



Energy Division

Raychem screened, separable
coupling connection system RSTI-CC-68
800 A up to 42 kV

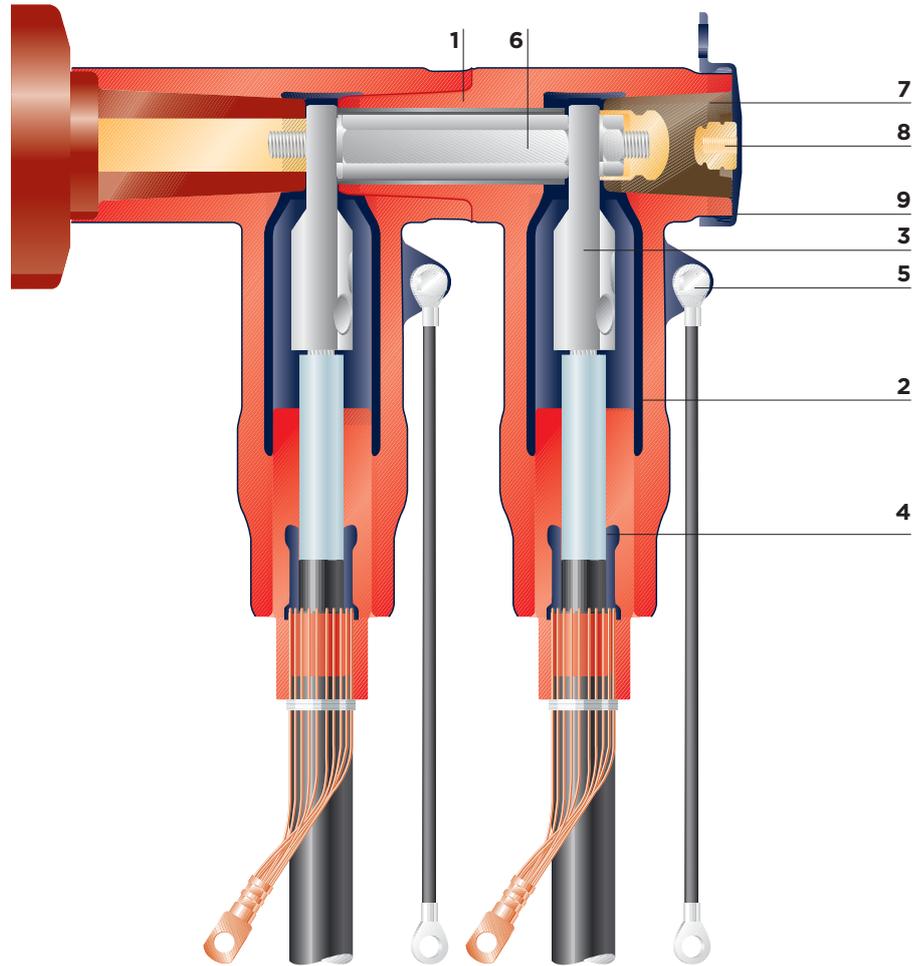
Raychem screened, separable coupling connection system RSTI-CC-68

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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 "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 35 to 300 mm².
- Conductor connection with mechanical or DIN 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 compression or mechanical lug, prevents corona at rated voltage.

3 Compression or mechanical lugs

Specially designed DIN compression lugs, as well as tinned, mechanical lugs with shear bolts 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 oversheath 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.

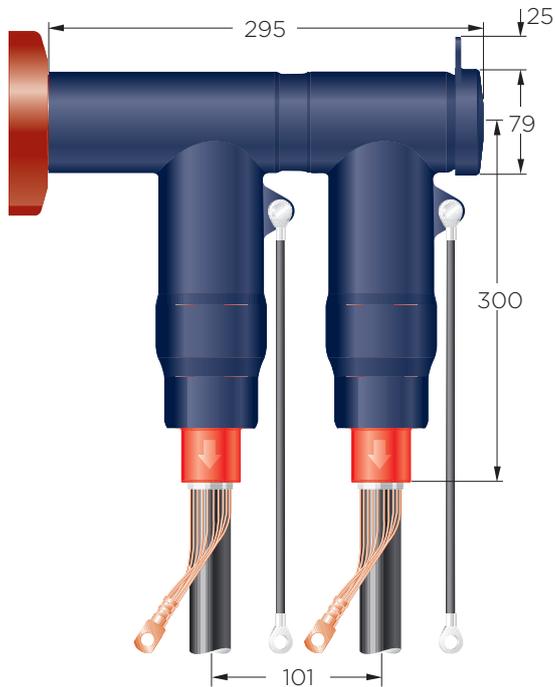
Applications

Double connection

Items required for 3 phases:

1 x RSTI-68xx (Basic kit)

1 x RSTI-CC-68xx (Coupling connector kit)



