

Service Entrance Suppressor(DB), 480 kA



The nVent ERICO SES480 DB Series of Surge Protective Devices (SPD) provides economical protection against damaging transients and surge currents. The DB Series is a cUL 1449 listed SPD for Type 1 and Type 2 locations allowing for installation either on the line or load of service panels without requiring circuit breakers. With a 480 kA per phase surge rating, the SES480 DB is well suited for category C locations. Typical applications for the nVent ERICO SES480 DB Series include service entrances, distribution, branch panels, MCC, lighting panels, HVAC and more. Featuring a NEMA 4 enclosure rating, the DB series is also appropriate for use in outdoor applications.

CERTIFICATIONS



FEATURES

Front-facing design simplifies installation and performance monitoring

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

Advanced monitoring includes Surge and TOV Counters with time and date stamping

Rotatable, full color graphics-based LCD utilizing a PIC Micro Controller

Repetitive impulse tested to 10,000 strikes per mode

Rotary Disconnect included, standard for safe servicing

10-year limited warranty

SPECIFICATIONS

Table 1/5

Catalog Number	Nominal Discharge Current (In), Per Mode	Max Continuous Operating Voltage (Uc)	Distribution System	Frequency	Short Circuit Current Rating (SCCR)	Voltage Protection Rating (VPR), L-G
----------------	--	---------------------------------------	---------------------	-----------	-------------------------------------	--------------------------------------

SES480DB2404 80S	20kA 8/20 μ s	320/550 V	1Ph 3W+G	0 - 600 Hz	200kA	1200V
SES480DB208Y	20kA 8/20 μ s	150/300 V	3Ph Y 4W+G	0 - 600 Hz	200kA	800V
SES480DB2404 80D	20kA 8/20 μ s	320/550 V	3Ph Δ 4W+G	0 - 600 Hz	200kA	1800V, 1800V
SES480DB480D	20kA 8/20 μ s	550 V	3Ph Δ 3W+G	0 - 600 Hz	200kA	1800V
SES480DB480Y	20kA 8/20 μ s	320/700 V	3Ph Y 4W+G	0 - 600 Hz	200kA	1200V
SES480DB600D	20kA 8/20 μ s	680 V	3Ph Δ 3W+G	0 - 600 Hz	200kA	2000V
SES480DB600Y	20kA 8/20 μ s	420/880 V	3Ph Y 4W+G	0 - 600 Hz	200kA	1500V

Table 2/5

Catalog Number	Voltage Protection Rating (VPR), L-L	Voltage Protection Rating (VPR), L-N	Voltage Protection Rating (VPR), N-G	Nominal System Voltage (Un)	Max Discharge Current (Imax), Per Phase	Status Indication
SES480DB2404 80S	2500V	1200V	1200V	240/480 V	480kA 8/20 μ s	2 Tri Color LEDs per phase, Audible alarm with silence switch, Graphics-based LCD with Resettable Surge and TOV Counter with Time / Date Stamp
SES480DB208Y	1000V	800V	800V	120/208 V	480kA 8/20 μ s	2 Tri Color LEDs per phase, Audible alarm with silence switch, Graphics-based LCD with Resettable Surge and TOV Counter with Time / Date Stamp

CatalogNumber	Voltage Protection Rating (VPR),L-L	Voltage Protection Rating (VPR),L-N	Voltage Protection Rating (VPR),N-G	NominalSystem Voltage(Un)	Max Discharge Current (Imax), Per Phase	Status Indication
SES480DB240480D	2000V, 2500V	1200V, 1800V	1200V	240/480 V	480kA 8/20 μs	2 Tri Color LEDs per phase, Audible alarm with silence switch, Graphics-based LCD with Resettable Surge and TOV Counter with Time / Date Stamp
SES480DB480D	1800V			480 V	480kA 8/20 μs	2 Tri Color LEDs per phase, Audible alarm with silence switch, Graphics-based LCD with Resettable Surge and TOV Counter with Time / Date Stamp
SES480DB480Y	2000V	1200V	1200V	277/480 V	480kA 8/20 μs	2 Tri Color LEDs per phase, Audible alarm with silence switch, Graphics-based LCD with Resettable Surge and TOV Counter with Time / Date Stamp

CatalogNumber	Voltage Protection Rating (VPR),L-L	Voltage Protection Rating (VPR),L-N	Voltage Protection Rating (VPR),N-G	NominalSystem Voltage(Un)	Max Discharge Current (Imax), Per Phase	Status Indication
SES480DB600D	1800V			600 V	480kA 8/20 μs	2 Tri Color LEDs per phase, Audible alarm with silence switch, Graphics-based LCD with Resettable Surge and TOV Counter with Time / Date Stamp
SES480DB600Y	2500V	1500V	1500V	347/600 V	480kA 8/20 μs	2 Tri Color LEDs per phase, Audible alarm with silence switch, Graphics-based LCD with Resettable Surge and TOV Counter with Time / Date Stamp

