

HV DRY PLUG-IN SWITCHGEAR TERMINATIONS (PHVS-170)

UP TO 170 kV

KEY FEATURES

- Dry interfaces, no oil-filling
- Insulator complies with IEC 62271-209 and IEC 62271-203
- Pressure-tight resin housing
- Pre-fabricated and factory-tested silicone-rubber stress cone
- Torque-controlled multi-contact conductor bolt
- No special tools required to install the termination
- Insulated cable gland for sectionalization
- Type tested according to IEC 60840 and IEC 62067

TE Connectivity's (TE) Raychem high voltage dry plug-in switchgear termination (PHVS) is designed for voltage up to 245 kV and installed in cable entry housings of gas-insulated switchgear (GIS). The PHVS is designed such that it is compatible with polymeric insulated cables independent of the manufacturer and can be adapted with respect to grounding required for various cable constructions. The complete system is separated into the epoxy insulator part and the plug-in part using the pre-moulded silicone stress cone.

The insulators are designed and tested according to IEC 62271-209 and IEC 62271-203. Hence, the PHVS is suitable for all GIS complying with the above standard. Each individual insulator is hermetically sealed and tested. To ensure compatibility with dimensions of oil filled switchgear according to IEC 60859, which require a longer construction length, the entire set up is made available with adaptors. The epoxy insulator can be installed directly at the GIS manufacturer, saving installation time on-site and reducing the risk of contamination of the cable entry housing.

The plug-in part consists of the pre-moulded silicone body for stress control and a mechanical cable lug for easy installation. The plug can be easily separated and re-installed for maintenance purpose. Accessories and add-on kits can be provided for testing and maintenance.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

HV DRY PLUG-IN SWITCHGEAR TERMINATIONS (PHVS-170)

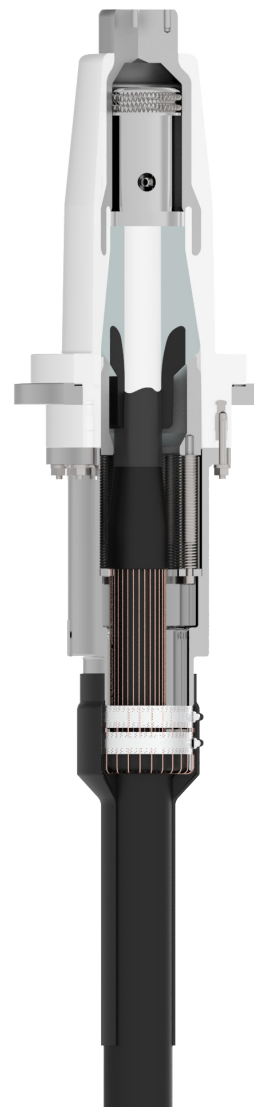


MECHANICAL DATA	
Construction length (with IEC adapter)	470 (757) mm
Operating pressure SF6	0,35 - 0,85 MPa
Earth connection	4 × M12
Cantilever force	4.5 kN
Weight Approx. PHVS (Insulator) PHVX (Plug-in)	45 kg 60 kg
Packaging information PHVS (Insulator) PHVX (Plug-in)	470 × 390 × 650 mm 700 × 390 × 650 mm

NOTE : Weight and packaging information will vary for kits with adaptors or for larger sizes.

DESIGN DATA	
Diameter over prepared insulation	34 - 108 mm
Diameter over sheath	Up to 135 mm
Cross section (Cu / Al)	Up to 2500 mm ²
Conductor connection	Mechanical (shear off bolts)
Material of housing	Epoxy resin
Material of connection bolt	Aluminium / Copper
Method of stress control	Geometric
Type of Stress cone	Pre-fabricated silicone rubber
Max. permissible dielectric stress	4 kV/mm (at insulation screen of cable)
Corona Shield	Not required for GIS
Installation temperature	0°C to +40°C
Operation temperature	As per equipment
Storage temperature	0°C to +40°C

ELECTRICAL TYPE TEST IEC 60840	
Heating cycle voltage	174 kV
Partial discharge at ambient and elevated temperatures	131 kV
Lightning impulse voltage 1.2µs/50µs	750 kV
ELECTRICAL ROUTINE TEST IEC 60840	
AC withstand voltage	218 kV
Partial discharge test	131 kV



