

# Surge Reduction Filter N-Series, Three Phase



## CERTIFICATIONS



## FEATURES

High-performance protection incorporating Spark Gap and Transient Discriminating (TD) technologies

High surge rating ideal for exposed critical service entrance applications

Reduces let-through voltages and rate-of-voltage rise (dv/dt) and helps provide optimum protection for electronic equipment

Extreme reliability and simplified design with direct connection from input to output

Comprehensive front panel status and internal diagnostic LEDs

## SPECIFICATIONS

Catalog Number	SRF3125N	SRF3250N	SRF3500N	SRF363N	SRF3800N
Nominal System Voltage (Un)	220/380 - 240/415 VAC	220/380 - 240/415 VAC	220/380 - 240/415 VAC	220/380 - 240/415 VAC	220/380 - 240/415 VAC
Distribution System	3Ph Y 4W+G	3Ph Y 4W+G	3Ph Y 4W+G	3Ph Y 4W+G	3Ph Y 4W+G

Catalog Number	SRF3125N	SRF3250N	SRF3500N	SRF363N	SRF3800N
System Compatibility	TN-C TN-C-S TN-S TT	TN-C TN-C-S TN-S TT	TN-C TN-C-S TN-S TT	TN-C TN-C-S TN-S TT	TN-C TN-C-S TN-S TT
Rated Load Current (IL)	125A	250A	500A	63A	800A
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Short Circuit Current Rating (SCCR)	43kA	43kA	43kA	43kA	43kA
Heat Dissipation	56W	98W	215W	34W	260W
Rate of Voltage Rise (dV/dt)	10 Max	11 Max	10 Max	5 Max	10 Max
Filtering	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz
Input Connection	25 - 120 mm <sup>2</sup>	25 - 120 mm <sup>2</sup>	10 mm Stud	10 - 35 mm <sup>2</sup>	(2) 10 mm Studs
Output Connection	25 - 120 mm <sup>2</sup>	25 - 120 mm <sup>2</sup>	10 mm Stud	10 - 35 mm <sup>2</sup>	(2) 10 mm Studs
Protection Modes	All modes protected	All modes protected	All modes protected	All modes protected	All modes protected
Technology	Spark Gap In-line series low pass sine wave filter TD technology with thermal disconnect (50 kA 8/20us secondary stage)	Spark Gap In-line series low pass sine wave filter TD technology with thermal disconnect (50 kA 8/20us secondary stage)	Spark Gap In-line series low pass sine wave filter TD technology with thermal disconnect (50 kA 8/20us secondary stage)	Spark Gap In-line series low pass sine wave filter TD technology with thermal disconnect (50 kA 8/20us secondary stage)	Spark Gap In-line series low pass sine wave filter TD technology with thermal disconnect (50 kA 8/20us secondary stage)
Enclosure Material	Metal	Metal	Metal	Metal	Metal
Enclosure Rating	IP 65	IP 65	IP 32	IP 65	IP 32
Mounting	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount
Status Indication	Front panel LED Internal diagnostic primary and secondary protection LEDs Change-over contact (Form C dry), 250 VAC/30 VDC/5 A, 4 kV isolation	Front panel LED Internal diagnostic primary and secondary protection LEDs Change-over contact (Form C dry), 250 VAC/30 VDC/5 A, 4 kV isolation	Front panel LED Internal diagnostic primary and secondary protection LEDs Change-over contact (Form C dry), 250 VAC/30 VDC/5 A, 4 kV isolation	Front panel LED Internal diagnostic primary and secondary protection LEDs Change-over contact (Form C dry), 250 VAC/30 VDC/5 A, 4 kV isolation	Front panel LED Internal diagnostic primary and secondary protection LEDs Change-over contact (Form C dry), 250 VAC/30 VDC/5 A, 4 kV isolation
Depth (D)	7.87"	7.87"	11.81"	7.87"	11.81"
Height (H)	19.69"	31 1/2"	39.37"	19.69"	47.24"

