Euromold
a Nexans company

Accessories for medium voltage power cables
Terminations

Cold-shrinkable Silicone 12 kV - 24 kV - 36 kV

Catalogue 02/2001
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COLD-SHRINKABLE SILICONE TERMINATIONS

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INDOOR TERMINATIONS

ITK
Up to 36 kV

Application
• A class I termination i.e. located indoors in controlled environmental conditions and not subject to condensation.
• To connect polymeric insulated cable to equipment.

Design
Indoor termination comprising:
1. A cable lug (not supplied in the standard kit).
2. Sealing mastic.
3. A silicone tube.
4. A silicone tube with sheds.
5. Stress relief material.
6. A conductive EPDM ring.

Specifications and standards
• Meets the requirements of CENELEC HD 629.1 S1.
• The ITK cold-shrinkable termination is certified by Germanischer Lloyd, license 13782-99HH, for use within particular cable types, electrical ratings... Contact our local representative for details.

<table>
<thead>
<tr>
<th>Termination type</th>
<th>Voltage Um (kV)</th>
<th>Strike distance &quot;L&quot; (mm)</th>
<th>Fig. no.</th>
<th>Conductor sections Al or Cu (mm²) min.</th>
<th>max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITK 112((^{(*)}))</td>
<td>12</td>
<td>260</td>
<td>1</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>ITK 212</td>
<td>12</td>
<td>260</td>
<td>1</td>
<td>95</td>
<td>400</td>
</tr>
<tr>
<td>ITK 312</td>
<td>12</td>
<td>300</td>
<td>1</td>
<td>500</td>
<td>1200</td>
</tr>
<tr>
<td>ITK 124((^{(*)}))</td>
<td>24</td>
<td>260</td>
<td>1</td>
<td>25</td>
<td>70</td>
</tr>
<tr>
<td>ITK 224</td>
<td>24</td>
<td>260</td>
<td>1</td>
<td>95</td>
<td>240</td>
</tr>
<tr>
<td>ITK 324</td>
<td>24</td>
<td>300</td>
<td>1</td>
<td>300</td>
<td>800</td>
</tr>
<tr>
<td>ITK 236</td>
<td>36</td>
<td>560</td>
<td>2</td>
<td>50</td>
<td>150</td>
</tr>
</tbody>
</table>

(\(^{(*)}\}) The ITK 112 accepts larger cable sizes (up to 400 mm²) when installed without rubber sleeve.
(\(^{(*)}\}) The ITK 124 accepts larger cable sizes (up to 240 mm²) when installed without rubber sleeve.
Ordering instructions
The complete ITK termination kit comprises the following components:

- Factory pre-assembled silicone tubes comprising stress relief and sealing mastic.
- Also comprises sealing mastic and installation instructions.

= 3 x ITK W termination kit **

* Factory pre-assembled silicone tubes comprising stress relief and sealing mastic.
** Also comprises sealing mastic and installation instructions.

Ordering formula (1)

3 x ITK W

From table W: Select the symbol corresponding to both the system voltage and the cable size in mm².

Example:
The copper tape screened cable is 12 kV, 50 mm² compact stranded aluminium.
Order: 3 x ITK 112 termination.

### Table W

<table>
<thead>
<tr>
<th>Conductor sizes (mm²)</th>
<th>Part numbers for 12 kV</th>
<th>Part numbers for 24 kV</th>
<th>Part numbers for 36 kV</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 - 35</td>
<td>-</td>
<td>124</td>
<td>-</td>
</tr>
<tr>
<td>50 - 70</td>
<td>112</td>
<td>124</td>
<td>236</td>
</tr>
<tr>
<td>95 - 150</td>
<td>112 (*) or 212</td>
<td>124 (*) or 224</td>
<td>236</td>
</tr>
<tr>
<td>185 - 240</td>
<td>112 (*) or 212</td>
<td>124 (*) or 224</td>
<td></td>
</tr>
<tr>
<td>300 - 400</td>
<td>112 (*) or 212</td>
<td>324</td>
<td>-</td>
</tr>
<tr>
<td>500 - 800</td>
<td>312</td>
<td>324</td>
<td></td>
</tr>
<tr>
<td>1000 - 1200</td>
<td>312</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*) & (**) please refer to the previous page.

Notes:
1. The ITK 112 & 124 terminations are always supplied with a rubber adapting sleeve required for the installation.
2. The commercialised European standard cable lugs without cable stop hole (aluminium, copper or bi-metallic) can be used.

Cable lugs should be within the dimensions specified (not applicable for ITK 312 and ITK 324).
In other cases, refer to our local representative.

(1) Important note:
Specify the metallic cable screen (concentric wires, metallic tape, ...) and select the necessary screen earthing device, refer to the selection guide.

This device must be specified when ordering.
OUTDOOR TERMINATIONS

OTK
Up to 36 kV

Application

- A class III termination i.e. for use outdoors and exposed to prolonged sunshine and other weather conditions.
- To connect polymeric insulated cable to equipment.

Design

Outdoor termination comprising:

1. A cable lug (not supplied in the standard kit).
2. Sealing mastic.
3. Sheds which can be installed upwards or down.
4. A silicone tube with sheds.
5. A silicone tube.
6. Stress relief material.
7. A conductive EPDM ring.

Specifications and standards

Meets the requirements of CENELEC HD 629.1 S1.

