

# **Energy Division**

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

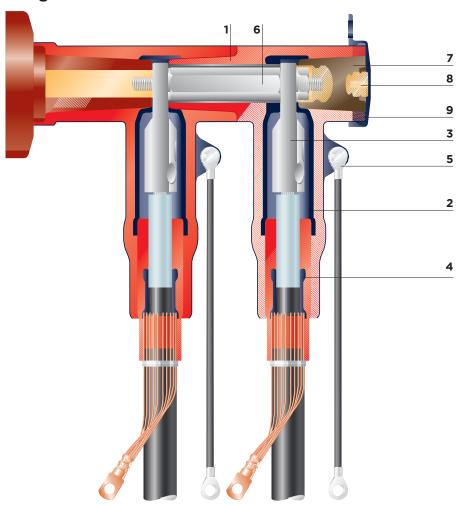


# Raychem screened, separable, coupling system RSTI-CC-58 800 A up to 24 kV

#### **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 nonflammability.
- 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 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 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 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.

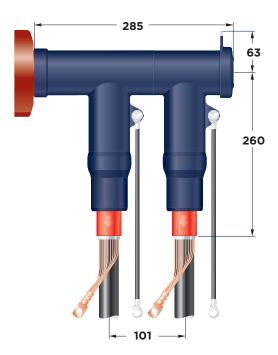
## 9 Conductive end cap

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

# **Applications**

#### **Double connection**

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



## Note:

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

# **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**

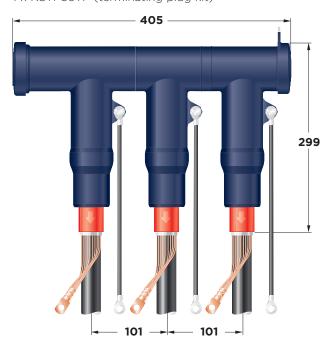
Ref. no.

RSTI-68EA20; Ball diameter: 20 mm RSTI-68EA25; Ball diameter: 25 mm



## 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)





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Technical data	Cable insulation diameter range Connector cross-section range	12.7 - 34.6 mm 25 - 300 mm <sup>2</sup>
	9	
	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			eter Conductor material		Cross- section	24 kV Diameter core insulation		Reference number Conductor material	
	min	max	Al	Cu		min	max	Al	Cu
mm <sup>2</sup>	mm	mm			mm <sup>2</sup>	mm	mm		
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	12 kV Diameter core insulation		Reference number Conductor material	Cross section	24 kV Diameter core insulation		Reference number Conductor material	
mm²	min mm	max mm	Al or Cu	mm²	min mm	max mm	Al or Cu	
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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