



SAFETYCATALOGUE2022




sofamel
safety & connection

www.sofamel.com

MANUFACTURER OF SAFETY AND CONNECTION MATERIAL



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Sofamel S.L. is a Spanish company dedicated to the production of electrical material of connection as well as safety and electrical protection material.

Sofamel's main objective has been to reach a high degree of specialization with the aim of providing a global solution for our clients. The same backed up by strict quality standards and by important investments in machinery and design for the manufacturing of all those products that our factory produces. This has allowed us to offer one of the most extensive ranges of articles that exists on the market.

Our commitment with excellent quality work allows our company to own the quality management system certificate under standard UNE-EN ISO 9001:2015 and R+D+i certificate under standard UNE 166002:2006, both duly granted by the Spanish Association for Standardization and Certification (AENOR).





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index

SAFETY

Gloves	08
Personal protection equipment	16
Insulation	30
Insulating poles	35
Earthing and short circuit equipment	62
Voltage detectors	114
Recue and first aid	142
Padlocks	148
Signalization and beacons	156
Ladders	164

- Gloves
- Personal protection equipment
- Insulation
- Insulating poles
- Earthing and short circuit equipment
- Voltage detectors
- Rescue and first aid
- Padlocks
- Signalization and beacons
- Ladders



DIELECTRIC GLOVES



POWER LIGHT
POWER - 100KV - SURVOLTES

530 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	Size	Length (mm)	Categories	Working Voltage (V) max.	Proof test Voltage (V) max.	Withstand Voltage (V) max.
530110	SG-25 T9	00	7*	360	AZC	500 V AC	2.500 V AC	5.000 V AC
530120	SG-25 T10							
530150	SG-50 T9	0	8*	360 410 - 460	AZC	1.000 V AC	5.000 V AC	10.000 V AC
530160	SG-50 T10							
530190	SG-10 T9	1	9		RC	7.500 V AC	10.000 V AC	20.000 V AC
530200	SG-10 T10							
530230	SG-20 T9	2	10	360	RC	17.000 V AC	20.000 V AC	30.000 V AC
530240	SG-20 T10							
530270	SG-30 T9	3	12*		RC	26.500 V AC	30.000 V AC	40.000 V AC
530280	SG-30 T10							
530320	SG-40 T10	4		410	RC	36.000 V AC	40.000 V AC	50.000 V AC
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: $\geq 600\%$
- Puncture resistance: ≥ 18 N/mm
- Tension set: $\leq 15\%$
- Resistance to low temperature: conditioning of gloves for 1 hour at $-25 \pm 3^\circ\text{C}$.
- 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

COMPOSITE INSULATED GLOVES



sofamel
COMPOSITE GLOVES
L. G. 0821
FALTA 10
L. G. 0821

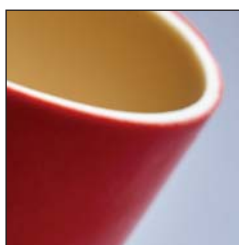
531 SGM



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*	360	
531160	SGM-50 T10							
531190	SGM-10 T9	1	< 3.4	7.500 V AC	10.000 V AC	9	410	
531200	SGM-10 T10							
531230	SGM-20 T9	2	< 3.9	17.000 V AC	20.000 V AC	10	410	
531240	SGM-20 T10							
531270	SGM-30 T9	3	< 4.2	26.500 V AC	30.000 V AC	11	410	
531280	SGM-30 T10							
531310	SGM-40 T10	4	< 4.8	36.000 V AC	40.000 V AC	12*	410	
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: $\geq 600\%$
- Tension set: $\leq 15\%$
- 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: $\geq 0,05$ 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 low temperature: conditioning of gloves for 1 hour at $-25 \pm 3^\circ\text{C}$.
 - 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




539 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 waterproof characteristics.

According to EN 388 standard.

Code	Ref.	EN 388	En 420	Length (mm)	CROSS-REFERENCE UTILIZATION WITH DIELECTRIC GLOVES			
					Dielectric gloves class			
					00 and 0	1 and 2	3	4
540113	SG-B	 Levels of mechanical resistance: Abrasion: 2 Blade cut: 1 Tear: 2 Puncture: 2	Levels of safety, comfort and skill: LEVEL 5	310	●			
540114	SG-C			320	●			
540115	SG-D			330		●		
540116	SG-E			340		●	●	
540117	SG-F			400				●

CE EN 388

Fire-resistant gloves



535 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



SG-38

CE EN 388-2122
EN 420



SG-39

540 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 388-2121
EN 420



SH-370 T8
SH-370 T9

EN 388-4131
EN 420

540 SH

Gloves made of nylon. Palm covered with blue nitrile. According to EN 388-2121 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 388-4131 and EN 420 standards.

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



SH-350R T9
SH-350R T10

EN 388-4131
EN 420



SH-GPKV T9
SH-GPKV T10

EN 388-3543
EN 420

Nylon/spandex gloves covered with blue micro-foam nitrile dots. Very soft glove: excellent for handling small, delicate objects. According to EN 420 and EN 388 -4131X 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 388-3543 and EN 420 standards.

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

CE CAT. II

Polyethylene glove case resistant to impacts and UV rays



545 CG

Plastic glove case

Code	Ref.	Dimensions
545112	CG-70	48 x 30 x 7 cm
545113	CG-120	48 x 30 x 12 cm

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



545 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



545 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



545 SGP

Plastic glove case

Plastic case to store and carry dielectric gloves.

Code	Ref.	Dimensions
545111	SGP	47.5 x 17 x 5 cm



545 SG-117

Pneumatic gauge tester

Before using dielectric gloves for live working, the EN 60903 and IEC 60903 standards recommend a visual inspection by inflating the gloves with air to detect any possible leakages.

The pneumatic tester is a pump system to optimise inflation and visual inspection, especially at the cuff level.

Code	Ref.
545120	SG-117

545 TALCUM

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



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

565 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 (**20kV 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
 CE ANSI/ISEA Z89.1.2014



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

565 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 (**20kV 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

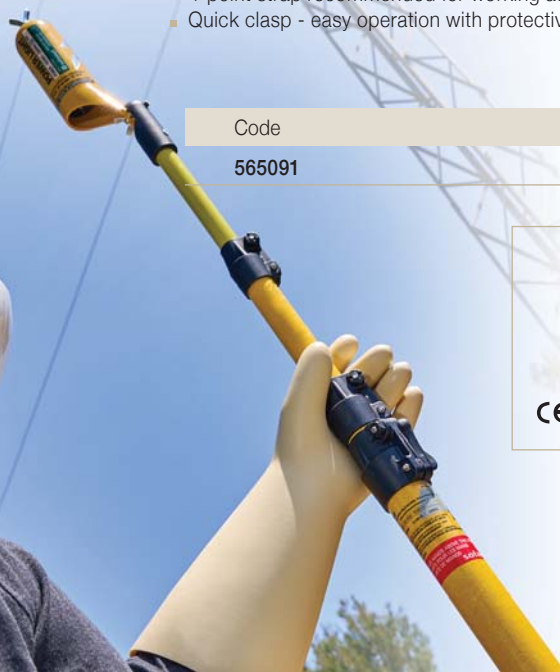
- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc (**class 2 - BOX test 7 kA/0,5 s.**).
- Compliance with standards: **EN 166; GS-ET-29.**

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)





ARMOUR
by **SOFAMEL**

Class 2 – according to standard GS-ET-29, BOX TEST, 7kA / 0.5 s.

Category 3 - according to ASTFM F2178, ATPV 36 cal / cm²

EN 166; GS-ET-29; ASTM-F2178

565 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, 7kA / 0.5 s. and category 3 – according to ASTFM 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 (**20kV 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 ASTFM 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)





CE EN 397
UNE-EN 50365:2003

Up to 1.000 V

565 SP-181

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



CE EN 397
UNE-EN 50365:2003

Up to 1.000 V

565 SPE

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

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.
565102	SPE



CE EN 12492

565 S/CABS-397

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 12492 standard.

Other colours under request.

Code	Ref.
565106	S/CABS-397



S/BQ



S/BQM

565 S/BQ & S/BQM

Chin strap

Chin strap for helmets model SP-181 and SPE.

Code	Ref.
565130	S/BQ
565131	S/BQM

Face shield



CE EN 166

570 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



CE EN 352-1

570 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 and SNR25DB SPCS.

Code	Ref.
575100	MP-4



CE EN 149

570 MP-1

Self-filtering mask

Self-filtering mask with nose brace for better adaptation.

According to EN 149 standard.

Code	Ref.
570130	MP-1



Fall-arrest harness with belt

550 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



550 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

CE EN 358



Safety harness with belt

550 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

According to EN 361 and EN 358 standards.

Code	Ref.
550111	S/ATC

CE EN 361
EN 358



550 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 100cm.

Code	Ref.
550120	SO-45

CE

550 SO-07

Adjustable rope

Anchorage element with adjustable length from 0.85m to 1.35m manufactured with 14mm diameter polyamide rope. Supplied without karabiners. According to UNE-EN 354 standard.



Code	Ref.
550170	SO-07

CE UNE-EN 354

550 S/ELAR-354

Adjustable rope

Anchorage element with adjustable length from 0.85m to 1.35m manufactured with 11mm diameter polyamide rope. Supplied with one integrated karabiner. According to UNE-EN 354 standard.



Code	Ref.
550174	S/ELAR-354

CE UNE-EN 354

550 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 1.75m. According to EN 355 standard.



Code	Ref.
550175	S/ABE-355

CE UNE-EN 355



550 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. According to EN 353-2 standard.

Code	Ref.
550140	SO-28

CE EN 353-2



550 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. According to EN 353-2 standard.

Code	Ref.
550150	SO-75

CE EN 353-2



550 S/ADM-353

Sliding fall arrest device

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

Code	Ref.
550176	S/ADM-353

CE EN 353-2



550 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.
According to EN-353-2 standard.

Code	Ref.
550177	S/CSE-353

CE EN 353-2



550 SO-74

Steel symmetrical karabiner

Steel symmetrical karabiner with safety lock.
According to EN-362 standard.

Code	Ref.
550160	SO-74

CE EN 362



550 S/MOAL

Aluminium asymmetrical karabiner

Aluminium asymmetrical karabiner with safety lock.
According to EN-362 standard.

Code	Ref.
550161	S/MOAL

CE EN 362



550 BLVC-30E

Small lifeline set

Lifeline set that consists of hook with rope operation, 16 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

550 BLVC-40E

Medium lifeline set

Lifeline set that consists of hook with rope operation, 16 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

550 BLVC-60E

Large lifeline set

Lifeline set that consists of hook with rope operation, 16 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



630 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



*For poles with diameter
between 85 and 265 mm*



555 CLIMBO 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.

It gives stability and comfort for a long time work.



Code	Ref.
555115	CLIMBO 265



*For poles with diameter
between 85 and 265 mm*



555 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



555 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	Ø	Ref.
555100	260 mm	SO-26



555 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

sofamel

DB2

DIELECTRIC BOOTS

CLASS 2

17.5_{kV}

Maximum Working Voltage

20_{kV}

Test Voltage



- Every boot tested to 20kV (AC testing as standard, DC testing available on request).
- Leakage current less than 5mA at 5kV and less than 18mA at 20kV.
- Meets the requirements of ASTM 1117 (20kV) 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.

715 DB2

Dielectric boots

Code	Ref.	Size
715140	DB2 T39	39
715150	DB2 T41	41
715155	DB2 T42	42
715160	DB2 T43	43
715165	DB2 T44	44
715170	DB2 T45	45



DB3

DIELECTRIC HV3+ BOOTS

CLASS 3

26.5_{kV}
Maximum Working Voltage

30_{kV}
Test Voltage



- 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.
- High-visibility green HV3 compound shaft.
- Meets the requirements of ASTM 1117 (20kV) and ASTM 2413.
- Also available in a moulded sole version (without fuel & oil resistance, resistance to hot contact of the sole).

715 DB3

Dielectric HV3+ boots

Code	Ref.	Size
715230	DB3 T39	39
715260	DB3 T41	41
715270	DB3 T42	42
715275	DB3 T43	43
715280	DB3 T44	44
715285	DB3 T45	45



OB2

DIELECTRIC COMPACT OVERBOOTS

CLASS 2

17.5_{kV}

Maximum Working Voltage

20_{kV}

Test Voltage



- 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 (20kV).

715 OB2

Dielectric compact overboots

Code	Ref.	Size
715300	OB2 T-L	L



OB3

DIELECTRIC HV3 MAXI OVERBOOTS

CLASS 3

26.5_{kV}

Maximum Working Voltage

30_{kV}

Test Voltage



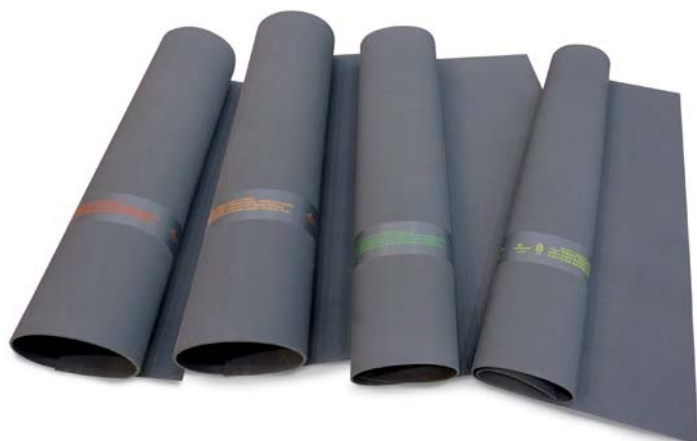
- Ingenious rear entry design ensures the boot is quick and easy to fit and remove.
- Ideal for personnel who have to continually enter and exit high voltage areas.
- Light weight.
- Fluorescent green colour.
- Seamless construction.
- Kick off lug.
- REACH Compliant.

715 OB3

Dielectric HV3 maxi overboots

Code	Ref.	Size
715340	OB3 T-L	L





585 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).

IEC 61111

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	1,5	1,4	1.000	5.000	10.000
585181	AD0-0610	0,6 x 1,0			2,3			
585182	AD0-06100	0,6 x 10			22,8			
585183	AD0-1010	1,0 x 1,0			3,8			
585184	AD0-10100	1,0 x 10			38,0			
585185	AD0-1210	1,2 x 1,0			4,6			
585186	AD0-12100	1,2 x 10	45,6					
585200	AD2-0606	0,6 x 0,6	2	2,6	1,4	17.000	20.000	30.000
585210	AD2-0610	0,6 x 1,0			2,3			
585220	AD2-06100	0,6 x 10			22,8			
585230	AD2-1010	1,0 x 1,0			3,8			
585240	AD2-10100	1,0 x 10			38,0			
585250	AD2-1210	1,2 x 1,0			4,6			
585260	AD2-12100	1,2 x 10	45,6					
585300	AD3-0606	0,6 x 0,6	3	3,2	1,7	26.500	30.000	40.000
585310	AD3-0610	0,6 x 1,0			2,9			
585320	AD3-06100	0,6 x 10			28,8			
585330	AD3-1010	1,0 x 1,0			4,8			
585340	AD3-10100	1,0 x 10			48,0			
585350	AD3-1210	1,2 x 1,0			5,8			
585360	AD3-12100	1,2 x 10	57,6					
585400	AD4-0606	0,6 x 0,6	4	5,2	2,8	36.000	40.000	50.000
585410	AD4-0610	0,6 x 1,0			4,7			
585420	AD4-06100	0,6 x 10			46,8			
585430	AD4-1010	1,0 x 1,0			7,8			
585440	AD4-10100	1,0 x 10			78,0			
585450	AD4-1210	1,2 x 1,0			9,4			
585460	AD4-12100	1,2 x 10	93,6					

Insulating stool
for indoor use



High stability
High impact resistance
High slip resistance

580 ST

Made of high impact copolymer 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: 525x525 mm
Surface: 575x575 mm

According to UNE 204001 standard.

Code	Ref.	Height (mm)	Class	Working voltage
580100	ST-36	206	4	36 kV
580110	ST-45	304	5	45 kV
580115	ST-66	304	6	66 kV

 UNE 204001

Indoor



Insulating stool
for outdoor use



High stability
High impact resistance
High slip resistance

580 STE

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: 525x525 mm

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

Outdoor



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

UNE 204001



580 ST-79

Insulating slab

Made of high impact polyethylene and 500x500 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

Low voltage insulation



595 P-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

595 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



595 SP-35

Vinyl cloth

Made of 0,3 mm thick vinyl, it is used to insulate an element in low voltage facilities. According to IEC 61112 standard.

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

 IEC 61112



595 SP-39

Fixing peg

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

Code	Ref.
595112	SP-39



595 S/PA

Insulated fixing peg 1000V

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



600 SP-52

Cowl bag

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

Code	Ref.
600100	SP-52



600 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



600 SO-31

Flat tool-holder bag

250x290 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



600 SO-32

Circular tool-holder bag

230x320 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



600 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

600 FP

Bag for pole

Nylon bags used to store and transport 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



FE-40/30



FE-20/120



FE-20/110

600 FE

Bag for earthing equipments

Nylon bags used to store and transport earthing equipments

Code	Ref.	Dimensions (mm) width x length
899050	FE-20/120	200 x 1200
899055	FE-20/110	200 x 1100
899060	FE-40/30	400 x 300



U

Universal Head



INDOOR and OUTDOOR Use in dry environment

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

605 BM-45

- Total length: 1.60 meters
- Total length without hook: 1.50 meters
- Working voltage: 45 kV
- INDOOR and OUTDOOR use in dry environment

Code	Ref.
605100	BM-45

605 BM-66

- Total length: 2.10 meters
- Total length without hook: 2.00 meters
- Working voltage: 66 kV
- INDOOR and OUTDOOR use in dry environment

Code	Ref.
605110	BM-66

605 BM-90

- Total length: 2.60 meters
- Total length without hook: 2.50 meters
- Working voltage: 90 kV
- INDOOR and OUTDOOR use in dry environment

Code	Ref.
605115	BM-90

605 BM-132

- Total length: 3.10 meters
- Total length without hook: 3.00 meters
- Working voltage: 132 kV
- INDOOR and OUTDOOR use in dry environment

Code	Ref.
605120	BM-132



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.

605 BME-45

- Total length: 1.60 meters
- Working voltage: 45 kV
- INDOOR and OUTDOOR use

Code	Ref.
605130	BME-45

605 BME-66

- Total length: 2.10 meters
- Working voltage: 66 kV
- INDOOR and OUTDOOR use

Code	Ref.
605140	BME-66

605 BME-132

- Total length: 3.10 meters
- Working voltage: 132 kV
- INDOOR and OUTDOOR use

Code	Ref.
605150	BME-132

INDOOR and OUTDOOR Use in dry environment

Telescopic pole with two sections made of reinforced fibreglass tube Ø 37 and 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.

The length of each section can be adjusted as needed by means of an adjustment system with locking handles.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



Easy
Adjustment



P
Hexagonal + Metric Head



615 BMTS-15/45

- Length folded: 0.85 meters
- Length extended: 1.486 meters
- Working voltage: 45 kV (fully extended)
- 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

615 BMTS-20/66

- Length folded: 1.10 meters
- Length extended: 1.986 meters
- Working voltage: 66 kV (fully extended)
- 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

615 BMTS-30/132

- Length folded: 1.65 meters
- Length extended: 3 meters
- Working voltage: 132 kV (fully extended)
- 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
Adjust the extended length
of each section as per your needs



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.



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*

615 BMTS-4/6

- Length folded: 1.70 meters
- Length extended: 5.97 meters (4 sections)
- Working voltage: 380 kV (fully extended)
- 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	

615 BMTS-5/9

- Length folded: 2.00 meters
- Length extended: 8.75 meters (5 sections)
- Working voltage: 420 kV (fully extended)
- 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	

615 BMTS-6/12

- Length folded: 2.30 meters
- Length extended: 11.80 meters (6 sections)
- Working voltage: 420 kV (fully extended)
- 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	

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.



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*



615 BMTS-7/10,3

- Length folded: 1.80 meters
- Length extended: 10.30 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- INDOOR and OUTDOOR use in dry environment
- Weight: 6.5 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	

615 BMTS-7/11,6

- Length folded: 2.00 meters
- Length extended: 11.67 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- INDOOR and OUTDOOR use in dry environment
- Weight: 7.3 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	

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.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Hexagonal + Metric Head



616 BMAI-2

- Total length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 66 kV
- 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

616 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
- 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

616 BMAI-3

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- 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

Stable adjusters
Reinforced fibreglass tube
Up to 12 m

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.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Hexagonal + Metric Head



617 BMAE-2

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

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

617 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
- INDOOR and OUTDOOR use

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

617 BMAE-3

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

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

Stable adjusters
Reinforced fibreglass tube
Up to 12 m



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Hexagonal + Metric Head



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.

616 BMAI-3V

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- 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

616 BMAI-4V

- Total length: 4 meters
- Composed of 2 sections of 2 m each
- Working voltage: 220 kV
- 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

616 BMAI-5V

- Total length: 5 meters
- Composed of 2 sections of 2 m + 1 section of 1 m
- Working voltage: 380 kV
- 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

616 BMAI-6V

- Total length: 6 meters
- Composed of 3 sections of 2 m each
- Working voltage: 380 kV
- 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

Stable adjusters
Reinforced fibreglass tube
Up to 12 m

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) head.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Hexagonal + Metric Head



617 BMAE-3V

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

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

617 BMAE-4V

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

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

617 BMAE-5V

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

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

617 BMAE-6V

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

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

Stable adjusters
Reinforced fibreglass tube
Up to 12 m



U
Universal Head



B
Bayonet Head



H
Hexagonal Head

IEC 60855
EN-50508



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.

618 BSC-M3

- Length: 1.5 meters
- Working voltage: 30 kV
- INDOOR and OUTDOOR use (Humid environment)

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

618 BSC-M4

- Length: 2 meters
- Working voltage: 45 kV
- INDOOR and OUTDOOR use (Humid environment)

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

618 BSC-M5

- Length: 2.5 meters
- Working voltage: 66 kV
- INDOOR and OUTDOOR use (Humid environment)

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

618 BSC-M6

- Length: 3 meters
- Working voltage: 132 kV
- INDOOR and OUTDOOR use (Humid environment)

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



U
Universal Head



B
Bayonet Head



H
Hexagonal Head

IEC 60855
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.

