



PENTA
ELECTRICAL SAFETY PRODUCTS

ELECTRICAL SAFETY AND SHOCK RESCUE EQUIPMENT



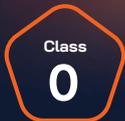
TOUCH-E

A SECOND SKIN FOR BETTER

DEXTERITY
SENSITIVITY

3-IN-1

A standardized approach



Class
0

1000 V AC / 1500 V DC
protection for high voltage vehicles



CHLORINATION
easy donning



THICKNESS
30% thinner than traditional gloves



GRIP
better grip on tools and small parts



ORANGE
the colour of electrical risk



SHAPE
respects the anatomy of the hand at rest, limiting fatigue and ensuring excellent dexterity



Electrical hazard
EN 60 903 class 0



Mechanical hazard
EN 388 : abrasion 2, cut 1, tear 2, puncture 1



Arc flash hazard
IEC 61 482-1-2
Class 1 – 4kA

Recommended size	7	8	9	10	11
Hand outline (cm)	16 cm	18 cm	21 cm	24 cm	26 cm

Reference	Class	Max operating voltage	Length	Size
JFO36-0/07	0	1 000 V AC / 1 500 V DC	36 cm	7
JFO36-0/08				8
JFO36-0/09				9
JFO36-0/10				10
JFO36-0/11				11

/ UNITAG

ELECTRO-ALERT DETECTOR FOR SAFE APPROACH OF DISTRIBUTION INSTALLATION (LV/HV)

1000V CAT IV - IP65

Advantages

- Sound and light alert on voltage presence.
- UNITAG 1000V for using on networks.
- Can be used by hands or on insulating stick.
- Indication of detection level.
- Tip length designed for access to LV panel and test point.
- Audible beeping speed proportional to the level of detection.
- Visual indication of level of detection on a bright LED bar graph.
- Automatic self-test when switched on with green LED indication.
- Multi purpose detector : street light, insulating twisted cables, rescue team, fire fighters...



/ USE

UNITAG is a unipolar detector designed to test the presence of phase on insulated or bare LV conductors.

The level of detection is indicated by a LED bargraph and a beeping sound which speed increases as device approaches a live source. It is commonly used for detecting stray voltage on poles and cross arms, conductor disconnection on overhead insulated LV conductors. UNITAG will not replace a standard "proving dead" device but is an ideal complement to bipolar LV detector.

/ TECHNICAL SPECIFICATIONS

- AC system
- AC mains frequency : 50-60 Hz
- Field of use : from 50V up to 1000V
- Detection by direct contact at 50V
- CAT IV 1000V
- IP65
- Temperature : - 15 ° C to +45 ° C
- 2 x LR03 1.5 volt alkaline (AAA)
- Delivered with soft bag suitable for belt fixing



Reference	Type of use	User manual*	Dimensions	Weight
UNITAGHFE	Hand-held	Pack F	227 x 45 x 37 mm	160 g
UNITAGUFE	Hand-held + stick interface		241 x 67 x 51 mm	210 g
UNITAGUFX	Hand-held soft shell + telescopic stick		51 x 67 x 1100 mm	710 g

/ Accessories

Reference	Description	Weight
CPUNITAGUO	Protective shell UNITAG, Universal adapter	100 g

* Pack F : User manual FR/GB/DE/ES/PT/PL - Pack G : User manual GB/GR/BG/IT/NL/AR/TR

MTAG

HIGH VOLTAGE DETECTOR FOR DISTRIBUTION SYSTEM

INNOVATION



IEC 61243-1 CE

DESIGNED FOR « PROVING DEAD »
ON HIGH VOLTAGE DISTRIBUTION
SYSTEM BETWEEN 1 KV AND 69 KV
(Voltage ranges calibrated according to IEC recommendations)



OPTIMUM SOUND
INDICATION



OPERATING
RELIABILITY



DIRECT ACCESS TO THE BATTERY,
WATERTIGHT SEALED ELECTRONICS
COMPARTMENT



ENHANCED VISUAL
INDICATION

ESSENTIAL

/ V CHECK NEW

CAPACITIVE VOLTAGE DETECTORS PROVING UNIT

Advantages

- High voltage signals generated by V CHECK allow to test most of IEC 61243-1 capacitive voltage detectors.
- Easy to use: touch the voltage detector contact electrode with the V CHECK proving unit, and press the button.
- Compact and lightweight.
- Battery powered (autonomy: up to 1000 tests).
- Red led warning during the test.
- Low battery indication by orange LED.



