## **ELECTRIC MOBILITY**

CATALOG 2024



## **EDITORIAL**

/ Across the planet, the number of electric vehicles on the road has exceeded 8 million! Add to that new generation of trucks, buses and other electric equipment, and you will see why batteries are being charged.

#### **ENERGY THAT NEEDS TO BE TAMED**

But some precautions are indispensable: electricity is invisible, silent and odourless, yet leads to accidents

That is where our expertise comes in.

#### WHY YOU CAN TRUST ESP

- We design and manufacture products, and have mastery over our technology since the 1950s
- We are pioneers of electrical safety, who know the market and operate all over the world
- · We have design departments in each plant, to create, develop and research new products
- · We draw on a responsive sales team, which is close to customers
- · Our vision of after-sales service encompasses delivery, advice and training in our products
- · We can offer you regular monitoring and periodic inspections of your products on test benches

Products that have been developed carefully to combine safety and efficiency.



Experts at your disposal



One of our 14 factories



Producing insulating tools

# Your life, Our work.



#### /Limits from which approval is required:



Approval required: if AC (alternating) voltage above 25V if DC (direct) voltage above

RISK OF ELECTRIC SHOCKS



Approval required: If battery capacity above 180Ah RISK OF BURNING DUE TO SHORT CIRCUITS



/ Drive motor

Voltages above 300VAC

/ Drive battery

Voltages generally ranging from 300V to 800VDC



/ Support battery

Voltage 12VDC



/ Systems for heating and air-conditioning

Voltages above 300VAC

/ On-board charger

(or OBC)

It converts the alternating current supplied by a household socket into 240VDC direct current



/ Charging station

Two types of charge may be supplied by charging stations:

The vehicle is supplied with AC voltage

(In that case, the OBC of the vehicle converts AC voltage into DC voltage).

The vehicle is directly supplied with DC voltage.

The power supplied by the station may be high, significantly reducing the charging time (these may for instance be useful on motorway stations) 240V/400V voltages

### THE 5 GOLDEN RULES





Protecting you from the risks associated with work on electrical networks and protecting your working environment.

We offer you individual and collective protective equipment that is essential to the health and safety of operators, and that complies with current standards and the necessary specifications.



#### **SECURE**

To enable you to implement means of securing de-energized networks or tools for working on medium and high voltage energized networks.

We manufacture equipment specifically adapted to your networks to guarantee a safe work environment everyone involved.



#### **WORK**

Enabling you to work on in complete safety.

We design and deliver high-performance tools that enable you to carry out your technical work efficiently.



#### **SERVICES**

Providing you with a local service.

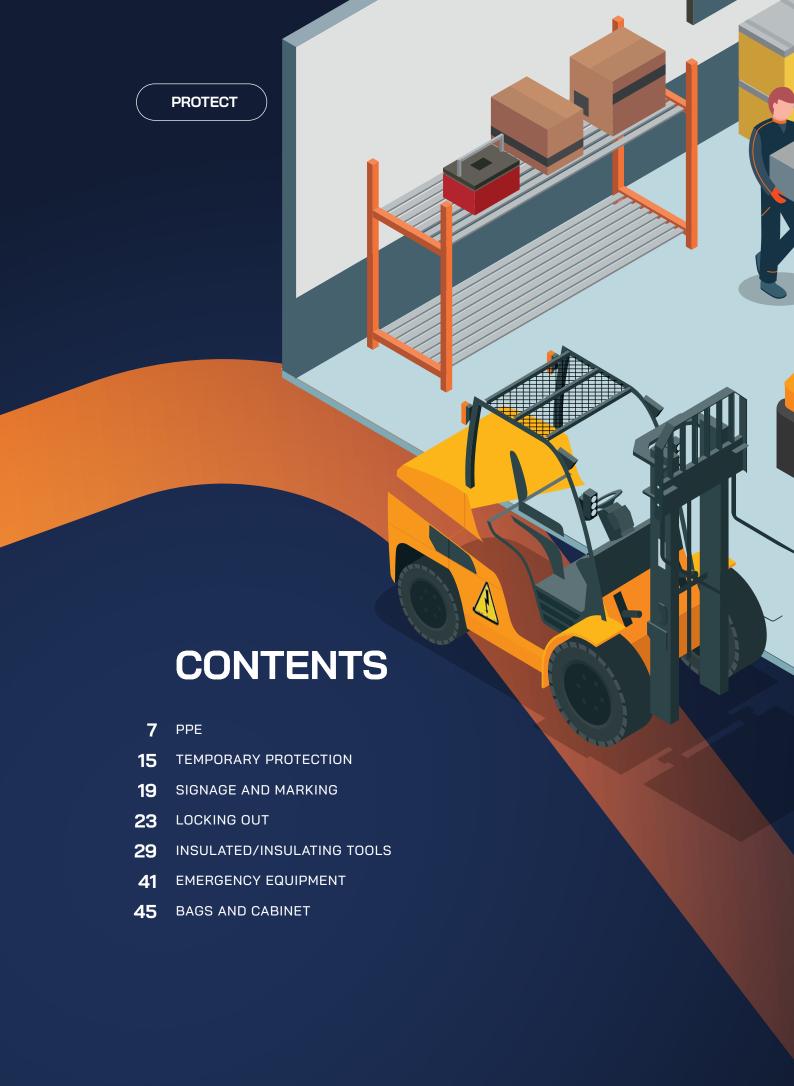
We listen to your needs and provide you with our manufacturing expertise: audit/advice, training, technical assistance, operational maintenance, customization or equipment hire, etc.



#### **SOLUTIONS**

Enabling you to be more efficient. We design solutions (products and dedicated services) for your LV, MV and HV operations, whether live or dead.

Our sustainable achievements have become a benchmark for professional users worldwide.





## **PPE**

#### PERSONAL PROTECTIVE EQUIPMENT

- 8 PROTECTIVE HELMET
- 9 INSULATING GLOVES
- 11 ACCESSORIES
- 12 PROTECTIVE CLOTHING





## PROTECTIVE HELMET



#### /TC42ES

#### PROTECTIVE HELMET WITH INTEGRATED FACE SHIELD

HELMET: EN 397 / EN 50365 1000 V SHIELD: EN 166 / EN 167 / EN 168 / EN 170 HELMET AND SHIELD: GS-ET-29

Part no	Description	Weight (g)
TC42ESBB	White E Shark helmet with white crash box	
TC42ESBBL	White E Shark helmet with blue crash box	
TC42ESBJ	White E Shark helmet with yellow crash box	728
TC42ESBR	White E Shark helmet with red crash box	
TC42ESBV	White E Shark helmet with green crash box	



Accessories	Description
HOUTC42	Carry bag for helmet
S952SAFE	Head lamp with two LEDs





#### / E24

FACE SHIELD WITH HEAD BAND AND BROW GUARD EN 166 (SYMBOL 8 ELECTRIC ARC RESISTANCE), EN 167, EN 168, EN 170

Advantages

Protection for the eyes, face and top of the head from shortcircuit arc flashes.



