



Energy Division

RSTI-CC-58  
Raychem screened,  
separable, coupling system  
800 A up to 24 kV

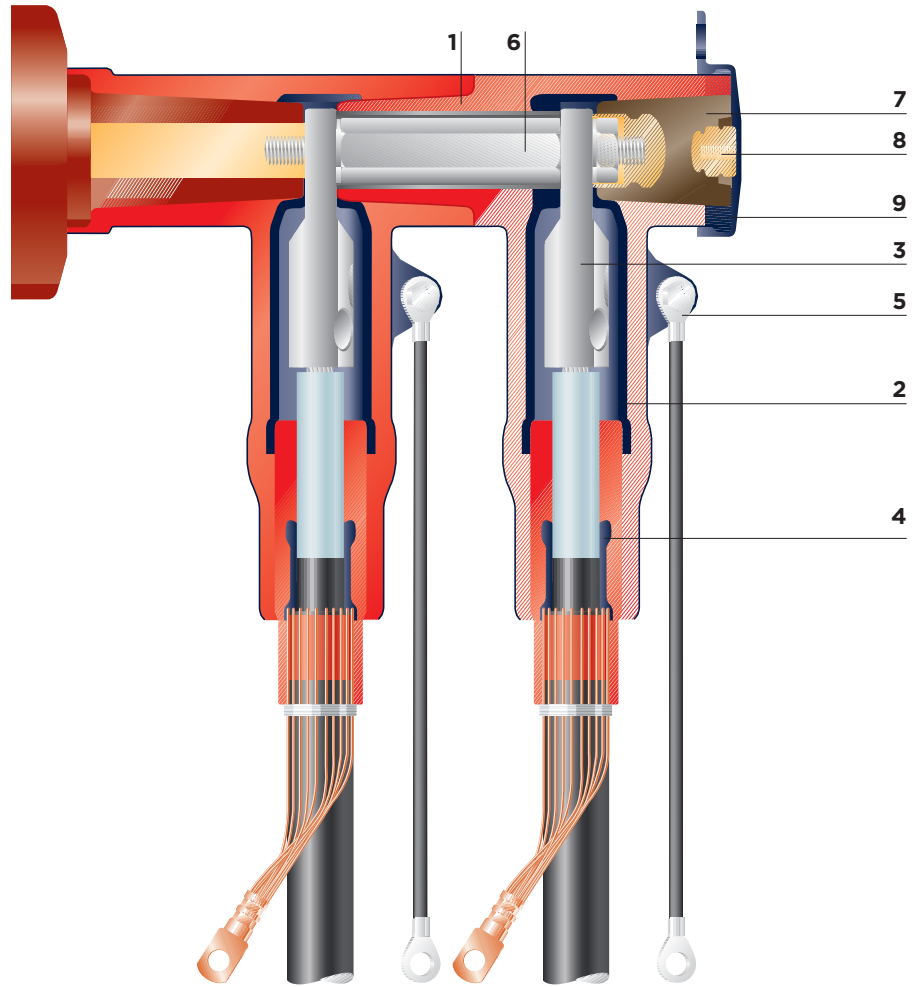
## RSTI-CC-58

## Raychem screened, separable, coupling system 800 A up to 24 kV

### Features

- The screened coupling connector is designed to mate with the rear end of the base screened connector system RSTI-58 designed for 24 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 S2 requirements, which include BS, VDE and other international specifications.
- The combination of screened connector and coupling connector fits 630/1250 A bushings type "C" as specified by EN50180 and EN50181.
- The compact design supports the use of double "T" connections inside standard terminal boxes.
- The wide application range covers cable cross-sections from 25 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 washer, spring washer and hex nut ensure high-performance electrical and mechanical contact with the previous installed connector.

