

# ELECTRICAL DISTRIBUTION

Low Voltage Energy Catalogue



**EDITION**  
2025 - 2026



Our energy at your service

**MICHAUD**



## 65 YEARS OF EXPERTISE

MICHAUD is a French industrial group specialised in energy distribution networks for more than 60 years.

MICHAUD Export, subsidiary dedicated to international markets, develops and sells solutions according to applicable standards thanks to its know-how as well as its relationships with local users.

 100 Million €

 +70 countries

 100 protected innovations yearly

 +400 employees

## PRESCRIPTION & DIAGNOSIS

A strong market understanding and a recognised technical knowledge to serve your projects in order to propose suitable solutions.



## INNOVATION & QUALITY



6% of the work force is dedicated to R&D. MICHAUD develops tomorrow's solutions and guarantee quality and reliability of products thanks to a COFRAC accredited and independent type test laboratory (accreditation n°1-0579).

## FITTERS TRAINING

As preferred technical partner, MICHAUD encourages learning and knowledge transmission together with products commercialisation.



According to the international standards, MICHAUD designs and develops energy distribution solutions. The products range is focused on several fields of expertise:

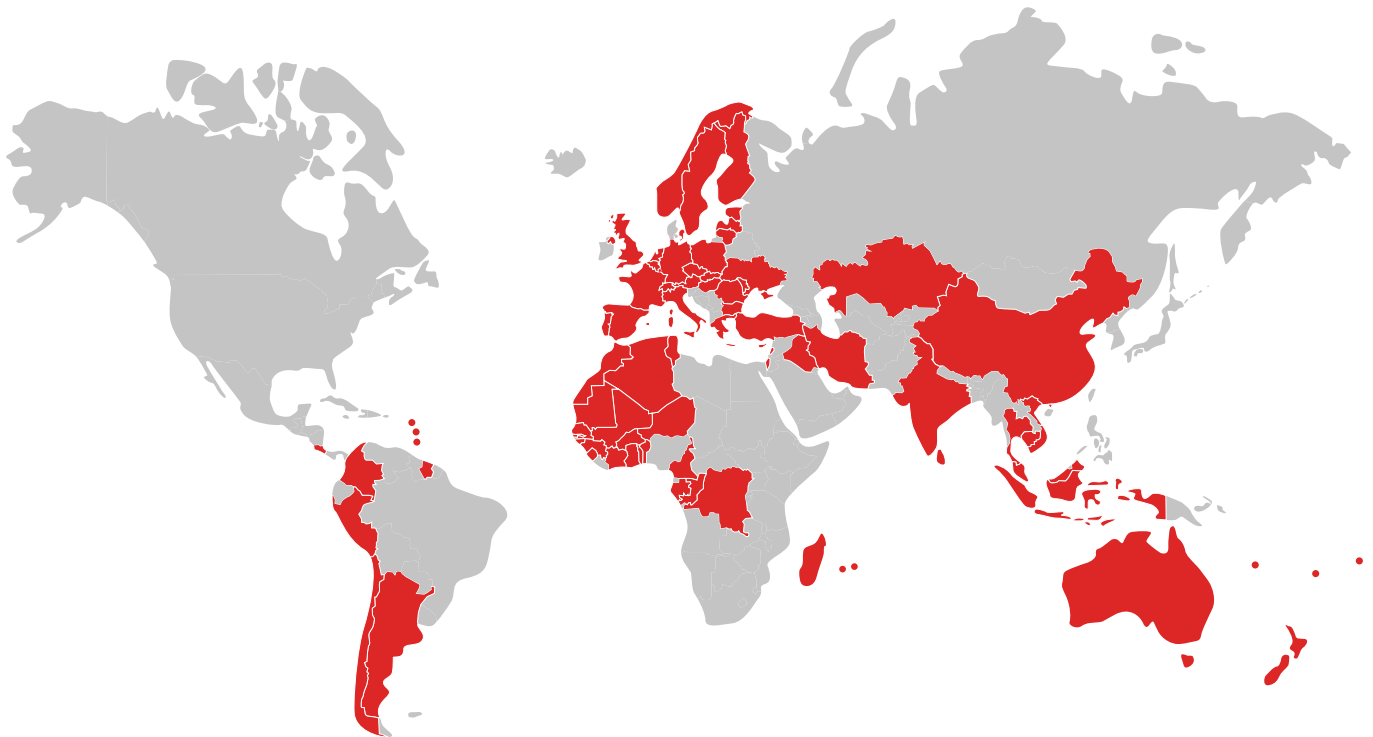
**Low and medium voltage networks :** to connect and protect the overhead and underground electrical lines ;

**Energy controlling :** to manage and offer easy access to electricity.



---

+ 70 PARTNERS WORLD-WIDE



MICHAUD benefits from a privileged collaboration with many partners around the world. Thanks to an Engineering Department dedicated to international business, MICHAUD provides support to Power Utilities in their grid expansion projects.

Besides, MICHAUD supports and works in partnership with power sector organisations.

TO DISCOVER

## Overhead network

### AERIAL CONNECTION BOX



This range is designed to establish several service connection from one point of the network. **Aerial Connection Box** and all the options available page 26-33

## Protection

### CONNECTION PROTECTION



**K223-2** : Fuse connector piercing 95-16 - Class 2 - pages 156-157

This **cutout connector** is used to protect insulated conductors or public lighting conductors connected to the low-voltage overhead network.

---

## NETWORK PROTECTION



This range offers a cutout and protection point on network and service line. **Fuse Switch** **Disconnectors** and all the options available page 162-167.

## Underground network

---

### ABOVE GROUND CONNECTION



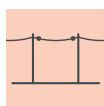
**REMIC cabinet** : pages 186-187

This range is a modular system type plug and play to establish several network and service connection from one point of the network.

# GENERAL SUMMARY



NETWORK



AERIAL NETWORKS



UNDERGROUND NETWORKS & SEALING



SERVICE CONNECTION ACCESSORIES



INDIVIDUAL SERVICE CONNECTION



TEMPORARY SERVICE CONNECTION

## OVERHEAD NETWORKS

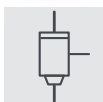
LV service connector	p. 14
Multiple connections	p. 26
LV network connector	p. 34
LV street light connection	p. 40
LV junction	p. 42
LV ending fitting	p. 50
LV mechanical fixing	p. 56

## UNDERGROUND NETWORKS

Underground service	p. 80
Underground network	p. 84
Emerging connection	p. 88
Accessories	p. 98

## HOUSING

Electrical riser	p. 108
Smart Meter Equipment	p. 114
Universal flexible linking cable	p. 128

BUILDING  
WIRING

METERING



DUCT &amp; VDI

EV CHARGING  
STATIONENERGY  
EFFICIENCYRENEWABLE  
ENERGY

## PROTECTION

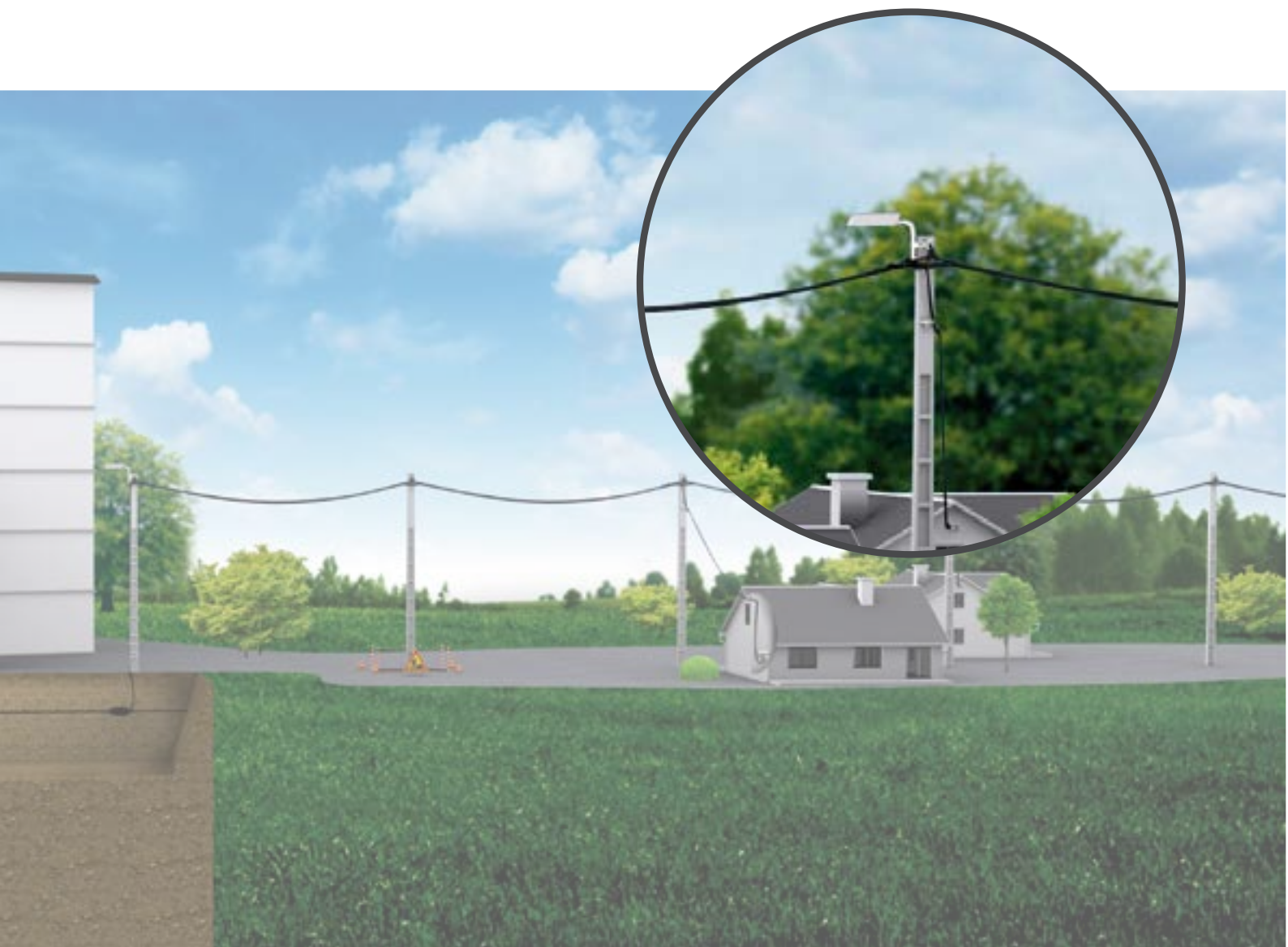
Service protection	p. 144
Network protection	p. 156
Fuses	p. 162

## EARTH SYSTEM

Earth electrodes	p. 176
Earth connectors	p. 182
Earth conductors	p. 188

## INSTALLATION

Protective equipment	p. 198
Tools	p. 204





# OVERHEAD NETWORKS

## LV service connector

Service insulation piercing connector	p. 14
Service insulation piercing connector with Test Probe	p. 16
Service insulation piercing connector for bare conductor	p. 18
Two stage bare conductor service connector	p. 20
Service connector with independent tightening	p. 22
Multitap service connector	p. 24

## Multiple connections

Aerial connection box	p. 26
Aerial fuse connections box RAMEX	p. 28
Single pole connection block	p. 30
Aerial connection box and network junction	p. 32

## LV network connector

Network insulation piercing connector	p. 34
Network insulation piercing connector fo bare conductor	p. 36
Parallel groove jaw	p. 37
Network insulation piercing connector with dismountable tap contact	p. 38

## LV street light connector

Street light insulation piercing connector	p. 40
Street light kit	p. 40
Cold shrink end cap	p. 41

## LV junction

Service cable dismountable sleeve and mains connection box	p. 42
Network preinsulated sleeve with mechanical tightening	p. 44
Preinsulated sleeve E140, E173, E215	p. 46
Preinsulated sleeve for aerial sub-surface connection E140	p. 48

## LV ending fitting

Preinsulated lug with mechanical tightening	p. 50
Preinsulated CPTAU lug	p. 51
Bare lug	p. 52
Sealing end cap and cover	p. 54
Heat-shrinkable material	p. 55

## LV mechanical fixing

Stainless steel strap	p. 56
Stainless steel strap accessories	p. 58
Neutral messenger network suspension and anchoring	p. 60
Fully supported network suspension and anchoring	p. 62
Service cable anchoring	p. 64
Low voltage line accessory	p. 66
Cable saddle	p. 68
Cable tie	p. 69
Pigtail bolt	p. 70
Protective duct	p. 71
Hot dip galvanised bolt and nut	p. 72

# SOLUTIONS FOR OVERHEAD NETWORK



Aerial connexion box MICHAUD P429 - Malaysia

# Overhead networks

The low voltage overhead connectors range is the historical core business of MICHAUD. The company has been able to integrate the issues of worldwide power utilities into the design of its products.



## Expertise

MICHAUD developed its technical skills with the transition of overhead bare lines into Aerial Bundled Conductors (A.B.C). Thanks to large innovation ability, the company has been a pioneer for a long time in the adaptation to this new environment.



## Longevity

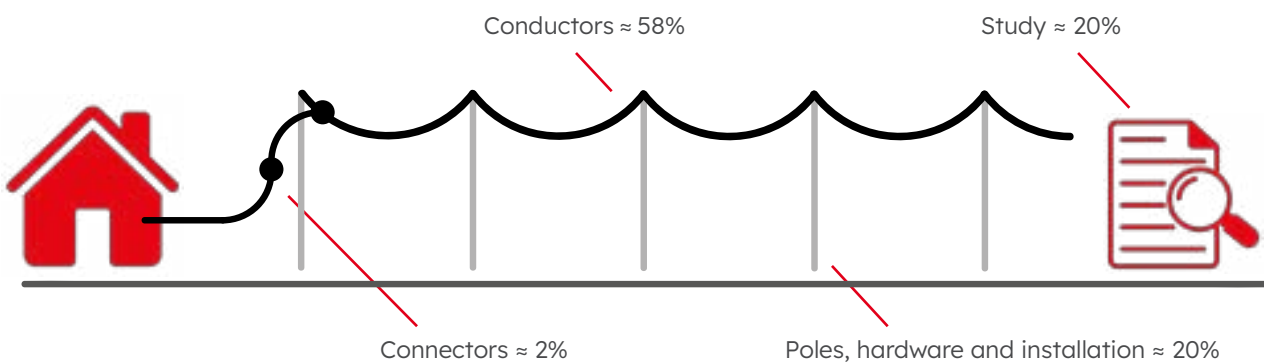
MICHAUD acquired a solid experience in electrical connections and more specifically in the fields of insulation piercing, bimetal connections and crimping, guaranteeing the power lines durability.



## Competitiveness

By taking into account the overall cost of the products over years (purchasing, maintenance, energy performance), MICHAUD offers a long terms competitive range of low voltage line accessories (with service life higher than 40 years).

## ANALYSIS OF THE LOW VOLTAGE LINE COST



Cost allocated to connectors is only about 2%. However this item is at the origin of 80% of network incidents.

They are the result of a failure of the connection, an installation error or even a too slight formation.

MICHAUD solutions aim to facilitate the installation and therefore avoid fitting mistakes thanks to technologies enabling to ensure a correct and effective installation.

Indeed, the insulation piercing connector is a major accessory for which the connection quality is the most important.



Test probe access



Yellow shear head indicator

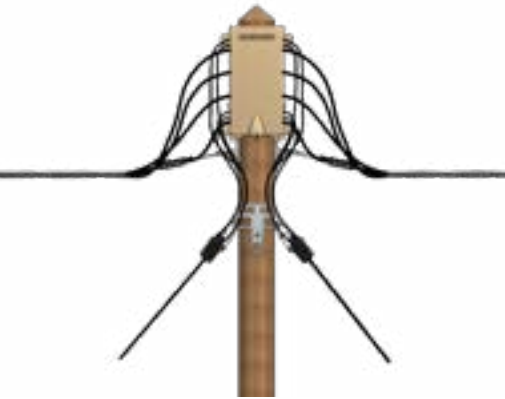


Fixed end cap

# SOLUTIONS FOR OVERHEAD NETWORK

## DISTRIBUTION AND NETWORK JUNCTIONS

With the rise of consumers to connect to the network, it is needed to rely on solutions which enable a readability of the network, balanced charges and to guarantee easy fitters' operations.



The multiple connection box enables to create a distribution point towards several service connections.

Thanks to one network inlet and one outlet, the box can be installed on the line and this way it offers an alternative solution to the use of connectors to perform network tapping. It also gives possibilities to connect future consumers.

## A DIVERSITY AND FLEXIBILITY WITH THE OFFER

An adaptation to projects and local requirements is possible thanks to MICHAUD agility and its wide range enabling reactivity and flexibility when facing specific applications.

### Options



Synthetic or metallic **hexagonal shear head**

- Removable / Unremovable
- Thrust washer
- Breaking torque controller (with coloured indicator)

Bare or insulated  **cable**

- From 1.5 to 240mm<sup>2</sup>
- Compatible with RIB

Overmoulded or assembled **sealing**

Glued or movable **sealing end cap**

- Test probe access
- Rigid (class 2)

**Simultaneous or independent tightening**  
1, 2 or 4 conductors

**Contact bridge** copper, brass, aluminium with a choice of surface treatments (tinning)

- Stripping
- Piercing

**Engraved marking**

Batch number : YYWWXX  
Y: Year / W: Week / X: Number

- Systematic traceability
- Special series with own marking

Steel **fastener** with different treatments (zinc, galvanised,...) or stainless steel fastener

- Captive component

## PREINSULATED TECHNOLOGIES TO ENSURE WATERTIGHTNESS

To guarantee the connections waterproofness on Aerial Bundled Conductors is significant challenge. A connection that is not set-up the right way can lead to a risk of water penetration and endanger the security and durability of the equipment.

### DID YOU KNOW

In the 1980's, MICHAUD was first manufacturer in the world to develop the preinsulated compression sleeve MJPB for the Power French Company ErDF. This sleeve designed to offer a dielectric strength of 6kV into water was really appreciated. This technology has been expanded today to other products of the range showing reliability and efficiency on the field.



MICHAUD offers a range of preinsulated sleeves adapted to various field applications enabling to perform the junction between two conductors of exact same type or with different characteristics (nature, material, size...).

Preinsulated sleeve



Crimping

Dismountable service sleeve



Mechanical tightening

Underground sleeve



Mechanical tightenin

### Zoom on the accessories' installation

Mechanical tightening



- Flexible technology on the field (wide range of conductor's section).
- Disconnection / reconnection ( if the terminal uses stripping technology).
- It must be performed without mechanical load.

Crimping



- It can be performed under mechanical load.
- Good durability.
- Mono-section.

# LV SERVICE CONNECTOR

## Service insulation piercing connector



K322



K441

### APPLICATION

This connector is designed to connect the insulated service conductors to the low voltage A.B.C. (Aerial Bundled Conductors).

### DESCRIPTION

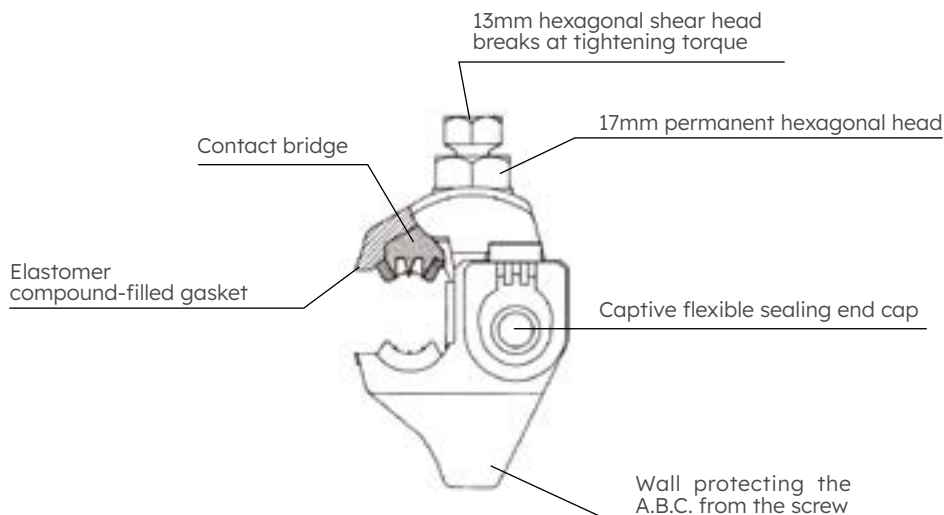
#### Connector general features:

- Insulation piercing is carried out on the main and tap conductors simultaneously in a single tightening operation.
- Dielectric strength in water is greater than 6kV.
- Tightening screw is potential free.
- Tightening efficiency is ensured by a shear head screw.
- Installation is performed using a 13/17mm hexagonal wrench.
- Connectors K441, K442 and K443 are fitted with a yellow shear head indicator that disappears when head is sheared-off, being a clear visual confirmation of good tightening from ground level. It increases head height by 10 mm.

This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

#### Connector end cap:

- The connector end cap is flexible so that to feel good tap conductor insertion simply by hand.
- It is carrying membranes instead of grease, granting watertightness around tap conductor end on long term basis.
- It is glued on connector body so that to avoid eventual loss during handling, installation and environment (wind, bad weather..).
- A version with reinforced class II insulation is available. The connector can be fitted with a rigid sealing cap, which grips and covers the flexible cap (Product code K246: please contact us for further information).



## REFERENCES

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales Unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
<b>K322</b>	CONNECTOR CBS/CT 25 ZF - ERDF	Aluminium alloy	16-25	6-25 6M-35M	0.120	12
<b>K323</b>	CONNECTOR CBS/CT 70 ZF - ERDF	Aluminium alloy	16-70	6-25 6M-35M	0.120	12
<b>K324</b>	CONNECTOR CBS/CT 150 ZF - ERDF	Aluminium alloy	16-150	6-25 6M-35M	0.130	12
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
<b>K331</b>	CONNECTOR CBS/CT 70 ZF	Tinned brass	16-70	4-25	0.130	30
<b>K332</b>	CONNECTOR CBS/CT 95 ZF	Tinned brass	16-95	2.5-35	0.130	30
<b>K330</b>	CONNECTOR CBS/CT 150 ZF	Tinned brass	35-150	6-35	0.140	30
<b>STAINLESS STEEL FASTENERS (SF) + YELLOW SHEAR HEAD INDICATOR</b>						
<b>K441</b>	CONNECTOR CBS/CT 95 SF	Tinned brass	25-95	6-35	0.135	20
<b>K442</b>	CONNECTOR CBS/CT 150/1.5-25 SF	Tinned brass	35-150	1.5-25	0.140	20
<b>K443</b>	CONNECTOR CBS/CT 150/6-35 SF	Tinned brass	35-150	6-35	0.140	20

M means that the core of the conductor is solid.

### Option: Service connector with movable sealing end cap

This connector is used for connecting the insulated service conductors to the low voltage A.B.C (Aerial Bundled Conductors). The movable sealing end cap enables a tap connection on the right or on the left.

The main conductor connection and the tap ones use the insulation piercing technology.



Cap set-up for tap connection on the right or on the left.

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales Unit
<b>K532</b>	CONNECTOR CBS/CT 95 ZF A	Tinned brass	16-95	6-35	0.115	20
<b>L232</b>	CONNECTEUR CBS/CT 95 VZ	Aluminium	16-95	2.5-35	0.117	20

# LV SERVICE CONNECTOR

## Service insulation piercing connector with Test Probe



### APPLICATION

This connector is designed to connect the insulated service conductors to the low voltage A.B.C. (Aerial Bundled Conductors).

It is fitted with a test socket on the flexible sealing cap. This is used to check the potential between 2 connectors installed on phase and neutral conductors, to ensure correct connection.

### DESCRIPTION

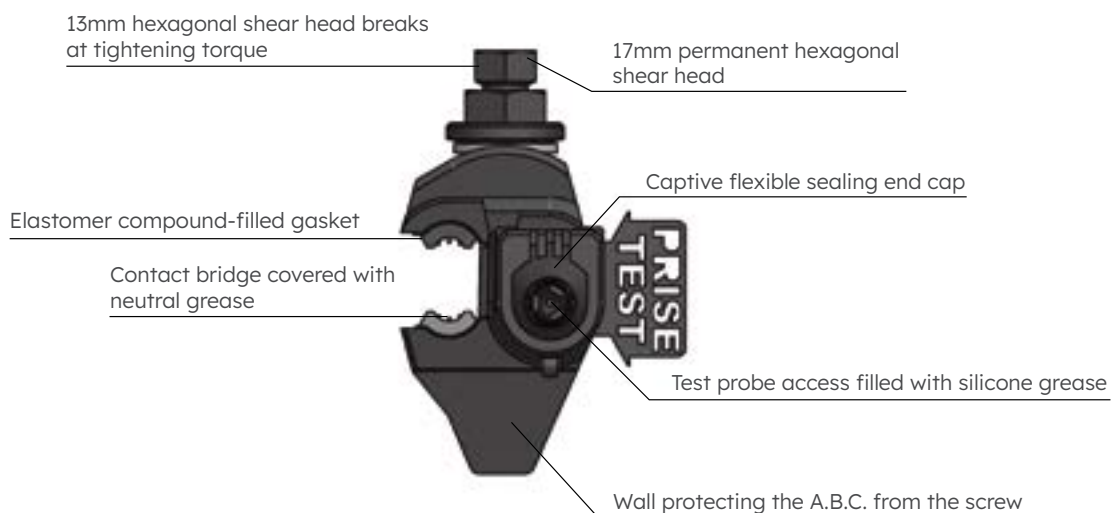
#### Connector general features:

- Insulation piercing is carried out on the main and tap conductors simultaneously in a single tightening operation.
- Dielectric strength in water is greater than 6kV and is guaranteed up to 5 perforations of the test plug of the flexible sealing cap using a standard pin of a measuring device.
- Tightening screw is potential free.
- Tightening efficiency is ensured by a shear head screw.
- Installation is performed using a 13/17mm hexagonal wrench.
- Connector K338 is fitted with a yellow shear head indicator that disappears when head is sheared-off, being a clear visual confirmation of good tightening from ground level. It increases head height by 10 mm.

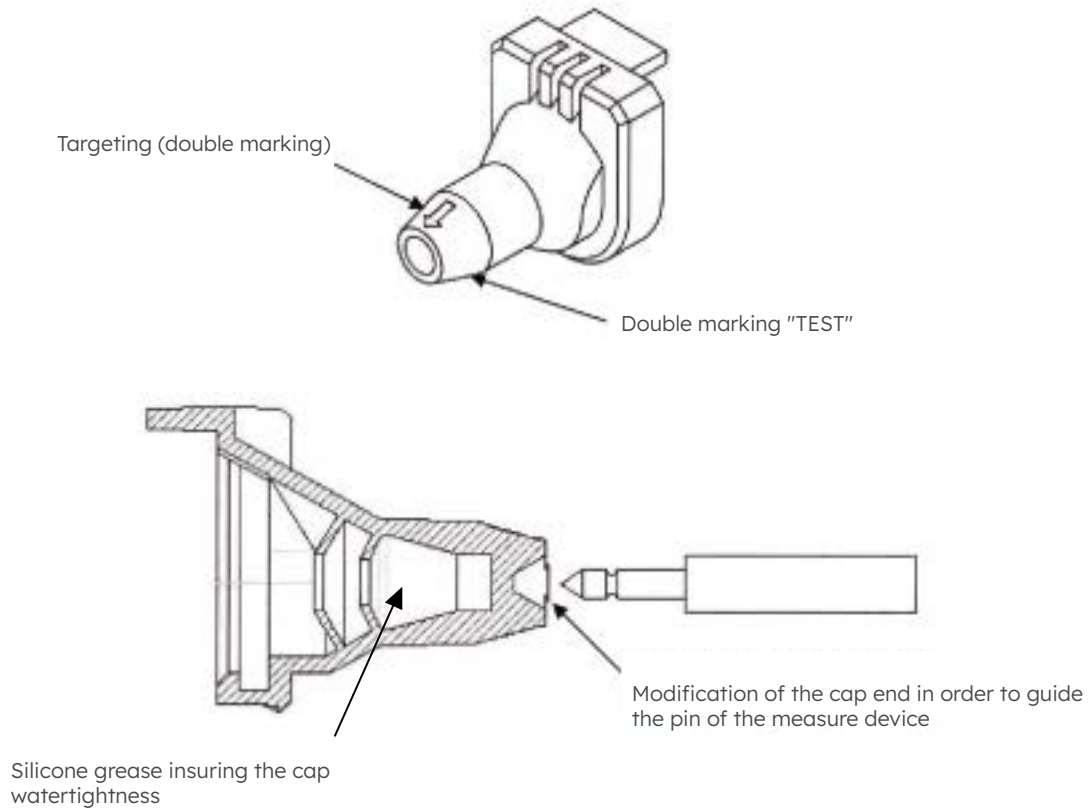
This connector complies with **NF C 33-020** and **EN 50-483** standards.

#### Connector end cap:

- The connector end cap is flexible so that to feel good tap conductor insertion simply by hand.
- It is carrying membranes instead of grease, granting watertightness around tap conductor end on long term basis.
- It is glued on connector body so that to avoid eventual loss during handling, installation and environment (wind, bad weather...).
- It can be equipped with a hard end cap, gripping and covering so, in case rigid cover is required. (Part Number K246 : please enquire for further information).



## USE OF THE TEST PROBE



## INSTALLATION

- Insert the insulated tap conductor into the connector so that its end seats in the flexible end cap.
- Use a 13mm wrench and tighten the connector on the insulated main conductor of the bundle until the shear head breaks.
- The 17mm permanent head is only provided for possible dismantling, and must not be used to re-tighten the screw after the 13mm head has broken.
- Installation can be carried out on a live line but with no load on the tap conductor.

## REFERENCES

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
<b>K336</b>	CONNECTOR CBS/CT 95 TEST PROBE ZF	Tinned brass	16-95	4-35	0.135	10
<b>K337</b>	CONNECTOR CBS/CT 150 TEST PROBE ZF	Tinned brass	35-150	6-35	0.145	10
<b>STAINLESS STEEL FASTENERS (SF) + YELLOW SHEAR HEAD INDICATOR</b>						
<b>K338</b>	CONNECTOR CBS/CT 95 TEST PROBE SF	Tinned brass	16-95	4-35	0.135	10

# LV SERVICE CONNECTOR

## Service insulation piercing connector for bare conductor



K258



K470

### APPLICATION

This connector is designed to connect the insulated service conductors to the low voltage overhead copper or aluminium alloy bare conductor network.

Two versions are available according to the type of conductor to be connected (Al or Cu):

- CNA (with aluminium alloy contact bridges),
- CNU (with rough brass contact bridges).

### DESCRIPTION

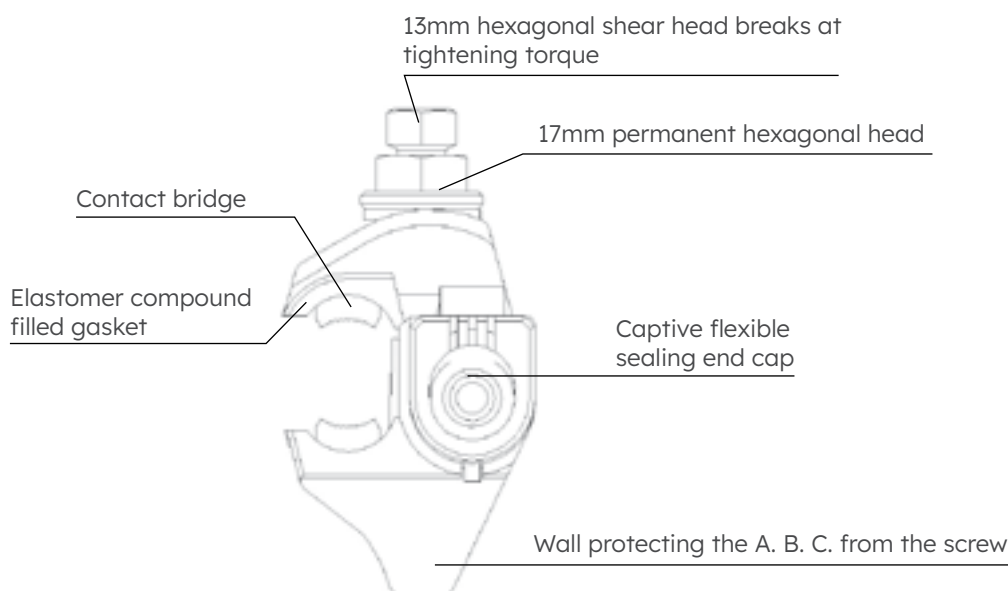
#### Connector general features:

- Tightening screw is potential free.
- Tightening efficiency is ensured by a shear head screw.
- Installation is performed using a 13/17mm hexagonal wrench.

This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

#### Connector end cap:

- The connector end cap is flexible so that to feel good tap conductor insertion simply by hand.
- It is carrying membranes instead of grease, granting watertightness around tap conductor end on long term basis.
- It is glued on connector body so that to avoid eventual loss during handling, installation and environment (wind, bad weather..).
- It can be equipped with a hard end cap, gripping and covering so, in case rigid cover is required. (Part Number K246 : please enquire for further information).



## INSTALLATION

- Insert the insulated tap conductor into the connector so that its end seats in the flexible end cap.
- Use a 13mm wrench and tighten the connector on the bare main conductor until the shear head breaks.
- The 17mm permanent screw head is only provided for possible dismantling, and must not be used to re-tighten the screw after the 13mm head has broken.
- Installation can be carried out on a live line but with no load on the tap conductor.

## REFERENCES

Code	Designation	Contact bridge	Capacities Main bare (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
<b>K258</b>	CONNECTOR RDP/CNU 95 ZF	Brass	Cu 7-95	6-35	0.150	20
<b>K259</b>	CONNECTOR RDP/CNA 95 ZF	Aluminium alloy	Al 7-95	6-35	0.130	20
<b>STAINLESS STEEL FASTENERS (SF)</b>						
<b>K470</b>	CONNECTOR RDP/CNU 95 SF	Brass	Cu 7-95	6-35	0.150	20
<b>K471</b>	CONNECTOR RDP/CNA 95 SF	Aluminium alloy	Al 7-95	6-35	0.130	20

# LV SERVICE CONNECTOR

## Two stages bare conductor service connector



**MICHAUD Exclusivity**  
Two stages  
connection

### APPLICATION

This connector designed to connect the insulated service conductors to the low voltage overhead aluminium alloy or copper bare conductor network.

Two versions are available according to the type of conductor to be connected (Al or Cu).

The tap and main cables are connected separately step by step to improve the electrical connection:  
1. First the tap line is connected by piercing the insulation,  
2. Then the main line is connected.

Installation can be carried out under a maximum load of 100A.



K235

### DESCRIPTION

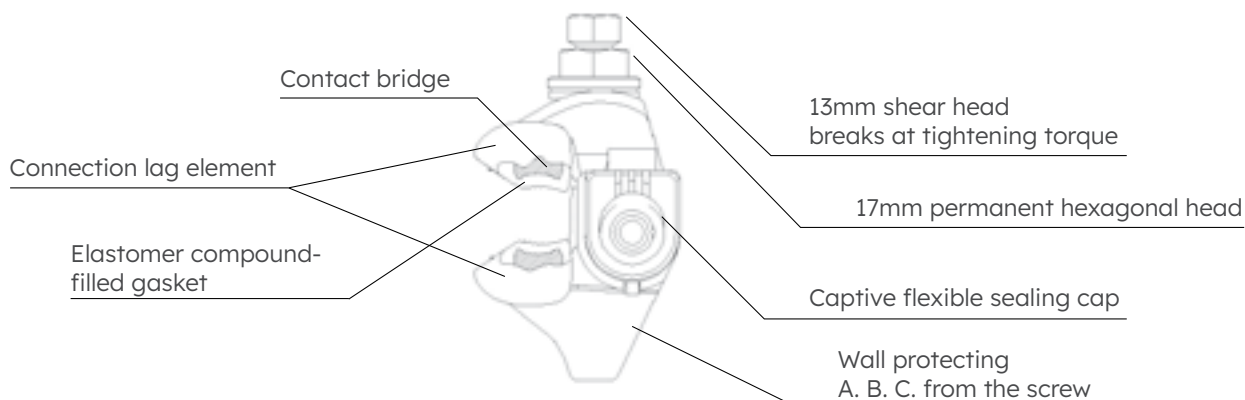
#### Connector general features:

- Piercing of the tap line and tightening of the main conductor are carried out step by step in a single tightening operation.
- Tightening screw is potential free.
- Tightening efficiency is ensured by a shear head screw.
- Installation is performed using a 13/17mm hexagonal wrench.
- Connector is fitted with a yellow shear head indicator that disappears when head is sheared-off, being a clear visual confirmation of good tightening from ground level. It increases head height by 10 mm.

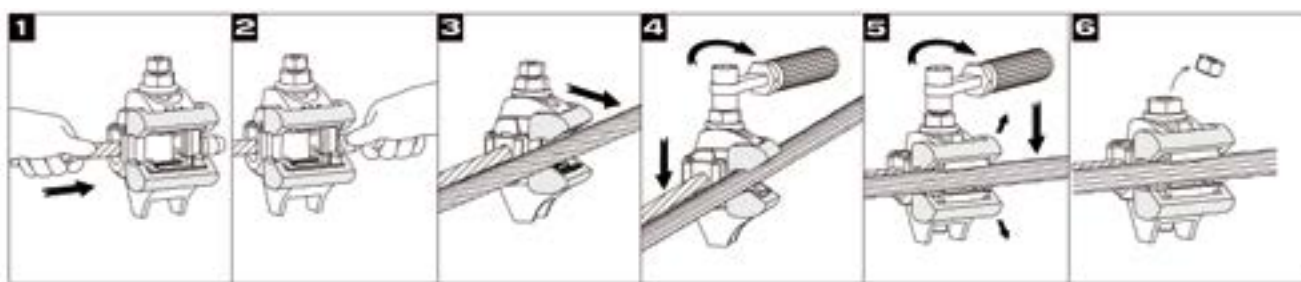
This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

#### Connector end cap:

- The connector end cap is flexible so that to feel good tap conductor insertion simply by hand.
- It is carrying membranes instead of grease, granting watertightness around tap conductor end on long term basis.
- It is glued on connector body so that to avoid eventual loss during handling, installation and environment (wind, bad weather...).
- It can be equipped with a hard end cap, gripping and covering so, in case rigid cover is required. (Part Number K246 : please enquire for further information).



## INSTALLATION



Insert the insulated tap conductor into the connector so that its end seats in the flexible end cap (1), (2).

Install the connector correctly on the bare line. The conductor stays on the lag elements made of synthetic material (3).  
*Note: The contact bridges remain away from the main bare conductor.*

Use a 13mm wrench and follow the two stage connection principle hereafter:

(a) **Connection of the insulated tap cable:**

- The insulated tap conductor is connected by insulating piercing (4).

(b) **Connection of the bare main cable:**

- Tighten the connector on the bare conductor,
- The lag elements are automatically pushed away and the bare main conductor is connected (5),
- Tighten the connector fully on the bare conductor until the shear head breaks (6).

The 17mm permanent head is only provided for possible dismantling. It must not be used to re-tighten the screw after the 13mm head has broken.

Installation can be carried out on a live line but with a maximum load of 100A on the tap conductor.

## REFERENCES

Code	Designation	Contact bridge	Capacities Main bare (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales Unit
<b>STAINLESS STEEL FASTENERS (SF) + YELLOW SHEAR HEAD INDICATOR</b>						
<b>K235</b>	2 STAGES CONNECTOR RDP/CNU 95 SF	Brass	Cu 7-95	6-35	0.170	4
<b>K236</b>	2 STAGES CONNECTOR RDP/CNA 95 SF	Aluminium Alloy	Al 7-95	6-35	0.170	4

# LV SERVICE CONNECTOR

## Service connector with independent tightening

### Dismountable tap contact single service connector



#### APPLICATION

This connector is designed to connect independently the insulated service conductors to the low voltage A.B.C. (Aerial Bundled Conductors).

While connection of the main line conductor uses the insulation piercing technology, the one of the tap uses the stripping technology.

#### DESCRIPTION

- Dielectric strength in water is greater than 6kV.
- Tightening screws are potential free.
- Tightening efficiency is ensured by shear head screws.
- Tap conductor can accommodate solid or stranded core aluminium or copper insulated with sections between 2.5 and 35mm<sup>2</sup>.

This connector meets the criteria of the **NF C 33-020** and **EN 50483** standards.

#### INSTALLATION

- Install the connector on the main conductor using a 13mm wrench until the shear head breaks.
- 17mm permanent head is only provided for possible dismantling, and must not be used to re-tighten the screw after the 13mm head has broken.
- Strip the tap conductor over the recommended length and brush it with neutral grease.
- Insert the tap conductor fully into the connector by piercing the seal wall.
- Tighten using a 13mm wrench until the shear head breaks.
- If disconnecting and reconnecting the tap, tighten the screw to the torque indicated on the permanent head.

#### REFERENCE

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (VZ)</b>						
K397	PIERCING CONNECTOR CB 1d/CT 95	Tinned brass	16 - 95	2.5 - 35	0.175	6

# Bare conductor service connector with independent tightening

## APPLICATION

This connector is designed to connect independently the insulated service conductors to the low voltage overhead copper bare conductor network.

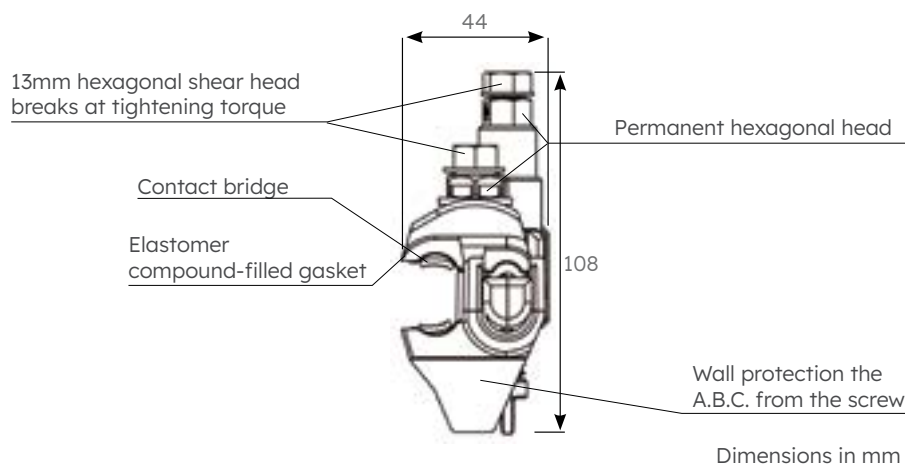
## DESCRIPTION

- Tightening screws are potential free.
- Tightening efficiency is ensured by shear head screws.
- Tap conductor can accommodate solid or stranded core aluminium or copper insulated with sections between 2.5 and 35mm<sup>2</sup>.

This connector meets the criteria of the **NF C 33-020** and **EN 50483** standards.



**K396**



## INSTALLATION

- Strip the tap conductor over the recommended length and brush it with neutral grease.
- Insert the tap conductor fully into the connector by piercing the seal wall.
- Tighten using a 13mm wrench until the shear head breaks holding the tap line in your hand.
- Use a 13mm wrench and tighten the connector on the bare main conductor until the shear head breaks.
- The 17mm permanent screw head is only provided for possible dismantling and must not be used to re-tighten the screw after the 13mm head has broken.
- If disconnecting and reconnecting the tap, tighten the screw to the torque indicated on the permanent head.

## REFERENCE

Code	Designation	Contact bridge	Capacities Main bare (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (VZ)</b>						
<b>K396</b>	STRIPPING CONNECTOR RDP 1d/CNU 95	Brass	Cu 16 - 95	2.5 - 35	0.210	6

# LV SERVICE CONNECTOR

## Multitap service connector

### APPLICATION

This connector is designed to connect from 2 up to 4 insulated service conductors to the low voltage A.B.C. (Aerial Bundled Conductors).



K390



K389

### DESCRIPTION

#### Connector general features:

- Dielectric strength in water is greater than 6kV.
- Tightening screws are potential free.
- Tightening efficiency is ensured by shear head screws.
- Installation is performed using a 13/17mm hexagonal wrench.
- Tap conductor of K391 and K393 versions uses the stripping technology. It uses the insulation piercing technology for the other versions.
- This independent tightening tap conductor can accommodate solid or stranded core aluminium or copper insulated conductors with sections between 6 and 35mm<sup>2</sup>.
- Connector K389 is fitted with a yellow shear head indicator that disappears when head is sheared-off, being a clear visual confirmation of good tightening from ground level. It increases head height by 10 mm.

This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

#### Sealing cap for connectors K390, K391, K392, K393, K394 and K389 (2 tap outlets) :

- Connector end cap is flexible so that to feel good tap conductor insertion simply by hand.
- It is carrying membranes instead of grease, granting watertightness around tap conductor end on long term basis.
- It is glued on connector body so that to avoid eventual loss during handling, installation and environment (wind, bad weather...).
- It can be equipped with a hard end cap, gripping and covering so, in case rigid cover is required. (Part Number K246 : please enquire for further information).

## REFERENCES

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
K390	PIERCING CONNECTOR CB 2P/CT 150 ZF	Tinned copper	35-150	2 x 6-35	0.260	10
K391	STRIPPING CONNECTOR CB 2D/CT 150 ZF	Tinned copper	35-150	2 x 6-35	0.260	10
K392	PIERCING CONNECTOR CB 2P/CT 70 ZF	Tinned copper	16-70	2 x 6-35	0.260	10
K393	STRIPPING CONNECTOR CB 2D/CT 70 ZF	Tinned copper	16-70	2 x 6-35	0.260	10
K394	PIERCING CONNECTOR CB 2P/CT 95 ZF	Tinned copper	16-95	2 x 6-35	0.260	10
K348	PIERCING CONNECTOR CB 4P/CT 95 ZF	Aluminium	25-95	4 x 6-35	0.420	12
K349	PIERCING CONNECTOR CB 4P/CT 185 ZF	Aluminium	70-185	4 x 6-35	0.670	12
<b>STAINLESS STEEL FASTENERS (SF) + YELLOW SHEAR HEAD INDICATOR</b>						
K389	PIERCING CONNECTOR CB 2P/CT 150 SF	Tinned copper	35-150	2 x 6-35	0.260	10

### Option: Service connector with movable sealing end cap

This connector designed to connect up to 2 insulated service conductors to the low voltage A.B.C (Aerial Bundled Conductors). The movable sealing end cap enables a tap connection on the right or on the left.

The main conductor connection and the tap ones use the insulation piercing technology.



K594

## REFERENCE

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
K594	PIERCING CONNECTOR CB 2P/CT 95 ZF A	Tinned brass	16-95	2 x 6-35	0.250	10

# MULTIPLE CONNECTIONS

## Aerial connection box



**MICHAUD Exclusivity**

### APPLICATION

This box is designed to establish up to 6 (P436) or 9 (P439) single phase connections or up to three phases service connections at one point of the low voltage A.B.C (Aerial Bundled Conductors).

It can be installed on a facade or a pole.

It can also be used at the network end.



**P436**

6 outlets  
4 connection blocks



**P439**

9 outlets  
4 connection blocks

### BENEFITS

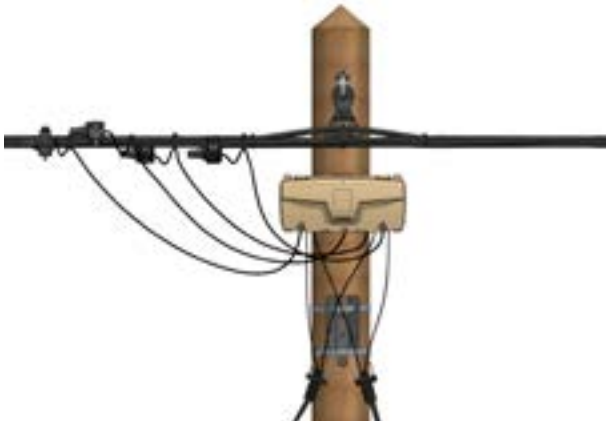
- > **Perform single phase and three phases connections.**
- > **Better spread charges on the network**, thanks to the connections visibility.
- > **Guarantee the network durability** (better resistance to corrosion and humidity).
- > **Reduce the number of connectors** (safer network organisation, strengthened fraud-prevention).
- > **Disconnect service line easily** (network cable unimpacted, possibility to re-use connectors).
- > **Check voltage at connection terminals** (with a test probe access).
- > **Improve network readability with the removal of the "spider's web" effect.**
- > **Guarantee a better fitters safety** (electricians shock risk limited).

### DESCRIPTION

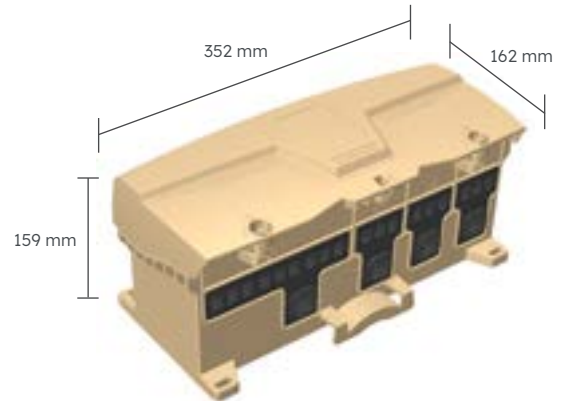
- The box is equipped with 4 terminal blocks (1 neutral + 3 phases). The "neutral block" consists of one inlet and 6 outlets (P436) or 9 outlets (P439) ; each "phase block" consists of one inlet and 3 outlets.
- Tightening efficiency is ensured by insulated shear head screws (H17/HC8 for network, H10/H10 for service).
- Each box is available in 2 versions using the insulation : insulation piercing or stripping technology.
- Each terminal block is accessible with the contact pin of a test probe.
- Inlet and outlet connection in the lower part are performed through elastomer seal sockets.
- The cover is closed using 2 plastic screws with a captive triangle shape.
- An integrated device allows the box to be sealed and possibly padlocked.
- The terminal separators inside the box enable the conductors to be connected in any order.
- The degree of protection of the enclosure is IP43. When the cover is opened, the degree of protection of the live parts is IP2X.
- The box offers fixing solution to the pole with strap or to the facade with screws.

This box meets the criteria of the **HN 62-S-33** standard.

## INSTALLATION



## DIMENSIONS



		Inlet	Outlet	Flow power
		Network	Service	
P436-P	Capacities	35-150mm <sup>2</sup> Al/Cu	10-35mm <sup>2</sup> Al/Cu 16M - 50M Al	110 kVA
	Technology	Insulation piercing	Insulation piercing	
P436-D	Capacities	35-150mm <sup>2</sup>	6-35mm <sup>2</sup> Al/Cu 16M - 50M Al	
	Technology	Stripping	Stripping	
P439-P	Capacities	35-150mm <sup>2</sup>	10-35mm <sup>2</sup> Al/Cu 16M - 50M Al	
	Technology	Insulation piercing	Insulation piercing	
P439-D	Capacities	35-150mm <sup>2</sup>	6-35mm <sup>2</sup> Al/Cu 16M - 50M Al	
	Technology	Stripping	Stripping	

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
P436-P	AERIAL CONNECTIONS BOX (x6) PIERCING	3.200	4
P436-D	AERIAL CONNECTIONS BOX (x6) STRIPPING	3.200	4
P439-P	AERIAL CONNECTIONS BOX (x9) PIERCING	3.200	4
P439-D	AERIAL CONNECTIONS BOX (x9) STRIPPING	3.200	4

# MULTIPLE CONNECTIONS

## Aerial fuse connections box RAMEX



### APPLICATION

This RAMEX box three-phase service connections up to 9 single-phase service connections or 3 three-phase service connections.

It provides fuse protection for the service connections, up to 60A.

The box can be fixed to a pole or on facade.

The box is available in different versions depending on the type of network connection. It is available with insulation piercing or stripping technology.

### BENEFITS

- > **Perform single phase and three phases connections.**
- > **Better spread charges on the network**, thanks to the connections visibility.
- > **Guarantee the network durability** (better resistance to corrosion and humidity).
- > **Reduce the number of connectors** (safer network organisation, strengthened fraud-prevention).
- > **Disconnect service line easily** (network cable unimpacted, possibility to re-use connectors).
- > **Check voltage at connection terminals** (with a test probe access).
- > **Improve network readability with the removal of the "spider's web" effect.**
- > **Guarantee a better fitters safety** (electricians shock risk limited).
- > **Modular system** (common base then add modules as required, adaptable over time).
- > **Enclosure components can be assembled on site.**
- > **Prevention of non-technical losses** (top of pole, IK08 mechanical resistance, power limitation by mini-switch load limiter, compatible with anti-fraud concentric cables).

### DESCRIPTION

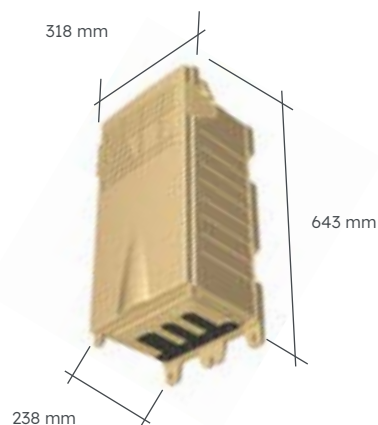
- Enclosure is fitted with 4 vertical busbars (1 neutral + 3 phases).
- Tightening efficiency is ensured by insulated shear head screws (H17).
- Box is available in two version using the insulation piercing or insulation stripping technology for the leading-in connection.
- Box uses the insulation stripping technology for the leading-out service connection.
- Network capacity of the box is 35-95mm<sup>2</sup> Al/Cu and the service connection capacity is 6-25mm<sup>2</sup> Al/Cu.
- The maximum power rating is 45kVA.
- Enclosure is compatible with the use of 13 and 16 mm<sup>2</sup> single-phase and 21 and 25 mm<sup>2</sup> three-phase concentric connection cables.
- Enclosure has a degree of protection IK08 and IP33.
- Enclosure offers a full opening with a captive door, carrying ventilated features with the option of installing an anti-insect grille, making it IP43.
- Enclosures has two strap holes for pole mounting and screw holes for mounting on a facade or wooden pole.
- A LED fuse-blown indicator can be fitted on request.

The box meets the criteria of the **HN 62-S-33** standard.

## INSTALLATION



## SIZE



## REFERENCES

Code	Designation	Weight (kg)	Sales Unit
<b>P336-D</b>	AERIAL 22x58 FUSE CONNECTIONS BOX (x6) STRIPPING	6,100	1
<b>P336-P</b>	AERIAL 22x58 FUSE CONNECTIONS BOX (x6) PIERCING	6,100	1
<b>P339-D</b>	AERIAL 14x51 FUSE CONNECTIONS BOX (x9) STRIPPING	6,100	1
<b>P339-P</b>	AERIAL 14x51 FUSE CONNECTIONS BOX (x9) PIERCING	6,100	1

Note : For an enclosure suitable for concentric cable connections, add '-C' to the product code of your choice. MICHAUD offers concentric cable accessories. Please enquire.

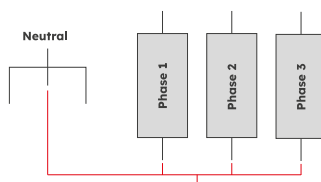
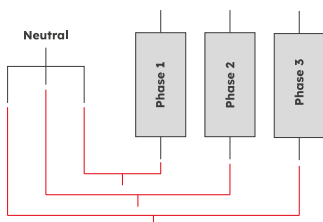
### Accessories

- For each enclosure, add the number of fusible phase bases and triple neutral bases corresponding to the number of single-phase or three-phase service connections to be made.
- Enclosures for 22x58 fuses allow the installation of up to 2 rows of fuse switches (3 phases + 1 triple neutral).
- Enclosures for 14x51 fuses allow the installation of up to 3 rows of fuse switches (3 phases + 1 triple neutral).
- On each row, it is possible to connect a maximum of:

#### 3 single-phase connections

or

#### 1 three-phase connection



- Enclosures with 22x58 fuses therefore allow up to 6 single-phase connections or 2 three-phase connections, and enclosures with 14x51 fuses allow up to 9 single-phase connections or 3 three-phase connections.

## REFERENCES

Code	Designation	Sales Unit
<b>K541</b>	FLOOR SUPPLY BOX FUSE HOLDER 14x51	25
<b>K542</b>	FLOOR SUPPLY BOX FUSE HOLDER 22x58	10
<b>K545</b>	FLOOR SUPPLY BOX TRIPLE NEUTRAL	20

Note : Kits made of a box with accessories are available. Please enquire.

# MULTIPLE CONNECTIONS

## Single pole connection block



**MICHAUD Exclusivity**  
Patented system

### APPLICATION

This overhead single pole block allows to star one conductor into 8 service outlets. The use of 2 blocks enables to realise up to 8 single phase connections.

To better distinguish the connected conductor, the block carries an identification plate with number 1-2-3 for phases and letter N for neutral..

It can be installed on a facade or a pole.



L436

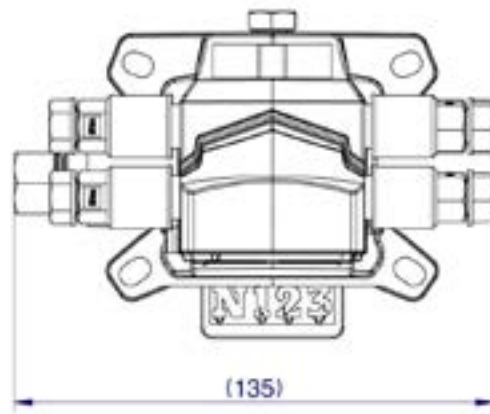
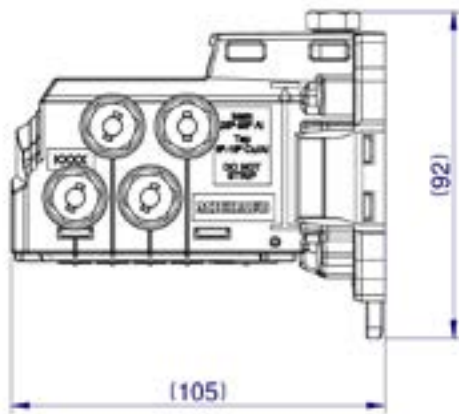
### BENEFITS

- > **Perform several single phase service connections.**
- > **Reduce the number of connectors** for a safer network organization.
- > **Clean the network** (remove the “spiderweb” effect).
- > **Help to identify the phases** (thanks to the number plate).
- > **Check the potential at the connection terminals** (with a test probe access).
- > **Guarantee the network durability** (better resistance to corrosion and humidity).
- > **Make the operation easier** (thanks to the piercing technology on tap and main conductors).
- > **Guarantee a better fitters’ safety** (electric shock risk limited).
- > **Personalise the number of the connections** (thanks to the set modularity).

### DESCRIPTION

- 8 outlets connections block is equipped with a single terminal block.
- Each is accessible with the contact pin of a test probe.
- Terminal block is made of tinned aluminium, which enable to connect copper or aluminium conductors.
- Each terminal block uses the insulation piercing technology facilitation the installation.
- The inlets are performed by elastomer seal sockets.
- Code L436 includes one connection block. Code L437 includes 2 connection blocks L436.
- Network tightening screw is made of aluminium and its shear head (size H17) is made of synthetic materials.
- Service tightening screws are made of tinned steel and their shear heads (size H10) are made of synthetic materials.
- Each terminal block has a number plate enabling to easily identify the phases and the neutral (N/1/2/3).
- Product has a nut and M8 screw for mounting on bracket of L shape (not provided). It offers also fixing solution to the pole with a strap or to the facade with screws.
- Degree of protection of the enclosure is IP33.
- Installation can be carried out on a live line but with no load on the tap conductor.

This block meets the criteria of the **HN 62-S-33** and **EN 50483-5** standards.



Dimensions in mm

## INSTALLATION



	Inlet	Outlet	
	Network	Service	Power flow
Capacities	25-95mm <sup>2</sup> Al/Cu	6 Cu - 25mm <sup>2</sup> Al/Cu	110 kVA
Technology	Insulation piercing	Insulation piercing	

## REFERENCES

Code	Designation	Output number	Weight (kg)	Sales unit
L436	AERIAL SINGLE POLE STAR CONNECTION BLOCK 8 OUTLETS 95-16	8	0.580	8
L437	SET OF 2 AERIAL SINGLE POLE STAR CONNECTION BLOCKS 8 OUTLET	2 x 8	1.160	4

Note : MICHAUD offers bracket. Please enquire.

# MULTIPLE CONNECTIONS

## Aerial connection box and network junction



**MICHAUD Exclusivity**

### APPLICATION

This box is designed for the junction of 2 overhead networks and the connection up to 8 single phase or 4 three phases service connections.

The box can be fixed to a pole or on facade.

The box is available in different versions depending on the type of network connection. It is available with insulation perforation or stripping technology.



### P429

8 service outlets single phase  
1 inlet / 1 outlet network  
4 connection blocks

### BENEFITS

- > **Perform single phase and three phases connections.**
- > **Better spread charges on the network**, thanks to the connections visibility.
- > **Guarantee the network durability** (better resistance to corrosion and humidity).
- > **Reduce the number of connectors** (safer network organisation, strengthened fraud-prevention).
- > **Disconnect service line easily** (network cable unimpacted, possibility to re-use connectors).
- > **Check voltage at connection terminals** (with a test probe access).
- > **Improve network readability with the removal of the "spider's web" effect.**
- > **Guarantee a better fitters safety** (electricians shock risk limited).
- > **Avoid junctions between cables** by making regular false cuts.

### DESCRIPTION

- The box is equipped with 4 terminal blocks (1 neutral + 3 phases). Both network and connection terminals use insulating piercing technology for the P429 and stripping technology for the P426.
- Tightening efficiency ensured by shear head screws (H17/HC8 for network ; H10/H10 for service).
- Each terminal block is accessible with the contact pin of a test probe.
- Inlet and outlet connection are on both sides through elastomer seal sockets with downwards angle.
- Cover is closed using a stainless steel screw. When opened, the cover stands-up, facilitating wiring. An integrated device allows the box to be sealed and possibly padlocked.
- Terminal separators inside the box enable the conductors to be connected in any order.
- Degree of protection of the enclosure is IP33. When the cover is opened, degree of protection of the live parts is IP2X.
- Box offers fixing solution to the pole with straps or to facade with screws.
- Envelope can be delivered with a metal mounting plate. The plate's rigidity allows the fixing under a non-flat area.
- Installation can be carried out on a live line but with no load on the tap conductor.

This box meets the criteria of the **HN 62-S-33** and **EN 50 483-5** standards.

## INSTALLATION



Network junction + service connections



Network tapping + service connections

		Inlet	Outlet		Power flow
		Network	Network	Service	
P426	Capacities	25-95mm <sup>2</sup> Al	25-95mm <sup>2</sup> Al	6 Cu - 25mm <sup>2</sup> Al/Cu	160 kVA
	Technology	Stripping	Stripping	Stripping	
P429	Capacities	25-95mm <sup>2</sup> Al	25-95mm <sup>2</sup> Al	6 Cu - 25mm <sup>2</sup> Al/Cu	
	Technology	Insulation piercing	Insulation piercing	Insulation piercing	

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
P426	AERIAL CONNECTIONS BOX (x8) STRIPPING + NETWORK JUNCTION	2.850	2
P429	AERIAL CONNECTIONS BOX (x8) PIERCING + 1 NETWORK JUNCTION	2.850	1

# LV NETWORK CONNECTOR

## Network insulation piercing connector



K355



K356



K365

### APPLICATION

This connector is designed to connect a low voltage A.B.C. (Aerial Bundled Conductors) network to another network of the same type.



K445



K354



K446



K381

+



K247

### DESCRIPTION

#### Connector general features:

- Insulation piercing is carried out on the main and tap conductors in a single tightening operation.
- Dielectric strength in water is greater than 6kV.
- Tightening screw is potential free.
- Installation is performed using a 13/17mm hexagonal wrench
- Tightening efficiency is ensured by a shear head screw.
- Connectors K445, K354 and K446 are fitted with a yellow shear head indicator that disappears when head is sheared-off, being a clear visual confirmation of good tightening from ground level. It increases head height by 10 mm.

This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

#### Connector end cap:

- Connector end cap is flexible so that to feel good tap conductor insertion simply by hand.
- It is carrying membranes instead of grease, granting watertightness around tap conductor end on long term basis.
- It is glued on connector body so that to avoid eventual loss during handling, installation and environment (wind, bad weather...).
- It can be equipped with a hard end cap, gripping and covering so, in case rigid cover is required. (Part Number K245: please enquire for further information).

## INSTALLATION

- Insert the insulated tap conductor into the connector so that its end seats in the flexible end cap. (Note: connector K381 is delivered without a K247 cap to be supplied on side).

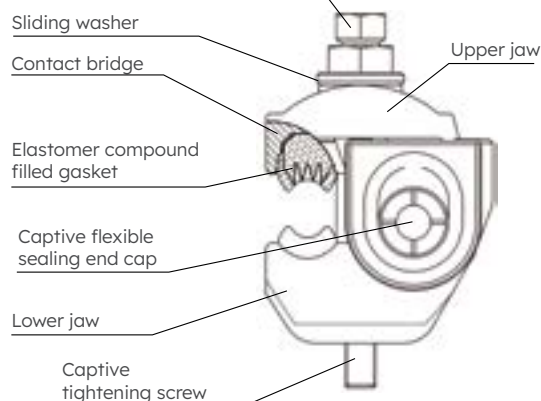
- Use a 17mm wrench (13mm for connectors K354, K355 and K356) and tighten the connector on the insulated conductor of the bundle until the shear head breaks.

- The 17mm permanent head (21mm for connector K381) is only provided for possible dismantling, and must not be used to re-tighten the screw after the first head has broken.

- Installation can be carried out on a live line but with no load on the tap conductor.

Hexagonal shear head breaks at tightening torque:

- H13/H17 (for K354 - K355 - K356)
- H17/H17 (for K365 - K366 - K445 - K446)
- H17/H21 (for K381)



## REFERENCES

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
<b>K365</b>	CONNECTOR CDRS/CT 95-95 ZF	Aluminium	25-95	25-95	0.235	20
<b>K355</b>	CONNECTOR CDRS/CT 150-95 ZF	Tinned brass	25-150	25-95	0.200	20
<b>K366</b>	CONNECTOR CDRS/CT AL 150-150 ZF	Aluminium	50-150	50-150	0.580	8
<b>K356</b>	CONNECTOR CDRS/CT 150-150 ZF	Tinned brass	35-150	35-150	0.400	10
<b>K381</b>	CONNECTOR CDRS/CT 240-240 ZF (without cap)	Tinned copper	50-240	50-240	0.820	18
<b>K247</b>	BLACK FLEXIBLE END CAP 95-240 - FOR CONNECTOR K381				0.027	6
<b>STAINLESS STEEL FASTENERS (SF) + YELLOW SHEAR HEAD INDICATOR</b>						
<b>K445</b>	CONNECTOR CDRS/CT 95-95 SF	Aluminium	25-95	25-95	0.230	20
<b>K354</b>	CONNECTOR CDRS/CT 150-95 SF	Aluminium	50-150	35-95	0.200	20
<b>K446</b>	CONNECTOR CDRS/CT 150-150 SF	Aluminium	50-150	50-150	0.560	8

### Option: Connector with movable end cap

This connector is used for connecting the insulated service conductors to the low voltage A.B.C (Aerial Bundled Conductors). The movable sealing end cap enables a tap connection on the right or on the left.

The main conductor connection and the tap ones use the insulation piercing technology.



Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
<b>K555</b>	CONNECTOR CDRS/CT 150-95 ZF	Tinned brass	25-150	25-95	0.174	20

# LV NETWORK CONNECTOR

## Network insulation piercing connector for bare conductor



K472



K257

### APPLICATION

This connector is designed to connect a low voltage A.B.C. (Aerial Bundled Conductors) network to another low voltage aluminium alloy or copper bare conductors network.

The section of the bare conductors is from 7 up to 240mm<sup>2</sup> depending on the model.

The section of the insulated cables is from 25 up to 150mm<sup>2</sup> depending on the model.

### DESCRIPTION

#### Connector general features:

- Tightening screw is potential free.
- Tightening efficiency is ensured by a shear head screw.
- Installation is performed using a 13/17mm hexagonal wrench.
- Connection on the tap conductor is established using insulation piercing technology.
- Connectors K472, K473, K474 and K475 are fitted with a yellow shear head indicator that disappears when head is sheared-off, being a clear visual confirmation of good tightening from ground level. It increases head height by 10 mm.

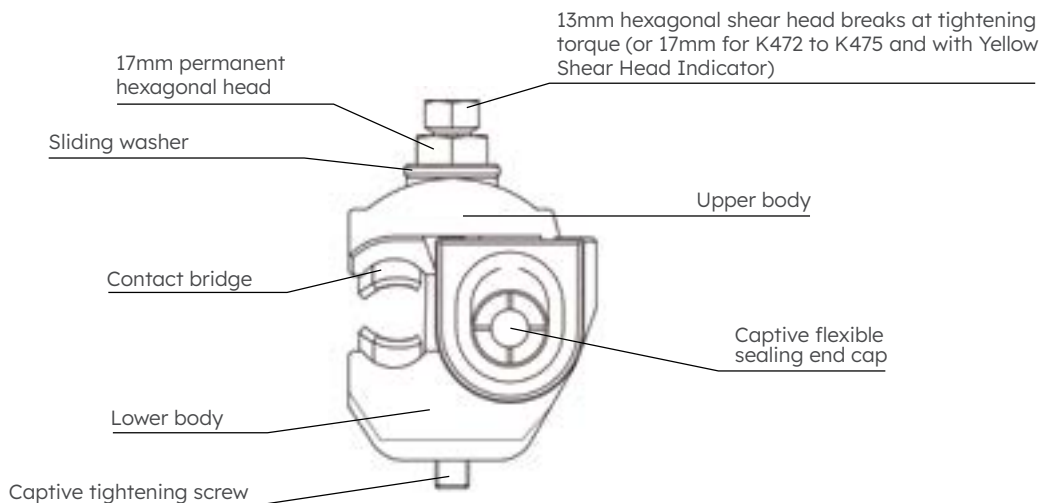
This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

#### Connector end cap:

- Connector end cap is flexible so that to feel good tap conductor insertion simply by hand.
- It is carrying membranes instead of grease, granting watertightness around tap conductor end on long term basis.
- It is glued on connector body so that to avoid eventual loss during handling, installation and environment (wind, bad weather...).
- It can be equipped with a hard end cap, gripping and covering so, in case rigid cover is required. (Part Number K245: please enquire for further information).

### INSTALLATION

- Insert the insulated tap conductor into the connector so that its end seats in the flexible end cap.
- Use a 13mm wrench for K254 - K257 or 17mm for K472 up to K475 and tighten the connector on the bare main conductor until the shear head breaks.
- The 17mm permanent head is only provided for possible dismantling, and must not be used to re-tighten the screw after the first head has broken.
- Installation can be carried out on a live line but with no load on the tap conductor.



## REFERENCES

Code	Designation	Contact bridge	Capacities Main bare (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
<b>K254</b>	CONNECTOR CDRSP/CN 120-70 ZF	Tinned brass	Al-Cu 7-120	25-70	0.210	20
<b>K257</b>	CONNECTOR CDRSP/CN 120-150 ZF	Tinned brass	Al-Cu 7-120	25-150	0.410	10
<b>STAINLESS STEEL FASTENERS (SF) + YELLOW SHEAR HEAD INDICATOR</b>						
<b>K472</b>	CONNECTOR RDP/CNU 120-95 SF	Copper alloy	Cu 7-120	25-95	0.270	20
<b>K473</b>	CONNECTOR RDP/CNA 120-95 SF	Aluminium alloy	Al 7-120	25-95	0.230	20
<b>K474</b>	CONNECTOR RDP/CNU 240-150 SF	Copper alloy	Cu 50-240	35-150	0.640	8
<b>K475</b>	CONNECTOR RDP/CNA 240-150 SF	Aluminium alloy	Al 50-240	35-150	0.550	8

These connectors can be connected to copper or aluminium alloy bare conductors.

## Parallel groove clamp

### APPLICATION

These parallel groove clamps is designed to connect a bare aluminium or copper conductor with another bare one.

They are adapted to outside use.

### DESCRIPTION

- The parallel groove clamp comprise an upper and a lower aluminum body. The two parts are held together by 2 corrosion-resistant clamping screws.
- The 2 clamping screws ensure optimum connection.
- The jaw has been designed to match the shape of the cables.
- The U559 series is tin-plated, enabling bare aluminium/copper lines to be connected together..



## REFERENCES

Code	Designation	Main capacities (mm <sup>2</sup> )	Tap capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>BARE ALUMINIUM</b>					
<b>U558-50</b>	PARALLEL GROOVE CLAMP BARE AL 50	Al 6-50	Al 6-50	0.100	100
<b>U558-90</b>	PARALLEL GROOVE CLAMP BARE AL 95	Al 10-95	Al 10-95	0.130	100
<b>U558-150</b>	PARALLEL GROOVE CLAMP BARE AL 150	Al 25-150	Al 25-150	0.210	50
<b>U558-240</b>	PARALLEL GROOVE CLAMP BARE AL 240	Al 35-240	Al 35-240	0.300	25
<b>NU ALUMINIUM / CUIVRE</b>					
<b>U559-70/50</b>	PARALLEL GROOVE CLAMP BARE AL/CU 70/50	Al 16-70	Cu 6-50	0.114	20
<b>U559-150/50</b>	PARALLEL GROOVE CLAMP BARE Al/Cu 150/50	Al 25-150	Cu 10-50	0.200	50
<b>U559-240/185</b>	PARALLEL GROOVE CLAMP BARE Al/Cu 240/185	Al 35-240	Cu 16-185	0.300	10

Note : Shear head available on request. Please require.

# LV NETWORK CONNECTOR

## Network insulation piercing connector with dismountable tap contact

### APPLICATION

This connector is designed to connect a low voltage A.B.C. (Aerial Bundled Conductors) network to another network of the same type or to a low voltage aluminium alloy or copper bare conductor network.

On main line, section of the insulated conductors is from 25 up to 150mm<sup>2</sup> depending on the model, and is from 7 to 120mm<sup>2</sup> on bare conductors.

On tap line, section of the insulated conductors is from up 25 to 150mm depending on the model.

On A.B.C.



K342



K343

On bare conductor



K376 - K378



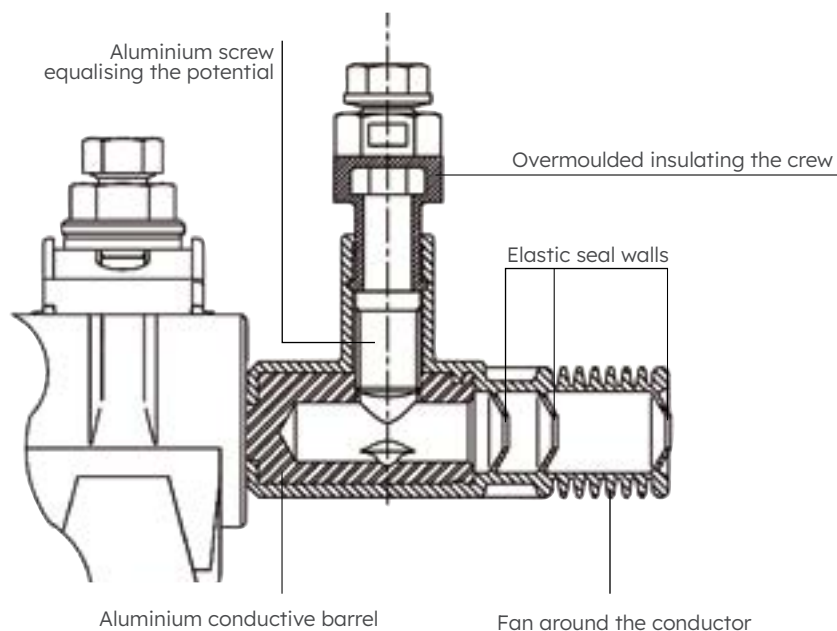
K377 - K379

### DESCRIPTION

- The dielectric strength in water is greater than 6kV.
- All of the tightening screws are potential free.
- Tightening efficiency is ensured by shear head screw.
- Installation is performed using a 13/17mm hexagonal wrench.
- Connection on the main conductor is established with 1 or 2 shear head screws, depending on the model. This connection can be dismantled but not reused.
- Connection on the tap conductor is established after stripping its end with 1 or 2 shear head screw(s), depending on the model. It can be disconnected and reconnected..

This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

## Details of the tap contact :



## INSTALLATION

- Place the connector on the main conductor and tighten using a 13mm wrench until the shear head breaks.
- The 17mm permanent screw head is only provided for possible dismantling, and must not be used to re-tighten the screw after the 13mm head has broken.
- Strip the tap conductor over the recommended length, insert it fully into the barrel after brushing it with neutral grease.
- Tighten using a 13mm spanner until the shear head breaks (double screw on K377, K379 and K343).
- If disconnecting and reconnecting the tap, tighten the screw(s) using a 17mm spanner to the torque indicated on the head: 15Nm.
- Installation can be carried out on a live line but the load on the tap conductor must not exceed 60A.

## REFERENCES

Code	Designation	Contact bridge	Capacities Main Al/Cu (mm <sup>2</sup> )	Capacities Tap Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ON A.B.C. INSULATED ZINC-PLATED STEEL FASTENERS (ZF)</b>						
K342	CONNECTOR CDR/CT 2S 150-70 ZF	Tinned brass	25-150	25-70	0.260	10
K343	CONNECTOR CDR/CT 2S 150-150 ZF	Tinned brass	35-150	35-150	0.520	10
<b>ON BARE CONDUCTOR ZINC-PLATED STEEL FASTENERS (ZF)</b>						
K376	CONNECTOR CDR/CNA 2S 70 ZF	Tinned brass	7-120	25-70	0.280	10
K377	CONNECTOR CDR/CNA 2S 150 ZF	Tinned brass	7-120	35-150	0.530	10
K378	CONNECTOR CDR/CNU 2S 70 ZF	Tinned brass	7-120	25-70	0.280	10
K379	CONNECTOR CDR/CNU 2S 150 ZF	Tinned brass	7-120	35-150	0.530	10

# LV STREET LIGHT CONNECTION

## Street light insulation piercing connector



K440



K439



K326

### APPLICATION

This connector is designed to connect the street light insulated conductors to the low voltage A.B.C. (Aerial Bundled Conductors).

### DESCRIPTION

- Insulation piercing is carried out on the main and tap conductors simultaneously in a single tightening operation.
- Dielectric strength in water is greater than 6kV.
- Tightening screw is potential free.
- Tightening efficiency is ensured by a shear head screw.
- Installation is performed using a 13/17mm hexagonal wrench
- Connector end cap is flexible so that to feel good tap conductor insertion simply by hand. It is glued on connector body or interdependent on watertightness, so that to avoid eventual loss during handling, installation and environment (wind, bad weather...).
- Connector K440 is fitted with a yellow shear head indicator that disappears when head is sheared-off, being a clear visual confirmation of good tightening from ground level. It increases head height by 10 mm.

This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.

### REFERENCES

Code	Designation	Contact bridge	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>						
K326	CONNECTOR CES/CT 70 ZF	Tinned brass	16-70	1.5-6	0.070	12
K439	CONNECTOR CES/CT 95 ZF	Tinned brass	10-95	1.5-6	0.060	50
<b>STAINLESS STEEL FASTENERS (SF) + YELLOW SHEAR HEAD INDICATOR</b>						
K440	CONNECTOR CES/CT 95 SF	Tinned brass	10-95	1.5-6	0.110	120

## Street light set

### APPLICATION

This street light set is designed to interconnect a network with a street light installation inside a street light pole.



K416

## DESCRIPTION

- This set comprises:
  - 4 mechanical sleeves,
  - 1 protective cover.
- The mechanical sleeves are made of brass and accept up to 3 conductors of 10mm<sup>2</sup>. The conductor(s) must be stripped over 17mm before installation. Tightening is ensured by two 4mm hollow hexagonal screws. Each sleeve is covered with a hard transparent synthetic material enclosure providing good protection during and after installation. The sleeves have an IP2X protection degree.
- The protective cover is made of impermeable synthetic materials. It is equipped with a watertight inlet seal on the upper part avoiding water penetration on the connector, and a cable tie on the lower part enabling the enclosure to perfectly fit network cables.

## INSTALLATION

- 1 - Insert the cable from the street light pole through the seal entrance.
- 2 - Slide the enclosure upwards.
- 3 - Implement the connectors.
- 4 - Slide the enclosure down over the connectors.
- 5 - Tighten the cable tie around the network cables.



Lighting column

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
K416	STREET LIGHT SET	0.350	20

# Cold shrink end cap

## APPLICATION

This end cap is designed to ensure street light conductor insulation when fitted at its end.

It is mainly used on the bottom of street light pole.



P414

## DESCRIPTION

- The end cap is implemented without flame thanks to cold shrink technology.
- Depending on the model, it is made of an end cap with 2 up to 5 movable guides enabling for correct conductors insertion.
- The material used is designed to ensure good UV resistance.
- Conductor capacity is 6-16mm<sup>2</sup> according to the **NF C 32-321** standard.

This end cap meets the criteria of the **HN 68-S-24** standard.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
BC001	STREET LIGHT END CAP EE2TF 6-16	0.012	10
P415	STREET LIGHT END CAP EE3TF 6-16	0.012	10
P414	STREET LIGHT END CAP EE4TF 6-16	0.012	10
P419	STREET LIGHT END CAP EE5TF 6-16	0.012	10

# LV JUNCTION

## Service cable dismantlable sleeve and connection box

### Service cable dismantlable sleeve

#### APPLICATION

This service cable dismantlable sleeve is designed to establish the connection between the aerial service cable to the customer cable with Al or Cu conductors.

This sleeve is used in no mechanical load situation.



K091



K092

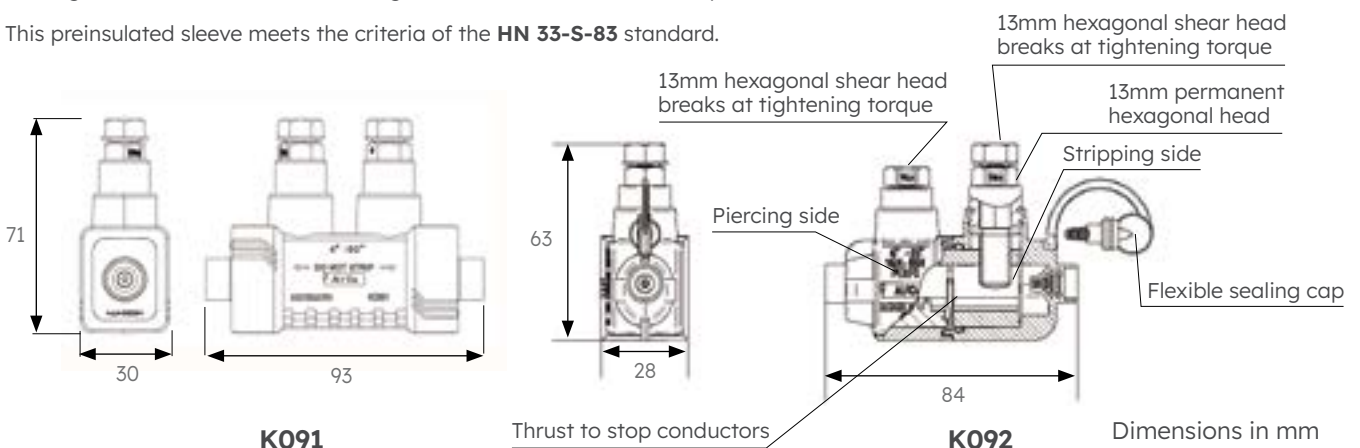


K096

#### DESCRIPTION

- Sleeves K092 and K096 use the insulation piercing technology on the leading-in side (SUPPLY) and the stripping technology on the leading-out side (CUSTOMER).
- Sleeve K091 uses the insulation piercing technology on both sides.
- Installation is performed using a 13/17mm hexagonal wrench.
- Dielectric strength in water is greater than 6kV.
- Flexible seal cap maintains the watertightness and insulation level on the stripping terminal in "disconnected" position for K092 and K096.
- Capacity of the terminals is 6-35mm<sup>2</sup>/16M-50M on the leading-in side (SUPPLY) and 4-35mm<sup>2</sup>/16M-50M on the leading-out side (CUSTOMER) depending on the models for K092 and K096.
- Capacity of terminals is 4-50mm<sup>2</sup> on both sides for K091.
- Installation of stripping terminals can be performed under a maximum load of 90A. Disconnection can be performed on a live line but with no load.
- Sleeves K092 and K096 can be assembled in a MCB (Mains Connection Box).
- Permanent hexagonal screw head on the "leading-in" side (SUPPLY), for the K096, allows possible dismantling. The permanent hexagonal screw head on the "leading-out" side (CUSTOMER) allows possible reuse on both K092 + K096.

This preinsulated sleeve meets the criteria of the **HN 33-S-83** standard.



K091

K092

Dimensions in mm

## REFERENCES

Code	Designation	Capacities Leading-in (mm <sup>2</sup> )	Capacities Leading-out (mm <sup>2</sup> )	Weight (kg)	Sales unit
K091	DISMOUNTABLE SLEEVE PIERCING 4-50 / PIERCING 4-50	4-50	4-50	0.090	10
K092	DISMOUNTABLE SLEEVE PIERCING 6-50M / STRIPPING 6-50M	6-35mm <sup>2</sup> 16M-50M	6-35mm <sup>2</sup> 16M-50M	0.100	10
K096	DISMOUNTABLE SLEEVE PIERCING 6-35 / STRIPPING 4-35	6-35	4-35	0.090	10

M means that the core of the conductor is solid.

## Mains Connection Box for dismantlable sleeves (MCB for HSC)

### APPLICATION

This Mains Connection Box (MCB) is installed on the façade of the customer building. It includes service cable dismantlable sleeves (HSCs / House Service Connectors type K096) to connect the aerial service cable to the customer premise.



