Premolded connectors for EPR and XLPE-insulated 1- or 3-core cables with aluminium or copper conductors for 12–24 kV. The connector can be used for both indoor and outdoor applications. Type tested according to CENELEC HD 629.1 S2 A.

1. **Pin contact**
   For CSE-A 250 A:
   The pin contact consists of a copper pin, a tinned aluminium connecting clamp and conductor guide. The conductor is guided to its position and fixed by means of a hexagonal spanner size 7 and a torque wrench.

   For CSS-A 250 A:
   The pin contact consists of a copper pin, a tinned aluminium cable lug with one bolt made in brass. The pin contact is installed on the conductor by means of an allen key size 6.

2. **Bail restraint**
   Consists of stainless steel, used to secure the connector to the bushing.

3. **Inner conductive layer**
   Creates a Faraday cage around the connector that ensures an equal electrical potential and eliminates the need for filling material in the cavities.

4. **Insulating layer**
   High electrical strength. The elasticity of the material ensures active pressure on all interfaces. Premolded with the inner and outer conductive layer. Electrical properties are ensured by routine tests.

5. **Outer conductive layer**
   UV-, Ozone- and tracking-resistant. UV-resistance tested for 3000 h in a xenon radiator. Thickness 3 mm on its’ thinnest part. When connected to the earth, the cable connectors meets international requirements for a fully screened system.

6. **Adapter**
   Made of field grading rubber to ensure stress control.

7. **Earth connection**
   The conductive layer is connected to the system earth by a copper wire. The wire can temporarily be removed from the earth, which makes it possible to perform cable sheath tests without disconnecting the connector from the bushing.

8. **Designed for polymeric insulated cables**
   CSE-A and CSS-A can be installed on XLPE as well as EPR (flexible rubber) insulated cables.
Main technical data

<table>
<thead>
<tr>
<th></th>
<th>12 kV</th>
<th>24 kV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage IEC (Uₐ)</td>
<td>12 kV</td>
<td>24 kV</td>
</tr>
<tr>
<td>Rated phase to earth voltage IEC (Uₐ)</td>
<td>8.35</td>
<td>12.7 kV</td>
</tr>
<tr>
<td>Lightning impulse withstand</td>
<td>95</td>
<td>125 kV</td>
</tr>
<tr>
<td>Interface standard for bushing</td>
<td>EN 50181</td>
<td>EN 50181</td>
</tr>
<tr>
<td>Current-carrying capacity</td>
<td>250 A</td>
<td>250 A</td>
</tr>
<tr>
<td>Cable conductor size</td>
<td>10–95 mm²</td>
<td>10–95 mm²</td>
</tr>
<tr>
<td>Cable insulation diameter</td>
<td>10–22 mm</td>
<td>13–25.5 mm</td>
</tr>
</tbody>
</table>

Routine test

All connectors are routinely tested with respect to

1. Pd < 5 pC at 22 Uₐ
2. AC 45 Uₐ
3. Visual inspection

Test sequence D1

1. DC voltage withstand test at 6 Uₐ for 15 minutes
2. AC voltage withstand test at 4.5 Uₐ for 5 minutes
3. Pd measurement at ambient temperature at 1.73 Uₐ, < 10 pc
4. Lightning impulse voltage test at 95° C
   10 positive and 10 negative impulses
5. Heat cycling in air 63 x 8 h at 2.5 Uₐ
6. Heat cycling under 1 meter water 63 x 8 h at 2.5 Uₐ
7. Disconnection / connection 5 complete operations
8. Pd measurement at elevated and ambient temperature at 1.73 Uₐ, < 10pc
9. Lightning impulse voltage test at ambient temperature
   10 positive and 10 negative impulses
10. AC voltage withstand test at 2.5 Uₐ for 15 minutes
11. Examination

Test sequence D2

12. DC voltage withstand test at 6 Uₐ for 15 minutes
13. AC voltage withstand test at 4.5 Uₐ for 5 minutes
14. Two thermal short circuit test for 1 sec to reach a conductor temperature of 250 °C
15. Disconnection / connection 5 complete operations
16. Lightning impulse voltage test at ambient temperature
   10 positive and 10 negative impulses
17. AC voltage withstand test at 2.5 Uₐ for 15 minutes
18. Examination

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