

Safety & PPE



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Cable connection
solutions



Electrical fixing &
fasteners



Earthing, surge &
lightning protection



Testing
equipment



Safety &
PPE



Tools

Industry-leading electrical solutions

At PPI, we take pride in delivering industrial electrical materials and customised solutions tailored to the unique needs of our clients in the industrial, mining and infrastructure sectors across the Asia-Pacific region and Australia.

Our extensive capabilities range from innovative design and meticulous procurement of high-quality materials to efficient supply and seamless project management. This comprehensive approach has earned us a reputation as leaders in industrial, mining and infrastructure electrical solutions.

OUR JOURNEY

Since our establishment in 2017, PPI has rapidly expanded our services and reach to meet the diverse needs of our clients. Our dedication to excellence and customer satisfaction has driven us to establish a robust presence in key locations, enabling us to provide superior service and support.

OUR COMMITMENT

At PPI, our mission is to make complex industrial solutions, easy. We are committed to innovation, quality, and customer satisfaction, striving to build lasting relationships with our clients based on trust and excellence.





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GLOVES

Dielectric gloves



30201 SG

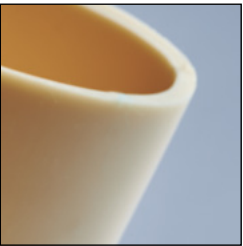
The natural latex base has excellent dielectric properties. The thicker the glove, the greater the electrical resistance. The ergonomic design provides comfort and a smoother feel, and allows the glove to be put on and taken off very easily.

Insulated gloves are one of the most important pieces of PPE for working in the electrical sector. They are the first line of defence for contact with any live component or cable.

USE:
Electrical production, transport, transformation and distribution, railways, telecommunications, construction, maintenance in industry, solar panels, hybrid car batteries, etc.

RECOMMENDATIONS:
Latex insulated gloves are recommended, together with a suitable leather overglove, to provide mechanical protection against abrasions, cuts, tears and perforations.

The natural latex glove is available in beige.



CE IEC 60903
EN 60903

Available in sizes: 7, 8, 9, 10, 11 and 12

Code	Ref.	Class	Thickness (mm) max.	Size	Length (mm)	Categories	Working Voltage (V) max.	Proof test Voltage (V) max.	Withstand Voltage (V) max.
530110	SG-25 T9	00	0,7	7*	360	AZC	500 V AC	2.500 V AC	5.000 V AC
530120	SG-25 T10								
530150	SG-50 T9	0	1,0	8*	280-360	AZC	1.000 V AC	5.000 V AC	10.000 V AC
530160	SG-50 T10				410 - 460				
530190	SG-10 T9	1	1,6	9	360	RC	7.500 V AC	10.000 V AC	20.000 V AC
530200	SG-10 T10								
530230	SG-20 T9	2	2,3	10	360	RC	17.000 V AC	20.000 V AC	30.000 V AC
530240	SG-20 T10								
530270	SG-30 T9	3	2,9	11	360	RC	26.500 V AC	30.000 V AC	40.000 V AC
530280	SG-30 T10								
530290	SG-30 T11	4	3,8	12*	410	RC	36.000 V AC	40.000 V AC	50.000 V AC
530320	SG-40 T10								
530330	SG-40 T11								

Meaning of letters in 'Categories': A: Acid / Z: Ozone / H: Oil / C: Very low temperature / R: A+Z+H resistance.

*For sizes 7, 8 and 12 consult.

MECHANICAL AND THERMAL REQUIREMENTS

- Average tensile strength: ≥16 MPa
- Average elongation at break: ≥600%
- Puncture resistance: ≥18N/mm
- Tension set: ≤15%
- Resistance to very low temperatures: Conditioning of the gloves for 24 hours at -40 °C. ± 3°C.
- Flame-retardant test: Application of a flame for 10 seconds at a finger tip.



RECOMMENDED SIZE	9	10	11
Contour cm (measured with closed hand)	21	24	26

GLOVES

Composite insulated gloves

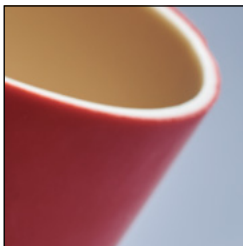


30202 SGM

Composite insulated gloves provide electrical, mechanical and arc-flash protection, and as such do not need to be combined with any other kind of glove with mechanical protection.

The Composite glove range is made using a natural latex base covered by an outer layer of polychloroprene, combining mechanical resistance and comfort with a high level of protection.

Arc flash protection: the glove material has excellent properties in the event of a short circuit in the electric arc.



CE IEC 60903
IEC 61482-1-2

Available in sizes: 7, 8, 9, 10, 11 and 12

Outside in red and beige inside.

Code	Ref.	Class	Thickness (mm) max.	Working Voltage (V) max.	Proof test Voltage (V) max.	Size	Length (mm)	Category
531110	SGM-25 T9	00	< 2.4	500 V AC	2.500 V AC	7*	360	RC
531120	SGM-25 T10							
531150	SGM-50 T9	0	< 2.9	1.000 V AC	5.000 V AC	8*		
531160	SGM-50 T10							
531190	SGM-10 T9	1	< 3.4	7.500 V AC	10.000 V AC	9		
531200	SGM-10 T10							
531230	SGM-20 T9	2	< 3.9	17.000 V AC	20.000 V AC	10		
531240	SGM-20 T10							
531270	SGM-30 T9	3	< 4.2	26.500 V AC	30.000 V AC	11		
531280	SGM-30 T10							
531310	SGM-40 T10	4	< 4.8	36.000 V AC	40.000 V AC	12*		
531320	SGM-40 T11							

Meaning of letters in 'Categories': A: Acid / Z: Ozone / H: Oil / C: Very low temperature / R: A+Z+H resistance.

*For sizes 7, 8 and 12 consult.

MECHANICAL AND THERMAL REQUIREMENTS

- Average tensile strength: ≥16 MPa
- Average elongation at break: ≥600%
- Tension set: ≤15%
- Complementary test and performance levels to be achieved are as follows:
- Resistance to cutting: > 20 mm and 5N, according to ISO13997
- (equivalent to level 2 according to EN 388)
- Resistance to abrasion: ≥0,05 mg/t
- Tearing resistance to: >25 N
- (equivalent to level 2 according to EN 388)

- Resistance to penetration: >60 N (equivalent to level 2 according to EN 388)
- Resistance to very low temperatures: Conditioning of the gloves for 24 hours at -40 °C. ± 3°C.
- Flame-retardant test: Application of a flame for 10 seconds at a finger tip.



RECOMMENDED SIZE	9	10	11
Contour cm (measured with closed hand)	21	24	26



MANUFACTURING AND RETESTING OF INSULATING GLOVES

At Sofamel, we have a fully dedicated production line for the manufacturing of latex insulating gloves. Our processes are certified under the ISO9001:2015 quality standard and comply with the requirements established by the EN 60903:2003 and IEC 60903:2014 standards.

We also have a specially designed glove retesting booth for conducting electrical tests, allowing us to offer all our customers the best after-sales service for dielectric gloves.



YOUR SAFETY IS VITAL THEREFORE, IT IS VERY IMPORTANT TO PERFORM REGULAR CHECKS OF INSULATING GLOVES

RECOMMENDATIONS FOR THE MAINTENANCE AND VERIFICATION OF INSULATING GLOVES

Insulating gloves for live working are personal protective equipment (PPE) that prevent electrical risks and are classified as category III (fatal risk) under Directive EU 2016/425. The reference standards (EN 60903 and IEC 60903) define the RECOMMENDATIONS for usage and verification.

CLASS 0 and 00 GLOVES	Air leakage test and visual inspection	RECOMMENDED BEFORE EACH USE
	Dielectric properties test	UPON CUSTOMER REQUEST
CLASS 1 and 4 GLOVES	Air leakage test and visual inspection	RECOMMENDED BEFORE EACH USE
	Dielectric properties test	MANDATORY • Every 6 months from the start of service. • Maximum of 12 months from the date of manufacture if not used.

THE DEFINITION OF A GLOVE'S LIFESPAN IN NO WAY EXCLUDES THE RECOMMENDATIONS REGARDING PERIODIC CHECKS.

Storage conditions
According to the EN 60903 and IEC 60903 standards for class C, the gloves can be used at ambient temperatures between -40°C and +55°C. The gloves are delivered in a UV-resistant plastic bag suitable for transportation and storage. Store the gloves in a dry, dark place at a temperature between 10°C and 21°C; do not compress, fold, or store them near sources of heat, light, or ozone.

GLOVES

Leather overgloves and fire-resistant gloves



30301 SG

Leather overgloves must be worn over dielectric gloves to protect against mechanical risks as well as against possible electric arc risks. These leather cowhide gloves with webbed thumbs have a 10 cm cuff with a retightening velcro strap on the back of the hand.

The cowhide leather is treated with silicone to increase its water-proof characteristics.

According to EN 388, EN 420 and EN 407 standard.

Code	Ref.	Cross-reference utilization With dielectric gloves							EN 388	EN 420	EN 407
		Dielectric gloves size and class									
		Size	00	0	1	2	3	4			
540113	SG-B	7	●	●	●	●			 Levels of mechanical resistance: Abrasion: 2 Blade cut: 0 Tear: 2 Puncture: 2 Cut by sharp object: B	Levels of safety, comfort and skill: LEVEL 5	Technical resistance levels: Molten metal mass: X Molten metal splash: 4 Radiant heat: 1 Convective heat: 2 Contact heat: 1 Flame: 2
		8	●	●							
		9	●	●							
540114	SG-C	8			●	●					
		9			●	●					
		10	●	●							
540115	SG-D	10			●						
		11	●	●							
540116	SG-E	8					●	●			
		9					●	●			
		10				●					
		11			●						
540117	SG-F	12	●	●							
		10					●	●			
		11				●					
540118	SG-G	12			●	●	●				
		11				●	●	●			

 EN 388 EN 420 EN 407

CE EN 388 EN 420 EN 407



30302 SG-37

Gloves made of NOMEX fiber with fire-resistant properties. They are used under dielectric gloves with the aim of protecting against a possible electric arc.

According to EN 407 standard.

Code	Ref.
535100	SG-37

CE EN 407

GLOVES

Mechanical protection gloves



SG-38



SG-39

CE EN 388-2122
EN 420

30303 SG-38/39

Working gloves to protect hands from mechanical risks. Suitable for any kind of job where hands must be protected. Gloves made of grey or yellow cowhide leather.

According to EN 388-2122 and EN 420 standards.

Code	Ref.	Size
540100	SG-38 T-10	10
540101	SG-38 T-9	9
540102	SG-38 T-8	8
540103	SG-38 T-11	11
540110	SG-39 T-10	10
540111	SG-39 T-9	9



SH-265 T8
SH-265 T9

EN 388-1131X
EN 420



SH-370 T8
SH-370 T9

EN 388-4120B
EN 420

30303 SH

Gloves made of nylon. Palm covered with blue nitrile. According to EN 388-1131X and EN 420 standards.

Code	Ref.
540120	SH-265 T8
540130	SH-265 T9

Gloves made of nylon. Palm covered with grey nitrile. According to EN 388-4120B and EN 420 standards.

Code	Ref.
540140	SH-370 T8
540150	SH-370 T9

Nylon/spandex gloves covered with blue micro-foam nitrile dots. Very soft glove: excellent for handling small, delicate objects. According to EN 388-4131X and EN 420 standards.

Code	Ref.
540160	SH-350R T9
540170	SH-350R T10

Gloves made of nylon and fiberglass with black nitrile. Foam sheathing. According to EN 388-3X43E and EN 420 standards.

Code	Ref.
540180	SH-GPKV T9
540190	SH-GPKV T10

CE CAT. II

GLOVES

Gloves accessories

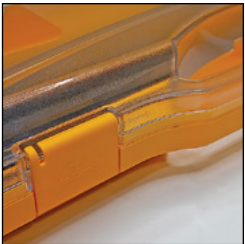
Polyethylene glove case resistant to impacts and UV rays



30304 CGS
Plastic glove case

Protect dielectric gloves from damage and contamination, ensuring they are in optimal condition for use when needed.

Code	Ref.	Dimensions
545115	CGS	43 x 23 x 7.6 cm



Bags, plastic and metal cases to transport, store and keep dielectric gloves



30304 SG-36
Waterproof nylon bag

Waterproof nylon bag to carry dielectric gloves. A strap on the back makes it easy to hang the bag on the belt

Code	Ref.	Dimensions
545100	SG-36	42.5 x 22 cm



30304 SG-35
Metallic glove case

Metallic case with a methacrylate window. Ideal for carrying, storing and preserving dielectric gloves. It can be fixed on the wall thanks to a ring placed on the back.

Code	Ref.	Dimensions
545110	SG-35	45.3 x 19.1 x 7.2 cm

GLOVES

Gloves accessories



30304 SGP
Plastic glove case

Plastic case to store and carry dielectric gloves.

Code	Ref.	Dimensions
545111	SGP	47,5 x 17 x 5 cm

30304 SG-117
Pneumatic gauge tester

Sofamel's pneumatic dielectric glove tester is an essential tool for verifying the integrity and safety of gloves used in electrical work. This device is designed to perform air pressure tests to ensure the absence of punctures or defects in the gloves, thus guaranteeing the user's protection.

Code	Ref.
545120	SG-117

30304 ME-60S
Fuse extractor handle

The ME-60S fuse extractor handle is designed for the safe installation and removal of low-voltage fuses. This device features an insulated handle and a synthetic leather handguard, providing the operator with additional protection against potential accidents.

Code	Ref.
545131	ME-60S

30304 ME-60S-SM
Fuse extractor handle

The ME-60S-SM fuse extractor handle is designed for the safe installation and removal of low-voltage fuses. This device features an insulated handle. To ensure maximum safety, it is essential to use this model of fuse puller in combination with a Class 0 dielectric glove.

Code	Ref.
545132	ME-60S-SM

30304 TALCO
Talcum powder

50 gr talcum powder pot designed to adapt to the boxes and bags used for gloves storage.

Code	Ref.	Capacity
545140	TALCUM	50 g

PERSONAL PROTECTION EQUIPMENT

Safety harnesses and belts



30401 SO-71
Fall-arrest harness with belt

Full body fall-arrest harness compliant with standard EN 361. Includes two attachment points (to climb up and down) one on the back and the other one on the abdominal area. Includes adjustable shoulder and leg straps as well as work support belt compliant with standard EN 358 with two side attachment points at the end for coupling an anchorage element. It is supplied with mod. SO-07 adjustable rope and mod. SO-74 karabiner.

Code	Ref.
550110	SO-71

CE	EN 361 EN 358
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30401 S/ATC
Safety harness with belt

Full body safety harness designed for use in all work environments involving heights equipped with foam back support and fast positioning buckles on the leg straps with four equipment loops.

- Includes four attachment points:
- Chest attachment point
 - Stomach attachment point, for suspension or positioning
 - Back attachment point
 - Two adjustable lateral positioning rings

Code	Ref.
550111	S/ATC

CE	EN 361 EN 358
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PERSONAL PROTECTION EQUIPMENT

Safety harnesses and belts



30401 SO-06
Support belt with rope

Support belt compliant with standard EN 358 with padded strap. Includes a ring at each end for coupling an anchorage element. Supplied with one SO-07 adjustable rope and one SO-74 karabiner.

Code	Ref.
550100	SO-06



30401 SO-45
Antilumbago and antivibratory belt

The antilumbago and antivibratory belt has been studied and designed to protect the back-lumbar area against all kind of efforts. It is made of red canvas material support with the inner side lined with 100% cotton. Quick adjustment with Velcro band and high security lock Waist perimeter 100 cm.

Code	Ref.	Size / Waist
550120	SO-45 T6	6 (90 cm)
550121	SO-45 T9	9 (105 cm)

30401 SO-07
Adjustable rope

Anchorage element with adjustable length from 0.85 m to 1.35 m manufactured with 14 mm diameter polyamide rope. Supplied without karabiners.



Code	Ref.
550170	SO-07

30401 S/ELAR-354
Adjustable rope

Anchorage element with adjustable length from 0.85 m to 1.35 m manufactured with 11 mm diameter polyamide rope. Supplied with one integrated karabiner.



Code	Ref.
550174	S/ELAR-354

30401 S/ABE-355
Energy absorber

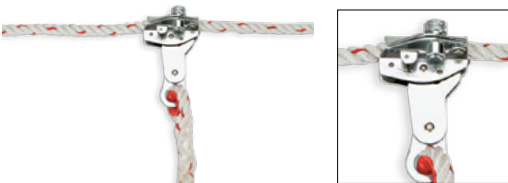
Energy absorber with integrated Y-type anchorage element designed for permanent connection even when passing anchor points thanks to its two straps. Total length 1.75 m.



Code	Ref.
550175	S/ABE-355

PERSONAL PROTECTION EQUIPMENT

Safety harnesses and belts



30401 SO-28
Sliding fall arrest device

Fall arrest device for flexible anchorage line with 14 mm rope. Includes safety lock and system which avoids the equipment from being misplaced. Allows the user to move vertically without having to change position. Blocks automatically in the event of falling. In accordance with the EN 353-2 standard.

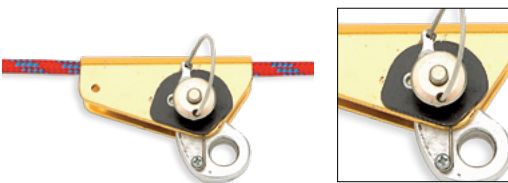
Code	Ref.
550140	SO-28



30401 SO-75
Lifeline cord

Roll of 20 m rope with 14 mm diameter with thimbles at each end. To be used with sliding fall arrest device model SO-28. In accordance with the EN 353-2 standard.

Code	Ref.
550150	SO-75



30401 S/ADM-353
Sliding fall arrest device

Fall arrest device for flexible anchorage line with 11 mm rope that allows user to move vertically without having to change position. Blocks automatically in the event of falling. In accordance with the EN 353-2 standard.

Code	Ref.
550176	S/ADM-353



30401 S/CSE-353
Sliding fall arrest device

Roll of 20 m of semi-static "Rock-climbing" rope of 11 mm diameter. To be used as a source of progression with the sliding fall arrest device model S/ADM-353. In accordance with the EN 353-2 standard.

Code	Ref.
550177	S/CSE-353



30401 SO-74
Steel symmetrical karabiner

Steel symmetrical karabiner with safety lock. In accordance with the EN 362 standard.

Code	Ref.
550160	SO-74



30401 S/MOAL
Aluminium asymmetrical karabiner

Aluminium asymmetrical karabiner with safety lock. In accordance with the EN 362 standard.

Code	Ref.
550161	S/MOAL

PERSONAL PROTECTION EQUIPMENT

Safety harnesses and belts



30402 BLVC-30E
Lifeline set - small

Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 2 sections and 3 m total length.

Code	Ref.
550300	BLVC-30E

30402 BLVC-40E
Lifeline set - medium

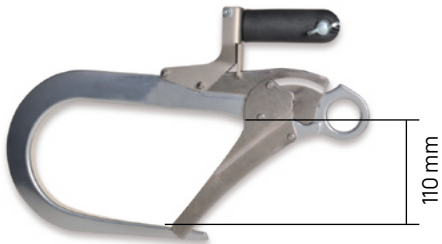
Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 2 sections and 4 m total length.

Code	Ref.
550310	BLVC-40E

30402 BLVC-60E
Lifeline set - large

Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 3 sections and 6 m total length.

Code	Ref.
550320	BLVC-60E



30402 GLV
Lifeline hook

Device composed of a snap hook to fix safely the rope to which the worker will be connected when climbing up to the workplace.

Code	Ref.	Overture
630136	GLV	110 mm

PERSONAL PROTECTION EQUIPMENT

Work accessories



For poles with diameter between 85 and 265 mm



30403 AIRCLIMB
Climbing irons

The set of climbing irons for circular poles has been manufactured taking into account the health and safety demands specified in the provisions of the 89/686/CEE directive from 21st of December 1989.

It allows climbing up and down easily on circular fiberglass, steel and cement poles (in the case of cement poles, it is necessary to control the rubber level of wear and replace if necessary) with electrical infrastructure and telephone facilities. It also can be used in poles made of other materials as long as the user checks whether the adherence is correct and safe.

Specially designed to climb poles with obstacles like telecoms cables and others.

Code	Ref.
555125	AIRCLIMB

30403 SO-26
Climbing irons

Set of climbing irons specially designed for electrical and telecommunication wooden poles.

They are circular and have eight welded spikes with a special curved shape that enables climbing up and down.

They are fixed on with 1.15 m polyester straps of 30 mm wide and zinc steel buckles.

Code	Ref.	Ø
555100	SO-26	260 mm



30403 SO-27
Small climbing devices

With only one welded spike, they are made of carbon steel curved plate. They have four 65 cm long support polyester straps and leather cushioned pads with metallic buckles and eyelets.

For wooden poles.

Code	Ref.
555110	SO-27



PERSONAL PROTECTION EQUIPMENT

Safety helmets



Class 1 – BOX TEST 4 kA/0,5 s.
EN 166; GS-ET-29

30404 ARMOUR-1
Safety helmet

Electrically Insulating Safety Helmet with Integrated Face Shield.
Basic Protection Against Arc Flash, class 1 according to BOX TEST,
4 kA/0,5 s.
EN166, GS-ET-29.

HELMET

- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD

- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc flash (**class 1 - BOX test 4 kA/0,5 s.**).
- Compliance with **EN 166; GS-ET-29 standards.**

CHIN STRAP

- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.

Code	Ref.
565090	ARMOUR-1

EN 397:2012+A1:2012 EN 50365:2002 EN 166:2001 GS-ET-29:2010 ANSI/ISEA Z89.1.2014
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PERSONAL PROTECTION EQUIPMENT

Safety helmets



Class 2 – BOX TEST 7 kA/0,5 s.
EN 166; GS-ET-29

30404 ARMOUR-2
Safety helmet

Electrically Insulating Helmet with Integrated Face Shield.
Extended protection against arc flash, class 2 according to BOX
TEST, 7 kA/0,5 s.
EN166, GS-ET-29.

HELMET

- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD

- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc (**class 2 - BOX test 7 kA/0,5 s.**).
- Compliance with standards: **EN 166; GS-ET-29.**

CHIN STRAP

- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.

Code	Ref.
565091	ARMOUR-2

EN 397:2012+A1:2012 EN 50365:2002 EN 166:2001 GS-ET-29:2010 ANSI/ISEA Z89.1.2014 ASTM-F2178 (ARMOUR-2 ATPV36)



PERSONAL PROTECTION EQUIPMENT

Safety helmets



Class 2 – according to standard GS-ET-29, BOX TEST, 7 kA / 0.5 s.
Category 3 – according to ASTM F2178, ATPV 36 cal / cm²
EN 166; GS-ET-29; ASTM-F2178

30404 Armour-2 ATPV 36
Safety helmet

Electrically Insulating Helmet with Integrated Face Shield.
Highest protection against arc flash, class 2 – according to standard GS-ET-29, BOX TEST, 7 kA / 0.5 s. and category 3 – according to ASTM F2178, ATPV 36 cal / cm2 EN166, GS-ET-29, ASTM F2178.

HELMET

- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD

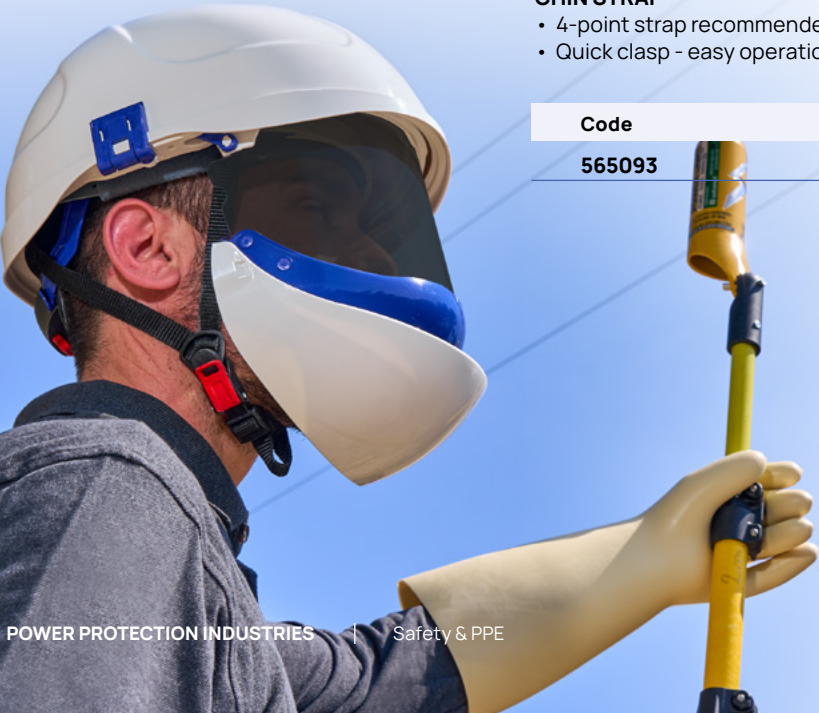
- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc (**Class 2 – According to standard GS-ET-29, BOX TEST, 7kA / 0.5 s. Category 3 - According to ASTM F2178, ATPV 36 cal / cm2**).
- Compliance with standards: **EN 166; GS-ET-29; ASTM-F2178.**

CHIN STRAP

- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.

Code	Ref.
565093	ARMOUR-2 ATPV36

EN 397:2012+A1:2012
EN 50365:2002
EN 166:2001
GS-ET-29:2010
ANSI/ISEA Z89.1.2014
ASTM-F2178 (ARMOUR-2 ATPV36)



PERSONAL PROTECTION EQUIPMENT

Safety helmets



CE EN 397
UNE-EN 50365:2003



CE EN 397
UNE-EN 50365:2003



CE EN 1249 2

Electrical insulation up to 1,000 V

30404 SP-181

Safety helmet

Safety helmet manufactured from polyethylene to protect the head from mechanical and electrical risks.

Includes plastic harness with six anchoring points and manual adjustment.

Electric insulation up to 1.000 V

Working temperature: -10°C / +50°C

Supplied in white colour without chin strap.

According to EN 397 standard and UNE-EN 50365:2003 and the health and safety requirements of Royal Decree 1407/1992.

Other colours under request.

Code	Ref.
565099	SP-181

Electrical insulation up to 1,000 V

30404 SPE

Safety helmet

Safety helmet manufactured from polyethylene to protect the head from mechanical and electrical risks.

Includes plastic harness adjustable using sprocket.

Electric insulation up to 1.000 V

Workig temperature: -10°C / +50°C

Supplied in white colour without chin strap.

According to EN 397 standard and UNE-EN 50365:2003 and the health and safety requirements of Royal Decree 1407/1992.

Other colours under request.

Code	Ref.
565102	SPE



30404 S/CABS-397

Safety helmet

Safety helmet for works involving heights manufactured from ABS with high-quality ultraviolet stabilization.

Includes harness comprised of one interior PPE piece and one head band adjustable using sprocket.

The stuffing in contact with the head includes pads to increase comfort.

Working temperature: -10°C / +50°C

Supplied in white colour with textile chin strap with 4 attachment points. According to EN 1249 2 standard.

Other colours under request.

Code	Ref.
565106	S/CABS-397

PERSONAL PROTECTION EQUIPMENT

Safety helmet and face shield



S/BQ

S/BQM

30404 S/BQ & S/BQM

Chin strap

Chin strap for helmets model SP-181 and SPE.

Code	Ref.
565130	S/BQ
565131	S/BQM



EN 166

30405 SP-182

Face shield for short circuit arc

Face shield that can be adjusted to mostly all kind of safety helmets without needing to modify its characteristics, but mod. S / CABS-397. It is composed of a nylon adapter and a reclining visor. It repels molten metals, impacts at its highest level, liquid splashes, and the electric arc risk. It filters I.R. solar radiation. ATPV of serious viewer 6 cal/cm2. According to EN 166 standard.

Code	Ref.
570120	SP-182



EN 166
EN 169
EN 170

30405 SP-183

Protective glasses

Glasses comply with standards EN 166, EN 169, and EN 170. Made with a front in propionate and temples in polycarbonate. Lateral and upper protection. Lenses made of green polycarbonate with anti-abrasion IR / UV5.

Code	Ref.
570100	SP-183



30405 SP-183F

Glasses case

Code	Ref.
570110	SP-183F



EN 352-1

30405 MP-4

Cushioned auditive protector

Cushioned auditive protector with adjustable headband height. It isolates the worker from external noises. According to EN 352-1 standard.

Code	Ref.
575100	MP-4



EN 149

30405 MP-1

Self-filtering mask

Self-filtering mask with nose brace for better adaptation. According to EN 149 standard.

Code	Ref.
570130	MP-1

PERSONAL PROTECTION EQUIPMENT

Headlamp



HEAD CAN BE TURNED 45° UP OR DOWN

Adjust the head to easily control the angle of light irradiation

30406 LTE-CP400

Headlamp

Multifunctional headlamp; turned on and off with a simple gesture with the palm of the hand. Gesture recognition saves the operator from removing insulating gloves, making it easier to perform any task.

- Use: Indoor / Outdoor
- Range: 100 m
- Waterproof, shockproof, anti-fog
- Illumination time: 3-8 h
- Material: Aluminium / ABS

350 LM
IP64



USB charging



Code	Ref.
555010	LTE-CP400



RED LED LIGHT



POWER DISPLAY



GESTURE SENSING



IMPACT RESISTANT



MULTI-LEVEL ADJUSTMENT



WATERPROOF



LONG-LASTING BATTERY

Multifunction torch with magnet



30406 LTE-FM400

Multifunction torch with magnet

Multifunction LED torch with rechargeable battery and magnetic support for use in any work environment.

- Mobile and portable
- Rechargeable 3 W LED lamp
- Compact size adapts to different environments.

Adjustable support

180° adjustable support, easy to set up in different locations.

400 LM
IP66



USB charging

Code	Ref.
555000	LTE-FM400



Magnetic support



Support rotates 180°



INSULATION

Dielectric boots



30601 DB2
Dielectric boots

- Every boot tested to 20 kV (AC testing as standard, DC testing available on request).
- Leakage current less than 5 mA at 5 kV and less than 18 mA at 20 kV.
- Meets the requirements of ASTM 1117 (20 kV) and ASTM 2413.
- Blue vulcanized rubber sole for maximum grip - 30% better than a conventional safety boot sole.
- Slip resistance performance twice that required by SATRA TM144 standard.
- Two to three times the wear resistance of conventional soles.

Code	Ref.	Sizes
715155	DB2 T42	42
715160	DB2 T43	43
715165	DB2 T44	44
715170	DB2 T45	45



CLASE 2
17.5kV
Maximum working voltage
20kV
Test voltage



30601 DB3
Dielectric HV3 boots

- Lightweight design for increased wearer comfort.
- Low temperature flexibility down to -40°C.
- Durable, slip resistant vulcanised rubber sole for maximum grip.
- Energy absorbing tunnel system in heel and ergonomic cushioning insole (removable and machine washable) for greater wearer comfort.
- Cold insulation to EN ISO 20345.
- Meets the requirements of ASTM 1117 (20 kV) and ASTM 2413.
- Also available in a special sole version with resistance to fuel, oil, and hot contact. (on request)

Code	Ref.	Sizes
715270	DB3 T42	42
715275	DB3 T43	43
715280	DB3 T44	44
715285	DB3 T45	45



CLASE 3
26.5kV
Maximum working voltage
30kV
Test voltage

INSULATION

Dielectric boots



30602 OB1
Maxi dielectric overboots

- Class 1 electrically insulated dielectric overboots with vulcanised rubber soles for increased slip resistance.
- They are designed to be worn over safety boots and are ideal for workers who have to continually enter and exit hazardous areas.
- One-piece injection moulded construction with integral moulded handle ensures no leakage at seams or assembly/handle holes.
- Vulcanised rubber sole for superior slip resistance in wet and oily conditions (SRC); durable and cut resistant for significantly longer life, even in rough terrain; heat resistant EN 20347:2011 HRO, 60 seconds at 300°C and resistant to fuel and oil.
- Complies with ASTM 1117 requirements (20 kV).

Code	Ref.	Sizes
715290	OB1 T-L	L

CLASE 1
7.5kV
Maximum working voltage
20kV
Test voltage



30602 OB2
Dielectric compact overboots

- Single piece injection moulded construction with integral moulded fastener ensures there are no seams or mounting/fastener holes to leak.
- No metal fasteners or components used in the construction.
- Slip resistant sole in blue dielectric compound.
- Fuel and oil resistant sole.
- Meets the requirements of ASTM 1117 (20 kV).

Code	Ref.	Sizes
715300	OB2 T-L	L

CLASE 2
17.5kV
Maximum working voltage
20kV
Test voltage



30602 OB3
Dielectric HV3 maxi overboots

- Ingenious rear entry design ensures the boot is quick and easy to fit and remove.
- Ideal for personnel who have to continually enter and exit high voltage areas.
- Light weight.
- Fluorescent green colour.
- Seamless construction.
- Kick off lug.
- REACH Compliant.

Code	Ref.	Sizes
715340	OB3 T-L	L

CLASE 3
26.5kV
Maximum working voltage
30kV
Test voltage



INSULATION

Insulating stool

Monobloc and stackable insulating stool

FOR INDOOR USE



High stability
High impact resistance
High slip resistance

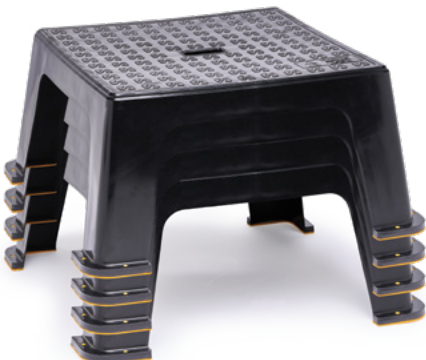


30501 STM
Insulating stool
for indoor use

Made of high impact polypropylene.
The platform surface is rough and non-slip.
Rubber tips are placed under the legs to give it greater adherence
to the floor and protection from wear.
Platform: 640 x 640 mm
Surface: 528 x 528 mm

According to UNE 204001 standard.

Code	Ref.	Height (mm)	Class	Working voltage
580150	STM-36	204	4	36 kV
580155	STM-45	304	5	45 kV
580160	STM-66	304	6	66 kV



Monobloc structure

The monobloc design ensures a stable and secure structure,
reducing the risk of breakage or misalignment over time.

Stackable

Facilitate storage and transport when not in use.

INSULATION

Insulating stool

Insulating stool

FOR OUTDOOR USE



High stability
High impact resistance
High slip resistance

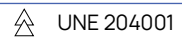
30501 STE
Insulating stool
for outdoor use

Made of high impact copolymer polypropylene.
The platform surface is rough, non-slip and the
legs have deflecting hoods.
Rubber tips are placed under the legs to give it greater adherence
to the floor and protection from wear.
Platform: 525 x 525 mm

According to UNE 204001 standard.
Legs made of IEC 60855 foam filled tube.