K451

K455

### DESCRIPTION

- Box equipped with service cable dismantlable sleeves is available in single phase or three phase versions.
- Service cable dismantlable sleeves accept cable sections between 6 and 35mm<sup>2</sup> on the "leading-in" side (SUPPLY) and between 4 and 35mm<sup>2</sup> on the "leading-out" side (CUSTOMER).

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
K451	SINGLE PHASE MCB + 2 K096	0.380	1
K455	THREE PHASE MCB + 4 K096	0.650	1

### Variant: House service connector 4 bolts

This House Service Connector (HSC) with 4 bolts is designed to connect the overhead service line to the electrical installation of the premise. It receives aluminium/copper leading-in and copper leading-out cables, running through two separated chambers. It is installed outside or can be fitted in a no mechanical load situation into a MCB (Main Connection Box).

- + Safe neutral connection



Customer side

Network side

K099

Code	Designation	Network side (mm <sup>2</sup> )	Customer side (mm <sup>2</sup> )	Weight (kg)	Sales unit
K099	HSC PIERCING 6-35 / STRIPPING 4-35 / 4 BOLTS	6-35	4-35	0.235	5

# LV JUNCTION

## Network preinsulated sleeve with mechanical tightening

### APPLICATION

This sleeve is designed to connect aluminium or copper conductors and is mainly use in underground to overhead transition..

It does not need the sectoral cores to be rounded before. It is used without mechanical traction with a 13 or 17 mm hexagonal wrench.



Type 300  
K569



Type 240  
K191, K192, K193



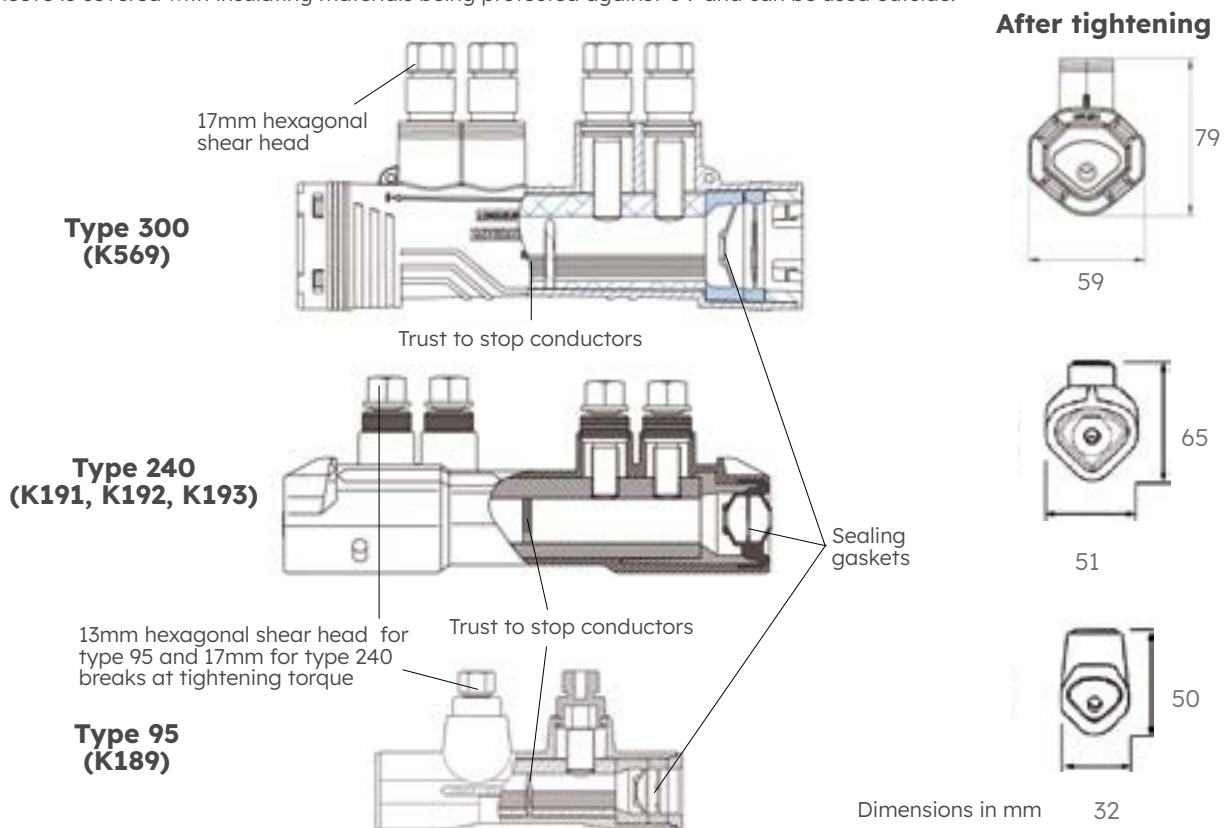
Type 185  
K573



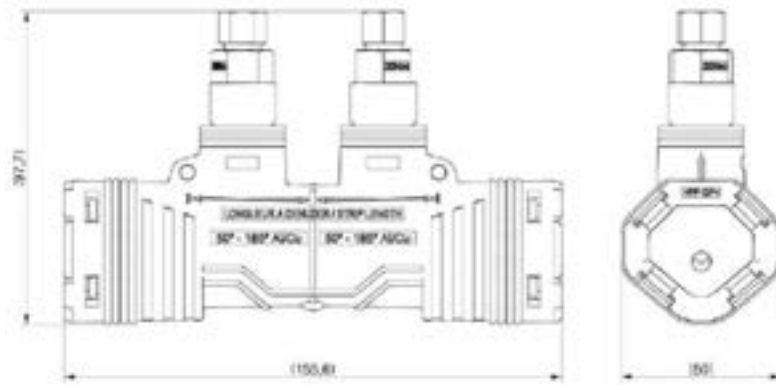
Type 95  
K189

### DESCRIPTION

- Dielectric strength in water is greater than 6kV.
- Seal provides a watertight seal at the inlet and outlet of the conductors.
- Sleeve is fitted after stripping the conductor (stripping length indicated on the side).
- Conductor is connected by one or two insulated shear head screws, ensuring optimum tightening.
- Installation is performed using a 13/17mm hexagonal wrench.
- Sleeve is covered with insulating materials being protected against UV and can be used outside.

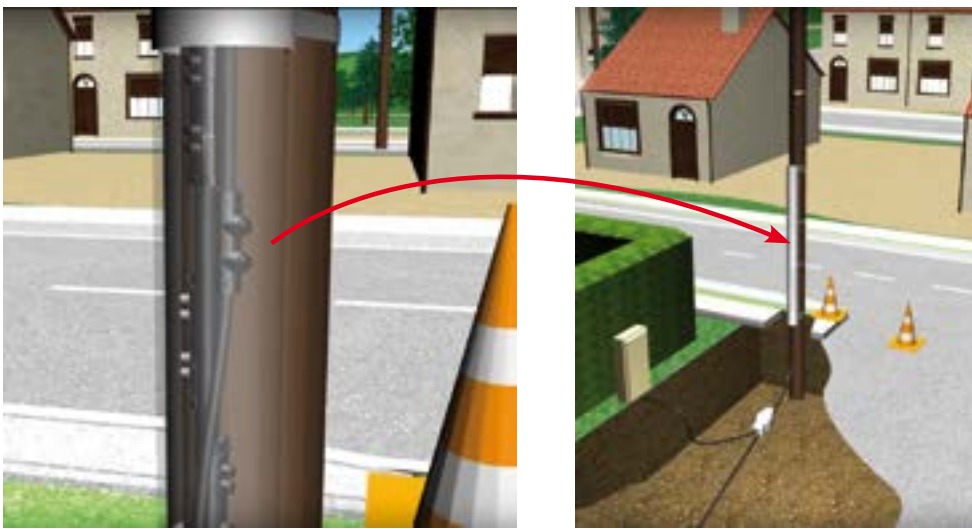


## Type 185 (K573)



Dimensions in mm

## INSTALLATION



## REFERENCES

Code	Designation	Cable insulated Al/Cu (mm <sup>2</sup> ) Leading-in	Cable insulated Al/Cu (mm <sup>2</sup> ) Leading-out	Weight (kg)	Sales unit
K573	MECHANICAL SUBSURFACE PREINSULATED SLEEVE 50-185	Round/Sectoral 50-185	Round/Sectoral 50-185	0.235	4
K569	MECHANICAL SUBSURFACE PREINSULATED SLEEVE 150-300	Round/Sectoral 150 - 300	Round/Sectoral 150 - 300	0.545	4
K191	MECHANICAL SUBSURFACE PREINSULATED SLEEVE SECTORAL 95-240	Sectoral 95-240	Sectoral 95-240	0.520	4
K192	MECHANICAL SUBSURFACE PREINSULATED SLEEVE ROUND 150 / SECTORAL 240	Round 50-150	Sectoral 95-240	0.520	32
K193	MECHANICAL PREINSULATED SLEEVE ROUND 50-150	Round 50-150	Round 50-150	0.520	4
K189	MECHANICAL PREINSULATED SLEEVE 25-95	Round/Sectoral 25-95	Round/Sectoral 25-95	0.160	3

# LV JUNCTION

## Preinsulated sleeve E140, E173, E215



**E140**  
**K039**



**E173 - Phase MJPT sleeve**  
**K110**



**E173 - Neutral MJPT sleeve**  
**K116**



**E215 - Phase MJPT sleeve**  
**K175**



**E215 - Neutral MJPT sleeve**  
**K185**

### APPLICATION

This preinsulated compression sleeve is designed to join insulated overhead conductors, for service or networks connection.

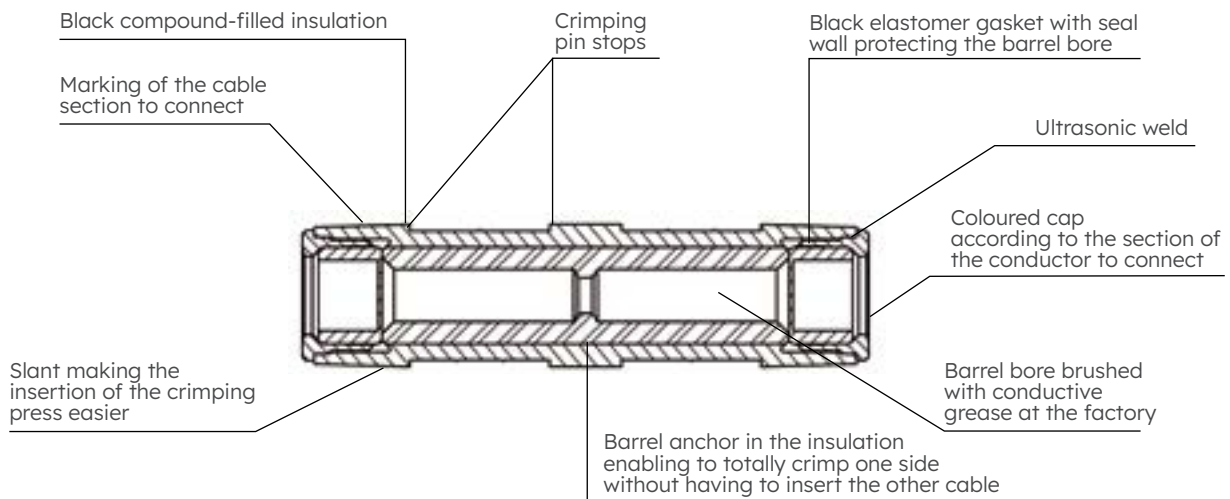
This solution enables the stranded aluminium or copper cores to be supported, with or without mechanical traction, as part of repairs or modifications to the electrical network.

The junction can be established between two conductors of equal or unequal cross-sections, all combinations of sections are possible.

### DESCRIPTION

- Sleeve can be used in mechanical traction.
- Dielectric strength in water is greater than 6kV.
- Materials are protected against UV.

This preinsulated sleeve meets the criteria of the **NF C 33-021** and **EN 50-483** standards.



### INSTALLATION

#### Preparation of the conductors to be connected:

- Cut the cables using a device that does not scratch the core.
- Strip the conductors over a length of 23mm.
- Brush the conductors to be connected using neutral grease to remove the oxide film. Do not wipe the conductors cleaned in this way.
- Insert the conductors fully into the sleeve bores.

#### Crimping:

- Both conductors do not need to be inserted before crimping. You can insert one, crimp it, insert the second one and crimp it.

## REFERENCES

Code	Designation	Leading-in cable section (mm <sup>2</sup> )	Leading-in colour	Leading-out cable section (mm <sup>2</sup> )	Leading-out colour	Weight (kg)	Sales unit
<b>E140</b>							
K030	PREINSULATED SLEEVE (E140) MJPB 6	6	Brown	6	Brown	0.030	10
K031	PREINSULATED SLEEVE (E140) MJPB 10-6	10	Green	6	Brown	0.030	10
K032	PREINSULATED SLEEVE (E140) MJPB 16-6	16	Blue	6	Brown	0.030	10
K033	PREINSULATED SLEEVE (E140) MJPB 25-6	25	Orange	6	Brown	0.030	10
K035	PREINSULATED SLEEVE (E140) MJPB 10	10	Green	10	Green	0.030	10
K036	PREINSULATED SLEEVE (E140) MJPB 16-10	16	Blue	10	Green	0.030	10
K037	PREINSULATED SLEEVE (E140) MJPB 25-10	25	Orange	10	Green	0.030	10
K039	PREINSULATED SLEEVE (E140) MJPB 16	16	Blue	16	Blue	0.030	10
K040	PREINSULATED SLEEVE (E140) MJPB 25-16	25	Orange	16	Blue	0.030	10
K053	PREINSULATED SLEEVE (E140) MJPB 35-16	35	Red	16	Blue	0.020	10
K042	PREINSULATED SLEEVE (E140) MJPB 25	25	Orange	25	Orange	0.020	10
K054	PREINSULATED SLEEVE (E140) MJPB 35-25	35	Red	25	Orange	0.020	10
K055	PREINSULATED SLEEVE (E140) MJPB 35	35	Red	35	Red	0.020	10
<b>E173</b>							
<b>Phase sleeves</b>							
K101	PREINSULATED SLEEVE (E173) MJPT 16	16	Blue	16	Blue	0.060	10
K103	PREINSULATED SLEEVE (E173) MJPT 25	25	Orange	25	Orange	0.060	10
K106	PREINSULATED SLEEVE (E173) MJPT 35	35	Red	35	Red	0.060	10
K108	PREINSULATED SLEEVE (E173) MJPT 50-25	50	Yellow	25	Orange	0.060	10
K109	PREINSULATED SLEEVE (E173) MJPT 50-35	50	Yellow	35	Red	0.060	10
K110	PREINSULATED SLEEVE (E173) MJPT 50	50	Yellow	50	Yellow	0.055	10
K114	PREINSULATED SLEEVE (E173) MJPT 54-50	54	Black	50	Yellow	0.040	10
K118	PREINSULATED SLEEVE (E173) MJPT 70-35	70	White	35	Red	0.050	10
K119	PREINSULATED SLEEVE (E173) MJPT 70-50	70	White	50	Yellow	0.050	10
K121	PREINSULATED SLEEVE (E173) MJPT 70	70	White	70	White	0.050	10
K122	PREINSULATED SLEEVE (E173) MJPT 95-70	95	Grey	70	White	0.050	10
K123	PREINSULATED SLEEVE (E173) MJPT 95	95	Grey	95	Grey	0.050	10
<b>Neutral sleeves (full traction)</b>							
K115	PREINSULATED SLEEVE (E173) NEUTRAL MJPT 54	54.6 N	Black	54.6 N	Black	0.080	10
K117	PREINSULATED SLEEVE (E173) NEUTRAL MJPT 70-54	70 N	White	54.6 N	Black	0.080	10
K116	PREINSULATED SLEEVE (E173) NEUTRAL MJPT 70	70 N	White	70 N	White	0.080	10
<b>E215</b>							
<b>Phase sleeves</b>							
K170	PREINSULATED SLEEVE (E215) MJPT 95	95	Grey	95	Grey	0.100	10
K188	PREINSULATED SLEEVE (E215) MJPT 120	120	Pink	120	Pink	0.090	10
K174	PREINSULATED SLEEVE (E215) MJPT 150-70	150	Purple	70	Ivory	0.100	10
K175	PREINSULATED SLEEVE (E215) MJPT 150	150	Purple	150	Purple	0.085	10
K176	PREINSULATED SLEEVE (E215) MJPT 150-95	150	Purple	95	Grey	0.090	10
<b>Neutral sleeves (full traction)</b>							
K185	PREINSULATED SLEEVE (E215) NEUTRAL MJPT 150 FT	150	Purple	150	Purple	0.100	10

### Variant: Sleeves set

Code	Designation	A.B.C. to connect	Weight (kg)	Sales unit
<b>3 phase sleeves (E173) + 1 neutral sleeve (E173)</b>				
K503	SET OF SLEEVES (E173) EJPT 35-54.6	3x35 + 54,6N on 3x35 + 54,6N	0.265	1
K504	SET OF SLEEVES (E173) EJPT 50-54.6	3x50 + 54,6N on 3x50 + 54,6N	0.260	1
K506	SET OF SLEEVES (E173) EJPT 70-35-54.6	3x70 + 54,6N on 3x35 + 54,6N	0.250	1
K505	SET OF SLEEVES (E173) EJPT 70-54.6	3x70 + 54,6N on 3x70 + 54,6N	0.240	1
K507	SET OF SLEEVES (E173) EJPT 70-50/54.6	3x70 + 54,6N on 3x50 + 54,6N	0.250	1
K700	SET OF SLEEVES (E173) EJPT 70/70-54.6	3x70 + 70N on 3x70 + 54,6N	0.240	1
K701	SET OF SLEEVES (E173) EJPT 70-70	3x70 + 70N on 3x70 + 70N	0.240	1
K699	SET OF SLEEVES (E173) EJPT 70-50/70-54.6	3x70 + 70N on 3x50 + 54,6N	0.255	1
<b>3 phase sleeves (E215) + 1 neutral sleeve (E173)</b>				
K509	SET OF SLEEVES (E215) EJPT 150-70/70-54.6	3x150 + 70N on 3x70 + 54,6N	0.380	1
K702	SET OF SLEEVES (E215) EJPT 150-70/70-70	3x150 + 70N on 3x70 + 70N	0.380	1
K510	SET OF SLEEVES (E215) EJPT 150-70/150-70	3x150 + 70N on 3x150 + 70N	0.350	1

# LV JUNCTION

## Preinsulated sleeve for aerial sub-surface connection E140

### APPLICATION

This preinsulated compression sleeve is designed to join stranded core aerial service cables (aluminium or copper) to aluminium solid core sub-surface service cables.

It is also used to connect aluminium solid core service cables to one another.

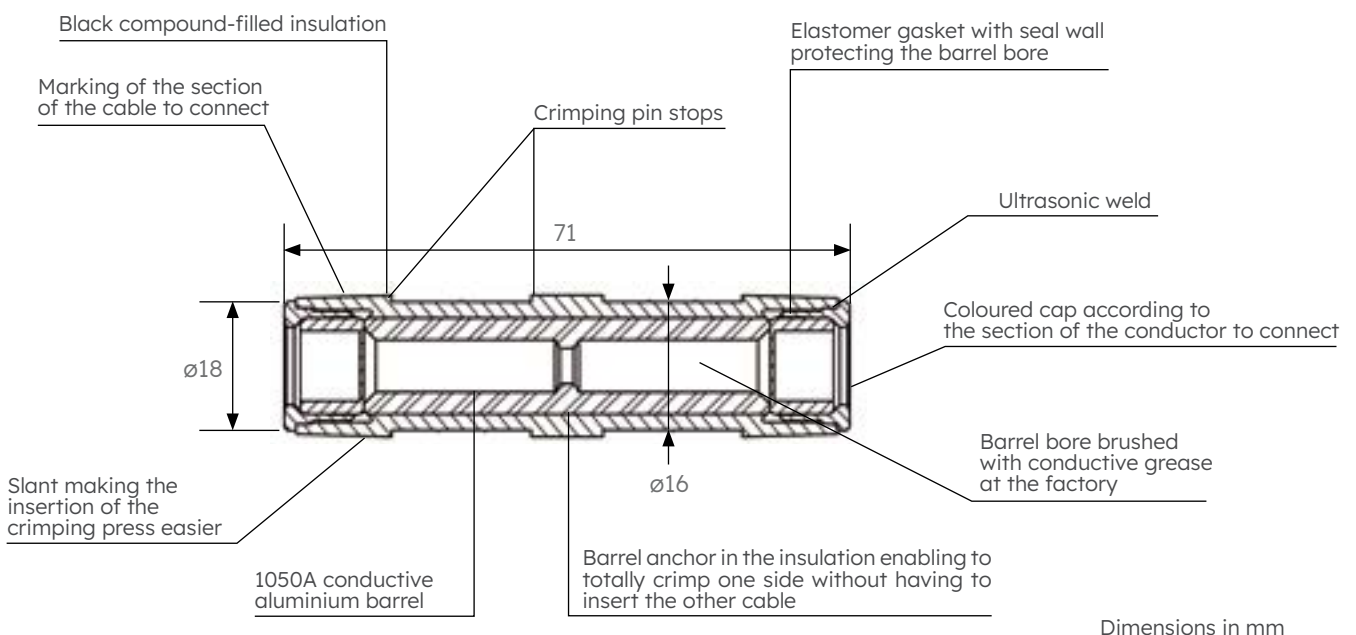
Cable sections up to 25mm<sup>2</sup> can be connected on the stranded core side and up to 35mm<sup>2</sup> on the solid core side.



### DESCRIPTION

- Sleeve can be used in mechanical traction.
- Sleeve has got an excellent dielectric strength, greater than 6kV.
- Materials are protected against UV.

This preinsulated sleeve meets the criteria of the **NF C 33-021** and **EN 50-483** standards.



## REFERENCES

Code	Designation	Aerial cable insulated Al-Cu section (mm <sup>2</sup> )	Aerial color	Subsurface cable insulated Al (mm <sup>2</sup> )	Cap colour	Gasket colour	Weight (kg)	Sales unit
<b>AERIAL SUB-SURFACE SLEEVES (Connection of a stranded core cable with a solid core cable)</b>								
K068	PREINSULATED SLEEVE (E140) MJPBAS 10-25M	10	Green	25M	Grey	Orange	0.030	10
K069	PREINSULATED SLEEVE (E140) MJPBAS 10-35M	10	Green	35M	Grey	Red	0.030	10
K064	PREINSULATED SLEEVE (E140) MJPBAS 16-4M	16	Blue	4M	Grey	Black	0.030	10
K065	PREINSULATED SLEEVE (E140) MJPBAS 16-6M	16	Blue	6M	Grey	Black	0.030	10
K070	PREINSULATED SLEEVE (E140) MJPBAS 16-16M	16	Blue	16M	Grey	Blue	0.030	10
K078	PREINSULATED SLEEVE (E140) MJPBAS 16-25M	16	Blue	25M	Grey	Orange	0.030	10
K079	PREINSULATED SLEEVE (E140) MJPBAS 16-35M	16	Blue	35M	Grey	Red	0.030	10
K072	PREINSULATED SLEEVE (E140) MJPBAS 25-16M	25	Orange	16M	Grey	Blue	0.030	10
K074	PREINSULATED SLEEVE (E140) MJPBAS 25-25M	25	Orange	25M	Grey	Orange	0.030	10
K076	PREINSULATED SLEEVE (E140) MJPBAS 25-35M	25	Orange	35M	Grey	Red	0.030	10

M means that the core of the conductor is solid.

Code	Designation	Leading-in cable section insulated Al (mm <sup>2</sup> )	Leading-out cable section insulated Al (mm <sup>2</sup> )	Cap colour	Gasket colour	Weight (kg)	Sales unit
<b>SUB-SURFACE SLEEVES (Connection of two solid core cables to one another)</b>							
K085	PREINSULATED SLEEVE (E140) MJPBS 16M-35M	16M	35M	Grey	Blue / Red	0.030	10
K073	PREINSULATED SLEEVE (E140) MJPBS 25M-25M	25M	25M	Grey	Orange / Orange	0.030	10
K086	PREINSULATED SLEEVE (E140) MJPBS 25M-35M	25M	35M	Grey	Orange / Red	0.030	10
K075	PREINSULATED SLEEVE (E140) MJPBS 35M-35M	35M	35M	Grey	Red / Red	0.030	10

M means that the core of the conductor is solid.

### Variants :

Sleeve for neutral screen underground service cables (HM-27/03/139).  
It has a purple coloured cap on the copper side (21mm<sup>2</sup>).

Code	Designation	Weight (kg)	Sales unit
<b>AERIAL/SUB-SURFACE SLEEVES</b>			
K081	PREINSULATED SLEEVE (E140) MJPBAS 25-21CU	0.030	10
<b>SUB-SURFACE SLEEVES</b>			
K083	PREINSULATED SLEEVE (E140) MJPBS 25M-21CU	0.030	10

M means that the core of the conductor is solid.

# LV ENDING FITTING

## Preinsulated lug with mechanical tightening



**K575**



**K576**

### APPLICATION

This preinsulated lugs with mechanical tightening is designed to connect aerial aluminum or copper conductors, solid or stranded round core, to copper equipment terminals.

It can be used without mechanical load using a 13 or 17 mm hexagonal wrench.

It is made of tinned copper which allows compatibility to copper and aluminium.

The connection of the conductor is ensured by one or two shear head screws, for optimal tightening.

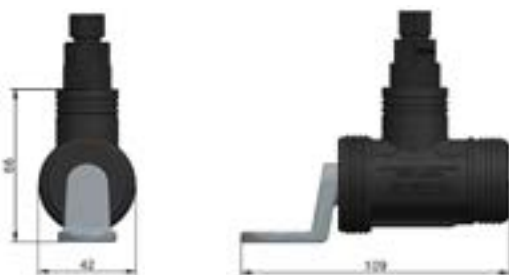


**MICHAUD Exclusivity**

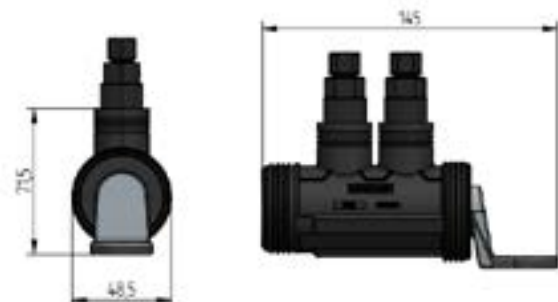
### DESCRIPTION

- Barrel is made of tinned copper covered with insulation materials
- Palm is made of tinned copper with a M12 drilled hole at the end.
- Plot for the aerial conductor has got grooves to ensure a direct contact with the core.
- Joints are the end of the lug and around the screw(s). They enable optimal sealing.
- Neutral grease is present on each tightening screw.
- Seal provides a watertight seal at the conductor inlet.
- K575 lug has got one shear head screw. The K576 lug has got two shear head screws.
- Tightening screws have got H13 head for mounting and H17 head for dismantling.
- Lug can be implemented after removing the insulation of the conductor (stripped length advised on the body side).
- Lug allows a medium voltage cable type BLL / BLX connection.
- Version without dismantling head is available on request.

**K575**



**K576**



Dimensions in mm

### REFERENCES

Code	Designation	Capacities BLL/BLX (mm <sup>2</sup> )	Capacities Al/Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>K575</b>	PREINSULATED BIMETAL LUG WITH MECHANICAL TIGHTENING 25-95mm <sup>2</sup>	62-99	Round 25-95	0.220	12
<b>K576</b>	PREINSULATED BIMETAL LUG WITH MECHANICAL TIGHTENING 95-240mm <sup>2</sup>	99-157	Round 95-240	0.450	4

# Preinsulated CPTAU lug

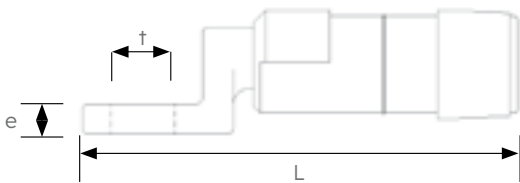
## APPLICATION

This preinsulated compression lug is designed to connect low voltage overhead insulated conductors to copper equipment terminals. It is used after stripping the conductor (stripping length indicated on the slug).

The cable sections range is 16 to 150mm<sup>2</sup> for the spin-welded terminal lug and 16 to 150mm<sup>2</sup> for the crimped lug.

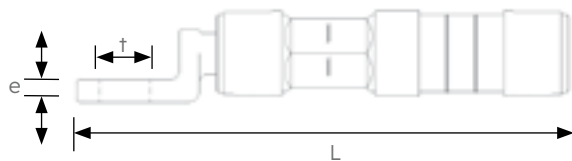
## DESCRIPTION

### Spin-wielded compression terminal lug



This preinsulated lug meets the criteria of the **NF C 33-021** and **EN 50-483** standards.

### Crimped compression terminal lug



This preinsulated lug meets the criteria of the **NF C 33-021** and **EN 50-483** standards.

Spin-welded terminal lug



Crimped terminal lug



## REFERENCES

Dimensions (mm)

Code	Designation	Insulated Al-Cu cable (mm <sup>2</sup> )	P	e	t	L	Weight (kg)	Sales unit
<b>SPIN-WELDED PREINSULATED LUG REQUIRING A E140 CRIMPING DIE</b>								
K159	Cu TERMINAL LUG (E140) CPTAU 16	16	20	5	10.3	72	0.040	10
K160	Cu TERMINAL LUG (E140) CPTAU 25	25	20	5	10.3	72	0.040	10
<b>SPIN-WELDED PREINSULATED LUG REQUIRING A E173 CRIMPING DIE</b>								
K163	Cu TERMINAL LUG (E173) CPTAU 35	35	25	5	12.8	92	0.070	10
K164	Cu TERMINAL LUG (E173) CPTAU 50	50	25	5	12.8	92	0.070	10
K165	Cu TERMINAL LUG (E173) CPTAU 54	54	25	5	12.8	92	0.070	10
K166	Cu TERMINAL LUG (E173) CPTAU 70	70	25	5	12.8	92	0.070	10
K167	Cu TERMINAL LUG (E173) CPTAU 95	95	25	5	12.8	92	0.070	10
<b>SPIN-WELDED PREINSULATED LUG REQUIRING A E215 CRIMPING DIE</b>								
K024	Cu TERMINAL LUG (E215) CPTAU 150	150	30	6	12.8	118	0.120	20
<b>CRIMPED PREINSULATED LUG REQUIRING A E140 CRIMPING DIE</b>								
K013	Cu CRIMPED TERMINAL LUG (E140) CPTAU 25	25	20	4.5	10.5	102	0.055	10
<b>CRIMPED PREINSULATED LUG REQUIRING A E173 CRIMPING DIE</b>								
K017	Cu CRIMPED TERMINAL LUG (E173) CPTAU 54	54	25	5	13	142	0.120	10
K018	Cu CRIMPED TERMINAL LUG (E173) CPTAU 70	70	25	5	13	142	0.110	10
<b>CRIMPED PREINSULATED LUG REQUIRING A E215 CRIMPING DIE</b>								
K023	Cu CRIMPED TERMINAL LUG (E215) CPTAU 150	150	30	6	13	186	0.220	10

# LV ENDING FITTING

## Bare lug

## Tubular lug



**U742**

### APPLICATION

This tubular lug is designed to connect cable. It is made of tinned plated copper (by electrolysis). It is manufactured with an inspection hole and socketing.

It is implemented through hexagonal compressed connection. It allows copper and aluminium conductors.

This lug meets the criteria of the **NF C 20-130** standard.

### REFERENCES

Code	Designation	Section (mm <sup>2</sup> )	Bore	Weight (kg)	Sales unit
<b>U740</b>	TUBULAR LUG 1,5 <sup>2</sup>	1.5	M2	0.0008	100
<b>U741</b>	TUBULAR LUG 2,5 <sup>2</sup>	2.5	M3, M4	0.001	100
<b>U742</b>	TUBULAR LUG 4 <sup>2</sup>	4	M4, M6, M8	0.002	100
<b>U743</b>	TUBULAR LUG 6 <sup>2</sup>	6	M4, M5, M6, M8	0.004	100
<b>U744</b>	TUBULAR LUG 10 <sup>2</sup>	10	M4, M6, M8, M10	0.007	100
<b>U745</b>	TUBULAR LUG 16 <sup>2</sup>	16	M5, M6, M8, M10, M12	0.008	100
<b>U746</b>	TUBULAR LUG 25 <sup>2</sup>	25	M6, M8, M10, M12, M14	0.014	100
<b>U747</b>	TUBULAR LUG 35 <sup>2</sup>	35	M6, M8, M10, M12	0.019	100
<b>U748</b>	TUBULAR LUG 50 <sup>2</sup>	50	M6, M8, M10, M12, M16	0.025	100
<b>U749</b>	TUBULAR LUG 70 <sup>2</sup>	70	M8, M10, M12, M16	0.039	100
<b>U750</b>	TUBULAR LUG 95 <sup>2</sup>	95	M8, M10, M12, M14, M16	0.050	50
<b>U751</b>	TUBULAR LUG 120 <sup>2</sup>	120	M8, M10, M12, M14, M16	0.067	50
<b>U752</b>	TUBULAR LUG 150 <sup>2</sup>	150	M10, M12, M14, M16	0.086	50
<b>U753</b>	TUBULAR LUG 185 <sup>2</sup>	185	M10, M12, M14, M16	0.109	50
<b>U754</b>	TUBULAR LUG 240 <sup>2</sup>	240	M10, M12, M14, M16	0.146	50
<b>U756</b>	TUBULAR LUG 400 <sup>2</sup>	400	M12, M14, M16	0.256	20

\*Weight may vary from bore to bore.

For other bores, please enquire.

### Desired bore :

Add the required bore to the reference.

Example with tubular lug model 35<sup>2</sup>, in bore M8: **U747-8**

# Spin-welded terminal lug for copper terminal

## APPLICATION

This friction welded lug is designed to connect aluminium bare conductors to copper equipment terminals. It is used for industrial or indoor applications.

It is implemented through hexagonal compressed connection and is used without mechanical load.

This lug meets the criteria of the **NF C 63-061** standard.



## REFERENCES

Dimensions (mm)

Code	Designation	Ø	D	d	L1	L	Weight (kg)	Sales unit
<b>F150</b>	35mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	10.5	16	8	30	69	0.050	3
<b>F151</b>	50mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	10.5	16	9	30	69	0.070	3
<b>F153</b>	70mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	10.5	20	11	30	69	0.080	3
<b>F156</b>	95mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	10.5	20	12.5	30	69	0.090	3
<b>F154</b>	150mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	12.8	27	15.5	36	81	0.110	3
<b>F155</b>	240mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	12.8	27	19.5	36	90	0.150	3

# Bimetallic lug

## APPLICATION

This Al/Cu lug is designed to connect aluminium bare conductors to copper equipment terminals.

It is implemented through deep crimping.



**U553\_400-17**

## REFERENCES

Dimensions (mm)

Code	Designation	ØA	ØB	ØC	ØD	L	L3	Weight (kg)	Sales unit
<b>U553_16-10</b>	BIMETAL LUG CAL 16mm <sup>2</sup> - DIAM 10 C0AU16	5.8	16	20	10.5	79	45.5	0.050	10
<b>U553_25-10</b>	BIMETAL LUG CAL 25mm <sup>2</sup> - DIAM 10 C0AU25	6.7			10.5			0.050	10
<b>U553_35-13</b>	BIMETAL LUG CAL 35mm <sup>2</sup> - DIAM 13 C0AU35	8.2			13			0.050	10
<b>U553_50-13</b>	BIMETAL LUG CAL 50mm <sup>2</sup> - DIAM 13 C1AU50	9.2	20	24	13	83.2	44.5	0.060	5
<b>U553_70-13*</b>	BIMETAL LUG CAL 70mm <sup>2</sup> - DIAM 13 C1AU70	11.2			13			0.080	5
<b>U553_95-13</b>	BIMETAL LUG CAL 95mm <sup>2</sup> - DIAM 13 C1AU95	12.7			13			0.100	5
<b>U553_120-13</b>	BIMETAL LUG CAL 120mm <sup>2</sup> - DIAM 13 C2AU120	13.9	25	30	13	107.6	60.8	0.120	5
<b>U553_150-13</b>	BIMETAL LUG CAL 150mm <sup>2</sup> - DIAM 13 C2AU150	15.7			13			0.155	5
<b>U553_185-13</b>	BIMETAL LUG CAL 185mm <sup>2</sup> - DIAM 13 C4AU185	17.5	32	35	13	116.1	59.7	0.200	5
<b>U553_240-13</b>	BIMETAL LUG CAL 240mm <sup>2</sup> - DIAM 13 C4AU240	19.7			13			0.250	5
<b>U553_300-17</b>	BIMETAL LUG CAL 300mm <sup>2</sup> - DIAM 17 C5AU300	23.5	40	36	17	154.3	94	0.350	4
<b>U553_400-17</b>	BIMETAL LUG CAL 400mm <sup>2</sup> - DIAM 17 C5AU400	26.5			17			0.420	4

\*Compatible with 54.6mm<sup>2</sup> conductors according to the **NF C 33-209** standard.

# LV ENDING FITTING

## Sealing end cap and cover

### Sealing end cap



K001



K003



K247

#### APPLICATION

This flexible end cap is designed to ensure insulation of the end of a conductor.

It can be used inside and outside.

#### DESCRIPTION

- Dielectric strength in water is greater than 6kV.
- Body is made of UV resistant black flexible synthetic material.

#### REFERENCES

Dimensions (mm)

Code	Designation	a	b	c	Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
K001	BLACK FLEXIBLE END CAP 10-50M	32	12	7	10-50M	0.003	20
U528	BLACK FLEXIBLE END CAP 16-95 (50 PIECES)	53.4	26.3	18	16-95	0.005	1
K002	BLACK FLEXIBLE END CAP 35-95	40	16	10.5	35-95	0.008	20
K003	BLACK FLEXIBLE END CAP 95-150	50	19	13	95-150	0.012	20
K247	BLACK FLEXIBLE END CAP 95-240	67.2	45	31	Round : 50-240 Sectoral : 95-240	0.027	6

## Heat-shrinkable material

### End

#### APPLICATION



This heat-shrinkable material is designed for low voltage applications in order to protect conductors and make them watertight.

It is characterised by its insulating performances and its high resistivity to pollution and UV.

It is retracted by blow torch heating.

#### DESCRIPTION

This heat-shrinkable end is fitted at the end of a single phase or multi-phase junction.

#### REFERENCES

Code	Designation	Section (mm <sup>2</sup> )	Number of conductors	Weight (kg)	Sales unit
F100	HEAT-SHRINKABLE END E2R 10-35	10 to 35	2	0.015	1
F101	HEAT-SHRINKABLE END E4R 10-35	10 to 35	4	0.035	20
F102	HEAT-SHRINKABLE END E4R 50-150	50 to 150	4	0.047	20
F103	HEAT-SHRINKABLE END E4R 240	240	4	0.095	20

\* Compatible with underground cables 240mm of NF C 33 210 standard.

## End cap

### DESCRIPTION

- CRB and CRR caps are designed for conductors only.
- CRC caps are designed for cables with many conductors.



### REFERENCES

Code	Designation	Section (mm <sup>2</sup> )	Use diameter (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>FOR CONDUCTORS ONLY</b>					
F110	HEAT-SHRINKABLE END CAP CRB 10-25	10 to 25	6 to 9	0.004	50
F111	HEAT-SHRINKABLE END CAP CRR 16-70	16 to 70	9 to 12	0.008	50
F112	HEAT-SHRINKABLE END CAP CRR 150	150	18 to 23	0.023	10
F116	HEAT-SHRINKABLE END CAP CRR 240	240	23 to 28	0.038	10
<b>FOR CABLES</b>					
F113	HEAT-SHRINKABLE END CAP CRC 16-27		15 to 30	0.024	10
F114	HEAT-SHRINKABLE END CAP CRC 26-48		25 to 45	0.045	10
F115	HEAT-SHRINKABLE END CAP CRC 46-80		32 to 65	0.065	10

## Sheath

### REFERENCES



Code	Designation	Diameter application (mm)	Section (mm <sup>2</sup> )*	Weight (kg)	Sales unit
<b>FOR CONDUCTORS</b>					
F124	HEAT-SHRINKABLE SHEATH GR 1,5-10 (10m)	2 - 6	1.5 - 10	0.190	20
F120	HEAT-SHRINKABLE SHEATH GR 10-35 (10m)	5 - 11	10 - 35	0.230	50
F119	HEAT-SHRINKABLE SHEATH GR 35-95 (10m)	6 - 16	16 - 95	0.591	1
F121	HEAT-SHRINKABLE SHEATH GR 50-150 (10m)	9 - 26.5	25 - 150	0.800	1
F122	HEAT-SHRINKABLE SHEATH GR 240 (10m)	14.5 - 32	70 - 240	1.170	50

\*The sections indicated correspond to NF standards. For other standards, please refer to the diameter of application.

## Sleeve

### REFERENCES



Code	Designation	Use diameter (mm)	Section (mm <sup>2</sup> )*	Length (mm)	Weight (kg)	Sales unit
F130	HEAT-SHRINKABLE SLEEVE FRM 16-100	7.5 - 17	25 - 120	100	0.100	10
F131	HEAT-SHRINKABLE SLEEVE FRM 25-100	10 - 25	35 - 150	100	0.100	10
F132	HEAT-SHRINKABLE SLEEVE FRM 25-200	10 - 25	35 - 150	200	0.200	10
F129	HEAT-SHRINKABLE SLEEVE FRM 30-150	10 - 25	35 - 150	150	0.250	10
F134	HEAT-SHRINKABLE SLEEVE FRM 30-250	10 - 25	35 - 150	200	0.300	10
F133	HEAT-SHRINKABLE SLEEVE FRM 30-200	10 - 26.5	35 - 185	250	0.350	10
F135	HEAT-SHRINKABLE SLEEVE FRM 35-150	15 - 30	95 - 240	150	0.250	10
F136	HEAT-SHRINKABLE SLEEVE FRM 35-250	15 - 30	95 - 240	250	0.400	10

\*The sections indicated correspond to NF standards. For other standards, please refer to the diameter of application.

# LV MECHANICAL FIXING

## Stainless steel strap



Synthetic material winder 20mm



Synthetic material winder 10mm

### APPLICATION

This stainless steel strap is designed to fix the suspension or anchoring clamp brackets on all types of poles (wooden, metal or concrete).

### DESCRIPTION

- Strap is made of stainless steel AISI 201, AISI 304 or AISI 430.
- Strap is delivered in synthetic, easy to handle.
- Strap edges are deburred.

This strap meets the criteria of the **NF EN 10088-2** standard.

Winder stainless steel strap

Dimensions	Length	ECO AISI 430	STANDARD AISI 201	PREMIUM AISI 304
10x0.4 - 3/8"	50m	K945	K930	K930-304
10x0.7 - 3/8"	25m	K944		
	30.5m (100ft)		L946	L946-304
	50m	K946	K931	K931-304
12,7x0.4 - 3/8"	50m		K938	K938-304
12,7x0.7 - 1/2"	30.5m (100ft)		L948	L948-304
16x0.4 - 5/8"	50m		K937	K937-304
16x0.7 - 5/8"	30.5m (100ft)		L947	L947-304
19x0.7 - 3/4"	30.5m (100ft)		L949	L949-304
20x0.4 - 3/4"	50m	K947	K932	K932-304
20x0.7 - 3/4"	25m	K935-430	K935	K935-304
	50m	K948	K933	K933-304

## REFERENCES

Code	Designation	Winder length (m)	AISI	Weight (kg)	Sales unit
<b>DIMENSIONS 10x0.4 - 3/8"</b>					
K930	50m WINDER STAINLESS STEEL STRAP 10x0.4mm - 3/8"	50	201	1.850	4
K930-304	50m WINDER STAINLESS STEEL STRAP 10x0.4mm - 3/8"	50	304	1.850	4
K945	50m WINDER STAINLESS STEEL STRAP EC 10x0.4mm - 3/8"	50	430	1.850	4
<b>DIMENSIONS 10x0.7 - 3/8"</b>					
K931	50m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8"	50	201	2.940	4
K946	50m WINDER STAINLESS STEEL STRAP EC 10x0.7mm - 3/8"	50	430	2.950	4
L946-304	30.5m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8"	30.5	304	2.100	4
K391-304	50m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8"	50	304	2.950	4
K944	25m WINDER STAINLESS STEEL STRAP EC 10x0.7mm - 3/8"	25	430	1.630	4
L946	30.5m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8"	30.5	201	2.100	4
<b>DIMENSIONS 12.7x0.4 - 1/2"</b>					
K938	50m WINDER STAINLESS STEEL STRAP 13x0.4mm - 1/2"	50	201	2.600	4
K938-304	50m WINDER STAINLESS STEEL STRAP 13x0.4mm - 1/2"	50	304	2.600	4
<b>DIMENSIONS 12.7x0.7 - 1/2"</b>					
L948	30.5m WINDER STAINLESS STEEL STRAP 12.7x0.7mm - 1/2"	30.5	201	2.600	4
L948-304	30.5m WINDER STAINLESS STEEL STRAP 12.7x0.7mm - 1/2"	30.5	304	2.600	4
<b>DIMENSIONS 16x0.4 - 5/8"</b>					
K937	50m WINDER STAINLESS STEEL STRAP 16x0.4mm - 5/8"	50	201	2.760	4
K937-304	50m WINDER STAINLESS STEEL STRAP 16x0.4mm - 5/8"	50	304	2.760	4
<b>DIMENSIONS 16x0.7 - 5/8"</b>					
L947	30.5m WINDER STAINLESS STEEL STRAP 16x0.7mm - 5/8"	30.5	201	3.200	4
L947-304	30.5m WINDER STAINLESS STEEL STRAP 16x0.7mm - 5/8"	30.5	304	3.400	4
<b>DIMENSIONS 19x0.7 - 3/4"</b>					
L949	30.5m WINDER STAINLESS STEEL STRAP 19x0.7mm - 3/4"	30.5	201	3.600	4
L949-304	30.5m WINDER STAINLESS STEEL STRAP 19x0.7mm - 3/4"	30.5	304	4.200	4
<b>DIMENSIONS 20x0.4 - 3/4"</b>					
K932	50m WINDER STAINLESS STEEL STRAP 20x0.4mm - 3/4"	50	201	3.450	4
K932-304	50m WINDER STAINLESS STEEL STRAP 20x0.4mm - 3/4"	50	304	3.450	4
K947	50m WINDER STAINLESS STEEL STRAP 20x0.4mm - 3/4"	50	430	3.450	4
<b>DIMENSIONS 20x0.7 - 3/4"</b>					
K935	25m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	25	201	3.025	4
K933	50m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	50	201	6.000	4
K935-304	25m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	25	304	3.030	4
K933-304	50m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	50	304	6.000	4
K935-430	25m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	25	430	3.030	4
K948	50m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	50	430	6.000	4

**Variant: Cardboard boxwinder**



Other lengths and dimensions of stainless steel straps are available. Please enquire.

# LV MECHANICAL FIXING

## Stainless steel strap accessories

### SMART buckles



**MICHAUD Exclusivity**  
Patented system

#### APPLICATION

This stainless steel buckle is designed to be used without any special tools. A pair of pliers and a hammer are sufficient. Installation is quick and easy.

It can be used to fix accessories without tensile strength such as ducts and signage on all of poles.



L952-HT



#### BENEFITS

- > The SMART buckle is made of stainless steel.
- > This product can be used with a pair of pliers and a hammer.
- > Available in two sizes.

#### REFERENCES

Code	Designation	Compatibility with	Weight (kg)	Sales unit
L952-HT	SMART BUCKLES 10 AND 13 mm - 3/8" and 1/2" (x100) - WT	10mm (3/8") and 13mm (1/2")	0.600	1
L953-HT	SMART BUCKLES 16 AND 20 mm - 5/8" and 3/4" (x100) - WT	16mm (5/8") and 20mm (3/4")	0.800	1

### Yokes and buckles



Yoke



Reinforced buckles

#### APPLICATION

These buckles are used to close the strap once it is strapped around the post.

#### REFERENCES

Code	Designation	Compatibility with	Weight (kg)	Sales unit
K950	YOKES FOR 10mm STRAP - 3/8" (x100)	10mm (3/8") and 13mm (1/2")	0.360	1
K951	YOKES FOR 20mm STRAP - 3/4" (x100)	16mm (5/8") and 20mm (3/4")	0.600	1
L950	YOKES EC FOR 10mm - 3/8" STRAP (x100)	10mm (3/8") and 13mm (1/2")	0.360	1
L951	YOKES EC FOR 20mm - 3/4" STRAP (x100)	16mm (5/8") and 20mm (3/4")	0.610	1
U955-10	REINFORCED BUCKLES FOR 10mm STRAP - 3/8" (x100)	10mm (3/8")	1.000	20
U955-13	REINFORCED BUCKLES FOR 13mm STRAP - 1/2" (x100)	13mm (1/2")	1.200	20
U955-16	REINFORCED BUCKLES FOR 16mm STRAP - 5/8" (x100)	16mm (5/8")	1.300	20
U955-20	REINFORCED BUCKLES FOR 20mm STRAP - 3/4" (x100)	20mm (3/4")	1.500	20

# Protection tape and eyes

## APPLICATION

This protection tape and eyes are designed to used the stainless steel strap implementation.

The elastomer protection tape for the strap prevents any cable injury when used to fix cable along the pole.

These stainless steel anti-climbing buckles are fixed onto the strap to prevent climbing on the pole and the fraud attempt.



Protection tape



Eyes



Anti-climbing buckles

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
K957	PROTECTION TAPE FOR 10mm STRAP - 3/8" (10m length)	0.500	1
K964	PROTECTION TAPE FOR 13mm STRAP - 1/2" (10m length)	0.580	1
K965	PROTECTION TAPE FOR 16mm STRAP - 5/8" (10m length)	0.610	1
K958	PROTECTION TAPE FOR 20mm STRAP - 3/4" (10m length)	0.770	1
K654	EYES 25x25 (x100)	1.700	1
K655	EYES 25x40 (x100)	2.160	1
K656	EYES 25x60 (x100)	2.820	1
K956	ANTI-CLIMBING STAINLESS STEEL BUCKLES (X25)	0.580	1

## Tools

- The tools are made of non-corrosive steel.

- The carrying case includes ergonomic trim and is made of synthetic materials. It can gather a cutting tool, a binding tool and buckles (to be ordered separately).



Folding plier



Binding tool wheel type



Binding tool ratchet type



Cutting tool



Carrying case

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
K959	BINDING TOOL WHEEL TYPE FOR STRAP	2.500	1
K960	BINDING TOOL RATCHET TYPE FOR STRAP	1.950	1
K961	CUTTING TOOL FOR STRAP	0.550	1
K963	CARRYING CASE FOR STRAP TOOLS	0.550	1
K968	STRAP FOLDING PLIER	0.510	1

# LV MECHANICAL FIXING

## Neutral messenger network suspension and anchoring

### Anchoring assembly

Anchoring bracket  
2 fixing points

**K308**



Anchoring clamp  
**K306**

#### APPLICATION

This anchoring assembly is designed for the 1500daN single or double anchoring of A.B.C. (Aerial Bundled Conductors) with insulated neutral messenger of 54.6 and 70mm<sup>2</sup> sections.

It includes a bracket capable of supporting up to two anchoring clamps.

#### DESCRIPTION

##### Anchoring clamp:

- Body is made of aluminium alloy.
- Cleats are made of UV resistant synthetic materials. They are captive.
- Stainless steel flexible linking cable is captive. It is equipped with a resistant, insulated and movable saddle.
- Fixing the insulated neutral messenger is ensured by cleats protecting the neutral message insulation.

##### Anchoring bracket:

- Bracket is made of aluminium alloy and permits single or double anchoring.
- Fixing on poles is ensured by one or two 14 or 16mm diameter bolts with suitable washers or using two 20x0.7mm stainless steel straps.

This anchoring assembly meets the criteria of the **NF C 33-041** and **EN 50-483-3** standards.

#### INSTALLATION

- Fix the bracket on the pole using one or two 14 or 16mm diameter bolts with suitable washers or using two 20x0.7mm stainless steel straps.
- Open the A.B.C. where the installation has to be done.
- Slide the cleats backward.
- Insert the neutral messenger between the cleats.
- Push the cleats in the clamp while keeping the neutral messenger in place.
- Anchor the clamp on the bracket.
- Additional tightening is achieved automatically by the cleats.

#### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K306</b>	ANCHORING CLAMP - PA 1500	0.410	20
<b>K308</b>	ANCHORING BRACKET - CA 1500 - 2FP	0.280	30

# Suspension assembly

## APPLICATION

This suspension assembly is designed to hold the low voltage A.B.C. (Aerial Bundled Conductors) with insulated neutral messenger of 50 - 95mm<sup>2</sup> sections (K277) and 50 - 70mm<sup>2</sup> sections (K283).

It comprises a movable link system, a suspension clamp and a bracket.

2 standard suspension assemblies are available:

- ES 1500,
- ESF 715 equipped with a fuse element (breaking 715 ± 65daN).

The fuse element can be factory calibrated between 500 and 1 200daN. It is designed to break when an abnormal effort is applied on the A.B.C. The cable drops without causing the pole to break (i.e.: tree falling onto a power line). The cable can be quickly put back in position thanks to the installation of a new clamp on the bracket still in place.



## DESCRIPTION

The movable link system and the bracket are delivered in a full set.

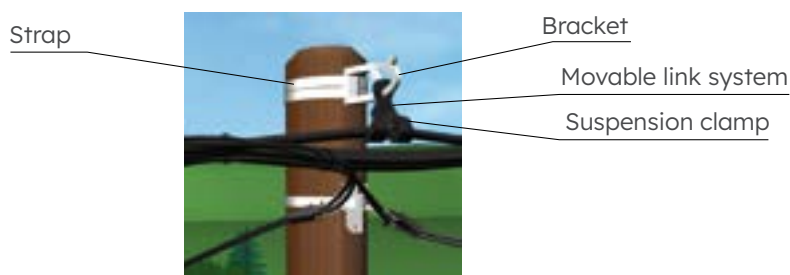
### Movable link system:

- Body is made of UV resistant, glass fibre reinforced synthetic materials and adds insulation between the pole and the cables.
- Design facilitates longitudinal and transversal movement of the suspension clamp body.
- ESF 715 incorporates the fuse element.

### Bracket:

- Bracket is made of aluminium alloy.
- Fixing on poles is ensured by one 14 or 16mm diameter bolt with a suitable washer or using two 20x0.7mm stainless steel straps.

This suspension assembly meets the criteria of the **NF C 33-040** and **EN 50-483** standards.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K277</b>	SUSPENSION ASSEMBLY [50-95] - ES 1500	0.460	20
<b>K283</b>	FUSE SUSPENSION ASSEMBLY [50-70] - ESF 715	0.440	20
<b>K280</b>	SPARE PART - PS + LM 715	0.210	1

- Notes :
- Please enquire for any other breaking values for the fuse element.
  - Fixing with bolts and washers or stainless steel straps must be ordered separately.
  - The insulated tie must be ordered separately.

# LV MECHANICAL FIXING

## Fully supported network suspension and anchoring

### Anchoring clamp



#### APPLICATION

This clamp is designed to anchor the low voltage fully supported A.B.C. (Aerial Bundled Conductors).

#### DESCRIPTION

- Arms are made of hot-dip galvanized steel. A bolt enables the clamp to be easily dismantled manually and anchored on a bracket fixed to a pole or façade.
- Cleats are made of UV resistant, glass fibre reinforced synthetic materials.
- Conductors are attached using a combination of bolts and cleats. Two 17mm shear head nuts allow the control of tightening.
- Each conductor runs through a separate channel. The conductors are anchored by distributing the loads, protecting the conductors insulation.
- Large opening facilitates the conductors running between the clamp arms.

This clamp meets the criteria of the **DIN VDE 0211** standard.

#### INSTALLATION

- Unscrew the shear head nuts.
- Open the A.B.C and insert each conductor into one of the clamp channels.
- Screw the nuts alternately using a 17mm spanner until the shear head breaks. The 17mm head is only provided for possible dismantling.
- Anchor the clamp on a hook.
- Additional tightening is achieved automatically by the cleats.

#### REFERENCE

Code	Designation	Weight (kg)	Sales unit
K288	FULLY SUPPORTED ANCHORING CLAMP 4x50-120	1.240	12

# Movable suspension clamp

## APPLICATION

This clamp is designed to hold the fully supported A.B.C. (Aerial Bundled Conductors). It is suitable for angles on poles up to 30°.



## DESCRIPTION

- Body is made of aluminium. Screws are made of galvanised steel.
- Shear head nut enables to control the tightening of the A.B.C.
- Fastener is captive during installation of the A.B.C. in the body.
- Insert made of UV resistant synthetic materials ensures the A.B.C holding.
- Fixing hole on the body is carrying a reinforced eye. It enables the assembly to be installed on a pole or on a façade equipped with a hook.

This clamp meets the criteria of the **DIN VDE 0211** standard.

## INSTALLATION

- Unscrew the two tightening screws.
- Take out the insert to open the upper body.
- Place the body of the suspension clamp on a hook.
- Put the A.B.C. in the insert.
- Put the insert back in the body of the suspension clamp and screw to hold the A.B.C.
- Screw the shear head nut using a 13mm spanner until the shear head breaks (10Nm).

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
U519	FULLY SUPPORTED SUSPENSION CLAMP 2/4 (25-120) 30°	0.260	1

# LV MECHANICAL FIXING

## Service cable anchoring

### Service anchoring assembly EA 25

#### APPLICATION

This anchoring assembly is designed to anchor the service A.B.C. (Aerial Bundled Conductors) with capacity of 2x16 up to 4x25mm<sup>2</sup>.

The anchoring clamp is also available with an adjustable hook feature.



**K309**



**K307 / U500\_4X25**

#### DESCRIPTION

- Body is made of UV resistant, glass fibre reinforced synthetic materials.
- Wedge is made of UV resistant synthetic materials. 4 channels ensure the clamping of 2 or 4 conductors by distributing the loads, protecting the insulation. It is connected to the handle via its integrated link.
- Handle and the hook have good corrosion resistance: stainless steel for K307 and galvanised steel for K309 and U500\_4x25.
- Hook can be adjusted once positioned (toothed rack with 10cm stroke).
- All of the components are captive.
- Tensile strength is 200daN.

#### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K307</b>	ANCHORING CLAMP WITH HANDLE - PA 25	0.105	50
<b>U500_4x25</b>	SERVICE ANCHORING CLAMP GS - PA 25	0.105	80
<b>K309</b>	ANCHORING CLAMP WITH ADJUSTABLE HOOK - PACR 25	0.230	50

## Fixing clamp and bracket



**F305-9**

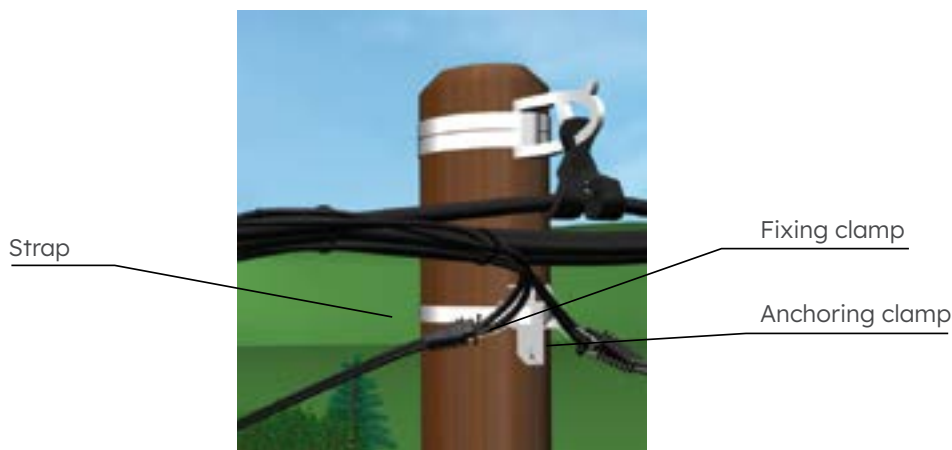


**L304**

### DESCRIPTION

- Elements are made of aluminium alloy.
- Fixing clamp is designed for single anchoring whereas the bracket offers up to 4 fixing points.
- Specific design allows fixing on wooden, metal or concrete poles.
- Fixing clamp is implemented using a 10mm diameter bolt or using a 20x0.7mm stainless steel strap (tensile strength: 200daN).
- Fixing bracket is implemented using a 14 or 16mm diameter bolt or using two 20x0.7mm stainless steel straps (tensile strength: 200daN/anchoring point).

This anchoring assembly meets the criteria of the **NF C 33-042** and **EN 50-483** standards.



### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>L304</b>	FIXING CLAMP - PF 25	0.010	100
<b>L306</b>	SCREW - M10	0.050	50
<b>F305-9</b>	MULTIPLE ANCHORING BRACKET (x9) - CAM 25	0.500	50

Note : Bolt or stainless steel strap fastening must be ordered separately. Please enquire

# LV MECHANICAL FIXING

## Low voltage line accessory

### Anchoring and suspension clamp



**U513**



**U510**



**U515**



**U516**



**U518**

#### APPLICATION

This anchoring and suspension clamp is designed to anchor and to hold the A.B.C. (Aerial Bundled Conductors) network.

This range is designed to self-supporting cable.

#### DESCRIPTION

- These clamps can be used to fix and hold from 2 up to 4 insulated conductors between a pole and a wall or between two poles.
- Admitted conductors capacities go from 16 up to 120mm<sup>2</sup>.
- Clamps body is made of polymer and the metallic parts are made of hot dip galvanised steel.

#### REFERENCES

Code	Designation	Mechanical resistance (daN)	Section (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ANCHORING CLAMP</b>					
<b>U510</b>	ANCHORING CLAMP WITH MOVABLE HANDLE (NUT) 2x10-25	500	2 x 10-25	0.100	100
<b>U511</b>	ANCHORING CLAMP WITH MOVABLE HANDLE (NUT) 4x10-25	700	4 x 10-25	0.105	100
<b>U512</b>	ANCHORING CLAMP WITH CLOSED HANDLE 2x16-35	500	2 x 16-35	0.100	50
<b>U513</b>	ANCHORING CLAMP WITH CLOSED HANDLE 4x16-35	500	4 x 16-35	0.140	50
<b>U514</b>	FULLY SUPPORTED ANCHORING CLAMP OPENED HANDLE 4x25-50 EC	940	4 x 25-50	0.490	5
<b>U515</b>	FULLY SUPPORTED ANCHORING CLAMP OPENED HANDLE 4x50-95 EC	1750	4 x 50-95	0.880	5
<b>U516</b>	FULLY SUPPORTED ANCHORING CLAMP CLOSED HANDLE 4x35-70 EC	1500	4 x 35-70	0.850	5
<b>U517</b>	FULLY SUPPORTED ANCHORING CLAMP CLOSED HANDLE 4x70-120 EC	1800	4 x 70-120	1.215	5
<b>SUSPENSION CLAMP</b>					
<b>U518</b>	FULLY SUPPORTED SUSPENSION CLAMP 4x10-120	2500	4 x 10-120	0.345	20

## Suspension bracket

### APPLICATION

The hook is designed to fix clamps on a pole or a wall.

The bracket fixing is performed by straps or screws.



U520



U521



U526



U527

### REFERENCES

Code	Designation	Mechanical resistance (daN)	Section (mm <sup>2</sup> )	Weight (kg)	Sales unit
U520	BRACKET WITH HOOK DIAM 16 6 POLE TYPE	1800	16	0.380	10
U521	BRACKET WITH HOOK DIAM 16 6 UNIVERSAL	1800	16	0.330	10
U526	BRACKET WITH SUSPENSION HOOK DIAM 16 -1800 daN	1800	16	0.570	10
U527	ANCHORING HOOK BRACKET DIAM 16	2000	16	0.440	10

## Hook

### APPLICATION

The hook is designed to fix an anchoring clamp on a pole or a wall.

It is implemented once the hole is drilled.



U522



U524

### REFERENCES

Code	Designation	Length (mm)	Section (mm <sup>2</sup> )	Weight (kg)	Sales unit
U522	HOOK BOLT DIAM 16 - 250	250	16	1.080	10
U523	HOOK BOLT DIAM 20 - 250	250	20	1.175	10
U524	HOOK NUT DIAM 16	200	16	0.350	10
U525	HOOK NUT DIAM 20	200	20	0.360	10

# LV MECHANICAL FIXING

## Cable saddle

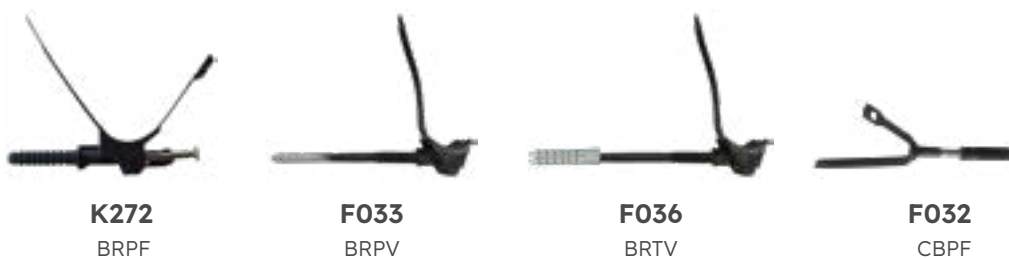
### Facade fixing

#### APPLICATION

This cable saddle is designed to fix the low voltage A.B.C. (Aerial Bundled Conductors) on façades using neutral messenger or fully supported technology.

A cable saddle is implemented every 30cm to ensure excellent fixing of the A.B.C.

The wall mounting is quick and easy to implement. It is discreet and aesthetic.



#### DESCRIPTION

##### Cable saddles:

- Three types of cable saddles are available.
  - Cable saddle BRPF is fixed on façades by a nail (12mm Ø hole).
  - Cable saddle BRPV is fixed on façades by a screw and dowel pin (12mm Ø hole).
  - Cable saddle BRTV is fixed on façades by a reinforced screw and dowel pin assembly (16mm Ø hole).
- Body and cable tie are made of UV resistant synthetic material.
- Opening under the saddle allows the use of an extra tie (not provided) to install a second conductor.
- Cable tie has outside teeth for:
  - Excellent protection of conductor insulation.
  - Excellent fixing of service and network conductors.

This cable saddle meets the criteria of the **NF C 33-040** and **EN 50-483** standards.

##### Plastic cable tie :

- Plastic service cable tie CPBF is fixed on façades by a screw and dowel pin assembly (M6).
- Body and cable tie are made of UV resistant synthetic materials.
- Cable tie enables:
  - Excellent protection of conductor insulation.
  - Excellent fixing of service conductors.
  - Easy installation without tools.

#### REFERENCES

Code	Designation	A.B.C. capacity (mm <sup>2</sup> )	Wall clearance (mm)	Weight (kg)	Sales unit
K272	CABLE SADDLE - BRPF1	2 x 16 to 3 x 150 + 95N + 16	10	0.040	100
K273	CABLE SADDLE - BRPF6		60	0.060	100
F033	CABLE SADDLE - BRPV1	3 x 25 + 54,6N + 16 to 3 x 150 + 95N + 16	10	0.070	50
F035	CABLE SADDLE - BRPV6		60	0.080	50
F036	CABLE SADDLE - BRTV10		100	0.175	50
F038	CABLE SADDLE - BRTV17		170	0.240	20
K281	CABLE SADDLE - BRPF4	3 x 25 + 54,6N to 3 x 150 + 95N + 16	40	0.050	30
K282	CABLE SADDLE - BRPF9		90	0.065	25
F032	BAC CABLE TIE - CPBF (batch of 100)	2 x 6 to 4 x 25	20	1.900	1

# Pole fixing

## APPLICATION

This cable saddle is designed to fix cable trunking on poles. It is implemented using a strap. It is made of UV protected synthetic material.

The N733 is equipped with a cable tie for 15 up to 30mm diameter cables. The N734 is designed for 30 to 50mm diameter cables, and the N735 is designed for 50 up to 90mm diameter cables.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>CABLE SADDLE</b>			
N733	CABLE SADDLE BIC 15/30 TIE 9/180	0.013	10
N734	CABLE SADDLE BIC 30/50 TIE 9/265	0.015	10
N735	CABLE SADDLE BIC 50/90 TIE 9/360	0.017	10
<b>PLASTIC JUMPER CLAMP</b>			
F016	PLASTIC JUMPER CLAMP - MOUNTING BRACKET (x100) - 9mm	0.110	1

# Cable tie

## APPLICATION

This cable tie made of black synthetic materials is designed to tighten the phase and neutral conductors in order to achieve correct installation.

It is used to prevent the conductors from rubbing against accessories such as clamps.

## DESCRIPTION

- Cable tie is made of black UV resistant synthetic material.
- Strap has outside teeth for a 9mm width to secure fixing.
- Black UV resistant synthetic material cable tie mounts strap support are suitable for 9mm wide cable ties.
- F040 support has a drill hole diameter of 8mm.



## REFERENCES

Code	Designation	Diameter grip capacity		Weight (kg)	Sales unit
		MAX (mm)	MIN (mm)		
F001	CABLE TIE 9x123mm (bag of 100)	40	7	0.220	1
F002	CABLE TIE 9x180mm (bag of 100)	44	10	0.330	1
F003	CABLE TIE 9x265mm (bag of 100)	62	20	0.530	1
F004	CABLE TIE 9x360mm (bag of 100)	92	20	0.770	1
F005	CABLE TIE 9x500mm (bag of 100)	140	74	1.070	1
F006	CABLE TIE 9x750mm (bag of 100)	220	74	1.480	1
F013	IMPLEMENTATION TOOL FOR TIE			0.330	1
F040	WALL TYPE STRAP SUPPORT WITH BRACKET TO STRIKE (x100)			0.400	1
F041	WALL TYPE STRAP SUPPORT ATTACHED BY SCREW (x100)			0.300	1
U708	PLASTIC CABLE TIE ROLL 30 m			1.000	1
U709	PLASTIC BUCKLE FOR PLASTIC CABLE TIE (x100)			1.300	1
U710	TOOL FOR PLASTIC CABLE TIE			-	1

Other dimensions are available. Please contact us.

# LV MECHANICAL FIXING

## Pigtail bolt



U480

### APPLICATION

This bolt made of hot dip galvanised steel is designed to fix anchoring and suspension clamps on pole or facade.

### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>WITH 1 SCREW</b>			
U480_12-35	PIGTAIL BOLT BQC 12x35 WITH 1 SCREW	0.180	10
U480_12-55	PIGTAIL BOLT BQC 12x55 WITH 1 SCREW	0.300	10
<b>WITH 2 SCREWS</b>			
U480_12-110	PIGTAIL BOLT BQC 12x110 WITH 2 SCREWS	0.290	10
U480_12-200	PIGTAIL BOLT BQC 12x200 WITH 2 SCREWS	0.380	10
U480_12-250	PIGTAIL BOLT BQC 12x250 WITH 2 SCREWS	0.420	10
U480_12-300	PIGTAIL BOLT BQC 12x300 WITH 2 SCREWS	0.480	10
U480_12-350	PIGTAIL BOLT BQC 12x350 WITH 2 SCREWS	0.520	10
U480_14-250	PIGTAIL BOLT BQC 14x250 WITH 2 SCREWS	0.580	10
U480_14-300	PIGTAIL BOLT BQC 14x300 WITH 2 SCREWS	0.650	10
U480_14-350	PIGTAIL BOLT BQC 14x350 WITH 2 SCREWS	0.710	10
<b>WITH DOWEL</b>			
U480_12-110-CH	PIGTAIL BOLT BQC 12x110 WITH 1 DOWEL	0.250	10

## Pigtail stem



F344

### APPLICATION

This stem made of hot-dip galvanised is designed to fix the anchoring and suspension clamps on facade.

### REFERENCES

Code	Designation	Weight (kg)	Sales unit
F344	TQC 12x150	0.290	10
F345	TQC 12x200	0.310	10
F346	TQC 12x250	0.340	10

## Pigtail plate



F340

### APPLICATION

This plate made of hot-dip galvanised steel is designed for anchoring and suspension clamps.

### REFERENCE

Code	Designation	Weight (kg)	Sales unit
F340	PIGTAIL PLATE PQC	0.370	10

# Protective duct

## Metal

### APPLICATION

This protective duct is designed to protect aerial-subsurface connections on poles or façades. It is fixed on pole using straps or on facade using screws.

It offers an IK10 degree of protection. It is made of metal (aluminium).



N297

### REFERENCES

	Code	Designation	Length (m)	Weight (kg)	Sales unit
	N297	METAL PROTECTIVE DUCT GPC 35.35mm	2.75	1.100	5
	N298	METAL PROTECTIVE DUCT GPC 60.60mm	2.75	1.700	5
	N299	METAL PROTECTIVE DUCT GPC 90.90mm	2.75	2.100	5
	N300	METAL PROTECTIVE DUCT GPC 120.120mm	2.75	2.950	1

## Synthetic material

### APPLICATION

This PVC duct is designed to protect aerial-subsurface connections on poles or façades. It is fixed on pole using straps or on façade using screws.

It offers an IK10 degree of protection. It is made of PVC.



N275

### REFERENCES

	Code	Designation	Use	Length (m)	Weight (kg)	Sales unit
	N273	PROTECTIVE DUCT GPT 30.30 GREY	Earth wire	2.60	0.550	10
	N274	PROTECTIVE DUCT GPC 35.35 GREY	LV 4x50 maxi	2.75	1.010	10
	N275	PROTECTIVE DUCT GPC 60.60 GREY	LV 3x240 + 95 maxi	2.75	1.960	10
	N276	PROTECTIVE DUCT GPC 90.90 GREY	MV 3x150 + 50 maxi	2.75	2.780	5
	N277	PROTECTIVE DUCT GPC 120.120 GREY	MV 3x150 + 50 maxi	2.75	4.260	5
	N278	PROTECTIVE DUCT GPC 140.50 GREY	MV 3x240 maxi	2.75	3.060	5

Other ducts are available, in colour or in aluminium. Please enquire.

# LV MECHANICAL FIXING

## Hot dip galvanised bolt and nut

### Bolt and nut



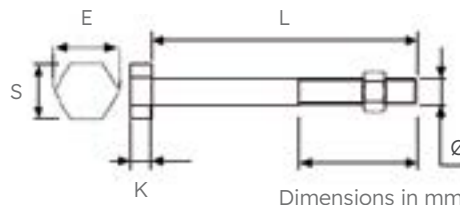
**U435**

### APPLICATION

This bolt and this nut are designed to fix MV/LV accessories.

### DESCRIPTION

- This bolt and this nut are made of hot dip galvanised steel class 8.8 for widths lower than 100mm and class 6.8 above.
- These bolts and nuts meet the criteria of the standards hereafter:
  - Bolt **ISO 4016 / DIN 931**,
  - Nut **ISO 4032 / DIN 934**.



### REFERENCES

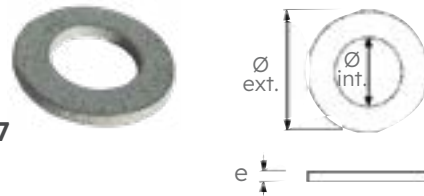
Code	Designation	Ø	L	S	E	K	Weight (kg)	Sales unit
U435_8-30	BOLTS BH* 8x30 (100 pieces)	8	30	12.73	14.38	5.15	2.100	1
U435_10-20	BOLTS BH 10x20 (100 pieces)	10	20	15.73	17.77	6.22	3.400	1
U435_10-30	BOLTS BH 10x30 (100 pieces)	10	30	15.73	17.77	6.22	3.900	1
U435_12-30	BOLTS BH 12x30 (100 pieces)	12	30	17.73	20.03	7.32	6.500	1
U435_12-50	BOLTS BH 12x50 (100 pieces)	12	50	17.73	20.03	7.32	7.200	1
U435_12-100	BOLTS BH 12x100 (100 pieces)	12	100	17.73	20.03	7.32	11.800	1
U435_12-150	BOLTS BH 12x150 (50 pieces)	12	150	17.73	20.03	7.32	8.150	1
U435_12-200	BOLTS BH 12x200 (50 pieces)	12	200	17.73	20.03	7.32	10.400	1
U435_12-250	BOLTS BH 12x250 (50 pieces)	12	250	17.73	20.03	7.32	12.650	1
U435_12-300	BOLTS BH 12x300 (20 pieces)	12	300	17.73	20.03	7.32	5.980	1
U435_14-30	BOLTS BH 14x30 (100 pieces)	14	30	20.67	23.36	8.62	9.600	1
U435_14-40	BOLTS BH 14x40 (100 pieces)	14	40	20.67	23.36	8.62	10.200	1
U435_14-50	BOLTS BH 14x50 (100 pieces)	14	50	20.67	23.36	8.62	11.200	1
U435_14-100	BOLTS BH 14x100 (50 pieces)	14	100	20.67	23.36	8.62	8.250	1
U435_14-150	BOLTS BH 14x150 (50 pieces)	14	150	20.67	23.36	8.62	11.000	1
U435_14-200	BOLTS BH 14x200 (20 pieces)	14	200	20.67	23.36	8.62	5.600	1
U435_14-250	BOLTS BH 14x250 (20 pieces)	14	250	20.67	23.36	8.62	6.800	1
U435_14-300	BOLTS BH 14x300 (20 pieces)	14	300	20.67	23.36	8.62	8.000	1
U435_14-350	BOLTS BH 14x350 (20 pieces)	14	350	20.67	23.36	8.62	9.200	1
U435_14-400	BOLTS BH 14x400 (20 pieces)	14	400	20.67	23.36	8.62	10.400	1
U435_14-450	BOLTS BH 14x450 (20 pieces)	14	450	20.67	23.36	8.62	11.600	1
U435_14-500	BOLTS BH 14x500 (20 pieces)	14	500	20.67	23.36	8.62	12.800	1
U435_14-600	BOLTS BH 14x600 (20 pieces)	14	600	20.67	23.36	8.62	15.200	1
U435_16-30	BOLTS BH 16x30 (100 pieces)	16	30	23.10	26.17	9.71	12.000	1
U435_16-50	BOLTS BH 16x50 (100 pieces)	16	50	23.10	26.17	9.71	12.500	1
U435_16-200	BOLTS BH 16x200 (20 pieces)	16	200	23.10	26.17	9.71	7.500	1
U435_16-250	BOLTS BH 16x250 (20 pieces)	16	250	23.10	26.17	9.71	9.080	1
U435_16-300	BOLTS BH 16x300 (20 pieces)	16	300	23.10	26.17	9.71	10.740	1
U435_16-350	BOLTS BH 16x350 (20 pieces)	16	350	23.10	26.17	9.71	12.320	1
U435_16-400	BOLTS BH 16x400 (20 pieces)	16	400	23.10	26.17	9.71	13.880	1
U435_20-100	BOLTS BH 20x100 (20 pieces)	20	100	29.16	32.95	12.15	7.140	1
U435_20-140	BOLTS BH 20x140 (20 pieces)	20	140	29.16	32.95	12.15	9.240	1
U435_20-160	BOLTS BH 20x160 (20 pieces)	20	160	29.16	32.95	12.15	10.120	1

\*BH : Bake Hardening

# Flat washer

This flat washer meets the criteria of the **NF E 25513** standard.

U437



## REFERENCES

Code	Designation	Ø external (mm)	Ø internal (mm)	e	Weight (kg)	Sales unit
U437_M8	WASHERS M8 (100 pieces)	18	8	1.50	0.220	1
U437_M10	WASHERS M10 (100 pieces)	22	11	2.00	0.440	1
U437_L10	WASHERS L10 (100 pieces)	26	11	1.50	0.800	1
U437_M12	WASHERS M12 (100 pieces)	27	14	2.50	0.820	1
U437_L12	WASHERS L12 (100 pieces)	32	14	2.50	1.300	1
U437_M14	WASHERS M14 (100 pieces)	30	16	2.50	1.000	1
U437_L14	WASHERS L14 (100 pieces)	36	16	2.50	1.600	1
U437_M16	WASHERS M16 (100 pieces)	32	18	3.00	1.500	1
U437_L16	WASHERS L16 (100 pieces)	40	18	3.00	2.300	1
U437_M20	WASHERS M20 (100 pieces)	40	22	3.00	2.400	1

M and L designations are series standards.

# Nut

This nut meets the criteria of the **ISO 4032** standard.

U438



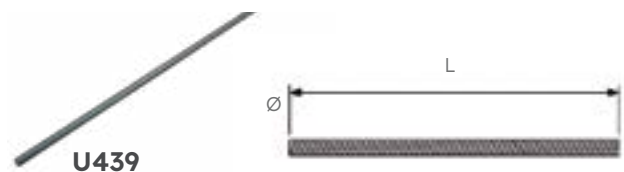
## REFERENCES

Code	Designation	f (mm)	m (mm)	e (mm)	Weight (kg)	Sales unit
U438_HM8	NUTS HM8 (100 pieces)	13	6.80	14.38	1.100	1
U438_HM10	NUTS HM10 (100 pieces)	16	8.40	17.77	1.400	1
U438_HM12	NUTS HM12 (100 pieces)	18	10.80	20.03	1.730	1
U438_HM14	NUTS HM14 (100 pieces)	21	12.80	23.35	2.000	1
U438_HM16	NUTS HM16 (100 pieces)	24	14.80	26.75	3.400	1
U438_HM20	NUTS HM20 (100 pieces)	30	18.00	32.95	6.400	1

# Threaded shaft

Threaded shaft are made of galvanized steel. This shaft the criteria of the standard **DIN 13-1** standard.

U439



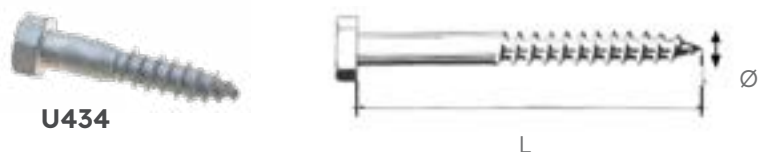
## REFERENCES

Code	Designation	L (mm)	Ø (mm)	Weight (kg)	Sales unit
U439_8-1000	THREADED SHAFTS TF 8x1000 (20 pieces)	1000	8	8.000	5
U439_12-1000	THREADED SHAFTS TF 12x1000 (20 pieces)	1000	12	8.800	10
U439_14-1000	THREADED SHAFTS TF 14x1000 (20 pieces)	1000	14	12.000	10
U439_16-1000	THREADED SHAFTS TF 16x1000 (20 pieces)	1000	16	16.000	10
U439_20-1000	THREADED SHAFTS TF 20x1000 (20 pieces)	1000	20	12.400	20
U439_16-2000	THREADED SHAFTS TF 16x2000 (20 pieces)	2000	16	16.000	20

# Lag

This lag meets the criteria of the **DIN 571** standard.

U434

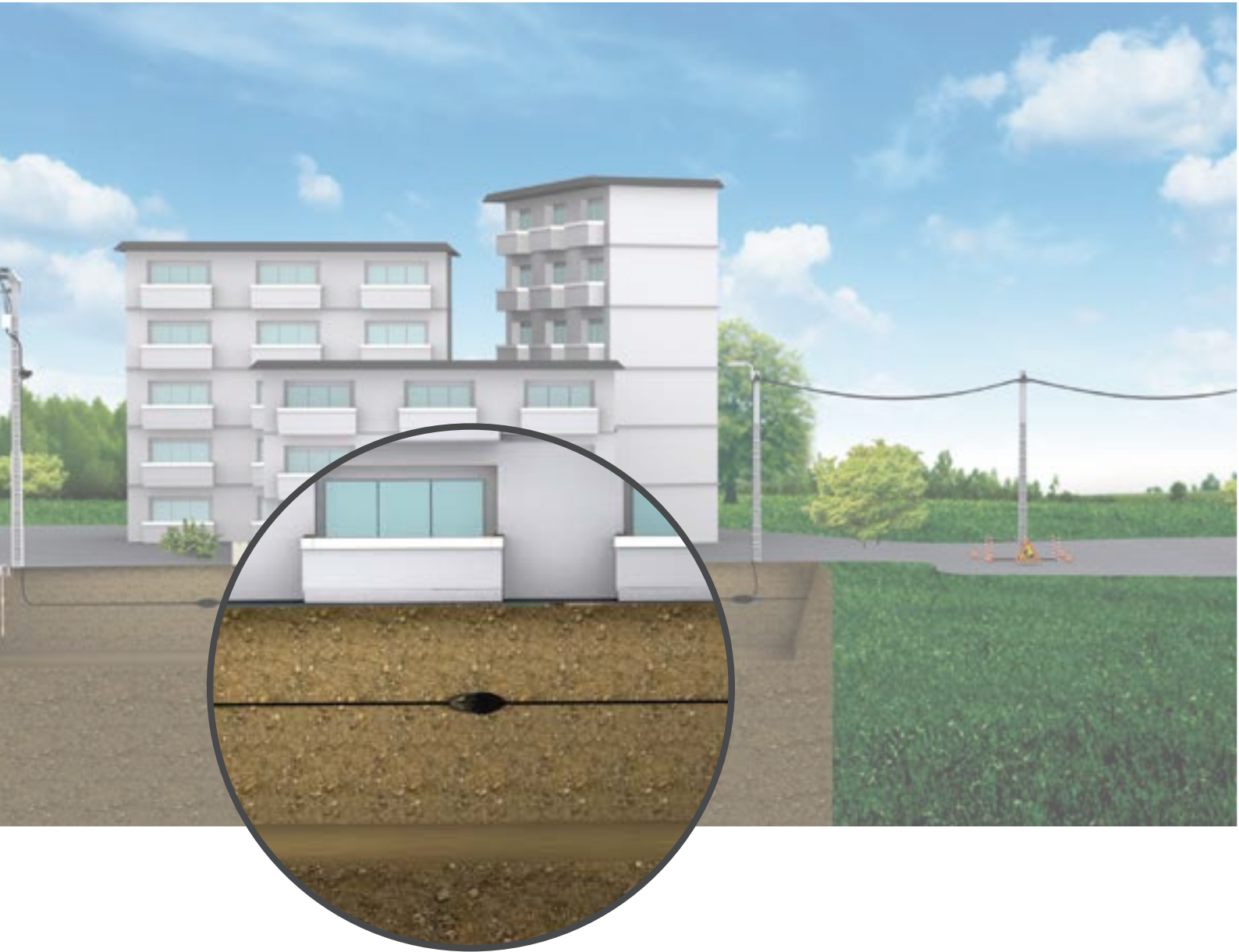


## REFERENCE

Code	Designation	L (mm)	Ø (mm)	Weight (kg)	Sales unit
U434-*	GALVANISED LAG SCREW DIN 571 DIAMETER x LENGTH	6 to 14	40 to 200	Contact us	*

\*Variable batch according to the sizes. Please enquire.