Table 3/5

Catalog Number	Remote Contact Switching Capacity	Remote Contacts	Lead Size imperial	Temperature	Enclosure Material	Enclosure Rating
SES480DB240480S	5.0 A @ 240 V	Yes	#10 - #4	-31 to 167 °F	Metal	NEMA®-4, UL® 50E Type 4
SES480DB208Y	5.0 A @ 240 V	Yes	#10 - #4	-31 to 167 °F	Metal	NEMA®-4, UL® 50E Type 4
SES480DB240480D	5.0 A @ 240 V	Yes	#10 - #4	-31 to 167 °F	Metal	NEMA®-4, UL® 50E Type 4
SES480DB480D	5.0 A @ 240 V	Yes	#10 - #4	-31 to 167 °F	Metal	NEMA®-4, UL® 50E Type 4
SES480DB480Y	5.0 A @ 240 V	Yes	#10 - #4	-31 to 167 °F	Metal	NEMA®-4, UL® 50E Type 4

CatalogNumber	RemoteContact Switching Capacity	Remote Contacts	Lead Size imperial	Temperature	Enclosure Material	Enclosure Rating
SES480DB600D	5.0 A @ 240 V	Yes	#10 - #4	-31 to 167 °F	Metal	NEMA®-4, UL® 50E Type 4
SES480DB600Y	5.0 A @ 240 V	Yes	#10 - #4	-31 to 167 °F	Metal	NEMA®-4, UL® 50E Type 4

Table 4/5

Catalog Number	Mounting	Depth	Height	Width	Unit Weight	Impulse Life
SES480DB240480S	Flange Mount	13.19"	16.79"	7.23"	18.2 lb	10,000 Impulses at 10 kA 8/20 µs
SES480DB208Y	Flange Mount	13.19"	16.79"	7.23"	18.2 lb	10,000 Impulses at 10 kA 8/20 µs
SES480DB240480D	Flange Mount	13.19"	16.79"	7.23"	18.2 lb	10,000 Impulses at 10 kA 8/20 µs
SES480DB480D	Flange Mount	13.19"	16.79"	7.23"	18.2 lb	10,000 Impulses at 10 kA 8/20 µs
SES480DB480Y	Flange Mount	13.19"	16.79"	7.23"	18.2 lb	10,000 Impulses at 10 kA 8/20 µs
SES480DB600D	Flange Mount	13.19"	16.79"	7.23"	18.2 lb	10,000 Impulses at 10 kA 8/20 µs
SES480DB600Y	Flange Mount	13.19"	16.79"	7.23"	18.2 lb	10,000 Impulses at 10 kA 8/20 µs

Table 5/5

Catalog Number	Certification Details	Complies With
SES480DB240480S	CSA C22.2 No. 269.1, UL® 1449 Edition 5 Type 1/2, 20 kA Mode	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, UL® 96A and NEC® Article 285
SES480DB208Y	CSA C22.2 No. 269.1, UL® 1449 Edition 5 Type 1/2, 20 kA Mode	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, UL® 96A and NEC® Article 285

Catalog Number	Certification Details	Complies With
SES480DB240480D	CSA C22.2 No. 269.1, UL® 1449 Edition 5 Type 1/2, 20 kA Mode	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, UL® 96A and NEC® Article 285
SES480DB480D	CSA C22.2 No. 269.1, UL® 1449 Edition 5 Type 1/2, 20 kA Mode	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, UL® 96A and NEC® Article 285
SES480DB480Y	CSA C22.2 No. 269.1, UL® 1449 Edition 5 Type 1/2, 20 kA Mode	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, UL® 96A and NEC® Article 285
SES480DB600D	CSA C22.2 No. 269.1, UL® 1449 Edition 5 Type 1/2, 20 kA Mode	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, UL® 96A and NEC® Article 285
SES480DB600Y	CSA C22.2 No. 269.1, UL® 1449 Edition 5 Type 1/2, 20 kA Mode	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, UL® 96A and NEC® Article 285

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.

North America

+1.800.753.9221
Option 1 – Customer Care
Option 2 – Technical
Support

Europe

Netherlands:
+31 800-0200135
France:
+33 800 901 793

Europe

Germany:
800 1890272
Other Countries:
+31 13 5835404

APAC

Shanghai:
+ 86 21 2412 1618/19
Sydney:
+61 2 9751 8500



Our powerful portfolio of brands:

CADDY ERICO HOFFMAN ILSCO SCHROFF TRACHTE