



Raychem Screened, Separable Connection
System RSTI-58 800 A up to 24 kV

Raychem
from TE Connectivity

Raychem Screened, Separable Connection System RSTI-58

800 A up to 24 kV

Features

- The insulation of the 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 unintentional contact.
- The screened connector need not be removed for oversheath testing.
- The screened cable connector exceeds CENELEC HD 629.1 S2 requirements, which includes BS, VDE and other international specifications.
- Design 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 mm².
- Conductor connection with mechanical or DIN lugs.
- Easily accessible rear plug with capacitive test point.
- Few accessories required for system test, double "T" and earth connection.
- Complete kit including lugs facilitates installation and storage.

Accessories

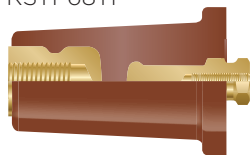
Test rod

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



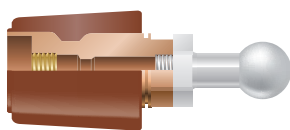
Terminating plug

Ref. no.:
RSTI-68TP



Earthing adapter

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

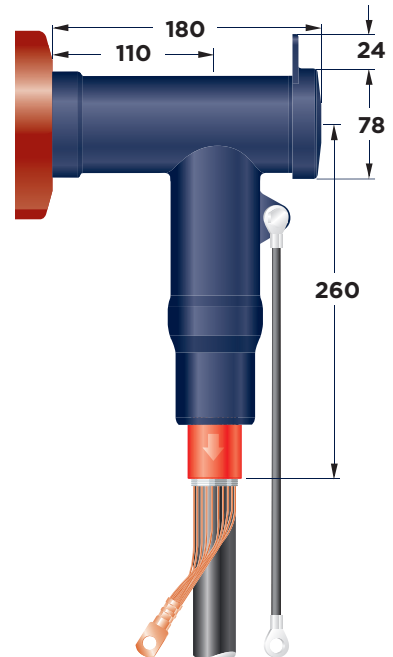


Raychem screened separable connectors RSTI-58 are designed to connect single- and three-core polymeric cables to medium-voltage gasinsulated switchgear and other equipment using CENELEC bushings type "C" specified for 630/1250 A up to 24 kV. Made of a highly modified silicone rubber and protected by a thin-walled outer conductive screen connected to earth, Raychem connectors RSTI-58 are equally suited for indoor and outdoor installation. Supporting a wide application range, the design incorporates one body and two stress cone adapters to cover all cross-sections from 25 to 300 mm². The overall and cut-back dimensions are designed to take up minimum space in the terminal box. Raychem connectors RSTI-58 are equipped with a capacitive test point for determining whether the circuit is energised. This test point is protected by a conductive cap. After cable preparation and lubrication, the stress control adapter is simply slid into place, followed by the screened connector body. These two components can be installed under virtually any conditions. A separable mounting system ensures easy installation of the connector onto the bushing. All kits include high-performance multi-range mechanical or DIN compression lugs matching the design of the Raychem connector RSTI-58.

Applications

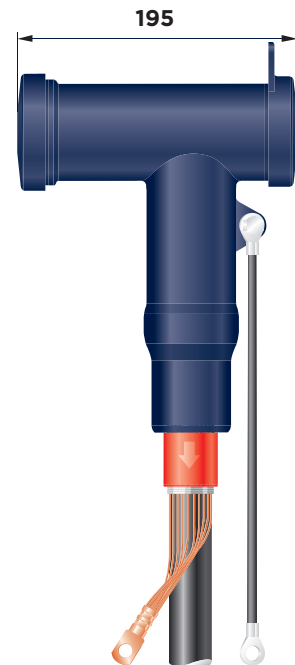
Single connection

Material requested for 3 phases:
1 x RSTI-58xx (kit)

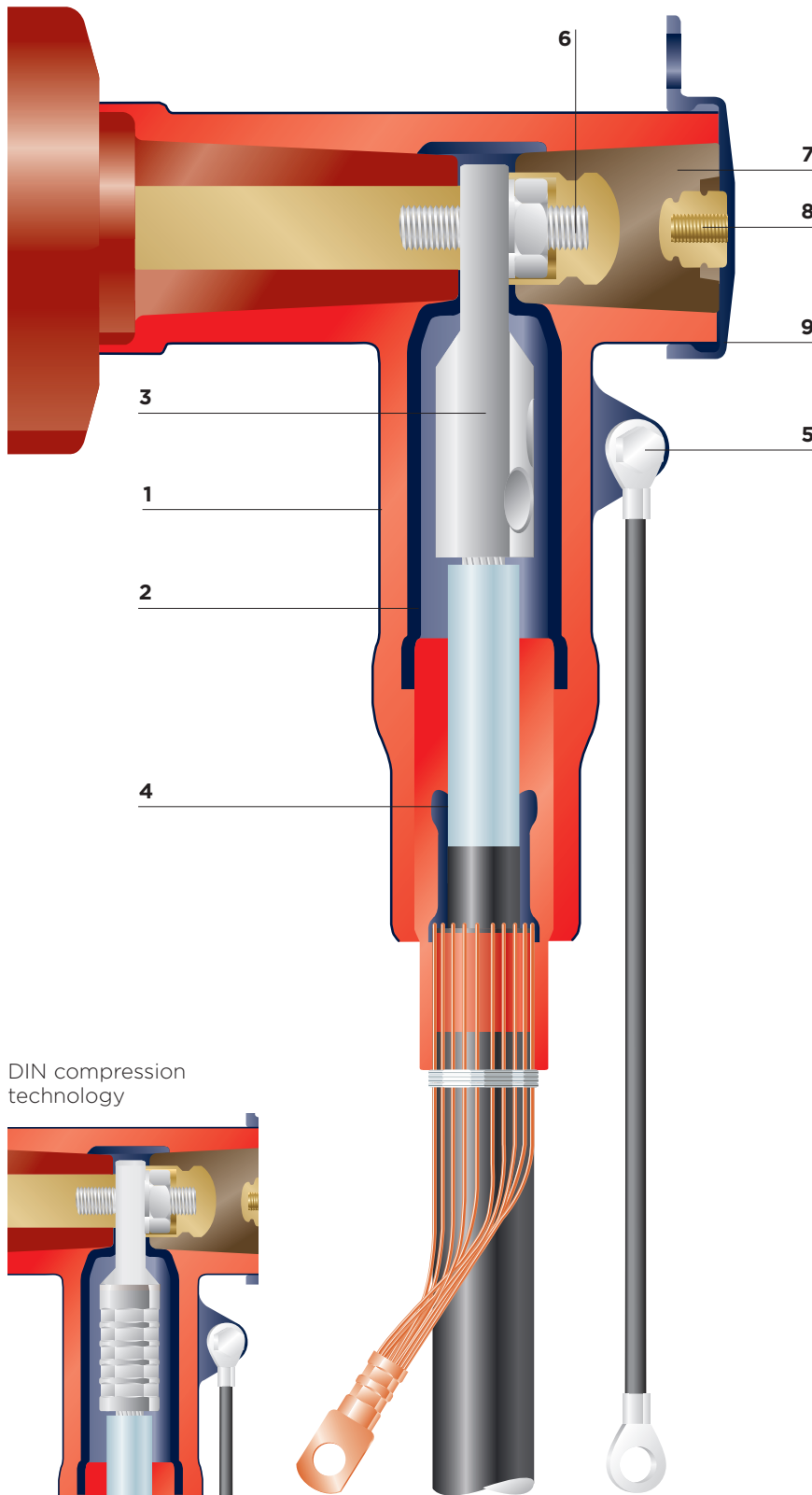


Live end seal

Material requested for 3 phases:
1 x RSTI-58xx (kit)
1 x RSTI-68TP (terminating plug-kit)



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 (see detail below) and deep indent compression lugs, as well as 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

A threaded pin together with a spring washer and hex nut ensure a 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.