To get the desired galvanised lag, insert the diameter and length in the reference like U434-Ø-L.





# UNDERGROUND NETWORKS

## Underground service

Multipole ring connector	p. 80
Single pole service connector	p. 82
Service repairing junction kit - JRB	p. 83

## Underground network

Single pole network connector	p. 84
Mechanical tightening underground junction	p. 85
Aerial sub-surface functions for LV network (NJAS)	p. 86

## Emerging connection

REMIC bare cabinet	p. 88
REMIC set of bars support	p. 90
REMIC service module connector	p. 92
REMIC network module connector	p. 94
REMIC tools set	p. 95
REMIC disconnection and protection module connector RRCP	p. 96

## Accessories

Protection and warning	p. 98
TPC sheath	p. 99
Cold shrink seal	p. 100
Cold shrink sheath	p. 101
Cold shrink service end	p. 102

# SOLUTIONS FOR UNDERGROUND NETWORKS



Installation of REMIC cabinet - Senegal

# Underground networks

With a solid experience acquired in insulated cables connections, MICHAUD expanded its skills to the underground field.



## Innovation

The company developed the underground field, based on its skills acquired in insulation piercing technology demonstrating high innovation ability.



## Quality

The underground field requires a high level of reliability. Mistakes during installation can be expensive and MICHAUD reduces risks with high technical equipment and establishes itself as a leader of buried connections.



## Adaptation

This field matches with new applications such as the three-phase supply, EVSE and air conditioners designing solutions suitable for higher power conductors.

## MANY ASSETS

### Safety

- To reduce incidents risk
- To reduce electrical contacts risk

### Optimization

- Preservation of ground building
- Limit fraudulent manipulation



### Quality

- To increase lines durability
- To guarantee service supply without disruptions in

### Aestheticism

- No landscapes pollution

## A RECOGNISED EXPERIENCE IN THE SECTOR

For  
20 ans



For  
15 ans



For  
10 ans



Today

Development of single phase connectors

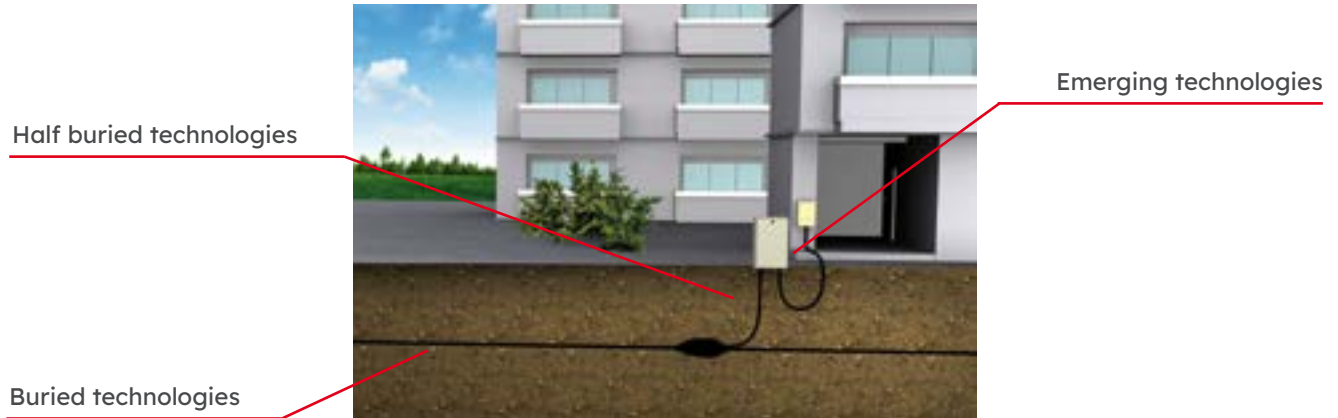
Co-operation with cable manufacturers

Release of new generation RING connectors

Distribution of solutions around the world

# SOLUTIONS FOR UNDERGROUND NETWORKS

## THREE LEVELS OF INSTALLATIONS



### Buried solutions

To enable the achievement of connections and tap-connections in underground environment, MICHAUD designed watertight systems avoiding water penetration being able to run over 30 years without maintenance.



Zoom on RING connector and the underground service box

#### Translucent box

- Visibility of the resin level during installation

#### Multipoles connector

Compatible with cables  
Re, Rm, Se, Sm



Insulation piercing technology

Two possible outlets

Shear head  
• Efficient connection

Several resin types

One piece connector  
• Avoid components loss

IP2X degree of protection  
• During and after installation

## Half buried solutions

These solutions give the advantage to follow the requirements due to an operation in underground environment while being accessible from the soil surface.



Zoom on the Fuse Pit Connector



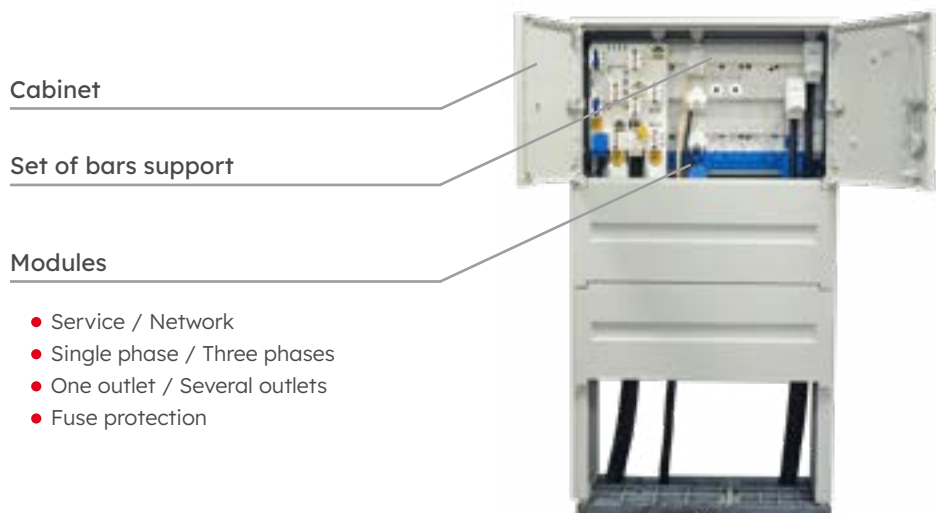
- Installation in a pit
- Full waterproof connection
- Temporary working into water



See  
PROTECTION

## Emerging connection solutions

The modular range of emerging cabinets makes possible an adaptation to different searched configurations.



Set of bars support and modules are suitable to every type of cabinets in order to insert inside the environment, keeping the existing.



In order to better suit the market expectations, MICHAUD encourages co-development.

# UNDERGROUND SERVICE

## Multipole ring connector



**MICHAUD Exclusivity**  
Patented system

### APPLICATION

This ring connector is designed to establish a tap connection on low voltage underground networks. It is installed inside an underground box filled-in with resin.

It is used on a main cable with synthetic materials insulation and core type:

- Round or sectoral,
- Copper or aluminium,
- Solid or stranded.



**K449**  
Multipoles ring connector 150mm<sup>2</sup>

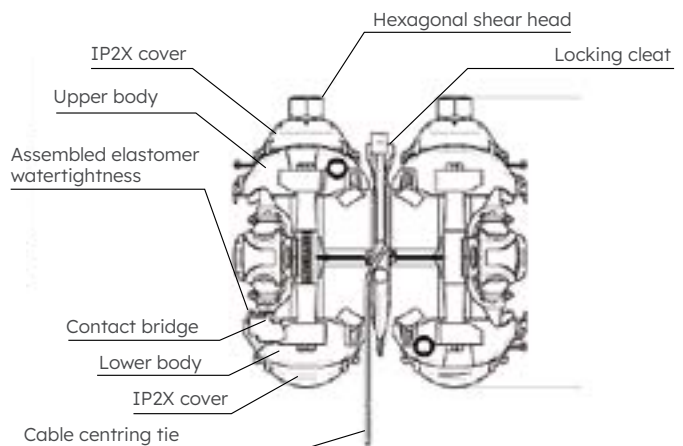
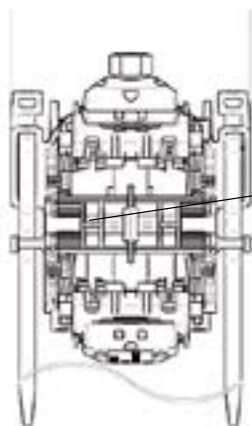


**K642**  
Multipoles ring connector 300mm<sup>2</sup>

### DESCRIPTION

- Connection is ensured through insulation piercing technology, simultaneously on main and tap lines.
- Connector accepts a reduced size neutral.
- Adjustable clips are used to guide the cable and act as stops. The tap can be established on right or left side.
- Connector comprises:
  - 2 identical IP2X tightening modules enabling non-oriented mounting and simultaneous tightening from the top,
  - 1 cleat for locking the modules and for permanently securing the connector on the cable.
- Body is made of synthetic materials to make live-line work safe.
- Ergonomics has been designed to meet the specific constraints of underground work.
- Tightening efficiency is ensured by 2 shear head screws, thereby reducing the assembly time.
- All connector components are captive to make the installation easier.
- Connector is IP2X once implemented.

This connector meets the criteria of the **DIN VDE 0220** and **NF EN 50393** standards.



## REFERENCES

Code	Designation	Main Capacities (mm <sup>2</sup> )	Tap Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
K449	4 POLES SERVICE RING CONNECTOR 150 <sup>2</sup> /1x35 <sup>2</sup>	95-150	1 x 10-35	0.500	20
K459	4 POLES SERVICE RING CONNECTOR 240 <sup>2</sup> /2x35 <sup>2</sup>	50-240	2 x 10-35	0.965	8
K642	4 POLES SERVICE RING CONNECTOR 300 <sup>2</sup> /2x35 <sup>2</sup>	240-300	2 x 10-35	1.000	10

Cable compatibility shall be tested before use. Please enquire.

## Underground box

### APPLICATION

This underground box is designed to establish the tap connection from an underground network. It makes possible the tap connection of every conductors type (stranded, solid, multi-stranded, round or sectoral).



**K620**

### DESCRIPTION

- Box has a translucent shell made of thermoplastic material (PP).
- The box accessories required for assembly are supplied and adapted to your technical constraints: cross-section reducer, adhesive foam strips, foam, links, gloves, etc. Our technicians are ready to help you design your solution, providing you with a customised response and product.
- Kit includes an underground box with the accessories required for installation, as well as the ring connector corresponding to the cross-section indicated.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>UNDERGROUND BOX</b>			
K620	UNDERGROUND BOX - 150mm <sup>2</sup>	0.900	1
K621	UNDERGROUND BOX - 300mm <sup>2</sup>	2.000	1
<b>UNDERGROUND KIT</b>			
K635	UNDERGROUND KIT - 150mm <sup>2</sup>	1.800	1
K636	UNDERGROUND KIT - 240 mm <sup>2</sup>	3.300	1
K644	UNDERGROUND KIT - 300mm <sup>2</sup>	3.300	1

For compatibility with conductors, please enquire (cable compatibility shall be tested before use).

### Additional equipment

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
K007	WEDGE SEPARATOR 200x15x9mm	0.050	10
K650	GREEN HONEYCOMB TAPE	0.137	60

# UNDERGROUND SERVICE

## Single pole service connector

### APPLICATION

This connector is designed to establish a tap connection on low voltage underground networks. It is located in underground cast or injected boxes.

It can be used on a main cable with paper or synthetic insulation of type:

- circular or sectoral,
- aluminum,
- stranded or solid core.



### DESCRIPTION

- Connection is ensured through insulation piercing technology simultaneously on main and tap lines.
- K419 and K420 models can be used for connecting 2 taps with identical or different sections.
- K420 model integrates an earth system conductor.
- Connectors are fully insulated (IP2X degree of protection). Bodies are made of synthetic materials to make live-line work safe.
- Ergonomics has been studied to meet the specific constraints of underground work.
- Tightening efficiency is ensured by a shear head screw.

This connector meets the criteria of the **NFC 63-061** and **NF EN 61238-1** standards.

### REFERENCES

Code	Designation	Main Capacities (mm <sup>2</sup> )	Tap Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>K317</b>	CONNECTOR CBS/CS 240	50-240	10-35	0.230	3
<b>K318</b>	CONNECTOR CBS NEUTRAL/CS	50-95	10-35	0.135	1
<b>K419</b>	CONNECTOR CB2p/CS 240	50-240	2 x 10-35	0.200	3
<b>K420</b>	CONNECTOR CB2p NEUTRAL/CS	50-95	2x 10-35	0.310	1

### Accessory

End cap is used in addition to the K317 and K318 connector in order to insulate the end of the tap cable.



**K001**

### REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K001</b>	BLACK FLEXIBLE END CAP 10-50M	0.003	20

# Service repairing junction kit - JRB

## APPLICATION

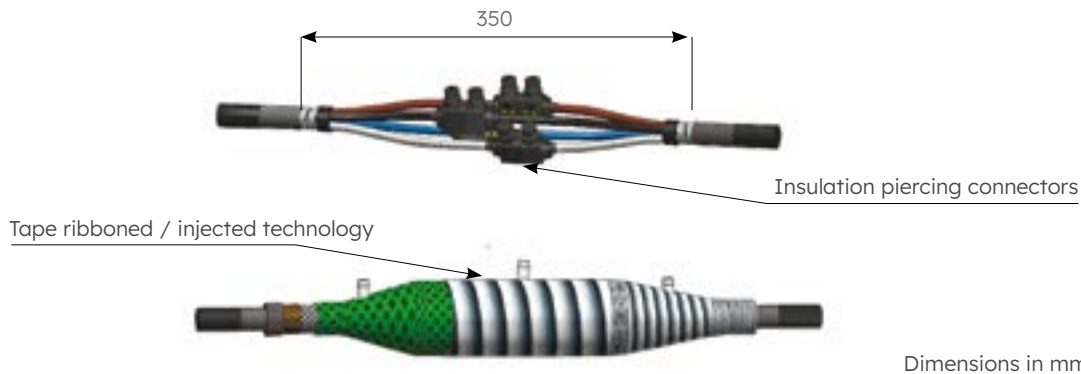
This accessory is designed to repair connection of service underground damaged cables.



BE004

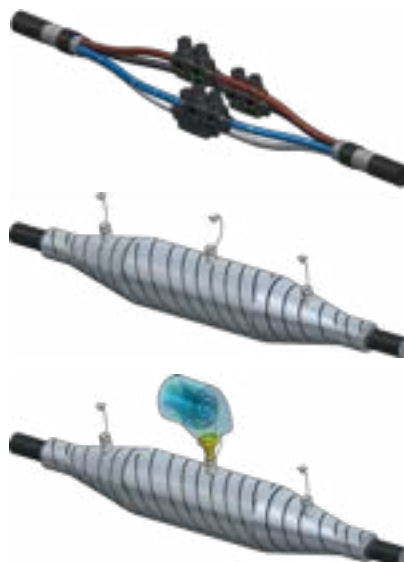
## DESCRIPTION

- Kit comprises the following accessories:
  - 4 preinsulated mechanical sleeves using insulation piercing technology.
  - 1 device enabling the reconstitution of the cable screen.
  - 1 hardening resin.
- Installation is of tape ribboning / injection type.



## INSTALLATION

- 1) Cables preparation
- 2) Cables connection
- 3) Tape ribboning
- 4) Resin injection



## REFERENCE

Code	Designation	Cable section (mm)		Weight (kg)	Sales unit
		Mini	Maxi		
BE004	SERVICE REPAIRING JUNCTION KIT JRB 10-50	4 x 10	4 x 50	2.970	1

# UNDERGROUND SERVICE

## Single pole service connector

### APPLICATION

This connector is designed to establish a tap connection on low voltage underground networks. It is located in underground cast or injected boxes.

It can be used on a main cable with paper or synthetic insulation of type:

- circular or sectoral,
- aluminum,
- stranded or solid core.



### DESCRIPTION

- Connection is ensured through insulation piercing technology simultaneously on main and tap lines.
- K419 and K420 models can be used for connecting 2 taps with identical or different sections.
- K420 model integrates an earth system conductor.
- Connectors are fully insulated (IP2X degree of protection). Bodies are made of synthetic materials to make live-line work safe.
- Ergonomics has been studied to meet the specific constraints of underground work.
- Tightening efficiency is ensured by a shear head screw.

This connector meets the criteria of the **NFC 63-061** and **NF EN 61238-1** standards.

### REFERENCES

Code	Designation	Main Capacities (mm <sup>2</sup> )	Tap Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>K317</b>	CONNECTOR CBS/CS 240	50-240	10-35	0.230	3
<b>K318</b>	CONNECTOR CBS NEUTRAL/CS	50-95	10-35	0.135	1
<b>K419</b>	CONNECTOR CB2p/CS 240	50-240	2 x 10-35	0.200	3
<b>K420</b>	CONNECTOR CB2p NEUTRAL/CS	50-95	2x 10-35	0.310	1

### Accessory

End cap is used in addition to the K317 and K318 connector in order to insulate the end of the tap cable.



**K001**

### REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K001</b>	BLACK FLEXIBLE END CAP 10-50M	0.003	20

# Service repairing junction kit - JRB

## APPLICATION

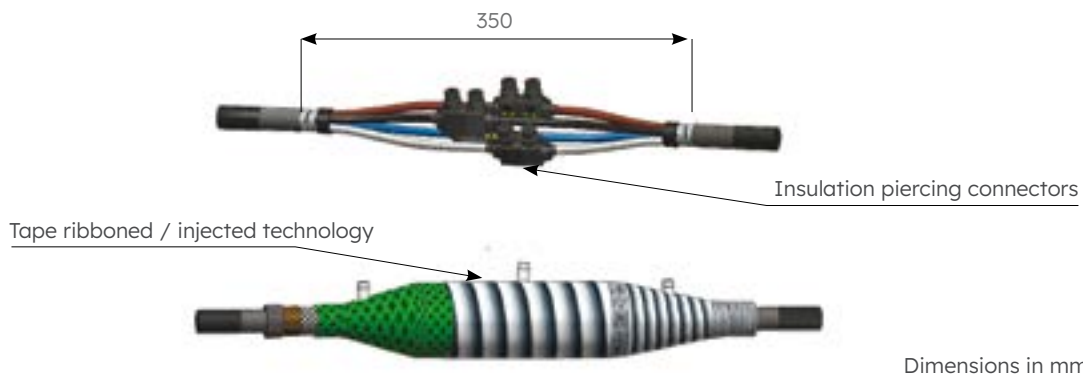
This accessory is designed to repair connection of service underground damaged cables.



BE004

## DESCRIPTION

- Kit comprises the following accessories:
  - 4 preinsulated mechanical sleeves using insulation piercing technology.
  - 1 device enabling the reconstitution of the cable screen.
  - 1 hardening resin.
- Installation is of tape ribboning / injection type.



## INSTALLATION

1) Cables preparation



2) Cables connection



3) Tape ribboning



4) Resin injection



## REFERENCE

Code	Designation	Cable section (mm)		Weight (kg)	Sales unit
		Mini	Maxi		
BE004	SERVICE REPAIRING JUNCTION KIT JRB 10-50	4 x 10	4 x 50	2.970	1

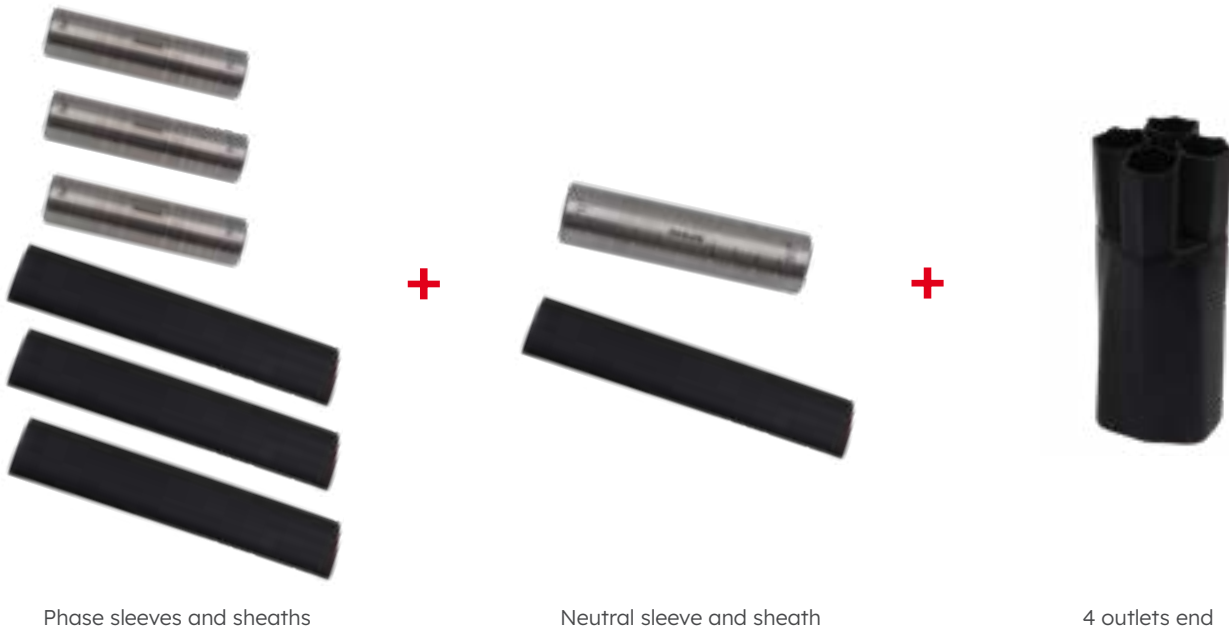
# UNDERGROUND NETWORK

## Aerial sub-surface junction for LV network (EJASE)

### APPLICATION

This aerial sub-surface junction is designed to establish the connection from a low-voltage underground network to a low voltage overhead network.

It is implemented on overhead environment along a pole, under a mechanical protection as a productive duct.



Phase sleeves and sheaths

Neutral sleeve and sheath

4 outlets end

### DESCRIPTION

Kit comprises the following accessories:

- 3 phase sleeves and 1 neutral sleeve type MJT made of aluminium.
- 4 heat-shrinkable sheaths for the sleeves insulation.
- 1 heat-shrinkable end with 4 outlets for the cable head of the underground conductor.



## REFERENCES

Cable (mm<sup>2</sup>)

Code	Designation	Underground	Overhead	Weight (kg)	Sales unit
<b>ROUND</b>					
<b>U570</b>	EJASE MR 95-50/70-54.6	3 x 95 + 50	3 x 70 + 54.6	0.840	1
<b>U571</b>	EJASE PR 95-50/70-70N	3 x 95 + 50	3 x 70 + 70N	0.840	1
<b>U572</b>	EJASE PR 95-50/150-70N	3 x 95 + 50	3 x 150 + 70N	0.840	1
<b>U573</b>	EJASE PR 95-70/70-54.6	3 x 95 + 70	3 x 70 + 54.6	0.840	1
<b>U574</b>	EJASE PR 150-70/70-70N	3 x 150 + 70	3 x 70 + 70N	0.840	1
<b>U575</b>	EJASE PR 150-70/150-70N	3 x 150 + 70	3 x 150 + 70N	0.840	1
<b>U576</b>	EJASE PR 240-95/70-54.6	3 x 240 + 95	3 x 70 + 54.6	1.100	1
<b>U577</b>	EJASE PR 240-95/70-70N	3 x 240 + 95	3 x 70 + 70N	1.100	1
<b>U578</b>	EJASE PR 240-95/150-70N	3 x 240 + 95	3 x 150 + 70N	1.100	1
<b>U579</b>	EJASE PR 150-70N/70-54.6	3 x 150 + 70	3 x 70 + 54.6	0.840	1
<b>SECTORAL</b>					
<b>U580</b>	EJASE SECT 95-50/70-54.6	3 x 95 + 50	3 x 70 + 54.6	0.520	1
<b>U581</b>	EJASE SECT 95-50/70-70N	3 x 95 + 50	3 x 70 + 70N	0.490	1
<b>U582</b>	EJASE SECT 95-50/150-70N	3 x 95 + 50	3 x 150 + 70N	0.470	1
<b>U583</b>	EJASE SECT 95-70/70-54.6	3 x 95 + 70	3 x 70 + 54.6	0.520	1
<b>U584</b>	EJASE SECT 150-70/70-70N	3 x 150 + 70	3 x 70 + 70N	0.640	1
<b>U585</b>	EJASE SECT 150-70/150-70N	3 x 150 + 70	3 x 150 + 70N	0.630	1
<b>U586</b>	EJASE SECT 240-95/70-54.6	3 x 240 + 95	3 x 70 + 54.6	0.980	1
<b>U587</b>	EJASE SECT 240-95/70-70N	3 x 240 + 95	3 x 70 + 70N	0.930	1
<b>U588</b>	EJASE SECT 240-95/150-70N	3 x 240 + 95	3 x 150 + 70N	0.890	1
<b>U589</b>	EJASE SECT 150-70N/70-54.6	3 x 150 + 70	3 x 70 + 54.6	0.660	1

OVERHEAD

UNDERGROUND

HOUSING

PROTECTION

EARTH SYSTEM

INSTALLATION

# EMERGING CONNECTION

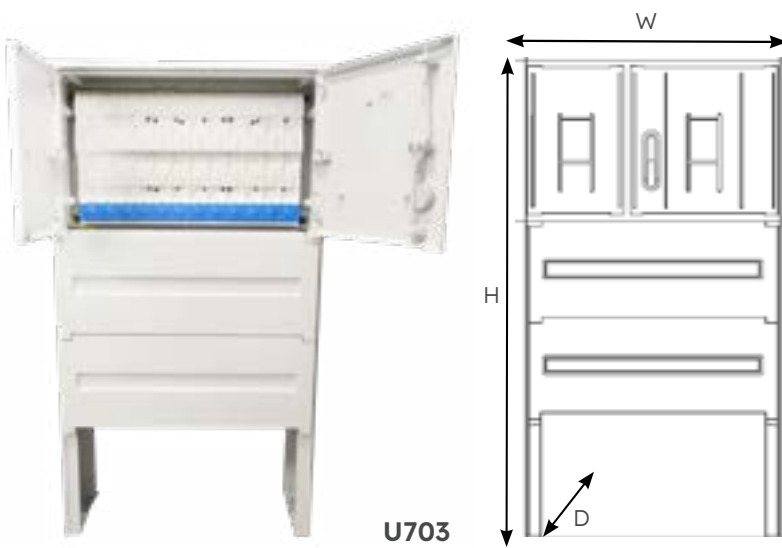
## REMIC cabinet

### APPLICATION

This DIN cabinet exists in 3 widths and is designed to receive a 300, 450 or 600mm REMIC set of bars support. It uses "common" equipment (direct connection networks service modules) and RRCP cutting / protection network connection modules.

Enveloppe is available in two sizes: foldable with hinged doors and rigid with removable panel.

### Foldable case with hinged door opening



### BENEFITS

- > Hinged door 180°.
- > Modulare.
- > Compact and foldable.

### DESCRIPTION

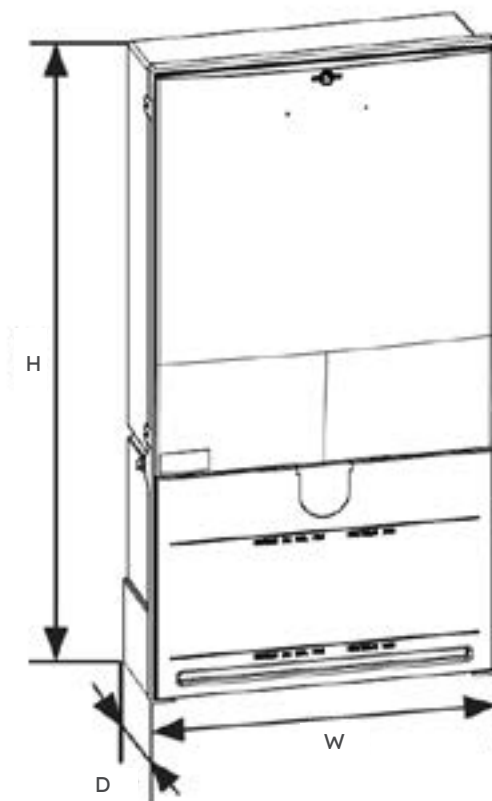
- Cabinet is designed for outdoor use. It is IP44 and IK10.
- Cabinet can be folded to save space before installation. It is assembled during installation.
- It is not equipped with the original REMIC bars support. It is necessary to order bars support separately.
- It is available in 3 versions, depending on the type of bars supports required.
- Cabinet's doors can be opened at 180° which facilitates implementation, operation and maintenance.
- Monobloc front face is completely removable to facilitate connection inside the cabinet.
- Cabinet is delivered with a pedestal, which allows to adapt the height above ground.
- Colour : grey.

This cabinet meets the criteria of the **EN 62208:2011** standard.

### REFERENCES

Code	Designation	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)	Sales unit
U701	DIN CABINET FOR REMIC SET OF BARS SUPPORT 300	1270	300	200	15.000	1
U702	DIN CABINET FOR REMIC SET OF BARS SUPPORT 450	1270	450	200	18.000	1
U703	DIN CABINET FOR REMIC SET OF BARS SUPPORT 600	1270	600	200	20.000	1

## Hard case with removable panel opening



### BENEFITS

- > Opening by removable panel.
- > Modulare.
- > Rigid casing.

### DESCRIPTION

- Cabinet is molded in fiberglass reinforced polyester. Rigid casing allows a quick installation.
- Cabinet is equipped with the corresponding REMIC busbars as standard.
- Cabinet is designed for outdoor use. It is IP33D and IK10.
- It is available in 3 versions, depending on the type of bar supports required.
- Opening is performed by a removable panel.
- One-piece front panel is fully removable for easy connection inside the cabinet.
- Cabinet is delivered with its pedestal, which allows to adapt the height above ground.
- Replenishment hatch is included in the cabinet.
- Colour: ivory.

The cabinet meets the criteria of the **HN 63-S-65** standard.

### REFERENCES

Code	Designation	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)	Sales unit
CB001	REMIC CABINET 300 + BARS SUPPORT 300	1000	350	215	13	1
CB003	REMIC CABINET 450 + BARS SUPPORT 450	1000	530	215	18	1
CB005	REMIC CABINET 600 + BARS SUPPORT 600	1000	700	215	23	1

# EMERGING CONNECTION

## REMIC set of bars support

### APPLICATION

This sets of bars supports 300, 450 and 600 is designed to offer respectively 6, 9 and 12 steps for module connector fixing on each pole.



**Q600**  
Set of bars 300  
6 steps



**Q601**  
Set of bars 450  
9 steps

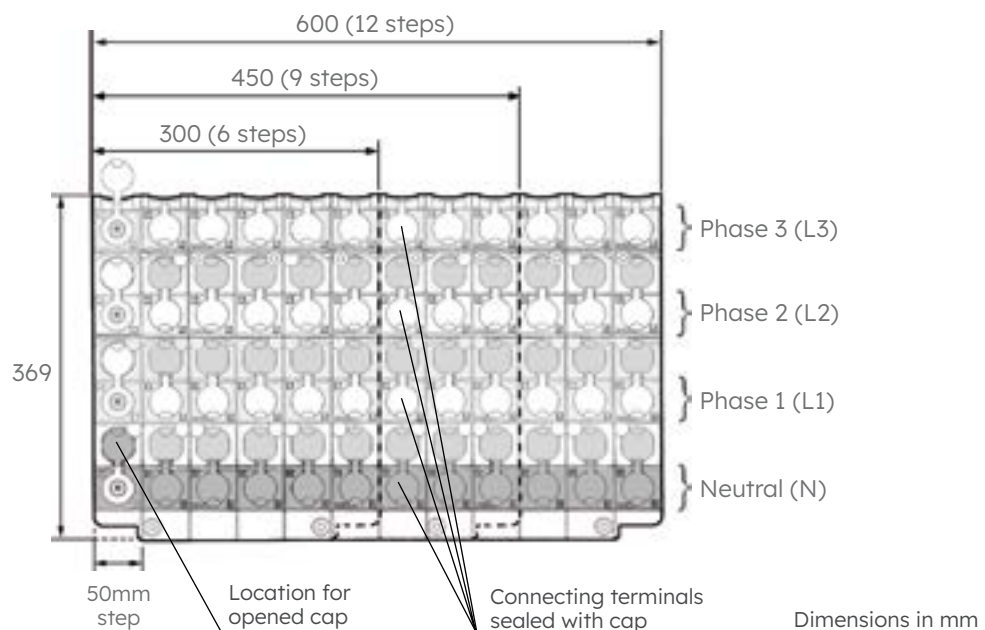


**Q602**  
Set of bars 600  
12 steps

### DESCRIPTION

- Set of bars supports 300, 450 and 600 is respectively made of 6, 9 and 12 steps of 50mm.
- Set of bars support is fixed to the bottom of all REMBT cabinets on standardised inserts.
- Inclination of the phase bars facilitates module connector fixing.
- Poles are identified (N, L1, L2, L3).
- Module is fixed using standardised M12 threads.
- Product is IP2X before and after installation. The unused connection terminals are covered using a captive cap.
- 400A re-supply device can be connected directly to the connection terminals.

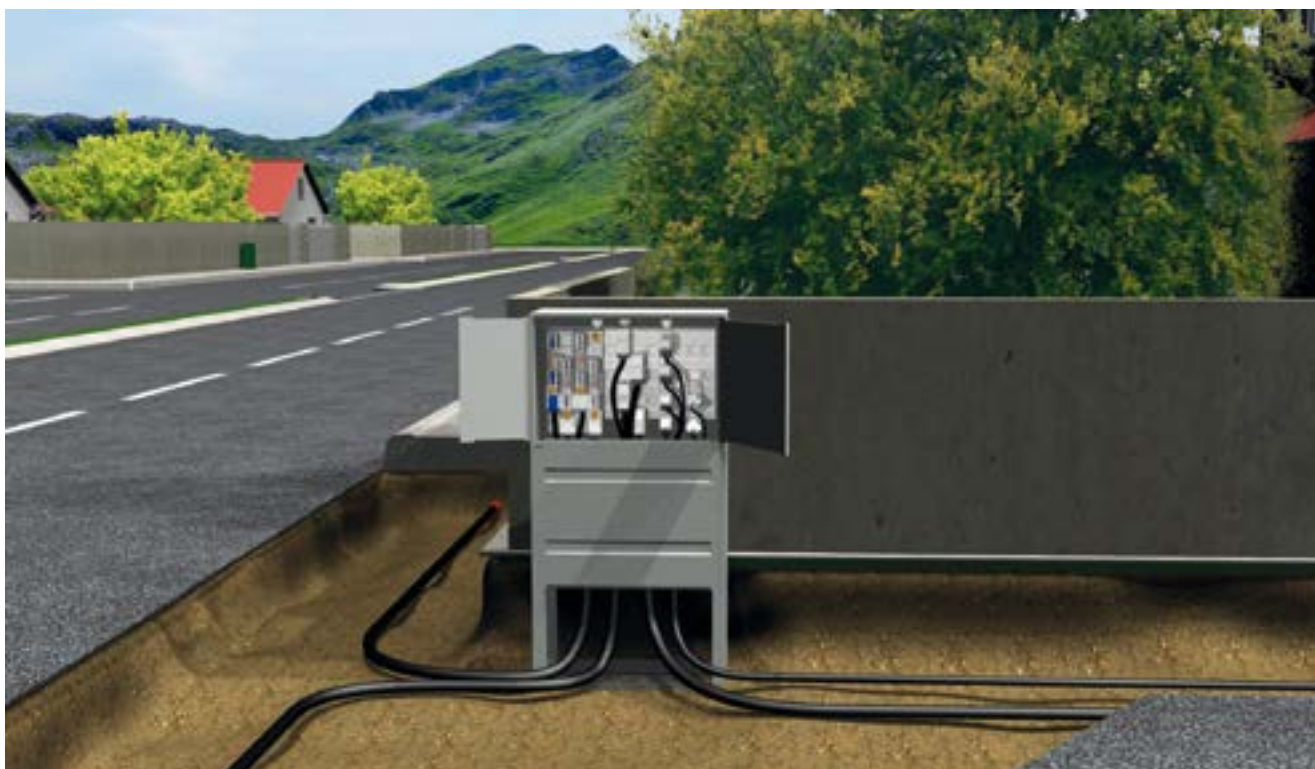
This set of bars supports meets the criteria of the **HN 63-S-65** standard.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
Q600	REMIC SET OF BARS SUPPORT 300	2.630	1
Q601	REMIC SET OF BARS SUPPORT 450	3.760	1
Q602	REMIC SET OF BARS SUPPORT 600	4.870	1

## INSTALLATION



### Accessories

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>ADAPTORS FOR S15-S20 CABINETS</b>			
Q618	REMIC STANDARD S20 CABINET FRAME	1.030	1
Q619	REMIC STANDARD S15 CABINET FRAME	1.550	1

# EMERGING CONNECTION

## REMIC service module connector

### Fuse module connector



OR



### APPLICATION

This fuse service module connector is designed to perform cutout and protection 60A or 90A in single or three phase kits depending on the model. A triple neutral service module connector can be delivered with the fuse service module connector.

It is installed on the M12 standardised connection terminals of the set of bars support.

It is used to tap a single or three phase service connection ensuring protection through fuses size NH00.

### BENEFITS

> In case of long service connections, the terminal block can receive 50M solid core to avoid voltage drop.

### DESCRIPTION

- Fuse service module connector has a degree of protection type IP2X before and after installation.
- Neutral is identified thanks to its blue colour.
- Connection terminal uses insulation piercing technology and is equipped with shear head screws. Capacity is 10-25mm<sup>2</sup> Cu / 16M-50M Al (the letter M means that the core of the conductor is solid).

This module connector meets the criteria of the **HN 63-S-65** standard.

### REFERENCES

Code	Designation	Number of phase modules	Neutral type module	ENEDIS capacity (A)	Real capacity (A)	Weight (kg)	Sales unit
<b>Q608</b>	REMIC MODULE TYPE FUSE SERVICE SINGLE PHASE 90A RBPM	1	Disconnection	90	108	0.590	1
<b>Q606</b>	REMIC MODULE TYPE FUSE SERVICE THREE PHASE 60A RBPT	3	Disconnection	60	72	0.850	1
<b>Q609</b>	REMIC MODULE TYPE FUSE SERVICE SINGLE PHASE 60A RBPM	1	Disconnection	60	72	0.430	1
<b>Q605</b>	REMIC MODULE TYPE FUSE SERVICE 22x58 100A RBP	3	Disconnection	100	100	0.222	14
<b>Q611</b>	REMIC MODULE TYPE FUSE SERVICE 14x51 50A RBP + TRIPLE NEUTRAL	3	Triple neutral	50	50	0.460	1
<b>Q621</b>	REMIC MODULE TYPE FUSE SERVICE 22x58 100A RBP + TRIPLE NEUTRAL	3	Triple neutral	100	100	0.350	1

# Multitap module connector

## APPLICATION

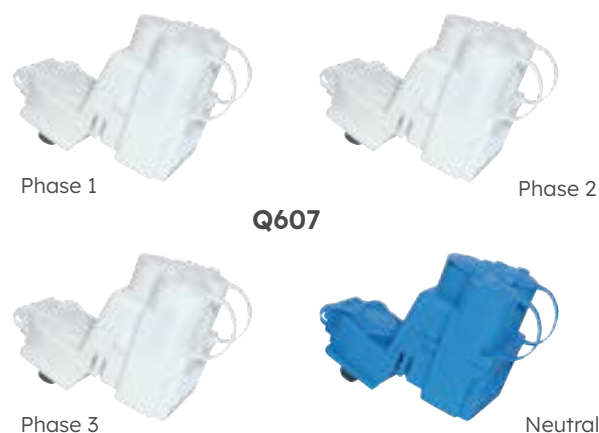
This multitap service module connector is designed to perform service connection. It comprises 1 neutral and 3 phases. It allows a maximum of 3 single phase or 3 three phases services to be connected.

It is installed on the M12 standardised connection terminals of the set of bars support.

It is mainly used when fuse protection is installed in the customer premise.

## BENEFITS

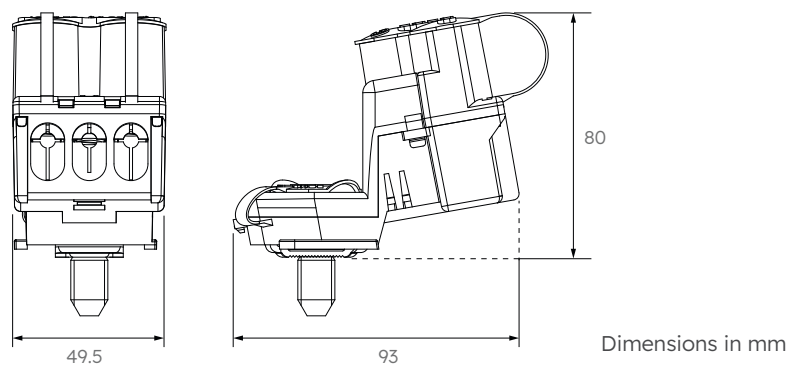
- > In case of long service connections, **the terminal block can receive 35M solid core to avoid voltage drop.**



## DESCRIPTION

- Multitap connection module connector has a degree of protection type IP2X before and after installation.
- Neutral and phases have 3 insulation piercing connection terminals.
- Neutral is identified thanks to its blue colour.
- Connection terminals are equipped with shear head screw. Capacity is 16-25mm<sup>2</sup> Al-Cu / 16M-35M Al (the letter M means that the core of the conductor is solid).
- Product design allows the conductors to be run over the lower module connector.
- Small size of the IP2X cap provides access to the tightening screws of the terminals even when all of the conductors are connected.

This module connector meets the criteria of the **HN 63-S-65** standard.



## REFERENCE

Code	Designation	Weight (kg)	Sales unit
Q607	REMIC MULTITAP CONNECTION MODULE RBD (1 NEUTRAL + 3 PHASES)	0.950	1

### Variant

The multitap connection module is available in single phase version.

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
Q610	REMIC MULTITAP CONNECTION MODULE SINGLE PHASE (1 NEUTRAL + 1 PHASE)	0.580	1

# EMERGING CONNECTION

## REMIC network module connector



Phase 3      Phase 2      Phase 1      Neutral

### Q612

Network module connector 50-150



Phase 3      Phase 2      Phase 1      Neutral

### Q603

Q603: Network module connector 50-240

## APPLICATION

This network module connector is designed to perform network connection. It is available in 2 versions:

- 50-240mm<sup>2</sup>,
- 50-150mm<sup>2</sup>.

It comprises one neutral terminal and three phase terminals.

It is installed on the M12 standardised connection terminals of the sets of bars supports.

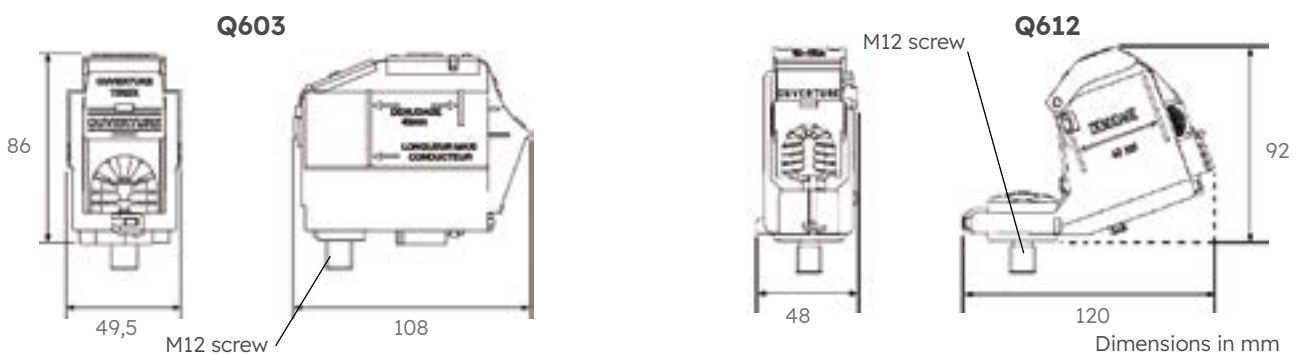
## BENEFITS

- > Easy installation of the **NETWORK module connector 50-240**.
- > **50mm<sup>2</sup> or 95mm<sup>2</sup> connection** of the NETWORK module 50-150.

## DESCRIPTION

- Terminals are of Class A according to the NF C 63-061 standard (Electrical ageing: 700 cycles).
- Module connector is IP2X before and after installation regardless of the conductors section.
- Neutral is identified thanks to its blue colour.
- Terminals receive round or sectoral shape aluminium or copper conductors.
- Conductors are tightened using a hexagonal H14 shear head screw. A second H14 head is used for possible dismantling and reuse using a 40Nm torque wrench.

This module connector meets the criteria of the **HN 63-S-65** standard.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
Q603	REMIC MODULE TYPE NETWORK RRD 50-240 (1 neutral + 3 phases)	1.780	1
Q612	REMIC MODULE TYPE NETWORK RRD 50-150 (1 neutral + 3 phases)	1.670	1

## Accessory

This insulation bloc module connector enables a network module connector to be temporarily separated from the set of bars support insulated and possibly resupplied.

This module connector meets the criteria of the **HN 63-S-65** standard.



**Q604**

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>Q604</b>	REMIC 4-TYPE INSULATION BLOC MODULE	0.670	1

# REMIC Tools set

## APPLICATION

This tools set U804 provides various tools required for the connection of the underground incoming and outgoing cables to the REMIC above ground system.



## DESCRIPTION

- The tool kit U804 contains the following accessories :
- Insulated handle for installing and removing fuses and neutral links (P237).
  - Square flat triangle operating key to open/close the front door of the cabinet (P091).
  - 3/8" Insulated torque wrench (U814-4).
  - Insulated extension for torque wrench (U801).
  - 3 sizes of insulated hexagon sockets for the torque wrench (U803-1X) :
    - 10mm (U803-10),
    - 13mm (U803-13),
    - 14mm (U803-14).
  - 2 sizes of allen sockets for the torque wrench :
    - 6mm (U803-6A),
    - 4mm (U803-4A).

## REFERENCES

Code	Designation	Sales unit
<b>U804</b>	REMIC'S INSULATED TOOLS KIT	1
<b>TOOLS</b>		
<b>U814-4</b>	INSULATED TORQUE WRENCH 3/8" - 50NM	1
<b>P237</b>	HANDLE FOR FUSES SIZE 00 - SIZE 2	1
<b>U801</b>	EXTENSION FOR INSULATED RATCHET SPANNER	1
<b>P091</b>	14 SQUARE 11 TRIANGULAR 9x4 FLAT WRENCH	10
<b>HEXAGONAL SOCKET</b>		
<b>U803-10</b>	HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 10mm	20
<b>U803-13</b>	HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 13mm	20
<b>U803-14</b>	HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 14mm	20
<b>INSULATED SOCKET WRENCH</b>		
<b>U803-6A</b>	INSULATED SOCKET WRENCH - 6mm	20
<b>U803-4A</b>	INSULATED SOCKET WRENCH - 4mm	20

## EMERGING CONNECTION

# REMIC disconnection and protection module connector RRCP



Q614

### APPLICATION

This module connector type RRCP is designed to offer a network outlet that can be cut (400 A function) or protected using maximum 200A fuses 115mm size NH2 (200A function).

It is installed on four M12 standardised connection terminals of the sets of bars supports.

It is mainly used for supplying a collective or individual outlet with supervised power.

### BENEFITS

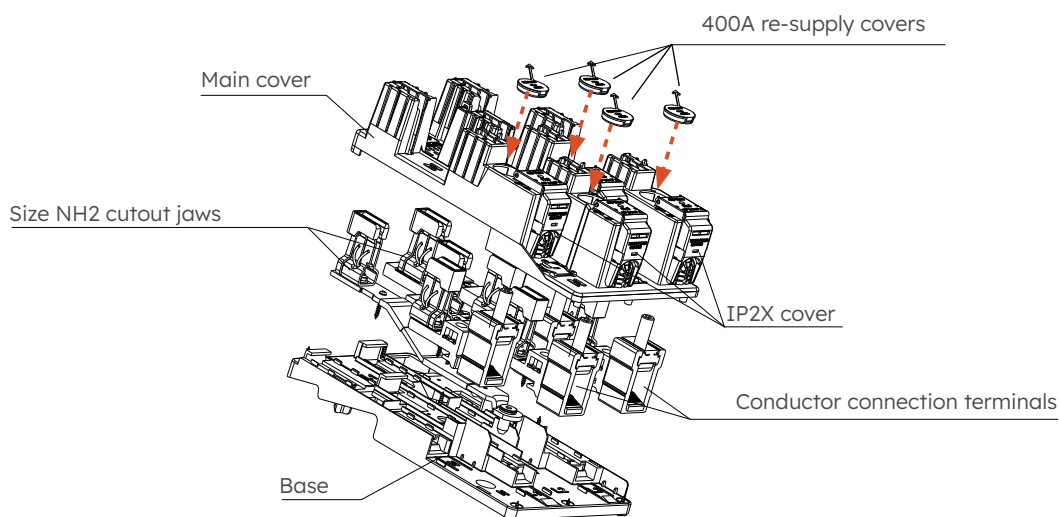
- > 1 single tool for installation.
- > Compatibility with flat doors.
- > Clear poles separation.
- > Integrated IP2X protection on each pole.

### DESCRIPTION

- Small thickness of the module type RRCP facilitates use in small depth cabinets (flat door).
- Neutral is identified thanks to its blue colour.
- Terminals allow the connection of round or sectoral shape, copper or aluminium conductors.
- Capacity of the terminals is 50 to 240mm<sup>2</sup> for the neutral and for the phases.

This module meets the criteria of the **HN 63-S-65** standard.

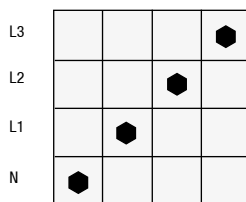
**Caution: the RRCP module is installed exclusively on the REMIC sets of bars supports.**



## INSTALLATION

### PRINCIPLE

The disconnection and protection module (RRCP) requires four 50mm steps.



● : Fixing points on the set of bars support

### CHRONOLOGY OF THE OPERATIONS

#### Assembly:

- On the set of bars supports installed (450 or 600), open the 4 pole caps diagonally in the required place for installing the RRCP (the other captive caps above and below the diagonal must remain closed).
- Remove the IP2X captive caps of the module connector then place and fix the RRCP on the set of bars support using 4 H16 screws.
- Replace all of the captive caps on the module connector while waiting connection of the outlet.

#### Leading-out wiring:

- Prepare end cable as usual.
- Remove the covers of the terminal blocks to connect on the module connector.
- Cut the conductors to length, strip them over 45mm, brush them with neutral grease then insert them into the terminals.
- Replace the slides in U shape and tighten the screws until 40Nm.
- Replace the covers.

#### Installation of the links or fuses size NH2 (centre-to-centre distance 115mm):

- Install the links or fuses using an insulated operating handle.

#### Installation of the re-supply:

- Remove the 4 re-supply covers.
- Perform necessary electrical measurements.
- Insert and screw the M12 re-supply socket.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
Q613	REMIC MODULE RRC 400A	5.660	1
Q614	REMIC MODULE RRCP 400A / 200A	5.660	1

# ACCESSORIES

## Protection and warning

### Protection plate roll (PPR)



**U594**

#### APPLICATION

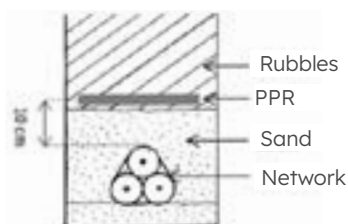
This protection plate roll (PPR) is designed to protect underground networks from extraction (pipes and/or cables).

It can be used for underground network under low load, engineering structure crossing, or in area of high density network.

#### DESCRIPTION

- Plate roll offers permanent mechanical protection.
- It is rot-proof, corrosion and water resistant and shock absorbing.
- Plate is of red colour. Other colours are available. Please enquire.

This protection plate roll meets the criteria of the **DIN 54841-5** standard.



#### REFERENCES

Code	Designation	Dimensions LxHxD (mm)	Weight (kg)	Sales unit
<b>U590</b>	PROTECTION PLATE ROLL (l=120mm) - GREEN	50 000 x 120 x 2	11.500	1
<b>U591</b>	PROTECTION PLATE ROLL (l=150mm) - RED	50 000 x 150 x 2.5	17.500	1
<b>U592</b>	PROTECTION PLATE ROLL (l=200mm) - RED	50 000 x 200 x 2.5	23.500	1
<b>U593</b>	PROTECTION PLATE ROLL (l=250mm) - RED	40 000 x 250 x 2.5	23.500	1
<b>U594</b>	PROTECTION PLATE ROLL (l=300mm) - RED	30 000 x 300 x 3	26.000	1

### Underground warning netting

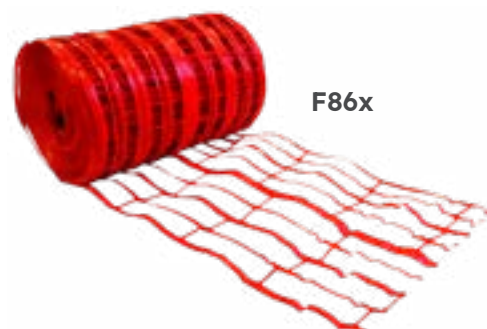
#### APPLICATION

This warning grid is designed to indicate the presence of buried underground services. The red one is used to indicate a buried electrical network.

#### DESCRIPTION

- Available in 3 widths: 100mm, 200mm and 300mm.
- Material: Polyolefin.
- Mechanical tensile strength, colour fastness and resistance to micro-organisms.

This flexible mesh meets the criteria of the **NF EN 12613** standard.



**F86x**

#### REFERENCES

Code	Designation	Width (m)	Length (m)	Weight (kg)	Sales unit
<b>F860</b>	WARNING MESH 0.1m (300m roll)	0.1	300	1.500	1
<b>F861</b>	WARNING MESH 0.2m (100m roll)	0.2	100	1.100	1
<b>F862</b>	WARNING MESH 0.3m (100m roll)	0.3	100	2.210	60

Other colours exist (green, yellow, etc.) to identify different types of networks (telecommunication, gas, etc.). Please enquire.

# TPC sheath

## APPLICATION

This sheath is designed to protect underground cables. It is available in ring (with draw needle) or in bar.

## DESCRIPTION

- Sheath offers a compressive strength of 450 N (maximum deformation of 5%).
- Sheath offers an impact resistance in accordance to **EN 61386-24** standard.
- Product is delivered in ring (bendable) or in bar (rigid).
- Installation and operating temperature is between -10°C up to +90°C.
- Protection degree is IP44.
- Sheath is made with allogen free synthetic materials and without heavy metals.

This product meets the requirements of the **EN 61386-1** and **EN 61386-24** standards.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>SHEATH DRUM</b>			
<b>U345*</b>	TPC SHEATH DRUM	-	10
<b>SHEATH TUBE</b>			
<b>U346*</b>	TPC SHEATH TUBE	-	-

\* Add the length of the desired diameter behind the code, from among the following diameters (mm):

- Sheath drum: 40, 50, 63, 75, 90, 110, 125, 160, 200.
- Sheath tube: 90, 110, 125, 160, 200, 250.

For example, for TPC sheath drum with a nominal diameter of 90mm: **U345-90**.

Sales units vary according to the diameter chosen.

Duct lengths delivered in 6m bars are supplied per pallet.

## Junction sleeve

This sleeve is designed to perform connection between two ends of sheaths.

Code	Designation	Weight (kg)	Sales unit
<b>U347*</b>	TPC SHEATH JUNCTION SLEEVE	-	-

\* Add the desired diameter length behind the code, from the following diameters (mm): 40, 50, 63, 75, 90, 110, 125, 160, 200, 250.

Example, for a 90 mm nominal diameter TPC sheath junction sleeve: **U347-90**.

## Separator

This separator is designed to facilitate the installation of sheaths and to split each one.

Code	Designation	Weight (kg)	Sales unit
<b>U348*</b>	TPC SHEATH SEPARATOR	-	-

\* Add the desired diameter length and number of tubes per separator behind the code, from among :

- Diameter (mm): 63, 75, 90, 110, 125, 160, 200.
- Number of tubes per separator: 4 or 8.

Example, for a 90 mm diameter separator with 4 tubes per separator: **U348\_90-4**.

## Sheath end cap

This sheath end cap is designed to seal the sheath by closing its end.

Code	Designation	Weight (kg)	Sales unit
<b>U349*</b>	TPC SHEATH END CAP	-	-

\* Add the length of the desired diameter behind the code, among the following diameters (mm): 40, 50, 63, 75, 110, 125, 160, 200, 250.

Example, for a TPC sheath end cap with a nominal diameter of 75 mm: **U349-75**.



U345



U347



U348



U349

# ACCESSORIES

## Cold-shrink seal

### E2R RF - E4R RF cable sealing end

#### APPLICATION

This cable sealing end is designed to ensure watertightness of network and service cables conductors end separating phases and neutral.

It is slid on the conductors and complemented without using flame.



E4R RF 95-240  
**HC103**



E4R RF 35-70  
**HC102**



E4R RF 10-35  
**HC101**



E2R RF 10-35  
**HC100**

#### BENEFITS

- > No tool is required.
- > Very short installation time.

#### DESCRIPTION

- Cable sealing end is made of elastomer materials very elastic, flexible, resistant and treated to ensure a good protection to UV.
- For 2 conductors :
  - Service cable of 10 up to 35mm<sup>2</sup> (HC100).
- For 4 conductors :
  - Service cable of 10 up to 35mm<sup>2</sup> (HC101),
  - Network cable of 35 up to 70mm<sup>2</sup> (HC102),
  - Network cable of 95 up to 240mm<sup>2</sup> (HC103).

#### REFERENCES

Code	Designation	Capacity** (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>HC100</b>	CABLE SEALING END E2R RF 10-35 SILICONE	2 x 10 up to 2 x 35	0.034	20
<b>HC101</b>	CABLE SEALING END E4R RF 10-35 SILICONE	4 x 10 up to 4 x 35	0.045	20
<b>HC102</b>	CABLE SEALING END E4R RF 35-70 SILICONE	4 x 35 up to 4 x 70	0.085	20
<b>HC103</b>	CABLE SEALING END E4R RF 95-240 SILICONE	3 x 95 + 50/70M* up to 3 x 240 + 95/120M	0.192	10

\* M means that the conductor core is solid.

\*\* Capacities according to NF standards.

## Cable cap



CRC RF 46-80  
**P464**



CRC RF 26-48  
**P463**



CRC RF16-27  
**P462**



CRC RF 8-16  
**P561**

#### APPLICATION

This cable cap is designed to ensure watertightness of network and service cables conductors end.

It can be used on cable drum. It is used exclusively without power.

## DESCRIPTION

- Cable cap is made of elastomer material very elastic, flexible, resistant and treated to ensure a good protection to UV.
- Cable cap is available in 4 dimensions:
  - For service cable of 1.5 up to 10mm<sup>2</sup> (P561),
  - For service cable of 16 up to 35mm<sup>2</sup> and peripheral three phase neutral (P462),
  - For network cable of 50 up to 150mm<sup>2</sup> (P463),
  - For network cable of 240mm<sup>2</sup> (P464).

## REFERENCES

Code	Designation	Capacity (mm <sup>2</sup> )	Diameter (mm)	Weight (kg)	Sales unit
P561	SEAL CAP CRC RF 8-16	2 x 1.5 to 2 x 10 or 4 x 1.5 to 4 x 6	8 to 16	0.012	10
P462	SEAL CAP CRC RF 16-27	LV : 4 x 16M* to 4 x 35M*	16 to 27	0.027	10
P463	SEAL CAP CRC RF 26-48	LV : 4 x 50 to 3 x 150 + 95M* HV : 50 to 240	26 to 48	0.052	10
P464	SEAL CAP CRC RF 46-80	LV : 3 x 240 + 120M* HV : 630 to 1200	46 to 80	0.124	10

\* M means that the conductor core is solid.

# Cold-shrink sheath

## Cold-shrink sleeve

### APPLICATION

This sleeve is designed to ensure watertightness and insulation of bare fittings on low voltage network cables.

It is designed for round or sectoral type conductors.



HC117

### DESCRIPTION

- Sleeve is made of elastomer material, highly elastic, flexible and resistant.
- It is expanded and layed-out on an application ring which is breakable and disposable.
- Product is delivered with a mastic tape allowing to reinforce the weathertightness of the sleeve.

### REFERENCE

Code	Designation	Weight (kg)	Sales unit
HC117	COLD-SHRINKABLE SHEATH FRF 50-240	0.160	4

## Cold-slidable sheath

This sheath is designed to insulate the neutral conductor.  
Before the installation, lubricate the bare neutral conductor.



HC112

### REFERENCES

Code	Designation	Length (mm)	Weight (kg)	Sales unit
HC112	COLD-SLIDABLE SHEATH GEF 35M	5	0.310	1
HC113	COLD-SLIDABLE SHEATH GEF 50M	5	0.320	1
HC114	COLD-SLIDABLE SHEATH GEF 70M	4	0.280	1
HC115	COLD-SLIDABLE SHEATH GEF 95M	4	0.330	1
HC116	COLD-SLIDABLE SHEATH GEF 120M	4	0.340	1

# ACCESSORIES

## Cold-shrink service end



### APPLICATION

This product is designed to ensure watertightness at the end of a service cable and to connect home device with peripheral neutral service cable.


No tool is required for the installation.


### DESCRIPTION


- End kit includes a cold-shrink end and one or two sheaths designed to be put on conductors.
- Inside kit (EI) contains one sheath for the neutral.
- Outside kit (EE) contains two sheaths for three-phases cables.
- Neutral sheath has a tinned copper socket at one end, designed to gather strands of the concentric neutral conductor.
- Cold-shrink end is implemented removing the 2 parts synthetic materials, located at the product base.
- Three-phases cable cap has a fifth outlet for implementation of meter-reading system, especially when using meter reading system cable type **NF C 33-214**.
- Detail of each kit is shown as follows:


		P420	P422	P424
Package content	Cold-shrink cap	2 outlets	5 outlets	5 outlets
	Sheath	Blue with socket Length: 40 cm	Blue with socket Length: 40 cm	Black with socket, UV resistant, marked «Neutral» Length: 1 m + Black, UV resistant Length: 3 m
Application	Cable type	Concentric neutral cable <b>HM-27/03/139</b>	- Concentric neutral cable <b>HM-27/03/139</b> - Solid cable <b>NF C 33-210</b> - Meter reading system cable <b>NF C 33-214</b> - U1000 R02V cable <b>NF C 32-321</b>	


## INSTALLATION


- 1** 

  - Strip the cable 10 cm longer than the useful length and remove the insulation and the stuffing.
- 2** 

  - If needed, cut the sheath on the opposite side of the socket.
- 3** 

  - Adjust approximatively the length of the neutral conductor to the sheath length.
- 4** 

  - Slide on the sheath under the neutral conductor. The socket should be at the cable end.
- 5** 

  - Slide the cold-shrink cap.
  - Remove the 2 parts in synthetic materials.
- 6** 

  - Cut the exceed strands from the socket.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
P420	INSIDE END EI2TF 25-35 D	0.030	1
P422	INSIDE END EI5TF 25-35 D	0.045	1
P424	OUTSIDE END EE5TF 25-35 D	0.140	1

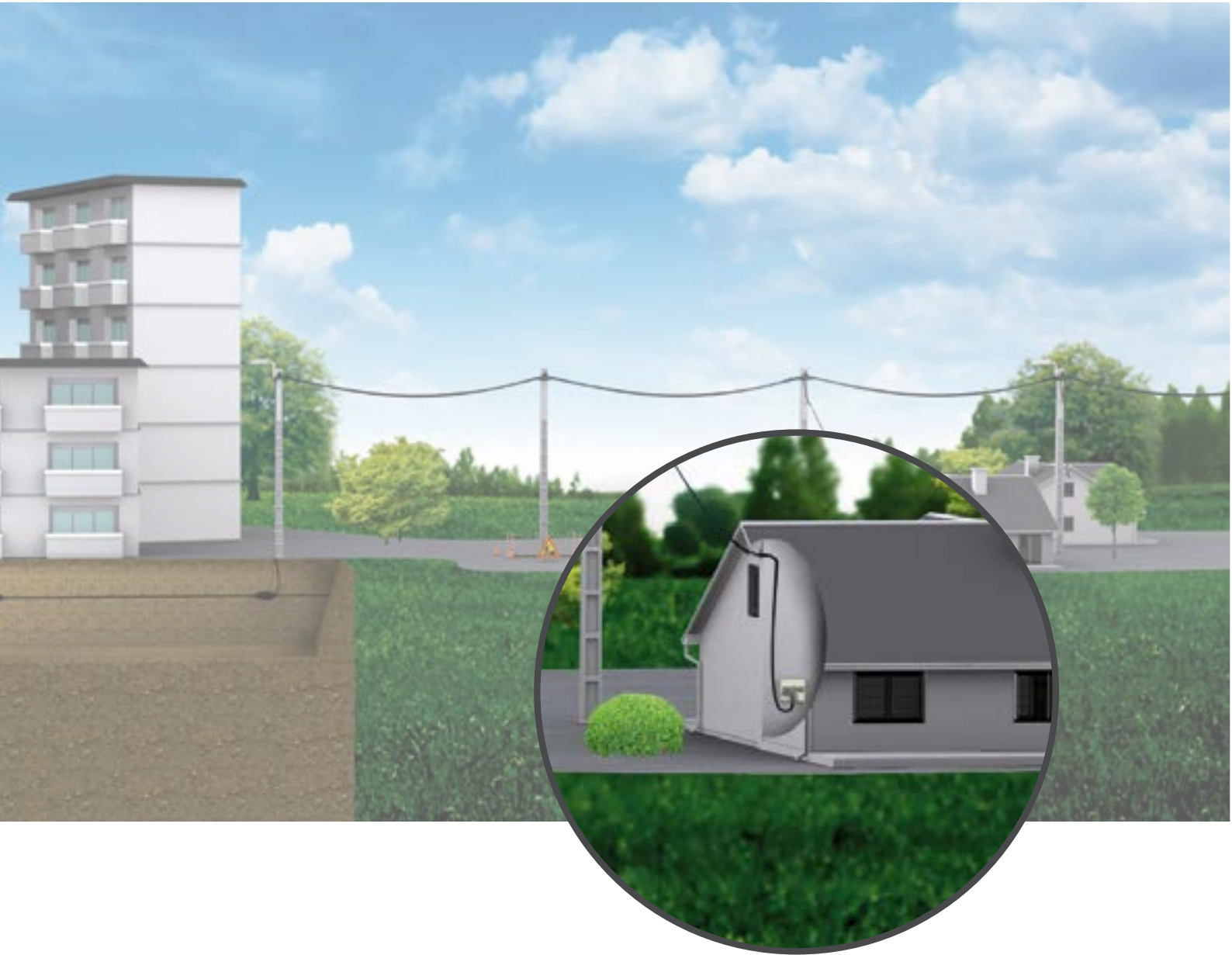
### Variants :

The sheath can be delivered alone.

Code	Designation	Weight (kg)	Sales unit
P428	SET OF 10 BLUE INTERIOR SHEATHS 40CM D	0.150	1

The five-outlet inside end is also available with socket. In this case, it cannot be used on a concentric neutral cable.

Code	Designation	Weight (kg)	Sales unit
P251	INTERIOR END EI5TF 25-35	0.050	1





# HOUSING

## Electrical riser

Floor supply box S31	p. 114
IRO tube	p. 116
Corrugated tube	p. 117

## Smart Meter Equipment

Meter circuit-breaker box	p. 118
Universal meter board and accessory	p. 120
Meter circuit-breaker board	p. 122
Modular distribution box	p. 124
Cutout cabinet	p. 126
Button circuit breakers	p. 128
Button circuit breakers	p. 130
Seal	p. 132

## Universal flexible linking cable

Insulation piercing end connector EBCP 6-35	p. 134
Insulation piercing end connector EBCP 16-50 Class II	p. 136
Reversible stripping end connector EBCD 6-35	p. 138
Flexible linking cable	p. 140
Reducing end connector	p. 142

# SOLUTIONS FOR HOUSING



Specialised in electrical distribution, MICHAUD develops its expertise with the arrival of Smart Metering, offering solutions for the counting environment and protection.

# Evolution in the housing field: Smart Metering

Due to the evolution of world-wide specifications for Smart Meter systems, it is necessary to assist meters manufacturers or distribution networks operators.

The Smart Meters roll out requires an adaptation of residential installations. MICHAUD invests to make the change easier by developing solutions suitable for current installations and ready to receive new counting solutions.

Thanks to its expertise and engineering, MICHAUD proposes custom-made solutions to better suit any project.

## THE BENEFITS



Anticipate and facilitate transition towards Smart Metering



Reduce intervention time as well as electricity supply cut time



Minimise roll-out cost

## Adaptation to new counting systems

In this scalable environment, the development of universal solutions enables better preparation for change according to evolution of Smart Meter technology.

Thanks to its skills and its expertise, MICHAUD was a pioneer regarding the design of insulation piercing end connector. It is a solution for universal connection between service cable and board terminals enabling to realise safe connection between aluminium and copper.



### CHARACTERISTICS

- Connection between the aluminium service cable and the copper board terminal.
- Cable tail flexibility and small end connector body size.
- Possible tail extension.

### ASSETS

- No electrolytic corrosion phenomenon.
- Easier fitter work in confined space.
- Easy renovation.

# ELECTRICAL RISER

## Floor distribution box S31



**K540**

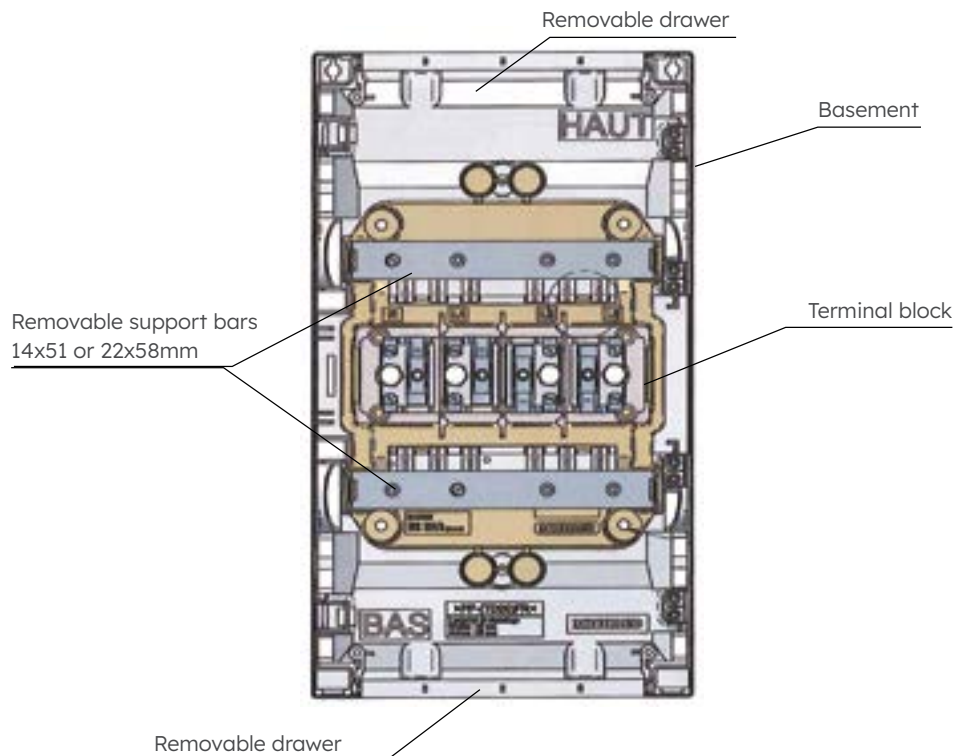
### APPLICATION

This 200A floor distribution box is designed to connect up to 6 single-phase service connections or 2 three-phases service connections from an electrical column. It can be installed vertically or horizontally.

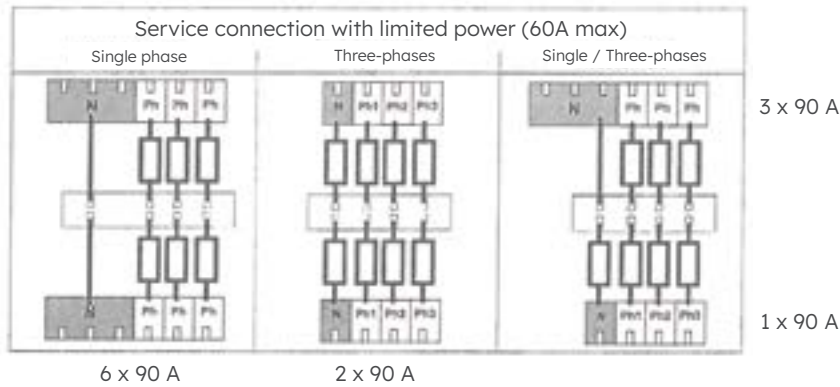
### DESCRIPTION

- Floor distribution box is made of a basement with cover in synthetic materials, 2 base support bars and a terminal block.
- Protection degree is IK10.
- Principal terminal block is removable and allows a bare connection for conductors 25 to 95 mm<sup>2</sup> Cu, or a bar from 24 mm<sup>2</sup> up to 96 mm<sup>2</sup>.
- Tightening of the terminal blocks is done with an insulated 6mm socket wrench.
- Floor distribution box can receive fuse holder of size 14x51mm or 22x58mm.
- Floor distribution box allows up to 6 single-phase service connections or 2 three-phases service connections with a power limit of 45kVA.
- An assembly version is also available :
  - For 2 single phase service connections (K540.A),
  - For 3 single phase service connections (K540.B).

The floor distribution box meets the criteria of the **HN 62-S-3** standard.



## CONFIGURATION



## REFERENCES

Code	Designation	Dimensions			Weight (kg)	Sales unit
		D	W	H		
K540	FLOOR DISTRIBUTION BOX S31	430	235	165	3.050	1
K540.B	FLOOR DISTRIBUTION BOX WITH 3 CONNECTIONS	430	235	265	3.400	1

### Accessories

- Fuse holder is available in two different sizes :
  - 14x51 for fuse cartridge AD 15 and 30A,
  - 22x58 for fuse cartridge AD 30, 45, 60 and 90A.
- It is equipped with connection leg which allows the connection before supplying the floor distribution box.
- Triple neutral connector allows up to 3 neutral service taps thanks to its 3 independent terminal blocks.



## REFERENCES

Code	Designation	Sales unit
K541	FLOOR DISTRIBUTION BOX FUSE HOLDER 14x51	150
K542	FLOOR DISTRIBUTION BOX FUSE HOLDER 22x58	10
K545	FLOOR DISTRIBUTION BOX TRIPLE NEUTRAL	20

# ELECTRICAL RISER

## IRO tube

### Tube



U339

### APPLICATION

This IRO tube is designed to add mechanical protection around electrical cables for outside implementation.

### DESCRIPTION

- Tube offers a compressive strength of 750 N (maximum deformation of 25%).
- Tube offers an impact resistance of 2 Joules.
- Tube is delivered in rigid bar of 3 meters.
- Tube is delivered with a junction sleeve.
- Installation and operating temperature is between -5°C up to +60°C.
- The protection degree is IP43.

This tube meets the criteria of the **EN 61386-1** and **EN 61386-21** standards.

### REFERENCES

Code	Designation	External diameter (mm)	Internal diameter (mm)	Weight (kg)	Sales unit
U339*	IRO TUBE DIAM + JUNCTION SLEEVE IRO	To choose	-	-	-

\* Add the length of the desired diameter behind the code, from the following diameters (mm) : 16, 20, 25, 32, 40, 50, 63.  
Example, for an IRO tube + an IRO connector with an external diameter of 32 mm : **U339-32**.

## Junction sleeve



U340

### APPLICATION

This IRO sleeve is designed to connect two IRO tubes.

Code	Designation	External diameter (mm)	Weight (kg)	Sales unit
U340*	SLEEVE FOR IRO TUBE	To choose	-	-

\* Add the length of the desired diameter behind the code, from the following diameters (mm) : 16, 20, 25, 32, 40, 50, 63.  
Example, for an IRO tube + an IRO connector with an external diameter of 32 mm : **U340-32**.

## T-sleeve and elbow

### APPLICATION

This T-sleeve and elbow are designed to connect and adapt IRO tubes in different directions.



U342

U343

Code	Designation	External diameter (mm)	Weight (kg)	Sales unit
<b>T-SLEEVE</b>				
U342*	T-SLEEVE FOR IRO TUBE	To choose	-	-
<b>ELBOW 90°</b>				
U343*	ELBOW 90° FOR IRO TUBE	To choose	-	-

\* Add the length of the desired diameter behind the code, from the following diameters (mm) : 16, 20, 25, 32, 40, 50, 63.  
Example, for an IRO tube + an IRO connector with an external diameter of 32 mm : **U342-32**.

# Mounting bracket

## APPLICATION

This IRO mounting bracket is designed to fix IRO tube on any surface.



**U344**



**F012**

## REFERENCES

Code	Designation	External diameter (mm)	Weight (kg)	Sales unit
<b>U344*</b>	MOUNTING BRACKET IRO TUBE	To choose	-	-
<b>F012</b>	TIE FOR IRO TUBE WITH BASE 16-32		0.006	100

\* Add the length of the desired diameter behind the code, from the following diameters (mm) : 16, 20, 25, 32, 40, 50, 63.  
Example, for an IRO tube + an IRO connector with an external diameter of 32 mm : **U344-32**.

# Corrugated tube

## APPLICATION

This corrugated tube is designed to protect and insulate electrical cables and wires.



**F143-3422**

## DESCRIPTION

	<b>F14X-2321</b>	<b>F14X-3422</b>
<b>Materials</b>	Polyethylene	Polyolefin
<b>Crushing strength (in N)</b>	320N	750N
<b>Impact resistance (in J)</b>	2J	6J
<b>Operating temperature (in °C)</b>	-5°C/+60°C	-5°C/+90°C
<b>Presence of thread pullers</b>	Yes	Yes
<b>UV protection</b>	No	No

## REFERENCES

Code	Designation	External diameter (mm)	Minimal internal diameter (mm)	Weight (kg)	Sales unit
<b>ICTA 2321</b>					
<b>F140-2321</b>	RINGED TUBE DIAMETER 16 (100m)	16	11.2	2.800	1
<b>F141-2321</b>	RINGED TUBE DIAMETER 20 (100m)	20	13.7	3.600	1
<b>F142-2321</b>	RINGED TUBE DIAMETER 25 (50m)	25	18.7	2.700	1
<b>F143-2321</b>	RINGED TUBE DIAMETER 32 (50m)	32	24.8	3.500	1
<b>F144-2321</b>	RINGED TUBE DIAMETER 40 (50m)	40	31.6	4.300	1
<b>F145-2321</b>	RINGED TUBE DIAMETER 50 (50m)	50	39.8	5.400	1
<b>ICTA 3422</b>					
<b>F140-3422</b>	RINGED TUBE DIAMETER 16 (100m)	16	10.7	2.800	1
<b>F141-3422</b>	RINGED TUBE DIAMETER 20 (100m)	20	14.1	3.600	1
<b>F142-3422</b>	RINGED TUBE DIAMETER 25 (100m)	25	18.3	2.500	1
<b>F143-3422</b>	RINGED TUBE DIAMETER 32 (50m)	32	24.3	3.700	1
<b>F144-3422</b>	RINGED TUBE DIAMETER 40 (50m)	40	31.2	3.000	1
<b>F145-3422</b>	RINGED TUBE DIAMETER 50 (50m)	50	39	3.000	1

# SMART METER EQUIPEMENT

## Meter circuit breaker box

### APPLICATION

The customer box is designed to receive a meter and the required protection equipment such as circuit-breaker and cutout. It can be installed outside or inside the premise.

**F732 (Single phase)**



**F733 (Three-phases)**



### DESCRIPTION

- Box is available in single-phase and three-phases versions.
- It incorporates includes a DIN rail to accommodate hold two 22x58 U609 cutouts for the single-phase version and four 22x58 U609 fuses cutouts for the three-phases version (phase and neutral protection). For a version with pre-assembled cutouts, add “-M” to the product code.
- It comprises :
  - A support for a meter,
  - A support for a service circuit breaker.
- It has a window on the front face for reading the meter, and a hatch to access the service circuit breaker.
- It has 2 entries equipped with cable glances at the bottom for cablea sealing.
- Injection-molded, fiberglass-reinforced synthetic materials offer excellent resistance to climatic conditions (very good protection against UV rays, humidity and water penetration).
- Enclosure protection degree is :
  - IP43 according to **NF EN 20010** and **NF EN 60529** standards,
  - IK09 according to **NF EN 50120** and **NF C 20015** standards.
- It can be sealed or padlocked to limit tampering and access to live parts (components not supplied).
- It can be fastened with screws and plugs or strap (components not supplied).
- F734 and F735 cabinets feature a DIN rail specifically for mounting a modular circuit-breaker.
- Enclosure can be customised with a specific marking on the circuit-breaker access hatch.

### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>F732</b>	SERVICE CABINET FOR PREPAYMENT METER SINGLE	2.800	1
<b>F733</b>	SERVICE CABINET FOR PREPAYMENT METER TRI	5.200	1
<b>F734</b>	SERVICE CABINET FOR PREPAYMENT METER SINGLE FOR MODULAR DISCONNECTOR	3.000	1
<b>F735</b>	SERVICE CABINET FOR PREPAYMENT METER TRI FOR MODULAR DISCONNECTOR	5.500	1

## APPLICATION

This cutout is designed to receive a 22x58mm fuse cartridge.



U609

## DESCRIPTION

- Terminals can accept either copper or aluminum conductors with a cross section of 6 up to 35 mm<sup>2</sup>.
- It is fixed in the cabinet thanks to bottom screw.
- The wide-open base assembly facilitates wiring and limits heating during operation.
- The fixation must be performed vertically.
- It is designed to receive a 22x58mm fuse cartridge (to be ordered separately).
- Maximum current : 60A.
- U607-T corresponds to 2 x U609.
- U608-T corresponds to 4 x U609.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
U609	UNIPOLAR CUTOUT 22x58	0.155	80
U607-T	CUTOUT 60A BIPOLAR	0.305	40
U608-T	CUTOUT 60A TETRAPOLAR	0.610	20

# SMART METER EQUIPMENT

## Universal meter board and accessories



**K424**

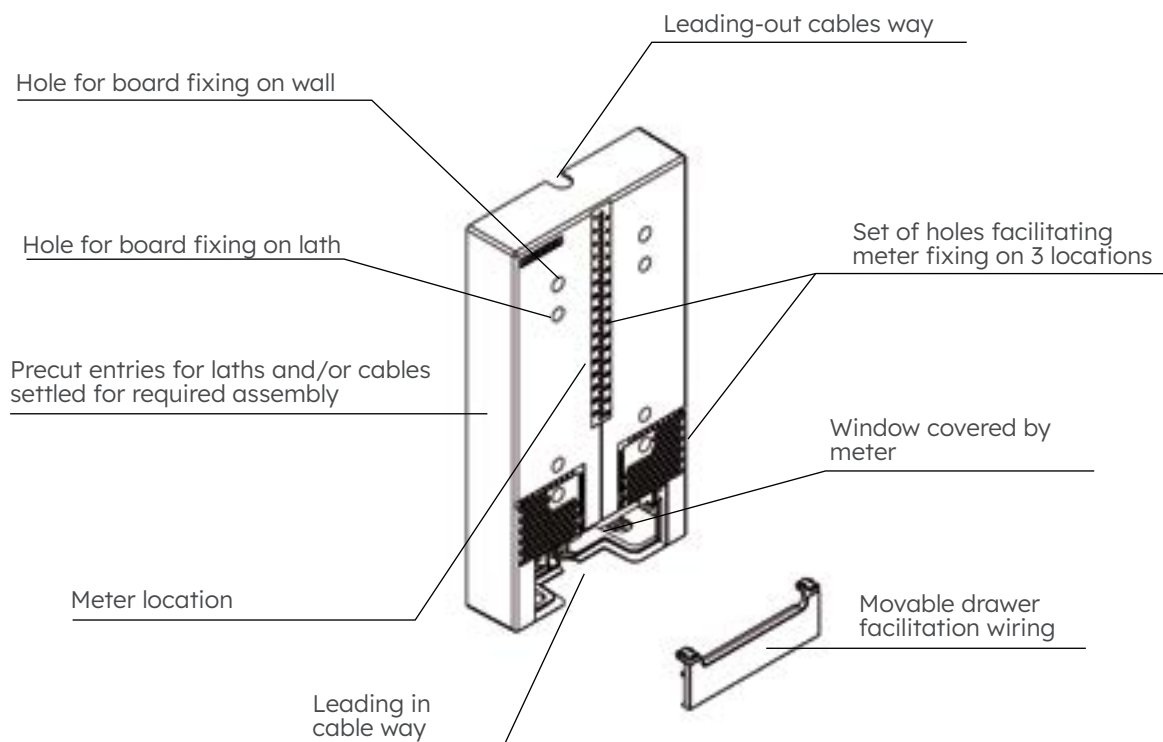
### APPLICATION

This meter board is designed to receive any residential type electronic meter whether single phase or three phases or tetrapolar, equipped with a cable cover. It can be combined with pluggable or non-pluggable module type connection equipment.

