

## HIGH VOLTAGE DRY PLUG-IN SWITCHGEAR TERMINATIONS PHVS-245

## **KEY FEATURES**

- Dry interfaces, no oil-filling
- Insulator complies with IEC 62271-209 and IEC 62271-203
- Pressure-tight resin housing
- Pre-fabricated and factorytested 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 terminations PHVS are designed for voltage up to 245 kV and installed in cable entry housings of gas-insulated switchgear (GIS). The PHVS are designed such that they are 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 are suitable for all GIS complying with the above standard. Each individual insulators are hermetically sealed and tested. To ensure compatibility with dimensions of oil filled switchgears according to IEC 60859, which require a longer construction length, the entire set up is made available with adaptors. The epoxy insulators 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.







MECHANICAL DATA	
Construction length (with IEC adapter)	620 (960) 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)	100 kg 70 kg
Packaging information PHVS (Insulator) PHVX (Plug-in)	1010 × 550 × 700 mm 1600 × 430 × 700 mm

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

DESIGN DATA	
Diameter over prepared insulation	77 – 119 mm
Diameter over sheath	Up to 150 mm
Cross section (Cu / Al)	Up to 2500 mm <sup>2</sup>
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 62067		
Heating cycle voltage	254 kV	
Partial discharge at ambient and elevated temperatures	190 kV	
Lightning impulse voltage 1.2µs/50µs	1050 kV	
ELECTRICAL ROUTINE TEST IEC 62067		
AC withstand voltage	318 kV	
Partial discharge test	190 kV	



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