	6	1.0	12/240
41166C	C61DC / 4A	1	4	6	1.0	12/240
41167C	C61DC / 6A	1	6	6	1.0	12/240
41168C	C61DC / 10A	1	10	6	1.5	12/240
41169C	C61DC / 16A	1	16	6	2.5	12/240
41170C	C61DC / 20A	1	20	6	2.5	12/240
41171C	C61DC / 25A	1	25	6	4.0	12/240
41172C	C61DC / 32A	1	32	6	6.0	12/240
41173C	C61DC / 40A	1	40	6	10.0	12/240
41174C	C61DC / 50A	1	50	6	10.0	12/240
41175C	C61DC / 63A	1	63	6	10.0	12/240



2P MINIATURE CIRCUIT BREAKERS C60DC

Catalogue number	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41176C	C62DC / 2A	2	2	6	1.0	6/120
41177C	C62DC / 4A	2	4	6	1.0	6/120
41178C	C62DC / 6A	2	6	6	1.0	6/120
41179C	C62DC / 10A	2	10	6	1.5	6/120
41181C	C62DC / 16A	2	16	6	2.5	6/120
41182C	C62DC / 20A	2	20	6	2.5	6/120
41183C	C62DC / 25A	2	25	6	4.0	6/120



7 YEARS TOTAL WARRANTY
+ 7 standard 0 extended
* for industrial usage 3 years warranty

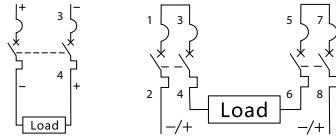
Documents corresponding to the product:

Standard IEC60947-2

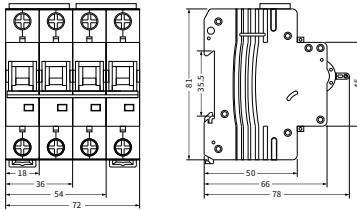
MINIATURE CIRCUIT BREAKERS (MCB) C60DC PV 500V DC

MINIATURE CIRCUIT BREAKERS (MCB) C60DC PV the rated working voltage of DC circuit breakers specially used in photovoltaic can be as high as DC 1000V. The special arc extinguishing and current limiting system can quickly disconnect the fault current of the DC power distribution system. The photovoltaic module, an important component in solar power system, can avoid damage from high DC reverse current and AC feedback current caused by the inverter failure, ensuring a reliable operation of solar PV system.

Circuit Diagram



Overall and Installation Dimension(mm)



FUNCTIONS

- Disconnection the fault current of the DC power distribution system trough are extinguishing and current limiting system.
- Protection from high DC reverse current and AC feedback current caused by the inverter failure, ensuring a reliable operation of solar PV system.
- Responsible protection of high cost components in PV system.
- Covers all common PV system voltages and currents.

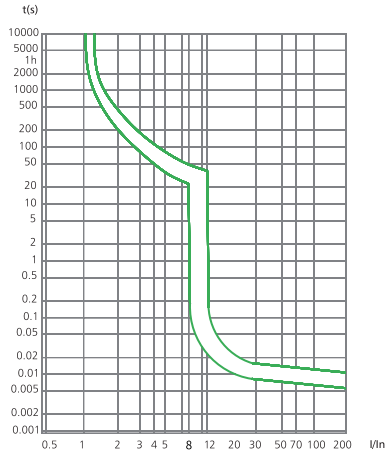
TECHNICAL DATA

- Rated voltage: 2P(500V); 4P(1000V)
- Breaking capacity (cycle O -CO) in accordance with standard EN 60 898- 1: 6000A
- Tripping curve: C
- Rated impulse withstands voltage (1.5/50) Uimp: 4000V
- Dielectric test voltage at ind. Freq. for 1 min: 2kV
- Electrical wear resistance (number of cycles): ≥4000
- Mechanical wear resistance (number of cycles): ≥10000
- Pollution degree: 2
- Contact position indicator: Yes
- IP code: IP>20
- Terminal connection type:
 - Cable
 - Pin-type busbar
 - U-type busbar
- Terminal size top/bottom for cable: 25mm²
- Terminal size top/bottom for busbar: 25mm²
- Tightening torque: 2.5Nm

MOUNTING

- Vertical
- DIN-rail
- For mounting in housing or industrial environment without serious current interference
- Ambient temperature: -5° C to + 65°C±2° C
- Daily temperature average: ≤35° C

Characteristics Curves



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

2P MINIATURE CIRCUIT BREAKERS (MCB) C60DC PV 500V DC



Catalogue number	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41264	C62DC PV/6A	2	6	6	4.0	1/6/90
41265	C62DC PV/10A	2	10	6	4.0	1/6/90
41266	C62DC PV/13A	2	13	6	4.0	1/6/90
41267	C62DC PV/16A	2	16	6	4.0	1/6/90
41268	C62DC PV/20A	2	20	6	6.0	1/6/90
41269	C62DC PV/25A	2	25	6	6.0	1/6/90
41270	C62DC PV/32A	2	32	6	10.0	1/6/90
41271	C62DC PV/40A	2	40	6	10.0	1/6/90
41272	C62DC PV/50A	2	50	6	16.0	1/6/90
41273	C62DC PV/63A	2	63	6	25.0	1/6/90



4P MINIATURE CIRCUIT BREAKERS (MCB) C60DC PV 1000V DC



Catalogue number	Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm ²)	Packing/Box (pcs)
41564	C64DC PV/6A	4	6	6	4.0	1/3/45
41565	C64DC PV/10A	4	10	6	4.0	1/3/45
41566	C64DC PV/13A	4	13	6	4.0	1/3/45
41567	C64DC PV/16A	4	16	6	4.0	1/3/45
41568	C64DC PV/20A	4	20	6	6.0	1/3/45
41569	C64DC PV/25A	4	25	6	6.0	1/3/45
41570	C64DC PV/32A	4	32	6	10.0	1/3/45
41571	C64DC PV/40A	4	40	6	10.0	1/3/45
41572	C64DC PV/50A	4	50	6	16.0	1/3/45
41573	C64DC PV/63A	4	63	6	25.0	1/3/45



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

AUXILIARY DEVICES FOR CIRCUIT BREAKERS

SINGLE-PHASE DIGITAL VOLTAGE AND CURRENT PROTECTOR



FUNCTIONS

- Under-voltage protection
- Over-voltage protection
- Over-current protection

FACTORY SETTING

- Over-voltage trip value: 270V
- Under-voltage trip value: 170V
- Over-current trip value: 63A
- Voltage power off time: 2s
- Starting delay time: 2s
- Current power off time: 2s

TECHNICAL DATA

- Operated voltage range: 80-400V AC; 50/60Hz (Single-phase)
- Rated current: 63A
- Over-voltage protection value: 230-300V AC
- Under-voltage protection value: 140-230VAC
- Over-current protection value: 1-63A
- Voltage power off time: 0-400s
- Current power off time: 0-30s
- Voltage range setting step: 1V
- Time range setting step: 1s
- Power consumption: ≤ 1.5W
- Mechanical life: 100 000
- Relative humidity: 45-90% Rh
- Altitude: up to 2000m
- Pollution level: 2 class
- Dimensions: 36x80x66mm
- Mounting: on DIN rail

Catalogue number	Type	Rated voltage	Over-voltage protection range	Under-voltage protection range	Over-current protection range	Packing/Box (pcs)
41906	ELMARK MN4	220V AC	230-300V AC	140-230V AC	1-63A	1/100



THREE-PHASE DIGITAL VOLTAGE AND CURRENT PROTECTOR



FUNCTIONS

- Under-voltage protection
- Over-voltage protection
- Over-current protection

FACTORY SETTING

- Over-voltage trip value: 420V
- Under-voltage trip value: 210V
- Over-current trip value: 63A
- Voltage power off time: 2s
- Starting delay time: 2s
- Current power off time: 2s

TECHNICAL DATA

- Operated voltage range: 140-500V AC; 50/60Hz (Three-phase)
- Rated current: 63A
- Over-voltage protection value: 390-500V AC
- Under-voltage protection value: 140-370VAC
- Over-current protection value: 1-63A
- Voltage power off time: 0-400s
- Current power off time: 0-30s
- Voltage range setting step: 1V
- Time range setting step: 1s
- Power consumption: ≤ 1.5W
- Mechanical life: 100 000
- Relative humidity: 45-90% Rh
- Altitude: up to 2000m
- Pollution level: 2 class
- Dimensions: 72x80x66mm
- Mounting: on DIN rail

Catalogue number	Type	Rated voltage	Over-voltage protection range	Under-voltage protection range	Over-current protection range	Packing/Box (pcs)
41907	ELMARK MN4	400V AC	390-500V AC	140-370V AC	1-63A	1/50



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

EN 60255-1; IEC60947-5-1



SINGLE POLE MONITORING VOLTAGE RELAY MN1

FUNCTIONS

- Protect electrical equipment from over & under voltage
- Voltage measurement accuracy <1%
- Relay status is indicated by LED

TECHNICAL DATA

- Rated voltage: 220V AC; 50/60Hz
- Hysteresis: 0-20% adjustable
- Time delay: 0.1-10s adjustable
- Reset time: 0.2 sec max
- Current rating: 3A/AC-15
- Mechanical life: 1X10⁷
- Electrical life: 1X10⁵
- Ambient temperature: -10C°/+55C°
- Dimensions: 90x18x64mm
- Mounting: on DIN rail

Catalogue number	Type	Rated voltage	Hysteresis	Packing/Box (pcs)
41900	ELMARK MN1	220V AC	0-20% adjustable	12/240



Documents corresponding to the product:

EN 60255-1; IEC60947-5-1



THREE POLE MONITORING VOLTAGE RELAY MN3

FUNCTIONS

- Protect electrical equipment from over & under voltage
- Voltage measurement accuracy <1%
- Relay status is indicated by LED

TECHNICAL DATA

- Rated voltage: 415V AC; 50/60Hz
- Hysteresis: 0-20% adjustable
- Time delay: 0.1-10s adjustable
- Reset time: 0.2 sec max
- Current rating: 3A/AC-15
- Mechanical life: 1X10⁷
- Electrical life: 1X10⁵
- Ambient temperature: -10C°/+55C°
- Dimensions: 90x18x64mm
- Mounting: on DIN rail

Catalogue number	Type	Rated voltage	Hysteresis	Packing/Box (pcs)
41927	ELMARK MN3	415V AC	0-20% adjustable	12/240



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty



SHUNT RELEASE MX

FUNCTIONS

- Remote circuit breaker switching off at voltage feed
- Allows manual switching on of the breaker at voltage recovery
- Indication of the device's location

TECHNICAL DATA

- Rated voltage: 230V; 50/60Hz
- Isolating voltage: $\geq 2000V$
- IP code: IP>20

CONNECTING

- Joining terminal: flat (tunnel) screw terminal
- Conductors: flexible up to 1.5mm²
- Tightening moment: 1.33Nm
- The power supply of the release is accomplished at the outlet of the breaker

MOUNTING

- Vertical, clamps with two pins to the breaker's rivets and the executive mechanism is joined up to the switching mechanism of the breaker after dismantling the seal cover

Catalogue number	Type	Rated voltage	Type breaker	Packing/Box (pcs)
41902C	ELMARK MX 60	230V	C60	12/240



AUXILIARY CONTACT OF

FUNCTIONS

- At circuit breaker switching off it sends a signal to the control or signalization system
- Indication of the location of the auxiliary contact and the breaker

TECHNICAL DATA

- Rated voltage: 230V
- Isolating voltage: $\geq 2000V$
- IP code: IP>20

CONNECTING

- Joining terminal: flat (tunnel) screw terminal
- Power supply (conducting): - flexible conductors up to 1.5mm

MOUNTING

- Vertical, clamps with two pins to breaker's rivets, and the executive mechanism is joined up to the switching mechanism of the breaker after dismantling the seal cover

Catalogue number	Type	Rated voltage	Type breaker	Packing/Box (pcs)
41901C	ELMARK OF 60	230V	C60	12/240

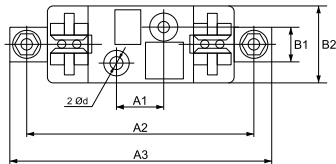
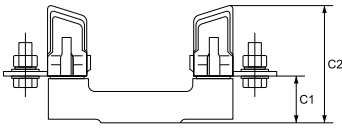


7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

HIGH POWER SAFETY DEVICES AND ISOLATING SWITCHES

Documents corresponding to the product:

Standard EN 60269-1



BASES FOR HIGH POWER SAFETY DEVICES

The series bases for high power safety device is manufactured of permittivity alloy with mounted contact jaws of electrolytic copper supplied with special springs for contact compression and easy fuse links taking out. All current leading parts are connected to inlet outlet terminals with bolts; the terminals also end with bolts, to which the power supply conductors are connected. The bases are offered in five type sizes corresponding to the five types of fuse links.

Remark : Fuse bases SIST are made of resin / Remark : Fuse bases SISP are made of porcelain

Overall dimensions (mm)

Base type	A1	A2	A3	B1	B2	C1	C2	Ød
SIST00	25	100	120	-	30	25	60	7.5
SIST 0	25	150	170	-	30	37	72	7.5
SIST1	25	175	200	30	58	38	84	10.5
SIST2	25	200	225	30	60	38	100	10.5
SIST3	25	210	250	30	60	40	105	10.5

Catalogue number	Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)
12001	SIST00	NT 00	up to 160	600	193	5/120



Catalogue number	Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)
12010	SIST0	NT 0	up to 160	600	295	3/54



Catalogue number	Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)
12100	SIST1	NT 1	up to 250	600	550	3/36



Catalogue number	Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)
12200	SIST2	NT 2	up to 400	600	770	1/20



Catalogue number	Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)
12300	SIST3	NT 3	up to 630	600	965	1/20



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

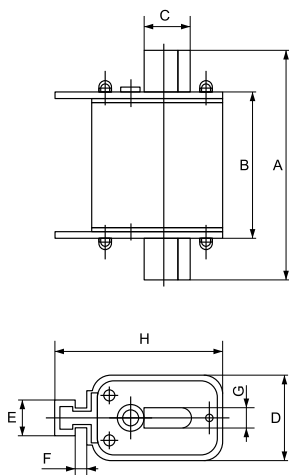
Standard EN 60269-1
EN 60269-2

FUSE LINKS FOR HIGH POWER SAFETY DEVICE

The series fuse links for high power safety devices is designed for short circuit protection. They are distinguished with high speed of operation and high reliability. The element is a ceramic (porcelain) body filled with fine quartz sand for voltaic arc lowering. In the ceramic body is mounted a fusible, specially profiled wafer connecting the current leading terminals. These terminals are manufactured of copper alloy with special nickel coating and have the form of knives to provide more contact surface. The fuse links correspond to "gL – gG" class which means that they are with common function and normal response time. NH Fuses.

TECHNICAL DATA

- Rated voltage: 500V
- Rated short circuit current: 120 kA
- IP code: IP 00
- Ambient temperature: -5 to +65°C
- Altitude: up to 2000m
- Operating class gL/gG – general purpose, line protection, slow acting.



Base type	A	B	C	D	H
NT00	78	40	15	29	56.5
NT 0	125	68	15	29	56.5
NT1	135	68	21	48	62
NT 2	150	68	27	58	72
NT 3	150	68	33	67	84.5
NT00C	78	40	15	21	56.5
NT1C	135	68	21	29	62
NT2C	150	68	33	48	84.5

Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10001	NT00	16	500,600	3/90
10002	NT00	25	500,600	3/90
10003	NT00	32	500,600	3/90
10004	NT00	40	500,600	3/90
10005	NT00	50	500,600	3/90
10006	NT00	63	500,600	3/90
10008	NT00	80	500,600	3/90
10009	NT00	100	500,600	3/90
10012	NT00	125	500,600	3/90
10016	NT00	160	500,600	3 / 90



Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10015	NT0	16	500,600	3/90
10025	NT0	25	500,600	3/90
10032	NT0	32	500,600	3/90
10040	NT0	40	500,600	3/90
10050	NT0	50	500,600	3/90
10063	NT0	63	500,600	3/90
10080	NT0	80	500,600	3/90
10090	NT0	100	500,600	3/90
10092	NT0	125	500,600	3/90
10096	NT0	160	500,600	3/90



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10108	NT1	80	500,600	3/36
10110	NT1	100	500,600	3/36
10112	NT1	125	500,600	3/36
10116	NT1	160	500,600	3/36
10120	NT1	200	500,600	3/36
10122	NT1	225	500,600	3/36
10125	NT1	250	500,600	3/36



Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10216	NT2	160	500,600	1/24
10220	NT2	200	500,600	1/24
10225	NT2	250	500,600	1/24
10231	NT2	315	500,600	1/24
10240	NT2	400	500,600	1/24



Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10350	NT3	500	500,600	1/24
10363	NT3	630	500,600	1/24



Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10001C	NT00C	16	500,600	3/120
10002C	NT00C	25	500,600	3/120
10003C	NT00C	32	500,600	3/120
10004C	NT00C	40	500,600	3/120
10005C	NT00C	50	500,600	3/120
10006C	NT00C	63	500,600	3/120
10008C	NT00C	80	500,600	3/120
10009C	NT00C	100	500,600	3/120



Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10108C	NT1C	80	500,600	3/54
10110C	NT1C	100	500,600	3/54
10112C	NT1C	125	500,600	3/54
10116C	NT1C	160	500,600	3/54



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



Catalogue number	Type	In (A)	Un (V)	Packing / Box (pcs)
10216C	NT2C	160	500,600	1/30
10220C	NT2C	200	500,600	1/30
10225C	NT2C	250	500,600	1/30



Documents corresponding to the product:

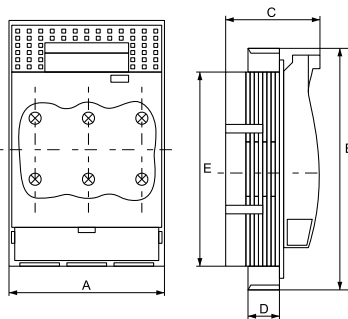
Standard EN 60947-1; EN 60947-3

ISOLATING SWITCHES

Designed in two types – horizontal and vertical. They represent a combination of low voltage isolating switch and high power safety devices mounted in a common plastic corpus. They are used for low voltage distribution boards and complete transformer substations (CTS) where visible circuit distribution is necessary. They provide safety and convenience at fuse links change. The plastic corpus increases the IP code and the plastic lid provides simultaneous circuits switching on/off. The lid allows easy removing which is additional measure at repairs. The vertical isolating switches are mounted directly to the power supply rails which enables the exploitation and improves the safety of the staff.

TECHNICAL DATA

- Rated voltage: 500V
- Rated short circuit current: according to the mounted fuse links
- Number of poles: 3
- Impulse voltage wear resistance: 8kV
- Mechanical wear resistance: 3000 cycles
- IP code: IP 40
- Plastic: UV rays wear resistance
- Ambient temperature: -5 to
- Altitude: up to 2000m



Overall dimensions (mm)

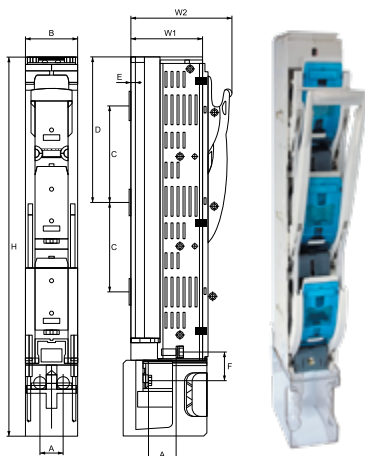
Base type	A	B	C	D	E
THB -160	105	160	85	45	100
THB - 250	185	220	111	66	180
THB - 400	210	260	130	88	205
THB - 630	256	270	140	94.5	245



Catalogue number	Type	In (A)	Un (V)	Fuse link size	Packing / Box (pcs)
44801	THB	160	500,660	NT00	1/18
44802	THB	250	500,660	NT1	1/6
44803	THB	400	500,660	NT2	1/4
44804	THB	630	500,660	NT3	1/4



Overall dimensions (mm)



Base type	A	B	C	D	E	F	G	H	W1	W2
HG2B	50	99	185	290	2	57	58	746	146	195

Catalogue number	Type	In (A)	Un (V)	Fuse link size	Packing / Box (pcs)
44805	HG2B	160	500,660	NT00	1/4
44806	HG2B	250	500,660	NT1	1/4
44807	HG2B	400	500,660	NT2	1/4
44808	HG2B	630	500,660	NT3	1/4



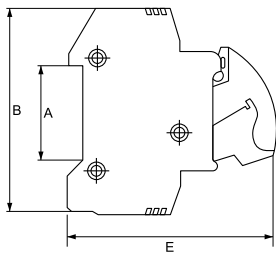
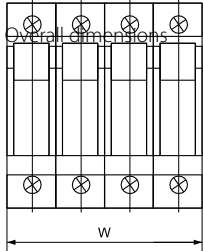
5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

Standard EN 60269-2;
IEC269-2

SWITCH DISCONNECTORS RT18

The series of switch disconnectors are developed for short-circuit protection. They have a high speed of start and high reliability. They have a plastic body of non-flammable plastics adapted for mounting on a DIN rail, where a porcelain round plug, which is filled with fine quartz sand for extinguishing the electric arc. LED indicator is mounted on the front panel to show fuse link condition. In this ceramic body is mounted melting, specifically profiled plate, which connects the input power terminals. These terminals are produced from copper alloy with especially laid nickel layer and contact with the projecting bolts from the plastic body. There are offered two types of insertions according to the degree of quick operation: normally quickly operating ones – class “gG”. Suitable for DC system.



TECHNICAL DATA

- Rated voltage: 500V
- Rated short circuit current: according to the mounted fuse links
- Number of poles: 3
- Impulse voltage wear resistance: 8kV
- Mechanical wear resistance: 3000 cycles
- IP code: IP 40
- Plastic: UV rays wear resistance
- Ambient temperature: -5 to
- Altitude: up to 2000m



Catalogue number	Base type	Number of poles	Rated current (A)	Type of the fuse	Base dimensions (mm)				Packing / Box (pcs)
					A	B	W	E	
10RT1831	1PRT18 - 32x	1P	32	xxG1038	37	82	18	78	12/240
10RT18311	1NRT18 - 32x	1P+N	32	xxG1038	37	82	36	78	6/120
10RT1832	2PRT18 - 32x	2P	32	xxG1038	37	82	36	78	6/120
10RT1833	3PRT18 - 32x	3P	32	xxG1038	37	82	54	78	4/80
10RT18331	3NRT18 - 32x	3P+N	32	xxG1038	37	82	72	78	3/60
10RT1861	1PRT18 - 63x	1P	63	xxG1451	37	105	27	110	6/108
10RT18611	1NRT18 - 63x	1P+N	63	xxG1451	37	105	54	110	6/108
10RT1862	2PRT18 - 63x	2P	63	xxG1451	37	105	54	110	6/108
10RT1863	3PRT18 - 63x	3P	63	xxG1451	37	105	81	110	6/108
10RT18631	3NRT18 - 63x	3P+N	63	xxG1451	37	105	108	110	6/108



FUSE FOR SWITCH DISCONNECTORS RT18



Catalogue number	Type of the fuse class gG	Voltage (V)	Rated current (A)	Size of the fuse A x ØB x C	Packing / Box (pcs)
10G10381	01G1038	500	1	38xØ10.3x10mm	10/2000
10G10382	02G1038	500	2	38xØ10.3x10mm	10/2000
10G10384	04G1038	500	4	38xØ10.3x10mm	10/2000
10G10386	06G1038	500	6	38xØ10.3x10mm	10/2000
10G103810	10G1038	500	10	38xØ10.3x10mm	10/2000
10G103816	16G1038	500	16	38xØ10.3x10mm	10/2000
10G103820	20G1038	500	20	38xØ10.3x10mm	10/2000
10G103825	25G1038	500	25	38xØ10.3x10mm	10/2000
10G103832	32G1038	500	32	38xØ10.3x10mm	10/2000
10G145140	40G1451	500	40	51xØ14.3x12mm	10/500
10G145150	50G1451	500	50	51xØ14.3x12mm	10/500
10G145163	63G1451	500	63	51xØ14.3x12mm	10/500



PHOTOVOLTAIC FUSE HOLDERS



PHOTOVOLTAIC FUSE HOLDERS 1500V DC, 15PV14L SERIES

Photovoltaic fuse holders provide protection against short-circuits and overloads. They work with fuse till 50A and rated voltage 1500V DC.

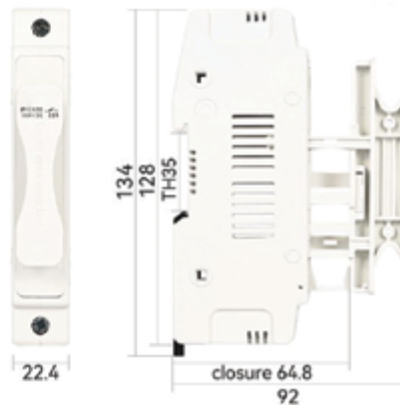
FUNCTIONS AND ADVANTAGES:

- Protection against short-circuits and overloads.
- Easy installation and fuse removal with no additional tools required.
- Tin-plated bimetallic copper fuse clips deliver superior fatigue resistance compared to traditional spring brass.
- High temperature performance thanks to venting grooves and cooling chambers that improve heat dissipation also for multiple configurations.
- Finger safety feature which ensures personnel protection during maintenance (no possibility of getting in touch with live parts during fuse replacement).

TECHNICAL DATA

- Rated Voltage: 1500V DC
- Rated Current: 50A
- Size of Fuse Link: suitable for fuse with sizes 10x85 and 14x85mm
- Class of Operation: gPV
- Mechanical Life: 500 times
- Tightening Torque: 2.5Nm
- Cable section of terminal: 10mm²
- Mounting: on DIN rail

Catalogue number	Type	Number of poles	Rated current (A)	Base dimensions (mm)			Packing /Box (pcs)
				W	H	D	
15PV14L	PV DC	1P	50	22.4	134	92	1/5/120



5 YEARS TOTAL WARRANTY
+ 3 standard
+ 2 extended

FUSE LINKS 1500V DC FOR PHOTOVOLTAIC FUSE HOLDERS 15PV14L SERIES

A fuse is a replaceable circuit protection device that provides protection to both the equipment and the equipment operator in the event of a circuit overload. It is commonly connected with a circuit in series, and when fault current increases to a certain value, the fuse blows out to cut off the circuit so as to fulfill an aim of protecting other equipment in the circuit. The fuse is the most commonly used component in an over current protection circuit. The traditional fuse mainly consists of two parts of a tube body, of which both ends have metal connecting terminals, and metal melts in the tube body. Solar fuses vary in a number of different ways including fuse speed, voltage and amperage rating, braking capacity and their physical size and shape.

FUNCTIONS

- Protect solar power equipment against over current.
- Protect against reverse current and short circuits.

TECHNICAL DATA

- Rated voltage: 1500V DC
- Rated current: 6-50A
- Class of operation: gPV
- Breaking capacity: 20kA
- Sizes: 10x85mm and 14x85mm



Catalogue number	Voltage (V)	Rated current (A)	Size of the fuse (mm)	Packing/ Box (pcs)
15PV06A	1500V DC	6	10x85	1000
15PV10A	1500V DC	10	10x85	1000
15PV12A	1500V DC	12	10x85	1000
15PV16A	1500V DC	16	10x85	1000
15PV20A	1500V DC	20	10x85	1000
15PV25A	1500V DC	25	10x85	1000
15PV32A	1500V DC	32	10x85	1000



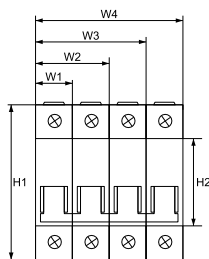
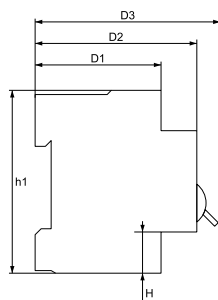
Catalogue number	Voltage (V)	Rated current (A)	Size of the fuse (mm)	Packing/ Box (pcs)
15PV40A	1500V DC	40	14x85	400
15PV45A	1500V DC	45	14x85	400
15PV50A	1500V DC	50	14x85	400

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

SWITCH DISCONNECTORS ISS FROM 20A TO 125A

Documents corresponding to the product:

Standard EN 60947-3 and IEC947-3



FUNCTIONS

- Switching on/off heavy loaded electrical circuits
- Breaking of electrical circuits
- Can be used as a main breaker
- It has no protective function
- Specification: CE, ROHS, BS, EN, EIC60439-3

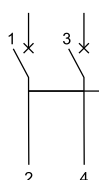
FUNCTIONS

- Switching on/off heavy loaded electrical circuits
- Breaking of electrical circuits
- Can be used as a main breaker
- It has no protective function
- Specification: CE, ROHS, BS, EN, EIC60439-3

Dimensions (mm)

H1	H2	D1	D2	D3	W1	W2	W3	W4
81	45	50	65	76	17.5	35	52.5	70

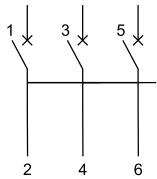
Catalogue number	Type	Number of poles	Rated current In (A)	Recommended conductor (mm ²)	Packing/Box (pcs)
41914	ISS	1P	40	10	12/240
41911	ISS	1P	63	16	12/240
41912	ISS	1P	80	25	12/240
41913	ISS	1P	100	35	12/240
41916	ISS	1p	125	50	12/240



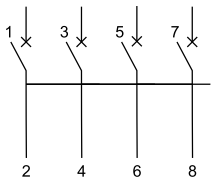
Catalogue number	Type	Number of poles	Rated current In (A)	Recommended conductor (mm ²)	Packing/Box (pcs)
41924	ISS	2P	40	10	6/120
41921	ISS	2P	63	16	6/120
41922	ISS	2P	80	25	6/120
41923	ISS	2P	100	35	6/120
41925	ISS	2p	125	50	6/120



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty



Catalogue number	Type	Number of poles	Rated current In (A)	Recommended conductor (mm ²)	Packing/Box (pcs)
41935	ISS	3P	20	2.5	4/80
41936	ISS	3P	32	6.0	4/80
41934	ISS	3P	40	10	4/80
41931	ISS	3P	63	16	4/80
41932	ISS	3P	80	25	4/80
41933	ISS	3P	100	35	4/80
41937	ISS	3p	125	50	4/80



Catalogue number	Type	Number of poles	Rated current In (A)	Recommended conductor (mm ²)	Packing/Box (pcs)
41944	ISS	4P	40	10	3 / 60
41941	ISS	4P	63	16	3 / 60
41942	ISS	4P	80	25	3 / 60
41943	ISS	4P	100	35	3 / 60
41945	ISS	4p	125	50	3 / 60



PADLOCK ADAPTOR FOR MCB

An adaptor makes it possible to block the operating lever whether switched ON or OFF



Catalogue number	Type
41904	Padlock adaptor for MCB



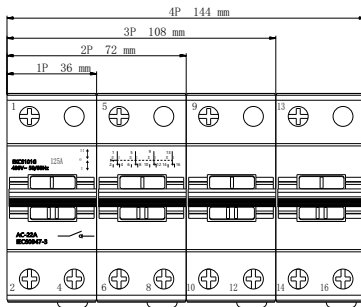
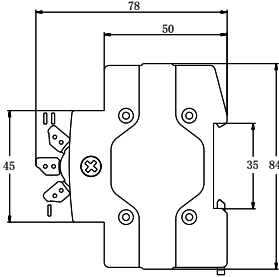
7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

THREE POSITION CHANGEOVER SWITCH 1-0-2 ISS3 SERIES, 63A

Documents corresponding to the product:

Standard IEC60947-3

Overall and installation dimensions (mm)



A changeover switch is designed to transfer a house or business electricity from the commercial power grid to a local generator when an outage occurs also known as transfer switches, they connect directly to the generator commercial power supply or line and the house. ISS3 can be freely switched on and off between two loads carried by a group of lines, or on two power sources.

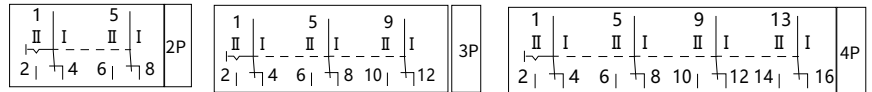
FUNCTIONS:

- Switching on/off heavy loaded electrical circuits
- Switching between two loads or two power sources
- Breaking of electrical circuits
- Can be used as a main breaker
- It has no protective function

TECHNICAL DATA

- Rated operational voltage Ue: 2P 230V; 50/60Hz
- Rated operational voltage Ue: 3P/ 4P 400V; 50/60Hz
- Rated current: 63A
- Joining terminal: flat (tunnel) screw terminal
- Connecting: power supply busbar, rigid conductors till 16mm² or flexible conductors till 10mm²
- Tightening moment: 1.8Nm
- Isolating voltage: 440V
- Electrical wear resistance (number of cycles): ≥25 000
- Mechanical wear resistance (number of cycles): ≥20 000
- IP code: IP>20
- Mounting: DIN-rail
- Plastic material of UV rays
- Ambient temperature: -20°C + 65°C

Circuit diagram



Three positions I-0-II



Three positions I-0-II

Catalogue number	Type	Number of poles	Rated current I _n (A)	Recommended conductor (mm ²)	Packing/Box (pcs)
41928	ISS3	2P	63	10/16	6/120
41930	ISS3	3P	63	10/16	6/120
41929	ISS3	4P	63	10/16	6/120



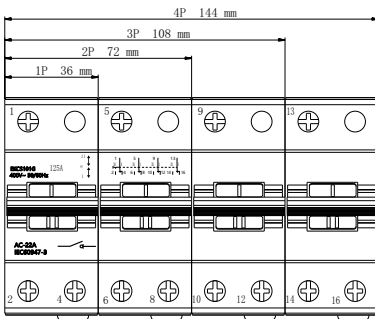
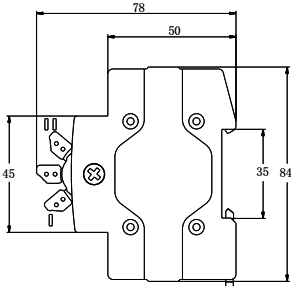
7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

THREE POSITION CHANGEOVER SWITCH 1-0-2 ISS4 SERIES, 125A

Documents corresponding to the product:

Standard IEC60947-3

• Overall and installation dimensions (mm)



A changeover switch is designed to transfer a house or business electricity from the commercial power grid to a local generator when an outage occurs also known as transfer switches, they connect directly to the generator commercial power supply or line and the house. ISS4 can be freely switched on and off between two loads carried by a group of lines, or on two power sources.

FUNCTIONS:

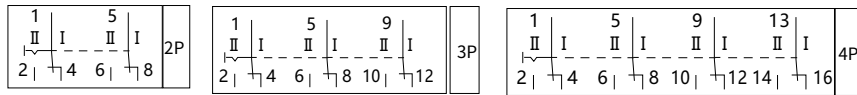
- Switching on/off heavy loaded electrical circuits
- Switching between two loads or two power sources
- Breaking of electrical circuits
- Can be used as a main breaker
- It has no protective function

TECHNICAL DATA

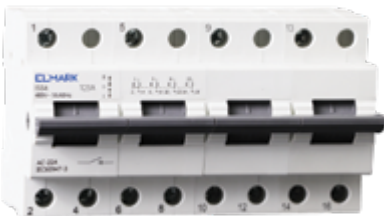
- Rated operational voltage Ue: 2P 240V; 50/60Hz
- Rated operational voltage Ue: 3P/ 4P 400V; 50/60Hz
- Rated current: 125A
- Joining terminal: flat (tunnel) screw terminal
- Connecting: power supply busbar, rigid or flexible conductors till 50mm²
- Electrical wear resistance (number of cycles): ≥ 1 500

- Mechanical wear resistance (number of cycles): ≥ 8 500
- IP code: IP>20
- Mounting: DIN-rail
- Plastic material of UV rays
- Ambient temperature: -20°C + 65°C

Circuit diagram



Three positions I-0-II



Three positions I-0-II

Catalogue number	Type	Number of poles	Rated current In (A)	Recommended conductor (mm ²)	Packing/Box (pcs)
41946	ISS4	2P	125	50	1/2/60
41948	ISS4	3P	125	50	1/45
41947	ISS4	4P	125	50	1/45



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

SWITCH DISCONNECTORS ISS2 FROM 125A TO 800A

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-3 and IEC 60947-6

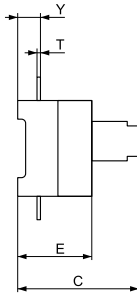
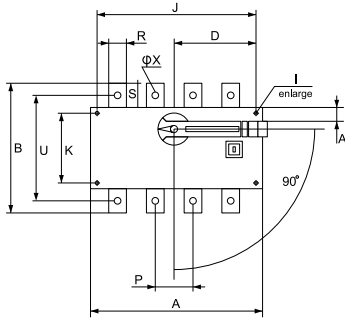
The series three- and four-pole load switch disconnectors ISS2 xxx are produced for mounting in main electrical boards for disconnection of the circuits, switching on of generators because of the fact they are not affected by the frequency variations. High mechanical strength and resistance to circulation. Simple and secure management.

FUNCTIONS

- Switching on and off electrical circuits under load
- Disconnection of electrical circuits
- Used as main circuit-breaker
- Resistant to high voltages, to short circuits in the protected circuit
- It has no protective function

TECHNICAL DATA

- Rated voltage: not higher than 660V; 50/60Hz
- Double connector: screw connection
- Connection: solid or flexible conductors
- Insulation voltage: $\geq 1000V$
- Resistance to impulse voltage: 8000V
- Electrical endurance (number of cycles): $\geq 5\ 000$
- Mechanical endurance (number of cycles): $\geq 10\ 000$
- IP code: IP>20
- Mounting method: to a surface by means of bolts
- Plastic resistant to UV rays
- Ambient temperature: $-20^{\circ}\pm 65^{\circ}C$



Dimensions (mm)

Type	A	B	C	D	E	J	J1	K	R	S	T	Y
ISS2-125/3	140	135	125	27	73	120	120	65	20	25	3.5	25
ISS2-125/4	170	135	125	27	73	150	150	65	20	25	3.5	25
ISS2-160/3	140	135	125	27	73	120	120	65	20	25	3.5	25
ISS2-160/4	170	135	125	27	73	150	150	65	20	25	3.5	25
ISS2-250/3	180	170	138	35	86	160	160	90	25	30	3.5	25
ISS2-250/4	230	170	138	35	86	210	210	90	25	30	3.5	25
ISS2-400/3	230	240	165	50	110	210	210	140	32	40	5	37
ISS2-400/4	295	240	165	50	110	275	275	140	32	40	5	37
ISS2-630/3	230	260	165	50	110	210	210	140	40	50	6	37
ISS2-630/4	295	260	165	50	110	275	275	140	40	50	6	37
ISS2-800/3	378	312	240	50	140	353	353	175	60	56	8	48
ISS2-800/4	498	312	240	50	140	473	473	175	60	56	8	48



Catalogue number 3-pole	Catalogue number 4-pole	Type	Rated current In (A)	Max. breaking capacity Icu (A)	Tightening moment (Nm)	Packing/Box (pcs)
41951	41961	ISS2-125in	125	1250	6.5	1/12
41952	41962	ISS2-125out	125	1250	6.5	1/12
41953	41963	ISS2-160in	160	1250	6.5	1/12
41954	41964	ISS2-160out	160	1250	6.5	1/12
41955	41965	ISS2-250in	250	2000	10	1/6
41956	41966	ISS2-250out	250	2000	10	1/6
41957	41967	ISS2-400in	400	3200	14.5	1/2
41958	41968	ISS2-630in	630	4000	14.5	1/2
41959	41969	ISS2-800in	800	1000	27	1/2



Note:

ISS2-xxx in – load circuit-breaker for mounting in the interior of a board
ISS2-xxx out – load circuit-breaker with an extended lever for mounting on the front panel of the board

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

MANUAL SWITCHING TO RESERVE SERIES EQ 2M FROM 160A TO 800A

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-3 and IEC 60947-6

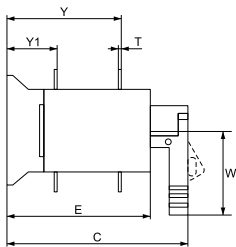
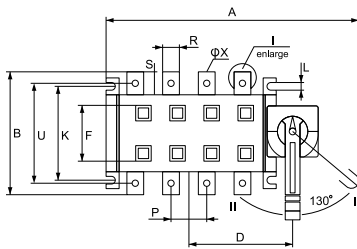
The series three- and four-pole load switch disconnectors ISS2 xxx are produced for mounting in main electrical boards for disconnection of the circuits, switching on of generators because of the fact they are not affected by the frequency variations. High mechanical strength and resistance to circulation. Simple and secure management.

FUNCTIONS

- Switching on and off electrical circuits under load
- Disconnection of electrical circuits
- Used as main circuit-breaker
- Resistant to high voltages, to short circuits in the protected circuit
- It has no protective function

TECHNICAL DATA

- Rated voltage: not higher than 660V; 50/60Hz $\geq 10\ 000$
- Double connector: screw connection
- Connection: solid or flexible conductors
- Insulation voltage: $\geq 1000V$
- Resistance to impulse voltage: 8000V
- Electrical endurance (number of cycles): $\geq 5\ 000$
- Mechanical endurance (number of cycles): $\geq 10\ 000$
- IP code: IP>20
- Mounting method: to a surface by means of bolts
- Plastic resistant to UV rays
- Ambient temperature: $-20^{\circ}\div 65^{\circ}C$



Dimensions (mm)

Type	A	B	C	D	E	J	J1	K	R	S	T	Y	Y1
EQ2M-160/3	270	135	212	89	150	120	65	95	20	25	3.5	55	25
EQ2M-160/4	300	135	212	104	150	150	65	95	20	25	3.5	55	25
EQ2M-250/3	307	170	260	110	180	160	65	115	25	30	3.5	70	25
EQ2M-250/4	357	170	260	135	180	210	65	115	25	30	3.5	70	25
EQ2M-400/3	372	240	297	150	236	210	77	180	32	40	5	83	37
EQ2M-400/4	432	240	297	180	236	275	77	180	32	40	5	83	37
EQ2M-630/3	372	240	297	150	236	210	77	180	40	50	6	83	37
EQ2M-630/4	432	240	297	180	236	275	77	180	40	50	6	83	37
EQ2M-800/3	372	240	297	150	236	210	77	180	60	56	8	83	48
EQ2M-800/4	432	240	297	180	236	275	77	180	60	56	8	83	48



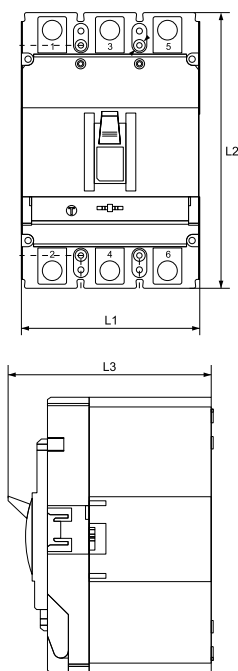
Catalogue number 3-pole	Catalogue number 4-pole	Type	Rated current In (A)	Max. breaking capacity Icu (A)	Tightening moment (Nm)	Packing/Box (pcs)
44641	44641P	EQ2M-160	160	1250	6.5	1/4
44642	44642P	EQ2M-250	250	2000	10	1/2
44643	44643P	EQ2M-400	400	3200	14.5	1/2
44644	44644P	EQ2M-630	630	4000	14.5	1/2
44645	44645P	EQ2M-800	800	1000	27	1/2



HIGH BREAKING CAPACITY LEVEL MOULDED CASE CIRCUIT BREAKERS (MCCB) DS1 MAX FROM 63A... 800A

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-2



FUNCTIONS

- High breaking capacity level
- Switching on/off heavy loaded electrical circuits
- Breaking of electrical circuits and control of powerful consumers
- Can be used as a main breaker in housing or industrial distributing installations

- Endures high currents of short circuit in the protected circuit
- Remarkable with high reliability of current characteristics control: manual
- Possibility for auxiliary devices mounting for automation

TECHNICAL DATA

- Isolating voltage: 2000V
- Surge voltage wear resistance: $\geq 8000V$
- Connecting:
 - > Rigid or flexible conductors
 - > Front conductors joining
 - > Possibility for mounting to lengthening terminal
- Plastic elements:
 - > Not keeping the burning material nylon PA66
 - > Box permittivity strength: $> 16MV/m$
- Abnormal heating wear resistance and fire of the outer parts: $960^{\circ}C$
- Static contacts – alloy: pure copper T2Y2

- > Contact head: silver graphite CAg(5)
- > Thickness: depends on the current
- Tightening moment: 1.33Nm
- Electrical wear resistance (number of cycles): ≥ 10000
- Mechanical wear resistance (number of cycles): ≥ 20000
- IP code: IP>20
- Mounting: joining with bolts; mounting position: vertical
- Plastic material of UV rays and non-flammable
- Test button
- Ambient temperature: $-20^{\circ}/65^{\circ}C$

Overall dimensions (mm)

Type	L1	L2	L3	Type	L1	L2	L3
DS1 MAX 125/63 3P M	75	133	82	DS1 MAX 125/63 4P M	100	133	82
DS1 MAX 125/80 3PM	75	133	82	DS1 MAX 125/80 4PM	100	133	82
DS1 MAX 125/100 3P M	75	133	82	DS1 MAX 125/100 4P M	100	133	82
DS1 MAX 125/125 3P M	75	133	82	DS1 MAX 125/125 4P M	100	133	82
DS1 MAX 250/160 3P M	107	165	127	DS1 MAX 250/160 4P M	141	165	127
DS1 MAX 250/200 3P M	107	165	127	DS1 MAX 250/200 4P M	141	165	127
DS1 MAX 250/250 3P H	107	165	127	DS1 MAX 250/250 4P H	141	165	127
DS1 MAX 400/400 3P H	150	257	148	DS1 MAX 400/400 4P H	198	257	148
DS1 MAX 630/630 3P H	150	257	148	DS1 MAX 630/630 4P H	198	257	148
DS1 MAX 800/800 3P H	210	280	155	DS1 MAX 800/800 4P H	280	280	155

Catalogue number 3-poles	Catalogue number 4-poles	Type	Rated current In (A)	Operating breaking capacity (kA) lcs	Max. breaking capacity (kA) lcu	Thermal current adjustment (A)	Packing/box (pcs)
44163MM	444163MM	DS1 MAX-125	63	25	36 20	50.4-63	1/16
44164MM	444164MM	DS1 MAX-125	80	25	36 20	64-80	1/16
44165MM	444165MM	DS1 MAX-125	100	25	36 20	80-100	1/16
44166MM	444166MM	DS1 MAX-125	125	25	36 20	100-125	1/16
44160MM	444160MM	DS1 MAX-250	160	36	50 20	125-160	1/6
44200MM	444200MM	DS1 MAX-250	200	36	50 20	160-200	1/6
44250MH	444250MH	DS1 MAX-250	250	36	50 25	200-250	1/6
44401MH	444401MH	DS1 MAX-400	400	60	85 30	320-400	1/3
44630MH	444630MH	DS1 MAX-630	630	60	85 30	504-630	1/2
44800MH	444800MH	DS1 MAX-800	800	75	100 50	640-800	1/2

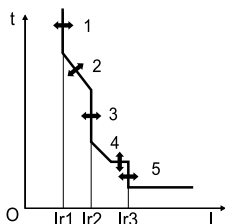
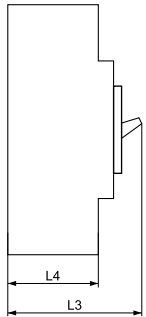
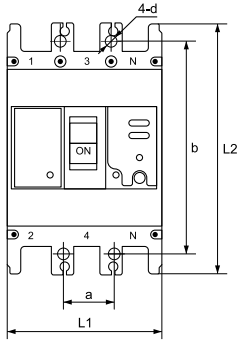


7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

HIGH BREAKING CAPACITY LEVEL MOULDED CASE CIRCUIT BREAKERS (MCCB) DS1 MAX TO 800A-ELECTRONIC TYPE

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-2



FUNCTIONS

- High breaking capacity level
- Switching on/off heavy loaded electrical circuits
- Breaking of electrical circuits and control of powerful consumers
- Can be used as a main breaker in housing or industrial distributing installations
- Endures high currents of short circuit in the protected circuit
- Remarkable with high reliability of current characteristics
- Control: manual

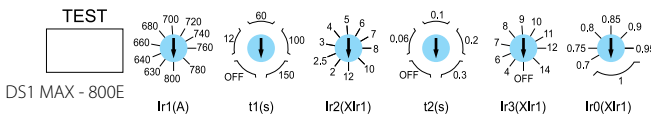
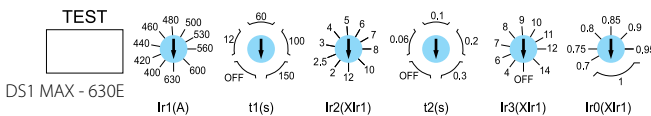
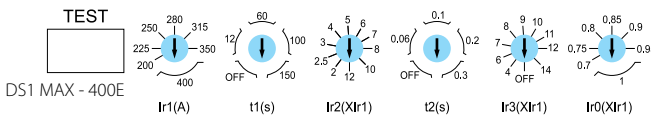
TECHNICAL DATA

- Rated operating voltage: 415/690V; 50/60Hz
- Isolating voltage: 2000V
- Surge voltage wear resistance: $\geq 8000V$
- Joining terminal: flat (tunnel) screw terminal
- Connecting:
 - Rigid or flexible conductors
 - Front conductors joining
 - Possibility for mounting to lengthening terminal
- Electrical wear resistance (number of cycles): ≥ 10000

- Possibilities for electrical module parameters adjustment through direct modules (combination of keys) thus providing accurate protection from overload and short circuit
- simultaneous protection of the three phases
- possibility for auxiliary devices mounting for automation
- contactor for TT test 15V DC

- Mechanical wear resistance (number of cycles): ≥ 20000
- IP code: IP>20
- Abnormal heating wear resistance and fire of the outer parts: 960°C
- Mounting:
 - Joining with bolts
 - Mounting position: vertical
- Plastic material of UV rays and non-flammable
- Test button
- Ambient temperature: $-20^{\circ} \div 65^{\circ}C$

Catalogue number 3-poles	Catalogue number 4-poles	Type	Rated current In (A)	Operating breaking capacity (kA) lcs	Max. breaking capacity (kA) lcu	Thermal current adjustment (A)	Packing/ box (pcs)
44940MH	444940MH	DS1 MAX-400E	400	50	85 30	200-400	1/3
44963MH	444963MH	DS1 MAX-630E	630	50	85 30	400-630	1/2
44980MH	444980MH	DS1 MAX-800E	800	65	100 50	630-800	1/2



Tripping characteristic:

- Ir1(A) Over-load long time delay tripping current
- Ir1 adjustment, according to the different rated current of MCCB.
- t1(s) Long time delay tripping time t1 adjustment.
- Ir2(XIr1) Short circuit short time delay tripping time Ir2 adjustment.
- t2(s) Short time delay tripping time t2 adjustment.
- Ir3(XIr1) Short circuit instantaneous tripping current Ir3 adjustment.
- Ir0(XIr1) Pre-alarm tripping current Ir0 adjustment.

7 YEARS TOTAL WARRANTY
+ 7 standard 0 extended
* for industrial usage
3 years warranty

HIGH BREAKING CAPACITY LEVEL MOULDED CASE CIRCUIT BREAKERS (MCCB) DS-3E 1000 AND 1250A-ELECTRONIC TYPE

The feature discriminating electronic circuit breakers from thermal-magnetic breakers is to control the over current releases with electronic circuits. Electronic control is performed via microprocessor. During design of the electronic circuit, worst possibilities to encounter in operation have been taken into consideration. In high circuit currents, direct opening has been ensured without operating electronic circuit. Rated and Instant opening current adjustment areas of electronic circuit breakers are quite wide. This feature allows wide use opportunity to the breaker Furthermore, electronic circuit breakers are not affected by ambient temperatures.



FEATURES

- Rated operating voltage: 230/400V 50/60Hz
- Electromagnetic coil 100VA for breakers up to 400A
- Electromagnetic coil 150VA for breakers 630-800A
- Available joining conductors

TECHNICAL DATA

- Rated voltage: 400V AC
- Automatic relay: Electronic type
- Rated isolating voltage: 1000V
- Short-circuit breaking capacity(KA)Icu/Ics: 65/50
- Electrical life: 1000
- Mechanical life: 4000
- Pole number: 3P
- Rated current: 1000A and 1250A
- Weight: 5,7kg
- Dimension (LxHxD): 210x257x155mm

PANEL ADJUSTMENT KNOB AS FOLLOWS IN TURN:

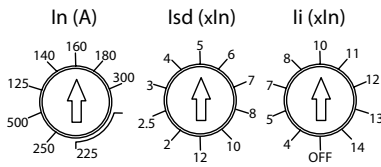
- IR(A) I_{sd}(x IR) I_i (x IR)
- IR: Overload long delay tripping setting current; I_{sd}: Short-circuit short delay tripping setting current;
- I_i: Short-circuit instantaneous tripping setting current.

FEATURES

- Altitude up to 2000m;
- Ambient medium temperature should be within -10°C to +55°C;
- It can withstand the effect of damp air;
- It can withstand the effect of salt fog or oil mist;
- It can withstand the effect of moulds;
- It can withstand the effect of nuclear radiation;
- The max inclination is 22.5°C.
- It still can work reliably when to normal vibration;
- It can still work reliably if the product subjects to the earthquake (4g).
- Places where the surrounding medium is free from explosion danger, and far away from gas or conductive dust that would erode the metal or destroy the insulation;
- Keep away from rain or snow.

FACTORY SETTINGS:

- IR(A) I_{sd}(x IR) I_i (x IR)
- Overload long delay setting time, factory default: 60s;
- I_{sd}: Short-circuit short delay setting time, factory default: 0.1s;
- I_p: Overload pre-alarm setting current, factory default: 0.85*IR.



1	9	7	5	3	1
2	10	8	6	4	2

TEST

COM

Tripping test port (TEST):

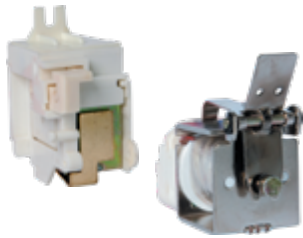
- 1 Tripping test input DC12V (+)
- 2 Tripping test input DC12V (-)



Catalogue number	Type	Number of poles	Rated current In (A)	Operating breaking capacity (kA) Ics	Max. breaking capacity (kA) Icu	Electrical adjustment	Packing/ Box (pcs)
44930	DS-3 1000A	3P	1000	50	65	630-1000A	1
44931	DS-3 1250A	3P	1250	50	65	850-1250A	1

7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

AUXILIARY DEVICES FOR MOULDED CASE CIRCUIT BREAKERS



SHUNT RELEASE (MX)

The device is used for remote control of breakers as at voltage signal it starts operating and switches off the breaker to which it is mounted

TECHNICAL DATA

- Rated operating voltage: 230/400V 50/60Hz
- Electromagnetic coil 100VA for breakers up to 400A
- Electromagnetic coil 150VA for breakers 630-800A
- Available joining conductors

MOUNTING

- Mounted in a special jack after cover dismounting

CONNECTING

- Connected with the operative system through the provided conductors

DS1 MAX - ELECTRONIC TYPE WITH MOUNTED MX

Catalogue number		Type
400V	230V	
444511M	44452M	DS1 MAX 400/3300
44455M	44456M	DS1 MAX 630/3300
44459M	44460M	DS1 MAX 800/3300



DS1 MAX - THERMO MAGNETIC TYPE WITH MOUNTED MX

Catalogue number		Type
400V	230V	
44326M	44327M	DS1 MAX 125/63
44331M	44332M	DS1 MAX 125/80
44336M	44337M	DS1 MAX 125/100
44340M	44341M	DS1 MAX 125/125
44333M	44344M	DS1 MAX 250/160
44347M	44348M	DS1 MAX 250/200
44351M	44352M	DS1 MAX 250/250
44355M	44356M	DS1 MAX 400/400
44363M	44364M	DS1 MAX 630/630
44367M	44368M	DS1 MAX 800/800



MN for DS1 - 125-160

UNDER VOLTAGE RELEASE (MN)

The device switches off and/or does not allow the switching on of the breaker to which it is mounted at power breakdown or voltage decrease under certain limits

TECHNICAL DATA

- Operating voltage: 230/400V 50Hz
- Electromagnetic coil 6VA for breakers up to 400A
- Electromagnetic coil 10VA for breakers 630-800A
- Available joining conductors
- Switches off at voltage decrease under 75% of the operating

MOUNTING

- Mounted in a special jack after cover dismounting
- Note: The breakers are offered with mounted accessory

CONNECTING

- Connected with the operative system through the provided conductors



MN for DS1 - 250-800

DS1 MAX-ELECTRONIC TYPE WITH MOUNTED MN

Catalogue number		Type
400V	230V	
44483M	44484M	DS1 MAX 400/3300
44487M	44488M	DS1 MAX 630/3300
44491M	44492M	DS1 MAX 800/3300



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty



DS1 MAX - THERMO MAGNETIC TYPE WITH MOUNTED MN

Catalogue number		Type
400V	230V	
44391M	44392M	DS1 MAX 125/63
44395M	44396M	DS1 MAX 125/80
44399M	44402M	DS1 MAX 125/100
44407M	44408M	DS1 MAX 125/125
44411M	44412M	DS1 MAX 250/160
44415M	44416M	DS1 MAX 250/200
44419M	44420M	DS1 MAX 250/250
44423M	44424M	DS1 MAX 400/400
44431M	44432M	DS1 MAX 630/630
44435M	44436M	DS1 MAX 800/800



Documents corresponding to the product:

Standard EN 60947-1
EN 60947-2

According to the way of mounting the auxiliary devices can be divided into two groups:

- Internal devices – accessories for whose mounting it is necessary to dismount the cover of the breakers and fix them in specially designed jacks
- External devices – they are mounted right on the top cover of the breaker

AUXILIARY CONTACT (OF)

The device changes its condition comfortably to the breaker's condition; it has a NO and a NC contactor.

TECHNICAL DATA

- For breakers up to 160A operating current through the auxiliary contact: 3A
- For breakers from 250 to 800A operating current through the auxiliary contact: 6A
- Available joining conductors
- Labeling of the cables

MOUNTING

- Mounted in a special jack after cover dismounting.
- Note: The breakers are offered with mounted accessory.

CONNECTING

- Connected with the operative system through the provided conductors.



DS1 MAX - THERMO MAGNETIC TYPE WITH MOUNTED OF

Catalogue number	Type
44303M	DS1 MAX 125/63
44304M	DS1 MAX 125/80
44305M	DS1 MAX 125/100
44306M	DS1 MAX 125/125
44307M	DS1 MAX 250/160
44308M	DS1 MAX 250/200
44309M	DS1 MAX 250/250
44310M	DS1 MAX 400/400
44312M	DS1 MAX 630/630
44313M	DS1 MAX 800/800



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

MCCB WITH AUXILIARY DEVICES MOUNTED (MX+OF) AND (MN+OF)

DS1 MAX - ELECTRONIC TYPE WITH MOUNTED MN+OF



Catalogue number 400V	Catalogue number 230V	Type
44485M	44486M	DS1 MAX 400/3300
44489M	44490M	DS1 MAX 630/3300
44493M	44494M	DS1 MAX 800/3300



DS1 MAX - THERMO MAGNETIC TYPE WITH MOUNTED MN+OF



Catalogue number 400V	Catalogue number 230V	Type
44393M	44394M	DS1 MAX 125/63
44397M	44398M	DS1 MAX 125/80
44405M	44406M	DS1 MAX 125/100
44409M	44410M	DS1 MAX 125/125
44413M	44414M	DS1 MAX 250/160
44417M	44418M	DS1 MAX 250/200
44421M	44422M	DS1 MAX 250/250
44425M	44426M	DS1 MAX 400/400
44433M	44434M	DS1 MAX 630/630
44437M	44438M	DS1 MAX 800/800



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

AUXILIARY DEVICES FOR MOULDED CASE CIRCUIT BREAKERS



DS1 MAX-ELECTRONIC TYPE WITH MOUNTED MX+OF

Catalogue number 400V	Catalogue number 230V	Type
44453M	44454M	DS1 MAX 400/3300
44457M	44458M	DS1 MAX 630/3300
44461M	44462M	DS1 MAX 800/3300



DS1 MAX - THERMO MAGNETIC TYPE WITH MOUNTED MX+OF

Catalogue number 400V	Catalogue number 230V	Type
44328M	44330M	DS1 MAX 125/63
44334M	44335M	DS1 MAX 125/80
44338M	44339M	DS1 MAX 125/100
44342M	44343M	DS1 MAX 125/125
44345M	44346M	DS1 MAX 250/160
44349M	44350M	DS1 MAX 250/200
44353M	44354M	DS1 MAX 250/250
44357M	44358M	DS1 MAX 400/400
44365M	44366M	DS1 MAX 630/630
44369M	44370M	DS1 MAX 800/800



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

REMOTE CONTROL FOR MCCB, DS1 MAX (MANUAL)

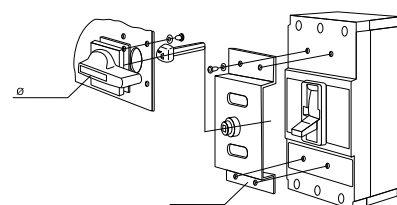
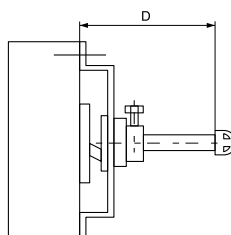
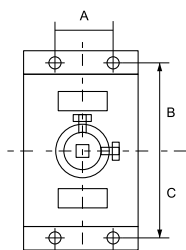
- The device switches off/on the breaker to which manual operative rotary mechanism is mounted
- Two operating positions of the executive mechanism fixed at 90°C

MOUNTING

The base is mounted with bolts right on the cover (scheme 1 mounting), and the handle is mounted at the door of the distribution box, using an extension axis it is joined to the base



Catalogue number	Type of the breaker	Dimensions (mm)					Packing/Box (pcs)
		A	B	C	D min.	D max.	
44966M	DS1 MAX 63A	25	50	50	65	115	1
44967M	DS1 MAX 125A	25	50	50	65	115	1
44969M	DS1 MAX 250A	35	70	70	80	130	1
44970M	DS1 MAX 400A	45	107	107	85	105	1
44972M	DS1 MAX 630/800A	70	119	119	110	110	1



ELECTRICAL REMOTE CONTROL FOR MCCB DS1 MAX (ELECTRICAL)

The device switches off/on the breaker to which manual operative rotary mechanism is mounted
• Two operating positions of the executive mechanism fixed at 90°C

MOUNTING

The base is mounted with bolts right on the cover (scheme 1 mounting), and the handle is mounted at the door of the distribution box, using an extension axis it is joined to the base

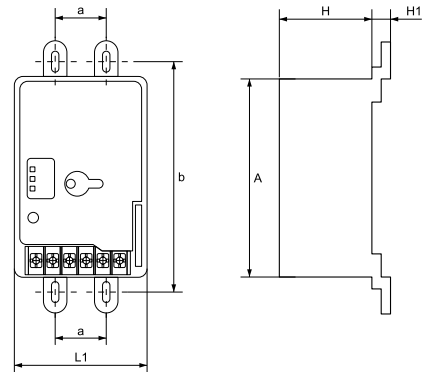


DS1 - 125-160



DS1 MAX - 63-250

Catalogue number 230V	Catalogue number 400V	Type of the breaker	Dimensions (mm)					Packing/Box (pcs)
			L1	B	B	H	H1	
44917M	44906M	DS1 MAX 63A	116	90	50	77	12,5	1
44912M	44907M	DS1 MAX 125A	116	90	50	77	12,5	1
44914M	44909M	DS1 MAX 250A	116	90	70	77	15	1
44915M	44910M	DS1 MAX 400A	176	130	107	115	27	1
44916M	44911M	DS1 MAX 630A	176	130	119	115	31	1
44916M	44911M	DS1 MAX 630A	176	130	119	115	31	1



TERMINAL PLATES FOR MCCB - DS1 MAX

Straight copper electro-tinned extensions enabling cable connection outside the switch terminals and providing excellent contact with the switch terminal base. Terminal extensions with different cross section are available depending on the switch rated power.

MOUNTING

Extensions are directly bolt mounted to the switch terminal base.



Catalogue number 3pcs/set	Catalogue number 4pcs/set	Type	Rated current (A)
31125M	-	TP 125 MAX	125
31250M	-	TP 250 MAX	250
31400M	314400M	TP 400 MAX	400
31630M	314630M	TP 630 MAX	630
31850M	314850M	TP 800 MAX	800

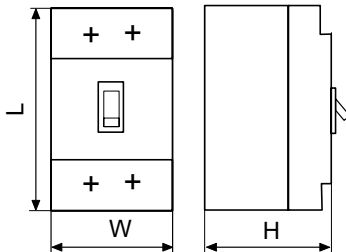
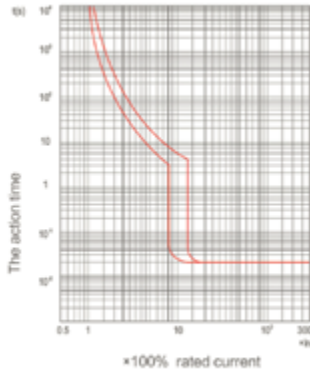


7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

HIGH VOLTAGE MOLDED CASE CIRCUIT BREAKERS

Documents corresponding to the product:

Standard IEC 60947-1
IEC 60947-2
GB/T 14048.2



1000V DC HIGH VOLTAGE MOLDED CASE CIRCUIT BREAKERS, DC1 SERIES

DC MOULDED CASE CIRCUIT BREAKERS (MCCB) are used for the protection of electrical devices that operate with direct current. The DC MCCBs are available in 50A-300A with maximum breaking capacity up to 20kA, which can ensure reliable short-circuit protection of the system. The MCCBs available in 2P, with nominal voltage of 1000VDC.

FUNCTIONS

- Protection against overloading.
- Protection against short circuit.
- Manual switching control.
- High breaking capacity level.
- Breaking of electrical circuits and control of powerful consumers.

TECHNICAL DATA

- Rated voltage U_e (V) DC: 1000V DC
- Rated insulation voltage U_i (V): 1250V
- Rated current I_n (A): 50-300A
- Extreme short-circuit breaking capacity I_{cu} (kA): 20kA at 1000V DC
- Running short-circuit breaking capacity I_{cs} (kA): $I_{cs}=100\%I_{cu}$
- Pole number: 2P
- Rated impulse withstands voltage U_{imp} (kV): 8kV
- Transient action value (I_n): 10In
- Electrical wear resistance (number of cycles): ≥ 2000
- Mechanical wear resistance (number of cycles): ≥ 20000
- Working temperature: $-40\sim+70^\circ\text{C}$
- IP code: IP>20

MOUNTING

- Joining with bolts
- Mounting position: vertical

Type	Dimensions (mm)		
	L	W	H
DC1-320	180	76	126

Catalogue number	Type	Rated current I_n (A)	Number of poles	Operating/Max. breaking capacity (kA) I_{cs}/I_{cu} 1000V	Packing/ box (pcs)
44000DC	DC1-320	50A	2P	20/20	1/6
44001DC	DC1-320	63A	2P	20/20	1/6
44002DC	DC1-320	80A	2P	20/20	1/6
44003DC	DC1-320	100A	2P	20/20	1/6
44004DC	DC1-320	125A	2P	20/20	1/6
44005DC	DC1-320	160A	2P	20/20	1/6
44006DC	DC1-320	200A	2P	20/20	1/6
44007DC	DC1-320	250A	2P	20/20	1/6
44008DC	DC1-320	300A	2P	20/20	1/6



Documents corresponding to the product:

Standard IEC 60947-1
IEC 60947-2
GB/T 14048.2

1500V DC HIGH VOLTAGE MOLDED CASE CIRCUIT BREAKERS, DC1 SERIES

DC MOULDED CASE CIRCUIT BREAKERS (MCCB) are used for the protection of electrical devices that operate with direct current. The DC MCCBs are available in 50A-800A with maximum breaking capacity up to 20kA, which can ensure reliable short-circuit protection of the system. The MCCBs available in 2P & 3P, with nominal voltage of 1500VDC.

FUNCTIONS

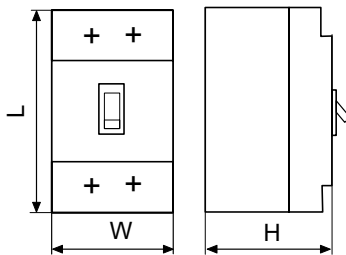
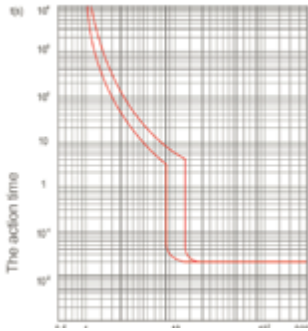
- Protection against overloading.
- Protection against short circuit.
- Manual switching control.
- High breaking capacity level.
- Breaking of electrical circuits and control of powerful consumers.

TECHNICAL DATA

- Rated voltage U_e (V) DC: 1500V DC
- Rated insulation voltage U_i (V): 1500V
- Rated current I_n (A): 50-800A
- Extreme short-circuit breaking capacity I_{cu} (kA): 20kA at 1500V DC
- Running short-circuit breaking capacity I_{cs} (kA): $I_{cs}=100\%I_{cu}$
- Pole number: 2P
- Rated impulse withstands voltage U_{imp} (kV): 12kV
- Transient action value (I_n): $10I_n$
- Electrical wear resistance (number of cycles): ≥ 2000
- Mechanical wear resistance (number of cycles): ≥ 20000
- Working temperature: $-40\sim+70^\circ\text{C}$
- IP code: IP>20

MOUNTING

- Joining with bolts.
- Mounting position: vertical.



Dimensions (mm)

Type	L	W	H
DC1-320-3P	180	107	126
DC1-400-2P	250	124	165
DC1-630-2P	250	124	165
DC1-800-2P	250	124	165



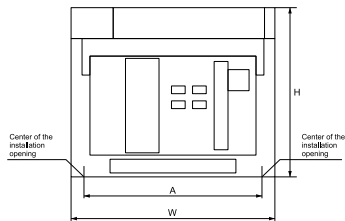
Catalogue number	Type	Rated current I_n (A)	Number of poles	Operating/Max. breaking capacity (kA) I_{cs}/I_{cu} 1000V	Packing/ box (pcs)
44012DC	DC1-320	50A	2P (3P housing)	20/20	1/6
44013DC	DC1-320	63A	2P (3P housing)	20/20	1/6
44014DC	DC1-320	80A	2P (3P housing)	20/20	1/6
44015DC	DC1-320	100A	2P (3P housing)	20/20	1/6
44016DC	DC1-320	125A	2P (3P housing)	20/20	1/6
44017DC	DC1-320	160A	2P (3P housing)	20/20	1/6
44018DC	DC1-320	200A	2P (3P housing)	20/20	1/6
44019DC	DC1-320	250A	2P (3P housing)	20/20	1/6
44009DC	DC1-400	400A	2P (2P housing)	20/20	1/6
44010DC	DC1-630	630A	2P (2P housing)	20/20	1/6
44011DC	DC1-800	800A	2P (2P housing)	20/20	1/6

7 YEARS TOTAL WARRANTY
+ 7 standard 0 extended
* for industrial usage
3 years warranty

MOULDED CASE CIRCUIT BREAKER (MCCB) DW1 SERIES

Documents corresponding to the product:

Standard EN 60947-1; EN 60947-2; IEC 947-2



The DW1 series is an intelligent type circuit breaker used to control and protect low voltage electrical distribution network. Possibility to set the parameters of the circuit protection, built in under voltage release, remote control, earth protection and load monitoring

FUNCTIONS

- Switching on/off heavy loaded electrical circuits.
- Breaking of electrical circuits and control of powerful consumers.
- Used as a main breaker in housing or industrial distributing installations.
- Endures high currents of short circuit in the protected circuit.
- Remarkable with high reliability of current characteristics.
- Motor control.
- Mounted auxiliary devices for automation - under voltage release, earth protection, intelligent controlling block with a possibility for a choice of the protected function.

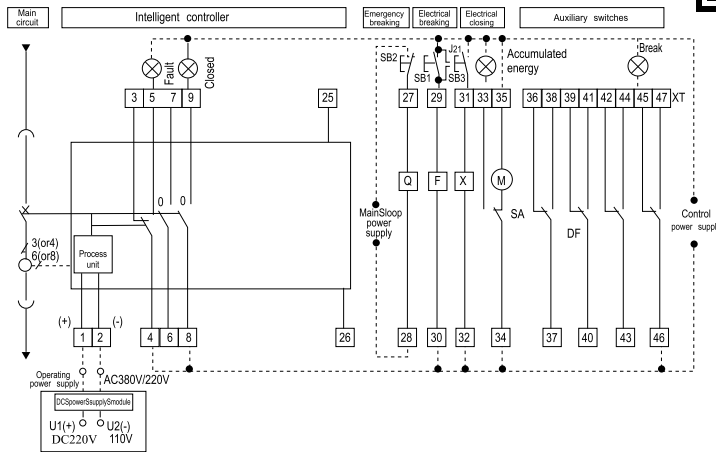
*A commutation type of breakers with RS 485 connection for duplex transmission of all function parameters, adjustment and data can also be produced at client's order and delivery terms agreement.

TECHNICAL DATA

- Rated operating voltage: 690V; 50/60Hz
- Isolating voltage: 690V
- Surge voltage wear resistance: 2kV
- Joining terminal: bolt connection with 4 bolts to the power supply rail
- Connecting:
 - > Copper rails
 - > busway connection – at the back
- Electrical wear resistance: ≥2000 cycles
- Mechanical wear resistance: ≥9000 cycles
- IP code: IP54
- Mounting:
 - > Clamping with bolts
 - > Mounting position: vertical gradient - max. 5°
- Plastic material of UV rays and non-flammable
- Test button
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

BASIC PROTECTIVE FUNCTIONS

- Overload protection with long time delay
- Short circuit protection with short time delay, time inversion limit.
- Short circuit protection with short time delay, time fixed limit.
- Instantaneous short circuit protection.
- Earth protection function.
- Full stability function.
- "Overload alarm" function.
- Test function & Auto diagnostics function.



Dimensions (mm)

Type	A	H	W
DW1-2000 FIXED	362	402	373
DW1-3200 FIXED	422	402	363
DW1-2000 DRAW-OUT	375	432	461
DW1-3200 DRAW-OUT	435	432	494
DW1-4000 DRAW-OUT	550	432	494
DW1-6300 DRAW-OUT	813	452	504

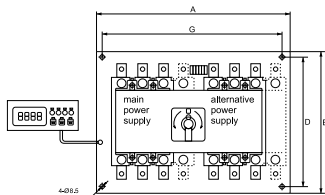
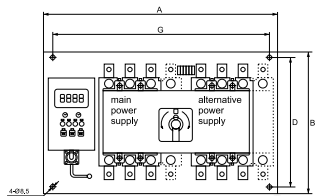
Catalogue number	Type	Rated current In (A)	Rated voltage Un (V)	Breaking capacity (kA)		Electrical wear resistance (number of cycles)	Mechanical wear resistance (number of cycles)	Packing/Box (pcs)
				400 V	690 V			
44208	DW1-2000 FIXED	1600	AC400V	80	50	2000	9000	1/1
44209	DW1-2000 FIXED	2000	AC400V	80	50	2000	9000	1/1
44255	DW1-3200 FIXED	2500	AC400V	100	65	2000	9000	1/1
44329	DW1-3200 FIXED	3200	AC400V	100	65	2000	9000	1/1
44208DO	DW1-2000 DRAW-OUT	1600	AC400V	80	50	2000	9000	1/1
44209DO	DW1-2000 DRAW-OUT	2000	AC400V	80	50	2000	9000	1/1
44255DO	DW1-3200 DRAW-OUT	2500	AC400V	100	65	2000	9000	1/1
44329DO	DW1-3200 DRAW-OUT	3200	AC400V	100	70	2000	9000	1/1
44436DO	DW1-4000 DRAW-OUT	3600	AC400V	100	75	2000	9000	1/1
44440DO	DW1-4000 DRAW-OUT	4000	AC400V	100	75	2000	9000	1/1
44650DO	DW1-6300 DRAW-OUT	5000	AC400V	120	75	2000	9000	1/1
44663DO	DW1-6300 DRAW-OUT	6300	AC400V	120	75	2000	9000	1/1

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

DUAL POWER CHANGE-OVER SWITCH EQ1 SERIES (ATS)

Documents corresponding to the product:

EN 60947-1
EN 60947-2; EN 60947-6-1



The system for dual power change-over switch EQ1 is designed to provide continuous power supply and two electrical sources automatic switch in case of failure or deviation from the set parameters. It switches only when the three phases of the second power supply source are available. The system for dual power change-over switch consists of two molded case circuit breakers mounted on a metal frame connected with common operating mechanism and controlled by a command device that controls the system parameters' correspondence.

FUNCTIONS

- Switching on/off heavy loaded electrical circuits at main power supply discrepancy
- Switching to dual power change-over at power supply phase lack
- With option to connect to fire alarm controller. In case of fire, the ATS switches off both power supply sources
- Breaking of electrical circuits and control of powerful consumers
- Used as a main breaker in housing or industrial distributing installations supplied with a generator or a second power supply source (hospitals, post offices, military sites, control rooms)
- Remarkable with high reliability of current characteristics
- Control: motor
- Controls the following circuit parameters:
 - Presence of the three phases
 - The phase voltage to be in the set limits overload
 - Short circuit at the outlet

BASIC FUNCTIONS OF THE CONTROL DEVICE

- Overload protection
- Instantaneous short circuit protection
- Under phase protection
- Under voltage protection
- Possibility for setting the change-over time between the two sources – min 3s
- Possibility for automatic switch-over to the

TECHNICAL DATA

- Rated operating voltage: 690V; 50/60Hz
- Surge voltage wear resistance: $\geq 6000V$
- Joining terminal: bolt connection with 4 bolts to the power supply rail
- Connecting:
 - Copper rails
 - Flexible or rigid conductors
- Electrical wear resistance (number of cycles): ≥ 2000
- Mechanical wear resistance (number of cycles): ≥ 6000
- IP code: IP21
- Mounting:
 - Clamping with bolts
 - Mounting position: vertical gradient, maximum 5°
- Plastic material of the breakers of UV rays and nonflammable
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

main power supply source after restoring its parameters. The system for dual power change-over switch is offered in two types:

- With display (control device) mounted on the mounting plate (integrated type)
- With separated control display

Overall dimensions (mm)

Type	A	B	C	D	H
EQ1 - 100	405	365	230	250	<170
EQ1 - 225	450	410	230	250	<190
EQ1 - 400	570	510	300	330	<200
EQ1 - 630	680	620	300	330	<250
EQ1 - 800	750	690	300	330	<250

Catalogue number	Type	Rated current In (A)	Max. breaking capacity (kA) Icu	Operating breaking capacity (kA) Ics	Section of the power supply conductor (mm ²)	Electrical wear resistance (number of cycles)	Mechanical wear resistance (number of cycles)	Packing/ Box (pcs)
44100	EQ1 - 100	100	50	35	35	2000	6000	1 / 1
44225	EQ1 - 225	225	50	35	70	2000	6000	1 / 1
44403	EQ1 - 400	400	100	65	180	2000	6000	1 / 1
44633	EQ1 - 630	630	100	65	240	1000	3000	1 / 1
44833	EQ1 - 800	800	100	65	240	1000	3000	1 / 1
44101	EQ1 - 100*	100	50	35	35	2000	6000	1 / 1
44226	EQ1 - 225*	225	50	35	70	2000	6000	1 / 1
44404	EQ1 - 400*	400	100	65	180	2000	6000	1 / 1
44634	EQ1 - 630*	630	100	65	240	1000	3000	1 / 1
44834	EQ1 - 800*	800	100	65	240	1000	3000	1 / 1

Note: *Dual power change-over switch with separated control display.

ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL1, AC TYPE

Documents corresponding to the product:

EN 61008-1
EN 61008-2; EN 60947-1



RCD type AC for AC current

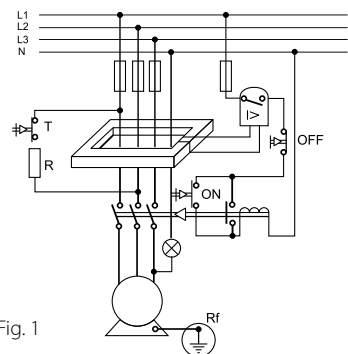
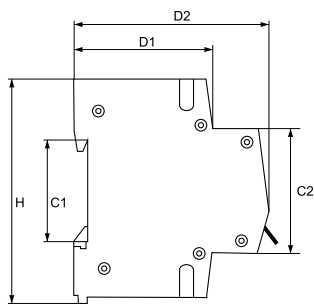
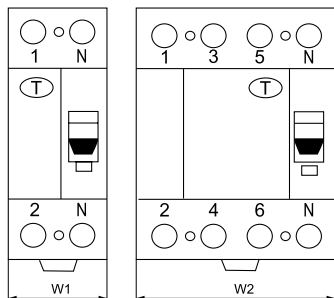


Fig. 1

The residual current device works with no extra power supply to the operating mechanism. It compares the magnitude of the currents through the neutral and phase conductors. The conductors are coiled on toroid and together with the secondary winding form a measurement transformer. The power conductors are coiled in such a way that the magnetic fields generated at electrical current flow through them are mutually neutralized. At failure in the insulation of some of the conductors or at presence of a person under voltage, the system is mis-balanced and the magnetic fields can not be neutralized. This residual field generates in the secondary current winding, called current leakage. The device breaks when the value of this current exceeds the limit value of the residual current breaker.

FUNCTIONS

- Switching off heavy-loaded electrical circuits at insulation damage of the conductors to the consumers.
- Switching off heavy-loaded electrical circuits at presence of a person under voltage.
- Used to protect not only particular consumers/ circuits, but also the whole panel.
- Remarkable with high reliability of current characteristics.
- Control: manual switching on and automatic switching off at exit failure.

CONNECTING

- Power supply busbar (only for bipolar)
- Flexible or rigid conductors with corresponding section

MOUNTING

- On DIN-rail
- Mounting position: vertical

The residual current device is mounted in the distribution box, and after the device the neutral conductor and the earthing conductor must not be connected together. In order to work accurately, the device must have three- or five-conductor grid with separate protective conductor (PE) (e.g. earthing system TN-S or TT with three or five conductors). The corpus of the consumer depending on the grid type must be connected either to the protective conductor or be earthed. (Fig.1)

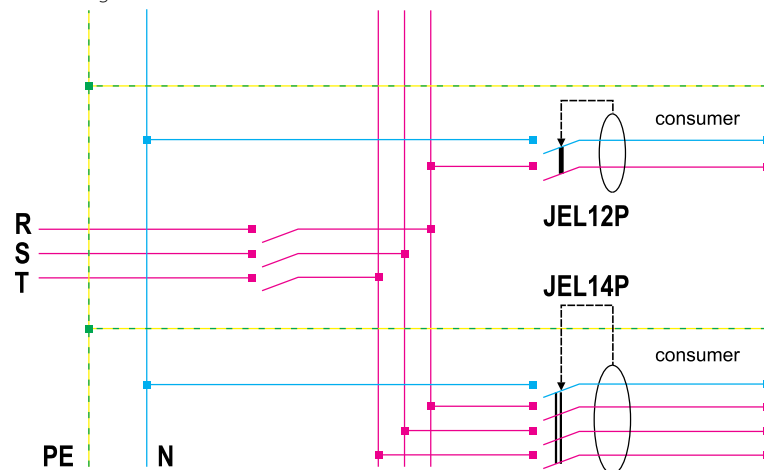
TECHNICAL DATA

- Rated operating voltage: 230/400V; 50/60 Hz
- Rated current: according to the table
- Responsiveness: 30; 100; 300; 500mA
- Time delay until break: <0.1s at $I \Delta n$ and <0.04s at $2I \Delta n$
- Surge voltage wear resistance: $\geq 2000V$
- Short circuit current wear resistance: 4500A, 6000A
- Joining terminal: flat (tunnel) screw terminal made of 1.5 coldly draw-plated plane Q235A
- Type of the plastic:
 - > Material: self-extinguishing nylon PA66
 - > Permittivity strength: >18MV/m
- Contact head: silver graphite CAg(5)
- Static contact: pure copper T2Y2 type
- Electrical wear resistance (number of cycles): ≥ 5000
- Mechanical wear resistance (number of cycles): ≥ 10000
- IP code: IP>20
- Indication for operating (switched on) position
- Plastic material of the breakers of UV rays and nonflammable
- Ambient temperature: $-10^{\circ}C + 65^{\circ}C$
- Installation altitude: up to 2000m

Dimensions (mm)

W1	W2	H	H1	H2	D1	D2
35	70	81	35	45	50	72

Connecting scheme



ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL1, AC TYPE



RCD type AC for AC current

Residual current devices JEL 1, 6kA - Type AC - alternating fault currents sensible. Impulse withstand voltage 2000VAC

Catalogue number				Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)
Leakage current I Δ n (mA)								
30	100	300	500					
40210	40212	40213	40214	JEL 1	2P	6	10.0	1/60
40216	40217	40218	40219	JEL 1	2P	6	16.0	1/60
40292	40293	40294	40295	JEL 1	2P	6	20.0	1/60
40221	40222	40223	40224	JEL 1	2P	6	25.0	1/60
40231	40232	40233	40234	JEL 1	2P	6	32.0	1/60
40241	40242	40243	40244	JEL 1	2P	6	40.0	1/60
40261	40262	40263	40264	JEL 1	2P	6	63.0	1/60
40281	40282	40283	40284	JEL 1	2P	6	80.0	1/60
40291	40296	40297	40298	JEL 1	2P	6	100.0	1/60



RCD type AC for AC current

Catalogue number				Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)
Leakage current I Δ n (mA)								
30	100	300	500					
40410	40412	40413	40414	JEL 1	4P	6	10.0	1/30
40416	40417	40418	40419	JEL 1	4P	6	16.0	1/30
40492	40493	40494	40495	JEL 1	4P	6	20.0	1/30
40421	40422	40423	40424	JEL 1	4P	6	25.0	1/30
40431	40432	40433	40434	JEL 1	4P	6	32.0	1/30
40441	40442	40443	40444	JEL 1	4P	6	40.0	1/30
40461	40462	40463	40464	JEL 1	4P	6	63.0	1/30
40481	40482	40483	40484	JEL 1	4P	6	80.0	1/30
40491	40496	40497	40498	JEL 1	4P	6	100.0	1/30



7 YEARS TOTAL WARRANTY
+ 7 standard 0 extended
* for industrial usage 3 years warranty

ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL 1A, TYPE A

Documents corresponding to the product:

EN 61008-1
EN 61008-2; EN 60947-1

These are Residual Current Devices (RCDs) JEL 1A with enhanced sensibility and fast - operating protection devices applicable in circuits with harmonic or direct pulsating current component presence.

FUNCTIONS

- Switching off electrical circuits on load at conductor insulation breaking to the consumer
- Switching off electrical circuits on load at direct and indirect contact
- Switching off electrical circuits on load at alternating earth fault currents during consequent light impact
- Switching off consumers at harmonic presence due to luminescent lights
- Switching off consumers in DC circuits at fault currents presence
- Mechanical indicator for ON position

TECHNICAL DATA

- Rated operating voltage: 230/400V; 50 Hz
- Rated current: according to the table
- Responsiveness: 30mA and 300mA
- Time delay until break: <0.1s at $I_{\Delta n}$ and <0.04s at $2I_{\Delta n}$
- Short circuit current wear resistance: 6000A
- Electrical wear resistance (number of cycles): ≥ 2000
- Mechanical wear resistance (number of cycles): ≥ 4000
- IP code: IP>20

CONNECTING

- Power supply busbar (only for bipolar)
- Flexible or rigid conductors with corresponding section

MOUNTING

- On DIN-rail
- Mounting position: vertical

Residual current devices JEL 1A, 6kA - Type A - alternating and pulsating direct fault currents sensible Impulse withstand voltage 2000VAC/ 400VDC



RCD type A for AC/DC current

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	
Leakage current $I_{\Delta n}$ (mA)						
30	300					
40516	40518	JEL 1A	2P	6	16.0	1/60
40592	40594	JEL 1A	2P	6	20.0	1/60
40521	40523	JEL 1A	2P	6	25.0	1/60
40531	40533	JEL 1A	2P	6	32.0	1/60
40541	40543	JEL 1A	2P	6	40.0	1/60
40561	40563	JEL 1A	2P	6	63.0	1/60
40581	40583	JEL 1A	2P	6	80.0	1/60
40591	40597	JEL 1A	2P	6	100.0	1/60



RCD type A for AC/DC current

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	
Leakage current $I_{\Delta n}$ (mA)						
30	300					
40616	40618	JEL 1A	4P	6	16.0	1 / 30
40692	40694	JEL 1A	4P	6	20.0	1 / 30
40621	40623	JEL 1A	4P	6	25.0	1 / 30
40631	40633	JEL 1A	4P	6	32.0	1 / 30
40641	40643	JEL 1A	4P	6	40.0	1 / 30
40661	40663	JEL 1A	4P	6	63.0	1 / 30
40681	40683	JEL 1A	4P	6	80.0	1 / 30
40691	40697	JEL 1A	4P	6	100.0	1 / 30



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICE (RCD)- JEL1B, TYPE B

Documents corresponding to the product:

IEC61008-1
IEC62423



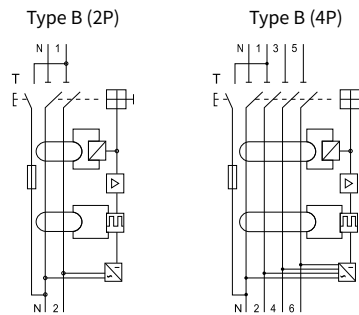
RCD type B for AC/DC current

DESCRIPTION OF THE OPERATING SYSTEM

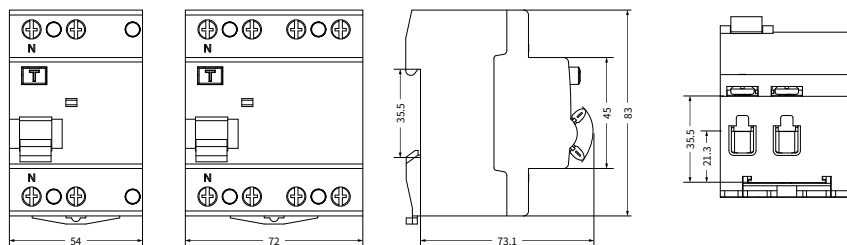
JEL1B Type B RCD has compact structure, good reliability, and high safety. They ensure higher protection levels with maximum operational continuity under all working conditions. Type B RCDs are sensitive to AC, pulsating AC and steady DC leakage currents. This type may be required for use in photovoltaic (PV) solar energy installations because the PV panels produce a DC output and some types of fault can result in the leakage of DC currents to earth. Type B RCDs can ensure maximum safety in many applications, such as EV Charging Station, Crane and Elevator, variable speed drives, medical equipment, PV and Wind power plants, etc.

TECHNICAL DATA

- Mode: Electromagnetic
- Type: B for AC/DC current
- Rated operating voltage Ue 2P: 240V 50/60 Hz
- Rated operating voltage Ue 4P: 415V 50/60 Hz
- Insulation voltage Ui: 500V
- Circuit breaker rated current: according to the table
- Residual current responsiveness: 30mA
- Break time under IΔn: ≤0.1s
- Circuit breaker tripping curve: C
- Breaking capacity: 10 000A
- Short circuit protection device (SCPD) fuse: 10 000A
- Rated impulse withstand voltage(1.5/50) Uimp: 4000V
- Dielectric test voltage at ind. Freq. for 1min: 2.5kV
- Electrical life: 2 000 cycles
- Mechanical life: 4 000 cycles
- IP code: IP>20
- Terminal connection type:
 - > Cable
 - > Pin-type busbar
 - > U-type busbar
- Terminal size top/bottom for cable: 35mm²
- Terminal size top/bottom for busbar: 35mm²
- Tightening torque: 2.5Nm
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m



Circuit diagram



Overall and installation dimensions (mm)

7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty



RCD type B for AC/DC current

2P ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICE (RCD)- JEL1B

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing/Box (pcs)
Leakage current I _{Δn} (mA)					
30					
40845B	JEL1B	1P+N	10	16	1/90
40846B	JEL1B	1P+N	10	25	1/90
40847B	JEL1B	1P+N	10	32	1/90
40848B	JEL1B	1P+N	10	40	1/90
40849B	JEL1B	1P+N	10	63	1/90
40850B	JEL1B	1P+N	10	80	1/90
40851B	JEL1B	1P+N	10	100	1/90



4P ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICE (RCD)- JEL1B



RCD type B for AC/DC current

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing/Box (pcs)
Leakage current I _{Δn} (mA)					
30					
40852B	JEL1B	3P+N	10	16	1/45
40853B	JEL1B	3P+N	10	25	1/45
40854B	JEL1B	3P+N	10	32	1/45
40855B	JEL1B	3P+N	10	40	1/45
40856B	JEL1B	3P+N	10	63	1/45
40857B	JEL1B	3P+N	10	80	1/45
40858B	JEL1B	3P+N	10	100	1/45

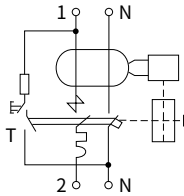


7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

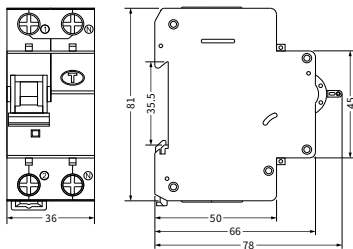
ELECTRO-MAGNETIC RESIDUAL CURRENT OPERATED CIRCUIT BREAKER (RCBO) - JEL5A, TYPE A CURVE C

Documents corresponding to the product:

IEC61009-1



Circuit diagram



Overall and installation dimensions (mm)



RCBO type A for AC/DC current

DESCRIPTION OF THE OPERATING SYSTEM

RCBO JEL5A is with enhanced sensibility and fast - operating protection devices applicable in circuits with harmonic or direct pulsating current component presence RCBO JEL5A is mainly used for AC 50Hz or 60Hz, rated voltage 230 or below and rated working current 40A or below and immediately cut off power supply once someone suffers from electric shock or leakage current above specified value. It is a combination of automatic circuit breaker and residual current electromagnetic device. It combines the properties of the two elements. The circuit breaker reacts at short circuit or overload in the protected circuit, and the electromagnetic residual current device- at failure in the conductors' insulation. It compares the magnitude of the currents through the neutral and phase conductors. The conductors are coiled on toroid and together with the secondary winding form a measurement transformer. The power conductors are coiled in such a way that the magnetic fields generated at electrical current flow through them are mutually neutralized. At failure in the insulation of some of the conductors or at presence of a person under voltage, the system is mis-balanced and the magnetic fields can not be neutralized. This residual magnetic field generates in the secondary current winding, called current leakage. When the value of this current exceeds the limit value of the residual current breaker the device breaks and the residual current device switches off from the power supply grid. The device operates without any extra power supply to the electromagnetic residual current and is not influenced by voltage varying or decreasing.

FUNCTIONS

- Switching off heavy-loaded electrical circuits at short circuit or overload.
- Switching off heavy-loaded electrical circuits at insulation damage of the conductors to the consumers.
- Switching off heavy-loaded electrical circuits at presence of a person and animals under voltage.
- Switching off consumers at harmonic presence due to luminescent lights.
- Switching off consumers in DC circuits at fault currents presence.
- Used to protect not only particular consumers/ circuits, but also the whole panel.
- Remarkable with high reliability of current characteristics.
- Control: manual switching on and automatic switching off at failure in the insulation after the breaker.

MOUNTING

- On DIN-rail
 - Mounting position: vertical
- The residual current device is mounted in the distribution box, and after the device the neutral conductor and the earthing conductor must not be connected together. In order to work accurately, the device must have three- or five-conductor grid with separate operating neutral conductor (N) and separate protecting conductor (PE) (e.g. earthing system TN-S or TT with three or five conductors).

TECHNICAL DATA

- Mode: Electromagnetic
- Type: A for AC/DC current
- Rated operating voltage U_e : 230/240V 50/60 Hz
- Insulation voltage U_i : 500V
- Circuit breaker rated current: according to the table
- Residual current responsiveness: 30; 300mA
- Break time under $I_{\Delta n}$: $\leq 0.1s$
- Circuit breaker tripping curve: C
- Energy limiting class: 3
- Breaking capacity: 6 000A
- Rated impulse withstand voltage(1.5/50) $U_{imp} \geq 4000V$
- Dielectric test voltage at ind.Freq. for 1min: 2kV
- Pollution degree: 2
- Thermo-magnetic release characteristic: C
- Electrical life: 4 000 cycles
- Mechanical life: 10 000 cycles
- IP code: IP>20
- Indication for operating (switched on) position
- Terminal connection type:
 - > Cable
 - > Pin-type busbar
 - > U-type busbar
- Terminal size top/bottom for cable: 25 mm²
- Terminal size top/bottom for busbar: 25 mm²
- Tightening torque: 2.5Nm
- Reference temperature for setting of thermal element: 30°C
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	
Leakage current $I_{\Delta n}$ (mA)						
30	300					
40006A	40012A	JEL5A	1P+N	6	6	1/90
40010A	40013A	JEL5A	1P+N	6	10	1/90
40016A	40018A	JEL5A	1P+N	6	16	1/90
40020A	40019A	JEL5A	1P+N	6	20	1/90
40025A	40023A	JEL5A	1P+N	6	25	1/90
40032A	40033A	JEL5A	1P+N	6	32	1/90
40040A	40043A	JEL5A	1P+N	6	40	1/90



ELECTRONIC RESIDUAL CURRENT OPERATED CIRCUIT BREAKER (RCBO)- JEL4A, TYPE A CURVE C

Documents corresponding to the product:

IEC61009-1

DESCRIPTION OF THE OPERATING SYSTEM

RCBO JEL4A is with enhanced sensibility and fast - operating protection devices applicable in circuits with harmonic or direct pulsating current component presence. "Phase line + neutral + leakage" protection circuit breaker JEL4A is applied to the single-phase residential circuit of 50Hz or 60Hz, rated voltage 230V, to protect leakage, civil electrical overload and short circuit. The product is provided with many advantages such as small size, high breaking capacity, cutting off zero-line, live line at the same time, and leakage protecting in the case of reverse wiring live line.

FUNCTIONS

Switching off heavy-loaded electrical circuits at short circuit or overload.

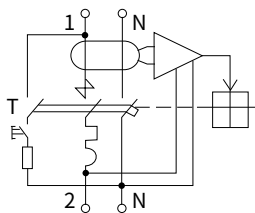
- Switching off heavy-loaded electrical circuits at insulation damage of the conductors to the consumers.
- Switching off heavy-loaded electrical circuits at presence of a person and animals under voltage.
- Switching off consumers at harmonic presence due to luminescent lights.
- Switching off consumers in DC circuits at fault currents presence.
- Used to protect not only particular consumers/circuits, but also the whole panel.
- Remarkable with high reliability of current characteristics.
- Control: manual switching on and automatic switching off at failure in the insulation after the breaker.

MOUNTING

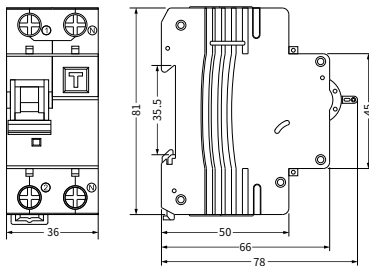
- On DIN-rail
 - Mounting position: vertical
- The residual current device is mounted in the distribution box, and after the device the neutral conductor and the earthing conductor must not be connected together. In order to work accurately, the device must have three- or five-conductor grid with separate operating neutral conductor (N) and separate protecting conductor (PE) (e.g. earthing system TN-S or TT with three or five conductors).

TECHNICAL DATA

- Mode: Electronic
- Type: A for AC/DC current
- Rated operating voltage U_e : 230/240V 50/60 Hz
- Insulation voltage U_i : 500V
- Circuit breaker rated current: according to the table
- Residual current responsiveness: 30; 300mA
- Break time under $I_{\Delta n}$: ≤ 0.1 s
- Circuit breaker tripping curve: C
- Energy limiting class: 3
- Breaking capacity: 6 000A
- Rated impulse withstand voltage (1.5/50) U_{imp} : ≥ 4000 V
- Dielectric test voltage at ind.Freq. for 1min: 2kV
- Pollution degree: 2
- Electrical life: 4 000 cycles
- Mechanical life: 10 000 cycles
- IP code: IP>20
- Indication for operating (switched on) position
- Terminal connection type:
 - > Cable
 - > Pin-type busbar
 - > U-type busbar
- Terminal size top/bottom for cable: 25mm²
- Terminal size top/bottom for busbar: 25 mm²
- Tightening torque: 2.5Nm
- Reference temperature for setting of thermal element: 30°C
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000 m



Circuit diagram



Overall and installation dimensions (mm)

7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty



RCBO type A for AC/DC current

COMBINED ELECTRONIC RESIDUAL CURRENT DEVICE AND CIRCUIT BREAKER 2P 6KA

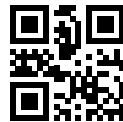
Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	
Leakage current I Δ n (mA)						
30	300					
40206A	40205A	JEL4A	1P+N	6	6	1/90
40211A	40208A	JEL4A	1P+N	6	10	1/90
40215A	40235A	JEL4A	1P+N	6	16	1/90
40225A	40230A	JEL4A	1P+N	6	20	1/90
40240A	40246A	JEL4A	1P+N	6	25	1/90
40265A	40236A	JEL4A	1P+N	6	32	1/90
40274A	40273A	JEL4A	1P+N	6	40	1/90



RCBO type A for AC/DC current

COMBINED ELECTRONIC RESIDUAL CURRENT DEVICE AND CIRCUIT BREAKER 4P 6KA

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	
Leakage current I Δ n (mA)						
30	300					
40470A	40477A	JEL4A	3P+N	6	6	1/30
40471A	40478A	JEL4A	3P+N	6	10	1/30
40472A	40479A	JEL4A	3P+N	6	16	1/30
40473A	40480A	JEL4A	3P+N	6	20	1/30
40474A	40485A	JEL4A	3P+N	6	25	1/30
40475A	40486A	JEL4A	3P+N	6	32	1/30
40476A	40487A	JEL4A	3P+N	6	40	1/30



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

RCBO WITH ARC FAULT PROTECTIVE, JEL8A CURVE C

Documents corresponding to the product:

IEC61009-1
IEC62606



RCBO type A for AC/DC current

DESCRIPTION OF THE OPERATING SYSTEM

An arc-fault detection device (AFDD) or arc-fault circuit interrupter (AFCI) is a circuit breaker that breaks the circuit when it detects the electric arcs that are a signature of loose connections in home wiring. Loose connections, which can develop over time, can sometimes become hot enough to ignite house fires dangerous arc (that can occur, for example, in a lamp cord which has a broken conductor). An AFDD selectively distinguishes between a harmless arc (incidental to normal operation of switches, plugs, and brushed motors), and a potentially dangerous arc (that can occur, for example, in a lamp cord which has a broken conductor).

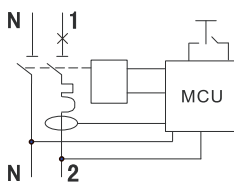
FUNCTIONS

- Arc Fault Protection.
- Overload Protection.
- Short-Circuit Protection.
- Earth-Leakage Protection.

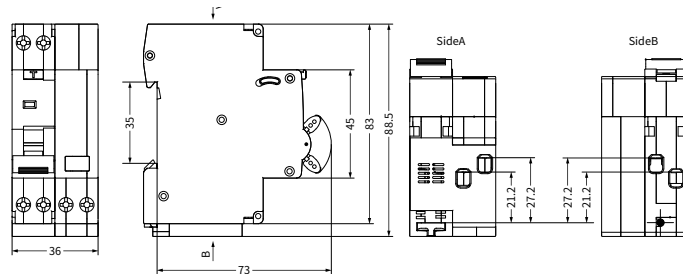
TECHNICAL DATA

- Mode: Electronic
- Type: A for AC/DC current
- Rated operating voltage U_e : 240V 50/60 Hz
- Insulation voltage U_i : 400V
- Circuit breaker rated current: according to the table
- Residual current responsiveness: 30mA
- Break time under $I_{\Delta n}$: $\leq 0.1s$
- Circuit breaker tripping curve: C
- Energy limiting class: 3
- Breaking capacity: 6 000A
- Rated impulse withstand voltage(1.5/50) $U_{imp} \geq 4000V$
- Dielectric test voltage at ind.Freq. for 1min: 2kV
- Pollution degree: 2

- Electrical life: 4 000 cycles
- Mechanical life: 10 000 cycles
- IP code: IP>20
- Indication for operating (switched on) position
- Terminal connection type:
 - Cable
 - Pin-type busbar
 - U-type busbar
- Terminal size top/bottom for cable: 16mm²
- Terminal size top/bottom for busbar: 16mm²
- Tightening torque: 2.5Nm
- Reference temperature for setting of thermal element: 30°C
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m



Circuit diagram



Overall and installation dimensions

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)
Leakage current $I_{\Delta n}$ (mA)					
30					
40870	JEL8A	1P+N	6	6	1/60
40871	JEL8A	1P+N	6	10	1/60
40872	JEL8A	1P+N	6	16	1/60
40873	JEL8A	1P+N	6	20	1/60
40874	JEL8A	1P+N	6	25	1/60
40875	JEL8A	1P+N	6	32	1/60
40876	JEL8A	1P+N	6	40	1/60



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

ELECTRONIC TYPE DPN RESIDUAL CURRENT OPERATED CIRCUIT BREAKER (RCBO), JEL9A

Documents corresponding to the product:

IEC61009-1



RCBO type A for AC/DC current

DESCRIPTION OF THE OPERATING SYSTEM

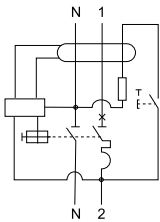
RCBO JEL9A provide protection against earth faults, overloads, short circuits and over-voltage in commercial and domestic installation. The RCBO with both disconnected neutral and phase guarantees its proper actuation against earth leakage faults even when the neutral and phase are wrongly connected the electronic RCBO incorporate a filtering device preventing the risks of unwanted due to transient voltages and transient currents.

FUNCTIONS

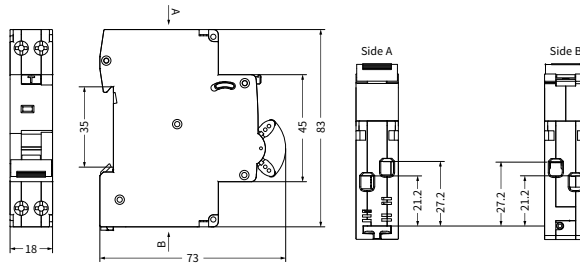
- Overload Protection
- Short-Circuit Protection
- Earth-Leakage Protection

TECHNICAL DATA

- Mode: Electronic
- Type: A for AC/DC current
- Rated operating voltage U_e : 240V 50/60 Hz
- Insulation voltage U_i : 500V
- Circuit breaker rated current: according to the table
- Residual current responsiveness: 30mA
- Break time under $I_{\Delta n}$: $\leq 0.1s$
- Circuit breaker tripping curve: C
- Energy limiting class: 3
- Breaking capacity: 6 000A
- Rated impulse withstand voltage(1.5/50) U_{imp} : $\geq 4000V$
- Dielectric test voltage at ind.Freq. for 1 min: 2kV
- Pollution degree: 2
- Electrical life: 4 000 cycles
- Mechanical life: 10 000 cycles
- IP code: IP>20
- Indication for operating (switched on) position
- Terminal connection type:
 - Cable
 - Pin-type busbar
 - Terminal size top/bottom for cable: 16 mm²
 - Terminal size top/bottom for busbar: 16 mm²
- Tightening torque: 2.5Nm
- Reference temperature for setting of thermal element: 30°C
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000 m



Circuit diagram



Overall and installation dimensions (mm)

Catalogue number	Type	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)
Leakage current $I_{\Delta n}$ (mA)					
30					
40500A	JEL9A	DPN (1P+N)	6	6	1/90
40501A	JEL9A	DPN (1P+N)	6	10	1/90
40502A	JEL9A	DPN (1P+N)	6	16	1/90
40503A	JEL9A	DPN (1P+N)	6	20	1/90
40504A	JEL9A	DPN (1P+N)	6	25	1/90
40505A	JEL9A	DPN (1P+N)	6	32	1/90
40506A	JEL9A	DPN (1P+N)	6	40	1/90



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

COMBINED SURGE ARRESTERS TYPE 1 + 2



Type 1+2 for AC current

Combined surge arresters type 1 + 2 are coordinated in advance. They can manage and prevent the high energy during a thunderbolt and to assure the better level of security of electricity of the electrical equipment

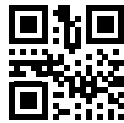
Surge arresters Type 1 is used to catch the energy caused by higher electricity compared to the capacity of direct thunderbolt. The security device has passed a successful test according to the standards with electric wave 10/350 (class 1 test).

Surge arresters Type 2 is used to catch the energy caused by higher electricity, compared to the capacity of indirect strike or commutative overvoltage. The security device has passed a successful test according to the standards with electric wave 8/20 (class 2 test).

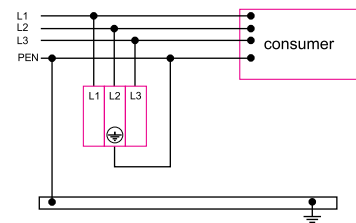
Response time: <25 nS

Voltage protection level: 1,5kV

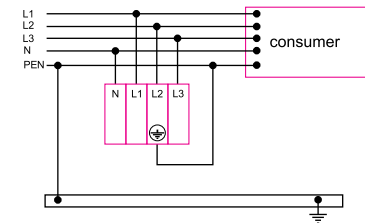
Catalogue number	Type of arrester	Max inpluse current limp (10/350µS)	Max discharge current I _{max} (8/20 µS)	Nominal line voltage U _n (V)	Earthing system
64502	SPD-X/1P+N	12.5kA	50kA	230	TT,TN-S
64503	SPD-X/3P	12.5kA	50kA	230/400	TN-C
64504	SPD-X/3P+N	12.5kA	50kA	230/400	TT,TN-S



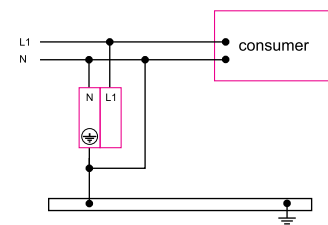
Three phase protection TN-C system



Three phase protection TN-S system



Mono-phase protection TT system



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

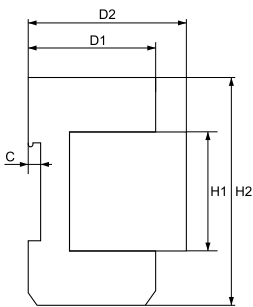
SURGE ARRESTERS SPD TYPE 2 FOR AC CURRENT

Documents corresponding to the product:

Standard EN61 643-1



Type 2 for AC current



The surge arrester consists of a semi-conductor valve element that opens at certain conditions. At normal conditions of the system, the surge arrester has infinitely high resistance between the protected conductors and earthing circuit. At voltage increase due to atmospheric nature or system failure, the valve element opens and leads the excessive voltage to the grounded circuit. After reversion of the normal voltage the valve element closes. The arrester can endure high momentary overloading.

FUNCTIONS

- protection of heavy-loaded electrical circuits from overload
- used to protect not only particular consumers/circuits, but also the whole panel
- remarkable with high reliability of current characteristics
- control: automatic switching off at exit failure and recovery after eliminating the danger

CONNECTING

- flexible or rigid conductors with corresponding section

MOUNTING

- on DIN-rail
- mounting position: vertical
- mounting in the distribution box on the front or right before the breaker according to the attached schemes
- Breakers plastic material of UV rays and nonflammable
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

TECHNICAL DATA

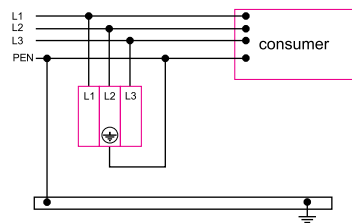
- Rated operating voltage U_c : - the operating voltage of the surge arrester 275/440V; 50Hz
- Surge voltage U_p : the voltage created in surge arrester terminals at rated discharge current running: according to the tables
- Rated discharge current I_n – the rated value of discharge current with a sinusoid 8/20 μ s, which can be repeatedly led to the ground: according to the tables
- Full discharge current I_{max} – the peak value of the discharge current with a sinusoid 8/20 μ s, which the surge arrester can bear once: according to the table
- Constant operating current: up to 800 μ A for 1P, 2P and 3P; up to 600 μ A for 1P + N, 3P + N
- Indication for damaged surge arrester
- Offered in types: 1P; 1P + N; 3P; 3P + N

Dimensions (mm)

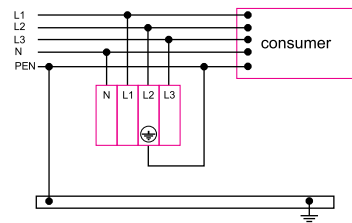
C	H1	H2	D1	D2
5	90	45	43.5	58

COLOUR CODE for all types 5kA - yellow; white – 10kA; green – 20 kA and red 40kA

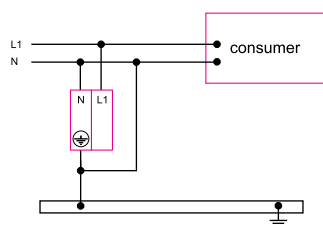
Three phase protection TN-C system



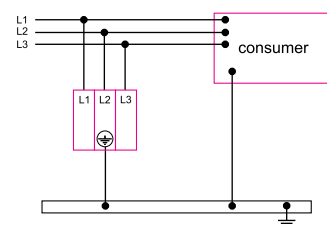
Three phase protection TN-C system



Monophase protection TT system



Three phase protection IT system



7 YEARS TOTAL WARRANTY
+ 7 standard 0 extended
* for industrial usage 3 years warranty



The surge arrester selection is made according to the overload risk level or atmosphere activity, named B, C or D (from high to low risk level).

THE COMPANY OFFERS THE FOLLOWING MODELS OF ARRESTERS

Model SPD – Bxxxx – for systems with exceptionally high risk level. Mounted mainly in the beginning of the installation or in the main panel.

Model SPD – Cxxxx – for systems with high or average risk level. Mounted in the beginning of the installation or before the breaker.

Model SPD – Dxxxx – for systems with low risk level. Suitable for secondary protection of consumers in combination with SPD – Bxxxx/SPD – Cxxxx



Catalogue number	Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing/Box (pcs)
64101	SPD-D5/1p	5	10	275	1.2	17/170
64102	SPD-C10/1p	10	20	275	1.2	17/170
64103	SPD-C20/1p	20	40	275	1.8	17/170
64104	SPD-B40/1p	40	60	275	2	17/170



Catalogue number	Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing/Box (pcs)
64201	SPD-D5/1pN	5	10	275	1.2	8 / 80
64202	SPD-C10/1pN	10	20	275	1.2	8 / 80
64203	SPD-C20/1pN	20	40	275	1.8	8 / 80
64204	SPD-B40/1pN	40	60	275	2	8 / 80

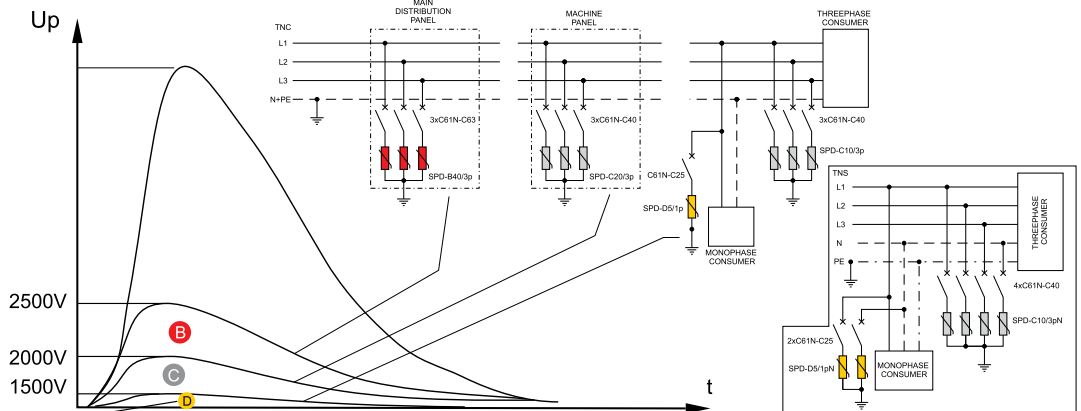


Catalogue number	Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing/Box (pcs)
64301	SPD-D5/3p	5	10	440	1.2	5 / 50
64302	SPD-C10/3p	10	20	440	1.2	5 / 50
64303	SPD-C20/3p	20	40	440	1.8	5 / 50
64304	SPD-B40/3p	40	60	440	2	5 / 50



Catalogue number	Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing/Box (pcs)
64401	SPD-D5/3pN	5	10	440	1.2	4 / 40
64402	SPD-C10/3pN	10	20	440	1.2	4 / 40
64403	SPD-C20/3pN	20	40	440	1.8	4 / 40
64404	SPD-B40/3pN	40	60	440	2	4 / 40

Type 2 for AC current



COLOUR CODE for all types 5kA - yellow; white – 10kA; green – 20 kA and red 40kA

7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

COMBINED SURGE ARRESTERS AC/DC, TYPE 2

Specially designed surge arresters providing protection of solar and photo - voltaic systems; designed to protect system against over voltages resulting from indirect light impact. They could be installed in earthed and non - earthed systems. They break photo - voltaic generator electric circuit when voltage reaches or over passes limit threshold value, providing photo - voltaic protection against destroying.



Type 2 for AC/DC current

Catalogue number	Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing/Box (pcs)
64105	SPD-DC-D5/1p	5	10	275 AC/440 DC	≤ 1.2	17 / 170
64106	SPD-DC-C10/1p	10	20	275 AC/440 DC	≤ 1.5	17 / 170
64107	SPD-DC-C20/1p	20	40	275 AC/440 DC	≤ 1.8	17 / 170
64108	SPD-DC-B40/1p	30	60	275 AC/440 DC	≤ 2.2	17 / 170



Type 2 for AC/DC current

Catalogue number	Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing/Box (pcs)
64205	SPD-DC-D5/1pN	5	10	275 AC/440 DC	≤ 1.2	8 / 80
64206	SPD-DC-C10/1pN	10	20	275 AC/440 DC	≤ 1.5	8 / 80
64207	SPD-DC-C20/1pN	20	40	275 AC/440 DC	≤ 1.8	8 / 80
64208	SPD-DC-B40/1pN	30	60	275 AC/440 DC	≤ 2.2	8 / 80



Type 2 for AC/DC current

Catalogue number	Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing/Box (pcs)
64305	SPD-DC-D5/3p	5	10	385 AC/500 DC	≤ 1.2	5 / 50
64306	SPD-DC-C10/3p	10	20	385 AC/500 DC	≤ 1.5	5 / 50
64307	SPD-DC-C20/3p	20	40	385 AC/500 DC	≤ 1.8	5 / 50
64308	SPD-DC-B40/3p	30	60	385 AC/500 DC	≤ 2.2	5 / 50



COLOUR CODE for all types 5kA - yellow; white – 10kA; green – 20 kA and red 40kA

7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

DC SURGE PROTECTION DEVICES FOR PHOTOVOLTAIC (PV) SYSTEMS, TYPE 2

Documents corresponding to the product:

IEC/EN61643-31



Type 2 for DC current



Type 2 PV SPD is a DC surge protector specially designed for photovoltaic power supply systems. Max continuous operating voltage reach DC1500V. These units must be installed in parallel on the DC networks to be protected and provide common and different modes protection. Its installed location is recommended at both ends of the DC power supply line (solar panel side and inverter/converter side), especially if the line routing is external and long. Type 2 SPDs protect against indirect lightning strikes, which are characterized by 8/20 μs waveforms. An 8/20 μs waveform means that the strike has an 8 μs rise time and a duration to one-half peak of 20 μs.

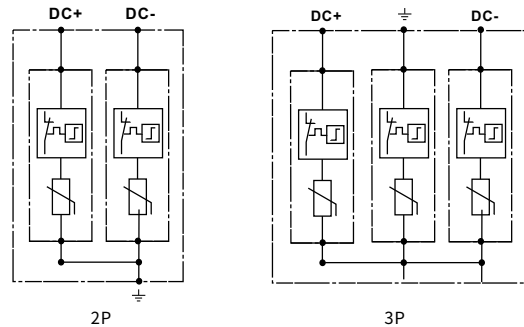
TECHNICAL DATA

- SPD classification according to IEC/EN61643-31: T2
- Max. continuous operating a.c.voltage Ucpv:
 - 2P: 600 and 1000V
 - 3P: 1500V
- Nominal discharge current (8/20μs) In: 20kA
- Maximum discharge current (8/20μs) Imax: 40kA
- Voltage protection level DC+/DV-to PE:
 - 2P 600V: ≤2.6kV
 - 2P 1000V: ≤4kV
 - 3P 1500V: ≤5.2kV
- Operating temperature range (Tu): -40°~80°
- Operating State/Fault Indication: Green/Red
- Cross-section area (Min.): 4 mm²
- Cross-section area (Max.): 35 mm²
- Enclosure material: Thermal Plastic UL94-V0
- Ingress Protection: IP20

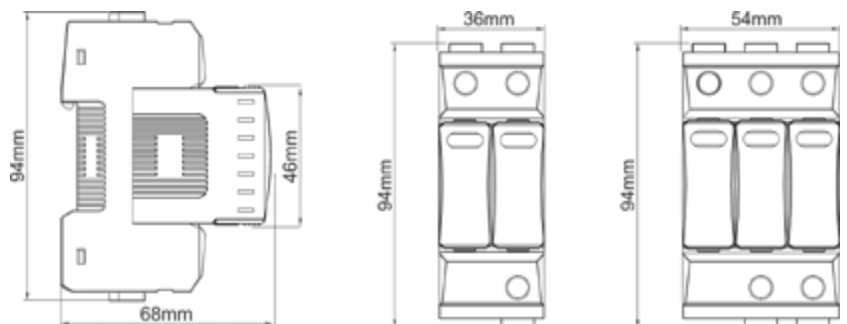
Catalogue number	Number of poles	In (kA)	Imax (kA)	Ucpv	Packing/Box (pcs)
64209	2P	20	40	600	1/60
64210	2P	20	40	1000	1/60
64309	3P	20	40	1500	1/40



Type 2 for DC current



Circuit diagram

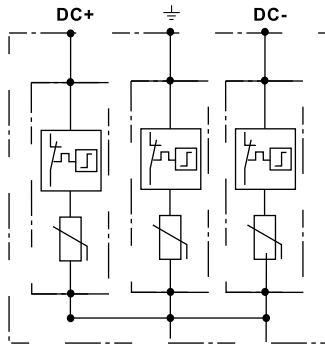


Overall and installation dimensions

7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended
* for industrial usage
3 years warranty

DC SURGE PROTECTION DEVICES FOR PHOTOVOLTAIC (PV) SYSTEMS, TYPE 1+2

Documents corresponding to the product:
IEC/EN61643-31



Circuit diagram

T1+T2 three-module photovoltaic surge protective device (SPD) (with three -step DC switching device) features visual indication and optional remote contact signaling (floating changeover contact) for use in PV systems.

TECHNICAL DATA

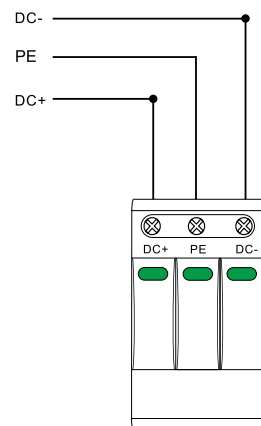
- SPD classification according to IEC/EN61643-31: T1+T2
- Max. continuous operating a.c.voltage U_{cpv} : 1000 and 1500 VDC
- Impulse Discharge Current I_{imp} (10/350 μ s): 6.25kA
- Total Discharge Current I_{total} (10/350 μ s): 12.5kA
- Nominal discharge current I_n (8/20 μ s): 20kA
- Maximum discharge current I_{max} (8/20 μ s): 40kA
- Voltage protection level DC+/DV-to PE: ≤ 5.2 kV
- Response time: ≤ 25 ns
- Operating temperature range (T_u): -40° ~ 80°
- Operating State/Fault Indication: Green/Red
- Cross-section area (Min.): 4 mm²
- Cross-section area (Max.): 35 mm²
- Enclosure material: Thermal Plastic UL94-V0
- Ingress Protection: IP20



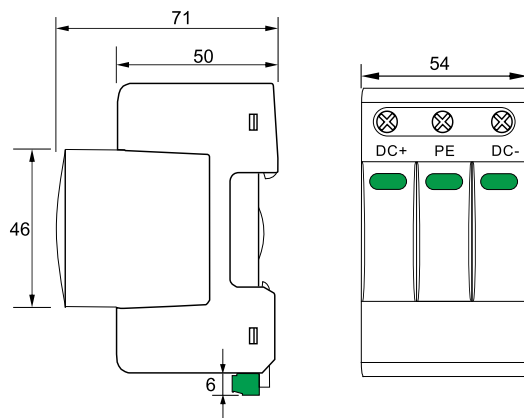
Type 1+2 for DC current



Catalogue number	Number of poles	I_n (kA)	I_{max} (kA)	U_{cpv}	Packing/Box (pcs)
64310	3P	20	40	1000	1/40
64311	3P	20	40	1500	1/40



Connection diagram



Overall and installation dimensions

7 YEARS TOTAL WARRANTY
+ 7 standard 0 extended
* for industrial usage 3 years warranty

THREE POLE (3P) LOW VOLTAGE CONTACTORS LT1-D/HK

Documents corresponding to the product:

Standard EN 60947-1; EN 60 947-4-1



Type LT1-D/ 3P



Type LT1-D/ 3P



Type LT1-HK/ 3P

LT 1 D contactors are alternating current contactors for control of circuits and consumers operating in class AC3. It is suitable for consumers with rated current up to 95A. The contactors are offered in a type with 1 NO contact for operating circuit making and the models over 40A also have 1NC operating contactor.

FUNCTIONS

- switching on/off heavy-loaded electrical circuits at controlling signal to the coil
- making of control systems
- used as an operating element in process control panels
- remarkable with high reliability of current characteristics
- reliable separation of power contactors
- secured cover of the movable part of the contactor

CONNECTING

- flexible conductors with or without cable terminal
- rigid conductors

MOUNTING

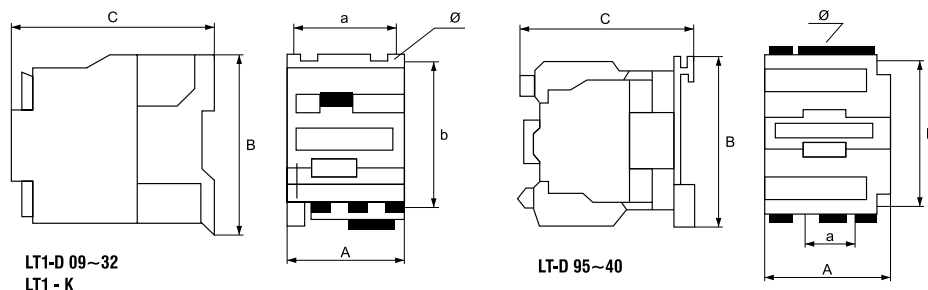
- on DIN-rail
- with bolts to the surface
- mounting position: vertical gradient-max. $\pm 5^\circ$
- Plastic: wear resistance of UV rays and nonflammable (self-extinguishing material)
- Ambient temperature: $-10^\circ\text{C} + 65^\circ\text{C}$
- Altitude: up to 2000m

TECHNICAL DATA

- Number of poles: 3
- Operation class: utilization category AC-3
- Rated operating voltage of power contactors: up to 690V; 50/60Hz
- Composition of the power contact surfaces: unalloyed copper with coating 80% AgSnO
- Surge voltage wear resistance: $>8000\text{V}$
- Rated voltage of the coil: from 12 to 400V AC
- Coil material: pure copper type QA-1
- Magnetic core material: alloy steel type 360
- Moveable part material: Bakelite
- Limits of the controlling coil voltage: operating range of coil
- Joining terminal: screw terminal
- Electrical wear resistance (number of cycles): ≥ 1000000
- Mechanical wear resistance (number of cycles): ≥ 10000000
- Number of cycles per hour: 1200 UP TO 32A; 600 for 40-95A
- Pole leaking power: up to 13W
- Pole leaking power: up to 10W

Overall dimensions (mm)

Type	a	b	Ø	A	B	C
LT1-HK 06~12/LT-1K	34/35	45	4.5	45	50	50
LT-D 09~12	34/35	50/60	4.5	47	70	82
LT1 D18	34/35	50/60	4.5	47	70	87
LT1 D25	40	48	4.5	57	80	95
LT1 D32	40	48	4.5	57	80	100
LT-D 40~65	40	100/110	6.5	77	126	116
LT-D 80~95	40	100/110	6.5	87	126	127



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

Catalogue number according to the coil voltage (V)		Type number	Rated capacity (kW)					Power consumption of coil (VA)		Rated current in AC-3 440V to up	Tightening moment (N.m)	Section of the power supply conductor	Packing/ Box (pcs)
230V	400V		220V 230V	380V 400V	415V	440V	660V 690V	closed inrush	open hold				
23061E	23062E	LT 1 - HK 0610 1NO	1.5	2.2	2.2	2.2	3	7	60	6A	1.7	0.75-2.5	1/100
23091	23092	LT1 - D0910 1NO	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1/50
23273	23270	LT1 - D0901 1NC	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1/50
23121	23122	LT1 - D1210 1NO	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1/50
23274	23280	LT1 - D1201 1NC	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1/50
23181	23182	LT1 - D1810 1NO	4	7.5	9	9	10	7	60	18A	1.7	1-4	1/50
23275	23286	LT1 - D1801 1NC	4	7.5	9	9	10	7	60	18A	1.7	1-4	1/50
23251	23252	LT1 - D2510 1NO	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1/50
23276	23292	LT1 - D2501 1NC	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1/50
23321	23322	LT1 - D3210 1NO	7.5	15	15	15	18.5	7.5	90	32A	2.5	2.5-10	1/50
23401	23402	LT1 - D4011 1NO+1NC	11	18.5	22	22	30	20	200	40A	5	2.5-16	1/20
23501	23502	LT1 - D5011 1NO+1NC	15	22	25	25	33	20	200	50A	5	6-25	1/20
23651	23652	LT1 - D6511 1NO+1NC	18.5	30	37	37	37	20	200	65A	5	6-25	1/20
23801	23802	LT1 - D8011 1NO+1NC	22	37	45	45	45	20	200	80A	9	10-50	1/15
23951	23952	LT1 - D9511 1NO+1NC	25	45	45	45	45	20	200	95A	9	10-50	1/15

Catalogue number according to the coil voltage (V)					Type number	Rated capacity (kW)					Power consumption of coil (VA)		Rated current in AC-3 440V to up	Tightening moment (N.m)	Section of the power supply conductor	Pack/ Box (pcs)
12V	24V	36V	48V	110V		220V 230V	380V 400V	415V	440V	660V 690V	closed inrush	open hold				
23063E	23064E	23065E	23066E	23067E	LT 1 - HK 0610 1NO	1.5	2.2	2.2	2.2	3	7	60	6A	1.7	0.75-2.5	1/100
23093	23094	23095	23096	23097	LT1 - D0910 1NO	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1/50
23271	23272	23277	23278	23279	LT1 - D0901 1NC	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1/50
23123	23124	23125	23126	23127	LT1 - D1210 1NO	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1/50
23281	23282	23283	23284	23285	LT1 - D1201 1NC	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1/50
23183	23184	23185	23186	23187	LT1 - D1810 1NO	4	7.5	9	9	10	7	60	18A	1.7	1-4	1/50
23287	23288	23289	23290	23291	LT1 - D1801 1NC	4	7.5	9	9	10	7	60	18A	1.7	1-4	1/50
23253	23254	23255	23256	23257	LT1 - D2510 1NO	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1/50
23293	23294	23295	23296	23297	LT1 - D2501 1NC	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1/50
23323	23324	23325	23326	23327	LT1 - D3210 1NO	7.5	15	15	15	18.5	7.5	90	32A	2.5	2.5-10	1/50
23403	23404	23405	23406	23407	LT1 - D4011 1NO+1NC	11	18.5	22	22	30	20	200	40A	5	2.5-16	1/20
23503	23504	23505	23506	23507	LT1 - D5011 1NO+1NC	15	22	25	25	33	20	200	50A	5	6-25	1/20
23653	23654	23655	23656	23657	LT1 - D6511 1NO+1NC	18.5	30	37	37	37	20	200	65A	5	6-25	1/20
23803	23804	23805	23806	23807	LT1 - D8011 1NO+1NC	22	37	45	45	45	20	200	80A	9	10-50	1/15
23953	23954	23955	23956	23957	LT1 - D9511 1NO+1NC	25	45	45	45	45	20	200	95A	9	10-50	1/15

7 YEARS TOTAL WARRANTY
+ 5 standard 2 extended
* for industrial usage 3 years warranty

FOUR POLE (4P) LOW VOLTAGE CONTACTORS LT1-D

Documents corresponding to the product:

Standard EN 60947-1; EN 60 947-4-1



LT1 25A-4P



LT1 80A-4P

LT1 D contactors are alternating current contactors for control of circuits and consumers operating in class AC3. It is suitable for consumers with rated current up to 95A. The contactors are offered in a type with 1 NO contact for operating circuit making and the models over 40A also have 1NC operating contactor.

FUNCTIONS

- Switching on/off heavy-loaded electrical circuits at controlling signal to the coil
- Making of control systems
- Used as an operating element in process control panels
- Remarkable with high reliability of current characteristics
- Reliable separation of power contactors
- Secured cover of the movable part of the contactor

CONNECTING

- Flexible conductors with or without cable terminal
- Rigid conductors

MOUNTING

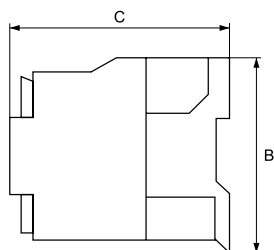
- On DIN-rail
- With bolts to the surface
- Mounting position: vertical gradient-max. $\pm 5^\circ$
- Plastic: wear resistance of UV rays and nonflammable (self-extinguishing material)
- Ambient temperature: $-10^\circ\text{C} + 65^\circ\text{C}$
- Altitude: up to 2000m

TECHNICAL DATA

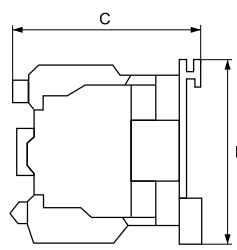
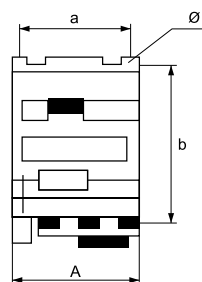
- Number of poles: 4
- Operation class: utilization category AC-3
- Rated operating voltage of power contactors: up to 690V; 50/60Hz
- Composition of the power contact surfaces: unalloyed copper with coating 80% AgSnO
- Surge voltage wear resistance: $>8000\text{V}$
- Rated voltage of the coil: from 12 to 400V AC
- Coil material: pure copper type QA-1
- Magnetic core material: alloy steel type 360
- Movable part material: Bakelite
- Limits of the controlling coil voltage: operating range of coil
- Joining terminal: screw terminal
- Electrical wear resistance (number of cycles): ≥ 1000000
- Mechanical wear resistance (number of cycles): ≥ 10000000
- Number of cycles per hour: 1200 UP TO 32A; 600 for 40-95A
- Pole leaking power: up to 13W
- Pole leaking power: up to 10W

Overall dimensions (mm)

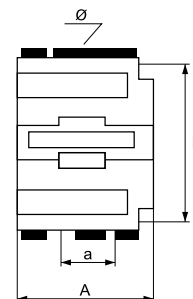
Type	a	b	\varnothing	A	B	C
LT-D 09~12	34/35	50/60	4.5	47	70	82
LT1 D25	40	48	4.5	57	80	95
LT-D 40~65	40	100/110	6.5	86	126	116/129
LT-D 80~95	40	100/110	6.5	97	126	127/140



LT1-D 09~32
LT1 - K



LT-D 95~40



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

Catalogue number according to the coil voltage (V)		Type number	Rated capacity (kW)					Power consumption of coil (VA)		Rated current in AC-3 440V to up	Tightening moment (N.m)	Section of the power supply conductor	Packing/ Box (pcs)
230V	400V		220V 230V	380V 400V	415V	440V	660V 690V	closed inrush	open hold				
234091	234092	LT1 - D0910 1NO	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1/50
234121	234122	LT1 - D1210 1NO	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1/50
234251	234252	LT1 - D2510 1NO	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1/50
234401	234402	LT1 - D4011 1NO+1NC	11	18.5	22	22	30	20	200	40A	5	2.5-16	1/20
234501	234502	LT1 - D5011 1NO+1NC	15	22	25	25	33	20	200	50A	5	6-25	1/20
234651	234652	LT1 - D6511 1NO+1NC	18.5	30	37	37	37	20	200	65A	5	6-25	1/20
234801	234802	LT1 - D8011 1NO+1NC	22	37	45	45	45	20	200	80A	9	10-50	1/15
234951	234952	LT1 - D9511 1NO+1NC	25	45	45	45	45	20	200	95A	9	10-50	1/15



Catalogue number according to the coil voltage (V)					Type number	Rated capacity (kW)					Power consumption of coil (VA)		Rated current in AC-3 440V to up	Tightening moment (N.m)	Section of the power supply conductor	Pack/ Box (pcs)
12V	24V	36V	48V	110V		220V 230V	380V 400V	415V	440V	660V 690V	closed inrush	open hold				
234093	234094	234095	234096	234097	LT1 - D0910 1NO	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1/50
234123	234124	234125	234126	234127	LT1 - D1210 1NO	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1/50
234253	234254	234255	234256	234257	LT1 - D2510 1NO	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1/50
234403	234404	234405	234406	234407	LT1 - D4011 1NO+1NC	11	18.5	22	22	30	20	200	40A	5	2.5-16	1/20
234503	234504	234505	234506	234507	LT1 - D5011 1NO+1NC	15	22	25	25	33	20	200	50A	5	6-25	1/20
234653	234654	234655	234656	234657	LT1 - D6511 1NO+1NC	18.5	30	37	37	37	20	200	65A	5	6-25	1/20
234803	234804	234805	234806	234807	LT1 - D8011 1NO+1NC	22	37	45	45	45	20	200	80A	9	10-50	1/15
234953	234954	234955	234956	234957	LT1 - D9511 1NO+1NC	25	45	45	45	45	20	200	95A	9	10-50	1/15

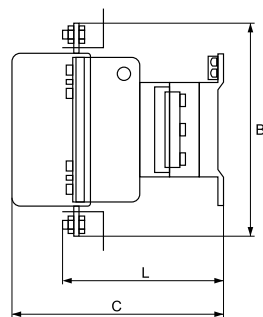
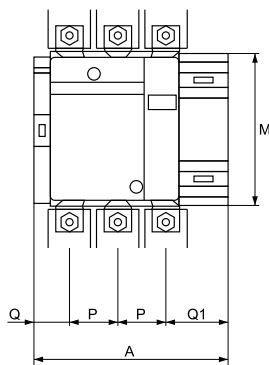


7 YEARS TOTAL WARRANTY
+ 5 standard 2 extended
* for industrial usage 3 years warranty

THREE POLE LOW VOLTAGE CONTACTORS LT1-F

Documents corresponding to the product:

Standard EN 60947-1; EN 60 947-4-1



The contactors LT 1 - F are alternating current contactors used to control circuits and consumers operating in normal working conditions with switching on /off the consumer and dirty working environment. They are suitable for consumers with electrical power consumption from 115A to 800A.

FUNCTIONS

- Frequently switching on/off heavy-loaded electrical circuits at controlling signal to the coil
- Making of systems for consumers' control
- Used as an operating element in process control panels
- Remarkable with high reliability of current characteristics
- Reliable separation of power contactors
- Secured cover of the movable part of the contactor

CONNECTING

- Flexible conductors with or without cable terminal
- Rigid conductors
- rail

MOUNTING

- With bolts to the surface
- Mounting position: vertical gradient – maximum ± 10°C

TECHNICAL DATA

- Operation class: utilization category AC-3
- Rated operating voltage of power contactors: up to 1000V; 50/60Hz
- Composition of the power contact surfaces: unalloyed copper with coating 80% AgSnO
- Surge voltage wear resistance: >8000V
- Coil composition: pure coil copper QA-1 type
- Magnetic core composition: steel alloy 360
- Movable part composition: bakelite
- Limits of the controlling coil voltage: operating range of coil
- Joining terminal: screw terminal
- Electrical wear resistance (number of cycles): ≥10000000
- Mechanical wear resistance (number of cycles): ≥10000000
- Number of cycles (switching on) per hour: 200
- Pole leaking power: from 16 to 80W
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

Overall dimensions (mm)

Type	A	B	C	L	M	Q	Q1	P
LT 1 F150	163.5	170	171	107	150	26	57.5	40
LT 1 F225	168.5	197	181	113.5	172	21	51.5	48
LT 1 F265	201.5	203	181	141	178	39	66.5	48
LT 1 F400	213	206	219	145	182	43	74	48
LT 1 F630	309	304	255	155	264	60	89	80
LT 1 F800	309	304	255	155	264	60	89	80



Catalogue number according to the coil voltage (V)					Type number	Motor rated capacity (kW)								Power consumption of coil (VA)		Rated current in AC-3 440V to up	Tightening moment (N.m)	Packing/ Box (pcs)
230V	400V	36V	48V	110V		220V	380V	415V	440V	500V	660V	1000V	closed	open				
23111	23112	23115	23116	23117	LT1 - F115	30	55	59	59	80	60	45	550	115 A	18	1/4		
23151	23152	23155	23156	23157	LT1 - F150	40	75	80	80	90	100	45	550	150 A	25	1/4		
23861	23862	23865	23866	23867	LT1 - F225	63	110	110	110	129	129	55	805	225 A	35	1/2		
23261	23262	23265	23266	23267	LT1 - F265	75	132	140	140	160	160	10	700	265 A	35	1/2		
23751	23752				LT1 - F400	110	200	220	250	257	280	18	1000	400 A	50	1/1		
23771	23772				LT1 - F630	200	335	375	400	400	450	25	1500	630 A	50	1/1		
23881	23882				LT1 - F800	250	450	450	450	450	475	15	1300	800 A	50	1/1		

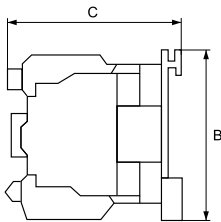
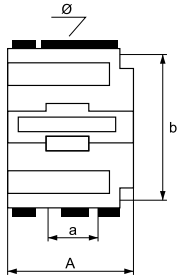
Note: At mounting the containers from the series in control schemes a distance must be provided at the side of the contactor in case of eventual coil change.

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

LOW VOLTAGE CONTACTORS WITH DIRECT CURRENT COIL LP1-D

Documents corresponding to the product:

Standard EN60947-1; EN 60947-4-1



LP1-D 09-95



The contactors LP1 D are alternating current contactors with DC operating of coil for control. The power plugs of the contactor are designed for control of alternating current circuits and consumers operating in normal operating class AC-3 with frequently switching on/ off the consumer and dirty working environment. The contactors are suitable for consumers with electrical power consumption from 9A to 225A.

FUNCTIONS

- Switching on/off alternating current consumers in direct current controlling schemes at controlling signal to the coil
- Making of systems for consumers' control
- Used as an operating element in process control panels
- Remarkable with high reliability of current characteristics
- Reliable separation of power contacts
- Secured cover of the movable part of the contactor

CONNECTING

- Flexible conductors with or without cable terminal
- Rigid conductors

MOUNTING

- on DIN-rail
- with bolts to the surface
- mounting position: vertical gradient-max. ± 5°

TECHNICAL DATA

- Rated operating voltage of the coil: from 12V DC to 220V DC
- Rated operating voltage of the power circuit: up to 690V DC
- Insulation voltage: 690V
- Surge voltage wear resistance: >8000V
- Limits of the controlling coil voltage: operating range of coil
- Joining terminal: screw terminal
- Electrical wear resistance (number of cycles): ≥10000000
- Mechanical wear resistance (number of cycles): ≥10000000
- Number of cycles per hour: 1200 up to 32A; 600 for 40-95A
- Pole leaking power: up to 13W
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

Overall dimensions (mm)

Type	A	B	C	a	b
LP 1 D0910	47	76	95	34/35	50/60
LP 1 D1210	47	76	95	34/35	50/60
LP 1 D1810	47	76	95	34/35	50
LP 1 D2510	57	86	101	40	50
LP 1 D3210	57	86	101	40	50
LP 1 D4011	77	129	176	40	100
LP 1 D5011	77	129	176	40	100
LP 1 D6511	77	129	176	40	100
LP 1 D9511	87	129	182	40	100
LP 1 F115	163.5	170	171	40	150
LP 1 F150	163.5	170	171	40	150
LP 1 F225	168.5	197	181	48	172

Catalogue number according to the coil voltage (V DC)						Type	Rated current (A)	Auxiliary contact (pcs.)	Rated capacity of the consumer (kW)					Packing/Box (pcs)
12V	24V	36V	48V	110V	230V	230V			400V	415V	440V	690V		
23962	23098	23130	23971	23980	23139	LP 1 D0910	9	1NO	2.20	4.00	4.00	4.00	5.50	1/40
23963	23128	23131	23972	23981	23140	LP 1 D1210	12	1NO	3.00	5.50	5.50	5.50	7.50	1/40
23964	23188	23132	23973	23982	23141	LP 1 D1810	18	1NO	4.00	7.50	7.50	7.50	10.0	1/30
23925	23258	23133	23974	23983	23142	LP 1 D2510	25	1NO	5.50	11.0	11.0	11.0	15.0	1/20
23966	23328	23134	23975	23984	23143	LP 1 D3210	32	1NO	7.50	15.0	15.0	15.0	18.5	1/30
23967	23408	23135	23976	23985	23144	LP 1 D4011	40	1NO+1NC	11.0	18.5	18.5	18.5	30.0	1/10
23968	23508	23136	23977	23986	23145	LP 1 D5011	50	1NO+1NC	15.0	22.0	22.0	22.0	33.0	1/10
23969	23658	23137	23978	23987	23146	LP 1 D6511	65	1NO+1NC	18.5	30.0	30.0	30.0	37.0	1/10
23970	23958	23138	23979	23988	23147	LP 1 D9511	95	1NO+1NC	25.0	45.0	45.0	45.0	45.0	1/10
		23914	23917	23989	23148	LP 1 F115	115	1NO	30.0	55.0	59.0	59.0	80.0	1/4
		23915	23918	23990	23149	LP 1 F150	150	1NO	40.0	75.0	80.0	80.0	100	1/4
		23916	23919	23994	23201	LP 1 F225	225	1NO	63.0	110	110	110	129	1/2

LOW VOLTAGE CONTACTORS FOR SWITCHING ON OF CAPACITOR BANKS CJ19-43

Documents corresponding to the product:

Standard EN60947-1; EN 60947-4-1

The AC contactors CJ19-43 are specially designed electrical devices for commutation of three phase capacitors used for power correction. They are alternating current contactor LT1 Dxx with mounted a group for peak current lowering from the transitional process of the capacitor's switching on/off. This group is a combination of current limiting resistors, switched on in the beginning of the transitional process (switching on/off of the capacitor group). The contactors are suitable for capacitors with rate up to 50 kVAR.

FUNCTIONS

- Switching on/off of capacitor banks for reactive power compensation
- Making of systems for compensation of the energy reactive component
- Lowering of the peak transitional currents at switching on/off of the capacitor
- Remarkable with high reliability of current characteristics
- Reliable separation of power contacts
- Secured part of the contactor against consumer contact
- do not allow manual operation

CONNECTING

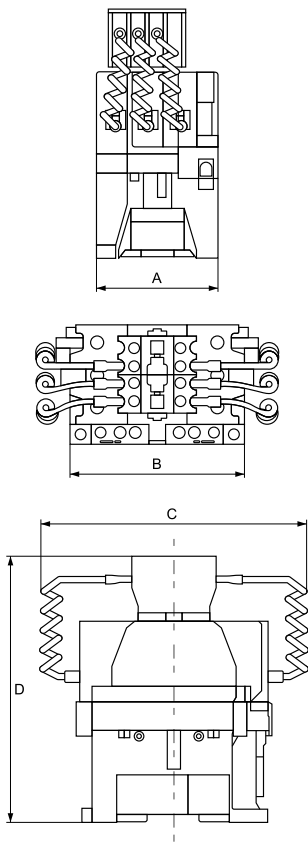
- Flexible conductors with or without cable terminal
- Rigid conductors

MOUNTING

- On DIN-rail or
- With bolts to the surface
- Mounting position: vertical gradient-max. $\pm 5^\circ$
- Plastic: wear resistance of UV rays and nonflammable (self-extinguishing material)
- Ambient temperature: $-10^\circ\text{C} + 65^\circ\text{C}$
- Altitude: up to 2000m

TECHNICAL DATA

- Operation class: utilization category AC6b
- Rated operating voltage of the controlling coil: 230V AC; 50/60Hz
- Rated operating voltage of the power circuit: up to 690V AC
- Insulation voltage: 690V
- Surge voltage wear resistance: $>8000\text{V}$
- Limits of the controlling coil voltage: from 0.8 to 1.15 U_c
- Number of the contacts: 3 NO power contacts + 1NO operative
- Joining terminal: screw terminal
- Electrical wear resistance (number of cycles): ≥ 300000
- Mechanical wear resistance (number of cycles): ≥ 1000000
- Number of cycles (switching on) per hour: up to 600
- Pole leaking power: up to 13W



Overall dimensions (mm)				
Type	A	B	C	D
CJ19-32 DPK	56	74	130	150
CJ19-40 DPK	75	127	180	150
CJ19-65 DPK	85	127	200	157
CJ19-95 DPK	85	127	200	157
CJ19-115DPK	122	165	230	157
CJ19-150DPK	122	165	230	157
CJ19-170DPK	122	165	230	157

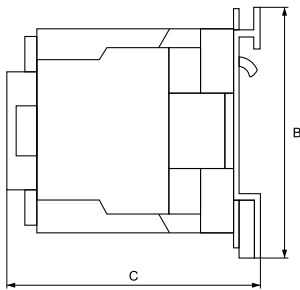
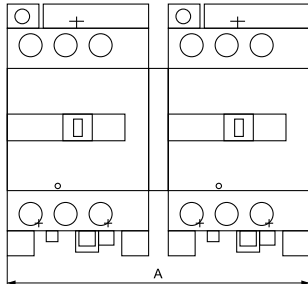
Catalogue number	Type	Rated current (A)	Rated capacity of the consumer (kVAR)		Coil voltage (V)	Packing/Box (pcs)
			400/440V	690V		
23932	CJ19-32 DPK	32	8	12.5	230	1/20
23910	CJ19-32 DPK	32	8	12.5	400	1/20
23900	CJ19-40 DPK	40	12.5	15	230	1/16
23940	CJ19-40 DPK	40	12.5	15	400	1/16
23961	CJ19-65 DPK	65	25	30	230	1/16
23965	CJ19-65 DPK	65	25	30	400	1/16
23909	CJ19-95 DPK	95	30	36	230	1/16
23995	CJ19-95 DPK	95	30	36	400	1/16
23991	CJ19-115 DPK	115	35	40	230	1/4
23992	CJ19-150 DPK	150	40	50	230	1/4
23993	CJ19-170 DPK	170	50	60	230	1/4

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

REVERSE CONTACTORS LT4-DXX

Documents corresponding to the product:

Standard EN60947-1; EN 60947-4-1



LT 4-Dxx series contactors is suitable for across- the line starting and reversing of-3 phase squirrel cage and slip ring motors. It consist of two magnetic contactors LT1D. The contactor is provided whit a built-in interlock safety mechanism. The contactor is used for reverse control of induction motors with shortly rotor. The contactors from the series are offered for consumers up to 95A.

FUNCTIONS

- Switching on of electrical motors in one direction of rotation and reversing of the rotation direction at outside command
- Making of control systems
- Remarkable with high reliability of current characteristics
- Reliable switching on or separation of power contacts
- Secured part of the contactors against consumer contact
- Secured cover of the movable part of the contactor
- Impossibility for simultaneous switching on of the two contactors from the group due to mechanical locking

CONNECTING

- Flexible conductors with or without cable terminal
- Rigid conductors

MOUNTING

- On DIN-rail or with bolts to the surface
- Mounting position: vertical gradient – max. $\pm 5^\circ$
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: $-10^\circ\text{C} + 65^\circ\text{C}$
- Altitude: up to 2000m

TECHNICAL DATA

- Operation class: AC 3
- Rated operating voltage of the controlling coil: 230V AC; 50/60 Hz
- Rated operating voltage of the power circuit: up to 690V AC
- Insulation voltage: 690V
- Surge voltage wear resistance: $>8000\text{V}$
- Limits of the controlling coil voltage: from 0.8 to 1.15 U_c
- Number of plugs: 3 NO power contacts +1NO Operative (for contactors over 40A there is also Additional 1NC contact)
- Joining terminal: screw terminal
- Electrical wear resistance (number of cycles): $\geq 1\,000\,000$
- Mechanical wear resistance (number of cycles): $\geq 10\,000\,000$
- Number of cycles (switching on) per hour: up to 600
- Pole leaking power: up to 13W ≥ 10000000
- Number of cycles per hour: 1200 up to 32A; 600 for 40-95A
- Pole leaking power: up to 13W

Overall dimensions (mm)

Type	A	B	C
LT 4 - D1810	100	70	83
LT 4 - D2510	130	80	98
LT 4 - D3210	130	80	105
LT 4 - D4011	167	126	116
LT 4 - D6511	167	126	116
LT 4 - D9511	182	127	127

Catalogue number	Type	Rated current (A)	Rated capacity of the consumer (kW)					Packing/Box (pcs)
			230V	400V	415V	440V	690V	
23301	LT 4 D1810	18	4	7.5	7.5	7.5	10	1 / 20
23302	LT 4 D2510	25	5.5	11	11	11	15	1 / 20
23303	LT 4 D3210	32	7.5	15	15	15	18.5	1 / 20
23304	LT 4 D4011	40	11	18.5	18.5	18.5	30	1 / 8
23305	LT 4 D6511	65	18.5	30	30	30	37	1 / 8
23306	LT 4 D9511	95	25	45	45	45	45	1 / 6

Note: The contactors are offered without factory cabling

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

AUXILIARY CONTACTS

Documents corresponding to the product:

Standard EN 60947-4-1



AUXILIARY CONTACTS LT01

At necessity the element provide auxiliary number of contacts. They are specially designed for mounting on the movable part of the magnetic core of the contactors LT 1K/D series.

FUNCTIONS

- Extending the number of the operative contactors up to 4 in different
- Combinations:
 - > Switches on simultaneously with the other contact system of the contactor

CONNECTING

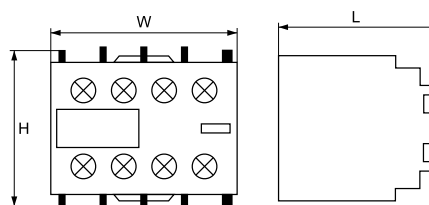
- Flexible conductors with or without cable terminal
- Rigid conductors

TECHNICAL DATA

- Operation class: AC 3
- Insulation voltage: 690V
- Joining terminal: screw terminal
- Plastic: wear resistance of UV rays and nonflammable (self-extinguishing material)

MOUNTING

- On the movable cover of the contactor through pinching
- Mounting position: vertical gradient - max. $\pm 5^\circ$



Dimensions (mm)

H	W	L	W1	W2	H2	L1	L2
32	40	35	26	45	48	6.5	37

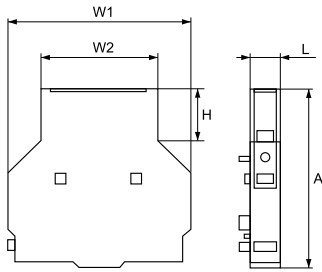
Catalogue number	Type	For Contactor Series	Number of contacts	Rated current	Section of the conductor (mm ²)
23002	LT01-DN02	LT1-D & LT1-F	2NC	6A	0,5-1
23011	LT01-DN11	LT1-D & LT1-F	NO+NC	6A	0,5-1
23020	LT01-DN20	LT1-D & LT1-F	2NO	6A	0,5-1
23022	LT01-DN22	LT1-D & LT1-F	2NO+2NC	6A	0,5-1
23040	LT01-DN40	LT1-D & LT1-F	4NO	6A	0,5-1
23004	LT01-DN04	LT1-D & LT1-F	4NC	6A	0,5-1
23001	LT01-KN11	LT1-HK	NO+NC	6A	0,5-1
23003	LT01-KN22	LT1-HK	2NO+2NC	6A	0,5-1



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

AUXILIARY CONTACTS LT03-DN11

Providing on necessity additional number of plug points and are mounted sideward to the movable part of the magnetic cores of contactors of the series LT1D till 65A. Variants with two additional plug points NO and NC are offered.



FUNCTIONS

- Expanding the number of the operational plug points
- Switching on simultaneously with the rest of the contact system of the contactor

TECHNICAL DATA

- Environment operational regime: AC 3
- Insulation voltage: 690V
- Double connector: screw connector
- Plastic: resistant to UV and non-burning (self extinguishing material)

CONNECTING

- Flexible conductors with or without cable end
- solid conductors

MOUNTING

- Mounting position- sideward to the contactor



Dimensions (mm)

W1	W2	H	L	A
73	48	22	12.5	72

Catalogue number	Type	Rated current	Section of the conductor (mm ²)
23311	LT03-DN11	6A	0,5-1



TIME DELAY CONTACT BLOCK LT02-DXX

LT02-Dxx is designed to set time intervals from 0.1 to 180s in different control schemes. It is used most frequently in combination with contactors from LT1-Dxx series to form "star/delta" starters for electrical motor control, as it provides the necessary time for motor winding.



Dimensions (mm)

W	W2	L1	h1	h2	H
33	45	48	22	14	59

Catalogue number	Type	Number of contacts	Time delay	Delay
23901	LT02-DT0	NO+NC	0.1~3s	ON
23902	LT02-DT2	NO+NC	0.1~30s	ON
23903	LT02-DT4	NO+NC	10~180s	ON
239022	LT02-DT22	NO+NC	0.1~30s	OFF



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

MODULE CONTACTORS K SERIES

Documents corresponding to the product:

Standard EN 61095



Modular contactors K series are used for commutation of mono-phase and three-phase low power electrical consumers. They provide connection between the consumers in small overall dimensions, silent work, mounting only at DIN-rails.

FUNCTIONS

- switching on of consumers
- making of control systems
- remarkable with high reliability of current characteristics
- reliable switching on or separation of power contacts

CONNECTING

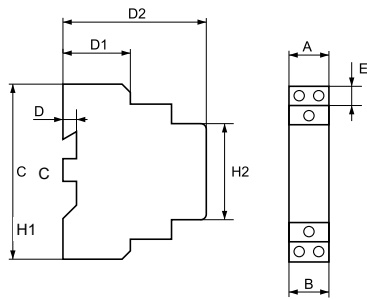
- flexible conductors with or without cable terminal
- rigid conductors

MOUNTING

- on DIN-rail or
- mounting position: vertical gradient- max.± 5°

TECHNICAL DATA

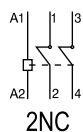
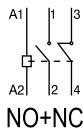
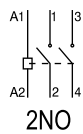
- Operation class: AC 7a
- Rated operating voltage of the controlling coil: 230V AC; 50/60 Hz
- Rated operating voltage of the power circuit: up to 690V AC
- Insulation voltage: 690V
- Surge voltage wear resistance: >8000V
- Joining terminal: screw terminal
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m



Dimensions (mm)

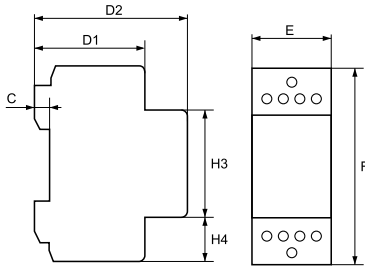
H1	C	D1	D2	A	E
81	5	31	66	18	9

Catalogue number	Type	In	Coil voltage (V)	Contacts	Packing/Box (pcs)
23008	K20	20A	230V	2NO	1/12/120
23007	K20	20A	230V	NO+NC	1/12/120
23009	K20	20A	230V	2NC	1/12/120
23012	K20	25A	230V	NO+NC	1/12/100
23013	K20	25A	230V	2NO	1/12/100
23014	K20	25A	230V	2NC	1/10/100
23015	K20	40A	230V	NO+NC	1/6/60
23016	K20	40A	230V	2NO	1/6/60
23017	K20	40A	230V	2NC	1/6/60
23080	K20	100A	230V	2NO	1/4/40
23083	K20	100A	230V	1NO+1NC	1/4/40
23084	K20	100A	230V	2NC	1/4/40



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

MODULE CONTACTORS K SERIES

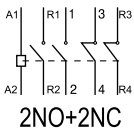
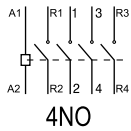


Dimensions (mm)

C	D1	D2	H3	H4	E	F
5	66	48	45	20	35	85



Catalogue number	Type	In	Coil voltage (V)	Contacts	Packing/Box (pcs)
23410	K40	25A	230V	2NO+2NC	1/6/60
23411	K40	25A	230V	3NO+1NC	1/6/60
23412	K40	25A	230V	4NO	1/6/60
23413	K40	25A	230V	4NC	1/6/60
23422	K40	40A	230V	2NO+2NC	1/4/40
23423	K40	40A	230V	3NO+1NC	1/4/40
23409	K40	40A	230V	4NO	1/4/40
23424	K40	40A	230V	4NC	1/4/40
23425	K40	63A	230V	2NO+2NC	1/4/40
23426	K40	63A	230V	3NO+1NC	1/4/40
23427	K40	63A	230V	4NO	1/4/40
23428	K40	63A	230V	4NC	1/4/40
23480	K40	80A	230V	4NO	1/2/20
23483	K40	80A	230V	2NO+2NC	1/2/20
23484	K40	80A	230V	4NC	1/2/20
23485	K40	80A	230V	3NO+1NC	1/2/20

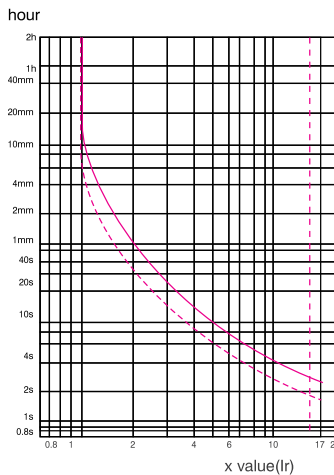
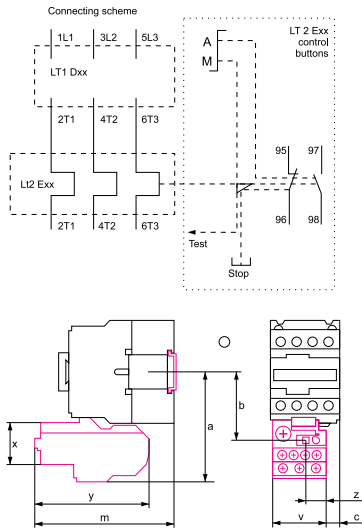


7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

THERMAL OVERLOAD RELAYS

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-4-1



LT 2 - E13xx



The thermal relays LT 2 - K/Exx series are three pole relays designed for protection of induction motors from overload or overheat. They are mounted to contactors LT 1 K/Dxx series and an operating circuit for motor control is passed through their NC contacts. They have bimetallic releases /1 per phase/ through them the motors current flows and indirectly mated. The bimetallic releases bend subject to the influence of mating and this results in tripping of the relay. The contacts change switch position. The choice of a suitable protection prevents motor's operation at unusual temperature conditions and guarantees maximum constant operation, increases the effectiveness and prolongs the term of exploitation.

FUNCTIONS

- Switching off alternating current consumers at current overload.
- Making of control systems for consumers.
- Used as a protective operating element in control panels of induction motors.
- Remarkable with high reliability of current characteristics.

CONNECTING

- Flexible or rigid conductors with or without cable terminal for joining to the consumer.
- To the contactor through the relay terminals.
- The connecting terminals with the consumer can be adjusted according to the type of the contactor.

MOUNTING

- Mounting to the contactor: to the terminals of the contactor as it is additionally clamped to its frame through a pin.
- Mounting position: vertical gradient- max. $\pm 5^\circ$

Note: To protect the consumer from short circuit, before the combination contactor- thermal relay, a suitably measured breaker or safety device should be mounted.

TECHNICAL DATA

- Rated operating voltage: up to 690V AC; 50/60 Hz
- Rated operating current range: up to 690V AC
- Insulation voltage: >690V
- Surge voltage wear resistance: $\geq 6000V$
- Joining terminal: screw terminal
- Temperature compensation: -25 +55
- Tripping category: class 10A
- Electrical wear resistance (number of cycles): ≥ 1000000
- Mechanical wear resistance (number of cycles): ≥ 10000000
- Indication for protection activating
- Possibility for choice of the protection restoring (through the blue button)
- Possibility for range adjustment of the protection activating
- Possibility for operation at higher frequency
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: $-10^\circ C + 65^\circ C$
- Installation altitude: up to 2000m

Dimensions (mm)

Type	a	b	c	m	x	y	v	z
LT 2 - E13xx	86	55	10.7	108	47	92	44	17
LT 2 - Kxx	81	50	0	98	47	92	44	17
LT 2 - E23xx	86	55	9	109	47	92	44	17
LT 2 - E33xx	115	76	9.5	124	54	109	70	30

Catalogue number	For contactor LT1-D9 to LT1-D25 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing/Box (pcs)
		220V 230V	380V 400V	660V 690V			
13001	LT2-E1301	-	-	-	0.16	0.10 - 0.16	1 / 100
13002	LT2-E1302	-	-	-	0.25	0.16 - 0.25	1 / 100
13003	LT2-E1303	-	-	-	0.40	0.25 - 0.40	1 / 100
13004	LT2-E1304	-	-	0.37	0.63	0.40 - 0.63	1 / 100
13005	LT2-E1305	-	-	0.55	1.00	0.63 - 1.00	1 / 100
13006	LT2-E1306	-	0.37	1.10	1.60	1.0 - 1.60	1 / 100
13007	LT2-E1307	0.37	0.75	1.50	2.50	1.6 - 2.50	1 / 100
13008	LT2-E1308	0.75	1.50	3.00	4.00	2.5 - 4.00	1 / 100
13010	LT2-E1310	1.10	2.20	4.00	6.00	4.0 - 6.00	1 / 100
13012	LT2-E1312	2.00	3.70	5.50	8.00	5.5 - 8.00	1 / 100
13014	LT2-E1314	2.20	4.00	7.50	10.0	7.0 - 10.0	1 / 100
13016	LT2-E1316	3.70	5.50	11.0	13.0	9.0 - 13.0	1 / 100
13021	LT2-E1321	4.00	7.50	15.0	18.0	12.0 - 18.0	1 / 100
13022	LT2-E1322	5.50	9.00	18.5	25.0	17.0 - 25.0	1 / 100
13053	LT2-E1353	9.00	11.0	18.5	33.0	23.0 - 32.0	1 / 100



LT 2 - Kxx

Catalogue number	For contactor LT1-K06 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing/Box (pcs)
		220V 230V	380V 400V	660V 690V			
13403	LT2-K0303	-	-	-	0.30	0.25 - 0.30	1/100
13406	LT2-K0306	-	0.37	1.10	1.20	1.00-1.60	1/100
13407	LT2-K0307	0.37	0.75	1.50	1.80	1.60-2.50	1/100
13408	LT2-K0308	0.75	1.10	2.20	2.60	2.50-4.00	1/100
13411	LT2-K0312	1.10	2.20	4.00	5.50	3.70 - 5.50	1/100
13412	LT2-K0314	2.20	4.00	5.50	8.00	5.50 - 8.00	1/100
13413	LT2-K0316	3.00	5.00	7.50	11.5	8.00 - 11.5	1/100



LT 2 - E23xx

Catalogue number	For contactor LT1-D32 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing/Box (pcs)
		220V 230V	380V 400V	660V 690V			
13253	LT2-E2353	11	11	18.5	32	23.0 - 32.0	1 / 100
13255	LT2-E2355	15	15	22.0	36	28.0 - 36.0	1 / 100



LT 2 - E33xx

Catalogue number	For contactor LT1-D40 to LT1-D95 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing/Box (pcs)
		220V 230V	380V 400V	660V 690V			
13355	LT2-E3355	18.5	18.5	30	40	30.0 - 40.0	1 / 50
13357	LT2-E3357	22	22	30	50	37.0 - 50.0	1 / 50
13359	LT2-E3359	30	30	37	65	48.0 - 65.0	1 / 50
13363	LT2-E3363	45	45	55	80	63.0 - 80.0	1 / 50
13365	LT2-E3365	55	55	75	93	80.0 - 93.0	1 / 50



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty



Catalogue number	For contactor LT1-F115 to LT1-F150	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing/Box (pcs)
		220V 230V	380V 400V	660V 690V			
13367	LT2-F4367	40	75	100	150	90-150	1/30



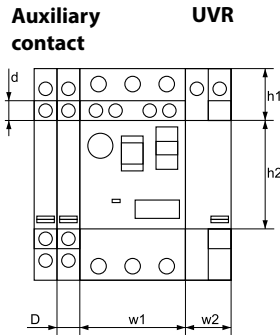
Catalogue number	For contactor LT1-F225 to LT1-F400	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing/Box (pcs)
		220V 230V	380V 400V	660V 690V			
13368	LT2-F4368	63	110	129	220	132-220	1/30
13369	LT2-F4369	100	160	220	330	200-330	1/18
13370	LT2-F4370	147	250	335	500	300-500	1/18

For contactor LT1-F630

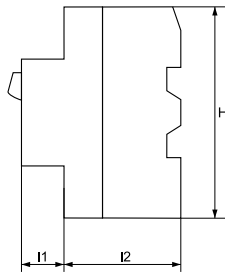
13371	LT2-F4371	200	335	450	630	380-630	1/18
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THERMO MAGNETIC AUTOMATIC BREAKERS TM2/TM3



Dimensions



The thermomagnetic automatic breakers TM 2-Exx series are devices designed for control and protection of induction motors from overload, overheat or short circuit. The overload motor protection is carried out by the built in the breaker thermal elements, and the short circuit protection is carried out by the magnetic elements. These magnetic elements allow the adjustment of the current leakage which is 13 times the maximum current of the thermal protection. The overload protection elements include automatic compensation for the ambient temperature changes. In combination with under voltage release the thermomagnetic breaker TM 2-Exx also provides protection of the motors from fall out of a phase from the power supply. The choice of a suitable protection prevents motor's operation at unusual temperature conditions and guarantees maximum constant operation, increases the effectiveness and prolongs the term of exploitation.