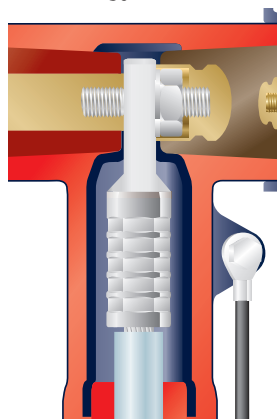
9 Conductive endcap

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

Note:

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

DIN compression technology



Technical data

Cable insulation diameter range	12.7 - 34.6 mm
Connector cross-section range	25 - 300 mm ²
Maximum system voltage	24 kV
Continuous current rating	800 A
Basic impulse level	150 kV
Partial discharge at 2 U ₀	< 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 connection system with DIN compression lugs**

Cross section mm ²	12 kV Diameter core insulation		Reference number Conductor material		Cross section mm ²	24 kV Diameter core insulation		Reference number Conductor material	
	min mm	max mm	Al	Cu		min mm	max mm	Al	Cu
25	12.7-	23.4	RSTI-5810	RSTI-5830	25	12.7-	23.4	RSTI-5810	RSTI-5830
35	12.7-	23.4	RSTI-5811	RSTI-5831	35	12.7-	23.4	RSTI-5811	RSTI-5831
50	12.7-	23.4	RSTI-5812	RSTI-5832	50	12.7-	23.4	RSTI-5812	RSTI-5832
70	12.7-	23.4	RSTI-5813	RSTI-5833	70	12.7-	23.4	RSTI-5813	RSTI-5833
95	12.7-	23.4	RSTI-5814	RSTI-5834	95	21.2-	34.6	RSTI-5824	RSTI-5844
120	12.7-	23.4	RSTI-5815	RSTI-5835	120	21.2-	34.6	RSTI-5825	RSTI-5845
150	21.2-	34.6	RSTI-5826	RSTI-5846	150	21.2-	34.6	RSTI-5826	RSTI-5846
185	21.2-	34.6	RSTI-5827	RSTI-5847	185	21.2-	34.6	RSTI-5827	RSTI-5847
240	21.2-	34.6	RSTI-5828	RSTI-5848	240	21.2-	34.6	RSTI-5828	RSTI-5848
300	21.2-	34.6	RSTI-5829	RSTI-5849	300	21.2-	34.6	RSTI-5829	RSTI-5849

Kits including deep indent lugs are on request

Screened separable connection system with mechanical lugs and shear bolts

Cross section mm ²	12 kV Diameter core insulation		Reference number Conductor material	Al or Cu	Cross section mm ²	24 kV Diameter core insulation		Reference number Conductor material	Al or Cu
	min mm	max mm				min mm	max mm		
35-95	12.7-	23.4	RSTI-5851		35-70	12.7-	23.4	RSTI-5851	
95-120	12.7-	23.4	RSTI-5852		95-185	17.0-	30.1	RSTI-5853	
95-240	17.0-	30.1	RSTI-5853		95-240	21.2-	34.6	RSTI-5854	
150-240	21.2-	34.6	RSTI-5854		185-300	21.2-	34.6	RSTI-5855	
185-300	21.2-	34.6	RSTI-5855						
240-400	21.2-	34.6	RSTI-5856						

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Raychem Screened, Separable
Coupling System RSTI-CC-58
800 A up to 24 kV

Raychem
from TE Connectivity

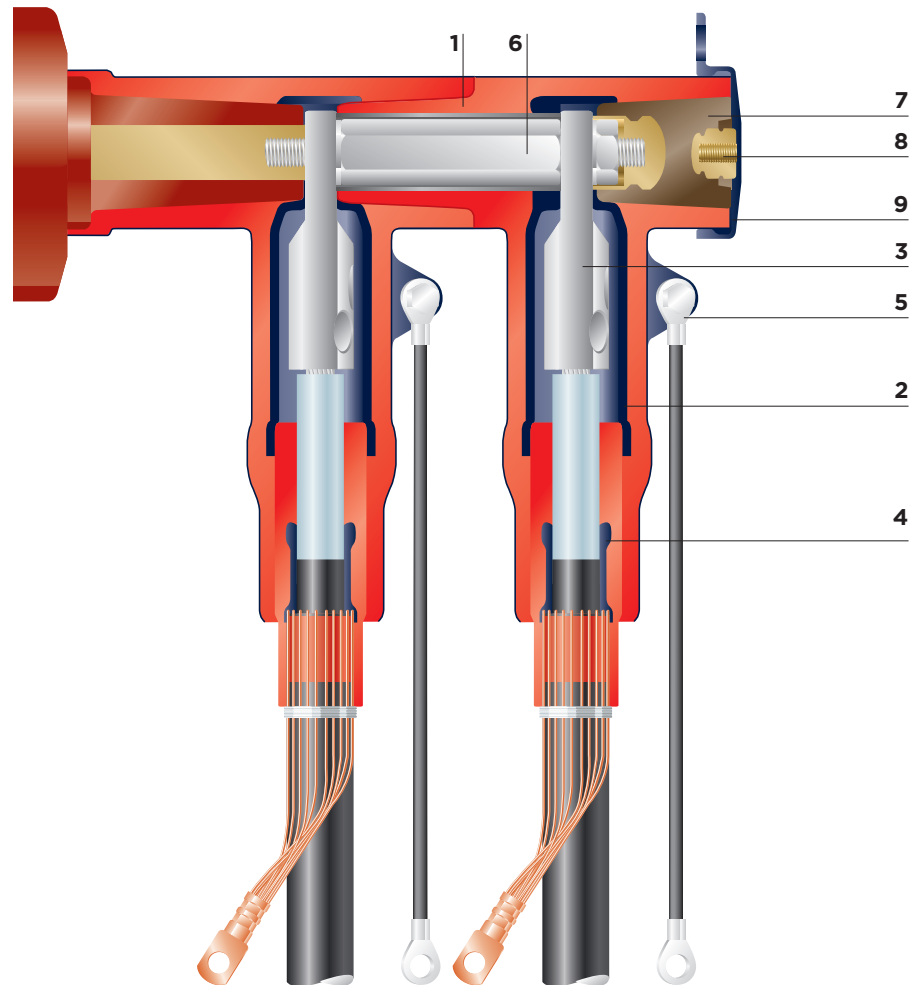
Raychem Screened, Separable Coupling System RSTI-CC-58

800 A up to 24 kV

Features

- The screened coupling connector is designed to mate with the rear end of the Raychem 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 overshath 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 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 overshath 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.

