

TE'S RAYCHEM PLUG-IN TERMINATIONS (RPIT)

INNER CONE SYSTEMS FOR SWITCHGEARS
AND TRANSFORMERS UP TO 52 kV

TE'S RAYCHEM PLUG-IN TERMINATIONS (RPIT)

TYPE-TESTED, FIELD-PROVEN INNER CONE CONNECTORS

Inner cone terminations are essential components of substations and cable networks – requiring products that are high-quality, robust and compatible with existing systems.

TE Connectivity (TE) has decades of experience in the field of hermetically-insulated termination systems for Medium Voltage applications and offers an inner cone product series, per EN 50180 and EN 50181, for polymeric insulated cables from 12 kV to 52 kV.

MAKE TE YOUR PARTNER OF CHOICE AND EXPERIENCE THE BENEFITS:

- A full line of inner cone products, including all types of accessories
- Seamless product integration of separable connectors with systems meeting EN 50180 or EN 50181 standards, including a full line of products for outer cone bushings
- Special solutions for products made to withstand harsh environments
- Customized kits and solutions for armored, trifurcation and special applications
- Reliability and assurance that comes with more than 60 years of TE's Raychem material science and engineering experience
- Unparalleled customer service, design assistance and field support



HIGH-QUALITY INNER CONE TERMINATIONS FOR RELIABLE POWER DISTRIBUTION

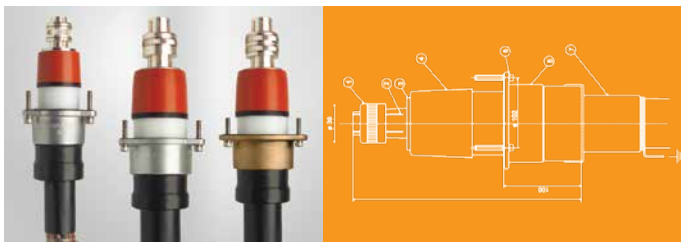
TE's Raychem Plug-in Termination (RPIT) separable connectors are compatible with inner cone bushings size 2 (800 A) and size 3 (1250 A) as per EN 50180/EN 50181. RPIT product series are available for system voltages from 12 kV up to 52 kV for any type of cable.

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.

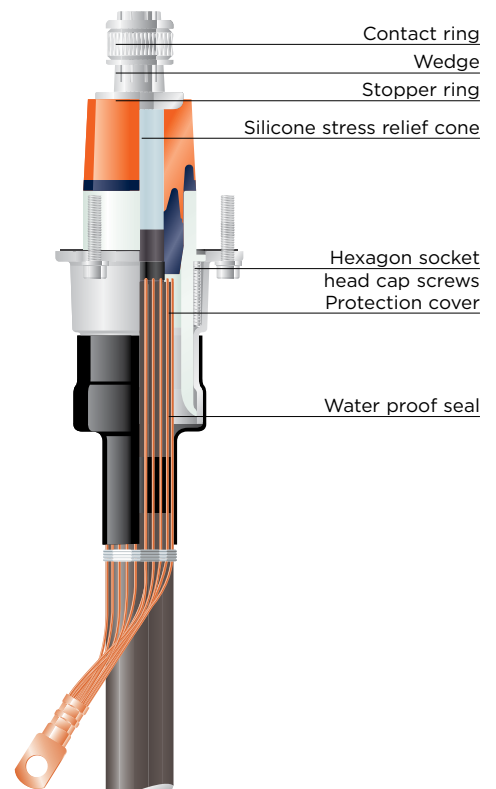


KEY FEATURES

- 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 covers
- Optional voltage detection point



RPIT Termination



INSTALLATION MADE EASY

RPIT Installation Tool

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

Local Field Support

Backed by local engineers, TE offers one of the best field support programs in the industry. Benefit from technical advice in local language, on-site training and design support at any project stage, provided by TE's worldwide organization for stress-free installation.



TE PRODUCTS PLAY WELL WITH OTHERS

EVERY CONNECTION COUNTS

RPIT ACCESSORIES

TE offers a full line of RPIT accessories to meet any needs and support you at any project stage.

- Bushings: available in size 2 and 3 up to 52 kV as per EN 50180 and EN 50181, with optional voltage detection point for use in switchgears and transformers
- Insulating caps: electrical insulation and sealing for bushings size 2 and 3 that provide protection against dust and moisture
- Voltage testing socket: for on-site testing on RPIT terminations
- Current testing socket: for current testing on switchgears, transformers and transducers, fitted with RPIT bushings



IN ADDITION TO THE RPIT PRODUCT LINE, TE OFFERS A FULL RANGE OF CABLE ACCESSORIES FOR LOW, MEDIUM AND HIGH VOLTAGE APPLICATIONS.



TE Connectivity 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 switchgears and transformers up to 52 kV.

TECHNICAL DATA - TESTING ACCORDING TO CENELEC HD629.1.S2			
Item	Size 2	Size 3	Requirement
U_0 / U	20.8/36	20.8/36	n.a.
U_m	42	42	n.a.
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
Impulse 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 I_d ; 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 (mm ²)	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

TE's Raychem RPIT are available with and without test point. One kit contains a set of 3 plug-in terminations.

* 52 kV product tested according to IEC 60840.

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

te.com/energy

© 2018 TE Connectivity. All Rights Reserved. EPP-2342-11/18-EN

Raychem, TE Connectivity and the TE connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies. Other logos, product and Company names mentioned herein may be trademarks of their respective owners. While TE has made every reasonable effort to ensure the accuracy of the information in this brochure, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this brochure are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

**FOR MORE INFORMATION:
TE Technical Support Centers**

USA:	+ 1 800 327 6996
Canada:	+ 1 (905) 475-6222
Mexico:	+ 52 (0) 55-1106-0800
Latin/S. America:	+ 54 (0) 11-4733-2200
France:	+ 33 380 583 200
UK:	+ 44 0870 870 7500
Germany:	+ 49 896 089 903
Spain:	+ 34 916 630 400
Italy:	+ 39 333 250 0915
Benelux:	+32 16 508 695
Russia:	+7 495-790 790 2-200
China:	+ 86 (0) 400-820-6015