Product note
Kabeldon cable termination for GIS and TRF, 245–300kV
APEGA 245, APEGA 300

Cable termination suitable as a fixed connection point in gas-insulated switchgear, a transformer without a separate cable box or where the cable box is filled with transformer oil. Designed to meet the requirements of internationally accepted standards.

1. Top fitting
Made from brass.

2. Conductor connection
Silver-plated brass connector.

3. Insulator
Made from epoxy with an integrated screen interruption.

4. Filling compound
Polybutene oil, volume: 30 liters (expansion vessel included).

5. Stress relief cone
Premolded stress relief cone.

6. Pressure ring
Made from aluminium alloy (bolts are not included).

7. Flange
Made from aluminium alloy.

8. Box body
Made from aluminium alloy.

9. Earth clamp
The earthing clamp is made from tin-plated brass and clamped with stainless steel bolts. The earth clamp has a rated cross section of 1050 mm².

10. Cable clamp
Made from aluminium alloy. The clamp secures the cable in a fixed position.

11. Corona shield
Corona shield for transformer (TRF) applications, made of aluminium with surface insulation coating.

Main technical data

<table>
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<tr>
<th>Electrical data, IEC standard 62067</th>
<th>Voltage kV</th>
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<tr>
<td>Highest voltage for equipment, ( U_{\text{min}} )</td>
<td>245</td>
</tr>
<tr>
<td>Rated voltage, ( U )</td>
<td>220-230</td>
</tr>
<tr>
<td>Value of ( U_0 ) for determination of test voltage</td>
<td>127</td>
</tr>
<tr>
<td>Measurement of loss factor, ( U_0 )</td>
<td>127</td>
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<td>Heating cycle voltage test, ( 2U_0 )</td>
<td>254</td>
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<tr>
<td>Partial discharges test (&lt;5\text{pC}, 1.5U_0 )</td>
<td>190</td>
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<tr>
<td>Switching impulse voltage test</td>
<td>-</td>
</tr>
<tr>
<td>Lighting impulse voltage test, BIL</td>
<td>± 1050</td>
</tr>
<tr>
<td>AC voltage test, ( 2.5U_0 )</td>
<td>318</td>
</tr>
</tbody>
</table>
Common specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Classifications</th>
<th>HV GIS/TRF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net weight, complete termination, kg</td>
<td></td>
<td>240</td>
</tr>
<tr>
<td>Rated frequency, Hz</td>
<td></td>
<td>50/60</td>
</tr>
<tr>
<td>Max inclination, degrees</td>
<td></td>
<td>No limitations</td>
</tr>
<tr>
<td>Dimensions according to IEC 62271-209 (GIS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions according to EN 50299 (TRF)</td>
<td></td>
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</tr>
</tbody>
</table>

Routine test

Epoxy insulator according to EN 50089

- Dielectric strength according to IEC 60156
- Water content test according to Karl Fischer method

Leakage test on flange

Visual inspection is performed on all parts of the termination

Stress relief cone tested according to IEC 62067
- Partial discharge measurement, <5pC, 1.5U0 kV 190 240
- AC voltage withstand test, 30 min, 2.5U0 kV 318 400

Storage

When stored in original, unopened packaging at temperatures in the range of -30°C to 30°C:

- The stress relief cone has a shelf life of ten years from date of manufacture.
- Tapes and grease have a shelf life of five years.
- Metal hardwares have no shelf life limit.

The insulating oil shall be stored in original, unopened packaging at temperatures in the range of 5°C to 45°C. The shelf life is ten years from date of manufacture.

Cable range

- Prepared insulation Ø (mm) 73–120
- Conductor Cu/Al (mm²) 240–3000
- Oversheath Ø (mm) 160

Packaging

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Net weight</th>
<th>Gross weight</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box 1, termination parts</td>
<td>75</td>
<td>90</td>
<td>800 x 600 x 600</td>
</tr>
<tr>
<td>Box 2, termination parts</td>
<td>90</td>
<td>120</td>
<td>1200 x 800 x 740</td>
</tr>
<tr>
<td>Box 3, insulator</td>
<td>75</td>
<td>110</td>
<td>1200 x 800 x 600</td>
</tr>
</tbody>
</table>

Dimensions and weights may vary as products occasionally have different packaging.

Optional equipment

- Contact bolt for TRF installation: CBT
- Corona shield for TRF installation: CST
- Re-assembly kit: RE-APEGA
- Opto kit: OKT
- Screen connection kit: SCK
- Earthing kit: JSA

For additional information, please contact: www.abb.com/cableaccessories

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