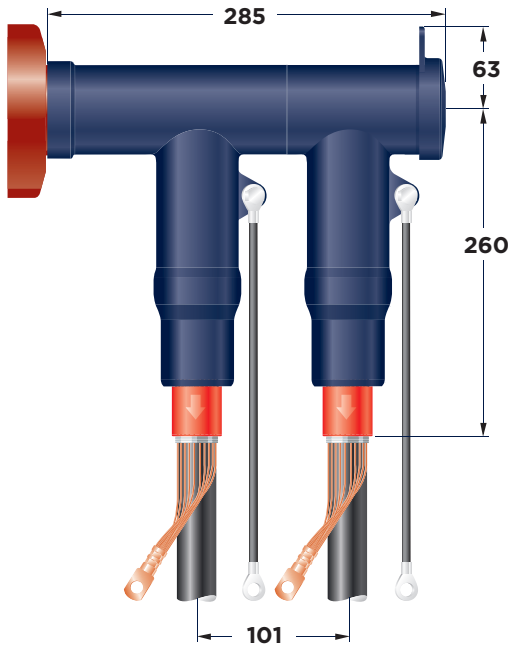
Applications

Double connection

Material requested for 3 phases:

1 x RSTI-58xx (kits)

1 x RSTI-CC-58xx (coupling connector kit)



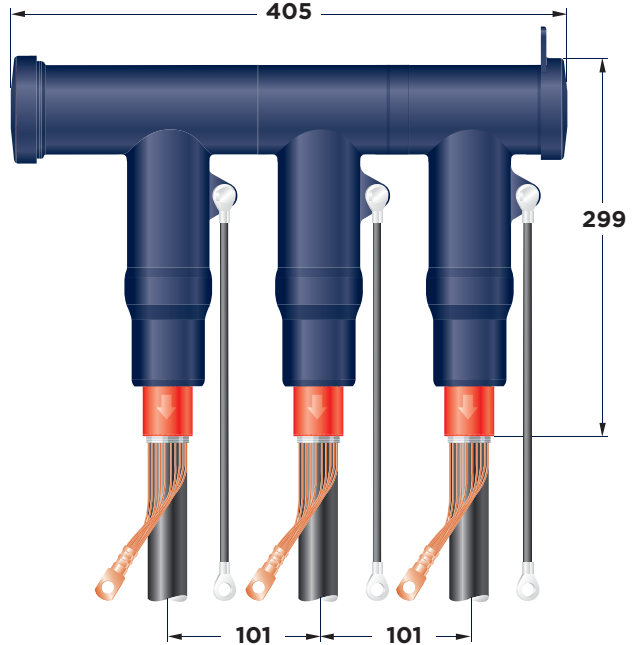
Single core branch off

Material requested for 3 phases:

1 x RSTI-58xx (kits)

2 x RSTI-CC-58xx (coupling connector kit)

1 x RSTI-68TP (terminating plug 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

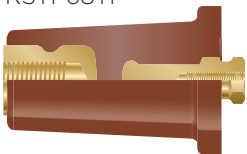
2 short and 1 long testrod



Terminating plug

Ref. no.:

RSTI-68TP

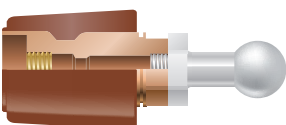


Earthing adapter

Ref. no.:

RSTI-68EA20; Ball diameter: 20 mm

RSTI-68EA25; Ball diameter: 25 mm



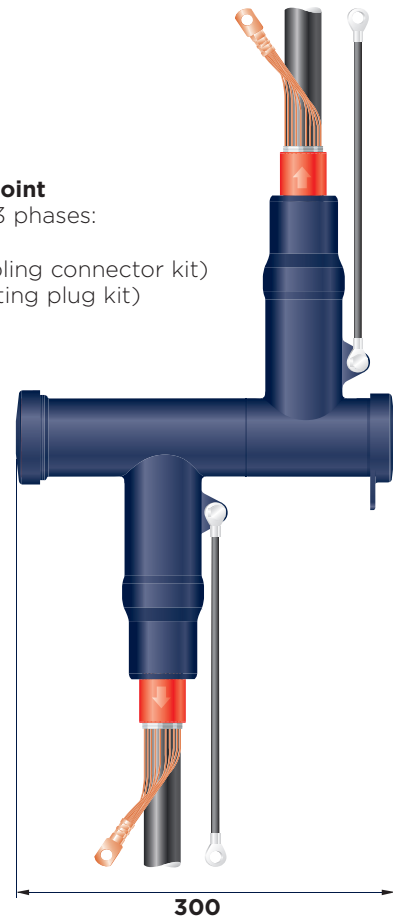
Disconnectable inline joint

Material requested for 3 phases:

1 x RSTI-58xx (kits)

1 x RSTI-CC-58xx (coupling connector kit)

1 x RSTI-68TP (terminating plug kit)



Technical data

Cable insulation diameter range	12.7 - 34.6 mm
Connector cross-section range	25 - 300 mm ²
Maximum system voltage	24 kV
Continuous current rating	800 A
Basic impulse level	150 kV
Partial discharge at 2 U ₀	< 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 ²	12 kV Diameter core insulation		Reference number Conductor material		Cross-section mm ²	24 kV Diameter core insulation		Reference number Conductor material	
	min mm	max mm	Al	Cu		min mm	max mm	Al	Cu
25	12.7-	23.4	RSTI-CC-5810	RSTI-CC-5830	25	12.7-	23.4	RSTI-CC-5810	RSTI-CC-5830
35	12.7-	23.4	RSTI-CC-5811	RSTI-CC-5831	35	12.7-	23.4	RSTI-CC-5811	RSTI-CC-5831
50	12.7-	23.4	RSTI-CC-5812	RSTI-CC-5832	50	12.7-	23.4	RSTI-CC-5812	RSTI-CC-5832
70	12.7-	23.4	RSTI-CC-5813	RSTI-CC-5833	70	12.7-	23.4	RSTI-CC-5813	RSTI-CC-5833
95	12.7-	23.4	RSTI-CC-5814	RSTI-CC-5834	95	21.2-	34.6	RSTI-CC-5824	RSTI-CC-5844
120	12.7-	23.4	RSTI-CC-5815	RSTI-CC-5835	120	21.2-	34.6	RSTI-CC-5825	RSTI-CC-5845
150	21.2-	34.6	RSTI-CC-5826	RSTI-CC-5846	150	21.2-	34.6	RSTI-CC-5826	RSTI-CC-5846
185	21.2-	34.6	RSTI-CC-5827	RSTI-CC-5847	185	21.2-	34.6	RSTI-CC-5827	RSTI-CC-5847
240	21.2-	34.6	RSTI-CC-5828	RSTI-CC-5848	240	21.2-	34.6	RSTI-CC-5828	RSTI-CC-5848
300	21.2-	34.6	RSTI-CC-5829	RSTI-CC-5849	300	21.2-	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 ²	12 kV Diameter core insulation		Reference number Conductor material	Cross section mm ²	24 kV Diameter core insulation		Reference number Conductor material
	min mm	max mm			min mm	max mm	
35-95	12.7-	23.4	RSTI-CC-5851	35-70	12.7-	23.4	RSTI-CC-5851
95-120	12.7-	23.4	RSTI-CC-5852	95-185	17.0-	30.1	RSTI-CC-5853
95-240	17.0-	30.1	RSTI-CC-5853	95-240	21.2-	34.6	RSTI-CC-5854
150-240	21.2-	34.6	RSTI-CC-5854	185-300	21.2-	34.6	RSTI-CC-5855
185-300	21.2-	34.6	RSTI-CC-5855				
240-400	21.2-	34.6	RSTI-CC-5856				