/ USE

- V CHECK proving unit is designed to check most of capacitive voltage detectors that comply with IEC61243-1.
- The proving unit allows you to make sure your MTAG, or other capacitive detector, is working properly when no "known real voltage" is available.
- The V CHECK proving unit could be used before and after using your capacitive voltage detector on-site or periodically to check its full integrity.
- The VCHECK don't allow to test capacitive voltage detector with resistive contact electrode extension.

This product does not replace the built-in self-test which **MUST** be used before and after using your voltage detector.



/ TECHNICAL SPECIFICATIONS

- Powered with 1 x 9V alkaline battery
- Use temperature: -25°C to +55°C
- Size: 123 x 72 x 49 mm
- Weight: 228 g (without battery).

Reference	Designation	User's Manual *	Packaging
VCHECKHF	Capacitive voltage detectors proving unit	Pack F	Soft case
VCHECKHG		Pack G	

* Pack F : FR/GB/DE/ES/PT/PL

Pack G : GB/GR/BG/IT/NL/AR/TR

HTAG

HIGH -VOLTAGE DETECTOR

INNOVATION



IEC 61243-1

DESIGNED TO CHECK THE ABSENCE OF NOMINAL VOLTAGE IN A CIRCUIT OF HIGH VOLTAGE AND VERY HIGH VOLTAGE SYSTEMS FROM 50 KV TO 765 KV
(voltage range according to IEC recommendation)



FUNCTIONAL
RELIABILITY



DIRECT ACCESS
TO THE BATTERY
AND SEALED ELECTRONICS
COMPARTMENT



OPTIMUM SOUND
INDICATION



OPTIMAL LIGHT
INDICATION



/ PICOUP

CABLE SPIKING AND CUTTING TOOL - ULTRASAFE RANGE

Advantages

- Protection of the network by creating a phase-to-earth fault with the spike.
- Remote-controlled cable cutter for proving dead operations.
- Compact integrated electro-hydraulic unit with automatic double speed.
- Remote controlled cable cutter up to 100m to protect the user and third parties from the effects of a live cut.



/ USE

Ultrasafe integrated electro-hydraulic cable spiking and cutting tool, without hydraulic hoses, for proving dead underground cables.

/ TECHNICAL SPECIFICATIONS

Double pump hydraulic unit 700 bars.
Packaging: wheeled case or bag.

Reference	Cutting Ø	Cutting force	Ø reinforcement round wire	Icc (kA-1s)	Icc (kA-0,5 s)	Type of short-circuit	Battery	Remote control
PICOUP250	100 mm	13 t	0 mm	18	25	single-phase fault	24 V	100 m

/ PPOLE STANDARD

IEC 62193, IEC 60855-1 / ASTM F1826, ASTM F711

Advantages

- A solution for all voltages and heights until 12 meters



/ USE

The telescopic pole reaches heights up to 12m while maintaining a retracted length of 1.78m. The pole is composed of 3 to 9 elements, which can be adapted to all configurations of use. Its low weight and high rigidity allow an easier handling and more precise movements.

/ TECHNICAL SPECIFICATIONS

Insulating telescopic stick made of:

- 2 to 8 pentagonal-shaped shallow tubes compliant with IEC 61235 standard.
- 1 top tube Ø 28 mm compliant with IEC 60855-1 and ASTM F711 standards.
- 1 base to protect the end of the stick.
- 1 universal end fitting to accommodate multiple accessories.
- 1 operating hook.



