

ELMARK HOLDING SE United Kingdom



CATALOGUE 2020



**ELMARK**<sup>®</sup>

The Brand of Electricity



EUROPEAN  
MANUFACTURER



DIVERSIFIED  
PORTFOLIO



INTERNATIONAL  
INSURANCE



CERTIFIED  
QUALITY

## WHAT MAKES US DIFFERENT?

ELMARK is European trusted brand for LV electrical automation and supplies, indoor and outdoor luminaires. Our diversified portfolio offers an effective path to fast growth, we answer to our existing customers' needs and at the same time we have the opportunity to establish new markets. We have more than 19 years of experience in providing high performance solutions across a range of different sectors such as residential, hospitality and recreation, office, industry, road and cityscape.

Our well-balanced portfolio ensures excellent market coverage with outstanding quality. We have built trust and credibility with our partners as ELMARK enjoys the recognition of INTERTEK for safe and reliable products, manufactured in accordance with the European safety requirements and quality standards.

ELMARK showcases and maintains product safety and performance, we provide 7 years worldwide warranty as confidence in our production quality.

For more than 14 years partnership with ALLIANZ, Germany we do not have a single claim for the International insurance which guarantees coverage of damages that may occur as a result of any act or omission relating to ELMARK products. We always stay in tune with the environment, safety standards and comfort demand.

Our research and development department currently works on new features and technologies important for the future, that will generate benefits to all our partners, such as smart buildings solutions tailored to clients personal needs and comfort. We constantly develop our product portfolio into a meaningful, differentiated and winning asset. Thanks to continuous improvement and developments we successfully leverage our core competences of lighting and electrical under one roof.

ELMARK  
Brand  
was  
born

2000

Dynamic  
expansion  
on Bulgarian  
market

2002

NEW  
company  
in  
ROMANIA

2003

Starts production  
of Low Voltage  
Electrical  
Equipment

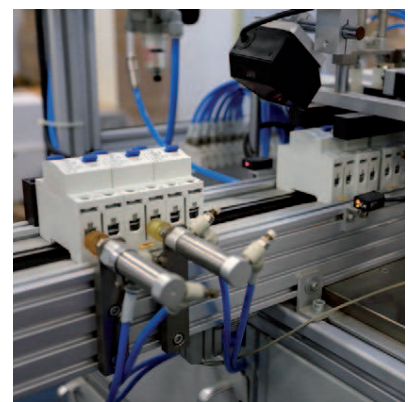
2004



## PRODUCTION FACILITIES

ELMARK Production Complex consists of a manufacturing plant and testing centres for both low- voltage electrical and lighting solutions. We successfully combine automated technology with experience to meet quality highest standards, ensure high efficiency and add value to our clients.

The Complex together with the adjacent warehouse facilities occupy a total area of 10,000 m2, strategically located in Bulgaria, nearby the Black Sea where it benefits from its proximity to major transport links and direct access to European market.



NEW  
company  
in  
SERBIA

ELMARK  
Holding AD  
has been  
established

Moves  
to a new  
Headquarter  
of 3500 sq.m

NEW  
Logistic  
centre of  
5000 sq.m

NEW  
company  
in  
CROATIA

2005

2006

2007

2008

2009



MAIN SHOWROOM

## COMMERCIAL BENEFITS

ELMARK offers its customers unrivalled combination of products at competitive prices.

We are proud with our widespread international network of highly-valued business partners in over 50 countries. Understanding our clients' requirements stays at the centre of our business cooperation. We apply proven industry and market concepts and training for both business-to-business and business-to-consumer companies.

We focus to build strong and lasting relationships and maintain friendly communication with our partners. All of our customers are provided with a dedicated account manager to deliver the highest level of customer service.



PROFIT MIX



TRAINING



MARKETING SUPPORT



DEDICATED ACCOUNT MANAGER



AFTERSALES SUPPORT



LONG TERM PARTNERSHIP

**NEW  
Production  
line for LED  
Lighting**

**NEW company  
in GREECE and  
BOSNIA AND  
HERZEGOVINA**

**NEW  
company  
in  
HUNGARY**

**Intertek: S Mark  
NEW Automatic  
Testing Equipment for  
LV & Lighting Lab**

**NEW  
company  
in  
SLOVENIA**

2010

2011

2012

2013

2014

## HEADQUARTER



### OUR VISION

ELMARK aims to be your trusted partner that offers the balance of high quality, efficiency and comfort.

### MISSION

ELMARK is focused to ensure high reliability and cost effective solutions to all consumers. We keep improving our components and products, productivity, quality control, added value, and cost reduction in order to offer market-aligned solutions worldwide.

### OUR VALUES

Ethical / Respectful / Team Player /  
Dedicated / Caring / Sustainable / Flexible

**United Kingdom, London**  
HEADQUARTER

**Bulgaria, Dobrich**  
European Factory & Warehouse

**UAE, Dubai**  
Middle East Test Centre & Warehouse

Middle East-Sales and  
Logistics Branch and  
Test Centre in Dubai  
Silicon Oasis, UAE

NEW  
company in  
UNITED KINGDOM  
and SLOVAKIA

NEW  
product line  
Decorative  
Lighting

Building Second  
Logistic Centre  
of 4000 sq.m,  
Retail Franchise

ELMARK DIGITAL,  
E-Business Platform,  
Mobile Application,  
Check & Order System

2015

2016

2017

2018

## TECHNICAL SUPPORT AND CONSULTING

We operate from 10 different locations across the globe to ensure flexible approach to every project worldwide. Our experienced engineers and advisors have a proven ability to provide technical expertise on different projects from small private clients to large-scale market centres. We ensure viable and sustainable product solutions as well as clear and useful advice.

Our ELMARK library offers a variety of technical documents to provide guidance on standards, safety, usage and installation. Each product dossier contains certificates, Data Sheet with product specification, test reports, Photometric Data (IES) Files that help professionals select products and systems that are most appropriate for their requirements.



## LOGISTICS AND SUPPLY CHAIN

Successful inventory management plays a key role for our growth strategy. ELMARK keeps in stock more than 10 000 finished products to answer customer demand and reduce the lead time. Our customized ERP, WMS and digital business solutions increase our organization productivity and visibility at all levels. Flexibility and cost-effective operations helps us increase speed, improve competitiveness and maintain customer satisfaction. ELMARK fleet of vehicles and trusted logistic partners provide fast and reliable delivery solutions.



FLEXIBLE  
SUPPLY CHAIN



STOCK  
AVAILABILITIES



MOBILE CHECK  
& ORDER APP



ECOMMERCE  
DATABASE

## EXTENDED WARRANTY UP TO 7 YEARS

The production of ELMARK products is closely supervised by qualified engineers to guarantee high quality level. We warrant that our products are manufactured in accordance with all applicable European standards and are free from defects in materials and workmanship.

We are proud with **ALLIANZ GERMANY** recognition for the lack of claims for **14 consecutive years** in regard of insurance "Product liability" for **1 500 000 EUR**. ELMARK guarantees professional production and products durability and offers its clients the possibility to receive an Extended Warranty for all ELMARK products that have been purchased.

Extended warranty package:

- ▶ total **7 years full warranty** for products in **Automation**
- ▶ total **5 years full warranty** for products in **Electrical materials**
- ▶ total **5 years full warranty** for products in **LED Lighting**
- ▶ total **5 years full warranty** for products in **Decor lighting**



*Register your purchase at [www.elmarkholding.eu](http://www.elmarkholding.eu) and get up to **7 years extended warranty** for ELMARK products.*



For more information  
read the General Terms  
and Conditions

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, IN 040638060, in our capacity as Insurers, have issued an insurance Policy No 13000200390000001 and effected Product Liability insurance as follows:

**ASSURED:** ELMARK INDUSTRIES AD, BULSTAT No. 124634156, Dobrich, Dobrudzha 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 01-01-2020  
**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 insurance or evidence of financial responsibility under any applicable law relating to possibility, or otherwise shows or offers it to any other party as evidence of insurance, clearly understood that this confirmation relates only to the dates set out above and insurance is subject to General Conditions of "Allianz Bulgaria", attached clauses and conditions, limitations, exclusions and other provisions of the Insurance Policy issued.

December 20<sup>th</sup> 2019

Bratya Miladinovi 68 Str., General representation 039, [info@allianz.bg](mailto:info@allianz.bg) tel: +35952668733

\*ALLIANZ BULGARIA\* INS Co., LTD.

Allianz Bulgaria  
Insurance Co. Ltd.



Allianz Bulgaria  
Insurance Co., Ltd.

**General Insurance**

**CERTIFICATE**

This is to certify that we, "Allianz Bulgaria" Insurance Co., Ltd., Bulgaria, Sofia, in our capacity as Insurers, have issued Product Liability insurance policies for 13 (thirteen) consecutive years as follows:

**ASSURED:** ELMARK INDUSTRIES SC, BULSTAT No. 124634156, Dobrich, Dobrudzha 2 Boul., Bulgaria  
**Interest** Production 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 Decorative, Luminescent, Industrial and LED lighting.  
**Limits:** 1 500 000 EUR any one occurrence  
1 500 000 EUR in aggregate for the insurance period

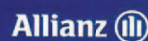
We gladly declare that no claim has been raised against ELMARK INDUSTRIES SC and no indemnification has been paid.

Issued on January 30<sup>th</sup> 2019

Place of issue: Sofia

Andrey Alexandrov,  
Chief Executive Officer  
"ALLIANZ BULGARIA" INS Co., LTD.

Allianz Bulgaria  
Insurance Co. Ltd. 039



**Allianz Bulgaria Insurance Co. Ltd.**  
declares that no claim has been raised against ELMARK INDUSTRIES SC and no indemnification has been paid for 14 consecutive years.

**BUREAU VERITAS**  
Certification



**ELMARK INDUSTRIES AD**  
2, Dobrudzha Blvd., 9300 Dobrich, Bulgaria

*Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standard 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 Fluorescent, Industrial and LED lighting.  
Assembly and testing of decorative lighting.**

Original Cycle start date: **7 April 2009**

Recertification cycle start date: **17 March 2018**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **16 March 2021**

Certificate No: **BG.121218Q/U**

Version 1, Revision date: **7 March 2018**

*S. S. S. S. S.*

Certification body address: 5<sup>th</sup> Floor, 66 Prescott Street, London, E1 8HG, United Kingdom  
Local Office: 81A, Bulgaria Blvd., 1404 Sofia, Bulgaria

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.  
To check this certificate validity please call: +359 (2) 983 60 44



0008



IEC <b>IECEE</b> CB SCHEME		Ref. Certif. No. <b>SE-91631</b>
IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME		
<b>CB TEST CERTIFICATE</b>		
Product	Circuit-breakers with overcurrent protection	
Name and address of the applicant	Elmark Industries SC 2 Dobrudzha Blvd., Dobrich, BULGARIA	
Name and address of the manufacturer	Same as applicant	
Name and address of the factory <small>Note: When more than one factory, please report on page 2</small>	Same as applicant	
Rating and principal characteristics	Ue= 230/400V-(1P), 400V-(2, 3, 4P) In= 1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A	
Trademark (if any)		
Customer's Testing Facility (CTF) Stage used	-	
Model / Type Ref.	C61N, C62N, C63N, C64N	
Additional information (if necessary may also be reported on page 2)	See page 2	
A sample of the product was tested and found to be in conformity with	IEC 60896-1:2015	
As shown in the Test Report Ref. No. which forms part of this Certificate	1806000765HA-001	
This CB Test Certificate is issued by the National Certification Body		
Intertek Semko AB Box 1103 SE-164 22 Kista, Sweden Tel: +46 8 780 00 00 Date: 16 August 2018	 Signature: Bo Berglöf	
1/2		SSU

IEC <b>IECEE</b> CB SCHEME		Ref. Certif. No. <b>SE-91897</b>
IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME		
<b>CB TEST CERTIFICATE</b>		
Product	Moulded Case Circuit-Breakers	
Name and address of the applicant	Elmark Industries SC 2 Dobrudzha Blvd., Dobrich, BULGARIA	
Name and address of the manufacturer	Same as applicant	
Name and address of the factory <small>Note: When more than one factory, please report on page 2</small>	Same as applicant	
Rating and principal characteristics	Ue=415V-(3P), In=400A, Ui=690V, Uimp=8kV, 50/60Hz, Cat. B Icu=65kA, Ics=42kA, low=9kA/1s	
Trademark (if any)		
Customer's Testing Facility (CTF) Stage used	-	
Model / Type Ref.	DS 1	
Additional information (if necessary may also be reported on page 2)	-	
A sample of the product was tested and found to be in conformity with	IEC 60947-2:2016	
As shown in the Test Report Ref. No. which forms part of this Certificate	1806000765HA-001	
This CB Test Certificate is issued by the National Certification Body		
Intertek Semko AB Box 1103 SE-164 22 Kista, Sweden Tel: +46 8 780 00 00 Date: 13 September 2018	 Signature: Fredrik Wennersten	
1/1		SSU

**Intertek**

# 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	 Bo Berglöf	Date	16 August 2018 Page 1 of 3

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

**Intertek**

# 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	 Fredrik Wennersten	Date	13 September 2018 Page 1 of 2

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

IEC IECB SCHEME		Ref. Certif. No. <b>SE-92201</b>
IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME		
<b>CB TEST CERTIFICATE</b>		
Product	AC Contactor	
Name and address of the applicant	Elmark Industries SC 2 Dobrudzha Blvd., Dobrich, Bulgaria	
Name and address of the manufacturer	Same as applicant	
Name and address of the factory <i>Note: When more than one factory, please report on page 2</i>	Same as applicant	
Rating and principal characteristics	See page 2	
Trademark (if any)	EL-MARK	
Customer's Testing Facility (CTF) Stage used	-	
Model / Type Ref.	LT1-D4011, LT1-D5011, LT1-D6511, LT1-D8011, LT1-D8511	
Additional information (if necessary may also be reported on page 2)	-	
A sample of the product was tested and found to be in conformity with	IEC 60947-4-1:2009+A1 IEC 60947-5-1:2016	
As shown in the Test Report Ref. No. which forms part of this Certificate	1806000745HA-001, 1806000745HA-002, 1806000745HA-003	
This CB Test Certificate is issued by the National Certification Body		
Intertek Semko AB Box 1103 SE-164 22 Kista, Sweden tel: +46 8 789 00 00 Date: 15 October 2018	 Signature:  Bo Berglöf	

1/2

EHG

IEC IECB SCHEME		Ref. Certif. No. <b>SE-92359</b>
IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME		
<b>CB TEST CERTIFICATE</b>		
Product	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs)	
Name and address of the applicant	Elmark Industries SC 2 Dobrudzha Blvd., Dobrich, BULGARIA	
Name and address of the manufacturer	Same as applicant	
Name and address of the factory <i>Note: When more than one factory, please report on page 2</i>	Same as applicant	
Rating and principal characteristics	Un: 240V~(1P+N), 410V~(3P+N), 50/60Hz, switched neutral pole In: 10, 16, 20, 25, 32, 40, 63A; -25-40°C IΔn: 0.03, 0.1, 0.3A, type AC-B type A IΔn: IA=6000A; IP20	
Trademark (if any)	EL-MARK	
Customer's Testing Facility (CTF) Stage used	-	
Model / Type Ref.	JEL1	
Additional information (if necessary may also be reported on page 2)	-	
A sample of the product was tested and found to be in conformity with	IEC 61008-1:2010+A1+A2 IEC 61008-2-1:1999	
As shown in the Test Report Ref. No. which forms part of this Certificate	1806000725HA-001	
This CB Test Certificate is issued by the National Certification Body		
Intertek Semko AB Box 1103 SE-164 22 Kista, Sweden tel: +46 8 789 00 00 Date: 31 October 2018	 Signature:  Paul Klemets	


1/1

EHG



Total Quality. Assured.

# Certificate

 for European Product Safety

Reference No. 1817119

## AC Contactor

Type designation: LT1-D4011, LT1-D5011, LT1-D6511, LT1-D8011, LT1-D8511

Certificate holder: Elmark Industries SC  
2 Dobrudzha Blvd., Dobrich, BULGARIA

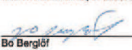
The product complies with the standard(s): EN 60947-4-1:2010+A1  
EN 60947-5-1:2017

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 Berglöf Page 1 of 3

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



Total Quality. Assured.

# Certificate

 for European Product Safety

Reference No. 1817803

## 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

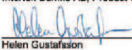
The product complies with the standard(s): EN 61008-2-1:1994+A11  
EN 61008-1:2012+A1+A2+A11+A12

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.

**AUTOMATION**



C41N-4,5kA  
MCB  
PAGE 36



C61N-6kA  
MCB  
PAGE 39



C100L-10kA  
MCB  
PAGE 42



VOLTAGE RELAY  
DEVICES FOR MCB  
PAGE 48



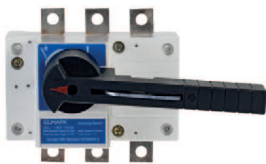
NT00  
HIGH POWER DEVICE  
PAGE 51



RT18  
HIGH POWER DEVICE  
PAGE 54



ISS  
SWITCH DISCONNECTOR  
PAGE 56



ISS2  
SWITCH DISCONNECTOR  
PAGE 58



EQ2M  
MANUAL SWITCHING  
PAGE 59



DS1 MAX  
MCCB  
PAGE 60



DW1  
ACB  
PAGE 74



EQ1  
CHANGE-OVER SWITCH  
PAGE 75



JEL1  
RCD  
PAGE 77



JEL5  
RCBO  
PAGE 80



SPD  
SURGE ARRESTERS  
PAGE 84



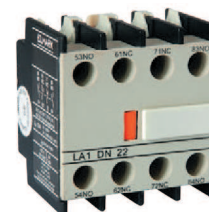
**LT1-D**  
CONTACTORS  
PAGE 88



**CJ19-43**  
CONTACTORS  
PAGE 93



**LT4-D**  
CONTACTORS  
PAGE 94



**LT01**  
AUXILIARY CONTACTS  
PAGE 95



**K20**  
MODULE CONTACTORS  
PAGE 96



**LT2-E**  
OVERLOAD RELAYS  
PAGE 98



**TM2**  
THERMOM. BREAKER  
PAGE 100



**LT5-D**  
STARTERS  
PAGE 104



**STAR/DELTA**  
STARTERS  
PAGE 106



**ELM 2000+**  
INVERTERS  
PAGE 109



**ELM 2500**  
SOFT STARTERS  
PAGE 111



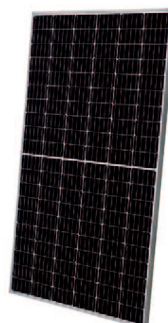
**HY-RPCF**  
COSΦ REGULATORS  
PAGE 115



**500W SET**  
SOLAR POWER  
PAGE 116



**ULTRACELL 100Ah**  
BATTERIES  
PAGE 119



**HALF CUT CELL**  
SOLAR PANEL  
PAGE 121



**RAILS**  
MOUNTING STRUCTURE  
PAGE 123



**INVERTERS  
SOLAR SYSTEMS  
PAGE 140**



**ELECTRICAL  
GASOLINE GENERATORS  
PAGE 147**



**TM 181  
TIMERS  
PAGE 149**



**EL-PMT-1  
TIMERS  
PAGE 150**



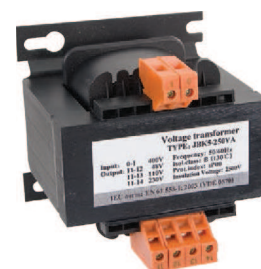
**EL-SDT-1  
TIMERS  
PAGE 153**



**CE2J  
DIGITAL COUNTERS  
PAGE 157**



**MES TYPE  
TRANSFORMERS  
PAGE 159**



**EVT5  
TRANSFORMERS  
PAGE 161**



**ELM60.2  
RELAYS  
PAGE 162**



**ELM90.22  
RELAYS BASES  
PAGE 163**



**EL-ED16R  
MEASUREMENT DEVICES  
PAGE 167**



**DD4F-501  
KWH METERS  
PAGE 169**



**AMPERE METER  
ANALOGUE METERS  
PAGE 170**



**CSA  
LIMIT SWITCHES  
PAGE 171**



**EL-CM  
SENSORS  
PAGE 178**



**DR-45  
POWER SUPPLIES  
PAGE 179**



LW26-GS  
ROTARY SWITCHES  
PAGE 183



EL-2211T  
BUTTONS  
PAGE 187



AD56-22-W  
LED INDICATORS  
PAGE 189



MTS203  
SWITCHES  
PAGE 192



ELD-G-DIN  
BUTTONS LED INDICATORS  
PAGE 195



EL1-B174  
BUTTONS  
PAGE 196



MBP  
TELPER CONTROL  
PAGE 197



LTE1101J  
WARNING LIGHTS  
PAGE 198



MS290  
SIRENS  
PAGE 199

**INSTALLATION**



HT-013  
INDUSTRIAL PLUGS IP44  
PAGE 200



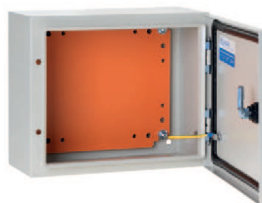
HTN 2141  
INDUSTRIAL PLUGS IP67  
PAGE 205



EC69025  
INDUSTRIAL BOARDS  
PAGE 209



EC69025  
ASSEMBLED BOARDS  
PAGE 211



JXF  
METAL BOARDS  
PAGE 217



ATTIS  
PLASTIC BOXES  
PAGE 220



EC PBTD  
PLASTIC BOARDS  
PAGE 225



GTL  
NONISOLATED TUBES  
PAGE 228



SVS  
ISOLATED TERMINALS  
PAGE 230



PLASTIC TRUNKING  
INSTALLATION SYSTEMS  
PAGE 234



PLASTIC TRUNKING  
AIR CONDITIONING  
PAGE 240



DOUBLECOAT  
FLEXIBLE PIPE  
PAGE 241



PVC INSULATED  
STEEL SPIRALS  
PAGE 243



SELF-EXTIGUISHING  
CONDUIT & ACCESORIES  
PAGE 243



CABLE TRAY  
METAL TRAYS & ACCESORIES  
PAGE 248



EARTHING ROD  
LIGHTING PROTECTION  
PAGE 250



EARTHING STRIP  
LIGHTING PROTECTION  
PAGE 251



ALUMINUM CONDUCTOR  
LIGHTING PROTECTION  
PAGE 252



EARTHING ACCESSOIRES  
LIGHTING PROTECTION  
PAGE 253



EC350  
FLUSH MOUNTING BOXES  
PAGE 256



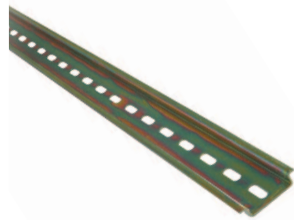
CONSOLE BOX Ø65  
CONSOLE BOXES  
PAGE 257



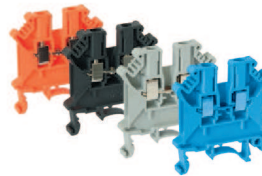
B10  
WATERPROOF BOXES  
PAGE 261



**B 9/T**  
**WATERPROOF BOXES**  
PAGE 262



**DIN**  
**MOUNTING RAIL**  
PAGE 263



**LTU2UK**  
**TERMINALS**  
PAGE 265



**PVC INSULATING**  
**TAPES**  
PAGE 270



**GL**  
**HEAT SHRINKAGE TUBES**  
PAGE 273



**MT-8**  
**CABLE TIE HOLDER**  
PAGE 276



**HANGING E27**  
**LAMP HOLDERS**  
PAGE 280



**ST41**  
**SENSORS**  
PAGE 282

**CABLES**  
**AND**  
**MULTIPLUGS**



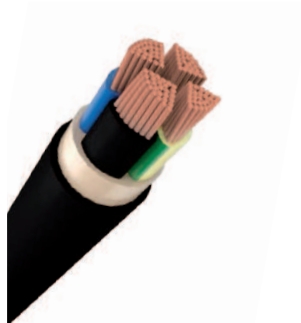
**MAK - 3**  
**CABLE REELS**  
PAGE 287



**4 HOLES WITH KEY**  
**MULTIPLUGS**  
PAGE 288



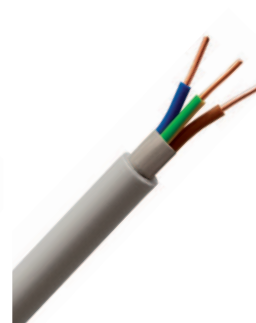
**CLIP**  
**MULTIPLUGS**  
PAGE 291



**NYN**  
**POWER CABLES**  
PAGE 296



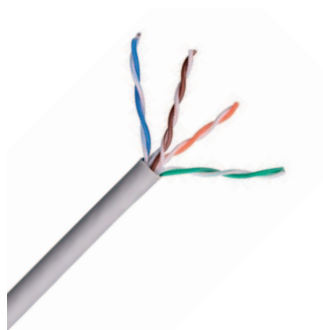
**H03VV-F**  
**INSIDE POWER CABLES**  
PAGE 301



**NYM**  
**CONDUCTORS**  
PAGE 307



**H05RR-F**  
**RUBBER CABLES**  
PAGE 309



UTP  
COMMUNICATION CABLES  
PAGE 311

**TOOLS**



DRILL EL-D10  
ELECTRICAL TOOLS  
PAGE 315



ANGLE GRINDER EL-AG01  
ELECTRICAL TOOLS  
PAGE 316



DRILL DRIVER EL-CD50  
CORDLESS TOOLS  
PAGE 318



ANGLE GRINDER EL-CD51  
CORDLESS TOOLS  
PAGE 318



BATTERY CHARGER  
CORDLESS TOOLS  
PAGE 319



EM890G  
DIGITAL MULTIMETERS  
PAGE 320



INFRARED  
TEMPERATURE METERS  
PAGE 325



EL-1805  
VOLTAGE TESTER  
PAGE 327



CRIMPING  
HAND TOOLS  
PAGE 330



CRIMPING  
HYDRAULIC TOOLS  
PAGE 332



INSULATED 1000V  
HAND TOOLS  
PAGE 335



NON-INSULATED  
HAND TOOLS  
PAGE 339



PLASTIC  
CUTTER KNIVES  
PAGE 349



CHROME PLATING  
TAPE MEASURE  
PAGE 352



CUTTING DISCS  
PAGE 353



CROSS HEAD DRILLS  
PAGE 356



WORK GLOVES  
SAFETY ACCESSORIES  
PAGE 360



PLASTIC ORGANIZER  
TOOLS BOXES  
PAGE 362



AA & AAA BATTERIES  
PAGE 363



ZOOM FLASHLIGHT  
WORKS & HOBBY LIGHTS  
PAGE 365



SCREWS  
FIXINGS & FASTENERS  
PAGE 368



ANCHORS  
FIXINGS & FASTENERS  
PAGE 375



PLUGS  
FIXINGS & FASTENERS  
PAGE 378



STEEL STRAP  
FIXINGS & FASTENERS  
PAGE 383



GRAPHITE MASTIC  
FIXINGS & FASTENERS  
PAGE 385



BITUM SEALANT  
FIXINGS & FASTENERS  
PAGE 387

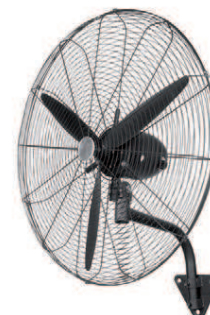
**VENTILATION**



ALS SILENT  
DOMESTIC AXIAL FANS  
PAGE 394



PAS  
INDUSTRIAL FANS  
PAGE 398



HPIWF3  
INDUSTRIAL FANS  
PAGE 400



AIR CONDUIT ALUMINUM  
ACCESSORIES FOR FANS  
PAGE 401



END GRILLE  
ACCESSORIES FOR FANS  
PAGE 403



REVISION OPENING PVC  
ACCESSORIES FOR FANS  
PAGE 406

**ELECTRIC  
WATER  
HEATERS**



BILIGHT  
WATER HEATER  
PAGE 408



BELLISLIMO  
WATER HEATER  
PAGE 410



MODECO CLOUD  
WATER HEATER  
PAGE 412



COMPACT  
WATER HEATER  
PAGE 414

**HEATING  
APPLIANCES**



PANEL COVECTORS  
HEATING APPLIANCES  
PAGE 417



FAN HEATERS  
HEATING APPLIANCES  
PAGE 418



BATHROOM HEATERS  
HEATING APPLIANCES  
PAGE 419

**SMART  
HOME  
CONTROL**



4 ZONES SWITCH  
SMART HOME CONTROL  
PAGE 423



RF DIMMER SWITCH  
SMART HOME CONTROL  
PAGE 429



WIFI SMART SOCKET  
SMART HOME CONTROL  
PAGE 430



WIFI 4 CHANNEL SWITCH  
SMART HOME CONTROL  
PAGE 433



Wi-Fi SMART CAMERA  
SMART HOME CONTROL  
PAGE 439



INFRARED ALARM SENSOR  
SMART HOME CONTROL  
PAGE 441



VIDEO DOOR PHONE  
SMART HOME CONTROL  
PAGE 442

**DOORBELLS**



DOORBELL  
WIRELESS DOORBELLS  
PAGE 446



DOORBELL WITH SENSOR  
WIRELESS DOORBELLS  
PAGE 450



BELL TRANSFORMER  
WIRELESS DOORBELLS  
PAGE 451

**SWITCHES AND SOCKETS**



CITY SERIES  
SWITCHES & SOCKETS  
PAGE 454



LECCE SERIES  
SWITCHES & SOCKETS  
PAGE 462



RHYME SERIES  
SWITCHES & SOCKETS  
PAGE 476



WATER HEATER SWITCH  
SWITCHES  
PAGE 482



WATERPROOF  
SWITCHES & SOCKETS  
PAGE 485

**DECORATIVE LIGHTING**



MARCELLA  
MODERN  
PAGE 489



SENSO  
MODERN  
PAGE 493



HENDRIX  
MODERN  
PAGE 497



ELIZABETH  
LUX  
PAGE 507



CAROL  
LUX  
PAGE 508



CARMEN  
LUX  
PAGE 511



AMBIX  
LUX  
PAGE 523



IZZY  
LUX  
PAGE 531



EDDY BLACK  
LUX  
PAGE 539



TWIST  
LUX  
PAGE 541



DALISS  
CRYSTAL  
PAGE 543



BLESSY  
CRYSTAL  
PAGE 546



VERA  
CRYSTAL  
PAGE 547



VICTORIA  
CRYSTAL  
PAGE 550



MISHELLE  
CRYSTAL  
PAGE 551



CINEMA  
DESIGN  
PAGE 562



OLENA  
DESIGN  
PAGE 564



ELLARIA  
DESIGN  
PAGE 566



SALLY  
DESIGN  
PAGE 570



ROXIE  
DESIGN  
PAGE 573



JARS  
DESIGN  
PAGE 579



SHUTTLE  
DESIGN  
PAGE 584



KERRY  
DESIGN  
PAGE 595



ALMA  
DESIGN  
PAGE 600



YVONNE  
DESIGN  
PAGE 612



LUNA  
DESIGN  
PAGE 613



PHIL  
DESIGN  
PAGE 614



WOODY  
DESIGN  
PAGE 616



ALEGRA  
DESIGN  
PAGE 619



BAMBOO  
DESIGN  
PAGE 620



JACKSON  
VINTAGE  
PAGE 630



LUTON  
VINTAGE  
PAGE 634



ROPE  
VINTAGE  
PAGE 636



ROPE  
VINTAGE  
PAGE 639



SAILOR  
VINTAGE  
PAGE 653



MARIEL  
CLASSIC  
PAGE 655



AMANDA  
CLASSIC  
PAGE 656



LAURA  
CLASSIC  
PAGE 660



STACY  
CLASSIC  
PAGE 670



JUDY  
CLASSIC  
PAGE 679



JANIS  
CLASSIC  
PAGE 685



HANNA  
CLASSIC  
PAGE 686



SENSOR  
CLASSIC  
PAGE 692



MAX  
TABLE & FLOOR LAMPS  
PAGE 695



CLARA  
TABLE & FLOOR LAMPS  
PAGE 696



JOHN  
TABLE & FLOOR LAMPS  
PAGE 698



TOMY  
TABLE & FLOOR LAMPS  
PAGE 702



CARMEN  
TABLE & FLOOR LAMPS  
PAGE 703



MAYA  
TABLE & FLOOR LAMPS  
PAGE 705



DUNCAN  
TABLE & FLOOR LAMPS  
PAGE 707



DIMMABLE TABLE LAMP  
TABLE & FLOOR LAMPS  
PAGE 709



ELINOR  
TABLE & FLOOR LAMPS  
PAGE 710



LUKE  
TABLE & FLOOR LAMPS  
PAGE 711



MICKEY BLUE  
SPOTLIGHTS  
PAGE 715



MICKEY WHITE  
SPOTLIGHTS  
PAGE 717



JIM  
SPOTLIGHTS  
PAGE 728



PICASSO  
SPOTLIGHTS  
PAGE 735

**INDOOR  
LIGHTING**



TETRAGON IP20  
LED PANELS  
PAGE 737



TETRAGON IP44  
LED PANELS  
PAGE 738



LED PANEL ROUND IP20  
LED PANELS  
PAGE 740



LED PANEL ROUND IP44  
LED PANELS  
PAGE 744



SUPER SLIM WITH CLIPS  
LED PANELS  
PAGE 746



LED PANEL ROUND OM  
LED PANELS  
PAGE 747



COLOUR TEMP. ADJUSTABLE  
LED PANELS  
PAGE 750



INDIRECT DOWNLIGHTS  
LED PANELS  
PAGE 751



LED PANEL SQUARE  
LED PANELS  
PAGE 752



LED PANEL SQUARE OM  
LED PANELS  
PAGE 753



GLASS PANEL ROUND  
LED PANELS  
PAGE 755



RECESSED FIXTURE  
LED FIXTURE  
PAGE 756



IVOR  
LED PANELS  
PAGE 757



LUCE  
LED FIXTURE  
PAGE 759



MALIA  
LED FIXTURE  
PAGE 762



DONUT  
LED FIXTURE  
PAGE 763



TRACY SUPER SLIM  
LED FIXTURE  
PAGE 764



LED WALL LIGHT IP65  
LED FIXTURE  
PAGE 767



SENSOR CABINET LAMP  
LED FIXTURE  
PAGE 768



ELR627  
DOWNLIGHT  
PAGE 770



SA-045  
DOWNLIGHT  
PAGE 777



GYPNUM DOWNLIGHTS  
DOWNLIGHT  
PAGE 780



BOUTIQUES MINI  
DOWNLIGHT  
PAGE 782



SA-71  
DOWNLIGHT  
PAGE 783



DEEP RECESSED IP44  
DOWNLIGHT  
PAGE 793



DL-044 SQUARE  
DOWNLIGHT  
PAGE 800



SKY TLR  
DOWNLIGHT  
PAGE 802



FLCOM COB  
DOWNLIGHT  
PAGE 804



FRANCA 90  
DOWNLIGHT  
PAGE 806



FOUR POLES MAGNETIC  
TRACK LIGHTING  
PAGE 811



FOUR POLES MAGNETIC  
TRACK LIGHTING  
PAGE 813



FOUR POLES 48V TRACK  
TRACK LIGHTING  
PAGE 814



2/4 LINES SKY TLR  
TRACK LIGHTING  
PAGE 816



2/4 LINES SKY TFL  
TRACK LIGHTING  
PAGE 819



2/4 LINES CINEMA SKY  
TRACK LIGHTING  
PAGE 822



SKY FIXTURES TLBM  
TRACK LIGHTING  
PAGE 824



TRITON  
LUMINAIRES  
PAGE 829



LED MOD FIXTURE  
LUMINAIRES  
PAGE 831



ACOUSTIC HIGH POWER LED  
LUMINAIRES  
PAGE 835



ACOUSTIC LED RINGS  
LUMINAIRES  
PAGE 836



LED RINGS  
LUMINAIRES  
PAGE 837



LED PROFILES S48  
LUMINAIRES  
PAGE 839



LED PROFILES S77  
LUMINAIRES  
PAGE 844



RAINBOW LED SMD  
LUMINAIRES  
PAGE 845



LENA-V BM/  
LUMINAIRES  
PAGE 850



XL101  
EMERGENCY LIGHTS  
PAGE 864



XL3114  
EMERGENCY LIGHTS  
PAGE 866



TRITON  
BATHROOM  
PAGE 868



LED MIRROR LIGHT  
BATHROOM  
PAGE 869



LED PANEL ROUND IP44  
BATHROOM  
PAGE 872



WATERPROOF LED PANEL  
BATHROOM  
PAGE 873



ELR627  
BATHROOM  
PAGE 874

**OUTDOOR  
LIGHTING**



BELT LIGHT  
GARDEN  
PAGE 877



JOSH  
GARDEN  
PAGE 879



ERIK  
GARDEN  
PAGE 882



GOLIA  
GARDEN  
PAGE 887



ANNA  
GARDEN  
PAGE 888



GLOBE 250  
GARDEN  
PAGE 890



GRF506 LED  
GARDEN  
PAGE 894



GABRI  
GARDEN  
PAGE 896



CARLO DECO  
GARDEN  
PAGE 897



CARLO  
GARDEN  
PAGE 898



SAURO  
GARDEN  
PAGE 900



GRF965  
GARDEN  
PAGE 903



PMMA OPAL  
GARDEN  
PAGE 906



NINA 150  
GARDEN  
PAGE 907



LETI 100GR  
GARDEN  
PAGE 908



LED WALL FIXTURES  
GARDEN  
PAGE 910



LORENZA 190  
GARDEN  
PAGE 911



GRF9617 LED  
GARDEN  
PAGE 914



WALL LAMP  
GARDEN  
PAGE 915



STUCCHI  
GARDEN  
PAGE 918



BRICE  
GARDEN  
PAGE 921



LED BULKHEAD LAMP  
GARDEN  
PAGE 922



MARTA 90-2  
FACADE AND GROUND  
PAGE 926



LIVIA 160  
FACADE AND GROUND  
PAGE 928



LINEAR  
FACADE AND GROUND  
PAGE 931



SOLAR LED WALL LIGHTS  
FACADE AND GROUND  
PAGE 933



SOLAR FIXTURE & SENSOR  
FACADE AND GROUND  
PAGE 934



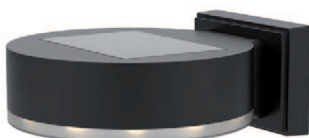
MINI TOMMY EL  
FACADE AND GROUND  
PAGE 938



SOLAR TORCH LIGHT  
FACADE AND GROUND  
PAGE 941



SOLAR GROUND LIGHT  
FACADE AND GROUND  
PAGE 942



SOLAR WALL  
FACADE AND GROUND  
PAGE 945



SOLAR WALL  
FACADE AND GROUND  
PAGE 946



CECI  
FACADE AND GROUND  
PAGE 948



WADE FIXTURE IP65  
LUMINAIRES  
PAGE 952



BELLA SMD2835  
LUMINAIRES  
PAGE 954



BELLA LED T8  
LUMINAIRES  
PAGE 956



HELIOS SMD  
FLOODLIGHTS  
PAGE 960



SIRIUS SMD  
FLOODLIGHTS  
PAGE 965



STADIUM FLOOD LIGHTS  
FLOODLIGHTS  
PAGE 967



LED WORK FLOODLIGHTS  
FLOODLIGHTS  
PAGE 969



STREET SMD  
ROAD LIGHTS  
PAGE 947



SOLAR LED & SENSOR  
ROAD LIGHTS  
PAGE 975



FESTA SMD  
HIGH BAYS  
PAGE 977



VECA SMD  
HIGH BAYS  
PAGE 978

## LAMPS AND COMPONENTS



LED VINTAGE LAMP  
LAMPS  
PAGE 987



LED VINTAGE LAMP  
LAMPS  
PAGE 990



LED VINTAGE LAMP  
LAMPS  
PAGE 992



LED CANDLE C37  
LAMPS  
PAGE 995



LED PEAR A60  
LAMPS  
PAGE 998



MOSQUITO LED 6W IP20  
LAMPS  
PAGE 1001



HIGH POWER LED LAMP  
LAMPS  
PAGE 1004



LED MOULD  
LAMPS  
PAGE 1006



LED COLOR  
LAMPS  
PAGE 1007



LED SMD GU10  
LAMPS  
PAGE 1010



HALF SPIRAL  
LAMPS  
PAGE 1016



FRESH LIGHT LED TUBE  
LAMPS  
PAGE 1025



LED TUBE T8  
LAMPS  
PAGE 1027



LED 300 12V DC IP20  
LED STRIPS & PROFILES  
PAGE 1031



LED 300 RGBW  
LED STRIPS & PROFILES  
PAGE 1033



LED 600 24V DC - IP65  
LED STRIPS & PROFILES  
PAGE 1038



COB LED STRIPS  
LED STRIPS & PROFILES  
PAGE 1041



LED MODULES  
LED STRIPS & PROFILES  
PAGE 1044



LED NEON FLEX  
LED STRIPS & PROFILES  
PAGE 1046



FLEXIBLE AL. PROFILE  
LED STRIPS & PROFILES  
PAGE 1048



PROFILES FOR DRYWALL  
LED STRIPS & PROFILES  
PAGE 1049



SET24DC DRIVERS IP20  
ACCESSORIES  
PAGE 1057



SETDC 12V/24V DRIVERS IP66  
ACCESSORIES  
PAGE 1060



HANGING LAMP HOLDER  
ACCESSORIES  
PAGE 1068

## LED FURNITURE & DESIGN



PEPPER  
LED FURNITURE  
PAGE 1075



OSLO  
LED FURNITURE  
PAGE 1076



BOCCA  
LED FURNITURE  
PAGE 1087



MALLORCA  
LED FURNITURE  
PAGE 1093



LAGOS  
LED FURNITURE  
PAGE 1097



BERMUDA  
LED FURNITURE  
PAGE 1101



VARNA  
LED FURNITURE  
PAGE 1107



BORNEO  
LED FURNITURE  
PAGE 1108



SALERNO  
LED FURNITURE  
PAGE 1111



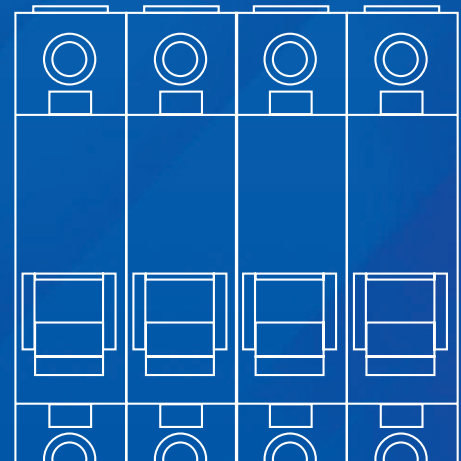
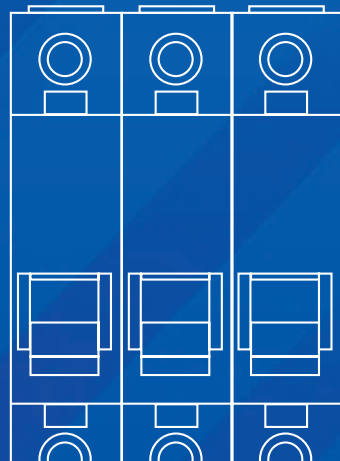
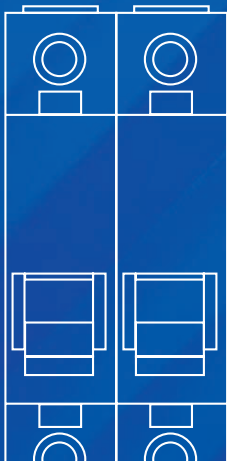
GENEVA  
LED FURNITURE  
PAGE 1116



LUGANO  
LED FURNITURE  
PAGE 1128



ELECTRICAL

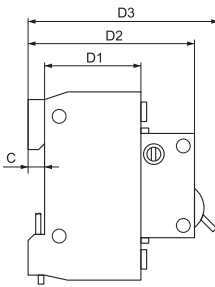
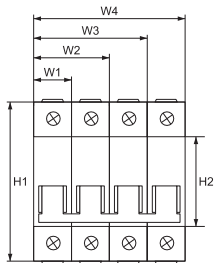


**C4XN**

- └─ 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



Dimensions (mm)

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

**MINIATURE CIRCUIT BREAKERS (MCB) C40N**

**7+0** standard + extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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

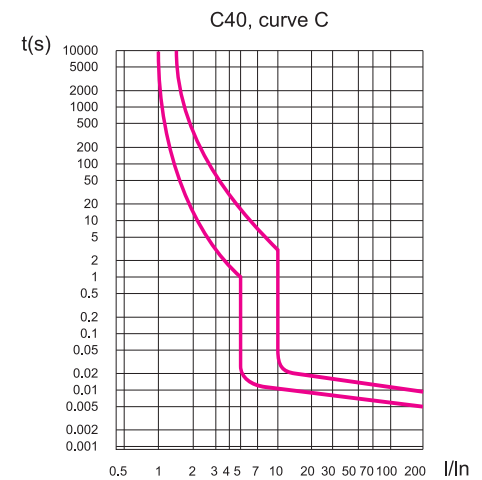
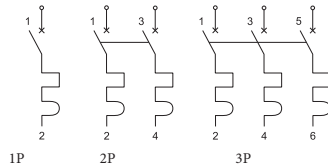
**TECHNICAL DATA:**

- Rated voltage: 230/400V; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 4500A
- Rated breaking capacity Ics= 75% Icu
- Isolating voltage: ≥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 (1G18Ni9)
  - 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





Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C41N / 2A	1P	2	4.5	1.0	12 / 240	B	<b>41460C</b>
C41N / 4A	1P	4	4.5	1.0	12 / 240	B	<b>41461C</b>
C41N / 6A	1P	6	4.5	1.0	12 / 240	B	<b>41451C</b>
C41N / 10A	1P	10	4.5	1.5	12 / 240	B	<b>41452C</b>
C41N / 16A	1P	16	4.5	2.5	12 / 240	B	<b>41453C</b>
C41N / 20A	1P	20	4.5	2.5	12 / 240	B	<b>41454C</b>
C41N / 25A	1P	25	4.5	4.0	12 / 240	B	<b>41455C</b>
C41N / 32A	1P	32	4.5	6.0	12 / 240	B	<b>41456C</b>
C41N / 40A	1P	40	4.5	10.0	12 / 240	B	<b>41457C</b>
C41N / 50A	1P	50	4.5	10.0	12 / 240	B	<b>41458C</b>
C41N / 63A	1P	63	4.5	16.0	12 / 240	B	<b>41459C</b>



Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C42N / 6A	2P	6	4.5	1.0	6 / 120	B	<b>41470C</b>
C42N / 10A	2P	10	4.5	1.5	6 / 120	B	<b>41471C</b>
C42N / 16A	2P	16	4.5	2.5	6 / 120	B	<b>41472C</b>
C42N / 20A	2P	20	4.5	2.5	6 / 120	B	<b>41473C</b>
C42N / 25A	2P	25	4.5	4.0	6 / 120	B	<b>41474C</b>
C42N / 32A	2P	32	4.5	6.0	6 / 120	B	<b>41475C</b>
C42N / 40A	2P	40	4.5	10.0	6 / 120	B	<b>41476C</b>
C42N / 50A	2P	50	4.5	10.0	6 / 120	B	<b>41477C</b>
C42N / 63A	2P	63	4.5	16.0	6 / 120	B	<b>41478C</b>



Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C43N / 6A	3P	6	4.5	1.0	4 / 80	B	<b>41541C</b>
C43N / 10A	3P	10	4.5	1.5	4 / 80	B	<b>41542C</b>
C43N / 16A	3P	16	4.5	2.5	4 / 80	B	<b>41543C</b>
C43N / 20A	3P	20	4.5	2.5	4 / 80	B	<b>41544C</b>
C43N / 25A	3P	25	4.5	4.0	4 / 80	B	<b>41545C</b>
C43N / 32A	3P	32	4.5	6.0	4 / 80	B	<b>41546C</b>
C43N / 40A	3P	40	4.5	10.0	4 / 80	B	<b>41547C</b>
C43N / 50A	3P	50	4.5	10.0	4 / 80	B	<b>41548C</b>
C43N / 63A	3P	63	4.5	16.0	4 / 80	B	<b>41549C</b>





UNTIL SUPPLY  
LAST

Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C41N/6A*	1P	6	4.5	1.0	12/240	F	<b>71106</b>
C41N/10A*	1P	10	4.5	1.5	12/240	F	<b>71110</b>
C41N/16A*	1P	16	4.5	2.5	12/240	F	<b>71116</b>
C41N/20A*	1P	20	4.5	2.5	12/240	F	<b>71120</b>
C41N/25A*	1P	25	4.5	4.0	12/240	F	<b>71125</b>
C41N/32A*	1P	32	4.5	6.0	12/240	F	<b>71132</b>
C41N/40A*	1P	40	4.5	10.0	12/240	F	<b>71140</b>
C41N/50A*	1P	50	4.5	10.0	12/240	F	<b>71150</b>

\*3 year standard+0 year extended warranty



UNTIL SUPPLY  
LAST

Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C43N/6A*	3P	6	4.5	1.0	1/4	F	<b>71306</b>
C43N/10A*	3P	10	4.5	1.5	1/4	F	<b>71310</b>
C43N/16A*	3P	16	4.5	2.5	1/4	F	<b>71316</b>
C43N/20A*	3P	20	4.5	2.5	1/4	F	<b>71320</b>
C43N/25A*	3P	25	4.5	4.0	1/4	F	<b>71325</b>
C43N/32A*	3P	32	4.5	6.0	1/4	F	<b>71332</b>

\*3 year standard+0 year extended warranty

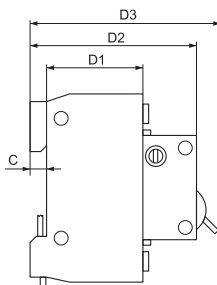
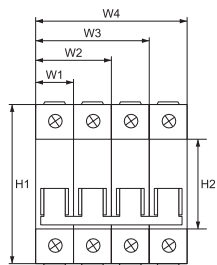
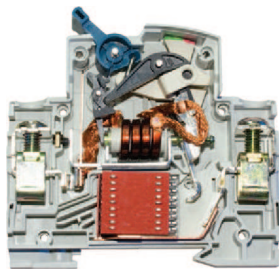


**C6XN**

- └─ 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



Dimensions (mm)

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

**MINIATURE CIRCUIT BREAKERS (MCB) C60N**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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

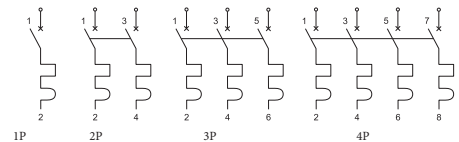
**TECHNICAL DATA:**

- 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 – not keeping the burning material nylon PA66, UV rays wear resistance
- Status indicator
- Box permittivity strength: >18MV/m
- Abnormal heating wear resistance and fire of the outer parts: 960°C / 3s

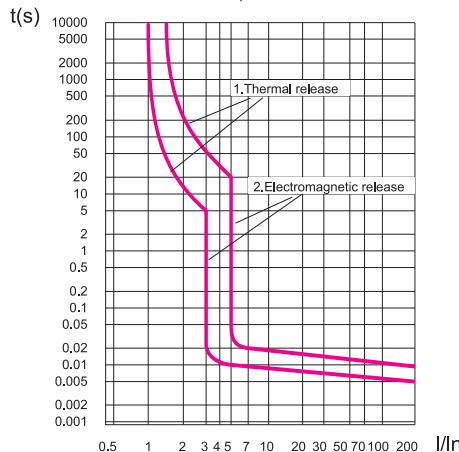
- Heat resistance of internal non-electrical components: 850°C / 10 s
- Maximum current release containing:
  - copper coil - composition: pure copper T2 type
  - resistance: from 0.6 to 180m
  - welding effort: <150 000 N/mm
  - bimetal plate – composition: 5J158 to TB180 depending on the current
  - 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

**MOUNTING:**

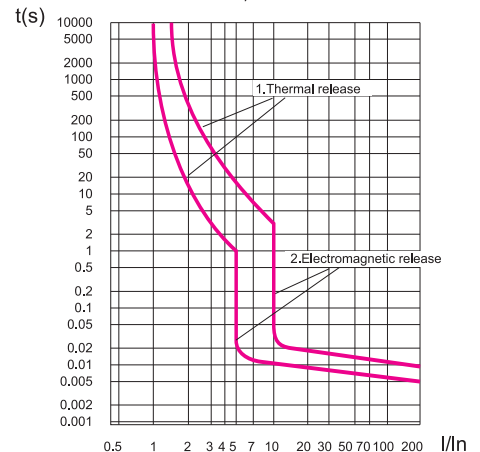
- vertical
- DIN-rail
- for mounting in housing or industrial environment without serious interference
- ambient temperature: -5°C to + 65°C±2° C



C60, curve B



C60, curve C





Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C	Catalogue number Curve B
C61N / 1A	1P	1	6	1.0	12 / 240	B	<b>41100N</b>	<b>41501N</b>
C61N / 2A	1P	2	6	1.0	12 / 240	B	<b>41102N</b>	<b>41502N</b>
C61N / 4A	1P	4	6	1.0	12 / 240	B	<b>41104N</b>	<b>41504N</b>
C61N / 6A	1P	6	6	1.0	12 / 240	B	<b>41106N</b>	<b>41506N</b>
C61N / 10A	1P	10	6	1.5	12 / 240	B	<b>41110N</b>	<b>41510N</b>
C61N / 16A	1P	16	6	2.5	12 / 240	B	<b>41116N</b>	<b>41516N</b>
C61N / 20A	1P	20	6	2.5	12 / 240	B	<b>41120N</b>	<b>41520N</b>
C61N / 25A	1P	25	6	4.0	12 / 240	B	<b>41125N</b>	<b>41525N</b>
C61N / 32A	1P	32	6	6.0	12 / 240	B	<b>41132N</b>	<b>41532N</b>
C61N / 40A	1P	40	6	10.0	12 / 240	B	<b>41140N</b>	<b>41540N</b>
C61N / 50A	1P	50	6	10.0	12 / 240	B	<b>41150N</b>	<b>41550N</b>
C61N / 63A	1P	63	6	16.0	12 / 240	B	<b>41163N</b>	<b>41563N</b>



Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C	Catalogue number Curve B
C62N / 2A	2P	2	6	1.0	6 / 120	B	<b>41202N</b>	<b>41602N</b>
C62N / 4A	2P	4	6	1.0	6 / 120	B	<b>41204N</b>	<b>41604N</b>
C62N / 6A	2P	6	6	1.0	6 / 120	B	<b>41206N</b>	<b>41606N</b>
C62N / 10A	2P	10	6	1.5	6 / 120	B	<b>41210N</b>	<b>41610N</b>
C62N / 16A	2P	16	6	2.5	6 / 120	B	<b>41216N</b>	<b>41616N</b>
C62N / 20A	2P	20	6	2.5	6 / 120	B	<b>41220N</b>	<b>41620N</b>
C62N / 25A	2P	25	6	4.0	6 / 120	B	<b>41225N</b>	<b>41625N</b>
C62N / 32A	2P	32	6	6.0	6 / 120	B	<b>41232N</b>	<b>41632N</b>
C62N / 40A	2P	40	6	10.0	6 / 120	B	<b>41240N</b>	<b>41640N</b>
C62N / 50A	2P	50	6	10.0	6 / 120	B	<b>41250N</b>	<b>41650N</b>
C62N / 63A	2P	63	6	16.0	6 / 120	B	<b>41263N</b>	<b>41663N</b>





Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C	Catalogue number Curve B
C63N/2A	3P	2	6	1.0	4 / 80	B	<b>41302N</b>	<b>41702N</b>
C63N/4A	3P	4	6	1.0	4 / 80	B	<b>41304N</b>	<b>41704N</b>
C63N / 6A	3P	6	6	1.0	4 / 80	B	<b>41306N</b>	<b>41706N</b>
C63N / 10A	3P	10	6	1.5	4 / 80	B	<b>41310N</b>	<b>41710N</b>
C63N / 16A	3P	16	6	2.5	4 / 80	B	<b>41316N</b>	<b>41716N</b>
C63N / 20A	3P	20	6	2.5	4 / 80	B	<b>41320N</b>	<b>41720N</b>
C63N / 25A	3P	25	6	4.0	4 / 80	B	<b>41325N</b>	<b>41725N</b>
C63N / 32A	3P	32	6	6.0	4 / 80	B	<b>41332N</b>	<b>41732N</b>
C63N / 40A	3P	40	6	10.0	4 / 80	B	<b>41340N</b>	<b>41740N</b>
C63N / 50A	3P	50	6	10.0	4 / 80	B	<b>41350N</b>	<b>41750N</b>
C63N / 63A	3P	63	6	16.0	4 / 80	B	<b>41363N</b>	<b>41763N</b>



Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C	Catalogue number Curve B
C64N / 2A	4P	2	6	1.0	3 / 60	B	<b>41402N</b>	<b>41802N</b>
C64N / 4A	4P	4	6	1.0	3 / 60	B	<b>41404N</b>	<b>41804N</b>
C64N / 6A	4P	6	6	1.0	3 / 60	B	<b>41406N</b>	<b>41806N</b>
C64N / 10A	4P	10	6	1.5	3 / 60	B	<b>41410N</b>	<b>41810N</b>
C64N / 16A	4P	16	6	2.5	3 / 60	B	<b>41416N</b>	<b>41816N</b>
C64N / 20A	4P	20	6	2.5	3 / 60	B	<b>41420N</b>	<b>41820N</b>
C64N / 25A	4P	25	6	4.0	3 / 60	B	<b>41425N</b>	<b>41825N</b>
C64N / 32A	4P	32	6	6.0	3 / 60	B	<b>41432N</b>	<b>41832N</b>
C64N / 40A	4P	40	6	10.0	3 / 60	B	<b>41440N</b>	<b>41840N</b>
C64N / 50A	4P	50	6	10.0	3 / 60	B	<b>41450N</b>	<b>41850N</b>
C64N / 63A	4P	63	6	16.0	3 / 60	B	<b>41463N</b>	<b>41863N</b>



UNTIL SUPPLY  
LAST

Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C61N / 1A*	1P	1	6	1.0	12 / 240	F	<b>41100</b>
C61N / 4A*	1P	4	6	1.0	12 / 240	F	<b>41104</b>

\*3 year standard+0 year extended warranty





UNTIL SUPPLY  
LAST

Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C62N / 2A*	2P	2	6	1.0	6 / 120	F	<b>41202</b>
C62N / 6A*	2P	6	6	1.0	6 / 120	F	<b>41206</b>
C62N / 10A*	2P	10	6	1.5	6 / 120	F	<b>41210</b>
C62N / 20A*	2P	20	6	2.5	6 / 120	F	<b>41220</b>
C62N / 25A*	2P	25	6	4.0	6 / 120	F	<b>41225</b>
C62N / 32A*	2P	32	6	6.0	6 / 120	F	<b>41232</b>
C62N / 40A*	2P	40	6	10.0	6 / 120	F	<b>41240</b>

\*3 year standard+0 year extended warranty



UNTIL SUPPLY  
LAST

Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C63N/2A*	3P	2	6	1.0	4 / 80	F	<b>41302</b>
C63N/4A*	3P	4	6	1.0	4 / 80	F	<b>41304</b>
C63N / 6A*	3P	6	6	1.0	4 / 80	F	<b>41306</b>
C63N / 10A*	3P	10	6	1.5	4 / 80	F	<b>41310</b>
C63N / 20A*	3P	20	6	2.5	4 / 80	F	<b>41320</b>
C63N / 40A*	3P	40	6	10.0	4 / 80	F	<b>41340</b>
C63N / 50A*	3P	50	6	10.0	4 / 80	F	<b>41350</b>

\*3 year standard+0 year extended warranty



UNTIL SUPPLY  
LAST

Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
C64N / 10A*	4P	10	6	1.5	3 / 60	F	<b>41410</b>
C64N / 16A*	4P	16	6	2.5	3 / 60	F	<b>41416</b>
C64N / 20A*	4P	20	6	2.5	3 / 60	F	<b>41420</b>
C64N / 25A*	4P	25	6	4.0	3 / 60	F	<b>41425</b>

\*3 year standard+0 year extended warranty

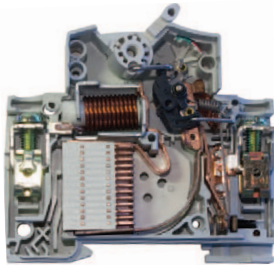


**C10XL**

- └─ 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



**MINIATURE CIRCUIT BREAKERS (MCB) C100L**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**FUNCTIONS:**

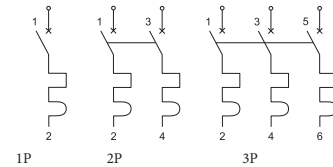
- protection of the electrical circuits from overload or short circuits of the outer circuit
- it can be used as a device for commutation and control of electrical circuits
- in combination with auxiliary devices it allows remote control, commutation or indication of the protected circuit

≥20000

- Class of current limiting:3
- IP code: IP>20
- Tripping curve: C

**MOUNTING:**

- vertical
- DIN-rail
- possibility for labeling



**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 Ics= 75% Icu
- Isolating volatage:≥2000V, 1 min at impulse wave 1.2/50µs
- Electrical wear resistance (number of cycles):≥4000
- Mechanical wear resistance (number of cycles):

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



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





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



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



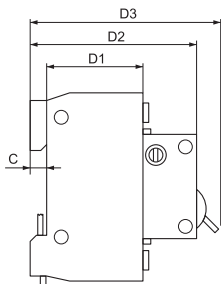
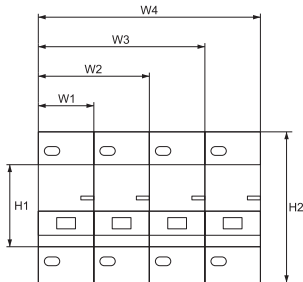
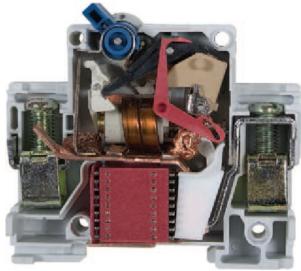
*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**C100M** constructive series  
 ─── number of poles (1;2;3;4)

**D X** ─── rated current  
 ─── tripping curve C, D, B

**Documents corresponding to the product:**

Standard EN60898-1  
 EN 60947-2



Dimensions (mm)

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

**MINIATURE CIRCUIT BREAKERS (MCB) C100M**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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

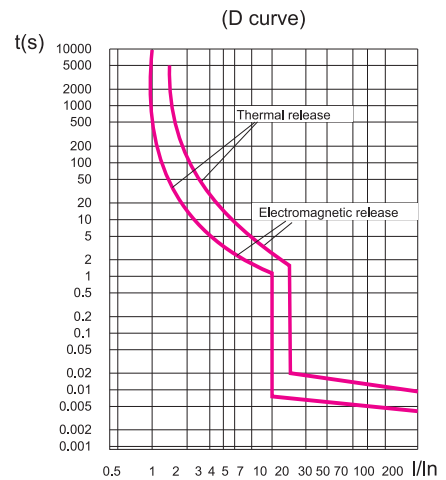
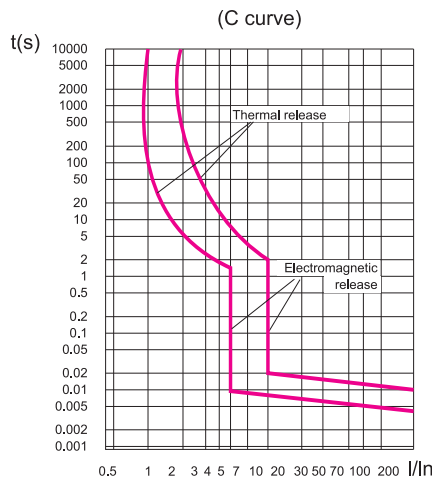
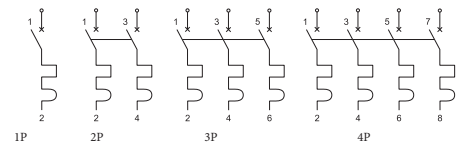
**TECHNICAL DATA:**

- Rated voltage: 230/400V; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 10000A
- Rated breaking capacity Ics= 75% Icu
- Isolating volatage: ≥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°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 2.24μm
- drawing effort: 20N/mm<sup>2</sup>
- 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
  - flexible conductors up to 35
- Tightening moment: 1.33Nm

**MOUNTING:**

- vertical
- DIN-rail
- possibility for labeling
- for mounting in industrial environment
- ambient temperature: -5°C to + 65°C±2° C





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



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



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



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



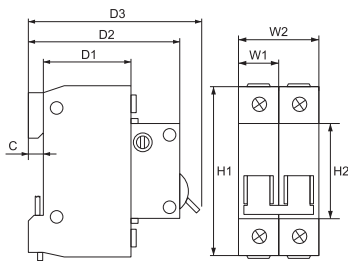
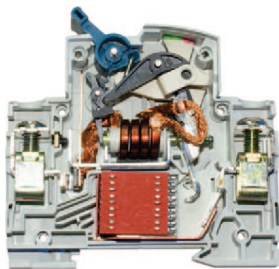
In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**C6XDC**

- └─ number of poles (1,2)
- └─ breaking capacity in (kA)
- └─ tripping curve C
- C X** └─ rated current in (A)
- └─ tripping curve C

**Documents corresponding to the product:**

Standard EN60898-1  
EN60898-2



Dimensions (mm)

C	D1	D2	D3
5	49	65	72
H1	H2	W1	W2
78	45	18	36

**MINIATURE CIRCUIT BREAKERS (MCB) C60DC**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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:**

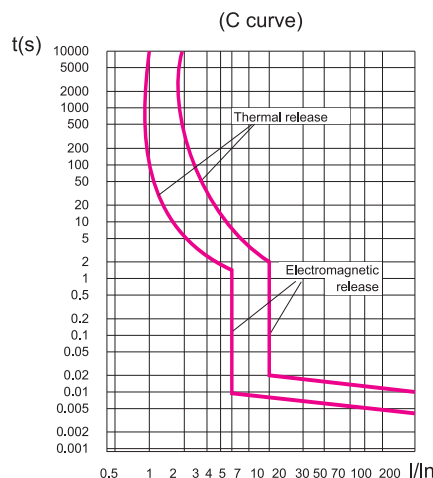
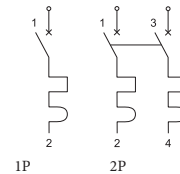
- Rated voltage: 240V; AC/DC
- Breaking capacity (cycle O -CO) in accordance with standard EN 60 898- 1: 6000A
- Rated breaking capacity Ics=75% Icu
- Insulating voltage: ≥2000V
- Electrical wear resistance (number of cycles): ≥4000
- Mechanical wear resistance (number of cycles): ≥20000
- Class of current 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 – 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

according to 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)
- 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°C to + 65°C±2° C





Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
61DC / 1A	1P	1	6	1.0	12 / 240	B	<b>41164</b>
61DC / 2A	1P	2	6	1.0	12 / 240	B	<b>41165</b>
61DC / 4A	1P	4	6	1.0	12 / 240	B	<b>41166</b>
61DC / 6A	1P	6	6	1.0	12 / 240	B	<b>41167</b>
61DC / 10A	1P	10	6	1.5	12 / 240	B	<b>41168</b>
61DC / 16A	1P	16	6	2.5	12 / 240	B	<b>41169</b>
61DC / 20A	1P	20	6	2.5	12 / 240	B	<b>41170</b>
61DC / 25A	1P	25	6	4.0	12 / 240	B	<b>41171</b>
61DC / 32A	1P	32	6	6.0	12 / 240	B	<b>41172</b>
61DC / 40A	1P	40	6	10.0	12 / 240	B	<b>41173</b>
61DC / 50A	1P	50	6	10.0	12 / 240	B	<b>41174</b>
61DC / 63A	1P	63	6	16.0	12 / 240	B	<b>41175</b>



Type	Number of poles	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
62DC / 2A	2P	2	6	1.0	6 / 120	B	<b>41176</b>
62DC / 4A	2P	4	6	1.0	6 / 120	B	<b>41177</b>
62DC / 6A	2P	6	6	1.0	6 / 120	B	<b>41178</b>
62DC / 10A	2P	10	6	1.5	6 / 120	B	<b>41179</b>
62DC / 16A	2P	16	6	2.5	6 / 120	B	<b>41181</b>
62DC / 20A	2P	20	6	2.5	6 / 120	B	<b>41182</b>
62DC / 25A	2P	25	6	4.0	6 / 120	B	<b>41183</b>



### MINIATURE CIRCUIT BREAKERS DP1N (1P + E)

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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

- Insulating voltage: ≥2000V
- IP code: IP>20
- Tripping curve: C – the maximum current release breaks between 5 and 10 In; used to protect main power supply
- cables and conventional consumers

**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

**CONNECTING:**

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

Type	Rated current In (A)	Breaking capacity (kA)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number Curve C
DP1N / 6	6	4.5	1.0	12 / 240	B	<b>41006</b>
DP1N / 10	10	4.5	1.5	12 / 240	B	<b>41010</b>
DP1N / 16	16	4.5	2.5	12 / 240	B	<b>41016</b>
DP1N / 20	20	4.5	2.5	12 / 240	B	<b>41020</b>
DP1N / 25	25	4.5	4.0	12 / 240	B	<b>41025</b>
DP1N / 32	32	4.5	6.0	12 / 240	B	<b>41032</b>

In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

EN 60255-1; IEC60947-5-1



**SINGLE POLE MONITORING VOLTAGE RELAY MN1**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**FUNCTIONS:**

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

**TECHNICAL CHARACTERISTICS:**

- 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: 1X10<sup>7</sup>
- Electrical life: 1X10<sup>5</sup>
- Ambiente temperature: -10C°/+55C°
- Dimensions: 90x18x64mm
- Mounting: on DIN rail

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



**Documents corresponding to the product:**

EN 60255-1; IEC60947-5-1



**THREE POLE MONITORING VOLTAGE RELAY MN3**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**FUNCTIONS:**

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

**TECHNICAL CHARACTERISTICS:**

- 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: 1X10<sup>7</sup>
- Electrical life: 1X10<sup>5</sup>
- Ambiente temperature: -10C°/+55C°
- Dimensions: 90x18x64mm
- Mounting: on DIN rail

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



**Type designation:**

MN - constructive series  
number of poles - 1

**Documents corresponding to the product:**

Standard EN60898-1



**COMBINED VOLTAGE CIRCUIT-BREAKER MN2**

7+0 standard+extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**FUNCTIONS:**

- when the voltage is reduced below 170V operation is initiated and the automatic switch is turned off
- when the voltage is increased above 280V operation is initiated and the automatic switch is turned off
- allows manual turning on of the switch after powering is restored
- indication of the position of the device

**TECHNICAL CHARACTERISTICS:**

- Rated voltage: 230V; 50/60Hz
- Insulation voltage: ≥2000V
- IP code: IP>20

**CONNECTION METHOD:**

- Double connector: flat (tunnel) screw connector
- Feeding (conducting):
  - flexible conductors up to 1.5mm<sup>2</sup>
- Tightening moment of the screw: 1.33Nm

**MOUNTING:**

- vertical, by means of two pins attached to the rivets of the circuit-breaker, while the operating mechanism is connected to the switching off mechanism of the circuit breaker after the sealing lid is demounted

Type	Rated voltage	Type breaker	Packing/Box (pcs)	Product category	Catalogue number
ELMARK MN 2 60	230V	C60	12 / 240	B	<b>41909</b>



**Type designation:**

MX - constructive series  
number of poles - 1

**Documents corresponding to the product:**

Standard EN60898-1



**SHUNT RELEASE MX (INDEPENDENT RELEASE)**

7+0 standard+extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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: ≥2000V
- IP code: IP>20

**CONNECTING:**

- Joining terminal: flat (tunnel) screw terminal

- Power supply (conducting):
  - flexible conductors up to 1.5mm<sup>2</sup>
- 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

Type	Rated voltage	Type breaker	Packing/Box (pcs)	Product category	Catalogue number
ELMARK MX 60	230V	C60	12 / 240	B	<b>41902</b>



**Type designation:**

OF - constructive series  
number of poles - 1

**Documents corresponding to the product:**

Standard EN60898-1



**AUXILIARY CONTACT OF**

7+0 standard+extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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: ≥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

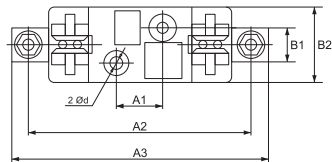
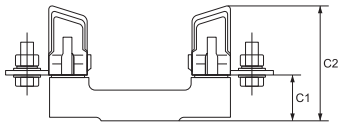
Type	Rated voltage	Type breaker	Packing/Box (pcs)	Product category	Catalogue number
ELMARK OF 60	230V	C60	17 / 170	B	<b>41901</b>
ELMARK SD100	230V	C60	12 / 240	B	<b>41905</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN 60269-1



**BASES FOR HIGH POWER SAFETY DEVICES**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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

**UNTIL SUPPLY LAST** \* Until Supply Last

Base type	Overall dimensions (mm)							
	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

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



Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)	Product category	Catalogue number
SIST0	NT 0	up to 160	600	295	3 / 54	B	<b>12010</b>
SISP0*	NT 0	up to 160	600	319	3 / 54	F	<b>12010P</b>



Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)	Product category	Catalogue number
SIST1	NT 1	up to 250	600	550	3 / 36	B	<b>12100</b>
SISP1*	NT 1	up to 250	600	550	3 / 36	F	<b>12100P</b>



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



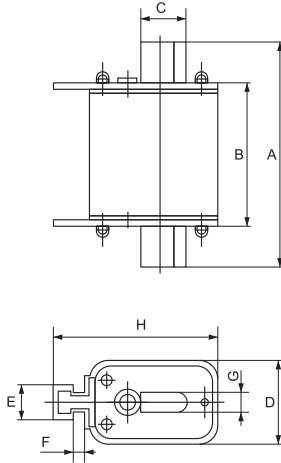
Base type	Fuse link type	Rated current (A)	Rated voltage Un (V)	Weight (gr)	Packing / Box (pcs)	Product category	Catalogue number
SIST3	NT 3	up to 630	600	965	1 / 20	B	<b>12300</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**Documents corresponding to the product:**

Standard EN 60269-1  
EN 60269-2



**FUSE LINKS FOR HIGH POWER SAFETY DEVICE**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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

**TWO OPERATING CLASSES OF NH FUSES ARE AVAILABLE:**

- Operating class gL/gG – general purpose, line protection, slow acting

**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

Base type	Overall dimensions (mm)				
	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

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



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



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



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



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



Type	In (A)	Un (V)	Packing / Box (pcs)	Product category	Catalogue number
NT3	500	500,600	1 / 24	B	<b>10350</b>
NT3	630	500,600	1 / 24	B	<b>10363</b>



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



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





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



**Documents corresponding to the product:**

Standard EN 60947-1; EN 60947-3



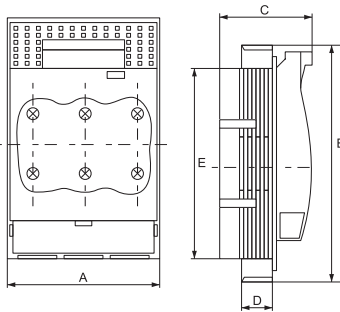
**ISOLATING SWITCHES**



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.