FUNCTIONS

- Switching off alternating current consumers at current overload
- Switching off the electrical circuit to the consumer at inlet short circuit
- Protects the motor at lack/lowering of the phase voltage (if there is under voltage release)
- Used as a protective operating element in control panels of induction motors
- Remarkable with high reliability of current characteristics
- Possibility for change/choice of the protection current (according to the operating current of the motor)
- Automatic compensation of the ambient temperature

CONNECTING

- Flexible or rigid conductors with or without cable terminal for joining to the consumer
- To the contactor through the relay terminals
- The connecting terminals with the consumer can be adjusted according to the type of the contactor

MOUNTING

- Mounting to DIN-rail
- Mounting position: vertical gradient- max.± 5°

TECHNICAL DATA

- Rated operating voltage: up to 690V AC; 50/60 Hz
- Rated operating current range: from 0.1 to 80A according to the type in table 1
- Insulation voltage: 690V
- Surge voltage wear resistance: ≥6000V
- Joining terminal: screw terminal
- Electrical wear resistance (number of cycles): ≥1000000
- Mechanical wear resistance (number of cycles): ≥10000000
- Indication for protection activating
- Switching on of the breaker manually with button "I" and switching off with button "O" manually or automatically at failure or after activating of the protection
- Possibility for range adjustment of the protection activating
- Possibility for operation at higher frequency
- Possibility for independent operation or as an element of an automation system
- Tripping category: class 10A
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

Dimensions (mm)

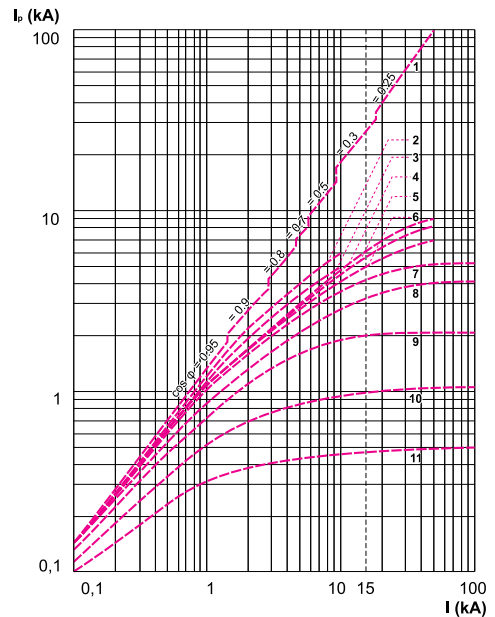
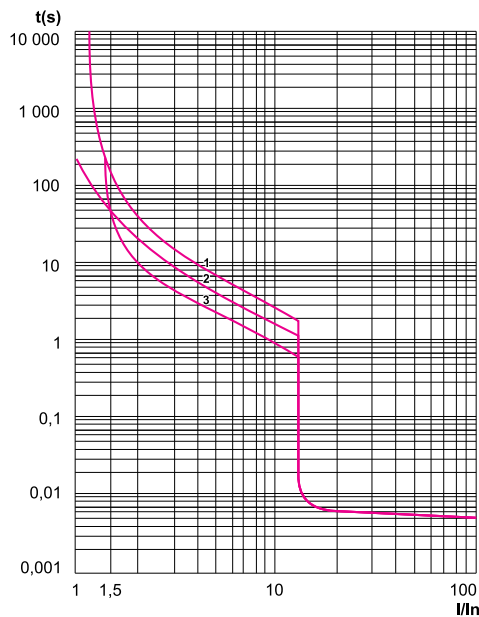
H	l1	l2	d	D	w1	w2	h1	h2
89	16	50	10	9.2	44.5	18	22	45



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty



Catalogue number	Type	Rated capacity of three-phase motor in AC-3 category					Instantaneous short-circuit release (A)	Current setting range (A)	Thermal current I _{th} TM2-E (A)	Packing/Box (pcs)
		220V 230V	400V 410V	440V	500V	690V				
48001	TM2-E01	-	-	-	-	-	1.5	0.1 - 0.16	0.16	1 / 50
48002	TM2-E02	-	0.06	0.06	-	-	2.4	0.16 - 0.25	0.25	1 / 50
48003	TM2-E03	0.06	0.09	0.09	-	-	5.0	0.25 - 0.40	0.40	1 / 50
48004	TM2-E04	-	0.12	0.18	-	0.37	8.0	0.40 - 0.63	0.63	1 / 50
48005	TM2-E05	0.09	0.25	0.25	0.37	0.55	13.0	0.63 - 1.00	1	1 / 50
48006	TM2-E06	0.18	0.37	0.37	0.37	0.75	22.5	1 - 1.60	1.6	1 / 50
48007	TM2-E07	0.37	0.75	0.75	1.10	1.50	33.5	1.6 - 2.50	2.5	1 / 50
48008	TM2-E08	0.55	1.10	1.50	1.50	2.20	51.0	2.5 - 4.00	4	1 / 50
48010	TM2-E10	1.10	2.20	2.20	3.00	4.00	78.0	4 - 6.30	6.3	1 / 50
48014	TM2-E14	1.50	3.00	4.00	4.00	5.50	138	6 - 10.0	9	1 / 50
48016	TM2-E16	2.20	5.50	5.50	7.50	9.00	170	9 - 14.0	13	1 / 50
48020	TM2-E20	4.00	7.50	7.50	9.00	15.0	223	13 - 18.0	17	1 / 50
48021	TM2-E21	5.50	9.00	11.0	11.0	18.5	327	17 - 23.0	21	1 / 50
48022	TM2-E22	5.50	11.0	11.0	15.0	22.0	327	20 - 25.0	23	1 / 50
48032	TM2-E32	7.50	15.0	15.0	18.5	22.0	416	24 - 32.0	24	1 / 50
48040	TM3-E40	11.0	18.5	22.0	25.0	33.0	480	25 - 40.0	32	1 / 15
48063	TM3-E63	15.0	30.0	33.0	40.0	55.0	550	40 - 63.0	50	1 / 15
48080	TM3-E80	22.0	40.0	45.0	55.0	63.0	665.5	56 - 80.0	64	1 / 15



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

ACCESSORIES FOR TM2

Documents corresponding to the product:

Standard EN 60947-1
EN 60 947-2; EN 60947-4-1



VOLTAGE RELEASE (VR) FOR TM2

For increasing the effectiveness of the thermomagnetic breakers TM 2-Exx operation, they can be supplied with auxiliary devices, designed for widening the practice range and improving the technical characteristics of the breakers. The release is designed to switch off the thermomagnetic breaker when the controlling voltage falls under breaking level 0.55 to 0.7 UN and does not allow switching on of the breaker unless the voltage is over 0.85 Un.

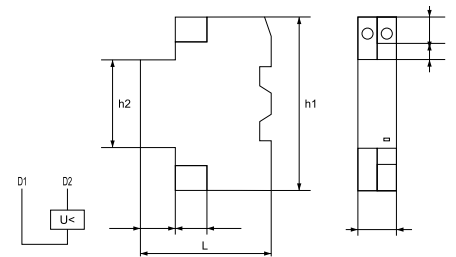
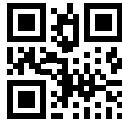
FUNCTIONS

- Switching off the breaker at power supply voltage fall under 0.55 – 0.7 Un
- does not allow switching on of the breaker when the power supply voltage is under 0.85 Un
- Prevents unwarranted secondary start of the breaker at falling off and restoring of the power supply voltage
- Protects the motor at lack/lowering of the phase voltage
- Used as a protective operating element in control panels of induction motors
- Remarkable with high reliability of current characteristics

MOUNTING

- Laterally to a breaker
- At the side of the breaker through special openings

Catalogue number	Type	Voltage (V)
48099	TM2 AU225	230
48098	TM3 AU385	400



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

Documents corresponding to the product:

Standard EN 60529
EN 60 947-2; EN 60947-4-1



WATERTIGHT BOX FOR TM2-E

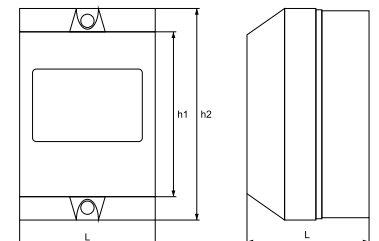
Specially designed plastic box with silicon screen for increasing the IP code from dust and moisture to IP 65. Designed for thermal-magnetic circuit breakers of up to 32A

MOUNTING

- Mounting position: vertical gradient, maximum $\pm 5^\circ$
- Mounted to horizontal surfaces (walls) with bolts
- The breaker TM2 Exx is fixed inside of it on rail material

Plastic wear resistance of UV rays and non flammable (self-extinguishing material)

Catalogue number	Type
8083	TM2 E





AUXILIARY CONTACT BLOCK TM2 AE11- FRONT MOUNTING

It is designed to switch on operational systems or signalization. Designed with one NO and one NC contact. It changes the position of its contacts according to the position of the breaker (switched on/ off) to which it is mounted.

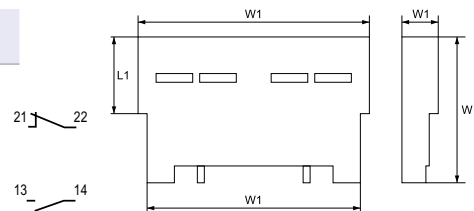
TECHNICAL DATA

- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

MOUNTING

- Laterally to a breaker TM2-Exx

Catalogue number	Type
48912	TM2 AE11



AUXILIARY CONTACT BLOCK TM2 AE11- SIDE MOUNTING

It is designed to switch on operational systems or signalization. Designed with one NO and one NC contact. It changes the position of its contacts according to the position of the breaker (switched on/ off) to which it is mounted.

TECHNICAL DATA

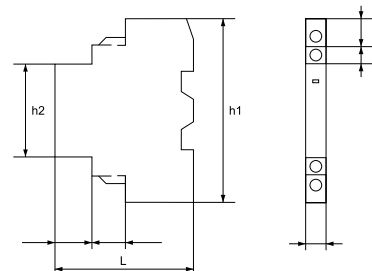
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

MOUNTING

- Laterally to a breaker TM2-Exx



Catalogue number	Type
48911	TM2 AN11
48913	TM3 AN11



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

STARTERS FOR DIRECT START

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-4-1



With thermal overload relays

The electromagnetic starters LT 5 Dxx series are devices designed for remote control, direct control and protection of induction motors or other electrical consumers. They are a combination of contactors LT 1 Dxx series and thermal protection LT 2 Exx factory cabled. The starters are offered on the market in metal or plastic boxes with the corresponding IP code from dust and moisture. At mounting there should be provided protection of the device from short circuit through breakers or disconnectors. If necessary, at client's order the factory mounted thermal protection in the pneumatic starter can be substituted. The choice of a suitable protection prevents motor's operation at unusual temperature conditions and guarantees maximum constant operation, increases the effectiveness and prolongs the term of exploitation.

FUNCTIONS

- Switching on/off alternating current consumers
- Does not allow secondary unwarranted switching on of the starter at transitory lowering of the voltage
- Protects the motor from overload in the range of the corresponding thermal protection
- Remarkable with high reliability of current characteristics

CONNECTING

- Flexible or rigid conductors with or without cable terminal for joining to the consumer and section according to the motor power
- Two by two inlets/outlets supplied with orifices for the cables

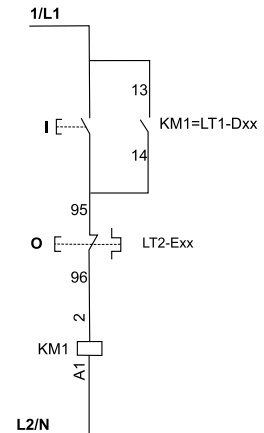
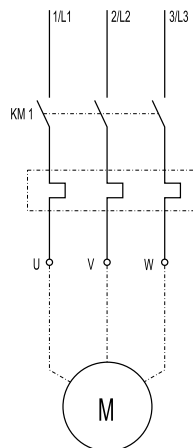
MOUNTING

- Mounting to a flat surface (wall) with bolts/screws
- Mounting position: vertical gradient, max. $\pm 5^\circ$

TECHNICAL DATA

- Rated voltage of the controlling voltage: 230/400V AC; 50/60 Hz
- Rated operating voltage: 690V
- Rated operating current range: from 7 to 93 A AC
- Insulation voltage: 690V
- Surge voltage wear resistance: $\geq 6000V$
- Joining terminal: screw terminal
- Little power consumption and small dimensions
- Possibility for range adjustment of the protection activating
- IP code: IP 44
- Possibility for operation at higher frequency
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Metal corpus: corrosion-proof coating
- Ambient temperature: $-10^\circ C + 65^\circ C$
- Altitude: up to 2000m

Note: In case you need different controlling coils voltage of the starters you can turn to our regional representatives.

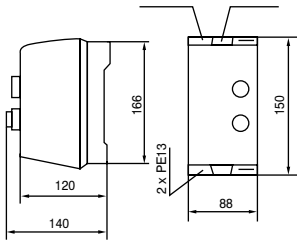


7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty



2 x PE13 2 x Ø5.5

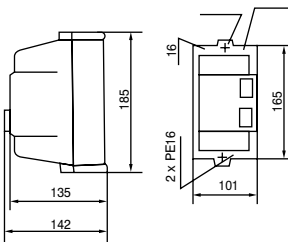


Catalogue number	Type	Rated capacity of motors 50/60Hz AC-3 category			Rated current (A)	Thermal relay adjustment range	Coil voltage (V)	Packing/ Box (pcs)
		220V 230V	380V 400V	415V 440V				
43091	LT5 D093	2.2	4.0	4.0	9	7 .. 10A	230	1/16
43092	LT5 D093	2.2	4.0	4.0	9	7 .. 10A	400	1/16
43121	LT5 D123	3.0	5.5	5.5	12	9 .. 13A	230	1/16
43122	LT5 D123	3.0	5.5	5.5	12	9 .. 13A	400	1/16
43181	LT5 D185	4.0	7.5	9.0	18	12 .. 18A	230	1/16
43182	LT5 D185	4.0	7.5	9.0	18	12 .. 18A	400	1/16

Note: Upon request the thermal relay will be replaced

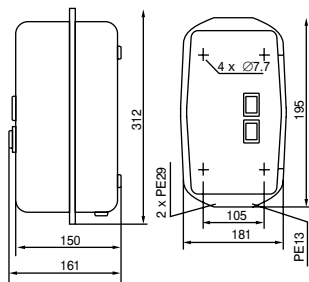


2 x Ø5.5 PE13



Catalogue number	Type	Rated capacity of motors 50/60Hz AC-3 category			Rated current (A)	Thermal relay adjustment range	Coil voltage (V)	Packing/ Box (pcs)
		220V 230V	380V 400V	415V 440V				
43251	LT5 D255	5.5	11	11	25	17 .. 25A	230	1/16
43252	LT5 D255	5.5	11	11	25	17 .. 25A	400	1/16
43321	LT5 D325	7.5	15	15	32	23 .. 32A	230	1/16
43322	LT5 D325	7.5	15	15	32	23 .. 32A	400	1/16

Note: Upon request the thermal relay will be replaced



Catalogue number	Type	Rated capacity of motors 50/60Hz AC-3 category			Rated current (A)	Thermal relay adjustment range	Coil voltage (V)	Packing/ Box (pcs)
		220V 230V	380V 400V	415V 440V				
43401	LT5 D405	11.0	18.5	22	40	30 .. 40A	230	1/6
43402	LT5 D405	11.0	18.5	22	40	30 .. 40A	400	1/6
43651	LT5 D655	18.5	30.0	37	65	48 .. 65A	230	1/6
43652	LT5 D655	18.5	30.0	37	65	48 .. 65A	400	1/6
43951	LT5 D955	25.0	45.0	45	95	80 .. 93A	230	1/6
43952	LT5 D955	25.0	45.0	45	95	80 .. 93A	400	1/6

Note: Upon request the thermal relay will be replaced



"STAR/DELTA" STARTER

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-4-1



The electromagnetic starters LT 3 Dxx series are devices designed for remote control, direct control and protection of induction motors coiled and operating according to a starter scheme "star/delta". They are a combination of three contactors LT 1 Dxx series, time relay and a set of buttons "start" and "stop" factory cabled. They provide the easy motor unwinding giving possibility for setting the time for unwinding in "star" as the time for switching between "star" and "delta" is fixed to 0.5 seconds. The starters are offered on the market in two types:

- closed type – metal boxes providing the corresponding IP code from dust and moisture (IP 54) as at mounting there should be provided protection of the device from short circuit through breakers or disconnectors
- open type – for mounting in distribution boxes as at mounting there should be provided protection of the device from short circuit through breakers or disconnectors.

The starters are offered on the market without mounted thermal protection which is purchased separately according to the motor capacity. The choice of a suitable protection prevents motor's operation at unusual temperature conditions and guarantees maximum constant operation, increases the effectiveness and prolongs the term of exploitation. If necessary, at client's order the power supply operating voltage of the pneumatic starter can be changed.

FUNCTIONS

- switching on/off alternating current three phase motors operating according to a scheme "star - delta"
- does not allow secondary unwarranted switching on of the starter at transitory lowering of the voltage
- protects the motor from overload in the range of the corresponding thermal protection
- indication of the operating condition through a valve indicator
- possibility for mounting of additional contacts (for the open type)
- remarkable with high reliability of current characteristics

CONNECTING

- flexible or rigid conductors with or without cable terminal for joining to the consumer and section according to the motor power
- three by three inlets/outlets supplied with orifices for the cables

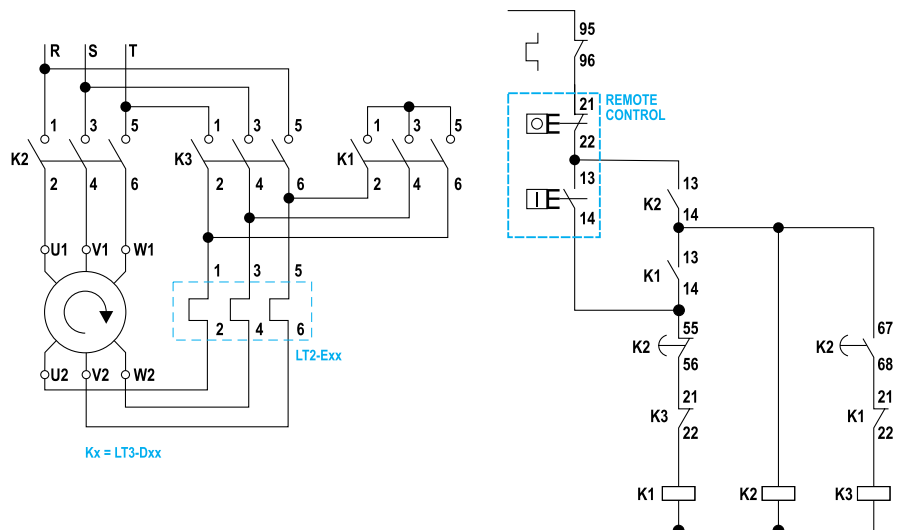
TECHNICAL DATA

- Rated voltage of the controlling voltage: 400V AC; 50/60 Hz
- Rated operating voltage: 690V
- Rated operating current range: from 7 to 93A AC
- insulation voltage: >690V
- Surge voltage wear resistance: ≥6000V
- Joining terminal: screw terminal
- Little power consumption and small dimensions
- Possibility for operation at higher frequency
- IP code: IP54
- The metal body is covered with corrosion-proof paint
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

MOUNTING

- mounting to a flat surface (wall) with bolts/screws
- mounting position: vertical gradient, max. ± 5°

Note: In case you need different controlling coils voltage of the starters you can turn to our regional representatives.



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

"STAR/DELTA" STARTER WITHOUT BOX



Overall dimensions (mm)

Type designation (without box)	height	width	depth
LT3-D25A	135	170	160
LT3-D32A	135	170	160
LT3-D40A	150	285	190
LT3-D65A	150	285	190
LT3-D95A	150	310	190

Catalogue number	Type designation (without a box)	Rated capacity (kW)				Rated current (A)	Coil voltage (V AC)	Packing/Box (pcs)
		220V 230V	380V 400V	415V	440V			
43253	LT3-D25A	11	15	15	15	25	400	1/6
43323	LT3-D32A	15	18.5	18.5	18.5	32	400	1/6
43403	LT3-D40A	18.5	22	22	22	40	400	1/4
43653	LT3-D65A	30	55	55	55	65	400	1/4
43953	LT3-D95A	37	75	75	75	95	400	1/4

Note: It is necessary that thermal protection with suitable range is mounted to protect the controlled motor. The shown values of magnetic starters are for normal regimes for motor control, for hard operation regimes are chosen starters which correspond to the current rating of the motor.



"STAR/DELTA" STARTER WITH BOX



Overall dimensions (mm)

Type designation (with box)	height	width	depth
LT 3 -B-D25A	370	240	160

Catalogue number	Type designation (with box)	Rated capacity (kW)				Rated current (A)	Coil voltage (V AC)	Packing/Box (pcs)
		220V 230V	380V 400V	415V	440V			
43254	LT 3 - B - D25A	11	15	15	15	25	400	1/4

Note: It is necessary that thermal protection with suitable range is mounted to protect the controlled motor. The shown values of magnetic starters are for normal regimes for motor control, for hard operation regimes are chosen starters which correspond to the current rating of the motor.

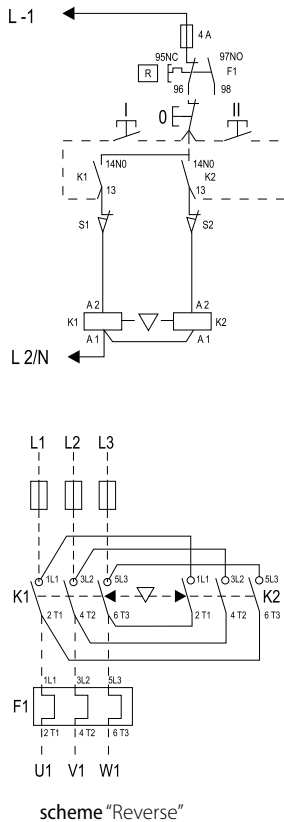


7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended
* for industrial usage
3 years warranty

REVERSE STARTER

Documents corresponding to the product:

Standard EN 60947-1
EN 60947-4-1



The electromagnetic starters LT4 Dxx series are devices used for direct start, reverse start and protection of induction motors with short connected rotor. They are a combination of two contactors LT1 Dxx series supplied with two buttons "start" and one "stop" factory cabled. They provide the unwinding of the motor in one of the directions with possibility for pushing the button "stop" and giving command from the other "start" for changing the motor winding direction. The two contactors are mechanically blocked and do not allow simultaneous start in both winding directions. The starters are offered – closed type in metal boxes providing the corresponding IP code from dust and moisture (IP54) as at mounting there should be provided protection of the device from short circuit through breakers or disconnectors. The starters are offered with mounted thermal protection which can be substituted according to the motor power. The choice of a suitable protection prevents motor's operation at unusual temperature conditions and guarantees maximum constant operation, increases the effectiveness and prolongs the term of exploitation. If necessary, at order the power supply operating voltage of the pneumatic starter can be changed.

FUNCTIONS

- Switching on alternating current three phase motors in one winding direction, switching off and change of the winding direction at giving a signal
- Does not allow secondary unwarranted switching on of the starter at transitory lowering of the voltage
- Protects the motor from overload in the range of the corresponding thermal protection
- Remarkable with high reliability of current characteristics through a valve indicator
- Possibility for mounting of additional contacts (for the open type)
- Remarkable with high reliability of current characteristics

CONNECTING

- Flexible or rigid conductors with or without cable terminal for joining to the consumer and section according to the motor power
- Three by three inlets/outlets supplied with orifices for the cables

TECHNICAL DATA

- Rated voltage of the controlling voltage: 400V AC;
- 50/60 Hz• Rated operating voltage: 690V
- Rated operating current range: from 7 to 93 A AC
- Insulation voltage: 690V
- Surge voltage wear resistance: ≥6000V
- Joining terminal: screw terminal
- Little power consumption and small dimensions
- Possibility for operation at higher frequency
- IP 44
- The metal body is covered with corrosion-proof paint
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

MOUNTING

- Mounting to a flat surface (wall) with bolts/screws
- Mounting position: vertical gradient, max. ± 5°

Note: In case you need different controlling coils voltage of the starters you can turn to our regional representatives.



with thermal overload relays

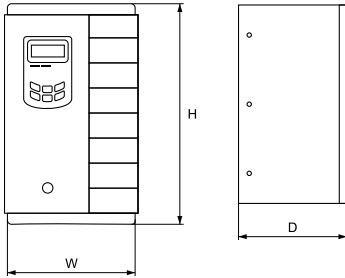
Catalogue number	Type designation (with a box)	Rated capacity (kW)				Overall dimensions (mm)			Rated current (A)	Coil voltage (V AC)	Packing/Box (pcs)
		220V	380V	415V	440V	height	width	depth			
43001	LT 4 - B - D25A	11.0	15.0	15.0	15.0	240	240	160	25	400	1/8
43003	LT 4 - B - D40A	18.5	22.0	22.0	22.0	270	265	160	40	400	1/2
43005	LT 4 - B - D95A	37.0	75.0	75.0	75.0	270	265	160	95	400	1/4
43006	LT 4 - B - D25A	11.0	15.0	15.0	15.0	240	240	160	25	230	1/4
43007	LT 4 - B - D32A	15.0	18.5	18.5	18.5	240	240	160	32	230	1/4
43008	LT 4 - B - D40A	18.5	22.0	22.0	22.0	270	265	160	40	230	1/4
43009	LT 4 - B - D65A	30.0	55.0	55.0	55.0	270	265	160	65	230	1/4
43010	LT 4 - B - D95A	37.0	75.0	75.0	75.0	270	265	160	95	230	1/4



ELM 2000+ FREQUENCY INVERTERS

Documents corresponding to the product:

Standard EN61800-3
EN61800-5-1



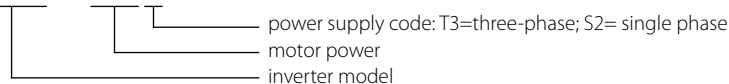
High-tech motor control concept, based on advanced DSP-technology - ready for V/Hz, SENSORLESS VECTOR, CLV and PMM motor control - intelligent AUTOTUNING functions for easy setup.
Flexible inverter control, dual high resolution analogue inputs, free mappable digital I/O channels. Ready for all commonly used fieldbus systems.
Universal function-set for all kind of industrial and residential applications, including integrated PID/pump controller routines.
Smart PC-tools, for inverter control, parametrization and troubleshooting. Parameter-duplication stick.
Brake chopper integrated.

TECHNICAL DATA

- Power range:
 - 0,4.....400 kW
- Power input:
 - Rated input voltage- 1-Phase 220V~240V~±15%); 3-Phase 380V-460V (+/-)15%
 - Input frequency- 44...67 Hz
- Motor output:
 - Output frequency- 0-650 Hz
 - Frequency resolution- 0,01 Hz
 - Overload capability- 150% - 60 sec. / 10 min
- Control mode:
 - Motor control algorithm- V/Hz-SpaceVec- tor, SLVSENSORLESS VECTOR, Torque/Speed control
 - mode CLV-Closed loop vector, Permanent Magnet Synchronous Motor
 - Chopper frequency- 0.8... 16 kHz (fixed / random)
 - V/Hz curve- Linear, exponential, and user-programmable curve
 - Starting torque- 150% rated torque at 0,5 Hz (in SLV Mode)
 - Torque compensation- Automatic / Manual
 - Motor data input- Manual, from nameplate / AUTOTUNING
 - Control range- 1:100 in SLV mode, 1:1000 in CLV mode, 1:20 in PMSM mode
 - Speed precision +/- 0,5% (SLV), +/- 0.02% (CLV)
 - Torque precision +/- 5% (SLV)
 - DC-Brake- User programmable functions
 - Brake chopper- Chopper transistor integrated (up to 90 kW)
- Display:
 - 7 segment, 4 characters
 - Config-Parameters and -value, programmable to display various working parameters
- I/O Channels and control functions:
 - Inverter control- Via terminals / Keypad / Serial link (or combination of all)
 - Digital inputs- 6 (8) Dig. inputs (NPN-PNPselectable) pulstrain-input
 - Speed reference input- Potentiometer (on keypad unit, external), analogue signal (terminals),
 - keypad, internal programmable value, pulstrain, serial link
 - Analogue channels- analogue channels - 12 BIT: 0...10V, 0...5V, -10V...0...10V, 0..(4)20 mA,
 - all free scalable in gain and offset, and-mathematically concatenable
 - Analogue outputs- 2 analogue outputs, programmable in gain and function (0...10V, 0(4)..20 mA)
 - Digital outputs- 2 digital outputs (free mapping to different functions)
 - Relais output- 1 switchover contact 3A 250VAC/30VDC (programmable assignment)
 - Data link- Serial link RS 485 (MODBUS)
 - Special functions- 24V / 50 mA auxiliary power supply on terminals, 10V potentiometer power
 - supply, 5V/100 mA power supply on modbus connector Simple PTC / KLIXON motor protection
- Protection:
 - Electrical- Overvoltage, undervoltage
 - Overcurrent, overload, motor-overload, output short-circuit
 - Thermal- Heatsink overtemperature, I²xt motorprotection
- Operating conditions:
 - Protection class IP20
 - Working temperature -10+50 °C
 - Humidity- 0 to 95% RH, non-condensing, noncorrosive
 - Altitude- 1000 m, above 1% derating / 100m
 - Vibration- Max. 0,5 g

Type of sign

ELM2000+ 0015 T3



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



Scan and watch detailed video with all product functions.



FREQUENCY INVERTERS ELM 2000

Catalogue number	Type	Input voltage (V)	Maximum output power (kW)	Maximum current output (A)	Dimensions WxDxH (mm)	Weights (kg)
423400P	E2000-0004 S2B	230	0.4	2.5A	80x140x135	1.40
423401P	E2000-0007 S2B	230	0.7	4.5A	80x140x135	1.50
423402P	E2000-0015 S2B	230	1.5	7A	106x180x150	2.00
423403P	E2000-0022 S2B	230	2.2	10A	106x180x150	2.10
423404P	E2000-0007 T3	400	0.7	2A	106x180x150	2.00
423405P	E2000-0015 T3	400	1.5	4.6A	106x180x150	2.10
423406P	E2000-0022 T3	400	2.2	6.5A	106x180x170	2.20
423407P	E2000-0030 T3	400	3.0	7A	138x235x152	2.50
423408P	E2000-0040 T3	400	4.0	9A	138x235x152	3.00
423409P	E2000-0055 T3	400	5.5	12A	156x265x170	3.50
423410P	E2000-0075 T3	400	7.5	17A	156x265x170	4.50
423411P	E2000-0110 T3	400	11.0	23A	205x340x196	4.80
423412P	E2000-0150 T3	400	15.0	32A	205x340x196	8.00
423413P	E2000-0185 T3	400	18.5	38A	205x340x196	8.50
423414P	E2000-0220 T3	400	22.0	44A	270x435x235	9.00
423415P	E2000-0300 T3	400	30.0	60A	315x480x235	22.50
423416P	E2000-0370 T3	400	37.0	75A	315x480x235	24.00
423417P	E2000-0450 T3	400	45.0	90A	360x555x265	24.50
423418P	E2000-0550 T3	400	55.0	110A	360x555x265	41.50
423419P	E2000-0750 T3	400	75.0	150A	410x650x300	42.00
423420P	E2000-0900 T3	400	90.0	180A	410x650x300	56.00
423421P	E2000-1100 T3	400	110.0	220A	516x765x326	56.50
423422P	E2000-1320 T3	400	132.0	265A	560x910x342	87.00
423423P	E2000-1600 T3	400	160.0	320A	560x910x342	123.00
423424P	E2000-1800 T3	400	180.0	360A	400x1310x385	124.00
423425P	E2000-2000 T3	400	200.0	400A	535x1340x380	125.00
423426P	E2000-2200 T3	400	220.0	440A	535x1340x380	185.00
423427P	E2000-2500 T3	400	250.0	480A	600x1465x380	186.00
423428P	E2000-2800 T3	400	280.0	530A	600x1465x380	225.00
423429P	E2000-3150 T3	400	315.0	580A	600x1465x380	230.00
423430P	E2000-3550 T3	400	355.0	640A	600x1600x388	233.00
423431P	E2000-4000 T3	400	400.0	690A	600x1600x388	234.00

ACCESSORIES FOR FREQUENCY INVERTERS ELM2000 & ELM600



LCD REMOTE FRAME SIZE
KEYPAD FOR CABINET IP66
423432P



CABLE FOR REMOTE KEYPAD
IP66 - 1.5meter
423433P



PARAMETER
COPY STICK
423434P

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

FREQUENCY INVERTERS ELM 600, SERIES



Scan and watch detailed video with all product functions.



FEATURES

- Best performance/cost ratio, without compromise in reliability and quality.
- Compact design, easy to integrate in your environment: DIN rail mounting, contactor-style I/O.
- Easy to setup: Simple set of optimized parameters for all basic functions and applications.
- PID and HVAC functions - safety integrated - MODBUS - open for networking.
- Internal EMC filter as standard.
- Economical mass production on high automated and dedicated SMT lines.
- General purpose drive - made for the worldwide market.

TECHNICAL DATA

- Power range:
 - Single phase: from 0.75 to 2.2kW
 - Three phase: from 1.5 to 5.5kW
- Rated voltage:
 - Single phase: 200...240V +/- 15%
 - Three phase: 3-phase 380...460V +/- 15%
- Input frequency: 47 - 57Hz
- EMC filter: Integrated (for 2.environment)
- Output voltage: 0 - V input
- Output frequency: 0.5 - 650Hz
- Resolution of output frequency: 0.01 Hz
- Overload capability: 150% - 60 sec. / 10 Min
- PWM control-modes: V/Hz - Mode
- PWM frequency: 0.8 - 6kHz
- V/Hz characteristic: Linear, quadratic, and user-programmable curve
- Starting torque: 100% rated torque at 1 Hz
- DC-Brake: Freq. threshold, duration and intensity programmable – DC injection
- Brake chopper: Integrated chopper transistor
- LED display: 7 Segment, 4- digit for programming and visualization of different operating parameters
- Inverter control - Start/Stop: To configure: terminals / operation panel / serial link
- Digital control inputs: 4 digital inputs (HIGH/LOW configurable)
- Speed reference signal: Potentiometer, analogue input (terminals 0-10V, (0)4-20 mA), operating panel keys, serial link
- Reference analogue channels: 1 Analogue channels 0-10V, (0)4-20 mA
- Analogue outputs: 1 analogue output channel programmable in gain, different functions to assign (0-10V)
- Digitale outputs: 1 digital output (OC, different functions to assign)
- Relays output: 1 switchover contact 3 A 230 V (programmable for different functions)
- Interface: Serial link (MODBUS – ASCII/RTU)
- Special function - control options: Jog mode, 12V / 50 mA auxiliary power supply on terminals PI-control Fixed frequency control, programmable cycling frequency sequence AUTORESET/RESTART function
- Electrical protection functions: Overvoltage, Undervoltage Overcurrent, Overload, Motor-Overload, Output-short Analogue reference interruption
- Thermal protection functions: Heatsink overtemperature
- IP code: IP21
- Operating temperature: from -10 to +40°C
- Humidity: Max. 90 % not condensing, no corrosion
- Elavation: 1000 m - 1% derating / 100m above

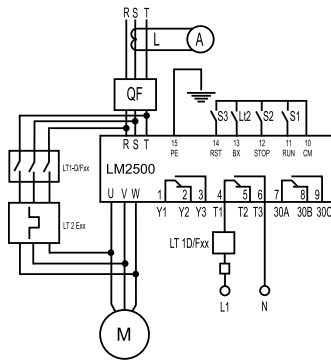
Catalogue number	Type	Input voltage (V)	Maximum output power (kW)	Maximum current output (A)	Dimensions WxDxH (mm)	Weights (kg)
423440	ELM600- 0.75kW 1P/230V	230	0.75	4.5	88x140.5x149	0.48
423441	ELM600- 1.5kW 1P/230V	230	1.5	7	88x140.5x149	0.49
423442	ELM600- 2.2kW 1P/230V	230	2.2	10	106x161x170	0.75
423443	ELM600- 1.5kW 3P/400V	400	1.5	4	106x161x170	1.2
423444	ELM600- 2.2kW 3P/400V	400	2.2	6.5	106x161x170	1.3
423445	ELM600- 3.0kW 3P/400V	400	3.0	7.6	106x161x170	1.3
423446	ELM600- 4.0kW 3P/400V	400	4.0	9	106x161x170	1.45
423447	ELM600- 5.5kW 3P/400V	400	5.5	12	106x161x170	1.45

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

SOFT STARTERS ELM 2500

Documents corresponding to the product:

Standard EN60947-4-2
EN 60947-1



Soft starters are designed to control the start of three-phase induction motors with short-circuited rotor. A number of motor control issues are avoided through them, and namely: prolonged start moments, auto-ignition of motor, there is no need of star-delta switching, auto-transformer switching, resistant switching, etc. The ELM 2500 soft starter pertains to the AC53b type of starters as per the standard requirements and it provides rotation of motor and once the operation mode is set, a shunt contactor of the LT 1 D/F series is switched to control motor operation as the soft starter is not designed to control motors in a set mode. Under a stop command in accordance with the selected control scheme, the soft starter can or can not be included in shutting the motor down.

FUNCTIONS

- System functions:
 - Over-voltage protection – motor will switch off when power supply exceeds the preset limits.
 - Overload protection – protects the motor from overloading.
 - Phase loss protection.
 - Temperature overload protection.
- Control functions:
 - Output faults.
 - Motor faults diagnostics.
 - Keyboard or outward control.
 - Delayed start option.
 - Faults memory.

MOUNTING

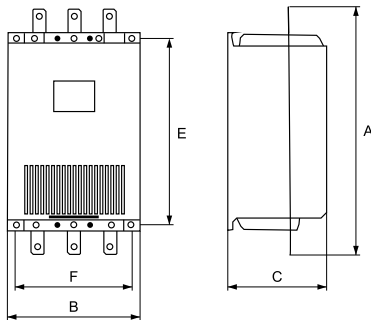
- Mounting to a flat surface through bolts.
- Mounting position – vertical gradient maximum $\pm 5^\circ$.

NOTE

- When more than one soft starter is mounted in a board, it is recommendable to mount them side by side and when this is not possible, the appropriate cooling conditions should be provided.
- Plastic: UV-rays resistant and fire resistant (self-extinguishing material)
 - Altitude : up to 2000 m

TECHNICAL DATA

- Rated working voltage: 230/400V AC; 50 Hz
- Permissible working voltage deviation: $\pm 10\%$
- Unbalance of phases: $< 3\%$
- Frequency fluctuation: $< 5\%$
- Obligatory bypass contactor installation.



Overall dimensions (mm)

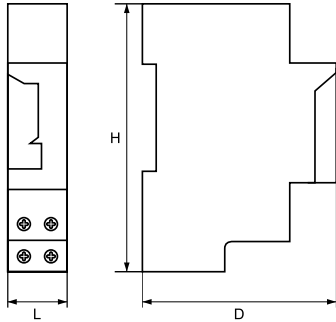
Type	A	B	C	E	F	d
EL M25015	250	153	162	219	140	Ø6
EL M25022	250	153	162	219	140	Ø6
EL M25037	250	153	162	219	140	Ø6
EL M25045	250	153	162	219	140	Ø6
EL M25055	250	153	162	219	140	Ø6
EL M25075	510	260	194	389	232	Ø8



Catalogue number	Type	Power of motor (kW)	Rated current (A)	Type of bypass contactor	Section of power supply conductors	Packing/Box (pcs)
42225015	EL M25015	15	30	LT 1-D 50	10	1/1
42225022	EL M25022	22	45	LT 1-D 50	10	1/1
42225037	EL M25037	37	76	LT 1-D 80	16	1/1
42225045	EL M25045	45	90	LT 1-D 95	25	1/1
42225055	EL M25055	55	110	LT 1-F 115	25	1/1
42225075	EL M25075	75	150	LT 1-F 150	35	1/1

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

TIMERS AND RELAYS



QUARZ TIME SWITCH WITH POWER RESERVE TM 180 MINI

The mechanic relay for time is supposed to be used for managing chains with maximum capacity of 3500W. After the setting, the timer executes the functions we required in 24 hours regime. The minimum period for setting is 15 minutes as it is executed within 96 pcs segments which the timing of the work and rest of the consumer is being set. The timer is accomplished with a battery which assures the work by 70 hours after power failure.

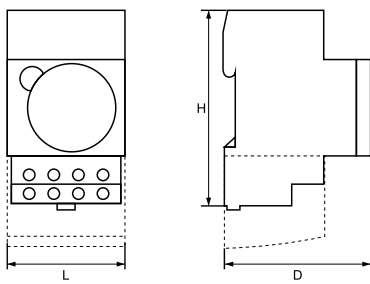
TECHNICAL DATA

- Rated voltage: 230-240V AC 50/60Hz
- Time range: 24 hours
- Min. programmable interval: 15 minutes
- Time adjustment: manual
- Battery power reserve: 70 hours
- Time deviation: $\pm 1s$ (at 20°C)
- Consumption: 2.5VA
- Contact: 1NO
- Contact capacity:
 - 16A/250V (COS Φ =1)
 - 4A/250V (COS Φ =0.6)
- Electrical endurance: 10⁵ times
- Mechanical endurance: 10⁷ times
- Section of the conductor: rigid conductors up to 6mm²

MOUNTING

- DIN-rail

Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		H	L	D	
50137	TM 180	90	18	60	1 / 200



QUARZ TIME SWITCH WITH POWER RESERVE TM 180

The mechanic relay for time is supposed to be used for managing chains with maximum capacity of 3500W. After the setting, the timer executes the functions we required in 24 hours regime. The minimum period for setting is 30 minutes as it is executed within 48 pcs segments which the timing of the work and rest of the consumer is being set. The timer is accomplished with a battery which assures the work by 150 hours after power failure.

TECHNICAL DATA

- Rated voltage: 110-240V AC 50/60Hz
- Time range: 24 hours
- Min. programmable interval: 30 minutes
- Time adjustment: manual
- Battery power reserve: 150 hours
- Time deviation: $\pm 1s$ (at 20°C)
- Consumption: 2.5VA
- Contact: 1NO
- Contact capacity: 16A
- Electrical endurance: 10⁵ times
- Mechanical endurance: 10⁷ times
- Section of the conductor: rigid conductors up to 6mm²

MOUNTING

- DIN-rail

Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		H	L	D	
50138	TM 181	90	53.5	65.5	1/100



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended





24 HOURS PLUG-IN MECHANICAL TIMER

Mechanical German type plug-in timer with children protector. Two position switch for permanent and time control.

TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Min. setting time: 15 min
- Max. setting time: 24 hours
- Active load: up to 16A
- IP20

Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		L	W	H	
50140	EL-PMT-1	82	84	56	1/24/48



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



PROGRAMMABLE WEEKLY TIMER

The product according to the time set by the user, automatically turn On/Off the variety of electrical equipment.

Included Li-ion battery

MOUNTING

- With bolts to the surface

TECHNICAL DATA

- Power supply voltage: 220-250V; 50/60Hz
- Adjustment range: 1 min
- Active load: up to 30A
- Operations: 17 switching ON/OFF per day, up to 119 ON/OFF per week
- Operating temperature: 0 ÷ +55°C

Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		L	W	H	
50139	EL-PWT-1	60	32.5	60	1/200



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



WEEKLY PLUG-IN DIGITAL TIMER

Digital German type plug-in timer with children protector and rechargeable NI-MH battery. Two outlets for permanent and time control.

TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Min. setting time: 1 min or 1 sec
- Max. setting time: 7 days
- Program per day: 8 or 20 ON/OFF
- Active load: up to 16A
- IP20

Catalogue number	Type	Size (mm)	Packing/Box (pcs)
50142	EL-WDT-3	130x75x70	1/24/48



WEEKLY PLUG-IN DIGITAL TIMER

Digital German type plug-in timer with countdown function and rechargeable NI-MH battery. Two outlets for permanent and time control.

TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Min. setting time: 1 min
- Max. setting time: 7 days
- Program per day: 16 ON/OFF
- Active load: up to 16A
- IP20

Catalogue number	Type	Size (mm)	Packing/Box (pcs)
50141	EL-WDT-2	68.4x73x77.2	1/24/48



SINGLE- FUNCTION TIME RELAY, ELR-2A 2C- ON DELAY

Single function time relays are suitable for applications where there is a clear function requirement in advance and are suitable for universal use in automation, control and regulation or in house installations.

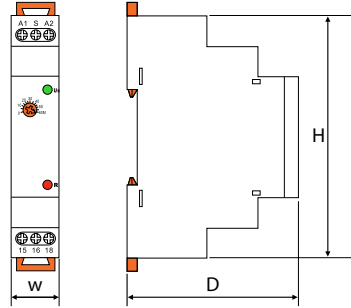
ELR-2A is easy for operation and has range of input voltage- from 24 till 240V AC/DC. Time setting is available from front panel.

APPLICATION

- Control of electrical appliances
- Control of lights, heating, motors, pump, fan and etc.

TECHNICAL DATA

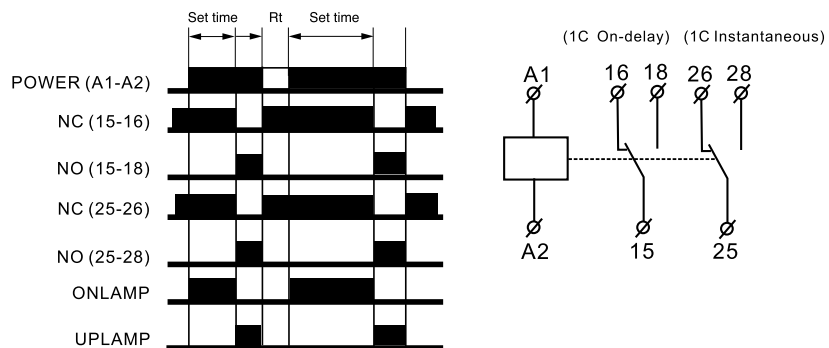
- Voltage range: 24-240V; 50/60Hz
- Output current: 2x5A
- Function: 2C-On delay
- Output type: 2xSPDT
- Time ranges: 1s-3m
- Time setting: via 1 potentiometer
- Time deviation: $< \pm 5\%$
- Repeat accuracy: $< \pm 5\%$
- Ingress protection: IP20
- Mechanical life: 1×10^7
- Electrical life (AC1): 1×10^5
- Max. cable size: solid wire max. 2.5 mm^2 and flexible wire 1.5 mm^2
- Size: $90 \times 18 \times 64 \text{ mm}$



Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50151	ELR-2A	18	90	64	1/100



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



SINGLE- FUNCTION TIME RELAY, ELR-2B 1C-ON DELAY & 1C INSTANTANEOUS

Single function time relays are suitable for applications where there is a clear function requirement in advance and are suitable for universal use in automation, control and regulation or in house installations.

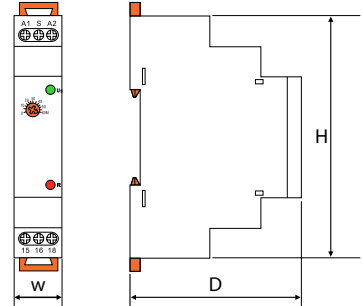
ELR-2B is easy for operation and has range of input voltage- from 24 till 240V AC/DC. Time setting is available from front panel.

APPLICATION

- Control of electrical appliances
- Control of lights, heating, motors, pump, fan and etc.

TECHNICAL DATA

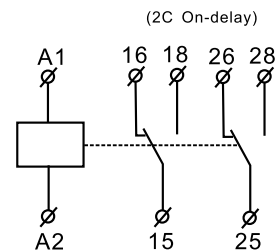
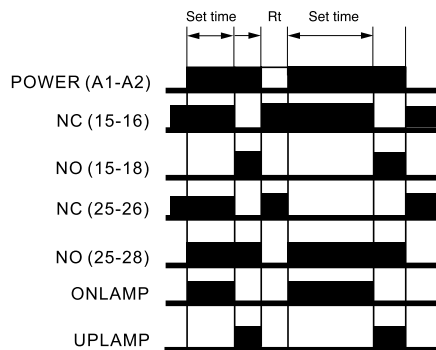
- Voltage range: 24-240V; 50/60Hz
- Output current: 2x5A
- Function: 1C-On delay and 1C-Instantaneous
- Output type: 2xSPDT
- Time ranges: 3s-10m
- Time setting: via 1 potentiometer
- Time deviation: $<\pm 5\%$
- Repeat accuracy: $<\pm 5\%$
- Ingress protection: IP20
- Mechanical life: 1×10^7
- Electrical life (AC1): 1×10^5
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size: 90x18x64mm

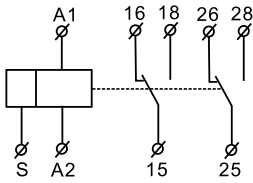


Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50152	ELR-2B	18	90	64	1/100



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended





SINGLE- FUNCTION TIME RELAY, ELR-3A 2C-ON DELAY

Single function time relays are suitable for applications where there is a clear function requirement in advance and are suitable for universal use in automation, control and regulation or in house installations.

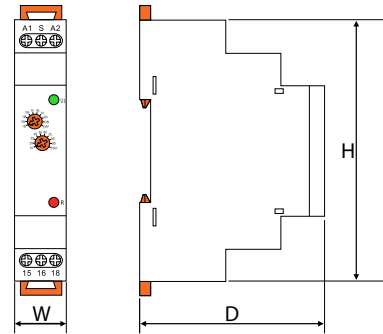
ELR-3A is easy for operation and has range of input voltage- from 12 till 240V AC/DC. Time setting is available from front panel.

APPLICATION

- Control of electrical appliances
- Control of lights, heating, motors, pump, fan and etc.

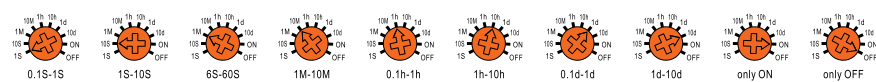
TECHNICAL DATA

- Voltage range: 12-240V; 50/60Hz
- Output current: 2x16A (AC1)
- Function: 2C-On delay
- Output type: 2xSPDT
- Time ranges: 0.1s-240h
- Time setting: via 2 potentiometers
- Time deviation: 10% mechanical setting
- Repeat accuracy: 0.2% set value stability
- Min. breaking capacity DC: 500mW
- Reset time: max. 200ms
- Over voltage category: III
- Output indication: red LED
- Ingress protection: IP20
- Mechanical life: 1x10⁷
- Electrical life (AC1): 1x10⁵
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size: 90x18x64 mm



Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50153	ELR-3A	18	90	64	1/100

TIME RANGE



SINGLE- FUNCTION TIME RELAY, ELR-3B 2C-OFF DELAY

Single function time relays are suitable for applications where there is a clear function requirement in advance and are suitable for universal use in automation, control and regulation or in house installations.

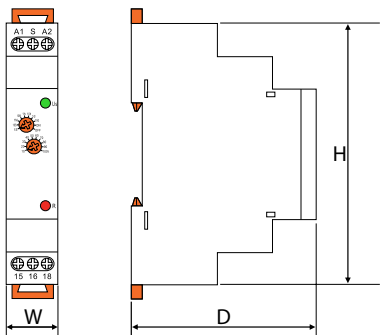
ELR-3B is easy for operation and has range of input voltage- from 12 till 240V AC/DC. Time setting is available from front panel.

APPLICATION

- Control of electrical appliances
- Control of lights, heating, motors, pump, fan and etc.

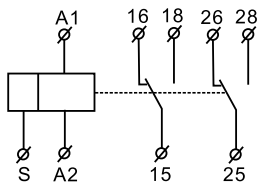
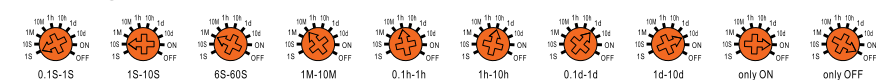
TECHNICAL DATA

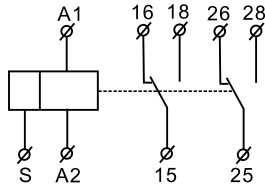
- Voltage range: 12-240V; 50/60Hz
- Output current: 2x16A (AC1)
- Function: 2C-Off delay
- Output type: 2xSPDT
- Time ranges: 0.1s-240h
- Time setting: via 2 potentiometers
- Time deviation: 10% mechanical setting
- Repeat accuracy: 0.2% set value stability
- Min. breaking capacity DC: 500mW
- Reset time: max. 200ms
- Over voltage category: III
- Output indication: red LED
- Ingress protection: IP20
- Mechanical life: 1x10⁷
- Electrical life (AC1): 1x10⁵
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size: 90x18x64 mm



Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50154	ELR-3B	18	90	64	1/100

TIME RANGE





MULTI- FUNCTION TIME RELAY, ELR-4

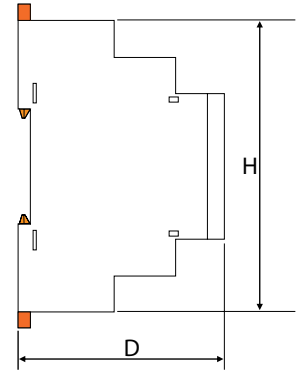
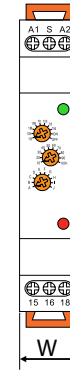
Multi function time relays are suitable for applications where there is need more additional functions requirement and are suitable for universal use in automation, control and regulation or in house installations. ELR-4 is easy for operation and has range of input voltage - up 12 to 240V AC/DC. This relay increase 10 functions: 5 time functions controlled by supply voltage, 4 functions controlled by control input and 1 function of latching relay.

APPLICATION

- Control of industrial and home electrical appliances
- Control of lights, heating, motors, pump, fan and etc.

TECHNICAL DATA

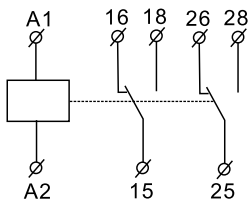
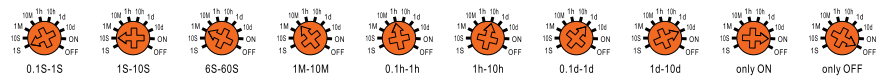
- Voltage range: 12-240V; 50/60Hz
- Output current: 2x16A (AC1)
- Function: 10
- Output type: 2xSPDT
- Time ranges: 0.1s-240h, ON, OFF
- Function setting: via 3 potentiometers on front panel
- Time deviation: 10% mechanical setting
- Repeat accuracy: 0.2% set value stability
- Min. breaking capacity DC: 500mW
- Reset time: max. 200ms
- Over voltage category: III
- Output indication: red LED
- Ingress protection: IP20
- Mechanical life: 1x10⁷
- Electrical life (AC1): 1x10⁵
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size: 90x18x64 mm



Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50155	ELR-4	18	90	64	1/100



TIME RANGE



MULTI- FUNCTION TIME RELAY, ELR-5

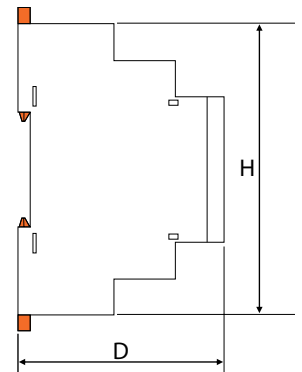
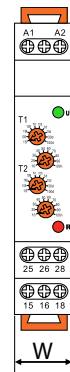
Multi function time relays are suitable for applications where there is need more additional functions requirement and are suitable for universal use in automation, control and regulation or in house installations. ELR-5 is easy for operation and has range of input voltage- from 24 till 240V AC/DC. This relay have 6 time delay functions.

APPLICATION

- Control of industrial and home electrical appliances
- Control of lights, heating, motors, pump, fan and etc.

TECHNICAL DATA

- Voltage range: 24-240V; 50/60Hz
- Output current: 5A
- Function: 6
- Output type: 1C-On delay and 1C-Instantaneous
- Time ranges: 0.1s-100h
- Function setting: via 4 potentiometers on front panel
- Time deviation: <5%±50ms
- Repeat error: <0.2% ±10ms
- Voltage error: <±0.5%
- Min. breaking capacity DC: 500mW
- Insulation resistance: 100mΩ (500VDCmge)
- Over voltage category: III
- Output indication: red LED
- Protection degree: IP20
- Mechanical life: 1x10⁷
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size: 94x18x64 mm



Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50156	ELR-5	18	94	64	1/100



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



ASYMMETRIC CYCLER TIMER, ELR-6

Asymmetric cycle timer can be used for cycle delay control, providing periodic energizing, lighting control, regular room ventilation, pumps, heating control for electric circuit and etc.

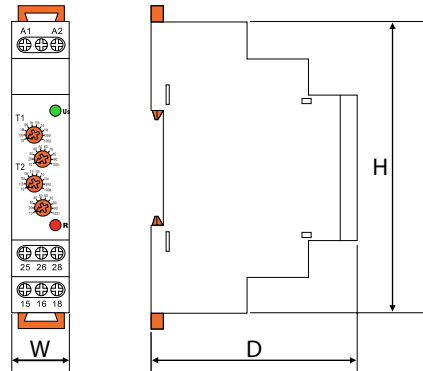
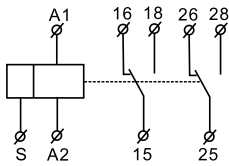
ELR-6 is easy for operation and has range of input voltage- from 24 till 240V AC/DC. This relay have 2 time functions- Cycle beginning with pulse and cycle beginning with pause.

APPLICATION

- Control of industrial and home electrical appliances.
- Control of lights, heating, motors, pump, fan and etc.

TECHNICAL DATA

- Voltage range: 12-240V; 50/60Hz
- Output current: 2x16A (AC1)
- Function: 2 time functions
- Output type: 2xSPDT
- Time ranges: 0.1s-2400h
- Function setting: via 4 potentiometers on front panel
- Time deviation: 10% mechanical setting
- Repeat accuracy: 0.2% set value stability
- Min. breaking capacity DC: 500mW
- Reset time: max. 200ms
- Over voltage category: III
- Output indication: LED
- Ingress protection: IP20
- Mechanical life: 1x10⁷
- Electrical life (AC1): 1x10⁵
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size: 90x18x64 mm



Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50157	ELR-5	18	90	64	1/100



INTERMEDIATE RELAYS, ELR-7 SERIES

Intermediate Relays are used for switching larger load output, strengthen or multiplying contacts of the existing device or send signals to the relevant control elements concurrently.

Relays from ELR-7 series are easy for operation and has different input voltages- from 12V DC, 24V AC/DC and 240V AC.

FUNCTIONS

- Instead of small contactors.
- Increase the number of contacts.
- Increase contact capacity.
- Switch contact type.
- Used as a switch.
- Eliminate interference in the circuit.

TECHNICAL DATA

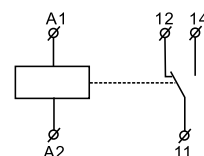
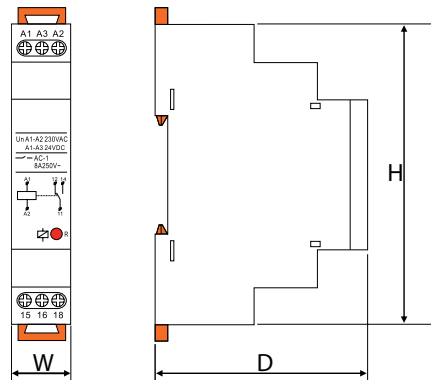
- Voltage range: 24V AC/DC and 230V AC
- Output current: 16A (AC1)
- Output type: 1xSPDT and 3xSPDT
- Supply voltage tolerance: -15% +10%
- Max. change over time: 40ms
- Min. breaking capacity DC: 500mW
- Over voltage category: III
- Output indication: red LED
- Protection degree: IP20
- Mechanical life: 1x10⁷
- Electrical life (AC1): 1x10⁵
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size (HxWxD): 90x18x64 mm



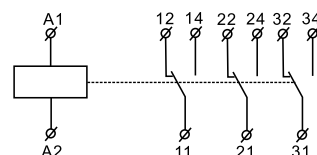
ELR-A/ ELR-B



ELR-C/ ELR-D



ELR-A/ ELR-B



ELR-C/ ELR-D

Catalogue number	Type	Number of contact	Voltage	Packing/Box (pcs)
50158	ELR-A	1xSPDT	24V AC/DC	1/100
50159	ELR-B	1xSPDT	230V AC	1/100
50160	ELR-C	3xSPDT	24V AC/DC	1/100
50161	ELR-D	3xSPDT	230V AC	1/100



WI-FI SMART CONTROL RELAY WITH BUILT-IN ANTENNA, ELR-1W

ELR-1W is widely used in smart homes and industrial intelligent control. It adopts the most popular Wi-Fi 2.4GHz control chip, and cooperates with powerful APP and mainstream voice assistants. Realize WLAN local control (even if the network is disconnected, you can also use APP local control and remote control, allowing users to fully experience the convenient life brought by modern intelligent technology. Using mobile phone APP or voice control device to control ON and OFF of the output of this product to realize the purpose of remotely starting or turning off the load electrical appliances.

The product cooperates with the corresponding APP to realize the following functions:
Support Smart Config for fast networking.

Support multiple control types: switch, timing start and stop, cycle control, etc.

Support WLAN local control and remote control.

Access to mainstream voice assistants such as Tmall Genie, DuerOS, Xiao Ai (Xiao Mi), Alexa, Google, etc., voice control.

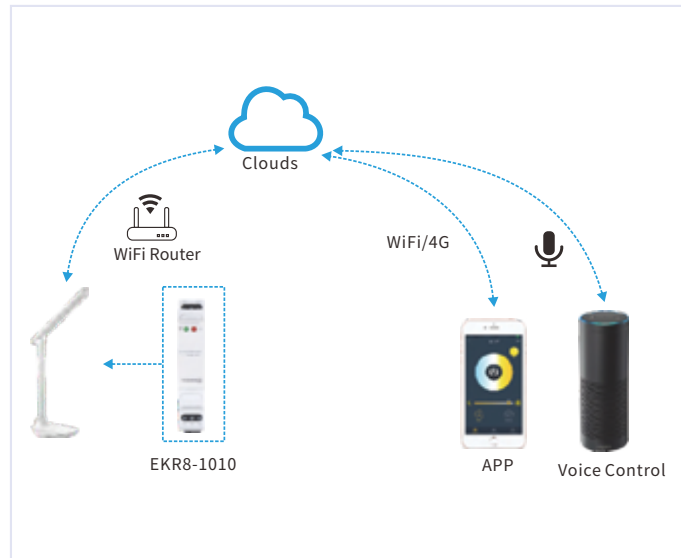
Intranet device sharing and cloud account device sharing function.

APP supports Android and iOS systems.

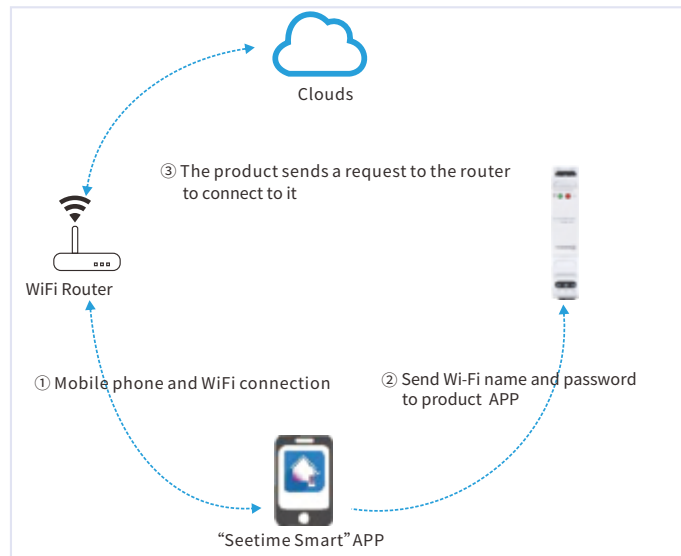
Download Seetime Smart Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

Build-in antenna



Structure block diagram of Intelligent control system



Distribution network block diagram of standard configuration

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



APPLICATION

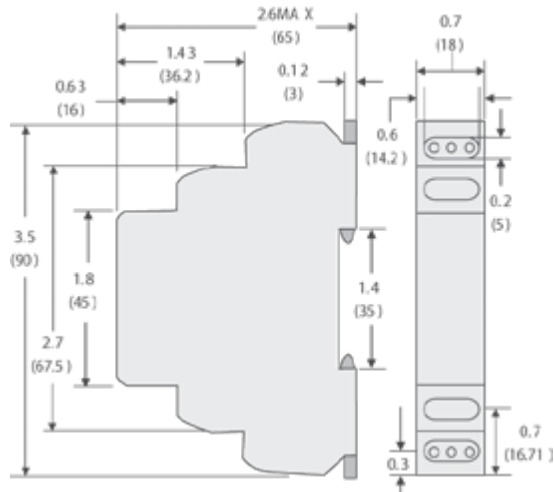
- Home control system
- Building automation
- Industrial control systems
- Industrial automation
- Mechanical and electrical equipment

TECHNICAL DATA

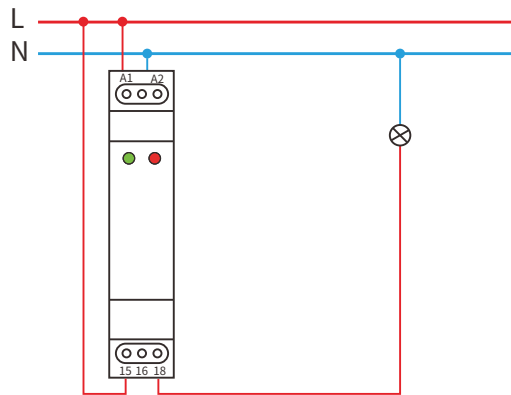
- Voltage Range: 85-240V AC/DC
- Rated Current: 10A
- Standard: IEEE 802.11b/g/n
- Working mode: STA/AP/STA+AP
- Wireless Security Support: WPA/WPA2
- Encryption Type: WEP/TKIP/AES
- Working Frequency: 2.4GHz-2.5GHz (2400M-2483.5M)
- Transmit Power:
 - > 802.11b (CCK): 19+/-1dBm
 - > 802.11g (OFDM): 14+/-1dBm
 - > 802.11n(HT20@MCS7): 13+/-1dBm
- Wireless Transmission Distance: General Indoor: 45M, Outdoor: 150M (Note: It depends on the environment.)
- Application: Seetime Smart
- Standby Power Consumption: Less than 0.5W
- Working Temperature: -10-60°C
- Working Humidity: 5%-95% (Non-condensing)
- Size WxHxD: 18x90x65 mm

Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50150	ELR-1W	18	90	65	1/100

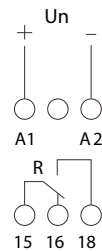
Scan and watch detailed video with all product functions.



Dimensions (mm)



Product wiring diagram



Wiring diagram

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

MULTI- FUNCTION TIME RELAY, ELR-8

Multi function time relays are suitable for applications where there is need more additional functions requirement and are suitable for universal use in automation, control and regulation or in house installations.

ELR-8 is easy for operation and has range of input voltage- from 24 till 240V AC/DC. This relay increase 6 time delay functions.



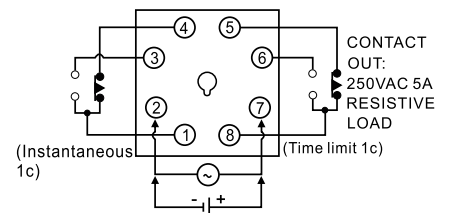
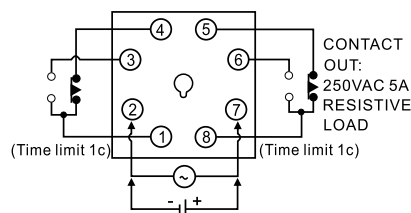
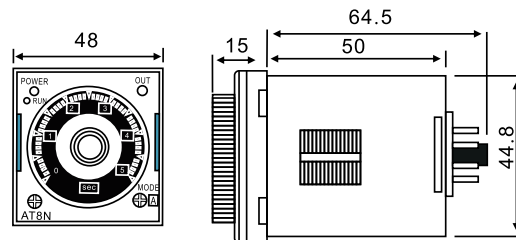
APPLICATION

- Control of industrial and home electrical appliances
- Control of lights, heating, motors, pump, fan and etc.

TECHNICAL DATA

- Voltage range: 24-240V; 50/60Hz
- Output current: 5A (AC1)
- Function: 6
- Output type: DPDT
- Time ranges: 0.1s-100h
- Time deviation: <math><5\% \pm 50\text{ms}</math>
- Repeat error: <math><0.2\% \pm 10\text{ms}</math>
- Reset time: max. 200ms
- Insulation resistance: 100m Ω (500VDCmge)
- Ingress protection: IP20
- Mechanical life: 1x10⁷
- Max. cable size: solid wire max. 2.5 mm² and flexible wire 1.5 mm²
- Size: 79.5x48x48 mm

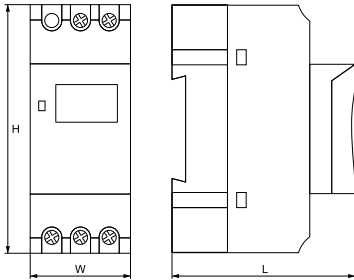
Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50162	ELR-8	48	48	79.5	1/100
50163	Base for ELR-8				1/100



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

PROGRAMMABLE DIGITAL ONE-CHANNEL TIMER TE 15A

The timer is manufactured under the CMOS technology with a quartz mini controller which makes it reliable for operation. The timer is adjusted for DIN-rail mounting. It can memorize up to eight ON/OFF programs (ON/OFF cycles). Each program setting is done through the push buttons. Programming starts with selection of the days of the week (you can choose among a whole week cycle, workdays cycle, weekend cycle, or a specific day of the week); then the cycle start time and end time are set. If you have selected workdays cycle, then the program will start and stop at the set times each workday of the week. This is one ON/OFF program. Where necessary, other programs can be memorized up to the limit of eight possible programs. If you continue setting new programs the first memorized program will be deleted. The minimal interval for cycle programming is 1 minute.



TECHNICAL DATA

- Display: LCD
- Power supply voltage: 230V; 50Hz
- Operations: 16 switching ON/OFF
- Minimum setting unit: 1 min
- Time setting range: 1 min- 168 hours
- Time deviation: <2s (at 25°C)
- Battery for programmer storing: up to 15 days
- Power consumption: <4.5VA
- Switched on indicator
- Electrical wear resistance: 105 cycles
- Mechanical wear resistance: 107 cycles
- Operating temperature: -10°C ÷ +65°C
- Humidity: 35 – 85%RH
- Number of contacts: 1NO + 1NC
- Commutating capacity:
 - > Active load: up to 16A
- Weight: 125g

MOUNTING

- DIN-rail

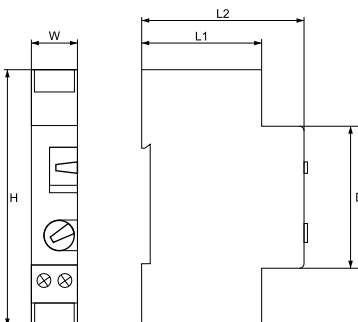


Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		H	W	L	
50036	TE 15A	85	36	64	1/100



STAIRCASE DELAY TIMER

The timer is adjusted for DIN-rail mounting. Provide control of lighting circuits with automatic switch Off after reset time. Two position switch for permanent and time lighting control and choice for time delay setting from 30 sec to 10 minutes. Compact 1-mode design- 17.5mm



TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Adjustment range: 0.5 to 10 min
- Power consumption: <2.5VA
- Operating temperature: -10 ÷ +60°C
- Humidity: 45 – 95%RH
- Number of contacts: 1NO
- Commutating capacity:
 - Active load: up to 16A
 - Inductive load: up to 10 A

MOUNTING

- DIN-rail

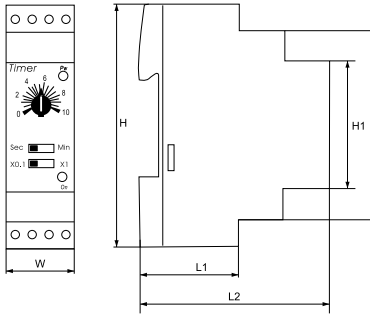


Catalogue number	Type	Dimensions (mm)					Packing/Box (pcs)
		H	W	L1	L2	D	
35007	TE 17	82	17.5	40	65	45	1/240



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

TIME RELAY "STAR/DELTA" TE 19



The time relay is manufactured under the most modern methods of qualitative and reliable materials. The timer is adjusted for DIN-rail mounting. It is used to provide reliable and safe time hold at "star/delta" starters and it is used for setting fixed time intervals. Programming is done through selection of the time unit (seconds or minutes) and rate (x 0.1 or x1) by the slide switches, and then selection of a value from the timer knob (from 0 to 10). Whenever timer circuit receives a signal, it executes the set cycle and then stops until a new signal is available. It gives possibility for time adjustment for motor unwinding in star up to 600s and time change to delta according to the consumer's need.

TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Adjustment range for operation in star: 1 to 600 seconds
- Repetition accuracy: $\pm 5\%$ from the whole scale
- Adjustment accuracy: $\pm 5\%$ from the whole scale
- Zeroing time: $< 0.5s$
- Power consumption: $< 5VA$
- Electrical wear resistance: 100 000 cycles
- Mechanical wear resistance: 1 000 000 cycles
- Operating temperature: $-10 \div +65^{\circ}C$
- Humidity: 45 – 85%RH
- Commutating capacity: up to 5A
- Indication:
 - > at operation in "star": red indication
 - > at operation in "delta": green indication
- Weight: 150g

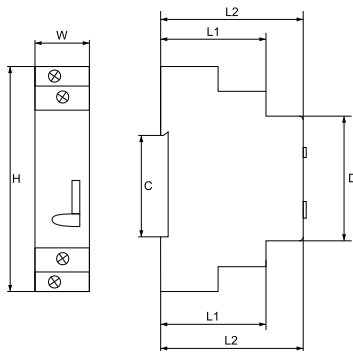
MOUNTING

- DIN-rail

Catalogue number	Type	Dimensions (mm)						Packing/Box (pcs)
		H	W	L1	L2	H1	H2	
50102	TE19	85	24	34	66	45	60	1/200



IMPULSE RELAY, EPN510- SINGLE POLE



Impulse relays allow circuit remote control. They can be operated manually, remotely, from several control points, or by impulses. Impulse relays are most frequently used for the control of lighting circuits in various public places with multiple control points.

TECHNICAL DATA

- Control voltage: 230V
- Rated current of the power circuit: 16A
- Electrical endurance: 200000 cycles
- Maximum switching frequency: 5 operations/minute
- Impulse duration: 50ms

CONNECTION

- Tunnel terminals

Catalogue number	Type	Dimensions (mm)						Packing/Box (pcs)
		H	W	C	D	L1	L2	
50300	EPN510	85	24	36	45	34	66	8 / 160

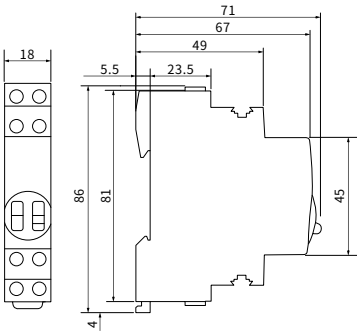


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

IMPULSE RELAYS (REMOTE-CONTROL SWITCHES)- 2P & 4P

Impulse relays, also known as bi-stable relays, Impulse relays are a form of latching relay that transfers the contacts with each pulse.

ELMARK impulse relays are made up of a magnetic latch relay and a solid-state steering circuit that, upon application of power, determines which position the relay is in and energizes the opposite coil.



APPLICATION

- The impulse relays are used to control, by means of pushbuttons, lighting circuits consisting of:
 - Incandescent lamps, low-voltage halogen lamps, etc. (Resistive loads)
 - Fluorescent lamps, discharge lamps, etc. (Inductive loads)
- Closing of the impulse relay pole(s) is triggered by an impulse on the coil.

- Having two stable mechanical positions, the pole(s) will be opened by the next impulse. Each impulse received by the coil reverses the position of the pole(s).
- Can be controlled by an unlimited number of pushbuttons.
- Zero energy consumption.

TECHNICAL DATA

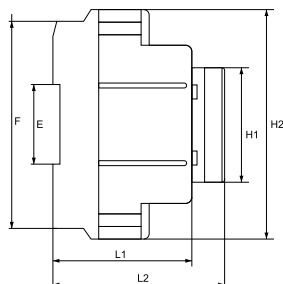
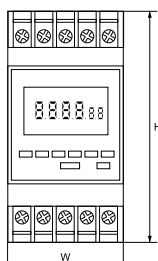
- Rating: 16A
- Frequency: 50 or 60Hz
- Insulation voltage (Ui): 440V AC
- Pollution degree: 3
- Rated impulse withstands voltage (Uimp): 6kV
- Dissipated power (during the impulse): 19VA
- Illuminated PB control: Max. current 3mA (if > use an ATLz)
- Operating threshold: Min.85% of Un in conformance with IEC/EN60669-2-2

- Duration of the control order: 50 ms to 1s (200ms recommended)
- Over voltage category: IV
- Ingress protection: IP20
- Electrical life: 200,000 cycles (AC21); 100 000 cycles (AC22)
- Max. cable size: solid wire 0.5-4 mm² and flexible wire 1-4 mm²
- Tightening torque: 1 N.m
- Size: 86x18x67 mm

Catalogue number	Type	Number of poles	Contact type	Voltage	Dimensions (mm)			Packing/Box (pcs)
					W	H	D	
50301	ELR-1620	2P/ 1 mod	2NO	230VAC/110VDC	18	86	67	1/180
50302	ELR-1610	2P/ 1 mod	1NO+1NC	230VAC/110VDC	18	86	67	1/180
50303	ELR-1621	2P/ 1 mod	2NO	24VDC/48VAC	18	86	67	1/180
50304	ELR-1611	2P/ 1 mod	1NO+1NC	24VDC/48VAC	18	86	67	1/180
50305	ELR-1622	2P/ 1 mod	2NO	12VDC/24VAC	18	86	67	1/180
50306	ELR-1612	2P/ 1 mod	1NO+1NC	12VDC/24VAC	18	86	67	1/180
50307	ELR-1640	4P/ 2 mod	4NO	230VAC/110VDC	36	86	67	1/90
50308	ELR-1630	4P/ 2 mod	2NO+2NC	230VAC/110VDC	36	86	67	1/90
50309	ELR-1641	4P/ 2 mod	4NO	24VDC/48VAC	36	86	67	1/90
50310	ELR-1631	4P/ 2 mod	2NO+2NC	24VDC/48VAC	36	86	67	1/90
50311	ELR-1642	4P/ 2 mod	4NO	12VDC/24VAC	36	86	67	1/90
50312	ELR-1632	4P/ 2 mod	2NO+2NC	12VDC/24VAC	36	86	67	1/90



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



TIMER TE8A – 1A, TE8A – 2A

The timer is manufactured under the most modern technology CMOS with a quartz mini controller which makes it precise, qualitative and reliable. It has a built in battery which allows operation of the timers without charging up to 150 hours. The timer is adjusted for DIN-rail mounting. Timer programming is done through selection of the operational day(s) of the week, followed by selection of the start time and end time. You may choose out of ten modes (one for each day of the week, one for the work days, one for the weekends and one for the whole week). When setting the time, you should start first with the hours and then continue with the minutes. TE8A - 1a - Up to eight programs can be memorized. The on/off time resolution is 1 minute. TE8A - 2a - It has two operating channels, each of which can adjust four programmes for a day or a week with minimal interval of 1 minute for switching on and off. Indication on LCD display with high resolution and showing the time in hours, minutes and seconds.

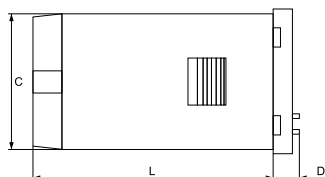
TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Power consumption: <5VA
- Electrical wear resistance: 107 cycles
- Mechanical wear resistance: 105 cycles
- Operating temperature: -10°C ÷ +65°C
- Temperature of storage: up to 70C
- Humidity: 45 – 85%RH
- Commutating capacity: up to 16A
- Two outlet relays
- Li-Ion battery: 150h
- Weight: 150g

MOUNTING

- DIN-rail

Catalogue number	Type	Dimensions (mm)								Packing/Box (pcs)
		H	H1	H2	W	E	L1	L2	F	
50113	TE8A - 1a	100	50	68	50	36	60	74	90	1/75
50114	TE8A - 2a	100	50	68	50	36	60	74	90	1/75



TIMER TE6B

The timer is manufactured under the most modern technology CMOS with a quartz mini controller which makes it precise, qualitative and reliable. The timer is modulated to be mounted on the front panel of boards. The direction of operation is adjusted – direct or reverse. There is possibility to adjust the time range from 0.01 second to 99 hours 59 minutes, possibility for correction of the set values during operation. Indication on LCD display with high resolution and showing the time in hours, minutes and seconds.

TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Possibility for choice of operating range:
 - > from 0.01 second to 99.99 seconds
 - > from 1 second to 99.59 minutes
 - > from 1 minute to 99.59 hours
- Error: <0.01% ±0.05s
- Minimal duration of the input pulse: 20ms
- Power consumption: <5VA
- Electrical wear resistance: 107 cycles
- Mechanical wear resistance: 105 cycles
- Operating temperature: -10 ÷ +65°C
- Temperature of storage: up to 70°C
- Humidity: 45 – 85%RH
- Commutating capacity at active load: 3A
- Weight: 300g

MOUNTING

- On the front panel of the board

Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		D	W	L	
50104	TE6B	8.5	45	80	1/100



5 YEARS TOTAL WARRANTY
+ 3 standard
+ 2 extended

TIMER TE48S-S

The timer is manufactured under the most modern technology CMOS with a quartz mini controller which makes it precise, qualitative and reliable. The timer is modulated to be mounted on the front panel of boards. The direction of operation is adjusted – direct or reverse. It represents two separate operating channels, each of which can operate independently with time range adjustment from 1 second to 99 minutes. Possibility for correction of the set values during operation. First, select the time unit (seconds or minutes) and then set the time. Depending on the timer coupling, it can be used as a cyclic timer relay, i.e. it initially counts the first time set, then counts the second time set, then starts counting over the first time again, etc. until a stop signal is received. In another mode, the timer can count the set time and stop until a new signal is received to count the next cycle. Indication on LCD display with high resolution and showing the time in hours, minutes and seconds.

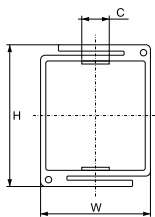
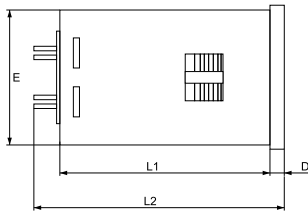
TECHNICAL DATA

- Power supply voltage: 230V; 50Hz
- Admissible variation of the input voltage: 85-110%U
- Possibility for choice of operating range:
 - > from 1 to 99 seconds
 - > from 1 minute to 99 minutes
- Error: <0.01% ±0.05s
- Minimal duration of the input pulse: 20ms
- Power consumption: <5VA
- Electrical wear resistance: 107 cycles
- Mechanical wear resistance: 105 cycles

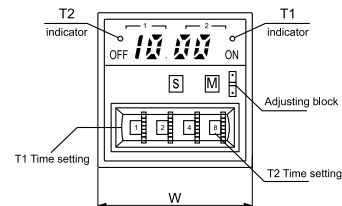
- Operating temperature: -10 ÷ +65°C
- Temperature of storage: up to 70°C
- Humidity: 45 – 85%RH
- Commutating capacity at load: 3A
- Weight: 300g

MOUNTING

- on the front panel of the board



Catalogue number	Type	Dimensions (mm)							Packing/Box (pcs)
		D	E	L1	L2	C	H	W	
50105	TE48S-S	5	44.8	74	95	15	58	48	84



TIMER TE 19M

Timer is developed using modern technologies from quality and reliable materials and is adapted for mounting on DIN rail. It is used for providing time intervals in eight-time programs, which are assigned by combinations of the keys. There is an option for it to operate in time ranges (assigned by the keys K4, K5, K6): seconds, minutes or hours depending on the necessity of the user. Power contact up to 3A.

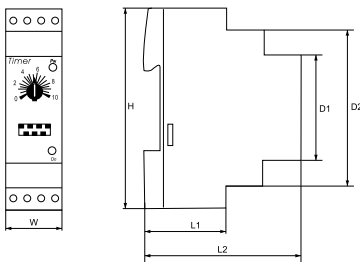
TECHNICAL DATA

- Input voltage: 230V; 50Hz
- Range of setting: from 0.6 sec to 100 hours
- Accuracy of setting: ± 5% from the whole scale
- Time for nullifying: <0.5 seconds
- Consumed capacity: < 5VA
- Electrical endurance (number of cycles): 100 000 cycles
- Mechanical endurance (number of cycles): 1 000 000 cycles

- Operation temperature: -10 ÷ +65°C
- Humidity: 45 - 85%RH
- Computing option: up to 5A
- Indication:
 - > on power supply: red indication
 - > on operational output relay: green indication
- Weight: 150 gr.
- Time functions: according to the programming guide

MOUNTING

- DIN rail



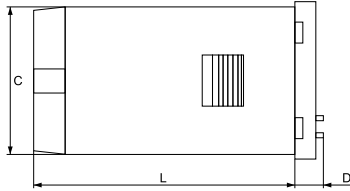
Catalogue number	Type	Dimensions (mm)						Packing/Box (pcs)
		H	w	h1	h2	l1	L2	
50102M	TE 19M	85	24	45	60	34	66	1/200



COUNTERS

Documents corresponding to the product:

Standard EN 61010-1



UNIVERSAL DIGITAL COUNTER CE2J

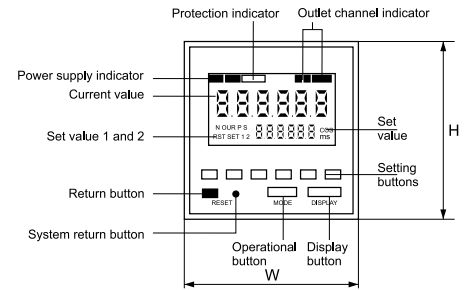
The device is manufactured under the modern technology CMOS which allows high speed of counting and high counting reliability. It has a built-in battery which allows data storing for more than 10 years. It is supplied with a digital display with black lighting digits, providing excellent visibility at different lighting. The counter is to be mounted on the front panel of the boards. It is used for impulse sequence counting with accumulation or deduction. There is possibility for relay outlet operation at reaching beforehand set value, and a possibility for changing the position of the decimal point.

TECHNICAL DATA

- Display: LCD
- Power supply voltage: 230V; 50Hz
- Counting range: 0 - 99999
- Counting speed: 30/3k cps
- Zeroing: outside impulse
- Battery for programmer storing: up to 10 years
- Power consumption: <5VA
- Operating temperature: -10 ÷ +65°C
- Humidity: 35 – 85%RH
- Commutating capacity: relay outlet with active load: up to 3A
- Weight: 250g

MOUNTING

- On the front panel
- Opening with dimensions: 45x45



Catalogue number	Type	Dimensions (mm)					Packing/Box (pcs)
		H	W	C	D	L	
50111	CE2J	68	68	65	8.5	90	1/45



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

Standard EN 60831-1
EN 60831-2

COMBINED DIGITAL COUNTER/TIMER CE10J

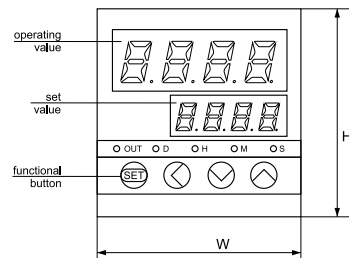
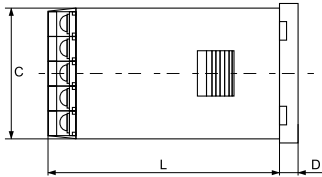
The device is for front mounting in the board. It can be used as a counter or timer choosing a definite combination from keys. It is manufactured under the modern technology CMOS which allows high speed of counting, precision at operation as a timer and high reliability. It has a built-in battery which allows data storing for more than 10 years. It is supplied with a digital display providing excellent visibility at different lighting. It is used for impulse sequence counting with accumulation or deduction. There is possibility for relay outlet operation at reaching beforehand set value, and a possibility for changing the position of the decimal point.

TECHNICAL DATA

- Display: LCD
- Power supply voltage: 230V; 50Hz
- Counting range: 0 – 999
- Timer range: 0.01 – 99h99min
- Counting speed: 30/500 cps
- Zeroing: outside impulse
- Battery for programmer storing: up to 10 years
- Power consumption: <3VA
- Mechanical wear resistance: 107 cycles
- Operating temperature: -5 ÷ +65°C
- Humidity: 35 – 85%RH
- Commutating capacity: relay outlet with active load: up to 3A
- Weight: 120g

MOUNTING

- On the front panel
- Opening with dimensions: 45x45



Catalogue number	Type	Dimensions (mm)					Packing/Box (pcs)
		h	W	c	D	L	
50120	CE10J	68	68	65	6	90	1/45



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

EN 61010-1



TOTAL DIGITAL COUNTER CE15J

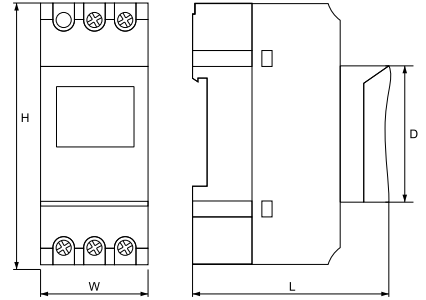
The device is to be mounted on DIN-rail. It is used as an impulse counter with no outside power supply. For that purpose there is a Li battery built in the device which provides data storing and operation of the device for 5 years. It has eight digital lighting display providing excellent visibility at different lighting. It is used for impulse sequence counting with accumulation.

TECHNICAL DATA

- Display: LCD
- Power supply voltage: built in battery
- Inlet signal: 100-230V AC/DC
- Counting accuracy: <0.002%
- Data storing battery: up to 5 years
- Operating temperature: -5 ÷ +65°C
- Humidity: 35 – 85%RH
- Weight: 120g

MOUNTING

- DIN-rail



Catalogue number	Type	Dimensions (mm)				Packing/Box (pcs)
		H	W	D	L	
50112	CE15J	86	36	45	64	1/100



Documents corresponding to the product:

EN 61010-1



TOTAL DIGITAL COUNTER CE15L

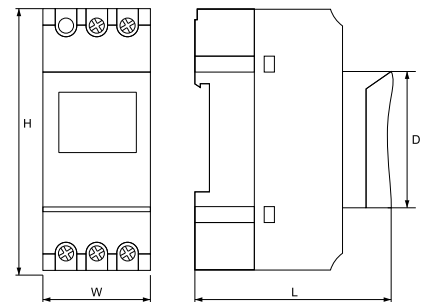
The device is to be mounted on DIN-rail. It is used as a time impulse counter with no outside power supply. For that purpose there is a Li battery built in the device which provides data storing and operation of the device for 5 years. It has eight digital lighting display providing excellent visibility at different lighting. It is used for time impulse sequence counting with accumulation. It displays the operated time.

TECHNICAL DATA

- Display: LCD
- Power supply voltage: built in battery
- Inlet signal: 100-230V AC/DC
- Counting accuracy: <0.002%
- Battery for data storing: up to 5 years
- Operating temperature: -5 ÷ +65°C
- Humidity: 35 – 85%RH
- Weight: 120g

MOUNTING

- DIN rail



Catalogue number	Type	Dimensions (mm)				Packing/Box (pcs)
		H	W	D	L	
50115	CE15L	86	35	45	64	1/100



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

EN 61010-1

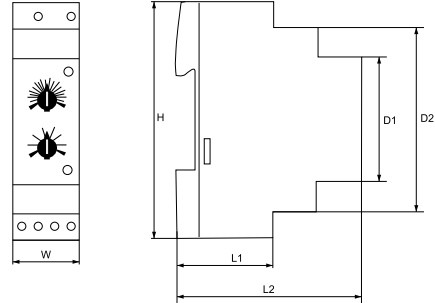


PHASE SEQUENCE INDICATOR EK - RSTB

The device is to be mounted on DIN-rail. It is used for control and indication of the presence, sequence and quality of the phases. The device indicates the following fault: lack of one or several phases; change in the sequence of the phases; lowering of the power supplying voltage: under 10%; increasing of the power supplying voltage: over 10%; phase asymmetry of the power supplying voltage: $\pm 10\%$. In the presence of one of the conditions above a relay starts operating in the device which breaks the controlling circuit. The time between fault indication and outlet relay switching on can be adjusted in order to prevent unwilling stops at very short breaks. When the voltage is back to normal limits, the device receives energy (indication lights) according to the hysteresis values. At phase sequence fault the device operates immediately.

TECHNICAL DATA

- Power supply voltage: 400V; 50Hz
- Possibility for operation range adjustment: 0.1 – 10 seconds
- Possibility for working range adjustment: from 300 to 480 V
- Electrical wear resistance: 1 000 000 cycles
- Mechanical wear resistance: 10 000 000 cycles
- Indication: green LED – indication for a change in the condition; red LED - failure
- Operating temperature: $-5 \div +65^{\circ}\text{C}$
- Humidity: 35 – 85%RH
- Weight: 120g



MOUNTING

- DIN-rail

Catalogue number	Type	Dimensions (mm)						Packing/Box (pcs)
		h	w	d1	d2	l1	l2	
50103	EK - RSTB	85	24	45	60	34	66	1/200

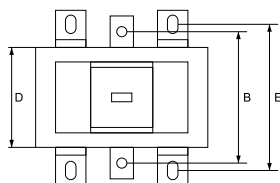
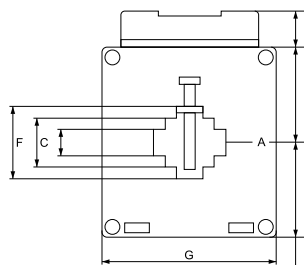


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

CURRENT MEASUREMENT TRANSFORMERS

Documents corresponding to the product:

Standard EN 61010-1;
EN 60044-1; EN 60044-6



CURRENT MEASUREMENT TRANSFORMERS MES - XX/X5 TYPE

The measurement transformers find application at current measuring, current regulation, systems for current characteristics watching, systems for reactive energy compensation, signalling, etc. They are with x/5 gear ratio as X is the inlet range of the transformer.

TECHNICAL DATA

- Maximum operating voltage: 720V; 50Hz
- Admissible deviation of the operating current: 1.2x In
- Inlet current: 50 – 1200A
- Outlet current: 5A
- Impulse voltage wear resistance: 4000V; 50Hz (1 min)
- Operating temperature: -5 ÷ +65°C
- Humidity: 35 – 85%RH
- Precision class: 0.5
- Weight kg: 0.60 kg

MOUNTING

- Current transformers can be DIN rail mounted;
- Vertically or horizontally to the power supplying rails according to the opening of the transformer
- Current transformers can be mounted on flat surfaces by use of fixing clamps.

Catalogue number	Type	Range	Capacity VA	Overall dimensions (mm)							Packing/Box (pcs)
				A	B	C	D	E	F	G	
45050A	MES - 75/30	50/5	1	88	52	52	41	77	31	31	1/40
45075A	MES - 75/30	75/5	1.5	88	52	52	41	77	31	31	1/40
45103A	MES - 75/30	100/5	1.5	88	52	52	41	77	31	31	1/40
45153A	MES - 75/30	150/5	2.5	88	52	52	41	77	31	31	1/40



Catalogue number	Type	Range	Capacity VA	Overall dimensions (mm)							Packing/Box (pcs)
				A	B	C	D	E	F	G	
45204A	MES - 75/40	200/5	3.75	88	52	52	41	77	41	41	1/40
45254A	MES - 75/40	250/5	3.75	88	52	52	41	77	41	41	1/40
45304A	MES - 75/40	300/5	5	88	52	52	41	77	41	41	1/40
45404A	MES - 75/40	400/5	5	88	52	52	41	77	41	41	1/40
45504A	MES - 75/40	500/5	5	88	52	52	41	77	41	41	1/40
45604A	MES - 75/40	600/5	5	88	52	52	41	77	41	41	1/40



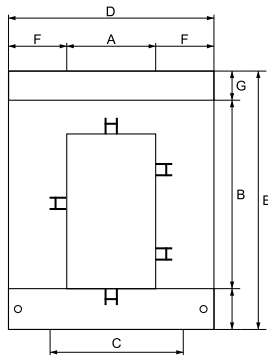
Catalogue number	Type	Range	Capacity VA	Overall dimensions (mm)							Packing/Box (pcs)
				A	B	C	D	E	F	G	
45406A	MES - 86/60	400/5	3.75	117	57	57	184	77	61	61	1/40
45506A	MES - 86/60	500/5	5	117	57	57	184	77	61	61	1/40
45606A	MES - 86/60	600/5	10	117	57	57	184	77	61	61	1/40
45806A	MES - 86/60	800/5	10	117	57	57	184	77	61	61	1/40
45906A	MES - 86/60	1000/5	10	117	57	57	184	77	61	61	1/32
45916A	MES - 86/60	1200/5	10	117	57	57	184	77	61	61	1/32



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

Standard EN 60044-1



CURRENT TRANSFORMERS, TYPE CP

Current measuring transformers of duct type. Specially designed to be installed in measuring circuits without removing cables in current measuring circuit. CP Transformers save installation time and decrease installation costs.

TECHNICAL DATA

- Small size table:
- Secondary coil rated current 5A
- Rated voltage 720V
- Frequency 50Hz
- Rated load: up to 30VA
- Safety coefficient: $f_s \leq 5$
- Secondary coil connection: cable shoe terminal

Overall dimensions (mm)

Type	A	B	C	D	E	F	G
CP 23	20	30	51	89	111	34	47
CP 58	50	80	78	114	145	32	32
CP 88	80	80	108	144	145	32	32

Catalogue number	Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)
452320	CP 23	200/5	1	1.5	0.74	1/45
452325	CP 23	250/5	1	2.5	0.74	1/45
452330	CP 23	300/5	0.5	2.5	0.74	1/45



Catalogue number	Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)
455825	CP 58	250/5	0.5	1.5	0.87	1/36
455830	CP 58	300/5	0.5	2.5	0.87	1/36
455840	CP 58	400/5	0.5	2.5	0.87	1/36
455850	CP 58	500/5	0.5	5	0.87	1/36
455860	CP 58	600/5	0.5	5	0.87	1/36



Catalogue number	Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)
458850	CP 88	500/5	0.5	2.5	1	1 / 20
458860	CP 88	600/5	0.5	5	1	1 / 20
458875	CP 88	750/5	0.5	2,5	1	1 / 20
458880	CP 88	800/5	0.5	3.75	1	1 / 20
458890	CP 88	1000/5	0.5	5	1	1 / 20



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



INDUSTRIAL RELAYS AND BASES

Documents corresponding to the product:

EN 60947-5-1;
EN 61810

Devices intended for construction of automation and signalling boards. They are mainly used for command transfer towards the executive mechanisms. Currents of comparatively heavy values enabling the direct control of industrial executive mechanisms are commuted in comparatively small sizes. The contact surfaces are made from silver-coated electrolytic copper. The entire contact system is closed within a lid of colourless fire-proof plastic with a test-button installed to it. The base provides a safe electric connection of the conductors of the electric installation and the relays and is used to install the relay to the DIN busbar.

TECHNICAL DATA

- Supply voltage: from 12 to 230V AC, 50 Hz and from 12 to 110V DC
- Acceptable deviation of the supply voltage: 85 -110% Un
- Rated current of the sockets: 10A AC
- Electrical endurance: 1 000 000 cycles
- Isolation resistance: 500 mΩ /min (500V)
- Impulse tension resistance: 2000V, 50Hz
- Dielectric strength: 1000V AC/1 min
- Turn-out time: 25ms
- Working temperature: -5 ÷ + 65°C
- Humidity: 35 - 85% RH indicator
- possibility for mounting of additional contacts (for the open type)
- remarkable with high reliability of current characteristics

MOUNTING

- on a DIN rail by means of a socket



Catalogue number	Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)
57141	ELM - 14FC	12 VDC	ELM-RT624-B	260	NO+NC	100/1000
57142	ELM - 14FC	24 VDC	ELM-RT624-B	1080	NO+NC	100/1000
57143	ELM - 14FC	48 VDC	ELM-RT624-B	4260	NO+NC	100/1000



Type ELM-90.2

Catalogue number	Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)
57601N	ELM-90.2	12VDC	ELM-90.22	90	2NO+2NC	10/200
57602N	ELM - 90.2	24 VDC	ELM - 90.22	360	2NO+2NC	10/200
57603N	ELM - 90.2	48 VDC	ELM - 90.22	1440	2NO+2NC	10/200
57605N	ELM - 90.2	230 VAC	ELM - 90.22	6800	2NO+2NC	10/200
57606N	ELM-90.2	24VAC	ELM-90.22	72	2NO+2NC	10/200
57611N	ELM-90.3	12VDC	ELM-90.23	90	3NO+3NC	10/200
57612N	ELM - 90.03	24 VDC	ELM - 90.23	360	3NO+3NC	10/200
57613N	ELM - 90.03	48 VDC	ELM - 90.23	1440	3NO+3NC	10/200
57614N	ELM - 90.03	110 VAC	ELM - 90.23	1650	3NO+3NC	10/200
57615N	ELM-90.3	230 VAC	ELM-90.23	6800	3NO+3NC	10/200
57616N	ELM-90.3	24VAC	ELM-90.23	72	3NO+3NC	10/200



Type ELM-90.3

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

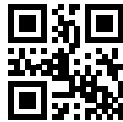


Type ELM-36.02



Type ELM-36.04

Catalogue number	Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)
57521N	ELM-36.02	12VDC	ELM-RT702-B	60	2NO+2NC	20/500
57522N	ELM-36.02	24VDC	ELM-RT702-B	640	2NO+2NC	20/500
57523N	ELM-36.02	48 VDC	ELM-RT702-B	2560	2NO+2NC	20/500
57525N	ELM-36.02	230VAC	ELM-RT702-B	15000	2NO+2NC	20/500
57526N	ELM-36.02	24VAC	ELM-RT702-B	168	2NO+2NC	20/500
57541N	ELM-36.04	12VDC	ELM-RT704-B	160	4NO+4NC	20/500
57542N	ELM-36.04	24VDC	ELM-RT704-B	640	4NO+4NC	20/500
57543N	ELM-36.04	48 VDC	ELM-RT704-B	2560	4NO+4NC	20/500
57544N	ELM-36.04	110 VAC	ELM-RT704-B	4000	4NO+4NC	20/500
57545N	ELM-36.04	230 VAC	ELM-RT704-B	15000	4NO+4NC	20/500
57546N	ELM-36.04	24VAC	ELM-RT704-B	192	4NO+4NC	20/500



57901

57902
57912

Catalogue number	Socket type	Dimensions (mm)	Number of terminals (pcs.)	Packing/Box (pcs)
57901	ELM - RT624-B	76 x 15	5	20 / 600
57902	ELM - RT702-B	76 x 27	11	10 / 240
57912	ELM - RT704-B	76 x 27	14	10 / 240
57904	ELM - 90.22	68 x 38	8	10 / 400
57905	ELM - 90.23	68 x 38	11	10 / 400



57904
57905

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

INTERFACE RELAYS EL-14F-LS SERIES

INTERFACE RELAYS EL-14F-LS SERIES

ELMARK interface relays provide reliable voltage conversion in control systems. Our relays ensure reliable signal switching and provide electrical isolation for sensitive electronics in all kinds of machinery in industry.

FEATURES

- Good response control
- Slim size
- With LED indicator
- With lockable test button and inspection window
- High rated load

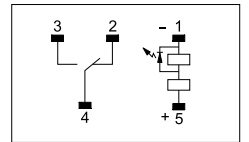
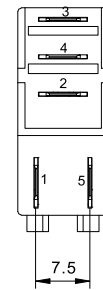
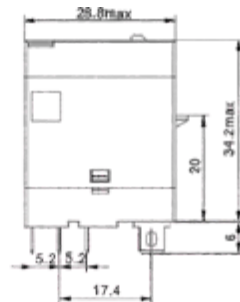
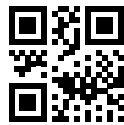
TECHNICAL DATA

- Rated load: 1Z-12A; 2Z-8A
- Rated voltage: 12V DC; 24V DC; 230V AC
- Insulation resistance: $\leq 500M\Omega$
- Operating power: 0.53W/0.9VA
- Dielectric strength
 - > Between open contacts: $\geq 1000V$ AC/1 min
 - > Between poles: $\geq 1500V$ AC/1 min
 - > Between contact and coil: $\geq 4000V$ AC/1 min
- Operate/ release time: $\leq 15ms/15ms$
- Terminal type: Plug-in
- Contact material: AgSnO₂
- Electrical life: 10⁵ times
- Mechanical life: 10⁷ times
- Size LxHxD: 28.8 x 34.2 x 12.6 mm



Type EL-14F-LS/ 1Z

Catalogue number	Relay type	Voltage of the coil (V)	Drop out voltage	Resistance of the coil (Ω)	Socket type	Contact form	Packing/Box (pcs)
57100	EL-14F-LS	12V DC	1.2	270	EL05A-E	1Z	20/300
57101	EL-14F-LS	24V DC	2.4	1100	EL05A-E	1Z	20/300
57102	EL-14F-LS	230V AC	69.0	23000	EL05A-E	1Z	20/300

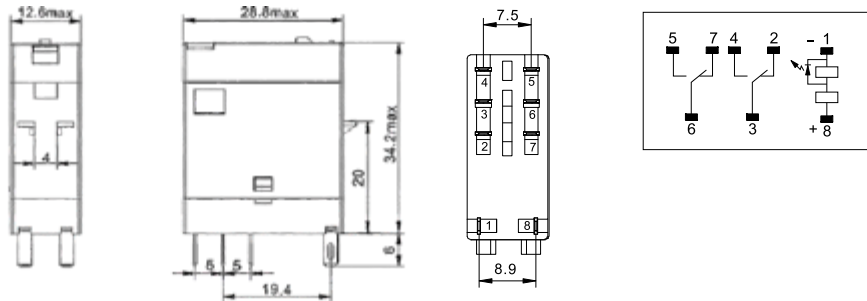


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



Type EL-14F-LS/2Z

Catalogue number	Relay type	Voltage of the coil (V)	Drop out voltage	Resistance of the coil (Ω)	Socket type	Contact form	Packing/Box (pcs)
57103	EL-14F-LS	12V DC	1.2	270	EL08A-E	2Z	20/300
57104	EL-14F-LS	24V DC	2.4	1100	EL08A-E	2Z	20/300
57105	EL-14F-LS	230V AC	69.0	23000	EL08A-E	2Z	20/300



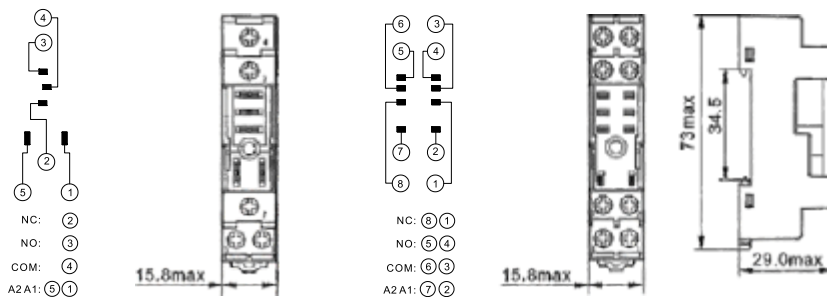
BASES FOR INTERFACE RELAYS EL-14F-LS SERIES

TECHNICAL DATA

- Rated load:
 - EL05A-E: 10A
 - EL08A-E: 16A
- Rated voltage: 300V AC
- Wire size: 0.5-2.5mm²
- Tightening torque: 0.8Nm



Catalogue number	Socket type	Dimensions (mm)	Number of terminals (pcs.)	Number of contacts	Packing/Box (pcs)
57106	EL05A-E	15.8x73x29	1NO+1NC	5	10/240
57107	EL08A-E	15.8x73x29	2NO+2NC	8	10/240



Type EL05A-E/ 5

Type EL05A-E/ 8

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

POWER RELAYS



EL-40F

POWER RELAY TYPE EL-40FN, 40A

Power relays are reliable problem solvers when it comes to switching high currents. They have an electromagnet to open or close a circuit when the input (coil) is correctly excited.

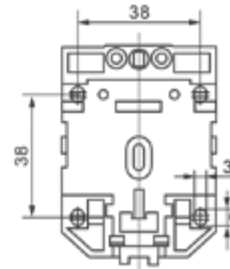
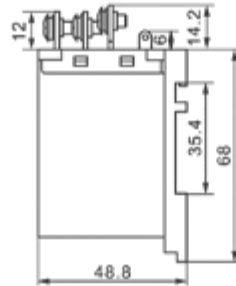
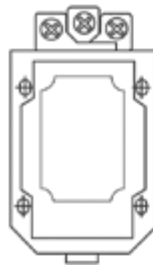
FEATURES

- Slim size.
- With LED indicator.
- Two type mounting: On DIN rail or quick screw connection.

TECHNICAL DATA

- Rated load: 40A.
- Rated voltage: 12V DC; 24V DC; 230V AC
- Insulation resistance: $\leq 1000M\Omega$
- Dielectric strength
 - > Between open contacts: $\geq 1200V AC/1 \text{ min}$
 - > Between contact and coil: $\geq 2500V AC/1 \text{ min}$
- Operate/ release time: $\leq 25ms/25ms$
- Contact material: AgSnO₂
- Electrical life: 10^5 times
- Mechanical life: 10^7 times
- Size LxHxD: 40A: 48.8 x 68 x 48.8mm

Catalogue number	Relay type	Voltage of the coil (V)	Rated load (A)	Drop out voltage	Resistance of the coil (Ω)	Contact form	Number of contacts	Packing/ Box (pcs)
57120	EL-40F	12V DC	40	1.2	72	1Z	1NO+1NC	20/300
57121	EL-40F	24V DC	40	2.4	288	1Z	1NO+1NC	20/300
57122	EL-40F	250V DC	40	72.0	19400 at 220V	1Z	1NO+1NC	20/300



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



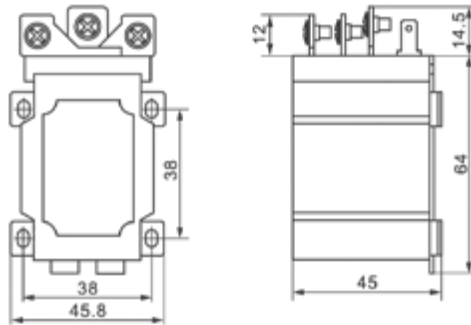
EL-60F

POWER RELAY TYPE EL-60F, 60A

TECHNICAL DATA

- Rated load: 60A.
- Rated voltage: 12V DC; 24V DC; 230V AC
- Insulation resistance: $\leq 1000M\Omega$
- Dielectric strength
 - > Between open contacts: $\geq 1200V AC/1 \text{ min}$
 - > Between contact and coil: $\geq 2500V AC/1 \text{ min}$
- Operate/ release time: $\leq 25ms/25ms$
- Contact material: AgSnO₂
- Electrical life: 10^5 times
- Mechanical life: 10^7 times
- Size LxHxD: 45.8 x 64 x 45mm

Catalogue number	Relay type	Voltage of the coil (V)	Rated load (A)	Drop out voltage	Resistance of the coil (Ω)	Contact form	Number of contacts	Packing/ Box (pcs)
57123	EL-60F	12V DC	60	1.2	72	1Z	1NO+1NC	20/300
57124	EL-60F	24V DC	60	2.4	288	1Z	1NO+1NC	20/300
57125	EL-60F	250V DC	60	72.0	19400 at 220V	1Z	1NO+1NC	20/300

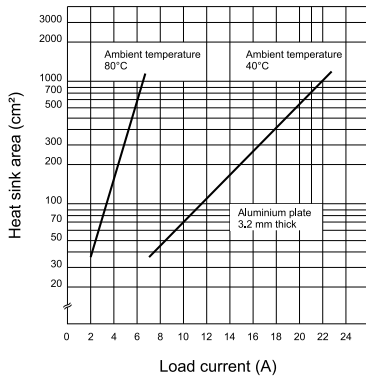


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

INDUSTRIAL SOLID STATE RELAYS (SSR)

Documents corresponding to the product:

EN 60947-5-1;
EN 61810



Industrial SSR are intended for mounting in power and control cabinets as an output switch devices with reliable ON/OFF performance. The SSR are based on the CMOS technology. The non-contact electronic switch is optically separated from the input signal by a photoelectric coupler. This allows use of switch currents of up to 50A despite of the devices small overall size. Another important feature of the relay is that output load can be regulated depending on the input signal value. The relay is mainly used to transmit control signals to actuating mechanisms since it can work at comparatively high currents making it possible to directly control actuators. SSR have transparent plastic covers to additionally improve their safety level. The SSR use is connected with considerable heat emissions, so measures must be taken to dispense the excessive thermal energy in the atmosphere. This is achieved through application of specially designed radiators. The correct definition of radiator parameters is of critical importance. It is made by calculating the heat generation capacity with the formula: Heat generation = active load current x 3.0 W/A. The heat removal surface is estimated with the help of the graphic:

TECHNICAL DATA

- Load/output voltage: 30/400V 50 Hz or the solid state voltage regulators
- Rated output current: from 10A to 60A
- Insulating voltage: 1000 MΩ /min (500V)
- Impulse voltage stability: 2000V, 50Hz
- Dielectric Strength: < 2500VAC / 1 min
- Leakage current: <2mA
- Turn-on time: <10ms
- Operating temperature: -5°C + 65°C
- Relative Humidity: 35 - 85%RH

Note: The relay output must be supplied with a varistor to ensure its over-voltage protection, whenever RRS is used to control inductive loads.

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



Catalogue number	Type	Relay Type	Control Voltage (V)	Output Voltage (V)	Number of phases	Output Current (A)	Packing/Box (pcs)
57710	ZG3NC - 2 - 10B	SSR	3-32VDC	230VAC	1	10	10 / 100
57720	ZG3NC - 2 - 20B	SSR	3-32VDC	230VAC	1	20	10 / 100
57725	ZG3NC - 2 - 25B	SSR	3-32VDC	230VAC	1	25	10 / 100
57740	ZG3NC - 2 - 40B	SSR	3-32VDC	230VAC	1	40	10 / 100
57760	ZG3NC - 2 - 60B	SSR	3-32VDC	230VAC	1	60	10 / 100
57713	ZG3NC - 3 - 10B	SSR	3-32VDC	400VAC	2	10	10 / 100
57723	ZG3NC - 3 - 20B	SSR	3-32VDC	400VAC	2	20	10 / 100
57735	ZG3NC - 3 - 25B	SSR	3-32VDC	400VAC	2	25	10 / 100
57743	ZG3NC - 3 - 40B	SSR	3-32VDC	400VAC	2	40	10 / 100
57763	ZG3NC - 3 - 60B	SSR	3-32VDC	400VAC	2	60	10 / 100



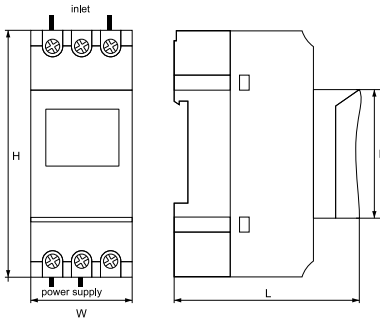
Catalogue number	Type	Relay Type	Control Voltage (V)	Output Voltage (V)	Number of phases	Output Current (A)	Packing/Box (pcs)
57831	ZG33 - 3 - 10B	SSR	3-32VDC	400VAC	3	10	1 / 30
57832	ZG33 - 3 - 20B	SSR	3-32VDC	400VAC	3	20	1 / 30
57833	ZG33 - 3 - 25B	SSR	3-32VDC	400VAC	3	25	1 / 30
57834	ZG 33 - 3 - 40B	SSR	3-32VDC	400VAC	3	40	1 / 30



MEASUREMENT DEVICES

Documents corresponding to the product:

Standard EN 61010-1



DIGITAL VOLTMETER/AMPEREMETER EKDP 15 A/V

Digital device adjusted for DIN-rail mounting and offered in two types:

- Ampere meter
- Voltmeter

It is supplied with LCD display where the measurement quantity is displayed with numbers with 3 1/2 size. It has high accuracy of analogue-digital transfer, measurement precision and electromagnetic interference stability. There is possibility for adjustment of the measurement range through built in micro switches. Adjusted to measure constant current (AD,DV) and alternating current (AA,VA) quantities.

TECHNICAL DATA

- Power supply voltage: 100 - 240V; 50Hz
- Inlet signal:
 - > Operating as voltmeter: 2 – 700V (the range is adjusted from inside)
 - > Operating as ampere meter: 5 – 2000A (the range is adjusted from inside)
- Consumption: <4VA
- Impulse voltage wear resistance: 4000V; 50Hz (1min)

- Operating temperature: -5 ÷ +65°C
- Humidity: 35 – 85%RH
- Precision: 0.5% from the whole scale
- Display: LCD
- Weight: 150gr

MOUNTING

- DIN-rail

Note: At current range over 5A a current measurement transformer should be used

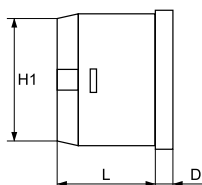
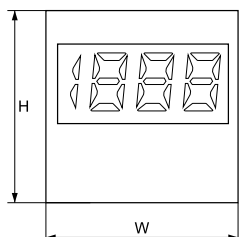
Catalogue number	Type	Dimensions (mm)				Packing/Box (pcs)
		H	W	L	D	
50117A	EKDP-15AA	88	36	64	45	1 / 100
50117D	EKDP-15DA	88	36	64	45	1 / 100
50116A	EKDP-15AV	88	36	64	45	1 / 100
50116D	EKDP-15DV	88	36	64	45	1 / 100



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

Documents corresponding to the product:

Standard EN 61010-1



DIGITAL VOLTMETER/ AMPERE METER AND FREQUENCY METER EKDP7

Digital device adjusted for mounting on the front panel of electrical boards and offered in the following types:

- Ampere meter:
EKDP7 – AA – ampere meter for alternating current
EKDP7 – DA – ampere meter for direct current
- Voltmeter:
EKDP7 – AV – voltmeter for alternating current
EKDP7 – DV – voltmeter for direct current
- Frequency meter:
EKDP7 – Hz – frequency meter

It is supplied with LCD display where the measurement quantity is displayed with numbers with 3 1/2 size. It has high accuracy of analogue-digital transfer, measurement precision and electromagnetic interference stability. There is possibility for adjustment of the measurement range through built in micro switches. Adjusted to measure direct current and alternating current quantities.

TECHNICAL DATA

- Power supply voltage: 100 - 240V; 50Hz
- Inlet signal:
 - > Operating as voltmeter: 2 – 700V (the range is adjusted from inside)
 - > Operating as ampere meter: 5 – 2000A (the range is adjusted from inside)
- Consumption: <5A
- Impulse voltage wear resistance: 4000V; 50Hz

- (1min)
- Operating temperature: -5 ÷ +65°C
- Humidity: 35 – 85%RH
- Precision: 0.5% from the whole scale
- Display: LCD
- Weight: 130gr

MOUNTING

- On the front pane

Note: For high current range a current measurement transformer should be used for alternating current device and a measurement shunt for direct current.

Catalogue number	Type	Dimensions (mm)					Packing/Box (pcs)
		H	W	H1	D	L	
50106	EKDP7-AV	72	72	68	6	42	1/84
50107	EKDP7-AA	72	72	68	6	42	1/84
50108	EKDP7-DV	72	72	68	6	42	1/84
50109	EKDP7-DA	72	72	68	6	42	1/84
50110	EKDP7-HZ	72	72	68	6	42	1/84



DIGITAL ROUND VOLTMETER/ AMPERE METER AND FREQUENCY METER EL-ED16R

Catalogue number	Type	Range	Diameter (mm)	Packing / Box (pcs)
401553	Voltmeter	12-500V AC	22	10/500
401554	Ampere meter	0-100A	22	10/500
401555	Frequency meter	35-99 HZ	22	10/500

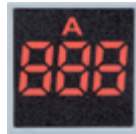


5 YEARS TOTAL WARRANTY
+ 3 standard
+ 2 extended

DIGITAL SQUARE VOLTMETER/ AMPERE METER AND FREQUENCY METER EL-ED16S



Catalogue number	Type	Range	Diameter (mm)	Packing/Box (pcs)
401556	Voltmeter	12-500V AC	22	10/500
401557	Ampere meter	0-100A	22	10/500
401558	Frequency meter	35-99 HZ	22	10/500



DIN-RAIL SINGLE PHASE DIGITAL VOLTAGE METER, EL-V1/500R

Digital Voltmeter abbreviated as DVM is an instrument used to measure the electrical potential difference between two points in a circuit. It measures the input voltage after converting the analog voltage to digital voltage and displays it in number format using a converter.

FEATURES

- You do not have to figure out the readings manually to get the voltage, ohm or ampere reading unlike the analogue voltmeters.
- Digital voltmeters provide a precise and computer-generated reading on the screen which eliminates the errors that might occur in the case of human reading.
- They provide accurate and fast readings when compared to the readings extracted from an analogue voltmeter.
- Digital voltmeters do not require you to make calculations and are more stable, dependable and reliable.
- Digital voltmeters provide accurate results and do not depend on the competency of the readers as in the case of reading analogue voltmeter.
- Digital voltmeters are cost-effective and smaller in size, which makes them easy to handle and use.

TECHNICAL DATA:

- Measurement voltage range: 80-500V AC
- Terminal for wiring: Single phase L+N
- Rated frequency: 50/60Hz
- Working current: $\leq 20\text{mA}$
- Measuring accuracy: 1
- Measuring rate: $> 200\text{MS/time}$
- IP Code: IP20
- Electrical Life: ≥ 15000 hours
- Digital colour: Red
- Working temperature: from -5° to 40°C
- Air relative humidity: 10-80% (no condensation)
- Work pressure: 80-160 kPa
- Terminal for wiring: 1.5mm²
- Mounting: On DIN rail EN60715(35mm) by means of fast clip device
- Dimensions (LxWxH): 18x66x81mm

Catalogue number	Type	Range	Phase	Packing / Box (pcs)
50143	Voltmeter	80-500V AC	Single	1/100



DIN RAIL MOUNTED KWH METERS

Documents corresponding to the product:

Standard IEC 62052-11; IEC 62053-21; IEC 62056-21

Electronic single and three phase kWh meters intended for DIN rail mounting and active energy measurement. Meters are suitable for home and commercial applications. They perform direct measurement of the real consumption of electric power and the results are shown on the LCD display. The system doesn't need any additional adjustment or calibration. The range includes single and multi-tariff models.



Catalogue number	Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions H/W/D (mm)	Packing/Box (pcs)
50213	EL-45SA	5A(40A)	1	2000	230	116 /18/ 59	1/10



Catalogue number	Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions H/W/D (mm)	Packing/Box (pcs)
50216	EL-100SA-U	10A(100A)	1	1600	230	100 /76/ 65	1/60



Catalogue number	Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions H/W/D (mm)	Packing/Box (pcs)
50217	EL-024	3x20A (100A)	1	400	3x220/380	100/76/65	1/60



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

SINGLE PHASE MULTI TARIFF ELECTRIC/ENERGY METER 10(80)A, ADL200

ADL200 single-phase electric meter is designed for single-phase energy measurement on low voltage system. The meter meets the related technical requirements of electronic meter in the IEC62053-21, IEC62053-22 standards.



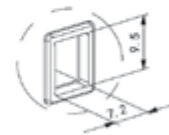
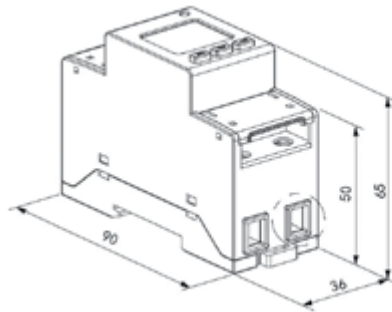
FUNCTIONS

- Measurement:
 - > kWh,
 - > Voltage,
 - > Current;
 - > Active power;
 - > Reactive power;
 - > Apparent power;
 - > Power factor;
 - > Frequency
- LED display: 8 bits section
- Communication interface: RS485
- Communication protocol: MODBUS-RTU

TECHNICAL DATA

- Rated voltage: 220-264 V AC / 50Hz
- Nominal input current: 10A
- Maximum current: 80A
- Power consumption: <10VA
- Measuring accuracy: Class 1
- Tariff numbers: 4
- Measuring range: 000000.00~999999.99kWh
- Size LxWxH: 36x90x65mm
- Working temperature: -25°C~55°C
- Relative humidity: ≤95% (No condensation)
- Altitude: up to 2500m
- Brand: Acrel

Catalogue number	Type	Measuring range	Voltage (V)	Overall dimensions (mm)			Packing/Box (pcs)
				L	W	H	
50219	ADL200	10A(80A)	154-264V AC	36	90	65	1/36



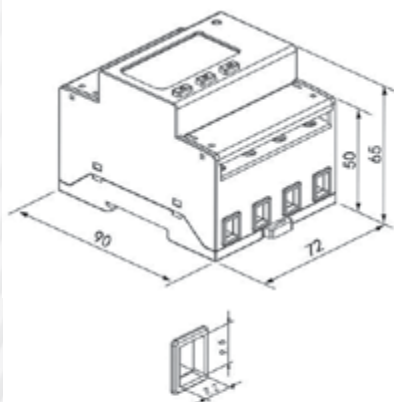
5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

THREE PHASE MULTI TARIFF ELECTRIC ENERGY METER 10(80)A, ADL400

ADL400 is a smart meter designed for power supply system, industrial and mining enterprises and utilities to calculate the electricity consumption and manage the electric demand. It features the high precision, small size and simple installation. It integrates the measurement of all electrical parameters with the comprehensive electricity metering and management provides various data on previous 48 months, checks the 31st harmonic content and the total harmonic content. It is fitted with RS485 communication port and adapted to MODBUS-RTU. ADL400 can be used in all kinds of control systems, SCADA systems and energy management systems.

FUNCTIONS

- Measurement of electrical parameters: kWh; voltage; current; active power (positive and negative); reactive power (positive and negative); apparent power; power factor and frequency
- Measurement of harmonics: 2-31st voltage and current harmonic
- Number of tariffs: 4
- LED display: 12 bits section
- Key programming: 3keys to communication and set parameters
- Multi-tariff and functions: adapt 4 time zones, 2 time interval list, 14 time interval by day and 4 tariff rates
- Max. demand and occurrence time
- Frozen data on last 48 months, last 90 days
- Communication interface: RS485
- Communication protocol: MODBUS-RTU



TECHNICAL DATA

- Rated voltage: 3x100V; 3x380V; 3x57.7/100V; 3x220/380V
- Frequency: 45-65Hz, error±0.2%
- Nominal input current: 3x1(6)A; 3x10(80)A
- Power consumption: < 1VA Single phase rated current
- Energy pulse output: 1 active photocoupler output
- kWh Class: 0.5
- Accuracy class: Error±0.2%
- Time error: ≤0.5s/d
- Width of pulse: 80±20ms
- Pulse constant: 400imp/kWh, 10000imp/kWh (Correspond with the basic current)
- Range of communication address: Modbus-RTU: 1~247
- Baud rate: 1200~19200bps
- Size LxWxH: 72x65x90 mm
- Working temperature: -25°C~55°C
- Relative humidity: ≤95% (No condensation)
- Altitude: up to 2500m
- Brand: Acrel



Catalogue number	Type	Measuring range	Voltage (V)	Overall dimensions (mm)			Packing/Box (pcs)
				L	W	H	
50212	ADL400	3x1(6)A / 3x10(80)A	3x220/380V	72	65	90	1/36

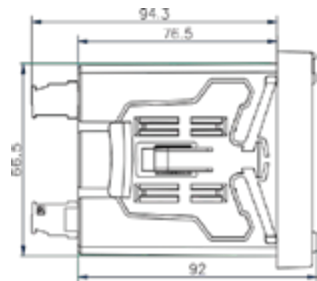
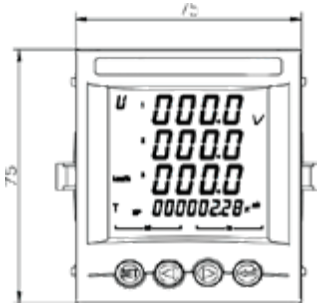


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

MULTI FUNCTIONAL/TARIFF PROGRAMMABLE METER AMC96L-E4/KC FOR BUILD-IN MOUNTING

AMC series AC multi-function meter is commonly found in larger homes and businesses, our Three Phase Panel Meter is a three-phase power meter with a data logger function for real-time and long-term three-phase power measurement of currents. It integrates the measurement of power parameters as well as power monitoring and evaluation management in one unit. When it is installed in your home, the power consumed in your home remains the same and it can be used with smaller and cheaper wiring systems for stable monitoring in environments with lower voltages. It is therefore widely used in power systems, industrial and mining enterprises, intelligent buildings, and other areas with power monitoring needs.

Programmable meter AMC96L-E4/KC also have a wide range of peripheral interface functions, allowing you to choose your own according to your needs. They are also designed with switching inputs and relay outputs for easy remote control of circuit breakers, making them very easy to use. The product meets the related technical requirements of electronic power meter in the IEC62053-21, IEC62053-22 standards.



FUNCTIONS

- Measurement of electrical parameters: kWh, voltage, current; active power (positive and negative); reactive power (positive and negative); apparent power; power factor and frequency
- Measurement of harmonics: 2-31st voltage and current harmonic
- Number of tariffs: 4
- True RMS Measurements
- Max/Min Log with Timestamp
- 12 bits section LSD display
- Internal Optional 4DI&2DO or 2DI&2DO&2AO
- Standard one Energy Pulse Output
- Communication interface: RS485
- Communication protocol: MODBUS-RTU

TECHNICAL DATA

- Rated input voltage:
 - > Single phase AC 100V; 400V AC
 - > Three phases: AC 3x57.7V/100V(100V); 3x220V/380V(400V); 3x380V/660V(660V) (96 size only)
 - > 72 profile not suitable for high voltage applications
- Connection:
 - > Single phase: 2-wire
 - > Three phases: 3 and 4-wire
- Input Frequency: 45-65Hz
- Switching input: Dry contact input, built-in power supply
- Nominal input current: 1A; 5A
- Power consumption: < 0.5VA
- Insulation resistance: Input, output end to machine enclosure >100MΩ
- kWh Class: 0.5
- Accuracy: Class 0.5
- Analog output: 1-5V, 4-20mA
- Pulse constant: 10000imp/kWh(settable)
- Communication: R S485port, Modbus -RTU protocol, DLT645 protocol (versions 07 and 97)
- Baud rate: 1200 ~ 38400 bps
- Housing size WxHxD: 90x90x77.8mm
- Faceplate size WxHxD: 96x96x90mm
- Cut-out size WxH: 92x92mm
- Working temperature: -25°C~65°C
- Relative humidity: ≤93% (No condensation)
- Altitude: up to 2000m
- Brand: Acrel

Catalogue number	Type	Input current (A)	Input voltage (V)	Housing size (mm)			Packing/Box (pcs)
				W	H	D	
50218	AMC96L-E4/KC	5	100/400/660	90	90	77.8	1/74



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

SINGLE PHASE PREPAID AND POST-PAID ENERGY METER 10(60)A, ADL100-EYZ/F



ADL100-EYZ/F is single phase pre-paid meters with intro-control is used for calculating the single phase active energy.

The multi-tariff meter has functions of pre-paid, load controlling and RS485 communication meet the related technical requirements of electronic power meter in the IEC62053-21, IEC62053-22 standards.

CONTROL: with ACREL-RFMS

FUNCTIONS

- Measurement of electrical parameters: kWh; voltage; current; active power (positive and negative); reactive power (positive and negative); apparent power; power factor and frequency
- Pre-paid mode: Through RS485 communication prepaid recharge, data encryption.
- Power input type: IC card
- Number of tariffs: 4 tariff rates, 14 time interval by day
- LED display: 8 bits section
- Control: Built-in high-capacity sub-holding relay to achieve load on-off control
- Communication interface: RS485
- Communication protocol: MODBUS-RTU

TECHNICAL DATA

- Rated voltage: 220V
- Frequency: 45-65Hz
- Nominal input current: 10(60)A
- Power consumption: < 4VA
- kWh Class: 1
- Clock accuracy: Error ≤ 0.5s/d
- Width of pulse: 80±20ms
- Pulse constant: 1600imp/kWh
- Communication interface: RS485(A+, B-)
- Pre-paid system application: ACREL-RFMS
- Size LxWxH: 72x70x88 mm
- Working temperature: from -25 to 55°C
- Relative humidity: ≤95%



OPERATE DETAILS

The power is input into the meter through RF card. When the available power in the meter decreases to zero, the meter will automatically cut off the power supply.

Only after the new available power is input through the RF card, the meter can resume power supply. After the user pays each time, the computer system of the power supply management department can calculate the value of the available electricity that should be recharged to the electricity meter this time according to the user's zero-crossing electricity and the remaining available electricity in the current electricity meter.

- Each end user will have an RF card, that RF card will be used for charging and depositing.
- After finishing the re-charging, the end-user or managers need to use an RF card to touch KWH meter.
- Prepaid meter electricity price can be set by RF card. Officer can record the electricity price and multi-tariff price inside the RF card. Once the RF card touches the KWH meter itself, this information will be recorded into the prepaid meter.

RF CARD FUNCTIONS

RF cards will not only be used for end-user but also will be used for managers. Managers can use one blank RF card and give that card a specified function by the Acrel-RFMS system. The most common functions are:

- Charging & Deposit
- Replacement for the Lost card
- Energy Consumption Reset
- Forced opening and closing circuit

Scan and watch detailed video with all product functions.



Catalogue number	Type	Input current	Input voltage (V)	Dimensions (mm)			Packing/Box (pcs)
				L	W	H	
50222	ADL100-EYZ/F	10A(60A)	154-264V AC	72	70	88	1/84

ACCESSORIES:

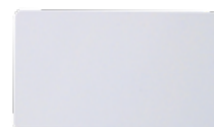
RF CARD READER FOR PREPAID AND POST-PAID KWH METERS



Catalogue number:
50225

NOTE: Comes with 1.5m length USB cable

RF CARD



Catalogue number:
50224

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

THREE PHASE PREPAID AND POST-PAID ENERGY METER 10(80) A, ADL300-EYZ/F



ADL300-EYZ/F is three phase pre-paid meters with intro-control is used for calculating the three phase active energy. The multi-tariff meter has functions of pre-paid, load controlling and RS485 communication meet the related technical requirements of electronic power meter in the IEC62053-21, IEC62053-22 standards.

CONTROL: with ACREL-RFMS

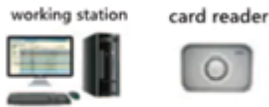
FUNCTIONS

- Measurement of electrical parameters: kWh; voltage; current; active power (positive and negative); reactive power (positive and negative); apparent power; power factor and frequency
- Pre-paid mode: Through RS485 communication prepaid recharge, data encryption.
- Power input type: IC card
- Number of tariffs: 4 tariff rates, 14 time interval by day
- LED display: 8 bits section
- Control: Built-in high-capacity sub-holding relay to achieve load on-off control
- Communication interface: RS485
- Communication protocol: MODBUS-RTU

TECHNICAL DATA

- Rated voltage: 3x220/380V- 465V AC
- Frequency: 45-65Hz
- Nominal input current: 10(80)A
- Power consumption: < 4VA
- kWh Class: 1
- Clock accuracy: Error ≤ 0.5s/d
- Width of pulse: 80±20ms
- Pulse constant: 6400imp/kWh, 400 imp/kWh
- Communication interface: RS485(A+, B-)
- Pre-paid system application: ACREL-RFMS
- Size LxWxH: 144x70x88 mm
- Working temperature: from -25 to 55°C
- Relative humidity: ≤95%

Structure



ACREL-RFMS
No recharging device



OPERATE DETAILS

The power is input into the meter through RF card. When the available power in the meter decreases to zero, the meter will automatically cut off the power supply. Only after the new available power is input through the RF card, the meter can resume power supply.

After the user pays each time, the computer system of the power supply management department can calculate the value of the available electricity that should be recharged to the electricity meter this time according to the user's zero-crossing electricity and the remaining available electricity in the current electricity meter.

- Each end user will have an RF card, that RF card will be used for charging and depositing.
- After finishing the re-charging, the end-user or managers need to use an RF card to touch KWH meter.
- Prepaid meter electricity price can be set by RF card. Officer can record the electricity price and multi-tariff price inside the RF card. Once the RF card touches the KWH meter itself, this information will be recorded into the prepaid meter.

RF CARD FUNCTIONS

RF cards will not only be used for end-user but also will be used for managers. Managers can use one blank RF card and give that card a specified function by the Acrel-RFMS system. The most common functions are:

- Charging & Deposit
- Replacement for the Lost card
- Energy Consumption Reset
- Forced opening and closing circuit

Scan and watch detailed video with all product functions.



Catalogue number	Type	Input current	Input voltage (V)	Dimensions (mm)			Packing/Box (pcs)
				L	W	H	
50223	ADL300-EYZ/F	10A(80A)	3x220/380V	144	70	88	1/84

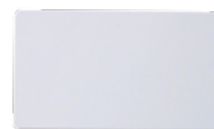
ACCESSORIES:

RF CARD READER FOR PREPAID AND POST-PAID KWH METERS



Catalogue number:
50225

RF CARD



Catalogue number:
50224

NOTE: Comes with 1.5m length USB cable

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

ANALOGUE (POINTER) PANEL METERS SD72 TYPE FOR BUILD-IN

Documents corresponding to the product:

Standard EN 60051-1

Analogue devices adjusted for mounting on the front panel of electrical boards. Designed for frequency measurement, capacity, alternating or direct voltage and current of the power supply grid, with overall dimensions 72x72mm. They are manufactured based on bridge measurement schemes. There is possibility for display change for the higher scopes of measuring.



ANALOGUE AMPERE METER

Catalogue number	Type	Type of the measurement system	Precision class	Range	Note	Packing/Box (pcs)
654010	Ampere meter AC	MEMSI	1.5	0-100A	Current transfer 100/5	1/100
654020	Ampere meter AC	MEMSI	1.5	0-200A	Current transfer 200/5	1/100
654040	Ampere meter AC	MEMSI	1.5	0-400A	Current transfer 400/5	1/50
654060	Ampere meter AC	MEMSI	1.5	0-600A	Current transfer 600/5	1/50
654100	Ampere meter AC	MEMSI	1.5	0-1000A	Current transfer 1000/5	1/50
654150	Ampere meter AC	MEMSI	1.5	0-1500A	Current transfer 1500/5	1/50
50128	Ampere meter DC	MEMC	1.5	0-5A	-	1/50
50129	Ampere meter DC	MEMC	1.5	0-50A	Outer resistor 60mV	1/50

Note: MEMSI - magnetic-electrical movable steel instrument;
MEMC - magnetic-electrical movable coil



ANALOGUE VOLTMETER

Catalogue number	Type	Type of the measurement system	Precision class	Range	Packing/Box (pcs)
50125	Voltmeter AC*	MEMSI	1.5	0-500V	1/50
50130	Voltmeter DC	MEMC	1.5	0-50V	1/50
50131	Voltmeter DC	MEMC	1.5	0-100V	1/20

* Possibility for supplying with voltage transformer X/100V for range expanding

Note: MEMSI - magnetic-electrical movable steel instrument;
MEMC - magnetic-electrical movable coil



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



ANALOGUE FREQUENCY METER

Catalogue number	Type	Type of the measurement system	Precision class	Range	Packing/Box (pcs)
50126	Frequency meter**	ME	0.5	45-65Hz	1/50

** Possibility for voltage 110V, 230V , 400V

Note: MEMSI - magnetic-electrical movable steel instrument;
MEMC - magnetic-electrical movable coil



ANALOGUE COSΦ METER

Catalogue number	Type	Type of the measurement system	Precision class	Range	Packing/Box (pcs)
50127	Cosφ meter	MEMSI	1.5	3P 400V	1/50

Note: MEMSI - magnetic-electrical movable steel instrument;
MEMC - magnetic-electrical movable coil



ANALOGUE WATT METER

Catalogue number	Type	Type of the measurement system	Precision class	Range	Packing/Box (pcs)
50132	Watt meter	MEMSI	1.5	0-3000W 1P240V	1/25
50133	Watt meter	MEMSI	1.5	0-3000W 3P 3 line	1/25
50134	Watt meter	MEMSI	1.5	0-3000W 3P 4 line	1/25

Note: MEMSI - magnetic-electrical movable steel instrument;
MEMC - magnetic-electrical movable coil

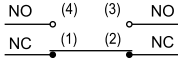


ALL-PURPOSE LIMIT SWITCH – SERIES CSA-XXX

Product conformity documentation:

Standard: EN 60947-1;
EN 60947-5-1

Type of contact system



The all-purpose limit switches are devices used in automatic systems as a control element. They are used for setting of gearing limits. They are mounted on transport lines, conveyors and other linear progressive motion machines. They feature a vibration-resistant metal shell.

TECHNICAL DATA

- Dielectric strength: 1000V AC
- Rated current: 10A active; 4A inductive
- Insulating resistance: 100mΩ
- Electrical endurance (number of cycles): 500 000 with active load
- Mechanical endurance (number of cycles): 1 000 000

- Gearing speed: 5mm/s to 0.5 m/s
- Rated voltage: 230V
- Rated current: up to 10A
- IP code: IP66
- Cable input: cable gland PG11
- Section of power supply conductor: up to 2mm²
- Fastening strength of terminals: 6-8kgf/cm

Catalogue number	Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/Box (pcs)
46A001	CSA - 001	Metal cylinder	800	400	2.0mm	5.8mm	10/90
46A003	CSA - 003	Cylinder with metal roll	800	400	2.0mm	5.8mm	10/90
46A012	CSA - 012	Horizontal lever with metal roll	800	400	2.0mm	5.8mm	10/90
46A031	CSA - 031	Adjustable lever with metal roll	400	100	22.5°	95°	10/80
46A021	CSA - 021	Lever with metal roll	400	100	22.5°	95°	10/80
46A081	CSA - 081	Spring lever	150	50	22.5°	50mm	10/80



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

46A001

46A031

46A003

46A021

46A012

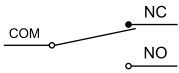
46A081

ALL-PURPOSE LIMIT SWITCH – SERIES TZ-6XXX

Product conformity documentation:

Standard: EN 60947-1;
EN 60947-5-1

Type of contact system



The all-purpose limit switches are installed on transport lines, conveyors and other linear progressive motion machines. The miniature limit switch is mounted in an aluminium shell, resistant to vibrations, lubricants and water.

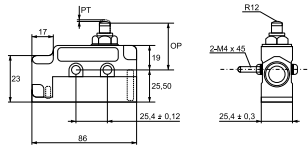
TECHNICAL DATA

- Dielectric strength: 1000V AC
- Rated current: 15A active; 5A inductive
- Insulating resistance: 100mΩ
- Contact resistance: 15mΩ
- Electrical endurance (number of cycles): 500 000 with active load
- Mechanical endurance (number of cycles): 10 000 000
- Gearing speed: 0.1mm/s to 0.5 m/s
- Rated voltage: 230V
- IP code: IP65
- Cable input: cable gland PG11
- Section of power supply conductor: up to 1.5mm²

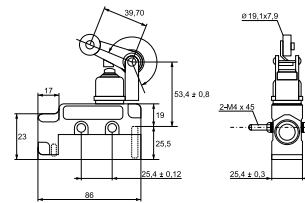
Catalogue number	Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/Box (pcs)
466001	TZ-6001	Metal cylinder	350	115	0.5mm	5.5mm	1/50
466101	TZ-6101	Oil-resistant metal cylinder	800	240	2mm	5mm	1/50
466102	TZ-6102	Oil-resistant cylinder with metal roll	500	100	1mm	3.5mm	1/50
466104	TZ-6104	Oil-resistant horizontal lever with metal roll	640	230	5mm	6mm	1/50
466143	TZ-6143	Oil-resistant vertical lever with metal roll	640	230	5mm	6mm	1/50
466106	TZ-6106	Spring lever	150	-	20°	-	1/50



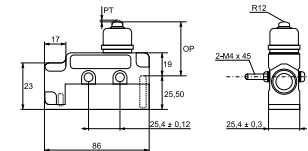
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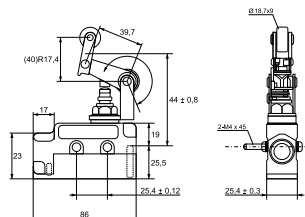
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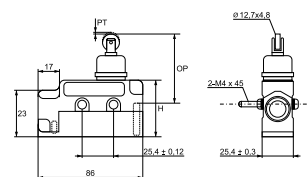
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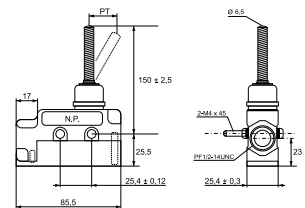
466143



466102



466106



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended

UNIVERSAL LIMIT SWITCH – SERIES CM-1XXX

Product conformity documentation:

Standard: EN 60947-1;
EN 60947-5-1

Limit switches of the CM series are used mainly as replacement of the limit switches of the TZ series or for setting the movement limits of some types of equipment. The switches are supplied with screw cable terminals. They can work at resistance loads as high as 15A, and are of single circuit type. Limit switches have high accuracy and can operate at wide variety of speeds.

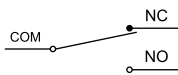
TECHNICAL DATA

- Dielectric Strength: 1000V AC
- Rated current: 15A active; 5A inductive
- Insulation Resistance: 100mΩ min. (at 500VDC)
- Contact Resistance: 5mΩ
- Electrical Life (No. of cycles): 500 000 with non-inductive load
- Mechanical Life (No. of cycles): 5 000 000
- Operating frequency: 20 electrical operations/

minute

- Operating speed: 0.1mm/s to 1.0m/s
- Rated voltage: 230V
- IP code: IP40
- Fastening strength of terminals: 6-8kgf/cm

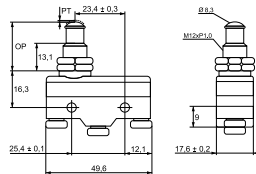
Type of contact system



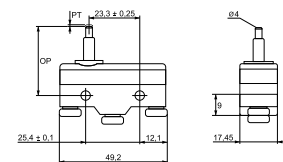
Catalogue number	Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/Box (pcs)
468105	CM -1307	Metal cylinder	350	114	0.4mm	5.5mm	1/480
468106	CM -1309	Cylinder and transverse metal roll	350	114	0.4mm	5.5mm	1/480
468109	CM -1308	Cylinder longitudinal metal roll	350	114	0.4mm	5.5mm	1/480
468110	CM -1305	Metal cylinder	350	114	0.4mm	1.6mm	1/480
468113	CM -1703	Extended metal roll	160	22	7.1mm	1.02mm	1/480
468117	CM -1705	Spring lever	10	3	20mm	5.6mm	1/480



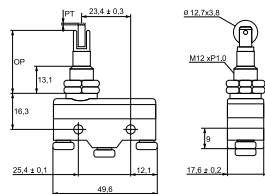
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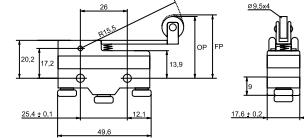
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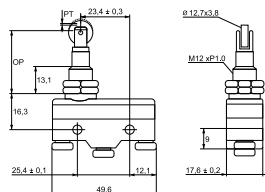
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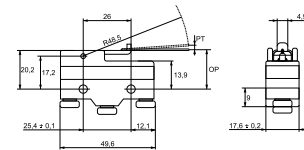
468113



468109



468117



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ALL-PURPOSE LIMIT SWITCH – SERIES TZ-8XXX

Product conformity documentation:

Standard: EN 60947-1;
EN 60947-5-1

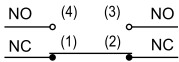
The all-purpose limit switches are devices used for setting gearing limits. They are mounted on transport lines, conveyors and other linear progressive motion machines. They have small dimensions and a vibration-resistant metal shell with plastic lid, resistant to oil and water.

TECHNICAL DATA

- Dielectric strength: 1000V AC
- Rated current: 5A active; 3A inductive
- Insulating resistance: 100MΩ
- Contact Resistance: 25mΩ
- Electrical endurance (number of cycles): 500 000 with active load
- Mechanical endurance (number of cycles): 5 000 000

- Gearing speed: 5mm/s to 0.5 m/s
- Rated voltage: 230V
- IP code: IP65
- Cable input: cable gland PG11
- Section of power supply conductor: up to 2mm
- Fastening strength of terminals: 6-8kgf/cm

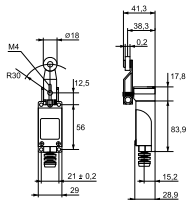
Type of contact system



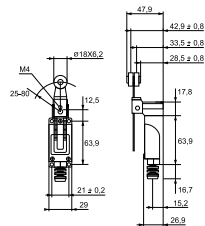
Catalogue number	Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/Box (pcs)
468104	TZ -8104	Lever with metal roll	750	100	20°	50°	10/100
468108	TZ -8108	Adjustable lever with metal roll	750	100	20°	50°	10/100
468112	TZ -8112	Cylinder with metal roll	900	150	1.5mm	4.0mm	10/100
468111	TZ -8111	Metal cylinder	900	150	1.5mm	4.0mm	10/100
468107	TZ -8107	Metal rod	750	100	20°	50°	10/100
468167	TZ -8167	Spring lever	150	-	30mm	-	10/100



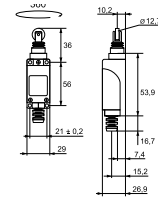
468104



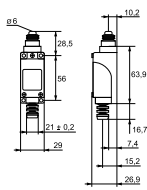
468108



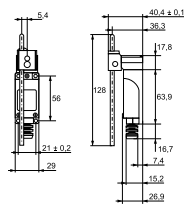
468112



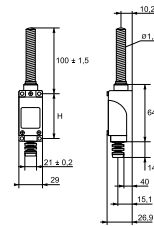
468111



468107



468167



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



ALL-PURPOSE LIMIT SWITCH – SERIES CWL-XXX

Product conformity

documentation:

Standard: EN 60947-1;
EN 60947-5-1

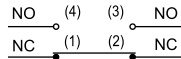
The all-purpose limit switches are devices used for setting gearing limits. They are mounted on transport lines, conveyors and other linear progressive motion machines. They have aluminium shell of high mechanic strength and resistance to oil, water and pressure.

TECHNICAL DATA

- Dielectric strength: 1000V AC
- Rated current: 10A active; 3A inductive
- Insulating resistance: 100mΩ
- Contact resistance: 15mΩ
- Electrical endurance (number of cycles): 500 000 with active load
- Mechanical endurance (number of cycles): 10 000 000

- Gearing speed: 1mm/s to 2 m/s
- Rated voltage: 230V
- IP code: IP66
- Cable input: cable gland
- Metal shell
- Vibration-resistant

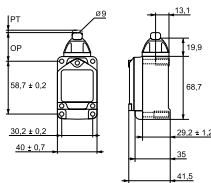
Type of contact system



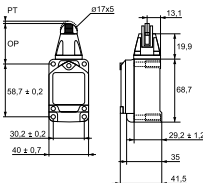
Catalogue number	Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/Box (pcs)
46LD	CWLD	Metal cylinder	2720	910	2.0mm	6.4mm	1 / 50
46LD2	CWLD2	Cylinder with metal roll	2720	910	2.0mm	5.6mm	1 / 50
46LCA2-2	CWLCA2-2	Lever with metal roll	1360	227	20°	50°	1 / 50
46LCA12-2Q	CWLCA12-2-Q	Adjustable lever with metal roll	2720	910	20°	50°	1 / 50
46LCA32-41	CWCA32-41	Fork	1200	-	55°	90±10°	1 / 50
46LNJ	CWLNJ	Oil-resistant spring lever	150	-	28mm	90±10°	1 / 50
46LCL	CWLCL	Metal rod	142	28	20°	50°	1 / 50



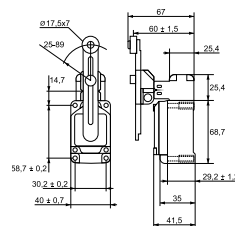
46LD



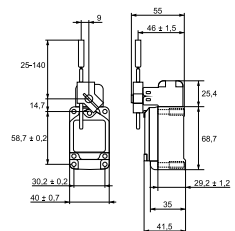
46LD2



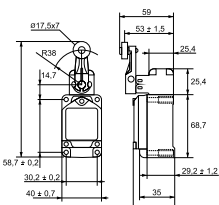
46LCA12-2Q



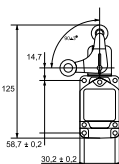
46LCL



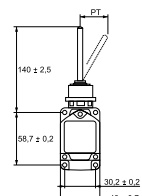
46LCA2-2



46LCA32-41



46LNJ



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

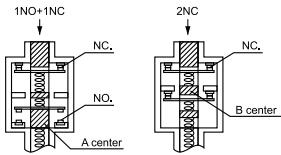


UNIVERSAL LIMIT SWITCH – SERIES CZ93-XX

Product conformity documentation:

Standard: EN 60947-1;
EN 60947-5-1

Type of the contact system

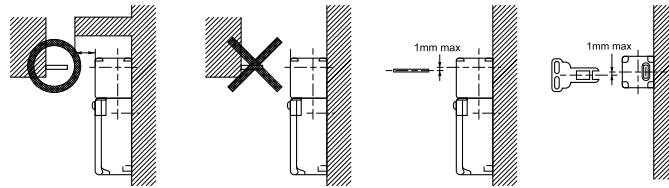


Limit switches of the CZ 93 series are Safety Key Interlock Switches. They are used in object control systems with high safety requirements. The limit switch body is mounted to the fixed system component, while the safety key is mounted to the movable system component. System operation cannot start, unless a full interlocking is achieved. Safety key interlock switches can operate at up to 10A non-inductive resistance load, 3A lamp load and 5A inductive load. They have high operating accuracy at wide variety of speeds. These limit switches are available in two versions depending on the operating contacts number: 2NC and NO+NC

TECHNICAL DATA

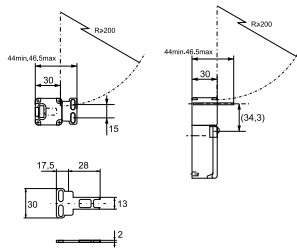
- Dielectric Strength: 2500V AC
- Rated current: 10A active; 3A inductive
- Insulation Resistance: 100mΩ min. (at 500VDC)
- Contact Resistance: 25mΩ
- Electrical Life (No. of cycles): 50 000 with non-inductive load

- Mechanical Life (No. of cycles): 2 000 000
- Operating frequency: 30 electrical operations/minute
- Operating speed: 0.1 mm/s to 0.5m/s
- Rated voltage: 230V
- IP code: IP65

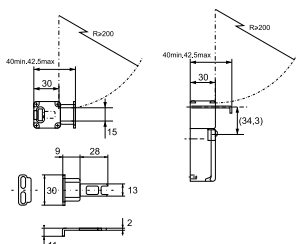


Catalogue number	Type	Key type	Power of starting (g)	Power of release (g)	Switching position	General movement	Key Actuating	Packing/Box (pcs)
46CZ08	CZ-93BPG01	CZ93-K1	147N	29.4N	6 mm	28mm	Horizontal	10 / 100
46CZ09	CZ-93CPG01	CZ93-K1	147N	29.4N	6 mm	28mm	Horizontal	10 / 100
46CZ10	CZ-93BPG02	CZ93-K2	147N	29.4N	6 mm	28mm	Vertical	10 / 100
46CZ11	CZ-93CPG02	CZ93-K2	147N	29.4N	6 mm	28mm	Vertical	10 / 100
46CZ12	CZ-93BPG03	CZ93-K3	147N	29.4N	6 mm	28mm	Adjustable	10 / 100
46CZ13	CZ-93CPG03	CZ93-K3	147N	29.4N	6 mm	28mm	Adjustable	10 / 100

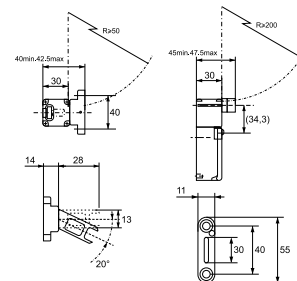
Catalogue number	Type	Key Actuating	Packing/Box (pcs)
46CZ931	CZ93-K1	Horizontal	1/100
46CZ932	CZ93-K2	Vertical	1/100
46CZ933	CZ93-K3	Adjustable	1/100



46CZ08 / Key type CZ93-K1
46CZ09/ Key type CZ93-K1



46CZ10/ Key type CZ93-K2
46CZ11/ Key type CZ93-K2



46CZ12/ Key type CZ93-K3
46CZ13/ Key type CZ93-K3

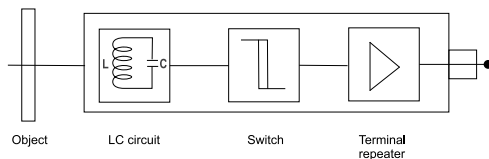


3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



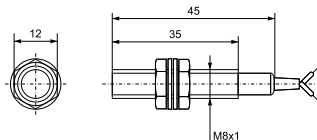
ALL-PURPOSE PROXIMITY SWITCH – SERIES LM XX

Proximity induction sensors are all-purpose switches used in machine systems and equipment for no contact surveillance of metal elements motion. They can also be used in other machine systems applications as no contact control sensors for level of liquids, control sensors for the speed and position of rotating chains, etc. They are developed on the base of PNP and NPN transition. They have small dimensions and feature a metal cylindrical shell resistant to vibrations and a plastic lid which is oil and water resistant.

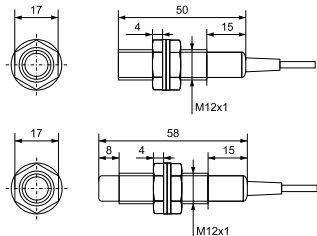


TECHNICAL DATA

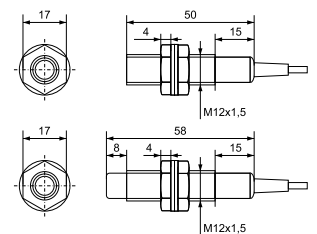
- Insulating resistance: $\geq 50 \text{ M}\Omega$
- Gearing distance: from 2 mm to 7 mm
- Precision of repetition: 0.01
- Ambient temperature: -25°C to $+65^\circ\text{C}$
- Gearing speed: 5mm/s
- Rated voltage: 6~36VDC; 90~230VAC
- IP code: IP 67



EL-LM8



EL-LM12



EL-LM12

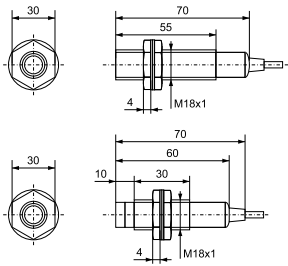


Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46LM 8-32NA	EL-LM8-3002NA	2	15~30 VDC	NPN	NO	130 mA	2 / 200
46LM 8-32NB	EL-LM8-3002NB	2	15~30 VDC	NPN	NC	130 mA	2 / 200
46LM 8-32PA	EL-LM8-3002PA	2	15~30 VDC	PNP	NO	130 mA	2 / 200
46LM 8-32PB	EL-LM8-3002PB	2	15~30 VDC	PNP	NC	130 mA	2 / 200
46LM 8-22A	EL-LM8-2002A	2	90~230VAC	SCR	NO	150 mA	2 / 200

Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46LM 12-34NA	EL-LM12-3004NA	4	15~30 VDC	NPN	NO	200 mA	2 / 200
46LM 12-34NB	EL-LM12-3004NB	4	15~30 VDC	NPN	NC	200 mA	2 / 200
46LM 12-34PA	EL-LM12-3004PA	4	15~30 VDC	PNP	NO	200 mA	2 / 200
46LM 12-34PB	EL-LM12-3004PB	4	15~30 VDC	PNP	NC	200 mA	2 / 200
46LM 12-24A	EL-LM12-2004A	4	90~230VAC	SCR	NO	300 mA	2 / 200

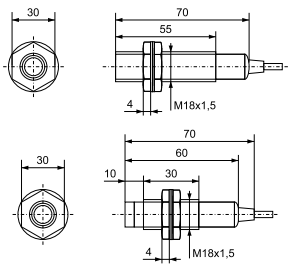
Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46LM 12-44A	EL-LM12-4002A	2	230VAC	Inductive	NO	100 mA	2 / 200
46LM 12-46A	EL-LM12-4004A	4	230VAC	Inductive	NO	300 mA	2 / 200

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



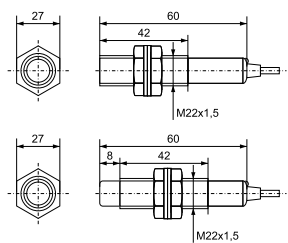
EL-LM18

Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46LM 18-38NA	EL-LM18-3008NA	8	15~30 VDC	NPN	NO	200 mA	1 / 100
46LM 18-38NB	EL-LM18-3008NB	8	15~30 VDC	NPN	NC	200 mA	1 / 100
46LM 18-38PA	EL-LM18-3008PA	8	15~30 VDC	PNP	NO	200 mA	1 / 100
46LM 18-38PB	EL-LM18-3008PB	8	15~30 VDC	PNP	NC	200 mA	1 / 100
46LM 18-28A	EL-LM18-2008A	8	90~230VAC	SCR	NO	300 mA	1 / 100



EL-LM18

Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46LM 18-44A	EL-LM18-4006A	5	230VAC	inductive	NO	100 mA	1 / 100
46LM 18-48A	EL-LM18-4008A	8	230VAC	inductive	NO	300 mA	1 / 100



EL-LM22

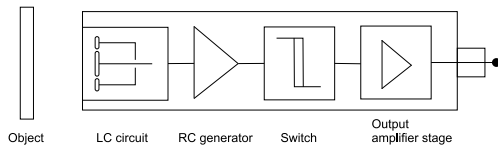
Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46LM 22-30NA	EL-LM22-3010NA	10	15~30 VDC	NPN	NO	200 mA	1 / 100
46LM 22-30NB	EL-LM22-3010NB	10	15~30 VDC	NPN	NC	200 mA	1 / 100
46LM 22-30PA	EL-LM22-3010PA	10	15~30 VDC	PNP	NO	200 mA	1 / 100
46LM 22-30PB	EL-LM22-3010PB	10	15~30 VDC	PNP	NC	200 mA	1 / 100
46LM 22-20A	EL-LM22-2010A	10	90~230VAC	SCR	NO	300 mA	1 / 100



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

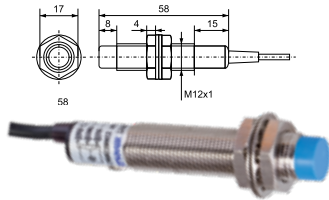
CAPACITIVE SENSORS – SERIES CM XX

Capacitive sensors are used in machine systems and equipment for no-contact motion surveillance. They consist of two coaxial electrodes, a condenser and RC generator. This type of sensors reacts to both metal and non-metal objects, as the gearing distance for non-metal objects depends on their dielectric constants. They allow gearing distance adjustment for non-magnetic conductive materials. They are developed on the base of PNP and NPN transition. They have small dimensions and feature a metal cylindrical shell resistant to vibrations and a plastic lid which is oil and water resistant.



TECHNICAL DATA

- Insulating resistance: $\geq 50 \text{ M}\Omega$
- Gearing distance: from 2 mm to 15 mm
- Precision of repetition: 0.01
- Ambient temperature: -25°C to $+65^\circ\text{C}$
- Gearing speed: 5mm/s
- Rated voltage: 6~36VDC; 90~230VAC
- IP code: IP 54

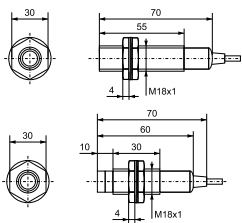


EL-CM12



Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46CM 12-32NA	EL-CM12-3004NA	0~4	15~30 VDC	NPN	NO	200 mA	1/100
46CM 12-32NB	EL-CM12-3004NB	0~4	15~30 VDC	NPN	NC	200 mA	1/100
46CM 12-32PA	EL-CM12-3004PA	0~4	15~30 VDC	PNP	NO	200 mA	1/100
46CM 12-32PB	EL-CM12-3004PB	0~4	15~30 VDC	PNP	NC	200 mA	1/100

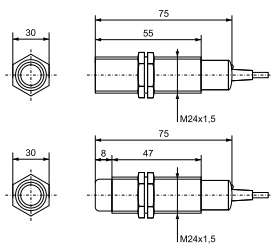
3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



EL-CM18



Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46CM 18-38NA	EL-CM18-3008NA	0~8	15~30 VDC	NPN	NO	200 mA	1/100
46CM 18-38NB	EL-CM18-3008NB	0~8	15~30 VDC	NPN	NC	200 mA	1/100
46CM 18-38PA	EL-CM18-3008PA	0~8	15~30 VDC	PNP	NO	200 mA	1/100
46CM 18-38PB	EL-CM18-3008PB	0~8	15~30 VDC	PNP	NC	200 mA	1/100
46CM 18-28A	EL-CM18-2008A	0~8	90~230VAC	SCR	NO	300 mA	1/100

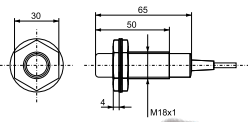
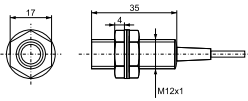


EL-CM24



Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46CM 24-12NA	EL-CM24-3012NA	8	15~30 VDC	NPN	NO	200 mA	1/100
46CM 24-12NB	EL-CM24-3012NB	8	15~30 VDC	NPN	NC	200 mA	1/100
46CM 24-12PA	EL-CM24-3012PA	8	15~30 VDC	PNP	NO	200 mA	1/100
46CM 24-12PB	EL-CM24-3012PB	8	15~30 VDC	PNP	NC	200 mA	1/100
46CM 24-12A	EL-CM24-2012A	8	90~230VAC	SCR	NO	300 mA	1/100





EL-SM12

Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46SM 12-31NA	EL-SM12-3110NA	10	15~30 VDC	NPN	NO	200 mA	2/200
46SM 12-31NB	EL-SM12-3110NB	10	15~30 VDC	NPN	NC	200 mA	2/200
46SM 18-31PA	EL-SM18-3110PA	10	15~30 VDC	PNP	NO	200 mA	1/100
46SM 18-31PB	EL-SM18-3110PB	10	15~30 VDC	PNP	NC	200 mA	1/100
46XM 18-35A	EL-XM18-305PMI	5	15~30 VDC	inductive	NO	100 mA	1/100
46XM 18-35B	EL-XM18-305PMU	5	15~30 VDC	inductive	NC	100 mA	1/100

Note: Sensor of Hall



EL-XM24

Catalogue number	Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)
46XM 24-38A	EL-XM24-308PMI	8	15~30 VDC	inductive	NO	300 mA	1/100
46XM 24-38B	EL-XM24-308PMU	8	15~30 VDC	inductive	NC	300 mA	1/100

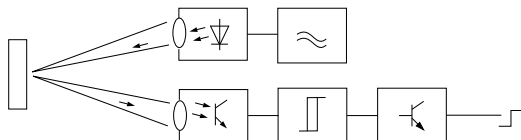
Note: MI - current type; MU - voltage type



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

PHOTO-ELECTRICAL SENSOR

Photo-electrical sensors of the Gxx series are all-purpose switches used in machine systems and equipment for no contact surveillance of motion of elements. They are based on the photoelectric principle of operation – inside the sensor there is a photo signal emitter and receiver of the returned signal. There are three types of sensors: diffuse sensors, reflector sensors and emitter-receiver sensors. These types of sensors differ in the way of returning the signal. They allow for gearing distance adjustment. They are developed on the base of PNP and NPN transition. They have small dimensions and feature a cylindrical metal shell resistant to vibrations and a plastic lid which is oil and water resistant.