619 BSC-M22

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

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

619 BSC-M32

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

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

619 BSC-M33

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

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

619 BSC-M222

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

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

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
EN-50508



619 BSC-A43

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

Code	Ref.
616724	BSC-A43U
616725	BSC-A43B

619 BSC-A44

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

Code	Ref.
616726	BSC-A44U
616727	BSC-A44B

619 BSC-A54

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

Code	Ref.
616728	BSC-A54U
616729	BSC-A54B

619 BSC-A55

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

Code	Ref.
616730	BSC-A55U
616731	BSC-A55B

619 BSC-A66

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

Code	Ref.
616732	BSC-A66U
616733	BSC-A66B

619 BSC-A444

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

Code	Ref.
616734	BSC-A444U
616735	BSC-A444B



H
Hexagonal Head of 22



Hexagonal of 22

IEC 60855
UNE-EN-50508



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 78).

INDOOR and OUTDOOR
Use in humid environment

625 BSC-132/BP

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

Code	Ref.
672210	BSC-132/BP



One-section fuse disconnecting pole of Ø 40 mm with hand protector and MANEUVERING handle to open and close the hand-grip head.

Light and with an easy operation system it helps to extract fuses in a proper way.

INDOOR and OUTDOOR
Use in dry environment

625 BEF-9000/24

- Length: 1.07 meters
- For fuses with diameter from 30 to 90 mm.
- Working voltage: 24 kV
- INDOOR and OUTDOOR use in dry environment

Code	Ref.
625105	BEF-9000/24

625 BEF-9000/36

- Length: 1.72 meters
- For fuses with diameter from 30 to 90 mm.
- Working voltage: 36 kV
- INDOOR and OUTDOOR use in dry environment

Code	Ref.
625107	BEF-9000/36





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.



INDOOR and OUTDOOR
Use in dry environment

625 BDC

- Length: 1.6 meters
- Working voltage: 45 kV
- INDOOR and OUTDOOR use in dry environment
- Copper earthing cable: 16 mm² section and 2 meters long

Code	Ref.
625110	BDC



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

Used to remove the casualty from the danger area in rescue operations.

610 BS-45

- Length: 1.79 meters
- Working voltage: 45 kV

Code	Ref.
610100	BS-45

610 BS-66

- Length: 2.29 meters
- Working voltage: 66 kV

Code	Ref.
610110	BS-66

610 BS-90

- Length: 2.79 meters
- Working voltage: 90 kV

Code	Ref.
610115	BS-90



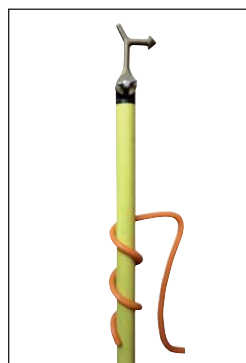


630 AVPM

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



630 GSP

Hook for pole suspension

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

Code	Ø	Ref.
630170	32 mm	GSP-32



630 GPB

Coil holder hook

Insulating band coil holder hook, Universal-K connection.

Code	Ref.
630177	GPB



630 GS-49

Rescue hook

Rescue hook with M-10 thread.

Code	Ref.
630130	GS-49



630 Wall support for poles

Product supplied with screws and nail plugs.

Code	Ø	Ref.
615206	40	ROBUST PLASTIC WALL SUPPORT FOR POLES

630 Fuse Holder

Product supplied with screws and nail plugs.

Code	Ref.
545135	PLASTIC HOLDER FOR FUSES



630 SM-02R

Metric-10 maneuvering hook

Maneuvering hook with M-10 thread.

Code	Ref.
630100	SM-02R



630 SM-02C

Hexagonal-12 maneuvering hook

Maneuvering hook with Hexagonal-12 head.

Code	Ref.
630110	SM-02C



630 SM-02K

Universal-K maneuvering hook

Maneuvering hook with Universal-K head.

Code	Ref.
630120	SM-02K



630 SM-03K

Straight Universal-K maneuvering hook

Maneuvering hook with straight Universal-K connection.

Code	Ref.
630122	SM-03K



630 SM-90K

Universal-K 90° maneuvering hook

Maneuvering hook with Universal-K 90° connection.

Code	Ref.
630123	SM-90K



630 ADAP. B-UK

Bayonet to Universal-K adapter

Adapter from Bayonet to Universal-K head.

Code	Ref.
630107	ADAP. B-UK



630 ADAP. B-M10

Bayonet to M-10 adapter

Adapter from Bayonet head to M-10 thread.

Code	Ref.
630108	ADAP. B-M10



630 ADAP. B-P

Bayonet to Polivalent adapter

Adapter from Bayonet head to Polivalent.

Code	Ref.
630167	ADAP. B-P



630 ADAP. H12-M10

Hexagonal-12 to M-10 adapter

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

Code	Ref.
630101	ADAP. H12-M10



630 GA-TML

Operating hook

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

Code	Ref.
630116	GA-TML



630 ADAP. UK-B

Universal-K to Bayonet adapter

Adapter from Universal-K to Bayonet head.

Code	Ref.
630162	ADAP. UK-B



630 ADAP. UK-P

Universal-K to Polivalent adapter

Adapter from Universal-K to Polivalent head.

Code	Ref.
630163	ADAP. UK-P



630 ADAP. H12-UK

Hexagonal-12 to Universal-K adapter

Adapter from Hexagonal-12 to Universal-K head.

Code	Ref.
630109	ADAP. H12-UK



630 ADAP. M10-UK

M-10 to Universal-K adapter

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

Code	Ref.
630106	ADAP. M10-UK



630 ADAP. UK-M10

Universal-K to M-10 adapter

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

Code	Ref.
630102	ADAP. UK-M10



630 ADAP. H12-B

Hexagonal-12 to bayonet adapter

Adapter from Hexagonal-12 to bayonet head.

Code	Ref.
630166	ADAP. H12-B

Earthing & Short Circuit Protection Equipment

Safety

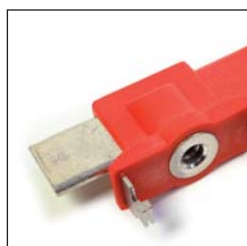
Low voltage electric panels

SAFETY CATALOGUE 2022



659 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.



NH1-3
Disconnecting and earthing blade



TT-38A
Earthing lathe

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 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

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



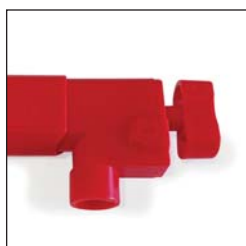
659 ECBT-PTA3

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.



PTA
Insulated earth clamp

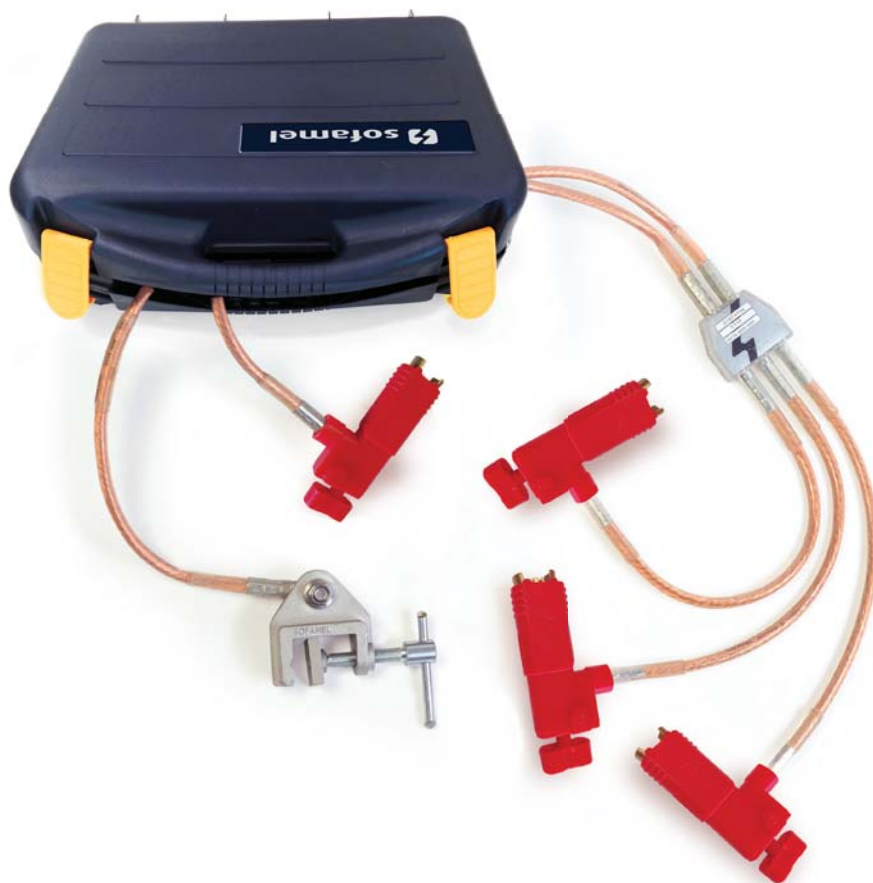


TT-38A
Earthing lathe

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 long for earthing.
- 1 branch-joint connector (4 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.	Short circuit current Max. ICC
659140	ECBT-PTA3	6.9 KA/1s



659 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.



PTA

Insulated earth clamp



TT-38A

Earthing lathe

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.

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



659 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 copper 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		•	



659 ECBT-SHUNT4

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:

- 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 & Short Circuit Protection Equipment

Safety

Low voltage electric panels

SAFETY CATALOGUE 2022



NH1-3
Disconnecting and earthing blade



NH00
Disconnecting and earthing blade



659 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)



MPUCN
Neutral clamp

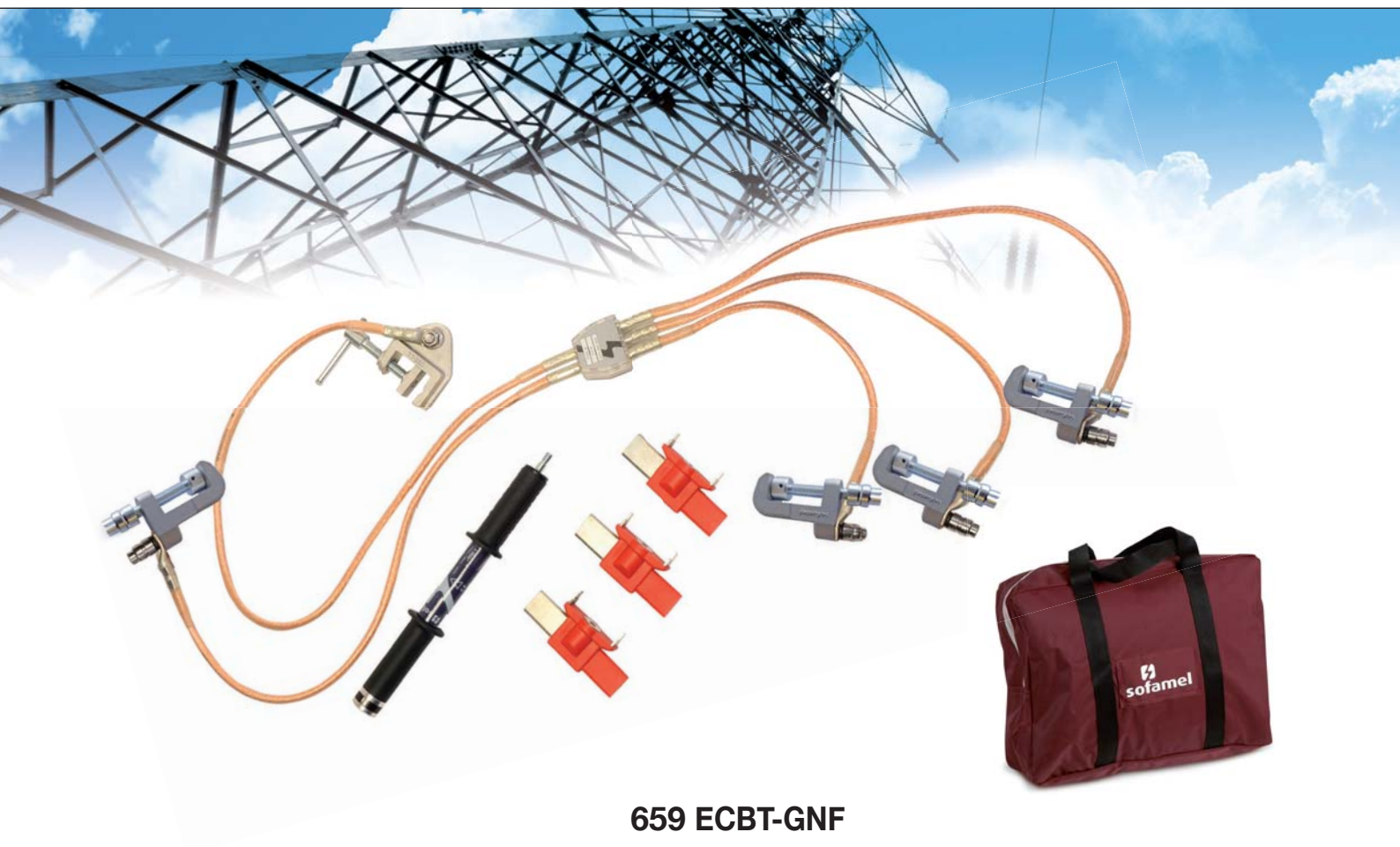


PTA
Insulated neutral clamp



TT-38A
Earthing lathe

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



659 ECBT-GNF

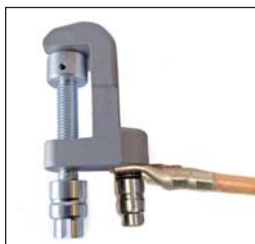
Earthing and short-circuit kit for low-voltage distribution boards. The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work. With insulated pole for extracting blades using M-10 screw. According to IEC 61230 standard.

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.



NH1-3
Disconnecting and earthing blade.



MPUC
Earthing clamp



TT-38A
Earthing lathe

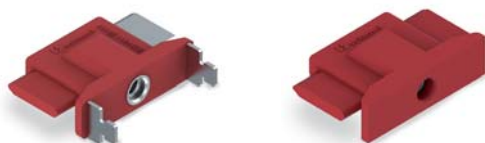
Code	Ref.	Cable Length	Short circuit current Max. ICC
659170	ECBT-GNF/35	35 mm ²	9 KA/1s
659180	ECBT-GNF/50	50 mm ²	12 KA/1s



BLADES

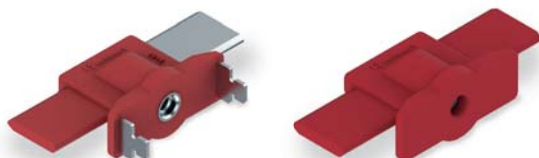
Disconnecting and earthing blades

660 NH00 / NH000



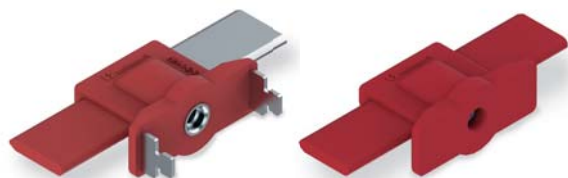
Code	Ref.	Description	Short circuit current Max ICC
659185	NH000	Earthing	12 KA/1s
659126	NH000/A	Fully isolated	

660 NH0



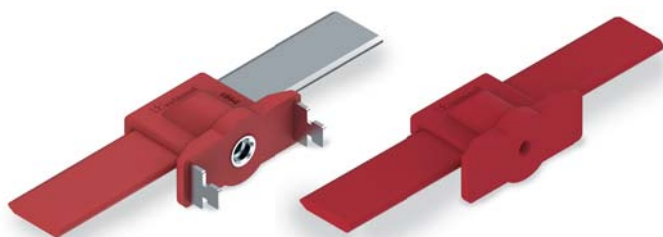
Code	Ref.	Description	Short circuit current Max ICC
659186	NH0	Earthing	12 KA/1s
659127	NH0/A	Fully isolated	

660 NH1-3

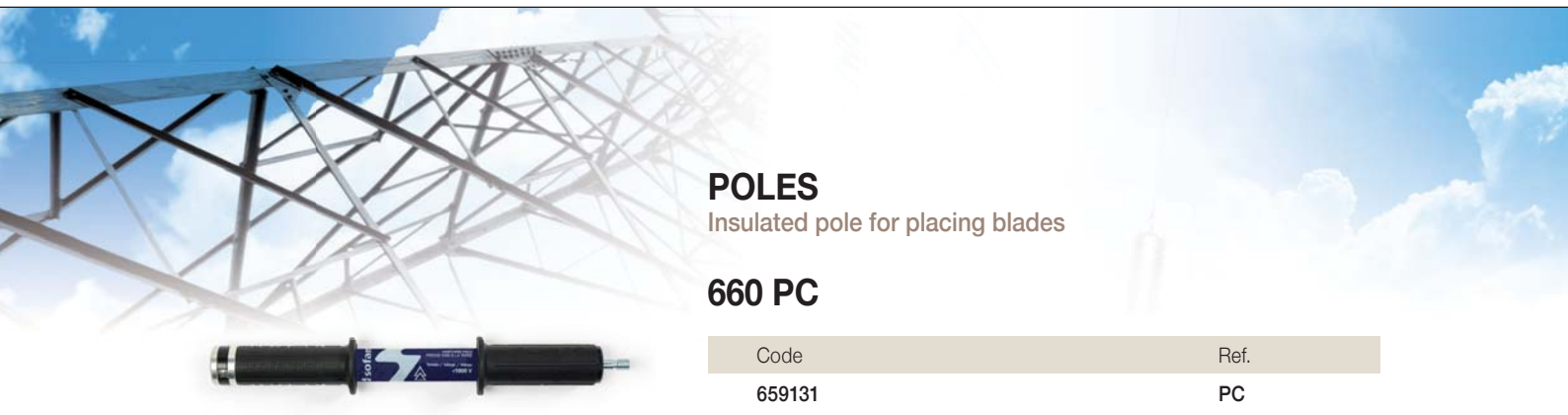


Code	Ref.	Description	Short circuit current Max ICC
659187	NH1-3	Earthing	12 KA/1s
659128	NH1-3/A	Fully isolated	

660 NH4



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



POLES

Insulated pole for placing blades

660 PC

Code	Ref.
659131	PC



Insulated copper cables

Copper PVC-insulated cables of 25 mm² section for short circuit of phases, connected to a trifurcating joint from which runs a copper PVC-insulated cable of 25 mm² section for earthing and a copper PVC-insulated cable from 25 mm² section for neutral.

Can be adjusted to suit client needs.

According to IEC 61230 standard.



MPUC

SHUNT
(SHPC, SHCD
and SHPL)

PTA

CLAMPS

Earthing clamps

660 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 gr
659139	MPUCF	148 x 55 x 33 mm	∅ 20 mm		

660 PTA

Code	Ref.	∩ / ∅ max.	Short circuit current Max. ICC	Weight
659132	PTA	8 - 22 mm	6.9 KA/1s	325 gr

660 SHUNT

Code	Ref.	Dimensions	Capacity	Point Proof	Splice	∩	∩	∩	Short circuit current Max. ICC	Voltage Max.	Weight
659020	SHPC	143 x 54 x 26 mm	∅ 35-240 mm ²			•			200 A	1000 V	250 gr
659021	SHCD	143 x 54 x 26 mm	∅ 35-240 mm ²	Taking 4 mm	Connector M8		•				
659022	SHPL	143 x 54 x 26 mm	∩ 2-25 mm					•			

660 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 mm ²	Taking 4 mm	•	200 A	1000 V	-

660 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 mm ²	200 A	1000 V	-

* Consult for other lengths.

Earthing & Short Circuit Protection Equipment

Safety

Low voltage electric panels

SAFETY CATALOGUE 2022

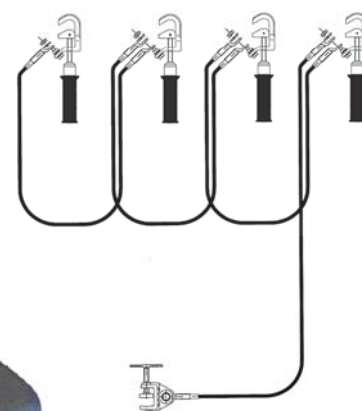


659 ECBT-MPUE

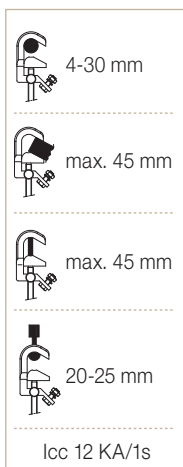
Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

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.

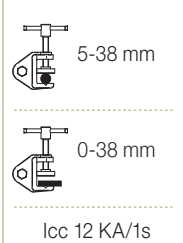
According to IEC 61230 standard.



MPE
Low voltage clamp



TT-38A
Earthing lathe



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

Earthing & Short Circuit Protection Equipment

Safety

Low voltage electric panels

SAFETY CATALOGUE 2022

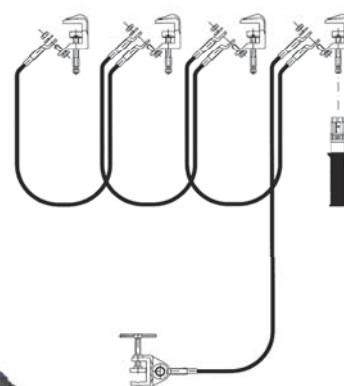


659 ECBT-MPUBTH

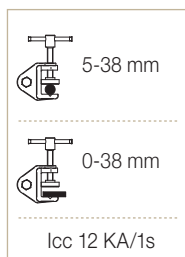
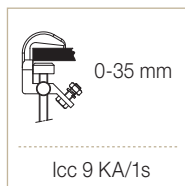
Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

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

According to IEC 61230 standard.



MPUBT/H
Low voltage clamp



TT-38A
Earthing lathe



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



658 ELBT-CC

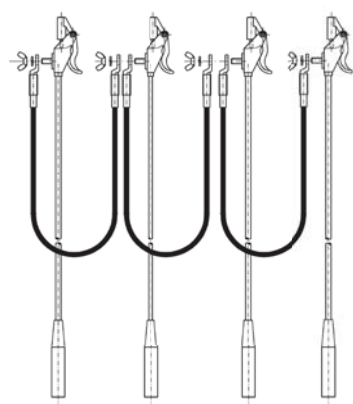
Short-circuit equipment for low voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

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.



PEBT
Low voltage clamp



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

Earthing & Short Circuit Protection Equipment

Safety

Low voltage overhead lines

SAFETY CATALOGUE 2022

658 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.