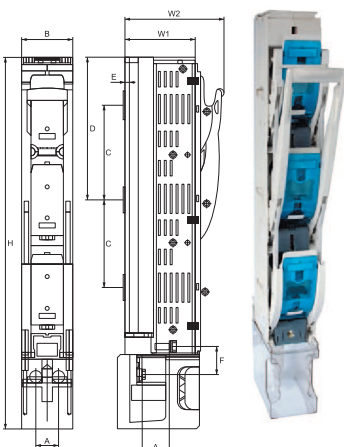
**TECHNICAL DATA:**

- 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 +65°C
- Altitude: up to 2000m



Base type	Overall dimensions (mm)				
	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

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



Overall dimensions (mm)										
A	B	C	D	E	F	G	H	W1	W2	
50	99	185	290	2	57	58	746	146	195	

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



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN 60269-2;  
IEC269-2



**SWITCH DISCONNECTORS RT18**

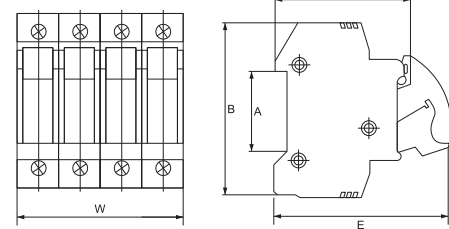
**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

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
- Insulation voltage: >2500V
- Rated current on short-circuit: 100 kA
- Direct mounting to the load
- Two insulated points to the load
- IP code: IP 44
- Cross-section of the supply conductors: up to 35mm<sup>2</sup>
- Environmental temperature: -5° to +65°C
- Utilization category: AC - 20B; DC - 20B
- Altitude: up to 2000m

Overall dimensions



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



### FUSE FOR SWITCH DISCONNECTORS RT18



RT18 Type

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



### FUSE FOR SWITCH DISCONNECTORS EL-D02



EL-D02 Type

Type of the fuse class gG	Voltage (V)	Rated current (A)	Size of the fuse A x ØB x C	Product category	Catalogue number
RO 26/32 2A	500	2	Ø11x 36mm	F	10R0232
RO 26/32 4A	500	4	Ø11x 36mm	F	10R0234
RO 26/32 6A	500	6	Ø11x 36mm	F	10R0236
RO 26/32 10A	500	10	Ø11x 36mm	F	10R0240
RO 26/32 16A	500	16	Ø11x 36mm	F	10R0246
RO 26/32 20A	500	20	Ø15x 36mm	F	10R0248
RO 26/63 40A	500	40	Ø15x 36mm	F	10R0640
RO 26/63 50A	500	50	Ø15x 36mm	F	10R0650

UNTIL SUPPLY  
LAST



**Documents corresponding to the product:**

Standard EN 60947-3 and IEC947-3



Dimensions (mm)

H1	H2	D1	D2	D3
81	45	50	65	76
W1	W2	W3	W3	
17,5	35	52,5	70	

**SWITCH DISCONNECTORS ISS FROM 20A TO 125A SERIES**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

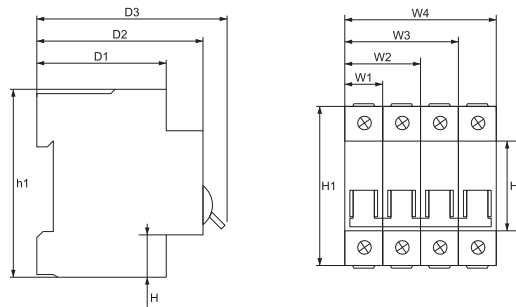
**FUNCTIONS:**

- switching on/off heavy loaded electrical circuits
- breaking of electrical circuits
- can be used as a main breaker
- it has no protective function
- 

**TECHNICAL DATA:**

- Rated voltage: 230/400V; 50/60Hz
- Joining terminal: flat (tunnel) screw terminal
- Connecting: power supply busbar, rigid or flexible conductors
- Tightening moment: 1.33Nm
- Isolating voltage:  $\geq 500V$

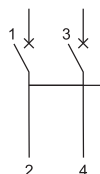
- Electrical wear resistance (number of cycles):  $\geq 10000$
- Mechanical wear resistance (number of cycles):  $\geq 20000$
- IP code: IP>20
- Mounting: DIN-rail
- Plastic material of UV rays
- Ambient temperature:  $-20^{\circ}C + 65^{\circ}C$



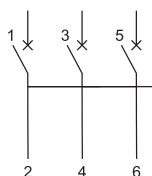
Type	Number of poles	Rated current In (A)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number
ISS	1P	40	10	12 / 240	B	<b>41914</b>
ISS	1P	63	16	12 / 240	B	<b>41911</b>
ISS	1P	80	25	12 / 240	B	<b>41912</b>
ISS	1P	100	35	12 / 240	B	<b>41913</b>
ISS	1p	125	50	12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



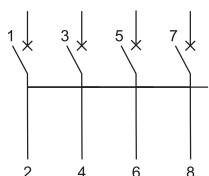
Type	Number of poles	Rated current In (A)	Recommended conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number
ISS	2P	40	10	6 / 120	B	<b>41924</b>
ISS	2P	63	16	6 / 120	B	<b>41921</b>
ISS	2P	80	25	6 / 120	B	<b>41922</b>
ISS	2P	100	35	6 / 120	B	<b>41923</b>
ISS	2p	125	50	6 / 120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



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



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



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



### PADLOCK ADAPTOR FOR MCB

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



Type	Product category	Catalogue number
Padlock adaptor for MCB	B	<b>41904</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**DOCUMENTS CORRESPONDING TO THE PRODUCT:**

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

**SWITCH DISCONNECTORS ISS2 FROM 125A TO 800A**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty



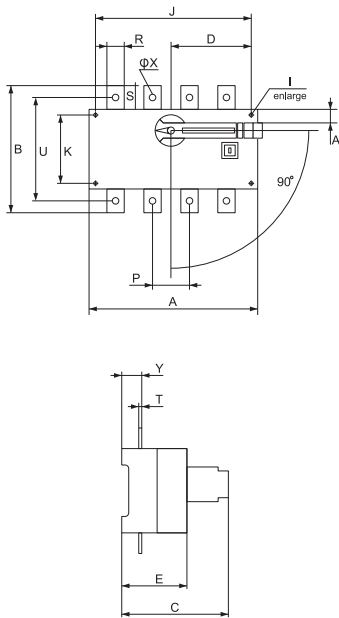
The series three- and four-pole load switch disconnectors ISS2 xxx are produced for mounting in main electrical boards for disconnection of the circuits, switching on of generators because of the fact they are not affected by the frequency variations. High mechanical strength and resistance to circulation.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

**FUNCTIONS:**

- switching on and off of 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 FEATURES:**

- 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:  $-20^{\circ}\pm 65^{\circ}C$



Type	Dimensions (mm)												
	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	

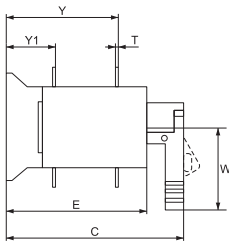
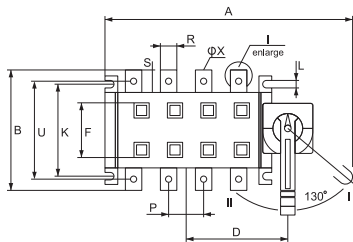
Type	Rated current In (A)	Maximum breaking capacity Icu (A)	Tightening moment (Nm)	Packing/Box (pcs)	Product category	Catalogue number three-pole	Catalogue number four-pole
ISS2-125in	125	1250	6.5	1 / 12	B	<b>41951</b>	<b>41961</b>
ISS2-125out	125	1250	6.5	1 / 12	B	<b>41952</b>	<b>41962</b>
ISS2-160in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



**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

**DOCUMENTS CORRESPONDING TO THE PRODUCT:**

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



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

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

The series three- and four-pole load isolating switch EQ 2 M xxx are produced for mounting in main electrical boards for disconnection of the circuits, manual switching between two power supplies or 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 of low voltage electrical circuits under load
- disconnection of the electrical circuit from one of the power supplies, while providing immediately switching to the other
- used as main switch
- resistant to high voltages, to short circuits in the protected circuit
- it has no protective function

**TECHNICAL CHARACTERISTICS:**

- Rated voltage: not higher than 690V; 50/60Hz
- Double connector: screw connection
- Connection: hard or flexible conductors
- Insulation voltage: ≥1000V
- Resistance to impulse voltage: 8000V
- Electrical endurance (number of cycles): ≥5 000
- Mechanical endurance (number of cycles): ≥10 000
- IP code: IP>20
- Mounting method: to a surface by means of bolts
- Plastic resistant to UV rays
- Ambient temperature: -20°±65°C
- Small size
- Indication which of the two supplies is operating

Type	Dimensions (mm)												
	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

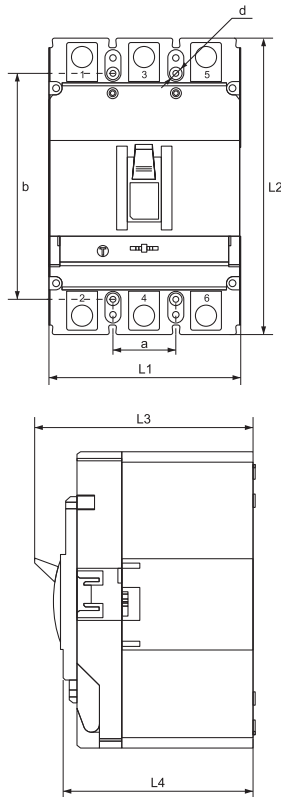
Type	Rated current In (A)	Maximum breaking capacity Icu (A)	Tightening moment (Nm)	Packing/Box (pcs)	Product category	Catalogue number three-pole	Catalogue number four-pole
EQ2M-160	160	1250	6.5	1 / 4	B	<b>44641</b>	<b>44641P</b>
EQ2M-250	250	2000	10	1 / 2	B	<b>44642</b>	<b>44642P</b>
EQ2M-400	400	3200	14.5	1 / 2	B	<b>44643</b>	<b>44643P</b>
EQ2M-630	630	4000	14.5	1 / 2	B	<b>44644</b>	<b>44644P</b>
EQ2M-800	800	1000	27	1 / 2	B	<b>44645</b>	<b>44645P</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-2



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

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**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:**

- Rated operating voltage: 415/690V; 50/60Hz
- Isolating voltage: 2000V
- Surge voltage wear resistance: ≥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°C
- Static contacts – alloy: pure copper T2Y2
  - acontact head: silver graphite CAg(5)
  - athickness: 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°/65°C.

Type	Overall dimensions (mm)						
	L1	L2	L3	L4	a	b	d
DS1 MAX 125/63 3P M	92	150	110	92	30	129	4.5
DS1 MAX 125/80 3PM	92	150	110	92	30	129	4.5
DS1 MAX 125/100 3P M	92	150	110	92	30	129	4.5
DS1 MAX 125/125 3P M	92	150	110	92	30	129	4.5
DS1 MAX 250/160 3P M	92	165	110	90	35	126	4.5
DS1 MAX 250/200 3P M	107	165	110	90	35	126	4.5
DS1 MAX 250/250 3P H	107	165	110	90	35	126	4.5
DS1 MAX 400/400 3P H	150	257	146	106	44	194	7
DS1 MAX 630/630 3P H	182	270	155	116	116	200	7
DS1 MAX 800/800 3P H	210	28	155	116	70	243	7
DS1 MAX 125/63 4P M	122	150	110	92	60	129	4.5
DS1 MAX 125/80 4PM	122	150	110	92	60	129	4.5
DS1 MAX 125/100 4P M	122	150	110	92	60	129	4.5
DS1 MAX 125/125 4P M	122	150	110	92	60	129	4.5
DS1 MAX 250/160 4P M	142	165	110	90	70	126	4.5
DS1 MAX 250/200 4P M	142	165	110	90	70	126	4.5
DS1 MAX 250/250 4P H	142	165	110	90	70	126	4.5
DS1 MAX 400/400 4P H	198	257	146	106	44	194	7
DS1 MAX 630/630 4P H	240	270	155	116	116	200	7
DS1 MAX 800/800 4P H	280	280	155	116	70	243	7

Type	Rated current In (A)	Operating breaking capacity (kA) Ics	Maximum breaking capacity (kA) Icu		Thermal current adjustment (A)	Packing/box	Product category	Catalogue number three-poles	Catalogue number four-poles
			415V	690V					
DS1 MAX - 125 63	36	36	50	20	50,4-63	1/16	B	<b>44163MM</b>	<b>444163MM</b>
DS1 MAX - 125 80	36	36	50	20	64-80	1/16	B	<b>44164MM</b>	<b>444164MM</b>
DS1 MAX - 125 100	36	36	50	20	80-100	1/16	B	<b>44165MM</b>	<b>444165MM</b>
DS1 MAX - 125 125	36	36	50	20	100-125	1/16	B	<b>44166MM</b>	<b>444166MM</b>
DS1 MAX - 250 160	36	36	50	20	128-160	1/6	B	<b>44160MM</b>	<b>444160MM</b>
DS1 MAX - 250 200	36	36	50	20	160-200	1/6	B	<b>44200MM</b>	<b>444200MM</b>
DS1 MAX - 250 250	42	42	65	25	200-250	1/6	B	<b>44250MH</b>	<b>444250MH</b>
DS1 MAX - 400 400	50	50	85	30	320-400	1/3	B	<b>44401MH</b>	<b>444401MH</b>
DS1 MAX - 630 630	50	50	85	30	504-630	1/2	B	<b>44630MH</b>	<b>444630MH</b>
DS1 MAX - 800 800	65	65	100	50	640-800	1/2	B	<b>44800MH</b>	<b>444800MH</b>

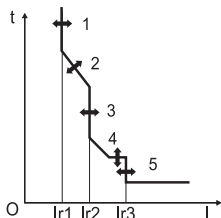
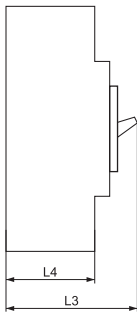
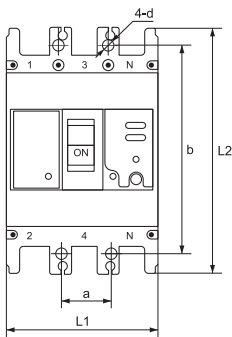


**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-2

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

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty



**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
- 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

**TECHNICAL DATA:**

- Rated operating voltage: 415/690V; 50/60Hz
- Isolating voltage: 2000V
- Surge voltage wear resistance: ≥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
- 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°±65°C

Type	Rated current In (A)	Operating breaking capacity (kA) Ics	Maximum breaking capacity (kA) Icu		Thermal current adjustment (A)	Packing/box	Product category	Catalogue number three-poles	Catalogue number four-poles
			415V	690V					
DS1 MAX - 400E	400	50	85	30	200-400	1/3	B	<b>44940MH</b>	<b>444940MH</b>
DS1 MAX - 630E	630	50	85	30	400-630	1/2	B	<b>44963MH</b>	<b>444963MH</b>
DS1 MAX - 800E	800	65	100	50	630-800	1/2	B	<b>44980MH</b>	<b>444980MH</b>



**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.

**TEST**

DS1 MAX - 400E

Ir1(A) t1(s) Ir2(XIr1) t2(s) Ir3(XIr1) Ir0(XIr1)

**TEST**

DS1 MAX - 630E

Ir1(A) t1(s) Ir2(XIr1) t2(s) Ir3(XIr1) Ir0(XIr1)

**TEST**

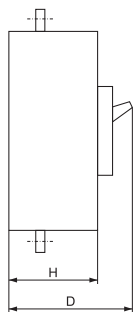
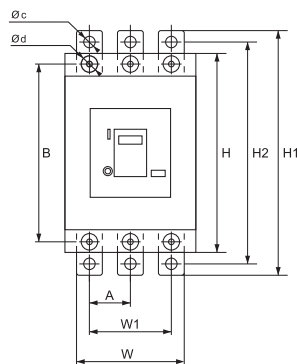
DS1 MAX - 800E

Ir1(A) t1(s) Ir2(XIr1) t2(s) Ir3(XIr1) Ir0(XIr1)

In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-2



**MOULDED CASE CIRCUIT BREAKERS (MCCB)  
DS1 SERIES FROM 40A TO 1250A**



**FUNCTIONS:**

- 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

- 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°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°÷65°C

**TECHNICAL DATA:**

- Rated operating voltage: 415/690V; 50/60Hz
- Isolating voltage: 2000V
- Surge voltage wear resistance: ≥8000V
- Joining terminal: flat (tunnel) screw terminal for the breakers up to 160A and a bolt connection for the breakers from 250A to 1600A

Type	Overall dimensions (mm)					Installation dimensions (mm)					
	W	H	D	H1	D1	A	B	W1	H2	Ø d	Ø e
DS1-125/3P	76.2	120	70		90	25	100	50		4	
DS1-160/3P	90	120	70		93	30	100	60		5	
DS1-250/3P	105	170	104	238	143.5	35	139	70	210	6	8.5
DS1-400/3P	140	257	104	316	144	44	214	87.5	285	6	11
DS1-630/3P	210	275	104	310	172	70	230	140	280	6	11
DS1-800/3P	210	275	104	347	172	70	230	140	307	6	16
DS1-1600/3P	210	410	140	410	210	70	300	140	350	10	12
DS1-125/4P	110	120	70		90	25	100	50		4	
DS1-160/4P	120	120	70		93	30	100	60		5	
DS1-250/4P	140	170	104	238	143.5	35	139	70	210	6	8.5
DS1-400/4P	184	257	104	316	144	44	214	87.5	285	6	11
DS1-630/4P	280	275	104	310	172	70	230	140	280	6	11
DS1-800/4P	280	275	104	347	172	70	230	140	307	6	16
DS1-1600/4P	280	410	140	410	210	70	300	140	350	10	12

Type	Rated current In (A)	Operating breaking capacity (kA) Ics	Maximum breaking capacity (kA) Icu		Thermal current adjustment (A)	Section of the conductor (mm²)	Packing/Box (pcs)	Product category	Catalogue number tree-poles
			415V	690V					
DS1-125	40	16	35	10	fixed	16	1 / 20	F	<b>44040</b>
DS1-125	50	16	35	10	fixed	16	1 / 20	F	<b>44050</b>
DS1-125	63	16	35	10	fixed	25	1 / 20	F	<b>44063</b>
DS1-125	80	16	35	10	fixed	25	1 / 20	F	<b>44080</b>
DS1-125	100	16	35	10	fixed	35	1 / 20	F	<b>44090</b>

UNTIL SUPPLY LAST





UNTIL SUPPLY  
LAST

Type	Rated current In (A)	Operating breaking capacity (kA) Ics	Maximum breaking capacity (kA) Icu		Thermal current adjustment (A)	Section of the conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number tree-poles
			415V	690V					
DS1 - 160	63	22	35	15	44 - 63	25	1 / 20	F	<b>44163</b>
DS1 - 160	80	22	35	15	56 - 80	25	1 / 20	F	<b>44164</b>
DS1 - 160	100	22	35	15	70 - 100	50	1 / 20	F	<b>44165</b>
DS1 - 160	125	22	35	15	88 - 125	50	1 / 20	F	<b>44166</b>
DS1 - 160	160	22	35	15	112 - 160	70	1 / 20	F	<b>44160</b>
DS1 - 160	160	22	35	15	fixed	70	1 / 20	F	<b>441601</b>



UNTIL SUPPLY  
LAST

Type	Rated current In (A)	Operating breaking capacity (kA) Ics	Maximum breaking capacity (kA) Icu		Thermal current adjustment (A)	Section of the conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number tree-poles
			415V	690V					
DS 1 - 400	400	50	65	25	fixed	240	1 / 4	F	<b>44401</b>



UNTIL SUPPLY  
LAST

Type	Rated current In (A)	Operating breaking capacity (kA) Ics	Maximum breaking capacity (kA) Icu		Thermal current adjustment (A)	Section of the conductor (mm <sup>2</sup> )	Packing/Box (pcs)	Product category	Catalogue number tree-poles
			415V	690V					
DS1 - 630	500	65	75	25	fixed	185	1 / 2	F	<b>44500</b>



UNTIL SUPPLY  
LAST

Type	Rated current In (A)	Max. breaking capacity (kA) Icu	Operating breaking capacity (kA) Ics	Section of the power supply conductor (mm <sup>2</sup> )	Protection from overload	Packing/Box (pcs)	Product category	Catalogue number
DS1 - 1250	1250	85	65	240	fixed	1 / 1	F	<b>44502</b>



**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-2



**MOULDED CASE CIRCUIT BREAKER (MCCB)  
DS2 SERIES**

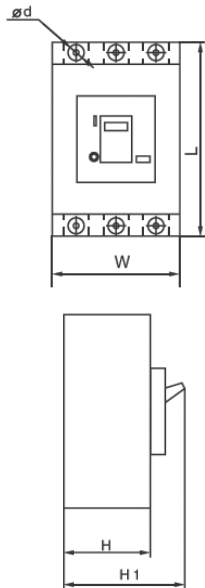


**FUNCTIONS:**

- no auxiliaries available for this type of MCCB
- 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
- Surge voltage wear resistance:  $\geq 6000V$
- 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):  $\geq 6000$
- Mechanical wear resistance (number of cycles):  $\geq 10000$
- IP code: IP>20
- Mounting:
  - joining with bolts
  - mounting position: vertical
- Plastic material of UV rays and non-flammable
- Test button
- Ambient temperature:  $-20^{\circ}\pm 55^{\circ}C$

**TECHNICAL DATA:**

- Rated operating voltage: 400V; 50/60Hz
- Isolating voltage: 690V



UNTIL SUPPLY  
LAST

Type	Overall dimensions (mm)			
	W	L	H	H1
DS2-63	76	135	73,5	90,5
DS2-500	180	270	111,5	160
DS2-630	180	270	111,5	160
DS2-800	210	274,3	109	145,8

Type	Rated current In (A)	Max. breaking capacity (kA) Icu	Operating breaking capacity (kA) Ics	Recommended conductor (mm <sup>2</sup> )	Protection from overload	Packing/Box (pcs)	Product category	Catalogue number tree-poles
DS2-63	63	18	12	16	fixed	1/12	F	<b>44006</b>
DS2-500	500	50	42	240	fixed	1/1	F	<b>44005</b>
DS2-630	630	50	42	240	fixed	1/2	F	<b>44036</b>
DS2-800	800	65	48	240	fixed	1/1	F	<b>44008</b>



**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-2



**MOULDED CASE CIRCUIT BREAKERS (MCCB) DS1 TO 1600A-ELECTRONIC TYPE**

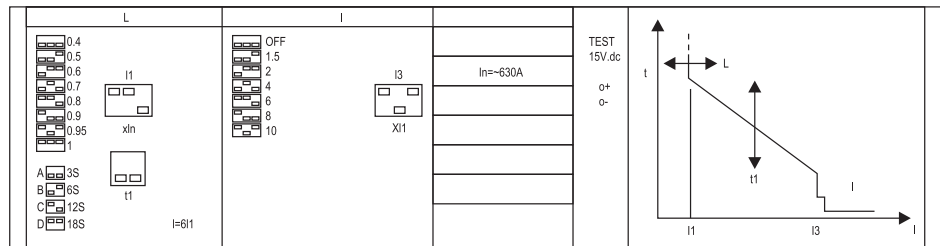
**3+0** standard +extended **3** YEAR TOTAL WARRANTY

**FUNCTIONS:**

- 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
- 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

**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):  $\geq 10000$
- Mechanical wear resistance (number of cycles):  $\geq 20000$
- 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°=65°C



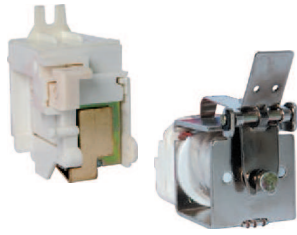
**PROTECTING FUNCTIONS:**

Function L – step adjustment for protection against overload. Adjustment of the operating current  $I1=0.4+1xIn$  with discrete coefficients as the value can be 0.4; 0.5; 0.6; 0.7; 0.8; 0.9; 0.95 and 1  
Time delay adjustment  $t1$  of the protection against overload – step adjustment with four values A-3s; B-6s; C-12s; D-18s when current is  $I=6I1$ . The diagram of the current curves is presented on fig.1  
Adjustment of the transitory protection current against short circuit  $I3=X \times I1$  where X can take discrete value OFF; 1.5; 2; 4; 6; 8; 10

Type	Rated current $I_n$ (A)	Operating breaking capacity (kA) $I_{cs}$	Maximum breaking capacity (kA) $I_{cu}$		Thermal current adjustment (A)	Section of the Packing/Box conductor (mm <sup>2</sup> )	Product category	Catalogue number	tree-poles
			415V	690V					
DS1 - 400E	400	50	65	25	160 - 400	240	1 / 3	F	<b>44940</b>
DS1 - 630E	630	65	75	25	252 - 630	240	1 / 2	F	<b>44963</b>
DS1 - 1250E	1000	85	100	65	400 - 1000	240	1 / 1	F	<b>44999</b>
DS1 - 1250E	1250	85	100	65	500 - 1250	240	1 / 1	F	<b>44925</b>
DS1 - 1600E	1600	85	100	65	640 - 1600	240	1 / 1	F	<b>44960</b>

UNTIL SUPPLY LAST





## SHUNT RELEASE (MX)

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

**UNTIL SUPPLY LAST**

\*Until Supply Last- 3 year standard+0 year extended warranty

### DS1-ELECTRONIC TYPE WITH MOUNTED MX

Type	Product category	Catalogue number	
		400V	230V
DS1 400/3300*	F	<b>444511</b>	<b>44452</b>
DS1 630/3300*	F	<b>44455</b>	<b>44456</b>



### DS1 MAX-ELECTRONIC TYPE WITH MOUNTED MX

Type	Product category	Catalogue number	
		400V	230V
DS1 MAX 400/3300 B	B	<b>444511M</b>	<b>44452M</b>
DS1 MAX 630/3300 B	B	<b>44455M</b>	<b>44456M</b>
DS1 MAX 800/3300 B	B	<b>44459M</b>	<b>44460M</b>



### DS1-THERMOMAGNETIC TYPE WITH MOUNTED MX

Type	Product category	Catalogue number	
		400V	230V
DS1 125/40*	F	<b>44317</b>	<b>44318</b>
DS1 125/50*	F	<b>44321</b>	<b>44322</b>
DS1 125/63*	F	<b>44326</b>	<b>44327</b>
DS1 125/80*	F	<b>44331</b>	<b>44332</b>
DS1 125/100*	F	<b>44336</b>	<b>44337</b>
DS1 160/100*	F	<b>44463</b>	<b>44464</b>
DS1 160/160*	F	<b>44333</b>	<b>44344</b>
DS1 400/400*	F	<b>44355</b>	<b>44356</b>
DS1 630/500*	F	<b>44359</b>	<b>44360</b>



### DS1 MAX-THERMOMAGNETIC TYPE WITH MOUNTED MX

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

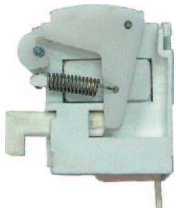


**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**UNDER VOLTAGE RELEASE (MN)**



MN for DS1 - 125-160



MN for DS1 - 250-800



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

**UNTIL SUPPLY LAST**

\*Until Supply Last - 3 year standard+0 year extended warranty

**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-ELECTRONIC TYPE WITH MOUNTED MN**

Type	Product category	Catalogue number	
		400V	230V
DS1 400/3300*	F	<b>44483</b>	<b>44484</b>
DS1 630/3300*	F	<b>44487</b>	<b>44488</b>



**DS1 MAX-ELECTRONIC TYPE WITH MOUNTED MN**

Type	Product category	Catalogue number	
		400V	230V
DS1 MAX 400/3300 B	B	<b>44483M</b>	<b>44484M</b>
DS1 MAX 630/3300 B	B	<b>44487M</b>	<b>44488M</b>
DS1 MAX 800/3300 B	B	<b>44491M</b>	<b>44492M</b>



**DS1-THERMOMAGNETIC TYPE WITH MOUNTED MN**

Type	Product category	Catalogue number	
		400V	230V
DS1 125/40*	F	<b>44383</b>	<b>44384</b>
DS1 125/50*	F	<b>44387</b>	<b>44388</b>
DS1 125/63*	F	<b>44391</b>	<b>44392</b>
DS1 125/80*	F	<b>44395</b>	<b>44396</b>
DS1 125/100*	F	<b>44399</b>	<b>44402</b>
DS1 160/100*	F	<b>44475</b>	<b>44476</b>
DS1 160/160*	F	<b>44411</b>	<b>44412</b>
DS1 400/400*	F	<b>44423</b>	<b>44424</b>
DS1 630/500*	F	<b>44427</b>	<b>44428</b>



**DS1 MAX-THERMOMAGNETIC TYPE WITH MOUNTED MN**

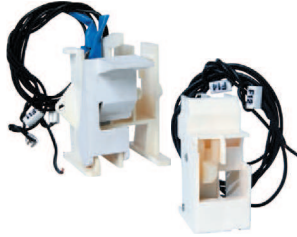
Type	Product category	Catalogue number	
		400V	230V
DS1 MAX 125/63 B	B	<b>44391M</b>	<b>44392M</b>
DS1 MAX 125/80 B	B	<b>44395M</b>	<b>44396M</b>
DS1 MAX 125/100 B	B	<b>44399M</b>	<b>44402M</b>
DS1 MAX 125/125 B	B	<b>44407M</b>	<b>44408M</b>
DS1 MAX 250/160 B	B	<b>44411M</b>	<b>44412M</b>
DS1 MAX 250/200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



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-2



**AUXILIARY CONTACT (OF)**

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

**INTERNAL DEVICES**

**AUXILIARY CONTACT (OF)**

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



\*Until Supply Last - 3 year standard+0 year extended warranty



**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-THERMOMAGNETIC TYPE WITH MOUNTED OF**

Type	Product category	Catalogue number
DS1 125/40*	F	<b>44301</b>
DS1 125/50*	F	<b>44302</b>
DS1 125/63*	F	<b>44303</b>
DS1 125/80*	F	<b>44304</b>
DS1 125/100*	F	<b>44305</b>
DS1 160/160*	F	<b>44307</b>
DS1 400/400*	F	<b>44310</b>
DS1 630/500*	F	<b>44311</b>



**DS1 MAX-THERMOMAGNETIC TYPE WITH MOUNTED OF**

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



**DS1 -ELECTRONIC TYPE WITH MOUNTED MX+OF**

	Product category	Catalogue number 400V	Catalogue number 230V
DS1 400/3300*	F	<b>44453</b>	<b>44454</b>
DS1 630/3300*	F	<b>44457</b>	<b>44458</b>





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

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

UNTIL SUPPLY  
LAST

\*Until Supply Last- 3 year standard+0 year extended warranty

#### DS1-THERMOMAGNETIC TYPE WITH MOUNTED MX+OF

	Product category	Catalogue number 400V	Catalogue number 230V
DS1 125/40*	F	<b>44319</b>	<b>44320</b>
DS1 125/50*	F	<b>44323</b>	<b>44324</b>
DS1 125/63*	F	<b>44328</b>	<b>44330</b>
DS1 125/80*	F	<b>44334</b>	<b>44335</b>
DS1 125/100*	F	<b>44338</b>	<b>44339</b>
DS1 160/100*	F	<b>44465</b>	<b>44466</b>
DS1 160/160*	F	<b>44345</b>	<b>44346</b>
DS1 250/200*	F	<b>44349</b>	<b>44350</b>
DS1 250/250*	F	<b>44353</b>	<b>44354</b>
DS1 400/315*	F	<b>44469</b>	<b>44470</b>
DS1 400/400*	F	<b>44357</b>	<b>44358</b>
DS1 630/500*	F	<b>44361</b>	<b>44362</b>
DS1 630/630*	F	<b>44365</b>	<b>44366</b>
DS1 800/800*	F	<b>44369</b>	<b>44370</b>



#### DS1 MAX-THERMOMAGNETIC TYPE WITH MOUNTED MN+OF

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



#### DS1 MAX-ELECTRONIC TYPE WITH MOUNTED MN+OF

	Product category	Catalogue number 400V	Catalogue number 230V
DS1 MAX 400/3300	B	<b>44485M</b>	<b>44486M</b>
DS1 MAX 630/3300	B	<b>44489M</b>	<b>44490M</b>
DS1 MAX 800/3300	B	<b>44493M</b>	<b>44494M</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



**DS1 MAX-ELECTRONIC TYPE WITH MOUNTED MX+OF**

	Product category	Catalogue number 400V	Catalogue number 230V
DS1 MAX 400/3300	B	<b>44453M</b>	<b>44454M</b>
DS1 MAX 630/3300	B	<b>44457M</b>	<b>44458M</b>
DS1 MAX 800/3300	B	<b>44461M</b>	<b>44462M</b>



**DS1 MAX- THERMOMAGNETIC TYPE WITH MOUNTED MX+OF**

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



**DS1-THERMOMAGNETIC TYPE WITH MOUNTED MN+OF**

	Product category	Catalogue number 400V	Catalogue number 230V
DS1 125/40	F	<b>44385</b>	<b>44386</b>
DS1 125/50	F	<b>44389</b>	<b>44390</b>
DS1 125/63	F	<b>44393</b>	<b>44394</b>
DS1 125/80	F	<b>44397</b>	<b>44398</b>
DS1 125/100	F	<b>44405</b>	<b>44406</b>
DS1 125/125	F	<b>44409</b>	<b>44410</b>
DS1 160/100	F	<b>44477</b>	<b>44478</b>
DS1 160/160	F	<b>44413</b>	<b>44414</b>
DS1 250/200	F	<b>44417</b>	<b>44418</b>
DS1 250/250	F	<b>44421</b>	<b>44422</b>
DS1 400/315	F	<b>44481</b>	<b>44482</b>
DS1 400/400	F	<b>44425</b>	<b>44426</b>
DS1 630/500	F	<b>44429</b>	<b>44430</b>
DS1 630/630	F	<b>44433</b>	<b>44434</b>
DS1 800/800	F	<b>44437</b>	<b>44438</b>

UNTIL SUPPLY  
LAST



**DS1-ELECTRONIC TYPE WITH MOUNTED MN+OF**

	Product category	Catalogue number 400V	Catalogue number 230V
DS1 400/3300	F	<b>44485</b>	<b>44486</b>
DS1 630/3300	F	<b>44489</b>	<b>44490</b>

UNTIL SUPPLY  
LAST





## TERMINAL PLATES FOR MCCB - DS1 AND DS1 MAX TYPE

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.

### TERMINAL PLATES FOR MCCB - DS1

Type	Product category	Rated current (A)	Catalogue number 3pcs/set
TP 125	F	125	<b>31125</b>
TP 160	F	160	<b>31160</b>
TP 250	F	250	<b>31250</b>
TP 400	F	400	<b>31400</b>
TP 630	F	630	<b>31630</b>
TP 800	F	800	<b>31850</b>

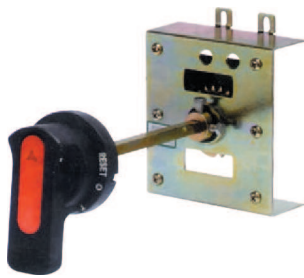
UNTIL SUPPLY  
LAST



### TERMINAL PLATES FOR MCCB - DS1 MAX

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





### REMOTE CONTROL (MANUAL)

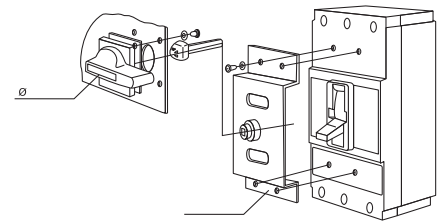
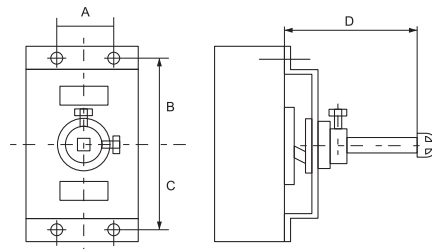
**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**Description:**

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



#### REMOTE CONTROL FOR MCCB, DS1

Type of the breaker	Dimensions (mm)					Packing/Box (pcs)	Product category	Catalogue number
	A	B	C	Dmin	Dmax			
DS1 125A*	25	50	50	65	115	1	F	<b>44967</b>
DS1 160A*	30	50	50	65	115	1	F	<b>44968</b>
DS1 250A*	35	70	70	80	130	1	F	<b>44969</b>
DS1 400A*	45	107	107	85	105	1	F	<b>44970</b>
DS1 630A*	70	119	119	110	110	1	F	<b>44971</b>
DS1 800A*	70	119	119	110	110	1	F	<b>44972</b>

\*3 year standard+0 year extended warranty

UNTIL SUPPLY LAST



#### REMOTE CONTROL FOR MCCB, DS1 MAX

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





DS1 - 125-160

## REMOTE CONTROL (ELECTRICAL)

5+2 standard+extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

### Description:

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 - 250-800

### ELECTRICAL REMOTE CONTROL FOR MCCB DS1

Type of the breaker	Dimensions (mm)					Packing/Box (pcs)	Product category	Catalogue number	
	A	A1	B	B1	H			Operating voltage (V) 230V	400V
DS1 125	103.5	110	30	90	92	1	F	<b>44912</b>	<b>44907</b>
DS1 160	103.5	110	35	90	92	1	F	<b>44913</b>	<b>44908</b>
DS1 250	139	-	132	-	105	1	F	<b>44914</b>	<b>44909</b>
DS1 400	226	-	132	-	132	1	F	<b>44915</b>	<b>44910</b>
DS1 630	226	-	132	-	132	1	F		<b>44911</b>
DS1 800	226	-	132	-	132	1	F		<b>44911</b>

\*3 year standard+0 year extended warranty

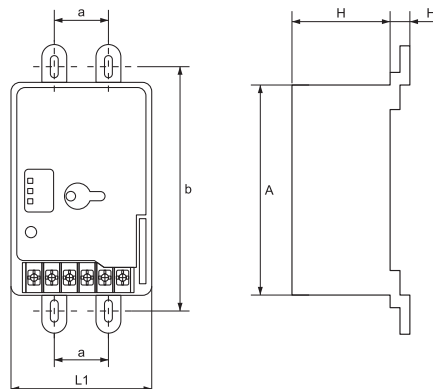
UNTIL SUPPLY  
LAST



DS1 MAX - 63-250

### ELECTRICAL REMOTE CONTROL FOR MCCB DS1 MAX

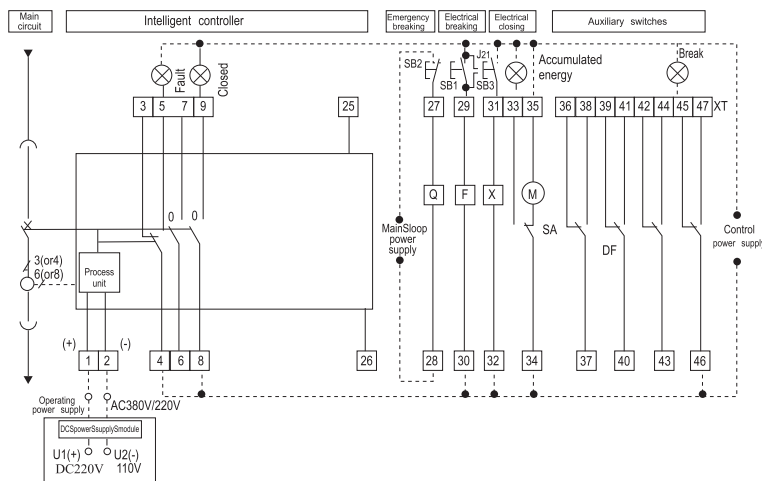
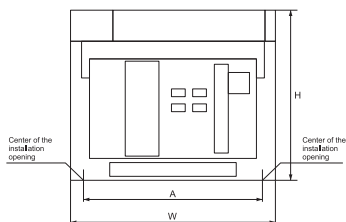
Type of the breaker	Dimensions (mm)					Packing/Box (pcs)	Product category	Catalogue number	
	L1	B	B	H	H1			Operating voltage (V) 230V	400V
DS1 MAX 63A	116	90	50	77	12,5	1	B	<b>44917M</b>	<b>44906M</b>
DS1 MAX 125A	116	90	50	77	12,5	1	B	<b>44912M</b>	<b>44907M</b>
DS1 MAX 250A	116	90	70	77	15	1	B	<b>44914M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



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

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



**MOULDED CASE CIRCUIT BREAKER(MCCB) DW1 SERIES**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

**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 railConnecting:
  - copper rails
  - busway connection – at the back
- Electrical wear resistance (number of cycles): ≥2000
- Mechanical wear resistance (number of cycles): ≥9000
- IP code: IP54
- Mounting:
  - clamping with bolts
  - mounting position: vertical gradient – maximum 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

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.

Type	Dimensions		
	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

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)	Product category	Catalogue number
			400 V	690 V					
DW1-2000 FIXED	1600	AC400V	80	50	2000	9000	1/1	B	<b>44208</b>
DW1-2000 FIXED	2000	AC400V	80	50	2000	9000	1/1	B	<b>44209</b>
DW1-3200 FIXED	2500	AC400V	100	65	2000	9000	1/1	B	<b>44255</b>
DW1-3200 FIXED	3200	AC400V	100	65	2000	9000	1/1	B	<b>44329</b>
DW1-2000 DRAW-OUT	1600	AC400V	80	50	2000	9000	1/1	B	<b>44208DO</b>
DW1-2000 DRAW-OUT	2000	AC400V	80	50	2000	9000	1/1	B	<b>44209DO</b>
DW1-3200 DRAW-OUT	2500	AC400V	100	65	2000	9000	1/1	B	<b>44255DO</b>
DW1-3200 DRAW-OUT	3200	AC400V	100	70	2000	9000	1/1	B	<b>44329DO</b>
DW1-4000 DRAW-OUT	3600	AC400V	100	75	2000	9000	1/1	B	<b>44436DO</b>
DW1-4000 DRAW-OUT	4000	AC400V	100	75	2000	9000	1/1	B	<b>44440DO</b>
DW1-6300 DRAW-OUT	5000	AC400V	120	75	2000	9000	1/1	B	<b>44650DO</b>
DW1-6300 DRAW-OUT	6300	AC400V	120	75	2000	9000	1/1	B	<b>44663DO</b>



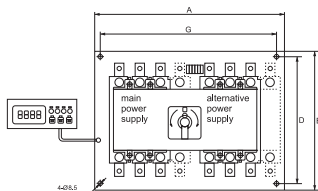
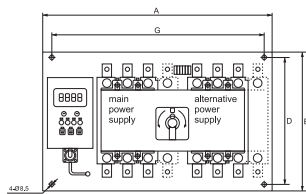
In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

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

**DUAL POWER CHANGE-OVER SWITCH EQ1 SERIES (ATS)**

**5+2** standard + extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty



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 heavily 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
  - presence of the three phases
  - the phase voltage to be in the set limits
  - overload
  - short circuit at the outlet

**TECHNICAL DATA:**

- Rated operating voltage: 690V; 50/60Hz
- Surge voltage wear resistance: ≥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 non-flammable
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

**BASIC FUNCTIONS OF THE CONTROL DEVICE:**

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

Type of the breaker	Overall dimensions (mm)				
	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

Type	Rated current In (A)	Max. breaking capacity (kA) Icu	Operating breaking capacity (kA) Ics	Section of the power supply conductor (mm²)	Electrical wear resistance (number of cycles)	Mechanical wear resistance (number of cycles)	Packing / Box (pcs)	Product category	Catalogue number
EQ1 - 100	100	50	35	35	2000	6000	1 / 1	B	<b>44100</b>
EQ1 - 225	225	50	35	70	2000	6000	1 / 1	B	<b>44225</b>
EQ1 - 400	400	100	65	180	2000	6000	1 / 1	B	<b>44403</b>
EQ1 - 630	630	100	65	240	1000	3000	1 / 1	B	<b>44633</b>
EQ1 - 800	800	100	65	240	1000	3000	1 / 1	B	<b>44833</b>
EQ1 - 100*	100	50	35	35	2000	6000	1 / 1	B	<b>44101</b>
EQ1 - 225*	225	50	35	70	2000	6000	1 / 1	B	<b>44226</b>
EQ1 - 400*	400	100	65	180	2000	6000	1 / 1	B	<b>44404</b>
EQ1 - 630*	630	100	65	240	1000	3000	1 / 1	B	<b>44634</b>
EQ1 - 800*	800	100	65	240	1000	3000	1 / 1	B	<b>44834</b>



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

**Documents corresponding to the product:**

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



**TYPE AC FOR AC CURRENT**

**ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL1**

**7+0** standard + extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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 misbalanced 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.

- 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 non-flammable
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

**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

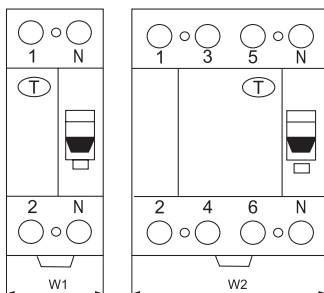
**CONNECTING:**

- 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)

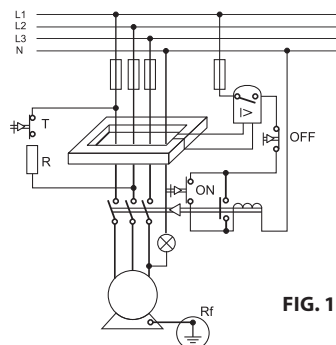
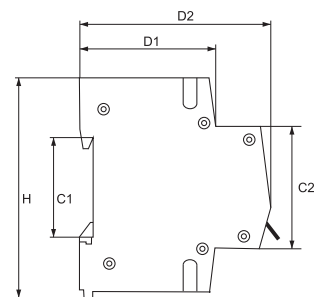


**TECHNICAL DATA:**

- 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 Δ n and <0.04s at 2I Δ n
- Surge voltage wear resistance: ≥2000V
- Short circuit current wear resistance: 4500A, 6000A

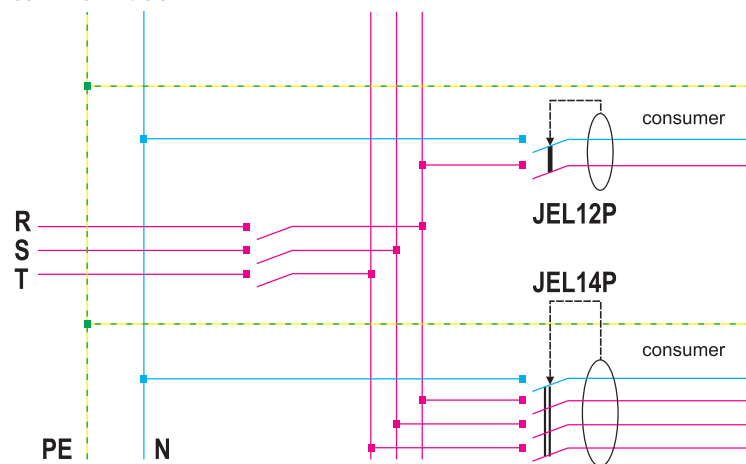
Dimensions (mm)

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



**FIG. 1**

**CONNECTING SCHEME**



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL1 AND JEF**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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



**TYPE AC FOR AC CURRENT**

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



**TYPE AC FOR AC CURRENT**

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



**TYPE AC FOR AC CURRENT**

Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	Product category	Leakage current I Δ n (mA)	Catalogue number
JEF*	2P	4.5	10	1/60	F	<b>300</b>	<b>40713JEF</b>
JEF*	2P	4.5	10	1/60	F	<b>30</b>	<b>40710JEF</b>
JEF*	2P	4.5	16	1/60	F	<b>300</b>	<b>40718JEF</b>
JEF*	2P	4.5	20	1/60	F	<b>300</b>	<b>40794JEF</b>
JEF*	2P	4.5	25	1/60	F	<b>300</b>	<b>40723JEF</b>
JEF*	2P	4.5	32	1/60	F	<b>300</b>	<b>40733JEF</b>
JEF*	2P	4.5	63	1/60	F	<b>30</b>	<b>40761JEF</b>
JEF*	2P	4.5	63	1/60	F	<b>300</b>	<b>40763JEF</b>

\*3 year standard+0 year extended warranty



UNTIL SUPPLY LAST

In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

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



**TYPE A FOR AC/DC CURRENT**

**ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL1A**

**7+0** standard + extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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: 30; 100; 300; 500mA
- 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): $\geq$ 5000
- Mechanical wear resistance (number of cycles): $\geq$ 10000
- 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



**TYPE A FOR AC/DC CURRENT**

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

Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	Product category	Catalogue number			
						Leakage current I $\Delta$ n (mA)			
						30	100	300	500
JEL 1A	2P	6	10.0	1 / 60	B	<b>40510</b>	<b>40512</b>	<b>40513</b>	<b>40514</b>
JEL 1A	2P	6	16.0	1 / 60	B	<b>40516</b>	<b>40517</b>	<b>40518</b>	<b>40519</b>
JEL 1A	2P	6	20.0	1 / 60	B	<b>40592</b>	<b>40593</b>	<b>40594</b>	<b>40595</b>
JEL 1A	2P	6	25.0	1 / 60	B	<b>40521</b>	<b>40522</b>	<b>40523</b>	<b>40524</b>
JEL 1A	2P	6	32.0	1 / 60	B	<b>40531</b>	<b>40532</b>	<b>40533</b>	<b>40534</b>
JEL 1A	2P	6	40.0	1 / 60	B	<b>40541</b>	<b>40542</b>	<b>40543</b>	<b>40544</b>
JEL 1A	2P	6	63.0	1 / 60	B	<b>40561</b>	<b>40562</b>	<b>40563</b>	<b>40564</b>
JEL 1A	2P	6	80.0	1 / 60	B	<b>40581</b>	<b>40582</b>	<b>40583</b>	<b>40584</b>
JEL 1A	2P	6	100.0	1 / 60	B	<b>40591</b>	<b>40596</b>	<b>40597</b>	<b>40598</b>



Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	Product category	Catalogue number			
						Leakage current I $\Delta$ n (mA)			
						30	100	300	500
JEL 1A	4P	6	10.0	1 / 30	B	<b>40610</b>	<b>40612</b>	<b>40613</b>	<b>40614</b>
JEL 1A	4P	6	16.0	1 / 30	B	<b>40616</b>	<b>40617</b>	<b>40618</b>	<b>40619</b>
JEL 1A	4P	6	20.0	1 / 30	B	<b>40692</b>	<b>40693</b>	<b>40694</b>	<b>40695</b>
JEL 1A	4P	6	25.0	1 / 30	B	<b>40621</b>	<b>40622</b>	<b>40623</b>	<b>40624</b>
JEL 1A	4P	6	32.0	1 / 30	B	<b>40631</b>	<b>40632</b>	<b>40633</b>	<b>40634</b>
JEL 1A	4P	6	40.0	1 / 30	B	<b>40641</b>	<b>40642</b>	<b>40643</b>	<b>40644</b>
JEL 1A	4P	6	63.0	1 / 30	B	<b>40661</b>	<b>40662</b>	<b>40663</b>	<b>40664</b>
JEL 1A	4P	6	80.0	1 / 30	B	<b>40681</b>	<b>40682</b>	<b>40683</b>	<b>40684</b>
JEL 1A	4P	6	100.0	1 / 30	B	<b>40691</b>	<b>40696</b>	<b>40697</b>	<b>40698</b>



**TYPE A FOR AC/DC CURRENT**

**ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL2**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY



TYPE AC FOR AC CURRENT

UNTIL SUPPLY LAST

Residual current devices JEL2, 4,5kA - Type AC - alternating fault currents sensible. Impulse withstand voltage 2000VAC

Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	Product category	Catalogue number			
						Leakage current I Δ n (mA)			
						30	100	300	500
JEL 2	2P	4,5	10.0	1 / 60	F				
JEL 2	2P	4,5	16.0	1 / 60	F	<b>40716</b>		<b>40718</b>	
JEL 2	2P	4,5	32.0	1 / 60	F	<b>40731</b>			
JEL 2	2P	4,5	40.0	1 / 60	F	<b>40741</b>		<b>40743</b>	<b>40744</b>
JEL 2	2P	4,5	63.0	1 / 60	F	<b>40761</b>		<b>40763</b>	



TYPE AC FOR AC CURRENT

UNTIL SUPPLY LAST

Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	Product category	Catalogue number			
						Leakage current I Δ n (mA)			
						30	100	300	500
JEL 2	4P	4,5	16.0	1 / 30	F	<b>40816</b>		<b>40818</b>	
JEL 2	4P	4,5	25.0	1 / 30	F			<b>40823</b>	
JEL 2	4P	4,5	40.0	1 / 30	F			<b>40843</b>	<b>40844</b>
JEL 2	4P	4,5	63.0	1 / 30	F			<b>40863</b>	<b>40864</b>



**ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD) JEL2 SIGMA**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY



TYPE AC FOR AC CURRENT

UNTIL SUPPLY LAST

Type	Number of poles	Breaking capacity (kA)	Rated current In (A)	Packing/Box (pcs)	Product category	Catalogue number			
						Leakage current I Δ n (mA)			
						30	100	300	500
JEL 2 SIGMA	2P	6	10.0	1 / 30	F			<b>40213S</b>	
JEL 2 SIGMA	2P	6	16.0	1 / 30	F				
JEL 2 SIGMA	2P	6	20.0	1 / 30	F	<b>40292S</b>		<b>40294S</b>	<b>40295S</b>
JEL 2 SIGMA	2P	6	25.0	1 / 30	F	<b>40221S</b>		<b>40223S</b>	
JEL 2 SIGMA	2P	6	40.0	1 / 30	F			<b>40242S</b>	<b>40243S</b>
JEL 2 SIGMA	2P	6	63.0	1 / 30	F			<b>40262S</b>	<b>40263S</b>
JEL 2 SIGMA	4P	6	20.0	1 / 30	F	<b>40492S</b>		<b>40494S</b>	
JEL 2 SIGMA	4P	6	25.0	1 / 30	F	<b>40421S</b>		<b>40423S</b>	
JEL 2 SIGMA	4P	6	32.0	1 / 30	F			<b>40432S</b>	
JEL 2 SIGMA	4P	6	40.0	1 / 30	F			<b>40443S</b>	
JEL 2 SIGMA	4P	6	63.0	1 / 30	F				<b>40464S</b>

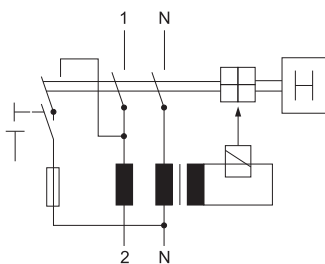
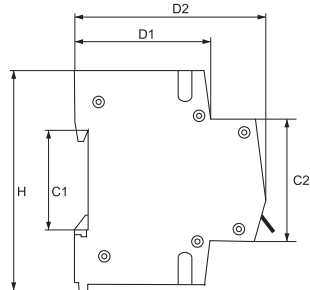
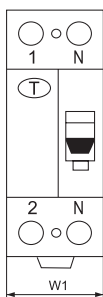


**Documents corresponding to the product:**

EN 61 009-1; EN 61009-2;



TYPE AC FOR AC CURRENT



TYPE AC FOR AC CURRENT

**ELECTRO-MAGNETIC RESIDUAL CURRENT OPERATED CIRCUIT BREAKER (RCBO)- JEL5**

7+0 standard+extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**DESCRIPTION OF THE OPERATING SYSTEM:**

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 misbalanced 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
- 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

**TECHNICAL DATA:**

- Rated operating voltage: 230V 50 Hz
- Circuit breaker rated current: according to the table
- Residual current responsiveness: 30; 100; 300; 500mA

- Time delay until break:
  - of the residual current device: <0.1s at I Δ n and <0.04s at 2I Δ n
  - of the circuit breaker: <0.1s
- Circuit breaker tripping curve: C
- Surge voltage wear resistance: ≥2000V
- Breaking capacity: 10000
- Joining terminal: flat (tunnel) screw terminal made of 1.5 coldly draw-plated plane Q235A
- Type of the plastic:
  - material: self-extinguishing nylon PA66
  - dielectrical 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
- Breakers plastic material of UV rays and non-flammable
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

**CONNECTING:**

- 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 operating neutral conductor (N) and separate protecting conductor (PE) (e.g. earthing system TN-S or TT with three or five conductors).

Dimensions (mm)

W1	H	C1	C2	D1	D2
35	81	35	45	50	72

Combined electromagnetic residual current device and circuit breaker 2P 6kA

Type designation	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	Product category	Catalogue number			
						Leakage current I Δ n (mA)			
						30	100	300	500
JEL5	2p	6	10	1 / 60	B	<b>40010</b>	<b>40011</b>	<b>40013</b>	<b>40015</b>
JEL5	2p	6	16	1 / 60	B	<b>40016</b>	<b>40017</b>	<b>40018</b>	<b>40019</b>
JEL5	2p	6	25	1 / 60	B	<b>40025</b>	<b>40021</b>	<b>40023</b>	<b>40026</b>
JEL5	2p	6	32	1 / 60	B	<b>40032</b>	<b>40031</b>	<b>40033</b>	<b>40035</b>
JEL5	2p	6	40	1 / 60	B	<b>40040</b>	<b>40041</b>	<b>40043</b>	<b>40045</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

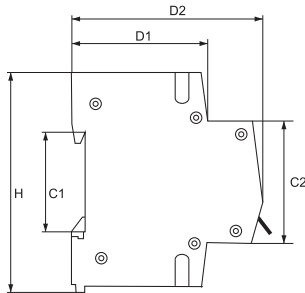
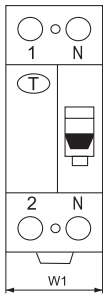
EN 61 009-1; EN 61009-2;

**ELECTRONIC RESIDUAL CURRENT OPERATED CIRCUIT BREAKER (RCBO)**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty



**TYPE AC FOR AC CURRENT**



**DESCRIPTION OF THE OPERATING SYSTEM:**

It is a combination of automatic circuit breaker and residual current electromagnetic device. It combines part of the properties of the two elements. The circuit breaker reacts at short circuit in the protected circuit, and the electromagnetic residual current device - at failure in the conductors' insulation. It compares the rate of the currents through the conductors in an electronic comparator. The residual current device operates normally at voltage feed. The voltage is needed for the comparator's energizing - a semi-conductor element with constantly set leakage current rate. This rate is compared with the actual rate. When the margin of the comparison is neutral, the residual current device does not operate, but at failure in the protected circuit insulation when it exceeds the set margin it operates and switches off the protection. For the normal operation of the residual current device, the power supplying circuit voltage must be over 170V and there must be no time variation.

**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 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

**TECHNICAL DATA:**

- Rated operating voltage: 230/400V 50 Hz
- Circuit breaker rated current: according to the table
- Residual current responsiveness: 30; 100; 300; 500mA
- Time delay until break:
  - of the residual current device: <0.1s at I Δ n and <0.04s at 2I Δ n
  - of the circuit breaker: <0.1s
- Circuit breaker tripping curve: C
- Surge voltage wear resistance: ≥2000V
- Breaking capacity: 4500A; 6000A; 10000A
- Joining terminal: flat (tunnel) screw terminal
- Electrical wear resistance (number of cycles): ≥500
- Mechanical wear resistance (number of cycles): ≥2000
- IP code: IP>20
- Indication for operating (switched on) position

**CONNECTING:**

- power supply busbar (for two- or three polar)
- flexible or rigid conductors with corresponding section

**MOUNTING:**

- on DIN-rail
- mounting position: vertical
- Breakers plastic material of UV rays and non-flammable
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

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 separate conductors for operational neutral conductor (N) and protective conductor (e.g. earthing system TN-S or TT with three or five conductors).

Dimensions (mm)

W1	H	C1	C2	D1	D2
35	81	35	45	50	72

Combined electronic residual current device with circuit breaker 2P, 6kA

Type designation	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	Product category	Leakage current I Δ n (mA)
						30
JEL 4 C10	2p	6	10	1 / 60	B	<b>40211E</b>
JEL 4 C16	2p	6	16	1 / 60	B	<b>40215E</b>
JEL 4 C20	2p	6	20	1 / 60	B	<b>40225E</b>
JEL 4 C25	2p	6	25	1 / 60	B	<b>40240E</b>
JEL 4 C32	2p	6	32	1 / 60	B	<b>40265E</b>
JEL 4 C40	2p	6	40	1 / 60	B	<b>40274E</b>



**TYPE AC FOR AC CURRENT**



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



TYPE AC FOR AC CURRENT

**ELECTRONIC RESIDUAL CURRENT OPERATED  
CIRCUIT BREAKER (RCBO) JEL3**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**Combined electronic residual current device with circuit breaker 2P, 10kA**

Type designation	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing/Box (pcs)	Leakage current I <sub>Δn</sub> (mA)	Product category	Catalogue number curve B	Catalogue number curve C
JEL 3 C6	1p+N	10	6	5/100	30	B	<b>40906B</b>	<b>40906</b>
JEL 3 C10	1p+N	10	10	5/100	30	B	<b>40910B</b>	<b>40910</b>
JEL 3 C16	1p+N	10	16	5/100	30	B	<b>40916B</b>	<b>40916</b>
JEL 3 C20	1p+N	10	20	5/100	30	B	<b>40920B</b>	<b>40920</b>
JEL 3 C25	1p+N	10	25	5/100	30	B	<b>40925B</b>	<b>40925</b>
JEL 3 C32	1p+N	10	32	5/100	30	B	<b>40932B</b>	<b>40932</b>
JEL 3 C40	1p+N	10	40	5/100	30	B	<b>40940B</b>	<b>40940</b>



TYPE AC FOR AC CURRENT

**Combined electronic residual current device with circuit breaker 2P, 6kA**

Type designation	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing/Box (pcs)	Leakage current I <sub>Δn</sub> (mA)	Product category	Catalogue number curve B	Catalogue number curve C
JEL 3 B6	1p+N	6	6	5/100	30	B	<b>40956B</b>	<b>40956C</b>
JEL 3 B10	1p+N	6	10	5/100	30	B	<b>40960B</b>	<b>40960C</b>
JEL 3 B16	1p+N	6	16	5/100	30	B	<b>40966B</b>	<b>40966C</b>
JEL 3 B20	1p+N	6	20	5/100	30	B	<b>40970B</b>	<b>40970C</b>
JEL 3 B25	1p+N	6	25	5/100	30	B	<b>40975B</b>	<b>40975C</b>
JEL 3 B32	1p+N	6	32	5/100	30	B	<b>40982B</b>	<b>40982C</b>
JEL 3 B40	1p+N	6	40	5/100	30	B	<b>40990B</b>	<b>40990C</b>



3+0 standard+extended **3** YEAR TOTAL WARRANTY

## ELECTRONIC RESIDUAL CURRENT OPERATED CIRCUIT BREAKER (RCBO) JEL6



UNTIL SUPPLY LAST

### Combined electronic residual current device 2P

Compares the leakage current between the phase and neutral conductors or between two phases.

Type designation	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	Product category	Catalogue number
JEL 6 C40	2P	6	40	6 / 120	F	<b>40240</b>
JEL 6 C50	2P	6	50	6 / 120	F	<b>40265</b>



UNTIL SUPPLY LAST

### Combined electronic residual current device 3P

Compares the leakage current between the phases

Type designation	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	Product category	Catalogue number
JEL 6 C16	3P	6	16	3 / 60	F	<b>40318</b>
JEL 6 C25	3P	6	25	3 / 60	F	<b>40325 40323</b>
JEL 6 C40	3P	6	40	3 / 60	F	<b>40340 40343</b>



UNTIL SUPPLY LAST

### Combined electronic residual current device 3P+N

Compares the leakage current between the three phases and neutral conductors.

Type designation	Number of poles	Breaking capacity (kA)	Rated current (A)	Packing / Box (pcs)	Product category	Catalogue number
JEL 6 C40	3P+N	6	40	2 / 40	F	<b>40447</b>
JEL 6 C50	3P+N	6	50	2 / 40	F	<b>40436</b>

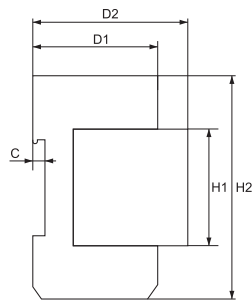


**Documents corresponding to the product:**

Standard EN61 643-1



**TYPE AC FOR AC CURRENT**



Dimensions (mm)

C	H1	H2	D1	D2
5	90	45	43,5	58

**SURGE ARRESTERS SPD TYPE**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

**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  $8/20\mu s$ , 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  $8/20\mu s$ , which the surge arrester can bear once: according to the table
- Constant operating current: up to  $800\mu A$  for 1P, 2P and 3P; up to  $600\mu A$  for 1P + N, 3P + N
- Indication for damaged surge arrester
- Offered in types: 1P; 1P + N; 3P; 3P + N

**CONNECTING:**

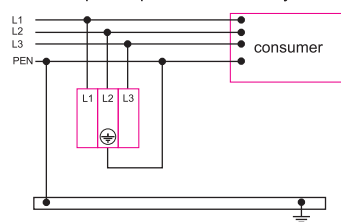
- flexible or rigid conductors with corresponding section

**MOUNTING:**

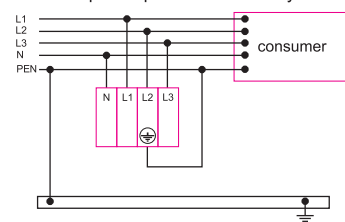
- on DIN-rail
- mounting position: vertical
- mounting in the distribution box on the front or right before the breaker according to the attached schemes
- Breakers plastic material of UV rays and non-flammable
- Ambient temperature:  $-10^\circ C + 65^\circ C$
- Installation altitude: up to 2000m

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

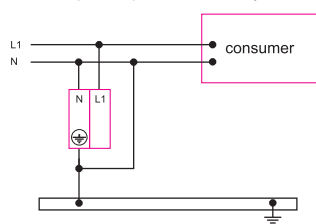
Three phase protection TN-C system



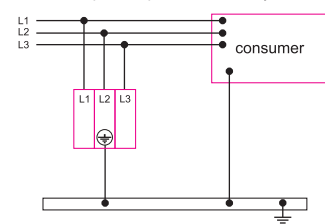
Three phase protection TN system



Monophase protection TT system



Three phase protection IT system



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

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



Type of the arrester	In (kA)	I <sub>max</sub> (kA)	U <sub>c</sub> (V)	U <sub>p</sub> (kV)	Packing/Box (pcs)	Product category	Catalogue number
SPD-D5/1p	5	10	275	1.2	17 / 170	B	<b>64101</b>
SPD-C10/1p	10	20	275	1.2	17 / 170	B	<b>64102</b>
SPD-C20/1p	20	40	275	1.8	17 / 170	B	<b>64103</b>
SPD-B40/1p	40	60	275	2	17 / 170	B	<b>64104</b>



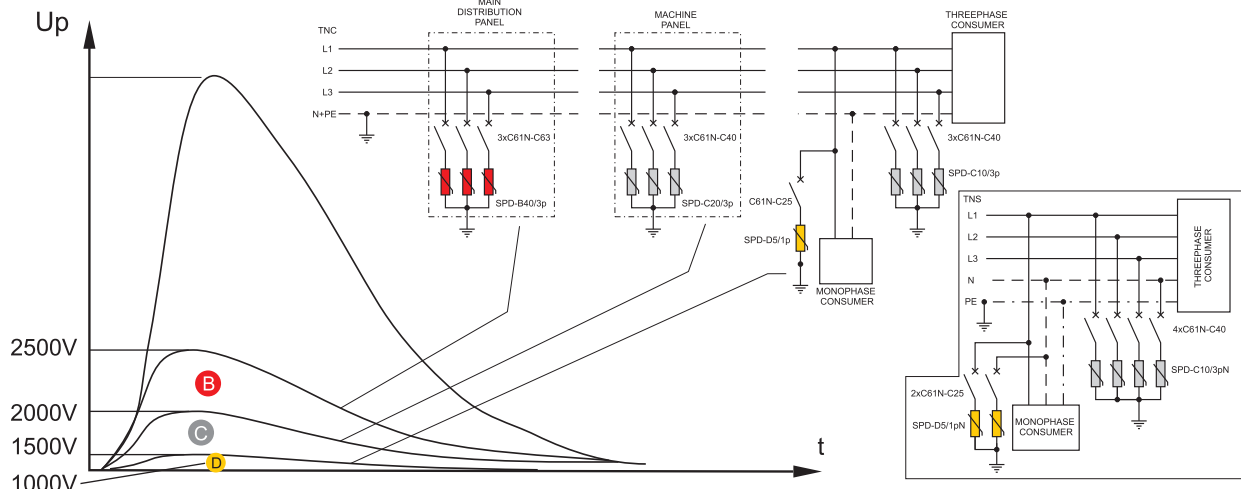
Type of the arrester	In (kA)	I <sub>max</sub> (kA)	U <sub>c</sub> (V)	U <sub>p</sub> (kV)	Packing/Box (pcs)	Product category	Catalogue number
SPD-D5/1pN	5	10	275	1.2	8 / 80	B	<b>64201</b>
SPD-C10/1pN	10	20	275	1.2	8 / 80	B	<b>64202</b>
SPD-C20/1pN	20	40	275	1.8	8 / 80	B	<b>64203</b>
SPD-B40/1pN	40	60	275	2	8 / 80	B	<b>64204</b>



Type of the arrester	In (kA)	I <sub>max</sub> (kA)	U <sub>c</sub> (V)	U <sub>p</sub> (kV)	Packing/Box (pcs)	Product category	Catalogue number
SPD-D5/3p	5	10	440	1.2	5 / 50	B	<b>64301</b>
SPD-C10/3p	10	20	440	1.2	5 / 50	B	<b>64302</b>
SPD-C20/3p	20	40	440	1.8	5 / 50	B	<b>64303</b>
SPD-B40/3p	40	60	440	2	5 / 50	B	<b>64304</b>



Type of the arrester	In (kA)	I <sub>max</sub> (kA)	U <sub>c</sub> (V)	U <sub>p</sub> (kV)	Packing/Box (pcs)	Product category	Catalogue number
SPD-D5/3pN	5	10	440	1.2	4 / 40	B	<b>64401</b>
SPD-C10/3pN	10	20	440	1.2	4 / 40	B	<b>64402</b>
SPD-C20/3pN	20	40	440	1.8	4 / 40	B	<b>64403</b>
SPD-B40/3pN	40	60	440	2	4 / 40	B	<b>64404</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



## COMBINED SURGE ARRESTERS TYPE 1 + 2

**7+0**  
standard  
+extended **7** YEAR TOTAL  
WARRANTY \*for industrial  
usage, 3 years  
warranty

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).

