

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

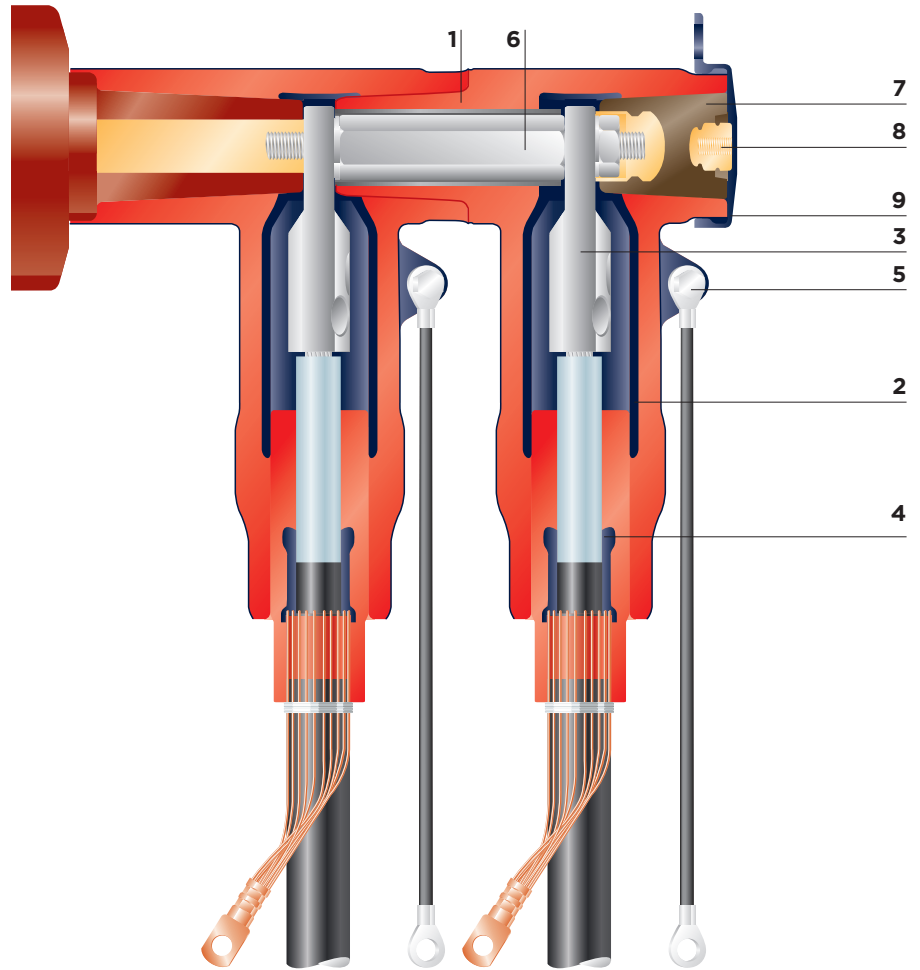
**Raychem**  
from TE Connectivity

# Raychem Screened, Separable Coupling Connection System RSTI-CC-68800 A up to 42 kV

## 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 overshheat 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<sub>1</sub>" and "C<sub>2</sub>") 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 mm<sup>2</sup>.
- 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 overshheat 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.