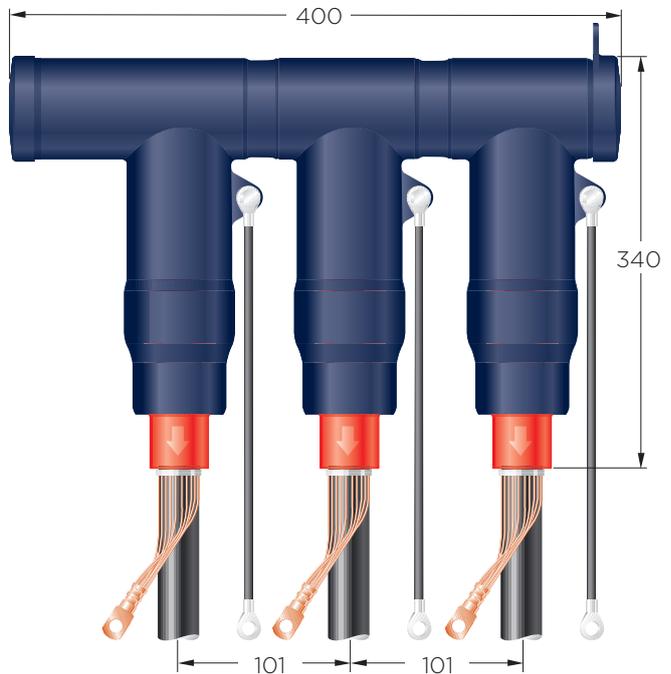
Single core branch off

Items required for 3 phases:

1 x RSTI-68xx (Basic kit)

1 x RSTI-68TP (Terminating plug kit)

2 x RSTI-CC-68xx (Coupling connector kit)



Accessories

Test rod

Ref. no.: RSTI-68TR; Length: 310 mm

RSTI-68TRL; Length: 460 mm

RSTI-68TRA; Kit includes

2 short and 1 long testrod



Terminating plug

Ref. no.: RSTI-68TP



Earthing adapter

Ref. no.: RSTI-68EA20;

Ball diameter: 20 mm

RSTI-68EA25;

Ball diameter: 25 mm



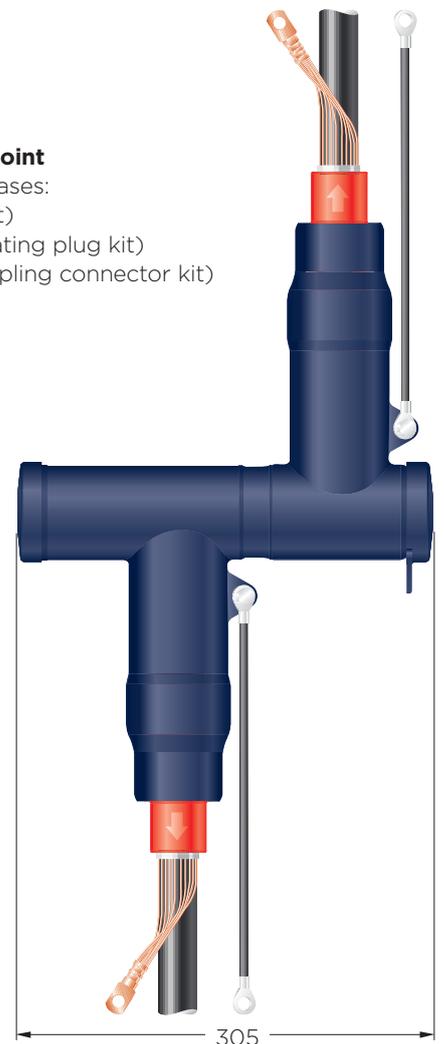
Disconnectable inline joint

Items required for 3 phases:

1 x RSTI-68xx (Basic kit)

1 x RSTI-68TP (Terminating plug kit)

1 x RSTI-CC-68xx (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.

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Technical data

Cable insulation diameter range	22.4 - 42.0 mm
Connector cross-section range	35 - 300 mm ²
Maximum system voltage	42 kV
Continuous current rating	800 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	55 kA
Thermal short circuit, 3 s	32 kA
Dynamic short circuit	125 kA

The adapters meet the international CENELEC HD 629.1 S2 specification

Selection table

Screened separable coupling connection system 36 kV and 42 kV with DIN compression lugs

Cross section mm ²	Diameter Core insulation		Reference number Conductor material	
	min mm	max mm	Al	Cu
50	22.4	35.5	RSTI-CC-6811	RSTI-CC-6821
70	22.4	35.5	RSTI-CC-6812	RSTI-CC-6822
95	22.4	35.5	RSTI-CC-6813	RSTI-CC-6823
120	22.4	35.5	RSTI-CC-6814	RSTI-CC-6824
150	28.9	42.0	RSTI-CC-6815	RSTI-CC-6825
185	28.9	42.0	RSTI-CC-6816	RSTI-CC-6826
240	28.9	42.0	RSTI-CC-6817	RSTI-CC-6827
300	28.9	42.0	RSTI-CC-6818	RSTI-CC-6828

Kits including deep indent compression lugs on request.
Contact your local sales representative.

Screened separable coupling connection system 36 kV and 42 kV with mechanical lugs and shear bolts

Cross section mm ²	Diameter Core insulation		Reference number
	min mm	max mm	Conductor material Al or Cu
35-95	22.4	35.5	RSTI-CC-6851
95-120	22.4	35.5	RSTI-CC-6852
150-240	28.9	42.0	RSTI-CC-6853
300	28.9	42.0	RSTI-CC-6855

Kits for 3-core applications on request.
Contact your local sales representative.

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