



## PLUG IN TERMINATION SYSTEM (RPIT)

### UP TO 42 kV, FOR GAS INSULATED SWITCHGEAR

#### KEY FEATURES

- Shielded inline connection for gas insulated switchgears up to 42 kV
- Metal-enclosed, hermetically insulated and suitable outdoor use
- Designed for stranded circular aluminium or copper conductors in accordance with IEC 60228
- Special designs for wind power stations and offshore applications with bronze protection covers

TE Connectivity has several decades of experience in the field of hermetically insulated termination systems for medium voltage applications, bringing about the development of technical solutions that are ideal for inline bushings for connection type size 2 (800 A), size 3 (1250 A), as per EN 50181. The product series is available for system voltages from 12 kV up to 42 kV.

The connection system incorporates a lamellate contact system which ensures reliable current transmission from the conductor via a central nut. The interfaces between the silicone body of the termination and the cable and/or bushing is kept permanently sealed using a permanent pressure component. This element is housed in the protection cover, which is sealed with heat-shrinkable tubing.

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

## Plug in Termination System RPIT

Plug in connector meets inner cone bushings in accordance with EN 50180 and EN 50181 for inline connections.



### TECHNICAL DATA - TESTING ACCORDING TO CELENEC HD629.1.S2

Product Size	Size 2	Size 2	Size 3	
Cross Section (mm <sup>2</sup> )	300	185	630	
Diameter over insulation (mm)	max 42	max 42	max 55	
Test	Testing Values for Rated Voltage			Results
$U_0 / U$	12.7/22	20.8/36	20.8/36	
$U_m$	24	42	42	
DC withstand voltage 15 min (kV)	76	125	125	no breakdown or flashover
AC withstand voltage 5 min (kV)	57	93.5	93.5	no breakdown or flashover
PD at ambient temp (kV)	< 2 pC	< 2 pC	< 2 pC	max 10 pC at 2 $U_0$
Impulse voltage at elevated temp (kV)	150	200	200	10 impulses of each polarity; no breakdown
Heating cycle voltage in air (kV)	32	52	52	63 cycles at 2.5 $U_0$ ; no breakdown
Heating cycle voltage in water (kV)	32	52	52	63 cycles at 2.5 $U_0$ ; no breakdown
Thermal short circuit (conductor) (kA)	31.5/3 sec	30/1.3 sec	35/5 sec	2 short circuits to raise conductor to 250° C; no breakdown
Dynamic short circuit (kA)	125	125	125	1 short circuit at $I_g$ ; no breakdown
Disconnection/Connection	5 x pass	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	< 2 pC	max 10 pC at 2 $U_0$
Impulse voltage at ambient temp (kV)	150	200	200	10 impulses of each polarity; no breakdown
AC withstand voltage 15 min (kV)	32	52	52	no breakdown or flashover

### PRODUCT SELECTION INFORMATION

Type	Size	Nominal Current (A)	System Voltage (kV)	Cross Section (mm <sup>2</sup> )	Diameter over conductor (mm)	Diameter over insulation (mm)
RPIT - 321x	2	800	12	95 - 300	11.0 - 21.6	19.3 - 30.4
RPIT - 521x	2	800	24	50 - 300	7.7 - 21.6	20.2 - 34.6
RPIT - 621x	2	630	36/42	50 - 185	7.7 - 16.8	25.2 - 35.1
RPIT - 331x	3	1250	12	240 - 630	17.8 - 32.5	26.4 - 39.6
RPIT - 531x	3	1250	24	150 - 630	13.9 - 32.5	36.5 - 45.6
RPIT - 631x	3	1250	36	95 - 630	11.0 - 32.5	28.5 - 55.0

\* Product is available with and without test point. One kit contains a set of 3 plugs in terminations.

### TEST REPORT

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

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