Code	Ref.	Height (mm)	Class	Working voltage
580096	STE-26	257	3	26 kV
580111	STE-45	399	5	45 kV
580116	STE-66	449	6	66 kV



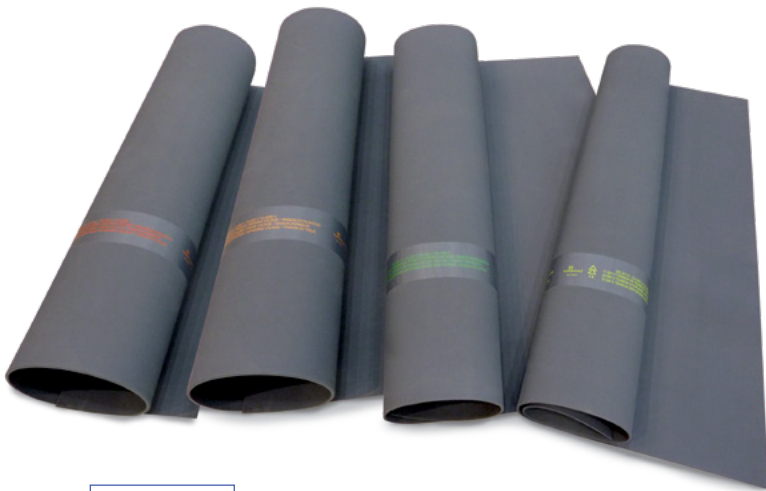
30501 ST-79
Insulating slab

Made of high impact polyethylene and 500 x 500 mm modules that
can be joined together, makes any surface easier to be covered.
This material can be easily cut as to be adapted to any space.

Code	Ref.
580130	ST-79

INSULATION

Insulating mat



IEC 61111

30502 AD
Insulating mat

Specific Rubber Base: natural rubber SBR
Specific weight: 1.51 g/cm3 (specific gravity)
Hardness: 71 Shore A
Tensile Strength: 75.5 kg/cm2
Elongation at break: 362%
Resistance to tearing: 20 kg/cm2
Resistance to abrasión: 182 mm3
Temperature Field: -40°C / +70°C

Chemical resistance:
Acids and Bases diluted - Moderate
Acids and Bases Concentrates -
Not recommended
Hydrocarbon - Not recommended
Organic solvents - Not recommended

According to IEC 61111.

We can customize the length of the mats as per our clients' requests (max 10 m).

Code	Ref.	Dimensions (m)	Class	Thickness (mm)	Weight (kg)	Work voltage (V)	Test voltage (V)	Supported voltage (V)
585180	AD0-0606	0.6 x 0.6	0	2.20 ±0.30	1.18	1.000	5.000	10.000
585181	AD0-0610	0.6 x 1.0			1.98			
585182	AD0-06100	0.6 x 10			19.80			
585183	AD0-1010	1.0 x 1.0			3.30			
585184	AD0-10100	1.0 x 10			33.00			
585185	AD0-1210	1.2 x 1.0			3.96			
585186	AD0-12100	1.2 x 10			39.60			
585200	AD2-0606	0.6 x 0.6	2	2.60 ±0.30	1.404	17.000	20.000	30.000
585210	AD2-0610	0.6 x 1.0			2.34			
585220	AD2-06100	0.6 x 10			23.4			
585230	AD2-1010	1.0 x 1.0			3.90			
585240	AD2-10100	1.0 x 10			39.00			
585250	AD2-1210	1.2 x 1.0			4.68			
585260	AD2-12100	1.2 x 10			46.80			
585300	AD3-0606	0.6 x 0.6	3	3.20 ±0.30	1.72	26.500	30.000	40.000
585310	AD3-0610	0.6 x 1.0			2.88			
585320	AD3-06100	0.6 x 10			28.8			
585330	AD3-1010	1.0 x 1.0			4.80			
585340	AD3-10100	1.0 x 10			48			
585350	AD3-1210	1.2 x 1.0			5.76			
585360	AD3-12100	1.2 x 10			57.60			
585400	AD4-0606	0.6 x 0.6	4	5.20 ±0.30	2.80	36.000	40.000	50.000
585410	AD4-0610	0.6 x 1.0			4.68			
585420	AD4-06100	0.6 x 10			46.80			
585430	AD4-1010	1.0 x 1.0			7.80			
585440	AD4-10100	1.0 x 10			78.00			
585450	AD4-1210	1.2 x 1.0			9.36			
585460	AD4-12100	1.2 x 10			93.6			

INSULATION

Insulating blanket



IEC 61111

30503 MA
Insulating blanket

Insulating blanket made of high quality resistant rubber. Used to protect workers from low voltage electrical hazards.
The blanket is a bright colour so it can be easily identified and seen by the operator in the work area.
These blankets are category AZ, which means they are certified to be resistant to acids (Category A), ozone present in electrical equipment (Category Z).

Base: Vulcanized elastomer
Minimum tensile strength: 12 MPa
Elongation at break: 300%
Hardness: 60 Sh A
Mechanical resistance to perforation
Flame retardant
Aging tests
Low temperature bending test

The length of the blankets can be customised according to the customers' requests (maximum 20 m).

Conforms to IEC 61112:2009: Live working - Electrical insulating mats.

Code	Ref.	Width (m)	Length (m)	Class	Thickness (mm)	Weight (kg/m²)	Working tension
585001	MA0-1010	1	1	0	1.5 (+/-0.2)	1.6	1 kV CA / 1.5 kV CC
585010	MA0-10100	1	10				

INSULATION

Low voltage insulation



30504 SP-22

Cowl

It is made of rubber and it is used for the provisional insulation of bare conductors as they pass through low voltage insulators. It is bell-shaped and incorporates grooves for the conductors to pass through. According to IEC 60243-1 standard.

Code	Ref.	Ø
595100	SP-22	90 mm

CE IEC 60243-1



30505 SP-39

Fixing peg

120 mm long wooden peg used to fix the vinyl cloth sheets on the conductors.

Code	Ref.
595112	SP-39



30505 S/PA

Insulated fixing peg 1000 V

Manufactured in insulated material. It is used to fix the protective covers during the insulation of a workplace in switches, cables and overhead lines up to 1 kV.

Code	Ref.
595113	S/PA



30505 PACE-1,5

1000 V insulated clamp

Made with insulating material. Suitable for clamping blankets up to 1 kV AC / 1.5 kV DC.

Code	Ref.	Length
595114	PACE-1,5	50 mm



30505 SP-321

Profil

It is made of rubber and it is used as provisional insulation for bare conductors in low voltage or with insufficient protection in small spaces.

Code	Ref.	Ø	Length
595101	SP-321	19 mm	1 m
595103	SP-321	19 mm	1.5 m

INSULATION

Low voltage insulation



30505 SP-35

Vinyl cloth

Manufactured from 0.3 mm thick vinyl. It is used to insulate various elements in low-voltage installations. Rolls of 50 m x 1.40 m. According to UNE 61112:2010 and IEC 61112:2009 standards.

Code	Ref.	Rolls
595102	SP-35	50 m x 1.40 m

UNE 61112:2010
IEC 61112:2009



30705 SP-52

Cowl bag

Nylon bag with reinforcements to facilitate the carriage of the insulating cowl.

Code	Ref.
600100	SP-52

* Depending on availability, the colour of the bags may vary.



30705 SP-50

Profil bag

Nylon bag with reinforcements to facilitate the carriage of the insulating profil.

Code	Ref.	Ø	Length
600110	SP-50	20 cm	115 cm

* Depending on availability, the colour of the bags may vary.



30701 SO-31

Flat tool-holder bag

250 x 290 mm flat tool bag made of canvas with synthetic reinforcement at the bottom. Incorporates nylon straps with buckles to attach it to a belt.

Code	Ref.
600120	SO-31

* Depending on availability, the colour of the bags may vary.



30701 SO-32

Circular tool-holder bag

230 x 320 mm circular tool bag made of canvas with synthetic reinforcement at the bottom. Incorporates a nylon handle for carrying and lifting.

Code	Ref.
600130	SO-32

* Depending on availability, the colour of the bags may vary.

INSULATION

Bags and covers



30702 BA
Insulating mat bag

Nylon bag with reinforcements to facilitate the transport of the insulating mat.

Code	Ref.	Ø	Length
600150	BA-1,0x10	15 cm	110 cm
600151	BA-0,6x10	15 cm	70 cm

* Depending on availability, the colour of the bag may vary.



30703 FP
Bag for pole

Nylon bag for the transport and storage of poles.

Code	Ref.	Dimensions (mm) width x length
899000	FP-20/140	200 x 1400
899005	FP-20/210	200 x 2100
899010	FP-25/125	250 x 1250
899015	FP-25/175	250 x 1750
899020	FP-25/225	250 x 2250
899025	FP-25/275	250 x 2750
899030	FP-25/325	250 x 3250

* Depending on availability, the colour of the bag for pole may vary.



30703 FE
Cover for earthing equipment poles

Nylon cover used to store and transport poles.

Code	Ref.	Dimensions (mm) width x length
899050	FE-20/120	200 x 1200

* Depending on availability, the colour of the cover for earthing poles may vary.



30704 FE
Bag for earthing equipments

Nylon bags used to store and transport earthing equipments.

Code	Ref.	Dimensions (mm) width x length
899055	FE-20/110	200 x 1100
899060	FE-40/30	400 x 300

* Depending on availability, the colour of the bag and the cover for earthing poles may vary.

INSULATING POLES

Maneuvering poles



INDOOR and OUTDOOR
Use in dry environment

Maneuvering pole with only one section made of polyester and fi-
breglass tube Ø 32 mm with humidity-proof seals on each end, hand
protector, grip, tip, Universal head and maneuvering hook.

30801 BM-45

- Length of the insulating element: 1.60 meters
- Total length without hook: 1.50 meters
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605100	BM-45

30801 BM-66

- Length of the insulating element: 2.10 meters
- Total length without hook: 2.00 meters
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605110	BM-66

30801 BM-90

- Length of the insulating element: 2.60 meters
- Total length without hook: 2.50 meters
- Working voltage: 90 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605115	BM-90

30801 BM-132

- Length of the insulating element: 3.10 meters
- Total length without hook: 3.00 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605120	BM-132

INSULATING POLES

Maneuvering poles



U
Universal Head



INDOOR and OUTDOOR
Use in dry and humid environment

Maneuvering pole with only one section made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, 3 deflecting hoods, hand protector, grip, tip, Universal head and maneuvering hook.

30801 BME-45

- Total length: 1.60 meters
- Working voltage: 45 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
605130	BME-45

30801 BME-66

- Total length: 2.10 meters
- Working voltage: 66 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
605140	BME-66

30801 BME-132

- Total length: 3.10 meters
- Working voltage: 132 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
605150	BME-132

INSULATING POLES

Rescue pole



Rescue pole with only one section made of polyester and fibre-glass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, M-10 metric head and rescue hook.

30802 BS-3

- Length of insulating element: 0.50 meters
- Total length (without hook): 1.00 meter
- Working voltage: 3 kV

Code	Ref.
610090	BS-3

30802 BS-25

- Length of insulating element: 0.82 meters
- Total length (without hook): 1.32 meters
- Working voltage: 25 kV

Code	Ref.
610095	BS-25

30802 BS-45

- Length of insulating element: 1.00 meter
- Total length (without hook): 1.50 meters
- Working voltage: 45 kV

Code	Ref.
610100	BS-45

30802 BS-66

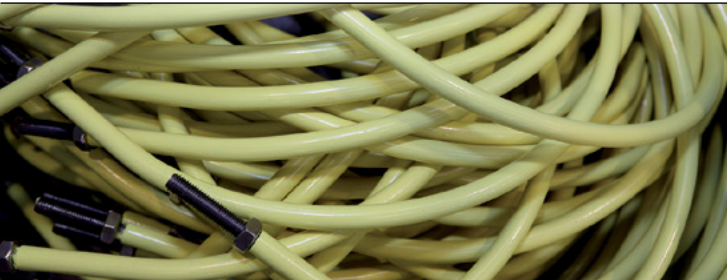
- Length of insulating element: 1.20 meters
- Total length (without hook): 2.00 meters
- Working voltage: 66 kV

Code	Ref.
610110	BS-66

30802 BS-90

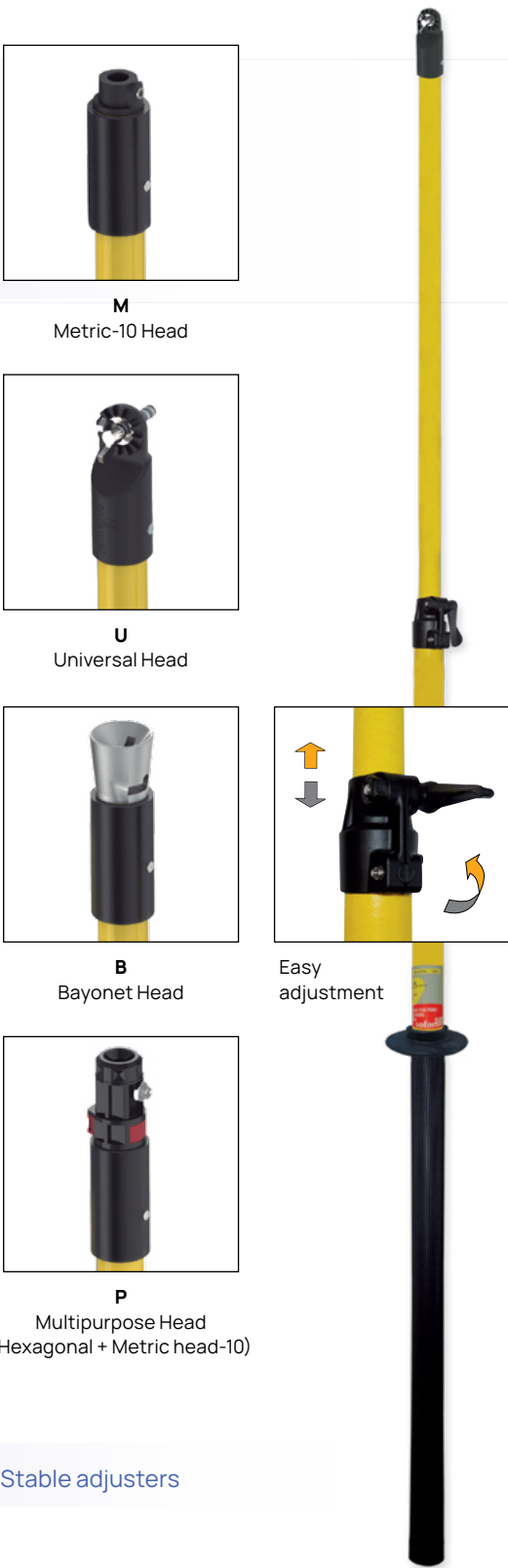
- Length of insulating element: 1.70 meters
- Total length (without hook): 2.50 meters
- Working voltage: 90 kV

Code	Ref.
610115	BS-90



INSULATING POLES

Telescopic poles



INDOOR and OUTDOOR
Use in dry environment

Telescopic pole with two sections made of reinforced fibre-glass tube Ø 37 and 30 mm with humidity-proof seals on each end, hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head. The length of each section can be adjusted as needed by means of an adjustment system with locking handles.

30803 BMTS-15/45

Length folded: 0.85 meters
Length extended: 1.486 meters
Working voltage: 45 kV (fully extended)
For INDOOR and OUTDOOR use in dry environment
Weight: 0.75 Kg

Code	Ref.
615300	BMTS-15/45M
615301	BMTS-15/45U
615302	BMTS-15/45B
615303	BMTS-15/45P

30803 BMTS-20/66

Length folded: 1.10 meters
Length extended: 1.986 meters
Working voltage: 66 kV (fully extended)
For INDOOR and OUTDOOR use in dry environment
Weight: 0.95 Kg

Code	Ref.
615310	BMTS-20/66M
615311	BMTS-20/66U
615312	BMTS-20/66B
615313	BMTS-20/66P

30803 BMTS-30/132

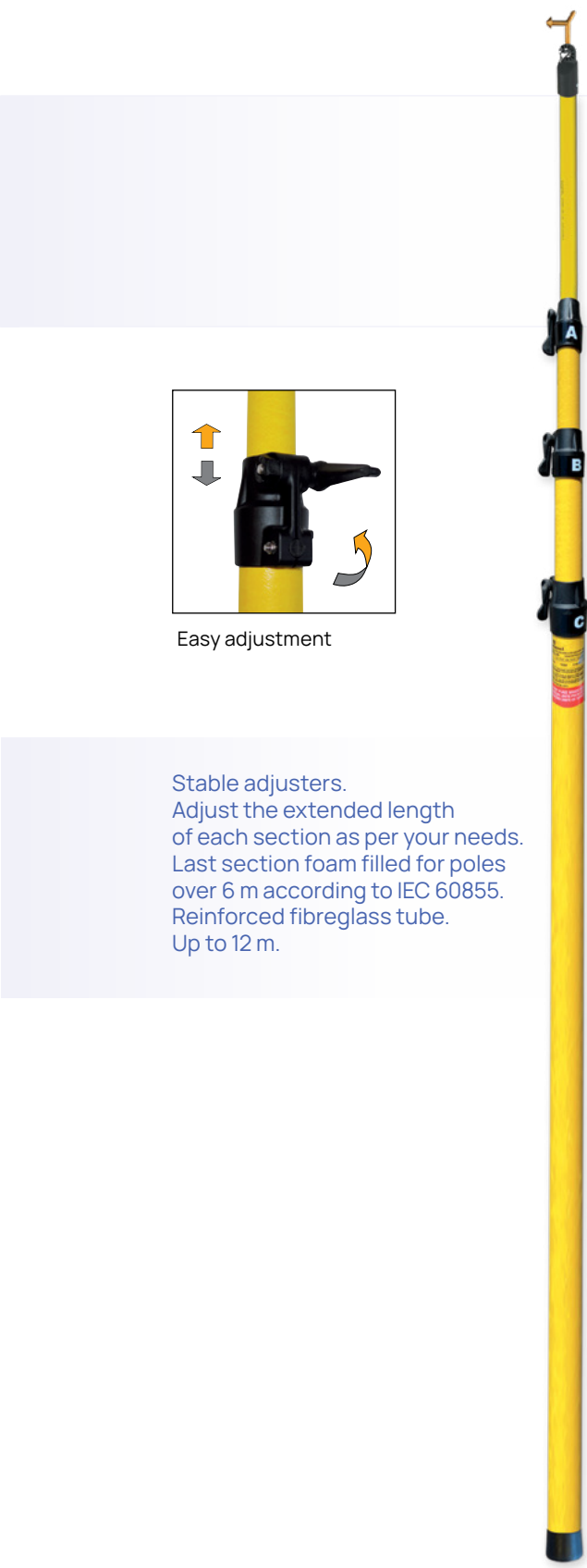
Length folded: 1.65 meters
Length extended: 3 meters
Working voltage: 132 kV (fully extended)
For INDOOR and OUTDOOR use in dry environment
Weight: 1.35 Kg

Code	Ref.
615320	BMTS-30/132M
615321	BMTS-30/132U
615322	BMTS-30/132B
615323	BMTS-30/132P

Stable adjusters

INSULATING POLES

Telescopic poles



INDOOR and OUTDOOR
Use in dry environment

Telescopic multiple section pole made of reinforced fibreglass tube with variable circular shape that allows to wedge automatically each section. The upper section is filled in with foam according to IEC 60855. The length of each section can be adjusted as needed by means of an adjustment system with locking handles. All models are supplied with Universal head and maneuvering hook. The A section must be always unfolded to be used.

30803 BMTS-4/6

- Length folded: 1.75 meters
- Length extended: 5.97 meters (4 sections)
- Working voltage: 380 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 3.40 kg

Code	Sections	Voltage	Ref.
615325	C+A	132 kV	BMTS-4/6
	C+B+A	380 kV	

30803 BMTS-5/9

- Length folded: 2.00 meters
- Length extended: 8.75 meters (5 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 5.20 kg

Code	Sections	Voltage	Ref.
615330	D+A	132 kV	BMTS-5/9
	D+B+A	380 kV	
	D+C+B+A	420 kV	

30803 BMTS-6/12

- Length folded: 2.30 meters
- Length extended: 11.80 meters (6 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 7.25 kg

Code	Sections	Voltage	Ref.
615335	E+A	132 kV	BMTS-6/12
	E+B+A	380 kV	
	E+C+B+A	420 kV	
	E+D+C+B+A	420 kV	

INSULATING POLES

Telescopic poles

INDOOR and OUTDOOR
Use in dry environment

Telescopic multiple section pole made of reinforced fibreglass tube with variable circular shape that allows to wedge automatically each section. The upper section is filled in with foam according to IEC 60855.

The length of each section can be adjusted as needed by means of an adjustment system with locking handles. All models are supplied with Universal head and maneuvering hook. The A section must be always unfolded to be used.

30803 BMTS-7/10,3

- Length folded: 1.80 meters
- Length extended: 10.30 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 6.50 kg

Code	Sections	Voltage	Ref.
615355	F+A	132 kV	BMTS-7/10,3
	F+B+A	220 kV	
	F+C+B+A	380 kV	
	F+D+C+B+A	380 kV	
	F+E+D+C+B+A	420 kV	

30803 BMTS-7/11,6

- Length folded: 2.00 meters
- Length extended: 11.67 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 7.30 kg

Code	Sections	Voltage	Ref.
615350	F+A	132 kV	BMTS-7/11,6
	F+B+A	380 kV	
	F+C+B+A	380 kV	
	F+D+C+B+A	380 kV	
	F+E+D+C+B+A	420 kV	

INSULATING POLES

Connectable poles

INDOOR and OUTDOOR
Use in dry environment

Connectable poles with two sections, made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30804 BMAI-2

- Total length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616100	BMAI-2/66M
616101	BMAI-2/66U
616102	BMAI-2/66B
616103	BMAI-2/66P

30804 BMAI-2,5

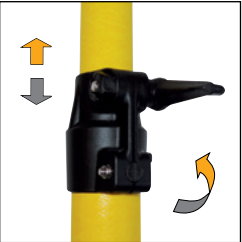
- Total length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616110	BMAI-2,5/110M
616111	BMAI-2,5/110U
616112	BMAI-2,5/110B
616113	BMAI-2,5/110P

30804 BMAI-3

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616120	BMAI-3/132M
616121	BMAI-3/132U
616122	BMAI-3/132B
616123	BMAI-3/132P



Easy adjustment

Stable adjusters.
Adjust the extended length of each section as per your needs. Last section foam filled for poles over 6 m according to IEC 60855. Reinforced fibreglass tube. Up to 12 m.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head

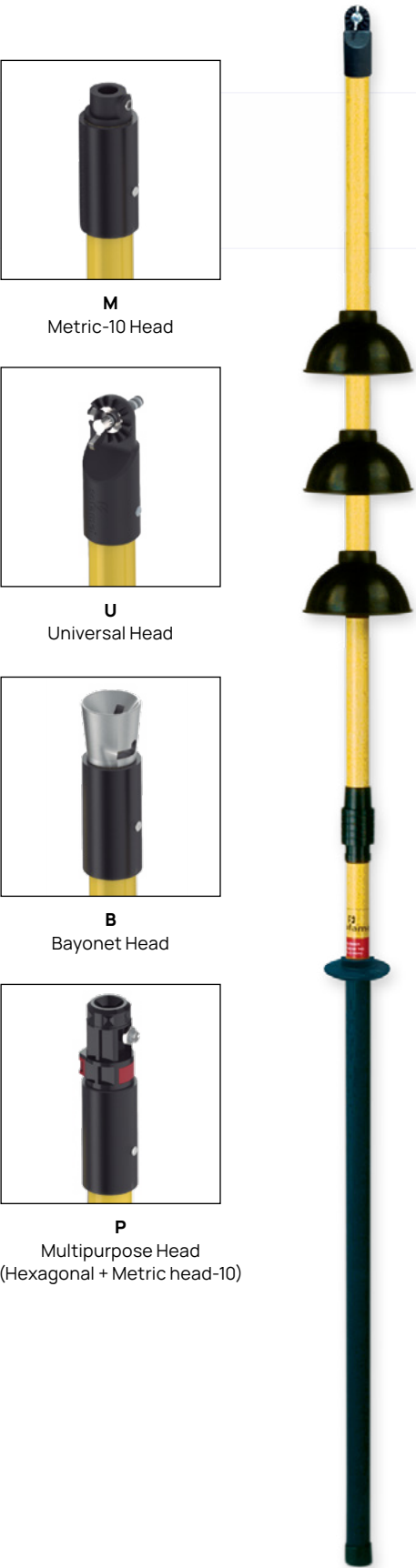


P
Multipurpose Head
(Hexagonal + Metric head-10)



INSULATING POLES

Connectable poles



INDOOR and OUTDOOR
Use in dry and humid environment

Connectable pole with two sections made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, 3 deflecting hoods and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30805 BMAE-2

- Total length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 30 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616200	BMAE-2/30M
616201	BMAE-2/30U
616202	BMAE-2/30B
616203	BMAE-2/30P

30805 BMAE-2,5

- Total length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616210	BMAE-2,5/66M
616211	BMAE-2,5/66U
616212	BMAE-2,5/66B
616213	BMAE-2,5/66P

30805 BMAE-3

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616220	BMAE-3/110M
616221	BMAE-3/110U
616222	BMAE-3/110B
616223	BMAE-3/110P



M
Metric-10 Head



U
Universal Head



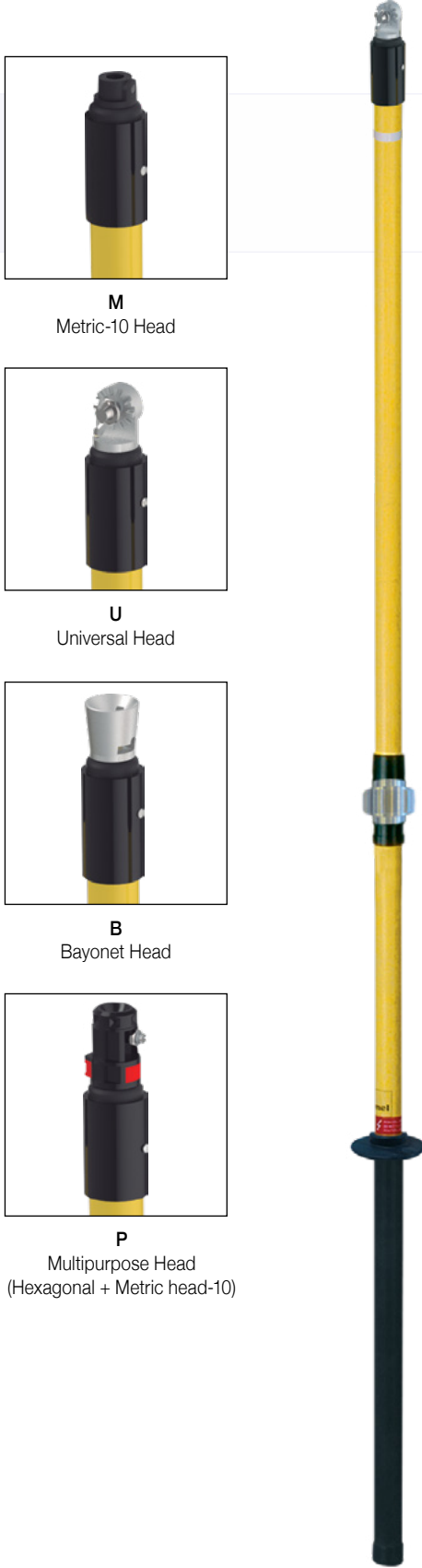
B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)

INSULATING POLES

Connectable poles



INDOOR and OUTDOOR
Use in dry environment

Connectable pole with two or three sections made of polyester and fibreglass tube Ø 38.4 mm with hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30804 BMAI-3V

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616500	BMAI-3V/132M
616501	BMAI-3V/132U
616502	BMAI-3V/132B
616503	BMAI-3V/132P

30804 BMAI-4V

- Total length: 4 meters
- Composed of 2 sections of 2 m each
- Working voltage: 220 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616510	BMAI-4V/220M
616511	BMAI-4V/220U
616512	BMAI-4V/220B
616513	BMAI-4V/220P

30804 BMAI-5V

- Total length: 5 meters
- Composed of 2 sections of 2 m + 1 section of 1 m
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616520	BMAI-5V/380M
616521	BMAI-5V/380U
616522	BMAI-5V/380B
616523	BMAI-5V/380P

30804 BMAI-6V

- Total length: 6 meters
- Composed of 3 sections of 2 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry environment

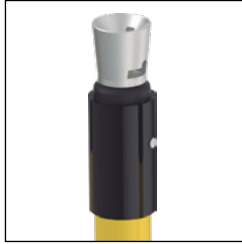
Code	Ref.
616530	BMAI-6V/380M
616531	BMAI-6V/380U
616532	BMAI-6V/380B
616533	BMAI-6V/380P



M
Metric-10 Head



U
Universal Head



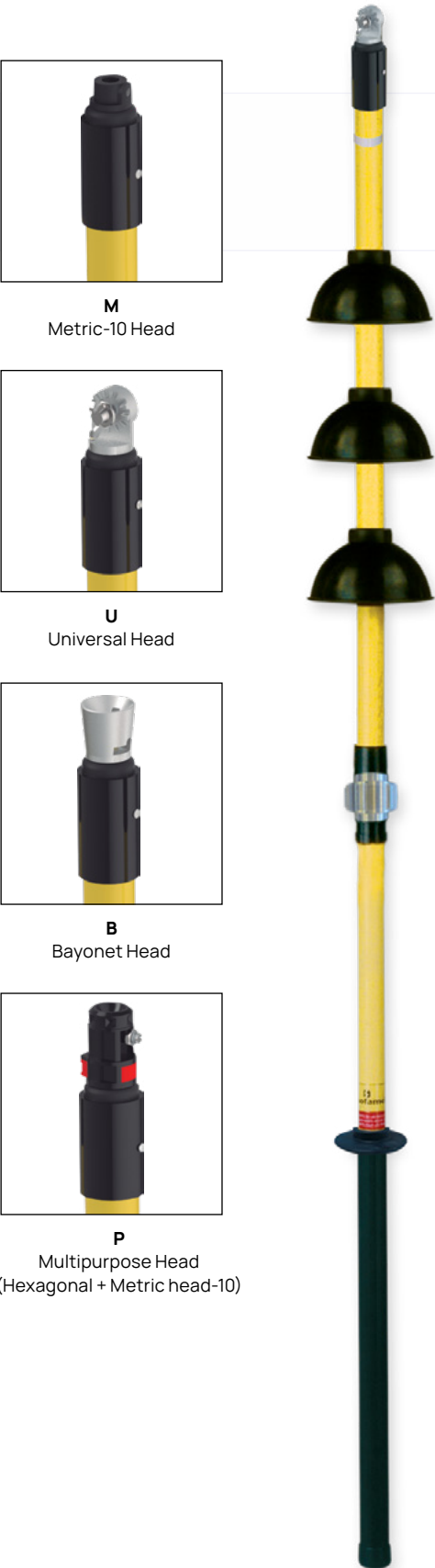
B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)

INSULATING POLES

Connectable poles



INDOOR and OUTDOOR
Use in dry and humid environment

Connectable pole with two or three sections made with polyester and fibreglass tube Ø 38.4 mm with hand protector, grip, tip, 3 deflecting hoods and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30805 BMAE-3V

- Total linked length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616600	BMAE-3V/110M
616601	BMAE-3V/110U
616602	BMAE-3V/110B
616603	BMAE-3V/110P

30805 BMAE-4V

- Total linked length: 4 meters
- Composed of 2 sections of 2 m each
- Working voltage: 220 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616610	BMAE-4V/220M
616611	BMAE-4V/220U
616612	BMAE-4V/220B
616613	BMAE-4V/220P

30805 BMAE-5V

- Total linked length: 5 meters
- Composed of 2 sections of 2 m + 1 section of 1 m
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616620	BMAE-5V/380M
616621	BMAE-5V/380U
616622	BMAE-5V/380B
616623	BMAE-5V/380P

30805 BMAE-6V

- Total linked length: 6 meters
- Composed of 3 sections of 2 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry and humid environment

Code	Ref.
616630	BMAE-6V/380M
616631	BMAE-6V/380U
616632	BMAE-6V/380B
616633	BMAE-6V/380P

P
Multipurpose Head
(Hexagonal + Metric head-10)

B
Bayonet Head



M
Metric-10 Head

U
Universal Head

INSULATING POLES

Pole UNE 50508 - 1 section



INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of 1 single-section. Manufactured with a Ø 32 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: U (Universal), B (Bayonet), H (Hexagonal)
Includes carrying bag.

30806 BSC-M3

- Total length: 1.5 meters
- Working voltage: 30 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616700	BSC-M3U
616701	BSC-M3B
616702	BSC-M3H

30806 BSC-M4

- Total length: 2 meters
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616703	BSC-M4U
616704	BSC-M4B
616705	BSC-M4H

30806 BSC-M5

- Total length: 2.5 meters
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616706	BSC-M5U
616707	BSC-M5B
616708	BSC-M5H

30806 BSC-M6

- Total length: 3 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616709	BSC-M6U
616710	BSC-M6B
616711	BSC-M6H

IEC 60855
UNE-EN-50508

INSULATING POLES

Connectable pole UNE 50508



U
Universal Head



B
Bayonet Head



H
Hexagonal Head

IEC 60855
UNE-EN-50508

INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of two or three-section. Manufactured with a Ø 32 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: U (Universal), B (Bayonet), H (Hexagonal).
Includes carrying bag.

30807 BSC-M22

- Total linked length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616712	BSC-M22U
616713	BSC-M22B
616714	BSC-M22H

30807 BSC-M32

- Total linked length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616715	BSC-M32U
616716	BSC-M32B
616717	BSC-M32H

30807 BSC-M33

- Total linked length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616718	BSC-M33U
616719	BSC-M33B
616720	BSC-M33H

30807 BSC-M222

- Total linked length: 3 meters
- Composed of 3 sections of 1 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616721	BSC-M222U
616722	BSC-M222B
616723	BSC-M222H

INSULATING POLES

Connectable pole UNE 50508

INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of two or three-section. Manufactured with a Ø 38,4 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: U (Universal), B (Bayonet).
Includes carrying bag.