Catalog Number	SRF3125N	SRF3250N	SRF3500N	SRF363N	SRF3800N
Width (W)	15 3/4"	23.62"	31 1/2"	15 3/4"	31 1/2"
Unit Weight	47.6 lb	91.9 lb	168.9 lb	39 lb	214.3 lb
Complies With	IEC® 61643-11 Class I, Class II ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2-2002 Scenario II, Exposure 3, 100 kA 8/20 µs, 10 kA 10/350 µs UL® 1449 Edition 4 Type 1CA	IEC® 61643-11 Class I, Class II ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2-2002 Scenario II, Exposure 3, 100 kA 8/20 µs, 10 kA 10/350 µs UL® 1449 Edition 4 Type 1CA	IEC® 61643-11 Class I, Class II ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2-2002 Scenario II, Exposure 3, 100 kA 8/20 µs, 10 kA 10/350 µs UL® 1449 Edition 4 Type 1CA	IEC® 61643-11 Class I, Class II ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2-2002 Scenario II, Exposure 3, 100 kA 8/20 µs, 10 kA 10/350 µs UL® 1449 Edition 4 Type 1CA	IEC® 61643-11 Class I, Class II ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2-2002 Scenario II, Exposure 3, 100 kA 8/20 µs, 10 kA 10/350 µs UL® 1449 Edition 4 Type 1CA

## ADDITIONAL PRODUCT DETAILS

IEC 61643-11 Annex A specifies Max Continuous Operating Voltage (Uc) as 255 VAC.

IEC 61643-11 test procedure limits maximum Impulse Current (Iimp) to 10kA due to internal product safety fusing.

IEC 61643-11 recommends a maximum preferred value for Nominal Discharge Current (In) of 20 kA.

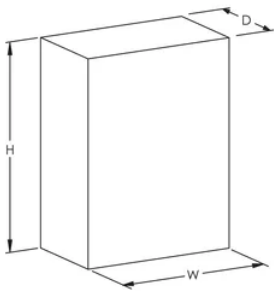
IEC 61643-11 Temporary Overvoltage tests are passed in withstand mode.

Upstream overcurrent protection not exceeding Rated Load Current (IL) shown above must be installed ahead of the surge reduction filter.

AS1768 Ratings					
Part Number	SRF363N	SRF3125N	SRF3250N	SRF3500N	SRF3800N
Max Continuous Operating Voltage	310 VAC				
Maximum Surge Current, L-N	130 kA 8/20 µs 50 kA 10/350 µs				
Maximum Surge Current, N-PE	130 kA 8/20 µs 50 kA 10/350 µs				
Voltage Protection Level (L-N)	200 V @ 3 kA 8/20 µs 250 V @ 20 kA 8/20 µs	300 V @ 3 kA 8/20 µs 380 V @ 20 kA 8/20 µs	300 V @ 3 kA 8/20 µs 500 V @ 20 kA 8/20 µs	320 V @ 3 kA 8/20 µs 550 V @ 20 kA 8/20 µs	320 V @ 3 kA 8/20 µs 550 V @ 20 kA 8/20 µs

IEC 61643-11 Ratings					
Part Number	SRF363N	SRF3125N	SRF3250N	SRF3500N	SRF3800N
Max Continuous Operating Voltage (Uc)	255 VAC				
Temporary Overvoltage, L-N	442 VAC 2 hours				
Temporary Overvoltage, N-PE	1200 VAC 200 ms				
Impulse Current (Iimp)	10kA 10/350 $\mu$ s				
Voltage Protection level (Up), L-N @ Iimp	450 V		500 V	550 V	
Nominal Discharge Current (In)	20kA 8/20 $\mu$ s				
Voltage Protection level (Up), L-N @ In	450 V	500 V		650 V	
Voltage Drop	0.1 % Max				

## 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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