Plug-in solution

Prysmian has developed a special epoxy resin insulator version in which the outer part of the top connector is directly embedded.

The insulator can be installed into the transformer's cable enclosure prior to the cable installation and the enclosure can be filled with oil at any time as it is fully sealed.

The cable head is locked in place but can be removed by turning the epoxy insulator by 90°.
Oil Immersed Transformer Terminations

Prysmian Cables & Systems is a world-class multinational company, founded in 1872 as "Ditta Pirelli & C", it has attained a leadership position for more than a century of operations in its two key international markets — "Energy Cables and Systems" and "Telecom Cables & Systems". Prysmian Cables and Systems is the world’s largest manufacturer of power and telecommunications cables, with 52 manufacturing facilities in 21 countries in five continents and a market share in excess of 10%.

Prysmian Energy Cables and Systems is a global solutions provider, offering a wide range of integrated solutions, such as cable systems, custom design and engineering, project management, installation, and post-sale services.

Prysmian Energy Cables and Systems concentrates on continuous product innovation and on achieving a competitive edge by focusing on research and development. This is done through Prysmian’s own R&D centres and by co-operating with universities, scientific institutions and above all, our customers: Prysmian’s world-wide organisation makes and delivers advanced technological solutions to customers anywhere in the world.

Prysmian started manufacturing insulated cables for electric power distribution around 1880 and soon afterwards initiated the development of the first cable accessories. Prysmian’s very long and successful experience in HV and EHV cable systems has lead to the development of a comprehensive range of accessories for extruded electric cables.

The origin of the current product range of accessories for HV polymeric cables dates back to 1978 when Prysmian, strong of its very long and successful experience in Fluid Filled cable systems developed its first generation of accessories for extruded cable systems. These accessories are based on pre-moulded electrical components, i.e. stress cones for terminations and one-piece sleeves for joints.

Pre-moulded sleeves and stress cones are currently available for HV polymeric cables from 72.5 kV up to 525 kV and adopt the same design at all voltage classes.

Thanks to its outstanding electrical and mechanical properties, ethylene-propylene rubber (EPR) has been favoured for the rubber mouldings manufacture. After a thorough research on rubber compounds properties, Prysmian developed a proprietary formulation with superior characteristics that is manufactured in-house, which guarantees an unsurpassed reliability of the products.

The mechanical properties of Prysmian special compounds ensure a constant pressure at the cable/moulding interface during the entire lifetime of the accessories, whilst the electrical design has been optimised to minimise the electrical stress concentrations in the same area.

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**Legend**

1. Connection interface
2. Top connector
3. Epoxy resin insulator
4. EPR stress cone
5. End bell
6. Corona Shield

**Electrical rating**

<table>
<thead>
<tr>
<th>Voltage (kV)</th>
<th>72.5</th>
<th>145</th>
<th>245/300</th>
<th>420</th>
<th>525</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (kA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**For Installation**

- Transformer terminations are designed in accordance with CENELEC EN 50299. Adaptation to different standards is available on request.

**Transformer terminals**

Available from 72.5 kV up to 525 kV
Plug-in solution

Prysmian has developed a special epoxy resin insulator version in which the outer part of the top connector is directly embedded.

The insulator can be installed into the transformer’s cable enclosure prior to the cable installation and the enclosure can be filled with oil at any time as it is fully sealed.

The cable head is locked in place but can be removed by turning the epoxy insulator by 90°.
Stress cone basics

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Transformer terminations available from 72,5 kV up to 525 kV

> Additional Features

Following the latest developments in cable design and in view of a full system approach the Prysmian transformer terminations can include the following:

- Optical fibres management
- Partial discharge sensor

DRY DESIGN

oil immersed transformer termination

Legend

1: Connection interface
2: Top connector
3: Synergy stress cone
4: Diaphragm
5: Compartment

Electrical rating

<table>
<thead>
<tr>
<th>Voltage (kV)</th>
<th>110</th>
<th>110</th>
<th>220/300</th>
<th>420</th>
</tr>
</thead>
<tbody>
<tr>
<td>kV</td>
<td>35</td>
<td>420</td>
<td>110</td>
<td>245</td>
</tr>
<tr>
<td>kV</td>
<td>72.5</td>
<td>245</td>
<td>170</td>
<td>420</td>
</tr>
<tr>
<td>kV</td>
<td>525</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

IEC 60076-1 = 15 min AC Wet withstand 205 310 365 460 -
IEEE 48 = 6 h AC Wet withstand voltage 160 210 250 330 -
Basic Impulse Level 550 650 750 1050 1425
Electrical rating U max 123 145 170 245/300 420

Oil immersed transformer terminations are designed in accordance with CENELEC EN 50295. Adaptation to different standards is available on request.

YOUR ENERGY... OUR SYSTEMS... ANYWHERE

Oil immersed transformer terminations are a world-class multinational company. Founded in 1872 as "Ditta Pirelli & C.", it has achieved a leading position more than a century of operations in its two key international markets - "Energy Cables and Systems" and "Telecom Cables & Systems".

Prysmian Cables and Systems is the world’s largest manufacturer of power and telecommunications cables, with 52 manufacturing facilities in 21 countries on five continents and a market share in excess of 15%.

Prysmian Energy Cables and Systems is a global solutions provider, offering a wide range of integrated solutions, such as cable systems, custom design and engineering, project management, installation and post-market services.

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Prysmian started manufacturing insulated cables for electric power distribution around 1880 and soon afterwards initiated the development of the first cable accessory.

Prysmian’s very long and successful experiences in HV and EHV cable systems have lead to the development of a comprehensive range of accessories for extruded dielectric cables.

A relentless R&D effort focused on rubber compounds as well as on electrical design has created accessories for all applications, based on pre-moulded and factory tested joint sleeves and termination stress cones that are recognised worldwide for their unsurpassed reliability.

Prysmian developed a proprietary formulation with superior characteristics that is manufactured in-house, which guarantees an unsurpassed reliability of the products.

The mechanical properties of Prysmian special compounds ensure a constant pressure at the cable/moulding interface during the entire lifetime of the accessories, whilst the electrical design has been optimised to minimise the electrical stress concentrations in the same area.

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**Transformer terminations available from 72,5 kV up to 525 kV**

**Additional Features**

Following the latest developments in cable design and in view of a full system approach the Prysmian transformer terminations can include upon request:

- Optical fibre management
- Partial discharge sensor

**Stress cone basics**

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**Legend**

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3. Epoxy resin insulator
4. EPR stress cone
5. End bell
6. Conical Shield
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