Caution! Eyeglasses do not protect from short-circuit arc flashes







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



**CHLORINATION** Easy Donning



/ THICKNESS 30% thinner than traditional gloves



better grip for 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



#### **ISOLATING GLOVES**



#### /JF036-0 - TOUCH-E

NATURAL RUBBER INSULATING GLOVES

EU REGULATION 2016/425 = PPE CATEGORY III / EN 60903:2003 - IEC 60903:2014 = CLASS 0 (AZC) / EN 388:2016+A1:2018 = 1,1,2,1,X / EN 61482-1-2:2008 = CLASS 1 (4KA)



A standardised 3-in-1 approach: electrical hazard, mechanical hazard and arc-flash hazard

Part no	Class	Max operating voltage	Length (cm)	Size available	Categories	IEC 61482-1-2	EN388
JFO36-0/xx	0	1 000 V AC / 1 500 V DC	36	8-10	AZC	Class 1 - 4kA	1121x

Complete the part number with the required size



#### /TG57

#### HANDLING LEATHER GLOVES

EN 420 / EN 388 (MECHANICAL PROTECTION: ABRASION 2 - SLICING 1 - TEAR 2 -PERFORATION 3

For small and medium handling, inside or outside works. To protect against mechanical risks.

5 finger glove, cowhide full grain leather, American cut, wing thumb, elastic wrist.





#### / AFG

ARC-FLASH INSULATING COMPOSITE GLOVES EN 60903 AND CEI 60903



Three in one: insulation + mechanical protection + arc flash

Part no	Class	Max usage voltage	Length (cm)	Available sizes	Categories	IEC 61482-1-2	ARC 4>40 (cal/cm²) ASTM F2675
AFG36-00	00	500 V AC / 750 V DC	36	6-12	RC		26,3 cal/cm <sup>2</sup>
AFG41-0	0	1000 V AC / 1500 V DC	41	6-12	RC	Class 2 (0,5s-7kA)	71,6 cal/cm²

Complete the part number with the required size



#### / GLE

**INSULATING LATEX GLOVES** EN 60903 / CEI 60903



Use with leather over gloves for mechanical protection

Part no	Class	Max usage voltage	Length (cm)	Available sizes	Categories
GLE36 00	00	500 V AC / 750 V DC	36	6 to 12	AZC
GLE36 0	0	1000 V AC / 1500 V DC	36	6 to 12	AZC

Complete the part number with the required size





#### /RGX-SG

#### LEATHER OUTER GLOVE FOR LATEX GLOVES

EN 420/EN 388 (WITH MECHANICAL RESISTANCE: ABRASION 2 - CUTTING 1 - TEARING 2 - PIERCING 2)

Advantages

These offer mechanical protection.

Part no	Size
RGX-SGA	Α
RGX-SGB	В
RGX-SGC	С
RGX-SGD	D
RGX-SGE	E
RGX-SGF	F
RGX-SGG	G

		Class of late	x gloves
		00	0
	7	Α	Α
	8	В	В
Size of latex	9	В	В
gloves (GLE)	10	С	С
(GLL)	11	D	D
	12	E	E

Class of latey glaves





#### **RGX-BGT**

**GLOVE BOX** 

**Advantages** 

- Accommodates insulating gloves, leather outer gloves and a bottle of talc.
- May be used mounted on a wall or as a carry box (with its folding handle).
- / Specifications

Dimensions: 50 x 25 x 10 cm



#### / TS10

PROTECTIVE CASE FOR INSULATING GLOVES

/ Specifications

Dimensions: 450 x 180 x 70 mm



#### /RGX-1704

**CLEANER FOR INSULATING GLOVES** 

**Advantages** 

Developed specifically for cleaning rubber thoroughly and removing dirt and dust. Wiping with microfibre cloth or single-use cloth is recommended.

/ Specifications

750 ml spray can



#### / EOS

PNEUMATIC GLOVES TESTER

**Advantages** 

Pressurisation by successive presses on the button superior. Easy inflation thanks to two side lugs for good support.

Depressurization button for a controlled deflation

Magnet option : for fixing on metal surface

Ultra simple fixing: By simply winding the elastic cord and blocking it with a slot

#### / Specifications

ABS body, bellows in NBR, removable ring in EPDM. Delivered with fabric bag.

## PROTECTIVE CLOTHING

#### SIZE CORRESPONDENCE

FOR EACH GARMENT, USERS ARE ADVISED TO TAKE APPROPRIATE MEASUREMENTS AND REFER TO THE TABLES TO SELECT THE CORRECT SIZE.

#### /GAMME DAILY WEAR

#### **TROUSERS**

Size to order	xs		s		М		L		XL		XXL		ЗXL	
EU sizes	36	38	40	42	44	46	48	50	52	54	56	58	60	62
Belt measurement (cm)	68 to 72	73 to 76		81 to 84	85 to 88	89 to 92	93 to 96	97 to 100	101 to 104	105 to 108	109 to 112	113 to 116	117 to 120	121 to 124

#### JACKETS/SUITS

Size to order	xs		s		М		L		XL		XXL		ЗXL	
Neck measurement (cm)	35 to 36		37 to 38		39 to 40		41 to 42		43 to 44		45 to 46		47 to 48	
EU sizes	36	38	40	42	44	46	48	50	52	54	56	58	60	62
Belt measurement (cm)	78 to 80	81 to 84	85 to 88	89 to 92	93 to 96	97 to 100	101 to 104	105 to 108	109 to 112	113 to 116	117 to 120	121 to 124	125 to 128	129 to 132

#### / PERSONALISATION

**CLOTHING PERSONALISED FOR YOUR IMAGE** 

In order to reinforce the brand image of your company, we offer several

- Addition of the logo of your company by fire-resistant transfer
- Choice of the fabric colour, number of pockets, addition or removal of reflective tape.

Please enquire for more information about personalisation options.

















/ AFSIB-12 ARC FLASH JACKET AND TROUSERS OR SUIT, CLASS 1,

ATPV 12 CAL/CM<sup>2</sup> EN 13034: 2005/EN 1149-5: 2008/EN ISO 11611: 2007/ EN ISO 11612: 2008/IEC 61482-2: 2009 (CLASS 1 AND ATPV 12 CAL/CM2)

ATEX ZONE

Fabric composition: 79% cotton, 20% polyester, 1% antistatic fibre, 300 gr/m<sup>2</sup>

Part no	Description	Available sizes
AFSIB-VES12	Sibille Safe arc flash jacket, class 1, ATPV 12 cal/cm <sup>2</sup>	XS to 3XL
AFSIB-PAN12	Sibille Safe arc flash trousers, class 1, ATPV 12 cal/cm <sup>2</sup>	XS to 3XL
AFSIB-COM12	Sibille Safe arc flash suit, class 1, ATPV 12 cal/cm <sup>2</sup>	XS to 3XL

Complete the selected part number with the required size.



#### TEXTILE BELT IN FIRE-RETARDANT STRAPPING, 40MM / CTI-25 Advantages Closure/adjustment with automatic plastic loop.

/ Specifications

Min/max waist size: (79/125) cm



#### / AFSIB-25

ARC FLASH JACKET AND TROUSERS OR SUIT, CLASS 2, APTV 25 CAL/CM<sup>2</sup>

EN 13034: 2005, EN 1149-5: 2008, EN ISO 11611: 2007, EN ISO 11612: 2008 IEC 61482-2: 2009 (CLASS 2 AND ATPV 25 CAL/CM2) ATEX ZONE

Fabric composition: Two layers: 35% modacrylic, 30% cotton, 14% para-aramid, 20% viscose, 1% antistatic

Part no	Description	Available sizes
AFSIB-VES25	Arc flash jacket, 25 cal/cm², class 2	XS to 3XL
AFSIB-PAN25	Arc flash trousers, 25 cal/cm², class 2	XS to 3XL
AFSIB-COM25	Arc flash suit, 25 cal/cm², class 2	XS to 3XL

Complete the selected part number with the required size.