#### 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.

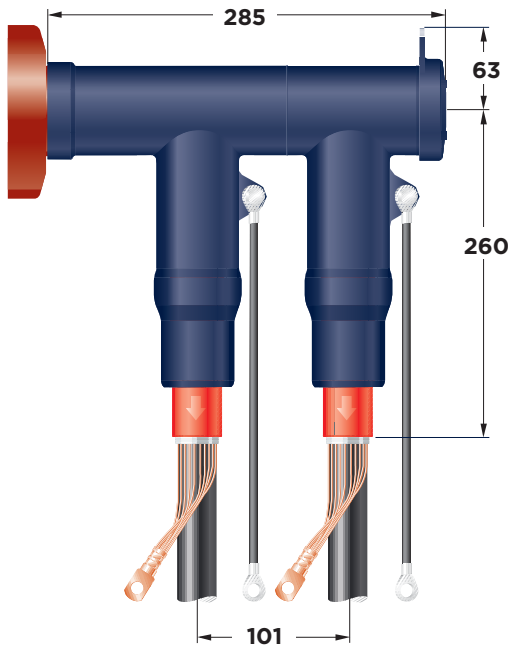
#### 9 Conductive end cap

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

## RSTI-CC-58 Applications

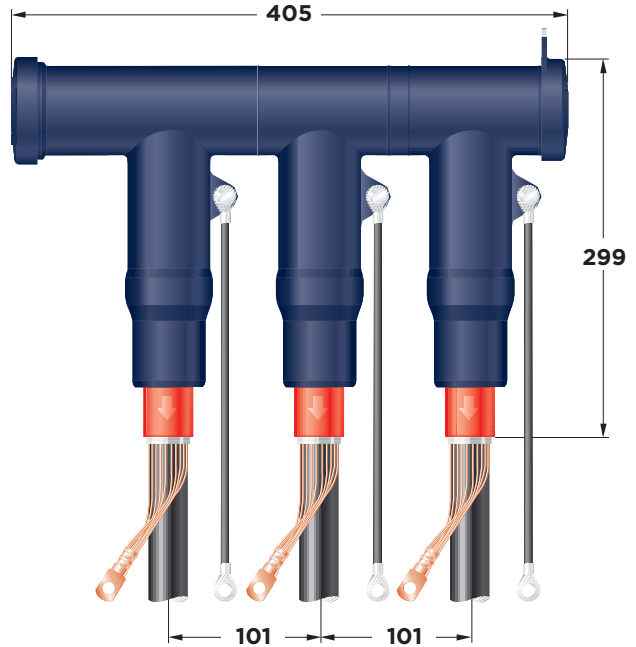
### Double connection

Material requested for 3 phases:  
1 x RSTI-58xx (kits)  
1 x RSTI-CC-58xx (coupling connector kit)



### Single core branch off

Material requested for 3 phases:  
1 x RSTI-58xx (kits)  
2 x RSTI-CC-58xx (coupling connector kit)  
1 x RSTI-56TP (terminating plug kit)



### Note:

All applications shown in the brochure need to have a mechanical support meeting the requirements for dynamic short circuit.

## RSTI-CC-58 Accessories

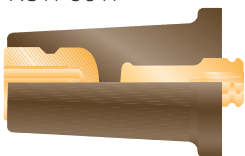
### Test rod

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



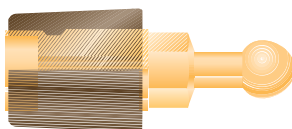
### Terminating plug

Ref. no.:  
RSTI-56TP



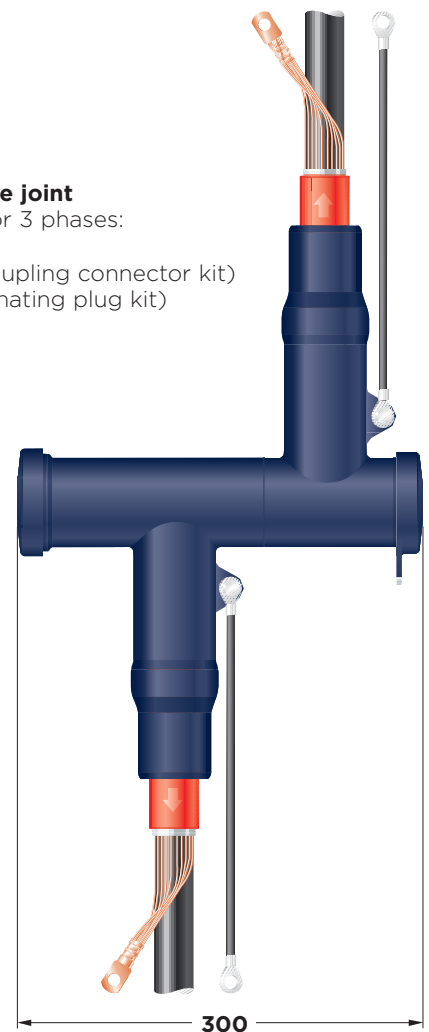
### Earthing adapter

Ref. no.:  
RSTI-68EA20; Ball diameter: 20 mm  
RSTI-68EA25; Ball diameter: 25 mm



