



# TE'S RAYCHEM SCREENED SURGE ARRESTERS FOR INTERFACE F RSTF-SA

With gapless ZnO surge arrester modules for U<sub>R</sub> up to 75 kV

TE Connectivity (TE) combines over 60 years experience and engineering excellence to offer reliable and innovative switchgear connection systems. As part of this commitment, we have developed the RSTF: an outer cone screened separable T-connector for 72.5 kV type F bushings including the Screened T-connector Surge Arresters RSTF-SA.

TE's Raychem Screened T-connector Surge Arrester RSTF-SA is an integral part of the RSTF product programme to support voltage stability and prevent negative effects on installed equipment due to overvoltages.

### **KEY FEATURES AND BENIFITS**

### TE's Raychem Screened T-connectors Surge Arresters RSTF-SA up to 72.5 kV

- Proven gapless ZnO surge arrester design
- Maintenance free and corrosion resistant
- Available integrated in base or coupling T-connector
- High performance and longevity in extreme conditions
- Meet EN 50673 standard
- Tested according to IEC 60840:2011 and IEC 60099-4:2014
- 100% routine tested
- End-to-end components traceability

#### AN OPTIMIZED DESIGN FOR HIGH RELIABILITY

### 1. Screened T-connector

A standard RSTF base or coupling connector with a thin-walled conductive outer screen and silicone rubber insulating body.

#### 2. Inner screen

A conductive inner layer around surge arrester terminal that works as a Faraday cage to prevent corona at rated voltage.

#### 3. Surge arrester insulation

Silicone insulation layer around the surge arrester module.

#### 4. Surge Arrester ZnO stack

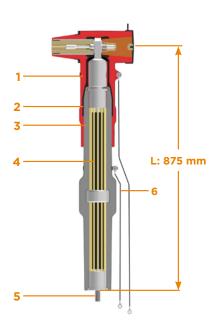
Gapless stack of Zinc-Oxide varieties.

#### 5. Grounding terminal

Grounding terminal for the surge arrester module and connection point for mechanical support.

#### 6. Ground lead

Insulated ground lead for earthing of the surge arrester's outer screen.



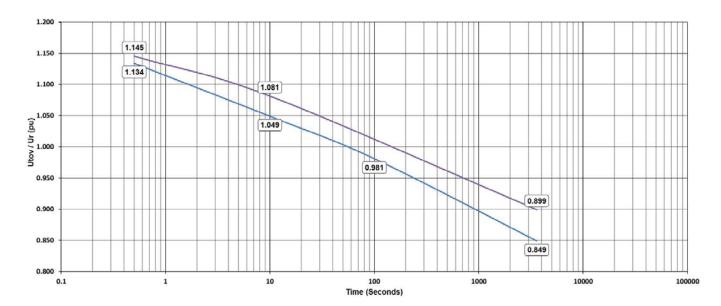
RESIDUAL VOLTAGES			
Lightning impulse 8/20 μs	5 kA	10 kA	20 kA
	185 kV	197 kV	217 kV
Steep lightning impulse 1/20 μs		10 kA	20 kA
	-	207 kV	227 kV
Switching impulse 30/60 μs		125 A	500 A
	-	148 kV	159 kV

RATED DATA	
Rated voltage U <sub>R</sub>	75 kV
Continous operating voltage $\mathbf{U}_{\mathrm{C}}$	60 kV
Nominal Discharge Current $I_N$	10 kA
Charge transfer rating Q <sub>rs</sub>	1,6 C
Rated thermal energy W <sub>th</sub>	412,5 kJ
Arrester Class	SL
Short circuit current I <sub>s</sub>	31,5 kA
High current impulse 4/10 μs	100 kA
Long duration current impulse (2ms)	760 A

DIMENSIONS AND WEIGHT		
Length L (bushing to grounding terminal)	875 mm	
Weight (pc)	25 kg	

# RSTF-SA SURGE ARRESTER TYPE TOV CAPABILITY (UP TO $U_R = 75 \text{ kV}$ )

With prior energy
Without prior energy
U<sub>tov</sub> = TOV withstand voltage
U<sub>r</sub> = Rated voltage



Samples preheated to  $85^{\circ}\text{C}$  per IEC 60099-4; Ed. 3.0, 2014 for screened separable surge arresters.

TOV Curves for RSTF-SA arresters with and without being pre-stressed by energy prior to TOV verifications. The pre-stress is its rated thermal energy Wth per the power-frequency voltage-versus-time test according to IEC 60099-4:2014.

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