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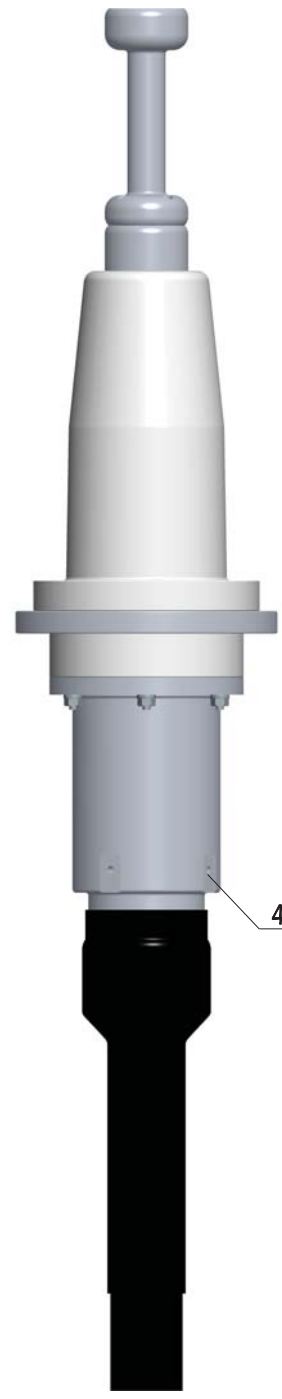
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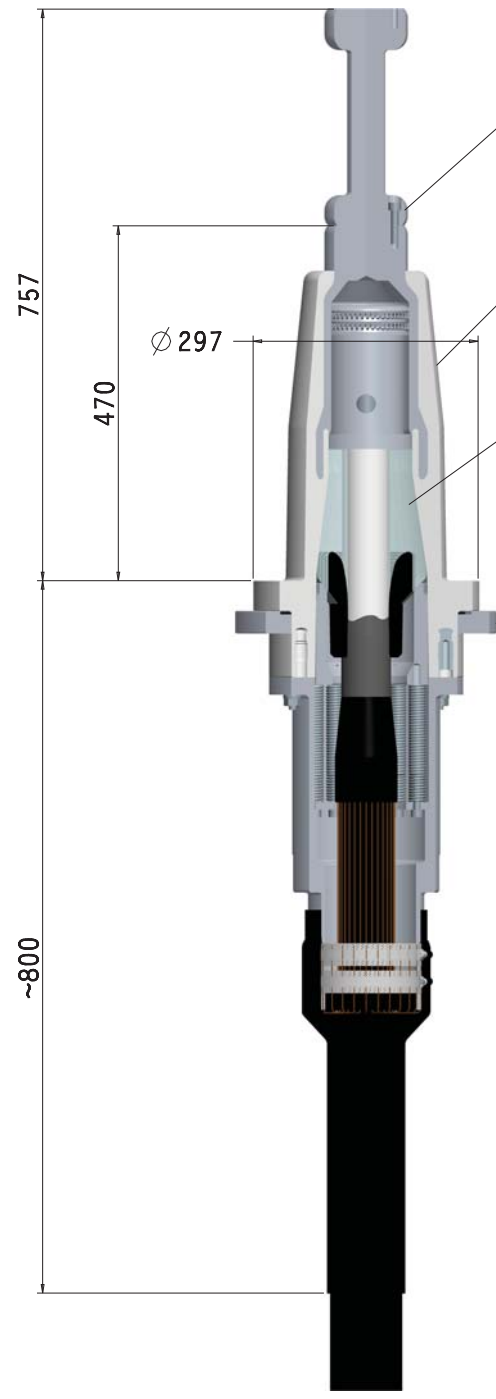
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4x M12



757

470

Ø 297

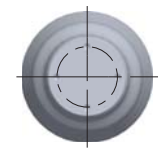
~800

IEC Adapter (Optional)

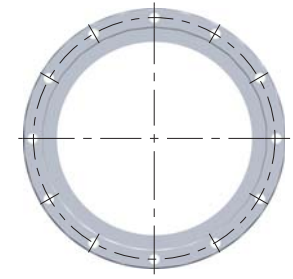
Epoxy Resin Insulator

Stress Cone

Flange Ring



4xM10x25
BORES ON Ø 80
CONNECTION INTERFACE
ACC. TO IEC 62271-209



12xØ 14.5 BORES
ON Ø 320
BASE FLANGE
ACC. TO IEC 62271-209
(IEC 60859)

SWITCHGEAR TERMINATION
170 kV DRY TYPE
FOR XLPE-CABLE

PHVS-170
OFFER DRAWING



Raychem High Voltage Cable Accessories

TE Connectivity drawing no: EPD-204-1883-00 REV. 1