U
Universal Head



B
Bayonet Head

IEC 60855
UNE-EN-50508

30807 BSC-A43

Total linked length: 3.5 meters
Composed of 1 section of 2 m and 1 section of 1.5 m
Working voltage: 132 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616724	BSC-A43U
616725	BSC-A43B

30807 BSC-A44

Total linked length: 4 meters
Composed of 2 sections of 2 m each
Working voltage: 220 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616726	BSC-A44U
616727	BSC-A44B

30807 BSC-A54

Total linked length: 4.5 meters
Composed of 1 section of 2 m + 1 section of 2.5 m
Working voltage: 220 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616728	BSC-A54U
616729	BSC-A54B

30807 BSC-A55

Total linked length: 5 meters
Composed of 2 sections of 2.5 m each
Working voltage: 380 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616730	BSC-A55U
616731	BSC-A55B

30807 BSC-A66

Total linked length: 6 meters
Composed of 2 sections of 3 m each
Working voltage: 380 kV
For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616732	BSC-A66U
616733	BSC-A66B

30807 BSC-A444

Total linked length: 6 meters
Composed of 3 sections of 2 m each
Working voltage: 380 kV
For INDOOR and OUTDOOR use (humid environment)

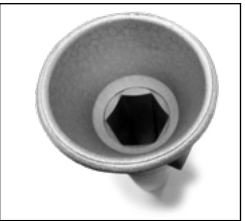
Code	Ref.
616734	BSC-A444U
616735	BSC-A444B

INSULATING POLES

Other insulating poles



H
Hexagonal Head of 22



Hexagonal of 22

IEC 60855
UNE-EN-50508

INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of 1 single-section. Manufactured with a Ø 38.4 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: H (Hexagonal of 22)
Includes carrying bag.
To operate with potential lowering equipment mod. PATC-BP (page 235).

30909 BSC-132/BP
Pole downside potential

- Total length: 3 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
672210	BSC-132/BP

INSULATING POLES

Other insulating poles

INDOOR and OUTDOOR
Use in dry environment

30809 BEF-9000
Fuse disconnecting pole

One-section fuse disconnecting pole made of polyester and fiberglass with a diameter of 40 mm, featuring a handguard and grip for operating the sliding mechanism. The head has two opening positions to accommodate different diameters.

- For fuses with diameter from 30 to 90 mm
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.	Working voltage	Length
625105	BEF-9000/24	24 kV	1.07 m
625107	BEF-9000/36	36 kV	1.72 m

30809 BDC
Insulating condenser discharging pole

Insulating condenser discharging pole with earthing system. It is also suitable for devices with static electricity. Pole with only one section made of polyester and fiberglass tube Ø 32 mm, with hand protector, grip and tip.

- For INDOOR and OUTDOOR use in dry environment

Code	Ref.	Working voltage	Length
625110	BDC	45 kV	1.6 m
625200	BDC-H 0,6/1-2	1 kV	0.6 m
625250	BDC-H 0,6/1-3	1 kV	0.6 m
625260	BDC-H 0,6/1-5	1 kV	0.6 m
625270	BDC-H 0,6/1-7	1 kV	0.6 m
625220	BDC-H 1/25-4	25 kV	1 m
625210	BDC-H 1,6/45-5	45 kV	1.6 m
625230	BDC-H 1,6/45-4	45 kV	1.6 m
625240	BDC-H 2/66-6	66 kV	2 m
625280	BDC-H 2,5/66-5,5	66 kV	2.5 m



INSULATING POLES

Other insulating poles



30809 BCC Cable cutting pole

Made from a fibreglass tube filled with polyurethane foam.

It allows for the cutting of aluminium cables from 16 to 95 mm² and steel cables up to 3 mm in diameter.

- Length: 2100 mm
- Diameter: 36 mm
- Weight: 3500 g

Code	Ref.
625111	BCC-21

* Under request.

30808 BGT Trigger pole

Made from a fibreglass tube filled with polyurethane foam.

The mechanism of the pole, commonly known as "trigger or shotgun," features a sliding handle that opens and closes the hook, facilitating operations in electrical work.

- Length: 2100 mm
- Diameter: 32 mm
- Weight: 2000 g

Code	Ref.
625112	BGT

* Under request.

30810 SC33 Curved Insulated Pruning Saw 1000 V

The SC33 pruning saw is used for trimming tree branches near overhead lines with a voltage of up to 1 kV. It can be attached to any pole with a universal head.

- Metal saw with a serrated tip
- Bidirectional cutting teeth
- Complies with EN 60832-2:2010
- Length of the saw: 330 mm
- Blade thickness: 1.2 mm
- Weight: 140 g

Code	Ref.
625113	SC-33

* Under request.

INSULATING POLES

Accessories for poles



30810 CPS Pole tester

The pole tester is effective for verifying the safety and condition of insulating poles before carrying out electrical work. Its main features include:

Voltage Testing: Verifies the ability to withstand different voltages.
Resistance Measurement: Measures the electrical resistance of the insulator.

Condition Indicators: Shows whether the pole is suitable for use.
Portability: Lightweight and easy to transport design.
Durability: Resistant to adverse conditions.

Ease of Use: Simple controls.
Data Storage: Saves test results.
Certification: Complies with safety regulations.

Code	Ref.
635410	CPS

30812 AVPM Detector adapter to maneuvering pole

Adapter for Medium Voltage detectors that allows their fixing to the maneuvering poles with Universal head. It permits the maneuvering operations without damaging the detector. Immediately afterward you can check if the power is off.

Code	Ref.
630175	AVPM

30810 GSP Hook for pole suspension

PVC device that fits to the maneuvering poles allowing their suspension while doing the job.

Code	Ref.	Ø
630170	GSP-32	32 mm

30812 GPB Coil holder hook

Insulating band coil holder hook, Universal-K connection.

Code	Ref.
630177	GPB

INSULATING POLES

Accessories for poles



30810 JSP-40
Wall support for poles

Product supplied with screws and nail plugs.

Code	Ref.	Ø
615206	JSP-40	40

30903 JSF-2
Fuse holder

Product supplied with screws and nail plugs.

Code	Ref.
545135	JSF-2

30811 SM-02R
Metric-10 maneuvering hook

Maneuvering hook with M-10 thread.

Code	Ref.
630100	SM-02R

30811 SM-02C
Hexagonal-12 maneuvering hook

Maneuvering hook with Hexagonal-12 head.

Code	Ref.
630110	SM-02C

30811 SM-02K
Universal-K maneuvering hook

Maneuvering hook with Universal-K head.

Code	Ref.
630120	SM-02K



INSULATING POLES

Accessories for poles



30811 SM-03K
Straight Universal-K maneuvering hook

Maneuvering hook with straight Universal-K connection.

Code	Ref.
630122	SM-03K

30811 SM-90K
Universal-K 90° maneuvering hook

Maneuvering hook with Universal-K 90° connection.

Code	Ref.
630123	SM-90K

30812 ADAP. B-UK
Bayonet to Universal-K adapter

Adapter from Bayonet to Universal-K head.

Code	Ref.
630107	ADAP. B-UK

30812 ADAP. B-M10
Bayonet to M-10 adapter

Adapter from Bayonet head to M-10 thread.

Code	Ref.
630108	ADAP. B-M10

30812 ADAP. B-P
Bayonet to Polivalent adapter

Adapter from Bayonet head to Polivalent.

Code	Ref.
630167	ADAP. B-P

30812 ADAP. H12-M10
Hexagonal-12 to M-10 adapter

Adapter from Hexagonal-12 head to M-10 thread.

Code	Ref.
630101	ADAP. H12-M10

30811 GA-TML
Operating hook

Operating hook for the high voltage overhead lines earthing equipments model PATL-TML.

Code	Ref.
630116	GA-TML

INSULATING POLES

Accessories for poles



30812 ADAP. UK-B
Universal-K to Bayonet adapter

Adapter from Universal-K to Bayonet head.

Code	Ref.
630162	ADAP. UK-B



30812 ADAP. UK-P
Universal-K to Polivalent adapter

Adapter from Universal-K to Polivalent head.

Code	Ref.
630163	ADAP. UK-P



30812 ADAP. H12-UK
Hexagonal-12 to Universal-K adapter

Adapter from Hexagonal-12 to Universal-K head.

Code	Ref.
630109	ADAP. H12-UK



30812 ADAP. M10-UK
M-10 to Universal-K adapter

Adapter from M-10 thread to Universal-K head.

Code	Ref.
630106	ADAP. M10-UK



30812 ADAP. UK-M10
Universal-K to M-10 adapter

Adapter from Universal-K head to M-10 head.

Code	Ref.
630102	ADAP. UK-M10



30812 ADAP. H12-B
Hexagonal-12 to Bayonet adapter

Adapter from Hexagonal-12 to Bayonet head.

Code	Ref.
630166	ADAP. H12-B



30811 GS-49
Rescue hook

Rescue hook with M-10 thread.

Code	Ref.
630130	GS-49

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-NH

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.

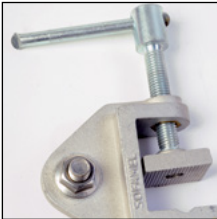


Composed of:

- 3 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 25 mm² section and 0.2 - 0.4 - 0.6 m for short circuit of phases.
- 1 copper PVC-insulated cables 25 mm² section and 0.5 m long for earthing.
- 1 branch-joint connector (4 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.



NH1-3
Disconnecting and earthing blade



TT-38A
Earthing lathe

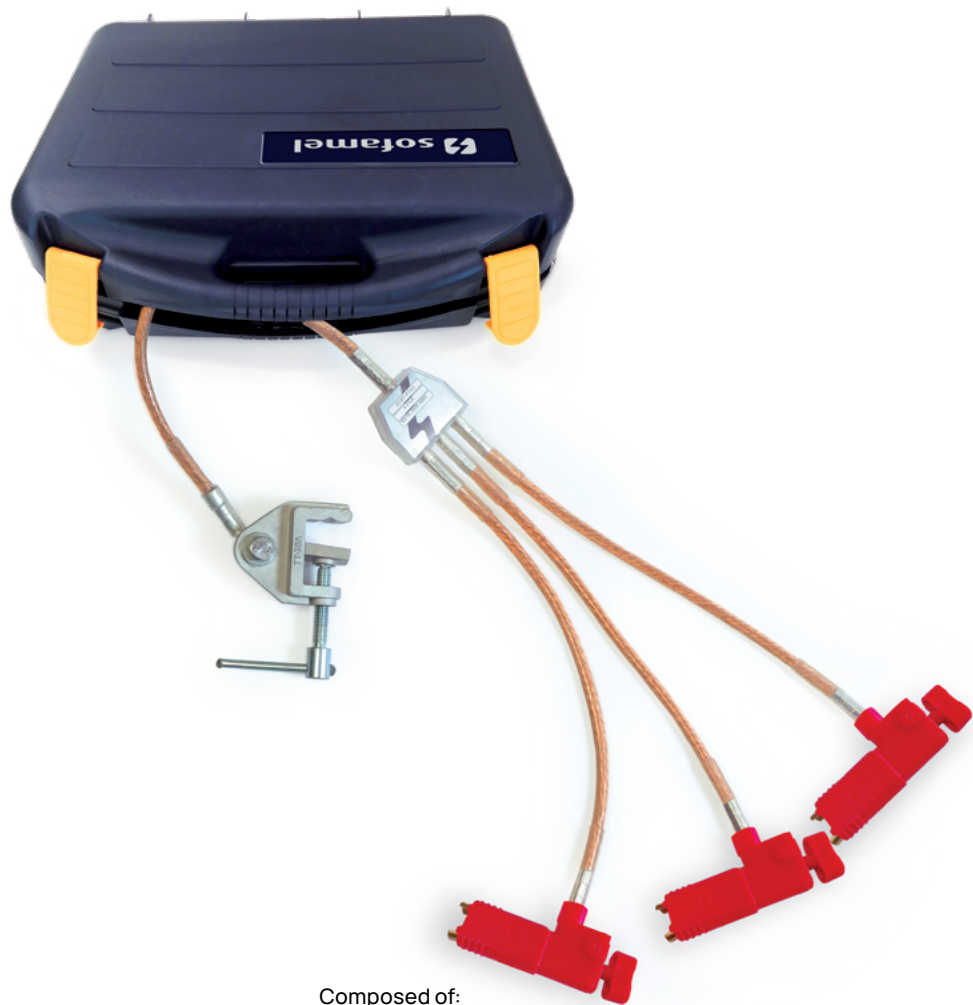
Code	Ref.	Short circuit current Max. ICC
659130	ECBT-NH	6.9 kA/1s

EARTHING DEVICES

Low voltage electric panels

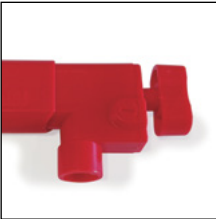
30902 ECBT-PTA3
3 clamps

Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. According to IEC 61230 standard.

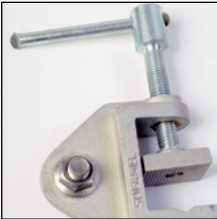


Composed of:

- 3 insulated PTA earth clamps.
- 3 copper PVC-insulated cables 25 mm² section and 0.4 m long for short circuit of phases.
- 1 copper PVC-insulated cables 25 mm² section and 1 m or 2 m long (depending on model) for earthing.
- 1 branch-joint connector (4 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.



PTA
Insulated earth clamp



TT-38A
Earthing lathe

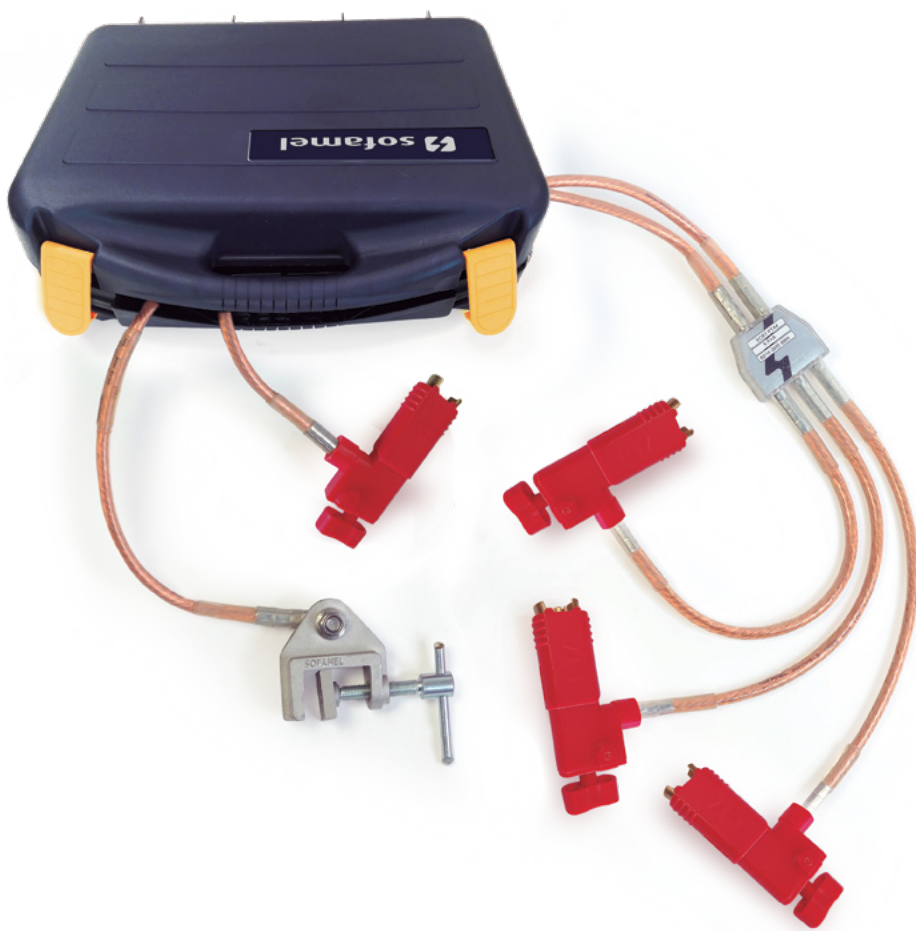
Code	Ref.	Length	Short circuit current Max. ICC
659140	ECBT-PTA3-1	1 m	6.9 kA/1s
659141	ECBT-PTA3-2	2 m	

EARTHING DEVICES

Low voltage electric panels

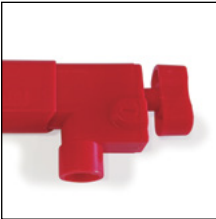
30902 ECBT-PTA4
4 clamps

Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. According to IEC 61230 standard.

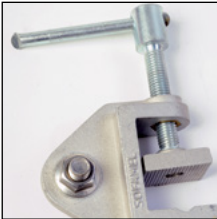


Composed of:

- 4 insulated PTA earth clamps and the neutral.
- 3 copper PVC-insulated cables 25 mm² section and 1.2 m long for short circuit of phases.
- 1 copper cables 25 mm² section and 1.5 m long for the neutral's earthing.
- 1 PVC-insulated cable 25 mm² section and 2 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.



PTA
Insulated earth clamp



TT-38A
Earthing lathe

Code	Ref.	Short circuit current Max. ICC
659150	ECBT-PTA4	6.9 kA/1s

EARTHING DEVICES

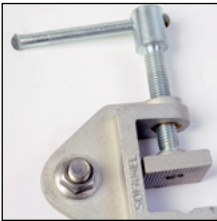
Low voltage electric panels

30902 ECBT-SHUNT3
3 clamps

Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. According to IEC 61230 standard.



SHUNT SHCD
and SHUNT SHPL
Insulated earth clamps



TT-38A
Earthing lathe

- Composed of:
- 3 insulated SHUNT clamps for short circuit of the phases.
 - 3 copper PVC-insulated cables 25 mm² section and 0.4 m long for short circuit of phases.
 - 1 cooper PVC-insulated cables 25 mm² section and 1 m long for earthing.
 - 1 branch-joint connector (4 cables).
 - 1 TT-38A earthing lathe.
 - 1 plastic case for storage and transport.

Code	Ref.			Maximum current of work
659040	ECBT-SHCD3	Bare wire	•	200 A
659045	ECBT-SHPL3	Platen	•	

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-SHUNT4
4 clamps

Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. According to IEC 61230 standard.



SHUNT SHCD
and SHUNT SHPL
Insulated earth clamps



TT-38A
Earthing lathe

- Composed of:
- 4 insulated SHUNT earth clamps and the neutral.
 - 3 copper PVC-insulated cables 25 mm² section and 1.2 m long for short circuit of phases.
 - 1 copper cables 25 mm² section and 1.5 m long for the neutral's earthing.
 - 1 PVC-insulated cable 25 mm² section and 2 m long for earthing.
 - 1 branch-joint connector (5 cables).
 - 1 TT-38A earthing lathe.
 - 1 plastic case for storage and transport.

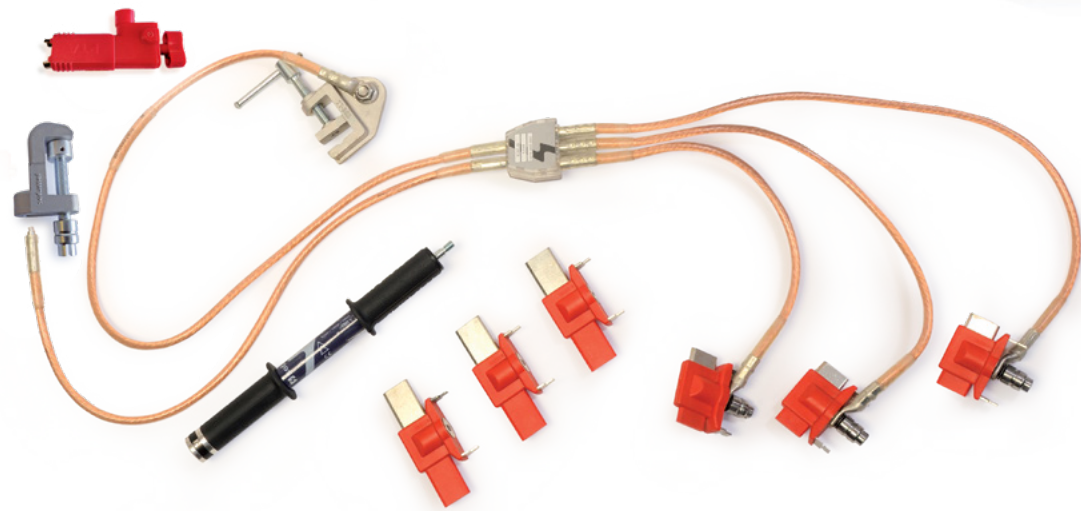
Code	Ref.			Maximum current of work
659050	ECBT-SHCD4	Bare wire	•	200 A
659055	ECBT-SHPL4	Platen	•	

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-ID

Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. With insulated pole for extracting blades using M-10 screw. According to IEC 61230 standard.



Composed of:

- 3 disconnecting and earthing NH00 blades.
- 3 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 25 mm² section and 0.45 - 0.60 - 0.85 m long for short circuit of phases.
- 1 m copper PVC-insulated cables 25 mm² section and 0.75 m long for neutral.
- 1 m copper PVC-insulated cables 25 mm² section and 1 m long for earthing.
- 1 insulated PTA neutral clamp.
- 1 MPUCN neutral clamp.
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.
- 1 branch-joint connector (5 ends).



Code	Ref.	Short circuit current Max. ICC
659160	ECBT-ID	6.9 kA/1s



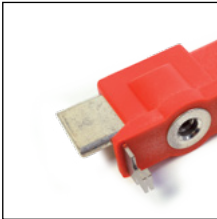
MPUCN
Neutral clamp



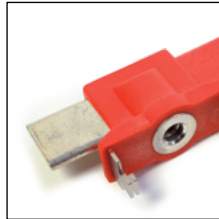
PTA
Insulated neutral clamp



TT-38A
Earthing lathe



NH1-3
Disconnecting and earthing blade



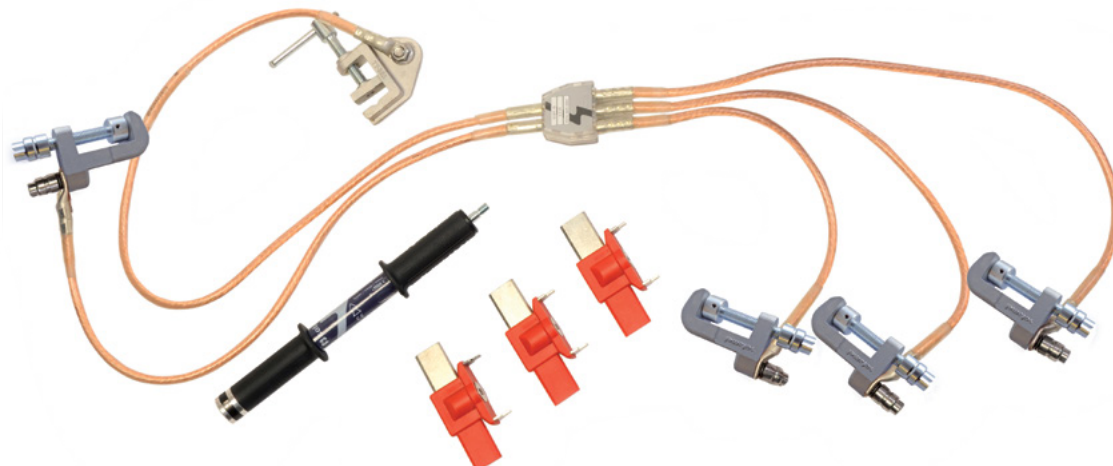
NH00
Disconnecting and earthing blade

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-GNF

Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. With insulated pole for extracting blades using M-10 screw. According to IEC 61230 standard.

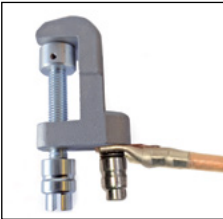


Composed of:

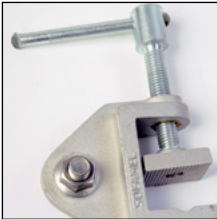
- 3 disconnecting and earthing NH1-3 blades.
- 4 disconnecting and earthing MPUC clamp.
- 3 copper PVC-insulated cables 35/50 mm² section and 0.45 - 0.60 - 0.85 m long for short circuit of phases.
- 1 copper PVC-insulated cables 35/50 mm² section and 0.75 m long for neutral.
- 1 copper PVC-insulated cables 35/50 mm² section and 1 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 nylon bag to store and transport the equipment.



Code	Ref.	Section	Short circuit current Max. ICC
659170	ECBT-GNF/35	35 mm²	9 kA/1s
659180	ECBT-GNF/50	50 mm²	12 kA/1s



MPUC
Earthing clamp



TT-38A
Earthing lathe



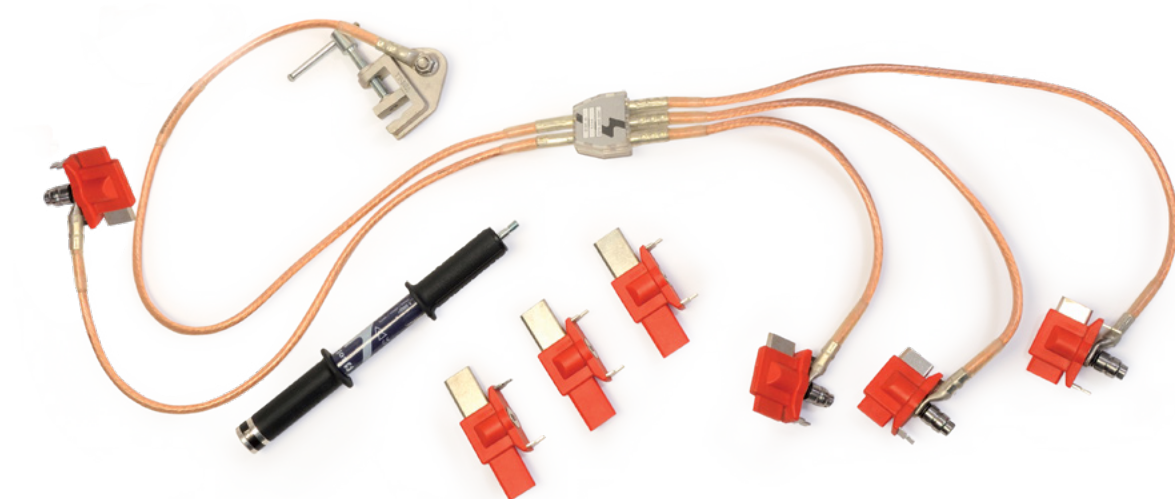
NH1-3
Disconnecting and earthing blade

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-ID-NH

Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. With insulated pole for extracting blades using M-10 screw. According to IEC 61230 standard.



Composed of:

- 4 disconnecting and earthing NH00 blades.
- 4 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 16 mm² section and 0.50 m long for short circuit of phases.
- 1 copper PVC-insulated cables 16 mm² section and 0.50 m long for neutral.
- 1 copper PVC-insulated cables 16 mm² section and 1 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 nylon bag to store and transport the equipment.



Code	Ref.	Short circuit current Max. ICC
659217	ECBT-ID-NH	6.9 kA/1s



TT-38A
Earthing lathe



NH1-3
Disconnecting and earthing blade

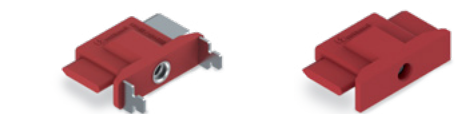


NH00
Disconnecting and earthing blade

EARTHING DEVICES

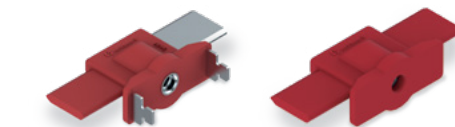
Accessories for low voltage electric panels

30903 BLADES Disconnecting and earthing blades



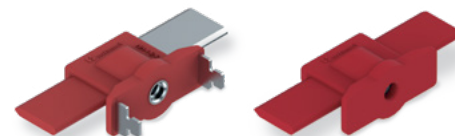
30903 NH00 / NH000

Code	Ref.	Description	Short circuit current Max ICC
659185	NH000	Earthing	12 kA/1s
659126	NH000/A	Fully isolated	



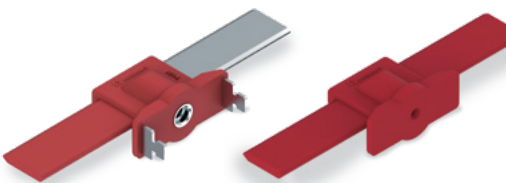
30903 NH0

Code	Ref.	Description	Short circuit current Max ICC
659186	NH0	Earthing	12 kA/1s
659127	NH0/A	Fully isolated	



30903 NH1-3

Code	Ref.	Description	Short circuit current Max ICC
659187	NH1-3	Earthing	12 kA/1s
659128	NH1-3/A	Fully isolated	



30903 NH4

Code	Ref.	Description	Short circuit current Max ICC
659188	NH4	Earthing	12 kA/1s
659129	NH4/A	Fully isolated	

30903 POLE Insulated pole for placing blades



30903 PC

Code	Ref.
659131	PC

EARTHING DEVICES

Accessories for low voltage electric panels

30903 EARTHING CLAMPS



MPUC
SHUNT
(SHPC, SHCD
and SHPL)

PTA

30903 MPUC

Code	Ref.	Dimensions	Capacity	Short circuit current Max. ICC	Weight
659133	MPUCN	148 x 55 x 33 mm	35 mm	12 kA/1s	250 g
659139	MPUCF	148 x 55 x 33 mm	20 mm		

30903 PTA

Code	Ref.	Ø max.	Short circuit current Max. ICC	Weight
659132	PTA	8 - 22 mm	6,9 kA/1s	325 g

30903 SHUNT

Code	Ref.	Dimensions	Capacity	Point proof	Splice	Max. working current	Voltage Max.	Weight
659020	SHPC	143 x 54 x 26 mm	35-240 mm²					
659021	SHCD	143 x 54 x 26 mm	35-240 mm²	Taking 4 mm	Connector M8	200 A	1000 V	250 g
659022	SHPL	143 x 54 x 26 mm	2-25 mm					

30903 SHPC2-035015 Kit by-pass



Cable type H07RMF 35 mm²
2 clamps SHUNT SHPC

Code	Ref.	Length cable	Capacity	Point test	Max. working current	Voltage Max.	Weight
659030	SHPC2-035015	1.5 m	35-240 mm²	Taking 4 mm	200 A	1000 V	-

30903 FLEXIBLE SHUNT CABLE M8 / M8 By-pass cable



Cable type H07RMF 35 mm²

Code	Ref.	Length cable	Capacity	Max. working current	Voltage Max.	Weight
659035	SH035015	1.5 m	35-240 mm²	200 A	1000 V	-

* Consult for other lengths.

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-MPUE

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.
The MPUE clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

Each one has its own fixed handle.
According to IEC 61230 standard.



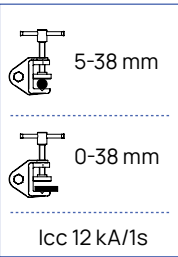
Composed of:

- 4 MPUE aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 35 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 25 mm² section and 2 m long.
- 1 TT-38A milling earthing lathe.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659000	ECBT-MPUE/35	9 kA/1s



TT-38A
Earthing lathe



IEC 61230

EARTHING DEVICES

Low voltage electric panels

30902 ECBT-MPUBTH

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUBT/H clamps for low voltage are perfect to be fixed on flat bars.

According to IEC 61230 standard.



Composed of:

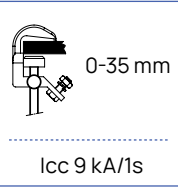
- 4 MPUBT/H aluminium alloy clamps with screw tighten.
- 1 insulated grip with polyvalent head.
- 3 copper cables with PVC insulation of 35 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 25 mm² section and 2 m long.
- 1 TT-38A milling earthing lathe.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659001	ECBT-MPUBTH/35	9 kA/1s

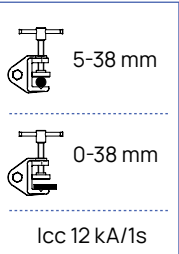
IEC 61230



MPUBT/H
Clamp



TT-38A
Earthing lathe



EARTHING DEVICES

Low voltage electric panels

30902 ECBT-4MPUL

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUL clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

According to IEC 61230 standard.



Composed of:

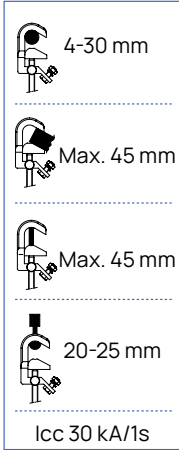
- 4 MPUL aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 70/95/120 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 70/95/120 mm² section and 2 m long.
- 1 TT-50 earthing lathe.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659201	ECBT-4MPUL-7070	19 kA/1s
659209	ECBT-4MPUL-9595	25.5 kA/1s
659210	ECBT-4MPUL-120120	30 kA/1s

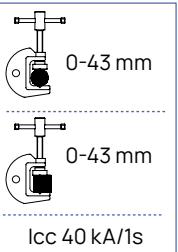
IEC 61230



MPUL
Clamp



TT-50
Earthing lathe



EARTHING DEVICES

Low voltage electric panels

30902 ECBT-4MPUHL

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUBT/H clamps for low voltage are perfect to be fixed on flat bars.

According to IEC 61230 standard.



