## MV SEPARABLE CONNECTORS rating 630 A

## MEDIUM VOLTAGE

UP TO 18/30 (36) kV

#### SEPARABLE TEE CONNECTOR (INTERFACE C/630A)

For polymeric cables – Deadbreak operation – with mechanical conductor contact

#### REFERENCE: MSCT/EC-630-C

#### UTILISATION

- For connection of polymeric MV cables to transformers, switchgear units, motors, etc.
- Indoor and outdoor installation. The connector is entirely protected by a watertight conductive envelope connected to earth.
- Continuous 630 A rms
- Overload 900 A rms (8 hours per 24-hour period).
- Operated when de-energized.

#### CABLES

- Single core polymeric insulation (PE, XLPE, EPR ...).
- Copper or aluminium conductors, solid or stranded.
- Semi-conducting screen either extruded or taped.
- Metallic screen of tape, wire or polylam type.
- Insulation voltage up to 18/30 (36) kV.
- Conductor sizes: 25 to 300 mm<sup>2</sup>

#### **STANDARDS**

- Generally meets the requirements of CENELEC HD 629.1 S2 IEC 60502-4 – NF C 33-051 – NF C 33-001.
- Interfaces: CENELEC EN 50180 EN 50181.
- Mechanical conductor contact: IEC 61238-1 class A, HN 68-S-91.

#### QUALITY ASSURANCE

• The company has been assessed by third party to be in conformity with the requirements of the standard ISO 9001-EN 29001 version 2000.

#### PACKING

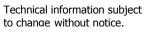
- Supplied as a kit of 3 single connectors containing all the necessary components.
- Shipping weight and volume (approx) of kit : 6 kg / 0,013 m<sup>3</sup>

#### **INSTALLATION FEATURES**

- The screen break design enables cable outer sheath testing without removing or dismantling the connector.
- No need for special tools, no heating, taping or filling.
- Vertical, angled or inverted position.
- No minimum distance between phases.
- Energizing may take place immediately after the connector is plugged into its bushing, dead-end plug ....
- An unplugged connector must not be energized.

#### **OTHER PRODUCTS**

• Associated products such as bushing FMBOs-400 and accessories.









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#### DESCRIPTION

#### Rep 1 Mechanical conductor contact Al/Cu.

Only two conductor contacts cover the section from 25 mm<sup>2</sup> to 300 mm<sup>2</sup>. Copper or aluminium core. No need for special tools.

#### Rep 2 M16 Clamping screw.

Steel silver-plated component threaded at both ends for attachment of the mating items: bushing, insulating plug, accessories. A uniform contact pressure is maintained for any combination.

#### Rep 3 Semi-conducting inner screen.

Insert of semi-conducting **EPDM** enclosing the mechanical conductor contact connections so that ionization of the air remaining trapped inside is prevented.

#### Rep 4 Semi-conducting outer envelope (thickness 3mm).

Jacket made of semi-conducting **EPDM**. Its design provides relief of electrical stress as does a cable screen. Its connection to the cable screen ensures that the assembly is maintained at earth potential. It allows to evacuate the short-circuit currents

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#### Rep 5 Insulating body.

Moulded from insulating **EPDM**, for integral reconstitution of insulation. It maintains a uniform contact pressure on the cable insulation and on the bushing interface, providing an excellent moisture seal.

#### Rep 6 Test point.

Electrically protected by a cap made of semi-conducting **EPDM**. A capacitive voltage divider allows the checking of absence of voltage before removing the connector.

#### Rep 7 Insulating plug

Epoxy component with a threaded metal insert for attachement to the clamping screw

#### Rep 8 Cap

Moulded semi-conducting **EPDM**. Protects and earthes the test point during normal use.

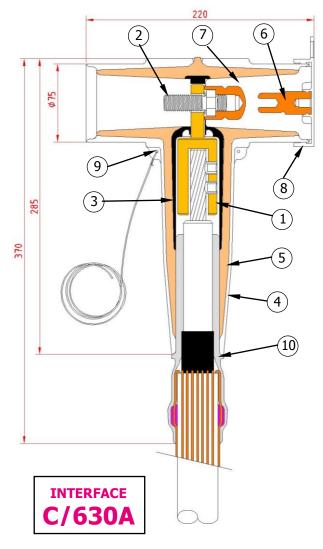
#### Rep 9 Earthing eye.