U



USC



B



APV

multipurpose end fitting, 12 mm 6 sided with automatic locking

Reference	Number of sections	Extended length	Folded length	Max. operating voltage all weather	Max. operating voltage dry weather	Cover
PPOL3/035*	3	3700 mm	1450 mm	132 kV	170 kV	HPPOLE/150
PPOL4/050*	4	5000 mm	1510 mm	132 kV	245 kV	HPPOLE/170
PPOL5/060*	5	6300 mm	1580 mm	132 kV	420 kV	HPPOLE/170
PPOL6/075*	6	7700 mm	1650 mm	132 kV	525 kV	HPPOLE/170
PPOL7/090*	7	9100 mm	1710 mm	132 kV	765 kV	HPPOLE/190
PPOL8/105*	8	10600 mm	1780 mm	132 kV	900 kV	HPPOLE/190
PPOL9/120*	9	12000 mm	1780 mm	132 kV	900 kV	HPPOLE/190

* Add the end fitting reference.



/ BT318_N

EARTHING AND SHORT-CIRCUITING EQUIPMENT FOR BARE LV OVERHEAD LINES
IEC 61230

Advantages

- Ergonomic handle with hand guard.
- Quick connection/disconnection.

/ USE

Device for short-circuiting and if necessary earthing bare LV overhead lines.

/ TECHNICAL SPECIFICATIONS

For bare conductors, Ø 3 to 18 mm.

Max. Isc: 3 kA/1s

Composition:

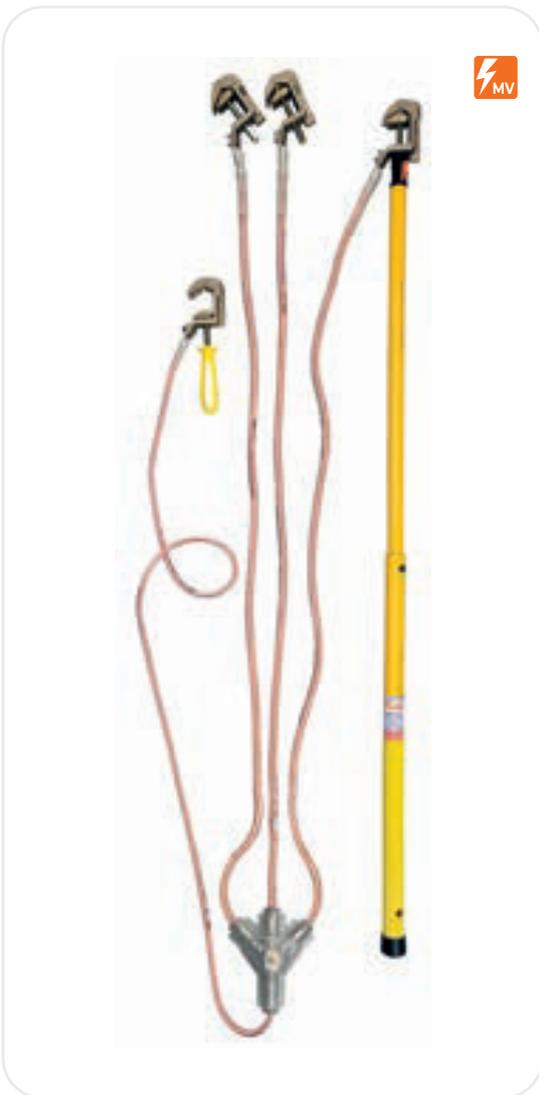
- 3 to 6 light alloy spring clamps on 0.40 m insulating poles.
- 1 spring clamp for use with operating stick.
- 1 set of extra flexible copper jumper cables, 16 mm², 0.70 m in bypass connection, with one connection to the earth cable with a type N quick bayonet connector.
- 1 telescopic fibreglass insulating stick, 2 m.
- 1 storage cover.

