



Energy Division

# Raychem Dry Self-Supporting Outdoor Termination for 145 kV OHVT



**MEOR**

RAYCHEM ELECTRIC POWER CORP. OPTICAL DIV.



**Tyco Electronics**

Our commitment. Your advantage.

## Raychem Dry Self-Supporting Outdoor Termination for 145 kV

### Application

The dry self-supporting termination is designed for voltage class 145 kV and operation under severe environmental conditions. It is free from any insulating liquid or gel. Polymeric insulated cables of various designs can be adopted with respect to shielding and metal sheath. The polymeric housing with long creepage length covers extreme pollution levels according to IEC 60071-1 1996, IEC 60071-2 1996 and IEEE-1313.1-1996. Its mechanical performance is similar to conventional oil-filled terminations with composite housing. The termination is easily separable and consists of a plug-in part and an epoxy resin insulator protected with a directly moulded silicone shed housing. Due to the short cable cut-back dimensions of the plug-in the time required to install the termination is very short and can

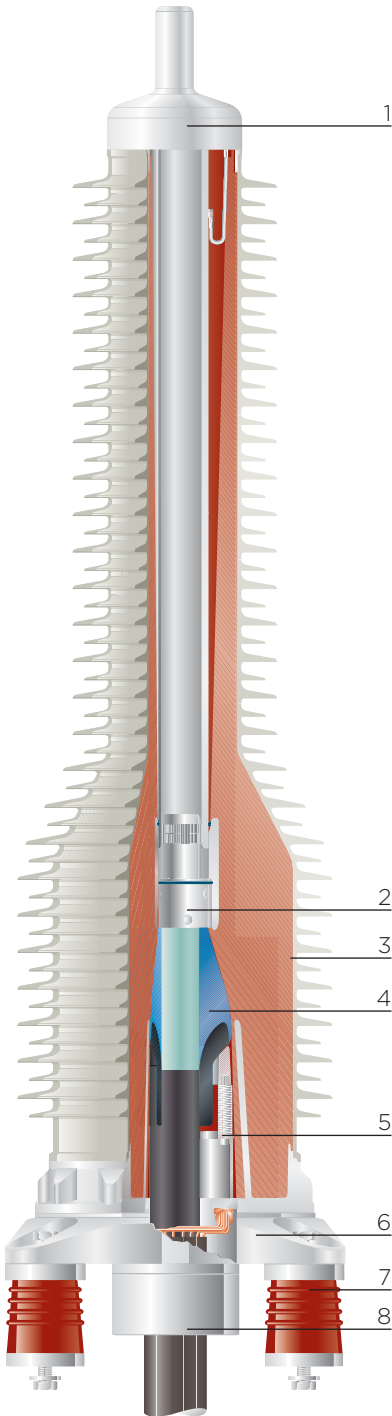
be further reduced in case of short cable links by pre-installing the plug-in on the shop floor. The plug-in is similar to the plug-in used with our dry switchgear/transformer termination.

### Features:

- Dry interface, no oil-filling
- Self-supporting
- Pre-fabricated and factory tested silicone-rubber stress cone
- Torque-controlled multi-contact conductor bolt
- Fast and simple installation combining GIS plug-in technology with polymeric insulators
- No special tools required to install the termination
- Isolated cable gland for sectionalization
- Long creepage length
- Type tested according to IEC 60840

### Major Design Elements

The polymeric insulator (3) with embedded multi-contact electrode is attached to the support structure through the base plate (6) and the support insulators (7). The torque-controlled shear-off bolt connector (2) with multi contacts fits the cable conductor. The connector is suitable for stranded aluminium and copper conductors and can be modified to accept solid conductors as well. No special tool is required to install the connector. The silicone rubber stress cone (4) provides the electrical field control and can easily be applied on the cable without tools owing to its excellent elasticity. A metal spring-loaded compression ring (5) presses the rubber stress cone into the specially shaped interior of the insulator housing, ensuring a uniform contact pressure and electrically sound interface. The cable outer serving is adapted through a gland system (8), which addresses the individual shielding and armouring. The gland system also secures the cable.



- |   |                                  |
|---|----------------------------------|
| 1 Upper metal fitting                   | 5 Spring-loaded compression ring |
| 2 Mechanical connector                  | 6 Base plate                     |
| 3 Resin body with silicone shed housing | 7 Support insulators             |
| 4 Stress cone                           | 8 Gland and sealing              |

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. Raychem, TE Logo and Tyco Electronics are trademarks.

**Energy Division – economical solutions for the electrical power industry: cable accessories, connectors & fittings, electrical equipment, instruments, lighting controls, insulators & insulation enhancement and surge arresters.**

Tyco Electronics Raychem GmbH  
 Energy Division  
 Finsinger Feld 1,  
 85521 Ottobrunn/Munich, Germany