#### PERSONAL PROTECTIVE EQUIPMENT

PROTECTIVE CLOTHING









#### /ARCBLOUSE11

ARC FLASH COAT WITH RETRORE ATPV 11 CAL/CM2, ELIM 9,1 CAL/CM2

EN1149-5:2018/ENIS011611:2015A1+A2CLASS1/ ENISO11612:2015A1A2B1C1E1F1/EN13034TYPEPB6/ IEC61482-2:2020IEC61482-1-2APC1IEC61482-1-1(METHODA) ATPV11CAL/CM2ELIM9,1CAL/CM2

#### Advantages

Long, multi-risk jacket complying with health and safety requirements: ATEX ZONE

Part no	Description
ARCBLOUSE11-B-BR	Navy blue Arc Flash coat with retroreflective tapes, APC 1, ATPV 11 cal/cm², ELIM 9,1 cal/cm².
ARCBLOUSE11-G-BR	Grey Arc Flash coat with retroreflective tapes, APC 1, ATPV 11 cal/cm <sup>2</sup> , ELIM 9,1 cal/cm <sup>2</sup> .



#### / C99-ISOL

SAFETY SHOES WITH INSULATING SOLES, UP TO 20 KV EN ISO 20345:2011

#### Advantages

- Fully non-metallic
- · Ultra-flexible anti-perforation sole.

Part no	no Description	
C99B-ISOL	Low safety shoes with insulating soles, up to 20KV	38 to 47
C99H-ISOL	High safety shoes with insulating soles, up to 20KV	38 to 47

Complete the part number with the required size.



## **TEMPORARY PROTECTION**

16 INSULATING MATS

17 INSULATING BLANKETS

18 INSULATING BAG





**INSULATING MAT CLASS 0** 

#### / RBCL

CEI 61111: 2009

#### Advantages

The mat isolates the operator from the ground so that an electric current is not passed through it in the event of direct contact or step voltage

#### / Specifications

- Max Operating Voltage 1 000 V AC
- Material: Elastomer with new formulation more resistant to scratches.
- Slightly rough surface.
- Grey color.
- Instructions for use printed on mat

Part no	Class	Shape	Dimensions	Unit weight
RBCLO 600x600	0	Mat	0,6 x 0,6 m	1,8kg
RBCLO 600x1000	0	Mat	0,6 x 1 m	1,84 kg
RBCL0 1000x1000	0	Mat	1 x 1 m	3 kg



#### / HTISAFE

TRANSPORT CASE FOR INSULATING MATS



#### /STISAFE

TRANSPORT STRAP FOR INSULATING MATS

Advantages

Adjustable, ultra lightweight



#### /TN05 - TN10

INSULATING BLANKET IEC 61112 CLASS 0 (1000V)

Advantages

Temporary insulation for covering inadequately insulated

#### / Specifications

Max. usage voltage: 1000 VAC

Part no	Description	Thickness	Length (m)	Width (m)	Weight (kg)
	Insulating blanket, 12.5 m		12,5	1,3	0,70
TN10	Insulating blanket, 25 m	3/10e	25	1,3	1,39



#### / TN17

INSULATING VELCRO BLANKET ST TST BT 410

**Advantages** 

Insulation for covering conductive parts. Several blankets can be assembled to each other.

Part no	Length (m)	Width (m)	Weight (g)
TN17066M	0,66	0,36	60
TN17090M	0,9	0,5	120
TN17120M	1,2	0,8	250



#### /TP60P-TP60PS

PLASTIC FASTENING CLIP

Advantages

Plastic fastening clip for fixing temporary protective blankets etc.

Part no	Clipping capacity (mm)	Dimensions (mm)
TP60P	25	165 x 18
TP60PS	10	67 x 22













#### /TS20-TS21

INSULATING BAG FOR CONNECTOR

Part no	Length (m)	Width (m)
TS20	130	210
TS21	225	305

#### / TC25 - TC30 - TC35 - TC40 - TC41

LV INSULATING CAP FOR CONDUCTOR ENDS

Part no	Capacity	Outer diameter (mm)	Max. diameter (mm)	Length (mm)
TC25	3 to 10 mm <sup>2</sup>	10	6,5	60
TC30	6 to 35 mm <sup>2</sup>	15	11	100
TC35	20 to 70 mm <sup>2</sup>	20	15	120
TC40	30 to 100 mm <sup>2</sup>	25	20	120
TC41	240 mm <sup>2</sup>	35	30	120

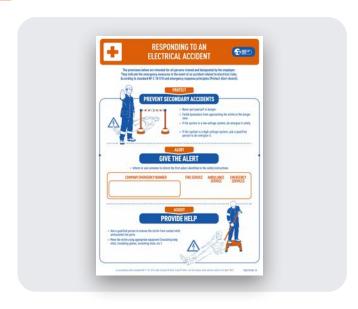


## **SIGNAGE & MARKING**

20 SIGNAGE

22 MARKING





**ELECTRIC SHOCK FIRST AID POSTER** 

#### /S80ALPAS-GB

#### Advantages

Poster depicting the procedure to apply in response To an electrical injury.

**Protect** 

Alert

Assist

#### / Specifications

- Poster in screen-printed aluminium, 350 x 500 mm
- 6 holes



#### MAGIC GRIP ELECTROSTATIC POSTER

Advantages

Repositionable (on smooth and clean surfaces)

#### / Specifications

Each model is sold in sets of 5 in a zipped bag

Part no	Colour	Information	Dimensions (mm)
POSTER - SECURED	Verte	System disconnected and locked, secured	300 x 200
POSTER - ACTIVE	Orange	Operating, live, active and electrical hazard	300 x 200
POSTER - DANGER	Red	Live system with fault, danger and electrical	300 x 200



#### /S81A

TRIANGLES WARNING OF ELECTRICAL HAZARDS -LIGHTNING T10

#### / Specifications

3x Ø 4.5 mm holes with 80 mm centre distance for 100 mm triangles and 180 mm for 200 mm triangles.

Part no	Symbol	Material	Diameter (mm)
S81AL T10 100	Lightning T10	Aluminium	100
S81 T10 100	Lightning T10	Plastic	100
S81AL T10 200	Lightning T10	Aluminium	200
S81 T10 200	Lightning T10	Plastic	200



#### /S120E

RECTANGULAR ELECTRICAL NO-ADMISSION ORDER FLAG

#### / Specifications

In fabric with red vinyl coating

• Dimensions: 500 x 350 mm



#### /S85GBC1

BANNER

"WORKING AREA BOUNDARY - NO ENTRY"

#### / Specifications

Banner

"Working area boundary - No entry"





The work area must be marked out at least one metre away from the perimeter removed battery.



#### **S115**

HIGH-DEN

/ Specifica Supplied in

Part no

S115C8

Accessorie

S115A8



#### / S115

POST WIT

Advanta

Clever folding system saving after use.