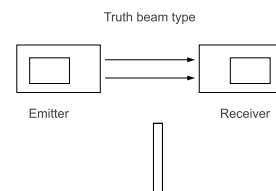
TECHNICAL DATA

- Power supply voltage: 15~30 VDC
- Insulating resistance: $\geq 50 \text{ M}\Omega$
- Gearing distance: from 2 mm to 7 mm
- Precision of repetition: 0.01
- Ambient temperature: -25°C to $+65^\circ\text{C}$
- Gearing speed: 5mm/s
- Rated voltage: 6~36VDC; 90~230VAC
- IP code: IP 67



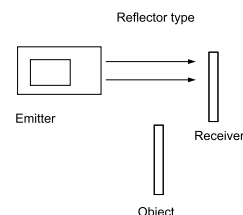
EL-G12

Catalogue number	Type	Start distance	Type of transition	Type of contact	Type of sensor	Packing / Box (pcs)
46G12A071	EL-G12-3A07NA	70 mm	NPN	$\varnothing 12; l=50$	Diffuse	1/100
46G12A072	EL-G12-3A07PA	70 mm	PNP	$\varnothing 12; l=50$	Diffuse	1/100



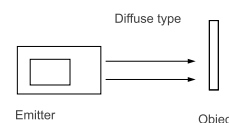
EL-G18

Catalogue number	Type	Start distance	Type of transition	Type of contact	Type of sensor	Packing / Box (pcs)
46G18A101	EL-G18-3A10NA	100 mm	NPN	$\varnothing 18; l=70$	Diffuse	1/100
46G18A102	EL-G18-3A10PA	100 mm	PNP	$\varnothing 18; l=70$	Diffuse	1/100
46G183B11	EL-G18-3B2NA	2 m	NPN	$\varnothing 18; l=70$	Reflector	1/100
46G183B12	EL-G18-3B2PA	2 m	PNP	$\varnothing 18; l=70$	Reflector	1/100
46G185C11	EL-G18-3C5NA	5 m	NPN	$\varnothing 18; l=70$	Truth beam	1/100
46G185C12	EL-G18-3C5PA	5 m	PNP	$\varnothing 18; l=70$	Truth beam	1/100



EL-G30

Catalogue number	Type	Start distance	Type of transition	Type of contact	Type of sensor	Packing / Box (pcs)
46G30A101	EL-G30-3A70NA	500 mm	NPN	$\varnothing 22; l=70$	Diffuse	1/100
46G30A102	EL-G30-3A70PA	500 mm	PNP	$\varnothing 22; l=70$	Diffuse	1/100
46G305C11	EL-G30-3C101NA	10 m	NPN	$\varnothing 22; l=70$	Truth beam	1/52
46G305C12	EL-G30-3C101PA	10 m	PNP	$\varnothing 22; l=70$	Truth beam	1/52

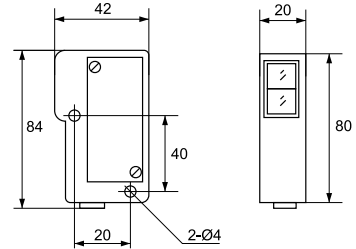


3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



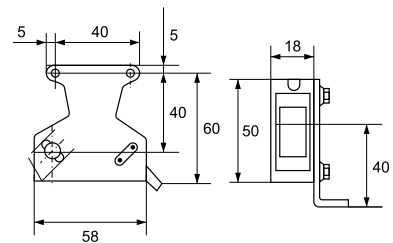
EL-G35

Catalogue number	Type	Start distance	Type of transition	Type of contact	Type of sensor	Packing/ Box (pcs)
46G35A102	EL-G35-3A50PA	500 mm	PNP	NO	Diffuse	1/100
46G353B11	EL-G35-3B3NA	3 m	NPN	NO	Reflector	1/100
46G353B12	EL-G35-3B3PA	3 m	PNP	NO	Reflector	1/100



EL-G50

Catalogue number	Type	Start distance	Type of transition	Type of contact	Type of sensor	Packing/ Box (pcs)
46G50A101	EL-G50-3A30NA	500 mm	NPN	NO	Diffuse	1/100
46G50A102	EL-G50-3A30PA	500 mm	PNP	NO	Diffuse	1/100
46G503B11	EL-G50-3B4NA	4 m	NPN	NO	Reflector	1/100
46G503B12	EL-G50-3B4PA	4 m	PNP	NO	Reflector	1/100
46G505C11	EL-G50-3C5NA	5 m	NPN	NO	Truth beam	1/50
46G505C12	EL-G50-3C5PA	5 m	PNP	NO	Truth beam	1/50

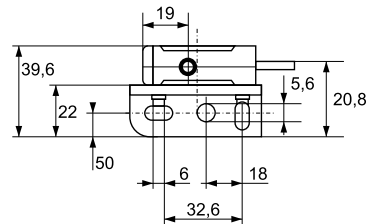


3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



EL-BZJ

Catalogue number	Type	Start distance	Type of transition	Type of contact	Type of sensor	Packing/ Box (pcs)
46BZJ211	EL-BZJ-211	10 mm	Reflector	NO	Colour detector	1/50
46BZJ311	EL-BZJ-311	9mm	Reflector	NO	Colour detector	1/50
46BZJ411	EL-BZJ-411	9mm	Reflector	NO	Colour detector	1/50



POWER SUPPLIES

The DRP-xx-xx series of power supplies are voltage reduction and rectification units ideally suited to provide stable power supply of systems and equipment for contact-free movement monitoring elements (such as inductive, capacity and photo sensors, logic elements and systems, etc.). They have small overall dimensions and can be installed on a DIN rail. The power units have metal or plastic cases resistant to vibrations and plastic oil and waterproof covers. They can provide stable output voltage at comparatively fluctuating input voltage. Devices have built-in overload and short circuit protection, allowing short time overload of up to 130%. Power supplies are available with various output voltages (5, 12, 15 and 24 V DC) and different output power rates.

TECHNICAL DATA

- Input voltage: 80 ~ 230V AC
- Over-voltage: 115 ~ 135% of the rated output voltage
- Overload: 120 ~ 120% of the rated output power
- Terminals: Input – 2 screw terminals; Output: 4 screw terminals;
- IP code: IP44
- Power indicator
- Installation: DIN rail
- Cooling: Free air-cooling convection



DR - 45

Catalogue number	Type	Output Voltage (V)	Output Load (A)	Tolerance	Power (W)	Dimensions W/H/L (mm)	Packing / Box (pcs)
46DR455	DR - 45 - 5	5	5	±2%	25	78 / 93 / 56	1/50
46DR4512	DR - 45 - 12	12	3.5	±1%	42	78 / 93 / 56	1/50
46DR4515	DR - 45 - 15	15	2.8	±1%	42	78 / 93 / 56	1/50
46DR4524	DR - 45 - 24	24	2	±1%	48	78 / 93 / 56	1/16



DRP-240-24

Catalogue number	Type	Output Voltage (V)	Output Load (A)	Tolerance	Power (W)	Dimensions W/H/L (mm)	Packing / Box (pcs)
46DR7512	DR - 75 - 12	12	6.3	±2%	75	55.5 / 125.3 / 100	1/18
46DR7524	DR - 75 - 24	24	3.2	±1%	75	55.5 / 125.3 / 100	1/18
46DR2424	DRP - 240 - 24	24	10	±1%	240	125.5 / 125.3 / 100	1/12



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

FLOAT SWITCHES

The automatic level control units of the DHC1Y-xx series are intended for mounting on pumping control panels. They do not use any additional sensors, but conductive probes to contact the liquid. The unit sends low (harmless) voltage signals to the probes and once a contact between a probe and liquid is established, the unit changes its contactors' state. Units are available in three variants with different number of control contacts suitable for different applications. Each contact can transfer current of up to 5A, which is enough to ensure control over the powerful pumps' contactors or to directly control pumps with mounted power of 1 kW. The automatic level control units can be installed on a DIN rail.

Float switches of the type QW-xx-xx are sealed units for direct pump control. They are intended for continuous liquid level maintenance in pools, tanks or ponds exercised through direct control of the pumping in or out process in the respective reservoir. They are pre-wired and depending on the chosen configuration can control either the pumping in or pumping out of the reservoir. They allow direct control of single-phase pumps with mounted power of 1 kW. Float switches are waterproof.



DHC1Y

Catalogue number	Type	Number of probes (No. of Load (A) levels)	Output	Accuracy	Operating Voltage (V)	Packing / Box (pcs)
46DW001	DHC1Y - S	1	5	±1%	230	1/100
46DW002	DHC1Y - SD	3	5	±1%	230	1/100
46DW003	DHC1Y - T*	1	5	±1%	230	1/100

**Note: 2 pumps control*



QW - M 15 - 3



QW - 70AB

Catalogue number	Type	Number of probes (No. of Load (A) levels)	Output	Accuracy	Operating Voltage (V)	Packing / Box (pcs)
46DW004	QW - M 15 - 3	2	6	±1%	230	1 / 30
46DW005	QW - 70AB	2	4	±1%	230	1 / 20



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ROTARY SWITCHES LW26 SERIES

Documents corresponding to the product:

Standard: EN 60947-1;
EN 60947-3-1

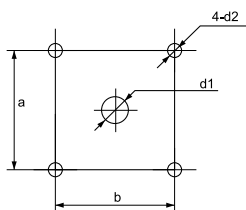
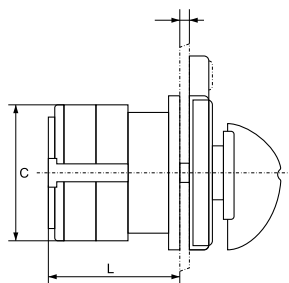
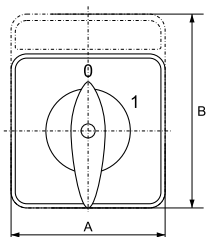
The rotary switches LW26 series are produced for switching on/off electrical circuits with commutated current from 20 to 160A. They are designed on the bases of the rotor-eccentric switching on which is realized through turning of the handle to 60 or 90 degrees. The normal operation is used for commutation of two, three or four conductor systems. There are special rotary switches that switch on under given connection schemes and are used to control motors, electric welding machines and other consumers.

TECHNICAL DATA

- Power supply voltage: 230/400V; 50Hz
- Insulation voltage: 690V
- Impulse voltage wear resistance: 6000V
- Mechanical wear resistance: 3x10⁵ commutation cycles
- Operating temperature: -10 ÷ +65°C
- Humidity: 35 – 85% RH
- Commuting capacity: up to 160A according to the tables
- Plastic: UV rays wear resistance

• IP code:

- > IP42 for the ordinary breakers mounted in a panel
- > IP65 for the breakers offered in a box
- Cable connection: screw joining
- Tightening moment of the bolt: 1.33N
- Maximum section of the power supply conductors: according to the dimensions table
- Weight: according to the number of the contacts



MOUNTING

- directly to the control panel
- thickness of the surface to which it is mounted: max 5mm

Type	Front panel	Joining conductor (mm ²)	Overall dimensions (mm)				Mounting dimensions (mm)			
			A	B	C	L	a	b	d1	d2
LW26-20	M1 panel	1x2.5	48	48	43	22 + 9.6n	36	36	Ø8.5	Ø4.5
	M1 panel with inscription field		48	60	43	22 + 9.6n	36	36	Ø8.5	Ø4.5
LW26-25	M1 panel	1x4.0	48	48	45.2	23+12.8n	36	36	Ø8.5	Ø4.5
LW26-32	M2 panel	1x6.0	64	64	58	29.2 + 12.8n	48	48	Ø10	Ø4.5
LW26-63	M2 panel	1x16	64	64	66	29.2 + 21.5n	48	48	Ø10	Ø4.5
LW26-125	M3 panel	1x35	88	88	84	35 + 26.5n	68	68	Ø13	Ø6
LW26-160	M3 panel	1x50	88	88	88	35 + 32.5n	68	68	Ø13	Ø6

* n - number of modules

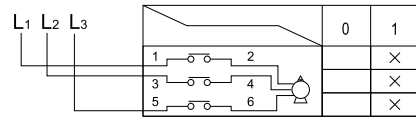
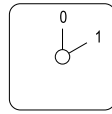
Catalogue number	Type	Scheme	In (A)	Levels	Packing / Box (pcs)
492101	LW26 - 10Q	Q10	10	2	1/100
492161	LW26 - 16Q	three-poles switching on; motor starting and stopping; voltage turning on/off to the consumers	16	2	1/100
492201	LW26 - 20Q		20	2	1/100
492251	LW26 - 25Q		25	2	1/100
492321	LW26 - 32Q		32	2	1/72
492631	LW26 - 63Q		63	2	1/30
492951	LW26 - 125Q		125	2	1/24
492961	LW26 - 160Q		160	2	1/27



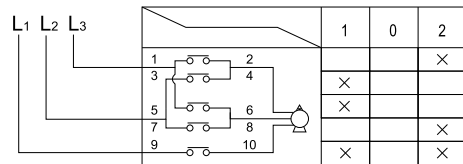
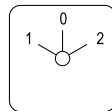
5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



Catalogue number	Type	Scheme	In (A)	Levels	Packing/Box (pcs)
492207	LW26GS - 20/04	Q11	20	2	1/100
492257	LW26GS - 25/04	three-poles switching over; motor starting and stopping; voltage	25	2	1/100
492327	LW26GS - 32/04	turning on/off to the consumers;	32	2	1/72
492637	LW26GS - 63/04	possibility for access control	63	2	1/30



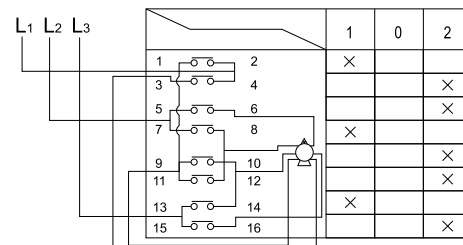
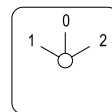
Catalogue number	Type	Scheme	In (A)	Levels	Packing / Box (pcs)
492202	LW26 - 20N	N11	20	3	1/100
492252	LW26 - 25N	3-position – 2 start positions and 1 stop; for motor reversing	25	3	1/100
492322	LW26 - 32N		32	3	1/64
492632	LW26 - 63N		63	3	1/48
492952	LW26 - 125N		125	3	1/24
492962	LW26 - 160N		160	3	1/18



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



Catalogue number	Type	Scheme	In (A)	Levels	Packing / Box (pcs)
492253	LW26 - 25S	S19	25	4	1 / 100
492633	LW26 - 63S	3-position – 2 start positions and 1 stop; for two speed motor control; switching over	63	4	1 / 30
492953	LW26 - 125S	between charging*	125	4	1 / 24
492963	LW26 - 160S		160	4	1 / 18

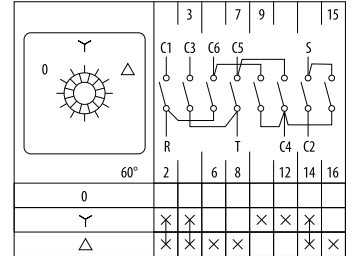


Note: It is necessary that additional bridges be placed at switching over between charging

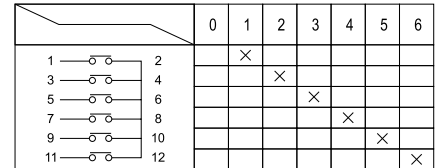
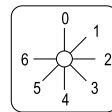




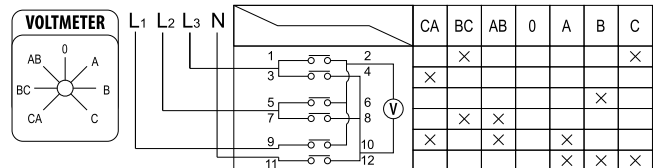
Catalogue number	Type	Scheme	In (A)	Levels	Packing/Box (pcs)
492025	LW26 - 25 SD	S21	25	4	1/100
492063	LW26 - 63 SD	3-position switching on star/delta	63	4	1/30



Catalogue number	Type	Scheme	In (A)	Levels	Packing/Box (pcs)
492324	LW26 - 32H 5881/3	H5881/3 – 85 for welding transformer windings	32	3	1/64
492634	LW26 - 63H 5881/3	switching over	63	3	1/48



Catalogue number	Type	Scheme	In (A)	Levels	Packing/Box (pcs)
492205	LW26 - 20 YH5/3	YH5/3 - 66 for voltage switching over	20	3	1/72

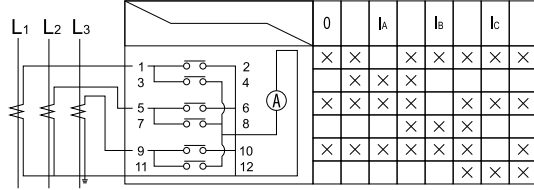
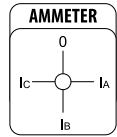


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



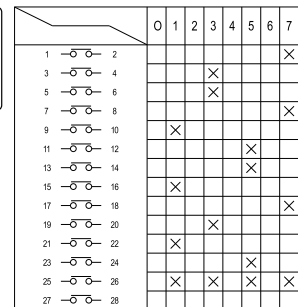
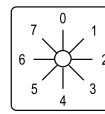
Catalogue number	Type	Scheme	In (A)	Levels	Packing/ Box (pcs)
492206	LW26 - 20 LH3/3	LH3/3 - 58 for ampere meter switching on to current transformers	20	3	1/100



Catalogue number	Type	Scheme	IP code:	Packing/ Box (pcs)
492037	LW26 - 20-25-Q	Box for LW26-20/25	IP 42	1/68
492038	LW26 - 32-Q	Box for LW26-32	IP 42	1/30
492039	LW26 - 20-25-DIN	Adaptor for DIN-rail for LW26-20/25		15/1500

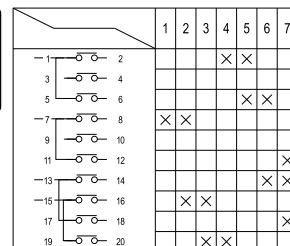
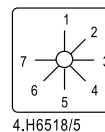


Catalogue number	Type	Scheme	In (A)	Levels	Packing / Box (pcs)
492028	LW26 4.I7168/7	4.I7168/7	20	7	1/100





Catalogue number	Type	Scheme	In (A)	Levels	Packing/ Box (pcs)
492029	LW26 4.H6518/5	4.H6518/5	25	5	1/100

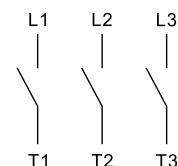


Catalogue number	Type	Scheme	In (A)	Levels	Packing / Box (pcs)
492030	LW30-20	LW30-20	20	3	1 / 32
492031	LW30-32	LW30-32	32	3	1 / 32
492033	LW30-40	LW30-40	40	3	1 / 32
492034	LW30-63	LW30-63	63	3	1 / 32

* Note: Possibility for access control



LW30-20-100A
ON/OFF switch 3 poles

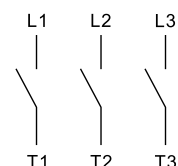


Catalogue number	Type	Scheme	IP code:	In (A)	Levels	Packing / Box (pcs)
492032	LW30-32	LW30-32	IP54	32	3	1 / 30

* Note: Possibility for access control



LW30-20-100A
ON/OFF switch 3 poles

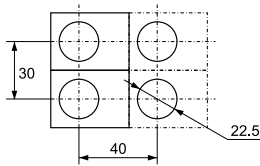
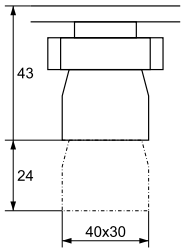


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

BUTTONS AND LED INDICATORS

Documents corresponding to the product:

Standard: EN 60947-1;
EN 60947-5-1



Overall dimensions
Diagram for drill the openings

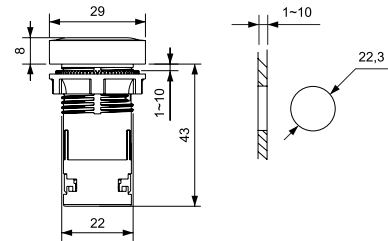
These are devices used in control and indication systems, command boards and panels in industrial automation systems. They are manufactured to commutate controlling circuits and to control the switching on or off executive mechanisms such as relays, contactors, etc. The signal lamps and indicators find broad application in all industrial fields. The devices endure short time current overload up to 10A, and normally they can commutate thermal current up to 6A in their contact system. The connection to the contact terminals is through screw terminals to which operational conductors with section up to 2.5mm² can be joined.

TECHNICAL DATA

- Insulation voltage: 660V; 50/60Hz
 - Impulse voltage wear resistance: 6000V;
 - Rated current: 6A (230V AC); 0.3A (230V DC)
 - Short circuit protection: safety device 10A gG outside in the circuit
 - Mechanical wear resistance: 1x10⁶ commutation cycles
 - Power of mechanical compression:
- > at closing: 20N
 - > at opening: 8N
- Operating temperature: -20 - +65°C
 - Humidity: 35 - 85%RH
 - Tightening moment of the joining conductors: 0.15Nm
 - Section of the conductor: 1x0.5; 1x0.75; 1x1; 1x1.5; 1x2.5mm²

MOUNTING

- to a flat metal or plastic surface with thickness: max 4mm
- opening with size: Ø 22.5mm5mm



BUTTON ROUND WITH SPRING REVERSE

Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)
401025	EL-EA25	NO+NC	6	Black	10/500
401030	EL-EA31	NO	6	Green	10/500
401040	EL-EA42	NC	6	Red	10/500

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



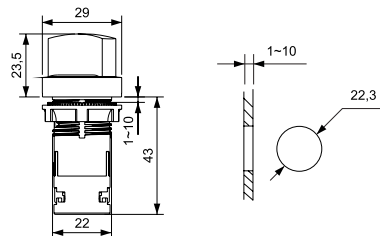
BUTTON ROUND WITH SPRING REVERSE AND SILICON LID- IP44

Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)
401026	EL-EA25	NO+NC	6	Black	10/500
401033	EL-EA31	NO	6	Green	10/500
401041	EL-EA42	NC	6	Red	10/500



SWITCH WITH ARREST

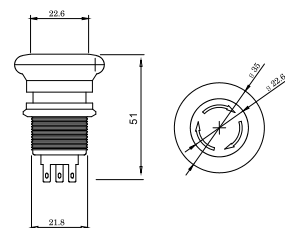
Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)
401425	EL-ED25	NO+NC	6	Black	10/500



BUTTON WITH HEAD "MUSHROOM" TYPE

Catalogue number	Type	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	Packing/ Box (pcs)
401546	EL-2211T	1NO+1NC	5	Red	22	20/800

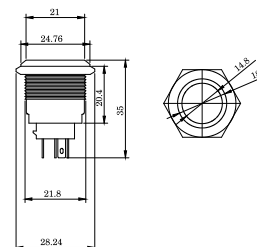
Material: Stainless steel | Chromium plated brass | IP65
* Note: release with spinning



ROUND BUTTONS WITH LED INDICATOR- LATCHING

Catalogue number	Type	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	Packing/ Box (pcs)
401547	EL-2211DZR	1NO+1NC	5	Red	22	20/800
401548	EL-2211DZG	1NO+1NC	5	Green	22	20/800

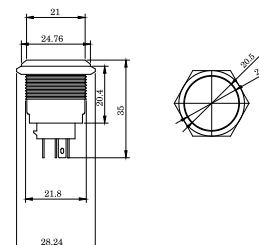
Material: Stainless steel | Chromium plated brass | IP65



ROUND MOMENTARY BUTTON

Catalogue number	Type	Type of contacts	Rated current (A) at 230V	Diameter (mm)	Packing/Box (pcs)
401549	EL-2211F	1NO+1NC	5	22	20/800

Material: Stainless steel | Chromium plated brass | IP65



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

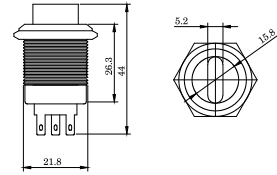


TWO POSITION SWITCH WITH ARREST

Catalogue number	Type	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	Packing/ Box (pcs)
401550	EL-22X2	1NO+1NC	5	Red	22	20/800

Material: Stainless steel | Chromium plated brass | IP65

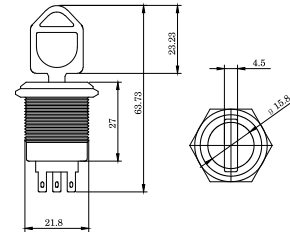
* Note: release with spinning



TWO POSITION KEY SWITCHES WITH ARREST

Catalogue number	Type	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	Packing / Box (pcs)
401551	EL-22Y2	1NO+1NC	5	Red	22	20/800
401552	EL-22Y3	2NO+2NC	5	Green	22	20/800

Material: Stainless steel | Chromium plated brass | IP65



TOGGLE SWITCH ON-OFF SPST

Catalogue number	Type	Voltage (V)	Rated current (A)	LED colour	Dimensions (mm)	Packing / Box (pcs)
M519114	ASW-13	12 VDC	20	Red	30.5x13.5x22	1

- Function: ON/OFF
- Leads: 3
- Mounting hole diameter - 12 mm
- Toggle height - 27 mm
- Operating temperature: up - 25 °C to + 85 °C



*Warranty: 2 years

SWITCH ON-OFF

Catalogue number	Type	Voltage (V)	Rated current (A)	Colour	Dimensions (mm)	Packing / Box (pcs)
M300001	V 144/B	250 VAC	5	White	26.2x12x14.5	1

- Function: ON/OFF
- Leads: 3
- Mounting hole: 29x11 mm
- Operating temperature: up to 105°C



*Warranty: 2 years

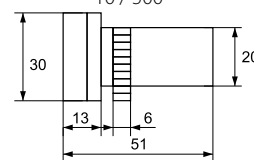


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



LED INDICATORS

Catalogue number	Type	Voltage (V)	Colour	Packing / Box (pcs)
401123	AD56-22-W-230	230V AC	White	10 / 500
401111	AD56-22-W-110	110V AC	White	10 / 500
401124	AD56-22-W-24	24V AC/DC	White	10 / 500
401211	AD56-22-A-110	110V AC	Amber	10 / 500
401224	AD56-22-A-24	24V AC/DC	Amber	10 / 500
401223	AD56-22-A-230	230V AC	Amber	10 / 500
401323	AD56-22-PG-230	230V AC	Green	10 / 500
401311	AD56-22-PG-110	110V AC	Green	10 / 500
401324	AD56-22-PG-24	24V AC/DC	Green	10 / 500
401523	AD56-22-B-230	230V AC	Blue	10 / 500
401511	AD56-22-B-110	110V AC	Blue	10 / 500
401524	AD56-22-B-24	24V AC/DC	Blue	10 / 500
401723	AD56-22-Y-230	230V AC	Yellow	10 / 500
401711	AD56-22-Y-110	110V AC	Yellow	10 / 500
401724	AD56-22-Y-24	24V AC/DC	Yellow	10 / 500
401423	AD56-22-R-230	230V AC	Red	10 / 500
401411	AD56-22-R-110	110V AC	Red	10 / 500
401424	AD56-22-R-24	24V AC/DC	Red	10 / 500

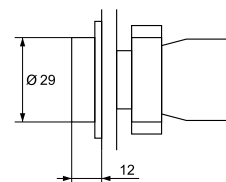


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



ROUND BUTTONS WITH SPRING REVERSE

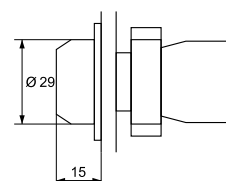
Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)
401021	EL 2- BA 21	NO	6	Black	20 / 300
401031	EL 2- BA 31	NO	6	Green	20 / 300
401051	EL 2- BA 51	NO	6	Yellow	20 / 300
401061	EL 2- BA 61	NO	6	Blue	20 / 300
401042	EL 2- BA 42	NC	6	Red	20 / 300



ROUND BUTTONS WITH SPRING REVERSE

Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)
401032	EL 2- BP 31	NO	6	Green	20 / 300
401043	EL 2- BP 42	NC	6	Red	20 / 300

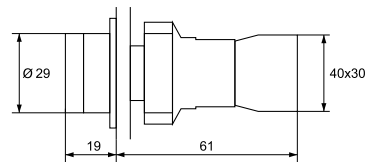
*Note: IP65 - Provided from silicon lid





ROUND BUTTONS WITH SPRING REVERSE AND LED INDICATOR

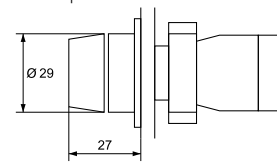
Catalogue number	Type	Voltage (V)	Rated current (A) at 400V	Colour	Packing / Box (pcs)
401474	EL 2- BW3471	24V	6	Red	20 / 200
401374	EL 2- BW3371	24V	6	Green	20 / 200
401574	EL 2- BW3571	24V	6	Yellow	20 / 200
401674	EL 2- BW3671	24V	6	Blue	20 / 200
401473	EL 2- BW3471	110V	6	Red	20 / 200
401373	EL 2- BW3371	110V	6	Green	20 / 200
401573	EL 2- BW3571	110V	6	Yellow	20 / 200
401673	EL 2- BW3671	110V	6	Blue	20 / 200
401471	EL 2- BW3471	230V	6	Red	20 / 200
401371	EL 2- BW3371	230V	6	Green	20 / 200
401571	EL 2- BW3571	230V	6	Yellow	20 / 200
401671	EL 2- BW3671	230V	6	Blue	20 / 200



SWITCHES WITH ARREST



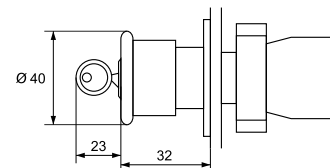
Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)
401421	EL 2- BD 21	1NO	6	Black	Two-positions	20 / 200
401433	EL 2- BD 33	2NO	6	Black	Three-positions	20 / 200



BUTTONS WITH HEAD "MUSHROOM" TYPE AND WITH KEY



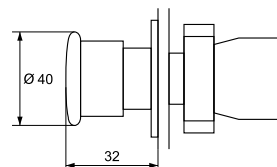
Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)
401142	EL2-BS 142	NC	6	Red	Release with spinning	15/150



BUTTONS WITH HEAD "MUSHROOM" TYPE



Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)
401642	EL 2- BC 42	1NC	6	Red	Spring reverse	15 / 150



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



BUTTON WITH HEAD "MUSHROOM" TYPE

Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Colour	Packing/Box (pcs)
401545	EL 2- BS 545	1NC + 1NO	6	Red	15 /150

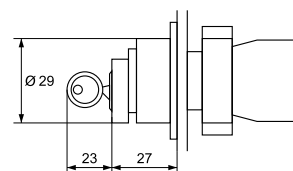
*Note: release with spinning



CHANGE-OVER SWITCH WITH KEY

Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Packing/Box (pcs)
401121	EL 2- BG 21	1NO	6	20/200

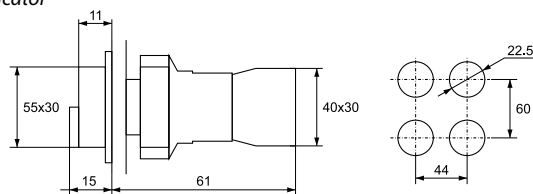
*Note: two-position with switch



DOUBLE BUTTONS

Catalogue number	Type	Type of contacts	Rated current (A) at 400V	Voltage (V)	Packing/ Box (pcs)
401844	EL 2- BW8475	1NO+1NC	6	24 AC	20/200
401845	EL 2-BW8475	1NO+1NC	6	230 AC	20/200

*Note: Green and red button + LED indicator



AUXILIARY CONTACTS

Catalogue number	Type	Type of contacts	Colour	Packing/ Box (pcs)
401001	EL02 - BE101	1 NO	Green	100/1000
401002	EL02 - BE102	1 NC	Red	100/1000



GLIM INDICATOR LAMP

Catalogue number	Type	Voltage (V)	Dimensions (mm)	Base diameter (mm)	Packing / Box (pcs)
M030015	EL-1035	220 VAC	10x30	10	1

- Shape and color of the indicator - oval, red
- Case colour: red
- Conductor length: 20mm



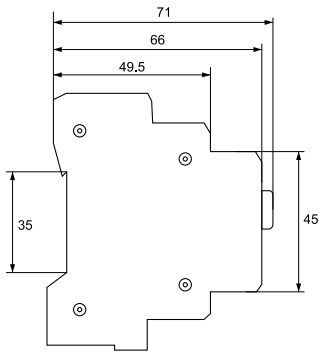
*Warranty: 2 years

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

DIN-RAIL BUTTONS AND LED INDICATORS

Documents corresponding to the product:

Standard EN 60947-1
EN 60 947-5-1 t



These are devices used in control and indication systems adjusted for mounting in command boards and panels directly on DIN-rail. They are manufactured to commutate controlling circuits and to control the switching on or off executive mechanisms such as relays, contactors, etc. The signal lamps and indicators find broad application in all industrial fields. The devices endure short time current overload up to 20A, and normally they can commutate current up to 10A with their contact system. The connection to the contact terminals is through screw terminals to which operational conductors with section up to 2.5mm² can be joined. There are also designed buttons combined with lamps.

TECHNICAL DATA

- Insulation voltage: 660V; 50/60Hz
- Impulse voltage wear resistance: 6000V;
- Rated current: up to 10A (230V AC)
- Short circuit protection: safety device 10A gG outside in the circuit
- Rated consumed current (for indicators and buttons combined with indicators): <20mA
- Wear resistance (indicators): >2000h
- Mechanical wear resistance (buttons): 1x10⁶ commutation cycles
- Power of mechanical compression:
 - At closing: 20N
 - At opening: 8N

- Operating temperature: -20 - +65°C
- Humidity: 35 – 85%RH
- Tightening moment of the joining conductors: 0.15Nm
- Section of the conductor: 1x0.5; 1x0.75; 1x1; 1x1.5; 1x2.5mm²
- Plastic: UV rays wear resistance conductors: 0.15Nm
- Section of the conductor: 1x0.5; 1x0.75; 1x1; 1x1.5; 1x2.5mm²

MOUNTING

- To a DIN-rail
- Altitude: up to 2000m



Catalogue number	Type	Description	Voltage (V)	Rated current (A) at 400V	Colour	Packing/ Box (pcs)
401559	ELD-RG-DIN	Lamp	230V	<20	Red/Green	12/240



Catalogue number	Type	Description	Voltage (V)	Rated current (A) at 400V	Colour	Packing/ Box (pcs)
401560	ELD-RGB-DIN	Lamp	230V	<20	Red/Green/Blue	12/240



Catalogue number	Type	Description	Voltage (V)	Rated current (A) at 400V	Colour	Packing/ Box (pcs)
401500	ELD - G - DIN	Lamp	230V	<20	Green	12/240
401501	ELD - R - DIN	Lamp	230V	<20	Red	12/240
401502	ELD - Y - DIN	Lamp	230V	<20	Yellow	12/240
401503	ELD - B - DIN	Lamp	230V	<20	Blue	12/240
401504	ELD - W - DIN	Lamp	230V	<20	White	12/240



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



BUTTONS AND SWITCHES WITH BOX



SWITCHING ON 0-1

Catalogue number	Type	IP code	Overall dimensions (mm)			Type of the contact	Colour	Packing/Box (pcs)
			L	H	W			
401134	EL1-B134	IP44	68	68	50	1 NO	Black	1/100



1 BUTTON WITH SPRING RETURN

Catalogue number	Type	IP code	Overall dimensions (mm)			Type of the contact	Colour	Packing/Box (pcs)
			L	H	W			
401102	EL1-B102	IP44	68	68	50	1 NO	Green	1/100
401132	EL1-BP102	IP65	68	68	50	1 NO	Green	1/100



2 BUTTONS WITH SPRING RETURN

Catalogue number	Type	IP code	Overall dimensions (mm)			Type of the contact	Colour	Packing/Box (pcs)
			L	H	W			
401213	EL1-B213	IP44	104	68	50	1 NC 1 NO	1 - Red 1 - Green	1/100
401233	EL1-BP213	IP65	104	68	50	1 NC 1 NO	1 - Red 1 - Green	1/100



3 BUTTONS WITH SPRING RETURN

Catalogue number	Type	IP code:	Overall dimensions (mm)			Type of the contact	Colour	Packing/Box (pcs)
			L	H	W			
401339	EL1-B339	IP44	134	68	50	1 NO 1 NC 1 NO	1 - Green 1 - Red 1 - Green	1/50
401349	EL1-BP339	IP65	134	68	50	1 NO 1 NC 1 NO	1 - Green 1 - Red 1 - Green	1/50



EMERGENCY BUTTON WITH HEAD "MUSHROOM" TYPE Ø40

Catalogue number	Type	IP code:	Overall dimensions (mm)			Type of the contact	Colour	Packing /Box (pcs)
			L	H	W			
401174	EL1-B174	IP44	68	68	50	1 NC	Red	1 / 100

- Release through turning



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

DEVICES FOR TELPHER CONTROL MBP TYPE

They represent different combinations of START and STOP buttons mounted in plastic boxes in different sizes. They are connected to the operating circuits of cranes or telfhers and serve as a remote control of their movement. They are connected directly to the operating cable of the telfher and send commands directly to the executive mechanisms. They are designed to provide protection from dust and moisture IP65.

TECHNICAL DATA

- Supplying voltage: 230V; 50/60Hz
- Electrical wear resistance: 1x10⁵ cycles
- Operating temperature: -10 +65°C
- Humidity: 35 – 85% RH
- Number of contacts: according to the number of the buttons

- Commuting capacity: up to 6A
- Plastic: UV rays wear resistance
- IP code: IP65
- Weight: according to the number of the contacts

MBP-Axxxx

- stop button type
- button type: one-speed (x81) or two-speed (x91)
- number of buttons

MOUNTING

- directly to the control cable of the telfher (crane)



Catalogue number	Type	Number of buttons	Contact block and scheme		Packing / Box (pcs)
			Emergency	For the directions	
46281	MBP-A281	2	-	NO+NC	1/20
46291	MBP-A291 two speed	2	-	NO+NC	1/20
46283	MBP-A2813	2+1	Emergency button	NO+NC	1/20
46283K	MBP-A2813K	2+1	Emergency button with switch	NO+NC	1/20
46294	MBP-A2913 two speed	2+1	Emergency button	NO+NC	1/20
46294K	MBP-A2913K two speed	2+1	Emergency button with switch	NO+NC	1/20
46481	MBP-A481	4	-	NO+NC	1/20
46491	MBP-A491 two speed	4	-	NO+NC	1/20
46483	MBP-A4813	4+1	Emergency button	NO+NC	1/20
46483K	MBP-A4813K	4+1	Emergency button with switch	NO+NC	1/20
46493	MBP-A4913 two speed	4+1	Emergency button	NO+NC	1/20
46493K	MBP-A4913K two speed	4+1	Emergency button with switch	NO+NC	1/20
46681	MBP-A681	6	-	NO+NC	1/20
46691	MBP-A691 two speed	6	-	NO+NC	1/20
46683	MBP-A6813	6+1	Emergency button	NO+NC	1/20
46683K	MBP-A6813K	6+1	Emergency button with switch	NO+NC	1/20
46693	MBP-A6913 two speed	6+1	Emergency button	NO+NC	1/20
46693K	MBP-A6913K two speed	6+1	Emergency button with switch	NO+NC	1/20
46881	MBP-A881	8	-	NO+NC	1/20
46891	MBP-A891 two speed	8	-	NO+NC	1/20
46883	MBP-A8813	8+1	Emergency button	NO+NC	1/20
46883K	MBP-A8813K	8+1	Emergency button with switch	NO+NC	1/20
46893	MBP-A8913 two speed	8+1	Emergency button	NO+NC	1/20
46893K	MBP-8913K two speed	8+1	Emergency button with switch	NO+NC	1/20

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

WARNING LIGHTS AND TOWERS

The revolving warning lights and towers are devices intended for use as status indicators in the human-machine control systems. They are suitable for installation on control cabinets and panels or directly on machines. They are manufactured in different colour combinations to attract attention of operators working in a given production sector. Warning lights and towers are widely used in almost any industrial branch. They can be mounted on movable components or such, creating potential danger and can warn all workers for a critical situation with their blinking light and siren. These devices are electrically connected through cables, protruding out of the lamp casing.

TECHNICAL DATA

- Rated voltage: 12 VAC/230VAC; 50/60 Hz;
- Isolation voltage: 660V; 50/60 Hz;
- Impulse voltage stability: 6000V
- Rated power: see the tables below
- Short circuit protection: 1A gG external fuse
- Operating Temperature: - 20°C + 65°C
- Humidity: 35 – 85% RH
- Plastic cover: UV resistant polycarbonate not considered as being harmful to human health

INSTALLATION

- Warning lights are fixed to the respective machine body with the studs protruding from the light plastic casing.



Catalogue number	Type	Description	Voltage (VAC)	Rated Power (W)	Colour	Packing / Box (pcs)
401525R	LTE1101 - R	Warning light	12	10	Red	1 / 30
401525G	LTE1101 - G	Warning light	12	10	Green	1 / 30
401525Y	LTE1101 - Y	Warning light	12	10	Yellow	1 / 30
401526R	LTE1101J - R	Warning light + siren	12	11	Red	1 / 30
401526G	LTE1101J - G	Warning light + siren	12	11	Green	1 / 30
401526Y	LTE1101J - Y	Warning light + siren	12	11	Yellow	1 / 30
402525R	LTE1101 - R	Warning light	230	8	Red	1 / 30
402525G	LTE1101 - G	Warning light	230	8	Green	1 / 30
402525Y	LTE1101 - Y	Warning light	230	8	Yellow	1 / 30
402526R	LTE1101J - R	Warning light + siren	230	9	Red	1 / 30
402526G	LTE1101J - G	Warning light + siren	230	9	Green	1 / 30
402526Y	LTE1101J - Y	Warning light + siren	230	9	Yellow	1 / 30
401527R	LTE1161 - R	Warning light	12	35	Red	1 / 8
401527G	LTE1161 - G	Warning light	12	35	Green	1 / 8
401527Y	LTE1161 - Y	Warning light	12	35	Yellow	1 / 8
402527R	LTE1161 - R	Warning light	230	28	Red	1 / 8
402527G	LTE1161 - G	Warning light	230	28	Green	1 / 8
402527Y	LTE1161 - Y	Warning light	230	28	Yellow	1 / 8
401528	LTA205 - 1	Tower / flashing	12	4	1 - Red	1 / 20
401529	LTA205 - 2	Tower / flashing	12	8	2 - Red/Green	1 / 20
401530	LTA205 - 3	Tower / flashing	12	12	3 - Red/Yellow/Green	1 / 20
401531	LTA205 - 3J	Tower / flashing + siren	12	12	3 - Red/Yellow/Green	1 / 20
401532	LTA205 - 5	Tower / flashing	12	18	5 - Red/Yellow/Green/Blue/Transparent	1 / 20
402528	LTA205 - 1	Tower / flashing	230	6	1 - Red	1 / 20
402529	LTA205 - 2	Tower / flashing	230	8	2 - Red/Green	1 / 20
402530	LTA205 - 3	Tower / flashing	230	10	3 - Red/Yellow/Green	1 / 20
402531	LTA205 - 3J	Tower / flashing + siren	230	11	3 - Red/Yellow/Green	1 / 20
402532	LTA205 - 5	Tower / flashing	230	14	5 - Red/Yellow/Green/Blue/Transparent	1 / 20

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



METAL/PLASTIC SIREN

Catalogue number	Type	Voltage (V)	Rated Power (W)	Sound level (dB)	Material	Packing/ Box (pcs)
401533	MS-290A	230	60	100	Metal	1/24
401541	MS-290B	230	60	100	Plastic	1/24



SIREN

Catalogue number	Type	Voltage (V)	Rated Power (W)	Sound level (dB)	Packing / Box (pcs)
401534	MS-390	230	160	120	1 / 10



ALARM BELLS

Catalogue number	Type	Voltage (V)	Sound level (dB)	Packing / Box (pcs)
401535	CB-4	12	85	1 / 50
401536	CB-4	24	85	1 / 50
401537	CB-4	110	85	1 / 50
401538	CB-4	230	85	1 / 50



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



FIRE ALARM

Catalogue number	Type	Voltage (V)	Sound level (dB)	Packing / Box (pcs)
401540	FA-01	230	120	1 / 100



AUTOMATION CATEGORY

Select a language and scan the code with any code scanner to read the catalog in:



INSTALLATION

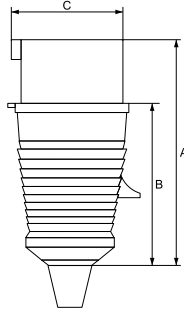
- INDUSTRIAL PLUGS AND SOCKETS
- INDUSTRIAL BOARDS
- MODULAR DISTRIBUTION ENCLOSURES
- DISTRIBUTION BOARDS
- CABLE INSULATION SYSTEMS
- CABLE TRUNKING
- INSULATING CONDUITS & CABLE SUPPORT SYSTEMS
- LIGHTING PROTECTION
- DISTRIBUTION BOXES
- CABLE TERMINALS & CABLE ACCESSORIES
- EX-PROOF INSTALLATION SYSTEMS
- REELS, MULTI-PLUGS & ACCESSORIES
- CABLES



INDUSTRIAL PLUGS HT/HTN TYPE

Documents corresponding to the product:

Standard EN 60309-1; EN 60309-2

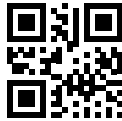


Made of special high quality plastic with alloys against aging at sun light exposing and for increasing the mechanical strength. They are designed in accordance with standard EN 60309 and provide reliable connection and high protection level against electrical current. They provide IP protection not less than IP 44/67. They are designed for surface or flush mounting, movable or fixed type.

TECHNICAL DATA

- Rated voltage: 500V
- Rated short circuit current: according to the mounted protection in the boards
- Impulse voltage wear resistance: 8kV
- Mechanical wear resistance: 3000 cycles
- IP code: IP 44/67
- Plastic: UV rays wear resistance
- Ambient temperature: -5 to +65°C
- Altitude: up to 2000m
- Plugs and sockets: 6h

Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37013	HT-013	16	1P+N+E	230	121	84	53	44	2/10/100
37023	HT-023	32	1P+N+E	230	138	92	63	44	2/10/60



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37014	HT-014	16	3P+E	400	121	84	51	44	2/10/100
37024	HT-024	32	3P+E	400	138	92	63	44	2/10/60
37034	HT-034	63	3P+E	400	230	109	36	44	2/10
37044	HT-044	125	3P+E	400	295	124	50	44	2/10

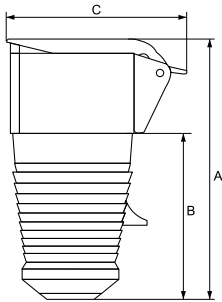


Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37015	HT-015	16	3P+N+E	400	129	92	62	44	2/10/60
37025	HT-025	32	3P+N+E	400	149	97	70	44	2/10/60
37035	HT-035	63	3P+N+E	400	230	109	36	44	2/10
37045	HT-045	125	3P+N+E	400	295	124	50	44	2/10



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

MOVABLE INDUSTRIAL SOCKETS HT TYPE IP44



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37213	HT-213	16	1P+N+E	230	130	96	44	2/10/100
37223	HT-223	32	1P+N+E	230	149	90	44	2/10/60



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37214	HT-214	16	3P+E	400	131	96	44	2/10/100
37224	HT-224	32	3P+E	400	149	90	44	2/10/60
37234	HT-234	63	3P+E	400	230	109	44	2/10
37244	HT-244	125	3P+E	400	290	124	44	2/10

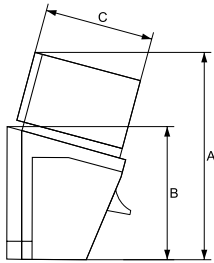


Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37215	HT-215	16	3P+N+E	400	139	90	44	2 / 10 / 60
37225	HT-225	32	3P+N+E	400	154	100	44	2 / 10 / 60
37235	HT-235	63	3P+N+E	400	230	100	44	2 / 10
37245	HT-245	125	3P+N+E	400	290	124	44	2 / 10



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

FIXED INDUSTRIAL PLUGS HT TYPE IP44



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37513	HT-513	16	1P+N+E	230	121	79	44	2/10/60
37523	HT-523	32	1P+N+E	230	131	83	44	2/10/60



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37514	HT 514	16	3P+E	400	121	76	44	2/10/60
37524	HT 524	32	3P+E	400	131	83	44	2/10/60

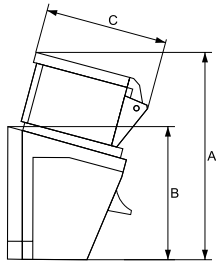



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37515	HT 515	16	3P+N+E	400	123	79	44	2/10/60
37525	HT 525	32	3P+N+E	400	132	84	44	2/10/60




5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

FIXED INDUSTRIAL SOCKETS HT TYPE IP44




Catalogue number	Model	In (A)	Poles 	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37113	HT-113	16	1P+N+E	230	126	86	44	2/10/60
37123	HT-123	32	1P+N+E	230	141	97	44	2/10/60



Catalogue number	Model	In (A)	Poles 	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37114	HT-114	16	3P+E	400	132	91	44	2/10/60
37124	HT-124	32	3P+E	400	141	96	44	2/10/60
37134	HT-134	63	3P+E	400	193	122	44	2/10
37144	HT-144	125	3P+E	400	220	140	44	2/10

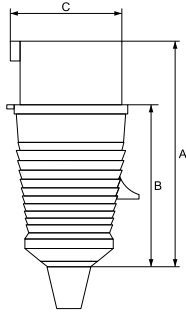


Catalogue number	Model	In (A)	Poles 	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37115	HT-115	16	3P+N+E	400	129	96	44	2/10/60
37125	HT-125	32	3P+N+E	400	141	98	44	2/10/60
37135	HT-135	63	3P+N+E	400	193	122	44	2/10
37145	HT-145	125	3P+N+E	400	220	140	44	2/10



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

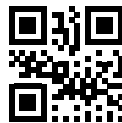
MOVABLE INDUSTRIAL PLUGS HTN TYPE IP67



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37131	HTN 0131	16	1P+N+E	230	120	71	12	67	1 / 60
37231	HTN 0231	32	1P+N+E	230	150	93	17	67	1 / 40



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37141	HTN 0141	16	3P+E	400	125	79	12	67	2/60
37241	HTN 0241	32	3P+E	400	150	93	17	67	2/40
37341	HTN 0341	63	3P+E	400	230	109	36	67	10
37441	HTN 0441	125	3P+E	400	230	109	36	67	10

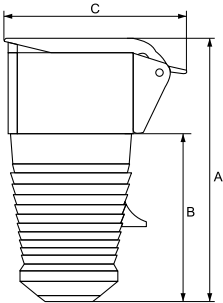


Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37151	HTN 0151	16	3P+N+E	400	133	87	12	67	2/60
37251	HTN 0251	32	3P+N+E	400	155	99.5	17	67	2/40
37351	HTN 0351	63	3P+N+E	400	230	109	36	67	10
37451	HTN 0451	125	3P+N+E	400	295	124	50	67	10



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

MOVABLE INDUSTRIAL SOCKET HTN TYPE IP67



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37831	HTN 2131	16	1P+N+E	230	131	90	67	2/60
37931	HTN 2231	32	1P+N+E	230	149	90	67	2/40



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37841	HTN 2141	16	3P+E	400	131	76	67	2/60
37941	HTN 2241	32	3P+E	400	149	90	67	2/40
37942	HTN 2341	63	3P+E	400	271	115	67	10
37943	HTN 2441	125	3P+E	400	295	137	67	6

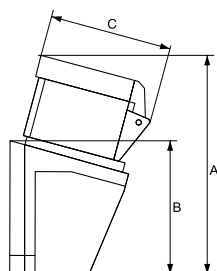


Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)		IP code	Packing/Box
					A	C		
37851	HTN 2151	16	3P+N+E	400	139	90	67	2/60
37951	HTN 2251	32	3P+N+E	400	154	100	67	2/40
37952	HTN 2351	63	3P+N+E	400	240	112	67	10
37953	HTN 2451	125	3P+N+E	400	300	126	67	6



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

FIXED INDUSTRIAL SOCKET HTN TYPE IP67



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37731	HTN 1131	16	1P+N+E	230	101	150	93.5	67	2/40
37631	HTN 1231	32	1P+N+E	230	114	162	93.5	67	2/40



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37741	HTN 1141	16	3P+E	400	104	150	93.5	67	2/40
37641	HTN 1241	32	3P+E	400	116	162	93.5	67	2/40
37842	HTN 1341	63	3P+E	400	171	170	230	67	1/10
37844	HTN 1441	125	3P+E	400	171	170	230	67	1/6



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37751	HTN 1151	16	3P+N+E	400	107	150	93.5	67	2/40
37651	HTN 1251	32	3P+N+E	400	116	162	93.5	67	2/40
37852	HTN 1351	63	3P+N+E	400	171	170	230	67	10
37854	HTN 1451	125	3P+N+E	400	171	170	230	67	6



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

INDUSTRIAL SOCKETS FOR FLUSH MOUNTING HT TYPE IP44



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37413	HT-413	16	1P+N+E	230	70	60	67	44	2/10/60
37423	HT-423	32	1P+N+E	230	80	95	79	44	2/10/60



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37414	HT-414	16	3P+E	400	75	86	75	44	2/10/60
37424	HT-424	32	3P+E	400	80	95	79	44	2/10/60



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37415	HT-415	16	3P+N+E	400	75	85	70	44	2/10/60
37425	HT-425	32	3P+N+E	400	98	98	83	44	2/10/60



Catalogue number	Model	In (A)	Poles	Un (V)	Dimensions (mm)			IP code	Packing/Box
					A	B	C		
37105	HT-105SR	16	German type	230	50	63	42	44	500



GERMAN TYPE SOCKET FOR DIN RAIL MOUNTING

It provides plug presence in electric boards and easy cabling.

- Supply voltage: 230V
- Computing option: up to 16A

- Operation temperature: from -10 up to +65°C
- Humidity: up to 85%RH
- Mounting method:
 - DIN rail

Catalogue number	Type	Poles	Packing / Box (pcs)
37004	German type socket for DIN rail	German type	5/100



5 YEARS TOTAL WARRANTY
+ 5 standard 0 extended

INDUSTRIAL BOARD SYSTEM EC690 SERIES

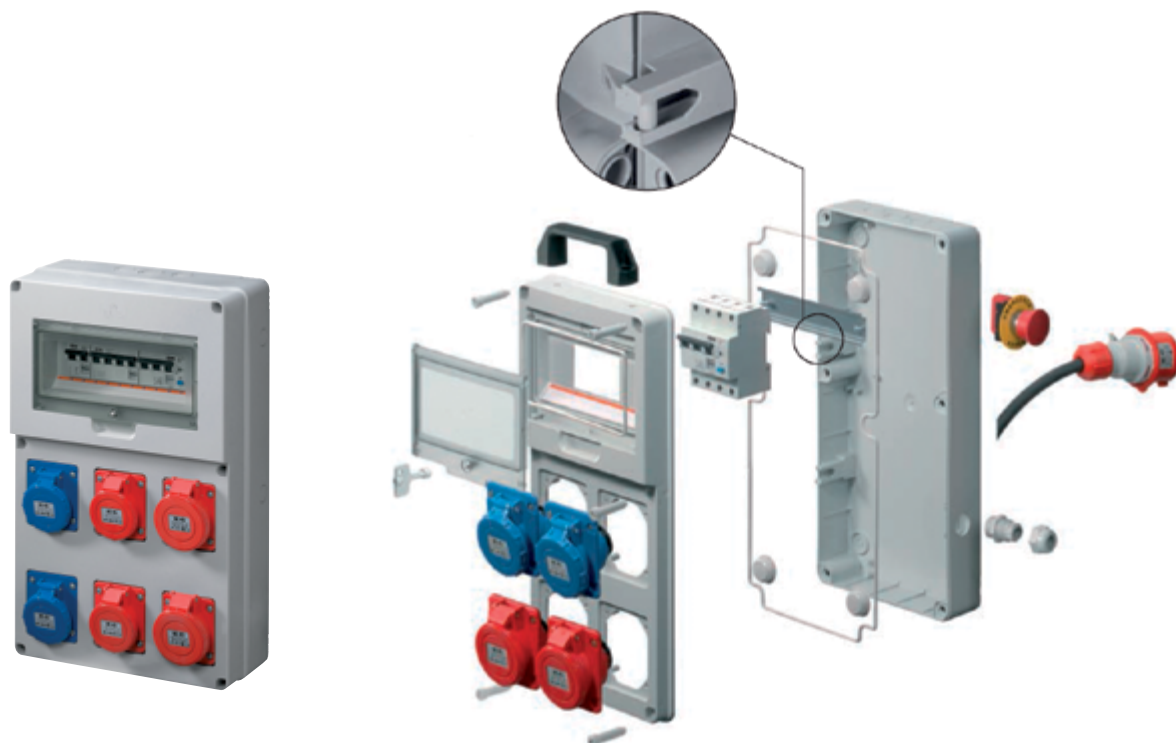
Documents corresponding to the product:

Standard IEC60670; CEI 23-48; CEI 23-49; EN 50102

Distribution boards 690 series can be safely used for temporary installation such as construction sites, markets, fairs, etc. They are entirely made up of UV-resistant halogen free technopolymer on ABS- base. They are suitable for outdoor use, thanks to the high impact resistance. The distribution boards are fit to use in different options- movable with handle or fixed on the wall. The distribution boards are suitable with sockets with mounting flange with screw hole center distance 60x60mm.

TECHNICAL DATA

- Material: shock resistant, halogen free technopolymer on ABS base with resistance to UV rays.
- Colour: grey RAL 7035
- IP code: IP65
- Resistance to mechanical shock: IK08-IK10(shocks up to 6-20j)
- Resistance to abnormal heat: up to 650°C(Glow Wire Test, Reference Standard IEC 695-2-1
- Installation temperature range: min-15°C, max+60°C
- DIN rail material: galvanized steel
- Pre-cuts for conduit or cable inlet of different sizes.
- Standards: IEC60670; CEI 23-48; CEI 23-49; EN 50102
- RoHS 2002/95/CE



5 YEARS TOTAL WARRANTY
 + 5 standard
 0 extended



EMPTY DISTRIBUTION BOARD EC690 SERIES 2 VERTICAL SOCKETS

Catalogue number	Type	Number of modules	IP code	Dimensions (mm)			Packing pcs/box
				W	H	D	
53EC69021	EC69021	4	65	105	337	95	1/15



EMPTY DISTRIBUTION BOARD EC690 SERIES 3 VERTICAL SOCKETS

Catalogue number	Type	Number of modules	IP code	Dimensions (mm)			Packing pcs/box
				W	H	D	
53EC69022	EC69022	4	65	105	430	95	1/13



EMPTY DISTRIBUTION BOARD EC690 SERIES 4 SOCKETS

Catalogue number	Type	Number of modules	IP code	Dimensions (mm)			Packing pcs/box
				W	H	D	
53EC69023	EC69023	8	65	200	430	95	1/10



EMPTY DISTRIBUTION BOARD EC690 SERIES 6 SOCKETS

Catalogue number	Type	Number of modules	IP code	Dimensions (mm)			Packing pcs/box
				W	H	D	
53EC69025	EC69025	12	65	320	510	135	1



* All boards are not compatible with all industrial plugs and sockets we offer. Some of the equipment requires additional adaptation, for this we recommend ordering an equipped panel, according to your needs, published on the next two pages of the catalog.
For sockets with 60x60mm hole center distance.

5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



ASSEMBLED DISTRIBUTION BOARD 690 SERIES 2 VERTICAL SOCKETS, 4 MODULES

Catalogue number	Empty board type					IP code
		German type	1P+N+E	3P+N	3P+N+E	
53EC690212A1	EC69021		1x16A+1x32A			44
53EC690212A2	EC69021		1x16A		1x16A	44
53EC690212A3	EC69021		1x16A	1x16A		44
53EC690212A4	EC69021	2x16A				44
53EC690212B1	EC69021		1x16A+1x32A			67
53EC690212B2	EC69021		1x16A		1x16A	67
53EC690212B3	EC69021		1x16A	1x16A		67

• Dimensions W x H x D: 105 x 337 x 95mm



ASSEMBLED DISTRIBUTION BOARD 690 SERIES 3 VERTICAL SOCKETS, 4 MODULES

Catalogue number	Empty board type					IP code
		German type	1P+N+E	3P+N	3P+N+E	
53EC690223A1	EC69022		1x16A+1x32A		1x16A	44
53EC690223A2	EC69022		1x32A		1x16A+1x32A	44
53EC690223A3	EC69022		1x16A+1x32A	1x16A		44
53EC690223A4	EC69022		1x32A	1x16A+1x32A		44
53EC690223A5	EC69022	2x16A	1x16A			44
53EC690223B1	EC69022		1x16A+1x32A		1x16A	67
53EC690223B2	EC69022		1x32A		1x16A+1x32A	67
53EC690223B3	EC69022		1x16A+1x32A	1x16A		67
53EC690223B4	EC69022		1x32A	1x16A+1x32A		67

• Dimensions W x H x D: 105 x 430 x 95mm



ASSEMBLED DISTRIBUTION BOARD 690 SERIES 4 SOCKETS, 8 MODULES

Catalogue number	Empty board type					IP code
		German type	1P+N+E	3P+N	3P+N+E	
53EC690234A1	EC69023		1x16A+1x32A		1x16A+1x32A	44
53EC690234A2	EC69023		2x32A		2x16A	44
53EC690234A3	EC69023		1x16A+1x32A	1x16A+1x32A		44
53EC690234A4	EC69023		2x32A	2x16A		44
53EC690234A5	EC69023	2x16A	1x16A+1x32A			44
53EC690234A6	EC69023	2x16A		1x16A+1x32A		44
53EC690234B1	EC69023		1x16A+1x32A		1x16A+1x32A	67
53EC690234B2	EC69023		2x32A		2x16A	67
53EC690234B3	EC69023		1x16A+1x32A	1x16A+1x32A		67
53EC690234B4	EC69023		2x32A	2x16A		67





• Dimensions W x H x D: 200 x 430 x 95mm

* If you need equipment with items other than those listed in the kits, please contact your sales representative or send an inquiry on info@elmarkholding.eu, to prepare an individual offer, according to your needs.

5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



ASSEMBLED DISTRIBUTION BOARD 690 SERIES 6 SOCKETS, 12 MODULES

Catalogue number	Empty board type					IP code
		German type	1P+N+E	3P+N	3P+N+E	
53EC690256A1	EC69025		2x16A+1x32A		2x16A+1x32A	44
53EC690256A2	EC69025		1x16A+2x32A		1x16A+2x32A	44
53EC690256A3	EC69025		2x16A+1x32A	2x16A+1x32A		44
53EC690256A4	EC69025		1x16A+2x32A	1x16A+2x32A		44
53EC690256A5	EC69025	3x16A	2x16A+1x32A			44
53EC690256A6	EC69025	2x16A	1x16A	2x16A+1x32A		44
53EC690256B1	EC69025		2x16A+1x32A		2x16A+1x32A	67
53EC690256B2	EC69025		1x16A+2x32A		1x16A+2x32A	67
53EC690256B3	EC69025		2x16A+1x32A	2x16A+1x32A		67
53EC690256B4	EC69025		1x16A+2x32A	1x16A+2x32A		67



Dimensions W x H x D: 320 x 510 x 135mm

** If you need equipment with items other than those listed in the kits, please contact your sales representative or send an inquiry on info@elmarkholding.eu, to prepare an individual offer, according to your needs.*



SPARE FLANGE WITH SCREWS AND GASKETS

Catalogue number	Type	Dimensions (mm)		Packing pcs/box
		W	H	
53EC690F1	EC690F1	85	74	1/10



The flange mounted is used for closing of the factory maid openings, in case there is no switch for it at the moment, and assures the necessary IP of the board. Another function is assuring the possibility for mounting of great number of additional appliances within assembling the board when making a suitable opening in the flange.



Spare flange with mounted limit switch



Limit switch page 156



Spare flange with mounted stop button



Stop button page 164

HANDLE WITH SCREWS

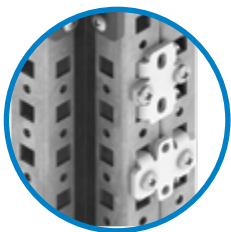
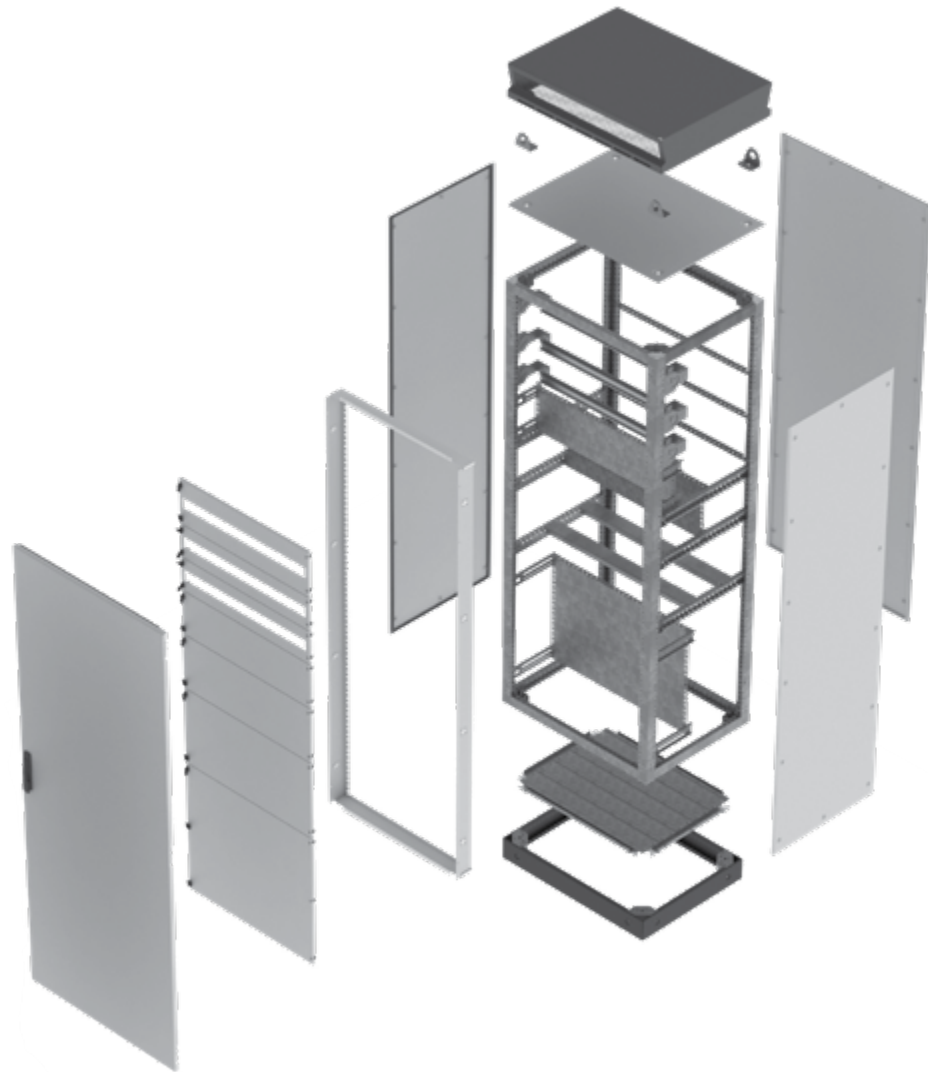
Catalogue number	Type	Dimensions (mm)			Packing pcs/box
		W	H	D	
53EC690MA	EC690MA	134	42	25.6	1/10



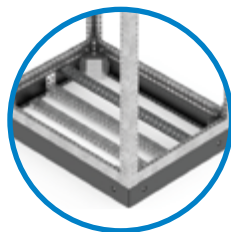
It assures a convenience when carrying the board.

5 YEARS TOTAL WARRANTY
+ 5 standard 0 extended

ASSEMBLED MODULAR DISTRIBUTION ENCLOSURES MATRIX, SERIES



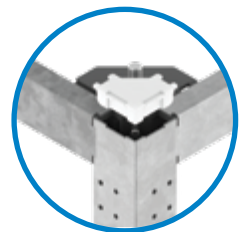
Enclosure connection system (with Nails).



Helps easier cable entrance from under plinth.



Corner, 4mm thickness for much stronger and useful for all sizes.



Vertical profiles set - Top stopper for much higher sealing.

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

ASSEMBLED MODULAR DISTRIBUTION ENCLOSURES WITHOUT MOUNTING PLATES SET MATRIX, SERIES

FEATURES

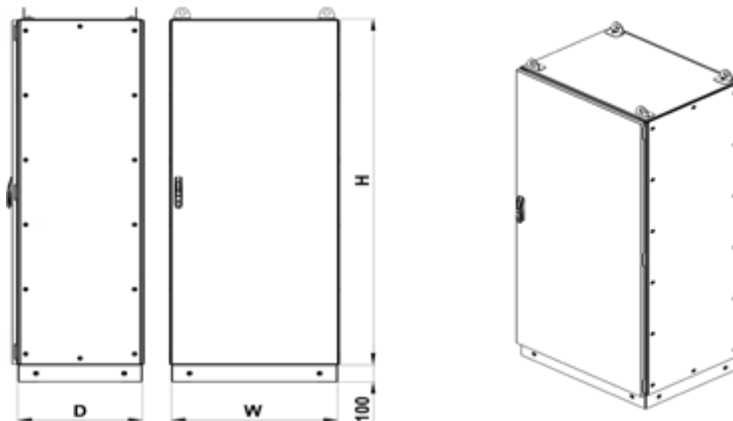
- Latest moduler system
- Possibility to dismantled after initial assembling
- Easy montage. Installation in 8 - 10 minute.
- Base covers can be removed from 4 corners. This feature provides ease of transportation and assembly.
- Mounting plate with adjustable depth, specially designed for automation

MAIN INFORMATION

- Series: MATRIX
- Application: Multi-purpose
- Mounting: Floor-standing
- Items included in the set
 - > Vertical profiles, SET
 - > Tor cover panel
 - > Front door
 - > Back panel
 - > Enclosure ground plint
 - > Housing for ground mounting
- Dimensions WxHxD:
 - > 600x2000x600mm
 - > 800x2000x600mm



Catalogue number	Type	Dimensions (mm)			Packing/Box
		W	H	D	
53SET6060	Matrix-600	600	2000	600	1
53SET8060	Matrix-800	800	2000	600	1



DETAILED DESCRIPTION OF ASSEMBLED MODULAR DISTRIBUTION ENCLOSURES WITHOUT MOUNTING PLATES, INCLUDED IN THE SET:

53SET6060

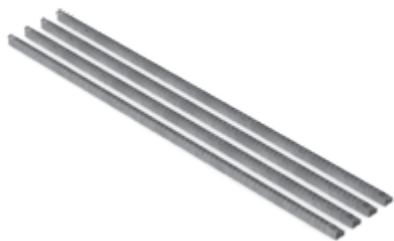
- > 53DPT200: DPT-Vertical profiles 2000 (mm): 1 set
- > 53UKT6060: UKT- top panel set for 600x2000x600 (mm): 1 set
- > 53OKT60200: OKT- Front door for 600x2000x600 (mm): 1 set
- > 53SKT60200: SKT- Side/back panel SET for 600X2000 (mm)- 1 set
- > 53BTZ6060: BZT- Housing for ground mounting 600X2000X600: 1 set

53SET8060

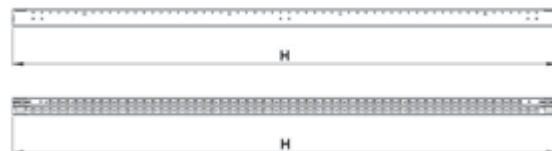
- > 53DPT200: DPT-Vertical profiles 2000 (mm): 1 set
- > 53UKT8060: UKT- top panel set for 800x2000x600 (mm): 1 set
- > 53OKT80200: OKT- Front door for 800x2000x600 (mm): 1 set
- > 53SKT80200: SKT- Back panel SET for 800X2000 (mm)- 1 set
- > 53BTZ8060: BZT- Housing for ground mounting 800X2000X600: 1 set

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

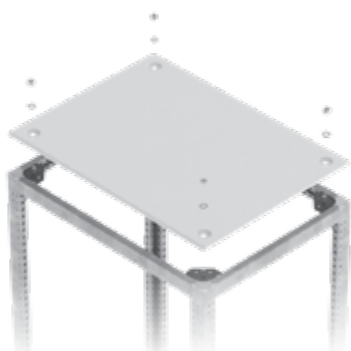
DPT- VERTICAL PROFILES, SET



Catalogue number	Type	Length (mm)	QTY in the SET	Packing/SET
53DPT200	DPT-2000	2000	4	1

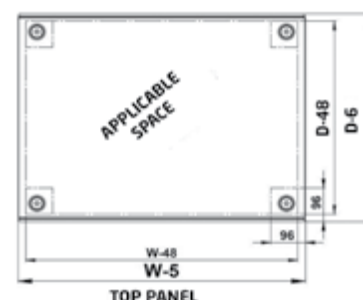


UKT- TOP PANELS, SET



Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	D	
53UKT6060	UKT-600	600	600	1
53UKT8060	UKT-800	800	600	1

- The set includes: Panel and all fixing elements



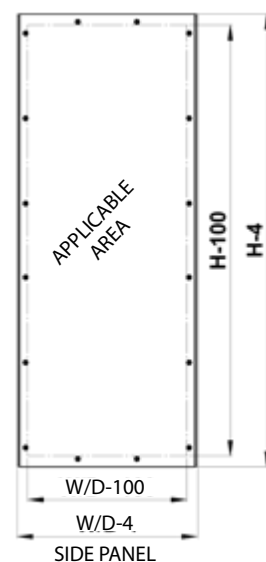
TOP PANEL

SKT- SIDE AND BACK PANELS



Catalogue number	Type	Dimensions (mm)		Packing/ SET
		H	W	
53SKT60200	SKT-600	2000	600	1
53SKT80200	SKT-800	2000	800	1

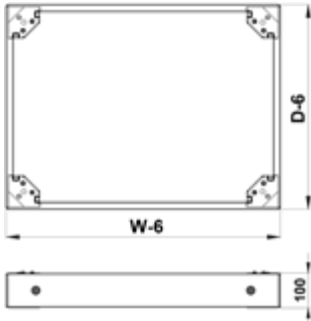
- Panel with dimensions 600x2000mm is suitable for side and back cover for enclosures with width of 600mm
- Panel with dimensions 800x2000mm is suitable only for back cover for enclosures with width of 800mm
- The set includes: Panel and all fixing elements



SIDE PANEL

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

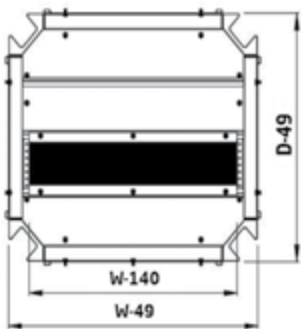
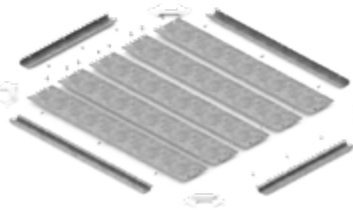
BZT- HOUSING (PLINTH) FOR GROUND MOUNTING



Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	H	
53BTZ6060	BZT-600	600	600	1
53BTZ8060	BZT-800	800	600	1

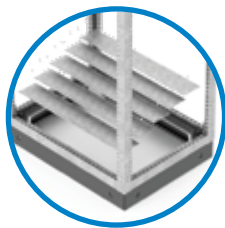


AOT- BOTTOM PLATE SET

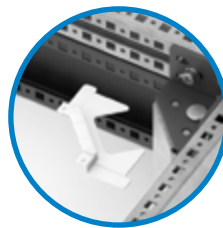


Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	D	
53AOT6060	AOT-600	600	600	1
53AOT8060	AOT-800	800	600	1

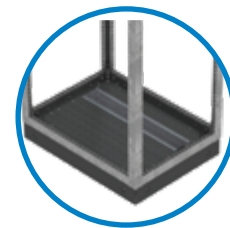
- The set includes all needed elements and fixing accessories:
 - > Bottom plate rail;
 - > Bottom plate corner;
 - > Bottom plate brushes.



Bottom plate rail and itself can be put on enclosure anytime.



Bottom Plate Corner Plastic can be attached after assembly.



Bottom Plate Brushes can be added after assembly.

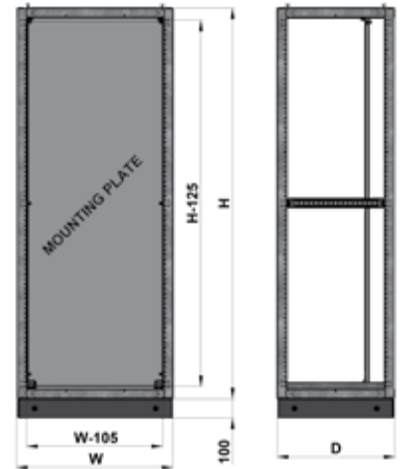
5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



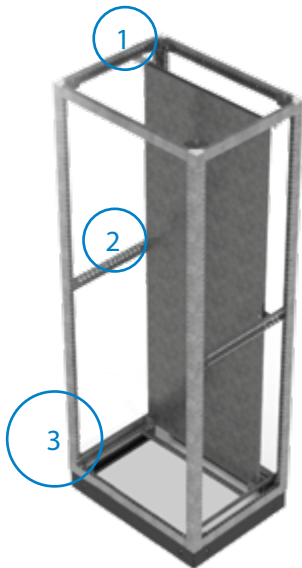
MPT- MOUNTING PLATE SET

Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	H	
53MPT60200	MPT-600	600	2000	1
53MPT80200	MPT-800	800	2000	1

- The set includes:
 - > Mounting plate;
 - > Fixing accessories.



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

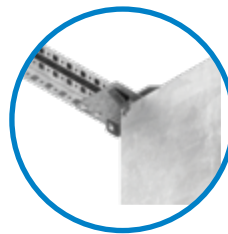


MPR- MOUNTING PLATE RAIL SET

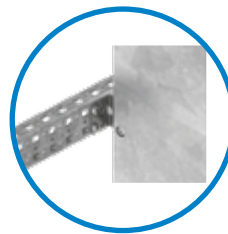
Catalogue number	Type	Depth (mm)	Packing/ SET
53MPR60	MPR-600	600	1



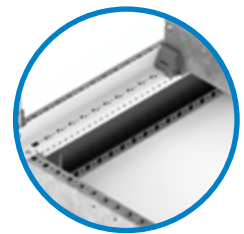
MPR- Mounting Plate Fixings



1



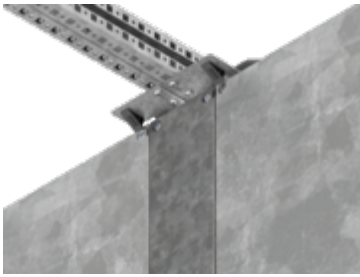
2



3

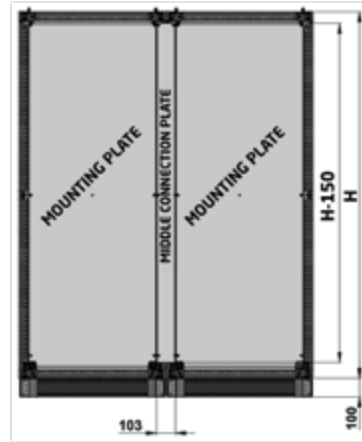
Rail and wheel system makes mounting plate installation easier.

MAT- MIDDLE CONNECTION PLATE

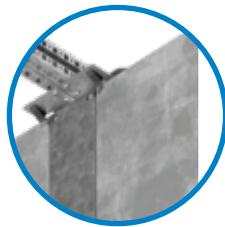
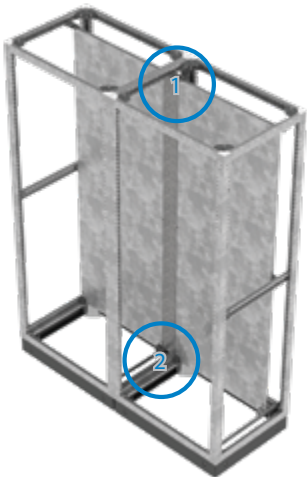


Catalogue number	Type	Height (mm)	Packing/ SET
53MAT200	MAT-2000	2000	1

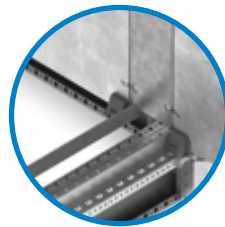
- The set includes:
 - Middle connection plate;
 - Fixing accessories for fastening.



MAT- Middle Connection Plate Fixings



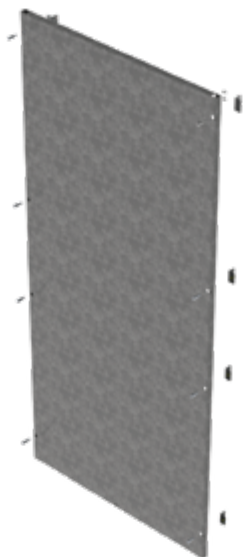
1



2

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

OTT- AUTOMATION MOUNTING PLATES

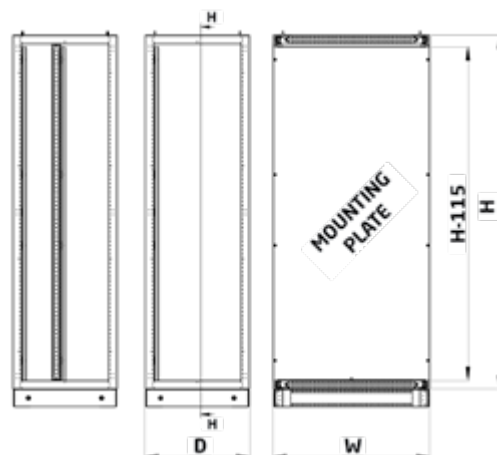
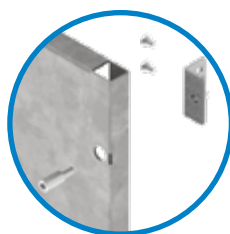


Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	H	
53OTT60200	OTT-600	600	2000	1
53OTT80200	OTT-800	800	2000	1

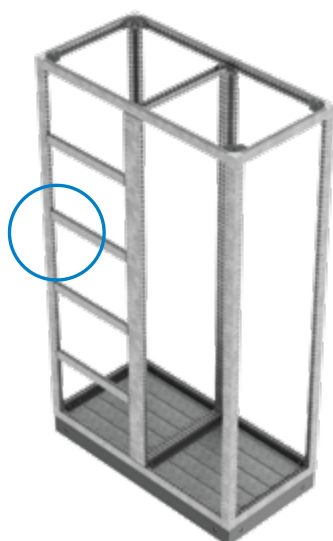
- The set includes:
 - Automation mounting plate;
 - Fixing accessories for fastening.



OTT- Automation Plate Fixings



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



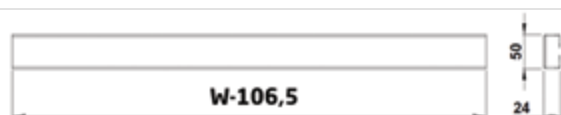
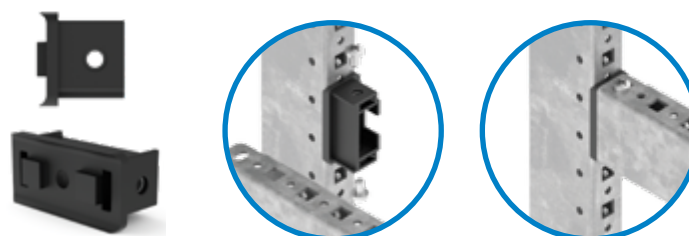
YBT- HORIZONTAL SPLITTING SET

Catalogue number	Type	Width (mm)	Packing/ SET
53YBT60	YBT-600	600	1
53YBT80	YBT-800	800	1

- The set includes:
 - Horizontal splitting element;
 - Fixing accessories.



YBT- Horizontal Splitting Fixings



Side Gaskets for higher protection at the point of connect.

DBT- VERTICAL SPLITTING SET

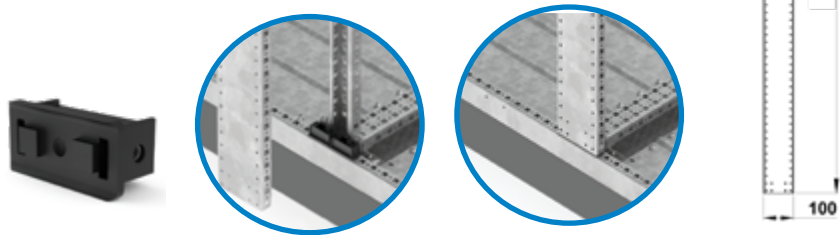


Catalogue number	Type	Height (mm)	Packing/ SET
53DBT200	DBT-2000	2000	1

- The set includes:
 - > Vertical splitting element;
 - > Fixing accessories.



DBT- Vertical Splitting Fixing Sets



Gaskets for higher protection and tightness at the point of connect.

PPT- COVER PLATE MOUNTING SET

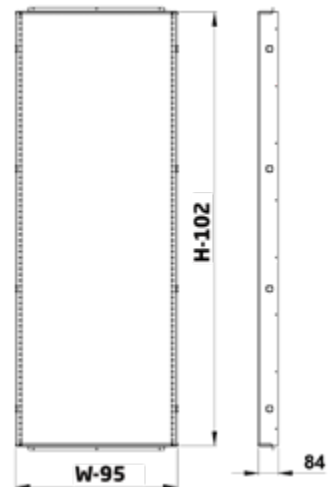
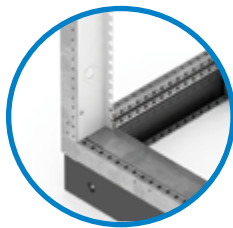


Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	H	
53PPT60200	PPT-600	600	2000	1
53PPT80200	PPT-800	800	2000	1

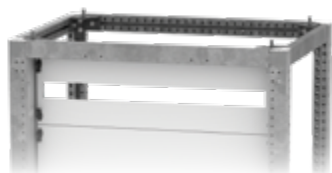
- The set includes:
 - > Cover plate;
 - > Fixing accessories.



PPT - Cover Plate Mounting Set



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

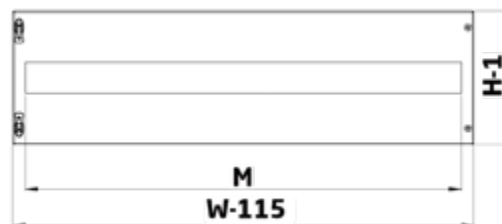


PWT- Cover plate for MCB's

PWT- COVER PLATES FOR 24/36 MODULES, SET

Catalogue number	Type	Number of modules	Dimensions (mm)		Packing/ SET
			W	H	
53PWT6020	PWT-600	24	600	200	1
53PWT8020	PWT-800	36	800	200	1

- The set includes:
 - Cover plate;
 - Fixing accessories.



Special design locking system for cover plates.



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



PRT- Blank cover plate set

PRT- COVER PLATES, SET

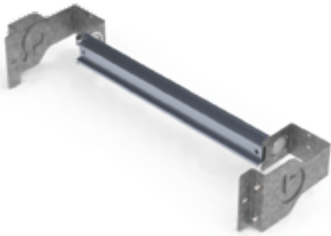
Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	H	
53PRT6020	PRT-600/200	600	200	1
53PRT8020	PRT-800/200	800	200	1
53PRT6050	PRT-600/500	600	500	1
53PRT8050	PRT-800/500	800	500	1

- The set includes:
 - Cover plate;
 - Fixing accessories.



Special design locking system for cover plates.



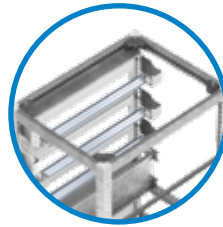
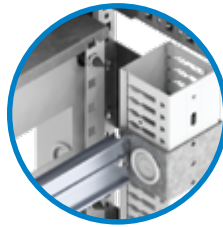


Rail Fixing Set

RAT- DIN RAIL FIXING, SET

Catalogue number	Type	Width (mm)	Packing/ SET
53RAT60	RAT-600	600	1
53RAT80	RAT-800	800	1

- The set includes:
 - > DIN rail;
 - > Fixing accessories.

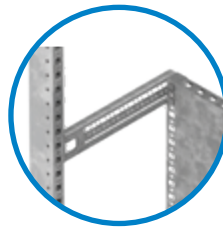
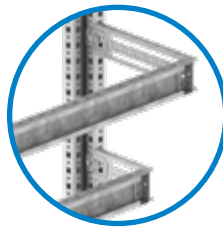
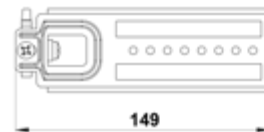


DAT- Depth Adjustment Set

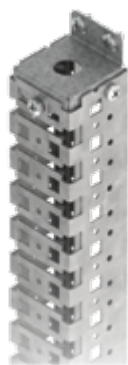
DAT- DEPTH ADJUSTMENT, SET

Catalogue number	Type	Length (mm)	Packing/ SET
53DAT12	DAT-12	149	1
53DAT22	DAT-22	249	1

- The set includes:
 - > Depth adjustment element;
 - > Fixing accessories.



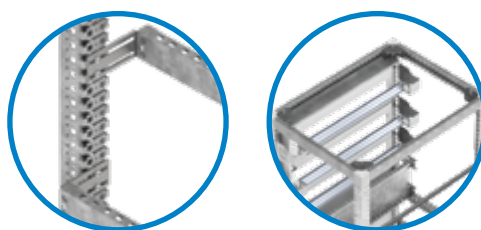
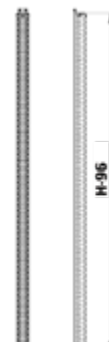
5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



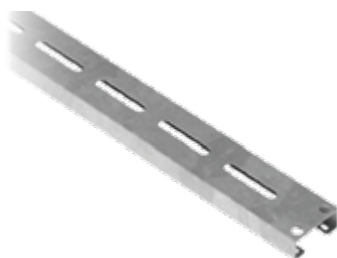
TDT- INTERNAL VERTICAL CARRIER PROFILE, SET

Catalogue number	Type	Height (mm)	Packing/ SET
53TDT200	TDT-2000	2000	1

- The set includes:
 - > Internal profile;
 - > Fixing accessories.



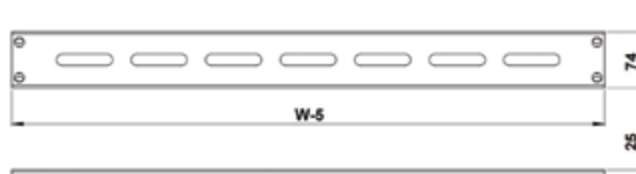
5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



AET- HEAVY EQUIPMENT, SET

Catalogue number	Type	Width (mm)	Packing/ SET
53AET60	AET-600	600	1
53AET80	AET-800	800	1

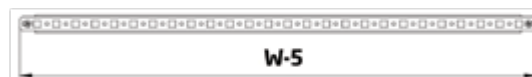
- The set includes:
 - > Internal profile;
 - > Fixing accessories.



KTT- CABLE FIXING, SET

Catalogue number	Type	Width (mm)	Packing/ SET
53KTT60	KTT-600	600	1
53KTT80	KTT-800	800	1

- The set includes:
 - > Cable fixing element;
 - > Fixing accessories.

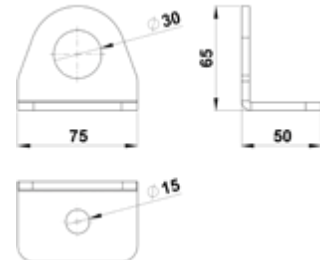


ATT-1 SINGLE LIFTING LUG, SET

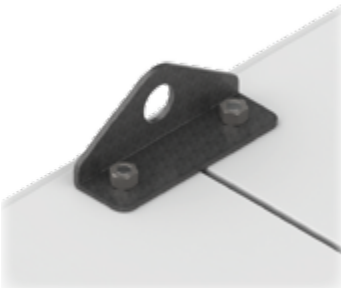


Catalogue number	Type	Dimensions (mm)			Packing/ SET
		W	H	D	
53ATT001	ATT-1	75	65	50	1

- The set includes:
 - > Single lifting lug;
 - > Fixing accessories.

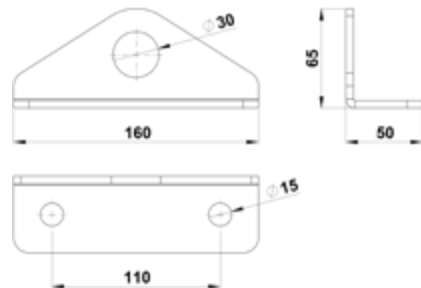


ATT-2 DOUBLE LIFTING LUG, SET

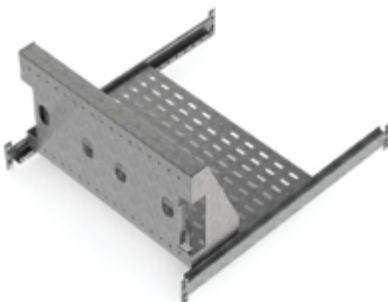


Catalogue number	Type	Dimensions (mm)			Packing/ SET
		W	H	D	
53ATT002	ATT-2	160	65	50	1

- The set includes:
 - > Double lifting lug;
 - > Fixing accessories.

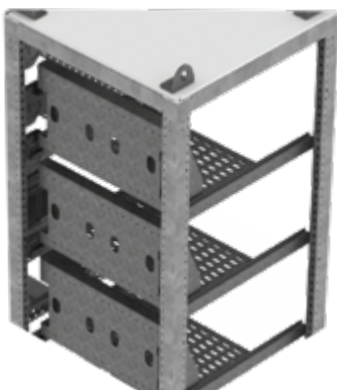
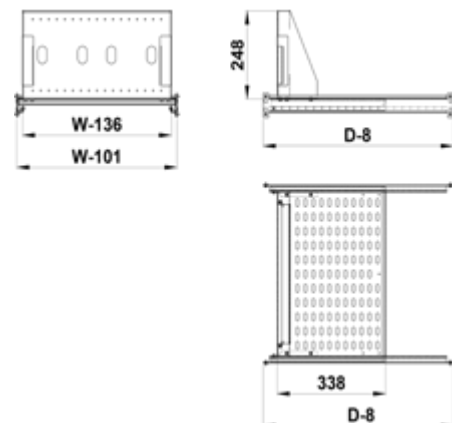


CMT- DRAWER MODULE, SET



Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	D	
53CMT6060	CMT-600	600	600	1
53CMT8060	CMT-800	800	600	1

- The set includes:
 - > Drawer module;
 - > Fixing accessories.



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



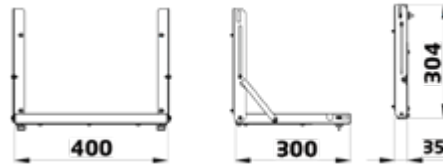
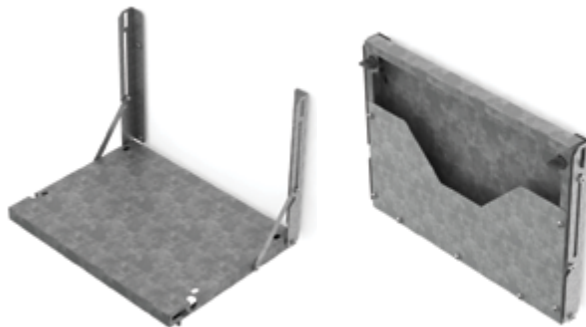
LPT- LAPTOP TABLES, SET

Catalogue number	Type	Dimensions (mm) W	Packing/ SET
53LPT60	LPT-600	600	1
53LPT80	LPT-800	800	1

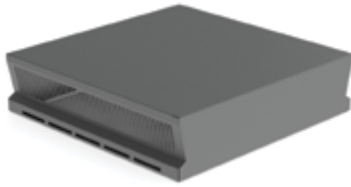
- The set includes:
 - > Laptop table;
 - > Additional accessories.



LPT - Laptop table set



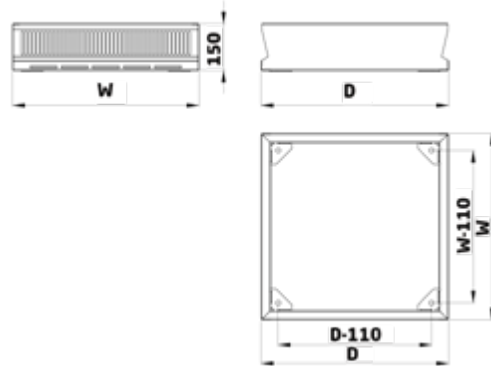
5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



UHT- ROOF VENTILATION, SET

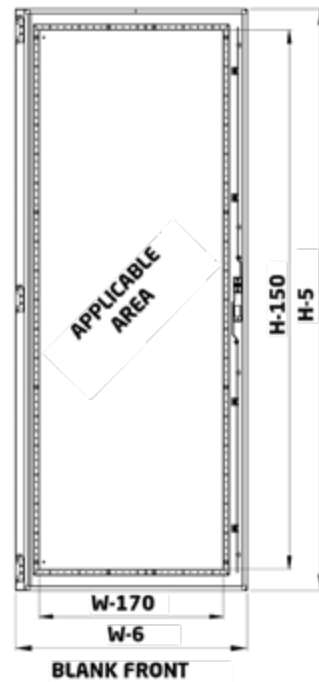
Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	D	
53UHT6060	UHT-600	600	600	1
53UHT8060	UHT-800	800	600	1

- The set includes:
 - > Ventilation roof;
 - > Additional accessories.



OKT- BLANK FRONT DOORS

Catalogue number	Type	Dimensions (mm)		Packing/ SET
		W	H	
53OKT60200	OKT-600	600	2000	1
53OKT80200	OKT-800	800	2000	1



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

ACCESSORIES FOR MODULAR DISTRIBUTION ENCLOSURES

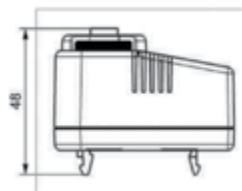
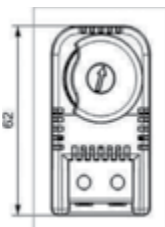


MECHANICAL THERMOSTAT FOR HEATERS

TECHNICAL DATA

- Rated voltage: 250V AC
- Rated current: 10A
- Temperature setting range: 0-60°C
- Type of switch function: NC
- Contact type: Snap action
- Colour of potentiometer: Red
- Sensor type: Bi-metal
- Electrical connection: 2-Pole terminal
- Material: UL94 V0 ABS flame retardant
- Protection degree: IP20
- Working temperature: -25~+80°C
- Mounting: On DIN rail
- Installation position: Variable
- Sizes (HxWxD): 61x34x38 mm

Catalogue number	Rated current (A)	Contact function	Temperature range (C°)	Potentiometer colour	Packing/Box
53300	10	NC	0-60°	Red	1



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended

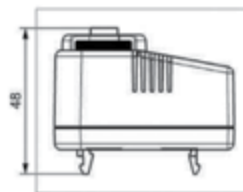
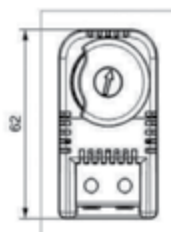


MECHANICAL THERMOSTAT FOR FANS

TECHNICAL DATA

- Rated voltage: 250V AC
- Rated current: 15A
- Temperature setting range: 0-60°C
- Type of switch function: NO
- Contact type: Snap action
- Colour of potentiometer: Blue
- Sensor type: Bimetal
- Electrical connection: 2-Pole terminal
- Material: UL94 V0 ABS flame retardant
- Protection degree: IP20
- Working temperature: -25~+80°C
- Mounting: On DIN rail
- Installation position: Variable
- Sizes (HxWxD): 61x34x38 mm

Catalogue number	Rated current (A)	Contact function	Temperature range (C°)	Potentiometer colour	Packing/Box
53301	10	NO	0-60°	Blue	1



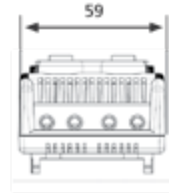
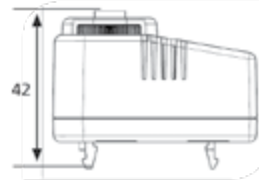
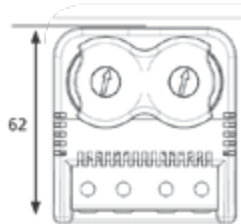


DUAL THERMOSTAT FOR FANS

TECHNICAL DATA

- Rated voltage: 250V AC
- Rated current: 10A
- Temperature setting range: 0-60°C
- Type of switch function: NC+NO
- Contact type: Snap action
- Colour of potentiometer: Red + Blue
- Sensor type: Bi-metal
- Electrical connection: 4-Pole terminal
- Material: UL94 V0 ABS flame retardant
- Protection degree: IP20
- Working temperature: -25~+80°C
- Mounting: On DIN rail
- Installation position: Variable
- Sizes (HxWxD): 65x59x42 mm

Catalogue number	Rated current (A)	Contact function	Temperature range (C°)	Potentiometer colour	Packing/Box
53302	10	NC+NO	0-60°	Red+Blue	1

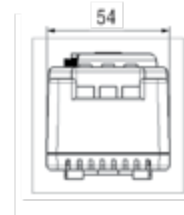
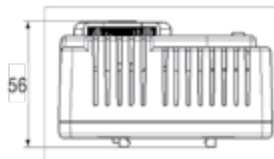
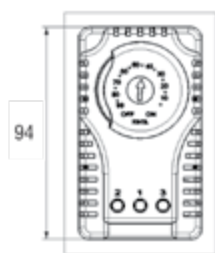


MECHANICAL HYGROSTAT

TECHNICAL DATA

- Setting range: 10-90% RH
- Colour of potentiometer: Black
- Sensor type: Polyamide ribbon
- Differential: 5%
- Electrical connection: 3-Pole terminal
- Protection degree: IP20
- Working temperature: -25~+60°C
- Mounting: On DIN rail
- Sizes (HxWxD): 94x56x54 mm

Catalogue number	Rated current (A)	Humidity range (% RH)	Potentiometer colour	Packing/Box
53303	5	10-90	Black	1



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended

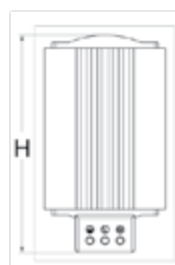


PTC SLIM HEATERS

TECHNICAL DATA

- Rated voltage: 100-250V AC/DC
- Heating element type: PTC resistor, self regulating
- Over current protection: Electronic thermal overload
- Electrical connection: 3-Pole terminal
- Protection class: II
- Protection degree: IP20
- Working temperature: -25~+70°C
- Radiator: Aluminum profile, anodized
- Mounting: On DIN rail
- Installation position: Best efficiency in vertical position

Catalogue number	Power (W)	Rated current (A)	Dimensions (mm)			Packing/Box
			H	W	D	
53318	30	2	148	80	27	1
53319	50	2	148	80	27	1
53320	100	4	166	80	27	1



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended



FANS WITH FILTERS

TECHNICAL DATA

- Rated voltage: 250V AC, 50/60Hz
- Over current protection: Impedance
- Electrical connection: Lead wire
- IP Degree: IP54
- Working temperature: -10~+70°C
- Flow direction: Outside-in
- Plastic material: UL94 V0 ABS flame retardant
- RAL: 7035
- Mounting: via clips (fast clip on)

Catalogue number	Power (W)	Air flow rate (m³/h)	Current consumption (A)	Noise level (dB)	Dimensions (mm)			Packing/Box
					H	W	D	
53314	14	30	0.08	28	120	120	58.5	1
53315	26	100	0.14	42	160	160	69	1
53316	26	125	0.14	42	210	210	98	1
53317	37	240	0.23	52	260	260	103	1





FILTERS

TECHNICAL DATA

- IP Degree: IP54
- Working temperature: -10~+70°C
- Plastic material: UL94 V0 ABS flame retardant
- RAL: 7035
- Mounting: via clips (fast clip on)

Catalogue number	Dimensions (mm)			Packing/Box
	H	W	D	
53310	120	120	20.5	1
53311	160	160	31	1
53312	210	210	31	1
53313	260	260	31	1



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended

COMMUNICATION CABINET RACKS - DATA SERIES

WALL MOUNT CABINET RACKS, DATA SERIES

Premium rack enclosure cabinet, DATA series is suitable for quick and easy deployment in secure, high-density server, telecommunication and IT networking environments.



TECHNICAL DATA

- Material: High quality cold rolled steel
- Steel thickness: 1.5mm of profiles and 1.0mm of others
- Front door material: tempered glass
- Door thickness: 5.0mm
- Colour: Black RAL 9004

Wall mounted rack cabinet includes:

- 1 cabinet
- 1 layer board
- 1 bag of nuts and bolts
- 1 set of universal keys

NOTE: All cabinets are delivered disassembled.

Catalogue number	Type	Layer QTY	Dimensions (mm)		
			L	H	W
53350	Wall mount cabinet rack 4U	1	300	226	95
53351	Wall mount cabinet rack 9U	1	500	226	95
53352	Wall mount cabinet rack 12U	1	650	226	95
53353	Wall mount cabinet rack 15U	1	855	226	95



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended

FREE STANDING CABINET RACK, DATA SERIES

Premium rack enclosure cabinet, DATA series is suitable for quick and easy deployment in secure, high-density server, telecommunication and IT networking environments.



TECHNICAL DATA

- Material: SPCC high quality cold rolled steel
- Steel thickness: 1.5mm of profiles and 1.0mm of others
- Front door material: tempered glass
- Door thickness: 5.0mm
- Colour: Black RAL 9004
- Static load: 800kg
- IP code: IP23

Free standing rack cabinet includes:

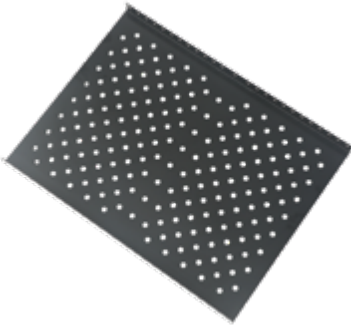
- 1 cabinet
- 1-3 layer board
- 1 bag of nuts and bolts
- 1 set of universal keys

NOTE: All cabinets are delivered disassembled.

Catalogue number	Type	Layer QTY	Dimensions (mm)		
			L	H	W
53354	Free standing cabinet rack 22U	1	600	600	1200
53355	Free standing cabinet rack 32U	2	600	600	1600
53356	Free standing cabinet rack 42U	3	600	600	1600
53357	Free standing cabinet rack 42U	3	600	800	2000



LAYERS FOR CABINET RACK, DATA SERIES



Catalogue number	Type	Dimensions (mm)	
		L	H
53358	4U / 9U / 12U	600	450
53359	15U / 22U / 32U / 42U with cat. number 53356	600	600
53360	42U with cat. number 53357	600	800

Bolts and nuts are not included

Compatible bolt and nut SET: 53362 (1 SET included 1 bolt and 1 nut. For mounting of 1 layer, must be used 4 SET's)



WHEELS FOR CABINET RACK, DATA SERIES



Catalogue number: 53361

* Catalogue number included 1 wheel.
For 1 cabinet must be used 4 PCS



BOLTS AND NUTS, SET



Catalogue number: 53362

THE SET INCLUDES:

- Bolt - 1 pc.
- Nut - 1 pc.



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended

METAL DISTRIBUTION BOXES FOR SURFACE MOUNTING- DELTA SERIES

Documents corresponding to the product:

Standard IEC60439-3

The metal distribution boxes have wide range of application for mounting in buildings under construction or new communal objects, offices, shops, house facilities. Inside the box, could be mounted circuit elements for protection in the electrical installation. They are made of high quality electro-galvanized steel sheet and provide proper prevention from fire. They are shock-proof as well. The box is also equipped with zero and ground terminals.

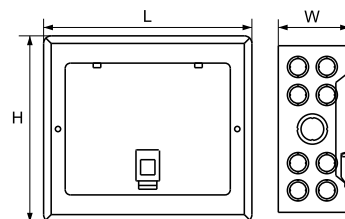
TECHNICAL DATA

- Material: High quality electro-galvanized steel sheet
- Maximum insulation voltage: 690V; 50Hz
- Single phase: 4; 8; 12; 16 modules
- Triple phase: 4; 6; 8; 10; 12 modules
- Steel thickness: 1,0mm
- MCB mounting design: Din-rail
- Main switch rated current: MCB125A
- Mounting type: Surface
- Colour of body: grey
- IP code: IP40
- Fire resistance: 960°C/30s
- Humidity: Max.95%
- Storage temperature: -40+75°C
- Specification: CE, ROHS, BS, EN, IEC60439-3



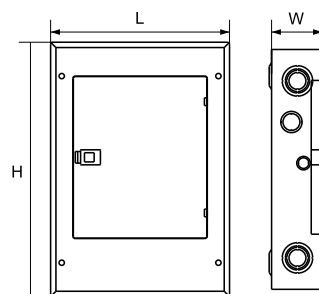
SINGLE PHASE METAL DISTRIBUTION BOXES, DELTA SERIES

Catalogue number	Type	Number of poles	Module capacity	Material	Dimensions (mm)			Packing/Box
					L	H	W	
600104N	Delta 1/4	1	4	Metal	226	226	95	1/10
600108N	Delta 1/8	1	8	Metal	298	226	95	1/10
600112N	Delta 1/12	1	12	Metal	370	226	95	1/10
600116N	Delta 1/16	1	16	Metal	442	226	95	1/10



THREE PHASE METAL DISTRIBUTION BOXES, DELTA SERIES

Catalogue number	Type	Number of poles	Module capacity	Material	Dimensions (mm)			Packing/Box
					L	H	W	
600304N	Delta 3/4	3	4	Metal	506	350	105	1/10
600306N	Delta 3/6	3	6	Metal	560	350	105	1/10
600308N	Delta 3/8	3	8	Metal	614	350	105	1/10
600310N	Delta 3/10	3	10	Metal	668	350	105	1/10
600312N	Delta 3/12	3	12	Metal	722	350	105	1/10



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

METAL CONSUMER UNITS - ZETA SERIES

Documents corresponding to the product:

Standard IEC60439-3

The metal distribution boxes have wide range of application for mounting in buildings under construction or new communal objects, offices, shops, house facilities. Inside the box, could be mounted circuit elements for protection in the electrical installation. They are made of high quality electro-galvanized steel sheet and provide proper prevention from fire. They are shock-proof as well. The box is also equipped with zero and ground terminals.

TECHNICAL DATA

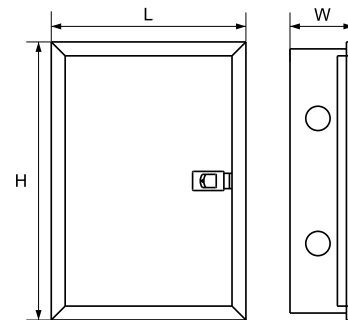
- Material: High quality electro-galvanized steel sheet
- Modules: 30; 36; 45; 60; 72
- Steel thickness: 1,2mm
- Rated voltage In (A): 100A
- Mounting type: Surface
- Colour of body: White RAL7035
- Colour of door: White RAL7035
- IP code: IP40
- Fire resistance: 960°C/30s
- Humidity: Max.95%
- Storage temperature: -40+75°C
- Specification: CE, ROHS, EIC60439-3

METAL CONSUMER UNIT ENCLOSURES, ZETA SERIES

Catalogue number	Type	Number of ways	Number of rows	Material	Dimensions (mm)		
					L	H	W
55030	Zeta 30	30	2	Metal	428	428	110
55036	Zeta 36	36	2	Metal	482	428	110
55045	Zeta 45	45	3	Metal	428	578	110
55060	Zeta 60	60	4	Metal	428	728	110
55072	Zeta 72	72	4	Metal	482	728	110



Zero and ground terminals included



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

METAL DISTRIBUTION BOARDS K SERIES ECONOMIC, IP54

TECHNICAL DATA

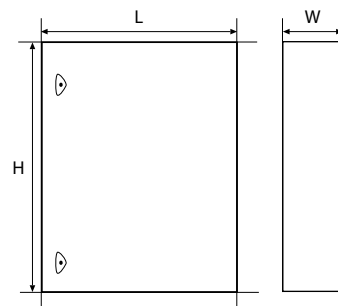
- Rated voltage: up to 1000V
- Material: steel
- Thickness: 0,70 mm
- RAL 7035
- Mounting plate: Galvanized
- IP code: IP 54

MOUNTING

- Vertically on flat surface



Catalogue number	Type	Thickness of metal sheet (mm)	Dimensions (mm)			Packing/Box
			L	H	W	
53020K	CPK 20/25/15	0.7	200	250	150	1
53030K	CPK 20/30/15	0.7	200	300	150	1
53026K	CPK 25/30/15	0.7	250	300	150	1
53040K	CPK 30/40/20	0.7	300	400	200	1
53045K	CPK 35/45/20	0.7	350	450	200	1
53050K	CPK 40/50/20	0.7	400	500	200	1
53060K	CPK 40/60/20	0.7	400	600	200	1
53070K	CPK 50/70/20	0.7	500	700	200	1
53080K	CPK 60/80/25	0.7	600	800	250	1



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

METAL DISTRIBUTION BOARDS JXF SERIES, IP65

Documents corresponding to the product:

Standard EN 62208;
EN 60439-1; EN 60 439-3



Supplied with a special lock, metal plate for fixing of electrical devices, lid for the input-output conductors, grounded dowel pin, gaskets, etc. Option to change the opening direction. Made of single steel sheet, treated with decorative powder coating.

TECHNICAL DATA

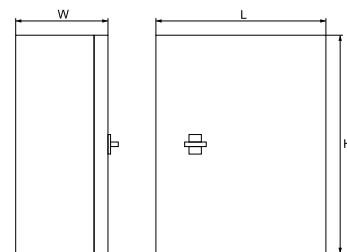
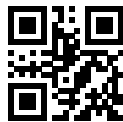
- Rated voltage: up to 1000V
- Maximum current: up to 1250A
- Material: steel
- Mounting plate: Galvanized
- RAL 7032
- Coating: powder style painting
- IP code: IP 65

MOUNTING

- Vertically on flat surface

Catalogue number	Type	Thickness of metal sheet (mm)	Nominal working current In (A)	Dimensions (mm)			Packing/ Box
				L	H	W	
53025	JXF 25/25/15	1.0	80	250	250	150	1
53026	JXF 25/30/15	1.0	100	300	250	150	1
53030	JXF 30/25/15	1.0	100	250	300	150	1
53031	JXF 30/40/20	1.0	160	400	300	200	1
53040	JXF 40/30/20	1.0	160	300	400	200	1
53041	JXF 40/50/20	1.2	250	500	400	200	1
53044	JXF 40/40/20	1.2	250	400	400	200	1
53050	JXF 50/40/20	1.2	250	400	500	200	1
53051	JXF 40/60/20	1.2	250	600	400	200	1
53060	JXF 60/40/20	1.2	250	400	600	200	1
53066	JXF 60/60/20	1.2	250	600	600	200	1
53070	JXF 70/50/20	1.2	350	500	700	200	1
53080	JXF 80/60/25	1.5	400	600	800	250	1
53100	JXF 100/80/30	1.5	630	800	1000	300	1
53120	JXF 120/80/30	1.5	630	800	1200	300	1
53140	JXF 140/80/30	1.5	800	800	1400	300	1
53188	JXF 180/80/30	1.5	1000	800	1800	300	1
53180	JXF 180/100/30*	1.5	1250	1000	1800	300	1

Note: *Metal boxes with double door



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

STAINLESS STEEL METAL BOARDS SXF SERIES

Documents corresponding to the product:

Standard EN 62 208;
EN 60439-1; EN 60 439-3

Supplied with a special lock, metal plate for fixing of electrical devices, lid for the input-output conductors, grounded dowel pin, gaskets, etc. Option to change the opening direction. Made of single stainless steel sheet.

The mounting plate is treated with anti-corrosion and decorative powder coating. They are used in case of special requirements regarding the exposure of corrosion.

TECHNICAL DATA

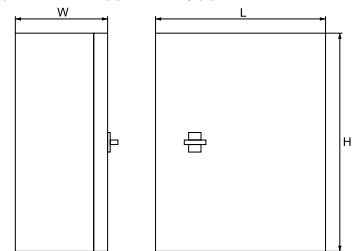
- Rated voltage: up to 1000V
- Maximum current: up to 800A
- Material: stainless steel
- IP code: IP 65

MOUNTING

- Vertically on flat surface



Catalogue number	Type	Thickness of metal sheet (mm)	Dimensions (mm)			Packing / Box
			L	H	W	
54025	SXF 25/25/15	1.0	250	250	150	1
54030	SXF 30/25/15	1.0	250	300	150	1
54040	SXF 40/30/20	1.0	300	400	200	1
54050	SXF 50/40/20	1.2	400	500	200	1
54060	SXF 60/40/20	1.2	400	600	200	1
54070	SXF 70/50/20	1.2	500	700	200	1
54080	SXF 80/60/25	1.5	600	800	250	1
54100	SXF 100/80/30	1.5	800	1000	300	1
54120	SXF 120/80/30	1.5	800	1200	300	1



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

ELECTRIC SWITCHBOARDS WITH TYPE-APPROVAL CERTIFICATES

Documents corresponding to the product:

Standard EN 60439-1;
EN 60 439-3

The company has produced and successfully passed the type-approval procedures for the following metal and plastic electric control boxes and boards with ELMARK automation:

- Tower Mounted Switchgear
- Low Voltage Meter Box
- Low Voltage Main Switchboard
- Distribution Switchboard
- Power Compensation System



Low Voltage Meter Box Type TEPO



Low Voltage Main Switchboard Type GRT



Tower Mounted Switchgear Type MTT



Power Compensation System Type CCU



Distribution Switchboard Type KRSH



PLASTIC DISTRIBUTION BOXES FOR SURFACE AND FLUSH MOUNTING, IP40

Documents corresponding to the product:
Standard EN 60670-24



**PLASTIC DISTRIBUTION BOXES FOR SURFACE MOUNTING
MINI SERIES, IP40**

Catalogue number	Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing/Box
				L	H	W	
60106	Mini 1	1	1	40	150	65	1/120
60107	Mini 2	1	2	55	150	65	1/84
60108	Mini 4	1	4	95	150	65	1/48



Documents corresponding to the product:
Standard EN 60670-24



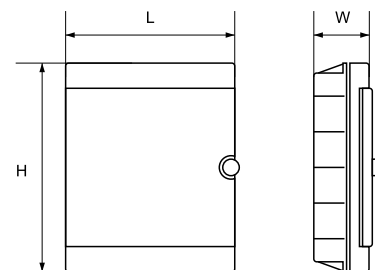
**PLASTIC DISTRIBUTION BOXES FOR FLUSH MOUNTING
ATTIS SERIES, IP40**

The distribution boxes are designed for mounting in newly built buildings or buildings in reconstruction. They are a module box with mounted protective devices of the given flats electrical current circuit circles. They are supplied with transparent door for each row opening upwards to 90°. They are made of white self-extinguishing plastic, resistant to heat and high temperature with IP code: IP 40. The mounted device in the box is protected from direct contact to the current leading parts. They are offered with DIN-rail for device mounting and terminal strips for the neutral and earthing conductor joining. Mounted directly on the walls with screws.

TECHNICAL DATA

- Maximum insulation voltage: 690V; 50Hz
- Door colour: Transparent
- Mounting type: Surface; Flush
- Number of modules: 6; 9; 12; 16; 24; 36
- IP code: IP40
- Number of rows:
 - Single row for 6, 9, 12 and 16 modules
 - Double rows for 16; 24 and 36 modules
- Material: ABS for body and PC for door
- Fire resistance: 360°C/30s

Catalogue number	Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing/Box
				L	H	W	
60026	Attis 6	1	6	185	140	90	1/30
60096	Attis 9	1	9	220	164	90	1/20
60126	Attis 12	1	12	305	205	90	1/16
60166	Attis 16	1	16	355	220	90	1/16
60176	Attis 16	2	16	231	285	90	1/16
60246	Attis 24	2	24	313	345	96	1/8
60366	Attis 36	3	36	315	440	96	1/5



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

PLASTIC DISTRIBUTION BOXES FOR SURFACE AND FLUSH MOUNTING PDB1 SERIES, IP40

The distribution boxes are designed for mounting in newly built buildings or buildings in reconstruction. They are a module box with mounted protective devices of the given flats electrical current circuit circles. They are supplied with transparent door for each row opening upwards to 90°. They are made of white self-extinguishing plastic, resistant to heat and high temperature with IP rate IP 40. The mounted device in the box is protected from direct contact to the current leading parts. They are offered with DIN-rail for device mounting and terminal strips for the neutral and earthing conductor joining. Mounted directly on the walls with screws.

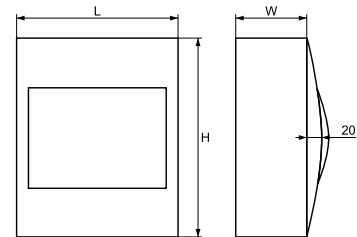
TECHNICAL DATA

- Maximum insulation voltage: 690V; 50Hz
- fire resistance rate: UL 94
- IP code: IP 40
- Class of current limiting: 2

BOXES FOR SURFACE MOUNTING, PDB1 SERIES, IP40



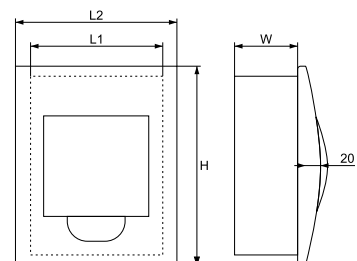
Catalogue number	Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing/Box
				L	H	W	
60040	PDB1 4	1	4	110	205	75	1/20
60060	PDB1 6	1	6	150	205	75	1/20
60080	PDB1 8	1	8	190	205	75	1/20
60120	PDB1 12	1	12	260	205	75	1/10
60180	PDB1 18	1	18	365	220	75	1/10
60240	PDB1 24	2	24	270	330	75	1/10



BOXES FOR FLUSH MOUNTING, PDB1 SERIES, IP40



Catalogue number	Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box
				L	H	W	
60041	PDB1 4	1	4	110	205	75	1/20
60061	PDB1 6	1	6	150	205	75	1/20
60081	PDB1 8	1	8	190	205	75	1/20
60121	PDB1 12	1	12	260	205	75	1/10
60181	PDB1 18	1	18	365	220	75	1/10
60241	PDB1 24	2	24	270	330	75	1/10



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

PLASTIC DISTRIBUTION BOXES FOR SURFACE AND FLUSH MOUNTING IP40, BLUE SERIES

Documents corresponding to the product:

Standard EN 62 208;
EN 60439-1; EN 60 439-3

The distribution boxes are designed for mounting in newly built buildings or buildings in reconstruction. They are a module box with mounted protective devices of the given flats electrical current circuit circles. They are supplied with transparent door for each row opening upwards to 90°. They are made of white self-extinguishing plastic, resistant to heat and high temperature with IP rate IP 40. The mounted device in the box is protected from direct contact to the current leading parts. They are offered with DIN-rail for device mounting and terminal strips for the neutral and earthing conductor joining. Mounted directly on the walls with screws.

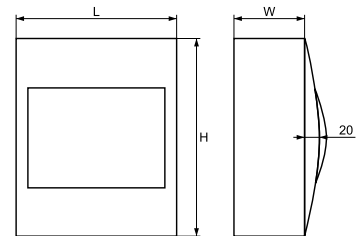
TECHNICAL DATA

- Door colour: Transparent blue
- Mounting type: Surface; Flush
- Number of modules: 12; 18; 24; 28; 36
- IP code: IP40
- Number of rows:
 - Single row for 12 and 18 modules
 - Double rows for 24; 28 and 36 modules
- Material: ABS for body and PC for door
- Fire resistance: 650°C/30s
- Ambient temperature(°C): -5 +65°C, max. 95% humidity
- Colour: White RAL 9003
- Storage temperature(°C): -40 +75°C

BOXES FOR SURFACE MOUNTING, BLUE SERIES



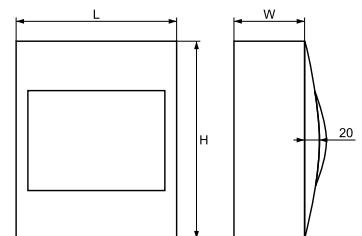
Catalogue number	Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing/Box
				L	H	W	
60122	Blue 12	1	12	300	204	102	1/10
60182	Blue 18	1	18	410	204	102	1/10
60242	Blue 24	2	24	300	294	109	1/5
60282	Blue 28	2	28	310	354	109	1/5
60362	Blue 36	2	36	410	294	109	1/5



BOXES FOR FLUSH MOUNTING, BLUE SERIES



Catalogue number	Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing/Box
				L	H	W	
60123	Blue 12	1	12	317	220	102	1/10
60183	Blue 18	1	18	426	220	102	1/10
60243	Blue 24	2	24	317	310	109	1/5
60283	Blue 28	2	28	294	338	109	1/5
60363	Blue 36	2	36	426	310	109	1/5



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

MOISTURE-PROOF DISTRIBUTION BOXES FOR SURFACE MOUNTING HK SERIES, IP65

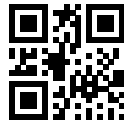
Documents corresponding to the product:

Standard EN 62 208;
EN 60439-1; EN 60 439-3

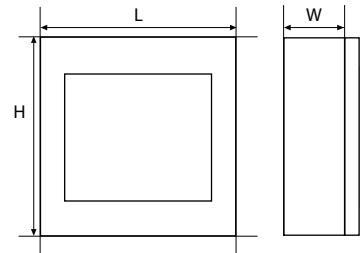
The distribution boxes are designed for mounting in newly built buildings or buildings in reconstruction. They are a module box with mounted protective devices of the given flats electrical installation current circles. They are supplied with transparent door for each row opening upwards to 90°. They are made of white non self-extinguishing plastic, resistant to heat and high temperature. The special design of the lids and gaskets provides IP code: IP65. The mounted device in the box is protected from indirect contact to the current leading parts. They are offered with DIN-rail for device mounting and terminal strips for the neutral and earthing conductor joining. For direct wall mounting with screws.

TECHNICAL DATA

- Rated voltage: 690V; 50Hz
- Cover material: PC
- Body material: ABS
- IP code: IP65
- Colour: RAL7035
- Mounting type: Surface
- Supplied with removable earth/neutral bar

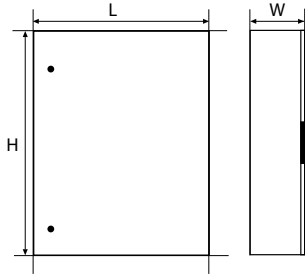


Catalogue number	Type	Number of rows	Module capacity (number of devices)	IP code	Dimensions (mm)			Packing/Box
					L	H	W	
60001	ELM-HK05	1	5	65	140	100	140	1
60002	ELM-HK08	1	8	65	195	103	195	1
60003	ELM-HK12	1	12	65	270	103	195	1
60005	ELM-HK18	1	18	65	375	103	195	1



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

PLASTIC DISTRIBUTION BOARDS, IP65



Plastic distribution boards of various sizes. Intended for extension or distribution of cable lines. Boards are made of ABS and polyester. They are resistant to chemical agents, thermal and UV rays.

TECHNICAL DATA

- Resistance: chemical agents, weak acids, alkali, oils, salts, etc.
- Rated Voltage: up to 690V
- Maximum Current: up to 800A
- Thermal Deformation: over 240°C
- Operating Temperature: -35°C + 65°C
- Material: ABS & Polyester
- IP code: IP65
- Colour: RAL7035 grey
- Recyclable
- Adjustable mounting plate position

MOUNTING

- Vertically on flat surface

ABS DISTRIBUTION BOARDS CP SERIES ECONOMIC - GRAY DOOR



Catalogue number	Board Type	Material	IP code	Dimensions (mm)			Packing/Box
				L	H	W	
5312821130	CP5001	ABS	IP65	210	280	130	1
5313525150	CP5002D	ABS	IP65	250	330	150	1
5313040165	CP5003	ABS	IP65	300	400	165	1
5313040195	CP5003D	ABS	IP65	300	400	195	1
5313550195	CP5007	ABS	IP65	350	500	195	1
5314050245	CP5004D	ABS	IP65	400	500	245	1
5314060200	CP5005	ABS	IP65	400	600	200	1



ABS DISTRIBUTION BOARDS CP SERIES- TRANSPARENT DOOR



Catalogue number	Board Type	Material	IP code	Dimensions (mm)			Packing/Box
				L	H	W	
5312128130T	CP5011	ABS	IP65	210	280	130	1
5312535150T	CP5012D	ABS	IP65	250	330	150	1
5313040165T	CP5013	ABS	IP65	300	400	165	1
5313040195T	CP5013D	ABS	IP65	300	400	195	1
5313550195T	CP5017	ABS	IP65	350	500	195	1
5314050245T	CP5014D	ABS	IP65	400	500	245	1
5314060200T	CP5015	ABS	IP65	400	600	200	1



POLYESTER DISTRIBUTION BOARDS CP SERIES - GRAY DOOR



Catalogue number	Board Type	Material	IP code	Dimensions (mm)			Packing / Box
				L	H	W	
5333020150	CP501	Polyester	IP65	200	300	150	1
5333040180	CP504	Polyester	IP65	300	400	180	1
5334050190	CP505	Polyester	IP65	400	500	190	1
5334060200	CP506	Polyester	IP65	400	600	200	1
5335080255	CP507	Polyester	IP65	500	800	285	1

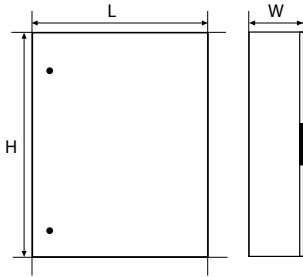


5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

PLASTIC DISTRIBUTION BOARDS ABS - PP SERIES, IP65

Documents corresponding to the product:

Standard EN 60439 -1
EN 60439 -5



Plastic distribution boards of various sizes. Intended for extension or distribution of cable lines. They can also be used as meter boxes. They are resistant to chemical agents, thermal and UV rays.

TECHNICAL DATA

- Resistance: chemical agents, weak acids, alkali, oils, salts, etc.
- Rated Voltage: up to 690V
- Maximum Current: up to 800A
- Thermal Deformation: over 240°C
- Operating Temperature: -35°C + 65°C
- Colour: RAL7035 grey
- Recyclable
- Adjustable mounting plate position

MOUNTING

- Vertically on flat surface



ABS DISTRIBUTION BOARDS PP SERIES- GRAY DOOR

Catalogue number	Board Type	Material	IP code	Dimensions (mm)			Packing / Box
				L	H	W	
5312030130	PP 3001	ABS	IP65	200	300	130	1
5312535150	PP 3002	ABS	IP65	250	350	150	1
5313040170	PP 3004	ABS	IP65	300	400	170	1
5313040220	PP 3005	ABS	IP65	300	400	220	1
5313550190	PP 3006	ABS	IP65	350	500	190	1
5314050240	PP 3007	ABS	IP65	400	500	240	1
5314060190	PP 3008	ABS	IP65	400	600	200	1

Note: Open door angle 180°



ABS DISTRIBUTION MODULE BOARDS PP SERIES- TRANSPARENT DOOR

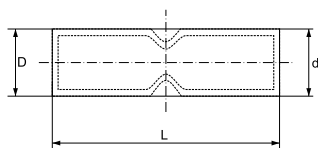
Catalogue number	Board Type	Material	IP code	Dimensions (mm)			Packing / Box
				L	H	W	
5322535150	PP 3112-18modules	ABS	IP65	250	350	150	1
5323040170	PP 3114-24modules	ABS	IP65	300	400	170	1
5323550190	PP 3116-45modules	ABS	IP65	350	500	190	1
5324060190	PP 3118-60modules	ABS	IP65	400	600	200	1

Note: Transparent door



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

NON-ISOLATED CONNECTION TUBES



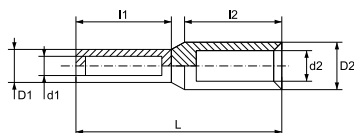
CONNECTION TUBES - GTY TYPE

Copper pipes with galvanic tin coating, used for joining of copper rigid or multicore conductors with different sections. The assembling is made by mechanical pressing with crimping tool.

TECHNICAL DATA

- Material: copper alloy
- Coating: tin
- Application: general

Catalogue number	Type	Length L (mm)	Outer diameter D (mm)	Inner diameter d (mm)	Cable cross section (mm ²)	Packing/ Box (pcs)
59213	GTY-4	20	5	3	4	1000/16000
59201	GTY-6	25	5.3	3.7	6	500/1500/12000
59202	GTY-10	30	6.3	4.5	10	500/1500/12000
59203	GTY-16	35	7.5	5.7	16	100/200/4800
59204	GTY-25	40	9	7.2	25	100/500/2000
59205	GTY-35	45	10.8	8.5	35	100/200/1600
59206	GTY-50	50	12.5	9.8	50	20/200/1600
59207	GTY-70	55	14.5	11.5	70	10/100/800
59208	GTY-95	60	17	13.7	95	10/80/640
59209	GTY-120	65	19	15	120	10/60/480
59210	GTY-150	70	21	16.7	150	10/50/400
59211	GTY-185	75	23	18.5	185	10/40/320
59212	GTY-240	80	26	21	240	10/30/240



BIMETALLIC CONNECTION TUBE - GTL TYPE

Pipes made of two metals – copper and aluminum without galvanic coating. They are designed for joining copper and aluminum conductors – rigid or multicore conductors with different section. The connection is accomplished through crimping pliers, through mechanical pressing of the butt terminals and the conductor. They are used for protection against electrochemical corrosion got at two metals contact with different chemical properties and conductivity at electrical current feed. They are manufactured under modern technology and have high quality and long exploitation period.

TECHNICAL DATA

- Material: copper aluminum alloy
- Coating: none
- Application: general for joining of two types of conductors

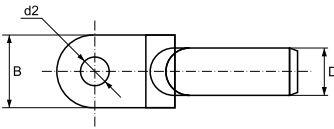
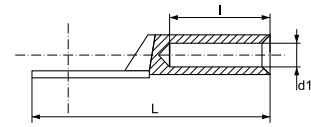
Catalogue number	Type	d1	D1	d2	D2	l1	l2	L	Packing/Box(pcs)
59214	GTL-16	5	9	6	10	30	30	75	20/200/1200
59215	GTL-25	6	10	7	12	30	33	82	20/400/1500
59216	GTL-35	7	11	8.5	14	30	40	90	20/300/1000
59217	GTL-50	8.5	13	9.8	16	32	42	95	20/800
59218	GTL-70	9.5	15	11.5	18	38	50	105	10/600
59219	GTL-95	11.5	17	13.5	21	40	50	110	10/500
59220	GTL-120	13.5	19	15	23	42	55	112	10/400
59221	GTL-150	15	21	17	25	44	55	118	10/350
59222	GTL-185	17	23	18.5	27	46	60	125	10/300
59223	GTL-240	19	26	21	30	54	60	130	10/200



NON-ISOLATED CABLE TERMINALS

CABLE TERMINALS NON-ISOLATED - SC TYPE

They are used for joining copper conductors - multicore conductors with different section to electrical devices or connections to combine all cores of the conductor, to provide safe connection at tightening in terminals and safe connection at the base of the terminal. Thus the connection stability against vibrations is increased and the possibility for short circuit is decreased. They are made of copper alloy with galvanic tin coating. The connection is realized through crimping pliers, through mechanic pressing of the terminal and conductor. Two types are offered with standard length SC and extended base SC. They are manufactured under modern technology and have high quality and long exploitation period.



TECHNICAL DATA

- Material: copper alloy
- Coating: tin
- Application: general for joining conductors to electrical devices.

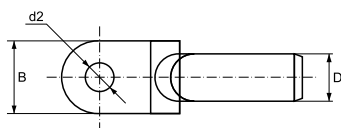
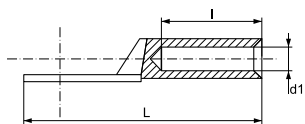


Catalogue number	Type	d1 (mm)	D (mm)	d2 (mm)	L (mm)	Packing / Box (pcs)
59240	SC - 2.5/6	2.2	4.5	6	24	1000/3000/24000
59241	SC - 4/6	3.0	4.8	6	24	1000/2000/16000
59060	SC - 6/5	3.8	5.5	5	24	500/2000/16000
59035	SC - 6/6	3.8	5.5	6	24	500/2000/16000
59059	SC - 6/8	3.8	5.5	8	24	500/2000/16000
59066	SC - 6/10	3.8	5.5	10	24	500/2000/16000
59061	SC - 10/5	4.8	6.8	5	25.5	500/1500/12000
59036	SC - 10/6	4.8	6.8	6	25.5	100/1500/12000
59067	SC - 10/10	4.8	6.8	10	25.5	100/1500/12000
59037	SC - 10/8	4.8	6.8	8	25.5	500/1500/12000
59038	SC - 16/6	5.5	7.5	6	30.5	400/800/6400
59039	SC - 16/8	5.5	7.5	8	30.5	400/800/6400
59040	SC - 16/10	5.5	7.5	10	30.5	400/800/6400
59068	SC - 16/12	5.5	7.5	12	30.5	400/800/6400
59062	SC - 25/6	7	9	6	34	100/500/4000
59041	SC - 25/8	7	9	8	34	100/500/4000
59042	SC - 25/10	7	9	10	34	250/500/4000
59069	SC - 25/12	7	9	12	34	100/500/4000
59063	SC - 35/6	8.2	10.5	6	38	200/400/3200
59043	SC - 35/8	8.2	10.5	8	38	200/400/3200
59044	SC - 35/10	8.2	10.5	10	38	200/400/3200
59064	SC - 35/12	8.2	10.5	12	38	200/400/3200
59065	SC - 50/6	9.8	12.5	6	45	100/200/1600
59046	SC - 50/8	9.8	12.5	8	45	100/200/1600
59047	SC - 50/10	9.8	12.5	10	45	100/100/1600
59048	SC - 50/12	9.8	12.5	12	45	100/200/1600
59065	SC - 70/6	11.5	14.5	6	50	80/100/1280
59049	SC - 70/10	11.5	14.5	10	50	80/100/1280
59050	SC - 70/12	11.5	14.5	12	50	80/100/1280
59051	SC - 95/10	13.8	17.5	10	55.5	50/200/800
59052	SC - 95/12	13.8	17.5	12	55.5	50/200/800
59053	SC - 120/10	15.5	19.5	10	63	30/60/480
59054	SC - 120/12	15.5	19.5	12	63	30/60/480
59055	SC - 150/12	16.5	21	12	71	10/50/400
59056	SC - 185/12	18.8	23.5	12	78	10/40/320
59057	SC - 185/16	18.8	23.5	16	78	10/40/320
59058	SC - 240/16	21.3	26.5	16	92	10/30/240



NON-ISOLATED CABLE TERMINALS

BIMETALIC NON-ISOLATED CABLE TERMINALS FOR CRIMPING DTL



They are used for joining aluminum conductors - multicore conductors with different section to electrical devices or connections to combine all cores of the conductor, to provide safe connection at tightening in terminals and safe connection at the base of the terminal. Thus the connection stability against vibrations is increased and the possibility for short circuit is decreased. They are made of copper and aluminum alloys as in the aluminum billet is made under special technology the copper terminal formed like an ear. The connection is realized through crimping pliers, through mechanic pressing of the terminal and conductor.

TECHNICAL DATA

- Material: copper aluminum;
- Application: general for joining conductors to electrical devices.



Catalogue number	Type	d1 (mm)	D (mm)	d2 (mm)	L (mm)	l (mm)	B (mm)	Packing / Box (pcs)
59224	DTL - 1 - 16	6	11	8	70	30	16	20 /200 /1440
59225	DTL - 1 - 25	7	12	8	75	34	18	20 /180 /1080
59226	DTL - 1 - 35	8.5	14	10	85	38	20.5	20 /100 /600
59227	DTL - 1 - 50	9.8	16	10	90	40	23	20 /70 /420
59228	DTL - 1 - 70	11.5	18	12	102	48	26	10 /60 /360
59229	DTL - 1 - 95	13.5	21	12	112	50	28	10 /40 /180
59230	DTL - 1 - 120	15	23	14	120	53	30	10 /30 /120
59231	DTL - 1 - 150	16.5	25	14	126	56	34	5 /25 /120
59232	DTL - 1 - 185	18.5	27	16	133	58	37	5 /20 /120
59233	DTL - 1 - 240	21	30	16	140	60	40	4 /12 /72



ISOLATED CABLE TERMINALS



COPPER CABLE WIRE FORK TERMINAL CONNECTOR

Catalogue number	Type	Length (mm)	Colour	Conductor (mm ²)	Packing (pcs.)	Packing / Box (pcs.)
59080	SVS1.25-4	21.2	Red	0.5-1.0	100	10/240
59081	SVS1.25-5	21.2	Red	0.5-1.0	100	15/180
59082	SVS1.25-6	21.2	Red	0.5-1.0	100	15/180
59083	SVS 2-4	21.0	Blue	1.5-2.5	100	15/180
59084	SVS 2-5	22.5	Blue	1.5-2.5	100	15/180
59085	SVS 2-6	27.6	Blue	1.5-2.5	100	10/120
59086	SVS 5.5-4	24.5	Yellow	4.0-6.0	100	5/60
59087	SVS 5.5-5	27.9	Yellow	4.0-6.0	100	5/60
59088	SVS 5.5-6	27.9	Yellow	4.0-6.0	100	5/60



ISOLATED CABLE TERMINALS - CHS TYPE

Catalogue number	Type	Length (mm)	Conductor (mm ²)	Packing / Box (pcs.)	Packing / Box (pcs.)
59115	CHS3	18.1	0.25-1.5	100	250
59116	CHS4	20.1	1.5-2.5	100	200
59117	CHS5	25.5	4.0-6.0	100	200
59118	CHS6	27.3	8.0	100	100



ISOLATED CABLE JOINTS

Metal pipes with outside PVC insulation. They are used for joining/extending multicore conductors with section up to 6mm². It increases the connection stability against vibrations and decreases the possibility for short circuit. The connection is realized through crimping pliers, through mechanic pressing of the terminal and conductor. The different insulation colour corresponds to different conductor sections.

TECHNICAL DATA

- Material: copper alloy
- Coating: polyvinylchloride
- Application: general for joining of copper conductors



Catalogue number	Type	Length (mm)	Colour	Conductor (mm ²)	Packing (pcs.)	Packing / Box (pcs.)
59015	PVT 1.25	16	Red	0.5-1.0	100	15/300
59001	BV 1.25	25	Red	0.5-1.0	100	10/120
59034	PVT 2	16	Blue	1.5-2.5	100	15/300
59002	BV 2	25	Blue	1.5-2.5	100	10/60
59014	PVT 5.5	20	Yellow	4.0-6.0	100	5/60
59003	BV 5.5	25	Yellow	4.0-6.0	100	5/60





ISOLATED CABLE TERMINALS - MDD/FDD TYPES

They represent a cable terminal made of brass alloy with galvanic tin coating and insulated with polyvinyl chloride. They are used as non-insulated terminals, as the insulated part protects the cores from bending and breaking in the joining point and at the same time it protects the staff from direct contact to the current - carrying parts. They are used for conductors with section up to 6 mm. The connection is realized through crimping pliers, through mechanic pressing of the terminal and cable. The different insulation colour corresponds to different conductor sections. They are manufactured under modern technology and have high quality and long exploitation period. All insulated cable terminals are being offered in 100 pcs. packing

TECHNICAL DATA

- Material: copper alloy
- Coating: polyvinyl chloride
- Application: general for joining copper conductors
- Ambient temperature: -10 to +75°C

Catalogue number	Type	Shape	Colour	Conductor (mm ²)	Packing (pcs.)	Packing / Box (pcs.)
59012	MDD 1.25 - 187	Male	Red	0.5-1.0	100	10 / 240
59009	MDD 1.25 - 250	Male	Red	0.5-1.0	100	10 / 240
59013	MDD 2 - 187	Male	Blue	1.5-2.5	100	10 / 240
59011	MDD 2 - 250	Male	Blue	1.5-2.5	100	10 / 180
59010	MDD 5.5 - 250	Male	Yellow	4.0-6.0	100	10 / 120
59008	FDD 1.25 - 187	Female	Red	0.5-1.0	100	20 / 240
59006	FDD 1.25 - 250	Female	Red	0.5-1.0	100	15 / 180
59007	FDD 2 - 187	Female	Blue	1.5-2.5	100	20 / 240
59004	FDD 2 - 250	Female	Blue	1.5-2.5	100	10 / 180
59005	FDD 5.5 - 250	Female	Yellow	4.0-6.0	100	10 / 120



ISOLATED CABLE TERMINALS - E TYPE



Catalogue number	Type	Colour	Terminal length (mm)	Conductor (mm ²)	Packing (pcs.)	Packing/ Box (pcs.)
59023	E0508	White	8	0.5	100	50/600
59024	E7508	Blue	8	0.75	100	50/600
59025	E1008	Red	8	1.0	100	50/600
59026	E1510	Black	10	1.5	100	30/360
59027	E2512	Grey	12	2.5	100	30/300
59028	E4012	Orange	12	4.0	100	20/240
59029	E6018	Green	18	6.0	100	5/120
59030	E10-18	Dark green	18	10	100	8/96
59031	E16-18	Milky yellow	18	16	100	6/60
59032	E25-16	Black	16	25	100	5/36
59033	E35-25	Grey-yellow	25	35	100	2/24



TWIN ISOLATED CABLE TERMINALS- TE TYPE



Catalogue number	Type	Colour	Terminal length (mm)	Conductor (mm ²)	Packing (pcs.)	Packing / Box (pcs.)
59023TE	TE0508	White	8	2x0.5	100	50/600
59024TE	TE7508	Blue	8	2x0.75	100	50/600
59025TE	TE1008	Red	8	2x1.0	100	50/600
59026TE	TE1508	Black	8	2x1.5	100	30/360
59027TE	TE2510	Grey	10	2x2.5	100	30/300
59028TE	TE4010	Orange	10	2x4.0	100	20/240
59029TE	TE6014	Green	14	2x6.0	100	5/120
59030TE	TE10-14	Dark green	14	2x10.0	100	8/96
59031TE	TE16-14	Milky yellow	14	2x16.0	100	6/60



ISOLATED CABLE TERMINALS - PTV TYPE



Metal pipes with outside PVC insulation. They are used for joining/extending multicore conductors with section up to 6mm². It increases the connection stability against vibrations and decreases the possibility for short circuit. The connection is realized through crimping pliers, through mechanic pressing of the terminal and conductor. The different insulation colour corresponds to different conductor sections.

TECHNICAL DATA

- Material: copper alloy
- Coating: polyvinyl chloride
- Application: general for joining of copper conductors

Catalogue number	Type	Shape	Colour	Conductor (mm ²)	Shoe width	Packing (pcs.)	Packing / Box (pcs.)
59101	PTV 1.25 - 10	Male	Red	0.25-1.0	1.9	100	20/240
59102	PTV 1.25 - 12	Male	Red	0.25-1.0	1.9	100	20/240
59103	PTV 2 - 10	Male	Blue	1.5-2.5	1.9	100	20/240
59104	PTV 2 - 12	Male	Blue	1.5-2.5	1.9	100	15/180
59105	PTV 5.5 - 13	Male	Yellow	4.0-6.0	2.9	100	8/96



ISOLATED CABLE TERMINALS - RVL TYPE



Catalogue number	Type	Size of the opening (mm)	Colour	Conductor (mm ²)	Packing (pcs.)	Packing / Box (pcs.)
59021	RVL 1.25-4	4	Red	0.5-1.0	100	20/240
59022	RVL 1.25-5	5	Red	0.5-1.0	100	15/180
59018	RVL 2-4	4	Blue	1.5-2.5	100	15/180
59019	RVL 2-5	5	Blue	1.5-2.5	100	10/120
59020	RVL 5.5-4	4	Yellow	4.0-6.0	100	8/96
59016	RV 5.5-5	5	Yellow	4.0-6.0	100	8/96
59017	RV 5.5-6	6	Yellow	4.0-6.0	100	8/96



ISOLATED CABLE TERMINALS - PBDD TYPE



Catalogue number	Type	Shape	Colour	Conductor (mm ²)	Shoe width	Packing (pcs.)	Packing/Box (pcs.)
59106	PBDD 1.25 - 250	Male	Red	0.25-1.0	6.3	100	5/60
59107	PBDD 2 - 250	Male	Blue	1.5-2.5	6.3	100	5/60
59108	PBDD 5.5 - 250	Male	Yellow	4.0-6.0	6.3	100	5/60



ISOLATED CABLE TERMINALS - MPD TYPE



Catalogue number	Type	Shape	Colour	Conductor (mm ²)	Shoe width	Packing (pcs.)	Packing /Box (pcs.)
59109	MPD 1.25 - 156	Male	Red	0.25-1.0	6.3	100	10/240
59110	MPD 2 - 195	Male	Blue	1.5-2.5	6.3	100	10/120
59111	MAPD 5.5 - 195	Male	Yellow	4.0-6.0	6.3	100	10/120



ISOLATED CABLE TERMINALS - MDFN/DFNY



Catalogue number	Type	Shape	Colour	Conductor (mm ²)	Shoe width	Packing (pcs.)	Packing /Box (pcs.)
59112	MDFN 1.0 - 250	Male	Red	0.25-1.0	4	100	5/60
59113	MDFN 2 - 250	Male	Blue	1.5-2.5	4	100	5/60
59114	MDFN 5 - 250	Male	Yellow	4.0-6.0	5	100	4/48
59242	DFNY 1.0 - 250	Female	Red	0.25-1.0	4	100	10/60
59243	DFNY 2 - 250	Female	Blue	1.5-2.5	4	100	10/60
59244	DFNY 5 - 250	Female	Yellow	4.0-6.0	5	100	10/60



PLASTIC CABLE TRUNKING



PLASTIC CABLE TRUNKING CT2

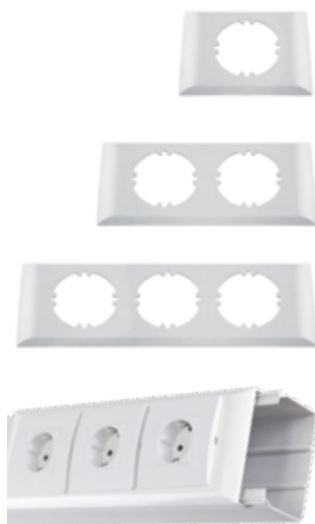
Cable trunking are practical solution of organizing power and communication cables in office and residential buildings. They increase the reliability in operation of the electrical systems and allow quick adaptation if necessary to rearrange the interior. Fast and simple installation. In combination with a wide range of accessories, building irregularities are quickly overcome. Non-flammable material, easy to cut and paint.

Catalogue number	Type	Size (mm)	Length	Colour	Packing (pcs)
5621212	Plastic cable trunking CT2	12x12	2m	White	100
5621510	Plastic cable trunking CT2	15X10	2m	White	100
5621616	Plastic cable trunking CT2	16X16	2m	White	100
5622010	Plastic cable trunking CT2	20X10	2m	White	100
5622516	Plastic cable trunking CT2	25X16	2m	White	80
5623016	Plastic cable trunking CT2	30X16	2m	White	70
5622525	Plastic cable trunking CT2	25X25	2m	White	50
5624016	Plastic cable trunking CT2	40X16	2m	White	50
5624025	Plastic cable trunking CT2	40X25	2m	White	50
5624040	Plastic cable trunking CT2	40X40	2m	White	40
5626040	Plastic cable trunking CT2	60X40	2m	White	30
5626060	Plastic cable trunking CT2	60X60	2m	White	32
5628040	Plastic cable trunking CT2	80X40	2m	White	18
5628060	Plastic cable trunking CT2	80X60	2m	White	24
56210040	Plastic cable trunking CT2	100X40	2m	White	16
56210060	Plastic cable trunking CT2	100X60	2m	White	16



SWITCHES AND SOCKETS FRAMES FOR CABLE TRUNKING

Cable trunking frames are decorative solution for installation of switches and sockets on places where their normal mounting is not possible. The assembly set includes subframe and main white frame. Universal sizes, suitable for mounting of switches and sockets from different manufacturers. Single, double and triple frames are offered.



Catalogue number	Type	Used for cable trunking	Colour	Packing (pcs)
562100441	Single frame	100X40/100X60	White	20
562100442	Double frame	100X40/100X60	White	14
562100443	Triple frame	100X40/100X60	White	5



* These frames are suitable with switches and sockets CITY and RHYME series on page 315 and page 364.



CITY series switch



RHYME series socket

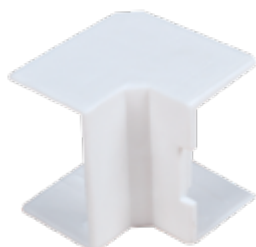
OUTSIDE CORNER



Catalogue number	Type	Used for cable trunking	Colour	Packing (pcs)
56212121	Outside corner	12x12	White	50
56215101	Outside corner	15X10	White	50
56216161	Outside corner	16X16	White	50
56225161	Outside corner	25X16	White	30
56230161	Outside corner	30X16	White	48
56225251	Outside corner	25X25	White	30
56240161	Outside corner	40X16	White	30
56240251	Outside corner	40X25	White	30
56240401	Outside corner	40X40	White	30
56260401	Outside corner	60X40	White	10
56260601	Outside corner	60X60	White	10
56280401	Outside corner	80X40	White	8
56280601	Outside corner	80X60	White	8
562100401	Outside corner	100X40	White	6
562100601	Outside corner	100X60	White	6



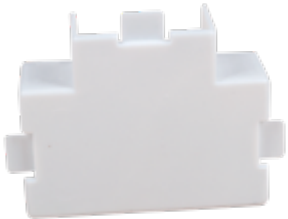
INSIDE CORNER



Catalogue number	Type	Used for cable trunking	Colour	Packing (pcs)
56212122	Inside corner	12x12	White	50
56215102	Inside corner	15X10	White	50
56216162	Inside corner	16X16	White	50
56225162	Inside corner	25X16	White	30
56230162	Inside corner	30X16	White	35
56225252	Inside corner	25X25	White	30
56240162	Inside corner	40X16	White	30
56240252	Inside corner	40X25	White	30
56240402	Inside corner	40X40	White	30
56260402	Inside corner	60X40	White	10
56260602	Inside corner	60X60	White	10
56280402	Inside corner	80X40	White	8
56280602	Inside corner	80X60	White	8
562100402	Inside corner	100X40	White	6
562100602	Inside corner	100X60	White	6



T- CORNER



Catalogue number	Type	Used for cable trunking	Colour	Packing (pcs)
56212123	T- corner	12x12	White	50
56215103	T- corner	15X10	White	50
56216163	T- corner	16X16	White	50
56225163	T- corner	25X16	White	20
56230163	T-corner	30X16	White	40
56225253	T- corner	25X25	White	20
56240163	T- corner	40X16	White	30
56240253	T- corner	40X25	White	30
56240403	T- corner	40X40	White	30
56260403	T- corner	60X40	White	16
56260603	T- corner	60X60	White	16
56280403	T- corner	80X40	White	8
56280603	T- corner	80X60	White	8
562100403	T- corner	100X40	White	8
562100603	T- corner	100X60	White	8



L- CORNER



Catalogue number	Type	Used for cable trunking	Colour	Packing (pcs)
56212124	L- corner	12x12	White	50
56215104	L- corner	15X10	White	50
56216164	L- corner	16X16	White	50
56225164	L- corner	25X16	White	30
56230164	L-corner	30X16	White	50
56225254	L- corner	25X25	White	30
56240164	L- corner	40X16	White	30
56240254	L- corner	40X25	White	30
56240404	L- corner	40X40	White	30
56260404	L- corner	60X40	White	16
56260604	L- corner	60X60	White	16
56280404	L- corner	80X40	White	12
56280604	L- corner	80X60	White	12
562100404	L- corner	100X40	White	8
562100604	L- corner	100X60	White	8





CONNECTOR

Catalogue number	Type	Used for cable trunking	Colour	Packing (pcs)
56212125	Connector	12x12	White	50
56215105	Connector	15X10	White	50
56216165	Connector	16X16	White	50
56225165	Connector	25X16	White	30
56230165	Connector	30X16	White	100
56225255	Connector	25X25	White	30
56240165	Connector	40X16	White	30
56240255	Connector	40X25	White	30
56240405	Connector	40X40	White	30
56260405	Connector	60X40	White	25
56260605	Connector	60X60	White	25
56280405	Connector	80X40	White	50
56280605	Connector	80X60	White	50
562100405	Connector	100X40	White	50
562100605	Connector	100X60	White	30



END CAP



Catalogue number	Type	Used for cable trunking	Colour	Packing (pcs)
56212126	End cap	12x12	White	50
56215106	End cap	15X10	White	50
56216166	End cap	16X16	White	50
56225166	End cap	25X16	White	50
56230166	End cap	30X16	White	100
56225256	End cap	25X25	White	50
56240166	End cap	40X16	White	30
56240256	End cap	40X25	White	30
56240406	End cap	40X40	White	30
56260406	End cap	60X40	White	50
56260606	End cap	60X60	White	50
56280406	End cap	80X40	White	60
56280606	End cap	80X60	White	60
562100406	End cap	100X40	White	50
562100606	End cap	100X60	White	50



SEPARATOR



Catalogue number	Type	Length (m)	Used for cable trunking	Colour	Packing (pcs)
56261111	Separator 40	2	100x40	White	40
56261112	Separator 60	2	100x60	White	40





ECONOMIC SERIES PLASTIC CABLE TRUNKING CT2

Catalogue number	Type	Size (mm)	Length	Colour	Packing (pcs)
5621212E	CT2 Economic	12x12	2m	White	100
5621510E	CT2 Economic	15x10	2m	White	100
5621616E	CT2 Economic	16x16	2m	White	100
5622010E	CT2 Economic	20x10	2m	White	100
5622516E	CT2 Economic	25x16	2m	White	80
5623020E	CT2 Economic	30x20	2m	White	70
5622525E	CT2 Economic	25x25	2m	White	50
5624016E	CT2 Economic	40x16	2m	White	50
5624025E	CT2 Economic	40x25	2m	White	50
5624040E	CT2 Economic	40x40	2m	White	40
5626040E	CT2 Economic	60x40	2m	White	30
5626060E	CT2 Economic	60x60	2m	White	32
5628040E	CT2 Economic	80x40	2m	White	18
5628060E	CT2 Economic	80x60	2m	White	24
56210040E	CT2 Economic	100x40	2m	White	16
56210060E	CT2 Economic	100x60	2m	White	16



PLASTIC CABLE TRUNKING SELF-ADHESIVE

Catalogue number	Type	Size (mm)	Length	Colour	Packing m/pcs
5621212A	Plastic trunking self-adhesive	12x12	2m	White	250/125
5621510A	Plastic trunking self-adhesive	15x10	2m	White	250/125
5621616A	Plastic trunking self-adhesive	16x16	2m	White	250/125
5622010A	Plastic trunking self-adhesive	20x10	2m	White	200/100
5622516A	Plastic trunking self-adhesive	25x16	2m	White	100/50
5623016A	Plastic trunking self-adhesive	30x16	2m	White	140/70
5622525A	Plastic trunking self-adhesive	25x25	2m	White	100/50
5624016A	Plastic trunking self-adhesive	40x16	2m	White	50/25
5624025A	Plastic trunking self-adhesive	40x25	2m	White	80/40
5624040A	Plastic trunking self-adhesive	40x40	2m	White	80/40



ECONOMIC SERIES PLASTIC CABLE TRUNKING SELF-ADHESIVE

Catalogue number	Type	Size (mm)	Length	Colour	Packing m/pcs
5621212AE	Self-adhesive CT2 Economic	12x12	2m	White	250/125
5621510AE	Self-adhesive CT2 Economic	15x10	2m	White	250/125
5621616AE	Self-adhesive CT2 Economic	16x16	2m	White	250/125
5622010AE	Self-adhesive CT2 Economic	20x10	2m	White	200/100
5622516AE	Self-adhesive CT2 Economic	25x16	2m	White	100/50
5623020AE	Self-adhesive CT2 Economic	30x20	2m	White	140/70
5622525AE	Self-adhesive CT2 Economic	25x25	2m	White	100/50
5624016AE	Self-adhesive CT2 Economic	40x16	2m	White	50/25
5624025AE	Self-adhesive CT2 Economic	40x25	2m	White	80/40
5624040AE	Self-adhesive CT2 Economic	40x40	2m	White	80/40



PLASTIC CABLE TRUNKING - DARK WALNUT

Catalogue number	Type	Size (mm)	Length	Colour	Packing m/pcs
5621212DW	Plastic trunking dark walnut	12x12	2m	Dark walnut	250/125
5621510DW	Plastic trunking dark walnut	15x10	2m	Dark walnut	250/125
5621616DW	Plastic trunking dark walnut	16x16	2m	Dark walnut	250/125
5622516DW	Plastic trunking dark walnut	25x16	2m	Dark walnut	150/75
5622525DW	Plastic trunking dark walnut	25x25	2m	Dark walnut	100/50
5624025DW	Plastic trunking dark walnut	40x25	2m	Dark walnut	80/40



PLASTIC CABLE TRUNKING - LIGHT BEECH

Catalogue number	Type	Size (mm)	Length	Colour	Packing m/pcs
5621212LB	Plastic trunking light beech	12x12	2m	Light beech	250/125
5621510LB	Plastic trunking light beech	15x10	2m	Light beech	250/125
5621616LB	Plastic trunking light beech	16x16	2m	Light beech	250/125
5622516LB	Plastic trunking light beech	25x16	2m	Light beech	150/75
5622525LB	Plastic trunking light beech	25x25	2m	Light beech	100/50
5624025LB	Plastic trunking light beech	40x25	2m	Light beech	80/40



PLASTIC CABLE TRUNKING - PEAR

Catalogue number	Type	Size (mm)	Length	Colour	Packing m/pcs
5621212P	Plastic trunking pear	12x12	2m	Pear	250/125
5621510P	Plastic trunking pear	15x10	2m	Pear	250/125
5621616P	Plastic trunking pear	16x16	2m	Pear	250/125
5622516P	Plastic trunking pear	25x16	2m	Pear	150/75
5622525P	Plastic trunking pear	25x25	2m	Pear	100/50
5624025P	Plastic trunking pear	40x25	2m	Pear	80/40



SLOTTED PLASTIC CABLE TRUNKING CT2

Catalogue number	Type	Size (mm)	Length	Colour	Packing (pcs)
5622525S	Slotted plastic trunking CT2	25x25	2m	Grey	196
5622540S	Slotted plastic trunking CT2	25x40	2m	Grey	64
5624040S	Slotted plastic trunking CT2	40x40	2m	Grey	64
5624060S	Slotted plastic trunking CT2	40x60	2m	Grey	60
5626040S	Slotted plastic trunking CT2	60x40	2m	Grey	60
5626060S	Slotted plastic trunking CT2	60x60	2m	Grey	48
5628060S	Slotted plastic trunking CT2	80x60	2m	Grey	40
56210060S	Slotted plastic trunking CT2	100x60	2m	Grey	32





FLOOR TYPE PLASTIC CABLE TRUNKING CT2

Catalogue number	Type	Size (mm)	Length	Colour	Packing (pcs)
5627020F	Floor type plastic trunking CT2	70x20	2m	Grey	25
5627520F	Floor type plastic trunking CT2	75x20	2m	Grey	40
5629020F	Floor type plastic trunking CT2	90x20	2m	Grey	20
5625012F/WH	Floor type plastic trunking CT2	50x12	2m	White	50
5626015F/WH	Floor type plastic trunking CT2	60x15	2m	White	60
5627020F/WH	Floor type plastic trunking CT2	70x20	2m	White	25
5627520F/WH	Floor type plastic trunking CT2	75x20	2m	White	40
5629020F/WH	Floor type plastic trunking CT2	90x20	2m	White	20



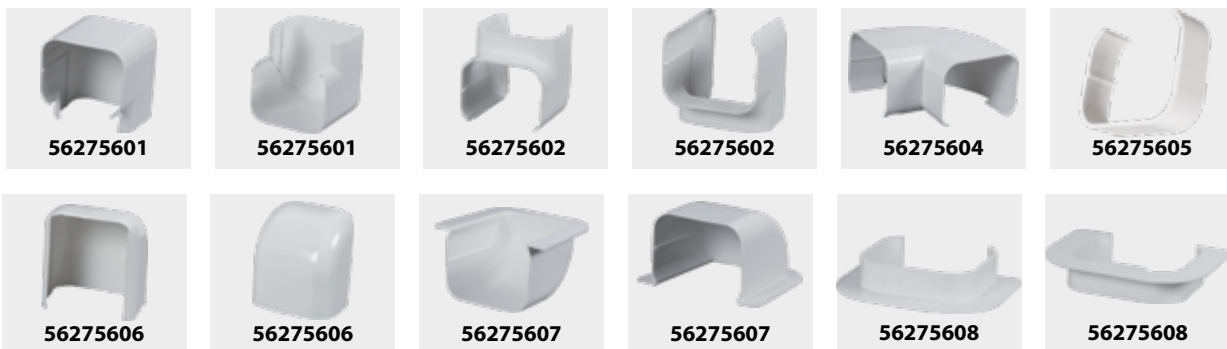
AIR CONDITIONING TRUNKING

Catalogue number	Type	Size (mm)	Length	Colour	Packing m/pcs
5627560	Plastic trunking	75x60	2	White	15/30



AIR CONDITIONING TRUNKING ACCESSORIES

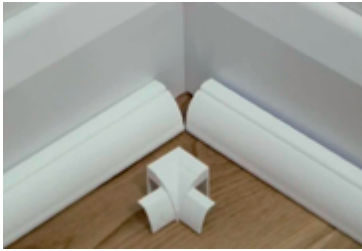
Catalogue number	Type	Used for cable trunking	Colour	Packing pcs
56275601	Outside Corner	75x60	White	24
56275602	Inside Corner	75x60	White	24
56275604	L- Corner	75x60	White	18
56275605	Connector	75x60	White	40
56275606	Internal Cap	75x60	White	30
56275607	External Cap	75x60	White	18
56275608	Wall Penetration	75x60	White	
56275609	Cable Holder	75x60	White	





CORNER TRUNKING

Catalogue number	Type	Size (mm)	Length	Colour	Packing m/pcs
5622323	Plastic cable trunking	23X23	2	White	60/120



CORNER TRUNKING ACCESSORIES

Catalogue number	Type	Used for cable trunking	Colour	Packing pcs
56223233	T- corner	23X23	White	60
56223234	L- corner	23X23	White	60
56223235	Connector	23X23	White	100
56223236	End cap	23X23	White	100

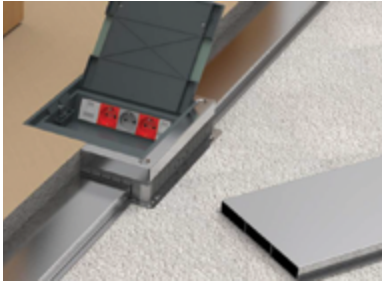


KITCHEN COUNTER CORNER CABLE TRUNKING

Catalogue number	Type	Size	Length (m)	Colour	Packing pcs
56225K	Plastic trunking	25	2	White	30



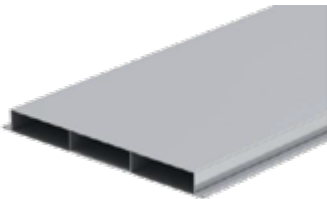
UNDERFLOOR TRUNKING SYSTEMS



Good cable organization ensures optimal performance and simplifies subsequent maintenance of the cable system, make easy day-to-day operation, operational efficiency, optimal performance, and the facility's ability to change and grow over its lifetime.