<table>
<thead>
<tr>
<th>Termination type</th>
<th>Voltage Um (kV)</th>
<th>Strike distance &quot;L&quot; (mm)</th>
<th>Fig. no.</th>
<th>Number of sheds</th>
<th>Conductor sections Al or Cu (mm²) min.</th>
<th>max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTK 112(*)</td>
<td>12</td>
<td>300</td>
<td>1</td>
<td>3</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>OTK 212</td>
<td>12</td>
<td>300</td>
<td>1</td>
<td>3</td>
<td>95</td>
<td>400</td>
</tr>
<tr>
<td>OTK 312</td>
<td>12</td>
<td>650</td>
<td>3</td>
<td>6</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>OTK 224</td>
<td>24</td>
<td>400</td>
<td>2</td>
<td>5</td>
<td>50</td>
<td>240</td>
</tr>
<tr>
<td>OTK 324</td>
<td>24</td>
<td>650</td>
<td>3</td>
<td>6</td>
<td>300</td>
<td>630</td>
</tr>
<tr>
<td>OTK 236</td>
<td>36</td>
<td>560</td>
<td>3</td>
<td>6</td>
<td>50</td>
<td>150</td>
</tr>
</tbody>
</table>

(\*) The OTK 112 accepts larger cable sizes (up to 400 mm²) when installed without rubber sleeve.
Ordering instructions
The complete OTK termination kit comprises the following components:

- Factory pre-assembled silicone tubes comprising stress relief and sealing mastic.
- Also comprises sealing mastic and installation instructions.

3 x OTK W termination kit **

* 3 x Silicone tube with 3 sheds*
* 3 x Silicone tube with 5 sheds
* 3 x Silicone tube with 6 sheds

* Factory pre-assembled silicone tubes comprising stress relief and sealing mastic.
** Also comprises sealing mastic and installation instructions.

Ordering formula (1)

3 x OTK W

From table W: Select the symbol corresponding to both the system voltage and the cable size in mm².

Example:
The copper tape screened cable is 24 kV, 150 mm² compact stranded copper.
Order: 3 x OTK 224 termination.

<table>
<thead>
<tr>
<th>Conductor sizes (mm²)</th>
<th>System voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part numbers for 12 kV</td>
<td>Part numbers for 24 kV</td>
</tr>
<tr>
<td>50 - 70</td>
<td>112</td>
</tr>
<tr>
<td>95 - 150</td>
<td>112 (') or 212</td>
</tr>
<tr>
<td>185 - 240</td>
<td>112 (') or 212</td>
</tr>
<tr>
<td>300 - 400</td>
<td>112 (') or 212</td>
</tr>
<tr>
<td>500 - 630</td>
<td>312</td>
</tr>
<tr>
<td>800 - 1000</td>
<td>312</td>
</tr>
</tbody>
</table>

(') please refer to the previous page.

Notes:
1. The OTK 112 termination is always supplied with a rubber adapting sleeve required for the installation.
2. The commercialised European standard cable lugs without cable stop hole (aluminium, copper or bi-metallic) can be used.

Cable lugs should be within the dimensions specified (not applicable for OTK 312 and OTK 324)
In other cases, refer to our local representative.

(1) Important note:
Specify the metallic cable screen (concentric wires, metallic tape, ...) and select the necessary screen earthing device, refer to the selection guide.

This device must be specified when ordering.
COLD-SHRINKABLE SILICONE TERMINATIONS
SCREEN EARTHING DEVICE SELECTION GUIDE
- Indoor and outdoor applications -

<table>
<thead>
<tr>
<th>Cable type</th>
<th>Copper tape screen and fabric tape screen or extruded semi-conductive screen (NF C 33-220)</th>
<th>Copper wire screen and fabric tape or extruded semi-conductive screen</th>
<th>Aluminium or copper tubular (ALUPE) or tape (C 33-223) screen and extruded semi-conductive screen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
<td><img src="image3.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

**Cable Type**

- Copper tape screen and fabric tape screen or extruded semi-conductive screen (NF C 33-220)
- Copper wire screen and fabric tape or extruded semi-conductive screen
- Aluminium or copper tubular (ALUPE) or tape (C 33-223) screen and extruded semi-conductive screen

**Conductor size (mm²)**

<table>
<thead>
<tr>
<th>12 - 24 - 36 kV applications</th>
<th>24 kV applications *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extruded semi-conductive or fabric tape screen</td>
<td>ALUPE</td>
</tr>
<tr>
<td>Fabric tape screen</td>
<td>C 33-223</td>
</tr>
</tbody>
</table>

| 25 - 35 | KIT MT + TSC | TSC | KIT 025 | KIT 420 |
| 50 - 240 | KIT MT + TSC | TSC | KIT 025 | KIT 425 |
| 300 - 500 | KIT MT + TSC | TSC | KIT 025 | KIT 625 |
| 630 | KIT MT + TSC | TSC | KIT 050 | KIT 650 |
| 800 - 1200 | KIT MT + TSC | TSC | KIT 050 | KIT 650 |

**KIT contents**

1. TINNED BRAID WITH SOLDER BLOCK:
   - Braid section = 25 mm²
   - L = 500 mm
2. 1 TINNED COPPER WIRE FOR EARTH BRAID CLEATING:
   - L = 500 mm
3. 1 ROLL OF SEALING MASTIC
4. 1 ROLL OF SEMI-CONDUCTIVE TAPE
5. 1 STRIP OF SELF-AMALGAMATING TAPE:
   - L = 70 mm

**Example**: An outdoor cold-shrinkable termination is required for a 24 kV cable with a copper tape screen and an extruded semi-conductive screen. Order a KIT MT + TSC screen earthing device.