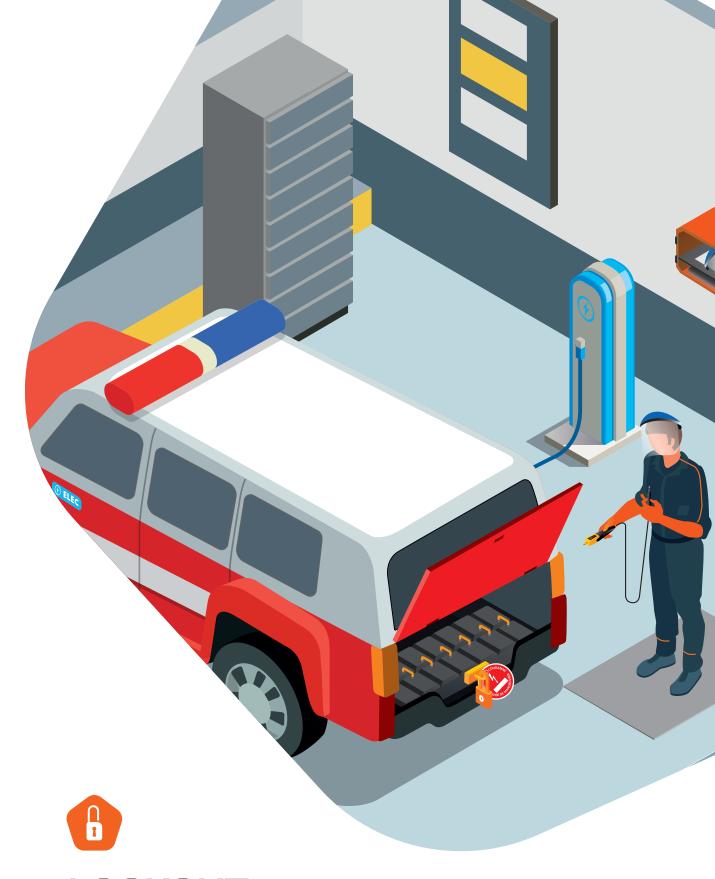
#### / Specifications

Post diameter: 50 mm.

- Height: 900 mm.
- Base: 280 x 280 x 70 mm
- Weight of base: 4 kg
- Supply includes the weighted base and the post ready for use.

al storage and 70 % spac





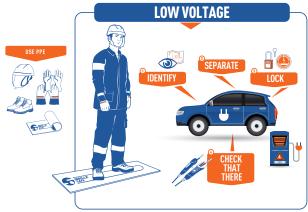
## **LOCKOUT**

- 24 INTRODUCTION
- 25 PADLOCK
- 26 VOLTAGE DETECTOR
- **27** MEASUREMENT
- 30 INSULATING ACCESSORY FOR BATTERIES



## What is locking out?

- / Locking out consists in making part of the electrical equipment safe beyond doubt, in four steps:
  - Identifying the vehicle/equipment
  - Separating voltage sources
  - Locking open separating components
  - Making sure that there is no voltage (voltage detector)





END OF SAFETY MEASURES



#### S350C11

80 MM PLASTIC LOCKING **OUT STICKER** 

Advantages

Ø 10 mm hole on upper part for a padlock



#### /SFES453L

LOCKING OUT BAG

Advantages

Used for locking out large electrical connectors. Lockable by padlock

- / Specifications
- Nylon bag
- Dimensions 482 x 165 mm

#### Interchangeable shackles

Adapt your padlock with our interchangeable shackles:

- Metal or composite material
- Diameter: 4.5 or 6 mm
- Height: 38 or 76 mm

or Ø 1.4 mm cable for smaller

holeles plus fins

#### Ultra-strong composite body

Non-conductive, resistant to UV rays, hydrocarbons and extreme environments.

Height: 54 mm Width: 46 mm Thickness: 21 mm Weight: 80 g

#### Locking out label

- Locking out warning
- Identification of individual responsible
- Rugged label resistant to abrasion and UV rays
- Set of 6 languages



#### Personalisation area

Personalisation area for laser marking (optional).



#### Llave de seguridad

- Over 1 million key profiles possible
- Captive key system and cylinder with automatic key return
- · Colour insert identical to that of the padlock



#### CS-KD-1

LOCKING OUT PADLOCK, KEYED DIFFERENT

#### Advantages

Each padlock has its own unique key. That key can open only one padlock and no others. Supplied with a set of locking out labels in six languages

Part no	Colour	Shackle material	Inside height of shackle	Shackle diameter
CS-KD-1-M438		Metal	38 mm	
CS-KD-1-M476		Metal	76 mm	
CS-KD-P438	<u> </u>	composite	38 mm	4.5 mm
CS-KD-1-P476		composite	76 mm	



#### /TAG780VIFE

**VOLTAGE DETECTOR WITH IP2X TOUCH TIPS** CEI 61243-3

#### Advantages

#### / Specifications

- Double-insulation silicone cord: rugged and ultra flexible (with no memory effect)
- Display up to 1000V
- The sleeve is retracted by a trigger on the back of the device (IP2X versions): this exclusive solution provides control over sleeve retraction and makes the contact area visible.
- IP65
- CAT IV, 1000 V
- Powered by two AAA alkaline cells (1.5 V), included
- Weight: 290 g
- Supplied with carry case



A measuring instrument may not be used to make sure that there is no voltage



Front lighting





Removable elastic cages

Retractable sleeve



Ergonomic trigger for sleeve retraction





#### /IRTHERM-A

#### INFRARED THERMOMETER

#### / Specifications

Wide temperature range (-50°C to 450°C). Short response time (0.15 sec). Automatic stopping. Trigger lock for continuous operation. Dimensions: 146 x 104 x 43 mm Weight: 163 g

Accessories: 9V battery, transport case



#### /SPSFE1377

#### 1000V INSULATION TESTER

#### / Specifications

1 x insulation multimeter

1 x set of test cables

1x crocodile clamp with cable

1 x adapter for thermocouple

1x type K thermocouple

6 x cells

1 x wireless USB adapter

1x operating manual





CABLES FOR INSULATION MEASUREMENTS

#### /EVF8/2410-150N-R

EN 61010-031:2015

Advantages

Designed to measure insulation from the male ccs combo plug of an electric vehicle.

Part no	Description
EVF8/2410-150N-R	Recharge plug test points



#### /EVF6/2410-150N-R

CABLES FOR INSULATION MEASUREMENTS EN 61010-031:2015

#### Advantages

Designed to measure insulation from the type 2 plug of the electric vehicle.

Part no	Description
EVF6/2410-150N-R	Recharge plug test points



**EXTENSION LEADS FOR NO-VOLTAGE TESTING MEASUREMENTS** 

#### / ADA32/1\_4-N-R

EN 61010-031:2015

#### Advantages

4mm female connector adaptor - 1.4mm x 13mm diameter tip.

Part no	Description
Ada32/1_4-N-R	Test tips diam 1.4



TEST TIPS DIAM 0,6

#### /ADA35NEEDLEO\_6-NR

EN 61010-031:2015

#### Advantages

4mm female connector adaptor - 0,6mm diameter tip.

#### / Specifications

to be connected to a lead to reach the contacts of certain connectors by passing through their rubber seal without damaging them.

Part no	Description
Ada35Needle0_6-NR	Test tips diam 0.6



#### MULTIMETER PROBE KIT

#### /KIT-VE-002

EN 61010-031:2015

#### Advantages

Developed to protect technicians when working on electric vehicle batteries (DC fuses, ip2x, 1000v safety, etc.).

Part no	Description
KIT-VE-002	Multimeter probe kit



#### /6003-N-R

RIGID PRICK WIRE EN 61010-031:2015

#### Advantages

The pick passes through the wire sheath of a bundle to access the strands and take measurements without disconnecting the bundle, ideal when reverse testing is not an option.

