



Energy Division

Raychem screened, separable
connection system RSTI-Large
for large cross sections 1250 A
up to 42 kV

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Features

- The insulation of the connector is made of a highly modified silicone rubber characterised by high tracking resistance, elongation at break and non-flammability.
- A thin walled screen is permanently bonded onto the insulation and protects the connection system against accidental contact.
- The screened connector need not be removed for over sheath testing.
- The screened cable connector exceeds CENELEC HD 629.1 S2 requirements, which includes BS; VDE and other international specifications.
- Design fits 630 A and 1250 A bushings (Interface "C₁" and "C₂") as specified by EN 50180 and EN 50181.
- The compact design supports the use of double "T" connections inside standard terminal boxes.
- The wide application range covers cable cross sections from 400 to 800 mm².
- Conductor connection with mechanical lugs.
- Easily accessible rear plug with capacitive test point.
- Complete kit including lugs facilitates installation and storage.

Raychem RSTI screened separable connectors are designed to connect single- and three-core polymeric cables to medium-voltage gas insulated switchgear and other equipment using CENELEC bushings Type C₁=630 A and C₂=1250 A, specified up to 42 kV.

Made of a highly modified silicone rubber and protected by a thin walled outer conductive screen connected to earth, Raychem RSTI connectors are equally suited for indoor and outdoor application.

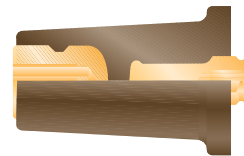
Supporting a wide application range, the design incorporates one body and three stress cone adapters to cover all cross-sections from 400 to 800 mm² and all voltage classes from 12 to 42 kV. The overall and cut back dimensions are designed to take up minimum space in the terminal box.

Raychem RSTI connectors are equipped with a capacitive test point for determining whether the circuit is energised. A conductive cap protects this test point.

Accessories

Terminating plug

Ref. no.: RSTI-68TP



Test rod

Ref. no.: RSTI-68TR; Length: 310 mm
 RSTI-68TRL; Length: 460 mm
 RSTI-68TRA; Kit includes 2 short and 1 long testrod



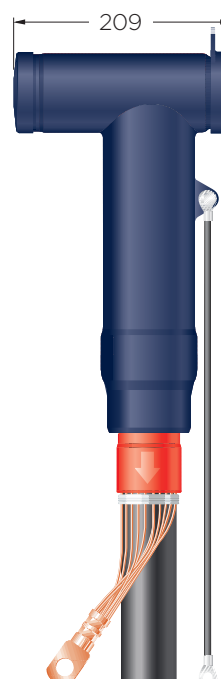
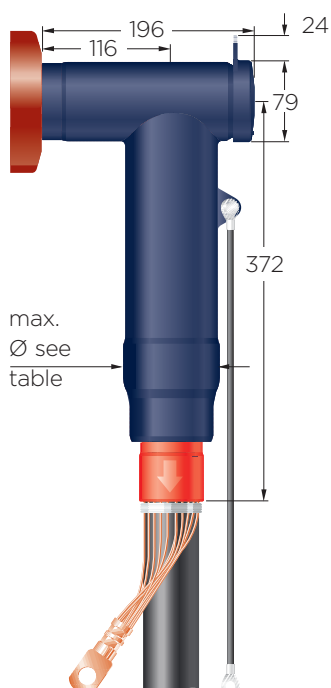
Applications

Single connection

Material requested for 3 phases:
 1 x RSTI-x9xx (kit)

