

TE'S RAYCHEM SCREENED SURGE ARRESTERS RSTI-SA-05

with I_N 5 kA and U_C up to 24 kV

Product Features

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

The screened gapless surge arresters are “T”-shaped products. They are designed for direct connection onto outer cone bushings in accordance with EN50180 or EN50181 with interface type “C” or for parallel connection mating to the rear entry of the RSTI-58 base screened t-connectors designed for system voltage up to 24 kV. Easily accessible rear plug with capacitive test point.

The insulation of the screened surge arresters are 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 connectors and surge arresters exceeds CENELEC HD 629.1 S1 requirements, which includes BS, VDE and other international specifications.

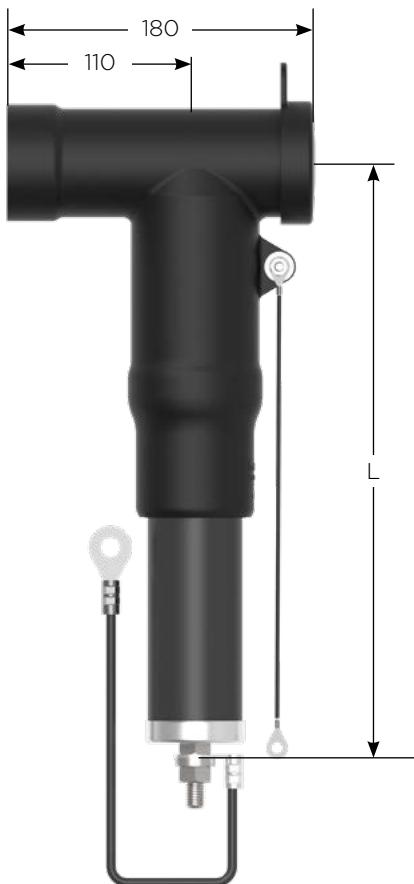
Few accessories required for system test and earth connection.

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

RSTI-SA-05 Applications

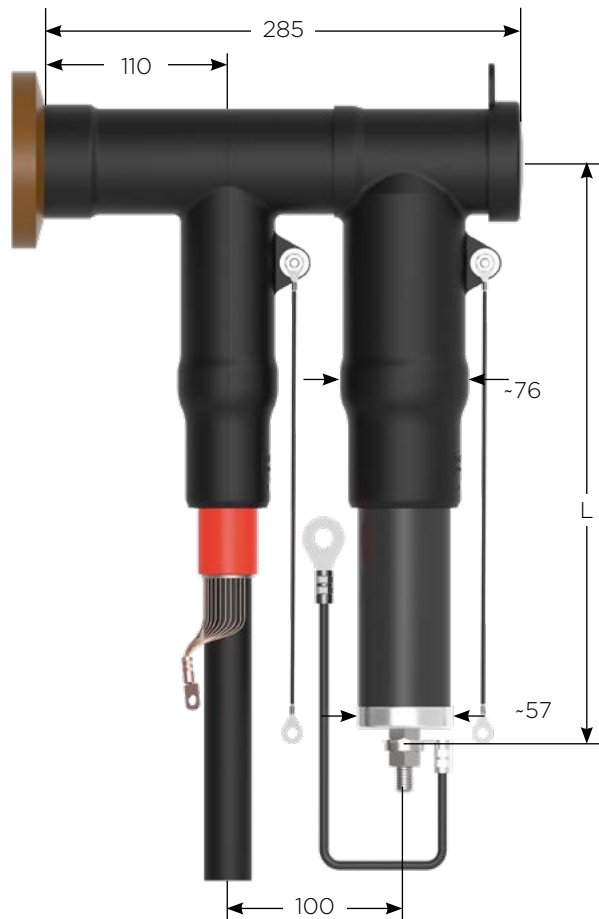
Single connection

Material required for 3 phases:
1 x RSTI-58SAxx05
(screened surge arrester kit for direct bushing connection)