Part no	Description	
6003-N-R	Rigid prick wire	



Ø4MM SAFETY ALLIGATOR CLIP

#### /5002-IEC-D4-N-R

EN 61010-031:2015

#### Advantages

To be connected to a cord for gripping small lugs. 600V cat II safety in both AC and DC for compatibility with batteries up to 600V.

Part no	Description
5002-IEC-D4-N-R	Ø4mm safety alligator clip





#### / EXTRABAT

INSULATING ACCESSORY FOR BATTERIES

#### Advantages

Device for safely installing and removing be

#### / Specifications

- Electrical insulation voltage: 1000VAC 1500VDC
- No conductive part: the extraction part of the device is made of fully insulating composite materials and the lifting eye is fully insulated.
- Battery fastening width: Centre distance adjustable from 45 to 120mm.
- Three pairs of insulating screws: M8, M10 and M12.
- Maximum load limit: 200kg on M8 screws
  400kg on M10 screws
- 500kg on M12 screws Dimensions: length 150x136x30Weight: 0.3 Kg
- Supplied with case





# INSULATED/INSULATING TOOLS

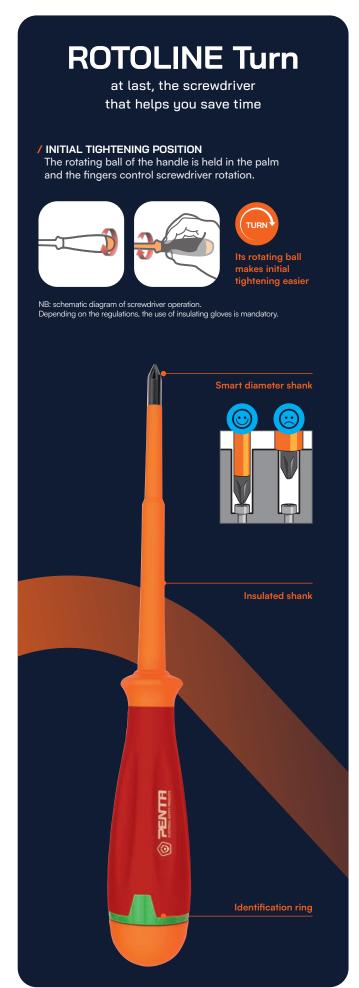
**32** SCREWDRIVERS

33 INSULATING PLIERS

**34** INSULATED TOOLS

40 COMPOSITIONS







#### / RL2

ROTOLINE TURN INSULATED SLOTTED-TIP SCREWDRIVER NF EN 60900/IEC 60900/NF ISO 2380-1/NF ISO 8764-1

Part no	Type of shank	Ø of shank (mm)	Length of shank (mm)
RL2-PH-4X75	Phillips	4	75
RL2-PH-5X100	Phillips	5	100
RL2-PH-6X125	Phillips	6	125
RL2-PL-3X100	Slotted	3	100
RL2-PL-4X120	Slotted	4	120
RL2-PL-8X150	Slotted	8	150
RL2-TX-T27	Torx	T27	-
RL2-TX-T30	Torx	T30	-

Other models available.



#### / C6RL2

SET OF SIX INSULATED 1000V ROTOLINE TURN SCREWDRIVERS

NF EN 60900/ CEI60900

#### / Specifications

For slotted-head screws:

- RL2-PL-3X100
- RL2-PL-4X120
- RL2-PL-6,5X150
- RL2-PL-8X150

#### For Philips head screws:

- RL2-PH-5X100
- RL2-PH-6X125





#### Insulating tools:

- No metal part accessible
- No risk of short circuit
- No risk of damage to the body in the event of a fall
- XL handle (+20mm): force transmission saving ~+10%/ suitable for female workers



#### /MC13CE - L / XL

INSULATING PLIERS WITH LONG BENT NOSE NF EN 60900/IEC 60900

Part no	Cutting capacity	Length (mm)	Weight (g)
MC13CE-L	16 mm <sup>2</sup>	215	170
MC13CE-XL	Cu multi-conductor	235	180



#### /MC11CE - L / XL

INSULATING PLIERS WITH LONG STRAIGHT NOSE NF EN 60900/IEC 60900

Part no	Cutting capacity	Length (mm)	Weight (g)
MC11CE-L	16 mm <sup>2</sup>	200	165
MC11CE-XL	Cu multi-conductor	220	175



#### /MC45I

HYBRID CABLE CUTTING PLIERS NF EN 60900/IEC 60900

Part no	Cutting Ø	Cutting capacity	Length (mm)	Weight (g)
MC45I XL	16 mm	25 mm² Cu 70 mm Alu	200	165

Our hardened tools are integral, unlike sleeved tools that can come apart



#### /MS4-185

#### **INSULATED ALL-ANGLE PLIERS**

NF EN 60900/IEC 60900/NF ISO 5743/NF ISO 5744/NF ISO 5746

#### / Specifications

Length: 185 mm Weight: 320g



#### /MS13-185

#### **INSULATED 45° BENT SNIPE NOSE PLIERS**

NF EN 60900/IEC 60900/NF ISO 5743/NF ISO 5744/NF ISO 5745

**Advantages** 

They make it easy to bend electrical wire

#### / Specifications

Length: 185 mm Weight: 190 g



#### / MS10-170

#### **INSULATED STRAIGHT SNIPE NOSE PLIERS**

NF EN 60900/IEC 60900/NF ISO 5743/NF ISO 5744/NF ISO 5745

**Advantages** 

They make it easy to bend electrical wire

#### / Specifications

Length: 170 mm Weight: 175 g



#### /MS5-175

#### INSULATED SIDE CUTTING PLIERS

EN 60900/IEC 60900/ISO 5743/ISO 5744/ISO 5749

#### / Specifications

Length: 175 mm Weight: 280 g



#### /MS27-250

INSULATED DOUBLE SLIP JOINT ADJUSTABLE PLIERS NF EN 60900/IEC 60900/NF ISO 8976/NF ISO 5744

#### / Specifications

Max opening: 28 mm Length: 250 mm Weight: 440 g



#### /MS30S-165

INSULATED CABLE CUTTING PLIERS FOR REMOTE ENERGY METER

NF EN 60900/IEC 60900

#### **Advantages**

- For cutting copper and aluminium wire
- May also be used for stripping cables with a small section.

Part no	Opening	Length (mm)	Steel	Almelec	Aluminium	Copper	Weight (g)
MS30S 165	12 mm	165	NO	NO	35 mm <sup>2</sup>	16 mm <sup>2</sup>	200



### INSULATED/INSULATING TOOLS **INSULATED TOOLS**



#### / MS7

#### **INSULATED ADJUSTABLE SPANNER**

NF EN 60900/IEC 60900/NF ISO 1711-1/NF ISO 6787

#### / Specifications

Optimal guaranteed capacity: 24 mm

Length: 210 mm Weight: 300 g

Part no	Optimal guaranteed capacity	Length (mm)	Weight (g)	Length (in)	Toleration
MS7 210	24 mm	210	300	8	± 15 mm
MS7 260	28 mm	260	510	10	± 15 mm



#### /MS41

#### **INSULATED 6 POINT RATCHET RING SPANNER**

NF EN 60900/IEC 60900

Part no	Diameter (mm)	Weight (g)
MS41 10	10	150
MS41 13	13	190
MS41 16	16	370
MS41 17	17	380
MS41 18	18	400
MS41 19	19	410
MS41 22	22	420



#### /IS80C

INSULATING KNIFE WITH CERAMIC BLADE

NF EN 60900/IEC 60900

Advantages

Knife for stripping plastic sleeves of electrical wires.