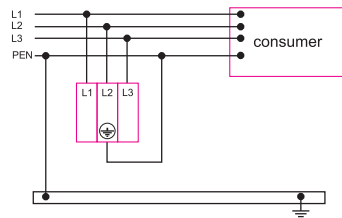
Surge arresters Type 2 is used to catch the energy caused by higher electricity, compared to the capacity of indirect strike or commutative overvoltage. The security device has passed a successful test according to the standards with electric wave 8/20 (class 2 test).

Response time: <25 nS  
Voltage protection level: 1,5kV

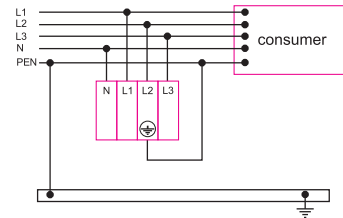
Type of arrester	Max inpluse current limp (10/350µS)	Max discharge current I <sub>max</sub> (8/20 µS)	Nominal line voltage Un (V)	Earthing system	Product category	Catalogue number
SPD-X/1P+N	12.5kA	50kA	230	TT, TN-S	B	<b>64502</b>
SPD-X/3P	12.5kA	50kA	230/400	TN-C	B	<b>64503</b>
SPD-X/3P+N	12.5kA	50kA	230/400	TT, TN-S	B	<b>64504</b>



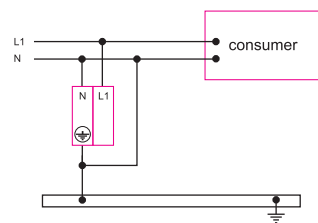
Three phase protection TN-C system



Three phase protection TN-S system



Monophase protection TT system



**COMBINED SURGE ARRESTERS AC – DC**

**7+0** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

Specially designed surge arresters providing protection of solar and photo - voltaic systems; designed to protect system against overvoltages 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.

**COLOUR CODE** for all types 5kA - yellow; white – 10kA; green – 20 kA and red 30kA



**TYPE AC FOR AC/DC CURRENT**

Type of the arrester	In (kA)	I <sub>max</sub> (kA)	U <sub>c</sub> (V)	U <sub>p</sub> (kV)	Packing/Box (pcs)	Product category	Catalogue number
SPD-DC-D5/1p	5	10	275 AC/440 DC	≤ 1.2	17 / 170	B	<b>64105</b>
SPD-DC-C10/1p	10	20	275 AC/440 DC	≤ 1.5	17 / 170	B	<b>64106</b>
SPD-DC-C20/1p	20	40	275 AC/440 DC	≤ 1.8	17 / 170	B	<b>64107</b>
SPD-DC-B40/1p	30	60	275 AC/440 DC	≤ 2.2	17 / 170	B	<b>64108</b>



**TYPE AC FOR AC/DC CURRENT**

Type of the arrester	In (kA)	I <sub>max</sub> (kA)	U <sub>c</sub> (V)	U <sub>p</sub> (kV)	Packing/Box (pcs)	Product category	Catalogue number
SPD-DC-D5/1pN	5	10	275 AC/440 DC	≤ 1.2	8 / 80	B	<b>64205</b>
SPD-DC-C10/1pN	10	20	275 AC/440 DC	≤ 1.5	8 / 80	B	<b>64206</b>
SPD-DC-C20/1pN	20	40	275 AC/440 DC	≤ 1.8	8 / 80	B	<b>64207</b>
SPD-DC-B40/1pN	30	60	275 AC/440 DC	≤ 2.2	8 / 80	B	<b>64208</b>



**TYPE AC FOR AC/DC CURRENT**

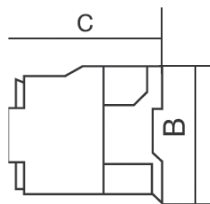
Type of the arrester	In (kA)	I <sub>max</sub> (kA)	U <sub>c</sub> (V)	U <sub>p</sub> (kV)	Packing/Box (pcs)	Product category	Catalogue number
SPD-DC-D5/3p	5	10	385 AC/500 DC	≤ 1.2	5 / 50	B	<b>64305</b>
SPD-DC-C10/3p	10	20	385 AC/500 DC	≤ 1.5	5 / 50	B	<b>64306</b>
SPD-DC-C20/3p	20	40	385 AC/500 DC	≤ 1.8	5 / 50	B	<b>64307</b>
SPD-DC-B40/3p	30	60	385 AC/500 DC	≤ 2.2	5 / 50	B	<b>64308</b>



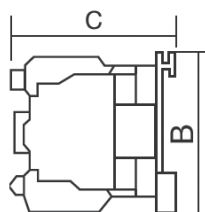
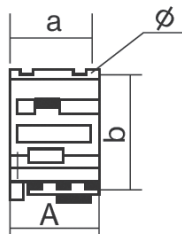


**Documents corresponding to the product:**

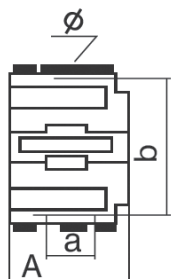
Standard EN 60947-1; EN 60 947-4-1  
The products are in accordance with the directives of EC "Low voltage directives (LVD) no. 2006/95/EC" and "Electromagnetic Compatibility Directives (EMC) no. 2004/108/EC".



LH1-D09-32



LH1-D40



UNTIL SUPPLY LAST

**LOW VOLTAGE CONTACTORS LH1 - D**

LH1 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

**TECHNICAL DATA:**

- Operation class: 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: >6000V
- Rated voltage of the coil: from 12 to 400V AC
- Limits of the controlling coil voltage: from 0.8 to 1.15 U<sub>c</sub>
- Joining terminal: screw terminal
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors
- Electrical wear resistance (number of cycles): ≥500000
- Mechanical wear resistance (number of cycles): ≥500000
- Number of cycles per hour: 500 UP TO 32A; 600 for 40-95A
- Pole leaking power: up to 10W

**MOUNTING:**

- on DIN-rail or
- -ith bolts to the surface
- mounting position: vertical gradient – maximum ± 5°
- Ambient temperature: -10°C + 60°C
- Altitude: up to 2000m

Type	Overall dimensions (mm)					
	a	b	Φ	A	B	C
LH1 - D09-12	34/35	50/60	4.5	47	70	82
LH1 - D2510	40	48	4.5	57	80	95
LH1 - D3210	40	48	4.5	57	80	100
LH1 - D4011	40	100	6.5	77	126	116

Type number	Motor rated capacity (kW)					Coil capacity (VA)		Rated current in AC-3 440Vtp up	Tightening moment (N.m)	Coil voltage	Packing/ Box (pcs)	Product category	Catalogue number
	220V 230V	380V 400V	415V	440V	660V 690V	closed	open						
LH1 - D2510 1NO	5.5	11	11	11	15	7.5	90	25A	2.5	230	1/50	F	73251
										400			73252
LH1 - D3210 1NO	7.5	15	15	15	18.5	7.5	90	32A	2.5	230	1/50	F	73321
										400			73322
LH1 - D4011 1NO	11	18.5	22	22	30	20	200	40A	5	230	1/20	F	73401
										400			73402



**Documents corresponding to the product:**

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



**LOW VOLTAGE CONTACTORS LT1-D/HK**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

- 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
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors
- 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

**TECHNICAL DATA:**

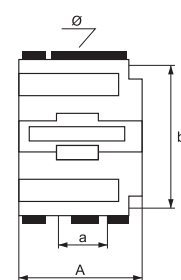
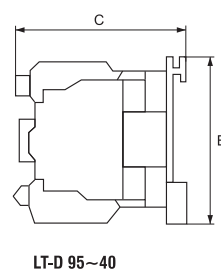
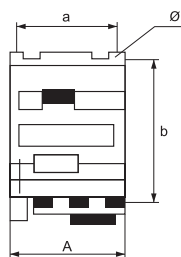
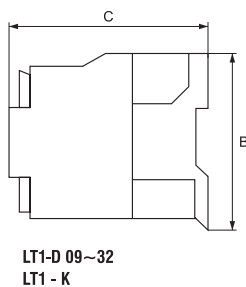
- Operation class: utilization category AC-3
- Rated operating voltage of power contactors: up to 690V; 50/60Hz
- Composition of the power contact surfaces: unalloyed copper with coating 80% AgSnO
- Surge voltage wear resistance: >8000V
- Rated voltage of the coil: from 12 to 400V AC

**MOUNTING:**

- on DIN-rail
- with bolts to the surface
- mounting position: vertical gradient – maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m



Type	Overall dimensions (mm)					
	a	b	∅	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



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

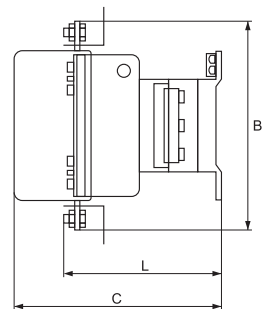
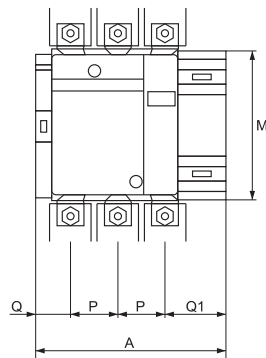
Type number	Rated capacity (kW)						Power consumption of coil (VA)		Rated current in AC-3 440V to up	Tightening moment (N.m)	Section of the power supply conductor	Packing/ Box (pcs)	Product category	Catalogue number according to the coil voltage (V)						
	220V 230V	380V 400V	415V	440V	660V 690V	closed inrush	open hold	230V						400V	12V	24V	36V	48V	110V	
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	B	<b>23061E 23062E 23063E 23064E 23065E 23066E 23067E</b>							
LT 1 - HK 0910 1NO	2.2	3.7	3.7	3.7	4	7	60	9A	1.7	0.75-2.5	1 / 100	F	<b>23091E 23092E 23093E 23094E 23095E 23096E 23097E</b>							
LT 1 - HK 1210 1NO	3	4	4	4	5	7	60	12A	1.7	0.75-2.5	1 / 100	F	<b>23121E 23122E 23123E 23124E 23125E 23126E 23127E</b>							
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	F	<b>23062 23063 23065 23066 23067</b>							
LT1 - D0910 1NO	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1 / 50	B	<b>23091 23092 23093 23094 23095 23096 23097</b>							
LT1 - D0901 1NC	2.2	4	4	4	5.5	7	60	9A	1.7	1-4	1 / 50	B	<b>23273 23270 23271 23272 23277 23278 23279</b>							
LT1 - D1210 1NO	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1 / 50	B	<b>23121 23122 23123 23124 23125 23126 23127</b>							
LT1 - D1201 1NC	3	5.5	5.5	5.5	7.5	7	60	12A	1.7	1-4	1 / 50	B	<b>23274 23280 23281 23282 23283 23284 23285</b>							
LT1 - D1810 1NO	4	7.5	9	9	10	7	60	18A	1.7	1-4	1 / 50	B	<b>23181 23182 23183 23184 23185 23186 23187</b>							
LT1 - D1801 1NC	4	7.5	9	9	10	7	60	18A	1.7	1-4	1 / 50	B	<b>23275 23286 23287 23288 23289 23290 23291</b>							
LT1 - D2510 1NO	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1 / 50	B	<b>23251 23252 23253 23254 23255 23256 23257</b>							
LT1 - D2501 1NC	5.5	11	11	11	15	7.5	90	25A	2.5	2.5-10	1 / 50	B	<b>23276 23292 23293 23294 23295 23296 23297</b>							
LT1 - D3210 1NO	7.5	15	15	15	18.5	7.5	90	32A	2.5	2.5-10	1 / 50	B	<b>23321 23322 23323 23324 23325 23326 23327</b>							
LT1 - D4011 1NO+1NC	11	18.5	22	22	30	20	200	40A	5	2.5-16	1 / 20	B	<b>23401 23402 23403 23404 23405 23406 23407</b>							
LT1 - D5011 1NO+1NC	15	22	25	25	33	20	200	50A	5	6-25	1 / 20	B	<b>23501 23502 23503 23504 23505 23506 23507</b>							
LT1 - D6511 1NO+1NC	18.5	30	37	37	37	20	200	65A	5	6-25	1 / 20	B	<b>23651 23652 23653 23654 23655 23656 23657</b>							
LT1 - D8011 1NO+1NC	22	37	45	45	45	20	200	80A	9	10-50	1 / 15	B	<b>23801 23802 23803 23804 23805 23806 23807</b>							
LT1 - D9511 1NO+1NC	25	45	45	45	45	20	200	95A	9	10-50	1 / 15	B	<b>23951 23952 23953 23954 23955 23956 23957</b>							



Note: \*Until supply last - 3 year standard+0 year extended warranty

**Documents corresponding to the product:**

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



**LOW VOLTAGE CONTACTORS LT1-F**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

**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
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors
  - rail
- 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
- Mounting:
  - with bolts to the surface
  - mounting position: vertical gradient – maximum ± 10°C
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

Type	Overall dimensions (mm)								
	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	

Type number	Motor rated capacity (kW)							Power consumption of coil (VA)		Rated current in AC-3 440V (N.m) to up	Tightening moment	Packing/ Box (pcs)	Product category	Catalogue number according to the coil voltage (V)					
	220V 230V	380V 400V	415V	440V	500V	660V 690V	1000V	closed	open					230V	400V	24V*	36V	48V	110V
LT1 - F115	30	55	59	59	59	80	60	45	550	115 A	18	1 / 4	B	<b>23111</b>	<b>23112</b>	<b>23114</b>	<b>23115</b>	<b>23116</b>	<b>23117</b>
LT1 - F150	40	75	80	80	90	100	65	45	550	150 A	25	1 / 4	B	<b>23151</b>	<b>23152</b>	<b>23154</b>	<b>23155</b>	<b>23156</b>	<b>23157</b>
LT1 - F225	63	110	110	110	129	129	100	55	805	225 A	35	1 / 2	B	<b>23861</b>	<b>23862</b>		<b>23865</b>	<b>23866</b>	<b>23867</b>
LT1 - F265	75	132	140	140	160	160	147	10	700	265 A	35	1 / 2	B	<b>23261</b>	<b>23262</b>		<b>23265</b>	<b>23266</b>	<b>23267</b>
LT1 - F400	110	200	220	250	257	280	185	18	1000	400 A	50	1 / 1	B	<b>23751</b>	<b>23752</b>				
LT1 - F630	200	335	375	400	400	450	450	25	1500	630 A	50	1 / 1	B	<b>23771</b>	<b>23772</b>				
LT1 - F800	250	450	450	450	450	475	450	15	1300	800 A	50	1 / 1	B	<b>23881</b>	<b>23882</b>				



**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.

\*Until Supply Last- Product category F

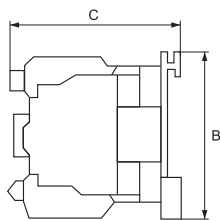
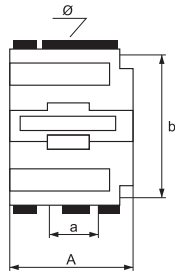
*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**Documents corresponding to the product:**

Standard EN60947-1; EN 60947-4-1

**LOW VOLTAGE CONTACTORS WITH DIRECT CURRENT COIL LP1-D**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty



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

**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
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors
- 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

**MOUNTING:**

- on DIN-rail
- with bolts to the surface
- mounting position: vertical gradient – maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

Type	Overall dimensions (mm)				
	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

Type	Rated current (A)	Auxiliary contact (pcs.)	Rated capacity of the consumer (kW)					Packing/Box (pcs)	Product category	Catalogue number according to the coil voltage (V DC)					
			230V	400V	415V	440V	690V			12V	24V	36V	48V	110V	230V
LP 1 D0910	9	1NO	2.20	4.00	4.00	4.00	5.50	1/40	B	<b>23962</b>	<b>23098</b>	<b>23130</b>	<b>23971</b>	<b>23980</b>	<b>23139</b>
LP 1 D1210	12	1NO	3.00	5.50	5.50	5.50	7.50	1/40	B	<b>23963</b>	<b>23128</b>	<b>23131</b>	<b>23972</b>	<b>23981</b>	<b>23140</b>
LP 1 D1810	18	1NO	4.00	7.50	7.50	7.50	10.0	1/30	B	<b>23964</b>	<b>23188</b>	<b>23132</b>	<b>23973</b>	<b>23982</b>	<b>23141</b>
LP 1 D2510	25	1NO	5.50	11.0	11.0	11.0	15.0	1/20	B	<b>23925</b>	<b>23258</b>	<b>23133</b>	<b>23974</b>	<b>23983</b>	<b>23142</b>
LP 1 D3210	32	1NO	7.50	15.0	15.0	15.0	18.5	1/30	B	<b>23966</b>	<b>23328</b>	<b>23134</b>	<b>23975</b>	<b>23984</b>	<b>23143</b>
LP 1 D4011	40	1NO+1NC	11.0	18.5	18.5	18.5	30.0	1/10	B	<b>23967</b>	<b>23408</b>	<b>23135</b>	<b>23976</b>	<b>23985</b>	<b>23144</b>
LP 1 D5011	50	1NO+1NC	15.0	22.0	22.0	22.0	33.0	1/10	B	<b>23968</b>	<b>23508</b>	<b>23136</b>	<b>23977</b>	<b>23986</b>	<b>23145</b>
LP 1 D6511	65	1NO+1NC	18.5	30.0	30.0	30.0	37.0	1/10	B	<b>23969</b>	<b>23658</b>	<b>23137</b>	<b>23978</b>	<b>23987</b>	<b>23146</b>
LP 1 D9511	95	1NO+1NC	25.0	45.0	45.0	45.0	45.0	1/10	B	<b>23970</b>	<b>23958</b>	<b>23138</b>	<b>23979</b>	<b>23988</b>	<b>23147</b>
LP 1 F115	115	1NO	30.0	55.0	59.0	59.0	80.0	1/4	B		<b>23118*</b>	<b>23914</b>	<b>23917</b>	<b>23989</b>	<b>23148</b>
LP 1 F150	150	1NO	40.0	75.0	80.0	80.0	100	1/4	B		<b>23158*</b>	<b>23915</b>	<b>23918</b>	<b>23990</b>	<b>23149</b>
LP 1 F225	225	1NO	63.0	110	110	110	129	1/2	B			<b>23916</b>	<b>23919</b>	<b>23994</b>	<b>23201</b>



UNTIL SUPPLY LAST

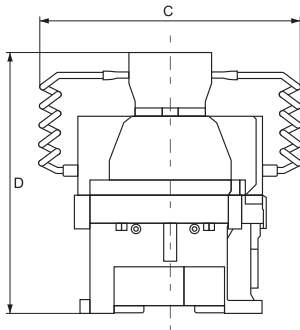
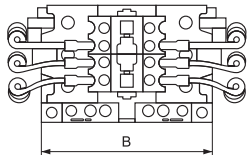
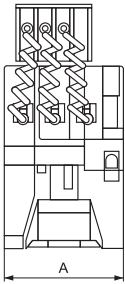
In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN60947-1; EN 60947-4-1

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

**5+2** standard + extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty



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

**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: >8000V
- Limits of the controlling coil voltage: from 0.8 to 1.15 U<sub>c</sub>
- Number of the contacts: 3 NO power contacts +1NO operative
- Joining terminal: screw terminal
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors
- 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

**MOUNTING:**

- on DIN-rail or
- with bolts to the surface
- mounting position: vertical gradient – maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

Type	Overall dimensions (mm)			
	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
CJ19-115 DPK	122	165	230	157
CJ19-150 DPK	122	165	230	157
CJ19-170 DPK	122	165	230	157

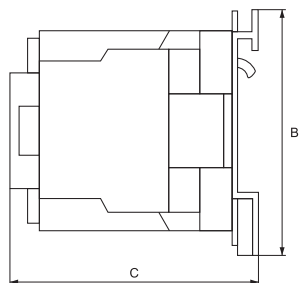
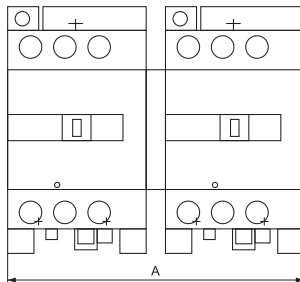
Type	Rated current (A)	Rated capacity of the consumer (kVAr)		Coil voltage (V)	Packing/Box (pcs)	Product category	Catalogue number
		400/440V	690V				
CJ19-32 DPK	32	8	12.5	230	1/20	B	<b>23932</b>
CJ19-32 DPK	32	8	12.5	400	1/20	B	<b>23910</b>
CJ19-40 DPK	40	12.5	15	230	1/16	B	<b>23900</b>
CJ19-40 DPK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



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN60947-1; EN 60947-4-1



Type	Overall dimensions (mm)		
	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

**REVERSE CONTACTORS LT4-DXX**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

- insulation voltage: 690V
- Surge voltage wear resistance: >8000V
- Limits of the controlling coil voltage: from 0.8 to 1.15 Uc
- Number of plugs: 3 NO power contacts +1NO operative (for contactors over 40A there is also additional 1NC contact)
- Joining terminal: screw terminal
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors

**NOTE:** The contactors are offered without factory cabling

- Electrical wear resistance (number of cycles):≥1 000 000
- Mechanical wear resistance (number of cycles):≥10 000 000
- Number of cycles (switching on) per hour: up to 600
- Pole leaking power: up to 13W

**MOUNTING:**

- on DIN-rail or
- with bolts to the surface
- mounting position: vertical gradient – maximum± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°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

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



**TIME DELAY CONTACT BLOCK LT02-DXX**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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.

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



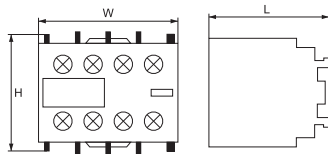
Dimensions (mm)

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

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**Documents corresponding to the product:**

Standard EN 60947-4-1



Dimensions (mm)

H	W	L	W1	W2
32	40	35	26	45
H2	L1	L2		
48	6,5	37		

**AUXILIARY CONTACTS**

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**AUXILIARY CONTACTS**

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
- Operation class: AC 3

- insulation voltage: 690V
- Joining terminal: screw terminal
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors

**MOUNTING:**

- on the movable cover of the contactor through pinching
- mounting position: vertical gradient – maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)

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



Dimensions (mm)

W1	W2	H	L	A
73	48	22	12,5	72

**AUXILIARY CONTACTS LT03-DN11**

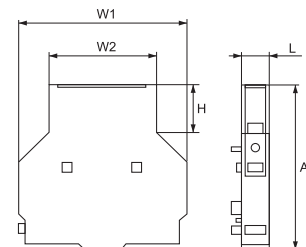
**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

- flexible conductors with or without cable end
- solid conductors
- Mounting method:
  - mounting position – sideward to the contactor
- Plastic: resistant to UV and non-burning (self-extinguishing material)



**TECHNICAL CHARACTERISTICS:**

- Environment operational regime: AC 3
- Insulation voltage: 690V
- Double connector: screw connector
- Connection:

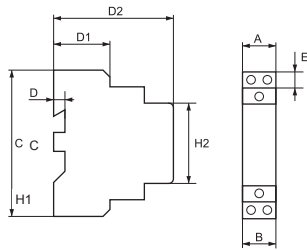
Type	Rated current	Section of the conductor (mm <sup>2</sup> )	Product category	Catalogue number
LT03-DN11	6A	0,5-1	B	<b>23311</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

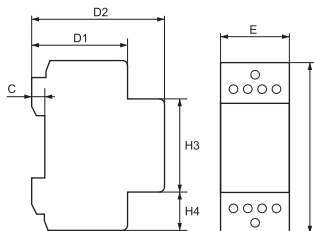
**Documents corresponding to the product:**

Standard EN 61095



Dimensions (mm)

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



Dimensions (mm)

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

**MODULE CONTACTORS K SERIES**

**5+2** standard +extended  
**7** YEAR TOTAL WARRANTY  
\*for industrial usage, 3 years warranty

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

**TECHNICAL DATA:**

- Operation class: AC 7a
- Rated operating voltage of the controlling coil: 230V

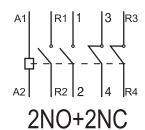
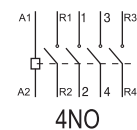
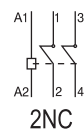
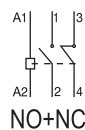
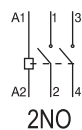
AC; 50/60 Hz

- Rated operating voltage of the power circuit: up to 690V AC
- insulation voltage: 690V
- Surge voltage wear resistance: >8000V
- Joining terminal: screw terminal
- Connecting:
  - flexible conductors with or without cable terminal
  - rigid conductors

**MOUNTING:**

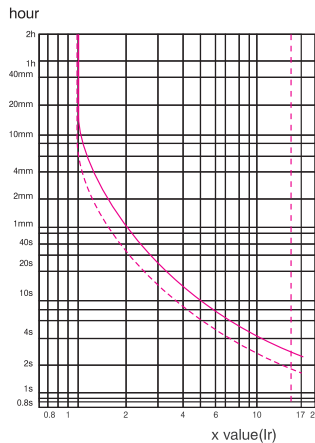
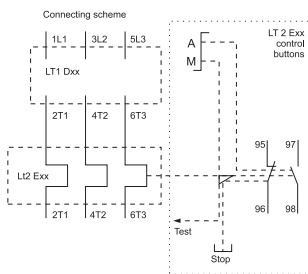
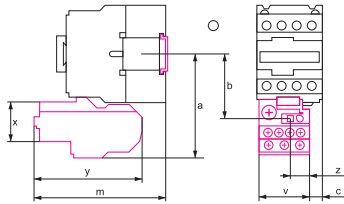
- on DIN-rail or
- mounting position: vertical gradient – maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

Type	In	Coil voltage (V)	Contacts	Packing/Box (pcs)	Product category	Catalogue number
K20	20A	230V	2NO	1/12/120	B	<b>23008</b>
K20	20A	230V	NO+NC	1/12/120	B	<b>23007</b>
K20	20A	230V	2NC	1/12/120	B	<b>23009</b>
K20	25A	230V	NO+NC	1/12/100	B	<b>23012</b>
K20	25A	230V	2NO	1/12/100	B	<b>23013</b>
K20	25A	230V	2NC	1/10/100	B	<b>23014</b>
K20	40A	230V	NO+NC	1/6/60	B	<b>23015</b>
K20	40A	230V	2NO	1/6/60	B	<b>23016</b>
K20	40A	230V	2NC	1/6/60	B	<b>23017</b>
K20	100A	230V	2NO	1/4/40	B	<b>23080</b>
K20	100A	230V	1NO+1NC	1/4/40	B	<b>23083</b>
K20	100A	230V	2NC	1/4/40	B	<b>23084</b>
K40	25A	230V	2NO+2NC	1/6/60	B	<b>23410</b>
K40	25A	230V	3NO+1NC	1/6/60	B	<b>23411</b>
K40	25A	230V	4NO	1/6/60	B	<b>23412</b>
K40	25A	230V	4NC	1/6/60	B	<b>23413</b>
K40	40A	230V	2NO+2NC	1/4/40	B	<b>23422</b>
K40	40A	230V	3NO+1NC	1/4/40	B	<b>23423</b>
K40	40A	230V	4NO	1/4/40	B	<b>23409</b>
K40	40A	230V	4NC	1/4/40	B	<b>23424</b>
K40	63A	230V	2NO+2NC	1/4/40	B	<b>23425</b>
K40	63A	230V	3NO+1NC	1/4/40	B	<b>23426</b>
K40	63A	230V	4NO	1/4/40	B	<b>23427</b>
K40	63A	230V	4NC	1/4/40	B	<b>23428</b>
K40	80A	230V	4NO	1/2/20	B	<b>23480</b>
K40	80A	230V	2NO+2NC	1/2/20	B	<b>23483</b>
K40	80A	230V	4NC	1/2/20	B	<b>23484</b>
K40	80A	230V	3NO+1NC	1/2/20	B	<b>23485</b>



**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-4-1



**THERMAL OVERLOAD RELAYS**

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

**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: ≥6000V
- Joining terminal: screw terminal
- temperature compensation: -25 +55
- tripping category: class 10A

- 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
- 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

**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 – maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

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

Type	Dimensions (mm)							
	a	b	c	m	x	y	v	z
LT 2 - Kxx	81	50	0	98	47	92	44	17
LT 2 - E13xx	86	55	10.7	108	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

5+2 standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



For contactor LT1-K06 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing/Box (pcs)	Product category	Catalogue number
	220V	380V	660V					
LT2-K0303	-	-	-	0.30	0.25 - 0.30	1 / 100	B	<b>13403</b>
LT2-K0306	-	0.37	1.10	1.20	0.80 - 1.20	1 / 100	B	<b>13406</b>
LT2-K0307	0.37	0.75	1.50	1.80	1.20 - 1.80	1 / 100	B	<b>13407</b>
LT2-K0308	0.75	1.10	2.20	2.60	1.80 - 2.60	1 / 100	B	<b>13408</b>
LT2-K0310	1.10	1.50	3.00	3.70	2.60 - 3.70	1 / 100	B	<b>13410</b>
LT2-K0312	1.10	2.20	4.00	5.50	3.70 - 5.50	1 / 100	B	<b>13411</b>
LT2-K0314	2.20	4.00	5.50	8.00	5.50 - 8.00	1 / 100	B	<b>13412</b>
LT2-K0316	3.00	5.00	7.50	11.5	8.00 - 11.5	1 / 100	B	<b>13413</b>



For contactor LT1-K06 type	Rated current (A)	Protection adjustment range	Packing/Box (pcs)	Product category	Catalogue number
LT2-K0301*	0.16	0.10 - 0.16	1 / 100	F	<b>13401</b>
LT2-K0302*	0.25	0.16 - 0.25	1 / 100	F	<b>13402</b>
LT2-K0304*	0.54	0.30 - 0.54	1 / 100	F	<b>13404</b>
LT2-K0305*	0.80	0.54 - 0.80	1 / 100	F	<b>13405</b>

\*3 year standard+0 year extended warranty



UNTIL SUPPLY  
LAST



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





For contactor  
LT1-D32 type

Motor capacity (kW)			Rated current (A)
220V	380V	660V	
230V	400V	690V	

Protection  
adjustment range

Packing/Box  
(pcs)

Product  
category

Catalogue  
number

LT2-E2353	11	11	18.5	32	23.0 - 32.0	1 / 100	B	<b>13253</b>
LT2-E2355	15	15	22.0	36	28.0 - 36.0	1 / 100	B	<b>13255</b>



For contactor  
LT1-D40 to  
LT1-D95 type

Motor capacity (kW)			Rated current (A)
220V	380V	660V	
230V	400V	690V	

Protection  
adjustment range

Packing/Box  
(pcs)

Product  
category

Catalogue  
number

LT2-E3355	18.5	18.5	30	40	30.0 - 40.0	1 / 50	B	<b>13355</b>
LT2-E3357	22	22	30	50	37.0 - 50.0	1 / 50	B	<b>13357</b>
LT2-E3359	30	30	37	65	48.0 - 65.0	1 / 50	B	<b>13359</b>
LT2-E3363	45	45	55	80	63.0 - 80.0	1 / 50	B	<b>13363</b>
LT2-E3365	55	55	75	93	80.0 - 93.0	1 / 50	B	<b>13365</b>



For contactor LT1-F115  
to LT1-F150

Motor capacity (kW)			Rated current (A)
220V	380V	660V	
230V	400V	690V	

Protection  
adjustment range

Packing/Box  
(pcs)

Product  
category

Catalogue  
number

LT2-F4367	40	75	100	150	90-150	1/30	B	<b>13367</b>
-----------	----	----	-----	-----	--------	------	---	--------------



For contactor LT1-F225  
to LT1-F400

Motor capacity (kW)			Rated current (A)
220V	380V	660V	
230V	400V	690V	

Protection  
adjustment range

Packing/Box  
(pcs)

Product  
category

Catalogue  
number

LT2-F4368	63	110	129	220	132-220	1/30	B	<b>13368</b>
LT2-F4369	100	160	220	330	200-330	1/18	B	<b>13369</b>
LT2-F4370	147	250	335	500	300-500	1/18	B	<b>13370</b>



For contactor LT1-F630

Motor capacity (kW)			Rated current (A)
220V	380V	660V	
230V	400V	690V	

Protection  
adjustment range

Packing/Box  
(pcs)

Product  
category

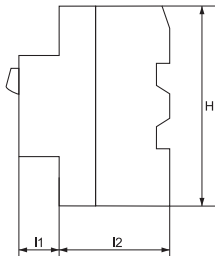
Catalogue  
number

LT2-F4371	200	335	450	630	380-630	1/18	B	<b>13371</b>
-----------	-----	-----	-----	-----	---------	------	---	--------------



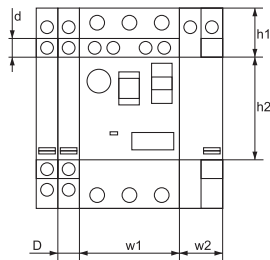


**Dimensions**



**Auxiliary contact**

**UVR**



Dimensions (mm)

H	l1	l2	d	D
89	16	50	10	9,2
w1	w2	h1	h2	
44,5	18	22	45	

**THERMOMAGNETIC AUTOMATIC BREAKER  
TM2/TM3**

**5+2** standard + extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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:**

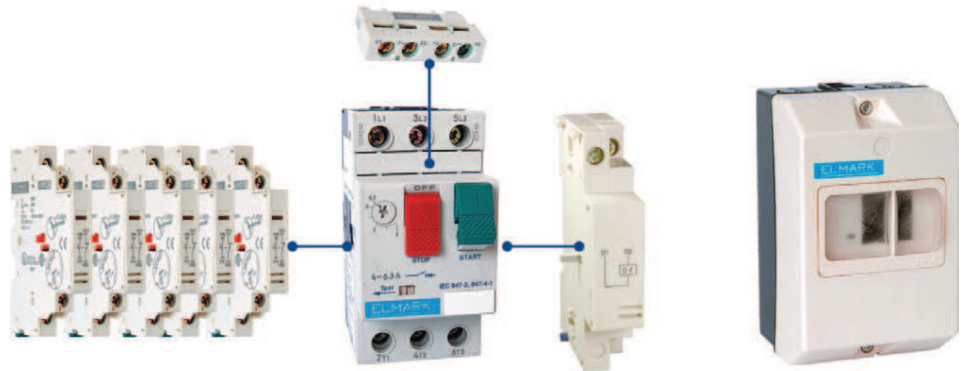
- switching off alternating current consumers at current overload
- switching off the electrical circuit to the consumer at inlet short circuit
- protects the motor at lack/lowering of the phase voltage (if there is under voltage release)
- used as a protective operating element in control panels of 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

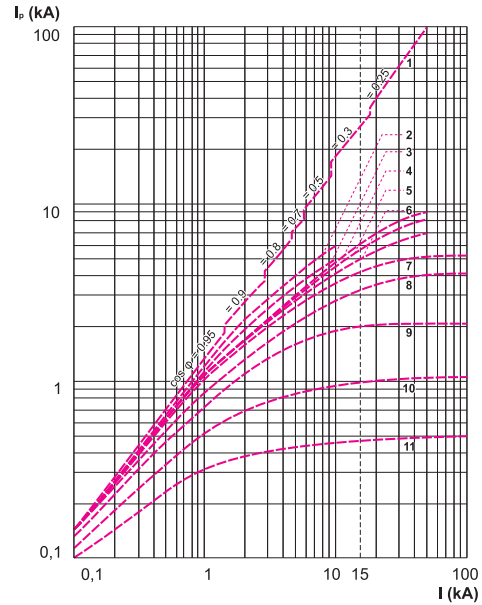
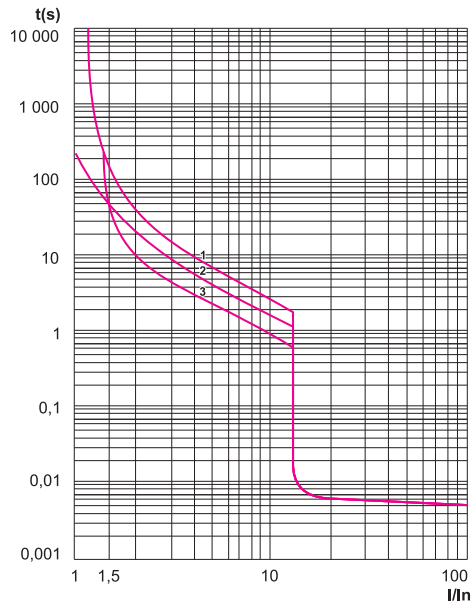
**TECHNICAL DATA:**

- 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
- 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
- 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

**MOUNTING:**

- mounting to DIN-rail
- mounting position: vertical gradient – maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m





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



**Documents corresponding to the product:**

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



Type	Voltage (V)	Product category	Catalogue number
TM2 AU225	230	B	<b>48099</b>
TM3 AU385	400	B	<b>48098</b>



**VOLTAGE RELEASE (VR) FOR TM2**

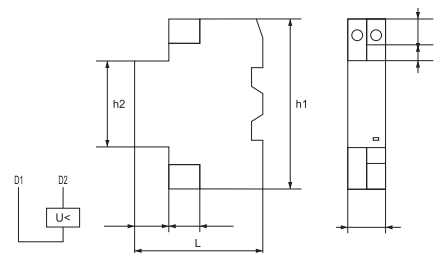
For increasing the effectiveness of the thermomagnetic breakers TM 2-Exx operation, they can be supplied with auxiliary devices, designed for widening the practice range and improving the technical characteristics of the breakers. The release is designed to switch off the thermomagnetic breaker when 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



**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

**Documents corresponding to the product:**

Standard EN 60529



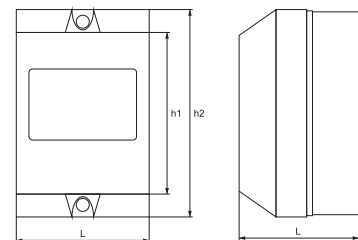
Type	Product category	Catalogue number
TM2 E	B	<b>8083</b>



**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 ± 5°
  - mounted to horizontal surfaces (walls) with bolts
  - the breaker TM2 Exx is fixed inside of it on rail
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)





Type	Product category	Catalogue number
TM2 AE11	B	<b>48912</b>

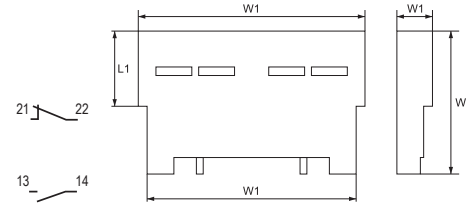


### AUXILIARY CONTACT BLOCK TM2 AE11- FRONT MOUNTING

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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.

- Mounting:
  - laterally to a breaker TM2-Exx
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m



Type	Product category	Catalogue number
TM2 AN11	B	<b>48911</b>
TM3 AN11	B	<b>48913</b>

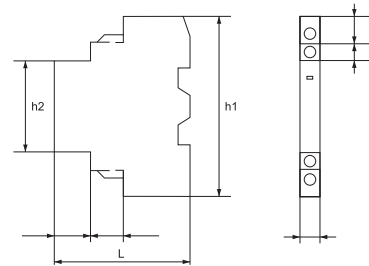


### AUXILIARY CONTACT BLOCK TM2 AE11- SIDE MOUNTING

**5+2** standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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.

- Mounting:
  - laterally to a breaker TM2-Exx
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m



**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-4-1



with thermal overload relays

**STARTERS FOR DIRECT START**

5+2 standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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:**

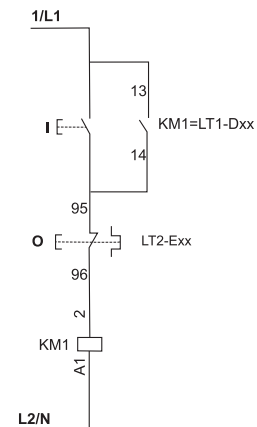
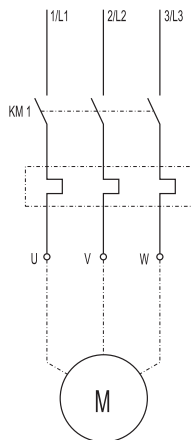
- switching on/off alternating current consumers
- does not allow secondary unwarranted switching on of the starter at transitory lowering of the voltage
- protects the motor from overload in the range of the corresponding thermal protection
- remarkable with high reliability of current characteristics

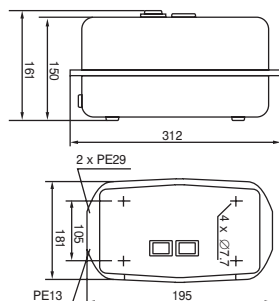
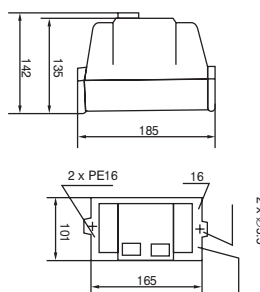
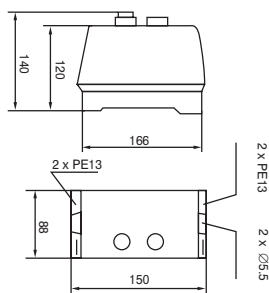
**TECHNICAL DATA:**

- Rated voltage of the controlling voltage: 230/400V AC; 50/60 Hz

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

- 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
- 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
- Possibility for range adjustment of the protection activating
- IP code: IP 44
- Possibility for operation at higher frequency
- Mounting:
  - mounting to a flat surface (wall) with bolts/screws
  - mounting position: vertical gradient, maximum ± 5°
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Metal corpus: corrosion-proof coating
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m





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



**Note:** Upon request the thermal relay will be replaced

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



**Note:** Upon request the thermal relay will be replaced

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



**Note:** Upon request the thermal relay will be replaced

**In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.**

**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-4-1



**“STAR/DELTA”STARTER**

5+2 standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

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

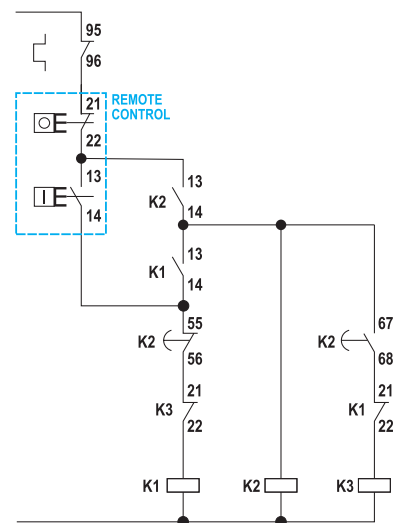
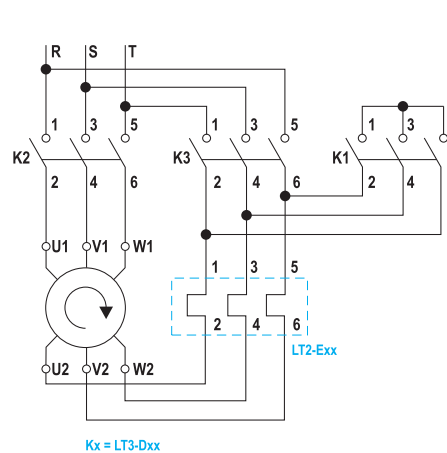
- protects the motor from overload in the range of the corresponding thermal protection
- indication of the operating condition through a valve indicator
- possibility for mounting of additional contacts (for the open type)
- remarkable with high reliability of current characteristics

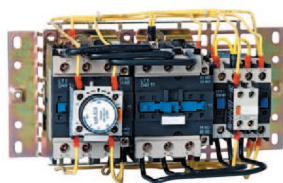
**TECHNICAL DATA:**

- Rated voltage of the controlling voltage: 400V AC; 50/60 Hz

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

- 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
- 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
- Possibility for operation at higher frequency
- IP code: IP54
- Mounting:
  - mounting to a flat surface (wall) with bolts/screws
  - mounting position: vertical gradient, maximum ± 5°
- The metal body is covered with corrosion-proof paint
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m





Type designation (without a box)	Overall dimensions (mm)		
	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

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



**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.



Type designation (with box)	Overall dimensions (mm)		
	height	width	depth
LT 3 - B - D25A	370	240	160
LT 3 - B - D32A	370	240	160
LT 3 - B - D40A	470	265	160
LT 3 - B - D65A	470	265	160
LT 3 - B - D95A	470	265	160

Type designation (with box)	Rated capacity (kW)				Rated current (A)	Coil voltage (V AC)	Packing/Box (pcs)	Product category	Catalogue number
	220V 230V	380V 400V	415V	440V					
LT 3 - B - D25A	11	15	15	15	25	400	1 / 4	B	<b>43254</b>
LT 3 - B - D32A	15	18.5	18.5	18.5	32	400	1 / 4	B	<b>43255</b>
LT 3 - B - D40A	18.5	22	22	22	40	400	1 / 2	B	<b>43256</b>
LT 3 - B - D65A	30	55	55	55	65	400	1 / 4	B	<b>43257</b>
LT 3 - B - D95A	37	75	75	75	95	400	1 / 2	B	<b>43258</b>



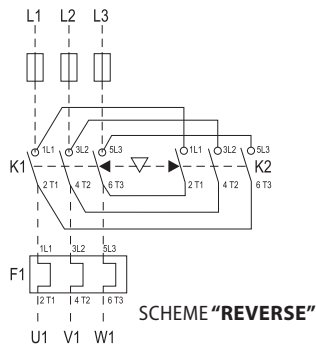
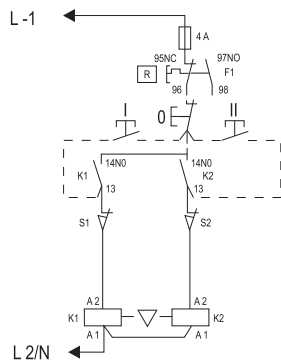
**Note:** It is necessary that thermal protection with suitable range is mounted to protect the controlled motor. The shown values of magnetic starters are for normal regimes for motor control, for hard operation regimes are chosen starters which correspond to the current rating of the motor.

**Documents corresponding to the product:**

Standard EN 60947-1  
EN 60947-4-1



with thermal overload relays



**REVERSE STARTER**

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

**TECHNICAL DATA:**

- Rated voltage of the controlling voltage: 400V AC; 50/60 Hz

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

- 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
- 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
- Possibility for operation at higher frequency
- IP code: IP 44
- Mounting:
  - mounting to a flat surface (wall) with bolts/screws
  - mounting position: vertical gradient, maximum ± 5°
- The metal body is covered with corrosion-proof paint
- Ambient temperature: -10°C + 65°C
- Altitude: up to 2000m

5+2 standard +extended **7** YEAR TOTAL WARRANTY \*for industrial usage, 3 years warranty

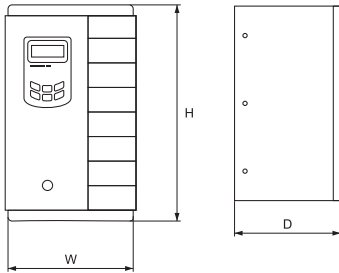
Type designation (with a box)	Rated capacity (kW)				Overall dimensions (mm)			Rated current (A)	Coil voltage (V AC)	Packing/ Box (pcs)	Product category	Catalogue number
	220V	380V	415V	440V	height	width	depth					
LT 4 - B - D25A	11.0	15.0	15.0	15.0	240	240	160	25	400	1 / 8	B	<b>43001</b>
LT 4 - B - D32A	15.0	18.5	18.5	18.5	240	240	160	32	400	1 / 4	B	<b>43002</b>
LT 4 - B - D40A	18.5	22.0	22.0	22.0	270	265	160	40	400	1 / 2	B	<b>43003</b>
LT 4 - B - D65A	30.0	55.0	55.0	55.0	270	265	160	65	400	1 / 4	B	<b>43004</b>
LT 4 - B - D95A	37.0	75.0	75.0	75.0	270	265	160	95	400	1 / 4	B	<b>43005</b>
LT 4 - B - D25A	11.0	15.0	15.0	15.0	240	240	160	25	230	1 / 4	B	<b>43006</b>
LT 4 - B - D32A	15.0	18.5	18.5	18.5	240	240	160	32	230	1 / 4	B	<b>43007</b>
LT 4 - B - D40A	18.5	22.0	22.0	22.0	270	265	160	40	230	1 / 4	B	<b>43008</b>
LT 4 - B - D65A	30.0	55.0	55.0	55.0	270	265	160	65	230	1 / 4	B	<b>43009</b>
LT 4 - B - D95A	37.0	75.0	75.0	75.0	270	265	160	95	230	1 / 4	B	<b>43010</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard EN61800-3  
EN61800-5-1



**ELM 2000+ FREQUENCY INVERTERS**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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

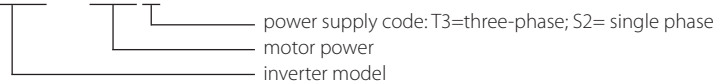
**TECHNICAL FEATURES:**

- 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-SpaceVector, SLV-SENSORLESS 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-PNP selectable) 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, I<sup>2</sup>xt motorprotection
- Operating conditions:
  - Protection class IP20
  - Working temperature -10+50 °C
  - Humidity- 0 to 95% RH, non-condensing, non-corrosive
  - Altitude- 1000 m, above 1% derating / 100m
  - Vibration- Max. 0,5 g

**Type of sign**

**ELM2000+ 0015 T3**



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



LCD REMOTE FRAME SIZE  
KEYPAD FOR CABINET IP66  
**423432P**



CABLE FOR REMOTE KEYPAD  
IP66 - 1.5meter  
**423433P**



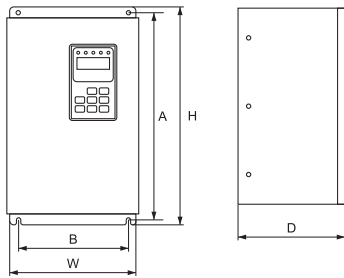
PARAMETER  
COPY STICK  
**423434P**

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



**Documents corresponding to the product:**

Standard EN60898-1  
EN 60947-2



Type	Overall dimensions (mm)					
	H	W	A	B	D	d
G0007S2B	150	105	139	94	120	Ø4
G0015S2B	170	125	160	114	140	Ø5
G0022S2B	170	125	160	114	140	Ø5
G0007T3B	170	125	160	114	140	Ø5
G0015T3B	170	125	160	114	140	Ø5
G0022T3B	170	125	160	114	140	Ø5
G0037T3B	250	162	233	145	150	Ø6
G0040T3B	250	162	233	145	150	Ø6
G0055T3B	300	200	282	182	160	Ø6
G0075T3B	300	200	282	182	160	Ø6
G0110T3C	340	225	322	160	220	Ø6
G0150T3C	380	230	362	186	225	Ø6

UNTIL SUPPLY  
LAST

**ELM 1000 FREQUENCY INVERTERS**

3+0  
standard  
+extended  
**3** YEAR TOTAL  
WARRANTY

Frequency inverters are designed to control three-phase induction motors with short-circuited rotor. They provide for the implementation of some control laws, thus becoming an indispensable part of the control systems for conveyors and packaging machines, pumps, air conditioning systems, etc. The ELM 1000 inverter provides the so-called no-sensor control, V/f control and impulse control while the output load can reach up to 150% within 60 seconds. It features easy definition of curves and easy parameters setting of inverter through the use of control panel buttons. The inverter can auto calibrate according to the motor power, i.e. if the inverter is connected to a motor with power different from that set by the inverter manufacturer, it automatically adjusts its programmable parameters to suit the motor parameters.

**FUNCTIONS:**

- rotation speed increase – automatic and manual
- sliding compensation: from 0 to 20%
- no-sensor control of the motor
- adjustment of the V/F control curve – linear or quadratic
- energy saving through automatic optimization of the V/F curve
- PID control law implementation option
- omission of resonance frequencies
- JOG function
- 'counter' function
- automatic restart option in case of power supply failure
- fifteen speed degrees control option
- control choice from the control panel; external or COM terminal
- frequency control from the control panel, external potentiometer by current or by voltage
- auto-calibration in accordance with the switched motor
- incoming signals on clockwise or counter-clockwise rotation, multi-step control, restart, etc.
- outgoing discrete control signal 24V
- outgoing analogue control signal 0 – 10V
- DC brake in static mode
- dynamic breaking with external breaking resistor – used in inert electric motor load
- output voltage adjustment option

- activation of output safety functions option
- electronic motor protection

**TECHNICAL FEATURES:**

- Rated working voltage: 230/400V AC; 50 Hz
- Permissible working voltage deviation: ±10%
- Unbalance of phases: < 3%
- Frequency fluctuation: < 5%
- Output frequency: 0 – 400 Hz
- Output voltage: from 0 to U<sub>bx</sub> max
- Overload capacity:
  - constant: up to 110%
  - momentary: up to 150%
- Precision of output frequency adjustment: 0.1%
- Type of connection:
  - the connection of the inverter to the power supply should always be done through a circuit breaker of the MCB or MCCB type
  - connection of consumer to power terminals: through conductors suitable for the power
  - connection of control circuits: flexible conductor up to 1.5 mm<sup>2</sup>

**NOTE:** It is not recommendable to mount contactors or other commutation devices between the frequency inverter and the motor, except as described in the product passport.

- Mounting:
  - mounting to a flat surface by means of bolts
  - mounting position – vertical gradient maximum ± 5°

**NOTE:** When more than one inverter 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.

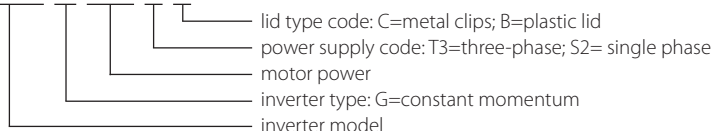
- Plastic: UV-rays resistant and fire resistant (self-extinguishing material)
- Ambient temperature: -10° to 65° C
- Altitude : up to 2000 m
- Function enhancement option: through the inclusion of additional modules

Type	Input voltage (V)	Maximum output power (kW)	Maximum current output (A)	Packing/Box (pcs)	Product category	Catalogue number
ELM1000-G0007T3B	400	0.75	2	1 / 4	F	<b>423307M</b>
ELM1000-G0037T3B	400	3.7	8	1 / 1	F	<b>423337M</b>
ELM1000-G0040T3B	400	4.0	9	1 / 1	F	<b>423340M</b>
ELM1000-G0110T3C	400	11	23	1 / 1	F	<b>423391M</b>
ELM1000-G0150T3C	400	15	32	1 / 1	F	<b>423392M</b>



**Type of sign**

**ELM1000- G -0150 T3 C**



**Documents corresponding to the product:**

Standard EN60947-4-2  
EN 60947-1



**SOFT STARTER ELM 2500**

**3+2**  
standard  
+extended **5** YEAR TOTAL WARRANTY

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 stardelta 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.

- Control functions
  - output faults
  - motor faults diagnostics
  - keyboard or outward control
  - delayed start option
  - faults memory

**TECHNICAL FEATURES:**

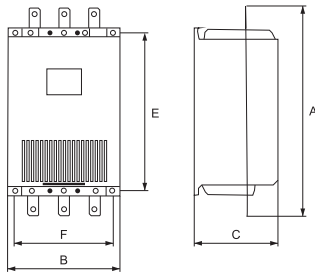
- Rated working voltage: 230/400V AC; 50 Hz
- Permissible working voltage deviation: ±10%
- Unbalance of phases: < 3%
- Frequency fluctuation: < 5%
- Obligatory bypass contactor installation
- Mounting :
  - mounting to a flat surface through bolts
  - mounting position – vertical gradient maximum ± 5°

**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

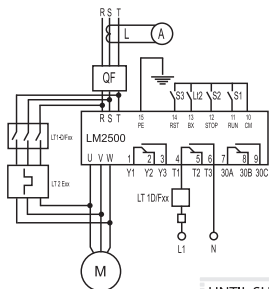
**NOTE:** When more than one soft starter is mounted in a board, it is recommendable to mount them side by side and when this is not possible, the appropriate cooling conditions should be provided.

- Plastic: UV-rays resistant and fire resistant (self-extinguishing material)
- Altitude : up to 2000 m



Type	Overall dimensions (mm)					
	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

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



UNTIL SUPPLY  
LAST





## COMPLEX COMPENSATING DEVICES

3+2  
standard  
+extended

5  
YEAR TOTAL  
WARRANTY

The use of electrical energy in industry is invariably connected with its transformation. The development of semiconductor elements and the broader coming of semi-conductor transformers, frequency control, welding machines and electrical arc furnaces in industrial projects have a negative impact over the electrical power quality in the electro distributing systems. Induction machines need reactive energy to create electromagnetic field. The reactive component of current is taken from the electro distributing systems but it leads to additional losses in the power supply system and makes shorter the exploitation term of electrical devices. This leads to curving of the sinusoid form of current and voltage and interferences with harmonic character. Compensating the reactive power means to fill up the system in such a way that the needed reactive power to be created from the compensating device instead of being taken from the electro transportation system. This leads to killing the voltage fall and cable losses and increasing the outlet power of the power transporters and cutting down the bills for overconsumption of reactive energy paid by consumers to the electricity supply company. In practice compensating the reactive energy and high harmonics through LC filters combined in compensating installations has the broadest spreading.

### THERE ARE SEVERAL TYPES OF COMPENSATION ACCORDING TO THEIR LOCATION:

individual compensation – when to every single motor or consumer is mounted a compensating system. It is applied to powerful motors and transformers with fixed capacity.

installation compensation – when the consumers from the whole section (workshop) are grouped and compensation is accomplished for the whole section.

overall compensation – accomplished at full compensation in the inlet of the installation.

### ACCORDING TO THE TYPE OF THE COMPENSATING DEVICES COMPENSATION CAN BE:

- passive – when the system supplies constant reactive power. In this case the system does not react to changes in the size and nature of the harmonic components and also to the per cent increase of the reactive energy in time.

- active – broader spread. The system controls the form of the consumed current and generates different capacity depending on the load changes.

When designing the electro distributing system of industrial projects the following tasks are taken into consideration:

- defining the factor of non-sinusoid of the consumers and the voltage harmonic components

- defining the additional loading of the capacitor batteries from the harmonic components and calculating the filtering elements if needed

The calculation of the compensating device capacity is done by reading the reactive energy of the system and the working time of the system. Compensating devices represent a device of one or several metal boxes with common rail system, automatic regulator for  $\cos\phi$  control RPSF-xx series, different number of capacitor batteries (according to the capacity of the device) with different capacity HY 111 series, contactors for capacitor batteries control CJ 19-43 series, protective elements, etc.

The broadest spreading of compensation has acquired the compensation of harmonics and reactive energy with capacitors for high voltage. Capacitors HY 111 series are voltage remeasured and are able to endure overload from harmonic components up to 7% from the basic harmonics. They are used in systems with high harmonics foul up to 25%.

The high harmonics composition is defined after measuring the influence rate of each separate harmonics compared to the first one. In Bulgaria mostly spread are 5, 7, 9, 11 and 13 harmonics. The capacitors are remeasured for voltage 415V and are normally mounted right in the compensation systems.

When the high harmonics are over 25% the system is taken to be foul and in this case except using capacitors, filters for leveling the harmonics are to be used as well. These filters are calculated on the basis of the corresponding voltage harmonics and differ for the different harmonics. They are calculated using complex mathematical programme which reads the foul rate, the significance per cent of the voltage harmonic component, etc.

**Documents corresponding to the product:**

Standard EN 60831-1  
EN 60831-2



**CAPACITOR BATTERIES FOR REACTIVE ENERGY COMPENSATION**

**2+0**  
standard  
+extended **2** YEAR TOTAL WARRANTY

Capacitor batteries HY 111 series are specially designed three phase dry capacitors for compensation of reactive energy and correction of the capacity factor. It represents an aluminum cylindrical body in which a metal polypropylene folio is mounted which does not require special impregnation. The permittivity characteristics are acquired through filling with a special mixture on a vegetable base (resins). The capacitor battery is constructed in such a way that at failure (overload from voltage, current or temperature) breaks the connection to the upper cover where are the connections to the power supply. This is done by a specially constructed valve for overpressure mounted right above the capacitor element. The breaking of the inner couplings provides protection to the staff and environment from damage due to capacitor element failure. There is a three phase capacitor in the cylindrical body with built in resistor for rarefying the

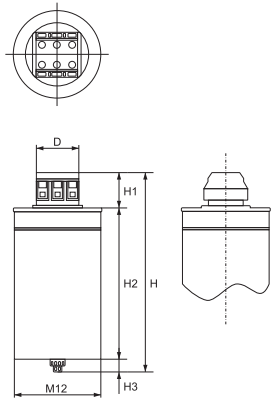
capacitors. The capacitor battery can be used both for passive and active compensation.

**TECHNICAL DATA:**

- Rated operating voltage: 450V; 50Hz
- insulation voltage: 690V
- Surge voltage wear resistance: 6kV per minute
- Capacity: from 5,0 to 100,0 kVAr at 450V
- Tolerance: ±5%
- Operating temperature: -40°C - +65°C
- Capacity losses: 0.5W/kVAr
- Built in discharging resistance
- Admissible current overload: twice as much the peak current
- Discharge time: <50V per minute
- Altitude: 2000m

**MOUNTING:**

- With bolt M12 orM16 to a flat horizontal base



Dimensions (mm)

D	H1	H3
30	35	16

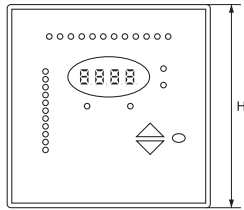
Type of the battery	Dimensions H / Ø (mm)	Operating voltage (V)	Battery capacity (kVAr)	Capacity (µF)	Packing/Box (pcs)	Product category	Catalogue number
HY 11A5	210/76	450	5.0	3X26.2	6	B	<b>49005</b>
HY 11A7	210/76	450	7.5	3X39	6	B	<b>49007</b>
HY 111A8*	230/80	450	8.0	3X39	6	F	<b>49008</b>
HY 111A10	240/76	450	10.0	3X52.4	6	B	<b>49010</b>
HY 111A15	240/86	450	15.0	3X78.9	6	B	<b>49015</b>
HY 111A20	240/116	450	20.0	3X105	6	B	<b>49020</b>
HY 111A30	280/160	450	30.0	3X157	6	B	<b>49030</b>
HY 111A50	345/180	450	50.0	3X262	6	B	<b>49050</b>
HY 111A100	300/300	450	100.0	3X524	6	B	<b>49100</b>
HY 111A12**	230 / 85	690	12.5	3X27.9	6	B	<b>49031</b>
HY 11A25**	280 / 115	690	25	3X55.7	6	B	<b>49032</b>



**Note:** \*Until supply last, \*\*Suitable for wind generators

**CONTROLLER FOR AUTOMATIC REGULATION OF THE CAPACITY FACTOR (COSΦ REGULATOR)**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY



The automatic regulators of the capacity factor RPCF-xx series are devices for monitoring of low voltage systems and control of switching on of capacitor batteries for the capacity factor compensation. There is possibility for adjustment of the system parameters and control. Manufactured by the latest CMOS technology, they are distinguished with high degree of data security, easy programming and secure control of the outlets. There is possibility for indication and setting the parameters of the power supply system as: capacity coefficient, display of the system parameters such as voltage, current and capacity, losses, protection against overload, overload indication or lack of voltage, etc.

The change of parameters is performed through a combination of buttons on the front panel. There is light diode to indicate which parameter is being displayed on the screen and which outlets are in operation. The display is four digital. There is possibility for choice of the working conditions: manual or automatic.

**TECHNICAL DATA:**

- Rated operating voltage: 230/400V
- Operating frequency: 45 – 65Hz
- insulation voltage: 690V
- Surge voltage wear resistance: 6kV per minute
- Measurement range: from 0 to 9999kVAR
- Measurement accurateness:
  - voltage: ±1.0%
  - current: ±1.0%
  - capacity coefficient: ±1.0%
  - reactive energy: ±2.0%
- Operating temperature: -10+65°C
- Humidity: 30 – 60%
- Display: 4 digital
- Responsiveness: 20mA
- Outlet: 7A
- Number of outlets: 12 and 16
- Altitude: up to 2500m

**MOUNTING:**

On the front panel of the box through cutting an opening

Type	Number of steps	Dimensions H (mm)	Packing/Box (pcs)	Product category	Catalogue number
HY-RPCF12	12	122x122	8	B	<b>49120</b>
HY-RPCF16	16	144x144	8	B	<b>49160</b>



**SOLAR POWER OFF-GRID SYSTEMS**



The Solar Home Power system is a fixed installation designed for domestic application. They is powered by solar energy using solar cells that convert solar energy (sunlight) directly to electricity. The Solar Home Power system are the perfect compact solution for an independent power supply in remote locations where electricity is unavailable, unreliable or expensive. Can be used in houses, Huts & Cottages, holiday areas, offices and etc

The Solar Home Power system can achieve energy independence - no accession contracts, monthly charges and the need to build an energy grid to your home.

The Solar Home Power Systems are compact, portable and easily mountable. They are an economical solution to all your power problems.