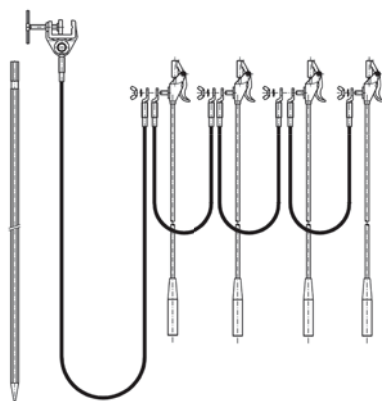
According to IEC 61230 standard.



PEBT
Low voltage clamp



TT-38A
Earthing lathe



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



Earthing & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Screw clamps

SAFETY CATALOGUE 2022



Go up at once

661 PATL-MPUB

Earthing and short-circuit equipment for medium 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 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.

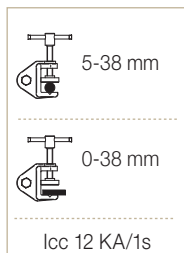
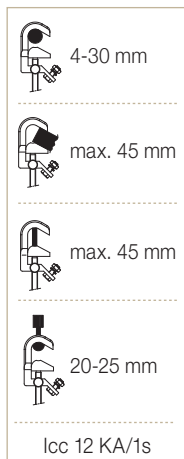
According to IEC 61230 standard.



MPUB
Medium voltage clamp



TT-38A
Earthing lathe



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.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
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

Earthing & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Screw clamps

SAFETY CATALOGUE 2022

High Icc resistance

662 PATL-MPLB

Earthing and short-circuit equipment for medium 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 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.

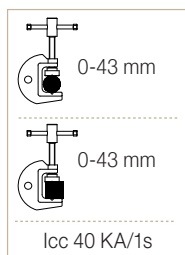
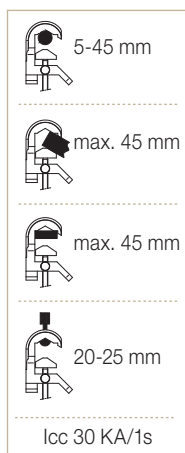
According to IEC 61230 standard.



MPL
Medium voltage clamp



TT-50
Earthing lathe



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

Earthing & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Automatic Clamps

SAFETY CATALOGUE 2022

Fast installation

661 PATL-MC-3

3 clamps

Earthing and short-circuit equipment for medium 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.

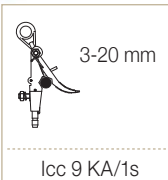
According to IEC 61230 standard.



PP-3U
Clamp dispenser



MC
Medium voltage clamp



Composed of:

- 3 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 dispenser head with hook with M-10 thread.
- 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.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
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

Earthing & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Automatic Clamps

SAFETY CATALOGUE 2022

Fast installation

661 PATL-MC-4

4 clamps

Earthing and short-circuit equipment for medium 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.



PP-4U
Clamb dispenser



MC
Medium voltage clamp

Composed of:

- 4 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 dispenser head with hook with M-10 thread.
- 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.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
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

Earthing & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Automatic Clamps

SAFETY CATALOGUE 2022

661 PATL-MCL-3

3 clamps

Earthing and short-circuit equipment for medium voltage overhead lines.

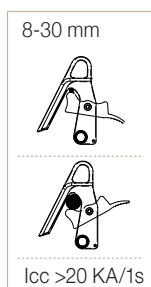
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

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.



PP-3U MCL
Clamp dispenser



MCL
Medium voltage clamp



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.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
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 & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Automatic Clamps

SAFETY CATALOGUE 2022

661 PATL-MCL-4

4 clamps

Earthing and short-circuit equipment for medium voltage overhead lines.

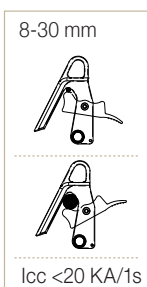
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

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.



PP-4U MCL
Clamp dispenser



MCL
Medium voltage clamp



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.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
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 & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Automatic Clamps

SAFETY CATALOGUE 2022

*With final mechanical fixing
Fast installation + Lock system*

661 PATL-PCA25-3

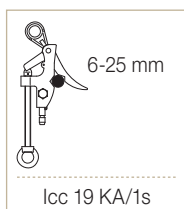
3 clamps

Earthing and short-circuit equipment for medium 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 PCA25 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.

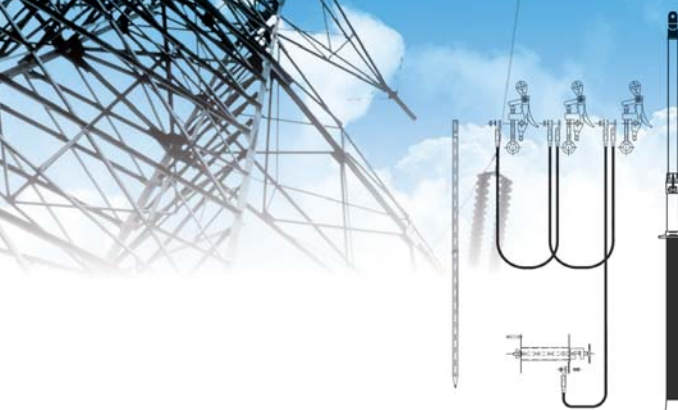
According to IEC 61230 standard.



PP-3U
Clamb dispenser



PCA-25
Medium voltage clamp



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 dispenser head with hook with M-10 thread.
- 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.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
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

Earthing & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Automatic Clamps

SAFETY CATALOGUE 2022

*With final mechanical fixing
Fast installation + Lock system*

661 PATL-PCA25-4

4 clamps

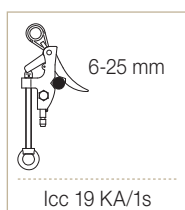
Earthing and short-circuit equipment for medium voltage overhead lines.

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

The PCA25 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.



PP-4U
Clamb dispenser



PCA-25
Medium voltage clamp



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 dispenser head with hook with M-10 thread.
- 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.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
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

Earthing & Short Circuit Protection Equipment

Safety

High voltage overhead lines

SAFETY CATALOGUE 2022

661 PATL-MPLEP/9595

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.

The MPLE 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 clamps at the same time reducing installation time considerably.

According to IEC 61230 standard.

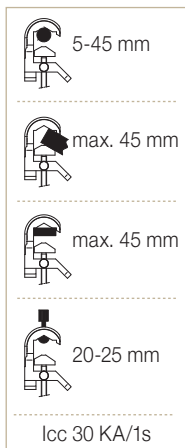
PEP-ECO
Equipotential
clamp for post



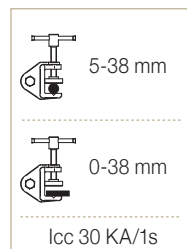
MPLE
High voltage clamp



MPLP
High voltage clamp



TT-38L
Earthing lathe



Max. Ø 400 mm



Mix. Ø 90 mm



Composed of:

- 2 MPLE 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 95 mm² section and 2.5 m long.
- 1 copper cable with PVC insulation of 95 mm² section and 5 m long.
- 3 TT-38L milling earthing lathe.
- 1 PEP-ECO clamp for post.
- 1 copper cables with PVC insulation of 95 mm² section and 13 m long.
- 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
T660130	PATL-MPLEP/9595	30 KA/1s

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

High voltage overhead lines

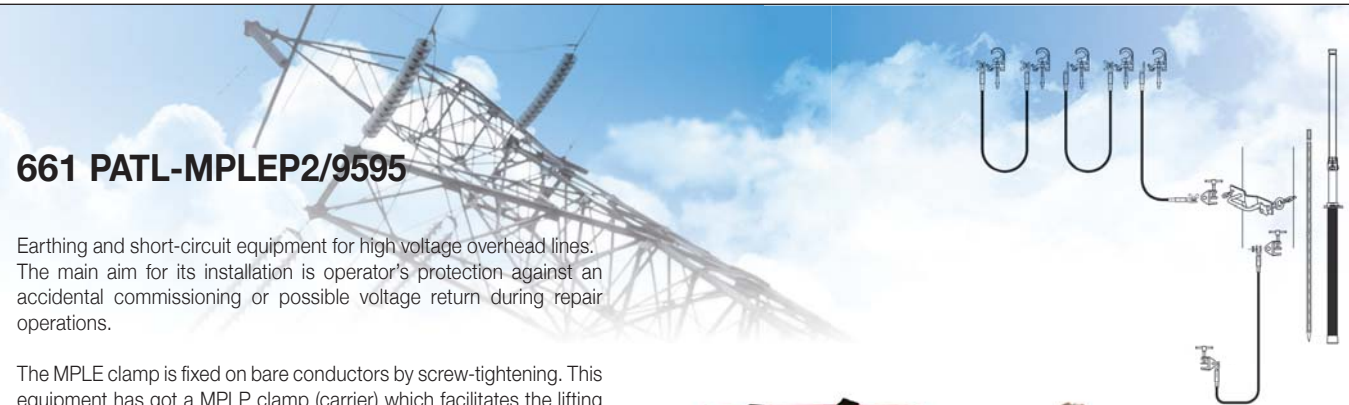
SAFETY CATALOGUE 2022

661 PATL-MPLEP2/9595

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.

The MPLE 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 clamps at the same time reducing installation time considerably.

According to IEC 61230 standard.



MPLE
High voltage clamp



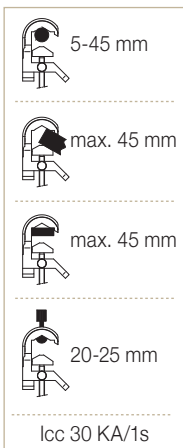
MPLP
High voltage clamp



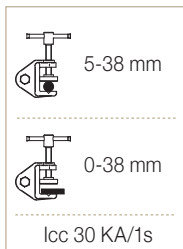
Max. Ø 400 mm



Mix. Ø 90 mm



TT-38L
Earthing lathe



Composed of:

- 3 MPLE aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 5 and 45 mm.
- 2 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 95 mm² section and 2.5 m long.
- 1 copper cables with PVC insulation of 95 mm² section and 4 m long.
- 3 TT-38L milling earthing lathe.
- 1 PEP-ECO clamp for post.
- 1 copper cables with PVC insulation of 95 mm² section and 13 m long.
- 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
T660120	PATL-MPLEP2/9595	30 KA/1s

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

Medium voltage overhead lines - Automatic Clamps

SAFETY CATALOGUE 2022

661 PATL-MC3P/3525

Earthing and short-circuit equipment for medium 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.

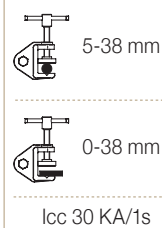
According to IEC 61230 standard.



PP-3U
Clamp dispenser



TT-38L
Earthing lathe



PEP-ECO
Equipotential
clamp for post



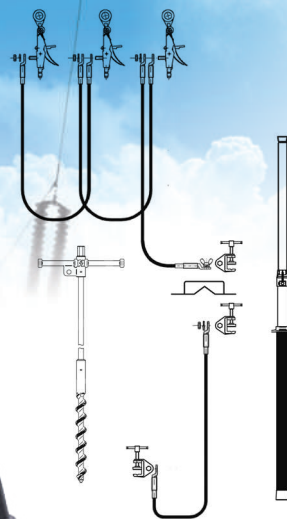
MC
Medium voltage clamp



Max. Ø 400 mm



Mix. Ø 90 mm



Composed of:

- 3 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 dispenser head with hook with M-10 thread.
- 2 copper cables with PVC insulation of 95 mm² section and 2.5 m long.
- 1 copper cable with PVC insulation of 95 mm² section and 5 m long.
- 3 TT-38L milling earthing lathe.
- 1 PEP-ECO clamp for post.
- 1 copper cables with PVC insulation of 95 mm² section and 13 m long.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole.
- 1 bag to store and transport the earthing rod.

Code	Ref.	Short circuit current Max. ICC
66012	PATL-MC3P/3525	9 KA/1s

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

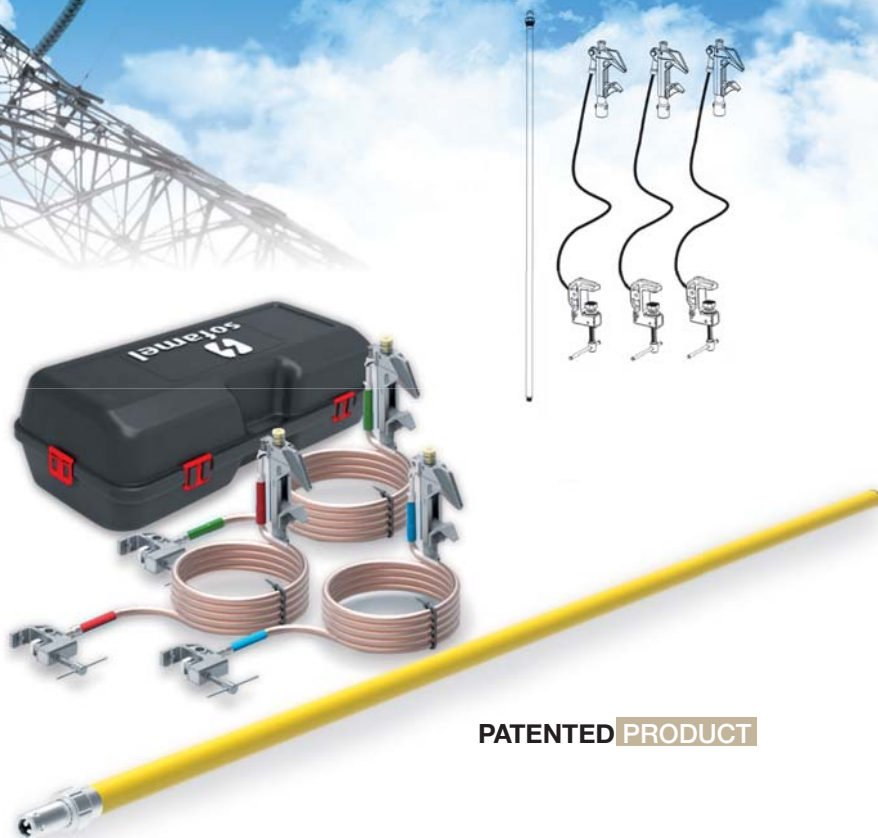
High voltage overhead lines

SAFETY CATALOGUE 2022

662 PATL-MPS/9510

Earthing and short-circuit equipment for high overhead lines.

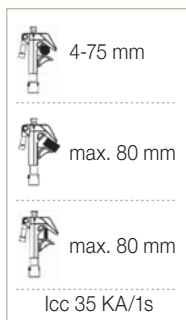
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations with the control of the manipulation of all the components of the equipment through independent keys, thus preventing third parties from manipulating safety.



PATENTED PRODUCT



MPS
High voltage clamp



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 31.5kA (Cable 120mm²).
Perform the entire maneuver with a single pole.

Sequence:

- 1. Earthing lathe lock
- 2. clamp lock
- 3. Key recovery
- 4. Repeat until you have all three phases set 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. 80mm and bars flexible distribution of max. 80mm
- 3 copper cables with PVC insulation of 95 mm² section and 10m length.
- 1 special pole of 2.7 m with key mechanism.
- 3 earthing lathes with key lock.
- 3 independently coded keys.
- 3 latch bolt locker.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole.



TTS
Earthing lathe



Keys safety station
(not included)

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

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

Medium voltage substations - Steerable clamps

SAFETY CATALOGUE 2022



Difficult access areas

662 PATC-5014H

Earthing and short-circuit equipment for medium 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.

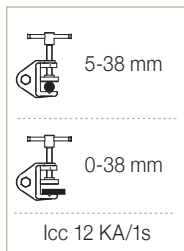
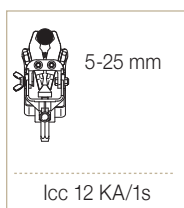
According to IEC 61230 standard.



5014H
Medium voltage clamp



TT-38A
Earthing lathe



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.

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 & Short Circuit Protection Equipment

Safety

Medium voltage substations - Bus-bar clamps

SAFETY CATALOGUE 2022

Special bus-bar clamp

662 PATC-PP15

Earthing and short-circuit equipment for medium voltage substations.

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

The PP15 clamp is suitable for installations with flat bars in horizontal or vertical position.

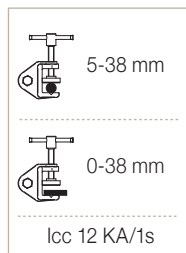
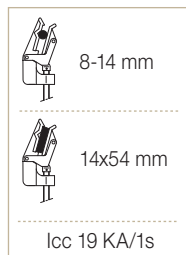
According to IEC 61230 standard.



PP-15
Medium voltage clamp



TT-38A
Earthing lathe



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.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment.

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 & Short Circuit Protection Equipment

Safety

Medium voltage substations - Screw clamps

SAFETY CATALOGUE 2022



Multiple fixing areas

662 PATC-MPU

Earthing and short-circuit equipment for medium voltage 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.

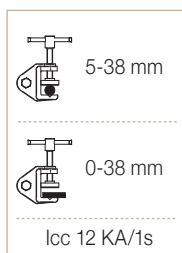
According to IEC 61230 standard.



MPU
Medium voltage clamp



TT-38A
Earthing lathe



Composed of:

- 3 MPU aluminium alloy clamps with screw tighten and Bayonet (MPUB) or Hexagonal-12 (MPU/H) 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.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment.

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 & Short Circuit Protection Equipment

Safety

Medium voltage substations - Screw clamps

SAFETY CATALOGUE 2022

Earthing at fixing point

662 PATCPF-MPU

Earthing and short-circuit equipment for medium voltage 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.

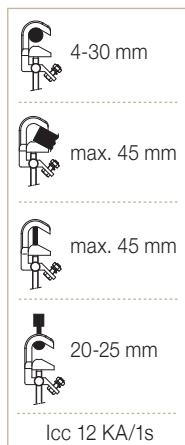
According to IEC 61230 standard.



MPU
Medium voltage clamp



EMP
insulating grip



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.

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

Earthing & Short Circuit Protection Equipment

Safety

High voltage overhead lines and substations

SAFETY CATALOGUE 2022

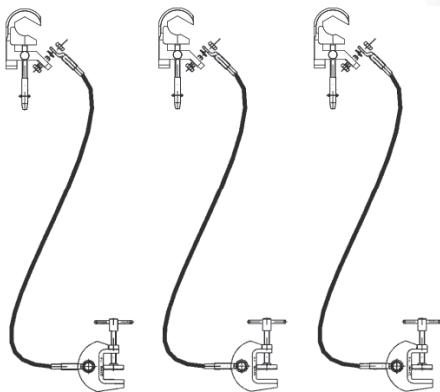
Light clamps

665 PAT-MPL

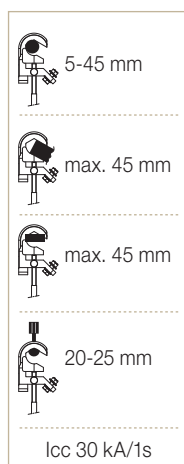
Phase earthing and short-circuit equipment for high voltage overhead lines.

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

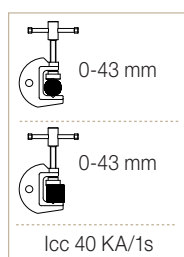
According to IEC 61230 standard.



MPL
Medium voltage 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 (mm ²)	Length (m)	Short circuit current Max. ICC
680176	PAT-MPL/05006		6	
680177	PAT-MPL/05007		7	
680178	PAT-MPL/05008	50	8	12 KA/1s
680179	PAT-MPL/05009		9	
680180	PAT-MPL/05010		10	
680186	PAT-MPL/07006		6	
680187	PAT-MPL/07007		7	
680188	PAT-MPL/07008	70	8	19 KA/1s
680189	PAT-MPL/07009		9	
680190	PAT-MPL/07010		10	
680196	PAT-MPL/09506		6	
680197	PAT-MPL/09507		7	
680198	PAT-MPL/09508	95	8	25 KA/1s
680199	PAT-MPL/09509		9	
680200	PAT-MPL/09510		10	
680206	PAT-MPL/12006		6	
680207	PAT-MPL/12007		7	
680208	PAT-MPL/12008	120	8	30 KA/1s
680209	PAT-MPL/12009		9	
680210	PAT-MPL/12010		10	

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

High voltage overhead lines

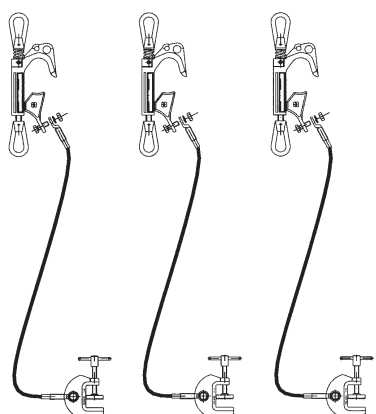
SAFETY CATALOGUE 2022

663 PATL-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 61230 standard.



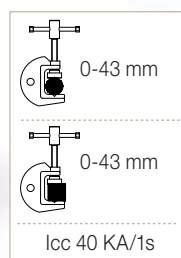
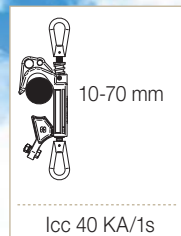
Cod. 630116
Operating hook.
Not included in the equipment.



TML
Medium voltage 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 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 (mm ²)	Length (m)	Short circuit current Max. ICC
670176	PATL-TML/05006		6	
670177	PATL-TML/05007		7	
670178	PATL-TML/05008	50	8	12 KA/1s
670179	PATL-TML/05009		9	
670180	PATL-TML/05010		10	
670186	PATL-TML/07006		6	
670187	PATL-TML/07007		7	
670188	PATL-TML/07008	70	8	19 KA/1s
670189	PATL-TML/07009		9	
670190	PATL-TML/07010		10	
670196	PATL-TML/09506		6	
670197	PATL-TML/09507		7	
670198	PATL-TML/09508	95	8	25 KA/1s
670199	PATL-TML/09509		9	
670200	PATL-TML/09510		10	
670206	PATL-TML/12006		6	
670207	PATL-TML/12007		7	
670208	PATL-TML/12008	120	8	30 KA/1s
670209	PATL-TML/12009		9	
670210	PATL-TML/12010		10	
670216	PATL-TML/15006		6	
670217	PATL-TML/15007		7	
670218	PATL-TML/15008	150	8	40 KA/1s
670219	PATL-TML/15009		9	
670220	PATL-TML/15010		10	

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

High voltage overhead lines

SAFETY CATALOGUE 2022



663 PATL-PA40

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 61230 standard.



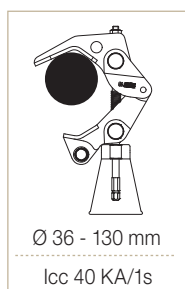
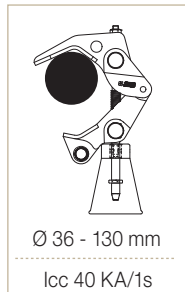
Composed of:

- 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.