Reference	Composition	Weight
BT3184N	4 clamps and 3 sticks	3.32 kg
BT3185N	5 clamps and 4 sticks	3.74 kg
BT3186N	6 clamps and 5 sticks	4.16 kg
BT3187N	7 clamps and 6 sticks	4.58 kg

Available version without bayonet ground wire joint, direct connection.

/ This product contains

Reference	Description
BT318APV	Earthing and short-circuiting clamp for bare LV overhead lines
H318	Storage cover
PT318	BT318 clamp on 0,4 m stick with handle
TFK16007BB	16 mm ² short-circuiting cable 0,7 m
PPOL2/020APVE	Insulating telescopic stick 2 m



/ CORATRIF

COMPLETE EARTHING AND SHORT-CIRCUITING DEVICE
IEC 61230

/ USE

For fixed ball points, diameters 20 and 25 mm, flat and cylindrical bars.
Suitable for fitting E240 lug barrels.

/ TECHNICAL SPECIFICATIONS

Composition :

- 1 TRIFURCATION as defined in the table
- 3 NBD25AP phase clamps (hexagonal end fittings, 12 mm)
- 1 NBD25M earthing clamp (with ergonomic handle)
- 1 insulating stick TR245APV
- 1 metal storage case CM535

Composition of the CORATRIF08 :

- 1 TRIFURCATION as defined in the table
- 3 NBD25B phase clamps (bayonet end fittings)
- 1 NBD25M earthing clamp (with ergonomic handle)
- 1 insulating stick TR276B
- 1 metal storage case CM535

Composition of the CORATRIFSN :

- Identical to CORATRIF08 without the insulating stick TR276B

Reference	Max. Isc	3 Short-circuiting cables	Earthing cable	Item number of the corresponding trifurcation
CORATRIF	18,5 kA/1s	70 mm ² - 1.5 m	35 mm ² - 2.0 m	T70015C35020C
CORATRIF01	25 kA/1s	95 mm ² - 0.8 m	95 mm ² - 3.0 m	T95008C95030C
CORATRIF02	18,5 kA/1s	70 mm ² - 1.5 m	35 mm ² - 5.0 m	T70008C35050C
CORATRIF03				T70008C35100C
CORATRIF08	25 kA/1s	95 mm ² - 0.8 m		T95015C35025C
CORATRIFSN				T95015C35025C

Other compositions and/or trifurcations on request.

/ FC2310 NEW

DISCONNECTED CABLE AND PHASE VOCAL IDENTIFIER, NETWORK MAP CHECKER

Advantages

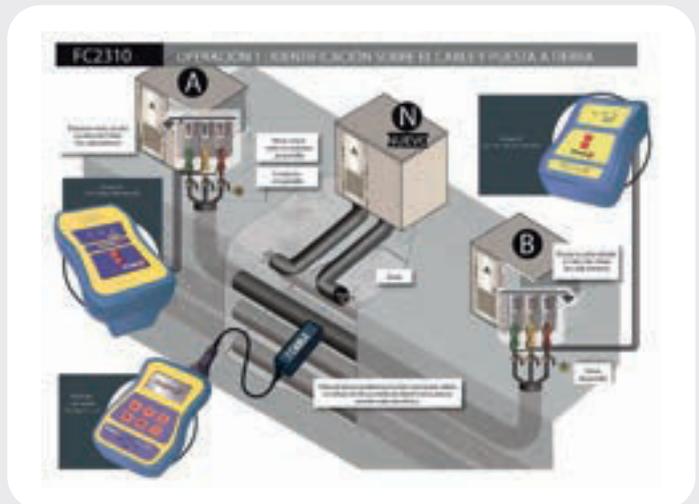
- **SECURED SIGNAL** : the transmitted signals cannot be jammed or detected on nearby cables.
- **SIMPLE SIGNAL INDUCTION**
- **AVAILABILITY OF INFORMATION NECESSARY** for operations on facilities to be recorded as soon as the transmitters are implemented without any subsequent manipulation.
- **CHECK OF NETWORK ELECTRICAL MAP** within the framework of a recording and before putting back into service.
- **16 hours of autonomy over 2000 cycles of charges/discharges.**
- **New battery compartment allowing change by the user themselves.**