**HOME SOLAR POWER OFF-GRID SYSTEM 500W SET**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY



**FUNCTION:**

- Solar power supply

**SOLAR PANEL:**

- Type: Polycrystalline 18V 150W
- Optimum Operating Voltage: 18V
- Optimum Operating Current: 8.33A
- Open- Circuit Voltage: 20.88V
- Short- Circuit Current: 9.57A
- Power: 150W
- Sizes LxWxH(mm): 1490x680x5

**INVERTER:**

- 500W
- Ouput
  - USB 5V
  - 12V DC
  - 220V AC: Universal socket
- Size LxWxH (mm): 200x94x228

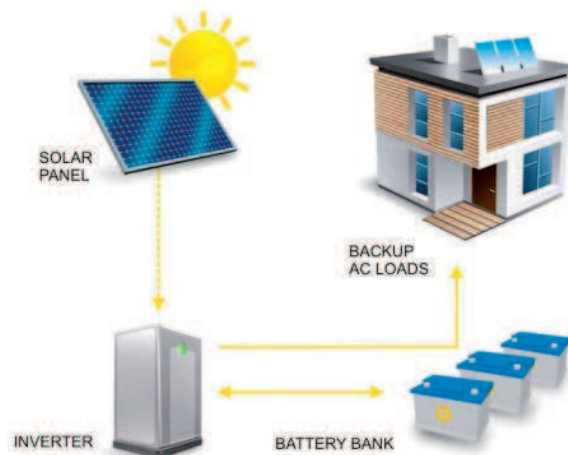
**SET INCLUDED:**

- Solar panel 18V 150W: 1 pc
- Inverter 500W: 1 pc

Type	Solar panel	Inverter	Battery	Packing/Box (pcs)	Product category	Catalogue number
ELM- 500SOL	18V 150W	500W	100Ah Not included	1	E	<b>98SOL500</b>

*Recommended with a battery 100Ah with a catalog number: 98BAT100*

*Discharging time at 75% consumption from total Inverter power ( about 375W) by using 100Ah battery: 3.2h*



## HOME SOLAR POWER OFF-GRID SYSTEM 800W SET

**3+2** standard +extended **5** YEAR TOTAL WARRANTY



**FUNCTION:**

- Solar power supply

**SOLAR PANEL:**

- Type: Polycrystalline 18V 150W
- Optimum Operating Voltage: 18V
- Optimum Operating Current: 8.33A
- Open- Circuit Voltage: 20.88V
- Short- Circuit Current: 9.57A
- Power: 150W
- Sizes LxWxH(mm): 1490x680x5

**INVERTER:**

- 800W
- Output
  - USB 5V
  - 12V DC
  - 220V AC: Universal socket
- Size LxWxH (mm): 300x100x220

**SET INCLUDED:**

- Solar panel 18V 150W: 1 pc
- Inverter 800W: 1 pc



Type	Solar panel	Inverter	Battery	Packing/Box (pcs)	Product category	Catalogue number
ELM- 800SOL	18V 150W	800W	100Ah Not included	1	E	<b>98SOL800</b>

*Recommended with a battery 100Ah with a catalog number: 98BAT100*

*Discharging time at 75% consumption from total Inverter power ( about 600W) by using 100Ah battery: 2h*



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

### HOME SOLAR POWER OFF-GRID SYSTEM 2000W SET

**3+2** standard +extended **5** YEAR TOTAL WARRANTY



**FUNCTION:**

- Solar power supply

**SOLAR PANEL:**

- Type: Polycrystalline 36V 250W
- Optimum Operating Voltage: 36V
- Optimum Operating Current: 13.89A
- Short- Circuit Current: 15.97A
- Power: 2x250W

**INVERTER:**

- 2000W
- Output
  - USB 5V
  - 12V DC
  - 220V AC: Universal socket
- Size LxWxH (mm): 300x100x220

**SET INCLUDED:**

- Solar panel 36V 250W: 2 pc
- Inverter 2000W: 1 pc

Type	Solar panel	Inverter	Battery	Packing/Box (pcs)	Product category	Catalogue number
ELM- 2000SOL	36V 250Wx2	2000W	2x250Ah	Not included 1	E	<b>98SOL2000</b>

*Recommended with two battery 250Ah with a catalog number: 98BAT250*

*Discharging time at 75% consumption from total Inverter power ( about 1500W) by using 2 battery 250Ah: 4h*





**98BAT100**

**VRLA BATTERY ULTRACELL 100AH**

**2+0**  
standard  
+extended **2** YEAR TOTAL WARRANTY

**APPLICATION:**

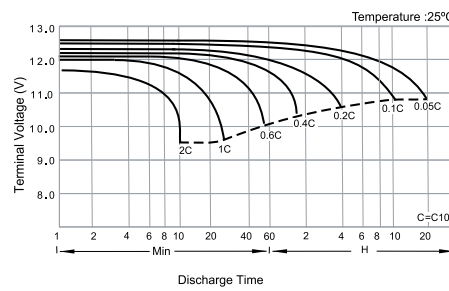
- UCG Series VRLA batteries can be used for:
- Golf Trolleys
- Garden Equipment
- Portable Equipment
- Solar/Wind Mill Units
- Medical Equipment
- Traffic Lights

**TECHNICAL DATA:**

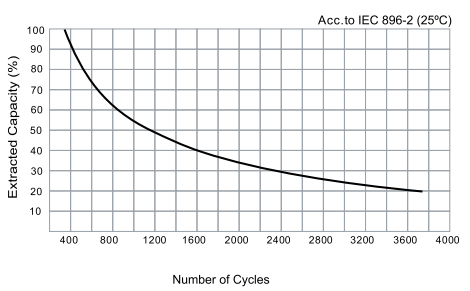
- Nominal Voltage: 12V
- Nominal Capacity (10HR): 100Ah
- Cycle Life in Relation to Depth of Discharge:
  - Extracted Capacity 50%: 1200 Cycles
  - Extracted Capacity 20%: 3600 Cycles
- Rated Capacity:
  - 20HR 1.80V/cell, 25°C- 103 Ah/5.15A
  - 10HR 1.80V/cell, 25°C- 100 Ah/10.0A

- 5HR 1.75V/cell, 25°C- 85 Ah/17.0A
- 3HR 1.75V/cell, 25°C- 73.8 Ah/24.6A
- 1HR 1.60V/cell, 25°C- 59.7 Ah/59.7A
- Max Discharge Current: 1200A (5s)
- Internal resistance: Approx 5mΩ
- Operating Temp Range:
  - Discharge: -15 ~ 50°C
  - Charge: 0 ~ 40°C
  - Storage: -15 ~ 40°C
- Nominal Operating Temp Range: 25 ± 3°C
- Container Material: ABS
- Indoor use
- Dimension LxWxH (mm): 330±3mmx173±3mmx232±3mm
- Weight: 30.4 kg
- Catalogue number: 98BAT100
- Product category: E

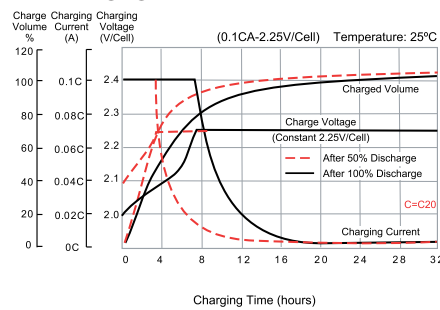
**Discharge Characteristics**



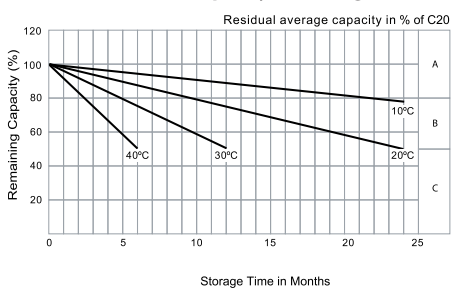
**Cycle Life in Relation to Depth of Discharge**



**Float Charging Characteristics**



**General Relation of Capacity vs. Storage Time**





**98BAT250**

**VRLA BATTERY ULTRACELL 250AH**

**2+0**  
standard  
+extended **2** YEAR TOTAL  
WARRANTY

**APPLICATION:**

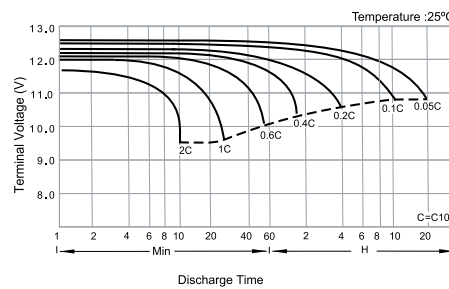
- UCG Series VRLA batteries can be used for:
- Golf Trolleys
- Garden Equipment
- Portable Equipment
- Solar/Wind Mill Units
- Medical Equipment
- Traffic Lights

**TECHNICAL DATA:**

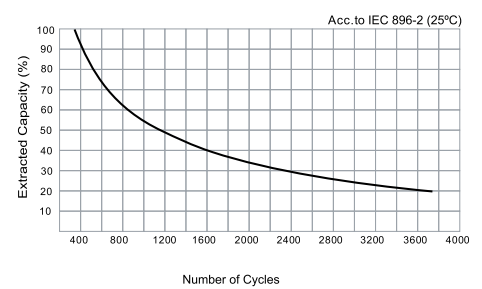
- Nominal Voltage: 12V
- Nominal Capacity (10HR): 250Ah
- Cycle Life in Relation to Depth of Discharge:  
Extracted Capacity 50%: 1200 Cycles  
Extracted Capacity 20%: 3600 Cycles
- Rated Capacity:  
20HR 1.80V/cell, 25°C- 258 Ah/12.9A  
10HR 1.80V/cell, 25°C- 250 Ah/25A

- 5HR 1.75V/cell, 25°C- 212.5 Ah/42.5A
- 3HR 1.75V/cell, 25°C- 184.5 Ah/61.5A
- 1HR 1.60V/cell, 25°C- 149.3 Ah/149.3A
- Max Discharge Current: 2500A (5s)
- Internal resistance: Approx 2.5mΩ
- Operating Temp Range:  
Discharge: -15 ~ 50°C  
Charge: 0 ~ 40°C  
Storage: -15 ~ 40°C
- Nominal Operating Temp Range: 25 ± 3°C
- Container Material: ABS
- Indoor use
- Dimension LxWxH (mm):  
522±3mmx268±3mmx226±3mm
- Weight: 70 kg
- Catalogue number: 98BAT250
- Product category: E

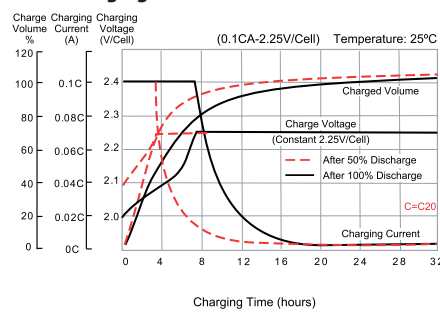
**Discharge Characteristics**



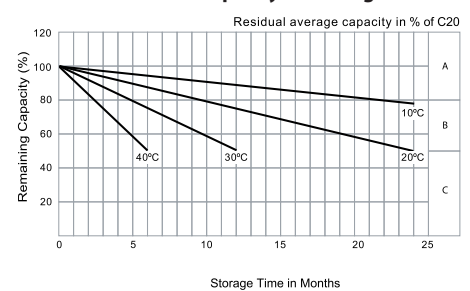
**Cycle Life in Relation to Depth of Discharge**

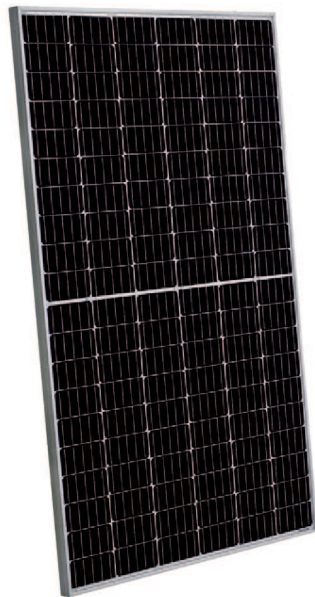


**Float Charging Characteristics**



**General Relation of Capacity vs. Storage Time**





**MONOCRYSTALLINE HALF CUT CELL SOLAR PANEL**

**10+0** standard +extended **10** YEAR TOTAL WARRANTY

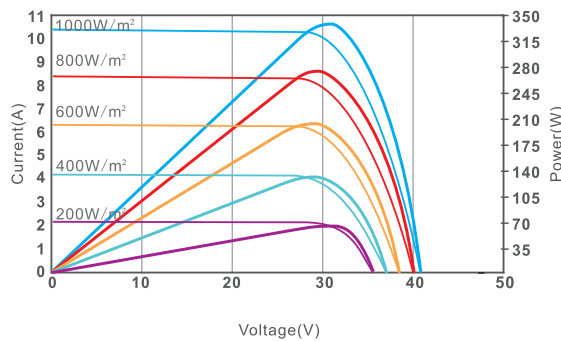
Mono half cut cells Solar Panel that are cut in half. That improves the module's performance and durability. When solar cells are halved, their current is also halved, so resistive losses are lowered and the cells can produce a little more power. Smaller cells experience reduced mechanical stresses, so there is a decreased opportunity for cracking. Half-cell modules have higher output ratings and are more reliable than traditional panels.

**Catalogue number:** 98SOL380M

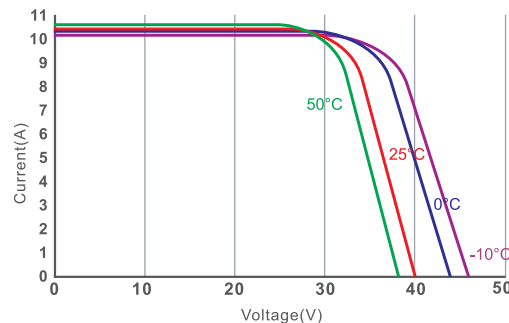
**SPECIFICATION**

- irradiance 1000 W/m<sup>2</sup>, AM 1.5, gaud cell temperature of 25°C
- Peak power (Pmax): 340
- Maximum power voltage (Vmp): 34.40
- Maximum power current (Imp): 9.90
- Open circuit voltage (Voc): 40.50
- Short circuit current (Isc): 10.50
- Module efficiency (%): 20.2
- Maximum system voltage (V): 1500
- Power tolerance (W): 0-5
- Cell type: 158.75mm, 9BB
- Number of cells: 120 (6x10+6x10)
- Dimensions HxWxD (mm): 1689x996x35
- Weight (kg): 19.5
- Max. load (Pa): 5400
- EC Declaration of conformity

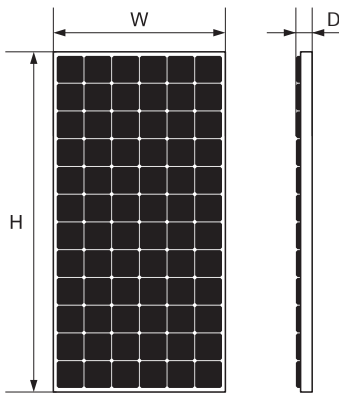
**CHARACTERISTICS AT DIFFERENT IRRADIATIONS**



**CHARACTERISTICS AT DIFFERENT TEMPERATURES**



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



**MECHANICAL DATA**

Cell Type: 158.75mm, 9BB  
 Number of Cells: 120 cells (6x10+6x10)  
 Weight: 19.5kg  
 Dimension: 1689x996x35mm  
 Max Load: 5400 Pascals  
 Junction Box: IP68 rated  
 Connector: MC4 Compatible  
 Wire Type: PV Wire

**TEMPERATURE CHARACTERISTICS**

Temp. Coeff. of Isc (TK Isc): 0.04% /°C  
 Temp. Coeff. of Voc (TK Voc): -0.28% /°C  
 Temp. Coeff. of Pmax (TK Pmax): -0.37% /°C

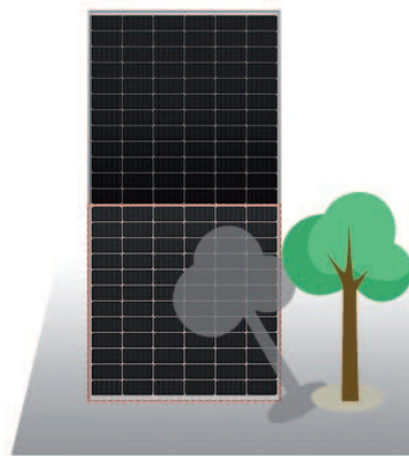
**ADVANTAGES OF HALF CELL SOLAR PANELS:**

- It is superior in low sunlight performance.
- It is not affected by shade as much as standard panels.
- It is more durable for long life performance
- It is less susceptible to micro cracking. (cracks that develop in cells over time)
- They perform better under high heat conditions than standard solar panels.
- They are less susceptible to hot spots, a major cause of panel failure.
- They are much higher efficiency than standard panels.

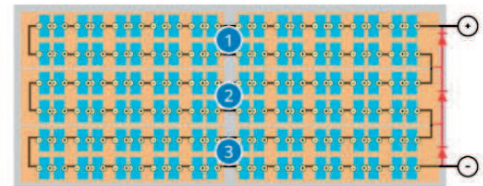
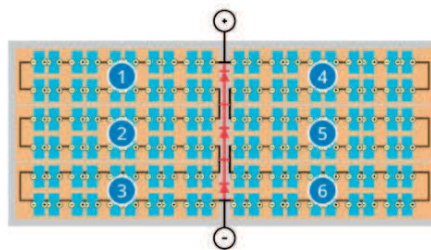
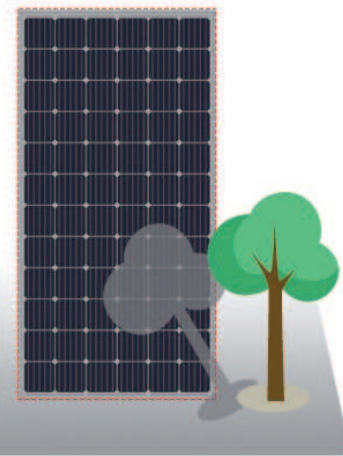
Dimensions (mm)

H	W	D
1689	996	35

**HALF CELL MODULE**



**STANDART MODULE**





## SOLAR MOUNTING STRUCTURE

Since solar panels are designed for outdoor installation and are subject to continuous weather conditions, the type of material that makes the structure is important for the reliability of the entire system. Due to the envisaged long service life of more than 25 years, the construction and attachment of the panels to it must be secure. The mounting structure are available for ground and in different variants according to the type of the roof - metal, bitumen or tile, flat or pitched.

### 1 | TILE ROOF MOUNTING STRUCTURE FOR PITCHED ROOF, SET

**TECHNICAL DATA:**

- Installation Site: tile roof
- Panel type: framed
- Roof Slope: Up to 60 degree
- Wind Speed: Up to 60 m/s
- Snow load: 1.4 KN/m2

**FEATURES:**

- You can choose your own configuration of elements or the proposed ready-made variants of kits for different power
- Variuos roof hooks for different tile roofs
- Suitable for all framed PV modules
- Easy and fast installation
- Pre-assembled components save the installation time and cost

### SUITABLE COMPONENTS FOR PITCHED TILE ROOF



Description	Material	Product category	Catalogue number
Rails- 2100mm	Aluminium 6005-T5	E	423200



Description	Material	Product category	Catalogue number
Rail connector- 140mm	Aluminium 6005-T5	E	423201



Description	Material	Product category	Catalogue number
Mid clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423202



Description	Material	Product category	Catalogue number
End clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423203



Description	Material	Product category	Catalogue number
Tile Roof Hook 1	stainless steel	E	423204



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



Description	Material	Product category	Catalogue number
Tile Roof Hook 2	stainless steel	E	423205



Description	Material	Product category	Catalogue number
Tile Roof Hook 13	stainless steel	E	423206



Description	Material	Product category	Catalogue number
Tile Roof Hook 14	stainless steel	E	423207



Description	Material	Product category	Catalogue number
Grounding Clip	stainless steel	E	423208



Description	Material	Product category	Catalogue number
Earth lug	Aluminium	E	423209

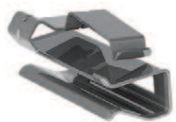


Description	Material	Product category	Catalogue number
Cable clip 1- 2x4/6mm <sup>2</sup>	stainless steel	E	423210

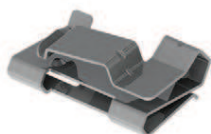


Description	Material	Product category	Catalogue number
Cable clip 2- 4x90°4/6mm <sup>2</sup> /3x90°10mm <sup>2</sup>	stainless steel	E	423211





Description	Material	Product category	Catalogue number
Cable clip 8- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423212



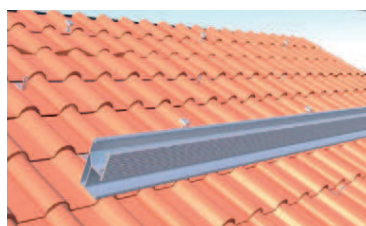
Description	Material	Product category	Catalogue number
Cable clip 9- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423213



**BASIC ELEMENTS QUANTITY CALCULATION FOR EACH SOLAR POWER SYSTEMS STRUCTURE SETS FROM 3.6 TO 30KW:**

Quantity from each elements are calculated for solar panel with dimensions 1689x996x35mm.

Description	Catalogue number	ELEMENT QTY					
		at 3.6 kW	at 5 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Rails- 2100mm	423200	12	16	30	46	60	90
Rail connector- 140mm	423201	8	12	22	34	45	67
Mid clamp for framed panel 30-50mm	423202	18	26	66	78	102	154
End clamp for framed panel 30-50mm	423203	24	32	60	92	120	180
Tile Roof Hook 1	423204	26	34	64	98	126	190
Grounding Clip	423208	18	26	66	78	102	154
Earth lug	423209	12	16	32	48	60	92



**SETS CATALOGUE NUMBERS:**

The quantity elements for each structure set is to described in the table upper.

Solar power systems (kW)	Product category	Catalogue number
3.6	E	423270P/TR
5	E	423271P/TR
10	E	423272P/TR
15	E	423273P/TR
20	E	423274P/TR
30	E	423275P/TR



TILE ROOF MOUNTING STRUCTURE FOR PITCHED ROOF

In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



## 2 | SANDWICH ROOF MOUNTING STRUCTURE FOR PITCHED ROOF, SET

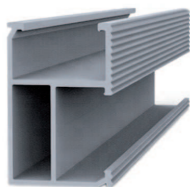
**TECHNICAL DATA:**

- Installation: tin roof mounting brackets
- Panel type: framed
- Panel orientation: landscape or portrait
- Roof slope: up to 60 degree
- Max wind speed: up to 60 m/s
- Snow load: 1.4 KN/m2

**FEATURES:**

- Universal roof brackets for different tin roofs
- Suitable for all framed PV modules
- Easy and fast installation
- Pre-assembled components save the installation time and cost

### SUITABLE COMPONENTS FOR PITCHED SANDWICH ROOF:



Description	Material	Product category	Catalogue number
Rails- 2100mm	Aluminium 6005-T5	E	423200



Description	Material	Product category	Catalogue number
Rail connector- 140mm	Aluminium 6005-T5	E	423201



Description	Material	Product category	Catalogue number
Middle clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423202



Description	Material	Product category	Catalogue number
End clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423203



Description	Material	Product category	Catalogue number
L-feet for tin roof	stainless steel	E	423216



Description	Material	Product category	Catalogue number
Tin Roof Hook 2	stainless steel	E	423217





Description	Material	Product category	Catalogue number
Tin Roof Hook 3	stainless steel	E	423218



Description	Material	Product category	Catalogue number
Grounding Clip	stainless steel	E	423208



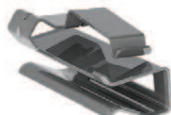
Description	Material	Product category	Catalogue number
Earth lug	Aluminium	E	423209



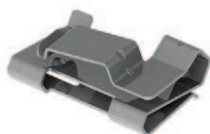
Description	Material	Product category	Catalogue number
Cable clip 1- 2x4/6mm <sup>2</sup>	stainless steel	E	423210



Description	Material	Product category	Catalogue number
Cable clip 2- 4x90°4/6mm <sup>2</sup> /3x90°10mm <sup>2</sup>	stainless steel	E	423211



Description	Material	Product category	Catalogue number
Cable clip 8- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423212



Description	Material	Product category	Catalogue number
Cable clip 9- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423213



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**BASIC ELEMENTS QUANTITY CALCULATION FOR EACH SOLAR POWER SYSTEMS STRUCTURE SETS FROM 3.6 TO 30KW:**

Quantity from each elements are calculated for solar panel with dimensions 1689x996x35mm.

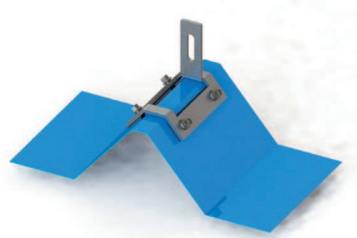


ELEMENT	Description	Catalogue number	ELEMENT QTY					
			at 3.6 kW	at 5 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Rails- 2100mm		423200	12	16	30	46	60	90
Rail connector- 140mm		423201	8	12	22	34	45	67
Middle clamp for framed panel 30-50mm		423202	18	26	66	78	102	154
End clamp for framed panel 30-50mm		423203	24	32	60	92	120	180
L-feet for tin roof		423216	26	34	64	98	126	190
Grounding Clip		423208	18	26	66	78	102	154
Earth lug		423209	12	16	32	48	60	92

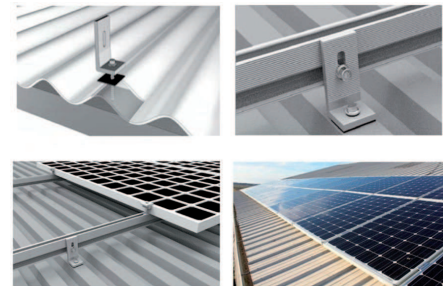
**SETS CATALOGUE NUMBERS:**

The quantity elements for each structure set is to described in the table upper.

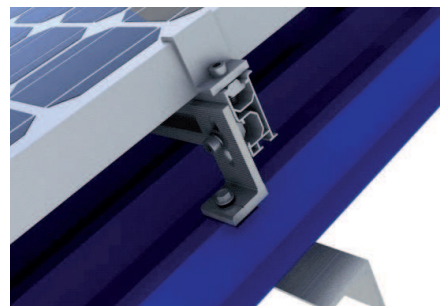
Solar power systems (kW)	Product category	Catalogue number
3.6	E	423270P/DR
5	E	423271P/DR
10	E	423272P/DR
15	E	423273P/DR
20	E	423274P/DR
30	E	423275P/DR



SANDWICH ROOF MOUNTING OPTION 1



SANDWICH ROOF MOUNTING OPTION 2



SANDWICH ROOF MOUNTING STRUCTURE FOR PITCHED ROOF



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



### 3 | SHINGLE ROOF MOUNTING STRUCTURE FOR PITCHED ROOF, SET

**TECHNICAL DATA:**

- Installation Site: shingle roof
- Panel type: framed
- Roof Slope: Up to 60 degree
- Wind Speed: Up to 60 m/s
- Snow load: 1.4 KN/m2

**FEATURES:**

- Suitable for all framed PV modules
- Easy and fast installation
- Pre-assembled components save the installation time and cost

#### SUITABLE COMPONENTS FOR PITCHED SHINGLE ROOF:



Description	Material	Product category	Catalogue number
Rails- 2100mm	Aluminium 6005-T5	E	423200



Description	Material	Product category	Catalogue number
Rail connector- 140mm	Aluminium 6005-T5	E	423201



Description	Material	Product category	Catalogue number
Middle clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423202



Description	Material	Product category	Catalogue number
End clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423203



Description	Material	Product category	Catalogue number
L-feet with cone hole	stainless steel	E	423214



Description	Material	Product category	Catalogue number
Flashing plate 280x280	stainless steel	E	423215



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



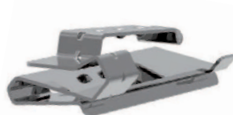
Description	Material	Product category	Catalogue number
Grounding Clip	stainless steel	E	423208



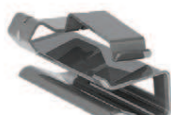
Description	Material	Product category	Catalogue number
Earth lug	Aluminium	E	423209



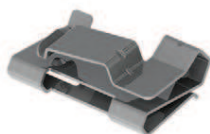
Description	Material	Product category	Catalogue number
Cable clip 1- 2x4/6mm <sup>2</sup>	stainless steel	E	423210



Description	Material	Product category	Catalogue number
Cable clip 2- 4x90°4/6mm <sup>2</sup> /3x90°10mm <sup>2</sup>	stainless steel	E	423211



Description	Material	Product category	Catalogue number
Cable clip 8- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423212



Description	Material	Product category	Catalogue number
Cable clip 9- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423213





**BASIC ELEMENTS QUANTITY CALCULATION FOR EACH SOLAR POWER SYSTEMS STRUCTURE SETS FROM 3.6 TO 30KW:**

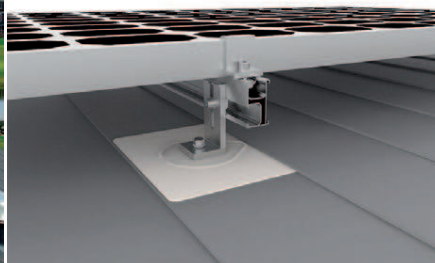
Quantity from each elements are calculated for solar panel with dimensions 1689x996x35mm.

ELEMENT		ELEMENT QTY					
Description	Catalogue number	at 3.6 kW	at 5 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Rails- 2100mm	423200	12	16	30	46	60	90
Rail connector- 140mm	423201	8	12	22	34	45	67
Middle clamp for framed panel 30-50mm	423202	18	26	66	78	102	154
End clamp for framed panel 30-50mm	423203	24	32	60	92	120	180
L-feet with cone hole	423214	26	34	64	98	126	190
Flashing plate 280x280	423215	26	34	64	98	126	190
Grounding Clip	423208	18	26	66	78	102	154
Earth lug	423209	12	16	32	48	60	92

**SETS CATALOGUE NUMBERS:**

The quantity elements for each structure set is to described in the table upper.

Solar power systems (kW)	Product category	Catalogue number
3.6	E	423270P/SR
5	E	423271P/SR
10	E	423272P/SR
15	E	423273P/SR
20	E	423274P/SR
30	E	423275P/SR



SHINGLE ROOF MOUNTING STRUCTURE FOR PITCHED ROOF





#### 4 | TRIANGULAR MOUNTING STRUCTURE FOR GROUND AND FLAT ROOF, SET

**TECHNICAL DATA:**

- Installation Site: flat roof
- Panel type: framed
- Wind Speed: Up to 60 m/s
- Snow load: 1.4 KN/m<sup>2</sup>

**FEATURES:**

- Triangular mounting brackets with stable structure, it can be installed directly on rooftop, ground or pre-made cement blocks as your option
- Suitable for all framed PV modules
- Easy and fast installation
- Pre-assembled components save the installation time and cost

#### SUITABLE COMPONENTS FOR TRIANGULAR MOUNTING STRUCTURE FOR GROUND AND FLAT ROOF:



Description	Material	Product category	Catalogue number
Rails- 2100mm	Aluminium 6005-T5	E	423200



Description	Material	Product category	Catalogue number
Rail connector- 140mm	Aluminium 6005-T5	E	423201



Description	Material	Product category	Catalogue number
Middle clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423202



Description	Material	Product category	Catalogue number
End clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423203



Description	Material	Product category	Catalogue number
15° Triangular mounts	Aluminium 6005-T5	E	423223



Description	Material	Product category	Catalogue number
30° Triangular mounts	Aluminium 6005-T5	E	423227



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



Description	Material	Product category	Catalogue number
L-connector for rail	stainless steel	E	423224



Description	Material	Product category	Catalogue number
Hex nut anchor	Galvanized steel	C	M517215



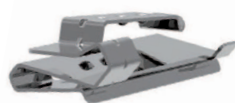
Description	Material	Product category	Catalogue number
Grounding Clip	stainless steel	E	423208



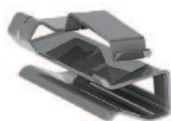
Description	Material	Product category	Catalogue number
Earth lug	Aluminium	E	423209



Description	Material	Product category	Catalogue number
Cable clip 1- 2x4/6mm <sup>2</sup>	stainless steel	E	423210



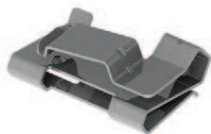
Description	Material	Product category	Catalogue number
Cable clip 2- 4x90°4/6mm <sup>2</sup> /3x90°10mm <sup>2</sup>	stainless steel	E	423211



Description	Material	Product category	Catalogue number
Cable clip 8- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423212



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

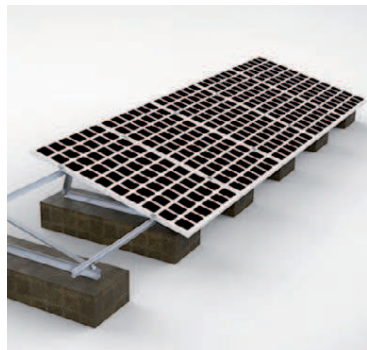


Description	Material	Product category	Catalogue number
Cable clip 9- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423213



### BASIC ELEMENTS QUANTITY CALCULATION FOR EACH SOLAR POWER SYSTEMS STRUCTURE SETS FROM 3.6 TO 30KW:

Quantity from each elements are calculated for solar panel with dimensions 1689x996x35mm.



ELEMENT	Description	Catalogue number	ELEMENT QTY					
			at 3.6 kW	at 5 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Rails- 2100mm		423200	12	16	30	46	60	90
Rail connector- 140mm		423201	8	12	22	34	45	67
Middle clamp for framed panel 30-50mm		423202	18	26	66	78	102	154
End clamp for framed panel 30-50mm		423203	24	32	60	92	120	180
30° Triangular mounts		423227	12	16	30	46	60	90
L-connector for rail		423224	24	32	60	92	120	180
Hex nut anchor		M517215	26	34	64	98	126	190
Grounding Clip		423208	18	26	66	78	102	154
Earth lug		423209	12	16	32	48	60	92

### SETS CATALOGUE NUMBERS:

The quantity elements for each structure set is to described in the table upper.

Solar power systems (kW)	Product category	Catalogue number
3.6	E	423270F/TR
5	E	423271F/TR
10	E	423272F/TR
15	E	423273F/TR
20	E	423274F/TR
30	E	423275F/TR



TRIANGULAR MOUNTING STRUCTURE FOR GROUND AND FLAT ROOF



## 5 | BALLASTED TRIANGULAR MOUNTING STRUCTURE FOR FLAT ROOF, SET

**TECHNICAL DATA:**

- Installation Site: flat roof
- Panel type: framed
- Wind Speed: Up to 60 m/s
- Snow load: 1.4 KN/m<sup>2</sup>

**FEATURES:**

- Triangular mounting brackets with stable structure, it can be installed directly on rooftop, ground or pre-made cement blocks as your option
- Suitable for all framed PV modules
- Easy and fast installation
- Pre-assembled components save the installation time and cost

### SUITABLE COMPONENTS FOR BALLASTED TRIANGULAR MOUNTING STRUCTURE FOR FLAT ROOF:



Description	Material	Product category	Catalogue number
Rails- 2100mm	Aluminium 6005-T5	E	423200



Description	Material	Product category	Catalogue number
Rail connector- 140mm	Aluminium 6005-T5	E	423201



Description	Material	Product category	Catalogue number
Middle clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423202



Description	Material	Product category	Catalogue number
End clamp for framed panel 30-50mm	Aluminium 6005-T5	E	423203



Description	Material	Product category	Catalogue number
15° Triangular mounts	Aluminium 6005-T5	E	423223



Description	Material	Product category	Catalogue number
30° Triangular mounts	Aluminium 6005-T5		423227



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



Description	Material	Product category	Catalogue number
L-connector for rail	stainless steel	E	423224



Description	Material	Product category	Catalogue number
Angle Plate	stainless steel	E	423225



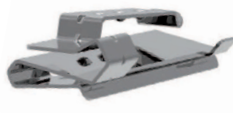
Description	Material	Product category	Catalogue number
Grounding Clip	stainless steel	E	423208



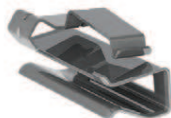
Description	Material	Product category	Catalogue number
Earth lug	Aluminium	E	423209



Description	Material	Product category	Catalogue number
Cable clip 1- 2x4/6mm <sup>2</sup>	stainless steel	E	423210

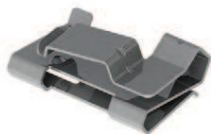


Description	Material	Product category	Catalogue number
Cable clip 2- 4x90°4/6mm <sup>2</sup> /3x90°10mm <sup>2</sup>	stainless steel	E	423211



Description	Material	Product category	Catalogue number
Cable clip 8- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423212



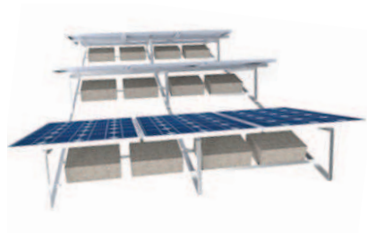
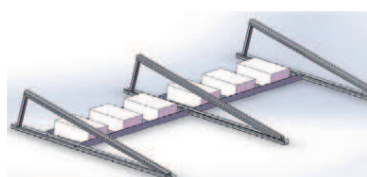


Description	Material	Product category	Catalogue number
Cable clip 9- 2x90°4/6mm <sup>2</sup>	stainless steel	E	423213



### BASIC ELEMENTS QUANTITY CALCULATION FOR EACH SOLAR POWER SYSTEMS STRUCTURE SETS FROM 3.6 TO 30KW:

Quantity from each elements are calculated for solar panel with dimensions 1689x996x35mm.



BALLASTED TRIANGULAR MOUNTING STRUCTURE FOR FLAT ROOF

ELEMENT	Description	Catalogue number	ELEMENT QTY					
			at 3.6 kW	at 5 kW	at 10 kW	at 15 kW	at 20 kW	at 30 kW
Rails- 2100mm		423200	12	16	30	46	60	90
Rail connector- 140mm		423201	8	12	22	34	45	67
Middle clamp for framed panel 30-50mm		423202	18	26	66	78	102	154
End clamp for framed panel 30-50mm		423203	24	32	60	92	120	180
30° Triangular mounts		423227	12	16	30	46	60	90
L-connector for rail		423224	24	32	60	92	120	180
Angle Plate		423225	12	16	30	46	60	90
Grounding Clip		423208	18	26	66	78	102	154
Earth lug		423209	12	16	32	48	60	92

### SETS CATALOGUE NUMBERS:

The quantity elements for each structure set is to described in the table upper.

Solar power systems (kW)	Product category	Catalogue number
3.6	E	423270F/BTR
5	E	423271F/BTR
10	E	423272F/BTR
15	E	423273F/BTR
20	E	423274F/BTR
30	E	423275F/BTR





### H1Z2Z2-K UNIPOLAR CABLE FOR PHOTOVOLTAIC AND SOLAR PLANTS WITH UV RESISTANT SHEATH

5+2 standard +extended **7** YEAR TOTAL WARRANTY

**TECHNICAL CHARACTERISTICS:**

- Operating voltage: AC- 1.0KV; DC- 1.5KV
- Max. operating voltage: AC- 1.2KV; DC- 1.8KV
- Test voltage: AC- 6.5KV for 5 min; DC- 15KV for 5 min
- Ambient work temperature: from -40 to + 90 °C
- Max. short circuit temperature: +250 °C for 5s
- Maximum pulling stress: 15 N/mm<sup>2</sup> in operation, 50 N/mm<sup>2</sup> during installation

**TECHNICAL DATA:**

- Conductor: Tinned copper multi-wires class 5
- Insulation: LSZH reticulated elastomeric compound with neutral colour
- Outer sheath: LSZH reticulated elastomeric compound
- UV resistant
- Colour: Black and red
- Reaction to fire - Performance: EN 50575:2016 Eca

Cross section (n x mm <sup>2</sup> )	Colour	Outer diameter (mm)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
4	black	5,6	58	100	E	M411079/BL
4	red	5,6	58	100	E	M411079/R



**SETS CATALOGUE NUMBERS:**

3,6kW	5kW	10kW	15kW	20kW	30kW	Catalogue number
x50m	x50m	x50m	x75m	x100m	x100m	M411079/BL
x50m	x50m	x50m	x75m	x100m	x100m	M411079/R

### SINGLE MALE CABLE COUPLER IP67, MC4 COMPATIBLE



**TECHNICAL DATA:**

- Rated voltage: 1000V
- Rated current: 30A
- Test voltage: 6KV(50Hz)
- Contact material: Copper, silver plated
- Operating temperature: -40 to +125°C
- Suitable cable cross section: 2.5mm<sup>2</sup>; 4mm<sup>2</sup> and 6mm<sup>2</sup>

Type	Range of cable glands (mm)	Conductor cross section (mm <sup>2</sup> )	Packing (m)	Product category	Catalogue number
Single male/female couplers, SET	3-6	4/6	1/5	E	411078/MF

EC Declaration of conformity





### DOUBLE MALE SINGLE FEMALE CABLE COUPLER IP67, MC4 COMPATIBLE

Type	Range of cable glands (mm)	Conductor cross section (mm <sup>2</sup> )	Packing (m)	Product category	Catalogue number
2 male/ 1 female coupler	3-6	4/6	E	1	411080/M

EC Declaration of conformity



### DOUBLE FEMALE SINGLE MALE CABLE COUPLER IP67, MC4 COMPATIBLE

Type	Range of cable glands (mm)	Conductor cross section (mm <sup>2</sup> )	Packing (m)	Product category	Catalogue number
2 female/ 1 male coupler	3-6	4/6	E	1	411080/F

EC Declaration of conformity



### DC PHOTOVOLTAIC ISOLATOR FOUR POLES SWITCH 1200V, IP66

3+2 standard+extended **5** YEAR TOTAL WARRANTY



DC switches shall be installed between the solar arrays and solar inverter for isolation the PV array during system installation or any maintenane.

**TECHNICAL DATA:**

- Rated insulation voltage (Ui): 1200V
- Rated heating current (Ith): 32A
- Poles: 4P
- Mechanical life: 10 000 cycles
- Operating temperature: -25 to +70°C
- Storage temperature: -40 to +70°C
- IP code: IP66
- Handle colour: Black

**FEATURES:**

- Vertical and horizontal installation
- UV resistance
- Flame retardant material
- Breathable valve
- Lockable at off position

Model	Poles	Rated insulation voltage (V)	Rated heating current (A)	IP code	Packing/Box (pcs)	Product category	Catalogue number
EL-DC4P	4	1200	32	66	1/20	E	98SOL4P/DC



### DC SWITCH QUANTITY, INCLUDED TO EACH SET

3.6kW	5kW	10kW	15kW	20kW	30kW	Catalogue number
1	2	2	2	2	3	98SOL4P/DC

In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



**PV ON-GRID TIE INVERTERS, SOLIS**

**5+0** standard +extended **5** YEAR TOTAL WARRANTY

Converts the variable direct current (DC) output of a photovoltaic (PV) solar panel into a utility frequency alternating current (AC) that can be fed into a commercial electrical grid. The output current has a standard output of 220/230V for single phase and 220/380V, 230/400V for three phase.

Inverters (3.6-30)kW are reliable preferred equipment for residential, industrial and commercial pv power stations. Smaller size, higher efficiency, huge large color display for visual inspection of product operation.

**FEATURES**

- Super high frequency switching technology
- Wide voltage range and low startup voltage
- Precise MPPT algorithm
- Intergrated Export Power Manager (EPM)
- Friendly and adaptable connection to the grid
- IP protection: IP65

**COMMUNICATION**

- RS485
- Wi-Fi- optional with WI-FI stick with cat. number 423050

**CERTIFICATION**

- TÜV Rheinland CERTIFICATED
- Compliance Document
- Certificate of Conformity

**PROTECTION:**

- DC reverse-polarity protection
- Short circuit protection
- Output over current protection
- Surge protection
- Grid monitoring
- Anti-islanding protection
- Temperature protection

Model	Recommended max. PV power	Rated output power	Operation phase	MPPT number	Width (mm)	Height (mm)	Depth (mm)	Product category	Catalogue number
Solis-mini-3600-4G	4kW	3.6kW	Single	1	310	373	160	E	423001
Solis-1P5K-4G	5.8kW	5kW	Single	2	310	543	160	E	423002
Solis-3P10K-4G	12kW	10kW	Three	2	310	563	219	E	423020
Solis-3P15K-4G	18kW	15kW	Three	2	310	563	219	E	423021
Solis-3P20K-4G	24kW	20kW	Three	2	310	563	219	E	423022
Solis-3P30K-5G	36kW	30kW	Three	3	530	700	356.5	E	423023





**ENERGY STORAGE INVERTER, SOLIS**

**5+0** standard +extended **5** YEAR TOTAL WARRANTY

The AC-Coupled inverter is used for upgrade the existing SOLIS single phase on-grid power generation system to a hybrid system which can work with batteries to optimize self-consumption. Energy storage inverter is a good choice for ON- GRID and OFF-GRID integrated storage solutions.

**FEATURES**

- Compatible with any existing SOLIS single phase grid-tied PV system, option to upgrade
- Compatible with both lead-acid battery and li-ion battery
- Off-grid backup function
- Emergency Power Supply function (EPS)
- Intelligent Energy Management System (EMS)
- Natural cooling without external fan
- Intelligent debugging APP which support one-click inverter configuration
- Various work mode for different application scenario
- IP protection: IP65

**PROTECTION:**

- Battery reverse protection
- Battery over and under voltage protection
- Short circuit protection
- Output over current protection
- Temperature protection

**COMMUNICATION**

- RS485
- CAN
- Wi-Fi- optional with WI-FI stick with cat. number 423050

**CERTIFICATION**

- TÜV SÜD CERTIFICATED
- Attestation of Conformity
- Certificate

Model	Max. charging power (W)	Operation phase	Battery type	Battery voltage range (V)	Battery capacity (Ah)	Width (mm)	Height (mm)	Depth (mm)	Product category	Catalogue number
SOLIS-RAI-3K-48ES-5G	3000W	Single	Li-ion/Lead-acid*	40-60V	50-2000Ah	403	525	170	E	423040

\*Battery voltage range: 42-58V | Battery type: Li-ion/Lead-acid | Battery capacity: 50 - 2000Ah | Battery not included | Compatible with Pylontech US2000





### SINGLE PHASE HYBRID INVERTER SOLIS, 5KW

5+0 standard +extended **5** YEAR TOTAL WARRANTY

This inverter is used for residential hybrid system, which can work with batteries to optimize self consumption. This unit is a good choice for ON- GRID and for OFF-GRID integrated storage solutions. Can operate in both ON- GRID and in OFF-GRID mode.

**FEATURES**

- Uninterrupted power supply, 20ms reaction
- 5kW backup power to support more important loads
- With shifting and peak shaving capabilities friendly to grid
- Multiple working modes to make maximize self-consumption, increase benefit
- Higher charge-discharge efficiency, improving the economic benefits
- Compatible with lithium & lead-acid batteries, increased more choice in different markets
- Fanless design, long lifespan
- Intelligent BMS function, improving battery's reliability
- With high-frequency isolation technology, making system safer and long lifespan
- 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

**PROTECTION:**

- Ground fault monitoring
- Battery over and under voltage protection
- Short circuit protection
- Output over current protection
- Temperature protection
- DC reverse-polarity protection

**COMMUNICATION**

- RS485
- Wi-Fi- optional with WI-FI stick with cat. number 423050

**CERTIFICATION**

- TÜV SÜD CERTIFICATED
- Attestation of Conformity
- Certificate
- Compliance Document
- Bestätigung

Model	Recommended max. PV power	Rated output power	Operation phase	MPPT number	Width (mm)	Height (mm)	Depth (mm)	Product category	Catalogue number
SOLIS-RHI-5K-48ES-5G	8kW	5kW	Single	2	333	505	249	E	423041

\*Battery voltage range: 42-58V | Battery type: Li-ion/Lead-acid | Battery capacity: 50 - 2000Ah | Battery not included | Compatible with Pylontech US2000





### WIFI STICK FOR INVERTERS

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Solar power system can be monitored remotely via WIFI to provide you accurate and comprehensive data analysis and fault alarm at any time and place, make product operation more stable and reliable, and realize stable and intelligent operation and maintenance management services. This is possible with WIFI stick, which you need to connect to your inverter.

**FEATURES**

- Quick installation and easy operation
- Easy visualization of data and other information via Internet
- Enabling local and remote monitoring
- WiFi communication supporting remote monitoring

Model	Max.number of inverters	Remote communication	Firmware updates	Data storage	Preferences setting	Protection class	Product category	Catalogue number
EL-WIFI 1		WiFi(802.11/b/g/n)	Wireless	8MBYTE FLASH	Web Sever	IP65	E	423050

\* WiFi communication range: 100m in outdoor open area without obstruction.



### SINGLE AND THREE PHASE MULTIFUNCTION SMART DIN KWH METERS

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

DTSD1352 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 12 months, checks the 31st harmonic content and the total harmonic content, realizes the remote communication and the remote control with switching input and relay output and boasts the alarm output. It is fitted with RS485 communication port and adapted to MODBUS-RTU. DTSD1352 can be used in all kinds of control systems, SCADA systems and energy management systems

**FEATURES**

- 8 bits lcd display
- Measure parameters: Voltage, current,active power,reactive power, apparent power, power factor and frequency (U,I ,P,Q,S,PF,F)
- Optional communication protocol and functions: Modbus RTU RS485
- Multi-tariff :frozen KWH historical, KWH in 3 months, adapt 4 time zones, 2 time interval lists, 14 time interval by day and 4 tarriff rates



Model	Type	Measuring range	Overall dimensions (mm)	Product category	Catalogue number
DDSD1352	Single phase	10 (60A)	88x36x70	E	423060
DTSD1352	Three phase	10 (80A)	80x126x70	E	423061



**PYLONTECH LITHIUM BATTERY, US2000 SERIES**

7+3 standard +extended **10** YEAR TOTAL WARRANTY



Lithium battery US2000 series is the latest generation lithium iron phosphate battery module and is a perfect solution for residential storage facilities. The easy in modulating makes it possible to create storage systems of small or large capacities. The first installation can be expanded depending on the change in energy requirements in time latter.

**FEATURES**

- The whole module is non-toxic, non-polluting and environmentally friendly.
- Cathode material is made from LiFePO4 with safety performance and long cycle life.
- Battery management system (BMS) has protection functions including over-discharge, over-charge, over-current and high/low temperature.
- Vertical industry integration ensures more than 6000 cycles with 90% DoD.
- The system can automatically manage charge and discharge state and balance current and voltage of each cell.
- Flexible configuration, multiple battery modules can be in parallel for expanding capacity and power.
- Adopted self-cooling mode rapidly reduced system entire noise.
- The module has less self-discharge, up to 6 months without charging on shelf.
- No memory effect, excellent performance of shallow charge and discharge.
- Working temperature range is from -10° to 50°C, (Charging 0~50°C; discharging -10~50°C) with

excellent discharge performance and cycle life.

- Compact and fashionable design fits in your home environment.
- Compatible with most of the available Hybrid inverters.

**TECHNICAL DATA:**

- Nominal voltage: 48V
- Nominal capacity: 2400Wh
- Usable capacity: 2200Wh
- Dimension: 442x410x89mm
- Charge voltage: 52.5- 53.5V
- Discharge voltage: 45- 53.5V
- Communication port: RS485, CAN
- Configuration (max. in 1 battery group): 8pcs
- IP code: IP20
- Cooling type: Natural cooling
- Working temperature: Charge: from 0 to 50°C, Discharge: from -10 to 50°C
- Humidity: 5-85%
- Weight: 24Kg
- Altitude: up to 2000m
- Cycle life: ≥4500, 25°C

Model	Nominal voltage (V)	Nominal capacity (Wh)	Usable capacity (Wh)	Product category	Catalogue number
US2000	48	2400	2200	E	98BAT2000US

Up to 6 months without charging.



**MOUNTING BRACKETS FOR PYLONTECH LITHIUM BATTERY, US2000 SERIES**

Mounting brackets keep a few batteries in one pile. It is an essential accessory because it improves the cooling of the batteries and allows easy circulation of air around the batteries. Set of 2 mounting brackets.

**INSTALLATION REQUIREMENT:**

- We do not recommend to stack batteries one on top of the other without the brackets.
- Maximum 4 batteries can be athwart stacked
- One or two batteries can be sidelong stacked

**SET:** 2 mounting brackets

**SET catalogue number:** 98BAT2000BR



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

### ON GRID SOLAR SYSTEMS - SET WITH MONOCRYSTALLINE HALF CELLS SOLAR PANEL

5+0 standard +extended **5** YEAR TOTAL WARRANTY

Solar power systems (kW)	Phase	Panel QTY	Product category	Catalogue number
3.6	1	11	E	98SOL3600M
5	1	15	E	98SOL5000M/TB
10	3	30	E	98SOL10000M
15	3	45	E	98SOL15000M
20	3	60	E	98SOL20000M
30	3	90	E	98SOL30000M

\*SET Included: Solar panels, inverter, DC power cables and DC 4P Switch 25A



### HYBRID SOLAR SYSTEMS - SET WITH MONOCRYSTALLINE HALF CELLS SOLAR PANEL

5+0 standard +extended **5** YEAR TOTAL WARRANTY

Solar power systems (kW)	Phase	Panel QTY	Product category	Catalogue number
5	1	15	E	98SOL5000HM

\*SET Included: Solar panels, inverter, DC power cables, 1x2.4kW battery US2000 and DC 4P Switch 25A



### ENERGY STORAGE INVERTER SOLIS SOLIS-RAI-3K-48ES-5G WITH BATTERY PYLONTECH US2000

5+0 standard +extended **5** YEAR TOTAL WARRANTY

Solar power systems (kW)	Phase	Panel QTY	Product category	Catalogue number
3	1	Not included	E	98SOL3000EM

\*SET Included: Inverter and 1x2.4kW battery US2000

Compatible with any existing SOLIS single phase ON-grid-tied PV system, option to upgrade

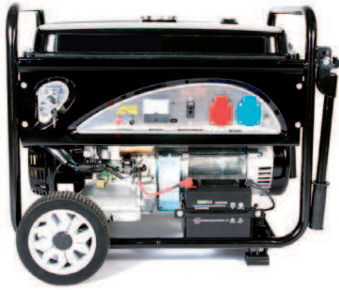


In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**RECOMMENDED SOLAR PANEL STRING INSTALLATION OF EACH SET**

Number of strings MPPT-1	Number of strings MPPT-2	Number of strings MPPT-3	QTY of panels per Strings MPPT-1	QTY of panels per Strings MPPT-2	QTY of panels per Strings MPPT-3	Solar power systems (kW)
1			11			3.6
1	1		8	7		5
1	1		15	15		10
2	1		12	21		15
2	2		15	15		20
2	2	2	15	15	15	30





**ELECTRICAL GASOLINE GENERATORS  
EL-GF SERIES**

**3+0**  
standard  
+extended **3** YEAR TOTAL  
WARRANTY

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 strokeengine 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**

Model	Rated power (kW)	Max. power (kW)	Fuel tank capacity (L)	Fuel consumption (g/(kW·h))	Running time (h)	Product category	Catalogue number
EL-2.8GF-6	2.8	3	15	≤530	10	E	<b>45GF36</b>
EL-5GF-2-4	5	5.5	25	≤480	9.5	E	<b>45GF524</b>
EL-7GF-2-4	7	7.5	25	≤515	5.8	E	<b>45GF724</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**ELECTRICAL DIESEL GENERATORS EL-DF SERIES**

**3+0**  
standard  
+extended **3** YEAR TOTAL  
WARRANTY

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 technologic electronic powder coating technic. 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.

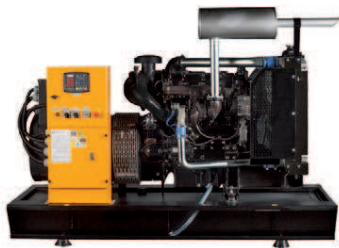
**ELECTRICAL DIESEL GENERATORS EL-DF SERIES WITH CANOPY**



Model	Power stand by (kVA/kW)	Power prime (kVA/kW)	Output voltage (V)	Length (mm)	Width (mm)	Height (mm)	Product category	Catalogue number
EL-DF15C	12/10	11/9	400/230	1350	850	1080	E	45DG15/12C
EL-DF25C	25/20	23/18	400/230	2000	950	1450	E	45DG25/20C
EL-DF55C	55/44	50/40	400/230	2400	1000	1800	E	45DG55/44C
EL-DF75C	75/60	68/55	400/230	2400	1000	1800	E	45DG75/60C
EL-DF94C	94/75	85/68	400/230	2700	1100	1800	E	45DG94/75C
EL-DF110C	110/88	100/80	400/230	3100	1100	1880	E	45DG110/88C
EL-DF150C	150/120	136/109	400/230	3100	1100	1880	E	45DG150/120C
EL-DF175C	175/140	159/127	400/230	3100	1100	1880	E	45DG175/140C



**ELECTRICAL DIESEL GENERATORS EL-DF SERIES WITHOUT CANOPY**



Model	Power stand by (kVA/kW)	Power prime (kVA/kW)	Output voltage (V)	Length (mm)	Width (mm)	Height (mm)	Product category	Catalogue number
EL-DF15	12/10	11/9	400/230	1350	850	1050	E	45DG15/12
EL-DF25	25/20	23/18	400/230	1650	950	1400	E	45DG25/20
EL-DF55	55/44	50/40	400/230	2000	1000	1700	E	45DG55/44
EL-DF75	75/60	68/55	400/230	2000	1000	1800	E	45DG75/60
EL-DF94	94/75	85/68	400/230	2150	1100	1800	E	45DG94/75
EL-DF110	110/88	100/80	400/230	2500	1100	1780	E	45DG110/88
EL-DF150	150/120	136/109	400/230	2500	1100	1780	E	45DG150/120
EL-DF175	175/140	159/127	400/230	2500	1100	1780	E	45DG175/140





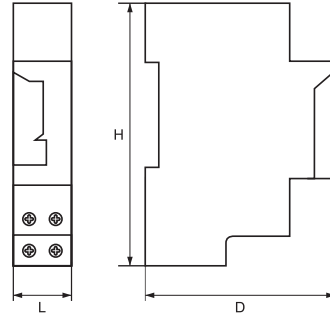
**QUARZ TIME SWITCH WITH POWER RESERVE  
TM 180 MINI**

**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

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 consummator 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: ± 1s (at 20°C)
- Consumption: 2.5VA
- Contact: 1NO
- Contact capacity:
- 16A/250V (COSΦ=1)
- 4A/250V (COSΦ=0.6)
- Electrical endurance: 10<sup>5</sup> times
- Mechanical endurance: 10<sup>7</sup> times
- Section of the conductor: rigid conductors up to 6mm<sup>2</sup>



Type	Packing/Box (pcs)	Product category	Catalogue number
TM 180	1 / 200	B	<b>50137</b>



Dimensions (mm)

H	L	D
90	18	60

**MOUNTING:**

- DIN-rail



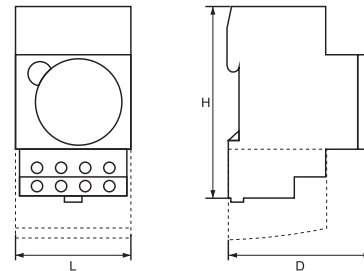
**QUARZ TIME SWITCH WITH POWER RESERVE  
TM 181**

**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

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 consummator 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: ± 1s (at 20°C)
- Consumption: 2.5VA
- Contact: 1NO
- Contact capacity: 16A
- Electrical endurance: 10<sup>5</sup> times
- Mechanical endurance: 10<sup>7</sup> times
- Section of the conductor: rigid conductors up to 6mm<sup>2</sup>



Type	Packing/Box (pcs)	Product category	Catalogue number
TM 181	1 / 100	B	<b>50138</b>



Dimensions (mm)

H	L	D
90	53.5	65.5

**MOUNTING:**

- DIN-rail

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



## 24 HOURS PLUG-IN MECHANICAL TIMER

**2+0**  
standard  
+extended **2** YEAR TOTAL  
WARRANTY

Mechanical german 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 mins
- Max. setting time: 24 hours
- active load: up to 16A
- IP20
- Size (mm): 82x84x56

Type	Packing/Box (pcs)	Product category	Catalogue number
EL-PMT-1	1/24/48	B	<b>50140</b>



## PROGRAMMABLE WEEKLY TIMER

**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

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

### TECHNICAL DATA:

- Power supply voltage: 220-250V; 50/60Hz
- Adjustment range: 1 min
- Commutating capacity:
- active load: up to 30A
- Operations: 17 switching ON/OFF per day, up to 119 ON/OFF per week
- Operating temperature: 0 ÷ +55°C
- Size (LxWxH)mm: 60x32.5x60

Type	Packing/Box (pcs)	Product category	Catalogue number
EL-PWT-1	1/200	B	<b>50139</b>



### MOUNTING:

- With bolts to the surface



### WEEKLY PLUG-IN DIGITAL TIMER

3+2  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

Digital german 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
- Size (mm): 68.4x73x77.2

Type	Packing/Box (pcs)	Product category	Catalogue number
EL-WDT-2	1/24/48 B		<b>50141</b>



### WEEKLY PLUG-IN DIGITAL TIMER

3+2  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

Digital german 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
- Size (mm): 130x75x70

Type	Packing/Box (pcs)	Product category	Catalogue number
EL-WDT-3	1/24/48 B		<b>50142</b>





## PROGRAMMABLE DIGITAL ONE-CHANNEL TIMER TE 15A

3+2  
standard  
+extended  
**5** YEAR TOTAL  
WARRANTY

The timer is manufactured under the CMOS technology with a quartz minicontroller 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, work days cycle, weekend cycle, or a specific day of the week); then the cycle start time and end time are set. If you have selected work days cycle, then the program will start and stop at the set times each work day 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.

Type	Packing/Box (pcs)	Product category	Catalogue number
TE 15A	1 / 100	B	50036



Dimensions (mm)

H	L	D
85	36	64

### 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 programme 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



## PROGRAMMABLE DIGITAL ONE-CHANNEL TIMER TE 15B

3+2  
standard  
+extended  
**5** YEAR TOTAL  
WARRANTY

The timer is manufactured under the CMOS technology with a quartz minicontroller which makes it reliable for operation. The timer is adjusted for DIN-rail mounting. It can memorize up to six 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, work days cycle, weekend cycle, or a specific day of the week); then the cycle start time and end time are set. If you have selected work days cycle, then the program will start and stop at the set times each work day 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. There is possibility for automatic correction of the time according to the seasonal sun variations.

Type	Packing/Box (pcs)	Product category	Catalogue number
TE 15 B	1 / 100	B	50101

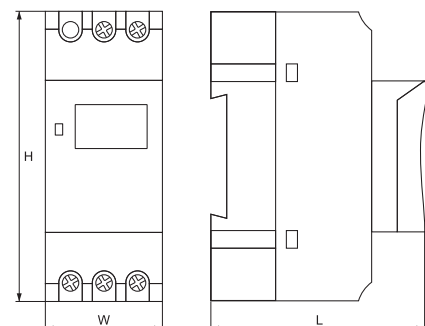


Dimensions (mm)

H	W	L
85	36	64

### TECHNICAL DATA:

- Display: LCD
- Automatic adjustment of the current time (time correction winter/summer)
- Power supply voltage: 230V; 50Hz
- Operations: 6 switching ON/OFF
- Time deviation: <2s (at 25°C)
- Battery for programme storing: up to 15 days
- Power consumption: <5VA
- Switched on indicator
- Electrical wear resistance: 10<sup>5</sup> cycles
- Mechanical wear resistance: 10<sup>7</sup> cycles
- Operating temperature: -10 ÷ +65°C
- Humidity: 35 – 85%RH
- Number of contacts: 1NO + 1NC
- Commutating capacity:
  - active load: up to 6A
  - inductive load: up to 2.5
- Weight: 120g



### MOUNTING:

- DIN-rail



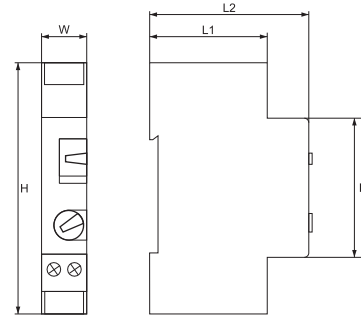
**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

**STARCASE DELAY TIMER**

The timer is adjusted for DIN-rail mounting. Provide control of lighting circuits with automatic switch Off after pre-set time. Two position switch for permanent and time lighting control and choose 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



Type	Packing/Box (pcs)	Product category	Catalogue number
EL-SDT-1	1/240	B	35007



Dimensions (mm)

H	W	L1	L2	D
82	17.5	40	65	45

**MOUNTING:**

- DIN-rail



UNTIL SUPPLY  
LAST

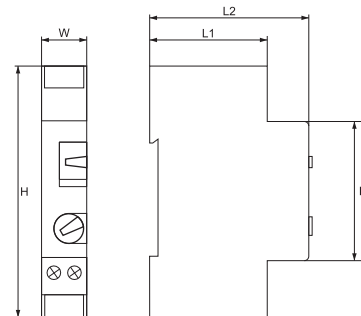
**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

**TARIFF SWITCHING CLOCK (TIMER) TE 18**

The timer is adjusted for DIN-rail mounting. It is used for switching on tariff lighting in housing buildings and switching off after the adjusted time. Easy to adjust time intervals, mounting and conducting. Reliable to use.

**TECHNICAL DATA:**

- Power supply voltage: 230V; 50Hz
- Adjustment range: 0.5 to 20 min
- Power consumption: <2.5VA
- Operating temperature: -5 ÷ +65°C
- Humidity: 45 – 95%RH
- Number of contacts: 1NO
- Commutating capacity:  
• active load: up to 16A  
• inductive load: up to 10 A
- Weight: 75g



Type	Packing/Box (pcs)	Product category	Catalogue number
TE 18	1 / 200	F	35005



Dimensions (mm)

H	W	L1	L2	D
82	18	40	65	45

**MOUNTING:**

- DIN-rail



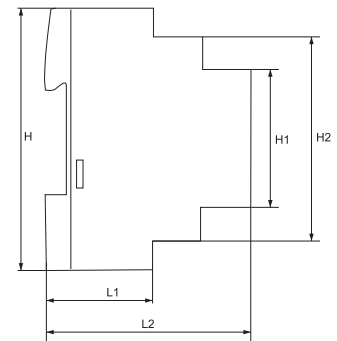
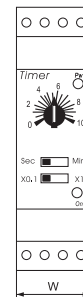
### TIME RELAY "STAR/DELTA" TE 19

3+2 standard+extended **5** YEAR TOTAL WARRANTY

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:  $-10 \div +65^{\circ}\text{C}$
- Humidity: 45 – 85%RH
- Commutating capacity: up to 5A
- Indication:
  - ▶ at operation in "star": red indication
  - ▶ at operation in "delta": green indication
- Weight: 150g



Type	Packing/Box (pcs)	Product category	Catalogue number
TE19	1 / 200	B	50102



Dimensions (mm)

H	W	L1	L2	H1	H2
85	24	34	66	45	60

#### MOUNTING:

- DIN-rail

### TIMER TE8A – 1A, TE8A – 2A

3+2 standard+extended **5** YEAR TOTAL WARRANTY

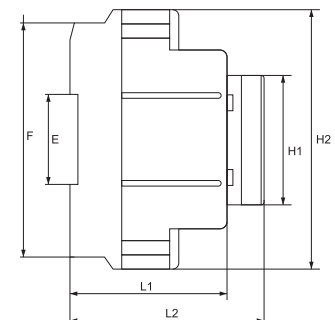
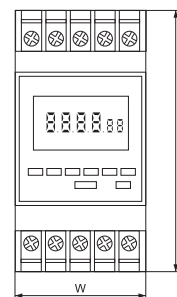
The timer is manufactured under the most modern technology CMOS with a quartz minicontroller which makes it precise, qualitative and reliable. It has a built in battery which allows operation of the timers without charging up to 150 hours. The timer is adjusted for DIN-rail mounting. Timer programming 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:  $10^7$  cycles
- Mechanical wear resistance:  $10^5$  cycles
- Operating temperature:  $-10^{\circ}\text{C} \div +65^{\circ}\text{C}$
- Temperature of storage: up to  $70^{\circ}\text{C}$
- Humidity: 45 – 85%RH
- Commutating capacity: up to 16A
- Two outlet relays
- Li-Ion battery: 150h
- Weight: 150g

#### Mounting:

- DIN-rail



Type	Packing/Box (pcs)	Product category	Catalogue number
TE8A - 1a	1 / 75	B	50113
TE8A - 2a	1 / 75	B	50114



Dimensions (mm)

H	H1	H2	W
100	50	68	50
E	L1	L2	F
36	60	74	90



**IMPULSE RELAY**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

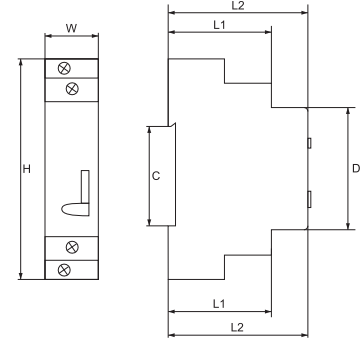
Impulse relays allow circuit remote control. They can be operated manually, remotely, from several control points, or by impulses. Impulse relays are most frequently used for the control of lighting circuits in various public places with multiple control points.

**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



Type	Packing/Box (pcs)	Product category	Catalogue number
EPN510	8 / 160	B	50300



Dimensions (mm)

H	W	C	D	L1	L2
85	24	36	45	34	66



**TIMER TE6B**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

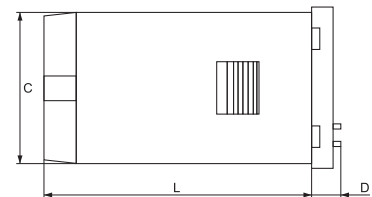
The timer is manufactured under the most modern technology CMOS with a quartz minicontroller which makes it precise, qualitative and reliable. The timer is modulated to be mounted on the front panel of boards. The direction of operation is adjusted – direct or reverse. There is possibility to adjust 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: 10<sup>7</sup> cycles
- Mechanical wear resistance: 10<sup>5</sup> 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



Type	Packing/Box (pcs)	Product category	Catalogue number
TE6B	1 / 100	B	50104



Dimensions (mm)

D	W	L
8.5	45	80

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



### TIMER TE48S-S

3+2  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

The timer is manufactured under the most modern technology CMOS with a quartz minicontroller 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.

Type	Packing/Box (pcs)	Product category	Catalogue number
TE48S-S	84	B	50105



Dimensions (mm)

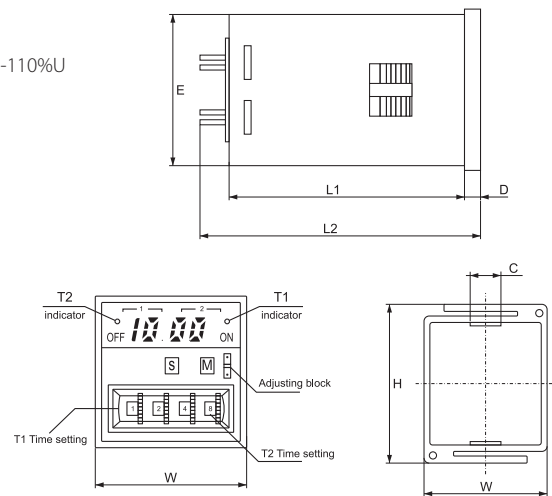
D	E	L1	L2
5	44.8	74	95
C	H	W	
15	58	48	

#### 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: <math>0.01\% \pm 0.05s</math>
- Minimal duration of the input pulse: 20ms
- Power consumption: <math>< 5VA</math>
- Electrical wear resistance:  $10^7$  cycles
- Mechanical wear resistance:  $10^5$  cycles
- Operating temperature:  $-10 \div +65^{\circ}C$
- Temperature of storage: up to  $70^{\circ}C$
- Humidity: 45 – 85%RH
- Commutating capacity at load: 3A
- Weight: 300g

#### MOUNTING:

- on the front panel of the board



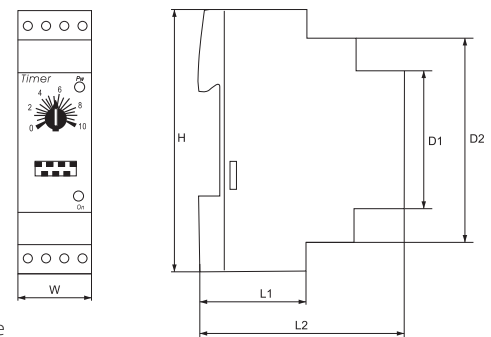
### TIMER TE 19M

3+2  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

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 CHARACTERISTICS:

- Input voltage: 230V; 50Hz
- Range of setting: from 0.6 sec to 100 hours
- Accuracy of setting:  $\pm 5\%$  from the whole scale
- Time for nullifying: <math>< 0.5</math> seconds
- Consumed capacity: <math>< 5VA</math>
- Electrical endurance (number of cycles): 100 000 cycles
- Mechanical endurance (number of cycles): 1 000 000 cycles
- Operation temperature:  $-10 \div +65^{\circ}C$
- 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



Type	Packing/Box (pcs)	Product category	Catalogue number
TE 19M	1 / 200	B	50102M



Dimensions (mm)

H	W	H1	H2	L1	L2
85	24	45	60	34	66

#### MOUNTING METHOD:

- DIN rail

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



**UNIVERSAL DIGITAL COUNTER CE2J**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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 also a possibility for changing the position of the decimal point.

**Documents corresponding to the product:**

Standard EN 61010-1

Type	Packing/Box (pcs)	Product category	Catalogue number
CE2J	1 / 45	B	50111



Dimensions (mm)

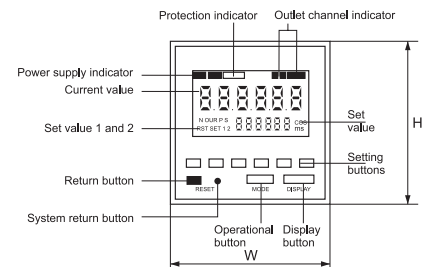
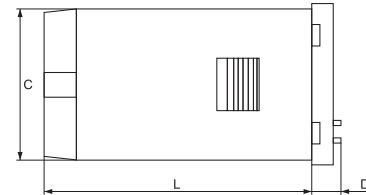
H	W	C	D	L
68	68	65	8.5	90

**TECHNICAL DATA:**

- Display: LCD
- Power supply voltage: 230V; 50Hz
- Counting range: 0 - 99999
- Counting speed: 30/3k cps
- Zeroing: outside impulse
- Battery for programme 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



**COMBINED DIGITAL COUNTER/TIMER CE10J**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY



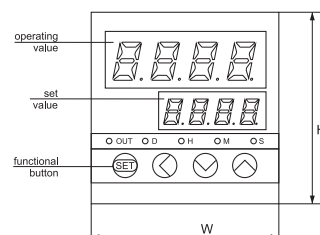
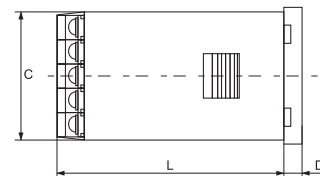
The device is for front mounting in the board. It can be used as a counter or timer choosing a definite combination from keys. It is manufactured under the modern technology CMOS which allows high speed of counting, precision at operation as a timer and high reliability. It has a built in battery which 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 also 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 programme 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



**Documents corresponding to the product:**

Standard EN 61010-1

Type	Packing/Box (pcs)	Product category	Catalogue number
CE10J	1 / 45	B	50120



Dimensions (mm)

H	W	C	D	L
68	68	65	6	90

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



Documents corresponding to the product: EN 61010-1

Type	Packing/Box (pcs)	Product category	Catalogue number
CE15J	1 / 100	B	50112



Documents corresponding to the product: EN 61010-1

Type	Packing/Box (pcs)	Product category	Catalogue number
CE15L	1 / 100	B	50115



Documents corresponding to the product: EN 61010-1

Type	Packing/Box (pcs)	Product category	Catalogue number
EK - RSTB	1 / 200	B	50103



### TOTAL DIGITAL COUNTER CE15J

3+2 standard+extended **5** YEAR TOTAL WARRANTY

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.

