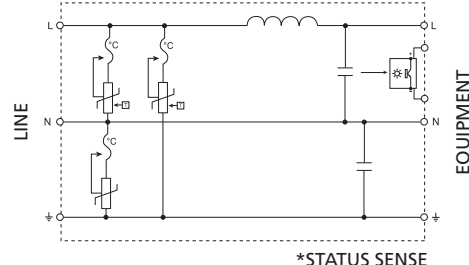


## Features

- Transient Discriminating (TD) Technology provides increased service life
- In-line series protection
- High efficiency low pass sine wave filtering – ideal for the protection of switched mode power supplies
- Three modes of protection: L-N, L-PE & N-PE
- 35 mm DIN rail mount – simple installation
- LED status indication and opto-isolated output – for remote status monitoring
- CE, UL® 1449 Edition 3 Listed

The TDF series has been specifically designed for process control applications to protect the switched mode power supply units on devices such as PLC controllers, SCADA systems and motor controllers. Units are UL® Recognized and available for 3A, 10A and 20A loads and suitable for 110-120V ac/dc and 220-240Vac circuits.

The TDF is a series connected, single phase surge filter providing an aggregate surge capacity of 50kA (8/20 $\mu$ s) across L-N, L-PE, and N-PE. The low pass filter provides up to 65dB of attenuation to voltage transients. Not only does this reduce the residual let-through voltage, but it also helps further reduce the steep voltage rate-of-rise providing superior protection for sensitive electronic equipment.



Model	TDF3A120V	TDF3A240V	TDF10A120V	TDF10A240V	TDF20A120V	TDF20A240V
Item Number for Europe	700001	700002	700003	700004	700005	700006
Nominal Voltage, U <sub>n</sub>	110-120 V	220-240 V	110-120 V	220-240 V	110-120 V	220-240 V
Distribution System	TN-C-S, TN-S					
Max Cont. Operating Voltage, U <sub>c</sub>	170 V AC	340 V AC	170 V AC	340 V AC	170 V AC	340 V AC
Stand-off Voltage	240 V	400 V	240 V	400 V	240 V	400 V
Frequency	0-60 Hz	50/60 Hz	0-60 Hz	0-60 Hz	50/60 Hz	50/60 Hz
Max Line Current, I <sub>L</sub>	3 A		10 A		20 A	
Operating Current @ U <sub>n</sub>	135 mA	250 mA	240 mA	480 mA	240 mA	480 mA
Max Discharge Current, I <sub>max</sub>	10 kA 8/20 $\mu$ s N-PE 20 kA 8/20 $\mu$ s L-N 20 kA 8/20 $\mu$ s L-PE					
Protection Modes	All modes protected					
Technology	In-line series low pass sine wave filter TD Technology					
Voltage Protection Level, Up	500 V @ 500 A 250 V @ 3 kA	700 V @ 500 A 600 V @ 3 kA	500 V @ 500 A 250 V @ 3 kA	700 V @ 500 A 600 V @ 3 kA	500 V @ 500 A 250 V @ 3 kA	700 V @ 500 A 600 V @ 3 kA
Filtering	-62 dB @ 100 kHz		-65 dB @ 100 kHz		-53 dB @ 100 kHz	
Status <sup>(1)</sup>	Green LED. On=Ok. Isolated opto-coupler output					
Dimensions H x D x W: mm (in)	90 x 68 x 72 (3.54 x 2.68 x 2.83)		90 x 68 x 144 (3.54 x 2.68 x 5.67)			
Module Width	4 M		8 M			
Weight: kg (lbs)	0.7 (1.54)		1.48 (3.25)		1.57 (3.46)	
Enclosure	DIN 43 880, UL94V-0 thermoplastic, IP 20 (NEMA-1)					
Connection	1 mm <sup>2</sup> to 6 mm <sup>2</sup> (#18AWG to #10)					
Mounting	35 mm top hat DIN rail					
Back-up Overcurrent Protection	3 A		10 A		20 A	
Temperature	-35°C to 55°C (-31°F to 131°F)					
Humidity	0 % to 90 %					
Approvals	C-Tick, CE (NOM 3A, 120V), CSA 22.2, UL® 1283, UL® 1449 Ed. 3 Recognized Component Type 2					
Surge Rated to Meet	ANSI®/IEEE® C62.41.2 Cat A, Cat B, Cat C					

(1) Opto-coupler output can be connected to DINLINE Alarm Relay (DAR275V) to provide Form C dry contacts.

ANSI is a registered trademark of the American National Standards Institute. IEEE is a registered trademark of the Institute of Electrical and Electronics Engineers, Incorporated. NEMA is a registered trademark of the National Electrical Manufacturers Association. UL is a registered trademark of Underwriters Laboratories, Inc.