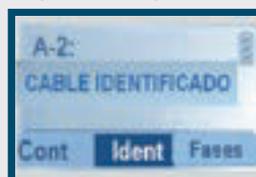
/ USE

Thanks to the following functions, the device allows you to carry out all operations related to the lockout-tagout job in a simple and safe way:

- Voice cable identifier
- Continuity controller
- Phase identifier
- Operating electrical map controller before commissioning
- The new range of FC2310 multi-transmitter device (9 codes available) allows:
 - to verify with one receiver, and with certainty, that all the involved piece of network of the same operation are correctly registered for the safety of the operators.
 - identify the source of the signals (transmitter code no.).
- The multi-transmitter evolution makes it possible to simplify the sequence of operations, improves the efficiency of the workflow in the context of the lockout-tagout procedure, by limiting the movements and movements of devices.
- It makes it possible to check the new electrical map of the networks after works and prior to reenergize.
- The upgrade provides a new feature allowing to detect between Phase and Neutral, for example in a single phase service cabinet.
- The multi-transmitter range is proposed and packaged according to the needs and the customer's request.
- The evolution of the quality of packaging allows its transport and its implementation in extreme conditions.



Unipolar and bipolar cables



Unipolar cables



/ I-PROBE SENSOR LOADED CABLE SELECTOR



Advantages

- Enables to quickly scan a bundle of cables and select the loaded cables in a trench or conduit.
- Convenient to be used in LV distribution cabinets avoiding stress on cable heads.
- Provides current indication where the ammeter clamps and Rogowski coils are blind (3 P, 3 P + N, 1 P + N cables).

Reference	Description
I-PROBEF	PROBE complete set (detector, probe and case)
I-PROBEF-FC-READY	I-PROBE probe alone for FC2300CP/FC2310 detectors produced since 12/2020
I-PROBEF-FC-UPGRADE	I-PROBE probe for FC2300CP/FC2310 detectors produced before 12/2020, with upgrade of the detector to accept I-PROBE function and a complete checking of the FC2300CP/FC2310 the manufacturer site

/ Standard packs examples

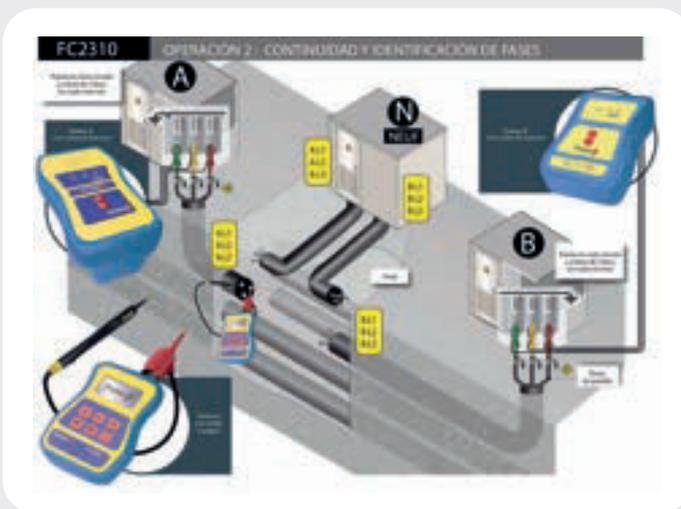
Reference	Description
FC2310GB	2 transmitter and 1 detector set for : <ul style="list-style-type: none"> • Pre-identification of cables • Identification of conductors and open or closed circuit sources • Checking electrical networks
FC2300CPGB	1 transmitter and 1 detector set for: <ul style="list-style-type: none"> • Pre-identification of cables • Identification of conductors and open or closed circuit sources • Checking electrical networks

/ Accessories

Reference	Description
JP80	Set of Ø 80 mm clamps for FC2310 or FC2300 CP equipped with TI option
XT	Bundle of leads for signal transmission at contacts (corresponding colours).
KCSE01	Kit de mise en court-circuit pour coffret RMBT et coffret branchement 4,2 kA/1s.