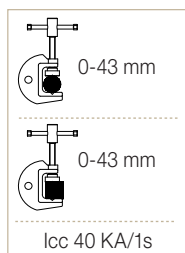


PA40

High voltage clamp with bayonet or hexagonal shaft option



TT-50
Earthing lathe



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
674176	PATL-PA40/05006		6	
674177	PATL-PA40/05007		7	
674178	PATL-PA40/05008	50	8	12 KA/1s
674179	PATL-PA40/05009		9	
674180	PATL-PA40/05010		10	
674186	PATL-PA40/07006		6	
674187	PATL-PA40/07007		7	
674188	PATL-PA40/07008	70	8	19 KA/1s
674189	PATL-PA40/07009		9	
674190	PATL-PA40/07010		10	
674196	PATL-PA40/09506		6	
674197	PATL-PA40/09507		7	
674198	PATL-PA40/09508	95	8	25 KA/1s
674199	PATL-PA40/09509		9	
674200	PATL-PA40/09510		10	
674206	PATL-PA40/12006		6	
674207	PATL-PA40/12007		7	
674208	PATL-PA40/12008	120	8	30 KA/1s
674209	PATL-PA40/12009		9	
674210	PATL-PA40/12010		10	
674216	PATL-PA40/15006		6	
674217	PATL-PA40/15007		7	
674218	PATL-PA40/15008	150	8	40 KA/1s
674219	PATL-PA40/15009		9	
674220	PATL-PA40/15010		10	

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

High voltage overhead lines

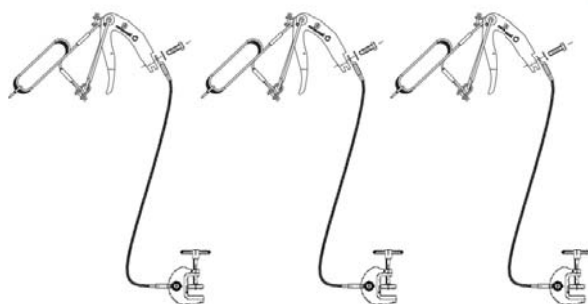
SAFETY CATALOGUE 2022

663 PATL-PAV

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 61230 standard.

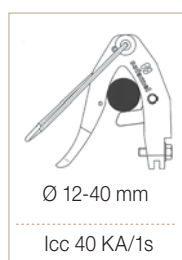


Composed of:

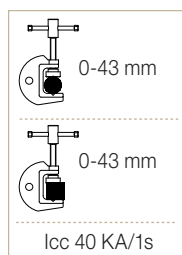
- 3 PAV aluminium alloy clamps with screw tightener for cylindrical conductors with diameter between 12 and 40 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.



PAV
High voltage clamp



TT-50
Earthing lathe



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
673101	PATL-PAV/05006		6	
673102	PATL-PAV/05007		7	
673103	PATL-PAV/05008	50	8	12 KA/1s
673104	PATL-PAV/05009		9	
673105	PATL-PAV/05010		10	
673106	PATL-PAV/07006		6	
673107	PATL-PAV/07007		7	
673108	PATL-PAV/07008	70	8	19 KA/1s
673109	PATL-PAV/07009		9	
673110	PATL-PAV/07010		10	
673111	PATL-PAV/09506		6	
673112	PATL-PAV/09507		7	
673113	PATL-PAV/09508	95	8	25 KA/1s
673114	PATL-PAV/09509		9	
673115	PATL-PAV/09510		10	
673116	PATL-PAV/12006		6	
673117	PATL-PAV/12007		7	
673118	PATL-PAV/12008	120	8	30 KA/1s
673119	PATL-PAV/12009		9	
673120	PATL-PAV/12010		10	

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

High voltage substations

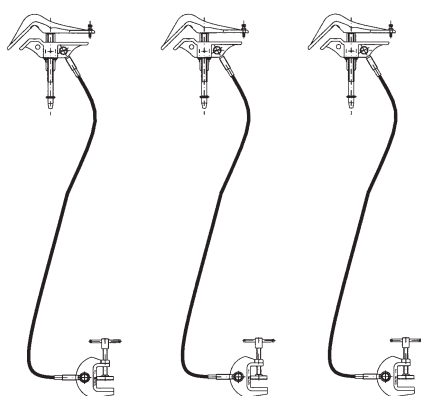
SAFETY CATALOGUE 2022

664 PATC-TMC

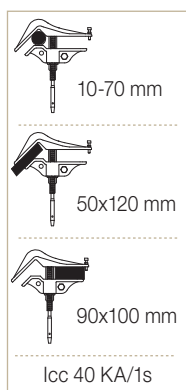
Phase earthing and short-circuit equipment for high voltage substations.

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

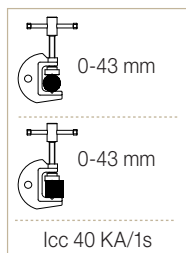
According to IEC 61230 standard.



TMC
High voltage clamp



TT-50
Earthing lathe



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 (mm ²)	Length (m)	Short circuit current Max. ICC
675176	PATC-TMC/05006		6	
675177	PATC-TMC/05007		7	
675178	PATC-TMC/05008	50	8	12 KA/1s
675179	PATC-TMC/05009		9	
675180	PATC-TMC/05010		10	
675186	PATC-TMC/07006		6	
675187	PATC-TMC/07007		7	
675188	PATC-TMC/07008	70	8	19 KA/1s
675189	PATC-TMC/07009		9	
675190	PATC-TMC/07010		10	
675196	PATC-TMC/09506		6	
675197	PATC-TMC/09507		7	
675198	PATC-TMC/09508	95	8	25 KA/1s
675199	PATC-TMC/09509		9	
675200	PATC-TMC/09510		10	
675206	PATC-TMC/12006		6	
675207	PATC-TMC/12007		7	
675208	PATC-TMC/12008	120	8	30 KA/1s
675209	PATC-TMC/12009		9	
675210	PATC-TMC/12010		10	

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

Overhead lines

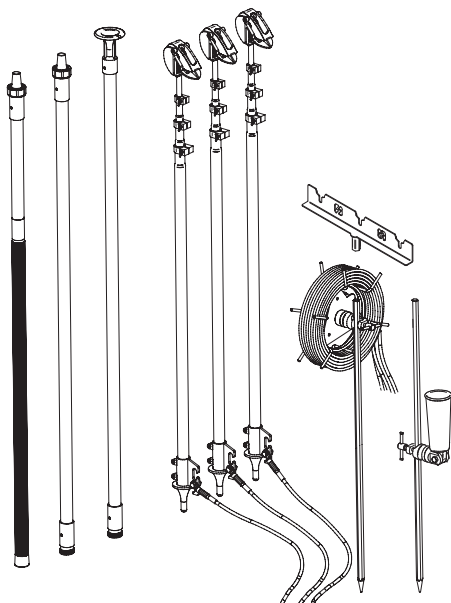
SAFETY CATALOGUE 2022

661 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.



Code	Ref.	Extended length metal pole	Folded length metal pole	N° section 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 & Short Circuit Protection Equipment

Safety

High voltage overhead lines

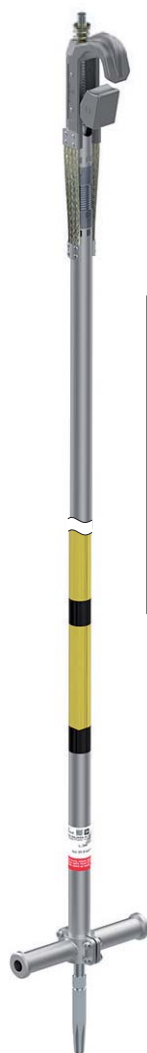
SAFETY CATALOGUE 2022



Potential lowering equipment for high-altitude connections



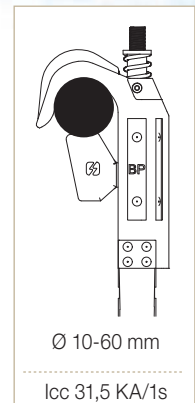
◀ **Optional**
3 m potential drop pole
model BSC-132/BP (code 672210)



664 PATC-BP

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

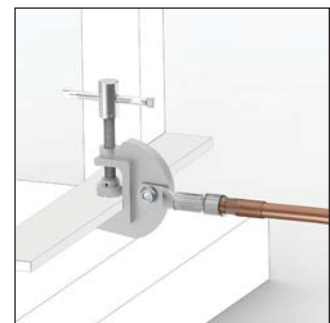
According to IEC 61230 standard.



BPGA
Connection pole



PA40ABP
High voltage clamp

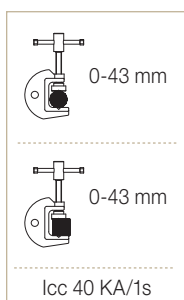


TT-50
Earthing lathe



Composed of:

- 1 BPGA lowering 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.



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current ICC Max.	Capacity Closing
672200	PATC-BP	120	6	31.5 KA/1s	Ø 10-60 mm

IEC 61230

Earthing & Short Circuit Protection Equipment

Safety

Railways earthing equipment

SAFETY CATALOGUE 2022

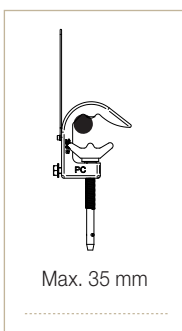
666 PATF-PC

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

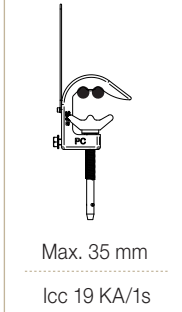
According to IEC 61230 standard.



PC
Medium voltage clamp



Max. 35 mm

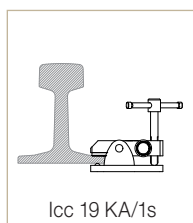


Max. 35 mm

Icc 19 KA/1s



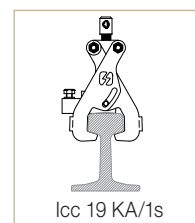
TTR
Earth lathe



Icc 19 KA/1s



TTSR
Earth lathe



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 TTRS or TTR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.

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

Earthing & Short Circuit Protection Equipment

Safety

Railways earthing equipment

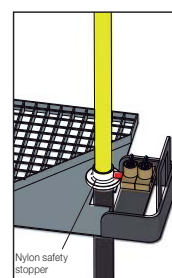
SAFETY CATALOGUE 2022



666 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.

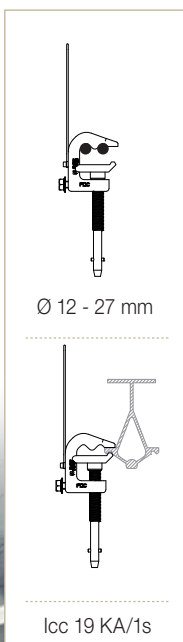


Example lockdown with key.

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



PDC
Medium voltage clamp

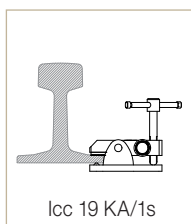


Ø 12 - 27 mm

lcc 19 KA/1s



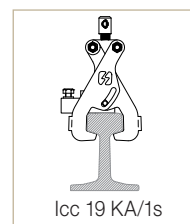
TTR
Earth lathe



lcc 19 KA/1s



TTSR
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 mm² section and 7 m of length.
- 1 TTSR or TTR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.


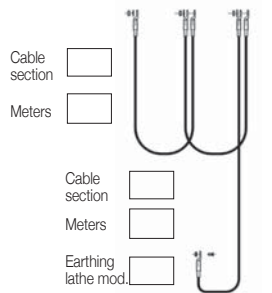
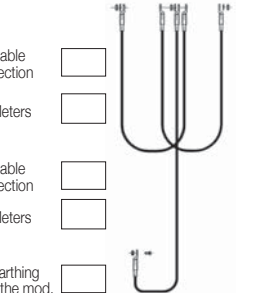
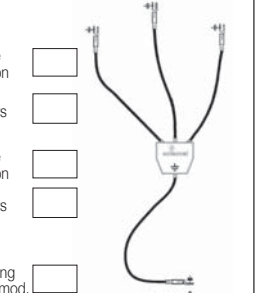
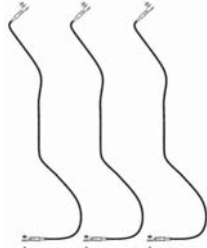
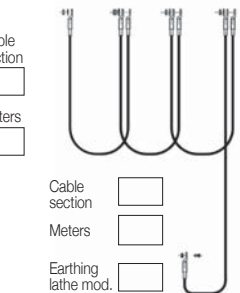
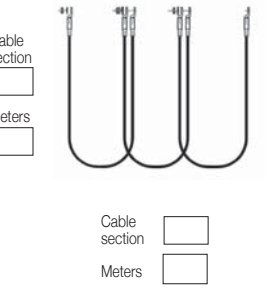
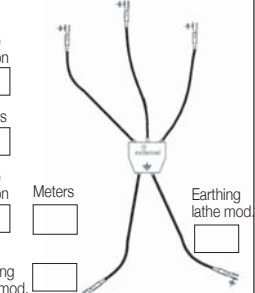
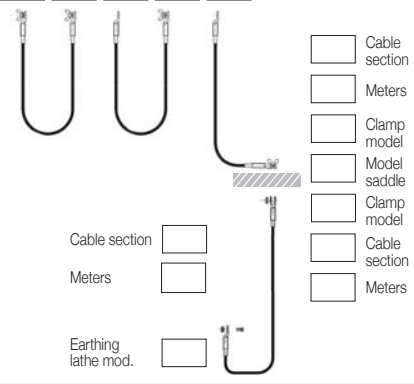
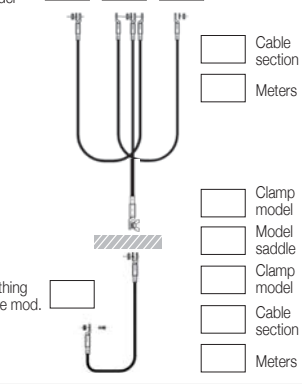
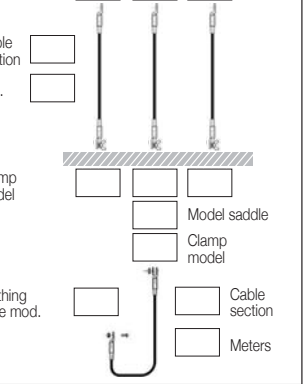
Code	Ref.	Short circuit current ICC Max.
666140	PATF-PDC-TTR	12 KA/1s
666150	PATF-PDC-TTSR	

Earthing & Short Circuit Protection Equipment

Safety

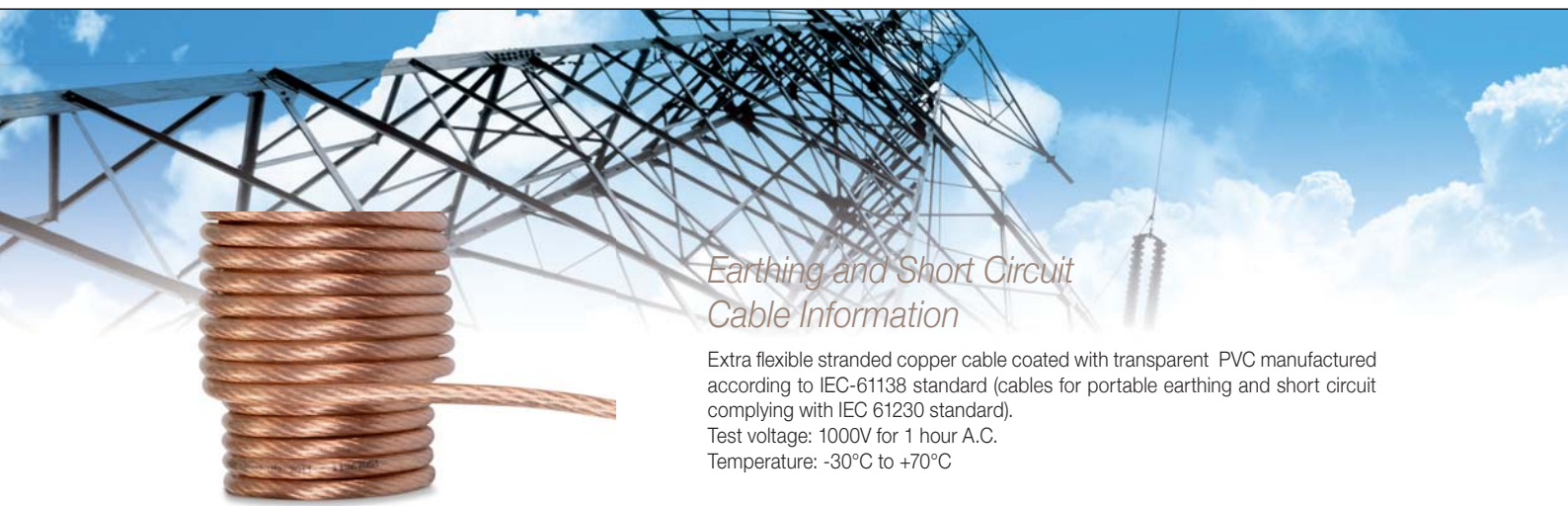
Equipment configuration schemes

SAFETY CATALOGUE 2022

A SCHEME EARTHING EQUIPMENTS			
<p>Clamp model <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> 
<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> 
<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Clamp model <input type="checkbox"/></p> <p>Model saddle <input type="checkbox"/></p> <p>Clamp model <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> <p>Clamp model <input type="checkbox"/></p> <p>Model saddle <input type="checkbox"/></p> <p>Clamp model <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> 	<p>Clamp model <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Mts. <input type="checkbox"/></p> <p>Clamp model <input type="checkbox"/></p> <p>Model saddle <input type="checkbox"/></p> <p>Clamp model <input type="checkbox"/></p> <p>Earthing lathe mod. <input type="checkbox"/></p> <p>Cable section <input type="checkbox"/></p> <p>Meters <input type="checkbox"/></p> 	

B AUXILIARY MATERIAL					
<input type="checkbox"/> Pole	Un. <input type="checkbox"/>	Model <input type="text"/>	<input type="checkbox"/> Earthing rod	Un. <input type="checkbox"/>	Model <input type="text"/>
<input type="checkbox"/> Grip	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/> Spool	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/> Plastic case	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/> Others	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/> Nylon bag	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/> Others	<input type="checkbox"/>	<input type="text"/>

C CODING			
ICC /Máx.	kA/1s	Installation voltage	Entry date
Description			



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

Code	Nominal cross section (mm ²)	Icc (kA/s)	Weight (Kg/m)	External Ø (mm)
M-03.015.00	16	4.3	0.18	8.6
M-03.025.00	25	6.7	0.26	10
M-03.035.00	35	9.4	0.36	11.4
M-03.050.00	50	13.4	0.515	13.7
M-03.070.00	70	18.8	0.710	16
M-03.095.00	95	25.5	0.95	18.3
M-03.120.00	120	32.1	1.17	20.1
M-03.150.00	150	40.2	1.45	22.3

Equipment accessories



671 Wall earthing equipment holder

Metal holder and lacquered finish.

Code	Ref.
671179	Wall earthing equipment holder

sofamel

Earthing & Short Circuit Protection Equipment

Safety

Equipment accessories

SAFETY CATALOGUE 2022

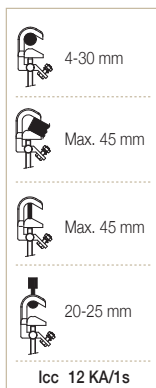
667 LOW VOLTAGE CLAMPS

MPUE

Code 671112

Dimensions: 335 x 81 x 52 mm

Weight: 0,6 kg

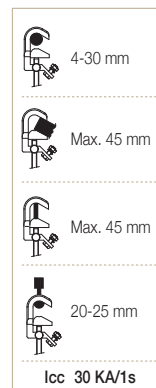


MPUL

Code 671113

Dimensions: 335 x 81 x 52 mm

Weight: 1,2 kg

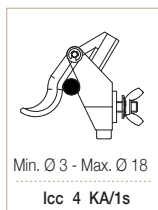


PEBT

Code 658115

Dimensions: 815 x 58 x 40 mm

Weight: 0,35 kg



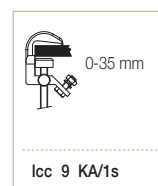
Min. Ø 3 - Max. Ø 18
Icc 4 KA/1s

MPUBT

Code 659001P

Dimensions: 160 x 82 x 40 mm

Weight: 0,36 kg

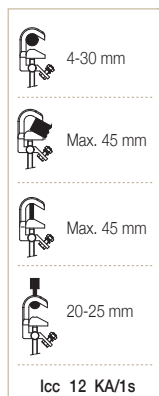


667 MEDIUM VOLTAGE CLAMPS

MPUH

Code 671110

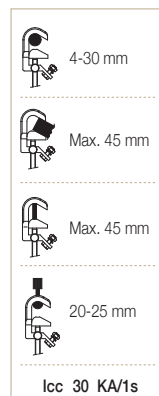
Dimensions: 202 x 81 x 40 mm
Weight: 0,48 kg



MPUH-L

Code 671117

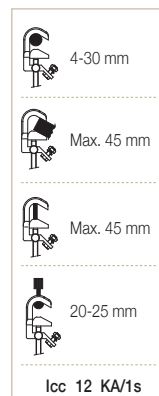
Dimensions: 110 x 81 x 40 mm
Weight: 1,16 kg



MPUB

Code 671115

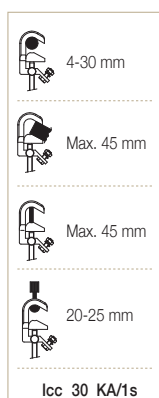
Dimensions: 240 x 81 x 40 mm
Weight: 0,53 kg



MPUB-L

Code 671118

Dimensions: 240 x 81 x 40 mm
Weight: 1,65 kg



PC

Code 666005

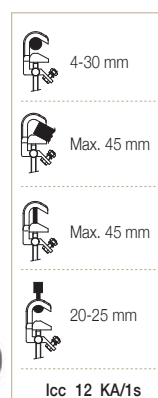
Dimensions: 440 x 157 x 54 mm
Weight: 1,3 kg