Composed of:

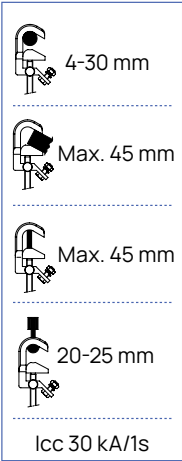
- 4 MPUH-L aluminium alloy clamps with screw tighten.
- 1 insulated grip with polyvalent head.
- 3 copper cables with PVC insulation of 120 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 120 mm² section and 2 m long.
- 1 TT-50 milling earthing lathe.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659200	ECBT-4MPUHL-120120	30 kA/1s

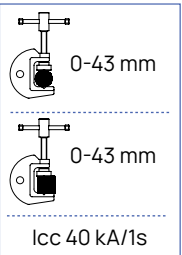
IEC 61230



MPUH-L
Clamp



TT-50
Earthing lathe



EARTHING DEVICES

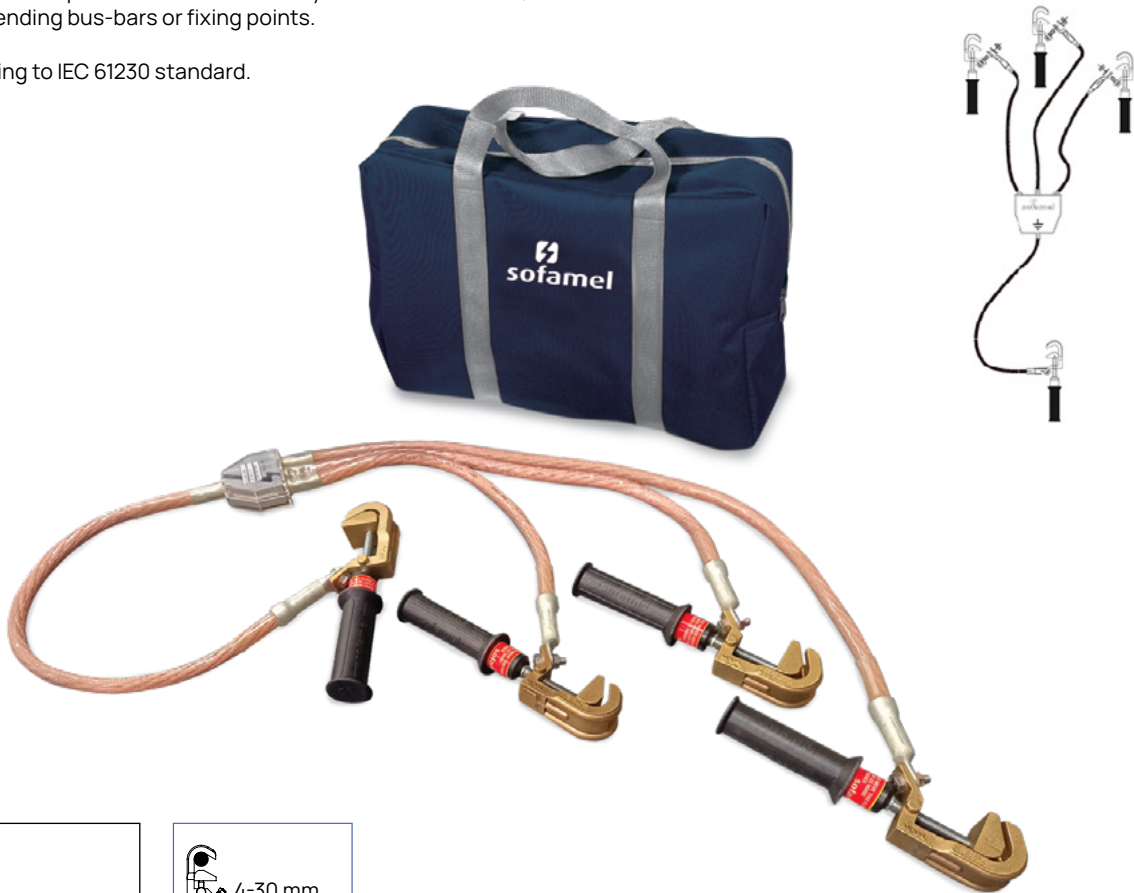
Low voltage electric panels

30906 PATC-3MPUL

Earthing and short-circuit equipment for low/medium voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

According to IEC 61230 standard.



Composed of:

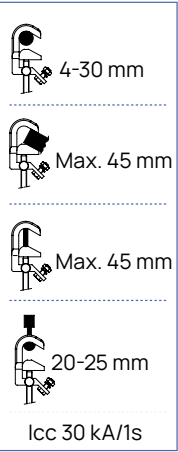
- 4 MPUL aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 95 mm² section and 1 - 0.7 - 0.55 m long.
- 1 copper cable with PVC insulation of 95 mm² section and 0.75 m long.
- 1 branch-joint connector.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
662012	PATC-3MPUL-9595	25 kA/1s

IEC 61230



MPUL
Clamp



EARTHING DEVICES

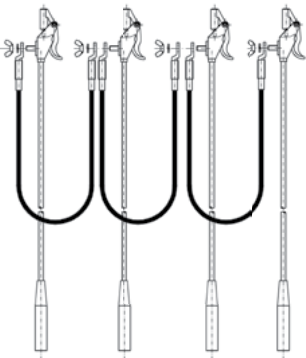
Low voltage overhead lines

30904 ELBT-CC

Short-circuit equipment for low voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PEBT clamp is installed on the bare conductor by leaning it on this one and pressing downwards. The clamp mechanism guarantees a permanent and steady contact.

According to IEC 61230 standard.



Composed of:

- 4 PEBT spring clamps with 70 cm poles for cylindrical conductors with diameter between 3 and 18 mm.
- 3 copper cables with PVC insulation of 16 mm² section and 0.6 m long.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
658110	ELBT-CC	4 kA/1s

IEC 61230



PEBT
Clamp



* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

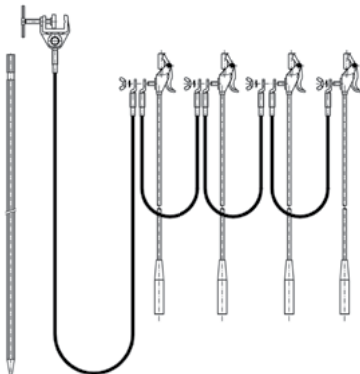
Low voltage overhead lines

30904 ELBT-PAT/CC

Earthing and short-circuit equipment for low voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PEBT clamp is installed on the bare conductor by leaning it on this one and pressing downwards. The clamp mechanism guarantees a permanent and steady contact.

According to IEC 61230 standard.



Composed of:

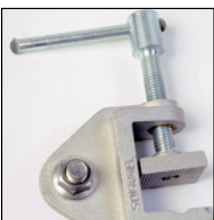
- 4 PEBT spring clamps with 70 cm poles for cylindrical conductors with diameter between 3 and 18 mm.
- 3 copper cables with PVC insulation of 16 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 16 mm² section and 15 m long.
- 1 TT-38A milling earthing lathe.
- 1 earthing rod.
- 2 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
658120	ELBT-PAT/CC	4 kA/1s

IEC 61230



PEBT
Clamp



TT-38A
Earthing lathe



* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

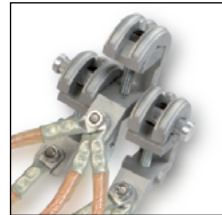
Medium and high voltage overhead lines - Screw clamps

30905 PATL-MPUB

Earthing and short-circuit equipment for overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUB clamp is fixed on bare conductors by screw-tightening. This equipment has got a MPUP clamp (carrier) which facilitates the lifting and placing of the three clamps at the same time reducing installation time considerably.

According to IEC 61230 standard.



MPUB
Clamp

4-30 mm

Max. 45 mm

Max. 45 mm

20-25 mm

Icc 12 kA/1s



TT-38A
Earthing lathe

5-38 mm

0-38 mm

Icc 12 kA/1s

Composed of:

- 2 MPUB aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 4 and 30 mm.
- 1 MPUP aluminium alloy clamp (carrier) with screw tighten for cylindrical conductors with diameter between 4 and 30 mm.
- 2 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section depending on model and 15 m long.
- 1 TT-38A milling earthing lathe.
- 1 earthing rod.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660290	PATL-MPUB/1616	4.0 kA/1s
660300	PATL-MPUB/2516	6.9 kA/1s
660310	PATL-MPUB/3525	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

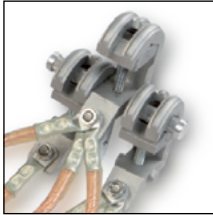
Medium and high voltage overhead lines - Screw clamps

30905 PATL-MPLB

Earthing and short-circuit equipment for overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPL clamp is fixed on bare conductors by screw-tightening. This equipment has got a MPLP clamp (carrier) which facilitates the lifting and placing of the three clamps at the same time reducing installation time considerably.

According to IEC 61230 standard.



MPL
Clamp

5-45 mm

Max. 45 mm

Max. 45 mm

20-25 mm

Icc 30 kA/1s



TT-50
Earthing lathe

0-43 mm

0-43 mm

Icc 40 kA/1s

Composed of:

- 2 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 5 and 45 mm.
- 1 MPLP aluminium alloy clamp (carrier) with screw tighten for cylindrical conductors with diameter between 5 and 45 mm.
- 2 copper cables with PVC insulation of 70 mm² section and 2.5 m long.
- 1 copper cable with PVC insulation of 70 mm² section and 15 m long.
- 1 TT-50 milling earthing lathe.
- 1 earthing rod.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 bag to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
665285	PATL-MPLB/7070	19 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

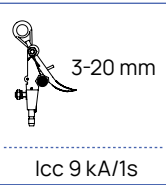
Medium and high voltage overhead lines - Automatic clamps

30905 PATL-MC-3
3 clamps

Earthing and short-circuit equipment for overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MC clamp is fixed on bare conductors by pressure and can be removed by an operating hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.

According to IEC 61230 standard.



MC
Clamp



PP-3U
Clamp dispenser

Composed of:

- 3 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/25 mm² section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660225	PATL-MC-3/1616	4.0 kA/1s
660230	PATL-MC-3/2516	6.9 kA/1s
660240	PATL-MC-3/3525	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

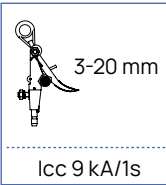
Medium and high voltage overhead lines - Automatic clamps

30905 PATL-MC-4
4 clamps

Earthing and short-circuit equipment for voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MC clamp is fixed on bare conductors by pressure and can be removed by an operating hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.

According to IEC 61230 standard.



MC
Clamp



PP-4U
Clamp dispenser

Composed of:

- 4 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/25 mm² section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660245	PATL-MC-4/1616	4.0 kA/1s
660246	PATL-MC-4/2516	6.9 kA/1s
660247	PATL-MC-4/3525	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

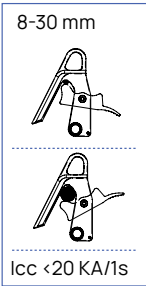
Medium and high voltage overhead lines - Automatic clamps

30905 PATL-MCL-3
3 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

MCL clamps are installed on the conductor by pressure and removed using a recovery hook. The three clamps can be placed at the same time, thanks to the clamp-holder plate, so facilitating the operator's work.

According to IEC 61230 standard.



MCL
Clamp

PP-3U MCL
Clamp dispenser

* Depending on availability, the colour of the cover may vary.

Composed of:

- 3 aluminium alloy clamps closing by automatic spring activation for cylindrical conductors with diameter between 8 and 30 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of (16, 25, 35, 50, 70 mm2) section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of (16, 16, 25, 35, 50 mm2) section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660330	PATL-MCL-3/1616	4.0 kA/1s
660335	PATL-MCL-3/2516	6.9 kA/1s
660340	PATL-MCL-3/3525	9.0 kA/1s
660345	PATL-MCL-3/5035	12.0 kA/1s
660350	PATL-MCL-3/7050	19.0 kA/1s

IEC 61230

EARTHING DEVICES

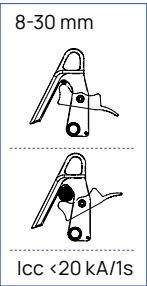
Medium and high voltage overhead lines - Automatic clamps

30905 PATL-MCL-4
4 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

MCL clamps are installed on the conductor by pressure and removed using a recovery hook. The three clamps can be placed at the same time, thanks to the clamp-holder plate, so facilitating the operator's work.

According to IEC 61230 standard.



MCL
Clamp

PP-4U MCL
Clamp dispenser

* Depending on availability, the colour of the cover may vary.

Composed of:

- 4 aluminium alloy clamps closing by automatic spring activation for cylindrical conductors with diameter between 8 and 30 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of (16, 25, 35, 50, 70 mm2) section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of (16, 16, 25, 35, 50 mm2) section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660355	PATL-MCL-4/1616	4.0 kA/1s
660360	PATL-MCL-4/2516	6.9 kA/1s
660365	PATL-MCL-4/3525	9.0 kA/1s
660370	PATL-MCL-4/5035	12.0 kA/1s
660375	PATL-MCL-4/7050	19.0 kA/1s

IEC 61230

EARTHING DEVICES

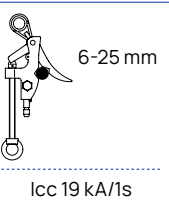
Medium and high voltage overhead lines - Automatic clamps

30905 PATL-PCA25-3 3 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PCA-25 clamp is fixed on bare conductors by pressure and can be removed by an operation hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.
The new PCA-25 clamp grants an easy and secure installation.

According to IEC 61230 standard.



PCA-25
Clamp



PP-3U
Clamp dispenser

Composed of:

- 3 PCA-25 aluminium alloy clamps with automatic activation fastening and final mechanical fixing for cylindrical conductors with diameter between 6 and 25 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of 16/25/35 mm² section (depending on model) and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section (depending on model) and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660250	PATL-PCA25-3/1616	4.0 kA/1s
660260	PATL-PCA25-3/2516	6.9 kA/1s
660270	PATL-PCA25-3/3525	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

EARTHING DEVICES

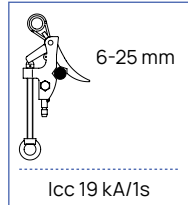
Medium and high voltage overhead lines - Automatic clamps

30905 PATL-PCA25-4 4 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PCA-25 clamp is fixed on bare conductors by pressure and can be removed by an operation hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.
The new PCA-25 clamp grants an easy and secure installation.

According to IEC 61230 standard.



PCA-25
Clamp



PP-4U
Clamp dispenser

Composed of:

- 4 PCA-25 aluminium alloy clamps with automatic activation fastening and final mechanical fixing for cylindrical conductors with diameter between 6 and 25 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of 16/25/35 mm² section (depending on model) and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section (depending on model) and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment (Optional with wheels).
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660280	PATL-PCA25-4/1616	4.0 kA/1s
660281	PATL-PCA25-4/2516	6.9 kA/1s
660282	PATL-PCA25-4/3525	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

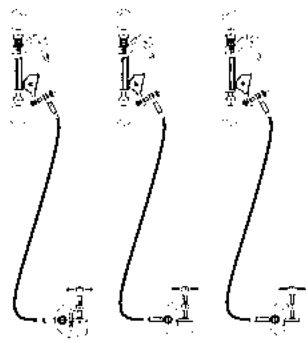
EARTHING DEVICES

Medium and high voltage overhead lines

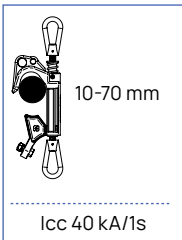
30905 PATL-TML

Phase earthing and short-circuit equipment for overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

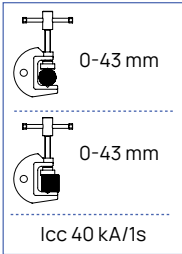
According to IEC 61230 standard.



TML
Clamp



TT-50
Earthing lathe



* Depending on availability, the colour of the bag may vary.



Composed of:

- 3 TML aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
670176	PATL-TML/05006	50	6	12 kA/1s
670177	PATL-TML/05007		7	
670178	PATL-TML/05008		8	
670179	PATL-TML/05009		9	
670180	PATL-TML/05010		10	
670181	PATL-TML/05011	70	11	19 kA/1s
670186	PATL-TML/07006		6	
670187	PATL-TML/07007		7	
670188	PATL-TML/07008		8	
670189	PATL-TML/07009		9	
670190	PATL-TML/07010	95	10	25 kA/1s
670191	PATL-TML/07011		11	
670196	PATL-TML/09506		6	
670197	PATL-TML/09507		7	
670198	PATL-TML/09508		8	
670199	PATL-TML/09509	120	9	30 kA/1s
670200	PATL-TML/09510		10	
670206	PATL-TML/12006		6	
670207	PATL-TML/12007		7	
670208	PATL-TML/12008		8	
670209	PATL-TML/12009	150	9	40 kA/1s
670210	PATL-TML/12010		10	
670216	PATL-TML/15006		6	
670217	PATL-TML/15007		7	
670218	PATL-TML/15008		8	
670219	PATL-TML/15009		9	
670220	PATL-TML/15010		10	

IEC 61230

Cod. 630116
Operating hook.
Not included in the equipment.

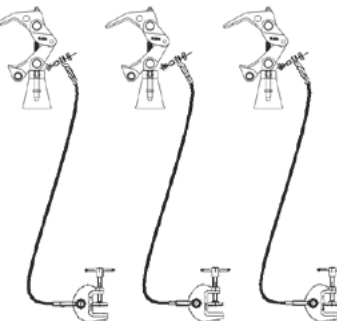
EARTHING DEVICES

Medium and high voltage overhead lines

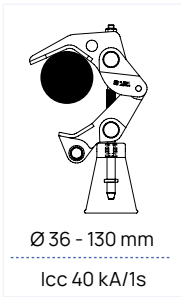
30905 PATL-PA40

Phase earthing and short-circuit equipment for overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

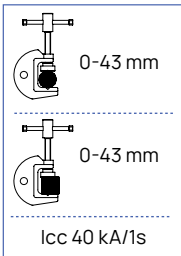
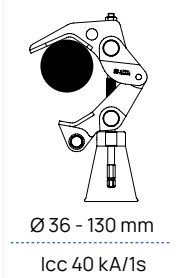
According to IEC 61230 standard.



PA40
Clamp
with bayonet or
hexagonal shaft option



TT-50
Earthing lathe



Composed of:

- 3 PA40-B (bayonet) aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 36 and 130 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
674176	PATL-PA40/05006	50	6	12 kA/1s
674177	PATL-PA40/05007		7	
674178	PATL-PA40/05008		8	
674179	PATL-PA40/05009		9	
674180	PATL-PA40/05010		10	
674186	PATL-PA40/07006	70	6	19 kA/1s
674187	PATL-PA40/07007		7	
674188	PATL-PA40/07008		8	
674189	PATL-PA40/07009		9	
674190	PATL-PA40/07010		10	
674196	PATL-PA40/09506	95	6	25 kA/1s
674197	PATL-PA40/09507		7	
674198	PATL-PA40/09508		8	
674199	PATL-PA40/09509		9	
674200	PATL-PA40/09510		10	
674206	PATL-PA40/12006	120	6	30 kA/1s
674207	PATL-PA40/12007		7	
674208	PATL-PA40/12008		8	
674209	PATL-PA40/12009		9	
674210	PATL-PA40/12010		10	
674216	PATL-PA40/15006	150	6	40 kA/1s
674217	PATL-PA40/15007		7	
674218	PATL-PA40/15008		8	
674219	PATL-PA40/15009		9	
674220	PATL-PA40/15010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

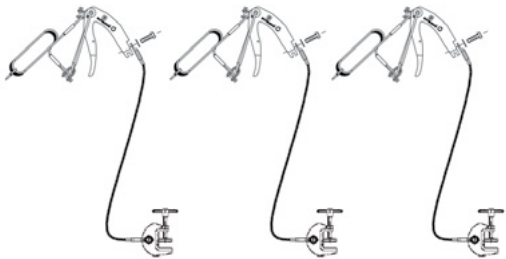
EARTHING DEVICES

Medium and high voltage overhead lines

30905 PATL-PAV

Phase earthing and short-circuit equipment for overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.

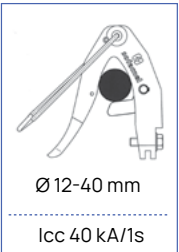


Composed of:

- 3 PAV aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 12 and 40 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.



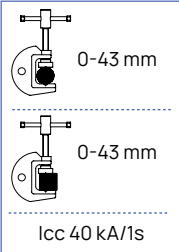
PAV
Clamp



Ø 12-40 mm
Icc 40 kA/1s



TT-50
Earthing lathe



0-43 mm
0-43 mm
Icc 40 kA/1s

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
673101	PATL-PAV/05006	50	6	12 kA/1s
673102	PATL-PAV/05007		7	
673103	PATL-PAV/05008		8	
673104	PATL-PAV/05009		9	
673105	PATL-PAV/05010		10	
673106	PATL-PAV/07006	70	6	19 kA/1s
673107	PATL-PAV/07007		7	
673108	PATL-PAV/07008		8	
673109	PATL-PAV/07009		9	
673110	PATL-PAV/07010		10	
673111	PATL-PAV/09506	95	6	25 kA/1s
673112	PATL-PAV/09507		7	
673113	PATL-PAV/09508		8	
673114	PATL-PAV/09509		9	
673115	PATL-PAV/09510		10	
673116	PATL-PAV/12006	120	6	30 kA/1s
673117	PATL-PAV/12007		7	
673118	PATL-PAV/12008		8	
673119	PATL-PAV/12009		9	
673120	PATL-PAV/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Medium and high voltage substations - Steerable clamps

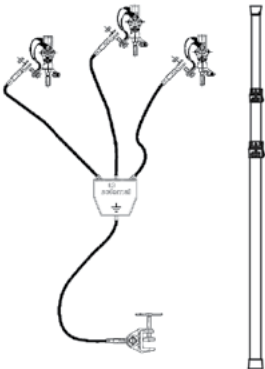
30906 PATC-5014H

Earthing and short-circuit equipment for voltage substations.

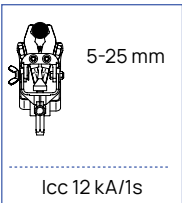
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The 5014H clamp is perfect for difficult access areas. The clamp can be adjusted depending on the required inclination thanks to its multi-directional head system.

According to IEC 61230 standard.



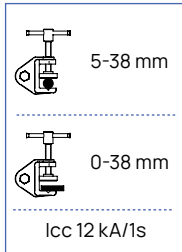
5014H
Clamp



5-25 mm
Icc 12 kA/1s



TT-38A
Earthing lathe



5-38 mm
0-38 mm
Icc 12 kA/1s

Composed of:

- 3 5014H brass steerable clamps with screw tighten and Hexagonal-12 fixing for cylindrical conductors with diameter between 5 and 25 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm2 section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm2 section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665250	PATC-5014H/2525	6.9 kA/1s
665255	PATC-5014H/3535	9.0 kA/1s
665260	PATC-5014H/5050	12.0 kA/1s

IEC 61230

EARTHING DEVICES

Medium and high voltage substations - Bus-bar clamps

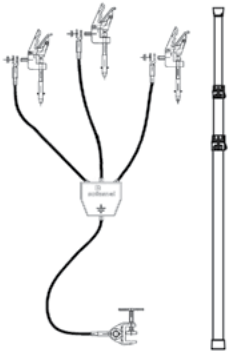
30906 PATC-PP15

Earthing and short-circuit equipment for substations.

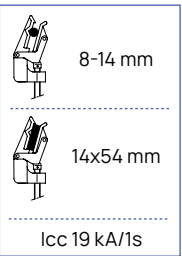
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PP-15 clamp is suitable for installations with flat bars in horizontal or vertical position.

According to IEC 61230 standard.



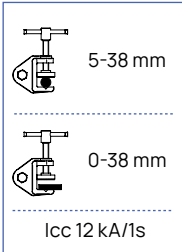
PP-15
Clamp



Icc 19 kA/1s



TT-38A
Earthing lathe



Icc 12 kA/1s

Composed of:

- 3 PP15 aluminium alloy clamps with bayonet fixing for cylindrical conductors with diameter between 6 and 15 mm and flat bars up to 15 x 55 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 11.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665270	PATC-PP15/2525	6.9 kA/1s
665275	PATC-PP15/3535	9.0 kA/1s
665280	PATC-PP15/5050	12.0 kA/1s

IEC 61230

EARTHING DEVICES

Medium and high voltage substations - Screw clamps

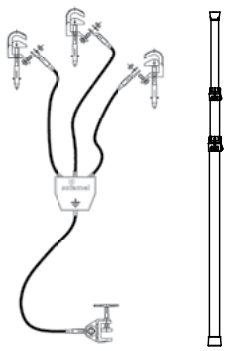
30906 PATC-MPU

Earthing and short-circuit equipment for substations.

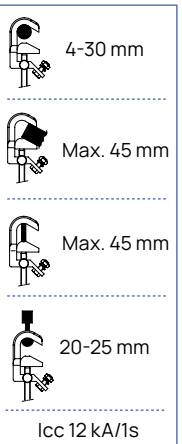
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamp is fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points by screw tightening.

According to IEC 61230 standard.



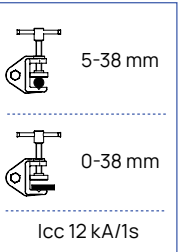
MPU
Clamp



Icc 12 kA/1s



TT-38A
Earthing lathe



Icc 12 kA/1s

Composed of:

- 3 MPU aluminium alloy clamps with screw tighten and Bayonet (MPUB) or Hexagonal-12 (MPUH) fixing for cylindrical conductors with diameter between 4 and 30 mm, flat bars max. 45 mm, bending bus-bars max. 45 mm and fixing points between 20 and 25 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 11.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665220	PATC-MPUB/2525	6.9 kA/1s
665225	PATC-MPUB/3535	9.0 kA/1s
665230	PATC-MPUB/5050	12.0 kA/1s
665235	PATC-MPUH/2525	6.9 kA/1s
665240	PATC-MPUH/3535	9.0 kA/1s
665245	PATC-MPUH/5050	12.0 kA/1s

IEC 61230

EARTHING DEVICES

Medium and high voltage substations - Screw clamps

30906 PATCPF-MPU

Earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamp is fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points by screw tightening.

According to IEC 61230 standard.



Composed of:

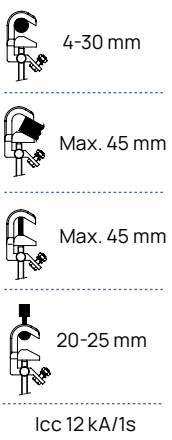
- 3 MPU aluminium alloy clamps with screw tighten and Bayonet (MPU / B).
- For cylindrical conductors with a diameter between 4 and 30 mm; plate up to 45 mm and fixed points from 20 to 25 mm.
- 1 clamp MPU/H.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 1.5 m telescopic pole with three sections.
- 1 insulating grip for the earthing clamp.
- 1 plastic case to store and transport the equipment (Optional with wheels).

Code	Ref.	Short circuit current Max. ICC
665310	PATCPF-MPU/2525	6.9 kA/1s
665315	PATCPF-MPU/3535	9.0 kA/1s
665320	PATCPF-MPU/5050	12.0 kA/1s

IEC 61230



MPU
Clamp



EMP
Insulating grip

EARTHING DEVICES

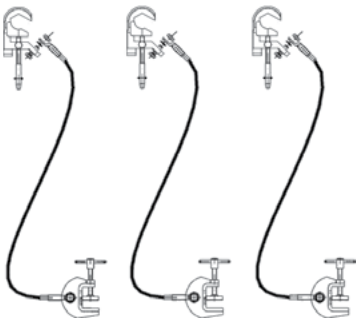
Medium and high voltage substations

30906 PAT-MPL

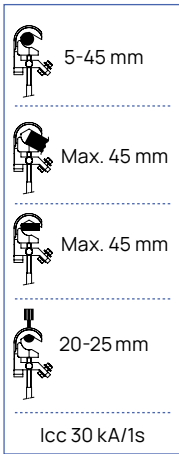
Phase earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

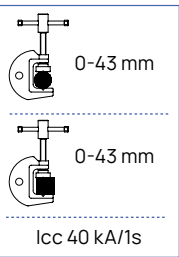
According to IEC 61230 standard



MPL
Clamp



TT-50
Earthing lathe



Composed of:

- 3 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 5 and 45 mm and flat bars.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
680176	PAT-MPL/05006	50	6	12 kA/1s
680177	PAT-MPL/05007		7	
680178	PAT-MPL/05008		8	
680179	PAT-MPL/05009		9	
680180	PAT-MPL/05010	70	10	19 kA/1s
680186	PAT-MPL/07006		6	
680187	PAT-MPL/07007		7	
680188	PAT-MPL/07008		8	
680189	PAT-MPL/07009	95	9	25 kA/1s
680190	PAT-MPL/07010		10	
680196	PAT-MPL/09506		6	
680197	PAT-MPL/09507		7	
680198	PAT-MPL/09508	120	8	30 kA/1s
680199	PAT-MPL/09509		9	
680200	PAT-MPL/09510		10	
680206	PAT-MPL/12006		6	
680207	PAT-MPL/12007	120	7	30 kA/1s
680208	PAT-MPL/12008		8	
680209	PAT-MPL/12009		9	
680210	PAT-MPL/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

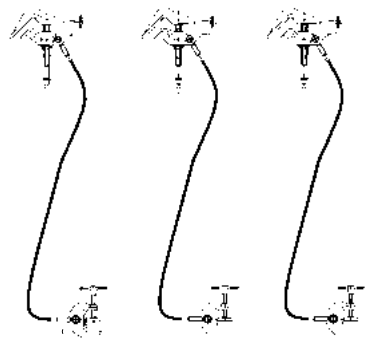
EARTHING DEVICES

Medium and high voltage substations

30906 PATC-TMC

Phase earthing and short-circuit equipment for substations. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.



Composed of:

- 3 TMC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm, flat bars max. 90 x 100 mm and bending bus-bars max. 50 x 120 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

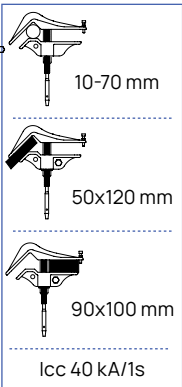
Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
675176	PATC-TMC/05006	50	6	12 kA/1s
675177	PATC-TMC/05007		7	
675178	PATC-TMC/05008		8	
675179	PATC-TMC/05009		9	
675180	PATC-TMC/05010	70	10	19 kA/1s
675186	PATC-TMC/07006		6	
675187	PATC-TMC/07007		7	
675188	PATC-TMC/07008		8	
675189	PATC-TMC/07009	95	9	25 kA/1s
675190	PATC-TMC/07010		10	
675196	PATC-TMC/09506		6	
675197	PATC-TMC/09507		7	
675198	PATC-TMC/09508	120	8	30 kA/1s
675199	PATC-TMC/09509		9	
675200	PATC-TMC/09510		10	
675206	PATC-TMC/12006		6	
675207	PATC-TMC/12007	120	7	
675208	PATC-TMC/12008		8	
675209	PATC-TMC/12009		9	
675210	PATC-TMC/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.



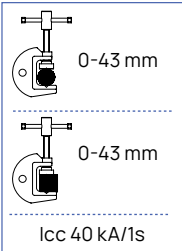
TMC
Clamp



Icc 40 kA/1s



TT-50
Earthing lathe



Icc 40 kA/1s

EARTHING DEVICES

Medium and high voltage substations

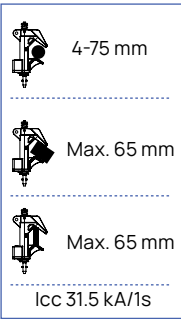
30906 PATL-MPS/9510

Earthing and short-circuiting equipment for overhead lines and transformer stations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations with the control of the manipulation of all the components of the equipment through independent keys, thus preventing third parties from manipulating safety.



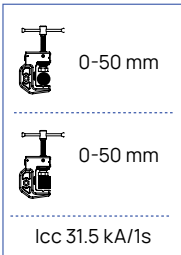
MPS
Clamp



Icc 31.5 kA/1s



TTS
Earthing lathe



Icc 31.5 kA/1s



The clamps can be fixed to cylindrical conductors, flat bars, or flexible distribution bars or fixing points by means of screw tightening. Short-circuit current 31.5 kA (Cable 120mm2).

Sequence:

- Tamper-proof clamp locking.
- Tamper-proof screw locking.
- Repeat until all three phases are secured and locked.

Composed of:

- 3 MPS aluminum alloy clamps with screw tighten for cylindrical conductors with a diameter between 4 and 75 mm; flat bars of max. 80 mm and bars flexible distribution of max. 80 mm
- 3 copper cables with PVC insulation of 95 mm2 section and 10 m length.
- 3 earthing lathes with key lock.
- 3 independently coded keys.
- 3 bags to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
676010	PATL-MPS/9510	25 kA/1s

IEC 61230

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

High voltage overhead lines - Aluminium cable

30907 PATL-AL-3/TML

Phase earthing and short-circuit equipment for high voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

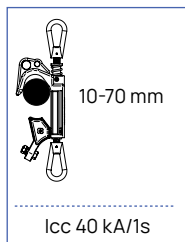
According to IEC 61138 standard.



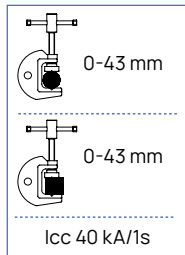
Cod. 630116
Operating hook.
Not included in the equipment.



TML
Clamp



TT-50
Earthing lathe



Composed of:

- 3 TML aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm.
- 3 aluminium cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
680120	PATL-AL-3/TML/12007	120	7	17.5 kA/1s* – 24 kA/0.5s*
680130	PATL-AL-3/TML/12008		8	
680140	PATL-AL-3/TML/12010		10	

* Theoretical rated current.

IEC 61138

* Depending on availability, the colour of the bag may vary.

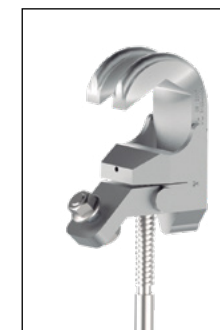
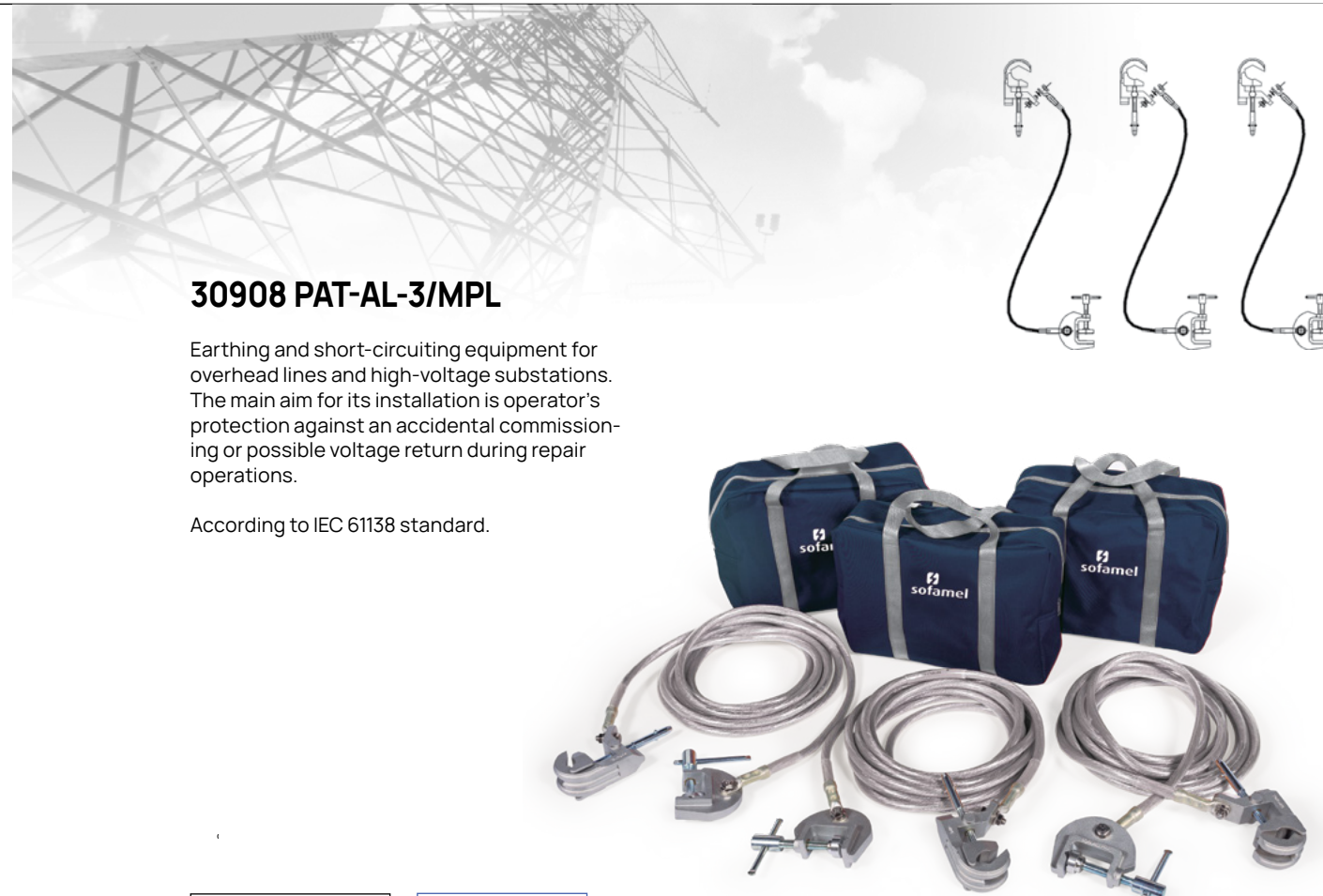
EARTHING DEVICES

High voltage versatile - Aluminium cable

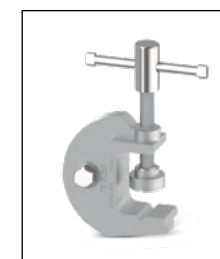
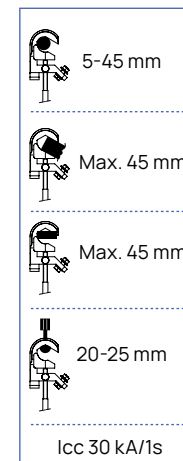
30908 PAT-AL-3/MPL

Earthing and short-circuiting equipment for overhead lines and high-voltage substations. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

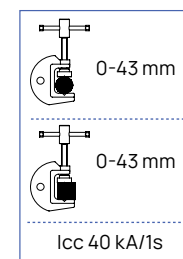
According to IEC 61138 standard.