/ Options

Reference	Description
TI	"Plug-in connectors" option for two interchangeable clamps for FC2310 and FC2300 CP



Unipolar & 3-pole cables in contact with



Identification of the terminations A and B

SUBSTATION AND RESCUE EQUIPMENT



/ PS2 NEW

WALL-MOUNTED RESCUE KIT

LV / 25 KV / 36 KV



Advantages

- Rapid response to a victim facing an electrical accident.
- Transparent, UV-resistant door makes it easy to see all components from the outside.
- Storage and protection of components from dust, sea spray and splashes for outdoor use, weatherproof (IP54).
- Lockable case to prevent the borrowing of material.
- Great modularity, and possibility of adaptation according to needs (optional additional unit and possibility to organize the storage space with removable trays).



/ USE

Quick access wall-mounted rescue kit for intervention to rescue a victim in the event of an incident on or near a 25 kV electrical installation (also available in low voltage and 36 kV versions).

/ TECHNICAL SPECIFICATIONS

- Weatherproof plastic case, resistant to weather, dust, splashes and marine spray (IP54).
- UV-resistant transparent door with locking handle that can accommodate a seal or padlock (max. Ø 4.8 mm shackle).
- Equipment mounting insert optimized for efficient storage and quick response.
- Wall mounting kit included.



Ne pas tenter de dégager la victime sans matériel approprié.



Dégager la victime (ou le câble) avec la dotation de la panoplie de sauvetage.

Reference	Description	Dimensions
PS2-BT-EN	Large wall-mounted kit with equipment for low-voltage use with insulating mat and posters in English	790 x 790 x 280 mm
PS2-25KV-EN	Large wall-mounted kit with equipment for use up to 25 KV use with insulating stool and posters in English	
PS2-36KV-EN	Large wall-mounted kit with equipment for use up to 36 KV use with insulating stool and posters in English	
PS2-PM	Small empty module, supplied with no components, no posters and no shelf (2 shelves possible)	790 x 400 x 280 mm
PS2-GM	Large empty module, supplied with no components, no posters and no shelf (3 shelves possible)	
PS2-CLAY	Single shelf only	
		650 x 230 x 40 mm

SUBSTATION AND RESCUE EQUIPMENT



Rescue stick



Voltage detector



Insulating gloves



Insulating boots



Insulating stool



Talc bottle



Adhesive barrier tape



TYPE KIT

/ LV VERSION

- Class 0 insulating gloves
- Class 0 insulating mat

/ 25 KV VERSION

- Class 3 insulating gloves
- 24 KV stool

/ 36 KV VERSION

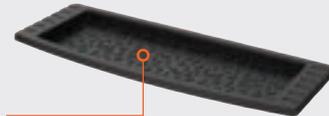
- Class 4 insulating gloves
- 36 KV stool

MODULAR DESIGN ENABLES CUSTOMISATION TO YOUR OPERATION



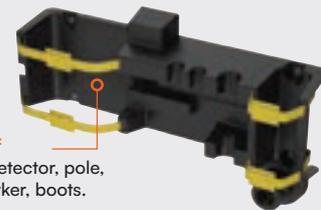
Large module

Large module with small module optional



Shelf

3 positions possible in the large module [ref. : PS2-GM]
2 positions in the small module [ref. : PS2-PM]



Dedicated shelf

for the voltage detector, pole, cable cutter, marker, boots.