DESCRIPTION

- Material: Pre-galvanized steel according to EN 10346:2011
- Length: 2500 mm
- Width: from 80 mm to 240 mm
- Height: 30mm
- Thickness: 1.2 mm



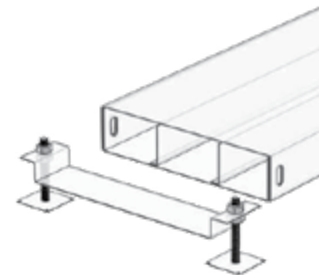
Catalogue number	Type	Dimensions (mm)			Packing pcs
		H	W	L	
57080302500	Single sector cable tray	30	80	2500	1
570160302500	Double sector cable tray	30	160	2500	1
570240302500	Three sector cable tray	30	240	2500	1



LEVEL ADJUSTMENT HOLDERS FOR CABLE UNDERFLOOR TRAYS



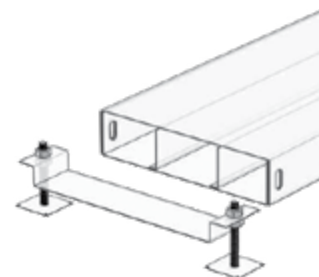
Catalogue number	Type	Dimensions (mm)		Packing pcs
		H	W	
570017	Level adj. holder for single sector cable tray	20	80	1
570018	Level adj. holder for double sector cable tray	20	160	1
570019	Level adj. holder for three sector cable tray	20	240	1



VERTICAL BEND FOR CABLE UNDERFLOOR TRAYS



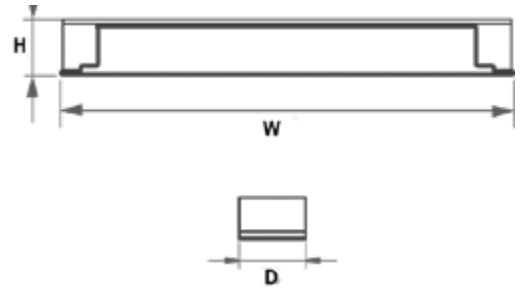
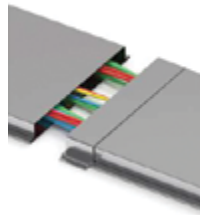
Catalogue number	Type	Thickness	Base size (mm)	Packing pcs
570020	Cable tray level adjustment element	M8	40x40	1



STRAIGHT CONNECTOR FOR CABLE UNDERFLOOR TRAYS



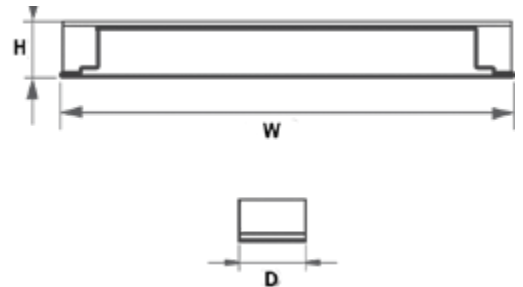
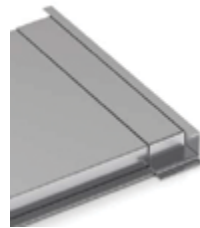
Catalogue number	Type	Dimensions (mm)			Packing pcs
		H	W	D	
570010	Connector for single sector cable tray	30	80	50	1
570011	Connector for double sector cable tray	30	160	50	1
570012	Connector for three sector cable tray	30	240	50	1



END CAP FOR CABLE UNDERFLOOR TRAYS



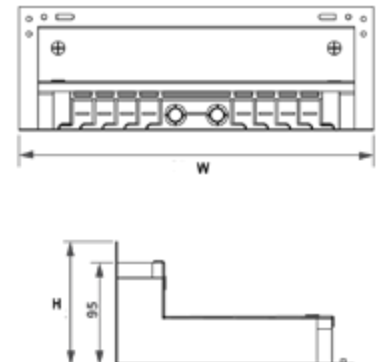
Catalogue number	Type	Dimensions (mm)			Packing pcs
		H	W	D	
570013	End cap for single sector cable tray	30	80	50	1
570014	End cap for double sector cable tray	30	160	50	1
570015	End cap for three sector cable tray	30	240	50	1



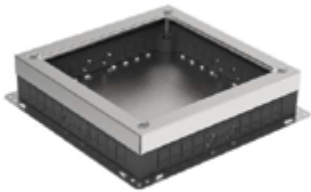
VERTICAL BEND FOR CABLE UNDERFLOOR TRAYS



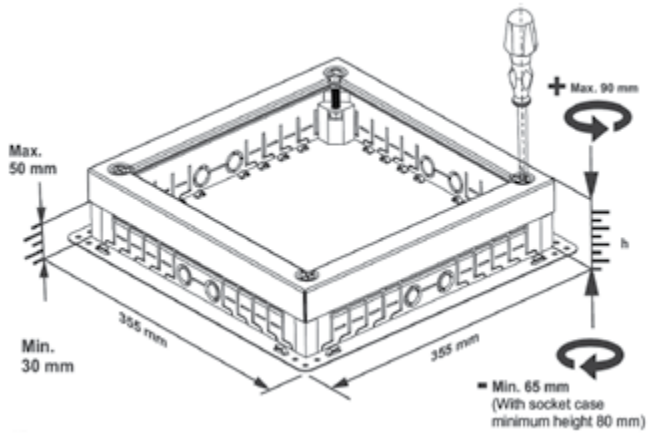
Catalogue number	Type	Dimensions (mm)		Packing pcs
		H	W	
570016	Vertical bend for all sizes cable trays	120	350	1



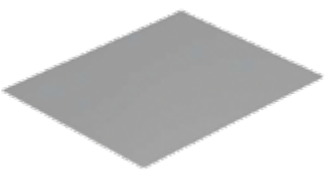
EMPTY JUNCTION BOX FOR CABLE UNDERFLOOR TRAYS



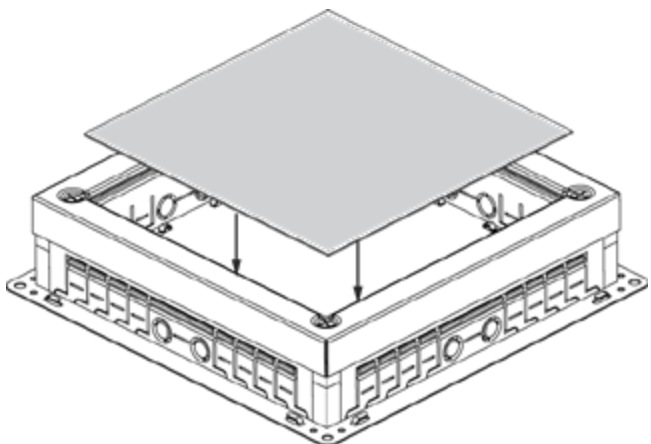
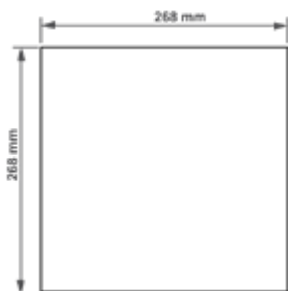
Catalogue number	Type	Dimensions (mm)			Packing pcs
		H	W	L	
570002	Empty box for all type cable tray	65	350	350	1



COVER PLATE FOR UNDERFLOOR JUNCTION BOX



Catalogue number	Type	Dimensions (mm)			Packing pcs
		Thickness	W	L	
570003	Cover for underfloor junction box	1.5	268	268	1

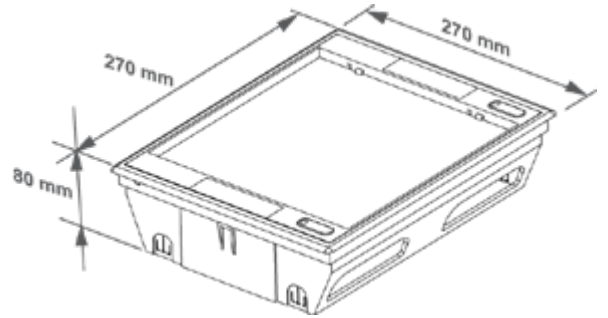


SOCKET CASE FOR UNDERFLOOR JUNCTION BOX



Catalogue number	Type	Number of modules	Dimensions (mm)			Packing pcs
			Thickness	W	L	
570001	Socket case for underfloor junction box 57002	18	1.5	268	268	1

*Socket case can be assembled with 8 modules 45x45mm and 2 modules 22x45mm.



Compatible sockets:



German type
Cat. Number: 26008G/UF



UPS socket
Cat. Number: 26008F/UF



Computer socket
Cat. Number: 26013G/UF



INSULATING CONDUITS



FLEXIBLE DOUBLE COAT CORRUGATED PIPE

TECHNICAL DATA

- Material- HDPE;
- Compression resistance- 450 N/ 5 cm;
- Colour- red
- Minimum bending radius: 350 mm;
- Temperature assembly resistance: -5 - +60 °C;
- Halogen free

Catalogue number	Type	Inner Diameter (mm)	Outer Diameter (mm)	Packing (m)
M006017	Flexible double coat corrugated pipe	52	63	25



SPIRAL FOR CABLES

Catalogue number	Type	Colour	Internal diameter (mm)	External diameter (mm)	Coil length (m)
500SP6T	Spiral 6x8mm	Transparent	6	8	25
500SP6B	Spiral 6x8mm	Black	6	8	25
500SP10T	Spiral 10x12mm	Transparent	10	12	25
500SP10B	Spiral 10x12mm	Black	10	12	25
500SP14T	Spiral 14x16mm	Transparent	14	16	20
500SP14B	Spiral 14x16mm	Black	14	16	20



NYLON CABLE DRAW TAPE EC

Catalogue number	Type	Diameter (mm)	Length (m)	Colour	Packing (pcs)
500305	Nylon cable draw tape	3	5	Transparent	1/340
500315		3	15	Transparent	1/120



Documents corresponding to the products:

Standard EN 61386-1
EN61386-22; RAL- 7035

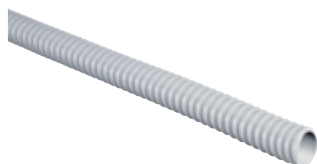


SELF-EXTINGUISHING PLIABLE CONDUITS EC

TECHNICAL DATA

- Material: technopolymer on PVC base;
- Self extinguishing V0 degree to UL94;
- Compression resistance: 320N;

Catalogue number	Type	Inner Diameter (mm)	Outer Diameter (mm)	Packing (m)
500M16	Self-extinguishing pliable conduits	10.7	16	100
500M20	Self-extinguishing pliable conduits	14.1	20	100
500M25	Self-extinguishing pliable conduits	18.2	25	50
500M32	Self-extinguishing pliable conduits	24.3	32	25
500M40	Self-extinguishing pliable conduits	32.3	40	25
500N16	Self-extinguishing pliable conduits with draw tape	10.7	16	100
500N20	Self-extinguishing pliable conduits with draw tape	14.1	20	100
500N25	Self-extinguishing pliable conduits with draw tape	18.2	25	50
500N32	Self-extinguishing pliable conduits with draw tape	24.3	32	25
500N40	Self-extinguishing pliable conduits with draw tape	32.3	40	25



SPIRAL FLEXIBLE PVC CONDUITS- UV RAYS RESISTANT EC

TECHNICAL DATA

- Material (spiral+cover): shock resistance technopolymer on PVC base;
- Self extinguishing V0 degree to UL94;
- Compression resistance: 320N;
- Installation temperature: -15/+70°C;
- Operating temperature: -5/+65°C;
- Type: UV rays resistance.

Catalogue number	Type	Inner Diameter (mm)	Outer Diameter (mm)	Packing (m)
500UV12	UV flexible PVC conduit	12	16.2	30
500UV14	UV flexible PVC conduit	14	18.2	30
500UV16	UV flexible PVC conduit	16	20.2	30
500UV20	UV flexible PVC conduit	20	24.2	30
500UV25	UV flexible PVC conduit	25	29.6	30
500UV32	UV flexible PVC conduit	32	37.2	30



PVC INSULATED STEEL SPIRALS

TECHNICAL DATA

- Material - Galvanized steel, helically wound, flexible steel conduit with PVC coating
- PVC-resistance against corrosion
- Colour- black
- Operating temperature: -5/+65

Catalogue number	Type	Inner Diameter (mm)	Outer Diameter (mm)	Packing (m)
500P11	PVC insulated steel spirals	11	15.2	50
500P14	PVC insulated steel spirals	14	18.4	50
500P16	PVC insulated steel spirals	16	20.4	50
500P18	PVC insulated steel spirals	18	22.4	50
500P26	PVC insulated steel spirals	26	30.4	25
500P37	PVC insulated steel spirals	37	42.4	25



HALOGEN FREE RIGID INSULATING CONDUITS & ACCESSORIES



HALOGEN FREE NON-FLAMMABLE PLIABLE CONDUITS

TECHNICAL DATA

- Material: technopolymer
- Self extinguishing
- Compression resistance: 320N

Catalogue number	Type	Inner diameter (mm)	Outer diameter (mm)	Packing (m)
500M16HF	Halogen free conduit	11.2	15.7	100
500M20HF	Halogen free conduit	14.4	19.85	100
500M25HF	Halogen free conduit	19.1	27.4	50
500M32HF	Halogen free conduit	24.85	31.6	50
500M40HF	Halogen free conduit	32.3	40	25



HALOGEN FREE RIGID INSULATING CONDUITS, EC-LSZH

This series rigid insulating conduits are low-smoke, halogen-free (LSZH) electrical conduits that virtually eliminate the release of the toxic gases found in PVC products. Current trends show increasing use of LSZH conduit, where smoke from fire presents an increased hazard to people. They are practical solution of organizing power and communication cables in office and residential buildings. They increase the reliability in operation of the electrical systems. Fast and simple installation. Non-flammable material, easy to cut and paint.

TECHNICAL DATA

- Material: Halogen free technopolymer according to EN 50267-2-1, EN 50267-1-2, EN 60754-1; EN 60754-2
- Low smoke according to EN 61034-1, EN 61034-2
- Resistance to flame propagation: Self extinguishing in less than 30 seconds.
- Compression resistance: 320N
- RAL 7035

Catalogue number	Type	External diameter (mm)	Length (m)	Colour	IP code	Packing (pcs)
50016HF	LSZH cable conduit, with sleeve	16	3	Grey	IP40	34
50020HF	LSZH cable conduit, with sleeve	20	3	Grey	IP40	34
50025HF	LSZH cable conduit, with sleeve	25	3	Grey	IP40	20
50032HF	LSZH cable conduit, with sleeve	32	3	Grey	IP40	10
50040HF	LSZH cable conduit, with sleeve	40	3	Grey	IP40	10





ACCESSORIES FOR HALOGEN FREE RIGID INSULATING CONDUITS IP67 EC- LSZH

TECHNICAL DATA

- Material: co-moulding low emission smoke technopolymer.
- Self-extinguishing V2 degree to UL94
- Resistance to abnormal heat: up to up to 850°C
- O-ring to compensate the conduit tolerances
- RAL- 7035
- IP code: IP67

HALOGEN FREE LONG BEND 90° IP67 EC- LSZH

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/ Box (pcs)
500BK16HF	Halogen free bend 90°	16	67	Grey	10/150
500BK20HF	Halogen free bend 90°	20	67	Grey	10/100
500BK25HF	Halogen free bend 90°	25	67	Grey	10/100
500BK32HF	Halogen free bend 90°	32	67	Grey	10/50
500BK40HF	Halogen free bend 90°	40	67	Grey	5/20



HALOGEN FREE COUPLING IP67 EC- LSZH

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/ Box (pcs)
500C16HF	Halogen free coupling	16	67	Grey	10/250
500C20HF	Halogen free coupling	20	67	Grey	10/200
500C25HF	Halogen free coupling	25	67	Grey	10/150
500C32HF	Halogen free coupling	32	67	Grey	10/100
500C40HF	Halogen free coupling	40	67	Grey	5/50



HALOGEN FREE CONDUIT CLIPS- LSZH

Catalogue number	Type	Used for cable conduit Ø (mm)	Colour	Packing/Box (pcs)
500CC16	Halogen free conduit clips	16	Grey	100/1500
500CC20	Halogen free conduit clips	20	Grey	100/1000
500CC25	Halogen free conduit clips	25	Grey	100/1000
500CC32	Halogen free conduit clips	32	Grey	50/800
500CC40	Halogen free conduit clips	40	Grey	50/400



Documents corresponding to the products:

Standard EN 61386-1
EN 61386-21



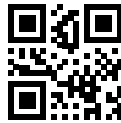
PVC SELF-EXTINGUISHING RIGID INSULATING CONDUITS EC

Rigid insulating conduit are practical solution of organizing power and communication cables in office and residential buildings. They increase the reliability in operation of the electrical systems. Fast and simple installation. In combination with a wide range of accessories, building irregularities are quickly overcome. Nonflammable material, easy to cut and paint.

TECHNICAL DATA

- Material - shock resistance technopolymer on rigid PVC base
- Self extinguishing V0 degree to UL94
- Compression resistance- 320N

Catalogue number	Type	External diameter (mm)	Length (m)	Colour	IP code	Packing (pcs)
50016/2	Plastic cable conduit, with sleeve	16	2	Grey	40	34
50016	Plastic cable conduit, with sleeve	16	3	Grey	40	34
50020/2	Plastic cable conduit, with sleeve	20	2	Grey	40	34
50020	Plastic cable conduit, with sleeve	20	3	Grey	40	34
50025/2	Plastic cable conduit, with sleeve	25	2	Grey	40	20
50025	Plastic cable conduit, with sleeve	25	3	Grey	40	20
50032/2	Plastic cable conduit, with sleeve	32	2	Grey	40	10
50032	Plastic cable conduit, with sleeve	32	3	Grey	40	10
50040/2	Plastic cable conduit, with sleeve	40	2	Grey	40	10
50040	Plastic cable conduit, with sleeve	40	3	Grey	40	10



Documents corresponding to the products:

Standard EN 61386-1
EN61386-21



ACCESSORIES FOR PVC SELF-EXTINGUISHING RIGID INSULATING CONDUITS AND FLEXIBLE SPIRAL CONDUITS, IP 65 EC

TECHNICAL DATA

- Material- shock resistant technopolymer on PVC base
- Self-extinguishing V0 degree to UL94
- Glow wire test: up to 960°C
- O-ring to compensate the conduit tolerances
- RAL- 7035

PVC BEND FLEXIBLE

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500FB16	PVC bend flexible	16	65	Grey	50/200
500FB20	PVC bend flexible	20	65	Grey	50/200
500FB25	PVC bend flexible	25	65	Grey	35/140
500FB32	PVC bend flexible	32	65	Grey	20/80





PVC BEND 90°

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500BB16	PVC bend 90°	16	65	Grey	100/1000
500BB20	PVC bend 90°	20	65	Grey	50/600
500BB25	PVC bend 90°	25	65	Grey	25/300
500BB32	PVC bend 90°	32	65	Grey	100
500BB40	PVC bend 90°	40	65	Grey	100



CONDUIT-CONDUIT PVC JOINT

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500CM16	Conduit-conduit PVC joint	16	65	Grey	10/350
500CM20	Conduit-conduit PVC joint	20	65	Grey	10/350
500CM25	Conduit-conduit PVC joint	25	65	Grey	10/200
500CM32	Conduit-conduit PVC joint	32	65	Grey	10/100
500CM40	Conduit-conduit PVC joint	40	65	Grey	5/80



CONDUIT-BOX PVC JOINT

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500CB16	Conduit-box PVC joint	16	65	Grey	10/350
500CB20	Conduit-box PVC joint	20	65	Grey	10/350
500CB25	Conduit-box PVC joint	25	65	Grey	10/200
500CB32	Conduit-box PVC joint	32	65	Grey	10/100
500CB40	Conduit-box PVC joint	40	65	Grey	5/80



PVC RIGID CONDUIT - FLEXIBLE SPIRAL CONDUITS JOINT

Catalogue number	Type	Conduit Ø(mm)	Flexible spiral Ø (mm)	IP code	Colour	Packing/Box (pcs)
500DD16	Flexible spiral conduits joint	16	12	65	Grey	10/350
500DD20	Flexible spiral conduits joint	20	16	65	Grey	10/350
500DD25	Flexible spiral conduits joint	25	20	65	Grey	10/200
500DD32	Flexible spiral conduits joint	32	25	65	Grey	10/100
500DD40	Flexible spiral conduits joint	40	32	65	Grey	5/100



ACCESSORIES FOR PVC SELF-EXTINGUISHING RIGID INSULATING CONDUITS AND FLEXIBLE SPIRAL CONDUITS, IP40 EC

Documents corresponding to the products:
Standard EN 61386-1
EN61386-21

TECHNICAL DATA

- Material- shock resistant technopolymer on PVC base
- Self-extinguishing V0 degree to UL94
- Glow wire test: up to 960°C
- RAL- 7035

PVC BEND FLEXIBLE



Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500FK16	PVC bend flexible	16	44	Grey	50/200
500FK20	PVC bend flexible	20	44	Grey	50/200
500FK25	PVC bend flexible	25	44	Grey	35/140
500FK32	PVC bend flexible	32	44	Grey	20/80



PVC BEND 90°



Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500BK16	PVC bend 90°	16	40	Grey	100/1000
500BK20	PVC bend 90°	20	40	Grey	50/600
500BK25	PVC bend 90°	25	40	Grey	25/300
500BK32	PVC bend 90°	32	40	Grey	100
500BK40	PVC bend 90°	40	40	Grey	100



PLASTIC BEND SMALL 90°



Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500SK16	Plastic bend small 90°	16	40	Grey	100/400
500SK20	Plastic bend small 90°	20	40	Grey	100/300
500SK25	Plastic bend small 90°	25	40	Grey	100/200
500SK32	Plastic bend small 90°	32	40	Grey	50/150





PVC T-JOINT

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500T16	PVC T-joint	16	40	Grey	100/300
500T20	PVC T-joint	20	40	Grey	100/200
500T25	PVC T-joint	25	40	Grey	50/100
500T32	PVC T-joint	32	40	Grey	50/100



PVC COUPLING

Catalogue number	Type	Used for cable conduit Ø (mm)	IP code	Colour	Packing/Box (pcs)
500C16	PVC coupling	16	40	Grey	100/1200
500C20	PVC coupling	20	40	Grey	100/800
500C25	PVC coupling	25	40	Grey	50/500
500C32	PVC coupling	32	40	Grey	25/250
500C40	PVC coupling	40	40	Grey	25/150



HALOGEN FREE CONDUIT CLIPS- LSZH

Catalogue number	Type	Used for cable conduit Ø (mm)	Colour	Packing/Box (pcs)
500CC16	Halogen free conduit clips	16	Grey	100/1500
500CC20	Halogen free conduit clips	20	Grey	100/1000
500CC25	Halogen free conduit clips	25	Grey	100/1000
500CC32	Halogen free conduit clips	32	Grey	50/800
500CC40	Halogen free conduit clips	40	Grey	50/400



PVC CONDUIT CLIPS

Catalogue number	Type	Used for cable conduit Ø (mm)	Colour	Packing/Box (pcs)
500CS16	PVC conduit clips with plug and steel screw	16	Grey	100/1000
500CS20	PVC conduit clips with plug and steel screw	20	Grey	100/1000
500CS25	PVC conduit clips with plug and steel screw	25	Grey	100/800
500CS32	PVC conduit clips with plug and steel screw	32	Grey	50/400





PVC CONDUIT CLIPS

Catalogue number	Type	Used for cable conduit Ø (mm)	Colour	Packing/Box (pcs)
500CO16	PVC collar conduit clips	16	Grey	100/1000
500CO20	PVC collar conduit clips	20	Grey	100/1000
500CO25	PVC collar conduit clips	25	Grey	100/800
500CO32	PVC collar conduit clips	32	Grey	50/500



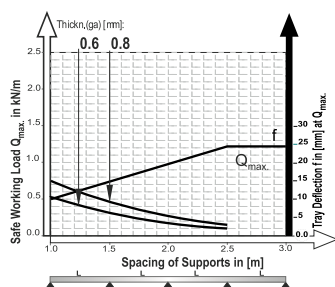
PVC MODULAR FIXING GUIDE FOR CLIPS



Catalogue number	Type	Length (mm)	Colour	Packing
500BC	PVC modular fixing guide for clips	200	Grey	400



METAL CABLE TRAYS AND ACCESSORIES



This diagram comply with IEC 61537 with connection to 1/5 of the span and the end span = 0,8x the span
 Q = max. admissible load (kg/m)
 L = support distance (m)
 f = Deflection (mm) / Max. deflection = L/100
 Safety co-efficient = 1.5



CABLE TRAY

The universal cable support systems are used for construction of cable link in closed production premises for direct mounting on even vertical surfaces. They are perforated metal grates and accessories with standard lengths and sizes. They allow quick construction of cable systems with many angles and derivations.

Catalogue number	Type	Size (mm)	Thickness (mm)	Length (mm)	Packing/Box (pcs)
56050825U	CT1 UT Cable tray	40x50	0.6	2500	1
56100825U	CT1 UT Cable tray	40x100	0.6	2500	1
56150825U	CT1 UT Cable tray	40x150	0.7	2500	1
56200825U	CT1 UT Cable tray	40x200	0.7	2500	1
56300825U	CT1 UT Cable tray	40x300	0.8	2500	1



For joining cable tray section together use screw SET M8 with catalogue number: 568SET or M6 SET with catalogue number 566SET. Recommended quantities of bolt and nut sets for cable trays connection are: 2 sets for 50mm cable trays and 3 sets for everyone else.

CABLE TRAY COVER

Catalogue number	Type	Size (mm)	Thickness (mm)	Length (mm)	Packing/Box (pcs)
56050825C	CT1 Cable tray cover	15x50	0.6	2500	1
56100825C	CT1 Cable tray cover	15x100	0.6	2500	1
56150825C	CT1 Cable tray cover	15x150	0.6	2500	1
56200825C	CT1 Cable tray cover	15x200	0.6	2500	1
56300825C	CT1 Cable tray cover	15x300	0.7	2500	1



For joining cable covers section together use screw SET M8 with catalogue number: 568SET or M6 SET with catalogue number 566SET. Recommended quantities of bolt and nut sets for cable trays connection are: 2 sets for 50mm cable trays and 3 sets for everyone else.

COUPLER FOR TRAYS

Catalogue number	Type	Size (mm)	Thickness (mm)	Length (mm)	Packing/Box (pcs)
56250C	CT1 Coupler for trays with the same size	40	1.2	175	1



To install 2 trays use 2pcs 56250C and 8 SETs of bolt and nuts with catalogue numbers: 566SET or 568SET

ADJUSTABLE VERTICAL CONNECTOR

Catalogue number	Type	Length (mm)	Height (mm)	Thickness (mm)	Packing/Box (pcs)
56300LC	CT1 Adjustable vertical connector - set (2 pcs)	300	40	1.2	1



To install 2 trays use 1 SET 56300LC and 10 SETs of bolt and nuts with catalogue number: 566SET and 568SET

ADJUSTABLE HORIZONTAL CONNECTOR

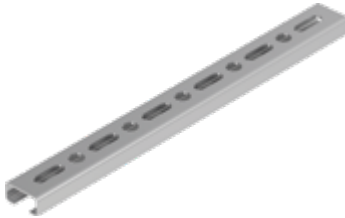


Catalogue number	Type	Length (mm)	Height (mm)	Thickness (mm)	Packing/Box (pcs)
56301LC	CT1 Adjustable horizontal connector	175	40	1.2	1



To install 2 trays use 2pcs 56301LC and 8 SETs of bolt and nuts with catalogue number: 566SET and 568SET

HANGING C TYPE RAIL



Catalogue number	Type	Length (mm)	Size (mm)	Thickness (mm)	Packing/Box (pcs)
5690106	CT1 Hanging C type rail	2000	27x18	1.2	1



Slotted hole size: 8.5x20 mm | Round hole size: D-11 mm | Mounting: with threaded rod and nuts

ADD ON 90° HORIZONTAL CORNER BEND

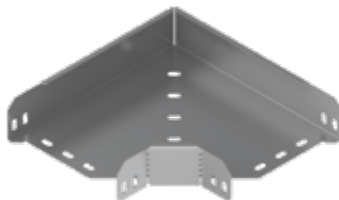


Catalogue number	Type	Height (mm)	Thickness (mm)	Packing/Box (pcs)
5690101	CT1 Add on 90° horizontal corner bend	40	1	1



To install 2 trays use bolt and nuts with catalogue number: 566SET and 568SET

ANGLE 90°



Catalogue number	Type	Thickness (mm)	Length (mm)	Packing/Box (pcs)
5690100	Angle 90°	0.8	100x100	1
5690150	Angle 90°	0.8	150x150	1
5690200	Angle 90°	0.8	200x200	1
5690300	Angle 90°	1	300x300	1



ANGLE COVER 90°



Catalogue number	Type	Metric bolt diameters	Length (mm)	Packing/Box (pcs)
5690100C	Angle cover 90°	1.5	100x100	1
5690150C	Angle cover 90°	1.5	150x150	1
5690200C	Angle cover 90°	1.5	200x200	1
5690300C	Angle cover 90°	1.5	300x300	1





ADD ON TEE HORIZONTAL BEND

Catalogue number	Type	Width (mm)	Height (mm)	Thickness (mm)	Packing/Box (pcs)
5690102	CT1 Add on tee horizontal bend 100	100	40	1	1
5690103	CT1 Add on tee horizontal bend 150	150	40	1	1
5690104	CT1 Add on tee horizontal bend 200	200	40	1	1
5690105	CT1 Add on tee horizontal bend 300	300	40	1.2	1



To install 2 trays use bolt and nuts with catalogue number: 566SET and 568SET



WALL BRACKET

Catalogue number	Type	Tray width (mm)	Length (mm)	Packing/Box (pcs)
56050S	CT1 Wall bracket 50	50	60	1
56100S	CT1 Wall bracket 100	100	110	1
56150S	CT1 Wall bracket 150	150	160	1
56200S	CT1 Wall bracket 200	200	210	1
56300S	CT1 Wall bracket 300	300	310	1



CEILING/WALL BRACKET

Catalogue number	Type	Length (mm)	Height (mm)	Packing/Box (pcs)
56100OB	CT1 OMEGA Ceiling/Wall bracket 100	145	200	1
56200OB	CT1 OMEGA Ceiling/Wall bracket 200	245	200	1
56300OB	CT1 OMEGA Ceiling/Wall bracket 300	345	200	1



THREADED HANGING ROD

Catalogue number	Type	Thread	Length (mm)	Grade	Packing/Box (pcs)
M517079	Threaded hanging rod	M6	1000	4.8	100
M517080	Threaded hanging rod	M8	1000	4.8	50
M517078	Threaded hanging rod	M10	1000	4.8	40



Application: Suitable for fixing skirting, stud battens to wall and long runs of shelf support

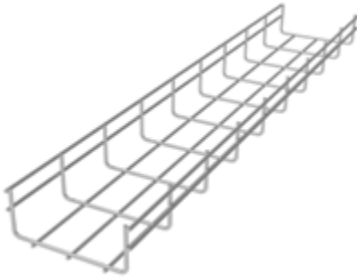


BOLT AND NUTS, SET

Catalogue number	Type	Thread metric (mm)	Length (mm)	Packing/Box (pcs)
566SET	CT1 Bolt and nuts, SET	M6	15	1/500
568SET	CT1 Bolt and nuts, SET	M8	15	1/500



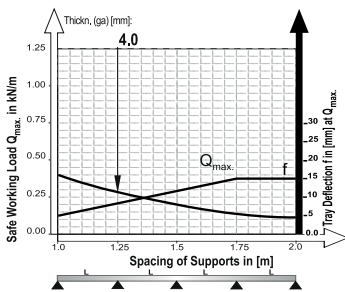
WIRE MESH CABLE TRAYS AND ACCESSORIES



WIRE MESH CABLE TRAY

Wire Mesh tray is generally used for telecommunication and fiber optic applications and are installed on short support spans. This type of cable trays cable provide lots of options for cable management which is especially important at their frequent entry and exit. The purpose of a cable tray system is to support, route, and protect cable and is part of the cable management system.

Catalogue number	Type	Size (mm)	Thickness (mm)	Length (mm)	Packing/Box (pcs)
560100604WM	CT2 Wire mesh cable tray	60x100	4	2500	1
560200604WM	CT2 Wire mesh cable tray	60x200	4	2500	1
560300604WM	CT2 Wire mesh cable tray	60x300	4	2500	1



This diagram comply with IEC 61537 with connection to 1/5 of the span and the end span = 0,8x the span

Q = max. admissible load (kg/m)
= support distance (m)
f = Deflection (mm) / Max. deflection = L/100
Safely co-efficient = 1.5

HANGING RAIL/ CENTRAL SUPPORT



Catalogue number	Type	Length (mm)	Width of tray (mm)	Packing/Box (pcs)
5690160MW	CT2 Hanging rail/ Central support	160	100	1/50
5690260MW	CT2 Hanging rail/ Central support	260	200	1/50
5690360MW	CT2 Hanging rail/ Central support	360	300	1/50



Material: Pregalvanized steel

CONNECTOR FOR WIRE MESH CABLE TRAY



Catalogue number	Type	Length (mm)	Packing/Box (pcs)
56250CMW	Bolt less connector for wire mesh cable tray	220	1/50



Material: Pregalvanized steel



WALL MOUNTING SUPPORT

Catalogue number	Type	Length (mm)	Width of tray (mm)	Packing/Box (pcs)
56130SMW	CT2 WALL MOUNTING SUPPORT	130	100	1/50
56230SMW	CT2 WALL MOUNTING SUPPORT	230	200	1/50
56330SMW	CT2 WALL MOUNTING SUPPORT	330	300	1/50



Material: Pre-galvanized steel

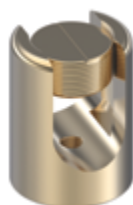


WALL BRACKET & BOXES FIXING SUPPORT

Catalogue number	Type	Size (mm)	Packing/Box (pcs)
56251MW	CT2 WALL BRACKET & BOXES FIXING SUPPORT	85x75	1/50



Material: Pre-galvanized steel

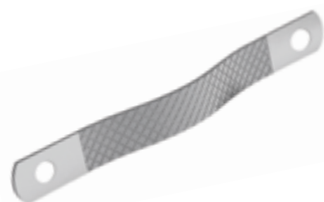


EARTHING CLAMP

Catalogue number	Type	Section (mm ²)	Thread (mm)	Packing/Box (pcs)
56070G	CT2 Earthing clamp	70	M6	1/100



Material: Brass



GROUNDING STRAP

Catalogue number	Type	Section (mm ²)	Length (mm)	Packing/Box (pcs)
56100SG	CT2 Grounding strap	6	80	1/100



Material: Tin plated copper
Mounting: with bolt-less connector with catalogue number 56250CMW

LIGHTNING PROTECTION



AIR-TERMINATION ROD

Catalogue number	Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)
ME014066	101 VL2000	2000	10/16	1/10
ME014071	101 VL2500	2500	10/16	1/10
ME014063	101 VL3000	3000	10/16	1/10
ME014069	101 VL3500	3500	10/16	1/10



Suitable for wind loads according to Eurocode 1: DIN EN 50164 - 2. Last meter is tapered up Ø16 mm to Ø10mm, material: AlMgSi. Matches stand system FangFix. Material: Aluminum.



STAND FOR AIR-TERMINATION ROD, FANGFIX SYSTEM

Catalogue number	Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)
M014102	F-FIX-16	373	84/119	1



System consists of FangFix stone with base and clamp. FangFix clamp made of VA. Lightning current tested with 100 kA (10/350). 16 kg stone with high level of stability. Quick and easy mounting of interception rod using anchors. Concrete, frost-resistant. The FangFix stone can be stacked.



PROFILE EARTHING ROD WITH CONNECTION LUG

Catalogue number	Model	Length (mm)	Packing/Box (pcs)
197002	EL-ER02	1500	1



Cross-profile 50 x 50 x 3 mm. With connecting strap. Hot-dip galvanized. Four through hole with diameter 13 mm. For the construction of earthing systems e.g. antenna or earthing of building site distribution boards. Material: Steel



EARTHING ROD WITH STRIP

Catalogue number	Model	Rog length (mm)	Strip length (mm)	Rog thick-ness (mm)	Strip thickness (mm)	Rog width (mm)	Strip width (mm)
M014048	50/50/5	1500	1500	5	3	50	30
M014012	60/60/6	1500	1500	6	3	60	40



Cold galvanized: have been coated in zinc to make them corrosion resistant. Material: Steel



COPPER-PLATED EARTHING ROD, THREADED

Catalogue number	Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)
197001	EL-ER18	1500	18	1/10



Material: copper coated steel, according to EN 62561-2
 Thickness of copper coating: 1mm (1000µ)
 Weight: 3.10kg
 * Spike and diving stud are not included

SPIKE FOR THREADED COPPER-PLATED EARTHING ROD

Catalogue number	Model	Thread size	Spanner (mm)	Packing/Box (pcs)
197022	EL-S01	M12	19	1



Material: Steel
 Depending on the hardness of the soil, usually 1pc. enough for an object.



COUPLERS FOR THREADED RODS

Catalogue number	Model	Threaded size	Packing/Box (pcs)
197021	EL-CD01	M12	1



To connection two or many threaded copper-bonded ground rods.



DIVING STUD

Catalogue number	Model	Threaded size	Packing/Box (pcs)
197020	EL-DS01	M12	1



Material: Steel.
 Depending on the hardness of the soil, usually 1pc. enough for an object.



CONNECTORS EARTHING ROD TO STRIP / CONDUCTOR

Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
ME014014	EL-1204	65	65	1/45



Material: stainless steel 304
 Conductor size: 50mm² stranded
 Strip size: max. 40x4mm





HOT-DIP GALVANIZED STRIP FOR EARTH

Catalogue number	Model	Length (mm)	Thickness (mm)	Width (mm)	Packing/Box (pcs)
ME301090	EL-EP 40x4	40	4	40	1

Galvanized, according to EN 62561-2
For lightning protection, earthing systems and ring equipotent bonding.
Material: Zinc coated Steel.



COLD GALVANIZED STRIP FOR EARTH

Catalogue number	Model	Length (mm)	Thickness (mm)	Width (mm)	Packing/Box (pcs)
M014008	40/4	6	4	40	1

Coated in zinc to make them corrosion resistant.
Material: Steel.



ALUMINUM ROUND CONDUCTOR

Catalogue number	Model	Diameter (mm)	Packing/Box (pcs)
ME301092	EL-LP 8	8	1/140
ME301096	EL-LP 11	11	1/100

Conductor material: AlMgSi.
EL-LP 8 - without isolation.
EL-LP 11- with not flammable halogen free isolation.

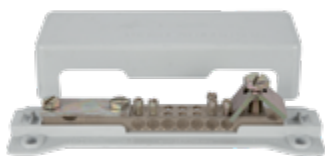


CABLE HOLDER FOR FLAT ROOFS

Catalogue number	Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)
ME301082	EL- RCH	144	92	66	1

Fixing the wire on flat roofs.
Plastic stabilized PE against UV radiation with inserted concrete block.





EQUIPOTENTIAL BONDING BAR

Catalogue number	Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)
ME301084	EL-EBR	182	52	42	1



Equipotential busbar for equipotential bonding to DIN VDE 0100-410/-540 and DIN 62561-15.
Material of bar: Ms.
Material of clamps: St galvanized.
Connection options: 7 single or multi-wire cables 25 mm² or fine-wire cables to 16 mm² (max. D - 7 mm) 1 D8-12 mm 1 up to 30x5 / D8-12 mm.



VARIABLE EARTHING CONNECTOR FOR ALUMINUM CONDUCTORS

Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
ME301088	EL-V	38	40	1



Material: Aluminum- AlCu4MgSi(A).
Suitable for conductors with diameter 8 and 11mm.
Type of fastening screw: Hexagonal bolt.



SCREW-LESS CABLE BRACKET FOR EARTHING CONDUCTORS

Catalogue number	Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)
ME301006	EL-VA	24.2	22	33.4	1/50



Suitable for conductors with diameter 8 mm & 11 mm.



ATTACHING CLAMP

Catalogue number	Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)
ME014070	EL-AC	78	40	36	1/100



Attaching the round conductors to metal parts of the premises



ROOF GUTTER CLAMP

Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
ME301008	EL-RGC	50	45	1/100



Suitable for all bulge and bead thicknesses
Suitable for conductors with diameter 8 and 11mm
Material: Steel

CROSSBAR FOR EARTHING CONDUCTOR



Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
M301083	156 K8-10 ST	43	20	1/100



Suitable for conductors with diameter 8 and 11mm. Hot-dip galvanized.
Material: Steel

ROD HOLDER

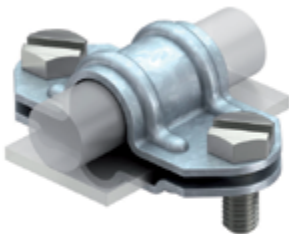


Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
M014014	113 Z-16	56	20	1/10



For interception and earth entry rods 101 VL. Installed with crossbar and hexagonal bolts M6 x 16. With female thread M8 or through hole with D- 7 mm.
Material: Die-cast zinc, Galvanized.

BRIDGE CONNECTOR FOR ROD HOLDER

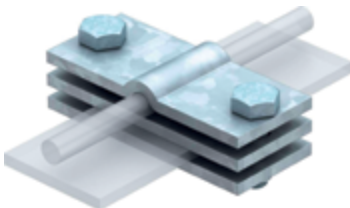


Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
M014054	226 8-10	70	30	1/20



For fitting round conductors with D 8 and 10 mm to earthing rods or flat strip 30x3.5. Including 2 hexagonal bolts M8 x 20 high-grade stainless steel (V2A). Conforms to the requirements according to VDE 0185-305 (IEC 62305).
Material: Steel, Hot-dip Galvanized.

EARTH CONNECTION TERMINAL FOR CONDUCTOR TO STRIP



Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
M031239	937 50	60	25	1/10



For round conductor and flat strips. Suitable for cable 50 mm² and strips with width 40 mm. With 2 hexagonal bolts M6 x 20 mm.
Material: Steel, Hot-dip galvanized.

CROSS-CONNECTORS FOR STRIPS AND CONDUCTORS



Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
ME301087	EL-1203	65	65	1/45



Material: stainless steel 304
Conductor size: 50mm² stranded
Strip size: max. 40x4mm



SPACER CLIP FOR STRIPS

Catalogue number	Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)
M301059	831 40 M6	65	14	14	1/10



Suitable for strips with width 40 mm.
With thread M6 and 2 hexagonal bolts M6 x 16 (F).
Hot-dip galvanized.
Material: Steel



BRIDGE CONNECTOR FOR ROD HOLDER

Catalogue number	Model	Length (mm)	Width (mm)	Packing/Box (pcs)
M014017	288 DIN	170	30	1/20



With 1 attaching hole with D- 11 mm.
With 2 x 4 mounting hole with D- 5.2 mm.
With 2 x 2 mounting hole with D- 6.9 mm.
Material: Aluminum.



INSPECTION DOOR

Catalogue number	Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)
M500684	5800 VZ	180	13.5	230	1



Lightweight design for flush-mounted separation points.
Claw length approx. 80 mm.
Strip galvanized.
Material: Steel.

DISTRIBUTION BOXES

FLUSH MOUNTING JUNCTION BOX EC350 SERIES



TECHNICAL DATA

- Rated voltage: up to 1000V
- Box material: Shock resistant technopolymer
- Screw material: Anticorrosive galvanized steel
- For quick and easy cables or conduits inlet- Side are pre-cutting
- By the separator it is possible to divide the box into separate sections for different circuits
- IP code: IP40

Catalogue number	Type	Description	Box dimensions (mm)			Packing / Box
			L	H	W	
1927410	EC350C4	Junction box	152	100	70	1/80
1927411	EC350C6	Junction box	196	152	70	1/40
1927412	EC350C7	Junction box	294	152	70	1/28
1927413	EC350C8	Junction box	392	152	70	1/20
1927415	EC350S	Separator				10/100



CONSOLE FOR BRICK AND CONCRETE FOR ITALIAN STANDARD MODULAR SWITCHES AND SOCKETS



Catalogue number	Type	Length (mm)	Width (mm)	Depth (mm)	Packing (pcs)
24207	1-3 Module Console Box	95	70	48	10/400
24208	4 Module Console Box	118	70	48	10/240
24209	6 Module Console Box	178	70	48	10/150
24210	Console Box Spacer				20/200





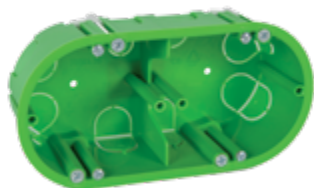
UNIVERSAL CONSOLE BOX-FLUSH MOUNTING

Catalogue number	Type	Diameter (mm)	Packing (pcs)
1927302	Console box - Ø65	65	300



CONSOLE BOX MULTI

Catalogue number	Type	Diameter (mm)	Packing (pcs)
1927301	Console box multi- Ø65	65	250



CONSOLE BOX FOR PLASTERBOARD

Catalogue number	Type	Packing (pcs)
19274	Single	240
19275	Double	120
19276	Triple	60
19278	Quadruple	50
19279	Fivefold	25



CONSOLE BOX FOR PLASTERBOARD ITALIAN TYPE

Catalogue number	Type	Packing (pcs)
24205	Triple Console box for plasterboard	160
24206	Quadruple Console box for plasterboard	150



Suitable for all bulge and bead thicknesses.
Suitable for conductors with diameter 8 mm and 11mm.
Material: Steel.



CONSOLE BOX FOR PLASTERBOARD ITALIAN TYPE

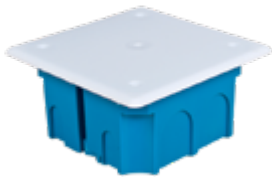
Catalogue number	Type	Packing (pcs)
26636	Sixfold Console box for plasterboard	10/160





DISTRIBUTION BOXES - SQUARE TYPE

Catalogue number	Type	Size			Packing (pcs)
		L	W	H	
1927402	Distribution Box 80/80/50	80	80	50	100
1927400	Distribution Box 100/100/50 without screws	100	100	50	40



DISTRIBUTION BOXES FOR PLASTERBOARD - SQUARE TYPE

Catalogue number	Type	Size			Packing (pcs)
		L	W	H	
1927405	Distribution Box 80/80/45	80	80	45	100
1927404	Distribution Box 100/100/45	100	100	45	100



DISTRIBUTION BOXES FOR PLASTERBOARD - ROUND TYPE

Catalogue number	Type	Diameter (mm)	Packing (pcs)
1927407	Distribution box Ø70	70	200
1927409	Distribution box Ø80	80	100



DISTRIBUTION BOXES - ROUND TYPE

Catalogue number	Type	Diameter (mm)	Packing (pcs)
1927408	Distribution box Ø80	80	200



CAP WITH FASTENING CLIPS

Catalogue number	Type	Suitable for holes with diameter (mm)	Packing (pcs)



WATERPROOF JUNCTION BOXES

Documents corresponding to the product:

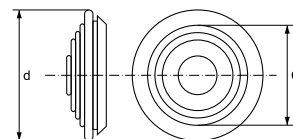
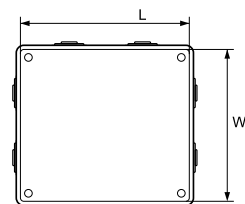
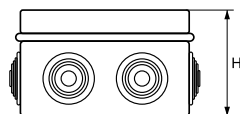
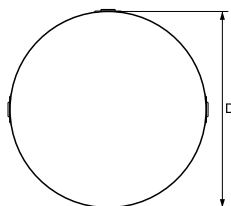
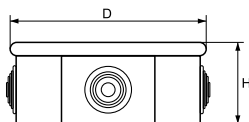
Standard: EN 60670-1

WATERPROOF JUNCTION BOXES IP44, IP55

Plastic junction boxes with different shapes and dimensions. Designed for cable lines extension or tapping at cable installations laying. Made of ABS material with openings for input - output conductors, with rubber gasket to provide the corresponding IP code. Resistant to chemical, thermal and UV rays. Direct wall mounting with screws.

TECHNICAL DATA

- Rated voltage: up to 1000V
- Material: ABS
- IP code: IP 55



Catalogue number	Box type	Box dimensions (mm)				Gasket dimensions (mm)		IP code	Packing/Box
		D	L	W	H	d	c		
8070	WB50/50	50	-	-	50	22.5	17	44	500
8071	WB80/50	80	-	-	50	22.5	17	44	200
8072	WB85/85/50	-	85	85	50	22.5	18.5	44	200
8073	WB100/100/70	-	100	100	70	30	23	55	100
8076	WB150/110/70	-	150	110	70	28	23	55	60
8074	WB150/150/70	-	150	150	70	35	29	55	60
8075	WB200/100/70	-	200	100	70	35	29	55	50
8077	WB200/155/80	-	200	155	80	35	29	55	30
8078	WB255/200/80	-	255	200	80	35	29	55	30
8079	WB300/250/120	-	300	250	120	35	29	55	20
8080	WB400/350/120	-	400	350	120	35	29	55	5





WATERPROOF JUNCTION BOXES IP55

Catalogue number	Box type	Box dimensions (mm)			Colour	IP code	Packing / Box
		L	H	W			
8023	CP 1020	90	43	40	Grey	55	1/456
8024	CP 1021	75	75	40	Grey	55	1/280
8025	CP 1022	85	85	40	Grey	55	1/224



WATERPROOF JUNCTION BOXES IP65

Catalogue number	Box type	Box dimensions (mm)				Hole/pcs	IP code	Packing / Box
		L	H	W	d			
8091	WBG 50/50	50	50	50	25	4	55	300
8092	WBG 80/50	80	80	50	25	4	55	240
8093	WBG 85/85/50	85	85	50	25	7	55	200
8001	WBG 100/100/70	100	100	70	27	7	65	100
8002	WBG 150/110/70	150	110	70	27	10	65	60
8003	WBG 150/150/70	150	150	70	27	7	65	60
8004	WBG 200/100/70	200	100	70	27	8	65	50
8005	WBG 200/155/80	200	155	80	35	10	65	30
8006	WBG 200/200/80	200	200	80	35	12	65	30
8007	WBG 255/200/80	255	200	80	35	12	65	30
8008	WBG 300/250/120	300	250	120	35	12	65	20
8009	WBG 400/350/120	400	350	120	35	16	65	5

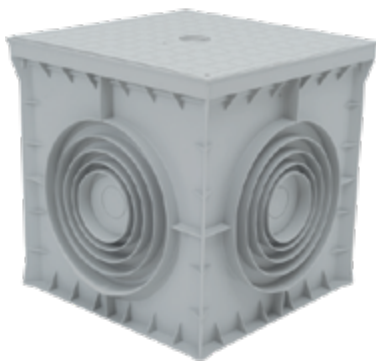


WATERPROOF JUNCTION BOXES IP54 WITH KNOCK OUTS

Catalogue number	Box type	Box dimensions (mm)			Colour	IP code	Packing / Box
		L	H	W			
8032	CP 1259	80	120	120	Grey	54	1/35
8033	CP 1261	150	110	140	Grey	54	1/16
8034	CP 1262	190	145	140	Grey	54	1/10
8035	CP 1263	250	200	160	Grey	54	1/6
8036	CP 1264	310	230	180	Grey	54	1/6



MANHOLE BOXES WITH COVER AND 4 WAYS OUT

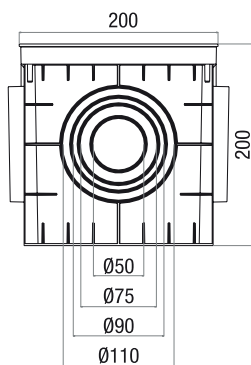


TECHNICAL DATA:

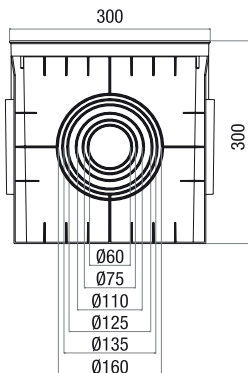
- Material: PP
- Body colour: RAL 7030 grey
- Type of cover: Blank, grey
- Impact resistance: 08
- Outlet cut sizes:
 - CP20: D50; D75; D90; D110 mm
 - CP30: D60 ; D75; D110; D125; D135; D160 mm
 - CP40: D100; D125; D160; D200; D250 mm
- Ambient temperature: from -25° to 60°C
- Breaking load:
 - CP20: 7.4kg/cm²
 - CP30: 4.8kg/cm²
 - CP40: 2kg/cm²

Catalogue number	Box type	Box dimensions (mm)			Outlet cut sizes (mm)	Impact resistance	Packing/Box
		L	W	H			
8040	CP-20	200	200	200	D-50/75/90/110	08	1
8041	CP-30	300	300	300	D-60/75/110/125/135/160	08	1
8042	CP-40	400	400	400	D-100/125/160/200/250	08	1

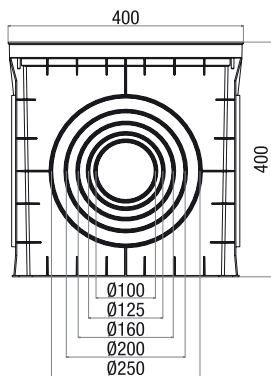
* It is advisable to firmly anchor the manhole boxes to the ground . Prepare a concrete bed of at least 10cm and avoid height differences between the manhole box cover and the ground surface.



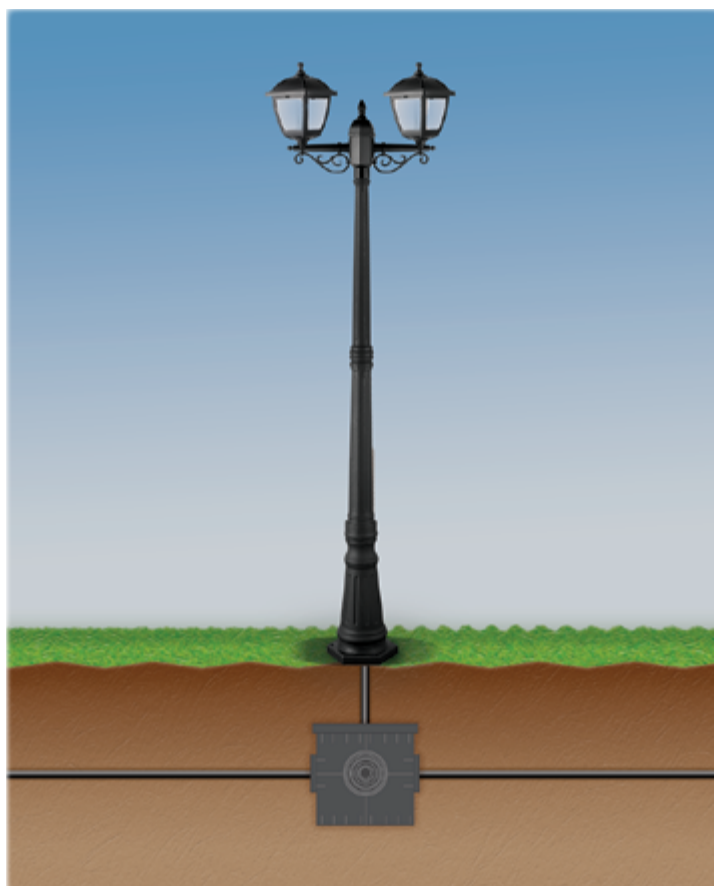
Cat.number: 8040



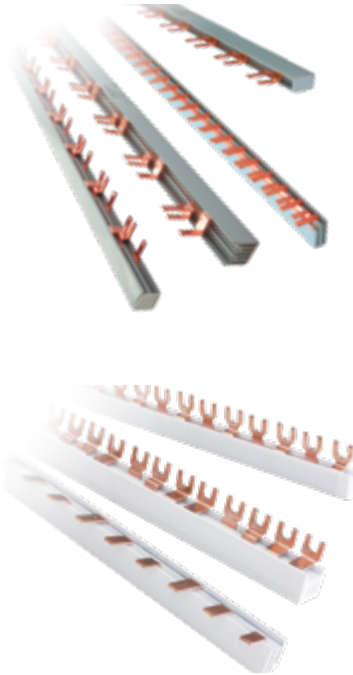
Cat.number: 8041



Cat.number: 8042



SUPPLY BUSBARS & DIN RAIL



SUPPLY BUSBAR

FUNCTIONS

- Enables the supply of a group of conductors
- Provides simultaneous supply
- Conducting section – electro technical copper
- Insulation of the conducting section

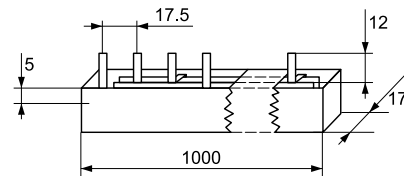
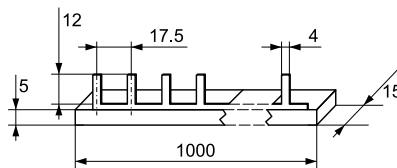
TECHNICAL DATA

- Rated operating voltage: 230/400V
- Isolating voltage: 500V
- Abnormal heating wear resistance and fire of the outer parts: 960°C/3sec.
- Rated current (phase): 63/100A

CONNECTING

- To the joining terminal of the breaker

Catalogue number	Type (copper busbar)	Length (m)	Poles (number)	In with one point of power supply	In with two points of power supply	Packing/ Box (pcs)
14163	1P 63	1	54	63A	90A	20/100
14190	1P 100	1	54	100A	120A	20/100
14263	2P 63	1	28	63A	90A	10/50
14363	3P 63	1	18	63A	90A	6/30
14390	3P 100	1	18	100A	120A	5/50
14463	DP 1N	1	56	63A	90A	10/50
14190T	C100 1P	1	-	125A	150A	20/100
14290T	C100 2P	1	-	125A	150A	10/50
14390T	C100 3P	1	-	125A	159A	5/20
14163U	U 1P 63	1	54	63A	90A	20/100
14263U	U 2P 63	1	28	63A	90A	10/50
14363U	U 3P 63	1	18	63A	90A	6/30
14463U	U 4P 63	1	13	63A	90A	5/20



MOUNTING (DIN) RAILS

FUNCTIONS

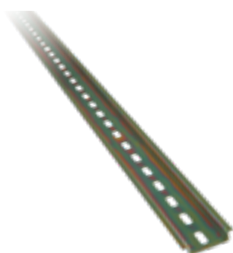
- Serves for mounting breakers, residual current devices, contactors and other elements
- Provides a firm fixation of the elements

CONNECTING

- With bolts or other fixing elements to the mounting surface

TECHNICAL DATA

- Brass alloy with galvanic cover for 14001
- Cold galvanized brass alloy for 14001G
- Factory drilled mounting openings
- Length: 1m



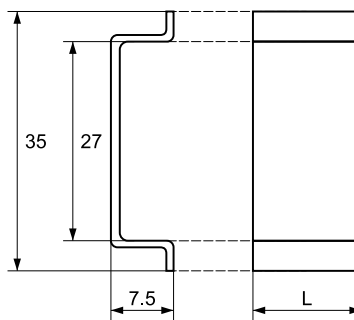
14001



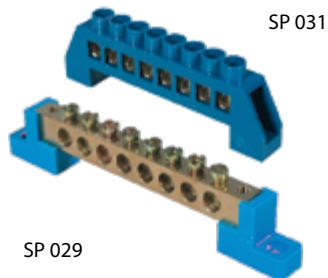
14001G



Catalogue number	Length (m)	Packing / Box (pcs)
14001	1m	20 / 100
14001G	1m	20 / 100



TERMINALS

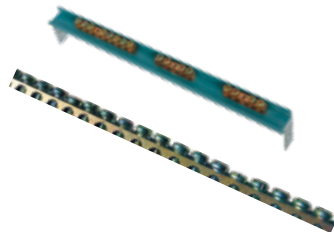


ZERO TERMINALS

Catalogue number	Rail type	Dimensions (mm)			Packing/ Box (pcs)
		Length	Height	Width	
14204	SP 029-4	82.9	21.5	12	10/500
14206	SP 029-6	100.9	21.5	12	10/800
14208	SP 029-8	118.9	21.5	12	20/300
14210	SP 029-10	136.9	21.5	12	20/300
14212	SP 029-12	182.4	21.5	12	20/250
14304	SP 031-4	59.5	31.5	12.4	5/400
14306	SP 031-6	76.5	31.5	12.4	5/400
14308	SP 031-8	93	31.5	12.4	5/400
14310	SP 031-10	111	31.5	12.4	5/400
14312	SP 031-12	128	31.5	12.4	5/300



ZERO RAILS



They represent a brass rail with rectangular section with factory made openings for the conductors and bolts for clamping of the conductor. They are offered in types with insulated and non-insulated rail. They are used in the electrical distribution boxes for zeroing and earthing.

TECHNICAL DATA

- Material: brass for the current leading elements
- Insulation material: plastic
- Colour: gray/blue
- Application: general
- Ambient temperature: -40 to +65°C

Catalogue number	Rail type	Dimensions (mm)				Bolt	Number of terminals	Packing/ Box (pcs)
		Length (mm)	Height (mm)	Width (mm)	Diameter (mm)			
14002	Brass	1000	7.8	6	5	M4	54	100
14012	Zero insulated	250	-	-	5	M4	16	200

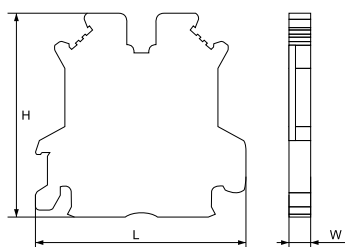
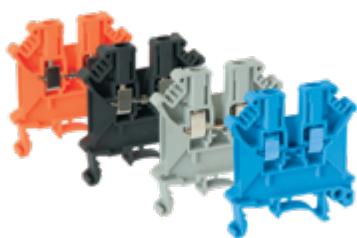


TERMINAL BLOCKS TBH TYPE



Catalogue number	Type	Pieces in a strip	In (A)	Un (V)	Colour	Section of the conductor (mm ²)	Packing / Box (pcs)
31003	TBH 3A	12	3	660	Semitransparent	Up to 1.5	10 / 1000
31006	TBH 6A	12	6	660	Semitransparent	Up to 4	10 / 1000
31010	TBH 10A	12	10	660	Semitransparent	Up to 6	10 / 500
31015	TBH 15A	12	15	660	White	Up to 6	10 / 500
31020	TBH 20A	12	20	660	White	Up to 10	10 / 400

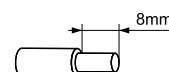




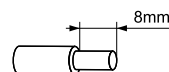
FIXED TERMINAL BLOCKS - LTU2 UK SERIES

Fixed terminal blocks with universal application into electrical distribution boxes. For DIN-rail mounting. Variety of sizes for optimum using of available space by selection of appropriate terminals for the corresponding conductors. Made of non-flammable insulation polymeric material.

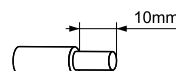
Catalogue number	Type	Section of the conductor (mm ²)		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing/Box (pcs)
		Single-core	Multi-core	L	H	W				
31033	LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	Grey	50/3000
31032	LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	Red	50/3000
31031	LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	Black	50/3000
31035	LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	Blue	50/3000



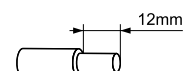
Catalogue number	Type	Section of the conductor (mm ²)		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing/Box (pcs)
		Single-core	Multi-core	L	H	W				
31053	LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	Grey	50/2000
31052	LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	Red	50/2000
31051	LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	Black	50/2000
31055	LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	Blue	50/2000



Catalogue number	Type	Section of the conductor (mm ²)		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing/Box (pcs)
		Single-core	Multi-core	L	H	W				
31063	LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	Grey	50/1000
31062	LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	Red	50/1000
31061	LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	Black	50/1000
31065	LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	Blue	50/1000

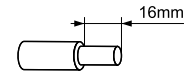


Catalogue number	Type	Section of the conductor (mm ²)		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing/Box (pcs)
		Single-core	Multi-core	L	H	W				
31103	LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	Grey	50/1000
31102	LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	Red	50/1000
31101	LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	Black	50/1000
31105	LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	Blue	50/1000





Catalogue number	Type	Section of the conductor (mm ²)		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing/ Box (pcs)
		Single-core	Multi-core	L	H	W				
31163	LTU2UIK 16	2.5-25	4-16	42.5	47	12.2	101	800	Grey	30/1200
31353	LTU2UIK 35	10-35	10-35	55	62	15.2	125	800	Grey	20/400

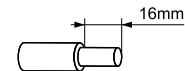


FIXED TERMINAL BLOCKS - JD SERIES

Two-sided insulated fixed terminal blocks designed to connect grounded conductors. Made of non-flammable insulation polymeric material.

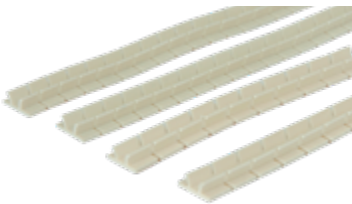


Catalogue number	Type	Section of the conductor (mm ²)		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing/ Box (pcs)
		Single-core	Multi-core	L	H	W				
31054	5JD	0.2-4	0.2-4	42.5	47	6.2	34	800	Yellow-green	50/1000
31064	6JD	0.2-10	0.2-6	42.5	47	8.2	37	800	Yellow-green	50/1000
31104	10JD	0.5-10	0.5-6	42.5	47	8.2	61	800	Yellow-green	50/1000
31164	16JD	2.5-25	2.5-16	42.5	47	12.2	108	800	Yellow-green	50/600
31354	35JD	2.5-35	2.5-35	42.5	47	15	135	800	Yellow-green	20/400



MARKING TAGS - ZB TYPE

Accessories for marking and separation of different electrical circuits, different voltages and fixing of elements for DIN-rail mounting.



Catalogue number	Type	Pieces in a strip	Colour	Size (mm)	Packing / Box (pcs)
31906	ZB6	20	White	6	100/1200
31908	ZB8	10	White	8	100/1200



END COVER

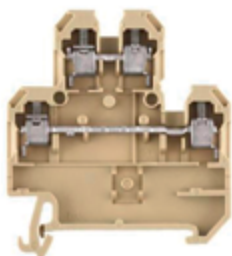
Catalogue number	Type	Colour	Thickness (mm)	Packing/ Box (pcs)
31901	EC	Grey	8	200 / 6000





UNIVERSAL END FIXED PIECES E/UK TYPE

Catalogue number	Type	Colour	Thickness (mm)	Packing/ Box (pcs)
31902	E/UK	Grey	5	200/2400



DOUBLE DECK TERMINAL BLOCKS

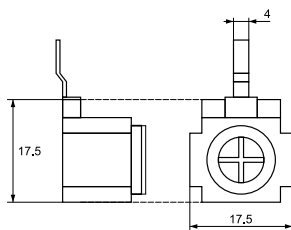
Catalogue number	Type	Section of the conductor (mm ²)		Rated current (A)	Rated voltage (V)	Colour	Dimensions (mm)			Packing (pcs.)
		Single-core	Multi-core				L	H	W	
31056D	DDTB4/5N	0.2-6	0.2-4	32	500	Beige	59.9	54	6	50/1000
31053D	DDTB4/5N	0.2-6	0.2-4	32	500	Grey	59.9	54	6	50/1000
31901D	End cover for DDTB4/5N					Grey	54	43.5	1.5	200/6000



INSULATING MOUNTING TERMINAL - TB25

FUNCTIONS

- Provides a firm joining of rigid or flexible conductors up to 35mm² to power supply busbar
- Provides a firm joining of the power supply conductor to the breaker
- Provides enough contact surface of the conductor
- Brass alloy with galvanic cover
- Fabric isolated with plastic cover
- Appropriate for joining to copper or aluminum cables
- Rated voltage: 230V
- Rated current: up to 63A
- Isolating voltage: ≥500V
- IP code: IP>20
- Section of power supply conductor: up to 35mm²



Catalogue number	Type	Section of the conductor (mm ²)	Rated current In (A)	Packing / Box (pcs)
31025	TB 25	2.5 to 35	63	20 / 2000



UNIPOLAR DISTRIBUTION TERMINAL BLOCKS FOR COPPER AND ALUMINUM CONDUCTORS

TECHNICAL DATA

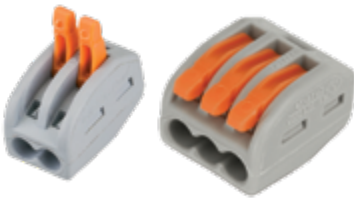
- Housing material: PA Nylon
- Terminal material: tin plated brass
- Grade of flame retardant: UL94v-0
- Mounting: DIN rail or screw fixing



Catalogue number	Type	Current (A)	Quantity cross sections mm ²	Dimensions (mm)			Packing (pcs.)
				L	H	W	
319080	PPDTB80	80A	1x 6-16 mm ² 4x 2.5-6 mm ² 2x 2.5-16 mm ²	30	69	49	200
319125	PPDTB125	125A	1x 10-35 mm ² 6x 2.5-16 mm ²	29	77	46	150
319160	PPDTB160	160A	1x 10-70 mm ² 6x 2.5-16 mm ²	29	77	46	150
319250	PPDTB250	255A	1x 35-120 mm ² 8x 2.5-16 mm ² 4x 2.5-10 mm ²	47	96	50	150
319400	PPDTB400	400A	1x 95-185 mm ² 8x 2.5-16 mm ² 4x 2.5-10 mm ²	47	96	50	60



TERMINAL BLOCKS TBF TYPE



Catalogue number	Type	Pieces in a terminal	Section of the conductor (mm ²)	Rated current (A)	Rated voltage (V)	Dimensions (mm)			Packing (pcs.)
						L	H	W	
31021	2 terminal block	2	4 mm ²	32	400	12.4	14.5	20.5	5000
31022	3 terminal block	3	4 mm ²	32	400	17.0	14.5	20.5	2500
31023	5 terminal block	5	4 mm ²	32	400	26.6	14.5	20.5	2500



FAST LIGHTING CABLE CONNECTOR



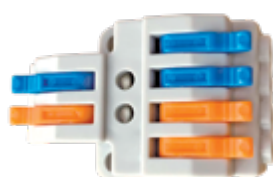
Catalogue number	Type	Pieces in a terminal	Section of the conductor (mm ²)	Rated current (A)	Rated voltage (V)	Packing (pcs.)
31024	Lighting connector	3	1.0-2.5mm ² / 0.5-2.5 mm ²	25	400	1500





QUICK CONNECTION TERMINAL BLOCK

Catalogue number	Type	Pieces in a terminal	Section of the conductor (mm ²)	Rated current (A)	Rated voltage (V)	Dimensions (mm)			Packing (pcs.)
						L	W	H	
31026	2P- 2 in/2 out	4	0,75mm ² - 4mm ²	32	250	41.4	25.5	14.4	1/100
31027	3P- 3 in/3 out	6	0,75mm ² - 4mm ²	32	250	41.4	30.5	14.4	1/70
31028	5P- 5 in/5 out	10	0,75mm ² - 4mm ²	32	250	41.4	40.5	14.4	1/50



QUICK CONNECTION TERMINAL BLOCK

Catalogue number	Type	Pieces in a terminal	Section of the conductor (mm ²)	Rated current (A)	Rated voltage (V)	Dimensions (mm)			Packing (pcs.)
						L	W	H	
31029	2P- 2 in/ 4 out	6	0,75mm ² - 4mm ²	32	250	41.4	25.9	14.55	1/50
31030	2P- 2 in/ 6 out	8	0,75mm ² - 4mm ²	32	250	41.4	35.9	14.55	1/50



QUICK CONNECTION TERMINAL BLOCK

Catalogue number	Type	Pieces in a terminal	Section of the conductor (mm ²)	Rated current (A)	Rated voltage (V)	Dimensions (mm)			Packing (pcs.)
						L	W	H	
31034	3P- 3 in/ 6 out	9	0,75mm ² - 4mm ²	32	250	41.4	35.9	14.6	1/50
31036	3P- 3 in/ 9 out	12	0,75mm ² - 4mm ²	32	250	41.4	48.5	14.6	1/50



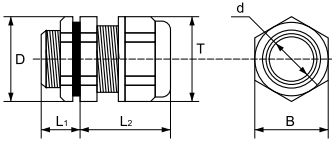
MODULE TERMINAL BLOCK FOR QUICK CABLE CONNECTION

Catalogue number	Type	Pieces in a terminal	Section of the conductor (mm ²)	Rated current (A)	Rated voltage (V)	Dimensions (mm)			Packing (pcs.)
						L	W	H	
31037	1P- 1 in/ 1 out	2	0,75mm ² - 4mm ²	32	250	39.3	8.5	14.5	1/100



CONSUMABLES

Standard: EN 60 423; 48580-81



CABLE GLANDS PG TYPE

Plastic pipes supplied with the corresponding gaskets and nuts. Designed to provide necessary IP code on the points where conductors pass through the walls of the electric distribution boxes. All cable gland elements are made of high quality plastic (PE) and rubber.

TECHNICAL DATA

- Material: polyethylene (PE)
- Colour: gray
- Application: general
- Ambient temperature: -40 to +65°C
- IP 68

Catalogue number	Type	Overlap- ing field	Dimensions (mm)						Packing/ Box (pcs)
			T	B	d	D	L1	L2	
500070	PG-7	3.5-6.8	16.3	18	12	6.6	10	22	100/4000
500090	PG-9	5-8	18.9	21.7	15.5	8.5	10	25	100/4000
500110	PG-11	6-10	21.7	23.5	18.5	10.4	8.5	29	100/3000
500135	PG-13.5	7-12	23.6	26.5	20	13	10	29	100/2000
500160	PG-16	8-14	26.5	29.3	21.5	14	9	29	100/2000
500190	PG-19	9-17	29	32	23	17	12	29	100/2000
500210	PG-21	10-18	32.3	35.6	28	19	12	35	100/1000
500250	PG-25	15-22	32.6	32.6	29.8	24	13	31	100/1000
500290	PG-29	16-24	41.1	45.4	36	26	12.5	40	50/500
500360	PG-36	18-28	52	58	46	31.5	12.5	45	50/350
500420	PG-42	26-36	57.4	61.9	51	37.6	17.5	47	20/200
500480	PG-48	32-39	65.2	70.7	58	43	21	50	20/200

CABLE CONNECTOR

The cable connectors are hopeful way for assembling both cables. The high-temperature and water resistant stability assure to the connector assure a high degree of security even in extreme conditions.



Catalogue number	Type	Section of the conductor (mm ²)	Length (mm)	Diameter (mm)	Cable glands type	IP code	Packing / Box (pcs)
31072	Cable connector 11	2x0.5-2.5	78.3	26.2	PG11	68	50
59245	Cable connector 16	5x1.5- 2.5	115	26.5	PG16	67	50
59246	Cable connector 21	5x4-6	124	33.5	PG21	67	50

Y-TYPE CABLE CONNECTORS

TECHNICAL DATA

- Material: polyethylene (PE)
- Colour: gray
- Application: general
- Ambient temperature: -40 to +65°C
- IP 68



Catalogue number	Terminal pieces	Section of the conductor (mm ²)	Rated current (A)	Length (mm)	Diameter (mm)	Cable glands type	IP code	Packing/ Box (pcs)
31074	3 pin	0.5-4	24	139.7	32.56	M25	IP68	1
31075	5 pin	0.5-4	24	139.7	32.56	M25	IP68	1





Terminal box IP65



Terminal box IP44

WATERPROOF TERMINAL BOX

Catalogue number	Type	Section of the conductor (mm ²)	Rated current (A)	Voltage (V)	Material	Packing/Box (pcs)
31071	Terminal box IP44	0.5-4.0	6	450	Polycarbonate	1
31070	Terminal box IP65	0.5-2.5	10	450	Polycarbonate	1



SUPPORT INSULATOR FOR LOW VOLTAGE

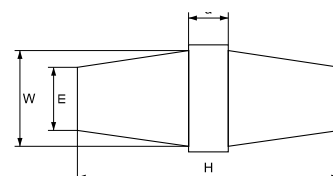
Support insulators are used in control and distribution cabinets mounting when bars isolation is required. Provides reliable insulation of live parts.

TECHNICAL DATA

- Rated voltage: 1000V
- Insulating voltage: 5000 V
- Ambient temperature : -40 to +65°C



Catalogue number	Type	Impulse voltage (kV)	Strength	Fastening strength	Bolt	Dimensions (mm)				Packing (pcs.)
						H	W	a	ø	
31725	SM 25	6	500	6	6	25	30	13	23	10/600
31730	SM 30	8	550	8	8	30	32	10	27	10/500
31735	SM 35	10	600	10	8	35	32	10	28	10/400
31740	SM 40	12	650	12	8	40	40	10	33	10/240
31751	SM 51	15	1000	20	8	51	50	12	28	10/240
31776	SM 76	25	1500	40	10	76	45	16	34	10/120



CABLE FIXING CLIPS

Support insulators are used in control and distribution cabinets mounting when bars isolation is required. Provides reliable insulation of live parts.

TECHNICAL DATA

- Rated voltage: 1000V
- Insulating voltage: 5000 V
- Ambient temperature : -40 to +65°C



Catalogue number	Type	Diameter (mm)	Packing (pcs)	Packing/Box (pcs)
500004	CHR-4	4	100	100/500
500005	CHR-5	5	100	100/ 500
500006	CHR-6	6	100	100/ 300
500007	CHR-7	7	100	100/ 300
500008	CHR-8	8	100	100/ 250
500009	CHR-9	9	100	100/ 200
500010	CHR-10	10	100	100/ 200
500012	CHR-12	12	100	100/ 100
500014	CHR-14	14	100	100/ 50
500016	CHR-16	16	100	100/ 50



INSULATING TAPES



PVC INSULATING TAPE

Soft, flexible with good adhesiveness and flame retardant. Working temperature: 0-80°C.
Electrical strength: 40kV/mm

Catalogue number	Colour	Thickness (mm)	Width (mm)	Length (m)	Packing/ Box (pcs)
51011	Black	0.15	19	10	1/300
51012	White	0.15	19	10	1/300
51013	Blue	0.15	19	10	1/300
51014	Red	0.15	19	10	1/300
51015	Yellow / Green	0.15	19	10	1/300
51021	Black	0.15	19	20	1/200
51022	White	0.15	19	20	1/200
51023	Blue	0.15	19	20	1/200
51024	Red	0.15	19	20	1/200
51025	Yellow / Green	0.15	19	20	1/200



PVC INSULATING TAPE 3M TEMFLEX 1500

Catalogue number	Colour	Thickness (mm)	Width (mm)	Length (m)	Packing/Box (pcs)
M151016	Black	0.15	19	20	10/100



BLACK SELF - AMALGAMATING HIGH VOLTAGE TAPE BISHOP 963

69kV | Waterproof | UV-Resistant | Moisture, corrosion and chemical resistance

Catalogue number	Colour	Width (mm)	Length (m)	Packing/Box (pcs)
M051004	Black	19	9	1

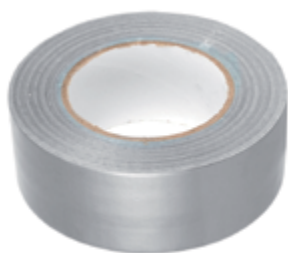




ALUMINUM TAPE

Ideal for temporary exhaust pipe repair heating, ventilation - electrics and electronics insulation and construction industries

Catalogue number	Colour	Width (mm)	Length (m)	Packing/Box (pcs)
M499469	Aluminium	50	10	1



DUCT TAPE

Ideal for temporary exhaust pipe repair heating, ventilation - electrics and electronics insulation and construction industries.

Catalogue number	Colour	Width (mm)	Length (m)	Packing/Box (pcs)
51055	Grey	50	25	1
M499153	Black	50	25	1



MASKING TAPE

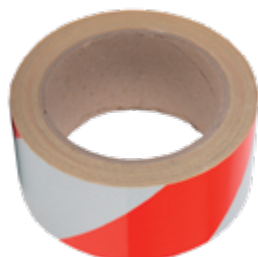
Support insulators are used in control and distribution cabinets mounting when bars isolation is required. Provides reliable insulation of live parts.

Catalogue number	Width (mm)	Length (m)	Packing/Box (pcs)
M516400	25	50	1
M516401	50	50	1



DOUBLE SIDED MOUNTING TAPE

Catalogue number	Width (mm)	Length (m)	Packing/Box (pcs)
M516402	25	5	1
M516403	50	25	1



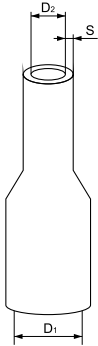
HAZARD TAPE

Catalogue number	Width (mm)	Length (m)	Packing/Box (pcs)
M500179	50	100	1



HEAT SHRINKAGE TUBES

Standard: EN 60 684



HEAT SHRINKAGE TUBES ZDG TYPE

Thin-wall heat shrinkage tubes are used for insulation of cable connection, at conductors repair to protect the cable head from corrosion, for protection of the cable insulation from water and moisture, for restoring the cable insulation integrity, etc. It is a plastic thin wall pipe which at temperature higher than 120°C shrinks its initial diameter to a certain degree. The material has high temperature and UV rays wear resistance. The material represents the so called permanently netted plastic. This material is obtained as the plastic billet is processed with the help of high energy electron rays so that inner molecular bonds between adjacent molecules are formed. After that the pipe is heated to the boiling point, the pipe inflates, so do the inner molecular bonds. Then the pipe is sharply refrigerated and the molecules stay in the condition of inflated bonds for indefinite long time. Heating the pipe repeatedly (after being mounted to the given cable) the crystals melt again but due to the net structure, they resume the initial pipe diameter and take the form of the cable, pressing it and not allowing the moisture to get under the pipe.

TECHNICAL DATA

- Material: triple cross - linked polyolefin
- Colours: blue, black, red, yellow, yellow-green, green, white
- Shrinkage ratio: min 2 : 1
- Ambient temperature: -40 to + 100°C
- Shrinkage temperature: min 120°C

- Condition of the material during fire exposure: slight burning
- The material does not emit hazardous substances
- Insulation resistance: 1x 10¹² Ω/cm
- Application: general
- Insulating voltage 1000 V

Catalogue number *	Type	D1 (mm)	D2 (mm)	S (mm)	Packing / Box (m)
301001x	ZDG	1	0.5	0.04	200/4000
301115x	ZDG	1.5	0.75	0.04	200/4000
301002x	ZDG	2	1.0	0.05	200/4000
301003x	ZDG	3	1.5	0.05	200/2000
301004x	ZDG	4	2.0	0.08	100/1700
301005x	ZDG	5	2.5	0.08	100/1200
301006x	ZDG	6	3.0	0.08	100/1000
301007x	ZDG	7	3.5	0.08	100/1000
301008x	ZDG	8	4.0	0.08	100/1500
301009x	ZDG	9	4.5	0.08	100/1500
301010x	ZDG	10	5.0	0.08	100/1500
301011x	ZDG	11	5.5	0.08	100/1500
301012x	ZDG	12	6.0	0.08	100/1200
301013x	ZDG	13	6.5	0.08	100/1200
301014x	ZDG	14	7.0	0.08	100/1200
301015x	ZDG	15	7.5	0.08	100/1200
301016x	ZDG	16	8.0	0.08	100/1200
301018x	ZDG	18	9.0	0.08	50/600
301020x	ZDG	20	10	0.08	50/500
301022x	ZDG	22	11	0.08	50/500
301025x	ZDG	25	12.5	0.08	25/600
301028x	ZDG	28	14	0.08	25/300
301030x	ZDG	30	15	0.08	25/300
301035x	ZDG	35	17.5	0.08	25/300
301040x	ZDG	40	20	0.08	25/250
301050x	ZDG	50	25	0.08	25/200
301060x	ZDG	60	30	0.08	25/300
301070x	ZDG	70	35	0.08	25/250
301080x	ZDG	80	40	0.08	25/100
301090x	ZDG	90	45	0.08	25/150
301100x	ZDG	100	50	0.08	25/100
301120x	ZDG	120	60	0.08	25/200
301150x	ZDG	150	75	0.08	25/100



Note: At orders after the catalogue number of the corresponding diameter a letter showing the colour must be added: B – blue; R – red; K - black; G - green; Y – yellow;

HEAT SHRINKAGE TUBES WITH GLUE GL TYPE



Catalogue number	Type	Colour	Diameter before shrinking (mm)	Wall thickness (mm)	Shrinkage ratio	Packing (m)
3010024GL	GL	Black	D2.4 (≥2.4)	0.7±0.15	3:1	200
3010032GL	GL	Black	D3.2 (3.5±0.3)	0.9±0.15	3:1	200
3010048GL	GL	Black	D4.8 (5.2±0.3)	1.0±0.15	3:1	100
3010064GL	GL	Black	D6.4 (6.8±0.4)	1.2±0.15	3:1	100
3010079GL	GL	Black	D7.9 (8.4±0.4)	1.3±0.15	3:1	100
3010095GL	GL	Black	D9.5 (9.9±0.4)	1.4±0.15	3:1	1.22
3010127GL	GL	Black	D12.7 (13.2±0.5)	1.6±0.20	3:1	1.22
3010150GL	GL	Black	D15.0 (15.6±0.5)	1.8±0.20	3:1	1.22
3010191GL	GL	Black	D19.1 (19.6±0.5)	2.0±0.20	3:1	1.22
3010254GL	GL	Black	D25.4 (25.4±0.8)	2.1±0.20	3:1	1.22
3010300GL	GL	Black	D30.0 (≥30)	2.2±0.20	3:1	1.22
3010390GL	GL	Black	D39 (≥40)	2.4±0.20	3:1	1.22
3010500GL	GL	Black	D50 (≥50)	2.7±0.25	3:1	1.22
3010640GL	GL	Black	D64 (≥60)	3.0±0.25	3:1	1.22



CABLE TAGS – SETS



Catalogue number	Type	Section (mm)	Number in a roller	Packing/ Box (pcs)	Catalogue number	Type	Section (mm)	Number in a roller	Packing/ Box (pcs)
318000	EC-0-0	1.5 - 3.2	1000	100	318010	EC-1-0	2.6 - 4.2	1000	150
318001	EC-0-1	1.5 - 3.2	1000	100	318011	EC-1-1	2.6 - 4.2	1000	150
318002	EC-0-2	1.5 - 3.2	1000	100	318012	EC-1-2	2.6 - 4.2	1000	150
318003	EC-0-3	1.5 - 3.2	1000	100	318013	EC-1-3	2.6 - 4.2	1000	150
318004	EC-0-4	1.5 - 3.2	1000	100	318014	EC-1-4	2.6 - 4.2	1000	150
318005	EC-0-5	1.5 - 3.2	1000	100	318015	EC-1-5	2.6 - 4.2	1000	150
318006	EC-0-6	1.5 - 3.2	1000	100	318016	EC-1-6	2.6 - 4.2	1000	150
318007	EC-0-7	1.5 - 3.2	1000	100	318017	EC-1-7	2.6 - 4.2	1000	150
318008	EC-0-8	1.5 - 3.2	1000	100	318018	EC-1-8	2.6 - 4.2	1000	150
318009	EC-0-9	1.5 - 3.2	1000	100	318019	EC-1-9	2.6 - 4.2	1000	150
31800a	EC-0-a	1.5 - 3.2	1000	100	31801a	EC-1-a	2.6 - 4.2	1000	150
31800b	EC-0-b	1.5 - 3.2	1000	100	31801b	EC-1-b	2.6 - 4.2	1000	150
31800R	EC-0-R	1.5 - 3.2	1000	100	31801R	EC-1-R	2.6 - 4.2	1000	150
31800S	EC-0-S	1.5 - 3.2	1000	100	31801S	EC-1-S	2.6 - 4.2	1000	150
31800T	EC-0-T	1.5 - 3.2	1000	100	31801T	EC-1-T	2.6 - 4.2	1000	150
31800N	EC-0-N	1.5 - 3.2	1000	100	31801N	EC-1-N	2.6 - 4.2	1000	150
31800P	EC-0-P	1.5 - 3.2	1000	100	31801P	EC-1-P	2.6 - 4.2	1000	150
31800E	EC-0-E	1.5 - 3.2	1000	100	31801E	EC-1-E	2.6 - 4.2	1000	150
31800A	EC-0-A	1.5 - 3.2	1000	100	31801A	EC-1-A	2.6 - 4.2	1000	150
31800B	EC-0-B	1.5 - 3.2	1000	100	31801B	EC-1-B	2.6 - 4.2	1000	150
31800C	EC-0-C	1.5 - 3.2	1000	100	31801C	EC-1-C	2.6 - 4.2	1000	150
31800Q	EC-0-Q	1.5 - 3.2	1000	100	31801Q	EC-1-Q	2.6 - 4.2	1000	150

Catalogue number	Type	Section (mm)	Number in a roller	Packing/ Box (pcs)	Catalogue number	Type	Section (mm)	Number in a roller	Packing/ Box (pcs)
318020	EC-2-0	3.6 - 5.2	500	150	318030	EC-3-0	5 - 7.2	250	150
318021	EC-2-1	3.6 - 5.2	500	150	318031	EC-3-1	5 - 7.2	250	150
318022	EC-2-2	3.6 - 5.2	500	150	318032	EC-3-2	5 - 7.2	250	150
318023	EC-2-3	3.6 - 5.2	500	150	318033	EC-3-3	5 - 7.2	250	150
318024	EC-2-4	3.6 - 5.2	500	150	318034	EC-3-4	5 - 7.2	250	150
318025	EC-2-5	3.6 - 5.2	500	150	318035	EC-3-5	5 - 7.2	250	150
318026	EC-2-6	3.6 - 5.2	500	150	318036	EC-3-6	5 - 7.2	250	150
318027	EC-2-7	3.6 - 5.2	500	150	318037	EC-3-7	5 - 7.2	250	150
318028	EC-2-8	3.6 - 5.2	500	150	318038	EC-3-8	5 - 7.2	250	150
318029	EC-2-9	3.6 - 5.2	500	150	318039	EC-3-9	5 - 7.2	250	150
31802a	EC-2-a	3.6 - 5.2	500	150	31803a	EC-3-a	5 - 7.2	250	150
31802b	EC-2-b	3.6 - 5.2	500	150	31803b	EC-3-b	5 - 7.2	250	150
31802R	EC-2-R	3.6 - 5.2	500	150	31803R	EC-3-R	5 - 7.2	250	150
31802S	EC-2-S	3.6 - 5.2	500	150	31803S	EC-3-S	5 - 7.2	250	150
31802T	EC-2-T	3.6 - 5.2	500	150	31803T	EC-3-T	5 - 7.2	250	150
31802N	EC-2-N	3.6 - 5.2	500	150	31803N	EC-3-N	5 - 7.2	250	150
31802P	EC-2-P	3.6 - 5.2	500	150	31803P	EC-3-P	5 - 7.2	250	150
31802E	EC-2-E	3.6 - 5.2	500	150	31803E	EC-3-E	5 - 7.2	250	150
31802A	EC-2-A	3.6 - 5.2	500	150	31803A	EC-3-A	5 - 7.2	250	150
31802B	EC-2-B	3.6 - 5.2	500	150	31803B	EC-3-B	5 - 7.2	250	150
31802C	EC-2-C	3.6 - 5.2	500	150	31803C	EC-3-C	5 - 7.2	250	150
31802Q	EC-2-Q	3.6 - 5.2	500	150	31803Q	EC-3-Q	5 - 7.2	250	150



EXPLOSION PROOF INSTALLATION SYSTEMS



ATEX Directive 2014/34/EU is a directive that applies to protective systems against explosions as well as all equipment used in or related to explosive atmospheres, such as electrical and non-electrical equipment, components and safety devices, control and adjustments necessary for the safe operation of this equipment and protective systems.

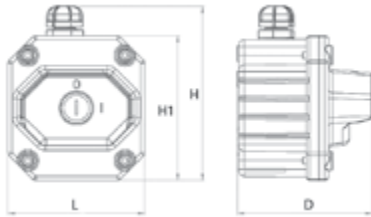
Devices falling within the scope of the European Directive and responding to the essential requirements for the safety and health are identified by a marking plate on which the logo appears.

LABELING OF EXPLOSION PROOF EQUIPMENT ACCORDING TO ATEX 2014/34/EU

Classification and labelling of hazardous locations					Classification Explosion groups & Temperature classes												
Flammable medium	Hazardous locations Probability of a potentially explosive atmosphere occurring	Classification of hazardous locations	Product classification		Equipment protection level (EPL)	Explosion group	Examples depending on - explosion group - temperature class										
			Product group	Product category			Ammonia Methane Ethane Propane	Ethanol Cyclohexene n-Butane	Petrol Diesel fuel Fuel oil n-Hexane	Acetaldehyde							
Gases, mists, vapours	Continuously, for long periods or frequently	Zone 0	II			IIA											
	Likely to occur	Zone 1	II	1G	Ga	IIB											
	Infrequently and for short periods only	Zone 2	II	2G	Gb	IIC											
Dusts	Continuously, for long periods or frequently	Zone 20	II														
	Likely to occur	Zone 21	II	1D	Da												
	Infrequently and for short periods only	Zone 22	II	2D	Db												
				3G	Gc												
				3D	Dc												
<p>Notified bodies</p> <table border="1"> <thead> <tr> <th>Code number</th> <th>Notified Body (NB)</th> </tr> </thead> <tbody> <tr> <td>0102</td> <td>PTB (Germany)</td> </tr> <tr> <td>0158</td> <td>EXAM (Germany)</td> </tr> </tbody> </table>												Code number	Notified Body (NB)	0102	PTB (Germany)	0158	EXAM (Germany)
Code number	Notified Body (NB)																
0102	PTB (Germany)																
0158	EXAM (Germany)																
<p>Temperature class</p> <p>T1 < 450 °C T2 < 300 °C T3 < 200 °C T4 < 135 °C T5 < 100 °C T6 < 85 °C</p> <p>Attention: this list is only an extract of possible flammable mediums and does not claim to be complete!</p> <p>Product use depending on temperature class (T1 - T6). The temperature class indicates the max. temperature of the exposed surface of the product. For dust explosion proof, the max. surface temperature is directly shown (e.g. T80°C).</p>																	
<p>Example: 0158 </p> <p>II 2 G Ex db IIC T6 Gb NB 12 ATEX 1007 X</p> <p>II 2 D Ex tb IIIc T80°C Db</p>																	
Prevents transmission of the explosion outside	flameproof enclosure	Exd	da db dc		0,1,2 1,2 2	EN 60079-1	IIIA	IIIB	IIC	flammable fibres							
Prevents high temperatures and sparks	increased safety	Exe	eb ec		1,2 2	EN 60079-7				non conductive dust	For common use	-					
Low current/voltage supply	Intrinsic safety	Exi	ia ib ic		0,1,2,20,21,22 1,2,21,22 2,22	EN 60079-11				conductive dust							
Positive pressure device	pressurised apparatus	Exp	pdb pyb pzc		1,2,21,22 1,2,21,22 2,22	EN 60079-2					For use under special conditions	X					
Encapsulated	moulding	Exm	ma mb mc		0,1,2,20,21,22 1,2,21,22 2,22	EN 60079-18											
Parts immersed in oil to isolate from explosive atmosphere	oil immersion	Exo	ob oc		1,2 2	EN 60079-6											
Prevents transmission of explosion outside	powder filling	Exq	qb		1,2	EN 60079-5											
As above, but for use in zone 2	protection "n"	Exn	nC nR		2 2	EN 60079-15											
Dust explosion proof	protection by enclosure	Ext	ta tb tc		20, 21, 22 21, 22 22	EN 60079-31											
Protection principle	Type of protection	Code		Sym- bol	To use in zone	CENELEC	IP	Protection against solids /dust	Protection against water		Application	Code					
Protection principle – Type of protection – EN 60079-0 General Requirements							Ingress Protection EN 60529			Further information							

EX-PROOF STARTERS AND INDICATORS

STARTERS FOR WORK IN EXPLOSIVE ATMOSPHERE WITH 1 BUTTON FOR SURFACE MOUNTING, IP65



TECHNICAL DATA

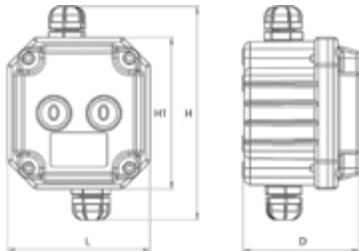
- Application: Zone 1, 2, 21, 22
- Rated voltage: 400V AC
- Rated current: 6A
- Terminals: for power conductors up to 2.5mm²
- Mounting: Surface
- IP Code: 65
- Marking
II 2 D Ex t IIIC T80°C IP65 Db
II 2 G Ex e II T6Gb



Catalogue number	Entry QTY	Button type	Dimensions (mm)				Packing/Box
			L	H	H1	D	
720001	1	1 start	100	128	106	82	1
720002	2	1 start	100	150	106	97	1
720003	1	1 stop	100	128	106	82	1
720004	2	1 stop	100	150	106	97	1
720005	1	1 key I-0	100	128	106	82	1
720006	2	1 key I-0	100	150	106	97	1



STARTERS FOR WORK IN EXPLOSIVE ATMOSPHERE WITH 2 BUTTONS FOR SURFACE MOUNTING, IP65



TECHNICAL DATA

- Application: Zone 1, 2, 21, 22
- Rated voltage: 400V AC
- Rated current: 6A
- Terminals: for power conductors up to 2.5mm²
- Mounting: Surface
- IP Code: 65
- Marking
II 2 D Ex t IIIC T80°C IP65 Db
II 2 G Ex e II T6Gb

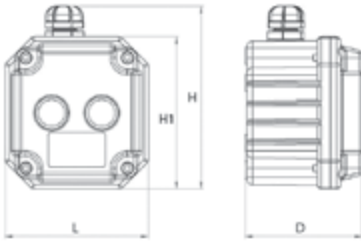


Catalogue number	Entry QTY	Button type	Dimensions (mm)				Packing/Box
			L	H	H1	D	
720009	1	2 start	100	128	106	82	1
720010	2	2 start	100	150	106	97	1
720011	1	2 stop	100	128	106	82	1
720012	2	2 stop	100	150	106	97	1
720013	1	1 start + 1 stop	100	128	106	82	1
720014	2	1 start + 1 stop	100	150	106	97	1



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

INDICATORS FOR WORK IN EXPLOSIVE ATMOSPHERE FOR SURFACE MOUNTING, IP65



TECHNICAL DATA

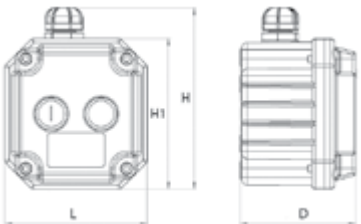
- Application: Zone 1, 2, 21, 22
- Rated voltage: 20 ÷ 30V AC/DC 170 ÷ 250 V AC 50 Hz
- Terminals: for power conductors up to 2.5mm²
- Mounting: Surface
- IP Code: 65
- Marking
- II 2 D Ex t IIIC T80°C IP65 Db
- II 2 G Ex e II T6Gb



Catalogue number	Entry QTY	Light type	Dimensions (mm)				Packing/Box
			L	H	H1	D	
720007R	1	1 red	100	128	106	82	1
720008R	2	1 red	100	150	106	97	1
720007G	1	1 green	100	128	106	82	1
720008G	2	1 green	100	150	106	97	1
720015RG	1	1 red+ 1 green	100	128	106	82	1
720016RG	2	1 red+ 1 green	100	150	106	97	1



STARTERS WITH INDICATORS FOR WORK IN EXPLOSIVE ATMOSPHERE FOR SURFACE MOUNTING, IP65



TECHNICAL DATA

- Application: Zone 1, 2, 21, 22
- Buttons rated voltage: 400V AC
- Indicators rated voltage: 20 ÷ 30V AC/DC 170 ÷ 250 V AC 50 Hz
- Button rated current: 6A
- Terminals: for power conductors up to 2.5mm²
- Mounting: Surface
- IP Code: 65
- Marking
- II 2 D Ex t IIIC T80°C IP65 Db
- II 2 G Ex e II T6Gb

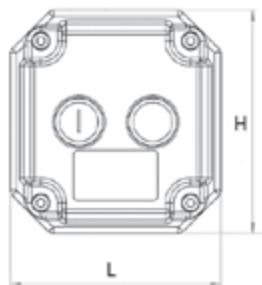


Catalogue number	Entry QTY	Button type	Light type	Dimensions (mm)				Packing/Box
				L	H	H1	D	
720017	1	1 start	1 green	100	128	106	82	1
720018	2	1 start	1 green	100	150	106	97	1
720019	1	1 stop	1 red	100	128	106	82	1
720020	2	1 stop	1 red	100	150	106	97	1



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

STARTERS AND INDICATORS FOR WORK IN EXPLOSIVE ATMOSPHERE FOR FLUSH MOUNTING, IP65



TECHNICAL DATA

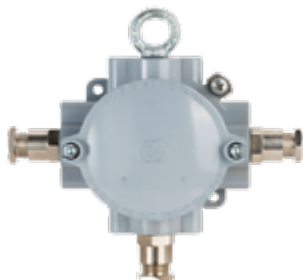
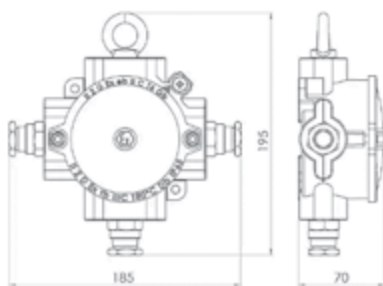
- Application: Zone 1, 2, 21, 22
- Buttons rated voltage: 400V AC
- Indicators rated voltage: 20 ÷ 30V AC/DC
- 170 ÷ 250 V AC 50 Hz
- Button rated current: 6A
- Terminals: for power conductors up to 2.5mm²
- Mounting: Surface
- IP Code: 65
- Marking
- II 2 D Ex t IIIC T80°C IP65 Db
- II 2 G Ex e II T6Gb

Catalogue number	Button type	Light type	Dimensions (mm)			Packing/Box
			L	H	D	
720030	1 start	Without	100	106	77	1
720031	1 stop	Without	100	106	77	1
720032	1 key I-0	Without	100	106	77	1
720033G	Without	1 green	100	106	77	1
720033R	Without	1 red	100	106	77	1
720034	2 start	Without	100	106	77	1
720035	2 stop	Without	100	106	77	1
720036	1 start + 1 stop	Without	100	106	77	1
720037RG	Without	1 red+ 1 green	100	106	77	1
720037G	Without	2 green	100	106	77	1
720037R	Without	2 red	100	106	77	1
720038	1 start	1 green	100	106	77	1
720039	1 stop	1 red	100	106	77	1



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

DISTRIBUTION BOXES FOR WORK IN EXPLOSIVE ATMOSPHERE FOR SURFACE AND HANGING MOUNTING, IP67



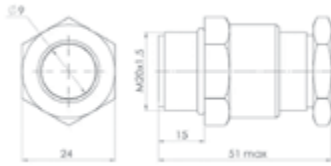
TECHNICAL DATA

- Application: Zone 1, 2, 21, 22
- Rated voltage: 400V AC
- Working temperature: -40~+80°C
- Terminals: for power conductors up to 2.5mm²
- Mounting: Surface/ Hanging
- IP Code: 67
- Material: Aluminum
- Colour: Grey
- Marking
- II 2D Ex t IIIC T80°C IP67 Db
- II 2G Ex e II T6 Gb

Catalogue number	Entry QTY	Entry size	Dimensions (mm)			Packing/Box
			L	H	D	
720050	3	3 x M20x1.5	185	195	70	1
720051	3	3 x M25x1.5	185	195	70	1
720052	4	4 x M20x1.5	185	195	70	1
720053	4	4 x M25x1.5	185	195	70	1
720054	3	3 x M20x1.5 + 1 hook	185	195	70	1
720055	3	3 x M25x1.5 + 1 hook	185	195	70	1
720056	3	3 x 3/4	185	195	70	1
720057	4	4 x 3/4	185	195	70	1
720058	3	2 x M20x1.5 + 1 x 3/4	185	195	70	1
720059	3	2 x M25x1.5 + 1 x 3/4	185	195	70	1
720060	4	3 x M20x1.5 + 1 x 3/4	185	195	70	1
720061	4	3 x M25x1.5 + 1 x 3/4	185	195	70	1



CABLE GLANDS FOR WORK IN EXPLOSIVE ATMOSPHERE, IP67



TECHNICAL DATA

- Application: Zone 1, 2, 20, 21, 22
- Working temperature: -40~+80°C
- IP Code: 67
- Material: Brass and rubber
- Marking

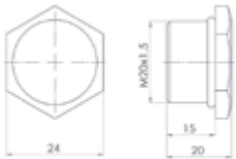
II 2D Ex t IIICT80°C IP67 Db
II 2G Ex e II T6 Gb



Catalogue number	Model	Cable outer diameter	Connecting thread	Dimensions (mm)			Packing/Box
				L	T	B	
720070	CENT S4	7.00- 8.50mm	M20x1.5	42	M20	15	1
720071	CENT S5	8.00- 10.00mm	M20x1.5	42	M20	15	1
720072	CENT S2	10.00- 12.00mm	M20x1.5	42	M20	15	1
720073	CENT S3	12.00- 15.00mm	M25x1.5	43.5	M25	15	1
720074	CENT S7	15.00- 17.00mm	M25x1.5	43.5	M25	15	1



EX-PROOF STOPPER FOR WORK IN EXPLOSIVE ATMOSPHERE, IP67



TECHNICAL DATA

- Application: Zone 1, 2, 20, 21, 22
- Working temperature: -40~+80°C
- IP Code: 67
- Material: Brass and rubber
- Marking

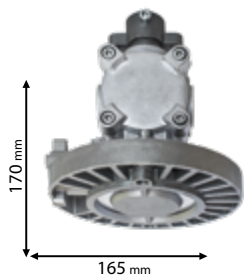
II 2D Ex t IIICT80°C IP67 Db
II 2G Ex e II T6 Gb



Catalogue number	Connecting thread	Dimensions (mm)		Packing/Box
		L	B	
720075	M20x1.5	20	15	1
720076	M25x1.5	20	15	1



EX-PROOF LIGHTING

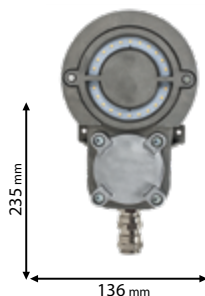


EX-PROOF CEILING & WALL LAMPS, IP67

720100

TECHNICAL DATA

- Type: Explosion Proof LED Ceiling Lamp
 - Application: Zone 1, 2, 21, 22
 - Power: 20W
 - Lumens: 2400lm
 - Efficiency: 120lm/W
 - LED Chip: SAMSUNG
 - CRI≥80
 - Lamp Class: I
 - Temperature operating range: from -40°C to + 45°C
 - Material: Aluminum & PC
 - IP Code: 67
- II 2G Ex Db mb IIB +H2 T6 Gb
II 2D Ex tb mb IIIC T85°C IP67 Db



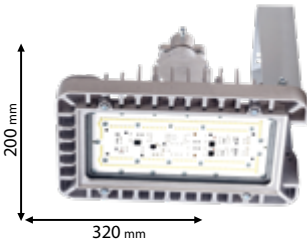
720105

TECHNICAL DATA

- Type: Explosion Proof LED Ceiling / Wall Lamp
 - Application: Zone 1, 2, 21, 22
 - Power: 20W
 - Lumens: 2000lm
 - Efficiency: 100lm/W
 - LED Chip: SAMSUNG
 - CRI≥80
 - Lamp Class: I
 - Temperature operating range: from -40°C to + 45°C
 - Material: Aluminum & PC
 - IP Code: 67
 - Width: 55 mm
- II 2G Ex Db mb IIB +H2 T6 Gb
II 2D Ex tb mb IIIC T85°C IP67 Db



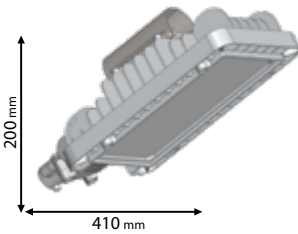
3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



720102

TECHNICAL DATA

- Type: Explosion Proof LED Ceiling Lamp
 - Application: Zone 1, 2, 21, 22
 - Power: 70W
 - Lumens: 6300lm
 - Efficiency: 90lm/W
 - LED Chip: SAMSUNG
 - CRI≥80
 - Lamp Class: I
 - Temperature operating range: from -40°C to + 45°C
 - Material: Aluminum & PC
 - IP Code: 67
 - Width: 470mm
- II 2G Ex Db mb IIB +H2 T6 Gb
II 2D Ex tb mb IIIC T85°C IP67 Db



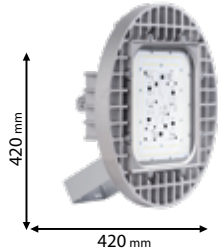
720103

TECHNICAL DATA

- Type: Explosion Proof LED Wall Lamp for Pipe 3/4
 - Application: Zone 1, 2, 21, 22
 - Power: 70W
 - Lumens: 6300lm
 - Efficiency: 90lm/W
 - LED Chip: SAMSUNG
 - CRI≥80
 - Lamp Class: I
 - Temperature operating range: from -40°C to + 45°C
 - Material: Aluminum & PC
 - IP Code: 67
 - Width: 470mm
- II 2G Ex Db mb IIB +H2 T6 Gb
II 2D Ex tb mb IIIC T85°C IP67 Db



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

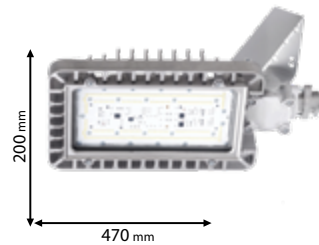


EX-PROOF HIGH BAY & CEILING/WALL LAMP, IP67

720104

TECHNICAL DATA

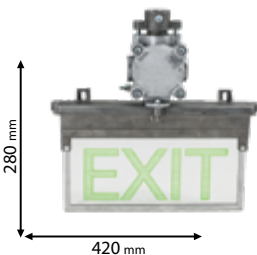
- Type: Explosion Proof LED High Bay
 - Application: Zone 1, 2, 21, 22
 - Power: 150W
 - Lumens: 13000lm
 - Efficiency: 87lm/W
 - LED Chip: SAMSUNG
 - CRI≥80
 - Lamp Class: I
 - Temperature operating range: from -40°C to + 40°C
 - Material: Aluminum & PC
 - Width: max.280 mm
 - IP Code: 65
- II 2G Ex Db mb IIB +H2 T6 Gb
II 2D Ex tb mb IIIC T85°C IP67 Db



720101

TECHNICAL DATA

- Type: Explosion Proof LED Wall Lamp
 - Application: Zone 1, 2, 21, 22
 - Power: 70W
 - Lumens: 6500lm
 - Efficiency: 93lm/W
 - LED Chip: SAMSUNG
 - CRI≥85
 - Lamp Class: I
 - Temperature operating range: from -40°C to + 45°C
 - Material: Aluminum & PC
 - IP Code: 67
- II 2G Ex Db mb IIB +H2 T6 Gb
II 2D Ex tb mb IIIC T85°C IP67 Db



EMERGENCY EX-PROOF LAMP, IP67

720106

TECHNICAL DATA

- Type: Explosion Proof LED EXIT Light
 - Application: Zone 1, 2, 21, 22
 - Battery: 3,6V, 60mAh, Ni-Cd
 - Emergency Work Time: 3h
 - CRI≥80≥6.5cd/m²
 - Lamp Class: I
 - Temperature operating range: from -40°C to + 50°C
 - Material: Aluminum & PC
 - IP Code: 65
- II 2G Ex Db mb IIB +H2 T6 Gb
II 2D Ex tb mb IIIC T85°C IP67 Db



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CABLE REELS & CABLES

- CABLE REELS
- MULTI-PLUGS AND ACCESSORIES
- OUTSIDE POWER CABLES
- INSIDE POWER CABLES
- INSTALLATION CONDUCTORS
- CABLES WITH RUBBER INSULATION
- COMMUNICATION CABLES



CABLE REELS



CABLE REEL WITH THERMAL PROTECTION - MAK - 2A

Catalogue number	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47911	H05VV-F	3 x 1.5mm ²	10	4



CABLE REEL WITH THERMAL PROTECTION - MAK - 3

Catalogue number	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47921	H05VV-F	3 x 1.5mm ²	20	4



CABLE REEL WITH THERMAL PROTECTION - MAK - 4

Catalogue number	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47927	H05VV-F	3 x 1.5mm ²	25	2
47940	H05VV-F	3 x 1.5mm ²	40	1
47950	H05VV-F	3 x 1.5mm ²	50	2



CABLE REEL - HJR TYPE, IP 44

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47960	HJR - 10AP	H07RN-F	3 x 1.5mm ²	25	2



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended





CABLE REEL - HJR TYPE, IP 44

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47959	HJR - 10P	H07RN-F	3 x 1.5mm ²	50	1



CABLE REEL - GEH TYPE, IP 44

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47961	GEH-39	H07RN-F	3 x 1.5mm ²	27+3	1



CABLE REEL - GEH TYPE, IP 44

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47962	GEH-40	H07RN-F	3 x 1.5mm ²	47+3	1



EMPTY CABLE REEL 029A

Catalogue number	Suitable for cable type	Outlets	Packing / Box (pcs)
47910	H05VV-F 3G1.5mm ² - max 40m/ 3G1.0mm ² - max 50m	4 socket 16A/230V	1



MULTI-PLUGS



DESKTOP MULTI-PLUGS WITH 3 GERMAN + 2 USB SOCKETS + ON/OFF KEY, SET

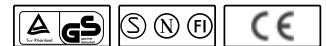
- Rated voltage: 230V AC
- Rated current: 16A
- Material: Aluminum alloy + PC
- Cable type: 3G1.5mm²
- Cable length: 2 meters
- USB Output: 2x5V/2.1A



Catalogue number	Colour	Functional part colour	Length (mm)	Diameter (mm)	Cut size (mm)	Packing / Box (pcs)
47006	Silver	Black	367	60	61	1/20



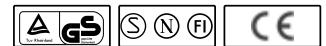
THREE WAY CLIP MULTI-PLUG



Catalogue number	Cable type	Cable specification	Cable length (m)	Colour	Material
47003	H05VV-F	3 x 1.0mm ²	1.5m	White & Grey	PP+ABS



EXTENSION CORDS



Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Cable colour
47333	Extension cord	H05VV-F	3G1.5mm ²	10	Orange
47334	Extension cord	H05VV-F	3G1.5mm ²	15	Orange



POWER CABLE

Catalogue number	Cable type	Cable specification	Cable length (m)	Cable colour
47001	H05VV-F	3G1.5mm ²	2	White



Note: Warranty not available.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

MULTI-PLUG 3 HOLES WITH KEY



Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47332	3 holes	H05VV-F	3G1.5mm ²	2	1/40



MULTI-PLUGS 4 HOLES WITH KEY



Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47332	4 holes	H05VV-F	3G1.5mm ²	2	1/40



MULTI-PLUG 6 HOLES WITH KEY



Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47632	6 holes	H05VV-F	3G1.5mm ²	2	1/25



MULTI-PLUG 8 HOLES WITH KEY



Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)
47732	8 holes	H05VV-F	3G1.5mm ²	2	1/25



MULTIPLUG - HX-3N TYPE



Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)
47031	HX-3N	H05VV-F	3 x 1.0mm ²	1.5m	40
47080	HX-3N	H05VV-F	3 x 1.5mm ²	3.0m	5 / 40
47081	HX-3N	H05VV-F	3 x 1.5mm ²	5.0m	5 / 40



Max.3500W,16/250~

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



MULTIPLUG - HX-4N TYPE

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)
47041	HX-4N	H05VV-F	3 x 1.0mm ²	1.5m	50
47082	HX-4N	H05VV-F	3 x 1.5mm ²	3.0m	30
47083	HX-4N	H05VV-F	3 x 1.5mm ²	5.0m	25



Max.3500W,16/250~



MULTIPLUG - HX-6N TYPE

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)
47061	HX-6N	H05VV-F	3 x 1.0mm ²	1.5m	50
47063	HX-6N	H05VV-F	3 x 1.5mm ²	3.0m	40
47065	HX-6N	H05VV-F	3 x 1.5mm ²	5.0m	40



Max.3500W,16/250~



MULTIPLUG WITH KEY HKX-3N TYPE

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)
47131	HKX-3N	H05VV-F	3 x 1.0mm ²	1.5m	5/40
47133	HKX-3N	H05VV-F	3 x 1.5mm ²	3.0m	5/30
47135	HKX-3N	H05VV-F	3 x 1.5mm ²	5.0m	5/25



Max.3500W,16/250~



MULTIPLUG WITH KEY HKX-4N TYPE

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)
47142	HKX-4N	H05VV-F	3 x 1.0mm ²	1.5m	5/40
47143	HKX-4N	H05VV-F	3 x 1.5mm ²	3.0m	5/30
47145	HKX-4N	H05VV-F	3 x 1.5mm ²	5.0m	5/25



Max.3500W,16/250~



MULTIPLUG WITH KEY HKX-6N TYPE

Catalogue number	Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)
47162	HKX-6N	H05VV-F	3 x 1.0mm ²	1.5m	5 / 40
47163	HKX-6N	H05VV-F	3 x 1.5mm ²	3.0m	5 / 30
47165	HKX-6N	H05VV-F	3 x 1.5mm ²	5.0m	5 / 25



Max.3500W,16/250~

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended





ADAPTERS - DOUBLE | WHITE



Catalogue number	Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)
192213	Adapter double	White	16	3500	50
192211	Adapter double with key	White	16	3500	50



ADAPTERS - TRIPLE | WHITE



Catalogue number	Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)
192209	Adapter triple	White	16	3500	40
192207	Adapter triple with key	White	16	3500	40



ADAPTERS - DOUBLE | GRAPHITE



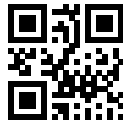
Catalogue number	Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)
192212	Adapter double	Graphite	16	3500	50
192210	Adapter double with key	Graphite	16	3500	50





ADAPTERS - TRIPLE | GRAPHITE

Catalogue number	Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)
192208	Adapter triple	Graphite	16	3500	40
192206	Adapter triple with key	Graphite	16	3500	40



MULTI-SOCKET

Catalogue number	Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)
192216	Multi-socket double	Black	16	3500	60
192217	Multi-socket double	White	16	3500	60
192218	Multi-socket triple	Black	16	3500	60
192219	Multi-socket triple	White	16	3500	60



RUBBER FEMALE TRIPLE SOCKET

Catalogue number	Type	Rated current in (A)	Colour	Poles	Packing (pcs)
192140/BL	Tripple socket	16A	Black	1P+N+E	1/10/60



RUBBER MULTI-SOCKET

Catalogue number	Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)
192120/WH	Multi-socket triple	White	16	3500	20
192120/BL	Multi-socket triple	Black	16	3500	20





RUBBER SCHUKO SOCKETS

Catalogue number	Type	Colour	Rated current In (A)	Material	Packing (pcs)
192119/WH	Socket	White	16	Rubber	25
192119/BL	Socket	Black	16	Rubber	25



RUBBER FEMALE SOCKET PLUG

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192136/BL	Rubber socket plug	16A	Black	2P+E	1/30/180



RUBBER SCHUKO PLUG

Catalogue number	Type	Rated current In (A)	Colour	Material	Packing (pcs)
192118/WH	Plug	16	White	Rubber	25
192118/BL	Plug	16	Black	Rubber	25
192118/R	Plug	16	Red	Rubber	25



RUBBER MALE SCHUKO PLUG

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192135/BL	Rubber plug	16A	Black	2P+E	1/50/300





FEMALE PLUG

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192128/WH	Female plug	16	White	1P+N+E	1/50/300



MALE PLUG WITH LIGHTED BUTTON

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192127/WH	Male plug with button	16	White	1P+N+E	1/40/240



ANGLE SCHUKO PLUG

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192129/WH	L- type plug	16	White	1P+N+E	1/50/300
192129/BL	L- type plug	16	Black	1P+N+E	1/50/300



MALE SCHUKO PLUG

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192130/WH	Male plug	16	White	1P+N+E	1/50/300



MALE SCHUKO PLUG WITH HANDLE

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192131/WH	Plug with handle	16	White	1P+N+E	1/50/300
192132/BL	Plug with handle	16	Black	1P+N+E	1/50/300





BRITISH ADAPTER

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192125/WH	British Adapter	16	White	1P+N+E	1/50/300



UNIVERSAL PLUG ADAPTER

Catalogue number	Type	Rated current In (A)	Colour	Poles	Packing (pcs)
192126/WH	Universal Adapter	16	White	1P+N+E	1/40/240



PLUG BAKELITE

Catalogue number	Type	Rated current In (A)	Colour	Material	Packing (pcs)
19211102	Plug	16	White	Bakelite	80
19211101	Plug	16	Black	Bakelite	80



TWO PIN PLUG

Catalogue number	Type	Rated current In (A)	Colour	Material	Packing (pcs)
192116/WH	Plug	6	White	PP	100
192116/BL	Plug	6	Black	PP	100



TWO PIN PLUG WITH EXTRACTION RING

Catalogue number	Type	Rated current In (A)	Colour	Material	Packing (pcs)
192115/WH	Plug	10	White	PC	1/500
192115/BL	Plug	10	Black	PC	1/500





TWO POLE SOCKET WITH HOOK

Catalogue number	Type	Rated current In (A)	Colour	Material	Packing (pcs)
192123/BL	Socket	10	Black	PC	1/500
192123/WH	Socket	10	White	PC	1/500



BRITISH PLUG

Catalogue number	Type	Rated current In (A)	Colour	Material	Packing (pcs)
192114	British plug	13	White	PMMA	1/20



FOOT SWITCH

Catalogue number	Type	Rated current In (A)	Colour	Material	Packing (pcs)
192124/WH	Switch	10	White	PC	1/100



INTERMEDIATE SWITCH

Catalogue number	Type	Voltage (V)	Rated current In (A)	Colour	Packing (pcs)
192001/WH	IS-W	250	6	White	1
192001/BL	IS-B	250	6	Black	1



INTERMEDIATE SWITCH WITH CABLE

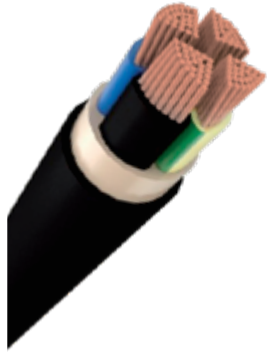
Catalogue number	Cable type	Cable length (m)	Colour	Packing (pcs)
47007/WH	H03VV-F 2G0,50mm ²	3	White	1/180
47007/BL	H03VV-F 2G0,50mm ²	3	Black	1/180



OUTSIDE POWER CABLES

Standards:

DIN VDE 0293-308 - Colour coded acc
DIN VDE 0276 part 603 or HD 186
DIN VDE 0295 - Wire class acc



NY Y

Power cable, Cu-conductor, PVC-insulation, PVC-sheathing



Power cable for construction of underground distribution grids and installations of industrial and public projects, where mechanical damages are not to be expected. Suitable for transmission and distribution of electric power at nominal voltage U_0/U_1 0,6/1 kV.

TECHNICAL DATA

- Power cable acc. to DIN VDE 0276 part 603
- Ambient temperature
- Fixed installation: -30°C to +50°C
- Temperature of laying: min. -5°C
- Max. operating temperature: +70°C
- Short circuit temperature: +160°C
- Short circuit duration up to 5 sec.
- Nominal voltage U_0/U_1 0,6/1 kV
- Test voltage: AC-4 kV/50 Hz

CONSTRUCTION

- Solid or stranded Cu wires cl. 1 or cl. 2 acc. to DIN VDE 0295
- Insulation: PVC compound
- Inner sheath: filling compound
- Outer sheath: PVC compound
- Outer sheath colour: black
- **re** - round solid
- **rm** - round multi-core
- **sm** - sector multi-core
- **se** - sector solid conductor

Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
833019	2x1.5	re	Black	12.2	28	192	100
833020	2x2.5	re	Black	12.9	46	229	100
833021	2x4	re	Black	14.9	75	315	100
833022	2x6	re	Black	15.9	112	382	100
833023	2x10	rm	Black	17.5	188	509	1
833024	2x16	rm	Black	19.4	298	676	1



Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
833030	3x1.5	re	Black	12.1	43	201	100
833031	3x2.5	re	Black	12.9	70	247	100
833032	3x4	re	Black	15	112	350	100
833034	3x6	re	Black	16.1	168	435	100
833036	3x10	rm	Black	18	282	606	1
833038	3x16	rm	Black	20.1	447	828	1



Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
833060	4x1.5	re	Black	12.9	57	232	100
833061	4x2.5	re	Black	13.8	93	289	100
833062	4x4	re	Black	16.2	149	419	100
833063	4x6	re	Black	17.4	223	525	100
833064	4x10	rm	Black	19.5	376	741	1
833065	4x16	rm	Black	21.8	595	1024	1



Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
833077	5x1.5	re	Black	13.7	71	272	100
833078	5x2.5	re	Black	14.8	116	341	100
833079	5x4	re	Black	17.4	187	494	100
833080	5x6	re	Black	19	279	635	100
833081	5x10	rm	Black	21.6	470	911	1
833082	5x16	rm	Black	24.1	744	1262	1



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

Standards:

BDS 904-84 - according to construction
IEC60332-1- according to flame retardant



CBT-C

Power cable with solid or stranded Cu wires, PVC insulation and sheathing



A cable with solid or stranded CU wires, resistant to the sun radiance and atmospheric influences. It is suitable for spread and transfer of electrical energy if it is installed steady outside or in indoor spaces cable trunking, electrical cable conduit, cable trays, directly into tunnels, earthworks, pits and etc.

TECHNICAL DATA

- Nominal voltage U₀- 0.6kV
- Nominal voltage U- 1kV
- Ambient temperature- from -30°C to +50°C
- Max. operating temperature- +70C°
- Temperature of laying- ≥-5°C
- Conductor material- Copper (Cu)
- Conductors insulation - PVC compound
- Outer stealth material-filling sheath and PVC compound

CONSTRUCTION

- Solid or stranded CU wires, class 1 or class 2
- **re** - round solid
- **rm** - round multi-core
- **sm** - sector multi-core
- **se** - sector solid conductor



Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
817020	2X1	re	Black	9.5	20	100	100
817021	2X1.5	re	Black	10.0	28	120	100
817022	2X2.5	re	Black	10.6	46	150	100
817023	2X4	re	Black	12.5	73	210	100
817024	2X6	re	Black	13.3	110	260	100
817025	2X10	re	Black	15.2	182	370	1
817026	2X16	rm	Black	18	305	560	1



Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
817036	3X1	re	Black	9.7	28	120	100
817037	3X1.5	re	Black	10.2	42	140	100
817039	3X2.5	re	Black	11.0	69	180	100
817041	3X4	re	Black	13.0	110	260	100
817043	3X6	re	Black	14.0	165	340	100
817045	3X10	re	Black	16.0	275	480	1
817047	3X16	rm	Black	19.5	450	695	1



Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
817067	4X1	re	Black	10.4	37	140	100
817068	4X1.5	re	Black	11.0	55	165	100
817069	4X2.5	re	Black	11.9	91	215	100
817070	4X4	re	Black	14.1	146	315	100
817071	4X6	re	Black	15.4	220	410	100
817072	4X10	re	Black	17.4	365	595	1
817073	4X16	rm	Black	20.6	585	950	1



Catalogue number	Cross section (n x mm ²)	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
817083	5X1	re	Black	11.2	45	160	100
817084	5X1.5	re	Black	11.8	69	195	100
817085	5X2.5	re	Black	12.8	114	260	100
817086	5X4	re	Black	15.5	182	380	100
817087	5X6	re	Black	16.8	275	500	100
817088	5x10	re	Black	19,2	455	735	1
817089	5x16	re	Black	23,2	745	1150	1

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

INSIDE POWER CABLES

Standards:

Flat conductor acc. to BDS IEC 60227-5
Flexible Cu-wires, cl. 6 acc. to IEC 60228



H03VH-H

Flat conductor, flexible Cu-wires, PVC-insulation

ШВПЛ-А; PL; H03VH-H; P/L; H03VH-H; H03VH-H; H03VH-H; RVV; H03VH-H

Designed for connection of electrical appliances to the electrical grid, for connection of mobile users, devices and appliances.

TECHNICAL DATA

- Ambient temperature: -40°C to +50°C
- Max. operating temperature: +70°C
- Nominal voltage U₀/U: 300/300 V
- Test voltage: 2000 V

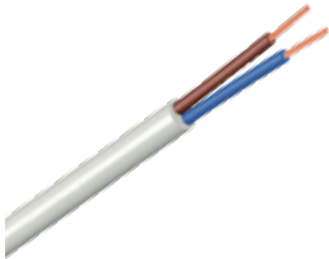
CONSTRUCTION

- Flexible Cu-wires, cl. 6 acc. to IEC 60228
- Flat conductor acc. to BDS IEC 60227-5
- Insulation: PVC compound
- Insulation colour: white or black-red

Catalogue number	Cross section (n x mm ²)	Colour	Thickness (mm)	Width (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
820001	2x0.50	White or Black-Red	6.0	3.0	9	25	100
820002	2x0.75	White or Black-Red	6.4	3.2	14	30	100
820017	2x1	White or Black-Red	6.8	3.4	19.2	31	100
820018	2x1.50	White or Black-Red	7.6	4.0	28.8	38	100

Standards:

Conductor acc. to HD 21,5 S3
Flexible Cu-wires, cl. 5 acc. to IEC 60228



H03VV-F

Conductor with flexible Cu-wires, PVC insulation and sheath

ШВПЛ-Б; PP/L; PP/L; PP/L; H03VV-F; H03VV-F; MYYP; H03VV-F; H03VV-F

Conductor with parallel or stranded in a bundle insulated cores, designed for connection of electrical appliances to the electrical grid, for connection of mobile users, devices and appliances.

TECHNICAL DATA

- Variant of the conductor: H03VVH2-F - flat type
- Ambient temperature: -30°C to +50°C
- Max. operating temperature: +70°C
- Nominal voltage U₀/U: 300/300 V
- Test voltage: 2000 V

CONSTRUCTION

- Flexible Cu-wires, cl. 5 acc. to IEC 60228
- Insulation: PVC compound
- Sheafing: PVC compound
- Outer sheath colour: white

Catalogue number	Type (flat)	Cross section (n x mm ²)	Colour	Thickness (mm)	Width (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
820004	H03VVH2-F	2x0,5	White	6.0	3,6	10,0	30	100
820006	H03VVH2-F	2x0,75	White	6.4	3,9	14,5	39	100



Catalogue number	Type (round)	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
820003	H03VV-F	2X0,5	White	9.5	100	25	100
820007	H03VV-F	3X0.5	White	10.0	120	30	100

Standards:

Flexible cable acc. to HD 21.5 S3,
DIN VDE 0281 part 5
Flexible Cu-wires, cl. 5 acc. to
DIN VDE 0295, IEC 60228
Colour coding: acc. to DIN VDE 0293-308



H05VV-F

Conductor with flexible Cu-wires, PVC insulation and sheath



Conductor with parallel or stranded in a bundle insulated cores, designed for connection of electrical appliances to the electric grid, for connection of mobile users, devices and appliances.

TECHNICAL DATA

- Variant of the conductor: H05VVH2-F - flat type
- Ambient temperature: -30°C to +50°C
- Max. operating temperature: +70°C
- Nominal voltage U₀/U: 300/500 V
- Test voltage: 2000 V

CONSTRUCTION

- Flexible Cu-wires, cl. 5 acc. to DIN VDE 0295, IEC 60228
- Insulation/outer sheath: PVC compound;
- Outer sheath colour: white



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
821001	2 x 0.75	White	7.6	14.0	62	100
821002	2 x 1	White	8.0	19.5	71	100
821003	2 x 1.5	White	9.0	28.0	94	100
821004	2 x 2.5	White	11.0	47.0	114	100
821005	2 X 4	White	12.0	75.0	197	100



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
821008	3 x 0.75	White	8.0	21.5	74	100
821009	3 x 1	White	8.4	29.0	85	100
821010	3 x 1.5	White	9.8	42.0	120	100
821011	3 x 2.5	White	12.0	70.0	182	100
821012	3 x 4	White	13.0	114.0	252	100



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
821016	4 x 0.75	White	8.6	29.0	92	100
821017	4 x 1	White	9.4	38.5	109	100
821018	4 x 1.5	White	11.0	56.0	151	100
821019	4 x 2.5	White	13.0	93.5	225	100
821020	4 x 4	White	14.0	151.0	315	100



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
821024	5 x 0.75	White	9.6	36.0	115	100
821025	5 x 1	White	10.0	48.0	132	100
821026	5 x 1.5	White	12.0	70.0	188	100
821027	5 x 2.5	White	14.0	117.0	280	100
821028	5 X 4	White	15.5	189.0	395	100

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

INSTALLATION CONDUCTORS

Standards:

Conductor acc. to HD 21.3 S3, DIN VDE 0281 part 3
Solid Cu wires cl. 1 acc. to DIN VDE 0295, IEC 60228



H05V-U, H07V-U

Conductor, Cu-wires, PVC-insulation



For fixed installation in lighting networks, electric power installations, wiring of electrical switchboards, machines and equipment.

TECHNICAL DATA

- Ambient temperature: -30°C to +50°C
- Temperature of laying: min. -5°C
- Max. operating temperature: +70°C
- Nominal voltage U₀/U:
 - H05V-U 300/500 V
 - H07V-U 450/750 V
- Test voltage:
 - H05V-U 2000 V
 - H07V-U 2500 V

CONSTRUCTION

- Solid Cu wires cl. 1 acc. to DIN VDE 0295, IEC 60228
- Insulation: PVC compound
- Insulation colour:
 - Blue: available cross sections up to 10 mm²
 - Red: available cross sections up to 10 mm²
 - Black: available cross sections up to 10 mm²
 - White: available cross sections up to 4 mm²
 - Yellow-Green: available cross sections up to 10 mm²
 - Brown: available cross sections up to 10 mm²



Catalogue number	Type	Cross section (n x mm ²)	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
822001	H05V-U	0.5	2.4	4.5	9	100
822002	H05V-U	0.75	2.6	7.0	12	100
822003	H05V-U	1	2.8	9.0	15	100

Note: At orders of the desired colour, must be added after the catalogue number:
BL – blue; R – red; B – black; W – white; YG – yellow green; BR – brown



Catalogue number	Type	Cross section (n x mm ²)	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
822004	H07V-U	1.5	3.3	13.5	21	100
822005	H07V-U	2.5	3.9	22.0	33	100
822006	H07V-U	4	4.4	35.0	48	100
822007	H07V-U	6	4.6	52.5	68	100
822008	H07V-U	10	6.4	87.5	113	100

Note: At orders of the desired colour, must be added after the catalogue number:
BL – blue; R – red; B – black; W – white; YG – yellow green; BR – brown

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

Standards:

PVC conductor acc. to HD 21.3 S3,
DIN VDE 0281 part 3
Flexible Cu wires cl. 5 acc. to DIN VDE
0295, IEC 60228



H05V-K, H07V-K

Conductor, Cu-wires, PVC-insulation



For fixed installation wiring of electrical switchboards, machines and equipment, where small bending radius is required.

TECHNICAL DATA

- Ambient temperature: -30°C to +50°C
- Temperature of laying: min. -5°C
- Max. operating temperature: +70°C
- Nominal voltage U₀/U:
 - H05V-K 300/500 V
 - H07V-K 450/750 V
- Test voltage:
 - H05V-K 2000 V
 - H07V-K 2500 V

CONSTRUCTION

- Flexible Cu wires cl. 5 acc. to DIN VDE 0295, IEC 60228
- Insulation: PVC compound
- Insulation colour:
 - Blue: available cross sections up to 25 mm²
 - Red: available cross sections up to 25 mm²
 - Black: available cross sections up to 25 mm²
 - White: available cross sections up to 4 mm²
 - Yellow-Green: available cross sections up to 25 mm²
 - Brown: available cross sections up to 10 mm²



Catalogue number	Type	Cross section (n x mm ²)	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
823002	H05V-K	0.5	2.6	5.0	10	100
823003	H05V-K	0.75	2.8	7.0	13	100
823004	H05V-K	1	3.0	9.5	16	100

Note: At orders of the desires colour, must be added after the catalogue number:
BL – blue; R – red; B - black; W- white; YG- yellow green; BR- brown



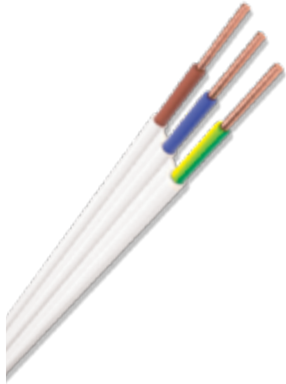
Catalogue number	Type	Cross section (n x mm ²)	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
823005	H07V-K	1.5	3.5	14.0	23	100
823006	H07V-K	2.5	4.2	23.0	36	100
823007	H07V-K	4	4.8	36.5	52	100
823008	H07V-K	6	6.3	57.0	74	100
823009	H07V-K	10	7.6	96.0	131	100
823010	H07V-K	16	8.8	151.0	195	100
823011	H07V-K	25	11.0	235.0	300	100

Note: At orders of the desires colour, must be added after the catalogue number:
BL – blue; R – red; B - black; W- white; YG- yellow green; BR- brown

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

Standards:

Flat conductor acc. to BDS 4305-90
Solid Cu wires cl. 1 acc. to BDS 904-84



NYIFY-O/J

Flat installation conductor, Cu-wires, PVC-insulation, PVC-sheath



Installation conductor with parallel Cu-wires for fixed installation in lighting networks and electric power installations.

TECHNICAL DATA

- Ambient temperature: -30°C to +50°C
- Temperature of laying: min. -5°C
- Max. operating temperature: +70°C
- Nominal voltage U₀/U: 220/380 V
- Test voltage: 2000 V

CONSTRUCTION

- Solid Cu wires cl. 1 acc. to BDS 904-84
- Insulation: PVC compound
- Sheath: PVC compound
- Outer sheath colour: white



Catalogue number	Cross section (n x mm ²)	Colour	Conductor Thickness (mm)	Conductor Width (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
834001	2x1	White	3.70	10.30	17.9	55	100
834002	2x1.5	White	4.10	11.20	26.6	65	100
834003	2x2.5	White	5.00	12.90	44.3	97	100
834004	2x4	White	5.60	14.20	70.6	135	100
834005	2x6	White	6.50	16.00	104.4	190	100

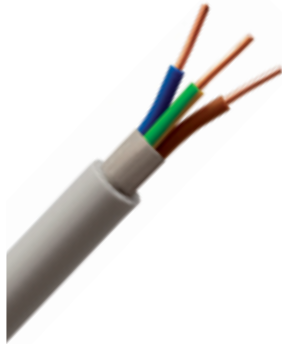


Catalogue number	Cross section (n x mm ²)	Colour	Conductor Thickness (mm)	Conductor Width (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
834007	3x1	White	3.70	14.00	26.8	73	100
834008	3x1.5	White	4.10	15.30	39.8	95	100
834009	3x2.5	White	5.00	16.90	66.4	142	100
834010	3x4	White	5.60	19.80	104.2	200	100
834011	3x6	White	6.50	22.50	156.5	280	100

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

Standards:

DIN VDE 0295; IEC 60228- according to construction DIN VDE 0250-204- according to multi-core conductors IEC60332-1- according to flame retardant



NYM

Multi-core conductor with Cu wires and PVC insulation



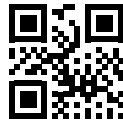
For fixed installations, or on under plasterboard, in lighting networks in dry places. Can be used in damp or wet rooms, in wall and concrete, in switchboards and machines. Is suitable for outdoor use if cable is protected against direct sunshine.

TECHNICAL DATA

- Nominal voltage: Uo- 300V; U- 500V
- Ambient temperature- from -20°C to +50°C
- Max. operating temperature- +70C°
- Installation temperature- ≥-5°C
- Conductor material- Copper (Cu)
- Conductors insulation - PVC compound
- Outer sheath material - filling sheath and PVC compound

CONSTRUCTION

- Solid CU wires, class 1 and class 2 for cross section above 10mm²



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Total weight (kg/km)	Packing (m)
832008	2x1.5	Grey	8.8	120	100
832009	2x2.5	Grey	10.0	160	100
832010	2x4	Grey	11.0	220	100
832011	2X6	Grey	12.0	250	100
832012	2x10	Grey	15.0	420	1



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Total weight (kg/km)	Packing (m)
832016	3x1.5	Grey	9.2	136	100
832017	3x2.5	Grey	10.5	190	100
832018	3x4	Grey	11.5	260	100
832019	3X6	Grey	13.0	330	100
832020	3x10	Grey	16.5	520	1



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Total weight (kg/km)	Packing (m)
832023	4x1.5	Grey	10.0	160	100
832024	4x2.5	Grey	11.3	230	100



Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Total weight (kg/km)	Packing (m)
832031	5x1.5	Grey	11.0	190	100
832032	5x2.5	Grey	12.0	270	100

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

CABLES WITH RUBBER INSULATION

Standards:

DIN VDE 0295; IEC 60228- according to construction DIN VDE 0293-308 and HD 186- according to colour coating DIN VDE 0482-332-1-2; IEC60332-1-according to flame retardant



H05RR-F

Rubber flexible cable



For connection of electrical appliances and consumers with low and middle mechanical stress to Alternating Current (AC). It has wide use in household, office, for cable reels, for connecting of mobile consumers and etc.

TECHNICAL DATA

- Nominal voltage U_0/U : 300V/500V
- Ambient temperature: from -30°C to +60°C
- Conductor material: Copper (Cu) wires, class 5
- Conductors insulation: Rubber EPR
- Outer sheath material: Rubber EPR



Catalogue number	Cross section (n x mm ²)	Type	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
814002	2X1	H05RR-F	Black	6.1 - 8.0	19.0	71.0	100
814003	2X1.5	H05RR-F	Black	7.6 - 9.8	29.0	99.0	100
814004	2X2.5	H05RR-F	Black	9.0 - 11.6	48.0	148.0	100



Catalogue number	Cross section (n x mm ²)	Type	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
814007	3X1	H05RR-F	Black	6.5 - 8.5	29.0	88.0	100
814008	3X1.5	H05RR-F	Black	8.0 - 10.4	43.0	125.0	100
814009	3X2.5	H05RR-F	Black	9.6 - 12.4	72.0	175.0	100
814010	3X4	H05RR-F	Black	11.3 - 14.5	115.0	246.0	100



Catalogue number	Cross section (n x mm ²)	Type	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
814012	4X1	H05RR-F	Black	9.0 - 11.6	58.0	165.0	100
814013	4X1.5	H05RR-F	Black	9.0 - 11.6	58.0	165.0	100
814014	4X2.5	H05RR-F	Black	10.7 - 13.8	96.0	225.0	100
814015	4X4	H05RR-F	Black	12.7 - 16.2	154.0	315.0	100
814017	4X6	H05RR-F	Black	14.2 - 18.1	231.0	440.0	100

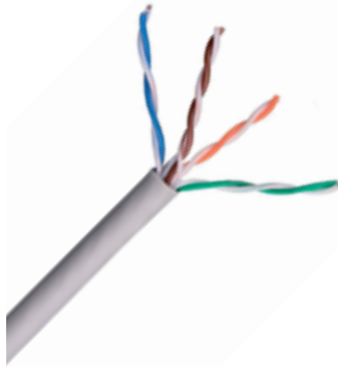


Catalogue number	Cross section (n x mm ²)	Type	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)
814020	5X1.5	H05RR-F	Black	9.8 - 12.7	72.0	185.0	100
814021	5X2.5	H05RR-F	Black	11.9 - 15.3	120.0	275.0	100
814022	5x4	H05RR-F	Black	15,6-19,9	187	475	100
814023	5x6	H05RR-F	Black	17.5-22.2	288	635	100

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

COMMUNICATION CABLES

Construction:
CCA-wires - 4x2x0.24
CU-wires - 4x2x0.24



UTP

LAN cable, stranded in pairs, cat. 5e



Cable, stranded by pairs, used for transmission of digital signals with high speed of transmission. Suitable for setting computer systems for data transmission, measuring and control systems with proper resistance to electromagnetic influences.

TECHNICAL DATA

- Ambient temperature: -30°C to +50°C
- Temperature of laying: min. 0°C
- Characteristic Impedance: 100 Ω ± 15 Ω
- Loop resistance: ≤ 192 0/ km
- Unbalance of loop resistance: ≤ 3%
- Insulation resistance: ≥ 150 MΩ x km
- Operating capacity: ≤ 55,8 nF/km
- Cable diameter: 5 mm
- Cable weight: 27 kg/km

CONSTRUCTION

- 879002 - CCA-wires - 24 AWG; 0,51 mm, acc. to IEC 60228
- 879017 - CU wires - 24 AWG; 0,51 mm, acc. to IEC 60228
- Insulation: PE compound
- Cable bundle: 4 stranded pairs
- Outer sheath: PVC compound or LSOH compound
- Outer sheath colour: for PVC- grey

Insulation colour of stranded pairs- core a/ core b: • white with blue ring/blue; • white with orange ring/orange; • white with green ring/green; • white with brown ring/brown.



Catalogue number	Material	Category	Frequency - MHz	Characteristic of attenuation						Packing (m)
				4	10	16	62.5	100	125	
879002	CCA	Cat. 5e	Attenuation- db/100 m	4.1	6.5	8.2	17	22	24.9	305
			Attenuation (Next)- db	56.3	50.3	47.3	38.4	35.3	33.9	
879017	CU	Cat. 5e	Attenuation (Next)- db	56.3	50.3	47.3	38.4	35.3	33.9	305

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

Construction:
CCA-wires - 4x2x0.24



FTP

LAN cable, stranded in pairs, with screen, cat. 5e



Cable, stranded in pairs, with screen of laminated foil, used for transmission of digital signals with high speed of transmission. FTP cable is suitable for setting computer systems for data transmission, measuring and control systems and for transmission of high-frequency analogue signals in automatic and industrial TV networks. High resistance to electromagnetic influences.

TECHNICAL DATA

- Ambient temperature: -30°C to +50°C
- Temperature of laying: min. 0°C
- Characteristic Impedance: 100 Ω ± 15 Ω
- Loop resistance: ≤ 192 0/ km
- Unbalance of loop resistance: ≤ 3%
- Insulation resistance: ≥ 150 MΩ x km
- Operating capacity: ≤ 55,8 nF/km
- Cable diameter: 6 mm
- Cable weight: 31 kg/km

CONSTRUCTION

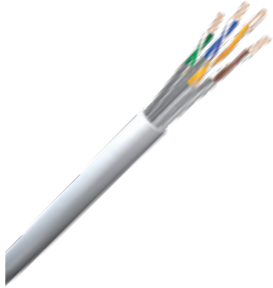
- 879001 - CCA-wires - 24 AWG; 0,51 mm, acc. to IEC 60228
- Insulation: PE compound
- Cable bundle: 4 stranded pairs
- PETP foil
- Screen: laminated Al foil
- Outer sheath: PVC compound or LSOH compound
- Outer sheath colour tor PVC- grey

Insulation colour of stranded pairs- core a/ core b: • white with blue ring/blue; • white with orange ring/orange; • white with green ring/green; • white with brown ring/brown.



Catalogue number	Material	Category	Frequency - MHz	Characteristic of attenuation						Packing (m)
				4	10	16	62,5	100	125	
879001	CCA	Cat. 5e	Attenuation - db/100 m	4.1	6.5	8.2	17	22	24.9	305

Construction:
CCA-wires - 4x2x0.24



STP

LAN cable, stranded in pairs, with screen on each pair, cat. 6

Cable, stranded in pairs, with screen of laminated foil on each pair, used for transmission of digital signals with high speed of transmission, with spectrum of the frequency being used up to 300 MHz for cat. 6. The cable is suitable for setting computer systems for data transmission, measuring and control systems and for transmission of high-frequency analogue signals in automatic and industrial TV networks and is with high resistance to electromagnetic influences.

TECHNICAL DATA

- Ambient temperature: -30°C to +50°C
- Temperature of laying: min. 0°C
- Characteristic Impedance:
 - 100 Ω ± 15 Ω up to 100 MHz
 - 100 Ω ± (15 +0,05(f-100)) above 100 MHz
- Loop resistance: ≤ 170 Ω / km
- Unbalance of loop resistance: ≤ 3%
- Insulation resistance: ≥ 150 MΩ x km
- Operating capacity: ≤ 50 nF/km
- Cable diameter: 7 mm
- Cable weight 42 kg/km

CONSTRUCTION

- CCA-wires - 24 AWG; 0,57 mm acc. to IEC 60228
- Insulation: PE compound
- Screen: laminated Al foil on each pair
- Cable bundle: 4 stranded screened pairs
- Outer sheath: PVC compound or LSOH compound
- Outer sheath colour: for PVC- grey, for LSOH- orange

Insulation colour of stranded pairs - core a / core b: • white with blue ring/blue; • white with orange ring/orange; • white with green ring/green; • white with brown ring/brown.



Catalogue number	Category	Frequency - MHz	Characteristic of attenuation						Packing (m)	
			4	10	16	62.5	100	200		300
879012	Cat. 6	Attenuation - db/100 m	3.8	6	7.6	15.5	19.9	29.5	35	305
		Attenuation (Next) - db	65.3	59.3	56.2	47.4	44.3	39.8	38	

Construction:
CCA-wires - 4x2x0.24



S-FTP

LAN cable, stranded in pairs, with double-screen, cat. 5

Cable, stranded in pairs, with screen of laminated foil, with braid of tinned copper wires used for transmission of digital signals with high speed of transmission, with spectrum of the frequency being used up to 100 MHz for cat. 5. The cable is suitable for setting computer systems for data transmission, measuring and control systems and for transmission of high frequency analogue signals in automatic and industrial TV networks. High resistance to electromagnetic influences.

TECHNICAL DATA

- Ambient temperature: -30°C to +50°C
- Temperature of laying: min. 0°C
- Characteristic Impedance: 100 Ω ± 15 Ω
- Loop resistance: ≤ 192 Ω / km
- Unbalance of loop resistance: ≤ 3%
- Insulation resistance: ≥ 150 MΩ x km
- Operating capacity: ≤ 55,8 nF/km
- Cable diameter: 6,9 mm

CONSTRUCTION

- CCA-wires - 24 AWG; 0,51 mm acc. to IEC 60228
- Insulation: PE compound
- Cable bundle: 4 stranded pairs
- PETP foil
- Screen: laminated Al foil
- Outer sheath: PVC compound or LSOH compound
- Outer sheath colour: for PVC - grey

Insulation colour of stranded pairs - core a/core b: • white with blue ring/blue; • white with orange ring/orange; • white with green ring/green; • white with brown ring/brown.



Catalogue number	Category	Frequency - MHz	Characteristic of attenuation					Packing (m)
			4	10	16	62.5	100	
879011	Cat. 5	Attenuation - db/100 m	4.3	6.6	8.2	17.1	22	305
		Attenuation (Next) - db	53	47	44	35	32	

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended



COAXIAL CABLE RG6 / 96

Coaxial cable, suitable for connection of TV aerials to TV receivers



Suitable for high frequency equipment, measuring and control equipment and appliances, for setting up local computer networks, and data systems, for connection of TV aerials to TV receivers.

TECHNICAL DATA

- Model - RG6 / 96;
- Material and structure of the core cable: CCS 1.02 mm;
- Type of insulation: PE 4.60 mm;
- External conductor (screen): 96 Al foil;
- Diameter and cable material: 6.9 mm PVC;
- Wave impedance: 75 ± 5 Ohm;
- Operating temperature: from -30°C to $+70^\circ\text{C}$;
- Damping ratio: at 100 MHz 0.0637 dB/m.
- Outer sheath colour: White



Catalogue number	Description	Insulation diameter (mm)	Outer diameter (mm)	Wave resistance (Ω)	Max. capacity (pF/m)	Attenuation at 200 MHz max. dB/100m	Packing (m)
856001	RG6/96	PE 4.70	8.40 PVC	75 ± 3	68	12	100



COAXIAL CABLE RG59 / + 2X0.5MM2

Coaxial cable, suitable for video surveillance systems



TECHNICAL DATA

Coaxial cable: RG-59

- Inner conductor: $\varnothing 0.59$ mm - CCS wire
- Dielectric: $\varnothing 3.7$ mm PE full
- Braid: Stranded wire Cu, Indoor coverage area: 90 %
- Impedance: 75 Ω
- Outer coating: Al foil + Al braiding

Cable attenuation at 100m section:

- 10.9 dB @ 100 MHz
- 15.2 dB @ 200 MHz
- 23.2 dB @ 450 MHz
- 32.6 dB @ 800 MHz
- 36.6 dB @ 1000 MHz

- Outer sheath colour: White

Electrical cable:

- Inner conductor: 2 x 0.5 m CU wires
- Power wires resistance: 4 Ω / 100 m
- Outer coating: $\varnothing 5$ mm
- Outer sheath colour: White



Catalogue number	Description	Insulation diameter (mm)	Outer diameter (mm)	Wave resistance (Ω)	Max. capacity (pF/m)	Attenuation at 200 MHz max. dB/100m	Packing (m)
856004	RG59/ U+2x0.5	PE 3.66	8/5mm	75 ± 3	53.4	12.4	100



ALARM CABLE

Unshelled alarm cable



Suitable for the connection of detectors, sensors, infra-red as well as micro wave or mixed technology systems to the switch board.

TECHNICAL DATA

- Ambient temperature: -20°C to $+60^\circ\text{C}$
- Operating voltage: 300V RMS max
- Capacitance between conductors: 1KHz- 33pF/ft Nom.
- Capacitance between conductors to shield: 1KHz-60pF/ft Nom.
- Damping ratio: at 100 MHz 0.0637 dB / m.