MPL
Clamp



TT-50
Earthing lathe



Composed of:

- 3 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 6 and 45 mm.
- 3 aluminium cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
680150	PAT-AL-3/MPL/12007	120	7	17.5 kA/1s* – 24 kA/0.5s*
680160	PAT-AL-3/MPL/12008		8	
680170	PAT-AL-3/MPL/12010		10	

* Theoretical rated current.

IEC 61138

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

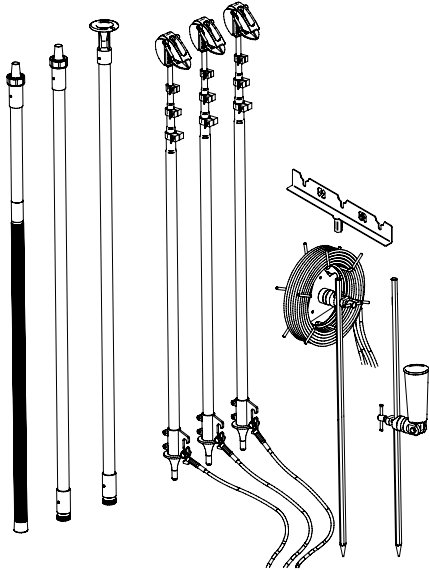
Potential drop

30909 ERLAIN

Earthing equipment for overhead lines, easy to use for only one operator that besides facilitates the verification of absence of tension with a voltage detector (not included).

Thanks to the operation sections of the metal pole, it has multiple length adjustments.

According to IEC 61230 standard.



Composed of:

- 3 telescopic metal poles composed of 3 parts with self-locking fixed contact clamp for conductors with diameter between 3 and 22 mm.
- 1 insulating fiberglass pole + Epoxy resin and polyurethane foam filled with 3 sections of 1.72 + 1.65 + 1.63 m; certified by the IEC 60855 standard.
- Total length: 5 m (has the option of using it without the middle section with a remaining total length of 3.4 m).
- 1 poles holder.
- 1 coil with 3 copper cables of 35 mm² section and 10 m length.
- 2 galvanized steel earthing rod with hexagonal section of 1 m.
- 1 insulating pole support.
- 1 carrying bag.

Note: the maximum tightening torque for the reel is 15Nm.

Code	Ref.	Extended length metal pole	Extended length metal pole	Folded length metal pole	Short circuit current Max. ICC
660400	ERLAIN-3/11	6.00 m	2.20 m	3	8 kA/1s
660405	ERLAIN-4/10	5.10 m	1.50 m	4	8 kA/1s

EARTHING DEVICES

Potential drop

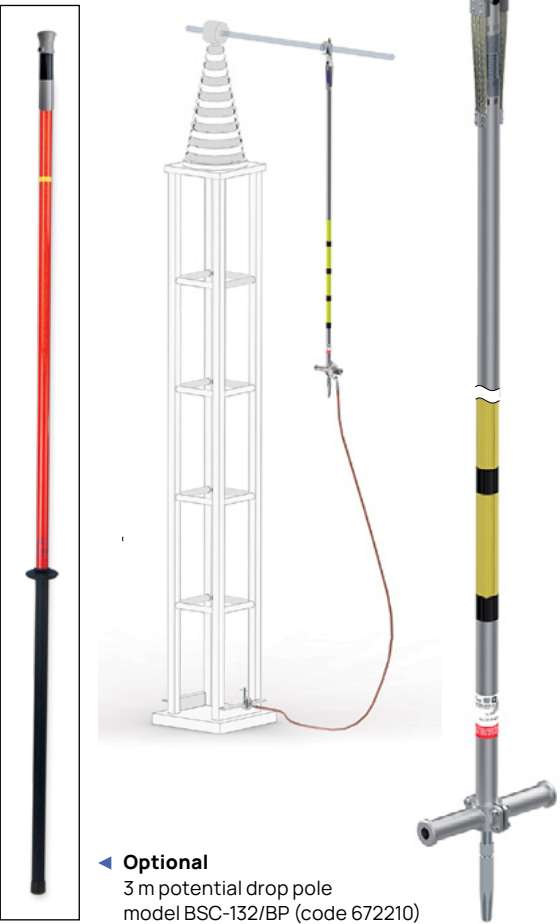
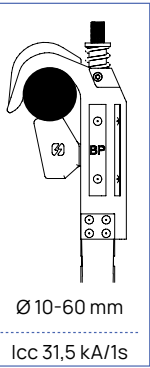
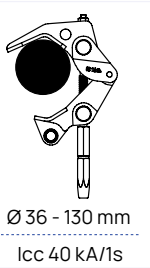


Potential drop equipment for high-altitude connections

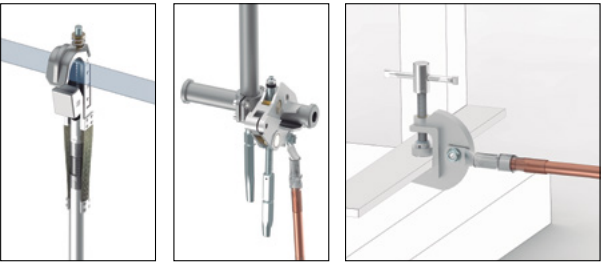
30909 PATC-BP

Equipment with intermediate BPGA potential drop clamp, with 3 m aluminium tube, allowing the earthing point to be transferred to facilitate manoeuvring.

According to IEC 61230 standard.



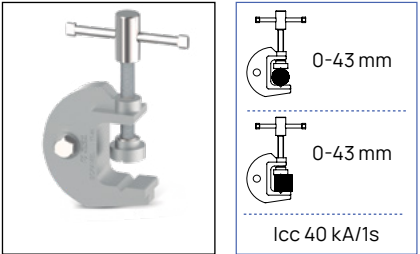
Optional
3 m potential drop pole model BSC-132/BP (code 672210)



BPGA Connection pole PA40ABP High voltage clamp TT-50 Earthing lathe

Composed of:

- 1 BPGA potential drop clamp.
- 1 PA40/BP aluminium alloy clamp, screw tightening.
- For cylindrical conductors with diameters of between 10 and 60 mm.
- 1 copper cable with PVC insulation of 120 mm² section and length of 6 m.
- 1 TT-50 milling earthing lathe.
- 1 nylon bag to store and transport the equipment.



TT-50 Earth lathe

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current ICC Max.	Capacity Closing
672200	PATC-BP	120	6	31,5 kA/1s	Ø 10-60 mm

IEC 61230 * Depending on availability, the colour of the bag may vary.

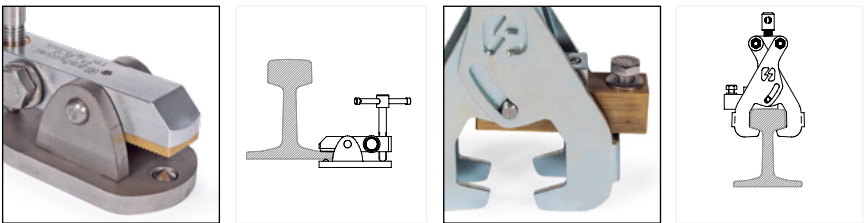
EARTHING DEVICES

Equipment for the railway sector

30910 PATF-PC

Integrated earthing equipment for railway system catenaries and double catenaries. With one PC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.



TTR
Earth lathe

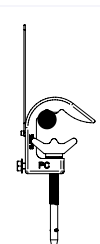
Icc 19 kA/1s

TTSR
Earth lathe

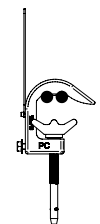
Icc 19 kA/1s



PC
Clamp



Max. 35 mm



Max. 35 mm

Icc 19 kA/1s

Composed of:

- 1 PC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter 35 max.
- 1 copper cables with PVC insulation of 50 mm² section and 7 m of length.
- 1 TTR or TTSR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current ICC Max.
666120	PATF-PC/05007-TTR	
666130	PATF-PC/05007-TTSR	12 kA/1s

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Equipment for the railway sector

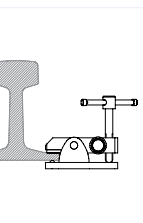
30910 PATF-PDC

Integrated earthing equipment for railway system catenaries, double catenaries and rigid catenary. With one PDC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.



TTR
Earth lathe



Icc 19 kA/1s

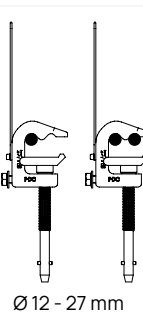


TTSR
Earth lathe

Icc 19 kA/1s



PDC
Clamp



Ø 12 - 27 mm

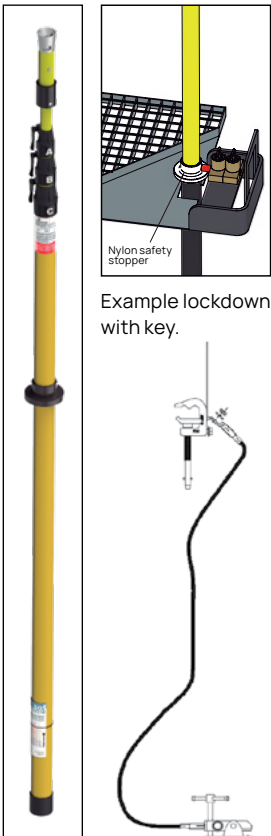
Icc 19 kA/1s

Composed of:

- 1 PDC aluminium alloy clamps with screw tighten and bayonet for cylindrical conductors with diameter between 12 and 27 mm.
- 1 copper cables with PVC insulation of 50 mm² section and 7 m of length.
- 1 TTR or TTSR milling earthing lathe.
- 1 nylon bags to store and transport the equipment

Code	Ref.	Short circuit current ICC Max.
666140	PATF-PDC/05007-TTR	
666150	PATF-PDC/05007-TTSR	12 kA/1s

* Depending on availability, the colour of the bag may vary.



Example lockdown
with key.

Optional ▶
Catenary pole with
handle to be used
next to the rail.
(cod. 615019)

EARTHING DEVICES

Equipment for the railway sector

30910 PATF-PC-TTIR

Integrated earthing equipment for underground tramway rails. With one PC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.

PC
Clamp

Max. 35 mm

TTIR
Earth lathe

lcc 19 kA/1s

Composed of:

- 1 PC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter 35 max.
- 1 copper cables with PVC insulation of 50 mm² section and 7 m of length.
- 1 TTIR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current ICC Max.
666110	PATF-PC/05007-TTIR	12 kA/1s

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Equipment for the railway sector

30910 PATF-PDC-TTIR

Integrated earthing equipment for underground tramway rails. With one PDC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.

PDC
Clamp

Ø 12 - 27 mm

TTIR
Earth lathe

lcc 19 kA/1s

Composed of:

- 1 PDC aluminium alloy clamps with screw tighten and bayonet for cylindrical conductors with diameter between 12 and 27 mm.
- 1 copper cables with PVC insulation of (50/70) mm² section and 7 m of length.
- 1 TTIR milling earthing lathe.
- 1 nylon bags to store and transport the equipment

Code	Ref.	Short circuit current ICC Max.
666160	PATF-PDC/05007-TTIR	12 kA/1s
666161	PATF-PDC/07007-TTIR	19 kA/1s

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Earthing and short-circuit equipment for cars



F-600
Insulating clamp

30901 PAT-2/F-600

Earthing and short-circuit equipment for cars. The main aim of installing this item is to protect workers from induced voltage and/or static electricity during maintenance and repair work on electric and hybrid cars.

Composed of:

- 2 F-600 insulated clamps.
- 1 16 mm² copper cable with PVC insulating sheath (length depending on model).
- 1 bag for transporting and storing the equipment.

Code	Ref.	Length	Maximum working current
657010	PAT-2/F-600/L/01606	6 m	600 A
657020	PAT-2/F-600/L/01607	7 m	
657030	PAT-2/F-600/L/01608	8 m	

* Depending on availability, the colour of the bag may vary.

Earthing and short-circuit equipment for trucks



TT-38L
Earth lathe

30901 PAT-TT38L/03515

Earthing and short-circuit equipment for trucks. The main aim of installing this item is to protect workers from induced voltage and/or static electricity during maintenance and repair work on electric and hybrid cars.

Consists of:

- 2 T-38L milling earthing lathe.
- 1 15 m copper cable with PVC insulating sheath.
- 1 bag for transporting and storing the equipment.

Code	Ref.	Length	Short circuit current Max. ICC
657040	PAT-TT38L/03515	15 m	9 kA/1s

* Depending on availability, the colour of the bag may vary.

EARTHING DEVICES

Short circuit cable section - Heating curves

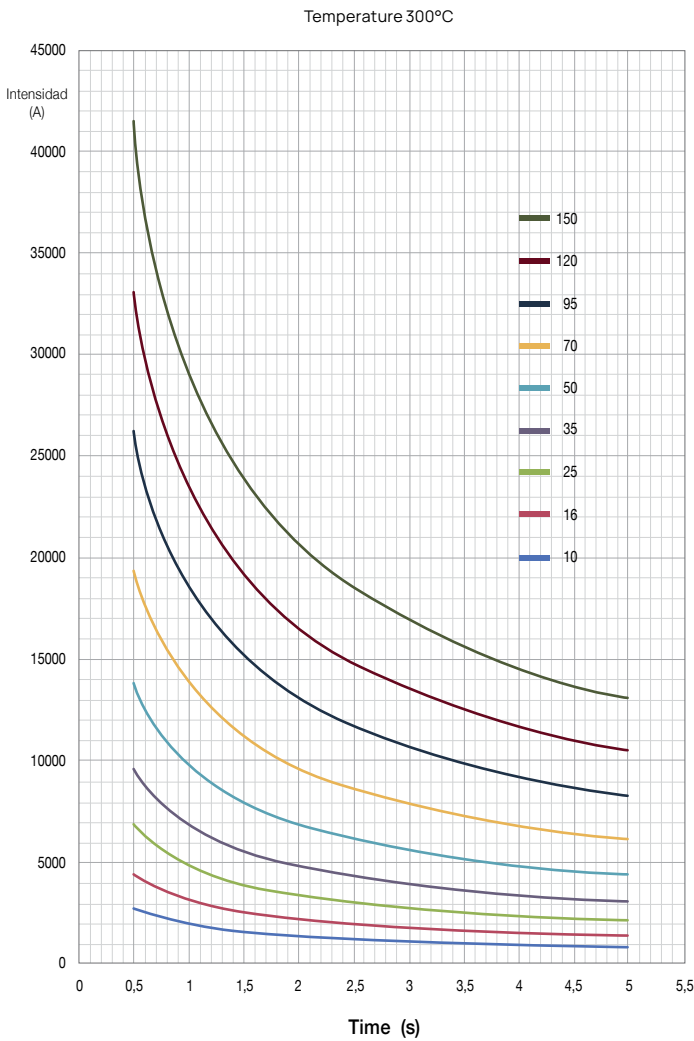


Fig. 1 - Melting point curve for copper cable.

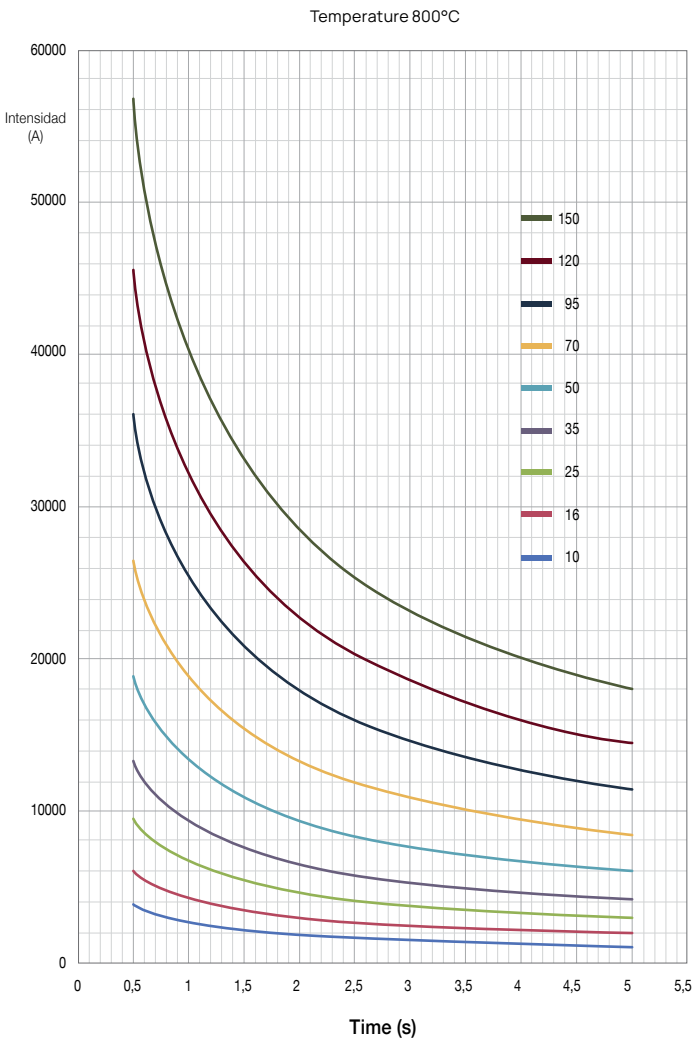


Fig. 2 - Heating curve (at 300°C) for copper cable.

Example: Choosing cable for a short circuit rating of 15 kA/1 sec. Beginning with the curve in fig. 1, if a 50 mm² cable is used for more than 1 sec, cable burn-out will occur. If this is not permissible, a 70 mm² cable must be selected.

Fig. 2 shows if a 70 mm² cable conducts 15 kA for 1 sec, its temperature will rise to more than 300°C. Any cable which heats to 300°C will not be entirely destroyed, but should never be reused.

EARTHING DEVICES

Lifting accessory

Safer manoeuvres and lifting with less effort



30810 SERPAT
Lifting accessory

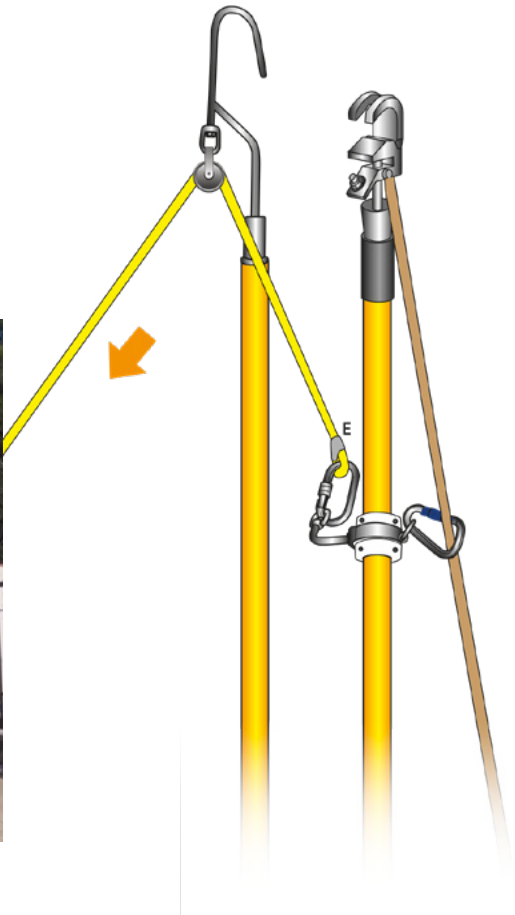
The SERPAT lifting equipment simplifies the installation of any earthing equipment by significantly reducing the effort required for each manoeuvre, while ensuring greater safety.

- Includes:
- 1 Ring
 - 2 Rings
 - 1 Steel carabiner (ring)
 - 1 Aluminium carabiner (ring 2)
 - Clamps
 - 1 Hook
 - 1 Pulley
 - 1 Rope
 - 1 Clamp
 - 1 Pulley carabiner

Code	Ref.
630305	SERPAT



It is supplied in a plastic box for easy transportation and storage of the equipment.



Earthing and short circuit
cable information

Extra flexible stranded copper cable coated with transparent PVC manufactured according to IEC-61138 standard (cables for portable earthing and short circuit complying with IEC 61230 standard).

Test voltage: 1000V for 1 hour A.C.
Temperature: -30°C to +70°C

Extra flexible aluminium cable, class 6, coated with transparent PVC (EN 50363-4-2 standard). Manufactured according to IEC 60228, EN 61138, and IEC 61230 standards.

Copper

Code	Nominal cross section (mm ²)	Icc (kA)	Weight (kg/m)	Ø Ext. (mm)	
				Min.	Max.
M-03.016.00	16	6 kA/0,5s - 4.3 kA/1s	0.18	7.10	8.60
M-03.025.00	25	9.4 kA/0,5s - 6.9 kA/1s	0.26	8.40	10.60
M-03.035.00	35	13.2 kA/0.5s - 9.4 kA/1s	0.36	9.70	11.70
M-03.050.00	50	18.9 kA/0.5s - 13.4 kA/1s	0.52	11.70	14.20
M-03.070.00	70	26.4 kA/0.5s - 19 kA/1s	0.71	13.40	16.20
M-03.095.00	95	35.9 kA/0.5s - 25.5 kA/1s	0.95	15.50	18.70
M-03.120.00	120	45.4 kA/0.5s - 32.1 kA/1s	1.17	17.10	20.60
M-03.150.00	150	56.7 kA/0.5s - 40.2 kA/1s	1.45	18.60	22.50

Aluminium

Code	Nominal cross section (mm ²)	Icc (kA)	Weight (kg/m)	Ø Ext. (mm)	
				Min.	Max.
M-04.035.00	35	7 kA/0.5s - 5 kA/1s	0.154	9.70	11.70
M-04.050.00	50	10 kA/0.5s - 7 kA/1s	0.228	11.70	14.20
M-04.070.00	70	14 kA/0.5s - 10 kA/1s	0.307	13.40	16.20
M-04.095.00	95	19 kA/0.5s - 13.5 kA/1s	0.412	15.50	18.70
M-04.120.00	120	24 kA/0.5s - 17.5 kA/1s	0.502	17.10	20.60
M-04.150.00	150	30 kA/0.5s - 21.4 kA/1s	0.623	18.60	25.50

Equipment accessories



30911 SP-PAT
Wall earthing equipment holder

Metal holder and lacquered finish.

Code	Ref.
671179	SP-PAT

EARTHING DEVICES

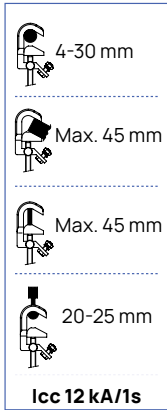
Equipment accessories

30911 Low voltage clamps

MPUE

Code 671112

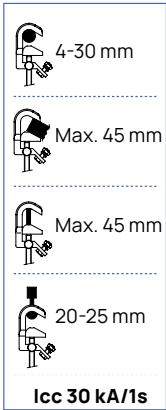
Dimensions: 335 x 81 x 52 mm
Weight: 0.6 kg



MPUL

Code 671113

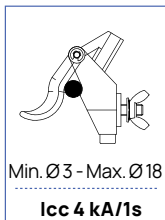
Dimensions: 335 x 81 x 52 mm
Weight: 1.2 kg



PEBT

Code 658115

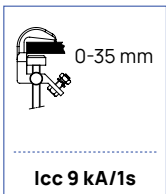
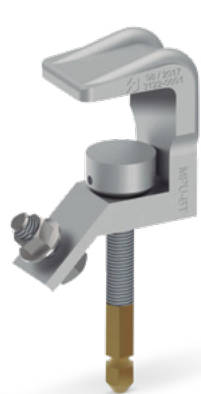
Dimensions: 815 x 58 x 40 mm
Weight: 0.35 kg



MPUBT

Code 659001P

Dimensions: 160 x 82 x 40 mm
Weight: 0.36 kg



EARTHING DEVICES

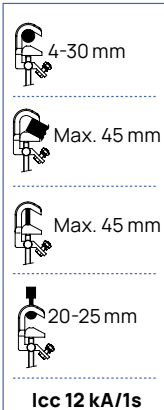
Equipment accessories

30911 Medium voltage clamps

MPUH

Code 671110

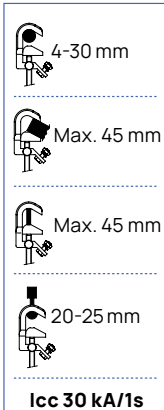
Dimensions: 202 x 81 x 40 mm
Weight: 0.48 kg



MPUH-L

Code 671117

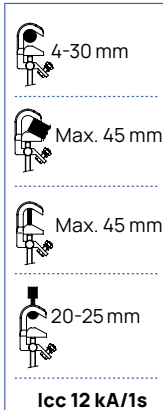
Dimensions: 202 x 81 x 40 mm
Weight: 1.16 kg



MPUB

Code 671115

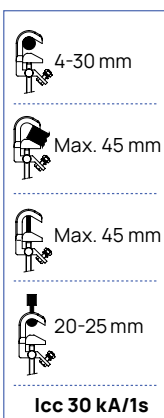
Dimensions: 240 x 81 x 40 mm
Weight: 0.53 kg



MPUB-L

Code 671118

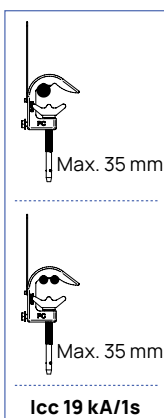
Dimensions: 240 x 81 x 40 mm
Weight: 1.65 kg



PC

Code 666005

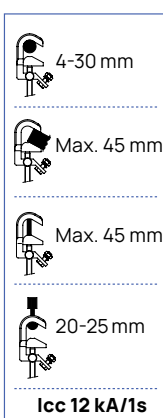
Dimensions: 440 x 157 x 54 mm
Weight: 1.3 kg



MPUP

Code 671116

Dimensions: 240 x 81 x 156 mm
Weight: 0.7 kg



EARTHING DEVICES

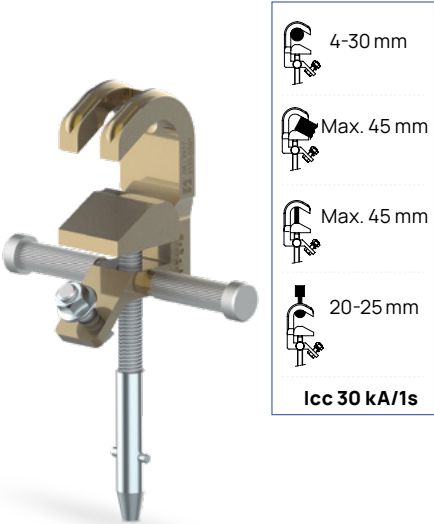
Equipment accessories

30911 Medium voltage clamps

MPUP-L

Code 671119

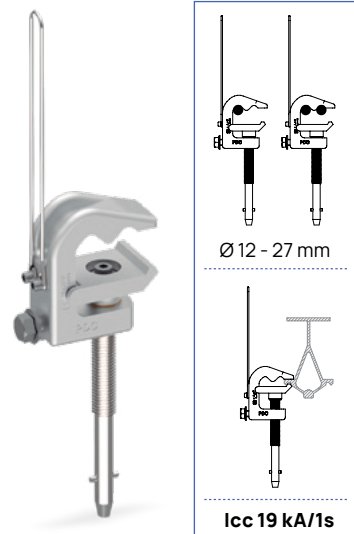
Dimensions: 240 x 81 x 156 mm
Weight: 1.34 kg



PDC

Code 666010

Dimensions: 413 x 105 x 52 mm
Weight: 0.85 kg



MCL

Code 671121

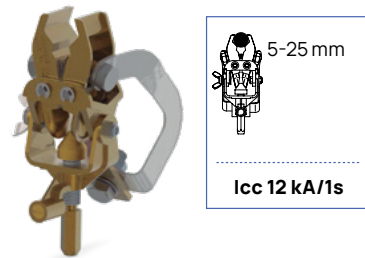
Dimensions: 182 x 128 x 68 mm
Weight: 0.67 kg



5014H

Code 671100

Dimensions: 167 x 91 x 83 mm
Weight: 0.8 kg



MC

Code 671120

Dimensions: 226 x 102 x 62 mm
Weight: 0.4 kg



PCA-25

Code 671171

Dimensions: 276 x 123 x 74 mm
Weight: 0.81 kg



PP15

Code 671166

Dimensions: 241 x 95 x 47 mm
Weight: 0.68 kg



EARTHING DEVICES

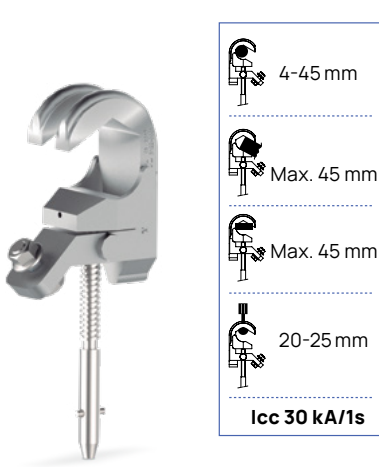
Equipment accessories

30911 High voltage clamps

MPL

Code 671172

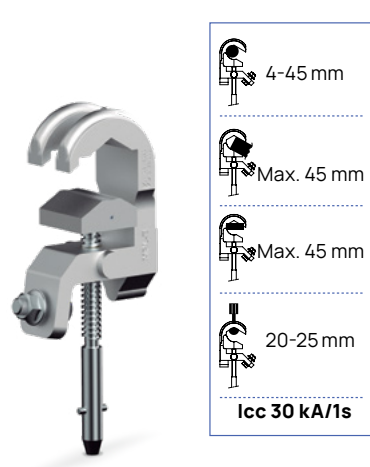
Dimensions: 263 x 105 x 62 mm
Weight: 0.97 kg



MPLP

Code 671178

Dimensions: 263 x 110 x 62 mm
Weight: 1 kg



MPLP

Code 671173

Dimensions: 263 x 105 x 204 mm
Weight: 1.1 kg



PAV-48

Code 673100

Dimensions: 380 x 170 x 120 mm
Weight: 1.6 kg



TML

Code 670100P

Dimensions: 428 x 133 x 53 mm
Weight: 1.56 kg



TMC

Code 675100P

Dimensions: 273 x 248 x 45 mm
Weight: 1.18 kg



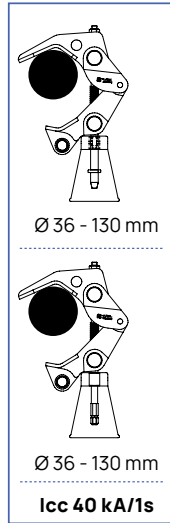
EARTHING DEVICES

Equipment accessories

30911 High voltage clamps

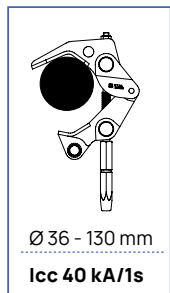
PA40A
Code 674100 - Bayonet
Code 674102 - Hexagonal

Dimensions: 331 x 206 x 80 mm
Weight: 1.7 kg



PA40ABP
Code 674105 - Hexagonal H22

Dimensions: 341 x 206 x 80 mm
Weight: 1.6 kg



30911 Handles

EMB
Code 671106

Dimensions: 198 x Ø 52 mm
Weight: 0.3 kg



EMP
Code 659001E

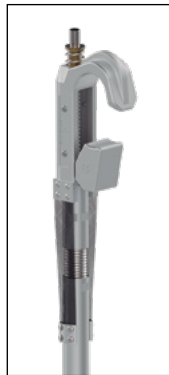
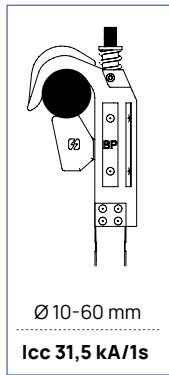
Dimensions: 218 x Ø 52 mm
Weight: 0.25 kg



30911 Potential drop clamp

BPGA
Code 672205

Dimensions: 3262 x 141 x 298 mm
Weight: 7.8 kg



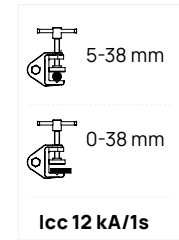
EARTHING DEVICES

Equipment accessories

30911 Earthing lathe

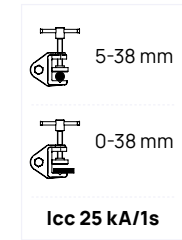
TT-38A
Code 671141

Dimensions: 158 x 92 x 35 mm
Weight: 0.48 kg



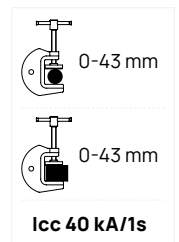
TT-38L
Code 671145

Dimensions: 158 x 92 x 35 mm
Weight: 0.93 kg



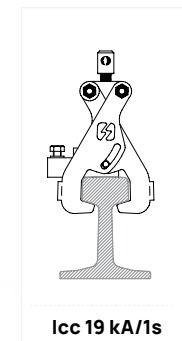
TT-50
Code 671152

Dimensions: 250 x 147 x 40 mm
Weight: 0.95 kg



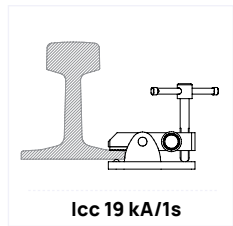
TTSR
Code 666015

Dimensions: 280 x 214 x 55 mm
Weight: 3.45 kg



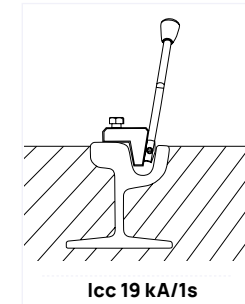
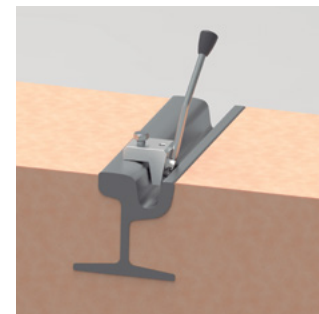
TTR
Code 671153

Dimensions: 115 x 117 x 60 mm
Weight: 1.1 kg



TTIR
Code 671154

Dimensions: 54 x 65 x 50 mm
Weight: 0.95 kg



EARTHING DEVICES

Equipment accessories

30911 Earthing lathe

PEP
EQUIPOTENTIAL CLAMP FOR POST
Code P-671180

Dimensions: 420 x 202 x 70 mm
Weight: 4.5 kg



Max. Ø 400 mm



Min. Ø 90 mm



PEP-ECO
EQUIPOTENTIAL CLAMP FOR POST
Code P-671185

Dimensions: 325 x 200 x 60 mm
Weight: 3.7 kg



Max. Ø 400 mm



Min. Ø 90 mm



30911 Dispenser heads

PP-3
Code 671126



PP-4
Code 671127



PP-3U
Code 671128



PP-4U
Code 671129



PP-3 MCL
Code 671131



PP-4 MCL
Code 671132



PP-3U MCL
Code 671122



PP-4U MCL
Code 671123



PP-1U MCL
Code 630168



EARTHING DEVICES

Equipment accessories

30911 Wheeled suitcase

SOFABOX

Code 620061

Dimensions: 855 x 577 x 400 mm



Ideal for transporting hydraulic kits used in low, medium, and high voltage tasks. It ensures easy and convenient mobility, providing a reliable solution for safely moving equipment to various job sites.