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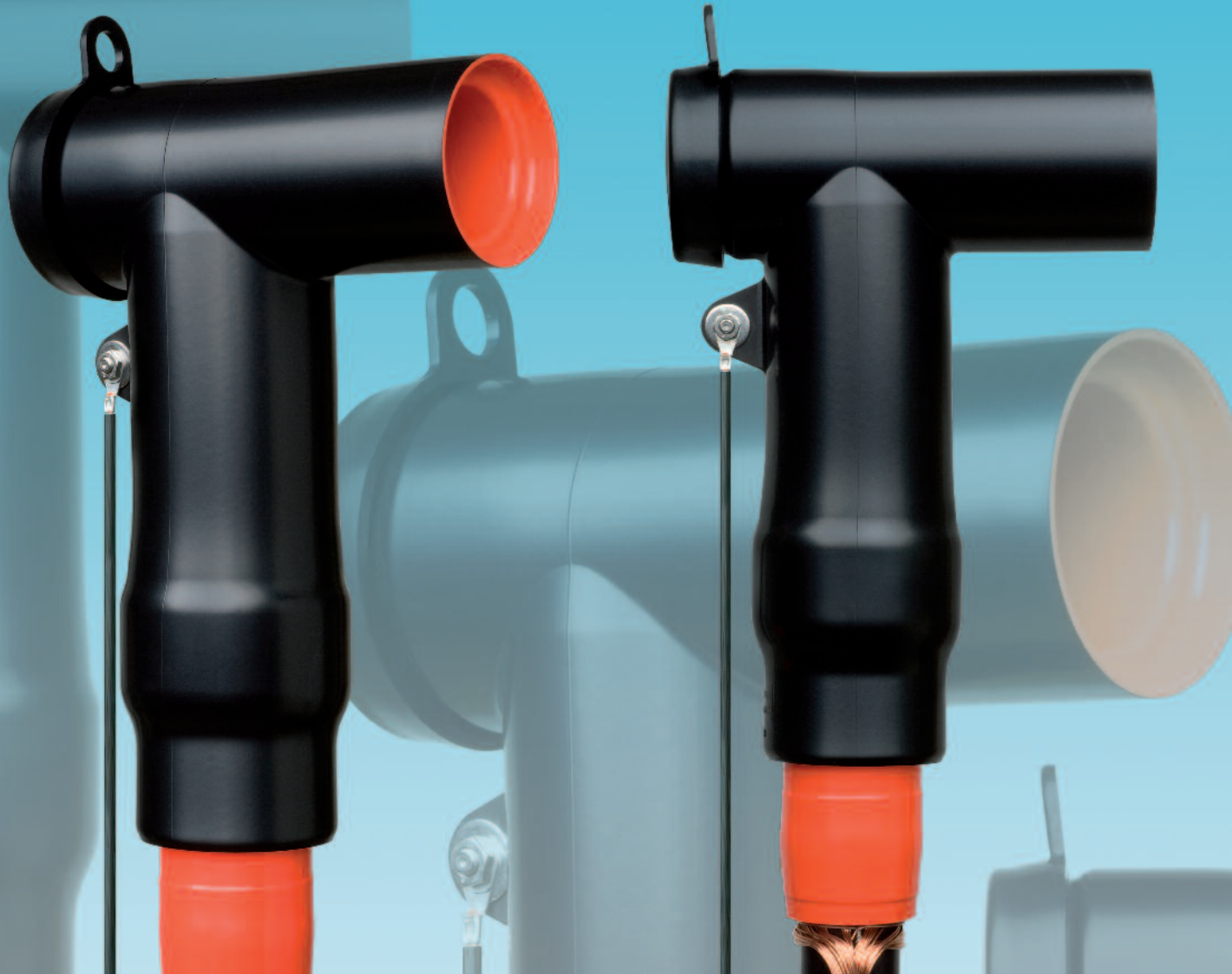
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Raychem Screened, Separable Connection
System RSTI-68 800 A up to 42 kV

Raychem
from TE Connectivity

Raychem Screened, Separable Connection System RSTI-68, 800 A up to 42 kV



Features

- The insulation of the 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 connector need not be removed for over sheath testing.
- The screened cable connector exceeds CENELEC HD 629.1 S2 requirements, which includes BS; VDE and other international specifications.
- Design 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, DIN or deep indent lugs.
- Easily accessible rear plug with capacitive test point.
- Few accessories required for system test, double "T" and earth connection.
- Complete kit including lugs facilitates installation and storage.

Raychem RSTI screened separable connectors are designed to connect single- and three-core polymeric cables to medium-voltage gas insulated switchgear and other equipment using CENELEC bushings Type C₁=630 A and C₂=1250 A, specified up to 42 kV.

Made of a highly modified silicone rubber and protected by a thin walled outer conductive screen connected to earth, RSTI connectors are equally suited for indoor and outdoor installation.

Supporting a wide application range, the design incorporates one body and two stress cone adapters to cover all cross-sections from 35 to 300 mm². The overall and cut back dimensions are designed to take up minimum space in the terminal box. RSTI connectors are equipped with a capacitive test point for determining whether the circuit is energised. A conductive cap protects this test point.

Accessories

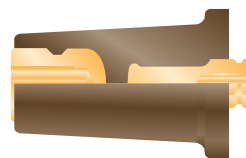
Test rod

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



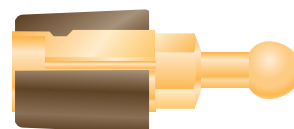
Terminating plug

Ref. no.: RSTI-68TP



Earthing adapter

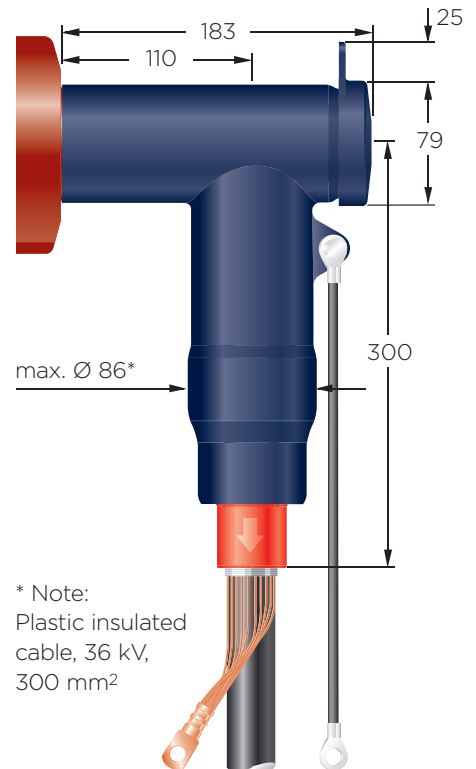
Ref. no.: RSTI-68EA20;
Ball diameter: 20 mm
RSTI-68EA25;
Ball diameter: 25 mm



Applications

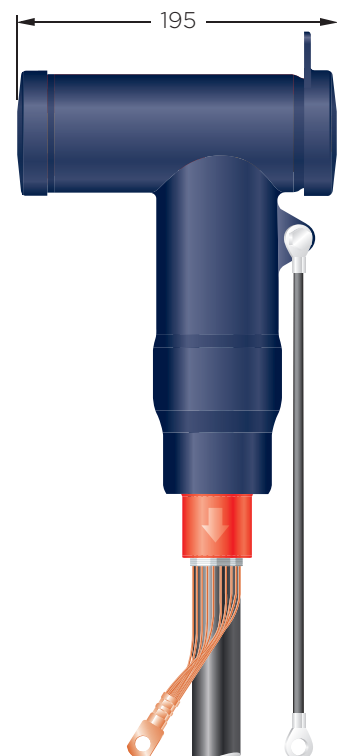
Single connection

Material requested for 3 phases:
1 x RSTI-68xx (Kit)