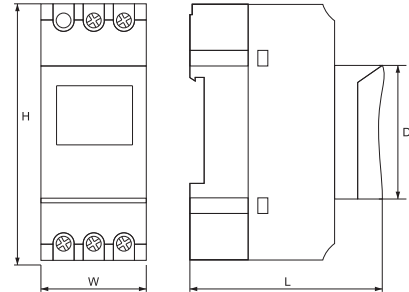
#### TECHNICAL DATA:

- 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

Dimensions (mm)			
H	W	D	L
86	36	45	64

#### MOUNTING:

- DIN-rail



### TOTAL DIGITAL COUNTER CE15L

3+2 standard+extended **5** YEAR TOTAL WARRANTY

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.

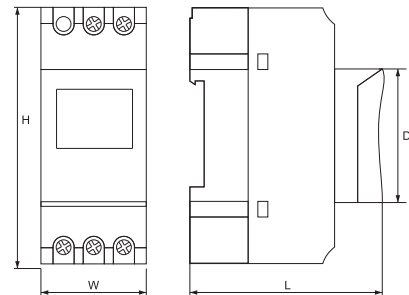
#### TECHNICAL DATA:

- 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

Dimensions (mm)			
H	W	D	L
86	36	45	64

#### MOUNTING:

- DIN-rail



### PHASE SEQUENCE INDICATOR EK - RSTB

3+2 standard+extended **5** YEAR TOTAL WARRANTY

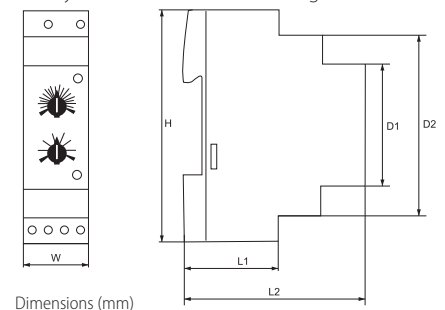
The device is to be mounted on DIN-rail. It is used for control and indication of the presence, sequence and quality of the phases. The device indicates the following fault: lack of one or several phases; change in the sequence of the phases; lowering of the power supplying voltage: under 10%; increasing of the power supplying voltage: over 10%; phase asymmetry of the power supplying voltage: ±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 ÷ +65°C
- Humidity: 35 – 85%RH
- Weight: 120g

#### MOUNTING:

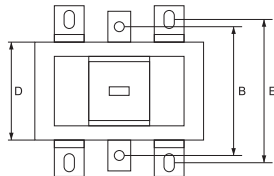
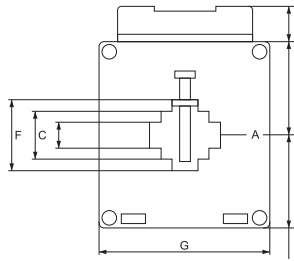
- DIN-rail



Dimensions (mm)					
H	W	D1	D2	L1	L2
85	24	45	60	34	66



**Documents corresponding to the product:** Standard EN 61010-1; EN 60044-1; EN 60044-6



## CURRENT MEASUREMENT TRANSFORMERS MES - XX/X5 TYPE

3+2 standard +extended **5** YEAR TOTAL WARRANTY

The measurement transformers find application at current measuring, current regulation, systems for current characteristics watching, systems for reactive energy compensation, signaling, 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: 1.2 x In
- Inlet current: 50 – 1200A
- Outlet current: 5A
- Impulse voltage wear resistance: 4000V; 50Hz (1min)
- Operating temperature: -5 ÷ +65°C

- Humidity: 35 – 85%RH
- Precision class: 0.5

### 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.

Type	Overall dimensions (mm)						
	A	B	C	D	E	F	G
MES - 75/30	88	52	52	41	77	31	31
MES - 75/40	88	52	52	41	77	41	41
MES - 86/60	117	57	57	184	77	61	61

Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)	Product category	Catalogue number
MES - 75/30	50/5	0.5	1	0.60	1 / 40	B	<b>45050A</b>
MES - 75/30	75/5	0.5	1.5	0.60	1 / 40	B	<b>45075A</b>
MES - 75/30	100/5	0.5	1.5	0.60	1 / 40	B	<b>45103A</b>
MES - 75/30	150/5	0.5	2.5	0.60	1 / 40	B	<b>45153A</b>



Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)	Product category	Catalogue number
MES - 75/40	200/5	0.5	3.75	0.60	1 / 40	B	<b>45204A</b>
MES - 75/40	250/5	0.5	3.75	0.60	1 / 40	B	<b>45254A</b>
MES - 75/40	300/5	0.5	5	0.60	1 / 40	B	<b>45304A</b>
MES - 75/40	400/5	0.5	5	0.60	1 / 40	B	<b>45404A</b>
MES - 75/40	500/5	0.5	5	0.60	1 / 40	B	<b>45504A</b>
MES - 75/40	600/5	0.5	5	0.60	1 / 40	B	<b>45604A</b>



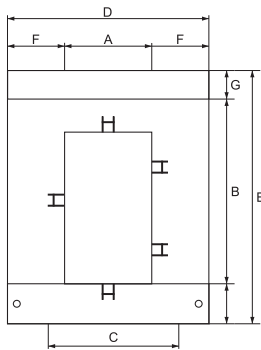
Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)	Product category	Catalogue number
MES - 86/60	400/5	0.5	3.75	0.60	1 / 40	B	<b>45406A</b>
MES - 86/60	500/5	0.5	5	0.60	1 / 40	B	<b>45506A</b>
MES - 86/60	600/5	0.5	10	0.60	1 / 40	B	<b>45606A</b>
MES - 86/60	800/5	0.5	10	0.60	1 / 40	B	<b>45806A</b>
MES - 86/60	1000/5	0.5	10	0.60	1 / 32	B	<b>45906A</b>
MES - 86/60	1200/5	0.5	10	0.60	1 / 32	B	<b>45916A</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



Documents corresponding to the product: Standard EN 60044-1



### CURRENT TRANSFORMERS, TYPE CP

3+2 standard +extended **5** YEAR TOTAL WARRANTY

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 SPECIFICATION:**

- small size table:
- secondary coil rated current 5A
- rated voltage 720V
- frequency 50Hz
- rated load: up to 30VA
- safety coefficient:  $f_s \leq 5$
- accuracy class :0.5; 1
- secondary coil connection: cable shoe terminal

Type	Overall dimensions (mm)						
	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

Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)	Product category	Catalogue number
CP 23	200/5	1	1.5	0,74	1 / 45	B	<b>452320</b>
CP 23	250/5	1	2.5	0,74	1 / 45	B	<b>452325</b>
CP 23	300/5	0,5	2.5	0,74	1 / 45	B	<b>452330</b>



Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)	Product category	Catalogue number
CP 58	250/5	0,5	1,5	0,87	1 / 36	B	<b>455825</b>
CP 58	300/5	0,5	2,5	0,87	1 / 36	B	<b>455830</b>
CP 58	400/5	0,5	2,5	0,87	1 / 36	B	<b>455840</b>
CP 58	500/5	0,5	5	0,87	1 / 36	B	<b>455850</b>
CP 58	600/5	0,5	5	0,87	1 / 36	B	<b>455860</b>

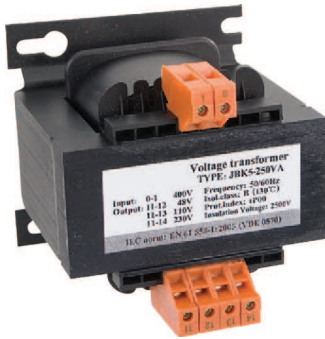


Type	Range	Precision class	Capacity VA	Weight kg	Packing/Box (pcs)	Product category	Catalogue number
CP 88	400/5	0,5		1	1 / 20	B	<b>458840</b>
CP 88	500/5	0,5	2,5	1	1 / 20	B	<b>458850</b>
CP 88	600/5	0,5	5	1	1 / 20	B	<b>458860</b>
CP 88	750/5	0,5	2,5	1	1 / 20	B	<b>458875</b>
CP 88	800/5	0,5	3.75	1	1 / 20	B	<b>458880</b>
CP 88	1000/5	0,5	5	1	1 / 20	B	<b>458890</b>

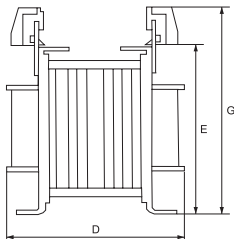
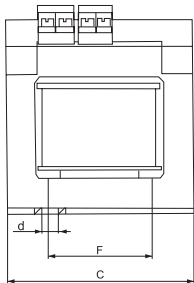


In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**3+0**  
standard  
+extended **3** YEAR TOTAL  
WARRANTY



**Documents corresponding to the product:** Standard EN 60051-1



## EVT5 - CONTROL VOLTAGE TRANSFORMER

### FUNCTIONS:

- Reduction of main voltage within standard range
- Galvanic separation of the power supply circuit from the operation circuit

### TECHNICAL FEATURES:

- Input voltage: 400 or 230 V
- Frequency : 50/60Hz
- Short circuit resistance: unstable
- Temperature class: B (130°C)
- Construction: open (for installation in other products)
- Magnetic circuit: cold rolled electric furnace steel
- Coils: pure electrotechnical copper
- IP code: IP20

### CONNECTION:

- flexible or hard conductors of relevant section to terminals

### MOUNTING:

- Mounting in distribution boards or products
- fastening: by means of screws/bolts to the surface
- position: vertical
- ambient temperature: -20 ÷ +65°C

Type	Initial voltage (V)	Secondary voltage (V)	Power VA	Dimensions						Packing / Box (pcs.)	Product category	Catalogue number
				C	D	E	F	G	d			
EVT5 - 100VA	230	48-36	100	84	90	63	65	95	4	16	B	<b>45248</b>
EVT5 - 100VA	400	48-36	100	84	90	63	65	95	4	16	B	<b>45448</b>
EVT5 - 100VA	230	24-12	100	84	90	63	65	95	4	16	B	<b>45243</b>
EVT5 - 100VA	400	24-12	100	84	90	63	65	95	4	16	B	<b>45443</b>
EVT5 - 250VA	230	48-24-12	250	130	100	120	53	130	20	16	B	<b>45242</b>
EVT5 - 250VA	230	48-36	250	130	100	120	53	130	20	16	B	<b>45242N</b>
EVT5 - 250VA	400	48-24-12	250	130	100	120	53	130	20	12	B	<b>45442</b>
EVT5 - 250VA	400	48-36	250	130	100	120	53	130	20	12	B	<b>45442N</b>
EVT5 - 250VA	230	24-12	250	130	100	120	53	130	20	12	B	<b>45244</b>
EVT5 - 250VA	400	24-12	250	130	100	120	53	130	20	12	B	<b>45444</b>
EVT5 - 500VA	230	48-24-12	500	150	113	133	53	140	20	4	B	<b>45245</b>
EVT5 - 500VA	230	48-36	500	150	113	133	53	140	20	4	B	<b>45245N</b>
EVT5 - 500VA	400	48-24-12	500	150	113	133	53	140	20	4	B	<b>45445</b>
EVT5 - 500VA	400	48-36	500	150	113	133	53	140	20	4	B	<b>45445N</b>
EVT5 - 500VA	230	24-12	500	150	125	133	53	140	20	4	B	<b>45246</b>
EVT5 - 500VA	400	24-12	500	150	125	133	53	140	20	4	B	<b>45446</b>
EVT5 - 500VA	230	110-48-24	500	150	125	133	53	140	20	4	B	<b>45215</b>
EVT5 - 500VA	400	110-48-24	500	150	125	133	53	140	20	6	B	<b>45415</b>
EVT5 - 1000VA	230	48-24-12	1000	170	125	150	65	155	20	2	B	<b>45241</b>
EVT5 - 1000VA	230	48-36	1000	170	125	150	65	155	20	2	B	<b>45241N</b>
EVT5 - 1000VA	400	48-24-12	1000	170	125	150	65	155	20	2	B	<b>45441</b>
EVT5 - 1000VA	400	48-36	1000	170	125	150	65	155	20	2	B	<b>45441N</b>
EVT5 - 1000VA	230	24-12	1000	170	125	150	65	155	20	2	B	<b>45247</b>
EVT5 - 1000VA	400	24-12	1000	170	125	150	65	155	20	2	B	<b>45447</b>
EVT5 - 1600VA	230	48-24-12	1600	190	125	150	65	170	20	2	B	<b>452416</b>
EVT5 - 1600VA	230	48-36	1600	190	125	150	65	170	20	2	B	<b>452416N</b>
EVT5 - 1600VA	400	48-24-12	1600	190	125	150	65	170	20	2	B	<b>454416</b>
EVT5 - 1600VA	400	48-36	1600	190	125	150	65	170	20	2	B	<b>454416N</b>
EVT5 - 1600VA	230	24-12	1600	190	125	150	65	170	20	2	B	<b>452417</b>
EVT5 - 1600VA	400	24-12	1600	190	125	150	65	170	20	2	B	<b>454417</b>



**INDUSTRIAL RELAYS AND BASES**

**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY



**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 CHARACTERISTICS:**

- 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

**METHOD OF INSTALLATION:**

- on a DIN rail by means of a socket

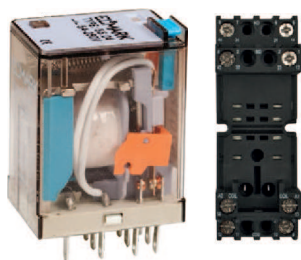


Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)	Product category	Catalogue number
ELM - 14FC	12 VDC	ELM-RT624-B	260	NO+NC	100 / 1000	B	<b>57141</b>
ELM - 14FC	24 VDC	ELM-RT624-B	1080	NO+NC	100 / 1000	B	<b>57142</b>
ELM - 14FC	48 VDC	ELM-RT624-B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



Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)	Product category	Catalogue number
ELM - 60.2	12 VDC	ELM - 90.22	96	2NO+2NC	20 / 300	B	<b>57601</b>
ELM - 60.2	24 VDC	ELM - 90.22	384	2NO+2NC	20 / 300	B	<b>57602</b>
ELM - 60.2	48 VDC	ELM - 90.22	1540	2NO+2NC	20 / 300	B	<b>57603</b>
ELM - 60.2	230 VAC	ELM - 90.22	7400	2NO+2NC	20 / 300	B	<b>57605</b>
ELM-60.2	24VAC	ELM-90.22		2NO+2NC	20 / 300	B	<b>57606</b>
ELM - 60.13	12 VDC	ELM - 90.23	96	3NO+3NC	20 / 300	B	<b>57611</b>
ELM - 60.13	24 VDC	ELM - 90.23	384	3NO+3NC	20 / 300	B	<b>57612</b>
ELM - 60.13	48 VDC	ELM - 90.23	1540	3NO+3NC	20 / 300	B	<b>57613</b>
ELM - 60.13	110 VAC	ELM - 90.23	1700	3NO+3NC	20 / 300	B	<b>57614</b>
ELM - 60.13	230 VAC	ELM - 90.23	7400	3NO+3NC	20 / 300	B	<b>57615</b>
ELM-60.13	24VAC	ELM90.23		3NO-3NC	20/300	B	<b>57616</b>





Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)	Product category	Catalogue number
ELM - 55.02	12 VDC	ELM - RT702-B	42	2NO+2NC	50 / 500	B	<b>57521</b>
ELM - 55.02	24 VDC	ELM - RT702-B	168	2NO+2NC	50 / 500	B	<b>57522</b>
ELM - 55.02	48 VDC	ELM - RT702-B	675	2NO+2NC	50 / 500	B	<b>57523</b>
ELM - 55.02	230 VAC	ELM - RT702-B	14000	2NO+2NC	50 / 500	B	<b>57525</b>
ELM55.02	24VAC	ELM - RT702-B		2NO+2NC	50 / 500	B	<b>57526</b>
ELM - 55.04	12 VDC	ELM-RT704-B	42	4NO+4NC	50 / 500	B	<b>57541</b>
ELM - 55.04	24 VDC	ELM-RT704-B	168	4NO+4NC	50 / 500	B	<b>57542</b>
ELM - 55.04	48 VDC	ELM-RT704-B	675	4NO+4NC	50 / 500	B	<b>57543</b>
ELM - 55.04	110 VAC	ELM-RT704-B	3500	4NO+4NC	50 / 500	B	<b>57544</b>
ELM - 55.04	230 VAC	ELM-RT704-B	14000	4NO+4NC	50 / 500	B	<b>57545</b>
ELM-55.04	24VAC	ELM-RT704-B		4NO+4NC	50 / 500	B	<b>57546</b>



57901 57902, 57912

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



57904, 57905



**Documents corresponding to the product:** EN 60947-5-1; EN 61810

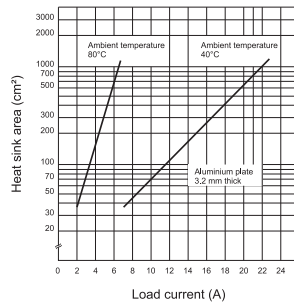
## INDUSTRIAL SOLID STATE RELAYS (SSR)

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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 deigned 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 following graphic:

### TECHNICAL SPECIFICATIONS:

- 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



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





UNTIL SUPPLY  
LAST

Type	Relay Type	Control Voltage (V)	Output Voltage (V)	Number of phases	Output Current (A)	Packing/Box (pcs)	Product category	Catalogue number
ZG1NC - 2 - 10D	SS voltage regulator	1-10VDC	0-230VAC	1	10	10 / 100	F	<b>57810</b>
ZG1NC - 2 - 20D	SS voltage regulator	1-10VDC	0-230VAC	1	20	10 / 100	F	<b>57820</b>
ZG1NC - 2 - 25D	SS voltage regulator	1-10VDC	0-230VAC	1	25	10 / 100	F	<b>57825</b>
ZG1NC - 3 - 10D	SS voltage regulator	1-10VDC	0-400VAC	2	10	10 / 100	F	<b>57813</b>
ZG1NC - 3 - 20D	SS voltage regulator	1-10VDC	0-400VAC	2	20	10 / 100	F	<b>57823</b>
ZG1NC - 3 - 25D	SS voltage regulator	1-10VDC	0-400VAC	2	25	10 / 100	F	<b>57835</b>
ZG1NC - 3 - 40D	SS voltage regulator	1-10VDC	0-400VAC	2	40	10 / 100	F	<b>57843</b>



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



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



### DIGITAL VOLTMETER/AMPEREMETER EKDP 15 A/V

3+2 standard+extended **5** YEAR TOTAL WARRANTY

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

- amperemeter
- voltmeter

It is supplied with LCD display where the measurement quantity is displayed with numbers with 31/2 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.

**Documents corresponding to the product:** Standard EN 61010-1

Type	Packing/ Box (pcs)	Product category	Catalogue number
EKDP-15AA	1 / 100	B	<b>50117A</b>
EKDP-15DA	1 / 100	B	<b>50117D</b>
EKDP-15AV	1 / 100	B	<b>50116A</b>
EKDP-15DV	1 / 100	B	<b>50116D</b>



Dimensions (mm)

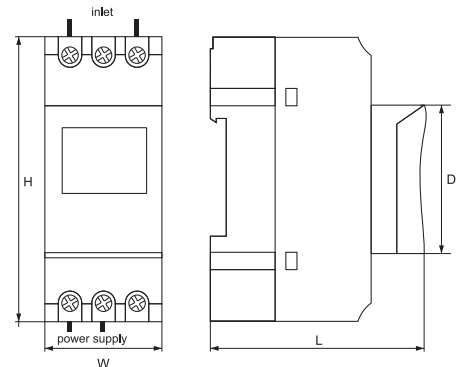
H	W	L	D
88	36	64	45

**TECHNICAL DATA:**

- Power supply voltage: 100 - 240V; 50Hz
- Inlet signal:
  - operating as voltmeter: 2 – 700V (the range is adjusted from inside)
  - operating as amperemeter: 5 – 2000A (the range is adjusted from inside)

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

- 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

### DIGITAL VOLTMETER/AMPEREMETER AND FREQUENCY METER EKDP7

3+2 standard+extended **5** YEAR TOTAL WARRANTY

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

- amperemeter:
  - EKDP7 – AA – amperemeter for alternating current
  - EKDP7 – DA – amperemeter for direct current
- voltmeter:
  - EKDP7 – AV – voltmeter for alternating current
  - EKDP7 – DV – voltmeter for direct current
- EKDP7 – Hz – frequency meter

It is supplied with LCD display where the measurement quantity is displayed with numbers with 31/2 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.

**Documents corresponding to the product:** Standard EN 61010-1

Type	Packing/ Box (pcs)	Product category	Catalogue number
EKDP7-AV	1 / 84	B	<b>50106</b>
EKDP7-AA	1 / 84	B	<b>50107</b>
EKDP7-DV	1 / 84	B	<b>50108</b>
EKDP7-DA	1 / 84	B	<b>50109</b>
EKDP7-HZ	1 / 84	B	<b>50110</b>



Dimensions (mm)

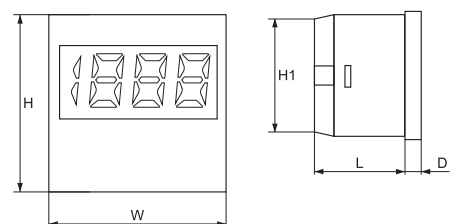
H	W	H1	D	L
72	72	68	6	42

**TECHNICAL DATA:**

- Power supply voltage: 100 - 240V; 50Hz
- Inlet signal:
  - operating as voltmeter: 2 – 700V (the range is adjusted from inside)
  - operating as amperemeter: 5 – 2000A (the range is adjusted from inside)

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

- 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 panel

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



**DIGITAL ROUND VOLTMETER/ AMPEREMETER AND FREQUENCY METER EL-ED16R**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

Type	Range	Diameter (mm)	Packing / Box (pcs)	Product category	Catalogue number
Voltmeter	AC 12-500V	22	10/500	B	<b>401553</b>
Amperemeter	AC 0-100A	22	10/500	B	<b>401554</b>
Frequency meter	AC 35-99 HZ	22	10/500	B	<b>401555</b>



**DIGITAL SQUARE VOLTMETER/ AMPEREMETER AND FREQUENCY METER EL-ED16S**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

Type	Range	Diameter (mm)	Packing / Box (pcs)	Product category	Catalogue number
Voltmeter	AC 12-500V	22	10/500	B	<b>401556</b>
Amperemeter	AC 0-100A	22	10/500	B	<b>401557</b>
Frequency meter	AC 35-99 HZ	22	10/500	B	<b>401558</b>



**Documents corresponding to the product:** Standard IEC 62052-11; IEC 62053-21; IEC 62056-21

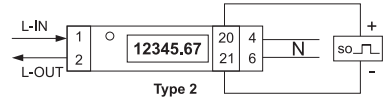
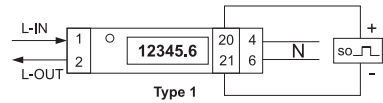
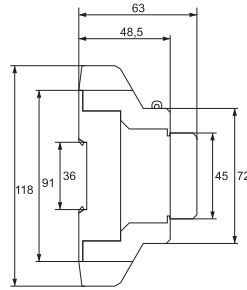
**DIN RAIL MOUNTED KWH METERS**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

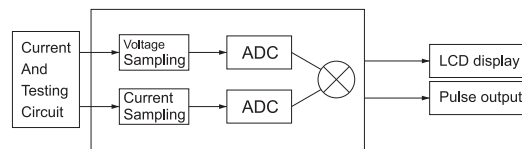
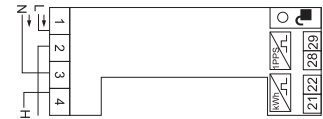
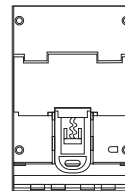
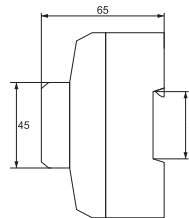
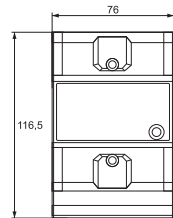
Electronic single and three phase kWh meters intended for DIN rail mounting and active energy measurement. Meters are suitable for home and commercial applications. They perform direct measurement of the real consumption of electric power and the results are shown on the LCD display. The system doesn't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

**TECHNICAL SPECIFICATIONS:**

- Direct power consumption measurement: up to 20 (80) A; 50/60Hz
- Automatic tariffs temperature compensation
- LED phase voltage outage indicator.
- Indication for wrong cable connection
- Indication for wrong measurement
- Accuracy class: 1
- Number of tariffs: see the table below
- Meter constant: See the table below



Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions (mm) height / width / depth	Packing/Box (pcs)	Product category	Catalogue number
DDS - 1Y - 45	5A (45A)	1	1000	230	63 / 18 / 118	1 / 120	B	<b>50214</b>

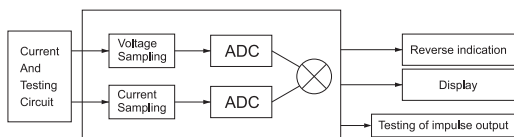
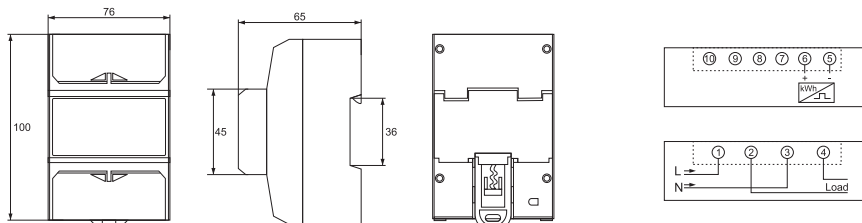


Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions (mm) height / width / depth	Packing/Box (pcs)	Product category	Catalogue number
DD4F-S01-1Y-60	5A (60A)	4	1600	230	116.5 / 76 / 65	1 / 48	F	<b>50220</b>

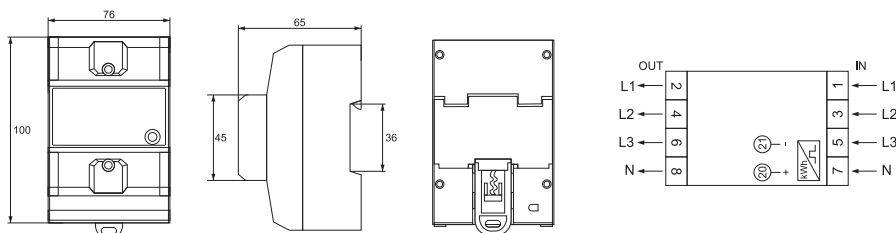
UNTIL SUPPLY LAST



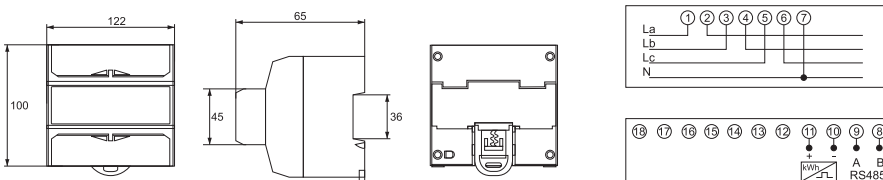
*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions (mm) height / width / depth	Packing/Box (pcs)	Product category	Catalogue number
DDS - 1Y - 100	10A (100A)	1	1600	230	65 / 76 / 100	1 / 45	B	<b>50260</b>



Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions (mm) height / width / depth	Packing/Box (pcs)	Product category	Catalogue number
DDS - 3Y 80	20A (80A)	1	800	3x230/400	65 / 76 / 100	1 / 45	B	<b>50380</b>



Type	Measuring range	Number of Tariffs	Meter constant (imp/kWh)	Voltage (V)	Overall dimensions (mm) height / width / depth	Packing/Box (pcs)	Product category	Catalogue number
DTGS-S01-3Y100	10A (100A)	4	800	3X230/400	122 / 100 / 65	1 / 30	B	<b>50400</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



**Documents corresponding to the product:**

Standard EN 60051-1



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

3+2 standard+extended **5** YEAR TOTAL WARRANTY

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 on the basis of bridge measurement schemes. There is possibility for display change for the higher scopes of measuring.

Type	Type of the measurement system	Precision class	Range	Note	Packing/Box (pcs)	Product category	Catalogue number
amperemeter AC	MEMSI	1.5	0-100A	current transfer 100/5	1 / 100	B	<b>654010</b>
amperemeter AC	MEMSI	1.5	0-200A	current transfer 200/5	1 / 100	B	<b>654020</b>
amperemeter AC	MEMSI	1.5	0-400A	current transfer 400/5	1 / 50	B	<b>654040</b>
amperemeter AC	MEMSI	1.5	0-600A	current transfer 600/5	1 / 50	B	<b>654060</b>
amperemeter AC	MEMSI	1.5	0-1000A	current transfer 1000/5	1 / 50	B	<b>654100</b>
amperemeter AC	MEMSI	1.5	0-1500A	current transfer 1500/5	1 / 50	B	<b>654150</b>
voltmeter AC*	MEMSI	1.5	0-500V	-	1 / 50	B	<b>50125</b>
frequency meter**	ME	0.5	45-65Hz	-	1 / 50	B	<b>50126</b>
cosφ meter	MEMSI	1.5	3P 400V	-	1 / 50	B	<b>50127</b>
amperemeter DC	MEMC	1.5	0-5A	-	1 / 50	B	<b>50128</b>
amperemeter DC	MEMC	1.5	0-50A	outer resistor 60mV	1 / 50	B	<b>50129</b>
voltmeter DC	MEMC	1.5	0-50V	-	1 / 50	B	<b>50130</b>
voltmeter DC	MEMC	1.5	0-100V	-	1 / 20	B	<b>50131</b>
wattmeter	MEMSI	1.5	0-3000W 1P240V	-	1 / 25	B	<b>50132</b>
wattmeter	MEMSI	1.5	0-3000W 3P 3 line	-	1 / 25	B	<b>50133</b>
wattmeter	MEMSI	1.5	0-3000W 3P 4 line	-	1 / 25	B	<b>50134</b>



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

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

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

**ALL-PURPOSE LIMIT SWITCH – SERIES CSA-XXX**

**3+0**  
standard  
+extended **3** YEAR TOTAL  
WARRANTY

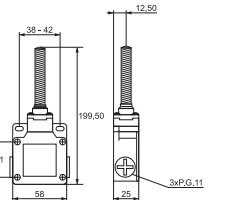
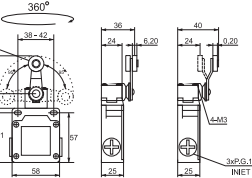
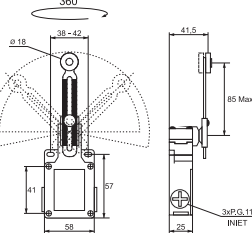
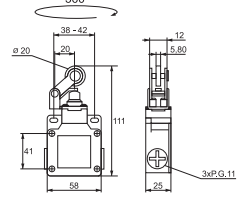
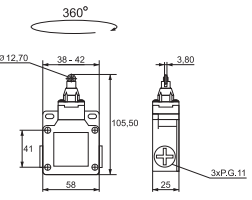
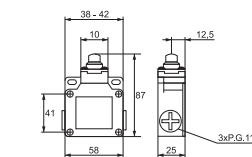
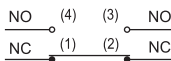
The all-purpose limit switches are devices used in automatic systems as a control element. They are used for setting of gearing limits. They are mounted on transport lines, conveyors and other linear progressive motion machines. They feature a vibration-resistant metal shell.

**PRODUCT CONFORMITY DOCUMENTATION:**

- Standard: EN 60947-1; EN 60947-5-1
- 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 2mm<sup>2</sup>
- Fastening strength of terminals: 6-8kgf/cm

Type of contact system



Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/ Box (pcs)	Product category	Catalogue number
------	------------------	-----------------------	----------------------	--------------------	------------------	--------------------	------------------	------------------

CSA - 001	metal cylinder	800	400	2.0mm	5.8mm	10 / 90	B	<b>46A001</b>
-----------	----------------	-----	-----	-------	-------	---------	---	---------------

CSA - 003	cylinder with metal roll	800	400	2.0mm	5.8mm	10 / 90	B	<b>46A003</b>
-----------	--------------------------	-----	-----	-------	-------	---------	---	---------------

CSA - 012	horizontal lever with metal roll	800	400	2.0mm	5.8mm	10 / 90	B	<b>46A012</b>
-----------	----------------------------------	-----	-----	-------	-------	---------	---	---------------

CSA - 031	adjustable lever with metal roll	400	100	22.5°	95°	10 / 80	B	<b>46A031</b>
-----------	----------------------------------	-----	-----	-------	-----	---------	---	---------------

CSA - 021	lever with metal roll	400	100	22.5°	95°	10 / 80	B	<b>46A021</b>
-----------	-----------------------	-----	-----	-------	-----	---------	---	---------------

CSA - 081	spring lever	150	50	22.5°	50mm	10 / 80	B	<b>46A081</b>
-----------	--------------	-----	----	-------	------	---------	---	---------------



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**ALL-PURPOSE LIMIT SWITCH – SERIES TZ-6XXX**

**3+0**  
standard  
+extended **3** YEAR TOTAL  
WARRANTY

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 aluminum shell, resistant to vibrations, lubricants and water.

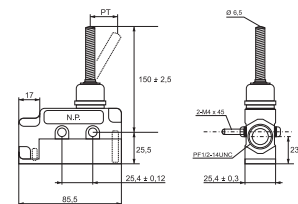
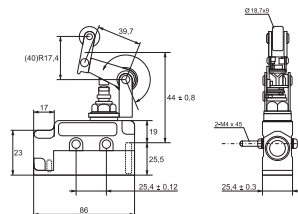
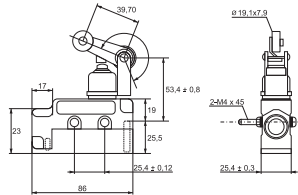
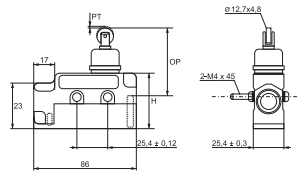
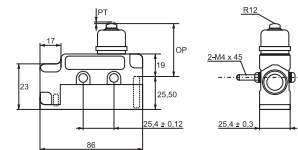
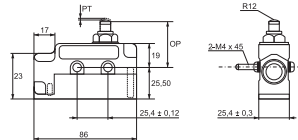
**PRODUCT CONFORMITY DOCUMENTATION:**

- Standard: EN 60947-1; EN 60947-5-1
- 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 1.5mm<sup>2</sup>

Type of contact system



Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/ Box (pcs)	Product Catalogue category number
------	------------------	-----------------------	----------------------	--------------------	------------------	--------------------	-----------------------------------



TZ-6001	metal cylinder	350	115	0.5mm	5.5mm	1 / 50 B	<b>466001</b>
TZ-6101	oil-resistant metal cylinder	800	240	2mm	5mm	1 / 50 B	<b>466101</b>
TZ-6102	oil-resistant cylinder with metal roll	500	100	1mm	3.5mm	1 / 50 B	<b>466102</b>
TZ-6104	oil-resistant horizontal lever with metal roll	640	230	5mm	6mm	1 / 50 B	<b>466104</b>
TZ-6143	oil-resistant vertical lever with metal roll	640	230	5mm	6mm	1 / 50 B	<b>466143</b>
TZ-6106	spring lever	150	-	20°	-	1 / 50 B	<b>466106</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**UNIVERSAL LIMIT SWITCH – SERIES CM-1XXX**

**3+0**  
standard  
+extended **3** YEAR TOTAL  
WARRANTY

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.

**ITEMS ARE COMPLIANT WITH THE FOLLOWING STANDARDS:**

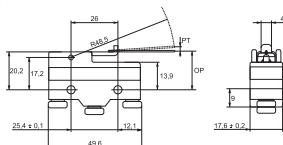
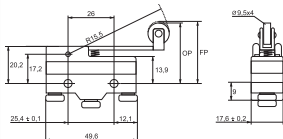
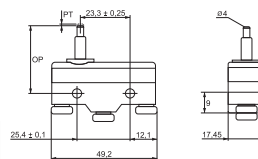
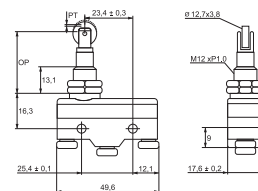
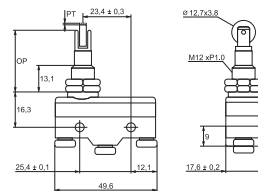
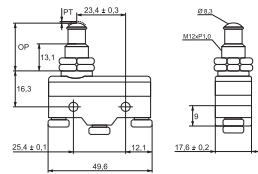
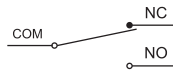
EN 60947-1; EN 60947-5-1

- 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



Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/ Box (pcs)	Product category	Catalogue number
------	------------------	-----------------------	----------------------	--------------------	------------------	--------------------	------------------	------------------

CM-1307	Metal cylinder	350	114	0.4mm	5.5mm	1 / 480 B		<b>468105</b>
CM-1309	Cylinder and transverse metal roll	350	114	0.4mm	5.5mm	1 / 480 B		<b>468106</b>
CM-1308	Cylinder longitudinal metal roll	350	114	0.4mm	5.5mm	1 / 480 B		<b>468109</b>
CM-1305	Metal cylinder	350	114	0.4mm	1.6mm	1 / 480 B		<b>468110</b>
CM-1703	Extended metal roll	160	22	7.1mm	1.02mm	1 / 480 B		<b>468113</b>
CM-1705	Spring lever	10	3	20mm	5.6mm	1 / 480 B		<b>468117</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**3+0**  
standard  
+extended **3** YEAR TOTAL  
WARRANTY

**ALL-PURPOSE LIMIT SWITCH – SERIES TZ-8XXX**

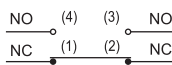
The all-purpose limit switches are devices used for setting gearing limits. They are mounted on transport lines, conveyors and other linear progressive motion machines. They have small dimensions and a vibration-resistant metal shell with plastic lid, resistant to oil and water.

**PRODUCT CONFORMITY DOCUMENTATION:**

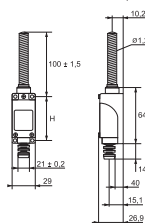
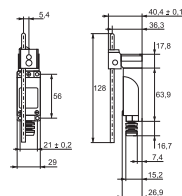
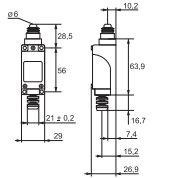
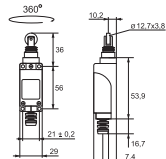
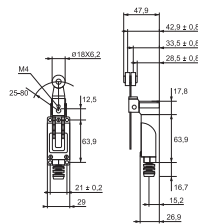
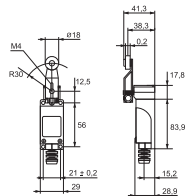
- Standard: EN 60947-1; EN 60947-5-1
- Dielectric strength: 1000V AC
- Rated current: 5A active; 3A inductive
- Insulating resistance: 100MΩ
- Contact Resistance: 25mΩ
- Electrical endurance (number of cycles): 500 000 with active load

- 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



Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/Box (pcs)	Product category	Catalogue number
------	------------------	-----------------------	----------------------	--------------------	------------------	-------------------	------------------	------------------



TZ-8104	lever with metal roll	750	100	20°	50°	10 / 100	B	<b>468104</b>
---------	-----------------------	-----	-----	-----	-----	----------	---	---------------

TZ-8108	adjustable lever with metal roll	750	100	20°	50°	10 / 100	B	<b>468108</b>
---------	----------------------------------	-----	-----	-----	-----	----------	---	---------------

TZ-8112	cylinder with metal roll	900	150	1.5mm	4.0mm	10 / 100	B	<b>468112</b>
---------	--------------------------	-----	-----	-------	-------	----------	---	---------------

TZ-8111	metal cylinder	900	150	1.5mm	4.0mm	10 / 100	B	<b>468111</b>
---------	----------------	-----	-----	-------	-------	----------	---	---------------

TZ-8107	metal rod	750	100	20°	50°	10 / 100	B	<b>468107</b>
---------	-----------	-----	-----	-----	-----	----------	---	---------------

TZ-8167	spring lever	150	-	30mm	-	10 / 100	B	<b>468167</b>
---------	--------------	-----	---	------	---	----------	---	---------------



**ALL-PURPOSE LIMIT SWITCH – SERIES CWL-XXX**

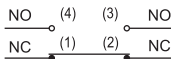
**3+0** standard +extended **3** YEAR TOTAL WARRANTY

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.

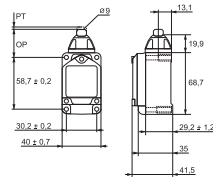
**PRODUCT CONFORMITY DOCUMENTATION:**

- Standard: EN 60947-1; EN 60947-5-1
- 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

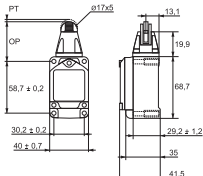
Type of contact system



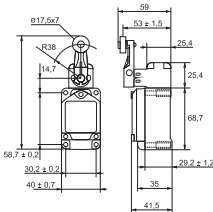
Type	Type of the head	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/ Box (pcs)	Product category	Catalogue number
------	------------------	-----------------------	----------------------	--------------------	------------------	--------------------	------------------	------------------



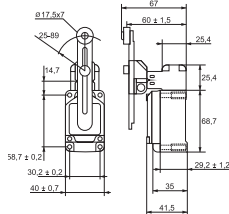
CWLD	metal cylinder	2720	910	2.0mm	6.4mm	1 / 50	B	<b>46LD</b>
------	----------------	------	-----	-------	-------	--------	---	-------------



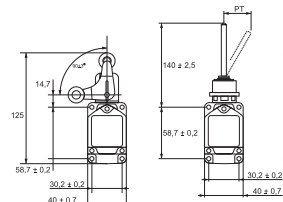
CWLD2	cylinder with metal roll	2720	910	2.0mm	5.6mm	1 / 50	B	<b>46LD2</b>
-------	--------------------------	------	-----	-------	-------	--------	---	--------------



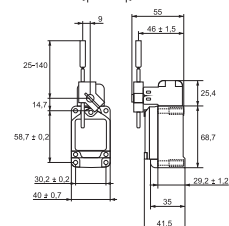
CWLCA2-2	lever with metal roll	1360	227	20°	50°	1 / 50	B	<b>46LCA2-2</b>
----------	-----------------------	------	-----	-----	-----	--------	---	-----------------



CWLCA12-2-Q	adjustable lever with metal roll	2720	910	20°	50°	1 / 50	B	<b>46LCA12-2-Q</b>
-------------	----------------------------------	------	-----	-----	-----	--------	---	--------------------



CWCA32-41	fork	1200	-	55°	90±10°	1 / 50	B	<b>46LCA32-41</b>
-----------	------	------	---	-----	--------	--------	---	-------------------



CWLNJ	oil-resistant spring lever	150	-	28mm	90±10°	1 / 50	B	<b>46LNJ</b>
-------	----------------------------	-----	---	------	--------	--------	---	--------------

CWLCL	metal rod	142	28	20°	50°	1 / 50	B	<b>46LCL</b>
-------	-----------	-----	----	-----	-----	--------	---	--------------



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**UNIVERSAL LIMIT SWITCH – SERIES CZ93-XX**

**3+0**  
standard  
+extended **3** YEAR TOTAL WARRANTY

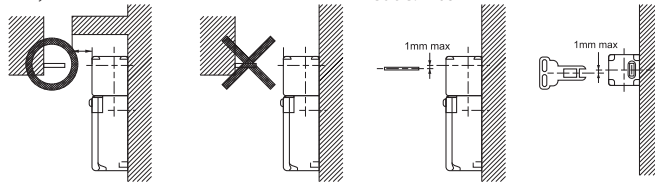


Limit switches of the CZ 93 series are Safety Key Interlock Switches. They are used in object control systems with high safety requirements. The limit switch body is mounted to the fixed system component, while the safety key is mounted to the movable system component. System operation cannot start, 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

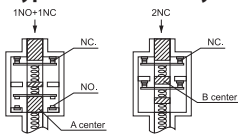
**COMPLIANT WITH THE FOLLOWING STANDARDS:**

- EN 60947-1; EN 60947-5-1
- 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-

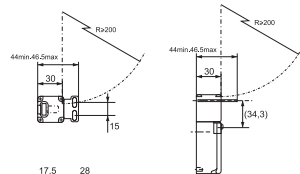
- inductive load
- Mechanical Life (No. of cycles): 2 000 000
- Operating frequency: 30 electrical operations/minute
- Operating speed: 0.1mm/s to 0.5m/s
- Rated voltage: 230V
- IP code: IP65



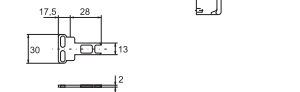
**Type of the contact system**



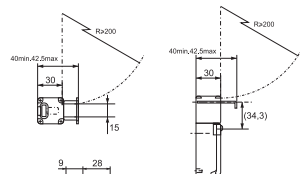
Type	Key type	Power of starting (g)	Power of release (g)	Switching position	General movement	Packing/ Box (pcs)	Product category	Catalogue number
------	----------	-----------------------	----------------------	--------------------	------------------	--------------------	------------------	------------------



CZ-93BPG01	CZ93-K1	147N	29.4N	6 mm	28mm	10 / 100	B	<b>46CZ08</b>
CZ-93CPG01	CZ93-K1	147N	29.4N	6 mm	28mm	10 / 100	B	<b>46CZ09</b>



CZ-93BPG02	CZ93-K2	147N	29.4N	6 mm	28mm	10 / 100	B	<b>46CZ10</b>
CZ-93CPG02	CZ93-K2	147N	29.4N	6 mm	28mm	10 / 100	B	<b>46CZ11</b>



CZ-93BPG03	CZ93-K3	147N	29.4N	6 mm	28mm	10 / 100	B	<b>46CZ12</b>
CZ-93CPG03	CZ93-K3	147N	29.4N	6 mm	28mm	10 / 100	B	<b>46CZ13</b>



Type	Key Actuating	Packing / Box (pcs)	Product category	Catalogue number
CZ 93 - K 1	Horizontal	1 / 100	B	<b>46CZ931</b>
CZ 93 - K 2	Vertical	1 / 100	B	<b>46CZ932</b>
CZ 93 - K 3	Adjustable	1 / 100	B	<b>46CZ933</b>



**ALL-PURPOSE PROXIMITY SWITCH – SERIES LM XX**

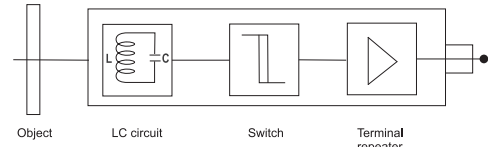
**3+0** standard +extended **3** YEAR TOTAL WARRANTY



**EL-LM8**

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.

- Insulating resistance:  $\geq 50 \text{ M } \Omega$
- Gearing distance: from 2 mm to 7 mm
- Precision of repetition: 0.01
- Ambient temperature:  $-25^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$
- Gearing speed: 5mm/s
- Rated voltage: 6~36VDC; 90~230VAC
- IP code: IP 67



**EL-LM12**



**EL-LM18**



**EL-LM22**

Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load	Packing / Box (pcs)	Product category number
EL-LM8-3002NA	2	15~30 VDC	NPN	NO	130 mA 2 / 200 B		<b>46LM 8-32NA</b>
EL-LM8-3002NB	2	15~30 VDC	NPN	NC	130 mA 2 / 200 B		<b>46LM 8-32NB</b>
EL-LM8-3002PA	2	15~30 VDC	PNP	NO	130 mA 2 / 200 B		<b>46LM 8-32PA</b>
EL-LM8-3002PB	2	15~30 VDC	PNP	NC	130 mA 2 / 200 B		<b>46LM 8-32PB</b>
EL-LM8-2002A	2	90~230VAC	SCR	NO	150 mA 2 / 200 B		<b>46LM 8-22A</b>
EL-LM12-3004NA	4	15~30 VDC	NPN	NO	200 mA 2 / 200 B		<b>46LM 12-34NA</b>
EL-LM12-3004NB	4	15~30 VDC	NPN	NC	200 mA 2 / 200 B		<b>46LM 12-34NB</b>
EL-LM12-3004PA	4	15~30 VDC	PNP	NO	200 mA 2 / 200 B		<b>46LM 12-34PA</b>
EL-LM12-3004PB	4	15~30 VDC	PNP	NC	200 mA 2 / 200 B		<b>46LM 12-34PB</b>
EL-LM12-2004A	4	90~230VAC	SCR	NO	300 mA 2 / 200 B		<b>46LM 12-24A</b>
EL-LM18-3008NA	8	15~30 VDC	NPN	NO	200 mA 1 / 100 B		<b>46LM 18-38NA</b>
EL-LM18-3008NB	8	15~30 VDC	NPN	NC	200 mA 1 / 100 B		<b>46LM 18-38NB</b>
EL-LM18-3008PA	8	15~30 VDC	PNP	NO	200 mA 1 / 100 B		<b>46LM 18-38PA</b>
EL-LM18-3008PB	8	15~30 VDC	PNP	NC	200 mA 1 / 100 B		<b>46LM 18-38PB</b>
EL-LM18-2008A	8	90~230VAC	SCR	NO	300 mA 1 / 100 B		<b>46LM 18-28A</b>
EL-LM22-3010NA	10	15~30 VDC	NPN	NO	200 mA 1 / 100 B		<b>46LM 22-30NA</b>
EL-LM22-3010NB	10	15~30 VDC	NPN	NC	200 mA 1 / 100 B		<b>46LM 22-30NB</b>
EL-LM22-3010PA	10	15~30 VDC	PNP	NO	200 mA 1 / 100 B		<b>46LM 22-30PA</b>
EL-LM22-3010PB	10	15~30 VDC	PNP	NC	200 mA 1 / 100 B		<b>46LM 22-30PB</b>
EL-LM22-2010A	10	90~230VAC	SCR	NO	300 mA 1 / 100 B		<b>46LM 22-20A</b>
EL-LM12-4002A	2	230VAC	inductive	NO	100 mA 2 / 200 B		<b>46LM 12-44A</b>
EL-LM12-4004A	4	230VAC	inductive	NO	300 mA 2 / 200 B		<b>46LM 12-46A</b>
EL-LM18-4006A	5	230VAC	inductive	NO	100 mA 1 / 100 B		<b>46LM 18-44A</b>
EL-LM18-4008A	8	230VAC	inductive	NO	300 mA 1 / 100 B		<b>46LM 18-48A</b>



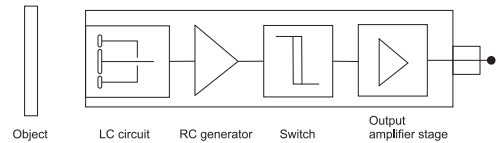
In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**CAPACITIVE SENSORS – SERIES CM XX**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

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.

- Insulating resistance:  $\geq 50 \text{ M}\Omega$
- Gearing distance: from 2 mm to 15 mm
- Precision of repetition: 0.01
- Ambient temperature:  $-25^\circ\text{C}$  to  $+65^\circ\text{C}$
- Gearing speed: 5mm/s
- Rated voltage: 6~36VDC; 90~230VAC
- IP code: IP 54



**EL-CM12**



**EL-CM18**



**EL-CM24**



**EL-SM12**



**EL-XM24**

Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact load	Packing / Box (pcs)	Product category	Catalogue number
EL-CM12-3004NA	0~4	15~30 VDC	NPN	NO	200 mA	1/100 B	<b>46CM 12-32NA</b>
EL-CM12-3004NB	0~4	15~30 VDC	NPN	NC	200 mA	1/100 B	<b>46CM 12-32NB</b>
EL-CM12-3004PA	0~4	15~30 VDC	PNP	NO	200 mA	1/100 B	<b>46CM 12-32PA</b>
EL-CM12-3004PB	0~4	15~30 VDC	PNP	NC	200 mA	1/100 B	<b>46CM 12-32PB</b>
EL-CM18-3008NA	0~8	15~30 VDC	NPN	NO	200 mA	1/100 B	<b>46CM 18-38NA</b>
EL-CM18-3008NB	0~8	15~30 VDC	NPN	NC	200 mA	1/100 B	<b>46CM 18-38NB</b>
EL-CM18-3008PA	0~8	15~30 VDC	PNP	NO	200 mA	1/100 B	<b>46CM 18-38PA</b>
EL-CM18-3008PB	0~8	15~30 VDC	PNP	NC	200 mA	1/100 B	<b>46CM 18-38PB</b>
EL-CM18-2008A	0~8	90~230VAC	SCR	NO	300 mA	1/100 B	<b>46CM 18-28A</b>
EL-CM24-3012NA	8	15~30 VDC	NPN	NO	200 mA	1/100 B	<b>46CM 24-12NA</b>
EL-CM24-3012NB	8	15~30 VDC	NPN	NC	200 mA	1/100 B	<b>46CM 24-12NB</b>
EL-CM24-3012PA	8	15~30 VDC	PNP	NO	200 mA	1/100 B	<b>46CM 24-12PA</b>
EL-CM24-3012PB	8	15~30 VDC	PNP	NC	200 mA	1/100 B	<b>46CM 24-12PB</b>
EL-CM24-2012A	8	90~230VAC	SCR	NO	300 mA	1/100 B	<b>46CM 24-12A</b>
EL-SM12-3110NA	10	15~30 VDC	NPN	NO	200 mA	2/200 B	<b>46SM 12-31NA</b>
EL-SM12-3110NB	10	15~30 VDC	NPN	NC	200 mA	2/200 B	<b>46SM 12-31NB</b>
EL-SM18-3110PA	10	15~30 VDC	PNP	NO	200 mA	1/100 B	<b>46SM 18-31PA</b>
EL-SM18-3110PB	10	15~30 VDC	PNP	NC	200 mA	1/100 B	<b>46SM 18-31PB</b>
EL-XM18-305PMI	5	15~30 VDC	inductive	NO	100 mA	1/100 B	<b>46XM 18-35A</b>
EL-XM18-305PMU	5	15~30 VDC	inductive	NC	100 mA	1/100 B	<b>46XM 18-35B</b>
<b>Note:</b> Sensor of Hall							
EL-XM24-308PMI	8	15~30 VDC	inductive	NO	300 mA	1/100 B	<b>46XM 24-38A</b>
EL-XM24-308PMU	8	15~30 VDC	inductive	NC	300 mA	1/100 B	<b>46XM 24-38B</b>

**Note:** MI - current type; MU - voltage type



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

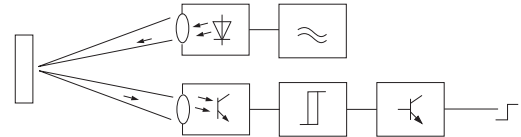
3+0  
standard  
+extended  
**3** YEAR TOTAL  
WARRANTY

**PHOTOELECTRICAL SENSOR**

Photoelectrical 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 metal cylindrical shell resistant to vibrations and a plastic lid which is oil and water resistant.

**TECHNICAL FEATURES:**

- Power supply voltage: 15~30 VDC
- Insulating resistance:  $\geq 50 M\Omega$
- Gearing distance: from 2 mm to 7 mm
- Precision of repetition: 0.01
- Ambient temperature: -25°C to +65°C
- Gearing speed: 5mm/s
- Rated voltage: 6~36VDC; 90~230VAC
- IP code: IP 67



EL-G12



EL-G18



EL-G30



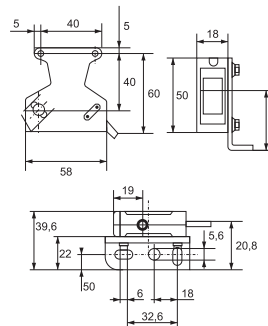
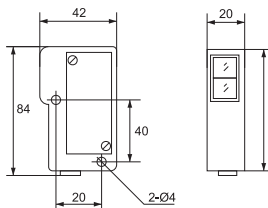
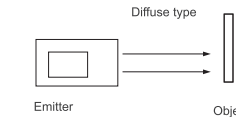
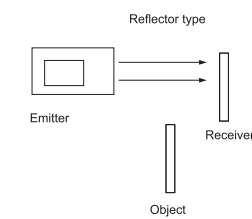
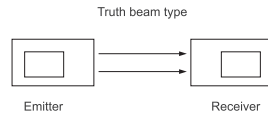
EL-G35



EL-G50



EL-BZJ



Type	Start distance	Type of transition	Type of contact	Type of sensor	Packing / Box (pcs)	Product category	Catalogue number
EL-G12-3A07NA	70 mm	NPN	Ø12; l=50	Diffuse	1 / 100	B	<b>46G12A071</b>
EL-G12-3A07PA	70 mm	PNP	Ø12; l=50	Diffuse	1 / 100	B	<b>46G12A072</b>
EL-G12-3C3NA	3 m	NPN	Ø12; l=50	Truth beam	1 / 100	B	<b>46G123C11</b>
EL-G12-3C3PA	3 m	PNP	Ø12; l=50	Truth beam	1 / 100	B	<b>46G123C12</b>
EL-G18-3A10NA	100 mm	NPN	Ø18; l=70	Diffuse	1 / 100	B	<b>46G18A101</b>
EL-G18-3A10PA	100 mm	PNP	Ø18; l=70	Diffuse	1 / 100	B	<b>46G18A102</b>
EL-G18-3B2NA	2 m	NPN	Ø18; l=70	Reflector	1 / 100	B	<b>46G183B11</b>
EL-G18-3B2PA	2 m	PNP	Ø18; l=70	Reflector	1 / 100	B	<b>46G183B12</b>
EL-G18-3C5NA	5 m	NPN	Ø18; l=70	Truth beam	1 / 100	B	<b>46G185C11</b>
EL-G18-3C5PA	5 m	PNP	Ø18; l=70	Truth beam	1 / 100	B	<b>46G185C12</b>
EL-G30-3A70NA	500 mm	NPN	Ø22; l=70	Diffuse	1 / 100	B	<b>46G30A101</b>
EL-G30-3A70PA	500 mm	PNP	Ø22; l=70	Diffuse	1 / 100	B	<b>46G30A102</b>
EL-G30-3B3NA	3 m	NPN	Ø22; l=70	Reflector	1 / 100	B	<b>46G303B11</b>
EL-G30-3B3PA	3 m	PNP	Ø22; l=70	Reflector	1 / 100	B	<b>46G303B12</b>
EL-G30-3C101NA	10 m	NPN	Ø22; l=70	Truth beam	1 / 52	B	<b>46G305C11</b>
EL-G30-3C101PA	10 m	PNP	Ø22; l=70	Truth beam	1 / 52	B	<b>46G305C12</b>
EL-G35-3A50NA	500 mm	NPN	NO	Diffuse	1 / 100	B	<b>46G35A101</b>
EL-G35-3A50PA	500 mm	PNP	NO	Diffuse	1 / 100	B	<b>46G35A102</b>
EL-G35-3B3NA	3 m	NPN	NO	Reflector	1 / 100	B	<b>46G353B11</b>
EL-G35-3B3PA	3 m	PNP	NO	Reflector	1 / 100	B	<b>46G353B12</b>
EL-G35-3C5NA	5 m	NPN	NO	Truth beam	1 / 50	B	<b>46G355C11</b>
EL-G35-3C5PA	5 m	PNP	NO	Truth beam	1 / 50	B	<b>46G355C12</b>
EL-G50-3A30NA	500 mm	NPN	NO	Diffuse	1 / 100	B	<b>46G50A101</b>
EL-G50-3A30PA	500 mm	PNP	NO	Diffuse	1 / 100	B	<b>46G50A102</b>
EL-G50-3B4NA	4 m	NPN	NO	Reflector	1 / 100	B	<b>46G503B11</b>
EL-G50-3B4PA	4 m	PNP	NO	Reflector	1 / 100	B	<b>46G503B12</b>
EL-G50-3C5NA	5 m	NPN	NO	Truth beam	1 / 50	B	<b>46G505C11</b>
EL-G50-3C5PA	5 m	PNP	NO	Truth beam	1 / 50	B	<b>46G505C12</b>
EL-BZJ-211	10 mm	Reflector	NO	Colour detector	1 / 50	B	<b>46BZJ211</b>
EL-BZJ-311	9mm	Reflector	NO	Colour detector	1 / 50	B	<b>46BZJ311</b>
EL-BZJ-411	9mm	Reflector	NO	Colour detector	1 / 50	B	<b>46BZJ411</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY

**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 are able to 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 SPECIFICATIONS:**

- 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



Type	Output Voltage (V)	Output Load (A)	Tolerance	Power (W)	Dimensions W/H/L (mm)	Packing / Box (pcs)	Product category	Catalogue number
DR - 45 - 5	5	5	±2%	25	78 / 93 / 56	1 / 50	B	<b>46DR455</b>
DR - 45 - 12	12	3.5	±1%	42	78 / 93 / 56	1 / 50	B	<b>46DR4512</b>
DR - 45 - 15	15	2.8	±1%	42	78 / 93 / 56	1 / 45	B	<b>46DR4515</b>
DR - 45 - 24	24	2	±1%	48	78 / 93 / 56	1 / 16	B	<b>46DR4524</b>

Type	Output Voltage (V)	Output Load (A)	Tolerance	Power (W)	Dimensions W/H/L (mm)	Packing / Box (pcs)	Packing / Box (pcs)	Catalogue number
DR - 75 - 12	12	6.3	±2%	75	55.5 / 125.3 / 100	1 / 18	B	<b>46DR7512</b>
DR - 75 - 24	24	3.2	±1%	75	55.5 / 125.3 / 100	1 / 18	B	<b>46DR7524</b>
DRP - 240 - 24	24	10	±1%	240	125.5 / 125.3 / 100	1 / 12	B	<b>46DR2424</b>



**FLOAT SWITCHES**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY



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.

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.

Type	Number of probes (No. of levels)	Output Load (A)	Accuracy	Operating Voltage (V)	Note	Packing / Box (pcs)	Product category	Catalogue number
DHC1Y - S	1	5	±1%	230	-	100	B	<b>46DW001</b>
DHC1Y - SD	3	5	±1%	230	-	100	B	<b>46DW002</b>
DHC1Y - T	1	5	±1%	230	2 pumps control	100	B	<b>46DW003</b>



Type	Number of probes (No. of levels)	Output Load (A)	Accuracy	Operating Voltage (V)	Note	Packing / Box (pcs)	Product category	Catalogue number
QW - M 15 - 3	2	6	±1%	230	-	1 / 30	B	<b>46DW004</b>
QW - 70AB	2	4	±1%	230	-	1 / 20	B	<b>46DW005</b>



Documents corresponding to the product: Standard: EN 60947-1; EN 60947-3-1

ROTARY SWITCHES LW26 SERIES

3+2 standard+extended 5 YEAR TOTAL WARRANTY



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.

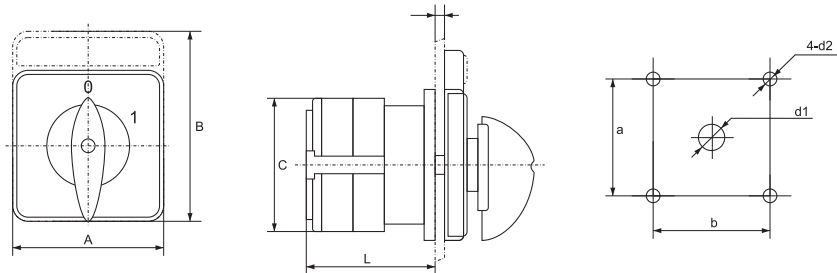
TECHNICAL DATA:

- 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 <sup>2</sup> )	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

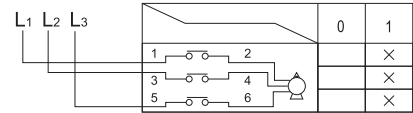
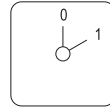
Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 10Q	Q10 three-poles switching on; motor starting and stopping; voltage turning on/off to the consumers	10	2	1 / 100	B	<b>492101</b>
LW26 - 16Q		16	2	1 / 100	B	<b>492161</b>
LW26 - 20Q		20	2	1 / 100	B	<b>492201</b>
LW26 - 25Q		25	2	1 / 100	B	<b>492251</b>
LW26 - 32Q		32	2	1 / 72	B	<b>492321</b>
LW26 - 63Q		63	2	1 / 30	B	<b>492631</b>
LW26 - 125Q		125	2	1 / 24	B	<b>492951</b>
LW26 - 160Q		160	2	1 / 27	B	<b>492961</b>



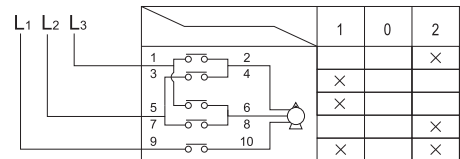
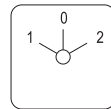
In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



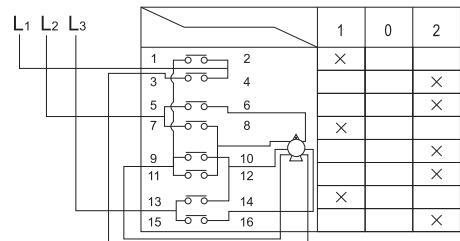
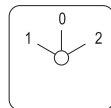
Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26GS - 20/04	Q11	20	2	1 / 100	B	<b>492207</b>
LW26GS - 25/04	three-poles switching over; motor starting and stopping; voltage turning on/off to the consumers;	25	2	1 / 100	B	<b>492257</b>
LW26GS - 32/04		32	2	1 / 72	B	<b>492327</b>
LW26GS - 63/04	possibility for access control	63	2	1 / 30	B	<b>492637</b>



Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 20N		20	3	1 / 100	B	<b>492202</b>
LW26 - 25N	N11	25	3	1 / 100	B	<b>492252</b>
LW26 - 32N	3-position – 2 start positions and 1 stop; for motor reversing	32	3	1 / 64	B	<b>492322</b>
LW26 - 63N		63	3	1 / 48	B	<b>492632</b>
LW26 - 125N		125	3	1 / 24	B	<b>492952</b>
LW26 - 160N		160	3	1 / 18	B	<b>492962</b>



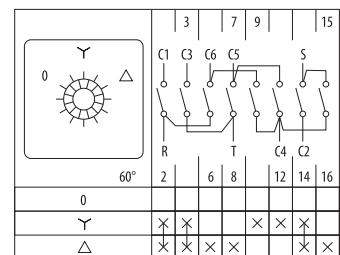
Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 25S	S19	25	4	1 / 100	B	<b>492253</b>
LW26 - 63S	3-position – 2 start positions and 1 stop; for two speed motor control; switching over	63	4	1 / 30	B	<b>492633</b>
LW26 - 125S	between charging*	125	4	1 / 24	B	<b>492953</b>
LW26 - 160S		160	4	1 / 18	B	<b>492963</b>



**Note:** It is necessary that additional bridges be placed at switching over between charging

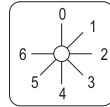


Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 25 SD	S21	25	4	1 / 100	B	<b>492025</b>
LW26 - 63 SD	3-position switching on star/delta	63	4	1 / 30	B	<b>492063</b>





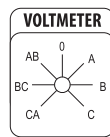
Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 32H 5881/3	H5881/3 – 85 for welding transformer windings switching over	32	3	1 / 64	B	<b>492324</b>
LW26 - 63H 5881/3		63	3	1 / 48	B	<b>492634</b>



	0	1	2	3	4	5	6
1		×					
2			×				
3				×			
4					×		
5						×	
6							×
7							
8							
9							
10							
11							
12							×



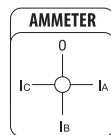
Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 20 YH5/3	YH5/3 - 66 for voltage switching over	20	3	1 / 72	B	<b>492205</b>



	CA	BC	AB	0	A	B	C
1		×					×
2			×				
3	×						
4							
5		×	×				
6							×
7	×						
8							
9	×	×			×		
10							
11						×	×
12							×



Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 20 LH3/3	LH3/3 - 58 for amperemeter switching on to current transformers	20	3	1 / 100	B	<b>492206</b>



	0	I <sub>a</sub>	I <sub>b</sub>	I <sub>c</sub>
1	×	×	×	×
2	×	×	×	×
3	×	×	×	×
4	×	×	×	×
5	×	×	×	×
6	×	×	×	×
7	×	×	×	×
8	×	×	×	×
9	×	×	×	×
10	×	×	×	×
11	×	×	×	×
12	×	×	×	×

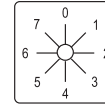


Type	Scheme	IP code:	Packing / Box (pcs)	Product category	Catalogue number
LW26 - 20-25-Q	Box for LW26-20/25	IP 42	1 / 68	B	<b>492037</b>
LW26 - 32-Q	Box for LW26-32	IP 42	1 / 30	B	<b>492038</b>
LW26 - 20-25-DIN	Adaptor for DIN-rail for LW26-20/25		15 / 1500	B	<b>492039</b>

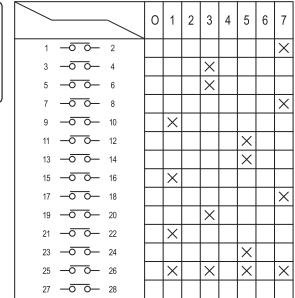




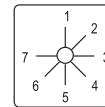
Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 4.I7168/7	4.I7168/7	20	7	1 / 100	B	<b>492028</b>



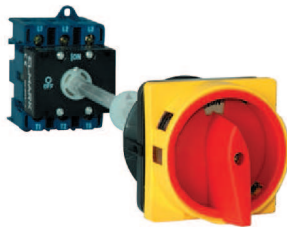
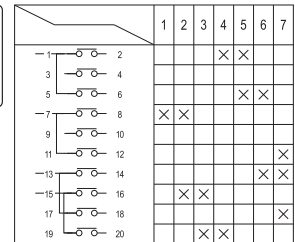
4.I7168/7



Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW26 4.H6518/5	4.H6518/5	25	5	1 / 100	B	<b>492029</b>



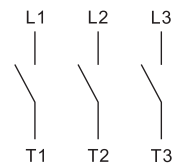
4.H6518/5



Type	Scheme	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW30-20	LW30-20	20	3	1 / 32	B	<b>492030</b>
LW30-32	LW30-32	32	3	1 / 32	B	<b>492031</b>
LW30-40	LW30-40	40	3	1 / 32	B	<b>492033</b>
LW30-63	LW30-63	63	3	1 / 32	B	<b>492034</b>



LW30-20-100A  
ON/OFF switch 3 poles



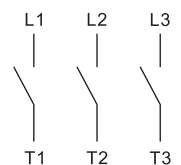
\* Possibility for access control



Type	Scheme	IP code:	In (A)	Levels	Packing / Box (pcs)	Product category	Catalogue number
LW30-32	LW30-32	IP54	32	3	1 / 30	B	<b>492032</b>



LW30-20-100A  
ON/OFF switch 3 poles

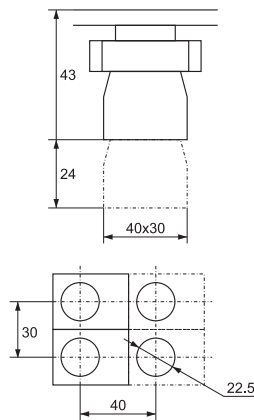


\* Possibility for access control

In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the**

**product:** Standard: EN 60947-1; EN 60947-5-1



Overall dimensions  
Diagram for drill the openings



**BUTTONS AND LED INDICATORS**

3+2 standard +extended **5** YEAR TOTAL WARRANTY

These are devices used in control and indication systems, command boards and panels in industrial automation systems. They are manufactured to commute 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 commute 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 2.5mm<sup>2</sup> can be joined.