CONSTRUCTION

- Conductor: CCA
- Insulation: PVC
- Insulation colours: red, blue, yellow, black, green, white
- Shield: without
- Rip cord: synthetic fibers
- Drain wire: no



Catalogue number	Cross section (n x mm ²)	Cable type	Colour	Outer diameter (mm)	Packing (m)
879016	6x0.22	CCA	White	4.2	100

7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended

CABLES FOR SOLAR POWER SYSTEMS



SOLAR CABLES H1Z2Z2-K

APPLICATION

They are specifically designed for the construction of photovoltaic systems. H1Z2Z2-K solar cables have good wear resistance, extreme flexibility, UV protection and do not support combustion. They are also halogen-free, water and oil resistant. Cable weight: 4 mm²- 57kg; 6 mm²- 77kg

TECHNICAL DATA

- Reaction to fire: Dca S1a, d2, a1
- Cable cross-section: 4 mm²; 6 mm²
- Rated voltage (Uo/U): AC 1,0/1,0 kV; DC 1,5/1,5
- Conductor material: Tinned copper Class 5
- Number of conductors X diameter (N°x mm): 4 mm²- 50x0,30; 6 mm²- 75x0,30
- Insulation and sheath material: Halogen-free compound
- Insulation thickness: 0,70 mm
- Insulation diameter: 4 mm²- 3,90 mm; 6mm²- 4,50mm
- Outer cable diameter: 4 mm²- 5,50 mm; 6 mm²- 6,05 mm
- Cable colour: black; red
- Maximum conductor resistance at 20°C: 4 mm²- 5,09 ohm/km; 6 mm²- 3,39 ohm/km
- Maximum insulation resistance at 20°C: 4 mm²- 580 MΩ.km; 6 mm²- 500 MΩ.km
- Minimum bending radius during laying: 5xØ of cable
- Flame spread test on single cable: EN 60332-1-2
- Operating temperature: -40+90°C
- Maximum short-circuit temperature: 250°C/5sec. (max.)
- Cable weight: 4 mm²- 57kg; 6 mm²- 77kg

CERTIFICATION

- Declaration of performance (DoP)
- TUV Certificate
- CE and EN Certificates

Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Total weight (kg/km)	Packing (m)
M411079/BL	4	Black	5,6	58	100
M411079/R	4	Red	5,6	58	100
M411080/BL	6	Black	6,2	78	100
M411080/R	6	Red	6,2	78	100



7 YEARS TOTAL WARRANTY
+ 5 standard
2 extended



SWITCHES & SOCKETS

GERMAN AND FRENCH TYPE

CITY SERIES



CITY SERIES GERMAN AND FRENCH TYPE



White/White



Anthracite/White



Champagne metallic/
White



Yellow/White



Red/White



Green/White



Blue/White



Orange/White



Orange metallic/White



Bordo metallic/
White



Grey/White



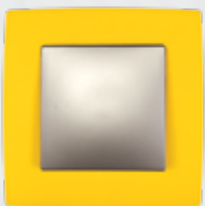
Champagne metallic



White/
Champagne metallic



Anthracite/
Champagne metallic



Yellow/
Champagne metallic



Red/
Champagne metallic



Green/
Champagne metallic



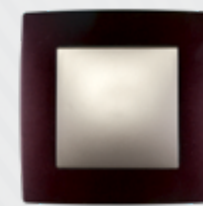
Blue/
Champagne metallic



Orange/
Champagne metallic



Orange metallic/
Champagne metallic



Bordo metallic/
Champagne metallic



Grey/
Champagne metallic



Anthracite



White/Anthracite



Champagne metallic/
Anthracite



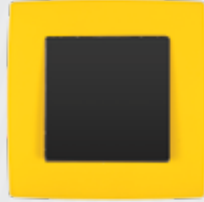
Blue/Anthracite



Red/
Anthracite



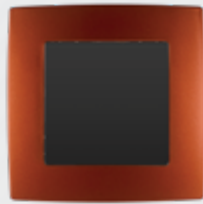
Green/
Anthracite



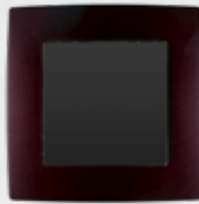
Yellow/
Anthracite



Orange/
Anthracite



Orange metallic/
Anthracite



Bordo metallic/
Anthracite



Grey/
Anthracite



2 gangs Champagne metallic/White



3 gangs Red/White



4 gangs Anthracite/White



5 gangs Grey/White

SWITCHES PLUS PANEL | WHITE



ONE BUTTON SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190011	1 button 1 way switch	10	10/100
190021	1 button 2 way switch	10	10/100
190031	1 button cross switch	10	10/100
190791	1 button double pole switch	20	10/100



ONE BUTTON SWITCHES WITH LIGHT

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190011L	1 button 1 way switch with light	10	10/100
190021L	1 button 2 way switch with light	10	10/100



TWO BUTTONS SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190041	2 buttons 1 way switch	10	10/100
190051	2 buttons 2 way switch	10	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



THREE BUTTON SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190064	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH

Catalogue number	Type	Packing/Box (pcs)
190181	Doorbell switch	10/100



DOORBELL SWITCH WITH NAME CARD

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190171	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON

Catalogue number	Type	Packing/Box (pcs)
190183	Type: Push light button	10/100



KEY CARD POWER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190043	Key card power switch **Not compatible with another decorative frame.	10	10/60





CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190045	1-2 mode curtain control switch	10	10/60
190066	Interlock shutter switch	10	10/100



DIMMER SWITCH

Catalogue number	Type	Packing/Box (pcs)
190191	Dimmer switch LED 3-300W	10/60
190193	Dimmer switch 0-10V	10/60



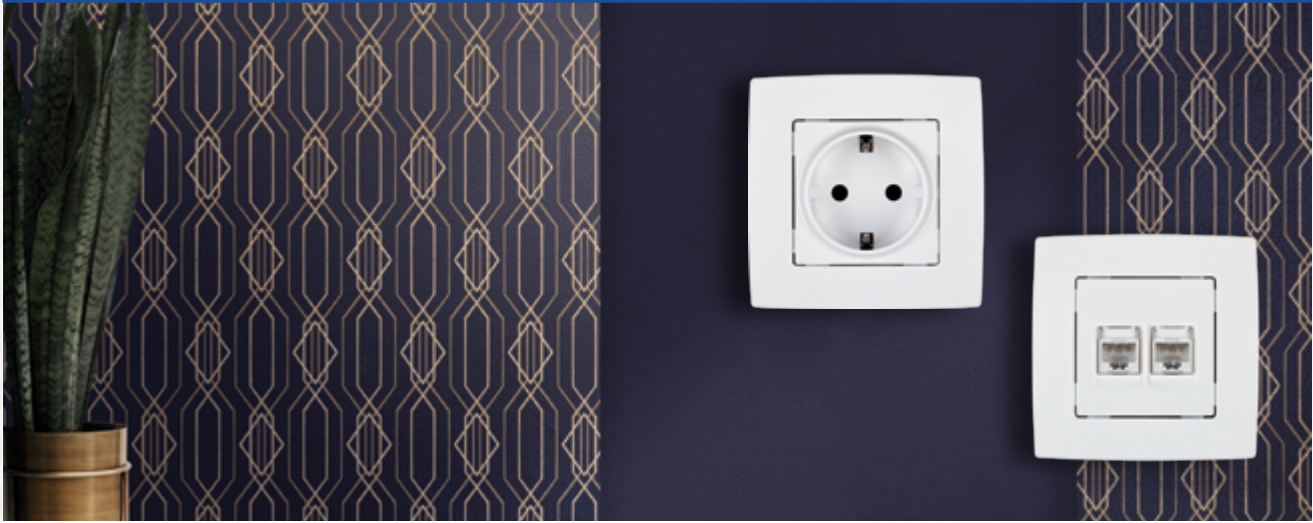
MOTION SENSOR

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190771	Motion sensor 200W	10	10/60



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SOCKETS PLUS PANEL | WHITE



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



FRENCH TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190211F	French screw type socket	16	10/100



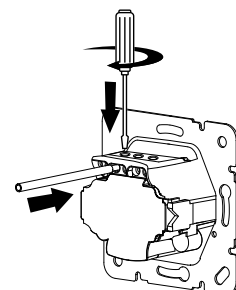
GERMAN TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190211S	German screw type socket	16	10/100



GERMAN TYPE SOCKET IP44

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190211D	German screw type socket IP44	16	10/100



Screw type sockets



GERMAN TYPE SOCKET WITH USB PORTS

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190062	German screw type socket with 2 USB ports	16	10/100



GERMAN TYPE SOCKET - DOUBLE

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
1903715	German screw type socket (double)	16	10/100



AUDIO & NETWORKING SOCKETS



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190721	Audio socket- double	10	10/100



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190751	USB socket - double 2A	2	10/100



Catalogue number	Type	Packing/Box (pcs)
190747	HDMI socket	10/100



Catalogue number	Type	Packing/Box (pcs)
190281	Computer socket RJ45 CAT5E	10/100
190034	Computer socket RJ45 CAT6	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



Catalogue number	Type	Packing/Box (pcs)
190711	Computer socket RJ45 - double	10/100



TELEPHONE & TV SOCKETS



Catalogue number	Type	Packing/Box (pcs)
190261	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
190731	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
190251	TV socket	10/100



Catalogue number	Type	Packing/Box (pcs)
190033	TV+FM+SAT socket	10/100



ACCESSORIES



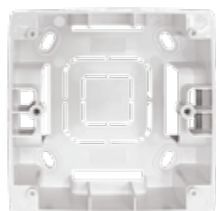
Catalogue number	Type	Packing/Box (pcs)
190060	1 Gang cable outlet without cable terminal	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



Catalogue number	Type	Packing/Box (pcs)
190741	One gang blank plate	10/100



Catalogue number	Type	Packing/Box (pcs)
190091	One gang surface mounting box	126



Catalogue number	Type	Packing/Box (pcs)
190092	Two gangs surface mounting box	66



Catalogue number	Type	Packing/Box (pcs)
190090	Silicone cover IP44	100



SWITCHES PLUS PANEL | ANTHRACITE



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



ONE BUTTON SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193011	1 button 1 way switch	10	10/100
193021	1 button 2 way switch	10	10/100
193031	1 button cross switch	10	10/100
193791	1 button double pole switch	20	10/100



ONE BUTTON SWITCHES WITH LIGHT

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193011L	1 button 1 way switch with light	10	10/100
193021L	1 button 2 way switch with light	10	10/100



TWO BUTTONS SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193041	2 buttons 1 way switch	10	10/100
193051	2 buttons 2 way switch	10	10/100





THREE BUTTON SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193064	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH

Catalogue number	Type	Packing/Box (pcs)
193181	Doorbell switch	10/100



DOORBELL SWITCH WITH NAME CARD

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193171	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON

Catalogue number	Type	Packing/Box (pcs)
193183	Type: Push light button	10/100



KEY CARD POWER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193043	Key card power switch *Not compatible with another decorative frame.	10	10/60



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193045	1-2 mode curtain control switch	10	10/60
193066	Interlock shutter switch	10	10/100



DIMMER SWITCH

Catalogue number	Type	Packing/Box (pcs)
193191	Dimmer switch LED 3-300W	10/60
193193	Dimmer switch 0-10V	10/60



MOTION SENSOR

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193771	Motion sensor 200W	10	10/60



SOCKETS PLUS PANEL | ANTHRACITE



FRENCH TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193211F	French screw type socket	16	10/100



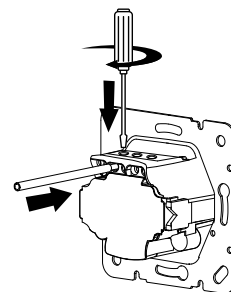
GERMAN TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193211S	German screw type socket	16	10/100



GERMAN TYPE SOCKET IP44

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193211D	German screw type socket IP44	16	10/100



Screw type sockets

5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET WITH USB PORTS

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193062	German screw type socket with 2xUSB ports	16	10/100



GERMAN TYPE SOCKET WITH USB PORTS

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193371S	German screw type socket (double)	16	10/100



AUDIO & NETWORKING SOCKETS



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193721	Audio socket- double	10	10/100



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
193751	USB socket - double 2A	2	10/100



Catalogue number	Type	Packing/Box (pcs)
193747	HDMI socket	10/100



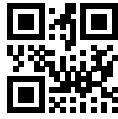
Catalogue number	Type	Packing/Box (pcs)
193281	Computer socket RJ45 CAT5E	10/100
193034	Computer socket RJ45 CAT6	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



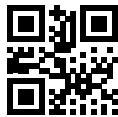
Catalogue number	Type	Packing/Box (pcs)
193711	Computer socket RJ45 - double	10/100



TELEPHONE & TV SOCKETS



Catalogue number	Type	Packing/Box (pcs)
193261	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
193731	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
193251	TV socket	10/100



Catalogue number	Type	Packing/Box (pcs)
193033	TV+FM+SAT socket	10/100



ACCESSORIES



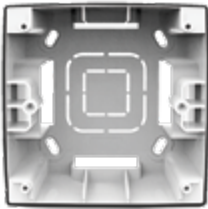
Catalogue number	Type	Packing/Box (pcs)
193060	1 Gang cable outlet without cable terminal	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



Catalogue number	Type	Packing/Box (pcs)
193741	One gang blank plate	10/100



Catalogue number	Type	Packing/Box (pcs)
193091	One gang surface mounting box	126



Catalogue number	Type	Packing/Box (pcs)
193092	Two gangs surface mounting box	66



SWITCHES PLUS PANEL | CHAMPAGNE METALLIC



ONE BUTTON SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190012	1 button 1 way switch	10	10/100
190022	1 button 2 way switch	10	10/100
190032	1 button cross switch	10	10/100
190722	1 button 1 way switch	20	10/100
190069	1 button double pole switch	20	10/100



ONE BUTTON SWITCHES WITH LIGHT

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190012L	1 button 1 way switch with light	10	10/100
190022L	1 button 2 way switch with light	10	10/100



TWO BUTTONS SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190042	2 buttons 1 way switch	10	10/100
190052	2 buttons 2 way switch	10	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



THREE BUTTONS SWITCHES

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190065	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH

Catalogue number	Type	Packing/Box (pcs)
190182	Doorbell switch	10/100



DOORBELL SWITCH WITH NAME CARD

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190748	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON

Catalogue number	Type	Packing/Box (pcs)
190184	Type: Push light button	10/100



KEY CARD POWER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190044	Key card power switch *Not compatible with another decorative frame.	10	10/60





CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190046	1-2 mode curtain control switch	10	10/60
190067	Interlock shutter switch	10	10/100



DIMMER SWITCH

Catalogue number	Type	Packing/Box (pcs)
190192	Dimmer switch LED 3-300W	10/60
190194	Dimmer switch 0-10V	



MOTION SENSOR

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190782	Motion sensor 200W	10	10/60



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SOCKETS PLUS PANEL | CHAMPAGNE METALLIC



FRENCH TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190212F	French screw type socket	16	10/100



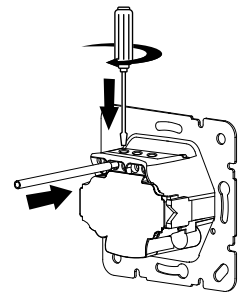
GERMAN TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190212S	German screw type socket	16	10/100



GERMAN TYPE SOCKET IP44

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190212D	German screw type socket IP44	16	10/100



Screw type sockets

5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET - DOUBLE

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190372S	German screw type socket - double	16	10/100



AUDIO & NETWORKING SOCKETS

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190742	Audio socket- double	10	10/100



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190752	USB socket - double	2	10/100



Catalogue number	Type	Packing/Box (pcs)
190772	HDMI socket	10/100



Catalogue number	Type	Packing/Box (pcs)
190282	Computer socket RJ45 CAT5E	10/100
190035	Computer socket RJ45 CAT6	10/100



Catalogue number	Type	Packing/Box (pcs)
190712	Computer socket RJ45 - double	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



TELEPHONE & TV SOCKETS

Catalogue number	Type	Packing/Box (pcs)
190262	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
190732	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
190252	TV socket	10/100



Catalogue number	Type	Packing/Box (pcs)
190034F	TV+FM+SAT socket	10/100



ACCESSORIES

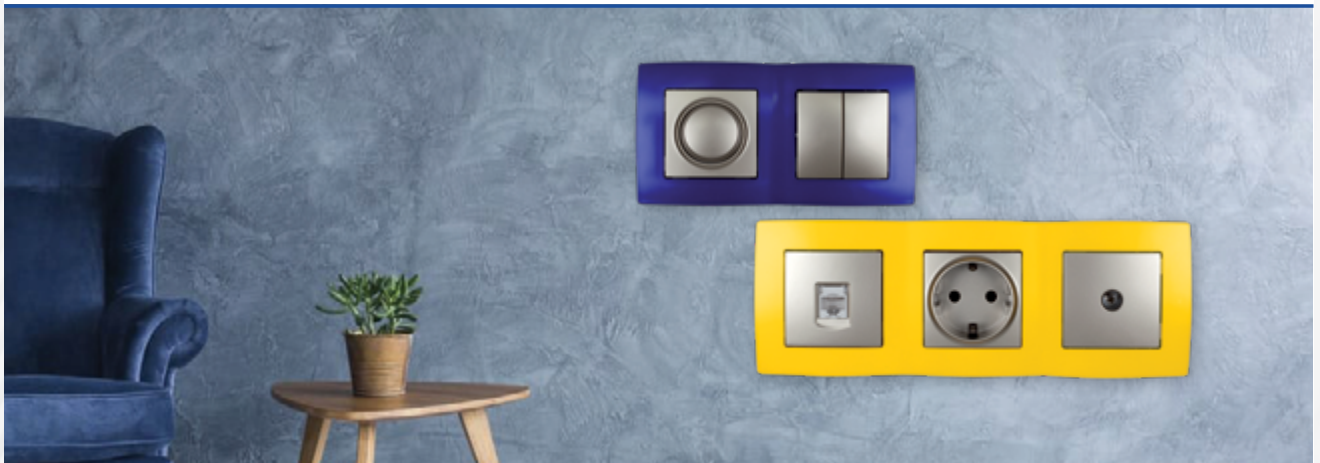


Catalogue number	Type	Packing/Box (pcs)
190172	1 gang blank plate	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

DECORATIVE PANELS CITY SERIES


WHITE PANELS


Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
190441	One gang panel	85x85	1/200
190551	Two gangs panel	85x155	1/100
190661	Three gangs panel	85x225	1/150
190361	Four gangs panel	85x298	1/100
190601	Five gangs panel	85x367	1/100



One gang panel



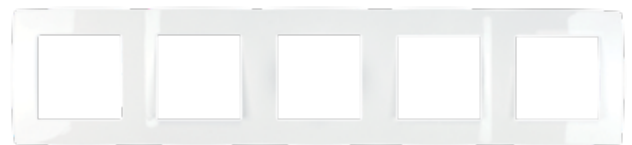
Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

ANTHRACITE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
190440	One gang panel	85x85	1/200
193551	Two gangs panel	85x155	1/100
193661	Three gangs panel	85x225	1/150
193361	Four gangs panel	85x298	1/100
193601	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

CHAMPAGNE METALLIC PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
190442	One gang panel	85x85	1/200
190552	Two gangs panel	85x155	1/100
190662	Three gangs panel	85x225	1/150
190362	Four gangs panel	85x298	1/100
190602	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

ORANGE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
190443	One gang panel	85x85	1/200
190553	Two gangs panel	85x155	1/100
190663	Three gangs panel	85x225	1/150
190363	Four gangs panel	85x298	1/100
190603	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

YELLOW PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
190444	One gang panel	85x85	1/200
190554	Two gangs panel	85x155	1/100
190664	Three gangs panel	85x225	1/150
190364	Four gangs panel	85x298	1/100
190604	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

GREEN PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/ Box (pcs)
190445	One gang panel	85x85	1/200
190555	Two gangs panel	85x155	1/100
190665	Three gangs panel	85x225	1/150
190365	Four gangs panel	85x298	1/100
190605	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

RED PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/ Box (pcs)
190446	One gang panel	85x85	1/200
190556	Two gangs panel	85x155	1/100
190666	Three gangs panel	85x225	1/150
190366	Four gangs panel	85x298	1/100
190606	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

BLUE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
190447	One gang panel	85x85	1/200
190557	Two gangs panel	85x155	1/100
190667	Three gangs panel	85x225	1/150
190367	Four gangs panel	85x298	1/100
190607	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

GREY PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
190450	One gang panel	85x85	1/200
190560	Two gangs panel	85x155	1/100
190670	Three gangs panel	85x225	1/150
190370	Four gangs panel	85x298	1/100
190610	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

ORANGE METALLIC PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/ Box (pcs)
190448	One gang panel	85x85	1/200
190558	Two gangs panel	85x155	1/100
190668	Three gangs panel	85x225	1/150
190368	Four gangs panel	85x298	1/100
190608	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

BORDO METALLIC PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/ Box (pcs)
190449	One gang panel	85x85	1/200
190559	Two gangs panel	85x155	1/100
190669	Three gangs panel	85x225	1/150
190369	Four gangs panel	85x298	1/100
190609	Five gangs panel	85x367	1/100



One gang panel



Two gangs panel



Four gangs panel



Three gangs panel



Five gangs panel

SWITCHES & SOCKETS

ITALY TYPE

LECCE SERIES





White/White



Black/White



Silver grey/White



Green/White



Golden/White



Graphite mat/White



Graphite/White



Blue/White



Champagne/White



Onix/White



Cherry-tree/White



White/Black



Black/Black



Silver grey/Black



Green/Black



Golden/Black



Graphite mat/Black



Graphite/Black



Blue/Black



Champagne/Black



Onix/Black



Cherry-tree/Black

LECCE SERIES ITALY TYPE



1 gang Black/White



2 gangs Green/White



2 gangs Blue/White



6 gangs White/White



3 gangs Onix/White



6 gangs Black/White



3x2 gangs Champagne/White

MODULE SWITCHES | WHITE



ONE BUTTON SWITCHES



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26001	1 button 1 way switch	1 mod	16	10/100
26003	1 button 2 way switch	1 mod	16	10/100
26004	1 button cross switch	1 mod	10	10/100
26027	Push light button	1 mod	10	10/100



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26026	1 button 2 pole switch	1 mod	16	10/100



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26002	1 button 1 way switch with light	1 mod	16	10/100



CURTAIN CONTROL SWITCH



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26006	Curtain switch	1 mod	6	10/60



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



DOORBELL SWITCHES

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26005	Door bell switch	1 mod	10	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26015	Door bell	2mod	10/100



DIMMER SWITCHES

Catalogue number	Type	Size	Packing/Box (pcs)
26055	Dimmer 250W	1 mod	10/60



Catalogue number	Type	Size	Packing/Box (pcs)
26053	LED dimmer 200VA	3 mod	10/60



BOILER SWITCHES

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26024	Boiler switch with neon * Not included decorative triple panel.	3 mod	45A	10/60



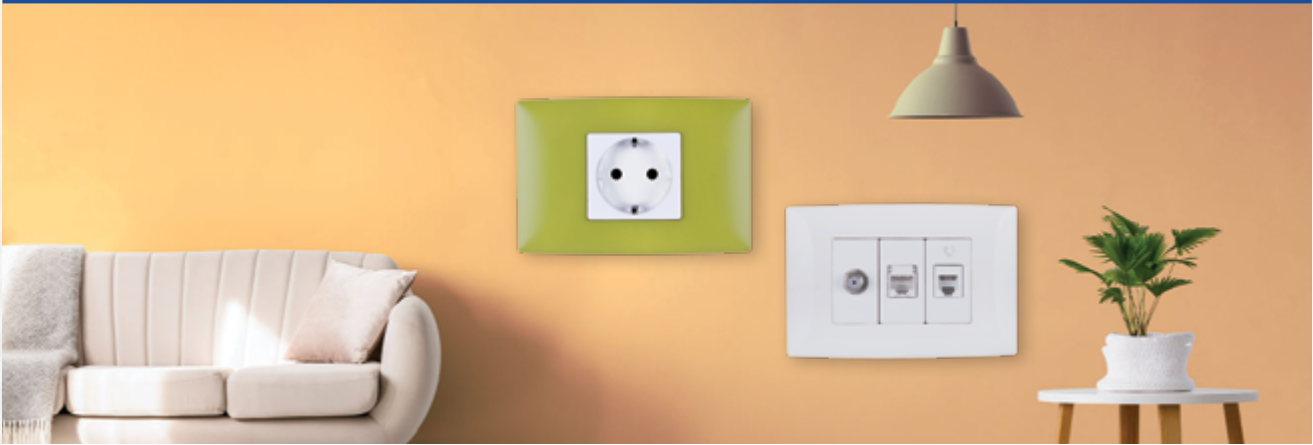
KEY POWER SWITCH

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26025	Key power switch	3 mod	30	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

MODULE SOCKETS | WHITE



GERMAN TYPE SOCKET



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26008	German type socket	2 mod	16	10/100



ITALIAN TYPE SOCKET



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26020	Italian type socket	2 mod	16	10/100



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26007	Italian standard multi socket	1 mod	16	10/100



UNIVERSAL TYPE SOCKET



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
26009	Universal socket	2 mod	13	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



DOUBLE PIN SOCKET

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
260075A	Double pin socket	1 mod	16	10/100



AUDIO & NETWORKING SOCKETS

Catalogue number	Type	Size	Packing/Box (pcs)
26021	Audio socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26016	Sound dimmer	2 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26014	2 port USB socket 90-240V / Output: 5V 2A	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26022	HDMI socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26013	Computer socket RJ45 CAT5E	1 mod	10/100
26013C	Computer socket RJ45 CAT6	1 mod	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



TELEPHONE & TV SOCKETS

Catalogue number	Type	Size	Packing/Box (pcs)
26012	Phone socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26010	TV socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26011	Satellite socket	1 mod	10/100



ACCESSORIES

Catalogue number	Type	Size	Packing/Box (pcs)
26017	Blank cover	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
26023	Button without functional part	3 mod	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

MODULE SWITCHES | ANTHRACITE



ONE BUTTON SWITCHES



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27001	1 button 1 way switch	1 mod	16	10/100
27003	1 button 2 way switch	1 mod	16	10/100
27004	1 button cross switch	1 mod	10	10/100
27027	Push light button	1 mod	10	10/100



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27026	1 button 2 pole switch	1 mod	16	10/100



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27002	1 button 1 way switch with light	1 mod	16	10/100



CURTAIN CONTROL SWITCH



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27006	Curtain switch	1 mod	6	10/60



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



DOORBELL SWITCHES

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27005	Door bell switch	1 mod	10	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27015	Door bell	2mod	10/100



DIMMER SWITCHES

Catalogue number	Type	Size	Packing/Box (pcs)
27055	Dimmer 250W	1 mod	10/60



Catalogue number	Type	Size	Packing/Box (pcs)
27053	LED dimmer 200VA	1 mod	10/60



BOILER SWITCHES

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27024	Boiler switch with neon * Not included decorative triple panel.	3 mod	45A	10/60



KEY POWER SWITCH

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27025	Key power switch	3 mod	30	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

MODULE SOCKETS | ANTHRACITE



GERMAN TYPE SOCKET



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27008	German type socket	2 mod	16	10/100



ITALIAN TYPE SOCKET



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27020	Italian type socket	2 mod	16	10/100



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27007	Italian standard multi socket	1 mod	16	10/100



UNIVERSAL TYPE SOCKET



Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27009	Universal socket	2 mod	13	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



DOUBLE PIN SOCKET

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27007SA	Double pin socket	1 mod	16	10/100



AUDIO & NETWORKING SOCKETS

Catalogue number	Type	Size	Packing/Box (pcs)
27021	Audio socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27016	Sound dimmer	2 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27014	2 port USB socket 90-240V / Output: 5V 2A	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27022	HDMI socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27013	Computer socket RJ45 CAT5E	1 mod	10/100
27013C	Computer socket RJ45 CAT6	1 mod	



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

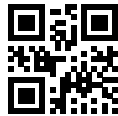


TELEPHONE & TV SOCKETS

Catalogue number	Type	Size	Packing/Box (pcs)
27012	Phone socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27010	TV socket	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27011	Satellite socket	1 mod	10/100



ACCESSORIES

Catalogue number	Type	Size	Packing/Box (pcs)
27017	Blank cover	1 mod	10/100



Catalogue number	Type	Size	Packing/Box (pcs)
27023	Button without functional part	3 mod	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

INSTALLATION FRAMES & CONSOLES

INSTALLATION FRAMES



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
26019	Mounting frame	1 mod/ 3 mod	Recessed	10/100



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
26018	Mounting frame	2 mod	Recessed	10/100



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
26054	Mounting frame	4 mod	Recessed	10/100



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
26156	Mounting frame	6 mod	Recessed	10/100



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
26056	Mounting frame	2x3 mod	Recessed	10/100



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
2604	Mounting frame with cover IP65	4 mod	Surface	10/100





Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
2603	Mounting box with cover IP65	3 mod	Surface	10/100



CONSOLE BOXES FOR PLASTERBOARD



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
24205	Console for plasterboard	Triple	Recessed	10/100



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
24206	Console for plasterboard	Quadruple	Recessed	10/100



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
26636	Console for plasterboard	Sixfold	Recessed	10/100



CONSOLE FOR BRICK AND CONCRETE



Catalogue number	Type	Length (mm)	Width (mm)	Depth (mm)	Packing (pcs)
24207	1-3 Module Console Box	95	70	48	10/400
24208	4 Module Console Box	118	70	48	10/240
24209	6 Module Console Box	178	70	48	10/150
24210	Console Box Spacer				20/200



DECORATIVE PANELS LECCE SERIES



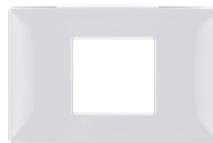
WHITE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26100	1 gang panel	82x122	1/200
26200	2 gangs panel	82x122	1/100
26300	3 gangs panel	82x122	1/150
26400	4 gangs panel	82x147	1/100
266001	6 gangs panel	82x194	1/100
26600	3x2 gangs panel	122x122	



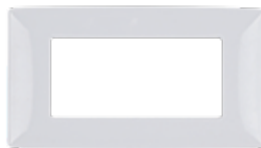
1 gang panel



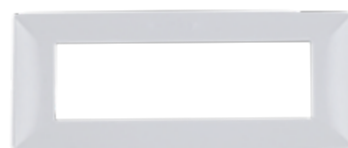
2 gangs panel



3 gang panel



4 gangs panel



6 gangs panel



3x2 gangs panel

ANTHRACITE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26111	1 gang panel	82x122	1/200
26211	2 gangs panel	82x122	1/100
26311	3 gangs panel	82x122	1/150
26411	4 gangs panel	82x147	1/100
26611	6 gangs panel	82x194	1/100



1 gang panel



2 gangs panel



3 gang panel



4 gangs panel



6 gangs panel

BLUE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26101	1 gang panel	82x122	1/200
26201	2 gangs panel	82x122	1/100
26301	3 gangs panel	82x122	1/150
26401	4 gangs panel	82x147	1/100
26601	6 gangs panel	82x194	1/100



1 gang panel



2 gangs panel



3 gang panel



4 gangs panel



6 gangs panel

GOLDEN PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26103	1 gang panel	82x122	1/200
26203	2 gangs panel	82x122	1/100
26303	3 gangs panel	82x122	1/150
26403	4 gangs panel	82x147	1/100
26603	6 gangs panel	82x194	1/100



1 gang panel



2 gangs panel



3 gang panel



4 gangs panel



6 gangs panel

SILVER GREY PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26102	1 gang panel	82x122	1/200
26202	2 gangs panel	82x122	1/100
26302	3 gangs panel	82x122	1/150
26402	4 gangs panel	82x147	1/100
266021	6 gangs panel	82x194	1/100
26602	3x2 gangs panel	122x122	



1 gang panel



2 gangs panel



3 gang panel



3x2 gangs panel



4 gangs panel



6 gangs panel

GRAPHITE MAT PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26104	1 gang panel	82x122	1/200
26204	2 gangs panel	82x122	1/100
26304	3 gangs panel	82x122	1/150
26404	4 gangs panel	82x147	1/100
26604	6 gangs panel	82x194	1/100



1 gang panel



2 gangs panel



3 gangs panel



4 gangs panel



6 gangs panel

GRAPHITE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26105	1 gang panel	82x122	1/200
26205	2 gangs panel	82x122	1/100
26305	3 gangs panel	82x122	1/150
26405	4 gangs panel	82x147	1/100
266051	6 gangs panel	82x194	1/100
26605	3x2 gangs panel	122x122	



1 gang panel



2 gangs panel



3 gangs panel



3x2 gangs panel



4 gangs panel



6 gangs panel

GREEN PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26107	1 gang panel	82x122	1/200
26207	2 gangs panel	82x122	1/100
26307	3 gangs panel	82x122	1/150
26407	4 gangs panel	82x147	1/100
26607	6 gangs panel	82x194	1/100



1 gang panel

2 gangs panel

3 gang panel



4 gangs panel

6 gangs panel

CHAMPAGNE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26106	1 gang panel	82x122	1/200
26206	2 gangs panel	82x122	1/100
26306	3 gangs panel	82x122	1/150
26406	4 gangs panel	82x147	1/100
266061	6 gangs panel	82x194	1/100
26606	3x2 gangs panel	122x122	



1 gang panel

2 gangs panel

3 gang panel



3x2 gangs panel

4 gangs panel

6 gangs panel

ONIX PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26108	1 gang panel	82x122	1/200
26208	2 gangs panel	82x122	1/100
26308	3 gangs panel	82x122	1/150
26408	4 gangs panel	82x147	1/100
26608	6 gangs panel	82x194	1/100



1 gang panel



2 gangs panel



3 gang panel



4 gangs panel



6 gangs panel

CHERRY-TREE PANELS



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
26109	1 gang panel	82x122	1/200
26209	2 gangs panel	82x122	1/100
26309	3 gangs panel	82x122	1/150
26409	4 gangs panel	82x147	1/100
26609	6 gangs panel	122x122	



1 gang panel



2 gangs panel



3 gang panel



4 gangs panel



6 gangs panel

SWITCHES & SOCKETS

GERMAN AND FRENCH TYPE

RHYME SERIES



RHYME SERIES GERMAN AND FRENCH TYPE



White metallic



Champagne metallic



Grey metallic



Graphite metallic



Coffee metallic



2 gangs/ White metallic



3 gangs/ Champagne metallic



5 gangs/ Grey metallic



4 gangs/ Coffee metallic



6 gangs/ Graphite metallic

SWITCHES PLUS PANEL | WHITE METALLIC



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11011	1 button 1 way switch	10	10/100
11021	1 button 2 way switch	10	10/100
11341	1 button cross switch	10	10/100



TWO BUTTONS SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11041	2 buttons 1 way switch	10	10/100
11051	2 buttons 2 way switch	10	10/100



THREE BUTTONS SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11721	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH



Catalogue number	Type	Packing/Box (pcs)
11181	Doorbell switch	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



DOORBELL SWITCH WITH NAME CARD

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11181B	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON

Catalogue number	Type	Packing/Box (pcs)
11181C	Type: Push light button	10/100



CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11171A	Curtain control switch	10	10/100



DIMMER SWITCH

Catalogue number	Type	Packing/Box (pcs)
11191	Dimmer switch	10/100



SENSOR SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11411	Sensor switch	10	10/60



KEY CARD POWER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11331	Key card power switch *Not compatible with another decorative frame.	10	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SOCKETS PLUS PANEL | WHITE METALLIC



FRENCH TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11211F	French type socket	16	10/100



GERMAN TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11211	German screw type socket	16	10/100



GERMAN TYPE SOCKET WITH COVER



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11211C	German screw type socket with cover	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET DOUBLE

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11371	German screw type socket - double	16	10/100



NETWORKING SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11281	Computer socket RJ45 CAT5E	10/100
112816E	Computer socket RJ45 CAT6	10/100



Catalogue number	Type	Packing/Box (pcs)
11711	Computer socket RJ45 - double	10/100



TELEPHONE & TV SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11261	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
11741	Phone socket RJ11 - double	10/100



5 YEARS TOTAL WARRANTY
 + 5 standard
 0 extended



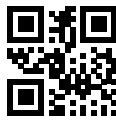
Catalogue number	Type	Packing/Box (pcs)
11731	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
11251	TV socket	10/100

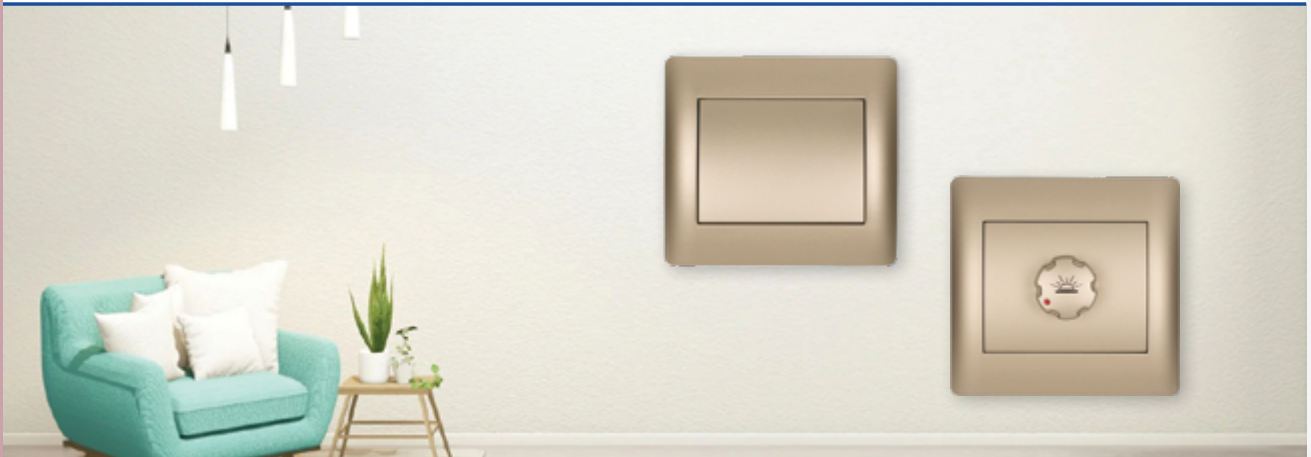


Catalogue number	Type	Packing/Box (pcs)
11681	TV socket+FM socket + SAT socket *Not compatible with another decorative frame.	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SWITCHES PLUS PANEL | CHAMPAGNE METALLIC



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11012	1 button 1 way switch	10	10/100
11022	1 button 2 way switch	10	10/100
11342	1 button cross switch	10	10/100



TWO BUTTONS SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11042	2 buttons 1 way switch	10	10/100
11052	2 buttons 2 way switch	10	10/100



THREE BUTTONS SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11722	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH



Catalogue number	Type	Packing/Box (pcs)
11182	Doorbell switch	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

DOORBELL SWITCH WITH NAME CARD



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11182B	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON



Catalogue number	Type	Packing/Box (pcs)
11182C	Type: Push light button	10/100



CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11172A	Curtain control switch	10	10/100



DIMMER SWITCH



Catalogue number	Type	Packing/Box (pcs)
11192	Dimmer switch	10/100



SENSOR SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11412	Sensor switch	10	10/60



KEY CARD POWER SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11332	Key card power switch *Not compatible with another decorative frame.	10	10/100



SOCKETS PLUS PANEL | CHAMPAGNE METALLIC



FRENCH TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11212F	French type socket	16	10/100



GERMAN TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11212	German screw type socket	16	10/100



GERMAN TYPE SOCKET WITH COVER



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11212C	German screw type socket with cover	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET DOUBLE

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11372	German screw type socket - double	16	10/100



NETWORKING SOCKETS



Catalogue number	Type	Packing/Box (pcs)
11282	Computer socket RJ45 CAT5E	10/100
112826E	Computer socket RJ45 CAT6	10/100



Catalogue number	Type	Packing/Box (pcs)
11712	Computer socket RJ45 - double	10/100



TELEPHONE & TV SOCKETS



Catalogue number	Type	Packing/Box (pcs)
11262	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
11742	Phone socket RJ11 - double	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



Catalogue number	Type	Packing/Box (pcs)
11732	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
11252	TV socket	10/100



Catalogue number	Type	Packing/Box (pcs)
11682	TV socket+FM socket + SAT socket *Not compatible with another decorative frame.	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SWITCHES PLUS PANEL | GREY METALLIC



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11014	1 button 1 way switch	10	10/100
11024	1 button 2 way switch	10	10/100
11344	1 button cross switch	10	10/100



TWO BUTTONS SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11044	2 buttons 1 way switch	10	10/100
11054	2 buttons 2 way switch	10	10/100



THREE BUTTONS SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11724	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH



Catalogue number	Type	Packing/Box (pcs)
11184	Doorbell switch	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



DOORBELL SWITCH WITH NAME CARD

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11184B	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON

Catalogue number	Type	Packing/Box (pcs)
11184C	Type: Push light button	10/100



CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11174A	Curtain control switch	10	10/100



DIMMER SWITCH

Catalogue number	Type	Packing/Box (pcs)
11194	Dimmer switch	10/100



SENSOR SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11414	Sensor switch	10	10/60



KEY CARD POWER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11334	Key card power switch *Not compatible with another decorative frame.	10	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SOCKETS PLUS PANEL | GREY METALLIC



FRENCH TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11214F	French type socket	16	10/100



GERMAN TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11214	German screw type socket	16	10/100



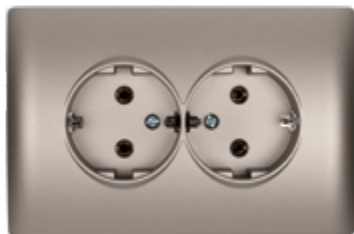
GERMAN TYPE SOCKET WITH COVER



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11214C	German screw type socket with cover	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET DOUBLE

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11374	German screw type socket - double	16	10/100



NETWORKING SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11284	Computer socket RJ45 CAT5E	10/100
112846E	Computer socket RJ45 CAT6	10/100



Catalogue number	Type	Packing/Box (pcs)
11714	Computer socket RJ45 - double	10/100



TELEPHONE & TV SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11264	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
11744	Phone socket RJ11 - double	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



Catalogue number	Type	Packing/Box (pcs)
11734	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
11254	TV socket	10/100



Catalogue number	Type	Packing/Box (pcs)
11684	TV socket+FM socket + SAT socket *Not compatible with another decorative frame.	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SWITCHES PLUS PANEL | GRAPHITE METALLIC



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11015	1 button 1 way switch	10	10/100
11025	1 button 2 way switch	10	10/100
11345	1 button cross switch	10	10/100



TWO BUTTONS SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11045	2 buttons 1 way switch	10	10/100
11055	2 buttons 2 way switch	10	10/100



THREE BUTTONS SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11725	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH



Catalogue number	Type	Packing/Box (pcs)
11185	Doorbell switch	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



DOORBELL SWITCH WITH NAME CARD

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11185B	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON

Catalogue number	Type	Packing/Box (pcs)
11185C	Type: Push light button	10/100



CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11175A	Curtain control switch	10	10/100



DIMMER SWITCH

Catalogue number	Type	Packing/Box (pcs)
11195	Dimmer switch	10/100



SENSOR SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11415	Sensor switch	10	10/60



KEY CARD POWER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11335	Key card power switch *Not compatible with another decorative frame.	10	10/100



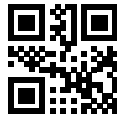
5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SOCKETS PLUS PANEL | GRAPHITE METALLIC



FRENCH TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11215F	French type socket	16	10/100



GERMAN TYPE SOCKET

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11215	German screw type socket	16	10/100



GERMAN TYPE SOCKET WITH COVER

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11215C	German screw type socket with cover	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET DOUBLE

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11375	German screw type socket - double	16	10/100



NETWORKING SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11285	Computer socket RJ45 CAT5E	10/100
112856E	Computer socket RJ45 CAT6	10/100



Catalogue number	Type	Packing/Box (pcs)
11715	Computer socket RJ45 - double	10/100



TELEPHONE & TV SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11265	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
11745	Phone socket RJ11 - double	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



Catalogue number	Type	Packing/Box (pcs)
11735	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
11255	TV socket	10/100



Catalogue number	Type	Packing/Box (pcs)
11685	TV socket+FM socket + SAT socket *Not compatible with another decorative frame.	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SWITCHES PLUS PANEL | COFFEE METALLIC



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11016	1 button 1 way switch	10	10/100
11026	1 button 2 way switch	10	10/100
11346	1 button cross switch	10	10/100



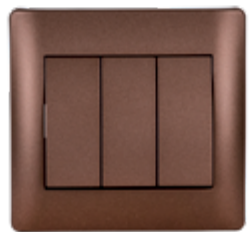
TWO BUTTONS SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11046	2 buttons 1 way switch	10	10/100
11056	2 buttons 2 way switch	10	10/100



THREE BUTTONS SWITCH



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11726	3 buttons 1 way switch	10	10/100



DOORBELL SWITCH



Catalogue number	Type	Packing/Box (pcs)
11186	Doorbell switch	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



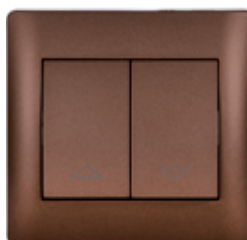
DOORBELL SWITCH WITH NAME CARD

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11186B	Doorbell switch with light name card	10	10/100



PUSH LIGHT BUTTON

Catalogue number	Type	Packing/Box (pcs)
11186C	Type: Push light button	10/100



CURTAIN CONTROL & INTERLOCK SHUTTER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11176A	Curtain control switch	10	10/100



DIMMER SWITCH

Catalogue number	Type	Packing/Box (pcs)
11196	Dimmer switch	10/100



SENSOR SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11416	Sensor switch	10	10/60



KEY CARD POWER SWITCH

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11336	Key card power switch *Not compatible with another decorative frame.	10	10/100



5 YEARS TOTAL WARRANTY

+ 5 standard
0 extended

SOCKETS PLUS PANEL | COFFEE METALLIC



FRENCH TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/ Box (pcs)
11216F	French type socket	16	10/100



GERMAN TYPE SOCKET



Catalogue number	Type	Rated current (A)	Packing/ Box (pcs)
11216	German screw type socket	16	10/100



GERMAN TYPE SOCKET WITH COVER

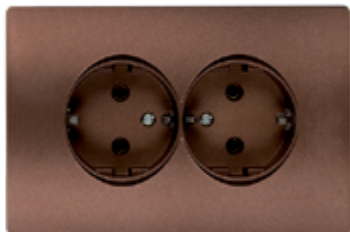


Catalogue number	Type	Rated current (A)	Packing/ Box (pcs)
11216C	German screw type socket IP44	16	10/100



SWITCHES & SOCKETS | RHYME

5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET DOUBLE

Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
11376	German screw type socket - double	16	10/100



NETWORKING SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11286	Computer socket RJ45 CAT5E	10/100
11286E	Computer socket RJ45 CAT6	10/100



Catalogue number	Type	Packing/Box (pcs)
11716	Computer socket RJ45 - double	10/100



TELEPHONE & TV SOCKETS

Catalogue number	Type	Packing/Box (pcs)
11266	Phone socket RJ11	10/100



Catalogue number	Type	Packing/Box (pcs)
11746	Phone socket RJ11 - double	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



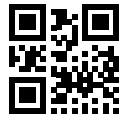
Catalogue number	Type	Packing/Box (pcs)
11736	Phone socket RJ11 + Computer socket RJ45	10/100



Catalogue number	Type	Packing/Box (pcs)
11256	TV socket	10/100



Catalogue number	Type	Packing/Box (pcs)
11686	TV socket+FM socket + SAT socket *Not compatible with another decorative frame.	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

DECORATIVE PANELS RHYME SERIES

WHITE METALLIC PANELS


Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
11551	Two gangs panel	82x158	20/200
11661	Three gangs panel	85x155	20/200
11361	Four gangs panel	85x225	20/200
11601	Five gangs panel	85x298	
11621	Six gangs panel	85x367	



Two gangs panel



Three gangs panel



Five gangs panel



Four gangs panel



Six gangs panel

CHAMPAGNE METALLIC PANELS


Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
11552	Two gangs panel	82x158	20/200
11662	Three gangs panel	85x155	20/200
11362	Four gangs panel	85x225	10/200
11602	Five gangs panel	85x298	
11622	Six gangs panel	85x367	



Two gangs panel



Three gangs panel



Five gangs panel



Four gangs panel



Six gangs panel

GREY METALLIC



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
11554	Two gangs panel	82x158	20/200
11664	Three gangs panel	85x155	20/200
11364	Four gangs panel	85x225	20/200
11604	Five gangs panel	85x298	
11624	Six gangs panel	85x367	



Two gangs panel

Three gangs panel

Five gangs panel



Four gangs panel

Six gangs panel

GRAPHITE METALLIC



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
11555	Two gangs panel	82x158	20/200
11665	Three gangs panel	85x155	20/200
11365	Four gangs panel	85x225	10/200
11605	Five gangs panel	85x298	
11625	Six gangs panel	85x367	



Two gangs panel

Three gangs panel

Five gangs panel



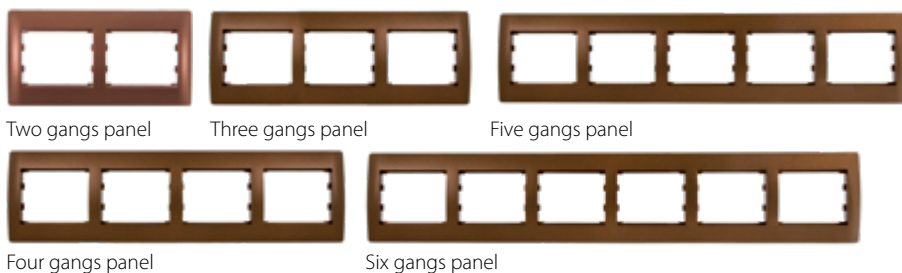
Four gangs panel

Six gangs panel

COFFEE METALLIC



Catalogue number	Type	Size: HxL (mm)	Packing/Box (pcs)
11556	Two gangs panel	82x158	20/200
11666	Three gangs panel	85x155	20/200
11366	Four gangs panel	85x225	20/200
11606	Five gangs panel	85x298	
11626	Six gangs panel	85x367	



ACCESSORIES

Catalogue number	Type	Colour
192215	Outlet safety cap	White
192214	Outlet safety cap	Brown



Catalogue number	Type	Colour
192121/WH	Wall protector	White
192121/TR	Wall protector	Transparent



SWITCHES & SOCKETS

UK TYPE

LONDON SERIES



LONDON SERIES UK TYPE



1 button switch
White



2 buttons switch
White



3 buttons switch
White



4 buttons switch
White



Single pole switched
socket/ White



Single pole switched double
socket/ White



1 gang socket
White



2 gang socket
White



1 button switch
Anthracite



2 buttons switch
Anthracite



3 buttons switch
Anthracite



4 buttons switch
Anthracite



Single pole switched
socket with USB/ Anthracite



Single pole switched double socket
with 2xUSB/ Anthracite



1 gang socket
Anthracite



2 gang socket
Anthracite

SWITCHES PLUS PANEL | WHITE



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (AX)	Material
190863/WH	1 button 1 way switch	10	Plastic PC
190864/WH	1 button 2 way switch	10	Plastic PC
190867/WH	1 button cross switch	10	Plastic PC



Catalogue number	Type	Rated current (AX)	Material
190872/WH	1 button double pole switch + neon	45	Plastic PC



TWO BUTTONS SWITCHES

Catalogue number	Type	Rated current (AX)	Material
190865/WH	2 buttons 1 way switch	10	Plastic PC
190866/WH	2 buttons 2 way switch	10	Plastic PC



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



THREE BUTTONS SWITCH

Catalogue number	Type	Rated current (AX)	Material
190868/WH	3 buttons 1 way switch	10	Plastic PC



FOUR BUTTONS SWITCH

Catalogue number	Type	Rated current (AX)	Material
190870/WH	4 buttons 1 way switch	10	Plastic PC



CURTAIN CONTROL SWITCH

Catalogue number	Type	Rated current (AX)	Material
190875/WH	Curtain control switch	10	Plastic PC



PUSH LIGHT BUTTON

Catalogue number	Type	Rated current (AX)	Material
190874/WH	Push light button	10	Plastic PC



LIGHT DIMMER

Catalogue number	Type	Rated current (W)	Material
190876/WH	Light dimmer	600	Plastic PC



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SOCKETS PLUS PANEL | WHITE



5 YEARS TOTAL WARRANTY
+ 5 standard 0 extended



SWITCHED BRITISH STANDARD SOCKET WITH NEON

Catalogue number	Type	Rated current (AX)	Material
190879/WH	Single pole switched British standard socket with neon	13	Plastic PC
190886/WH	Double pole switched British standard socket with neon	13	Plastic PC



SWITCHED BRITISH STANDARD SOCKET WITH NEON AND USB

Catalogue number	Type	Rated current (AX)	Material
190880/WH	Single pole switched British standard socket with neon and USB	13	Plastic PC
190887/WH	Double pole switched British standard socket with neon and USB	13	Plastic PC



SWITCHED BRITISH STANDARD DOUBLE SOCKET WITH NEON

Catalogue number	Type	Rated current (AX)	Material
190881/WH	Single pole switched British standard double socket with neon	13	Plastic PC
190888/WH	Double pole switched British standard double socket with neon	13	Plastic PC





SWITCHED BRITISH STANDARD DOUBLE SOCKET WITH NEON AND USB

Catalogue number	Type	Rated current (AX)	Material
190882/WH	Single pole switched British standard double socket with neon and USB	13	Plastic PC
190889/WH	Double pole switched British standard double socket with neon and USB	13	Plastic PC



NETWORKING SOCKETS



Catalogue number	Type	Rated current (AX)	Outlet	Material
190884/WH	Outlet with fuse and LED indicator	13	13	Plastic PC



Catalogue number	Type	Material
190883/WH	1 gang RJ45 LAN socket	Plastic PC



Catalogue number	Type	Material
190885/WH	2 gangs RJ45 LAN socket	Plastic PC



5 YEARS TOTAL WARRANTY
 + 5 standard
 0 extended

SWITCHES PLUS PANEL | ANTHRACITE



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (AX)	Material
190863/A	1 button 1 way switch	10	Plastic PC
190864/A	1 button 2 way switch	10	Plastic PC
190867/A	1 button cross switch	10	Plastic PC



Catalogue number	Type	Rated current (AX)	Material
190872/A	1 button double pole switch + neon	45	Plastic PC



TWO BUTTONS SWITCHES



Catalogue number	Type	Rated current (AX)	Material
190865/A	2 buttons 1 way switch	10	Plastic PC
190866/A	2 buttons 2 way switch	10	Plastic PC



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



THREE BUTTONS SWITCH

Catalogue number	Type	Rated current (AX)	Material
190868/A	3 buttons 1 way switch	10	Plastic PC



FOUR BUTTONS SWITCH

Catalogue number	Type	Rated current (AX)	Material
190870/A	4 buttons 1 way switch	10	Plastic PC



CURTAIN CONTROL SWITCH

Catalogue number	Type	Rated current (AX)	Material
190875/A	Curtain control switch	10	Plastic PC



PUSH LIGHT BUTTON

Catalogue number	Type	Rated current (AX)	Material
190874/A	Push light button	10	Plastic PC



LIGHT DIMMER

Catalogue number	Type	Rated current (W)	Material
190876/A	Light dimmer	600	Plastic PC



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SOCKETS PLUS PANEL | ANTHRACITE



5 YEARS TOTAL WARRANTY
+ 5 standard 0 extended



SWITCHED BRITISH STANDARD SOCKET WITH NEON

Catalogue number	Type	Rated current (AX)	Material
190879/A	Single pole switched British standard socket with neon	13	Plastic PC
190886/A	Double pole switched British standard socket with neon	13	Plastic PC



SWITCHED BRITISH STANDARD SOCKET WITH NEON AND USB

Catalogue number	Type	Rated current (AX)	Material
190880/A	Single pole switched British standard socket with neon and USB	13	Plastic PC
190887/A	Double pole switched British standard socket with neon and USB	13	Plastic PC



SWITCHED BRITISH STANDARD DOUBLE SOCKET WITH NEON

Catalogue number	Type	Rated current (AX)	Material
190881/A	Single pole switched British standard double socket with neon	13	Plastic PC
190888/A	Double pole switched British standard double socket with neon	13	Plastic PC





SWITCHED BRITISH STANDARD DOUBLE SOCKET WITH NEON AND USB

Catalogue number	Type	Rated current (AX)	Material
190882/A	Single pole switched British standard double socket with neon and USB	13	Plastic PC
190889/A	Double pole switched British standard double socket with neon and USB	13	Plastic PC



NETWORKING SOCKETS

Catalogue number	Type	Rated current (AX)	Outlet	Material
190884/A	Outlet with fuse and LED indicator	13	13	Plastic PC



Catalogue number	Type	Material
190883/A	1 gang RJ45 LAN socket	Plastic PC



Catalogue number	Type	Material
190885/A	2 gang RJ45 LAN socket	Plastic PC



5 YEARS TOTAL WARRANTY
 + 5 standard
 0 extended

SWITCHES & SOCKETS

GERMAN TYPE

ANTIQUÉ SERIES



SWITCHES & SOCKETS | WHITE



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190195	1 button 1 way switch	10	10/100
190197	1 button 2 way switch	10	10/100



TWO BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190199	2 buttons 1 way switch	10	10/100



GERMAN TYPE DOUBLE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190202	German type socket - double	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

SWITCHES & SOCKETS | BLACK



ONE BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190196	1 button 1 way switch	10	10/100
190198	1 button 2 way switch	10	10/100



TWO BUTTON SWITCHES



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190201	2 buttons 1 way switch	10	10/100



GERMAN TYPE DOUBLE SOCKET



Catalogue number	Type	Rated current (A)	Packing/Box (pcs)
190203	German type socket - double	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard 0 extended

WATERPROOF SWITCHES & SOCKETS

GERMAN TYPE



WATERPROOF SWITCHES IP44/ IP65

ONE BUTTON SWITCHES, IP44



Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191011	1 button 1 way switch, IP44	White	10	10/100
191021	1 button 2 way switch, IP44	White	10	10/100
191031	1 gang intermediate switch, IP44	White	10	10/100



TWO BUTTONS SWITCHES, IP44



Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191041	2 buttons 1 way switch, IP44	White	10	10/100



ONE BUTTON SWITCHES, IP65



Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191111	1 button 1 way switch, IP65	Grey	10	10/100
191121	1 button 2 way switch, IP65	Grey	10	10/100
191181	1 gang push button switch, IP65	Grey	10	10/100



TWO BUTTONS SWITCHES, IP65



Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191141	1 button 1 way switch, IP65	Grey	10	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard 0 extended

WATERPROOF SOCKETS IP44/ IP65



GERMAN TYPE SOCKET WITH COVER, IP44

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191012	German type socket, IP44	White	16	10/100



GERMAN TYPE SOCKET WITH COVER - DOUBLE, IP44

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191071	German type socket - double, IP44	White	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended



GERMAN TYPE SOCKET WITH COVER, IP65

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191112	German type socket, IP65	Grey	16	10/100



GERMAN TYPE SOCKET WITH COVER - DOUBLE, IP65

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
191171	German type socket - double, IP65	Grey	16	10/100



WATERPROOF SWITCHES & SOCKETS IP44



GERMAN TYPE SOCKET WITH COVER, IP44

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
190213	German type socket, IP44	White	16	10/100



GERMAN TYPE SOCKET WITH COVER, IP44

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
190215	German type socket, IP44	White	16	10/100



GERMAN TYPE SOCKET WITH COVER - DOUBLE, IP44

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
190214	German type socket - double, IP44	White	16	10/100



ONE BUTTON SWITCH WITH GERMAN TYPE SOCKET, IP44

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
190216	1 button 1 way switch with German type socket, IP44	White	16	10/100
190218	1 button 2 way switch with German type socket, IP44	White	16	10/100



TWO BUTTONS SWITCH WITH GERMAN TYPE SOCKET, IP44

Catalogue number	Type	Colour	Rated current (A)	Packing/Box (pcs)
190217	2 buttons 1 way switch with German type socket, IP44	White	16	10/100



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

WATER HEATER SWITCHES



BOILER SWITCH FOR FLUSH MOUNTING

Catalogue number	Type	Voltage (V AC)	Rated current (A)	Colour	Size LxHxW (mm)	Packing/Box (pcs)
M030137	Boiler switch for flush mounting	220	25	White	100x100x50	1



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



BOILER SWITCH FOR SURFACE MOUNTING

Catalogue number	Type	Voltage (V AC)	Rated current (A)	Colour	Size LxHxW (mm)	Packing/Box (pcs)
M030164	Boiler switch for surface mounting	220	25	White	100x100x50	1



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



BOILER SWITCH WITH NEON

Catalogue number	Type	Voltage (V AC)	Rated current (A)	Colour	Size	Packing/Box (pcs)
26024	Boiler switch with neon * Not included decorative triple panel.	220	45	White	3 mod	1/60



BOILER SWITCHES

Catalogue number	Type	Size	Rated current (A)	Packing/Box (pcs)
27024	Boiler switch with neon * Not included decorative triple panel.	3 mod	45A	10/60



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

MOUNTING CONSOLE BOXES FOR PLASTERBOARD, BRICK AND CONCRETE

3 MOD MOUNTING CONSOLE BOXES FOR PLASTERBOARD



Catalogue number	Type	Size	Packing/Box (pcs)
24205	Console for plasterboard - recessed mounting	3 mod	1/300



4 MOD MOUNTING CONSOLE BOXES FOR PLASTERBOARD



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
24206	Console for plasterboard	Quadruple	Recessed	10/100



6 MOD MOUNTING CONSOLE BOXES FOR PLASTERBOARD



Catalogue number	Type	Size	Mounting	Packing/Box (pcs)
26636	Console for plasterboard	Sixfold	Recessed	10/100



MOUNTING CONSOLE BOXES FOR BRICK AND CONCRETE



Catalogue number	Type	Length (mm)	Width (mm)	Depth (mm)	Packing (pcs)
24207	1-3 Module Console Box	95	70	48	10/400
24208	4 Module Console Box	118	70	48	10/240
24209	6 Module Console Box	178	70	48	10/150
24210	Console Box Spacer				20/200





SMART HOME

- SMART CONTROL
- SMART & SECURITY CAMERAS
- VIDEO DOOR SYSTEMS
- SMART DOOR LOCKS
- ACCESS CONTROL
- DOORBELLS





eWeLink & Tuya **SMART SOLUTIONS**

The installation of home automation devices in your home is the simplest and most innovative solution to save energy and reduce the cost of electricity and heating bills.

In an era where technology has become part of everyone's life, more and more people are choosing to equip their homes with a home automation system or at least smart devices for controlling lights and appliances.

Relying on home automation means living in a smart home, which improves the quality of life. The benefits of using technology in one's home go far beyond the thought of improving the quality of one's life, and the possibility of applying the technology by combining it with energy savings must also be considered.



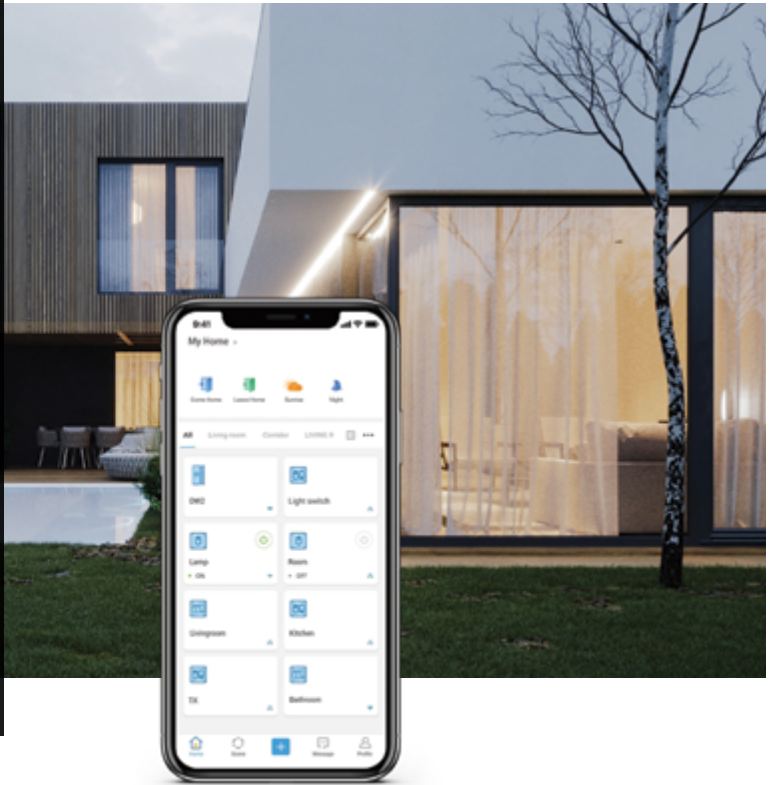
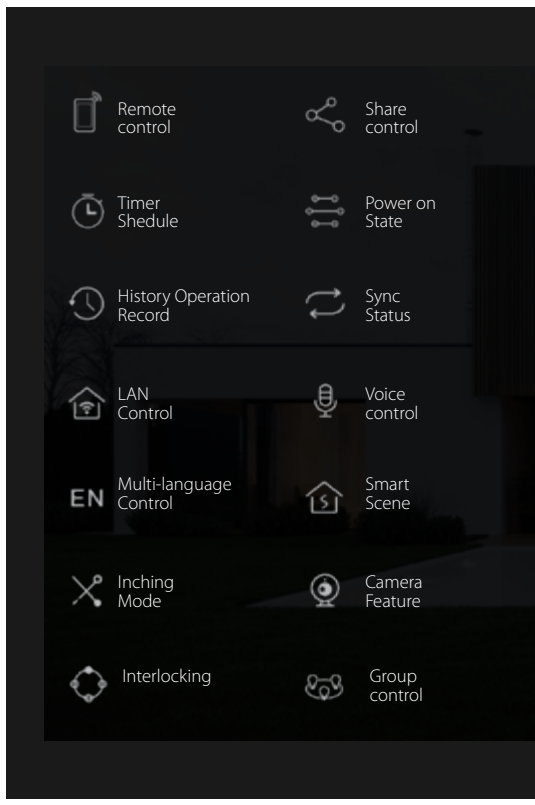
Many devices - two APPs

All this, combined with the inexhaustible convenience provided by eWeLink and Tuya, give many options, make the use both reliable and convenient for every user.

Two APPs - many opportunities



Two APPs - many control functions



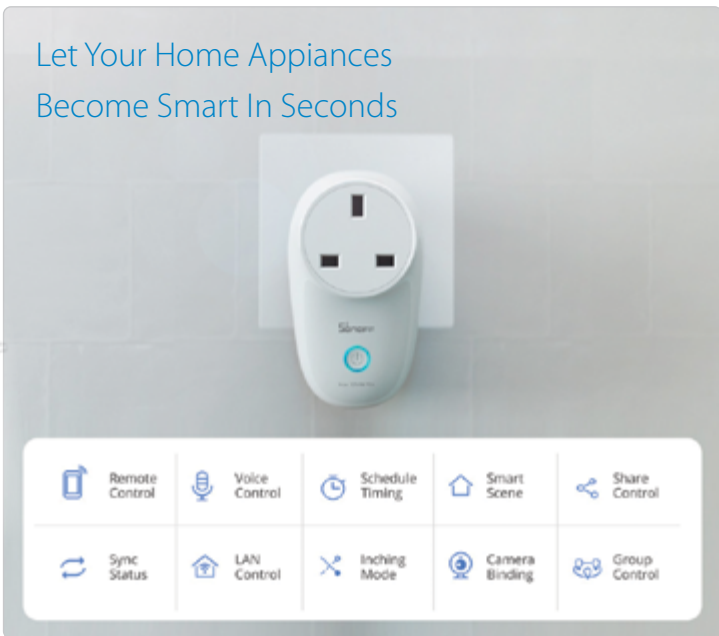
Select language on page 520:



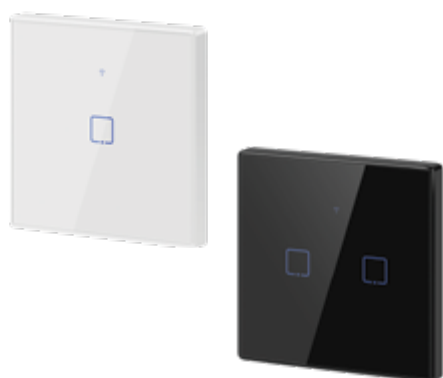
The **ELMARK Smart solutions** includes products from the following product groups:

▶ **SMART PLUG-IN AND OUTDOOR SOCKETS**

Connect with the eWeLink app to turn existing appliances into smart devices, convenient to remotely control on your phone.



Let Your Home Appliances Become Smart In Seconds



▶ **The NEW GLASS SWITCHES AND SOCKETS**

work with WeLink app.

Include multiple smart touch switches from 1 to 3 gangs, dimers switches, switches for ventilation control, curtain switches in white and black colour.

NO NEUTRAL WIRE REQUIRED

Most from them don't need neutral wire by installation. Create a cast dashboard as you wish for your smart devices and control them directly from there.



◀▶ Curtain switch



Glass switches

▶ **CENTRAL CONTROL PANEL**

Control all your devices and scenes. Integrated gateway Zigbee with home security, compatible with more brands and functions.



Control all in one panel

Supports control on unlimited number of devices.



▶ **DIY SMART SWITCHES**

Combine various monitoring and control functions of the devices connected to them. Use your DIY remodeling ideas to automate your home.



▶ SMART SENSORS

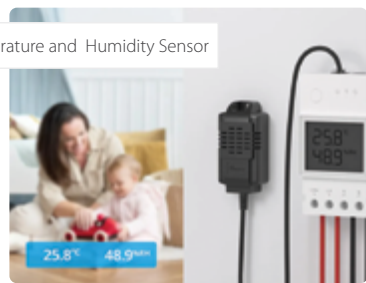
See from a distance what the temperature and humidity are in the room, the temperature of the aquarium or the humidity in the pot with your favorite flower.



Waterproof Temperature Sensor



Temperature and Humidity Sensor



▶ SMART LIGHTING

Create your colorful life, bring the fancy atmosphere home

Enjoy the APP features
Create your own Scenes



21 Recommended Scene Modes and Up to 8 DIY Scenes
Light up your outdoor or indoor events using the scene modes

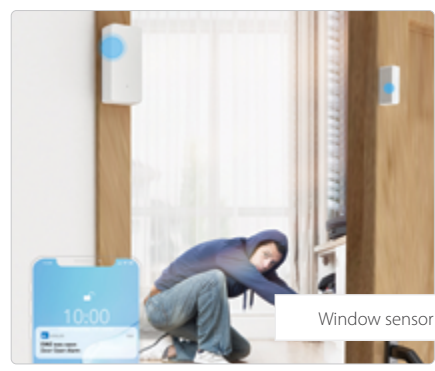


▶ SMART MOTION, WINDOWS, SMOKE AND GAS DETECTORS

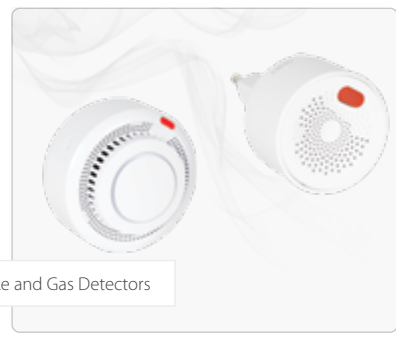
More security at every moment



Motion sensor



Window sensor



Smoke and Gas Detectors

▶ SMART AND SECURITY CAMERAS

Indoor and outdoor video surveillance suitable for every need. NEW cameras with autonomous power supply and batteries

3MP Solar Battery Camera
365 Day protect your home.

- Rechargeable Battery
- PIR Motion Detection
- 100% Wire-Free
- Two-way Audio
- SD Card Cloud Storage
- Full color Night
- Waterproof IP66 Grade
- Tuya APP Control

tuya
1080P Outdoor Security Wifi PTZ Camera

- Human Detection
- Color Night Vision
- Sound Alarm
- Auto Tracking
- Cloud Storage
- Two-way Audio



PIR Motion Detection Push Notification

▶ VIDEO DOOR SYSTEMS AND ELECTROMAGNETIC STRIKE PLATES

Innovative solution, which is becoming increasingly more frequent in the process of design of the contemporary residential buildings. The new method for control of the access to home is exceptionally comfortable and in accordance with the hectic lifestyle.



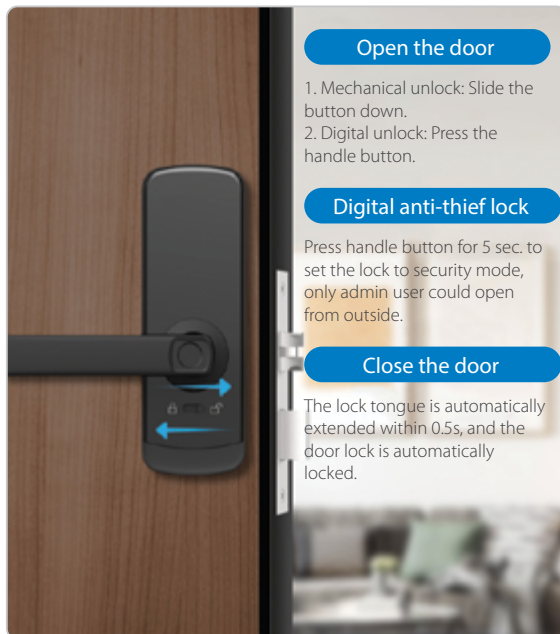
Fingerprint Unlock -
more reliability and efficiency



Control from anywhere
with TUYA app

▶ SMART DOOR LOCKS

5 ways to unlock- fingerprint, password, card.



High sensitive fingerprint



Scramble pin code technology



ACCESS CONTROL

RFID standalone, TCP/IP controllers, card readers and accessories for all access control needs.

Standalone access control



- No need for a PC network.
- Precision electronic components.
- Stable performance.



Access control and time attendance device

Professional access control functions:

- 50 time zones.
- 5 groups.
- 10 open door combination.
- Supports multi users entry.

Moving hand sensor EXIT devices

intended for connection to access systems.



- Elegant design.
- Double LED indication.
- Long mechanical life.

SMART SOCKETS



German type



UK type

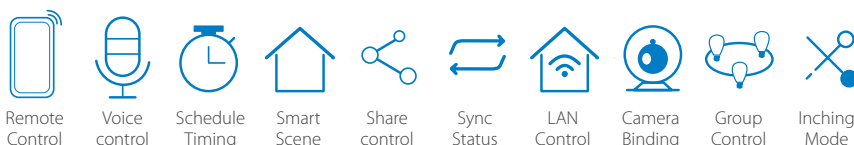
WI-FI SMART PLUG-IN SOCKET GERMAN TYPE/ UK TYPE

These smart sockets provide the simplest way to automate your devices and appliances, it is a smart Wi-Fi heavy-duty plug-in outlet that installs in any receptacle, users can instantly convert any plug into a smart outlet with a convenient timer function that works on user's smartphone. You can turn on/off any connected device either on the APP eWeLink or by pressing the manual control knob of the WiFi plug. You can set countdown/single/repeat timers to auto-turn on/off the WiFi controlled outlet on App and can share the WiFi plug with your family so that you can control together, this makes it perfect to control lighting and other home appliances. What's more, S26R2 is also compatible with most voice-activated assistants that, such as Amazon Alexa and Google Assistant.

CONTROL: From anywhere via Smart device

FUNCTION

- Remote Control From Anywhere: WiFi Plug can turn on or off your connected appliances from anywhere using eWeLink app
- Keep Your Life On Schedule: You can better control and organize your life with the scheduling benefits
- Create Smart Scenes: Set your own scenes where necessary, make your home smarter
- Group Controller: With a single touch of one button, you can manage multiple smart plugs simultaneously.
- Smart Voice Control: Works with Amazon Alexa and Google Assistant
- Heavy Duty: Equipped to handle higher loads, up to 16A. Plug-in appliances that require more amps such as, fans, heaters, slow cooker, etc.
- IFTTT function- Do even more with SONOFF Products, by connecting "eWeLink Smart Home" ON IFTTT App or ifttt.com, Use IFTTT to connect SONOFF products with hundreds of apps and web services. It's a whole new world of automation at your fingertips.



Download eWeLink Application. Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 240VAC
- Output current German type/ UK type: 16A/ 13A
- Output Power German type/ UK type: 4000W/ 3250W
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0

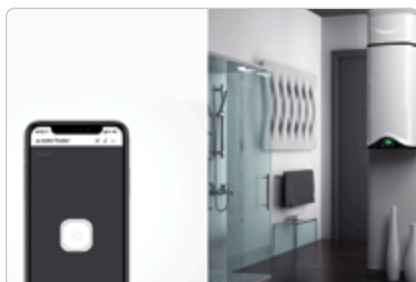
Scan and watch detailed video with all product functions.



Catalogue number	Socket Type	Input voltage	Output current	Output power	Packing/Box (pcs)
S26R2TPF-DE	German	100-240VAC	16A	4000W	1/140
S26R2TPG-UK	UK	100-240VAC	13A	3250W	1/140

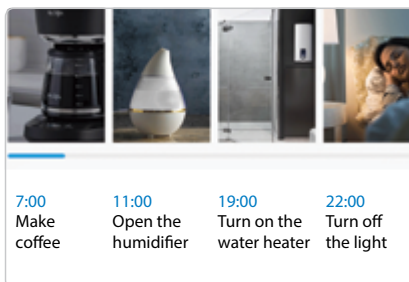
Remote control from anywhere

Turn On or Off your connected appliances from anywhere using eWeLink app.



Keep your life on schedule

Control and organize your life with the scheduling benefits.



Create smart scenes, make your home smarter





WIRELESS USB SMART ADAPTOR, MICRO

USB smart adaptor with 5V input and output - Micro that makes your USB devices smart as well as provides convenience and security when you charge USB devices. Connect your USB devices with it and you will control the connected USB devices via eWeLink APP or Alexa and Google Home. The small size as your ordinary USB power adaptor, easy for you to take it anywhere around the world to charge.

CONTROL: From anywhere via Smart device

FUNCTION

- Remote Control From Anywhere: with one tap via iOS & Android smartphones, with no distance limitation
- Voice Control: Smart WiFi USB adaptor is compatible with Amazon Alexa (Amazon Echo/Echo Dot/Amazon Tap), Google Home Assistant, SmartThings and Alice. It allows you to use your voice to control home USB devices and enjoy a hands-free experience.
- LAN Control: LAN control allows your device to be controlled from your phone even if it is disconnected from the server.
- Smart Scenes: Trigger other smart devices, make actions auto-on/off or gather multiple devices into one group and tap to run them together. Multiple conditions, sunrise and sunset, timing, and other more smart scene waiting for you to explore.
- Timing Schedule: By presetting timers or schedules on the eWeLink App, your USB LED light strips can be automatically turned on/off at a specific time. Automate your home appliances via different timing schedules, such as USB lamps, USB fan, USB water pump, etc.

Always consider your safety



- High heat-resistance
- Flame-retardant
- Ultra-durable



APP Control



Voice control



Schedule Timing



Smart Scenes



Sync Status



LAN Control



Power-on Status



Share control

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: Max. 5 VDC/2.5A (USB Type A-male)
- Output: Max. 5 VDC/2.5A (USB Type A-male). Support only BC1.2 charging protocol. Max. 1A output for charging
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0
- Dimensions LxWxH: 45x30x26 mm
- Product weight: 17g

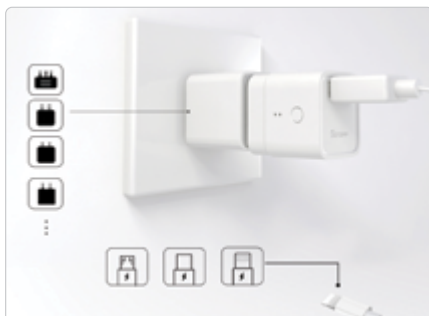
Catalogue number	Input type	Output type	Output	Colour	Packing/Box (pcs)
MICRO	Male	Female	2.5A	White	1/400

Scan and watch detailed video with all product functions.



Designed for "Easy to go"

Ideal for all your USB power adaptors and USB cable types



Schedule, reduce your daily tasks

Automatically lights up on the opening time and lights off on the closing time



Works with your devices





Specially design for outdoor use



WI-FI SMART WATERPROOF SOCKET GERMAN TYPE, IP55

S55 is a handy Waterproof Smart Socket that can connect to your home Wi-Fi network and make you manage and program devices from far with your phone or voice via Amazon Alexa or Google Assistant. Adopts heavy-duty IP55 weather resistant material ensures it is rugged and safe when you use it outside. Customize schedules for devices to let them switch on/off automatically according to your needs wherever you are. Perfect for various occasions like garden, patio, open-air restaurant and more. Easy to install.

CONTROL: From anywhere via Smart device

FUNCTION

- Remote Control From Anywhere: WiFi Plug can turn on or off your connected appliances from anywhere using eWeLink app
- Smart Scene: Full of limitless possibilities. Set one device to trigger another one or activate a group of devices via a single tap.
- Voice Control: Do not want to stand up to turn off the light? Just talk to Alexa/Google Assistant to control your devices.
- Power-On Status: Power-on state can keep the status before power cut, never forget to turn off the electrical appliances. Three states, ON, OFF, Last state, are waiting for you to choose.
- IP55 Waterproof: Can still use it outdoor.
- IFTTT function- Do even more with SONOFF Products, by connecting "eWeLink Smart Home" on IFTTT App or ifttt.com, Use IFTTT to connect SONOFF products with hundreds of apps and web services. It's a whole new world of automation at your fingertips.



APP Control



Voice control



Schedule Timing



IP55 Waterproof



Share control



Smart Scenes



Power-on Status

IFTTT

IFTTT Function

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

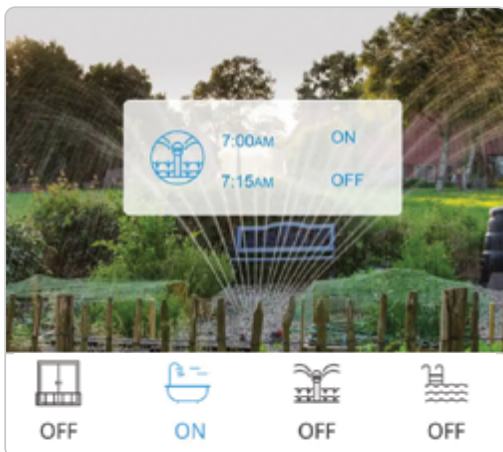
- Input voltage: 240VAC
- Output current: 16A
- Output Power: 4000W
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0

Catalogue number	Socket Type	Input voltage	Output current	Output power	Packing/Box (pcs)
S55TPF-DE	German	100-240VAC	16A	4000W	1/50

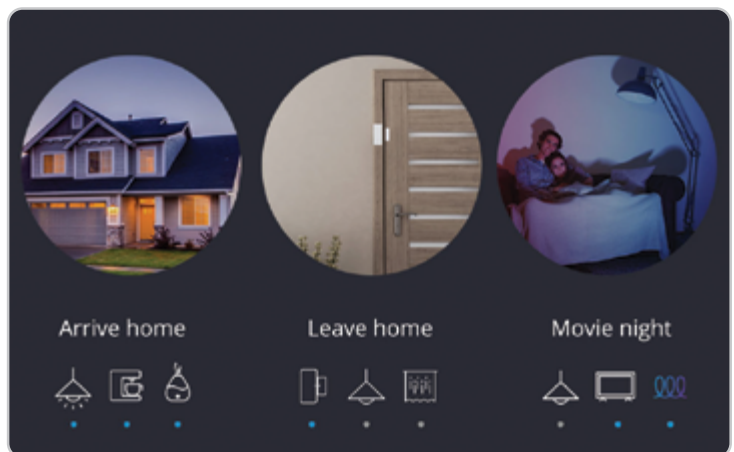
Scan and watch detailed video with all product functions.



Schedule the right On & Off time based on your needs



Make one device to trigger another one or activate group of devices via a single tap



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Specially design for outdoor use



WI-FI SMART PLUG-IN SOCKET UK TYPE, IP55

S55 is a handy Waterproof Smart Socket that can connect to your home Wi-Fi network and make you manage and program devices from far with your phone or voice via Amazon Alexa or Google Assistant. Adopts heavy-duty IP55 weather resistant material ensures it is rugged and safe when you use it outside. Customize schedules for devices to let them switch on/off automatically according to your needs wherever you are. Perfect for various occasions like garden, patio, open-air restaurant and more. Easy to install.

CONTROL: From anywhere via Smart device

FUNCTION

- Remote Control From Anywhere: WiFi Plug can turn on or off your connected appliances from anywhere using eWeLink app
- Smart Scene: Full of limitless possibilities. Set one device to trigger another one or activate a group of devices via a single tap.
- Voice Control: Do not want to stand up to turn off the light? Just talk to Alexa/Google Assistant to control your devices.
- Power-On Status: Power-on state can keep the status before power cut, never forget to turn off the electrical appliances. Three states, ON, OFF, Last state, are waiting for you to choose.
- IP55 Waterproof: Can still use it outdoor.
- IFTTT function- Do even more with SONOFF Products, by connecting "eWeLink Smart Home" on IFTTT App or ifttt.com, Use IFTTT to connect SONOFF products with hundreds of apps and web services. It's a whole new world of automation at your fingertips.



APP Control



Voice control



Schedule Timing



IP55 Waterproof



Share control



Smart Scenes



Power-on Status

IFTTT

IFTTT Function

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 240VAC
- Output current: 13A
- Output Power: 3250W
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0

Catalogue number	Socket Type	Input voltage	Output current	Output power	Packing/Box (pcs)
S55TPG-UK	UK	100-240VAC	13A	3250W	1/50

Scan and watch detailed video with all product functions.



Schedule the right On & Off time based on your needs | Show the real-time status of your appliances on the APP
Make one device to trigger another one or activate group of devices via a single tap



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended

SMART SWITCHES

WI-FI SMART WALL TOUCH SINGLE LIVE LINE SWITCHES EU/UK TYPE



A smart Wi-Fi switch with a classic design. It is durable and reliable, while providing a smooth operation and the flexibility to control power from anywhere through your smart phone. It can automatically recognize the connected devices and supports voice control via Amazon Alexa and Google Assistant.

CONTROL: From anywhere via Smart device or local via touching.

FUNCTION

- Remote Control & Sync Status: Just tap on eWeLink App to turn on/off your device anytime and anywhere, and get the sync status of your devices.
- Touch Control: A slight tap for easier control, a modern and elegant decoration on your wall surface.
- Timer & Schedule: Set up timing schedules to turn on/ off lights.
- Hands-Free Voice Control: Compatible with Alexa & Google Assistant, use your voice to control the devices
- Switch with light: for easy detection in the dark
- Suitable for mounting in round and in square console box.

No neutral wire required



APP Control



Voice control



RF Control



Touch Control



Share control



Smart Scenes



Schedule Timing



LED Back light

Download eWeLink Application.

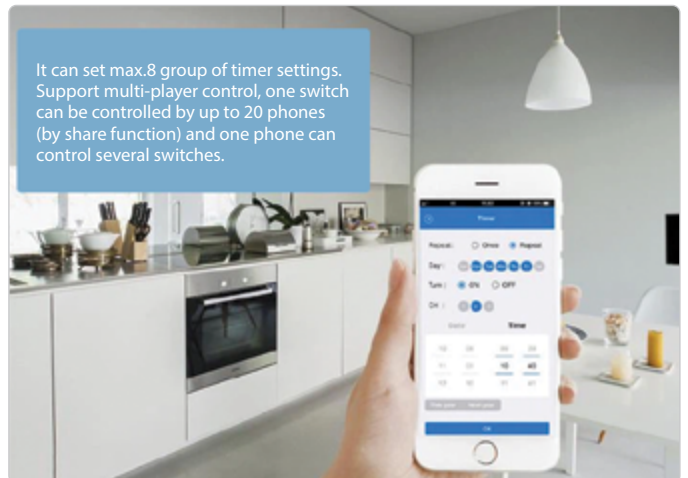
Full info for the products, instructions can be found at www.elmarkholding.eu

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Hands-free voice control
Compatible with Alexa and Google Home



Support timer function
Includes countdown, single and repeat timer





One gang/ White



Two gangs/ Black



Three gangs/ White

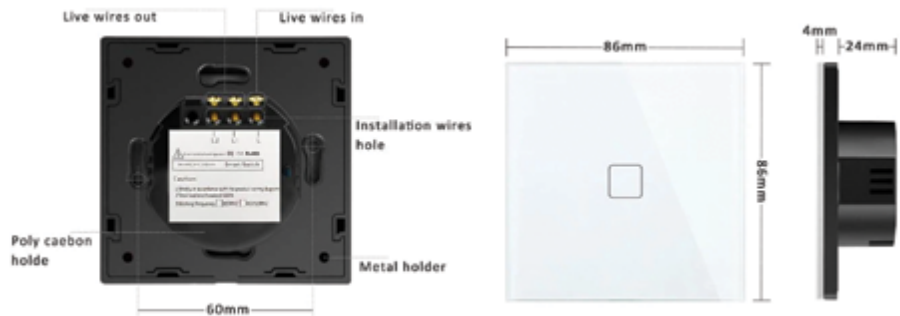
TECHNICAL DATA

- Gang: 1; 2; 3
- Ways: 1
- Application: eWelink
- Wireless Standard: IEEE 802.11 b/g/n
- Powered by a single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Colour: White; Black
- Size: 86x86x24mm

Catalogue number	Output power	Gang	Way	Colour	Packing/Box (pcs)
195007/WH	1000W	1	1	White	1/100
195007/BL	1000W	1	1	Black	1/100
195008/WH	2000W	2	1	White	1/100
195008/BL	2000W	2	1	Black	1/100
195009/WH	2000W	3	1	White	1/100
195009/BL	2000W	3	1	Black	1/100



Scan and watch detailed video with all product functions.



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended

No neutral wire required

Damp proof

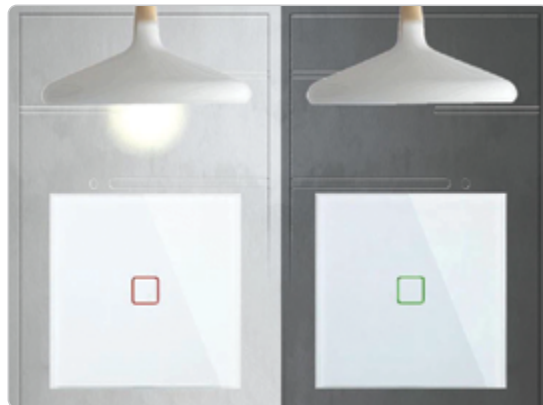
Works even in humid conditions



Light indicator for the state

Light-on state

Light-off state





Neutral wire required

WI-FI SMART WALL TOUCH FAN SWITCHES EU/UK TYPE

A smart Wi-Fi switch with a classic design. It is durable and reliable, while providing a smooth operation and the flexibility to control power from anywhere through your smart phone. It can automatically recognize the connected devices and supports voice control via Amazon Alexa and Google Assistant.

CONTROL: From anywhere via Smart device or local via touching.

FUNCTION

- Remote Control & Sync Status: Just tap on eWeLink App to turn on/off your device anytime and anywhere, and get the sync status of your devices.
- Touch Control: A slight tap for easier control, a modern and elegant decoration on your wall surface.
- Timer & Schedule: Set up timing schedules to turn on/ off lights.
- Hands-Free Voice Control: Compatible with Alexa & Google Assistant, use your voice to control the devices
- Switch with light: for easy detection in the dark
- Suitable for mounting in round and in square console box.



APP Control



Voice control



RF Control



Touch Control



Share control



Smart Scenes



Schedule Timing



LED Back light

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 110-220V AC
- Application: eWeLink
- Wireless Standard: IEEE 802.11 b/g/n
- Powered by null & live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm

Catalogue number	Output power	Colour	Packing/Box (pcs)
195010/WH	300W	White	1/100
195010/BL	300W	Black	1/100

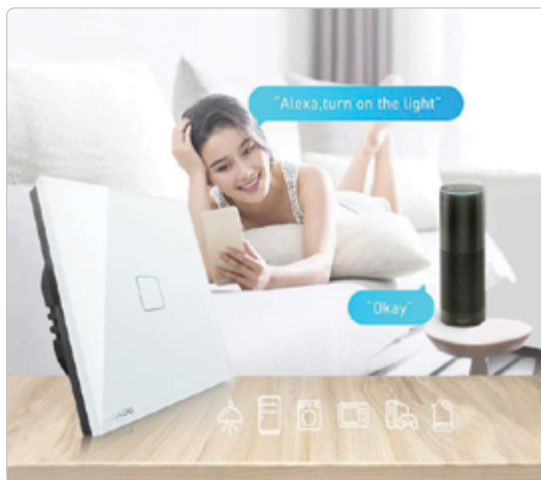
3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Scan and watch detailed video with all product functions.



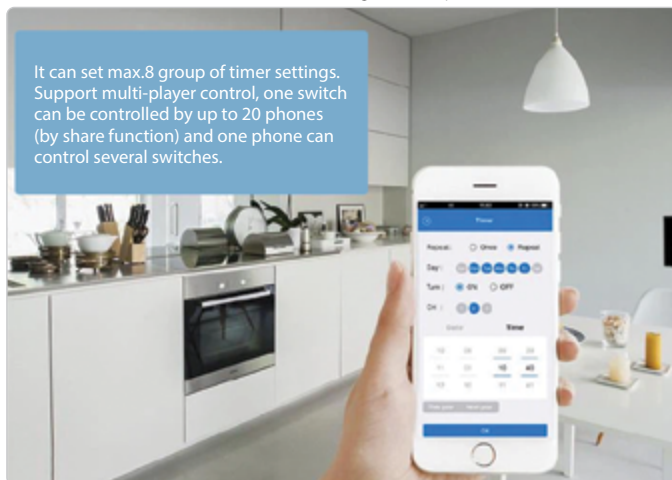
Hands-free voice control

Compatible with Alexa and Google Home



Support timer function

Includes countdown, single and repeat timer



WI-FI SMART WALL TOUCH CURTAIN SWITCHES EU/UK TYPE

A smart Wi-Fi switch with a classic design. It is durable and reliable, while providing a smooth operation and the flexibility to control power from anywhere through your smart phone. It can automatically recognize the connected devices and supports voice control via Amazon Alexa and Google Assistant.

CONTROL: From anywhere via Smart device or local via touching.

FUNCTION

- Remote Control & Sync Status: Just tap on eWeLink App to turn on/off your device anytime and anywhere, and get the sync status of your devices.
- Touch Control: A slight tap for easier control, a modern and elegant decoration on your wall surface.
- Timer & Schedule: Set up timing schedules to turn on/ off lights.
- Hands-Free Voice Control: Compatible with Alexa & Google Assistant, use your voice to control the devices
- Switch with light: for easy detection in the dark
- Suitable for mounting in round and in square console box.



Neutral wire required



APP Control



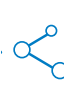
Voice control



RF Control



Touch Control



Share control



Smart Scenes



Schedule Timing



LED Back light

Damp proof

Works even in humid conditions



Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 110-220V AC
- Application: eWeLink
- Wireless Standard: IEEE 802.11 b/g/n
- Powered by null & live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm

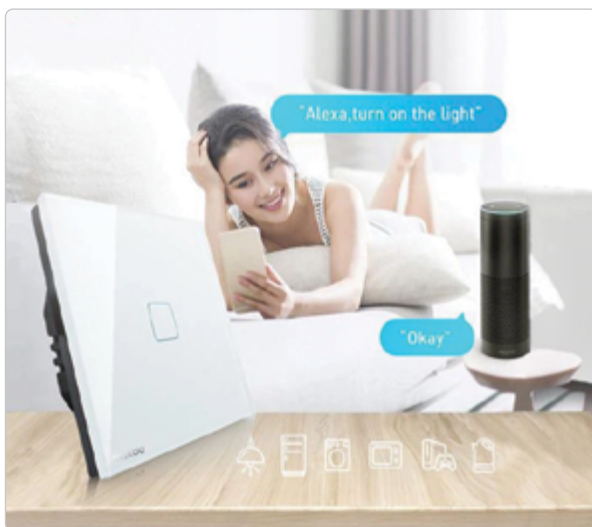
Catalogue number	Output power	Colour	Packing/Box (pcs)
195011/WH	1000W	White	1/100
195011/BL	1000W	Black	1/100



Scan and watch detailed video with all product functions.

Hands-free voice control

Compatible with Alexa and Google Home



Wi-Fi curtain switch

More simple and fashionable



WI-FI SMART WALL TOUCH DIMMER SWITCHES EU/UK TYPE

A smart Wi-Fi switch with a classic design. It is durable and reliable, while providing a smooth operation and the flexibility to control power from anywhere through your smart phone. It can automatically recognize the connected devices and supports voice control via Amazon Alexa and Google Assistant.

CONTROL: From anywhere via Smart device or local via touching.

FUNCTION

- Remote Control & Sync Status: Just tap on eWeLink App to turn on/off your device anytime and anywhere, and get the sync status of your devices.
- Touch Control: A slight tap for easier control, a modern and elegant decoration on your wall surface.
- Timer & Schedule: Set up timing schedules to turn on/ off lights.
- Hands-Free Voice Control: Compatible with Alexa & Google Assistant, use your voice to control the devices
- Switch with light: for easy detection in the dark
- Suitable for mounting in round and in square console box.



Neutral wire required

Damp proof

Works even in humid conditions



APP Control



Voice control



RF Control



Touch Control



Share control



Smart Scenes



Schedule Timing



LED Back light

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 110-220V AC
- Application: eWeLink
- Wireless Standard: IEEE 802.11 b/g/n
- Powered by null & live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm

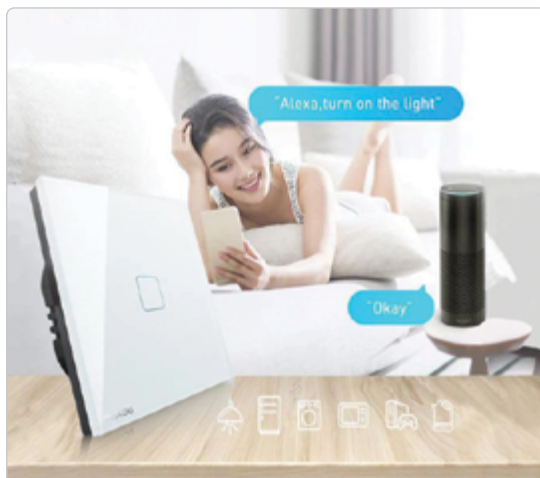
Catalogue number	Output power	Colour	Packing/ Box (pcs)
195012/WH	500W	White	1/100
195012/BL	500W	Black	1/100



Scan and watch detailed video with all product functions.

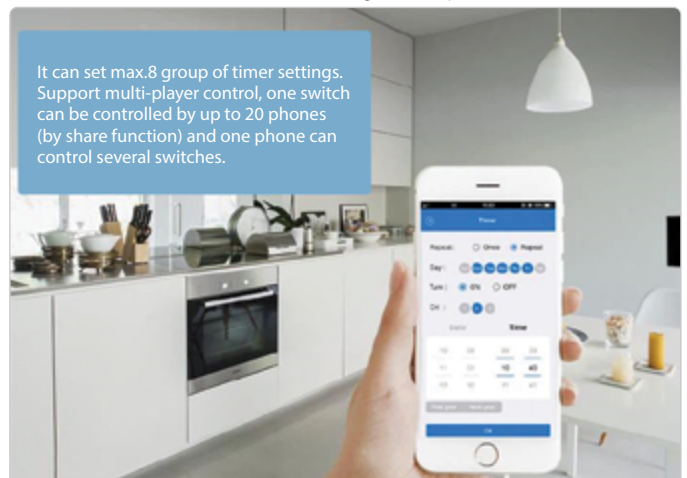
Hands-free voice control

Compatible with Alexa and Google Home



Support timer function

Includes countdown, single and repeat timer



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



RF433 WALL TOUCH DIMMER SINGLE LIVE LINE SWITCHES EU/UK TYPE

Remote Dimmer Switch can be controlled by remote controller. This makes it easier to use and allows you to remotely control the lighting from all corners of the room.

CONTROL: Local with remote control or via touching

TECHNICAL DATA

- Gang: 1; 2; 3
- Ways: 1
- Receiving frequency: 433MHz
- Powered by single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black
- Remote control: Not included

Catalogue number	Output power	Gang	Way	Colour	Packing/ Box (pcs)
195013/WH	500W	1	1	White	1/100
195013/BL	500W	1	1	Black	1/100
195014/WH	500W	2	1	White	1/100
195014/BL	500W	2	1	Black	1/100
195015/WH	500W	3	1	White	1/100
195015/BL	500W	3	1	Black	1/100

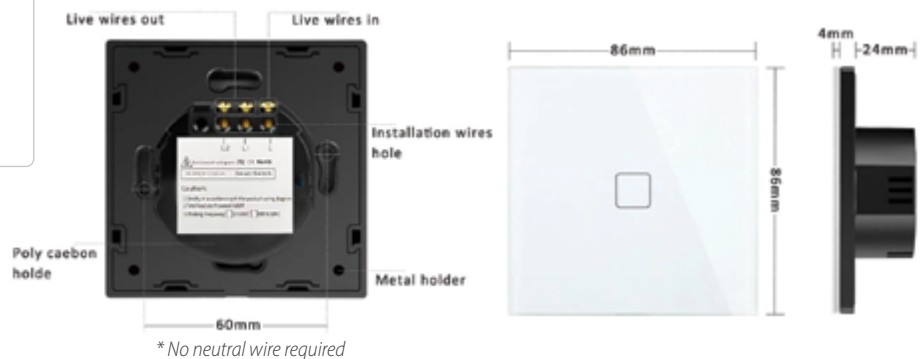
No neutral wire required

REMOTE CONTROL FOR RF433 WALL TOUCH DIMMER SWITCHES

Cat. Number
195016



Scan and watch detailed video with all product functions.



Light indicator for the state
Light-on state | Light-off state



Damp proof
Works even in humid conditions



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



Available colours:  

ELECTRICAL SOCKETS GERMAN TYPE WITH GLASS FRAMES

TECHNICAL DATA

- Input voltage: 220-240V AC
- Rated current: 16A
- Powered by null and single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black



Catalogue number	Output power	Output current	Colour	Packing/Box (pcs)
195017/WH	3520W	16A	White	1/100
195017/BL	3520W	16A	Black	1/100



Available colours:  

ELECTRICAL SOCKETS WITH USB, GERMAN TYPE WITH GLASS FRAMES

TECHNICAL DATA

- Input voltage: 220-240V AC
- Rated current: 16A
- 2xUSB
- Powered by null and single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black



Catalogue number	Output power	Output current	Colour	Packing/Box (pcs)
195018/WH	3520W	16A	White	1/100
195018/BL	3520W	16A	Black	1/100



Available colours:  

ELECTRICAL SOCKETS FRENCH TYPE WITH GLASS FRAMES

TECHNICAL DATA

- Input voltage: 220-240V AC
- Rated current: 16A
- Powered by null and single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black



Catalogue number	Output power	Output current	Colour	Packing/Box (pcs)
195019/WH	3520W	16A	White	1/100
195019/BL	3520W	16A	Black	1/100



Available colours:  

ELECTRICAL SOCKETS UK TYPE WITH GLASS FRAMES

TECHNICAL DATA

- Input voltage: 220-240V AC
- Rated current: 13A
- Powered by null and single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black



Catalogue number	Output power	Output current	Colour	Packing/Box (pcs)
195024/WH	2860W	13A	White	1/100
195024/BL	2860W	13A	Black	1/100

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Available colours:  

ELECTRICAL UNIVERSAL SOCKETS WITH USB AND GLASS FRAMES

TECHNICAL DATA

- Input voltage: 220-240V AC
- Rated current: 13A
- 2xUSB
- Powered by null and single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black



Catalogue number	Output power	Output current	Colour	Packing/Box (pcs)
195025/WH	2860W	13A	White	1/100
195025/BL	2860W	13A	Black	1/100



Available colours:  

DOUBLE ELECTRICAL SOCKETS GERMAN TYPE WITH GLASS FRAMES

TECHNICAL DATA

- Input voltage: 220-240V AC
- Rated current: 2x16A
- Powered by null and single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 147x86x24mm
- Colour: White; Black



Catalogue number	Output power	Output current	Colour	Packing/Box (pcs)
195026/WH	2x3520W	2x16A	White	1/100
195026/BL	2x3520W	2x16A	Black	1/100



Available colours:  

DOUBLE USB SOCKETS WITH GLASS FRAMES

TECHNICAL DATA

- Input voltage: 220-240V AC
- Powered by null and single live line
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black



Catalogue number	Colour	Packing/Box (pcs)
195028/WH	White	1/100
195028/BL	Black	1/100



Available colours:  

SINGLE LAN SOCKETS WITH GLASS FRAMES

TECHNICAL DATA

- Category: Cat.5
- Materials: Crystal glass panel, high quality flame retardant PC base
- Size: 86x86x24mm
- Colour: White; Black



Catalogue number	Colour	Packing/Box (pcs)
195027/WH	White	1/100
195027/BL	Black	1/100



SMART WIFI PANEL EU STANDARD

Do you need one device to centrally control multiple electrical appliances in your home, from lights, heaters, coolers, curtains, doors, and windows? NSPanel can control all of these devices, offering an integrated HMI panel for home automation that is super convenient, all you need to do is -- one tap.

NSPanel Smart Scene Wall Switch is equipped with a built-in powerful thermostat and environmental sensors. You can set different indoor temperatures for different periods of time, and NSPanel will automatically trigger the heating or cooling equipment according to your setting conditions to keep the room at a comfortable temperature. What's more, NSPanel has a Scenario-based control function, you can set different modes for wake up, work, entertainment, and sleep, and can switch modes at any time.

Such a powerful panel, how to control it? There are three ways can control NSPanel Smart Scene Wall Switch: use the dual-channel switches or touchscreen at a close distance, use the APP to control when you are at a long distance.

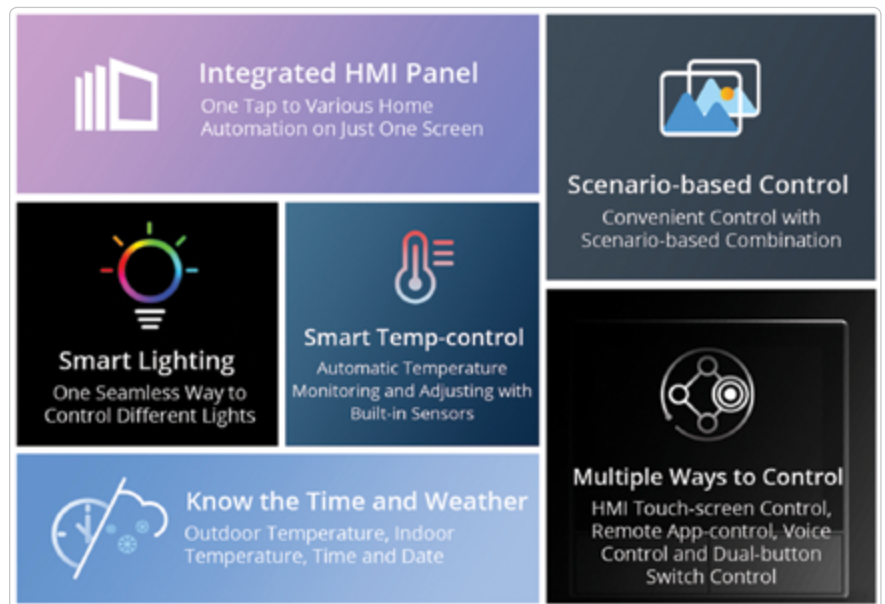
NSPanel is compatible with various devices of SONOFF, such as smart led bulbs, LED Filament Bulb, LED light strips, S26/S31 plugs, TX, MINIR2, POWR3!

CONTROL: From anywhere via Smart device

FUNCTION

- **All in One Control Center:** NSPanel can help you achieve the use of specific scene modes in different scenes with one tap. In addition to the scenario-based control, it is compatible with almost all sonoff devices and the central control function of the control group.
- **Integrated HMI Panel:** NSPanel centrally integrates HMI control, smart temperature control, and smart wall switch, turning your home into a convenient and smart place.
- **Home Automation Thermostat:** With a built-in powerful thermostat, you can set different indoor temperatures for different periods of time, and NSPanel will automatically trigger the heating or cooling equipment according to your setting conditions to keep the room at a comfortable temperature.
- **Multiple Ways to Control:** You can use the dual-channel switches, touchscreen, and eWeLink App to control SONOFF NSPanel; Besides, SONOFF NSPanel supports Alexa, Alice, Google Assistant, and even Siri Shortcuts, you can control your home appliances with simple voice control.
- **Know the Time & Weather:** With built-in sensors and WiFi connection, NSPanel smart scene wall switch can real-time updates weather, indoor temperature, outdoor temperature, time, and date.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 100-240VAC 50/60Hz
- Output power: 2x2A (4AMax.)
- Gang: 2
- LED load: 2x300W (Max.600W)
- TFT Screen: 3.5 Capacitive Touch Panel
- Wireless Standard: 802.11 b/g/n
- Bluetooth Standard: 4.2 BLE
- Enclosure Material: PC V0 + CRS + Glass
- Dimension (LxWxH): 86x86x41.7 mm

Catalogue number	Input voltage	Resistive current	Resistive load	Colour	Packing/Box (pcs)
NSPANEL-EU	100-240V AC	2x2A	2x300W	Black	1/100



Scan and watch detailed video with all product functions.

Customize and preset the temperature you prefer

NSPanel triggers the heating or cooling appliances automatically to keep the indoor temperature of your home at a certain point according to your schedule and settings.



Instant access to scene-customization

NSPanel allows you to preset specific conditions for different selected scenes so that you can trigger them at any time



Multiple interactive ways of control



Close distance

A convenient combination of HMI smart touch panel and dual-channel wall switch.
Suitable for close-distance control over brightness, room temperature and more.

Middle distance

Super intelligent and sensitive voice control for home automation via Alexa, Google Assistant or Alice.

Long distance

Smart control your home via eWeLink App with its multinational features even at outdoors

3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended

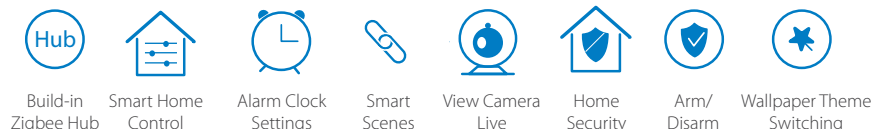


SMART WIFI PRO PANEL EU STANDARD

NSPanel Pro is a smart home control panel. Your smart lights, switches, heaters, coolers, curtains, and all your smart devices can be controlled. An unlimited number of control devices, all in one panel.

NSPanel Pro can quickly add Zigbee devices on the screen in batches. Standard Zigbee 3.0 protocol makes the connection more stable and the coverage wider. Support all SONOFF Zigbee devices such as Zigbee Sensors, ZBMINI, and BASICZBR3.

NSPanel Pro can be used as a display, supports adding four types of cameras for live monitoring. Viewing the real-time monitoring of living room, garage, bedroom, etc on the panel at any time. Power Consumption Graph, Customize Wallpaper, and Call Intercom.



CONTROL: Local or from Anywhere via Smart Device

FUNCTION

- Multi-protocol Gateway: Support Wi-Fi, Zigbee, eWeLink app, Matter and Bluetooth
- All in one panel: Unlimited numbers of control devices like smart lights, smart cameras, sensors and switches. Support smart scenes, thermostats, power consumption statistics, group control and etc.
- Local control: Zigbee devices support local control and smart scenes. No longer relying on WI-FI to control.
- Customize your home security mode: 3 modes by setting different arming devices. Easy arm and disarm.
- Go out with easy: One click to enable Away Mode- turn off all appliances and turn ON alarm.
- Sleep mode: automatically turn OFF lights and close curtains, leaving a small night light to accompany you until morning.
- Use as doorbell: Panel and wireless button can act as the doorbell.
- Remote talk by camera: Used with a smart camera, when someone comes to visit, you can check the situation and speak with visitor via two way intercom.
- Smart temperature control: Choose the temperature source and execution devices to form your own thermostat.
- Check power consumption at any time: Smart panel help you live an eco friendly life.
- Call intercom: Support phone to panel and between panels calls
- Music rhythm console: The lights in the room change colours with the music rhythm and various modes are available.
- Weekly weather know in advance
- Upload your own wallpaper
- Use as alarm clock

Check power consumption at any time



Weekly weather know in advance



Not only Smart Panel, but Zigbee Hub

Quickly add Zigbee devices on the screen in batches



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

TECHNICAL DATA

- TECHNICAL DATA:
- Input voltage: 100-240VAC 50/60Hz
- Max. power consumption: 5W (150mA)
- Wireless Standard: 802.11 b/g/n
- Zigbee: IEEE 802.15.4 (Zigbee 3.0)
- TFT Screen: 3.95 Capacitive Touch Panel
- Screen resolution: 480x480
- MCU: PX30
- CPU: 4-cores Cortex-A35
- GPU: Mali-G31GPU
- RAM: 2GB, DDR3
- ROM: 8GB, eMMC 5.1
- Enclosure Material: PC V0 + CRS + Glass
- Colour: Dark grey
- Dimension (LxWxH): 86x86x39.5 mm

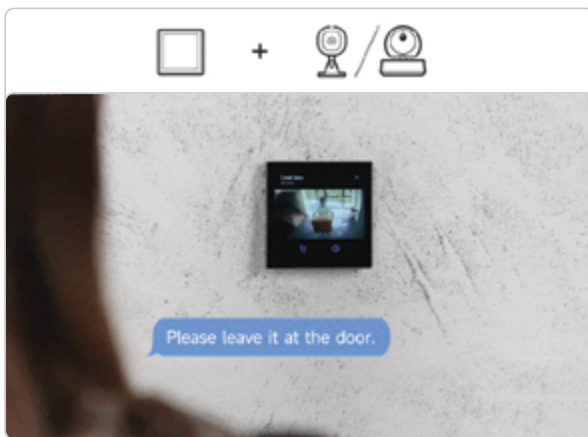
Catalogue number	Input voltage	Screen resolution	Colour	Packing/ Box (pcs)
NSPANEL86PB	100-240VAC	480x480	Dark grey	1/100



Scan and watch detailed video with all product functions.

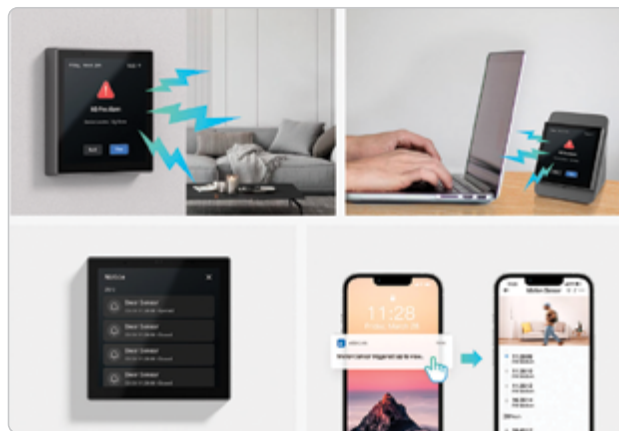
Remote talk by camera

Used with a smart camera, when someone comes to visit, check the situation through the camera first to confirm safety. It also supports two-way talk to make communication easier.



Security Alert

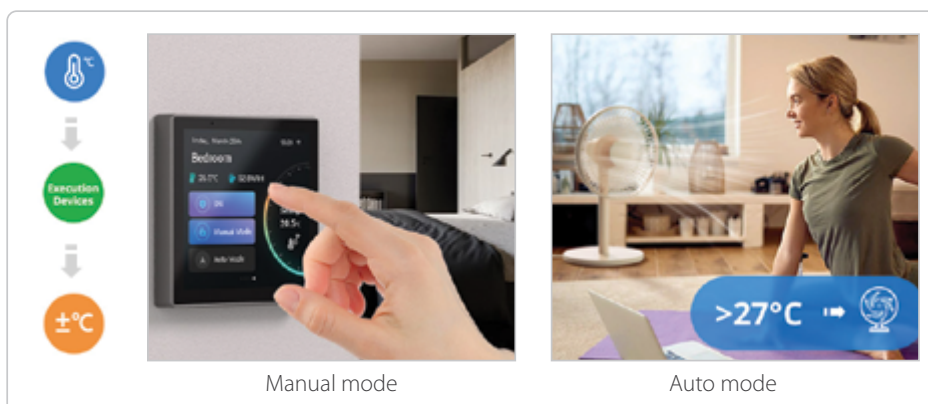
After arming, once the sensor is triggered, the panel will alarm and you will receive a notification alert on your phone.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Smart temperature control

Choose the temperature source and execution devices to form your own thermostat.





MINI WIFI SMART SWITCH, MINI R3

MINI R3 is a small body with powerful functions, the maximum load current can be up to 16A that making it a powerful solution to smarten your appliances. MINI R3 is compatible with Alexa, Google Assistant, Siri shortcut, and Alice. Just say your needs out, the smart device can do what you want to do. With the sync status on eWeLink App, your worry about leaving the appliances on at home is no longer a concern. Just pull out your phone and tap on it.

MINI R3 have been tested for safety and comply with the requirement of international regulations, as TÜV certified and FCC&CE certification ensures high trust, quality, and safety.

CONTROL: From anywhere via Smart device

FUNCTION

- **Max. 16A Load Current:** The maximum load current of MINI R3 can be up to 16A that making it a powerful solution to smarten your appliances.
- **Open Device REST API:** Connect and control the MINI R3 with your existing home automation system like Home Assistant via LAN.
- **"eWeLink-Remote" Control:** MINI R3 is a smart switch with the gateway function of "eWeLink-Remote". If you want to use the "eWeLink-Remote" control function, you need to use it with the S-MATE or scene switch R5.
- **No Neutral Wire Required Solution:** If your switch box does not have a neutral wire, a collocation of MINI R3 and S-MATE can be installed and used.
- **Safe And Reliable:** TÜV, CE, and FCC certifications ensure a safer and more reliable product.

"NEW" Smart switch solution for switch box with NO neutral wire

	16A
	"NO NEUTRAL WIRE" solution
	Remain existing switches

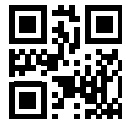
						DIY	MINI
Control Anywhere	Voice control	Schedule Timing	LAN Control	Inching Mode	Group Control	DIY Mode	Small & Compact

Download eWeLink Application.
Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 100-240V AC, 50/60Hz
- Output current: Max 16A
- Max. Power: 3500W(16A)
- Wireless Standard: 802.11 b/g/n
- Security Mechanism: WPA-PSK/WPA2-PSK
- Enclosure Material: PC V0
- Dimension (LxWxH): 54x54x24 mm

Scan and watch detailed video with all product functions.

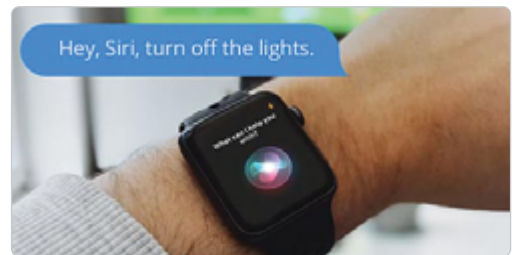


Catalogue number	Input voltage	Resistive current	Resistive load	Colour	Packing/Box (pcs)
MINIR3	100-250V AC	16A	3500W	White	1/800

Control your devices no matter where you are via eWeLink APP

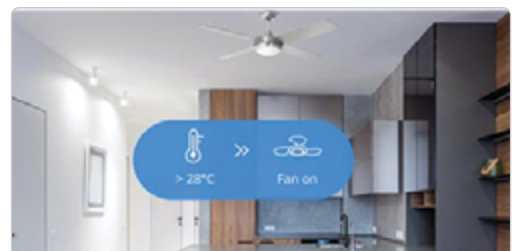


Siri voice control is a shortcut of Siri in eWeLink APP



Use your voice!
No need to stand up to switch off the lights.

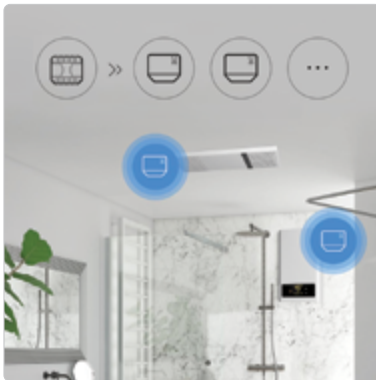
Set a smart scene and make your life even smarter



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



One S-MATE with more MINI R3 creates more possibilities



S-MATE SWITCH

S-MATE can connect the ordinary 1/2/3-button wall switch which acts as a remote controller. After pairing with MINI R3, MINI R3 can be controlled locally by S-MATE through the “eWeLink-Remote” signal, and trigger other smart devices in the smart scene. 1 MINIR3 can connect more S-MATE, and 1 S-MATE can be added to 3 MINIR3.

S-MATE is battery-powered, so it does not require a neutral wire in the mounting box. S-MATE is fit for almost any switch type, such as pulse switch, rocker switch, and change your existing switch into a smart one.

SONOFF S-MATE is the module that can transmit the “eWeLink-Remote” signal, we also named it “eWeLink-Remote sub-devices”. MINI R3 is the device with “eWeLink-Remote” received, we name it “eWeLink-Remote gateway”. Once S-MATE was added to any eWeLink-Remote gateway (such as MINI R3, M5, B05-BL), can not only control all products with eWeLink-Remote gateway when there is no network connection locally but also controls any other SONOFF smart device in the smart scene when there is a network connection. It is “eWeLink-Remote” Control.

CONTROL: Control built-in “eWeLink-Remote gateway” devices when no Internet is available, and it can trigger other smart devices in the smart scene when there is a network connection.

FUNCTION

- “eWeLink-Remote” Control: Use it with the MINI R3 or other smart switch with the gateway function of “eWeLink-Remote”, it can achieve “eWeLink-Remote” control.
- Compatible With Switch Types: S-MATE is fit for almost any switch type, like, pulse switch, rocker switch, change your existing switch into a smart one.
- Switch Mate: Works with MINI R3 smart switch, M5 smart wall switch, B05-BL LED Bulb and S40/ S40 LITE smart plug.

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 100-240V AC, 50/60Hz
- Output current: Max 16A
- Power supply: 3V button cell x 1
- Battery type: CR2032
- Enclosure Material: PC V0
- Dimension (LxWxH): 51x44.5x24 mm

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
S-MATE	100-240V AC	16A	3500W	White	1/100

Scan and watch detailed video with all product functions.



MINI R3 & S-MATE

S-MATE can connect the ordinary 1/2/3-button wall switch which acts as a remote controller. It is battery-powered, so it doesn't require a neutral wire in the mounting box.



S-MATE switch mate

Make your existing ordinary wall switch be a smart scene switch to control smart devices.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Cable-less connection



Easy mounting
Pasted with 3M adhesive or easily use by Magnetic attraction



6-key free-wiring scene remote controller

Can be added to eWeLink gateway to control all devices in eWeLink APP using three trigger ways in Scene



R5 SCENE CONTROLLER

When you have too many smart devices, and they are distributed in different rooms but don't want to control them through your phone? You need an R5 scene remote controller at this time, R5 can be added to the eWeLink-Remote gateway to control all devices in the eWeLink APP using three trigger ways in the scene.

SONOFF R5 is the module that can transmit the "eWeLink-Remote" signal, we also named it "eWeLink-Remote sub-devices". R5 scene remote controller can be added to the smart devices featuring the "eWeLink-Remote" gateway, like M5 smart wall switch, MNINI R3 smart switch and B05-BL smart LED bulb, can not only control all products with eWeLink-Remote gateway when there is no network connection locally but also controls any other SONOFF smart device in the smart scene when there is a network connection. It is "eWeLink-Remote" Control.

Use R5 with SONOFF M5 Switchman Smart Wall Switch, the same light can be controlled on both sides of the room even when M5 is offline. Never worry and spend time on two-way or multi-way control wiring. You can stick R5 on the wall as a switch, or take it off as a remote controller. One eWeLink-Remote gateway can add up to 8 R5 scene remote controllers!

FUNCTION

- Scene Control: All SONOFF devices can be controlled by setting the smart scenes when the internet connection is available.
- "eWeLink-Remote" Control: Control the device which has the eWeLink-Remote gateway feature even offline, 90M remote control without Network.
- Multi Trigger Ways: Trigger the smart scene by clicking, double click, or long-press. Up to 18 trigger actions to set different scenes
- Two-way or Multi-way Control: Simple way to achieve two-way or multi-way control by eWeLink-Remote with M5 smart wall switch.
- Free-wiring Stick-on: Pasted with 3M adhesive or easily use by Magnetic attraction.

Note : SONOFF M5 smart switch and S40/S40 LITE smart plus are "eWeLink-Remote gateway, which can be used with R5 remote controller to realize two-way or multi-ways control without wiring even M5/MINIR3/B02-BL/B05-BL/S40/S40 LITE is off-line.

TECHNICAL DATA

- Power supply: 3V button cell x 2 pcs
- Battery type: CR2032
- Colour: Dark grey
- Button QTY: 6
- Enclosure Material: PC V0
- Dimension (LxWxH): 86x86x13.5 mm

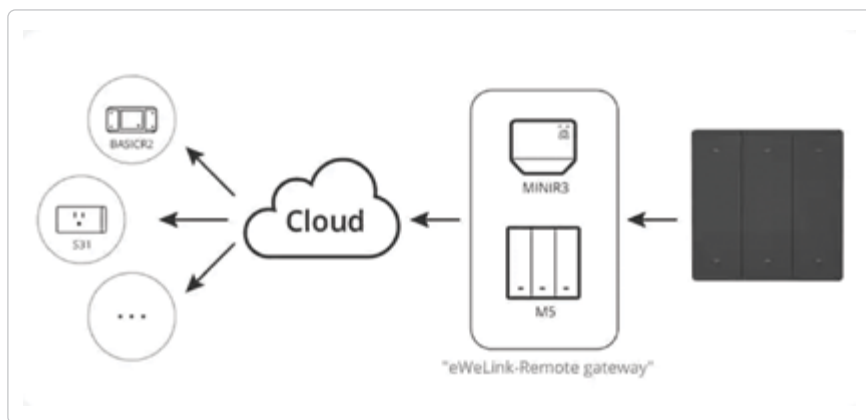
Download eWeLink Application.
Full info for the products, instructions can be found at www.elmarkholding.eu

Catalogue number	Power supply	Battery type	Colour	Packing/box (pcs)
R5	5V	CR2032	Dark grey	1/100

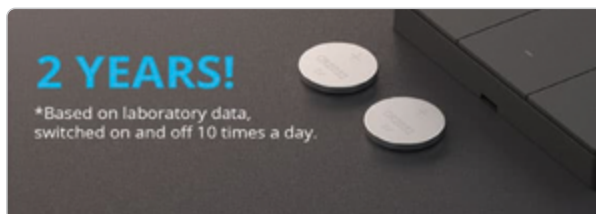


Scan and watch detailed video with all product functions.

Local control by eWeLink-Remote



Long battery life & Wireless stick-on



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ONE CHANNEL WI-FI SMART SWITCH



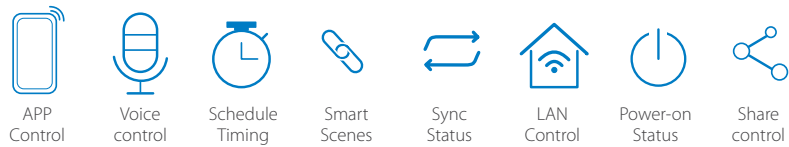
One channel smart switch, remotely controllable via Internet and smartphone, Wi-Fi equipped, with timer function, 2200W (10A) peak output.

CONTROL: From anywhere via Smart device

FUNCTION

- Safe And Reliable: ETL, CE, FCC, and RoHS certifications ensure a safer and more reliable product.
- Voice Control: Compatible with Amazon Alexa, Google Assistant, SmartThings, and Alice. Just speak out your command, the smart device can do on/off as you say.
- Easily DIY Your Smart Home Appliances: Connect directly to the middle of the power supply and the appliance to quickly make your ordinary appliances smart without buying a new smart one.
- Smart Scenes: Trigger other smart devices, make actions auto-on/-off. The appliances understand you, and your life becomes simpler.
- Fully Functional: By presetting timers or schedules on the eWeLink App, your USB LED light strips can be automatically turned on/off at a specific time. Automate your home appliances via different timing schedules, such as USB lamps, USB fan, USB water pump, etc

Arrange working time for devices



Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: 100-240V AC 50/60Hz
- Output: 100-240V AC 50/60Hz
- Max.Load: 10A/2200W
- Gang: 1
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0
- Dimensions LxWxH: 90x41x27 mm
- Product weight: 58g

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
195001	90-250V AC	10A	2200W	White	1/800

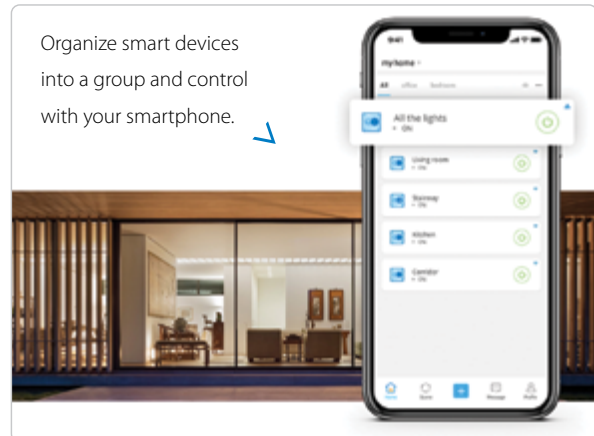
Scan and watch detailed video with all product functions.



Makes home appliances smart, ready to control your home from away



Manage a group of devices with a tap



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



TWO CHANNEL WI-FI SMART SWITCH

Two channel smart switch, remotely controllable via Internet and smartphone, Wi-Fi equipped, with timer function, 2x2200W (2x10A) peak output.

CONTROL: From anywhere via Smart device

FUNCTION

- Safe And Reliable: ETL, CE, FCC, and RoHS certifications ensure a safer and more reliable product.
- Voice Control: Compatible with Amazon Alexa, Google Assistant, SmartThings, and Alice. Just speak out your command, the smart device can do on/off as you say.
- Easily DIY Your Smart Home Appliances: Connect directly to the middle of the power supply and the appliance to quickly make your ordinary appliances smart without buying a new smart one.
- Smart Scenes: Trigger other smart devices, make actions auto-on/-off. The appliances understand you, and your life becomes simpler.
- Fully Functional: By presetting timers or schedules on the eWeLink App, your USB LED light strips can be automatically turned on/off at a specific time. Automate your home appliances via different timing schedules, such as USB lamps, USB fan, USB water pump, etc

Arrange working time for devices



APP Control



Voice control



Schedule Timing



Smart Scenes



Sync Status



LAN Control



Power-on Status



Share control

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: 100-240V AC 50/60Hz
- Output: 100-240V AC 50/60Hz
- Max.Load: 2x10A/2x2200W
- Gang: 2
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0
- Dimensions LxWxH: 90x41x27 mm
- Product weight: 59g

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
195004	90-250V AC	2x10A	2x2200W	White	1/800

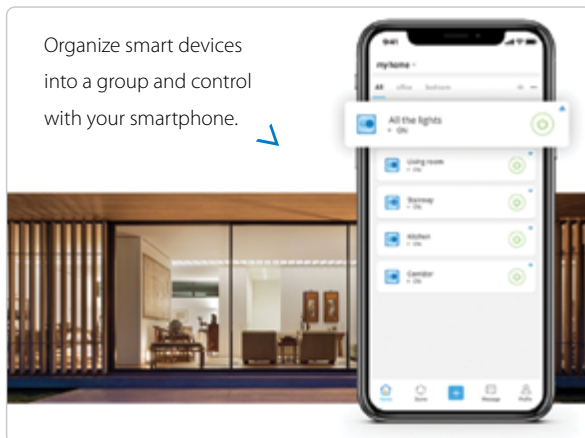
Scan and watch detailed video with all product functions.



Makes home appliances smart, ready to control your home from afar



Manage a group of devices with a tap



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



WI-FI DIY SMART RF CONTROL SWITCH

This is a WiFi Smart Switch with the DIY capability that makes it possible to control connected devices via the eWeLink directly from your phone, or ask it to turn on/off devices with Amazon Alexa and Google Assistant. Amazingly, it has a DIY mode that is the firmware can be user-defined. Built-in a web server that exposes the REST AP, which allows you to connect the switch with your existing home automation system. Compatible with HomeSeer, Home Assistant, etc, for the protocol document and the code for the DIY Mode tool.

RFR3 provides you extra control helper - the matched RM 433 remote controller. Just choose the control way you preferred, simply set a timer to let your devices switch on/off automatically at a pre-set time through a day. Compatible with the IFTTT function, and you can make more actions happen to trigger other devices, or receive a notification on your phone once the action was triggered.

Along with support for smart scenes, just set a device to turn on/off to make another or a boat-load of devices turn on/off. The LAN control is designed for situations which no available Wi-Fi connection, or an unsteady Wi-Fi network environment. A convenient option that is share control is capable of allowing you to manage the same device with your family or friends together, simply share it on the eWeLink app to try. Amazingly, the module with unique DIY function, the way you can assemble it with your ordinary appliances to turn them into intelligent.

CONTROL: From anywhere via Smart device

FUNCTION

- Open Device REST API: Connect and control the RFR3 with your existing home automation system like Home Assistant via LAN.
- With 433MHz RF Control: Use your common 433MHz remote control to turn on/off the device without Internet.
- Voice Control: Compatible with Amazon Alexa, Google Assistant, SmartThings, and Alice. Just speak out your command, the smart device can do on/off as you say.
- Easily DIY Your Smart Home Appliances: Connect RFR3 directly to the middle of the power supply and the appliance to quickly make your ordinary appliances smart without buying a new smart one.
- Smart Scenes: Trigger other smart devices, make actions auto-on/-off. The appliances understand you, and your life becomes simpler.
- Fully Functional: RFR3 has all the most basic functions, like remote APP control, LAN control, smart scenes, timing schedule, share control, etc. Your best choice for the DIY switch etc.

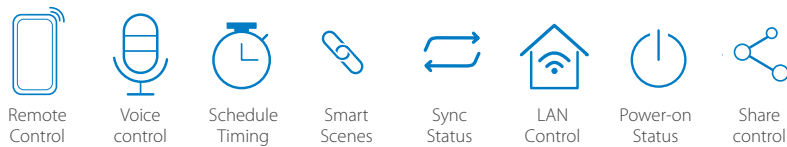
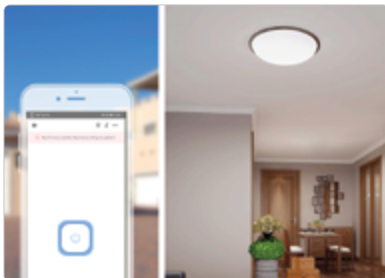
Timer & Schedule

Single | Repeat | Countdown | Loop timer



Sync status

Real-time device status can be provided on eWeLink App



Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
BASICRFR3	100-240V AC	10A	2200W	White	1/400

TECHNICAL DATA

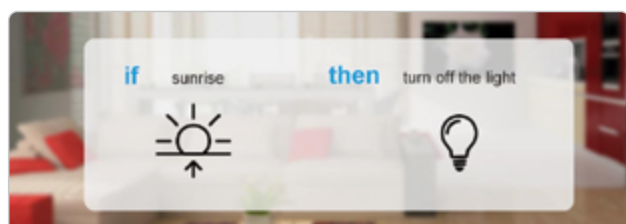
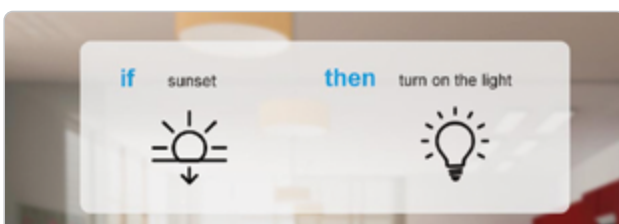
- Input: 100-240V AC 50/60Hz
- Output: 100-240V AC 50/60Hz
- Max.Load: 2x10A/2x2200W
- Gang: 2
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0
- Dimensions LxWxH: 90x41x27 mm
- Product weight: 59g

Scan and watch detailed video with all product functions.



Compatible with IFTTT

Unlimited possibilities to control the devices

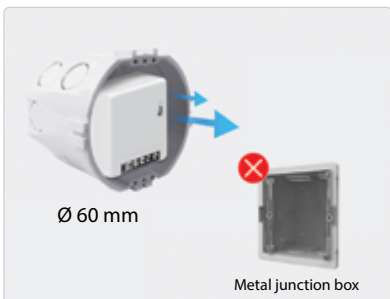




Small and compact



Installation guide



TWO WAY SMART MINI SWITCH

MINIR2, as a reinforced MINI two-way DIY smart switch, has been redesigned to lift the safety and performance to the optimal level. The old version MINI has an external antenna with strong electricity, but the MINIR2's antenna is hidden totally into the interior that ensures you peace of mind to use it to control your devices. Additionally, the interface S1 and S2 are colored to gray which is distinguished from other input and output interfaces in order to further remind you not to connect the strong current to both of the interfaces. 2KV surge testing meets the 1KV surge testing standard that CE certification requires, and it passed the ANATEL certification, so MINIR2 give you enough safety to bring you a safe use experience. The small and compact smart switch is used for different kinds of switch boxes, even the smallest EU standard switch box. Convenient to automate your home appliances on eWeLink app with your smartphone or your voice command. Support 3 triggering modes that pulse mode (works with push button switches), edge mode (Works with SPDT switches) and following mode (Works with switches with "ON" and "OFF" mark and sensors with dry contact output). It supports the DIY mode (designed for developers) which allows users to integrate MINIR2 into worldwide third-party open source smart home control system to achieve LAN control without cloud service, such as Home Assistant, openHAB, ioBroker .etc

CONTROL: From anywhere via Smart device

FUNCTION

- Two-Way Control: Use MINIR2 to retrofit a light and hide it in the switch box, without any traces. You will get a smart light and the physical switch controlling is still retained.
- Voice Control: Compatible with Amazon Alexa, Google Assistant, SmartThings, and Alice. Just speak out your command, the smart device can do on/off as you say.
- Open Device REST API: Connect and control the MINIR2 with your existing home automation system like Home Assistant via LAN.
- Smart Scenes: Trigger other smart devices, make actions auto-on/-off. The appliances understand you, and your life becomes simpler.
- Fully Functional: MINIR2 has all the most basic functions, like remote APP control, LAN control, timing schedule, share control, etc. Your best choice for the DIY switch.



APP Control



Voice control



Schedule Timing



LAN Control



Power-on Status

DIY

DIY Mode

MINI

Small Body

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: 100-240V AC 50/60Hz
- Output: 100-240V AC 50/60Hz
- Max.Load:10A/2200W

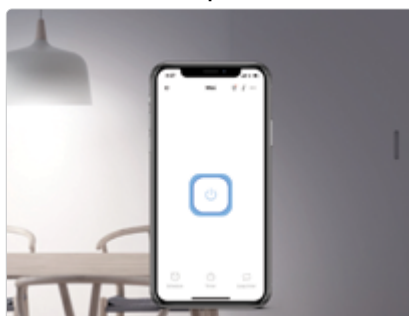
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC VO
- Dimensions LxWxH: 42.6x42.6x20 mm

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
MINIR2	100-240V AC	2x10A	2x2200W	White	1/400

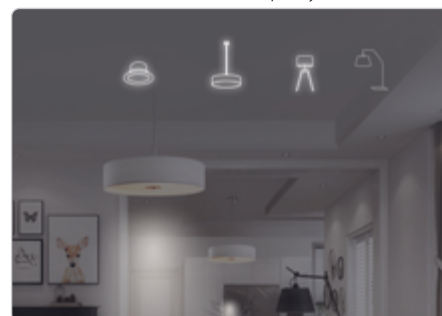
Scan and watch detailed video with all product functions.



Get your house lighted via your smartphone



Customize smart scenes On/Off time, it's up to you





SMART DIMMER SWITCH

New D1 smart dimmer switch excellently improves the lighting system in your home with different brightness levels. Turn on/off, brighten and dim the incandescent light bulbs and dimmable LED lights through the RM433 remote controller, eWeLink APP, Alexa or Google Home. The newly added sunrise and sunset mode are available in smart scene to activate your light when sunsets and inactivate it when sunrises. Amazingly, timing schedule and brightness setting can be enabled simultaneously in smart scene. It means that you can schedule the bed-room light to automatically turn on at 40% brightness at 7:00 AM and turn off at 100% brightness at 7:00 PM.

CONTROL: From Anywhere via Smart Device or by remote control

FUNCTION

- **Stepless Dimmable:** Set the dimming range you want and adjust the light steplessly at any time. Support to dim incandescent light bulbs and dimmable LED light
- **Open Device REST API:** Connect and control the D1 with your existing home automation system like Home Assistant via LAN. Set up scenarios with different light intensities.
- **Sunrise & Sunset Scenes:** Keep track of the sun rise and set time of your location, so you can create a scene that activates at a fixed time, when the sun rises or when the sun sets.
- **RF 433MHz Remote Control:** Even easier dimming at hand, turn the light down casually with the RF 433MHz remote controller RM433 at the thrilling movie night, or on/off the light, enjoy an immersing moment
- **Adjust Party Ambience with Your Voice:** Turn up/down the brightness level light with your voice command for a great atmosphere via Amazon Alexa & Google Assistant.



Smart Dimming



Remote Control



RF Control



Voice control



Schedule Timing



Share control



Smart Scenes



Power-on Status

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: 100-240V AC 50/60Hz
- Output: 100-240V AC 50/60Hz
- Max. Current: 1A
- Incandescent bulb: 200W
- Dimmable LED: 150W
- RF: 433.92MHz
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: PC V0
- Dimensions LxWxH: 62x47x32.5 mm

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
D1	100-240V AC	1A	200W	White	1/200

Scan and watch detailed video with all product functions.



Set the brightness for the preset time



Adjustable in 4 lighting levels



Dim light on the right level via eWeLink App



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended





WI-FI SMART POWER METER SWITCH

This is 16A WiFi smart light switch that allows you to remotely manage and control your appliances and monitor your home energy usage. The WiFi light switch works like a power monitor, which allows you to keep track of 99% accurate real-time current, voltage and power on your app.

CONTROL: From anywhere via Smart device

FUNCTION

- Remote Control –Turn electronic devices on/off from anywhere
- Monitor Energy Usage –Keep track of live power, current and voltage of your appliances on App
- Historical Energy Consumption –100-day daily/monthly energy usage data and total electricity cost
- Overload Protection –Set power, current and voltage threshold values to let appliances auto-off
- Measure Power Usage for a Period –Measure your appliances' power consumption for a specified time
- Sync Status–Real-time device status provided to App
- Timing Function –Supports 8 enabled scheduled/countdown timers
- Share Control –Invite your family to control your smart home together
- Scene–Turn on/off a gang of devices with one tap or triggered on/off by another smart device
- Smart Scene–Triggered on/off by temp, hum or other environmental conditions from a sensor
- APP Supported –Free iOS and Android eWeLink app
- Compatibility –Works perfectly with Amazon Alexa, Google Assistant, IFTTT, Google Nest

Set timers

Set a timer to turn appliances On or Off



Remote Control



Voice control



Schedule Timing



Smart Scenes



Sync Status



Share control



Power Metering



Overload Protection

Download eWeLink Application.

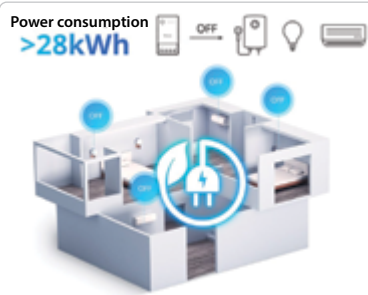
Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: 100-240V AC 50/60Hz
- Output: 100-240V AC 50/60Hz
- Max.Load: 16A/3500W
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Material: Fire-retardant ABS V0
- Dimensions LxWxH: 114x52x32 mm
- Product weight: 91g

Catalogue number	Input voltage	Resistive current	Resistive load	Colour	Packing/Box (pcs)
195003	90-250V AC	16A	3500W	White	1/800

Scan and watch detailed video with all product functions.



Calculate power consumption

You can find savings by checking daily, monthly and yearly cumulative power consumption. Date dashboard shows real power.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



TWO WAY SMART MINI POWER METERING SWITCH

DUALR3 is a flush-mounted Wi-Fi smart dual relay switch module that is installed behind any standard switch to transfer it into a smart switch for wireless remote control with mobile devices or voice command. Unifying your home appliances into an integrated wireless network to make them communicate with one another which is convenient for you to manage and control, including lights, home appliances and motorized facilities like roller shutters, window shades, blinds, awning, etc.

Three working modes available. DUALR3 comes with switch mode, motor mode and meter mode. One of the typical features is roller shutter and window shades smart control in the motor mode. The switch module offers the ultimate flexibility for your roller shutter and window shades by app remote control and scheduling timed events no matter whether you are home or away. Double two-way control. The double relay switch module distributes the load to two inputs compared to the simple relay, which this working mechanism lets you have two-way control for two devices independently.

CONTROL: From anywhere via Smart device

FUNCTION

- Roller Shades Motor Control: Let your electric curtains, roller blinds, etc. become smart immediately.
- External Switch Two-Way Control: DUALR3 has 6 types of external switch detection mechanisms, making it suitable for most physical switch control
- Power Metering: The 2-Gang detects voltage, current, and power values and counts the power consumption for you independently to allow for reasonable energy consumption control.
- With The Most Features: DUALR3 has three working modes that meet the needs of different application scenarios. Remote, timing, voice control, smart scenes, and other functions are all available.
- Safe And Reliable: TUV, CE, FCC, and RoHS certifications ensure a safer and more reliable product.

Double Two-Way control of lifts



APP Control



Voice control



Schedule Timing



LAN Control



Double Two-Way Control



Power Metering



Overload Protection

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

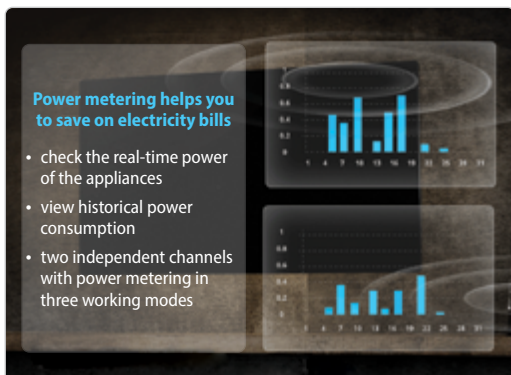
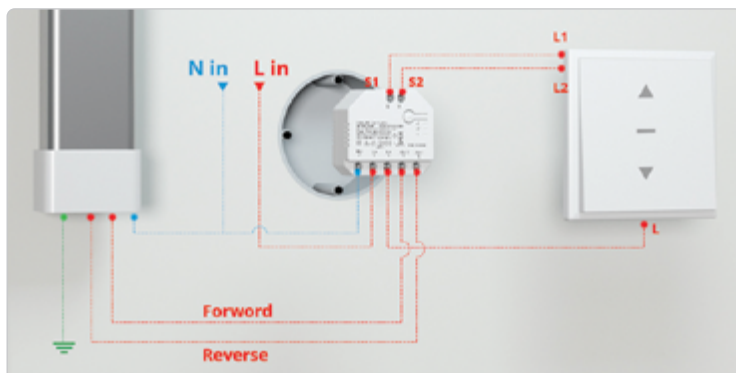
- Input: 100-240V AC 50/60Hz
- Output: 100-240V AC 50/60Hz
- Resistive Load: 10A/2200W Gang; 3300W/15A Total
- Motor Load: 10-240W / 1A
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Mounting: On DIN-Rail
- Material: PC V0
- Working temperature: from -10°C to 40°C
- Dimensions LxWxH: 54x49x24 mm

Catalogue number	Input voltage	Resistive current	Resistive load	Colour	Packing/Box (pcs)
DUALR3	100-240V AC	2x10A	2x2200W	White	1/400

Scan and watch detailed video with all product functions.



Demo wiring diagram



Power metering helps you to save on electricity bills

- check the real-time power of the appliances
- view historical power consumption
- two independent channels with power metering in three working modes



SMART WIFI POW ELITE POWER METER SWITCH, 16A

CONTROL: Local or from Anywhere via Smart Device

POW Elite can track your appliances power, current, and voltage in real-time and cumulative power consumption. POW Elite support to check 6-Month power consumption historical data accurate to the hour, the data can be exported to excel on your phone. You can set daily/monthly power consumption thresholds when the consumption goal is reached, you will get a push notification. Support adding SONOFF devices to Home Assistant for control and automation through the eWeLink add-on. To better help you save energy usage, POW Elite joins Alexa Energy Dashboard, you can centrally view the overall or individual device energy consumption in the dashboard. If you subscribe eWeLink Advanced plan, POW Elite is also compatible with IFTTT and eWeLink Web control. POW Elite with the highest flame-retardant grade V-0 enclosure, upgraded terminal wirings, and more amounts of tin minimize every security risk detail.

FUNCTION

- LCD Screen: Track of power, current, voltage, and cumulative power consumption of your appliances in real-time on the LCD screen.
- 6-Month Consumption History Data by Hours: Power consumption data (accurate to hours) can be kept for up to 6 months which can be exported to excel on your phone.
- Overload Protection: You can set power, current, and voltage threshold. Once any condition is met, the POW Elite will be turned off to protect your appliances.
- Fully Functional: POW Elite has all the most basic functions, like App control, voice control, LAN control, timing schedule, inching setting, power on state, etc.



TECHNICAL DATA:

- Input voltage: 100-240VAC 50/60Hz
- Output current: 16A
- Wireless Standard: 802.11 b/g/n
- Enclosure Material: PC V0
- Mounting: on DIN-Rail
- Dimension (LxWxH): 98x54x31 mm

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

Scan and watch detailed video with all product functions.



Catalogue number	Input voltage	Output current	Output power	Packing/Box (pcs)
THR316D	100-240VAC	16A	4000W	1/100

6-Month Consumption History Data

Automatically saves your consumption data when you remove the appliances or there is a power failure.



Sends notification when the set consumption is reached



Voice control

Works perfectly with Amazon Alexa, Google Assistant, IFTTT



Set timers

Set a timer to turn appliances on or off



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



HIGH POWER SMART SWITCH WITH POWER MONITORING

POWR3 is a high power smart switch that can make your high-powered devices smart, or act as a smart meter for a single room, connecting all the appliances in the room to the POWR3 and the power consumption of each room is counted individually. From anywhere you'll be able to see which devices are turned on, it doesn't just visually communicate how much electricity you're using, it also stores your historical energy consumption for 100 days, which can be exported to CSV on your phone.

POWR3 lets you turn electronics on or off from anywhere with your smartphone using the eWeLink app or by simply giving voice commands to Amazon Alexa or Google Home Assistant. It also can turn devices on or off according to a schedule you choose. Multiple POWR3 can be controlled centrally, and the metadata and power consumption can be displayed on Hass through eWeLink add-on. Apart from that, overload protection can keep your electricity safe at all times once an abnormality was detected, the power will be cut off to avoid device damage and danger. What's more, to better help you save energy usage, POWR3 supports Alexa smart energy, you can centrally view the overall or individual device energy consumption in the Alexa Energy Dashboard. Use the POWR3 to automate your home while saving energy!

CONTROL: From Anywhere via Smart Device

FUNCTION

- **25A/5500W Highest Output Power:** POWR3 has the highest output power to make your high-powered devices smart, or as a single room-meter to measure power consumption
- **Measuring Power Consumption:** Keep track of active power, current and voltage of your appliances on App
- **Overload protection:** Once an abnormality was detected, the power will be cut off to avoid device damage and danger.
- **One-tap switch on/off remotely:** POWR3 can cut off power wherever you are that can ensure the safety of your appliances and save on hidden electricity bills.
- **Voice Control:** Compatible with Amazon Alexa, Google Assistant, SmartThings, and Alice. Just speak out your command, the smart device can do on/off as you say.

Metadata monitoring

Voltage | Current | Active power



APP Control



Voice control



Schedule Timing



LAN Control



Power Metering



Overload Protection

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- **Input:** 100-240V AC 50/60Hz
- **Output:** 100-240V AC 50/60Hz
- **Max.Load:** 25A/5500W
- **Wi-Fi:** IEEE 802.11 b/g/n 2.4GHz
- **Material:** Fire-retardant PC V0
- **Dimensions LxWxH:** 166x122x45.5 mm

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
POWR3	100-240V AC	25A	5500W	White	1/100

Scan and watch detailed video with all product functions.

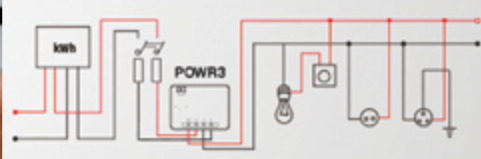


Power metering for per room



Cut off power wherever you are

POWR3 supports one-tap switch on/off remotely and synchronizes the switching status

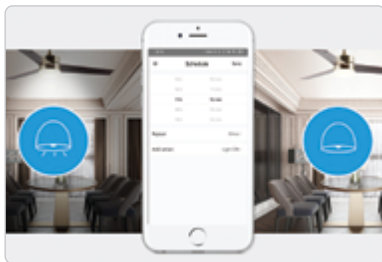


WI-FI FAN AND LIGHT SMART SWITCH CONTROLLER



Schedule the Uptime & Downtime

Set a time/countdown for your ceiling fan with lights.



iFan03 is a Wi-Fi ceiling fan and light controller supported to control the ceiling fan with light using your phone wherever you are. Voice control is designed to make you easily command iFan03 to turn on or off the fan and light, no need any manual operation. Support to control the ceiling fan with light from your phone wherever you are and whenever you want. Schedule for it to turn on and off at daytime or nighttime, or anytime throughout the day, and it will turn on or off automatically. Supplied with a RM433 remote controller where you can adjust the fan among the low, medium and high speed for getting different levels of cool feeling. The scenes feature in the app allows you to control one or multiple SONOFF devices, quickly and simultaneously with a single tap.

iFan03 comes with a 433 RF Remote, with whom you can turn on/off the fan and light, adjust fan speed indoors.

CONTROL: From Anywhere via Smart Device or by remote control

FUNCTION

- **Direct Replacement:** Simply replace your existing ordinary ceiling fan with lights controller with iFan03, you will immediately get a smart ceiling fan with lights
- **APP&433MHz RF Remote Control:** Through eWeLink App, you can remotely control the ceiling fan with lights with ease on iOS & Android smartphone anywhere and anytime. The device can be also controlled via the
- **RM433 remote controller (included in the package).** The small 433MHz remote controller design allows you to hang it on the wall as a wireless wall switch or remove it as a remote control as required.
- **3 Fan Speeds:** The APP enables you to choose low, medium, and high fan speed to keep your room comfortable.
- **Timer&Schedule:** By presetting single, repeating, and countdown timers, the iFan03 WiFi Ceiling Fan&Light Controller can be automatically turn on/off at a specific time.



APP Control



Voice control



Schedule Timing



RF Control



3 Fan Speed



Smart Scenes



Sync Status

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 100-250V AC
- Fan Output Voltage: AC100-240V 50/60Hz
- Fan Output Current: 2A
- LED Output: Max. 300W/220V
- RF Remote Control: 433.92MHZ
- Wireless Standard: 802.11 b/g/n
- Security Mechanism: WPA-PSK/WPA2-PSK
- Enclosure Material: Fire-retardant ABS V0
- Dimension (LxWxH): 116x55x26 mm

Scan and watch detailed video with all product functions.

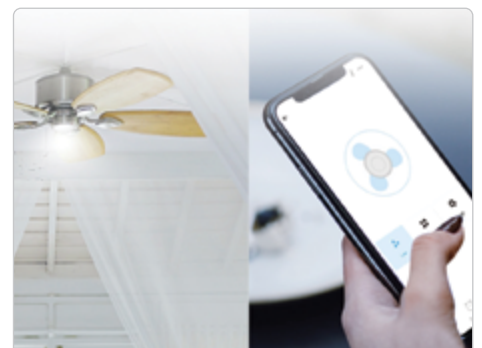
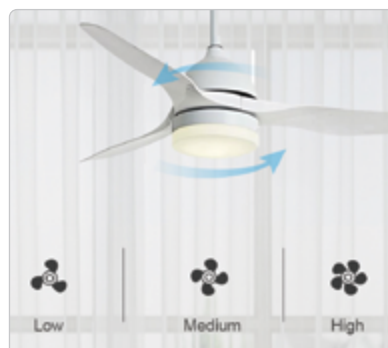


Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
IFAN03	100-240V AC	2A	600W	White	1/100

Sync the run status

Sync real-time working status to your phone

3 fan speed adjustable





WI-FI FAN AND LIGHT SMART SWITCH CONTROLLER

iFan04-H is a Wi-Fi ceiling fan and light controller supported to control the ceiling fan with light using your phone wherever you are. Voice control is designed to make you easily command iFan04 to turn on or off the fan and light, no need any manual operation. Support to control the ceiling fan with light from your phone wherever you are and whenever you want. Schedule for it to turn on and off at daytime or nighttime, or anytime throughout the day, and it will turn on or off automatically. Supplied with a RM433 remote controller where you can adjust the fan among the low, medium and high speed for getting different levels of cool feeling. The scenes feature in the app allows you to control one or multiple SONOFF devices, quickly and simultaneously with a single tap.

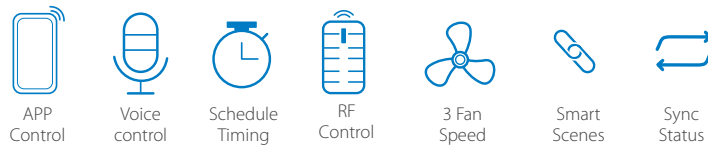
iFan04-H comes with a 433 RF Remote, with whom you can turn on/off the fan and light, adjust fan speed indoors.

CONTROL: From Anywhere via Smart Device or by remote control

FUNCTION

- **Direct Replacement:** Simply replace your existing ordinary ceiling fan with lights controller with iFan04-H, you will immediately get a smart ceiling fan with lights
- **APP&433MHz RF Remote Control:** Through eWeLink App, you can remotely control the ceiling fan with lights with ease on iOS & Android smartphone anywhere and anytime. The device can be also controlled via the RM433 remote controller (included in the package). The small 433MHz remote controller design allows you to hang it on the wall as a wireless wall switch or remove it as a remote control as required.
- **3 Fan Speeds:** The APP enables you to choose low, medium, and high fan speed to keep your room comfortable.
- **Timer & Schedule:** By presetting single, repeating, and countdown timers, the iFan034-H Wi-Fi Ceiling Fan&Light Controller can be automatically turn on/off at a specific time.
- **Hands-free Voice Control:** SONOFF iFan04-H is compatible with Amazon Alexa (Amazon Echo/ Echo Dot/Amazon Tap) and Google Home Assistant. It allows you to use your voice to control your ceiling fan with lights and enjoy a hands-free experience.

Schedule the Uptime & Downtime
Set a time/countdown for your ceiling fan with lights.



TECHNICAL DATA

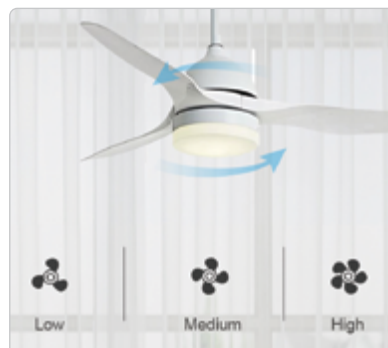
- Input voltage: 100-240V AC
- Fan Output Current: Max. 2A
- LED Output Current: Max. 3A
- RF Remote Control: 433.92MHz
- Wireless Standard: 802.11 b/g/n
- Security Mechanism: WPA-PSK/WPA2-PSK
- Enclosure Material: PC V0
- Dimension (LxWxH): 116x55x26 mm

Catalogue number	Output current	Output power	Colour	Colour	Packing/Box (pcs)
IFAN04-H	5A	690W	White	White	1/100

Scan and watch detailed video with all product functions.

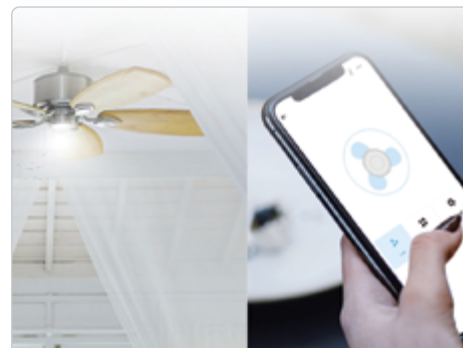


3 fan speed adjustable



Sync the run status

Sync real-time working status to your phone



Download eWeLink Application.
Full info for the products, instructions can be found at www.elmarkholding.eu



Catalogue number:
195030



Catalogue number:
195031



Catalogue number:
EXTCORDAL560

TEMPERATURE AND HUMIDITY MONITORING WI-FI SWITCH

This device is a wireless temperature and humidity monitoring switch which can remotely monitor and set temperature and humidity range to turn on/off connected appliances through the iOS/Android APP eWeLink.

Temperature and humidity switch remote temperature monitor and wireless humidity monitor Wi-Fi switch supports presetting the range for temperature or humidity. When the temperature or humidity of the environment falls within the range, it will automatically turn on or off the connected devices.

CONTROL: From anywhere via Smart device

FUNCTION

- Real-time ON/OFF control and monitoring status from temperature and humidity with sensor
- Can turn switch ON/OFF electrical devices without mounted sensor
- This device works perfectly with electric fan, air conditioner, humidifier, smart fish tank, watering
- Time setting function- turn ON/OFF at specified time after setting
- Supports max 8 enabled timing tasks
- Possibility to voice control with AMAZON ALEXA, Google Home(Stay tuned)



Voice control



Schedule Timing



Smart Scenes



Sync Status



Power-on Status



Temp.&Humid. Control

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 100-250V AC
- Input current: Max 16A
- Max. Power: 3500W(16A)
- Humidity: 5%-90%RH, Non-condensing
- Operating Temperature: from 0° to 40°C
- Wireless Standard: 802.11 b/g/n
- Security Mechanism: WPA-PSK/WPA2-PSK
- Enclosure Material: Fire-retardant ABS V0
- Dimension (LxWxH): 114x51x32 mm
- Supported temperature, humidity sensors: 195030 and 195031
- Gang: 1

Catalogue number	Input voltage	Resistive current	Resistive load	Colour	Packing/Box (pcs)
195002	100-250V AC	16A	3500W	White	1/800



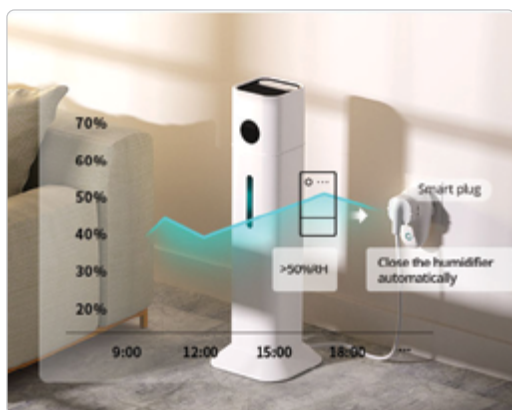
Scan and watch detailed video with all product functions.

SENSORS

- 195030 - High-precision temperature & humidity sensor, -40°C/+80°C, 0~99.9% RH
- 195031 - Waterproof temperature sensor, IP68, -55°C/+125°C
- EXTCORDAL560 - Sensor extension cable - Length 5m

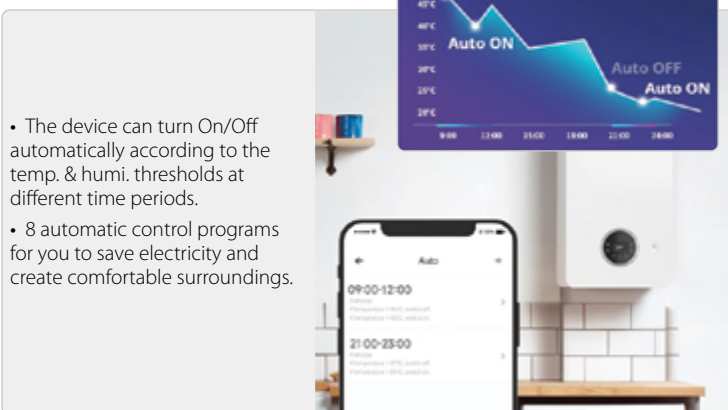
Timely notification

Monitoring the temperature & humidity in real time



Reliable Temperature & Humidity control

Supports LAN control



- The device can turn On/Off automatically according to the temp. & humi. thresholds at different time periods.
- 8 automatic control programs for you to save electricity and create comfortable surroundings.

3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



TEMPERATURE AND HUMIDITY MONITORING WI-FI SWITCH

SONOFF TH Elite is a Smart Temperature and Humidity monitoring switch based on ESP32. With an LCD screen, TH Elite keeps monitoring the temperature and humidity in real-time, once they reach your preset threshold or the device's on/off state changes, you will receive the push notification on the phone. Support to connect 20A Max high load equipment like electric floor heating. You can replace your dry contact outputted traditional thermostat with TH Elite, to control the combi boiler or any other systems controlled by the ordinary switch. TH Elite support to review 6-Month Temp & Humidity historical data accurate to the hour. In the smart scene, temperature, humidity, on, off support setting as the trigger, on, off, invert as execute actions. Support adding SONOFF devices to Home Assistant for control and automation through eWeLink add-on. TH Elite turns your traditional thermostat into smart, automates your irrigation system, and gives you an easy way to monitor the temperature and humidity.

SONOFF TH Elite supports three kinds of temperature monitor and humidity monitor sensors—THS01 Temp & Humi Sensor, DS18B20 waterproof Temp sensor, and MS01 Soil Moisture Sensor. The sensor connector is upgraded to RJ9, supporting hot-plugging making the connection more stable and reliable.

The RL560 sensor extension cable can connect the SONOFF temperature and humidity sensors to extend your device's distance. THS01, DS18B20 can be extended to 60M, and MS01 Soil Moisture Sensor can be extended to 10M.

CONTROL: Local or from Anywhere via Smart Device

FUNCTION

- 20A Max & Dry Contact Output: Support to connect 20A Max high load, dry contact output.
- 6-Month Temp & Humidity Historical Data by Hours: Support to review the temp & hum history data by hour, day and month. Past 6-month history data can be exported in .xlsx format and accurate to hour.
- Local Automatic Control: Support LAN control, automatic control is more reliable. You can set 8 automatic control programs for you to save electricity bills and create comfortable surroundings.
- Voice Control and Query: Work with Alexa, Google Assistant, you can query temperature and humidity values by your voice.



Schedule Timing



Timer



Loop Timer



Share control



Inching Mode



Power-on Status



Switching Wi-Fi

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended





TECHNICAL DATA

- Input voltage: 100-240VAC 50/60Hz
- Output current: 20A
- Dry contact: 5-30V, 1A max.
- Wireless Standard: 802.11 b/g/n
- MCU: ESP32
- Enclosure Material: PC V0
- Mounting: on DIN-Rail
- Working humidity: 5-95%RH, non condensing
- Working temperature: from -10° to 40°C
- Dimension (LxWxH): 98x54x31 mm

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
THR320D	100-240VAC	20A	4800W	White	1/800



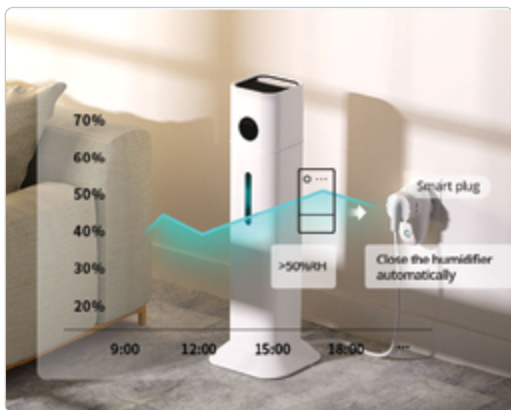
Scan and watch detailed video with all product functions.

- Auto Mode**
Double click to enable/disable.
- LCD Screen**
The screen refreshes every 5s.
- Protective Cover**
Protect your safety from the high-voltage parts during usage.
- RJ9 4P4C Interface**
More stable and reliable.
- Dry Contact**
Support normally closed and normally open.
- DIN Rail Mounting**
Accompanying rail adaptor allows you to mount it easily.
- Upgraded Wiring Terminal**
Prevent short circuits from wiring terminals being too close to each other.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Scene Automation

Use with other smart devices to achieve automation



Reliable Temperature & Humidity control

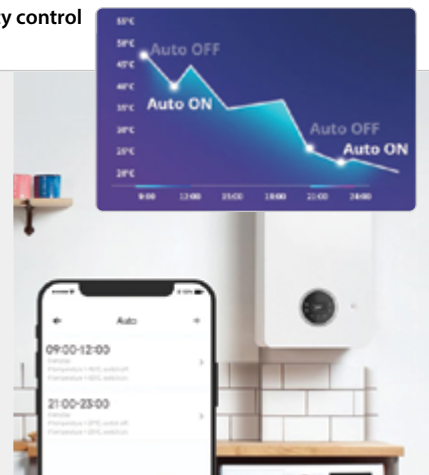
Supports LAN control

Auto mode

- The device can turn On/Off automatically according to the temp. & humi. thresholds at different time periods.
- 8 automatic control programs for you to save electricity and create comfortable surroundings.

Manual control

Turn On/Off the devices on the App anywhere, anytime



eWeLink Web Control

More convenient to view and control multiple devices on web page.

Supports IFTTT

Add IFTTT to achieve automation with other brands' devices.





SENSORS:

TEMPERATURE & HUMIDITY SENSOR

Catalogue number:
THS01
Working temperature: from -40° to +85°C
Working humidity: 0-100%RH
Connector type: Rj9 4P4C
Cable length: 0.5m
Max. extended length: 10m



WATERPROOF TEMPERATURE SENSOR

Catalogue number:
DS18B20
Working temperature: from -55° to +125°C
Connector type: Rj9 4P4C
Cable length: 0.5m
Max. extended length: 60m



SOIL MOISTURE SENSOR

Catalogue number:
MS01
Working temperature: from 0° to +60°C
Working humidity: 0-100%RH
Connector type: Rj9 4P4C
Cable length: 0.5m
Max. extended length: 10m



SENSOR EXTENDED CABLE

Catalogue number:
RL560
Conductor resistance: max. 10Ω
Connector type: Rj9 4P4C
Cable length: 5m
Max. extended length: 60m
Insulation resistance: min. 5MΩ



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

SMART WIFI FOUR CHANNEL SWITCH WITH RF CONTROL



Four gang Wi-Fi Smart Switch 4CHPROR3 is designed to give you the ability to integrate smart control into your home to enable it smart. Each smart switch has 4 gangs that can be used to control lights and other home appliances at the same time in four areas of your home. 4CHPROR3 is designed with an additional function for RF control. The function is purposely adopted to make you turn on/off the device connected with 4CHPROR3 via the RM433 remote controller. 4CHPROR3 have 3 working modes on eWeLink APP. So you can enable self-locking mode to turn on/off 4 connected devices separately, interlock mode to turn on 1 connected device every time and turn off the rest of devices simultaneously and inching mode to turn on 1 connected device and then make it turn off automatically after a given time (0.5 - 3600s). For the device away from the switch, you can create a movable space in virtue of a DIN rail to make them be connected. Simply activate devices through your voice when the switch works with Alexa and Google Home smart assistant.

CONTROL: From Anywhere via Smart Device or by remote control

FUNCTION

- **Independently/Mutual Control 4 Devices:** Turn on/off the 4 connected devices separately in self-locking mode. Turn on 1 device but turn off the other 3 devices at the same time in interlock mode. Turn on the connected devices but automatically switch off after 0.5-3600s later in inching mode.
- **Dry Contact:** If your device does not need to be powered through the output of the 4CHPROR3, but only needs to use it as a smart switch to control the line on and off, the 4CHPROR3 is your best choice.
- **With 433MHz RF Control:** Use your common 433MHz remote control to turn on/off the device without Internet connection.
- **Easy To Out-of-Reach Devices:** Mounted on the guide rail, convenient to connect and control devices far from the switch.
- **Works With Alexa & Google Assistant & SmartThings & Alice:** You can directly ask Amazon Echo/ Echo Dot/Amazon Tap, Google Home to turn on/off your devices.



Remote Control



Voice control



Schedule Timing



Share control



Smart Scenes



Sync Status



Power-on Status

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Scan and watch detailed video with all product functions.



Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

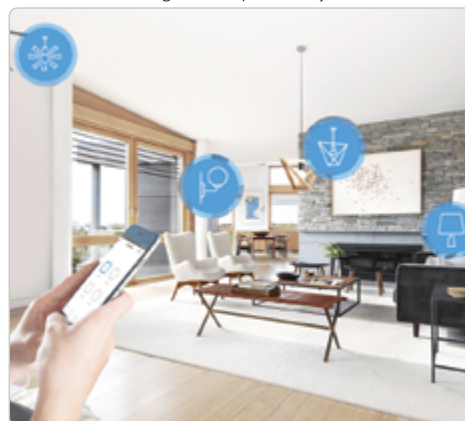
TECHNICAL DATA

- Input voltage: 100-250VAC & 5-24VDC
- Output power: 4x2200W
- Output current: 4x10A
- Frequency: 2.4Ghz
- Working temperature: 0°C-40°C (32°F-104°F)
- Humidity: 5%-90%RH, Non-condensing
- Product size: L145xW90
- Mounting: DIN rail

Catalogue number	Input voltage	Output current	Output power	Colour	Packing/Box (pcs)
4CHPROR3	100-240V AC	4x10A	4x2200W	White	1/100

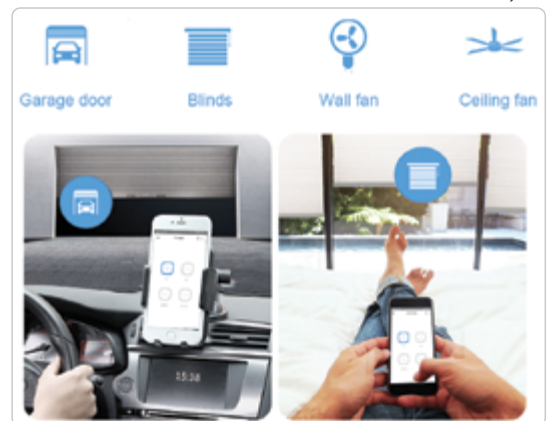
Run 4 devices separately

4CHPROR3 allows you to turn On or Off 4 connected lights independently



Automate more devices

One channel controls one work status, enable interlock to turn on 1 channel and turn off other channels simultaneously





SAVE VOLTAGE WIRELESS SMART HOME MODULE

SV is a low voltage switch. The low voltage light switch supports 5-24V power supply. Power supply separation enables it to control both AC and DC power. It has GPO reserved to support secondary development. This product does not have 433 RF function and shell. SV low voltage WiFi switch is an affordable device that provides customers with smart home control. The low voltage WiFi switch is a WiFi based wireless switch that can connect to a wide range of appliances. Sonoff SV low voltage remote switch transmits data to a cloud platform through the WiFi router, which enables customers to remotely control all the connected appliances, via the mobile application eWeLink. The cloud server of Sonoff SV is Amazon AWS global server. SONOFF SV low voltage wireless remote switch makes all home appliances smart. As long as the mobile has network, customers can remotely control the appliances by turning them on/off from anywhere at any time. Another feature available is to set timing schedules for the appliances, which can include countdown, scheduled on/off, and can thus, help customers maintain an easy life.

The mobile application eWeLink enables customers to control the appliances easily. The iOS version of the application can be downloaded in App Store while the Android version in Google Play.

- 5~24V power supply voltage
- Tracking device status and timely remote control through APP
- Fast configure SSID and password through APP
- Automatic connect to server, register and update status info
- Setting max 8 single or repeat timing tasks each device
- Numerous WiFi smart switches - One smartphone
- Reserve GPO to support secondary development

FUNCTION

- Remote ON/OFF: Turn electrical devices ON/OFF from anywhere
- LAN Control: Turn on/off the device even when Wi-Fi has no Internet access.
- Low Power Supply: 5-24V DC low voltage input
- App Support: Free iOS and Android mobile App eWeLink
- Sync Status: Real-time device status provided to App
- Timing: Set scheduled/countdown timers to turn ON/OFF at specified time
- Share Control: Control your smart home together with your family
- Scene: Turn ON/OFF a gang of devices with one tap
- Smart Scene: Triggered ON/OFF by temp, hum or other environmental conditions from sensor
- Compatibility: Works perfectly with Amazon Alexa, Google Assistant, IFTTT, Google Nest

Download eWeLink Application.

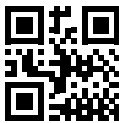
Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Power supply: 3V button cell x 2 pcs
- Battery type: CR2032
- Colour: Dark grey
- Button QTY: 6
- Enclosure Material: PC V0
- Dimension (LxWxH): 86x86x13.5 mm

Catalogue number	Input voltage	Output current	Packing/Box (pcs)
SV	5-24V DC	1A	1

Scan and watch detailed video with all product functions.



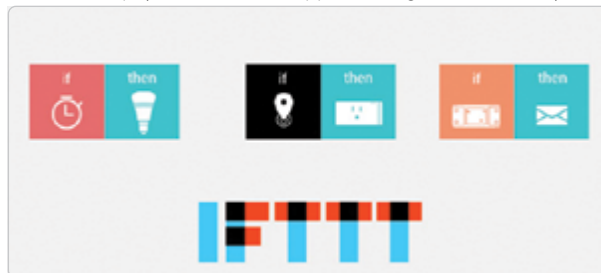
- Strong core
- Low power consumption
- Easy upgrade

Voice control with Amazon Alexa & Google Assistant



Works with IFTTT

IFTTT helps your devices and apps work together in new ways



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



WI-FI SMART CONTROL RELAY WITH BUILT-IN ANTENNA, ELR-1W

ELR-1W is widely used in smart homes and industrial intelligent control. It adopts the most popular Wi-Fi 2.4GHz control chip, and cooperates with powerful APP and mainstream voice assistants. Realize WLAN local control (even if the network is disconnected, you can also use APP local control and remote control, allowing users to fully experience the convenient life brought by modern intelligent technology. Using mobile phone APP or voice control device to control ON and OFF of the output of this product to realize the purpose of remotely starting or turning off the load electrical appliances.

The product cooperates with the corresponding APP to realize the following functions:

Support Smart Config for fast networking.

Support multiple control types: switch, timing start and stop, cycle control, etc.

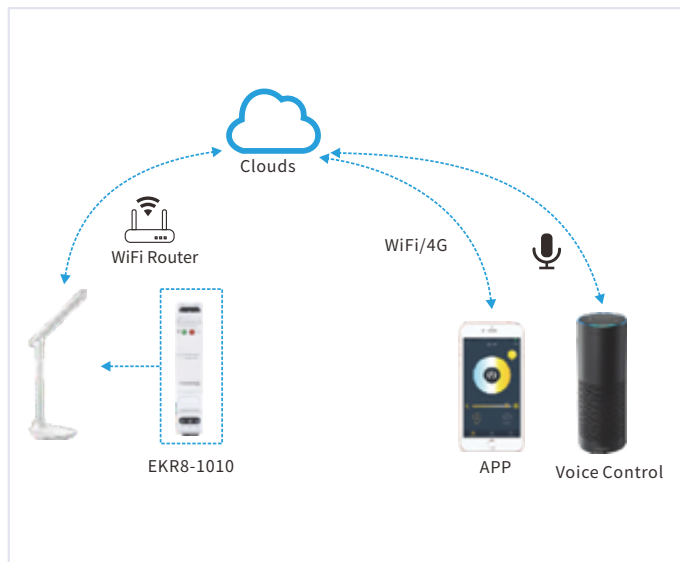
Support WLAN local control and remote control.

Access to mainstream voice assistants such as Tmall Genie, DuerOS, Xiao Ai (Xiao Mi), Alexa, Google, etc., voice control.

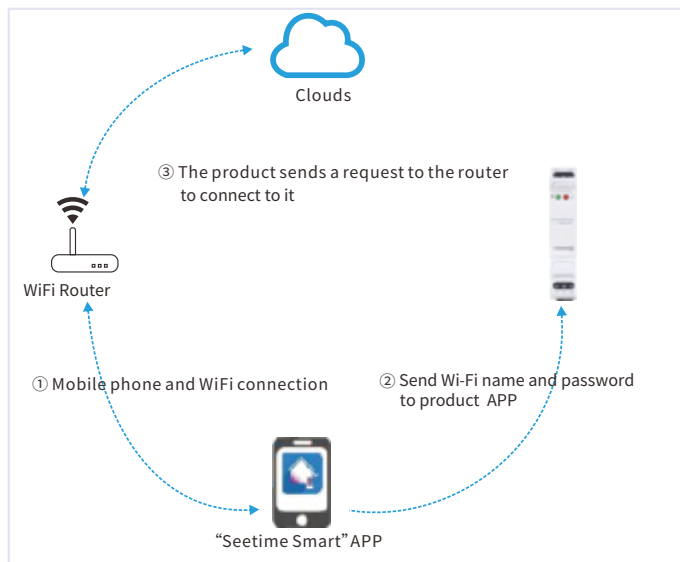
Intranet device sharing and cloud account device sharing function.

APP supports Android and iOS systems.

Build-in antenna



Structure block diagram of Intelligent control system



Distribution network block diagram of standard configuration

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

APPLICATION

- Home control system
- Building automation
- Industrial control systems
- Industrial automation
- Mechanical and electrical equipment

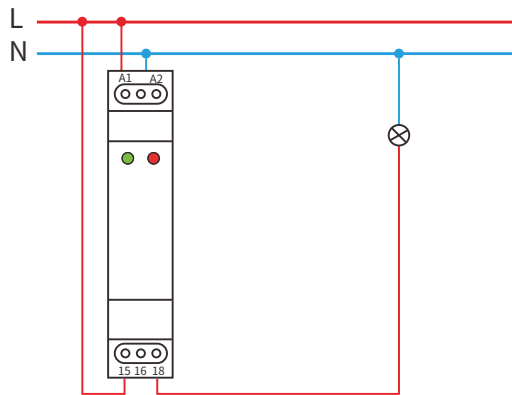
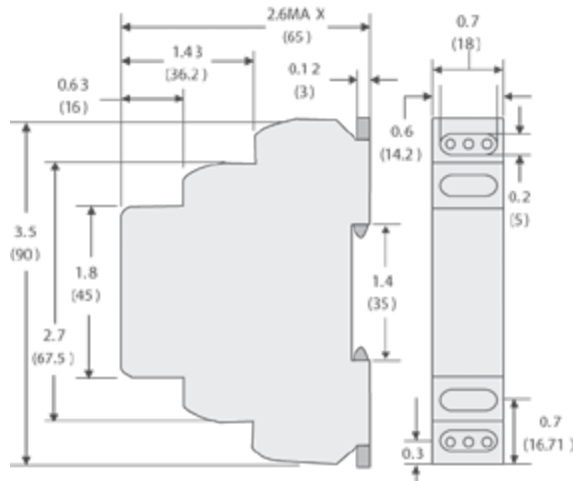


TECHNICAL DATA

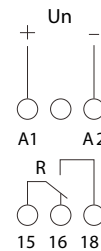
- Voltage Range: 85-240V AC/DC
- Rated Current: 10A
- Standard: IEEE 802.11b/g/n
- Working mode: STA/AP/STA+AP
- Wireless Security Support: WPA/WPA2
- Encryption Type: WEP/TKIP/AES
- Working Frequency: 2.4GHz-2.5GHz (2400M-2483.5M)
- Transmit Power:
 - > 802.11b (CCK): 19+/-1dBm
 - > 802.11g (OFDM): 14+/-1dBm
 - > 802.11n(HT20@MCS7): 13+/-1dBm
- Wireless Transmission Distance: General Indoor: 45M, Outdoor: 150M (Note: It depends on the environment)
- Application: Seetime Smart
- Standby Power Consumption: Less than 0.5W
- Working Temperature: -10-60°C
- Working Humidity: 5%-95% (Non-condensing)
- Size WxHxD: 18x90x65 mm

Catalogue number	Type	Dimensions (mm)			Packing/Box (pcs)
		W	H	D	
50150	ELR-1W	18	90	65	1/100

Scan and watch detailed video with all product functions.



Product wiring diagram



Wiring diagram

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended



RF BRIDGE R2 433 SMART HUB

This RF BridgeR2 433 can convert most of the 433.92MHz RF Remotes into WiFi wireless. By adding the RF wireless Bridge to iOS/Android App eWeLink WiFi wirelessly, You can add up to 16 RM 433 RF or alarms, also add them together (max. 16 items). One 4 button remote controller can learn 4 devices, which means 64 devices supporting 433 MHz frequency can be added on the app through WiFi/2/3/4G network.

It can be used for most of the 433.92MHz RF Remote controlled products, like RF controlled switch, RF controlled socket, RF controlled bulb, RF controlled door opener, etc. You can set totally 8 schedule/countdown/loop timers to turn on/off the RF controlled products.

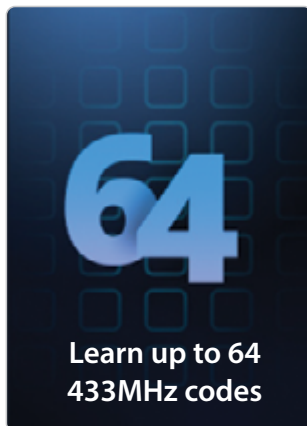
Even more exciting is that it will work with the 433.92MHz door magnetic sensor, 433.92MHz human body IR sensor, and more other 433.92MHz sensors to realize security alarm, and allowing you to DIY smart scenes. Note that the alarm push only comes in the owner's account, those users being shared can't view the alarm push.

The RF BridgeR2 can work with SONOFF DW2-RF wireless door/window sensor that allows users to set the smart scene for the sensor and the device to be controlled, then when you open the door, the device will be triggered on.

CONTROL: From Anywhere via Smart Device. Remote and LAN Control

FUNCTION

- **RF433MHz And Wi-Fi Protocol Supporting:** Help 433MHz RF devices to communicate with WiFi devices, extend the smart home ecosystem.
- **Strong Connectivity, Limitless Possibility:** The bridge supports adding RF 433MHz devices up to 64 that SONOFF has released, like PIR3-RF PIR Motion Sensor and DW2-RF Wireless Door/Window Sensor, making your home smarter.
- **Compatible With 433MHz Remote Controller & Easy Management:** Having dozens of RF433MHz devices and troubled in control them in a mess, this RF BridgeR2 will help you get rid of it. Just migrate them to your phone. With Compatible with 433MHz remote controller for easier control. You can add up to 16 devices and up to 64 buttons.
- **RF Alarm & Trigger Smart Scenes:** Can add alarms to trigger the device by setting a smart scene. For example, once the door is opened (Matched with DW2 door/window sensor), you will receive a notification with your lights on automatically.



Remote Control



Voice control



Schedule Timing



RF Control



Alarm & Recording



Smart Scenes



LAN Control

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

TECHNICAL DATA

- Input voltage: 5V / 1A
- RF: 433.92 MHz
- Wireless Standard: 802.11 b/g/n 2.4 GHz
- Enclosure Material: PC V0
- Dimension (LxWxH): 62x62x20 mm

Catalogue number	Input voltage	RF	Wi-Fi	Packing/Box (pcs)
RFBRIDGER2	5V/ 1A	433.92 MHz	802.11 b/g/n 2.4 GHz	1

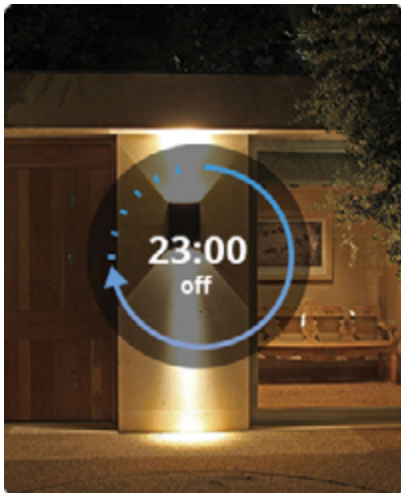
Scan and watch detailed video with all product functions.



Multiple timer ways

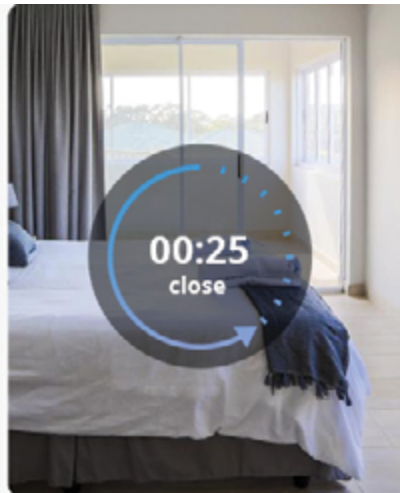
Specified time

Automatically turn lights at 11:00 pm every weekday.



Countdown

Close the curtain after half an hour.



Loop execution

Turn on and off the heater every 10 minutes to maintain a constant temperature.



433MHz RF ↔ Wi-Fi Hub
RF BridgeR2

Turn your traditional 433MHz RF remote control into smart.
Add 433MHz RF sensors to create smart scenes and build your home security system.

Works with More Ecosystems

works with Hey Google | works with alexa | works with Smartthings | works with Alice

NOTE 1: The RF Bridge only supports the fixed code 433.92MHz frequency device, like PT2260, PT2262, PT2264, and EV1527, it is compatible with all Sonoff RF 433MHz products. The product doesn't support to learn rolling code and dynamic code. You can't see device status changes in the App.

NOTE 2: What's new on Android & iOS 2.5.0 and higher versions?