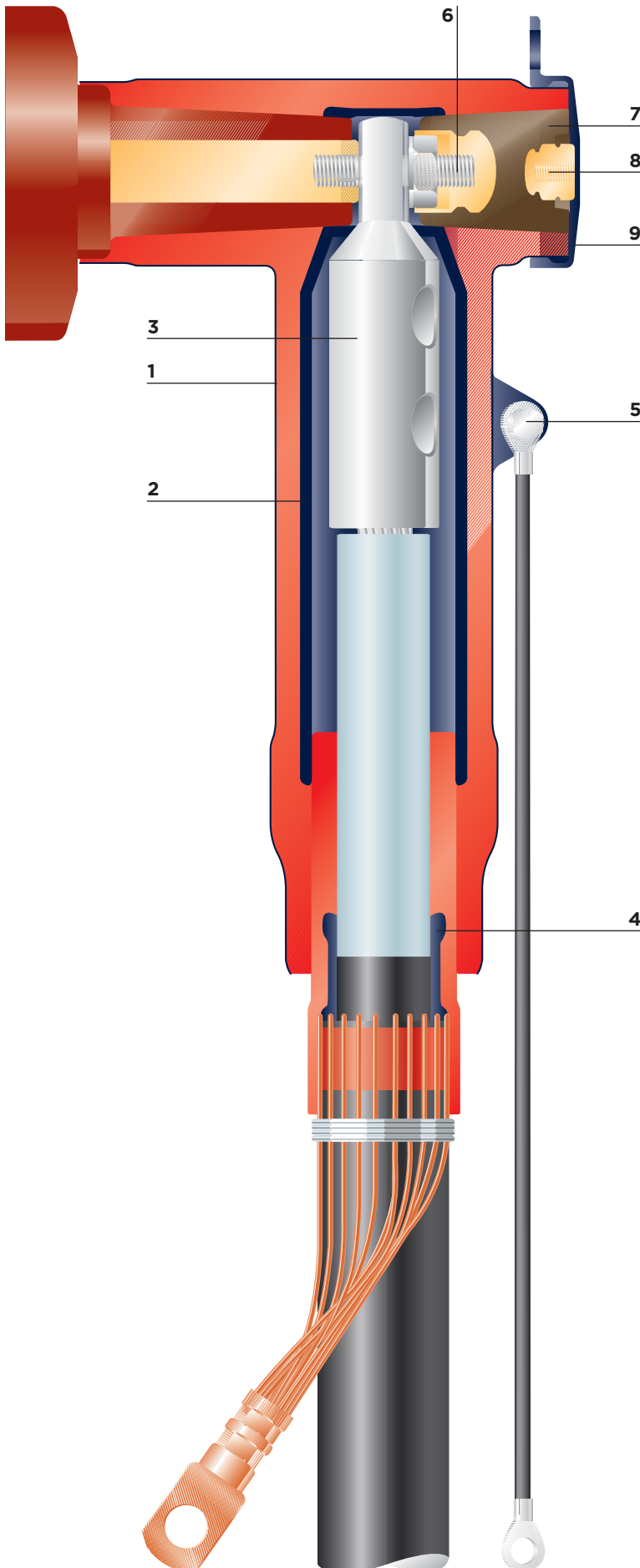
Live end seal

Material requested for 3 phases:
 1 x RSTI-x9xx (kit)
 1 x RSTI-68TP (Terminating plug kit)



Cross Section	max. Ø	12 kV	24 kV	42 kV
630	90	94	99	
800	94	98	103	

Design and construction



1 Screened body

A thin walled conductive outer screen is permanently bonded to the silicone rubber insulating material of the body.

2 Inner screen

A conductive inner layer, as a Faraday cage around the mechanical lug, prevents corona at rated voltage.

3 Mechanical lug

Specially designed mechanical lugs for connecting either aluminium or copper conductor cables.

4 Stress cone adapter

Relieves electrical stress at the point where the cable screen is cut. The insulated section, extending beyond the wire shielding, provides a convenient point for over sheath testing.

5 Earthing eye and ground lead

Provides a connection point for earthing the screen.

6 Threaded pin

A threaded pin together with a spring washer (wave type) and hex nut ensure a high performance electrical and mechanical contact with the bushing.

7 Rear plug with test point

Removable rear plug with capacitive test point.

8 Test point

The test point is used to determine whether the circuit is energised; alternatively it can be used for phasing.

9 Conductive end cap

Electrical screen and protection of the rear end of the separable connector.

Note:

All applications as shown in the brochure need to have a mechanical support, based on the requirements for dynamic short circuit.

Raychem screened, separable connection system RSTI-Large for large cross sections 1250 A up to 42 kV

Technical data

Cable insulation diameter range	28.9 - 59.0 mm
Connector cross-section range	400 - 800 mm ²
Maximum system voltage	42 kV
Continuous current rating	1250 A*
Basic impulse level	200 kV
Partial discharge at 2 U ₀	< 2 pC
AC voltage withstand, 5 min	93.5 kV
DC voltage withstand, 15 min	125 kV
Thermal short circuit, 1 s	74.5 kA
Thermal short circuit, 3 s	43 kA
Dynamic short circuit	125 kA

* 1250 A is relevant for upgraded bushing C₂ and cables with copper conductors

The adapters meet the international CENELEC HD 629.1 S2 specification

Selection table

Screened separable connection system 12 kV with mechanical lugs

Cross Section mm ²	Diameter Core insulation		Reference number Conductor material Al or Cu
	min mm	max mm	
400	28.9 -	36.4	RSTI-3951
500	28.9 -	36.4	RSTI-3952
630	34.0 -	45.4	RSTI-3953
800	34.0 -	45.4	RSTI-3954

Screened separable connection system 24 kV with mechanical lugs

Cross Section mm ²	Diameter Core insulation		Reference number Conductor material Al or Cu
	min mm	max mm	
400	34.0 -	45.4	RSTI-5951
500	34.0 -	45.4	RSTI-5952
630	39.1 -	59.0	RSTI-5953
800	39.1 -	59.0	RSTI-5954

Screened separable connection system 36 & 42 kV with mechanical lugs

Cross Section mm ²	Diameter Core insulation		Reference number Conductor material Al or Cu
	min mm	max mm	
400	34.0 -	45.4	RSTI-6951
500 - 630	39.1 -	59.0	RSTI-6952
800	39.1 -	59.0	RSTI-6953

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