**DOCUMENTATION CORRESPONDING TO THE PRODUCT:**

- Standard: EN 60947-1; EN 60947-5-1

**TECHNICAL DATA:**

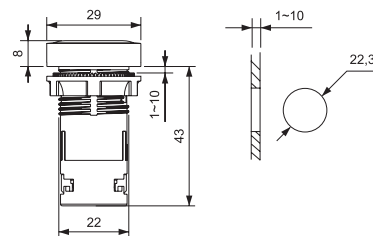
- Insulation voltage: 660V; 50/60Hz
- Impulse voltage wear resistance: 6000V;
- Rated current: 6A (230V AC); 0.3A (230V DC)
- Short circuit protection: safety device 10A gG outside in the circuit
- Mechanical wear resistance: 1x106 commutation cycles
- Power of mechanical compression:

- 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; 1x2.5mm<sup>2</sup>

**MOUNTING:**

- to a flat metal or plastic surface with thickness: max 4mm
- opening with size: Ø 22.5mm

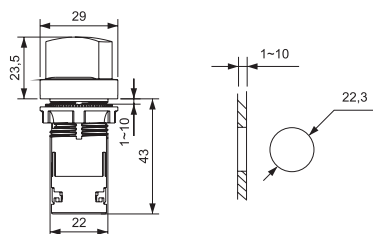
Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)	Product category	Catalogue number
EL-EA25	Button round with spring reverse	NO+NC	6	black	10/500	B	<b>401025</b>
EL-EA31		NO	6	green	10/500	B	<b>401030</b>
EL-EA42		NC	6	red	10/500	B	<b>401040</b>



Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)	Product category	Catalogue number
EL-EA25	Button round with spring reverse and silicon lid- IP44	NO+NC	6	black	10/500	B	<b>401026</b>
EL-EA31		NO	6	green	10/500	B	<b>401033</b>
EL-EA42		NC	6	red	10/500	B	<b>401041</b>



Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)	Product category	Catalogue number
EL-ED25	Switch with arrest	NO+NC	6	black	10/500	B	<b>401425</b>



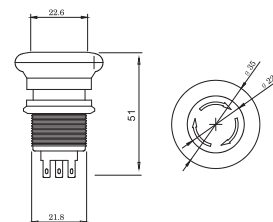
*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



Type	Description	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	Diameter Note	Packing / Box (pcs)	Product category	Catalogue number
------	-------------	------------------	---------------------------	--------	---------------	---------------	---------------------	------------------	------------------

EL-2211T	Button with head "mushroom" type	1NO+1NC	5	red	22	release with spinning	20/800	B	<b>401546</b>
----------	----------------------------------	---------	---	-----	----	-----------------------	--------	---	---------------

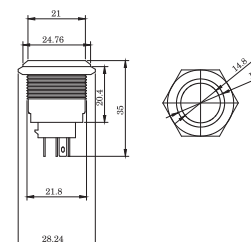
Material: Stainless steel | Chromium plated brass | IP65



Type	Description	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	Packing / Box (pcs)	Product category	Catalogue number
------	-------------	------------------	---------------------------	--------	---------------	---------------------	------------------	------------------

EL-2211DZR	Button round	1NO+1NC	5	red	22	20/800	B	<b>401547</b>
EL-2211DZG	Button round with LED indicator-latching	1NO+1NC	5	green	22	20/800	B	<b>401548</b>

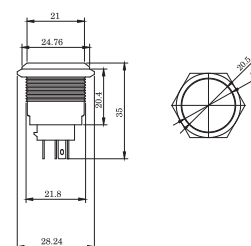
Material: Stainless steel | Chromium plated brass | IP65



Type	Description	Type of contacts	Rated current (A) at 230V	Diameter (mm)	Packing / Box (pcs)	Product category	Catalogue number
------	-------------	------------------	---------------------------	---------------	---------------------	------------------	------------------

EL-2211F	Button round momentary	1NO+1NC	5	22	20/800	B	<b>401549</b>
----------	------------------------	---------	---	----	--------	---	---------------

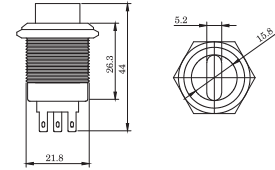
Material: Stainless steel | Chromium plated brass | IP65





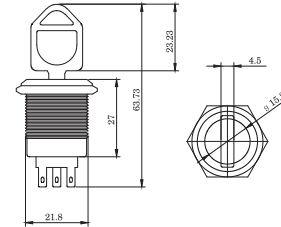
Type	Description	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	note	Packing / Box (pcs)	Product category	Catalogue number
EL-22X2	Two position Switch with arrest	1NO+1NC	5	red	22	release with spinning	20/800	B	<b>401550</b>

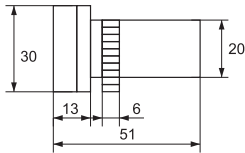
Material: Stainless steel | Chromium plated brass | IP65



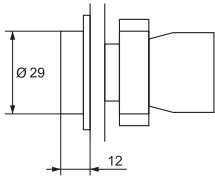
Type	Description	Type of contacts	Rated current (A) at 230V	Colour	Diameter (mm)	Packing / Box (pcs)	Product category	Catalogue number
EL-22Y2	Two position Key Switch with arrest	1NO+1NC	5	red	22	20/800	B	<b>401551</b>
EL-22Y3	Three position Key Switch with arrest	2NO+2NC	5	green	22	20/800	B	<b>401552</b>

Material: Stainless steel | Chromium plated brass | IP65

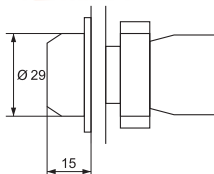




Type	Description	Voltage (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
AD56-22-W-230		230V AC	white	10 / 500	B	<b>401123</b>
AD56-22-W-110		110V AC	white	10 / 500	B	<b>401111</b>
AD56-22-W-24		24V AC/DC	white	10 / 500	B	<b>401124</b>
AD56-22-A-110		110V AC	amber	10 / 500	B	<b>401211</b>
AD56-22-A-24		24V AC/DC	amber	10 / 500	B	<b>401224</b>
AD56-22-A-230		230V AC	amber	10 / 500	B	<b>401223</b>
AD56-22-PG-230		230V AC	green	10 / 500	B	<b>401323</b>
AD56-22-PG-110		110V AC	green	10 / 500	B	<b>401311</b>
AD56-22-PG-24	LED indicators	24V AC/DC	green	10 / 500	B	<b>401324</b>
AD56-22-B-230		230V AC	blue	10 / 500	B	<b>401523</b>
AD56-22-B-110		110V AC	blue	10 / 500	B	<b>401511</b>
AD56-22-B-24		24V AC/DC	blue	10 / 500	B	<b>401524</b>
AD56-22-Y-230		230V AC	yellow	10 / 500	B	<b>401723</b>
AD56-22-Y-110		110V AC	yellow	10 / 500	B	<b>401711</b>
AD56-22-Y-24		24V AC/DC	yellow	10 / 500	B	<b>401724</b>
AD56-22-R-230		230V AC	red	10 / 500	B	<b>401423</b>
AD56-22-R-110		110V AC	red	10 / 500	B	<b>401411</b>
AD56-22-R-24		24V AC/DC	red	10 / 500	B	<b>401424</b>



Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BA 21	Button round with spring reverse	NO	6	black	20 / 300	B	<b>401021</b>
EL 2- BA 31		NO	6	green	20 / 300	B	<b>401031</b>
EL 2- BA 51		NO	6	yellow	20 / 300	B	<b>401051</b>
EL 2- BA 61		NO	6	blue	20 / 300	B	<b>401061</b>
EL 2- BA 42		NC	6	red	20 / 300	B	<b>401042</b>



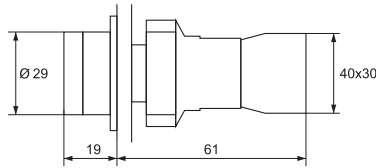
Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BP 31	Button round with spring reverse	NO	6	green	IP=65 Provided from silicon lid	20 / 300	B	<b>401032</b>
EL 2- BP 42	Button round with spring reverse	NC	6	red	IP=65 Provided from silicon lid	20 / 300	B	<b>401043</b>



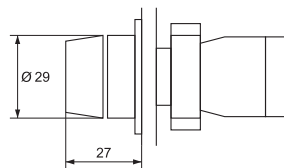
In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



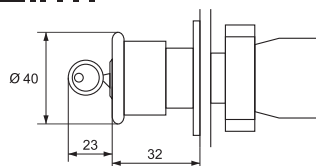
Type	Description	Voltage (V)	Rated current (A) at 400V	Colour	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BW3471	Button round with spring reverse and LED indicator	24V	6	red	20 / 200	B	<b>401474</b>
EL 2- BW3371		24V	6	green	20 / 200	B	<b>401374</b>
EL 2- BW3571		24V	6	yellow	20 / 200	B	<b>401574</b>
EL 2- BW3671		24V	6	blue	20 / 200	B	<b>401674</b>
EL 2- BW3471		110V	6	red	20 / 200	B	<b>401473</b>
EL 2- BW3371		110V	6	green	20 / 200	B	<b>401373</b>
EL 2- BW3571		110V	6	yellow	20 / 200	B	<b>401573</b>
EL 2- BW3671		110V	6	blue	20 / 200	B	<b>401673</b>
EL 2- BW3471		230V	6	red	20 / 200	B	<b>401471</b>
EL 2- BW3371		230V	6	green	20 / 200	B	<b>401371</b>
EL 2- BW3571		230V	6	yellow	20 / 200	B	<b>401571</b>
EL 2- BW3671		230V	6	blue	20 / 200	B	<b>401671</b>



Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BD 21	Switch with arrest	1NO	6	black	two-position	20 / 200	B	<b>401421</b>
EL 2- BD 33		2NO	6	black	three-position	20 / 200	B	<b>401433</b>



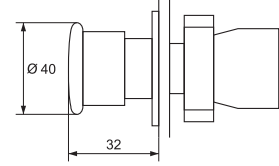
Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)	Product category	Catalogue number
EL2-BS 142	Button with head "mushroom" type and with key	NC	6	red	release with spinning	15/150	B	<b>401142</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



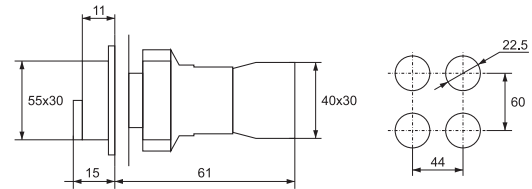
Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BC 42	Button with head "mushroom" type	1NC	6	red	spring reverse	15 / 150	B	<b>401642</b>



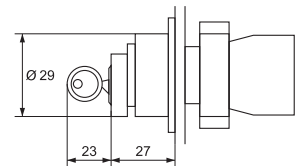
Type	Description	Type of contacts	Rated current (A) at 400V	Colour	Note	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BS 545	Button with head "mushroom" type	1NC + 1NO	6	red	release with spinning	15 / 150	B	<b>401545</b>



Type	Description	Type of contacts	Rated current (A) at 400V	Voltage	Note	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BW8475	Button double	1NO+1NC	6	24 AC	Green and red button + LED indicator	20 / 200	B	<b>401844</b>
EL 2- BW8475	Button double	1NO+1NC	6	230 AC	Green and red button+LED indicator	20/200	B	<b>401845</b>



Type	Description	Type of contacts	Rated current (A) at 400V	Note	Packing / Box (pcs)	Product category	Catalogue number
EL 2- BG 21	Change-over switch with switch	1NO	6	two-position with switch	20 / 200	B	<b>401121</b>



Type	Description	Type of contacts	Colour	Packing / Box (pcs)	Product category	Catalogue number
EL02 - BE101	1	1 NO	green	100 / 1000	B	<b>401001</b>
EL02 - BE102	2	1 NC	red	100 / 1000	B	<b>401002</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**BUTTONS AND LED INDICATORS**

**2+0**  
standard  
+extended **2** YEAR TOTAL  
WARRANTY



Type	Description	Voltage (V)	Rated current (A)	LED colour	Packing / Box (pcs)	Product category	Catalogue number
ASW-13	Toggle Switch ON-OFF SPST	12 VDC	20	red	1	B	<b>M519114</b>

Function: ON/OFF | Leads: 3 | Body dimensions: 30.5 x 13.5 x 22mm | Mounting hole diameter - 12 mm | Toggle height - 27 mm | Operating temperature -from - 25 °C to + 85 °C



Type	Description	Voltage (V)	Rated current (A)	LED colour	Packing / Box (pcs)	Product category	Catalogue number
SMTS 102	Switch ON-OFF	250 VAC	1	1	1	B	<b>M030210</b>

Function: ON/OFF | Positions: 2 | Leads: 3 | Mounting hole diameter - 7 mm | Body dimensions - 8 x 13x 10 | Toggle height: 11 mm | Operating temperature: -25 °C ÷ +85 °C



Type	Description	Voltage (V)	Rated current (A)	LED colour	Packing / Box (pcs)	Product category	Catalogue number
MTS203	Switch ON-OFF- ON	250 VAC	3	1	1	B	<b>M030123</b>

Function: ON/OFF/ON | Positions: 3 | Leads: 6 | Mounting hole diameter - M6 x 0.75 mm | Body dimensions -13.2 x 12.7 x 9.5 | Toggle height: 11 mm | Operating temperature: -25°C ÷ +85 °C



Type	Description	Voltage (V)	Rated current (A)	Packing / Box (pcs)	Product category	Catalogue number
MTS201	Switch ON-OFF	250 VAC	15	1	B	<b>M030221</b>

Function: ON/OFF | Positions: 2 | Leads: 4 screw terminals Contacts | Mounting hole diameter: 12 mm | Body dimensions -34 x 23 x 41 | Toggle height: 18 mm | Operating temperature: -25°C ÷ +85 °C





Type	Description	Voltage (V)	Rated current (A)	Packing / Box (pcs)	Product category	Catalogue number
MTS03A	Switch ON-OFF- ON	250 VAC	15	1	B	<b>M030059</b>

Function: ON/OFF | Positions: 3 | Leads: 6 screw terminals Contacts | Mounting hole diameter: 12 mm | Body dimensions -34 x 23 x 41 | Toggle height: 18 mm | Operating temperature: -60°C ÷ +85°C



Type	Description	Voltage (V)	Rated current (A)	Colour	Packing / Box (pcs)	Product category	Catalogue number
V 144/B	Switch ON-OFF	250 VAC	5	white	1	B	<b>M300001</b>

Function: ON/OFF | Leads: 3 | Body dimensions: 26.2 x 12 x 14.5 mm | Mounting hole - 29 x 11 mm | Operating temperature - up to 105°C



Type	Description	Voltage (V)	Rated current (A)	LED colour	Packing / Box (pcs)	Product category	Catalogue number
E-232	Switch ON-OFF	250 VAC	20	red	1	B	<b>M030232</b>

Function: ON/OFF | Positions: 2 | Mounting hole size - 22 x 30 mm | Body dimensions - 32 x 25 x 30 mm | Operating temperature - up to 150° C



Type	Description	Voltage (V)	Rated current (A)	Colour	Packing / Box (pcs)	Product category	Catalogue number
RS102-8C	Switch ON-OFF	250 VAC	6.5	black	1	B	<b>M030208</b>

Function: ON/OFF | Positions: 2 | Leads: 3 | Mounting hole diameter - 20 mm | Body dimensions - φ 23 x 17mm | Operating temperature - up to 105° C



Type	Description	Voltage (V)	Rated current (A)	LED colour	Packing / Box (pcs)	Product category	Catalogue number
MIRS-101-8C-3	Switch ON-OFF	250 VAC	6	red	1	B	<b>M030067</b>

Function: ON/OFF | Positions: 2 | Leads: 3 | Mounting hole diameter - 20 mm | Body dimensions - φ 23 x 17mm | Operating temperature - up to 105° C





UNTIL SUPPLY  
LAST

Type	Description	Voltage (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
XB2-BV75	Signal lamp	230V AC	yellow	20 / 200	F	<b>401975</b>
XB2-BV76	Signal lamp	230V AC	blue	20 / 200	F	<b>401976</b>
XB2-BV77	Signal lamp	230V AC	colourless	20 / 200	F	<b>401977</b>



UNTIL SUPPLY  
LAST

Type	Description	Voltage (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
XB7-EV45	Button	230V AC	yellow	20 / 200	F	<b>401004</b>



UNTIL SUPPLY  
LAST

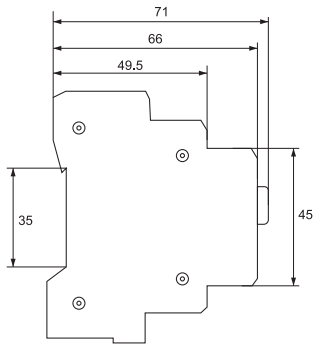
Type	Description	Voltage (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
XB - BW - 3561	Button + LED indicator	230V AC	yellow	20 / 200	F	<b>401561</b>



Type	Description	Voltage (V)	Packing / Box (pcs)	Product category	Catalogue number
EL-1035	Glim indicator lamp	220 VAC	1	B	<b>M030015</b>

Shape and color of the indicator - oval, red | Dimensions - 10 mm x 30 mm | Base diameter: 10mm | Case colour: red | Conductor length: 20mm





**Documents corresponding to the product:** Standard EN 60947-1  
EN 60 947-5-1 t

**DIN-RAIL BUTTONS AND LED INDICATORS**

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 2.5mm<sup>2</sup> 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): 1x10<sup>6</sup> 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; 1x2.5mm<sup>2</sup>
- Plastic: UV rays wear resistance

**MOUNTING:**

- to a DIN-rail
- Altitude: up to 2000m



Type	Description	Rated current (A) at 400V	Type of the contact	Colour	Packing / Box (pcs)	Product category	Catalogue number
ELB - BL - DIN	button	<10	2NO+ 1 NC	black	12 / 240	B	<b>401505</b>
ELB - BL - DIN	button	<10	1NO+ 2 NC	black	12 / 240	B	<b>401506</b>
ELB - G - DIN	button	<10	2NO+ 1 NC	green	12 / 240	B	<b>401507</b>
ELB - G -DIN	button	<10	1NO+ 2 NC	green	12 / 240	B	<b>401508</b>
ELB - Y - DIN	button	<10	2NO+ 1 NC	yellow	12 / 240	B	<b>401509</b>
ELB - Y - DIN	button	<10	1NO+ 2 NC	yellow	12 / 240	B	<b>401510</b>
ELB - R - DIN	button	<10	2NO+ 1 NC	red	12 / 240	B	<b>401512</b>
ELB - R - DIN	button	<10	1NO+ 2 NC	red	12 / 240	B	<b>401513</b>



Type	Description	Voltage (V)	Rated current (A) at 400V	Colour	Packing / Box (pcs)	Product category	Catalogue number
ELD - G - DIN	lamp	230V	<20	green	12 / 240	B	<b>401500</b>
ELD - R - DIN	lamp	230V	<20	red	12 / 240	B	<b>401501</b>
ELD - Y - DIN	lamp	230V	<20	yellow	12 / 240	B	<b>401502</b>
ELD - B - DIN	lamp	230V	<20	blue	12 / 240	B	<b>401503</b>
ELD -W - DIN	lamp	230V	<20	white	12 / 240	B	<b>401504</b>



Type	Description	Voltage (V)	Rated current (A) at 400V	Type of the contact	Colour	Packing / Box (pcs)	Product category	Catalogue number
ELBD - G - DIN	button + lamp	230V	<20	2NO+ 1 NC	green	12 / 240	B	<b>401514</b>
ELBD -G - DIN	button + lamp	230V	<20	1NO+ 2 NC	green	12 / 240	B	<b>401515</b>
ELBD - R - DIN	button + lamp	230V	<20	2NO+ 1 NC	red	12 / 240	B	<b>401516</b>
ELBD - R - DIN	button + lamp	230V	<20	1NO+ 2 NC	red	12 / 240	B	<b>401517</b>
ELBD - Y - DIN	button + lamp	230V	<20	2NO+ 1 NC	yellow	12 / 240	B	<b>401518</b>
ELBD - Y - DIN	button + lamp	230V	<20	1NO+ 2 NC	yellow	12 / 240	B	<b>401519</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**BUTTONS AND SWITCHES WITH BOX**

**3+2**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY



Type	Description	IP code:	Overall dimensions (mm)			Type of the contact	Colour	Packing / Box (pcs)	Product category	Catalogue number
			L	H	W					
EL1-B134	switching on-0-1	IP44	68	68	50	1 NO	black	1 / 100	B	<b>401134</b>



Type	Description	IP code:	Overall dimensions (mm)			Type of the contact	Colour	Packing / Box (pcs)	Product category	Catalogue number
			L	H	W					
EL1-B102	1 button with spring return	IP44	68	68	50	1 NO	green	1 / 100	B	<b>401102</b>
EL1-BP102	1 button with spring return	IP65	68	68	50	1 NO	green	1 / 100	B	<b>401132</b>



Type	Description	IP code:	Overall dimensions (mm)			Type of the contact	Colour	Packing / Box (pcs)	Product category	Catalogue number
			L	H	W					
EL1-B213	2 buttons with spring return	IP44	104	68	50	1 NC 1 NO	1 - red 1 - green	1 / 100	B	<b>401213</b>
EL1-BP213	2 buttons with spring return	IP65	104	68	50	1 NC 1 NO	1 - red 1 - green	1 / 100	B	<b>401233</b>



Type	Description	IP code:	Overall dimensions (mm)			Type of the contact	Colour	Packing / Box (pcs)	Product category	Catalogue number
			L	H	W					
EL1-B339	3 buttons with spring return	IP44	134	68	50	1 NO 1 NC 1 NO	1 - green 1 - red 1 - green	1 / 50	B	<b>401339</b>
EL1-BP339	3 buttons with spring return	IP65	134	68	50	1 NO 1 NC 1 NO	1 - green 1 - red 1 - green	1 / 50	B	<b>401349</b>



Type	Description	IP code:	Overall dimensions (mm)			Type of the contact	Colour	Packing / Box (pcs)	Product category	Catalogue number
			L	H	W					
EL1-B174	Emergency button with head "mushroom" type Ø40.Release through turning	IP44	68	68	50	1 NC	red	1 / 100	B	<b>401174</b>



**DEVICES FOR TELPHER CONTROL MBP TYPE**

**3+2**  
standard  
+extended **5** YEAR TOTAL WARRANTY

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 telfers and serve as a remote control of their movement. They are connected directly to the operating cable of the telfer and send commands directly to the executive mechanisms. They are designed to provide protection from dust and moisture IP65.

















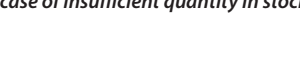
**TECHNICAL DATA:**

- Supplying voltage: 230V; 50/60Hz
- Electrical wear resistance: 1x10<sup>5</sup> 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

**MOUNTING:**

- directly to the control cable of the telfer (crane)

Type	Number of buttons	Contact block and scheme Emergency	For the directions	Packing / Box (pcs)	Product category	Catalogue number
 MBP-A281	2	-	NO+NC	1/20	B	<b>46281</b>
 MBP-A291 two speed	2	-	NO+NC	1/20	B	<b>46291</b>
 MBP-A2813	2+1	emergency button	NO+NC	1/20	B	<b>46283</b>
 MBP-A2813K	2+1	emergency button with switch	NO+NC	1/20	B	<b>46283K</b>
 MBP-A2913 two speed	2+1	emergency button	NO+NC	1/20	B	<b>46294</b>
 MBP-A2913K two speed	2+1	emergency button with switch	NO+NC	1/20	B	<b>46294K</b>
 MBP-A481	4	-	NO+NC	1/20	B	<b>46481</b>
 MBP-A491 two speed	4	-	NO+NC	1/20	B	<b>46491</b>
 MBP-A4813	4+1	emergency button	NO+NC	1/20	B	<b>46483</b>
 MBP-A4813K	4+1	emergency button with switch	NO+NC	1/20	B	<b>46483K</b>
 MBP-A4913 two speed	4+1	emergency button	NO+NC	1/20	B	<b>46493</b>
 MBP-A4913K two speed	4+1	emergency button with switch	NO+NC	1/20	B	<b>46493K</b>
 MBP-A681	6	-	NO+NC	1/20	B	<b>46681</b>
 MBP-A691 two speed	6	-	NO+NC	1/20	B	<b>46691</b>
 MBP-A6813	6+1	emergency button	NO+NC	1/20	B	<b>46683</b>
 MBP-A6813K	6+1	emergency button with switch	NO+NC	1/20	B	<b>46683K</b>
 MBP-A6913 two speed	6+1	emergency button	NO+NC	1/20	B	<b>46693</b>
MBP-A6913K two speed	6+1	emergency button with switch	NO+NC	1/20	B	<b>46693K</b>
MBP-A881	8	-	NO+NC	1/20	B	<b>46881</b>
MBP-A891 two speed	8	-	NO+NC	1/20	B	<b>46891</b>
MBP-A8813	8+1	emergency button	NO+NC	1/20	B	<b>46883</b>
MBP-A8813K	8+1	emergency button with switch	NO+NC	1/20	B	<b>46883K</b>
MBP-A8913 two speed	8+1	emergency button	NO+NC	1/20	B	<b>46893</b>
MBP-8913K two speed	8+1	emergency button with switch	NO+NC	1/20	B	<b>46893K</b>



**MBP-Axxxx** — stop button type  
 — button type – one-speed (x81) or two-speed (x91)  
 — number of buttons

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

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 SPECIFICATION:**

- 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.



Type	Description	Voltage (VAC)	Rated Power (W)	Colour	Packing / Box (pcs)	Product category	Catalogue number
LTE1101 - R	Warning light	12	10	Red	1 / 30	B	<b>401525R</b>
LTE1101 - G	Warning light	12	10	Green	1 / 30	B	<b>401525G</b>
LTE1101 - Y	Warning light	12	10	Yellow	1 / 30	B	<b>401525Y</b>
LTE1101J - R	Warning light + siren	12	11	Red	1 / 30	B	<b>401526R</b>
LTE1101J - G	Warning light + siren	12	11	Green	1 / 30	B	<b>401526G</b>
LTE1101J - Y	Warning light + siren	12	11	Yellow	1 / 30	B	<b>401526Y</b>
LTE1101 - R	Warning light	230	8	Red	1 / 30	B	<b>402525R</b>
LTE1101 - G	Warning light	230	8	Green	1 / 30	B	<b>402525G</b>
LTE1101 - Y	Warning light	230	8	Yellow	1 / 30	B	<b>402525Y</b>
LTE1101J - R	Warning light + siren	230	9	Red	1 / 30	B	<b>402526R</b>
LTE1101J - G	Warning light + siren	230	9	Green	1 / 30	B	<b>402526G</b>
LTE1101J - Y	Warning light + siren	230	9	Yellow	1 / 30	B	<b>402526Y</b>
LTE1161 - R	Warning light	12	35	Red	1 / 8	B	<b>401527R</b>
LTE1161 - G	Warning light	12	35	Green	1 / 8	B	<b>401527G</b>
LTE1161 - Y	Warning light	12	35	Yellow	1 / 8	B	<b>401527Y</b>
LTE1161 - R	Warning light	230	28	Red	1 / 8	B	<b>402527R</b>
LTE1161 - G	Warning light	230	28	Green	1 / 8	B	<b>402527G</b>
LTE1161 - Y	Warning light	230	28	Yellow	1 / 8	B	<b>402527Y</b>
LTA205 - 1	Tower / flashing	12	4	1 - Red	1 / 20	B	<b>401528</b>
LTA205 - 2	Tower / flashing	12	8	2 - Red/Green	1 / 20	B	<b>401529</b>
LTA205 - 3	Tower / flashing	12	12	3 - Red/Yellow/Green	1 / 20	B	<b>401530</b>
LTA205 - 3J	Tower / flashing + siren	12	12	3 - Red/Yellow/Green	1 / 20	B	<b>401531</b>
LTA205 - 5	Tower / flashing	12	18	5 - Red/Yellow/Green/Blue/Transparent	1 / 20	B	<b>401532</b>
LTA205 - 1	Tower / flashing	230	6	1 - Red	1 / 20	B	<b>402528</b>
LTA205 - 2	Tower / flashing	230	8	2 - Red/Green	1 / 20	B	<b>402529</b>
LTA205 - 3	Tower / flashing	230	10	3 - Red/Yellow/Green	1 / 20	B	<b>402530</b>
LTA205 - 3J	Tower / flashing + siren	230	11	3 - Red/Yellow/Green	1 / 20	B	<b>402531</b>
LTA205 - 5	Tower / flashing	230	14	5 - Red/Yellow/Green/Blue/Transparent	1 / 20	B	<b>402532</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



Type	Description	Voltage (V)	Rated Power (W)	Sound level (dB)	Packing / Box (pcs)	Product category	Catalogue number
MS-290A	metal siren	230	60	100	1 / 24	B	<b>401533</b>
MS-290B	plastic siren	230	60	100	1 / 24	B	<b>401541</b>



Type	Description	Voltage (V)	Rated Power (W)	Sound level (dB)	Packing / Box (pcs)	Product category	Catalogue number
MS-390	siren	230	160	120	1 / 10	B	<b>401534</b>



Type	Description	Voltage (V)	Rated Power (W)	Sound level (dB)	Packing / Box (pcs)	Product category	Catalogue number
CB-4	alarm bell	12	-	85	1 / 50	B	<b>401535</b>
CB-4	alarm bell	24	-	85	1 / 50	B	<b>401536</b>
CB-4	alarm bell	110	-	85	1 / 50	B	<b>401537</b>
CB-4	alarm bell	230	-	85	1 / 50	B	<b>401538</b>

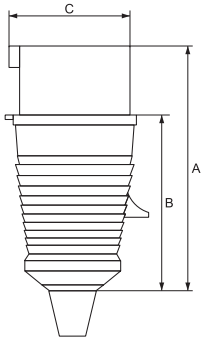


Type	Description	Voltage (V)	Rated Power (W)	Sound level (dB)	Packing / Box (pcs)	Product category	Catalogue number
FA-01	fire alarm	230	-	120	1 / 100	B	<b>401540</b>



**Documents corresponding to the product:**

Standard EN 60309-1; EN 60309-2



**INDUSTRIAL PLUGS AND SOCKETS HT/HTN TYPE**



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

Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HT-013	16	1P+N+E	230	121 / 84 / 53	44	2 / 10 / 100	C	<b>37013</b>
HT-023	32	1P+N+E	230	138 / 92 / 63	44	2 / 10 / 60	C	<b>37023</b>

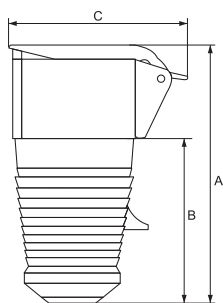


Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HT-014	16	3P+E	400	121 / 84 / 51	44	2 / 10 / 100	C	<b>37014</b>
HT-024	32	3P+E	400	138 / 92 / 63	44	2 / 10 / 60	C	<b>37024</b>
HT-034	63	3P+E	400	230 / 109 / 36	44	2 / 10	C	<b>37034</b>
HT-044	125	3P+E	400	295 / 124 / 50	44	2 / 10	C	<b>37044</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HT-015	16	3P+N+E	400	129 / 92 / 62	44	2 / 10 / 60	C	<b>37015</b>
HT-025	32	3P+N+E	400	149 / 97 / 70	44	2 / 10 / 60	C	<b>37025</b>
HT-035	63	3P+N+E	400	230 / 109 / 36	44	2 / 10	C	<b>37035</b>
HT-045	125	3P+N+E	400	295 / 124 / 50	44	2 / 10	C	<b>37045</b>





**MOVABLE INDUSTRIAL SOCKETS HT TYPE IP44**

**5+0**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT-213	16		230	130 / 96	44	2 / 10 / 100	C	<b>37213</b>
HT-223	32		230	149 / 90	44	2 / 10 / 60	C	<b>37223</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT-214	16		400	131 / 96	44	2 / 10 / 100	C	<b>37214</b>
HT-224	32		400	149 / 90	44	2 / 10 / 60	C	<b>37224</b>
HT-234	63		400	230/109	44	2 / 10	C	<b>37234</b>
HT-244	125		400	290/124	44	2 / 10	C	<b>37244</b>



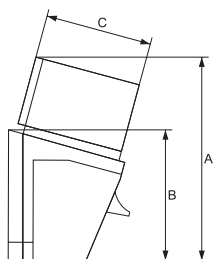
Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT-215	16		400	139 / 90	44	2 / 10 / 60	C	<b>37215</b>
HT-225	32		400	154 / 100	44	2 / 10 / 60	C	<b>37225</b>
HT-235	63		400	230/100	44	2 / 10	C	<b>37235</b>
HT-245	125		400	290/124	44	2 / 10	C	<b>37245</b>





*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



FIXED INDUSTRIAL PLUGS HT TYPE IP44

5+0  
standard  
+extended **5** YEAR TOTAL  
WARRANTY





Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT-513	16		230	121/79	44	2 / 10 / 60	C	<b>37513</b>
HT-523	32		230	131/83	44	2 / 10 / 60	C	<b>37523</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT 514	16		400	121/76	44	2 / 10 / 60	C	<b>37514</b>
HT 524	32		400	131/83	44	2 / 10 / 60	C	<b>37524</b>

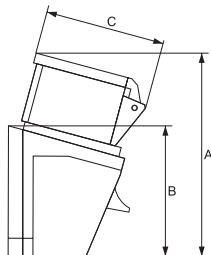


Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT 515	16		400	123/79	44	2 / 10 / 60	C	<b>37515</b>
HT 525	32		400	132/84	44	2 / 10 / 60	C	<b>37525</b>



**FIXED INDUSTRIAL SOCKETS HT TYPE IP44**

**5+0**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT-113	16		230	126 / 86	44	2 / 10 / 60	C	<b>37113</b>
HT-123	32		230	141 / 97	44	2 / 10 / 60	C	<b>37123</b>



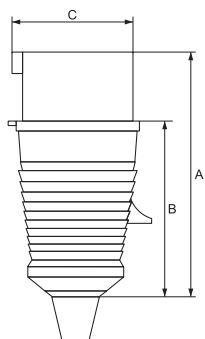
Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT-114	16		400	132 / 91	44	2 / 10 / 60	C	<b>37114</b>
HT-124	32		400	141 / 96	44	2 / 10 / 60	C	<b>37124</b>
HT-134	63		400	193 / 122	44	2 / 10	C	<b>37134</b>
HT-144	125		400	220 / 140	44	2 / 10	C	<b>37144</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HT-115	16		400	129 / 96	44	2 / 10 / 60	C	<b>37115</b>
HT-125	32		400	141 / 98	44	2 / 10 / 60	C	<b>37125</b>
HT-135	63		400	193 / 122	44	2 / 10	C	<b>37135</b>
HT-145	125		400	220 / 140	44	2 / 10	C	<b>37145</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



MOVABLE INDUSTRIAS PLUGS HTN TYPE IP67

5+0 standard+extended 5 YEAR TOTAL WARRANTY



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 0131	16		230	120/71/12	67	1 / 60	C	<b>37131</b>
HTN 0231	32		230	150/93/17	67	1 / 40	C	<b>37231</b>

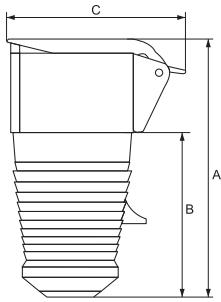


Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 0141	16	3P+E	400	125/79/12	67	2 / 60	C	<b>37141</b>
HTN 0241	32		400	150/93/17	67	2 / 40	C	<b>37241</b>
HTN 0341	63	3P+E	400	230/109/36	67	10	C	<b>37341</b>
HTN 0441	125	3P+E	400	230/109/36	67	10	C	<b>37441</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 0151	16	3P+N+E	400	133/87/12	67	2 / 60	C	<b>37151</b>
HTN 0251	32		400	155/99.5/17	67	2 / 40	C	<b>37251</b>
HTN 0351	63	3P+N+E	400	230/109/36	67	10	C	<b>37351</b>
HTN 0451	125	3P+N+E	400	295/124/50	67	10	C	<b>37451</b>





**MOVABLE INDUSTRIAL SOCKET HTN TYPE IP67**

**5+0**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 2131	16		230	131/90	67	2 / 60	C	<b>37831</b>
HTN 2231	32		230	149/90	67	2 / 40	C	<b>37931</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 2141	16	3P+E	400	131/76	67	2 / 60	C	<b>37841</b>
HTN 2241	32		400	149/90	67	2 / 40	C	<b>37941</b>
HTN 2341	63	3P+E	400	271/115	67	10	C	<b>37942</b>
HTN 2441	125	3P+E	400	295/137	67	6	C	<b>37943</b>



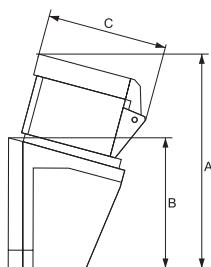
Model	In (A)	Poles	Un (V)	Dimensions (mm) A/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 2151	16	3P+N+E	400	139/90	67	2 / 60	C	<b>37851</b>
HTN 2251	32		400	154/100	67	2 / 40	C	<b>37951</b>
HTN 2351	63	3P+N+E	400	240/112	67	10	C	<b>37952</b>
HTN 2451	125	3P+N+E	400	300/126	67	6	C	<b>37953</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**FIXED INDUSTRIAL SOCKET HTN TYPE IP67**

**5+0**  
standard  
+extended **5** YEAR TOTAL  
WARRANTY



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 1131	16		230	101/150/93.5	67	2 / 40	C	<b>37731</b>
HTN 1231	32		230	114/162/93.5	67	2 / 40	C	<b>37631</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 1141	16		400	104/150/93.5	67	2 / 40	C	<b>37741</b>
HTN 1241	32		400	116/162/93.5	67	2 / 40	C	<b>37641</b>
HTN 1341	63		400	171/170/230	67	1 / 10	C	<b>37842</b>
HTN 1441	125		400	171/170/230	67	1 / 6	C	<b>37844</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HTN 1151	16		400	107/150/93.5	67	2 / 40	C	<b>37751</b>
HTN 1251	32		400	116/162/93.5	67	2 / 40	C	<b>37651</b>
HTN 1351	63		400	171/170/230	67	10	C	<b>37852</b>
HTN 1451	125		400	171/170/230	67	6	C	<b>37854</b>



INDUSTRIAL SOCKETS FOR FLUSH MOUNTING HT  
TYPE IP44

5+0  
standard  
+extended  
**5** YEAR TOTAL  
WARRANTY



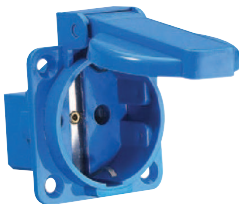
Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HT-413	16		230	70/60/67	44	2 / 10 / 60	C	<b>37413</b>
HT-423	32		230	80/95/79	44	2 / 10 / 60	C	<b>37423</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HT-414	16		400	75/86/75	44	2 / 10 / 60	C	<b>37414</b>
HT-424	32		400	80/95/79	44	2 / 10 / 60	C	<b>37424</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HT-415	16		400	75/85/70	44	2 / 10 / 60	C	<b>37415</b>
HT-425	32		400	98/98/83	44	2 / 10 / 60	C	<b>37425</b>



Model	In (A)	Poles	Un (V)	Dimensions (mm) A/B/C	IP code:	Packing/Box	Product category	Catalogue number
HT-105SR	16		230	50/63/42	44	500	C	<b>37105</b>



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

Type	Poles	Packing / Box (pcs)	Product category	Catalogue number
German type socket for DIN rail		5 / 100	C	<b>37004</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

**Documents corresponding to the product:**

Standard IEC60670; CEI 23-48; CEI 23-49; EN 50102



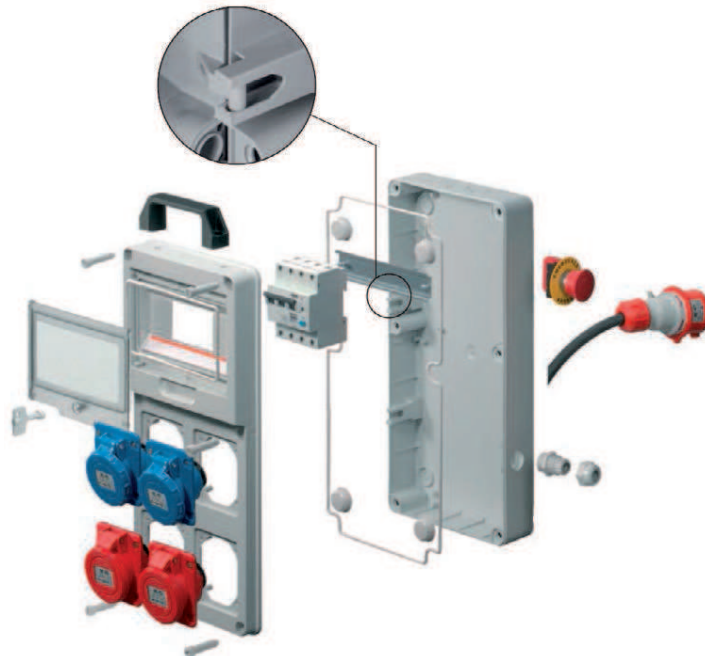
**INDUSTRIAL BOARD SYSTEM EC690 SERIES**

**5+0** standard +extended **5** YEAR TOTAL WARRANTY

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



**EMPTY DISTRIBUTION BOARD EC690 SERIES  
2 VERTICAL SOCKETS**

**5+0** standard +extended **5** YEAR TOTAL WARRANTY

Type	Number of modules	IP code	W	H	D	Packing pcs/box	Product category	Catalogue number
EC69021	4	65	105	337	95	1/15	C	<b>53EC69021</b>



For sockets with 60x60mm hole center distance



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*



**EMPTY DISTRIBUTION BOARD EC690 SERIES  
3 VERTICAL SOCKETS**

**5+0** standard +extended **5** YEAR TOTAL WARRANTY

Type	Number of modules	IP code	W	H	D	Packing pcs/box	Product category	Catalogue number
EC69022	4	65	105	430	95	1/13	C	<b>53EC69022</b>



For sockets with 60x60mm hole center distance



**EMPTY DISTRIBUTION BOARD EC690 SERIES  
4 SOCKETS**

**5+0** standard +extended **5** YEAR TOTAL WARRANTY

Type	Number of modules	IP code	W	H	D	Packing pcs/box	Product category	Catalogue number
EC69023	8	65	200	430	95	1/10	C	<b>53EC69023</b>



For sockets with 60x60mm hole center distance



**EMPTY DISTRIBUTION BOARD EC690 SERIES  
6 SOCKETS**

**5+0** standard +extended **5** YEAR TOTAL WARRANTY

Type	Number of modules	IP code	W	H	D	Packing pcs/box	Product category	Catalogue number
EC69025	12	65	320	510	135	1	C	<b>53EC69025</b>



For sockets with 60x60mm hole center distance

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*



Dimensions W x H x D: 105 x 337 x 95mm

### ASSEMBLED DISTRIBUTION BOARD 690 SERIES 2 VERTICAL SOCKETS, 4 MODULES

5+0 standard +extended YEAR TOTAL WARRANTY

Empty board type					IP code	Product category	Catalogue number
	German type	1P+N+E	3P+N	3P+N+E			
EC69021		1x16A+1x32A			44	C	<b>53EC690212A1</b>
EC69021		1x16A		1x16A	44	C	<b>53EC690212A2</b>
EC69021		1x16A	1x16A		44	C	<b>53EC690212A3</b>
EC69021	2x16A				44	C	<b>53EC690212A4</b>
EC69021		1x16A+1x32A			67	C	<b>53EC690212B1</b>
EC69021		1x16A		1x16A	67	C	<b>53EC690212B2</b>
EC69021		1x16A	1x16A		67	C	<b>53EC690212B3</b>



### ASSEMBLED DISTRIBUTION BOARD 690 SERIES 3 VERTICAL SOCKETS, 4 MODULES

5+0 standard +extended YEAR TOTAL WARRANTY

Empty board type					IP code	Product category	Catalogue number
	German type	1P+N+E	3P+N	3P+N+E			
EC69022		1x16A+1x32A		1x16A	44	C	<b>53EC690223A1</b>
EC69022		1x32A		1x16A+1x32A	44	C	<b>53EC690223A2</b>
EC69022		1x16A+1x32A	1x16A		44	C	<b>53EC690223A3</b>
EC69022		1x32A	1x16A+1x32A		44	C	<b>53EC690223A4</b>
EC69022	2x16A	1x16A			44	C	<b>53EC690223A5</b>
EC69022		1x16A+1x32A		1x16A	67	C	<b>53EC690223B1</b>
EC69022		1x32A		1x16A+1x32A	67	C	<b>53EC690223B2</b>
EC69022		1x16A+1x32A	1x16A		67	C	<b>53EC690223B3</b>
EC69022		1x32A	1x16A+1x32A		67	C	<b>53EC690223B4</b>



Dimensions W x H x D: 105 x 430 x 95mm

### ASSEMBLED DISTRIBUTION BOARD 690 SERIES 4 SOCKETS, 8 MODULES

5+0 standard +extended YEAR TOTAL WARRANTY

Empty board type					IP code	Product category	Catalogue number
	German type	1P+N+E	3P+N	3P+N+E			
EC69023		1x16A+1x32A		1x16A+1x32A	44	C	<b>53EC690234A1</b>
EC69023		2x32A		2x16A	44	C	<b>53EC690234A2</b>
EC69023		1x16A+1x32A	1x16A+1x32A		44	C	<b>53EC690234A3</b>
EC69023		2x32A	2x16A		44	C	<b>53EC690234A4</b>
EC69023	2x16A	1x16A+1x32A			44	C	<b>53EC690234A5</b>
EC69023	2x16A		1x16A+1x32A		44	C	<b>53EC690234A6</b>
EC69023		1x16A+1x32A		1x16A+1x32A	67	C	<b>53EC690234B1</b>
EC69023		2x32A		2x16A	67	C	<b>53EC690234B2</b>
EC69023		1x16A+1x32A	1x16A+1x32A		67	C	<b>53EC690234B3</b>
EC69023		2x32A	2x16A		67	C	<b>53EC690234B4</b>



Dimensions W x H x D: 200 x 430 x 95mm







Dimensions W x H x D: 320 x 510 x 135mm



## ASSEMBLED DISTRIBUTION BOARD 690 SERIES 6 SOCKETS, 12 MODULES

5+0 standard +extended **5** YEAR TOTAL WARRANTY

Empty board type	 German type	 1P+N+E	 3P+N	 3P+N+E	IP code	Product category	Catalogue number
EC69025		2x16A+1x32A		2x16A+1x32A	44	C	<b>53EC690256A1</b>
EC69025		1x16A+2x32A		1x16A+2x32A	44	C	<b>53EC690256A2</b>
EC69025		2x16A+1x32A	2x16A+1x32A		44	C	<b>53EC690256A3</b>
EC69025		1x16A+2x32A	1x16A+2x32A		44	C	<b>53EC690256A4</b>
EC69025	3x16A	2x16A+1x32A			44	C	<b>53EC690256A5</b>
EC69025	2x16A	1x16A	2x16A+1x32A		44	C	<b>53EC690256A6</b>
EC69025		2x16A+1x32A		2x16A+1x32A	67	C	<b>53EC690256B1</b>
EC69025		1x16A+2x32A		1x16A+2x32A	67	C	<b>53EC690256B2</b>
EC69025		2x16A+1x32A	2x16A+1x32A		67	C	<b>53EC690256B3</b>
EC69025		1x16A+2x32A	1x16A+2x32A		67	C	<b>53EC690256B4</b>



## SPARE FLANGE WITH SCREWS AND GASKETS

Type	W	H	D	Packing pcs/box	Product category	Catalogue number
EC690F1	85	74		1/10	C	<b>53EC690F1</b>



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 127



Spare flange with mounted stop button



Stop button  
Page 133

## HANDLE WITH SCREWS

Type	W	H	D	Packing pcs/box	Product category	Catalogue number
EC690MA	134	42	25.6	1/10	C	<b>53EC690MA</b>

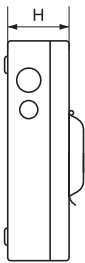
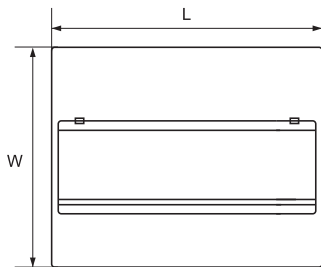


It assures a convenience when carrying the board.

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

### METAL CONSUMER UNITS - SIGMA SERIES

3+2  
standard  
+extended  
**5** YEAR TOTAL  
WARRANTY



#### TECHNICAL DATA:

- Material: High quality electro-galvanized steel sheet
- Modules: 8; 12; 16; 22
- Steel thickness: 1,0mm (8; 12 modules); 1,2mm (16; 22 modules)
- Row: single
- Rated voltage In (A): 100A
- Protected with epoxy polyester coating
- Colour of body: White RAL9003
- Colour of door: White RAL9003
- IP code: IP40
- Fire resistance: 960°C/30s
- Humidity: Max.95%
- Storage temperature: -40+75°C
- Specification: CE, ROHS, BS, EN,EIC60439-3



Modern design and aesthetic look



Different variants of assembling



DIN, zero and ground terminals included



Defense of the electrical parts  
from direct contact



**Metal consumer unit enclosures, Sigma series**

Type	N° of ways	Construction Material	N° of ROWS	Dimensions (mm)			Product category	Catalogue number
				L (mm)	W (mm)	H (mm)		
Sigma	8	Steel	1	303	257	110	C	<b>61088</b>
Sigma	12	Steel	1	375	257	110	C	<b>61128</b>
Sigma	16	Steel	1	447	257	110	C	<b>61168</b>
Sigma	22	Steel	1	555	257	110	C	<b>61228</b>



**Metal consumer units with 100A main switch, Sigma series**

Type	N° of ways when empty	Construction Material	N° of ways	Main Switch	Power Voltage Supply	Dimensions (mm)			Product category	Catalogue number
						L (mm)	W (mm)	H (mm)		
Sigma	8	Steel	6	100A	240V	303	257	110	C	<b>61088SI</b>
Sigma	12	Steel	10	100A	240V	375	257	110	C	<b>61128SI</b>
Sigma	16	Steel	14	100A	240V	447	257	110	C	<b>61168SI</b>
Sigma	22	Steel	20	100A	240V	555	257	110	C	<b>61228SI</b>



**Metal domestic consumer unit with 100A main switch and RCD's, Sigma series**

Type	N° of ways when empty	Construction Material	N° of ways	N° of RCD's Supplied	Main Switch	Dimensions (mm)			Product Category	Catalogue number
						L (mm)	W (mm)	H (mm)		
Sigma	12	Steel	6	2x63A 30mA	1x100A	375	257	110	C	<b>61128SR</b>
Sigma	16	Steel	10	2x63A 30mA	1x100A	447	257	110	C	<b>61168SR</b>
Sigma	22	Steel	16	2x63A 30mA	1x100A	555	257	110	C	<b>61228SR</b>





**Product Contents:** 1x Enclosure, 1x 63A 30mA RCD, 6x MCB's 6kA Curve B (3x6A, 1x16A and 2x20A), busbar and cables

**Sigma 6-way metal consumer unit**

Type	N° of ways when empty	Construction Material	N° of ways	N° of MCB's Supplied	N° of RCD's Supplied	Amp Rating	Amp Rating			Product category	Catalogue number
							L (mm)	H (mm)	W (mm)		
Sigma	8	Steel	6	6	1	63A	244	230	90	C	<b>61088S</b>



**Product Contents:** 1x Enclosure, 1x 100A Main Switch, 2x 63A 30mA RCD's, 6x MCB's 6kA Curve B (3x6A, 1x16A, 2x32A, 1x40), busbar and cables

**Sigma 6-way dual RCD's metal consumer unit**

Type	N° of ways when empty	Construction Material	N° of ways	N° of MCB's Supplied	N° of RCD's Supplied	Main Switch	Amp Rating	Amp Rating			Product category	Catalogue number
								L (mm)	H (mm)	W (mm)		
Sigma	12	Steel	6	6	2	1	63A	316	230	90	C	<b>61128S</b>



**Product Contents:** 1x Enclosure, 1x 100A Main Switch, 2x 63A 30mA RCD's, 10x MCB's 6kA Curve B (3x6A, 2x16A, 4x32A, 1x40), busbar and cables

**Sigma 10-way dual RCD's metal consumer unit**

Type	N° of ways when empty	Construction Material	N° of ways	N° of MCB's Supplied	N° of RCD's Supplied	Main Switch	Amp Rating	Amp Rating			Product category	Catalogue number
								L (mm)	H (mm)	W (mm)		
Sigma	16	Steel	10	10	2	1	63A	388	230	90	C	<b>61168S</b>



**Product Contents:** 1x Enclosure, 1x 100A Main Switch, 2x 63A 30mA RCD's, 12x MCB's 6kA Curve B (3x6A, 1x10A, 2x16A, 4x32A, 1x40, 1x50A), busbar and cables

**Sigma 16-way dual RCD's metal consumer unit**

Type	N° of ways when empty	Construction Material	N° of ways	N° of MCB's Supplied	N° of RCD's Supplied	Main Switch	Amp Rating	Amp Rating			Product category	Catalogue number
								L (mm)	H (mm)	W (mm)		
Sigma	22	Steel	16	12	2	1	63A	496	230	90	C	<b>61228S</b>



**DOCUMENTS CORRESPONDING TO THE PRODUCT:**  
Standard IEC60439-3

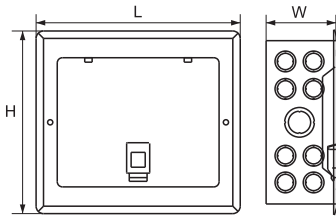
**METAL DISTRIBUTION BOXES FOR SURFACE MOUNTING- DELTA SERIES**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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.

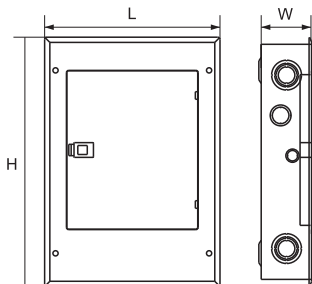
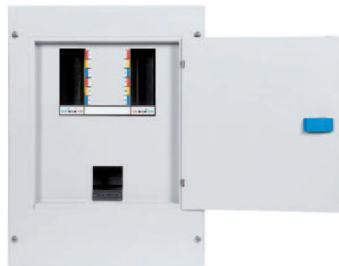
**TECHNICAL DATA:**

- 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,EIC60439-3



**Single phase metal distribution boxes, Delta series**

Type	Construction Material	N° of poles	Module capacity	Dimensions (mm)			Packing / Box	Product category	Catalogue number
				L	H	W			
Delta 1/4	Metal	1	4	226	226	95	1/10	C	<b>600104N</b>
Delta 1/8	Metal	1	8	298	226	95	1/10	C	<b>600108N</b>
Delta 1/12	Metal	1	12	370	226	95	1/10	C	<b>600112N</b>
Delta 1/16	Metal	1	16	442	226	95	1/10	C	<b>600116N</b>



**Three phase metal distribution boxes, Delta series**

Type	Construction Material	N° of poles	Module capacity	Dimensions (mm)			Packing / Box	Product category	Catalogue number
				L	H	W			
Delta 3/4	Metal	3	4	506	350	105	1/10	C	<b>600304N</b>
Delta 3/6	Metal	3	6	560	350	105	1/10	C	<b>600306N</b>
Delta 3/8	Metal	3	8	614	350	105	1/10	C	<b>600308N</b>
Delta 3/10	Metal	3	10	668	350	105	1/10	C	<b>600310N</b>
Delta 3/12	Metal	3	12	722	350	105	1/10	C	<b>600312N</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**DOCUMENTS CORRESPONDING TO THE PRODUCT:**

Standard IEC60439-3



**METAL CONSUMER UNITS - ZETA SERIES**

3+2 standard +extended **5** YEAR TOTAL WARRANTY

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:**

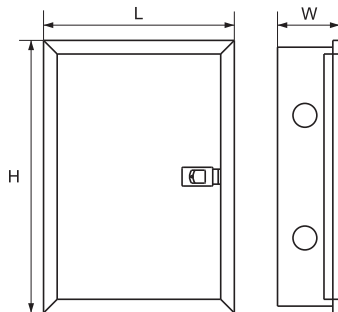
- Material: High quality electro-galvanized steel sheet
- Modules: 30; 36; 45; 60; 72
- Steel thickness: 1,2mm
- Rated voltage In (A): 100A
- Mounting type: Surface
- Colour of body: White RAL7035
- Colour of door: White RAL7035
- IP code: IP40
- Fire resistance: 960°C/30s
- Humidity: Max.95%
- Storage temperature: -40+75°C
- Specification: CE, ROHS, IEC60439-3



Zero and ground terminals included

**Metal consumer unit enclosures, Zeta series**

Type	Construction Material	N° of ROWS	N° of ways	Dimensions (mm)			Product category	Catalogue number
				L (mm)	H (mm)	W (mm)		
Zeta 30	Metal	2	30	428	428	110	C	<b>55030</b>
Zeta 36	Metal	2	36	482	428	110	C	<b>55036</b>
Zeta 45	Metal	3	45	428	578	110	C	<b>55045</b>
Zeta 60	Metal	4	60	428	728	110	C	<b>55060</b>
Zeta 72	Metal	4	72	482	728	110	C	<b>55072</b>



**Documents corresponding to the product:**

Standard EN 62208;  
EN 60439-1; EN 60 439-3

**METAL DISTRIBUTION BOARDS JXF SERIES**

**3+2**  
standard  
+extended **5** YEAR TOTAL WARRANTY

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.

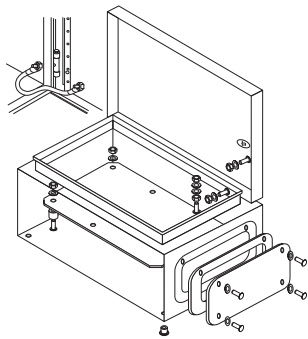
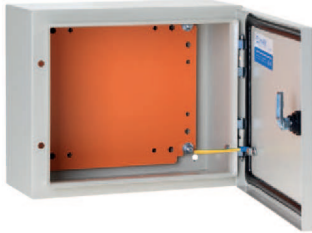
**TECHNICAL DATA:**

- Rated voltage: up to 1000V
- Maximum current: up to 1250A
- Material: steel
- RAL 7032

- Coating: powder style painting
- IP code: IP 65

**MOUNTING:**

- vertically on flat surface



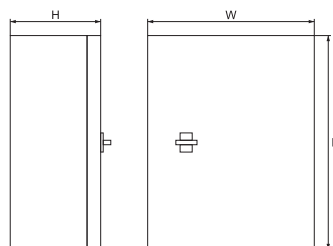
Type	Thickness of metal sheet (mm)	Metal box dimensions (mm)			Nominal working current In (A)	Packing / Product Box	Product category	Catalogue number
		L (height)	W (width)	H (depth)				
JXF 25/25/15	1.0	250	250	150	80	1	C	<b>53025</b>
JXF 25/30/15	1.0	250	300	150	100	1	C	<b>53026</b>
JXF 30/25/15	1.0	300	250	150	100	1	C	<b>53030</b>
JXF 30/40/20	1.0	300	400	200	160	1	C	<b>53031</b>
JXF 40/30/20	1.0	400	300	200	160	1	C	<b>53040</b>
JXF 40/50/20	1.2	400	500	200	250	1	C	<b>53041</b>
JXF 40/40/20	1.2	400	400	200	250	1	C	<b>53044</b>
JXF 50/40/20	1.2	500	400	200	250	1	C	<b>53050</b>
JXF 40/60/20	1.2	400	600	200	250	1	C	<b>53051</b>
JXF 60/40/20	1.2	600	400	200	250	1	C	<b>53060</b>
JXF 60/60/20	1.2	600	600	200	250	1	C	<b>53066</b>
JXF 70/50/20	1.2	700	500	200	350	1	C	<b>53070</b>
JXF 80/60/25	1.5	800	600	250	400	1	C	<b>53080</b>
JXF 100/80/30	1.5	1000	800	300	630	1	C	<b>53100</b>
JXF 120/80/30	1.5	1200	800	300	630	1	C	<b>53120</b>
JXF 140/80/30	1.5	1400	800	300	800	1	C	<b>53140</b>
JXF 180/80/30	1.5	1800	800	300	1000	1	C	<b>53188</b>
JXF 180/100/30*	1.5	1800	1000	300	1250	1	C	<b>53180</b>



**Note:** \*Metal boxes with double door

**Documents corresponding to the product:**

Standard EN 62 208;  
EN 60439-1; EN 60 439-3



**STAINLESS STEEL METAL BOARDS SXF SERIES**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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

Type	Thickness of metal sheet (mm)	Metal box dimensions (mm)			Packing / Box	Product category	Catalogue number
		L (height)	W (width)	H (depth)			
SXF 25/25/15	1.0	250	250	150	1	C	<b>54025</b>
SXF 30/25/15	1.0	300	250	150	1	C	<b>54030</b>
SXF 40/30/20	1.0	400	300	200	1	C	<b>54040</b>
SXF 50/40/20	1.2	500	400	200	1	C	<b>54050</b>
SXF 60/40/20	1.2	600	400	200	1	C	<b>54060</b>
SXF 70/50/20	1.2	700	500	200	1	C	<b>54070</b>
SXF 80/60/25	1.5	800	600	250	1	C	<b>54080</b>
SXF 100/80/30	1.5	1000	800	300	1	C	<b>54100</b>
SXF 120/80/30	1.5	1200	800	300	1	C	<b>54120</b>



**Documents corresponding to the product:**

Standard EN 60439-1;  
EN 60 439-3

**ELECTRIC SWITCHBOARDS WITH TYPE-APPROVAL CERTIFICATES**

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



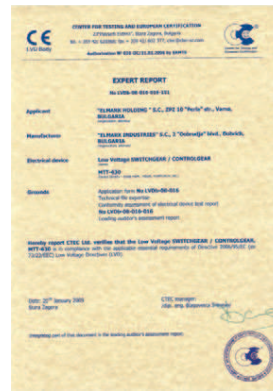
**Low Voltage Meter Box Type TEPO**



**Low Voltage Main Switchboard Type GRT**



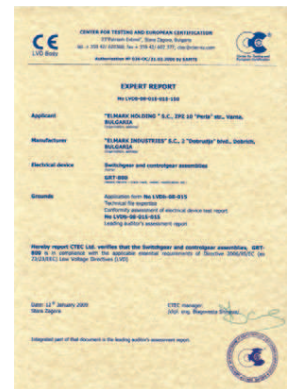
**Tower Mounted Switchgear Type MTT**



**Power Compensation System Type CCU**



**Distribution Switchboard Type KRSH**



**Documents corresponding to the product:**

Standard EN 60670-24

**PLASTIC DISTRIBUTION BOXES FOR SURFACE AND FLUSH MOUNTING ATTIS SERIES, IP40**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY



Zero and ground terminals included



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

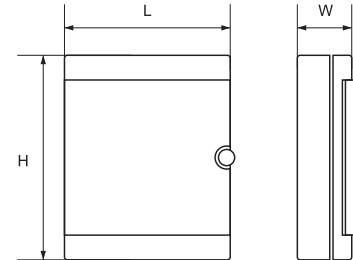
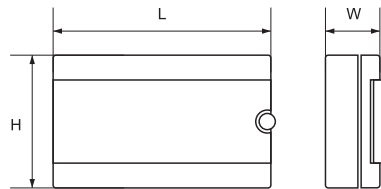
directly on the walls with screws.

**TECHNICAL DATA:**

- Maximum insulation voltage: 690V; 50Hz
- Door colour: Transparent
- Mounting type: Surface; Flush
- Modules (N°): 6; 9; 12; 16; 24; 36
- IP code: IP40
- Row: 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

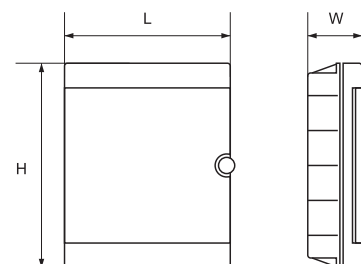
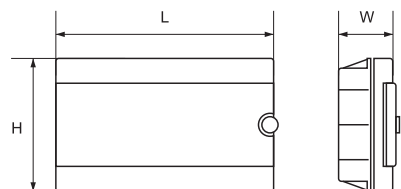
**Plastic distribution boxes for surface mounting- ATTIS series, IP40**

Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box	Product category	Catalogue number
			L	H	W			
Attis 6	1	6	185	140	90	1/30	C	<b>60025</b>
Attis 9	1	9	220	164	90	1/20	C	<b>60095</b>
Attis 12	1	12	305	205	90	1/16	C	<b>60125</b>
Attis 16	1	16	355	220	90	1/16	C	<b>60165</b>
Attis 16	2	16	231	285	90	1/16	C	<b>60175</b>
Attis 24	2	24	313	345	96	1/8	C	<b>60245</b>
Attis 36	3	36	315	440	96	1/5	C	<b>60365</b>



**Plastic distribution boxes for flush mounting- ATTIS series, IP40**

Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box	Product category	Catalogue number
			L	H	W			
Attis 6	1	6	185	140	90	1/30	C	<b>60026</b>
Attis 9	1	9	220	164	90	1/20	C	<b>60096</b>
Attis 12	1	12	305	205	90	1/16	C	<b>60126</b>
Attis 16	1	16	355	220	90	1/16	C	<b>60166</b>
Attis 16	2	16	231	285	90	1/16	C	<b>60176</b>
Attis 24	2	24	313	345	96	1/8	C	<b>60246</b>
Attis 36	3	36	315	440	96	1/5	C	<b>60366</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.

Documents corresponding to the product:

Standard EN 60670-24

### PLASTIC DISTRIBUTION BOXES FOR SURFACE MOUNTING MINI SERIES, IP40

**3+0** standard +extended **3** YEAR TOTAL WARRANTY



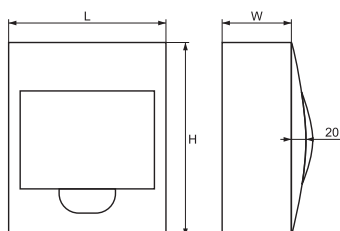
#### Plastic distribution boxes for surface mounting, MINI series

Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box	Product category	Catalogue number
			L	H	W			
Mini 1	1	1	40	150	65	1/120	C	<b>60106</b>
Mini 2	1	2	55	150	65	1/84	C	<b>60107</b>
Mini 4	1	4	95	150	65	1/48	C	<b>60108</b>



### PLASTIC DISTRIBUTION BOXES FOR SURFACE AND FLUSH MOUNTING PDB1 SERIES, IP40

**3+2** standard +extended **5** YEAR TOTAL WARRANTY



#### Boxes for surface mounting

Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box	Product category	Catalogue number
			L	H	W			
PDB1-4	1	4	110	205	75	1 / 20	C	<b>60040</b>
PDB1-6	1	6	150	205	75	1 / 20	C	<b>60060</b>
PDB1-8	1	8	190	205	75	1 / 20	C	<b>60080</b>



#### Boxes for flush mounting

Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box	Product category	Catalogue number
			L	H	W			
PDB1-4	1	4	110	205	75	1 / 20	C	<b>60041</b>
PDB1-6	1	6	150	205	75	1 / 20	C	<b>60061</b>
PDB1-8	1	8	190	205	75	1 / 20	C	<b>60081</b>



#### Plastic distribution boxes for surface and flush mounting IP40 \*

Type	Number of rows	Module capacity (number of devices)	Mounting type	Dimensions (mm)			Packing / Box	Product category	Catalogue number
				L	H	W			
PDB1-4*	1	4	Flush	136	222	60	1/20	F	<b>80041</b>
PDB1-6*	1	6	Flush	170	222	60	1/20	F	<b>80061</b>
PDB1-36*	3	36	Flush	300	484	66	1/5	F	<b>80361</b>
PDB1-36*	3	36	Surface	271	462	66	1/5	F	<b>80360</b>

\*3 year standard+0 year extended warranty



UNTIL SUPPLY LAST

In case of insufficient quantity in stock for BOXES MINI SERIES, the delivery time after order confirmation will be 45 days, and for PDB1 will be 90 days.