Foldable steel leg
Allows for horizontal storage of the suitcase.



Foldable handles
The suitcase has handles on the top and side to facilitate transport at all times.



Durable wheels
The robust design of the wheels allows for comfortable movement even on difficult terrain.

30911 Earthing rod

Hexagonal earthing rod

Code 667150

Dimensions: 1 m
Weight: 2.150 kg



Helical earthing rod



Code	Ref.	L	ØE	kg
P-671190	PTB14-1000	1000		2.7
P-671191	PTB14-1300	1300	14,6	2.85
P-671192	PTB14-1500	1500		3
P-671193	PTB18-1000	1000		3.2
P-671194	PTB18-1300	1300	18,2	3.55
P-671195	PTB18-1500	1500		3.86

EARTHING DEVICES

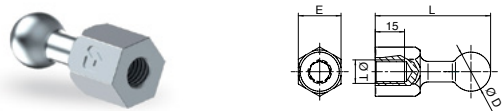
Equipment accessories

Fixed ball point

Used in electrical installations to connect and securely fasten the clamps of PAT equipment.
According to DIN 48088 part 1.
Material: 20 micron tinned brass and stainless hardware.

30912 Straigh fixed ball point - Female

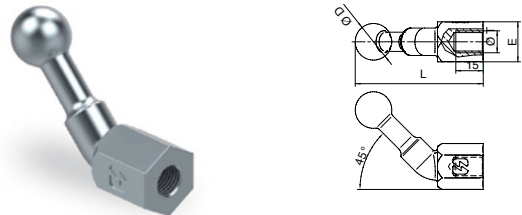
INTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	ØT
P-665020	PFRH-20M12	20	12	SW22	59	M12
P-665022	PFRH-20M16					M16
P-665024	PFRH-20M12	25	25	SW27	69	M12
P-665026	PFRH-20M16					M16

30912 Fix ball point 45° - Female

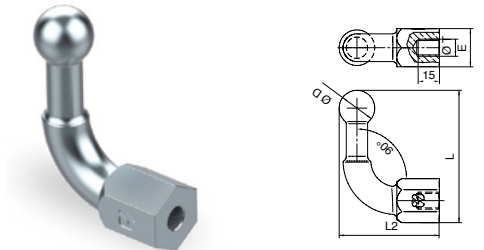
INTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	ØT
P-665050	PF45H-20M12	20	12	SW22	70	M12
P-665052	PF45H-20M16					M16
P-665054	PF45H-25M12	25	25	SW27	82	M12
P-665056	PF45H-25M16					M16

30912 Fix ball point 90° - Female

INTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	ØT
P-665070	PF90H-20M12	20	12	SW22	75	58	M12
P-665072	PF90H-20M16						M16
P-665074	PF90H-25M12	25	25	SW27	93	70	M12
P-665076	PF90H-25M16						M16

30912 Straigh fixed ball point - Male

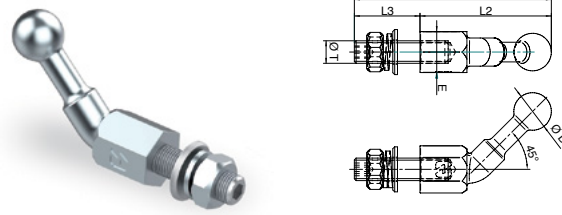
EXTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665030	PFRM-20M12x35	20	12	SW22	94	35		M12
P-665032	PFRM-20M12x45				104	59	45	M12
P-665034	PFRM-20M16x35				94	35		M16
P-665036	PFRM-20M16x45				104	45		M16
P-665038	PFRM-25M12x35	25	25	SW27	104	35		M12
P-665040	PFRM-25M12x45				114	45		M12
P-665042	PFRM-25M16x35				104	69	35	M16
P-665044	PFRM-25M16x45				114	45		M16

30913 Fix ball point 45° - Male

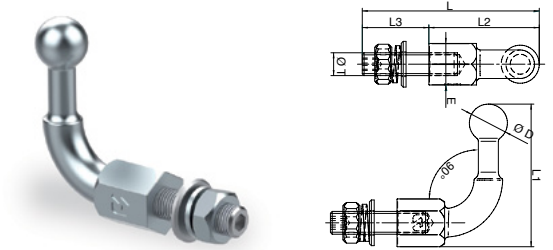
EXTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665060	PF45M-20M12x35	20	12	SW22	105	35		M12
P-665062	PF45M-20M16x45				115	70	45	M16
P-665064	PF45M-25M12x45	25	25	SW27	127	82	45	M12
P-665066	PF45M-25M16x45							M16

30913 Fix ball point 90° - Male

EXTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665080	PF90M-20M12x35	20	12	SW22	93	35		M12
P-665082	PF90M-20M16x45				103	58	45	M16
P-665084	PF90M-25M12x45	25	25	SW27	115	70	45	M12
P-665086	PF90M-25M16x45							M16

VOLTAGE DETECTORS

Medium voltage detector - Indoor



Analogic voltage detector
Medium Voltage - Optical

Voltage presence is indicated by LED lights.
Self-checking system by means of an incorporated piezoelectric generator.
It works with no battery.
Indoor use by insulating pole according to the rated voltage of the detector.
Connection to the pole by Universal head.
Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.	Voltage ranges	Frequency
640200	VTO-5/36-U	from 5 to 36 kV	50 / 60 Hz
640205	VTO-5/66-U	from 5 to 66 kV	



Analogic voltage detector with pole
Medium Voltage - Optical

Voltage presence is indicated by LED lights.
Self-checking system by means of an incorporated piezoelectric generator.
It works with no battery.
Indoor use by insulating pole according to the rated voltage of the detector.
(included).
Connection to the pole by Universal head.
Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.	Voltage ranges	Insulating pole length	Frequency
640210	VTO-5/36-P	from 5 to 36 kV	1.25 m	50 / 60 Hz
640215	VTO-5/66-P	from 5 to 66 kV	2 m	



VOLTAGE DETECTORS

Medium voltage detector - Indoor



PEKE

Compact voltage detector with pole
Medium Voltage - Optical

Voltage presence is indicated by three red LED lights.
Self-checking system by means of an incorporated piezoelectric generator.
It works with no battery.
Indoor use through integrated insulating telescopic pole. (included)
Insulated pole according to RD 614/2001 standard.
Outdoor use in dry condition only.
Supplied with bag to transport the voltage detector that can be attached to the belt.

VOLTAGE RANGES
from 5 to 36 kV



31001 PEKE

Code	Ref.	Voltage ranges	Frequency	Length extended pole	Length folded pole
640104	PEKE-5/36	from 5 to 36 kV	50 / 60 Hz	125.5 cm (detector included)	44.3 cm (detector included)



VOLTAGE DETECTORS

Medium voltage detector - Indoor / Outdoor

SPECTRA

Standard compact voltage detector with pole
Medium Voltage - Optical & Acoustic

Self-verification device by push button.
Operation with two AAA batteries.
Indoor use through integrated insulating telescopic pole.
Insulated pole according to RD 614/2001 standard. (included)
Outdoor use in dry condition only.
Work temperature range: -25°C to 55°C
Voltage presence indicator: By 2 led diode lamps and acoustic signal intermittent buzzer.
Supplied with a bag for the transportation of all set.

VOLTAGE RANGES
from 200 V to 5 kV
or from 50 V to 1 kV



Detector with the extended pole retracted.

31001 SPECTRA

Code	Ref.	Voltage ranges	Frequency	Length extended pole	Length folded pole
640175	SPECTRA-200/5000	from 200 V to 5 kV	50 / 60 Hz	125.5 cm (detector included)	44.3 cm (detector included)
640177	SPECTRA-50/1000	from 50 V to 1 kV			



ACCESSORIES (INCLUDED)

- Universal pole adapter.
- Bag to transport the voltage detector with pole.



VOLTAGE DETECTORS

Medium voltage detector - Outdoor

VTE

High resolution voltage detector with pole
Medium Voltage - Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.
Voltage absence is indicated by high luminosity green LED.
Low battery is indicated by orange LED.
Self-checking system for its complete circuit by pressing test button.
Stops working when low battery.
Work temperature range: from -25°C to +55°C.
Self-ignition when voltage presence.
Auto turn-off into sleep mode after two minutes of voltage absence.
In this mode consumption is less than 1 µA.
Power supply: 9 V alkaline battery, type 6LR61 (included).
Indoor and outdoor use by appropriate insulating pole to the detector voltage range.
Connection to the pole by Universal head.
Supplied with carrying bag for pole and metallic box to store and transport the voltage detector with battery included.



Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except voltage range).

VOLTAGE RANGES
from 5 to 35 or 5 to 66 kV

31002 VTE-U

Code	Ref.	Voltage ranges	Frequency
641113	VTE-5/36-U	from 5 to 36 kV	50 / 60 Hz
641115	VTE-5/66-U	from 5 to 66 kV	

31002 VTE-P

Code	Ref.	Voltage ranges	Frequency	Insulating pole length
641103	VTE-5/36-P	from 5 to 36 kV	50 / 60 Hz	1.30 m
641105	VTE-5/66-P	from 5 to 66 kV		2 m

* Insulating pole included.

VOLTAGE DETECTORS

Medium voltage detector - Outdoor

VTE-25-U

AC voltage detector for fast speed
train networks
Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.
Voltage absence is indicated by high luminosity green LED.
Low battery is indicated by orange LED.
Self-checking system for its complete circuit by pressing test button.
Stops working when low battery.
Work temperature range: from -25°C to +55°C.
Self-ignition when voltage presence.
Auto turn-off into sleep mode after two minutes of voltage absence.
In this mode consumption in less than 1 µA.
Power supply: 9 V alkaline battery, type 6LR61 (included).
Indoor and outdoor use by appropriate insulating pole to the detector voltage range.
Connection to the pole by Universal head.
Supplied with carrying bag for pole and metallic box to store and transport the voltage detector with battery included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except voltage range).



VOLTAGE RANGES
from 25 kV

31002 VTE-25-U

Code	Ref.	Voltage ranges	Frequency
641120	VTE-25-U	25 kV	50 / 60 Hz



VOLTAGE DETECTORS

Medium voltage detector - Outdoor

VTM

IEC High resolution voltage detector
Medium Voltage - Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.
Voltage absence is indicated by high luminosity green LED.
Low battery is indicated by orange LED.
Self-checking system for its complete circuit by pressing test button.
Stops working when low battery.
Work temperature range: from -25°C to +55°C.
Self-ignition when voltage presence.
Auto turn-off into sleep mode after two minutes of voltage absence.
In this mode consumption is less than 1 µA.
Power supply: 9 V alkaline battery, type 6LR61 (included).
Indoor and outdoor use by appropriate insulating pole to the detector voltage range.
Connection to the pole by Universal head.
Supplied with metallic box with battery included.

According to IEC 61243:2003+A1:2009 and
UNE-EN 61243-1:2006+A1:2011 standards

VOLTAGE RANGES
from 3 to 10 kV up to 22 to 66 kV
depending on the model

31002 VTM

Code	Ref.	Voltage ranges	Frequency
645220	VTM-3/10-U	from 3 to 10 kV	50 / 60 Hz
645225	VTM-4/12-U	from 4 to 12 kV	
645230	VTM-10/30-U	from 10 to 30 kV	
645235	VTM-11/33-U	from 11 to 33 kV	
645240	VTM-15/45-U	from 15 to 45 kV	
645245	VTM-22/66-U	from 22 to 66 kV	

CE IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011

VOLTAGE DETECTORS

Medium voltage detector - Power Light



POWER LIGHT

IEC electronic voltage detector
Medium Voltage - Optical & Acoustic

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system.
Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal.
Absence of voltage indicator with multiple high-brightness green LEDs over 360°.
Low battery indication by orange LED.
Self-checking system for the full circuit by pressing the test button.
Stops operating when the battery is low.
Working temperature range: -25°C to +55°C.
Auto-start-up with voltage presence.
Auto-power-down to standby after two minutes with absence of voltage. Power consumption is less than 1 µA in this mode.
Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range.
Coupling to pole using Universal head.
2xAA high-capacity and high-durability batteries included.
Supplied with metallic box with batteries included.

According with standards IEC
61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011.

CE IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011

VOLTAGE RANGES
from 1 to 3.3 kV up to 22 to 79 kV
depending on the model

31003 POWER LIGHT

Code	Ref.	Voltage ranges	Frequency
645266	POWER-1/3,3	from 1 to 3.3 kV	50 / 60 Hz
645260	POWER-3/10	from 3 to 10 kV	
645261	POWER-4/12	from 4 to 12 kV	
645262	POWER-10/30	from 10 to 30 kV	
645263	POWER-11/33	from 10 to 33 kV	
645267	POWER-10/36	from 10 to 36 kV	
645268	POWER-13/45	from 13 to 45 kV	
645264	POWER-15/45	from 15 to 45 kV	
645265	POWER-22/66	from 22 to 66 kV	
645269	POWER-22/79	from 22 to 79 kV	

VOLTAGE DETECTORS

Medium voltage detector - Power Light



POWER LIGHT

VOLTAGE RANGES
from 10 to 20 kV

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system. Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal. Absence of voltage indicator with multiple high-brightness green LEDs over 360°. Low battery indication by orange LED. Self-checking system for the full circuit by pressing the test button. Stops operating when the battery is low. Working temperature range: -25°C to +55°C. Auto-start-up with voltage presence. Auto-power-down to standby after two minutes with absence of voltage. Power consumption is less than 1 µA in this mode. Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range. Coupling to pole using Universal head. 2xAA high-capacity and high-durability batteries included. Supplied with metallic box with batteries included.

According with standards IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011.



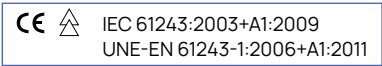
Detector with free or configurable NFC (Near Field Communication).

NFC is a set of communication protocols for communication between two electronic that allows the exchange of data between devices.

IEC electronic voltage detector
+ Accessories
Medium Voltage - Optical & Acoustic

31003 POWER-10/20

Code	Ref.	Voltage ranges	Frequency
T645049	POWER-10/20	from 10 to 20 kV	50 / 60 Hz



Kit items:

- 1 Rated voltaje – 10/20
- 1 Adapter electrode Nevers
- 1 Electrode Powerlight closed
- 1 Electrode Powerlight hook
- 1 Adapter from hexagonal-12 to Universal head

VOLTAGE DETECTORS

Medium voltage detector - Power Light



POWER LIGHT

Electronic voltage detector
Medium Voltage - Optical & Acoustic

VOLTAGE RANGES
from 1 to 5 kV or from 5 to 79 kV

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system. Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal. Absence of voltage indicator with multiple high-brightness green LEDs over 360°. Low battery indication by orange LED. Self-checking system for the full circuit by pressing the test button. Stops operating when the battery is low. Working temperature range: -25°C to +55°C. Auto-start-up with voltage presence. Auto-power-down to standby after two minutes with absence of voltage. Power consumption is less than 1 µA in this mode. Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range. Coupling to pole using Universal head. 2xAA high-capacity and high-durability batteries included. Supplied with metallic box with batteries included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except voltage range).

31003 POWER LIGHT

Code	Ref.	Voltage ranges	Frequency
645280	POWER-1/5	from 1 to 5 kV	50 / 60 Hz
645285	POWER-5/79	from 5 to 79 kV	

HIGH VOLTAGE DETECTOR OPTICAL & ACOUSTIC

PROBABLY THE MOST RELIABLE
VOLTAGE DETECTOR
IN THE WORLD FOR HIGH VOLTAGE WORKS

- New advanced technology acquisition
- Direct contact detector
- 100% isolated from interferences from electromagnetic field
- Freedom of movement
- Perfect detection at any angle
- Long life battery
- Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards

VOLTAGE DETECTORS

High voltage detector - Outdoor

VTA

IEC high tech voltage detector
High Voltage - Optical & Acoustic

Electronic voltage detector by micro controller and direct contact detection. New advanced technology acquisition by pulse of light that guarantees a perfect and safe indication even in conflicting electric field environments.

Work temperature range: from -25°C to +55°C.

Self-checking system for its complete circuit by pressing test button. Self-ignition when voltage presence.

Auto turn-off into sleep mode after two minutes of voltage absence. In this mode consumption is less than 1 µA.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.

Voltage absence is indicated by high luminosity green LED. Power supply 9 V alkaline battery, type 6LR61 (included).

Indoor and outdoor use by appropriate insulating pole to the detector voltage range.

Connection to the pole by Universal head.

Supplied with metallic box.

According to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards

CE IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011



VOLTAGE RANGES
from 63 to 150 kV up to 225 to 420 kV
depending on the model

31004 VTA

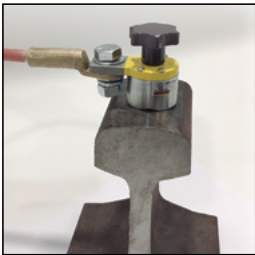
Code	Ref.	Voltage ranges	Frequency
645162	VTA-63/150-U	from 63 to 150 kV	50 / 60 Hz
645164	VTA-66/220-U	from 66 to 220 kV	50 Hz
645165	VTA-66/220-U	from 66 to 220 kV	60 Hz
645172	VTA-90/225-U	from 90 to 225 kV	50 / 60 Hz
645184	VTA-45/420-U*	from 45 to 420 kV	50 / 60 Hz
645182	VTA-150/420-U	from 150 to 420 kV	50 / 60 Hz
645186	VTA-225/420-U*	from 225 to 420 kV	50 / 60 Hz

* In accordance to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except the voltage range).

VOLTAGE DETECTORS

DC voltage detector

DC voltage detector
with AC induced voltage indication
Optical & Acoustic



* Magnet applicable to the
detector VTC-OAD I

Code	Ref.
645215	VTC-OAD
645216	VTC-OAD I *



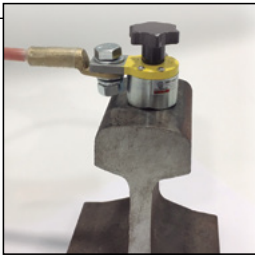
647 VTC-OAD

- **Field of application:** To be used in DC voltage electrical systems of up to 5000 DC, where there are adjacent AC systems of up to 25 kVA, not to be used in installations with only alternating current service voltage.
- **Working voltage range:** Direct current: 500 V < V_{tdc} < 5000 V
AC induced voltage: 500 V < V_{tac} < 5000 V
- **Usage frequency:** DIRECT current
ALTERNATING current 50-60 Hz
- **Operating Temperature:** -25°C to 55°C
- **Humidity range:** 20 to 96 %. Not apt for use in rainfall.
- **Indication of alert status:** By means of high luminosity green LED light. There is no voltage or it is below the detection thresholds.
- **Voltage presence indication:** Optical: fixed orange LED light when DC voltage presence.
Flashing red LED light when AC induced voltage presence.
Acoustic: Fixed buzzer when DC voltage presence. Alternated buzzer when AC voltage presence.
- **Battery:** 9 V, type 6LR61.
Low battery indication by flashing green LED light and off when battery level is critical.
- **Ground cable:** Extra flexible cable with silicon sheath and 6 m length (possibility of other lengths at customer's request).
- **Insulation pole:** With universal head
- **Self-checking:** Full self-checking system with automatic disconnection after 2 minutes. WITHOUT DETECTION.
- **Automatic start-up:** Automatic start-up system using detection of voltage (approx. 400 Vdc).
- **Electrode:** Non-exchangeable. L type (without contact electrode extension).
- **Threshold voltage:** Between 350 to 490 V

VOLTAGE DETECTORS

DC voltage detector

DC voltage detector
Optical & Acoustic



* Magnet applicable to the
detector VTC-OA I

Code	Ref.
645210	VTC-OA
645211	VTC-OA I *



647 VTC-OA

- **Voltage range:** 500 V < V_t < 5000 V
- **Usage frequency:** DIRECT current
- **Operating temperature:** -25°C to 55°C
- **Humidity Range:** 20 to 96 %
- **Indication of alert status:** Through high luminosity green LED.
There is no voltage or it is below the established detection threshold.
- **Indication of voltage presence:** Optical/Acoustic indication through high luminosity red LED and high pressure acoustic buzzer*.
- **Battery:** 9 V battery, type 6LR61
Low battery indication by flashing green LED, when battery level is critical green led is off.
- **Earthing cable:** Extra flexible cable with silicon sheath and 6 m long
(possibility of other lengths at customer's request).
With universal head.
- **Isulating pole:** Full self-checking system with automatic disconnection after two minutes WITHOUT DETECTION.
- **Self-checking:** Automatic start-up system using detection of voltage (approx. 400V dc).
Possibility of exchanging electrode.
- **Automatic start-up:** Threshold 1 - From 350 to 490 V: Red led
Threshold 2 - From 900 to 1100 V: Red and orange led
- **Electrode:**
- **Threshold voltage:**

D-TUERI

A new era of Personal Voltage Detectors
MAXIMUM SAFETY



VOLTAGE DETECTORS

Personal voltage detector

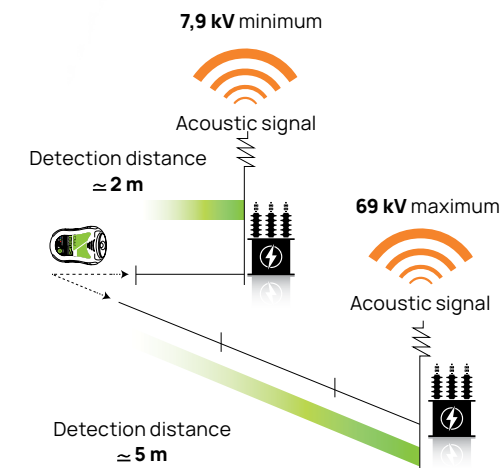
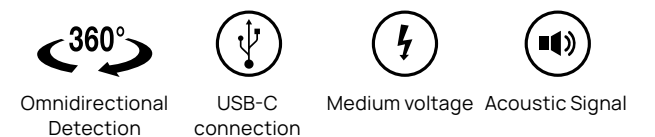
Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI PRO 7.9/69 kV

Additional individual safety device designed for personnel working in areas with electrical voltage, such as inspection tasks, cleaning operations, maintenance, and generally any work performed near live elements.

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 metres for 7.9 kV and 5 metres for 69 kV, the detector emits a signal. The signal's frequency increases as the user gets closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.



- Use in Distribution / Transformation centers and AC Airlines.
- Utilization range: Between 7.9-69 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050m Ah
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

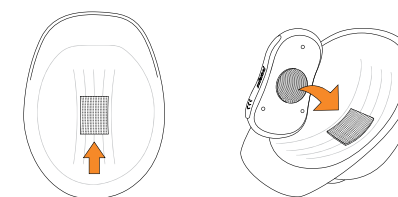
Code	Ref.
645257	D-TUERI PRO



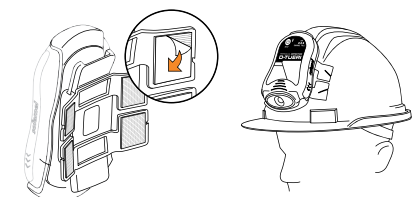
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI EXPERT
10/66 kV

Additional safety element for individual use suitable for power line operators carrying out maintenance and in general all works close to an electric field.

When the user is close to an electric field between 10 kV – 66 kV and exceeds a distance of approximately 1 metres for 10 kV and 3 metres for 66 kV, the detector emits a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360°

Omnidirectional Detection

USB-C

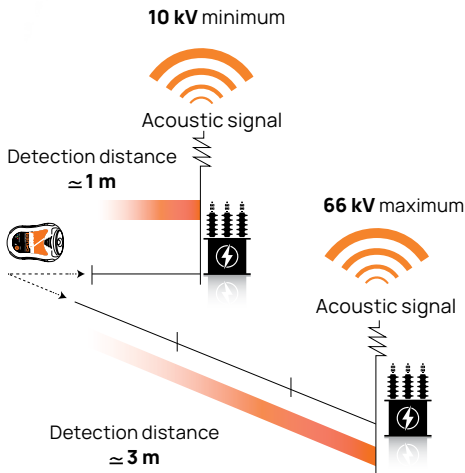
USB-C connection

⚡

Medium voltage

🔊

Acoustic Signal

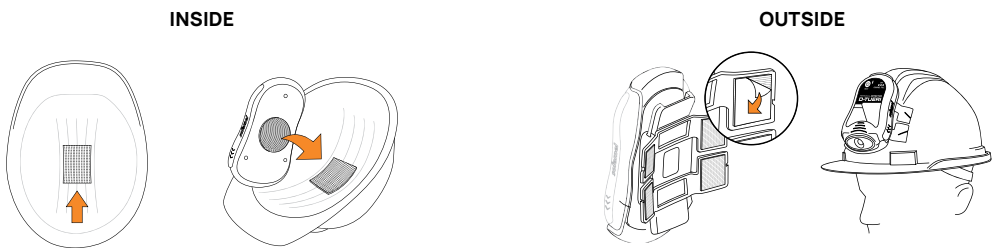


- Use in Distribution / Transformation centers and AC Airlines
- Utilization range: Between 10-66 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
645255	D-TUERI EXPERT



Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI PRO
66/138 kV

Additional safety device for individual use, specifically designed for transformer stations where the operator works in areas with very limited distance to the danger zone.

When the user is close to an electric field between 66 kV – 138 kV and exceeds a distance of approximately 1.4 meters for 66 kV and 4 meters for 138 kV, the detector emits a signal. The signal's frequency increases as we get closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.

360°

Omnidirectional Detection

USB-C

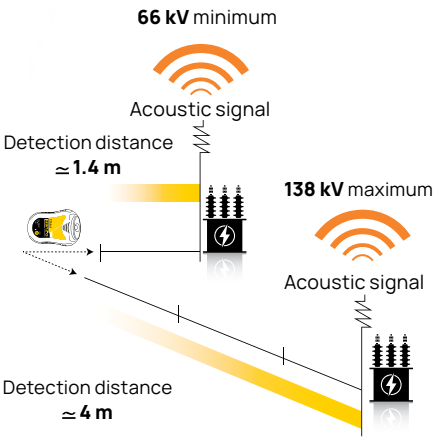
USB-C connection

⚡

Medium voltage

🔊

Acoustic Signal

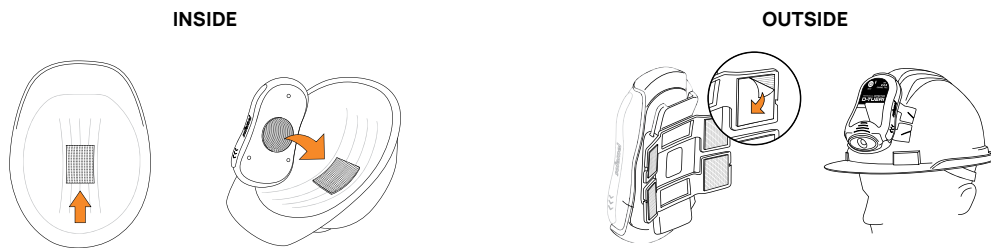


- Use in Distribution / Transformation centers and AC Airlines
- Utilization range: Between 66-138 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
645258	D-TUERI PRO 66/138 kV



Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL
7.9/69 kV - 66 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV - 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 66 kV

When the user is close to an electric field of 66 kV and exceeds a distance of approximately 1.4 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360°

Omnidirectional Detection

USB-C

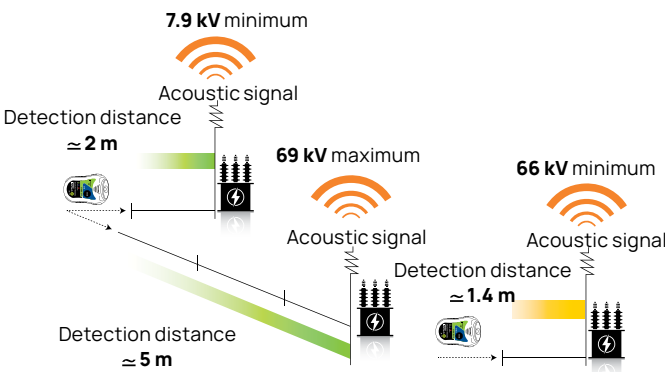
USB-C connection

⚡

Medium voltage

🔊

Acoustic Signal

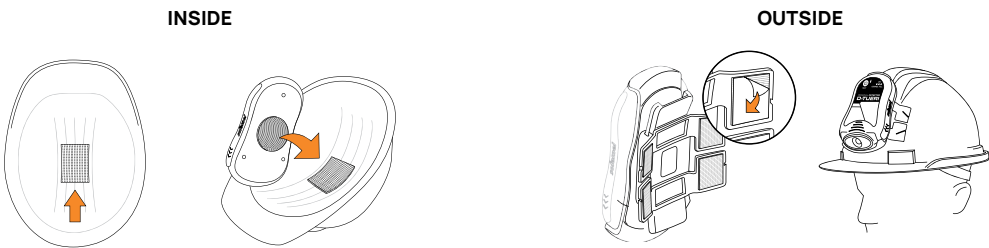


- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-69 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648300	D-TUERI DUAL 7.9/69 kV - 66 kV



Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL
7.9/69 kV - 110 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV - 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 110 kV

When the user is close to an electric field of 110 kV and exceeds a distance of approximately 3 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360°

Omnidirectional Detection

USB-C

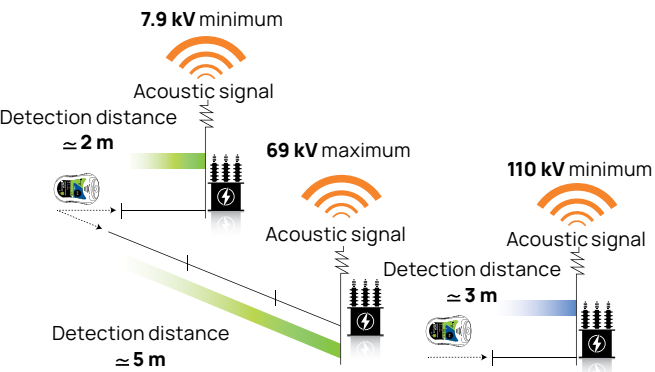
USB-C connection

⚡

Medium voltage

🔊

Acoustic Signal

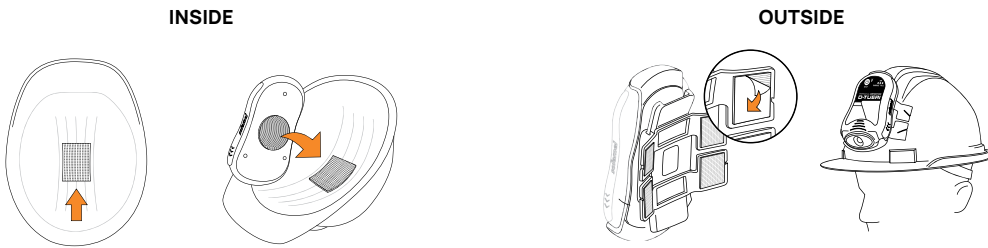


- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-110 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648310	D-TUERI DUAL 7.9/69 kV - 110 kV



Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL 7.9/69 kV - 220 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 220 kV

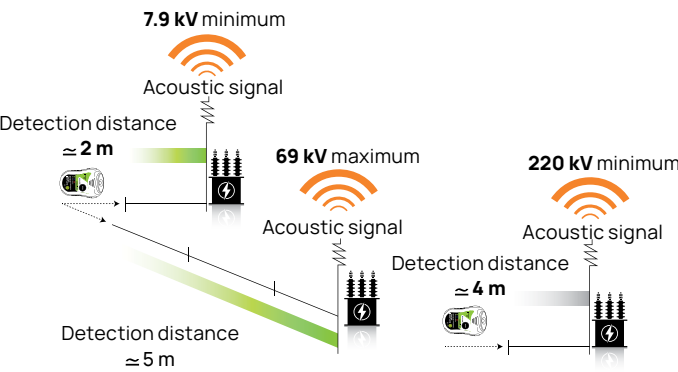
When the user is close to an electric field of 220 kV and exceeds a distance of approximately 4 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360°
Omnidirectional
Detection

USB-C
connection

Medium voltage

Acoustic Signal



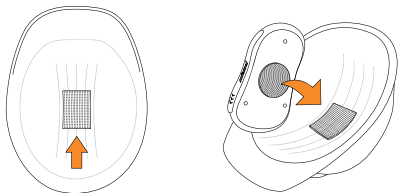
- Use in Distribution / Transformation centers, Substations and AC Airlines.
- Utilization range: Between 7.9-220 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648320	D-TUERI DUAL 7.9/69 kV - 220 kV

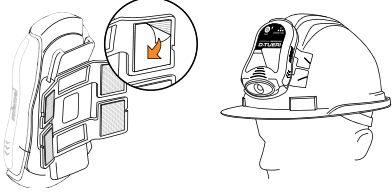


Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL 7.9/69 kV - 400 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 400 kV

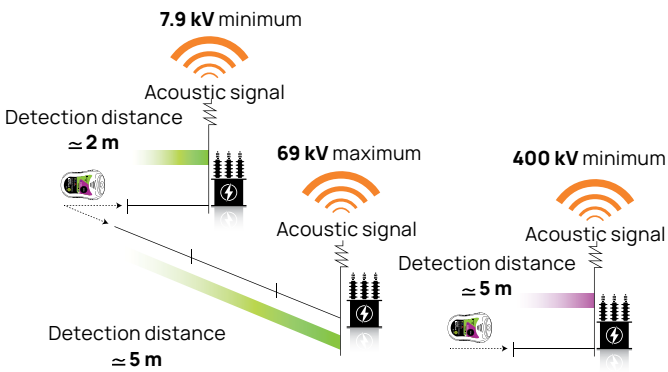
When the user is close to an electric field of 220 kV and exceeds a distance of approximately 5 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

360°
Omnidirectional
Detection

USB-C
connection

Medium voltage

Acoustic Signal



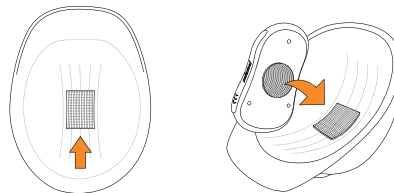
- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-400 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
648330	D-TUERI DUAL 7.9/69 kV - 400 kV

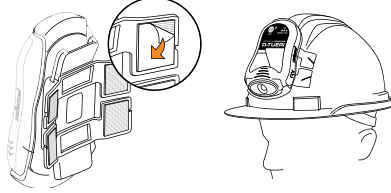


Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



VOLTAGE DETECTORS

Personal voltage detector

Omni-directional personal electric field detector
Medium Voltage - Optical & Acoustic



31006 D-TUERI PRO
25 kV

An additional individual safety element. This personal detector functions to alert the operator when approaching an electric field, thereby helping to prevent accidents. It is designed to be used in repair and maintenance work on high-speed railway installations operating with 25 kV alternating current.