COMPONENTS INCLUDED IN THE DIFFERENT KITS

Reference	Description	Quantity	PS2-BT-GB (LV version)	PS2-25KV-GB (25 KV version)	PS2-36KV-GB (36 KV version)
TBOBB-HV-45	Dielectric safety Rubber Boots class 3, up to 30 KV, High Visibility	1 pair		•	•
GLE36-0/10	Natural rubber insulating gloves Class 0 - Size 10	1 pair	•		
GLE36-3/10	Natural rubber insulating gloves Class 3 - Size 10	1 pair		•	
GLE41-4/10	Natural rubber insulating gloves Class 4 - Size 10	1 pair			•
TS10	Canvas storage bag for insulating gloves	1 unit	•	•	•
TS10T	Powder flask	1 unit	•	•	•
UNITAGUFE	Non-contact voltage detector	1 unit	•	•	•
PPOLF2/0T1APV	Telescopic insulating pole	1 unit	•	•	•
CSVES	Rescue hook for insulating pole	1 unit	•	•	•
TTCL0 0,6X1M	Insulating mat Class 0 - Size 0,6 x 1 m	1 unit	•		
TT015M36KV	Banqueta aislante 36 KV	1 unit		•	•
S174JN	Boundary tape	1 unit	•	•	•
AF2-PS2-FR	Set of two adhesive door posters for version identification, and instructions for use	1 unit	•	•	•

SUBSTATION AND RESCUE EQUIPMENT



PREMIUM

/ VES

ELECTRICAL SAFETY KIT

IEC 61243-3 **CE**
NFC 18510

Advantages

- **COMPACT** : For easier storage in vehicles, the case has been dimensioned to the format of European cases.
- **MOBILITY** : Exclusive wheel system and handle to facilitate access to the intervention area.
- **TOUGH** : The materials and the manufacturing process have been chosen to give the case optimum service life.
- **HIGH VISIBILITY** : Retro reflective strips are used for greater visibility.
- **OPTIMISED STORAGE** : The case packs a lot of equipment into a small space.



/ USE

The electrical safety kit allows to assist people in presence of electrical hazards, up to 25 kV network with model VES25 or up to 36 kV network with model VES36.

This kit is particularly suitable for the following situations :

- Road accidents
- Electric and hybrid cars
- Cable removal
- Work on photovoltaic panels
- Work on electrified railways
- Industry

/ TECHNICAL SPECIFICATIONS

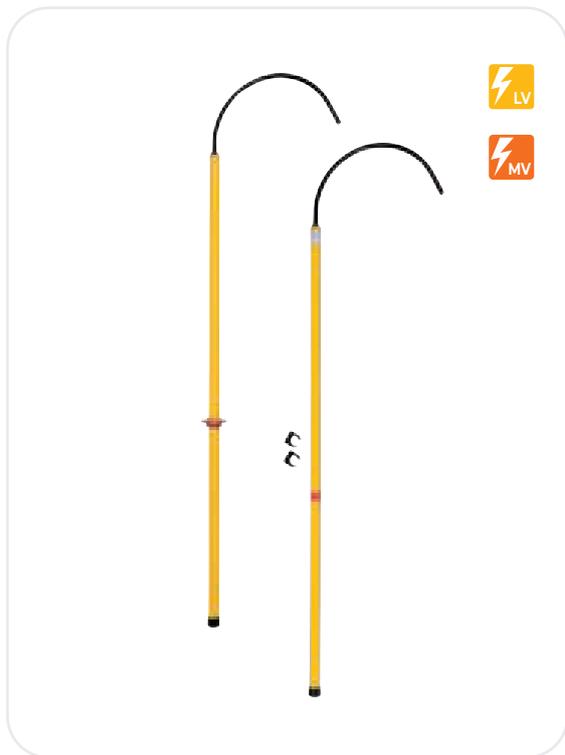
Contents:

- Insulating stool : 25 000V or 36 000V models available.
- Insulating gloves : class 3 for model VES25 or class 4 for model VES36.
- Insulating boots : protection against step voltage (voltage gradient in the ground).
- Insulating polr, equipped with a hook telescopic pole with pentagonal shape for a perfect grip.
- Voltage detector : detects all voltages of 127 V AC and above (does not detect DC voltages).
- Cable cutter : Insulated 36 000 V cable cutter.
- Talc shaker : for easier donning of gloves.
- Fabric case for gloves : Mechanical and UV protection.
- Adhesive marker tape : for marking off an area, preventing a disconnect switch from being reset, etc.
- Instruction for use : in diagram form for quick reading and guidance.