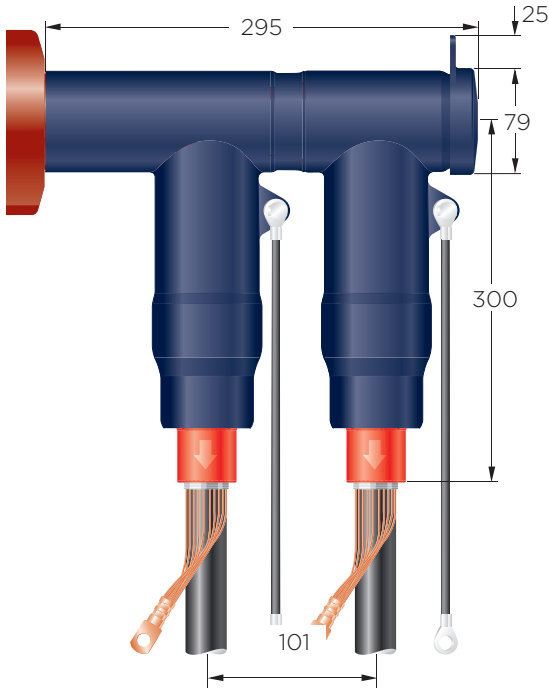
### 9 Conductive end cap

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

**Applications**

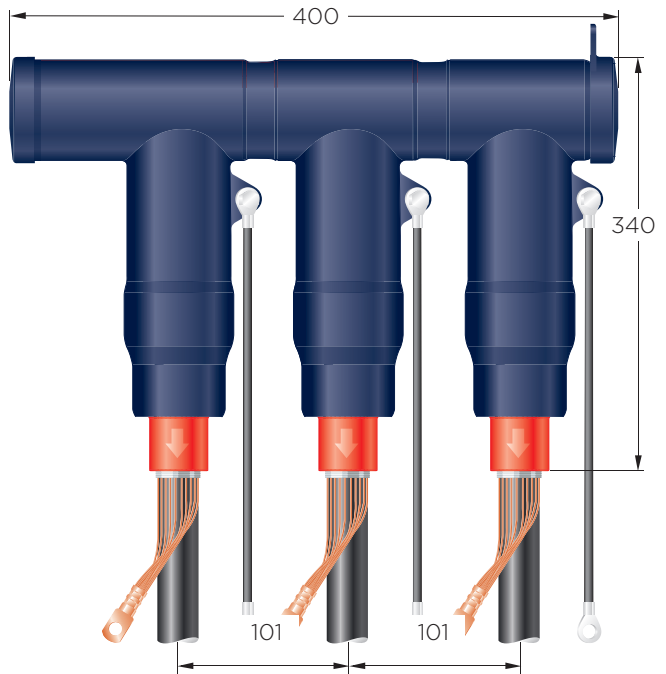
**Double connection**

- 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**

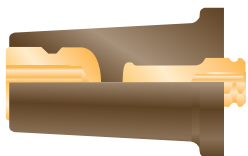
**Test rod**

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



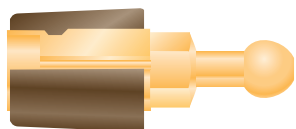
**Terminating plug**

- Ref. no.: RSTI-68TP



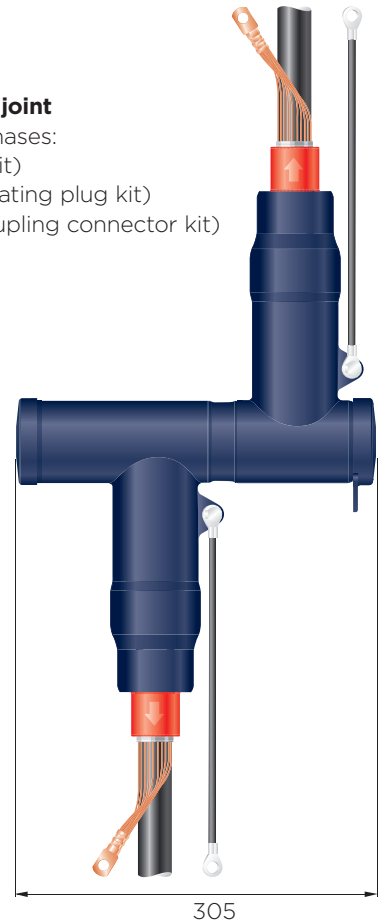
**Earthing adapter**

- 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.

## Technical data

Cable insulation diameter range	22.4 - 42.0 mm
Connector cross-section range	35 - 300 mm <sup>2</sup>
Maximum system voltage	42 kV
Continuous current rating	800 A
Basic impulse level	200 kV
Partial discharge at 2 U <sub>0</sub>	< 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 <sup>2</sup>	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 <sup>2</sup>	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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