- Scheduled/countdown timers are supported.
- iOS App supports to add this product.
- 433MHz RF curtain switch and RF alarm are supported.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



PIR MOTION SENSOR RF 433MHZ

PIR3-RF motion sensor can detect and report motion. When used for your home security system, it can detect the movement within 8M and help identify whether a human or pet is moving around inside your house, and your mobile phone will receive an alert notification. Connect SONOFF camera and you can view who is the intruder. When incorporated into your smart lifestyle, the sensor triggers your light on or off after connecting with SONOFF RF Bridge. You can set a scene that the hallway light is turned on when you enter the door.

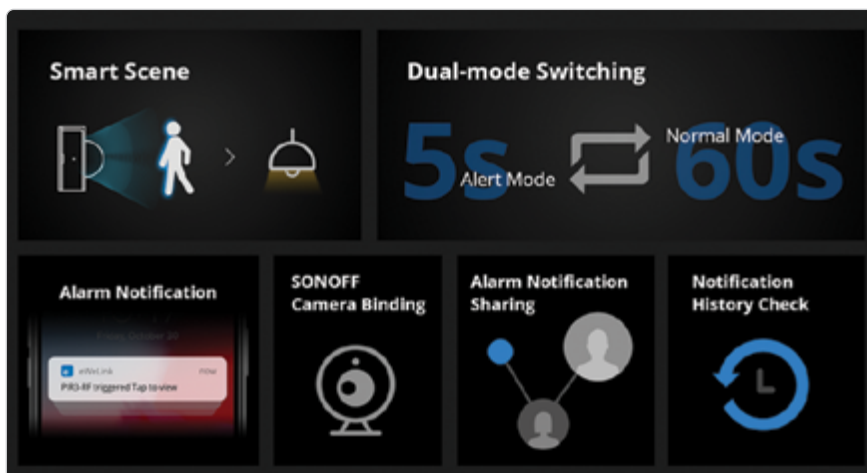
With the universal joint, the sensor can be flexible to rotate a full 360°horizontal angle and 90°vertical angle which allows you to adjust the sensor into an optimal angle to view everything in your home (The sensor doesn't move on its own based on your motion). Another convenience for your home is that you can use the sensor for a position where the movement is not easy to be detected via mounting it in the universal joint, and just rotate the universal joint head to get a wonderful detecting angle. Plus, you can directly stick the sensor on the surface of objects to detect the movement. Just choose one as you like.

PIR3-RF has 2 working modes that alert and normal mode. In the alert mode, the sensor is triggered per 5s when someone enters the detection range. In the normal mode, the next alert trigger is activated if there is no motion detected within 1min after the previous detection

CONTROL: From Anywhere via Smart Device

FUNCTION

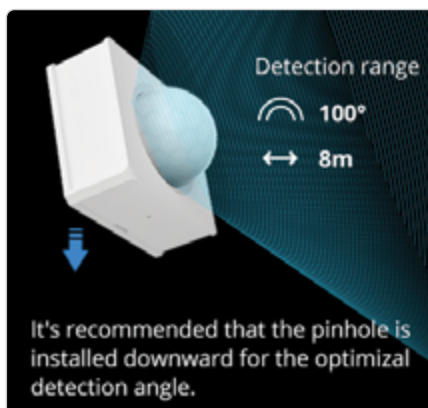
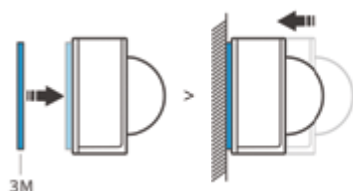
- Motion Sensor & Camera Binding: Alarm notification, by binding a camera, monitor your home on the double insurance.
- Alert Mode/Normal Mode: Two built-in modes which are two different trigger time mechanisms to meet your needs in different scenes.
- Smart Scenes: Set the smart scenes based on your needs, trigger more devices/scenes.
- Easy Installation: 3M adhesive or screw mounting (universal joint).



Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

3M Adhesive for simple use



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

TECHNICAL DATA

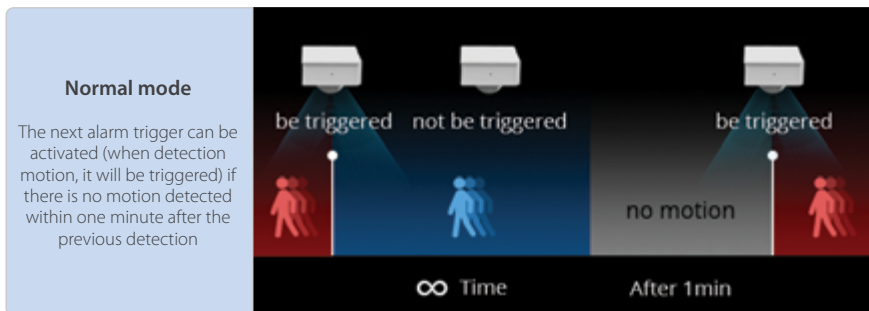
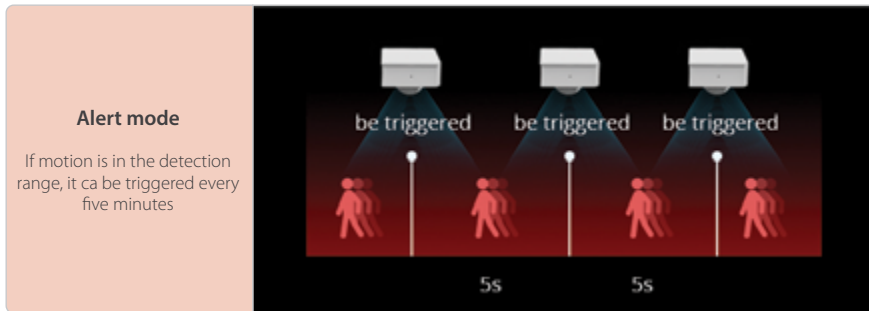
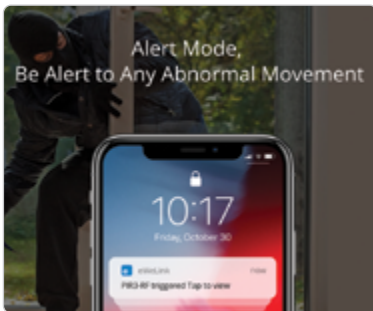
- Detection angle: 100°
- Detection distance: ≤ 8m
- RF: 433.92MHz
- Power supply: 3V button cell
- Battery type: CR2450 (not included)
- Working humidity: 10 - 90% (non condensing)
- Work temperature: from -10 to 40°C
- Enclosure Material: PC
- Dimension (LxWxH): 40x35x28 mm

Catalogue number	Detection angle	Detection distance	Battery	Packing/Box (pcs)
PIR3-RF	100°	≤ 8m	3V/CR2450	1/100

Scan and watch detailed video with all product functions.

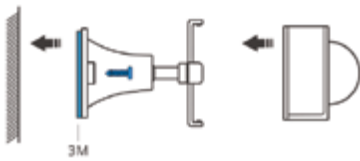


NOTE 1: Works with RF bridge with catalogue number RFBRIDGER2.



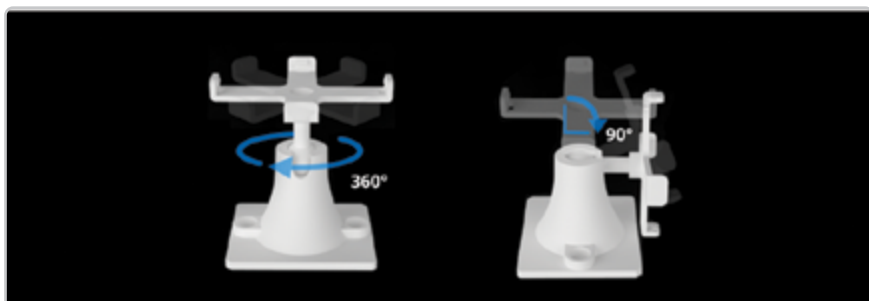
Universal joint for flexible detection

With the universal joint, can be realized 360° rotation detection. You can adjust the detection angle at any time to an optimum viewing level.



Cat. Number: PIR3-RFBASE

* The universal joint is not included, please purchase it separately.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

WIRELESS DOOR/WINDOW SENSOR

CONTROL: From Anywhere via Smart Device

FUNCTION

- **No Gateway Needed:** The sensor is paired with App via Bluetooth and is controlled on App via WiFi.
- **Low-Battery Reminder & History Records Check:** There is a reminder on App about the low battery, and 3-month history records are automatically saved
- **Status Sync & Camera Binding:** Check the status of the sensor through App to get the real status. You can also add a camera to view.
- **Easy Installation:** With Simple peel and stick installation, it is easy to fit in door frames and window sills.

TECHNICAL DATA

- Working Voltage: DC3V (2 x 1.5V battery)
- Quiescent current: $\leq 40 \mu\text{A}$
- Emission current: $<15\text{mA}$
- Operating systems: (Android 4.1 & iOS 9.0) or higher
- Wireless Standard: IEEE 802.11 b/g/n
- Installation gap: $<5\text{mm}$
- Material: PC V0
- Size Magnet: 42 x 14 x 16 mm
- Size Transmitter: 70 x 31 x 19 mm



Scan and watch detailed video with all product functions.

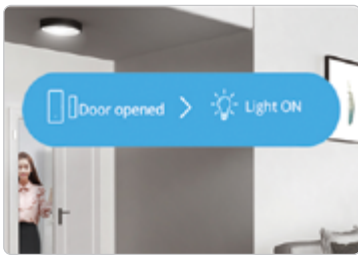


Download eWeLink Application.

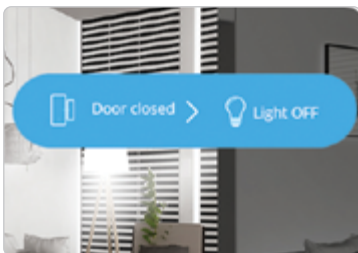
Full info for the products, instructions can be found at www.elmarkholding.eu

Catalogue number	Working voltage	Quiescent current	Emission current	Packing/Box (pcs)
DW2 WIFI	3V DC	$\leq 40 \mu\text{A}$	$<15\text{mA}$	1/600

Light up the hallway when you walk into the door



Light off when you walk out the door



Sync Status



Alert Notification



Share control



No Gateway Required



Smart Scene



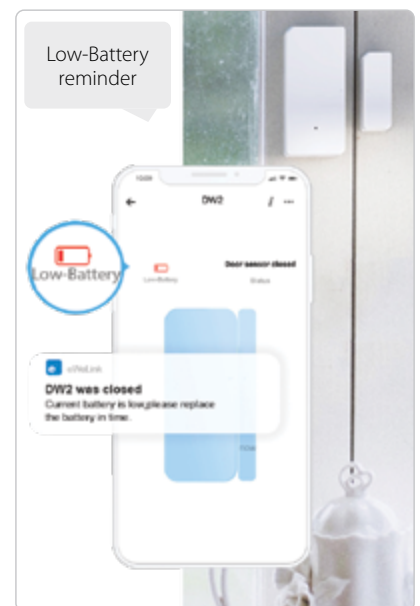
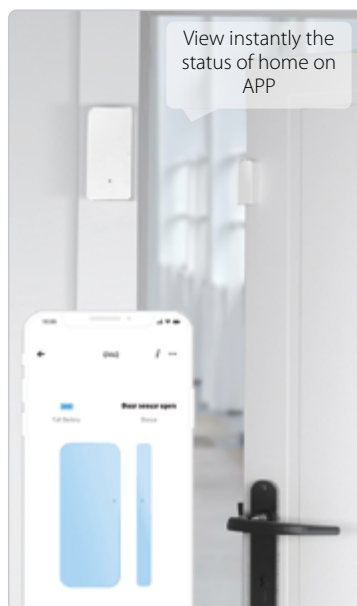
Low-battery Display



History record check



Bluetooth low energy pairing



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



WI-FI SMOKE DETECTOR, TUYA SMART

This product is a smart photoelectric smoke sensor. It is a warning devices and can detect gas, heat or fire. Once detect danger of fire smoke, red LED will be ON and alarming to alert you and your family timely. It can be used in household, public work and any places witch needs alarm monitoring.

MONITORING: From Anywhere via Smart Device.

FUNCTION

- Power ON status
- APP Control
- Alarming



APP Control



Power-on Status



Alarm & Recording

Download *TUYA Smart Application*.
Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 3V DC
- Battery: 2 x LR03
- Static current: $\leq 15\mu A$
- Alarm current: $\leq 160mA$
- Low voltage notification: $\leq 2.4V$
- Alarm sound level: 80db / 1m
- WI-FI: 802.11 b/g/n
- Detecting range: 20m²
- Mounting: Ceiling
- Working temperature: from -10°C to +50°C
- Working humidity: $\leq 95\%$
- Size (LxWxH): 70x24x18.5mm

Catalogue number	Input voltage	Alarm sound level	Detection range	Battery	Packing/Box (pcs)
46DS408	3V DC	80db	20m ²	2 x LR03	1

Scan and watch detailed video with all product functions.



WI-FI PLUG-IN GAS DETECTOR, TUYA SMART

This product is a smart flammable gas alarm, which is used to detect leakage of flammable gas and prevent the harm caused by gas leakage. This alarm uses high stability semiconductor gas sensor with small sensitivity drift. When a flammable gas leak is detected and the concentration value set by the alarm is reached, the alarm will send an alarm signal. This product is used indoor where leakage may occur, such as kitchens.

MONITORING: From Anywhere via Smart Device.

FUNCTION

- Power ON status
- APP Control
- Alarming



APP Control



Power-on Status



Alarm & Recording

Download *TUYA Smart Application*.
Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 85-250V AC
- Average consumption: $\leq 1.5W$
- Alarm sound level: 70db / 1m
- Alarm density: 7% LEL \pm 3% LEI (CH4)
- WI-FI: 802.11 b/g/n
- Mounting: in socket
- Working temperature: from -10°C to +50°C
- Working humidity: $\leq 95\%$
- Size (LxWxH): 48x30x55mm

Catalogue number	Input voltage	Alarm sound level	Alarm density	Packing/Box (pcs)
46DS409	85-250V AC	70db	7% LEL \pm 3% LEI (CH4)	1

Scan and watch detailed video with all product functions.





SMART RGB LED STRIP CONTROLLER WITH REMOTE

The perfect solution to not worry about the required length on your RGB LED strip, now with a WiFi driver compatible with the eWeLink APP and voice assistants like Google Home or Alexa. Also includes a 24-key IR remote control. You will be able to turn on and control your strip lights anytime and anywhere and control them with a simple click on your smartphone or tablet via APP eWeLink or voice assistants, without time and distance limits. Discover all the possibilities it offers and give a touch of color to your home!

CONTROL: From Anywhere via Smart Device or by remote control.

FUNCTION

- Remote control lights on/off from anywhere
- Free iOS and Android mobile App eWeLink
- The light changes colors and rhythmically flashes to match the beat of music, bringing you into a very joyful party.
- Point your mobile device's camera to anything to capture its color, tap the screen and instantly sync the color to your light.
- Several preset lighting scenes for your choice, so that it can meet your different lighting needs with one click.
- Its easy cut & paste and high flexibility allow you to be easily mold to any shape you want or decorate any object.
- Compatibility –Works perfectly with Amazon Alexa, Google Assistant, Google Nest, so you can control Lights With Your Voice



Remote Control



Voice control



Time Schedule



Scene Mode



Share Control



Power on State

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 5-24V
- Output Current: 2A (per way)
- Channel: maximum 4 RGB channels (way)
- Remote: 24 Key IR
- Material: ABS V0
- Size: 55x95x27 mm



Catalogue number	Input voltage	Output current	Channals	Packing/Box (pcs)
L2-C	5-24V DC	2A (per way)	4 RGB channels (way)	1/50

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



RF REMOTE CONTROLLER WITH FOUR BUTTONS

The RF Remote is a 433MHz Wireless 4 Buttons Push Cover Remote which RF remote controls the learning code wall switch, plug seat or extention socket. The RF controller fits for all those 433Mhz controlled devices. The wireless RF remote suitable for long distance and multiple switch control. This product can work with our smart home products: SONOFF RFR2, SONOFF SlampherR2, SONOFF 4CHPROR3, SONOFF RF Bridge 433, SONOFF TX.

FUNCTION

- RF Remote Control: With 4 buttons, this RF remote controller is suitable for long-distance and multiple switch control.

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Battery: 12V (27A)
- Wireless: 433MHz
- Material: PC V0
- Weight: 31g
- Size: 50 x 30 x 12 mm



Catalogue number	Working voltage	Battery type	RF	Packing/Box (pcs)
4KEY433REMOTEBAT	12V	27A	433MHz	1/500

RM433R REMOTE CONTROLLER

Designed with 8 buttons to perform various functions in running on different types of devices. Such as fan speed adjustment, brightness setting, etc. The simple and stylish look gives any surface a beautiful decor when it is stored on the wall. Strong compatibility. It can be paired to control SONOFF RFR2, RFR3, Slampher2, iFan04, D1, TX series, 433 RF Bridger2 and other devices supporting 433 communication protocol and other devices supporting 433 communication protocol. Pairing with your devices is extremely simple and takes no time at all, simply press any button on the remote controller to pair with the device you need to control. Quick installation. Can match the base to be stored on the wall with double-sided 3M tapes or screws.

FUNCTION

- Remote Control: Control the connected devices remotely.
- Powerful Compatibility: Suitable for devices supporting RF433MHz communication protocol.
- Easy To Pair & One-Key Pairing: Press any button to pair with devices, and Sonoff D1 and iFan03/iFan04 can match the whole controller with just a press.
- Smooth Touch & Easy Installation: Sleek and modern design and fast installation with 3M adhesive tape or screws.
- User-Definable: 8 buttons can match 8 devices as you defined.

TECHNICAL DATA

- Working Voltage: 12V removable battery (Model: 27A)
- Number of keys: 8
- Material: PC V0
- RF: 433MHz
- Weight: 35g
- Size: 86 x 45 x 12,5 mm

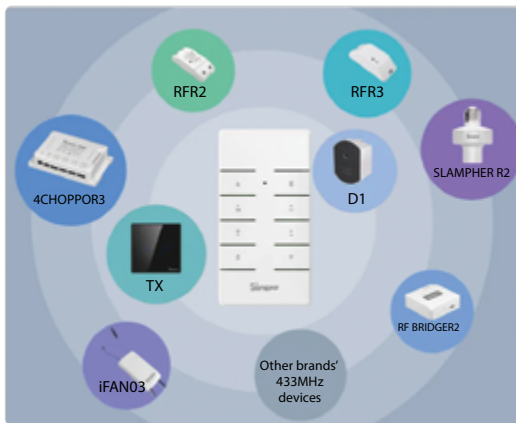


Catalogue number	Working Voltage	Battery Type	RF	Packing/Box (pcs)
RM433WITHBATTERY	12V	27A	433MHz	1

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

Wide applications suitable for all devices with 433MHz



Control your devices when there is no Wi-Fi connection



8 buttons can control 8 devices or more



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIN RAIL ADAPTOR FOR SMART SWITCHES



Catalogue number: DR

For easy installation of many Sonoff switches to DIN rail. DIN- Rail adaptor DR can work with most of SONOFF products, such BASICR2 / BASICR3, RFR2 / RFR3, POWR2, TH10 / 16, DUALR2.

FUNCTION

- Allows you to install the smart switches to the DIN rail.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Material: ABS V0
- Size (LxWxH): 112x52x10 mm

NOTE: SONOFF DR can work with most of our SONOFF products, including SONOFF BASICR2/ BASICR3, RFR2/ RFR3, POWR2, TH10/ 16, DUALR2.



Can attach in to the DIN rail



Easy installation



IP66 WATERPROOF CASE



Catalogue number:
WATERPROOFBOXIP66

SONOFF IP66 is a high quality waterproof case that can be used with SONOFF BASICR2,RFR2 in the underwater environment. The waterproof level of the waterproof box is IP66. It allows you to remote control your lights or home appliances outdoor.

FUNCTION

- Water-Proof: IP66 waterproof rating means the housing has a robust waterproof capability. Ensure your devices use in a wet environment safely.
- Dust-Proof: Prevent your devices from dust entering.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Material: ABS V0
- Transparent Cover Material: PC V0
- Waterproof Level: IP66
- Size (LxWxH): 132.2x68.7x50.1 mm
- Weight: 145g



High Ingress Protection



Easy installation



SELF ADHESIVE NFC RFID STICKERS NTAG213- 10 PCS, SET

Compatible with all devices support NFC. NTAG213 chips have read and write locking functions, which can be repeatedly edited. Can be use them to quickly share your social information, music, connecting wifi, establishing smart homes, etc., making your life more colorful. You just need hover your phone over the NFC Sticker, data will send to your phone directly, No need internal energy, no need battery, no manual pairing.

*Tags cannot be used on the metal surface and strong magnetic field.

APPLICATION

- Set your alarm
- Quiet your phone
- Launch your navigation app
- Toggle your WI-FI ON/OFF
- Make a Call -Send SMS
- Launch An App
- Join a WiFi Network
- Bluetooth ON/OFF
- Send a Business Card
- Show a Message
- Trigger Media System
- Toggle Phone Settings
- Set An Alarm
- Change Ringer Or Music Volume
- Change Screen Brightness
- Share a Contact
- Show Address Or Location
- Connect To Car Systems
- Update Social Media: Foursquare, Facebook, Twitter, LinkedIn
- Open a Web Page

TECHNICAL DATA

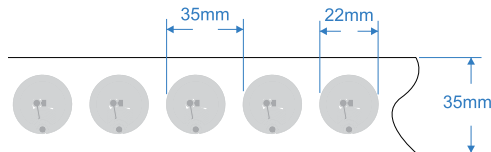
- Chip: Ntag213
- Base material: PET
- Antenna structure: Aluminum etching (AL 10um)
- Protocol: ISO/IEC14443-A
- Memory capacity: 144 bytes
- Operating frequency: 13.56MHz
- Work mode: Passive
- Read live: 100 000 times
- Save live: 10 years
- Anti-static property (ESD): 2000V
- Working temperature: from -20°C to 70°C
- Humidity: 90% RH (non-condensing)
- Chip diameter: 22mm

CATALOGUE NUMBER:

195NTAG213/10



Scan and watch detailed video with all product functions.



SELF ADHESIVE NFC RFID STICKERS NTAG215- 10 PCS, SET

Compatible with all devices support NFC. NTAG215 chips have read and write locking functions, which can be repeatedly edited. Can be use them to quickly share your social information, music, connecting wifi, establishing smart homes, etc., making your life more colorful. You just need hover your phone over the NFC Sticker, data will send to your phone directly, No need internal energy, no need battery, no manual pairing.

*Tags cannot be used on the metal surface and strong magnetic field.

APPLICATION

- Send business V-card
- Set your alarm
- Quiet your phone
- Launch your navigation app
- Toggle your Wi-Fi ON/OFF
- Make a Call -Send SMS
- Launch An App
- Join a Wi-Fi Network
- Bluetooth ON/OFF
- Send a Business Card
- Show a Message
- Trigger Media System
- Toggle Phone Settings
- Set An Alarm
- Change Ringer Or Music Volume
- Change Screen Brightness
- Share a Contact
- Show Address Or Location
- Connect To Car Systems
- Update Social Media: Foursquare, Facebook, Twitter, LinkedIn
- Open a Web Page

TECHNICAL DATA

- Chip: Ntag215
- Base material: PET
- Antenna structure: Aluminum etching (AL 10um)
- Protocol: ISO/IEC14443-A
- Memory capacity: 504 bytes
- Operating frequency: 13.56MHz
- Work mode: Passive
- Read live: 100 000 times
- Save live: 10 years
- Anti-static property (ESD): 2000V
- Working temperature: from -20°C to 70°C
- Humidity: 90% RH (non-condensing)
- Chip diameter: 30mm

CATALOGUE NUMBER:

195NTAG215/10



Scan and watch detailed video with all product functions.



SMART LIGHT CONTROL



SMART WIRELESS & RF LAMPHOLDER

SlampherR2 is a Wi-Fi Smart Lamp Holder with E27 screw base is used to turn your traditional bulb into a smart bulb, giving you the ability to control it with your phone or voice when pairing with Amazon Alexa or Google Assistant. Furthermore, it allows SONOFF RM433 remote controller to control. Support timing function to turn on or off automatically at the time you preset, to reduce the needless electricity consumption. With SlampherR2 smart lamp holder, the connected bulb can be turned on or off via your phone, some other devices pairing with the eWeLink App are also turned on or off. That's smart scene function. Other features like IFTTT, LAN control, share control and power-on status are also available.

CONTROL: From Anywhere via Smart Device or by Remote.

FUNCTION

- Intelligentize The General Bulb: Install your bulb into the lamp holder to get a smart bulb, try to control it via your phone.
- Auto-ON/OFF: Set a schedule and make your life more organized.
- RF Control: With a RF433MHz RF remote controller, an alternative way to control the bulb.
- Voice Control: Works with Alexa and Google Assistant, just say out your demand.
- Sync Status: Real-time device status provided to App



Remote Control



Voice control



Schedule Timing



RF Control



Share control



Smart Scenes



Sync Status



LAN Control



Power-on Status

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Max. Power: 450W
- RF: 433.92MHz
- Wireless Standard: 802.11 b/g/n
- Lamp base/Holder: E27
- Enclosure Material: PC V0
- Dimension (LxWxH): 67x67x98 mm

Catalogue number	Input voltage	Max. power	Holder socket/base	Packing/Box (pcs)
SLAMPHERR2	220V AC	450W	E27	1/100

Scan and watch detailed video with all product functions.



Hands-free voice control

Compatible with Alexa & Google Home. The smart switch allows you to control lights on/off with your voice



RF control available

With a 433.92Mhz RF receiver module build-in, it can be controlled by the 433.92Mhz remote controller



Sync status

Real-time device status can be provided on eWeLink App in order that you can track status change of your devices



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



WI-FI SMART LED BULB

Smart LED bulbs are even smarter ones in home automation, and they are pretty easy to use. Simply screw the smart bulb into the lamp, pair it with your smartphone, and you will no more get up from your bed to hit the light switch.

Smart LED bulb allows you to dim and tune to different color temperature through sliding the bar on App. It has a wide brightness range that is from 2700K to 6500K, which is bright enough for almost any space for use. Works with the third-party smart assistants out there via support of Alexa and Google Home so you can control the bulb, adjust the brightness and color using your voice. The smart bulb with 9W can produce a 60-watt equivalent 806 lumens, reducing your monthly electricity bill significantly. Furthermore, it was reliable with time scheduling that makes the bulb automatically turn on and off at set time of day. The bulb also comes with eight optional preset scene modes that allow you to access instantly the ambient that you want to heighten. If you get multiple SONOFF smart LED bulbs, the group-control feature is quite convenient for you to turn on and off together, adjust all of color temperature and brightness to the same level through tapping on App.

CONTROL: From Anywhere via Smart Device or by Remote.

FUNCTION

- Remote Control: 16 million colors will make you feel relaxed and energized. Control it via your phone anywhere.
- Pick a Scene: 8 build-in modes, pick one according to your mood.
- Smart Scene: Customize scenes for your smart life, make the light ready when you open the door.
- Voice Control: Free your hands with Alexa/Google Assistant, just say out what you want.
- Rhythm Live: In the LAN, your smartphone MIC will recognize the music and up to 10 bulbs can change the colors with music rhythm, integrating the music into lighting.



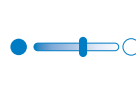
App Control



Voice control



Smart Dimming



Tune colour temperature



Group Control



Scene Mode



Power Saving

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

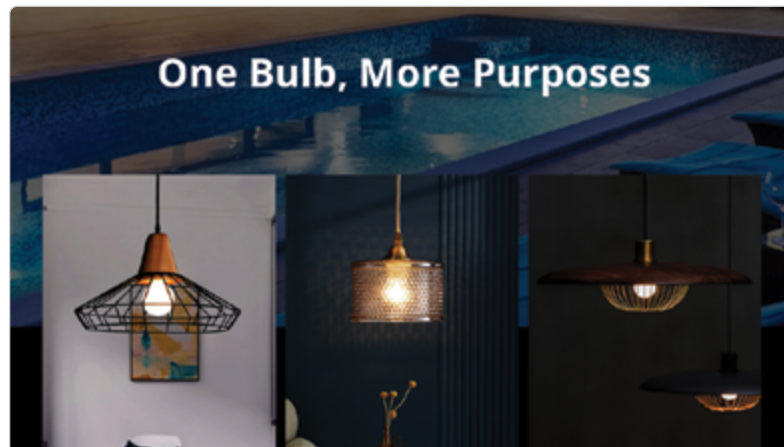
- Input voltage: 220-240V AC
- Power: 9W
- Lumen: 806lm
- Colour Temp. : CCT 2700-6500K (adjustable)
- CRI: ≥Ra80
- For lamp holder: E27
- Wireless Standard: IEEE 802.11 b/g/n
- Material: PC V0
- Working humidity: 10 - 90% (non condensing)
- Work temperature: from -10 to 40°C
- Enclosure Material: PC
- Dimension (LxWxH): 60x60x112 mm

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Scan and watch detailed video with all product functions.



Catalogue number	Input voltage	Power	Lumens	Colour temperature	Packing/Box (pcs)
BL05-BL-A60	220-240V AC	9W	806 lm	CCT	1/100

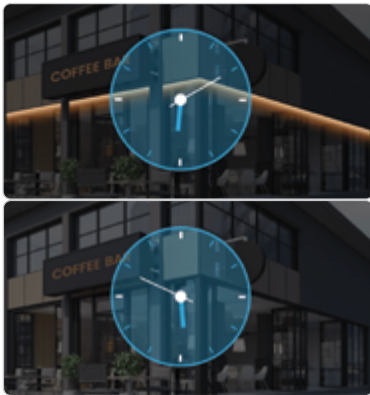


SMART LED STRIPS

SMART LED STRIP, SET



ON/ OFF on Schedule



LED strip L1 Lite can be used as both the additional and decoration lighting. It's an easy and affordable way to add accent lighting to your indoor space including stairways, cabinet, ceiling, TV wall, Christmas tree and more, also create a fun immersive atmosphere. Easy to control with grouping, scheduling and smart scene feature on app, or a simpler smart hands-free control way can make it activate and respond to you immediately. (Voice control requires teaming up with Alexa and Google Home.)

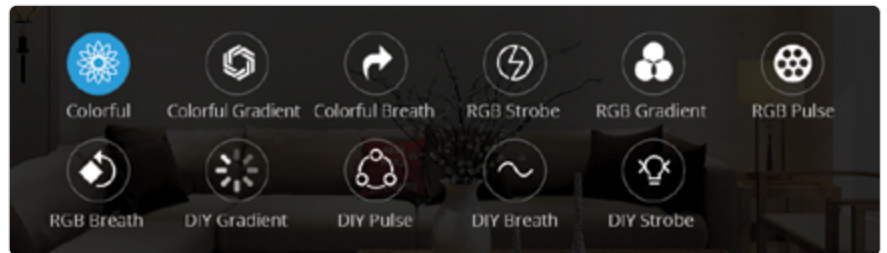
The light strip comes with 5m long and 30 LEDs per meter, which is enough to surround your TV wall and cabinet to provide the illuminated accent. With 16 millions color options choose from eWeLink app you can go from red to any color you like. The included 24-key remote controller gives you one more way to personalize your desired lighting needs, and you can dim or brighten it from 1% to 100%. 11 pre-set modes can be chosen that helps you directly access the space, from relaxation to entertainment. The easy-to-stick LED light strip can be free to cut to match any of your space with the customized length.

It can sync to any playing music and "dance" along to the rhythm and beat. Imagine you are playing the role-playing game while the colors jumps along the intensity of each action, which makes your game experience exciting. Picking color is a quite interesting way that you simply use your smartphone camera to pinpoint the color that you like and the light strip will automatically switch to the wishes color.

CONTROL: From Anywhere via Smart Device or by Remote.

FUNCTION

- **Magicians of Light:** More than 16 million colors. You can capture colors from anything to better match the surroundings.
- **Diverse Modes:** Music Visualizer mode can display a perfect fusion of music and lights. 11 build-in modes, set what you want.
- **Voice Control:** Speak to your voice assistant (Alexa/Google Assistant), change L1 Lite as you prefer.
- **ON/OFF On Schedule:** Free your hands, set your daily routine.



Download eWeLink Application. Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 100-240V AC
- Output voltage: 12V DC
- LED Strip Length: 5m
- LED QTY: 30 pcs/m
- Colour Temp. : RGB

THE SET INCLUDES

- LED Strip- 5m
- Wi-Fi Controller- 1pc
- Power Adapter- 1pc

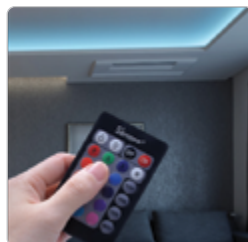
Scan and watch detailed video with all product functions.



Catalogue number	Adapter input voltage	Controller input voltage	Colour temperature	Lumens	Packing/Box (pcs)
L1 LITE-5M-EU	100-240V AC	5-24V DC	RGB	300 lm	1

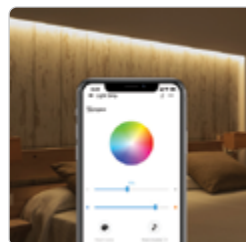
Remote-controller

24 buttons, press the one you want

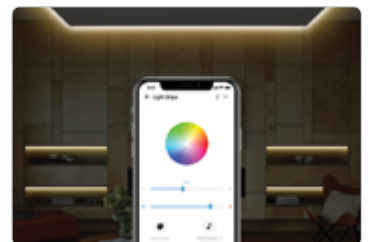


eWeLink App

Schedule/Timer and more functions await for you



Can be extended and controlled synchronously through the Group





SMART WIFI L2 RGB LED STRIP

RGB LED Strip L2 can be used not only for the festival decorations but also for the additional lighting. No need to bother about spending more money on rewiring. With IP65 waterproof and 30 LEDs on every 3.3 feet, you can install L2 light strips around your swimming pool to light your home up. The 3M adhesive makes your installation with ease.

More than 16 million colors and real-time synchronization provide a zestful experience for your life. The real time data of R/G/B helps you capture the light strip's status. Except for R/G/B data bars, the color palette, color circle, recent and classic color provide various selecting methods for color changing. There are 21 recommended scene modes and up to 8 DIY Scenes. L2 can sync to any playing music and dance along to rhythm and beat.

No need to worry about the disconnecting anymore, BLE control helps you better control the light strip. Voice control with Alexa and Hey Google can help free your hands. Setting a timer help you turn on/off the light strips on schedule.

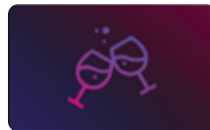
CONTROL: Local or from Anywhere via Smart Device

FUNCTION

- Diverse Selection Methods: Color palette, color circle, recent and classic color, various selecting ways for color changing. Enjoy the endless variations and real-time synchronization, more than 16 million colors.
- Smart scenes: 21 recommended scene modes and up to 8 DIY scenes, define your own scene to better adapt your surrounding.
- Work With The Sensor: Customize the scene and create an atmosphere when you at home.
- Adjustable Brightness/Color in Scene: Not only turns on the light at any time, but also adjust the brightness, color temperature, and color in the Scene
- IP65 Waterproof: High flexibility, feel free to cut and stick with ease. Note: WiFi Controller is non-waterproof.



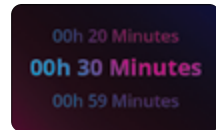
Up to 16 Million Colors



21 Recommended Scenes



Dance with music



Schedule



Easy Installation



Bluetooth Control



Voice Control



Remote Control

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

LED STRIP TECHNICAL DATA

- Input voltage: 12V DC
- LED Strip Length: 5m
- LED QTY: 30 pcs/m
- Colour Temp. : RGB
- Beam angle: 140°
- Lumens: ≥300 lm/m
- Working temperature: from -10° to +50°C
- IP code: IP65

POWER ADAPTER TECHNICAL DATA

- Input voltage: 100-240V AC
- Output voltage: 12V
- Cable length: 1.5m
- Protections: over-voltage, overload and overheat

WI-FI CONTROLLER TECHNICAL DATA

- Input voltage: 5-12V DC
- Remote controller battery: 3V (CR2025)
- Power: 24W (max.36W)
- Wi-Fi: IEEE 802.11 b/g/n
- Remote controller: Infrared; 24 keys

THE SET INCLUDES

- LED Strip- 5m
- Remote Controller- 1pc
- Power AC Adapter- 1pc
- Controller- 1pc

Catalogue number	Adapter input voltage	Controller input voltage	Colour temperature	Lumens	Packing/Box (pcs)
L2Lite-5M-EU	100-240VAC	5-12V DC	RGB	300 lm	1

Scan and watch detailed video with all product functions.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



DIGITAL LED STRIPS



Catalogue number: 99LED988D/IP20

The main benefit comparing to analog LED strips is that you can control every section of LEDs, separately. Traditionally, it is achieved thanks to additional chips (IC) assembled directly inside the LED diode or on the digital strip board.

Each group of LEDs has an integrated circuit chip, and this integrated circuit chip controls the change of color and brightness of this group of LEDs.

When switching the power, the current passed through the LEDs, causing LEDs to light up at their default settings.

To create an effect, you need to enter a command on the controller.

**SMART MUSIC TUYA DIGITAL RGB + IC LED STRIP
5M ROLL IP20, SET**

CONTROL: From Anywhere via Smart Device or local via remote.

TECHNICAL DATA

- Type: Digital RGB+IC LED strip
- Input voltage: 220-240V
- LED Driver and strip voltage: 24V DC
- Colour temperature: RGB
- LED chip: SMD 5050
- LED QTY: 30LED/m
- Beam angle: 120°
- •CRI>80
- LED strip length: 5m
- PCB board: 10mm single
- IP code of LED strip: IP20

THE SET INCLUDES

- 1 x LED strip 5m
- 1 x LED driver 24V/24W (1A)
- 1 x TUYA controller
- 1 x IR remote



Scan and watch detailed video with all product functions.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Timer setting

Schedule smart lights to accompany you fall asleep and wake up.





Catalogue number: 99LED989D/IP20

SMART MUSIC TUYA DIGITAL RGB CCT+IC LED STRIP 5M ROLL IP20, SET

TECHNICAL DATA

- Type: Digital RGB CCT+IC LED strip
- Input voltage: 220-240V
- LED Driver and strip voltage: 24V DC
- Colour temperature: RGB+ adjustable white colour
- White colour lumens: 68lm/W
- LED chip: SMD 2835
- LED QTY:
 - RGB: 30LED/m
 - 3000K: 30LED/m
 - 6500: 30LED/m
- Beam angle: 120°
- CRI>80
- LED strip length: 5m
- PCB board: 12mm double
- IP code of LED strip: IP20

THE SET INCLUDES

- 1 x LED strip 5m
- 1 x LED driver 24V/24W (1A)
- 1 x TUYA controller
- 1 x IR remote



Scan and watch detailed video with all product functions.

SMART MUSIC TUYA DIGITAL RGB CCT+IC LED STRIP 2X5M ROLL IP20, SET

TECHNICAL DATA

- Type: Digital RGB CCT+IC LED strip
- Input voltage: 220-240V
- LED Driver and strip voltage: 24V DC
- Colour temperature: RGB+ adjustable white colour
- White colour lumens: 68lm/W
- LED chip: SMD 2835
- LED QTY:
 - RGB: 30LED/m
 - 3000K: 30LED/m
 - 6500: 30LED/m
- Beam angle: 120°
- CRI>80
- LED strip length: 2x5m
- PCB board: 12mm double
- IP code of LED strip: IP20

THE SET INCLUDES

- 2 x LED strip 5m
- 1 x LED driver 24V/36W (1.5A)
- 1 x TUYA controller
- 1 x IR remote



Scan and watch detailed video with all product functions.



Catalogue number: 99LED990D/IP20

WATERPROOF SMART MUSIC TUYA DIGITAL RGB CCT+IC LED STRIP 2X5M ROLLS IP54, SET

TECHNICAL DATA

- Type: Digital RGB CCT+IC LED strip
- Input voltage: 220-240V
- LED Driver and strip voltage: 24V DC
- Colour temperature: RGB+ adjustable white colour
- White colour lumens: 68lm/W
- LED chip: SMD 2835
- LED QTY:
 - RGB: 30LED/m
 - 3000K: 30LED/m
 - 6500: 30LED/m
- Beam angle: 120°
- CRI>80
- LED strip length: 2x5m
- PCB board: 12mm double
- IP code of LED strip: IP54

THE SET INCLUDES

- 2 x LED strip 5m, IP54
- 1 x LED driver 24V/36W (1.5A)
- 1 x TUYA controller
- 1 x IR remote



Scan and watch detailed video with all product functions.



IP54

Catalogue number: 99LED990D/IP54

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

TUYA SMART DIGITAL MUSIC WALL LIGHTS 3 PCS, SET

CONTROL: From Anywhere via Smart Device or local via remote.

FUNCTION

- **Enhanced Entertainment:** These Wall connecting Ambient light gives depth of color to your home cinema in a fashionable way, making it a more spectacular entertainment system. Improve your home lighting decor for a more thrilling viewing experience
- **Light Control:** Multiple ways to change the color and modes of the Wall connecting Ambient light - App control and voice control, You can conveniently control the lights according to your needs.
- **Wall installation:** Install directly on the wall to add color to a monotonous wall. Different lighting modes can be applied to different scenes to create a variety of atmosphere, which is a perfect decoration for festivals and gatherings.

TECHNICAL DATA

- Type: TUYA smart light RGB+IC
- Input voltage: 220-240V
- LED Driver and strip voltage: 12V DC
- Colour temperature: RGB
- Power: 3x3.5W
- LED QTY: 30LED/pcs
- Beam angle: 180°
- Material: ABS+PC
- Dimension (DxH): 400x30mm

THE SET INCLUDES

- 3 x Wall lamp
- 1 x power supply
- 1 x TUYA controller



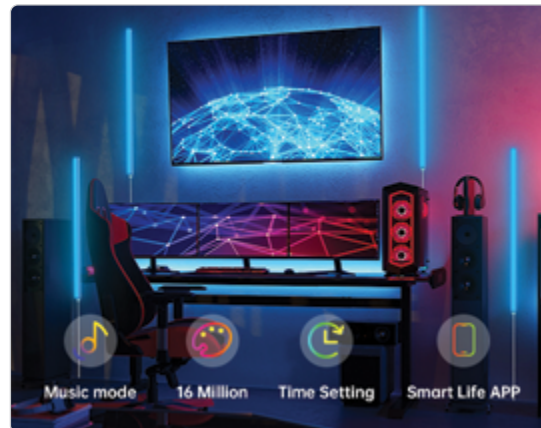
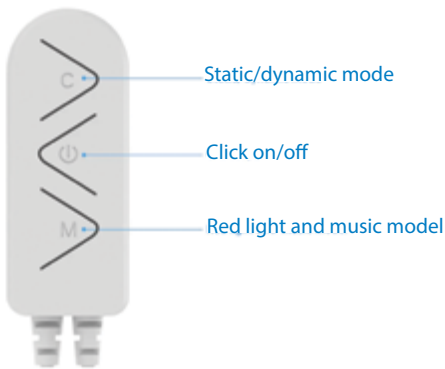
Catalogue number: 99LED991/3W



Scan and watch detailed video with all product functions.

Light control is getting easier

Multiple ways to change the color and modes.



Easy wall installation

Install directly on the wall to add color to a monotonous wall.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

TUYA SMART DIGITAL MUSIC WALL LIGHTS 6 PCS, SET

CONTROL: From Anywhere via Smart Device or local via remote.

FUNCTION

- **Enhanced Entertainment:** These Wall connecting Ambient light gives depth of color to your home cinema in a fashionable way, making it a more spectacular entertainment system. Improve your home lighting decor for a more thrilling viewing experience
- **Light Control:** Multiple ways to change the color and modes of the Wall connecting Ambient light - App control and voice control, You can conveniently control the lights according to your needs.
- **Wall installation:** Install directly on the wall to add color to a monotonous wall. Different lighting modes can be applied to different scenes to create a variety of atmosphere, which is a perfect decoration for festivals and gatherings.

TECHNICAL DATA

- Type: TUYA smart light RGB+IC
- Input voltage: 220-240V
- LED Driver and strip voltage: 12V DC
- Colour temperature: RGB
- Power: 6x3.5W
- LED QTY: 30LED/pcs
- Beam angle: 180°
- Material: ABS+PC
- Dimension (DxH): 400x30mm

THE SET INCLUDES

- 6 x Wall lamp
- 1 x power supply
- 1 x TUYA controller



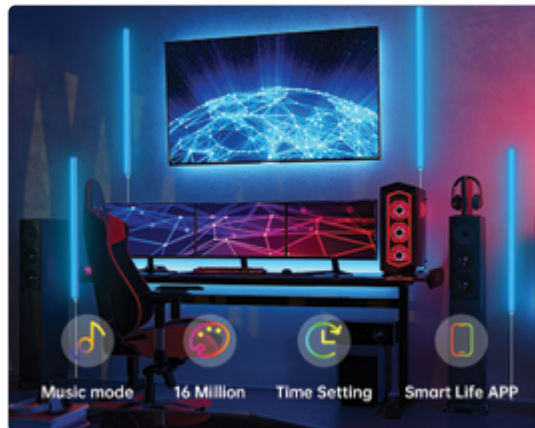
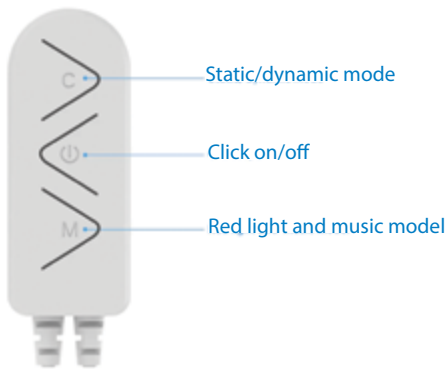
Scan and watch detailed video with all product functions.



Catalogue number: 99LED991/6W

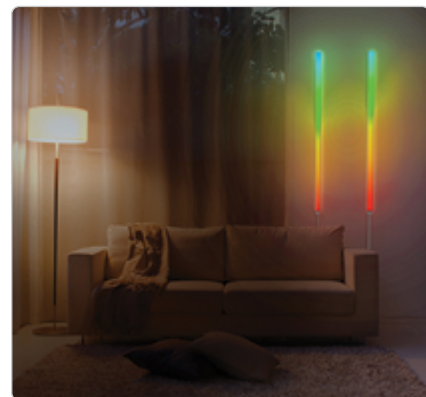
Light control is getting easier

Multiple ways to change the color and modes.



Easy wall installation

Install directly on the wall to add color to a monotonous wall.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

TUYA SMART MUSIC DIGITAL CORNER LAMP RGB+ CCT, SET

CONTROL: From Anywhere via Smart Device or local via remote.

FUNCTION

- Light Control: Adjust the brightness, color, effect and speed parameters as needed
- Easy to Install: the smart floor Light is composed of a silicone lampshade, color LED lamp beads, aluminum strip, and detachable solid tripod.

TECHNICAL DATA

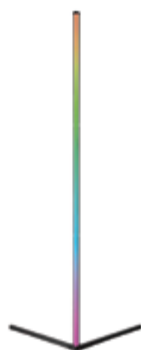
- Type: TUYA smart light RGCCT+IC
- Input voltage: 220-240V
- LED Driver and strip voltage: 12V DC
- Colour temperature: RGB+ CCT (3000K & 6500K) adjustable
- LED Chip: SMD5050 + SMD2835
- LED QTY: 60 RGB LEDs + 60 LEDs 3000K & 6500K
- Lamp length: 1400mm
- Holder length: 400mm

THE SET INCLUDES

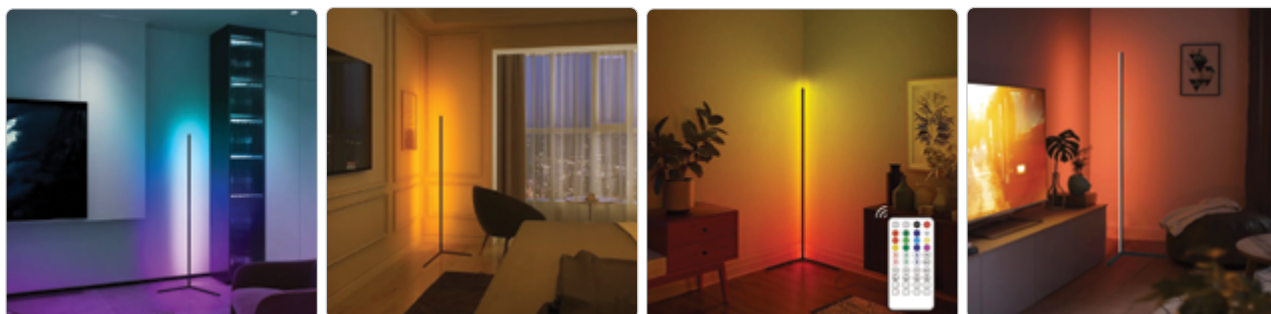
- 1 x Corner lamp with holder
- 1 x LED driver 12V/1A
- 1 x TUYA Bluetooth controller
- 1 x 26 key IR remote



Scan and watch detailed video with all product functions.



Catalogue number: 99LED992/RGCCT



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

TUYA SMART MUSIC DIGITAL CORNER LAMP CCT, SET

CONTROL: From Anywhere via Smart Device or local via remote.

FUNCTION

- Light Control: Adjust the brightness, color, effect and speed parameters as needed
- Easy to Install: the smart floor Light is composed of a silicone lampshade, color LED lamp beads, aluminum strip, and detachable solid tripod.

TECHNICAL DATA

- Type: TUYA smart light CCT+IC
- Input voltage: 220-240V
- LED Driver and strip voltage: 12V DC
- Colour temperature: CCT (3000K & 6500K) adjustable
- LED Chip: SMD2835
- LED QTY: 120pcs
- Lamp length: 1400mm
- Holder length: 400mm

THE SET INCLUDES

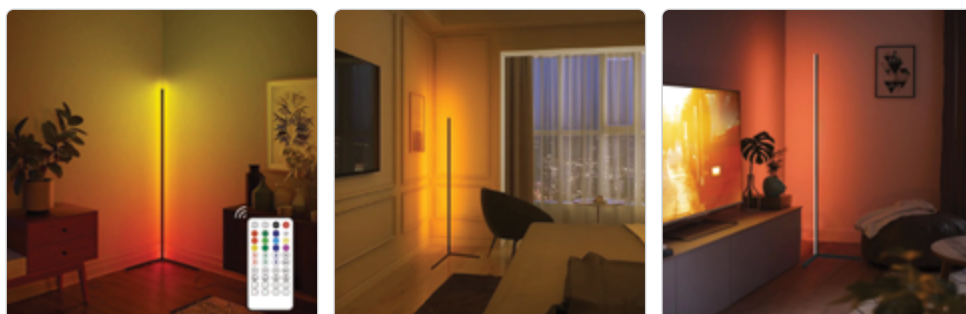
- 1 x Corner lamp with holder
- 1 x LED driver 12V/1A
- 1 x TUYA Bluetooth controller
- 1 x 24 key IR remote



Scan and watch detailed video with all product functions.



Catalogue number: 99LED992/CCT



BLUETOOTH MUSIC DIGITAL DESKTOP LAMPS RGB+W, SET

CONTROL: Via bluetooth or remote device.

FUNCTION

- Micro USB interface: The smart atmosphere light supports multiple equipment power supply, and can be powered anywhere with a USB port, which is very convenient
- Multi-scene Mode: There are four scenes: classic, soft, dynamic, disco.
- Light Control: Two ways to change the color and modes - App control and physical button control, you can conveniently control the lights according to your need
- Music Mode: The color of the light will change with the music, allowing you to experience more interesting scenes, and let the music make life more rhythmic.

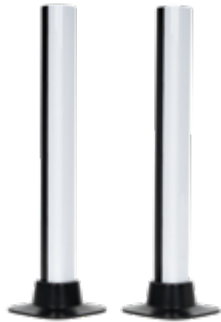
TECHNICAL DATA

- Type: Digital bluetooth lights RGBW+IC
- Input voltage: 220-240V
- Output voltage: 5V DC
- Colour temperature: RGB+W (4000K)
- Power: 2x2.5W
- LED QTY: 15 RGB LEDs + 15 LEDs 4000K
- Material: ABS+PC
- Dimensions (DxH): 300x30mm

THE SET INCLUDES

- 2 x Desktop lamps
- 1 x USB cable 1m
- 1 x remote control

Scan and watch detailed video with all product functions.



Catalogue number: 99LED993/RGBW



Add color to your desktop

Different lighting modes can be applied to different scenes to create a variety of atmosphere.



WI-FI MUSIC DIGITAL DESKTOP LAMPS RGB, SET

CONTROL: From Anywhere via Smart Device or local via remote.

FUNCTION

- Micro USB interface: The smart atmosphere light supports multiple equipment power supply, and can be powered anywhere with a USB port, which is very convenient
- Multi-scene Mode: There are four scenes: classic, soft, dynamic, disco.
- Light Control: Two ways to change the color and modes - App control and physical button control, you can conveniently control the lights according to your need
- Music Mode: The color of the light will change with the music, allowing you to experience more interesting scenes, and let the music make life more rhythmic.

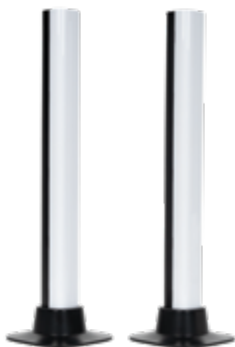
TECHNICAL DATA

- Type: Digital bluetooth lights RGBW+IC
- Input voltage: 220-240V
- Output voltage: 5V DC
- Colour temperature: RGB
- Power: 2x4W
- LED QTY: 30 pcs
- Material: ALU+PC
- Dimensions (DxH): 550x30mm

THE SET INCLUDES

- 2 x Desktop lamps
- 1 x USB cable 1m
- 1 x remote control

Scan and watch detailed video with all product functions.



Catalogue number: 99LED994/RGB



Add color to your desktop

Different lighting modes can be applied to different scenes to create a variety of atmosphere.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

BLUETOOTH SMART LED STRIPS



BLUETOOTH SMART RGB LED STRIP LIGHT WITH MUSIC/SOUND CONTROL, SET

CONTROL: With Smart Device via Bluetooth or by Remote.

FUNCTION

- DIY mode: 16 million colours, adjustable speed and brightness let your creativity run wild. Create your own dynamic interior lighting effects in the Lotus Lantern app and also share them with the community.
- Static colour: 8
- Microphone: Built-in high sensitivity microphone. The colours will sync with music or any sound captured by mic
- ON/OFF On Schedule: Free your hands, set your daily routine.
- Music modes: 4
- Music sensitivity: Adjustable
- Brightness: Adjustable.

TECHNICAL DATA

- Input voltage: 5-24V DC
- LED Strip Length: 4x220mm
- LED QTY: 4x12pcs
- Colour: Multicolour

THE SET INCLUDES

- USB connector
- Car Charger
- 20 keys remote control
- Bluetooth controller
- 4 strip lights with 12 LED,s and length 220mm

Download Lotus Lantern APP. Full info for the products, instructions can be found at www.elmarkholding.eu



Remote Control



Music Sync



Bluetooth Control



Scene Scene



Scan and watch detailed video with all product functions.

Catalogue number	Input voltage	Output current	Packing/Box (pcs)
99LED985S	5-24V DC	5A	1

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

BLUETOOTH 5V TV LED STRIP, SET

CONTROL: With Smart Device via Bluetooth or by Remote.

FUNCTION

- Control: via remote
- DIY mode: adjustable speed and brightness let your creativity run wild.
- Static colour: 8
- Brightness: Adjustable

TECHNICAL DATA

- Input voltage: 5V
- LED Strip Length: 3m
- Colour: Multicolour

THE SET INCLUDES

- 3 meters USB Bluetooth TV strip with 90LEDS
- 24 keys remote control
- USB cable
- Bluetooth controller

Download Lotus Lantern APP. Full info for the products, instructions can be found at www.elmarkholding.eu



Remote Control



Bluetooth Control

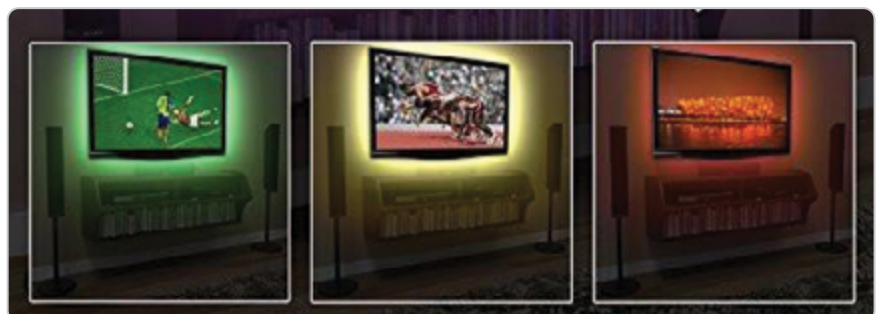


Scene Scene

Scan and watch detailed video with all product functions.



Catalogue number	Input voltage	Output current	Packing/Box (pcs)
99LED986S	5V	5A	1





BLUETOOTH SMART LED STRIP LIGHT WITH MUSIC/SOUND CONTROL, SET

CONTROL: With Smart Device via Bluetooth or by Remote.

FUNCTION

- DIY mode: adjustable speed and brightness let your creativity run wild. Create your own dynamic interior lighting effects in the Lotus Lantern app and also share them with the community.
- Static colour: 8
- Microphone: Built-in high sensitivity microphone. The colours will sync with music or any sound captured by mic
- ON/OFF On Schedule: Free your hands, set your daily routine.
- Music modes: 4
- Music sensitivity: Adjustable
- Brightness: Adjustable.

TECHNICAL DATA

- Input voltage: 100-240V AC 50/60Hz
- LED Strip Length: 2x5m
- LED QTY: 60pcs/m
- Colour: Multicolour
- IP65

THE SET INCLUDES

- 2 rolls-10 meters with 300LEDs strip
- 40 keys remote control
- Adapter 100-240V to 12V/6A
- Bluetooth controller

Download Lotus Lantern APP. Full info for the products, instructions can be found at www.elmarkholding.eu



Remote Control



Music Sync



Bluetooth Control

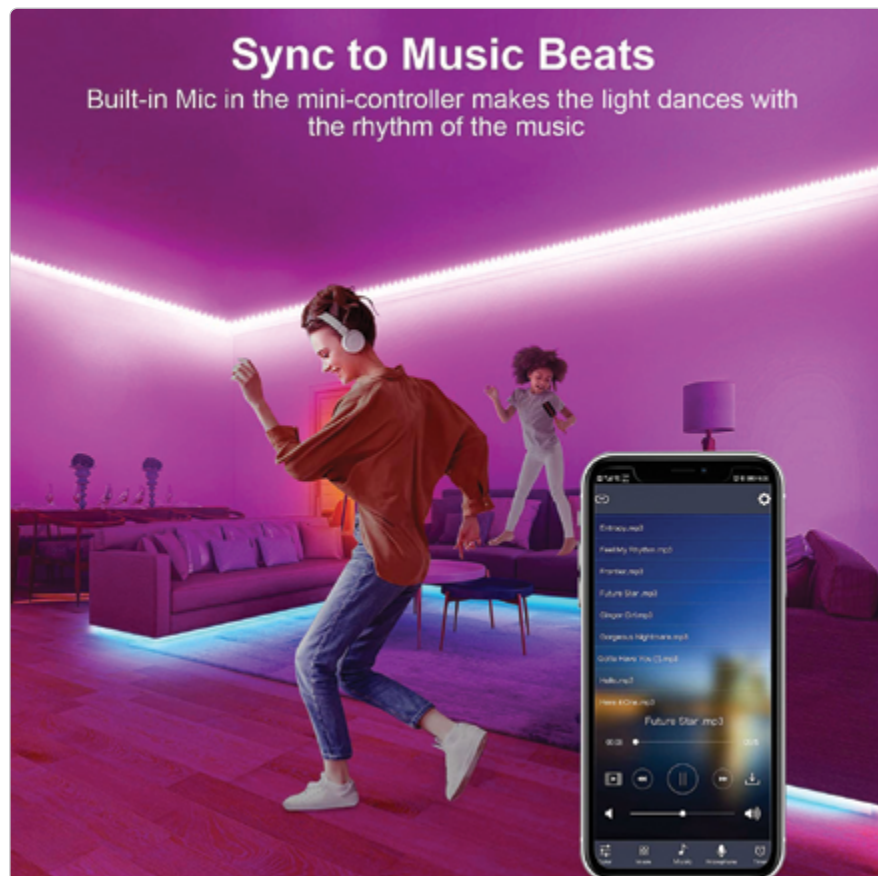


Scene Scene



Scan and watch detailed video with all product functions.

Catalogue number	Input voltage	Output current	Ingress Protection	Packing/Box (pcs)
99LED987S	100-240V AC	12V/ 6A	IP65	1



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

REMOTE CONTROL SWITCHES

Cable-less connection

The remote devices for lighting control work through sending a frequent signal from the key to the receiver, which commands the connected to it lighting bodies. The installation of the key can be done in a standard round bracket as the advantage of this product is that there is no additional requirement for wiring from it towards the receiver. Thanks to this the product is widely used in premises with build in installations where there is no ability for adding the additional cable layouts and expenses for their building are reserved. The connection between the key and the receiver is through a frequent signal in the range -315Mhz – 433.92 Mhz.



ONE WAY REMOTE CONTROL SWITCH SURFACE MOUNTING

Catalogue number	Description	Battery	Operating distance in open air (m)	Output power (per way) ESL/ LED lamp	Incandescent lamp	Packing/ Box (pcs)
99101	One way output power	12V 23A	50	200W	600W	1/60



TWO WAYS REMOTE CONTROL SWITCH SURFACE MOUNTING

Catalogue number	Description	Battery	Operating distance in open air (m)	Output power (per way) ESL/ LED lamp	Incandescent lamp	Packing/ Box (pcs)
99102	Two ways output power	12V 23A	50	200W	600W	1/60



THREE WAYS REMOTE CONTROL SWITCH SURFACE MOUNTING

Catalogue number	Description	Battery	Operating distance in open air (m)	Output power (per way) ESL/ LED lamp	Incandescent lamp	Packing/ Box (pcs)
99103	Three ways output power	12V 23A	50	200W	600W	1/60



TWO WAYS REMOTE CONTROL SWITCH WITH LED LAMPS SURFACE MOUNTING

Catalogue number	Description	Battery	Operating distance in open air (m)	Output power (per way) ESL/ LED lamp	Incandescent lamp	Packing/ Box (pcs)
99104	Three ways output power - 2xE27	12V 23A	50	150W	400W	1/60



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

SMART & SECURITY CAMERAS



SMART CAMERAS



Catalogue number: S-CAM

INDOOR WIRELESS SMART CAMERA

CAM Slim smart home security camera offers 1080P HD resolution, night vision, motion detection & alarm to keep your home in a secure environment, day and night. Start recording as an executive action, CAM Slim starts recording as soon as the door opens to supervise your bedroom with eWeLink Camera Plan(subscription sold separately). RTSP protocol allows you to view the monitoring screen on your PC with eWeLink Camera Plan(subscription sold separately). Two-way audio always lets you communicate with pets, and family anywhere, anytime. CAM Slim supports max. 256G Micro SD card storage and mass cloud storage. Flexible and Easy Design provides you with many installation method choices, like magnetic mount, stick, and screw mount, you can also mount on tripods that screw 1/4 inch.

CONTROL: From Anywhere via Smart Device.

FUNCTION

- Trigger Event Recording by Sensor: The sensor device triggers the recording of CAM Slim, such as SNZB-03 motion sensor, starts recording when detected the motion.
- Motion Detection & Alarm: Alarm in your setting effective period, avoid frequent alarms in the low peak periods.
- RTSP Settings: RTSP protocol allows you to view the monitoring screen on your PC.
- Two-way Audio: Respond to your family, and visitors anytime, anywhere.
- Scene Linkage with SONOFF Device: Scene Linkage with DUALR3 smart switch, alarm when the garage door opens to scare away thieves.
- Local & Cloud Storage: You can choose to save and share video with a free 30-day trial cloud storage of the Camera Plan or locally saved with SD card (sold separately).

HD

1080P HD Images



Two-way Audio



IR Night Vision



Motion Detection



Activity Alert



360° Viewing Angle

RTSP

RTSP Protocol

TF

TF Card Supported

Download IPC360 Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: 5V/1A Type C
- Resolution: 1080P
- Lens Aperture: F2.3
- Material: ABS
- Video Compression Standard: H.264
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Work temperature: from -10 to 40°C
- Viewing Angle: 130°
- Storage: TF card (Max. 256G) not included.
- Dimension (LxH): 53x91 mm

Note: Wi-Fi IP security camera come without adapter.
Power input Type C

Scan and watch detailed video with all product functions.



View monitoring screen on PC

RTSP protocol allows you to view the monitoring screen on your PC



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Catalogue number: GK-200MP2-B

INDOOR WIRELESS IP SECURITY CAMERA

Wireless IP Security Camera offers outstanding full HD 1080P resolution and 340° wide monitoring angles to keep your home in a secure environment, day or night. Features IR night vision, motion detection and instant motion alert and two-way audio which always gets you to know what's going on in your home anywhere, anytime. Supports max. 128G TF card to store your more precious memory. Plus, Wi-Fi and Ethernet network connection are available.

CONTROL: From Anywhere via Smart Device.

FUNCTION

- **Patrolling Without Blind Spot:** Complete 340° coverage ensures each corner is visible.
- **Two-Way Audio:** View and communicate with your family anytime, anywhere.
- **Motion Detection Alerts:** An alarm notification will be pushed to your phone once someone is detected.
- **Compatible With NVR Devices:** Enable RTSP protocol on App to connect your NVR devices and the camera.
- **Trigger Event Recording by Sensor:** With eWeLink Camera Plan(subscription sold separately), the sensor device triggers the recording of camera, such as DW2-WiFi door/window sensor, starts recording when detected the motion
- **Local & Cloud Storage:** You can choose to save and share video with a free 30-day trial cloud storage of the Camera Plan or locally saved with SD card (sold separately).

HD

1080P HD Images



Two-way Audio



IR Night Vision



Motion Detection



Activity Alert



360° Viewing Angle

RTSP

RTSP Protocol

TF

TF Card Supported

Download eWeLink Application.

Full info for the products, instructions can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input: 5V/1A
- Resolution: 1080P
- Lens Aperture: F1.2
- Material: ABS
- Video Compression Standard: H.264
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- Work temperature: from 0 to 55°C
- Viewing Angle: 340° horizontal / 120° vertical
- Storage: TF card (Max. 128G) not included.
- Dimension (LxWxH): 109x109x120 mm

Scan and watch detailed video with all product functions.



ADAPTERS FOR GK-200MP2-B:



EU Standard
Cat. number: TPF-DE



UK Standard
Cat. number: TPG-UK

* The adapters are not included, please purchase them separately.

Monitoring without blind spot

Complete 360° coverage ensures every corner is visible



340° Pan

120° Tilt

Even see clearly at night

IR night vision. Infrared LEDs are automatically activated in low-light





Catalogue number: 195052



INDOOR WIRELESS SMART CAMERA

CONTROL: From Anywhere via Smart Device.

FUNCTION

- Control is done from anywhere with IOS or Android mobil application
- Different view settings
- Support TF recording & Cloud storage
- Two-way voice communication
- Motion detection voice alarm & save alarm video
- Detailed alarm sector setting
- Sending images
- Night vision

TECHNICAL DATA

- Input voltage: 100-240VAC
- Output voltage: 5V
- Cover range: 50m
- View angle: 360°
- Effective pixel: HD 1080P



Remote Control

HD

1080P HD Images



Two-way Audio



IR Night Vision



Motion Detection



Activity Alert

Download IPC360 Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu



Catalogue number: 195067



WIRELESS SMART CAMERA

CONTROL: From Anywhere via Smart Device.

FUNCTION

- Control is done from anywhere with IOS or Android mobile application
- Support TF recording & Cloud storage
- Two-way voice communication
- Motion detection alarm
- Detailed alarm sector setting
- Sending images
- Night vision

TECHNICAL DATA

- Input voltage: 100-240VAC
- Output voltage: 5V, 1A
- Speaker: 8Ω 1W
- Field of view: H:86° (355°)/V:64°(90°)
- Resolution: 1280×720(1.0MP)
- Wireless Frequency: 2.4GHz~2.4835 GHz



Remote Control

HD

1080P HD Images



Two-way Audio



IR Night Vision



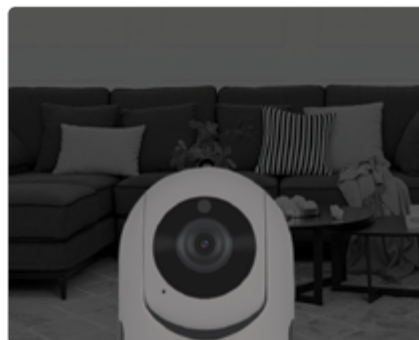
Motion Detection



Activity Alert

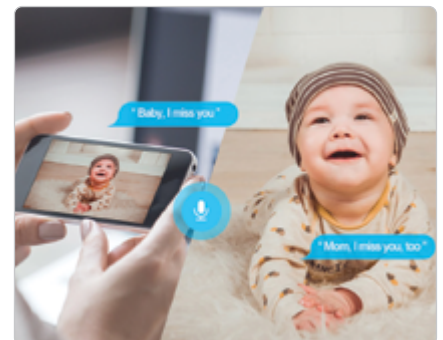
Even see clearly at night

Night vision mode



Two-way audio

See, listen and talk, anytime, anywhere



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Catalogue number: 195068



INDOOR WIRELESS SMART CAMERA

CONTROL: From Anywhere via Smart Device.

FUNCTION

- Control is done from anywhere with IOS or Android mobile application
- Support TF recording & Cloud storage
- Two-way voice communication
- Motion detection alarm
- High quality videos
- Night vision
- Sending images

Download IPC360 Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: 100-240VAC
- Output voltage: 5V, 2A
- Speaker: 8Ω 1W
- Field of view: H.86° (355°)/V.64°(90°)
- Resolution: 1920×1080(2.0MP)
- Wireless Frequency: 2.4GHz~2.4835 GHz



Remote Control

HD

1080P HD Images



Two-way Audio



IR Night Vision



Motion Detection



Activity Alert

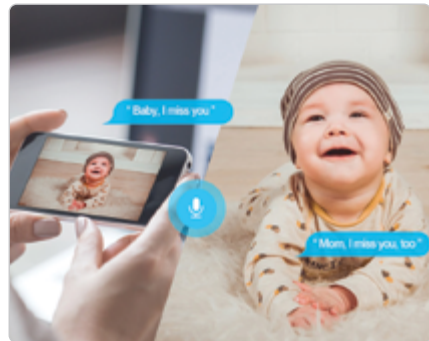
Even see clearly at night

Night vision mode



Two-way audio

See, listen and talk, anytime, anywhere



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Catalogue number: 195049

Scan and watch detailed video with all product functions.



OUTDOOR TUYA SMART WI-FI CAMERA IP66

CONTROL: From Anywhere via Smart Device.

FUNCTION

- Control is done from anywhere with IOS or Android mobile application
- Automatic tracking and sound alarm. When somebody move, the WI-FI camera automatically track the body
- Support Email alarm, app alarm push and alarm snapshot
- Full color night vision, day and night mode automatic switching, support IR distance of 15 meters
- Convenient remote PTZ control. This camera can rotate 355 degrees horizontally and rotate 90 degrees vertically
- Support SD card max 128 GB and cloud recording, data security is more stable
- Two-Way Audio, allows you to listen and speak through the camera.
- P2P remote access and multi-user, you can view the real-time situation of your home anytime and anywhere with your smartphone or tablet.

TECHNICAL DATA

- Input voltage: 100-240VAC
- Output voltage: 12V DC/ 2A
- HD 1080P Resolution
- 4 IR & 4 White LED Distance up to 15m
- Resolution: 1920x1080 (2MP)
- Focal length: 3.6mm, 85° view angle
- Pan/Tilt: Pan: 355°, Tilt: 90°
- Compression: H.264
- SD card storage: up to 128G
- Night vision distance: 15m
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- IP code: IP66

Download TUYA Smart Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu



Human & Motion Detection



Full Color Night Vision

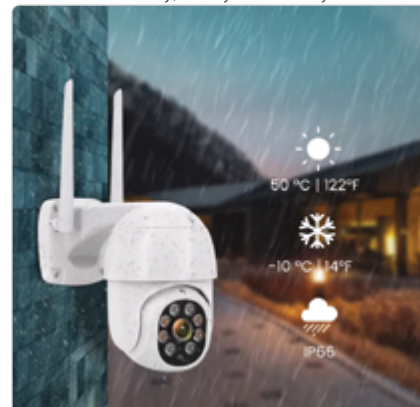


The camera can provide 90°vertical and 355°horizontal rotation range



IP66 Waterproof

It can resist rainy, sunny and snowy weather.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

OUTDOOR TUYA SMART WI-FI SOLAR CAMERA IP66

CONTROL: From Anywhere via Smart Device.

FUNCTION

- Control is done from anywhere with IOS or Android mobile application
- With PIR motion sensor, PIR human body detection wake up camera
- Built-in rechargeable lithium battery with long battery life functions for up to 6 months
- Compatible with Android and IOS smart terminals to support remote real-time monitoring
- Support cloud storage, Micro SD card (up to 128GB) and mobile video recording
- Full color night vision, 10m night vision distance, 24 hours all day monitoring
- Two-Way Audio, allows you to listen and speak through the camera.
- P2P remote access and multi-user, you can view the real-time situation of your home anytime and anywhere with your smartphone or tablet.

TECHNICAL DATA

- Input voltage: DC5V/2A. Can be powered by solar panel or with USB cable
- HD 2K Resolution
- IR Range: Up to 10 meters
- Resolution: 1920x1080 (2MP)
- Focal length: 2.8mm
- Angle of view: 120°
- Compression: H.264
- Battery capacity: 2x2600mAh
- Battery type: 18650 rechargeable
- Standby Consumption: 0.5mA
- Work Consumption: 200mA
- SD card storage: up to 128G
- Night vision distance: 10m
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- IP code: IP66
- Material: ABS

Download TUYA Smart Application.
Full info for the products, instructions, can be found at www.elmarkholding.eu



Li-ion

Catalogue number: 195047

Scan and watch detailed video with all product functions.



3MP Solar Battery Camera 365 Day protect your home.



100% Wireless Non-Stop Power Powered by a solar panel or a USB cable.

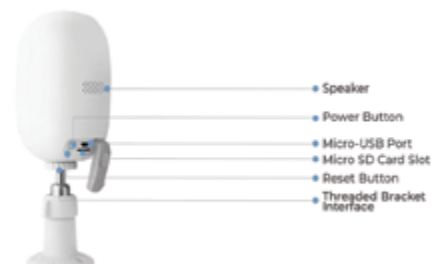


3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

PIR Motion Detection



Full Color Night Vision





Li-ion

Catalogue number: 195048

Scan and watch detailed video with all product functions.



OUTDOOR TUYA SMART WI-FI CAMERA WITH BUILT-IN BATTERY, IP66

CONTROL: From Anywhere via Smart Device.

FUNCTION

- Control is done from anywhere with IOS or Android mobile application
- With PIR motion sensor, PIR human body detection wake up camera
- Built-in rechargeable lithium battery with long battery life functions for up to 6 months
- Compatible with Android and IOS smart terminals to support remote real-time monitoring
- Support cloud storage, Micro SD card (up to 128GB) and mobile video recording
- Full color night vision, 15m night vision distance
- Two-Way Audio, allows you to listen and speak through the camera.
- P2P remote access and multi-user, you can view the real-time situation of your home anytime and anywhere with your smartphone or tablet.

Download TUYA Smart Application.
Full info for the products, instructions, can be found at www.elmarkholding.eu

TECHNICAL DATA

- Input voltage: DC5V/2A. Can be powered with USB cable
- IR Range: Up to 15 meters
- Resolution: 1920x1080 (2MP)
- Sensor: 2.0MP 1/2.9" CMOS Sensor
- Focal length: 3.6mm
- Illumination: Minimum illumination black and white: 0.01 Lux
- Angle of view: 130°
- Compression: H.264
- Battery capacity: 2x2600mAh
- Battery type: 18650 rechargeable
- PIR motion distance: 3-8m
- SD card storage: up to 128G
- Night vision distance: 10m
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- IP code: IP66
- Material: ABS
- PIR motion distance: 3-8m
- SD card storage: up to 128G
- Night vision distance: 10m
- Wi-Fi: IEEE 802.11 b/g/n 2.4GHz
- IP code: IP66
- Material: ABS

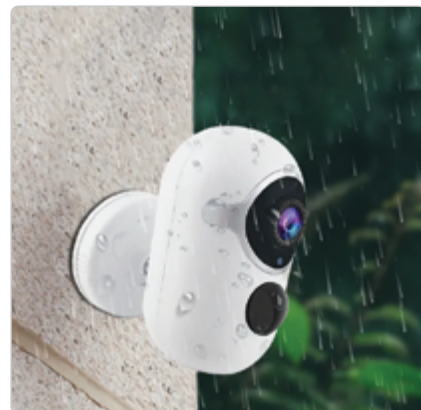
12 Core Functions

Low-Power Battery Camera



IP66 Dustproof & Waterproof

It can resist rainy, sunny and snowy weather.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Catalogue number: 195054

HD 2MP BULLET CAMERA IP66

CAMERA TECHNICAL DATA

- IR Distance: up to 20m
- Image Sensor: 1/2.9" progressive CMOS
- Signal system: PAL/NTSC
- Frame Rate: AHD/TVI/CVI: P/25fps N/30fps/ CVBS: 960H
- Resolution: 2MP 1920(H)×1080(V)
- Lens: 3.6mm
- Day & Night: IR cut filter: 850nm
- Synchronization: internal
- Dwdr: support
- Communication: Up the coax, protocol



MENU

- AGC: yes
- Day/Night Mode: EXT/auto/color/black and white)
- White balance: auto/manual
- BLC: yes
- S/N ratio: 40dB
- OSD: support

INTERFACE

- Video Output: 1-channel BNC video output
- Switch Button: AHD/TVI/CVI/CVBS



Catalogue number: 195055

HD 2MP DOME CAMERA IP66

CAMERA TECHNICAL DATA

- IR Distance: up to 15m
- Image Sensor: 1/2.9" progressive CMOS
- Signal system: PAL/NTSC
- Frame Rate: AHD/TVI/CVI: P/25fps N/30fps/ CVBS: 960H
- Resolution: 2MP 1920(H)×1080(V)
- Lens: 3.6mm
- Day & Night: IR cut filter: 850nm
- Synchronization: internal
- Dwdr: support
- Communication: Up the coax, protocol



MENU

- AGC: yes
- Day/Night Mode: EXT/auto/color/black and white)
- White balance: auto/manual
- BLC: yes
- S/N ratio: 40dB
- OSD: support

INTERFACE

- Video Output: 1-channel BNC video output
- Switch Button: AHD/TVI/CVI/CVBS



Catalogue number: 195069

4 CHANNEL WI-FI NETWORK VIDEO RECORDERS+4 CAMERA, SET

CONTROL: From Anywhere via Smart Device.

NVR TECHNICAL DATA

- Compression format: H.265+
- Operation system: Linux- embedded
- Video-input: 4*1080P
- Audio compression: G.711A
- Display resolution: Max 1080P
- Record resolution: Analog : 1080P
- Access bandwidth: 24Mbps
- Forwarding bandwidth: 24Mbps
- Maximum decode performance: 4x1080P
- Recording mode: Manual>Alarm>Dynamic Detection>Timing
- Network interface: 1*RJ45 10M/100M Adaptive Ethernet port+4ch WIFI
- HDD interface: 1SATA, up to 8TB for each disk- not included



CAMERA TECHNICAL DATA

- IR Distance: 20-30m
- Sensor: progressive scan
- Low illumination: Color: 0.1 Lux; B/W: 0.01 Lux
- Effective pixel: HD 1080P
- Video compression: H.265+
- Lens: HD 3.6mm
- Day & Night: IR cut filter with auto switch
- Power supply: DC12V 1A
- Consumption: max 6W
- IP66



Remote Control



Share control



LAN Control

3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



Catalogue number: 195060

4 CHANNEL DIGITAL VIDEO RECORDERS

TECHNICAL DATA

- Channels: 4
- Compression format: H.265
- Video system: NTSC/PAL
- Operation system: Linux- embedded
- Analog video-input /output: 4CH inputs / VGA and HDMI output
- IP Video Input: 2ch (only IP up to 6ch)
- Composite video input: up to 6ch (Analog video + IP video)
- Audio input /output: 1CH input /1CH output(RCA)
- Display resolution: Analog :1080N/720P/960H, IP:1080P/720P
- Display feature: single/Quad/S.E.Q.
- Record resolution: Analog :1080N/720P/960H, IP:1080P/720P
- Maximum input bandwidth: 8Mbps~16Mbps (default is 8Mbps, decrease one Analog channel can increase 4Mbps)
- Maximum output bandwidth: 16Mbps
- Maximum decode performance: 1080N:140fps
- Recording mode: Continuous/Manual/Motion detect
- Network type: Lan, DHCP, and DDNS
- HDD interface: 1SATA HDD, up to 6TB
- Multiplex operation: live display, record, playback, backup and network
- USB: 2xUSB(for mouse and backup/upgrade)
- PTZ control: yes (RS485)
- Mobile surveillance: Support Mobile Phones based on iPhone and Android operation system
- VGA/HDMI: 1024*768,1280*1024,1440*900, 1920*1080
- Power supply: DC 12V/2A
- Dimension(WxDxH): 300x227x53mm
- Working temperature: -10°C~+55°C
- Working humidity: 10%~90%



Catalogue number: 195061

8 CHANNEL DIGITAL VIDEO RECORDERS

TECHNICAL DATA

- Channels: 8
- Compression format: H.265
- Video system: NTSC/PAL
- Operation system: Linux- embedded
- Analog video-input /output: 8CH inputs / VGA and HDMI output
- IP Video Input: 4ch (only IP up to 12ch)
- Composite video input: up to 12ch (Analog video + IP video)
- Audio input /output: 1CH input /1CH output(RCA)
- Display resolution: Analog :1080N/720P/960H, IP:1080P/720P
- Display feature: 1/4/6/8/9/10/13/14S.E.Q.
- Record resolution: Analog :1080N/720P/960H, IP:1080P/720P
- Maximum input bandwidth: 16Mbps~32Mbps (default is 8Mbps, decrease one Analog channel can increase 4Mbps)
- Maximum output bandwidth: 32Mbps
- Maximum decode performance: 1080N:120fps
- Recording mode: Continuous/Manual/Motion detect
- Network type: Lan, DHCP, and DDNS
- HDD interface: 1SATA HDD, up to 6TB
- Multiplex operation: live display, record, playback, backup and network
- USB: 2xUSB(for mouse and backup/upgrade)
- PTZ control: yes (RS485)
- Mobile surveillance: Support Mobile Phones based on iPhone and Android operation system
- VGA/HDMI: 1024*768,1280*1024,1440*900, 1920*1080
- Power supply: DC 12V/2A
- Dimension(WxDxH): 300x227x53mm
- Working temperature: -10°C~+55°C
- Working humidity: 10%~90%



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DVR AND CAMERA ACCESSORIES - CABLE SPLITTERS



1 to 4 or 1 to 8 power splitter power cable (power splitter connection).
Plug and play ready only for camera with DC power .
For adapting power supply 12V2A.

Catalogue number	Description	Power source type	Packing/Box (pcs)
195062	1-4 cable splitter	DC	1
195063	1-8 cable splitter	DC	1



DVR AND CAMERA ACCESSORIES- POWER ADAPTOR



High quality supply for DVR cameras with over current protection, over voltage protection, overload protection and short-circuit protection.

Catalogue number	Description	Input Voltage	Output Voltage	Current	Packing/Box (pcs)
195065	Power adaptor	100-240V AC	12V DC	2A	1



DVR AND CAMERA ACCESSORIES- BNC CABLE



BNC video and power security camera cable. Suitable just for camera with DC power and supply DC power for security cameras.

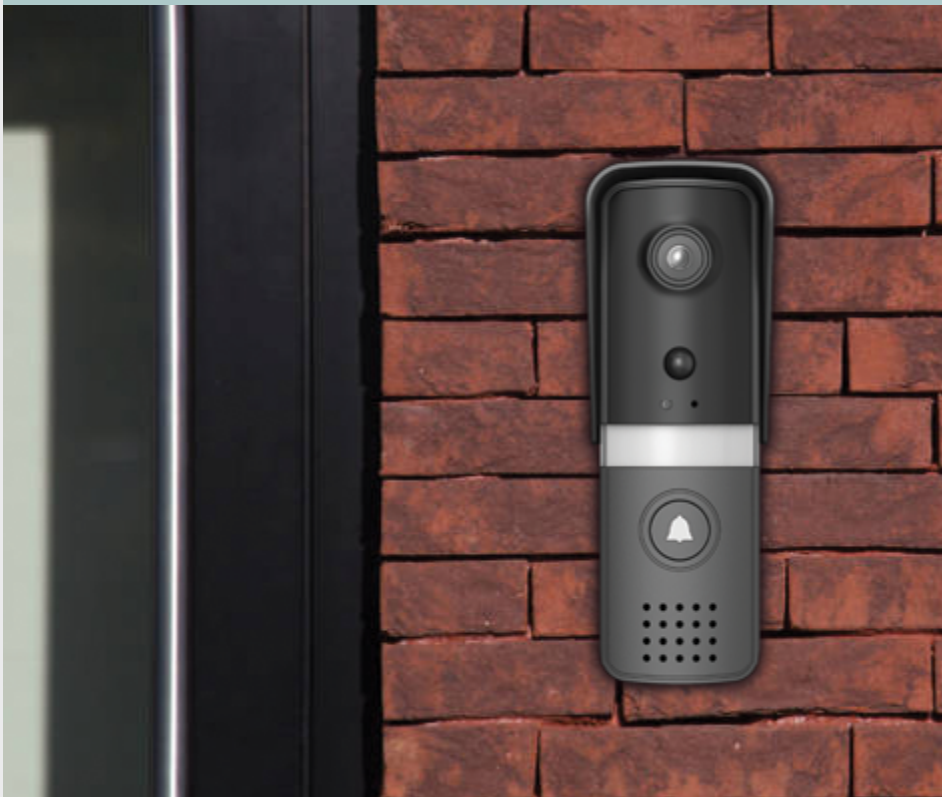
Plug and play connectors on both ends.

It is used for CCTV cameras, DVRs, audio video systems. Compatible with all CCTV surveillance DVR camera system.

Catalogue number	Description	Length (m)	Packing/Box (pcs)
195064	BNC cable	18.29	1



VIDEO DOOR SYSTEMS



WIRELESS & VIDEO DOOR PHONES



Catalogue number: 195081

WIRELESS AND VIDEO DOOR PHONE, FOUR WIRE

When someone presses the call button on the outdoor unit, the indoor unit will ring and the mobile phone will get a notification, open the APP, you will get the video image immediately. You can unlock the door strike remotely by APP, or unlock by the indoor unit.

CONTROL: From Anywhere via Smart Device or via touch screen devices.

FUNCTION

- Video recording & photo taking
- Free iOS and Android mobile App Tuya
- Outdoor unit: password, IC card and fingerprint unlock
- Night vision

Download Tuya Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu.



1080P
HD



Intercom



Smart
Linkage



IC card
Unlock



Fingerprint
Unlock



Password
Unlock



Night
Vision



Monitoring



App
Based

TECHNICAL DATA

- Input voltage: 100-240V AC
- Output: 12 V DC / 1-2A
- Power consumption indoor unit:
 - > Static state: < 4W
 - > Working state: < 8W
- Power consumption outdoor unit:
 - > Static state: < 0.5W
 - > Working state: < 6W
- Screen resolution: 1024x600 / 1080P
- Camera pixels: 2 million / 1080P
- Volume: ≥ 75dB (0.3m)
- Application: Tuya app
- Material: ABS V0
- Operation temperature: from -10 to 50°C
- Operation humidity: 10 - 90%
- Dimensions indoor unit (LxWxH): 215 x 18 x 152 mm
- Dimensions outdoor unit (LxWxH): 75 x 37 x 197 mm

Scan and watch
detailed video
with all product
functions.



Fingerprint Unlock

Semiconductor fingerprint recognition improves reliability and efficiency



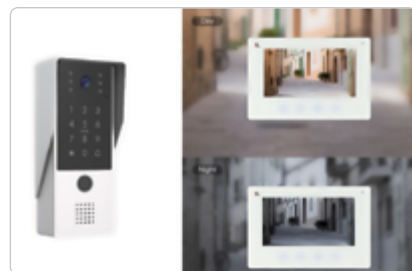
Weatherproof

Suitable for outdoor use



Night vision camera

Capture clear image even at night



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

WIFI SMART VIDEO INTERCOM DOORBELL SYSTEMS, ONE UNIT WITH THREE BUTTONS AND THREE MONITORS



Catalogue number: 195085

See, hear and speak to visitors from anywhere



When someone presses the call button on the outdoor unit, the indoor unit will ring and the mobile phone will get a notification, open the APP, you will get the video image immediately. You can unlock the door strike remotely by APP, or unlock by the indoor unit.

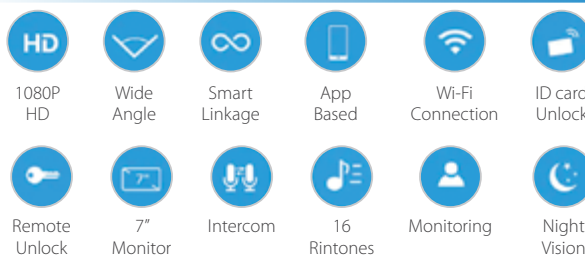
CONTROL: From Anywhere via Smart Device or via touch screen devices.

FUNCTION

- AHD, 3 families
- Tuya APP remote control
- 7 inch screen,
- Screen resolution 1024*600
- 1080P camera
- 4-wire connection between the outdoor station and monitor
- Hand free indoor monitor
- Water-proof, anti-oxidation and anti-vandal outdoor unit.
- Electric-lock releasing function; it can open 2 doors
- Outdoor monitoring function
- Outdoor unit tags reader function
- 16 ringtones for option
- Adjustable chroma, brightness, ringing and talking volume. Enclosed with bracket, screws, adapter for DIY installation

Download Tuya Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu.



TECHNICAL DATA

- Input voltage: 100-240V AC
- Output: 12 V DC / 1-2A
- Wire: 4
- Power consumption indoor unit:
 - > Static state: < 3,5W
 - > Working state: < 8W
- Power consumption outdoor unit:
 - > Static state: < 1W
 - > Working state: < 5W
- Screen resolution: 1024x800 / 1080P
- Camera pixels: 2 million / 1080P
- Volume: ≥ 75dB (0,3m)
- Application: Tuya app
- Material: ABS V0
- Operation temperature: from -10 to 50°C
- Operation humidity: 10 - 90%
- Dimensions indoor unit (LxWxH): 215 x 18 x 152 mm
- Dimensions outdoor unit (LxWxH): 75 x 37 x 197 mm

Scan and watch detailed video with all product functions.



Way to unlock

- Quick access with ID card
- Concern for elderly and kids



Weatherproof

Suitable for outdoor use



Night vision camera

Capture clear image even at night



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

7 INCH WIFI SMART VIDEO INTERCOM DOORBELL SYSTEMS, DOUBLE WAY- ONE UNIT WITH ONE BUTTON AND TWO, THREE AND FOUR MONITORS, FOUR WIRE



When someone presses the call button on the outdoor unit, the indoor unit will ring and the mobile phone will get a notification, open the APP, you will get the video image immediately. You can unlock the door strike remotely by APP, or unlock by the indoor unit.

CONTROL: From Anywhere via Smart Device or via touch screen devices.

FUNCTION

- Tuya APP remote control
- 7 inch screen, screen resolution 1024*600
- 1080P AHD camera
- 4-wire connection between the outdoor station and monitor
- Hand free indoor monitor
- Water-proof, anti-oxidation and anti-vandal outdoor unit.
- Electric-lock releasing function; it can open 2 doors
- Outdoor monitoring function
- Outdoor unit tags reader function
- 16 ringtones for option
- Adjustable chroma, brightness, ringing and talking volume. Enclosed with bracket, screws, adapter for DIY installation.

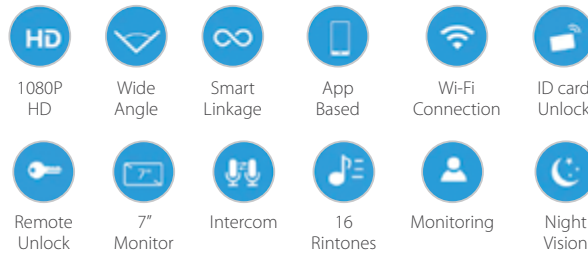
Scan and watch detailed video with all product functions.



Download Tuya Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu.

See, hear and speak to visitors from anywhere



TECHNICAL DATA

- Input voltage: 100-240V AC
- Output: 12 V DC / 2A
- Power consumption indoor unit:
 - > Static state: < 3.5W
 - > Working state: < 8W
- Power consumption outdoor unit:
 - > Static state: < 1W
 - > Working state: < 5W
- Screen resolution: 1024x600/ 1080P
- Camera pixels: 2 million/ 1080P
- Volume: ≥ 75dB (0.3m)
- Application: Tuya app
- Material: ABS V0
- Operation temperature: from -10 to 50°C
- Operation humidity: 10 - 90%
- Dimensions indoor unit (LxWxH): 215 x 18 x 152 mm
- Dimensions outdoor unit (LxWxH): 52 x 47 x 130 mm

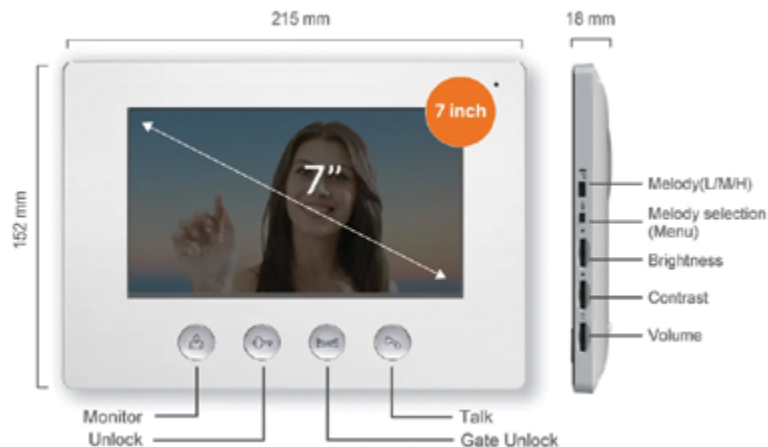
Weatherproof
Suitable for outdoor use



Night vision camera
Capture clear image even at night



Catalogue number	Model	Description	Input voltage	Screen
195080	EL-WF1DP+1	Single way intercom with 2 monitors	100-240V AC	2x7 inches
195076	EL-WF1DP+2	Single way intercom with 3 monitors	100-240V AC	3x7 inches
195078	EL-WF1DP+3	Single way intercom with 4 monitors	100-240V AC	4x7 inches



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



Catalogue number: 195082

SMART PHOTO DOORBELL CAMERA WITH WIRELESS CHIME, TUYA

When someone presses the call button on the outdoor unit, the indoor unit will ring and the mobile phone will get a notification, open the APP.

CONTROL: From Anywhere via Smart Device.

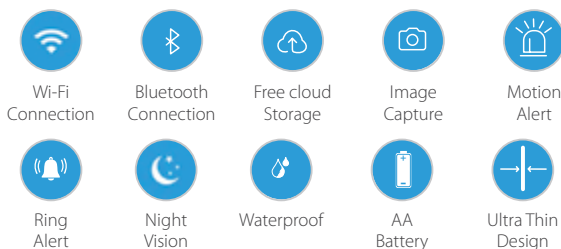
FUNCTION

- Motion- and ring-triggered smart phone notifications with recorded images.
- See visitors' photo via mobile phone from any place.
- Free Cloud storage, view the photos for 3*24 hours for free.
- Work as a normal door chime when smart phone is not nearby or turned off.
- Night vision camera, resolution is 640 x 480.
- Motion detection sensitivity adjustable, motion detection Range is 3m and 70°.
- Camera viewing angle is around 70°.
- Powered by 3xLR6 batteries (not included) for easy installation.
- Bluetooth network configuration.
- Waterproof: IPX4.

Download Tuya Application.
Full info for the products, instructions, can be found at www.elmarkholding.eu.



Scan and watch detailed video with all product functions.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Two ways to activate



Ring Alert

Motion Alert



See who is at your front door from your smartphone

Get notified in your home when guest arrives

Weatherproof

Suitable for outdoor use

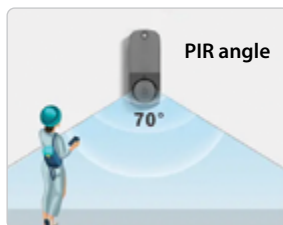


DOORBELL TECHNICAL DATA

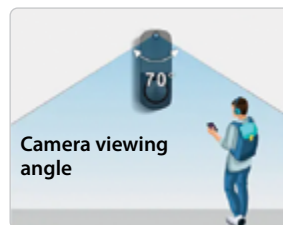
- Battery: DC 4.5V AA/LR6 x 3
- Wireless distance: ≤ 80m (open area)
- PIR angle: 70°
- Camera viewing angle: 70°
- Camera pixels: 350 000
- Waterproof rating: IP45
- Operation temperature: from -20 to 50°C
- Operation humidity: 10 - 90%
- Dimensions outdoor unit (LxWxH): 51 x 20 x 126 mm

CHIME TECHNICAL DATA

- Battery: DC 4.5V AA/LR6 x 3
- Wireless distance: ≤ 80m (open area)
- Standby average current: < 200uA
- Operating average current: < 100mA
- Volume: Low 60-70dB / Medium 70-80dB / High 80-90dB
- Operation temperature: from -10 to 50°C
- Dimensions indoor unit (LxWxH): 78 x 30 x 78 mm



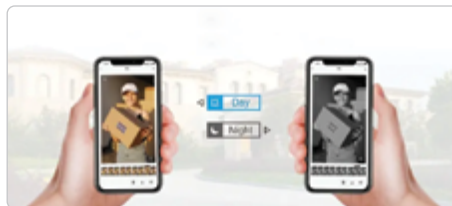
PIR angle



Camera viewing angle

Night vision

Doorbell camera sends motion-photos to your phone



AA Rated & Powered

Powered by three AA batteries for both - camera and indoor chime





Catalogue number: 195083

SMART WIRELESS VIDEO DOORBELL, TUYA

When someone presses the call button on the outdoor unit, the indoor unit will ring and the mobile phone will get a notification, open the APP.

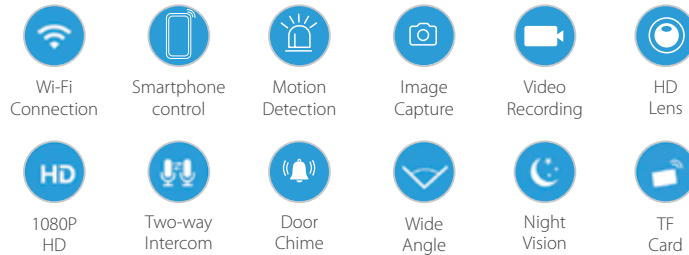
CONTROL: From Anywhere via Smart Device.

FUNCTION

- When the visitor pressed the doorbell, the indoor unit will give an alert tone.
- PIR detection: When someone is near the door, the doorbell will be woken up
- Two-way audio
- High volume wireless indoor chime
- Long time standby
- Night vision camera, resolution is 640 x 480.
- Motion detection sensitivity adjustable, motion detection range is 3m and 110°.
- Camera viewing angle is around 110°.
- Waterproof: IPX4.

Download Tuya Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu.



Always home anytime and anywhere



Three ways to activate

- Press the doorbell
- PIR detection
- APP

DOORBELL TECHNICAL DATA

- Video resolution: 2M Pixels
- Wireless distance: ≤ 80m (open area)
- PIR angle: 110°
- Camera viewing angle: 110°
- Video recording length: 15 sec
- Standby current: 1.5mA
- Intercom volume: 80dB
- Alarm volume: 85dB
- Waterproof rating: IP45
- Operation temperature: from -10 to 50°C
- Operation humidity: 10 - 90%
- Dimensions outdoor unit (LxWxH): 56.8x40.5x159.5 mm

CHIME TECHNICAL DATA

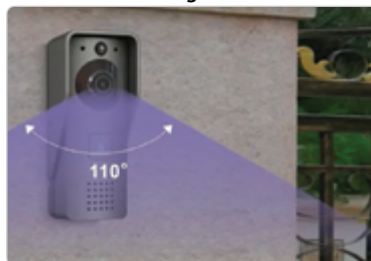
- Battery: DC 4.5V AA/LR6 x 3
- Wireless distance: ≤ 80m (open area)
- Standby average current: < 0.25mA
- Operating average current: < 100mA
- Volume: > 85dB
- Operation temperature: from -10 to 50°C
- Dimensions indoor unit (LxWxH): 65x29.5x95 mm



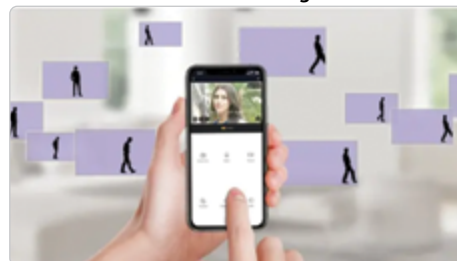
Scan and watch detailed video with all product functions.



Wide-angle view outside the door at a glance



Screen snapshot, Video recording

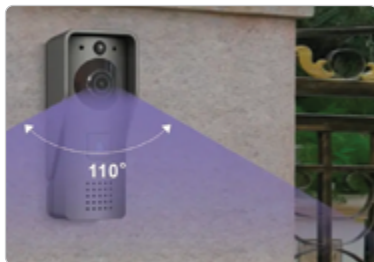


3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Catalogue number: 195084

Wide-angle view outside the door at a glance



Screen snapshot, Video recording



Equipped with high volume wireless indoor chime



SOLAR VIDEO SMART WIRELESS DOORBELL, TUYA

When someone presses the call button on the outdoor unit, the indoor unit will ring and the mobile phone will get a notification, open the APP.

CONTROL: From Anywhere via Smart Device.

FUNCTION

- 1080P camera resolution, 110°in horizontal viewing angle
- See and speak to visitors via smart mobile APP from any place
- Work as a normal door chime when smart phone is not nearby or turned off
- Built-in Lithium batteries. Not limited by the outdoor power supply.
- Built-in motion sensor triggers mobile alerts
- Take photos by smart mobile via APP
- Video Recording : support TF card recording (max :64GB)
- Built-in night vision to capture activity around the door at night
- IP44 weatherproof.

Download Tuya Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu.



Wi-Fi Connection



Smartphone control



Remote Unlock



Motion Detection



Image Capture



Video Recording



HD Lens



1080P HD



Two-way Intercom



Door Chime



Wide Angle



Night Vision



TF Card

DOORBELL TECHNICAL DATA

- Support solar power supply
- Video resolution: 2M Pixels
- Wireless distance: ≤ 80m (open area)
- PIR angle: 110°
- Camera viewing angle: 110°
- Video recording length: 15 sec
- Standby current: 1.5mA
- Intercom volume: 80dB
- Alarm volume: 85dB
- Waterproof rating: IP45
- Operation temperature: from -10 to 50°C
- Operation humidity: 10 - 90%
- Dimensions outdoor unit (LxWxH): 56.8 x 40.5 x 159.5 mm / Dimensions solar panel(Lx-WxH): 153x 10 x 139 mm

CHIME TECHNICAL DATA

- Battery: DC 4.5V AA/LR6 x 3
- Wireless distance: ≤ 80m (open area)
- Standby average current: < 200uA
- Operating average current: < 100mA
- Volume: Low 60-70dB / Medium 70-80dB / High 80-90dB
- Operation temperature: from -10 to 50°C
- Dimensions indoor unit (LxWxH): 78x30x78 mm



Scan and watch detailed video with all product functions.

Smart tamper alarm



PIR detection



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Cat. Number: M160132

ELECTROMAGNETIC STRIKE PLATES 6-12V AC/DC

APPLICATION

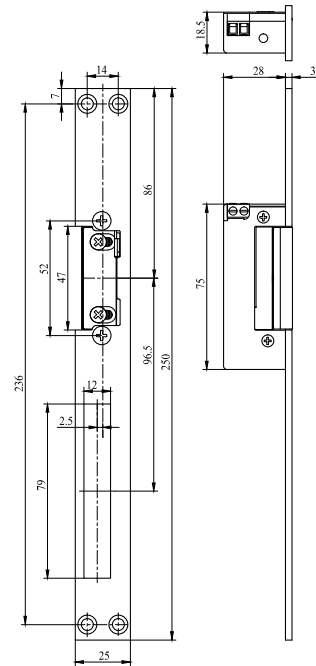
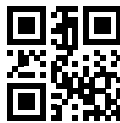
For remote open left and right hand doors.

FEATURES

- Universal- without specific direction of opening.
- Adjustable tongue with movement 4 mm.
- Supply voltage: 6-12V AC/DC
- Fail secure- with mechanical release lever
- Compatible with 12V intercom system
- Strike plate from Zink finished steel

THE SET INCLUDES

- 1 Electromagnetic Strike
- 1 Front plate
- Fasteners



Cat. Number: M160133

ELECTROMAGNETIC STRIKE PLATES 8-16V AC/DC

APPLICATION

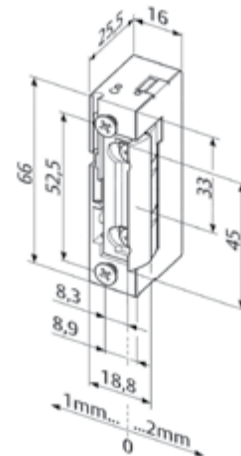
For remote open left and right hand doors.

FEATURES

- Universal- without specific direction of opening.
- Adjustable tongue with movement 3 mm.
- Supply voltage: 8-16V AC/DC
- Compatible with 12V intercom system
- Universal without memory and block.
- NC contact (Fail secure): remains locked in the absence of voltage.
- Strike plate from Zink finished steel

THE SET INCLUDES

- 1 Electromagnetic Strike
- 1 Front plate
- Fasteners



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



Cat. Number: 196005

SMART SECURITY DOUBLE CYLINDER RIM DOOR LOCK EL-ERSP2, WHITE

A Rim Lock is the oldest type of locking device for a door. Its basic design comprises a surface mounted box containing a deadbolt type of lock and a latch. Rim locks are easy to fit as they are fixed to the surface of the door.

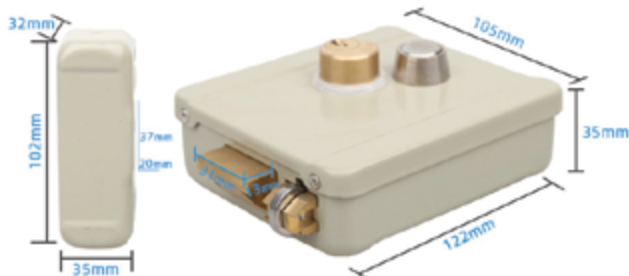
FEATURES

- High-quality components
- Double connected cylinders
- With strike plate
- Can be connected Access Control System
- Suitable for: Metal door, wooden door, Stainless steel door.



TECHNICAL DATA

- Type: Security smart double cylinder rim door lock 12V DC
- Model: EL-ERSP2
- Locking method: Collision lock
- Input voltage: 12V DC
- Unlock voltage: 6-15V
- Unlock current: 1.5-3A
- Sensitivity: 1s
- Mechanical life: 500 000 times
- Material: Iron
- Surface treatment: Power Spraying, Electroplating
- Mounting: Surface mounting on the inside of the door
- Dimensions (LxWxH): 122x105x35mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Cylinder

Copper solid mechanical lock core, can withstand wear and tear, and has a long service life.



Lock structure

Fixed circlip, smart anti-theft, high elasticity spring, thickened lever, security and peace of mind.

SMART DOOR LOCKS



SMART DOOR LOCKS

FINGERPRINT ELECTRONIC SMART DOOR LOCK EL-T1

EL-T1 is smart digital door lock with small size and 5 ways to unlock- fingerprint, password, card, key and APP via Bluetooth.



CONTROL: Local

FEATURES

- Small size
- Multiple ways to unlock: fingerprint, code, card, mechanical key, mobile APP
- Stylish and simple design
- High sensitive fingerprint
- Anti-pry alarm
- Light indicator: Indicate the smart lock status and help to find at night.
- Anti-copy encrypted card: Intelligent encryption IC card recognition, easy to manage, high security against copying.
- Powerful inner core: high- performance chip, more accurate running speed algorithm.



Multiple ways to unlock



Voice control



High sensitive fingerprint



Anti-pry alarm



USB emergency interface



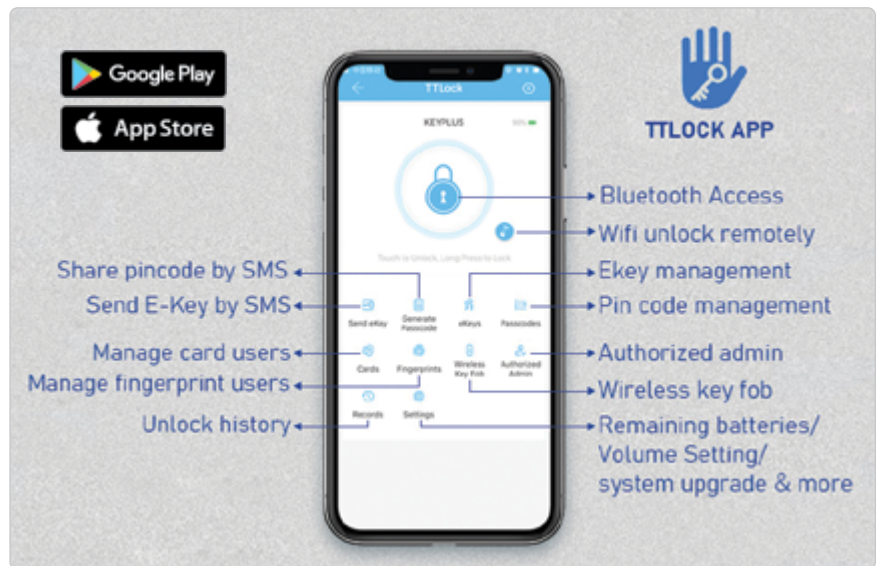
Virtual password

Download TTLOCK Application.

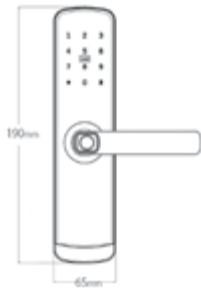
Full info for the products, instructions, can be found at www.elmarkholding.eu

Remotely unlock by mobile APP

With powerful mobile app functions



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



TECHNICAL DATA

- Material: Aluminum alloy
- Power supply: 4x1.5V AA batteries- Not included
- Charging input: Type C
- Suitable mortise: ST-5050
- Alert voltage: 4.8V
- Static current: 65 uA
- Induction time: ≤ 0.5s
- False reject rate: ≤ 0.01%
- False acceptance rate: ≤0.0001%
- Fingerprint capacity: 100
- Password capacity: 50
- Card capacity: 100
- Password length: 6-12 digits
- Door thickness: 30-120mm
- Dimensions (LxH): 65x190mm

THE SET INCLUDES:

- Smart door lock: 1pc
- IC card: 3pcs
- Mechanical keys: 2pcs

Catalogue number	Fingerprint capacity	Password capacity	Card capacity	Door thickness	Suitable mortise	Packing/Box (pcs)
195011	100	50	100	30-120mm	5050	1

Scan and watch detailed video with all product functions.



Anti-copy encrypted card

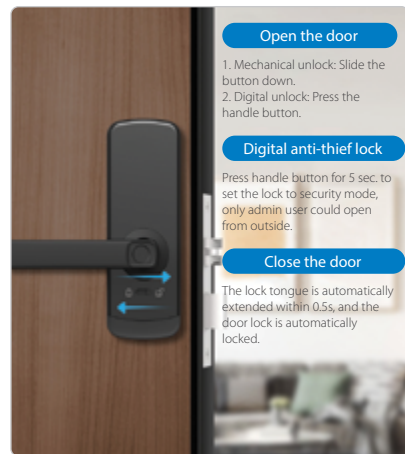
Intelligent encryption IC card recognition, easy to manage, high security against copying.

Full auto lock body

Automatic lock body, with built-in motor more convenient and safer.

Two ways to open the door

Digital anti-thief lock



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



FINGERPRINT ELECTRONIC SMART DOOR LOCK EL-T2

EL-T2 is smart digital door lock with small size and 5 ways to unlock- fingerprint, password, card, key and APP via Bluetooth.

CONTROL: Local

FEATURES

- Small size
- Multiple ways to unlock: fingerprint, code, card, mechanical key, mobile APP
- Stylish and simple design
- High sensitive fingerprint
- Anti-pry alarm
- Light indicator: Indicate the smart lock status and help to find at night.
- Anti-copy encrypted card: Intelligent encryption IC card recognition, easy to manage, high security against copying.
- Powerful inner core: high- performance chip, more accurate running speed algorithm.



Multiple ways to unlock



Voice control



High sensitive fingerprint



Anti-pry alarm



USB emergency interface



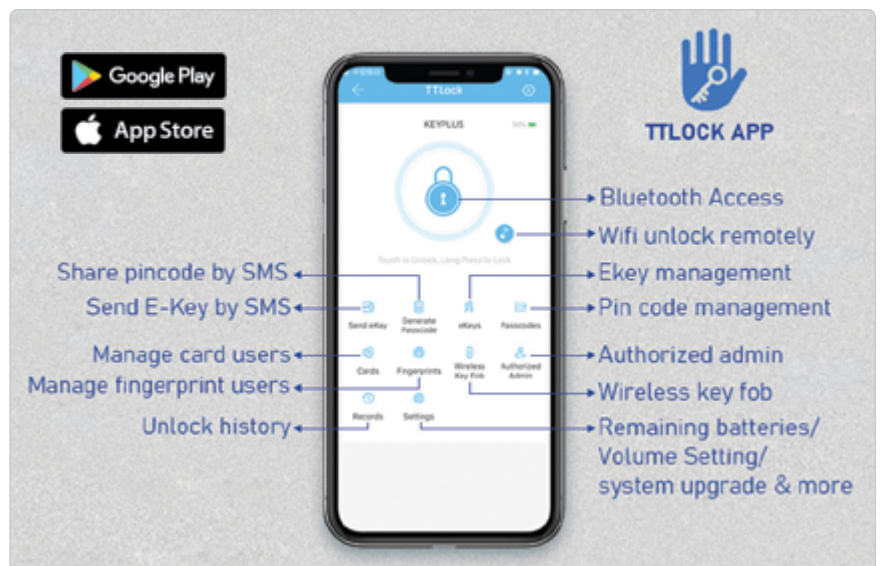
Virtual password

Download TTLOCK Application.

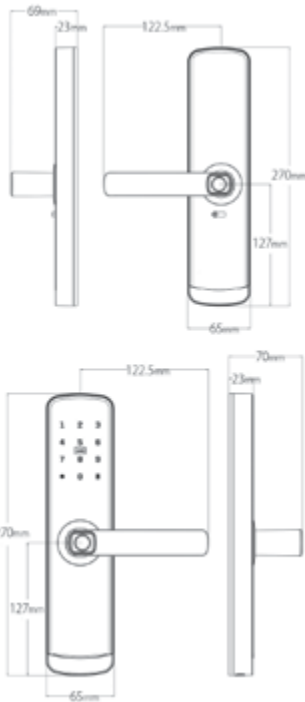
Full info for the products, instructions, can be found at www.elmarkholding.eu

Remotely unlock by mobile APP

With powerful mobile app functions



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



TECHNICAL DATA

- Material: Aluminum alloy
- Power supply: 4x1.5V AAA batteries - not included
- Charging input: Type C
- Suitable mortise: ST-7255
- Alert voltage: 4.8V
- Static current: 65 uA
- Induction time: ≤ 0.5s
- False reject rate: ≤ 0.01%
- False acceptance rate: ≤ 0.0001%
- Fingerprint capacity: 120
- Password capacity: 150
- Card capacity: 200
- Password length: 6-12 digits
- Door thickness: 30-120mm
- Dimensions (LxH): 65x270mm

THE SET INCLUDES:

- Smart door lock: 1pc
- IC card: 3pcs
- Mechanical keys: 2pcs

Catalogue number	Fingerprint capacity	Password capacity	Card capacity	Door thickness	Suitable mortise	Packing/Box (pcs)
195007	120	150	200	30-120mm	7255	1



Scan and watch detailed video with all product functions.

Anti-copy encrypted card

Intelligent encryption IC card recognition, easy to manage, high security against copying.



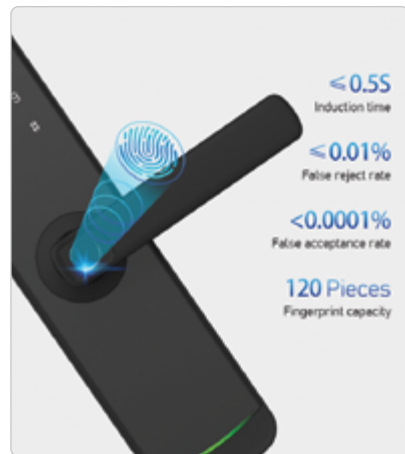
Scramble pin code technology

Protective inputting, unlocking with ease no more concern about being peeped.



High sensitive fingerprint

AI self-learning algorithm, anti-copy, anti-theft, fast identification within 0.5 seconds.



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



FINGERPRINT ELECTRONIC SMART DOOR LOCK EL-T6

EL-T6 is smart digital slim door lock with 5 ways to unlock- fingerprint, password, card, key and APP. With two various models of mortise for option, it's very suitable for aluminum doors, wooden doors and other metal doors.

CONTROL: Local

FEATURES

- Slim body design
- Multiple ways to unlock: fingerprint, code, card, mechanical key, mobile APP
- Stylish and simple design
- High sensitive fingerprint
- Multiple alarming function
- Light indicator: Indicate the smart lock status and help to find at night.
- Micro USB emergency power
- Anti-copy encrypted card: Intelligent encryption IC card recognition, easy to manage, high security against copying.
- Powerful inner core: high- performance chip, more accurate running speed algorithm.



Multiple ways to unlock



Voice control



High sensitive fingerprint



Anti-pry alarm



USB emergency interface



Virtual password

Download TTLOCK Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu

Compatible with various type of doors



▲ Aluminum door



▲ Wooden door

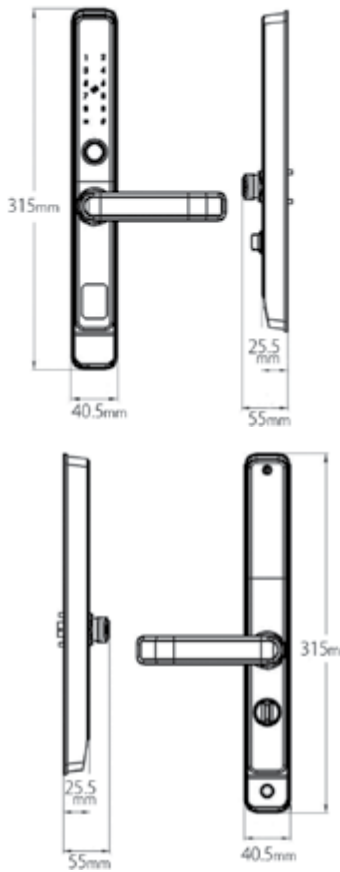


▲ Framed door



▲ Sliding door

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



TECHNICAL DATA

- Material: Aluminum alloy
- Power supply: 4x1.5V AA batteries - not included
- Charging input: Type C
- Suitable mortise: ST-3585 & ST-5085
- Alert voltage: 4.8V
- Static current: 65 uA
- Induction time: ≤ 0.5s
- False reject rate: ≤ 0.01%
- False acceptance rate: ≤ 0.0001%
- Fingerprint capacity: 120
- Password capacity: 150
- Card capacity: 200
- Password length: 6-12 digits
- Door thickness: 40-120mm
- Dimensions (LxH): 36x310mm
- IP code: IPX5 Waterproof

THE SET INCLUDES:

- Smart door lock: 1pc
- IC card: 3pcs
- Mechanical keys: 2pcs

Catalogue number	Fingerprint capacity	Password capacity	Card capacity	Door thickness	Suitable mortise	Packing/Box (pcs)
195008	120	150	200	40-120mm	5085	1
195009	120	150	200	40-120mm	3585	1



Scan and watch detailed video with all product functions.

Powerful inner core, Smart CPU
Stable operating system, high performance chip.

0.5s UNLOCK TIME
Self-optimization Algorithm

100ms RESPONSE TIME
Integrate Security and IoT Connectivity

INSIDE SECURITY KNOB

When turn on this knob, the lock can be unlocked only by mechanical keys from outside.

IPX5 WATERPROOF

Easy to install and replace the battery

LOW BATTERY REAL-TIME REMINDER

With USB emergency port for charging to unlock.

TIPS: Replace the batteries after low battery reminder.

Smart power saving 10000 times of operation

4x1.5V AAA Batteries

3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



FINGERPRINT ELECTRONIC SMART GLASS DOOR LOCK EL-G3

EL-G3 is smart digital door lock with small size and 5 ways to unlock- fingerprint, password, card, key and APP via Bluetooth. EL-G3 is designed for frame-less glass doors.

CONTROL: Local

FEATURES

- Small size
- Integrated doorbells
- Multiple ways to unlock: fingerprint, code, card, mechanical key, mobile APP
- Stylish and simple design
- High sensitive fingerprint
- Alarming Function when the door is not close well or low power, wrong operation
- Anti-copy encrypted card: Intelligent encryption IC card recognition, easy to manage, high security against copying.
- Powerful inner core: high- performance chip, more accurate running speed algorithm.



Multiple ways to unlock



Voice control



High sensitive fingerprint



Anti-pry alarm



USB emergency interface



Virtual password

Download TTLOCK Application.

Full info for the products, instructions, can be found at www.elmarkholding.eu

Remotely unlock by mobile APP
With powerful mobile app functions

- Share pincode by SMS
- Send E-Key by SMS
- Manage card users
- Manage fingerprint users
- Unlock history

TTLOCK APP

- Bluetooth Access
- Wifi unlock remotely
- Ekey management
- Pin code management
- Authorized admin
- Wireless key fob
- Remaining batteries/ Volume Setting/ system upgrade & more

Anti-copy encrypted card

Intelligent encryption IC card recognition, easy to manage, high security against copying.

Encryption protection

Two-step verification

Lost and void

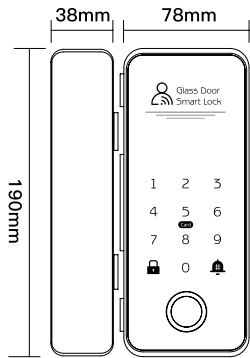
Scramble pin code technology

Protective inputting, unlocking with ease no more concern about being peeped.

High sensitive fingerprint

AI self-learning algorithm, anti-copy, anti-theft, fast identification within 0.5 seconds.

- <0.5S**
Induction time
- <0.01%**
False reject rate
- <0.0001%**
False acceptance rate
- 200 Pieces**
Fingerprint capacity



TECHNICAL DATA

- Material: Aluminum alloy
- Power supply: 4x1.5V AAA batteries - not included
- Charging input: Type C
- Alert voltage: 4.8V
- Static current: 65 uA
- Induction time: ≤ 0.5s
- False reject rate: ≤ 0.01%
- False acceptance rate: ≤ 0.0001%
- Fingerprint capacity: 200
- Password capacity: 150
- Card capacity: 200
- Password length: 6-12 digits
- Door thickness: 8-12mm

THE SET INCLUDES:

- Smart door lock: 1pc
- IC card: 3pcs
- Mechanical keys: 2pcs

Catalogue number	Fingerprint capacity	Password capacity	Card capacity	Door thickness	Packing/Box (pcs)
195010	200	150	200	8-12mm	1

Scan and watch detailed video with all product functions.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Catalogue number:196004

WATERPROOF TUYA FINGERPRINT BLUETOOTH PADLOCK, EL-ILOCK

This smart padlock is suitable for house doors, warehouse, cabinet, offices and etc.

TECHNICAL DATA

- Type: Smart padlock, support TUYA
- Model: EL-ILOCK
- Material: Metal
- Charging: USB 5V
- Battery: 300mAh Li-Ion
- Unlock speed: 0.5s
- Unlock time length: 5s
- Fingerprint storage: 10 users
- IP code: IP54
- Working temperature: from -10°C to 50°C
- Dimensions (LxH): 36x29mm



Scan and watch detailed video with all product functions.

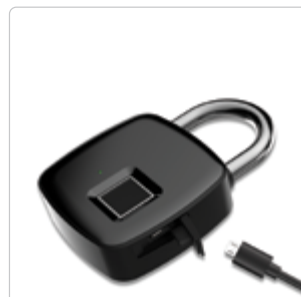
Fingerprint unlock

Safe convenient
0.5s unlock

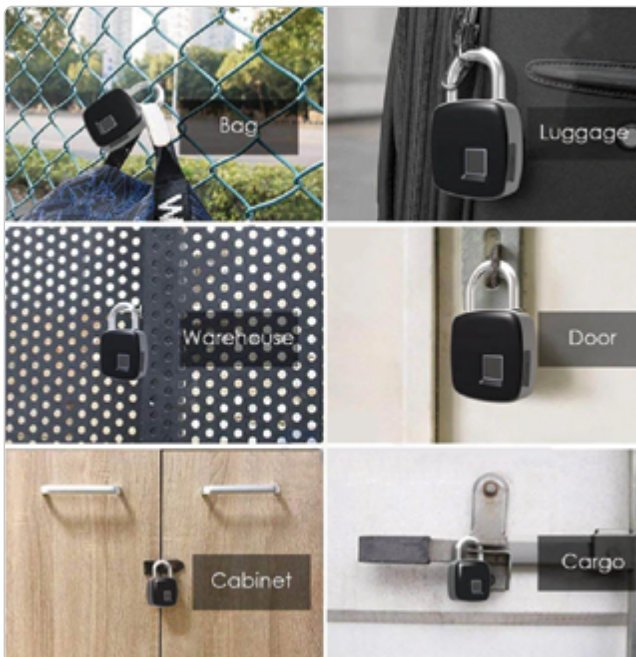


USB charge

Long standby time
300 mAh Lithium battery



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



ACCESS CONTROL





Catalogue number:195093

Original chip

Precision electronic components.
Stable performance.



RFID STANDALONE ACCESS CONTROLLER WITH KEYPAD 125KHZ, EL-C02

Standalone access control is usually one or two small units wired directly onto a door panel to control access to the door. There is no need for a PC network and you don't have to secure every single door within your building, only those you wish to.

For standalone access control systems, all electronics are installed in a keypad or reader - there are no additional components or peripherals, including extra wiring, routers, sensors and alarms.

FEATURES

- High-quality components
- Precision electronic components with stable performance
- No user limit
- Support 1000 groups of personal passwords
- With relay output and level output for electric lock

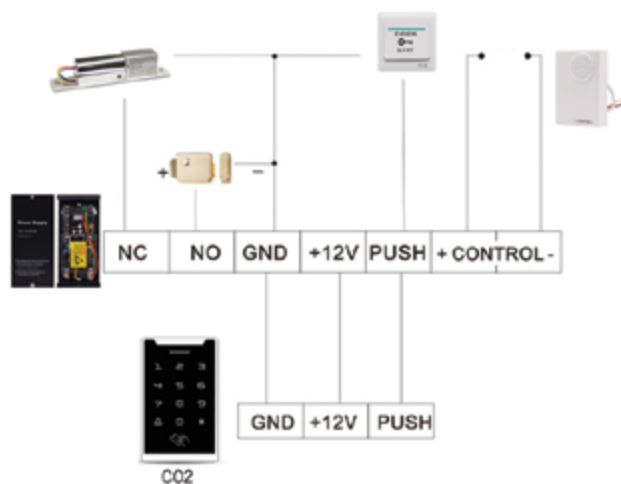
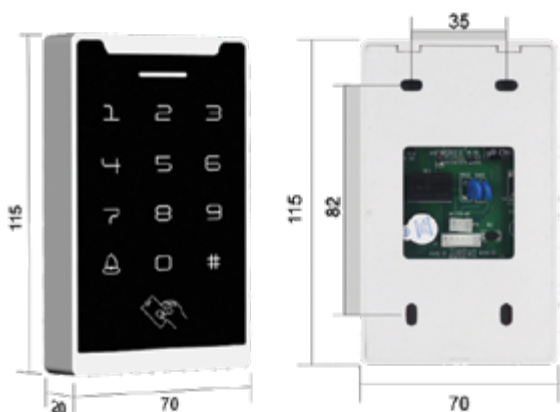
TECHNICAL DATA

- Type: Standalone access controller
- Model: EL-C02
- Working frequency: 125KHz
- Card type: EM
- Capacity: 1000 users
- Card reading distance: 1-15cm
- Working voltage: 12-30V DC
- Working current: 150mA
- Working temperature: from -10°C to 55°C
- Humidity: 90% RH (non-condensing)
- Add card method: via computer
- External device port: electric lock (including relay output and level output)
- Dimensions (HxLxD): 115x70x20mm



Scan and watch detailed video with all product functions.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended





IP65

Catalogue number: 195094

RFID STANDALONE WATERPROOF METAL ANTI-VANDAL ACCESS CONTROLLER WITH KEYPAD 125KHZ, EL-T1101

The unit is single door multifunction standalone access controller or a Wiegand output keypad or card reader. It is suitable for mounting either indoor or outdoor in harsh environments. It is housed in a strong, sturdy and vandal proof Zinc Alloy electroplated case which is available in silver. The electronics are fully defended. This unit supports up to 2000 users in either a Card, 4 digit PIN, or a Card + PIN option. The inbuilt card reader supports 125KHZ EM cards. The unit has many extra features including lock output current short circuit protection, Wiegand output, and a back light keypad. These features make the unit an ideal choice for door access not only for small shops and domestic households but also for commercial and industrial applications such as factories, warehouses, laboratories, banks and etc.

FEATURES

- Metal case, anti-vandal
- Waterproof
- Digital back light touch keypad
- Multi-function standalone access controller and reader
- WG interface: WG26 Input / output
- Capacity: 2000 cards / codes
- Three accesses: card, pin, card + pin

TECHNICAL DATA

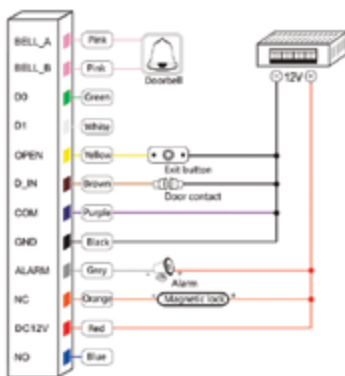
- Type: Touch screen standalone access controller
- Model: EL-T1101
- Working frequency: 125KHz
- Card type: EM
- Capacity: 2000 users
- Card reading distance: 2-5cm
- Working voltage: 12-24V DC
- Static Electricity: $\leq 35\text{mA}$
- Electric Lock Output: $\leq 1\text{A}$
- Short-Circuit Protect: $\leq 100\mu\text{s}$
- Relay Output Delay Time: 0-99 s
- IP code: IP65
- Working temperature: from -40°C to 60°C
- Humidity: 90% RH (non-condensing)
- Add card method: via computer
- External device port: electric lock (including relay output and level output)
- Dimensions (HxL): 135x48mm

Scan and watch detailed video with all product functions.

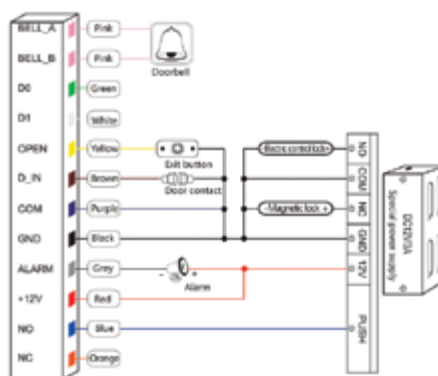


3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

COMMON POWER SUPPLY DIAGRAM



SPECIAL POWER SUPPLY DIAGRAM

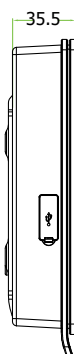
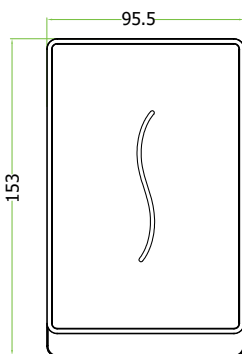


READER MODE DIAGRAM





Catalogue number:195097



STANDALONE PROXIMITY CONTROLLER FOR ACCESS CONTROL AND TIME ATTENDANCE, EL-SCR100

EL-SCR100 is an access control devices, which is made with elegant design. The device have lock control, alarm, exit button, door sensor. The wiegand-in interface is used to connect external reader to construct master and slave system. Also the device can be used to connect with a control panel as a reader by wiegand-out interface. The operation can be done on PC software and upload to the device through TCP/IP, RS232/485 communication. The USB-host is used for data download and upload, including user data and record etc.

EL-SCR100 is suitable for house, small office and factory etc.

FEATURES

- Elegant design with Acrylic plastic
- With TCP/IP interface, avoid RS485 communication and low speed for transferring data, stand-alone or network deployment
- Professional access control function: 50 time zones, 5 groups, 10 open door combination, support multi users entry
- Protect the data with encrypted technology
- Built-in relay contacts lock, alarm, door sensor and exit button
- Wiegand input and output enable Master/Slaver access control
- Embedded webserver: support browser to inquire access data at local or remote.

TECHNICAL DATA

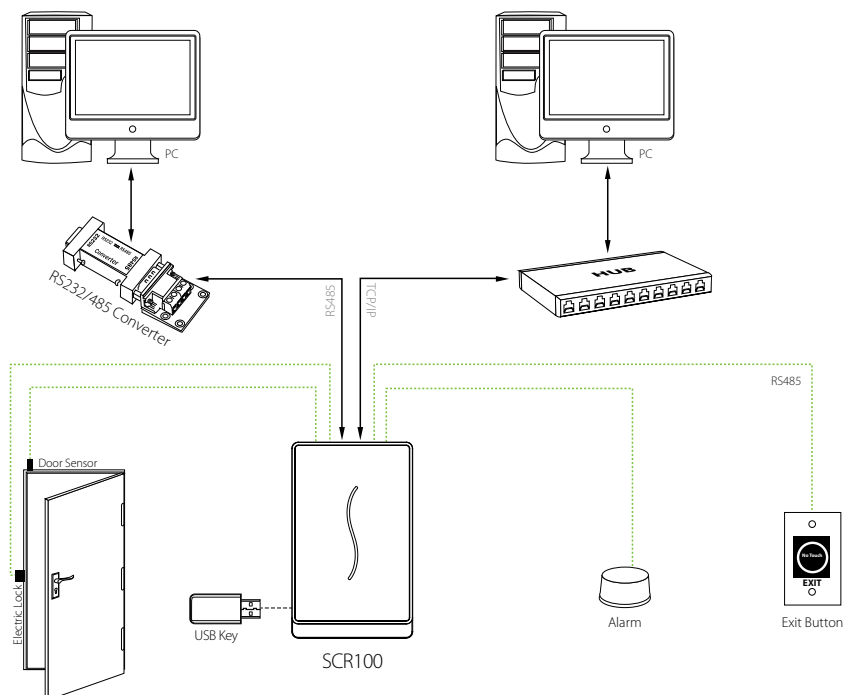
- Type: Standalone proximity controller for access control and time attendance
- Model: EL-SCR100
- Working frequency: 125KHz
- Access control Interface: 3rd party electric lock, door sensor, exit button, alarm, door bell
- Standard function: Anti-passback, webserver, 9 digital number
- Card type: EM (RFID)
- Card capacity: 30000
- Card reading distance: 5-10cm
- Transaction capacity: 50000
- Working voltage: 12V DC
- Static current: 300mA
- Wiegand signal: input and output
- Communication: TCP/IP, RS232/485, USB-Host
- Working temperature: from 0°C to 45°C
- Humidity: 20-80% RH (non-condensing)
- Material: Acrylic plastic
- Dimensions (LxHxD): 95.5x153x35.5mm



Scan and watch detailed video with all product functions.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

Configuration





Catalogue number: 195095

RFID MINI WIEGAND CARD READER 125KHZ, EL-PCD97

Wiegand refers to the technology used in card readers and sensors. This system is a wired communication interface that operates between a reader and a controller.

TECHNICAL DATA

- Type: Mini Wiegand card reader
- Model: EL-PCD97
- Working frequency: 125KHz
- Card type: EM (RFID)
- Card reading distance: 5-10cm
- Working voltage: 5-16V DC
- Static current: $\leq 80\text{mA}$
- Output Format: 26bit/34bit Wiegand
- Communication Distance: 100M
- Working temperature: from -20°C to 65°C
- Humidity: 90% RH (non-condensing)
- Material: ABS
- Dimensions (LxWxH): 80x43x14mm



IP68

Catalogue number: 195096

RFID MINI WIEGAND CARD READER 125KHZ, EL-M005

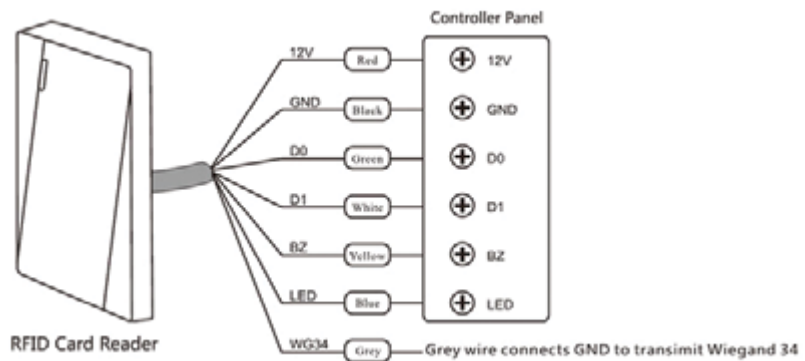
EL-M005 is IP68 metal case RFID Wiegand card reader for entry solutions. This system is a wired communication interface that operates between a reader and a controller

FEATURES

- Metal shell, anti-vandal
- Very low power consumption, standby current less than 30mA
- WG 26 output
- Fast Search speed: time between reading card and opening the door is less than 0.1s

TECHNICAL DATA

- Type: Waterproof metal case mini Wiegand card reader
- Model: EL-M005
- Working frequency: 125KHz
- Card type: EM (RFID)
- Card reading distance: 2-5cm
- Working voltage: 12V DC
- Static current: $\leq 35\text{mA}$
- Wiegand interface: 26bit/34bit
- Working temperature: from -40°C to 60°C
- Humidity: 90% RH (non-condensing)
- IP code: IP68
- Material: Metal
- Dimensions (LxHxD): 48x95x19mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



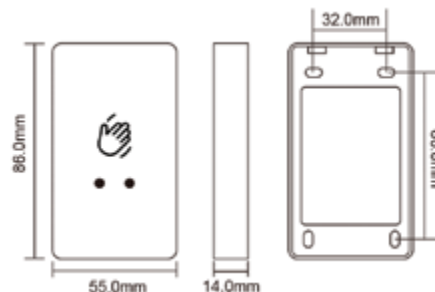
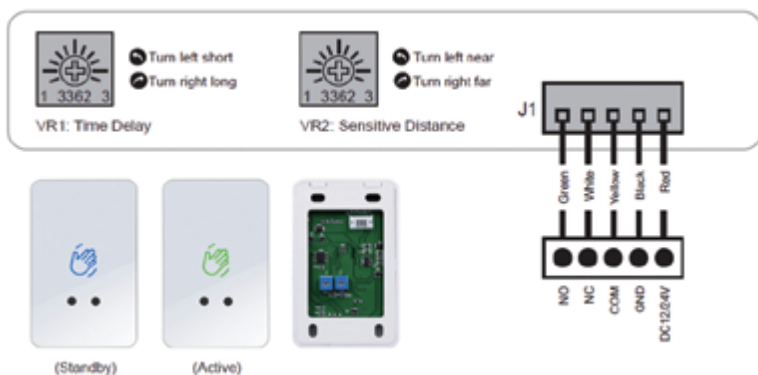
Catalogue number: 196000

MOVING HAND EXIT SENSOR FOR SURFACE MOUNTING, EL-T6C

Moving hand sensor EXIT devices with double LED indication, intended for connection to access systems.

TECHNICAL DATA

- Type: No touch device with moving sensor for access control for surface mounting
- Model: EL-T6C
- Input voltage: 12-24V DC
- Output Contact: NO/NC/COM
- LED Indication: Blue (standby) and green (active)
- Time delay: 0-30s adjustable
- Mechanical Life: 500000
- Working temperature: from -20°C to 55°C
- Humidity: 95% RH (non-condensing)
- Material: PC case+ABS face plate
- Dimensions (LxHxD): 55x86x14mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

IP68 ZINC ALLOY MOVING HAND INFRARED EXIT SENSOR FOR SURFACE MOUNTING, EL-EB1406

Waterproof zinc alloy moving hand sensor EXIT devices with double LED indication, intended for connection to access systems.

TECHNICAL DATA

- Type: No touch waterproof device with moving sensor for access control for surface mounting, IP68.
- Model: EL-EB1406
- Input voltage: 12V DC
- Nominal current: 0.33A/ 12V DC
- Output Contact: NO/NC/COM
- Detection distance: 3-15cm adjustable
- LED Indication: Blue (standby) and green (active)
- Mechanical Life: 100000
- Working temperature: from -20°C to 55°C
- Humidity: 95% RH (non-condensing)
- Material: Zinc alloy
- Dimensions (LxHxD): 80x32x23mm



Catalogue number: 196001





Catalogue number: 195099

ZINC ALLOY EXIT BUTTON FOR SURFACE MOUNTING, EL-EB53A

Robust exit button with LED back light in metal design, intended for connection to access systems.

TECHNICAL DATA

- Type: Metal EXIT button for access control, surface mounting
- Model: EL-EB53A
- Input voltage: 12-24V DC
- Nominal current: 0.33A/ 12V DC
- Output current: 5A
- Output Contact: NO/COM
- Mechanical Life: 500000
- Material: Zinc alloy
- Dimensions (LxHxD): 53x53x25mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Catalogue number:196002

RFID ACCESS CONTROL CARD 125 KHZ, EL-EM22

TECHNICAL DATA

- Type: Access control entry RFID card 125kHz
- Model: EL-EM22
- Material: PVC
- Colour: White
- Frequency: 125kHz, ID
- Working temperature: from -100°C to 500°C
- Dimensions (LxH): 85.5x54mm



RFID ACCESS CONTROL KEY FOB 125 KHZ, EL-TAG2

TECHNICAL DATA

- Type: Access control entry RFID key fob 125kHz
- Model: EL-TAG2
- Material: ABS
- Colour: Blue
- Frequency: 125kHz
- Working temperature: from -10°C to 50°C
- Dimensions (LxH): 36x29mm



Catalogue number:196003





Catalogue number:195098

SWITCH POWER SUPPLY CONTROLLER, EL-K80C

EL-K80C power supply controller is a transformer which provides stable output voltage for access controller, lock, and exit button. NC / NO outputs, can control various types of electric locks, Based delay control circuit. The scope of application applied to a variety of building intercom, villa doorbell, apartment door phone, home video door phone controller, access a variety of import and export controls.

TECHNICAL DATA

- Type: Switch power supply controller for access control
- Model: EL-K80C
- Input voltage: 90-260V AC
- Output voltage: 12V DC
- Output current: 5A
- Time delay: 0-15sec (Adjustable)
- Contact: Access control, electric lock, release button contacts
- Security: Protection automatically when the voltage is high
- LED indication: Working status, NO contact status, NC contact status
- Suitable For: Access control, electric lock
- Dimensions (LxH): 130x92mm



Catalogue number:196006

SWITCH POWER SUPPLY CONTROLLER, EL-K80

EL-K80 power supply controller is a transformer which provides stable output voltage for access controller, lock, and exit button. NC / NO / COM outputs, can control various types of electric locks, Based delay control circuit. The scope of application applied to a variety of building intercom, villa doorbell, apartment door phone, home video door phone controller, access a variety of import and export controls.

TECHNICAL DATA

- Type: Switch power supply controller for access control
- Model: EL-K80
- Input voltage: 110-240V AC
- Output voltage: 12V DC
- Output current: 3A
- Time delay: 0-15sec (Adjustable)
- Contact: Access control, electric lock, release button contacts
- Security: Protection automatically when the voltage is high
- LED indication: Working status, NO contact status, NC contact status
- Suitable For: Access control, electric lock
- Dimensions (LxH): 115x90mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

SMART HOME CATEGORY

Select a language and scan the code with any code scanner to read the catalog in:



DOORBELLS

- WIRELESS DOORBELLS
- DOORBELLS WITH SENSOR
- BELL TRANSFORMERS



WIRELESS DOORBELLS WITH LED FLASH LIGHT



Catalogue number	QTY Transmitter/ Receiver	Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
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5020	One/One	220	65-85	Low/ Middle/ High	36 melodies	80	1/60
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Transmitter battery: 12V A23
The item is without a coded frequency! Within a montage at a distance less than 80 meters and of two or more analogue doorbells, their work can be influenced by or disturbances to happen.



Catalogue number	QTY Transmitter/ Receiver	Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
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5016	One/One	220	65-85	Low/ Middle/ High	36 melodies	80	1/60
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Transmitter battery: 12V A23
The item is without a coded frequency! Within a montage at a distance less than 80 meters and of two or more analogue doorbells, their work can be influenced by or disturbances to happen.



Catalogue number	QTY Transmitter/ Receiver	Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
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5019	One/One	220	65-85	Low/ Middle/ High	36 melodies	80	1/60
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Transmitter battery: 12V A23
The item is without a coded frequency! Within a montage at a distance less than 80 meters and of two or more analogue doorbells, their work can be influenced by or disturbances to happen.



Catalogue number	QTY Transmitter/ Receiver	Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
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5015	One/Two	220	65-85	Low/ Middle/ High	36 melodies	80	1/60
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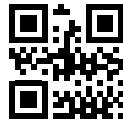


Transmitter battery: 12V A23
The item is without a coded frequency! Within a montage at a distance less than 80 meters and of two or more analogue doorbells, their work can be influenced by or disturbances to happen.

2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



Catalogue number	QTY Transmitter/ Receiver	Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5018	One/Two	220	65-85	Low/ Middle/ High	36 melodies	80	1/60



Transmitter battery: 12V A23

The item is without a coded frequency! Within a montage at a distance less than 80 meters and of two or more analogue doorbells, their work can be influenced by or disturbances to happen.



Catalogue number	QTY Transmitter/ Receiver	Transmitter Voltage (V)	Receiver Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5023/1	One/One	12V 23A Battery	DC 3x1.5V AAA Battery	70-85	Low/ Middle/ High	36 melodies	80	1/60
5024	One/One	12V 23A Battery	220V AC	70-85	Low/ Middle/ High	36 melodies	80	1/60



The item is without a coded frequency! Within a montage at a distance less than 80 meters and of two or more analogue doorbells, their work can be influenced by or disturbances to happen.



Catalogue number	QTY Transmitter/ Receiver	Transmitter Voltage (V)	Receiver Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5023/2	One/Two	12V 23A Battery	DC 3x1.5V AAA Battery	70-85	Low/ Middle/ High	36 melodies	80	1/60



The item is without a coded frequency! Within a montage at a distance less than 80 meters and of two or more analogue doorbells, their work can be influenced by or disturbances to happen.

2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

SELF-POWERED DIGITAL WIRELESS DOORBELLS WITH LED FLASH LIGHT



Catalogue number	QTY Transmitter/ Receiver	Transmitter Voltage (V)	Receiver Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5027WH	One/Two	Self-powered	220V AC	70-85	Low/ Middle/ High	4 chord/ 36 melodies	100-120	1/60



Catalogue number	QTY Transmitter/ Receiver	Transmitter Voltage (V)	Receiver Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5027BL	One/Two	Self-powered	220V AC	70-85	Low/ Middle/ High	4 chord/ 36 melodies	100-120	1/60



2 YEARS TOTAL WARRANTY
+ 2 standard 0 extended

DIGITAL WIRELESS DOORBELLS WITH LED FLASH LIGHT



Catalogue number	QTY Transmitter/ Receiver	Transmitter Voltage (V)	Receiver Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5025WH	One/One	12V 23A Battery	DC 2x1.5V AA Battery	70-85	Low/ Middle/ High	32 melodies	120	1/60



Catalogue number	QTY Transmitter/ Receiver	Transmitter Voltage (V)	Receiver Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5025BL	One/One	12V 23A Battery	DC 2x1.5V AA Battery	70-85	Low/ Middle/ High	32 melodies	120	1/60



Catalogue number	QTY Transmitter/ Receiver	Transmitter Voltage (V)	Receiver Voltage (V)	Sound level db(A)	Volume levels	Music	Distance (m)	Packing/ Box (pcs)
5026	One/One	12V 23A Battery	220V AC	70-85	Low/ Middle/ High	36 melodies	100	1/60



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

INFRARED INDUCTION DOORBELLS



An electric appliance with inserted motion sensor. It is used for advisement for guests,visitors or customers. When there is a motion ,it starts / there is a sound which advises that there is a visitor/ customer/ in the premises. Working area - up to 7 meters

Catalogue number	Description	Voltage (V)	Sound level db(A)	Detection angle	Sensor detection distance (m)	Music	Packing/ Box (pcs)
5021	Doorbell with sensor	4.5V DC	85	100°	up to 7	36 melodies	1/60



A complex product that combines two appliances. It is used for advisor for guests,visitors or customers. The sensor is installed to the place that you would like to know there is a motion/ visitor,this usually is the shop entrance,offices,warehouses and etc. The bell can be installed at a distance up to 130 m from the sensor which we will receive the signal for motion /visitor. Working frequency: 315MHz/433.92 MHz

Catalogue number	Description	Voltage (V)	Sound level db(A)	Detection angle	Sensor detection distance (m)	Music	Packing/ Box (pcs)
5022	Doorbell & sensor	4,5V DC	85	100°	up to 7	36 melodies	1/60



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

BELL / BELL TRANSFORMER



Mounting: on DIN-rail

Catalogue number	Type	In (V)	Un (V)	Consumption (VA)	Sound level db(A)	Packing/Box (pcs)
5012	Bell	230	8-12	3.6	70	1/12/240
5220	Bell	230	230	5	70	1/12/240



Mounting: on DIN-rail

Catalogue number	Type	In (V)	Un (V)	Consumption (VA)	Packing/Box (pcs)
5001	Bell transformer	230	8/12/24	8	1/80



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

VENTILATION

- DOMESTIC FANS
- INDUSTRIAL FANS
- VENTILATION SYSTEMS AND ACCESSORIES



ELMARK AF SERIES EASY MOUNTING

Axial fans, for exhaust ventilation

AREAS OF APPLICATION:

Kitchens, Showers, Bathrooms, Utility spaces

OPTIONS:

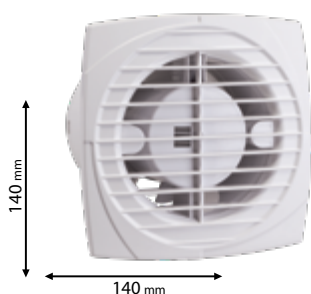
- V-Valve: Back flow preventing. Fan is equipped with a valve
- VT- Timer + Valve: Adjustable operating time from 3 to 15 minutes. Fan is equipped with a valve.
- VH- Higro-Timer + Valve: Humidistat detects humidity starting from 40% to 90%, includes adjustable
- Timer from 3 minutes to 15 minutes. Fan is equipped with a valve.
- Compatible with 100 and 120 mm PVC or flexible air ducts

MOTOR:

- Equipped with thermal cut out protection
- Low power consumption
- High materials quality and high efficiency
- Ambient temperature max 130°C
- IP-X4
- Insulation class B

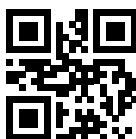
DESIGN:

- Easy mounting system
- Very slim front panel
- Plastic housing and impeller
- Modern design and aesthetic look



AF-V100

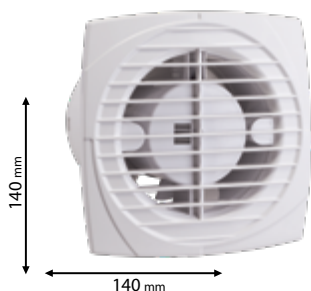
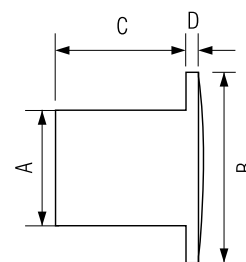
500120



AXIAL FAN WITH VALVE Ø100

TECHNICAL DATA

- Diameter:100mm
- Dimensions: ØA:98/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 41 db(A)
- Body color: White



AF-V100

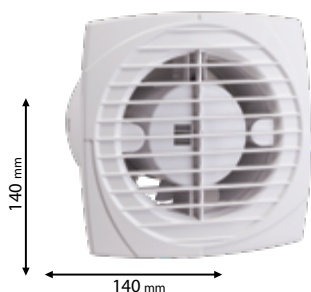
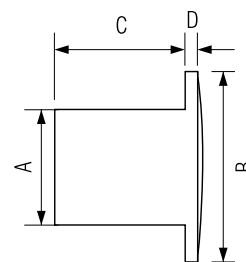
500122



AXIAL FAN WITH VALVE & TIMER Ø100

TECHNICAL DATA

- Diameter:100mm
- Dimensions: ØA:98/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 41 db(A)
- Body color: White



AF-V100

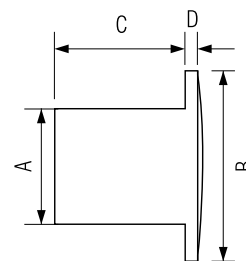
500124



AXIAL FAN WITH VALVE & HYGRO-TIMER Ø100

TECHNICAL DATA

- Diameter:100mm
- Dimensions: ØA:98/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 41 db(A)
- Body color: White



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK AF SERIES EASY MOUNTING



AF-V120

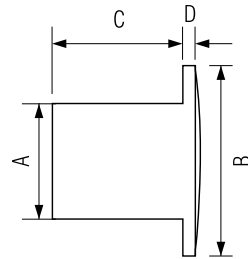
500121



AXIAL FAN WITH VALVE Ø120

TECHNICAL DATA

- Diameter:120mm
- Dimensions: ØA:118/B:170/C:100/D:13mm
- Voltage:220-240V
- Power: 20W
- Revolutions per minute: 2450
- Maximum air capacity: 192 m3/h
- Sound pressure level: 43 db(A)
- Body color: White



AF-V120

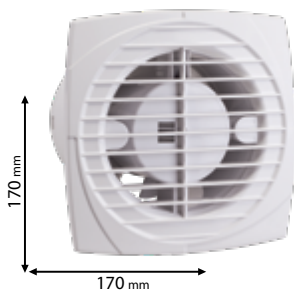
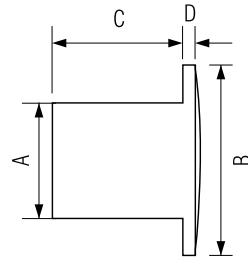
500123



AXIAL FAN WITH VALVE & TIMER Ø120

TECHNICAL DATA

- Diameter:120mm
- Dimensions: ØA:118/B:170/C:100/D:13mm
- Voltage:220-240V
- Power: 20W
- Revolutions per minute: 2450
- Maximum air capacity: 192 m3/h
- Sound pressure level: 43 db(A)
- Body color: White



AF-V120

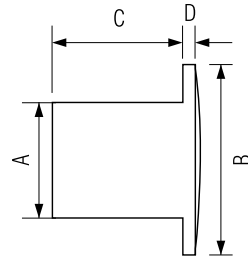
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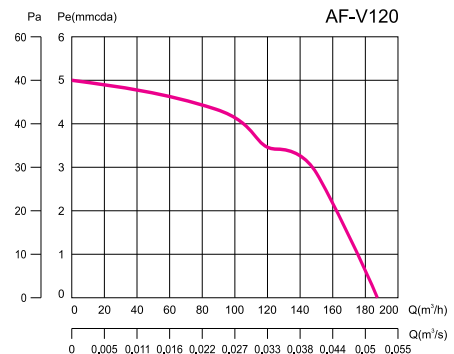
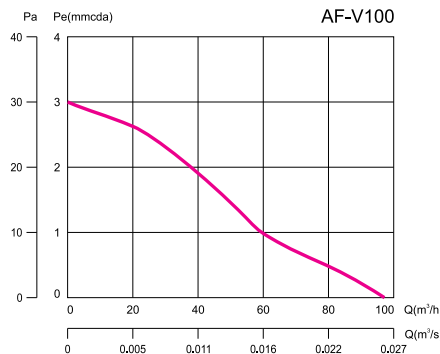
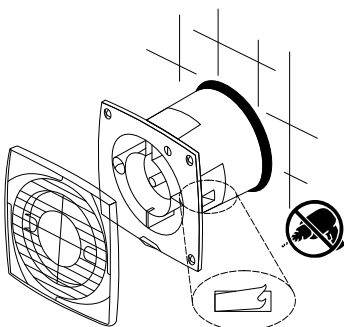
AXIAL FAN WITH VALVE & HYGRO-TIMER Ø120

TECHNICAL DATA

- Diameter:120mm
- Dimensions: ØA:118/B:170/C:100/D:13mm
- Voltage:220-240V
- Power: 20W
- Revolutions per minute: 2450
- Maximum air capacity: 192 m3/h
- Sound pressure level: 43 db(A)
- Body color: White



* All fans with a diameter of 120mm can be installed in an air duct with a diameter of 150mm, after adding reducing connector with catalogue number 500170.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK AS SERIES

Axial fans, for exhaust ventilation

AREAS OF APPLICATION:

Kitchens, Showers, Bathrooms, Utility spaces

OPTIONS:

- V-Valve: Back flow preventing. Fan is equipped with a valve
- Compatible with 100 mm PVC or flexible air ducts

MOTOR:

- Equipped with thermal cut out protection
- Low power consumption
- High materials quality and high efficiency
- IP-X4
- Insulation class B

DESIGN:

- Very slim front panel
- Plastic housing and impeller
- Modern design and aesthetic look

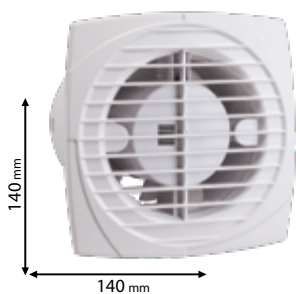
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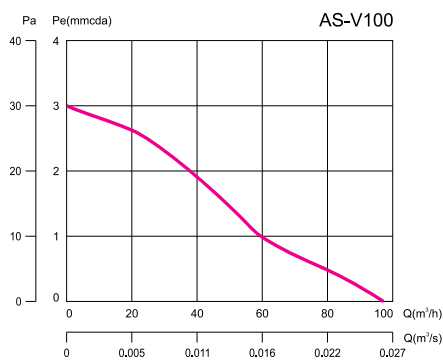
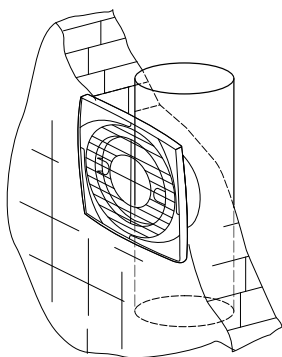
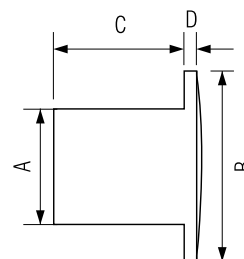
AXIAL FAN WITH VALVE Ø100

TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:98/B:140/C:75/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 41 db(A)
- Body color: White



AS-V100



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK ALS SILENT SERIES

Axial fans, for exhaust ventilation

AREAS OF APPLICATION:

Kitchens, Showers, Bathrooms, Utility spaces

OPTIONS:

- V-Valve: Back flow preventing. Fan is equipped with a valve
- Compatible with 100 and 120 mm PVC or flexible air ducts

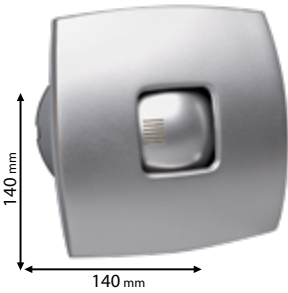
MOTOR:

- Equipped with thermal cut out protection
- Low power consumption
- High materials quality and high efficiency
- IP-X4
- Insulation class B

DESIGN:

- Easy mounting system
- Very slim front panel
- Plastic housing and impeller
- Modern design and aesthetic look

SILENT SERIES



ALS-V100

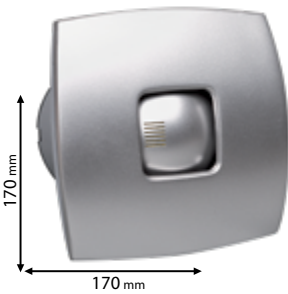
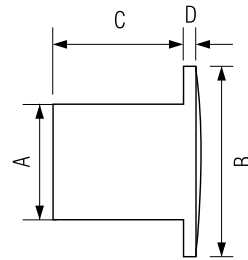
- 500141
- 500140



AXIAL FAN WITH VALVE Ø100

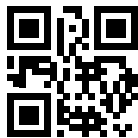
TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:98/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m³/h
- Sound pressure level: 37 db(A)
- Body color: Silver | White



ALS-V120

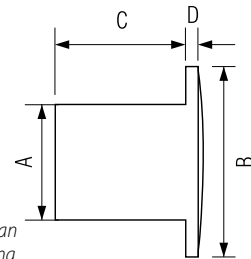
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- 500142



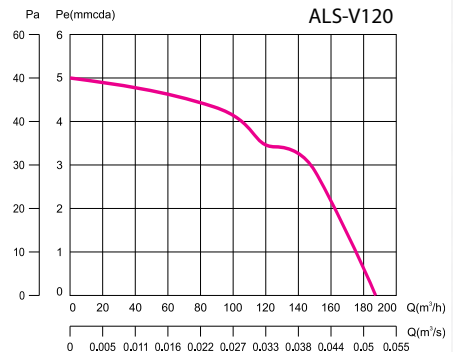
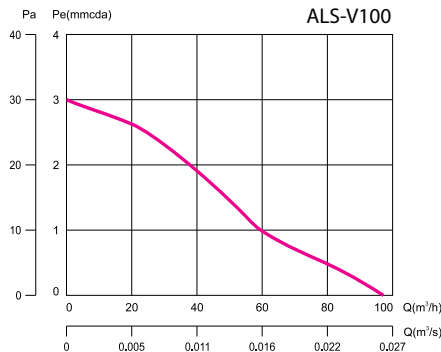
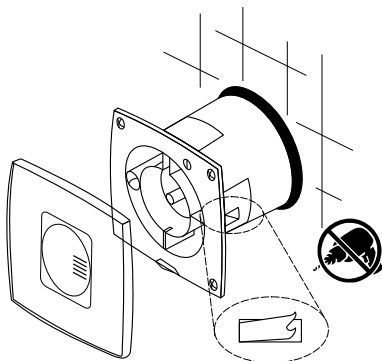
AXIAL FAN WITH VALVE Ø120

TECHNICAL DATA

- Diameter: 120mm
- Dimensions: ØA:118/B:170/C:100/D:13mm
- Voltage:220-240V
- Power: 20W
- Revolutions per minute: 2450
- Maximum air capacity: 192 m³/h
- Sound pressure level: 43 db(A)
- Body color: Silver | White



* All fans with a diameter of 120mm can be installed in an air duct with a diameter of 150mm, after adding reducing connector with catalogue number 500170.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK MX SERIES EASY MOUNTING WITH EXTRA DECORATIVE FRAMES

Axial fans, for exhaust ventilation

AREAS OF APPLICATION:

Kitchens, Showers, Bathrooms, Utility spaces

OPTIONS:

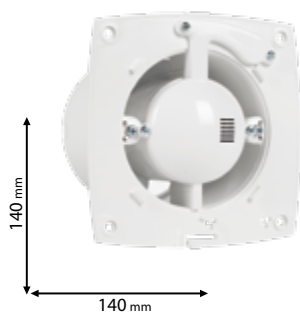
- V-Valve: Back flow preventing. Fan is equipped with a valve
- VP-Pull Cord Switch + ON/OFF switching via pull cord switch and back flow preventing.
- VT- Timer + Valve: Adjustable operating time up to 3 to 15 minutes. Fan is equipped with a valve.
- VH- Higr-Timer + Valve: Humidistat detects humidity starting from 40% to 90%, includes adjustable
- VS- Sensor + Valve: Microwaves sensor with 360° detection angle. Fan is equipped with a valve.
- Compatible with 100 mm PVC or flexible air ducts

MOTOR:

- Equipped with thermal cut out protection
- Low power consumption
- High materials quality and high efficiency
- IP-X4
- Insulation class B

DESIGN:

- Easy mounting system
- Compatible with PVC, glass and aluminum decorative frames for successful integration on all design
- Plastic housing and impeller
- Modern design and aesthetic look



MX-V100

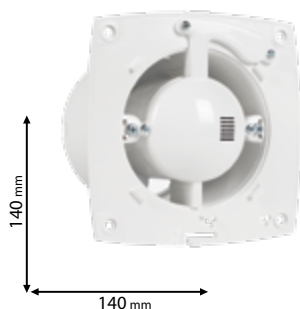
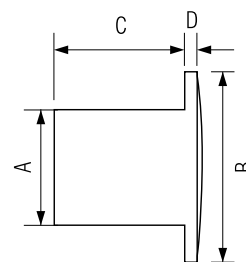
500148



MODULAR AXIAL FAN WITH VALVE Ø100 WITHOUT DECORATIVE FRAME

TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:100/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 31 db(A)
- Body color: White



MX-VP100

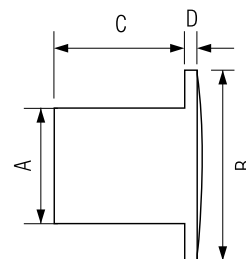
500149



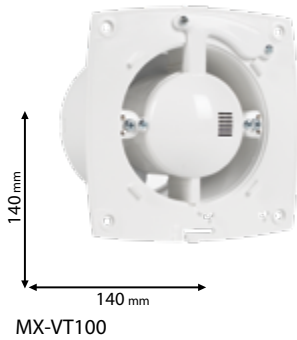
MODULAR AXIAL FAN WITH VALVE Ø100 AND PULL CORD SWITCH WITHOUT DECORATIVE FRAME

TECHNICAL DATA

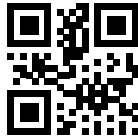
- Diameter: 100mm
- Dimensions: ØA:100/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 31 db(A)
- Body color: White



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



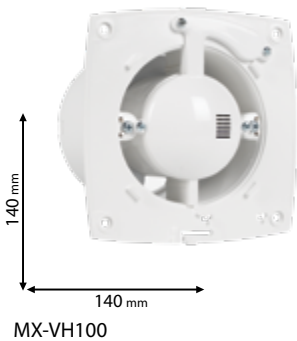
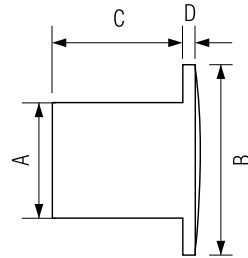
500150



MODULAR AXIAL FAN WITH VALVE Ø100 AND TIMER WITHOUT DECORATIVE FRAME

TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:100/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 31 db(A)
- Body color: White



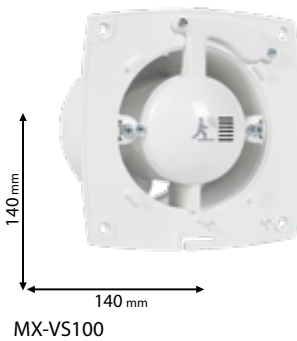
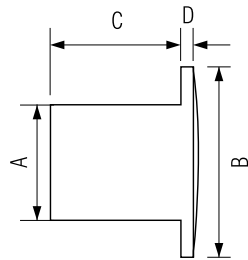
500153



MODULAR AXIAL FAN WITH VALVE Ø100 AND HYGROTIMER WITHOUT DECORATIVE FRAME

TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:100/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 31 db(A)
- Body color: White



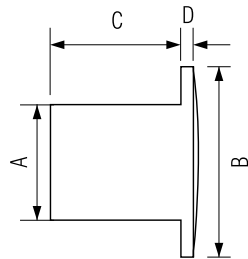
500154



MODULAR AXIAL FAN WITH VALVE Ø100 AND SENSOR WITHOUT DECORATIVE FRAME

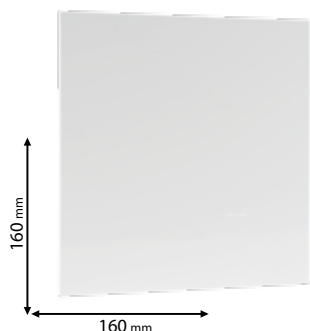
TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:100/B:140/C:98/D:10mm
- Voltage:220-240V
- Power:15W
- Sensor detection range: 2-8m
- Sensor detection angle: 360°
- Timer: 10s - 12m
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 31 db(A)
- Body color: White



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DECORATIVE FRAMES FOR MODULAR AXIAL FANS
MX-100 SERIES



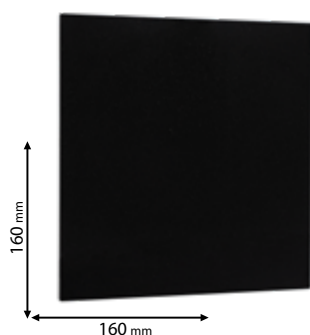
500155



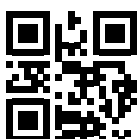
PVC DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, WHITE

TECHNICAL DATA

- Dimensions LxH: 160x160mm
- Colour: White
- Material: PVC



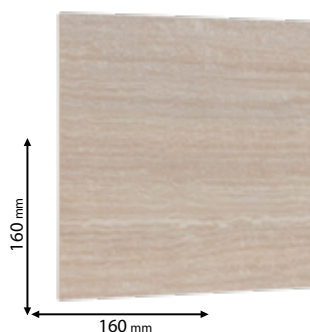
500156



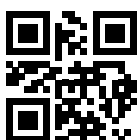
PVC DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, ANTHRACITE

TECHNICAL DATA

- Dimensions LxH: 160x160mm
- Colour: Anthracite
- Material: PVC



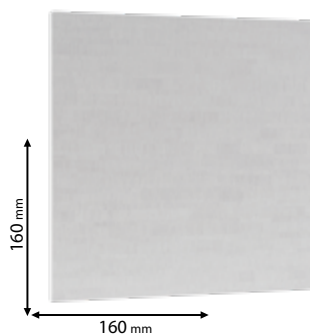
500157



PVC DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, STONE

TECHNICAL DATA

- Dimensions LxH: 160x160mm
- Colour: Stone
- Material: PVC



500158

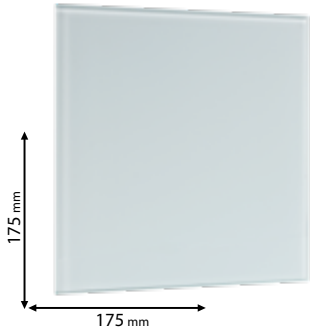


PVC DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, CERAMIC

TECHNICAL DATA

- Dimensions LxH: 160x160mm
- Colour: Ceramic
- Material: PVC

DECORATIVE FRAMES FOR MODULAR AXIAL FANS
MX-100 SERIES



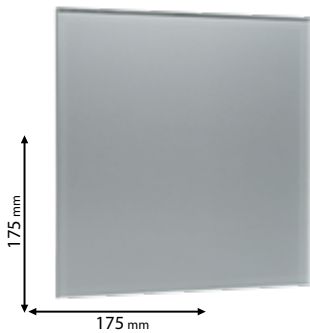
500159



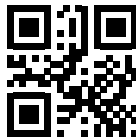
GLASS DECORATIVE FLAT FRAME FOR MODULAR
AXIAL FANS MX-100 SERIES, WHITE

TECHNICAL DATA

- Dimensions LxH: 175x175mm
- Colour: White
- Material: Glass



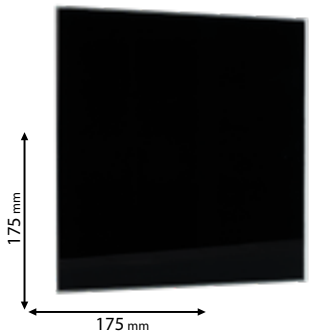
500163



GLASS DECORATIVE FLAT FRAME FOR MODULAR
AXIAL FANS MX-100 SERIES, GREY

TECHNICAL DATA

- Dimensions LxH: 175x175mm
- Colour: Grey
- Material: Glass



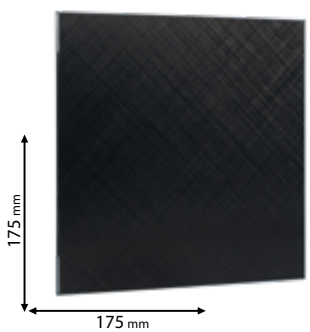
500164



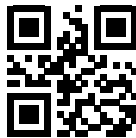
GLASS DECORATIVE FLAT FRAME FOR MODULAR
AXIAL FANS MX-100 SERIES, BLACK

TECHNICAL DATA

- Dimensions LxH: 175x175mm
- Colour: Black
- Material: Glass



500165

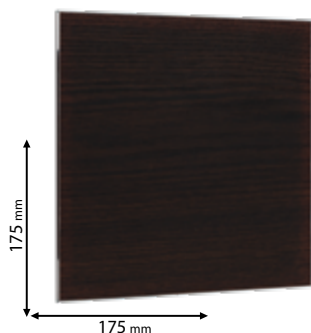


GLASS DECORATIVE FLAT FRAME FOR MODULAR
AXIAL FANS MX-100 SERIES, METAL BLACK

TECHNICAL DATA

- Dimensions LxH: 175x175mm
- Colour: Metal black
- Material: Glass

DECORATIVE FRAMES FOR MODULAR AXIAL FANS
MX-100 SERIES



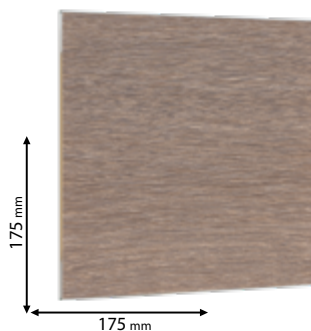
500166



GLASS DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, DARK WOOD

TECHNICAL DATA

- Dimensions LxH: 175x175mm
- Colour: Dark wood
- Material: Glass



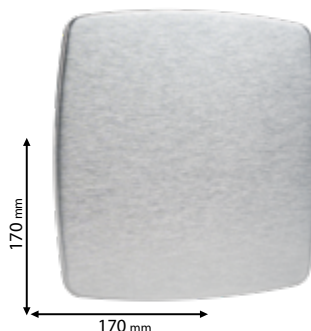
500167



GLASS DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, LIGHT WOOD

TECHNICAL DATA

- Dimensions LxH: 175x175mm
- Colour: Light wood
- Material: Glass



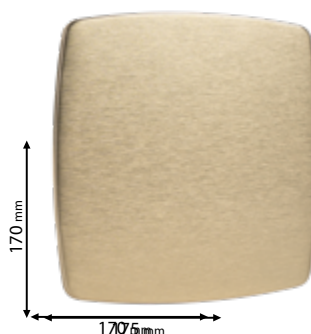
500168



ALUMINUM DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, MATT SILVER

TECHNICAL DATA

- Dimensions LxH: 170x170mm
- Colour: Matt silver
- Material: PVC & aluminum



500169



ALUMINUM DECORATIVE FLAT FRAME FOR MODULAR AXIAL FANS MX-100 SERIES, MATT GOLD

TECHNICAL DATA

- Dimensions LxH: 170x170mm
- Colour: Matt gold
- Material: PVC & aluminum

ELMARK AN SERIES

Axial fans, for exhaust ventilation

AREAS OF APPLICATION:

Kitchens, Showers, Bathrooms, Utility spaces

OPTIONS:

- Back flow preventing- fan is equipped with a valve
- Compatible with 100 and 120 mm PVC or flexible air ducts

MOTOR:

- Equipped with thermal cut out protection
- Low power consumption
- High materials quality and high efficiency
- IP-X4
- Insulation class B

DESIGN:

- Short back tube
- Plastic housing and impeller
- Modern design and aesthetic look



AF-VT100

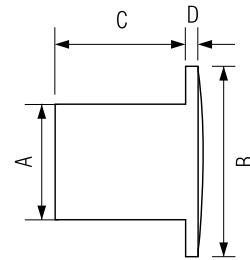
500115



AXIAL FAN WITH VALVE Ø100

TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:98/B:153/C:45/D:37mm
- Voltage: 220-240V
- Power: 15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m3/h
- Sound pressure level: 41 db(A)
- Body color: White



AF-VH100

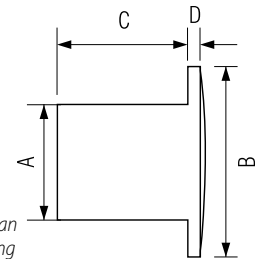
500116



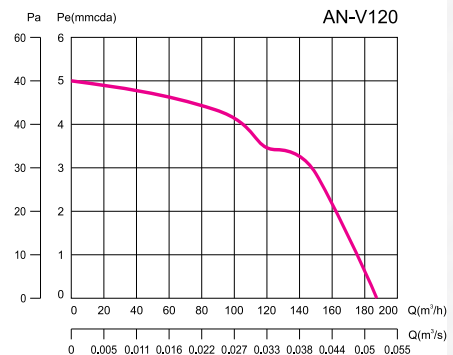
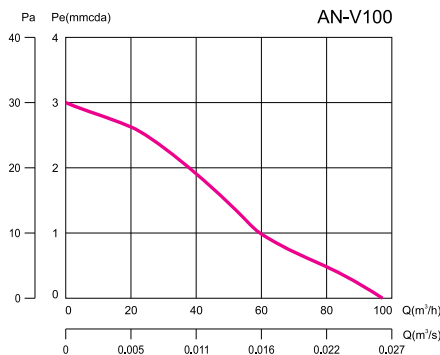
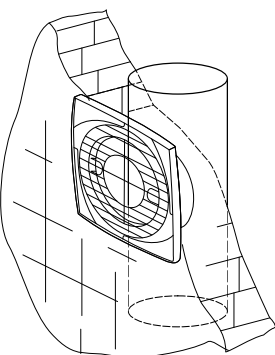
AXIAL FAN WITH VALVE Ø120

TECHNICAL DATA

- Diameter:100mm
- Dimensions: ØA:98/B:140/C:98/D:10mm
- Voltage: 220-240V
- Power: 20W
- Revolutions per minute: 2450
- Maximum air capacity: 190 m3/h
- Sound pressure level: 43 db(A)
- Body color: White



* All fans with a diameter of 120mm can be installed in an air duct with a diameter of 150mm, after adding reducing connector with catalogue number 500170.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK AC SERIES

Axial fans, for exhaust ventilation

AREAS OF APPLICATION:

Kitchens, Showers, Bathrooms, Utility spaces, Supply ventilation

OPTIONS:

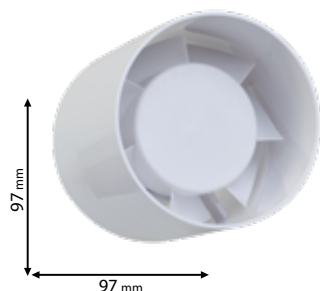
- Compatible with 100 and 120 mm PVC or flexible air ducts
- Possibility to mounting in the ventilation systems

MOTOR:

- Equipped with thermal cut out protection
- Low power consumption
- High materials quality and high efficiency
- Do not use in rooms where the temperature is above 40°C
- IP-X4
- Insulation class B

DESIGN:

- Plastic housing and impeller
- Modern design and aesthetic look
- Designed for ventilation where you want to stop spreading humidity and unpleasant smells.