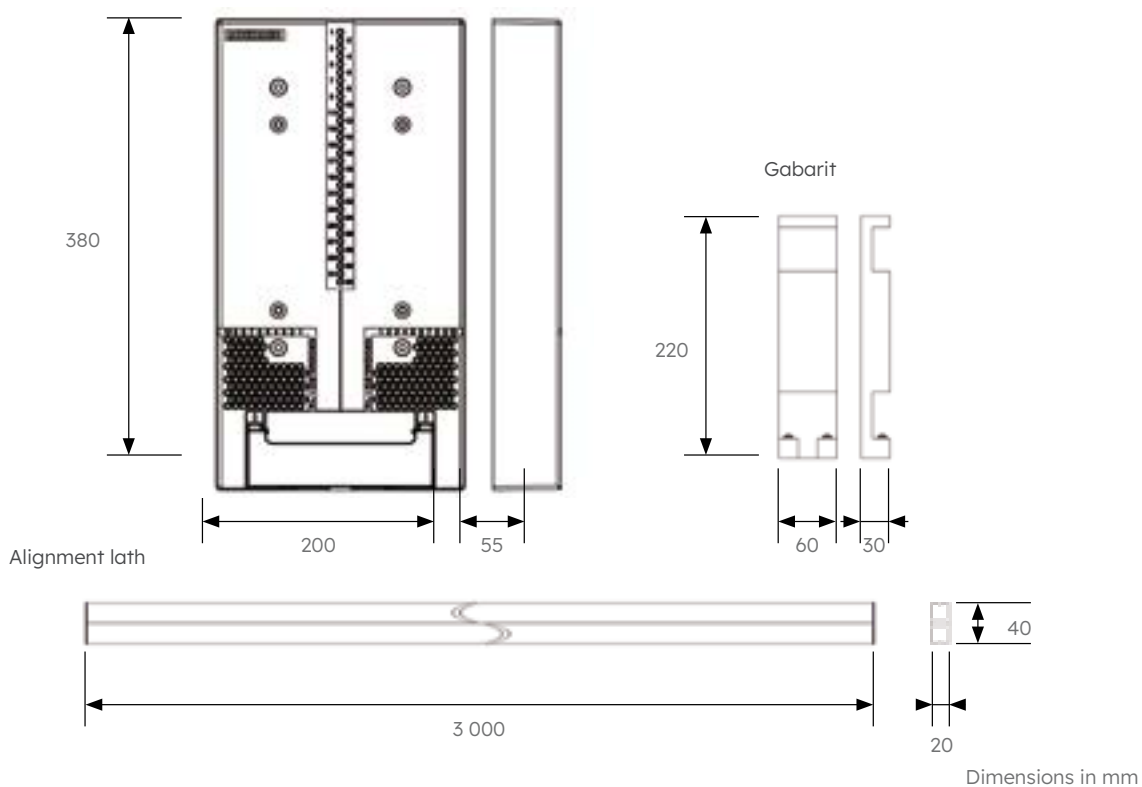
### DESCRIPTION

- Board is made of grey synthetic self-extinguishing materials (RAL 9035).
- Board is equipped with a removable clipped cover which is dismountable to make equipment wiring easier.
- Board is vertically fixed to a flat surface and possibly by means of alignment laths (see Accessories).
- When equipped with a tetrapolar meter, the board is IP4X on the front face and IK4.

The board is used to fix a meter that meets the criteria of the **DIN 43857** standard.



## INSTALLATION

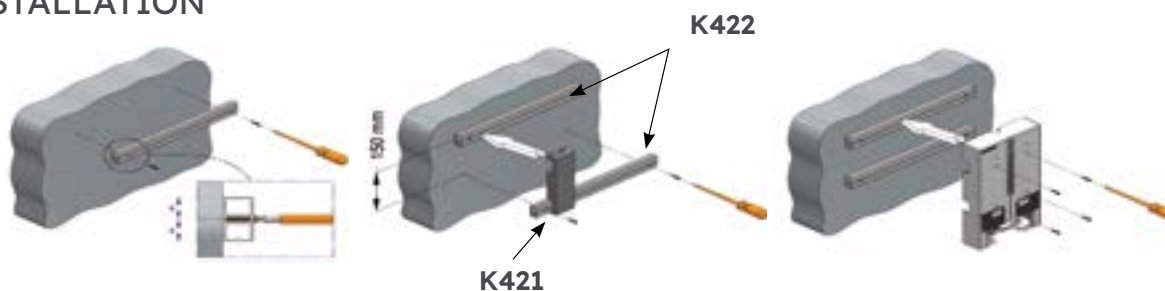


## REFERENCES

Code	Designation	Weight (kg)	Sales unit
K424	SUPPORT FOR ELECTRIC METER + COVER	0.500	240
K425	COVER (FOR ELECTRIC METER SUPPORT)	0.080	1

### Accessories

## INSTALLATION



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
K422	ALIGNMENT LATH (LENGTH 3M)	1.500	270
K422-2	DUAL ALIGNMENT LATH (LENGTH 3M)	1.470	204
K421	GABARIT FOR ALIGNMENT LATH	0.320	1

Note: if the supporting wall is uneven, the meter board can be mounted using alignment laths. The laths are made from grey PVC. The gabarit makes it easier to assemble the laths and guarantee a centre-to-centre distance of 150mm between laths.

# SMART METER EQUIPMENT

## Meter circuit-breaker board

### APPLICATION

---

This board is designed to receive a residential electronic meter type single phase and the circuit-breaker.

It defines the boundary between the energy distributor and the private installation.

The cover is optional.



**P475**

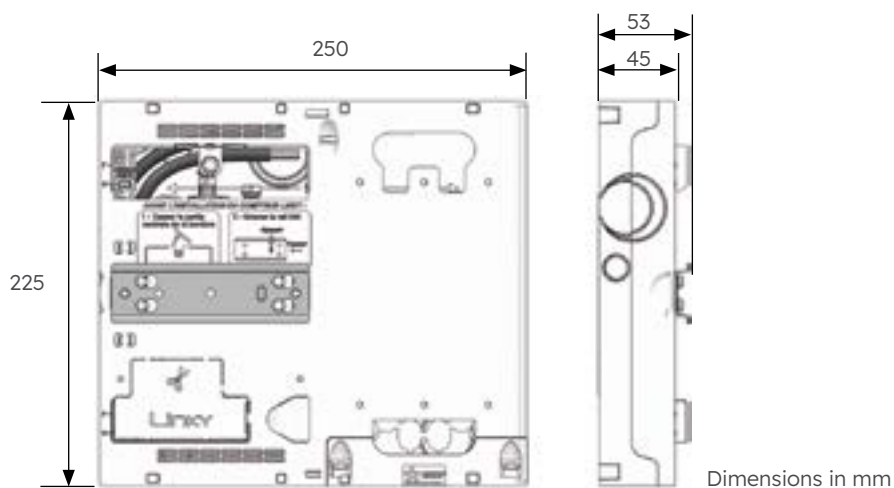
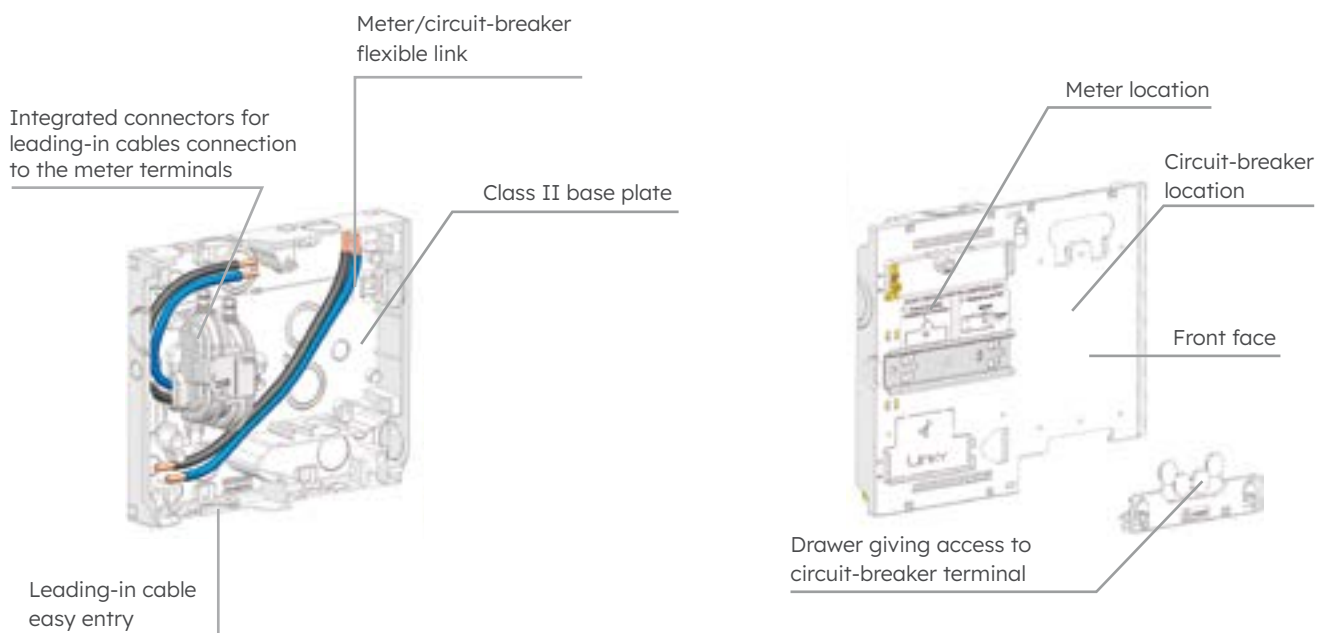


**P474**

---

### DESCRIPTION

- Assembly is made of white synthetic self-extinguishing materials (RAL 9010).
- Front face is equipped with a fixing rail for installing the meter and windows for conductors to run through. It can be dismantled for easier wiring of the devices. The rail can be removed for installing the meter.
- Board is equipped with connectors fixed to the bottom, designed to receive the leading-in cables from the top or the bottom.
- Connectors have an IPXXB degree of protection degree after installation. The system integrates 16mm<sup>2</sup> copper links which length enables the connection of any meters with terminals at the top or bottom.
- Terminals downstream of the circuit-breaker are accessible via a drawer in the lower part.
- Meter board can be covered with a cover carrying swivel window on front face to access to meter and circuit-breaker.



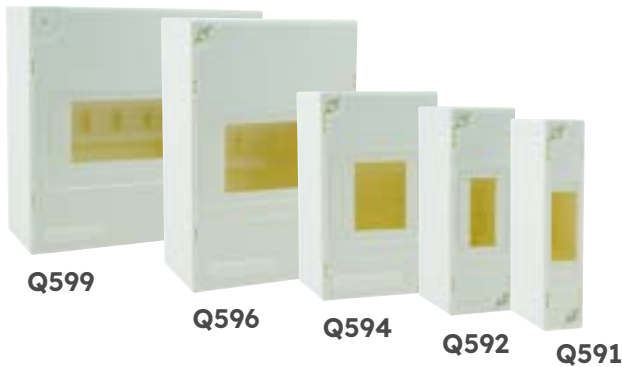
## REFERENCES

Code	Designation	Weight (kg)	Sales unit
P475	METER AND CIRCUIT-BREAKER BOARD	0.920	1
P474	COVER FOR METER AND CIRCUIT-BREAKER BOARD	0.340	1

# SMART METER EQUIPMENT

## Modular distribution box

### Projecting type



### APPLICATION

This one row projecting modular distribution box is designed to be equipped with devices that protect the customers installation.

### DESCRIPTION

- Box is made of synthetic materials passing the incandescent wire resistance test at 750°C.
- Cover is of white colour (RAL 9010) and offers an IP30/IK05 degree of protection.
- Distribution boxes with 6 and 9 modules are delivered with an IP2X earth system terminal offering 7 inlets/outlets including connection terminals of 16mm<sup>2</sup> section maximum.
- Distribution boxes with 1 up to 6 modules can be opened using a clip. The distribution box with 9 modules uses screws.

This distribution box meets the criteria of the **NF C 61-910** standard.

### REFERENCES

Code	Designation	Height (mm)	Length (mm)	Depth (mm)	Weight (kg)	Sales unit
Q591	DISTRIBUTION BOX WITH 1 MODULE	140	30	70	0.080	1
Q592	DISTRIBUTION BOX WITH 2 MODULES	141	48	70	0.100	1
Q594	DISTRIBUTION BOX WITH 4 MODULES	142	84	70	0.140	1
Q596	DISTRIBUTION BOX WITH 6 MODULES	180	120	70	0.250	1
Q599	DISTRIBUTION BOX WITH 9 MODULES	180	190	70	0.360	1

### Integrable type



### APPLICATION

This integrable modular distribution box is designed to be equipped with devices that protect the customers installation.

### DESCRIPTION

- Several box widths are available: 8, 12, 24 (2 rows of 12) and 36 (3 rows of 12) modules.
- Cover is of white colour and the door is transparent.
- Opening and closing system is ergonomic and the door is reversible.
- Distribution box offers an IP40 degree of protection (protection against penetration of body superior or equal to 1mm).
- Used temperature range goes from -25°C up to 60°C.
- Used materials are without halogen.

## REFERENCES

Code	Designation	Height (mm)	Length (mm)	Depth (mm)	Weight (kg)	Sales unit
U635	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 8 MODULES	90	240	90	0.650	20
U636	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 12 MODULES	260	330	90	1.080	12
U637	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 24 MODULES (12x2)	420	330	100	2.000	10
U638	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 36 MODULES (12x3)	570	330	100	2.700	10

## 30 mA differential circuit-breaker

### APPLICATION

30 mA differential circuit-breaker for two-phases is designed to protect persons by detecting insulation defects. The AC-type detects faults on the AC component. The A-type detects faults on the AC and DC components. The DC components faults can be produced by some electrical devices.

The size of differential circuit-breaker is 2 modules.



### REFERENCES

Code	Designation	Max. terminal capacity	Type	Sales unit
Q540	DIFF SWITCH BIPO AC 30mA 25A NF MoD	16mm <sup>2</sup>	AC	6
Q541	DIFF SWITCH BIPO AC 30 mA 40A NF MoD	16mm <sup>2</sup>	AC	6
Q542	DIFF SWITCH BIPO AC 30 mA 63A NF MoD	50mm <sup>2</sup>	AC	6
Q543	DIFFERENTIAL SWITCHES TWO-POLE 30mA TYPE A 40A	16mm <sup>2</sup>	A	10
Q544	DIFFERENTIAL SWITCHES TWO-POLE 30mA TYPE A 63A	50mm <sup>2</sup>	A	10

## Subdivisional circuit breaker

### APPLICATION

Subdivisional circuit breaker is designed to protect the circuits of the installation.

Characteristics are as follows:

- Neutral phase 230V,
- Type C trip curve according to the **EN 60898-1** standard.

Q53x



### REFERENCES

Code	Designation	Sales unit
Q530	CIRCUIT BREAKER P+N 2A NF 3kA MoD	10
Q531	CIRCUIT BREAKER P+N 10A NF 3kA MoD	10
Q532	CIRCUIT BREAKER P+N 16A NF 3kA MoD	10
Q533	CIRCUIT BREAKER P+N 20A NF 3kA MoD	10
Q534	CIRCUIT BREAKER P+N 32A NF 3kA MoD	10
Q535	CIRCUIT BREAKER P+N 3A 3kA MoD	10

# SMART METER EQUIPMENT

## Button circuit-breaker

### APPLICATION

This circuit-breaker with button is designed to be on the meter/circuit-breaker board or the circuit-breaker board. The model offered is of differential type, available in single-phase or three-phases versions.



Single-phase version



Three-phases version

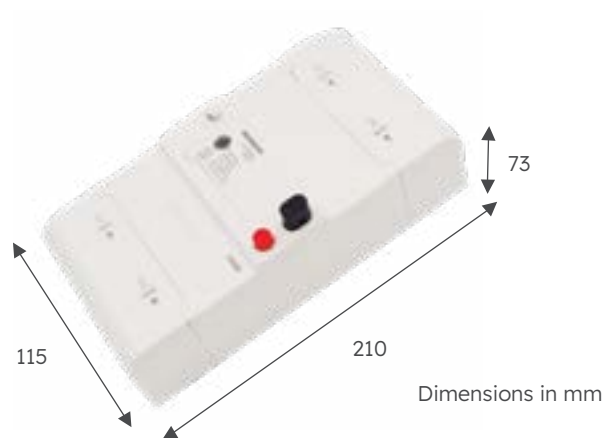
### DESCRIPTION

- Single-phase and three-phases differential circuit-breakers are of instantaneous type.
- Differential circuit-breaker is tested using a push button marked with a "T".
- Protection against overcurrent is provided by an thermomagnetic tripping device.
- Minimum operating voltage is 200V.
- Rated voltage is 250V AC for the single-phase version and 440V AC for the three-phases version.
- Supplied with lockable terminal covers.
- IP40 degree of protection.
- Circuit-breaker is mounted using 4mm hexagon socket screws.
- Circuit-breaker wire sizes are between 2.5 and 25mm<sup>2</sup>.
- Operating temperature is between -5 and 40°C.
- Frequency is 50/60Hz.

This circuit-breaker meets the criteria of the **NF C 62-411** standard.



Single-phase version



Three-phase version

Dimensions in mm

## REFERENCES

Code	Designation	Nominal current (A)	Weight (kg)	Sales unit
<b>500mA DIFFERENTIAL CIRCUIT BREAKERS</b>				
<b>F704-5-15</b>	CIRCUIT BREAKER BUTTON SINGLE 5/15A - DIFF 500mA	5-10-15	0.650	10
<b>F704-10-30</b>	CIRCUIT BREAKER BUTTON SINGLE 10/30A - DIFF 500mA	10-15-20-25-30	0.650	10
<b>F704-15-45</b>	CIRCUIT BREAKER BUTTON SINGLE 15/45A - DIFF 500mA	15-30-45	0.650	10
<b>F704-30-60</b>	CIRCUIT BREAKER BUTTON SINGLE 30/60A - DIFF 500mA	30-40-50-60	0.650	10
<b>F705-10-30</b>	CIRCUIT BREAKER BUTTON TRI 10/30A - DIFF 500mA	10-15-20-25-30	1.090	10
<b>F705-30-60</b>	CIRCUIT BREAKER BUTTON TRI 30/60A - DIFF 500mA	30-40-50-60	1.090	10
<b>300mA DIFFERENTIAL CIRCUIT BREAKERS</b>				
<b>F704-5-15-300</b>	CIRCUIT BREAKER BUTTON SINGLE 5/15A - DIFF 300mA	5-10-15	0.650	10
<b>F704-10-30-300</b>	CIRCUIT BREAKER BUTTON SINGLE 10/30A - DIFF 300mA	10-15-20-25-30	0.650	10
<b>F704-15-45-300</b>	CIRCUIT BREAKER BUTTON SINGLE 15/45A - DIFF 300mA	15-30-45	0.650	10
<b>F704-30-60-300</b>	CIRCUIT BREAKER BUTTON SINGLE 30/60A - DIFF 300mA	30-40-50-60	0.650	20
<b>F705-10-30-300</b>	CIRCUIT BREAKER BUTTON TRI 10/30A - DIFF 300mA	10-15-20-25-30	1.090	10
<b>F705-30-60-300</b>	CIRCUIT BREAKER BUTTON TRI 30/60A - DIFF 300mA	30-40-50-60	1.090	10

# SMART METER EQUIPMENT

## Service circuit-breaker

### APPLICATION

This circuit-breaker is designed to be on the meter/circuit-breaker board or the circuit-breaker board. The model offered is either differential or non-differential, available in single-phase or three-phases versions.



Single-phase version



Three-phases version

### DESCRIPTION

- Single-phase and three-phases differential circuit-breakers are instantaneous type.
- Differential circuit-breakers is tested using a lever.
- Protection against overcurrent is provided by an oil-magnetic tripping device.
- Circuit-breaker reset is performed using a lever.
- Minimum operating voltage is 200V.
- Rated voltage is 250V AC for the single-phase version and 440V AC for the three-phases version.
- It is supplied with lockable terminal covers.
- It has an IP40 degree of protection.
- Circuit-breaker is mounted using 4mm hexagon socket screws.
- Circuit-breaker wire size are between 2.5 and 25mm<sup>2</sup>.
- Operating temperature is between -5 and 40°C.
- Frequency is 50/60Hz.

This circuit-breaker meets the criteria of the **NF C 62-411** standard for differential protection and the **NF C 62-412** standard for non-differential protection.

## REFERENCES

Code	Designation	Nominal current (A)	Weight (kg)	Sales unit
<b>500mA DIFFERENTIAL CIRCUIT-BREAKERS</b>				
<b>F706</b>	CIRCUIT BREAKER LEVER SINGLE 5/30A - DIFF 500mA	5-10-15-20-25-30	0.542	24
<b>F706-5-15</b>	CIRCUIT BREAKER LEVER SINGLE 5/15A - DIFF 500mA	5-10-15	0.542	24
<b>F706-10-30</b>	CIRCUIT BREAKER LEVER SINGLE 10/30A - DIFF 500mA	10-15-20-25-30	0.542	24
<b>F707</b>	CIRCUIT BREAKER LEVER SINGLE 30/60A - DIFF 500mA	30-40-50-60	0.542	24
<b>F707-15-45</b>	CIRCUIT BREAKER LEVER SINGLE 15/45A - DIFF 500mA	15-30-45	0.542	24
<b>F708</b>	CIRCUIT BREAKER LEVER TRI 10/30A - DIFF 500mA	10-15-20-25-30	0.917	12
<b>F709</b>	CIRCUIT BREAKER LEVER TRI 30/60A - DIFF 500mA	30-40-50-60	0.917	12
<b>300mA DIFFERENTIAL CIRCUIT BREAKERS</b>				
<b>F706-5-15-300</b>	CIRCUIT BREAKER LEVER SINGLE 5/15A - DIFF 300mA	5-10-15	0.542	24
<b>F706-10-30-300</b>	CIRCUIT BREAKER LEVER SINGLE 10/30A - DIFF 300mA	10-15-20-25-30	0.542	24
<b>F708-300</b>	CIRCUIT BREAKER LEVER TRI 10/30A - DIFF 300mA	10-15-20-25-30	0.917	12
<b>F709-300</b>	CIRCUIT BREAKER LEVER TRI 30/60A - DIFF 300mA	30-40-50-60	0.917	12
<b>NON-DIFFERENTIAL CIRCUIT BREAKERS</b>				
<b>F706-5-15-ND</b>	CIRCUIT BREAKER LEVER SINGLE 5/15A	5-10-15	0.542	24
<b>F706-10-30-ND</b>	CIRCUIT BREAKER LEVER SINGLE 10/30A	10-15-20-25-30	0.542	24
<b>F707-15-45-ND</b>	CIRCUIT BREAKER LEVER SINGLE 15/45A	15-30-45	0.542	24
<b>F707-ND</b>	CIRCUIT BREAKER LEVER SINGLE 30/60A	30-40-50-60	0.542	24
<b>F708-ND</b>	CIRCUIT BREAKER LEVER TRI 10/30A	10-15-20-25-30	0.917	12
<b>F709-ND</b>	CIRCUIT BREAKER LEVER TRI 30/60A	30-40-50-60	0.917	12

OVERHEAD

UNDERGROUND

HOUSING

PROTECTION

EARTH SYSTEM

INSTALLATION

# SMART METER EQUIPMENT

## Cutout cabinet

### APPLICATION

This cutout is designed to ensure the main cutout function of the service connection.

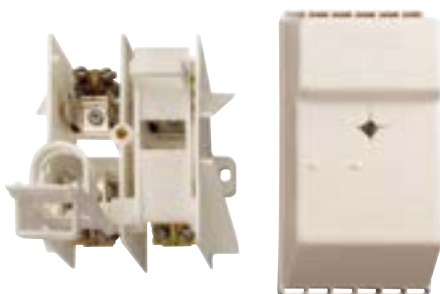
It can receive fuse cartridges size 10.3x38mm, 14x51mm and 22x58mm.



**P100**  
Single phase 10.3x38mm



**U606**  
Three phases 14x51mm



**U607**  
Single phase 22x58mm



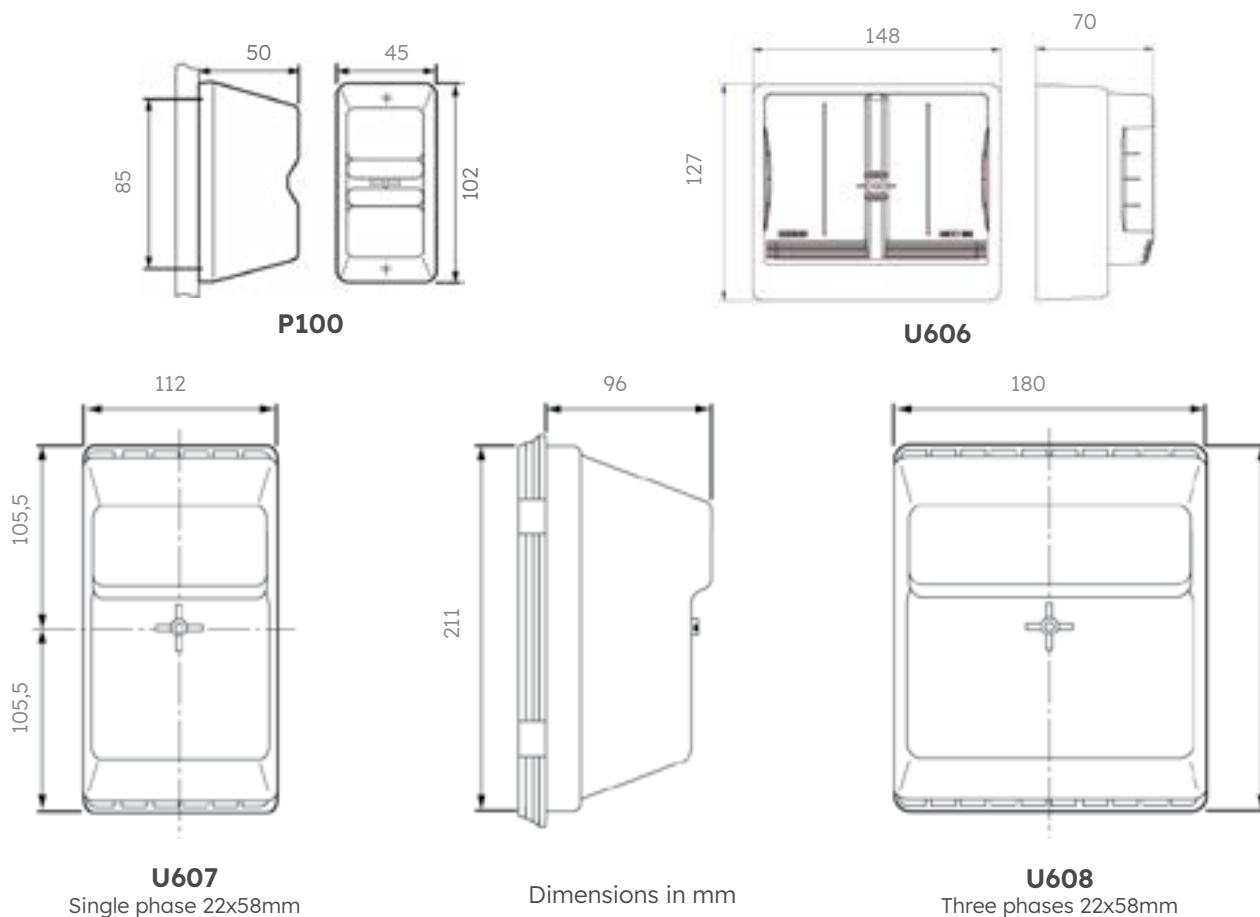
**U608**  
Three phases 22x58mm

### DESCRIPTION

- Cutout U607 and U608 cover is equipped with ventilations and a huge air volume to limit heating.
- Sealing is performed with two 90° notches in the cover and a hole in the tightening screw of cutouts U606, U607 and U608.
- Terminal screws are of stainless steel. They allow an important durability in harsh atmosphere (except U606).
- Cutout terminals size 10.3x38mm can receive cable sections from 1.5 up to 10mm<sup>2</sup>.
- Cutout terminals, size 14x51mm can receive cable sections from 6 up to 25mm<sup>2</sup>.
- Cutout terminals, size 22x58 mm can receive copper or aluminium cable sections from 6 up to 35mm<sup>2</sup>.
- Cutout P100 is delivered equipped with a neutral tube. The other ones are delivered empty.

The synthetic materials used meet the criteria of the **HN 60-E-02** and **HN 60-S-02** standards.

## APPLICATION



## REFERENCES

Code	Designation	Fuse cartridge size	Weight (kg)	Sales unit
<b>SIZE 10.3x38</b>				
<b>P100</b>	CUTOUT CABINET 2A NEUTRAL TUBE	10.3x38mm	0.170	1
<b>SIZE 14x51</b>				
<b>U606</b>	CUTOUT CABINET 14x51 30A TETRAPOLAR	14x51mm	0.330	1
<b>SIZE 22x58</b>				
<b>U607</b>	CUTOUT CABINET 60A BIPOLAR	22x58mm	0.510	30
<b>U608</b>	CUTOUT CABINET 60A TETRAPOLAR	22x58mm	0.780	18

Devices are delivered without fuse cartridges.

### To discover :

Fuses 10.3x38mm, 14x51mm, and 22x58mm are available in the catalogue.



# SMART METER EQUIPMENT

## Seal

### Numbered seal with wire

#### APPLICATION

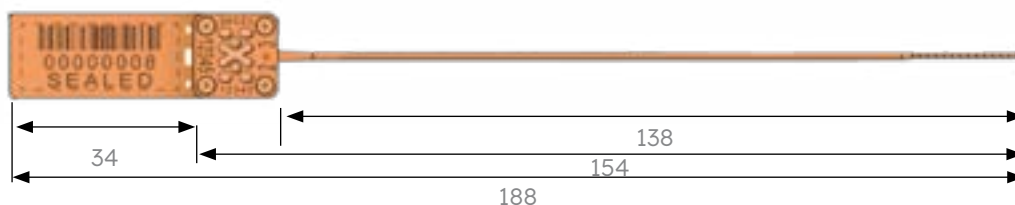
This seal is designed to seal equipment, using a fast closing system by means of a locking hole button. It is specifically used water, gas or electricity meters.

The breaking of the link enables to highlight a potential fraud.



#### DESCRIPTION

- Seal is made of polyamide (PA), mono-material and recyclable.
- Seal is UV treated.
- Fast closing of the seal is performed by means of a locking hole button by hands and does not require any tools.
- Once closed, the tensile strength is 8kg.
- Link diameter is 1.4mm and it is suitable for small holes and ayelets of a minimum diameter of 1.5mm. The introduction way is not important.
- Seal conception enables to tighten very close to the product from a maximum diameter of 30mm to a total tightening.
- Seal has four areas for marking around the locking button:
  - Three markings comprising 5 digits,
  - One marking comprising 2 digits.
- Flag is optional (to be specified when ordering).
- Seal identification on the flag is performed through:
  - One barcode to guarantee a certain handling of the information,
  - One marking comprising 8 digits.



Dimensions in mm

#### REFERENCES

Code	Designation	Length (mm)	Weight (kg)	Sales unit
F010-500-V	PLASTIC SEAL WITH UNIQUE NUMBER GREEN (BAG 500 PIECES)	188	0.960	6
F010-500-O	PLASTIC SEAL WITH UNIQUE NUMBER ORANGE (BAG 500 PIECES)	188	0.960	6

Note : Minimum order quantities are 6 bags of 500 pieces.

## Plastic seal

### APPLICATION

This seal is designed to seal equipment, using a tail to run through a locking hole. It is used with water, gas or electricity meters as well as any other equipment.

The breaking of the link enables to highlight a potential fraud.



### DESCRIPTION

- Seal is made of UV resistant synthetic materials.
- Seal identification is made through:
  - A 1234567 marking type (7 digits consecutive numbering),
  - A permanent marker inscription.
- It is implemented manually and does not require any tool.
- Seal is available in blue, red, white and black colour. For other colours, please enquire.

### REFERENCES

Code	Designation	Length (mm)	Weight (kg)	Sales unit
<b>K910-B</b>	BLUE SEAL (box of 100 pieces)	130	0.240	1
<b>K910-K</b>	BLACK SEAL (box of 100 pieces)	130	0.240	1
<b>K910-R</b>	RED SEAL (box of 100 pieces)	130	0.240	1
<b>K910-W</b>	WHITE SEAL (box of 100 pieces)	130	0.240	1

## Sealable screw cover

### APPLICATION

It helps to fight against fraud when implementing a meter. This sealable screw cover is designed to seal a screw.



### DESCRIPTION

- Screw cover enables to seal a fixing screw with the following dimensions: 6mm on threads, head height of 4mm (max) and head diameter of 7mm (min) up to 12mm (max).
- Screw cover can receive a seal of maximum 2mm diameter.

### REFERENCES

Code	Designation	Weight (kg)	Sale unit
<b>P641</b>	SEALABLE SCREW COVER (2mm diameter)	0.002	20
<b>P642</b>	SEALABLE SCREW COVER + 5x30 VBA SCREW	0.006	20
<b>U433</b>	WOOD SCREWS (x100)	-	1
<b>F332</b>	WOOD SCREWS POZIDRIVE (x200)	1.600	1

# UNIVERSAL FLEXIBLE LINKING CABLE

## Insulation piercing end connector EBCP 6-35

### APPLICATION

This end connector is designed to connect indoor leading-in cables up to 35mm<sup>2</sup> to electrical equipment terminals (cutout, electronic meter, etc).

It is a universal solution to connect cable to the meter terminals, regardless of the type of core metal or terminal block nature.

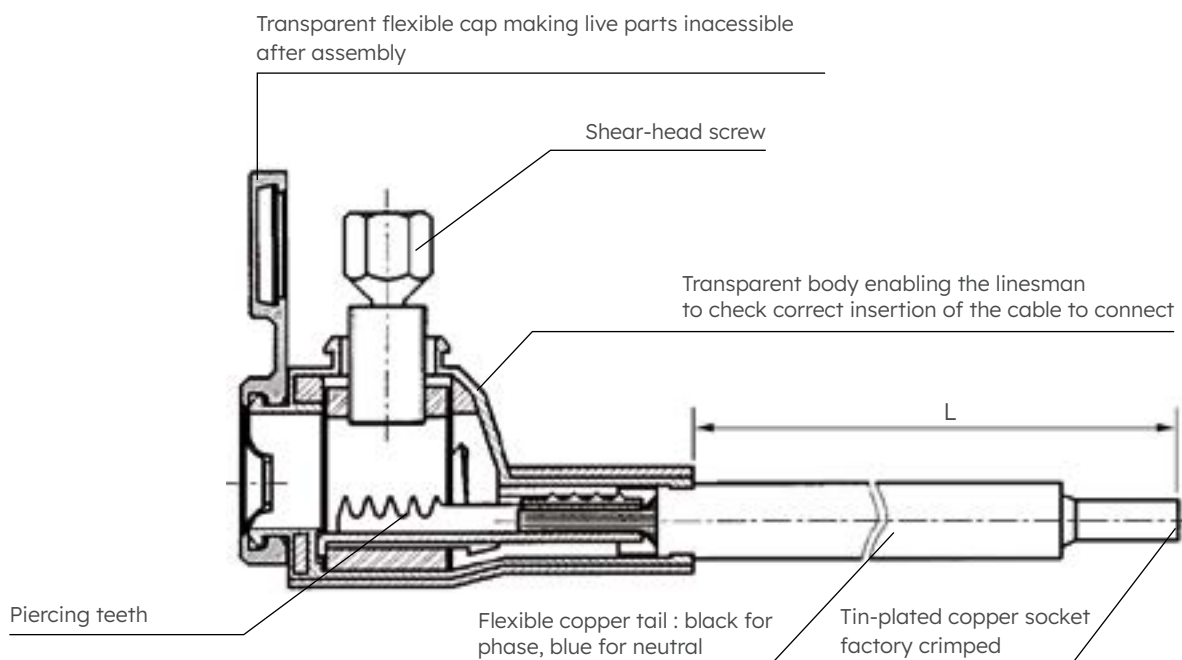
It can be fitted on copper or aluminum stranded, or solid core conductors.



### DESCRIPTION

- End connector uses the insulation piercing technology (6-35mm<sup>2</sup>).
- Degree of protection is IP2X when it is implemented.
- Maximum current running through the insulation piercing end connector is 63A for 16mm<sup>2</sup> and 90A for 25mm<sup>2</sup>.
- Low dimensions enable to easily fit the end connector behind the panel in a restricted space.
- Solid teeth ensure connection in extreme environments even under low temperatures.
- Robust synthetic materials body of the cover allows it to be held with a pair of pliers during installation, facilitating holding.

This end connector meets the criteria of the **H-M24-2011-02598-FR** standard.



## INSTALLATION



Copper tail

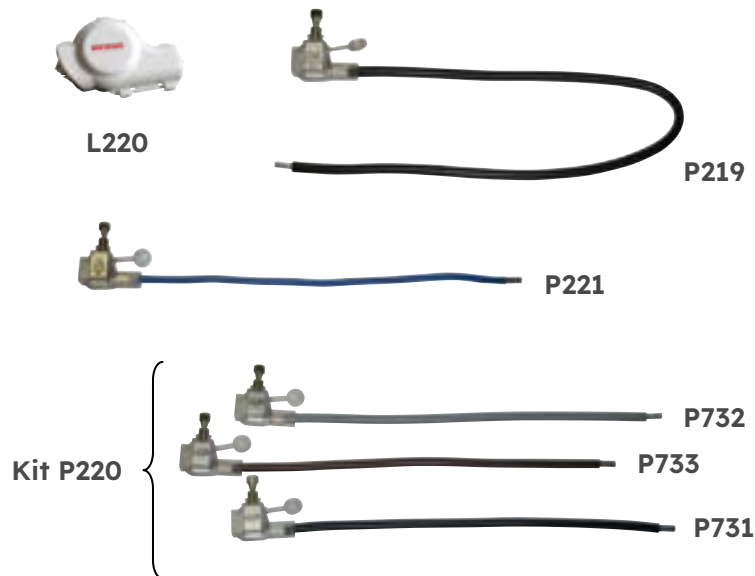
Leading-in aluminum cable from distribution operator

## REFERENCES

Code	Designation	Out of body length : L (mm)	Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
P446	EBCP 6-35/16 BLACK L235	235	6-35	0.090	10
P447	EBCP 6-35/16 BLUE L235	235		0.090	10
P648	SET OF 2 EBCP 6-35/16 (BLACK+BLUE) L235 - SINGLE PHASE KIT	235		0.190	1
P651	SET OF 4 EBCP 6-35/16 (3 BLACK +1 BLUE) L235 - THREEPHASE KIT	235		0.370	1
P222	EBCP 6-35/16 BLACK L500	500		0.140	1
P223	EBCP 6-35/16 BLUE L500	500	0.140	1	
P448	EBCP 10-35/25 BLACK L190	185	10-35	0.100	10
P449	EBCP 10-35/25 BLUE L190	185		0.100	10
P649	SET OF 2 EBCP 10-35/25 (BLACK+BLUE) L190 - SINGLE PHASE KIT	185		0.210	1
P650	SET OF 4 EBCP 10-35/25 (3 BLACK + 1 BLUE) L190 - THREEPHASE KIT	185		0.210	1

# UNIVERSAL FLEXIBLE LINKING CABLE

## Insulation piercing end connector EBCP 16-50 Class II



### APPLICATION

This end connector is designed to connect indoor leading-in cables up to 50mm<sup>2</sup> to electrical equipment terminals (cutout, electronic meter, ect).

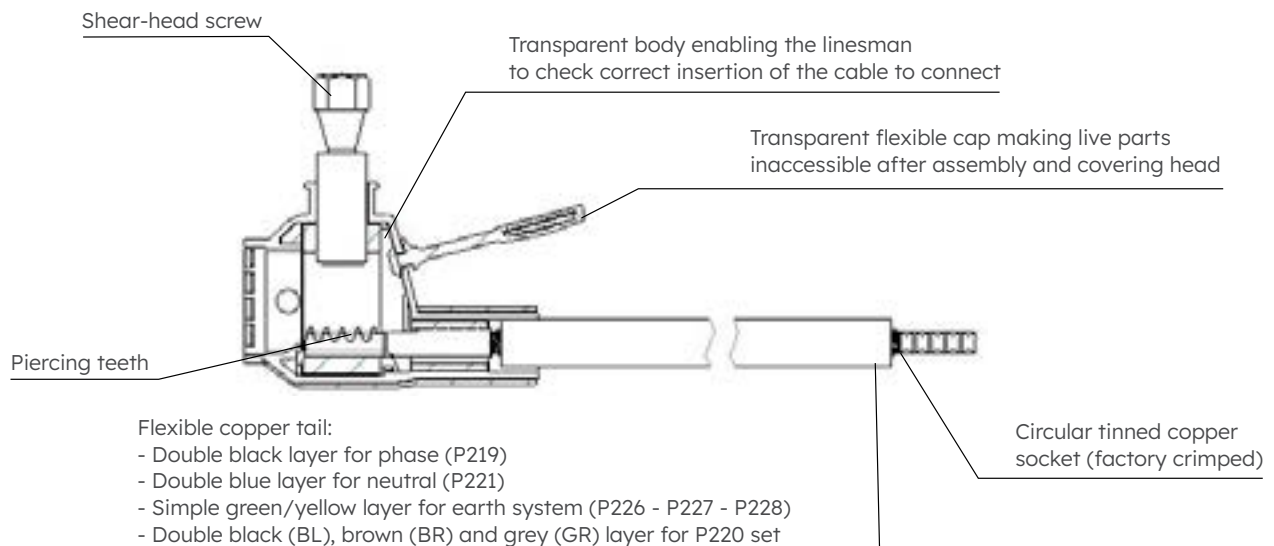
It is a universal solution to connect cable to the meter terminals regardless of the type of core metal or terminal block nature.

It can be fitted on sectoral or shaped copper or aluminum stranded or solid core conductors.

It provides class II protection using the double insulated coloured tail, when equipped with the cover.

### DESCRIPTION

- End connector uses the insulation piercing technology (16-50mm<sup>2</sup>).
- Degree of protection is IP2X when it is implemented.
- Maximum current running through the insulation piercing end connector is 80A.
- Low dimensions enable to easily fit the end connector behind the panel in a restricted space.
- Solid teeth ensure connection in extreme environments even under low temperatures.
- Robust synthetic materials body allows it to be held with a pair of pliers during installation, facilitating holding.
- Synthetic materials cover ensures a degree of protection class II of the connector and can be sealed.
- Reference P220 comprises a kit of 3 coloured end connectors with black, brown and grey tail.



### Option : Class II Setting-up

The cover (L220) is designed to perform class II installation.

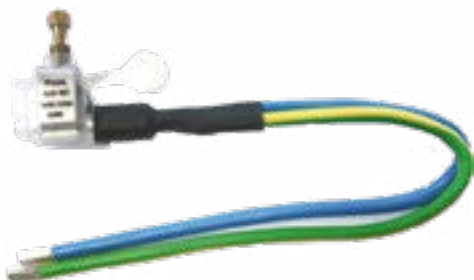


EBCP + Cover  
L220

## REFERENCES

Code	Designation	Out of body length : L (mm)	Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
P219	EBCP 50 SECT-16 BLACK L700 CLASS II	700	16-50	0.190	9
P220	SET OF 3 EBCP 50 SECT-16 BL/BR/GR L375	375		0.390	1
P221	EBCP 50 SECT-16 BLUE L375 CLASS II	375		0.130	9
P731	EBCP 50 SECT-16 BLACK L375 CLASS II	375		0.390	100
P732	EBCP 50 SECT-16 GREY L375 CLASS II	375		0.390	100
P733	EBCP 50 SECT-16 BROWN L375 CLASS II	375		0.390	100
L220	EBCPPAU COVER CLASS II			0.020	12

### Option : Insulation piercing end connector for earth systems



A wide range of insulation piercing end connectors has been designed for earth system:

- P227 and P226 with two tails (yellow/green and blue) for connecting and earth system the neutral at the same time,
- P228 with one tail (yellow/green) for the earth conductor.

The neutral conductor (blue) has double insulation whereas the earth conductor (yellow/green) has single insulation as it is not considered as a live element (class II not required).

## REFERENCES

Code	Designation	Out of body length: L (mm) tail	Out of body length: L (mm) earth system	Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
P226	EBCP P221 + YELLOW/GREEN EARTH SYSTEM L345	375	345	16-50	0.220	9
P227	EBCP P221 + YELLOW/GREEN EARTH SYSTEM L800	375	800		0.330	9
P228	EBCP 50 SECT-16 YELLOW/GREEN L800		800		0.200	9

# UNIVERSAL FLEXIBLE LINKING CABLE

## Insulation piercing end connector EBCP 6-35

### APPLICATION

This end connector is designed to connect indoor leading-in cables up to 35mm<sup>2</sup> to electrical equipment terminals (cutout, electronic meter, etc).

It is a universal solution to connect cable to the meter terminals, regardless of the type of core metal or terminal block nature.

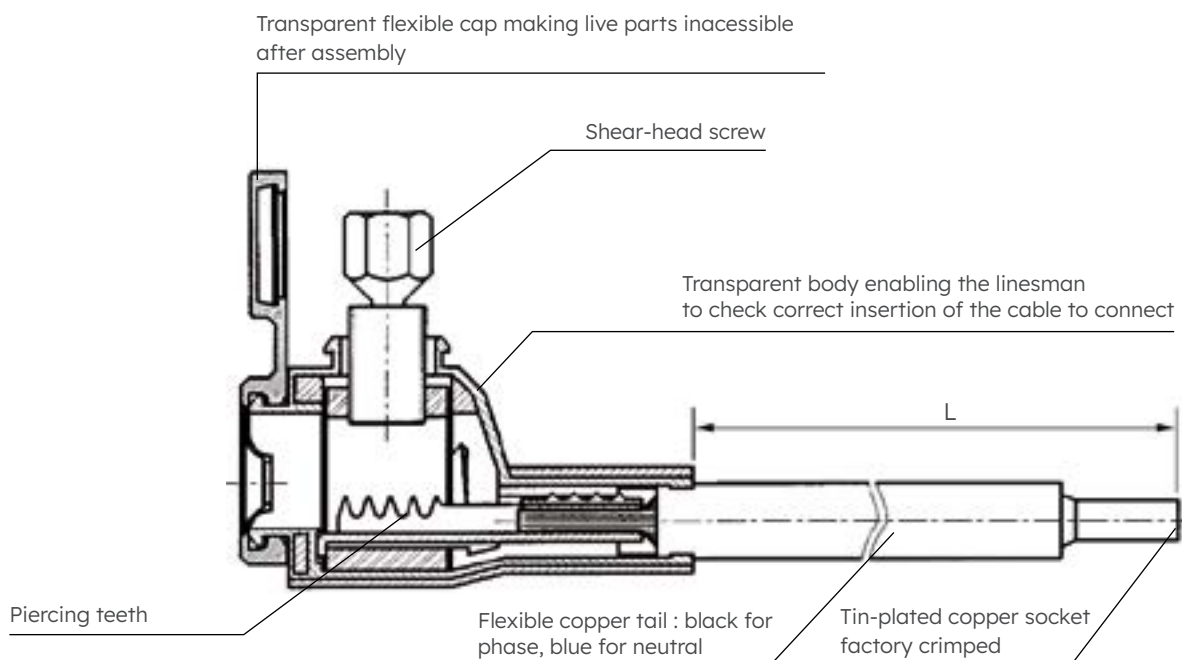
It can be fitted on copper or aluminum stranded, or solid core conductors.



### DESCRIPTION

- End connector uses the insulation piercing technology (6-35mm<sup>2</sup>).
- Degree of protection is IP2X when it is implemented.
- Maximum current running through the insulation piercing end connector is 63A for 16mm<sup>2</sup> and 90A for 25mm<sup>2</sup>.
- Low dimensions enable to easily fit the end connector behind the panel in a restricted space.
- Solid teeth ensure connection in extreme environments even under low temperatures.
- Robust synthetic materials body of the cover allows it to be held with a pair of pliers during installation, facilitating holding.

This end connector meets the criteria of the **H-M24-2011-02598-FR** standard.



## INSTALLATION



Copper tail

Leading-in aluminum cable  
from distribution operator

## REFERENCES

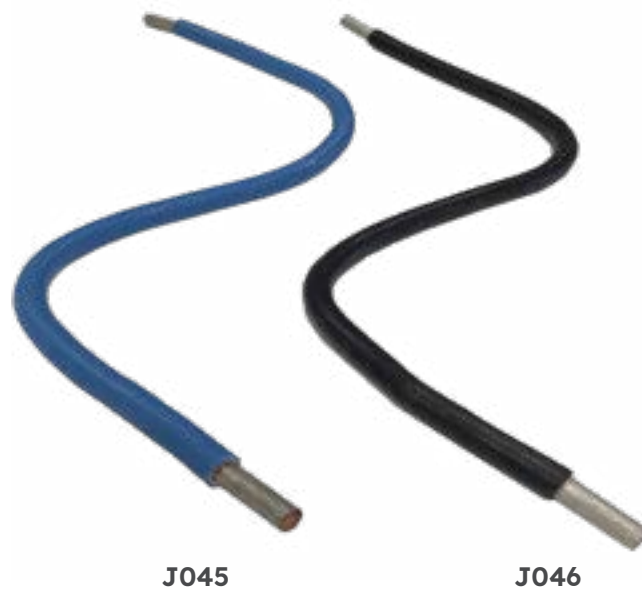
Code	Designation	Out of body length : L (mm)	Capacities (mm <sup>2</sup> )	Weight (kg)	Sales unit
P446	EBCP 6-35/16 BLACK L235	235	6-35	0.090	10
P447	EBCP 6-35/16 BLUE L235	235		0.090	10
P648	SET OF 2 EBCP 6-35/16 (BLACK+BLUE) L235 - SINGLE PHASE KIT	235		0.190	1
P651	SET OF 4 EBCP 6-35/16 (3 BLACK +1 BLUE) L235 - THREEPHASE KIT	235		0.370	1
P222	EBCP 6-35/16 BLACK L500	500		0.140	1
P223	EBCP 6-35/16 BLUE L500	500		0.140	1
P448	EBCP 10-35/25 BLACK L190	185	10-35	0.100	10
P449	EBCP 10-35/25 BLUE L190	185		0.100	10
P649	SET OF 2 EBCP 10-35/25 (BLACK+BLUE) L190 - SINGLE PHASE KIT	185		0.210	1
P650	SET OF 4 EBCP 10-35/25 (3 BLACK + 1 BLUE) L190 - THREEPHASE KIT	185		0.210	1

# UNIVERSAL FLEXIBLE LINKING CABLE

## Flexible linking cable

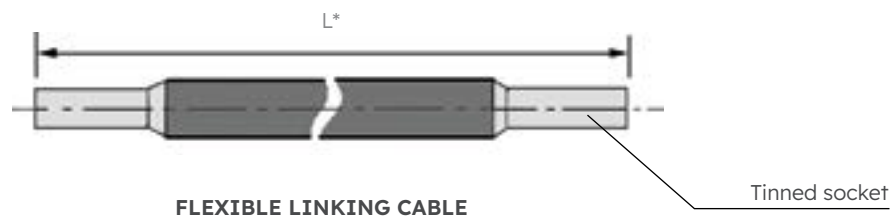
### APPLICATION

This flexible linking cable is designed for the equipment wiring when the rigid stranded core or solid core conductor installation is too difficult.



### DESCRIPTION

- Linking cable is a 16mm<sup>2</sup> or 25mm<sup>2</sup> flexible copper conductor, multi-stranded of HO7 VK type.
- Each end is factory crimped with a tinned copper-bonded socket (or stripped and tinned socket for J412 and J413). The socket is designed for connection to a plate or tunnel terminal block, or to an insulation piercing terminal block.



\* The length L of the connection is specified on side table.

## REFERENCES

Code	Designation	Conductor (mm <sup>2</sup> )	Length L (mm)	Weight (kg)	Sales unit
J045	1 BLUE 16mm <sup>2</sup> LINKING CABLE L560	16	560	0.090	200
J046	1 BLACK 16mm <sup>2</sup> LINKING CABLE L530	16	530	0.090	200
J047	1 BLUE 16mm <sup>2</sup> LINKING CABLE L700	16	700	0.135	10
J048	1 BLACK 16mm <sup>2</sup> LINKING CABLE L700	16	700	0.135	10
J041	1 BLUE 16mm <sup>2</sup> LINKING CABLE L1200	16	1200	0.200	10
J042	1 BLACK 16mm <sup>2</sup> LINKING CABLE L1200	16	1200	0.210	10
J808	SET OF 2 16mm <sup>2</sup> LINKING CABLES (1 BLUE + 1 BLACK)	16	560 + 530	0.215	1
J809	SET OF 4 16mm <sup>2</sup> LINKING CABLE (1 BLUE + 3 BLACK)	16	560 + 3 x 440	0.370	1
J412	BLUE CABLE 16VK L500	16	500	0.085	200
J413	BLUE CABLE 16VK L500	16	500	0.085	200
J132	1 BLUE 25mm <sup>2</sup> LINKING CABLE L700	25	700	0.185	5
J133	1 BLACK 25mm <sup>2</sup> LINKING CABLE L700	25	700	0.185	5

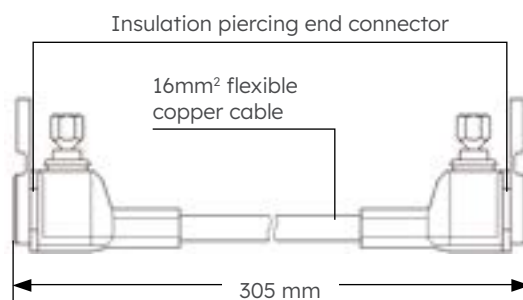
### Variants :

Two insulation piercing end connectors are connected together for connection to other conductors.

Possible sections for conductors to be connected:

- Aluminium solid core conductors: 16M, 25M, 35M, 50M\*,
- Aluminium or copper rigid stranded core conductors: 10mm<sup>2</sup>, 16mm<sup>2</sup>, 25mm<sup>2</sup>,
- Copper multi-stranded conductors: 10mm<sup>2</sup>, 16mm<sup>2</sup>, 25mm<sup>2</sup> (in this case, the connection must be carried out only if the end of the conductor has been compressed).

\*M means that the conductor is solid.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
P660	SET OF 2 16mm <sup>2</sup> EBCPAU LINKING CABLE SINGLE 2 PIERCINGS	0.260	1
P662	SET OF 4 16mm <sup>2</sup> EBCPAU LINKING CABLE THREE-PHASE 2 PIERCINGS	0.260	1

# UNIVERSAL FLEXIBLE LINKING CABLE

## Reducing end connector

### Service

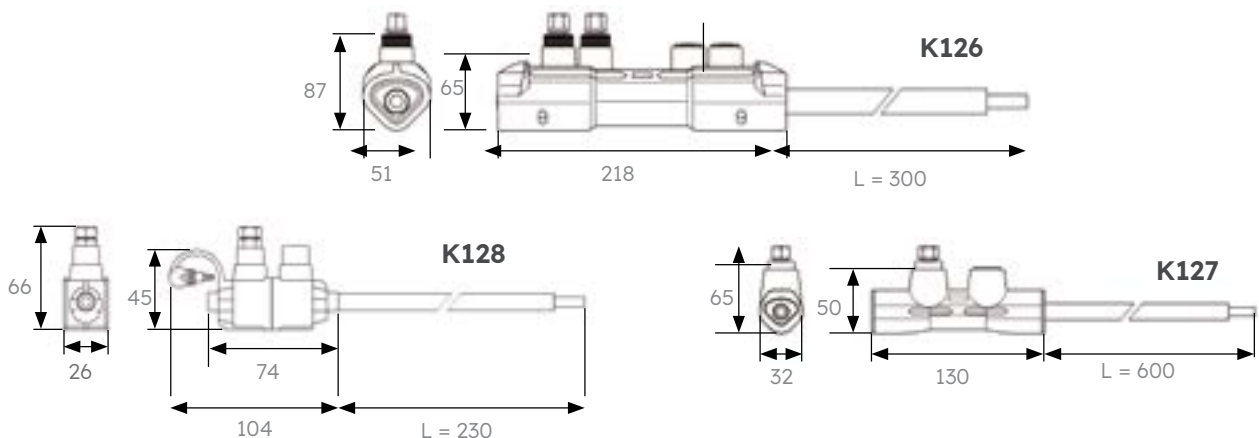
#### APPLICATION

This end connector is designed to connect a conductor with a given section to terminal block of smaller one. It is usually used for industrial supplies and long-line supplies.



#### DESCRIPTION

- Dielectric strength in water is greater than 6kV.
- Flexible copper tails enable direct connection to the equipment.
- The connector uses the insulation stripping technology.
- End connector can be used on aluminium or copper conductors.



Dimensions in mm

## REFERENCES

Code	Designation	Tail length (mm)	Leading in capacities Al-Cu (mm <sup>2</sup> )	Tail section (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>K126</b>	STRIPPING REDUCING END CONNECTOR 95-240	300	Round 95-150 Sectoral 95-240	50	0.780	4
<b>K127</b>	STRIPPING REDUCING END CONNECTOR 25-95	600	Round 25-95 Sectoral 50-95	25	0.330	2
<b>K128</b>	STRIPPING REDUCING END CONNECTOR 6-50M	230	Round 6-35 Round 16M-50M	25	0.170	2

## Fraud-preventing service connection

### APPLICATION

This service end connector is designed to connect service conductor to an equipment terminal block.

Four models are available with black tail for Phase connection (K129 and K131) or blue for Neutral connection (K130 and K132).

This solution is used to secure the outdoor connection to equipment terminal blocks.



**K131**

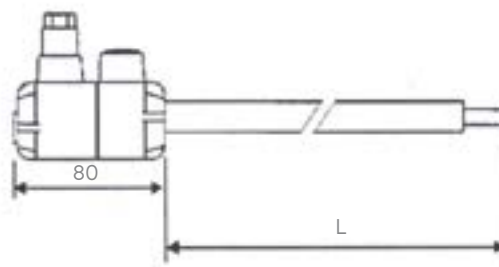
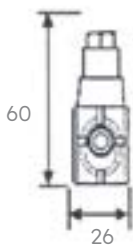


**K132**

### DESCRIPTION

- Dielectric strength in water is greater than 6kV.
- Connector is designed to connect 6-35mm<sup>2</sup> section copper or aluminium conductors.
- 16mm<sup>2</sup> insulated flexible copper tail enables connection to equipment terminal block (meter circuit-breaker).
- Conductor connection terminal is of insulation piercing type. Shear head ensures the tightening efficiency.

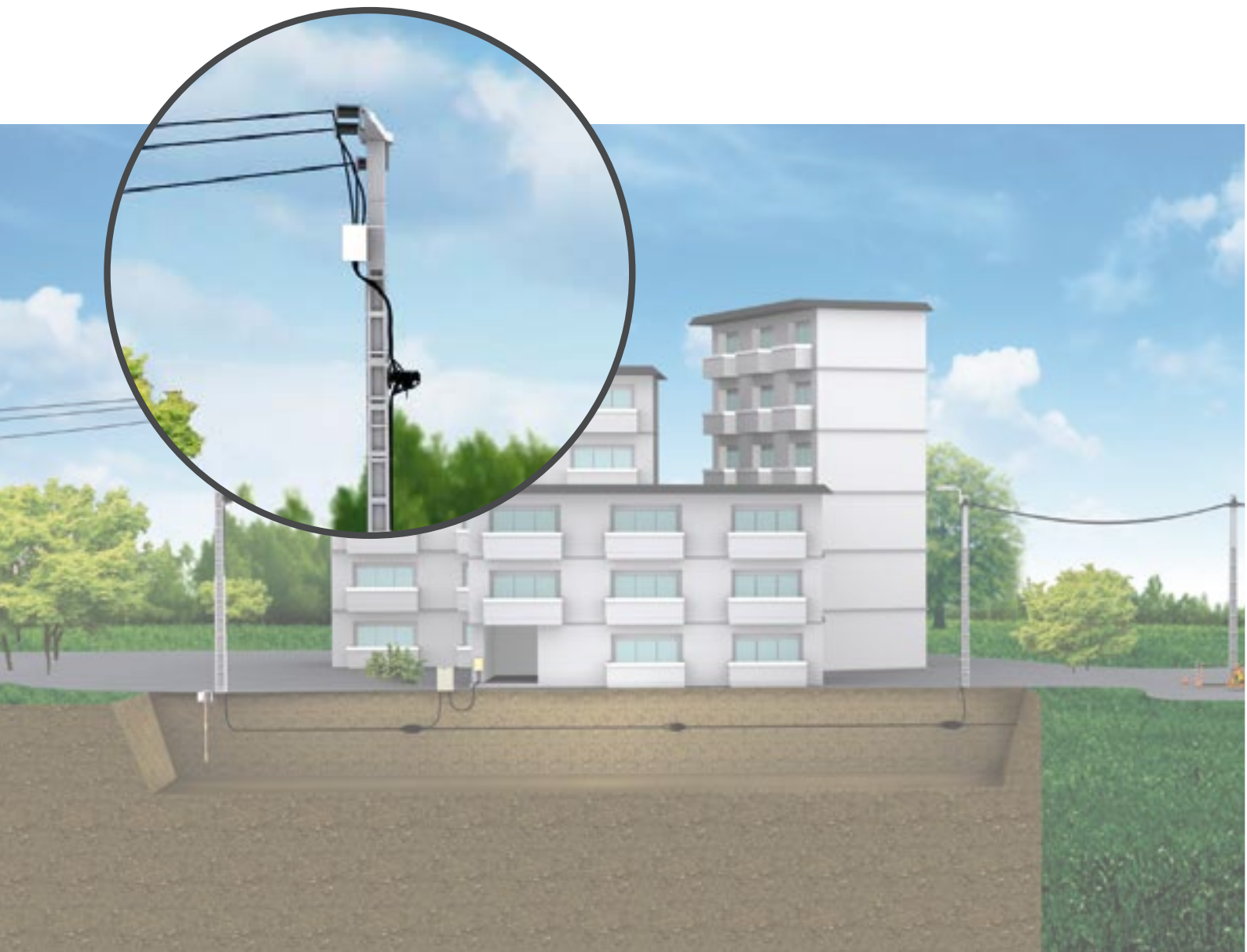
Note : to prevent dismantling of the end connector with risk of fraud, none of the permanent screw head is accessible.



\*Dimensions in mm  
L= 220 (K131 et K132)  
L= 520 (K129 et K130)

## REFERENCES

Code	Designation	Tail length (mm)	Leading in capacities Al-Cu (mm <sup>2</sup> )	Tail section (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>K131</b>	PIERCING REDUCING END CONNECTOR 6-50M PHASE L300	220	6-35 16-50M	16	0.150	96
<b>K132</b>	PIERCING REDUCING END CONNECTOR 6-50M NEUTRAL L300	220	6-35 16-50M	16	0.150	96
<b>K129</b>	PIERCING REDUCING END CONNECTOR 6-50M PHASE L600	520	6-35 16-50M	16	0.190	12
<b>K130</b>	PIERCING REDUCING END CONNECTOR 6-50M NEUTRAL L600	520	6-35 16-50M	16	0.190	12





# PROTECTION

## Service protection

Fuse switch disconnecter 100A, 22x58, 95 <sup>2</sup>	p. 144
Fuse switch disconnecter 100A, 22x58, 35 <sup>2</sup>	p. 146
Fuse switch disconnecter 160A, T00, 95 <sup>2</sup> + 120 <sup>2</sup>	p. 148
Fuse switch connector 20A, 10,3x38, 95 <sup>2</sup>	p. 150
Fuse cutout sleeve 100A, 22x58, 35 <sup>2</sup>	p. 152
Fuse insulation piercing pit connector 100A, 22x58, 502	p. 154

## Network protection

Fuse switch disconnecter double pole 160A, T00, 95 <sup>2</sup> + 120 <sup>2</sup>	p. 156
Fuse switch disconnecter triple pole 160A, T00, 95 <sup>2</sup> + 120 <sup>2</sup>	p. 158
Fuse switch disconnecter quadruple pole 160A, T00, 95 <sup>2</sup> + 120 <sup>2</sup>	p. 160

## Fuses

Fuse cartridge gG	p. 162
Fuse cartridge AD	p. 164
Fuse cartridge NH	p. 166

## SOLUTIONS FOR NETWORK PROTECTION



Fuse switch disconnecter MICHAUD installation - Tonga

For a safe and effective electrical line, MICHAUD offers solutions for the protection of individual premises as well as low voltage network.



### Lasting installation

As a specialist in low voltage distribution, MICHAUD gets involved in the networks performance optimisation and the guarantee of long-lasting electrical lines.



### Protected networks

Thanks to protections installed in strategic points on the network or on service line, the power company takes advantage of a better control of faults propagation and an easier maintenance.



### Customised products

The technical skills and the right understanding of problematics on the field enable to propose suitable solutions for specific demands (customer identification on the product, easy handling, fuse blown indicator...).

## Service protection

Two solutions can be used for individual houses protection: the fuse switch disconnecter or the cutout sleeve. These devices enable a possible cutting point facilitating every interventions for the network manager.

Comparison between	Fuse switch disconnecter	and	Cutout sleeve
<b>Manipulation ease</b>	++ <i>From ground level with an operating stick</i>		+ <i>On top pole</i>
<b>Economical solution</b>	+		++

## A SOLUTION FOR THE PROTECTION IN UNDERGROUND ENVIRONMENT

In order to adapt to various specifications met on the field, a temporarily submersible solution has been designed to ensure the protection of the underground network connection.



- Installation in a pit.
- Working temporarily into water.
- Full waterproof connection.

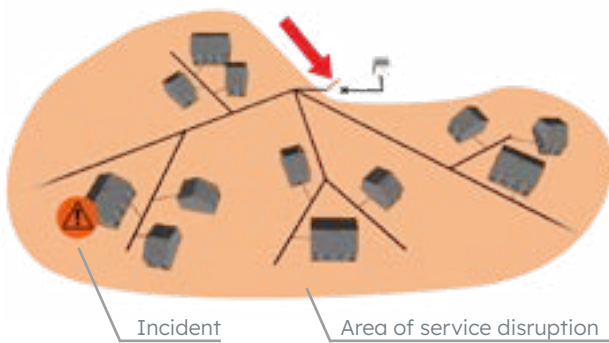
# SOLUTIONS FOR NETWORK PROTECTION

## Network protection

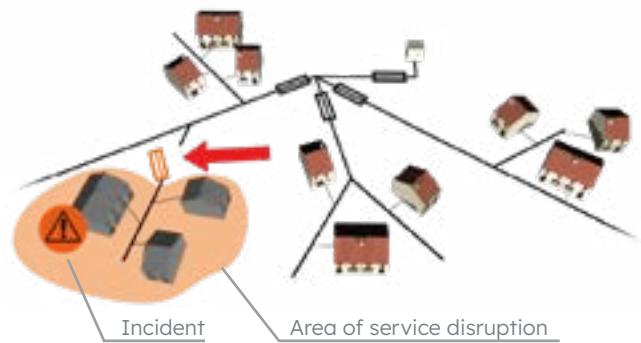
Low voltage networks are usually structured in a star shape from the LV/MV transformer and are not looped. A single short-circuit could therefore make an entire network fail, creating customer service disruptions.

### MICHAUD SOLUTION: PROTECTION ON STRATEGIC POINTS

Network without FSD



Network with FSD



- Control of faults propagation.
- Reduction of customers discontents.



A suitable earth system device enables the temporary fuse switch protection for work.

## Fuse switch disconnecter

### TWO TYPES OF PROTECTION

#### Service protection



- **Rating** 100 or 160A.
- **Fuse size** 22x58mm or NH00.
- **Conductors section max** 35, 95 or 120mm<sup>2</sup>.
- **Single phase FSD.**

#### Network protection



- **Rating** 160A.
- **Fuse size** NH00.
- **Conductors section max** 95 or 120mm<sup>2</sup>.
- **Multi-phase FSD.**
- **Available in 2, 3, 4 and 6 poles.**

## MANY OPTIONS



### Fuse presence indicator

Check the fuse presence



### Blown fuse LED light indicator

Be aware of a blown fuse



### Shear head indicator

Check from ground level correct shear head breaking



### Customer identification number

Identify the line or customer number



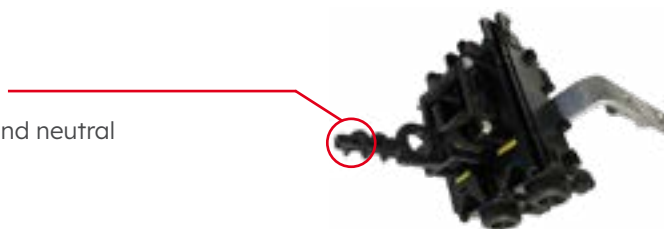
### Neutral simultaneous cut

Enable the simultaneous cut of phases and neutral



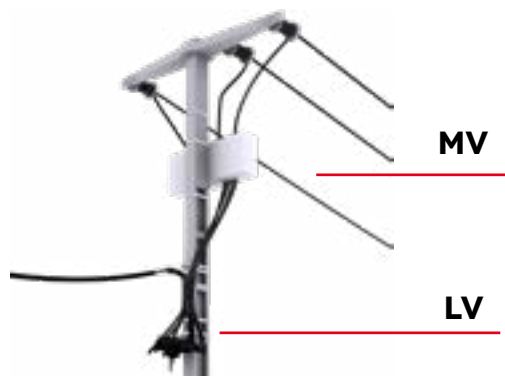
### Colour of the fuse carrier

Distinguish phases and neutral



## THE BENEFITS

- 50 up to 80% more economical than a circuit breaker.
- Strong solution and very little sensitive to charge imbalances.
- Solution available in single and three phases.



# SERVICE PROTECTION

## Fuse switch disconnecter 100A - 95<sup>2</sup>

### APPLICATION

This Fuse Switch Disconnecter (FSD) is designed to protect the overhead connection supplying an individual customer and the low voltage network.

It is a single phase device that is installed at top pole on façade.

It is designed to receive a neutral tube or a 100A maximum, size 22x58mm fuse cartridge (according to the **IEC 269-2.1** standard).

It is used in no mechanical load situation.



**K291**

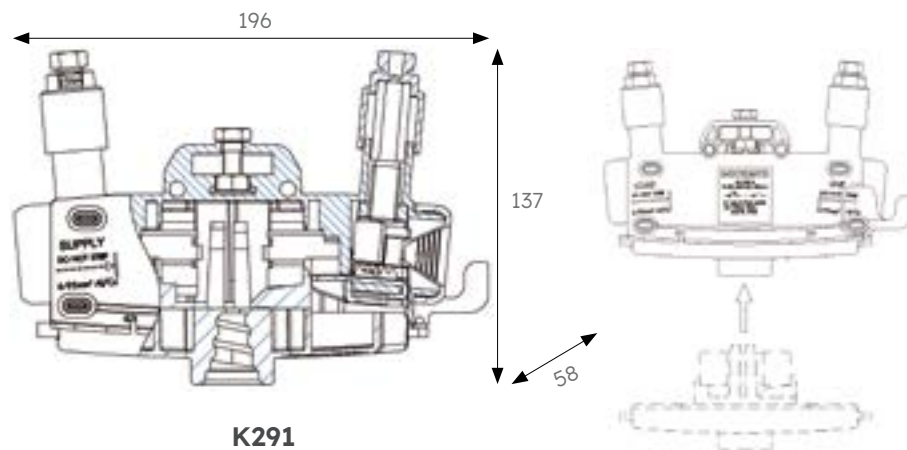
### BENEFITS

- > Rating 100A.
- > Fuse size 22x58mm.
- > Conductors section 6-95mm<sup>2</sup>.

### DESCRIPTION

- FSD ratings are:
  - Rated voltage, Ue: 500V
  - Rated frequency: 50 up to 60Hz
  - Rated insulation voltage, Ui: 1 000V
  - Rated current, Ie: 100A
- Terminal blocks are completely insulated. Connection is established using insulation piercing technology.
- Insulated conductor section ranges from 6 up to 95mm<sup>2</sup> Al/Cu.
- Tightening efficiency of the conductors is ensured by two shear head screws located on top body.
- Conductors insertion is performed on side body (terminal block is oriented with a down angle towards to bottom).
- Fuse holder is opened, removed and closed using a pigtail stick end.  
*Note: the fuse holder can be installed without fuse.*
- Polarity test points are accessible on each terminal block on side of the fuse holder without removing.
- Fuse holder can be sealed if necessary. The degree of protection is IP33.

This fuse switch disconnecter meets the criteria of the **IEC 60 947-3** and **IEC 60 269-2** standards.



**K291**

Dimensions en mm

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K291</b>	SINGLE PHASE FSD 100A (22x58) PIERCING 6-95	0.510	24

### Customised solution:

#### Several options available:

- For the fuse presence indicator, add **P** to the reference.
- For the blown fuse LED indicator, add **L** to the reference.
- For the yellow shear head indicator, add **H** to the reference.
- For the customer identification number, add **N** to the reference.
- For the colour of the fuse carrier, add **C** to the reference and specify the colour required (black is standard colour).



**K291-C**

**C** - Colour of the fuse carrier



**L** - Blown fuse LED indicator

**P** - Fuse presence indicator

**K291-P-L-N**

**N** - Customer identification number

### Accessories

Bracket to fix FSD on a pole or façade is made of:

- Galvanised steel highly resistant to corrosion (fixing is achieved by two provided 10mm diameter galvanised steel screws running through the both bracket holes, top hole having a key shape to position FSD easier. It can also be achieved by two stainless steel strips and buckles).

- Synthetic materials that is insulated (fixing is achieved by two 10mm diameter screws or one stainless steel strap and buckle or a "swan neck").



**K297**



**K295**

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K297</b>	BRACKET FOR SINGLE PHASE FSD	0.490	30
<b>K295</b>	PLASTIC ADAPTOR FOR SINGLE PHASE FSD BRACKET	0.070	100

# SERVICE PROTECTION

## Fuse switch disconnecter 100A - 35<sup>2</sup>

### APPLICATION

This Fuse Switch Disconnecter (FSD) is designed to protect the overhead connection supplying an individual customer and the low voltage network.

It is a single phase device that is installed at top pole or on façade.

It is designed to receive a neutral tube or a 100A maximum, size 22x58mm fuse cartridge (according to the **IEC 269-2.1** standard).

It is used in no mechanical load situation.



K491

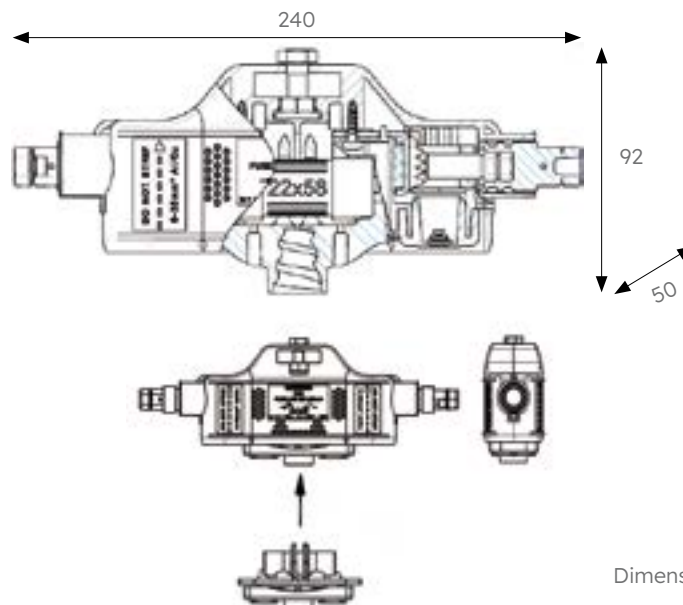
### BENEFITS

- > Rating 100A.
- > Fuse size 22x58mm.
- > Conductors section 6-35mm<sup>2</sup>.

### DESCRIPTION

- FSD ratings are:
  - Rated voltage, Ue: 500V
  - Rated frequency: 50 up to 60Hz
  - Rated insulation voltage, Ui: 1 000V
  - Rated current, Ie: 100A
- Terminal blocks are completely insulated. Connection is established using insulation piercing technology.
- Insulated conductor section ranges from 6 up to 35mm<sup>2</sup> Al/Cu.
- Tightening efficiency of the conductors is ensured by two shear head screws located on side body.
- Conductors insertion is performed from below.
- Fuse holder is opened, removed and closed using a pigtail operating stick end.
- Note: the fuse holder can be installed without fuse.*
- Polarity test point are accessible on each terminal block side through the fuse holder without removing it.
- Screw heads and the fuse carrier can be sealed if necessary. The protection degree is IP33.

This fuse switch disconnecter meets the criteria of the **IEC 60 947-3** and **IEC 60 269-2** standard.



Dimensions in mm

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K491</b>	SINGLE PHASE FSD 100A (22x58) PIERCING 6-35	0.385	20

### Customised solution:

#### Several options available:

- For the yellow shear head indicator, add **H** to the reference.
- For the customer identification number, add **N** to the reference.
- For the colour of the fuse carrier, add **C** to the reference and specify the colour required (white is standard colour).



### Option: Number plate alone

## REFERENCE



Code	Designation	Weight (kg)	Sales unit
<b>K492</b>	NUMBER PLATE ON FSD K491 + K291 OR CABLE	0.025	100

### Accessories

Bracket to fix FSD on a pole or façade is made of:

- Galvanised steel highly resistant to corrosion (fixing is achieved by two provided 10mm diameter galvanised steel screws running through the both bracket holes, top hole having a key shape to position FSD easier. It can also be achieved by two stainless steel strips and buckles).

- Synthetic materials that is insulated (fixing is achieved by two 10mm diameter screws or one stainless steel strap and buckle or a "swan neck").



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K297</b>	BRACKET FOR SINGLE PHASE FSD	0.490	30
<b>K295</b>	PLASTIC ADAPTOR FOR SINGLE PHASE FSD BRACKET	0.070	100

# SERVICE PROTECTION

## Fuse switch disconnecter 160A

### APPLICATION

This Fuse Switch Disconnecter (FSD) is designed to protect the overhead connection supplying an individual customer and the low voltage network.

It is a single phase device that is installed at top pole or on façade.

It is designed to receive a 160A fuse cartridge or 240A maximum solid connecting link size NH00 (according to the **IEC 269-2.1** standard).

It is used in no mechanical load connection.



**K292**

Insulation piercing



**L277**

Insulation stripping

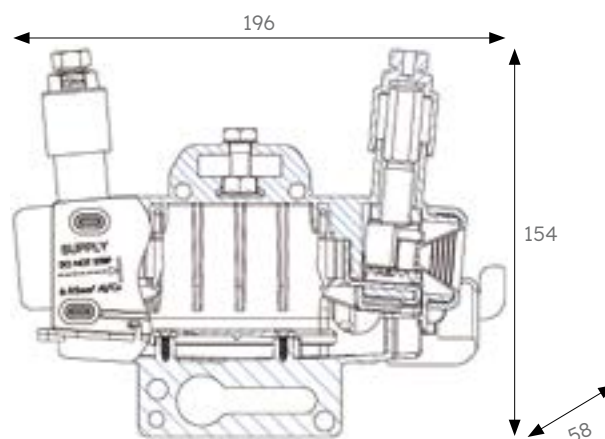
### BENEFITS

- > Rating 160A.
- > Fuse size NH00.
- > Conductors section 6-95mm<sup>2</sup> (K292), 6-120mm<sup>2</sup> (L277).

### DESCRIPTION

- The FSD ratings are:
  - Rated voltage,  $U_e$  : 500V
  - Rated frequency : 50 up to 60Hz
  - Rated insulation voltage,  $U_i$  : 1 000V
  - Rated current,  $I_e$  : 160A
- Terminal blocks are completely insulated.
- FSD K292 uses the insulation piercing technology and connects insulated conductors from 6 up to 95mm<sup>2</sup> Al-Cu (entry seals are of black colour).
- FSD L277 uses the insulation stripping technology and receives insulated conductors from 6 up to 120mm<sup>2</sup> Al-Cu (entry seals are of grey colour).
- Tightening efficiency of the conductors is ensured by two shear head screws located on top body.
- Fuse holder is opened, removed and closed using a hook operating stick end.
- Note: the fuse holder can be installed without fuse.*
- Polarity test points are accessible on each terminal block on side of the fuse holder without removing it.
- Fuse holder can be sealed if necessary. The degree of protection is IP33.

This fuse switch disconnecter meets the criteria of the **IEC 60 947-3** and **IEC 60 269-2** standards.



Dimensions in mm

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K292</b>	SINGLE PHASE FSD 160A (NH00) PIERCING 6-95	0.490	24
<b>L277</b>	SINGLE PHASE FSD 160A (NH00) STRIPPING 6-120	0.500	24

### Customised solution:

#### Several options available:

- For the fuse presence indicator, add **P** to the reference.
- For the blown fuse LED indicator, add **L** to the reference.
- For the yellow shear head indicator, add **H** to the reference.
- For the colour of the fuse carrier, add **C** to the reference and specify the colour required (black is standard colour).



### Accessories

Bracket to fix FSD on a pole or façade is made of:

- Galvanised steel highly resistant to corrosion (fixing is achieved by two provided 10mm diameter galvanised steel screws running through the both bracket holes, top hole having a key shape to position FSD easier. It can also be achieved by two stainless steel strips and buckles).

- Synthetic materials that is insulated (fixing is achieved by two 10mm diameter screws or one stainless steel strap and buckle or a "swan neck").



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K297</b>	BRACKET FOR SINGLE PHASE FSD	0.490	30
<b>K295</b>	PLASTIC ADAPTOR FOR SINGLE PHASE FSD BRACKET	0.070	100

# SERVICE PROTECTION

## Fuse switch connector 20A



K223-2

K223

K228 and K229

### APPLICATION

This fuse switch connector is designed to protect street light or insulated service conductors connected to the low voltage A.B.C. (Aerial Bundled Conductors) or bare line conductors. It can receive a 13.3x38mm fuse cartridge up to 20A or neutral tube..

It is used in no mechanical load situation.

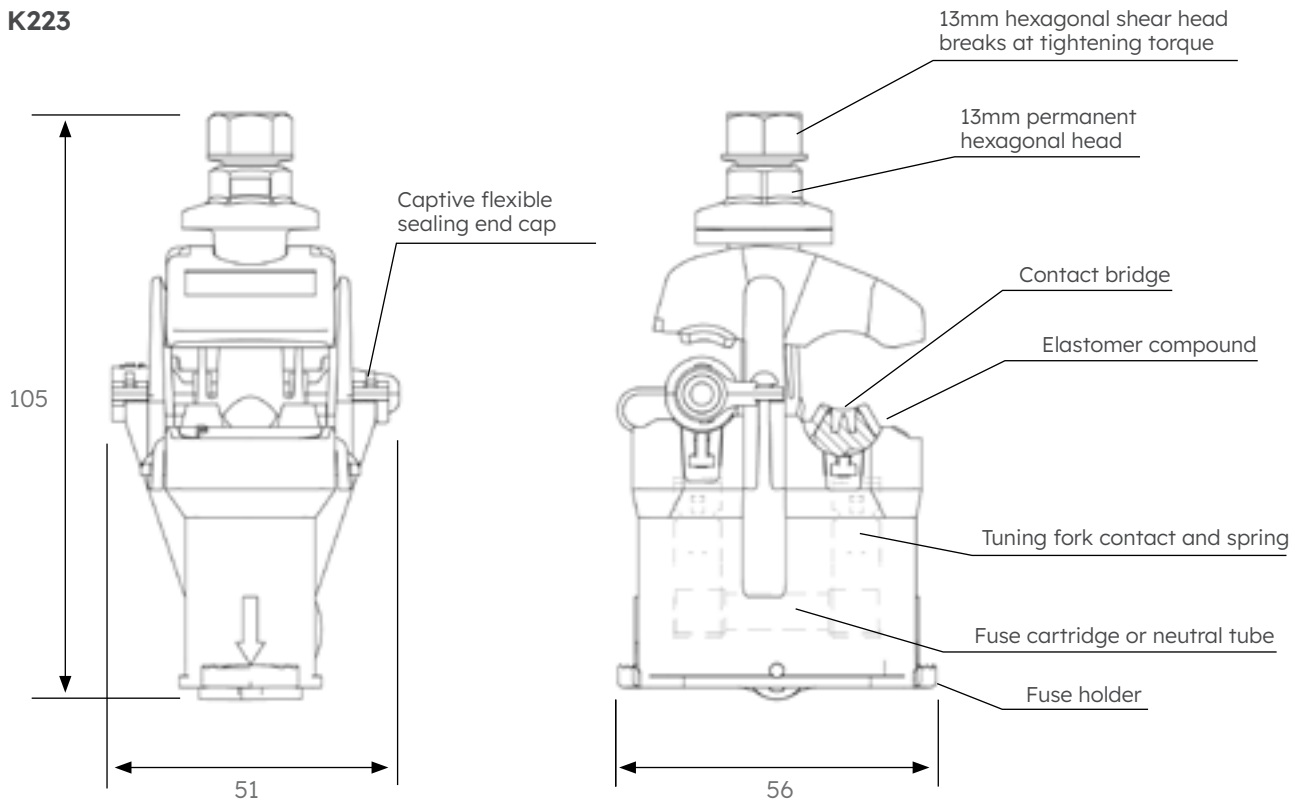
### BENEFITS

- > Rating 20A.
- > Fuse size 10.3 x 38.
- > Small size.
- > Unlosable fuse carrier.
- > Can be installed in a street light pole (K223-2).
- > Simultaneous tightening main / tap.

