RAYCHEM PLUG-IN TERMINATIONS (RPIT)

INNER CONE SYSTEMS FOR SWITCHGEARS AND TRANSFORMERS UP TO 52 KV

KEY FEATURES

- Shielded inline connection for gas insulated switchgears and transformers up to 52 kV
- Metal-enclosed, hermetically insulated and suitable outdoor use
- Designed to be used for different conductor types in accordance with IEC 60228
- Special designs for wind power stations and offshore applications with bronze protection cover
- Optional voltage detection point

TE Connectivity (TE) has decades of experience in the field of hermetically-insulated termination systems for Medium Voltage networks and offers an inner cone termination product series that ensure reliable cable connection for swichgears and transformers up to 52 kV.

Raychem Plug-In Terminations (RPIT) separable connectors are designed for both aluminum or copper conductors in accordance with IEC 60228 and are compatible with inner cone bushings size 2 (800 A) and size 3 (1250 A) as per EN 50180/EN 50181. RPIT product series are available for system voltages from 12 kV up to 52 kV for any type of cable and are compliant with CENELEC HD 629.1.S2:2006- A1:2008 (up to 42 kV) and IEC 60840 (52 kV). In addition, RPIT terminations can be customized with an optional voltage detection point and a special material composition for harsh environments.

The inner cone termination incorporates a high-quality contact system which ensures reliable current transmission from the cable conductor to the busbar. The electrical interfaces between the silicone stress relief cone to the cable and the bushing are kept permanently sealed using a pressure component. This element is housed in the protection cover, which is sealed with heat-shrinkable tubing.

TE makes the installation and plug-in of inner cone terminations simple by using silicone component and offering an easy-to-handle installation tool, which is compatible with industry-wide standards.

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

Raychem Plug-In Terminations (RPIT)

In addition to RPIT inner cone terminations, TE offers a full line of RPIT accessories such as bushings, insulating caps and current testing tools to meet any needs and support you at any project stage.

TECHNICAL DATA - TESTING ACCORDING TO CENELEC HD629.1.S2			
Item	**Size 2**	**Size 3**	**Requirement**
U_0 / U	20.8/36	20.8/36	
U_m	42	42	
DC withstand voltage 15 min (kV)	125	125	no breakdown or flashover
AC withstand voltage 5 min (kV)	93.5	93.5	no breakdown or flashover
PD at ambient temp (kV)	< 2 pC	< 2 pC	max 10 pC at 2 U_0
Impusle voltage at elevated temp (kV)	200	200	10 impulses of each polarity; no breakdown
Heating cycle voltage in air (kV)	52	52	63 cycles at 2.5 U_0 ; no breakdown
Heating cycle voltage in water (kV)	52	52	63 cycles at 2.5 U_0 ; no breakdown
Thermal short circuit conductor (kA)	31.8/2.93 sec	34.93/4.75 sec	2 short circuits to raise conductor to 250°C; no breakdown
Dynamic short circuit (kA)	125	125	1 short circuit at Id ; no breakdown
Disconnection/Connection	5 x pass	5 x pass	5 complete operations; no visible damage to contact
Partial discharge at elevated and ambient temp (kV)	< 2 pC	< 2 pC	max 10 pC at 2 U_0
Impulse voltage at ambient temp (kV)	200	200	10 impulses of each polarity ; no breakdown
AC withstand voltage 15 min (kV)	52	52	no breakdown or flashover

PRODUCT SELECTION INFORMATION						
Description	**Size**	**Nominal Current (A)**	**System Voltage (kV)**	**Cross Section (mm²)**	**Diameter over conductor (mm)**	**Diameter over insulation (mm)**
RPIT - 321x	2	800	12	120 - 400	12.0 - 24.6	21.0 - 33.0
RPIT - 521x	2	800	24	50 - 400	7.6 - 24.6	21.0 - 39.0
RPIT - 621x	2	800	36/42	50 - 400	7.6 - 24.6	23.5 - 42.0
RPIT - 331x	3	1250	12	240 - 630	17.0 - 32.5	26.0 - 40.0
RPIT - 531x	3	1250	24	150 - 630	13.0 - 32.5	26.0 - 42.5
RPIT - 631x	3	1250	36/42	70 - 630	7.6 - 32.5	26.0 - 50.0
RPIT - 831x*	3	1250	52	50 - 500	7.6 - 27.6	26.0 - 55.0

RPIT terminations are available with and without test point. One kit contains a set of 3 plugs in terminations.

* 52 kV product tested according to IEC 60840.

TEST REPORT
Size 2: PPR - 2940
Size 3: PPR - 3037

Cable Services Limited
Powering the UK

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