AF-VT120

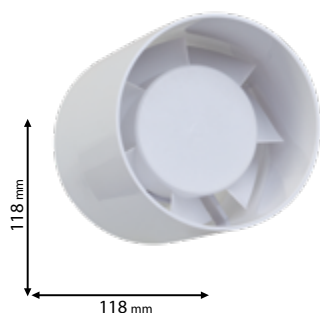
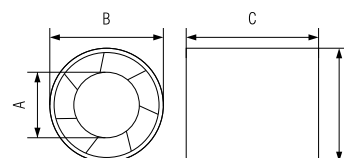
500117



AXIAL IN-LINE FAN Ø100

TECHNICAL DATA

- Diameter: 100mm
- Dimensions: ØA:60/B:97/C:92mm
- Voltage: 220-240V
- Power: 15W
- Revolutions per minute: 2500
- Maximum air capacity: 98 m³/h
- Sound pressure level: 41 db(A)
- Body color: White



AC-V120

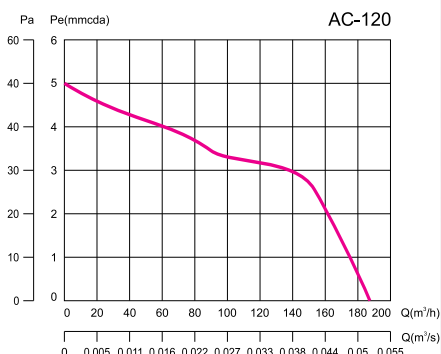
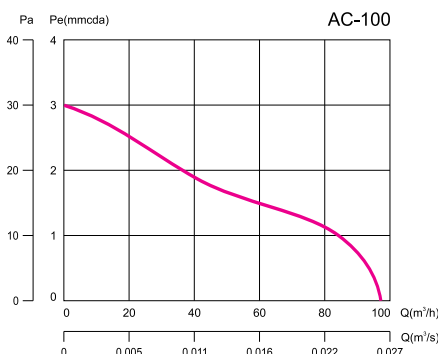
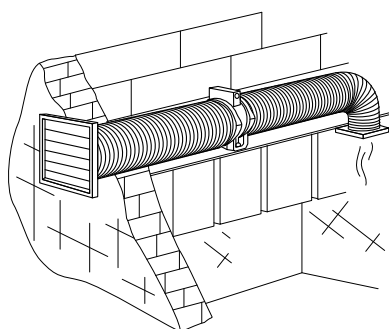
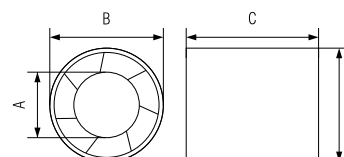
500118



AXIAL IN-LINE FAN Ø120

TECHNICAL DATA

- Diameter: 120mm
- Dimensions: ØA:118/B:170/C:100/D:13mm
- Voltage: 220-240V
- Power: 20W
- Revolutions per minute: 2450
- Maximum air capacity: 190 m³/h
- Sound pressure level: 43 db(A)
- Body color: White



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK PAS SERIES

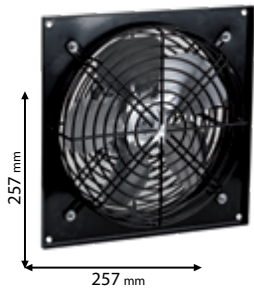
Industrial fans, for exhaust ventilation

AREAS OF APPLICATION:

For a continuous or periodical ventilation of medium large agricultural, industrial buildings, park lots, warehouses and other places where it is needed great volumes of air to be moved as well as other non-explosive gases, not containing glue substances.

MOUNTING:

- On a window
- On a wall
- On a roof
- On suspending ceiling
- Inside walls



PAS-200

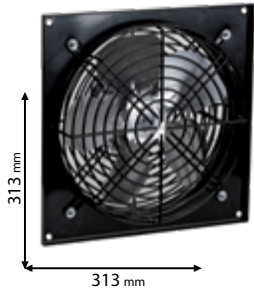
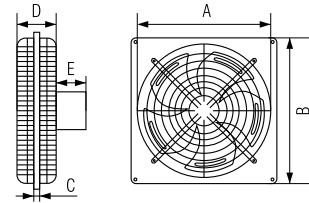
500126



INDUSTRIAL FAN PAS-200

TECHNICAL DATA

- Diameter: 200mm
- Dimensions: ØA:220/B:257/C:3/D:70/E:53mm
- Voltage:220-240V
- Power: 36W
- Revolutions per minute: 1300
- Maximum air capacity: 410 m3/h
- Sound pressure level: 51 db(A)
- Body color: Black



PAS-250

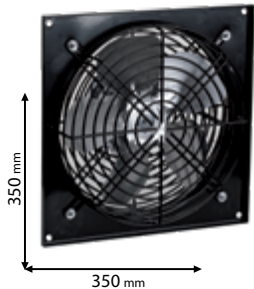
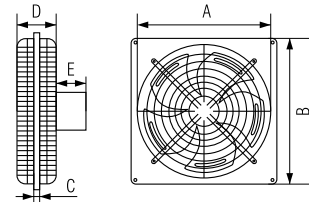
500127



INDUSTRIAL FAN PAS-250

TECHNICAL DATA

- Diameter: 250mm
- Dimensions: ØA:270/B:313/C:8/D:70/E:60mm
- Voltage:220-240V
- Power: 60W
- Revolutions per minute: 1300
- Maximum air capacity: 800 m3/h
- Sound pressure level: 53 db(A)
- Body color: Black



PAS-300

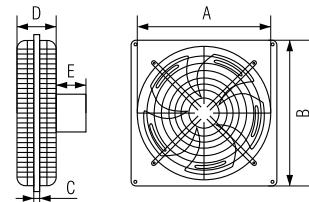
500128



INDUSTRIAL FAN PAS-300

TECHNICAL DATA

- Diameter: 300mm
- Dimensions: ØA:320/B:350/C:10/D:86/E:80mm
- Voltage:220-240V
- Power: 110W
- Revolutions per minute: 1300
- Maximum air capacity: 1400 m3/h
- Sound pressure level: 58 db(A)
- Body color: Black



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK IAS SERIES

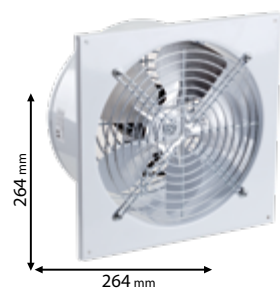
Industrial fans, for exhaust ventilation.

AREAS OF APPLICATION:

For a continuous or periodical ventilation of medium large agricultural, industrial buildings, park lots, warehouses and other places where it is needed great volumes of air to be moved as well as other non-explosive gases, not containing glue substances.

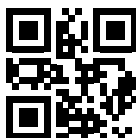
MOUNTING:

- On a wall



IAS-200

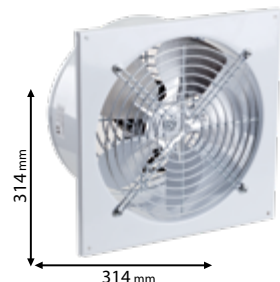
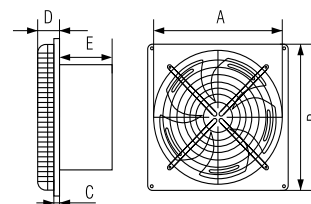
500129



INDUSTRIAL FAN IAS-200

TECHNICAL DATA

- Diameter: 200mm
- Dimensions: ØA:220/B:257/C:3/D:70/E:53mm
- Voltage:220-240V
- Power: 36W
- Revolutions per minute: 1300
- Maximum air capacity: 410 m3/h
- Sound pressure level: 51 db(A)
- Body color: Black



IAS-250

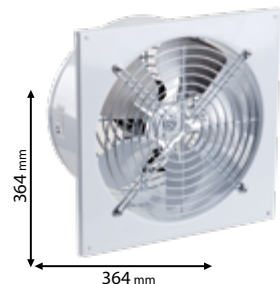
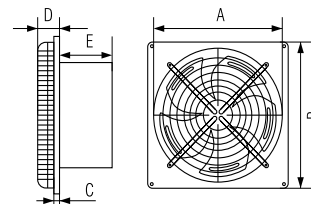
500130



INDUSTRIAL FAN IAS-250

TECHNICAL DATA

- Diameter: 250mm
- Dimensions: ØA:270/B:313/C:8/D:70/E:60mm
- Voltage:220-240V
- Power: 60W
- Revolutions per minute: 1300
- Maximum air capacity: 800 m3/h
- Sound pressure level: 53 db(A)
- Body color: Black



IAS-300

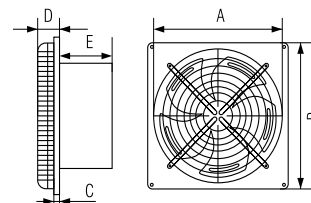
500131



INDUSTRIAL FAN IAS-300

TECHNICAL DATA

- Diameter: 300mm
- Dimensions: ØA:320/B:350/C:10/D:86/E:80mm
- Voltage:220-240V
- Power: 110W
- Revolutions per minute: 1300
- Maximum air capacity: 1400 m3/h
- Sound pressure level: 58 db(A)
- Body color: Black



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELMARK TAS SERIES

Industrial fans, for exhaust ventilation.

MOUNTING:

- On walls
- On ceilings
- On suspending ceilings
- Possibility to mounting in the ventilation systems

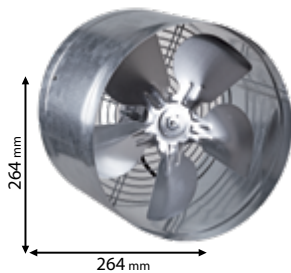
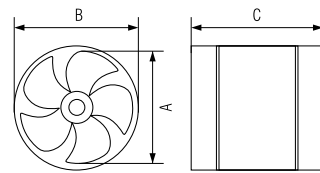
Can be combined with aluminum exhaust grills - see on page 552

500132

INDUSTRIAL FAN TAS-200

TECHNICAL DATA

- Diameter: 200mm
- Dimensions: ØA:220/B:264/C:11mm
- Voltage:220-240V
- Power: 36W
- Revolutions per minute: 1300
- Maximum air capacity: 410 m3/h
- Sound pressure level: 55 db(A)
- Body color: Grey



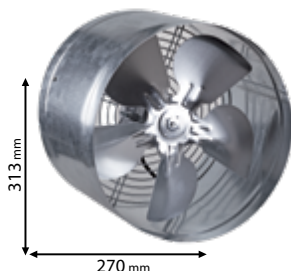
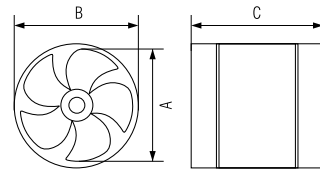
TAS-200

500133

INDUSTRIAL FAN TAS-250

TECHNICAL DATA

- Diameter: 250mm
- Dimensions: ØA:270/B:314/C:11mm
- Voltage: 220-240V
- Power: 60W
- Revolutions per minute: 1300
- Maximum air capacity: 800 m3/h
- Sound pressure level: 57 db(A)
- Body color: Grey



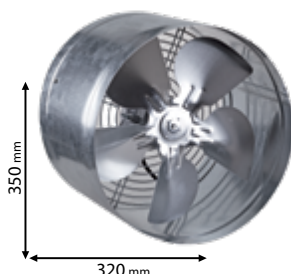
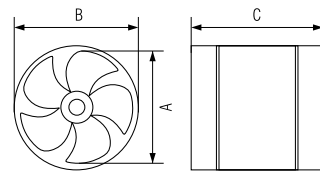
TAS-250

500134

INDUSTRIAL FAN TAS-300

TECHNICAL DATA

- Diameter: 300mm
- Dimensions: ØA:320/B:364/C:11mm
- Voltage: 220-240V
- Power: 110W
- Revolutions per minute: 1300
- Maximum air capacity: 1400 m3/h
- Sound pressure level: 58 db(A)
- Body color: Grey



TAS-300

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



UQIF3

500144



ULTRA-QUIET 3 IN 1 INDUSTRIAL FAN

AREAS OF APPLICATION:

Residential, commercial, or industrial - ideal for gyms, workshop, offices, restaurant, warehouses and etc.

TOP FEATURES:

- Low noise
- 3 speed settings
- 90° oscillating for great air flow
- Aluminum blades for optimizing airflow volume

TECHNICAL DATA

- Dimensions: 500x500x1350mm
- Voltage: 220-240V
- Power: 65W
- Revolutions per minute: 1250
- Maximum air capacity: 2800 m3/h
- Body color: Black



HPIWF3

500145



HIGH POWER INDUSTRIAL WALL FAN

AREAS OF APPLICATION:

Residential, commercial, or industrial - ideal for gyms, workshop, offices, restaurant, warehouses and etc.

TOP FEATURES:

- 3 speed settings
- 90° oscillating for great air flow
- Aluminum blades for optimizing airflow volume

TECHNICAL DATA

- Dimensions: 700x41x750mm
- Voltage: 220-240V
- Power: 180W
- Revolutions per minute: 1000
- Maximum air capacity: 8800 m3/h
- Body color: Black



HPISF3

500146



HIGH POWER INDUSTRIAL STANDING FAN

AREAS OF APPLICATION:

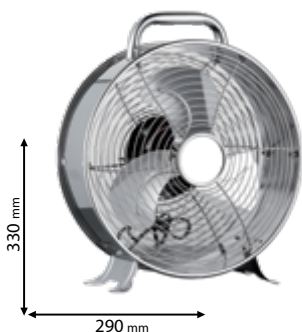
Residential, commercial, or industrial- ideal for gyms, workshop, offices, restaurant, warehouses and etc.

TOP FEATURES:

- 3 speed settings
- 90° oscillating for great air flow
- Aluminum blades for optimizing airflow volume

TECHNICAL DATA

- Dimensions: 700x490x1650mm
- Voltage: 220-240V
- Power: 180W
- Revolutions per minute: 1000
- Maximum air capacity: 8800 m3/h
- Body color: Black



RDF2

500147



RETRO DESK FAN

AREAS OF APPLICATION:

Domestic - ideal for any rooms or office

OPTIONS:

- Back flow preventing- fan is equipped with a valve
- Compatible with 100 and 120 mm PVC or flexible air ducts

TOP FEATURES:

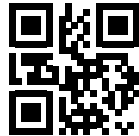
- 2 speed settings- gives gentle and quiet air flow
- Aluminum blades for optimizing airflow volume

TECHNICAL DATA

- Voltage: 220-240V
- Power: 28W
- Revolutions per minute: 1250
- Maximum air capacity: 1200 m3/h
- Body color: Silver

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

VENTILATION SYSTEMS ACCESSORIES



AIR CONDUIT ALUMINUM

- Type: Air conduit for ventilation and air-condition systems.
- Material: Aluminum 99.5%

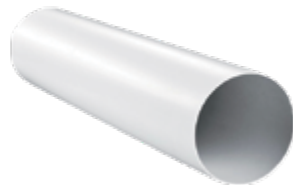
Catalogue number	Diameter (mm)	Full length (m)	Thickness (mm)	Packing/Box (pcs)
500201	100	1.5	0.1	66
500203	120	1.5	0.1	45
500101	100	3	0.1	42
500103	120	3	0.1	30



AIR CONDUIT TEXOFLEX

- Type: Air conduit for aspiration and ventilation systems.
- Material: multilayer aluminum, laminated with polyester and forced with reinforcement additionally. Light and flexible, easy to use. Toxic gases are not being insulated in case of a fire.
- Certified in B1 category - fireproof material.

Catalogue number	Diameter (mm)	Full length (m)	Thickness (mm)	Packing/Box (pcs)
500204	100	1.5	0.1	12
500205	120	1.5	0.1	12
500104	100	3	0.1	12
500105	120	3	0.1	12



AIR CONDUIT PLASTIC - ROUND

- Type: Round air conduit
- Connection diameter: 100 mm
- Length: 1m
- Material: Plastic

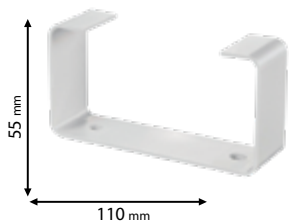
Catalogue number:
M522023



AIR CONDUIT PLASTIC - RECTANGULAR

- Type: Rectangular air conduit
- Width: 110 mm
- Height: 55 mm
- Length: 1m
- Material: Plastic

Catalogue number:
M522039

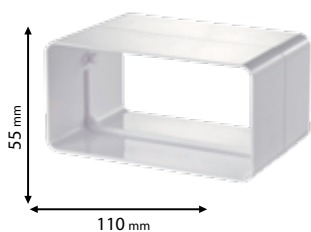


M522032



FLAT DUCT BRACKET

Type: Flat duct bracket
Material: Plastic

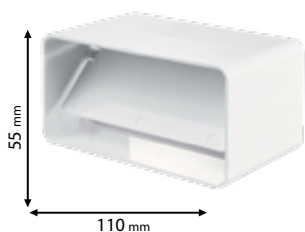


M522029



FLAT DUCT CONNECTOR

Type: Flat duct connector
Material: Plastic

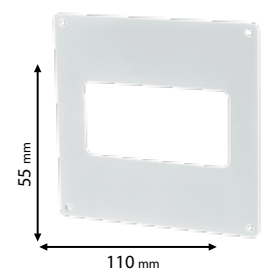


M522030



FLAT DUCT CONNECTOR WITH DAMPER

Type: Flat duct connector with damper
Material: Plastic



M522033



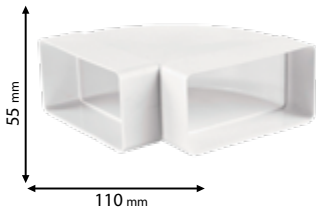
PVC WALL CONNECTOR

Type: PVC wall connector
For duct wit section: 110x55 mm
Material: Plastic

M522015

HORIZONTAL 90° BEND FOR FLAT DUCT

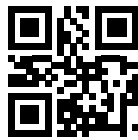
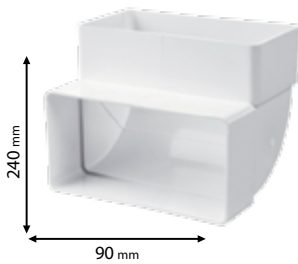
Type: Horizontal 90° bend for flat duct
Material: Plastic



M522016

VERTICAL 90° BEND FOR FLAT DUCT

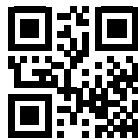
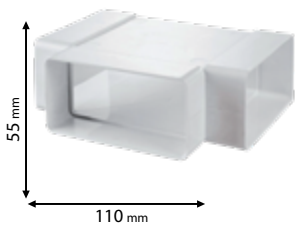
Type: Vertical 90° bend for flat duct
Material: Plastic



M522020

T-JOINT FOR FLAT DUCTS

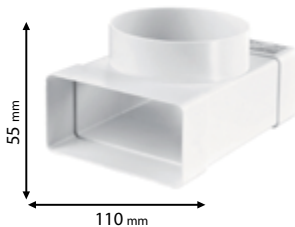
Type: T-joint for flat ducts
Material: Plastic

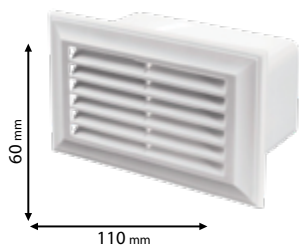


M522017

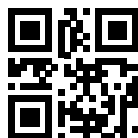
T-JOINT FOR FLAT & ROUND DUCTS

Type: T-joint for flat & round ducts
Connection diameter: 100 mm
Material: Plastic



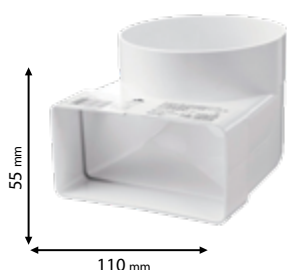


M522019



END GRILLE FOR FLAT DUCTS

Type: End grille for flat ducts
Material: Plastic

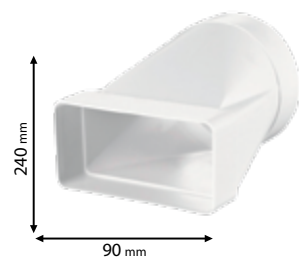


M522018

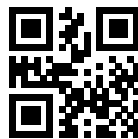


90° CONNECTING BEND FOR FLAT & ROUND DUCTS

Type: 90° connecting bend for flat & round ducts
Connection diameter: 100 mm
Material: Plastic

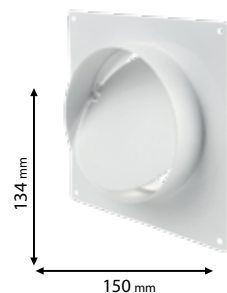


M522014



ROUND TO FLAT CONNECTOR

Type: Round to flat connector
Connection diameter: 100 mm
Material: Plastic



M522115



CONNECTOR WITH BACK DRAFT DAMPER AND WALL PLATE FOR ROUND DUCTS

Type: Connector with back draft damper and wall plate for round ducts
Width: 62 mm
Connection diameter: 100 mm
Material: Plastic



M522013

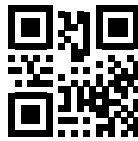


90° CONNECTING BEND FOR ROUND DUCTS

Type: 90° connecting bend for round ducts
Connection diameter: 100 mm
Material: Plastic



M522012



T-JOINT FOR ROUND DUCTS

Type: T-joint for round ducts
Connection diameter: 100 mm
Material: Plastic



M522010



CONNECTOR WITH BACK DRAFT DAMPER FOR ROUND DUCTS

Type: Connector with back draft damper for round ducts
Connection diameter: 100 mm
Material: Plastic



500109



UNIVERSAL REDUCT PVC FOR Ø100-Ø150

Type: Universal reduct PVC for Ø100-Ø150
Material: Plastic



500170


**REDUCING CONNECTOR FOR FANS WITH
 DIAMETER 120MM TO MOUNTING IN AIR DUCT WITH
 DIAMETER 150MM**

Type: Connector 120 to 150mm
 Material: Plastic

* All fans with a diameter of 120mm can be installed in an air duct with a diameter of 150mm, after adding this reducing connector.



500108


FRONT MASK WITH SHUTTER ADJUSTABLE

Type: Front mask with shutter adjustable
 Diameter: 100/120 mm
 Material: Plastic



500171


**ANTI-RAIN VENTILATION GRILL WITH SPRING
 UP D100 TO D150**

Type: Front mask with springs
 Diameter: suitable for holes from 100 till 150mm
 Material: Plastic
 Dimensions (LxWxD): 170x170x20mm



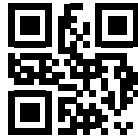
500111


VENTILATION GRILL Ø100

Type: Ventilation grill
 For fan with diameter: 100 mm
 Material: PVC



500112



VENTILATION GRILL Ø125

Type: Ventilation grill
For fan with diameter: 125 mm
Material: PVC



500106

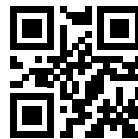


RING Ø100

Type: Ring
For fan with diameter: 100 mm
Material: Plastic



500107

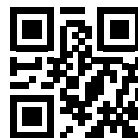


RING Ø120

Type: Ring
For fan with diameter: 120 mm
Material: Plastic



500113



VENTILATION ANEMOSTAT Ø100

Type: Ventilation anemostat
For fan with diameter: 100 mm
Material: PVC

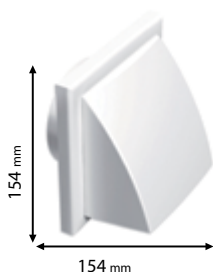


500114



VENTILATION ANEMOSTAT Ø125

Type: Ventilation anemostat
For fan with diameter: 125 mm
Material: PVC

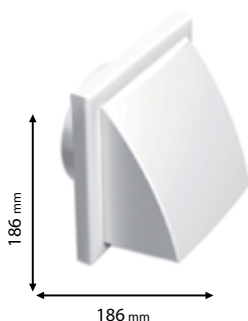


M522034



FAN GRILL WITH BACK DRAFT DAMPER

Type: Fan grill with back draft damper
Connection diameter: 100 mm
Material: ABS



M522078



FAN GRILL WITH BACK DRAFT DAMPER

Type: Fan grill with back draft damper
Connection diameter: 125 mm
Material: ABS



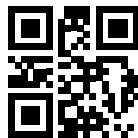
AIR CONDUIT METAL CLAMPS

Catalogue number	Type	Connection diameter (mm)
M522036	Air conduit metal clamps	90-110
M522089	Air conduit metal clamps	110-130



METAL FAN GRILL

Catalogue number	Type	Connection diameter (mm)	Width (mm)	Material
M522049T	Metal fan grill	125	125	Metal
M522050T	Metal fan grill	150	150	Metal
M522139	Metal fan grill	200	200	Metal



EXHAUST GRILL

Catalogue number	Type	Colour	Dimensions (mm)
500136	Aluminum exhaust grill	Grey	200x200
500137	Aluminum exhaust grill	Grey	250x250
500138	Aluminum exhaust grill	Grey	300x300
500139	Aluminum exhaust grill	Grey	350x350



REVISION OPENING PVC

Catalogue number	Material	Length (mm)	Height (mm)
M522001T	Plastic	150	150
M522002T	Plastic	150	200
M522003T	Plastic	200	200
M522004T	Plastic	200	250
M522005T	Plastic	200	300
M522006T	Plastic	200	400
M522007T	Plastic	250	300
M522008T	Plastic	300	300
M522009T	Plastic	300	400



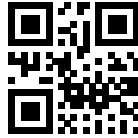
TOOLS



ELECTRICAL PROFESSIONAL CORDED LINE



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL DRILL EL-D10

59510

TECHNICAL DATA

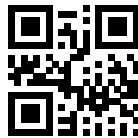
- Power: 500W
- No-load speed: 4300 r/min
- Chuck size: 0.6-6.5 mm
- Cable length: 2 m

ADVANTAGES

- 10 mm metal chuck: to tighten and hold bits steady
- Forward and reverse: ability for easy adjustment according to tasks



PROFESSIONAL



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

IMPACT DRILL EL-D14

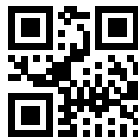
59514

TECHNICAL DATA

- Power: 600W
- No-load speed: 0-3000 r/min
- Chuck size: 13mm
- Cable length: 2m

ADVANTAGES

- Soft grip handle.
- Lockable switch.
- Variable speed.
- Aluminum gear housing.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CORDED DRILL EL-D15 WITH PLASTIC CASE

59515

TECHNICAL DATA

- Power: 750W
- No-load speed: 0-2800 r/min
- Chuck size: 1.5-13mm
- Cable length: 1.5m

ADVANTAGES

- Soft grip handle.
- Lockable switch.
- Variable speed.



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL IMPACT DRILL EL-D11

59511

TECHNICAL DATA

- Power: 910W
- No-load speed: 0-2800 r/min
- Chuck size: 13 mm
- Cable length: 2 m

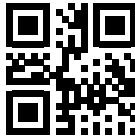
ADVANTAGES

- Impact and drill: two modes transformed.
- 13 mm metal chuck: to tighten and hold bits steady.
- Auxiliary handle: is convenient for operation at any angle.
- Variable large trigger: switch and 360° swivel side handle for added comfort speed.
- Lock-on button: for comfortable operation.
- Aluminum: die-cast gear case.





PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL TWO SPEED IMPACT DRILL EL-D12

59512

TECHNICAL DATA

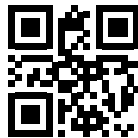
- Power: 1050W
- No-load speed: 0-1200/0-3200 r/min
- Chuck size: 13 mm
- Cable length: 2 m

ADVANTAGES

- Dual-mode selector: easily converts from rotation-only to hammer-drill mode.
- 13 mm metal chuck: to tighten and hold bits steady.
- Auxiliary handle: is convenient for operation at any angle.
- Variable large trigger: switch and 360° swivel side handle for added comfort speed.
- Lock-on button: for comfortable operation.
- Forward and reverse: ability for easy adjustment according to tasks.
- 2 speed: provides maximum torque in setting 1 and maximum speed in setting 2.



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL LIGHT ROTARY HAMMER EL-RH13

59513

TECHNICAL DATA

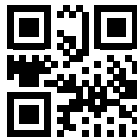
- Power: 800W
- Single stroke power: 3.2J
- No-load speed: 0-1400 r/min
- Impact rate: 0-5700 b/min
- Cable length: 2 m

ADVANTAGES

- Four functions: easily converts trim.
- Auxiliary handle: is convenient for operation at any angle.
- Variable large trigger: switch and 360° swivel side handle for added comfort speed.



PROFESSIONAL



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ANGLE GRINDER EL-AG04

59504

TECHNICAL DATA

- Power: 750W
- Diameter of wheel: 125mm
- No-load speed: 11000 r/min
- Thread size: M14
- Cable length: 2m

ADVANTAGES

- Compact and slim body: for easy operation.
- Dust proof: motor and switch.



PROFESSIONAL



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CORDED ANGLE GRINDER EL-AG07 WITH PLASTIC CASE

59507

TECHNICAL DATA

- Power: 850W
- Diameter of wheel: 125 mm
- No-load speed: 11000 r/min
- Thread size: M14
- Cable length: 1.5 m





PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL ANGLE GRINDER EL-AG01

59501

TECHNICAL DATA

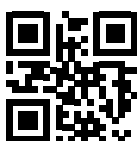
- Power: 900W
- Diameter of wheel: 125 mm
- No-load speed: 11000 r/min
- Thread size: M14
- Cable length: 2 m

ADVANTAGES

- Compact grid design: for comfort & control.
- Cast metal gear case: increased josite durability and tool longevity.
- Spindle lock: for fast and easy wheel changes whit a single wrench.
- Epoxy-coated field windings: provides protection against abrasive dust.
- Soft grid side handle: allows greater and comfortable control in multiple positions.
- Compact and slim handle for easy operation, rubber coated, can be set in 2 positions.



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL ANGLE GRINDER EL-AG02

59502

TECHNICAL DATA

- Power: 2000W
- Diameter of wheel: 180mm
- No-load speed: 6500 r/min
- Thread size: M14
- Cable length: 2 m

ADVANTAGES

- Compact grid design: for comfort & control.
- Cast metal gear case: increased josite durability and tool longevity.
- Spindle lock: for fast and easy wheel changes whit a single wrench.
- Epoxy-coated field windings: provides protection against abrasive dust.
- Soft grid side handle: allows greater and comfortable control in multiple positions.
- Compact and slim handle for easy operation, rubber coated, can be set in 2 positions.



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL ANGLE GRINDER EL-AG03

59503

TECHNICAL DATA

- Power: 2400W
- Diameter of wheel: 230mm
- No-load speed: 6500r/min
- Thread size: M14
- Cable length: 2m

ADVANTAGES

- Compact grid design: for comfort & control.
- Cast metal gear case: increased josite durability and tool longevity.
- Spindle lock: for fast and easy wheel changes whit a single wrench.
- Epoxy-coated field windings: provides protection against abrasive dust.
- Soft grid side handle: allows greater and comfortable control in multiple positions.
- Compact and slim handle for easy operation, rubber coated, can be set in 2 positions.



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL MULTI TOOL EL-MT40

59540

TECHNICAL DATA

- Power: 280W
- No-load speed: 11000-21000
- Thread size: M14
- Cable length: 2m

ADVANTAGES

- Quick blade: changing system can fit widely-used blades.
- Oscillation angle: 4 degree.
- Powerful motor: for improved durability and straighten cuts.
- Variable speed: for optimal performance and control in a variety of materials





PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL JIG SAW EL-JS20

59520

TECHNICAL DATA

- Power: 710W
- No-load speed: 1500-3100r/min
- Stroke distance: 23mm
- Cable length: 2m



PROFESSIONAL



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CORDED CIRCULAR SAW EL-CS25

59525

TECHNICAL DATA

- Power: 1480W
- No-load speed: 4800r/min
- Saw blade specification: 180x20mm
- Cutting depth: 60mm
- Cutting Angle: 0-45°
- Body material: Aluminum
- Weight: 3.1kg
- Cable length: 1.8m



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

PROFESSIONAL CORDED HEAT GUN EL-HG30

59530

TECHNICAL DATA

- Power: 1800W
- Temperature: 50/400/550 C°
- Air flow: 250/250/500L/M
- Cable length: 2m

ADVANTAGES

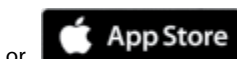
- Dual fan speed selector delivers high and low fan speed settings.
- Integrated hands free support stand allow the gun to sit upright for hands free use.
- 1800W motor delivers high heat and multiple fan setting.



HEAT GUN NOZZLE FOR EL-HG30

59532

Type: Heat gun nozzle for heat gum EL-HG30 (cat. No 59530).





PROFESSIONAL



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CORDED HEAT GUN WITH HEAT GUN NOZZLE

59531

TECHNICAL DATA

- Power: 2000W
- Temperature: 350 C°
- Switch positions: 0-I-II
- Cable length: 2m

ADVANTAGES

- Protection: against over-heat.
- Settings: two steps airflow.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CORDED POLISHER EL-P41

59541

TECHNICAL DATA

- Power: 600W
- No-load speed: 3000r/min
- Polishing diameter: 125mm
- Polished mandrel thread: M14
- Cable length: 1.6m



RoHS COMPLIANT



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CORDED SANDER EL-P42

59542

TECHNICAL DATA

- Power: 600W
- No-load speed: 13000r/min
- Planing depth: 1mm
- Planing width: 82mm
- Weight: 2.35kg
- Cable length: 1.8m



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

CORDED SPRAY GUN EL-SG43

59543

TECHNICAL DATA

- Power: 150W
- No-load speed: 30000r/min
- Cylinder capacity: 1000 ml
- Nozzle diameter: 0.18mm
- Accessories: Fuselage, brush and funnel x 1pc
- Cable length: 1.5m



CORDED HANDLE MIXER EL-HM44

59544

TECHNICAL DATA

- Power: 1800W
- No-load speed: 600r/min
- Weight: 3.5kg
- Accessories: Rod for mixing x 1pc

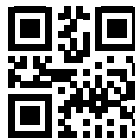


CORDED LAWN MOVER EL-LM45

59545

TECHNICAL DATA

- Power: 1600W
- Material: PP; ABS and manganese steel
- Cutting diameter: 32cm
- No-load speed: 3300-3600r/min
- 3 gear to adjust the height: 25; 45 and 65mm
- 30L large capacity dust collecting box
- Weight: 7.85kg



CORDED LEAF VACUUM EL-LV47

59547

TECHNICAL DATA

- Power: 3000W
- No-load speed: 9000-14000r/min
- Air volume: 13.2m³/min
- Wind speed: 270km/h
- Dust collection bag: 40L (include 1pc Dust collecting bag)
- Weight: 2.9kg
- Product size: 1200mm



ELECTRICAL CORDLESS LINE



PROFESSIONAL



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

12V CORDLESS DRILL EL-CD53 + BATTERY & CHARGER, SET 59553

TECHNICAL DATA

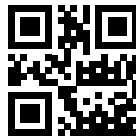
- Voltage: 12V
- No-load speed: 0-400/0-1500r/min
- Max. torque: 30 (N.m)
- Torque settings: 19+1
- Chuck size: 10mm
- Battery capacity: 12V/2A
- Charger: 400mA

ADVANTAGES

- Drill gear box: two speed.
- Compact design: with soft grip handle.
- LED light: Integrated.



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

20V DRILL DRIVER EL-CD50 59550

TECHNICAL DATA

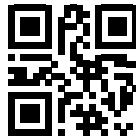
- Voltage: 20V
- No-load speed: 0-400/0-1500r/min
- Max. torque: 30 (N.m)
- Torque settings: 21+1
- Chuck size: 10mm

ADVANTAGES

- High performance 4-pole motor
- PCB inside: to protect the motor from over-loading
- Belt clip: for easy carrying
- Soft grip: to reduce fatigue
- Battery: Not Included. Suitable with batteries with catalogue numbers 59560 and 59561



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

20V TWO SPEED IMPACT DRILL EL-CD51 59551

TECHNICAL DATA

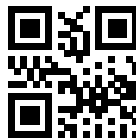
- Voltage: 20V
- No-load speed: 0-450/0-1700r/min
- Max. torque: 50 (N.m)
- Torque settings: 21+1+1
- Impact rate: 0-6400/2400 (B/min)
- Chuck size: 13mm - all metal

ADVANTAGES

- All metal/ 2 speed transmission: for a wide range of drilling and driving applications.
- High performance 4-pole motor.
- PCB inside: to protect the motor from over-loading.
- Belt clip: for easy carrying Soft grip: to reduce fatigue.
- Note: Battery is not Included. Suitable with batteries with catalogue numbers 59560 and 59561.*



PROFESSIONAL



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

20V ANGLE GRINDER EL-CAD52 59552

TECHNICAL DATA

- Voltage: 20V
- No-load speed: 7000r/min
- Diameter of wheel: 115mm
- Thread size: 14mm

ADVANTAGES

- High performance motor.
- PCB inside: to protect the motor from over-loading.
- Soft grip: to reduce fatigue.
- Note: Battery is not Included. Suitable with batteries with catalogue numbers 59560 and 59561.*





PROFESSIONAL

Li-ion
2Ah



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended

20V LITHIUM BATTERY EL-B60

59560

TECHNICAL DATA

- Voltage: 20VDC
- Type: Li-ion
- Capacity: 2 Ah
- Charge time: 1h
- Cells: 5 pcs

ADVANTAGES

- Water protection barrier: routes water away from the electronics and out of the battery pack.
- Smart electronics: Protect from abuse. Optimum tool performance.
- Temperature control frame: Extend run-time and life by minimizing heat. Operates below -18°C/ 0°F.
- Fully exposed cell carrier and rubber over mold: prevents pack failure from vibration or drops.



PROFESSIONAL

Li-ion
4Ah



3 YEARS TOTAL WARRANTY
+ 2 standard
1 extended

20V LITHIUM BATTERY EL-B61

59561

TECHNICAL DATA

- Voltage: 20VDC
- Type: Li-ion
- Capacity: 4 Ah
- Charge time: 2h
- Cells: 10 pcs

ADVANTAGES

- Water protection barrier: routes water away from the electronics and out of the battery pack.
- Smart electronics: Protect from abuse. Optimum tool performance .
- Temperature control frame: Extend run-time and life by minimizing heat. Operates below -18°C/ 0°F.
- Fully exposed cell carrier and rubber over mold: prevents pack failure from vibration or drops.



PROFESSIONAL



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

FAST BATTERY CHARGER EL-CH62

59562

TECHNICAL DATA

- Rated Voltage: 20VDC
- Input Voltage: 100-240VAC

FEATURES

- Diagnostics with LED.
- Short circuit protection.
- Over heating protection.
- Over charging protection.



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

12V CORDLESS DRILL EL-CD54

59554

TECHNICAL DATA

- Voltage: 12V
- No-load speed: 0-350/0-1350r/min
- Max. torque: 20 (N.m)
- Chuck size: 0.8-10mm
- Charging time: 1.5-2 hours
- Battery: Build-in 1500mah
- Charger: Included





Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

18V CORDLESS IMPACT DRILL EL-CD55 + PLASTIC CASE, SET 59555

TECHNICAL DATA

- Voltage: 18V
- Charging time: 3h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 0-350/0-1350r/min
- Max. torque: 29 (N.m)
- Chuck size: 0.8-10mm
- Functions: Bidirectional rotation; two speed regulation, with impact function ; charging protection.

THE SET INCLUDES

- 1 drill;
 - 1 battery;
 - 1 battery charger;
 - 18 drill accessories;
 - 1 semi metal joint.
- * EL-CD55 is not compatible with other 18V ELMARK batteries.*



Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

18V CORDLESS IMPACT DRILL EL-CD56 + PLASTIC CASE, SET 59556

TECHNICAL DATA

- Voltage: 18V
- Charging time: 3h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 1700r/min
- Max. torque: 48 (N.m)
- Chuck size: 1.5-13mm
- Functions: Bidirectional rotation; impact function; charging protection; replaceable battery

THE SET INCLUDES

- 1 drill;
 - 1 battery;
 - 1 battery charger;
 - 18 drill accessories;
 - 1 iron with locking joint.
- * EL-CD56 is compatible with battery EL-B63 with catalogue number 59563.*



Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

18V CORDLESS ANGLE GRINDER EL-CAG57 + PLASTIC CASE, SET 59557

TECHNICAL DATA

- Voltage: 18V
- Charging time: 3h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 0-11000r/min
- Diameter of wheel: 125mm
- Chuck size: 1.5-13mm
- Functions: Charging protection; replaceable battery

THE SET INCLUDES

- 1 angle grinder;
 - 1 battery;
 - 1 battery charger.
- * EL-CAG57 is compatible with battery EL-B63 with catalogue number 59563*



Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

21V CORDLESS CIRCULAR SAW EL-CCS58 59558

TECHNICAL DATA

- Voltage: 21V
- Charging time: 3h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 0-3500r/min
- Cutting Angle: 0-45°
- Maximum depth of sawing: 40mm
- Saw blade diameter: 150mm
- Functions: Charging protection; replaceable battery.

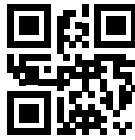
THE SET INCLUDES

- 1 circular saw;
 - 1 ruler;
 - 1 battery;
 - 1 adapter
- * EL-CCS58 is compatible with battery EL-B64 with catalogue number 59564*





Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

21V CORDLESS JIG SAW EL-CJS59

59559

TECHNICAL DATA

- Voltage: 21V
- Charging time: 3h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 2500r/min
- Cutting Depth: 80mm
- Blade diameter: 20mm

THE SET INCLUDES

- 1 jig saw;
- 1 battery;
- 1 battery charger.

**EL-CJS59 is compatible with battery EL-B64 with catalogue number 59564*



Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

21V CORDLESS CHAIN SAW EL-CCS65 + PLASTIC CASE, SET

59565

TECHNICAL DATA

- Voltage: 21V
- Charging time: 2h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 360r/min
- Cutting length: 200mm
- Blade diameter: 20mm
- Function: Charge protection; battery replaceable

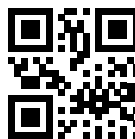
THE SET INCLUDES

- 1 chain saw;
- 1 battery;
- 1 battery charger 1 drill.

**EL-CCS65 is compatible with battery EL-B64 with catalogue number 59564*



Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

21V CORDLESS CHAIN SAW EL-CCS66

59566

TECHNICAL DATA

- Voltage: 21V
- Charging time: 2h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 2950r/min
- Cutting length: 305mm
- No-load current: 5.5A
- Function: Charge protection; battery replaceable

THE SET INCLUDES

- 1 chain saw;
- 1 battery;
- 1 battery charger;
- 1 handle; 1 chain;
- 1 baffle;
- 1 socket wrench.

**EL-CCS66 is compatible with battery EL-B64 with catalogue number 59564*



Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

21V CORDLESS LEAF BLOWER EL-CB67

59567

TECHNICAL DATA

- Voltage: 21V
- Charging time: 3h
- Battery capacity: 1500mAh Li-ion
- No-load speed: 11000r/min
- Blow capacity: 2.3m³/min
- No-load current: 5.5A
- Function: Charge protection, battery replaceable

THE SET INCLUDES

- 1 leaf blower;
- 1 spare battery box;
- 1 adapter.

**EL-CB67 is compatible with battery EL-B64 with catalogue number 59564*



Li-ion



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

21V CORDLESS LAWN MOWER EL-CLM69

59569

TECHNICAL DATA

- Voltage: 21V
- Power: 70W
- Cutting diameter: 150mm
- Charging time: 1.4h
- Charging output: 1.3A
- Battery capacity: 2000mAh Li-ion
- No-load speed: 9500r/min
- No-load working time: 110-140min
- Motor type: Carbon brush
- No-load current: 5.5A
- Function: Charge protection;

- battery replaceable
- Length: 885mm
- Weight: 1.360kg

THE SET INCLUDES

- 1 lawn mower;
 - 1 battery and 1 battery charger;
 - 2 metal blades and 5 plastic blades;
 - 1 circular saw;
 - 1 auxiliary handle
- * EL-CLM69 is compatible with battery EL-B64 with catalogue number 59564*



Li-ion



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

18V LITHIUM BATTERY EL-B63 1.5AH

59563

TECHNICAL DATA

- Voltage: 18V
- Battery type: 18650
- Battery capacity: 1500mAh Li-Ion x 5pcs



Li-ion



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

21V LITHIUM BATTERY EL-B64 1.5AH

59564

TECHNICAL DATA

- Voltage: 21V
- Battery type: 18650
- Battery capacity: 1500mAh Li-Ion x 5pcs

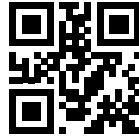
RoHS
COMPLIANT



DIGITAL TOOLS & ACCESSORIES



DIGITAL TOOLS AND ACCESSORIES



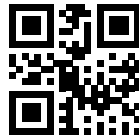
3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL MULTIMETER EM890G

519890

TECHNICAL DATA

- DC voltage: 200m/ 2/ 20/ 200/ 600V
- AC voltage: 2/ 20/ 200/ 600V
- DC current: 2/ 20/ 200/ 10A
- AC current: 200m/ 10A
- Resistance: 200/ 2K/ 20K/ 200K/ 2M/ 20MΩ
- Capacitors: 2n/ 20n/ 200n/ 2μ/ 20μ
- Frequency: 20kHz
- Temperature: -20° upto 1000°C
- Diodes control: yes
- Buzzer: yes
- Transistor test: yes
- Auto power: yes
- Dimensions: 170x87x33mm
- Weight: 326g
- Battery: 1x9V



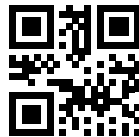
3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL MULTIMETER EM850

519850

TECHNICAL DATA

- DC voltage: 200m/ 2/ 20/ 200/ 600V
- AC voltage: 200/ 600V
- DC current: 200μ/ 2/ 20/ 200/ 10A
- Resistance: 200/ 2K/ 20K/ 200K/ 2MΩ
- Diodes control: yes
- Buzzer: yes
- Transistor test: yes
- Data hold: yes
- Back light function: yes
- Dimensions: 135x67x33mm
- Weight: 147g
- Battery: 1x9V



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL MULTIMETER EM83B

519083

TECHNICAL DATA

- DC voltage: 200m/ 2000m/ 20/ 200/ 400V
- AC voltage: 200/ 400V
- DC current: 2000μ/ 20m/ 200mA
- Resistance: 200/ 2000/ 20K/ 200K/ 2000KΩ
- Diodes control: yes
- Buzzer: yes
- Battery test (9V): yes
- Dimensions: 102x60x24mm
- Weight: 60g
- Battery: 12V



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

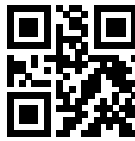
DIGITAL MULTIMETER EM5510

5195510

Measuring: humidity, illumination, temperature and all electric values. Automatic range adjustment, manual value selection. LCD display showing the measured value in digits with the size of 3 3/4. High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences. Automatic switch off.

TECHNICAL DATA

- DC voltage: 0.4/ 4/ 40/ 400/ 600V
- AC voltage: 4/ 40/ 400/ 600V
- DC current: 400μ/ 4000μ/ 40m/ 400m/ 10A
- AC current: 400μ/ 4000μ/ 40m/ 400m/ 10A
- Resistance: 400/ 4K/ 40K/ 400K/ 4M/ 40MΩ
- Capacitors: 4n/ 40n/ 400n/ 4μ/ 40μ/ 100μF
- Frequency: 10/ 100/ 1k/ 10k/ 100k/ 200kHz
- Loading cycles: from 0.1% to 99.9%
- Temperature: -20° up to 1000°C
- Humidity: 30% to 95%
- Illumination: 4000 Lux / 40000 Lux
- Noise level: 35 to 100dB
- Circuit control: yes
- Diodes control: yes
- Weight: 310g (including battery)
- Battery: 1x9V
- Dimensions: 83x162x47mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL MULTIMETER EM420C

519420

Measuring: illumination, temperature and all electric values. Automatic range adjustment, manual value selection. LCD display showing the measured value in 4 digits with the size of 16 mm. High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences. Automatic switch off.

TECHNICAL DATA

- DC voltage: 200m/ 2/ 20/ 200/ 600 V
- AC voltage: 2/ 20/ 200/ 600V
- DC current: 200µ/ 2000µ/ 20m/ 200m/ 2/ 10A
- AC current: 00µ/ 2000µ/ 20m/ 200m/ 2/ 10A
- Resistance: 200/ 2K/ 20K/ 200K/ 2M/ 20MΩ
- Temperature: -20° up to 1000°C
- Battery test: 1.5/3/9/12 V
- Circuit control: yes
- Diodes control: yes
- Weight: 200 g (including battery)
- Battery: 3x1.5 V
- Dimensions: 75x158x35mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

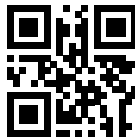
DIGITAL MULTIMETER EM3055

5193055

Measuring: all electric values. Manual range adjustment. LCD display showing the measured value in 4 digits with the size of 3 1/2 . High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences.

TECHNICAL DATA

- DC voltage: 200m/ 2/ 20/ 200/ 1000 V
- AC voltage: 2/ 20/ 200/ 750V
- DC current: 2m/ 20m/ 200m/ 10A
- AC current: 200m/ 10A
- Resistance: 200/ 2K/ 20K/ 200K/ 2M/ 20M/ 200MΩ
- Capacity: 2000p/ 20n/ 200n/ 20µF
- Temperature: 0° up to 1000°C
- Battery test: 1.5/ 3/ 9/ 12 V
- Transistor test: Vce≈3V , Ib≈10µF
- Circuit control: yes
- Diodes control: yes
- Weight: 495 g (including battery)
- Battery: 1x9V
- Dimensions: 97x200x48mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL MULTIMETER EM3058

5193058

Measuring: temperature and all electric values. Manual range adjustment, manual value selection. LCD display showing the measured value in digits with the size of 3 3/4 . High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences. Automatic switch off.

TECHNICAL DATA

- DC voltage: 200m/ 2/ 20/ 200/ 1000 V
- AC voltage: 200 m/ 2/ 20/ 200/ 750V
- DC current: 20µ/ 200 µ/ 2m/ 200m/ 10A
- AC current: 20µ/ 200µ/ 2m/ 200m/ 2/ 10A
- Resistance: 200/ 2K/ 20K/ 200K/ 2M/ 20M/ 200MΩ
- Capacitors: 2n/ 20n/ 200n/ 2µ/ 20µF
- Frequency: 20kHz to 2000kHz
- Loading cycles: 0.1% to 99.9%
- Temperature: 0° up to 1000°C
- Logical level: High > 2.0 V; Low < 0.8 V
- Circuit control: yes
- Diodes control: yes
- Weight: 495 g (including battery)
- Battery: 1x9V
- Dimensions: 97x200x47 mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

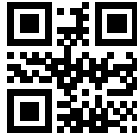
DIGITAL MULTIMETER EM31

519031

Measuring: electric values. Automatic range adjustment, manual value selection. LCD display showing the measured value in 4 digits with the size of 16 mm. High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences. Automatic switch off and low battery indication.

TECHNICAL DATA

- DC voltage: 240m/ 2400m/ 24/ 240/ 600 V
- AC voltage: 240m/ 2400m/ 24/ 240/ 600 V
- DC current: 240µ/ 2400µ/ 24m/ 240m/ 10A
- AC current: 240µ/ 2400µ/ 24m/ 240m/ 10A
- Resistance: 400Ω - 40MΩ
- Capacity: 51.2nF to 51.2µF
- Frequency: 50/ 500/ 5000/ 50k/ 50MHz
- Circuit control: yes
- Diodes control: yes
- Weight: 137 g (including battery)
- Battery: 9V
- Dimensions: 70x126x28mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL MULTIMETER/ PEN EM3215

5193215

Measuring of electric values in the form of a pen. Automatic range adjustment, manual value selection. LCD display, data retain function, automatic reset, polarity selection, range overload indication. High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences. Automatic switch off and low battery indication and a torch.

TECHNICAL DATA

- DC voltage: 200m/ 2/ 20/ 200/ 600 V
- AC voltage: 2/ 20/ 200/ 600V
- DC current: 20m to 200mA
- AC current: 20m to 200mA
- Resistance: 200/ 2K/ 20K/ 200K/ 2M/ 20MΩ
- Logical level: High > 2.3V; Low < 0.8 V
- Circuit control: yes
- Diodes control: yes
- Weight: 182 g (including battery)
- Battery: 1x9V
- Dimensions: 57x230x30mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL CLAMP METER EM202

519202

Measuring of electric values. Manual range adjustment, manual value selection. LCD display showing the measured value in digits with the size of 3½ mm. High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences. Automatic switch off.

TECHNICAL DATA

- DC voltage: 1000 V
- AC voltage: 750V
- AC current: 20/ 200/ 1000A
- Resistance: 200 kΩ
- Temperature: -40° up to 1400°C
- Circuit control: yes
- Diodes control: yes
- Weight: 400 g (including battery)
- Battery: 1x9V
- Dimensions: 99x250x43mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL CLAMP METER EM204

519204

Measuring of electric values. Automatic range adjustment, manual value selection. LCD display, low battery indication, overload protection. High accuracy of analogue-digital conversion, precision in measuring and resistance to electro-magnetic interferences. Automatic switch off.

TECHNICAL DATA

- DC voltage: 1000 V
- AC voltage: 750V
- DC current: 200 / 1000A
- AC current: 200 / 1000A
- Resistance: 200 kΩ
- Frequency: 2 kHz
- Circuit control: yes
- Weight: 400 g (including battery)
- Battery: 1x9V
- Dimensions: 99x258x43mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

DIGITAL CLAMP METER EM266

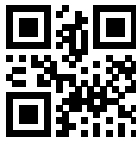
519266

Measuring of electric values. It features manual range adjustment. LCD display and retain function option, low battery indication and overload protection.

TECHNICAL DATA

- DC voltage: 1000 V
- AC voltage: 750V
- AC current: 200 / 1000A
- Resistance: 200 / 20 kΩ
- Circuit control: yes
- Diodes control: yes
- Weight: 310 g (including battery)
- Battery: 1x9V
- Dimensions: 69x229x38mm





INFRARED TEMPERATURE METER EM520A

519520

Digital device for measuring of temperature. The temperature is measured with no contact. It has a laser counter for precision measuring, suitable large LCD display, battery low indication and overload protection.

TECHNICAL DATA

- Temperature: -20° up to 320°C / -4° to 608 °F
- Distance to point size: 6:1
- Precision: ±2° C or 2% in reading
- Battery: 1x9V
- Dimensions: 90x155x45mm



LASER DISTANCE METER EL- 201

519001

TECHNICAL DATA

- Measure range: 40m
- Measuring accuracy: ± 3mm, with a 0.05mm / m increment
- Lowest indication unit: 1mm
- Laser parameter: 635nm, 1mw
- Laser class: 2
- Operating Temperature: -10°C+ 40°C
- Storage temperature: -20°C + 70°C
- Automatic switch-off after approx: laser 20s
- Instrument Auto-off Time: 5 min
- Laser Auto-off Time: 20 sec
- Battery: 2x1.5AAA
- Battery operating life time: 5000times
- Automatic storage data: 30 times

- Colour screen: 1,8 inch
- Net weight: 88gr
- Dimension: 15.9x8.8x5.5 mm

FUNCTION

- Single measurement
- Continuous measurement
- Measurement of rectangular area
- Measurement of cubic volume
- Triangle area measurement
- Square trapezoid area measurement
- Area accumulation
- Single Pythagorean theorem measurement
- Double tick plus/minus measurement



LASER DISTANCE METER EL- 201

519002

TECHNICAL DATA

- Measure range: 100m
- Measuring accuracy: ± 3mm, with a 0.05mm / m increment
- Lowest indication unit: 1mm
- Laser parameter: 635nm, 1mw
- Laser class: 2
- Operating Temperature: -10°C+ 40°C
- Storage temperature: -20°C + 70°C
- Automatic switch-off after approx: laser 20s
- Instrument Auto-off Time: 5 min
- Laser Auto-off Time: 20 sec
- Battery: 2x1.5AAA
- Battery operating life time: 5000 times
- Automatic storage data: 30 times

- Colour screen: 1,8 inch
- Net weight: 88gr
- Dimension: 15.9x8.8x5.5 mm

FUNCTION

- Single measurement
- Continuous measurement
- Measurement of rectangular area
- Measurement of cubic volume
- Triangle area measurement
- Square trapezoid area measurement
- Area accumulation
- Single Pythagorean theorem measurement
- Double tick plus/minus measurement



LASER LEVEL METER EL-113P

519003

TECHNICAL DATA

- Horizontal precision: ±7mm/10m
- Vertical precision: ±7mm/10m
- Auto-Leveling range: ±3.5°
- Laser colour: Red light 635nm
- Laser class: 2
- Auto-Leveling method: The gravity pendulum is auto-leveling.
- Amping time: <6S
- The laser line width: <3.5mm (within 10m).
- Scope of work (radius): 12m

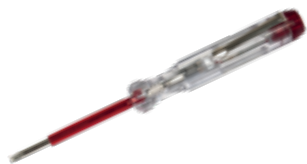
- Working temperature: 0°C~+40°C
- The power supply: 2xAA battery
- Working voltage: 3V
- Working time: More than 15 hours
- IP rate: IP54
- Dimension: 80x50x82.5 mm

AREAS OF APPLICATION:

Indoor calibration, door, cabinet, ground, wall, brick and more basic application.



MECHANICAL TOOLS



VOLTAGE TESTER DN-8203

519203

The voltage tester screwdriver is used for detecting the presence of electrical voltage. Existence of voltage is shown via lighting signal indicator located in the handle of the screwdriver. It can detect voltage in the range from 100V to 250V. The screwdriver has a flat tip.



TECHNICAL DATA

- Size: 3.5x140mm
- Voltage range 100-250V~
- GS, CE certificates



VOLTAGE TESTER EL-1805

519205

TECHNICAL DATA

- Size: 3.5x190mm
- Voltage range 100-500V~
- ABS+PC



NON-CONTACT VOLTAGE AC DETECTOR GK8

519GK8

FUNCTION

- AC voltage detection
- Indicate AC null line and live line
- Auto power off in 5 minutes
- Buzzer: sound beeps when is detected AC voltage
- Green light: by power ON
- RED light: by live parts detection.
- Higher flashing frequency indicates stronger electric field

TECHNICAL DATA

- Voltage range: from 50 to 1000V/AC
- Handle material: ABS
- Metal: carbon steel
- Light: LED
- Length – 148mm



MULTI FUNCTIONAL VOLTAGE TESTER EL-8736

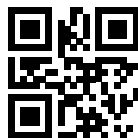
519207

FUNCTION

- AC voltage testing
- Line break testing
- Earth checking

TECHNICAL DATA

- Voltage range: from 12 to 220V/AC
- Handle material: ABS
- Metal: carbon steel
- Light: LED
- Blade diameter: 4mm
- Length – 190mm



VOLTAGE TESTER EL-EN08

519206

TECHNICAL DATA

- Size: 2.0x185mm
- Voltage range 6-380V
- ABS





MULTI-PURPOSE WIRING TOOL

598030

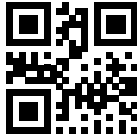
FUNCTIONS

Ergonomic molded anti-slip grid handle
Crimp insulated and non insulated cable terminals

5 YEARS TOTAL WARRANTY
+ 3 standard
+ 2 extended

TECHNICAL DATA

- Size: 235mm
- Cable size section: 0.75-6.0mm



CRIMPING PLIERS HD-005

59308

FUNCTIONS

- Crimping of naked cable terminals

2 YEARS TOTAL WARRANTY
+ 2 standard
+ 0 extended

TECHNICAL DATA

- Possibility for crimping of cable conductors up to 10mm²
- Form of the crimping head: hexagon
- Weight of the instrument: 0.49kg
- Length of the instrument: 220mm
- Packing: blister



CRIMPING PLIERS G-301H

59307

FUNCTIONS

- Crimping of naked cable terminals

2 YEARS TOTAL WARRANTY
+ 2 standard
+ 0 extended

TECHNICAL DATA

- Possibility for crimping of cable conductors up to 6mm²
- Form of the crimping head: hexagon
- Weight of the instrument: 0.49kg
- Length of the instrument: 220mm
- Packing: blister



CRIMPING PLIERS SN-003

59309

FUNCTIONS

- Crimping of naked cable terminals and joining bushes

2 YEARS TOTAL WARRANTY
+ 2 standard
+ 0 extended

TECHNICAL DATA

- Possibility for crimping of cable conductors from 6 to 16mm²
- Form of the crimping head: hexagon
- Weight of the instrument: 0.39kg
- Length of the instrument: 190mm
- Packing: blister



EL-HX26B MANUAL CRIMPING RATCHET PLIERS

598036

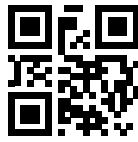
FUNCTIONS

- Crimping of aluminum or copper conductors with non-isolated cable terminals

2 YEARS TOTAL WARRANTY
+ 2 standard
+ 0 extended

TECHNICAL DATA

- Form of the crimping element: hexagon
- Crimping sizes: 6, 10, 16, 25 mm²
- Section of the crimping conductors: 6-25 mm²
- Weight of the instrument: 0.83 kg
- Length: 350mm



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

EL-HX50SC MANUAL CRIMPING PLIERS

598037

FUNCTIONS

- Crimping of aluminum or copper conductors with non-isolated cable terminals.

TECHNICAL DATA

- Form of the crimping element: hexagon
- Size of the crimping element: 6, 10, 16, 25, 35, 50 mm²
- Section of the crimping conductors: 6-50 mm²
- Weight of the instrument: 1.67 kg
- Length: 390mm



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

EL-HX150SC MANUAL CRIMPING PLIERS

598038

FUNCTIONS

- Crimping of aluminum or copper conductors with non-isolated cable terminals.

TECHNICAL DATA

- Form of the crimping element: hexagon
- Size of the crimping element: 25, 35, 50, 70, 95, 120, 150 mm²
- Section of the crimping conductors: 25-150 mm²
- Weight of the instrument: 4.3 kg
- Length: 620mm



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

EL-256 WIRE STRIPPER KNIFE 8-28MM WITH HOOK BLADE

598031

FUNCTIONS

- Stripping circular PVC cable, rubber cable, silicone cable and teflon cable.
- Cutting depth can penetrate knurled nut to adjust moving blade.
- It can change circular shearing into linear shearing, and long stripping area adopts spiral cutting.

TECHNICAL DATA

- Stripping capacity diameter: 8-28 mm
- Weight of the instrument: 0.12 kg
- Length: 190mm



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

EL-D5 AUTOMATIC WIRE STRIPPER

598033

FUNCTIONS

- For stripping the plastic or rubber insulation of the single, multiple cables and wires of 0.5-6mm²
- With wire cutter for copper and aluminum wires, multiple strands up to 6mm²
- No damaging of the conductor core, long lifetime.

TECHNICAL DATA

- Stripping capacity: 0.5-6 mm²
- Weight of the instrument: 0.12 kg
- Length: 190mm



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

EL-700D AUTOMATIC WIRE STRIPPER WITH CUTTER

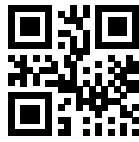
598034

FUNCTIONS

- Stripping diameter can be adjusted automatically for different wire cross sections
- Precise blade design without damaging the conductor cores
- During stripping, the wire is held firm by clamping jaws
- With adjustable length stop, with a spring returns the stripper to the starting position, long lifetime.

TECHNICAL DATA

- Stripping capacity: 0.25-6 mm²
- Weight of the instrument: 0.25 kg
- Length: 170mm



AUTOMATIC WIRE STRIPPER

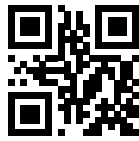
598032

FUNCTIONS

- Wire is automatically gripped and stripped with the same motion
- Adjustable dial
- Comfort grip handle

TECHNICAL DATA

- Size: 168mm
- Cable size section: 1.0-3.2mm



CUTTER

598245

FUNCTIONS

- Cutting of aluminum or copper cable conductors
- Cutting of conductors with metal bearing core

TECHNICAL DATA

- Length: 760mm



MECHANICAL CABLE CUTTING PLIERS HS-250 TYPE

59306

FUNCTIONS

- Cutting of aluminum or copper cable conductors
- Cutting of conductors with metal bearing core

TECHNICAL DATA

- Maximum section of the cable:
 - > for aluminum conductors up to 240mm²
 - > for copper conductors up to 185mm²
- Weight of the instrument: 1.43kg
- Length of the instrument: 540mm
- Packing: blister



MECHANICAL CABLE CUTTING PLIERS CC-325 TYPE

59305

FUNCTIONS

- Cutting of aluminum or copper cable conductors
- Cutting of conductors with metal bearing core

TECHNICAL DATA

- Maximum section of the cable:
 - > for aluminum conductors up to 150mm²
 - > for copper conductors up to 150mm²
- Cutting power: 15T
- Presence of cutting mechanism type ratchet
- Presence of brake of the cutting mechanism
- Weight of the instrument: 0.58kg
- Length of the instrument: 260mm
- Packing: blister



MECHANICAL CABLE CUTTING PLIERS CC-400 TYPE

59304

FUNCTIONS

- Cutting of aluminum or copper cable conductors
- Cutting of conductors with metal bearing core

TECHNICAL DATA

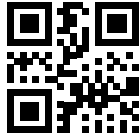
- Maximum section of the cable:
 - > for aluminum conductors up to 400mm²
 - > for copper conductors up to 350mm²
- Cutting power: 15T
- Presence of cutting mechanism type ratchet
- Presence of brake of the cutting mechanism
- Weight of the instrument: 1.25kg
- Length of the instrument: 360mm
- Packing: blister



or



HYDRAULIC TOOLS



HYDRAULIC CRIMPING PLIERS YQK-50 TYPE

59303

FUNCTIONS

- Crimping of aluminum or copper conductors with cable terminals or bush in the corresponding size.



TECHNICAL DATA

- Form of the crimping element: hexagonal
- Size of the crimping element: 4, 6, 10, 16, 25, 35, 50mm²
- Section of the crimping conductors:
 - Al conductors - from 4 to 50mm²
 - Cu conductors - from 4 to 50 mm²
- Element pressing power: 8T
- Width of the element: 10mm
- Weight of the instrument: 2.8 kg
- Length: 310mm
- Used hydraulic oil: #15 (hydraulic oil with viscosity 15)
- Plastic box for the instrument
- A set of congestion hoops for the hydraulic cylinder



HYDRAULIC CRIMPING PLIERS YQK-300 TYPE

59301

FUNCTIONS

- Crimping of aluminum or copper conductors with cable terminals or bush in the corresponding size



TECHNICAL DATA

- Device for automatic following of the effort at crimping completion
- Form of the crimping element: hexagonal
- Size of the crimping element: 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300mm²
- Section of the crimping conductors:
 - Al conductors - from 16 to 300 mm²
 - Cu conductors - from 16 to 240 mm²
- Element pressing power: 100kN
- Width of the element: 22mm
- Weight of the instrument: 6.3 kg
- Length: 500mm
- Used hydraulic oil: #23 (hydraulic oil with viscosity 23)
- Plastic box for the instrument
- A set of congestion hoops for the hydraulic cylinder



HYDRAULIC CRIMPING PLIERS KYQ-300B TYPE

59302

FUNCTIONS

- Crimping of aluminum or copper conductors with cable terminals or bush in the corresponding size



TECHNICAL DATA

- Device for automatic following of the effort at crimping completion
- Form of the crimping element: hexagonal
- Size of the crimping element: 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300mm²
- Section of the crimping conductors:
 - Al conductors - from 16 to 300 mm²
 - Cu conductors - from 16 to 240 mm²
- Element pressing power: 100kN
- Width of the element: 22mm
- Weight of the instrument: 6.8 kg
- Length: 500mm
- Used hydraulic oil: #23 (hydraulic oil with viscosity 23)
- Plastic box for the instrument
- A set of congestion hoops for the hydraulic cylinder





HYDRAULIC CRIMPING PLIERS HT-300 TYPE

59300

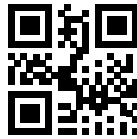
FUNCTIONS

- Crimping of aluminum or copper conductors with cable terminals or bush in the corresponding size

2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

TECHNICAL DATA

- Crimping head turning at 360° which facilitates the crimping of static conductors
- Device for automatic following of the effort at crimping completion
- Form of the crimping element: hexagonal
- Size of the crimping element: 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300mm²
- Section of the crimping conductors:
 - > Al conductors - from 16 to 300 mm²
 - > Cu conductors - from 16 to 240 mm²
- Element pressing power: 60kN
- Width of the element: 17mm
- Weight of the instrument: 3.3 kg
- Length: 460mm
- Used hydraulic oil: #15 (hydraulic oil with viscosity 15)
- Metal box for the instrument
- A set of congestion hoops for the hydraulic cylinder



HYDRAULIC PUNCHING PLIERS WK-8 TYPE

54000

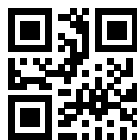
FUNCTIONS

- Cutting through openings in sheet metal with gauge up to 3mm without rotary motion.

2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

TECHNICAL DATA

- Piercing head turning at 360°
- Form of the cutting element: round
- Size of the cutting element: Ø22.5, 28.3, 34.6, 43.2, 49.6, 61.5mm
- Piercing capacity:
 - > Sheet metal 3mm - openings up to Ø30mm
 - > Sheet metal 2mm - openings up to Ø60mm
- Element pressing power: 80kN
- Thickness of the element: 25mm
- Weight of the instrument: 3.5 kg
- Used hydraulic oil: #15 (hydraulic oil with viscosity 15)
- Metal box for the instrument
- A set of congestion hoops for the hydraulic cylinder



HYDRAULIC PUNCHING PRESS SYK-15 TYPE

54001

FUNCTIONS

- Cutting through openings in sheet metal with gauge up to 3mm without rotary motion

2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

TECHNICAL DATA

- Protracting piercing head supplied with a hose for the hydraulic oil that gives possibility for piercing openings everywhere on the metal surface
- Form of the cutting element:
 - > Round
 - > Square
- Size of the cutting element:
 - > Square: 32x32mm
 - > 1 round openings: Ø 22.5, 28.3, 34.6, 43.2, 9.6, 61.5mm
- Piercing capacity:
 - > Sheet metal 3mm- openings up to Ø60.8mm
 - > Sheet metal 2mm - openings up to Ø115.5mm
 - > Square opening up to 110x110mm
- Element pressing power: 15T
- Thickness of the element: 25mm
- Weight of the instrument: 11.5 kg
- Used hydraulic oil: #15 (hydraulic oil with viscosity 15)
- Metal box for the instrument
- A set of congestion hoops for the hydraulic cylinder



ADDITIONAL SET FOR WK-8 & SYK-15

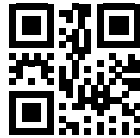
54002

Additional set of cutting elements for cable glands: Ø16, 20, 26.2, 32.5, 39, 51, 63 and a square for display devices 46.5x46.5, 68x68

2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



VDE ISULATED MECHANICAL TOOLS - 1000V



VDE INSULATED COMBINED PLIERS

598001

TECHNICAL DATA

Type: Combined pliers 1000V
Size: 200 mm



VDE INSULATED LONG NOSE PLIERS

598002

TECHNICAL DATA

Type: Long nose pliers 1000V
Size: 200 mm



VDE INSULATED DIAGONAL PLIERS

598003

TECHNICAL DATA

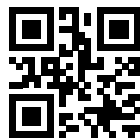
Type: Cutting pliers 1000V
Size: 160 mm



598013

TECHNICAL DATA

Type: Cutting pliers 1000V
Size: 180 mm



VDE INSULATED WIRE STRIPPER

598004

TECHNICAL DATA

Type: Wire stripper 1000V
Size: 160 mm



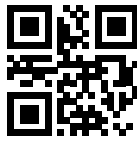
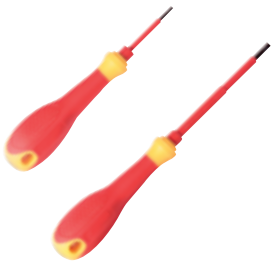
VDE INSULATED GROOVE JOINT PLIERS

598005

TECHNICAL DATA

Type: Groove joint pliers 1000V
Size: 250 mm





VDE INSULATED SCREWDRIVER- SLOTTED

598006

TECHNICAL DATA

Type: Screwdriver - slotted
Size: 2.5x50 mm

1000V

 CrV



598007

TECHNICAL DATA

Type: Screwdriver - slotted
Size: 3.5x75 mm

1000V

 CrV



VDE INSULATED SCREWDRIVER- SLOTTED

598008

TECHNICAL DATA

Type: Screwdriver - slotted
Size: 4x100 mm

1000V

 CrV



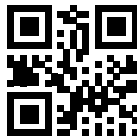
598009

TECHNICAL DATA

Type: Screwdriver - slotted
Size: 5.5x150 mm

1000V

 CrV



VDE INSULATED SCREWDRIVER- PH

598010

TECHNICAL DATA

Type: Screwdriver 1000V
Size: PH0x75 mm

1000V

 CrV



598011

TECHNICAL DATA

Type: Screwdriver 1000V
Size: PH1x100 mm

1000V

 CrV

598012

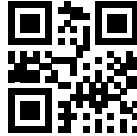
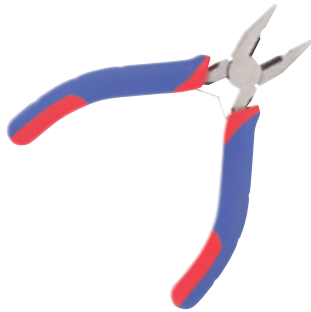
TECHNICAL DATA

Type: Screwdriver 1000V
Size: PH2x120 mm

1000V

 CrV

MECHANICAL TOOLS



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

MINI COMBINED PLIERS

598040

ADVANTAGES

Chrome-vanadium steel for longer life and durability
Bi-material comfort grip handle

TECHNICAL DATA

Type: Mini combined pliers
Size: 115 mm

CrV



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

MINI DIAGONAL PLIERS

598042

ADVANTAGES

Chrome-vanadium steel for longer life and durability
Bi-material comfort grip handle

TECHNICAL DATA

Type: Mini diagonal pliers
Size: 115 mm

CrV



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

COMBINED PLIERS

ADVANTAGES

Chrome-vanadium steel for longer life and durability
Bi-material comfort grip handle
Heat treated, fully polished

598043

TECHNICAL DATA

Type: Combined pliers
Size: 160 mm

CrV

598044

TECHNICAL DATA

Type: Combined pliers
Size: 180 mm

CrV



5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

DIAGONAL PLIERS

598046

ADVANTAGES

Chrome-vanadium steel for longer life and durability
Bi-material comfort grip handle
Heat treated, fully polished

TECHNICAL DATA

Type: Diagonal pliers
Size: 160 mm

CrV



LONG NOSE PLIERS

598047

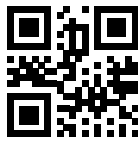
ADVANTAGES

Chrome-vanadium steel for longer life and durability
Bi-material comfort grip handle
Heat treated, fully polished

TECHNICAL DATA

Type: Long nose pliers
Size: 160 mm

CrV



MAGNETIC SCREWDRIVER SLOTTED

598070

TECHNICAL DATA

Type: Screwdriver
Size: 6x38 mm

598071

TECHNICAL DATA

Type: Screwdriver
Size: 3x75 mm

598072

TECHNICAL DATA

Type: Screwdriver
Size: 3x100 mm

598073

TECHNICAL DATA

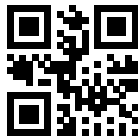
Type: Screwdriver
Size: 4x100 mm

CrV

CrV

CrV

CrV



MAGNETIC SCREWDRIVER PH | PZ

598080

TECHNICAL DATA

Type: Screwdriver
Size: PH2x38 mm

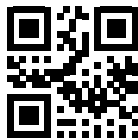
598089

TECHNICAL DATA

Type: Screwdriver
Size: PZ2x38 mm

CrV

CrV



MAGNETIC BIT HOLDER

598096

TECHNICAL DATA

Type: Bit holder



PLASTIC LEVEL

598243

ADVANTAGES

Durable acrylic vials read plumb, level, 45°
Top read window for convenience
Rubber end caps for shock-resistant
Highly visible vials with magnetic base

TECHNICAL DATA

Type: Level
Length: 228.6 mm





6PC PRECISION SCREWDRIVER SET

598094

ADVANTAGES

Carbon steel blade with black finish
With chrome plated handle

TECHNICAL DATA

Type: Screwdriver set
Slotted size: 1.4mm, 2.0mm, 2.4mm, 3.0mm
PH size: PH0, PH1



15-IN-1 MULTI-PURPOSE PLIERS

598210

ADVANTAGES

Precision punched
Machined surface
Stainless steel components
Compact folding design ideal selection for general purpose use

TECHNICAL DATA

Type: Multi pliers



ALLIGATORS CLIPS SET

M500060

TECHNICAL DATA

Type: F 275
Rated current: max 5A
Colour: Red/Black
Length: 50 mm

M500059

TECHNICAL DATA

Type: F 279
Rated current: max 80A
Colour: Red/Black
Length: 80 mm

M411012

TECHNICAL DATA

Type: L 150
Rated current: max 200A
Colour: Red/Black
Length: 150 mm



CUTTER KNIFE 9MM

597300009

TECHNICAL DATA

Type: Cutter knife
Handle material: Plastic PP
Blade material: Steel
Blade size: 83x9x0.4mm
Color: Yellow

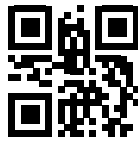


CUTTER KNIFE 18MM

597300021

TECHNICAL DATA

Type: E-7229 Cutter knife
Handle material: Plastic PP
Blade material: Steel
Blade size: 100x18x0.5mm
Color: Blue

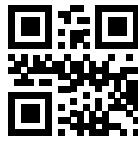


CUTTER KNIFE 18MM

597300019

TECHNICAL DATA

Type: E-82087 Cutter knife
Handle material: Plastic PP+TPR
Blade material: SK5
Blade size: 100x18x0.5mm
Color: Red



FOLDABLE KNIFE 18MM

597300022

TECHNICAL DATA

Type: E7002 Foldable knife
Handle material: Plastic PP+TPR
Blade material: SK5(1+5pcs)
Blade size: 60x19x0.5mm;
Color: Yellow



ALUMINUM AUTO-LOCK KNIFE

597300020

TECHNICAL DATA

Type: E-522 Auto- lock knife
Handle material: Aluminum Alloy
Blade material: SK5
Blade size: 60x19x0.5mm;
Color: Silver

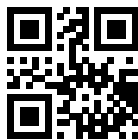


ALUMINUM FIXED BLADE UTILITY KNIFE

598201

TECHNICAL DATA

Type: Aluminum utility knife
Razor-sharp tempered SK5 blade
Aluminum alloy housing
Fixed blade for more cutting power
3PC blades included



KNIFE SPARE BLADES

597310009

TECHNICAL DATA

Type: Knife spare blades
Size: 9 mm

597310018

TECHNICAL DATA

Type: Knife spare blades
Size: 18 mm



HAMMER WITH HARDWOOD HANDLE

ADVANTAGES

Drop forged carbon steel. Fully heat treated & polished head

598230

TECHNICAL DATA

Type: Hammer
Weight: 300 gr

598231

TECHNICAL DATA

Type: Hammer
Weight: 500 gr



5PC DIAMOND NEEDLE FILE SET

598232

ADVANTAGES

Fine diamond grit
Perfect for machinists, gunsmiths, jewelers and hobbyists
Dipped grip handle

TECHNICAL DATA

Type: Needle file
Size: 3x140mm, 150 grit



3-IN-1 STAPLE GUN SET

598246

TECHNICAL DATA

Type: Staple gun
1PC staple gun
500PC 8x1.2x11.3mm staples
500PC 12mm staples
500PC 14mm nails
1PC handy storage case



MAGNETIC TAPE MEASURE E-240

598247

TECHNICAL DATA

Type: E-240/319 Tape measure
Tape sizes: 3 m x 19 mm

598248

TECHNICAL DATA

Type: E-240/519 Tape measure
Tape sizes: 5 m x 19 mm

598249

TECHNICAL DATA

Type: E-240/525 Tape measure
Tape sizes: 5 m x 25 mm



CHROME PLATING TAPE MEASURE

598241

TECHNICAL DATA

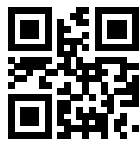
Type: Tape measure
Tape length: 5m

CUTTING DISCS AND DRILL BITS



CUTTING DISCS FOR METAL

Catalogue number	Outer diameter (mm)	Inner diameter (mm)	Disc width (mm)	Packing/Box (pcs)
M516300	115	22.2	1.0	10/400
M516301	115	22.2	1.6	10/400
M516302	125	22.2	1.0	10/400
M516303	125	22.2	1.6	1/400
M516211	125	22.2	3.2	5/200
M516212	180	22.2	3.2	5/100
M516213	230	22.2	3.2	5/100

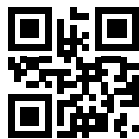


Metal



CUTTING DISCS FOR METAL A60T INOX

Catalogue number	Outer diameter (mm)	Inner diameter (mm)	Disc width (mm)	Packing/Box (pcs)
M516304	115	22.2	1.0	25/400
M516305	125	22.2	1.0	25/400



Metal

Inox



GRINDING DISCS FOR METAL

Catalogue number	Outer diameter (mm)	Inner diameter (mm)	Disc width (mm)	Packing/Box (pcs)
M516219	115	22.2	6	25/200
M516220	125	22.2	6	25/100
M516307	180	22.2	6	25/100
M516308	230	22.2	6	25/50



Metal



CUTTING DISCS FOR STONE

Catalogue number	Outer diameter (mm)	Inner diameter (mm)	Disc width (mm)	Packing/Box (pcs)
M516216	115	22.2	3.2	5/400
M516306	125	22.2	3.2	25/200
M516217	180	22.2	3.2	5/100
M516218	230	22.2	3.2	5/100



Stone



DIAMOND CUTTING DISCS WET

Catalogue number	Outer diameter (mm)	Inner diameter (mm)	Disc width (mm)	Packing/Box (pcs)
M516309	115	22.2	7	10/100
M516310	125	22.2	7	10/100



Concrete

Bricks

Faience



DIAMOND CUTTING DISCS TURBO

Catalogue number	Outer diameter (mm)	Inner diameter (mm)	Disc width (mm)	Packing/Box (pcs)
M516311	115	22.2	7	10/100
M516312	125	22.2	7	10/100



Concrete

Bricks

Faience



FLAP DISCS

Catalogue number	Outer diameter (mm)	Inner diameter (mm)	Grit	Packing/Box (pcs)
M516169	125	22.2	A-60	50/100
M516313	125	22.2	A-80	50/100
M516171	125	22.2	A-120	50/100



Metal

Wood

Stone

TWIST KNOT WIRE WHEEL BRUSH FOR ANGLE GRINDERS

M516050

Type: Twist knot wire wheel brush
Outer diameter: 100 mm
Inner diameter: 22.2 mm

Metal

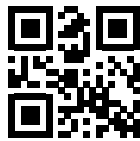


TWIST KNOT WIRE WHEEL BRUSH FOR ANGLE GRINDERS

M516068

Type: Twist knot wire wheel brush
Outer diameter: 150 mm
Inner diameter: 22.2 mm

Metal

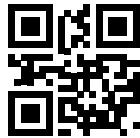


TWIST KNOT WIRE CUP BRUSH FOR ANGLE GRINDERS

M516256

Type: Cup brush
Outer diameter: 100 mm
Nut size: M14x2

Metal



DRILL TWIST KNOT WIRE CUP BRUSH WITH SHANK

M516314

Type: Cup brush
Outer diameter: 75 mm
Shank size: 6 mm

Metal



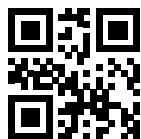
CORE CUTTERS FOR DRILL



M516148

Type: Core cutter for drill
Outer diameter: 65 mm

Concrete



M516315

Type: Core cutter for drill
Outer diameter: 85 mm

Concrete

HOLE CUTTERS SET



M516013

Type: Hole cutter set
Outer diameter: 26-63 mm
Set of 7 pieces

Wood



ARBOR & PILOT DRILL SDS PLUS FOR CORE CUTTERS



M516147

Type: Arbor & pilot drill SDS
Length: 160 mm



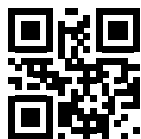
BRAD POINT DRILL FOR WOOD



M516370

Type: Brad point drill
Drill bit diameter: 4 mm; 5 mm; 6 mm; 8 mm; 10 mm
Set of 5 pieces

Wood



DRILL BITS FOR METAL

DIN 338
HSS 4241 Metal



Catalogue number	Drill bit diameter (mm)	Total length (mm)	Working length (mm)	Packing/Box (pcs)
M516316	1.0	34	12	2/150/300
M516317	1.5	40	18	2/150/300
M516318	2.0	49	24	2/150/300
M516319	2.5	57	30	2/150/300
M516320	3.0	61	33	2/150/300
M516321	3.2	65	36	2/150/300
M516322	3.5	70	39	2/150/300
M516323	4.0	75	43	2/150/300
M516324	4.2	75	43	1/150/300
M516325	4.5	80	47	1/150/300
M516326	5.0	86	52	1/150/300
M516327	6.0	93	57	1/150/300
M516328	6.5	101	63	1/90/180
M516329	7.0	109	69	1/90/180
M516330	8.0	117	75	1/90/180
M516331	10.0	133	87	1/60/120
M516332	12.0	151	101	1/10/50

MASONRY DRILL BITS

DIN 8039
U-type flute Concrete



Catalogue number	Drill bit diameter (mm)	Total length (mm)	Working length (mm)	Packing/Box (pcs)
M516340	3.0	60	30	150/300
M516341	4.0	75	40	150/300
M516342	5.0	85	50	150/300
M516343	6.0	100	60	150/300
M516344	8.0	120	80	90/180
M516345	10.0	150	90	60/120

CROSS HEAD DRILLS SDS-PLUS

DIN 8035 Concrete



Catalogue number	Drill bit diameter (mm)	L1- Total length (mm)	L1- Working length (mm)	Packing/Box (pcs)
M516350	6.0	110	30	10/200
M516351	6.0	160	40	10/200
M516352	6.0	210	50	10/200
M516353	6.5	260	200	10/200
M516354	8.0	110	50	10/200
M516355	8.0	160	100	10/200
M516356	8.0	210	150	10/200
M516357	8.0	350	300	10/100
M516358	10.0	160	100	10/200
M516359	10.0	260	200	10/200
M516360	10.0	450	400	10/50
M516361	12.0	210	150	10/200
M516362	12.0	450	400	10/50

SOLDERING GUN AND ACCESSORIES



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

SOLDERING GUN

M516375

Type: Soldering gun
Power: 100W
Temperature range: 600°C
With LED light



TIN ABSORPTION PUMP

M516380



SOLDER WIRE

M516072

Type: Solder wire
Solder alloy: Sn-60%; PB-40%
External diameter: 1 mm
Melting temperature: 180°C
Weigh: 170 g



ROSIN

M500632

APPLICATION

It serves to decrease the soldering parts and the soldering tip of the soldering iron.
Facilitates the flow of solder.
Increases efficiency of the soldering process.
Weight: 50 g



HOT MELT GLUE GUN AND ACCESSORIES

HOT MELT GLUE GUN

M516385

Type: Hot melt glue gun
Power: 100W
Temperature range: 18-200°C
Silicone pipe diameter: 11 mm
Heating time: 4-5 min



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



GLUE STICKS SET FOR GLUE GUNS

M516386

Type: Glue sticks
Pipe diameter: 11 mm
Length: 200 mm
Set of 10 pieces



PROTECTION EQUIPMENT

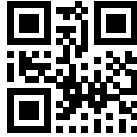
HAND GLOVES

81001



TECHNICAL DATA

Type: A174 Flex Grip Latex Glove
Usage: General purpose
Material: Polyester & Latex
Colour: Red & Black



ADVANTAGES

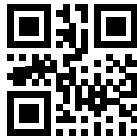
- Crinkle latex grip offers excellent grip
- 13 gauge liner for a perfect fit
- Breathable seamless liner
- Ergonomic design to reduce hand fatigue
- Elasticated cuffs for a secure fit
- Retail tag which aids presentation for retail sales

81002



TECHNICAL DATA

Type: A350 DermiFlex Glove
Usage: General purpose
Material: Nylon, Elastane & Nitrile Foam
Colour: Grey & Black



ADVANTAGES

- Nitrile foam coating for excellent grip in wet and dry conditions
- Palm dipped to increase dexterity and ventilation
- 15 gauge liner for extra dexterity
- Breathable seamless liner
- Lightweight and comfortable
- Maximum EN level 4 abrasion
- ANSI A1 Cut level

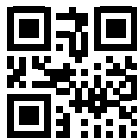
SAFETY EYEGLASSES

81010



TECHNICAL DATA

Type: LEVO PW11 - Dynamic High-tech Safety Eyeglasses
Usage: General purpose
Material: Polycarbonate 41g
Colour: Clear



ADVANTAGES

- Dual use with classic arms or with wide elastic band
- Detachable foam offers additional protection against shocks and dust
- 100% metal free
- Excellent ventilation through indirect vents in the back foam
- Anti-scratch coating for added durability
- 99% UV protection

81011



TECHNICAL DATA

Type: PW21 - Indirect Vent Goggle
Usage: General purpose
Material: Polycarbonate & PVC
Colour: Transparent



ADVANTAGES

- Indirect ventilation
- Flexible PVC frame for ultra comfort
- Adjustable elastic headband for a perfect fit
- Ultra lightweight for long uses
- Protects from fluid and splashes
- Excellent side protection

CAT II

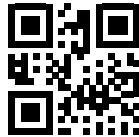
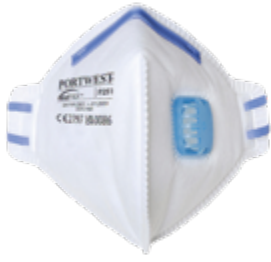


DISPOSABLE MASK

81020

TECHNICAL DATA

Type: P251 FFP2 VALVED FOLD FLAT RESPIRATOR
Usage: Disposable Mask
Material: PP & PU Foam
Colour: White



ADVANTAGES

- Special compact vertical fold-flat design
- High performance exhalation valve to reduce heat and provide comfort when used in hot and humid conditions
- Ultrasonic welded head straps
- Individually wrapped inside hygienic polybag

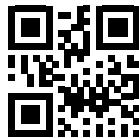
**The price is for 1 piece. Sold in a box of 20 pcs.*

AIRTECH CAP

81030

TECHNICAL DATA

Type: PS59 AIRTECH CAP
Usage: All Uses
Material: Nylon, ABS & EVA
Colour: Black
Inner Shell: High Quality Shell for Excellent Protection, Soft Pad for Extra Comfort and Shock Absorption, Fully Vented



ADVANTAGES

- Mid peak (5cm) ideal for all uses
- Hi-Visibility colour for visibility in daylight
- Cooling mesh fabric for increased breathability
- Inner ABS shell and soft pad for shock

MICROPOROUS COVERALL

81040

TECHNICAL DATA

Type: ST40 BIZTEX MICROPOROUS COVERALL TYPE 5/6
Usage: Protection Against Chemical Hazards
Material: BizTech Micro
Colour: White



ADVANTAGES

- Leading design made from microporous material
- Excellent liquid and particulate barrier protection
- Low linting construction for minimal contamination
- Anti-static
- Two-way front zip and sealable front flap
- Elasticated hood, ankles, cuffs and waist



WORK AND HOBBY LIGHTS



ALUMINIUM LIGHT BAR E-4116

100166

TECHNICAL DATA

- LED 3Watt COB
- Material: Aluminum
- Size: 159x32x18mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Silver

* With Two Magnets & Velcro Strip



WORK LIGHT WITH ROTARY BASE E-5542

100169/G

100169/Y

TECHNICAL DATA

- LED 3Watt COB
- Lumens: 200lm
- Material: Plastic
- Size: 130x68x39mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Green

TECHNICAL DATA

- LED 3Watt COB
- Lumens: 200lm
- Material: Plastic
- Size: 130x68x39mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Yellow

* With Two Strong Magnet on Swivel Holder;
With 360° Rotary Dividual Pocket Clip and 360° Swivel Holder



PIVOT WORK LIGHT WITH MAGNETIC BASE E-5503

100167

TECHNICAL DATA

- LED 3Watt COB
- Lumens: 240lm
- Material: Rubber Coated
- Size: 87x55x95mm
- Battery Type: 3xAA
- Light Mode: On/Off
- Colour: Black

* With 360° Rotary Pivot Base; With strong magnet on bottom



ALUMINUM WORK LIGHT E-5545

100168

TECHNICAL DATA

- LED 3Watt COB
- Lumens: 200lm
- Material: Aluminum
- Size: 162x25x15mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Black

* With Strong Magnet in Swivel Hook



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



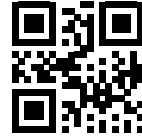
ZOOM FLASHLIGHT E-6605

100172

TECHNICAL DATA

- LED 1Watt
- Material: Rubber Coated
- Size: 115x34mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Black

* Handstrap; Telescopic (ZOOM)



ZOOM FLASHLIGHT E1171

100173

TECHNICAL DATA

- LED Type: CREE XPE
- Lumens: 200lm
- Material: Aluminum
- Size: 150x33mm
- Battery Type: 3xAAA
- Light Mode: High/Low/Strobe/Off
- Light Distance: Zoom in- 250 Meters / Zoom Out- 100Meters
- Colour: Black

* Handstrap



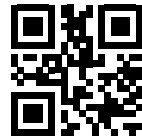
HANDY SPOT FLASHLIGHT RECHARGEABLE E-6630

100174

TECHNICAL DATA

- 7LED
- Material: Plastic
- Size: 150x70x70mm
- Battery Type: Rechargeable battery
- Light Mode: On/Off
- Colour: Black & Yellow

* Direct Charge



MINI KEY LIGHT E-5903

● **100176/BL**

TECHNICAL DATA

- LED 1.5W COB
- Material: Plastic
- Size: 71x34x21mm
- Battery Type: 2xCR2032)
- Light Mode: High/Low/Flash/Off
- Colour: Black

* Strong Back Magnet; Colourful Carabiner

● **100176/B**

TECHNICAL DATA

- LED 1.5W COB
- Material: Plastic
- Size: 71x34x21mm
- Battery Type: 2xCR2032)
- Light Mode: High/Low/Flash/Off
- Colour: Blue



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended



BULB SHAPE PULL LIGHT

● **100175/B**

TECHNICAL DATA

- LED 1W
- Material: Plastic
- Size: 55x55x160mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Blue

● **100175/BL**

TECHNICAL DATA

- LED 1W
- Material: Plastic
- Size: 55x55x160mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Black

● **100175/P**

TECHNICAL DATA

- LED 1W
- Material: Plastic
- Size: 55x55x160mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Pink

● **100175/R**

TECHNICAL DATA

- LED 1W
- Material: Plastic
- Size: 55x55x160mm
- Battery Type: 3xAAA
- Light Mode: On/Off
- Colour: Red



HEADLAMP E-3645

100170

TECHNICAL DATA

- LED 3W COB
- Lumens: 200lm
- Size: 60x42x34mm
- Battery Type: 3xAAA
- Light Mode:
 - > High
 - > Low
 - > Strobe
 - > Off
- Colour: Black



ZOOM HEADLAMP E-3396

100171

TECHNICAL DATA

- 1xXML T6 + 2xCREE XPE
- Lumens: 1200lm
- Size: 59x43mm
- Battery Type: 4xAA
- Light Mode:
 - > 1xT6 On
 - > 2 Sides XPE On/
 - > All On
 - > Strobe
 - > OFF
- Colour: Black



2 YEARS TOTAL WARRANTY
+ 2 standard
0 extended

BATTERIES



M070125
M070117



M070261
M070257



M070284



M070110



M070057



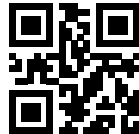
M070236



M070132



Catalogue number	Reference IEC	Type	Series	Voltage (V)	Diameter (mm)	Height (mm)	Packing/Box (pcs)
M070125	LR03	AAA	High energy	1.5	10.5	44.5	1/4
M070117	LR6	AA	High energy	1.5	14.5	50.5	1/4
M070261	LR03	AAA	Max tech	1.5	10.5	44.5	1/4
M070257	LR6	AA	Max tech	1.5	14.5	50.5	1/4



Catalogue number	Reference IEC	Type	Series	Voltage (V)	Diameter (mm)	Height (mm)	Packing/Box (pcs)
M070284	LR1		Professional electronic	1.5	12	30.2	1/1
M070087	LR14	C	Long Life	1.5	26.2	50	1/2
M070113	LR20	AAA	Long Life	1.5	34.2	61.5	1/2
M070057	3R12	4.5V	Super Life	4.5		67	1/1
M070110	LR22	9V	Long Life	9		48.5	1/1



Catalogue number	Reference IEC	Type	Series	Voltage (V)	Diameter (mm)	Height (mm)	Packing/Box (pcs)
M070236	8LR932	A23 GA	Professional electronic	12	10.3	8.5	1/1
M070132	V27A	A27 GA	Professional electronic	12	7.7	28.2	1/1



Catalogue number	Reference IEC	Type	Series	Voltage (V)	Diameter (mm)	Height (mm)	Packing/Box (pcs)
M070011	DL2016	CR2016	Professional electronic	3	20	1.6	1/1
M070220	DL2025	CR2025	Professional electronic	3	20	2.5	1/1
M070221	DL2032	CR2032	Professional electronic	3	20	3.2	1/1
M070259	LR44	V 13 GA	Professional electronic	1.5	11.6	5.4	1/1



FIXINGS AND FASTENERS



TWINFAST THREAD SCREWS FOR DRYWALLS

- For fixings of drywall panels of standard density
- Needle S point: it drills directly metals up to 0.8 mm thick.
- 60° tapping thread.
- Coverings: Phosphated. This covering enables the adherence of the filler putty to the head of the screw.

Catalogue number	Material to be fixed	Outer thread diameter (mm)	Length (mm)	Recess	Point	Thread	Packing/Box (pcs)
M317172	Plasterboard & metal	3.5	25	PH2	Needle	twinfast	1000
M317173	Plasterboard & metal	3.5	35	PH2	Needle	twinfast	1000
M317174	Plasterboard & metal	3.5	45	PH2	Needle	twinfast	1000



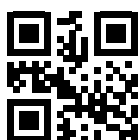
Application: Fixing of plasterboards or isolation panels to metallic profiles of 0.8 mm maximum thickness.



COARSE THREAD SCREWS FOR DRYWALLS

- S needle point: it allows penetrating in soft materials and in metallic materials up to 0.8 mm thickness.
- Covering: phosphated
- Coarse thread: it allows a faster installation.

Catalogue number	Material to be fixed	Outer thread diameter (mm)	Length (mm)	Recess	Point	Thread	Packing/Box (pcs)
M317259	Plasterboard	3.5	25	PH2	Needle	Coarse	1000
M317169	Plasterboard	3.5	35	PH2	Needle	Coarse	1000
M317170	Plasterboard	3.5	45	PH2	Needle	Coarse	1000



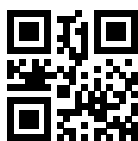
Applications: with double pitch thread, for the proper fixing of plasterboards together or plasterboards to wood.



SELF-DRILLING SCREWS FOR DRYWALLS

- Self-drilling point and tapping thread: for use in metallic materials without pilot hole, up to 3 mm thick.
- Covering: phosphated

Catalogue number	Material to be fixed	Outer thread diameter (mm)	Length (mm)	Recess	Point	Thread	Packing/Box (pcs)
M317300	Plasterboard & metal	3.5	25	PH2	Self-drilling	Tapping	1000
M317301	Plasterboard & metal	3.5	35	PH2	Self-drilling	Tapping	1000
M317302	Plasterboard & metal	3.5	45	PH2	Self-drilling	Tapping	1000



Application: fixing of plaster boards or isolation panels to metallic profiles of 0.8 - 3.0 mm thickness.



SELF-DRILLING SCREW WITH TRUSS WASHER HEAD

- Self-drilling point and tapping thread: for use in metallic materials without pilot hole
- Covering: Zn

Catalogue number	Material to be fixed	Outer thread diameter (mm)	Length (mm)	Recess	Point	Packing/Box (pcs)
M317134	Metal	4.2	13	PH2	Self-drilling	1000
M317135	Metal	4.2	16	PH2	Self-drilling	1000
M317231	Metal	4.2	19	PH2	Self-drilling	1000
M317303	Metal	4.2	25	PH2	Self-drilling	1000



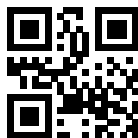
Application: for metal



DRYWALL SCREW WITH WAFER HEAD AND TWINFAST THREAD

- Material: Carbon steel
- Covering: phosphated

Catalogue number	Material to be fixed	Outer thread diameter (mm)	Length (mm)	Recess	Point	Thread	Packing/Box (pcs)
M317230	Metal	4.2	13	PH2	Needle	twinfast	1000
M317241	Metal	4.2	16	PH2	Needle	twinfast	1000
M317313	Metal	4.2	19	PH2	Needle	twinfast	1000
M317314	Metal	4.2	25	PH2	Needle	twinfast	1000



Application: For laminated and metal profiles



CONCRETE SCREW FOR DIRECT MOUNTING

- Material: Carbon steel
- Covering: Zn

Catalogue number	Outer thread diameter (mm)	Length (mm)	Recess	Packing/Box (pcs)
M317136	7.5	72	TX30	100
M317137	7.5	92	TX30	100
M317206	7.5	112	TX30	100
M317139	7.5	132	TX30	100



Application: Suitable for installation of PVC and wooden frames, door frames to concrete or solid brick.



CHIPBOARD (WOOD) SCREW

- Fully threaded
- Covering: Zn

Catalogue number	Material to be fixed	Outer thread diameter (mm)	Length (mm)	Recess	Point	Packing/Box (pcs)
M317001	Wood & Chipboard	3.5	16	PZ2	Needle	1000
M317003	Wood & Chipboard	3.5	20	PZ2	Needle	1000
M317004	Wood & Chipboard	3.5	25	PZ2	Needle	1000
M317005	Wood & Chipboard	3.5	30	PZ2	Needle	1000
M317006	Wood & Chipboard	3.5	35	PZ2	Needle	1000
M317007	Wood & Chipboard	3.5	40	PZ2	Needle	1000
M317012	Wood & Chipboard	4.0	20	PZ2	Needle	1000
M317013	Wood & Chipboard	4.0	25	PZ2	Needle	1000
M317015	Wood & Chipboard	4.0	30	PZ2	Needle	1000
M317014	Wood & Chipboard	4.0	35	PZ2	Needle	500
M317016	Wood & Chipboard	4.0	40	PZ2	Needle	500
M317209	Wood & Chipboard	4.0	50	PZ2	Needle	500
M317210	Wood & Chipboard	4.0	60	PZ2	Needle	500
M317304	Wood & Chipboard	4.5	25	PZ2	Needle	1000
M317020	Wood & Chipboard	4.5	30	PZ2	Needle	1000
M317021	Wood & Chipboard	4.5	35	PZ2	Needle	1000
M317305	Wood & Chipboard	4.5	40	PZ2	Needle	500
M317022	Wood & Chipboard	4.5	50	PZ2	Needle	500
M317023	Wood & Chipboard	4.5	60	PZ2	Needle	500
M317028	Wood & Chipboard	5.0	30	PZ2	Needle	1000
M317030	Wood & Chipboard	5.0	40	PZ2	Needle	500
M317032	Wood & Chipboard	5.0	50	PZ2	Needle	500
M317033	Wood & Chipboard	5.0	60	PZ2	Needle	250
M317048	Wood & Chipboard	5.0	70	PZ2	Needle	250
M317034	Wood & Chipboard	5.0	80	PZ2	Needle	250
M317242	Wood & Chipboard	6.0	50	PZ3	Needle	250
M317040	Wood & Chipboard	6.0	60	PZ3	Needle	250
M317041	Wood & Chipboard	6.0	70	PZ3	Needle	250
M317042	Wood & Chipboard	6.0	80	PZ3	Needle	250





SELF DRILLING SCREW WITH HEXAGON HEAD AND EPDM WASHER

- Material: Carbon steel
- Covering: Zn

Catalogue number	Material to be fixed	Outer thread diameter (mm)	Length (mm)	Point	Packing/Box (pcs)
M317306	Metal	4.8	19	Self-drilling	1000
M317243	Metal	4.8	25	Self-drilling	500
M317126	Metal	4.8	32	Self-drilling	500
M317127	Metal	5.5	25	Self-drilling	500
M317307	Metal	5.5	32	Self-drilling	500
M317308	Metal	5.5	38	Self-drilling	500
M317309	Metal	5.5	50	Self-drilling	500
M317130	Metal	6.3	25	Self-drilling	500
M317310	Metal	6.3	32	Self-drilling	500
M317131	Metal	6.3	38	Self-drilling	500
M317311	Metal	6.3	50	Self-drilling	250
M317312	Metal	6.3	60	Self-drilling	250



Application: Sheet metal to steel construction.



HEXAGON HEAD SCREWS FULLY THREADED

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Grade	Packing/Box (pcs)
M317064	M6	16	5.6	500
M317065	M6	20	5.6	500
M317066	M6	25	5.6	500
M317067	M6	30	5.6	500
M317073	M8	20	5.6	200
M317074	M8	25	5.6	200
M317075	M8	30	5.6	200
M317076	M8	40	5.6	200
M317080	M10	30	5.6	200
M317081	M10	40	5.6	100
M317082	M10	50	5.6	100





CARRIAGE BOLT

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Grade	Packing/Box (pcs)
M317315	M6	20	5.6	500
M317316	M6	30	5.6	500
M317317	M6	40	5.6	200
M317318	M6	50	5.6	200
M317319	M6	60	5.6	200
M317320	M6	70	5.6	200
M317321	M6	80	5.6	200
M317322	M8	30	5.6	200
M317323	M8	40	5.6	200
M317324	M8	50	5.6	200
M317325	M8	60	5.6	200
M317326	M8	70	5.6	200
M317327	M8	80	5.6	200



HEXAGON NUT

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Packing/Box (pcs)
M317152	M6	1000
M317153	M8	1000
M317154	M10	1000



LOCK NUT

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Packing/Box (pcs)
M317145	M6	1000
M317146	M8	500
M317147	M10	500

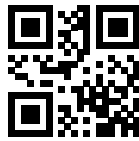




FLAT WASHER

- Material: Carbon steel
- Covering: Zn

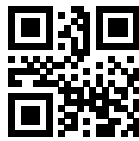
Catalogue number	Thread	Inner diameter (mm)	Outer diameter (mm)	Packing/Box (pcs)
M517076	M6	6.4	12	1000
M317216	M8	8.4	16	1000
M317217	M10	10.5	20	1000



LARGE FLAT WASHER

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Inner diameter (mm)	Outer diameter (mm)	Packing/Box (pcs)
M317236	M6	6.4	18	2500
M517203	M8	8.4	24	500
M317328	M10	10.5	30	250



SPRING-LOCK WASHER

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Inner diameter (mm)	Outer diameter (mm)	Packing/Box (pcs)
M317162	M6	6.1	11.8	1000
M317163	M8	8.1	14.8	1000
M317164	M10	10.2	18.1	1000



EPDM WASHER

- Material: Carbon steel
- Covering: Zn

Catalogue number	For screw with diameter (mm)	Inner diameter (mm)	Outer diameter (mm)	Packing/Box (pcs)
M317329	4.8	5.3	16	500
M317330	4.8	5.3	19	500
M317331	5.5	5.8	16	500
M317332	5.5	5.8	19	500





DROP IN ANCHOR

- Material: Galvanized steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Drill diameter (mm)	Packing/Box (pcs)
M517233	M6	25	8	100
M517234	M8	30	10	100
M517235	M10	40	12	50



Application: For fixing in concrete and hard materials.



SLEEVE ANCHOR

- Material: Galvanized steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Drill diameter (mm)	Grade	Packing/Box (pcs)
M517207	M6	45	8	6.8	100
M517208	M6	60	8	6.8	100
M517209	M8	60	10	6.8	100
M517210	M8	80	10	6.8	100
M517211	M10	70	12	6.8	50
M517212	M10	100	12	6.8	25



Application: For fixing in concrete and solid materials.



HEX NUT ANCHOR

- Material: Galvanized steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Drill diameter (mm)	Grade	Packing/Box (pcs)
M517213	M6	45	8	6.8	100
M517214	M8	60	10	6.8	100
M517215	M8	80	10	6.8	50
M517216	M10	70	12	6.8	50
M517217	M10	100	12	6.8	25



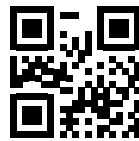
Application: For fixing in concrete and solid materials.



THROUGH BOLT ANCHOR

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Drill diameter (mm)	Grade	Packing/Box (pcs)
M517360	M8	60	8	6.8	100
M517361	M8	80	8	6.8	70
M517362	M10	100	10	6.8	50
M517228	M10	120	10	6.8	45
M517363	M10	160	10	6.8	25
M517364	M12	100	12	6.8	35
M517365	M12	120	12	6.8	30
M517232	M12	140	12	6.8	50



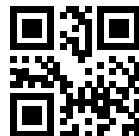
Application: Non-cracked concrete and hard materials. Attaching structural steel, facade, hand rails, racks, elevators, etc.



EYE ANCHOR BOLT

- Material: Galvanized steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Drill diameter (mm)	Grade	Packing/Box (pcs)
M517218	M6	45	8	6.8	100
M517219	M8	60	10	6.8	50
M517220	M10	70	12	6.8	25



Application: For fixing in concrete and solid materials



HOOK ANCHOR BOLT

- Material: Galvanized steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Drill diameter (mm)	Grade	Packing/Box (pcs)
M517221	M6	45	8	6.8	100
M517222	M8	60	10	6.8	50
M517223	M10	70	12	6.8	25



Application: For fixing in concrete and solid materials



FISCHER ULTRA CUT FBS II US

APPLICATIONS

- Pipeline routes
- Suspension for individual pipes
- Suspended mounting rails
- Prestressed concrete hollow core ceilings
- Cable trays
- Ventilation ducts
- Perforated tapes

BUILDING MATERIALS

- Concrete C20/25 to C50/60, cracked and non cracked
- Prestressed hollow concrete ceilings C30/37 to C50/60 for the multiple use of non-load bearing systems
- ETA- approval

Catalogue number	Model	Drill hole diameter d0 (mm)	Min. drill hole depth for through fixings h2 (mm)	Screw length (mm)	Packing/Box (pcs)
MF500460	FBS II 6 x 40/5 US	6	50	40	100
MF500461	FBS II 6 x 60/5 US	6	70	60	100
MF500462	FBS II 8 x 80 30/15 US TX	8	90	10x80	50



FISCHER ULTRA CUT WITH INTERNAL THREAD

APPLICATIONS

- Pipeline routes
- Suspension for individual pipes
- Suspended mounting rails
- Prestressed concrete hollow core ceilings
- Ventilation ducts

BUILDING MATERIALS

- Concrete C20/25 to C50/60, cracked and non-cracked
- Prestressed hollow concrete ceilings C30/37 to C50/60 for the multiple use of non-load bearing systems
- ETA- approval

Catalogue number	Model	Drill hole diameter d0 (mm)	Min. drill hole depth for through fixings h2 (mm)	Screw length (mm)	Packing/Box (pcs)
MF500463	FBS II 6 x 35 M8/M10 I	6	45	35	100
MF500464	FBS II 6 x 55 M8/M10 I	6	65	55	100



UNIVERSAL NYLON WALL PLUGS

- Material: Nylon PA6
- Halogen free

Catalogue number	Diameter (mm)	Length (mm)	Packing/Box (pcs)
M517065	6	30	200
M517298	6	50	100
M517066	8	40	200
M517067	8	60	100
M517064	10	50	100
M517062	10	70	50



Application: Suitable for general light duty fittings.



FISCHER EXPANSION PLUG WITH RIM

APPLICATIONS

- Lighting, Motion detectors
- Skirting
- Letter boxes
- Trellis

BUILDING MATERIALS

- Concrete
- Vertically perforated brick
- Hollow blocks made from lightweight concrete
- Cavity floor slabs made from bricks and concrete
- Perforated sand-lime brick
- Solid sand-lime brick
- Natural stone with dense structure
- Aerated concrete
- Solid panel made from gypsum
- Solid brick made from lightweight concrete

Catalogue number	Model	Anchor length (mm)	Drill hole diameter d0 (mm)	Min. drill hole depth h1 (mm)	Wood and chipboard screws ds (mm)	Packing/Box (pcs)
MF500467	SX 6 x 30	30	6	40	4-5	100
MF500468	SX 6 x 50	50	6	50	4-5	100
MF500469	SX 8 x 40	40	8	50	5x60	50
MF500470	SX 8 x 65	65	8	75	4.5-6	50
MF500471	SX 10 x 50	50	10	70	6-8	50
MF500472	SX 10 x 80	80	10	95	6-8	25
MF500473	SX 12 x 60	60	12	80	8-10	25
MF500474	SX 14 x 70	70	14	90	10-12	25



FISCHER FRAME FIXING

APPLICATIONS

- Facade, ceiling and roof substructures made of wood and metal
- TV consoles
- Kitchen hanging cabinets
- Wardrobes
- Squared timbers
- Windows
- Gates and doors
- Beams

BUILDING MATERIALS

- Vertically perforated brick
- Aerated concrete
- Hollow blocks made from lightweight concrete
- Perforated sand-lime brick
- Thermal insulation blocks
- Solid block made from lightweight and normal weight concrete
- Solid brick
- Solid sand-lime brick
- Concrete ≥C12/15
- Natural stone with dense structure
- Solid panel made from gypsum

Catalogue number	Model	Anchor length (mm)	Drill hole diameter d0 (mm)	Min. drill hole depth for through fixing h2 (mm)	Screws diameter ds (mm)	Min. screw length ls (mm)	Packing/Box (pcs)
MF500475	SXRL 8 x 60	60	8	70	5.5-6	65	100
MF500476	SXRL 8 x 80	80	8	90	5.5-6	85	100
MF500477	SXRL 8 x 100	100	8	110	5.5-6	105	100
MF500478	SXRL 8 x 120	120	8	130	5.5-6	125	100





FISCHER DUOPOWER

APPLICATIONS

- Skirting
- Cable ducts
- Pictures and Decorations
- Soap dishes, Toilet paper holder
- Shower curtain rails
- Letter boxes
- Lighting, Motion detectors
- Signs, House numbers

BUILDING MATERIALS

- Concert
- Solid brick and solid sand-lime brick
- Aerated concrete
- Vertically perforated brick
- Perforated sand-lime brick
- Plasterboard
- Gypsum plasterboard and gypsum fibre-boards
- Hollow blocks made from lightweight concrete
- Cavity floor slabs made from bricks and concrete or similar
- Natural stone
- Chipboard
- Solid panel made from gypsum
- Solid brick made from lightweight concrete

Catalogue number	Model	Anchor length l (mm)	Drill hole diameter d0 (mm)	Min. drill hole depth h1 (mm)	Wood and chipboard screws ds (mm)	Packing/Box (pcs)
MF500479	DUOPOWER 5 x 25	25	5	35	3-4	100
MF500480	DUOPOWER 6 x 30	30	6	40	4-5	100
MF500481	DUOPOWER 6 x 50	50	6	60	4-5	100
MF500482	DUOPOWER 8 x 40	40	8	50	4.5-6	100
MF500483	DUOPOWER 8 x 65	65	8	75	4.5-6	50
MF500484	DUOPOWER 10 x 50	50	10	60	6-8	50
MF500485	DUOPOWER 10 x 80	80	10	90	6-8	25
MF500486	DUOPOWER 12 x 60	60	12	70	8-10	25
MF500487	DUOPOWER 14 x 70	70	14	80	10-12	20



FISCHER DUOTEC

APPLICATIONS

- Kitchen hanging cabinets
- Living room cabinets
- Shelves
- Wardrobes
- Handrails
- Pictures
- Mirrors
- Lamps
- Heavy hanging baskets

BUILDING MATERIALS

- Gypsum plasterboard
- Gypsum fibreboard
- Wooden panels, such as OSB boards, chipboard, MDF sheets
- Steel plates
- Plastic boards
- Hollow blocks made from concrete

Catalogue number	Model	Anchor length l (mm)	Drill hole diameter d0 (mm)	Min. drill hole depth h1 (mm)	Wood and chipboard screws ds (mm)	Packing/Box (pcs)
MF500488	DUOTEC 10	50	10	12-55	4.5-5	50





FISCHER METAL CAVITY FIXING HM WITH METRIC SCREW

APPLICATIONS

- Pictures
- Lighting
- Light shelves
- Towel rails
- Mirror cabinets
- Curtain rails
- Sub-structures

BUILDING MATERIALS

- Gypsum plasterboard and gypsum fibreboards
- Cavity floor slabs
- Light building boards made of wood wool
- Chipboard
- Plywood boards

Catalogue number	Model	Anchor length l (mm)	Drill hole diameter d0 (mm)	Panel thickness dp (mm)	Min. drill hole depth h1 (mm)	Packing/Box (pcs)
MF500457	HM 4x32 S	32	8	3-13	40	50
MF500458	HM 6x52 S	52	12	7-21	58	50



FISCHER PLASTERBOARD METAL PLUGS GKM

APPLICATIONS

- Pictures
- Lighting
- Electrical installations
- Fitting accessories

BUILDING MATERIALS

- Gypsum fibreboard
- Gypsum plasterboard

Catalogue number	Model	Anchor length l (mm)	Min. thickness to first supporting layer t (mm)	Screw ds x ls (mm)	Packing/Box (pcs)
MF500443	GKM	31	35	4-5	100



FISCHER INSULATION FIXING

APPLICATIONS

- Facade construction (ETICS)
- Insulating construction
- Electric construction
- Refrigerated and climate construction

BUILDING MATERIALS

- Non-plastered, pressure-resistant insulating boards
- Plastered, pressure-resistant insulating boards

Catalogue number	Model	Anchor length l (mm)	Min. bolt penetration (mm)	Max. bolt penetration screw (mm)	Wood and chip-board screws ds (mm)	Packing/Box (pcs)
MF500455	FID 50	50	50	40	4-5	50
MF500456	FID 90	90	90	80	6	25





WALL PLUG FOR PLASTERBOARD

• Material: polyethylene

Catalogue number	Type	Color	Bore diameter (mm)	a (mm)	b (mm)	Packing (pcs)
500443	Wall plug for plasterboard	Grey	6-7	30	19	25



PLASTERBOARD PLUGS

• Material: polyethylene

Catalogue number	Drill diameter (mm)	Wall thickness (mm)	Screw size (mm)	Packing/Box (pcs)
M517273	10	10	4.3x40	25
M517274	10	17	4.3x50	25



FRAME FIXINGS PLUGS WITH SCREWS

• Material: PLUG-Nylon PA6; SCREW- Zink-plated steel
• Halogen free

Catalogue number	Plug diameter (mm)	Length(mm)	Packing/Box (pcs)
M317340	8	80	100
M317341	8	100	100
M317342	8	120	50
M317343	10	80	50
M317344	10	100	50
M317345	10	120	50
M317346	10	140	50



Application: Suitable for heavy ribbing ensures a tight hold in aerated blocks



NYLON HAMMER FIX

• Material: PLUG-Nylon PA6; SCREW- Zink-plated steel
• Halogen free

Catalogue number	Plug diameter (mm)	Length (mm)	Packing/Box (pcs)
M517180	6	40	200
M517281	6	50	200
M517282	6	60	200
M517283	6	80	200
M517074	8	60	100
M517284	8	80	100
M517285	8	100	100
M517286	8	120	100



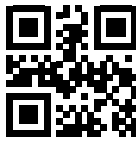
Application: Suitable for fixing skirting, stud battens to wall and long runs of shelf support



FISCHER ANGLE SCREW SET

• SET: 2 pcs

Catalogue number	Model	Plug size (mm)	Screw size (mm)	Packing/Box (pcs)
MF500465	WDL 14L/95	14	8.8/95	2/50
MF500466	WDL 14L/120	14	8.8/120	2/50



FISCHER ANGLE SCREW SET

• Material: PLUG-Nylon PA6; SCREW- Zink-plated steel
• SET: 2 pcs

Catalogue number	Plug size (mm)	Screw size (mm)	Packing/Box (pcs)
M517156	12x60	10x75	1



Application: Suitable for heavy ribbing ensures a tight hold in aerated blocks



HOOK SCREW WITH PLUG

• Material: PLUG-Nylon PA6; SCREW- Zink-plated steel

Catalogue number	Plug size (mm)	Screw size (mm)	Packing/Box (pcs)
M517289	6x30	4x35	100
M517318	8x40	5x42	100



FISCHER SPRING TOGGLE

APPLICATIONS

- Pictures
- Lighting

BUILDING MATERIALS

- Gypsum plasterboard and gypsum fibre-boards
- Cavity floor slabs made from bricks and concrete
- Chipboard
- Plywood

Catalogue number	Model	Anchor length l (mm)	Drill hole diameter d0 (mm)	Panel thickness dp (mm)	Thread Ø x length (mm)	Packing/Box (pcs)
MF500459	KDH 4	95	14	35	M4x70	25

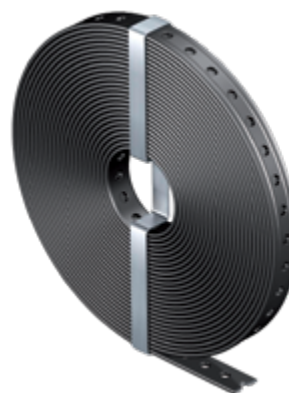




THREADED HANGING ROD

- Material: Carbon steel
- Covering: Zn

Catalogue number	Thread	Length (mm)	Grade	Packing/Box (pcs)
M517079	M6	1000	4.8	100
M517080	M8	1000	4.8	50
M517078	M10	1000	4.8	40



PERFORATED STEEL STRAP WITH PE PLASTIC JACKETING

APPLICATIONS

For securing, supporting and strapping of cable, trunking and ducting.
Use for joist strutting, window frame and sill fixing, fencing repairs and construction, hanging ductwork.

Catalogue number	Model	Width (mm)	Thickness (mm)	Hole diameter (mm)	Length (m)	Packing/Box (pcs)
M318155	5055 L PE I 14	13	3	5.2	10	1



PERFORATED STEEL STRAP IN UNROLLING BOX

APPLICATIONS

For securing, supporting and strapping of cable, trunking and ducting.
Use for joist strutting, window frame and sill fixing, fencing repairs and construction, hanging ductwork.

Catalogue number	Model	Width (mm)	Thickness (mm)	Hole diameter (mm)	Length (m)	Packing/Box (pcs)
M318154	5055 LI12 FS	12	1	5.2	10	1



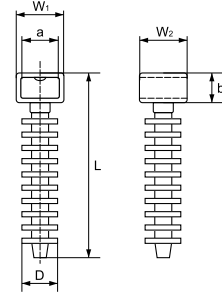
HARDENED STEEL NAILS, SIKO

Catalogue number	Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)
M499108	Siko 16	16	2	100/2000
M499489	Siko 30	30	2	100/1000



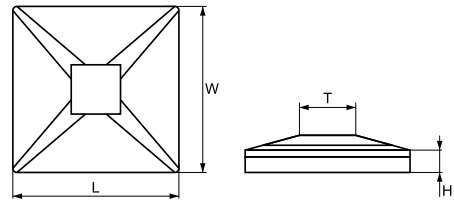
CABLE TIE HOLDER

Catalogue number	Type	Colour	Bore diameter (mm)	Dimensions (mm)					Packing (pcs)	
				a	b	D	W1	W2		L
500046	MT-8	White	8	9.7	6.3	9.9	12.7	12.6	43	100
500047	MT-8	Black	8	9.7	6.3	9.9	12.7	12.6	43	100



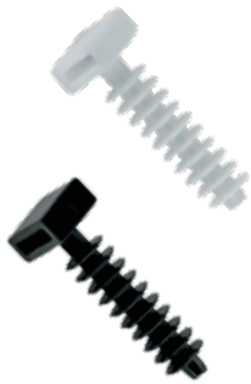
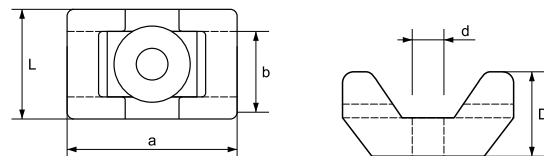
CABLE TIE MOUNTS ADHESIVE

Catalogue number	Type	Colour	Dimensions (mm)				Packing (pcs.)
			L	W	H	T	
500041	MT-25	White	25	25	7.5	6.2	100
500042	MT-25	Black	25	25	7.5	6.2	100
500043	MT-30	White	30	30	8.7	6.4	100
500039	MT-30	Black	30	30	8.7	6.4	100



CABLE TIE BASES FIXED WITH SCREWS

Catalogue number	Type	Colour	Dimensions (mm)					Packing (pcs)
			a	b	L	d	D	
500048	CTH-2C	White	22	16.5	9	5.8	9.5	100
500038	CTH-2C	Black	22	16.5	9	5.8	9.5	100





CABLE TIES - WHITE

Catalogue number	Type	Length (mm)	Colour	Width (mm)	Packing (pcs)	Packing / Box (pcs)
500100	Cable ties	100	White	2.5	100	10/800
500152	Cable ties	150	White	2.5	100	10/500
500162	Cable ties	160	White	2.5	100	10/500
500202	Cable ties	200	White	2.5	100	10/400
500253	Cable ties	250	White	3.5	100	10/250
500283	Cable ties	280	White	3.5	100	10/200
500303	Cable ties	300	White	3.5	100	10/200
500304	Cable ties	300	White	4.8	100	10/120
500373	Cable ties	370	White	3.5	100	10/120
500384	Cable ties	380	White	4.8	100	10/100
500454	Cable ties	450	White	4.8	100	10/70
500507	Cable ties	500	White	7.9	100	5/40



CABLE TIES - BLACK

Catalogue number	Type	Length (mm)	Colour	Width (mm)	Packing (pcs)	Packing / Box (pcs)
500151	Cable ties	150	Black	2.5	100	10/500
500161	Cable ties	160	Black	2.5	100	10/500
500251	Cable ties	250	Black	3.5	100	10/250
500281	Cable ties	280	Black	3.5	100	10/200
500301	Cable ties	300	Black	3.5	100	10/200
500501	Cable ties	500	Black	7.9	100	40



CABLE HOLDER WITH TIE

Catalogue number	Type	Colour	Dissensions (mm)				Packing (pcs)
			a	b	c	d	
500444	Cable holder with tie	Black	27	14	140	0,5	20



WALL PLUG WITH CABLE TIE

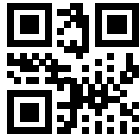
Catalogue number	Type	Colour	Bore diameter (mm)	Tie Length (mm)	Packing (pcs)
500427	Wall plug with cable tie	Black	6	95	50
500425	Wall plug with cable tie	Black	8	95	50





WIRE GRIP BAND FOR FLAT CABLE

Catalogue number	Type	Colour	Bore diameter (mm)	Width of the head	Packing (pcs)
500432	Wire grip band for flat cable 1	White	6-7	18	50
500434	Wire grip band for flat cable 2	White	6-7	12	50
500436	Wire grip band for flat cable 3	White	6-7	10	50



Wire grip band 1 is Suitable for flat cables with section- 2x1.0; 2x1.5mm²
 Wire grip band 2 is Suitable for flat cables with section- 2x2.5; 3x1.0
 Wire grip band 3 is Suitable for flat cables with section- 2x4; 2x6; 3x1.5; 3x2.5mm²



WIRE GRIP BAND FOR ROUND CABLE

Catalogue number	Type	Colour	Bore diameter (mm)	Width of the head	Packing (pcs)
500438	Wire grip band for round cable 4	White	6-7	6	50
500440	Wire grip band for round cable 5	White	6-7	8	50
500439	Wire grip band for round cable 6	White	6-7	10	50
500441	Wire grip band for round cable 7	White	6-7	14	50
500442	Wire grip band for round cable 8	White	8-9	20	50



Wire grip band 4 is Suitable for round cables with section- 2x1.0; 2x1.5; 3x1.0; 3x2.5mm²; RG6
 Wire grip band 5 is Suitable for round cables with section- 2x0.5; 2x0.75; UTP; FTP
 Wire grip band 6 is Suitable for round cables with section- 2x2.5; 3x1.5; 4x1
 Wire grip band 7 is Suitable for round cables with section- 3x6; 4x4; 5x2.5
 Wire grip band 8 is Suitable for round cables with diameter D20mm



CABLE FIXING CLIPS

Support insulators are used in control and distribution cabinets mounting when bars isolation is required.
 Provides reliable insulation of live parts.

TECHNICAL SPECIFICATION

- Rated voltage: 1000V
- Insulating voltage: 5000 V
- Ambient temperature : -40 to +65°C

Catalogue number	Type	Diameter (mm)	Packing (pcs)	Packing/ Box (pcs)
500004	CHR-4	4	100	500
500005	CHR-5	5	100	500
500006	CHR-6	6	100	300
500007	CHR-7	7	100	300
500008	CHR-8	8	100	250
500009	CHR-9	9	100	200
500010	CHR-10	10	100	200
500012	CHR-12	12	100	100
500014	CHR-14	14	100	50
500016	CHR-16	16	100	50





FISCHER FIS AB 300 T

MF500489

- Model: FIS AB 300 T
- Processing time: approx. 5 min at 20 °C
- Curing time: approx. 60 min at 20 °C

APPLICATIONS

- High-performance hybrid mortar for high loads in almost all building materials.
- Fixing pressure-free fastening enables small edge and axis distances
- Injection cartridges can be processed without special extrusion devices incl. 2 static mixers.
- Injection cartridges that are not fully

squeezed out can be reused by changing the static mixer.

- When fixing in solid building materials, the drill hole must be cleaned thoroughly.
- The use of a hollow drill makes conventional drilling cleaning unnecessary.



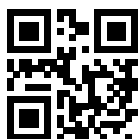
FISCHER INJECTION ANCHOR SLEEVE PLASTIC

BUILDING MATERIALS

- Vertically perforated brick
- Hollow blocks made from lightweight concrete
- Hollow blocks made from concrete
- Perforated sand-lime brick
- Solid sand-lime brick
- Solid brick
- Hollow pumice slabs
- Slabs made of hollow brick and other perforated brick
- Solid pumice and other solid building materials
- ETA-approval



Catalogue number	Model	Drill hole diameter d0 (mm)	Min. drill hole depth h1 (mm)	Effect. anchorage depth hef (mm)	Fill quantity per sleeve (scale unit)	Packing/Box (pcs)
MF500490	FIS H 12X50 K	12	60	50	5	50
MF500491	FIS H 12X85 K	12	95	85	10	50
MF500492	FIS H 16X130 K	16	140	110	15	20
MF500493	FIS H 20X85 K	20	95	85	15	20



Applications: Anchorings in perforated brick masonry with injection mortars.

FISCHER INTUMESCENT ACOUSTIC MASTIC FIAM 310 ML

MF500494

FISCHER FiAM is a one part water based acrylic emulsion that can provide up to 5 hours fire resistance when used in construction joints and services in both vertical and horizontal applications. When exposed to fire, it reacts to form a highly insulative char that slows down heat transfer, and provides a barrier to fire seal. Formulated to be halogen and solvent free the FiAM exhibits excellent slump characteristics and has been designed to maintain the sound reduction index of a structure.

TOP FEATURES

- Up to 5 hours fire resistance
- Movement capability ± 25 %
- Halogen and solvent free
- Low VOC
- Water based

APPLICATIONS

- Metallic pipes: 6" (159 mm)
- Cable trays: 18" x 2" (450 x 50 mm)
- Cable bunches: 3" (80 mm)
- Linear joints: flexible and rigid construction elements
- Joints between FCPS coated panel system

BUILDING MATERIALS

- Flexible wall constructions
- Rigid floor and wall constructions
- Masonry
- Concrete
- Timber
- Steel
- FCPS System





FISCHER INTUMESCENT GRAPHITE MASTIC FIGM 310 ML MF500495

FISCHER Intumescent Graphite Mastic FIGM is a one part water based flexible acrylic emulsion containing a high pressure intumescent graphite which is used to seal service penetrations in both vertical and horizontal applications. Tested to both BS 476 & BS EN1366-3 /4 the FISCHER FIGM is also ETA approved and CE Marked for a wide range of applications such as, non metallic pipes, metallic and insulated pipes, MLC pipes, cables and cable bunches and can also used in combination with the fischer FCPS Coated Panel System.

APPLICATIONS

- Metallic pipes: 6" (159 mm)
- Non-metallic pipes: 5" (125 mm)
- Cable bunches: 1" (21 mm)
- Insulated service: 6" (159 mm)
- Construction joints: 1" (25 mm)
- Mixed services

TOP FEATURES

- Low VOC
- Halogen and solvent free
- Excellent slump characteristics
- Excellent acoustic properties

BUILDING MATERIALS

- Concrete
- Masonry
- Steel
- Timber



PENOSIL GENERAL SILICONE, GOLD SERIES M033128

- Type: General silicone, 310ml
- Colour: Transparent

APPLICATIONS

- Indoor and outdoor applications.
- Sanitary applications.
- Installation and sealing of windows and doors.
- Sealing of ventilation systems.
- Not suitable for aquariums.

TOP FEATURES

- Good adhesive properties.
- Excellent processing and smoothing properties.
- Suitable for slightly alkaline, acidic and metal surfaces.
- Does not cause colour changes on marble or other natural stone surfaces.
- Does not cause corrosion on metal.
- After curing very good temperature resistance (between -60 °C and +200 °C).
- Does not lose volume during the curing process.
- Permanent elasticity.
- Mould, UV, moisture and weather resistant
- Cartridge: 310ml



PENOSIL UNIVERSAL SILICONE, STANDARD SERIES M033129

- Type: Universal silicone, 280ml
- Colour: Transparent

APPLICATIONS

- Insulation and sealing of connections in indoor and outdoor works.
- General construction and repair works.
- Moist and dry rooms.
- All finishing, insulation, glassing works.
- Insulation of window and door frames and light box displays.

M033130

- Type: Universal silicone, 280ml
- Colour: White

TOP FEATURES

- Insulates and seals.
- Non-sagging, does not spread in the joint.
- Excellent processing and smoothing properties.
- Touch-dries quickly.
- Adheres well to wood, glass, ceramic tiles, many plastics, and most paints.
- Elastic.
- UV and weather proof.
- Cartridge: 280ml





PENOSIL SANITARY SILICONE, STANDARD SERIES

M033131

- Type: Sanitary silicone, 280ml
- Colour: Transparent

M033132

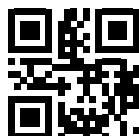
- Type: Sanitary silicone, 280ml
- Colour: White

APPLICATIONS

- Insulation and sealing of connections during indoor works.
- Insulation and sealing of washbasin, bath, shower, swimming pool connections.
- Insulation of water supply, drainage and PVC-pipes.
- Glazing works.

TOP FEATURES

- Excellent processing and smoothing properties.
- Contains fungicides.
- Mould, UV, moisture and weather resistant.
- Touch-dries quickly.
- Non-sagging, does not spread in the joint.
- Adheres well to glass, glazed surfaces, ceramic tiles, many plastics, metals, and most paints.
- Elastic.
- Long storage time.
- Cartridge: 280ml



PENOSIL BITUM SEALANT, PREMIUM SERIES

M033133

- Type: Bitum sealant, 310ml
- Colour: Black

APPLICATIONS

- Insulation of roof and chimney joints.
- Insulation of joints between bituminous plates or rolls.
- Repairing small leakages and open cracks on flat roofs.
- Patching up joint leakages between metal sheets

TOP FEATURES

- Touch-dries quickly.
- Immediately rain and ice resistant.
- Suitable on bituminous materials, alkali and metals.
- Usable on damp surfaces.
- Melting temperature over 100 °C.
- Will not become brittle in cold.
- Can also be used in vertical joints.
- Dissolved acid, alkali, emission and weather resistant.
- High tensile strength
- Cartridge: 310ml



PENOSIL ACRYLIC SEALANT, STANDARD SERIES

M033134

- Type: Acrylic sealant, 280ml
- Colour: White

APPLICATIONS

- Filling of wall cracks and joints.
- Filling the joints between window frames and walls.
- Filling of joints between plasterboards and filling of screw holes.
- Correction of surface defects before painting.

TOP FEATURES

- Comfortable use.
- Low odour level.
- Forms a plastic connection.
- Non-sagging, does not spread in the joint.
- Paintable.
- Good adherence on most building materials.
- Moisture resistant 5 hours after application.
- High UV-level.
- Cartridge: 280ml





PENOSIL FOAM, STANDARD SERIES

M033135

• Type: Foam, 750ml

M033136

• Type: Foam, 300ml

APPLICATIONS

- Filling of holes and gaps, insulation of joints
- Installation and insulation of construction structures
- Insulation and fixation of pipes
- Thermo and sound insulation



M033137

• Type: Gun foam, 750ml

TOP FEATURES

- Good filling properties.
- Good foam for interior and exterior works under normal conditions.
- Good adherence on various building materials.
- Usable with the delivered straw applicator.
- Easy to use.
- The new and narrower straw ensures better foam structure and higher output.
- The new trigger is suitable for temporary air-tight sealing of the straw during work pauses.



PENOSIL FOAM CLEANER, PREMIUM SERIES

M033138

• Type: Foam cleaner, 500ml

TOP FEATURES

- Efficiently cleans uncured construction foam from foam gun, clothes, adjacent surfaces.
- Suitable for immediate cleaning of a foam gun from inside after use.



APPLICATIONS

- Cleaning of foam gun after use both inside and outside.
- Cleaning of clothes and tools from uncured construction foam.
- Cleaning of window frames, window sills, doors, jambs, etc. From uncured construction foam during work.



PENOSIL FOAM GUN 306

M033139

• Type: Foam gun 306 economical

APPLICATIONS

- The budget version of the gun known brand PENOSIL for use with professional foam.





SOLAR POWER SYSTEMS AND GENERATORS

- SOLAR PANELS
- MOUNTING STRUCTURES ELEMENTS & SETS
- SOLAR BATTERIES AND ACCESSORIES
- SOLAR INVERTERS
- SOLAR POWER SYSTEM SETS
- CHARGING STATIONS
- GENERATORS





USE OF SOLAR ENERGY

Choice with perspective

The sun is the largest renewable energy resource that has the potential to nourish life on earth and provide clean and sustainable energy. The fact is that more energy from the sun reaches our planet in an hour than is used by the entire population of the world in a year. This energy is the most reliable and alternative source of exhaustible land resources, with the difference that it is completely free.

The constant improvement of technology and the reduction in the prices of products using solar energy worldwide make the idea of self-producing energy and its use for home more and more attractive and, in recent years, more profitable. The reasons for a person to think and take such a step are becoming more numerous and convincing.



Add value to your home

Building a solar energy system will inevitably add value to your home. In case one day you decide to sell, this would be a solid argument for any buyer to choose your property over one without a solar system.



REDUCE DRASTICALLY YOUR ELECTRICITY BILLS

Whether you own a small home or a business, the electricity bill is a significant monthly expense. The use of sunlight to produce energy can partially reduce this cost or even turn it off completely. Considering the long life of modern solar equipment, which is an average of 25 years, the prospect of building a solar system to power our milliseconds has taken us into account in the electricity bills and in its long-term purity. Given volatile and constantly rising electricity prices, this gives you the certainty and predictability of spending for years to come.

USE 100% CLEAN ENERGY

Solar energy is a 100% clean and renewable energy source. It reduces the need for and dependence on exhaustible sources such as oil, natural gas and solid fuels for the production of electricity. The use of fossil fuels emits harmful emissions that affect air, water and soil quality and are responsible for global warming. On the other hand, the sun is an unlimited source of energy, the use of which in no way affects the environment. Residential solar energy systems represent an investment in the future of the planet, preserving non-renewable energy sources and protecting the environment.



TYPES OF SOLAR SYSTEMS

WHICH SYSTEM MEETS MY NEEDS

Solar systems can be divided into three main groups:



AUTONOMOUS PHOTOVOLTAIC SYSTEM (OFF-GRID)

for locations without a built-in power supply



GRID CONNECTED SOLAR SYSTEM (ON-GRID)

for locations with a built-in power supply



HYBRID SOLAR SYSTEM

for places with and without power supply with the possibility of storing electricity

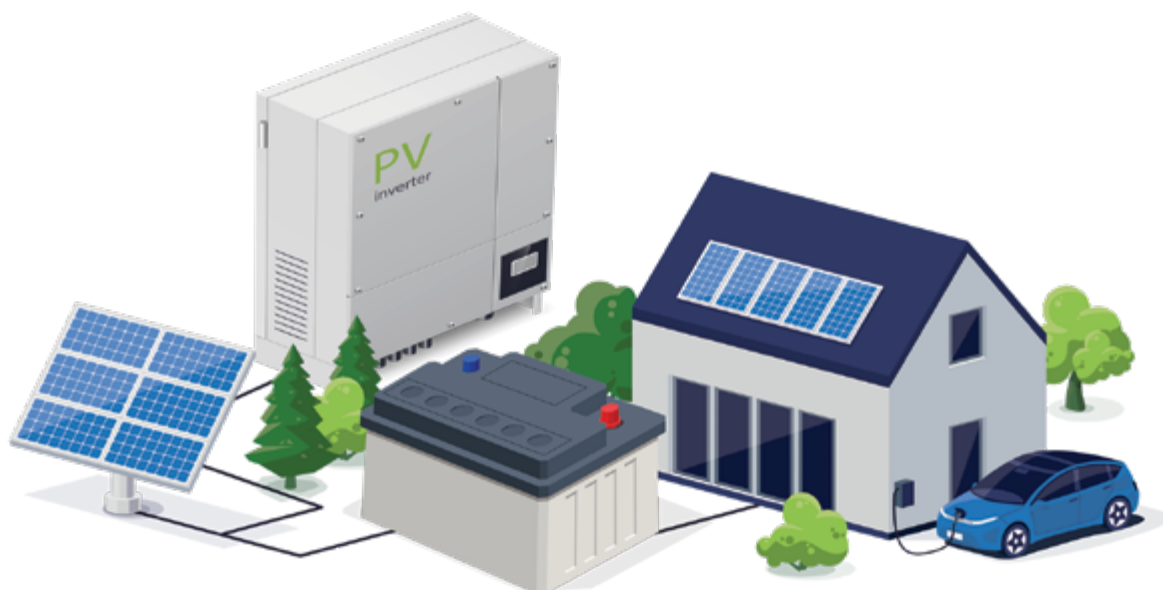
AUTONOMOUS SOLAR SYSTEM

(OFF-GRID) from 300 to 2 000W

These systems are an ideal solution for independent power supply with power from 300W to 2000W for places where it is inaccessible or unreliable. They can be used to power various consumers in the home, cottage, camper or caravan, without the need for an existing electrical grid.

Typically, these systems are made up of four main elements:

- » Solar panels
- » Deep discharge battery
- » Inverter



The principle of operation of the autonomous solar system is as follows: During daylight hours, solar panels produce electricity stored in the battery(s) connected to the system. In order for this energy to be used in bits, the inverter converts the constant voltage from the battery into variable before submitting it to consumers. This results in a completely self-contained appliance power system without the need for power grid.

There are some differences between the **autonomous solar systems offered by ELMARK**. For example, sets up to 2kW are extremely mobile and convenient to transport and connect even for people without technical knowledge. The inverter and battery are built into the unit housing, and separately only the solar panel we offer in a convenient transport bag. The appliance can be charged in 3 different ways: from the electricity grid, from the lighter of the car and from the solar energy, making it a multi-functional energy station.

All capacities above 2000W are available as sets of inverter, the required number of solar panels and battery.

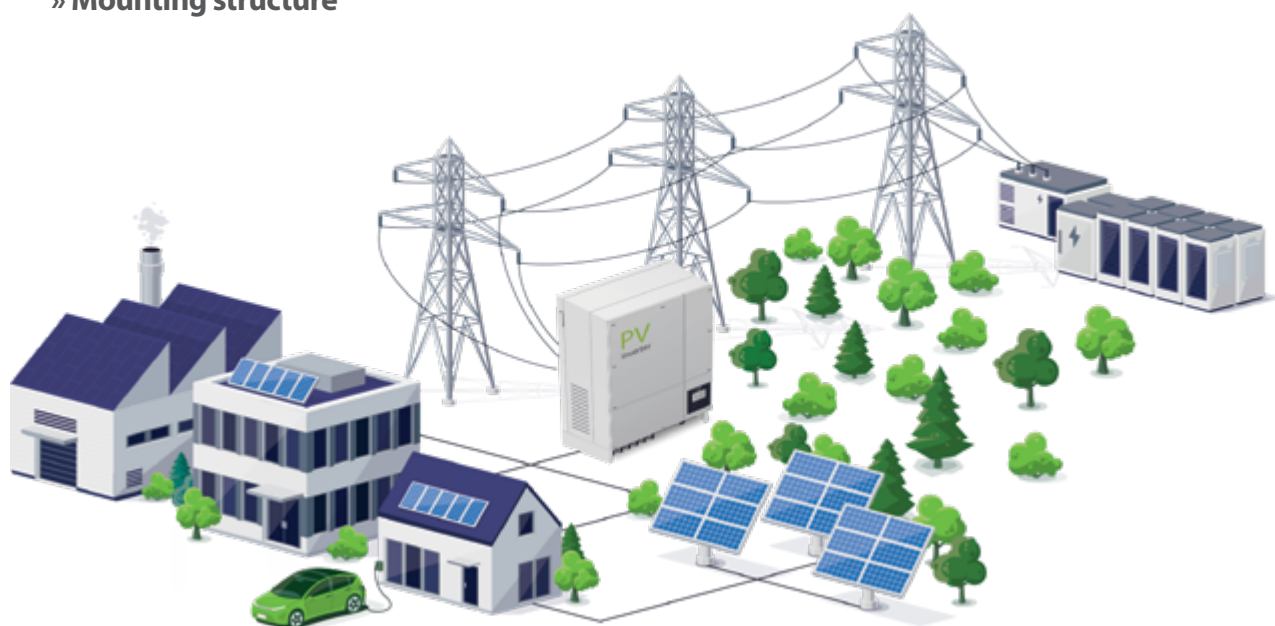
GRID-TIED SOLAR SYSTEM (ON-GRID) from 3600 to 110 000W

This is the most common type of solar power generation system offered by ELMARK with capacity from 3.6 to 110kW.

For the operation of the system it is necessary to have a power supply on site.

Typically, these systems are made up of three main elements:

- » **Solar panels**
- » **ON-GRID inverter**
- » **Mounting structure**



The principle of the work of the network photovoltaic system is as follows: When grid voltage is available, during daylight hours, the solar panels produce electricity that is converted by the grid inverter and fed into the grid. This system does not use a battery to store the electricity produced.

These systems are preferred for the construction of solar **plants for the purpose of selling electricity or building a network system to directly power consumers** during the day, in places where there is electricity and the main consumption is daily. Their principle of operation makes them extremely suitable for partial reduction or complete disconnection of power substations. Given the size of the solar system built and the total electricity consumption during daylight hours, the following two scenarios are possible:

1



The system to produce less energy than used

When a photovoltaic system is installed with a certain capacity and consumption exceeding the capacity of the system, the difference is taken from the grid. This leads to a reduction in the monthly bill, depending on the difference between energy produced and consumed. *For example, if we have a photovoltaic system built with a power of 5 kW and an average consumption of 8 kW, then the bill will be reduced by about 50%. And so: the consumption of 8 kW is distributed from around 5 kW of instantaneous production from the grid system and 3 kW from the power grid.*

2



The system to produce more energy than consumed

In a photovoltaic system with a certain power and average consumption lower than the produced one. In this case, if the consumer has a power purchase agreement with the local electricity distribution company, they can feed the energy back into the grid at a set tariff. If there is no contract in place, the excess energy remains unused and must be prevented from being fed back into the grid because it will be billed as used. This is achieved through a Smart Meter offered by ELMARK, connected upstream of the meter installed by the distribution company.

The conclusion of a contract with the local electricity distribution company to buy excess electricity produced during the day is key to systems built in private homes, where family members are absent during daylight hours and the consumption of electricity during the day is significantly lower than the one produced. The energy produced and sold compensates financially for consumption in the dark part of the day, when energy is used entirely from the transmission network. In addition to home, signing a contract for the purchase of energy is also important for business, which will inevitably improve monthly electricity bills.



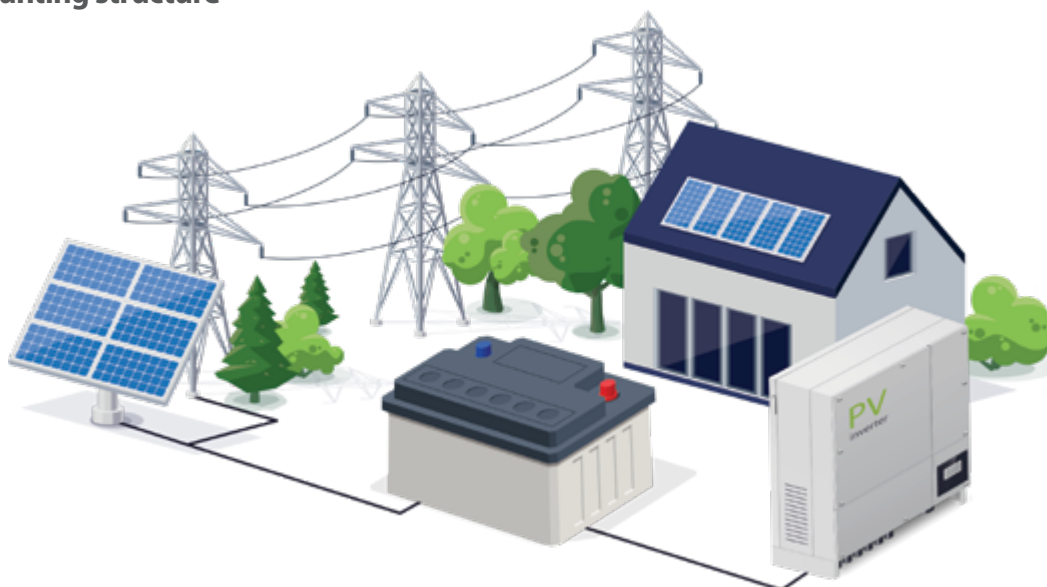
HYBRID SOLAR SYSTEM

from 3600W to 100000W

This is a combined variant of the first two systems, gaining increasing popularity and harnessing the energy produced in the most rational way offered by ELMARK with capacity from 3.6kW to 10kW.

Typically, these systems are made up of four main elements:

- » **Solar panels**
- » **Hybrid inverter**
- » **Deep discharge battery**
- » **Mounting structure**



The principle of operation of the system is determined entirely by the inverter, which can work in one of your chosen three modes:

1

As an autonomous solar inverter

This automatically converts the system into an autonomous system. Depending on the inverter used, the energy produced can be stored in a rechargeable battery or used directly to power various consumers. The priority in this mode is the energy produced by the solar panels. The inverters are provided with an input and a power supply from the power transmission network and in the event of a deficiency of power from the photovoltaic panels and the battery, take the necessary amount of electricity from the grid

2

As a grid connected solar inverter

They pass the electricity produced directly to consumers and do not use a battery. They only work when electricity grid voltage is available.

3

Combined mode

They use the energy produced by the solar panels, the battery and the electricity grid. Here, the priority remains to use the energy produced by the modules, then by the accumulators and only then by the grid in case of the insufficiency of the first two.

This is the most optimal option for using the energy produced, because first the consumers are energized, if there is an excess of energy the batteries are energized and once they are charged, the excess can be returned for sale to the energy company

WHAT IS THE NORMAL SERVICE LIFE

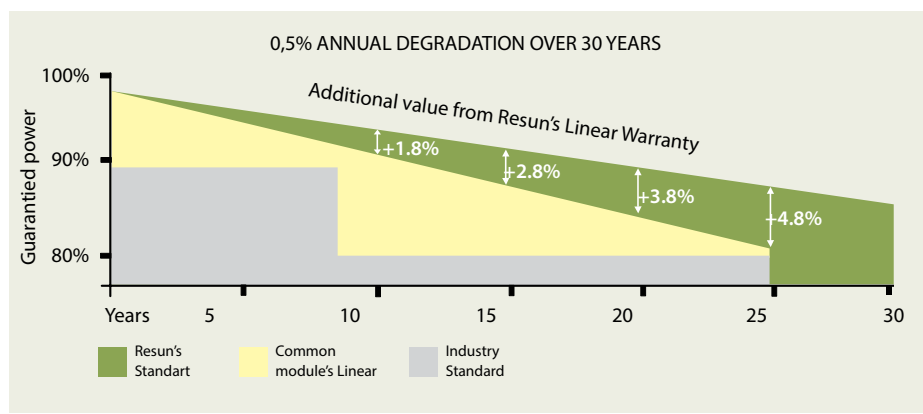


up to 30 years operational

The life and normal operation of modern solar panels has been proven to be between 25-30 years. So you can be sure that they will continue to produce energy for a period of several decades. The decline in their production in 20 years will be less 20%, given that the decrease in the productivity of one panel in one year does not exceed 1%.



15 years warranty




up to 5 years return on investment

The other main component in the system is the inverter, **which converts the constant current voltage into variable voltage**. The SOLIS inverters offered by ELMARK are proven on the market for their reliability and we offer them with a warranty of 7 years with the possibility of its extension up to 15 years. This ensures the certainty and reliability of the initial investment made in the long term. Given that the system is paid **for a period of about 5 years** from its installation, for the remaining period the saved resource is at times more than the possible costs that would arise.

HOW LONG IT PAYS OFF

This is perhaps the most important issue that excites every single person. Naturally, this cannot be determined precisely, given factors such as - system power, consumption of different appliances, will unused energy be sold, the price of kW/h offered by each electricity distribution company, future changes in their prices, etc. As you can see, there are many factors, but the undeniable fact is that the construction of a photovoltaic system largely gives you greater certainty and predictability of electricity bills.

FOR RESIDENTIAL SUBSCRIBERS

Assuming that the system we want to build will be grid connected (ON-GRID), it will have a power of 5kW. We do not want to sell the surplus energy. We estimate that the consumption/production of energy in the daylight is about 4,25kW, the average duration of solar heating from 5h to the average daily annual base, the price for kW/h of 0,21 EUR and the investment of about 5 318 EUR, including solar system, assembly structure, additional costs for electrical materials installation - the payout period will be about 4 years.

SAVED AMOUNT PER DAY (S)

$$S = a \times P \times T$$

P = 4,25 kW of power produced and consumed, including 15 % losses on the system at an average annual basis

T = 4,5 h duration of sunshine

$$S = 0,21 \times 4,25 \times 4,5 = 4,02 \text{ EUR}$$

that is, the daily amount saved S will amount to EUR 4.02

SAVED AMOUNT FOR YEAR (Y)

$$Y = S \times 365$$

$$S = 4,02 \text{ EUR}$$

$$Y = 4,02 \times 365 = 1467,30 \text{ EUR}$$

(amount saved per year)

PAYOUT PERIOD (Q)

$$Q = I / Y$$

I = 5 318 EUR investment

Y = 1 467,30 EUR amount saved per year

$$Q = 5318 / 1467,30 = 3,63 \text{ years}$$

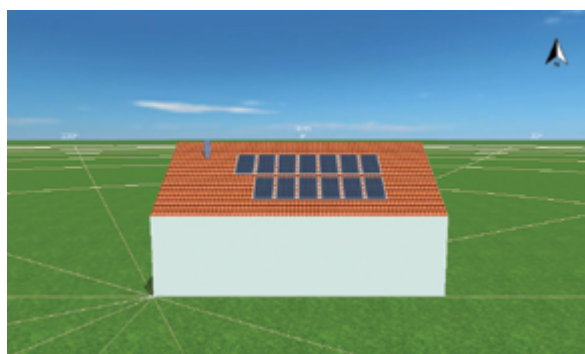
system will be paid for about

44 months (3 years and 8 months)

ELMARK offers the preparation of an individual project, including all the necessary elements for the construction of a solar system, completely free of charge. On our website www.elmarkholding.eu, you can fill in a form for preparing an individual project by filling in and sending the parameters specified therein. We will prepare you a project and an offer. Each project provides a detailed financial analysis of the cash flow for a period of 15 years, showing in detail the period of payment of the system, according to specified individual parameters. The project shown below tracks the financial flow of a 5kW single-phase solar system.

PROJECT OF A 5KW SINGLE-PHASE SOLAR SYSTEM

- » Climatic data - Dobrich, BGR
- » Solar system power - 5.12 kWp
- » Total area of the solar array - 25 m²
- » Number of photovoltaic modules - 11
- » Photovoltaic module power - 465W
- » Number of inverters - 1



Cash flow for residential subscribers

	Year 1	Year 2	Year 3	Year 4	Year 5
Investments	-5 318,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR
Tariff	1 270,64 EUR	1 389,01 EUR	1 375,26 EUR	1 361,64 EUR	1 348,16 EUR
Annual cash flow	-4 047,36 EUR	1 389,01 EUR	1 375,26 EUR	1 361,64 EUR	1 348,16 EUR
Accumulated cash flow (cash balance)	-4 047,36 EUR	-2 658,35 EUR	-1 283,10 EUR	78,54 EUR	1 426,70 EUR

Cash flow for residential subscribers

	Year 6	Year 7	Year 8	Year 9	Year 10
Investments	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR
Tariff	1 334,81 EUR	1 321,59 EUR	1 308,51 EUR	1 295,55 EUR	1 282,73 EUR
Annual cash flow	1 334,81 EUR	1 321,59 EUR	1 308,51 EUR	1 295,55 EUR	1 282,73 EUR
Accumulated cash flow (cash balance)	2 761,51 EUR	4 083,10 EUR	5 391,61 EUR	6 687,17 EUR	7 969,89 EUR

Cash flow for residential subscribers

	Year 11	Year 12	Year 13	Year 14	Year 15
Investments	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR
Tariff	1 270,03 EUR	1 257,45 EUR	1 245,00 EUR	1 232,67 EUR	1 220,47 EUR
Annual cash flow	1 270,03 EUR	1 257,45 EUR	1 245,00 EUR	1 232,67 EUR	1 220,47 EUR
Accumulated cash flow (cash balance)	9 239,92 EUR	10 497,37 EUR	11 742,37 EUR	12 975,05 EUR	14 195,52 EUR



FOR NON-RESIDENTIAL (BUSINESS) SUBSCRIBERS

Assuming that the system we want to build will be grid connected (ON-GRID), it will have a power of 15kW and we do not want to sell the excess energy. We estimate that energy consumption/production in daylight is about 10kW, with an average duration of sunshine of 5h on average per day per year, a kW/h price of 0.31 EUR and an investment of about 12 783 EUR, including solar system, installation structure, additional costs for electrical materials and installation - the payout period will be about 2,5 years.

SAVED AMOUNT PER DAY (S)

$$S = a \times P \times T$$

a = 0,31 EUR purchase price of electricity per kW/h, including transmission of electricity

P = 10 kW power consumption

T = 5 h duration of sunshine

$$S = 0,31 \times 10 \times 5 = 15,50 \text{ EUR}$$

that is, the daily amount saved S will amount to EUR 15,50

SAVED AMOUNT FOR YEAR (Y)

$$Y = S \times 365$$

$$S = 15,50 \text{ EUR}$$

$$Y = 15,50 \times 365 = 5\,657,50 \text{ EUR}$$

(amount saved per year)

PAYOUT PERIOD (Q)

$$Q = I / Y$$

I = 12 783 EUR investment

Y = 5 657,50 EUR amount saved per year

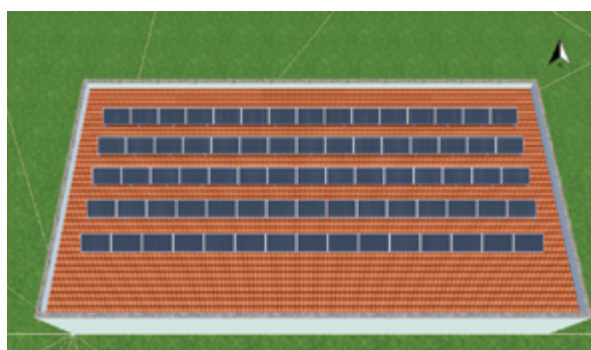
$$Q = 12\,783 / 5\,657,50 = 2,26 \text{ years}$$

System will be paid for about 27 months (2 years and 3 months).