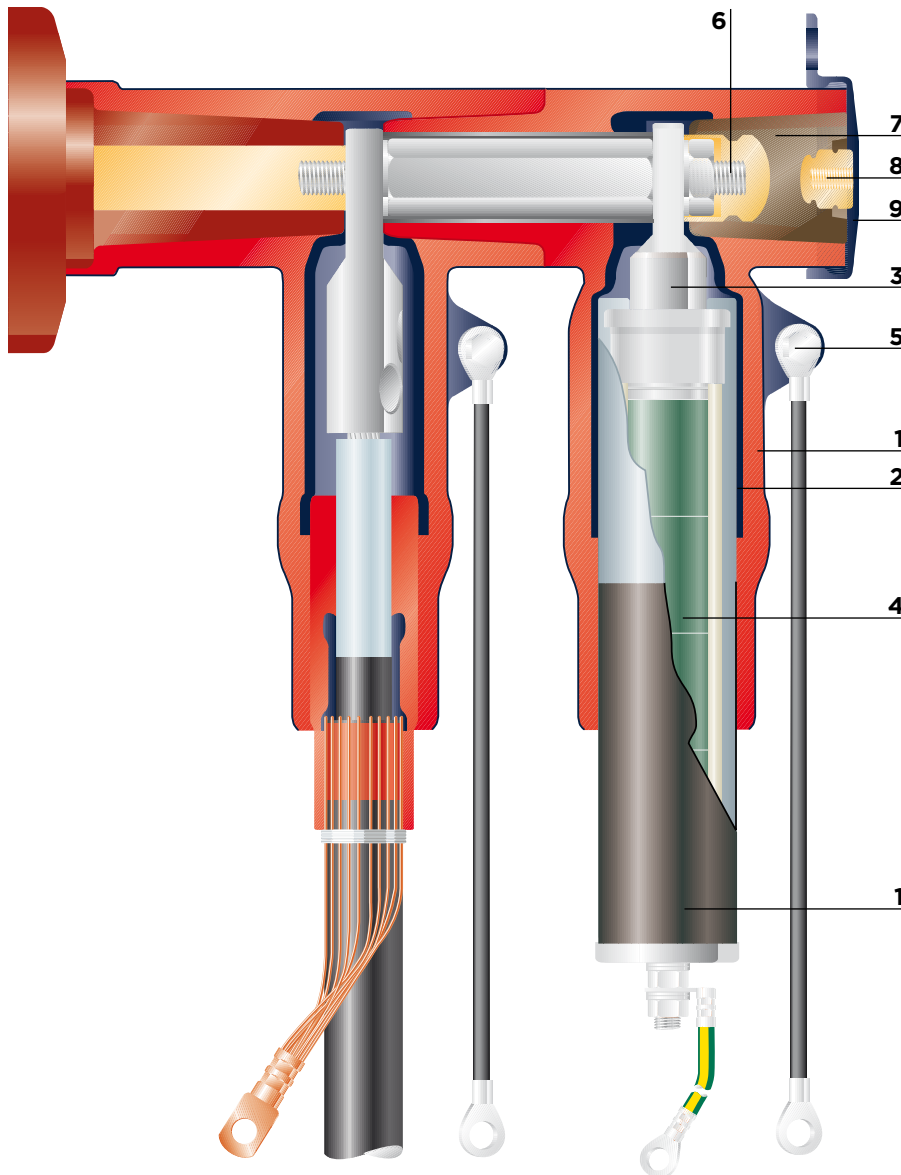
Parallel connection

Material required for 3 phases:
1 x RSTI-58xx (Base connector kit)
1 x RSTI-CC-58SAxx05
(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.

RSTI-SA-05 Accessories

Test rod

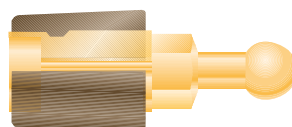
Ref. no.: RSTI-68TR; Length: 310 mm
RSTI-68TRL; Length: 460 mm
RSTI-68TRA; Kit includes
2 short and 1 long testrod



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

Earthing adapter

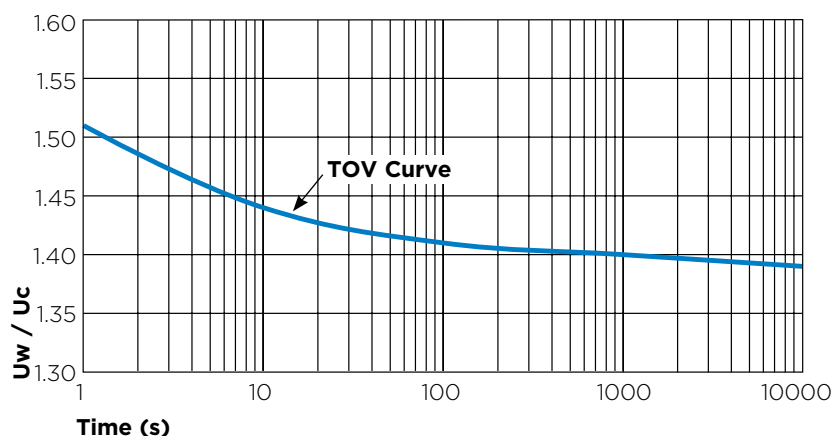
Ref. no.: RSTI-68EA20;
Ball diameter: 20 mm
RSTI-68EA25;
Ball diameter: 25 mm



TECHNICAL DATA FOR SINGLE AND PARALLEL CONNECTION

Rated Discharge Current I_N	5 kA			
Operating duty High current impulse 4/10 μ s	65 kA			
Short Circuit Current I_S	16 kA			
Long duration current impulse (1ms)	75 A			
Continuous operating voltage U_C	6	12	18	24
Rated Voltage U_R	7.5	15	22.5	30
LIGHTNING CURRENT IMPULSE 8/20 μs				
Residual Voltages (kV)				
2.5 kA	19	38	57	76
5 kA	20	40	60	80
10 kA	21.7	43.5	65.2	87
STEEP LIGHTNING CURRENT IMPULSE 1/20 μs				
5 kA	21	42	63	84

TOV with 65 kA single shot high current prior to 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 pre-stress is equivalent to one high current impulse of 65 kA, 4/10 μ s as per the switching surge operating duty test.

U_w = TOV withstand voltage;
 U_C = continuous operating voltage

ORDERING INFORMATION

VOLTAGE CLASS (kV)	6.0	12.0	18.0	24.0
Reference Number Single Connection	RSTI-58SA0605	RSTI-58SA1205	RSTI-58SA1805	RSTI-58SA2405
Reference Number Parallel Connection	RSTI-CC-58SA0605	RSTI-CC-58SA1205	RSTI-CC-58SA1805	RSTI-CC-58SA2405
DIMENSION AND WEIGHT				
Length L* (mm)	285.0	285.0	400.0	400.0
Weight (kg/pc)				
(58SA)	2.4	2.7	3.0	3.3
(-CC-58SA)	2.5	2.8	3.1	3.4

* see page 2

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FOR MORE INFORMATION: TE Technical Support Centers

USA:	+ 1 800 327 6996
Canada:	+ 1 (905) 475-6222
Mexico:	+ 52 (0) 55-1106-0800
Latin/S. America:	+ 54 (0) 11-4733-2200
France:	+ 33 380 583 200
UK:	+ 44 0870 870 7500
Germany:	+ 49 896 089 903
Spain:	+ 34 916 630 400
Italy:	+ 39 333 250 0915
Benelux:	+ 32 16 508 695
Russia:	+ 7 495-790 790 2-200
China:	+ 86 (0) 400-820-6015