Reference	Max operating voltage	Distinctive feature	Dimensions	Weight
VES25	25 000 V	25 kV stool and gloves class 3	600 x 400 x 310 mm	15 kg
VES36	36 000 V	36 kV stool and gloves class 4		

SUBSTATION AND RESCUE EQUIPMENT



/ TP12 INSULATING RESCUE STICK

/ USE

Stick for rescuing an injured technician (electrocution, dizziness...), working on category 1, 2 and 3 substations. It is used to grasp the injured person by the waist and bring them back to a protected area.

/ TECHNICAL SPECIFICATIONS

Test voltage on 300 mm : 100 kV.
Hook : steel tube 18 x 1,5 cm.
Length : 600 mm, delivered dismantled.
Ref. TP12X includes stick (ref. TP12) with adaptor for voltage detector 5-36 kV (TDP536).

Reference	Description	Operating voltage	Overall length without hook	Length of the protected area : shaft	Weight
TP12 45KV	Rescue stick 45 kV with handguard and hook	45 kV	1,47 m	600 mm	1,4 kg
TP12 90KV	Rescue stick 90kV with handguard and hook	90 kV	1,97 m		1,7 kg
TP12EC	Rescue stick 45 kV with hook without handguard	45 kV	1,47 m		1,35 kg
TP12SC225	Rescue stick 225 kV without hook	225 kV	2,25 m		1,95 kg

ELECTRIC SHOCK RESCUE EQPT

ELECTRICAL SAFETY KIT (PANOPLY KIT)

Electric Shock Rescue Wall Kit

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

- 1 No. BS-45 rescue pole
- 1 No. 5-36 kV voltage detector with pole
- 1 No. plastic case for glove
- 1 Pair of dielectric gloves (class 3)
- 1 No. SZ-57/25 insulated wire cutter
- 1 No. pipette.
- 1 No. 45 kV insulating stool
- 1 Pair of insulating shoes
- 1 No. first aid plate
- 1 No. instruction plate

MODEL: SZ-51M



Portable Electric Shock Rescue Kit

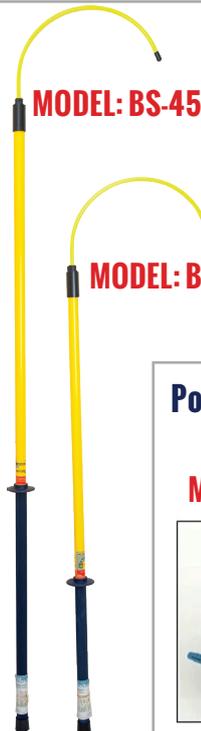
- 1 No. 1.5 m telescopic pole of three sections.
- 1 No. optical and acoustical detector from 5 to 36 kV with bag.
- 1 No. rescue hook with universal head.
- 1 Pair of dielectric gloves SG-40 TIO stored in a nylon bag.
- 1 No. insulating mat AD4-0610/40C of 60 cm x 1 m, working voltage 36 kV.
- 1 No. respiration pipette.
- 1 No. neck immobilizer.
- 1 No. fire resistant blanket SZ-1800f 1.2 x 1.8 m.
- 1 No. stretcher.

MODEL: KRM-4001



Shock Resistant Insulated Platform 45 & 66 KV

- 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
- According to UNE 204001 standard



Electric Shock Rescue Sticks 45 & 66 KV

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.

MODEL: BS-66

Poles For Support Wall Plastic Robust

MODEL: 615206