**Documents corresponding to the product:**

Standard EN 62 208;  
EN 60439-1; EN 60 439-3



**PLASTIC DISTRIBUTION BOXES FOR SURFACE MOUNTING IP40 - BLUE SERIES**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

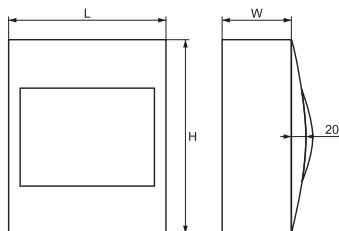
The distribution boxes are designed for mounting in newly built buildings or buildings in reconstruction. They are a module box with mounted protective devices of the given flats electrical current circuit circles. They are supplied with transparent door for each row opening upwards to 90°. They are 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:**

- Door colour: Transparent blue
- Mounting type: Surface; Flush
- Modules (N°): 12; 18; 24; 28; 36
- IP code: IP40
- Row: 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

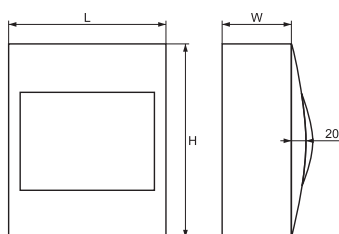
**Boxes for surface mounting, BLUE series**

Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box	Product category	Catalogue number
			L	H	W			
Blue 12	1	12	300	204	102	1/10	C	<b>60122</b>
Blue 18	1	18	410	204	102	1/10	C	<b>60182</b>
Blue 24	2	24	300	294	109	1/5	C	<b>60242</b>
Blue 28	2	28	310	354	109	1/5	C	<b>60282</b>
Blue 36	2	36	410	294	109	1/5	C	<b>60362</b>



**Boxes for flush mounting, BLUE series**

Type	Number of rows	Module capacity (number of devices)	Dimensions (mm)			Packing / Box	Product category	Catalogue number
			L	H	W			
Blue 12	1	12	317	220	102	1/10	C	<b>60123</b>
Blue 18	1	18	426	220	102	1/10	C	<b>60183</b>
Blue 24	2	24	317	310	109	1/5	C	<b>60243</b>
Blue 28	2	28	294	338	109	1/5	C	<b>60283</b>
Blue 36	2	36	426	310	109	1/5	C	<b>60363</b>



**Documents corresponding to the product:**

Standard EN 62 208;  
EN 60439-1; EN 60 439-3

**MOISTURE-PROOF DISTRIBUTION BOXES FOR SURFACE MOUNTING - BETA SERIES IP55 AND GAMMA SERIES IP65**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY



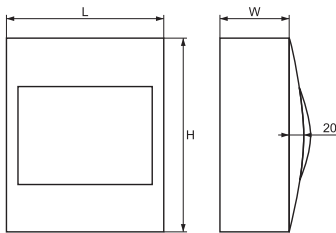
The distribution boxes are designed for mounting in newly built buildings or buildings in reconstruction. They are a module box with mounted protective devices of the given flats electrical installation current circles. They are supplied with transparent door for each row opening upwards to 90°. They 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: IP55; 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:**

- Maximum insulation voltage: 690V; 50Hz
- Flame retardance: UL94 V-O
- IP code: IP55; IP65
- Door colour: Transparent
- Mounting type: Surface

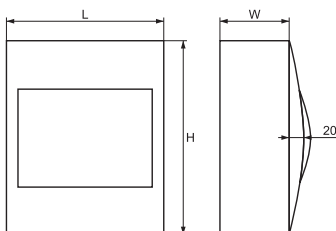
**Moisture-proof distribution boxes for surface mounting - Beta series, IP 55**

Type	Number of rows	Module capacity (number of devices)	IP	Dimensions (mm)			Packing / Box	Product category	Catalogue number
				L	H	W			
Beta 4	1	4	55	127	214	93	1 / 20	C	<b>60100</b>
Beta 6	1	6	55	162	214	93	1 / 20	C	<b>60101</b>
Beta 8	1	8	55	216	214	93	1 / 20	C	<b>60102</b>
Beta 12	1	12	55	270	214	93	1 / 12	C	<b>60103</b>
Beta 18	1	18	55	378	233	93	1 / 8	C	<b>60104</b>
Beta 24	2	24	55	340	288	93	1 / 8	C	<b>60105</b>



**Moisture-proof distribution boxes for surface mounting - Gamma series, IP 65**

Type	Number of rows	Module capacity (number of devices)	IP	Dimensions (mm)			Packing / Box	Product category	Catalogue number
				H	L	W			
Gamma 4	1	4	65	210	140	100	1/30	C	<b>60004</b>
Gamma 8	1	8	65	210	215	100	1/20	C	<b>60008</b>
Gamma 12	1	12	65	260	300	140	1/10	C	<b>60012</b>
Gamma 18	1	18	65	285	410	140	1/5	C	<b>60018</b>
Gamma 24	2	24	65	300	415	140	1/5	C	<b>60024</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

**Documents corresponding to the product:**

Standard EN 60439 -1  
EN 60439 -5



**PLASTIC DISTRIBUTION BOARDS ABS- PP SERIES, IP65**

**3+2** standard +extended **5** YEAR TOTAL WARRANTY

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 SPECIFICATIONS:**

- 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
- IP code: IP65

- Colour: RAL7035 grey
- Recyclable
- adjustable mounting plate position

**MOUNTING:**

- Vertically on flat surface

**ABS halogen free distribution boards PP series - gray door**

Board Type	Material Type	H (mm)	L (mm)	W (mm)	Packing / Box	Product category	Catalogue number
PP 3001	ABS	300	200	130	1	C	<b>5312030130</b>
PP 3002	ABS	350	250	150	1	C	<b>5312535150</b>
PP 3004	ABS	400	300	170	1	C	<b>5313040170</b>
PP 3005	ABS	400	300	220	1	C	<b>5313040220</b>
PP 3006	ABS	500	350	190	1	C	<b>5313550190</b>
PP 3007	ABS	500	400	240	1	C	<b>5314050240</b>
PP 3008	ABS	600	400	200	1	C	<b>5314060190</b>



**Note:** Open door angle 180°

**ABS halogen free distribution boards PP series- transparent door**

Board Type	Material Type	H (mm)	L (mm)	W (mm)	Packing / Box	Product category	Catalogue number
PP 3011	ABS	300	200	130	1	C	<b>5342030130</b>
PP 3012	ABS	350	250	150	1	C	<b>5342535150</b>
PP 3014	ABS	400	300	170	1	C	<b>5343040170</b>
PP 3015	ABS	400	300	220	1	C	<b>5343040220</b>
PP 3016	ABS	500	350	190	1	C	<b>5343550190</b>
PP 3017	ABS	500	400	240	1	C	<b>5344050240</b>
PP 3018	ABS	600	400	200	1	C	<b>5344060190</b>
PP 3020	ABS	700	500	250	1	C	<b>5345070250</b>



**ABS halogen free distribution module boards PP series- transparent door**

Board Type	Material Type	H (mm)	L (mm)	W (mm)	Packing / Box	Product category	Catalogue number
PP 3112-18modules	ABS	350	250	150	1	C	<b>5322535150</b>
PP 3114-24modules	ABS	400	300	170	1	C	<b>5323040170</b>
PP 3116-45modules	ABS	500	350	190	1	C	<b>5323550190</b>
PP 3118-60modules	ABS	600	400	200	1	C	<b>5324060190</b>



**Note:** Transperent door

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*



**SURFACE MOUNTING POLYESTER BOARDS EC SERIES IP65**

UNTIL SUPPLY  
LAST

3+2  
standard  
+extended  
**5** YEAR TOTAL  
WARRANTY

**TECHNICAL SPECIFICATIONS:**

- Colour: grey RAL 7035.
- IP65 protection degree.
- Material: made of halogen free reinforced fiberglass polyester, self-extinguishing V0 degree according to UL94.
- Double insulation, shock resistance: IK10, 20j, according to EN 62262.
- Application temperature: minimum -25°, maximum +65°.
- Resistance to abnormal heat (GWT)- board with blank door up to 960°C - board with transparent window up to 650°C.
- Application voltage 1000V, suitable for photovoltaic plants.
- Right or left reversible door with stainless steel pins – it can be opened more than 180°.
- Plain and smooth headboards for easy opening and conduit inlet.

- Removable frame ready to install slotted trunkings in the back.
- Back plates made up of metal or insulating material can be fixed directly to the board back, also if the frame is used, or can be adjusted to different heights through the kit EC625REG.
- Possibility to mount 48-75mm high switches or 102mm high switches starting from the board with dimensions 435x505x215.
- One-Screw-System: only one type of screws is used for the different accessories in order to permit a simple and easy assembly.
- Left or right reversible counter door with stainless steel pins, ergonomic handle, triangle lock, adjustable at two different heights with reference grid for the fixing of the devices.
- Fixing of the single/double blank or windowed panels through a ¼ turn screws.



**Halogen free polyester boards EC series- blank door**

Type	Material	H (mm)	L (mm)	W (mm)	Packing /Box	Product category	Catalogue number
PBBD 5002	Polyester	430	325	185	1	F	<b>5333243185</b>
PBBD 5003	Polyester	505	435	215	1	F	<b>5334350215</b>
PBBD 5004	Polyester	655	435	215	1	F	<b>5334365215</b>
PBBD 5005	Polyester	655	545	265	1	F	<b>5335465265</b>



\*Detailed installation instructions and information about the functions and applications of all additional accessories for polyester boxes, you can find on: [www.elmarkholding.eu](http://www.elmarkholding.eu)



**Halogen free polyester boards EC series- transparent door**

Type	Material	H (mm)	L (mm)	W (mm)	Packing /Box	Product category	Catalogue number
PBTD 5001	Polyester	305	270	170	1	F	<b>5362730170</b>
PBTD 5002	Polyester	430	325	185	1	F	<b>5363243185</b>
PBTD 5003	Polyester	505	435	215	1	F	<b>5364350215</b>
PBTD 5004	Polyester	655	435	215	1	F	<b>5364365215</b>
PBTD 5005	Polyester	655	545	265	1	F	<b>5365465265</b>



**Polyester hinger counterdoor EC**

Type	Material	Used for type boards	Packing /Box	Product category	Catalogue number
CD 5002	Polyester	PBTD/PBBD 5002	1	F	<b>53502CD</b>
CD 5003	Polyester	PBTD/PBBD 5003	1	F	<b>53503CD</b>
CD 5004	Polyester	PBTD/PBBD 5004	1	F	<b>53504CD</b>
CD 5005	Polyester	PBTD/PBBD 5005	1	F	<b>53505CD</b>

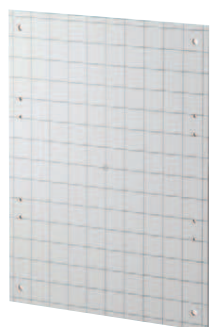


*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*



**Metal back plate EC**

Type	Dimensions	Used for type boards	Packing /Box	Product category	Catalogue number
MP 5001	207x239	PBTD/PBBD 5001	1 F		<b>53501MP</b>
MP 5002	264x364	PBTD/PBBD 5002	1 F		<b>53502MP</b>
MP 5004	372x589	PBTD/PBBD 5004	1 F		<b>53504MP</b>
MP 5005	482x589	PBTD/PBBD 5005	1 F		<b>53505MP</b>
MP 5006	556x739	PBTD/PBBD 5006	1 F		<b>53506MP</b>



**Insulating plastic back plate EC**

Type	Dimensions	Used for type boards	Packing /Box	Product category	Catalogue number
IBP 5001	207x239	PBTD/PBBD 5001	1 F		<b>53501IBP</b>
IBP 5005	482x589	PBTD/PBBD 5005	1 F		<b>53505IBP</b>
IBP 5006	556x739	PBTD/PBBD 5006	1 F		<b>53506IBP</b>



**Pair of uprights for rail DIN and panels EC**

Type	Used for type boards	Packing /Box	Product category	Catalogue number
DP 5002	PBTD/PBBD 5002	1 pair F		<b>53502DP</b>
DP 5003	PBTD/PBBD 5003	1 pair F		<b>53503DP</b>
DP 5004	PBTD/PBBD 5004/5005	1 pair F		<b>53504DP</b>
DP 5006	PBTD/PBBD 5006	1 pair F		<b>53506DP</b>

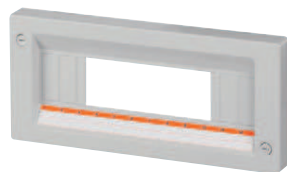


**DIN rail with support EC**

Type	Module capacity	Used for type boards	Packing /Box	Product category	Catalogue number
DS 5005	28	PBTD/PBBD 5006	1 F		<b>53505DS</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*



**Cover module with window EC**

Type	Module capacity	Used for type boards	Packing /Box	Product category	Catalogue number
CMW 5002	12	PBTD/PBBD 5002	1	F	<b>53502CMW</b>
CMW 5003	18	PBTD/PBBD 5003/5004	1	F	<b>53503CMW</b>
CMW 5004	24	PBTD/PBBD 5005	1	F	<b>53504CMW</b>
CMW 5005	28	PBTD/PBBD 5006	1	F	<b>53505CMW</b>



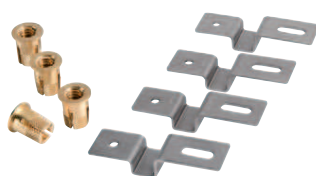
**Blank cover module EC**

Type	Height of single/ double cover (mm)	Used for type boards	Packing / Box	Product category	Catalogue number single cover	Catalogue number double cover
Blank cover module	125/250	PBTD/PBBD 5002	1	F	<b>53502S</b>	
	150/300	PBTD/PBBD 5003/5004	1	F	<b>53503S</b>	<b>53503D</b>
	150/300	PBTD/PBBD 5005	1	F	<b>53505S</b>	<b>53505D</b>
	150/300	PBTD/PBBD 5006	1	F	<b>53506S</b>	<b>53506D</b>



**Deep adjustment back plate kit EC**

Type	Used for type boards	Need kits	Packing /Box	Product category	Catalogue number
Deep adjustment back plate kit	PBTD/PBBD 5002/5003	2kit	1 kit (2 pcs)	F	<b>53507</b>
	PBTD/PBBD 5004/5005	3kit	1 kit (2 pcs)	F	<b>53507</b>
	PBTD/PBBD 5006	4kit	1 kit (2 pcs)	F	<b>53507</b>



**Spare brass and brackets for fixing- galvanized EC**

Type	Used for type boards	Packing /Box	Product category	Catalogue number
Galvanized brackets	All type	1 kit (4 pcs)	F	<b>53510</b>
Spare brass insert kit	All type	1 kit (10 pcs)	F	<b>53512</b>



**Safety lock EC**

Type	Used for type boards	Packing /Box	Product category	Catalogue number
Safety lock	All type	1	F	<b>53511</b>



**Note:** Lock supplied with two unified keys. The keys are unified and open all the locks

*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*

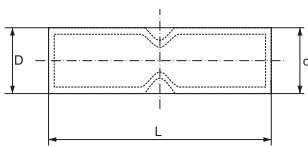


### CONNECTION TUBES - GTY TYPE

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



Type	Length L (mm)	Outer diameter D (mm)	Inner diameter d (mm)	Cable (mm <sup>2</sup> )	Packing / Box (pcs)	Product category	Catalogue number
GTY-4	20	5	3	4	1000 / 16000	C	<b>59213</b>
GTY-6	25	5.3	3.7	6	500 / 1500 / 12000	C	<b>59201</b>
GTY-10	30	6.3	4.5	10	500 / 1500 / 12000	C	<b>59202</b>
GTY-16	35	7.5	5.7	16	100 / 200 / 4800	C	<b>59203</b>
GTY-25	40	9	7.2	25	100 / 500 / 2000	C	<b>59204</b>
GTY-35	45	10.8	8.5	35	100 / 200 / 1600	C	<b>59205</b>
GTY-50	50	12.5	9.8	50	20 / 200 / 1600	C	<b>59206</b>
GTY-70	55	14.5	11.5	70	10 / 100 / 800	C	<b>59207</b>
GTY-95	60	17	13.7	95	10 / 80 / 640	C	<b>59208</b>
GTY-120	65	19	15	120	10 / 60 / 480	C	<b>59209</b>
GTY-150	70	21	16.7	150	10 / 50 / 400	C	<b>59210</b>
GTY-185	75	23	18.5	185	10 / 40 / 320	C	<b>59211</b>
GTY-240	80	26	21	240	10 / 30 / 240	C	<b>59212</b>

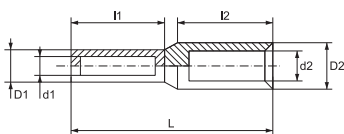


### BIMETALLIC CONNECTION TUBE - GTL TYPE

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



Type	d1	D1	d2	D2	l1	l2	L	Packing / Box (pcs)	Product category	Catalogue number
GTL - 16	5	9	6	10	30	30	75	20 / 200 / 1200	C	<b>59214</b>
GTL - 25	6	10	7	12	30	33	82	20 / 400 / 1500	C	<b>59215</b>
GTL - 35	7	11	8.5	14	30	40	90	20 / 300 / 1000	C	<b>59216</b>
GTL - 50	8.5	13	9.8	16	32	42	95	20 / 800	C	<b>59217</b>
GTL - 70	9.5	15	11.5	18	38	50	105	10 / 600	C	<b>59218</b>
GTL - 95	11.5	17	13.5	21	40	50	110	10 / 500	C	<b>59219</b>
GTL - 120	13.5	19	15	23	42	55	112	10 / 400	C	<b>59220</b>
GTL - 150	15	21	17	25	44	55	118	10 / 350	C	<b>59221</b>
GTL - 185	17	23	18.5	27	46	60	125	10 / 300	C	<b>59222</b>
GTL - 240	19	26	21	30	54	60	130	10 / 200	C	<b>59223</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

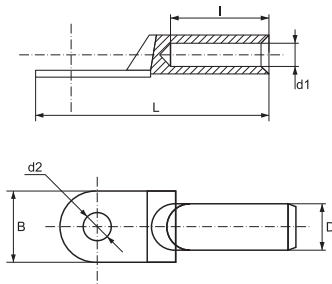
**CABLE TERMINALS NON-ISOLATED - JM TYPE**



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 JM. 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.



Type	d1 (mm)	D (mm)	d2 (mm)	L (mm)	Packing / Box (pcs)	Product category	Catalogue number
JM - 2.5/6	2.2	4.5	6	24	1000 / 3000 / 24000	C	<b>59240</b>
JM - 4/6	3.0	4.8	6	24	1000 / 2000 / 16000	C	<b>59241</b>
JM - 6/6	3.8	5.5	6	24	500 / 2000 / 16000	C	<b>59035</b>
JM - 6/8	3.8	5.5	8	24	500 / 2000 / 16000	C	<b>59059</b>
JM - 10/6	4.8	6.8	6	25.5	100 / 1500 / 12000	C	<b>59036</b>
JM - 10/8	4.8	6.8	8	25.5	500 / 1500 / 12000	C	<b>59037</b>
JM - 16/6	5.5	7.5	6	30.5	400 / 800 / 6400	C	<b>59038</b>
JM - 16/8	5.5	7.5	8	30.5	400 / 800 / 6400	C	<b>59039</b>
JM - 16/10	5.5	7.5	10	30.5	400 / 800 / 6400	C	<b>59040</b>
JM - 25/8	7	9	8	34	100 / 500 / 4000	C	<b>59041</b>
JM - 25/10	7	9	10	34	250 / 500 / 4000	C	<b>59042</b>
JM - 35/8	8.2	10.5	8	38	200 / 400 / 3200	C	<b>59043</b>
JM - 35/10	8.2	10.5	10	38	200 / 400 / 3200	C	<b>59044</b>
JM - 35/12	8.2	10.5	12	38	200 / 400 / 3200	C	<b>59045</b>
JM - 50/8	9.8	12.5	8	45	100 / 200 / 1600	C	<b>59046</b>
JM - 50/10	9.8	12.5	10	45	100 / 100 / 1600	C	<b>59047</b>
JM - 50/12	9.8	12.5	12	45	100 / 200 / 1600	C	<b>59048</b>
JM - 70/10	11.5	14.5	10	50	80 / 100 / 1280	C	<b>59049</b>
JM - 70/12	11.5	14.5	12	50	80 / 100 / 1280	C	<b>59050</b>
JM - 95/10	13.8	17.5	10	55.5	50 / 200 / 800	C	<b>59051</b>
JM - 95/12	13.8	17.5	12	55.5	50 / 200 / 800	C	<b>59052</b>
JM - 120/10	15.5	19.5	10	63	30 / 60 / 480	C	<b>59053</b>
JM - 120/12	15.5	19.5	12	63	30 / 60 / 480	C	<b>59054</b>
JM - 150/12	16.5	21	12	71	10 / 50 / 400	C	<b>59055</b>
JM - 185/12	18.8	23.5	12	78	10 / 40 / 320	C	<b>59056</b>
JM - 185/16	18.8	23.5	16	78	10 / 40 / 320	C	<b>59057</b>
JM - 240/16	21.3	26.5	16	92	10 / 30 / 240	C	<b>59058</b>



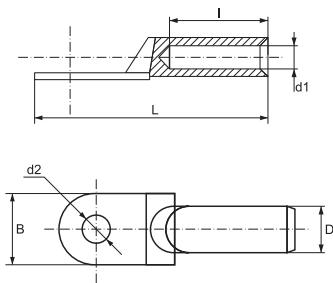
### BIMETALIC NON-ISOLATED CABLE TERMINALS FOR CRIMPING DTL



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.

Type	d1 (mm)	D (mm)	d2 (mm)	L (mm)	l (mm)	B (mm)	Packing / Box (pcs)	Product category	Catalogue number
DTL - 1 - 16	6	11	8	70	30	16	20 / 200 / 1440	C	<b>59224</b>
DTL - 1 - 25	7	12	8	75	34	18	20 / 180 / 1080	C	<b>59225</b>
DTL - 1 - 35	8.5	14	10	85	38	20.5	20 / 100 / 600	C	<b>59226</b>
DTL - 1 - 50	9.8	16	10	90	40	23	20 / 70 / 420	C	<b>59227</b>
DTL - 1 - 70	11.5	18	12	102	48	26	10 / 60 / 360	C	<b>59228</b>
DTL - 1 - 95	13.5	21	12	112	50	28	10 / 40 / 180	C	<b>59229</b>
DTL - 1 - 120	15	23	14	120	53	30	10 / 30 / 120	C	<b>59230</b>
DTL - 1 - 150	16.5	25	14	126	56	34	5 / 25 / 120	C	<b>59231</b>
DTL - 1 - 185	18.5	27	16	133	58	37	5 / 20 / 120	C	<b>59232</b>
DTL - 1 - 240	21	30	16	140	60	40	4 / 12 / 72	C	<b>59233</b>



### COPPER CABLE WIRE FORK TERMINAL CONNECTOR



Type	Length (mm)	Colour	Conductor (mm <sup>2</sup> )	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
SVS1.25-4	21.2	Red	0.5-1.0	100	10 / 240	C	<b>59080</b>
SVS1.25-5	21.2	Red	0.5-1.0	100	15 / 180	C	<b>59081</b>
SVS1.25-6	21.2	Red	0.5-1.0	100	15 / 180	C	<b>59082</b>
SVS 2-4	21.0	Blue	1.5-2.5	100	15 / 180	C	<b>59083</b>
SVS 2-5	22.5	Blue	1.5-2.5	100	15 / 180	C	<b>59084</b>
SVS 2-6	27,6	Blue	1.5-2.5	100	10 / 120	C	<b>59085</b>
SVS 5,5-4	24.5	Yellow	4.0-6.0	100	5 / 60	C	<b>59086</b>
SVS 5,5-5	27,9	Yellow	4.0-6.0	100	5 / 60	C	<b>59087</b>
SVS 5,5-6	27,9	Yellow	4.0-6.0	100	5 / 60	C	<b>59088</b>



### ISOLATED CABLE TERMINALS - CHS TYPE



Type	Length (mm)	Conductor (mm <sup>2</sup> )	Packing / Box (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
CHS3	18.1	0.25-1.5	100	250	C	<b>59115</b>
CHS4	20.1	1.5-2.5	100	200	C	<b>59116</b>
CHS5	25.5	4.0-6.0	100	200	C	<b>59117</b>
CHS6	27.3	8.0	100	100	C	<b>59118</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



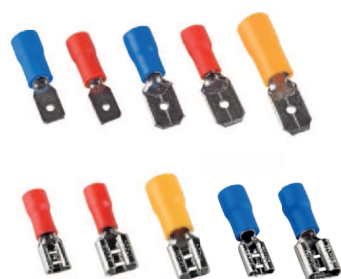
## ISOLATED CABLE JOINTS

Metal pipes with outside PVC insulation. They are used for joining/extending multicore conductors with section up to 6mm<sup>2</sup>. 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

Type	Length (mm)	Colour	Conductor (mm <sup>2</sup> )	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
PVT 1.25	16	red	0.5-1.0	100	15 / 300	C	<b>59015</b>
BV 1.25	25	red	0.5-1.0	100	10 / 120	C	<b>59001</b>
PVT 2	16	blue	1.5-2.5	100	15 / 300	C	<b>59034</b>
BV 2	25	blue	1.5-2.5	100	10 / 60	C	<b>59002</b>
PVT 5.5	20	yellow	4.0-6.0	100	5 / 60	C	<b>59014</b>
BV 5.5	25	yellow	4.0-6.0	100	5 / 60	C	<b>59003</b>



## ISOLATED CABLE TERMINALS - MDD/FDD TYPES

They represent a cable terminal made of brass alloy with galvanic tin coating and insulated with polyvinylchloride. 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: polyvinylchloride
- Application: general for joining copper conductors
- Ambient temperature: -10 to +75°C

Type	Shape	Colour	Conductor (mm <sup>2</sup> )	Shoe width	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
MDD 1.25 - 187	male	red	0.5-1.0	187	100	10 / 240	C	<b>59012</b>
MDD 1.25 - 250	male	red	0.5-1.0	250	100	10 / 240	C	<b>59009</b>
MDD 2 - 187	male	blue	1.5-2.5	187	100	10 / 240	C	<b>59013</b>
MDD 2 - 250	male	blue	1.5-2.5	250	100	10 / 180	C	<b>59011</b>
MDD 5.5 - 250	male	yellow	4.0-6.0	250	100	10 / 120	C	<b>59010</b>
FDD 1.25 - 187	female	red	0.5-1.0	187	100	20 / 240	C	<b>59008</b>
FDD 1.25 - 187	female	red	0.5-1.0	250	100	15 / 180	C	<b>59006</b>
FDD 2 - 187	female	blue	1.5-2.5	187	100	20 / 240	C	<b>59007</b>
FDD 2 - 250	female	blue	1.5-2.5	250	100	10 / 180	C	<b>59004</b>
FDD 5.5 - 250	female	yellow	4.0-6.0	250	100	10 / 120	C	<b>59005</b>





### ISOLATED CABLE TERMINALS - E TYPE

Type	Colour	Terminal length (mm)	Conductor (mm <sup>2</sup> )	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
E0508	white	8	0.5	100	50 / 600	C	<b>59023</b>
E7508	blue	8	0.75	100	50 / 600	C	<b>59024</b>
E1008	red	8	1.0	100	50 / 600	C	<b>59025</b>
E1510	black	10	1.5	100	30 / 360	C	<b>59026</b>
E2512	grey	12	2.5	100	30 / 300	C	<b>59027</b>
E4012	orange	12	4.0	100	20 / 240	C	<b>59028</b>
E6018	green	18	6.0	100	5 / 120	C	<b>59029</b>
E10-18	dark green	18	10	100	8 / 96	C	<b>59030</b>
E16-18	milky yellow	18	16	100	6 / 60	C	<b>59031</b>
E25-16	black	16	25	100	5 / 36	C	<b>59032</b>
E35-25	grey-yellow	25	35	100	2 / 24	C	<b>59033</b>



### TWIN ISOLATED CABLE TERMINALS- TE TYPE

Type	Colour	Terminal length (mm)	Conductor (mm <sup>2</sup> )	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
TE0508	white	8	2x0.5	100	50 / 600	C	<b>59023TE</b>
TE7508	Blue	8	2x0.75	100	50 / 600	C	<b>59024TE</b>
TE1008	Red	8	2x1.0	100	50 / 600	C	<b>59025TE</b>
TE1508	black	8	2x1.5	100	30 / 360	C	<b>59026TE</b>
TE2510	grey	10	2x2.5	100	30 / 300	C	<b>59027TE</b>
TE4010	orange	10	2x4.0	100	20 / 240	C	<b>59028TE</b>
TE6014	green	14	2x6.0	100	5 / 120	C	<b>59029TE</b>
TE10-14	dark green	14	2x10.0	100	8 / 96	C	<b>59030TE</b>
TE16-14	milky yellow	14	2x16.0	100	6 / 60	C	<b>59031TE</b>



### ISOLATED CABLE TERMINALS - PTV TYPE

Type	Shape	Colour	Conductor (mm <sup>2</sup> )	Shoe width	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
PTV 1.25 - 10	male	red	0.25-1.0	1.9	100	20 / 240	C	<b>59101</b>
PTV 1.25 - 12	male	red	0.25-1.0	1.9	100	20 / 240	C	<b>59102</b>
PTV 2 - 10	male	blue	1.5-2.5	1.9	100	20 / 240	C	<b>59103</b>
PTV 2 - 12	male	blue	1.5-2.5	1.9	100	15 / 180	C	<b>59104</b>
PTV 5.5 - 13	male	yellow	4.0-6.0	2.9	100	8 / 96	C	<b>59105</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

### ISOLATED CABLE TERMINALS - RVL TYPE



Type	Size of the opening (mm)	Colour	Conductor (mm <sup>2</sup> )	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
RVL 1.25-4	4	red	0.5-1.0	100	20 / 240	C	<b>59021</b>
RVL 1.25-5	5	red	0.5-1.0	100	15 / 180	C	<b>59022</b>
RVL 2-4	4	blue	1.5-2.5	100	15 / 180	C	<b>59018</b>
RVL 2-5	5	blue	1.5-2.5	100	10 / 120	C	<b>59019</b>
RVL 5.5-4	4	yellow	4.0-6.0	100	8 / 96	C	<b>59020</b>
RV 5.5-5	5	yellow	4.0-6.0	100	8 / 96	C	<b>59016</b>
RV 5.5-6	6	yellow	4.0-6.0	100	8 / 96	C	<b>59017</b>



### ISOLATED CABLE TERMINALS - PBDD TYPE



Type	Shape	Colour	Conductor (mm <sup>2</sup> )	Shoe width	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
PBDD 1.25 - 250	male	red	0.25-1.0	6.3	100	5 / 60	C	<b>59106</b>
PBDD 2 - 250	male	blue	1.5-2.5	6.3	100	5 / 60	C	<b>59107</b>
PBDD 5.5 - 250	male	yellow	4.0-6.0	6.3	100	5 / 60	C	<b>59108</b>



### ISOLATED CABLE TERMINALS - MPD TYPE



Type	Shape	Colour	Conductor (mm <sup>2</sup> )	Shoe width	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
MPD 1.25 - 156	male	red	0.25-1.0	6.3	100	10 / 240	C	<b>59109</b>
MPD 2 - 195	male	blue	1.5-2.5	6.3	100	10 / 120	C	<b>59110</b>
MPD 5.5 - 195	male	yellow	4.0-6.0	6.3	100	10 / 120	C	<b>59111</b>



### ISOLATED CABLE TERMINALS - MDFN/DFNY



Type	Shape	Colour	Conductor (mm <sup>2</sup> )	Shoe width	Packing (pcs.)	Packing / Box (pcs.)	Product category	Catalogue number
MDFN 1.0 - 250	male	red	0.25-1.0	4	100	5 / 60	C	<b>59112</b>
MDFN 2 - 250	male	blue	1.5-2.5	4	100	5 / 60	C	<b>59113</b>
MDFN 5 - 250	male	yellow	4.0-6.0	5	100	4 / 48	C	<b>59114</b>
DFNY 1.0 - 250	female	red	0.25-1.0	4	100	10 / 60	C	<b>59242</b>
DFNY 2 - 250	female	blue	1.5-2.5	4	100	10 / 60	C	<b>59243</b>
DFNY 5 - 250	female	yellow	4.0-6.0	5	100	10 / 60	C	<b>59244</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



## PLASTIC CABLE TRUNKING CT2

Cable trunkings 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.

Type	Size (mm)	Length	Colour	Packing (pcs)	Product category	Catalogue number
PLASTIC CABLE TRUNKING CT2	12x12	2m	white	100	C	<b>5621212</b>
PLASTIC CABLE TRUNKING CT2	15X10	2m	white	100	C	<b>5621510</b>
PLASTIC CABLE TRUNKING CT2	16X16	2m	white	100	C	<b>5621616</b>
PLASTIC CABLE TRUNKING CT2	20X10	2m	white	100	C	<b>5622010</b>
PLASTIC CABLE TRUNKING CT2	25X16	2m	white	80	C	<b>5622516</b>
PLASTIC CABLE TRUNKING CT2	25X25	2m	white	50	C	<b>5622525</b>
PLASTIC CABLE TRUNKING CT2	40X16	2m	white	50	C	<b>5624016</b>
PLASTIC CABLE TRUNKING CT2	40X25	2m	white	50	C	<b>5624025</b>
PLASTIC CABLE TRUNKING CT2	40X40	2m	white	40	C	<b>5624040</b>
PLASTIC CABLE TRUNKING CT2	60X40	2m	white	30	C	<b>5626040</b>
PLASTIC CABLE TRUNKING CT2	60X60	2m	white	32	C	<b>5626060</b>
PLASTIC CABLE TRUNKING CT2	80X40	2m	white	18	C	<b>5628040</b>
PLASTIC CABLE TRUNKING CT2	80X60	2m	white	24	C	<b>5628060</b>
PLASTIC CABLE TRUNKING CT2	100X40	2m	white	16	C	<b>56210040</b>
PLASTIC CABLE TRUNKING CT2	100X60	2m	white	16	C	<b>56210060</b>



## 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.

Type	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
SINGLE FRAME	100X40/100X60	White	20	C	<b>562100441</b>
DOUBLE FRAME	100X40/100X60	White	14	C	<b>562100442</b>
TRIPLE FRAME	100X40/100X60	White	5	C	<b>562100443</b>



### OUTSIDE CORNER



Type	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
OUTSIDE CORNER	12x12	white	50	C	<b>56212121</b>
OUTSIDE CORNER	15X10	white	50	C	<b>56215101</b>
OUTSIDE CORNER	16X16	white	50	C	<b>56216161</b>
OUTSIDE CORNER	25X16	white	30	C	<b>56225161</b>
OUTSIDE CORNER	25X25	white	30	C	<b>56225251</b>
OUTSIDE CORNER	40X16	white	30	C	<b>56240161</b>
OUTSIDE CORNER	40X25	white	30	C	<b>56240251</b>
OUTSIDE CORNER	40X40	white	30	C	<b>56240401</b>
OUTSIDE CORNER	60X40	white	10	C	<b>56260401</b>
OUTSIDE CORNER	60X60	white	10	C	<b>56260601</b>
OUTSIDE CORNER	80X40	white	8	C	<b>56280401</b>
OUTSIDE CORNER	80X60	white	8	C	<b>56280601</b>
OUTSIDE CORNER	100X40	white	6	C	<b>562100401</b>
OUTSIDE CORNER	100X60	white	6	C	<b>562100601</b>



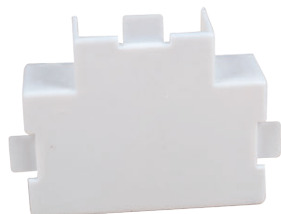
### INSIDE CORNER



Type	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
INSIDE CORNER	12x12	white	50	C	<b>56212122</b>
INSIDE CORNER	15X10	white	50	C	<b>56215102</b>
INSIDE CORNER	16X16	white	50	C	<b>56216162</b>
INSIDE CORNER	25X16	white	30	C	<b>56225162</b>
INSIDE CORNER	25X25	white	30	C	<b>56225252</b>
INSIDE CORNER	40X16	white	30	C	<b>56240162</b>
INSIDE CORNER	40X25	white	30	C	<b>56240252</b>
INSIDE CORNER	40X40	white	30	C	<b>56240402</b>
INSIDE CORNER	60X40	white	10	C	<b>56260402</b>
INSIDE CORNER	60X60	white	10	C	<b>56260602</b>
INSIDE CORNER	80X40	white	8	C	<b>56280402</b>
INSIDE CORNER	80X60	white	8	C	<b>56280602</b>
INSIDE CORNER	100X40	white	6	C	<b>562100402</b>
INSIDE CORNER	100X60	white	6	C	<b>562100602</b>



## T- CORNER



Type	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
T- corner	12x12	white	50	C	<b>56212123</b>
T- corner	15X10	white	50	C	<b>56215103</b>
T- corner	16X16	white	50	C	<b>56216163</b>
T- corner	25X16	white	20	C	<b>56225163</b>
T- corner	25X25	white	20	C	<b>56225253</b>
T- corner	40X16	white	30	C	<b>56240163</b>
T- corner	40X25	white	30	C	<b>56240253</b>
T- corner	40X40	white	30	C	<b>56240403</b>
T- corner	60X40	white	16	C	<b>56260403</b>
T- corner	60X60	white	16	C	<b>56260603</b>
T- corner	80X40	white	8	C	<b>56280403</b>
T- corner	80X60	white	8	C	<b>56280603</b>
T- corner	100X40	white	8	C	<b>562100403</b>
T- corner	100X60	white	8	C	<b>562100603</b>



## L- CORNER



Type	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
L- corner	12x12	white	50	C	<b>56212124</b>
L- corner	15X10	white	50	C	<b>56215104</b>
L- corner	16X16	white	50	C	<b>56216164</b>
L- corner	25X16	white	30	C	<b>56225164</b>
L- corner	25X25	white	30	C	<b>56225254</b>
L- corner	40X16	white	30	C	<b>56240164</b>
L- corner	40X25	white	30	C	<b>56240254</b>
L- corner	40X40	white	30	C	<b>56240404</b>
L- corner	60X40	white	16	C	<b>56260404</b>
L- corner	60X60	white	16	C	<b>56260604</b>
L- corner	80X40	white	12	C	<b>56280404</b>
L- corner	80X60	white	12	C	<b>56280604</b>
L- corner	100X40	white	8	C	<b>562100404</b>
L- corner	100X60	white	8	C	<b>562100604</b>



### CONNECTOR



Type	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
Connector	12x12	white	50	C	<b>56212125</b>
Connector	15X10	white	50	C	<b>56215105</b>
Connector	16X16	white	50	C	<b>56216165</b>
Connector	25X16	white	30	C	<b>56225165</b>
Connector	25X25	white	30	C	<b>56225255</b>
Connector	40X16	white	30	C	<b>56240165</b>
Connector	40X25	white	30	C	<b>56240255</b>
Connector	40X40	white	30	C	<b>56240405</b>
Connector	60X40	white	25	C	<b>56260405</b>
Connector	60X60	white	25	C	<b>56260605</b>
Connector	80X40	white	50	C	<b>56280405</b>
Connector	80X60	white	50	C	<b>56280605</b>
Connector	100X40	white	50	C	<b>562100405</b>
Connector	100X60	white	30	C	<b>562100605</b>



### END CAP



Type	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
End cap	12x12	white	50	C	<b>56212126</b>
End cap	15X10	white	50	C	<b>56215106</b>
End cap	16X16	white	50	C	<b>56216166</b>
End cap	25X16	white	50	C	<b>56225166</b>
End cap	25X25	white	50	C	<b>56225256</b>
End cap	40X16	white	30	C	<b>56240166</b>
End cap	40X25	white	30	C	<b>56240256</b>
End cap	40X40	white	30	C	<b>56240406</b>
End cap	60X40	white	50	C	<b>56260406</b>
End cap	60X60	white	50	C	<b>56260606</b>
End cap	80X40	white	60	C	<b>56280406</b>
End cap	80X60	white	60	C	<b>56280606</b>
End cap	100X40	white	50	C	<b>562100406</b>
End cap	100X60	white	50	C	<b>562100606</b>



### SEPARATOR



Type	Length (m)	Used for cable trunking	Colour	Packing (pcs)	Product category	Catalogue number
SEPARATOR 40	2	100x40	white	40	C	<b>56261111</b>
SEPARATOR 60	2	100x60	white	40	C	<b>56261112</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*



### PLASTIC CABLE TRUNKING SELF-ADHESIVE

Type	Size (mm)	Length	Colour	Packing m/pcs	Product category	Catalogue number
Plastic cable trunking self-adhesive	12x12	2m	white	250/125	C	<b>5621212A</b>
	15x10	2m	white	250/125	C	<b>5621510A</b>
	16x16	2m	white	250/125	C	<b>5621616A</b>
	20x10	2m	white	200/100	C	<b>5622010A</b>
	25x16	2m	white	100/50	C	<b>5622516A</b>
	25x25	2m	white	100/50	C	<b>5622525A</b>
	40x16	2m	white	50/25	C	<b>5624016A</b>
	40x25	2m	white	80/40	C	<b>5624025A</b>
	40x40	2m	white	80/40	C	<b>5624040A</b>



### PLASTIC CABLE TRUNKING - DARK WALNUT

Type	Size (mm)	Length	Colour	Packing m/pcs	Product category	Catalogue number
Plastic cable trunking dark walnut	12x12	2m	dark walnut	250/125	C	<b>5621212DW</b>
	15x10	2m	dark walnut	250/125	C	<b>5621510DW</b>
	16x16	2m	dark walnut	250/125	C	<b>5621616DW</b>
	25x16	2m	dark walnut	150/75	C	<b>5622516DW</b>
	25x25	2m	dark walnut	100/50	C	<b>5622525DW</b>
	40x25	2m	dark walnut	80/40	C	<b>5624025DW</b>



### PLASTIC CABLE TRUNKING - LIGHT BEECH

Type	Size (mm)	Length	Colour	Packing m/pcs	Product category	Catalogue number
Plastic cable trunking light beech	12x12	2m	light beech	250/125	C	<b>5621212LB</b>
	15x10	2m	light beech	250/125	C	<b>5621510LB</b>
	16x16	2m	light beech	250/125	C	<b>5621616LB</b>
	25x16	2m	light beech	150/75	C	<b>5622516LB</b>
	25x25	2m	light beech	100/50	C	<b>5622525LB</b>
	40x25	2m	light beech	80/40	C	<b>5624025LB</b>





### PLASTIC CABLE TRUNKING - PEAR

Type	Size (mm)	Length	Colour	Packing m/pcs	Product category	Catalogue number
Plastic cable trunking pear	12x12	2m	pear	250/125	C	<b>5621212P</b>
	15x10	2m	pear	250/125	C	<b>5621510P</b>
	16x16	2m	pear	250/125	C	<b>5621616P</b>
	25x16	2m	pear	150/75	C	<b>5622516P</b>
	25x25	2m	pear	100/50	C	<b>5622525P</b>
	40x25	2m	pear	80/40	C	<b>5624025P</b>



### SLOTTED PLASTIC CABLE TRUNKING CT2

Type	Size (mm)	Length	Colour	Packing (pcs)	Product category	Catalogue number
Slotted plastic cable trunking CT2	25x25	2m	grey	196	C	<b>5622525S</b>
	25x40	2m	grey	64	C	<b>5622540S</b>
	40x40	2m	grey	64	C	<b>5624040S</b>
	40x60	2m	grey	60	C	<b>5624060S</b>
	60x40	2m	grey	60	C	<b>5626040S</b>
	60x60	2m	grey	48	C	<b>5626060S</b>
	80x60	2m	grey	40	C	<b>5628060S</b>
	100x40	2m	grey	32	C	<b>56210040S</b>
	100x60	2m	grey	32	C	<b>56210060S</b>



### FLOOR TYPE PLASTIC CABLE TRUNKING CT2

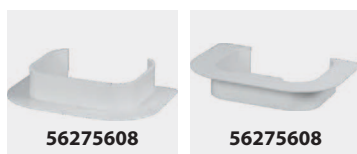
Type	Size (mm)	Length	Colour	Packing (pcs)	Product category	Catalogue number
Floor type plastic cable trunking CT2	75x20	2m	grey	40	C	<b>5627520F</b>
	90x20	2m	grey	20	C	<b>5629020F</b>
	60x15	2m	white	60	C	<b>5626015F/WH</b>
	75x20	2m	white	40	C	<b>5627520F/WH</b>
	90x20	2m	white	20	C	<b>5629020F/WH</b>





## AIR CONDITIONING TRUNKING

Type	Size (mm)	Length	Colour	Packing m/pcs	Product category	Catalogue number
PLASTIC TRUNKING	75x60	2	White	15/30	C	<b>5627560</b>



## AIR CONDITIONING TRUNKING ACCESSORIES

Type	Used for cable trunking	Colour	Packing pcs	Product category	Catalogue number
OUTSIDE CORNER	75x60	White	24	C	<b>56275601</b>
INSIDE CORNER	75x60	White	24	C	<b>56275602</b>
L- CORNER	75x60	White	18	C	<b>56275604</b>
CONNECTOR	75x60	White	40	C	<b>56275605</b>
INTERNAL CAP	75x60	White	30	C	<b>56275606</b>
EXTERNAL CAP	75x60	White	18	C	<b>56275607</b>
WALL PENETRATION	75x60	White		C	<b>56275608</b>
CABLE HOLDER	75x60	White		C	<b>56275609</b>





### CORNER TRUNKING

Type	Size (mm)	Length	Colour	Packing m/pcs	Product category	Catalogue number
Plastic cable trunking	23X23	2	White	60/120	C	<b>5622323</b>



### CORNER TRUNKING ACCESSORIES

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Used for cable trunking	Colour	Packing pcs	Product category	Catalogue number
T- corner	23X23	White	60	C	<b>56223233</b>
L- corner	23X23	White	60	C	<b>56223234</b>
Connector	23X23	White	100	C	<b>56223235</b>
End cap	23X23	White	100	C	<b>56223236</b>



### FLEXIBLE DOUBLECOAT CORRUGATED PIPE

**TECHNICAL DATA:**

Material- HDPE;  
 Compression resistance- 450 N/ 5 cm;  
 Colour- red  
 Fire reaction class: A1;

Minimum bending radius: 350 mm;  
 Temperature assembly resistance: -5 - +60 °C;  
 Halogen free

Type	Inner Diameter $\Phi$ (mm)	Outer Diameter $\Phi$ (mm)	Packing (m)	Product category	Catalogue number
Flexible doublecoat corrugated pipe	52	63	25	C	<b>M006017</b>



## SELF-EXTINGUISHING PLIABLE CONDUITS EC



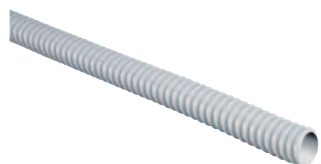
### TECHNICAL DATA:

Material- technopolymer on PVC base, Self extinguishing V0 degree to UL94;  
Compression resistance- 320N; Standard- EN 61386-1; EN61386-22; RAL- 7035

Type	Inner Diameter Ø (mm)	Outer Diameter Ø (mm)	Packing (m)	Product category	Catalogue number
Self-extinguishing pliable conduits	10,7	16	100	C	<b>500M16</b>
Self-extinguishing pliable conduits	14,1	20	100	C	<b>500M20</b>
Self-extinguishing pliable conduits	18,2	25	50	C	<b>500M25</b>
Self-extinguishing pliable conduits	24,3	32	25	C	<b>500M32</b>
Self-extinguishing pliable conduits	32,3	40	25	C	<b>500M40</b>
Self-extinguishing pliable conduits with draw tape	10,7	16	100	C	<b>500N16</b>
Self-extinguishing pliable conduits with draw tape	14,1	20	100	C	<b>500N20</b>
Self-extinguishing pliable conduits with draw tape	18,2	25	50	C	<b>500N25</b>
Self-extinguishing pliable conduits with draw tape	24,3	32	25	C	<b>500N32</b>
Self-extinguishing pliable conduits with draw tape	32,3	40	25	C	<b>500N40</b>



## 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; Instalation temperature: -15/+70°C; Operating temperature: -5/+65°C; Type: UV rays resistance

Type	Inner Diameter Ø (mm)	Outer Diameter Ø (mm)	Packing (m)	Product category	Catalogue number
UV flexible pvc conduit	12	16,2	30	C	<b>500UV12</b>
	14	18,2	30	C	<b>500UV14</b>
	16	20,2	30	C	<b>500UV16</b>
	20	24,2	30	C	<b>500UV20</b>
	25	29,6	30	C	<b>500UV25</b>
	32	37,2	30	C	<b>500UV32</b>



## SPIRAL FOR CABLES



Type	Colour	Internal diameter (mm)	External diameter (mm)	Coil length (m)	Product category	Catalogue number
Spiral 6x8mm	transparent	6	8	25	C	<b>500SP6T</b>
Spiral 6x8mm	black	6	8	25	C	<b>500SP6B</b>
Spiral 10x12mm	transparent	10	12	25	C	<b>500SP10T</b>
Spiral 10x12mm	black	10	12	25	C	<b>500SP10B</b>
Spiral 14x16mm	transparent	14	16	20	C	<b>500SP14T</b>
Spiral 14x16mm	black	14	16	20	C	<b>500SP14B</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.



### NYLON CABLE DRAW TAPE EC

Type	Diameter $\Phi$ (mm)	Length (m)	Colour	Packing (pcs)	Product category	Catalogue number
Nylon cable draw tape	3	5	Transparent	1/340	C	<b>500305</b>
	3	15	Transparent	1/120	C	<b>500315</b>



### 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

Type	Inner Diameter $\Phi$ (mm)	Outer Diameter $\Phi$ (mm)	Packing (m)	Product category	Catalogue number
PVC insulated steel spirals	11	15,2	50	C	<b>500P11</b>
	14	18,4	50	C	<b>500P14</b>
	16	20,4	50	C	<b>500P16</b>
	18	22,4	50	C	<b>500P18</b>
	26	30,4	25	C	<b>500P26</b>
	37	42,4	25	C	<b>500P37</b>



### PVC SELF-EXTINGUISHING RIGID INSULATING CONDUIT 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. Non-flammable 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  
 Standard- EN 61386-1; EN 61386-21

Type	External diameter $\Phi$ (mm)	Length (m)	Colour	IP code	Packing (pcs)	Product category	Catalogue number
Plastic cable conduit, with sleeve	16	3	GREY	40	34	C	<b>50016</b>
	20	3	GREY	40	34	C	<b>50020</b>
	25	3	GREY	40	20	C	<b>50025</b>
	32	3	GREY	40	10	C	<b>50032</b>
	40	3	GREY	40	10	C	<b>50040</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.*

## 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  
Standard- EN 61386-1; EN61386-21  
RAL- 7035



Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC bend flexible	16	65	GREY	50/200	C	<b>500FB16</b>
	20	65	GREY	50/200	C	<b>500FB20</b>
	25	65	GREY	35/140	C	<b>500FB25</b>
	32	65	GREY	20/80	C	<b>500FB32</b>



Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC bend 90°	16	65	GREY	100/1000	C	<b>500BB16</b>
	20	65	GREY	50/600	C	<b>500BB20</b>
	25	65	GREY	25/300	C	<b>500BB25</b>
	32	65	GREY	100	C	<b>500BB32</b>
	40	65	GREY	100	C	<b>500BB40</b>





Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
Conduit-conduit PVC joint	16	65	GREY	10/350	C	<b>500CM16</b>
	20	65	GREY	10/350	C	<b>500CM20</b>
	25	65	GREY	10/200	C	<b>500CM25</b>
	32	65	GREY	10/100	C	<b>500CM32</b>
	40	65	GREY	5/80	C	<b>500CM40</b>



Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
Conduit-box PVC joint	16	65	GREY	10/350	C	<b>500CB16</b>
	20	65	GREY	10/350	C	<b>500CB20</b>
	25	65	GREY	10/200	C	<b>500CB25</b>
	32	65	GREY	10/100	C	<b>500CB32</b>
	40	65	GREY	5/80	C	<b>500CB40</b>



Type	Conduit diameter (mm)	Flexible spiral diameter (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC rigid conduit - flexible spiral conduits joint	16	12	65	GREY	10/350	C	<b>500DD16</b>
	20	16	65	GREY	10/350	C	<b>500DD20</b>
	25	20	65	GREY	10/200	C	<b>500DD25</b>
	32	25	65	GREY	10/100	C	<b>500DD32</b>
	40	32	65	GREY	5/100	C	<b>500DD40</b>



## ACCESSORIES FOR PVC SELF-EXTINGUISHING RIGID INSULATING CONDUITS AND FLEXIBLE SPIRAL CONDUITS, IP 40 EC

### TECHNICAL DATA:

Material- shock resistant technopolymer on PVC base  
Self-extinguishing V0 degree to UL94  
Glow wire test: up to 960°C  
Standard- EN 61386-1; EN61386-21  
RAL- 7035



Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC bend flexible	16	44	GREY	50/200	C	<b>500FK16</b>
	20	44	GREY	50/200	C	<b>500FK20</b>
	25	44	GREY	35/140	C	<b>500FK25</b>
	32	44	GREY	20/80	C	<b>500FK32</b>



Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC bend 90°	16	40	GREY	100/1000	C	<b>500BK16</b>
	20	40	GREY	50/600	C	<b>500BK20</b>
	25	40	GREY	25/300	C	<b>500BK25</b>
	32	40	GREY	100	C	<b>500BK32</b>
	40	40	GREY	100	C	<b>500BK40</b>



Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
Plastic bend small 90°	16	40	GREY	100/400	C	<b>500SK16</b>
	20	40	GREY	100/300	C	<b>500SK20</b>
	25	40	GREY	100/200	C	<b>500SK25</b>
	32	40	GREY	50/150	C	<b>500SK32</b>



Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC T-joint	16	40	GREY	100/300	C	<b>500T16</b>
	20	40	GREY	100/200	C	<b>500T20</b>
	25	40	GREY	50/100	C	<b>500T25</b>
	32	40	GREY	50/100	C	<b>500T32</b>





Type	Used for cable conduit $\phi$ (mm)	IP code	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC coupling	16	40	GREY	100/1200	C	<b>500C16</b>
	20	40	GREY	100/800	C	<b>500C20</b>
	25	40	GREY	50/500	C	<b>500C25</b>
	32	40	GREY	25/250	C	<b>500C32</b>
	40	40	GREY	25/150	C	<b>500C40</b>



Type	Used for cable conduit $\phi$ (mm)	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC conduit clips	16	GREY	100/1500	C	<b>500CC16</b>
	20	GREY	100/1000	C	<b>500CC20</b>
	25	GREY	100/1000	C	<b>500CC25</b>
	32	GREY	50/800	C	<b>500CC32</b>
	40	GREY	50/400	C	<b>500CC40</b>



Type	Used for cable conduit $\phi$ (mm)	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC conduit clips with plug and steel screw	16	GREY	100/1000	C	<b>500CS16</b>
	20	GREY	100/1000	C	<b>500CS20</b>
	25	GREY	100/800	C	<b>500CS25</b>
	32	GREY	50/400	C	<b>500CS32</b>



Type	Used for cable conduit $\phi$ (mm)	Colour	Packing/Box (pcs)	Product category	Catalogue number
PVC collar conduit clips	16	GREY	100/1000	C	<b>500CO16</b>
	20	GREY	100/1000	C	<b>500CO20</b>
	25	GREY	100/800	C	<b>500CO25</b>
	32	GREY	50/500	C	<b>500CO32</b>



Type	Length (mm)	Colour	Packing	Product category	Catalogue number
PVC modular fixing guide for clips	200	GREY	400	C	<b>500BC</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 45 days.

## METAL CABLE TRAYS AND ACCESSORIES

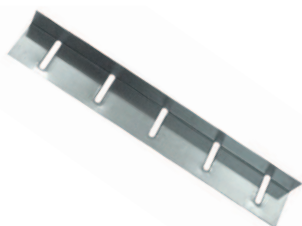
The universal cable support systems are used for construction of cable link in closed production premises for direct mounting on even vertical surfaces. They are perforated metal grates and accessories with standard lengths and sizes. They allow quick construction of cable systems with many angles and derivations.



Type	Size (mm)	Tickness	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
CT1 UT CABLE TRAY	40x50	0,8	2500	1	C	<b>56050825U</b>
CT1 UT CABLE TRAY	40x100	0,8	2500	1	C	<b>56100825U</b>
CT1 UT CABLE TRAY	40x150	0,8	2500	1	C	<b>56150825U</b>
CT1 UT CABLE TRAY	40x200	0,8	2500	1	C	<b>56200825U</b>
CT1 UT CABLE TRAY	40x300	0,8	2500	1	C	<b>56300825U</b>
CT1 UT CABLE TRAY	60x100	0,8	2500	1	C	<b>56100826U</b>
CT1 UT CABLE TRAY	60x200	0,8	2500	1	C	<b>56200826U</b>
CT1 UT CABLE TRAY	60x300	0,8	2500	1	C	<b>56300826U</b>



Type	Size (mm)	Tickness	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
CT1 CABLE TRAY COVER	10x50	0,8	2500	1	C	<b>56050825C</b>
CT1 CABLE TRAY COVER	10x100	0,8	2500	1	C	<b>56100825C</b>
CT1 CABLE TRAY COVER	10x150	0,8	2500	1	C	<b>56150825C</b>
CT1 CABLE TRAY COVER	10x200	0,8	2500	1	C	<b>56200825C</b>
CT1 CABLE TRAY COVER	10x300	0,8	2500	1	C	<b>56300825C</b>



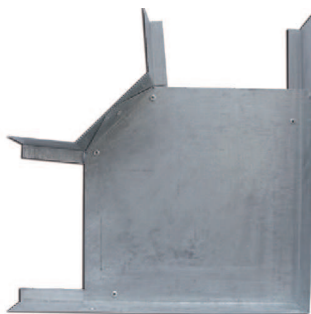
Type	Size (mm)	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
CT1 COUPLER FOR TRAYS WITH THE SAME SIZE	40	250	1	C	<b>56250C</b>



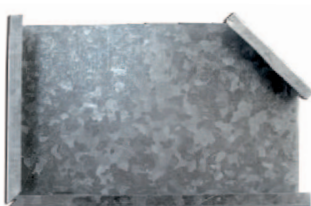
Type	Tickness	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
CT1 HANGING SUPPORT	1,5	100	1	C	<b>56100HSW</b>
CT1 HANGING SUPPORT	1,5	150	1	C	<b>56150HSW</b>
CT1 HANGING SUPPORT	1,5	200	1	C	<b>56200HSW</b>
CT1 HANGING SUPPORT	1,5	300	1	C	<b>56300HSW</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 30 days.*



Type	Thickness	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
ANGLE 90D	1.5	100X100	1	C	<b>5690100</b>
ANGLE 90D	1.5	150X150	1	C	<b>5690150</b>
ANGLE 90D	1.5	200X200	1	C	<b>5690200</b>
ANGLE 90D	1.5	300X300	1	C	<b>5690300</b>



Type	Metric bolt diameters	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
ANGLE COVER 90D	1.5	100x100	1	C	<b>5690100C</b>
ANGLE COVER 90D	1.5	150x150	1	C	<b>5690150C</b>
ANGLE COVER 90D	1.5	200x200	1	C	<b>5690200C</b>
ANGLE COVER 90D	1.5	300x300	1	C	<b>5690300C</b>



Type	Thickness	Usage	Packing/Box (pcs)	Product category	Catalogue number
CT1 HOLDER	1,5	for cable trays from 50-200mm	1	C	<b>56200HOL</b>
CT1 HOLDER	1,5	for cable trays 300mm	1	C	<b>56300HOL</b>



Type	Thread	Length (mm)	Grade	Packing/Box (pcs)	Product category	Catalogue number
THREADED HANGING ROD	M6	1000	4.8	100	C	<b>M517079</b>
THREADED HANGING ROD	M8	1000	4.8	50	C	<b>M517080</b>
THREADED HANGING ROD	M10	1000	4.8	40	C	<b>M517078</b>

Application: Suitable for fixing skirting, stud battens to wall and long runs of shelf support





### AIR-TERMINATION ROD

Suitable for wind loads according to Eurocode 1: DIN EN 50164 - 2. Last metre is tapered from Ø 16 mm to Ø 10 mm, material: AlMgSi. Matches stand system FangFix. Material: Aluminium

Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)	Product category	Catalogue number
101 VL2000	2000	10/16	1/10	G	<b>ME014066</b>
101 VL2500	2500	10/16	1/10	G	<b>ME014071</b>
101 VL3000	3000	10/16	1/10	G	<b>ME014063</b>
101 VL3500	3500	10/16	1/10	G	<b>ME014069</b>



### STAND FOR AIR-TERMINATION ROD, FANGFIX SYSTEM

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

Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)	Product category	Catalogue number
F-FIX-16	373	84/119	1	G	<b>M014102</b>



### PROFILE EARTHING ROD WITH CONNECTION LUG

Cross-profile 50 x 50 x 3 mm. With connecting strap. Hot-dip galvanized. 1 through hole with diameter 13 mm. 2 through holes with diameter 11 mm. For the construction of earthing systems e.g. antenna or earthing of building site distribution boards. Material: Steel

Model	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
213 1500 DIN	1500	1	G	<b>M014007</b>



### EARTHING ROD WITH STRIP

Cold galvanized: have been coated in zinc to make them corrosion resistant. Material: Steel

Model	Rog length (mm)	Strip length (mm)	Rog thickness (mm)	Strip thickness (mm)	Rog width (mm)	Strip width (mm)	Product category	Catalogue number
50/50/5	1500	1500	5	3	50	30	G	<b>M014048</b>
60/60/6	1500	1500	6	3	60	40	G	<b>M014012</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 30 days.



## COPPER-BONDED EARTHING ROD, THREADED

It guarantees trouble-free removal of energy up to 50 years since the copper layer does not allow corrosion. Can be extended to the desired length with brass couplers. 99.9% pure electrolytic copper coating 300µm. Rods have a high steel Q 235 core and tip that provide superior strength when driving. Copper coating will not crack when bent or tear when driven.

Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-ER17	1500	17.2	1/10	G	<b>ME014011</b>



## COUPLERS FOR THREADED RODS

To connection two or many threaded copper-bonded ground rods

Model	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-CTR	68	1	G	<b>ME014012</b>



## DRIVING STUD FOR COPPER-BONDED THREADED RODS

Material: Tempered steel.

Depending on the hardness of the soil, usually 1pc. enough for an object.

Model	Length (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-DS	58	1	G	<b>ME014013</b>



## CONNECTORS EARTHING ROD TO STRIP / CONDUCTOR

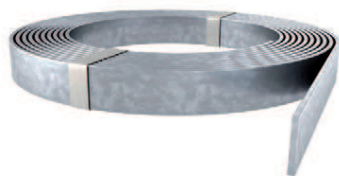
Material: stainless steel 304

Conductor size: 50mm<sup>2</sup> stranded

Strip size: 40x4mm max

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-1204	65	65	1/45	G	<b>ME014014</b>





## HOT-DIP GALVANIZED STRIP FOR EARTH

Continuously hot dip galvanized Earthing strip, DD11  
Zinc coating: 500g/m<sup>2</sup> =80mk  
For lightning protection, earthing systems and ring equipotential bonding  
Material: Steel

Model	Length (mm)	Thickness (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-EP 30x3	48.6	3	30	1	G	<b>ME301089</b>
EL-EP 40x4	39.6	4	40	1	G	<b>ME301090</b>



## COLD GALVANIZED STRIP FOR EARTH

Coated in zinc to make them corrosion resistant  
Material: Steel

Model	Length (mm)	Thickness (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
40/4	6	4	40	1	G	<b>M014008</b>



## ALUMINIUM ROUND CONDUCTOR

Conductor material: AlMgSi  
EL-LP 8 - without isolation  
EL-LP 11 - with not flammable halogen free isolation

Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-LP 8	140	8	1/140	G	<b>ME301092</b>
EL-LP 11	100	11	1/100	G	<b>ME301096</b>



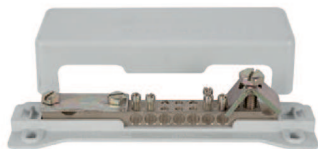
## CABLE HOLDER FOR FLAT ROOFS

Fixing the wire on flat roofs  
Plastic stabilized PE against UV radiation with inserted concrete block

Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL- RCH	144	92	66	1	G	<b>ME301082</b>



### EQUIPOTENTIAL BONDING BAR



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 25mm<sup>2</sup> or fine-wire cables to 16 mm<sup>2</sup> (max. D- 7 mm)  
1 D8-12mm  
1 up to 30x5 / D8-12mm

Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-EBR	182	52	42	1	G	<b>ME301084</b>



### VARIABLE EARTHING CONNECTOR FOR ALUMINIUM CONDUCTORS



Aluminium- AlCu4MgSi(A)  
Suitable for conductors with diameter 8 and 11mm. Type of fastening screw: Hexagonal bolt

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-V	38	40	1	G	<b>ME301088</b>



### SCREWLESS CABLE BRACKET FOR EARTHING CONDUCTORS



Suitable for conductors with diameter 8 mm & 11 mm

Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-VA	24.2	22	33.4	1/50	G	<b>ME301006</b>



### ATTACING CLAMP



Attaching the round conductors to metal parts of the premises

Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-AC	78	40	36	1/100	G	<b>ME014070</b>



## ROOF GUTTER CLAMP



Suitable for all bulge and bead thicknesses  
Suitable for conductors with diameter 8 and 11 mm  
Material: Steel

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-RGC	50	45	1/100	G	<b>ME301008</b>



## CROSSBAR FOR EARTHING CONDUCTOR



Suitable for conductors with diameter 8 and 11 mm. Hot-dip galvanized  
Material: Steel

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
156 K8-10 ST	43	20	1/100	G	<b>M301083</b>



## ROD HOLDER

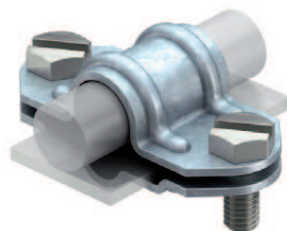


For interception and earth entry rods 101 VL. Installed with crossbar and hexagonal bolts M6 x 16.  
With female thread M8 or through hole with D- 7 mm  
Material: Die-cast zinc, Galvanized

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
113 Z-16	56	20	1/10	G	<b>M014014</b>



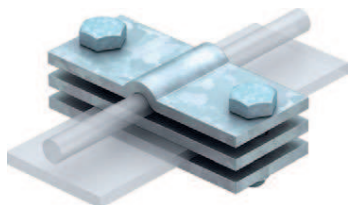
## BRIDGE CONNECTOR FOR ROD HOLDER



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

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
226 8-10	70	30	1/20	G	<b>M014054</b>





## EARTH CONNECTION TERMINAL FOR CONDUCTOR TO STRIP

For round conductor and flat strips. Suitable for cable 50 mm<sup>2</sup> and strips with width 40 mm.  
With 2 hexagonal bolts M6 x 20 mm  
Material: Steel, Hot-dip galvanized

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
937 50	60	25	1/10	G	<b>M031239</b>



## CROSS-CONNECTORS FOR STRIPS AND CONDUCTORS

Material: stainless steel 304  
Conductor size: 50mm<sup>2</sup> stranded  
Strip size: 40x4mm max

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
EL-1203	65	65	1/45	G	<b>ME301087</b>



## SPACER CLIP FOR STRIPS

Suitable for strips with width 40 mm  
With thread M6 and 2 hexagonal bolts M6 x 16 (F)  
Hot-dip galvanized  
Material: Steel

Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)	Product category	Catalogue number
831 40 M6	65	14	14	1/10	G	<b>M301059</b>



## BRIDGE CONNECTOR FOR ROD HOLDER

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: Aluminium

Model	Length (mm)	Width (mm)	Packing/Box (pcs)	Product category	Catalogue number
288 DIN	170	30	1/20	G	<b>M014017</b>





### INSPECTION DOOR

Lightweight design for flush-mounted separation points

Claw length approx. 80 mm

Strip galvanized

Material: Steel

Model	Length (mm)	Width (mm)	Height (mm)	Packing/Box (pcs)	Product category	Catalogue number
5800 VZ	180	13.5	230	1	G	<b>M500684</b>



### FLUSH MOUNTING JUNCTION BOX EC350 SERIES

#### TECHNICAL DATA:

Rated voltage: up to 1000V

Box material: Shock resistant technopolymer

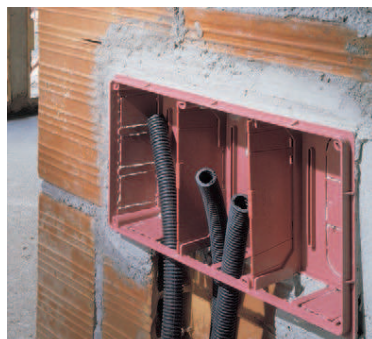
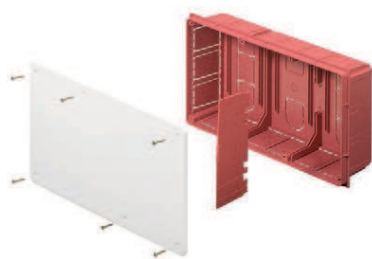
Screw material: Anticorrosive galvanized steel

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

Type	Description	Box dimensions (mm)			Packing / Box	Product category	Catalogue number
		L	H	W			
EC350C4	Junction box	152	100	70	1/80	C	<b>1927410</b>
EC350C6	Junction box	196	152	70	1/40	C	<b>1927411</b>
EC350C7	Junction box	294	152	70	1/28	C	<b>1927412</b>
EC350C8	Junction box	392	152	70	1/20	C	<b>1927413</b>
EC3500S	Separator				10/100	C	<b>1927415</b>





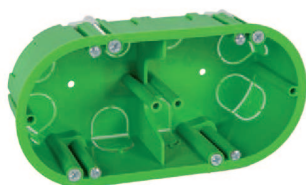
UNTIL SUPPLY  
LAST

### UNIVERSAL CONSOLE BOX FOR PLASTERBOARD

Type	d (mm)	Packing (pcs)	Product category	Catalogue number
Console box for plasterboard- Ø65	65	240	F	<b>19273</b>



### CONSOLE BOX FOR PLASTERBOARD



Type	Packing (pcs)	Product category	Catalogue number
Single	240	C	<b>19274</b>
Double	120	C	<b>19275</b>
Triple	60	C	<b>19276</b>



### UNIVERSAL CONSOLE BOX-FLUSH MOUNTING



Type	d (mm)	Packing (pcs)	Product category	Catalogue number
Console box- Ø65	65	300	C	<b>1927302</b>



### CONSOLE BOX MULTI



Type	d (mm)	Packing (pcs)	Product category	Catalogue number
Console box multi- Ø65	65	250	C	<b>1927301</b>





### CONSOLE FOR BRICK AND CONCRETE ITALIAN TYPE

Type	Packing (pcs)	Product category	Catalogue number
Triple Console box for brick and concrete	10/300	C	<b>24203</b>
Quadruple Console box for brick and concrete	10/200	C	<b>71304</b>
Sixfold Console box for brick and concrete	10/200	C	<b>68206</b>



### CONSOLE BOX FOR PLASTERBOARD ITALIAN TYPE

Type	Packing (pcs)	Product category	Catalogue number
Triple Console box for plasterboard	160	C	<b>24205</b>
Quadruple Console box for plasterboard	150	C	<b>24206</b>



### CONSOLE BOX FOR PLASTERBOARD ITALIAN TYPE

Type	Packing (pcs)	Product category	Catalogue number
Sixfold Console box for plasterboard	10/160	C	<b>26636</b>



### DISTRIBUTION BOXES-SQUARE TYPE

Type	Size			Packing (pcs)	Product category	Catalogue number
	L	W	H			
80/80/50	80	80	50	100	C	<b>1927402</b>
100/100/50*	100	100	50	100	F	<b>1927401</b>
100/100/50 without screws	100	100	50	40	C	<b>1927400</b>



\*Until Supply Last-



### DB FOR PLASTERBOARD-SQUARE TYPE

Type	Size			Packing (pcs)	Product category	Catalogue number
	L	W	H			
Distribution Box 80/80/45	80	80	45	100	C	<b>1927405</b>
Distribution Box 100/100/45	100	100	45	100	C	<b>1927404</b>



### DB FOR PLASTERBOARD-ROUND TYPE

Type	d (mm)	Packing (pcs)	Product category	Catalogue number
Distribution Box $\Phi$ 65	65	240	C	<b>1927403</b>
Distribution Box $\Phi$ 70	70	200	C	<b>1927407</b>
Distribution Box $\Phi$ 80	80	100	C	<b>1927409</b>



### DISTRIBUTION BOXES - ROUND TYPE

Type	d (mm)	Packing (pcs)	Product category	Catalogue number
Distribution Box $\Phi$ 70	70	300	C	<b>1927406</b>
Distribution Box $\Phi$ 80	80	200	C	<b>1927408</b>



### CAP WITH FASTENING CLIPS

Type	Suitable for holes with a diameter (mm)	Packing (pcs)	Product category	Catalogue number
Cap with clips	60-90	1/200	C	<b>19277</b>



### WATERPROOF JUNCTION BOXES IP44

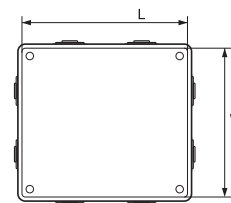
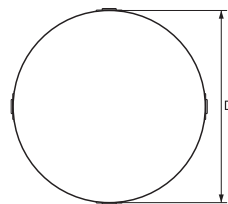
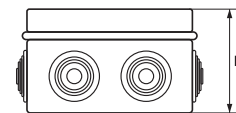
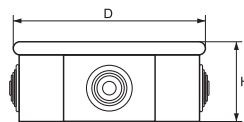
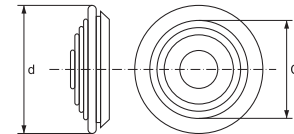


Plastic junction boxes with different shapes and dimensions. Designed for cable lines extension or tapping at cable installations laying. Made of ABS material with openings for input - output conductors, with rubber gasket to provide the corresponding IP code. Resistant to chemical, thermal and UV rays. Direct wall mounting with screws.

