Energy Division

RSTI-SA-10
Raychem screened, separable surge arrester up to 24 kV

Tyco Electronics

Our commitment. Your advantage.

RSTI-SA-10

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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 24 kV.

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.

Easily accessible rear plug with capacitive test point.

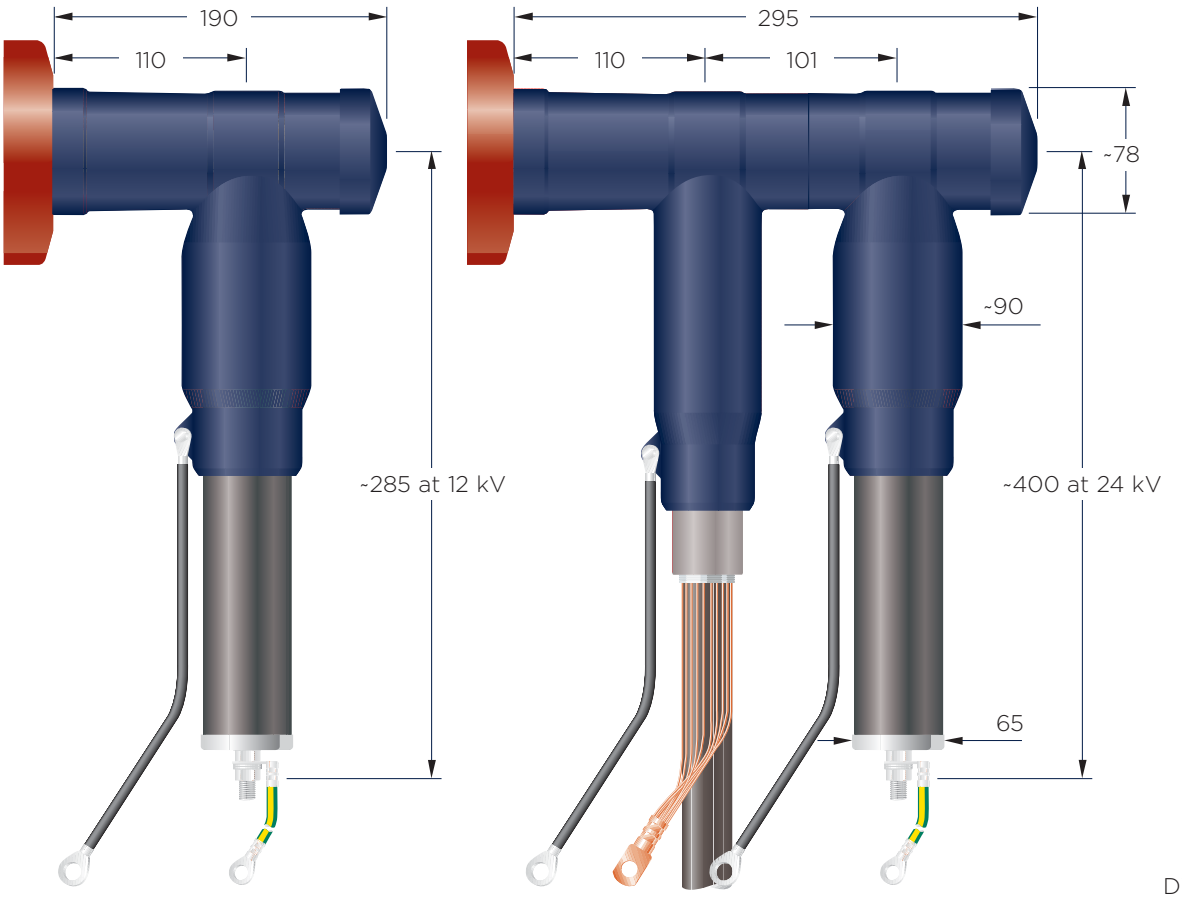
Few accessories required for system test and earth connection.