MPUP

Code 671116

Dimensions: 240 x 81 x 156 mm
Weight: 0,7 kg



Earthing & Short Circuit Protection Equipment

Safety

Equipment accessories

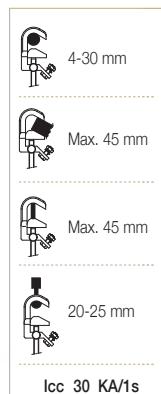
SAFETY CATALOGUE 2022

667 MEDIUM VOLTAGE CLAMPS

MPUP-L

Code 671119

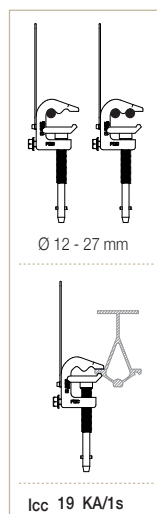
Dimensions: 240 x 81 x 156 mm
Weight: 1,34 kg



PDC

Code 666010

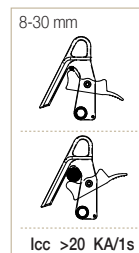
Dimensions: 413 x 105 x 52 mm
Weight: 0,85 kg



MCL

Code 671121

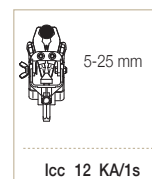
Dimensions: 182 x 128 x 68 mm
Weight: 0,67 kg



5014H

Code 671100

Dimensions: 167 x 91 x 83 mm
Weight: 0,8 kg



MC

Code 671120

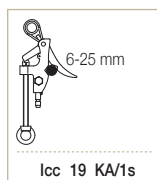
Dimensions: 226 x 102 x 62 mm
Weight: 0,4 kg



PCA-25

Code 671171

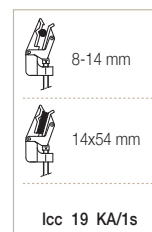
Dimensions: 276 x 123 x 74 mm
Weight: 0,81 kg



PP15

Code 671166

Dimensions: 241 x 95 x 47 mm
Weight: 0,68 kg



Earthing & Short Circuit Protection Equipment

Safety

Equipment accessories

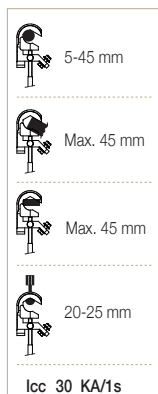
SAFETY CATALOGUE 2022

667 HIGH VOLTAGE CLAMPS

MPL

Code 671172

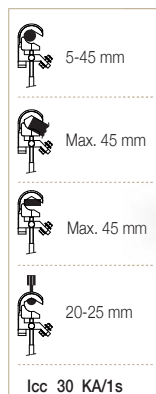
Dimensions: 263 x 105 x 62 mm
Weight: 0,97 kg



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

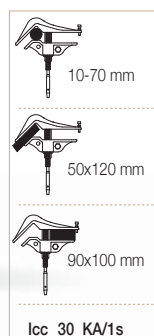
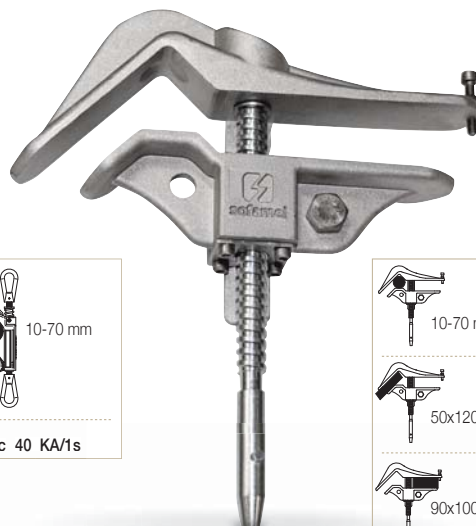
Dimensions: 428 x 133 x 53 mm
Weight: 1,56 kg



TMC

Code 675100P

Dimensions: 273 x 248 x 45 mm
Weight: 1,18 kg



Earthing & Short Circuit Protection Equipment

Safety

Equipment accessories

SAFETY CATALOGUE 2022

667 HIGH VOLTAGE CLAMPS

PA40A

Code 674100 - Bayoneta
Code 674102 - Hexagonal

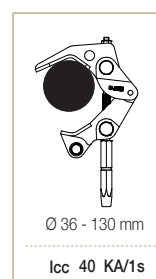
Dimensions: 331 x 206 x 80 mm
Weight: 1,7 kg



PA40ABP

Code 674105 - Hexagonal H22

Dimensions: 341 x 206 x 80 mm
Weight: 1,6 kg



667 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

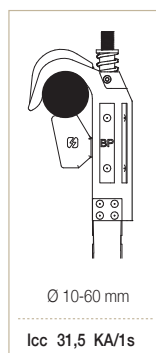


667 POTENTIAL DOWN CLAMP

BPGA

Code 672205

Dimensions: 3262 x 141 x 298 mm
Weight: 7,8 kg



Earthing & Short Circuit Protection Equipment

Safety

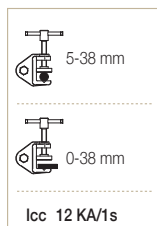
Equipment accessories

SAFETY CATALOGUE 2022

667 EARTHING LATHE

TT-38A

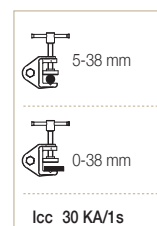
Code 671141



Dimensions: 158 x 92 x 35 mm
Weight: 0,48 kg

TT-38L

Code 671145

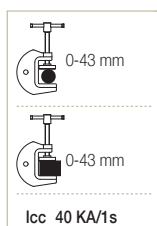


Dimensions: 158 x 92 x 35 mm
Weight: 0,93 kg

TT-50

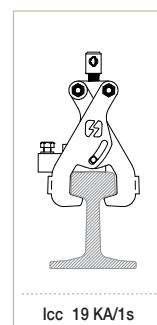
Code 671152

Dimensions: 250 x 147 x 40 mm
Weight: 0,95 kg



TTSR

Code 666015

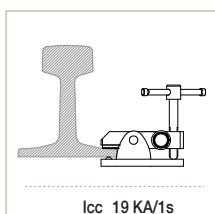


Dimensions: 280 x 214 x 55 mm
Weight: 3,45 kg

TTR

Code 671153

Dimensions: 115 x 117 x 60 mm
Weight: 1,1 kg



667 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



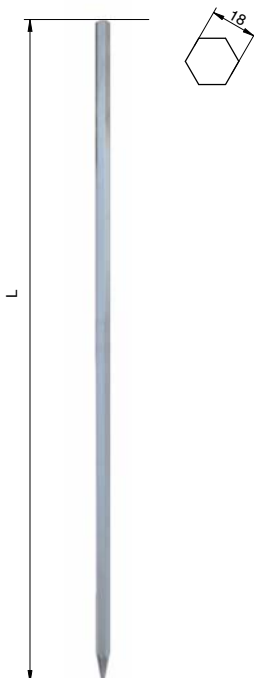
667 EARTHING ROD

HEXAGONAL EARTHING ROD

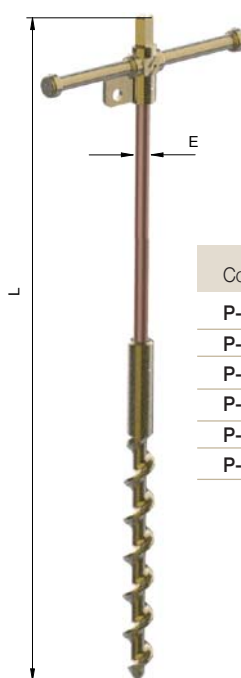
Code X-03.372.00

Dimensions: 1m

Weight: 2,150 g



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

667 DISPENSER HEADS

PP-3	PP-4	PP-3U	PP-4U
Code 671126	Code 671127	Code 671128	Code 671129



PP-3 MCL	PP-4 MCL	PP-3U MCL	PP-4U MCL	PP-1U MCL
Code 671131	Code 671132	Code 671122	Code 671123	Code 630168



Short Circuit Cable

Earthing and Short - Circuit Equipment

Short circuit cable section - Heating curves

SAFETY CATALOGUE 2022

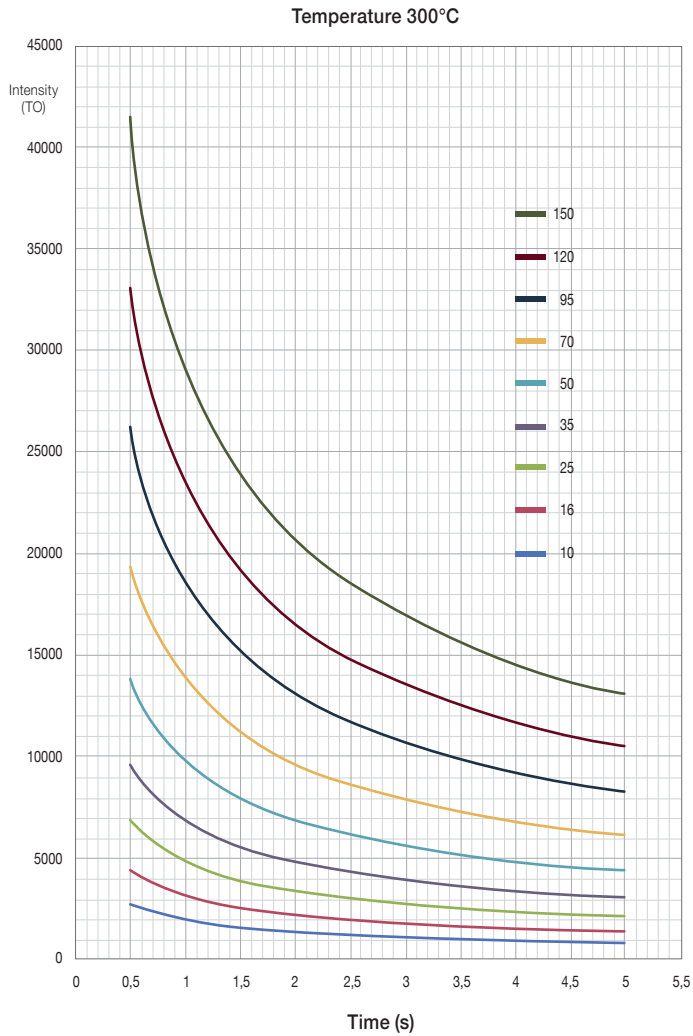


Fig. 1 - Melting point curve for copper cable.

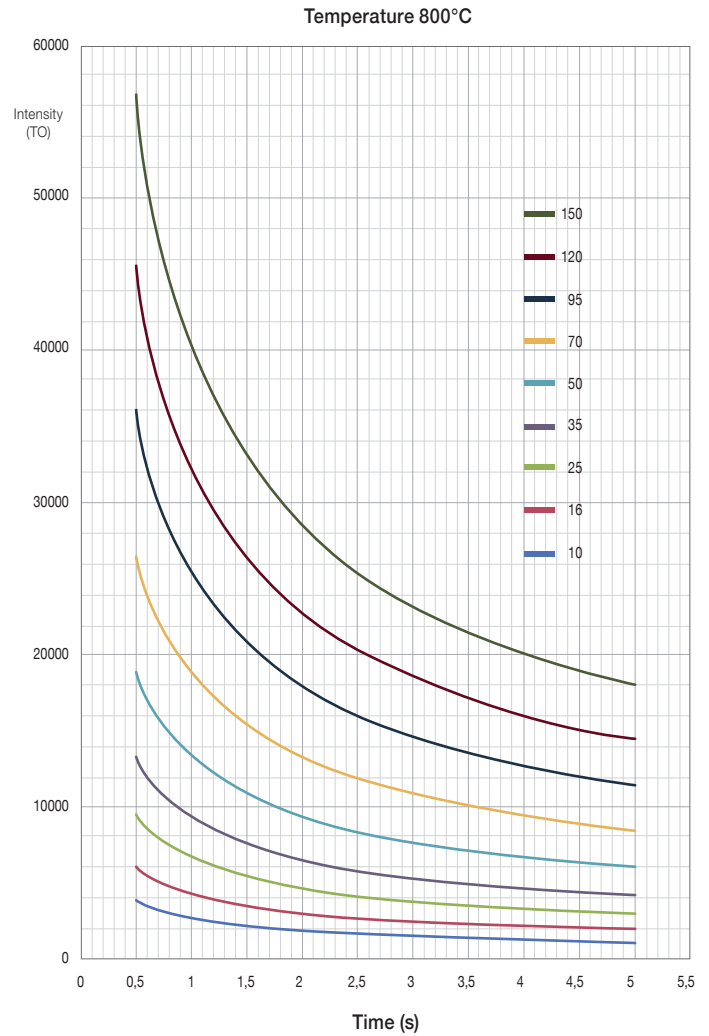


Fig. 2 - Heating curve (at 300° C) for copper cable.

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 & Short Circuit Protection Equipment

Safety

Clamps' information

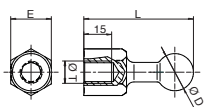
SAFETY CATALOGUE 2022

668 FIXED BALL POINT FEMALE

According to DIN 48088 part 1.

Material: 20 micron tinned brass and stainless hardware.

668 STRAIGHT FIXED BALL POINT INTERNAL THREAD



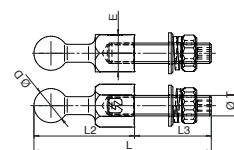
Code	Ref.	ØD	ICC Max. kA/1s	E	L	ØT
P-665020	PFRH-20M12	20	18,5	SW22	59	M12
P-665022	PFRH-20M16					M16
P-665024	PFRH-25M12	25	31,5	SW27	69	M12
P-665026	PFRH-25M16					M16

669 FIXED BALL POINT MALE

According to DIN 48088 part 1.

Material: 20 micron tinned brass and stainless hardware.

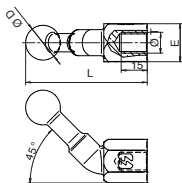
669 STRAIGHT FIXED BALL POINT EXTERIOR THREAD



Code	Ref.	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665030	PFRM-20M12x35	20	18,5	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	31,5	SW27	104		35	M12
P-665040	PFRM-25M12x45				114	69	45	M12
P-665042	PFRM-25M16x35				104		35	M16
P-665044	PFRM-25M16x45				114		45	M16

668 FIX BALL POINT 45°

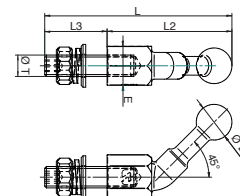
INTERNAL THREAD



Code	Ref.	ØD	ICC Max. kA/1s	E	L	ØT
P-665050	PF45H-20M12	20	18,5	SW22	70	M12
P-665052	PF45H-20M16					M16
P-665054	PF45H-25M12	25	31,5	SW27	82	M12
P-665056	PF45H-25M16					M16

669 FIX BALL POINT 45°

EXTERIOR THREAD



Code	Ref.	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665060	PF45M-20M12x35	20	18,5	SW22	105		35	M12
P-665062	PF45M-20M16x45				115	70	45	M16
P-665064	PF45M-25M12x45	25	31,5	SW27	127		45	M12
P-665066	PF45M-25M16x45							M16

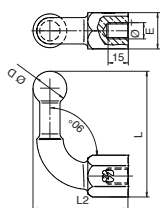
668 FIXED BALL POINT FEMALE

According to DIN 48088 part 1.

Material: 20 micron tinned brass and stainless hardware.

668 FIX BALL POINT 90°

INTERNAL THREAD



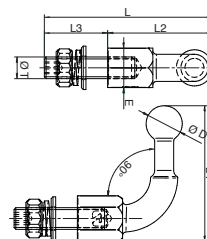
669 FIXED BALL POINT MALE

According to DIN 48088 part 1.

Material: 20 micron tinned brass and stainless hardware.

669 FIX BALL POINT 90°

EXTERIOR THREAD



Code	Ref.	ØD	ICC Max. kA/1s	E	L	L2	ØT
P-665070	PF90H-20M12	20	18,5	SW22	75	58	M12
P-665072	PF90H-20M16						M16
P-665074	PF90H-25M12	25	31,5	SW27	93	70	M12
P-665076	PF90H-25M16						M16

Code	Ref.	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665080	PF90M-20M12x35	20	18,5	SW22	93	58	35	M12
P-665082	PF90M-20M16x45							M16
P-665084	PF90M-25M12x45	25	31,5	SW27	115	70	45	M12
P-665086	PF90M-25M16x45							M16

sofamel

Medium voltage detectors - Indoor
Medium voltage detectors - Outdoor
High voltage detectors - Outdoor
DC voltage detectors
Personal voltage detectors
Bipolar voltage detectors
Low voltage detectors
Digital ammeter clamp



Voltage Detectors

When high technology could save your life,
choose the best one in the market



Optical



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.

Connection to the pole by Universal head.

640 VTO-5/36-P

- Rated voltage: from 5 to 36 kV
- Frequency: 50 / 60 Hz
- Insulating pole: 1.30 m (included)
- Supplied with carrying bag for pole and metallic box to store and transport the voltage detector.

Code	Ref.
640210	VTO-5/36-P

640 VTO-5/66-P

- Rated voltage: from 5 to 36 kV
- Frequency: 50 / 60 Hz
- Insulating pole: 2 m (included)
- Supplied with carrying bag for pole and metallic box to store and transport the voltage detector.

Code	Ref.
640215	VTO-5/66-P



Optical



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.

640 VTO-5/36-U

- Rated voltage: from 5 to 36 kV
- Frequency: 50 / 60 Hz
- Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.
640200	VTO-5/36-U

640 VTO-5/66-U

- Rated voltage: from 5 to 66 kV
- Frequency: 50 / 60 Hz
- Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.
640205	VTO-5/66-U



Voltage Detectors

Safety

Medium voltage detector - Indoor / Outdoor

SAFETY CATALOGUE 2022

Optical



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.
Insulated pole according to RD 614/2001 standard.
Outdoor use in dry condition only.



640 PEKE-5/36

The smallest portable
voltage detector

- Rated voltage: from 5 to 36 kV
- Frequency: 50 / 60 Hz
- Insulating telescopic pole included
- Total extended length with voltage detector: 125.5 cm
- Total folded length with voltage detector: 44.3 cm
- Supplied with bag to transport the voltage detector that can be attached to the belt.

Code	Ref.
640104	PEKE-5/36



Voltage Detectors

Safety

Medium voltage detector - Indoor / Outdoor

SAFETY CATALOGUE 2022

SPECTRA

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

Voltage presence indicator by led lamps.
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.
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.



Optical & Acoustic



ACCESSORIES (INCLUDED)

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

640 SPECTRA-200/5000

- Rated voltage: from 200 V to 5 KV
- Frequency: 50 – 60 Hz

Code	Ref.
640175	SPECTRA-200/5000

640 SPECTRA-50/1000

- Rated voltage: from 50 V to 1 KV
- Frequency: 50 – 60 Hz

Code	Ref.
640177	SPECTRA-50/1000



Detector with pole retracted.



Optical & Acoustic



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.

Consumption is less than 1µA in this mode.

Power supply: 9V alkaline battery, type 6LR61 (included).

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

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

645 VTE-5/36-P

- Rated voltage: from 5 to 36 kV
- Frequency: 50 / 60 Hz
- Insulating pole: 1.30 m (included)
- Supplied with carrying bag for pole and metallic box to store and transport the voltage detector.

Code	Ref.
641103	VTE-5/36-P

645 VTE-5/66-P

- Rated voltage: from 5 to 66 kV
- Frequency: 50 / 60 Hz
- Insulating pole: 2 m (included)
- Supplied with carrying bag for pole and metallic box to store and transport the voltage detector.

Code	Ref.
641105	VTE-5/66-P



Optical & Acoustic



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 1µA.

Power supply: 9V 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.

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

645 VTE-5/36-U

- Rated voltage: from 5 to 36 kV
- Frequency: 50 / 60 Hz
- Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.
641113	VTE-5/36-U

645 VTE-5/66-U

- Rated voltage: from 5 to 66 kV
- Frequency: 50 / 60 Hz
- Supplied with a metallic box to store and transport the voltage detector

Code	Ref.
641115	VTE-5/66-U

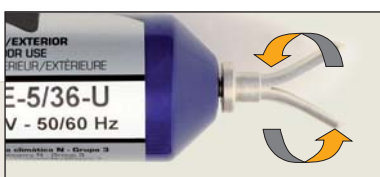
Indoor and outdoor use by appropriate insulating pole to the detector voltage range.

Connection to the pole by Universal head.



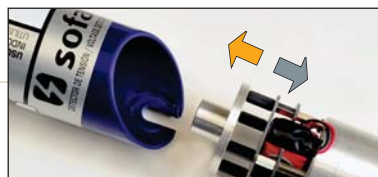
BATTERY REPLACEMENT

1



Unscrew the contact electrode.

2



Separate the inside from the plastic piece.

3



Change battery.



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 1µA.

Power supply: 9V 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.

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

645 VTE-25-U

- Rated voltage: 25 kV AC
- Frequency: 50 / 60 Hz
- Supplied with carrying bag for pole and metallic box to store and transport the voltage detector.

Code	Ref.
641120	VTE-25-U



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

Connection to the pole by Universal head.



645 VTM-3/10-U

- Rated voltage: from 3 to 10 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645220	VTM-3/10-U

645 VTM-4/12-U

- Rated voltage: from 4 to 12 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645225	VTM-4/12-U

645 VTM-10/30-U

- Rated voltage: from 10 to 30 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645230	VTM-10/30-U

645 VTM-15/45-U

- Rated voltage: from 15 to 45 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645240	VTM-15/45-U

645 VTM-11/33-U

- Rated voltage: from 11 to 33 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645235	VTM-11/33-U

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 1µA.

