Raychem Screened, Separable Coupling Connection System RSTI-CC-Large for Large Cross Sections 1250 A up to 42 kV

Raychem
from TE Connectivity

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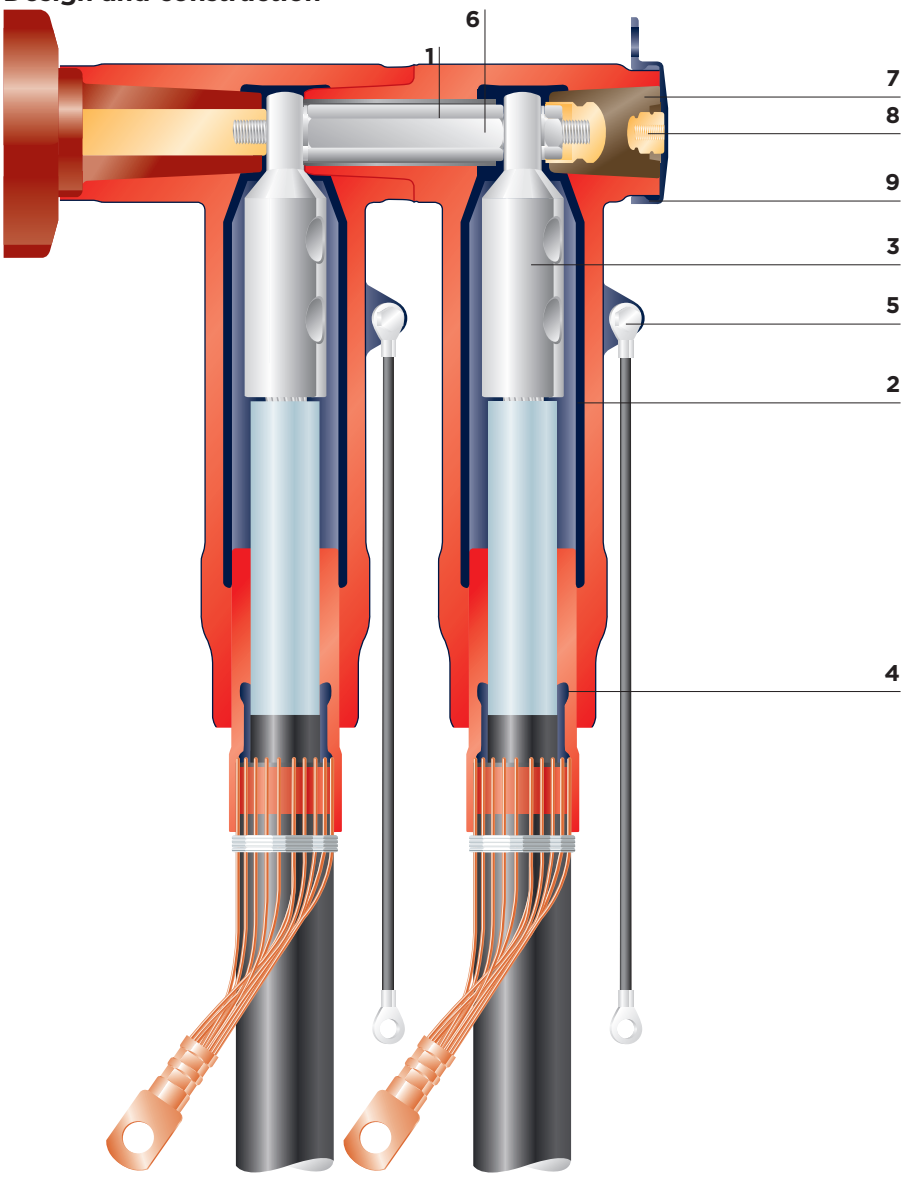
Features

- The screened coupling connector is designed to mate with the rear end of the base screened connector system RSTI designed for 42 kV.
- The insulation of the coupling 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 coupling connector need not be removed for oversheath testing.
- The combination of screened connector and coupling connector exceeds CENELEC HD 629.1 S1 requirements, which include BS, VDE and other international specifications.
- Design of combination fits 630 A and 1250 A bushings (Interface "C_1" and "C_2") 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 mm^2.
- Conductor connection with mechanical lugs.
- Easily accessible rear plug with capacitive test point.
- Few accessories required for system test and earth connection.
- Complete kit including lugs for easier installation and storage.

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 assembly
A threaded pin assembly together with a spring washer and hex nut ensure high-performance electrical and mechanical contact with the bushing.

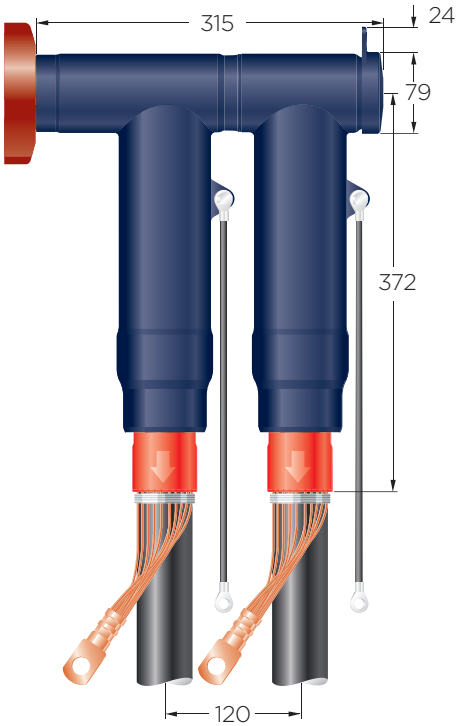
7 Rear plug with test point
Removable rear plug with capacitive test point.

