SEPARABLE ELBOW CONNECTOR (INTERFACE A/250A)

For polymeric cables – Deadbreak operation – with mechanical conductor contact

REFERENCE: MSCE/EC -250-A

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 250 A rms
- Overload 300 A rms (8 hours per 24-hour period).
- Operated when de-energized.
- Test by voltage detector through an inbuilt capacitive voltage divider.

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 polyamid type.
- Insulation voltage up to 12.7/22 (24) kV.
- Conductor sizes: 25 to 95 mm².

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 and found 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 : 3 kg / 0.006 m³

INSTALLATION FEATURES

- For class tension 24kV, only one product reference allows to cover the section from 25 mm² to 95 mm², copper or aluminium core.
- No need for special tools, no heating, taping or filling.
- Vertical, angled or inverted position.
- No minimum distance between phases.
- Individual clamping by stainless steel brace.
- The three phases may also be locked together and to the equipment by use of metallic rings (supplied on request, separately or already fitted into the moulded groove).
- 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 FMBOm-250, FMBOh-250, FMBOcm, FMBA-250 and accessories.
- Additional metallic cover.
- Separable straight connector MScs/EC-250-A.
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DESCRIPTION

Rep 1 Mechanical conductor contact Al/Cu 25/95 mm².
Only one conductor contact covers the section from 25 mm² to 95 mm², copper or aluminium core.
No need for special tools.

Rep 2 Copper contact pin.
Copper pin, screwed into the mechanical conductor contact.

Rep 3 Semi-conducting inner screen.
Insert of semi-conducting EPDM enclosing the metallic 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.

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 Locking brace.
Stainless steel brace fastening the connector onto its mating bushing or other accessories.

Rep 8 Earthing eye.
For connection of the outer envelope to the metallic cable screen.

Rep 9 Groove for locking ring.
For the fitting of a metallic ring (supplied on request) when 3-phase locking is required.

Rep 10 Earth cover.
Moulded semi-conducting EPDM. Ensures watertight protection of the earthing device.
1. Select in the table below the kit model corresponding to the diameter over cable insulation and to the insulation voltage U_{\text{m}} in kV.
For cables with reduced insulation thickness, please contact us.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Diam. Over insulation in mm</th>
<th>Conductor size in mm² (for guidance only)</th>
<th>Kit reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 kV</td>
<td>11.8, 17.2</td>
<td>25 / 50</td>
<td>MSCE/EC-250-A-12-25/50*</td>
</tr>
<tr>
<td></td>
<td>17.2</td>
<td>70 / 95</td>
<td>MSCE/EC-250-A-12-70/95</td>
</tr>
<tr>
<td>17 kV</td>
<td>13.7, 17.2</td>
<td>25 / 35</td>
<td>MSCE/EC-250-A-17-25/35*</td>
</tr>
<tr>
<td></td>
<td>17.2</td>
<td>50 / 95</td>
<td>MSCE/EC-250-A-17-50/95</td>
</tr>
<tr>
<td>24 kV</td>
<td>17.2</td>
<td>25 / 95</td>
<td>MSCE/EC-250-A-24-25/95</td>
</tr>
</tbody>
</table>

*: models with adapters, please contact us.

2. Select suitable earthing device in the table below.

<table>
<thead>
<tr>
<th>Earthing Device Reference</th>
<th>Type of Metallic Screen of Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>polylam</td>
</tr>
<tr>
<td>T2</td>
<td>Copper tape</td>
</tr>
<tr>
<td>T3</td>
<td>Copper wires</td>
</tr>
</tbody>
</table>

EXAMPLE OF ORDER

20 kV polymeric cable, 1x 50 mm², diameter over insulation 21.5 mm, with copper wire screen, aluminium conductor: MSCE/EC -250-A-24-T3-25/95.

Metallic ring to lock the 3 connectors together could be supplied on request.