Power supply: 9V 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

645 VTM-22/66-U

- Rated voltage: from 22 to 66 kV
- Frequency: 50 / 60 Hz

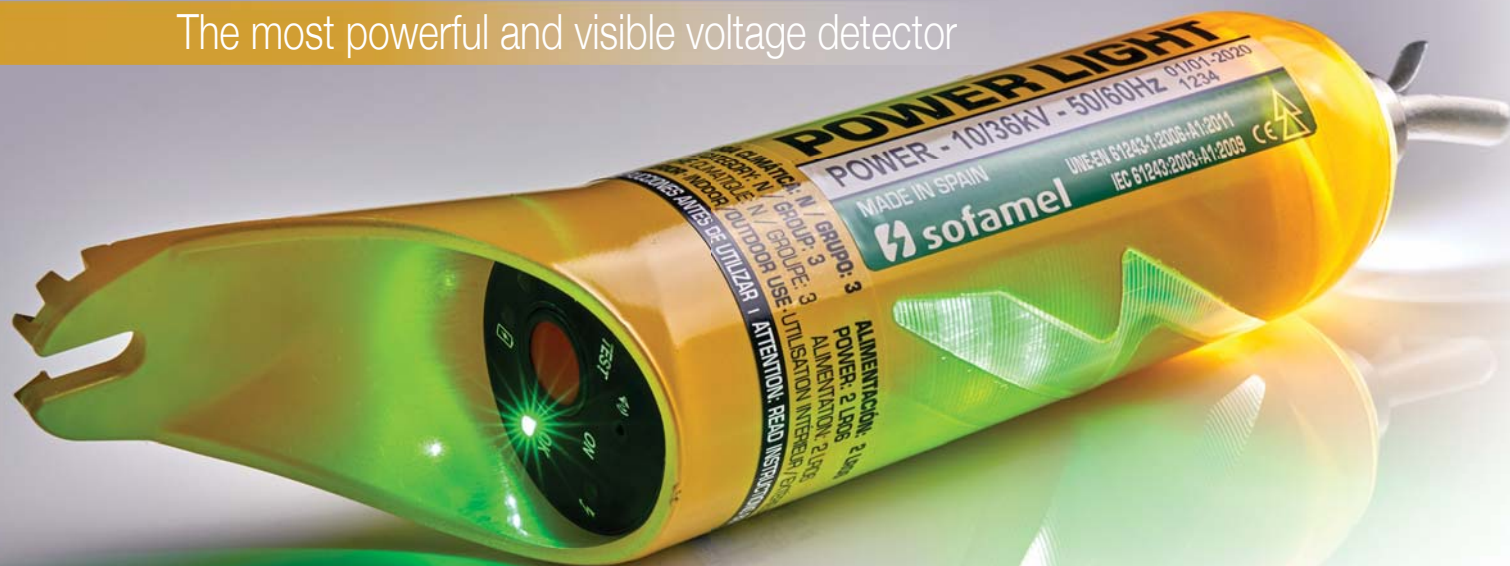
Code	Ref.
645245	VTM-22/66-U

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



POWER LIGHT

The most powerful and visible voltage detector



10 reasons to choose the **POWER LIGHT** voltage detector

- 1 Each detector is calibrated individually under the strict test conditions of standard 61243-1.
- 2 More than 100 samples per second for more accurate reading.
- 3 Verification of readings using specific data acquisition algorithms.
- 4 Internal testing of all components involved in data acquisition.
- 5 Always is alert mode thanks to the self-starting system.
- 6 Lasting autonomy provided by 2 AAA batteries.
- 7 Wide range of lateral vision of the light signals.
- 8 For indoor and outdoor use (IP65).
- 9 100% safe in contouring tests.
- 10 LED flashlight for areas with poor visibility.

FRONT LAMP

The front lamp provides greater visibility and ensures increased safety in certain tasks involving live voltage.

A new generation of contact voltage detectors with built-in lamp

Acquisition system with high-speed data processing microcontroller

Providing maximum reliability in areas where there are complex electrical fields

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 in reinforced case.

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



645 POWER-1/3,3

- Rated voltage: from 1 to 3,3 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645266	POWER-1/3,3

645 POWER-3/10

- Rated voltage: from 3 to 10 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645260	POWER-3/10

645 POWER-10/36

- Rated voltage: from 10 to 36 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645267	POWER-10/36

645 POWER-13/45


- Rated voltage: from 13 to 45 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645268	POWER-13/45

645 POWER-22/79

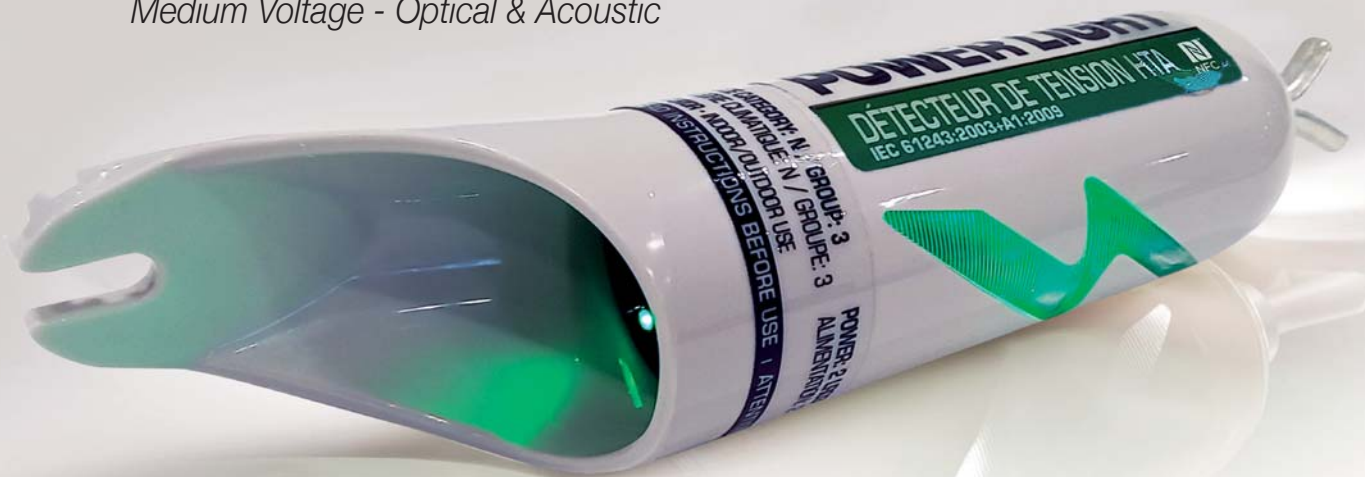
- Rated voltage: from 22 to 79 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645269	POWER-22/79

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

POWER LIGHT

IEC electronic voltage detector + Accessories
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 in reinforced case.

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



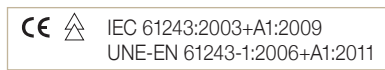
Detector with free or configurable NFC (Near Field Communication).

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

645 POWER-10/20

- Rated voltage: from 10 to 20 kV
- Frequency: 50 / 60 Hz

Code	Ref.
T645049	POWER-10/20



Elements of the kit:

- 1 Power-10/20
- 1 Electrode adapter Nevers
- 1 closed PowerLight electrode
- 1 hook PowerLight electrode
- 1 adapter from Hexagonal-12 to Universal

POWER LIGHT

Electronic voltage detector
Medium Voltage - Optical & Acoustic



MORE 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 in reinforced case.

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

645 POWER LIGHT

- Rated voltage: from 1-5 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645280	POWER-1/5

645 POWER LIGHT

- Rated voltage: from 5-79 kV
- Frequency: 50 / 60 Hz

Code	Ref.
645285	POWER-5/79



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 (except voltage range).



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 1µA.

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 9V 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

646 VTA-63/150-U

- Rated voltage from: 63 to 150 kV
- Frequency: 50 / 60 Hz

Code	Frequency	Ref.
645162	50 / 60 Hz	VTA-63/150-U

646 VTA-66/220-U

- Rated voltage from: 66 to 220 kV
- Frequency: 50 / 60 Hz

Code	Frequency	Ref.
645164	50 Hz	VTA-66/220-U
645165	60 Hz	

646 VTA-90/225-U

- Rated voltage from: 90 to 225 kV
- Frequency: 50 / 60 Hz

Code	Frequency	Ref.
645172	50 / 60 Hz	VTA-90/225-U

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

646 VTA-150/420-U

- Rated voltage from: 150 to 420 kV
- Frequency: 50 / 60 Hz

Code	Frequency	Ref.
645182	50 / 60 Hz	VTA-150/420-U

646 VTA-45/420-U*


- Rated voltage from: 45 to 420 kV
- Frequency: 50 / 60 Hz

Code	Frequency	Ref.
645184	50 / 60 Hz	VTA-45/420-U

646 Mod. VTA-225/420-U*

- Rated voltage from: 225 to 420 kV
- Frequency: 50 / 60 Hz

Code	Frequency	Ref.
645186	50 / 60 Hz	VTA-225/420-U

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

Voltage Detectors

Safety

DC voltage detector

SAFETY CATALOGUE 2022

Optical & Acoustic

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: $500\text{ V} < V_{\text{tdc}} < 5000\text{ V}$
AC induced voltage: $500\text{ V} < V_{\text{tac}} < 5000\text{ V}$
- **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 6m 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

Safety

DC voltage detector

SAFETY CATALOGUE 2022

Optical & Acoustic



* Magnet applicable to the detector VTC-OA I

Optical & Acoustic

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



647 VTC-OA

- **Voltage range:** 500 V < Vt < 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 6m long
(possibility of other lengths at customer's request)
With universal head
- **Insulating pole:** With universal head
- **Self-checking:** Full self-checking system with automatic disconnection after two minutes WITHOUT DETECTION.
- **Automatic start-up:** Automatic start-up system using detection of voltage (approx. 400V dc)
- **Electrode:** Possibility of exchanging electrode
- **Threshold voltage:** Threshold 1 - From 350 to 490 V: Red led
Threshold 2 - From 900 to 1100 V: Red and orange led

D-TUERI

OMNI-DIRECTIONAL PERSONAL ELECTRIC FIELD DETECTOR

EXPERT
10/66 kV
WORK CLOSE,
BE ALWAYS PROTECTED

PRO
7.9/69 kV
GIVING CONFIDENCE
IN WIDE AREAS



EASY PLACEMENT
inside or outside the helmet

Includes an accessory set that ensures a perfect fit in any helmet.



Accessory attached to the support to hold the detector

OUTSIDE



Power supply: Li Ion battery 3.7V 1050mAh

Water-tightness level: IP65

Light output: 2W



sofamel



USB connection



Medium voltage



Acoustic Signal

Omni-directional personal electric field detector

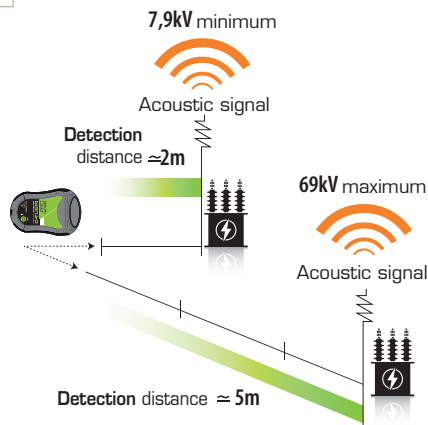
648 D-TUERI PRO

Additional security element for individual use. 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 alarm does not stop sounding until you move away from the dangerous zone.



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

Code	Ref.
645257	D-TUERI PRO



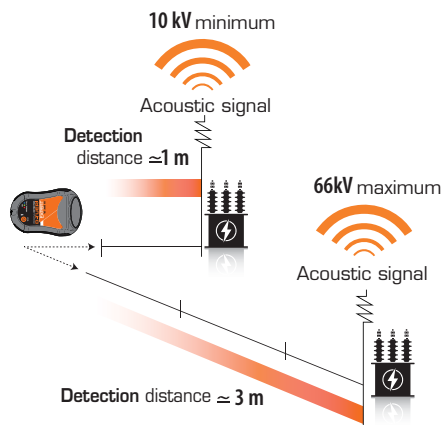
648 D-TUERI EXPERT

Additional security element for individual use. 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.



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

Code	Ref.
645255	D-TUERI EXPERT



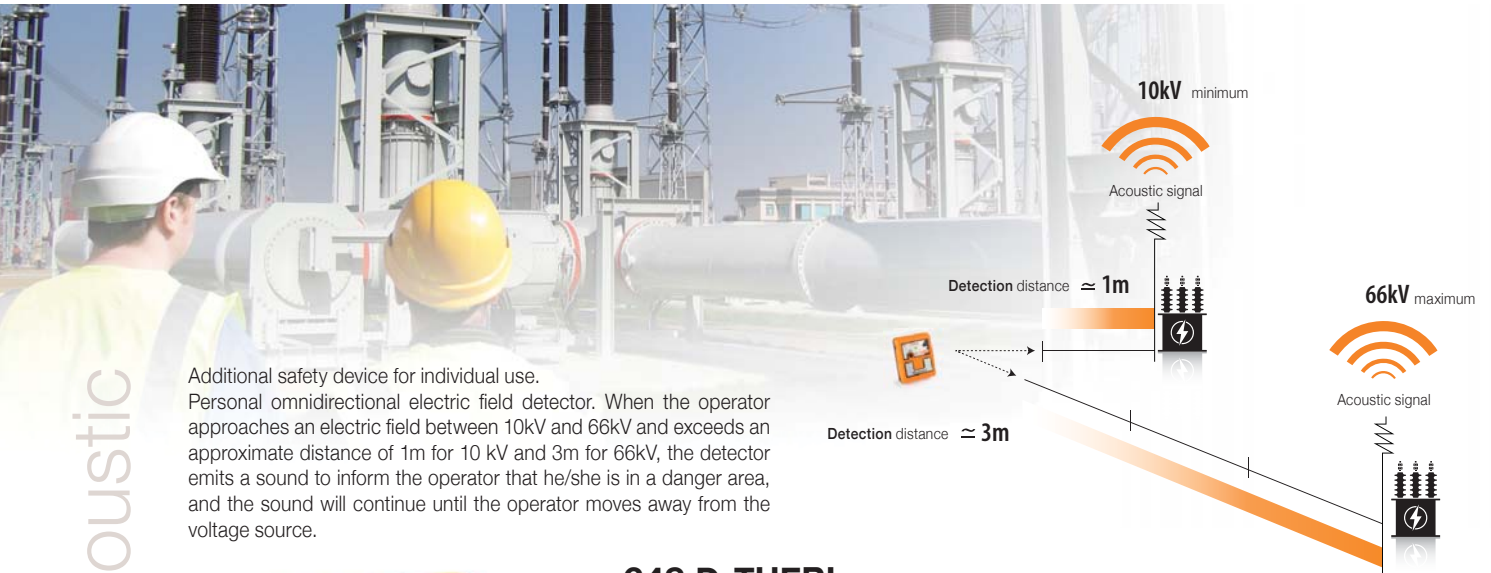
Voltage Detectors

Safety

Personal voltage detector

SAFETY CATALOGUE 2022

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



Additional safety device for individual use.
Personal omnidirectional electric field detector. When the operator approaches an electric field between 10kV and 66kV and exceeds an approximate distance of 1m for 10 kV and 3m for 66kV, the detector emits a sound to inform the operator that he/she is in a danger area, and the sound will continue until the operator moves away from the voltage source.

Optical & Acoustic



648 D-TUERI

- Optimized for use in distribution / transformer substations & overhead lines
- Operating range: 10 kV to 66 kV
- Operating frequency: 50 and 60Hz
- Powered by two LR-03 batteries

Code	Ref.
645251	D-TUERI

Optional accessory to protect the detector (not included).



Inside placement



It can be placed directly inside the helmet
or outside with the protector accessory

648 Accessory to protect the detector

- It allows the use of the detector outside the helmet.
- Protects from dust and water (IP 64).
- Protection against weather conditions
- Protection from falls and blows.

Code	Ref.
645650	D-TUERI CASE



Outside placement



D-WATCH

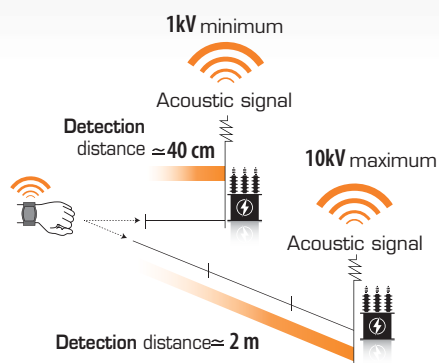
For use in distribution centers and places
with reduced mobility
Medium voltage - Acoustic

Acoustic



1-10 kV

Additional security element for individual use.
When the operator approaches an electric field between 1kV-10kV and exceeds a distance of approximately 40 cm for 1 kV and 2 metres for 10kV, 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.



648 D-WATCH

- Use in Distribution/Transformer substations and cells.
- Utilization range: Between 1-10kV
- Operating frequency: 50 and 60Hz
- Power supply: 1 CR2032 type battery.
- Supplied in an insulated box that includes the detector, a nylon carrying case for transport.

Code	Ref.
645680	D-WATCH



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

648 COMBO PRO

Code	Ref.
648250	COMBO PRO

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

648 COMBO EXPERT

Code	Ref.
648260	COMBO EXPERT

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.

640 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 IP 65 (test pending)
- Supplied in a carton box

Code

Ref.

640250

CUSTODIAN



Optical



Optical & Acoustic

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 0kV to 6kV AC.
Auto turn-off to standby mode after two minutes WITHOUT VOLTAGE DETECTION.
In this mode consumption is less than 1µA.
Double indication of concordance-discordance by LED lights, reading on digital display.
Removable antenna.
Power supply: 9v alkaline battery, type 6LR61.

Functionalities:
Phase comparator.
Voltage meter (True RMS)



650 PV0/6

- Rated voltage: from 0 to 6kV AC
- LED optical indication
- Frequency: 50 or 60 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

Safety

Low voltage detector

SAFETY CATALOGUE 2022

Optical & Acoustic

635 TESTER PRC

Optical & Acoustic

Handy voltage contact-less tester, very easy to operate with. Appropriate for a wide range of applications. Confirms the presence of voltage by a red LED and acoustic sign by buzzer.

Code	Ref.	Box
635200	TESTER PRC	1



635 TESTER PD

Optical & Acoustic

A two-pole voltage tester with phase discriminator, optical signal by LEDs when presence of voltage and continuity test.

Code	Ref.	Box
635205	TESTER PD	1



Technical Details

- Display
- Measurement Range
- Power Supply
- Protection
- Overload Category
- Certifications
- Dimension
- Weight
- Lamp
- Colour
- Includes

3 years manufacturer's warranty.
According to IEC/EN 61010-1 standard.

TESTER PRC

optical and acoustical
12V to 1000V AC
2x 1.5V
IP 44
CAT III 1000V
TÜV/GS
160 x 25 mm
45 g
Integrated LED-torch
red
2 batteries type AAA LR03

Technical Details

- Display
- Operating panel
- Measurement range
- Voltage range
- Continuity test
- Phase indication
- Switchable load
- Power supply
- Overload category
- Dimension
- Protection
- Weight
- Colour
- Includes
- Supplies, optional
- Total length of the cable

3 years manufacturer's warranty.
According to EN 61243-3 standard.

TESTER PD

optical 12 LEDs
finger tip / RCD button
automatic range
6 - 1000V AC/DC, 0 - 400Hz
0 - 50k with acoustical signal
> 100V AC
Is ~ 30mA ED(DT) = 30 sec.
2x 1.5V
CAT IV 1000V
238x70x30mm
IP 65
200 g
red
2 batteries type AAA LR03
bag
110cm


Optical & Acoustic



635 Multimeter CAM

Optical & Acoustic

Multimeter with AC/DC non invasive clamp meter up to 600 A.

Code	Ref.	 Box
635210	Multimeter CAM	1

Technical Details

Technical Details	MULTIMETER CAM
<ul style="list-style-type: none"> ■ Display ■ AC Current ■ Accuracy ■ Highest Resolution ■ DC current ■ Accuracy ■ Highest Resolution ■ AC voltage ■ Accuracy ■ Highest Resolution ■ Input Impedance ■ DC voltage ■ Accuracy ■ Highest Resolution ■ Input Impedance ■ Frequency by clamp ■ Accuracy ■ Highest Resolution ■ Frequency by plugs ■ Accuracy ■ Highest Resolution ■ Duty Cycle ■ Frequency response ■ Resistance ■ Accuracy ■ Highest Resolution ■ Diode test ■ Resolution ■ Continuity test ■ Power Supply ■ Overload Category ■ Dimensions ■ Protection ■ Weight ■ Certifications ■ Colour ■ Scope of Delivery ■ Includes 	<p>4digit LCD, 6599counts 60A, 600A, 40 to 400Hz ±3,0%+10digits overall 10mA 60A, 600A ±3.0% +10digit overall 10mA 600mV, 6, 60, 600V, 40 to 400Hz ±1.5%+10digit till 600mV / ±1.2%+5digit till 60V / ±1.5%+10digit till 600V 100µV 10MΩ 600m, 6, 60, 600V ±0.8%+3digit till 60V / ±1.0%+5digit till 600V 100µV 10MΩ 600Hz, 1kHz, >1A AC rms ±1,5%+5digit till 1kHz 100mHz 600Hz, 6kHz, 10kHz, >0,2V AC rms ±1,5%+5digit till 10kHz 100mHz 10 to 95%, ±3,0%, >1A AC rms 10Hz to 1kHz 600, 6k, 60k, 600k, 6M, 60MΩ ±1.2%+2digit till 6MΩ ±2.0%+5digit till 60MΩ 100mΩ forward current ~1mA, drop voltage ~3,3V 1mV buzzer if resistance under 30Ω 3x 1.5V CAT III 600V 220 x 75 x 35mm IP44 340g TÜV/GS red 1x measuring lines 1 battery 1.5V, AAA, LR03</p>

3 years manufacturer's warranty.
According to EN 61010-2-032 standard.

POSSIBILITY OF CONFIGURATION TO MEASURE



690 SZ-51S

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.

Code	Description	Ref.
690100	Spanish	SZ-51S
690100 I	English	SZ-51S
690100 F	French	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 pipette
- 1 45 kV insulating stool
- 1 first aid plate
- 1 instruction plate

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



Code: 580110
Ref: ST-45

Code: 715121
Ref: VC-300/25

Code: 545113
Ref: CG-120

Code: 530270
Ref: SG-30

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



Code Ref.
ES X690170 PA-29P E
EN X690171 PA-29P I
FR X690172 PA-29P F



Code: 695120
Ref: SZ-01

POSSIBILITY
OF CONFIGURATION
TO MEASURE



690 SZ-51B

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.

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

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

- 1 BS-45 rescue pole
- 1 5-36 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 pipette
- 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: 640103
Ref: VTO-5/36-P

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



Code: 580110
Ref: ST-45

Code: 715121
Ref: VC-300/25

Code: 545113
Ref: CG-120

Code: 530270
Ref: SG-30

Code: 610100
Ref: BS-45



Code	Ref.
ES X690170	PA-29P E
EN X690171	PA-29P I
FR X690172	PA-29P F



Code: 695120
Ref: SZ-01

Code: 715155 (Size 42)
Ref: DB2 T42
Different sizes available.