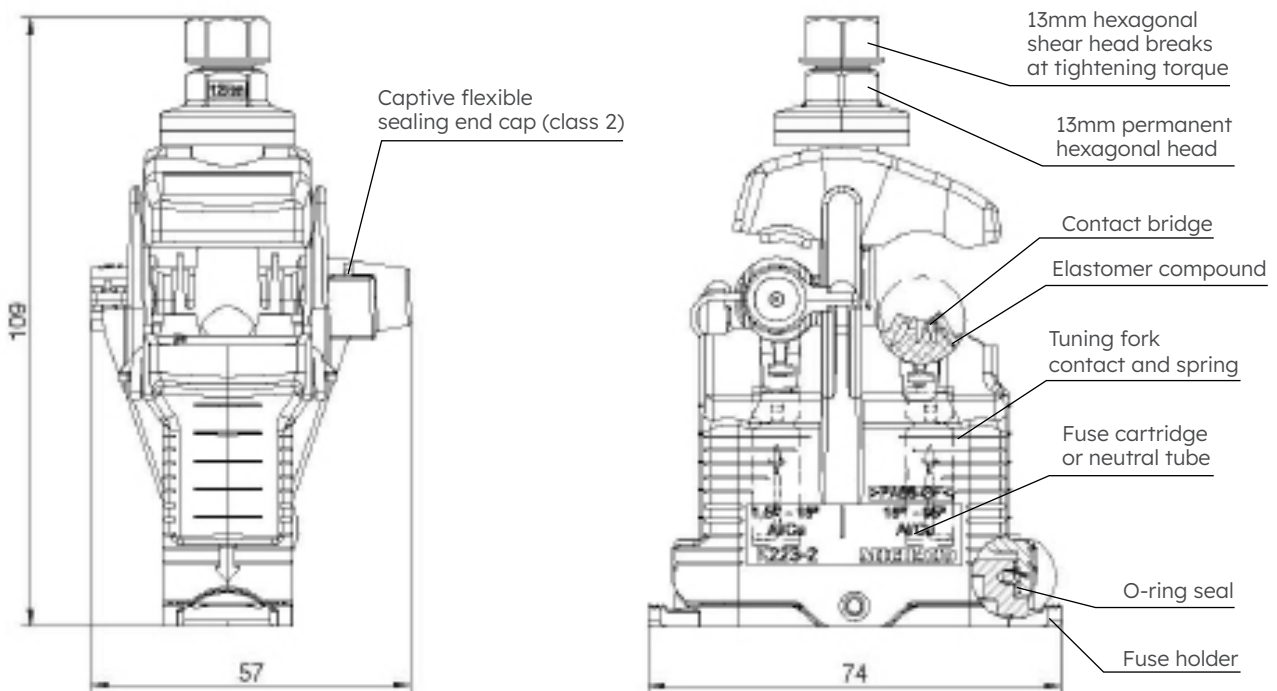


### DESCRIPTION

- Connection of the bare or insulated main line conductor and piercing on the tap line conductor are carried out simultaneously in a single tightening operation.
- The sealing end cap is flexible in order to check good tap conductor insertion. It is movable and can be installed with service cable outlet on left or right side.
- Tightening efficiency is ensured by a shear head screw.
- An elastomer compound ensures insulation during piercing of the conductors to be connected.
- Connection of the fuse cartridge on the tuning fork contacts is ensured using springs.
- The sealable fuse holder is operated easily by hand. Two arrows engraved on the side of the cutout body indicate the opening and closing direction to be followed.
- For all connectors, the degree of protection is IP2X when installed. The K223 becomes IP33 after installation on the insulated conductor. The K223-2 becomes IP67 after installation on the insulated conductor (dielectric strenght in water 6kV/1 minute).

**K223**

Dimensions in mm

**K223-2****REFERENCES**

Code	Designation	Capacities Main (mm <sup>2</sup> )	Capacities Tap insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>K223</b>	FUSE CONNECTOR 20A (10.3x38) PIERCING 95/16	Al / Cu insulated 16-95	1.5-16	0.130	120
<b>K223-2</b>	FUSE CONNECTOR PIERCING 95/16 - CLASS 2	Al / Cu insulated 16-95	1.5-16	0.150	20
<b>K228</b>	FUSE CONNECTOR 20A (10.3x38) BARE Cu 95/10	Cu bare 16-95	1.5-10	0.130	10
<b>K229</b>	FUSE CONNECTOR 20A (10.3x38) BARE Al 95/100	Al bare 16-95	1.5-10	0.130	10

# SERVICE PROTECTION

## Fuse cutout sleeve 100A

### APPLICATION

This cutout sleeve is designed to protect the overhead connection supplying an individual customer.

It can receive a 22x58 fuse cartridge, a neutral tube or a mini-switch (or size 14x51 depending on the model).

It is equipped with mechanical tightening terminals allowing its installation using a simple spanner. Opening and closing of the cutout can be performed under a load of 63A maximum.

It is used in no mechanical load situation.

### BENEFITS

- > Rating 100A
- > Fuse size 22x58mm (K219, K221), 14x51mm (K220)
- > Conductors section 6-35mm<sup>2</sup> (K221), 16-35mm<sup>2</sup> (K219, K220)



### DESCRIPTION

- Connection is established using insulation piercing technology (K221) and insulation stripping technology (K220, K219). Tightening efficiency is ensured by shear head screws.
- Terminals blocks offer the following capacities:
  - 2.5-16mm<sup>2</sup> Al/Cu (K220),
  - 6-35mm<sup>2</sup> Al/Cu or 16M-50M Al (K221),
  - 16-35mm<sup>2</sup> Al/Cu or 16M-50M Al (K219).
- Dielectric strength in water is greater than 6kV.
- Spring tightening of the cartridge is calibrated so that when the cutout is opened, the cartridge remains on the customer side (therefore without voltage).
- Sealing cap temporarily protects the access on the network side (black on K221 and K220 ; grey on K219).
- Once the cartridge has been installed, the cutout is locked using the closing ring.
- Closing ring and the 13mm screws can be sealed.
- Cutout 22x58 accepts 63A fuse. Cutout 14x51 accepts 50A fuse. The 100A fuse is only accepted with 35mm<sup>2</sup> copper wiring.

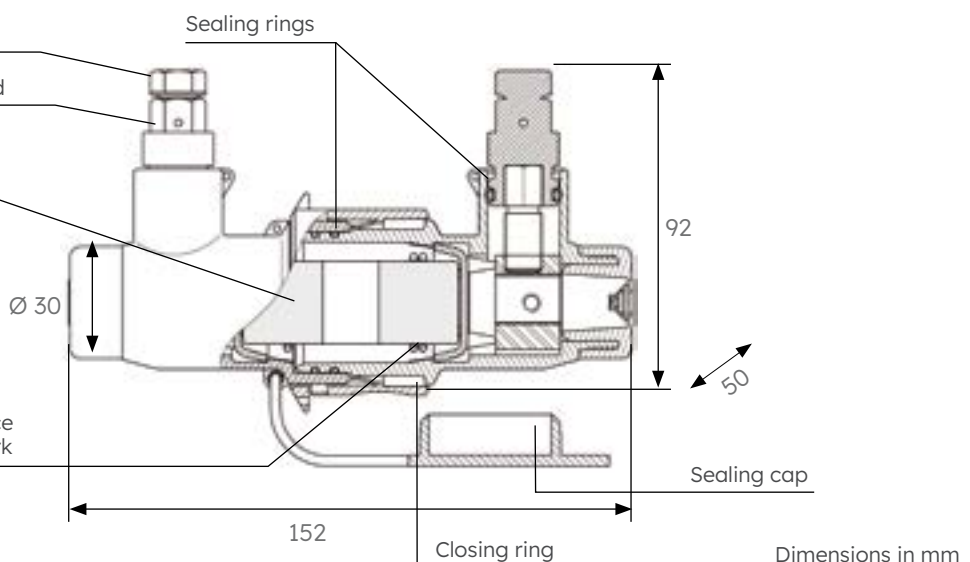
This sleeve meets the criteria of the **ErDF 69 40 070** French specification.

13mm hexagonal shear head breaks at tightening torque

13mm permanent hexagonal head

22x58 fuse cartridge

Spring tightening:  
- Double type on service  
- Single type on network





## REFERENCES

Code	Designation	Weight (kg)	Sales unit
K220	CUTOUT STRIPPING SLEEVE 14X51 / 50A	0.135	50
K221	CUTOUT SLEEVE 63A (22x58) PIERCING 6-35	0.235	50
K219	CUTOUT SLEEVE 63A (22x58) STRIPPING 16-35	0.235	70

### Option : Fuse switch connector 100A

## APPLICATION

This fuse switch connector is designed to :

- Connect the insulated service conductors to the low voltage A.B.C. (Aerial Bundled Conductors).
- Protect the overhead connection supplying an individual customer.

It can receive a 22x58mm fuse cartridge, a neutral tube or a mini-switch.

Opening and closing of the cutout can be performed under a load of 63A maximum.

It is used in no mechanical load situation.



K210

## DESCRIPTION

- Insulation piercing on the main and tap conductors is carried out independently.
- Tightening efficiency is ensured by shear head screws. Dielectric strength in water is greater than 6kV.
- Elastomer compound ensures insulation during piercing of the conductors to be connected.
- Spring tightening on the cartridge is calibrated so that when the cutout is opened, the cartridge remains on the customer side (therefore without voltage).
- Once the cartridge has been installed, the cutout is locked using the closing ring.
- Closing ring and the cutout 13mm screw can be sealed.



## REFERENCE

Code	Designation	Capacités Principal isolé Al-Cu (mm <sup>2</sup> )	Capacités Dérivé isolé Al-Cu (mm <sup>2</sup> )	Poids (kg)	Unité de vente
K210	FUSE SWITCH CONNECTOR 63A (22x58) PIERCING 150/35	35-150	6-35	0.310	40

# SERVICE PROTECTION

## Fuse underground pit connector 100A

### BENEFITS

- > Rating 100A.
- > Fuse size 22x58.
- > Conductors section 6-50mm<sup>2</sup>.

### APPLICATION

This Fuse Insulation Piercing Pit Connector (IPPC) is designed to protect the underground connection supplying an individual customer. It can receive a 100A maximum 22x58mm fuse cartridge, a neutral tube or a mini-switch.

It is installed in a pit for underground application and can operate partially and temporary immersed in water.

It is equipped with mechanical tightening terminal blocks allowing installation on a conductor using a simple spanner.



K198



K199

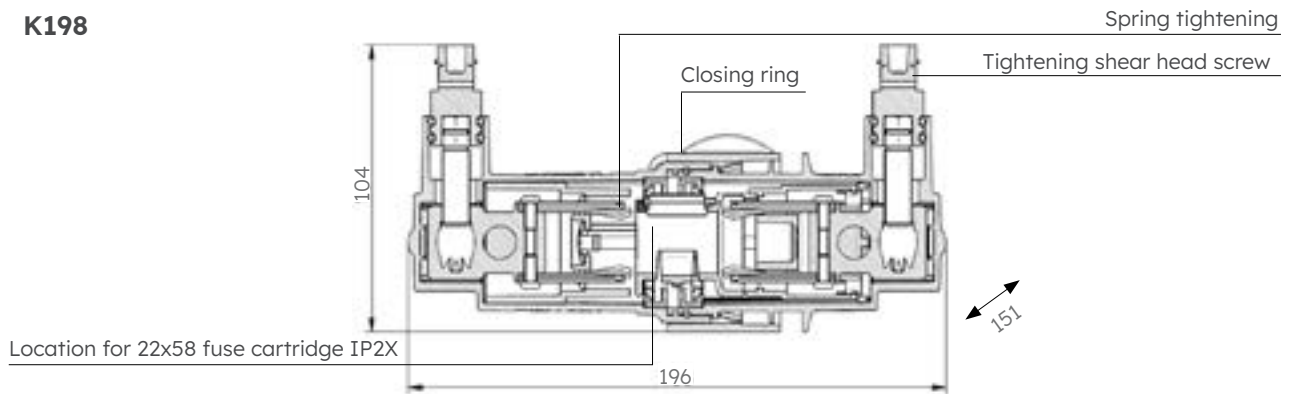
### DESCRIPTION

- Connection is established using insulation piercing technology.
- Tightening efficiency is ensured by shear head screws.
- Connection is totally watertight.
- Terminal blocks offer a capacity from 6 up to 50mm<sup>2</sup> Al/Cu.
- On the K199, spring tightening of the cartridge is calibrated so that when the cutout is opened, the cartridge remains on the customer side (therefore without voltage). Sealing cap temporarily protects the access on the network side.
- On the K198, spring tightening of the cartridge is calibrated so that when the cutout is opened, the cartridge is not in contact with any side. This product is specially designed for housing power plant and allows safe operating. It is IP2X when opening. When it closes, this connector is IP67.
- Once the cartridge has been installed, the cutout is locked using the closing ring.

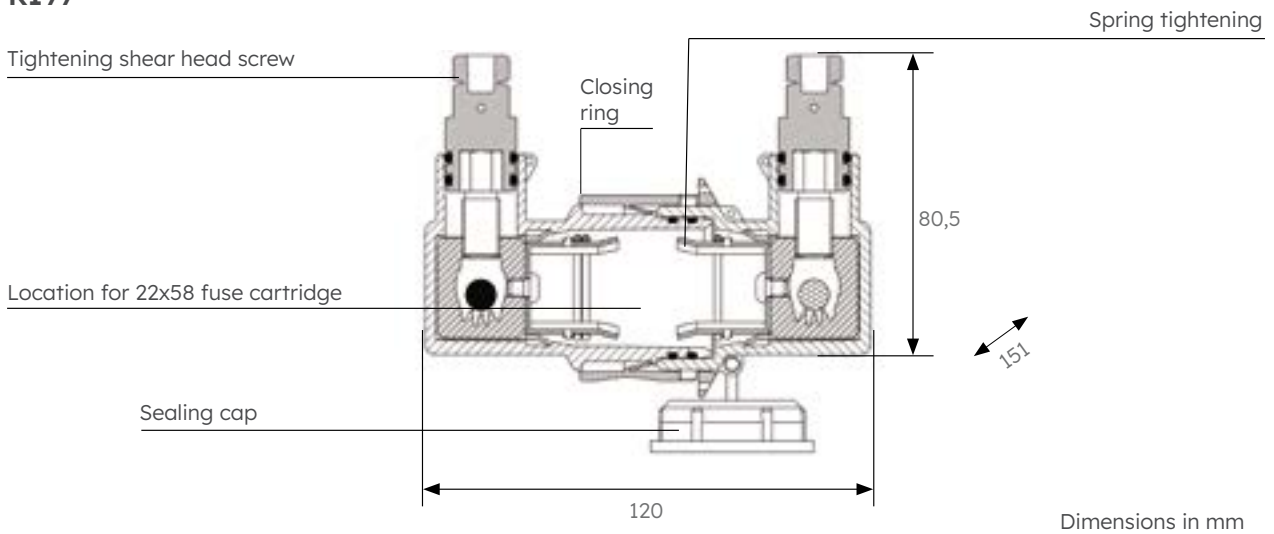


K199 - Opened

**K198**



**K199**



**K199** -Installation in a pit

**DESCRIPTION**

Code	Designation	Weight (kg)	Sales unit
<b>K198</b>	FUSE INSULATION PIERCING PIT CONNECTOR 100A (22x58) PERFO 6-50 IP2X	0.440	10
<b>K199</b>	FUSE INSULATION PIERCING PIT CONNECTOR 100A (22x58) PERFO 6-50	0.302	40

# NETWORK PROTECTION

## Fuse switch disconnecter double pole 160A

### BENEFITS

- > **Rating** 160A.
- > **Fuse size** NH00.
- > **Conductors section** 6-95mm<sup>2</sup> (K298), 6-120mm<sup>2</sup> (L278).

### APPLICATION

This Gang Fuse Switch Disconnecter (Gang FSD) is designed to protect the overhead connection supplying one or several multi-phase customers or the low voltage circuit of a pole mounted transformer.

It is multi-phases device. It is installed at top pole or on façade.

It is designed to receive 160A fuse cartridges or 240A solid links, size NH00 (according to the IEC 269-2.1 standard).

It is used in no mechanical load situation.



**K298** - Insulation piercing



**L278** - Insulation stripping

### DESCRIPTION

#### Fuse Switch Disconnecter:

- FSD ratings are:
  - Rated voltage, Ue: 500V
  - Rated frequency: 50 up to 60Hz
  - Rated insulation voltage, Ui: 1 000V
  - Rated current, Ie: 160A
- FSD K298 uses the insulation piercing technology and connects insulated conductors from 6 up to 95mm<sup>2</sup> Al-Cu (entry seals are of black colour).
- FSD L278 uses the insulation stripping technology and connects insulated conductors from 6 up to 120mm<sup>2</sup> Al-Cu (entry seals are of grey colour).
- Fuse holders are opened, removed and closed simultaneously using an operating stick with bored terminal end to be screwed on the Gang FSD adaptor.
- Note: the fuse holder can be installed without fuse.*
- Polarity test points are accessible on each terminal block on side of the fuse holder without removing it.
- Degree of protection is IP33.

#### Bracket:

- Bracket is available in 2 holes type. It is made of galvanised steel highly resistant to corrosion.
- Fixing on pole or façade is achieved by two provided 10mm diameter galvanised steel screws running through the both bracket holes, top hole having a key shape to position FSD easier.

This fuse switch disconnecter meets the criteria of the **IEC 60 947-3** and **IEC 60 269-2** standards.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K298</b>	DOUBLE PHASE FSD 160A (NH00) PIERCING 6-95	1.850	4
<b>L278</b>	DOUBLE PHASE FSD 160A (NH00) STRIPPING 6-120	1.850	1

Note: Fixing with two 10mm diameter galvanised steel screws is provided with the Gang FSD.

### Customised solution:

#### Several options available:

- For the fuse presence indicator, add **P** to the reference.
- For the blown fuse LED indicator, add **L** to the reference.  
(Use a NH00 fuse carrying metal fixing bracket linked to the blades).
- For the yellow shear head indicator, add **H** to the reference.
- For the neutral simultaneous cut, add **S** to the reference.
- For the colour of the fuse carrier, add **C** to the reference and specify the colour required (black is standard colour).

**L** - Blown fuse LED indicator

**S** - Neutral simultaneous cut

**P** - Fuse presence indicator



**K298-P-L-S**

### Option: double tap

A double tap outlet is available by adding an end connector with two insulation piercing insulated terminal blocks.

The conductor section goes from 6 up to 35mm<sup>2</sup> Al/Cu.



**K098**

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K098</b>	DOUBLE TAP END CONNECTOR (6-35mm <sup>2</sup> )	0.140	10

# NETWORK PROTECTION

## Fuse switch disconnecter triple pole 160A

### BENEFITS

- > **Rating** 160A.
- > **Fuse size** NH00.
- > **Conductors section** 6-95mm<sup>2</sup> (K293), 6-120mm<sup>2</sup> (L284).

### APPLICATION

This Gang Fuse Switch Disconnecter (Gang FSD) is designed to protect the overhead connection supplying one or several multi-phase customers or the low voltage circuit of a pole mounted transformer.

It is a multi-phases device. It is installed at top pole or on façade.

It is designed to receive 160A fuse cartridge or 240A solid links, size NH00 (according to the **IEC 269-2.1** standard).

It is used in no mechanical load situation.



**K293** - Insulation piercing



**L284** - Insulation stripping

### DESCRIPTION

#### Fuse Switch Disconnecter :

- FSD ratings are:
  - Rated voltage, Ue: 500V
  - Rated frequency: 50 up to 60Hz
  - Rated insulation voltage, Ui: 1 000V
  - Rated current, Ie: 160A
- FSD K293 uses the insulation piercing technology and connects insulated conductors from 6 up to 95mm<sup>2</sup> Al-Cu (entry seals are of black colour).
- FSD L284 uses the insulation stripping technology and connects insulated conductors from 6 up to 120mm<sup>2</sup> Al-Cu (entry seals are of grey colour).
- Fuse holders are opened, removed and closed simultaneously using an operating stick with bored terminal end.  
*Note: the fuse holder can be installed without fuse.*
- Polarity test points are accessible on each terminal block on side of the fuse holder without removing it.
- Degree of protection is IP33.

#### Bracket:

- Bracket is available in 4 holes type. It is made of galvanised steel highly resistant to corrosion. A hook at its end is used to fix a service cable anchoring clamp.
- Fixing on pole or façade is achieved by two provided 10mm diameter galvanised steel screws running through the both bracket holes, top hole having a key shape to position FSD easier.

This fuse switch disconnecter meets the criteria of the **IEC 60 947-3** and **IEC 60 269-2** standards.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K293</b>	TRIPLE PHASE FSD 160A (NH00) PIERCING 6-95	2.710	2
<b>L284</b>	TRIPLE PHASE FSD 160A (NH00) STRIPPING 6-120	2.710	2

Note : Fixing with two 10mm diameter galvanised steel screws is provided with the Gang FSD.

### Customised solution:

#### Several options available:

- For the fuse presence indicator, add **P** to the reference.
- For the blown fuse LED indicator, add **L** to the reference.  
(Use a NH 00 fuse carrying metal fixing bracket linked to the blade).
- For the shear head indicator, add **H** to the reference.
- For the colour of the fuse carrier, add **C** to the reference and specify the colour (black is standard colour).



### Option : double tap

A double tap outlet is available by adding an end connector with two insulation piercing insulated terminal blocks.

The conductor section goes from 6 up to 35mm<sup>2</sup> Al/Cu.



## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K098</b>	DOUBLE TAP END CONNECTOR (6-35mm <sup>2</sup> )	0.140	10

### Alternative: Fuse switch disconnecter double triple pole 160A (size NH00)



## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K296</b>	DOUBLE TRIPLE PHASE FSD 160A (NH00) PIERCING 6-95	3.800	2

Note : Fixing with two 10mm diameter galvanised steel screws is provided with the Gang FSD.

# NETWORK PROTECTION

## Fuse switch disconnecter quadruple pole 160A

### BENEFITS

- > **Rating** 160A.
- > **Fuse size** NH00.
- > **Conductors section** 6-95mm<sup>2</sup> (K294), 6-120mm<sup>2</sup> (L281).

### APPLICATION

This Gang Fuse Switch Disconnecter (Gang FSD) is designed to protect the overhead connection supplying one or several multi-phase customers or the low voltage circuit of a pole mounted transformer.

It is a multi-phases device. It is installed at top pole or on façade.

It is designed to receive 160A fuse cartridge or 240A solid links, size NH00 (according to the **IEC 269-2.1** standard).

It is used in no mechanical load situation.



**K294** - Insulation piercing



**L281** - Insulation stripping

### DESCRIPTION

#### Fuse Switch Disconnecter:

- FSD ratings are:
  - Rated voltage, Ue: 500V
  - Rated frequency: 50 up to 60Hz
  - Rated insulation voltage, Ui: 1 000V
  - Rated current, Ie: 160A
- FSD K294 uses the insulation piercing technology and connects insulated conductors from 6 up to 95mm<sup>2</sup> Al-Cu (entry seals are of black colour).
- FSD L281 uses the stripping technology and connects insulated conductors from 6 up to 120mm<sup>2</sup> Al-Cu (entry seals are of grey colour).
- Fuse holders are opened, removed and closed simultaneously using an operating stick with bored terminal end (neutral cut-off is performed independantly).
- Note: the fuse holder can be installed without fuse.*
- Polarity test points are accessible on each terminal block on side of the fuse holder without removing it.
- Quadruple pole FSD is equipped with a neutral blade contact size 00 integral with the fuse holder on the neutral side. The independent opening allowed to neutral cut.
- Degree of protection is IP33.

#### Bracket:

- Bracket is available in 4 holes type. It is made of galvanised steel highly resistant to corrosion. A hook at its end is used to fix a service cable anchoring clamp.
- Fixing on pole or façade is achieved by two provided 10mm diameter galvanised steel screws running through the both bracket holes, top hole having a key shape to position FSD easier.

This fuse switch disconnecter meets the criteria of the **IEC 60 947-3** and **IEC 60 269-2** standards.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>K294</b>	QUADRUPLE PHASE FSD 160A (NH00) PIERCING 6-95	3.240	2
<b>L281</b>	QUADRUPLE PHASE FSD 160A (NH00) STRIPPING 6-120	3.240	2

Note : Fixing with two 10mm diameter galvanised steel screws is provided with the Gang FSD.

### Customised solution:

#### Several options available:

- For the fuse presence indicator, add **P** to the reference.
- For the blown fuse LED indicator, add **L** to the reference.  
(Use a NH00 fuse carrying metal fixing bracket linked to the blades).
- For the yellow shear head indicator, add **H** to the reference.
- For the neutral simultaneous cut, add **S** to the reference.
- For the colour of the fuse carrier, add **C** to the reference and specify the colour required (black is standard colour).

**P** - Fuse presence indicator



### Option: double tap

A double tap outlet is available by adding an end connector with two insulation piercing insulated terminal blocks.

The conductor section goes from 6 up to 35mm<sup>2</sup> Al/Cu.



## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K098</b>	DOUBLE TAP END CONNECTOR (6-35mm <sup>2</sup> )	0.140	10

# FUSES

## Fuse cartridge gG



**U652**

Type 22x58mm

**U660**

Type 14x51mm

**U661**

Type 10.3x38mm

### APPLICATION

This gG fuse cartridge is designed to protect electrical equipment.

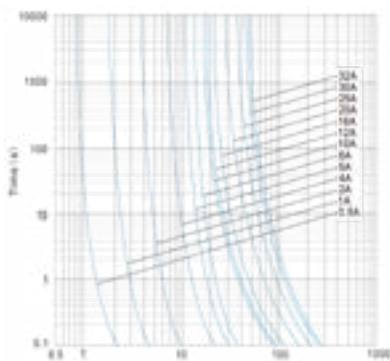
It is implemented in a cutout sheltered from outside weather conditions.

### DESCRIPTION

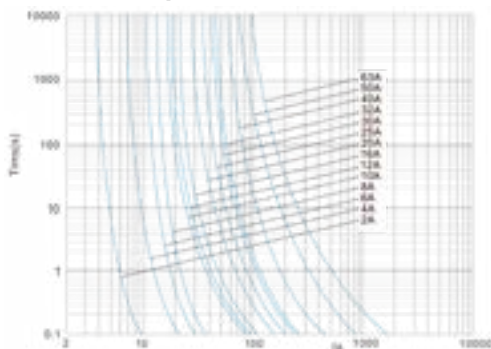
- It is type gG HPC (High Breaking Capacity).

This fuse meets the criteria of the **NF/EN/IEC 60269-1**, **NF HD/IEC 60269-2**, **NF C 60200-1** and **NF C 60200-2** standards.

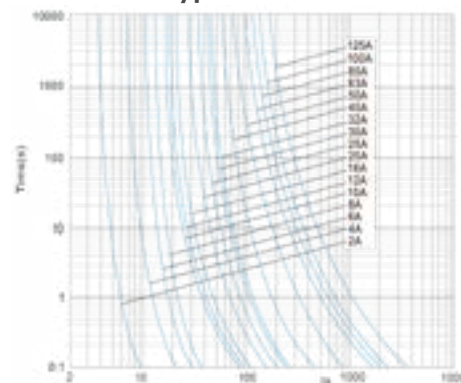
**Type 10.3x38mm**



**Type 14x51mm**



**Type 22x58mm**



## REFERENCES

Code	Designation	Voltage (V)	Breaking capacity (kA)	Weight (kg)	Sales unit
<b>FUSE CARTRIDGE 10.3x38mm gG</b>					
U661-1	FUSE 10.3x38 gG 1A	500	80	0.010	10
U661-2	FUSE 10.3x38 gG 2A	500	80	0.010	10
U661-4	FUSE 10.3x38 gG 4A	500	80	0.010	10
U661-6	FUSE 10.3x38 gG 6A	500	80	0.010	10
U661-8	FUSE 10.3x38 gG 8A	500	80	0.010	10
U661-10	FUSE 10.3x38 gG 10A	500	80	0.010	10
U661-12	FUSE 10.3x38 gG 12A	500	80	0.010	10
U661-16	FUSE 10.3x38 gG 16A	500	80	0.010	10
U661-20	FUSE 10.3x38 gG 20A	500	80	0.010	10
U661-25	FUSE 10.3x38 gG 25A	500	80	0.010	10
U661-32	FUSE 10.3x38 gG 32A	500	80	0.010	10
U620	NEUTRAL TUBE 10.3x38			0.007	10
<b>FUSE CARTRIDGE 14x51mm gG</b>					
U660-1	FUSE 14x51 gG 1A	690	80	0.020	10
U660-2	FUSE 14x51 gG 2A	690	80	0.020	10
U660-4	FUSE 14x51 gG 4A	690	80	0.020	10
U660-6	FUSE 14x51 gG 6A	690	80	0.020	10
U660-8	FUSE 14x51 gG 8A	690	80	0.020	10
U660-10	FUSE 14x51 gG 10A	690	80	0.020	10
U660-12	FUSE 14x51 gG 12A	690	80	0.020	10
U660-16	FUSE 14x51 gG 16A	690	80	0.020	10
U660-20	FUSE 14x51 gG 20A	690	80	0.021	10
U660-25	FUSE 14x51 gG 25A	690	80	0.020	10
U660-32	FUSE 14x51 gG 20A	500	80	0.020	10
U660-40	FUSE 14x51 gG 40A	500	80	0.020	10
U660-50	FUSE 14x51 gG 50A	400	80	0.020	10
U621	NEUTRAL TUBE 14x51			0.010	10
<b>FUSE CARTRIDGE 22x58mm gG</b>					
U640	FUSE CARTRIDGE 22x58 gG 2A	690	80	0.056	10
U641	FUSE CARTRIDGE 22x58 gG 4A	690	80	0.056	10
U642	FUSE CARTRIDGE 22x58 gG 6A	690	80	0.056	10
U643	FUSE CARTRIDGE 22x58 gG 8A	690	80	0.056	10
U644	FUSE CARTRIDGE 22x58 gG 10A	690	80	0.056	10
U645	FUSE CARTRIDGE 22x58 gG 12A	690	80	0.056	10
U646	FUSE CARTRIDGE 22x58 gG 16A	690	80	0.056	10
U647	FUSE CARTRIDGE 22x58 gG 20A	690	80	0.056	10
U648	FUSE CARTRIDGE 22x58 gG 25A	690	80	0.056	10
U649	FUSE CARTRIDGE 22x58 gG 32A	690	80	0.056	10
U650	FUSE CARTRIDGE 22x58 gG 40A	690	80	0.056	10
U651	FUSE CARTRIDGE 22x58 gG 50A	690	80	0.056	10
U652	FUSE CARTRIDGE 22x58 gG 63A	690	80	0.056	10
U653	FUSE CARTRIDGE 22x58 gG 80A	500	120	0.056	10
U654	FUSE CARTRIDGE 22x58 gG 100A	500	120	0.056	10
U655	FUSE CARTRIDGE 22x58 gG 125A	400	120	0.056	10
U622	NEUTRAL TUBE 22x58			0.018	10

For other fuses, please enquire.

# FUSES

## Fuse cartridge AD

### Cylindrical cartridge



**U622**  
Type 22x58mm



**U613**  
Type 22x58mm

### APPLICATION

This AD fuse cartridge is designed to protect electrical equipment and is used together with the circuit-breaker installed on the individual service connection.

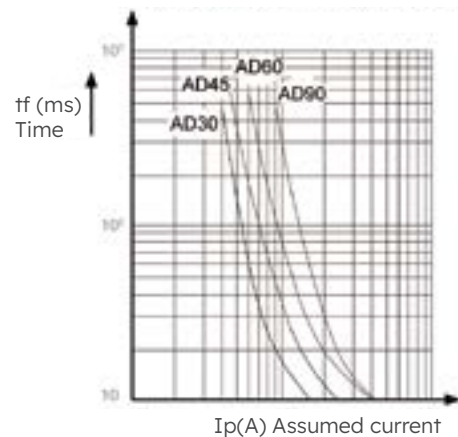
It performs the cutoff for high short-circuit currents and thereby extends the service life of the associated circuit-breaker, which is not overloaded up to the limit.

### DESCRIPTION

- Fuse cartridge is available in several sizes: 10.3x38mm, 14x51mm and 22x58mm.
- Many models are available according to the circuit breaker nominal current to which it must be connected: AD 15A, AD 30A, AD 45A, AD 60A and AD 90A.
- Low power loss limits heating of the cutout holding the fuse and extends its service life.
- It is specified for a nominal voltage of 440V in alternating current with nominal frequency of 50Hz.
- Nominal breaking capacity is 20kA.

This fuse meets the criteria of the **HN62-S-83**, **NF/EN/IEC 60269-1**, **NF HD/IEC 60269-2**, **NF C 60200-1** and **NF C 60200-2** standards.

Time-current operating curve



### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>FUSE CARTRIDGE 10.3x38mm</b>			
<b>U618</b>	FUSE CARTRIDGE 10.3x38 AD 5A	0.009	10
<b>U619</b>	FUSE CARTRIDGE 10.3x38 AD 10A	0.009	10
<b>U623</b>	FUSE CARTRIDGE 10.3x38 AD 15A	0.009	10
<b>U620</b>	NEUTRAL TUBE 10.3x38	0.012	10
<b>FUSE CARTRIDGE 14x51mm</b>			
<b>U615</b>	FUSE CARTRIDGE 14x51 AD 15A	0.021	10
<b>U616</b>	FUSE CARTRIDGE 14x51 AD 30A	0.021	10
<b>U617</b>	FUSE CARTRIDGE 14x51 AD 45A	0.021	10
<b>U621</b>	NEUTRAL TUBE 14x51	0.016	10
<b>FUSE CARTRIDGE 22x58mm</b>			
<b>U610</b>	FUSE CARTRIDGE 22x58 AD 15A	0.056	10
<b>U611</b>	FUSE CARTRIDGE 22x58 AD 30A	0.056	10
<b>U612</b>	FUSE CARTRIDGE 22x58 AD 45A	0.056	10
<b>U613</b>	FUSE CARTRIDGE 22x58 AD 60A	0.056	10
<b>U614</b>	FUSE CARTRIDGE 22x58 AD 90A	0.056	10
<b>U622</b>	NEUTRAL TUBE 22x58	0.028	10

Note : Other 10.3x38, 14x51, 22x58 fuses can be supplied upon request; please contact us.

## Fuse cartridge size NH00



P240



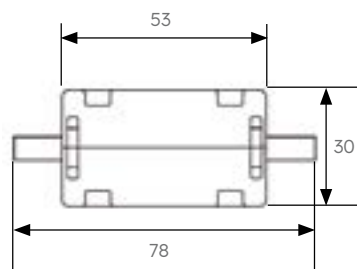
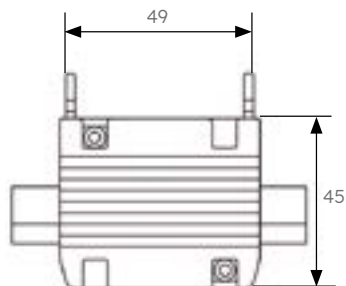
P241

### DESCRIPTION

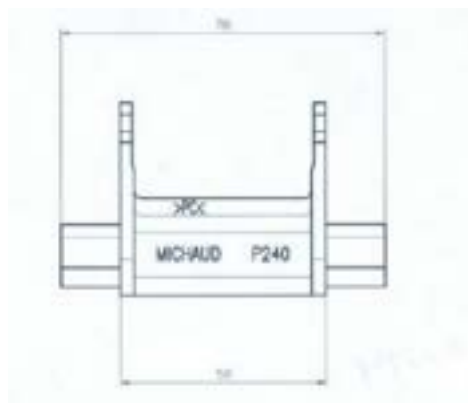
- Size of blade fuse cartridge is NH00 according to the **IEC 60269-2-1** standard.
- There are 4 models available according to the circuit-breaker nominal current to which it must be connected: AD 30A, AD 45A, AD 60A and AD 90A.
- Fixing brackets are made of insulating synthetic materials.
- Accessible metal parts (screws), with the exception of the blades, are potential free and also have a degree of protection IP2X according to the **NF EN 60529** standard.
- Low power loss limits heating of the cutout holding the fuse and extends its service life.
- It is specified for a nominal voltage of 440V in alternating current with nominal frequency of 50Hz.
- Nominal breaking capacity is 20kA.

This fuse meets the criteria of the **HN62-S-83** standard.

P24x



P240



Dimensions in mm

### REFERENCES

Code	Designation	Resistance to 20°C (μΩ)	Consumption (W)	Blade temperature rise (°K)	Weight (kg)	Sales unit
P241	FUSE CARTRIDGE SIZE 00 AD 30A	1150	1.4	9	0.150	10
P242	FUSE CARTRIDGE SIZE 00 AD 45A	740	2.1	16	0.150	10
P243	FUSE CARTRIDGE SIZE 00 AD 60A	650	3.3	20	0.150	10
P244	FUSE CARTRIDGE SIZE 00 AD 90A	430	5.1	34	0.150	10
P240	NEUTRAL BLADE CONTACT SIZE 00				0.060	10

# FUSES

## Fuse cartridge gG NH size

### APPLICATION

This is low voltage fuse cartridge is designed to protect electrical equipment such as protection unit of the low voltage public electricity supply network. It is available in sizes NH00, NH1 or NH2 and is gG.

It is installed in:

- Low voltage switchboard of the public electricity supply substation,
- Cutout, inside or outside,
- Switch cabinet for subsurface network,
- Metering box and cabinet for different uses.



NH00 78mm



NH1 115mm



NH2 115mm



NH1 115mm



NH2 160mm

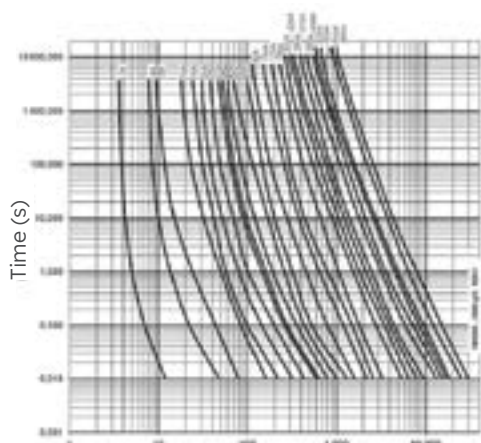


NH2 160mm

### DESCRIPTION

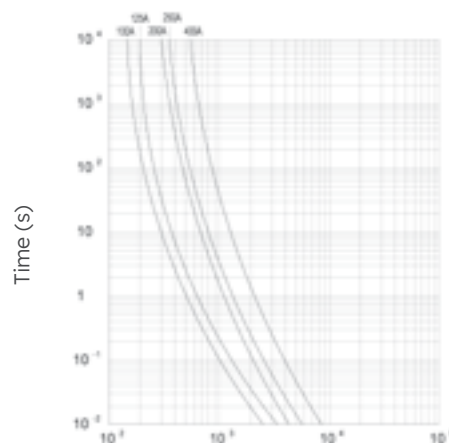
- Size of blade fuse cartridge is NH00, NH1 or NH2 according to the **IEC 269-2-1** standard.
- It is type gG HPC (High Breaking Capacity).
- It is available in several ratings:
  - 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 35A, 40A, 50A, 63A, 80A, 100A, 125A and 160A for NH00,
  - 63A, 80A, 100A, 125A, 160A, 200A and 250A for NH1 115mm,
  - 125A, 160A, 200A, 224A, 250A, 315A, 335A and 400A for NH2 115mm,
  - 125A, 200A, 250A and 400A for NH2 160mm.
- It is specified for a nominal voltage of 440V in alternating current with nominal frequency of 50Hz.
- Nominal breaking capacity is 50kA minimum.

Fuse cartridge NH00, NH1 and NH2 (115mm)



Ip(A) Assumed current

Fuse cartridge NH2 (160mm)



Ip(A) Assumed current

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>FUSE CARTRIDGE NH00</b>			
U664-2	FUSE CARTRIDGE NH00 gG 500V 2A	0.180	3
U664-4	FUSE CARTRIDGE NH00 gG 500V 4A	0.180	3
U664-6	FUSE CARTRIDGE NH00 gG 500V 6A	0.180	3
U664-10	FUSE CARTRIDGE NH00 gG 500V 10A	0.180	3
U664-16	FUSE CARTRIDGE NH00 gG 500V 16A	0.200	5
U664-20	FUSE CARTRIDGE NH00 gG 500V 20A	0.200	5
U664-25	FUSE CARTRIDGE NH00 gG 500V 25A	0.200	5
U664-32	FUSE CARTRIDGE NH00 gG 500V 32A	0.200	5
U664-35	FUSE CARTRIDGE NH00 gG 500V 35A	0.180	3
U664-40	FUSE CARTRIDGE NH00 gG 500V 40A	0.200	5
U664-50	FUSE CARTRIDGE NH00 gG 500V 50A	0.200	5
U664-63	FUSE CARTRIDGE NH00 gG 500V 63A	0.200	5
U664-80	FUSE CARTRIDGE NH00 gG 500V 80A	0.200	5
U664-100	FUSE CARTRIDGE NH00 gG 500V 100A	0.200	5
U664-125	FUSE CARTRIDGE NH00 gG 500V 125A	0.200	5
U664-160	FUSE CARTRIDGE NH00 gG 500V 160A	0.200	5
U665	NEUTRAL BLADE CONTACT NH00	0.080	3
<b>FUSE CARTRIDGE NH1 AND NH2 115mm</b>			
U250	FUSE NH1 gG 63A	0.440	24
U251	FUSE NH1 gG 80A	0.440	24
U252	FUSE NH1 gG 100A	0.440	24
U253	FUSE NH1 gG 125A	0.440	24
U254	FUSE NH1 gG 160A	0.440	24
U255	FUSE NH1 gG 200A	0.440	24
U256	FUSE NH1 gG 250A	0.440	24
U257	FUSE NH2 gG 125A	0.690	18
U262	FUSE NH2 gG 160A	0.690	18
U258	FUSE NH2 gG 200A	0.690	18
U263	FUSE NH2 gG 224A	0.690	18
U259	FUSE NH2 gG 250A	0.690	18
U260	FUSE NH2 gG 315A	0.690	18
U264	FUSE NH2 gG 335A	0.690	18
U261	FUSE NH2 gG 400A	0.690	18
P238	NEUTRAL BLADE CONTACT NH2 115mm	0.210	1
<b>FUSE CARTRIDGE NH2 160mm</b>			
P130	FUSE CARTRIDGE NH2 125A 160mm	0.780	3
P131	FUSE CARTRIDGE NH2 200A 160mm	0.780	3
P132	FUSE CARTRIDGE NH2 250A 160mm	0.780	3
P134	FUSE CARTRIDGE NH2 400A 160mm	0.780	3
P239	NEUTRAL BLADE CONTACT NH2 160mm	0.290	1

### Accessory

## APPLICATION

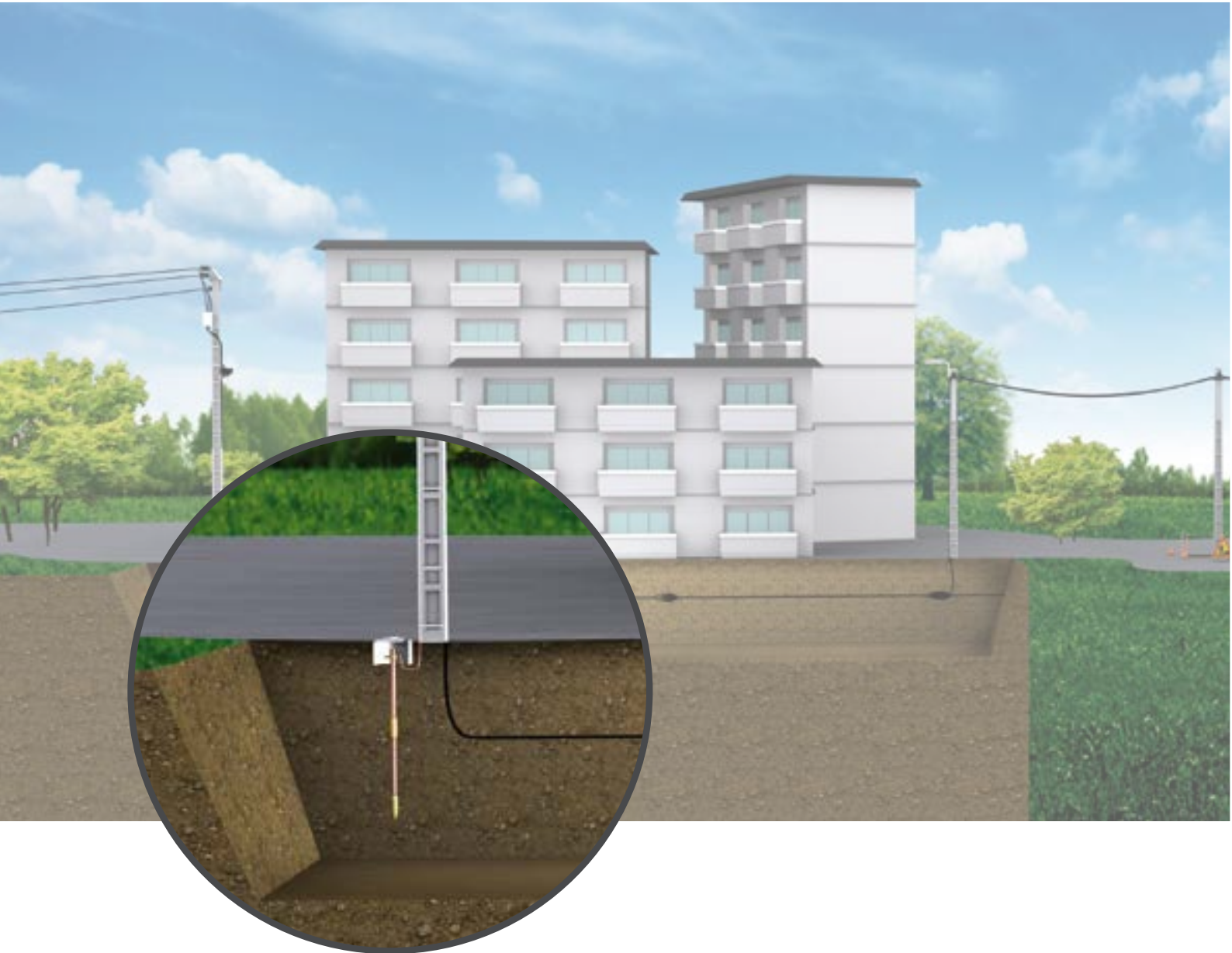
The operating handle is used to install and extract fuses from size NH00 up to size NH2 in cutout which are not equipped with an integrated gripping system.



**P237**

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
P237	HANDLE FOR FUSES SIZE 00 - SIZE 2	0.260	1





# EARTH SYSTEM

## Earth electrodes

Copper bonded steel rod	p. 762
Threaded copper bonded steel earth rod	p. 178
Copper earth plate and grid	p. 180
Earth resistance measure - Earth tester	p. 181

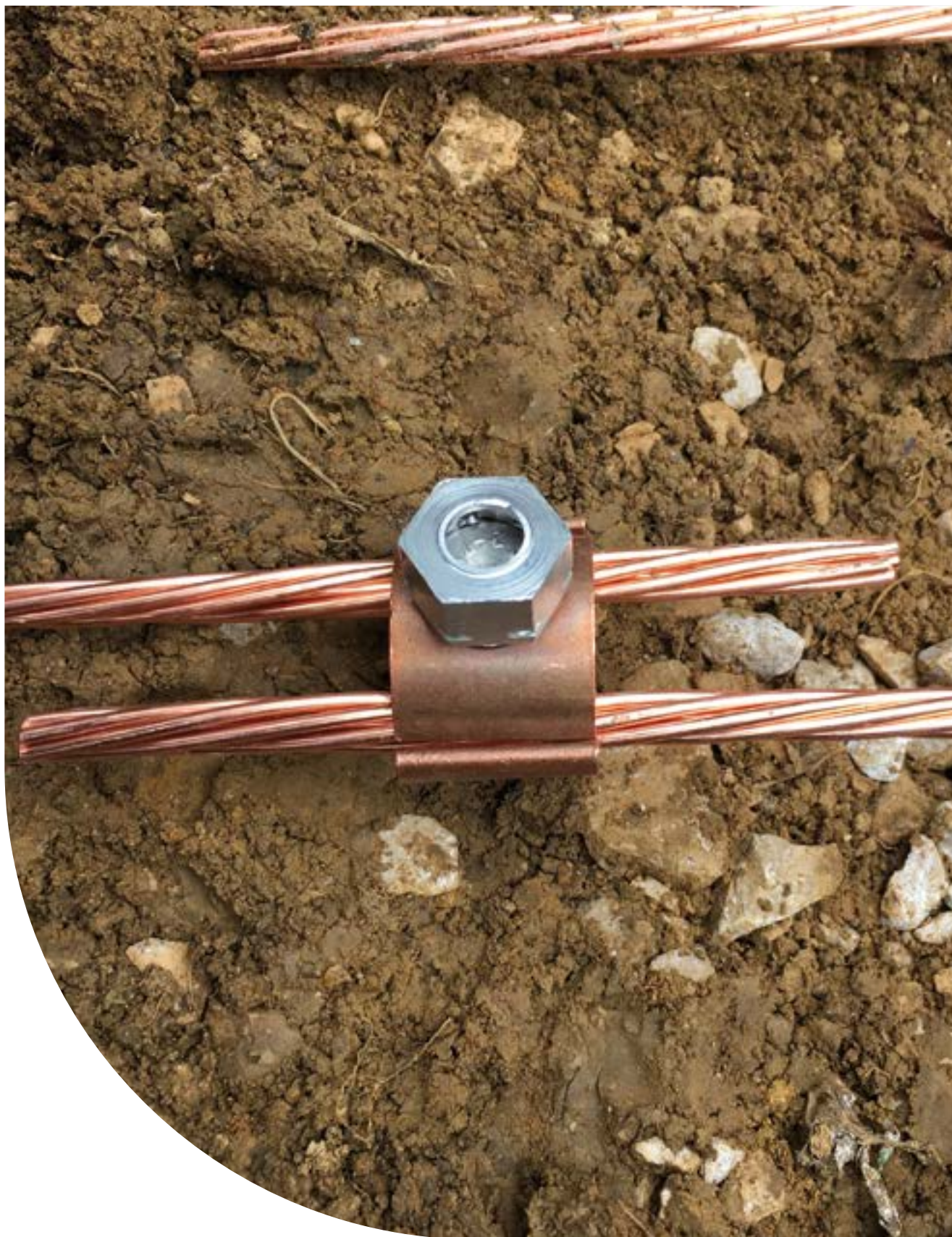
## Earth connectors

Earth connector	p. 182
Surge protection device connector	p. 184
Insulation piercing connector for measure and short-circuiting	p. 186

## Earth conductors

Earth system and short-circuiting device	p. 188
Cable	p. 190
Tape	p. 191
Aluminium earth cable and accessory	p. 192

## SOLUTIONS FOR EARTH SYSTEM



L260 MICHAUD copper connector - Cameroon

To meet electrical installations safety requirements, MICHAUD specialised in the earth system field.

# The earth system

The role of an electrical installation earth system is to enable the fault current to run off into the soil.

When an installation is damaged reaching to an insulation fault, the current cannot flow correctly anymore. An electric shock occurs. At this stage, the current is trying to come out thanks to a conductive environment. This is the aim of the earth system.

## EARTH SYSTEM MAIN FUNCTIONS



### People protection and safety

The earth system enables to protect from the electrocution risk. It limits the potential difference in the close environment in order to avoid contact or step voltage.



### High frequency currents dispersal

The earth system also has to discharge direct or indirect currents coming from lightning shocks.



### Goods and equipment protection

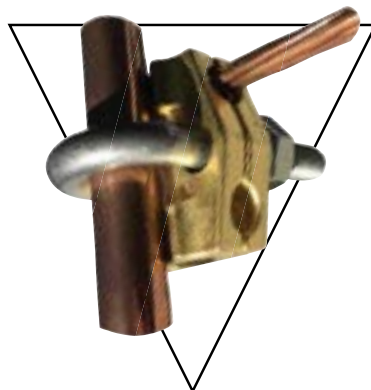
It prevents goods and electrical installations from degradation. The earth system ensures the electrical continuity and avoids too important voltage to installations terminals.

## COMPONENTS OF AN EARTH TERMINAL

The electrical installation earth system is made by an earth terminal or earth circuit. The earth terminal connects the installation and the soil in which the fault current will be able to flow.

The earth terminal consists of three main components:

**Connector**  
Enables connection



**Conductor**  
Discharges current

**Electrode**  
Establishes contact with the soil

The electrode establishes a contact with the soil. It is therefore essential to study the soil in order to better adapt the installation.

# SOLUTIONS FOR EARTH SYTEM

## EARTH ELECTRODE

The earth electrode has to establish a connection with the soil to allow the current to run off. It must guarantee a good conductivity and be adapted to the ground nature.

### Deep earth terminal

It is recommended to go deep to find the weakest and the more stable earth resistance. Top layers are submitted to climatic variations so using an electrode able to go deep guarantees to meet stable and homogeneous soil.



Earth rod




### Surface earth terminal

When it is not possible to go deep because of the soil nature or the risk of underground network degradation (gas, water, telecom, etc...), an electrode on the surface turns out to be the best alternative.



Earth plate

The diversity of technical specifications used for earth systems gives the opportunity to find the best solution for every project.

Rod nature	Conductivity	Service life	Corrosion resistance	Competitivity	Mechanical resistance
 <b>Copper bonded steel</b>	+++	++	++	++	++
 <b>Stainless steel</b>	+	+++	+++	+	++
 <b>Galvanised steel</b>	++	+	+	+++	++

## EARTH CONDUCTOR

The conductor is designed to disseminate the fault current from the equipment or the electrical installation up to the electrode. Two kind of conductors are available: round or stranded conductors and flat conductors or tapes.

### Copper conductors

Cables remain the most common technology used in earth systems. For a specific installation or required properties, tapes offer an alternative to cables (mechanical resistance).



### Flat conductors

Copper conductors are generally recommended in earth circuits. Other metallic combinations can bring solutions to existing issues in the field.

#### ► ECONOMIC SOLUTION

Copper bonded steel tape

#### ► THEFT PROTECTION

Tinned copper bonded steel tape

## CONNECTORS

Connectors must ensure a mechanical connection between the different elements constituting the earth system to guarantee a good electrical continuity.

### Connection conductor/electrode



Bare copper cable

Copper bonded steel tape

- Mechanical bonding.
- Electrical continuity.

### Connection conductor/conductor



- Guarantee the system equipotentiality.
- Perform a tap connection.
- Fix the installation up if the conductor has been severed.
- Enable bonding opening to measure earth resistance.

### Connection A.B.C. conductor/connector



- Earth system on low voltage A.B.C. network.

## GALVANIC CORROSION PHENOMENON

A galvanic phenomenon can happen when two metals with different potential are in contact within a conductive solution (such as water). Electron transfer is run from an anode to a cathode leading-up to a quick degradation of the less noble metal (the anode).

### Conductive solution

Less noble metal (Anode)	Noble metal (Cathode)
Electrons transfer	

### Electrode/connector combinations allowed

Connector (clamp)	Brass	Galvanised steel	Stainless steel
<b>Electrode</b>			
Copper bonded steel			
Stainless steel			
Galvanised steel			

All combinations are allowed with a copper conductor.

- Allowed
- Tolerated
- Not allowed

# SOLUTIONS FOR EARTH SYSTEM

## Installation

### TOOLS AND ACCESSORIES

Some tools and accessories can be useful during the earth terminal installation.

#### Earth rod pushing

For a short rod installation into a wet soil, a hammer can enable pushing into ground.

For rods with more important dimensions, a drill hammer can be used.

#### Material protection

To protect the rod's copper coating during set up protection, accessories can be placed on both rod ends.

During the rod installation, abrasive elements in the soil can damage the copper coating. On the superior end, hammer blows can lead to copper and rod degradation. A driving spike and a driving head enable to prevent these aggressive effects.



### OTHER RECOMMENDATIONS



For an effective and reliable earth system:

- Insulate connections.
- Watch connections located in a pit.
- Control regularly the installation and the potential metal corrosion.
- Perform the installation far from buried walls, deep foundations and rivers.
- Do not use water distribution pipes.
- Opt for a substantial depth to reach a stable resistance in a ground not submitted to climatic variations.
- Ensure the system equipotentiality.

# Earth resistance measure

## PREPARATION AND MATERIAL

The earth resistance measure is performed by an earth tester. In order to allow measurements, the earth circuit can be opened at the cutting blades or at the earth system disconnection kit.

The resistance value to get varies according to normative standards and installations types. The measure should be repeated over some time as the value might change due to a season, measure conditions or soils evolution.



Earth tester



Earth disconnection kit to unbolt

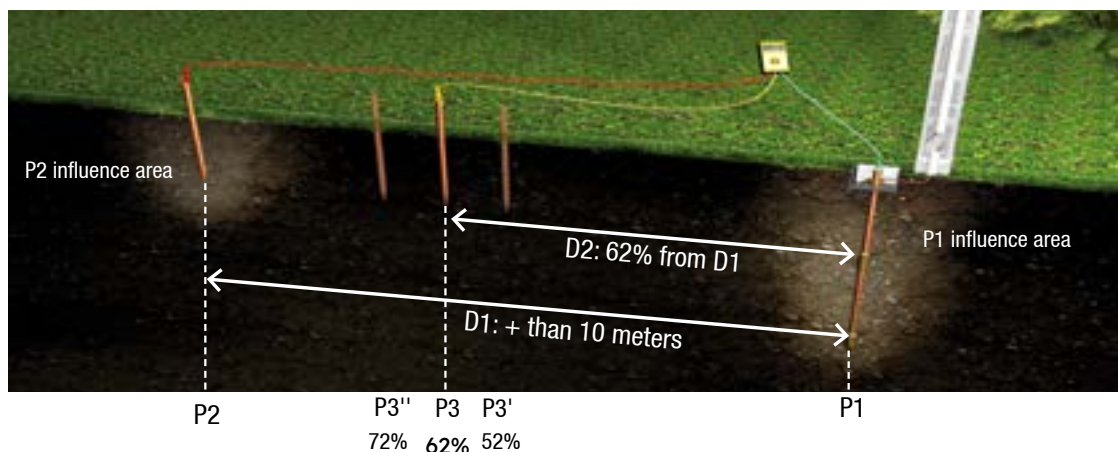
## THE RESISTANCE MEASUREMENT THROUGH THE 3 RODS METHOD

### The measure

The 3 rods method also called 62% method is a way to measure the earth resistance. The measure consists of injecting a current between a first electrode and the earth rod to check. A third rod enables to measure voltage. Thanks to the ohm's law, it is possible to deduce the earth resistance.

### Principle

This method implies to use 3 earth rods. One of them (P1) is that staying in the ground after the installation test. The rod (P2) must be placed in more than 10 meters from (P1) and third rod (P3) 62% of the separation distance of (P1) and (P2) in order to be out of the (P1) and (P2) influence area.



### 1st case :

The measure is not conclusive, the earth resistance value is too high. The rod must be extended or earth terminals must be multiplied taking care of the system equipotentiality in order to decrease value.

### 2nd case :

The measure is conclusive and it has to be confirmed. (P3) is going to be moved to 52% then to 72% from D1 respectively in P3' and P3''. If the measure does not vary, the value got in the first place is confirmed otherwise please refer to first case.

# EARTH ELECTRODES

## Copper bonded steel earth rod



F249

### APPLICATION

This earth rod is designed to be used for the power networks earth system.

The copper coating made by electrolytic process gives a resistance to corrosion as well as a good conductivity.

This rod meets the criteria of the **EN 62 561-2** standard.

### REFERENCES

Code	Designation	Real diameter (mm)	Length (m)	Weight (kg)	Sales unit
<b>50µm COPPER COATING</b>					
U203	EARTH ROD COPPER 50µm L = 1m DIAM 12.7	12.7	1	1.025	10
U204	EARTH ROD COPPER 50µm L = 1.5m DIAM 12.7	12.7	1.5	1.540	10
U205	EARTH ROD COPPER 50µm L = 2m DIAM 12.7	12.7	2	2.050	10
F226	EARTH ROD COPPER 50µm L = 1m DIAM 14	14	1	1.250	10
F244	EARTH ROD COPPER 50µm L = 1.5m DIAM 14	14	1.5	1.870	10
F245	EARTH ROD COPPER 50µm L = 2m DIAM 14	14	2	2.400	10
<b>100µm COPPER COATING</b>					
U230	EARTH ROD COPPER 100µm L = 1m DIAM 14	14	1	1.250	10
U231	EARTH ROD COPPER 100µm L = 1.5m DIAM 14	14	1.5	1.900	10
U232	EARTH ROD COPPER 100µm L = 2m DIAM 14	14	2	2.450	10
U233	EARTH ROD COPPER 100µm L = 1m DIAM 17.2	17.2	1	2.000	10
U234	EARTH ROD COPPER 100µm L = 1.5m DIAM 17.2	17.2	1.5	3.000	10
U235	EARTH ROD COPPER 100µm L = 2m DIAM 17.2	17.2	2	4.000	10
<b>254µm COPPER COATING</b>					
U206	EARTH ROD COPPER 254µm L = 1m DIAM 14	14	1	1.250	10
F249	EARTH ROD COPPER 254µm L = 1.5m DIAM 14	14	1.5	1.900	10
F227	EARTH ROD COPPER 254µm L = 2m DIAM 14	14	2	2.500	10
U207	EARTH ROD COPPER 254µm L = 3m DIAM 14	14	3	3.700	10
U208	EARTH ROD COPPER 254µm L = 1m DIAM 17.2	17.2	1	2.000	10
U209	EARTH ROD COPPER 254µm L = 1.5m DIAM 17.2	17.2	1.5	3.000	10
U210	EARTH ROD COPPER 254µm L = 2m DIAM 17.2	17.2	2	4.000	10
U211	EARTH ROD COPPER 254µm L = 3m DIAM 17.2	17.2	3	6.000	10
<b>350µm COPPER COATING</b>					
U212	EARTH ROD COPPER 350µm L = 1m DIAM 17.2	17.2	1	2.000	10
U213	EARTH ROD COPPER 350µm L = 1.5m DIAM 17.2	17.2	1.5	3.000	10
U214	EARTH ROD COPPER 350µm L = 2m DIAM 17.2	17.2	2	4.000	10

Note : Other dimensions are available, please enquire.

## Accessories

### APPLICATION

This brass driving spike and head are designed to protect the earth rod during installation. It enables to preserve the copper coating and its technical features.

This taper coupling is designed to make a junction between two unthreaded earth rods with nominal diameter 16mm. It is made of brass.



F229



F238



L268



L267

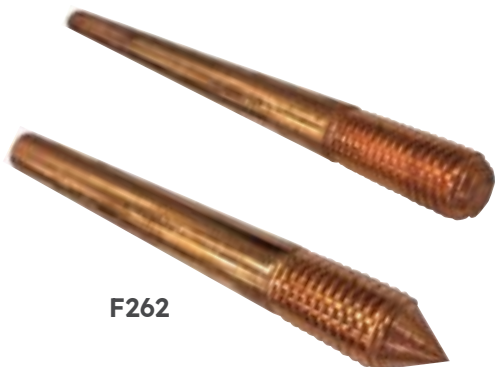
### REFERENCES

Compatible with earth rod

Code	Designation	Nominal diameter (mm)	Real diameter (mm)	Weight (kg)	Sales unit
F229	DRIVING SPIKE FOR ROD DIAM 12.7 UNTHREADED + 12.7 THREADED + 14 UNTHREADED	14-16	12.7-14	0.115	10
F239	DRIVING SPIKE FOR ROD DIAM 14 THREADED + 17.2 UNTHREADED	19	12.7-14	0.075	100
U227	DRIVING HEAD FOR ROD D12.7	14	12.7	0.115	100
F238	DRIVING HEAD FOR EARTH ROD D14	16	14	0.142	100
F237	DRIVING HEAD FOR ROD D17.2	19	17.2	0.153	100
L268	TAPER COUPLING FOR ROD DIAM 5/8" - 50µm	16	14	0.135	10

# EARTH ELECTRODES

## Threaded copper bonded steel earth rod



F262

### APPLICATION

This earth rod is designed to be used for the power networks earth system.

The thread on both ends makes possible to lengthen the earth rod. The copper coating made by electrolytic process gives a resistance to corrosion as well as a good conductivity.

This rod meets the criteria of the **EN 62 561-2** standard.

### REFERENCES

Code	Designation	Nominal diameter (mm)	Real diameter (mm)	Length (m)	Weight (kg)	Sales unit
<b>50µm COPPER COATING</b>						
U217	EARTH ROD COPPER 50µm L = 1m DIAM 14 - 2 THREADS 5/8"	16	14	1	1.250	10
F235	EARTH ROD COPPER 50µm L = 1.5m DIAM 14 - 2 THREADS 5/8"	16	14	1.5	1.870	10
F223	EARTH ROD COPPER 50µm L = 2m DIAM 14 - 2 THREADS 5/8"	16	14	2	2.500	10
<b>100µm COPPER COATING</b>						
U236	EARTH ROD COPPER 100µm L = 1m DIAM 14 - 2 THREADS 5/8"	16	14	1	1.250	10
F216	EARTH ROD COPPER 100µm L = 1.5m DIAM 14 - 2 THREADS 5/8"	16	14	1.5	1.900	10
F217	EARTH ROD COPPER 100µm L = 2m DIAM 14 - 2 THREADS 5/8"	16	14	2	2.500	10
U237	EARTH ROD COPPER 100µm L = 1m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	1	2.000	10
U238	EARTH ROD COPPER 100µm L = 1.5m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	1.5	3.000	10
U239	EARTH ROD COPPER 100µm L = 2m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	2	4.000	10
<b>254µm COPPER COATING</b>						
U218	EARTH ROD COPPER 254µm L = 1m DIAM 14 - 2 THREADS 5/8"	16	14	1	1.250	10
F222	EARTH ROD COPPER 254µm L = 1.5m DIAM 14 - 2 THREADS 5/8"	16	14	1.5	1.900	10
F221	EARTH ROD COPPER 254µm L = 2m DIAM 14 - 2 THREADS 5/8"	16	14	2	2.500	10
U219	EARTH ROD COPPER 254µm L = 3m DIAM 14 - 2 THREADS 5/8"	16	14	3	3.700	10
U220	EARTH ROD COPPER 254µm L = 1m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	1	2.000	10
F262	EARTH ROD COPPER 254µm L = 1.5m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	1.5	3.000	10
U221	EARTH ROD COPPER 254µm L = 2m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	2	4.000	10
U222	EARTH ROD COPPER 254µm L = 3m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	3	6.000	10
<b>350µm COPPER COATING</b>						
U223	EARTH ROD COPPER 350µm L = 1m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	1	2.000	10
U224	EARTH ROD COPPER 350µm L = 1.5m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	1.5	3.000	10
U225	EARTH ROD COPPER 350µm L = 2m DIAM 17.2 - 2 THREADS 3/4"	19	17.2	2	4.000	10

Note: Other dimensions are available, please enquire.

# Clamp

## APPLICATION

This clamp is made with stainless steel fastener.

The clamp F234/F246 is made of bronze, and the U bolt clamp F233/F224 is made of brass.

It is designed to establish a connection between earth rod and the conductor. The U bolt clamp allows cable fixing radially or axially.



F234



F224

## REFERENCES

Compatible with earth rod

Code	Designation	Nominal diameter (mm)	Real diameter (mm)	Conductors sections (mm <sup>2</sup> )	Screw	Weight (kg)	Sales unit
<b>ROUND CONNECTION CLAMP</b>							
F234	CONNECTION CLAMP ROD DIAM 12.7 AND 14mm	14 - 16	12.7 - 14	16 - 35	M8	0.050	50
F246	CONNECTION CLAMP ROD DIAM 17.2mm	19	17.2	16 - 150	M8	0.050	50
<b>"U" BOLT CONNECTION CLAMP</b>							
F233	"U" BOLT CONNECTION CLAMP 50 <sup>2</sup> ROD D12.7 TO D14	14 - 16	12.7 - 14	16 - 50	-	0.120	100
F224	CONNECTION CLAMP ROD 150 <sup>2</sup> D17.2	19	17.2	70-150 / 2x35-70	-	0.230	50

## Accessories

## APPLICATION

This brass driving spikes and this head are designed to protect the earth rod during installation. It enables to preserve the copper coating and its technical features.

This taper coupling is designed to make a junction between two unthreaded earth rods with nominal diameter 16mm. It is made of brass.



F229



F238



F228



F298

## REFERENCES

Compatible with earth rod

Code	Designation	Nominal diameter (mm)	Real diameter (mm)	Weight (kg)	Sales unit
F229	DRIVING SPIKE FOR ROD D12.7 UNTHREADED - D12.7 THREADED - D14 UNTHR	14	12.7	0.140	100
F239	DRIVING SPIKE FOR ROD D14 THREADED - D17.2 UNTHREADED	16	14	0.100	100
U226	DRIVING SPIKE FOR ROD D17.2 THREADED	19	17.2	0.153	100
U227	DRIVING HEAD FOR ROD DIAM 12.7	14	12.7	0.115	10
F238	DRIVING HEAD FOR ROD DIAM 14	16	14	0.145	100
F237	DRIVING HEAD FOR ROD DIAM 17.2	19	17.2	0.155	10
F298	THREADED COUPLING FOR ROD DIAM 12.7 THREAD 1/2"	14	12.7	0.090	10
F236	THREADED COUPLING FOR ROD DIAM 14 THREAD 5/8"	16	14	0.115	100
F265	THREADED COUPLING FOR ROD D17.2 THREAD 3/4"	19	17.2	0.135	100
U228	SCREW FOR COUPLING FOR ROD DIAM 12.7 THREAD 1/2"	14	12.7	0.085	10
F228	COUPLING SCREW FOR EARTH ROD D14 THREAD 5/8"	16	14	0.100	100
U229	SCREW FOR COUPLING FOR ROD D17.2 THREAD 3/4"	19	17.2	0.140	100

# EARTH ELECTRODES

## Copper earth plate and grid

### APPLICATION

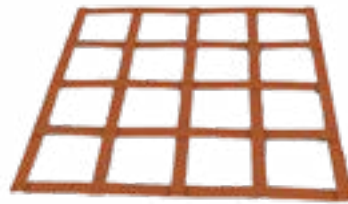
This copper earth electrode is designed to be used for the power networks earth system.

When a deep installation is not possible, it gives an important contact area with the soil to discharge fault currents.

This grid meets the criteria of the **EN 50 164-2** standard.



**U184**



**U188**

### REFERENCES

Code	Designation	Length (mm)	Width (mm)	Thickness (mm)	Weight (kg)	Sales unit
<b>U184</b>	COPPER EARTH PLATE 500x500x2	500	500	2	4.500	1
<b>U185</b>	COPPER EARTH PLATE 500x500x3	500	500	3	6.800	1
<b>U186</b>	COPPER EARTH PLATE 500x1000x2	500	1000	2	9.000	1
<b>U187</b>	COPPER EARTH PLATE 500x1000x3	500	1000	3	13.600	1
<b>U188</b>	EARTHING GRID COPPER 1000x1000x2	1000	1000	2	3.000	30
<b>U189</b>	EARTHING GRID COPPER 2000x1000x2	2000	1000	2	4.000	30
<b>U190</b>	EARTHING GRID COPPER 3000x1000x2	3000	1000	2	5.000	30

## Clamp

### DESCRIPTION

- Earth plate is delivered with a "U" bolt connection clamp enabling to perform the connection with the conductor.
- Earth grid can receive a "U" bolt connection clamp to perform the connection with the copper conductor.
- Earth grid connection can also be performed thanks to twin-saddle installed on the grid lateral tape.



# Earth resistance measure - Earth tester

## APPLICATION

This earth tester is designed to be used as part of the earth system installation. It enables to perform the earth resistance measurements to control the system effectiveness.



F439

## DESCRIPTION

- Earth tester is installed in a anti-shock briefcase including three green, yellow and red cords respectively of 5m, 10m and 15m length.
- Cords are provided with a clamp to be placed on rod enabling the measure.
- Tester supply is possible thanks to batteries.
- Recommended surrounding temperature for use is between 0 up to 40°C.
- Tester is adapted to "2 rods" and "3 rods" measure methods. These methods require the use of backup rods. It is necessary to enable the current circulation between rods in order to perform an earth resistance measure thanks to the earth tester.
- Tester keeps in memory the last measure.

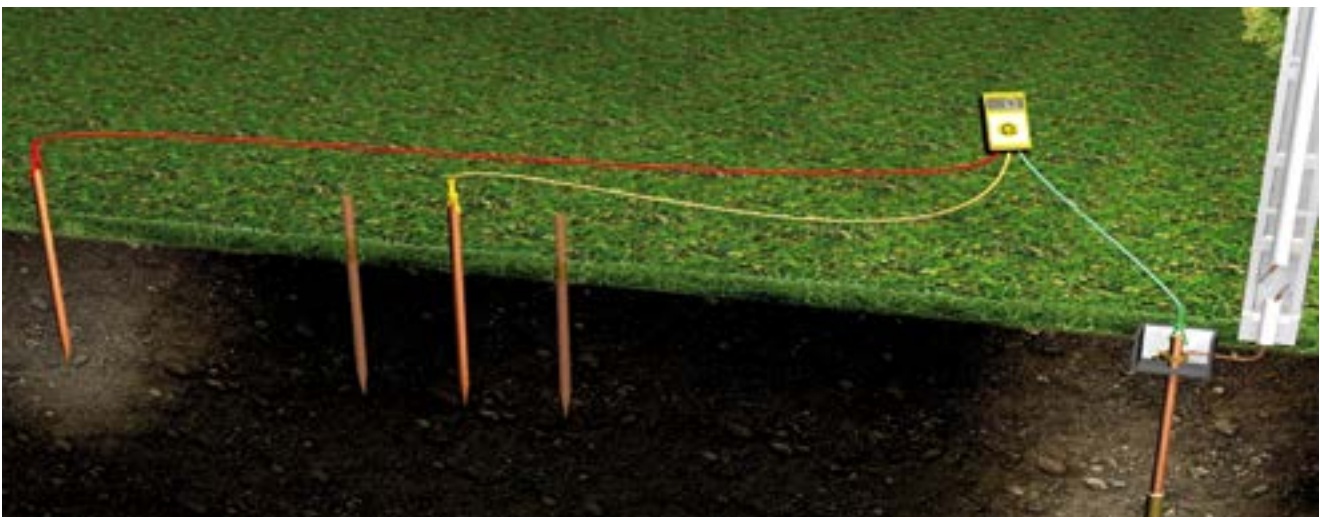
This earth tester meets the criteria of the **IEC 348** and **IEC 1010** standards.

## REFERENCE

Code	Designation	Measured range ( $\Omega$ )	Measured current	Dimensions (mm)	Weight (kg)	Sales unit
F439	EARTH TESTER	0 to 2k	Constant 2mA @ 820Hz	205 x 90 x 55	0.550	1

## INSTALLATION

Measure with the 3 rods method.



# EARTH CONNECTORS

## Earth connectors

### "C" tined connector



#### APPLICATION

This connector is used to connect grounding conductors. The mechanical and electrical connection is ensured by crimping and allows an efficient aluminum/copper electrical connection, thanks to the tinned surface.

#### REFERENCES

Code	Designation	Main conductor (mm <sup>2</sup> )	Tap conductor (mm <sup>2</sup> )	Weight (kg)	Sales unit
U001_25-10	C TINNED CONNECTOR 10-25 / 2.5-10	10-25	2.5-10	0.040	10
U001_25-25	C TINNED CONNECTOR 16-25 / 16-25	16-25	16-25	0.050	10
U001_40-40	C TINNED CONNECTOR 35-40 / 35-40	35-40	35-40	0.060	10
U001_70-35	C TINNED CONNECTOR 50-70 / 10-35	50-70	10-35	0.080	10
U001_70-70	C TINNED CONNECTOR 50-70 / 35-70	50-70	35-70	0.090	10
U001_100-35	C TINNED CONNECTOR 95-100 / 10-35	95-100	10-35	0.100	10
U001_100-70	C TINNED CONNECTOR 95-100 / 35-70	95-100	35-70	0.110	10
U001_100-100	C TINNED CONNECTOR 95-100 / 95-100	95-100	95-100	0.130	10

The connectors are also available in tinned copper, please enquire.

### Jumper clamp



#### APPLICATION

This clamp allows the mechanical connection by clamping thanks to removable screws granting then an electrical connection.

#### REFERENCES

Code	Designation	Main conductor (mm <sup>2</sup> )	Tap conductor (mm <sup>2</sup> )	Weight (kg)	Sales unit
U020	JUMPER CLAMP 6-16mm <sup>2</sup>	6-16	6-16	0.028	100
U021	JUMPER CLAMP 16-50mm <sup>2</sup>	16-50	16-50	0.061	100
U022	JUMPER CLAMP 50-70mm <sup>2</sup>	50-70	50-70	0.166	50
U023	JUMPER CLAMP 75-95 mm <sup>2</sup>	75-95	75-95	0.300	50
U024	JUMPER CLAMP 95-150mm <sup>2</sup>	95-150	95-150	0.443	10
U025	JUMPER CLAMP 150-240mm <sup>2</sup>	150-240	150-240	0.750	10

### Copper connector



#### APPLICATION

This connector is designed to fix up an installation in case the conductor has been severed.

The stainless steel fastening allows the product to be buried. The connector L260 is equipped with a shear head.

## REFERENCES

Code	Designation	Main conductor (mm <sup>2</sup> )	Tap conductor (mm <sup>2</sup> )	Weight (kg)	Sales unit
L260	CONNECTOR Cu 10-70 (SF + SH)	10-70	10-70	0.120	50
L261	CONNECTOR Cu 10-70 (SF)	10-70	10-70	0.110	50

## Earth system disconnection kit

### APPLICATION

This kit is designed to disconnect the earth system in order to perform earth resistance measurements. It comprises two stainless steel tubular lugs (U030) as well as a nut and a bolt.



U031

### REFERENCES

Code	Designation	Conductor section min (mm <sup>2</sup> )	Conductor section max (mm <sup>2</sup> )	Weight (kg)	Sales unit
U030	TUBULAR LUG 25-29	25	29	0.020	50
U031	EARTH SYSTEM DISCONNECTION KIT 25-29	25	29	0.060	20

## Ground cutting blade

### APPLICATION

This cutting blade is designed to open the earth system during earth resistance measurements. It is rather used inside for a residential installation.



U034

U035

U036

### REFERENCES

Code	Designation	Conductor section min (mm <sup>2</sup> )	Conductor section max (mm <sup>2</sup> )	Weight (kg)	Sales unit
U034	"T" SHAPE GROUND CUTTING BLADE	10	35	0.180	10
U035	HIGH GROUND CUTTING BLADE	16	35	0.330	3
U036	LOW GROUND CUTTING BLADE	16	35	0.160	3

## Round terminal lug

### APPLICATION

This copper round terminal lug is designed to be used to connect bare copper conductors to copper terminals.



U018

### REFERENCES

Code	Designation	Cable compatibility (mm <sup>2</sup> )	Drill hole compatibility (mm)	Weight (kg)	Sales unit
U018	STRAIGHT CABLE AND ROUND TERMINAL LUGS 10-70	10 to 70	13	0.080	10
U019	STRAIGHT CABLE AND ROUND TERMINAL LUGS 25-120	25 to 120	13	0.210	10

# EARTH CONNECTORS

## Surge protection device connector

### APPLICATION

This surge protection device connector (SPD IPC) is designed to protect low voltage overhead lines and electrical equipment against over-voltages. It enables the current from the lightning to be led to the ground.

The surge protection device connector includes the following elements:

- An insulation piercing connector,
- A hard cover insulated terminal outlet inserted in the end cap of the connector,
- A surge protection device (metal oxide overmoulded with silicone) screwed into the terminal outlet,
- An earth system tail welded to the surge protection device.

The surge protection device reacts:

- After a certain number of over-voltages, when the current passing through the surge protection device increases by more than 1mA,
- In the case of atmospheric discharge (lightning strike), the current exceeding 65mA.

After the surge protection device has performed, the earth system tail physically separates from the connector. The surge protection device then has to be replaced with an available spare part (including the surge protection device and the earth system tail).



K241

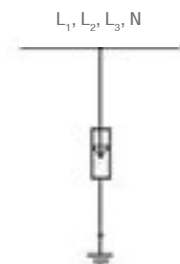


K243

### DESCRIPTION

- Connector is used outside only.
- Maximum use altitude is 2000m.
- Connector can be used at a temperature going from -40°C up to +70°C.
- Used frequency is 48-62Hz.
- Connector, terminal outlet, surge protection device and tail are made of UV and flame resistant materials.
- Connector is equipped with a 0.5m long, 6mm<sup>2</sup> insulated black multi-stranded tail.
- Connector degree of protection is IP67.
- Connector has a response time below 25ns.

The surge protection device is Class II as defined in the **IEC 61643-1** standard.



Drawing of the connector

## INSTALLATION

- The location of the surge protection device connection is decided according to the technical specifications and guidelines of the electrical regulatory authorities. Installed on overhead service and network line conductors, the phase(s) and neutral being linked by the earth system tails.
- To protect long sections of overhead lines, it is recommended to use at least one surge protection device connector every 500 metres.
- Check that the terminal outlet is inserted into the connector fully and correctly.
- Position the connector on the conductor so that the surge protection device and its tail are directed towards the ground.
- Use a 13mm wrench and tighten the connector on the insulated conductor until the shear head breaks. The 17mm permanent head is only provided for possible dismantling and must not be used to re-tighten the screw after the first head is broken.
- When the surge protection device connector has been used, protecting the power line against high voltages, the earth system tail is automatically disconnected from the base of the silicone cylinder. A new surge protection device, available as a spare part, must replace the old one. To do this, unscrew the old part of the silicone surge protection device from the terminal end screw the new one (spare part) in terminal end. Join all earth system tails together and link them to the earth.

## REFERENCES

Code	Designation	Main line insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>K241</b>	SPD IPC 15KA/275VAC 0.5M	16-95	0.300	10
<b>K243</b>	SPD SPARE PART 15KA/275VAC 0.5m		0.170	30
<b>K242</b>	SPD IPC 15KA/440VAC 0.5m	16-95	0.300	10
<b>K244</b>	SPD SPARE PART 15KA/440VAC 0.5m		0.170	30

### Technical characteristics

Code	Designation	I max	Uc	In	Up
		Maximal discharge current (kA)	Continuous operating voltage V (AC)	Nominal discharge current (kA)	Protection level at In
<b>K241</b>	SPD IPC 15KA/275VAC 0.5M	40	275	15	< 1.86
<b>K243</b>	SPD SPARE PART 15KA/275VAC 0.5m	40	275	15	< 1.86
<b>K242</b>	SPD IPC 15KA/440VAC 0.5m	40	440	15	< 2.24
<b>K244</b>	SPD SPARE PART 15KA/440VAC 0.5m	40	440	15	< 2.24

Upon request, the earth system tails can be delivered in different colours and lengths, and can be assembled with a terminal lug at the end. Please enquire.

# EARTH CONNECTORS

## Insulation piercing connector for measure and short-circuiting



**K361**  
Connector CMCC / CT

### APPLICATION

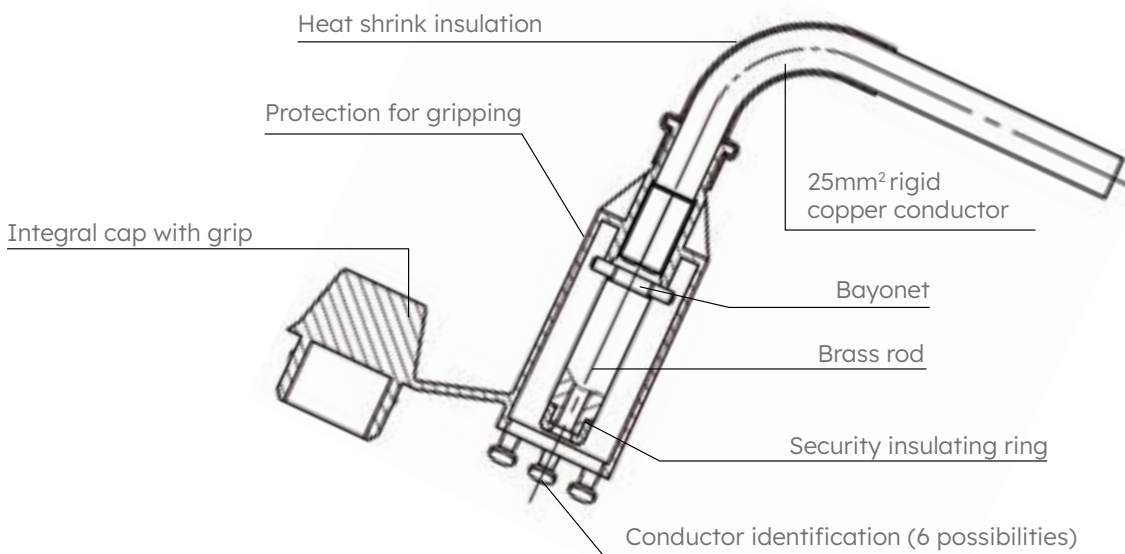
This I.P.C. (Insulation Piercing Connector) is designed for short-circuiting or earthing the low voltage A.B.C. (Aerial Bundled Conductors).

It is also used to perform voltage measurements. It comprises the connector and the short circuiting or earthing socket.

### DESCRIPTION

- Connection is established through the insulation piercing technology.
- Dielectric strength in water is greater than 6kV.
- Tightening screw is the only accessible metal part and is potential free.
- Tightening efficiency is ensured by a shear head screw.
- The end socket is protected by an integral cap preventing the water penetration and corrosion.

This connector meets the criteria of the **NF C 33-020** and **EN 50-483** standards.