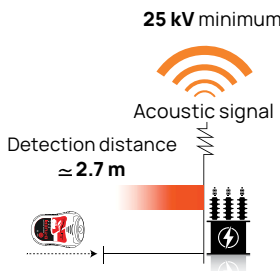
When the user is close to an electric field of 25 kV and exceeds a distance of approximately 2.7 meters the detector sounds a signal. The beeping frequency increases as the user gets closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.


360°
Omnidirectional
Detection


USB-C
connection


Medium voltage


Acoustic Signal

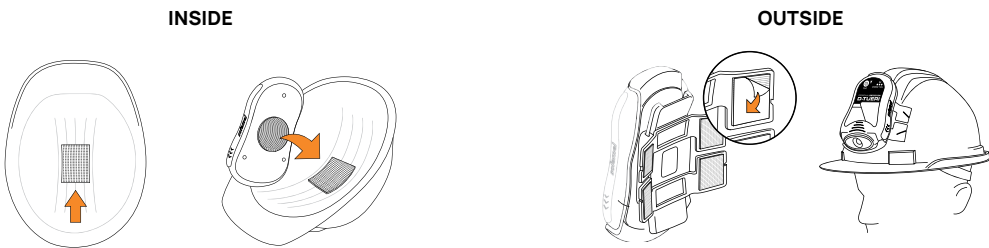


- Use in high-speed railway installations.
- Utilization range: 25 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
654256	D-TUERI PRO 25 kV



Placement
The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.



VOLTAGE DETECTORS

Personal voltage detector

D-WATCH

FOR USE IN DISTRIBUTION
CENTERS AND PLACES
WITH REDUCED MOBILITY
MEDIUM VOLTAGE - ACOUSTIC

1-10 kV

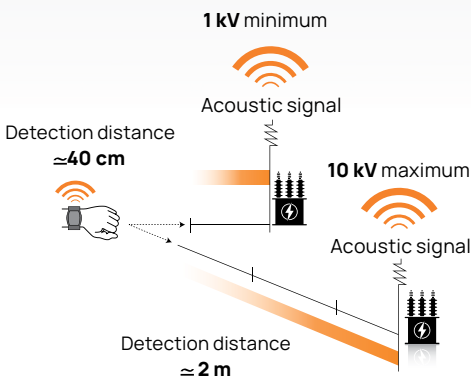


Additional security element for individual use. When the operator approaches an electric field between 1 kV - 10 kV and exceeds a distance of approximately 40 cm for 1 kV and 2 metres for 10 kV, the detector emits a sound to warn the operator that he is in a dangerous area. The alarm will not stop until the operator moves away from the voltage source. The device is always alert.

31006 D-WATCH

- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-400 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code	Ref.
645680	D-WATCH



VOLTAGE DETECTORS

Personal voltage detector

COMBO PRO
D-TUERI PRO + D-WATCH

D-TUERI
PRO
7.9/69 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri PRO personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO

Code	Ref.
648250	COMBO PRO

VOLTAGE DETECTORS

Personal voltage detector

COMBO EXPERT
D-TUERI EXPERT + D-WATCH

D-TUERI
EXPERT
10/66 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri EXPERT personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO EXPERT

Code	Ref.
648260	COMBO EXPERT

VOLTAGE DETECTORS

Personal voltage detector

COMBO PRO 66/138 kV

D-TUERI PRO 66/138 kV + D-WATCH

D-TUERI
PRO 66/138 kV
66/138 kV



D-WATCH
1/10 kV



Elements of the kit:

- 1 D-Tueri PRO personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO
66/138 kV

Code	Ref.
648270	COMBO PRO 66/138 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO DUAL

D-TUERI DUAL + D-WATCH

D-TUERI
DUAL 7.9/69 kV
66 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 66 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 66 kV

Code	Ref.
648290	COMBO DUAL 7.9/69 kV - 66 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO DUAL

D-TUERI DUAL + D-WATCH

D-TUERI
DUAL
7.9/69 kV
110 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 110 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 110 kV

Code	Ref.
648220	COMBO DUAL 7.9/69 kV - 110 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO DUAL

D-TUERI DUAL + D-WATCH

D-TUERI
DUAL
7.9/69 kV
220 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 220 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 220 kV

Code	Ref.
648230	COMBO DUAL 7.9/69 kV - 220 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO DUAL

D-TUERI DUAL + D-WATCH

D-TUERI
DUAL
7.9/69
400 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 400 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL
7.9/69 kV - 400 kV

Code	Ref.
648240	COMBO DUAL 7.9/69 kV - 400 kV

VOLTAGE DETECTORS

Personal voltage detector

COMBO PRO 25 kV

D-TUERI DUAL + D-WATCH

D-TUERI
PRO
25 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri PRO 25 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO
25 kV

Code	Ref.
648275	COMBO PRO 25 kV

SYNCRO

VOLTAGE DETECTOR FOR PHASES CONCORDANCE

MAXIMUM CONTROL IN THREE-PHASE NETWORKS
FROM 1 TO 79 KV

OPTICAL & ACOUSTIC

- Wide range of working voltages (from 1 kV to 79 kV)
- Clear 360° indication thanks to illumination in the housing
- Long detection distance (up to 50m)
- Light weight and small dimensions
- Easy to use
- Indication of voltage on the emitter
- 16-bit microcontroller
- 2.4 GHz wireless communication
- Response time < 500ms
- Phase comparison based on zero crossing algorithm

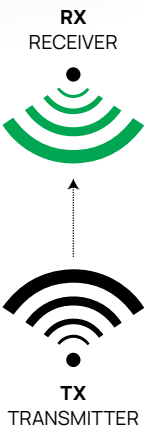


VOLTAGE DETECTORS

Wireless voltage detector

SYNCRO

Wireless voltage detector for phase concordance
Medium Voltage - Optical & Acoustic



Wireless detector for phase concordance verification of a network, it allows to control all types of three-phase networks from 1 to 79 kV.

Maximum functional reliability offering the possibility of measurement even through obstacles, such as walls, doors, etc.

Guaranteed detection distance up to 50 m.

According to UNE-EN 61481-1:2015 standard.

31003 SYNCRO

- Voltage range: from 1 to 79 kV
- Frequency: 50 - 60 Hz
- Use: Indoor/Outdoor use with the insulating pole according to model/range of voltage of the testers used.
- Signaling: Optical and acoustic by LED diodes and buzzer.
- Class A: $\pm 10^\circ < \phi_p \leq \pm 30^\circ$
- Climatic category: N, climatic conditions of use and storage, temperature from -25°C to +55°C, humidity from 20 to 96 %.
- Power supply: AA LR06 type battery, automatic disconnection system sleep mode (battery saving).
- Self-verification: Integrated device for self-verification of operation.

Code	Ref.
645287	SYNCRO

VOLTAGE DETECTORS

Bipolar voltage detector



Voltimetric pole
Low and Medium - Optical & Acoustic

Bipolar voltage detector with digital display OLED to be used in MV networks.
Internal and external use in dry environment.
Voltage range: from 0 kV to 6 kV AC.
Auto turn-off to standby mode after two minutes WITHOUT VOLTAGE DETECTION. In this mode consumption is less than 1 µA.
Double indication of concordance-discordance by LED lights, reading on digital display.
Removable antenna.
Power supply: 9 V alkaline battery, type 6LR61.

Functionalities:
Phase comparator.
Voltage meter (True RMS)

31007 PV0/6

- Rated voltage: from 0 to 6 kV AC
- LED optical indication
- Frequency: 50 Hz AC
- Type: resistive
- S class with extension of the contact electrode.
- Climatic category N, climatic conditions for use and storage, temperature from -25°C to +55°C, and humidity from 20 to 96%.
- Indoor and outdoor use in dry environment.
- Supplied with metallic box.

Code	Ref.	Length of wire	Hz	kV
650450	PV0/6	2 m	50	0 to 6

Consult for other frequencies.

VOLTAGE DETECTORS

Permanent voltage detector



CUSTODIAN
PERMANENT

For use in distribution centers
Medium and High voltage - Optical

Custodian is permanently positioned to indicate presence of tension by a light.
For use indoors, in the rooms of medium and high voltage in the transformation centers.
It is placed on bars or cables with voltage from 5 to 138 kV. Possibility of exchange of the contact electrode by the user.

31001 CUSTODIAN

- Phase-Earth voltage of use: 2.9 - 79.6 kV
- Phase-phase voltage of use: 5 - 138 kV
- Clamp opening: 22 - 53 mm
- Connection interface: M8 female
- Rotating orientation 30° in any direction
- Indoor use
- Protection degree IP65 (test pending)
- Supplied in a carton box

Code	Ref.
640250	CUSTODIAN

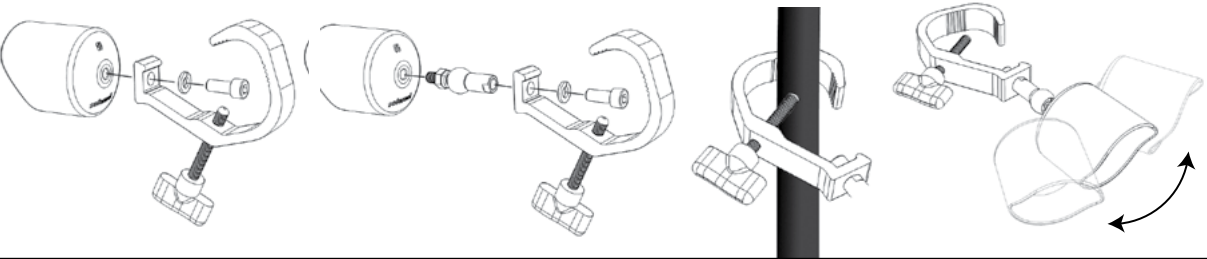


Assembly

Anchored to busbars or cables with voltages from 5 to 138 kV

Option 1 - Fixed

Option 2 - Adjustable



TESTING EQUIPMENT

Measuring instruments of low voltage

31009 PTL-1000
Tester - Optical & Acoustic

Non-contact voltage tester that is easy to handle and use. Adjustable voltage detection range. Automatically distinguishes neutral and phase wires. Distinct alarm sounds and different coloured LEDs to indicate high, medium and low voltage intensity. Suitable for a wide range of applications.



Code	Ref.	Box
635330	Tester PTL-1000	1

Technical information

- **Alarm mode:** Acoustic and light
- **Measuring range:** 12 VAC - 1000 VAC / 48 VAC - 1000 VAC
- **Power supply:** 2 x 1.5 V AAA batteries
- **Frequency:** 50 Hz / 60 Hz
- **Overload category:** CAT III 1000 V / CAT IV 600 V
- **Certificates:** CE, RoHS
- **Torch:** White light LED lamp
- **Colour:** Yellow
- **Dimensions:** 156 x 20 x 20 mm
- **Weight:** 45 g

Supplied with a nylon case for transport and storage. According with standards EN 61010-1, IEC 62321 and EN 61326-1.

31009 Phase Tester Screwdriver
Voltage detector up to 500 V



31009 BTL-600
True RMS tester - Optical & Acoustic

Compact and convenient, highly accurate digital multi-meter. Manual and automatic range adjustment. Pen type design that is easy to hold and use. Very safe, non-contact voltage detector function gives the user more confidence. Illuminated screen and torch allow use in all working environments, including in the dark. Diode test and continuity test functions.



Code	Ref.	Box
635300	Tester BTL-600	1

Technical information

- **PScreen:** 2000 digits
- **Measuring range:** Automatic and manual
- **Voltage range:** DC 200 mV / 2 V / 20 V / 200 V / 600 V / AC 200 mV / 2 V / 20 V / 200 V / 600 V
- **Current range:** DC 20 mA / 200 mA
- **Resistance range:** AC 20 mA / 200 mA
- **Other functions:** 200 Ω / 2 kΩ / 20 kΩ / 200 kΩ / 2 MΩ / 20 MΩ
- **Diode test and Continuity test.**
- **Data storage function**
- **VCN mode:** Non-contact voltage detection
- **Category:** CAT III 600 V
- **Certificates:** CE, RoHS
- **Power supply:** 2 x 1.5 V AAA batteries
- **Colour:** Yellow
- **Dimensions:** 248 x 42 x 34 mm
- **Weight:** 110 g

Supplied with a nylon case for transport and storage. According with standards EN61010-1, EN61010-2-033, EN61326 and IEC 62321.

Code	Ref.	mm	mm	Voltage
635500	BF-65	140	65	100 to 500 V
635510	BF-100	190	105	

TESTING EQUIPMENT

Measuring instruments of low voltage

31009 CTL-1000
Professional multimeter CTL-1000 with True RMS - Optical & Acoustic

Digital AC/DC, T-RMS clamp meter with automatic and manual ranges and a VFD frequency converter. The CTL-1000 has a large 13 mm HD display with 6000 digits and a backlight for easy reading. It has functions for measuring AC and DC voltage, AC and DC current, resistance, capacitance, temperature, low impedance voltage, continuity and NCV (non-contact voltage detection).

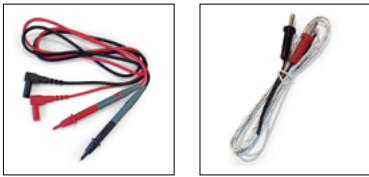


Code	Ref.	Box
635360	Multimeter CTL-1000	1

Technical information

- **Measurement of actual/real values**
- **Non-contact voltage detection (NCV)**
- **DC voltage:** 6 V / 60 V / 600 V / 1000 V
- **AC voltage:** 6 V / 60 V / 600 V / 1000 V
- **Alternating Current:** 60 A / 600 A / 1000 A
- **Direct Current:** 60 A / 600 A / 1000 A
- **Resistance:** 600 Ω / 6 kΩ / 60 kΩ / 600 kΩ / 6 MΩ / 60 MΩ
- **Capacitance:** 60 nF / 600 nF / 6 uF / 60 uF / 600 uF / 6 mF / 60 mF
- **Frequency:** 100 Hz / 1000 Hz / 10 KHz
- **Temperature measurements °C / °F:** -20 ~ 1000 °C / -4 ~ 1832 °F
- **Continuity Test**
- **LowZ DC:** 1000 V / AC1000 V
- **DCµA:** 200 µA / VFD
- **Clamp Ø:** 40 mm
- **LED lamp**
- **Memory Min. / Max. and peak values**
- **Low battery indicator**
- **Stores relative measurement data**
- **Backlight**
- **Weight:** 314.5 g
- **Size:** 246 x 85 x 40 mm
- **Power supply:** 3 x 1.5 V AAA batteries

Supplied with a nylon case for transport and storage. According with standards EN61010-1, EN61010-2-033, EN61326, CAT III 1000 V / CAT IV 600 V



Accessories included.

TESTING EQUIPMENT

Measuring instruments of low voltage



31007 BVD-1000
Tester - Optical & Acoustic

This tester including test of AC/DC voltage (including three-phase AC), phase sequence indication of three-phase AC, RCD test, continuity test, simple voltage detection without battery power supply, overvoltage indication and low voltage indication, etc. The attached flashlight provides convenience for using the tester in dark environments.

Code	Ref.	 Box
635430	Tester BVD-1000	1

Technical information

- **Operating voltage:** ≤1000 VAC/CC
- **Screen:** LED
- **Frequency range:** 40 Hz ~ 1 kHz
- **Voltage polarity indication:** automatic LED light indication.
- **Range selection:** automatic
- **RCD test:** voltage 230 V (40-500 Hz), current: 30 mA ~ 40 mA, testing time <10 s, reco very time: 60 s. ≤100 kΩ buzzer.
- **Continuity test:** three-phase AC voltage range: 57 V ~ 400 V, frequency 50 Hz ~ 60 Hz.
- **Phase sequence test:**
- **Power supply:** 1.5 V x 2 AAA batteries
- **Battery undervoltage indication:** about less than 2.5 V. Short circuit the L1 and L2 probes in the power-on state, and check the status of the "-" LED indicator. If the indicator is lit, it indicates undervoltage.
- **Working temperature:** -5 °C ~ +40 °C
- **Storage temperature:** -20 °C ~ +60 °C
- **Working humidity:** ≤85% RH
- **Overvoltage protection level:** CAT °C 600 V, CAT III 1000 V
- **Pollution level:** Level 2
- **Waterproof and dustproof level:** IP65
- **Automatic shutdown:** shut down automatically for about 30 seconds.

Supplied with a nylon case for transport and storage. According with standards IEC 61010-1, IEC 61243-3:2014, EN 60529, and EN 61326-1 for electronic testing instruments, and belongs to Class II pollution. The overvoltage standards are CAT IV 600 V and CAT III 1000 V.

TESTING EQUIPMENT

Measuring instruments of low voltage



31007 BVD-1500
Tester - Optical & Acoustic

The capacity of this tester extends up to 1200 AC/1500 DC, covering voltage testing in both alternating current (AC) and direct current (DC), including three-phase AC voltage. It also provides phase sequence indication in three-phase AC systems, residual current device (RCD) testing, electrical continuity, voltage detection without the need for battery power, as well as overvoltage and low voltage alerts, among other functions. The integrated flashlight provides convenient lighting for using the tester in dark environments.

Code	Ref.	 Box
635440	Tester BVD-1500	1

Technical information

- **Operating voltage:** 1200 VAC/1500 VDC
- **Screen:** LCD
- **Frequency range:** 40 Hz ~ 1kHz, resolution 1 Hz, error ± (3% + 5d).
- **Buzzer:** supports two modes (buzzer and mute).
- **Voltage polarity indication:** automatic
- **RCD test:** Range selection: automatic voltage 230 V (40-500 Hz); current: 30 mA ~ 40 mA, testing time <10 s, recovery time: 60 s. <10 kΩ buzzer
- **Continuity test:** three-phase AC voltage range: 57 V ~ 400 V, frequency 50 Hz ~ 60 Hz.
- **Phase sequence test:**
- **Power supply:** 1.5 V x 2 AAA battery Battery undervoltage indication: about less than 2.5 V
- **Working temperature:** -5 °C~ +40 °C
- **Storage temperature:** -20 °C ~ +60 °C
- **Working humidity:** ≤ 85% RH
- **Overvoltage protection level:** CAT IV 600 V, CAT III 1000 V
- **Pollution level:** Level 2
- **Waterproof and dustproof level:** IP65
- **Automatic shutdown:** shut down automatically for about 30 seconds in no testing status.

Supplied with a nylon case for transport and storage. According with standards IEC 61010-1, IEC 61243-3:2014, EN 60529, and EN 61326-1 for electronic testing instruments, and belongs to Class II pollution. The overvoltage standards are CAT IV 600 V and CAT III 1000 V.

TESTING EQUIPMENT

Measuring instruments of low voltage

31009 DM-600
Digital multimeter - Optical

Portable digital multimeter with backlit LCD display which allows values to be read even in dark locations. The whole system is based on integrated circuits, equipped with overload protection. It can be used to measure AC and DC voltage, AC and DC current, resistance, capacitance, frequency, diodes and perform continuity and NCV (non-contact voltage detection) tests.



Code	Ref.	 Box
635380	Digital multimeter DM-600	1

- Technical information**
- **Automatic range**
 - **Operating voltage:** 600 VDC/AC
 - **Resistance ranges:** 20 MΩ
 - **Diode test**
 - **Capacitance:** 2 mF
 - **Current:** 10 A
 - **NCV function**
 - **Frequency:** 20 kHz
 - **Display:** 3 1/2 LCD
 - **Overload protection:** PTC protection circuit is used to measure resistance and frequency
 - **Data storage**
 - **Maximum measurement**
 - **Out of range indicator:** OL
 - **Low battery indicator:** 
 - **Auto power off:** 15 minutes. Press "HOLD/BL" to activate.
 - **Operating conditions:** 0 ~ 40 °C (32 ~ 104 °F); <80 % HR
 - **Storage conditions:** -10 ~ 50 °C (14 ~ 122 °F); <70 % HR
 - **Power supply:** 1 No. 9 V battery (type 6F22, 1604A)
 - **Safety requirements:** IEC61010-1 600 V CAT III
 - **Dimensions:** 147.5 x 74 x 42.5 mm, approx.
 - **Weight:** 174 g approx.

Supplied with a nylon case for transport and storage. According with standards EN61010-1, EN61010-2-032, EN61326, IEC 62321.

31009 IPR-400
Phase/rotation indicator - Optical

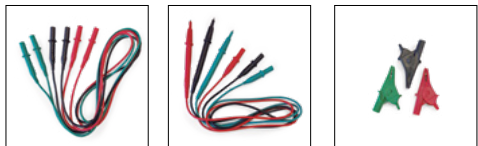
Used to check the direction of the rotating magnetic field in the three-phase system, the phase rotation and the direction of motor rotation. The direction of motor rotation (direction of rotation) is detected by placing the IPR-400 on the motor and aligning it with the drive shaft with no need to connect any probes or cables. A durable, lightweight and reliable device, ideal for electrical work with three-phase motors and systems. Includes different types of probes for any possible application.



Code	Ref.	 Box
635320	IPR-400 Phase/Rotation Indicator	1

- Technical information**
- **Operating voltage:** 120 V ~ 400 VAC
 - **Current consumption:** ≤20 mA
 - **Frequency range:** 2 Hz ~ 400 Hz
 - **Non-contact rotating field indication function**
 - **Operating temperature:** 0 °C a +40 °C
 - **Operating altitude:** 2000 m
 - **Category:** CAT III 600 V
 - **Certificates:** CE, RoHS
 - **Power supply:** 3 x 1.5 V AA batteries
 - **Dimensions:** 128 x 70 x 30 mm
 - **Weight:** 68 g

Supplied with a nylon case for transport and storage. According with standards EN61010-1, EN61010-2-032, EN61326 and IEC 62321.



Accessories included.

TESTING EQUIPMENT

Measuring instruments of low voltage

31009 IER-4000
Ground resistance tester - Digital

The high-performance IER-4000 earth meter is a professional device that measures grounding resistance using the 2 or 3-pole methods. Additionally, it allows for pre-testing of ground voltage, protecting the user from dangerous voltages. It is designed and manufactured in compliance with the safety requirements set by the IEC61010-1 standards for electronic testing instruments.



Code	Ref.	 Caja
635340	Ground resistance tester IER-4000	1

- Technical information**
- **Screen:** Digital LCD
 - **Data storage:** 100 groups
 - **Resistance ranges:** 0 Ω ~ 29.99 Ω / 30 Ω ~ 99.9 Ω / 100 Ω ~ 999 Ω / 1 kΩ ~ 4 kΩ
 - **Voltage ranges:** 0 V ~ 200 V (50/60 HZ)
 - **Continuity check**
 - **Values:** MAX/MIN/PRO, relative measurements
 - **Results recorded in memory**
 - **Auto power off, display backlight and low battery indicator**
 - **Category:** CAT III 600 V
 - **Certificates:** CE, RoHS
 - **Power supply:** 6 x 1.5 V AA batteries
 - **Dimensions:** 180 x 140 x 65 mm
 - **Weight:** 950 g

Supplied with a case for transport and storage. According with standards EN61010-1, EN61010-2-032, EN61326 and IEC 62321.



Accessories included.

31009 CIT-10
Digital insulation tester - Digital

It is used to measure the quality of electrical insulation in cables, motors, transformers, etc., both in new installations and during maintenance, for basic and specialized categories. It also detects direct voltage, alternating voltage, and performs continuity checks. Designed and manufactured in compliance with the safety requirements set by IEC61010-1 standards for electronic testing instruments.



Code	Ref.	 Box
635390	Digital insulation tester CIT-10	1

- Technical information**
- **Display:** LCD with backlight
 - **Resistance Range:** 0.01 MΩ ~ 10.00 GΩ
 - **Insulation Tests:** 50 V, 100 V, 250 V, 500 V and 1000 V
 - **Automatic power off to save energy**
 - **Data storage**
 - **Timer function for insulation test**
 - **Lock function for insulation test**
 - **Power supply:** 6 x 1.5 V AA batteries
 - **Dimensions:** 190 x 145 x 70 mm
 - **Weight:** 855 g (without batteries)

Supplied with a case for transport and storage. According with standards EN61010-1, EN61557-1, EN61326-1 CAT. III 1000 V CAT. IV 600 V



Accessories included.

TESTING EQUIPMENT

Measuring instruments of low voltage



31009 CRT-1200
Clamp earth resistance tester - Optical & Acoustic

The clamp can test grounding in hard-to-reach spaces, including indoor or fully paved areas where auxiliary test rods cannot be used. The meter can identify the resistance with no need to disconnect and reconnect the grounding installation. It is widely used in the field of electrical power distribution, telecommunications, construction and industrial electronic equipment.

Code	Ref.	Box
635370	Clamp CRT-1200	1

Technical information

- Resistance ranges: 1200 MΩ
- Test voltage: 3700 V
- Electric clearance: 6.5 mm (meet IEC1010 double insulation CAT III 600 V)
- Limiting overload: 40 A RMS current
- Mean consumption: 50 mA
- Range: automatic
- Display type: 4 digits, 9999 counting, liquid crystal display display symbol
- Power shortage:
- Power supply: 9 V 6F22
- Single measurement time: 1 s
- Working temperature: -10 °C to 50 °C (14 °F to 122 °F)
- Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F)
- Conductor size: Ø 32 mm
- Dimensions: 54 x 104 x 32 mm
- Weight: approximate 1050 g (include the batteries)

Supplied with a nylon case for transport and storage. According with standards EN61010-1, EN61010-2-033, EN61326, CAT III 600 V

RESCUE AND FIRST AID

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.



POSSIBILITY OF CONFIGURATION TO MEASURE

31101 SZ-51S

Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 145 kV insulating stool
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

Code	Description	Ref.
690100	Spanish	SZ-51S
690100 I	English	SZ-51S
690100 F	French	SZ-51S

* For other configurations, please inquire.

Code: 580155
Ref.: STM-45

Code: 715121
Ref.: VC-300/25

Code: 545115
Ref.: CGS

Code: 530270
Ref.: SG-30

Code: 610100
Ref.: BS-45

Code: 695100
Ref.: SZ-02

	Code	Ref.
ES	X690165	SZ08 E
EN	X690166	SZ08 I
FR	X690167	SZ08 F

Code: 690170
Ref.: PA-29P E

Code: 690171
Ref.: PA-29P I

Code: 690172
Ref.: PA-29P F

RESCUE AND FIRST AID

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.



POSSIBILITY OF CONFIGURATION TO MEASURE

31101 SZ-51B

Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 15-36 kV voltage detector with pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 45 kV insulating stool
- 1 pair of insulating boots (class 2)
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

Code	Description	Ref.
690130	Spanish	SZ-51B
690130 I	English	SZ-51B
690130 F	French	SZ-51B

* For other configurations, please inquire.

RESCUE AND FIRST AID

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.



POSSIBILITY OF CONFIGURATION TO MEASURE

31101 SZ-51M

Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 15-36 kV voltage detector with pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 45 kV insulating stool
- 1 pair of insulating shoes
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

Code	Description	Ref.
690110	Spanish	SZ-51M
690110 I	English	SZ-51M
690110 F	French	SZ-51M

* For other configurations, please inquire.

Code: 580155
Ref.: STM-45

Code: 715121
Ref.: VC-300/25

Code: 545115
Ref.: CGS

Code: 530270
Ref.: SG-30

Code: 640210
Ref.: VTO-5/36-P

Code: 610100
Ref.: BS-45

Code: 715160 (Size 43)
Available in different sizes.
Ref.: DB2 T43

Code: 695100
Ref.: SZ-02

Code: 690165
Ref.: SZ08 E

Code: 690166
Ref.: SZ08 I

Code: 690167
Ref.: SZ08 F

Code: 690170
Ref.: PA-29P E

Code: 690171
Ref.: PA-29P I

Code: 690172
Ref.: PA-29P F

Code: 580155
Ref.: STM-45

Code: 715121
Ref.: VC-300/25

Code: 545115
Ref.: CGS

Code: 530270
Ref.: SG-30

Code: 640210
Ref.: VTO-5/36-P

Code: 610100
Ref.: BS-45

Code: 715110
Ref.: SZ-56

Code: 695100
Ref.: SZ-02

Code: 690165
Ref.: SZ08 E

Code: 690166
Ref.: SZ08 I

Code: 690167
Ref.: SZ08 F

Code: 690170
Ref.: PA-29P E

Code: 690171
Ref.: PA-29P I

Code: 690172
Ref.: PA-29P F

RESCUE AND FIRST AID

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.

POSSIBILITY OF CONFIGURATION TO MEASURE

31101 SZ-51AC

Consists of a 1 x 1.6 m board with the following items:

- 1 36 kV insulating stool
- 1 rescue pole BS-45
- 1 plastic box for gloves
- 1 pair of class 0 gloves
- 1 60 cm x 1 m insulating mat with working voltage 1 kV
- 1 pneumatic glove tester SG-117
- 1 first-aid kit SZ-06
- 1 1.2 x 1.8 m fireproof blanket
- 1 resuscitator
- 1 ABS padlock C/ABS-25 red
- 1 first aid diagram
- 1 diagram with the five golden rules for automotive

Product supplied with screws and nails (for hanging).

Code	Description	Ref.
690230	Spanish	SZ-51AC
690230 I	English	SZ-51AC
690230 F	French	SZ-51AC

* For other configurations, please inquire.

RESCUE AND FIRST AID

Rescue panoplies

In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.

POSSIBILITY OF CONFIGURATION TO MEASURE

31101 SZ-51AB

Consists of a 1 x 1.6 m board with the following items:

- 1 36 kV insulating stool
- 1 rescue pole BS-25
- 1 CTL-1000 professional multimeter with True RMS
- 1 plastic box for gloves
- 1 pair of class 0 gloves
- 1 60 cm x 1 m insulating mat with working voltage 1 kV
- 1 resuscitator
- 1 first aid diagram
- 1 diagram with the five golden rules for automotive

Product supplied with screws and nails (for hanging).

Code	Description	Ref.
690209	Spanish	SZ-51AB
690209 I	English	SZ-51AB
690209 F	French	SZ-51AB

* For other configurations, please inquire.



Code: 580155
Ref.: STM-45



Code: 585181
Ref.: AD0-0610



Code: 545115
Ref.: CGS



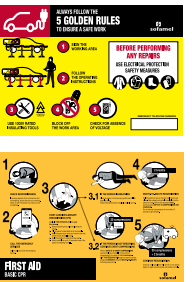
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Ref.: SG-117



Code: 710120
Ref.: SZ-180



Code: 530160
Ref.: SG-50 T-10



Code: 610100
Ref.: BS-45



Code: 700110
Ref.: SZ-06



Code: 761103
Ref.: C/ABS-25 RJ



Code: 695100
Ref.: SZ-02



Code: 580155
Ref.: STM-45



Code: 585181
Ref.: AD0-0610



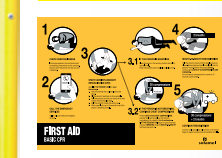
Code: 545115
Ref.: CGS



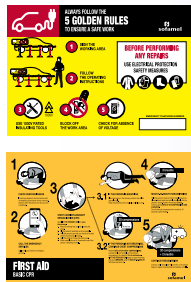
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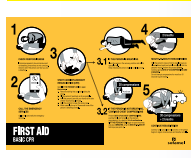
Code: 530160
Ref.: SG-50 T-10



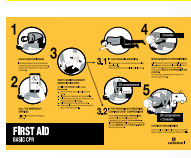
Code: 695100
Ref.: SZ-02



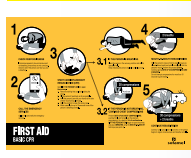
Code: 610095
Ref.: BS-25



Code: X690170
Ref.: PA-29P E



Code: X690171
Ref.: PA-29P I



Code: X690172
Ref.: PA-29P F

RESCUE AND FIRST AID

Manoeuvring and rescue kit



The essential and handy safety kit



31102 KRM-4001

The kit is sold in one special black plastic box.

Code	Ref.
690114	KRM-4001

* For other compositions, please consult.