### Disconnectable inline joint

Material requested for 3 phases:  
1 x RSTI-58xx (kits)  
1 x RSTI-CC-58xx (coupling connector kit)  
1 x RSTI-56TP (terminating plug kit)



**Technical data**

Cable insulation diameter range	12.7 - 34.6 mm
Connector cross-section range	25 - 300 mm <sup>2</sup>
Maximum system voltage	24 kV
Continuous current rating	800 A
Basic impulse level	150 kV
Partial discharge at 2 U <sub>0</sub>	< 2 pC
AC voltage withstand, 1 min	57 kV
DC voltage withstand, 15 min	76 kV
Thermal short circuit, 1 s	54 kA
Dynamic short circuit	125 kA

The adapters meet the international CENELEC HD 629.1 S2 specification.

**Selection table****Screened separable coupling connection system with DIN compression lugs**

Cross-section mm <sup>2</sup>	12 kV Diameter core insulation		Reference number Conductor material		Cross-section mm <sup>2</sup>	24 kV Diameter core insulation		Reference number Conductor material	
	min mm	max mm	Al	Cu		min mm	max mm	Al	Cu
25	12.7-	25.0	RSTI-CC-5810	RSTI-CC-5830	25	12.7-	25.0	RSTI-CC-5810	RSTI-CC-5830
35	12.7-	25.0	RSTI-CC-5811	RSTI-CC-5831	35	12.7-	25.0	RSTI-CC-5811	RSTI-CC-5831
50	12.7-	25.0	RSTI-CC-5812	RSTI-CC-5832	50	12.7-	25.0	RSTI-CC-5812	RSTI-CC-5832
70	12.7-	25.0	RSTI-CC-5813	RSTI-CC-5833	70	12.7-	25.0	RSTI-CC-5813	RSTI-CC-5833
95	12.7-	25.0	RSTI-CC-5814	RSTI-CC-5834	95	21.3-	34.6	RSTI-CC-5824	RSTI-CC-5844
120	12.7-	25.0	RSTI-CC-5815	RSTI-CC-5835	120	21.3-	34.6	RSTI-CC-5825	RSTI-CC-5845
150	21.3-	34.6	RSTI-CC-5826	RSTI-CC-5846	150	21.3-	34.6	RSTI-CC-5826	RSTI-CC-5846
185	21.3-	34.6	RSTI-CC-5827	RSTI-CC-5847	185	21.3-	34.6	RSTI-CC-5827	RSTI-CC-5847
240	21.3-	34.6	RSTI-CC-5828	RSTI-CC-5848	240	21.3-	34.6	RSTI-CC-5828	RSTI-CC-5848
300	21.3-	34.6	RSTI-CC-5829	RSTI-CC-5849	300	21.3-	34.6	RSTI-CC-5829	RSTI-CC-5849

Kits including deep indent lugs are on request

**Screened separable coupling connection system with mechanical lugs and shear bolts**

Cross section mm <sup>2</sup>	12 kV Diameter core insulation		Reference number Conductor material	Cross section mm <sup>2</sup>	24 kV Diameter core insulation		Reference number Conductor material
	min mm	max mm			min mm	max mm	
35-95	12.7-	25.0	RSTI-CC-5851	35-70	12.7-	25.0	RSTI-CC-5851
95-120	12.7-	25.0	RSTI-CC-5852	95-185	17.0-	32.6	RSTI-CC-5853
95-240	17.0-	32.6	RSTI-CC-5853	95-240	21.3-	34.6	RSTI-CC-5854
150-240	21.3-	34.6	RSTI-CC-5854	185-300	21.3-	34.6	RSTI-CC-5855
185-300	21.3-	34.6	RSTI-CC-5855				

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Tyco Electronics Raychem GmbH  
Energy Division  
Finsinger Feld 1  
85521 Ottobrunn/Munich, Germany

Phone: +49-89-6089-0  
Fax: +49-89-6096345

<http://energy.tycoelectronics.com>

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