Documentation corresponding to the product:  
Standard: EN 60670-1

**TECHNICAL DATA:**

- \* Rated voltage: up to 1000V
- \* Material: ABS
- \* IP code: IP 44



Box type	Box dimensions (mm)				Gasket dimensions (mm)		IP code	Packing / Box	Product category	Catalogue number
	D	L	H	W	d	C				
WB50/50	50	-	-	50	22.5	17	44	320	C	<b>8070</b>
WB80/50	80	-	-	50	22.5	17	44	240	C	<b>8071</b>
WB85/85/50	-	85	85	50	22.5	18.5	44	200	C	<b>8072</b>



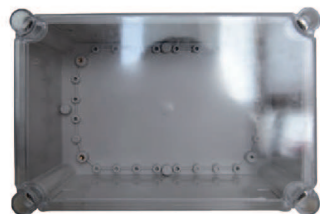
### WATERPROOF JUNCTION BOXES IP65



Box type	Box dimensions (mm)				Hole/pcs	IP code	Packing / Box	Product category	Catalogue number
	L	H	W	d					
WBG 100/100/70	100	100	70	27	7	65	100	C	<b>8001</b>
WBG 150/110/70	150	110	70	27	10	65	60	C	<b>8002</b>
WBG 150/150/70	150	150	70	27	7	65	60	C	<b>8003</b>
WBG 200/100/70	200	100	70	27	8	65	50	C	<b>8004</b>
WBG 200/155/80	200	155	80	35	10	65	30	C	<b>8005</b>
WBG 200/200/80	200	200	80	35	12	65	30	C	<b>8006</b>
WBG 255/200/80	255	200	80	35	12	65	30	C	<b>8007</b>
WBG 300/250/120	300	250	120	35	12	65	20	C	<b>8008</b>
WBG 400/350/120	400	350	120	35	16	65	5	C	<b>8009</b>



### WATERPROOF JUNCTION BOXES IP66 WITH TRANSPARENT COVER



Box type	Box dimensions (mm)			IP code	Packing / Box	Product category	Catalogue number
	L	H	W				
WBT 65/95/55	65	95	55	66	200	C	<b>8010</b>
WBT 100/100/50	100	100	50	66	150	C	<b>8011</b>
WBT 80/110/70	80	110	70	66	100	C	<b>8012</b>
WBT 80/130/85	80	130	85	66	100	C	<b>8013</b>
WBT 80/180/70	80	180	70	66	86	C	<b>8014</b>
WBT 80/250/85	80	250	85	66	60	C	<b>8015</b>
WBT 125/125/75	125	125	75	66	48	C	<b>8016</b>
WBT 125/125/100	125	125	100	66	36	C	<b>8022</b>
WBT 125/175/100	125	175	100	66	40	C	<b>8017</b>
WBT 150/200/100	150	200	100	66	24	C	<b>8018</b>
WBT 150/250/130	150	250	130	66	18	C	<b>8019</b>
WBT 200/200/130	200	200	130	66	27	C	<b>8020</b>
WBT 280/190/130	280	190	130	66	18	C	<b>8021</b>



### JUNCTION BOXES B SERIES, IP54



Model	Box dimensions (mm)			Colour	Packing / Box	Product category	Catalogue number
	L	H	W				
B8	80	80	45	Grey	100	C	<b>8030</b>
B10	100	100	45	Grey	100	C	<b>8031</b>



### THERMOPLASTIC CABLE JUNCTION BOX, A SERIES, IP54



Model	Box dimensions (mm)			Colour	Packing / Box	Product category	Catalogue number
	L	H	W				
A6	80	43	34	Grey	10/100	G	<b>M008128</b>
A8	75	75	36	Grey	10/150	G	<b>M008129</b>
A11	85	85	40	Grey	10/80	G	<b>M008106</b>
A14	100	100	38	Grey	10/100	G	<b>M008107</b>
A18	125	100	38	Grey	10/80	G	<b>M008091</b>



### THERMOPLASTIC CABLE JUNCTION BOXES, T SERIES WITH PLUG-IN SEAL, IP66



Model	Box dimensions (mm)			Colour	Packing / Box	Product category	Catalogue number
	L	H	W				
T25 (round)	80	80	51	Grey	5/125	G	<b>M008140</b>
T40	90	90	52	Grey	5/80	G	<b>M008127</b>
T60	114	114	57	Grey	6/60	G	<b>M008125</b>
T100	150	116	67	Grey	1/40	G	<b>M008123</b>
T160	190	150	77	Grey	1/20	G	<b>M008058</b>
T250	240	190	95	Grey	1/8	G	<b>M008118</b>
T350	285	201	120	Grey	1/5	G	<b>M008141</b>



### THERMOPLASTIC CABLE JUNCTION BOXES, T OE SERIES, ENCLOSED, IP66



Model	Box dimensions (mm)			Colour	Packing / Box	Product category	Catalogue number
	L	H	W				
T60 OE	114	114	57	Grey	6/60	G	<b>M008105</b>
T100 OE	150	116	67	Grey	1/40	G	<b>M008055</b>
T160 OE	190	150	77	Grey	1/20	G	<b>M008124</b>
T250 OE	240	190	95	Grey	1/8	G	<b>M008142</b>
T350 OE	285	201	120	Grey	1/5	G	<b>M008143</b>

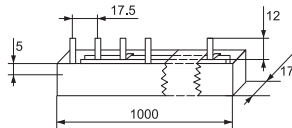
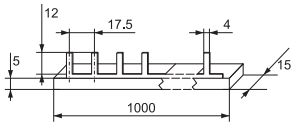
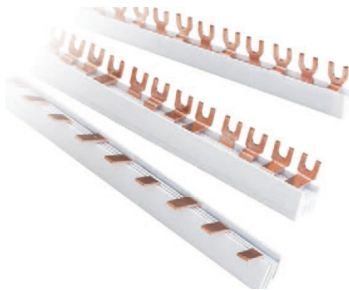
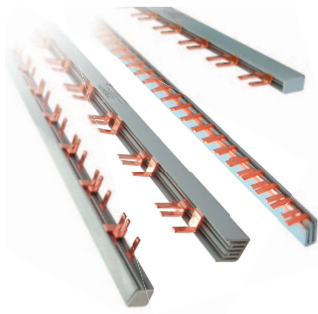


### JUNCTION BOX WITH PERFORATION MEMBRANE B 9/T, IP67



Model	Box dimensions (mm)			Colour	Packing / Box	Product category	Catalogue number
	L	H	W				
B 9/T	110	110	50	Grey	5/40	G	<b>M008144</b>





## SUPPLY BUSBAR

### FUNCTIONS:

- enables the supply of a group of conductors
- provides simultaneous supply
- conducting section – electrotechnical copper
- insulation of the conducting section

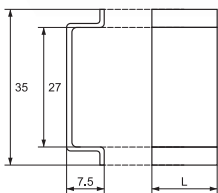
### TECHNICAL DATA:

- 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

Type (copper busbar)	Length (m)	Poles (number)	In with one point of power supply	In with two points of power supply	Packing / Box (pcs)	Product category	Catalogue number
1P 63	1	54	63A	90A	20 / 100	C	<b>14163</b>
1P 100	1	54	100A	120A	20 / 100	C	<b>14190</b>
2P 63	1	28	63A	90A	10 / 50	C	<b>14263</b>
3P 63	1	18	63A	90A	6 / 30	C	<b>14363</b>
3P 100	1	18	100A	120A	5 / 50	C	<b>14390</b>
DP 1N	1	56	63A	90A	10 / 50	C	<b>14463</b>
C100 1P	1	-	125A	150A	20 / 100	C	<b>14190T</b>
C100 2P	1	-	125A	150A	10 / 50	C	<b>14290T</b>
C100 3P	1	-	125A	159A	5 / 20	C	<b>14390T</b>
U 1P 63	1	54	63A	90A	20 / 100	C	<b>14163U</b>
U 2P 63	1	28	63A	90A	10 / 50	C	<b>14263U</b>
U 3P 63	1	18	63A	90A	6 / 30	C	<b>14363U</b>
U 4P 63	1	13	63A	90A	5 / 20	C	<b>14463U</b>



## MOUNTING (DIN) RAIL

### FUNCTIONS:

- serves for mounting breakers, residual current devices, contactors and other elements
- provides a firm fixation of the elements

### TECHNICAL DATA:

- brass alloy with galvanic cover
- factory drilled mounting openings
- length up to 1m

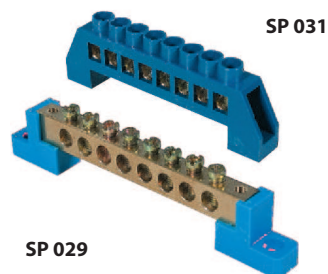
### CONNECTING:

- with bolts or other fixing elements to the mounting surface

Length (m)	Packing / Box (pcs)	Product category	Catalogue number
1m	20 / 100	C	<b>14001</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

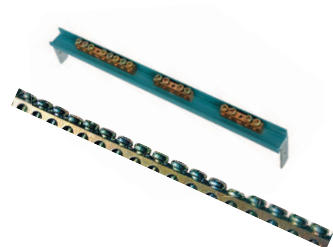


## ZERO TERMINALS

Rail type	L (mm)	H (mm)	W (mm)	M	Packing / Box (pcs)	Product category	Catalogue number
SP 029-4	82.9	21.5	12	5x10	10 / 500	C	<b>14204</b>
SP 029-6	100.9	21.5	12	5x10	10 / 800	C	<b>14206</b>
SP 029-8	118.9	21.5	12	5x10	20 / 300	C	<b>14208</b>
SP 029-10	136.9	21.5	12	5x10	20 / 300	C	<b>14210</b>
SP 029-12	182.4	21.5	12	5x10	20 / 250	C	<b>14212</b>
SP 031-4	59.5	31.5	12.4	5x10	5 / 400	C	<b>14304</b>
SP 031-6	76.5	31.5	12.4	5x10	5 / 400	C	<b>14306</b>
SP 031-8	93	31.5	12.4	5x10	5 / 400	C	<b>14308</b>
SP 031-10	111	31.5	12.4	5x10	5 / 400	C	<b>14310</b>
SP 031-12	128	31.5	12.4	5x10	5 / 300	C	<b>14312</b>



## 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.

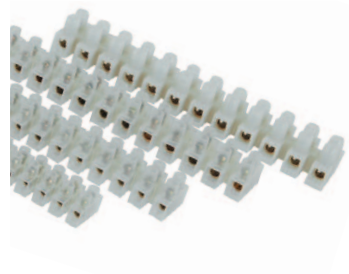
### TECHNICAL DATA:

- Material: brass for the current leading elements
- Insulation material: plastic
- Colour: gray/blue
- Application: general
- Ambient temperature: -40 to +65°C

Rail type	Length L (mm)	Height H (mm)	Width W (mm)	Ø D (mm)	Bolt	Number of terminals	Packing / Box (pcs)	Product category	Catalogue number
BRASS	1000	7.8	6	5	M4	54	100	C	<b>14002</b>
ZERO insulated	250	-	-	5	M4	16	200	C	<b>14012</b>



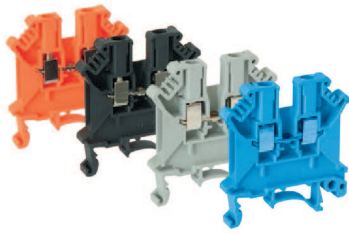
## TERMINAL BLOCKS TBH TYPE



Type	Pieces in a strip	In (A)	Un (V)	Colour	Section of the conductor (mm <sup>2</sup> )	Packing / Box (pcs)	Product category	Catalogue number
TBH 3A	12	3	660	semitransparent	to 1.5	10 / 1000	C	<b>31003</b>
TBH 6A	12	6	660	semitransparent	to 4	10 / 1000	C	<b>31006</b>
TBH 10A	12	10	660	semitransparent	to 6	10 / 500	C	<b>31010</b>
TBH 15A	12	15	660	white	to 6	10 / 500	C	<b>31015</b>
TBH 20A	12	20	660	white	to 10	10 / 400	C	<b>31020</b>

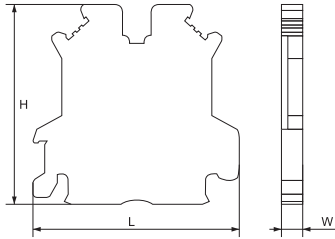


In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.

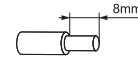


### FIXED TERMINAL BLOCKS - LTU2 UK SERIES

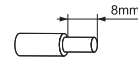
Fixed terminal blocks with universal application into electrical distribution boxes. For DIN-rail mounting. Variety of sizes for optimum using of available space by selection of appropriate terminals for the corresponding conductors. Made of non-flammable insulation polymeric material.



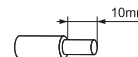
Type	Section of the conductor (mm <sup>2</sup> )		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
	single-core	multicore	L	H	W						
LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	grey	50 / 3000	C	<b>31033</b>
LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	red	50 / 3000	C	<b>31032</b>
LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	black	50 / 3000	C	<b>31031</b>
LTU2UK 3N	0.2-4	0.2-2.5	42.5	47	5.2	32	800	blue	50 / 3000	C	<b>31035</b>



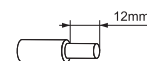
Type	Section of the conductor (mm <sup>2</sup> )		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
	single-core	multicore	L	H	W						
LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	grey	50 / 2000	C	<b>31053</b>
LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	red	50 / 2000	C	<b>31052</b>
LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	black	50 / 2000	C	<b>31051</b>
LTU2UK 5N	0.2-6	0.2-4	42.5	47	6.2	41	800	blue	50 / 2000	C	<b>31055</b>



Type	Section of the conductor (mm <sup>2</sup> )		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
	single-core	multicore	L	H	W						
LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	grey	50 / 1000	C	<b>31063</b>
LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	red	50 / 1000	C	<b>31062</b>
LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	black	50 / 1000	C	<b>31061</b>
LTU2UK 6N	0.2-10	0.2-6	42.5	47	8.2	57	800	blue	50 / 1000	C	<b>31065</b>



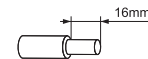
Type	Section of the conductor (mm <sup>2</sup> )		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
	single-core	multicore	L	H	W						
LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	grey	50 / 1000	C	<b>31103</b>
LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	red	50 / 1000	C	<b>31102</b>
LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	black	50 / 1000	C	<b>31101</b>
LTU2UK 10N	0.5-16	0.5-10	42.5	47	10.2	76	800	blue	50 / 1000	C	<b>31105</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



Type	Section of the conductor (mm <sup>2</sup> )		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
	single-core	multicore	L	H	W						
	LTU2UIK 16	2.5-25	4-16	42.5	47						
LTU2UIK 35	10-35	10-35	55	62	15.2	125	800	grey	20 / 400	C	<b>31353</b>

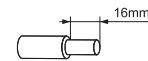


### FIXED TERMINAL BLOCKS - JD SERIES



Two-sided insulated fixed terminal blocks designed to connect groundes conductors. Made of non-flammable insulation polymeric material.

Type	Section of the conductor (mm <sup>2</sup> )		Size of the terminal (mm)			In (A)	Un (V)	Colour	Packing / Box (pcs)	Product category	Catalogue number
	single-core	multicore	L	H	W						
	5JD	0.2-4	0.2-4	42.5	47						
6JD	0.2-10	0.2-6	42.5	47	8.2	37	800	yellow-green	50 / 1000	C	<b>31064</b>
10JD	0.5-10	0.5-6	42.5	47	8.2	61	800	yellow-green	50 / 1000	C	<b>31104</b>
16JD	2.5-25	2.5-16	42.5	47	12.2	108	800	yellow-green	50 / 600	C	<b>31164</b>
35JD	2.5-35	2.5-35	42.5	47	15	135	800	yellow-green	20 / 400	C	<b>31354</b>



### MARKING TAGS - ZB TYPE



Accessories for marking and separation of different electrical circuits, different voltages and fixing of elements for DIN-rail mounting.

Type	Pieces in a strip	Colour	Size (mm)	Packing / Box (pcs)	Product category	Catalogue number
ZB6	20	white	6	100 / 1200	C	<b>31906</b>
ZB8	10	white	8	100 / 1200	C	<b>31908</b>



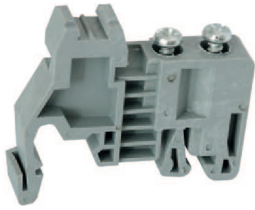
### END COVER



Type	Colour	Thickness (mm)	Packing / Box (pcs)	Product category	Catalogue number
EC	grey	8	200 / 6000	C	<b>31901</b>

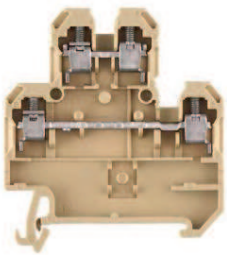


In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



**UNIVERSAL END FIXED PIECES E/UK TYPE**

Type	Colour	Thickness (mm)	Packing / Box (pcs)	Product category	Catalogue number
E/UK	grey	5	200 / 2400	C	<b>31902</b>



**DOUBLE DECK TERMINAL BLOKS**

Type	Section of the conductor (mm <sup>2</sup> )		Rated current (A)	Rated voltage (V)	Colour	Dimensions (mm)			Packing (pcs)	Product category	Catalogue number
	single-core	multicore				L	H	W			
DDTB4/5N	0.2-6	0.2-4	32	500	baige	59.9	54	6	50/1000	C	<b>31056D</b>
DDTB4/5N	0.2-6	0.2-4	32	500	grey	59.9	54	6	50/1000	C	<b>31053D</b>
End cover for DDTB4/5N					grey	54	43.5	1.5	200/6000	C	<b>31901D</b>

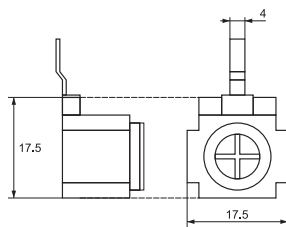


**INSULATING MOUNTING TERMINAL - TB25**

**FUNCTIONS:**

- provides a firm joining of rigid or flexible conductors up to 35mm<sup>2</sup> 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 35mm<sup>2</sup>

Type	Section of the conductor (mm <sup>2</sup> )	Rated current In (A)	Packing / Box (pcs)	Product category	Catalogue number
TB 25	2.5 to 35	63	20 / 2000	C	<b>31025</b>





## UNIPOLAR DISTRIBUTION TERMINAL BLOCKS FOR COPPER AND ALUMINIUM CONDUCTORS

**TECHNICAL DATA:**

- Housing material: PA Nylon
- Terminal material: tin plated brass
- Grade of flame retardant: UL94v-0
- Mounting: DIN rail or screw fixing

Type	Current (A)	Quantity cross sections mm <sup>2</sup>	Dimensions (mm)			Packing (pcs.)	Product category	Catalogue number
			L	H	W			
PPDTB80	80A	1x 6-16 mm <sup>2</sup> 4x 2.5-6 mm <sup>2</sup> 2x 2.5-16 mm <sup>2</sup>	30	69	49	C	<b>319080</b>	
PPDTB125	125A	1x 10-35 mm <sup>2</sup> 4x 6-16 mm <sup>2</sup> 6x 2.5-16 mm <sup>2</sup>	29	77	46	C	<b>319125</b>	
PPDTB160	160A	1x 10-70 mm <sup>2</sup> 4x 6-16 mm <sup>2</sup> 6x 2.5-16 mm <sup>2</sup>	29	77	46	C	<b>319160</b>	
PPDTB250	255A	1x 35-120 mm <sup>2</sup> 2x 6-35 mm <sup>2</sup> 5x 2.5-16 mm <sup>2</sup> 4x 2.5-10 mm <sup>2</sup>	47	96	50	C	<b>319250</b>	
PPDTB400	400A	1x 95-185 mm <sup>2</sup> 2x 6-35 mm <sup>2</sup> 5x 2.5-16 mm <sup>2</sup> 4x 2.5-10 mm <sup>2</sup>	47	96	50	C	<b>319400</b>	



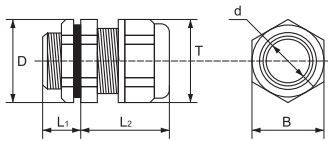
## TERMINAL BLOCKS TBF TYPE

Type	Pieces in a terminal	Section of the conductor (mm <sup>2</sup> )	Rated current (A)	Rated voltage (V)	Dimensions (mm)			Product category	Catalogue number
					L	H	W		
two terminal block	2	4 mm <sup>2</sup>	32	400	12.4	14.5	20.5	C	<b>31021</b>
three terminal block	3	4 mm <sup>2</sup>	32	400	17.0	14.5	20.5	C	<b>31022</b>
five terminal block	5	4 mm <sup>2</sup>	32	400	26.6	14.5	20.5	C	<b>31023</b>
lighting connector	3	1.0-2.5 mm <sup>2</sup> /0.5-2.5 mm <sup>2</sup>	25	400				C	<b>31024</b>





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.

- Material: polyethylene (PE)
- Colour: gray
- Application: general
- Ambient temperature: -40 to +65°C
- IP code: IP 55

**TECHNICAL DATA:**

Type	Overlapping field	T (mm)	B (mm)	d (mm)	D (mm)	L1 (mm)	L2 (mm)	Packing / Box (pcs)	Product category	Catalogue number
PG-7	3.5-6.8	16.3	18	12	6.6	10	22	100 / 4000	C	<b>500070</b>
PG-9	5-8	18.9	21.7	15.5	8.5	10	25	100 / 4000	C	<b>500090</b>
PG-11	6-10	21.7	23.5	18.5	10.4	8.5	29	100 / 3000	C	<b>500110</b>
PG-13.5	7-12	23.6	26.5	20	13	10	29	100 / 2000	C	<b>500135</b>
PG-16	8-14	26.5	29.3	21.5	14	9	29	100 / 2000	C	<b>500160</b>
PG-19	9-17	29	32	23	17	12	29	100 / 2000	C	<b>500190</b>
PG-21	10-18	32.3	35.6	28	19	12	35	100 / 1000	C	<b>500210</b>
PG-25	15-22	32.6	32.6	29.8	24	13	31	100 / 1000	C	<b>500250</b>
PG-29	16-24	41.1	45.4	36	26	12.5	40	50 / 500	C	<b>500290</b>
PG-36	18-28	52	58	46	31.5	12.5	45	50 / 350	C	<b>500360</b>
PG-42	26-36	57.4	61.9	51	37.6	17.5	47	20 / 200	C	<b>500420</b>
PG-48	32-39	65.2	70.7	58	43	21	50	20 / 200	C	<b>500480</b>



### 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.

Type	Section of the conductor (mm <sup>2</sup> )	Length (mm)	Φ (mm)	Cable glands type	IP code	Packing / Box (pcs)	Product category	Catalogue number
CABLE CONNECTOR 11	0,5-2,5 mm <sup>2</sup>	78,3	26,2	PG11	68	50	C	<b>31072</b>
CABLE CONNECTOR 16	1,5- 2,5 mm <sup>2</sup>	115	26,5	PG16	67	50	C	<b>59245</b>
CABLE CONNECTOR 21	4-6 mm <sup>2</sup>	124	33,5	PG21	67	50	C	<b>59246</b>



Terminal box IP65

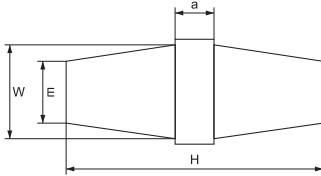


Terminal box IP44

### WATERPROOF TERMINAL BOX

Type	Section of the conductor (mm <sup>2</sup> )	Rated current (A)	Voltage (V)	Material	Product category	Catalogue number
TERMINAL BOX IP44	0.5-4.0	6	450	Polycarbonate	C	<b>31071</b>
TERMINAL BOX IP65	0.5-2.5	10	450	Polycarbonate	C	<b>31070</b>





## 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 SPECIFICATION:

- Rated voltage: 1000V
- Insulating voltage: 5000 V
- Ambient temperature : -40 to +65°C

Type	Impulse voltage kV	Strength	Fasting strength	Bolt	Dimmensions (mm)				Packing (pcs.)	Product category	Catalogue number
					H	W	a	ø			
SM 25	6	500	6	6	25	30	13	23	10 / 600	C	<b>31725</b>
SM 30	8	550	8	8	30	32	10	27	10 / 500	C	<b>31730</b>
SM 35	10	600	10	8	35	32	10	28	10 / 400	C	<b>31735</b>
SM 40	12	650	12	8	40	40	10	33	10 / 240	C	<b>31740</b>
SM 51	15	1000	20	8	51	50	12	28	10 / 240	C	<b>31751</b>
SM 76	25	1500	40	10	76	45	16	34	10 / 120	C	<b>31776</b>



## 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

Type	Diameter Ø (mm)	Packing (pcs)	Packing / Box (pcs)	Product category	Catalogue number
CHR-4	4	100	100/500	C	<b>500004</b>
CHR-5	5	100	100/ 500	C	<b>500005</b>
CHR-6	6	100	100/ 300	C	<b>500006</b>
CHR-7	7	100	100/ 300	C	<b>500007</b>
CHR-8	8	100	100/ 250	C	<b>500008</b>
CHR-9	9	100	100/ 200	C	<b>500009</b>
CHR-10	10	100	100/ 200	C	<b>500010</b>
CHR-12	12	100	100/ 100	C	<b>500012</b>
CHR-14	14	100	100/ 50	C	<b>500014</b>
CHR-16	16	100	100/ 50	C	<b>500016</b>



## PVC INSULATING TAPE



Colour	Thickness (mm)	Width (mm)	Length (m)	Packing / Box (pcs)	Product category	Catalogue number
Black	0.15	19	9,14	10 / 200	C	<b>51007</b>
White	0.15	19	9,14	10 / 200	C	<b>51008</b>
Blue	0.15	19	9,14	10 / 200	C	<b>51009</b>
Black	0.15	19	18,28	10 / 200	C	<b>51001</b>
Red	0.15	19	18,28	10 / 200	C	<b>51002</b>
Yellow / Green	0.15	19	18,28	10 / 200	C	<b>51004</b>
White	0.15	19	18,28	10 / 200	C	<b>51005</b>
Blue	0.15	19	18,28	10 / 200	C	<b>51006</b>





### PVC INSULATING TAPE

Soft, flexible with good adhesiveness and flame retardant. Working temperature: 0-80°C. Electrical strength: 40kV/mm

Colour	Thickness (mm)	Width (mm)	Length (m)	Packing / Box (pcs)	Product category	Catalogue number
Black	0.15	19	10	1/300	C	<b>51011</b>
White	0.15	19	10	1/300	C	<b>51012</b>
Blue	0.15	19	10	1/300	C	<b>51013</b>
Red	0.15	19	10	1/300	C	<b>51014</b>
Yellow / Green	0.15	19	10	1/300	C	<b>51015</b>
Black	0.15	19	20	1/200	C	<b>51021</b>
White	0.15	19	20	1/200	C	<b>51022</b>
Blue	0.15	19	20	1/200	C	<b>51023</b>
Red	0.15	19	20	1/200	C	<b>51024</b>
Yellow / Green	0.15	19	20	1/200	C	<b>51025</b>



### PVC INSULATING TAPE 3M TEMFLEX 1500



Colour	Thickness (mm)	Width (mm)	Length (m)	Packing/Box (pcs)	Product category	Catalogue number
Black	0.15	19	20	10/100	C	<b>M151016</b>





## BLACK SELF - AMALGAMATING HIGH VOLTAGE TAPE BISHOP 963

69kV | Waterproof | UV-Resistant | Moisture, corrosion and chemical resistance

Colour	Width (mm)	Length (m)	Packing/Box (pcs)	Product category	Catalogue number
Black	19	9	1	C	<b>M051004</b>



## ALUMINIUM TAPE

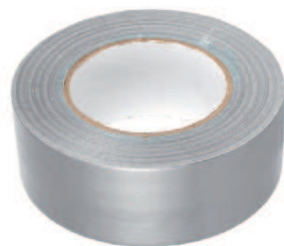


Ideal for temporary exhaust pipe repair heating, ventilation - electrics and electronics insulation and construction industries

Colour	Width (mm)	Length (m)	Packing/Box (pcs)	Product category	Catalogue number
Aluminium	50	10	1	C	<b>M499469</b>



## DUCT TAPE



Ideal for temporary exhaust pipe repair heating, ventilation - electrics and electronics insulation and construction industries

Colour	Width (mm)	Length (m)	Packing/Box (pcs)	Product category	Catalogue number
Grey	50	25	1	C	<b>51055</b>
Black	50	25	1	C	<b>M499153</b>



### MASKING TAPE



Width (mm)	Length (m)	Packing/Box (pcs)	Product category	Catalogue number
25	50	1	C	<b>M516400</b>
50	50	1	C	<b>M516401</b>



### DOUBLE SIDED MOUNTING TAPE



Width (mm)	Length (m)	Packing/Box (pcs)	Product category	Catalogue number
25	5	1	C	<b>M516402</b>
50	25	1	C	<b>M516403</b>



### HAZARD TAPE



Width (mm)	Length (m)	Packing/Box (pcs)	Product category	Catalogue number
50	100	1	C	<b>M500179</b>



### HEAT SHRINKAGE TUBES WITH GLUE GL TYPE



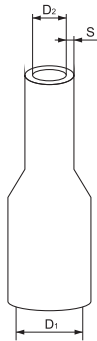
Type	colour	Diameter before shrinking (mm)	Wall thickness (mm)	Shrinkage ratio	Packing (pcs; m)	Product category	Catalogue number
GL	black	D2.4 (≥2.4)	0.7±0.15	3:1	200	C	<b>3010024GL</b>
GL	black	D3.2 (3.5±0.3)	0.9±0.15	3:1	200	C	<b>3010032GL</b>
GL	black	D4.8 (5.2±0.3)	1.0±0.15	3:1	100	C	<b>3010048GL</b>
GL	black	D6.4 (6.8±0.4)	1.2±0.15	3:1	100	C	<b>3010064GL</b>
GL	black	D7.9 (8.4±0.4)	1.3±0.15	3:1	100	C	<b>3010079GL</b>
GL	black	D9.5 (9.9±0.4)	1.4±0.15	3:1	1,22	C	<b>3010095GL</b>
GL	black	D12.7 (13.2±0.5)	1.6±0.20	3:1	1,22	C	<b>3010127GL</b>
GL	black	D15.0 (15.6±0.5)	1.8±0.20	3:1	1,22	C	<b>3010150GL</b>
GL	black	D19.1 (19.6±0.5)	2.0±0.20	3:1	1,22	C	<b>3010191GL</b>
GL	black	D25.4 (25.4±0.8)	2.1±0.20	3:1	1,22	C	<b>3010254GL</b>
GL	black	D30.0 (≥30)	2.2±0.20	3:1	1,22	C	<b>3010300GL</b>
GL	black	D39 (≥40)	2.4±0.20	3:1	1,22	C	<b>3010390GL</b>
GL	black	D50 (≥50)	2.7±0.25	3:1	1,22	C	<b>3010500GL</b>
GL	black	D64 (≥60)	3.0±0.25	3:1	1,22	C	<b>3010640GL</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 30 days, and for Glue GL will be 90 days.



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 10<sup>12</sup> Ω/cm
- Application: general
- Insulating voltage 1000 V

Type	D1 (mm)	D2 (mm)	S (mm)	Packing / Box (m)	Product category	Catalogue number *
ZDG	1	0.5	0.04	200 / 4000	C	301001X
ZDG	1.5	0.75	0.04	200 / 4000	C	301115X
ZDG	2	1.0	0.05	200 / 4000	C	301002X
ZDG	3	1.5	0.05	200 / 2000	C	301003X
ZDG	4	2.0	0.08	100 / 1700	C	301004X
ZDG	5	2.5	0.08	100 / 1200	C	301005X
ZDG	6	3.0	0.08	100 / 1000	C	301006X
ZDG	7	3.5	0.08	100 / 1000	C	301007X
ZDG	8	4.0	0.08	100 / 1500	C	301008X
ZDG	9	4.5	0.08	100 / 1500	C	301009X
ZDG	10	5.0	0.08	100 / 1500	C	301010X
ZDG	11	5.5	0.08	100 / 1500	C	301011X
ZDG	12	6.0	0.08	100 / 1200	C	301012X
ZDG	13	6.5	0.08	100 / 1200	C	301013X
ZDG	14	7.0	0.08	100 / 1200	C	301014X
ZDG	15	7.5	0.08	100 / 1200	C	301015X
ZDG	16	8.0	0.08	100 / 1200	C	301016X
ZDG	18	9.0	0.08	50 / 600	C	301018X
ZDG	20	10	0.08	50 / 500	C	301020X
ZDG	22	11	0.08	50 / 500	C	301022X
ZDG	25	12.5	0.08	25 / 600	C	301025X
ZDG	28	14	0.08	25 / 300	C	301028X
ZDG	30	15	0.08	25 / 300	C	301030X
ZDG	35	17.5	0.08	25 / 300	C	301035X
ZDG	40	20	0.08	25 / 250	C	301040X
ZDG	50	25	0.08	25 / 200	C	301050X
ZDG	60	30	0.08	25 / 300	C	301060X
ZDG	70	35	0.08	25 / 250	C	301070X
ZDG	80	40	0.08	25 / 100	C	301080X
ZDG	90	45	0.08	25 / 150	C	301090X
ZDG	100	50	0.08	25 / 100	C	301100X
ZDG	120	60	0.08	25 / 200	C	301120X
ZDG	150	75	0.08	25 / 100	C	301150X

**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;



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.



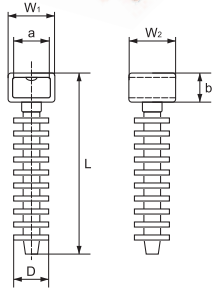
**CABLE TAGS – SETS**

Type	Section (mm)	Number in a roller	Packing / Box (pcs)	Product category	Catalogue number	Type	Section (mm)	Number in a roller	Packing / Box (pcs)	Product category	Catalogue number
EC-0-0	1.5 - 3.2	1000	100	C	<b>318000</b>	EC-1-0	2.6 - 4.2	1000	150	C	<b>318010</b>
EC-0-1	1.5 - 3.2	1000	100	C	<b>318001</b>	EC-1-1	2.6 - 4.2	1000	150	C	<b>318011</b>
EC-0-2	1.5 - 3.2	1000	100	C	<b>318002</b>	EC-1-2	2.6 - 4.2	1000	150	C	<b>318012</b>
EC-0-3	1.5 - 3.2	1000	100	C	<b>318003</b>	EC-1-3	2.6 - 4.2	1000	150	C	<b>318013</b>
EC-0-4	1.5 - 3.2	1000	100	C	<b>318004</b>	EC-1-4	2.6 - 4.2	1000	150	C	<b>318014</b>
EC-0-5	1.5 - 3.2	1000	100	C	<b>318005</b>	EC-1-5	2.6 - 4.2	1000	150	C	<b>318015</b>
EC-0-6	1.5 - 3.2	1000	100	C	<b>318006</b>	EC-1-6	2.6 - 4.2	1000	150	C	<b>318016</b>
EC-0-7	1.5 - 3.2	1000	100	C	<b>318007</b>	EC-1-7	2.6 - 4.2	1000	150	C	<b>318017</b>
EC-0-8	1.5 - 3.2	1000	100	C	<b>318008</b>	EC-1-8	2.6 - 4.2	1000	150	C	<b>318018</b>
EC-0-9	1.5 - 3.2	1000	100	C	<b>318009</b>	EC-1-9	2.6 - 4.2	1000	150	C	<b>318019</b>
EC-0-a	1.5 - 3.2	1000	100	C	<b>31800A</b>	EC-1-a	2.6 - 4.2	1000	150	C	<b>31801A</b>
EC-0-b	1.5 - 3.2	1000	100	C	<b>31800B</b>	EC-1-b	2.6 - 4.2	1000	150	C	<b>31801B</b>
EC-0-R	1.5 - 3.2	1000	100	C	<b>31800R</b>	EC-1-R	2.6 - 4.2	1000	150	C	<b>31801R</b>
EC-0-S	1.5 - 3.2	1000	100	C	<b>31800S</b>	EC-1-S	2.6 - 4.2	1000	150	C	<b>31801S</b>
EC-0-T	1.5 - 3.2	1000	100	C	<b>31800T</b>	EC-1-T	2.6 - 4.2	1000	150	C	<b>31801T</b>
EC-0-N	1.5 - 3.2	1000	100	C	<b>31800N</b>	EC-1-N	2.6 - 4.2	1000	150	C	<b>31801N</b>
EC-0-P	1.5 - 3.2	1000	100	C	<b>31800P</b>	EC-1-P	2.6 - 4.2	1000	150	C	<b>31801P</b>
EC-0-E	1.5 - 3.2	1000	100	C	<b>31800E</b>	EC-1-E	2.6 - 4.2	1000	150	C	<b>31801E</b>
EC-0-A	1.5 - 3.2	1000	100	C	<b>31800A</b>	EC-1-A	2.6 - 4.2	1000	150	C	<b>31801A</b>
EC-0-B	1.5 - 3.2	1000	100	C	<b>31800B</b>	EC-1-B	2.6 - 4.2	1000	150	C	<b>31801B</b>
EC-0-C	1.5 - 3.2	1000	100	C	<b>31800C</b>	EC-1-C	2.6 - 4.2	1000	150	C	<b>31801C</b>
EC-0-Q	1.5 - 3.2	1000	100	C	<b>31800Q</b>	EC-1-Q	2.6 - 4.2	1000	150	C	<b>31801Q</b>
Type	Section (mm)	Number in a roller	Packing / Box (pcs)	Product category	Catalogue number	Type	Section (mm)	Number in a roller	Packing / Box (pcs)	Product category	Catalogue number
EC-2-0	3.6 - 5.2	500	150	C	<b>318020</b>	EC-3-0	5 - 7.2	250	150	C	<b>318030</b>
EC-2-1	3.6 - 5.2	500	150	C	<b>318021</b>	EC-3-1	5 - 7.2	250	150	C	<b>318031</b>
EC-2-2	3.6 - 5.2	500	150	C	<b>318022</b>	EC-3-2	5 - 7.2	250	150	C	<b>318032</b>
EC-2-3	3.6 - 5.2	500	150	C	<b>318023</b>	EC-3-3	5 - 7.2	250	150	C	<b>318033</b>
EC-2-4	3.6 - 5.2	500	150	C	<b>318024</b>	EC-3-4	5 - 7.2	250	150	C	<b>318034</b>
EC-2-5	3.6 - 5.2	500	150	C	<b>318025</b>	EC-3-5	5 - 7.2	250	150	C	<b>318035</b>
EC-2-6	3.6 - 5.2	500	150	C	<b>318026</b>	EC-3-6	5 - 7.2	250	150	C	<b>318036</b>
EC-2-7	3.6 - 5.2	500	150	C	<b>318027</b>	EC-3-7	5 - 7.2	250	150	C	<b>318037</b>
EC-2-8	3.6 - 5.2	500	150	C	<b>318028</b>	EC-3-8	5 - 7.2	250	150	C	<b>318038</b>
EC-2-9	3.6 - 5.2	500	150	C	<b>318029</b>	EC-3-9	5 - 7.2	250	150	C	<b>318039</b>
EC-2-a	3.6 - 5.2	500	150	C	<b>31802A</b>	EC-3-a	5 - 7.2	250	150	C	<b>31803A</b>
EC-2-b	3.6 - 5.2	500	150	C	<b>31802B</b>	EC-3-b	5 - 7.2	250	150	C	<b>31803B</b>
EC-2-R	3.6 - 5.2	500	150	C	<b>31802R</b>	EC-3-R	5 - 7.2	250	150	C	<b>31803R</b>
EC-2-S	3.6 - 5.2	500	150	C	<b>31802S</b>	EC-3-S	5 - 7.2	250	150	C	<b>31803S</b>
EC-2-T	3.6 - 5.2	500	150	C	<b>31802T</b>	EC-3-T	5 - 7.2	250	150	C	<b>31803T</b>
EC-2-N	3.6 - 5.2	500	150	C	<b>31802N</b>	EC-3-N	5 - 7.2	250	150	C	<b>31803N</b>
EC-2-P	3.6 - 5.2	500	150	C	<b>31802P</b>	EC-3-P	5 - 7.2	250	150	C	<b>31803P</b>
EC-2-E	3.6 - 5.2	500	150	C	<b>31802E</b>	EC-3-E	5 - 7.2	250	150	C	<b>31803E</b>
EC-2-A	3.6 - 5.2	500	150	C	<b>31802A</b>	EC-3-A	5 - 7.2	250	150	C	<b>31803A</b>
EC-2-B	3.6 - 5.2	500	150	C	<b>31802B</b>	EC-3-B	5 - 7.2	250	150	C	<b>31803B</b>
EC-2-C	3.6 - 5.2	500	150	C	<b>31802C</b>	EC-3-C	5 - 7.2	250	150	C	<b>31803C</b>
EC-2-Q	3.6 - 5.2	500	150	C	<b>31802Q</b>	EC-3-Q	5 - 7.2	250	150	C	<b>31803Q</b>



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*

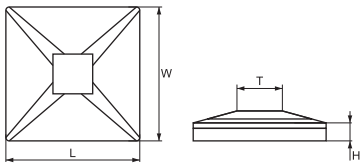
### CABLE TIE HOLDER



Type	colour	Bore diameter (mm)	a (mm)	b (mm)	D (mm)	W1 (mm)	W2 (mm)	L (mm)	Packing (pcs)	Product category	Catalogue number
MT-8	black	φ8	9,7	6,3	9,9	12,7	12,6	43	100	C	<b>500046</b>
MT-8	white	φ8	9,7	6,3	9,9	12,7	12,6	43	100	C	<b>500047</b>



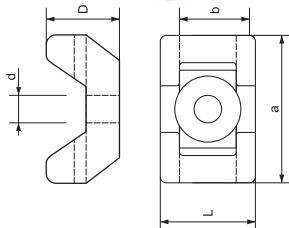
### CABLE TIE MOUNTS-ADHESIVE



Type	colour	Dimmensions (mm)				Packing (pcs.)	Product category	Catalogue number
		L	W	H	T			
MT-25	white	25	25	7,5	6,2	100	C	<b>500041</b>
MT-25	black	25	25	7,5	6,2	100	C	<b>500042</b>
MT-30	white	30	30	8,7	6,4	100	C	<b>500043</b>
MT-30	black	30	30	8,7	6,4	100	C	<b>500039</b>



### CABLE TIE BASES FIXED WITH SCREWS



Type	Color	a (mm)	b (mm)	L (mm)	d (mm)	D (mm)	Packing (pcs)	Product category	Catalogue number
CTH-2C	white	22	16,5	9	5,8	9,5	100	C	<b>500048</b>
CTH-2C	black	22	16,5	9	5,8	9,5	100	C	<b>500038</b>





### CABLE TIES - WHITE

Type	Length (mm)	Colour	Width (mm)	Packing (pcs)	Packing / Box (pcs)	Product category	Catalogue number
Cable ties	100	white	2.5	100	10 / 800	C	<b>500100</b>
Cable ties	150	white	2.5	100	10 / 500	C	<b>500152</b>
Cable ties	160	white	2.5	100	10 / 500	C	<b>500162</b>
Cable ties	200	white	2.5	100	10 / 400	C	<b>500202</b>
Cable ties	250	white	3.5	100	10 / 250	C	<b>500253</b>
Cable ties	280	white	3.5	100	10 / 200	C	<b>500283</b>
Cable ties	300	white	3.5	100	10 / 200	C	<b>500303</b>
Cable ties	300	white	4.8	100	10 / 120	C	<b>500304</b>
Cable ties	370	white	3.5	100	10 / 120	C	<b>500373</b>
Cable ties	380	white	4.8	100	10 / 100	C	<b>500384</b>
Cable ties	450	white	4.8	100	10 / 70	C	<b>500454</b>
Cable ties	500	white	7.9	100	5 / 40	C	<b>500507</b>



### CABLE TIES - BLACK

Type	Length (mm)	Colour	Width (mm)	Packing (pcs)	Packing / Box (pcs)	Product category	Catalogue number
Cable ties	150	black	2.5	100	10 / 500	C	<b>500151</b>
Cable ties	160	black	2.5	100	10 / 500	C	<b>500161</b>
Cable ties	250	black	3.5	100	10 / 250	C	<b>500251</b>
Cable ties	280	black	3.5	100	10 / 200	C	<b>500281</b>
Cable ties	300	black	3.5	100	10 / 200	C	<b>500301</b>
Cable ties	500	black	7.9	100	40	C	<b>500501</b>



### CABLE HOLDER WITH TIE

Type	Color	a (mm)	b (mm)	c (mm)	d (mm)	Packing (pcs)	Product category	Catalogue number
cable holder with tie	black	27	14	140	0,5	20	C	<b>500444</b>
cable holder with tie	grey	27	14	140	0,5	20	C	<b>500445</b>





## WALL PLUG WITH CABLE TIE

Type	Color	Bore diameter (mm)	Tie Length (mm)	Packing (pcs)	Product category	Catalogue number
wall plug with cable tie	black	Ø6	95	50	C	<b>500427</b>
wall plug with cable tie	black	Ø8	95	50	C	<b>500425</b>



## WIRE GRIP BAND FOR FLAT CABLE

Type	Color	Bore diameter (mm)	width of the head	Packing (pcs)	Product category	Catalogue number
wire grip band for flat cable 1	white	6-7	18	50	C	<b>500432</b>
wire grip band for flat cable 2	white	6-7	12	50	C	<b>500434</b>
wire grip band for flat cable 3	white	6-7	10	50	C	<b>500436</b>

Wire grip band 1 is Suitable for flat cables with section- 2x1.0; 2x1.5mm<sup>2</sup>

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; 3x2.5mm<sup>2</sup>



## WIRE GRIP BAND FOR ROUND CABLE

Type	Color	Bore diameter (mm)	width of the head	Packing (pcs)	Product category	Catalogue number
wire grip band for round cable 4	white	6-7	6	50	C	<b>500438</b>
wire grip band for round cable 5	white	6-7	8	50	C	<b>500440</b>
wire grip band for round cable 6	white	6-7	10	50	C	<b>500439</b>
wire grip band for round cable 7	white	6-7	14	50	C	<b>500441</b>
wire grip band for round cable 8	white	8-9	20	50	C	<b>500442</b>

Wire grip band 4 is Suitable for round cables with section- 2x1.0; 2x1.5; 3x1.0; 3x2.5mm<sup>2</sup>; 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



## HARDENED STEEL NAILS, SIKO

Model	Length (mm)	Diameter (mm)	Packing/Box (pcs)	Product category	Catalogue number
Siko 16	16	2	100/2000	G	<b>M499108</b>
Siko 30	30	2	100/1000	G	<b>M499489</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 30 days.



### LAMP HOLDER

Type	Lamp	Material	Dimmensions (mm)				Packing (pcs.)	Product category	Catalogue number
			Diameter	Width	Height	d			
Lamp holder	GU10	ceramic	27	20	16	3.4	100	C	<b>99292</b>

Length of the cable: 140 mm



### LAMP HOLDER

Type	Lamp	Material	Dimmensions (mm)				Packing (pcs.)	Product category	Catalogue number
			Diameter	Width	Height	d			
Lamp holder	G 4 / G 5.3 / GY 6.35	ceramic	16	11	10	3.4	200	C	<b>99293</b>

Length of the cable: 90 mm



### CERAMIC LAMP HOLDER

Type	Lamp	Material	Dimmensions (mm)				Packing (pcs.)	Product category	Catalogue number
			Length	Diameter	Width	d			
Lamp holder	E 14	ceramic	44	33	20	4,3	40/400	C	<b>99296</b>
Lamp holder	E 27	ceramic	48	41	20	4,3	40/400	C	<b>99294</b>
Lamp holder with support	E 27	ceramic	48	41	20	4,3	16/320	C	<b>99295</b>
Lamp holder	E 40	ceramic	72	56	23	4,3	100	C	<b>99298</b>





### HANGING LAMP HOLDER

Type	Lamp	Material	Dimensions (mm)		Section of power supply conductors	Product category	Catalogue number
			Diameter	Length			
Screw	E27	bakelite	38.5	55	0.5-2.5mm <sup>2</sup>	C	<b>99196</b>



### HANGING LAMP HOLDER

Type	Lamp	Material	Dimensions (mm)		Section of power supply conductors	Product category	Catalogue number
			Diameter	Length			
Screw	E27	bakelite	38.5	55	0.5-2.5mm <sup>2</sup>	C	<b>99197</b>



### HANGING LAMP HOLDER

Type	Lamp	Material	Dimensions (mm)		Section of power supply conductors	Product category	Catalogue number
			Diameter	Length			
Screwless	E14	plastic	44	56,3	0.5-2.5mm <sup>2</sup>	C	<b>99194</b>



### HANGING LAMP HOLDER

Type	Lamp	Material	Dimensions (mm)		Section of power supply conductors	Product category	Catalogue number
			Diameter	Length			
Screwless	E27	plastic	55	62,5	0.5-2.5mm <sup>2</sup>	C	<b>99195</b>





### LAMP BASES

Type	Lamp	Material	Rated current	Diameter (mm)	Length (mm)	Section of power supply conductors	Product category	Catalogue number
Oblique	E27	plastic	4A	78	38	0.5-2.5mm <sup>2</sup>	C	<b>99200</b>
Straight	E27	plastic	4A	63	40	0.5-2.5mm <sup>2</sup>	C	<b>99199</b>



### TWIN SOCKET LAMP HOLDER

Type	Lamp	Material	Rated current	Diameter (mm)	Length (mm)	Section of power supply conductors	Product category	Catalogue number
E27-2xE27	E27	Iron + PBT	4A	76	74	0.5-2.5mm <sup>2</sup>	C	<b>99198</b>



### LAMP HOLDER ADAPTORS TO E27

Type	Voltage	Rated current (A)	Used for holder	Convert to lamp socket	Material	Packing (pcs.)	Product category	Catalogue number
E40/E27	250V	4A	E40	E27	iron/plastic	15/500	C	<b>192168</b>
G24/E27	250V	4A	G24-4 pin	E27	PBT+ copper	25/300	C	<b>192169</b>

Ambient temperature: 85°C



### INTERMEDIATE SWITCH

Type	Voltage	Rated current (A)	Colour	Packing (pcs.)	Product category	Catalogue number
IS-RW	250V	6	red & white	1	C	<b>M300018</b>
IS-B	250V	6	black	1	C	<b>M300002</b>





**INFRARED MOTION SENSOR ST02A**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	Width	Height			
ST02A	160°	LED - 200W IL - 500W	max.9m	white	80	54	59.9	100	C	<b>99DS100</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3-2000lux (adjustable); Detection motion speed: 0.6 - 1.5m/s; Two wire line; Installation height: 1 - 1.8m



**INFRARED MOTION SENSOR ST42**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	d1	d2			
ST42	360°	LED - 300W IL - 1200W	max.6m	white	75,6	76	100	50	C	<b>99DS104</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3 - 2000lux (adjustable); Detection motion speed: 0.6 - 1.5m/s; Installation height: 2.2 - 4m



**INFRARED MOTION SENSOR ST41**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	d1	d2			
ST41	360°	LED - 300W IL - 1200W	max.6m	white	75,6	61,5	76	50	C	<b>99DS103</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3 - 2000lux (adjustable); Detection motion speed: 0.6 - 1.5m/s; Installation height: 2.2 - 4m



**INFRARED MOTION SENSOR ST40**

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	d1	d2			
ST40	360°	LED - 800W IL - 1200W	max.6m	white	50	50	35	50	C	<b>99DS402</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3 - 2000lux (adjustable); Detection motion speed: 0.6 - 1.5m/s; Installation height: 2.2 - 4m





### INFRARED MOTION SENSOR ST11

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	Width	Height			
ST11	180°	LED - 500W IL - 800W	max.12m	white	80	55	65	50	C	<b>99DS403</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3 - 2000lux (adjustable); Detection motion speed: 0.6 - 1.5m/s; Installation height: 2.2 - 4m



### INFRARED MOTION SENSOR ST07

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)		Packing (pcs.)	Product category	Catalogue number
					Height	Diameter			
ST07	380°	LED - 300W IL - 1200W	max.6m	white	58	115	50	C	<b>99DS101</b>
ST07	380°	LED - 300W IL - 1200W	max.6m	black	58	115	50	C	<b>99DS102</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3 - 2000lux (adjustable); Detection motion speed: 0.6 - 1.5m/s; Installation height: 2.2 - 4m



### INFRARED MOTION SENSOR ST24

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	Width	Height			
ST24	120°/360°	LED - 200W IL - 800W	max.6m	white	55.8	34	24.6	100	C	<b>99DS109</b>

Time Delay: 5s, 30s, 1min, 3min, 5min, 8min(choice); Ambient Light: 10LUX/2000LUX (choice)  
Detection Distance: 3m/6m(choice) (<24oC); Detection motion speed: 0.6 - 1.5m/s





### MICROWAVE SENSOR ST701F

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
				Length	Width	Height			
ST701F	180°/360°	LED - 200W IL - 500W	white	58	40.5	25.5	100	C	<b>99DS400</b>

Time Delay: 10sec ± 3sec to 12min ± 1min (adjustable); Ambient Light: <3 - 2000LUX (adjustable)  
HF System: 5.8GHz CW radar,ISM band; Detection Distance: Wall: 5 - 15m (adjustable); Ceiling: 2 - 8m(radius), adjustable; Installation Height: Wall:1.5 - 3.5m; Ceiling: 2 - 10m



### INFRARED MOTION SENSOR ST15

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	Width	Height			
ST15	180°	LED - 300W IL - 1200W	max.12m	white	80	117,2	31,5	50	C	<b>99DS108</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3 - 2000lux (adjustable)  
Detection motion speed: 0.6 - 1.5m/s; Installation height: 2.2 - 4m IP65



### INFRARED MOTION SENSOR ST10A

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Detection range	Rated load	Detection distance	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
					Length	Width	Height			
ST10A	180°	LED - 300W IL - 1200W	5-12m	white	87,4	120	144	50	C	<b>99DS107</b>

Time-Delay: 10sec ± 3sec to 7min ± 2min (adjustable); Ambient light: <3 - 2000lux (adjustable)  
Detection motion speed: 0.6 - 1.5m/s; Installation height: 2.2 - 4m IP44



### INFRARED MOTION SENSOR ST05CA

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Rated load	Time-Delay	Ambient Light	Height (mm)	Diameter (mm)	Product category	Catalogue number
ST05CA	LED - 300W, IL - 800W	10s to 15min	<3 - 2000LUX	24.9	102	C	<b>99DS110</b>

Detection Distance: max 6m.





### LIGHT-CONTROL SENSOR ST300, IP44

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Rated current	Colour body	Size (mm)		Packing (pcs.)	Product category	Catalogue number
			Length	Height			
ST300	10A	white	35	108,6	50	C	<b>99DS404</b>

Ambient light: 3-500 lux (adjustable) IP44; Timer Built-in from 1-9 hours



### LIGHT-CONTROL SENSOR ST306, IP44

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Rated current	Colour body	Size (mm)		Packing (pcs.)	Product category	Catalogue number
			Length	Height			
ST306	6A	black/white	100	200	50	C	<b>99DS405</b>

Ambient light: <5 - 15lux (adjustable) IP44



### LIGHT-CONTROL SENSOR ST303, IP44

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Rated current	Colour body	Size (mm)		Packing (pcs.)	Product category	Catalogue number
			Height	Diameter			
ST303	25A	white	70,5	78,3	50	C	<b>99DS300</b>

Ambient light: <5 - 50lux (adjustable) IP44



### LIGHT-CONTROL SENSOR ST302, IP44

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Rated current	Colour body	Size (mm)		Packing (pcs.)	Product category	Catalogue number
			Height	Diameter			
ST302	10A	white	76,7	63	100	C	<b>99DS301</b>

Ambient light: <5 - 50lux (adjustable) IP44





### LIGHT-CONTROL SENSOR ST308, IP65

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Rated current	Colour body	Size (mm)			Packing (pcs.)	Product category	Catalogue number
			Length	Width	Height			
ST308	20A	white	35	66	90	100	C	<b>99DS302</b>

Ambient light: <2 - 100lux (adjustable) IP65



### TOUCHING SENSOR ST125

**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Rated load	Length (mm)	Width (mm)	Height (mm)	Diameter (mm)	Product category	Catalogue number





**CABLE REEL WITH THERMAL PROTECTION - MAK - 2A**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
H05VV-F	3 x 1.5mm <sup>2</sup>	10	4	E	<b>47911</b>



**CABLE REEL WITH THERMAL PROTECTION - MAK - 3**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
H05VV-F	3 x 1.5mm <sup>2</sup>	20	4	E	<b>47921</b>



**CABLE REEL WITH THERMAL PROTECTION - MAK - 4**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
H05VV-F	3 x 1.5mm <sup>2</sup>	25	2	E	<b>47927</b>
H05VV-F	3 x 1.5mm <sup>2</sup>	40	1	E	<b>47940</b>
H05VV-F	3 x 1.5mm <sup>2</sup>	50	2	E	<b>47950</b>



**CABLE REEL - HJR TYPE, IP 44**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
HJR - 10AP	H07RN-F	3 x 1.5mm <sup>2</sup>	25	2	E	<b>47960</b>
HJR - 10P	H07RN-F	3 x 1.5mm <sup>2</sup>	50	1	E	<b>47959</b>



**EMPTY CABLE REEL 029A**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Suitable for cable type	Outlets	Product category	Catalogue number
H05VV-F 3G1.5mm <sup>2</sup> - max 40m / 3G1.0mm <sup>2</sup> - max 50m	4 socket 16A/230V	E	<b>47910</b>





**EXTENSION CORDS**



Type	Cable type	Cable specification	Cable length (m)	Cable colour	Product category	Catalogue number
Extension cord	H05VV-F	3G1.5mm <sup>2</sup>	10	orange	E	<b>47333</b>
Extension cord	H05VV-F	3G1.5mm <sup>2</sup>	15	orange	E	<b>47334</b>

Rated current: 16A, Voltage: 230VAC



**MULTIPLUGS 3 HOLES WITH KEY**



Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
3 holes	H05VV-F	3G1.5mm <sup>2</sup>	2	1/40	E	<b>47332</b>



**MULTIPLUGS 4 HOLES WITH KEY**



Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
4 holes	H05VV-F	3G1.5mm <sup>2</sup>	2	1/40	E	<b>47432</b>



**MULTIPLUGS 6 HOLES WITH KEY**



Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
6 holes	H05VV-F	3G1.5mm <sup>2</sup>	2	1/25	E	<b>47632</b>



**MULTIPLUGS 8 HOLES WITH KEY**



Type	Cable type	Cable specification	Cable length (m)	Packing / Box (pcs)	Product category	Catalogue number
8 holes	H05VV-F	3G1.5mm <sup>2</sup>	2	1/25	E	<b>47732</b>





### MULTIPLUG - HX-3N TYPE



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
HX-3N	H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	40	E	<b>47031</b>
HX-3N	H05VV-F	3 x 1.5mm <sup>2</sup>	3.0m	5 / 40	E	<b>47080</b>
HX-3N	H05VV-F	3 x 1.5mm <sup>2</sup>	5.0m	5 / 40	E	<b>47081</b>

Max.3500W,16/250~



### MULTIPLUG - HX-4N TYPE



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
HX-4N	H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	50	E	<b>47041</b>
HX-4N	H05VV-F	3 x 1.5mm <sup>2</sup>	3.0m	30	E	<b>47082</b>
HX-4N	H05VV-F	3 x 1.5mm <sup>2</sup>	5.0m	25	E	<b>47083</b>

Max.3500W,16/250~



### MULTIPLUG - HX-6N TYPE



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
HX-6N	H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	50	E	<b>47061</b>
HX-6N	H05VV-F	3 x 1.5mm <sup>2</sup>	3.0m	40	E	<b>47063</b>
HX-6N	H05VV-F	3 x 1.5mm <sup>2</sup>	5.0m	40	E	<b>47065</b>

Max.3500W,16/250~



### MULTIPLUG - ODL, IP44



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
ODL - PYX - 2E	H07RN-F	3 x 1.5mm <sup>2</sup>	1.5m	40	F	<b>47802</b>

UNTIL SUPPLY  
LAST





**MULTIPLUG WITH KEY  
HKX-3N TYPE**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
HKX-3N	H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	5 / 40	E	<b>47131</b>
HKX-3N	H05VV-F	3 x 1.5mm <sup>2</sup>	3.0m	5 / 30	E	<b>47133</b>
HKX-3N	H05VV-F	3 x 1.5mm <sup>2</sup>	5.0m	5 / 25	E	<b>47135</b>

Max.3500W,16/250~



**MULTIPLUG WITH KEY  
HKX-4N TYPE**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
HKX-4N	H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	5 / 40	E	<b>47142</b>
HKX-4N	H05VV-F	3 x 1.5mm <sup>2</sup>	3.0m	5 / 30	E	<b>47143</b>
HKX-4N	H05VV-F	3 x 1.5mm <sup>2</sup>	5.0m	5 / 25	E	<b>47145</b>

Max.3500W,16/250~



**MULTIPLUG WITH KEY  
HKX-5N TYPE**



**2+0** standard +extended **2** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
HKX-5N	H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	5 / 40	F	<b>47152</b>

Max.3500W,16/250~



UNTIL SUPPLY  
LAST

**MULTIPLUG WITH KEY  
HKX-6N TYPE**



**3+0** standard +extended **3** YEAR TOTAL WARRANTY

Type	Cable type	Cable specification	Cable length (m)	Packing (pcs)	Product category	Catalogue number
HKX-6N	H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	5 / 40	E	<b>47162</b>
HKX-6N	H05VV-F	3 x 1.5mm <sup>2</sup>	3.0m	5 / 30	E	<b>47163</b>
HKX-6N	H05VV-F	3 x 1.5mm <sup>2</sup>	5.0m	5 / 25	E	<b>47165</b>

Max.3500W,16/250~



*In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 90 days.*



### THREE WAY CLIP MULTIPLUG



Cable type	Cable specification	Cable length (m)	Colour	Material	Product category	Catalogue number
H05VV-F	3 x 1.0mm <sup>2</sup>	1.5m	White & Grey	PP+ABS	C	<b>47003</b>



### POWER CABLES



Cable type	Cable specification	Cable length (m)	Cable colour	Product category	Catalogue number
H05VV-F	3G1.5mm <sup>2</sup>	2	white	E	<b>47001</b>
H05VV-F	3G2.5mm <sup>2</sup>	2	white	E	<b>47002</b>



### ADAPTERS



Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)	Product category	Catalogue number
Adapter double	White	16	3500	50	C	<b>192213</b>
Adapter double	Graphite	16	3500	50	C	<b>192212</b>
Adapter double with key	White	16	3500	50	C	<b>192211</b>
Adapter double with key	Graphite	16	3500	50	C	<b>192210</b>
Adapter triple	White	16	3500	40	C	<b>192209</b>
Adapter triple	Graphite	16	3500	40	C	<b>192208</b>
Adapter triple with key	White	16	3500	40	C	<b>192207</b>
Adapter triple with key	Graphite	16	3500	40	C	<b>192206</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 30 days.



## MULTISOCKET

Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)	Product category	Catalogue number
Multisocket double	black	16	3500	60	C	<b>192216</b>
Multisocket double	white	16	3500	60	C	<b>192217</b>
Multisocket triple	black	16	3500	60	C	<b>192218</b>
Multisocket triple	white	16	3500	60	C	<b>192219</b>



## RUBBER MULTISOCKET

Type	Colour	Rated current in (A)	Rated power in (W)	Packing (pcs)	Product category	Catalogue number
Multisocket triple	White	16	3500	20	C	<b>192120/WH</b>
Multisocket triple	Black	16	3500	20	C	<b>192120/BL</b>



## RUBBER SCHUKO SOCKETS

Type	Colour	Rated current In (A)	Material	Packing (pcs)	Product category	Catalogue number
Socket	White	16	Rubber	25	C	<b>192119/WH</b>
Socket	Black	16	Rubber	25	C	<b>192119/BL</b>



## RUBBER SCHUKO SOCKETS WITH COVER IP44

Type	Colour	Rated current In (A)	Material	Packing (pcs)	Product category	Catalogue number
Socket	Black	16	Rubber	1/30/150	C	<b>192122/BL</b>





### RUBBER SCHUKO PLUG

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Plug	16	White	Rubber	25	C	<b>192118/WH</b>
Plug	16	Black	Rubber	25	C	<b>192118/BL</b>
Plug	16	Red	Rubber	25	C	<b>192118/R</b>



### ANGLE BAKELITE SCHUKO PLUG

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Plug	16	White	Bakelite	20/100	C	<b>192117/WH</b>
Plug	16	Black	Bakelite	20/100	C	<b>192117/BL</b>



### PLUG WITH PVC MUFF

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Plug	16	black / white	with pvc muff	300	C	<b>192113</b>



### PLUG BAKELITE

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Plug	16	white	bakelite	80	C	<b>19211102</b>
Plug	16	black	bakelite	80	C	<b>19211101</b>



### TWO PIN PLUG

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Plug	6	White	PP	100	C	<b>192116/WH</b>
Plug	6	Black	PP	100	C	<b>192116/BL</b>



In case of insufficient quantity in stock of any item listed on this page, the delivery time after order confirmation will be 30 days



### TWO PIN PLUG WITH EXTRACTION RING

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Plug	10	White	PC	1/500	C	<b>192115/WH</b>
Plug	10	Black	PC	1/500	C	<b>192115/BL</b>



### TWO POLE SOCKET WITH HOOK

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Socket	10	Black	PC	1/500	C	<b>192123/BL</b>
Socket	10	White	PC	1/500	C	<b>192123/WH</b>



### BRITISH PLUG

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
British plug	13	white	PMMA	1/20	C	<b>192114</b>



### FOOT SWITCH

Type	Rated current In (A)	Colour	Material	Packing (pcs)	Product category	Catalogue number
Switch	10	White	PC	1/100	C	<b>192124/WH</b>





# OUTSIDE POWER CABLES



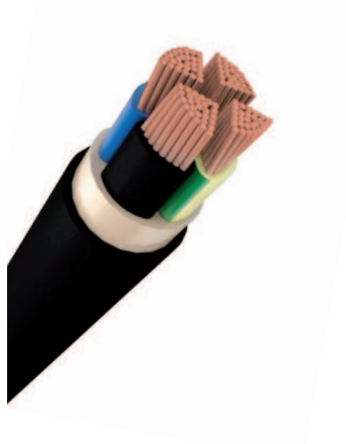
**Standards:**

DIN VDE 0293-308 - Colour coded acc  
 DIN VDE 0276 part 603 or HD 186  
 DIN VDE 0295 - Wire class acc

**NYY**

Power cable, Cu-conductor, PVC-insulation, PVC-sheathing

5+2  
 standard  
 +extended **7** YEAR TOTAL  
 WARRANTY



NYY; PP00; PP00; PP00; NYY; NYY; CYY; NYY; NYY

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  $u_0/u$  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  $U_0/U$ - 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



Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
2x1,5	re	black	12,2	28	192	100	E	<b>833019</b>
2x2,5	re	black	12,9	46	229	100	E	<b>833020</b>
2x4	re	black	14,9	75	315	100	E	<b>833021</b>
2x6	re	black	15,9	112	382	100	E	<b>833022</b>
2x10	re	black	17,5	188	509	1	E	<b>833023</b>



Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
3x1,5	re	black	12,1	43	201	100	E	<b>833030</b>
3x2,5	re	black	12,9	70	247	100	E	<b>833031</b>
3x4	re	black	15	112	350	100	E	<b>833032</b>
3x6	re	black	16,1	168	435	100	E	<b>833034</b>
3x10	re	black	18	282	606	1	E	<b>833036</b>





Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
4x1,5	re	black	12,9	57	232	100	E	<b>833060</b>
4x2,5	re	black	13,8	93	289	100	E	<b>833061</b>
4x4	re	black	16,2	149	419	100	E	<b>833062</b>
4x6	re	black	17,4	223	525	100	E	<b>833063</b>
4x10	re	black	19,5	376	741	1	E	<b>833064</b>
4x16	re	black	21,8	595	1024	1	E	<b>833065</b>



Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
5x1,5	re	black	13,7	71	272	100	E	<b>833077</b>
5x2,5	re	black	14,8	116	341	100	E	<b>833078</b>
5x4	re	black	17,4	187	494	100	E	<b>833079</b>
5x6	re	black	19	279	635	100	E	<b>833080</b>



**Standards:**

BDS 904-84 - according to construction  
IEC60332-1- according to flame retardant



**CBT-C**

5+2 standard +extended **7** YEAR TOTAL WARRANTY

POWER CABLE WITH SOLID OR STRANDED CU WIRES, PVC INSULATION AND SHEATHING

CBT-c; CBT-c; CBT-c; CBT-c; CBT-c; CBT-c; CBT-c; CBT-c; CBT-c

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 U<sub>0</sub>- 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 sheath material-filling sheath and PVC compound
- Conductor 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

Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
2X1	re	black	9.5	20	100	100	E	<b>817020</b>
2X1.5	re	black	10.0	28	120	100	E	<b>817021</b>
2X2.5	re	black	10.6	46	150	100	E	<b>817022</b>
2X4	re	black	12.5	73	210	100	E	<b>817023</b>
2X6	re	black	13.3	110	260	100	E	<b>817024</b>
2X10	re	black	15.2	182	370	1	E	<b>817025</b>



Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
3X1	re	black	9.7	28	120	100	E	<b>817036</b>
3X1.5	re	black	10.2	42	140	100	E	<b>817037</b>
3X2.5	re	black	11.0	69	180	100	E	<b>817039</b>
3X4	re	black	13.0	110	260	100	E	<b>817041</b>
3X6	re	black	14.0	165	340	100	E	<b>817043</b>
3X10	re	black	16.0	275	480	1	E	<b>817045</b>



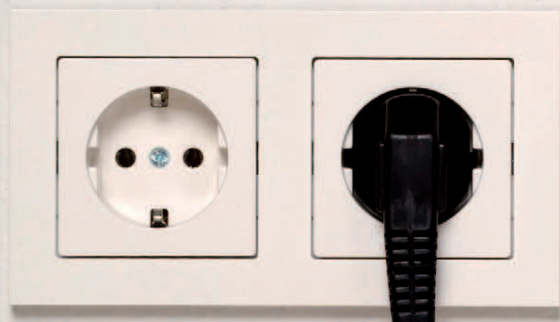


Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
4X1	re	black	10.4	37	140	100	E	<b>817067</b>
4X1.5	re	black	11.0	55	165	100	E	<b>817068</b>
4X2.5	re	black	11.9	91	215	100	E	<b>817069</b>
4X4	re	black	14.1	146	315	100	E	<b>817070</b>
4X6	re	black	15.4	220	410	100	E	<b>817071</b>
4X10	re	black	17.4	365	595	1	E	<b>817072</b>
4X16	rm	black	20.6	585	950	1	E	<b>817073</b>



Cross section (n x mm <sup>2</sup> )	Wires shape	Colour	Outer diameter (mm)	Cu weight (kg/km)	Total weight (kg/km)	Packing (m)	Product category	Catalogue number
5X1	re	black	11.2	45	160	100	E	<b>817083</b>
5X1.5	re	black	11.8	69	195	100	E	<b>817084</b>
5X2.5	re	black	12.8	114	260	100	E	<b>817085</b>
5X4	re	black	15.5	182	380	100	E	<b>817086</b>
5X6	re	black	16.8	275	500	100	E	<b>817087</b>





INSIDE POWER CABLES