POSSIBILITY
OF CONFIGURATION
TO MEASURE

690 SZ-51M

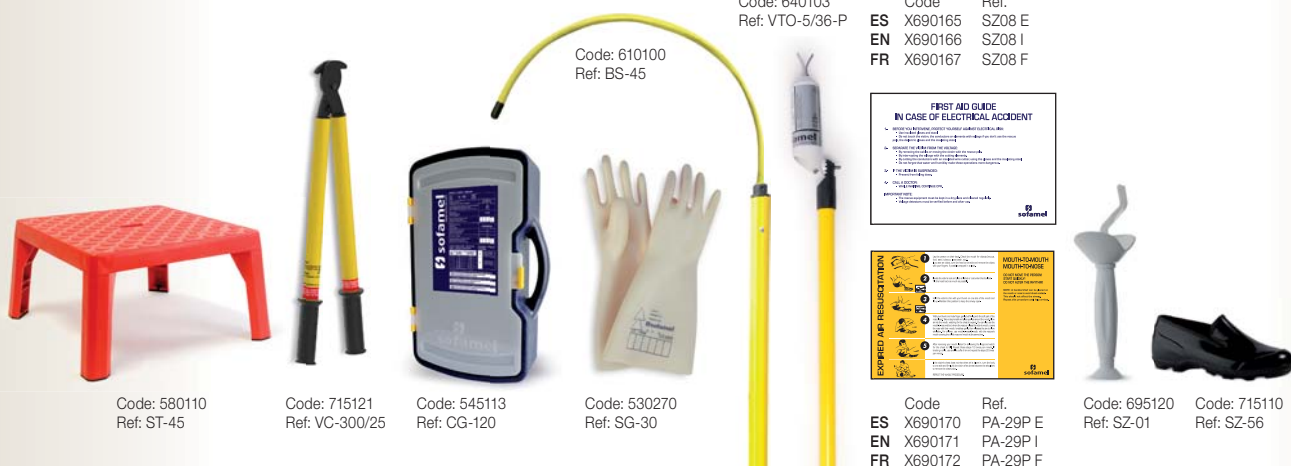
In the event of an electrical accident, fast intervention is essential. The panel contains all the rescue tools in a single place making it accessible to all users when an intervention is necessary.

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

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

- 1 BS-45 rescue pole
- 1 5-36 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 pipette
- 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).





The essential and handy safety kit



691 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:

- 1 1.5 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 respiration pipette
- 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, respiration pipette and neck immobilizer



Insulating mat AD4-0610/40C



Stretcher

Telescopic pole





690 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



695 SZ-01

Artificial respiration pipette

Air conduct to carry out artificial respiration, avoiding direct contact between the injured person and the attending person.

Code	Ref.
695120	SZ-01



695 SZ-05

First aid kit

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

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



695 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



695 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



695 SZ-07

Stretcher

180x55 cm canvas stretcher with metal bars that can be taken apart into three parts. Folded 70x10x10 cm. Supplied with carrying bag.

Code	Ref.
705100	SZ-07

CEE 93/42 Sanitary products



695 SZ

Fire-resistant blankets

Fire-resistant blankets made of flameproof fabric based on fiberglass which is coated both sides with special high temperature 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

695 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 fiberglass of 32 mm diameter.

Code	Ref.	Length (mm)	Insolation	Weight
715120	SZ-57/25	670	25 KV	2.700 Kg
715125	SZ-57/36	830	36 KV	2.900 Kg



695 VC-300

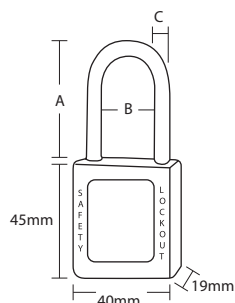
Wire cutter

Insulated wire cutter indicated for cutting cables up to Ø 25 mm.

Incorporates metallic blades and two handles made of polyester reinforced with fiberglass of 32 mm diameter.

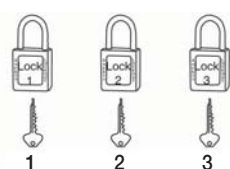
Code	Ref.	Length (mm)	Insolation	Weight
715121	VC-300/25	620	25 KV	1.180 Kg
715126	VC-300/36	720	36 KV	1.300 Kg





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.

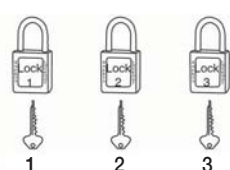


DIFFERENT KEYS

761 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: 40x45x19 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



DIFFERENT KEYS

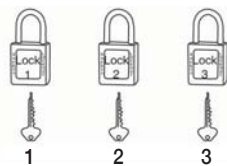
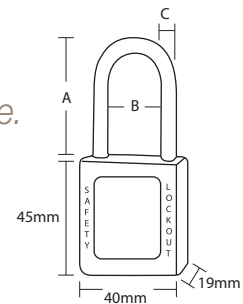
761 C/ABS-38 ABS security padlock

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: 40x45x19 mm
With a different key for each padlock.

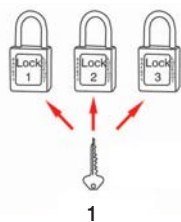
Code	Ref.	Colours	A	B	C
761101	C/ABS-38 AZ		38	20	6
761108	C/ABS-38 RJ		38	20	6
761110	C/ABS-38 AM		38	20	6

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



SINGLE KEYS

761 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: 40x45x19 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

761 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: 40x45x19 mm
With same key for each padlock.

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



762 P/PU-22

Protective cover for pushbutton

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.
Used for pushbuttons up to Ø22 mm.

Code	Ref.
762100	P/PU-22



762 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



762 P/EM

Cover for pushbutton

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

Code	Ref.
762102	P/EM-22
762103	P/EM-30,5

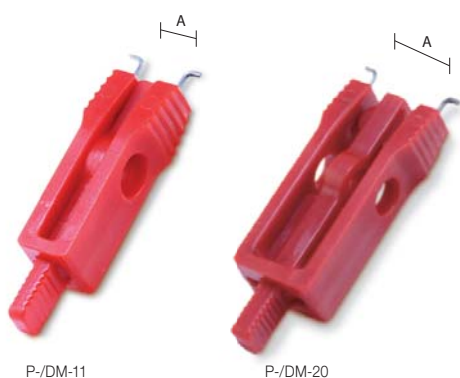


762 P/DMT

Lockout for switches

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

Code	Ref.	Dimensions
762110	P/DMT	47x32x15 mm



762 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	57.4x14.5x14 mm	For space smaller than 11 mm
762105	P/DM-20	68.3x23.3x314 mm	For space smaller than 20 mm

762 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	68.3x48.3x27.6 mm	For circuit breakers with maximum dimensions of 41x15.8 mm



762 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	68.5x23.5x14 mm	For circuit breaker ≤10mm, no width limit.



762 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	93x34.3x28 mm



762 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	450x250 mm





763 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



763 EV-52

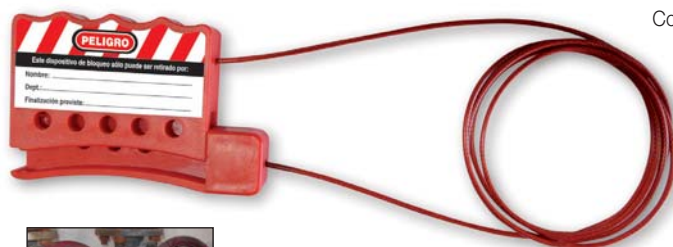
Lockout hasps

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

763 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



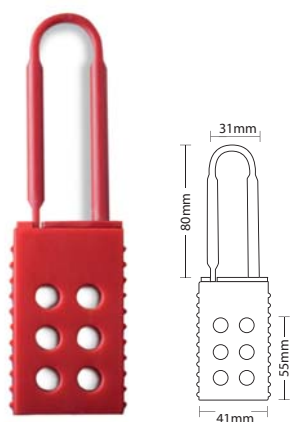
EN-6/38

EN-6/25

764 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	115x45 mm	26 mm
764101	EN-6/38	130x60 mm	39 mm



764 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.	Dimensions	Dimensions ring
764102	EA-7818	157x45 mm	78x78 mm



764 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	188x76 mm	36x28 mm

Containers



765 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	260x103x152 mm

Lockout station

Panel made of ABS.
Door made of high-resistance polycarbonate.
Used for organising daily use of padlocks and labels.



765 LS-4

Code	Ref.	Dimensions	Capacity
765101	LS-4	300x210x60 mm	Supplied without products
765111	LS-4-D	300x210x60 mm	Supplied with: 4 padlocks (cod. 761108) 2 lockout hasps (cod. 764101) 25 labels (cod. 765103)



765 LS-10

Code	Ref.	Dimensions	Capacity
765102	LS-10	486x300x60 mm	Supplied without products
765112	LS-10-D	486x300x60 mm	Supplied with: 10 padlocks (cod. 761108) 3 lockout hasps (cod. 764101) 25 labels (cod. 765103)



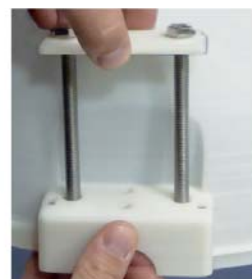
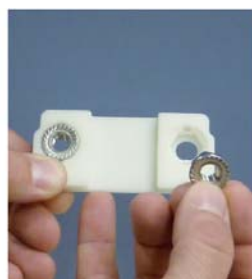
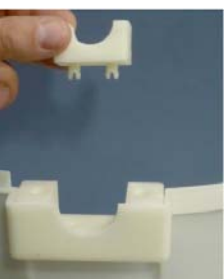
590 SAE-400

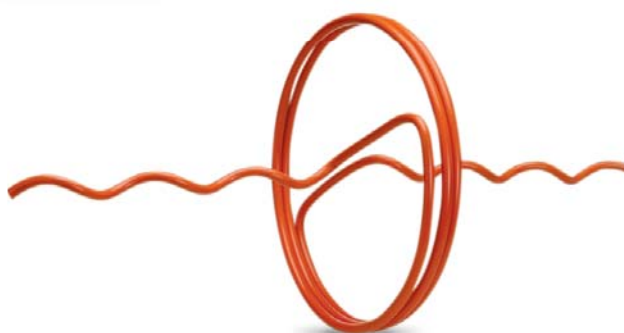
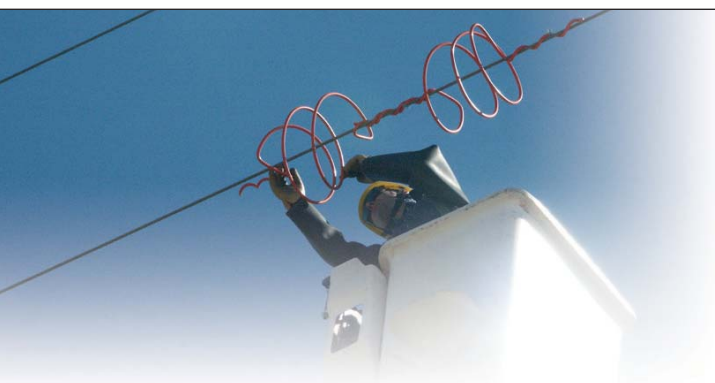
Beacon for cable

Beacon made of reinforced polyamide. They are designed in such way that they can be quickly assembled and disassembled.

To be fixed on cables from 9 to 30 mm Ø. The cable can have voltage going through it. Resistance to UV Rays.

Code	Ref.	Ø	Weight
590100	SAE-400	400 mm	2.5 Kg



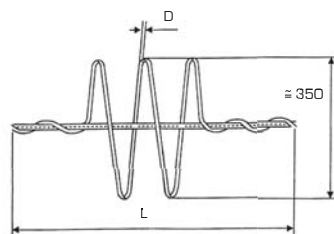


589 SPD

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		L (mm)	D (mm)
			Min. (mm)	Máx. (mm)		
591120	SPD-7,00/9,50	LA-30	7,00	9,50	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				



Triangle with lightning screen-printing, black border and yellow background.

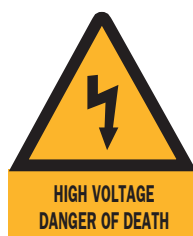


720 Electrical hazard

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".



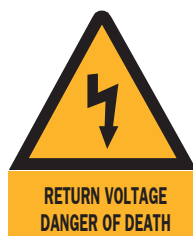
720 High voltage

Code	Ref.	Dimensions
720140	CE-10S	105 mm
720150	CE-14S	148 mm
720160	CE-21S	210 mm
720170	CE-29S	297 mm

UNE-EN ISO 7010

English and French edition under request.

Triangle with lightning screen-printing, black border and yellow background. Text: "RETURN VOLTAGE DANGER OF DEATH".



720 Return voltage

Code	Ref.	Dimensions
720180	CR-10S	105 mm
720190	CR-14S	148 mm
720200	CR-21S	210 mm
720210	CR-29S	297 mm

UNE-EN ISO 7010

English and French edition under request.

Circular sign of manoeuvre prohibition.



720 Manoeuvring forbidden

Code	Ref.	Dimensions
720220	PM-10S	105 mm
720230	PM-21S	210 mm

UNE-EN ISO 7010

Triangle with lightning screen-printing, black border and yellow background.



725 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 230V screen-printing, black border and yellow background.

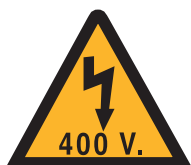


725 Electrical hazard 230V

Code	Ref.	Dimensions
725120	VT230V55	52 mm
725130	VT230V10	105 mm

UNE-EN ISO 7010

Triangle with lightning and 400V screen-printing, black border and yellow background.



725 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.



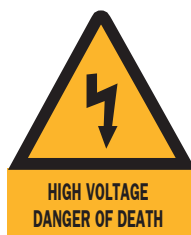
725 Earthing

Code	Ref.	Dimensions
725155	TT05ADH	52 mm
725160	TT10ADH	105 mm

UNE-EN ISO 7010

Polycarbonate signs

Triangle with lightning screen-printing, black border and yellow background.
Text: "HIGH VOLTAGE DANGER OF DEATH".

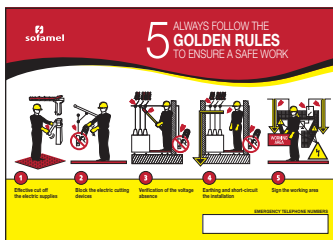


735 High voltage

Code	Ref.	Dimensions
735100	CE-14PCI	148 mm
735110	CE-21PCI	210 mm

UNE-EN ISO 7010

English and French edition under request.



730 First aid

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

730 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

730 Five golden rules

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

Signs tapes



For underground cables signalling. Made of 150 mm yellow color PVC. 500 m rolls. Text: "WARNING! ELECTRIC CABLES UNDERGROUND".

740 Sign tape

Code	Ref.	Language	Dimensions
740100	CCS-01AM	Spanish	150 x 500 mm

English and French edition under request.

UNE-EN ISO 7010



740 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.



Beacon tapes



740 ST-63

Beacon tapes

Red and white polyethylene beacon tape. 250 m rolls and 8 cm wide.

Code	Ref.	Color
740160	ST-63	Red and white

UNE-EN ISO 7010

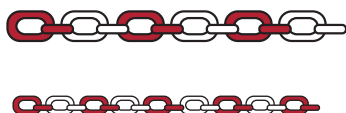
740 ST-64

Beacon tapes

Black and yellow polyethylene beacon tape. 250 m rolls and 8 cm wide.

Code	Ref.	Color
740170	ST-64	Black and yellow

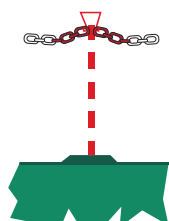
UNE-EN ISO 7010



745 Polyethylene chain

High resistant red and white sign chain. 25 m rolls.

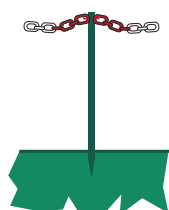
Code	Ref.	Dimensions
745110	SP-52A	29 x 52 x 7.5 mm
745100	SP-35A	20 x 35 x 5 mm



745 SP-01A

Chain support

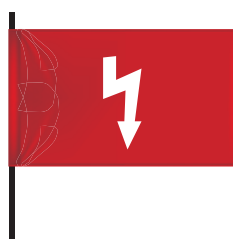
Code	Ref.	Model
745140	SP-01A	With base



745 Mod. SP-02B

Chain support

Code	Ref.	Model
745150	SP-02B	With pick



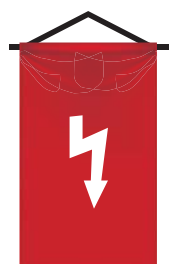
745 ST-70

Signs flags

Red flag with lightning.

Code	Ref.	Model
750100	ST-70	60 x 35 cm

UNE-EN ISO 7010



745 ST-71

Banner

Red banner with lightning.

Code	Ref.	Model
750110	ST-71	60 x 35 cm

UNE-EN ISO 7010



745 ST-72

Hangings signs

Code	Ref.	Length
750120	ST-72	1.20 mts

English and French edition under request.

UNE-EN ISO 7010



745 ST-73

Hangings signs

Code	Ref.	Length
750130	ST-73	1.20 mts

English and French edition under request.

UNE-EN ISO 7010



745 ST-74

Hangings signs

Code	Ref.	Length
750140	ST-74	1.20 mts

English and French edition under request.

UNE-EN ISO 7010



745 ST-75

Hangings signs

Code	Ref.	Length
750150	ST-75	1.20 mts

English and French edition under request.

UNE-EN ISO 7010



745 VS-80

Extending barriers

Iron extending barrier with 3.5 m reflective band.

Code	Ref.
755100	VS-80

Ladders



Polyester-fiberglass ladders

Safety

SAFETY CATALOGUE 2022



505 COMPACT

Step ladder with platform and wide aluminium steps

- Cone-shaped manufacture to increase support at base.
- Polyester side rails with fibreglass reinforcement and aluminium steps with 80mm tread.
- Aluminium support section.
- Reinforced non-slip polypropylene platform.
- Tool tidy top tray.
- Locking spreader bars and anti-bend reinforcements on the steps.



Code	Ref.	Height (mm)		Steps	Weight
		Total	Platform		
505100	COMPACT 1,45/0,69	1450	690	3	7
505110	COMPACT 1,70/0,92	1700	920	4	8
505120	COMPACT 1,95/1,15	1950	1150	5	9
505130	COMPACT 2,20/1,38	2200	1380	6	10
505140	COMPACT 2,45/1,61	2450	1610	7	12



EN 131
 UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 100 kV

Polyester-fiberglass ladders

Safety

SAFETY CATALOGUE 2022



510 EF/T

Two-sided step ladder

- Rails and rungs entirely in fiberglass.
- Includes two spreader locks between the two sections of the ladder to prevent it opening up.
- 72° opening of each section in relation to ground.
- Rung marked in red as per EN-131 standard to indicate highest rung limit.



Code	Ref.	Height (mm)	Width (mm)		Steps	Weight
			Ladder	Base		
510000	EF/T-1505	1490	400	580	2x5	9
510010	EF/T-2007	2050	400	620	2x7	12
510020	EF/T-2709	2660	400	680	2x9	15
510035	EF/T-3512	3500	400	770	2x12	19
510055	EF/T-4516	4620	400	890	2x16	29



EN 131
 UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 100 kV

Ladders

Polyester-fiberglass ladders

Safety

SAFETY CATALOGUE 2022



515 EF/S

Single-section ladder

- Rails and rungs entirely in fibreglass.
- Swivel feet as added safety element.
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)	Width (mm)	Steps	Weight
515000	EF/S-1505	1545	400	5	5.5
515015	EF/S-2408	2385	400	8	7
515025	EF/S-3010	2990	400	10	8.5
515035	EF/S-3512	3550	400	12	10.5
515045	EF/S-4114	4110	400	14	12
515060	EF/S-4917	4950	450	17	15
515080	EF/S-6021	6070	450	21	19



EN 131
 UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 100 kV

Ladders

Polyester-fiberglass ladders

Safety

SAFETY CATALOGUE 2022



520 EF/E

Manually extendable two-section ladder

- Rails and rungs entirely in fiberglass.
- With top wheels for ease of movement.
- The two sections can be used separately.
- Swivel feet as added safety element.
- Solid rungs for those most susceptible to wear and tear, increasing ladder's durability (first section of base part and last section of extendable part).
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)	Steps	Weight
		Folded	Extended			
520000	EF/E-3006	1880	3000	450	2x6	14
520010	EF/E-4108	2440	4120	450	2x8	17
520020	EF/E-5010	3000	4960	450	2x10	21
520030	EF/E-6012	3560	6080	450	2x12	24
520040	EF/E-7014	4120	7200	450	2x14	27



EN 131
UNE-EN 50528
UNE-EN 61478, electrical insulation tested between rungs - 100 kV

Ladders

Polyester-fiberglass ladders

Safety

SAFETY CATALOGUE 2022



525 EF/C

Two-section extension ladder using a cord

- Rope-extendable two-section fibreglass ladder
- Rails and rungs entirely in fibreglass.
- System actuated by rope and pulley to deploy the second section, for ease of use by operator.
- With top wheels for ease of movement.
- Swivel feet as added safety element.
- Solid rungs for those most susceptible to wear and tear, increasing ladder's durability (first section of base part and last section of extendable part).
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)	Steps	Weight
		Folded	Extended			
525000	EF/C-5010	3000	4960	450	2x10	24
525010	EF/C-6012	3560	6080	450	2x12	27
525020	EF/C-7014	4120	7200	450	2x14	30
525030	EF/C-8016	4680	8320	500	2x16	40
525035	EF/C-9017	4960	8880	500	2x17	42
525045	EF/C-1019	5520	10000	500	2x19	46



EN 131
UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 100 kV

Ladders

Polyester-fiberglass ladders

Safety

SAFETY CATALOGUE 2022

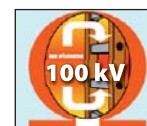


526 EF/M

Combined fibreglass ladder

- Rails and rungs entirely in fibreglass.
- Ladder with different possible applications, such as scissor, extendable in two separate sections.
- Features two locking spreader tapes between the two sections of the ladder to prevent it opening up when used in scissor format.
- With top wheels for ease of movement.
- Solid rungs for those most susceptible to wear and tear, increasing ladder's durability (first section of base part and last section of extendable part).
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)		Steps	Weight
		Scissor format	Extended	Ladder	Base		
526000	EF/M-3006	1780	3000	450	645	2x6	15
526010	EF/M-4008	2340	4120	450	735	2x8	18
526020	EF/M-5010	2940	4960	450	825	2x10	21
526030	EF/M-6012	3500	6080	450	915	2x12	24



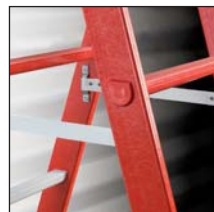
EN 131
 UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 100 kV

Ladders

Polyester-fiberglass ladders

Safety





SAFETY CATALOGUE 2022



527 EF/3

Step ladder with extendable section

- Rails and rungs entirely in fibreglass.
- Two-sided step ladder with third extendable section.
- The extra section can be used separately, and is fitted with a blocking system.
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)		Steps	Weight
		Scissor format	Extended	Ladder	Base		
527000	EF/3-2505						
527000	EF/3-2505	1490	2395	400	650	(2x5)+5	14
527015	EF/3-3808	2330	3795	400	740	(2x8)+8	20
527025	EF/3-5010	2940	4960	400	800	(2x10)+10	24