### WARNING

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

Copyright ©2009 ERICO International Corporation. All rights reserved.

CADDY, CADWELD, CRITEC, ERICO, ERIFLEX, ERITECH, and LENTON are registered trademarks of ERICO International Corporation.

[www.erico.com](http://www.erico.com)

**ERICO®**

Banhay join stock company: [www.banhay.com](http://www.banhay.com)

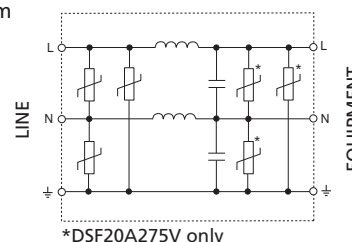
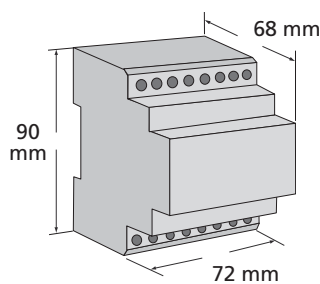
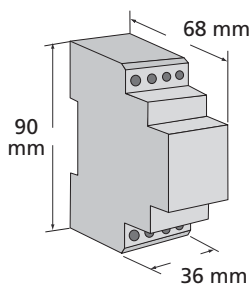


## Features

- In-line series protection
- EMI/RFI noise filtering – protects against industrial electrical noise
- Compact design – fits into motor control and equipment panels
- Three modes of protection: L-N, L-PE & N-PE
- 35 mm DIN rail mount – simple installation
- LED power indicator

The “two port” DSF series has been specifically designed for process control applications to protect the switched mode power supply units on devices such as PLC controllers, SCADA systems and motor controllers. The 30V unit is suitable for 12V and 24Vac/dc signaling and control systems.

The 6A DSF series incorporates a space efficient, low pass, series filter which provides attenuation to high frequency interference. The larger 20A model provides status indication and a higher surge rating, making this ideal for the protection of higher risk equipment.



Model	DSF6A30V	DSF6A150V	DSF6A275V	DSF20A275V
Item Number for Europe	702090	701000	701030	701020
Nominal Voltage, $U_n$	24 V	110 V-120 V	220 V-240 V	
Distribution System	1Ph 2W+G			
System Compatibility	TN-S, TN-C-S			
Max Cont. Operating Voltage, $U_c$	30 VAC, 38 VDC	150 VAC	275 VAC	
Frequency	0-60 Hz	50/60 Hz		
Max Line Current, $I_L$	6 A			20 A
Operating Current @ $U_n$	7 mA			-
Max Discharge Current, $I_{max}$	4 kA 8/20 $\mu$ s	16 kA 8/20 $\mu$ s		15 kA 8/20 $\mu$ s L-N 15 kA 8/20 $\mu$ s L-PE 25 kA 8/20 $\mu$ s N-PE
Protection Modes	All modes protected			
Technology	In-line series filter MOV			
Voltage Protection Level, $U_p$	110 V @ 3 kA	400 V @ 3 kA	750 V @ 3 kA	710 V @ 3 kA
Filtering	-3 dB @ 300 kHz			-3 dB @ 62 kHz
Status	LED power indicator			Status indicator
Dimensions H x D x W: mm (in)	90 x 68 x 36 (3.54 x 2.68 x 1.42)			90 x 68 x 72 (3.54 x 2.68 x 2.83)
Module Width	2 M			4 M
Weight: kg (lbs)	0.2 (0.44)			0.7 (1.54)
Enclosure	DIN 43 880, UL94V-0 thermoplastic, IP 20 (NEMA-1)			
Connection	1 mm <sup>2</sup> to 6 mm <sup>2</sup> (#18AWG to #10AWG)			
Mounting	35 mm top hat DIN rail			
Back-up Overcurrent Protection	6 A			20 A
Temperature	-35°C to 55°C (-31°F to 131°F)			
Humidity	0 % to 90 %			
Approvals	C-Tick, CE, NOM, UL® 1449 Ed. 3 Recognized Component Type 2			C-Tick, CE
Surge Rated to Meet	ANSI®/IEEE® C62.41.2 Cat A, Cat B			

ANSI is a registered trademark of the American National Standards Institute. IEEE is a registered trademark of the Institute of Electrical and Electronics Engineers, Incorporated. NEMA is a registered trademark of the National Electrical Manufacturers Association. UL is a registered trademark of Underwriters Laboratories, Inc.

### WARNING

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

Copyright ©2009 ERICO International Corporation. All rights reserved.

CADDY, CADWELD, CRITEC, ERICO, ERIFLEX, ERITECH, and LENTON are registered trademarks of ERICO International Corporation.