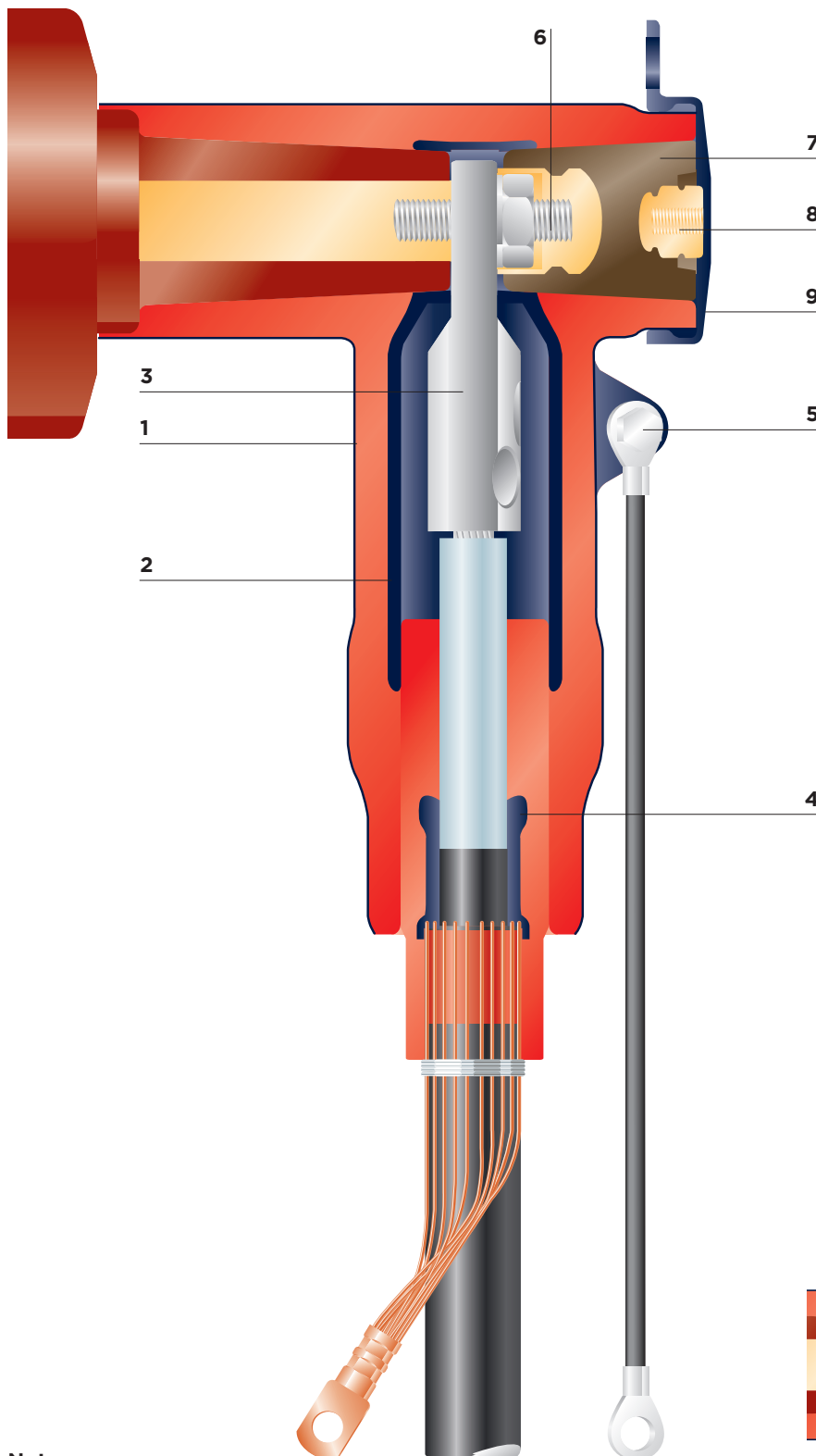


Live end seal

Material requested for 3 phases:
1 x RSTI-68xx (Kit)
1 x RSTI-68TP (Terminating plug kit)



Design and construction



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

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 and deep indent 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 over sheath testing.

5 Earthing eye and ground lead

Provides a connection point for earthing the screen.

6 Threaded pin

A threaded pin together with a spring washer (wave type) and hex nut ensure a 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

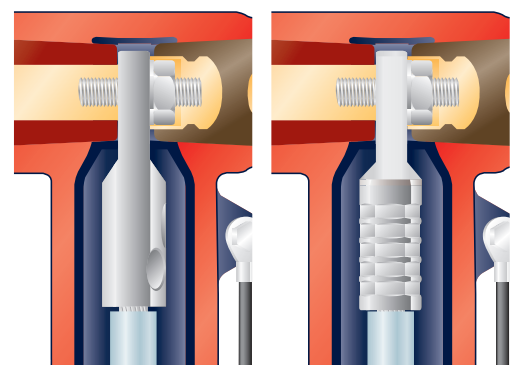
The test point is used to determine whether the circuit is energised; alternatively it can be used for phasing.

9 Conductive end cap

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

Mechanical lug

Compression lug



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 connection system 36 kV and 42 kV with DIN compression lugs

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

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

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

Cross Section mm ²	Diameter Reference number Core insulation		Conductor material Al or Cu
	min mm	max mm	
35 - 95	22.4 -	35.5	RSTI-6851
95 - 150	22.4 -	35.5	RSTI-6852
120 - 240	28.9 -	42.0	RSTI-6853
185 - 300	28.9 -	42.0	RSTI-6855