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

RSTI-SA-10 Applications

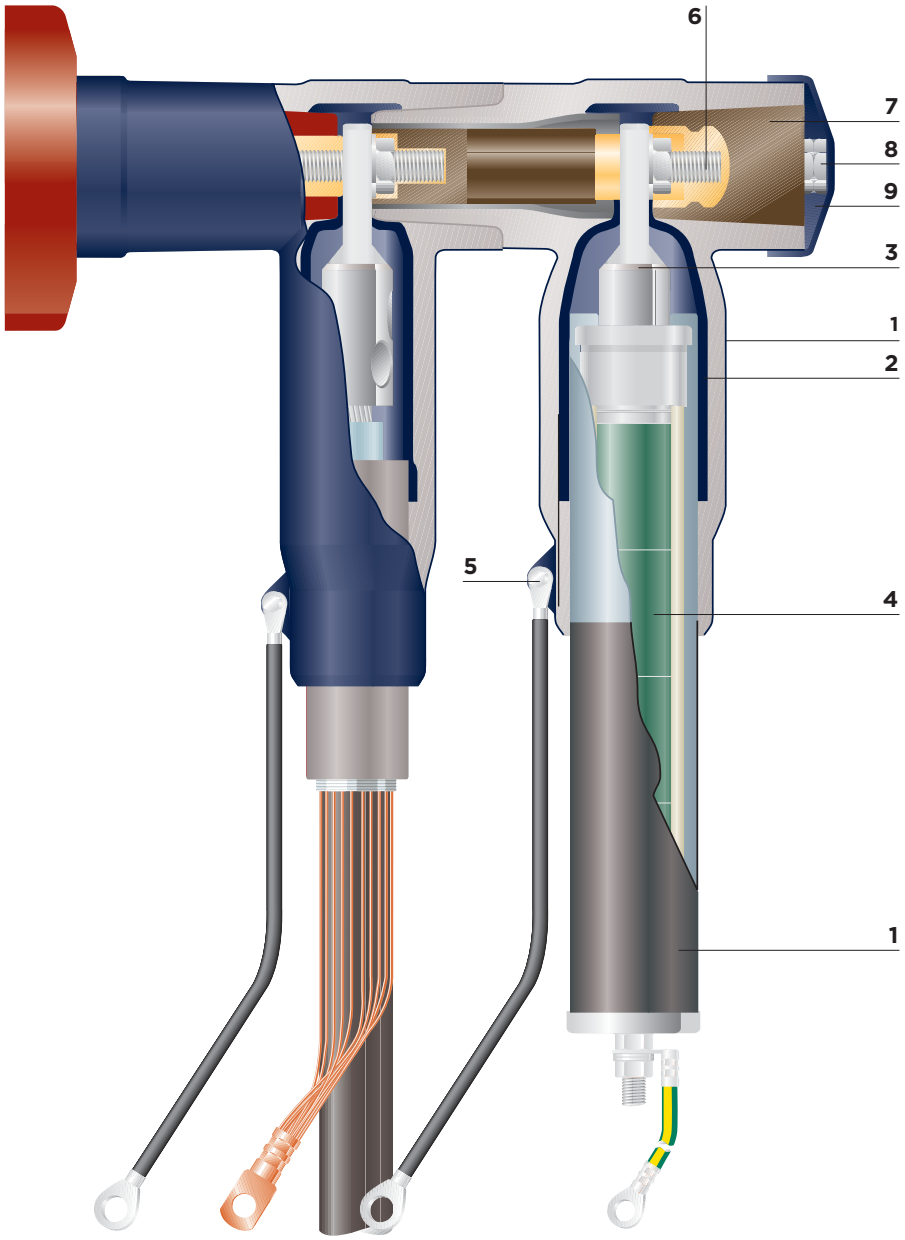
Single connection
Material requested for 3 phases:
1 x RSTI-66SAxx10
(Screened surge arrester kit for direct bushing connection)

Parallel connection
Material requested for 3 phases:
1 x RSTI-L56xx (Base connector kit)
1 x RSTI-CC-66SAxx10
(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.

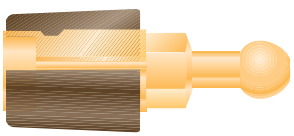
9 Conductive end cap
Electrical screen and protection of the rear end of the separable surge arrester.

RSTI-SA-10 Accessories

Test rod
Ref. no.: RSTI-56TR; Length: 310 mm
RSTI-56TRL; Length: 460 mm
RSTI-56TRA; 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-56EA20;
Ball diameter: 20 mm
RSTI-56EA25;
Ball diameter: 25 mm



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Technical data and ordering information

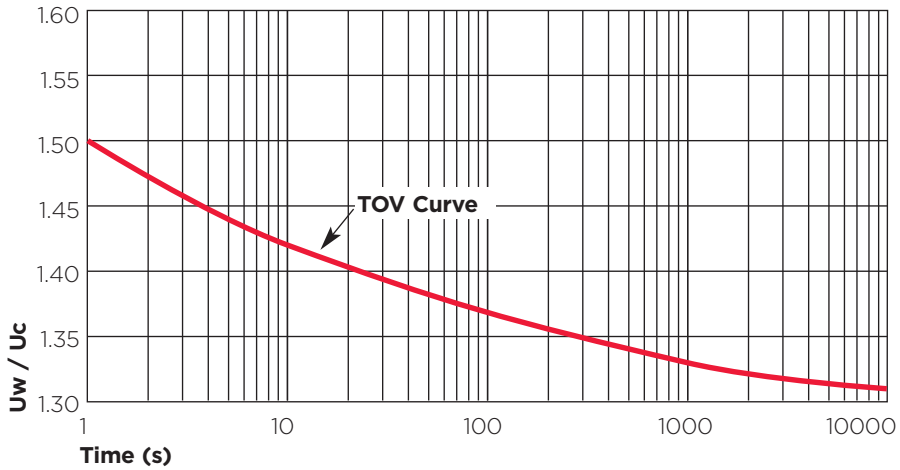
Technical data for single and parallel connection

Rated Discharge Current I_N	10 kA
Operating duty High current Impulse 4/10 µs	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	24
Rated Voltage U_R	15	30
Lightning Current Impulse 8/20 µs		
5 kA	39.1	78.2
10 kA	41.5	83.0
20 kA	45.7	91.4
Steep lightning current impulse 1/20 µs		
10 kA	43.9	87.8
Switching impulse 30/60 µs		
125 A	31.5	63.1
500 A	32.4	64.9

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 pre-stress is equivalent to one high current impulse of 100kA, 4/10 as per the switching surge operating duty test.

Uw = TOV withstand voltage
Uc = continuous operating voltage

Ordering information

Continuous Operating Voltage	Reference Number Single connection	Parallel connection
12 kV	RSTI-66SA1210	RSTI-CC-66SA1210
24 kV	RSTI-66SA2410	RSTI-CC-66SA2410

Screened surge arresters for other voltage classes on request

Energy Division – economical solutions for the electrical power industry: cable accessories, connectors & fittings, electrical equipment, instruments, lighting controls, insulators & insulation enhancement and surge arresters.

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