EN 131
UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 100 kV



1,000V AC / 1,500V DC
INSULATION TESTED TO: **100 kV** 
AS PER UNE-EN 61478 STANDARD

sofamel

sofamei



Order Number Index

Code	Ref.	Page	Code	Ref.	Page	Code	Ref.	Page
Safety			550110	SO-71	21	585340	AD3-10100	34
			550111	S/ATC	22	585350	AD3-1210	34
530110	SG-25 T9	09	550120	SO-45	22	585360	AD3-12100	34
530120	SG-25 T10	09	550140	SO-28	24	585400	AD4-0606	34
530150	SG-50 T9	09	550150	S0-75	24	585410	AD4-0610	34
530160	SG-50 T10	09	550160	S0-74	25	585420	AD4-06100	34
530190	SG-10 T9	09	550161	S/MOAL	25	585430	AD4-1010	34
530200	SG-10 T10	09	550170	SO-07	23	585440	AD4-10100	34
530230	SG-20 T9	09	550174	S/ELAR-354	23	585450	AD4-1210	34
530240	SG-20 T10	09	550175	S/ABE-355	23	585460	AD4-12100	34
530270	SG-30 T9	09	550176	S/ADM-353	24	590100	SAE-400	156
530280	SG-30 T10	09	550177	S/CSE-353	25	591120	591120	157
530320	SG-40 T10	09	550300	BLVC-30E	26	591125	SPD-9,51/13,40	157
530330	SG-40 T11	09	550310	BLVC-40E	26	591130	SPD-13,41/17,50	157
531110	SGM-25 T9	11	550320	BLVC-60E	26	591135	SPD-17,51/21,80	157
531120	SGM-25 T10	11	555100	SO-26	29	595100	SP-22	37
531150	SGM-50 T9	11	555110	SO-27	29	595101	SP-321	37
531160	SGM-50 T10	11	555115	CLIMBO 265	27	595102	SP-35	38
531190	SGM-10 T9	11	555125	AIRCLIMB	28	595103	SP-321	37
531200	SGM-10 T10	11	565090	ARMOUR-1	16	595112	SP-39	38
531230	SGM-20 T9	11	565091	ARMOUR-2	17	595113	S/PA	38
531240	SGM-20 T10	11	565093	ARMOUR-2 ATPV36	18	600100	SP-52	39
531270	SGM-30 T9	11	565099	SP-181	19	600110	SP-50	39
531280	SGM-30 T10	11	565102	SPE	19	600120	SO-31	39
531310	SGM-40 T10	11	565106	S/CABS-397	19	600130	SO-32	39
531320	SGM-40 T11	11	565130	S/BQ	20	600150	BA-1,0x10	40
535100	SG-37	12	565131	S/BQM	20	600151	BA-0,6x10	40
540100	SG-38 T-10	13	570120	SP-182	20	605100	BM-45	41
540101	SG-38 T-9	13	570130	MP-1	20	605110	BM-66	41
540102	SG-38 T-8	13	575100	MP-4	20	605115	BM-90	41
540103	SG-38 T-11	13	580096	STE-26	36	605120	BM-132	41
540110	SG-39 T-10	13	580100	ST-36	35	605130	BME-45	42
540111	SG-39 T-9	13	580110	ST-45	35	605140	BME-66	42
540113	SG-B	12	580111	STE-45	36	605150	BME-132	42
540114	SG-C	12	580115	ST-66	35	610100	BS-45	56
540115	SG-D	12	580116	STE-66	36	610110	BS-66	56
540116	SG-E	12	580130	ST-79	37	610115	BS-90	56
540117	SG-F	12	585180	AD0-0606	34	615206	SUPPORT POLES	58
540120	SH-265 T8	13	585181	AD0-0610	34	615300	BMTS-15/45M	43
540130	SH-265 T9	13	585182	AD0-06100	34	615301	BMTS-15/45U	43
540140	SH-370 T8	13	585183	AD0-1010	34	615302	BMTS-15/45B	43
540150	SH-370 T9	13	585184	AD0-10100	34	615303	BMTS-15/45P	43
540160	SH-350R T9	13	585185	AD0-1210	34	615310	BMTS-20/66M	43
540170	SH-350R T10	13	585186	AD0-12100	34	615311	BMTS-20/66U	43
540180	SH-GPKV T9	13	585200	AD2-0606	34	615312	BMTS-20/66B	43
540190	SH-GPKV T10	13	585210	AD2-0610	34	615313	BMTS-20/66P	43
545100	SG-36	14	585220	AD2-06100	34	615320	BMTS-30/132M	43
545110	SG-35	15	585230	AD2-1010	34	615321	BMTS-30/132U	43
545111	SGP	15	585240	AD2-10100	34	615322	BMTS-30/132B	43
545112	CG-70	14	585250	AD2-1210	34	615323	BMTS-30/132P	43
545113	CG-120	14	585260	AD2-12100	34	615325	BMTS-4/6	44
545120	SG-117	15	585300	AD3-0606	34	615330	BMTS-5/9	44
545135	FUSE HOLDER	58	585310	AD3-0610	34	615335	BMTS-6/12	44
545140	TALCUM	15	585320	AD3-06100	34	615350	BMTS-7/11,6	45
550100	SO-06	21	585330	AD3-1010	34	615355	BMTS-7/10,3	45

Order Number Index

Code	Ref.	Page	Code	Ref.	Page	Code	Ref.	Page
616100	BMAI-2/66M	46	616633	BMAE-6V/380P	49	630163	ADAP. UK-P	61
616101	BMAI-2/66U	46	616700	BSC-M3U	50	630166	ADAP. H12-B	61
616102	BMAI-2/66B	46	616701	BSC-M3B	50	630167	ADAP. B-P	60
616103	BMAI-2/66P	46	616702	BSC-M3H	50	630168	PP-1U MCL	110
616110	BMAI-2,5/110M	46	616703	BSC-M4U	50	630170	GSP-32	57
616111	BMAI-2,5/110U	46	616704	BSC-M4B	50	630175	AVPM	57
616112	BMAI-2,5/110B	46	616705	BSC-M4H	50	630177	GPB	57
616113	BMAI-2,5/110P	46	616706	BSC-M5U	50	635200	TESTER PRC	140
616120	BMAI-3/132M	46	616707	BSC-M5B	50	635205	TESTER PD	140
616121	BMAI-3/132U	46	616708	BSC-M5H	50	635210	635210	141
616122	BMAI-3/132B	46	616709	BSC-M6U	50	640104	PEKE-5/36	118
616123	BMAI-3/132P	46	616710	BSC-M6B	50	640175	SPECTRA-200/5000	119
616200	BMAE-2/30M	47	616711	BSC-M6H	50	640177	SPECTRA-50/1000	119
616201	BMAE-2/30U	47	616712	BSC-M22U	51	640200	VTO-5/36-U	117
616202	BMAE-2/30B	47	616713	BSC-M22B	51	640205	VTO-5/66-U	117
616203	BMAE-2/30P	47	616714	BSC-M22H	51	640210	VTO-5/36-P	116
616210	BMAE-2,5/66M	47	616715	BSC-M32U	51	640215	VTO-5/66-P	116
616211	BMAE-2,5/66U	47	616716	BSC-M32B	51	640250	CUSTODIAN	138
616212	BMAE-2,5/66B	47	616717	BSC-M32H	51	641103	VTE-5/36-P	120
616213	BMAE-2,5/66P	47	616718	BSC-M33U	51	641105	VTE-5/66-P	120
616220	BMAE-3/110M	47	616719	BSC-M33B	51	641113	VTE-5/36-U	121
616221	BMAE-3/110U	47	616720	BSC-M33H	51	641115	VTE-5/66-U	121
616222	BMAE-3/110B	47	616721	BSC-M222U	51	641120	VTE-25-U	122
616223	BMAE-3/110P	47	616722	BSC-M222B	51	645162	VTA-63/150-U	129
616500	BMAI-3V/132M	48	616723	BSC-M222H	51	645164	VTA-66/220-U	129
616501	BMAI-3V/132U	48	616724	BSC-A43U	51	645165	VTA-66/220-U	129
616502	BMAI-3V/132B	48	616725	BSC-A43B	52	645172	VTA-90/225-U	129
616503	BMAI-3V/132P	48	616726	BSC-A44U	52	645182	VTA-150/420-U	129
616510	BMAI-4V/220M	48	616727	BSC-A44B	52	645184	VTA-45/420-U	129
616511	BMAI-4V/220U	48	616728	BSC-A54U	52	645186	VTA-225/420-U	129
616512	BMAI-4V/220B	48	616729	BSC-A54B	52	645210	VTC-OA	131
616513	BMAI-4V/220P	48	616730	BSC-A55U	52	645211	VTC-OA I *	131
616520	BMAI-5V/380M	48	616731	BSC-A55B	52	645215	VTC-OAD	130
616521	BMAI-5V/380U	48	616732	BSC-A66U	52	645216	VTC-OAD I *	130
616522	BMAI-5V/380B	48	616733	BSC-A66B	52	645220	VTM-3/10-U	123
616523	BMAI-5V/380P	48	616734	BSC-A444U	52	645225	VTM-4/12-U	123
616530	BMAI-6V/380M	48	616735	BSC-A444B	52	645230	VTM-10/30-U	123
616531	BMAI-6V/380U	48	625105	BEF-9000/24	54	645235	VTM-11/33-U	123
616532	BMAI-6V/380B	48	625107	BEF-9000/36	54	645240	VTM-15/45-U	123
616533	BMAI-6V/380P	48	625110	BDC	55	645245	VTM-22/66-U	123
616600	BMAE-3V/110M	49	630100	SM-02R	59	645251	D-TUERI	134
616601	BMAE-3V/110U	49	630101	ADAP. H12-M10	60	645255	D-TUERI EXPERT	133
616602	BMAE-3V/110B	49	630102	ADAP. UK-M10	61	645257	D-TUERI PRO	133
616603	BMAE-3V/110P	49	630106	ADAP. M10-UK	61	645260	POWER-3/10	125
616610	BMAE-4V/220M	49	630107	ADAP. B-UK	60	645266	POWER-1/3,3	125
616611	BMAE-4V/220U	49	630108	ADAP. B-M10	60	645267	POWER-10/36	125
616612	BMAE-4V/220B	49	630109	ADAP. H12-UK	61	645268	POWER-13/45	125
616613	BMAE-4V/220P	49	630110	SM-02C	59	645269	POWER-22/79	125
616620	BMAE-5V/380M	49	630116	GA-TML	60	645280	POWER-1/5	127
616621	BMAE-5V/380U	49	630120	SM-02K	59	645285	POWER-5/79	127
616622	BMAE-5V/380B	49	630122	SM-03K	59	645650	D-TUERI CASE	134
616623	BMAE-5V/380P	49	630123	SM-90K	59	645680	D-WATCH	135
616630	BMAE-6V/380M	49	630130	GS-49	57	648250	COMBO PRO	136
616631	BMAE-6V/380U	49	630136	GLV	26	648260	COMBO EXPERT	137
616632	BMAE-6V/380B	49	630162	ADAP. UK-B	61	650450	PV0/6	139

Order Number Index

Code	Ref.	Page	Code	Ref.	Page	Code	Ref.	Page
651100	5014H	105	660360	PATL-MCL-4/2516	81	671106	EMB	107
658110	ELBT-CC	74	660365	PATL-MCL-4/3525	81	671110	MPUH	104
658115	PEBT	103	660370	PATL-MCL-4/5035	81	671112	MPUE	103
658120	ELBT-PAT/CC	75	660375	PATL-MCL-4/7050	81	671113	MPUL	103
659000	ECBT-MPUE/35	72	660400	ERLAIN-3/11	97	671115	MPUB	104
659001	ECBT-MPUBTH/35	73	660405	ERLAIN-4/10	97	671116	MPUP	104
659001P	MPUBT	103	665220	PATC-MPUB/2525	90	671117	MPUH-L	104
659020	SHPC	71	665225	PATC-MPUB/3535	90	671118	MPUB-L	104
659021	SHCD	71	665230	PATC-MPUB/5050	90	671119	MPUP-L	105
659022	SHPL	71	665235	PATC-MPUH/2525	90	671120	MC	105
659030	SHPC2-035015	71	665240	PATC-MPUH/3535	90	671121	MCL	105
659035	SH035015	71	665245	PATC-MPUH/5050	90	671122	PP-3U MCL	110
659040	ECBT-SHCD3	65	665250	PATC-5014H/2525	88	671123	PP-4U MCL	110
659045	ECBT-SHPL3	65	665255	PATC-5014H/3535	88	671126	PP-3	110
659050	ECBT-SHCD4	66	665260	PATC-5014H/5050	88	671127	PP-4	110
659055	ECBT-SHPL4	66	665270	PATC-PP15/2525	89	671128	PP-3U	110
659126	NH000/A	69	665275	PATC-PP15/3535	89	671129	PP-4U	110
659127	NH0/A	69	665280	PATC-PP15/5050	89	671131	PP-3 MCL	110
659128	NH1-3/A	69	665285	PATL-MPLB/7070	77	671132	PP-4 MCL	110
659129	NH4/A	69	665310	PATCPF-MPU/2525	91	671141	TT-38A	108
659130	ECBT-NH	62	665315	PATCPF-MPU/3535	91	671145	TT-38L	108
659131	PC	70	665320	PATCPF-MPU/5050	91	671152	TT-50	108
659132	PTA	71	666005	PC	104	671153	TTR	108
659133	MPUCN	71	666010	PDC	105	671166	PP15	105
659139	MPUCF	71	666015	TTSR	108	671171	PCA-25	105
659140	ECBT-PTA3	63	666120	PATF-PC-TTR	99	671172	MPL	106
659150	ECBT-PTA4	64	666130	PATF-PC-TTSR	99	671178	MPLP	106
659160	ECBT-ID	67	666140	PATF-PDC-TTR	100	671178	MPLP	106
659170	ECBT-GNF/35	68	666150	PATF-PDC-TTSR	100	671179	Metal holder	102
659180	ECBT-GNF/50	68	670100P	TML	106	672200	PATC-BP	98
659185	NH000	69	670176	PATL-TML/05006	93	672205	BPGA	107
659186	NH0	69	670177	PATL-TML/05007	93	672210	BSC-132/BP	53
659187	NH1-3	69	670178	PATL-TML/05008	93	673100	PAV-48	106
659188	NH4	69	670179	PATL-TML/05009	93	673101	PATL-PAV/05006	95
660225	PATL-MC-3/1616	78	670180	PATL-TML/05010	93	673102	PATL-PAV/05007	95
660230	PATL-MC-3/2516	78	670186	PATL-TML/07006	93	673103	PATL-PAV/05008	95
660240	PATL-MC-3/3525	78	670187	PATL-TML/07007	93	673104	PATL-PAV/05009	95
660245	PATL-MC-4/1616	79	670188	PATL-TML/07008	93	673105	PATL-PAV/05010	95
660246	PATL-MC-4/2516	79	670189	PATL-TML/07009	93	673106	PATL-PAV/07006	95
660247	PATL-MC-4/3525	79	670190	PATL-TML/07010	93	673107	PATL-PAV/07007	95
660250	PATL-PCA25-3/1616	82	670196	PATL-TML/09506	93	673108	PATL-PAV/07008	95
660260	PATL-PCA25-3/2516	82	670197	PATL-TML/09507	93	673109	PATL-PAV/07009	95
660270	PATL-PCA25-3/3525	82	670198	PATL-TML/09508	93	673110	PATL-PAV/07010	95
660280	PATL-PCA25-4/1616	83	670199	PATL-TML/09509	93	673111	PATL-PAV/09506	95
660281	PATL-PCA25-4/2516	83	670200	PATL-TML/09510	93	673112	PATL-PAV/09507	95
660282	PATL-PCA25-4/3525	83	670206	PATL-TML/12006	93	673113	PATL-PAV/09508	95
660290	PATL-MPUB/1616	76	670207	PATL-TML/12007	93	673114	PATL-PAV/09509	95
660300	PATL-MPUB/2516	76	670208	PATL-TML/12008	93	673115	PATL-PAV/09510	95
660310	PATL-MPUB/3525	76	670209	PATL-TML/12009	93	673116	PATL-PAV/12006	95
660330	PATL-MCL-3/1616	80	670210	PATL-TML/12010	93	673117	PATL-PAV/12007	95
660335	PATL-MCL-3/2516	80	670216	PATL-TML/15006	93	673118	PATL-PAV/12008	95
660340	PATL-MCL-3/3525	80	670217	PATL-TML/15007	93	673119	PATL-PAV/12009	95
660345	PATL-MCL-3/5035	80	670218	PATL-TML/15008	93	673120	PATL-PAV/12010	95
660350	PATL-MCL-3/7050	80	670219	PATL-TML/15009	93	674100	PA40A B	107
660355	PATL-MCL-4/1616	81	670220	PATL-TML/15010	93	674102	PA40A H	107

Order Number Index

Code	Ref.	Page	Code	Ref.	Page	Code	Ref.	Page
674105	PA40ABP	107	680188	PAT-MPL/07008	92	720150	CE-14S	158
674176	PATL-PA40/05006	94	680189	PAT-MPL/07009	92	720160	CE-21S	158
674177	PATL-PA40/05007	94	680190	PAT-MPL/07010	92	720170	CE-29S	158
674178	PATL-PA40/05008	94	680196	PAT-MPL/09506	92	720180	CR-10S	158
674179	PATL-PA40/05009	94	680197	PAT-MPL/09507	92	720190	CR-14S	158
674180	PATL-PA40/05010	94	680198	PAT-MPL/09508	92	720200	CR-21S	158
674186	PATL-PA40/07006	94	680199	PAT-MPL/09509	92	720210	CR-29S	158
674187	PATL-PA40/07007	94	680200	PAT-MPL/09510	92	720220	PM-10S	158
674188	PATL-PA40/07008	94	680206	PAT-MPL/12006	92	720230	PM-21S	158
674189	PATL-PA40/07009	94	680207	PAT-MPL/12007	92	725100	AE05ADH	159
674190	PATL-PA40/07010	94	680208	PAT-MPL/12008	92	725110	AE10ADH	159
674196	PATL-PA40/09506	94	680209	PAT-MPL/12009	92	725115	AE21ADH	159
674197	PATL-PA40/09507	94	680210	PAT-MPL/12010	92	725120	VT230V55	159
674198	PATL-PA40/09508	94	690100	SZ-51S	142	725130	VT230V10	159
674199	PATL-PA40/09509	94	690100 I	SZ-51S	142	725140	VT400V55	159
674200	PATL-PA40/09510	94	690100 F	SZ-51S	142	725150	VT400V10	159
674206	PATL-PA40/12006	94	690110	SZ-51M	144	725155	TT05ADH	159
674207	PATL-PA40/12007	94	690110 I	SZ-51M	144	725160	TT10ADH	159
674208	PATL-PA40/12008	94	690110 F	SZ-51M	144	730100	PA-42P	160
674209	PATL-PA40/12009	94	690114	KRM-4001	145	730101	PA-42P	160
674210	PATL-PA40/12010	94	690130	SZ-51B	143	730102	PA-42P	160
674216	PATL-PA40/15006	94	690130I	SZ-51B	143	730110	PA-29P	160
674217	PATL-PA40/15007	94	690130F	SZ-51B	143	730111	PA-29P	160
674218	PATL-PA40/15008	94	695100	SZ-02	146	730112	PA-29P	160
674219	PATL-PA40/15009	94	695120	SZ-01	146	730120	RTE-42P	160
674220	PATL-PA40/15010	94	700100	SZ-05	146	730121	RTE-42P	160
675100P	TMC	106	700110	SZ-06	146	730122	RTE-42P	160
675176	PATC-TMC/05006	96	705100	SZ-07	147	730130	RTE-29P	160
675177	PATC-TMC/05007	96	710100	SZ-100	147	730131	RTE-29P	160
675178	PATC-TMC/05008	96	710110	SZ-120	147	730132	RTE-29P	160
675179	PATC-TMC/05009	96	710120	SZ-180	147	730140	CRO-42P	160
675180	PATC-TMC/05010	96	715110	SZ-56	146	730144	CRO-42P	160
675186	PATC-TMC/07006	96	715120	SZ-57/25	147	730146	CRO-42P	160
675187	PATC-TMC/07007	96	715121	VC-300/25	147	735100	CE-14PCI	159
675188	PATC-TMC/07008	96	715125	SZ-57/36	147	735110	CE-21PCI	159
675189	PATC-TMC/07009	96	715126	VC-300/36	147	740100	CCS-01AM	160
675190	PATC-TMC/07010	96	715140	DB2 T39	30	740160	ST-63	161
675196	PATC-TMC/09506	96	715150	DB2 T41	30	740170	ST-64	161
675197	PATC-TMC/09507	96	715155	DB2 T42	30	740180	ST-62A	161
675198	PATC-TMC/09508	96	715160	DB2 T43	30	745100	SP-35A	162
675199	PATC-TMC/09509	96	715165	DB2 T44	30	745110	SP-52A	162
675200	PATC-TMC/09510	96	715170	DB2 T45	30	745140	SP-01A	162
675206	PATC-TMC/12006	96	715230	DB3 T39	31	745150	SP-02B	162
675207	PATC-TMC/12007	96	715260	DB3 T41	31	750100	ST-70	162
675208	PATC-TMC/12008	96	715270	DB3 T42	31	750110	ST-71	162
675209	PATC-TMC/12009	96	715275	DB3 T43	31	750120	ST-72	163
675210	PATC-TMC/12010	96	715280	DB3 T44	31	750130	ST-73	163
676010	PATL-MPS/9510	87	715285	DB3 T45	31	750140	ST-74	163
680176	PAT-MPL/05006	92	715300	OB2 T-L	32	750150	ST-75	163
680177	PAT-MPL/05007	92	715340	OB3 T-L	33	755100	VS-80	163
680178	PAT-MPL/05008	92	720100	AE-10S	158	761100	C/ABS-25 AZ	148
680179	PAT-MPL/05009	92	720110	AE-14S	158	761101	C/ABS-38 AZ	148
680180	PAT-MPL/05010	92	720120	AE-21S	158	761102	C/COM-38-DK AZ	149
680186	PAT-MPL/07006	92	720130	AE-29S	158	761103	C/ABS-25 RJ	148
680187	PAT-MPL/07007	92	720140	CE-10S	158	761106	C/ABS-25 AM	148