**Socket PMCC**

## REFERENCES

Code	Designation	Capacities Main insulated Al-Cu (mm <sup>2</sup> )	Weight (kg)	Sales unit
<b>ZINC-PLATED STEEL FASTENERS (ZF)</b>				
<b>K362</b>	CONNECTOR CMCC/CT 25 ZF	16-25	0.230	10
<b>K363</b>	CONNECTOR CMCC/CT 70 ZF	16-70	0.230	10
<b>K361</b>	CONNECTOR CMCC/CT 95 ZF	16-95	0.230	10
<b>K364</b>	CONNECTOR CMCC/CT 150 ZF	16-150	0.230	10

The connector K362 is adapted from a connector K322 (CBS/CT 25), the connector K363 from a connector K323 (CBS/CT 70) and the connector K364 from a connector K324 (CBS/CT 150). It comprises the connector and the socket.

### Option

The short-circuiting and earth system socket (PMCC) can be sold separately.

This tap socket can be used with the entire range of the 6kV CBS/CT and RDP/CN connectors of MICHAUD brand.

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
<b>K368</b>	SHORT-CIRCUITING AND EARTH SYSTEM SOCKET (PMCC)	0.100	25

### Variant

The earthing bracket allows a twist and a parallel groove jaw to be connected via a connector. It is compatible with an insulation-piercing connector on one side and a bare connector on the other.



## REFERENCE

Code	Designation	Diameter (mm)	Weight (kg)	Sales unit
<b>U248</b>	EARTHING BRACKET	9.650	0.070	10



Connector CMCC

K008

K006

# EARTH CONDUCTORS

## Earth system and short-circuiting device

### Short-circuiting devices



**K008**  
6 sockets

#### APPLICATION

This device is designed for short-circuiting and earthing the low voltage A.B.C (Aerial Bundled Conductors). It is connected to a connector for measures and short-circuiting (type CMCC).

#### DESCRIPTION

- Device comprises 5, 6 or 7 insulated sockets closing with bayonet system on the CMCC connector tap socket.
- Connection between the sockets is established with a 25mm<sup>2</sup> flexible copper conductor for K008 and K009 references and 16mm<sup>2</sup> for K016.
- Electrical characteristics are:
  - Short-circuiting capacity: 4000A during 1 second,
  - Permanent current capacity: 200A.
- Device is packed in a carrying case.

#### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>16mm<sup>2</sup> EQUIPMENT</b>			
K016-5	SHORT-CIRCUITING EQUIPMENT 5 SOCKETS - 16mm <sup>2</sup>	2.490	1
K016-6	SHORT-CIRCUITING EQUIPMENT 6 SOCKETS - 16mm <sup>2</sup>	2.490	1
K016-7	SHORT-CIRCUITING EQUIPMENT 7 SOCKETS - 16mm <sup>2</sup>	2.490	1
<b>25mm<sup>2</sup> EQUIPMENT</b>			
K008	SHORT-CIRCUITING EQUIPMENT 6 SOCKETS	2.490	1
K009	SHORT-CIRCUITING EQUIPMENT 7 SOCKETS	3.000	1

Note : K016-7 and K009 (7 sockets) are used with A.B.C. carrying street light.

# Earth system equipment

## APPLICATION

This equipment is designed to perform earthing of a low voltage A.B.C (Aerial Bundled Conductor).



K006

## DESCRIPTION

- Equipment comprises the following elements:
  - Earth clamp,
  - 10m long 25mm<sup>2</sup> copper insulated flexible conductor,
  - Insulated socket closing with a beayonet system CMCC connector tap socket.
- Flexible copper conductor is available in length 10m for the section of 16mm<sup>2</sup> (K006-16\_10) or 25mm<sup>2</sup> (K006) and 15m for the section of 16mm<sup>2</sup> (K006-16\_15).
- Electrical characteristics are:
  - Short-circuiting capacity: 4000A during 1 second,
  - Permanent current capacity: 200A.
- Equipment is packed in a carrying case.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>16mm<sup>2</sup> EQUIPMENT</b>			
K006-16_10	EARTHING EQUIPMENT - 10M	4.000	1
K006-16_15	EARTHING EQUIPMENT - 15M	4.000	1
<b>25mm<sup>2</sup> EQUIPMENT</b>			
K006	EARTHING EQUIPMENT - 25MM <sup>2</sup> - 10M	4.000	1

Note : The earth clamp has to be fixed on a rod. Please enquire.

# EARTH CONDUCTORS

## Cable

### Bare copper



U051

#### APPLICATION

This cable is designed for the earth system. It is resistant to a temperature range of -15°C / +70°C and its flame behaviour meets the criteria of the **IEC 60332-1** standard.

#### DESCRIPTION

- Nominal voltage: 600/1000V.
- Short-circuit temperature: +250°C.
- Annealed Copper Cable.
- Minimum bending radius:
  - From 10mm<sup>2</sup> up to 25mm<sup>2</sup> (3x external Ø),
  - From 29mm<sup>2</sup> up to 300mm<sup>2</sup> (6x external Ø).

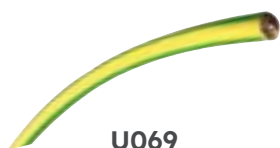
This cable meets the criteria of the **EN 60228** standard.

#### REFERENCES

Code	Designation	Section (mm <sup>2</sup> )	Weight (kg)	Sales unit
U050	BARE COPPER CABLE 10mm <sup>2</sup> - 500m drum	10	49.000	1
U051	BARE COPPER CABLE 16mm <sup>2</sup> - 500m drum	16	76.000	1
U052	BARE COPPER CABLE 25mm <sup>2</sup> - 500m drum	25	116.500	1
U053	BARE COPPER CABLE 29mm <sup>2</sup> - 500m drum	29	139.500	1
U054	BARE COPPER CABLE 35mm <sup>2</sup> - 500m drum	35	160.000	1
U055	BARE COPPER CABLE 50mm <sup>2</sup> - 500m drum	50	216.000	1
U056	BARE COPPER CABLE 70mm <sup>2</sup> - 500m drum	70	327.000	1
U057	BARE COPPER CABLE 95mm <sup>2</sup> - 500m drum	95	455.000	1
U058	BARE COPPER CABLE 120mm <sup>2</sup> - 500m drum	120	595.000	1
U059	BARE COPPER CABLE 150mm <sup>2</sup> - 500m drum	150	705.000	1
U060	BARE COPPER CABLE 185mm <sup>2</sup> - 500m drum	185	885.000	1
U061	BARE COPPER CABLE 240mm <sup>2</sup> - 500m drum	240	1190.000	1
U062	BARE COPPER CABLE 300mm <sup>2</sup> - 500m drum	300	1420.000	1

For other lengths, consult us.

### Insulated copper H07V-R



U069

#### DESCRIPTION

- Nominal voltage: 450/750V.
- Test voltage: 2500V.
- Short circuit temperature: +160°C.
- Minimum bending radius: 5x external Ø.
- This copper cable is covered by a PVC insulation.

This cable meets the criteria of the **EN 50525-2-31** standard.

#### REFERENCES

Code	Designation	Section (mm <sup>2</sup> )	Weight (kg)	Sales unit
U162	INSULATED COPPER CABLE 4mm <sup>2</sup> - 100m coil	4	5.000	1
U063	CABLE INSULATED COPPER H07V-R 6mm <sup>2</sup> YELLOW/GREEN (drum 500m)	6	62.000	1
U064	INSULATED COPPER CABLE 10mm <sup>2</sup> - 500m drum	10	89.000	1
U065	CABLE INSULATED COPPER H07V-R 16mm <sup>2</sup> YELLOW/GREEN (drum 500m)	16	110.000	1
U066	CABLE INSULATED COPPER H07V-R 25mm <sup>2</sup> YELLOW/GREEN (drum 500m)	25	163.000	1
U068	CABLE INSULATED COPPER H07V-R 35mm <sup>2</sup> YELLOW/GREEN (drum 500m)	35	205.000	1
U069	CABLE INSULATED COPPER H07V-R 50mm <sup>2</sup> YELLOW/GREEN (drum 500m)	50	267.000	1
U070	INSULATED COPPER CABLE 70mm <sup>2</sup> - 500m drum	70	383.000	1
U071	INSULATED COPPER CABLE 95mm <sup>2</sup> - 500m drum	95	506.000	1
U072	INSULATED COPPER CABLE 120mm <sup>2</sup> - 500m drum	120	625.000	1
U073	INSULATED COPPER CABLE 150mm <sup>2</sup> - 500m drum	150	761.000	1
U074	INSULATED COPPER CABLE 185mm <sup>2</sup> - 500m drum	185	982.000	1
U075	INSULATED COPPER CABLE 240mm <sup>2</sup> - 500m drum	240	1250.000	1

# Tape

## APPLICATION

This tape is designed to conduct electricity into the earth system and to guarantee the default current to run off in the ground. Copper offers an important electrical conductivity. Copper coated steel and galvanised steel offer a good economic alternative to copper.

Tinned coating prevents theft by hiding the copper.



U078



U094

## REFERENCES

Code	Designation	Section (mm <sup>2</sup> )	Width (mm)	Thickness (mm)	Length (m)
<b>COPPER</b>					
U077	COPPER TAPE 20x3 L=100m	60	20	3	100
U078	COPPER TAPE 25x3 *	75	25	3	Consult us
<b>TINNED COPPER</b>					
U094-50	TINNED COPPER TAPE 30x2 L = 50m	60	30	2	50
U094-100	TINNED COPPER TAPE 30x2 L = 100m	60	30	2	100
<b>COPPER BONDED STEEL</b>					
U080	COPPER BONDED STEEL TAPE 20x3 L=60m	60	20	3	60
U081	COPPER BONDED STEEL TAPE 25x3 L=40m	75	25	3	40
U082	COPPER BONDED STEEL TAPE 25x4 L=30m	100	25	4	30
U083	COPPER BONDED STEEL TAPE 30x3 L=40m	90	30	3	40
U084	COPPER BONDED STEEL TAPE 30x4 L=30m	120	30	4	30
U085	COPPER BONDED STEEL TAPE 40x4 L=20m	160	40	4	20
<b>TINNED COPPER BONDED STEEL</b>					
U086	TINNED COPPER BONDED STEEL TAPE 20x3 L=60m	60	20	3	60
U087	TINNED COPPER BONDED STEEL TAPE 25x3 L=40m	75	25	3	40
U088	TINNED COPPER BONDED STEEL TAPE 25x4 L=30m	100	25	4	30
U089	TINNED COPPER BONDED STEEL TAPE 30x3 L=40m	90	30	3	40
U090	TINNED COPPER BONDED STEEL TAPE 30x4 L=30m	120	30	4	30
U091	TINNED COPPER BONDED STEEL TAPE 40x4 L=30m	160	40	4	30
<b>GALVANIZED STEEL</b>					
U100-4	GALVANIZED STEEL TAPE 30x4 L=50m	120	30	4	50
U101-4	GALVANIZED STEEL TAPE 40x4 L=38m	160	40	4	38

\*Tape delivered in roll or drum. Please enquire.

## Stainless steel cruciform clamp

### APPLICATION

This cruciform clamp is designed to perform a connection between the earth rod and the conductor or between two conductors.



U092

### REFERENCES

Code	Designation	Nominal rod diameter (mm)	Tape length (mm)	Cable section (mm <sup>2</sup> )	Screw	Weight (kg)	Sales unit
U092	STAINLESS STEEL CRUCIFORM CLAMP ROD DIAM 12.7 AND 14	14-16	≤ 40	28-78	M10	0.315	2
U093	STAINLESS STEEL CRUCIFORM CLAMP ROD DIAM 17.2	19	≤ 40	28-78	M10	0.400	2

# EARTH CONDUCTORS

## Aluminium earth cable and accessory



**MICHAUD Exclusivity**  
Antifraud solution

### APPLICATION

The earth distributor is designed to connect floor earths between themselves. It is installed in a building pillar according to applicable specifications.

The ground cutting blade is designed to enable the earth system opening during an earth resistance measurement. It is installed at the bottom of the building wiring earth.



**Q979**  
Earth distributor  
6 taps



**N106**  
Ground cutting blade  
aluminium with box



**Q984 - Q985 - Q986**  
Aluminium earth cable



**P340**  
35-25 Al-Cu earth  
adaptor

### BENEFITS

- > **Aluminum terminals** admitting copper or aluminium cable.
- > **Reversible box cover** protecting the ground cutting blade.
- > **Earth distributor** designed for an esthetic installation in 60x60mm conduit in case of renovation.

### DESCRIPTION

**Earth distributor** can receive:

- 1 cable 50mm<sup>2</sup> maximum without cutting (main line),
- 6 possible taps 35mm<sup>2</sup> maximum.

- It comprises an aluminium profile with shear head screws and insulation piercing and a box in synthetic materials granting a degree of protection type IPXXB.
- It is equipped with a handle offering a possible sealing.

**Ground cutting blade with box** is equipped with:

- An insulation piercing superior terminal block in tinned aluminium with shear head screws (no need of stripping),
- A copper blade,
- An inferior terminal block in brass,
- A synthetic materials box with reversible opening and closing way, granting a degree of protection type IP44D.

- It can receive aluminium cable section from 25 up to 50mm<sup>2</sup> and copper cable section from 16 up to 35mm<sup>2</sup>.

**Distribution board adaptor Al/Cu** comprises:

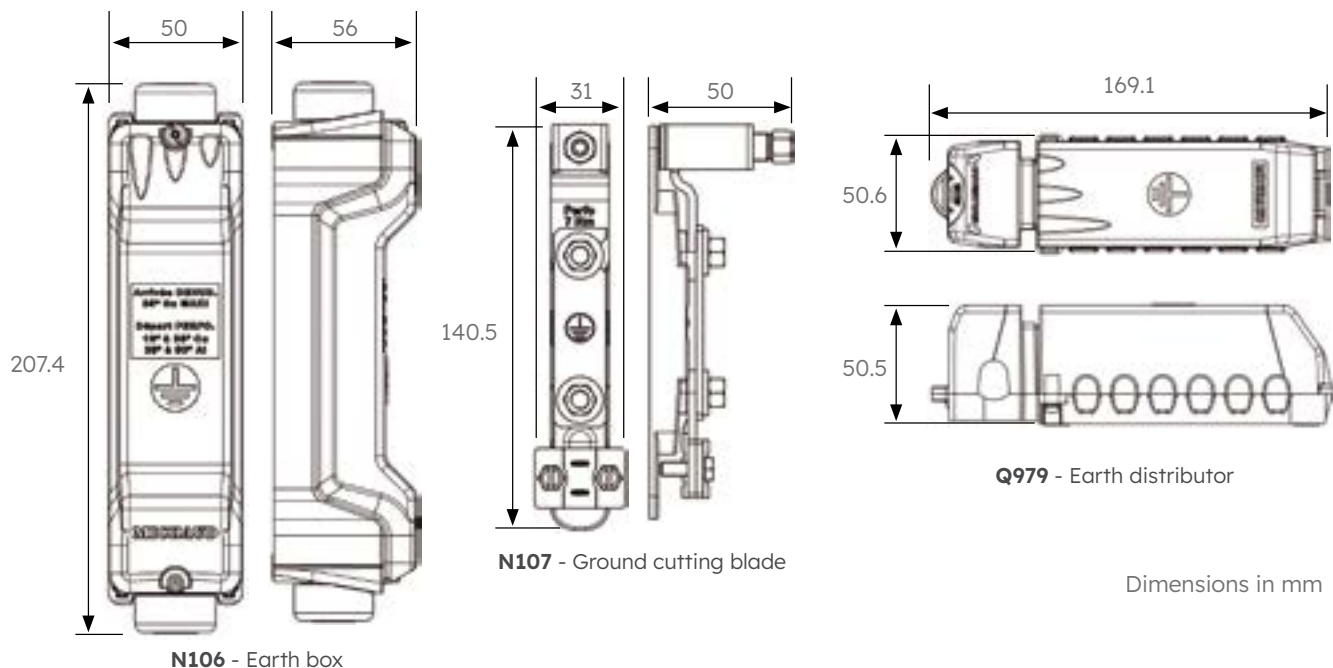
- A flexible tail 25mm<sup>2</sup>, length 230mm,
- A shear head screw.

- It can receive cable sections from 25 up to 35mm<sup>2</sup>.
- Its use is requested for the connection of the individual protection connector and the earth terminal block of the distribution board, when this one cannot receive aluminium.

**Earth cable** FR-N-07V-AR is made of aluminium. It is delivered in ring with 2 straps making transportation easier and a box of 25 identification labels marked "Alu".

- It is available in 3 sections: 25, 35, 50mm<sup>2</sup>.

This range meets the criteria of the **NF C32-208** standard.



## REFERENCES

Code	Designation	Sales unit
<b>N106</b>	GROUND CUTTING BLADE ALUMINIUM WITH BOX	1
<b>N107</b>	GROUND CUTTING BLADE BARE AL	1
<b>Q979</b>	EARTH DISTRIBUTOR AL 6 TAPS	1
<b>Q984</b>	ALUMINIUM EARTH CABLE 25 <sup>2</sup> 100M	1
<b>Q985</b>	ALUMINIUM EARTH CABLE 35 <sup>2</sup> 100M	1
<b>Q986</b>	ALUMINIUM EARTH CABLE 50 <sup>2</sup> 50M	1
<b>P340</b>	AL/CU EARTH ADAPTOR 35-25	10

### Variant: Stripping technology

These products using the stripping technology require a brushing with neutral grease during installation.



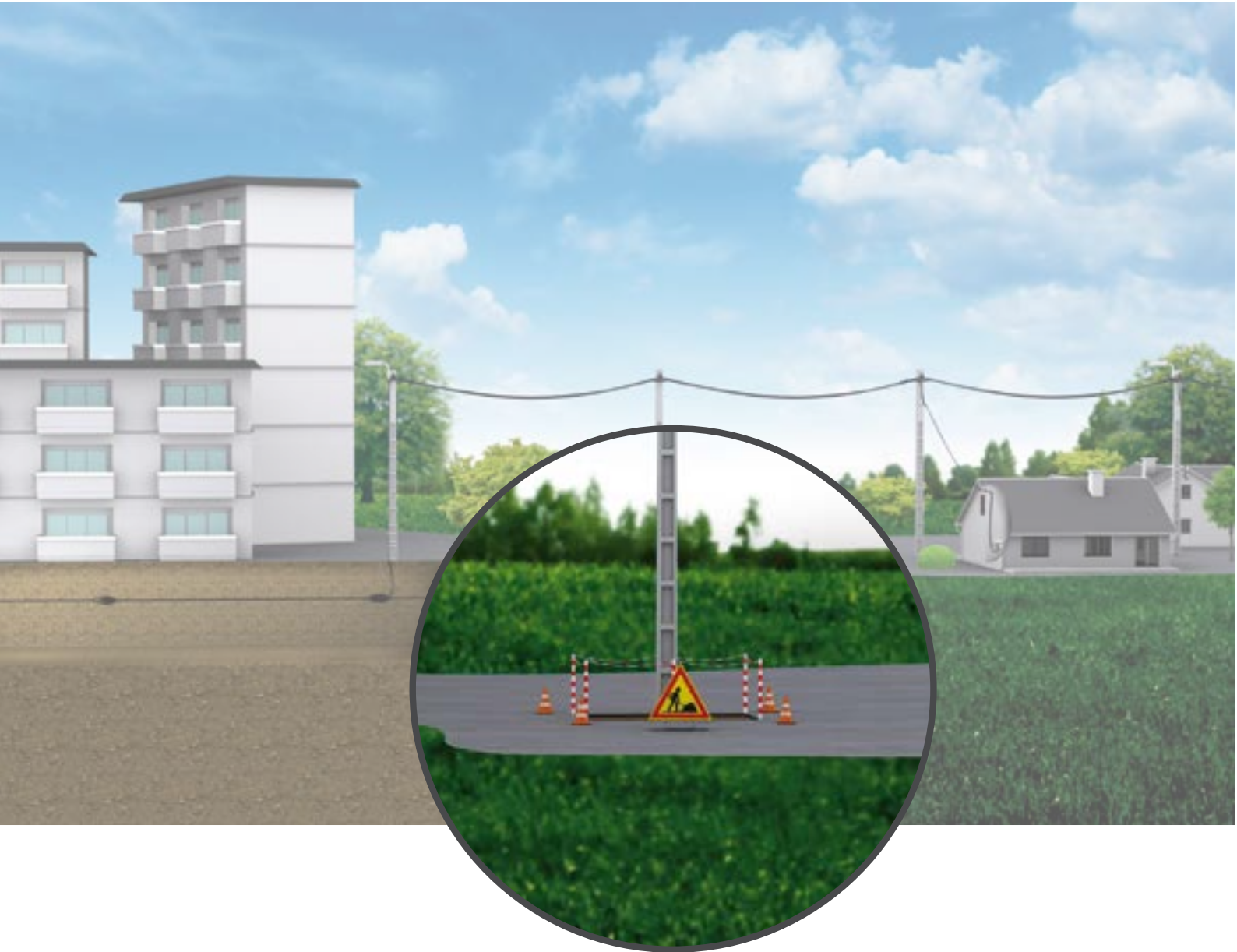
**ED001**



**ED002**

## REFERENCES

Code	Designation	Sales unit
<b>ED001</b>	EARTH DISTRIBUTOR STRIP AL 5 TAPS	1
<b>ED002</b>	EARTH DISTRIBUTOR STRIP AL 8 TAPS	1
<b>ED003</b>	GROUND CUTTING BLADE AL STRIP	1



# INSTALLATION



## Protective equipment

Personal protective equipment

p. 198

## Tools

LV line unwinding and pulling  
Overhead pulling grip and swivel  
LV insulated tooling  
Hydraulic crimping tool

p. 204  
p. 206  
p. 214  
p. 216

## SOLUTIONS FOR INSTALLATION



In order to offer global service to customers, MICHAUD proposes a range of equipment and tools to facilitate and to secure products installation.



In the low voltage field, fitters' safety and protection are essential. With a range of PPE (Personal Protection Equipment), MICHAUD ensures installation on safe environment.



To realise an installation in the best conditions, MICHAUD offers a range of tools and PPE to support low voltage lines and accessories.



In order to support the fitter the best way, MICHAUD supplies its products with didactic solutions and installation instructions assuring the right installation to guarantee fitters' safety.

## PROTECTION AGAINST THE ELECTRICAL RISK

During the installation of electrical equipment, the protection of the fitters from risks of direct or indirect contact is a necessity. The risk is real when a part of the human body is in contact with an active part of the installation.

Several conditions must be respected to guarantee protection:

- Installation of products with no load, except for specific indications,
- Respect of the current regulation,
- Trained and skilled staff,
- Use of PPE.

Classification of maximum used voltages of insulated gloves:

Class	Work voltage (V)	Tested voltage (V)
00	500	2 500
0	1 000	5 000
1	7 500	10 000
2	17 000	20 000
3	26 500	30 000
4	36 000	40 000



## A SUPPORT FOR YOUR INSTALLATIONS

MICHAUD uses its expertise to guide at best the fitters.

### ► *Installation instructions*

Products are supplied with detailed installation sheets for the assembly.

### ► *Installation videos*

Videos are available for certain products on the Michaud Export YouTube channel.

### ► *Training*

We support fitters in the field to train them with good installation practices.

# PROTECTIVE EQUIPMENT

## PPE Hands - Head - Eyes protection

### Hands protection



U833-1



U832-1



F081

#### APPLICATION

This equipment is designed to protect hands during installation works.

#### DESCRIPTION

##### Protective nitrile gloves:

Gloves are made of nitrile on hands palm. They offer an important piercing resistance.

##### Protective leather gloves:

Gloves are made of red leather. They offer an important piercing and cutting up resistance.

##### Protection leather gloves:

The handling leather gloves protect insulating gloves against sharp and cutting objects. A scratch band holds the handling gloves around the wrists.

#### REFERENCES

Code	Designation	Size	Weight (kg)	Sales unit
U833-1	PROTECTIVE NITRILE GLOVES	S - M - L - XL	0.200	1
U833-2	PROTECTIVE LEATHER GLOVES	33 cm	0.260	10
F081	PROTECTION LEATHER GLOVES SIZE 10	10	0.160	1

### Insulating gloves



U820-10

#### APPLICATION

This equipment is designed to protect hands against electrical shocks during live works.

#### DESCRIPTION

- Gloves are available in size 10.
- According to the kind of voltage work to perform, range goes from class 00 up to class 4.

#### REFERENCES

Code	Designation	Weight (kg)	Sales unit
U820-10	INSULATING GLOVES CLASS 00 (500V)	0.530	1
U821-10	INSULATING GLOVES CLASS 0 (1 000V)	0.550	1
U822-10	INSULATING GLOVES CLASS 1 (7 500V)	0.575	1
U823-10	INSULATING GLOVES CLASS 2 (17 000V)	0.600	1
U824-10	INSULATING GLOVES CLASS 3 (26 500V)	0.650	1
U825-10	INSULATING GLOVES CLASS 4 (36 000V)	0.700	1

## Head protection

### APPLICATION

This equipment is designed to protect the head and the face during installation works.



**U830-1**



**U830-2**



**U830-4**



**U830-3**

### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>U830-1</b>	BASIC HELMET	0.350	1
<b>U830-2</b>	HELMET WITH TOOTH WHEEL	0.400	5
<b>U830-3</b>	CHIN STRAP WITHOUT CHIN REST	0.020	10
<b>U830-4</b>	CHIN STRAP WITH CHIN REST	0.030	50

## Eyes protection



**U831-1**



**U831-2**

Tinted protection glasses with UV filter



**U831-3**



**U831-4**

Flexible vinyl frame mask with anti-fog treatment.



**U831-5**

Face shield with protection against impact. The product has a class 2 optical, a protection from risk of impact "F" and a mechanical resistance "A". It meets the criteria of the **EN 166** standard.



**U831-6**

Face shield + helmet with protection against electric arc.

### REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>U831-1</b>	PROTECTION GLASSES	0.030	10
<b>U831-2</b>	PROTECTION GLASSES TINTED - UV FILTER	0.050	10
<b>U831-3</b>	PROTECTION OVER GLASSES	0,050	10
<b>U831-4</b>	PROTECTION MASK	0.080	10
<b>U831-5</b>	FACE SHIELD - IMPACT PROTECTION	0.500	1
<b>U831-6</b>	FACE SHIELD - ELECTRIC ARC PROTECTION	0.650	1

# PROTECTIVE EQUIPMENT

## PPE - Shoes

### Dielectric and mechanical protection shoes

#### APPLICATION

This equipment is designed to electrical shocks protection. It also offers a mechanical protection. Two models are available :

- High shoes,
- Low shoes.



U826 - High shoes



U827 - Low shoes

#### DESCRIPTION

- This shoes are made of black bovine leather. They comprise a polyamide anti-allergic lining, a polyurethane antistatic sole and a non-metallic end. The antistatic property of the sole does not protect against electrical shocks.
- The shoes are tested in compliance with the **ANSI Z41** and the **ASTM F2413-05** standards. When 14 000 and 18 000V currents are applied during 1 minute with a 60Hz frequency, the passage of current intensity is inferior to 1mA (according to conditions described in the standards).
- Available sizes range from 39 up to 46.
- Shoes offer an impact resistance of 200J and a compression resistance of 15kN. The sole is resistant to hydrocarbons.
- Resistance to piercing is about 1100N.
- Energy absorption in the heel is superior to 20J for both models.
- Shoes are waterproof.
- It provides an insulation against cold and heat coming from the ground. The resistance to heat contact from the ground is 300°C.
- Soles are nonskid.

Dielectric safety shoes are not a substitute to obligatory PPE but an element of secondary protection.

This equipment meets the criteria of the **EN ISO 20345** standard.

#### REFERENCES

Code	Designation	Available sizes	Protection classes	Weight (kg)	Sales unit
U826	HIGH-TOP DIELECTRIC SAFETY SHOES	39 up to 46	SB+P+E+CI+HI+WRU+HRO+SRC+FO	1.500	1
U827	DIELECTRIC SAFETY SHOES	39 up to 46	SB+P+E+CI+HI+WRU+HRO+SRC+FO	1.300	1

#### Required size:

Add the required size to the reference.

Example with the high shoes model, size 42 : U826-42.

# Mechanical protection shoes

## APPLICATION

This equipment is designed to ensure mechanical protection.

Two models are available :

- High shoes,
- Low shoes.



**U828** - High shoes



**U829** - Low shoes

## DESCRIPTION

- Shoes are made of black bovine leather.
- Antistatic property of the sole does not protect against electric shocks.
- Available sizes range from 40 to 47 for the high model and from 39 to 46 for the low one.
- Shoes offer an impact resistance of 200J.
- It dissipates electrostatic charges.
- Sole absorbs energy at the heel.
- Sole is resistant to piercing. It is also resistant to oils and hydrocarbons.

This equipment meets the criteria of the **EN ISO 20345** standard.

## REFERENCES

Code	Designation	Available sizes	Protection classes	Weight (kg)	Sales unit
<b>U828</b>	HIGH-TOP SAFETY SHOES	40 up to 47	S3	1.500	1
<b>U829</b>	SAFETY SHOES	39 up to 46	S2+CI+SRC	1.300	1

### Required size:

Add the required size to the reference.

Example with the high shoes model, size 42 : U828-42.

# PROTECTIVE EQUIPMENT

## PPE Mat - Ladder - Fall protection

### Insulating mat



U840

#### APPLICATION

This mat is designed to protect the work area and the fitter from contact voltages, when working off-load in HV and on-load in LV.

Several models are available, from class 0 to class 4.

#### DESCRIPTION

- Mat is made of rubber with non-slip surfaces on both sides.
- It offers high dielectric rigidity.
- It can be used in temperatures ranging from -40°C up to +70°C.
- It is laid directly on the floor.

The insulating mat is not a substitute for compulsory PPE, but is a secondary protective element. It meets the criteria of the **IEC 61111** standard.

#### REFERENCES

Code	Designation	Alternating voltage RMS (V)	Weight (kg)	Sales unit
U840-0_1X1	INSULATING MAT CLASS 0 - 1x1m	1 000	3.000	1
U840-1_1X1	INSULATING MAT CLASS 1 - 1x1m	7 500	4.740	1
U840-2_1X1	INSULATING MAT CLASS 2 - 1x1m	17 000	5.510	1
U840-3_1X1	INSULATING MAT CLASS 3 - 1x1m	26 500	7.500	1
U840-4_1X1	INSULATING MAT CLASS 4 - 1x1m	36 000	5.000	1

### Insulating ladder

U841



#### APPLICATION

This insulating ladder is designed to protect the fitter from contact voltages during electrical installation work.

#### DESCRIPTION

- Ladder is made of fiberglass. It is made entirely of composite material and has no metal parts for mechanical connections (screws, nuts, etc.).
- It is lightweight and therefore easy to transport.
- It is highly resistant to atmospheric and chemical agents.
- It is available in several lengths.
- Bottom of the ladder is fitted with a stabiliser for models over 3 meters long.

This ladder meets the criteria of the **EN 131** standard.

#### REFERENCES

Dimensions (mm)

Code	Designation	H	L1	L2	E	Number of rungs	Weight (kg)	Sales unit
U841-3	INSULATING LADDER 3m	3	400	400	250	11	10.500	1
U841-3.5	INSULATING LADDER 3.5m	3.5	400	800	250	13	10.500	1
U841-4	INSULATING LADDER 4m	4	400	850	250	15	12.000	1
U841-4.5	INSULATING LADDER 4.5m	4.5	400	900	250	17	14.000	1
U841-5	INSULATING LADDER 5m	5	400	950	250	19	16.000	1
U841-6	INSULATING LADDER 6m	6	400	1050	250	23	19.000	1

# Fall protection

## APPLICATION

This equipment is designed to protect fitters from falls during installation works at height. Harnesses are dielectric (excepted in the kit).

### Harness



U834-2



U834-3



U834-6



U834-1

### Belt



U835-1



U835-2

### Accessories



U838-1



U838-3



U836-3



U836-4



U838-4

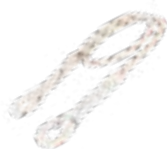
### Rope and tether



U836-1



U837-5



U837-6



U837-7



U837-1



U837-2

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
U834-1	RESTRAINT KIT (FALL ARREST HARNESS+LANYARD+2 CONNECTORS+BAG)	0.850	1
U834-2	ANKLE HARNESS AND RESTRAINT	0.800	1
U834-3	DIELECTRIC FALL ARREST AND SUPPORT HARNESS	1.300	1
U834-6	WAIST HARNESS	0.500	1
U835-1	WORK POSITIONNING BELT	0.300	1
U835-2	WORK POSITIONNING BELT (BELT + ROPE + CARABINER)	0.580	1
U836-1	POLYAMIDE ROPE - 10 METERS	1.420	1
U836-2	ROPE - 20 M	2.820	1
U836-3	1.50M DOUBLE FALL ARREST LANYARD WITH ENERGY ABSORBER AND CONNECTORS	0.740	1
U836-4	1.50M SINGLE FALL ARREST LANYARD WITH ENERGY ABSORBER	0.170	1
U837-1	Y TETHER WITH CARABINERS	1.900	1
U837-2	SIMPLE TETHER WITH CARABINERS	0.500	1
U837-5	SIMPLE TETHER WITH CONNECTORS	0.950	1
U837-6	SIMPLE ADJUSTABLE TETHER WITH CARABINERS - DIELECTRIC	0.270	1
U837-7	GUIDED TYPE FALL ARRESTERS	0.780	1
U838-1	TIE-OFF	0.070	1

## TOOLS

# LV line unwinding and pulling

## Pulley for aerial bundled conductors



F240



F241

### APPLICATION

This pulley is designed to receive low voltage A.B.C. (Aerial Bundled Conductors) for unwinding and pulling operations.

### DESCRIPTION

- Body of the pulley is made of aluminium alloy.
- Wheel of 250mm diameter is made of synthetic materials. It has a 60mm groove to make the passage of A.B.C. up to 3x150 + 70N + 16mm<sup>2</sup> easier.
- Pulley is equipped with safety locking allowing the rope to be fitted with one hand. This system prevents the rope and therefore the A.B.C. from jumping out of the wheel during handling.
- Two types of pole fixing are available:
  - Pulley with swivelling hook,
  - Pulley with ratchet tightener and 1.20m strap.

### REFERENCES

Code	Designation	Pulley width (mm)	Operating load (dAN)	Weight (kg)	Sales unit
F240	PULLEY WITH STRAP	60	800	5.200	1
F241	PULLEY WITH HOOK	60	800	3.110	2

## Mechanical winch



U354

### APPLICATION

This mechanical winch is designed to pull conductors of a low voltage power line. Light and small, it can be used for all types of cable adjustments, in particular on top of supports. It can be used also for lifting loads, stowing poles and other applications.

### DESCRIPTION

- Two hooks at each end enable the winch to be fixed. They are equipped with a safety locking pin.
- Operating arm with ergonomic handle makes it easier to adjust the traction.
- Body is equipped with ratchet tightening system.

### REFERENCES

Code	Designation	Operating load (dAN)	Weight (kg)	Sales unit
U354	MECHANICAL WINCH 500	500	4.700	1
U355	MECHANICAL WINCH 1 000	1 000	9.000	1

# Overhead comealong clamp

## APPLICATION

This overhead comealong clamp is designed to pull, retain and stretch bare or insulated conductors of a power line. Three models are available according to the type of conductors to be implemented: bare steel or aluminium cable, or A.B.C. (Aerial Bundled Conductors) type neutral messenger and type self supported.



## DESCRIPTION

- Half-cylinder shaped parallel jaws ensure tightening of the conductor, protecting it.
- Ergonomic handle with its wide opening enables good handling.
- Sliding of the jaws and arms is facilitated thanks to bolts and slides.
- Assembly is made of corrosion-proof galvanised steel or aluminium.

## REFERENCES

Code	Designation	Conductor type	Tighten capacity	Maximum load (daN)	Weight (kg)	Sales unit
F257	BARE CONDUCTOR COMEALONG 4-12mm	Bare Al / Steel	4-12mm	1 700	0.500	1
F258	INSULATED CONDUCTOR COMEALONG 6-14mm	Insulated Al / Cu	6-14mm	800	1.555	1
F269	SELF-SUPPORTED A.B.C. COMEALONG 4x95 150mm <sup>2</sup>	A.B.C.	4x95mm <sup>2</sup>	600	6.500	1
			4x150mm <sup>2</sup>	900		

# Wire-strainer

## APPLICATION

This wire-strainer is designed to pull conductors on a low voltage electrical line manually. The forward/backward distance can be varied by changing the position of the cam, increasing the traction speed, reducing efforts.



## REFERENCES

Code	Designation	SWL (kg)	Ø cable or Ø wire to pull (mm)	Lever's two way distance (mm)	Comealong type	Weight (kg)	Sales unit
U353	WIRE-STRAINER (400KG)	400	from 6 up to 8	65	2	3.650	1
U351	WIRE-STRAINER (600KG)	600	from 7 up to 15	75	3	4.750	1
U352	WIRE-STRAINER (800KG)	800	from 14 up to 18	90	4	5.700	1

# Wooden pole climber

## APPLICATION

These climbers are designed to help fitters climbing along poles and to facilitate work at height. It is delivered in pair.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>WOODEN POLE CLIMBERS</b>			
F448-20	WOODEN POLE CLIMBERS 6 PEAKS DIAM 20cm	2.450	1
F448-22	WOODEN POLE CLIMBERS 6 PEAKS DIAM 22cm	3.100	1
F448-25	WOODEN POLE CLIMBERS 6 PEAKS DIAM 25cm	2.700	1
F448-30	WOODEN POLE CLIMBERS 6 PEAKS DIAM 30cm	3.290	5
F448-35	WOODEN POLE CLIMBERS 6 PEAKS DIAM 35cm	3.200	1
<b>AUTOMATIC LOCKING CONCRETE CLIMBERS</b>			
F495	AUTOMATIC LOCKING CONCRETE CLIMBERS 120-450mm	8.200	1
F496	ADJUSTABLE STEEL POST CLIMBERS 5/20	3.700	1

# TOOLS

## LV insulated tools

### APPLICATION

These tools are designed to facilitate electrical equipment implementation connections.



F445

#### Insulated ratchet wrench hexagonal

This wrench is designed to install cable accessories such as insulation piercing. It has H13 and H17 sockets type hexagonal 6 faces closed eye and a ratchet system for tightening. It is manufactured in compliance with the **DIN EN 60900 : 2012** (1000V + double triangle standard).



K004

#### Holding wrench

This wrench is designed to facilitate the installation of service insulation piercing connectors. It is placed on the connector walls to hold connector in position when tightening the shear head.

### REFERENCES

Code	Designation	Weight (kg)	Sales unit
F445	INSULATED RATCHET WRENCH HEXAGONAL 13/17mm	0.380	1
K004	HOLDING WRENCH CBS/RDP	0.080	20

## Insulated cross wrench



F460

This wrench is designed to install cable accessories such as connector. The particular structure of this wrench allows it to be easily held. It has H8, H10, H13 and H17 sockets type hexagonal closed eye. Generally, 13 and 17mm socket sizes are used for the installation of insulating piercing connectors. The 4 sides are insulated from one to another one. This wrench provides 1000 V protection. This wrench meets the criteria of the **IEC EN 60900** standard.

### REFERENCE

Code	Designation	Weight (kg)	Sales unit
F460	INSULATED CROSS SPANNER 8-10-13-17mm 1000V	0.400	1

## Monkey wrench



U814-1



U814-2

This wrench is designed to tighten an hexagonal bolt of various sizes thanks to adjustable jaws. It ensures a 1000V protection. This wrench meets the criteria of the **IEC EN 60900** standard.

## REFERENCES

Code	Designation	Length (mm)	Weight (kg)	Sales unit
U814-1	MONKEY WRENCH 10" 1000V	250	0.620	1
U814-2	MONKEY WRENCH 12" 1000V	300	0.950	1

## Hex key



U814-3

This set of spherical head hex keys comprises 10 pieces covering diameters from 1.5 to 10mm<sup>2</sup>.

## REFERENCE

Code	Designation	Ø key (mm)	Weight (kg)	Sales unit
U814-3	SET OF 10 SPHERICAL HEAD HEX KEYS	1.5 - 2 - 2.5 - 3 - 4 - 5 - 5.5 - 6 - 8 - 10	0.360	1

## Insulated opened-end wrench



U850

This wrench is designed to tighten a hexagonal bolt of single size. It presents an opened eye. It provides 1000V protection. This wrench meets the criteria of the **IEC EN 60900** standard.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
U850-10	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 10mm	0.043	10
U850-13	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 13mm	0.058	10
U850-14	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 14mm	0.095	10
U850-16	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 16mm	0.084	10
U850-17	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 17mm	0.105	10
U850-21	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 21mm	0.200	10

## Insulated ratchet wrench



U851

This wrench is designed to tighten hexagonal metal bolts of single size. It presents a 6 faces closed eye and a ratchet system for tightening. It provides 1000V protection. This wrench meets the criteria of the **IEC EN 60900** standard.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
U851-10	RING RATCHET WRENCH 1000 V - 10mm	0.061	6
U851-13	RING RATCHET WRENCH 1000 V - 13mm	0.098	6
U851-14	RING RATCHET WRENCH 1000 V - 14mm	0.109	6
U851-16	RING RATCHET WRENCH 1000 V - 16mm	0.137	6
U851-17	RING RATCHET WRENCH 1000 V - 17mm	0.158	6

# TOOLS

## LV insulated tools- Plier & Cutter

### Plier

#### APPLICATION

This plier is designed to facilitate the cable work for connection operations.

#### Universal plier



U810-1 / U810-2 / U810-3



U810-4

#### Plier for insulated terminals



U810-10

#### Phone plier



U810-5



U810-6

#### Water pump plier



U810-11

#### Cutting plier



U810-7



U810-8

#### Set of 3 pliers

- Universal plier L=180mm
- Diagonal cutting plier L=160mm
- Stripping plier L=160mm



U810-12

#### Stripping plier



U810-9

### REFERENCES

Code	Designation	Length (mm)	Weight (kg)	Sales unit
U810-1	UNIVERSAL PLIER L=165mm 1000V	165	0.240	6
U810-2	UNIVERSAL PLIER L=180mm 1000V	180	0.280	6
U810-3	UNIVERSAL PLIER L=200mm 1000V	200	0.330	6
U810-4	UNIVERSAL PLIER L=210mm 1000V	210	0.280	1
U810-5	PHONE PLIER L=200mm 1000V	200	0.260	6
U810-6	CURVED PHONE PLIER 1000V	200	0.210	1
U810-7	DIAGONAL CUTTING PLIER L=160mm 1000V	160	0.210	6
U810-8	STRENGTHENED CUTTING PLIER 1000V	200	0.380	6
U810-9	STRIPPING PLIER 1000V	160	0.170	6
U810-10	PLIER FOR INSULATED TERMINALS	200	0.175	1
U810-11	WATER PUMP PLIER	254	0.350	6
U810-12	SET OF 3 PLIERS 1000V		0.620	1

# Cutter

## APPLICATION

This cutter is designed for cables and synthetic materials cut.

### Cable cutter



**U811-1**



**U811-2**  
**U811-3**



**U811-4**



**U811-9**

### Scissors



**U811-5**

### Angled knife



**U811-6**

### Straight knife



**U811-10**

### Cutting plier for plastic saddles



**U811-7**

### Plastic pipe cutter



**U811-8**

## REFERENCES

Code	Designation	Cu (mm <sup>2</sup> )	Al (mm <sup>2</sup> )	Length (mm)	Weight (kg)	Sales unit
<b>U811-1</b>	CABLE CUTTER 65mm <sup>2</sup> 1000V			250	0.500	1
<b>U811-2</b>	CABLE CUTTER WITH PAWL DIAM 32 1000V	240	300	260	0.600	1
<b>U811-3</b>	CABLE CUTTER WITH PAWL DIAM 52 1000V	400	600	280	0.800	1
<b>U811-4</b>	CABLE CUTTER WITH PAWL DIAM 70 1000V	800	1000	300	0.900	1
<b>U811-5</b>	BIG BREACH SCISSORS 1000V			160	0.098	1
<b>U811-6</b>	ANGLED KNIFE 1000V			190	0.111	1
<b>U811-7</b>	CUTTING PLIER FOR PLASTIC SADDLES			150	0.100	1
<b>U811-8</b>	PLASTIC PIPE CUTTER 1000V			64	0.600	1
<b>U811-9</b>	CABLE CUTTER 35mm <sup>2</sup> 1000V			35	0.600	6
<b>U811-10</b>	STRAIGHT KNIFE 1000V				0.117	1

# TOOLS

## LV insulated tools - Electrician sets

### Electricians set

#### APPLICATION

This set is designed to gather several tools for LV electrical equipment installation.



**U812-1** - 17 pieces



**U812-2** - 26 pieces



**U812-3** - 37 pieces



**U812-4** - 5 pieces



**U812-5** - 10 pieces

#### REFERENCES

Code	Designation	Number of pieces	Weight (kg)	Sales unit
<b>U812-1</b>	ELECTRICIAN SET 17 PCS 1000V	17	3.600	1
<b>U812-2</b>	ELECTRICIAN SET 26 PCS 1000V	26	5.000	1
<b>U812-3</b>	ELECTRICIAN SET 37 PCS 1000V	37	9.000	1
<b>U812-4</b>	ELECTRICIAN TOOLINGS SET 5 PCS 1000V	5	0.750	1
<b>U812-5</b>	RATCHET WRENCH AND SOCKETS SET 3/8" 10 PCS 1000V	10	2.000	1

Other kits can be provided. Personalised bag can be made. Please enquire.

### Tool belt



**U839-2**



**U839-1**

#### APPLICATION

This belt is designed to make the fitter's job easier by giving an easy access to required tools during installation.

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
U839-1	SIMPLE TOOL BELT	0.370	1
U839-2	DOUBLE TOOL BELT	0.740	1

## Measuring device

### APPLICATION

This device is designed to perform test or control measurements to check correct products installation.



U813-3

#### Digital tester

It enables to perform voltage measurements from 0 up to 220V.



#### Digital multimeter

It measures direct or alternative current and voltage, resistance, electrical capacity, diodes and frequency.

U813-1



#### Clamp multimeter

It measures current, voltage, resistance, temperature, diodes and electrical continuity. The U813-2 product has an intensity from 2 up to 400A AC and the U813-21 product has an intensity from 40 up to 1000A AC.

U813-2

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
U813-1	DIGITAL MULTIMETER	0.915	1
U813-2	CLAMP MULTIMETER 400A	0.520	1
U813-21	CLAMP MULTIMETER 1000A	0.665	1
U813-3	DIGITAL TESTER 220V	0.060	1

## Screwdriver

### APPLICATION

Screwdriver is designed to tighten a screw. Sets of screwdrivers U815-1 and U815-2 comprise 6 screwdrivers (3 flat screwdrivers and 3 cross-head screwdrivers PZ). The set of screwdrivers U815-3 comprises 7 screwdrivers type Torx (T).



U815-5 U815-4 U815-6



U815-x

## REFERENCES

Code	Designation	Number of pieces	Shape				Sales unit
U815-1	SET OF 6 SCREWDRIVERS 1000V	6	-	3x100 4x125 5x150	-	PZ0 PZ1 PZ2	1
U815-2	SET OF 6 SCREWDRIVERS	6	-	4x100 5.5x100 6.5x125	-	PZ1 PZ2 PZ3	1
U815-3	SET OF 7 SCREWDRIVERS TORX	7	T6 T8 T10 T15 T20 T25 T30	-	-	-	1
U815-4	FLAT SCREWDRIVER 1000V 6,5x150	1	-	6.5x150	-	-	1
U815-5	CROSS-HEADED SCREWDRIVER - PH-1	1	-	-	PH1	-	1
U815-6	CROSS-HEADED SCREWDRIVER - PH-2	1	-	-	PH2	-	6

# TOOLS

## LV insulated tools - Accessories

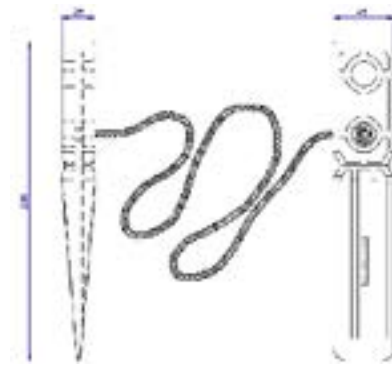
### Wedge separator

#### APPLICATION

This wedge spreader is designed to separate a conductor in an A.B.C. (Aerial Bundled Conductors) to facilitate localised intervention on such conductor.



K005



Dimensions in mm

#### DESCRIPTION

- Tools comprises 2 wedges connected by a 1m-long cord.
- Each black wedge is made from tough, UV with standing, impact and cold resistant synthetic materials.
- 2 spaces are possible:
  - 2cm: for implementation of connectors,
  - 4cm: for implementation of anchoring and suspension clamps.
- Hole at the end allows a tool to be inserted to facilitate 90° rotation, allowing the passage from 2cm up to 4cm.
- Very smooth ribs and a low penetration angle make it easy to insert the wedge into the bundle.

#### REFERENCE

Code	Designation	Weight (kg)	Sales unit
K005	INSULATED WEDGE SEPARATOR	0.360	5

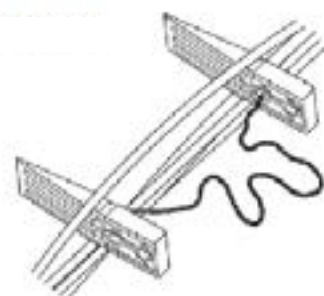
#### INSTALLATION

2cm space connector implementation



Insert the wedges into the bundle, either manually or with a hammer.

4cm space anchoring/suspension implementation



Insert the wedge in the same way as for the 2cm space, then turn 90°.

# Brush

## APPLICATION

This brush is designed to abrade smoothly metal surface. It is used with neutral grease to brush conductor cores in order to remove the oxide film.



F450

## REFERENCE

Code	Designation	Weight (kg)	Sales unit
F450	BRUSH FOR CONDUCTORS WITH CASE	0.080	1

# Consumable material



L024

### Neutral grease

This tube of neutral grease is designed to cover the conductor core to be connected and thus protect the electrical connection. The neutral grease complies with the ERDF France technical guide. It is neutral as regards to aluminium and copper. It has the following technical characteristics:

- A high drop point (190°),
- A wide use temperature range (-20°C up to + 120°C).



U843

### Adhesive tapes

It is specially designed for any electrical insulation application, ideal for protecting cable connections. It is made of polyvinyl chloride (PVC) and has got good abrasion resistance.

- **U842** : 0.18mm thickness with excellent resistance to abrasion and high tensile strength (35 N/cm).
- **U843-\***: thickness 0,13mm with good tensile strength (25N/cm). It is made of self-extinguishing premium quality synthetic materials and have a very good dielectric strength (40kV/mm).

Tape meets the criteria of the EU Directive **2011/65/EC (RoHS 2)** and the Commission Directive **(EU) 2015/863 (RoHS 3)**.

## REFERENCES

Code	Designation	Length (mm)	Width (mm)	Weight (kg)	Sales unit
L024	CONTACTAL N190 NEUTRAL GREASE - TUBE OF 100g	-	-	0.115	1
U842	DARK ADHESIVE TAPE ROLL 33m x 19mm ISO ADH	33	19	0.091	48
U843	DARK ADHESIVE TAPE ROLL 10m x 15mm	10	15	0.026	100
U843-B	BLUE ADHESIVE TAPE ROLL 10m x 15mm	10	15	0.026	100
U843-R	RED ADHESIVE TAPE ROLL 10m x 15mm	10	15	0.026	100
U843-VJ	GREEN YELLOW ADHESIVE TAPE ROLL 10m x 15mm	10	15	0.026	100

# TOOLS

## Hydraulic crimping tool

### APPLICATION

This tool is designed for the crimping of junction sleeves, terminal lugs and C-connectors.

It is available in 2 versions:

- Hydraulic type,
- Electro-hydraulic type.



F407



F400



F405

### DESCRIPTION

#### Hydraulic type F400:

- Ergonomic mobile handle enables the beginning of crimping by operating the tool with one hand.
- Developed force is 50kN maximum.
- Safety valve and audible "click" ensure efficient crimping and good protection of the hydraulic closing system.
- Ram retract mechanism is actuated by a release trigger.
- 13mm stroke enables connector to be crimped between 6 and 300mm<sup>2</sup>.
- Length is 420mm.
- Carrying case can contain one hydraulic crimping tool and up to 7 dies.

This hydraulic crimping tool meets the criteria of the **NF C 20-130** standard.

#### Electro-hydraulic type F405 et F407:

- Developed force is 60kN maximum for F407 and 130kN maximum for F405.
- Ram retract mechanism is automatic after complete crimping.
- Autonomy is approximately 120 crimping operations.

### REFERENCES

Code	Designation	Weight (kg)	Sales unit
F400	50kN HYDRAULIC CRIMPING TOOL + CASE	4.150	1
F405	130 kN ELECTRO-HYDRAULIC CRIMPING TOOL + CASE	8.500	1
F406	DIE ADAPTATOR FOR F405	0.120	1
F407	60kN ELECTRO-HYDRAULIC CRIMPING TOOL + CASE	5.300	1
F409	BATTERY FOR F407	0.700	1
F419	BATTERY FOR F405	0.900	1

## INSTALLATION



## Dies

## REFERENCES

Code	Designation	Weight (kg)	Sales unit
<b>DIES FOR PREINSULATED SLEEVES</b>			
F420	HEXAGONAL DIE - E140	0.115	1
F421	HEXAGONAL DIE - E173	0.115	1
F422	HEXAGONAL DIE - E215	0.115	1
<b>DIES FOR TUBULAR LUGS</b>			
F404-6	HEXAGONAL DIE - NFC 20-130 - 6mm <sup>2</sup>	0.800	1
F404-10	HEXAGONAL DIE - NFC 20-130 - 10mm <sup>2</sup>	0.800	1
F404-16	HEXAGONAL DIE - NFC 20-130 - 16mm <sup>2</sup>	0.800	1
F404-25	HEXAGONAL DIE - NFC 20-130 - 25mm <sup>2</sup>	0.800	1
F404-35	HEXAGONAL DIE - NFC 20-130 - 35mm <sup>2</sup>	0.800	1
F404-50	HEXAGONAL DIE - NFC 20-130 - 50mm <sup>2</sup>	0.800	1
F404-70	HEXAGONAL DIE - NFC 20-130 - 70mm <sup>2</sup>	0.900	1
F404-95	HEXAGONAL DIE - NFC 20-130 - 95mm <sup>2</sup>	0.900	1
F404-120	HEXAGONAL DIE - NFC 20-130 - 120mm <sup>2</sup>	0.100	1
F404-150	HEXAGONAL DIE - NFC 20-130 - 150mm <sup>2</sup>	0.100	1
F404-185	HEXAGONAL DIE - NFC 20-130 - 185mm <sup>2</sup>	0.100	1
F404-240	HEXAGONAL DIE - NFC 20-130 - 240mm <sup>2</sup>	0.120	1
F404-300	HEXAGONAL DIE - NFC 20-130 - 300mm <sup>2</sup>	0.180	1
<b>DIES FOR DEEP-PUNCHING THIMBLE</b>			
F425	PUNCH PLATE	0.100	1
F426	50/70/95mm <sup>2</sup> DIE BASE	0.150	1
F427	50/70/95mm <sup>2</sup> STEPPED PUNCH	0.800	1
F428	120/150mm <sup>2</sup> DIE BASE	0.150	1
F429	120/150mm <sup>2</sup> STEPPED PUNCH	0.900	1
F430	185/240mm <sup>2</sup> DIE BASE	0.150	1
F431	185/240mm <sup>2</sup> STEPPED PUNCH	0.100	1
<b>DIES FOR C CONNECTOR</b>			
F412	TERMINAL LUG DIE 150 <sup>2</sup> + C CONNECTOR 25 <sup>2</sup> +35 <sup>2</sup> +50 <sup>2</sup>	0.120	1

Other dies and hydraulic tools are available. Please contact us.

# TOOLS

## Insulated operating stick



### APPLICATION

This telescopic insulated operating stick is designed to operate electrical equipment, remotely from ground level.

It is adapted to many applications such as following ones:

- Fuse switch disconnecter operations
- Voltage check
- Earthing.

Each model is equipped with a notched universal U-shaped terminal end.

### DESCRIPTION

- Stick and extension comprise 1, 2 or 3 elements.
- Each element is made of glass fibre composite and has a high mechanical strength.
- Upper tube is filled in with yellow foam to ensure dielectric strength in the upper part.
- Hollowed lower tube receives the upper tube, in retracted position. It is entirely treated against humidity through siliconisation (the retracted or deployed position is locked using a push button).
- Work must be operated, with limited load at the top, with no mechanical stresses (twisting).
- Assembly can be used for low voltage applications at any time when the stick is deployed.
- Stick is equipped with the following elements:
  - A U-shaped notched universal end for fixing a suitable terminal end (wing nut equipped),
  - A second end with a mount equipped with a protected connection for the optional extension,
  - A hand grip for secure holding.
- Stick diameter is 42mm.
- Stick and the extension can be delivered in a protective cover in order to facilitate handling and storage.

This insulated operating stick meets the criteria of the **IEC 60855-1**, **IEC 1235** and **EN 61235** standards.

### REFERENCES

Code	Designation	Elements number	Extension bar application	Length when closed (m)	Length when opened (m)	Weight (kg)	Sales unit
F200	OPERATING STICK 2E - 1.5M (TERMINAL END U)	2	No	0.85	1.50	1.050	1
F201	OPERATING STICK 2E - 2M (TERMINAL END U)	2	Yes	1.10	2.00	1.200	1
F202	OPERATING STICK 2E - 3.2M (TERMINAL END U)	2	Yes	1.75	3.20	1.500	1
F203	OPERATING STICK 2E - 5M (TERMINAL END U)	2	Yes	2.65	5.00	3.000	1
F204	OPERATING STICK 3E - 4.5M (TERMINAL END U)	3	No	1.65	4.50	3.000	1
F205	OPERATING STICK 3E - 5M (TERMINAL END U)	3	No	1.85	5.00	4.000	1
F206	OPERATING STICK 3E - 6M (TERMINAL END U)	3	No	2.50	6.00	5.000	1
F208	PROTECTIVE COVER FOR OPERATING STICK					0.600	1

# Terminal end

## APPLICATION

Terminal end is designed to operate a Fuse Switch Disconnecter (FSD) remotely from the ground level. It is fixed on notched universal U-shaped threaded terminal end of operating stick.

The F210 end can also be used to operate a Fuse Switch Disconnecter manually, thanks to its handle shape.



## REFERENCES

Code	Designation	Weight (kg)	Sales unit
F209	BORED TERMINAL END DISCONNECTOR / STICK	0.105	1
F210	THREAD TERMINAL END DISCONNECTOR / STICK	0.035	10
F213	POLE ADAPTER FOR FSD (NH00) + THREAD TERMINAL END	0.130	1

## INSTALLATION



# ALPHABETICAL INDEX

	Designation	Code	Pages	
<b>A</b>	ADJUSTABLE WORKSTATION LANYARD WITH CONNECTORS - 2m	U837-7	208-209	
	AERIAL 14x51 FUSE CONNECTIONS BOX (X9) PIERCING	P339-P	26-27	
	AERIAL 14x51 FUSE CONNECTIONS BOX (X9) STRIPPING	P339-D	28-29	
	AERIAL 22x58 FUSE CONNECTIONS BOX (X6) PIERCING	P336-P	28-29	
	AERIAL 22x58 FUSE CONNECTIONS BOX (X6) STRIPPING	P336-D	28-29	
	AERIAL CONNECTION BOX 14x51 FUSE (X9) - CONCENTRIC CABLE - PIERCING	P339-P-C	26-27	
	AERIAL CONNECTION BOX 14x51 FUSE (X9) - CONCENTRIC CABLE - STRIPPING	P339-D-C	26-27	
	AERIAL CONNECTION BOX 22x58 FUSE (X6) - CONCENTRIC CABLE - PIERCING	P336-P-C	26-27	
	AERIAL CONNECTIONS BOX (x6) PIERCING	P436-P	26-27	
	AERIAL CONNECTIONS BOX (x6) STRIPPING	P436-D	26-27	
	AERIAL CONNECTIONS BOX (x8) PIERCING + NETWORK JUNCTION	P429	32-33	
	AERIAL CONNECTIONS BOX (x8) STRIPPING + NETWORK JUNCTION	P426	32-33	
	AERIAL CONNECTIONS BOX (x9) PIERCING	P439-P	26-27	
	AERIAL CONNECTIONS BOX (x9) STRIPPING	P439-D	26-27	
	AERIAL SINGLE POLE STAR CONNECTION BLOC 8 OUTLETS	L436	30-31	
	AL/CU EARTH ADAPTOR 35-25	P340	198-199	
	ALIGNMENT LATH (Length 3m)	K422	120-121	
	ALUMINIUM EARTH CABLE 252 100M	Q984	198-199	
	ALUMINIUM EARTH CABLE 352 100M	Q985	198-199	
	ALUMINIUM EARTH CABLE 502 50M	Q986	198-199	
	ANCHORING BRACKET- CA 1500 - 2FP	K308	60-61	
	ANCHORING CLAMP - PA 1500	K306	60-61	
	ANCHORING CLAMP CLOSE EYE HANDLE TYPE 2*16-35	U512	66-67	
	ANCHORING CLAMP CLOSE EYE HANDLE TYPE 4*16-35	U513	66-67	
	ANCHORING CLAMP WITH ADJUSTABLE HOOK - PACR 25	K309	64-65	
	ANCHORING CLAMP WITH HANDLE - PA 25	K307	64-65	
	ANCHORING CLAMP WITH REMOVABLE HANDLE TYPE (BOLT) 2*10-25	U510	66-67	
	ANCHORING CLAMP WITH REMOVABLE HANDLE TYPE (BOLT) 4*10-25	U511	66-67	
	ANCHORING HOOK BRACKET DIAM 16	U527	66-67	
	ANGLED KNIFE 1000V	U811-6	214-215	
	ANKLE HARNESS AND RESTRAINT	U834-2	208-209	
	<b>B</b>	BARE CONDUCTOR COMEALONG 4-12mm	F257	210-211
		BASIC HELMET	U830-1	204-205
		BATTERY FOR F405	F419	220-221
		BATTERY FOR F407	F409	220-221
BEAM POLE CLIMBERS		F496	210-211	
BIG BREACH SCISSORS 1000 V		U811-5	214-215	
BIMETAL SPIN-WELDED BARE TERMINAL LUG		F154	52-53	
BINDING TOOL RATCHET TYPE FOR STRAP		K960	58-59	
BINDING TOOL WHEEL TYPE FOR STRAP		K959	58-59	
BLACK 16mm <sup>2</sup> LINKING CABLE L1200		J042	140-141	
BLACK 16mm <sup>2</sup> LINKING CABLE L530		J046	140-141	
BLACK 16mm <sup>2</sup> LINKING CABLE L700		J048	140-141	
BLACK 25mm <sup>2</sup> LINKING CABLE L700		J133	140-141	
BLACK ADHESIVE TAPE ROLL 10Mx15mm		U843	218-219	
BLACK ADHESIVE TAPE ROLL 33Mx19mm ISO ADH		U842	218-219	
BLACK FLEXIBLE END CAP 10-50M		K001	54-55	
BLACK FLEXIBLE END CAP 16-95 (50 PIECES)		U528	54-55	
BLACK FLEXIBLE END CAP 35-95		K002	54-55	

BLACK FLEXIBLE END CAP 95-150	K003	54-55
BLACK FLEXIBLE END CAP 95-240	K247	54-55
BLUE 16mm <sup>2</sup> LINKING CABLE L1200	J041	140-141
BLUE 16mm <sup>2</sup> LINKING CABLE L560	J045	140-141
BLUE 16mm <sup>2</sup> LINKING CABLE L700	J047	140-141
BLUE 25mm <sup>2</sup> LINKING CABLE L700	J132	140-141
BLUE ADHESIVE TAPE ROLL 10m x 15mm	U843-B	218-219
BLUE SEAL (sold by box of 100 pieces)	K910-B	132-133
BOLT BH 10x20 (100 pieces)	U435_10-20	72-73
BOLT BH 10x30 (100 pieces)	U435_10-30	72-73
BOLT BH 12x100 (100 pieces)	U435_12-100	72-73
BOLT BH 12x150 (50 pieces)	U435_12-150	72-73
BOLT BH 12x200 (50 pieces)	U435_12-200	72-73
BOLT BH 12x250 (50 pieces)	U435_12-250	72-73
BOLT BH 12x30 (100 pieces)	U435_12-30	72-73
BOLT BH 12x300 (20 pieces)	U435_12-300	72-73
BOLT BH 12x350 (20 pieces)	U435_12-350	72-73
BOLT BH 12x50 (100 pieces)	U435_12-50	72-73
BOLT BH 14x100 (50 pieces)	U435_14-100	72-73
BOLT BH 14x150 (50 pieces)	U435_14-150	72-73
BOLT BH 14x200 (20 pieces)	U435_14-200	72-73
BOLT BH 14x250 (20 pieces)	U435_14-250	72-73
BOLT BH 14x30 (100 pieces)	U435_14-30	72-73
BOLT BH 14x300 (batch of 20)	U435_14-300	72-73
BOLT BH 14x350 (20 pieces)	U435_14-350	72-73
BOLT BH 14x40 (100 pieces)	U435_14-40	72-73
BOLT BH 14x400 (20 pieces)	U435_14-400	72-73
BOLT BH 14x450 (20 pieces)	U435_14-450	72-73
BOLT BH 14x50 (100 pieces)	U435_14-50	72-73
BOLT BH 14x500 (20 pieces)	U435_14-500	72-73
BOLT BH 14x600 (20 pieces)	U435_14-600	72-73
BOLT BH 16x200 (20 pieces)	U435_16-200	72-73
BOLT BH 16x250 (20 pieces)	U435_16-250	72-73
BOLT BH 16x30 (100 pieces)	U435_16-30	72-73
BOLT BH 16x300 (20 pieces)	U435_16-300	72-73
BOLT BH 16x350 (20 pieces)	U435_16-350	72-73
BOLT BH 16x400 (20 pieces)	U435_16-400	72-73
BOLT BH 16x50 (100 pieces)	U435_16-50	72-73
BOLT BH 16x500 (20 pieces)	U435_16-500	72-73
BOLT BH 20x100 (20 pieces)	U435_20-100	72-73
BOLT BH 20x140 (20 pieces)	U435_20-140	72-73
BOLT BH 20x160 (20 pieces)	U435_20-160	72-73
BOLT BH 8x30 (100 pieces)	U435_8-30	72-73
BORED TERMINAL END DISCONNECTOR / STICK	F209	222-223
BRACKET FOR SINGLE PHASE FSD	K297	152-153
BRACKET WITH HOOK DIAM16 POLE TYPE	U520	66-67
BRACKET WITH HOOK DIAM16 UNIVERSAL	U521	66-67
BRIDGE	F016	68-69
BRUSH FOR CONDUCTOR WITH CASE	F450	218-219
BUCKLES FOR 10mm - 3/8" STRAP (x100)	K952	58-59
C CONNECTOR 25-25	U005	188-189
C TINNED CONNECTOR 10-25 / 2.5-10	U001_25-10	188-189
C TINNED CONNECTOR 16-25 / 16-25	U001_25-25	188-189

Designation	Code	Pages
C TINNED CONNECTOR 35-40 / 35-40	U001_40-40	188-189
C TINNED CONNECTOR 50-70 / 10-35	U001_70-35	188-189
C TINNED CONNECTOR 50-70 / 35-70	U001_70-70	188-189
C TINNED CONNECTOR 95-100 / 10-35	U001_100-35	188-189
C TINNED CONNECTOR 95-100 / 35-70	U001_100-70	188-189
C TINNED CONNECTOR 95-100 / 95-100	U001_100-100	188-189
CABLE BARE COPPER 10mm <sup>2</sup> (drum 500m)	U050	196-197
CABLE BARE COPPER 120mm <sup>2</sup> (drum 500m)	U058	196-197
CABLE BARE COPPER 150mm <sup>2</sup> (drum 500m)	U059	196-197
CABLE BARE COPPER 16mm <sup>2</sup> (drum 500m)	U051	196-197
CABLE BARE COPPER 185mm <sup>2</sup> (drum 500m)	U060	196-197
CABLE BARE COPPER 240mm <sup>2</sup> (drum 500m)	U061	196-197
CABLE BARE COPPER 29mm <sup>2</sup> (drum 500m)	U053	196-197
CABLE BARE COPPER 300mm <sup>2</sup> (drum 500m)	U062	196-197
CABLE BARE COPPER 35mm <sup>2</sup> (drum 500m)	U054	196-197
CABLE BARE COPPER 50mm <sup>2</sup> (drum 500m)	U055	196-197
CABLE BARE COPPER 70mm <sup>2</sup> (drum 500m)	U056	196-197
CABLE BARE COPPER 95mm <sup>2</sup> (drum 500m)	U057	196-197
CABLE CUTTER 35mm <sup>2</sup> 1000V	U811-9	218-219
CABLE CUTTER 65mm <sup>2</sup> 1000V	U811-1	218-219
CABLE CUTTER WITH PAWL DIAM 32 1000V	U811-2	214-215
CABLE CUTTER WITH PAWL DIAM 52 1000V	U811-3	214-215
CABLE CUTTER WITH PAWL DIAM 70 1000V	U811-4	214-215
CABLE INSULATED COPPER 10mm <sup>2</sup> (drum 500m)	U064	196-197
CABLE INSULATED COPPER 120mm <sup>2</sup> (drum 500m)	U072	196-197
CABLE INSULATED COPPER 150mm <sup>2</sup> (drum 500m)	U073	196-197
CABLE INSULATED COPPER 185mm <sup>2</sup> (drum 500m)	U074	196-197
CABLE INSULATED COPPER 240mm <sup>2</sup> (drum 500m)	U075	196-197
CABLE INSULATED COPPER 4mm <sup>2</sup> (drum 100m)	U162	196-197
CABLE INSULATED COPPER 95mm <sup>2</sup> (drum 500m)	U071	196-197
CABLE INSULATED COPPER H07V-R 16mm <sup>2</sup> YELLOW/GREEN (drum 500m)	U065	196-197
CABLE INSULATED COPPER H07V-R 25mm <sup>2</sup> YELLOW/GREEN (drum 500m)	U066	196-197
CABLE INSULATED COPPER H07V-R 35mm <sup>2</sup> YELLOW/GREEN (drum 500m)	U068	196-197
CABLE INSULATED COPPER H07V-R 50mm <sup>2</sup> YELLOW/GREEN (drum 500m)	U069	196-197
CABLE INSULATED COPPER H07V-R 6mm <sup>2</sup> YELLOW/GREEN (drum 500m)	U063	196-197
CABLE INSULATED COPPER H07V-R 70mm <sup>2</sup> YELLOW/GREEN (drum 500m)	U070	196-197
CABLE SADDLE - BRPF1	K272	68-69
CABLE SADDLE - BRPF6	K273	68-69
CABLE SADDLE - BRPV1	F033	68-69
CABLE SADDLE - BRPV6	F035	68-69
CABLE SADDLE - BRTV10	F036	68-69
CABLE SADDLE - BRTV17	F038	68-69
CABLE SADDLE 6/50	BR054	68-69
CABLE SADDLE BIC 15/30 TIE 9/180	N733	68-69
CABLE SADDLE BIC 30/50 TIE 9/265	N734	68-69
CABLE SADDLE BIC 50/90 TIE 9/360	N735	68-69
CABLE SADDLE WP BRPF4	K281	68-69
CABLE SADDLE WP BRPF9	K282	68-69
CABLE SEALING END E2R RF 10-35 SILICONE	HC100	106-107
CABLE SEALING END E4R RF 10-35 SILICONE	HC101	106-107
CABLE SEALING END E4R RF 35-70 SILICONE	HC102	106-107
CABLE SEALING END E4R RF 95-240 SILICONE	HC103	106-107

CABLE TIE 9x123mm (bag of 100)	F001	68-69
CABLE TIE 9x180mm (bag of 100)	F002	68-69
CABLE TIE 9x265mm (bag of 100)	F003	68-69
CABLE TIE 9x360mm (bag of 100)	F004	68-69
CABLE TIE 9x500mm (bag of 100)	F005	68-69
CABLE TIE 9x750mm (bag of 100)	F006	68-69
CABLE TIE BAC - CPBF (X100)	F032	68-69
CARABINER	U836-4	208-209
CARRYING CASE FOR STRAP TOOLS	K963	58-59
CHIN STRAP WITH CHIN REST	U830-4	204-205
CHIN STRAP WITHOUT CHIN REST	U830-3	204-205
CIRCUIT BREAKER BUTTON SINGLE 10/30A - DIFF 300mA	F704-10-30-300	126-127
CIRCUIT BREAKER BUTTON SINGLE 10/30A - DIFF 500mA	F704-10-30	126-127
CIRCUIT BREAKER BUTTON SINGLE 15/45A - DIFF 300mA	F704-15-45-300	126-127
CIRCUIT BREAKER BUTTON SINGLE 15/45A - DIFF 500mA	F704-15-45	126-127
CIRCUIT BREAKER BUTTON SINGLE 30/60A - DIFF 300mA	F704-30-60-300	126-127
CIRCUIT BREAKER BUTTON SINGLE 30/60A - DIFF 500mA	F704-30-60	126-127
CIRCUIT BREAKER BUTTON SINGLE 5/15A - DIFF 300mA	F704-5-15-300	126-127
CIRCUIT BREAKER BUTTON SINGLE 5/15A - DIFF 500mA	F704-5-15	126-127
CIRCUIT BREAKER BUTTON TRI 10/30A - DIFF 300mA	F705-10-30-300	126-127
CIRCUIT BREAKER BUTTON TRI 10/30A - DIFF 500mA	F705-10-30	126-127
CIRCUIT BREAKER BUTTON TRI 30/60A - DIFF 300mA	F705-30-60-300	126-127
CIRCUIT BREAKER BUTTON TRI 30/60A - DIFF 500mA	F705-30-60	126-127
CIRCUIT BREAKER BUTTON TRI 60/90A - DIFF 500mA	F705-60-90	126-127
CIRCUIT BREAKER LEVER SINGLE 10/30A	F706-10-30-ND	128-129
CIRCUIT BREAKER LEVER SINGLE 10/30A - DIFF 300mA	F706-10-30-300	128-129
CIRCUIT BREAKER LEVER SINGLE 10/30A - DIFF 500mA	F706-10-30	128-129
CIRCUIT BREAKER LEVER SINGLE 10/30A CEET - DIFF 500mA	F706-10-30-T	128-129
CIRCUIT BREAKER LEVER SINGLE 15/45A	F707-15-45-ND	128-129
CIRCUIT BREAKER LEVER SINGLE 15/45A - DIFF 500mA	F707-15-45	128-129
CIRCUIT BREAKER LEVER SINGLE 30/60A	F707-ND	128-129
CIRCUIT BREAKER LEVER SINGLE 30/60A - DIFF 500mA	F707	128-129
CIRCUIT BREAKER LEVER SINGLE 30/60A CEET - DIFF 500mA	F707-T	128-129
CIRCUIT BREAKER LEVER SINGLE 5/15A	F706-5-15-ND	128-129
CIRCUIT BREAKER LEVER SINGLE 5/15A - DIFF 300mA	F706-5-15-300	128-129
CIRCUIT BREAKER LEVER SINGLE 5/15A - DIFF 500mA	F706-5-15	128-129
CIRCUIT BREAKER LEVER SINGLE 5/15A CEET - DIFF 500mA	F706-5-15-T	128-129
CIRCUIT BREAKER LEVER SINGLE 5/30A - DIFF 500mA	F706	128-129
CIRCUIT BREAKER LEVER TRI 10/30A	F708-ND	128-129
CIRCUIT BREAKER LEVER TRI 10/30A - DIFF 300mA	F708-300	128-129
CIRCUIT BREAKER LEVER TRI 30/60A	F709-ND	128-129
CIRCUIT BREAKER LEVER TRI 30/60A - DIFF 300mA	F709-300	128-129
CIRCUIT BREAKER LEVER TRI 30/60A CEET - DIFF 500mA	F709-T	128-129
CIRCUIT BREAKER P+N 10A NF 3kA MoD	Q531	124-125
CIRCUIT BREAKER P+N 16A NF 3kA MoD	Q532	124-125
CIRCUIT BREAKER P+N 20A NF 3kA MoD	Q533	124-125
CIRCUIT BREAKER P+N 2A NF 3kA MoD	Q530	124-125
CIRCUIT BREAKER P+N 32A NF 3kA MoD	Q534	124-125
CIRCUIT BREAKER P+N 3A 3kA MoD	Q535	124-125
CLAMP MULTIMETER 1000A	U813-21	216-217
CLAMP MULTIMETER 400A	U813-2	216-217
CLASS II EBCPAU COVER	L220	136-137
COLD SHRINKABLE SHEATH GEF 120M	HC116	106-107
COLD SHRINKABLE SHEATH GEF 35M	HC112	106-107
COLD SHRINKABLE SHEATH GEF 50M	HC113	106-107
COLD SHRINKABLE SHEATH GEF 70M	HC114	106-107

# ALPHABETICAL INDEX

	Designation	Code	Pages
C	COLD SHRINKABLE SHEATH GEF 95M	HC115	106-107
	COLD-SHRINKABLE SHEATH FRF 50-240	HC117	106-107
	CONCRETE POLE CLIMBERS	F495	210-211
	CONNECTION CLAMP FOR EARTH ROD D12/D14	F234	182-183
	CONNECTION CLAMP ROD 150° D17.2	F224	182-183
	CONNECTION CLAMP ROD DIAM 17.2mm	F246	182-183
	CONNECTOR CB2p NEUTRAL/CS	K420	88-89
	CONNECTOR CB2p/CS 240	K419	88-89
	CONNECTOR CBS NEUTRAL/CS	K318	88-89
	CONNECTOR CBS/CS 240	K317	88-89
	CONNECTOR CBS/CT 150 TEST PROBE ZF	K337	16-17
	CONNECTOR CBS/CT 150 ZF	K330	14-15
	CONNECTOR CBS/CT 150 ZF - ERDF	K324	14-15
	CONNECTOR CBS/CT 150/1.5-25 SF	K442	14-15
	CONNECTOR CBS/CT 150/6-35 SF	K443	14-15
	CONNECTOR CBS/CT 25 ZF - ERDF	K322	14-15
	CONNECTOR CBS/CT 70 ZF	K331	14-15
	CONNECTOR CBS/CT 70 ZF - ERDF	K323	14-15
	CONNECTOR CBS/CT 95 SF	K441	14-15
	CONNECTOR CBS/CT 95 TEST PROBE SF	K338	16-17
	CONNECTOR CBS/CT 95 TEST PROBE ZF	K336	16-17
	CONNECTOR CBS/CT 95 ZF	K332	14-15
	CONNECTOR CBS/CT 95 ZF-A	K532	14-15
	CONNECTOR CBS/CT 95 ZF-A-EC	L232	14-15
	CONNECTOR CDR NEUTRAL/CS 50-95	K360	90-91
	CONNECTOR CDR/CNA 2S 150 ZF	K377	38-39
	CONNECTOR CDR/CNA 2S 70 ZF	K376	38-39
	CONNECTOR CDR/CNU 2S 150 ZF	K379	38-39
	CONNECTOR CDR/CNU 2S 70 ZF	K378	38-39
	CONNECTOR CDR/CS 50-240	K383	90-91
	CONNECTOR CDR/CS 50-240/50-150	K384	90-91
	CONNECTOR CDR/CS 50-95	K313	90-91
	CONNECTOR CDR/CT 2S 150-150 ZF	K343	38-39
	CONNECTOR CDR/CT 2S 150-70 ZF	K342	38-39
	CONNECTOR CDRS / CT 150-95 SF	K354	34-35
	CONNECTOR CDRS/CT 150-150 SF	K446	34-35
	CONNECTOR CDRS/CT 150-150 ZF	K356	34-35
	CONNECTOR CDRS/CT 150-95 ZF	K355	34-35
	CONNECTOR CDRS/CT 150-95 ZF-A	K555	34-35
	CONNECTOR CDRS/CT 240-240 ZF (without cap)	K381	34-35
	CONNECTOR CDRS/CT 95-95 SF	K445	34-35
	CONNECTOR CDRS/CT 95-95 ZF	K365	34-35
	CONNECTOR CDRS/CT AI 150-150 ZF	K366	34-35
	CONNECTOR CDRSp/CN 120-150 ZF	K257	36-37
	CONNECTOR CDRSp/CN 120-70 ZF	K254	36-37
	CONNECTOR CES/CT 70 ZF	K326	40-41
	CONNECTOR CES/CT 95 SF	K440	40-41
	CONNECTOR CES/CT 95 ZF	K439	40-41
CONNECTOR CMCC/CT 150 ZF	K364	192-193	
CONNECTOR CMCC/CT 25 ZF	K362	192-193	
CONNECTOR CMCC/CT 70 ZF	K363	192-193	
CONNECTOR CMCC/CT 95 ZF	K361	192-193	

CONNECTOR Cu 10-70 (SF + SH)	L260	188-189
CONNECTOR Cu 10-70 (SF)	L261	188-189
CONNECTOR RDP/CNA 120-95 SF	K473	36-37
CONNECTOR RDP/CNA 240-150 SF	K475	36-37
CONNECTOR RDP/CNA 95 SF	K471	18-19
CONNECTOR RDP/CNA 95 ZF	K259	18-19
CONNECTOR RDP/CNU 120-95 SF	K472	36-37
CONNECTOR RDP/CNU 240-150 SF	K474	36-37
CONNECTOR RDP/CNU 95 SF	K470	18-19
CONNECTOR RDP/CNU 95 ZF	K258	18-19
CONTACTAL NI90 NEUTRAL GREASE - TUBE OF 100mL	L024	218-219
COPPER BONDED STEEL TAPE 20x3 L=60m	U080	196-197
COPPER BONDED STEEL TAPE 25x3 L=40m	U081	196-197
COPPER BONDED STEEL TAPE 25x4 L=30m	U082	196-197
COPPER BONDED STEEL TAPE 30x3 L=40m	U083	196-197
COPPER BONDED STEEL TAPE 30x4 L=30m	U084	196-197
COPPER BONDED STEEL TAPE 40x4 L=20m	U085	196-197
COPPER TAPE 20x3 L=100M	U077	196-197
COUPLING SCREW FOR EARTH ROD D14 THREAD 5/8"	F228	184-185
COUPLING TAPER FOR EARTH ROD D14 - 250µm	L267	182-183
COUPLING THREADED FOR EARTH ROD D14 THREAD 5/8"	F236	184-185
COVER (FOR SUPPORT FOR ELECTRIC METER)	K425	120-121
COVER FOR 250x550 PANEL	R112	122-123
COVER FOR METER AND CIRCUIT BREAKER BOARD	P474	122-123
CRC RF 16-27	P462	106-107
CRC RF 26-48	P463	106-107
CRC RF 46-80	P464	106-107
CROSS SPANNER 8-10-13-17mm 1000V	F460	212-213
CROSS-HEADED SCREWDRIVER - PH-1	U815-5	216-217
CROSS-HEADED SCREWDRIVER - PH-2	U815-6	218-219
Cu CRIMPED TERMINAL LUG (E140) CPTAU 25	K013	50-51
Cu CRIMPED TERMINAL LUG (E173) CPTAU 150	K023	50-51
Cu CRIMPED TERMINAL LUG (E173) CPTAU 54	K017	50-51
Cu CRIMPED TERMINAL LUG (E173) CPTAU 70	K018	50-51
Cu TERMINAL LUG (E140) CPTAU 16	K159	50-51
Cu TERMINAL LUG (E140) CPTAU 25	K160	50-51
Cu TERMINAL LUG (E173) CPTAU 35	K163	50-51
Cu TERMINAL LUG (E173) CPTAU 50	K164	50-51
Cu TERMINAL LUG (E173) CPTAU 54.6	K165	50-51
Cu TERMINAL LUG (E173) CPTAU 70	K166	50-51
Cu TERMINAL LUG (E173) CPTAU 95	K167	50-51
Cu TERMINAL LUG (E215) CPTAU 150	K024	50-51
CURVED PHONE PLIER L=200mm 1000V	U810-6	214-215
CUTOUT 60A BIPOLAR	U607-T	118-119
CUTOUT 60A TETRAPOLAR	U608-T	118-119
CUTOUT CABINET + NEUTRAL TUBE	P100	130-131
CUTOUT CABINET 14x51 30A TETRAPOLAR	U606	130-131
CUTOUT CABINET 60A BIPOLAR 22x58	U607	130-131
CUTOUT CABINET 60A TETRAPOLAR 22x58	U608	130-131
CUTOUT INSULATION PIERCING SLEEVE 22x58 / 63A	K221	158-159
CUTOUT STRIPPING SLEEVE 14x51 / 50A	K220	158-159
CUTOUT STRIPPING SLEEVE 22x58 / 63A	K219	158-159
CUTTING PLIER FOR PLASTIC SADDLES 150mm	U811-7	214-215