#### / Specifications

Length: 200 mm Weight: 60 g





## / MS16

#### INSULATED SINGLE OPEN-END SPANNER

NF EN 60900/IEC 60900/NF ISO 691/NF ISO 1711-1/NF ISO 3318/ NF ISO 10102

## Advantages

- 15° angled head
- Compact handle that

Part no	Adapted	Weight (g)
MS16 08	8 mm	20
MS16 09	9 mm	40
MS16 10	10 mm	40
MS16 11	11 mm	40
MS16 12	12 mm	40
MS16 13	13 mm	50
MS16 14	14 mm	70

Other dimensions available.



## / MS21

**INSULATED 12 POINT CRANKED SINGLE RING SPANNER** NF EN 60900/IEC 60900/NF ISO 691/NF ISO 1711-1/NF ISO 3318/

#### Advantages

- The tool is profiled for an easy grip and optimised reach
- Compact handle that is adapted to tightening forces

Part no	Adapted	Weight (g)
MS21 08	8 mm	60
MS21 09	9 mm	80
MS21 10	10 mm	80
MS21 11	11 mm	95
MS21 12	12 mm	100
MS21 13	13 mm	110
MS21 14	14 mm	130



## / MS20

**INSULATED 12 POINT SINGLE SOCKET SPANNER** NF EN 60900/IEC 60900

#### Advantages

Compact handle that is adapted to tightening forces

Part no	Adapted	Weight (g)
MS20 08	8 mm	50
MS20 09	9 mm	60
MS20 10	10 mm	90
MS20 11	11 mm	95
MS20 12	12 mm	130
MS20 13	13 mm	160
MS20 14	14 mm	170



## /MS85P

INSULATED 3/8" REVERSIBLE RATCHET HANDLE WITH MECHANICAL LOCKING

NF EN 60900/IEC 60900/NF ISO 1174-1/NF ISO 3315

#### **Advantages**

Special model designed so that sockets and extensions remain in the handle during use. socket released by deliberately pushing the push button.

#### / Specifications

Length: 215 mm Weight: 300 g



## /MS84P - MS84LP

3/8" EXTENSION WITH MECHANICAL LOCKING NF EN 60900/IEC 60900/NF ISO 1174-1/NF ISO 1711-1/NF ISO 3316

#### Advantages

The socket is released when the grey ring is pulled.

Part no	Туре	Length (mm)	Weight (g)
MS84P-165	Short extension	165	150
MS84LP	Long extension	265	300



#### / MS100N0VM

1000V INSULATED TORQUE WRENCH WITH MECHANICAL LOCKING

NF EN 60900 / CEI60900 - NF EN ISO 6789-1-2017

#### Advantages

Tool for precision tightening of right-hand threads by automatic release and reset

Part no	Length (mm)	Torque capacity (Nm)	Weight (g)
MS100NOVM	230	4-20	530





## /MS86

#### INSULATED 3/8" 12 POINT FEMALE SOCKET

EN 60900/IEC 60900/ISO 691/ISO 1174-1/ISO 1711-1/ISO 2725-1

Part no	Diameter	Weight (g)
MS86 08	8 mm	35
MS86 09	9 mm	35
MS86 10	10 mm	40
MS86 11	11 mm	40
MS86 12	12 mm	40
MS86 13	13 mm	45
MS86 14	14 mm	45

Other dimensions available; please enquire.



## /MS86L

INSULATED 3/8" 12 POINT FEMALE SOCKET, LONG SERIES EN 60900/IEC 60900/ISO 691/ISO 1174-1/ISO 1711-1/ISO 2725-1

#### **Advantages**

Manual-use sockets suitable for use with standard or mechanical locking ratchet handles.

Part no	Diameter	Weight (g)
MS86L 08	8 mm	50
MS86L 09	9 mm	55
MS86L 10	10 mm	60
MS86L 11	11 mm	70
MS86L 12	12 mm	70
MS86L 13	13 mm	80
MS86L 14	14 mm	90

Other dimensions available; please enquire.



## / MS87T

**INSULATED 3/8" MALE TORX SOCKET** EN 60900/IEC 60900

Part no	Size	Weight (g)
MS87 T20	T20	55
MS87 T30	T30	65

Other dimensions available; please enquire.



#### 3/8" ENLARGER FOR 1/2" SOCKETS

#### /MS91

EN 60900/IEC 60900/ISO 1174-1/ISO 3316

Advantages

For using 1/2" sockets with a 3/8" square ratchet handle

#### / Specifications

Length: 75 mm Weight: 40 g



Compositions can be tailored to your requirements. Please enquire.



## Composition of junior 3/8" socket sets

Part no	Description	MS89V01	MS89V06	MS89V08
MS84	3/8" Junior extension, 140 mm			
MS85	Insulated 3/8" Junior ratchet handle, 185 mm	•		
MS85P	Insulated 3/8" reversible ratchet handle with mechanical locking		•	•
MS85PC	Insulated 3/8" compact reversible ratchet handle with mechanical locking	•		
MS84P	3/8" short extension with mechanical locking	•	•	•
MS77 08	Insulated 3/8" 8 mm 6 point female socket	•	•	•
MS77 10	Insulated 3/8" 10 mm 6 point female socket	•	•	•
MS77 12	Insulated 3/8" 12 mm 6 point female socket		•	
MS77 13	Insulated 3/8" 13 mm 6 point female socket	•	•	•
MS77 14	Insulated 3/8" 14 mm 6 point female socket	•	•	•
MS77 16	Insulated 3/8" 16 mm 6 point female socket	•	•	•
MS77 17	Insulated 3/8" 17 mm 6 point female socket	•	•	•
MS77 18	Insulated 3/8" 18 mm 6 point female socket	•	•	•
MS77 19	Insulated 3/8" 19 mm 6 point female socket	•	•	•
MS77 21	Insulated 3/8" 21 mm 6 point female socket	•	•	
MS77 22	Insulated 3/8" 22 mm 6 point female socket	•	•	
MS77 23	Insulated 3/8" 23 mm 6 point female socket	•		
MS77L 16	Insulated 3/8" 16 mm long 6 point female socket		•	•
MS77L 17	Insulated 3/8" 17 mm long 6 point female socket		•	•
MS77L 18	Insulated 3/8" 18 mm long 6 point female socket		•	•
MS77L 19	Insulated 3/8" 19 mm long 6 point female socket		•	•
MS77L 21	Insulated 3/8" 21 mm long 6 point female socket		•	
MS77L 22	Insulated 3/8" 22 mm long 6 point female socket		•	
MS87 04	Insulated 3/8" 4 mm 6 point male socket	•	•	•
MS87 05	Insulated 3/8" 5 mm 6 point male socket	•	•	•
MS87 06	Insulated 3/8" 6 mm 6 point male socket	•	•	•
MS87 08	Insulated 3/8" 8 mm 6 point male socket	•	•	•

# INSULATED **TOOLS DESCRIPTION OF 1000V INSULATED PLIERS** For optimum anti-corrosion resistance. Selection and use of special steel allo Tools designed for withstanding high mechanical stresses Rugged white insulating layer, unbreakable and non-removable To avoid slipping towards conductive parts. Orange external insulating layer It is non-removable, impact-resistant and non-flammable, and offers a good grip, even while wearing insulating gloves. Reinforced handle ends — Several layers of PVC protect the tool from impacts. The drip effect at the end of handles is minimised, avoiding weak areas.

