

## TRANSIENT SURGE FILTER, 120 V UN, 6 A

### CATALOG NUMBER

## TSF6A120V



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.

### CERTIFICATIONS



### FEATURES

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

### PRODUCT ATTRIBUTES

Nominal System Voltage (Un): 120 V

Rated Load Current (IL): 6 A

Max Continuous Operating Voltage (Uc): 170 V

Stand-off Voltage: 230

Frequency: 0 – 100 Hz

Max Discharge Current (Imax), L-N: 20 kA 8/20  $\mu$ s

Max Discharge Current (Imax), L-PE: 20 kA 8/20  $\mu$ s

Max Discharge Current (Imax), N-PE: 20 kA 8/20  $\mu$ s

Filtering: -65 dB @ 100 kHz

Distribution System: 1Ph 2W+G

Protection Modes: L-N;L-PE;N-PE

Connection, Solid: #14 – #10

Connection, Stranded: #14 – #10

Mounting: 35 mm top hat DIN rail

Status Indication: Mechanical flag;Remote Contacts

Enclosure Material: UL® 94V-0 Thermoplastic

Enclosure Rating: IP 20

Temperature: -31 to 104 °F

Module Width: 3 M

Depth: 3 3/4"

Height: 4.830"

Width: 2.130"

Unit Weight: 1.120 lb

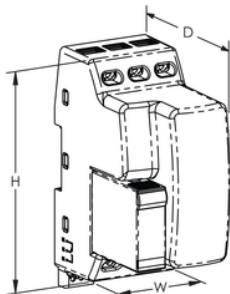
Replacement Module: TSF120MTDS

#### 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 $\mu$ s				
Nominal Discharge Current (In), L-PE	3 kA 8/20 $\mu$ s				
Nominal Discharge Current (In), N-PE	3 kA 8/20 $\mu$ s				
Voltage Protection Level (Up), L-N	330 V	330 V	330 V	800 V	850 V
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				

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 $\mu$ s			
Nominal Discharge Current (In), L-PE	-	3 kA 8/20 $\mu$ s			
Nominal Discharge Current (In), N-PE	-	3 kA 8/20 $\mu$ s			
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			

## DIAGRAMS



## 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.nvent.com](http://www.nvent.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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