ELMARK offers the preparation of an individual project, including all the necessary elements for the construction of a solar system, completely free of charge. On our website www.elmarkholding.eu, you can fill in a form for preparing an individual project by filling in and sending the parameters specified therein. We will prepare you a project and an offer. Each project provides a detailed financial analysis of the cash flow for a period of 15 years, showing in detail the period of payment of the system, according to specified individual parameters. The project shown below tracks the financial flow of a 30kW three-phase solar system.

PROJECT OF A 30KW THREE-PHASE SOLAR SYSTEM

- » Climatic data - Dobrich, BGR
- » Solar system power - 30.23 kWp
- » Total area of the solar array - 144.2 m²
- » Number of photovoltaic modules - 65
- » Photovoltaic module power - 465W
- » Number of inverters - 1



Cash flow for business subscribers

	Year 1	Year 2	Year 3	Year 4	Year 5
Investments	-28 318,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR
Tariff	11 043,82 EUR	12 086,87 EUR	11 967,20 EUR	11 848,71 EUR	11 731,40 EUR
Annual cash flow	-17 274,18 EUR	12 086,87 EUR	11 967,20 EUR	11 848,71 EUR	11 731,40 EUR
Accumulated cash flow (cash balance)	-17 274,18 EUR	-5 187,30 EUR	6 779,90 EUR	18 628,61 EUR	30 360,01 EUR

Cash flow for business subscribers

	Year 6	Year 7	Year 8	Year 9	Year 10
Investments	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR
Tariff	11 615,25 EUR	11 500,25 EUR	11 386,38 EUR	11 273,64 EUR	11 162,02 EUR
Annual cash flow	11 615,25 EUR	11 500,25 EUR	11 386,38 EUR	11 273,64 EUR	11 162,02 EUR
Accumulated cash flow (cash balance)	41 975,26 EUR	53 475,50 EUR	64 861,89 EUR	76 135,53 EUR	87 297,55 EUR

Cash flow for business subscribers

	Year 11	Year 12	Year 13	Year 14	Year 15
Investments	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR	0,00 EUR
Tariff	11 051,51 EUR	10 942,09 EUR	10 833,75 EUR	10 726,49 EUR	10 620,28 EUR
Annual cash flow	11 051,51 EUR	10 942,09 EUR	10 833,75 EUR	10 726,49 EUR	10 620,28 EUR
Accumulated cash flow (cash balance)	98 349,06 EUR	109 291,15 EUR	120 124,90 EUR	130 851,39 EUR	141 471,67 EUR



PREPARATION OF DESIGN AND INSTALLATION OF SOLAR SYSTEM

Regardless of the power, function and application of each photovoltaic system, its proper design plays a key role in its production efficiency and underpins good investment.

The need to design a project and choose the right partner for this is perhaps the most important and difficult time for anyone involved in such an endeavor. For this reason, we have taken steps and can provide full assistance in the construction of your solar installation. You can rely on ELMARK for:



Advice

Whether you have a hesitation about what type of solar system to choose, any power, you can rely on professional advice from us. After specifying the type and with what indicative power you want to build your photovoltaic system, we can cook a project.



Request for project preparation

A request for the draft could be submitted via a special form on the company's official www.elmarkholding.eu. Each customer will receive an example project, including all the necessary elements to build the solar system, without having to contact an employee of the company.



Making an offer

After final specification of the initial project, we will prepare a personalized offer including everything you need for the construction of the solar system.



Transport to the installation site

After confirmation of the offer, we undertake to deliver the materials ordered by you to the place of installation of the system.

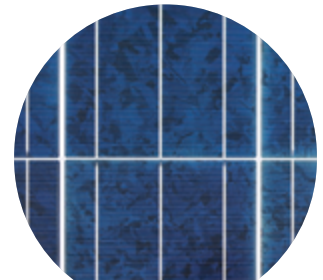
DESCRIPTION OF THE MAIN ELEMENTS

PHOTOVOLTAIC MODULES (PANELS) 465W AND 560W

The photovoltaic modules offered by ELMARK are monocrystalline, with each cell made of a single silicon crystal. This technology is superior to polycrystalline panel technology made up of multiple formed silicon crystals. The main advantages of monocrystalline technology are better efficiency and appearance. The easiest visual way to determine which of the two types a solar panel is the hue of the solar cells. In single crystals the hue is black and in polycrystals it is bluish.



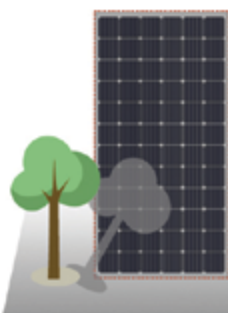
monocrystalline



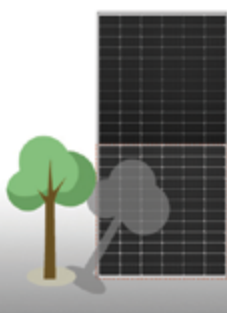
polycrystalline

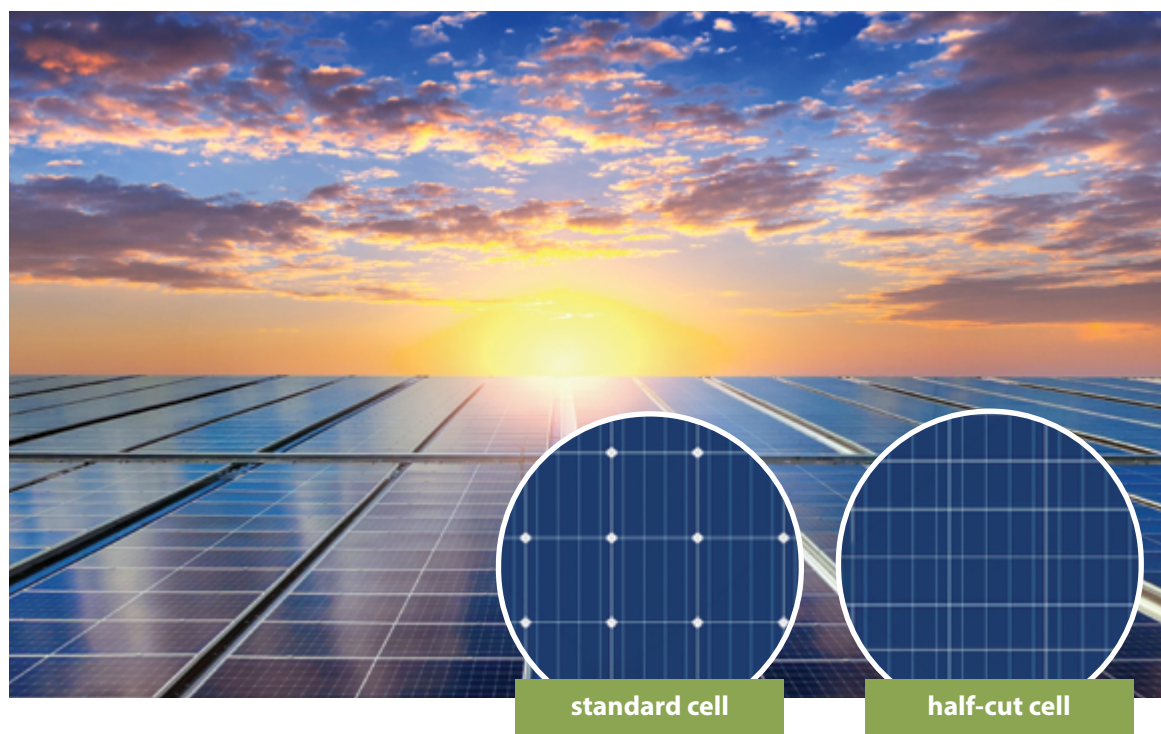
In addition to the type of silicon cells, whether the solar panel is double (HALF CUT CELL) or single affects the efficiency. **The panels offered by ELMARK are double (HALF CUT CELL) panels**, which outperform traditional single panels in partial shading in a specific area of the panel. Productivity is reduced only in the shaded part. The other half continues to produce power at its full capacity, as an independent. In traditional panels, when even a small portion of its entire area is shaded, the performance of the entire panel is reduced.

Standard Module



Half Cell Module





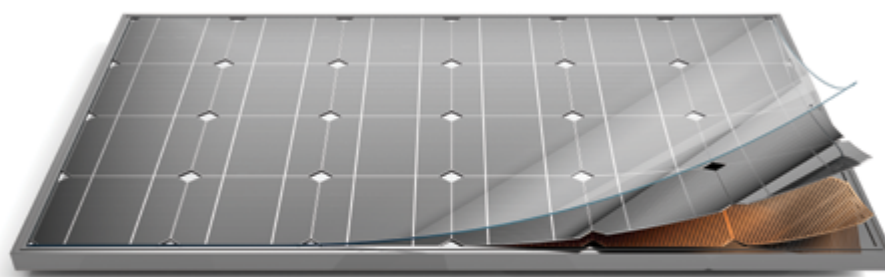
standard cell

half-cut cell

Another significant reason for the higher productivity of the double photovoltaic module compared to the single one is the smaller size of the cells, at the expense of their quantity. The smaller size reduces the current values, resulting in a reduction of the „hot spot“ effect leading to overheating. The lower temperature reduces the risk of mechanical stress and micro cracks on the panel, and the higher cell numbers leads to higher performance.

The surface layer of the 465W and 560W solar panels offered by us are coated with only cleaning glass, which significantly reduces the amount of dust on the panel surface, leading to a reduction in their performance. Photovoltaic modules have excellent efficiency in low sunlight - early morning or in cloudy weather and withstand wind loads of 2400Pa and snow loads of 5400Pa.

The solar panels offered by ELMARK are highly efficient, reaching a value of 21,66%, in contrast to the widespread standard solar panels on the market, which barely exceed an efficiency of 20%.



SOLAR PANEL 465W, RESUN

FULL WARRANTY | 15 YEARS

PANEL LIFETIME | 30 YEARS

EFFICIENCY 21.39%

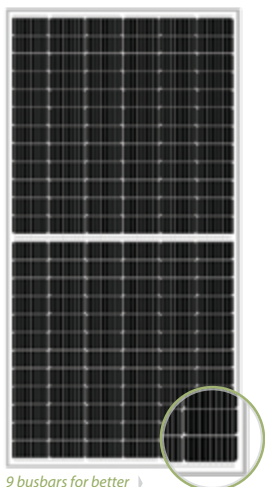


Half-cell high-efficiency solar panel is cutting cells one divides into two, it could reduce thermal resistance, improve output power 5-10W. It could meet 1500V whole system voltage design demand and reduce whole system cost 10%. In comparison to full solar cell modules, this one cells sub-fissure, power attenuation and sunshine occlusion is more lower and excellent high temperature character. It is the best choice for large ground power station projects.

TECHNICAL DATA

- Peak power (Pmax): 465W
- Maximum supply voltage (Vmp): 42,09V
- Maximum power current (Imp): 11,05A
- Open circuit voltage (Voc): 49,9V
- Short-circuit current (Isc): 11,82A
- Module efficiency (%): 21.39
- Annual degradation: ≤ 0,5%
- First year degradation: ≤ 0,5%
- Maximum system voltage (V): 1500 VDC
- Rated operating temperature of the module: 45±2°C

- Cell type: Mono-crystalline
- Distribution box on the panel: IP68
- Connector: Compatible with MC4
- Frame material: anodised aluminum alloy type
- Number of cells: 144 cells (6x12+6x12)
- Maximum load: 5400 Pascal
- Maximum snow load: 5400 Pascal
- Maximum wind load: 2400 Pascal
- Dimensions HxWxD: 2094x1038x35mm
- Weight (kg): 25



9 busbars for better reliability

TEMPERATURE CHARACTERISTICS

- Nominal Module Operating Temperature (NMOT): 45°C±2°C
- Temp. Voc coefficient (TK Voc): -0,32% /°C
- Temp. Isc coefficient (TK Isc): 0,05% /°C
- Temp. Coefficient of Pmax (TK Pmax): -0,37% /°C
- Ambient temperature: -40°C+85°C

CERTIFICATES

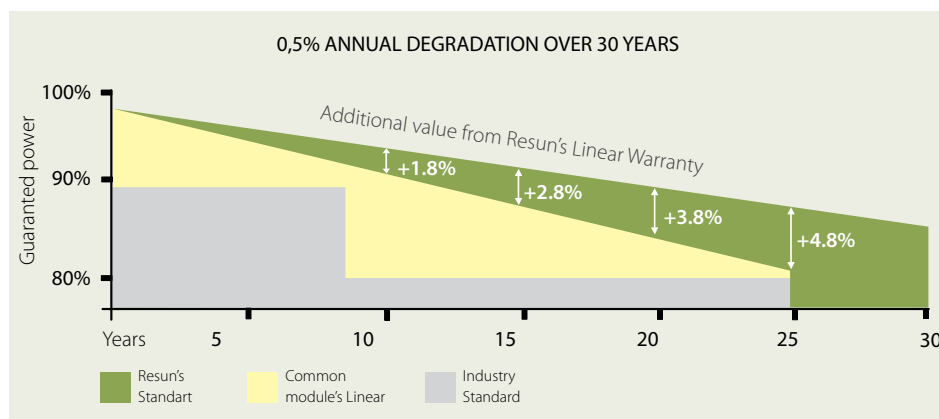
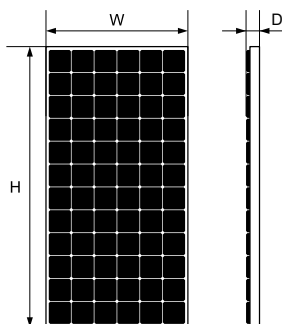
- CE
- TUV
- PID-FREE
- IEC61215/ 61730/ 61701/ 62716



Note: the specifications are obtained under the standard test conditions (STCs): 1000 W/ m² solar radiation, 1,5 air mass and 25 °C cell temperature.

This product meets all the technical requirements set by the European Union for the construction of solar systems.

Catalogue number:
98SOL465M



BALLAST MOUNTING STRUCTURES SET 15° FOR FLAT ROOF OR GROUND FROM 3.6 TO 30KW WITH 465W SOLAR PANELS, SET

Solar system (kW)	Catalogue number with panel 465W
3.6	42346536B/EW
5	4234655B/EW
6	4234656B/EW
8	4234658B/EW
10	42346510B/EW
15	42346515B/EW
20	42346520B/EW
30	42346530B/EW

BALLAST MOUNTING STRUCTURES SET 15° FOR TIN ROOF FROM 3.6 TO 30KW WITH 465W SOLAR PANELS AND ROOF SLOPE UP TO 15 DEGREES, SET

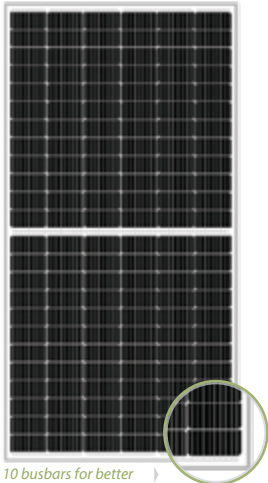
Solar system (kW)	Catalogue number with panel 465W
3.6	42346536DR/EW
5	4234655DR/EW
6	4234656DR/EW
8	4234658DR/EW
10	42346510DR/EW
15	42346515DR/EW
20	42346520DR/EW
30	42346530DR/EW

SOLAR PANEL 560W, RESUN

- FULL WARRANTY | **15 YEARS**
- PANEL LIFETIME | **30 YEARS**
- EFFICIENCY | **21.66%**



Solar panel Resun 560W is a robust solar module with 144 solar cells. These modules can be used for on-grid solar application. Resuns meticulous design and production techniques ensure a high-yield, long-term performance for every solar plant. Resuns rigorous quality control and in-house testing facilities guarantee solar modules meet the highest quality standard possible.



10 busbars for better reliability

TECHNICAL DATA

- Peak power (Pmax): 560W
- Maximum supply voltage (Vmp): 42,40V
- Maximum power current (Imp): 13,21A
- Open circuit voltage (Voc): 50.60V
- Short-circuit current (Isc): 13,99A
- Module efficiency (%): 21.66
- Annual degradation: ≤ 0,5%
- First year degradation: ≤ 0,5%
- Maximum system voltage (V): 1500 VDC
- Rated operating temperature of the module: 45±2°C

- Cell type: Mono-crystalline
- Distribution box on the panel: IP68
- Connector: Compatible with MC4
- Frame material: Anodised aluminum alloy type
- Number of cells: 144 cells (6x12+6x12)
- Frame material: Anodised aluminum alloy type
- Maximum load: 5400 Pascal
- Maximum snow load: 5400 Pascal
- Maximum wind load: 2400 Pascal
- Dimensions HxWxD: 2279x1134x35mm
- Weight (kg): 29

TEMPERATURE CHARACTERISTICS

- Nominal Module Operating Temperature (NMOT): 45°C±2°C
- Temp. Voc coefficient (TK Voc): -0,32% /°C
- Temp. Isc coefficient (TK Isc): 0,05% /°C
- Temp. Coefficient of Pmax (TK Pmax): -0,37% /°C
- Ambient temperature: -40°C+85°C

CERTIFICATES

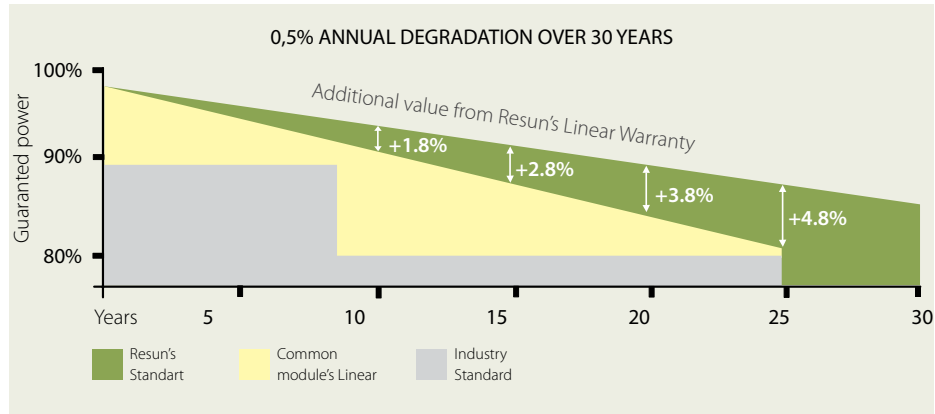
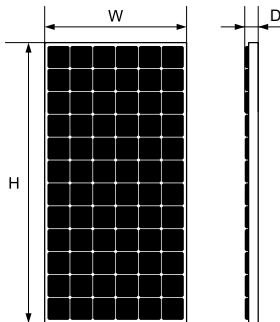
- CE
- TUV
- PID-FREE
- IEC61215/ 61730/ 61701/ 62716



Note: the specifications are obtained under the standard test conditions (STCs): 1000 W/ m² solar radiation, 1,5 air mass and 25 °C cell temperature.

This product meets all the technical requirements set by the European Union for the construction of solar systems.

Catalogue number:
98SOL560M



BALLAST MOUNTING STRUCTURES SET 15° FOR FLAT ROOF OR GROUND FROM 3.6 TO 30KW WITH 560W SOLAR PANELS, SET

BALLAST MOUNTING STRUCTURES SET 15° FOR TIN ROOF FROM 3.6 TO 30KW WITH 560W SOLAR PANELS AND ROOF SLOPE UP TO 15°, SET

Solar system (kW)	Catalogue number with panel 560W
3.6	42356036B/EW
5	4235605B/EW
6	4235606B/EW
8	4235608B/EW
10	42356010B/EW
15	42356015B/EW
20	42356020B/EW
30	42356030B/EW

Solar system (kW)	Catalogue number with panel 560W
3.6	42356036DR/EW
5	4235605DR/EW
6	4235606DR/EW
8	4235608DR/EW
10	42356010DR/EW
15	42356015DR/EW
20	42356020DR/EW
30	42356030DR/EW



MOUNTING STRUCTURES

An important point in the construction of a photovoltaic system is the way of installation of the solar panels. Usually it is carried out on the roof of the building, but it is also possible to be executed on the ground.

We offer ready-made solutions for flat and pitched roofs made of tiles, sheet iron, sandwich panels, bitumen and concrete.

For each of the options we offer ready-made sets, with the elements necessary for the installation of the amount of solar panels in the set of each system. They are all offered separately in the case of an individual approach or up to the construction of an existing assembly structure.



Mounting structures for pitched tiled roof



Mounting structures for pitched bituminous roof



Mounting structure for pitched sheet iron roof



Triangular ballast mounting structures for flat roof or ground


 Catalogue number:
 423199

SOLAR POWER MOUNTING RAIL

APPLICATION

Attached to the roof or the location designated for the installation of the PV modules, the role of the rails is to hold the rows of solar panels by means of brackets. The way of fixing the rails to the roof is determined depending on its type-tile, bitumen, sheet metal (tin), concrete, etc.



TECHNICAL DATA

Length: 2400 mm
 Material: Aluminum 6005-T5
Universal element suitable for any type of roof or for a ground mounting structure.


 Catalogue number:
 423201

CONNECTOR FOR RAIL

APPLICATION

Provides a reliable connection when connecting two rails. The connection is carried out in the middle of bolts, two rails need one connector.



TECHNICAL DATA

Length: 140 mm
 Material: Aluminum 6005-T5
Universal element suitable for any type of roof or for a ground mounting structure.


 Catalogue number:
 423202

MID CLAMP FOR FRAMED PANEL

APPLICATION

They serve to connect two panels mounted side by side. The clamp is placed between them and by using a screw tightens the frames of the PV modules to the mounting rail. It takes two clamps to connect two panels.



TECHNICAL DATA

For solar panels of a height: 30mm and 35mm
 Suitable for frame panels
 Material: Aluminum 6005-T5
Universal element suitable for any type of roof or for a ground mounting structure.



30mm

 Cat. number:
 423203


35mm

 Cat. number:
 423203-2

CLAMP FOR FRAMED PANEL

APPLICATION

They are used to connect the photovoltaic module to the mounting rail at the beginning and end of the solar line. One end of the clamp is placed in the rail and the other end on the panel frame and, by means of a bolt, the two elements are fastened to each other. Two clamps for framed panel are required for the installation of one panel.



TECHNICAL DATA

For solar panels of a height: 30mm and 35mm
 Suitable for frame panels
 Material: Aluminum 6005-T5
Universal element suitable for any type of roof or for a ground mounting structure.



These products meet all the technical requirements set by the European Union for the construction of solar systems.

 10 YEARS
 WARRANTY

TIN ROOF HOOK TYPES 1, 2, 13, 14

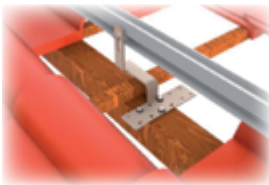
APPLICATION

They are used to attach the mounting rail to a tiled roof. Using screws, one end of the hook is fastened to the wooden structure located under the tile itself, and in the hole of the upper part with bolts is fastened the solar power mounting rail. Considering the individual features in the construction of each wooden structure and the orientation of the solar line, we offer 4 types of hooks, depending on the specific needs during installation.

TECHNICAL DATA

Material: Stainless Steel

The elements are only suitable for the construction of solar structures on tile roofs.



HOOK TYPE 1



Catalogue number:
423204



HOOK TYPE 2



Catalogue number:
423205



HOOK TYPE 13



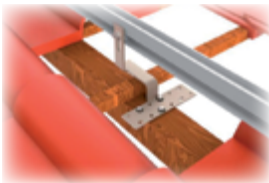
Catalogue number:
423206



HOOK TYPE 14



Catalogue number:
423207



10 YEARS WARRANTY



These products meet all the technical requirements set by the European Union for the construction of solar systems.

TIN ROOF HOOK TYPES 2 AND 3

APPLICATION

They are used to attach the mounting rail to a sheet metal roof. Using screws, one end of the hook is fastened on the roof rib and the mounting rail of the solar panel is fastened in the hole at the top with bolts. We offer two types of hooks depending on the orientation of the solar line, in relation to the ribbing on the roof.

TECHNICAL DATA

Material: Stainless Steel

The elements are only suitable for the construction of solar structures on sheet metal roofs.

HOOK TYPE 2



Catalogue number:
423217



HOOK TYPE 3



Catalogue number:
423218



L-FEET FOR TIN ROOF WITH FASTENERS

APPLICATION

They are used to attach the mounting rail to a sheet metal roof. Using screws, the single end of the hook is fastened on the roof and the solar power mounting rail is fastened in the hole of the upper part with bolts.

TECHNICAL DATA

Material: Stainless Steel

The element is only suitable for the construction of solar structures on sheet metal roofs.



Catalogue number:
423216



L-FEET WITH FASTENERS

APPLICATION

It is used to attach the mounting rail to a bituminous roof. It is recommended that the installation of the hook is carried out in a set with a steel flashing plate to prevent water penetration. Attach the hook to the roof by screwing it through the hole of the flashing plate.

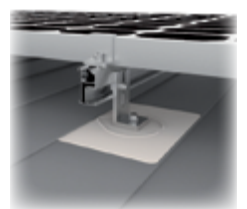
TECHNICAL DATA

Material: Stainless Steel

The element is only suitable for the construction of solar structures on a bituminous roof.



Catalogue number:
423214



These products meet all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY



Catalogue number:
423215

FLASHING PLATE 280X280

APPLICATION

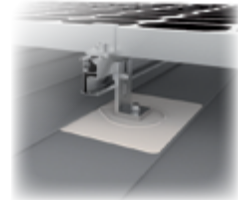
It is used to attach the mounting rail to a bituminous roof. It is recommended that the installation of the hook is carried out in a set with a steel flashing plate to prevent water penetration. Attach the hook to the roof by screwing it through the hole of the flashing plate.



TECHNICAL DATA

Material: Stainless Steel

The element is only suitable for the construction of solar structures on a bituminous roof.



15° TRIANGULAR MOUNT

APPLICATION

They are used to provide the necessary inclination of the solar panels when mounting them on a flat roof or to adjust the angle of inclined roofs. They are mounted on the rails supporting the solar panels by a steel hook. They are usually installed on concrete foundations and can be further reinforced with ballast weights.



TECHNICAL DATA

Material: Aluminum 6005-T5

Catalogue number	Dimensions (mm)
423223	1300x1400
423223-2	1600x1700



30° TRIANGULAR MOUNT

APPLICATION

They are used to provide the necessary inclination of the solar panels when mounting them on a flat roof or to adjust the angle of inclined roofs. They are mounted on the rails supporting the solar panels by means of a steel hook. They are usually installed on concrete foundations and can be reinforced additionally with ballast weights.



TECHNICAL DATA

Dimensions: 1300x1400mm/ 1600x1700mm
Material: Aluminum 6005-T5

Catalogue number	Dimensions (mm)
423227	1300x1400
423227-2	1600x1700



These products meet all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY



Catalogue number:
423224

L-CONNECTOR FOR RAIL

APPLICATION

The element is suitable for the construction of solar structures on straight and pitched roofs or for solar structures built on land.



TECHNICAL DATA

Material: Stainless Steel



Catalogue number:
423225

ANGLE PLATE

APPLICATION

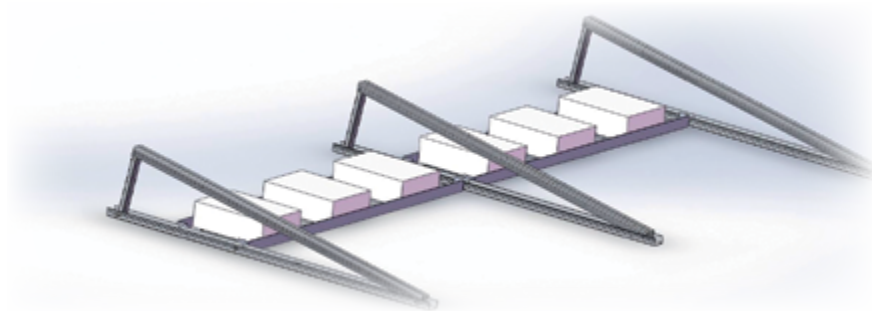
They serve to further strengthen the triangular mounts with each other by placing concrete blocks (ballasts) between two hooks.



TECHNICAL DATA

Material: Stainless Steel

The element is only suitable for the construction of solar structures on a flat roof or ground.



10 YEARS
WARRANTY



These products meet all the technical requirements set by the European Union for the construction of solar systems.

GROUNDING OF THE MOUNTING STRUCTURE

The grounding of the solar mounting structure is just as important and necessary as the grounding in your home. Grounded panels and mounting rails should provide the easiest path for lightning to reach the ground when needed, as well as to discharge naturally occurring static electricity. This is achieved by building a system of elements: Grounding clip, earth lug, conductor, earthing rail and pole and other accessories, depending on the individual approach for installation or features of the roof.

GROUNDING CLIP

APPLICATION

It makes contact between the solar panels and the mounting rails. It is usually fixed between the PV modules and the rail by means of the mid clamp for framed panels. The bolt of the mid clamp passes through the hole of the grounding clip and during tightening it performs the role of an earthing wire, thus preventing possible damage to the solar panels during a storm.

TECHNICAL DATA

Material: Stainless Steel

Universal element suitable for any type of roof or for a ground mounting structure.



Catalogue number:
423208



EARTH LUG

APPLICATION

A basic element making a connection from the solar array to the ground, by means of a conductor. It is mounted at one end of the rail for mounting solar panels, thus protecting the entire row. A grounding conductor of aluminum or other material is connected to it to lead lightning or static electricity to the earthing rail.

TECHNICAL DATA

Material: Aluminum

Universal element suitable for any type of roof or for a ground mounting structure.



Catalogue number:
423209



These products meet all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY

CABLE CLIPS (CLAMPS) TYPE 1, 2, 8 AND 9

APPLICATION

They are important in the installation and maintenance of the wiring system. They are an integral part of its „management“ by being used to group cables into bundles, determine the direction and place of their fixing, so that the system built can look not only visually well, but also reliably protected.

Our cable clips for solar systems are designed for different number and cross-section of wires with up to 90 degree deviation.

TECHNICAL DATA

Material: Stainless Steel

Universal elements suitable for any type of roof or for a ground mounting structure.



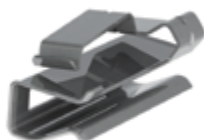
Catalogue number:
423210

CABLE CLIP TYPE 1 - 2x4/6mm²



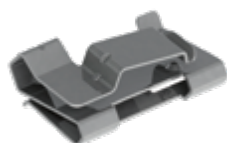
Catalogue number:
423211

CABLE CLIP TYPE 2 - 4x90°4/6mm²/ 3x90°10mm²



Catalogue number:
423212

CABLE CLIP TYPE 8 - 2x90°4/6mm²



Catalogue number:
423213

CABLE CLIP TYPE 9 - 2x90°4/6mm²



These products meet all the technical requirements set by the European Union for the construction of solar systems.

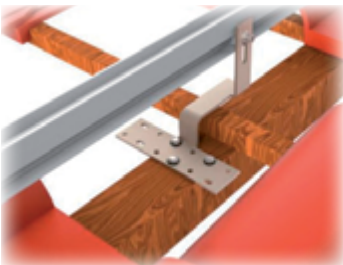
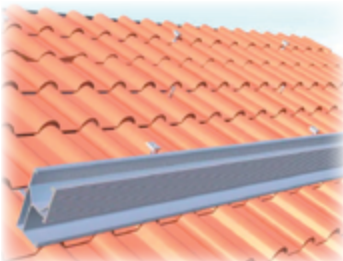
10 YEARS WARRANTY

MOUNTING STRUCTURES FOR PITCHED TILE ROOF, SETS

In the following lines you will find the configuration of different sets of mounting structures for different types of roof structures with capacities from 3.6 to 30kW. The sets are equipped with all the basic elements, with quantities sufficient for the complete construction of the photovoltaic arrays of each system.

The quantities of elements are intended for construction of systems with solar panels with catalogue number:

- 98SOL465M, with a power of 465W and dimensions 2094x1038x35mm;
- 98SOL560M, with power 560W and dimensions 2279x1134x35mm.



MOUNTING STRUCTURES FOR PITCHED TILE ROOF FROM 3.6 TO 30KW FOR PANELS 465W

Description of the items included in the set	Catalogue number	at 3.6 kW	at 5 kW	at 6 kW	at 8 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Rail - 2400mm	423199	8	11	13	18	22	33	44	66
Connector - 140mm	423201	4	6	8	14	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	12	16	20	28	32	48	64	96
End clamp for framed panel 35mm	423203-2	8	12	12	16	24	36	48	72
Tile roof hook	423204	16	22	26	36	44	66	88	132
Grounding clip	423208	12	16	20	28	32	48	64	96
Earth lug	423209	8	12	12	16	24	36	48	72

MOUNTING STRUCTURES FOR PITCHED TILE ROOF FROM 3.6 TO 30KW FOR PANELS 560W

Description of the items included in the set	Catalogue number	at 3.6 kW	at 5 kW	at 6 kW	at 8 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Rail - 2400mm	423199	7	9	11	15	18	27	36	54
Connector - 140mm	423201	4	6	6	12	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	10	14	16	24	28	42	56	84
End clamp for framed panel 35mm	423203-2	8	8	12	12	16	24	32	48
Tile roof hook	423204	14	18	22	30	36	54	72	108
Grounding clip	423208	10	14	16	24	28	42	56	84
Earth lug	423209	8	8	12	12	16	24	32	48

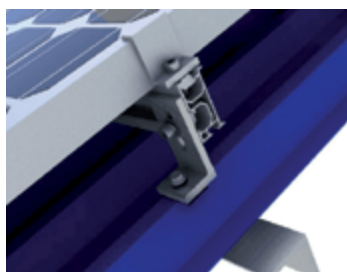
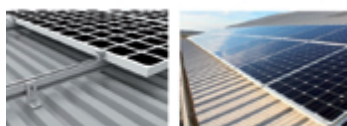
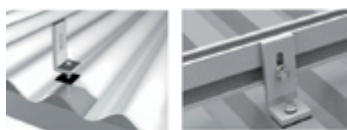
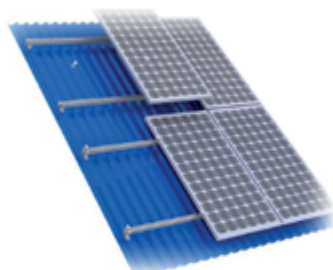
CATALOGUE NUMBERS OF THE SETS

Solar system (kW)	Catalogue number for panel 465W	Catalogue number for panel 560W
3.6	42346536P/TR	42356036P/TR
5	4234655P/TR	4235605P/TR
6	4234656P/TR	4235606P/TR
8	4234658P/TR	4235608P/TR
10	42346510P/TR	42356010P/TR
15	42346515P/TR	42356015P/TR
20	42346520P/TR	42356020P/TR
30	42346530P/TR	42356030P/TR



These products meet all the technical requirements set by the European Union for the construction of solar systems.

MOUNTING STRUCTURES FOR PITCHED SHEET METAL ROOF, SETS

MOUNTING STRUCTURES FOR PITCHED SHEET METAL ROOF FROM 3.6 TO 30KW FOR PANELS 465W


Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	8	11	13	18	22	33	44	66
Connector - 140mm	423201	4	6	8	14	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	12	16	20	28	32	48	64	96
End clamp for framed panel 35mm	423203-2	8	12	12	16	24	36	48	72
L-feet with fasteners for sheet metal roof	423216	16	22	26	36	44	66	88	132
Grounding clip	423208	12	16	20	28	32	48	64	96
Earth lug	423209	8	12	12	16	24	36	48	72

MOUNTING STRUCTURES FOR PITCHED SHEET METAL ROOF FROM 3.6 TO 30KW FOR PANELS 560W

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	7	9	11	15	18	27	36	54
Connector - 140mm	423201	4	6	6	12	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	10	14	16	24	28	42	56	84
End clamp for framed panel 35mm	423203-2	8	8	12	12	16	24	32	48
L-feet with fasteners for sheet metal roof	423216	14	18	22	30	36	54	72	108
Grounding clip	423208	10	14	16	24	28	42	56	84
Earth lug	423209	8	8	12	12	16	24	32	48

CATALOGUE NUMBERS OF THE SETS

Solar system (kW)	Catalogue number for panel 465W	Catalogue number for panel 560W
3.6	42346536P/DR	42356036P/DR
5	4234655P/DR	4235605P/DR
6	4234656P/DR	4235606P/DR
8	4234658P/DR	4235608P/DR
10	42346510P/DR	42356010P/DR
15	42346515P/DR	42356015P/DR
20	42346520P/DR	42356020P/DR
30	42346530P/DR	42356030P/DR

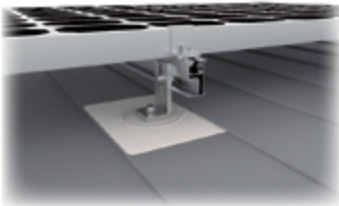


These products meet all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY

MOUNTING STRUCTURES FOR PITCHED BITUMINOUS ROOF, SETS

MOUNTING STRUCTURES FOR PITCHED BITUMINOUS ROOF FROM 3.6 TO 30KW FOR PANELS 465W



Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	8	11	13	18	22	33	44	66
Connector - 140mm	423201	4	6	8	14	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	12	16	20	28	32	48	64	96
End clamp for framed panel 35mm	423203-2	8	12	12	16	24	36	48	72
Bituminous roofing hook	423214	16	22	26	36	44	66	88	132
Flashing plate 280x280	423215	16	22	26	36	44	66	88	132
Grounding clip	423208	12	16	20	28	32	48	64	96
Earth lug	423209	8	12	12	16	24	36	48	72

MOUNTING STRUCTURES FOR PITCHED BITUMINOUS ROOF FROM 3.6 TO 30KW FOR PANELS 560W

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	7	9	11	15	18	27	36	54
Connector - 140mm	423201	4	6	6	12	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	10	14	16	24	28	42	56	84
End clamp for framed panel 35mm	423203-2	8	8	12	12	16	24	32	48
Bituminous roofing hook	423214	14	18	22	30	36	54	72	108
Flashing plate 280x280	423215	14	18	22	30	36	54	72	108
Grounding clip	423208	10	14	16	24	28	42	56	84
Earth lug	423209	8	8	12	12	16	24	32	48

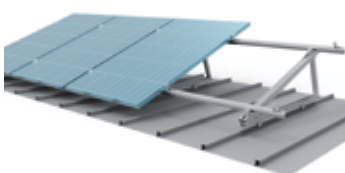
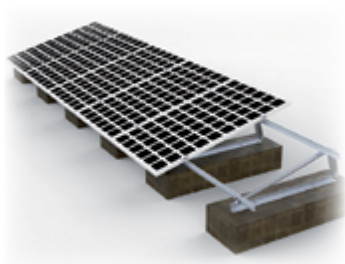
CATALOGUE NUMBERS OF THE SETS

Solar system (kW)	Catalogue number for panel 465W	Catalogue number for panel 560W
3.6	42346536P/SR	42356036P/SR
5	4234655P/SR	4235605P/SR
6	4234656P/SR	4235606P/SR
8	4234658P/SR	4235608P/SR
10	42346510P/SR	42356010P/SR
15	42346515P/SR	42356015P/SR
20	42346520P/SR	42356020P/SR
30	42346530P/SR	42356030P/SR



These products meet all the technical requirements set by the European Union for the construction of solar systems.

MOUNTING STRUCTURES FOR FLAT ROOF OR GROUND, SETS


30° TRIANGULAR MOUNTING STRUCTURES FOR FLAT ROOF OR GROUND FROM 3.6 TO 30KW FOR PANELS 465W

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	8	11	13	18	22	33	44	66
Connector - 140mm	423201	4	6	8	14	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	12	16	20	28	32	48	64	96
End clamp for framed panel 35mm	423203-2	8	12	12	16	24	36	48	72
30° Triangular mount	423227	8	11	13	18	23	31	46	69
L-Connector	423224	16	22	26	36	46	62	92	138
Anchor	M517215	16	22	26	36	46	62	92	138
Grounding clip	423208	12	16	20	28	32	48	64	96
Earth lug	423209	8	12	12	16	24	36	48	72

30° TRIANGULAR MOUNTING STRUCTURES FOR FLAT ROOF OR GROUND FROM 3.6 TO 30KW FOR PANELS 560W

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	7	9	11	15	18	27	36	54
Connector - 140mm	423201	4	6	6	12	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	10	14	16	24	28	42	56	84
End clamp for framed panel 35mm	423203-2	8	8	12	12	16	24	32	48
30° Triangular mount	423227	7	9	11	15	18	27	36	54
L-Connector	423224	14	18	22	30	36	54	72	108
Anchor	M517215	14	18	22	30	36	54	72	108
Grounding clip	423208	10	14	16	24	28	42	56	84
Earth lug	423209	8	8	12	12	16	24	32	48

CATALOGUE NUMBERS OF THE SETS

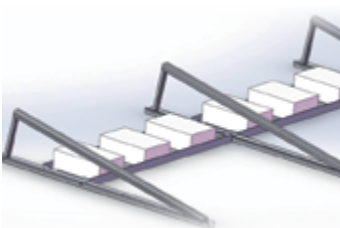
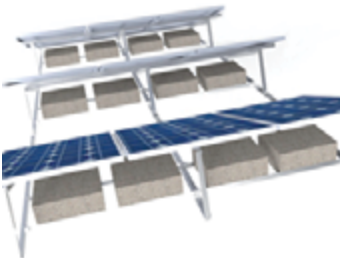
Solar system (kW)	Catalogue number for panel 465W	Catalogue number for panel 560W
3.6	42346536F/TR	42356036F/TR
5	4234655F/TR	4235605F/TR
6	4234656F/TR	4235606F/TR
8	4234658F/TR	4235608F/TR
10	42346510F/TR	42356010F/TR
15	42346515F/TR	42356015F/TR
20	42346520F/TR	42356020F/TR
30	42346530F/TR	42356030F/TR



These products meet all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY

BALLAST MOUNTING STRUCTURES FOR FLAT ROOF OR GROUND, SETS



30° TRIANGULAR BALLAST MOUNTING STRUCTURES FOR FLAT ROOF OR GROUND FROM 3.6 TO 30KW FOR PANELS 465W

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	8	11	13	18	22	33	44	66
Connector - 140mm	423201	4	6	8	14	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	12	16	20	28	32	48	64	96
End clamp for framed panel 35mm	423203-2	8	12	12	16	24	36	48	72
30° Triangular mount	423227	8	11	13	18	23	31	46	69
L-Connector	423224	16	22	26	36	46	62	92	138
Angle Plate	423225	12	16	20	28	34	50	68	102
Grounding clip	423208	12	16	20	28	32	48	64	96
Earth lug	423209	8	12	12	16	24	36	48	72

30° TRIANGULAR BALLAST MOUNTING STRUCTURES FOR FLAT ROOF OR GROUND FROM 3.6 TO 30KW FOR PANELS 560W

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Rail - 2400mm	423199	7	9	11	15	18	27	36	54
Connector - 140mm	423201	4	6	6	12	12	18	24	36
Mid clamp for framed panel 30-50mm	423202	10	14	16	24	28	42	56	84
End clamp for framed panel 35mm	423203-2	8	8	12	12	16	24	32	48
30° Triangular mount	423227	7	9	11	15	18	27	36	54
L-Connector	423224	14	18	22	30	36	54	72	108
Angle Plate	423225	10	14	16	24	28	42	56	84
Grounding clip	423208	10	14	16	24	28	42	56	84
Earth lug	423209	8	8	12	12	16	24	32	48

CATALOGUE NUMBERS OF THE SETS

Solar system (kW)	Catalogue number for panel 465W	Catalogue number for panel 560W
3.6	42346536F/BTR	42356036F/BTR
5	4234655F/BTR	4235605F/BTR
6	4234656F/BTR	4235606F/BTR
8	4234658F/BTR	4235608F/BTR
10	42346510F/BTR	42356010F/BTR
15	42346515F/BTR	42356015F/BTR
20	42346520F/BTR	42356020F/BTR
30	42346530F/BTR	42356030F/BTR



These products meet all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY

15° MOUNTING STRUCTURES FOR FLAT ROOF WITH SOLAR PANELS, SETS

This mounting structures are recommended for installation on a flat roof or ground with an east/west/sud solar plant orientation or on roofs with a slope of up to 15 degrees regardless of orientation. On a flat roof or ground, the system can only be fixed with ballasts, and if the roof is sloping, the mounting elements must be fixed to the roof with suitable fasteners. The system allows the panels to be installed only horizontal -landscape.

**NOTE: The suggested quantities of the items included in the set are indicative and are intended to give you an approximate quantitative value and what items are included in the set. An accurate calculation can be made after evaluating a individual solar panels project. The ballasts aren't included.*



East-west mounting type- tin rooftop

15° MOUNTING STRUCTURES FOR FLAT ROOF AND GROUND FROM 3.6KW TO 30KW WITH 465W PANELS EAST-WEST AND SUD ORIENTATION, SET

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Solar panels 465W	98SOL465M	8	11	13	18	22	33	44	65
Rail - 2400mm	423199	16	22	26	36	44	66	88	130
Connector - 140mm	423201	12	16	20	26	32	50	66	98
High bracket 15°	423231	18	25	29	40	55	80	110	165
Low bracket 15°	423232	18	25	29	40	55	80	110	165
Mid clamp for framed panel 30-50mm	423202	12	16	28	26	32	52	64	96
End clamp for framed panel 35mm	423203-2	8	12	16	20	24	28	48	72
Grounding clip	423208	12	16	28	26	32	52	64	96
Earth lug	423209	8	12	16	20	24	28	48	72



Southern mounting type

15° MOUNTING STRUCTURES FOR FLAT ROOF AND GROUND FROM 3.6 TO 30KW WITH 560W PANELS EAST-WEST AND SUD ORIENTATION, SET

Description of the items included in the set	Catalogue number	at	at	at	at	at	at	at	at
		3.6 kW	5 kW	6 kW	8 kW	10 kW	15 kW	20 kW	30 kW
Solar panels 560W	98SOL560M	7	9	11	15	18	27	36	54
Rail - 2400mm	423199	14	18	22	30	36	54	72	108
Connector - 140mm	423201	10	14	16	22	26	40	54	80
High bracket 15°	423231	16	20	22	33	40	60	80	120
Low bracket 15°	423232	16	20	22	33	40	60	80	120
Mid clamp for framed panel 30-50mm	423202	10	14	16	24	28	42	56	84
End clamp for framed panel 35mm	423203-2	8	8	12	12	16	24	32	48
Grounding clip	423208	10	14	16	24	28	42	56	84
Earth lug	423209	8	8	12	12	16	24	32	48

BALLAST MOUNTING STRUCTURES SET 15° FOR FLAT ROOF OR GROUND FROM 3.6 TO 30KWWITH 465W AND 560W SOLAR PANELS AND EAST/ WEST SUD ORIENTATION

Solar system (kW)	Catalogue number for panel 465W	Catalogue number for panel 560W
3.6	42346536B/EW	42356036B/EW
5	4234655B/EW	4235605B/EW
6	4234656B/EW	4235606B/EW
8	4234658B/EW	4235608B/EW
10	42346510B/EW	42356010B/EW
15	42346515B/EW	42356015B/EW
20	42346520B/EW	42356020B/EW
30	42346530B/EW	42356030B/EW



These products meet all the technical requirements set by the European Union for the construction of solar systems.



15° MOUNTING STRUCTURES FOR TIN ROOF WITH SOLAR PANELS SETS

This mounting structures are recommended for installation on a tin roof with an east/west/sud solar plant orientation and slope of up to 15°.

The system allows the panels to be installed only horizontal -landscape.

**NOTE: The suggested quantities of the items included in the set are indicative and are intended to give you an approximate quantitative value and what items are included in the set. An accurate calculation can be made after evaluating a individual solar panels project.*



Southern mounting type tin rooftop

15° MOUNTING STRUCTURES FOR TIN ROOF FROM 3.6 TO 30KW WITH 465W PANELS EAST-WEST AND SUD ORIENTATION AND ROOF SLOPE UP TO 15°, SET

Description of the items included in the set	Catalogue number	at 3.6 kW	at 5 kW	at 6 kW	at 8 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Solar panels 465W	98SOL465M	8	11	13	18	22	33	44	65
Rail - 2400mm	423199	16	22	26	36	44	66	88	130
Connector - 140mm	423201	12	16	20	26	32	50	66	98
High bracket 15°	423231	18	25	29	40	55	80	110	165
Low bracket 15°	423232	18	25	29	40	55	80	110	165
Tin roof bracket	423233	36	50	58	80	110	154	220	230
Mid clamp for framed panel 30-50mm	423202	12	16	28	26	32	52	64	96
End clamp for framed panel 35mm	423203-2	8	12	16	20	24	28	48	72
Grounding clip	423208	12	16	28	26	32	52	64	96
Earth lug	423209	8	12	16	20	24	28	48	72



East west mounting type

15° MOUNTING STRUCTURES FOR TIN ROOF FROM 3.6 TO 30KW WITH 560W PANELS EAST-WEST AND SUD ORIENTATION AND ROOF SLOPE UP TO 15°, SET

Description of the items included in the set	Catalogue number	at 3.6 kW	at 5 kW	at 6 kW	at 8 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Solar panels 560W	98SOL560M	7	9	11	15	18	27	36	54
Rail - 2400mm	423199	14	18	22	30	36	54	72	108
Connector - 140mm	423201	10	14	16	22	26	40	54	80
High bracket 15°	423231	16	20	22	33	40	60	80	120
Low bracket 15°	423232	16	20	22	33	40	60	80	120
Tin roof bracket	423233	32	40	44	66	80	120	160	240
Mid clamp for framed panel 30-50mm	423202	10	14	16	24	28	42	56	84
End clamp for framed panel 35mm	423203-2	8	8	12	12	16	24	32	48
Grounding clip	423208	10	14	16	24	28	42	56	84
Earth lug	423209	8	8	12	12	16	24	32	48

MOUNTING STRUCTURES SET 15° FOR TIN ROOF FROM 3.6 TO 30KW WITH 465W AND 560W SOLAR PANELS AND EAST/WEST/SUD ORIENTATION AND ROOF SLOPE UP TO 15°

Solar system (kW)	Catalogue number for panel 465W	Catalogue number for panel 560W
3.6	42346536DR/EW	42356036DR/EW
5	4234655DR/EW	4235605DR/EW
6	4234656DR/EW	4235606DR/EW
8	4234658DR/EW	4235608DR/EW
10	42346510DR/EW	42356010DR/EW
15	42346515DR/EW	42356015DR/EW
20	42346520DR/EW	42356020DR/EW
30	42346530DR/EW	42356030DR/EW



These products meet all the technical requirements set by the European Union for the construction of solar systems.

CARPORT FOR SOLAR PANELS, SET



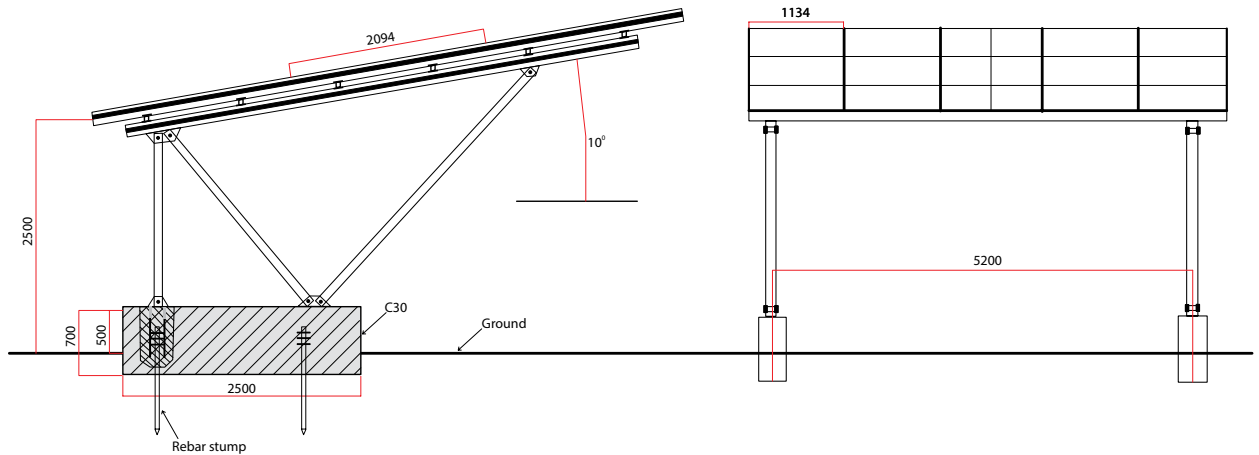
CARPORT FOR SOLAR PANELS, SET

The carport is suitable for installation of solar panels with power up to 8kW (15 pcs.) ELMARK panels with power 510W). The size of the structure is suitable for parking two cars, with a high of 2.5 m at its lowest point. The length of the structure is 6m and the width is 5.2m. It is a suitable option for home construction or for combining multiple cells, when creating larger parking lots or systems with higher capacities.

This system is also extremely suitable for combining with a 7kW single-phase charging station for electric vehicles. For the construction of a three-phase charging station with a power of 22kW, ELMARK recommends the use of 4 mounting structures and a 30kW solar system.

Catalogue number:


423278/CP



This product meets all the technical requirements set by the European Union for the construction of solar systems.

BATTERIES FOR SOLAR POWER SYSTEMS



	
LiFePO4 Safe Battery Chemistry	Easy Installation & After Sales Service
	
Intelligent Build in BMS	Safety Protection and Easy Move
	
Box-in Mounted & Parallel & Series Connection	>6,000 Cycles at 90% DOD

10 YEARS WARRANTY



LFP 2400
Lithium Battery
Storage



LFP 5000
Lithium Battery
Storage



Catalogue number:
98BAT2400LFP



UHOME LFP BATTERY (LIFEPO4), 2400 W

ADVANTAGES

This type of battery offers many advantages, such as longer life, no maintenance, outstanding safety and improved discharge and charge efficiency compared to lead-acid batteries. They are suitable for high power storage, for frequent loads and for installation in places where space is limited (battery size is 442x500x133mm). The manufacturer of the Uhome LFP battery guarantees more than 6000 cycles of deep discharge at 95% of the battery capacity. This is achieved through an integrated BMS control system that monitors voltage, current, temperature and cell status, balancing charging and discharging to increase cell life. The ability to connect up to 8 batteries in parallel increases the capacity of the system by increasing the time of use or to power more powerful consumers.

FEATURES

- Environmentally friendly product, non-toxic and non-polluting environment
- The material used to make the product is made of LiFePO4 for safe use and numerous life cycles
- The Battery Management System (BMS) has a protective safety against overcharge, peak current, low voltage, short circuit and high temperature.
- The system can automatically control overcharge processes and balance current and voltage levels at the level at the unit level module in a group of several connected batteries.
- It has its own cooling system at low noise levels.
- Low self-discharge rates. The battery can last up to 6 months without charging.
- It does not remember situations where a shallow charge or discharge is required
- The operating temperature range is from -10° to 55°C (When charging 0~50°C; When discharging -10~55°C)
- Compact and modern design, that fits into any room.
- Compatible with a wide range of hybrid inverters available on the market.

TECHNICAL DATA

- Rated voltage: 48-56V DC
- Rated capacity: 2400Wh (2.4kW)
- Usable capacity: 2200Wh (2.2kW)
- Rated charging/dilution capacity: 1500Wh (1.5kW)
- Charging voltage: 57.6V
- Communication inputs: RS485, CAN
- Configuration: up to 8 batteries in series or parallel
- Patients with related adverse
- IP code: IP20
- Cooling: Naturally
- Operating temperature: When charging: from 0 to 50 °C, On discharge: from -10 up to 55°C
- Weight: 27.5Kg
- Installation: on a wall/ on land
- Protection: software and hardware
- Dimensions: 442x500x133mm

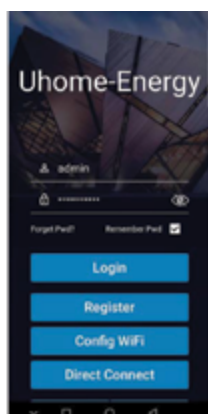
CERTIFICATION

- The product is designed and tested in accordance with international safety requirements IEC 60364.
- Manufacturer declares that this Uhome-LFP 2400 is compliance with the essential requirements and other relevant of RE Directive 2014/53/EU.

MONITORING

The battery has a built-in Wi-Fi module providing access to information by computer or mobile phone, via the Uhome app.

[Scan the code to download the Google Play or App Store »](#)



This product meets all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY



Catalogue number:
98BAT5000LFP



UHOME LFP BATTERY (LIFEPO4), 4800 W

ADVANTAGES

This type of battery offers many advantages, such as longer life, no maintenance, outstanding safety and improved discharge and charge efficiency compared to lead-acid batteries. They are suitable for high power storage, for frequent loads and for installation in places where space is limited (battery size is 442x500x133mm). The manufacturer of the Uhome LFP battery guarantees more than 6000 cycles of deep discharge at 95% of the battery capacity. This is achieved through an integrated BMS control system that monitors voltage, current, temperature and cell status, balancing charging and discharging to increase cell life. The ability to connect up to 8 batteries in parallel increases the capacity of the system by increasing the time of use or to power more powerful consumers.

FEATURES

- Environmentally friendly product, non-toxic and non-polluting environment
- The material used to make the product is made of LiFePO4 for safe use and numerous life cycles
- The Battery Management System (BMS) has a protective safety against overcharge, peak current, low voltage, short circuit and high temperature.
- The system can automatically control vercharge processes and balance current and voltage levels at the level at the unit level module in a group of several connected batteries.
- It has its own cooling system at low noise levels.
- Low self-discharge rates. The battery can last up to 6 months without charging.
- It does not remember situations where a shallow charge or discharge is required
- The operating temperature range is from -10° to 55°C (When charging 0~50°C; When discharging -10~55°C)
- Compact and modern design, that fits into any room.
- Compatible with a wide range of hybrid inverters available on the market.

TECHNICAL DATA

- Rated voltage: 48-56V DC
- Rated capacity: 5100Wh (5.1kW)
- Usable capacity: 4800Wh (4.8kW)
- Rated charging/dilution capacity: 3000Wh (3.0kW)
- Charging voltage: 57.6V
- Communication inputs: RS485, CAN
- Configuration: up to 8 batteries installed in series or parallel
- IP code: IP20
- Cooling: Naturally
- Operating temperature: When charging: from 0 to 50 °C, On discharge: from -10 up to 55°C
- Weight: 45Kg
- Installation: on a wall/ on land
- Protection: software and hardware
- Dimensions: 442x500x135mm

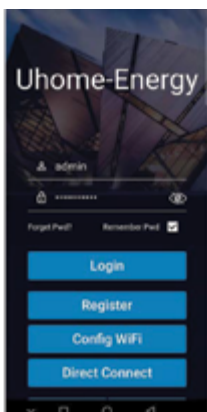
CERTIFICATION

- The product is designed and tested in accordance with international safety requirements IEC 60364.
- Manufacturer declares that this Uhome-LFP 5000 is compliance with the essential requirements and other relevant of RE Directive 2014/53/EU.

MONITORING

The battery has a built-in Wi-Fi module providing access to information by computer or mobile phone, via the Uhome app.

[Scan the code to download the Google Play or App Store »](#)



This product meets all the technical requirements set by the European Union for the construction of solar systems.

ACCESSORIES FOR BATTERIES

UHOME ENERGY PORT

The energy port is a device that allows the connection and management of more than 8 batteries in parallel or in series. It's suitable with UHOME batteries with capacity of 2400 and 4800W.



Catalogue number:
98BAT/EP



ADVANTAGES

- CAN Communication Cable Connection mode (suit for 2-8 batteries piles)
- Suitable for residential and little commercial system.
- Plug-in and ready, no need any other accessories.

TECHNICAL DATA

- Power supply: 220-240V
- Live span: over 15 years
- Communication interface: CAN/RS 482/232/Internet
- IP code: IP20
- Working temperature: from -20 till + 60°C
- Size (LxWxH): 300x442x89mm
- Weight: 3kg



ENERGY STORAGE CONNECTOR PLUGS 1000V, IP67

Cable connectors for battery power cables, suitable with input of all types UHOME LFP BATTERY. With they can be make power extension cables with needed length.



59089



59090

Catalogue number	Rated voltage (V)	Rated current (A)	Conductor cross section (mm ²)	IP code	Packing (pcs)
59089	1000V	120A	16-25mm ²	IP67	1/100
59090	1000V	200A	35-50mm ²	IP67	1/100

* 2 pcs in SET





Catalogue number:
98BAT2400BRW

SOLAR BATTERY MOUNTING ACCESSORIES UHOME LPF 2400 AND LPF 5000

WALL MOUNTING

By spacers mounted at the four ends of the battery (Fig. 1)
This method of installation is recommended for up to 4 batteries. One set is suitable for installation of 2 batteries.
For installation of more than 4 batteries in a series it is recommended to use a board.

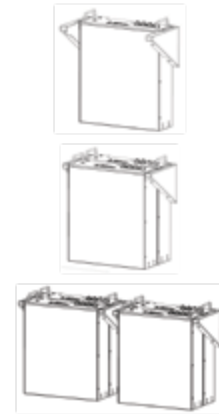


Fig. 1



Catalogue number:
98BAT2400BRG

GROUND MOUNTING

By spacers mounted at the four ends of the battery (Fig.2)
This method of installation is recommended for up to 4 batteries. One set is suitable for installation of 1 batterie.
For installation of more than 4 batteries in a series it is recommended to use a board.

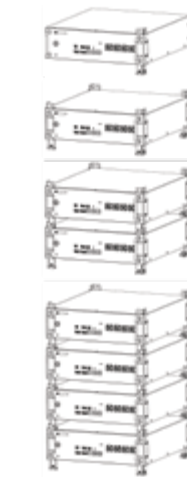


Fig. 2

METAL STORAGE CABINET FOR SOLAR BATTERIES UHOME LPF 2400 AND LPF 5000



Catalogue number:
98BAT15U

Using a metal cabinet to store the batteries of an already built hybrid or off-grid solar system is the most reliable and recommended option for this. The cabinet is suitable for the installation of up to 4 batteries with a capacity of 2400 and 4800Wh, while protecting at the same time the batteries and adds compactness and completeness to the system. The ability to lock the limits the compromise of equipment in places with random access to people, eliminating the possibility of accidents. Ventilation holes are provided on the housing and the door is made of mesh steel for proper cooling of the batteries, in rooms with temperatures from 0-50°C. In rooms with high temperatures, it is recommended to install an additional fan, and in winter or in rooms with temperatures below -10°C a heater to ensure optimum temperature. In the free installation method, without using a storage cabinet, optimum temperature levels are much more difficult to maintain and cost considerably more than the investment in it. Ensuring the optimum working temperature of the batteries, in turn, increases their lifetime and their mode of operation.

ADVANTAGES

Provides mechanical protection of batteries
Locking the dashboard in order to prevent accidental access or incidents.
Easier to ensure optimal microclimate of the battery storage area.
System compactness and completeness

TECHNICAL DATA

Material: cold-rolled SPCC steel
Wall thickness: 2 mm
Weight: 40kg
Dimensions (LxWxH): 600x600x769mm
Capacity: 4 batteries Uhome-LPF 2400/5000



CABLES FOR SOLAR POWER SYSTEMS AND ACCESSORIES



SOLAR CABLES H1Z2Z2-K

APPLICATION

They are specifically designed for the construction of photovoltaic systems. H1Z2Z2-K solar cables have good wear resistance, extreme flexibility, UV protection and do not support combustion. They are also halogen-free, water and oil resistant. Cable weight: 4 mm²- 57kg; 6 mm²- 77kg

TECHNICAL DATA

- Reaction to fire: Dca S1a, d2, a1
- Cable cross-section: 4 mm²; 6 mm²
- Rated voltage (U_o/U): AC 1,0/1,0 kV; DC 1,5/1,5
- Conductor material: Tinned copper Class 5
- Number of conductors X diameter (N^ox mm): 4 mm²- 50x0,30; 6 mm²- 75x0,30
- Insulation and sheath material: Halogen-free compound
- Insulation thickness: 0,70 mm
- Insulation diameter: 4 mm²- 3,90 mm; 6mm²- 4,50mm
- Outer cable diameter: 4 mm²- 5,50 mm; 6 mm²- 6,05 mm
- Cable colour: black; red
- Maximum conductor resistance at 20°C: 4 mm²- 5,09 ohm/km; 6 mm²- 3,39 ohm/km
- Maximum insulation resistance at 20°C: 4 mm²- 580 MΩ.km; 6 mm²- 500 MΩ.km
- Minimum bending radius during laying: 5xØ of cable
- Flame spread test on single cable: EN 60332-1-2
- Operating temperature: -40+90°C
- Maximum short-circuit temperature: 250°C/5sec. (max.)
- Cable weight: 4 mm²- 57kg; 6 mm²- 77kg

CERTIFICATION

- Declaration of performance (DoP)
- TUV Certificate
- CE and EN Certificates

Catalogue number	Cross section (n x mm ²)	Colour	Outer diameter (mm)	Total weight (kg/km)	Packing (m)
M411079/BL	4	Black	5,6	58	100
M411079/R	4	Red	5,6	58	100
M411080/BL	6	Black	6,2	78	100
M411080/R	6	Red	6,2	78	100



We have included black and red solar cable H1Z2Z2-K with a cross section of 4mm² to all our solar kits. You can see the quantities in the table below:

Catalogue number	3.6 kW	5 kW	10 kW	15 kW	20 kW	30 kW
M411079/BL	x50m	x50m	x50m	x75m	x100m	x100m
M411079/R	x50m	x50m	x50m	x75m	x100m	x100m



These products meet all the technical requirements set by the European Union for the construction of solar systems.

7 YEARS TOTAL WARRANTY
 + 5 standard
 2 extended

MALE/FEMALE CABLE CONNECTORS IP67, COMPATIBLE WITH MC4 STANDARD

APPLICATION

They are an important and indispensable element of any modern solar installation, serving for easier and faster wiring of the solar array. They are available in both male and female versions, and are compatible with the well-established MC4 connection standard.

EC Declaration of conformity

TECHNICAL DATA

- Rated voltage: 1500V
- Rated current: 30A
- Test voltage: 6KV(50Hz)
- IP code: IP67
- Conductive parts material: Copper alloy, tin plated
- Operating temperature: from -40 up +90°C
- Suitable for solar cables with cross sections: 2.5 mm²; 4 mm² and 6mm²
- Suitable for cable glands: 3-6 mm

SINGLE CONNECTOR MC4 TYPE IP67, SET



Catalogue number	Type	Conductor cross section (mm ²)	Dimensions (mm)	Packing (pcs)
411079/MF	Single male/female couplers, SET	4/6	107.5 x 41	1/5



*2 pcs. in set.

TRIPLE CONNECTOR MC4 TYPE, IP67



Catalogue number	Type	Conductor cross section (mm ²)	Dimensions (mm)	Packing (pcs)
411080/M	2 male/ 1 female coupler	4/6	107.5 x 41	1/2
411080/F	1 male/ 2 female coupler	4/6	107.5 x 41	1/2



FOURFOLD CONNECTOR MC4 TYPE, IP67



Catalogue number	Type	Conductor cross section (mm ²)	Dimensions (mm)	Packing (pcs)
411081/M	3 male/ 1 female coupler	4/6	107.5 x 63	1/100
411081/F	1 male/ 3 female coupler	4/6	107.5 x 63	1/100



FIVEFOLD CONNECTOR MC4 TYPE , IP67



Catalogue number	Type	Conductor cross section (mm ²)	Dimensions (mm)	Packing (pcs)
411082/M	4 male/ 1 female coupler	4/6	108.5 x 85	1/50
411082/F	1 male/ 4 female coupler	4/6	108.5 x 85	1/50



These products meet all the technical requirements set by the European Union for the construction of solar systems.


TRIPLE CONNECTOR MC4 Y-TYPE , IP67

Catalogue number	Type	Conductor cross section (mm ²)	Length (mm)	Packing (pcs)
411080/MY	2 male/ 1 female coupler	4/6	300	1/50
411080/FY	1 male/ 2 female coupler	4/6	300	1/50


FOURFOLD CONNECTOR MC4 Y-TYPE, IP67

Catalogue number	Type	Conductor cross section (mm ²)	Length (mm)	Packing (pcs)
411081/MY	3 male/ 1 female coupler	4/6	300	1/40
411081/FY	1 male/ 3 female coupler	4/6	300	1/40


FIVEFOLD CONNECTOR MC4 Y-TYPE , IP67

Catalogue number	Type	Conductor cross section (mm ²)	Length (mm)	Packing (pcs)
411082/MY	4 male/ 1 female coupler	4/6	515	1/30
411082/FY	1 male/ 4 female coupler	4/6	515	1/30



These products meet all the technical requirements set by the European Union for the construction of solar systems.



TWO/FOUR-POLE DC ISOLATOR SWITCHES, SUITABLE FOR PANEL MOUNTING

APPLICATION

The DC switch is mounted between the solar panels and the inverter and is intended to isolate the PV array during installation or subsequent maintenance.

TECHNICAL DATA

- Rated insulation voltage U_i : 1500V
- Rated current: 32A
- Rated impulse withstand voltage U_{imp} : 8000V
- Poles: 2P/4P
- Knob position: OFF at 12 hr, ON at 3 hr, C type
- Mechanical life: 10 000 cycles
- Pollution degree: 2
- Over voltage category: III
- Operating temperature: -40 to +70°C
- IP rating of shaft and mounting nut: IP66
- Handle colour: Black
- Mounting: Single hole
- Dimensions LxHxD: 60.2x94.9x64.8

Catalogue number	Type	Rated current	Number of poles	Packing (pcs)
98SOL2P32F/DC	DC isolator 2 series-1 string	32A	2P	1
98SOL4P32F/DC	DC isolator 4 series-2 string	32A	4P	1



TWO/FOUR-POLE DC ISOLATOR WATERPROOF BOX, IP66

APPLICATION

The DC switch is mounted between the solar panels and the inverter and is intended to isolate the PV array during installation or subsequent maintenance.

FEATURES

- Screw fixing doesn't interfere with the sealing performance.
- Multiple mechanical seals around the shaft guarantee the reliability of a waterproof and moisture-proof design.
- Stainless steel rotary screw does not rust nor damp.
- Standard cable interface available with seal rings.
- Internal sealing in top and bottom covers, combined with 2 screws, guarantee an IP66 protection degree.
- SAFE-LOCK with three rotational positions, reducing the risk of tampering.
- The isolator is compatible with various cables and with optional waterproof cable joints and MC4 joints
- Incorporating a user independent switching action, spring mechanism, to ensure a very fast break/make action, ensuring that the disconnection of the load circuits and suppression of the arc normally occurs within 5ms.
- Self-cleaning contact mechanism, reducing power loss and abrasion, improving the conduction performance, reducing the resistance and energy loss of the switch, extending the on-off life cycle.
- Double arc extinguishing mechanism, magnetic and arc chutes, restrain the arc efficiency, especially DC arcs.

TECHNICAL DATA

- Rated insulation voltage U_i : 1500V
- Rated current: 32A
- Rated impulse withstand voltage U_{imp} : 8000V
- Poles: 2P/4P
- Knob position: OFF at 9 hr, ON at 12 hr, C type
- Mechanical life: 10 000 cycles
- Pollution degree: 2
- Over voltage category: III
- Operating temperature: -40 to +70°C
- IP code: IP66
- Handle colour: Black
- Mounting: Wall-mounted or screw installation
- Dimensions LxHxD: 98x225x110

Catalogue number	Type	Rated current	Number of poles	Packing (pcs)
98SOL2P32S/DC	DC isolator 2 series-1 string	32A	2P	1
98SOL4P32S/DC	DC isolator 4 series-2 string	32A	4P	1



These products meet all the technical requirements set by the European Union for the construction of solar systems.

5 YEARS TOTAL WARRANTY
+ 3 standard
2 extended

HYBRID SOLAR INVERTERS



HYBRID SOLAR INVERTERS WITH CAPACITIES FROM 3.6 TO 10KW



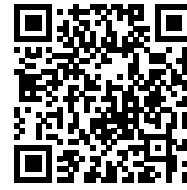
S5-EH1P3.6K-L/ 1P

ELMARK's hybrid inverter options range from 3.6W to 10kW. They have a mode of operation that completely excludes the need for existing power supply from the grid, as well as in combined mode connected to the grid and to a battery.

SINGLE-PHASE (HYBRID) SOLAR INVERTER SOLIS 3.6KW SOLIS- S5-EH1P3.6K-L

It is an OFF-GRID solar inverter with an integrated charge controller, making it an ideal power generation solution for locations where there is no electrical grid or as a backup power supply. It requires solar panels, a battery or an electrical grid to operate. The inverter comes with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on it. It can monitor the status of the photo voltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. The inverter does not offer the possibility to connect multiple devices in parallel.

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*



Catalogue number:
423043

ADVANTAGES

- Integrated MPPT controller
- Uninterrupted power supply, 20ms reaction
- AFCI protection, proactively reduces fire risk
- With shifting and peak shaving capabilities friendly to grid
- Higher charge-discharge efficiency, improving the economic benefits
- Multiple working modes to make maximize self-consumption, increase benefit
- 24-hour fully intelligent energy management, Real-time grasp of PV plant status
- Remotely control & upgrade function, making digital power plant maintenance at your fingertips
- Intelligent EMS function, improving battery's reliability
- Max. string input current 15A
- With high-frequency isolation technology, making system safer and long lifespan
- Compatible with lithium & lead-acid batteries, increased more choice in different markets
- Short circuit protection
- DC reverse voltage protection
- Over voltage protection
- Integrated AFCI arc flash protection reducing the risk of fire
- Remote Wi-Fi monitoring

TECHNICAL DATA

- Number of poles: 1/N/PE
- Rated power: 3600W
- Maximum power of solar panels: 5700W
- Rated output backup power: 3kW
- MPPT operating voltage range: from 90 to 520VDC
- Maximum input voltage: 600VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 2/2
- THDv (linear load): <2%
- THDi: <2%
- Power reduction at 45°C: ≤ 3%
- Battery voltage: 42-58VDC
- Battery Type: Lithium/Lead Acid
- Charging current: 62.5A
- EU performance: >96,5%
- Display: 7.0"LCD color screen display
- IP65
- Altitude: up to 3000m
- Ambient temperature: from -25 to 60°C
- Weight: 18.3kg
- Dimensions (WxHxD): 333x505x249mm

CERTIFICATION

- VDE/ EN/ IEC/ CE/ TUV
- See the full range of certificates on www.elmarkholding.eu



This product meets all the technical requirements set by the European Union for the construction of solar systems.

Scan and watch detailed video with all product functions.





SOLIS-RHI-5K-48ES/ 1P

SINGLE-PHASE HYBRID SOLAR INVERTER SOLIS 5KW- SOLIS-RHI-5K-48ES

It is an hybrid solar inverter with an integrated charge controller, making it an ideal power generation solution for locations where there is no electrical grid or as a backup power supply.

It requires solar panels, a battery or an electrical grid to operate. The inverter comes with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on it. It can monitor the status of the photo-voltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. To download the app, scan the code from page 666. The inverter does not offer the possibility to connect multiple devices in parallel.

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

Catalogue number:

423041

ADVANTAGES

- Integrated MPPT controller
- Intelligent Energy Management System (EMS) function, improving the reliability of the battery
- Built-in controller monitoring battery charge and discharge rates
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Integrated AFCI arc flash protection reducing the risk of fire
- Remote Wi-Fi monitoring
- Multiple operating modes to optimize system benefits

CERTIFICATION

- VDE/ EN/ IEC/ CE/ TUV
- See the full range of certificates on www.elmarkholding.eu

TECHNICAL DATA

- Number of poles: 1/N/PE
- Rated power: 5000W
- Maximum power of solar panels: 8000W
- MPPT operating voltage range: from 90 to 520VDC
- Maximum input voltage: 600VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 2/2
- THDv (linear load): <2%
- THDi: <2%
- Power reduction at 45°C: ≤ 3%
- Battery voltage: 42-58VDC
- Battery type: Lithium/Lead Acid
- Charging current: 100A
- EU performance: >96,8%
- Display: LCD
- IP65
- Altitude: up to 2000m
- Ambient temperature: from -25 to 60°C
- Weight: 18,3kg
- Dimensions (WxHxD): 340x510x250mm

Scan and watch detailed video with all product functions.



This product meets all the technical requirements set by the European Union for the construction of solar systems.



HYBRID



AFORE AF5K-SL/ 1P

Scan and watch detailed video with all product functions.



SINGLE-PHASE HYBRID SOLAR INVERTER 5KW AFORE AF5K-SL WITH POSSIBILITY TO PARALLEL COUPLING

The Afore AF low voltage Series storage Inverters are designed to increase energy independence for homeowners. AF5K-SL is compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

AF5K-SL inverter integrated with Arc Fault Circuit Interrupter (AFCI) and Rapid Shutdown.

Check the system status anytime and anywhere via online portal or Afore smart HOME APP.

Catalogue number:

423036

ADVANTAGES

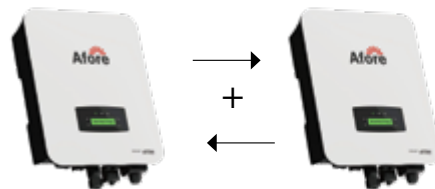
- UPS function
- Support generator and wind turbine
- Ability to operate up to 6 inverters in parallel and increase system power up to 30kW.
- Anti-flow: Ant-feed function
- PV oversize: Max. 1.5 time PV oversize capacity
- Multiple intelligent protection
- Smart monitoring & remote firmware upgrade
- PV Reverse polarity protection
- Over current/ voltage protection
- Anti-islanding protection
- AC short circuit protection
- Residual current detection
- Ground fault monitoring
- Insulation resistor detection
- PV arc detection

TECHNICAL DATA

- Number of poles: 1P/N/PE
- Rated power: 5KW
- Maximum power of solar panels: 7500W
- MPPT operating voltage range: 80-500V DC
- Maximum input voltage: 550VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 2/2
- Battery voltage: 40-60VDC
- Battery Type: Lithium/Lead Acid
- Charging current: 80A
- EU performance: > 97,6%
- Display: LCD
- Modbus: RS485
- IP code: IP65
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 17kg
- Dimension (WxHxD): 513x370x192mm

CERTIFICATION

- VDE/ EN/ IEC/ CE
- See the full range of certificates on www.elmarkholding.eu



Increase the power to 10kW with parallel coupling



This product meets all the technical requirements set by the European Union for the construction of solar systems.

**ELMARK offers the possibility of extending the warranty period to 10 years on all inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*





RHI-3P6K-HVES-5G/ 3P
RHI-3P10K-HVES-5G/ 3P

THREE-PHASE HYBRID SOLAR INVERTER SOLIS 6KW AND 10KW- RHI-3P6K-HVES-5G AND RHI-3P10K-HVES-5G

These are hybrid solar inverters with integrated charge controllers, making them an ideal power generation solution for locations where there is no power grid or as backup power supply.

They require solar panels, a battery or an electrical grid to operate. The inverters come with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on them. It can monitor the status of the photovoltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. To download the app, scan the code from page 666. The inverter does not offer the possibility to connect multiple devices in parallel.

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

ADVANTAGES

- Maximum efficiency 98.4%
- Three modes of operation (on own consumption, during use and off-grid back-up)
- Built-in controller monitoring battery charge and discharge rates
- Integrated MPPT controller
- Intelligent Energy Management System (EMS) function, improving the reliability of the battery
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Integrated AFCI arc flash protection reducing the risk of fire
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring

TECHNICAL DATA:

- Number of poles: 3/N/PE
- Rated power: 6000W /10 000W
- Maximum power of solar panels: 9600W/16 000W
- MPPT operating voltage range: from 200 to 850VDC
- Maximum input voltage: 1000VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 2/2; 2/4
- Battery voltage: 160-600VDC
- Battery type: Li-ion
- Charging current: 25A
- EU performance: >97,7%
- Display: LCD
- IP65
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Humidity range: from 0 to 100%
- Weight: 25.1kg
- Dimensions (WxHxD): 535x455x185mm

CERTIFICATION

- VDE/ EN/ IEC/ CE/ TUV
- See the full range of certificates on www.elmarkholding.eu

Catalogue number	Type	Number of poles	Rated power (W)	Maximum power of solar panels	Dimensions WxHxD (mm)
423044	RHI-3P6K-HVES-5G	3/N/PE	6000	9600	535x455x185
423045	RHI-3P10K-HVES-5G	3/N/PE	10000	16 000	535x455x185

Scan and watch detailed video with all product functions.



These products meet all the technical requirements set by the European Union for the construction of solar systems.



AF10K-T/ 3P
AF20K-T/ 3P

THREE-PHASE HYBRID SOLAR INVERTERS 10KW AND 20KW AFORE WITH POSSIBILITY TO PARALLEL COUPLING

The Afore AF low voltage Series storage Inverters are designed to increase energy independence for homeowners and commercial users. They are compatible with high voltage (150-800V) batteries. Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

AF5K-SL inverter integrated with Arc Fault Circuit Interrupter (AFCI) and rapid shutdown.

Check the system status anytime and anywhere via online portal or Afore smart HOME APP.

ADVANTAGES

- UPS function
- Support generator and wind turbine
- Ability to operate up to 6 inverters in parallel and increase system power up to 120kW.
- Support unbalance load
- Anti-flow: Ant-feed function
- PV oversize: Max. 1.5 time PV oversize capacity
- Multiple intelligent protection
- Smart: Smart monitoring & remote firmware upgrade
- PV Reverse polarity protection
- Over current/ voltage protection
- Anti-islanding protection
- AC short circuit protection
- Residual current detection
- Ground fault monitoring
- Insulation resister detection
- PV arc detection

TECHNICAL DATA

- Number of poles: 3P/N/PE
- Rated power: 10KW/ 20KW
- Maximum power of solar panels: 15KW/ 30kW
- MPPT operating voltage range: 150-850V DC
- Maximum input voltage: 1000VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 2/2; 2/4
- Battery voltage: 150-800VDC
- Battery Type: Lithium/Lead Acid
- Charging current: 30A; 50A
- EU performance: > 98,2%; 97,8%
- Display: LCD
- Modbus: RS485
- IP code: IP65
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 22kg; 28kg
- Dimension (WxHxD): 588x426x250mm

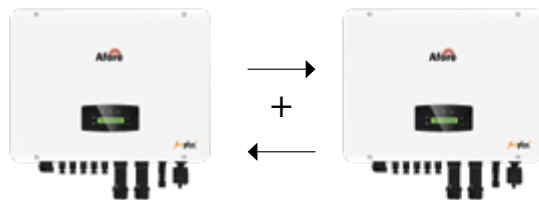
CERTIFICATION

- VDE/ EN/ IEC/ CE

See the full range of certificates on www.elmarkholding.eu

Catalogue number	Type	Number of poles	Rated power (W)	Maximum power of solar panels (W)	Dimensions WxHxD (mm)
423037	AF10K-T	3P/N/PE	10000	15000	588x426x250
423038	AF20K-T	3P/N/PE	20000	30000	588x426x250

Scan and watch detailed video with all product functions.



By connecting up to 6 inverters in parallel, you can get power from 30 to 120kW



This product meets all the technical requirements set by the European Union for the construction of solar systems.

*ELMARK offers the possibility of extending the warranty period to 10 years on all inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.




 10 YEARS
 WARRANTY


RAI-3K-48ES-5G/ 1P

SINGLE-PHASE INVERTER SOLIS FOR UPGRADE ON-GRID SYSTEM WITH OFF-GRID FUNCTIONALITY 3KW- RAI-3K-48ES-5G

The AC-Coupled inverter is used for upgrade the existing on-grid single pole Solis power generation system to a hybrid system which can work with batteries to optimize self-consumption. The energy storage inverter is a good choice for ON-GRID and OFF-GRID integrated storage solutions.

The inverters come with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on them. It can monitor the status of the photo-voltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. To download the app, scan the code from page 423.

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

Catalogue number:

423040

ADVANTAGES

- Compatible with any ON-GRID SOLIS SYSTEM
- Compatible with both Li-ion battery and lead-acid battery
- Built-in controller monitoring battery charge and discharge rates
- OFF-GRID, back-up function
- Minimum/maximum voltage protection of the battery
- Battery protection at wrong poles connection
- Thermal protection
- Intelligent Energy Management System (EMS) function, improving the reliability of battery
- Remote Wi-Fi monitoring



Scan and watch detailed video with all product functions.

TECHNICAL DATA

- Number of poles: 1/N/PE
- Rated power: 3000W
- Maximum input voltage: 1000VDC
- THDv (linear load): <3%
- THDi: <3%
- Power reduction at 45°C: ≤ 3%
- Battery voltage: 40-60VDC
- Battery type: Li-ion/lead acid
- Charging current: 60A
- Maximum charging efficiency: >94,0%
- Maximum discharge efficiency: >94,5%
- Display: LCD
- IP65
- Altitude: up to 2000m
- Ambient temperature: from -25 to 60°C
- Weight: 15kg
- Dimensions (WxHxD): 403x525x170mm

CERTIFICATION

VDE/ EN/ IEC/ CE/ TUV

See the full range of certificates on www.elmarkholding.eu



This product meets all the technical requirements set by the European Union for the construction of solar systems.


 10 YEARS
 WARRANTY

ON-GRID SOLAR INVERTERS



GRID CONNECTED (ON-GRID) SOLAR INVERTERS WITH POWERS FROM 3.6 TO 110KW



SOLIS-S6-GR1P3.6-M/ 1P
 SOLIS-S6-GR1P5K/ 1P
 SOLIS-1P8K-5G/ / 1P

10 YEARS WARRANTY

These are the most common type of inverters, also known as strings, ON-GRIDs or grid connected. Their work requires power from the power grid. These inverters cannot operate with a battery serving as energy storage or as a UPS.

SINGLE-PHASE (ON-GRID) SOLAR INVERTERS SOLIS 3.6KW, 5KW AND 8KW

Standard grid inverters are the most commonly used type of inverters for trading electricity or producing electricity for own use. Because they themselves cannot work with batteries, this means that they can only be used during the bright part of the day. That is, the electricity produced from the solar panels is consumed instantly or returned to the electricity grid for sale.

The inverters come with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on them. It can monitor the status of the photovoltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. To download the app, scan the code from page 666.

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

ADVANTAGES

- Integrated algorithm for Maximum Power Point Tracking (MPPT)
- Integrated EPM (Export Power Manager) function
- Short circuit protection
- DC reverse voltage protection
- Over voltage protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring

CERTIFICATION

- VDE/ EN/ IEC/ CE/ TUV
- See the full range of certificates on www.elmarkholding.eu

TECHNICAL DATA 3.6KW/ 5KW/ 8KW

- Number of poles: 1/N/PE
- Rated power: **3.6KW/ 5KW/ 8KW**
- Maximum power of solar panels: 5400W/ 7500W/ 12000W
- MPPT operating voltage range: 80-500VDC/ 90-520VDC/ 80-500VDC/ 90-520VDC
- Maximum input voltage: 600VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 1/2; 2/2; 3/2
- THDv (linear load): <2%
- THDi: <2%
- Power reduction at 45°C: ≤ 3%
- EU performance: >96,8%/ 97,1%/ 97,3%
- Display: LCD
- IP code: IP66
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 7.7kg/ 12kg/ 13.3kg
- Dimension (WxHxD): 310x373x160mm/ 310x543x160mm/ 310x543x160mm

Catalogue number	Type	Number of poles	Rated power (W)	Maximum power of solar panels (W)	Dimensions WxHxD (mm)
423001	SOLIS-S6-GR1P3.6-M	1/N/PE	3600	5400	310x373x160
423002	SOLIS-S6-GR1P5K	1/N/PE	5000	7500	310x543x160
423003	SOLIS-1P8K-5G	1/N/PE	8000	12000	310x543x160

Scan and watch detailed video with all product functions.



These products meet all the technical requirements set by the European Union for the construction of solar systems.



HNS6000TL/ 1P
HNS10000TL/ 1P

SINGLE-PHASE (ON-GRID) SOLAR INVERTERS AFORE 5KW AND 10KW

The Afore HNS Series Single-phase inverters are designed for residential PV system applications. All models have uni body housings with aluminum structure which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, the uni body housings can ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

The inverter menu is activated by sensor touch buttons. Communication implements are via the Wi-Fi module (can be changed to Ethernet/ GPRS).

Check the system status anytime and anywhere via online portal or Afore smart HOME APP.

ADVANTAGES

- Anti-flow: Ant-feed function
- PV oversize: Max. 1.5 time PV oversize capacity
- Multiple intelligent protection
- Smart IV curve scanning
- Wi-Fi Standard Ethernet
- Configuration: Quick and easy configuration via Wi-Fi
- PV Reverse polarity protection
- PV Insulation resistance detection
- AC short circuit protection
- AC over current protection
- AC over voltage protection
- Anti-islanding protection
- Residual current detection
- Over temperature protection
- Integrated DC switch
- Surge protection type III
- Smart IV curve scanning
- Active and reactive power compensation, adjust power factor
- High-quality power output and low THDI

TECHNICAL DATA

- Number of poles: 1/N/PE
- Rated power: 5KW/ 10KW
- Maximum power of solar panels: 7000W/ 14000W
- MPPT operating voltage range: 70-550V DC
- Maximum input voltage: 600VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 2/2; 2/4
- EU performance: > 98,2%/ 98,4%
- Display: LCD
- Modbus: RS485
- IP code: IP65
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 11kg/ 19kg
- Dimension (WxHxD): 370x350x142mm/ 510x370x167mm

CERTIFICATION

VDE/ EN/ IEC/ CE
See the full range of certificates on www.elmarkholding.eu

Catalogue number	Type	Number of poles	Rated power (W)	Maximum power of solar panels (W)	Dimensions WxHxD (mm)
423004	HNS6000TL	1/N/PE	5000	7000	370x350x142
423005	HNS10000TL	1/N/PE	10000	14000	510x370x167

Scan and watch detailed video with all product functions.



This product meets all the technical requirements set by the European Union for the construction of solar systems.

**ELMARK offers the possibility of extending the warranty period to 10 years on all inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*





SOLIS-S5-GR3P6K/ 3P
SOLIS- S5-GR3P10K/ 3P
SOLIS- S5-GR3P15K/ 3P
SOLIS- 3P20K-4G/ 3P
SOLIS-S5-GC30K/ 3P

THREE-PHASE (ON-GRID) SOLAR INVERTER SOLIS 6KW, 10KW, 15KW, 20KW AND 30KW

Standard grid inverters are the most commonly used type of inverters for trading electricity or producing electricity for own use. As they cannot run on batteries alone, this means they can only be used during daylight hours. That is, the electricity produced from the solar panels is consumed instantly or returned to the electricity grid for sale.

The inverters come with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on them. It can monitor the status of the photovoltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. To download the app, scan the code from page 666.

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

ADVANTAGES

- Integrated algorithm for Maximum Power Point Tracking (MPPT)
- Integrated EPM (Export Power Manager) function
- Short circuit protection
- DC reverse voltage protection
- Over voltage protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring

CERTIFICATION

- VDE/ EN/ IEC/ CE/ TUV
- See the full range of certificates on www.elmarkholding.eu

TECHNICAL DATA 6KW/ 10KW/ 15KW/ 20KW/ 30KW

- Number of poles: 3/N/PE
- Rated power: 6000W/ 10 000W/ 15 000W/ 20 000W/ 30 000W
- Maximum power of solar panels: 9000W/ 15 000W/22 500W/ 30 000W/ 45 000W
- MPPT operating voltage range: 160-1000VDC
- Maximum input voltage: 1100VDC
- Number of independent outputs (MPP Trackers)/Strings on each output:2/2; 2/2; 2/4; 2/4; 3/6
- EU performance: >98,3%/ 97,9%/ 98%/ 98,1%/ 98,1%
- Display: LCD
- IP code: IP66
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 17.8 kg/ 17.8kg/ 18.8kg/ 20kg/ 37kg

Catalogue number	Type	Number of poles	Rated power (W)	Maximum power of solar panels (W)	Dimensions WxHxD (mm)
423019	SOLIS-S5-GR3P6K	3/N/PE	6000	9000	310x563x219
423020	SOLIS- S5-GR3P10K	3/N/PE	10000	15000	310x563x219
423021	SOLIS- S5-GR3P15K	3/N/PE	15000	22500	310x563x219
423022	SOLIS- 3P20K-4G	3/N/PE	20000	30000	310x563x219
423023	SOLIS-S5-GC30K	3/N/PE	30000	45000	647x629x252

Scan and watch detailed video with all product functions.



These products meet all the technical requirements set by the European Union for the construction of solar systems.

10 YEARS WARRANTY



BNT010KTL/ 3P
BNT015KTL/ 3P
BNT020KTL/ 3P
BNT030KTL/ 3P

THREE-PHASE (ON-GRID) SOLAR INVERTERS AFORE 10KW, 15KW, 20KW AND 30KW

The Afore BNT series three-phase string inverters are designed for commercial and power plant PV system applications. All models have uni body housings with aluminum structure which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, the uni body housings can ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

The inverter menu is activated by sensor touch buttons. Communication implements are via the Wi-Fi module.

Check the system status anytime and anywhere via online portal or Afore smart HOME APP.

ADVANTAGES

- Anti-flow: Ant-feed function
- PV oversize: Max. 1.5 time PV oversize capacity
- Multiple intelligent protection
- Smart IV curve scanning
- Wi-Fi Standard Ethernet
- Configuration: Quick and easy configuration via Wi-Fi
- PV Reverse polarity protection
- PV Insulation resistance detection
- AC short circuit protection
- AC over current protection
- AC over voltage protection
- Anti-islanding protection
- Residual current detection
- Over temperature protection
- Integrated DC switch
- Surge protection type III
- Smart IV curve scanning
- Active and reactive power compensation, adjust power factor
- High-quality power output and low THDI

TECHNICAL DATA

- Number of poles: 3P/N/PE
- Rated power: 10KW/ 15KW/ 20KW/ 30KW
- Maximum power of solar panels: 15000W/ 22500W/ 30000W/ 42000W
- MPPT operating voltage range: 150-1000V DC/ 200-950V DC for 30 kW
- Maximum input voltage: 1100VDC and 1000V DC for 30kW
- Number of independent outputs (MPP Trackers)/Strings on each output: 2/2; 2/3; 2/4; 3/6
- EU performance: > 98,7%/ 98,7%/ 98,75%/ 98,5%
- Display: LCD
- Modbus: RS485
- IP code: IP65
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 15kg/ 17kg/ 19kg/ 32kg

CERTIFICATION

VDE/ EN/ IEC/ CE
See the full range of certificates on www.elmarkholding.eu

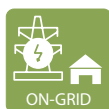
Catalogue number	Type	Number of poles	Rated power (W)	Maximum power of solar panels (W)	Dimensions WxHxD (mm)
423030	BNT010KTL	3P/N/PE	10000	15000	510x370x192
423031	BNT015KTL	3P/N/PE	15000	22500	510x370x192
423032	BNT020KTL	3P/N/PE	20000	30000	535x370x192
423033	BNT030KTL	3P/N/PE	30000	42000	610x450x222

Scan and watch detailed video with all product functions.



This product meets all the technical requirements set by the European Union for the construction of solar systems.

**ELMARK offers the possibility of extending the warranty period to 10 years on all inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*



SOLIS-S5-GC40K/ 3P



SOLIS-S5-GC50K/ 3P

SOLIS-S5-GC60K/ 3P

7 * YEARS
 WARRANTY

THREE-PHASE (ON-GRID) SOLAR INVERTER SOLIS 40KW, 50KW AND 60KW

Standard grid inverters are the most commonly used type of inverters for trading electricity or producing electricity for own use. As they cannot run on batteries alone, this means they can only be used during daylight hours. That is, the electricity produced from the solar panels is consumed instantly or returned to the electricity grid for sale.

The inverter comes with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on it. It can monitor the status of the photo-voltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. To download the app, scan the code from page 666

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

ADVANTAGES

- Integrated algorithm for Maximum Power Point Tracking (MPPT)
- Integrated EPM (Export Power Manager) function
- SVG Function
- Maintains work with aluminum wires to reduce costs for the system
- Short circuit protection
- DC reverse voltage protection
- Surge protection - cathodic arrester type II
- Thermal protection
- Scanning I/V Curves
- Integrated AFCI arc flash protection reducing the risk of fire
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring

TECHNICAL DATA 40KW/ 50KW/ 60KW

- Number of poles: 3/N/PE
- Rated power: 40 000W/ 50 000W/ 60 000W
- MPPT operating voltage range: 200-1000VDC/ 180-1000VDC
- Maximum input voltage: 1100VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 4/8; 5/10; 6/12
- EU performance: >98,3%
- Display: LCD
- IP66
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 37kg/ 54.5kg/ 54.5kg
- Dimensions (WxHxD): 647x629x252mm/ 691x578x338mm/ 691x578x338

CERTIFICATION

- VDE/ EN/ IEC/ CE/ TUV
- See the full range of certificates on www.elmarkholding.eu

Catalogue number	Type	Number of poles	Rated power (W)	MPPT operating voltage range (VDC)	Dimensions WxHxD (mm)
423024	Solis-S5-GC40K	3/N/PE	40000	200-1000	647x629x252mm



Products are delivered on request, after coordination of a project and preparation of an individual offer.

Catalogue number	Type	Number of poles	Rated power (W)	MPPT operating voltage range (VDC)	Dimensions WxHxD (mm)
423025	Solis-S5-GC50K	3/N/PE	50000	180-1000	691x578x338
423026	Solis-S5-GC60K	3/N/PE	60000	180-1000	691x578x338



Products are delivered on request, after coordination of a project and preparation of an individual offer.

Scan and watch detailed video with all product functions.



These products meet all the technical requirements set by the European Union for the construction of solar systems.



SOLIS-80K-5G/ 3P
SOLIS-100K-5G/ 3P
SOLIS-110K-5G/ 3P

THREE-PHASE (ON-GRID) SOLAR INVERTER SOLIS 80KW, 100KW AND 110KW

Standard grid inverters are the most commonly used type of inverters for trading electricity or producing electricity for own use. As they cannot run on batteries alone, this means they can only be used during daylight hours. That is, the electricity produced from the solar panels is consumed instantly or returned to the electricity grid for sale.

The inverters come with the additional option of purchasing a Wi-Fi plug-and-play device with catalog No 423050 for remote monitoring, which connects to a dedicated input on them. It can monitor the status of the photovoltaic system from a mobile phone or computer at any time and from anywhere in the world with the SolisCloud app. The app is compatible with Android and iOS in 10 different languages. To download the app, scan the code from page 666.

**ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

ADVANTAGES

- Integrated algorithm for Maximum Power Point Tracking (MPPT)
- Integrated EPM (Export Power Manager) function
- SVG Function
- Supports working with aluminum wires to reduce system costs
- Short circuit protection
- DC reverse voltage protection
- Surge protection - cathodic arrester type II
- Thermal protection
- Scanning I/V Curves
- Integrated AFCI arc flash protection reducing the risk of fire
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring

TECHNICAL DATA 80KW, 100KW AND 110KW

- Number of poles: 3/N/PE
- Rated power: 80 000W/ 100 000W/ 110 000W
- MPPT operating voltage range: 180-1000VDC
- Maximum input voltage: 1100VDC
- Number of independent outputs (MPP Trackers)/Strings on each output: 9/18; 10/20; 10/20
- EU performance: >98,3%
- Display: LCD
- IP66
- Altitude: up to 4000m
- Ambient temperature: from -25 to 60°C
- Relative humidity: from 0 to 100%
- Weight: 82kg/ 91kg/ 91kg
- Dimensions (WxHxD):1050x567x315mm/ 1065x567x345mm/ 1065x567x345 mm

CERTIFICATION

- VDE/ EN/ IEC/ CE/TUV
- See the full range of certificates on www.elmarkholding.eu

Catalogue number	Type	Number of poles	Rated power (W)	MPPT operating voltage range (VDC)	Dimensions WxHxD (mm)
423027	Solis-80K-5G	3/N/PE	80000	180-1000	1050x567x315
423028	Solis-100K-5G	3/N/PE	100000	180-1000	1065x567x345
423029	Solis-110K-5G	3/N/PE	110000	180-1000	1065x567x345

Scan and watch detailed video with all product functions.



This product meets all the technical requirements set by the European Union for the construction of solar systems.

ACCESSORIES FOR SOLAR INVERTERS



EPM1-5G

SOLIS EXPORT MANAGER EPM1-5G

The Solis export power manager is the ideal solution for smart energy management for both residential and commercial systems. The unit allows you to adjust export values to satisfy local network regulatory requirements. Energy management with the Solis export power manager allows for higher self-consumption and efficient use of the locally generated PV power. Solis Export Power Manager EPM1-5G can control up to 10 inverters connected to it.

Catalogue number:
423053

ADVANTAGES

- Simultaneous control and monitoring of 10 inverter
- Supports "Δ" and "Y" grid systems and single-phase grids to reduce system changes
- Realizing reactive compensation of the system
- The control accuracy is up to 3%, which improves the system's spontaneous use rate
- Supports simultaneous access to Solis inverters with different capacities



TECHNICAL DATA

- Supported devices: all Solis-branded inverters
- Rated voltage: 230 V, 1/N/PE
- Input voltage range: L to N: 100~ 300 V (L-N)
- Input frequency range: 45~65 Hz
- Communication with the inverter: Modbus 485
- Monitoring: Wi-Fi stick
- Maximum communication distance: up 1000 m
- Maximum number of managing inverters: 10
- Display: LCD
- IP code: IP65
- Relative humidity: 5- 95%
- Ambient temperature: from -25 up 60°C
- Weight: 2.1 kg



EPM3-5G

SOLIS EXPORT MANAGER EPM3-5G

Thanks to Solis Export Power Manager EPM3-5G, you can adjust the export values of energy produced. This is an ideal solution for intelligent management of the energy produced for own needs and to meet the regulatory requirements of the local energy distribution company. Solis Export Power Manager EPM3-5G can control up to 10 inverters connected to it.

Catalogue number:
423051

ADVANTAGES

- Simultaneous control and monitoring of 10 inverter
- Supports "Δ" and "Y" networks, as well as single-phase
- Compensates for harmful harmonics and provides a power factor within normal limits
- High steering accuracy with deviation up 3%
- Supports simultaneous access to Solis inverters with different capacities



TECHNICAL DATA

- Supported devices: all Solis-branded inverters
- Rated voltage: 400 V, 3/N/PE or 3/PE
- Input voltage range: L to N: 100~277 V; L to L: 176~480 V
- Communication with the inverter: Modbus RS485 with two-pin RS485 cable
- Monitoring: Wi-Fi stick
- Maximum length of the connecting cable: up 1000 m
- Maximum number of managing inverters: 10
- Display: LCD
- IP code: IP65
- Relative humidity: 5- 95%
- Ambient temperature: from -25 up 60°C
- Weight: 2.1 kg

7 YEARS TOTAL WARRANTY
 + 7 standard
 0 extended



EPM3-5G-PLUS

SOLIS EXPORT MANAGER EPM3-5G-PLUS

Thanks to Solis Export Power Manager EPM3-5G-PLUS, you can adjust the export values of energy produced. This is an ideal solution for intelligent management of the energy produced for own needs and for meeting the regulatory requirements of the local energy distribution company. Solis Export Power Manager EPM3-5G-PLUS can control up to 80 inverters connected to it.

Catalogue number:
423052

ADVANTAGES

- Simultaneous control and monitoring of 10 inverter
- Supports "Δ" and "Y" networks, as well as single-phase
- Compensates for harmful harmonics and provides a power factor within normal limits
- High steering accuracy with deviation up 3%
- Supports simultaneous access to Solis inverters with different capacities

TECHNICAL DATA:

- Supported devices: all Solis-branded inverters
- Rated voltage: 400 V, 3/N/PE
- Input voltage range: L to N: 100~263 V
- Communication with the inverter: Modbus RS485 dual pin cable RS485 or RJ45
- Monitoring: built-in Wi-Fi box (DLB-W)
- Maximum length of the connecting cable: up 1000 m
- Maximum number of managing inverters: 80 with power up 2MW
- Display: LCD
- IP code: IP65
- Relative humidity: 5- 95%
- Ambient temperature: from -25 up 60°C
- Weight: 5.4kg



WI-FI DEVICE FOR CONTROL AND ANALYSIS

The Solis monitoring system is focused on remote service and maintenance of the built system. This is achieved thanks to a Wi-Fi plug-and-play device that can be placed on any SOLIS-branded inverter. The monitoring possibility provides users with accurate and comprehensive data analysis, as well as timely notification of damage.

Catalogue number:
423050

ADVANTAGES

- Easy installation - plug-and-play
- Real-time damage alarm
- Status indication
- Reset debugging button

TECHNICAL DATA

- Supported devices: all Solis-branded inverters
- Operating voltage: 5 VDC (+/-5%)
- Indicator light: LED x 3
- Power Consumption 5W
- Configuration method: APP/WEB
- Data storage: 4MB
- IP code: IP65
- Relative humidity: 5- 95%
- Ambient temperature: from -40 to 70°C
- Weight: 80g



7 YEARS TOTAL WARRANTY
+ 7 standard
0 extended

SMART METERS

The „Smart Meter“ is an important element in the construction of a photo-voltaic system, especially in cases where we do not have a contract for the sale of produced energy to the local energy distribution company. When daytime production exceeds consumption, excess energy is returned to the grid and charged as consumed. To avoid this, a Smart Meter must be added to the system. Its function is to continuously (24/7) monitor the consumption at the customer premises and feed this information to the inverter. By receiving the information from the meter, the inverter knows at all times whether the produced energy is more than consumption. When the production values exceed the consumed power, the inverter instantly reduces its production so that it is equal to or less than the on-site consumption, thus avoiding energy being fed back into the grid.



SOLIS SINGLE-PHASE SMART METER DDSD1352

A three-phase DDSD1352 electricity meter can be used in all types of control systems, including SCADA. It is distinguished by high accuracy, small dimensions, and easy installation. It is used for measuring and managing multiple electrical parameters, providing data for the previous 12 months, on the condition of harmonics, realizes remote switching and control with switching of input and relay output with the possibility of alarm notification.

Catalogue number:

423060

ADVANTAGES

- Measurement of a wide range of parameters
- Easy parameter adjustment using 3 buttons
- Multi-tariff - four tariffs
- 4 time zones, 2 time interval channels with 14 intervals per day
- Voltage drop or over voltage warning

* Smart meter DDSD1352 is compatible with all 1P solar inverters SOLIS.



Scan and watch detailed video with all product functions.

TECHNICAL DATA

- Input voltage: 220V AC
- Rated current: 10A
- Maximum current: 60A
- Accuracy class: 1
- Measuring range: 000000.00~99999999kWh
- Measurement parameters: voltage, current, active, reactive and power factor, power factor, frequency
- Constant: 1600imp/kWh
- Protocol: MODBUS-RTU
- Communication: Infrared
- Display: 8 Bit LCD
- Dimensions (LxHxW): 36x88x70mm

SOLIS THREE-PHASE SMART METER DTSD1352

A three-phase DTSD1352 electricity meter can be used in all types of control systems, including SCADA. Designed for power supply systems, industrial mining enterprises and utilities. It is distinguished by high accuracy, small dimensions and easy installation. It is used for measuring and managing multiple electrical parameters, providing data for the previous 48 months, on the condition of harmonics, including the 31st harmonic, realizes remote switching and control with switching of input and relay output with the possibility of alarm notification.

Catalogue number:

423061

ADVANTAGES

- Measurement of a wide range of parameters
- Easy parameter adjustment using 4 buttons
- Multi-tariff - four tariffs
- 4 time zones, 2 time interval channels with 14 intervals per day
- Voltage drop or over voltage warning

* Smart meter DTSD1352 is compatible with all 3P solar inverters SOLIS.



Scan and watch detailed video with all product functions.

TECHNICAL DATA

- Voltage: 3x100V, 3x380V, 3x57.7/100V, 3x220/380V
- Resistance: >2MΩ
- Rated current: 3x1(6)A
- Maximum current: 3x1(80)A
- Deviation: ±0.2%
- Accuracy class: active energy 1; reactive energy 2
- Measuring range: 000000.00~99999999kWh
- Measurement parameters: voltage, current, active, reactive and apparent power factor, power factor, frequency
- Constant: 6400imp/kWh
- Communication protocol: MODBUS-RTU
- Communication interface: RS485, Infrared
- Display: 8 Bit LCD
- Dimensions (LxHxW): 126.5x88.2x69.5mm



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Scan and watch detailed video with all product functions.



AFORE SINGLE-PHASE SMART METER SAPM-10KW

Afore smart meter is an intelligent control device, which is designed for grid-connected inverters. Its main function is to measure the generation and consumption, transmit the data to the inverter through RS485 communication, to ensure that the generated power of the inverter is less or equal to the user's load.

Catalogue number:
423062

TECHNICAL DATA

- Rated power: 10kW
- Max. power: 18kW
- Accuracy: 1%
- Rated voltage: 230V
- Voltage range: 184-253V
- Rated current: 50A
- Max. current: 80A

- Connection for measurement: Direct connection
- Frequency range: 45-65Hz
- Grid type: L+N
- Communication: RS485
- IP code: IP20
- Mounting: on DIN-Rail
- Dimensions (LxWxH): 100x30x65mm

* Smart meter SAPM-10KW is compatible with all 1P solar inverters AFORE.



Scan and watch detailed video with all product functions.



AFORE TRIPLE-PHASE SMART METER TAPM-50KW

Afore smart meter is an intelligent control device, which is designed for grid-connected inverters. Its main function is to measure the generation and consumption, transmit the data to the inverter through RS485 communication, to ensure that the generated power of the inverter is less or equal to the user's load.

Catalogue number:
423063

TECHNICAL DATA

- Rated power: 50kW
- Max. power: 55kW
- Accuracy: 1%
- Rated voltage: 230/400V
- Voltage range: 320-440V
- Rated current: 72.5A
- Max. current: 80A

- Connection for measurement: Direct connection
- Frequency range: 45-65Hz
- Grid type: 3P+N
- Communication: RS485
- IP code: IP20
- Mounting: on DIN-Rail
- Dimensions (LxWxH): 100x70x65mm

* Smart meter TAPM-50KW is compatible with all 3P solar inverters AFORE.

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



Scan and watch detailed video with all product functions.



AFORE TRIPLE-PHASE SMART METER TAPM-130KW

Afore smart meter is an intelligent control device, which is designed for grid-connected inverters. Its main function is to measure the generation and consumption, transmit the data to the inverter through RS485 communication, to ensure that the generated power of the inverter is less or equal to the user's load.

Catalogue number:
423064

TECHNICAL DATA

- Rated power: 130kW
- Max. power: 150kW
- Accuracy: 1%
- Rated voltage: 230/400V
- Voltage range: 320-440V
- Rated current: 3x200A (CT max. 3x5000A)

- Max. current: 3x220A (CT max. 3x5000A)
- Grid type: 3P+N
- Communication: RS485
- IP code: IP20
- Mounting: on DIN-Rail
- Dimensions (LxWxH): 100x70x65mm

* Smart meter TAPM-130KW is compatible with all 3P solar inverters AFORE.

OFF-GRID SOLAR SYSTEMS



OFF-GRID SOLAR SYSTEM SETS

ELMARK offers various ready-made variants and solutions of complete non-grid solar systems with capacities from 300W to 10kW.

OFF-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 300W, SET

The 300W power kit on offer is extremely compact and easy to carry. The quality of the electricity it produces is stable and comparable to that from the grid. Its compact dimensions and mobility make it extremely suitable for powering small consumers off the grid. The battery is built into the body of the inverter and the solar panel is placed in a convenient carrying bag. In addition to sunlight, the inverter's lithium-ion battery can be charged from the mains (220V) or from a car battery (12V). The inverter has many different types and voltages of output ports, making it a versatile device suitable for powering appliances with different purposes.

Catalogue number:

98SOL501



ADVANTAGES OF THE SYSTEM

- Three ways to charge the battery - from the mains, battery, solar power
- It can be used as a backup power supply in case of failure of
- the main power supply for stand-by lighting or other important low-power consumers.
- High quality, rechargeable lithium-ion battery with cover capacity 495Wh
- The inverter has 2 universal outlets 100-240V AC (300W), compatible with all known world standard plugs
- USB ports for smartphones, iPad, MP3, camera, hobby (helicopters, drones, etc.)
- Lighter for car
- Ports for simultaneous battery charging and discharging
- 12V petrol car start function
- Overload protection and warning, short circuit, overheating, over voltage, overheating, over voltage

TECHNICAL DATA

- Rated power AC: 300W
- Peak power AC: 600W
- Output Voltage: 220V/50HZ; AC110V/60HZ; 12V
- Waveform: Pure sine wave (sinusoid)
- Battery: Li-ion 14.8V 33.5Ah
- Battery capacity: 495Wh
- Charge current characteristics: 18- 30V 3.5A (MAX)
- Solar panel current characteristics: 18V/ 100W
- Charging time required: 6-8h
- USB outputs: USB 2.05V 2A/USB QC 3.0/ Type-C
- Outputs 12V DC: 2x10A
- Outputs 220V DC: 2
- Operating temperature: from -10 to 60°C
- Dimensions LxWxH: 205x105x170mm
- Net weight of the inverter: 3.6kg

THE SOLAR SET INCLUDES

- Inverter (charging station) with built-in lithium-ion battery and power of 300W
- Solar panel 18V 100W



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

OFF-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 1000W, SET

The available 1000W kit is extremely compact and easy to carry. The quality of the electricity it produces is stable and comparable to that of mains electricity. Its compact size and mobility make it extremely suitable for powering small off-grid consumers. The battery is built into the inverter housing and the solar panel is placed in a convenient carrying bag. In addition to sunlight, the inverter's lithium-ion battery can be charged from the mains (220V) or from a car battery (12V). The inverter has many different types and voltages of output ports, making it a versatile device suitable for powering appliances with different purposes.

Catalogue number:
98SOL1001



ADVANTAGES OF THE SYSTEM

- Three ways to charge the battery - from the mains, battery, solar power
- It can be used as a backup power supply in case of failure of the main power supply for stand-by lighting or other important low-power consumers.
- High quality, rechargeable lithium-ion battery with cover capacity 1048Wh
- The inverter has 2 universal outlets 100-240V AC (1000W), compatible with all known world standard plugs
- USB ports for smartphones, iPad, MP3, camera, hobby (helicopters, drones, etc.)
- Lighter for car
- Ports for simultaneous battery charging and discharging
- 12V petrol car start function
- Overload protection and warning, short circuit, overheating, over voltage

THE SOLAR SET INCLUDES

- Inverter (charging station) with built-in lithium-ion battery and power of 1000W
- Solar panel 36V 100W



TECHNICAL DATA

- Rated power AC: 1000W
- Peak power AC: 2000W
- Output Voltage: 220V/50HZ; AC 110V/60HZ; 12V
- Waveform: Pure sine wave (sinusoid)
- Battery: Li-ion 25.2V 41.6Ah
- Battery capacity: 1048Wh
- Current charge characteristics: 29.4- 40V 15A (MAX)
- Solar panel current charge characteristics: 36V/ 100W
- Charging time required: 6-8h
- USB outputs: USB 2.05V 2A/USB QC 3.0/ Type-C
- Outputs 12V DC: 2x10A
- Outputs 220V DC: 2
- Operating temperature: from -10 to 60°C
- Dimensions LxWxH: 360x215x300mm
- Net weight of the inverter: 10.5kg

3 YEARS TOTAL WARRANTY
 + 3 standard
 0 extended

OFF-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 2000W,SET

The available 2000W kit is extremely compact and easy to carry. The quality of the electricity it produces is stable and comparable to that of mains electricity. Its compact size and mobility makes it extremely suitable for powering small off-grid consumers. The battery and inverter are housed in a wheeled case with a handle, and the solar panel is in a convenient carry bag. In addition to sunlight, the inverter's lithium-ion battery can be charged from the mains (220V) or from a car battery (12V). The inverter has many different types and voltages of output ports, making it a versatile device suitable for powering appliances with different purposes.

Catalogue number:
98SOL2001



ADVANTAGES OF THE SYSTEM

- Three ways to charge the battery - from the mains, battery, solar power
- It can be used as a backup power supply in case of failure of
- the main power supply for stand-by lighting or other important low-power consumers.
- High quality, rechargeable lithium-ion battery with cover capacity
- 2016Wh
- The inverter has 2 universal outlets 100-240V AC (2000W), compatible with all known world standard plugs
- USB port
- Lighter for car
- Ports for simultaneous battery charging and discharging
- 12V petrol car start function
- Overload protection and warning, short circuit,overheating, over voltage

THE SOLAR SET INCLUDES

- Inverter (charging station) with built-in lithium-ion battery and power of 2000W
- Solar panel 36V 200W



TECHNICAL DATA

- Rated power AC: 2000W
- Peak power AC: 4000W
- Output Voltage: 220V/50HZ; AC110V/60HZ; 12V
- Waveform: Pure sine wave (sinusoid)
- Battery: Li-ion 25.2V 80Ah
- Battery capacity: 2016Wh
- Current charge characteristics: 29.4- 40V 15A (MAX)
- Solar panel current charge characteristics: 36V/ 200W
- Charging time required: 10-12h
- USB outputs: USB 2.05V 2A/USB QC 3.0/ Type-C
- Outputs 12V DC: 1
- Outputs 220V DC: 2
- Operating temperature: from -10 to 60°C
- Dimensions LxWxH: 516x435x229mm
- Net weight of the inverter: 18kg

3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

HYBRID SOLAR SYSTEMS SETS



HYBRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 3600W, SET

The proposed kit is suitable for the construction of a stationary off-grid (OFF-GRID) solar system in places where there is no power grid or as a hybrid to provide backup power in case of power failure.

*ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

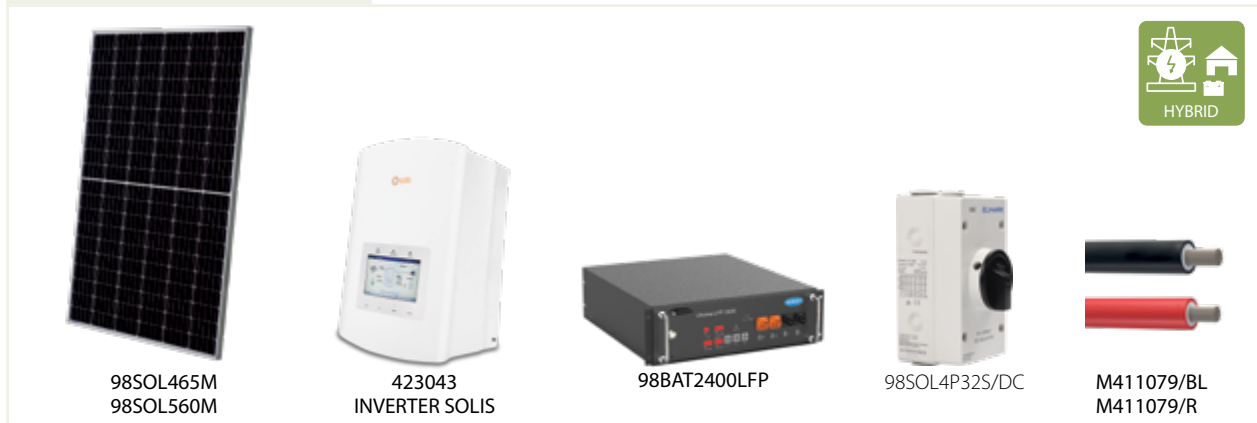
ADVANTAGES OF THE SYSTEM

- Ability to upgrade backup power capacity with adding additional batteries
- Maximum efficiency 98.4%
- Inverter mit integrated MPPT controller
- Intelligent Energy Management System (EMS) function, improving the reliability of battery
- Built-in controller monitoring battery charge and discharge rates
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Integrated AFCI arc flash protection reducing the risk of fire
- Remote Wi-Fi monitoring
- Multiple operating modes to optimize
- Remote Wi-Fi system monitoring
- High quality monocrystalline half cut cells solar panels with high efficiency up to 21.5%
- Low performance drop of the system and long service life of the solar panels, up to 30 years



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL3600HM/2

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 3600W	423043	1 pc.
Solar panel 465W	98SOL465M	8 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	1 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	1 pc.



*Rated output backup power: 3000W

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL3600HM/3

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 3600W	423043	1 pc.
Solar panel 560W	98SOL560M	7 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	1 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	1 pc.



*Rated output backup power: 3000W

WARRANTY

» Solar panel
15 YEARS WARRANTY

» Inverter SOLIS
10 YEARS WARRANTY

» Battery
10 YEARS WARRANTY

HYBRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 5000W, SET

The proposed kit is suitable for the construction of a stationary off-grid (OFF-GRID) solar system in places where there is no power grid or a hybrid to provide backup power in case of power failure.

**ELMARK offers the possibility of extending the warranty period to 15 years on inverters Solis and 10 years on inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

ELMARK offers the preparation of an individual project, including all the necessary elements for the construction of a solar system, completely free of charge. On our website www.elmarkholding.eu, you can fill in a form for the preparation of an individual project by filling in and sending the parameters specified in it. We will prepare you a project and an offer.

ADVANTAGES OF THE SYSTEM

- Ability to upgrade backup power capacity with adding additional batteries
- Inverter with built-in MPPT controller
- Intelligent Energy Management System (EMS) function, improving the reliability of battery
- Built-in controller monitoring battery charge and discharge rates
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Integrated AFCI arc flash protection reducing the risk of fire
- Remote Wi-Fi monitoring
- Multiple operating modes to optimize system benefits
- Remote Wi-Fi system monitoring
- High quality monocrystalline half cut cells solar panels with high efficiency up to 21.5%
- Low performance drop of the system and long service life of the solar panels, up to 30 years



This SOLIS/ AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS



Catalogue number:
98SOL5000HM/2

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 5000W	423041	1 pc.
Solar panel 465W	98SOL465M	11 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	1 pc.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 465W WITH INVERTER AFORE



Catalogue number:
98SOL5000HM/4

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Afore 5000W	423036	1 pc.
Solar panel 465W	98SOL465M	11 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	1 pc.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS



Catalogue number:
98SOL5000HM/3

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 5000W	423041	1 pc.
Solar panel 560W	98SOL560M	9 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	1 pc.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER AFORE



Catalogue number:
98SOL5000HM/5

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Afore 5000W	423036	1 pc.
Solar panel 560W	98SOL560M	9 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	1 pc.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

» Inverter AFORE

5* YEARS WARRANTY

» Battery

10 YEARS WARRANTY

HYBRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 6000W, SET

The proposed kit is suitable for the construction of a stationary off-grid (OFF-GRID) solar system in places where there is no power grid or as a hybrid to provide backup power in case of power failure.

*ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

ELMARK offers the preparation of an individual project, including all the necessary elements for the construction of a solar system, completely free of charge. On our website www.elmarkholding.eu, you can fill in a form for the preparation of an individual project by filling in and sending the parameters specified in it. We will prepare you a project and an offer.

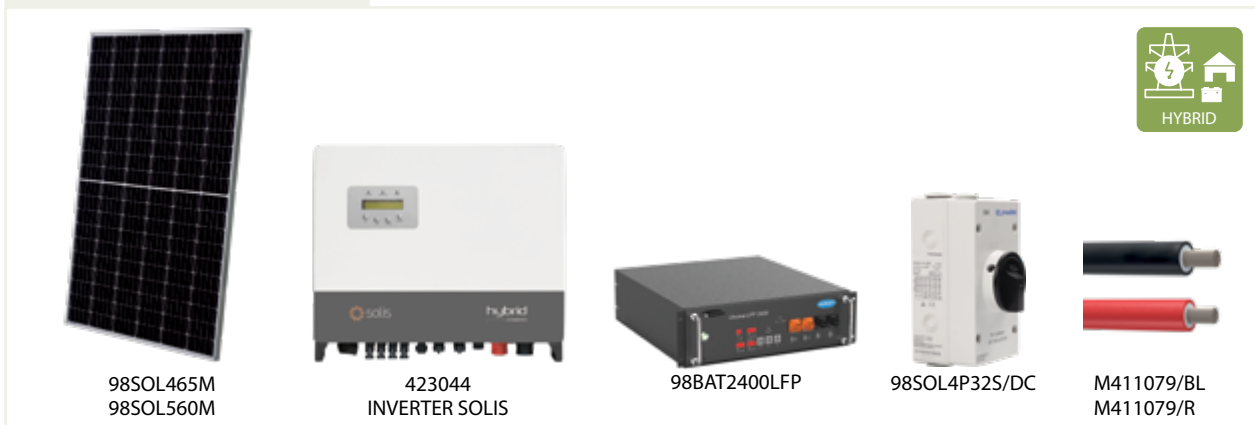
ADVANTAGES OF THE SYSTEM

- Ability to upgrade backup power capacity with adding additional batteries
- Maximum efficiency 98.4%
- Inverter with integrated MPPT controller
- Intelligent Energy Management System (EMS) function, improving the reliability of battery
- Built-in controller monitoring battery charge and discharge rates
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Integrated AFCI arc flash protection reducing the risk of fire
- Remote Wi-Fi monitoring
- Multiple operating modes to optimize
- Remote Wi-Fi system monitoring
- High quality monocrystalline half cut cells solar panels with high efficiency up to 21.5%
- Low performance drop of the system and long service life of the solar panels, up to 30 years



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M

423044
INVERTER SOLIS

98BAT2400LFP

98SOL4P32S/DC

M411079/BL
M411079/R

SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL6003HM/2

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 6000W	423044	1 pc.
Solar panel 465W	98SOL465M	13 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL6003HM/3

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 6000W	423044	1 pc.
Solar panel 560W	98SOL560M	11 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



HYBRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 10000W, SET

The proposed kit is suitable for the construction of a stationary off-grid (OFF-GRID) solar system in places where there is no power grid or a hybrid to provide backup power in case of power failure.

**ELMARK offers the possibility of extending the warranty period to 15 years on inverters Solis and 10 years on inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

ELMARK offers the preparation of an individual project, including all the necessary elements for the construction of a solar system, completely free of charge. On our website www.elmarkholding.eu, you can fill in a form for the preparation of an individual project by filling in and sending the parameters specified in it. We will prepare you a project and an offer.

ADVANTAGES OF THE SYSTEM

- Maximum efficiency 98.4% of the inverter
- Inverter with integrated MPPT controller
- Built-in controller monitoring battery charge and discharge rates
- Intelligent EMS function, increasing battery life
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Integrated AFCI arc flash protection reducing the risk of fire
- Remote Wi-Fi monitoring
- Multiple operating modes to optimize system benefits
- Remote Wi-Fi system monitoring
- High quality monocrystalline half cut cells solar panels with high efficiency up to 21.5%
- Low performance drop of the system and long service life of the solar panels, up to 30 years



This SOLIS/ AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL10003HM/2



Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 10 000W	423045	1 pc.
Solar panel 465W	98SOL465M	22 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 465W WITH INVERTER AFORE

Catalogue number:
98SOL10003HM/4



Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Afore 10 000W	423037	1 pc.
Solar panel 465W	98SOL465M	22 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL10003HM/3



Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 10 000W	423045	1 pc.
Solar panel 560W	98SOL560M	18 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER AFORE

Catalogue number:
98SOL10003HM/5



Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Afore 10 000W	423037	1 pc.
Solar panel 560W	98SOL560M	18 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

» Inverter AFORE

5* YEARS WARRANTY

» Battery

10 YEARS WARRANTY

HYBRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 20000W, SET

The proposed kit is suitable for the construction of a stationary off-grid (OFF-GRID) solar system in places where there is no power grid or as a hybrid to provide backup power in case of power failure.

*ELMARK offers the possibility of extending the warranty period to 10 years on all inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

ELMARK offers the preparation of an individual project, including all the necessary elements for the construction of a solar system, completely free of charge. On our website www.elmarkholding.eu, you can fill in a form for the preparation of an individual project by filling in and sending the parameters specified in it. We will prepare you a project and an offer.

ADVANTAGES OF THE SYSTEM

- UPS function
- Support generator and wind turbine
- Ability to operate up to 6 inverters in parallel
- Support unbalance load
- Anti-flow: Ant-feed function
- PV oversize: Max. 1.5 time PV oversize capacity
- Multiple intelligent protection
- Smart monitoring & remote firmware upgrade
- PV Reverse polarity protection
- Over current/ voltage protection

- Anti-islanding protection
- AC short circuit protection
- Residual current detection
- Ground fault monitoring
- Insulation resistor detection
- PV arc detection
- High quality monocrystalline half cut cells solar panels with high efficiency up to 21.5%
- Low performance drop of the system and long service life of the solar panels, up to 30 years



This AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER AFORE

Catalogue number:
98SOL20003HM/4

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Afore 20 000W	423048	1 pc.
Solar panel 465W	98SOL465M	44 pcs.
LiFePO4 battery 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	100 m
Solar cable - black, Ø 4mm ²	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



SOLAR SET WITH PANEL 560W WITH INVERTER AFORE

Catalogue number:
98SOL20003HM/5

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Afore 20 000W	423048	1 pc.
Solar panel 560W	98SOL560M	36 pcs.
LiFePO4 battery with capacity 2400Wh	98BAT2400LFP	4 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	100 m
Solar cable - black, Ø 4mm ²	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



POWER STORAGE INVERTER 3000W WITH BATTERY, SET

The inverter is used to upgrade the existing SOLIS single-phase grid (ON-GRID) power generation system to a battery-capable hybrid system to optimize self-consumption. The energy storage inverter is a good choice for already built ON-GRID systems, providing backup power when the main is dropped.

ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Ability to upgrade the capacity of the backup power supply with the addition of additional batteries
- Compatible with any ON-GRID SOLIS SYSTEM
- Compatible with both Li-ion battery and lead-acid battery
- OFF-GRID, back-up function
- Inverter mit integrated MPPT controller
- Intelligent EMS function, increasing battery life
- Built-in controller monitoring battery charge and discharge rates
- Minimum/maximum voltage protection of the battery
- Battery protection at wrong poles connection
- Thermal protection
- Intelligent Energy Management System (EMS) function, improving the reliability of battery
- Remote Wi-Fi monitoring

Items included in the set:



423040
INVERTER SOLIS

98BAT2400LFP



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

WARRANTY

» Inverter
SOLIS

10 YEARS
WARRANTY

» Battery

10 YEARS
WARRANTY

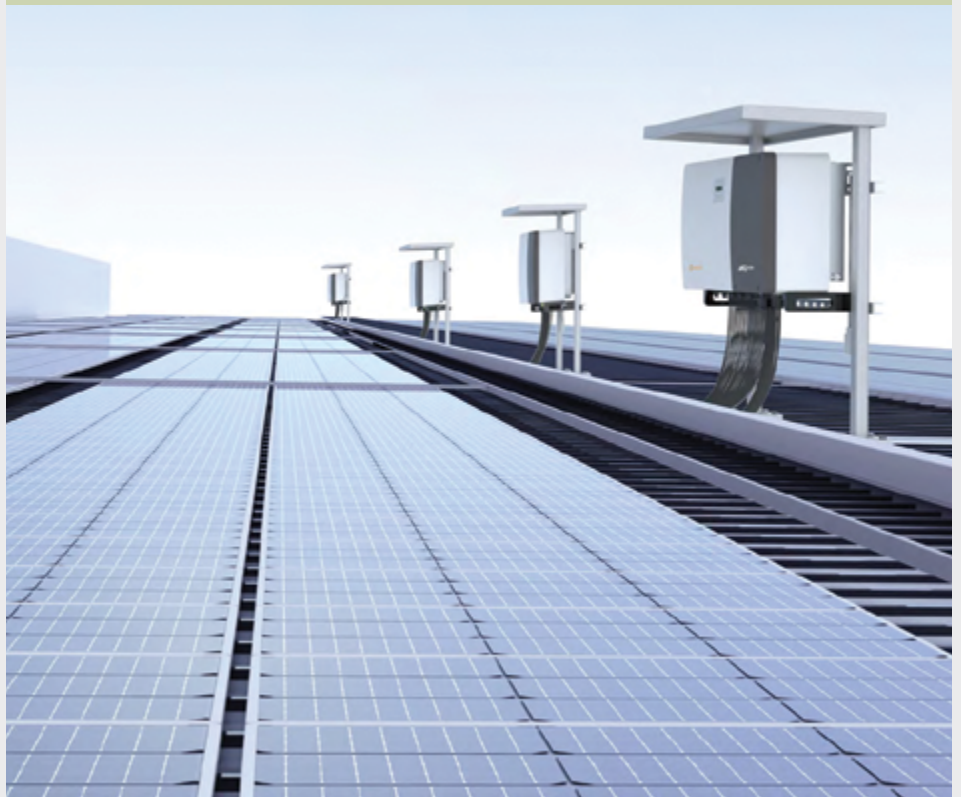
Catalogue number:
98SOL3000EM

THE SET INCLUDES:

Description of the items included in the set	Catalogue number	Quantity
Solis energy storage inverter 3000W	423040	1 pc.
LiFePO4 battery with capacity 2400Wh	98BAT2400LFP	1 pc.



ON-GRID SOLAR SYSTEMS SETS



ON-GRID SOLAR SYSTEM SETS

ELMARK offers various ready-made options and solutions for off-grid solar systems with capacities from 3.6W to 110kW.

ON-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 3600W, SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL3600M/2

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 3600W	423001	1 pc.
Solar panel 465W	98SOL465M	8 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	1 pc.



SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL3600M/3

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 3600W	423001	1 pc.
Solar panel 560W	98SOL560M	7 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	1 pc.



WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

ON-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 5000W SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

**ELMARK offers the possibility of extending the warranty period to 15 years on inverters Solis and 10 years on inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

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ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring



This SOLIS/ AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M

423002
INVERTER SOLIS

423002
INVERTER AFORE

98SOL4P32S/DC

M411079/BL
M411079/R

SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL5000M/TB2



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 5000W	423002	1 pc.
Solar panel 465W	98SOL465M	11 pcs.
Solar cable - red	M411079/R	50 m
Solar cable - black	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 465W WITH INVERTER AFORE

Catalogue number:
98SOL5000M/TB4



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 5000W	423004	1 pc.
Solar panel 465W	98SOL465M	11 pcs.
Solar cable - red	M411079/R	50 m
Solar cable - black	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL5000M/TB3



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 5000W	423002	1 pc.
Solar panel 560W	98SOL560M	9 pcs.
Solar cable - red	M411079/R	50 m
Solar cable - black	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER AFORE

Catalogue number:
98SOL5000M/TB5



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 5000W	423004	1 pc.
Solar panel 560W	98SOL560M	9 pcs.
Solar cable - red	M411079/R	50 m
Solar cable - black	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

ON-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 8000W - SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL8000M/2

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 8000W	423003	1 pc.
Solar panel 465W	98SOL465M	18 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL8000M/3

Description of the items included in the set	Catalogue number	Quantity
Hybrid inverter Solis 8000W	423003	1 pc.
Solar panel 560W	98SOL560M	15 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

ON-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 10000W - SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

*ELMARK offers the possibility of extending the warranty period to 10 years on all inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Anti-flow: Ant-feed function
- PV oversize: Max. 1.5 time PV oversize capacity
- Multiple intelligent protection
- Smart IV curve scanning
- Wi-Fi Standard Ethernet
- Configuration: Quick and easy configuration via Wi-Fi
- PV Reverse polarity protection
- PV Insulation resistance detection
- AC short circuit protection
- AC over current protection
- AC over voltage protection
- Anti-islanding protection
- Residual current detection
- Over temperature protection
- Integrated DC switch
- Surge protection type III
- Smart IV curve scanning
- Active and reactive power compensation, adjust power factor
- High-quality power output and low THDI
- High quality monocrystalline half cut cells solar panels with high efficiency up to 21.5%
- Low performance drop of the system and long service life of the solar panels, up to 30 years



This AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M

423005
INVERTER AFORE

98SOL4P32S/DC

M411079/BL
M411079/R

SOLAR SET WITH PANEL 465W WITH INVERTER AFORE

Catalogue number:
98SOL10000M/4

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 10000W	423005	1 pc.
Solar panel 465W	98SOL465M	22 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



SOLAR SET WITH PANEL 560W WITH INVERTER AFORE

Catalogue number:
98SOL10000M/5

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 10000W	423005	1 pc.
Solar panel 560W	98SOL560M	18 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



WARRANTY

- » Solar panel
15 YEARS WARRANTY
- » Inverter AFORE
5* YEARS WARRANTY

ON-GRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 6000W, SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode.
- Remote Wi-Fi monitoring



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL6000M/2

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 6000W	423019	1 pc.
Solar panel 465W	98SOL465M	13 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50m
Solar cable - black, Ø 4mm ²	M411079/BL	50m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL6000M/3

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 6000W	423019	1 pc.
Solar panel 560W	98SOL560M	11 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50m
Solar cable - black, Ø 4mm ²	M411079/BL	50m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.



WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

ON-GRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 10000W, SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

*ELMARK offers the possibility of extending the warranty period to 15 years on inverters Solis and 10 years on inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring



This SOLIS/ AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL10000M/2



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 10 000W	423020	1 pc.
Solar panel 465W	98SOL465M	22 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 465W WITH INVERTER AFORE

Catalogue number:
98SOL10000M/6



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 10 000W	423030	1 pc.
Solar panel 465W	98SOL465M	22 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL10000M/3



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 10 000W	423020	1 pc.
Solar panel 560W	98SOL560M	18 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER AFORE

Catalogue number:
98SOL10000M/7



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 10 000W	423030	1 pc.
Solar panel 560W	98SOL560M	18 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

WARRANTY

» Solar panel
15 YEARS WARRANTY

» Inverter SOLIS
10 YEARS WARRANTY

» Inverter AFORE
5* YEARS WARRANTY

ON-GRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 15000W, SET


These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

**ELMARK offers the possibility of extending the warranty period to 15 years on inverters Solis and 10 years on inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

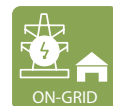
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ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Overvoltage protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring

 This SOLIS/ AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M



423021
INVERTER SOLIS



423031
INVERTER AFORE



98SOL4P32S/DC



M411079/BL
M411079/R

SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL15000M/2



SOLAR SET WITH PANEL 465W WITH INVERTER AFORE

Catalogue number:
98SOL15000M/4



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 15 000W	423021	1 pc.
Solar panel 465W	98SOL465M	33 pcs.
Solar cable - red	M411079/R	75 m
Solar cable - black	M411079/BL	75 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 15 000W	423031	1 pc.
Solar panel 465W	98SOL465M	33 pcs.
Solar cable - red	M411079/R	75 m
Solar cable - black	M411079/BL	75 m
4P 32A DC switch	98SOL4P32S/DC	2 pc.

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL15000M/3



SOLAR SET WITH PANEL 560W WITH INVERTER AFORE

Catalogue number:
98SOL15000M/5



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 15 000W	423021	1 pc.
Solar panel 560W	98SOL560M	27 pcs.
Solar cable - red	M411079/R	75 m
Solar cable - black	M411079/BL	75 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 15 000W	423031	1 pc.
Solar panel 560W	98SOL560M	27 pcs.
Solar cable - red	M411079/R	75 m
Solar cable - black	M411079/BL	75 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

» Inverter AFORE

5* YEARS WARRANTY

ON-GRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 20000W, SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

**ELMARK offers the possibility of extending the warranty period to 15 years on inverters Solis and 10 years on inverters Afore after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.*

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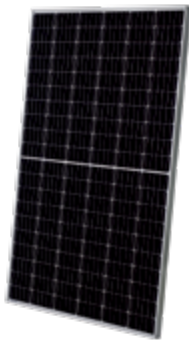
ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring



This SOLIS/ AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M



423022
INVERTER SOLIS



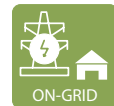
423032
INVERTER AFORE



98SOL4P32S/DC



M411079/BL
M411079/R



SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL20000M/2



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 20 000W	423022	1 pc.
Solar panel 465W	98SOL465M	44 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	100 m
Solar cable - black, Ø 4mm ²	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 465W WITH INVERTER AFORE

Catalogue number:
98SOL20000M/4



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 20 000W	423032	1 pc.
Solar panel 465W	98SOL465M	44 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	100 m
Solar cable - black, Ø 4mm ²	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL20000M/3



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 20 000W	423022	1 pc.
Solar panel 560W	98SOL560M	36 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	100 m
Solar cable - black, Ø 4mm ²	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER AFORE

Catalogue number:
98SOL20000M/5



Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 20 000W	423032	1 pc.
Solar panel 560W	98SOL560M	36 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	100 m
Solar cable - black, Ø 4mm ²	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.

ON-GRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 30 000W,SET

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

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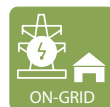
• ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Integrated working Volt-watt mode of operation
- Leakage current suppression technology
- Anti-resonance, supporting more than 6MW in parallel in a single transformer
- Short circuit protection
- DC reverse voltage protection
- Over voltage protection
- Thermal protection
- Scanning I/V Curves
- Integrated AFCI arc flash protection reducing the risk of fire
- Network monitoring
- Protection stopping the voltage supply in case of failure of power supply from the mains. This prevents the occasional pop-up of voltage from the system to the network during operation and while in combined mode
- Remote Wi-Fi monitoring



This SOLIS/ AFORE solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M

423023
INVERTER SOLIS

423033
INVERTER AFORE

98SOL4P32S/DC

M411079/BL
M411079/R

SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS



Catalogue number:
98SOL30000M/2

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 30 000W	423023	1 pc.
Solar panel 465W	98SOL465M	65 pcs.
Solar cable - red	M411079/R	100 m
Solar cable - black	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	3 pcs.

SOLAR SET WITH PANEL 465W WITH INVERTER AFORE



Catalogue number:
98SOL30000M/4

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 30 000W	423033	1 pc.
Solar panel 465W	98SOL465M	65 pcs.
Solar cable - red	M411079/R	100 m
Solar cable - black	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	3 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS



Catalogue number:
98SOL30000M/3

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 30 000W	423023	1 pc.
Solar panel 560W	98SOL560M	54 pcs.
Solar cable - red	M411079/R	100 m
Solar cable - black	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	3 pcs.

SOLAR SET WITH PANEL 560W WITH INVERTER AFORE



Catalogue number:
98SOL30000M/5

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Afore 30 000W	423033	1 pc.
Solar panel 560W	98SOL560M	54 pcs.
Solar cable - red	M411079/R	100 m
Solar cable - black	M411079/BL	100 m
4P 32A DC switch	98SOL4P32S/DC	3 pcs.

WARRANTY

» Solar panel
15 YEARS WARRANTY

» Inverter SOLIS
10 YEARS WARRANTY

» Inverter AFORE
5* YEARS WARRANTY

CARPORT SOLAR SYSTEMS SETS



ON-GRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 40KW -110KW

ELMARK offers options for drafting solar systems with capacities from 40 to 110 kW after coordination and drafting of a project and a quote on an individual request. The powers of solar systems that we can offer in this range are the following:

- 40 000W
- 60 000W
- 100 000W
- 50 000W
- 80 000W
- 110 000W

ON-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 5000W, SET WITH CARPORT

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Suitable for the construction of charging stations for electric vehicles
- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply when the mains power fails. This prevents accidental cross voltage from the system to the grid during operation and in combined mode
- Remote Wi-Fi monitoring



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the set:



98SOL465M

423002
INVERTER SOLIS

98SOL4P32S/DC

M411079/BL
M411079/R

423278/CP

Catalogue number:
98SOL5000M/2CP

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 5000W	423002	1 pc.
Solar panel 465W	98SOL465M	11 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.
Garage construction	423278/CP	1 pc.



WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

» Garage construction

10 YEARS WARRANTY

ON-GRID SINGLE-PHASE SOLAR SYSTEM WITH POWER OF 8000W - SET WITH CARPORT

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid.

ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Suitable for the construction of charging stations for electric vehicles
- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply when the mains power fails. This prevents accidental cross voltage from the system to the grid during operation and in combined mode
- Remote Wi-Fi monitoring



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M

423003
INVERTER SOLIS

98SOL4P32S/DC

M411079/BL
M411079/R

423278/CP

SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL8000M/2CP

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 8000W	423003	1 pc.
Solar panel 465W	98SOL465M	18 pcs.
Solar cable - red	M411079/R	50 m
Solar cable - black	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.
Garage construction	423278/CP	1 pcs.



SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL8000M/3CP

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 8000W	423003	1 pc.
Solar panel 560W	98SOL560M	15 pcs.
Solar cable - red	M411079/R	50 m
Solar cable - black	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.
Garage construction	423278/CP	1 pcs.



WARRANTY

» Solar panel
15 YEARS WARRANTY

» Inverter SOLIS
10 YEARS WARRANTY

» Garage construction
10 YEARS WARRANTY

ON-GRID THREE-PHASE SOLAR SYSTEM WITH POWER OF 6000W, SET WITH CARPORT

These systems are preferred for the construction of solar power plants for the purpose of selling electricity or the construction of a grid system for the direct supply of consumers during the day in places where there is an established power grid. Their operating principle makes them extremely suitable for the partial reduction or complete exclusion of electricity bills.

ELMARK offers the possibility of extending the warranty period to 15 years on all inverters Solis after purchasing the „Extended Warranty“ package within 30 days after the purchase of the solar inverter. For more information, contact our local office.

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ADVANTAGES OF THE SYSTEM

- Inverter with accurate MRT algorithm
- Intelligent EMS function
- Short circuit protection
- DC reverse voltage protection
- Surge protection
- Thermal protection
- Network monitoring
- Protection stopping the voltage supply when the mains power fails. This prevents accidental cross voltage from the system to the grid during operation and in combined mode
- Remote Wi-Fi monitoring



This SOLIS solar power system meets all the technical requirements set by the European Union for the construction of solar systems.

Items included in the sets:



98SOL465M
98SOL560M

423019
INVERTER SOLIS

98SOL4P32S/DC

M411079/BL
M411079/R

423278/CP

SOLAR SET WITH PANEL 465W WITH INVERTER SOLIS

Catalogue number:
98SOL6000M/2CP

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 6000W	423019	1 pc.
Solar panel 465W	98SOL465M	13 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.
Garage construction	423278/CP	1 pcs.



SOLAR SET WITH PANEL 560W WITH INVERTER SOLIS

Catalogue number:
98SOL6000M/3CP

Description of the items included in the set	Catalogue number	Quantity
ON-GRID inverter Solis 6000W	423019	1 pc.
Solar panel 560W	98SOL560M	11 pcs.
Solar cable - red, Ø 4mm ²	M411079/R	50 m
Solar cable - black, Ø 4mm ²	M411079/BL	50 m
4P 32A DC switch	98SOL4P32S/DC	2 pcs.
Garage construction	423278/CP	1 pc.



WARRANTY

» Solar panel

15 YEARS WARRANTY

» Inverter SOLIS

10 YEARS WARRANTY

» Garage construction

10 YEARS WARRANTY

CHARGING STATIONS FOR ELECTRIC AND PLUG-IN CARS

Advantages of charging stations



Let's first look at what is the advantage of an electric car charger over a standard charge from a single-phase (two-pin) socket at home to answer the question, do I need a special charging station at home?



One of the answers to this question lies in the **SPEED** of charging the electric car battery from zero to full charge and whether it is acceptable to you. The charging speed depends on the capacity of the battery and the power it consumes per hour.

The standard Schuko socket allows charging the battery with a maximum current of 16A, which is equivalent to approximately 3680W. The charging cables in turn deliberately reduce the magnitude of the current from 16 to 12A, in order to protect the installation from overloading. So the power drawn from the battery per hour drops to 2760W. For a mass battery of about 40kWh, the time required to fully charge it under these conditions would be about 15 hours.



REDUCES CHARGING TIME BY UP TO 3 TIMES

ELMARK's 7kW single-phase charger will speed up the charging process between 2 and 3 times. Thus, the same battery with a capacity of 40kWh will be charged for about 6 hours, enough time to fully charge at night rate and the car to be charged 100% for the next day.

40kWh

2018 Nissan LEAF



7kW

Home charging station



6 hours

Charging time



SAFETY -

ANOTHER BENEFIT TO CHOOSE THE HOME CHARGING STATION

Standard household outlets are not designed to withstand continuous loads with maximum power for 10-15 hours. These loads, combined with the long duration, can cause the installation to heat up, increasing the risk of damage and fire. The purpose-built charging point, including the charging station and its accompanying installation, are safe from any electrical risks.



ENSURE YOUR COMFORT

Another advantage that ensures the use of a home charger station is convenience. The commitment to looking for a convenient place near home for charging the car battery and the loss of time during its charging period is dropped.

ELMARK PORTABLE ELECTRIC VEHICLE CHARGERS

ELMARK provides single-phase AC portable EV chargers with rated power of 3.7kW and 7.3kW AC with has multiple safety protection mechanisms such as over current, over voltage and over temperature protection to ensure safe use.

Portable EV chargers are light in weight and stable in performance, resistant to falling and pressure. The waterproof performance is up to IP65, and it can work normally when immersed in water for a short time

It is usually carried with the car to facilitate the owner to charge in any charging condition.



TECHNICAL DATA

- Rated voltage: 207-253V AC
- Poles: 1P+N+ PE
- Rated current: adjustable
- Charging cable length: 4m
- IP code: IP65
- Connector material: Flame retardant, RoHS, wear resistance, rolling pressure resistance, high and low temperature resistance, stamping resistance, high oil resistance, ultraviolet rays resistance.
- Protections: Over temperature, over/under voltage protection, over current protection, residual current protection(AC30mA,DC6mA)
- Terminals: silver plated
- Gun head material: ABS, safe and durable, not easy to ignite
- Display: LCD
- Charger size (LxWxH): 180x82x50mm
- Working temperature: from -25 to +50°C
- Working humidity: 3-95%
- Working altitude: <2000m

Catalogue number	Number of poles	Rated power (kW)	Output current (A)	Cable length (m)	Packing/ Box
98EVP37	1P+N+ PE	3.7	6-16 adjustable	4	1
98EVP73	1P+N+ PE	7.3	6-32 adjustable	4	1



Scan and watch detailed video with all product functions.

5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

ELMARK RFID ELECTRIC VEHICLE CHARGING WALL BOXES

RFID EV Charging wall box, it is easy to install, stable in performance, and has a complete protection mechanism. The LCD display can show the detailed charging status. To operate RFID function, it has a card writer and management program. The charger can be used with a stand.

This device is a charger that, for reasons of convenience and safety, must meet a number of technical requirements, while at the same time being designed to supply our vehicle in the comfort of our homes. This is the ideal solution for supplying electricity to the battery, as it allows us to make the most of idle hours, such as at night, to charge our vehicles.



ADVANTAGES

- Applicable with 99% of electric vehicles
- Two installation modes: on the wall or on a stand
- Easy charging activation via magnetic card
- Precise monitoring of PWM signal variations
- Oxygen-free pure copper cables, flame retardant and high temperature resistance

ADDITIONAL FUNCTIONS:

- **RFID Function:** The charging station can be configured with contactless IC card swiping function, and charging can only be carried out through authorized IC card. If the IC card is lost, the internal dip switch can be used to set the IC card losing module. There are 2 IC cards which are authorized
- **DLB Function:** This function is the automatic distribution of charging current, through an external current transformer. During the charging process, the charging station will monitor the online charging current in real time and make corresponding adjustments. When it is detected that the current of the main circuit is greater than the set current, the charging station will reduce the charging current until the charging is stopped. When it is detected that the current of the main circuit is less than the set current, the charging station will continue to increase the charging current until 32A or 63A. In this state, the maximum charging current of the charging station is 32A and 63A. While the charging current is uncertain, the current setting switch of the charging station becomes the transformation ratio setting switch of the current transformer. The transformation ratio of the external current transformer is set by software or factory setting. The factory default current transformer transformation ratio is 100A/5A.
- **RCMU function:** When the charging station is working, if there is a DC leakage current signal, the RCMU will immediately output a fault signal and cut off the output power within 300ms, ensuring the safety and reliability of personal and property. If the fault is eliminated, the charging station will automatically restart charging according to the program within 3S. Before charging, the RCMU module of the device will automatically carry out the accuracy and detection of the DC leakage current to ensure the safe and reliable operation of the device.
- **CT access function:** The charging station can provide an analog input function, the input analog is AC0-5A, which is used to display the current working current. When the detected working current is greater than the set current value, the charging station will reduce the charging current to the set current value. Thereby ensuring the safe and reliable operation of the charging station.
- **LCD display function**

TECHNICAL DATA

- Charger output: socket type 2
- Rated voltage: 207-253V AC; 360-440V AC
- Poles: 1P+N+ PE; 3P+N+ PE
- Rated current: adjustable
- IP code: IP54
- Connector material: Flame retardant, RoHS, wear resistance, rolling pressure resistance, high and low temperature resistance, stamping resistance, high oil resistance, ultraviolet rays resistance.
- Protections: Over temperature, over/under voltage protection, over current protection, residual current protection(AC30mA,DC6mA), surge protection
- Terminals: silver plated
- Gun head material: ABS, safe and durable, not easy to ignite
- RFID module for IC card with 2 cards
- DLB: CT 100/5A
- Lock: Electro-magnetic lock DC 12V 4 wire type
- Communication mode: OCPP1.6 Wi-Fi, 4G
- Display: LCD
- Mounting: wall or post
- Charger size (LxWxH): 245x123x357mm
- Working temperature: from -25 to +50°C
- Working humidity: 3-95%
- Working altitude: <2000m

Catalogue number	Rated voltage (V)	Number of poles	Rated power (kW)	Packing/ Box
98EV73	207-253	1P+N+ PE	7.3	1
98EV11	360-440	3P+N+ PE	11	1
98EV22	360-440	3P+N+ PE	22	1

Scan and watch detailed video with all product functions.



5 YEARS TOTAL WARRANTY
 + 5 standard
 0 extended



EV CHARGING CABLES

EV charging cable is the carrier connecting electric vehicle and charging pile. And its basic function is to transmit electric energy.

EV Charging cables are generally used in charging stations, parking lots, hotels, communities, garages, and other areas.

At present, the safety of electric vehicles has become the focus of the industry.

During electric vehicles' charging and discharging process, it is important to pay attention to safety issues because of the long usage time, high current intensity, and high frequency of cables.

Based on ensuring good insulation performance, electric vehicle charging cable shall have high heat resistance and aging resistance.

At the same time, it shall have good low smoke and flame-retardant characteristics during combustion to minimize loss and injury.

Type 2 AC charging cables double-plug version (Type 2 to Type 2 or Female to Male Extension Cable), which is used for the connection from the charging station end to the electric vehicle end. Product meets the IEC 62196-2 charging connector standards. They are mainly two current options of 16A and 32A, which are divided into single-phase and three-phase version and defaults to a 5m black straight cable.

TECHNICAL DATA

- Type: female to male type 2 charging cable
- Cable length: 5m
- Case material: thermoplastic, flame retardant grade UL94 V-0
- Pin: copper alloy, silver + thermoplastic on the top
- Insulation resistance: >500MΩ(DC500V)
- Conductive terminal temperature rise: ≤50K
- Withstand voltage: 2500V/min
- Contact resistance: ≤0.3Ω
- Mechanical life: no-load plug in/ pull out >50000 times
- Coupled insertion force: 45N~80N
- Withstanding impact: Tolerable to 2-ton car rolling or 1m height drop without damage.

Catalogue number	Operating voltage (V)	Rated current (A)	Suitable for charging station with power (kW)	Cable type	Cable length (m)	Packing/ Box
98EVP32/1P	207-253	32	7.3	3x6+2x0.5mm ²	5	1
98EVP16/3P	360-440	16	11	5x2.5mm+2x0.5mm ²	5	1
98EVP32/3P	360-440	32	22	5x6mm+2x0.5mm ²	5	1



EV CHARGING PILLAR

In cases where the charging station cannot be installed on a wall and the parking space is remote from the building, it is recommended to install the charging station on a pillar to which the charging cable is freely accessible.

Catalogue number:

98EVPOLE



Scan and watch detailed video with all product functions.



5 YEARS TOTAL WARRANTY
+ 5 standard 0 extended

ELMARK ELECTRIC VEHICLE URBAN CHARGING STATIONS

The 40kW-320kW DC EV charger are suitable for special urban charging station, urban public charging stations, intercity highway charging stations and other occasions requiring DC quick charging, especially suitable for rapid deployment under site limitation.



FEATURES

- Support Ethernet/4G/WI-FI communication
- OCCP communication protocol with CMS
- APP and cashless payment
- Simultaneously charging with 2 outputs (40kW with one)
- Suitable for fast charging
- SiC technology for high efficiency
- PTB certified energy meter with accurate measurement
- Compatible with IEC standard
- Multiple protections for running safety
- APP operation or RFID authentication or plug and play
- Option POS terminal for contactless credit card payment

PROTECTIONS

- Over/under voltage protection
- Overload protection
- Short circuit protection
- Over/under temperature protection
- Grounding protection
- Surge protection



5 YEARS TOTAL WARRANTY
 + 5 standard
 0 extended

TECHNICAL DATA

- Voltage range: 200-750V
- Frequency: 50/60Hz
- Max. current: 200A
- Power: from 40kW to 320kW
- Power factor: ≥ 0.99 (50%-100% load)
- THD value: $\leq 5\%$ (50%-100% load)
- Stable current accuracy: $\leq \pm 1\%$
- Max. efficiency: 95%
- Installation: Flor standing
- Charging outlet: 2 charging guns (CCS 2), 40kW 1 charging gun (CCS 2)
- Cable length: 5m
- LCD screen: included
- Emergency stop button: included
- RFID function: available
- Communication protocol: OCPP 1.6 (JSON)
- Cooling method: fan cooling
- Material: Galvanized steel
- MTBF: 100 000 hours
- IP code: IP54
- Noise: ≤ 60 dB
- Working temperature: from -30°C to 50°C
- Humidity: 5-95% non condensing
- Working altitude: $<2000\text{m}$

Catalogue number	Model	Phases	Rated power (kW)	Charging outlets	Cable length	Dimensions (mm)
98EVP40	EL-EVP40	3P+N+PE	40kW	1	5m	1600x750x430
98EVP60	EL-EVP60	3P+N+PE	60kW	2	5m	1600x750x430
98EVP90	EL-EVP90	3P+N+PE	90kW	2	5m	1600x750x580
98EVP120	EL-EVP120	3P+N+PE	120kW	2	5m	1600x750x580
98EVP180	EL-EVP180	3P+N+PE	180kW	2	5m	1600x750x750
98EVP240	EL-EVP240	3P+N+PE	240kW	2	5m	1600x750x750
98EVP320	EL-EVP320	3P+N+PE	320kW	2	5m	1600x750x750



5 YEARS TOTAL WARRANTY
+ 5 standard
0 extended

WARRANTY TERMS

The terms apply to all products in the „Solar systems“ section and are valid within the officially announced warranty periods:

- Upon sale, ELMARK guarantees that the products are free from defects and function under normal use and service. The announced warranty period of each product starts from the date of sale.
- The warranty is only valid for products purchased directly from ELMARK after a purchase document has been provided. For products purchased from our partners, all documents certifying the movement of the product from ELMARK to the end customer shall be provided.
- ELMARK's sole obligation in relation to the warranty periods announced shall be to enclose in replacement or repair of any product found to be defective after a claim by ELMARK within the warranty period specified for the product concerned.
- The warranty does not cover labor and transportation costs to the location where the product subject to the claim was installed.
- The warranty does not apply in the event that a product is installed in non-compliance with the installation instructions, except if the installation is performed by ELMARK.
- The warranty does not apply in the event that auxiliary or essential elements not purchased or recommended by ELMARK are used in the mounting of the system.
- The warranty does not apply in the event of damage caused by misuse, improper operation or unauthorized modification.
- The warranty does not apply in the event of damage occurring during transport by an external carrier.
- The warranty does not apply in case of damage or defects resulting from natural disasters caused by lightning, flood, fire, damage caused by pests and acts by third parties or events.

ELMARK recommends taking out solar array (system) insurance against natural disasters and damage.

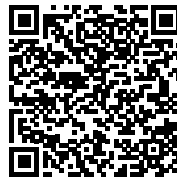
- The warranty does not apply in the event of damage or defects resulting from hurricane-force winds and snowfall in excess of the values stated in the mounting structures section.
- The warranty does not apply in case of installation by unqualified persons or by qualified technicians in case of non-compliance with the installation instructions.
- The warranty does not apply in the event of attempted repair or correction by an unqualified technician.
- The warranty does not apply in case of relocation of elements of the system by a non-qualified technical person, compared to the initial installation.
- The warranty does not apply in case of modification of the system, in relation to the initial and final construction, in case of damage or deletion of serial numbers of the solar inverters.
- The warranty does not apply when using batteries that are not certified, not specified and recommended by Solis, when building off-grid and hybrid energy storage systems.

FILING A CLAIM

- A warranty claim will be honored subject to all terms described in the warranty terms and conditions section.
- Claims can be made from the official ELMARK website at www.elmarkholding.eu
- The additional costs for travel, labor, delivery, etc., will be charged additionally upon removal of the claim if it is found that the products are free from defect or the warranty conditions are not met.
- A claim for compensation cannot be made for any loss of profit (including energy not fed into the grid or energy not used for own consumption, etc.). In any event, the maximum compensation for the customer's losses, regardless of fault, may not exceed the amount paid by the customer to purchase the equipment.

SOLAR POWER SYSTEMS CATEGORY

Select a language and scan the code with any code scanner to read the catalog in:



ELECTRICAL GASOLINE GENERATORS



ELECTRICAL GASOLINE GENERATORS EL-GF SERIES

Generators are machines that provide electricity when power from the local grid is unavailable. Electrical generators are used as a primary power source in areas where a local electrical grid is unavailable or difficult to access such as mining and farming operations or even new developments and construction and to supply backup power to facilities, businesses, or homes during power outages. Electrical generators don't create electricity. They convert mechanical energy into electrical power. Capturing the power of motion and turning it into electrical energy by forcing electrons from the external source through an electrical circuit. A generator is an electrical motor working in reverse. Once an electrical current has been established, it is directed through copper wires to power machines, devices, or electrical systems.

FEATURES

- **Automatic voltage regulator (AVR):** An automatic voltage regulator (AVR) is a electronic device for automatically maintaining generator output terminal voltage at a set value under varying load and operating temperature. It controls output by sensing the voltage V_{out} at a power-generating coil and comparing it to a stable reference. The error signal is then used to adjust an average value of the field current.
- **Switch for electric start:** no included by EL-3GF-6.
- **Two power supply voltage:** 220 and 380V AC (all models without EL-3GF-6).
- **Four stroke engine:** more fuel efficient as compared to 2-stroke generators. They consume the fuel on every 4th cycle. Moreover 4 stroke engine is and more durability A 2-stroke engine works more as compared to a 4 stroke engine for a specific time. It is evident from the fact that a 2-stroke engine produces more heat and more exhaust in one hour as compared to a 4-stroke engine.
- **Less sound:** A 4-stroke engine produces less sound and makes less pollution. It is safe for the environment. This is due to the fact that you do not have to add oil in the gas and hence no oil is burned during the combustion process.
- **No Extra Oil in Fuel:** There is no need to add extra oil along with the fuel in the fuel tank. Separate engine oil is used which needs to be replaced after every 500 hours of activity.
- **Compact design.**
- **User-friendly in operations.**

Catalogue number	Model	Rated power (kW)	Max. power (kW)	Fuel tank capacity (L)	Fuel consumption (g/(kW-h))	Running time (h)
45GF36	EL-2.8GF-6	2.8	3	15	≤530	10
45GF524	EL-5GF-2-4	5	5.5	25	≤480	9.5
45GF724	EL-7GF-2-4	7	7.5	25	≤515	5.8



3 YEARS TOTAL WARRANTY
 + 3 standard
 0 extended

ELECTRICAL DIESEL GENERATORS

ELECTRICAL DIESEL GENERATORS EL-DG SERIES, 9.5KW



EL-DG10/9.5E- without canopy

TECHNICAL DTA

- Models: EL-DG10/9.5E- without canopy and EL-DG10/9.5SE- SILENT with canopy
- Max. output: 10kW
- Rated output: 9.5kW
- Frequency: 50Hz
- Output voltage: 220/380V
- DC output: 12V/8.3A
- Power factor: 1
- Starting method: Electric
- Automatic voltage regulator (AVR): Included
- Alternator Type: Self-excited, 2-pole, single phase alternator
- Starting system: Electric key start with 24Ah battery
- Noise Level (7m)EL-DG10/9.5E: 80-85DB
- Noise Level (7m)EL-DG10/9.5SE: 70-73DB
- Fuel tank capacity: 30L
- Continuous running time: 12h
- Engine type: Double-cylinder, vertical, 4-stroke air-cooled diesel engine
- Combustion system: direct injection
- Fuel consumption rate: ≤270 g/kW/h
- Oil volume: 2.5L
- Panel: 2 sockets, voltmeter, AC circuit breaker, oil alert
- Dimension (LxWxH) EL-DG10/9.5E: 770x540x710mm
- Dimension (LxWxH) EL-DG10/9.5SE: 1120x760x840mm
- Net weight EL-DG10/9.5E: 155kg
- Net weight EL-DG10/9.5SE: 205kg



Silent type
EL-DG10/9.5SE- with canopy

Catalogue number	Model	Rated power (kW)	Max. Power (kW)	Fuel tank capacity (L)	Fuel consumption (g/(kW-h))	Running time (h)
45DG9500E	EL-DG10/9.5E	9.5	10	30	≤270	12
45DG9500SE	EL-DG10/9.5SE	9.5	10	30	≤270	12



3 YEARS TOTAL WARRANTY
+ 3 standard 0 extended



Silent type
EL-DG15.5/15SE- with canopy

ELECTRICAL DIESEL GENERATOR EL-DG SILENT SERIES, 15KW

TECHNICAL DTA

- Models: EL-DG15.5/15SE- SILENT with canopy
- Max. output: 15.5kW
- Rated output: 15kW
- Frequency: 50Hz
- Output voltage: 220/380V
- DC output: 12V/8.3A
- Power factor: 1
- Starting method: Electric
- Automatic voltage regulator (AVR): Included
- Alternator Type: Self-excited, 2-pole, single phase alternator
- Starting system: Electric key start with 24Ah battery
- Noise Level (7m): 85DB
- Fuel tank capacity: 30L
- Continuous running time: 8h
- Engine type: Double-cylinder, vertical, 4-stroke air-cooled diesel engine
- Combustion system: direct injection
- Fuel consumption rate: ≤250 g/kW/h
- Oil volume: 3.8L
- Panel: 2 sockets, voltmeter, AC circuit breaker, oil alert
- Dimension (LxWxH): 940x680x980mm
- Net weight: 235kg

Catalogue number	Model	Rated power (kW)	Max. Power (kW)	Fuel tank capacity (L)	Fuel consumption (g/(kW-h))	Running time (h)
45DG15000SE	EL-DG15.5/15SE	15.5	15	30	≤250	8



Silent type
EL-DG38/30SE- with canopy

ELECTRICAL DIESEL GENERATOR EL-DG SILENT SERIES, 30KW

TECHNICAL DTA

- Models: EL-DG38/30SE- SILENT with canopy
- Max. output: 38kW
- Rated output: 30kW
- Frequency: 50Hz
- Output voltage: 220/380V
- Phase / wire: 3 phase / 4 wire
- Power factor: 0.8
- Starting method: Electric
- Automatic voltage regulator (AVR): ≤1
- Engine Type: Water-cooled, inline, 4-stroke, direct injection
- Intake type: Naturally-aspirated
- Noise Level (7m): 85DB
- Fuel tank capacity: 65L
- Continuous running time: 9h
- Engine type: Double-cylinder, vertical, 4-stroke air-cooled diesel engine
- Combustion system: direct injection
- Min. specific fuel consumption at full load (g/kW.h): ≤235
- Dimension (LxWxH): 2100x900x1350mm
- Net weight: 950kg

Catalogue number	Model	Rated power (kW)	Max. Power (kW)	Fuel tank capacity (L)	Fuel consumption (g/(kW-h))	Running time (h)
45DG30000SE	EL-DG38/30SE	38	30	65	≤235	9



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended

ELECTRICAL DIESEL GENERATORS EL-DF SERIES

A diesel generator is machinery that converts the chemical energy in diesel to electrical energy and is used to power electrical equipment. They can be used to supply a range of applications such as homes, schools, factories, hospitals and other.

Diesel generators are available with and without canopy. Canopies are made of galvanized 3 mm metal sheets. The painting is done by nano technology electronic powder coating technique. Galvanized metal sheets are durable against rust. On the doors of canopies are used stainless steel hinges and locks. In canopies, high levels of sound muting type of silence are located in an isolated area to insulate heat which included exhaust pipes and exhaust itself.



ELECTRICAL DIESEL GENERATORS EL-DF SERIES WITH CANOPY

Catalogue number	Model	Power stand by (kVA/kW)	Power prime (kVA/kW)	Output voltage (V)	Length (mm)	Width (mm)	Height (mm)
45DG55/44C	EL-DF55C	55/44	50/40	400/230	2400	1000	1800
45DG75/60C	EL-DF75C	75/60	68/55	400/230	2400	1000	1800
45DG94/75C	EL-DF94C	94/75	85/68	400/230	2700	1100	1800
45DG110/88C	EL-DF110C	110/88	100/80	400/230	3100	1100	1880
45DG150/120C	EL-DF150C	150/120	136/109	400/230	3100	1100	1880
45DG175/140C	EL-DF175C	175/140	159/127	400/230	3100	1100	1880



ELECTRICAL DIESEL GENERATORS EL-DF SERIES WITHOUT CANOPY



Catalogue number	Model	Power stand by (kVA/kW)	Power prime (kVA/kW)	Output voltage (V)	Length (mm)	Width (mm)	Height (mm)
45DG55/44	EL-DF55	55/44	50/40	400/230	2000	1000	1700
45DG75/60	EL-DF75	75/60	68/55	400/230	2000	1000	1800
45DG94/75	EL-DF94	94/75	85/68	400/230	2150	1100	1800
45DG110/88	EL-DF110	110/88	100/80	400/230	2500	1100	1780
45DG150/120	EL-DF150	150/120	136/109	400/230	2500	1100	1780
45DG175/140	EL-DF175	175/140	159/127	400/230	2500	1100	1780



3 YEARS TOTAL WARRANTY
+ 3 standard
0 extended



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