• The two insulating layers are differentiated by their colour, to allow a visual inspection of tool integrity, so as to confirm that it may be used for electrical work

When the orange layer is damaged and the red layer is visible = hazard.

• Each tool is tested at 10 000 V AC and approved for 1000 V AC, for use in low voltage networks.





## /MS59S

SET OF 1/4" RADIO SOCKETS; 5 TOOLS WITH HANDLE NF EN 60900/IEC 60900

This product contains	Description
MS55	Insulated 1/4" reversible ratchet handle
MS56	Insulated 1/4" 08/10/12 mm 6 point female
MS57 05	Insulated 1/4" 5 mm 6 point male sock
MS59SV	Plastic case, 135 x 95 x 32 mm



## / ISMAG

INSULATING MAGNET

FICHE FT BT 466 - ST TST 68012

#### Advantages

- Compact
- Lift force : 8 kg
- Easy and quick to use
- Stackable
- · No additional tools required

#### / Specifications

Insulating magnet used for fixing the insulating blankets (references: TN1OR; TN1O or TNO5) during interventions on electric switchboards.

Also used when topping battery packs on electric vehicles.



## / TFA

INSULATED HANDLE WITH FLEXIBLE ROD AND MAGNET

### Advantages

- · Consists of a flexible rod with a magnet end.
- Used for picking up small metal parts (screws, nuts, washers etc.) fallen in hard-to-reach places.

#### / Specifications

Total length: 560 mm +/-5 Weight: 130 gr

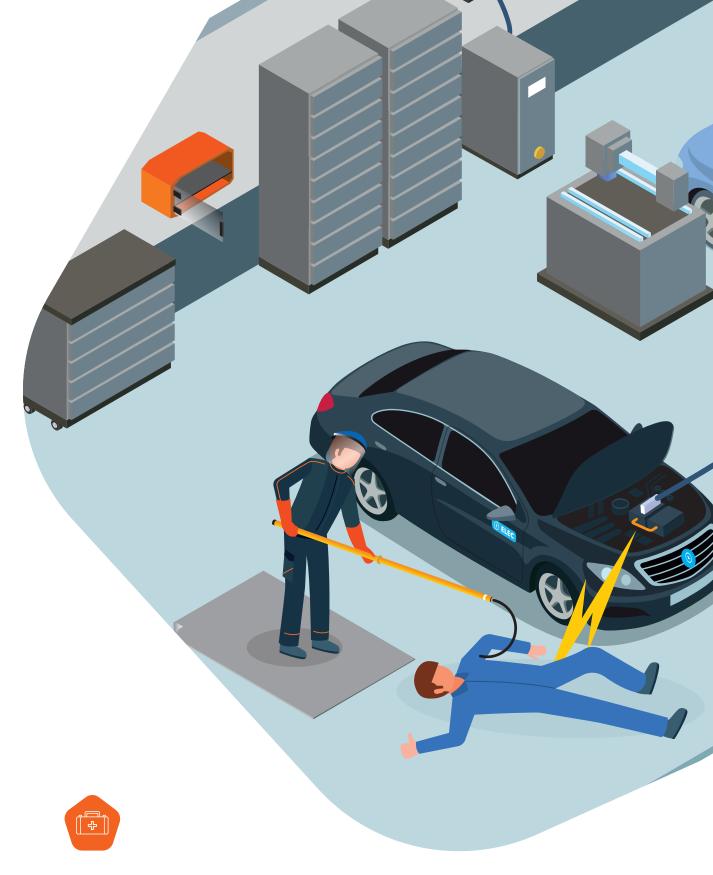


## /TL05

**INSULATING LEVER** 

#### / Specifications

Length: 190 mm Weight: 41 g



# **EMERGENCY EQUIPMENT**

**44** PROCEDURE

45 RESCUE KIT

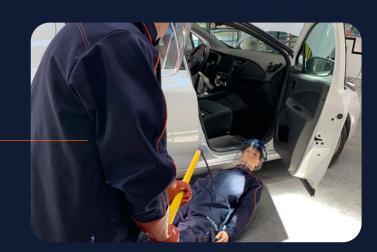
46 RESCUE MATERIAL





# **PROCEDURE** FOR RESPONDING TO AN ELECTRICAL INJURY

**PROTECT** 



**ALERT** 



ASSIST







## / PS2-PM-KITVE

WALL-MOUNTED RESCUE KIT

#### Advantages

- · Kit rapidly accessible for rescue operations in the event of an incident with or near electrical equipment.
- Indoor or outdoor use.

#### / Specifications

- May be fitted with a shelf.
- Dimensions: 790 x 400 x 291 mm
- Boxes with transparent sealed cover (IP54),
- Handle that can be closed with seals or even padlocked with a shackle diameter up to 4.8 mm
- Door sticker with safety instructions

Part no	Description
PS2-PM-KITVE	Wall-mounted rescue kit in sealed box, with equipment and PPE for EV environments
Contains	
E24	Face shield with head band and brow guard for electricians
TTCL0 0,6X1	Insulating mat, class 0, 0.6 X 1 m
TP12EC	Insulating rescue stick
GLE36-0 10	Latex insulating gloves, class 0 size 10
PS2-PM-VE-VIDE	Sealed storage box - small model, alone, with no components, and 1 shelf



## / TP12EC

INSULATING RESCUE STICK NF EN 60900/IEC 60900/NF EN 6789

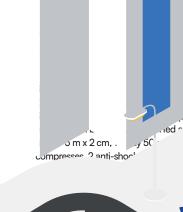
#### **Advantages**

- used for rescuing an injured worker (electric shock, arc flash etc.)
- It is used to pull the victim into a safe area

Part no	Description	Usage voltage	_	Length of protected part (shaft) (mm)	Weight (kg)
TP12EC	45 kV body stick with hook and no handguard	45 kV	1,47	600	1,35

## **EMERGENCY EQUIPMENT** RESCUE MATERIAL









#### Advantages

protection against co. o. Used to protect a victin. ation.

## ecifications

This survival blanket is made from metallic polyester film, which of heat radiation.

Delivered in individual bag



## /C348

FIRE BLANKETS

BS EN 1869

#### **Advantages**

The fire blanket is useful for the protection of the men and the material. It must always be accessible in offices and workshops.

