

Service Entrance Suppressor(F), 160 kA



The nVent ERICO SES160F Series is an enhanced version of the SES160B Series. The SES160F Surge-Filter is robust, with a 160 kA per phase surge rating. The high surge rating increases both survivability and life cycle. With the addition of a filter nuisance high frequency transients on the power distribution system are attenuated, protecting sensitive equipment. cUL® 1449 Listed SPD for Type 2 locations. Applications include service entrance, distribution, branch panels, MCC, lighting panels, HVAC, A/V systems, IT equipment, and more.

FEATURES

Compact design can be directly mounted to panel or installed in a small space

Front-facing design eases installation and performance monitoring

160 kA 8/20 μ s maximum surge rating per phase

Up to 57 dB attenuation (10 kHz to 100 MHz)

Optional Flush Mounting Plate

Ground reference monitoring triggers an alarm when N-PE mode exceeds 20 volts

10-year limited warranty



SPECIFICATIONS

Table 1/2

Catalog Number	SES160F480Y	SES160F120V	SES160F240V	SES160F240D	SES160F208Y	SES160F480D
Nominal System Voltage (Un)	277/480 V	120 V	240 V	240 V	120/208 V	480 V

CatalogNumber	SES160F480Y	SES160F120V	SES160F240V	SES160F240D	SES160F208Y	SES160F480D
Distribution System	3Ph Y 4W+G	3PhΔ 3W+G	1Ph 2W+G	3PhΔ 3W+G	3Ph Y 4W+G	3PhΔ 3W+G
Max Continuous Operating Voltage (Uc)	350/700 V	180 V	350 V	275 V	150/300 V	550 V
Filtering	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz
Frequency	0 - 600 Hz	0 - 600 Hz	0 - 600 Hz	0 - 600 Hz	0 - 600 Hz	0 - 600 Hz
Short Circuit Current Rating (SCCR)	200kA	200kA	200kA	200kA	200kA	200kA
Nominal Discharge Current (In), Per Mode	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs
Max Discharge Current (Imax), Per Phase	160kA 8/20 μs	160kA 8/20 μs	160kA 8/20 μs	160kA 8/20 μs	160kA 8/20 μs	160kA 8/20 μs
Voltage Protection Rating (VPR), L-L	2500V			1200V	1200V	1800V
Voltage Protection Rating (VPR), L-N	1200V	700V	1200V		700V	
Voltage Protection Rating (VPR), L-PE	1200V	700V	1200V	1000V	700V	1800V
Voltage Protection Rating (VPR), N-PE	1200V	700V	1200V		600V	
Protection Modes	All modes protected	All modes protected	All modes protected	All modes protected	All modes protected	All modes protected
Status Indication	1 green LED per line Audible alarm Change-over contact (Form C dry), 240 VAC/2A	1 green LED per line Audible alarm Change-over contact (Form C dry), 240 VAC/2A	1 green LED per line Audible alarm Change-over contact (Form C dry), 240 VAC/2A	1 green LED per line Audible alarm Change-over contact (Form C dry), 240 VAC/2A	1 green LED per line Audible alarm Change-over contact (Form C dry), 240 VAC/2A	1 green LED per line Audible alarm Change-over contact (Form C dry), 240 VAC/2A

Remote Contact Switching Capacity	2 A @ 240 V	2 A @ 240 V	2 A @ 240 V	2 A @ 240 V	2 A @ 240 V	2 A @ 240 V
Remote Contacts	Yes	Yes	Yes	Yes	Yes	Yes
Lead Length	457mm	457mm	457mm	457mm	457mm	457mm
Lead Size	3.31 mm ²	3.31 mm ²	3.31 mm ²	3.31 mm ²	3.31 mm ²	3.31 mm ²