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

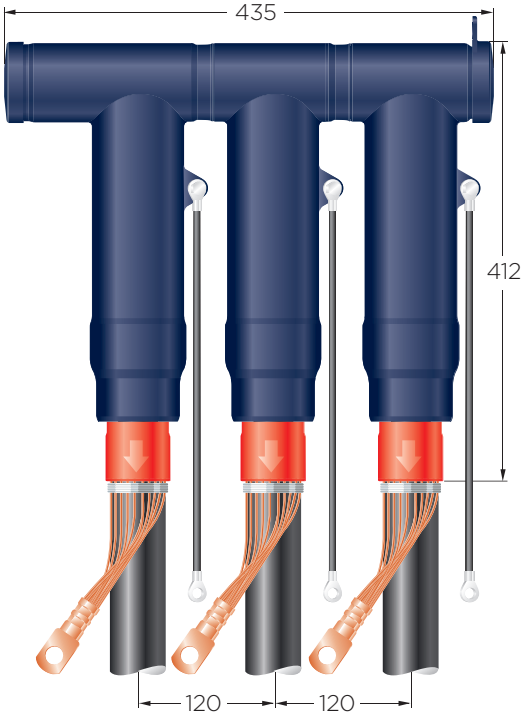
9 Conductive end cap
Electrical screen and protection of the rear end of the separable connector.

Applications

Double connection
Material requested for 3 phases:
1 x RSTI-x95x (Basic kit)
1 x RSTI-CC-x95x (Coupling connector kit)



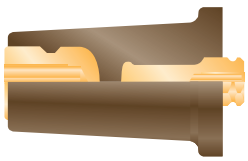
Single core branch off
Items required for 3 phases:
1 x RSTI-x95x (Basic kit)
1 x RSTI-68TP (Terminating plug kit)
2 x RSTI-CC-x95x (Coupling connector kit)



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

Accessories

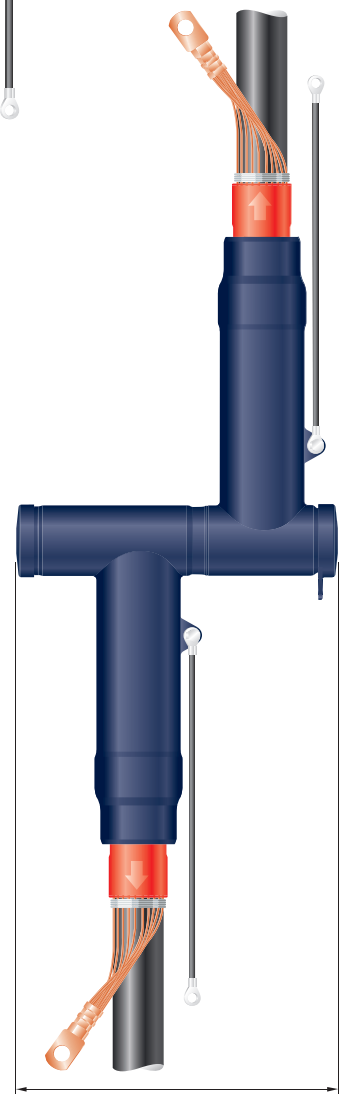
Terminating plug
Ref. no.: RSTI-68TP



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

Disconnectable inline joint
Items required for 3 phases:
1 x RSTI-x95x (Basic kit)
1 x RSTI-68TP (Terminating plug kit)
1 x RSTI-CC-x95x (Coupling connector kit)

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



Technical data

Cable insulation diameter range	28.9 - 59.0 mm
Connector cross-section range	400 - 800 mm²
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 C_2 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 mm²	Diameter Core insulation min mm	max mm	Reference number Conductor material Al or Cu
400	28.9 -	36.4	RSTI-CC-3951
500	28.9 -	36.4	RSTI-CC-3952
630	34.0 -	45.4	RSTI-CC-3953
800	34.0 -	45.4	RSTI-CC-3954

Screened separable connection system 24 kV with mechanical lugs

Cross Section mm²	Diameter Core insulation min mm	max mm	Reference number Conductor material Al or Cu
400	34.0 -	45.4	RSTI-CC-5951
500	34.0 -	45.4	RSTI-CC-5952
630	39.1 -	59.0	RSTI-CC-5953
800	39.1 -	59.0	RSTI-CC-5954

Screened separable connection system 36 kV with mechanical lugs

Cross Section mm²	Diameter Core insulation min mm	max mm	Reference number Conductor material Al or Cu
400	34.0 -	45.4	RSTI-CC-6951
500 - 630	39.1 -	59.0	RSTI-CC-6952
800	39.1 -	59.0	RSTI-CC-6953

TE Energy – innovative and economical solutions for the electrical power industry: cable accessories, connectors & fittings, insulators & insulation, surge arresters, switching equipment, street lighting, power measurement and control.

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