#### / Specifications

Fire blanket: 100% fibreglass, asbestos-free

Heavy-duty ABS case

Temperature range: -20° C to +100° C. Weight of the blanket : 520 g/m²



## /E07 2KGS

CARBON DIOXIDE (CO2) FIRE EXTINGUISHER, CAPACITY 2 KG

CERTIFIED TO THE PRESSURE EQUIPMENT DIRECTIVE PED 97/23/EC, MARINE EQUIPMENT DIRECTIVE MED 96/98/EC AND CEN EN3

#### Advantages

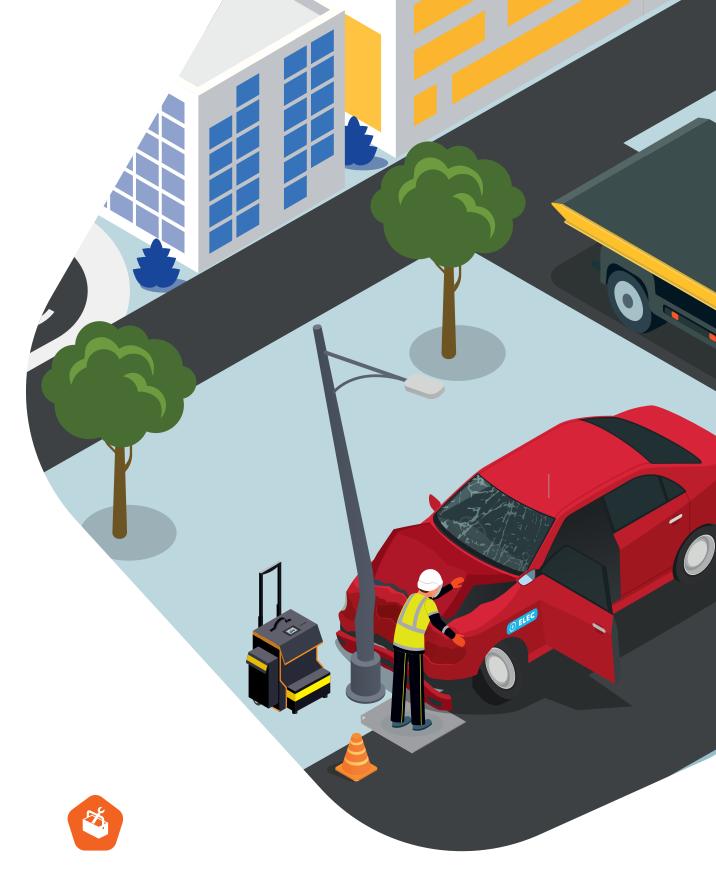
Its dielectric properties make this extinguisher the ideal back-up for electrical installations in general.

#### / Specifications

Operating temperature: -30°C +60°C

Carbon dioxide (CO2) fire extinguisher with lever valve and front horn

Fire class: B34



# **CASES & CABINET**

**48** BAGS

49 TOOL BOXES

**50** CABINET





### Bags for PPE carried by roadside



## /ST-80

PPE CARRY BAG, 80L

#### / Specifications

Strong fabric structure Inner volume 80L Dimensions: 750 x 350 x 330 mm Weight: 2 kg



## / **SADT-25**

ROLLING BACKPACK

Advantages

Ideal for storing and carrying ppe (personal protective equipment) and tools

#### / Specifications

Inner volume: 25L

Storage provided for gloves, mat, helmet and voltage detector

Dimensions: 560 x 440 x 270 mm



## /SAD-25V2

BACKPACK

Advantages

Ideal for carrying and storing ppe and small tools.

#### / Specifications

Inner volume 25L

Dimensions: 460 x 230 x 410 mm





## / ART162

TOOL BOX

Advantages

#### Padlockable

#### / Specifications

Dimensions: 515 x 287 x 275 mm Supplied empty



## / C252NM

ROLLING TOOL BOX

#### / Specifications

Retractable transport handle and castors Integrated accessories compartment and handles Dimensions: 635 x 450 x 420 mm Supplied empty



## / C272

PLASTIC BOX

## / Specifications

Dimensions: 512 x 308 x 212 mm Weight: 1,8 kg



## / CABINET-FULL **TOOL CABINET**

Advantages

Equipped with all the equipment for safe working





#### / Specifications

- $\bullet$  Five sliding drawers on high-quality runners. Each of them is designed for storing particular equipment: Insulated tools, locking out, voltage detector, temporary protection, PPE, marking and signage.
- Preformed foam in the first drawer for proper tool storage.
- May be locked (lock).
- Side handle for movement.
- Lateral space for posts (bases can be stowed in the last drawer).
- Available in empty version, part no CABINET-E
- Dimensions: 800 x 450 x 950 mm
- Weight: 60 kg

## / COMPOSITION

Part no	Description	Quantity
CABINET-E	Empty cabinet	1
	INSULATED TOOLS	
MS85P	Insulated 3/8" reversible ratchet handle with mechanical locking	1
MS84P	3/8" short extension with mechanical locking	1
MS86-08	Insulated 3/8" 8 mm 12 point female socket	1
MS86-10	Insulated 3/8" 10 mm 12 point female socket	1
MS86-12	Insulated 3/8" 12 mm 12 point female socket	1
MS86-13	Insulated 3/8" 13 mm 12 point female socket	1
MS86-14	Insulated 3/8" 14 mm 12 point female socket	1
MS100NOVM	Insulated 3/8" square 4-20 Nm torque wrench with mechanical locking - 1000V	1
RL2-PL-3X100	Rotoline Turn 3 x 100 mm insulated slotted-tip screwdr	1
RL2-PL-4X120	Rotoline Turn 4 x 100 mm insulated slotted-tip screwdr	1
RL2-PL-65X150	Rotoline Turn 6.5 x 100 mm insulated slotted-tip screwdr	1
RL2-PL-8X150	Rotoline Turn 8 x 100 mm insulated slotted-tip screwdr	1
RL2-PH-5X100	Rotoline Turn 5 x 100 mm insulated Philips-tip screwdriver, no 1	1
RL2-PH-6X125	Rotoline Turn 6 x 125 mm insulated Philips-tip screwdriver, no 2	1
MC11CE	Insulating composite flat-nose pliers with ceramic blades	1
MC13CE	Insulating composite bent snipe nose pliers with ceramic blades	1
MC45I	Composite cable cutting pliers, 190 mm	1
MS16-08	Insulated 8 mm single open-end spanner	1
MS16-10	Insulated 10 mm single open-end spanner	1
MS16-12	Insulated 12 mm single open-end spanner	1
MS16-13	Insulated 13 mm single open-end spanner	1
MS16-14	Insulated 14 mm single open-end spanner	1
MS87T30	3/8" male socket, Torx T30	1
MS87T20	3/8" male socket, Torx T20	1
MS7-210	Insulated adjustable spanner, 210 mm	1
MS27-250	Insulated double slip joint adjustable pliers	1
	LOCKING OUT AND TEMPORARY PROTECTION	
TAG780VIFE	LT simple voltage detector, IP2X	1
TLO5	Insulating lever	1
CS-KD-1-P438	Orange keyed different padlock, metal shackle, height 38 mm	1
CS-KD-1-P476	Orange keyed different padlock, metal shackle, height 76 mm	1
SFES453L	Locking out bag L	1









TAG780VIFE	LT simple voltage detector, IP2X	1
TLO5	Insulating lever	1
CS-KD-1-P438	Orange keyed different padlock, metal shackle, height 38 mm	1
CS-KD-1-P476	Orange keyed different padlock, metal shackle, height 76 mm	1
SFES453L	Locking out bag L	1
S350 GBC11	Plastic tag, marked "Locked out. Do not operate" with lightning symbol	2
TC41	LV insulating cap for conductor ends, 240 mm <sup>2</sup>	2
TP60P	Plastic fastening clip	4
TN17066M	Insulating Velcro blanket, 0.66 x 0.36 m	1

## PPE

GICN-BT/10	Composite insulating gloves, class 0 size 10	1
RGX-BGT	Glove box	1
E24	Face shield with head band and brow guard for electricians	1
HOUTC42	Cover for shield	1

## **SIGNAGE AND MARKING**

S115C6	High-density polyethylene chain, 25 m Ø 6 mm	1
S115SPPR	Red and white post with base for plastic chain	4
S120E	Vertical flag with shaft	2
S85GBC1	Banner, "Limit of work area - Do not cross", coated fabric, 1 x 0.2 m	2