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

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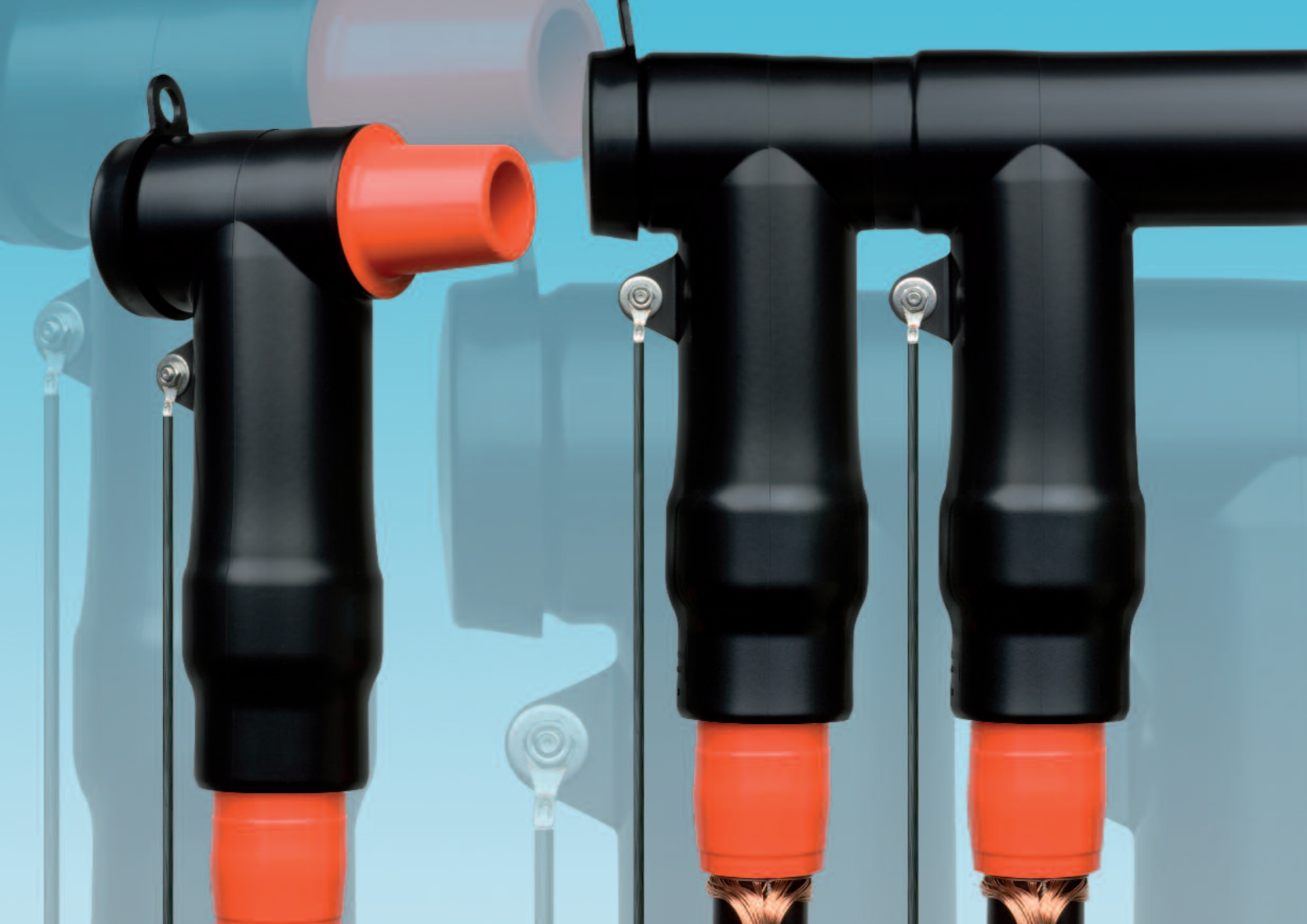
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Raychem screened, separable
coupling connection system RSTI-CC-68
800 A up to 42 kV

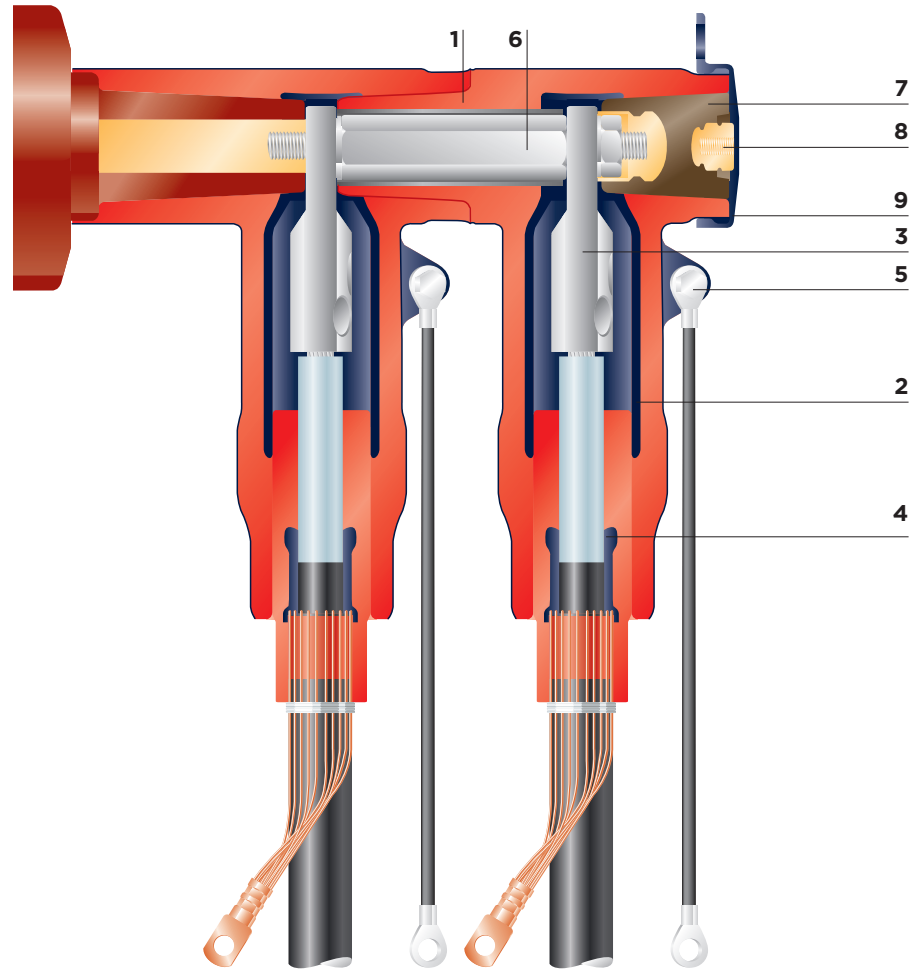
Raychem
from TE Connectivity

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 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.

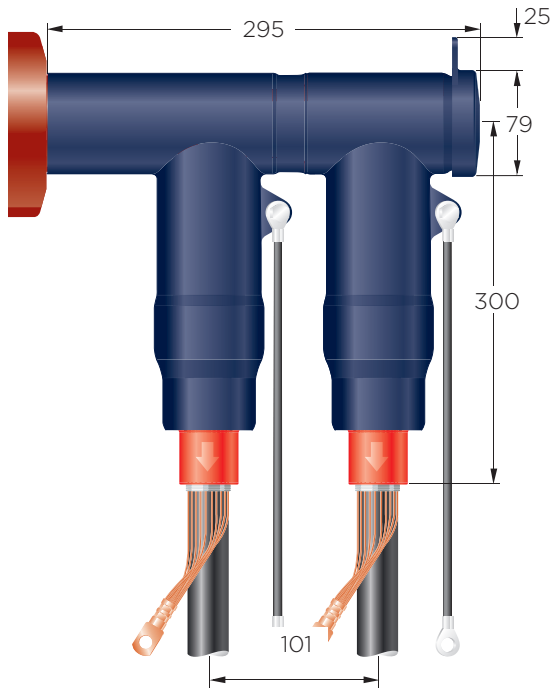
Applications

Double connection

Items required for 3 phases:

1 x RSTI-68xx (Basic kit)