Elements of the kit:

- 11.5 m telescopic pole of three sections
- 1 optical and acoustical detector from 5 to 36 kV with bag
- 1 rescue hook with universal head
- 1 pair of dielectric gloves SG-40 T10 stored in a nylon bag
- 1 insulating mat AD4-0610/40C of 60 cm x 1 m, working voltage 36 kV
- 1 resuscitator
- 1 neck immobilizer
- 1 fire resistant blanket SZ-180 of 1.2 x 1.8 m
- 1 stretcher



Fire resistant blanket SZ-180

Optical & Acoustical Detector VTE-5/36U

Dielectric gloves SG-40 T10

Rescue hook, resuscitator and neck immobilizer

Insulating mat AD4-0610/40C

Telescopic pole
Stretcher

RESCUE AND FIRST AID

First aid material



CE

31103 SZ-02 Standard resuscitator

Portable resuscitator designed to be used in emergency situations. It provides pulmonary ventilation for those people whose respiratory function is deteriorated. Includes transparent mask with pneumatic edge and connection for oxygen. It is supplied with a carrying bag.

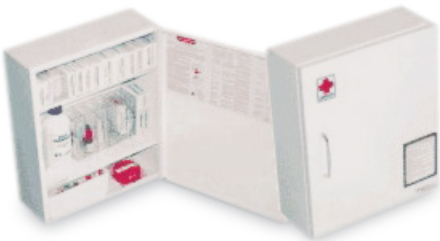
Code	Ref.
695100	SZ-02



30603 SZ-56 Insulating shoes

A pair of overshoes made of insulating material to move around the accident area with insulation from the floor. Up to 1000 V.

Code	Ref.
715110	SZ-56



31103 SZ-05 First aid kit

Material included.
Box which contains the necessary items for first aid.

Code	Ref.	Wraparound	Dimensions
700100	SZ-05	Metallic	37 x 30 x 13 cm



31103 SZ-06 First aid kit

Material included.
Box which contains the necessary items for first aid.

Code	Ref.	Wraparound	Dimensions
700110	SZ-06	Plastic	38 x 26 x 13 cm

RESCUE AND FIRST AID

First aid material



31103 SZ-07
Stretcher

180x55 cm canvas stretcher with metal bars that can be taken apart into three parts. Folded 70 x 10 x 10 cm. Supplied with carrying bag.

Code	Ref.
705100	SZ-07

CEE 93/42 Sanitary products



30503 SZ
Fire-resistant blankets

Fire-resistant blankets made of flameproof fabric based on fiberglass wich is coated both sides with special high tempera-
ture resistant silicone.
Immediate use device.
It stands up to temperatures of 1100°C for more than 15 min.

Especially efficient where fire extinguishers use in inadvisable.
Supplied in a rigid red color plastic case.
According to UNE-EN-1869:97

Code	Ref.	Dimensions
710100	SZ-100	100 x 100 cm
710110	SZ-120	120 x 120 cm
710120	SZ-180	120 x 180 cm

UNE - EN - 1869:97

Wires

31104 SZ-57
Wire cutter

Insulated wire cutter indicated for cutting cables up to Ø 25 mm.
Incorporates metallic blades and two handles made of polyester reinforced with fibreglass of 32 mm diameter.

Code	Ref.	Length (mm)	Insolation	Weight
715120	SZ-57/25	670	25 kV	2.7 kg
715125	SZ-57/36	830	36 kV	2.9 kg

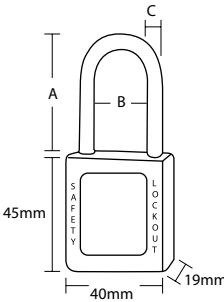
31104 VC-300
Wire cutter

Insulated wire cutter indicated for cutting cables up to Ø 25 mm.
Incorporates metallic blades and two handles made of polyester reinforced with fibreglass of 32 mm diameter.

Code	Ref.	Length (mm)	Insolation	Weight
715121	VC-300/25	620	25 kV	1.18 kg
715126	VC-300/36	720	36 kV	1.3 kg

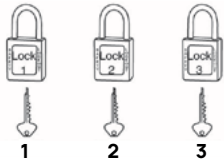
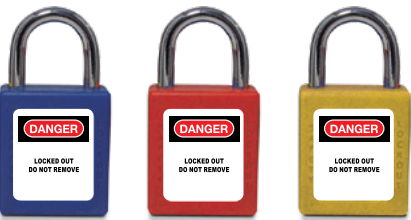
PADLOCKS

Padlocks

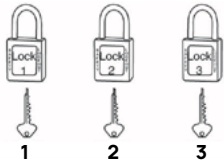


Metal shank padlocks

Padlocks for blocking off a single work area and/or area in discharge.
Available in three different colours depending on their use.



DIFFERENT KEYS



DIFFERENT KEYS

31201 C/ABS-25
ABS security padlock

Body made of ABS with high impact resistance, UV protection, low and high temperature resistance.
Includes "danger" and "property of" markings.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm.
With a different key for each padlock.

Code	Ref.	Colours	A	B	C
761100	C/ABS-25 AZ		25	20	6
761103	C/ABS-25 RJ		25	20	6
761106	C/ABS-25 AM		25	20	6

31201 C/ABS-38
ABS security padlock

Body made of ABS with high impact resistance, UV protection, low and high temperature resistance.
Includes "danger" and "property of" markings.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm.
With a different key for each padlock.

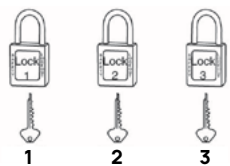
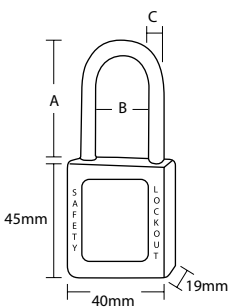
Code	Ref.	Colours	A	B	C
761101	C/ABS-38 AZ		38	20	6
761108	C/ABS-38 RJ		38	20	6
761110	C/ABS-38 AM		38	20	6

PADLOCKS

Padlocks

Nylon shank padlocks

Padlocks for blocking off a single work area and/or area in discharge.
Available in three different colours depending on their use.



DIFFERENT KEYS

31201 C/COM-38-DK
Composite security padlock

Body made of composite.
Non-conductive. Does not produce sparks. Dielectric test.
Appropriate for use in environments which entail inflammable or explosive risk.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm
With a different key for each padlock.

Code	Ref.	Colours	A	B	C
761102	C/COM-38-DK AZ		38	20	6
761107	C/COM-38-DK RJ		38	20	6
761109	C/COM-38-DK AM		38	20	6



SINGLE KEYS

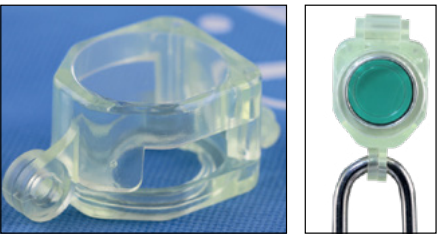
31201 C/COM-38-SK
Composite security padlock

Body made of composite.
Non-conductive. Does not produce sparks. Dielectric test.
Appropriate for use in environments which entail inflammable or explosive risk.
Blue, red and yellow colours.
Dimensions: 40 x 45 x 19 mm
With same key for each padlock.

Code	Ref.	Colours	A	B	C
761113	C/COM-38-SK AZ		38	20	6
761112	C/COM-38-SK RJ		38	20	6
761114	C/COM-38-SK AM		38	20	6

PADLOCKS

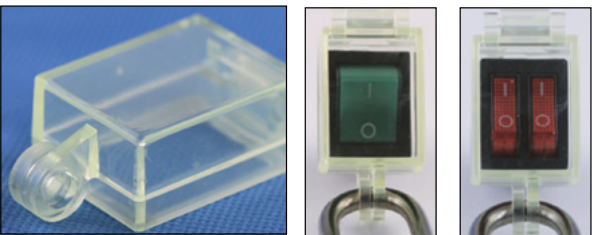
Protectives



31202 P/PU-29
Protective cover for pushbutton

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.
Used for pushbuttons up to Ø 29 mm.

Code	Ref.
762100	P/PU-29



31202 P/IN-28
Protective cover for switch

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.
Used for switches of 28 mm long x 22.5 mm wide.

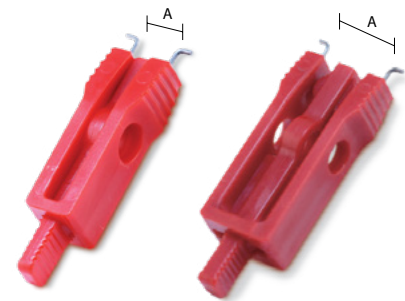
Code	Ref.
762101	P/IN-28



31202 P/EM
Cover for pushbutton

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.

Code	Ref.	Installation hole Ø
762102	P/EM-22	22 mm
762103	P/EM-30,5	30.5 mm



P/DM-11

P/DM-20

31202 P/DMT
Lockout for switches

Made of nylon.
Automatic lockout for switches using stainless steel saw-tooth mechanism.
Adjustable to cover a wider range.

Code	Ref.	Dimensions
762110	P/DMT	47 x 32 x 15 mm

31202 P/DM
Lockout for switches

Made of nylon.
Lockout for switches, circuit breakers, differentials and power control switches.



Code	Ref.	Dimensions	A
762104	P/DM-11	57.4 x 14.5 x 14 mm	11 mm
762105	P/DM-20	68.3 x 23.3 x 314 mm	20 mm

PADLOCKS

Protectives



31202 P/DIG-41
Lockout for switches

Made of nylon.
Lockout for automatic switches using a stainless steel saw-tooth system. Thanks to its full adjustability, it allows encompassing a wider range.



Code	Ref.	Dimensions	Description
762106	P/DIG-41	68.3 x 48.3 x 27.6 mm	For circuit breakers with maximum dimensions of 41 x 15.8 mm



31202 P/DIP-9
Lockout for switches

The shell is made of ABS resin material and the main body is made of durable material. Its design allows an easy and fast installation.



Code	Ref.	Dimensions	Description
762107	P/DIP-9	68.5 x 23.5 x 14 mm	For circuit breaker ≤10mm, no width limit.



31202 P/DIPA-9
Lockout for switches

Made of nylon.
Lockout for automatic switches using a stainless steel saw-tooth system. Thanks to its full adjustability, it allows encompassing a wider range.



Code	Ref.	Dimensions
762108	P/DIPA-9	93 x 34.3 x 28 mm

31102 P/BOL-450
Pouch for storing plugs

Made of break-resistant nylon.
Ideal for safe-keeping of any size electrical connectors.



Code	Ref.	Dimensions
762109	P/BOL-450	450 x 250 mm



PADLOCKS

Valves



31203 P/VAL
Protective for valves

Made of ABS, anti-blow with high wear resistance.
Efficient operation in extreme conditions. Temperature range from -20°C to 100°C.
Protects from accidental opening of the valve. Label for identifying the person responsible.



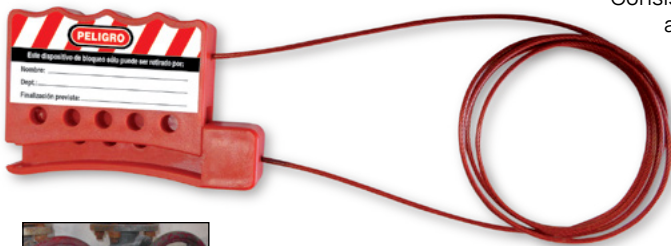
Code	Ref.	Dimensions
763100	P/VAL-63R	25 mm - 63 mm
763101	P/VAL-127	63 mm - 127 mm
763102	P/VAL-165	127 mm - 165 mm
763103	P/VAL-254	165 mm - 254 mm



31203 EV-52
Lockout hasps

Used for blocking different sized gate valves as well as multiple valves.
Lighter than chains, the device is easy to transport and use. Cable made of Ø 5 mm plasticised steel and 2.0 m long. Holds six padlocks.

Code	Ref.
763104	EV-52



31203 EV-318
Lock-and-tag device with adjustable tie cable

Consists of safety clamp and 4 mm multi-filament strong and flexible steel cable insulated with a clear plastic coating (PVC-free).
Adhesive safety label to identify the person responsible for installation of device.
Used to block gate valves of different sizes, and to block multiple valves at once.
Lighter than chains, the device is easy to carry and use.
Cable made from laminated steel Ø 3 mm and 1.8 m. long. Can fit five locks.



Code	Ref.
763105	EV-318

PADLOCKS

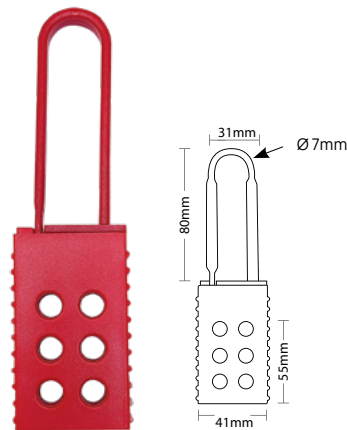
Lockouts



31204 EN-6
Lockout hasps

Protects the equipment from being opened accidentally.
Holds six padlocks.
Shackle made of steel with polypropylene-covered handle

Code	Ref.	Dimensions	Ø Ring
764100	EN-6/25	115 x 45 mm	26 mm
764101	EN-6/38	130 x 60 mm	39 mm



31204 EA-7818
Lockout hasps

Protects the equipment from being opened accidentally. Holds six padlocks. Fully insulated lockout. Made of polyamide.
Dielectric protection.
Non-conductive. Anti-spark.

Code	Ref.	Medidas	Dimensions ring
764102	EA-7818	157 x 45 mm	78 x 78 mm



31204 EAL-3628
Lockout hasps

Made of anodized aluminium with high anti-corrosion protection.
Identification by name, department and comments label.
Holds six padlocks.

Code	Ref.	Dimensions	Dimensions ring
764103	EAL-3628	188 x 76 mm	36 x 28 mm

Containers



31205 SB-12
Lock box

After machine or process is locked out, the keys can be kept in the lock box.
Each authorised person can place a personal padlock in the box as to prevent it from being opened.
Ensures that no single employee has access to the box unless all the employees have removed their padlocks.
Holds 12 padlocks + master padlock.
Supplied without products.

Code	Ref.	Dimensions
765100	SB-12	260 x 103 x 152 mm

PADLOCKS

Containers

Lockout station

Panel made of ABS.
Door made of high-resistance polycarbonate.
Used for organising daily use of padlocks and labels.



Code	Ref.	Dimensions	Capacity
765101	LS-4	300 x 210 x 60 mm	Supplied without products
765111	LS-4-D	300 x 210 x 60 mm	Supplied with: 4 padlocks (cod. 761108) 2 lockout hasps (cod. 764101) 25 labels (cod. 765103)

Code	Ref.	Dimensions	Capacity
765102	LS-10	486 x 300 x 60 mm	Supplied without products
765112	LS-10-D	486 x 300 x 60 mm	Supplied with: 10 padlocks (cod. 761108) 3 lockout hasps (cod. 764101) 25 labels (cod. 765103)

SIGNS AND BEACONS

Aluminium signs

Triangle with lightning screen-printing, black border and yellow background.

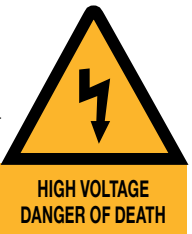


31301 Electrical hazard

Code	Ref.	Dimensions
720100	AE-10S	105 mm
720110	AE-14S	148 mm
720120	AE-21S	210 mm
720130	AE-29S	297 mm

UNE-EN ISO 7010

Triangle with lightning screen-printing, black border and yellow background.
Text: "HIGH VOLTAGE DANGER OF DEATH".

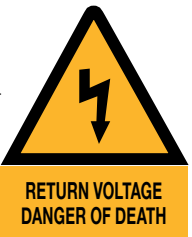


31301 High voltage

Code	Ref.	Dimensions
720140 I	CE-10S	105 mm
720150 I	CE-14S	148 mm
720160 I	CE-21S	210 mm
720170 I	CE-29S	297 mm

UNE-EN ISO 7010

Triangle with lightning screen-printing, black border and yellow background.
Text: "RETURN VOLTAGE DANGER OF DEATH".



31301 Return voltage

Code	Ref.	Dimensions
720180 I	CR-10S	105 mm
720190 I	CR-14S	148 mm
720200 I	CR-21S	210 mm
720210 I	CR-29S	297 mm

UNE-EN ISO 7010

Circular sign of manoeuvre prohibition.



31301 Manoeuvring forbidden

Code	Ref.	Dimensions
720220	PM-10S	105 mm
720230	PM-21S	210 mm

UNE-EN ISO 7010

SIGNS AND BEACONS

Adhesive plastic signs

Triangle with lightning screen-printing, black border and yellow background.

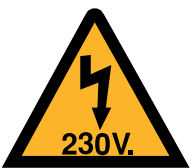


31302 Electrical hazard

Code	Ref.	Dimensions
725100	AE05ADH	52 mm
725110	AE10ADH	105 mm
725115	AE21ADH	210 mm

UNE-EN ISO 7010

Triangle with lightning and 230 V screen-printing, black border and yellow background.

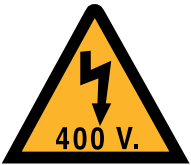


31302 Electrical hazard 230V

Code	Ref.	Dimensions
725120	VT230V55	52 mm
725130	VT230V10	105 mm

UNE-EN ISO 7010

Triangle with lightning and 400 V screen-printing, black border and yellow background.



31302 Electrical hazard 400V

Code	Ref.	Dimensions
725140	VT400V55	52 mm
725150	VT400V10	105 mm

UNE-EN ISO 7010

Triangle with Earthing symbol screen-printing, black border and yellow background.

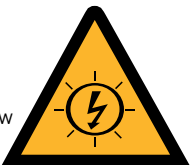


31302 Earthing

Code	Ref.	Dimensions
725155	TT05ADH	52 mm
725160	TT10ADH	105 mm

UNE-EN ISO 7010

Screen printed triangle with the photovoltaic identification symbol, black outline and yellow background.



31302 Photovoltaic installation

Code	Ref.	Dimensions
725170	IF10ADH	105 mm

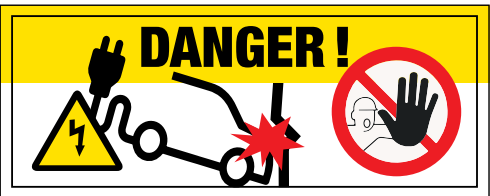
UNE-EN ISO 7010

31302 Risk electric / hybrid car

Self-adhesive label to place on windows and windshields of damaged electric and hybrid vehicles.

Code	Ref.	Dimensions
725010	SA-HEV	280 x 210 mm

UNE-EN ISO 7010



SIGNS AND BEACONS

Adhesive plastic signs and PVC signs



Prohibition of operation

31302 Type A signs

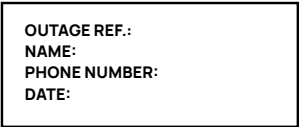
Rectangular adhesive signs printed on one side.
Dimensions: 85 x 120 mm.

31302 Type B signs

Rectangular PVC signs printed on one side.
Dimensions: 150 x 200 mm and 1 mm thickness.

Code	Ref.	Type	Dimensions
725180 I	PC120A	A	85 x 120 mm
730180 I	PC200B	B	150 x 200 mm

UNE-EN ISO 7010



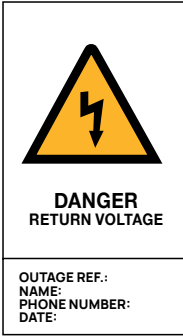
31302 Neutral identification label

Rectangular adhesive signs printed on one side.
Dimensions: 120 x 50 mm.

Code	Ref.	Dimensions
725185 I	EN50A	120 x 50 mm

UNE-EN ISO 7010

Rectangular warning signs can be Type A or Type B, depending on the installation to be signaled and its location.



31302 Type A Signs

Rectangular adhesive signs printed on one side, measuring 85 x 120 mm.

31303 Type B Signs

Rectangular PVC signs printed on one side, measuring 150 x 200 mm and 1 mm thick.

TYPE A: 85 x 120 mm		
Code	Ref.	Description
725181 I	ZD120A	Discharge area
725182 I	ZT120A	Work area
725183 I	PTR120A	Return voltage hazard
725184 I	RE120A	Electrical risk

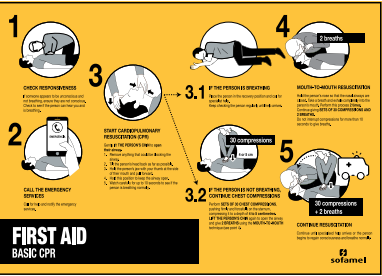
UNE-EN ISO 7010

TYPE B: 150 x 200 mm		
Code	Ref.	Description
730181	ZD200B	Discharge area
730182	ZT200B	Work area
730183	PTR200B	Return voltage hazard
730184	RE200B	Electrical risk

UNE-EN ISO 7010

SIGNS AND BEACONS

PVC signs



31303 First aid

Sofamel

Code	Ref.	Language	Dimensions
730100	PA-42P	Spanish	297 x 420 mm
730101	PA-42P	English	297 x 420 mm
730102	PA-42P	French	297 x 420 mm
730110	PA-29P	Spanish	210 x 297 mm
730111	PA-29P	English	210 x 297 mm
730112	PA-29P	French	210 x 297 mm

UNE-EN ISO 7010 Available in other languages on request.



31303 First aid

Endesa

Code	Ref.	Language	Dimensions
730103	PA-EN	Spanish	420 x 297 mm

UNE-EN ISO 7010



31303 First aid

Iberdrola

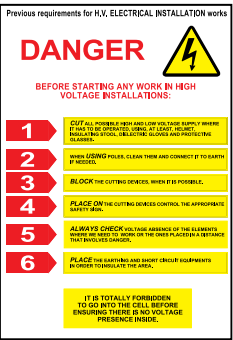
Code	Ref.	Language	Dimensions
730104	PA-ID	Spanish	420 x 297 mm

UNE-EN ISO 7010

31303 Prerequisites

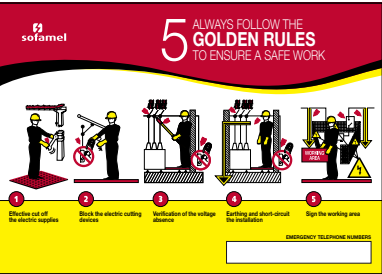
Code	Ref.	Language	Dimensions
730120	RTE-42P	Spanish	297 x 420 mm
730121	RTE-42P	English	297 x 420 mm
730122	RTE-42P	French	297 x 420 mm
730130	RTE-29P	Spanish	210 x 297 mm
730131	RTE-29P	English	210 x 297 mm
730132	RTE-29P	French	210 x 297 mm

UNE-EN ISO 7010 Available in other languages on request.



SIGNS AND BEACONS

PVC signs



31303 Five golden rules

Sofamel

Code	Ref.	Language	Dimensions
730140	CRO-42P	Spanish	420 x 297 mm
730144	CRO-42P	English	420 x 297 mm
730146	CRO-42P	French	420 x 297 mm

UNE-EN ISO 7010 Available in other languages on request.

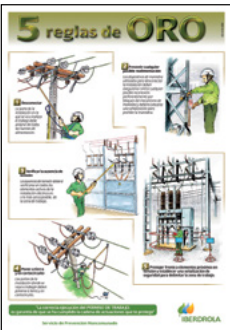


31303 Five golden rules

Endesa

Code	Ref.	Language	Dimensions
730143	CRO-EN	Spanish	420 x 297 mm

UNE-EN ISO 7010



31303 Five golden rules

Iberdrola

Code	Ref.	Language	Dimensions
730141	CRO-IB	Spanish	420 x 297 mm

UNE-EN ISO 7010 Printed on cardstock.



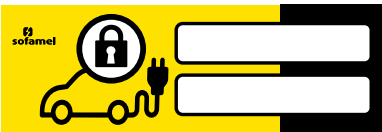
31303 Five golden rules
for electric / hybrid vehicles

Code	Ref.	Language	Dimensions
730003	CRO-HEV	Spanish	297 x 420 mm
730003I	CRO-HEV	English	297 x 420 mm
730003F	CRO-HEV	French	297 x 420 mm

UNE-EN ISO 7010 Available in other languages on request.

SIGNS AND BEACONS

PVC signs



31303 For electric / hybrid vehicles

Code	Ref.	Dimensions
730001	cp-hev	450 x 150 mm

UNE-EN ISO 7010



31303 Signal for electric / hybrid
car risk post

Code	Ref.	Dimensions
730002	SS-hev	450 x 150 mm

UNE-EN ISO 7010

Polycarbonate signs

Triangle with lightning screen-printing, black border and yellow background. Text: "HIGH VOLTAGE DANGER OF DEATH".



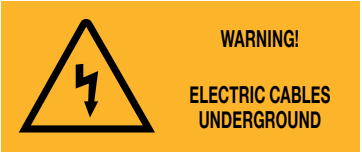
31304 High voltage

Code	Ref.	Dimensions
735100 I	CE-14PCI	148 mm
735110 I	CE-21PCI	210 mm

UNE-EN ISO 7010

SIGNS AND BEACONS

Signs tapes and beacon tapes



For underground cables signalling. Made of 150 mm yellow color PVC. 500 m rolls. Text: "WARNING! ELECTRIC CABLES UNDERGROUND".



31305 Sign tape

Code	Ref.	Marking	Dimensions
740100 I	CCS-01AM	Neutral	150 mm x 500 m
740110 I	CCS-01AM/IB	Iberdrola	150 mm x 500 m
740140 I	CCS-01AM/UF	Fenosa	150 mm x 500 m
740153 I	CCS-01AM/END	Endesa	150 mm x 500 m

UNE-EN ISO 7010

31305 ST-62A Work area delimiting

25 m work area delimiting tape reel. Please consult for other dimensions.

Code	Ref.
740180	ST-62A

UNE-EN ISO 7010

BEACON TAPES

Tapes for other uses in work areas. Ideal for areas where access cannot be prevented and there is a specific work area to tape off. These tapes are not a substitute for work area cordons. Made from polyethylene laminate 80 mm wide and printed on both sides in yellow/black and white/red colour strips.



31305 ST-63 Beacon tapes

Red and white polyethylene beacon tape. 250 m rolls and 8 cm wide.

Code	Ref.	Colour
740160	ST-63	Red and white

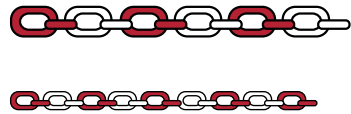
31305 ST-64 Beacon tapes

Black and yellow polyethylene beacon tape. 250 m rolls and 8 cm wide.

Code	Ref.	Colour
740170	ST-64	Black and yellow

SIGNS AND BEACONS

Demarcation



31306 Polyethylene chain

High resistant red and white sign chain. 25 m rolls.

Code	Ref.	Dimensions
745110	SP-52A	29 x 52 x 7.5 mm
745100	SP-35A	20 x 35 x 5 mm

31306 SP-01A Chain support

Code	Ref.	Model	Height	Ø	Weight
745140	SP-01A	With base	1 m	60 mm	10 kg

31306 ST-70 Signs flags

Red flag with lightning.

Code	Ref.	Dimensions
750100	ST-70	60 x 35 cm

UNE-EN ISO 7010

31306 ST-71 Banner

Red banner with lightning.

Code	Ref.	Dimensions
750110	ST-71	60 x 35 cm

UNE-EN ISO 7010

SIGNS AND BEACONS

Demarcation



31306 ST-72
Hangings signs

Code	Ref.	Length
750120 I	ST-72	1.20 m

UNE-EN ISO 7010



31306 ST-73
Hangings signs

Code	Ref.	Length
750130 I	ST-73	1.20 m

UNE-EN ISO 7010



31306 ST-74
Hangings signs

Code	Ref.	Length
750140 I	ST-74	1.20 m

UNE-EN ISO 7010



31306 ST-75
Hangings signs

Code	Ref.	Length
750150 I	ST-75	1.20 m

UNE-EN ISO 7010



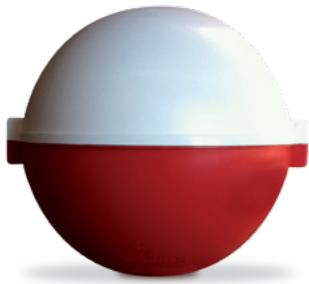
31306 VS-80
Extending barriers

Iron extending barrier with 3.5 m reflective band.

Code	Ref.
755100	VS-80

SIGNS AND BEACONS

Spheres



Daytime signaling beacon for wiring to indicate and warn aircraft and to prevent accidents. The signaling beacon is made of polyethylene with fiberglass and has high resistance to UV rays. Designed with a low aerodynamic coefficient, it features accessories that allow for quick installation and adjustment, even from a helicopter. It can be installed on live cables, guard cables, and fiber optic cables.

31307 SAE-400
Beacon for cable

External dimensions: 400 mm in diameter.
For cables with a diameter of 9 to 30 mm.
Available colors: RED-WHITE / RED-RED.

Code	Ref.	Ø	Weight
590100	SAE-400	400 mm	2.5 kg

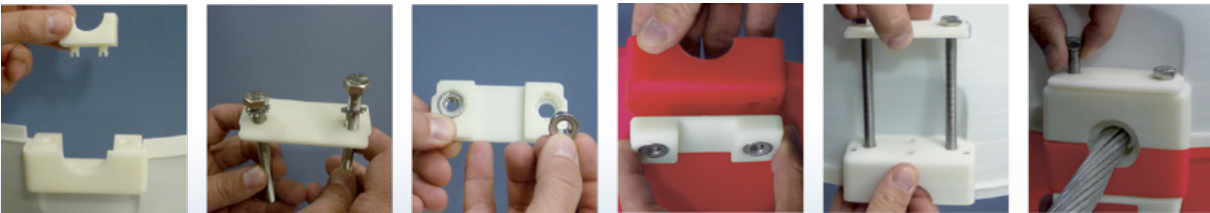


31307 SAE-600
Beacon for cable

External dimensions: 600 mm in diameter.
For cables with a diameter of 9 to 30 mm.
Available colors: ORANGE.

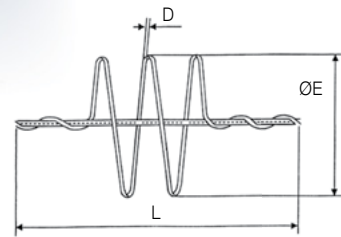
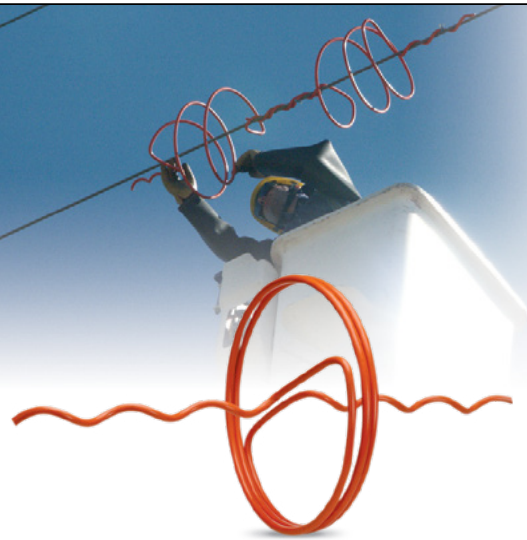
Code	Ref.	Ø	Weight
590104	SAE-600	600 mm	2.7 kg

* Available upon request.



SIGNS AND BEACONS

Spirals



31401 SPD
Bird anticollision devices

Double fixing spiral of orange color PVC,
to signalize the overhead lines in passing
areas of migratory birds.
Resistance UV rays.

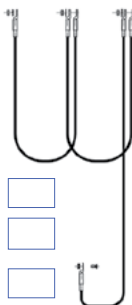
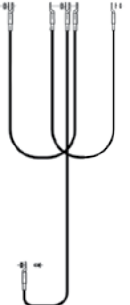
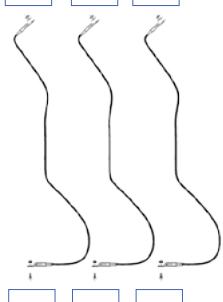
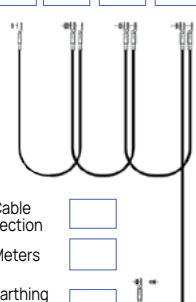
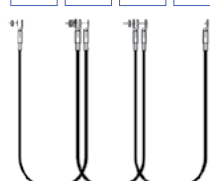
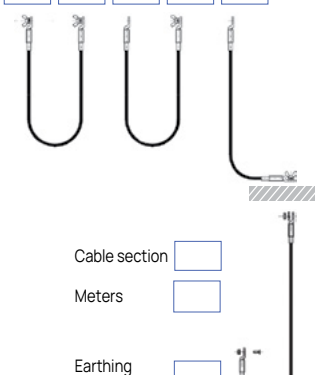
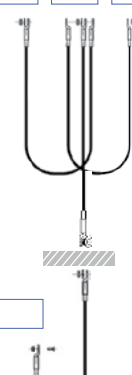
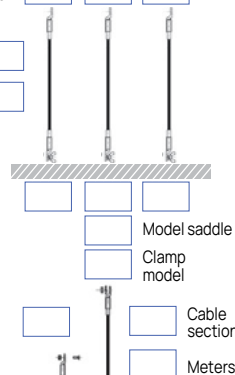
Code	Ref.	UNE type	Cable diameter		ØE (mm)	L (mm)	D (mm)
			Min. (mm)	Max. (mm)			
591120	SPD-7,00/9,50	LA-30	7.00	9.50	350	1000	12
		LA-40					
		LA-56					
591125	SPD-9,51/13,40	LA-78	9.51	13.40			
		LA-80					
591130	SPD-13,41/17,50	LA-110	13.41	17.50			
		LA-145					
591135	SPD-17,51/21,80	LA-180	17.51	21.80			
		LA-240					
		LA-280					
591140	SPD-42-7/9,5	LA-30	7.00	9.50	420		
		LA-40					
		LA-56					
591145	SPD-42-9,51/13,40	LA-78	9.51	13.40			
		LA-80					
591150	SPD-42-13,41/17,50	LA-110	13.41	17.50			
		LA-145					
591155	SPD-42-17,51/21,80	LA-180	17.51	21.80			
		LA-240					
		LA-280					



SCHEME EARTHING EQUIPMENTS

Equipment configuration schemes

A SCHEME EARTHING EQUIPMENTS

Clamp model Cable section Meters Earthing lathe mod. 	Clamp model Cable section Meters Cable section Meters Earthing lathe mod. 	Clamp model Cable section Meters Cable section Meters Earthing lathe mod. 	Clamp model Cable section Meters Cable section Meters Earthing lathe mod. 
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B AUXILIARY MATERIAL

	Un.	Model		Un.	Model
☐ Pole	☐		☐ Earthing rod	☐	
☐ Grip	☐		☐ Spool	☐	
☐ Plastic case	☐		☐ Others	☐	
☐ Nylon bag	☐		☐ Others	☐	

C CODING

ICC / Máx. kA/1s Installation voltage Entry date

Description



Explore our full product range

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