For connection of the outer envelope to the metallic cable screen.

## Rep 10 Moulded high permittivity reducer.

Adapt the connector body to the different cables insulations diameters. Ensures watertight protection of the earthing device and enables the cable screen test.





#### 100% of the separable connectors bodies are individually tested in factory

- Industrial power frequency

and partial discharges -

The screen break design enables cable outer sheath testing without removing or dismantling the connector.



## MEDIUM VOLTAGE

ascor

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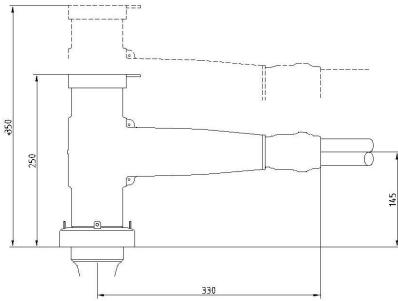
## SEPARABLE TEE CONNECTOR (INTERFACE C/630A)

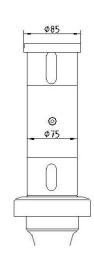
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## **SELECTION GUIDE**

## Overall dimensions (installed on bushing) in mm





(\*) Minimum dimension required for disconnection

**1.** Select in the table below the kit model corresponding to the diameter over cable insulation and to the insulation voltage Um in kV.

## For cables with reduced insulation thickness or other cross-sections, please contact us.

| Voltage | Diam. Over<br>insulation<br>in mm |      | Conductor<br>size in mm <sup>2</sup><br>(for guidance |     | Kit reference               |
|---------|-----------------------------------|------|---|-----|-----------------------------|
|         | Min.                              | Max. | only)   |     |                             |
| 12 kV   | 13                                | 22.3 | 25  | 120 | MSCT/EC-630-C-12-rA-25/120  |
|         | 16.1                              | 26.3 | 95  | 240 | MSCT/EC-630-C-12-rB-95/240  |
|         | 22.7                              | 33.0 | 185   | 300 | MSCT/EC-630-C-12-rD-185/300 |
| 17 kV   | 13                                | 22.3 | 25  | 70  | MSCT/EC-630-C-17-rA-25/70   |
|         | 16.1                              | 26.3 | 35  | 120 | MSCT/EC-630-C-17-rB-35/120  |
|         | 20.2                              | 30.8 | 95  | 240 | MSCT/EC-630-C-17-rC-95/240  |
|         | 25.6                              | 35.3 | 185   | 300 | MSCT/EC-630-C-17-rE-185/300 |
| 24 kV   | 16.1                              | 26.3 | 25  | 150 | MSCT/EC-630-C-24-rB-25/150  |
|         | 16.1                              | 26.3 | 70  | 185 | MSCT/EC-630-C-24-rB-70/185  |
|         | 20.2                              | 30.8 | 95  | 240 | MSCT/EC-630-C-24-rC-95/240  |
|         | 22.7                              | 33.0 | 95  | 240 | MSCT/EC-630-C-24-rD-95/240  |
|         | 25.6                              | 35.3 | 185   | 300 | MSCT/EC-630-C-24-rE-185/300 |
| 36 kV   | 20.2                              | 30.8 | 25  | 95  | MSCT/EC-630-C-36-rC-25/95   |
|         | 22.7                              | 33.1 | 35  | 120 | MSCT/EC-630-C-36-rD-35/120  |
|         | 25.6                              | 35.3 | 70  | 240 | MSCT/EC-630-C-36-rE-70/240  |
|         | 30.5                              | 40.6 | 150   | 300 | MSCT/EC-630-C-36-rF-150/300 |

# below. Earthing Device Type of Metall

**2.** Select suitable earthing device in the table

| Type of Metallic<br>Screen of Cable |
|-------------------------------------|
| polylam                             |
| Copper tape                         |
| Copper wires                        |
|                                     |

#### **EXAMPLE OF ORDER**

20 kV polymeric cable, 1x 50 mm<sup>2</sup>, diameter over insulation 21.5mm, with copper wire screen, aluminium conductor: MSCT/EC-630-C-24-rB-T3-25/150.