	Designation	Code	Pages	
D	CUTTING TOOL FOR STRAP	K961	58-59	
	DIAGONAL CUTTING PLIER L=160mm 1000V	U810-7	214-215	
	DIE ADAPTATOR FOR F405	F406	220-221	
	DIELECTRIC FALL ARREST AND SUPPORT HARNESS	U834-3	208-209	
	DIFF SWITCH BIPO AC 30 mA 40A NF MoD	Q541	124-125	
	DIFF SWITCH BIPO AC 30 mA 63A NF MoD	Q542	124-125	
	DIFF SWITCH BIPO AC 30mA 25A NF MoD	Q540	124-125	
	DIFFERENTIAL SWITCHES TWO-POLE 30mA TYPE A 40A M?D	Q543	124-125	
	DIFFERENTIAL SWITCHES TWO-POLE 30mA TYPE A 63A M?D	Q544	124-125	
	DIGITAL MULTIMETER	U813-1	216-217	
	DIGITAL TESTER 220V	U813-3	216-217	
	DIN CABINET FOR REMIC SET OF BARS SUPPORT 300	U701	94-95	
	DIN CABINET FOR REMIC SET OF BARS SUPPORT 450	U702	94-95	
	DIN CABINET FOR REMIC SET OF BARS SUPPORT 600	U703	94-95	
	DISMOUNTABLE SLEEVE PIERCING 6-35 / STRIPPING 4-35	K096	42-43	
	DISMOUNTABLE SLEEVE PIERCING 6-50M / STRIPPING 6-50M	K092	42-43	
	DISTRIBUTION BOX WALL RECESSED - 8 MODULES	U635	124-125	
	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 12 MODULES	U636	124-125	
	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 24 MODULES (12x2)	U637	124-125	
	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 36 MODULES (12x3)	U638	124-125	
	DISTRIBUTION BOX WITH 1 MODULE	Q591	124-125	
	DISTRIBUTION BOX WITH 2 MODULES	Q592	124-125	
	DISTRIBUTION BOX WITH 4 MODULES	Q594	124-125	
	DISTRIBUTION BOX WITH 6 MODULES	Q596	124-125	
	DISTRIBUTION BOX WITH 9 MODULES	Q599	124-125	
	DOUBLE FALL ARREST LANYARD WITH ENERGY ABSORBER AND CONNECTORS	U837-1	208-209	
	DOUBLE PHASE FSD 160A (NH00) PIERCING 6-95	K298	162-163	
	DOUBLE PHASE FSD 160A (NH00) STRIPPING 6-120	L278	162-163	
	DOUBLE TAP END CONNECTOR (6-35mm <sup>2</sup> )	K098	162-163	
	DOUBLE TOOLS BELT	U839-2	216-217	
	DOUBLE TRIPLE PHASE FSD 160A (NH00) PIERCING 6-95	K296	164-165	
	DRIVING HEAD FOR EARTH ROD D14	F238	182-183	
	DRIVING HEAD FOR ROD D12.7	U227	182-183	
	DRIVING HEAD FOR ROD D17.2	F237	182-183	
	DRIVING SPIKE FOR ROD D12.7 UNTHREADED - D12.7 THREADED - D14 UNTHR	F229	182-183	
	DRIVING SPIKE FOR ROD D14 THREADED - D17.2 UNTHREADED	F239	182-183	
	DRIVING SPIKE FOR ROD D17.2 THREADED	U226	184-185	
	DUAL ALIGNMENT LATH (LENGHT 3m)	K422-2	120-121	
	E	EARTH DISTRIBUTOR AL 6 TAPS	Q979	198-199
		EARTH DISTRIBUTOR STRIP AL 5 TAPS	ED001	198-199
		EARTH DISTRIBUTOR STRIP AL 8 TAPS	ED002	198-199
		EARTH ROD COPPER 100µm L=1.5m DIAM 14	U231	182-183
		EARTH ROD COPPER 100µm L=1.5m DIAM 14 - 2 THREADS 5/8"	F216	184-185
		EARTH ROD COPPER 100µm L=1.5m DIAM 17.2	U234	182-183
		EARTH ROD COPPER 100µm L=1.5m DIAM 17.2 - 2 THREADS 3/4"	U238	184-185
		EARTH ROD COPPER 100µm L=1m DIAM 14	U230	182-183
		EARTH ROD COPPER 100µm L=1m DIAM 14 - 2 THREADS 5/8"	U236	184-185
		EARTH ROD COPPER 100µm L=1m DIAM 17.2	U233	182-183
		EARTH ROD COPPER 100µm L=1m DIAM 17.2 - 2 THREADS 3/4"	U237	184-185
		EARTH ROD COPPER 100µm L=2.0m DIAM 14 - 2 THREADS 5/8"	F217	184-185
EARTH ROD COPPER 100µm L=2m DIAM 14		U232	182-183	
EARTH ROD COPPER 100µm L=2m DIAM 17.2		U235	182-183	

EARTH ROD COPPER 100µm L=2m DIAM 17.2 - 2 THREADS 3/4"	U239	184-185
EARTH ROD COPPER 254µm L = 1,5m DIAM 17,2	U209	182-183
EARTH ROD COPPER 254µm L = 1m DIAM 14	U206	182-183
EARTH ROD COPPER 254µm L = 2m DIAM 17,2	U210	182-183
EARTH ROD COPPER 254µm L = 3m DIAM 14	U207	182-183
EARTH ROD COPPER 254µm L=1,5m D14	F249	182-183
EARTH ROD COPPER 254µm L=1,5m DIAM 17,2 - 2 THREADS 3/4"	F262	184-185
EARTH ROD COPPER 254µm L=1.5m D14 - 2 THREADS 5/8"	F222	184-185
EARTH ROD COPPER 254µm L=1m DIAM 14 - 2 THREADS 5/8"	U218	184-185
EARTH ROD COPPER 254µm L=1m diam 17.2	U208	182-183
EARTH ROD COPPER 254µm L=1m DIAM 17.2 - 2 THREADS 3/4"	U220	184-185
EARTH ROD COPPER 254µm L=2,0m D14 - 2 THREADS 5/8"	F221	184-185
EARTH ROD COPPER 254µm L=2m DIAM 17.2 - 2 THREADS 3/4"	U221	184-185
EARTH ROD COPPER 254µm L=2m DIAM 14	F227	182-183
EARTH ROD COPPER 254µm L=3m DIAM 14 - 2 THREADS 5/8"	U219	184-185
EARTH ROD COPPER 254µm L=3m DIAM 17,2	U211	182-183
EARTH ROD COPPER 254µm L=3m DIAM 17.2 - 2 THREADS 3/4"	U222	184-185
EARTH ROD COPPER 350µm L = 1m DIAM 17,3	U212	182-183
EARTH ROD COPPER 350µm L=1m DIAM 17,3 - 2 THREADS 3/4"	U223	184-185
EARTH ROD COPPER 350µm L=1.5m diam 17.2	U213	182-183
EARTH ROD COPPER 350µm L=1.5m DIAM 17.2 - 2 THREADS 3/4"	U224	184-185
EARTH ROD COPPER 350µm L=2m diam 17.2	U214	182-183
EARTH ROD COPPER 350µm L=2m DIAM 17.2 - 2 THREADS 3/4	U225	184-185
EARTH ROD COPPER 50µm L = 1,5m DIAM 12,7	U204	182-183
EARTH ROD COPPER 50µm L = 1m DIAM 12,7	U203	182-183
EARTH ROD COPPER 50µm L=1.50m DIAM 14 - 2 THREADS 5/8"	F235	184-185
EARTH ROD COPPER 50µm L=1.5m DIAM 14	F244	182-183
EARTH ROD COPPER 50µm L=1m DIAM 14	F226	182-183
EARTH ROD COPPER 50µm L=1m DIAM 14 - 2 THREADS 5/8"	U217	184-185
EARTH ROD COPPER 50µm L=2m DIAM 14	F245	182-183
EARTH ROD COPPER 50µm L=2m DIAM 14 - 2 THREADS 5/8"	F223	184-185
EARTH SYSTEM DISCONNECTION KIT 25-29	U031	188-189
EARTH TESTER	F439	186-187
EARTHING BRACKET	U248	192-193
EARTHING CONNECTOR 50-95 / 25	K314	90-91
EARTHING EQUIPMENT - 25 mm <sup>2</sup> 10m	K006	194-195
EARTHING EQUIPMENT-16 mm <sup>2</sup> 10m	K006-16_10	194-195
EARTHING EQUIPMENT-16mm <sup>2</sup> 15m	K006-16_15	194-195
EARTHING GRID COPPER 1000x1000x2	U188	186-187
EARTHING GRID COPPER 2000x1000x2	U189	186-187
EARTHING GRID COPPER 3000x1000x2	U190	186-187
EARTHING PLATE COPPER 500x1000x2	U186	186-187
EARTHING PLATE COPPER 500x1000x3	U187	186-187
EARTHING PLATE COPPER 500x500x2	U184	186-187
EARTHING PLATE COPPER 500x500x3	U185	186-187
EBCP 10-35/25 BLACK L190	P448	134-135
EBCP 10-35/25 BLUE L190	P449	134-135
EBCP 50 SECT-16 BLACK L375 CLASS II	P731	136-137
EBCP 50 SECT-16 BLACK L700 CLASS II	P219	136-137
EBCP 50 SECT-16 BLUE L375 CLASS II	P221	136-137
EBCP 50 SECT-16 BROWN L375 CLASS II	P733	136-137
EBCP 50 SECT-16 GREY L375 CLASS II	P732	136-137
EBCP 50 SECT-16 YELLOW/GREEN L800	P228	136-137
EBCP 6-35/16 BLACK L235	P446	134-135
EBCP 6-35/16 BLACK L500	P222	134-135
EBCP 6-35/16 BLUE L235	P447	134-135

# ALPHABETICAL INDEX

	Designation	Code	Pages	
<b>E</b>	EBCP 6-35/16 BLUE L500	P223	134-135	
	EBCP P221 + YELLOW/GREEN EARTHING L345	P226	136-137	
	EBCP P221 + YELLOW/GREEN EARTHING L800	P227	136-137	
	EJASE PR 150-70/150-70N	U575	92-93	
	EJASE PR 150-70/70-70N	U574	92-93	
	EJASE PR 150-70N/70-54.6	U579	92-93	
	EJASE PR 240-95/150-70N	U578	92-93	
	EJASE PR 240-95/70-54.6	U576	92-93	
	EJASE PR 240-95/70-70N	U577	92-93	
	EJASE PR 95-50/150-70N	U572	92-93	
	EJASE PR 95-50/70-54.6	U570	92-93	
	EJASE PR 95-50/70-70N	U571	92-93	
	EJASE PR 95-70/70-54.6	U573	92-93	
	EJASE SECT 150-70/150-70N	U585	92-93	
	EJASE SECT 150-70/70-70N	U584	92-93	
	EJASE SECT 150-70N/70-54.6	U589	92-93	
	EJASE SECT 240-95/150-70N	U588	92-93	
	EJASE SECT 240-95/70-54.6	U586	92-93	
	EJASE SECT 240-95/70-70N	U587	92-93	
	EJASE SECT 95-50/150-70N	U582	92-93	
	EJASE SECT 95-50/70-54.6	U580	92-93	
	EJASE SECT 95-50/70-70N	U581	92-93	
	EJASE SECT 95-70/70-54.6	U583	92-93	
	ELBOW 90° FOR IRO TUBE DIAM 16	U343_16	116-117	
	ELBOW 90° FOR IRO TUBE DIAM 20	U343_20	116-117	
	ELBOW 90° FOR IRO TUBE DIAM 25	U343_25	116-117	
	ELBOW 90° FOR IRO TUBE DIAM 32	U343_32	116-117	
	ELECTRICIAN SET 17 PCS 1000V	U812-1	216-217	
	ELECTRICIAN SET 26 PCS 1000V	U812-2	216-217	
	ELECTRICIAN SET 37 PCS 1000V	U812-3	216-217	
	ELECTRICIAN TOOLINGS SET 5 PCS 1000V	U812-4	216-217	
	ELECTRO-HYDRAULIC CRIMPING TOOL + CASE	F405	220-221	
	EXTENSION FOR INSULATED RATCHET SPANNER	U801	100-101	
	EYES 25x60mm (x100)	K656	58-59	
	<b>F</b>	FACE SHIELD ELECTRIC ARC PROTECTION	U831-6	204-205
		FACE SHIELD IMPACT PROTECTION	U831-5	204-205
		FIXING CLAMP - PF25	L304	64-65
		FLAT SCREWDRIVER 1000V 6,5x150	U815-4	216-217
		FLOOR DISTRIBUTION BOX	K540	114-115
		FLOOR DISTRIBUTION BOX FUSE HOLDER 14x51	K541	114-115
		FLOOR DISTRIBUTION BOX FUSE HOLDER 22x58	K542	114-115
		FLOOR DISTRIBUTION BOX WITH 3 CONNECTIONS	K540.B	114-115
		FULLY SUPPORTED ANCHORING CLAMP 4x50-120	K288	62-63
		FULLY SUPPORTED ANCHORING CLAMP CLOSE EYE HANDLE TYPE 4*35-70 EC	U516	66-67
		FULLY SUPPORTED ANCHORING CLAMP CLOSE EYE HANDLE TYPE 4*70-120 EC	U517	66-67
		FULLY SUPPORTED ANCHORING CLAMP OPEN HANDLE TYPE 4*25-50 EC	U514	66-67
		FULLY SUPPORTED ANCHORING CLAMP OPEN HANDLE TYPE 4*50-95 EC	U515	66-67
FULLY SUPPORTED SUSPENSION CLAMP 2/4 (25-120) 30°		U519	62-63	
FULLY SUPPORTED SUSPENSION CLAMP 4*10-120		U518	66-67	
FULLY SUPPORTED SUSPENSION CLAMP MOVABLE 4x120		K271	62-63	

FULLY SUPPORTED SUSPENSION CLAMP MOVABLE 4x70	K275	62-63
FULLY SUPPORTED SUSPENSION CLAMP MOVABLE 4x95	K276	62-63
FUSE 10.3x38 gG 10A	U661-10	168-169
FUSE 10.3x38 gG 12A	U661-12	168-169
FUSE 10.3x38 gG 16A	U661-16	168-169
FUSE 10.3x38 gG 1A	U661-1	168-169
FUSE 10.3x38 gG 20A	U661-20	168-169
FUSE 10.3x38 gG 25A	U661-25	168-169
FUSE 10.3x38 gG 2A	U661-2	168-169
FUSE 10.3x38 gG 32A	U661-32	168-169
FUSE 10.3x38 gG 4A	U661-4	168-169
FUSE 10.3x38 gG 6A	U661-6	168-169
FUSE 10.3x38 gG 8A	U661-8	168-169
FUSE 14x51 gG 10A	U660-10	168-169
FUSE 14x51 gG 12A	U660-12	168-169
FUSE 14x51 gG 16A	U660-16	168-169
FUSE 14x51 gG 1A	U660-1	168-169
FUSE 14x51 gG 20A	U660-20	168-169
FUSE 14x51 gG 25A	U660-25	168-169
FUSE 14x51 gG 2A	U660-2	168-169
FUSE 14x51 gG 32A	U660-32	168-169
FUSE 14x51 gG 40A	U660-40	168-169
FUSE 14x51 gG 4A	U660-4	168-169
FUSE 14x51 gG 50A	U660-50	168-169
FUSE 14x51 gG 6A	U660-6	168-169
FUSE 14x51 gG 8A	U660-8	168-169
FUSE CARRIER (NH00) / L	L297	154-155
FUSE CARRIER (NH00) / P-L	L298	154-155
FUSE CARTRIDGE 10.3x38 AD 10A	U619	170-171
FUSE CARTRIDGE 10.3x38 AD 15A	U623	170-171
FUSE CARTRIDGE 10.3x38 AD 5A	U618	170-171
FUSE CARTRIDGE 14x51 AD 15A	U615	170-171
FUSE CARTRIDGE 14x51 AD 30A	U616	170-171
FUSE CARTRIDGE 14x51 AD 45A	U617	170-171
FUSE CARTRIDGE 22x58 AD 15A	U610	170-171
FUSE CARTRIDGE 22x58 AD 30A	U611	170-171
FUSE CARTRIDGE 22x58 AD 45A	U612	170-171
FUSE CARTRIDGE 22x58 AD 60A	U613	170-171
FUSE CARTRIDGE 22x58 AD 90A	U614	170-171
FUSE CARTRIDGE 22x58 gG 100A	U654	168-169
FUSE CARTRIDGE 22x58 gG 10A	U644	168-169
FUSE CARTRIDGE 22x58 gG 125A	U655	168-169
FUSE CARTRIDGE 22x58 gG 12A	U645	168-169
FUSE CARTRIDGE 22x58 gG 16A	U646	168-169
FUSE CARTRIDGE 22x58 gG 20A	U647	168-169
FUSE CARTRIDGE 22x58 gG 25A	U648	168-169
FUSE CARTRIDGE 22x58 gG 2A	U640	168-169
FUSE CARTRIDGE 22x58 gG 32A	U649	168-169
FUSE CARTRIDGE 22x58 gG 40A	U650	168-169
FUSE CARTRIDGE 22x58 gG 4A	U641	168-169
FUSE CARTRIDGE 22x58 gG 50A	U651	168-169
FUSE CARTRIDGE 22x58 gG 65A	U652	168-169
FUSE CARTRIDGE 22x58 gG 80A	U653	168-169

Designation	Code	Pages
FUSE CARTRIDGE 22x58 gG 8A	U643	168-169
FUSE CARTRIDGE 22x58 gG6A	U642	168-169
FUSE CARTRIDGE SIZE 00 AD 30A	P241	170-171
FUSE CARTRIDGE SIZE 00 AD 45A	P242	170-171
FUSE CARTRIDGE SIZE 00 AD 60A	P243	170-171
FUSE CARTRIDGE SIZE 00 AD 90A	P244	170-171
FUSE CARTRIDGE SIZE 2 E160 mm 125A	P130	172-173
FUSE CARTRIDGE SIZE 2 E160mm 200A	P131	172-173
FUSE CARTRIDGE SIZE 2 E160mm 250A	P132	172-173
FUSE CARTRIDGE SIZE 2 E160mm 400A	P134	172-173
FUSE CONNECTOR 20A (10.3x38) PIERCING 95/16	K223	156-157
FUSE CONNECTOR BARE 20A / Al 95/10	K229	156-157
FUSE CONNECTOR BARE 20A / Cu 95/10	K228	156-157
FUSE CONNECTOR PIERCING 95/16 - CLASS 2	K223-2	156-157
FUSE INSULATION PIERCING PIT CONNECTOR	K199	160-161
FUSE INSULATION PIERCING PIT CONNECTOR IP2X	K198	160-161
FUSE NH00 gG 500V 100A	U664-100	172-173
FUSE NH00 gG 500V 10A	U664-10	172-173
FUSE NH00 gG 500V 125A	U664-125	172-173
FUSE NH00 gG 500V 160A	U664-160	172-173
FUSE NH00 gG 500V 16A	U664-16	172-173
FUSE NH00 gG 500V 20A	U664-20	172-173
FUSE NH00 gG 500V 25A	U664-25	172-173
FUSE NH00 gG 500V 2A	U664-2	172-173
FUSE NH00 gG 500V 32A	U664-32	172-173
FUSE NH00 gG 500V 35A	U664-35	172-173
FUSE NH00 gG 500V 40A	U664-40	172-173
FUSE NH00 gG 500V 4A	U664-4	172-173
FUSE NH00 gG 500V 50A	U664-50	172-173
FUSE NH00 gG 500V 63A	U664-63	172-173
FUSE NH00 gG 500V 6A	U664-6	172-173
FUSE NH00 gG 500V 80A	U664-80	172-173
FUSE NH1 gG 100A	U252	172-173
FUSE NH1 gG 125A	U253	172-173
FUSE NH1 gG 160A	U254	172-173
FUSE NH1 gG 200A	U255	172-173
FUSE NH1 gG 250A	U256	172-173
FUSE NH1 gG 63A	U250	172-173
FUSE NH1 gG 80A	U251	172-173
FUSE NH2 gG 125A	U257	172-173
FUSE NH2 gG 200A	U258	172-173
FUSE NH2 gG 250A	U259	172-173
FUSE NH2 gG 315A	U260	172-173
FUSE NH2 gG 400A	U261	172-173
FUSE SUSPENSION ASSEMBLY [50-70] - ESF 715	K283	60-61
FUSE SWITCH CONNECTOR 100A (22x58) PIERCING 150/35mm <sup>2</sup>	K210	158-159
GABARIT FOR ALIGNMENT LATH	K421	120-121
GALVANISED LAG SCREW DIN571 10x100 (50 pieces)	U434_10-100	72-73
GALVANISED LAG SCREW DIN571 12x80 (50 pieces)	U434_12-80	72-73
GALVANIZED STEEL TAPE 30X4 L=50m	U100-4	196-197
GALVANIZED STEEL TAPE 40X4 L=38m	U101-4	196-197
GREEN YELLOW ADHESIVE TAPE ROLL 10m x 15mm	U843-VJ	218-219
GROUND CUTTING BLADE AL STRIP	ED003	198-199
GROUND CUTTING BLADE ALUMINIUM WITH BOX	N106	198-199
GROUND CUTTING BLADE BARE AL	N107	198-199

GUIDED TYPE FALL ARRESTERS	U836-3	208-209
HANDLE FOR FUSES SIZE 00 - SIZE 2	P237	172-173
HEAT SHRINKABLE END CAP CRC 16-27	F113	54-55
HEAT SHRINKABLE END CAP CRB 10-25	F110	54-55
HEAT SHRINKABLE END CAP CRC 26-48	F114	54-55
HEAT SHRINKABLE END CAP CRC 46-80	F115	54-55
HEAT SHRINKABLE END CAP CRR 150	F112	54-55
HEAT SHRINKABLE END CAP CRR 16-70	F111	54-55
HEAT SHRINKABLE END CAP CRR 240	F116	54-55
HEAT SHRINKABLE END E2R 10-35	F100	54-55
HEAT SHRINKABLE END E4R 10-35	F101	54-55
HEAT SHRINKABLE END E4R 240	F103	54-55
HEAT SHRINKABLE SHEATH GR 1.5-10 (10m)	F124	54-55
HEAT SHRINKABLE SHEATH GR 10-35 (10m)	F120	68-69
HEAT SHRINKABLE SHEATH GR 240 (10m)	F122	54-55
HEAT SHRINKABLE SHEATH GR 35-95 (10m)	F119	54-55
HEAT SHRINKABLE SHEATH GR 50-150 (10m)	F121	54-55
HEAT SHRINKABLE SLEEVE FRM 16-100	F130	54-55
HEAT SHRINKABLE SLEEVE FRM 30-200	F134	54-55
HEAT SHRINKABLE SLEEVE FRM 30-250	F133	54-55
HEAT SHRINKABLE SLEEVE FRM 35-150	F135	54-55
HEAT SHRINKABLE SLEEVE FRM 35-250	F136	54-55
HELMET WITH TOOTH WHEEL	U830-2	204-205
HEXAGONAL DIE - E140	F420	220-221
HEXAGONAL DIE - E173	F421	220-221
HEXAGONAL DIE - E215	F422	220-221
HEXAGONAL DIE - NFC 20-130 - 10mm <sup>2</sup>	F404-10	220-221
HEXAGONAL DIE - NFC 20-130 - 120mm <sup>2</sup>	F404-120	220-221
HEXAGONAL DIE - NFC 20-130 - 150mm <sup>2</sup>	F404-150	220-221
HEXAGONAL DIE - NFC 20-130 - 16mm <sup>2</sup>	F404-16	220-221
HEXAGONAL DIE - NFC 20-130 - 185mm <sup>2</sup>	F404-185	220-221
HEXAGONAL DIE - NFC 20-130 - 240mm <sup>2</sup>	F404-240	220-221
HEXAGONAL DIE - NFC 20-130 - 25mm <sup>2</sup>	F404-25	220-221
HEXAGONAL DIE - NFC 20-130 - 300mm <sup>2</sup>	F404-300	220-221
HEXAGONAL DIE - NFC 20-130 - 35mm <sup>2</sup>	F404-35	220-221
HEXAGONAL DIE - NFC 20-130 - 50mm <sup>2</sup>	F404-50	220-221
HEXAGONAL DIE - NFC 20-130 - 6mm <sup>2</sup>	F404-6	220-221
HEXAGONAL DIE - NFC 20-130 - 70mm <sup>2</sup>	F404-70	220-221
HEXAGONAL DIE - NFC 20-130 - 95mm <sup>2</sup>	F404-95	220-221
HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 10mm	U803-10	100-101
HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 14mm	U803-14	100-101
HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 13mm	U803-13	100-101
HIGH GROUND CUTTING BLADE	U035	188-189
HIGH-TOP SAFETY SHOES - SIZE 40	U828-40	206-207
HIGH-TOP SAFETY SHOES - SIZE 41	U828-41	206-207
HIGH-TOP SAFETY SHOES - SIZE 42	U828-42	206-207
HIGH-TOP SAFETY SHOES - SIZE 43	U828-43	206-207
HIGH-TOP SAFETY SHOES - SIZE 44	U828-44	206-207
HIGH-TOP SAFETY SHOES - SIZE 45	U828-45	206-207
HIGH-TOP SAFETY SHOES - SIZE 46	U828-46	206-207
HIGH-TOP SAFETY SHOES - SIZE 47	U828-47	206-207
HOLDING WRENCH CBS/RDP	K004	212-213
HOOK BOLT DIAM 16 - 200	U522	66-67
HOOK BOLT DIAM 20 - 250	U523	66-67
HOOK NUT DIAM 16	U524	66-67

H

G

# ALPHABETICAL INDEX

	Designation	Code	Pages
<b>H</b>	HOOK NUT DIAM 20	U525	66-67
	HSC PIERCING 4-50 PIERCING 4-50	K091	42-43
	HSC PIERCING 6-35 STRIPPING 4-35 / 4 SCREWS G2	K099	42-43
	HYDRAULIC CRIMPING TOOL + CASE	F400	220-221
<b>I</b>	IMPLEMENTATION TOOL FOR TIE	F013	68-69
	INSIDE END CAP EI2TF 25-35D	P420	108-109
	INSIDE END CAP EI5TF 25-35	P251	108-109
	INSIDE END CAP EI5TF 25-35D	P422	108-109
	INSULATED CONDUCTOR COMEALONG 6-14mm	F258	210-211
	INSULATED LADDER 6m	U841-6	208-209
	INSULATED MONKEY WRENCH 10" 1000V	U814-1	212-213
	INSULATED MONKEY WRENCH 12" 1000V	U814-2	212-213
	INSULATED OPENED-END WRENCH 1000 V - 10mm	U850-10	212-213
	INSULATED OPENED-END WRENCH 1000 V - 13mm	U850-13	212-213
	INSULATED OPENED-END WRENCH 1000 V - 14mm	U850-14	212-213
	INSULATED OPENED-END WRENCH 1000 V - 16mm	U850-16	212-213
	INSULATED OPENED-END WRENCH 1000 V - 17mm	U850-17	212-213
	INSULATED OPENED-END WRENCH 1000 V - 21mm	U850-21	212-213
	INSULATED RATCHET WRENCH HEXAGONAL 13/17mm	F445	212-213
	INSULATED RING RATCHET WRENCH 1000 V - 10mm	U851-10	212-213
	INSULATED RING RATCHET WRENCH 1000 V - 13mm	U851-13	212-213
	INSULATED RING RATCHET WRENCH 1000 V - 14mm	U851-14	212-213
	INSULATED RING RATCHET WRENCH 1000 V - 16mm	U851-16	212-213
	INSULATED SOCKET WRENCH 4mm	U803-4A	100-101
	INSULATED SOCKET WRENCH 6mm	U803-6A	100-101
	INSULATED TORQUE WRENCH 3/8" 50Nm	U814-4	100-101
	INSULATED WEDGE SEPARATOR	K005	218-219
	INSULATING MAT CLASS 0 - 1x1m	U840-0_1X1	208-209
	INSULATING MAT CLASS 1 - 1x1m	U840-1_1X1	208-209
	INSULATING MAT CLASS 2 - 1x1m	U840-2_1X1	208-209
	INSULATING MAT CLASS 3 - 1x1m	U840-3_1X1	208-209
	INSULATING MAT CLASS 4 - 1x1m	U840-4_1X1	208-209
	IRO TUBE DIAM 16 (3m length) + IRO JUNCTION SLEEVE DIAM 16	U339-16	116-117
	IRO TUBE DIAM 20 (3m length) + IRO JUNCTION SLEEVE DIAM 20	U339-20	116-117
	IRO TUBE DIAM 25 (3m length) + IRO JUNCTION SLEEVE DIAM 25	U339-25	116-117
	IRO TUBE DIAM 32 (3m length) + IRO JUNCTION SLEEVE DIAM 32	U339-32	116-117
IRO TUBE DIAM 40 (3m length) + IRO JUNCTION SLEEVE DIAM 40	U339-40	116-117	
IRO TUBE DIAM 50 (3m length) + IRO JUNCTION SLEEVE DIAM 50	U339-50	116-117	
IRO TUBE DIAM 63 (3m length) + IRO JUNCTION SLEEVE DIAM 63	U339-63	116-117	
<b>J</b>	JUMPER CLAMP 150-240 mm <sup>2</sup>	U025	188-189
	JUMPER CLAMP 16-50 mm <sup>2</sup>	U021	188-189
	JUMPER CLAMP 50-70 mm <sup>2</sup>	U022	188-189
	JUMPER CLAMP 75-95 mm <sup>2</sup>	U023	188-189
	JUMPER CLAMP 95-150 mm <sup>2</sup>	U024	188-189
<b>L</b>	LADDER WT STABILIZER 3.5 MT LENGHT	U841-3.5	208-209
	LADDER WT STABILIZER 4 MT LENGHT	U841-4	208-209
	LADDER WT STABILIZER 4.5 MT LENGHT	U841-4.5	208-209
	LADDER WT STABILIZER 5 MT LENGHT	U841-5	208-209
	LADDER WT STABILIZER 3 MT LENGHT	U841-3	208-209

LINE 16 VK BLUE L500 (17E-17E)	J412	140-141
LINE 16VK BLACK L500 (17E-17E)	J413	140-141
LOT OF 200 WOOD SCREWS COUNTERSUNK POZI 6x60	F332	132-133
LOW GROUND CUTTING BLADE	U036	188-189
MECHANICAL PREINSULATED SLEEVE 25-95	K189	44-45
MECHANICAL PREINSULATED SLEEVE ROUND 50-150	K193	44-45
MECHANICAL SUBSURFACE PREINS SLEEVE 50-185 / 50-185	K573	44-45
MECHANICAL SUBSURFACE PREINS SLEEVE ROUND 70-185/ SECT 70-300	K569	44-45
MECHANICAL SUBSURFACE PREINSULATED SLEEVE ROUND 150 / SECTORAL 240	K192	44-45
MECHANICAL SUBSURFACE PREINSULATED SLEEVE SECTORAL 95-240	K191	44-45
MECHANICAL TIGHTENING SLEEVE 50-120 2 SCREWS	BD030	90-91
MECHANICAL TIGHTENING SLEEVE 95-150 2 SCREWS	BD020	90-91
MECHANICAL TIGHTENING SLEEVE 95-240 4 SCREWS	BD010	90-91
MECHANICAL WINCH 1000 daN	U355	210-211
MECHANICAL WINCH 500 daN	U354	210-211
METAL PROTECTIVE DUCT GPC 120.120 L=2.75 m	N300	70-71
METAL PROTECTIVE DUCT GPC 35.35 L=2.75 m	N297	70-71
METAL PROTECTIVE DUCT GPC 60.60 L=2.75 m	N298	70-71
METAL PROTECTIVE DUCT GPC 90.90 L=2.75 m	N299	70-71
METER AND CIRCUIT BREAKER BOARD	P475	122-123
MODULAR HEADSET TYPE E - 2 P + E - 16A	F370	124-125
MOUNTING BRACKET IRO TUBE DIAM 16	U344_16	116-117
MOUNTING BRACKET IRO TUBE DIAM 20	U344_20	116-117
MOUNTING BRACKET IRO TUBE DIAM 25	U344_25	116-117
MOUNTING BRACKET IRO TUBE DIAM 32	U344_32	116-117
MOUNTING BRACKET IRO TUBE DIAM 40	U344_40	116-117
MOUNTING BRACKET IRO TUBE DIAM 50	U344_50	116-117
MOUNTING BRACKET IRO TUBE DIAM 63	U344_63	116-117
MULTIPOLE CONNECT. 150+UNDERGROUND BOX (WITH CONNECT. RING 150 K449)	K450	86-87
NEUTRAL BLADE CONTACT SIZE 00	P240	170-171
NEUTRAL BLADE NH00	U665	172-173
NEUTRAL TUBE 10.3x38	U620	168-169
NEUTRAL TUBE 14x51	U621	168-169
NEUTRAL TUBE 22x58	U622	168-169
NUMBER PLATE ON FSD K491 + K291 OR CABLE	K492	152-153
NUTS HM10 (100 pieces)	U438_HM10	72-73
NUTS HM12 (100 pieces)	U438_HM12	72-73
NUTS HM14 (100 pieces)	U438_HM14	72-73
NUTS HM16 (100 pieces)	U438_HM16	72-73
NUTS HM20 (batch of 100)	U438_HM20	72-73
NUTS HM8 (100 pieces)	U438_HM8	72-73
OPERATING STICK 2E - 3.2M (Terminal end U)	F202	222-223
OPERATING STICK 2E-1.5M (Terminal end U)	F200	222-223
OPERATING STICK 2E-2M (Terminal end U)	F201	222-223
OPERATING STICK 2E-5M (Terminal end U)	F203	222-223
OPERATING STICK 3E-4.5M (Terminal end U)	F204	222-223
OPERATING STICK 3E-5M (Terminal end U)	F205	222-223
OPERATING STICK 3E-6M (Terminal end U)	F206	222-223
OUTSIDE END CAP EE5TF 25-35D	P424	108-109
OVERHEAD SWIVEL DIAMETER 34	U356-34	70-71
PANEL - THREE PHASE METER + CIRCUIT BREAKER	R093	122-123

Designation	Code	Pages
PANEL FOR THREE PHASE METER + CIRCUIT BREAKER WITHOUT LOGO	R043	122-123
PANEL FOR THREE PHASE METER + CIRCUIT-BREAKER + COVER	R092	122-123
PANEL FOR THREE PHASE METER+CIRCUIT BREAKER WITHOUT LOGO	R041	122-123
PARALLEL GROOVE CLAMP BARE AI 240	U558-240	36-37
PARALLEL GROOVE CLAMP BARE AI 150	U558-150	36-37
PARALLEL GROOVE CLAMP BARE AL 50	U558-50	36-37
PARALLEL GROOVE CLAMP BARE AI 95	U558-90	36-37
PARALLELE GROOVE CLAMP BARE AI/Cu 150/50	U559-150/50	36-37
PARALLELE GROOVE CLAMP BARE AI/Cu 240/185	U559-240/185	36-37
PARALLELE GROOVE CLAMP BARE AI/Cu 70/50	U559-70/50	36-37
PC SHEATH SEPARATOR DIAM 110-4	U348_110-4	104-105
PHONE PLIER L=200mm 1000V	U810-5	214-215
PIERCING CONNECTOR CB 1d/CT 95	K397	22-23
PIERCING CONNECTOR CB 2p/CT 150 SF	K389	24-25
PIERCING CONNECTOR CB 2p/CT 150 ZF	K390	24-25
PIERCING CONNECTOR CB 2p/CT 70 ZF	K392	24-25
PIERCING CONNECTOR CB 2p/CT 95 ZF	K394	24-25
PIERCING CONNECTOR CB 2p/CT 95 ZF A	K594	24-25
PIERCING CONNECTOR CB 4P/CT 185 ZF	K349	24-25
PIERCING CONNECTOR CB 4P/CT 95 ZF	K348	24-25
PIERCING REDUCING END CONNECTOR 6-50M NEUTRAL L300	K132	142-143
PIERCING REDUCING END CONNECTOR 6-50M NEUTRAL L600	K130	142-143
PIERCING REDUCING END CONNECTOR 6-50M PHASE L300	K131	142-143
PIERCING REDUCING END CONNECTOR 6-50M PHASE L600	K129	142-143
PIGTAIL BOLT BQC 12x110 WITH 1 DOWEL	U480_12-110-CH	70-71
PIGTAIL BOLT BQC 12x110 WITH 2 NUTS	U480_12-110	70-71
PIGTAIL BOLT BQC 12x200 WITH 2 NUTS	U480_12-200	70-71
PIGTAIL BOLT BQC 12x250 WITH 2 NUTS	U480_12-250	70-71
PIGTAIL BOLT BQC 12x300 WITH 2 NUTS	U480_12-300	70-71
PIGTAIL BOLT BQC 12x35 WITH 1 NUT	U480_12-35	70-71
PIGTAIL BOLT BQC 12x35 WITH 2 NUTS	U480_12-350	70-71
PIGTAIL BOLT BQC 12x555 WITH 1 NUT	U480_12-55	70-71
PIGTAIL BOLT BQC 14x250 WITH 2 NUTS	U480_14-250	70-71
PIGTAIL BOLT BQC 14x300 WITH 1 WELDED WASHER AND 1 NUT	U479_14-300	70-71
PIGTAIL BOLT BQC 14x300 WITH 2 NUTS	U480_14-300	70-71
PIGTAIL BOLT BQC 14x350 WITH 2 NUTS	U480_14-350	70-71
PIGTAIL PLATE HOOK (PQC) - 10mm	F340	70-71
PIGTAIL PLATE HOOK (PQC) - 6mm	F340-6	70-71
PLASTIC ADAPTOR FOR SINGLE PHASE FSD BRACKET	K295	152-153
PLASTIC BUCKLE FOR PLASTIC CABLE TIE (x100)	U709	68-69
PLASTIC CABLE TIE ROLL 30m	U708	68-69
PLASTIC SEAL GREEN WITH UNIQUE NUMBER (BAG 500 PIECES) - MICHAUD	F010-500.V	132-133
PLASTIC SEAL ORANGE WITH UNIQUE NUMBER (BAG 500 PIECES) - MICHAUD	F010-500.O	132-133
PLASTIC SEAL WITH UNIQUE NUMBER (BAG 500 PIECES)	F010-500	132-133
PLASTIC TUBE CUTTER 1000V	U811-8	214-215
PLIER FOR INSULATED TERMINALS 200mm	U810-10	214-215
PREINSULATED BIMETAL LUG WITH MECHANICAL TIGHTENING 25-95MM <sup>2</sup>	K575	50-51
PREINSULATED BIMETAL LUG WITH MECHANICAL TIGHTENING 95-240MM <sup>2</sup>	K576	50-51
PREINSULATED SLEEVE (E140) MJPB 10	K035	46-47
PREINSULATED SLEEVE (E140) MJPB 10-6	K031	46-47

PREINSULATED SLEEVE (E140) MJPB 16	K039	46-47
PREINSULATED SLEEVE (E140) MJPB 16-10	K036	46-47
PREINSULATED SLEEVE (E140) MJPB 16-6	K032	46-47
PREINSULATED SLEEVE (E140) MJPB 25	K042	46-47
PREINSULATED SLEEVE (E140) MJPB 25-10	K037	46-47
PREINSULATED SLEEVE (E140) MJPB 25-16	K040	46-47
PREINSULATED SLEEVE (E140) MJPB 25-6	K033	46-47
PREINSULATED SLEEVE (E140) MJPB 35	K055	46-47
PREINSULATED SLEEVE (E140) MJPB 35-16	K053	46-47
PREINSULATED SLEEVE (E140) MJPB 35-25	K054	46-47
PREINSULATED SLEEVE (E140) MJPB 6	K030	46-47
PREINSULATED SLEEVE (E140) MJPBAS 10-25M	K068	48-49
PREINSULATED SLEEVE (E140) MJPBAS 10-35M	K069	48-49
PREINSULATED SLEEVE (E140) MJPBAS 16-16M	K070	48-49
PREINSULATED SLEEVE (E140) MJPBAS 16-25M	K078	48-49
PREINSULATED SLEEVE (E140) MJPBAS 16-35M	K079	48-49
PREINSULATED SLEEVE (E140) MJPBAS 16-4M	K064	48-49
PREINSULATED SLEEVE (E140) MJPBAS 16-6M	K065	48-49
PREINSULATED SLEEVE (E140) MJPBAS 25-16M	K072	48-49
PREINSULATED SLEEVE (E140) MJPBAS 25-21Cu	K081	48-49
PREINSULATED SLEEVE (E140) MJPBAS 25-25M	K074	48-49
PREINSULATED SLEEVE (E140) MJPBAS 25-35M	K076	48-49
PREINSULATED SLEEVE (E140) MJPBAS 16M-35M	K085	48-49
PREINSULATED SLEEVE (E140) MJPBAS 25M-21Cu	K083	48-49
PREINSULATED SLEEVE (E140) MJPBAS 25M-25M	K073	48-49
PREINSULATED SLEEVE (E140) MJPBAS 25M-35M	K086	48-49
PREINSULATED SLEEVE (E140) MJPBAS 35M-35M	K075	48-49
PREINSULATED SLEEVE (E173) MJPT 16	K101	46-47
PREINSULATED SLEEVE (E173) MJPT 25	K103	46-47
PREINSULATED SLEEVE (E173) MJPT 35	K106	46-47
PREINSULATED SLEEVE (E173) MJPT 50	K110	46-47
PREINSULATED SLEEVE (E173) MJPT 50-25	K108	46-47
PREINSULATED SLEEVE (E173) MJPT 50-35	K109	46-47
PREINSULATED SLEEVE (E173) MJPT 54-50	K114	46-47
PREINSULATED SLEEVE (E173) MJPT 70	K121	46-47
PREINSULATED SLEEVE (E173) MJPT 70-35	K118	46-47
PREINSULATED SLEEVE (E173) MJPT 70-50	K119	46-47
PREINSULATED SLEEVE (E173) MJPT 95	K123	46-47
PREINSULATED SLEEVE (E173) MJPT 95-70	K122	46-47
PREINSULATED SLEEVE (E173) NEUTRAL MJPT 34	K112	46-47
PREINSULATED SLEEVE (E173) NEUTRAL MJPT 54	K115	46-47
PREINSULATED SLEEVE (E173) NEUTRAL MJPT 70	K116	46-47
PREINSULATED SLEEVE (E173) NEUTRAL MJPT 70-54	K117	46-47
PREINSULATED SLEEVE (E215) MJPT 120	K188	46-47
PREINSULATED SLEEVE (E215) MJPT 150	K175	46-47
PREINSULATED SLEEVE (E215) MJPT 150-70	K174	46-47
PREINSULATED SLEEVE (E215) MJPT 150-95	K176	46-47
PREINSULATED SLEEVE (E215) MJPT 95	K170	46-47
PREINSULATED SLEEVE (E215) NEUTRAL MJPT 150 FT	K185	46-47
PROTECTION GLASSES	U831-1	204-205
PROTECTION GLASSES TINTED (UV FILTER)	U831-2	204-205
PROTECTION LEATHER GLOVES SIZE 10	F081	204-205
PROTECTION MASK	U831-4	204-205
PROTECTION OVER GLASSES	U831-3	204-205
PROTECTION PLATE ROLL (l=120mm) - GREEN	U590	104-105
PROTECTION PLATE ROLL (l=150mm) - RED	U591	104-105

# ALPHABETICAL INDEX

	Designation	Code	Pages	
P	PROTECTION PLATE ROLL (l=200mm) - RED	U592	104-105	
	PROTECTION PLATE ROLL (l=250mm) - RED	U593	104-105	
	PROTECTION PLATE ROLL (l=300mm) - RED	U594	104-105	
	PROTECTION TAPE FOR 10mm - 3/8" STRAP (10m length)	K957	58-59	
	PROTECTION TAPE FOR 13mm - 1/2" STRAP (10m length)	K964	58-59	
	PROTECTION TAPE FOR 16mm - 5/8" STRAP (10m length)	K965	58-59	
	PROTECTION TAPE FOR 20mm - 3/4" STRAP (10m length)	K958	58-59	
	PROTECTIVE COVER FOR OPERATING STICK	F208	222-223	
	PROTECTIVE DUCT GPC 120.120 GREY L=2.75 m	N277	70-71	
	PROTECTIVE DUCT GPC 140.50 GREY L=2.75 m	N278	70-71	
	PROTECTIVE DUCT GPC 30.30 GREY L=2.60 m	N273	70-71	
	PROTECTIVE DUCT GPC 35.35 GREY L=2.75 m	N274	70-71	
	PROTECTIVE DUCT GPC 60.60 GREY L=2.75 m	N275	70-71	
	PROTECTIVE DUCT GPC 90.90 GREY L=2.75 m	N276	70-71	
	PROTECTIVE LEATHER GLOVES	U833-2	204-205	
	PROTECTIVE NITRILE GLOVES	U833-1	204-205	
	PULLEY WITH HOOK	F241	210-211	
	PULLEY WITH STRAP	F240	210-211	
	Q	QUADRUPLE PHASE FSD 160A (NH00) PIERCING 6-95	K294	166-167
		QUADRUPLE PHASE FSD 160A (NH00) STRIPPING 6-120	L281	166-167
R	RED ADHESIF TAPE ROLL 10m x 15mm	U843-R	218-219	
	RED SEAL (sold by box of 100 pieces)	K910-R	132-133	
	REINFORCED BUCKLES FOR 10mm - 3/8" STRAP (x100)	U955-10	58-59	
	REINFORCED BUCKLES FOR 13mm - 1/2" STRAP (x100)	U955-13	58-59	
	REINFORCED BUCKLES FOR 16mm - 5/8" STRAP (x100)	U955-16	58-59	
	REINFORCED BUCKLES FOR 20mm - 3/4" STRAP (x100)	U955-20	58-59	
	REMIC 4-TYPE INSULATION BLOC MODULE	Q604	100-101	
	REMIC CABINET 300 + BARS SUPPORT 300	CB001	94-95	
	REMIC CABINET 450 + BARS SUPPORT 450	CB003	94-95	
	REMIC CABINET 600 + BARS SUPPORT 600	CB005	94-95	
	REMIC MODULE RRC 400A	Q613	102-103	
	REMIC MODULE RRCP 400A / 200A	Q614	102-103	
	REMIC MODULE TYPE FUSE SERVICE 14x51 50A RBP + TRIPLE NEUTRAL	Q611	98-99	
	REMIC MODULE TYPE FUSE SERVICE 22x58 100A RBP	Q605	98-99	
	REMIC MODULE TYPE FUSE SERVICE 22x58 100A RBP + TRIPLE NEUTRAL	Q621	100-101	
	REMIC MODULE TYPE FUSE SERVICE SINGLE PHASE 60A RBPM	Q609	98-99	
	REMIC MODULE TYPE FUSE SERVICE SINGLE PHASE 90A RBPM	Q608	98-99	
	REMIC MODULE TYPE FUSE SERVICE THREE PHASE 60A RBPT	Q606	98-99	
	REMIC MODULE TYPE NETWORK RRD 50-150 (1 neutral + 3 phases)	Q612	100-101	
	REMIC MODULE TYPE NETWORK RRD 50-240 (1 neutral + 3 phases)	Q603	100-101	
	REMIC MODULE TYPE TRANSFER SINGLE PHASE (1 neutral + 1 phase)	Q610	98-99	
	REMIC MULTITAP CONNECTION MODULE RBD (1 neutral + 3 phases)	Q607	98-99	
	REMIC SET OF BARS SUPPORT 300	Q600	96-97	
	REMIC SET OF BARS SUPPORT 450	Q601	96-97	
	REMIC SET OF BARS SUPPORT 600	Q602	96-97	
	REMIC STANDARD S15 CABINET FRAME	Q619	96-97	
	REMIC STANDARD S20 CABINET FRAME	Q618	96-97	
	REMIC'S INSULATED TOOLS KIT	U804	100-101	

RESTRAINT KIT (FALL ARREST HARNESS+LANYARD+2 CONNECTORS+BAG)	U834-1	208-209
RINGED TUBE DIAMETER 16 (100m)	F140-2321	116-117
RINGED TUBE DIAMETER 20 (100m)	F141-2321	116-117
RINGED TUBE DIAMETER 25 (100m)	F142-2321	116-117
RINGED TUBE DIAMETER 32 (50m)	F143-2321	116-117
RINGED TUBE DIAMETER 40 (50m)	F144-2321	116-117
RINGED TUBE DIAMETER 50 (50m)	F145-2321	116-117
ROPE - 10 M	U836-1	208-209
ROPE - 20 M	U836-2	208-209
RUNNER GROMMET PG21	K411-4	118-119
SCREW - M10	L306	64-65
SCREW FOR COUPLING FOR ROD D17.2 THREAD 3/4"	U229	184-185
SCREW FOR COUPLING FOR ROD DIAM 12.7 THREAD 9/16"	U228	184-185
SEAL CAP CRC RF 8-16	P561	106-107
SEALABLE SCREW COVER (2mm diameter)	P641	132-133
SEALABLE SCREW COVER + 5x30 VBA SCREW	P642	132-133
SELF-SUPPORTED ABC COMEALONG 4x95-150mm <sup>2</sup>	F269	210-211
SERVICE CABINET FOR PREPAYMENT METER SINGLE	F732	118-119
SERVICE CABINET FOR PREPAYMENT METER SINGLE FOR MODULAR DISCONNECTOR	F734	118-119
SERVICE CABINET FOR PREPAYMENT METER TRI	F733	118-119
SERVICE CABINET FOR PREPAYMENT METER TRI FOR MODULAR DISCONNECTOR	F735	118-119
SERVICE REPAIRING JUNCTION KIT JRB 10-50	BE004	88-89
SET OF 10 BLUE SHEATHS INSIDE USE 40cm D	P428	108-109
SET OF 10 SPHERICAL HEAD HEX KEYS	U814-3	212-213
SET OF 16mm <sup>2</sup> EBCPAU LINKING CABLE SINGLE 2 PIERCINGS	P660	140-141
SET OF 16mm <sup>2</sup> EBCPAU LINKING CABLE THREE-PHASE 2 PIERCINGS	P662	140-141
SET OF 2 16mm <sup>2</sup> LINKING CABLES (1 BLUE + 1 BLACK)	J808	140-141
SET OF 2 EBCD 35-25 (1 BLACK + 1 BLUE)	P620	138-139
SET OF 2 EBCP 10-35/25 (1 BLACK + 1 BLUE) L190	P649	134-135
SET OF 2 EBCP 6-35/16 (1 BLACK + 1 BLUE) L235	P648	134-135
SET OF 25 ANTI-CLIMBING STAINLESS STEEL BUCKLES	K956	58-59
SET OF 3 EBCP 50 SECT-16 BL / BR / GR L375	P220	136-137
SET OF 3 PLIERS 1000V	U810-12	214-215
SET OF 4 16mm <sup>2</sup> LINKING CABLE (1 BLUE + 3 BLACK)	J809	140-141
SET OF 4 EBCD 35-25 (3 BLACK + 1 BLUE)	P621	138-139
SET OF 4 EBCP 10-35/25 (3 BLACK + 1BLUE) L190	P650	134-135
SET OF 4 EBCP 6-35/16 (3 BLACK + 1 BLUE) L235	P651	134-135
SET OF 6 SCREWDRIVERS 1000V	U815-1	216-217
SET OF 7 SCREWDRIVERS TORX	U815-3	216-217
SET OF SLEEVES (E173) EJPT 35-54.6	K503	46-47
SET OF SLEEVES (E173) EJPT 50-54.6	K504	46-47
SET OF SLEEVES (E173) EJPT 70/70-54.6	K700	46-47
SET OF SLEEVES (E173) EJPT 70-35-54.6	K506	46-47
SET OF SLEEVES (E173) EJPT 70-50/54.6	K507	46-47
SET OF SLEEVES (E173) EJPT 70-50/70-54.6	K699	46-47
SET OF SLEEVES (E173) EJPT 70-54.6	K505	46-47
SET OF SLEEVES (E173) EJPT 70-70	K701	46-47
SET OF SLEEVES (E215) EJPT 150-70/150-70	K510	46-47
SET OF SLEEVES (E215) EJPT 150-70/70-54.6	K509	46-47
SET OF SLEEVES (E215) EJPT 150-70/70-70	K702	46-47
SHORT-CIRCUITING AND EARTHING SOCKET	K368	192-193
SHORT-CIRCUITING EQUIPMENT 5 SOCKETS-16 mm <sup>2</sup>	K016-5	194-195

S

Designation	Code	Pages
SHORT-CIRCUITING EQUIPMENT 6 SOCKETS	K008	194-195
SHORT-CIRCUITING EQUIPMENT 6 SOCKETS-16 mm²	K016-6	194-195
SHORT-CIRCUITING EQUIPMENT 7 SOCKETS	K009	194-195
SHORT-CIRCUITING EQUIPMENT 7 SOCKETS-16 mm²	K016-7	194-195
SIMPLE TETHER WITH CONNECTORS	U837-5	208-209
SIMPLE TOOLS BELT	U839-1	216-217
SINGLE FALL ARREST LANYARD WITH ENERGY ABSORBER	U837-2	208-209
SINGLE LANYARD 1.50 M WITHOUT CONNECTORS	U837-6	208-209
SINGLE PHASE FSD 100A (22x58) PIERCING 6-35	K491	152-153
SINGLE PHASE FSD 100A (22x58) PIERCING 6-95	K291	150-151
SINGLE PHASE FSD 160A (NH00) PIERCING 6-95	K292	154-155
SINGLE PHASE FSD 160A (NH00) STRIPPING 6-120	L277	154-155
SINGLE PHASE MCB + 2 K096	K451	42-43
SIZE 2 NEUTRAL BLADE 115mm	P238	172-173
SIZE 2 NEUTRAL BLADE 160mm	P239	172-173
SLEEVE FOR IRO TUBE DIAM 16	U340-16	116-117
SLEEVE FOR IRO TUBE DIAM 20	U340-20	116-117
SLEEVE FOR IRO TUBE DIAM 25	U340-25	116-117
SLEEVE FOR IRO TUBE DIAM 32	U340-32	116-117
SLEEVE FOR IRO TUBE DIAM 40	U340-40	116-117
SLEEVE FOR IRO TUBE DIAM 50	U340-50	116-117
SLEEVE FOR IRO TUBE DIAM 63	U340-63	116-117
SMART BUCKLES 10 and 13 mm - 3/8" and 1/2" (x100) WT	L952-HT	58-59
SMART BUCKLES 16 and 20 mm - 5/8" and 3/4" (x100) WT	L953-HT	58-59
SPARE PART - PS + LM 715	K280	60-61
SPD IPC 15kA/275VAC 0.5m	K241	190-191
SPD IPC 15kA/440VAC 0.5m	K242	190-191
SPD SPARE PART 15kA/275VAC 0.5m	K243	190-191
SPD SPARE PART 15kA/440VAC 0.5m	K244	190-191
STAGES CONNECTOR RDP/CNA 95 SF	K236	20-21
STAGES CONNECTOR RDP/CNU 95 SF	K235	20-21
STAINLESS STEEL CROSS CONNECTOR ROD DIAM 12.7 AND 14	U092	196-197
STAINLESS STEEL CROSS CONNECTOR ROD DIAM 17.2	U093	196-197
STEPPED PUNCH	F431	220-221
STRAIGHT CABLE AND ROUND TERMINAL LUGS 10-70	U018	188-189
STRAIGHT CABLE AND ROUND TERMINAL LUGS 25-120	U019	188-189
STRAIGHT KNIFE 1000V	U811-10	218-219
STRAP FOLDING PLIER	K968	58-59
STREET LIGHT END CAP EE2TF 6-16	BC001	40-41
STREET LIGHT END CAP EE3TF 6-16	P415	40-41
STREET LIGHT END CAP EE4TF 6-16	P414	40-41
STREET LIGHT END CAP EE5TF 6-16	P419	40-41
STREET LIGHT SET	K416	40-41
STRENGTHENED CUTTING PLIER L=200mm 1000V	U810-8	214-215
STRIPPING CONNECTOR CB 2d/CT 150 ZF	K391	24-25
STRIPPING CONNECTOR CB 2d/CT 70 ZF	K393	24-25
STRIPPING CONNECTOR RDP/CNU 95 WITH INDEPENDENT TIGHTENING	K396	22-23
STRIPPING PLIER L=160mm 1000V	U810-9	214-215
STRIPPING REDUCING END CONNECTOR 25-95	K127	142-143
STRIPPING REDUCING END CONNECTOR 6-50M	K128	142-143
STRIPPING REDUCING END CONNECTOR 95-240	K126	142-143
SUPPORT FOR ELECTRIC METER + COVER	K424	120-121
SUSPENSION ASSEMBLY [50-95] - ES 1500	K277	60-61
SUSPENSION HOOK BRACKET DIAM 16	U526	66-67

T SHAPE GROUND CUTTING BLADE	U034	188-189
TAPER COUPLING FOR ROD DIAM 5/8"-50µm	L268	182-183
TERMINAL END DISCONNECTOR / STICK	F213	222-223
TERMINAL LUG DIE 150³ + C CONNECTOR 25³+35³+50³	F412	220-221
THREAD TERMINAL END DISCONNECTOR / POLE	F210	222-223
THREADED COUPLING FOR ROD D17.2 THREAD 3/4"	F265	184-185
THREADED COUPLING FOR ROD DIAM 12.7 THREAD 1/2"	F298	184-185
THREADED STEM 12x1000 (10 pieces)	U439_12-1000	72-73
THREADED STEM 14x1000 (10 pieces)	U439_14-1000	72-73
THREADED STEM 16x1000 (10 pieces)	U439_16-1000	72-73
THREADED STEM 16x1000 (5 pieces)	U439_16-2000	72-73
THREADED STEM 20x1000 (5 pieces)	U439_20-1000	72-73
THREADED STEM 8x1000 (20 pieces)	U439_8-1000	72-73
THREE PHASE MCB + 4 K096	K455	42-43
TIE FOR IRO TUBE WITH BASE 16-32	F012	116-117
TIE-OFF	U838-1	208-209
TINNED COPPER BONDED STEEL TAPE 20x3 L=60m	U086	196-197
TINNED COPPER BONDED STEEL TAPE 25x3 L=40m	U087	196-197
TINNED COPPER BONDED STEEL TAPE 25x4 L=30m	U088	196-197
TINNED COPPER BONDED STEEL TAPE 30x3 L=40m	U089	196-197
TINNED COPPER BONDED STEEL TAPE 30x4 L=30m	U090	196-197
TINNED COPPER BONDED STEEL TAPE 40x4 L=30m	U091	196-197
TINNED COPPER TAPE 30X2 L = 100m	U094-100	196-197
TINNED COPPER TAPE 30X2 L = 50m	U094-50	196-197
TOOL FOR PLASTIC CABLE TIE	U710	68-69
TPC SHEATH DRUM 25M LENGTH DIAM 160	U345_160	104-105
TPC SHEATH DRUM 25M LENGTH DIAM 200	U345_200	104-105
TPC SHEATH DRUM 50M LENGTH DIAM 110	U345_110	104-105
TPC SHEATH DRUM 50M LENGTH DIAM 125	U345_125	104-105
TPC SHEATH DRUM 50M LENGTH DIAM 40	U345_40	104-105
TPC SHEATH DRUM 50M LENGTH DIAM 50	U345_50	104-105
TPC SHEATH DRUM 50M LENGTH DIAM 63	U345_63	104-105
TPC SHEATH DRUM 50M LENGTH DIAM 75	U345_75	104-105
TPC SHEATH DRUM 50M LENGTH DIAM 90	U345_90	104-105
TPC SHEATH END CAP DIAM 110	U349_110	104-105
TPC SHEATH END CAP DIAM 125	U349_125	104-105
TPC SHEATH END CAP DIAM 160	U349_160	104-105
TPC SHEATH END CAP DIAM 200	U349_200	104-105
TPC SHEATH END CAP DIAM 250	U349_250	104-105
TPC SHEATH END CAP DIAM 40	U349_40	104-105
TPC SHEATH END CAP DIAM 50	U349_50	104-105
TPC SHEATH END CAP DIAM 63	U349_63	104-105
TPC SHEATH END CAP DIAM 75	U349_75	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 110	U347_110	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 125	U347_125	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 160	U347_160	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 200	U347_200	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 250	U347_250	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 40	U347_40	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 50	U347_50	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 63	U347_63	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 75	U347_75	104-105
TPC SHEATH JUNCTION SLEEVE DIAM 90	U347_90	104-105
TPC SHEATH SEPARATOR DIAM 110-8	U348_110-8	104-105
TPC SHEATH SEPARATOR DIAM 125-4	U348_125-4	104-105
TPC SHEATH SEPARATOR DIAM 160-4	U348_160-4	104-105

# ALPHABETICAL INDEX

Designation	Code	Pages
TPC SHEATH SEPARATOR DIAM 200-4	U348_200-4	104-105
TPC SHEATH SEPARATOR DIAM 200-8	U348_200-8	104-105
TPC SHEATH SEPARATOR DIAM 63-4	U348_63-4	104-105
TPC SHEATH SEPARATOR DIAM 63-8	U348_63-8	104-105
TPC SHEATH SEPARATOR DIAM 75-4	U348_75-4	104-105
TPC SHEATH SEPARATOR DIAM 90-4	U348_90-4	104-105
TPC SHEATH TUBE 6M LENGTH DIAM 110	U346_110	104-105
TPC SHEATH TUBE 6M LENGTH DIAM 125	U346_125	104-105
TPC SHEATH TUBE 6M LENGTH DIAM 160	U346_160	104-105
TPC SHEATH TUBE 6M LENGTH DIAM 200	U346_200	104-105
TPC SHEATH TUBE 6M LENGTH DIAM 250	U346_250	104-105
TPC SHEATH TUBE 6M LENGTH DIAM 90	U346_90	104-105
TQC 12x100	F348	70-71
TQC 12x150	F344	70-71
TQC 12x250	F346	70-71
TRIANGULAR 9x4 FLAT WRENCH FOR GAS CONDUITS	P091	100-101
TRIPLE NEUTRAL WITH CONNECTION LEAD	K545	114-115
TRIPLE PHASE FSD 160A (NH00) PIERCING 6-95	K293	164-165
TRIPLE PHASE FSD 160A (NH00) STRIPPING 6-120	L284	164-165
T-SLEEVE FOR IRO TUBE DIAM 16	U342_16	116-117
T-SLEEVE FOR IRO TUBE DIAM 20	U342_20	116-117
T-SLEEVE FOR IRO TUBE DIAM 25	U342_25	116-117
T-SLEEVE FOR IRO TUBE DIAM 32	U342_32	116-117
TUBULAR LUG 10 <sup>2</sup> -6	U744-6	52-53
TUBULAR LUG 10 <sup>2</sup> -8	U744-8	52-53
TUBULAR LUG 120 <sup>2</sup> -12	U751-12	52-53
TUBULAR LUG 150 <sup>2</sup> -10	U752-10	52-53
TUBULAR LUG 150 <sup>2</sup> -12	U752-12	52-53
TUBULAR LUG 150 <sup>2</sup> -14	U752-14	52-53
TUBULAR LUG 16 <sup>2</sup> -6	U745-6	52-53
TUBULAR LUG 240 <sup>2</sup> -10	U754-10	52-53
TUBULAR LUG 240 <sup>2</sup> -12	U754-12	52-53
TUBULAR LUG 240 <sup>2</sup> -14	U754-14	52-53
TUBULAR LUG 25 <sup>2</sup> -10	U746-10	52-53
TUBULAR LUG 25 <sup>2</sup> -8	U746-8	52-53
TUBULAR LUG 25-29	U030	188-189
TUBULAR LUG 300 <sup>2</sup> -12	U755-12	52-53
TUBULAR LUG 300 <sup>2</sup> -16	U755-16	52-53
TUBULAR LUG 35 <sup>2</sup> -10	U747-10	52-53
TUBULAR LUG 35 <sup>2</sup> -12	U747-12	52-53
TUBULAR LUG 35 <sup>2</sup> -8	U747-8	52-53
TUBULAR LUG 50 <sup>2</sup> -10	U748-10	52-53
TUBULAR LUG 50 <sup>2</sup> -12	U748-12	52-53
TUBULAR LUG 50 <sup>2</sup> -16	U748-16	52-53
TUBULAR LUG 50 <sup>2</sup> -8	U748-8	52-53
TUBULAR LUG 6 <sup>2</sup> -6	U743-6	52-53
TUBULAR LUG 70 <sup>2</sup> -10	U749-10	52-53
TUBULAR LUG 70 <sup>2</sup> -12	U749-12	52-53
TUBULAR LUG 70 <sup>2</sup> -8	U749-8	52-53
TUBULAR LUG 95 <sup>2</sup> -10	U750-10	52-53
TUBULAR LUG 95 <sup>2</sup> -12	U750-12	52-53
TUBULAR LUG 95 <sup>2</sup> -8	U750-8	52-53

TWO AERIAL SINGLE POLE STAR CONNECTION BLOC 8 OUTLETS	L437	30-31
UNIPOLAR CUTOUT 2258	U609	118-119
UNIVERSAL CLAMP L=200mm 1000V	U810-3	214-215
UNIVERSAL PLIER L=165mm 1000V	U810-1	214-215
UNIVERSAL PLIER L=180mm 1000V	U810-2	214-215
UNIVERSAL PLIER L=210mm 1000V	U810-4	214-215
WAIST HARNESS	U834-6	208-209
WALL TYPE STRAP SUPPORT ATTACHED BY SCREW (x100)	F041	68-69
WALL TYPE STRAP SUPPORT WITH BRACKET TO STRIKE (x100)	F040	182-183
WARNING MESH 0.1m (300m roll)	F860	104-105
WARNING MESH 0.2m (100m roll)	F861	104-105
WARNING MESH 0.3m (100m roll)	F862	104-105
WASHER L10 (batch of 100)	U437_L10	72-73
WASHER L12 (batch of 100)	U437_L12	72-73
WASHER L14 (batch of 100)	U437_L14	72-73
WASHER L16 (batch of 100)	U437_L16	72-73
WASHER M10 (batch of 100)	U437_M10	72-73
WASHER M12 (batch of 100)	U437_M12	72-73
WASHER M14 (batch of 100)	U437_M14	72-73
WASHER M16 (batch of 100)	U437_M16	72-73
WASHER M20 (batch of 100)	U437_M20	72-73
WASHER M8 (batch of 100)	U437_M8	72-73
WATER PUMP PLIER	U810-11	214-215
WEDGE SEPARATOR 200x15x9mm	K007	218-219
WHITE SEAL (sold by box of 100 pieces)	K910-W	132-133
WINDER STAINLESS STEEL STRAP 10x0.4mm - 3/8"	K930	56-57
WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8"	K931	56-57
WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8" - AISI 201	L946	56-57
WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8" - AISI 304	L946-304	56-57
WINDER STAINLESS STEEL STRAP 12.7x0.7mm - 1/2" - AISI 201	L948	56-57
WINDER STAINLESS STEEL STRAP 12.7x0.7mm - 1/2" - AISI 304	L948-304	56-57
WINDER STAINLESS STEEL STRAP 13x0.4mm - 1/2"	K938	56-57
WINDER STAINLESS STEEL STRAP 16x0.4mm - 5/8"	K937	56-57
WINDER STAINLESS STEEL STRAP 16x0.7mm - 5/8" - AISI 304	L947-304	56-57
WINDER STAINLESS STEEL STRAP 16x0.7mm - 5/8" - AISI 201	L947	56-57
WINDER STAINLESS STEEL STRAP 19x0.7mm - 3/4" - AISI 201	L949	56-57
WINDER STAINLESS STEEL STRAP 19x0.7mm - 3/4" - AISI 304	L949-304	56-57
WINDER STAINLESS STEEL STRAP 20x0.4mm - 3/4"	K932	56-57
WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	K935	56-57
WINDER STAINLESS STEEL STRAP EC 10x0.4mm - 3/8"	K945	56-57
WINDER STAINLESS STEEL STRAP EC 10x0.7mm - 3/8"	K944	56-57
WINDER STAINLESS STEEL STRAP EC 20x0.4mm - 3/4"	K947	56-57
WINDER STAINLESS STEEL STRAP EC 20x0.7mm - 3/4"	K935-430	56-57
WIRE-STRAINER (400KG)	U353	210-211
WIRE-STRAINER (600KG)	U351	210-211
WIRE-STRAINER (800KG)	U352	210-211
WOODEN POLE CLIBERS 6 PEAKS DIAM 35cm	F448-35	210-211
WOODEN POLE CLIMBERS 6 PEAKS DIAM 20cm	F448-20	210-211
WOODEN POLE CLIMBERS 6 PEAKS DIAM 22cm	F448-22	210-211
WOODEN POLE CLIMBERS 6 PEAKS DIAM 25cm	F448-25	210-211
WOODEN POLE CLIMBERS 6 PEAKS DIAM 30cm	F448-30	210-211
WOODEN SCREW 4X25 COUNTERSUNK HEAD (set of 100)	U433_4X25	132-133
WOODEN SCREW 6X80 COUNTERSUNK HEAD (set of 100)	U433_6X80	132-133

T

U

W

Y

Designation	Code	Pages
WORK POSITIONNING BELT	U835-1	208-209
WORK POSITIONNING BELT WITH ROPE AND CARABINER	U835-2	208-209
WRENCH SOCKETS SET 3/8" 10 PCS 1000V	U812-5	216-217
YOKES EC FOR 10mm - 3/8" STRAP (x100)	L950	58-59
YOKES EC FOR 20mm - 3/4" STRAP (x100)	L951	58-59
YOKES FOR 10mm STRAP - 3/8" (x100)	K950	58-59
YOKES FOR STRAP 20mm - 3/4" (x100)	K951	58-59

# COMMERCIAL REFERENCE INDEX

	Code	Designation	Pages
<b>B</b>	BC001	STREET LIGHT END CAP EE2TF 6-16	40-41
	BD010	MECHANICAL TIGHTENING SLEEVE 95-240 4 SCREWS	90-91
	BD020	MECHANICAL TIGHTENING SLEEVE 95-150 2 SCREWS	90-91
	BD030	MECHANICAL TIGHTENING SLEEVE 50-120 2 SCREWS	90-91
	BE004	SERVICE REPAIRING JUNCTION KIT JRB 10-50	88-89
	BR054	CABLE SADDLE 6/50	68-69
<b>C</b>	CB001	REMIC CABINET 300 + BARS SUPPORT 300	94-95
	CB003	REMIC CABINET 450 + BARS SUPPORT 450	94-95
	CB005	REMIC CABINET 600 + BARS SUPPORT 600	94-95
<b>E</b>	ED001	EARTH DISTRIBUTOR STRIP AL 5 TAPS	198-199
	ED002	EARTH DISTRIBUTOR STRIP AL 8 TAPS	198-199
	ED003	GROUND CUTTING BLADE AL STRIP	198-199
<b>F</b>	F001	CABLE TIE 9x123mm (bag of 100)	68-69
	F002	CABLE TIE 9x180mm (bag of 100)	68-69
	F003	CABLE TIE 9x265mm (bag of 100)	68-69
	F004	CABLE TIE 9x360mm (bag of 100)	68-69
	F005	CABLE TIE 9x500mm (bag of 100)	68-69
	F006	CABLE TIE 9x750mm (bag of 100)	68-69
	F010-500	PLASTIC SEAL WITH UNIQUE NUMBER (BAG 500 PIECES)	132-133
	F010-500.O	PLASTIC SEAL ORANGE WITH UNIQUE NUMBER (BAG 500 PIECES) - MICHAUD	132-133
	F010-500.V	PLASTIC SEAL GREEN WITH UNIQUE NUMBER (BAG 500 PIECES) - MICHAUD	132-133
	F012	TIE FOR IRO TUBE WITH BASE 16-32	116-117
	F013	IMPLEMENTATION TOOL FOR TIE	68-69
	F016	BRIDGE	68-69
	F032	CABLE TIE BAC - CPBF (X100)	68-69
	F033	CABLE SADDLE - BRPV1	68-69
	F035	CABLE SADDLE - BRPV6	68-69
	F036	CABLE SADDLE - BRTV10	68-69
	F038	CABLE SADDLE - BRTV17	68-69
	F040	WALL TYPE STRAP SUPPORT WITH BRACKET TO STRIKE (x100)	182-183
	F041	WALL TYPE STRAP SUPPORT ATTACHED BY SCREW (x100)	68-69
	F081	PROTECTION LEATHER GLOVES SIZE 10	204-205
	F100	HEAT SHRINKABLE END E2R 10-35	54-55
	F101	HEAT SHRINKABLE END E4R 10-35	54-55
	F102	HEAT SHRINKABLE END E4R 10-35	54-55
	F103	HEAT SHRINKABLE END E4R 240	54-55
	F110	HEAT SHRINKABLE END CAP CRB 10-25	54-55
	F111	HEAT SHRINKABLE END CAP CRR 16-70	54-55
	F112	HEAT SHRINKABLE END CAP CRR 150	54-55
	F113	HEAT SHRINKABLE END CAP CRC 16-27	54-55
	F114	HEAT SHRINKABLE END CAP CRC 26-48	54-55
	F115	HEAT SHRINKABLE END CAP CRC 46-80	54-55
	F116	HEAT SHRINKABLE END CAP CRR 240	54-55
	F119	HEAT SHRINKABLE SHEATH GR 35-95 (10m)	54-55
F120	HEAT SHRINKABLE SHEATH GR 10-35 (10m)	68-69	
F121	HEAT SHRINKABLE SHEATH GR 50-150 (10m)	54-55	
F122	HEAT SHRINKABLE SHEATH GR 240 (10m)	54-55	
F124	HEAT SHRINKABLE SHEATH GR 1.5-10 (10m)	54-55	
F130	HEAT SHRINKABLE SLEEVE FRM 16-100	54-55	
F133	HEAT SHRINKABLE SLEEVE FRM 30-250	54-55	
F134	HEAT SHRINKABLE SLEEVE FRM 30-200	54-55	

F135	HEAT SHRINKABLE SLEEVE FRM 35-150	54-55
F136	HEAT SHRINKABLE SLEEVE FRM 35-250	54-55
F140-2321	RINGED TUBE DIAMETER 16 (100m)	116-117
F140-3422	RINGED TUBE DIAMETER 16 (100m)	116-117
F141-2321	RINGED TUBE DIAMETER 20 (100m)	116-117
F141-3422	RINGED TUBE DIAMETER 20 (100m)	116-117
F142-2321	RINGED TUBE DIAMETER 25 (100m)	116-117
F142-3422	RINGED TUBE DIAMETER 25 (100m)	116-117
F143-2321	RINGED TUBE DIAMETER 32 (50m)	116-117
F143-3422	RINGED TUBE DIAMETER 32 (50m)	116-117
F144-2321	RINGED TUBE DIAMETER 40 (50m)	116-117
F144-3422	RINGED TUBE DIAMETER 40 (50m)	116-117
F145-2321	RINGED TUBE DIAMETER 50 (50m)	116-117
F145-3422	RINGED TUBE DIAMETER 50 (50m)	116-117
F150	35mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	52-53
F151	50mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	52-53
F153	70mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	52-53
F154	150mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	52-53
F155	240mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	52-53
F156	95mm <sup>2</sup> BIMETAL SPIN-WELDED BARE TERMINAL LUG	52-53
F200	OPERATING STICK 2E-1.5M (Terminal end U)	222-223
F201	OPERATING STICK 2E-2M (Terminal end U)	222-223
F202	OPERATING STICK 2E - 3.2M (Terminal end U)	222-223
F203	OPERATING STICK 2E-5M (Terminal end U)	222-223
F204	OPERATING STICK 3E-4.5M (Terminal end U)	222-223
F205	OPERATING STICK 3E-5M (Terminal end U)	222-223
F206	OPERATING STICK 3E-6M (Terminal end U)	222-223
F208	PROTECTIVE COVER FOR OPERATING STICK	222-223
F209	BORED TERMINAL END DISCONNECTOR / STICK	222-223
F210	THREAD TERMINAL END DISCONNECTOR / POLE	222-223
F213	TERMINAL END DISCONNECTOR / STICK	222-223
F216	EARTH ROD COPPER 100µm L=1.5m DIAM 14 - 2 THREADS 5/8"	184-185
F217	EARTH ROD COPPER 100µm L=2.0m DIAM 14 - 2 THREADS 5/8"	184-185
F221	EARTH ROD COPPER 254µm L=2,0m D14 - 2 THREADS 5/8"	184-185
F222	EARTH ROD COPPER 254µm L=1.5m D14 - 2 THREADS 5/8"	184-185
F223	EARTH ROD COPPER 50µm L=2m DIAM 14 - 2 THREADS 5/8"	184-185
F224	CONNECTION CLAMP ROD 150° D17.2	182-183
F226	EARTH ROD COPPER 50µm L=1m DIAM 14	182-183
F227	EARTH ROD COPPER 254µm L=2m DIAM14	182-183
F228	COUPLING SCREW FOR EARTH ROD D14 THREAD 5/8"	184-185
F229	DRIVING SPIKE FOR ROD D12.7 UNTHREADED - D12.7 THREADED - D14 UNTHR	182-183
F233	"U" BOLT CONNECTION CLAMP 50° ROD D12.7 TO D14	182-183
F234	CONNECTION CLAMP FOR EARTH ROD D12/D14	182-183
F235	EARTH ROD COPPER 50µm L=1.50m DIAM 14 - 2 THREADS 5/8"	184-185
F236	COUPLING THREADED FOR EARTH ROD D14 THREAD 5/8"	184-185
F237	DRIVING HEAD FOR ROD D17.2	182-183
F238	DRIVING HEAD FOR EARTH ROD D14	182-183
F239	DRIVING SPIKE FOR ROD D14 THREADED - D17.2 UNTHREADED	182-183
F240	PULLEY WITH STRAP	210-211
F241	PULLEY WITH HOOK	210-211
F244	EARTH ROD COPPER 50µm L=1.5m DIAM 14	182-183

Code	Designation	Pages
F245	EARTH ROD COPPER 50µm L=2m DIAM 14	182-183
F246	CONNECTION CLAMP ROD DIAM 17.2mm	182-183
F249	EARTH ROD COPPER 254µm L=1,5m D14	182-183
F257	BARE CONDUCTOR COMEALONG 4-12mm	210-211
F258	INSULATED CONDUCTOR COMEALONG 6-14mm	210-211
F262	EARTH ROD COPPER 254µm L=1,5m DIAM 17,2 - 2 THREADS 3/4"	184-185
F265	THREADED COUPLING FOR ROD DI17.2 THREAD 3/4"	184-185
F269	SELF-SUPPORTED ABC COMEALONG 4x95-150mm <sup>2</sup>	210-211
F298	THREADED COUPLING FOR ROD DIAM 12.7 THREAD 1/2"	184-185
F332	LOT OF 200 WOOD SCREWS COUNTERSUNK POZI 6x60	132-133
F340	PIGTAIL PLATE HOOK (PQC) - 10mm	70-71
F340-6	PIGTAIL PLATE HOOK (PQC) - 6mm	70-71
F344	TQC 12x150	70-71
F345	TQC 12x200	70-71
F346	TQC 12x250	70-71
F348	TQC 12x100	70-71
F370	MODULAR HEADSET TYPE E - 2 P + E - 16A	124-125
F400	50kN HYDRAULIC CRIMPING TOOL + CASE	220-221
F404-10	HEXAGONAL DIE - NFC 20-130 - 10mm <sup>2</sup>	220-221
F404-120	HEXAGONAL DIE - NFC 20-130 - 120mm <sup>2</sup>	220-221
F404-150	HEXAGONAL DIE - NFC 20-130 - 150mm <sup>2</sup>	220-221
F404-16	HEXAGONAL DIE - NFC 20-130 - 16mm <sup>2</sup>	220-221
F404-185	HEXAGONAL DIE - NFC 20-130 - 185mm <sup>2</sup>	220-221
F404-240	HEXAGONAL DIE - NFC 20-130 - 240mm <sup>2</sup>	220-221
F404-25	HEXAGONAL DIE - NFC 20-130 - 25mm <sup>2</sup>	220-221
F404-300	HEXAGONAL DIE - NFC 20-130 - 300mm <sup>2</sup>	220-221
F404-35	HEXAGONAL DIE - NFC 20-130 - 35mm <sup>2</sup>	220-221
F404-50	HEXAGONAL DIE - NFC 20-130 - 50mm <sup>2</sup>	220-221
F404-6	HEXAGONAL DIE - NFC 20-130 - 6mm <sup>2</sup>	220-221
F404-70	HEXAGONAL DIE - NFC 20-130 - 70mm <sup>2</sup>	220-221
F404-95	HEXAGONAL DIE - NFC 20-130 - 95mm <sup>2</sup>	220-221
F405	130 kN ELECTRO-HYDRAULIC CRIMPING TOOL + CASE	220-221
F406	DIE ADAPTATOR FOR F405	220-221
F407	60kN ELECTRO-HYDRAULIC CRIMPING TOOL + CASE	220-221
F409	BATTERY FOR F407	220-221
F412	TERMINAL LUG DIE 150 <sup>2</sup> + C CONNECTOR 25 <sup>2</sup> +35 <sup>2</sup> +50 <sup>2</sup>	220-221
F419	BATTERY FOR F405	220-221
F420	HEXAGONAL DIE - E140	220-221
F421	HEXAGONAL DIE - E173	220-221
F422	HEXAGONAL DIE - E215	220-221
F426	50/70/95mm <sup>2</sup> DIE BASE	220-221
F427	50/70/95mm <sup>2</sup> STEPPED PUNCH	220-221
F428	120/150mm <sup>2</sup> DIE BASE	220-221
F429	120/150mm <sup>2</sup> STEPPED PUNCH	220-221
F430	185/240mm <sup>2</sup> DIE BASE	220-221
F431	STEPPED PUNCH	220-221
F439	EARTH TESTER	186-187
F445	INSULATED RATCHET WRENCH HEXAGONAL 13/17mm	212-213
F448-20	WOODEN POLE CLIMBERS 6 PEAKS DIAM 20cm	210-211
F448-22	WOODEN POLE CLIMBERS 6 PEAKS DIAM 22cm	210-211
F448-25	WOODEN POLE CLIMBERS 6 PEAKS DIAM 25cm	210-211
F448-30	WOODEN POLE CLIMBERS 6 PEAKS DIAM 30cm	210-211
F448-35	WOODEN POLE CLIBERS 6 PEAKS DIAM 35cm	210-211
F450	BRUSH FOR CONDUCTOR WITH CASE	218-219
F460	CROSS SPANNER 8-10-13-17mm 1000V	212-213

F495	CONCRETE POLE CLIMBERS	210-211
F496	BEAM POLE CLIMBERS	210-211
F704-10-30	CIRCUIT BREAKER BUTTON SINGLE 10/30A - DIFF 500mA	126-127
F704-10-30-300	CIRCUIT BREAKER BUTTON SINGLE 10/30A - DIFF 300mA	126-127
F704-15-45	CIRCUIT BREAKER BUTTON SINGLE 15/45A - DIFF 500mA	126-127
F704-15-45-300	CIRCUIT BREAKER BUTTON SINGLE 15/45A - DIFF 300mA	126-127
F704-30-60	CIRCUIT BREAKER BUTTON SINGLE 30/60A - DIFF 500mA	126-127
F704-30-60-300	CIRCUIT BREAKER BUTTON SINGLE 30/60A - DIFF 300mA	126-127
F704-5-15	CIRCUIT BREAKER BUTTON SINGLE 5/15A - DIFF 500mA	126-127
F704-5-15-300	CIRCUIT BREAKER BUTTON SINGLE 5/15A - DIFF 300mA	126-127
F705-10-30	CIRCUIT BREAKER BUTTON TRI 10/30A - DIFF 500mA	126-127
F705-10-30-300	CIRCUIT BREAKER BUTTON TRI 10/30A - DIFF 300mA	126-127
F705-30-60	CIRCUIT BREAKER BUTTON TRI 30/60A - DIFF 500mA	126-127
F705-30-60-300	CIRCUIT BREAKER BUTTON TRI 30/60A - DIFF 300mA	126-127
F705-60-90	CIRCUIT BREAKER BUTTON TRI 60/90A - DIFF 500mA	126-127
F706	CIRCUIT BREAKER LEVER SINGLE 5/30A - DIFF 500mA	128-129
F706-10-30	CIRCUIT BREAKER LEVER SINGLE 10/30A - DIFF 500mA	128-129
F706-10-30-300	CIRCUIT BREAKER LEVER SINGLE 10/30A - DIFF 300mA	128-129
F706-10-30-ND	CIRCUIT BREAKER LEVER SINGLE 10/30A	128-129
F706-10-30-T	CIRCUIT BREAKER LEVER SINGLE 10/30A CEET - DIFF 500mA	128-129
F706-5-15	CIRCUIT BREAKER LEVER SINGLE 5/15A - DIFF 500mA	128-129
F706-5-15-300	CIRCUIT BREAKER LEVER SINGLE 5/15A - DIFF 300mA	128-129
F706-5-15-ND	CIRCUIT BREAKER LEVER SINGLE 5/15A	128-129
F706-5-15-T	CIRCUIT BREAKER LEVER SINGLE 5/15A CEET - DIFF 500mA	128-129
F707	CIRCUIT BREAKER LEVER SINGLE 30/60A - DIFF 500mA	128-129
F707-15-45	CIRCUIT BREAKER LEVER SINGLE 15/45A - DIFF 500mA	128-129
F707-15-45-ND	CIRCUIT BREAKER LEVER SINGLE 15/45A	128-129
F707-ND	CIRCUIT BREAKER LEVER SINGLE 30/60A	128-129
F707-T	CIRCUIT BREAKER LEVER SINGLE 30/60A CEET - DIFF 500mA	128-129
F708-300	CIRCUIT BREAKER LEVER TRI 10/30A - DIFF 300mA	128-129
F708-ND	CIRCUIT BREAKER LEVER TRI 10/30A	128-129
F709-300	CIRCUIT BREAKER LEVER TRI 30/60A - DIFF 300mA	128-129
F709-ND	CIRCUIT BREAKER LEVER TRI 30/60A	128-129
F709-T	CIRCUIT BREAKER LEVER TRI 30/60A CEET - DIFF 500mA	128-129
F732	SERVICE CABINET FOR PREPAYMENT METER SINGLE	118-119
F733	SERVICE CABINET FOR PREPAYMENT METER TRI	118-119
F734	SERVICE CABINET FOR PREPAYMENT METER SINGLE FOR MODULAR DISCONNECTOR	118-119
F735	SERVICE CABINET FOR PREPAYMENT METER TRI FOR MODULAR DISCONNECTOR	118-119
F860	WARNING MESH 0.1m (300m roll)	104-105
F861	WARNING MESH 0.2m (100m roll)	104-105
F862	WARNING MESH 0.3m (100m roll)	104-105
HC100	CABLE SEALING END E2R RF 10-35 SILICONE	106-107
HC101	CABLE SEALING END E4R RF 10-35 SILICONE	106-107
HC102	CABLE SEALING END E4R RF 35-70 SILICONE	106-107
HC103	CABLE SEALING END E4R RF 95-240 SILICONE	106-107
HC112	COLD SHRINKABLE SHEATH GEF 35M	106-107
HC113	COLD SHRINKABLE SHEATH GEF 50M	106-107
HC114	COLD SHRINKABLE SHEATH GEF 70M	106-107
HC115	COLD SHRINKABLE SHEATH GEF 95M	106-107
HC116	COLD SHRINKABLE SHEATH GEF 120M	106-107
HC117	COLD-SHRINKABLE SHEATH FRF 50-240	106-107
J041	1 BLUE 16mm <sup>2</sup> LINKING CABLE L1200	140-141
J042	1 BLACK 16mm <sup>2</sup> LINKING CABLE L1200	140-141
J045	1 BLUE 16mm <sup>2</sup> LINKING CABLE L560	140-141

