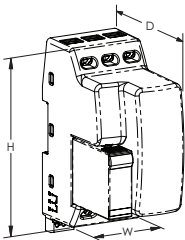


Transient Surge Filter



The nVent ERICO Critec Transient Surge Filter (TSF) product family is a UL registered, IEC compliant, compact, serviceable solution for protection of PLC controllers, SCADA systems, motor control centers and other process control systems.

- Compact, space saving design
- Replaceable surge module reduces down time and unprotected time during maintenance
- Compliance to the latest UL 1449 Edition 4 and IEC 61643-11 surge standards and UL 1283 Electromagnetic Interference Filters (EMI) standard
- Low let-through voltages on the critical line to neutral mode
- Transient Discriminating (TD) Technology provides increased service life



Part Number	TSF6A120V	TSF20A120V	TSF6A24V	TSF6A240V	TSF20A240V
Nominal System Voltage (Un)	120 V		24 V	240 V	
Rated Load Current (IL)	6 A	20 A	6 A		20 A
Max Continuous Operating Voltage (Uc)	170 V		30 VAC/38 VDC	275 V	
Stand-off Voltage	230		-	440	
Frequency	0 – 100 Hz				
Max Discharge Current (Imax), L-N	20 kA 8/20 μ s				
Max Discharge Current (Imax), L-PE	20 kA 8/20 μ s				
Max Discharge Current (Imax), N-PE	20 kA 8/20 μ s				
Filtering	-65 dB @ 100 kHz	-50 dB @ 100 kHz	-65 dB @ 100 kHz		-50 dB @ 100 kHz
Distribution System	1Ph 2W+G				
Protection Modes	L-N L-PE N-PE				
Connection, Solid	2.00 – 5.25 mm ²				
Connection, Stranded	2.00 – 5.25 mm ²				
Mounting	35 mm top hat DIN rail				
Status Indication	Mechanical flag				

Part Number	TSF6A120V	TSF20A120V	TSF6A24V	TSF6A240V	TSF20A240V
	Remote Contacts				
Enclosure Material	UL® 94V-0 Thermoplastic				
Enclosure Rating	IP 20				
Temperature	-35 to 40 °C				
Module Width	3 M				
Depth (D)	95.2 mm				
Height (H)	122.7 mm				
Width (W)	54 mm				
Unit Weight	507 g				
Replacement Module	TSF120MTDS		TSF24MDS	TSF240MTDS	
Certifications	CE, ERICO TSF cURus		CE, ERICO TSF	CE, ERICO TSF cURus	

UL 1449 Edition 4 / UL 1283 Edition 5 Ratings					
Part Number	TSF6A24V	TSF6A120V	TSF20A120V	TSF6A240V	TSF20A240V
Max Continuous Operating Voltage (Uc)	-	170 V		275 V	
Rated Load Current (IL)	-	6 A	20 A	6 A	20 A
Nominal Discharge Current (In), L-N	-	3 kA 8/20 µs			
Nominal Discharge Current (In), L-PE	-	3 kA 8/20 µs			
Nominal Discharge Current (In), N-PE	-	3 kA 8/20 µs			
Voltage Protection Rating (VPR), L-N	-	330 V	400 V	-	-
Voltage Protection Rating (VPR), L-PE	-	900 V	800 V	-	-
Voltage Protection Rating (VPR), N-PE	-	700 V	700 V	-	-
Measured Limiting Voltage (MLV), L-N	-	-	-	620 V	680 V
Measured Limiting Voltage (MLV), L-PE	-	-	-	1450 V	1360 V
Measured Limiting Voltage (MLV), N-PE	-	-	-	1220 V	1330 V
Overcurrent Protection Fuse	-	Bussmann FNQ-R-7-1/2	Mersen ATMR25	Bussmann FNQ-R-7-1/2	Mersen ATMR25
Certification Details	-	UL® 1449 Edition 4 Type 2CA, 3 kA Mode		UL® 1449 Edition 4 Type 4CA, 3 kA Mode	
		UL® 1283 Edition 5 EMI Filter			

IEC 61643-11 Ratings					
Part Number	TSF6A24V	TSF6A120V	TSF20A120V	TSF6A240V	TSF20A240V
Max Continuous Operating Voltage (Uc)	30 V	170 V		275 V	
Rated Load Current (IL)	6 A		16 A	6 A	16 A
Nominal Discharge Current (In), L-N	3 kA 8/20 µs				
Nominal Discharge Current (In), L-PE	3 kA 8/20 µs				
Nominal Discharge Current (In), N-PE	3 kA 8/20 µs				
Voltage Protection Level (Up), L-N	330 V	330 V	330 V	800 V	850 V

IEC 61643-11 Ratings					
Part Number	TSF6A24V	TSF6A120V	TSF20A120V	TSF6A240V	TSF20A240V
Voltage Protection Level (Up), L-PE	500 V	1050 V	1050 V	1800 V	1900 V
Voltage Protection Level (Up), N-PE	500 V	1050 V	1050 V	1800 V	1900 V
Overcurrent Protection Circuit Breaker	Clipsal 4CB106/10		Clipsal 4CB116/10	Clipsal 4CB106/10	Clipsal 4CB116/10
Complies With	IEC® 61643-11 Class II				

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WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at www.erico.com and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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