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



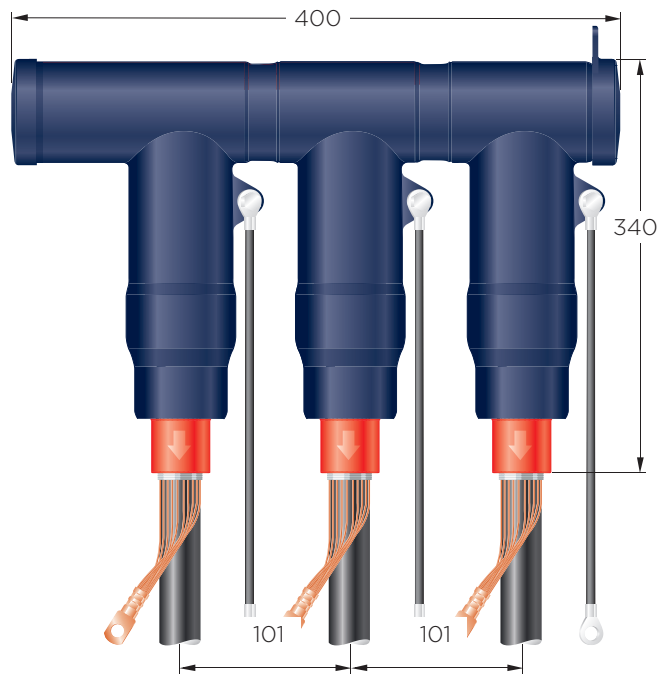
Single core branch off

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

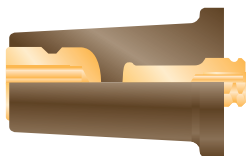
Test rod

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



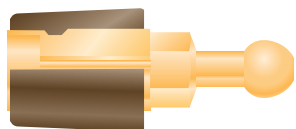
Terminating plug

Ref. no.: RSTI-68TP



Earthing adapter

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



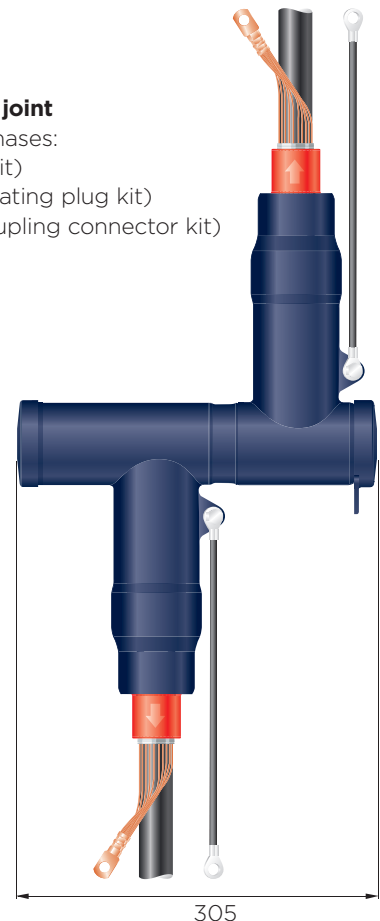
Disconnectable inline joint

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.

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 Conductor material Al or Cu
	min mm	max mm	
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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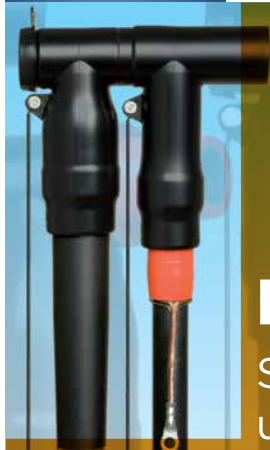
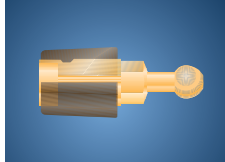
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RAYCHEM RSTI-SA-10

Screened, Separable Surge Arrester
up to 41 kV

Product Features

- Tested in accordance with IEC60099-4 (May 2004)
- State of art - gapless design
- Excellent protection margins
- Low residual voltages
- Excellent short circuit performance
- Excellent TOV performance
- Maintenance free

The screened gapless surge arrester is a “T”-shaped product. It is designed for direct connection onto outer cone bushings in accordance to EN50180 or EN50181 with interface type “C” or for parallel connection mating to the rear entry of the base screened connector system RSTI designed for system voltage up to 41 kV.

Easily accessible rear plug with capacitive test point.

The insulation of the screened surge arrester 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 unintentional contact.

The active part is a metal oxide arrester which meets the requirements of IEC-60099-4 for separable and dead-front arresters.

The combination of screened connector and surge arrester exceeds CENELEC HD 629.1 S2 requirements, which includes BS, VDE and other international specifications.

Few accessories required for system test and earth connection.

Complete kit including screened surge arrester, threaded pin and ground lead for three phases facilitates installation and storage.

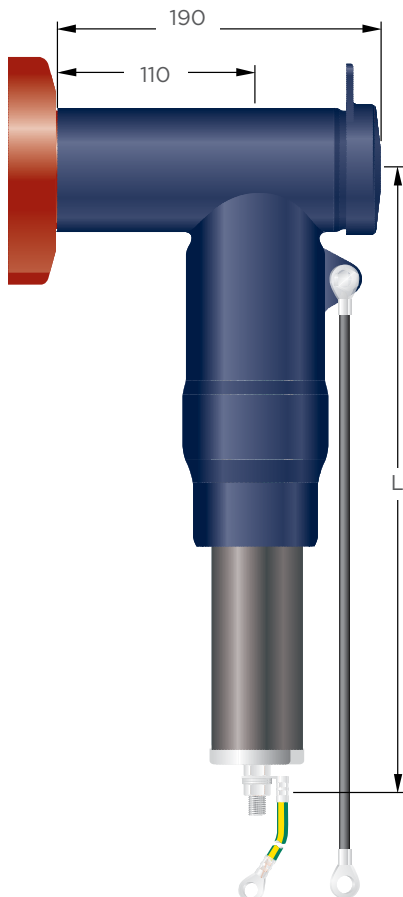
Application

Single connection

Material requested for 3 phases:

1 x RSTI-68SAxx10

(Screened surge arrester kit for direct bushing connection)



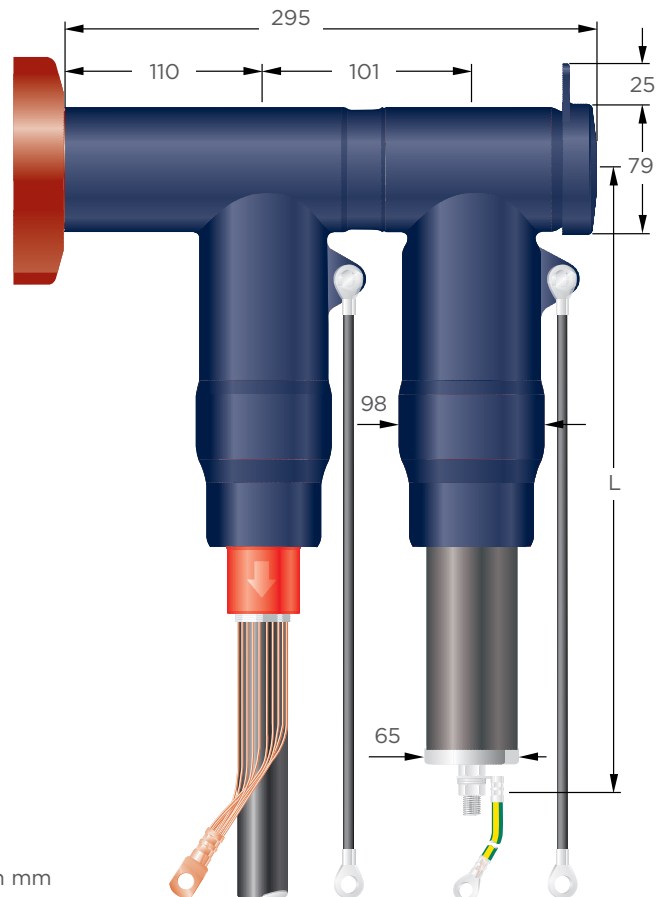
Parallel connection

Material requested for 3 phases:

1 x RSTI-58xx or RSTI-68xx (Base connector kit)