H

J

# COMMERCIAL REFERENCE INDEX

	Code	Designation	Pages
J	J046	1 BLACK 16mm <sup>2</sup> LINKING CABLE L530	140-141
	J047	1 BLUE 16mm <sup>2</sup> LINKING CABLE L700	140-141
	J048	1 BLACK 16mm <sup>2</sup> LINKING CABLE L700	140-141
	J132	1 BLUE 25mm <sup>2</sup> LINKING CABLE L700	140-141
	J133	1 BLACK 25mm <sup>2</sup> LINKING CABLE L700	140-141
	J412	LINE 16 VK BLUE L500 (17E-17E)	140-141
	J413	LINE 16VK BLACK L500 (17E-17E)	140-141
	J808	SET OF 2 16mm <sup>2</sup> LINKING CABLES (1 BLUE + 1 BLACK)	140-141
	J809	SET OF 4 16mm <sup>2</sup> LINKING CABLE (1 BLUE + 3 BLACK)	140-141
	K	K001	BLACK FLEXIBLE END CAP 10-50M
K002		BLACK FLEXIBLE END CAP 35-95	54-55
K003		BLACK FLEXIBLE END CAP 95-150	54-55
K004		HOLDING WRENCH CBS/RDP	212-213
K005		INSULATED WEDGE SEPARATOR	218-219
K006		EARTHING EQUIPMENT - 25 mm <sup>2</sup> 10m	194-195
K006-16_10		EARTHING EQUIPMENT-16 mm <sup>2</sup> 10m	194-195
K006-16_15		EARTHING EQUIPMENT-16mm <sup>2</sup> 15m	194-195
K007		WEDGE SEPARATOR 200x15x9mm	218-219
K008		SHORT-CIRCUITING EQUIPMENT 6 SOCKETS	194-195
K009		SHORT-CIRCUITING EQUIPMENT 7 SOCKETS	194-195
K013		Cu CRIMPED TERMINAL LUG (E140) CPTAU 25	50-51
K016-5		SHORT-CIRCUITING EQUIPMENT 5 SOCKETS-16 mm <sup>2</sup>	194-195
K016-6		SHORT-CIRCUITING EQUIPMENT 6 SOCKETS-16 mm <sup>2</sup>	194-195
K016-7		SHORT-CIRCUITING EQUIPMENT 7 SOCKETS-16 mm <sup>2</sup>	194-195
K017		Cu CRIMPED TERMINAL LUG (E173) CPTAU 54	50-51
K018		Cu CRIMPED TERMINAL LUG (E173) CPTAU 70	50-51
K023		Cu CRIMPED TERMINAL LUG (E173) CPTAU 150	50-51
K024		Cu TERMINAL LUG (E215) CPTAU 150	50-51
K030		PREINSULATED SLEEVE (E140) MJPB 6	46-47
K031		PREINSULATED SLEEVE (E140) MJPB 10-6	46-47
K032		PREINSULATED SLEEVE (E140) MJPB 16-6	46-47
K033		PREINSULATED SLEEVE (E140) MJPB 25-6	46-47
K035		PREINSULATED SLEEVE (E140) MJPB 10	46-47
K036		PREINSULATED SLEEVE (E140) MJPB 16-10	46-47
K037		PREINSULATED SLEEVE (E140) MJPB 25-10	46-47
K039		PREINSULATED SLEEVE (E140) MJPB 16	46-47
K040		PREINSULATED SLEEVE (E140) MJPB 25-16	46-47
K042		PREINSULATED SLEEVE (E140) MJPB 25	46-47
K053		PREINSULATED SLEEVE (E140) MJPB 35-16	46-47
K054		PREINSULATED SLEEVE (E140) MJPB 35-25	46-47
K055		PREINSULATED SLEEVE (E140) MJPB 35	46-47
K064		PREINSULATED SLEEVE (E140) MJPBAS 16-4M	48-49
K065		PREINSULATED SLEEVE (E140) MJPBAS 16-6M	48-49
K068		PREINSULATED SLEEVE (E140) MJPBAS 10-25M	48-49
K069		PREINSULATED SLEEVE (E140) MJPBAS 10-35M	48-49
K070		PREINSULATED SLEEVE (E140) MJPBAS 16-16M	48-49
K072		PREINSULATED SLEEVE (E140) MJPBAS 25-16M	48-49
K073		PREINSULATED SLEEVE (E140) MJPBS 25M-25M	48-49
K074		PREINSULATED SLEEVE (E140) MJPBAS 25-25M	48-49
K075	PREINSULATED SLEEVE (E140) MJPBS 35M-35M	48-49	
K076	PREINSULATED SLEEVE (E140) MJPBAS 25-35M	48-49	
K078	PREINSULATED SLEEVE (E140) MJPBAS 16-25M	48-49	

K079	PREINSULATED SLEEVE (E140) MJPBAS 16-35M	48-49
K081	PREINSULATED SLEEVE (E140) MJPBAS 25-21Cu	48-49
K083	PREINSULATED SLEEVE (E140) MJPBS 25M-21Cu	48-49
K085	PREINSULATED SLEEVE (E140) MJPBS 16M-35M	48-49
K086	PREINSULATED SLEEVE (E140) MJPBS 25M-35M	48-49
K091	HSC PIERCING 4-50 PIERCING 4-50	42-43
K092	DISMOUNTABLE SLEEVE PIERCING 6-50M / STRIPPING 6-50M	42-43
K096	DISMOUNTABLE SLEEVE PIERCING 6-35 / STRIPPING 4-35	42-43
K098	DOUBLE TAP END CONNECTOR (6-35mm <sup>2</sup> )	162-163
K099	HSC PIERCING 6-35 STRIPPING 4-35 / 4 SCREWS G2	42-43
K101	PREINSULATED SLEEVE (E173) MJPT 16	46-47
K103	PREINSULATED SLEEVE (E173) MJPT 25	46-47
K106	PREINSULATED SLEEVE (E173) MJPT 35	46-47
K108	PREINSULATED SLEEVE (E173) MJPT 50-25	46-47
K109	PREINSULATED SLEEVE (E173) MJPT 50-35	46-47
K110	PREINSULATED SLEEVE (E173) MJPT 50	46-47
K112	PREINSULATED SLEEVE (E173) NEUTRAL MJPT 34	46-47
K114	PREINSULATED SLEEVE (E173) MJPT 54-50	46-47
K115	PREINSULATED SLEEVE (E173) NEUTRAL MJPT 54	46-47
K116	PREINSULATED SLEEVE (E173) NEUTRAL MJPT 70	46-47
K117	PREINSULATED SLEEVE (E173) NEUTRAL MJPT 70-54	46-47
K118	PREINSULATED SLEEVE (E173) MJPT 70-35	46-47
K119	PREINSULATED SLEEVE (E173) MJPT 70-50	46-47
K121	PREINSULATED SLEEVE (E173) MJPT 70	46-47
K122	PREINSULATED SLEEVE (E173) MJPT 95-70	46-47
K123	PREINSULATED SLEEVE (E173) MJPT 95	46-47
K126	STRIPPING REDUCING END CONNECTOR 95-240	142-143
K127	STRIPPING REDUCING END CONNECTOR 25-95	142-143
K128	STRIPPING REDUCING END CONNECTOR 6-50M	142-143
K129	PIERCING REDUCING END CONNECTOR 6-50M PHASE L600	142-143
K130	PIERCING REDUCING END CONNECTOR 6-50M NEUTRAL L600	142-143
K131	PIERCING REDUCING END CONNECTOR 6-50M PHASE L300	142-143
K132	PIERCING REDUCING END CONNECTOR 6-50M NEUTRAL L300	142-143
K159	Cu TERMINAL LUG (E140) CPTAU 16	50-51
K160	Cu TERMINAL LUG (E140) CPTAU 25	50-51
K163	Cu TERMINAL LUG (E173) CPTAU 35	50-51
K164	Cu TERMINAL LUG (E173) CPTAU 50	50-51
K165	Cu TERMINAL LUG (E173) CPTAU 54.6	50-51
K166	Cu TERMINAL LUG (E173) CPTAU 70	50-51
K167	Cu TERMINAL LUG (E173) CPTAU 95	50-51
K170	PREINSULATED SLEEVE (E215) MJPT 95	46-47
K174	PREINSULATED SLEEVE (E215) MJPT 150-70	46-47
K175	PREINSULATED SLEEVE (E215) MJPT 150	46-47
K176	PREINSULATED SLEEVE (E215) MJPT 150-95	46-47
K185	PREINSULATED SLEEVE (E215) NEUTRAL MJPT 150 FT	46-47
K188	PREINSULATED SLEEVE (E215) MJPT 120	46-47
K189	MECHANICAL PREINSULATED SLEEVE 25-95	44-45
K191	MECHANICAL SUBSURFACE PREINSULATED SLEEVE SECTORAL 95-240	44-45
K192	MECHANICAL SUBSURFACE PREINSULATED SLEEVE ROUND 150 / SECTORAL 240	44-45
K193	MECHANICAL PREINSULATED SLEEVE ROUND 50-150	44-45
K198	FUSE INSULATION PIERCING PIT CONNECTOR IP2X	160-161

Code	Designation	Pages
K199	FUSE INSULATION PIERCING PIT CONNECTOR	160-161
K210	FUSE SWITCH CONNECTOR 100A (22x58) PIERCING 150/35mm <sup>2</sup>	158-159
K219	CUTOUT STRIPPING SLEEVE 22x58 / 63A	158-159
K220	CUTOUT STRIPPING SLEEVE 14x51 / 50A	158-159
K221	CUTOUT INSULATION PIERCING SLEEVE 22x58 / 63A	158-159
K223	FUSE CONNECTOR 20A (10.3x38) PIERCING 95/16	156-157
K223-2	FUSE CONNECTOR PIERCING 95/16 - CLASS 2	156-157
K228	FUSE CONNECTOR BARE 20A / Cu 95/10	156-157
K229	FUSE CONNECTOR BARE 20A / Al 95/10	156-157
K235	2 STAGES CONNECTOR RDP/CNU 95 SF	20-21
K236	2 STAGES CONNECTOR RDP/CNA 95 SF	20-21
K241	SPD IPC 15kA/275VAC 0.5m	190-191
K242	SPD IPC 15kA/440VAC 0.5m	190-191
K243	SPD SPARE PART 15kA/275VAC 0.5m	190-191
K244	SPD SPARE PART 15kA/440VAC 0.5m	190-191
K247	BLACK FLEXIBLE END CAP 95-240	54-55
K254	CONNECTOR CDRSp/CN 120-70 ZF	36-37
K257	CONNECTOR CDRSp/CN 120-150 ZF	36-37
K258	CONNECTOR RDP/CNU 95 ZF	18-19
K259	CONNECTOR RDP/CNA 95 ZF	18-19
K271	FULLY SUPPORTED SUSPENSION CLAMP MOVABLE 4x120	62-63
K272	CABLE SADDLE - BRPF1	68-69
K273	CABLE SADDLE - BRPF6	68-69
K275	FULLY SUPPORTED SUSPENSION CLAMP MOVABLE 4x70	62-63
K276	FULLY SUPPORTED SUSPENSION CLAMP MOVABLE 4x95	62-63
K277	SUSPENSION ASSEMBLY [50-95] - ES 1500	60-61
K280	SPARE PART - PS + LM 715	60-61
K281	CABLE SADDLE WP BRPF4	68-69
K282	CABLE SADDLE WP BRPF9	68-69
K283	FUSE SUSPENSION ASSEMBLY [50-70] - ESF 715	60-61
K288	FULLY SUPPORTED ANCHORING CLAMP 4x50-120	62-63
K291	SINGLE PHASE FSD 100A (22x58) PIERCING 6-95	150-151
K292	SINGLE PHASE FSD 160A (NH00) PIERCING 6-95	154-155
K293	TRIPLE PHASE FSD 160A (NH00) PIERCING 6-95	164-165
K294	QUADRUPLE PHASE FSD 160A (NH00) PIERCING 6-95	166-167
K295	PLASTIC ADAPTOR FOR SINGLE PHASE FSD BRACKET	152-153
K296	DOUBLE TRIPLE PHASE FSD 160A (NH00) PIERCING 6-95	164-165
K297	BRACKET FOR SINGLE PHASE FSD	152-153
K298	DOUBLE PHASE FSD 160A (NH00) PIERCING 6-95	162-163
K306	ANCHORING CLAMP - PA 1500	60-61
K307	ANCHORING CLAMP WITH HANDLE - PA 25	64-65
K308	ANCHORING BRACKET- CA 1500 - 2FP	60-61
K309	ANCHORING CLAMP WITH ADJUSTABLE HOOK - PACR 25	64-65
K313	CONNECTOR CDR/CS 50-95	90-91
K314	EARTHING CONNECTOR 50-95 / 25	90-91
K317	CONNECTOR CBS/CS 240	88-89
K318	CONNECTOR CBS NEUTRAL/CS	88-89
K322	CONNECTOR CBS/CT 25 ZF - ERDF	14-15
K323	CONNECTOR CBS/CT 70 ZF - ERDF	14-15
K324	CONNECTOR CBS/CT 150 ZF - ERDF	14-15
K326	CONNECTOR CES/CT 70 ZF	40-41
K330	CONNECTOR CBS/CT 150 ZF	14-15
K331	CONNECTOR CBS/CT 70 ZF	14-15
K332	CONNECTOR CBS/CT 95 ZF	14-15
K336	CONNECTOR CBS/CT 95 TEST PROBE ZF	16-17

K337	CONNECTOR CBS/CT 150 TEST PROBE ZF	16-17
K338	CONNECTOR CBS/CT 95 TEST PROBE SF	16-17
K342	CONNECTOR CDR/CT 2S 150-70 ZF	38-39
K343	CONNECTOR CDR/CT 2S 150-150 ZF	38-39
K348	PIERCING CONNECTOR CB 4P/CT 95 ZF	24-25
K349	PIERCING CONNECTOR CB 4P/CT 185 ZF	24-25
K354	CONNECTOR CDRS / CT 150-95 SF	34-35
K355	CONNECTOR CDRS/CT 150-95 ZF	34-35
K356	CONNECTOR CDRS/CT 150-150 ZF	34-35
K360	CONNECTOR CDR NEUTRAL/CS 50-95	90-91
K361	CONNECTOR CMCC/CT 95 ZF	192-193
K362	CONNECTOR CMCC/CT 25 ZF	192-193
K363	CONNECTOR CMCC/CT 70 ZF	192-193
K364	CONNECTOR CMCC/CT 150 ZF	192-193
K365	CONNECTOR CDRS/CT 95-95 ZF	34-35
K366	CONNECTOR CDRS/CT Al 150-150 ZF	34-35
K368	SHORT-CIRCUITING AND EARTHING SOCKET	192-193
K376	CONNECTOR CDR/CNA 2S 70 ZF	38-39
K377	CONNECTOR CDR/CNA 2S 150 ZF	38-39
K378	CONNECTOR CDR/CNU 2S 70 ZF	38-39
K379	CONNECTOR CDR/CNU 2S 150 ZF	38-39
K381	CONNECTOR CDRS/CT 240-240 ZF (without cap)	34-35
K383	CONNECTOR CDR/CS 50-240	90-91
K384	CONNECTOR CDR/CS 50-240/50-150	90-91
K389	PIERCING CONNECTOR CB 2p/CT 150 SF	24-25
K390	PIERCING CONNECTOR CB 2p/CT 150 ZF	24-25
K391	STRIPPING CONNECTOR CB 2d/CT 150 ZF	24-25
K392	PIERCING CONNECTOR CB 2p/CT 70 ZF	24-25
K393	STRIPPING CONNECTOR CB 2d/CT 70 ZF	24-25
K394	PIERCING CONNECTOR CB 2p/CT 95 ZF	24-25
K396	STRIPPING CONNECTOR RDP/CNU 95 WITH INDEPENDENT TIGHTENING	22-23
K397	PIERCING CONNECTOR CB 1d/CT 95	22-23
K411-4	RUNNER GROMMET PG21	118-119
K416	STREET LIGHT SET	40-41
K419	CONNECTOR CB2p/CS 240	88-89
K420	CONNECTOR CB2p NEUTRAL/CS	88-89
K421	GABARIT FOR ALIGNMENT LATH	120-121
K422	ALIGNMENT LATH (Length 3m)	120-121
K422-2	DUAL ALIGNMENT LATH (LENGTH 3m)	120-121
K424	SUPPORT FOR ELECTRIC METER + COVER	120-121
K425	COVER (FOR SUPPORT FOR ELECTRIC METER)	120-121
K439	CONNECTOR CES/CT 95 ZF	40-41
K440	CONNECTOR CES/CT 95 SF	40-41
K441	CONNECTOR CBS/CT 95 SF	14-15
K442	CONNECTOR CBS/CT 150/1.5-25 SF	14-15
K443	CONNECTOR CBS/CT 150/6-35 SF	14-15
K445	CONNECTOR CDRS/CT 95-95 SF	34-35
K446	CONNECTOR CDRS/CT 150-150 SF	34-35
K449	4 POLES SERVICE RING CONNECTOR 150 <sup>2</sup> /1x35 <sup>2</sup>	86-87
K450	MULTIPOLE CONNECT. 150+ UNDERGROUND BOX (WITH CONNECT. RING 150 K449)	86-87
K451	SINGLE PHASE MCB + 2 K096	42-43
K455	THREE PHASE MCB + 4 K096	42-43
K459	4 POLES SERVICE RING CONNECTOR 240 <sup>2</sup> /2x35 <sup>2</sup>	86-87
K470	CONNECTOR RDP/CNU 95 SF	18-19
K471	CONNECTOR RDP/CNA 95 SF	18-19

# COMMERCIAL REFERENCE INDEX

Code	Designation	Pages
K472	CONNECTOR RDP/CNU 120-95 SF	36-37
K473	CONNECTOR RDP/CNA 120-95 SF	36-37
K474	CONNECTOR RDP/CNU 240-150 SF	36-37
K475	CONNECTOR RDP/CNA 240-150 SF	36-37
K491	SINGLE PHASE FSD 100A (22x58) PIERCING 6-35	152-153
K492	NUMBER PLATE ON FSD K491 + K291 OR CABLE	152-153
K503	SET OF SLEEVES (E173) EJPT 35-54.6	46-47
K504	SET OF SLEEVES (E173) EJPT 50-54.6	46-47
K505	SET OF SLEEVES (E173) EJPT 70-54.6	46-47
K506	SET OF SLEEVES (E173) EJPT 70-35-54.6	46-47
K507	SET OF SLEEVES (E173) EJPT 70-50/54.6	46-47
K509	SET OF SLEEVES (E215) EJPT 150-70/70-54.6	46-47
K510	SET OF SLEEVES (E215) EJPT 150-70/150-70	46-47
K532	CONNECTOR CBS/CT 95 ZF-A	14-15
K540	FLOOR DISTRIBUTION BOX	114-115
K540.B	FLOOR DISTRIBUTION BOX WITH 3 CONNECTIONS	114-115
K541	FLOOR DISTRIBUTION BOX FUSE HOLDER 14x51	114-115
K542	FLOOR DISTRIBUTION BOX FUSE HOLDER 22x58	114-115
K545	TRIPLE NEUTRAL WITH CONNECTION LEAD	114-115
K555	CONNECTOR CDRS/CT 150-95 ZF-A	34-35
K569	MECHANICAL SUBSURFACE PREINS SLEEVE ROUND 70-185/ SECT 70-300	44-45
K573	MECHANICAL SUBSURFACE PREINS SLEEVE 50-185 / 50-185	44-45
K575	PREINSULATED BIMETAL LUG WITH MECHANICAL TIGHTENING 25-95MM <sup>2</sup>	50-51
K576	PREINSULATED BIMETAL LUG WITH MECHANICAL TIGHTENING 95-240MM <sup>2</sup>	50-51
K594	PIERCING CONNECTOR CB 2p/CT 95 ZF A	24-25
K642	4 POLES SERVICE RING CONNECTOR 300 <sup>2</sup> /2x35 <sup>2</sup>	86-87
K654	EYES 25x25mm (x100)	58-59
K655	EYES 25x40mm (x100)	58-59
K656	EYES 25x60mm (x100)	58-59
K699	SET OF SLEEVES (E173) EJPT 70-50/70-54.6	46-47
K700	SET OF SLEEVES (E173) EJPT 70/70-54.6	46-47
K701	SET OF SLEEVES (E173) EJPT 70-70	46-47
K702	SET OF SLEEVES (E215) EJPT 150-70/70-70	46-47
K910-B	BLUE SEAL (sold by box of 100 pieces)	132-133
K910-R	RED SEAL (sold by box of 100 pieces)	132-133
K910-W	WHITE SEAL (sold by box of 100 pieces)	132-133
K930	50m WINDER STAINLESS STEEL STRAP 10x0.4mm - 3/8"	56-57
K930-304	50m WINDER STAINLESS STEEL STRAP 10x0.4mm - 3/8"	56-57
K931	50m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8"	56-57
K931-304	50m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8"	56-57
K932	50m WINDER STAINLESS STEEL STRAP 20x0.4mm - 3/4"	56-57
K932-304	50m WINDER STAINLESS STEEL STRAP 20x0.4mm - 3/4"	56-57
K933	50m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	56-57
K933-304	50m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	56-57
K935	25m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	56-57
K935-304	25m WINDER STAINLESS STEEL STRAP 20x0.7mm - 3/4"	56-57
K935-430	25m WINDER STAINLESS STEEL STRAP EC 20x0.7mm - 3/4"	56-57
K937	50m WINDER STAINLESS STEEL STRAP 16x0.4mm - 5/8"	56-57
K937-304	50m WINDER STAINLESS STEEL STRAP 16x0.4mm - 5/8"	56-57
K938	50m WINDER STAINLESS STEEL STRAP 13x0.4mm - 1/2"	56-57

K938-304	50m WINDER STAINLESS STEEL STRAP 13x0.4mm - 1/2"	56-57
K944	25m WINDER STAINLESS STEEL STRAP EC 10x0.7mm - 3/8"	56-57
K945	50m WINDER STAINLESS STEEL STRAP EC 10x0.4mm - 3/8"	56-57
K946	50m WINDER STAINLESS STEEL STRAP EC 10x0.7mm - 3/8"	56-57
K947	50m WINDER STAINLESS STEEL STRAP EC 20x0.4mm - 3/4"	56-57
K948	50m WINDER STAINLESS STEEL STRAP EC 20x0.7mm - 3/4"	56-57
K950	YOKES FOR 10mm STRAP - 3/8" (x100)	58-59
K951	YOKES FOR STRAP 20mm - 3/4" (x100)	58-59
K952	BUCKLES FOR 10mm - 3/8" STRAP (x100)	58-59
K956	SET OF 25 ANTI-CLIMBING STAINLESS STEEL BUCKLES	58-59
K957	PROTECTION TAPE FOR 10mm - 3/8" STRAP (10m length)	58-59
K958	PROTECTION TAPE FOR 20mm - 3/4" STRAP (10m length)	58-59
K959	BINDING TOOL WHEEL TYPE FOR STRAP	58-59
K960	BINDING TOOL RATCHET TYPE FOR STRAP	58-59
K961	CUTTING TOOL FOR STRAP	58-59
K963	CARRYING CASE FOR STRAP TOOLS	58-59
K964	PROTECTION TAPE FOR 13mm - 1/2" STRAP (10m length)	58-59
K965	PROTECTION TAPE FOR 16mm - 5/8" STRAP (10m length)	58-59
K968	STRAP FOLDING PLIER	58-59
L024	CONTACTAL N190 NEUTRAL GREASE - TUBE OF 100mL	218-219
L220	CLASS II EBCPAU COVER	136-137
L232	CONNECTOR CBS/CT 95 ZF-A-EC	14-15
L260	CONNECTOR Cu 10-70 (SF + SH)	188-189
L261	CONNECTOR Cu 10-70 (SF)	188-189
L267	COUPLING TAPER FOR EARTH ROD D14 - 250µm	182-183
L268	TAPER COUPLING FOR ROD DIAM 5/8"-50µm	182-183
L277	SINGLE PHASE FSD 160A (NH00) STRIPPING 6-120	154-155
L278	DOUBLE PHASE FSD 160A (NH00) STRIPPING 6-120	162-163
L281	QUADRUPLE PHASE FSD 160A (NH00) STRIPPING 6-120	166-167
L284	TRIPLE PHASE FSD 160A (NH00) STRIPPING 6-120	164-165
L297	FUSE CARRIER (NH00) / L	154-155
L298	FUSE CARRIER (NH00) / P-L	154-155
L304	FIXING CLAMP - PF25	64-65
L306	SCREW - M10	64-65
L436	AERIAL SINGLE POLE STAR CONNECTION BLOC 8 OUTLETS	30-31
L437	TWO AERIAL SINGLE POLE STAR CONNECTION BLOC 8 OUTLETS	30-31
L946	30.5m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8" - AISI 201	56-57
L946-304	30.5m WINDER STAINLESS STEEL STRAP 10x0.7mm - 3/8" - AISI 304	56-57
L947	30.5m WINDER STAINLESS STEEL STRAP 16x0.7mm - 5/8" - AISI 201	56-57
L947-304	30.5m WINDER STAINLESS STEEL STRAP 16x0.7mm - 5/8" - AISI 304	56-57
L948	30.5m WINDER STAINLESS STEEL STRAP 12.7x0.7mm - 1/2" - AISI 201	56-57
L948-304	30.5m WINDER STAINLESS STEEL STRAP 12.7x0.7mm - 1/2" - AISI 304	56-57
L949	30.5m WINDER STAINLESS STEEL STRAP 19x0.7mm - 3/4" - AISI 201	56-57
L949-304	30.5m WINDER STAINLESS STEEL STRAP 19x0.7mm - 3/4" - AISI 304	56-57
L950	YOKES EC FOR 10mm - 3/8" STRAP (x100)	58-59
L951	YOKES EC FOR 20mm - 3/4" STRAP (x100)	58-59
L952-HT	SMART BUCKLES 10 and 13 mm - 3/8" and 1/2" (x100) WT	58-59
L953-HT	SMART BUCKLES 16 and 20 mm - 5/8" and 3/4" (x100) WT	58-59
N106	GROUND CUTTING BLADE ALUMINIUM WITH BOX	198-199

Code	Designation	Pages
N107	GROUND CUTTING BLADE BARE AL	198-199
N273	PROTECTIVE DUCT GPC 30.30 GREY L=2.60 m	70-71
N274	PROTECTIVE DUCT GPC 35.35 GREY L=2.75 m	70-71
N275	PROTECTIVE DUCT GPC 60.60 GREY L=2.75 m	70-71
N276	PROTECTIVE DUCT GPC 90.90 GREY L=2.75 m	70-71
N277	PROTECTIVE DUCT GPC 120.120 GREY L=2.75 m	70-71
N278	PROTECTIVE DUCT GPC 140.50 GREY L=2.75 m	70-71
N297	METAL PROTECTIVE DUCT GPC 35.35 L=2.75 m	70-71
N298	METAL PROTECTIVE DUCT GPC 60.60 L=2.75 m	70-71
N299	METAL PROTECTIVE DUCT GPC 90.90 L=2.75 m	70-71
N300	METAL PROTECTIVE DUCT GPC 120.120 L=2.75 m	70-71
N733	CABLE SADDLE BIC 15/30 TIE 9/180	68-69
N734	CABLE SADDLE BIC 30/50 TIE 9/265	68-69
N735	CABLE SADDLE BIC 50/90 TIE 9/360	68-69
P091	14 SQUARE 11 TRIANGULAR 9x4 FLAT WRENCH FOR GAS CONDUITS	100-101
P100	2A CUTOUT CABINET + NEUTRAL TUBE	130-131
P130	FUSE CARTRIDGE SIZE 2 E160 mm 125A	172-173
P131	FUSE CARTRIDGE SIZE 2 E160mm 200A	172-173
P132	FUSE CARTRIDGE SIZE 2 E160mm 250A	172-173
P134	FUSE CARTRIDGE SIZE 2 E160mm 400A	172-173
P219	EBCP 50 SECT-16 BLACK L700 CLASS II	136-137
P220	SET OF 3 EBCP 50 SECT-16 BL / BR / GR L375	136-137
P221	EBCP 50 SECT-16 BLUE L375 CLASS II	136-137
P222	EBCP 6-35/16 BLACK L500	134-135
P223	EBCP 6-35/16 BLUE L500	134-135
P226	EBCP P221 + YELLOW/GREEN EARTHING L345	136-137
P227	EBCP P221 + YELLOW/GREEN EARTHING L800	136-137
P228	EBCP 50 SECT-16 YELLOW/GREEN L800	136-137
P237	HANDLE FOR FUSES SIZE 00 - SIZE 2	172-173
P238	SIZE 2 NEUTRAL BLADE 115mm	172-173
P239	SIZE 2 NEUTRAL BLADE 160mm	172-173
P240	NEUTRAL BLADE CONTACT SIZE 00	170-171
P241	FUSE CARTRIDGE SIZE 00 AD 30A	170-171
P242	FUSE CARTRIDGE SIZE 00 AD 45A	170-171
P243	FUSE CARTRIDGE SIZE 00 AD 60A	170-171
P244	FUSE CARTRIDGE SIZE 00 AD 90A	170-171
P251	INSIDE END CAP E15TF 25-35	108-109
P336-D	AERIAL 22x58 FUSE CONNECTIONS BOX (X6) STRIPPING	28-29
P336-P	AERIAL 22x58 FUSE CONNECTIONS BOX (X6) PIERCING	28-29
P336-P-C	AERIAL CONNECTION BOX 22x58 FUSE (X6) - CONCENTRIC CABLE - PIERCING	26-27
P339-D	AERIAL 14x51 FUSE CONNECTIONS BOX (X9) STRIPPING	28-29
P339-D-C	AERIAL CONNECTION BOX 14x51 FUSE (X9) - CONCENTRIC CABLE - STRIPPING	26-27
P339-P	AERIAL 14x51 FUSE CONNECTIONS BOX (X9) PIERCING	26-27
P339-P-C	AERIAL CONNECTION BOX 14x51 FUSE (X9) - CONCENTRIC CABLE - PIERCING	26-27
P340	AL/CU EARTH ADAPTOR 35-25	198-199
P414	STREET LIGHT END CAP EE4TF 6-16	40-41
P415	STREET LIGHT END CAP EE3TF 6-16	40-41
P419	STREET LIGHT END CAP EE5TF 6-16	40-41
P420	INSIDE END CAP E12TF 25-35D	108-109
P422	INSIDE END CAP E15TF 25-35D	108-109
P424	OUTSIDE END CAP EE5TF 25-35D	108-109
P426	AERIAL CONNECTIONS BOX (X8) STRIPPING + NETWORK JUNCTION	32-33
P428	SET OF 10 BLUE SHEATHS INSIDE USE 40cm D	108-109

P429	AERIAL CONNECTIONS BOX (X8) PIERCING + NETWORK JUNCTION	32-33
P436-D	AERIAL CONNECTIONS BOX (X6) STRIPPING	26-27
P436-P	AERIAL CONNECTIONS BOX (X6) PIERCING	26-27
P439-D	AERIAL CONNECTIONS BOX (X9) STRIPPING	26-27
P439-P	AERIAL CONNECTIONS BOX (X9) PIERCING	26-27
P446	EBCP 6-35/16 BLACK L235	134-135
P447	EBCP 6-35/16 BLUE L235	134-135
P448	EBCP 10-35/25 BLACK L190	134-135
P449	EBCP 10-35/25 BLUE L190	134-135
P462	CRC RF 16-27	106-107
P463	CRC RF 26-48	106-107
P464	CRC RF 46-80	106-107
P474	COVER FOR METER AND CIRCUIT BREAKER BOARD	122-123
P475	METER AND CIRCUIT BREAKER BOARD	122-123
P561	SEAL CAP CRC RF 8-16	106-107
P620	SET OF 2 EBCD 35-25 (1 BLACK + 1 BLUE)	138-139
P621	SET OF 4 EBCD 35-25 (3 BLACK + 1 BLUE)	138-139
P641	SEALABLE SCREW COVER (2mm diameter)	132-133
P642	SEALABLE SCREW COVER + 5x30 VBA SCREW	132-133
P648	SET OF 2 EBCP 6-35/16 (1 BLACK + 1 BLUE) L235	134-135
P649	SET OF 2 EBCP 10-35/25 (1 BLACK + 1 BLUE) L190	134-135
P650	SET OF 4 EBCP 10-35/25 (3 BLACK + 1BLUE) L190	134-135
P651	SET OF 4 EBCP 6-35/16 (3 BLACK + 1 BLUE) L235	134-135
P660	SET OF 16mm <sup>2</sup> EBCPAU LINKING CABLE SINGLE 2 PIERCINGS	140-141
P662	SET OF 16mm <sup>2</sup> EBCPAU LINKING CABLE THREE-PHASE 2 PIERCINGS	140-141
P731	EBCP 50 SECT-16 BLACK L375 CLASS II	136-137
P732	EBCP 50 SECT-16 GREY L375 CLASS II	136-137
P733	EBCP 50 SECT-16 BROWN L375 CLASS II	136-137
Q530	CIRCUIT BREAKER P+N 2A NF 3kA MoD	124-125
Q531	CIRCUIT BREAKER P+N 10A NF 3kA MoD	124-125
Q532	CIRCUIT BREAKER P+N 16A NF 3kA MoD	124-125
Q533	CIRCUIT BREAKER P+N 20A NF 3kA MoD	124-125
Q534	CIRCUIT BREAKER P+N 32A NF 3kA MoD	124-125
Q535	CIRCUIT BREAKER P+N 3A 3kA MoD	124-125
Q540	DIFF SWITCH BIPO AC 30mA 25A NF MoD	124-125
Q541	DIFF SWITCH BIPO AC 30 mA 40A NF MoD	124-125
Q542	DIFF SWITCH BIPO AC 30 mA 63A NF MoD	124-125
Q543	DIFFERENTIAL SWITCHES TWO-POLE 30mA TYPE A 40A M?D	124-125
Q544	DIFFERENTIAL SWITCHES TWO-POLE 30mA TYPE A 63A M?D	124-125
Q591	DISTRIBUTION BOX WITH 1 MODULE	124-125
Q592	DISTRIBUTION BOX WITH 2 MODULES	124-125
Q594	DISTRIBUTION BOX WITH 4 MODULES	124-125
Q596	DISTRIBUTION BOX WITH 6 MODULES	124-125
Q599	DISTRIBUTION BOX WITH 9 MODULES	124-125
Q600	REMIC SET OF BARS SUPPORT 300	96-97
Q601	REMIC SET OF BARS SUPPORT 450	96-97
Q602	REMIC SET OF BARS SUPPORT 600	96-97
Q603	REMIC MODULE TYPE NETWORK RRD 50-240 (1 neutral + 3 phases)	100-101
Q604	REMIC 4-TYPE INSULATION BLOC MODULE	100-101
Q605	REMIC MODULE TYPE FUSE SERVICE 22x58 100A RBP	98-99
Q606	REMIC MODULE TYPE FUSE SERVICE THREE PHASE 60A RBPT	98-99
Q607	REMIC MULTITAP CONNECTION MODULE RBD (1 neutral + 3 phases)	98-99

P

Q

# COMMERCIAL REFERENCE INDEX

	Code	Designation	Pages
Q	Q608	REMIC MODULE TYPE FUSE SERVICE SINGLE PHASE 90A RBPM	98-99
	Q609	REMIC MODULE TYPE FUSE SERVICE SINGLE PHASE 60A RBPM	98-99
	Q610	REMIC MODULE TYPE TRANSFER SINGLE PHASE (1 neutral + 1 phase)	98-99
	Q611	REMIC MODULE TYPE FUSE SERVICE 14x51 50A RBP + TRIPLE NEUTRAL	98-99
	Q612	REMIC MODULE TYPE NETWORK RRD 50-150 (1 neutral + 3 phases)	100-101
	Q613	REMIC MODULE RRC 400A	102-103
	Q614	REMIC MODULE RRCP 400A / 200A	102-103
	Q618	REMIC STANDARD S20 CABINET FRAME	96-97
	Q619	REMIC STANDARD S15 CABINET FRAME	96-97
	Q621	REMIC MODULE TYPE FUSE SERVICE 22x58 100A RBP + TRIPLE NEUTRAL	100-101
	Q979	EARTH DISTRIBUTOR AL 6 TAPS	198-199
	Q984	ALUMINIUM EARTH CABLE 252 100M	198-199
	Q985	ALUMINIUM EARTH CABLE 352 100M	198-199
	Q986	ALUMINIUM EARTH CABLE 502 50M	198-199
R	R041	250x550 PANEL FOR THREE PHASE METER+CIRCUIT BREAKER WITHOUT LOGO	122-123
	R043	330x330 PANEL FOR THREE PHASE METER + CIRCUIT BREAKER WITHOUT LOGO	122-123
	R092	250x550 PANEL FOR THREE PHASE METER + CIRCUIT-BREAKER + COVER	122-123
	R093	330x330 PANEL - THREE PHASE METER + CIRCUIT BREAKER	122-123
	R112	COVER FOR 250x550 PANEL	122-123
U	U001_100-100	C TINNED CONNECTOR 95-100 / 95-100	188-189
	U001_100-35	C TINNED CONNECTOR 95-100 / 10-35	188-189
	U001_100-70	C TINNED CONNECTOR 95-100 / 35-70	188-189
	U001_25-10	C TINNED CONNECTOR 10-25 / 2,5-10	188-189
	U001_25-25	C TINNED CONNECTOR 16-25 / 16-25	188-189
	U001_40-40	C TINNED CONNECTOR 35-40 / 35-40	188-189
	U001_70-35	C TINNED CONNECTOR 50-70 / 10-35	188-189
	U001_70-70	C TINNED CONNECTOR 50-70 / 35-70	188-189
	U005	C CONNECTOR 25-25	188-189
	U018	STRAIGHT CABLE AND ROUND TERMINAL LUGS 10-70	188-189
	U019	STRAIGHT CABLE AND ROUND TERMINAL LUGS 25-120	188-189
	U020	85369010	188-189
	U021	JUMPER CLAMP 16-50 mm <sup>2</sup>	188-189
	U022	JUMPER CLAMP 50-70 mm <sup>2</sup>	188-189
	U023	JUMPER CLAMP 75-95 mm <sup>2</sup>	188-189
	U024	JUMPER CLAMP 95-150 mm <sup>2</sup>	188-189
	U025	JUMPER CLAMP 150-240 mm <sup>2</sup>	188-189
	U030	TUBULAR LUG 25-29	188-189
	U031	EARTH SYSTEM DISCONNECTION KIT 25-29	188-189
	U034	T SHAPE GROUND CUTTING BLADE	188-189
	U035	HIGH GROUND CUTTING BLADE	188-189
	U036	LOW GROUND CUTTING BLADE	188-189
	U050	CABLE BARE COPPER 10mm <sup>2</sup> (drum 500m)	196-197
	U051	CABLE BARE COPPER 16mm <sup>2</sup> (drum 500m)	196-197
	U053	CABLE BARE COPPER 29mm <sup>2</sup> (drum 500m)	196-197
	U054	CABLE BARE COPPER 35mm <sup>2</sup> (drum 500m)	196-197
	U055	CABLE BARE COPPER 50mm <sup>2</sup> (drum 500m)	196-197
	U056	CABLE BARE COPPER 70mm <sup>2</sup> (drum 500m)	196-197
	U057	CABLE BARE COPPER 95mm <sup>2</sup> (drum 500m)	196-197

U058	CABLE BARE COPPER 120mm <sup>2</sup> (drum 500m)	196-197
U059	CABLE BARE COPPER 150mm <sup>2</sup> (drum 500m)	196-197
U060	CABLE BARE COPPER 185mm <sup>2</sup> (drum 500m)	196-197
U061	CABLE BARE COPPER 240mm <sup>2</sup> (drum 500m)	196-197
U062	CABLE BARE COPPER 300mm <sup>2</sup> (drum 500m)	196-197
U063	CABLE INSULATED COPPER H07V-R 6mm <sup>2</sup> YELLOW/GREEN (drum 500m)	196-197
U064	CABLE INSULATED COPPER 10mm <sup>2</sup> (drum 500m)	196-197
U065	CABLE INSULATED COPPER H07V-R 16mm <sup>2</sup> YELLOW/GREEN (drum 500m)	196-197
U066	CABLE INSULATED COPPER H07V-R 25mm <sup>2</sup> YELLOW/GREEN (drum 500m)	196-197
U068	CABLE INSULATED COPPER H07V-R 35mm <sup>2</sup> YELLOW/GREEN (drum 500m)	196-197
U069	CABLE INSULATED COPPER H07V-R 50mm <sup>2</sup> YELLOW/GREEN (drum 500m)	196-197
U070	CABLE INSULATED COPPER H07V-R 70mm <sup>2</sup> YELLOW/GREEN (drum 500m)	196-197
U071	CABLE INSULATED COPPER 95mm <sup>2</sup> (drum 500m)	196-197
U072	CABLE INSULATED COPPER 120mm <sup>2</sup> (drum 500m)	196-197
U073	CABLE INSULATED COPPER 150mm <sup>2</sup> (drum 500m)	196-197
U074	CABLE INSULATED COPPER 185mm <sup>2</sup> (drum 500m)	196-197
U075	CABLE INSULATED COPPER 240mm <sup>2</sup> (drum 500m)	196-197
U077	COPPER TAPE 20x3 L=100M	196-197
U080	COPPER BONDED STEEL TAPE 20x3 L=60m	196-197
U081	COPPER BONDED STEEL TAPE 25x3 L=40m	196-197
U082	COPPER BONDED STEEL TAPE 25x4 L=30m	196-197
U083	COPPER BONDED STEEL TAPE 30x3 L=40m	196-197
U084	COPPER BONDED STEEL TAPE 30x4 L=30m	196-197
U085	COPPER BONDED STEEL TAPE 40x4 L=20m	196-197
U086	TINNED COPPER BONDED STEEL TAPE 20x3 L=60m	196-197
U087	TINNED COPPER BONDED STEEL TAPE 25x3 L=40m	196-197
U088	TINNED COPPER BONDED STEEL TAPE 25x4 L=30m	196-197
U089	TINNED COPPER BONDED STEEL TAPE 30x3 L=40m	196-197
U090	TINNED COPPER BONDED STEEL TAPE 30x4 L=30m	196-197
U091	TINNED COPPER BONDED STEEL TAPE 40x4 L=30m	196-197
U092	STAINLESS STEEL CROSS CONNECTOR ROD DIAM 12.7 AND 14	196-197
U093	STAINLESS STEEL CROSS CONNECTOR ROD DIAM 17.2	196-197
U094-100	TINNED COPPER TAPE 30X2 L = 100m	196-197
U094-50	TINNED COPPER TAPE 30X2 L = 50m	196-197
U100-4	GALVANIZED STEEL TAPE 30X4 L=50m	196-197
U101-4	GALVANIZED STEEL TAPE 40X4 L=38m	196-197
U162	CABLE INSULATED COPPER 4mm <sup>2</sup> (drum 100m)	196-197
U184	EARTHING PLATE COPPER 500x500x2	186-187
U185	EARTHING PLATE COPPER 500x500x3	186-187
U186	EARTHING PLATE COPPER 500x1000x2	186-187
U187	EARTHING PLATE COPPER 500x1000x3	186-187
U188	EARTHING GRID COPPER 1000x1000x2	186-187
U189	EARTHING GRID COPPER 2000x1000x2	186-187
U190	EARTHING GRID COPPER 3000x1000x2	186-187
U203	EARTH ROD COPPER 50µm L = 1m DIAM 12,7	182-183
U204	EARTH ROD COPPER 50µm L = 1,5m DIAM 12,7	182-183
U205	EARTH ROD COPPER 50µm L = 2m DIAM 12,7	182-183
U206	EARTH ROD COPPER 254µm L = 1m DIAM 14	182-183
U207	EARTH ROD COPPER 254µm L = 3m DIAM 14	182-183
U208	EARTH ROD COPPER 254µm L = 1m diam 17.2	182-183
U209	EARTH ROD COPPER 254µm L = 1,5m DIAM 17,2	182-183

Code	Designation	Pages
U210	EARTH ROD COPPER 254µm L = 2m DIAM 17,2	182-183
U211	EARTH ROD COPPER 254µm L=3m DIAM 17,2	182-183
U212	EARTH ROD COPPER 350µm L = 1m DIAM 17,3	182-183
U213	EARTH ROD COPPER 350µm L=1.5m diam 17.2	182-183
U214	EARTH ROD COPPER 350µm L=2m diam 17.2	182-183
U217	EARTH ROD COPPER 50µm L=1m DIAM 14 - 2 THREADS 5/8"	184-185
U218	EARTH ROD COPPER 254µm L=1m DIAM 14 - 2 THREADS 5/8"	184-185
U219	EARTH ROD COPPER 254µm L=3m DIAM 14- 2 THREADS 5/8"	184-185
U220	EARTH ROD COPPER 254µm L=1m DIAM 17.2 - 2 THREADS 3/4"	184-185
U221	EARTH ROD COPPER 254µm L=2m DIAM 17.2 - 2 THREADS 3/4"	184-185
U222	EARTH ROD COPPER 254µm L=3m DIAM 17.2 - 2 THREADS 3/4"	184-185
U223	EARTH ROD COPPER 350µm L = 1m DIAM 17.3 - 2 THREADS 3/4"	184-185
U224	EARTH ROD COPPER 350µm L=1.5m DIAM 17.2 - 2 THREADS 3/4"	184-185
U225	EARTH ROD COPPER 350µm L=2m DIAM 17.2 - 2 THREADS 3/4"	184-185
U226	DRIVING SPIKE FOR ROD D17.2 THREADED	184-185
U227	DRIVING HEAD FOR ROD D12.7	182-183
U228	SCREW FOR COUPLING FOR ROD DIAM 12.7 THREAD 9/16"	184-185
U229	SCREW FOR COUPLING FOR ROD D17.2 THREAD 3/4"	184-185
U230	EARTH ROD COPPER 100µm L=1m DIAM 14	182-183
U231	EARTH ROD COPPER 100µm L=1.5m DIAM 14	182-183
U232	EARTH ROD COPPER 100µm L=2m DIAM 14	182-183
U233	EARTH ROD COPPER 100µm L=1m DIAM 17.2	182-183
U234	EARTH ROD COPPER 100µm L=1.5m DIAM 17.2	182-183
U235	EARTH ROD COPPER 100µm L=2m DIAM 17.2	182-183
U236	EARTH ROD COPPER 100µm L=1m DIAM 14 - 2 THREADS 5/8"	184-185
U237	EARTH ROD COPPER 100µm L=1m DIAM 17.2 - 2 THREADS 3/4"	184-185
U238	EARTH ROD COPPER 100µm L=1.5m DIAM 17.2 - 2 THREADS 3/4"	184-185
U239	EARTH ROD COPPER 100µm L=2m DIAM 17.2 - 2 THREADS 3/4"	184-185
U248	EARTHING BRACKET	192-193
U250	FUSE NH1 gG 63A	172-173
U251	FUSE NH1 gG 80A	172-173
U252	FUSE NH1 gG 100A	172-173
U253	FUSE NH1 gG 125A	172-173
U254	FUSE NH1 gG 160A	172-173
U255	FUSE NH1 gG 200A	172-173
U256	FUSE NH1 gG 250A	172-173
U257	FUSE NH2 gG 125A	172-173
U258	FUSE NH2 gG 200A	172-173
U259	FUSE NH2 gG 250A	172-173
U260	FUSE NH2 gG 315A	172-173
U261	FUSE NH2 gG 400A	172-173
U339-16	IRO TUBE DIAM 16 (3m length) + IRO JUNCTION SLEEVE DIAM 16	116-117
U339-20	IRO TUBE DIAM 20 (3m length) + IRO JUNCTION SLEEVE DIAM 20	116-117
U339-25	IRO TUBE DIAM 25 (3m length) + IRO JUNCTION SLEEVE DIAM 25	116-117
U339-32	IRO TUBE DIAM 32 (3m length) + IRO JUNCTION SLEEVE DIAM 32	116-117
U339-40	IRO TUBE DIAM 40 (3m length) + IRO JUNCTION SLEEVE DIAM 40	116-117
U339-50	IRO TUBE DIAM 50 (3m length) + IRO JUNCTION SLEEVE DIAM 50	116-117

U339-63	IRO TUBE DIAM 63 (3m length) + IRO JUNCTION SLEEVE DIAM 63	116-117
U340-16	SLEEVE FOR IRO TUBE DIAM 16	116-117
U340-20	SLEEVE FOR IRO TUBE DIAM 20	116-117
U340-25	SLEEVE FOR IRO TUBE DIAM 25	116-117
U340-32	SLEEVE FOR IRO TUBE DIAM 32	116-117
U340-40	SLEEVE FOR IRO TUBE DIAM 40	116-117
U340-50	SLEEVE FOR IRO TUBE DIAM 50	116-117
U340-63	SLEEVE FOR IRO TUBE DIAM 63	116-117
U342_16	T-SLEEVE FOR IRO TUBE DIAM 16	116-117
U342_20	T-SLEEVE FOR IRO TUBE DIAM 20	116-117
U342_25	T-SLEEVE FOR IRO TUBE DIAM 25	116-117
U342_32	T-SLEEVE FOR IRO TUBE DIAM 32	116-117
U343_16	ELBOW 90° FOR IRO TUBE DIAM 16	116-117
U343_20	ELBOW 90° FOR IRO TUBE DIAM 20	116-117
U343_25	ELBOW 90° FOR IRO TUBE DIAM 25	116-117
U343_32	ELBOW 90° FOR IRO TUBE DIAM 32	116-117
U344_16	MOUNTING BRACKET IRO TUBE DIAM 16	116-117
U344_20	MOUNTING BRACKET IRO TUBE DIAM 20	116-117
U344_25	MOUNTING BRACKET IRO TUBE DIAM 25	116-117
U344_32	MOUNTING BRACKET IRO TUBE DIAM 32	116-117
U344_40	MOUNTING BRACKET IRO TUBE DIAM 40	116-117
U344_50	MOUNTING BRACKET IRO TUBE DIAM 50	116-117
U344_63	MOUNTING BRACKET IRO TUBE DIAM 63	116-117
U345_110	TPC SHEATH DRUM 50M LENGTH DIAM 110	104-105
U345_125	TPC SHEATH DRUM 50M LENGTH DIAM 125	104-105
U345_160	TPC SHEATH DRUM 25M LENGTH DIAM 160	104-105
U345_200	TPC SHEATH DRUM 25M LENGTH DIAM 200	104-105
U345_40	TPC SHEATH DRUM 50M LENGTH DIAM 40	104-105
U345_50	TPC SHEATH DRUM 50M LENGTH DIAM 50	104-105
U345_63	TPC SHEATH DRUM 50M LENGTH DIAM 63	104-105
U345_75	TPC SHEATH DRUM 50M LENGTH DIAM 75	104-105
U345_90	TPC SHEATH DRUM 50M LENGTH DIAM 90	104-105
U346_110	TPC SHEATH TUBE 6M LENGTH DIAM 110	104-105
U346_125	TPC SHEATH TUBE 6M LENGTH DIAM 125	104-105
U346_160	TPC SHEATH TUBE 6M LENGTH DIAM 160	104-105
U346_200	TPC SHEATH TUBE 6M LENGTH DIAM 200	104-105
U346_250	TPC SHEATH TUBE 6M LENGTH DIAM 250	104-105
U346_90	TPC SHEATH TUBE 6M LENGTH DIAM 90	104-105
U347_110	TPC SHEATH JUNCTION SLEEVE DIAM 110	104-105
U347_125	TPC SHEATH JUNCTION SLEEVE DIAM 125	104-105
U347_160	TPC SHEATH JUNCTION SLEEVE DIAM 160	104-105
U347_200	TPC SHEATH JUNCTION SLEEVE DIAM 200	104-105
U347_250	TPC SHEATH JUNCTION SLEEVE DIAM 250	104-105
U347_40	TPC SHEATH JUNCTION SLEEVE DIAM 40	104-105
U347_50	TPC SHEATH JUNCTION SLEEVE DIAM 50	104-105
U347_63	TPC SHEATH JUNCTION SLEEVE DIAM 63	104-105
U347_75	TPC SHEATH JUNCTION SLEEVE DIAM 75	104-105
U347_90	TPC SHEATH JUNCTION SLEEVE DIAM 90	104-105
U348_110-4	PC SHEATH SEPARATOR DIAM 110-4	104-105
U348_110-8	TPC SHEATH SEPARATOR DIAM 110-8	104-105
U348_125-4	TPC SHEATH SEPARATOR DIAM 125-4	104-105
U348_160-4	TPC SHEATH SEPARATOR DIAM 160-4	104-105
U348_200-4	TPC SHEATH SEPARATOR DIAM 200-4	104-105
U348_200-8	TPC SHEATH SEPARATOR DIAM 200-8	104-105
U348_63-4	TPC SHEATH SEPARATOR DIAM 63-4	104-105
U348_63-8	TPC SHEATH SEPARATOR DIAM 63-8	104-105

# COMMERCIAL REFERENCE INDEX

U

Code	Designation	Pages
U348_75-4	TPC SHEATH SEPARATOR DIAM 75-4	104-105
U348_90-4	TPC SHEATH SEPARATOR DIAM 90-4	104-105
U349_110	TPC SHEATH END CAP DIAM 110	104-105
U349_125	TPC SHEATH END CAP DIAM 125	104-105
U349_160	TPC SHEATH END CAP DIAM 160	104-105
U349_200	TPC SHEATH END CAP DIAM 200	104-105
U349_250	TPC SHEATH END CAP DIAM 250	104-105
U349_40	TPC SHEATH END CAP DIAM 40	104-105
U349_50	TPC SHEATH END CAP DIAM 50	104-105
U349_63	TPC SHEATH END CAP DIAM 63	104-105
U349_75	TPC SHEATH END CAP DIAM 75	104-105
U351	WIRE-STRAINER (600KG)	210-211
U352	WIRE-STRAINER (800KG)	210-211
U353	WIRE-STRAINER (400KG)	210-211
U354	MECHANICAL WINCH 500 daN	210-211
U355	MECHANICAL WINCH 1000 daN	210-211
U356-34	OVERHEAD SWIVEL DIAMETER 34	70-71
U433_4X25	WOODEN SCREW 4X25 COUNTERSUNK HEAD (set of 100)	132-133
U433_6X80	WOODEN SCREW 6X80 COUNTERSUNK HEAD (set of 100)	132-133
U434_10-100	GALVANISED LAG SCREW DIN571 10x100 (50 pieces)	72-73
U434_12-80	GALVANISED LAG SCREW DIN571 12x80 (50 pieces)	72-73
U435_10-20	BOLT BH 10x20 (100 pieces)	72-73
U435_10-30	BOLT BH 10x30 (100 pieces)	72-73
U435_12-100	BOLT BH 12x100 (100 pieces)	72-73
U435_12-150	BOLT BH 12x150 (50 pieces)	72-73
U435_12-200	BOLT BH 12x200 (50 pieces)	72-73
U435_12-250	BOLT BH 12x250 (50 pieces)	72-73
U435_12-30	BOLT BH 12x30 (100 pieces)	72-73
U435_12-300	BOLT BH 12x300 (20 pieces)	72-73
U435_12-350	BOLT BH 12x350 (20 pieces)	72-73
U435_12-50	BOLT BH 12x50 (100 pieces)	72-73
U435_14-100	BOLT BH 14x100 (50 pieces)	72-73
U435_14-150	BOLT BH 14x150 (50 pieces)	72-73
U435_14-200	BOLT BH 14x200 (20 pieces)	72-73
U435_14-250	BOLT BH 14x250 (20 pieces)	72-73
U435_14-30	BOLT BH 14x30 (100 pieces)	72-73
U435_14-300	BOLT BH 14x300 (batch of 20)	72-73
U435_14-350	BOLT BH 14x350 (20 pieces)	72-73
U435_14-40	BOLT BH 14x40 (100 pieces)	72-73
U435_14-400	BOLT BH 14x400 (20 pieces)	72-73
U435_14-450	BOLT BH 14x450 (20 pieces)	72-73
U435_14-50	BOLT BH 14x50 (100 pieces)	72-73
U435_14-500	BOLT BH 14x500 (20 pieces)	72-73
U435_14-600	BOLT BH 14x600 (20 pieces)	72-73
U435_16-200	BOLT BH 16x200 (20 pieces)	72-73
U435_16-250	BOLT BH 16x250 (20 pieces)	72-73
U435_16-30	BOLT BH 16x30 (100 pieces)	72-73
U435_16-300	BOLT BH 16x300 (20 pieces)	72-73
U435_16-350	BOLT BH 16x350 (20 pieces)	72-73
U435_16-400	BOLT BH 16x400 (20 pieces)	72-73
U435_16-50	BOLT BH 16x50 (100 pieces)	72-73
U435_16-500	BOLT BH 16x500 (20 pieces)	72-73

U435_20-100	BOLT BH 20x100 (20 pieces)	72-73
U435_20-140	BOLT BH 20x140 (20 pieces)	72-73
U435_20-160	BOLT BH 20x160 (20 pieces)	72-73
U435_8-30	BOLT BH 8x30 (100 pieces)	72-73
U437_L10	WASHER L10 (batch of 100)	72-73
U437_L12	WASHER L12 (batch of 100)	72-73
U437_L14	WASHER L14 (batch of 100)	72-73
U437_L16	WASHER L16 (batch of 100)	72-73
U437_M10	WASHER M10 (batch of 100)	72-73
U437_M12	WASHER M12 (batch of 100)	72-73
U437_M14	WASHER M14 (batch of 100)	72-73
U437_M16	WASHER M16 (batch of 100)	72-73
U437_M20	WASHER M20 (batch of 100)	72-73
U437_M8	WASHER M8 (batch of 100)	72-73
U438_HM10	NUTS HM10 (100 pieces)	72-73
U438_HM12	NUTS HM12 (100 pieces)	72-73
U438_HM14	NUTS HM14 (100 pieces)	72-73
U438_HM16	NUTS HM16 (100 pieces)	72-73
U438_HM20	NUTS HM20 (batch of 100)	72-73
U438_HM8	NUTS HM8 (100 pieces)	72-73
U439_12-1000	THREADED STEM 12x1000 (10 pieces)	72-73
U439_14-1000	THREADED STEM 14x1000 (10 pieces)	72-73
U439_16-1000	THREADED STEM 16x1000 (10 pieces)	72-73
U439_16-2000	THREADED STEM 16x1000 (5 pieces)	72-73
U439_20-1000	THREADED STEM 20x1000 (5 pieces)	72-73
U439_8-1000	THREADED STEM 8x1000 (20 pieces)	72-73
U479_14-300	PIGTAIL BOLT BQC 14x300 WITH 1 WELDED WASHER AND 1 NUT	70-71
U480_12-110	PIGTAIL BOLT BQC 12x110 WITH 2 NUTS	70-71
U480_12-110-CH	PIGTAIL BOLT BQC 12x110 WITH 1 DOWEL	70-71
U480_12-200	PIGTAIL BOLT BQC 12x200 WITH 2 NUTS	70-71
U480_12-250	PIGTAIL BOLT BQC 12x250 WITH 2 NUTS	70-71
U480_12-300	PIGTAIL BOLT BQC 12x300 WITH 2 NUTS	70-71
U480_12-35	PIGTAIL BOLT BQC 12x35 WITH 1 NUT	70-71
U480_12-350	PIGTAIL BOLT BQC 12x35 WITH 2 NUTS	70-71
U480_12-55	PIGTAIL BOLT BQC 12x55 WITH 1 NUT	70-71
U480_14-250	PIGTAIL BOLT BQC 14x250 WITH 2 NUTS	70-71
U480_14-300	PIGTAIL BOLT BQC 14x300 WITH 2 NUTS	70-71
U480_14-350	PIGTAIL BOLT BQC 14x350 WITH 2 NUTS	70-71
U510	ANCHORING CLAMP WITH REMOVABLE HANDLE TYPE (BOLT) 2*10-25	66-67
U511	ANCHORING CLAMP WITH REMOVABLE HANDLE TYPE (BOLT) 4*10-25	66-67
U512	ANCHORING CLAMP CLOSE EYE HANDLE TYPE 2*16-35	66-67
U513	ANCHORING CLAMP CLOSE EYE HANDLE TYPE 4*16-35	66-67
U514	FULLY SUPPORTED ANCHORING CLAMP OPEN HANDLE TYPE 4*25-50 EC	66-67
U515	FULLY SUPPORTED ANCHORING CLAMP OPEN HANDLE TYPE 4*50-95 EC	66-67
U516	FULLY SUPPORTED ANCHORING CLAMP CLOSE EYE HANDLE TYPE 4*35-70 EC	66-67
U517	FULLY SUPPORTED ANCHORING CLAMP CLOSE EYE HANDLE TYPE 4*70-120 EC	66-67
U518	FULLY SUPPORTED SUSPENSION CLAMP 4*10-120	66-67
U519	FULLY SUPPORTED SUSPENSION CLAMP 2/4 (25-120) 30°	62-63
U520	BRACKET WITH HOOK DIAM16 POLE TYPE	66-67
U521	BRACKET WITH HOOK DIAM16 UNIVERSAL	66-67

Code	Designation	Pages
U522	HOOK BOLT DIAM 16 - 200	66-67
U523	HOOK BOLT DIAM 20 - 250	66-67
U524	HOOK NUT DIAM 16	66-67
U525	HOOK NUT DIAM 20	66-67
U526	SUSPENSION HOOK BRACKET DIAM 16	66-67
U527	ANCHORING HOOK BRACKET DIAM 16	66-67
U528	BLACK FLEXIBLE END CAP 16-95 (50 PIECES)	54-55
U558-150	PARALLEL GROOVE CLAMP BARE AI 150	36-37
U558-240	PARALLEL GROOVE CLAMP BARE AI 240	36-37
U558-50	PARALLEL GROOVE CLAMP BARE AL 50	36-37
U558-90	PARALLEL GROOVE CLAMP BARE AI 95	36-37
U559-150/50	PARALLELE GROOVE CLAMP BARE AI/Cu 150/50	36-37
U559-240/185	PARALLELE GROOVE CLAMP BARE AI/Cu 240/185	36-37
U559-70/50	PARALLELE GROOVE CLAMP BARE AI/Cu 70/50	36-37
U570	EJASE PR 95-50/70-54.6	92-93
U571	EJASE PR 95-50/70-70N	92-93
U572	EJASE PR 95-50/150-70N	92-93
U573	EJASE PR 95-70/70-54.6	92-93
U574	EJASE PR 150-70/70-70N	92-93
U575	EJASE PR 150-70/150-70N	92-93
U576	EJASE PR 240-95/70-54.6	92-93
U577	EJASE PR 240-95/70-70N	92-93
U578	EJASE PR 240-95/150-70N	92-93
U579	EJASE PR 150-70N/70-54.6	92-93
U580	EJASE SECT 95-50/70-54.6	92-93
U581	EJASE SECT 95-50/70-70N	92-93
U582	EJASE SECT 95-50/150-70N	92-93
U583	EJASE SECT 95-70/70-54.6	92-93
U584	EJASE SECT 150-70/70-70N	92-93
U585	EJASE SECT 150-70/150-70N	92-93
U586	EJASE SECT 240-95/70-54.6	92-93
U587	EJASE SECT 240-95/70-70N	92-93
U588	EJASE SECT 240-95/150-70N	92-93
U589	EJASE SECT 150-70N/70-54.6	92-93
U590	PROTECTION PLATE ROLL (l=120mm) - GREEN	104-105
U591	PROTECTION PLATE ROLL (l=150mm) - RED	104-105
U592	PROTECTION PLATE ROLL (l=200mm) - RED	104-105
U593	PROTECTION PLATE ROLL (l=250mm) - RED	104-105
U594	PROTECTION PLATE ROLL (l=300mm) - RED	104-105
U606	CUTOUT CABINET 14x51 30A TETRAPOLAR	130-131
U607	CUTOUT CABINET 60A BIPOLAR 22x58	130-131
U607-T	CUTOUT 60A BIPOLAR	118-119
U608	CUTOUT CABINET 60A TETRAPOLAR 22x58	130-131
U608-T	CUTOUT 60A TETRAPOLAR	118-119
U609	UNIPOLAR CUTOUT 2258	118-119
U610	FUSE CARTRIDGE 22x58 AD 15A	170-171
U611	FUSE CARTRIDGE 22x58 AD 30A	170-171
U612	FUSE CARTRIDGE 22x58 AD 45A	170-171
U613	FUSE CARTRIDGE 22x58 AD 60A	170-171
U614	FUSE CARTRIDGE 22x58 AD 90A	170-171
U615	FUSE CARTRIDGE 14x51 AD 15A	170-171
U616	FUSE CARTRIDGE 14x51 AD 30A	170-171
U617	FUSE CARTRIDGE 14x51 AD 45A	170-171
U618	FUSE CARTRIDGE 10.3x38 AD 5A	170-171
U619	FUSE CARTRIDGE 10.3x38 AD 10A	170-171

U620	NEUTRAL TUBE 10.3x38	168-169
U621	NEUTRAL TUBE 14x51	168-169
U622	NEUTRAL TUBE 22x58	168-169
U623	FUSE CARTRIDGE 10.3x38 AD 15A	170-171
U635	DISTRIBUTION BOX WALL RECESSED - 8 MODULES	124-125
U636	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 12 MODULES	124-125
U637	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 24 MODULES (12x2)	124-125
U638	DISTRIBUTION BOX WALL RECESSED WITH DOOR - 36 MODULES (12x3)	124-125
U640	FUSE CARTRIDGE 22x58 gG 2A	168-169
U641	FUSE CARTRIDGE 22x58 gG 4A	168-169
U642	FUSE CARTRIDGE 22x58 gG6A	168-169
U643	FUSE CARTRIDGE 22x58 gG 8A	168-169
U644	FUSE CARTRIDGE 22x58 gG 10A	168-169
U645	FUSE CARTRIDGE 22x58 gG 12A	168-169
U646	FUSE CARTRIDGE 22x58 gG 16A	168-169
U647	FUSE CARTRIDGE 22x58 gG 20A	168-169
U648	FUSE CARTRIDGE 22x58 gG 25A	168-169
U649	FUSE CARTRIDGE 22x58 gG 32A	168-169
U650	FUSE CARTRIDGE 22x58 gG 40A	168-169
U651	FUSE CARTRIDGE 22x58 gG 50A	168-169
U652	FUSE CARTRIDGE 22x58 gG 63A	168-169
U653	FUSE CARTRIDGE 22x58 gG 80A	168-169
U654	FUSE CARTRIDGE 22x58 gG 100A	168-169
U655	FUSE CARTRIDGE 22x58 gG 125A	168-169
U660-1	FUSE 14x51 gG 1A	168-169
U660-10	FUSE 14x51 gG 10A	168-169
U660-12	FUSE 14x51 gG 12A	168-169
U660-16	FUSE 14x51 gG 16A	168-169
U660-2	FUSE 14x51 gG 2A	168-169
U660-20	FUSE 14x51 gG 20A	168-169
U660-25	FUSE 14x51 gG 25A	168-169
U660-32	FUSE 14x51 gG 32A	168-169
U660-4	FUSE 14x51 gG 4A	168-169
U660-40	FUSE 14x51 gG 40A	168-169
U660-50	FUSE 14x51 gG 50A	168-169
U660-6	FUSE 14x51 gG 6A	168-169
U660-8	FUSE 14x51 gG 8A	168-169
U661-1	FUSE 10.3x38 gG 1A	168-169
U661-10	FUSE 10.3x38 gG 10A	168-169
U661-12	FUSE 10.3x38 gG 12A	168-169
U661-16	FUSE 10.3x38 gG 16A	168-169
U661-2	FUSE 10.3x38 gG 2A	168-169
U661-20	FUSE 10.3x38 gG 20A	168-169
U661-25	FUSE 10.3x38 gG 25A	168-169
U661-32	FUSE 10.3x38 gG 32A	168-169
U661-4	FUSE 10.3x38 gG 4A	168-169
U661-6	FUSE 10.3x38 gG 6A	168-169
U661-8	FUSE 10.3x38 gG 8A	168-169
U664-10	FUSE NH00 gG 500V 10A	172-173
U664-100	FUSE NH00 gG 500V 100A	172-173
U664-125	FUSE NH00 gG 500V 125A	172-173
U664-16	FUSE NH00 gG 500V 16A	172-173
U664-160	FUSE NH00 gG 500V 160A	172-173
U664-2	FUSE NH00 gG 500V 2A	172-173
U664-20	FUSE NH00 gG 500V 20A	172-173

# COMMERCIAL REFERENCE INDEX

U

Code	Designation	Pages
U664-25	FUSE NH00 gG 500V 25A	172-173
U664-32	FUSE NH00 gG 500V 32A	172-173
U664-35	FUSE NH00 gG 500V 35A	172-173
U664-4	FUSE NH00 gG 500V 4A	172-173
U664-40	FUSE NH00 gG 500V 40A	172-173
U664-50	FUSE NH00 gG 500V 50A	172-173
U664-6	FUSE NH00 gG 500V 6A	172-173
U664-63	FUSE NH00 gG 500V 63A	172-173
U664-80	FUSE NH00 gG 500V 80A	172-173
U665	NEUTRAL BLADE NH00	172-173
U701	DIN CABINET FOR REMIC SET OF BARS SUPPORT 300	94-95
U702	DIN CABINET FOR REMIC SET OF BARS SUPPORT 450	94-95
U703	DIN CABINET FOR REMIC SET OF BARS SUPPORT 600	94-95
U708	PLASTIC CABLE TIE ROLL 30m	68-69
U709	PLASTIC BUCKLE FOR PLASTIC CABLE TIE (x100)	68-69
U710	TOOL FOR PLASTIC CABLE TIE	68-69
U743-6	TUBULAR LUG 6 <sup>2</sup> -6	52-53
U744-6	TUBULAR LUG 10 <sup>2</sup> -6	52-53
U744-8	TUBULAR LUG 10 <sup>2</sup> -8	52-53
U745-6	TUBULAR LUG 16 <sup>2</sup> -6	52-53
U746-10	TUBULAR LUG 25 <sup>2</sup> -10	52-53
U746-8	TUBULAR LUG 25 <sup>2</sup> -8	52-53
U747-10	TUBULAR LUG 35 <sup>2</sup> -10	52-53
U747-12	TUBULAR LUG 35 <sup>2</sup> -12	52-53
U747-8	TUBULAR LUG 35 <sup>2</sup> -8	52-53
U748-10	TUBULAR LUG 50 <sup>2</sup> -10	52-53
U748-12	TUBULAR LUG 50 <sup>2</sup> -12	52-53
U748-16	TUBULAR LUG 50 <sup>2</sup> -16	52-53
U748-8	TUBULAR LUG 50 <sup>2</sup> -8	52-53
U749-10	TUBULAR LUG 70 <sup>2</sup> -10	52-53
U749-12	TUBULAR LUG 70 <sup>2</sup> -12	52-53
U749-8	TUBULAR LUG 70 <sup>2</sup> -8	52-53
U750-10	TUBULAR LUG 95 <sup>2</sup> -10	52-53
U750-12	TUBULAR LUG 95 <sup>2</sup> -12	52-53
U750-8	TUBULAR LUG 95 <sup>2</sup> -8	52-53
U751-12	TUBULAR LUG 120 <sup>2</sup> -12	52-53
U752-10	TUBULAR LUG 150 <sup>2</sup> -10	52-53
U752-12	TUBULAR LUG 150 <sup>2</sup> -12	52-53
U752-14	TUBULAR LUG 150 <sup>2</sup> -14	52-53
U754-10	TUBULAR LUG 240 <sup>2</sup> -10	52-53
U754-12	TUBULAR LUG 240 <sup>2</sup> -12	52-53
U754-14	TUBULAR LUG 240 <sup>2</sup> -14	52-53
U755-12	TUBULAR LUG 300 <sup>2</sup> -12	52-53
U755-16	TUBULAR LUG 300 <sup>2</sup> -16	52-53
U801	EXTENSION FOR INSULATED RATCHET SPANNER	100-101
U803-10	HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 10mm	100-101
U803-13	HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 13mm	100-101
U803-14	HEXAGONAL SOCKET FOR INSULATED RATCHET SPANNER - 14mm	100-101
U803-4A	INSULATED SOCKET WRENCH 4mm	100-101
U803-6A	INSULATED SOCKET WRENCH 6mm	100-101
U804	REMIC'S INSULATED TOOLS KIT	100-101

U810-1	UNIVERSAL PLIER L=165mm 1000V	214-215
U810-10	PLIER FOR INSULATED TERMINALS 200mm	214-215
U810-11	WATER PUMP PLIER	214-215
U810-12	SET OF 3 PLIERS 1000V	214-215
U810-2	UNIVERSAL PLIER L=180mm 1000V	214-215
U810-3	UNIVERSAL CLAMP L=200mm 1000V	214-215
U810-4	UNIVERSAL PLIER L=210mm 1000V	214-215
U810-5	PHONE PLIER L=200mm 1000V	214-215
U810-6	CURVED PHONE PLIER L=200mm 1000V	214-215
U810-7	DIAGONAL CUTTING PLIER L=160mm 1000V	214-215
U810-8	STRENGTHENED CUTTING PLIER L=200mm 1000V	214-215
U810-9	STRIPPING PLIER L=160mm 1000V	214-215
U811-1	CABLE CUTTER 65mm <sup>2</sup> 1000V	218-219
U811-10	STRAIGHT KNIFE 1000V	218-219
U811-2	CABLE CUTTER WITH PAWL DIAM 32 1000V	214-215
U811-3	CABLE CUTTER WITH PAWL DIAM 52 1000V	214-215
U811-4	CABLE CUTTER WITH PAWL DIAM 70 1000V	214-215
U811-5	BIG BREACH SCISSORS 1000 V	214-215
U811-6	ANGLED KNIFE 1000V	214-215
U811-7	CUTTING PLIER FOR PLASTIC SADDLES 150mm	214-215
U811-8	PLASTIC TUBE CUTTER 1000V	214-215
U811-9	CABLE CUTTER 35mm <sup>2</sup> 1000V	218-219
U812-1	ELECTRICIAN SET 17 PCS 1000V	216-217
U812-2	ELECTRICIAN SET 26 PCS 1000V	216-217
U812-3	ELECTRICIAN SET 37 PCS 1000V	216-217
U812-4	ELECTRICIAN TOOLINGS SET 5 PCS 1000V	216-217
U812-5	WRENCH SOCKETS SET 3/8" 10 PCS 1000V	216-217
U813-1	DIGITAL MULTIMETER	216-217
U813-2	CLAMP MULTIMETER 400A	216-217
U813-21	CLAMP MULTIMETER 1000A	216-217
U813-3	DIGITAL TESTER 220V	216-217
U814-1	INSULATED MONKEY WRENCH 10" 1000V	212-213
U814-2	INSULATED MONKEY WRENCH 12" 1000V	212-213
U814-3	SET OF 10 SPHERICAL HEAD HEX KEYS	212-213
U814-4	INSULATED TORQUE WRENCH 3/8" 50Nm	100-101
U815-1	SET OF 6 SCREWDRIVERS 1000V	216-217
U815-2	SET OF 6 SCREWDRIVERS 1000V	216-217
U815-3	SET OF 7 SCREWDRIVERS TORX	216-217
U815-4	FLAT SCREWDRIVER 1000V 6,5x150	216-217
U815-5	CROSS-HEADED SCREWDRIVER - PH-1	216-217
U815-6	CROSS-HEADED SCREWDRIVER - PH-2	218-219
U828-40	HIGH-TOP SAFETY SHOES - SIZE 40	206-207
U828-41	HIGH-TOP SAFETY SHOES - SIZE 41	206-207
U828-42	HIGH-TOP SAFETY SHOES - SIZE 42	206-207
U828-43	HIGH-TOP SAFETY SHOES - SIZE 43	206-207
U828-44	HIGH-TOP SAFETY SHOES - SIZE 44	206-207
U828-45	HIGH-TOP SAFETY SHOES - SIZE 45	206-207
U828-46	HIGH-TOP SAFETY SHOES - SIZE 46	206-207
U828-47	HIGH-TOP SAFETY SHOES - SIZE 47	206-207
U830-1	BASIC HELMET	204-205
U830-2	HELMET WITH TOOTH WHEEL	204-205
U830-3	CHIN STRAP WITHOUT CHIN REST	204-205
U830-4	CHIN STRAP WITH CHIN REST	204-205

Code	Designation	Pages
U831-1	PROTECTION GLASSES	204-205
U831-2	PROTECTION GLASSES TINTED (UV FILTER)	204-205
U831-3	PROTECTION OVER GLASSES	204-205
U831-4	PROTECTION MASK	204-205
U831-5	FACE SHIELD IMPACT PROTECTION	204-205
U831-6	FACE SHIELD ELECTRIC ARC PROTECTION	204-205
U833-1	PROTECTIVE NITRILE GLOVES	204-205
U833-2	PROTECTIVE LEATHER GLOVES	204-205
U834-1	RESTRAINT KIT (FALL ARREST HARNESS+LANYARD+2 CONNECTORS+BAG)	208-209
U834-2	ANKLE HARNESS AND RESTRAINT	208-209
U834-3	DIELECTRIC FALL ARREST AND SUPPORT HARNESS	208-209
U834-6	WAIST HARNESS	208-209
U835-1	WORK POSITIONNING BELT	208-209
U835-2	WORK POSITIONNING BELT WITH ROPE AND CARABINER	208-209
U836-1	ROPE - 10 M	208-209
U836-2	ROPE - 20 M	208-209
U836-3	GUIDED TYPE FALL ARRESTERS	208-209
U836-4	CARABINER	208-209
U837-1	1.50M DOUBLE FALL ARREST LANYARD WITH ENERGY ABSORBER AND CONNECTORS	208-209
U837-2	1.50M SINGLE FALL ARREST LANYARD WITH ENERGY ABSORBER	208-209
U837-5	SIMPLE TETHER WITH CONNECTORS	208-209
U837-6	SINGLE LANYARD 1.50 M WITHOUT CONNECTORS	208-209
U837-7	ADJUSTABLE WORKSTATION LANYARD WITH CONNECTORS - 2m	208-209
U838-1	TIE-OFF	208-209
U839-1	SIMPLE TOOLS BELT	216-217
U839-2	DOUBLE TOOLS BELT	216-217
U840-0_1X1	INSULATING MAT CLASS 0 - 1x1m	208-209
U840-1_1X1	INSULATING MAT CLASS 1 - 1x1m	208-209
U840-2_1X1	INSULATING MAT CLASS 2 - 1x1m	208-209
U840-3_1X1	INSULATING MAT CLASS 3 - 1x1m	208-209
U840-4_1X1	INSULATING MAT CLASS 4 - 1x1m	208-209
U841-3	LADDER WT STABILIZER 3 MT LENGHT	208-209
U841-3.5	LADDER WT STABILIZER 3.5 MT LENGHT	208-209
U841-4	LADDER WT STABILIZER 4 MT LENGHT	208-209
U841-4.5	LADDER WT STABILIZER 4.5 MT LENGHT	208-209
U841-5	LADDER WT STABILIZER 5 MT LENGHT	208-209
U841-6	INSULATED LADDER 6m	208-209
U842	BLACK ADHESIVE TAPE ROLL 33Mx19mm ISO ADH	218-219
U843	BLACK ADHESIVE TAPE ROLL 10Mx15mm	218-219
U843-B	BLUE ADHESIVE TAPE ROLL 10m x 15mm	218-219
U843-R	RED ADHESIF TAPE ROLL 10m x 15mm	218-219
U843-VJ	GREEN YELLOW ADHESIVE TAPE ROLL 10m x 15mm	218-219
U850-10	INSULATED OPENED-END WRENCH 1000 V - 10mm	212-213
U850-13	INSULATED OPENED-END WRENCH 1000 V - 13mm	212-213
U850-14	INSULATED OPENED-END WRENCH 1000 V - 14mm	212-213
U850-16	INSULATED OPENED-END WRENCH 1000 V - 16mm	212-213
U850-17	INSULATED OPENED-END WRENCH 1000 V - 17mm	212-213
U850-21	INSULATED OPENED-END WRENCH 1000 V - 21mm	212-213
U851-10	INSULATED RING RATCHET WRENCH 1000 V - 10mm	212-213
U851-13	INSULATED RING RATCHET WRENCH 1000 V - 13mm	212-213
U851-14	INSULATED RING RATCHET WRENCH 1000 V - 14mm	212-213
U851-16	INSULATED RING RATCHET WRENCH 1000 V - 16mm	212-213
U851-17	INSULATED RING RATCHET WRENCH 1000 V - 10mm	212-213

U955-10	REINFORCED BUCKLES FOR 10mm - 3/8" STRAP (x100)	58-59
U955-13	REINFORCED BUCKLES FOR 13mm - 1/2" STRAP (x100)	58-59
U955-16	REINFORCED BUCKLES FOR 16mm - 5/8" STRAP (x100)	58-59
U955-20	REINFORCED BUCKLES FOR 20mm - 3/4" STRAP (x100)	58-59
U843-VJ	GREEN YELLOW ADHESIVE TAPE ROLL 10m x 15mm	218-219
U850-10	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 10mm	212-213
U850-13	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 13mm	212-213
U850-14	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 14mm	212-213
U850-16	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 16mm	212-213
U850-17	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 17mm	212-213
U850-21	SINGLE ENDED OPEN JAW SPANNER WRENCH 1000 V - 21mm	212-213
U851-10	RING RATCHET WRENCH 1000 V - 10mm	212-213
U851-13	RING RATCHET WRENCH 1000 V - 13mm	212-213
U851-14	RING RATCHET WRENCH 1000 V - 14mm	212-213
U851-16	RING RATCHET WRENCH 1000 V - 16mm	212-213
U851-17	RING RATCHET WRENCH 1000 V - 17mm	212-213
U955-10	REINFORCED BUCKLES FOR 10mm - 3/8" STRAP (x100)	58-59
U955-13	REINFORCED BUCKLES FOR 13mm - 1/2" STRAP (x100)	58-59
U955-16	REINFORCED BUCKLES FOR 16mm - 5/8" STRAP (x100)	58-59
U955-20	REINFORCED BUCKLES FOR 20mm - 3/4" STRAP (x100)	58-59
U811-1	CABLE CUTTER 65mm <sup>2</sup> 1000V	218-219
U811-10	STRAIGHT KNIFE 1000V	218-219
U811-9	CABLE CUTTER 35mm <sup>2</sup> 1000V	218-219
U815-6	CROSS-HEADED SCREWDRIVER - PH-2	218-219

# RECOMMENDATIONS FOR PRODUCTS USE

## INSTALLATION



These products must be implemented and used in compliance with the applicable regulations with a skilled, qualified professional undertaking to do so following the generally accepted rules of the trade.

For live-line implementation or handling, the electrician must comply with the requirements for live-line work conditions and must be equipped with the necessary personal protection equipment. The implementation temperature limits are: -10°C to +40°C.

Live-line work is carried out under the responsibility of the ordering customer in compliance with the applicable rules.

Before powering up the equipment, all the required verifications must be carried out.



## RECOMMENDATIONS

The installation instructions must be read carefully before using the product.

The product must be used and implemented in compliance with these recommendations for use and installation instructions. It must be used for the applications for which it was defined by the operator/manager of the network and on an electrical installation that is compliant and compatible with the product.

Never exceed the capacities indicated on the device and in the instructions sheet.

Unless explicitly indicated, products are designed for no-load connection.

## TOOLS



The product should be installed and used with suitable tools.

The screw heads should be tightened with the appropriate tool: Spanner for hexagonal cap screws, flat screwdriver for slotted screw heads of the right size, Phillips screwdriver for cruciform screw heads, HSHC screw head (awls) for hollow hexagonal screw heads, etc. The screw heads with no torque-limiting device must be tightened to the recommended torque and must not be tightened again.



## ENVIRONMENT

Please gather your waste together and follow the recycling and destruction instructions before leaving the worksite.





See full range on  
[www.michaud-export.com](http://www.michaud-export.com)

## KNOW-HOW & EXPERTISE

MICHAUD is a company with strong human values which has been contributing for over 60 years to the evolution of low-voltage energy distribution with innovations and breakthroughs.

From product study and design to systems and services, MICHAUD masters its value chain, ensuring top-level quality and service on a global scale thanks to the support of a dedicated Engineering Department.

With partners in over 70 countries worldwide, MICHAUD develops and markets solutions in line with current standards, thanks to its recognized know-how and close relationships with local end users.



## INDUSTRIAL AND LOGISTICS EXCELLENCE

MICHAUD designs the tomorrow's solutions, investing over 8% of sales in R&D. Quality and reliability of products are guaranteed thanks to indoor the accredited COFRAC independant laboratory. Flexible and agile teams adapt solution to local requirements and innovate to constantly guarantee a qualified offer that meets technical requirements.

To guarantee the availability of products anywhere in the world, MICHAUD draws on its experience, know-how and logistics centers to ensure a safe and efficient logistics circuit.



## TRAINING & TRANSMISSION

As a privileged technical partner, learning and transmission of knowledge are encouraged. Therefore, the MICHAUD Experts offer technical training modules to customers, partners and Design Offices.



MICHAUD EXPORT  
ZAC la Cambuse - 499 Rue du Revermont  
01440 VIRIAT, FRANCE  
Tèl : +33 (0)9 70 75 50 24

**MICHAUD**