Table 2/2						
Catalog Number	SES160F480Y	SES160F120V	SES160F240V	SES160F240D	SES160F208Y	SES160F480D
Temperature	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C
Enclosure Material	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Enclosure Rating	NEMA®-4X UL® 50E Type 4	NEMA®-4X UL® 50E Type 4	NEMA®-4X UL® 50E Type 4	NEMA®-4X UL® 50E Type 4	NEMA®-4X UL® 50E Type 4	NEMA®-4X UL® 50E Type 4
Mounting	3/4" straight nipple	3/4" straight nipple	3/4" straight nipple	3/4" straight nipple	3/4" straight nipple	3/4" straight nipple
Unit Weight	0.63 kg	0.63 kg	0.63 kg	0.63 kg	0.63 kg	0.63 kg
Certification Details	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode
Complies With	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C
Depth (D)	77.7mm	77.7mm	77.7mm	77.7mm	77.7mm	77.7mm
Height (H)	69.9 mm	69.9 mm	69.9 mm	69.9 mm	69.9 mm	69.9 mm
Width (W)	202 mm	202 mm	202 mm	202 mm	202 mm	202 mm
Certifications	UL, cUL	cUL, UL	cUL, UL	cUL, UL	UL, cUL	cUL, UL

Table 1/2

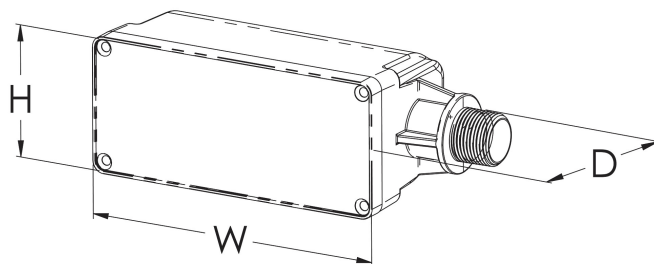
Catalog Number	SES160F120240SP	SES160F120240D	SES160F600Y
Nominal System Voltage (Un)	120/240 V	120/240 V	347/600 V
Distribution System	1Ph 3W+G	3PhΔ 3W+G	3Ph Y 4W+G
Max Continuous Operating Voltage (Uc)	180/360 V	180/275 V	440/880 V
Filtering	-40 dB @ 100 kHz	-40 dB @ 100 kHz	-40 dB @ 100 kHz
Frequency	0 - 600 Hz	0 - 600	0 - 600
Short Circuit Current Rating (SCCR)	200kA	200	200
Nominal Discharge Current (In), Per Mode	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs
Max Discharge Current (Imax), Per Phase	160kA 8/20 μs		
Voltage Protection Rating (VPR), L-L	1200V	1500 1500	2500
Voltage Protection Rating (VPR), L-N	700V	800 1000	1500
Voltage Protection Rating (VPR), L-PE	700V	700 1000	1500
Voltage Protection Rating (VPR), N-PE	700V	700 1000	1500
Protection Modes	All modes protected	All modes protected	All modes protected
Status Indication	1 green LED per line Audible alarm Change-over contact (Form C dry), 240 VAC/2A	1 green LED per line Audible alarm Flashing red status LED	1 green LED per line Audible alarm Flashing red status LED
Remote Contact Switching Capacity	2 A @ 240 V	2.0 A @ 240 V	2.0 A @ 240 V
Remote Contacts	Yes	Yes	Yes
Lead Length	457mm	457.2	457.2
Lead Size	3.31 mm ²	3.31 Min	3.31 Min

Table 2/2

Catalog Number	SES160F120240SP	SES160F120240D	SES160F600Y
Temperature	-40 to 85 °C	-40 - 185	-40 - 185
Enclosure Material	Polycarbonate	Polycarbonate	Polycarbonate
Enclosure Rating	NEMA®-4X UL® 50E Type 4	NEMA®-4X UL® 50E Type 4	NEMA®-4X UL® 50E Type 4
Mounting	3/4" straight nipple	3/4" straight nipple	3/4" straight nipple
Unit Weight	0.63 kg	0.63 Min	0.63 Min

Catalog Number	SES160F120240SP	SES160F120240D	SES160F600Y
Certification Details	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode	CSA C22.2 No. 269.2 UL® 1283 Edition 7 UL® 1449 Edition 5 Type 2, 20 kA Mode
Complies With	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C
Depth (D)	77.7mm	77.72mm	77.72mm
Height (H)	69.9 mm	69.85	69.85
Width (W)	202 mm	201.93	201.93
Certifications	cUL, UL		

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 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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