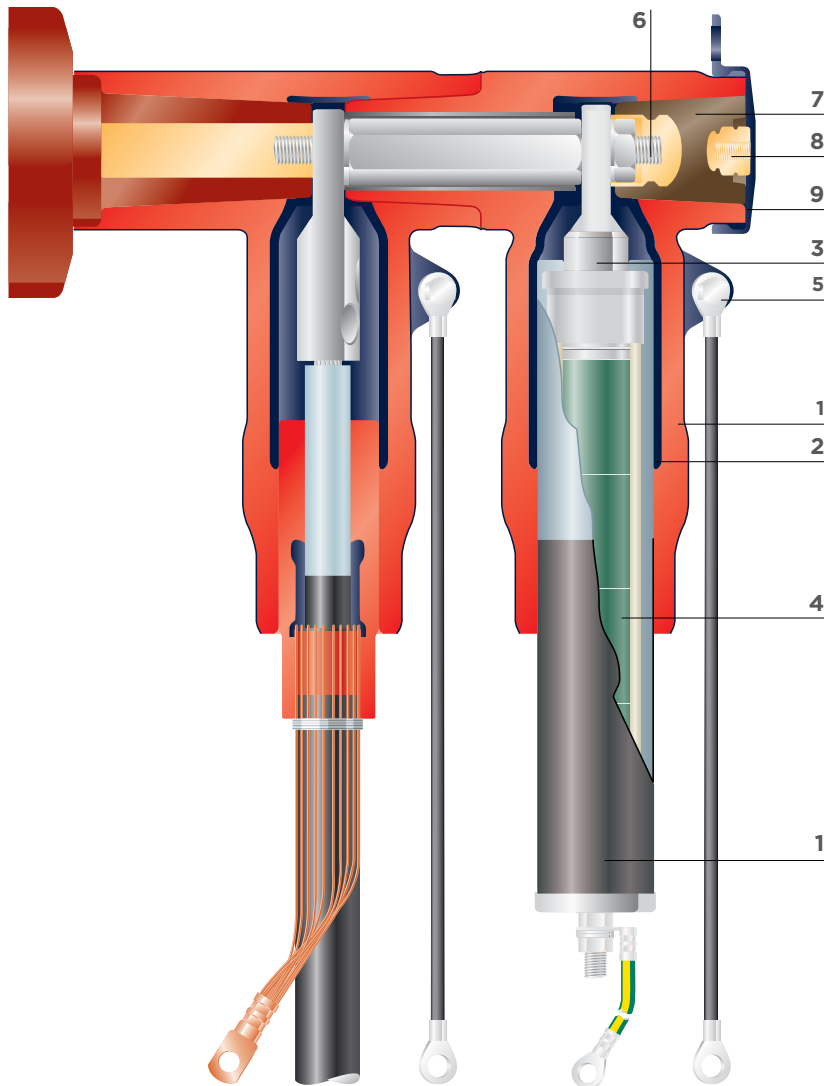
1 x RSTI-CC-68SAxx10

(Screened surge arrester kit with coupling connection)



Dimensions in mm

Design and construction



1 Screened body

A thin walled conductive outer screen is permanently bonded to the silicone rubber insulating material.

2 Inner screen

A conductive inner layer, as a Faraday cage around the top end electrode prevents corona at rated voltage.

3 Threaded lug

Pre-installed threaded lug, specially designed, facilitates the connection of the surge arrester to the base connector or bushing.

4 Surge arrester core

Gapless surge arrester core assembly consisting of ZnO (Zinc Oxide) varistors and a mechanical robust structure.

5 Earthing eye and ground lead

Provides a connection point for earthing the screen.

6 Threaded pin

A threaded pin together with a spring washer and hex nut ensure a high performance electrical and mechanical contact with the base connector or 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 surge arrester.

Accessories

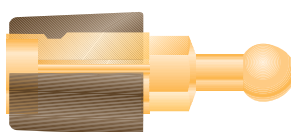
Test rod

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



Earthing adapter

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



Note: When test rod is in use, surge arrester assembly must be removed.

Technical data and ordering information

TECHNICAL DATA FOR SINGLE AND PARALLEL CONNECTIONS

Rated Discharge Current I_N	10 kA
Operating duty High current impulse 4/10 μ s	100 kA
Short Circuit Current I_s	20 kA
Long duration current impulse (2ms)	212 A

RESIDUAL VOLTAGES (KV)

Continuous operating voltage U_c	12.0	18.0	24.0	30.0	33.0	36.0	39.0	41.0
Rated voltage U_R	15.0	22.5	30.0	37.5	41.3	45.0	48.8	51.3

LIGHTNING CURRENT IMPULSE 8/20 μ s

5 kA	39.1	58.6	78.2	97.7	107.5	117.3	127.1	133.6
10 kA	41.5	62.2	83.0	103.7	114.0	124.5	134.9	141.8
20 kA	45.7	68.5	91.4	114.2	125.6	137.1	148.5	156.1

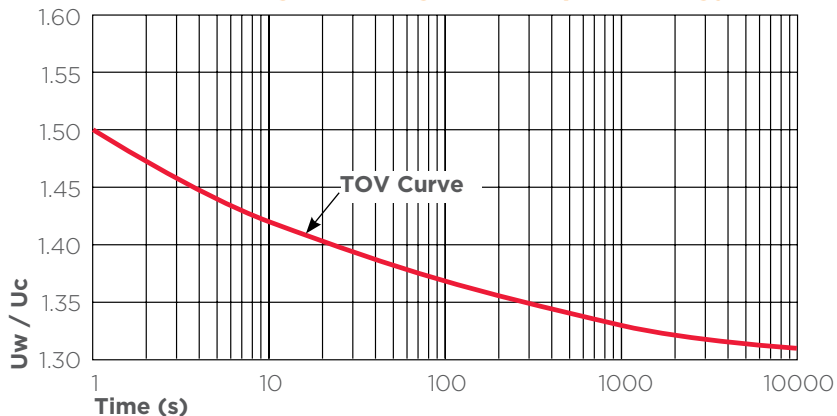
STEEP LIGHTNING CURRENT IMPULSE 1/20 μ s

10 kA	43.9	65.8	87.8	109.8	120.8	131.7	142.7	150.0
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SWITCHING IMPULSE 30/60 MS

125 A	31.5	47.3	63.1	78.9	86.8	94.7	102.5	107.8
500 A	32.4	48.7	64.9	81.1	89.2	97.4	105.5	110.9

TOV with 100kA single shot high current prior energy



Temperature of samples (pre-heated): 60° C according to IEC 60099-4, Ed 2.0 2004. TOV Curve applies to an arrester which has a pre-stress applied prior to TOV verification. This prestress is equivalent to one high current impulse of 100kA, 4/10 as per the switching surge operating duty test.

U_w = TOV withstand voltage

U_c = continuous operating voltage

ORDERING INFORMATION

VOLTAGE CLASS (KV)	12.0	18.0	24.0	30.0	33.0	36.0	39.0	41.0
Reference Number Single connection	RSTI-68SA1210	RSTI-68SA1810	RSTI-68SA2410	RSTI-68SA3010	RSTI-68SA3310	RSTI-68SA3610	RSTI-68SA3910	RSTI-68SA4110
Reference Number Parallel connection	RSTI-CC-68SA1210	RSTI-CC-68SA1810	RSTI-CC-68SA2410	RSTI-CC-68SA3010	RSTI-CC-68SA3310	RSTI-CC-68SA3610	RSTI-CC-68SA3910	RSTI-CC-68SA4110
DIMENSION AND WEIGHT								
Length L* (mm)	285.0	400.0	400.0	520.0	520.0	520.0	530.0	530.0
Weight (kg/pc)								
(68SA)	3.5	3.7	3.9	4.1	4.2	4.2	4.3	4.4
(-CC-68SA)	4.4	4.6	4.8	5.0	5.1	5.1	5.2	5.3

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