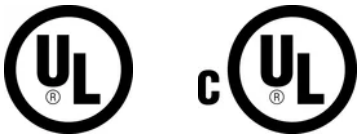


# Service Entrance Suppressor(B), 160 kA



The nVent ERICO SES160B Series of Surge Protective Devices (SPD) provide economical protection against damaging transients and surge currents. cUL® 1449 Listed SPD for Type 1 or Type 2 locations. Allows for installation on the line or load of the service panels, circuit breakers not required. With a 160 kA per phase surge rating, the SES160B is well suited for category C locations. Applications include service entrance, distribution, branch panels, MCC, lighting panels, HVAC, and more. With a NEMA® 4X enclosure rating this product series is also well suited for outdoor applications.

## CERTIFICATIONS



## FEATURES

160 kA 8/20 µs maximum surge rating per phase

Excellent clamping and low UL voltage protection ratings

Features relay alarming for power/phase loss and status of SPD health

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

Optional Flush Mounting Plate

10-year limited warranty

## SPECIFICATIONS

| Catalog Number              | SES160B1 20V | SES160B2 08Y | SES160B2 40D | SES160B2 40V | SES160B4 80D | SES160B4 80Y | SES160B1 20240SP | SES160B1 20240D | SES160B6 00Y |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|-----------------|--------------|
| Nominal System Voltage (Un) | 120 V        | 120/208 V    | 240 V        | 240 V        | 480 V        | 277/480 V    | 120/240 V        | 120/240 V       | 347/600 V    |

| Catalog Number                           | SES160B1<br>20V  | SES160B2<br>08Y  | SES160B2<br>40D                | SES160B2<br>40V  | SES160B4<br>80D  | SES160B4<br>80Y  | SES160B1<br>20240SP | SES160B1<br>20240D | SES160B6<br>00Y |
|------------------------------------------|------------------|------------------|--------------------------------|------------------|------------------|------------------|---------------------|--------------------|-----------------|
| Distribution System                      | 1Ph 2W+G         | 3Ph Y<br>4W+G    | 3Ph<br>Corner<br>Gnd Δ<br>2W+G | 1Ph 2W+G         | 3PhΔ<br>3W+G     | 3Ph Y<br>4W+G    | 1Ph 3W+G            | 3PhΔ<br>4W+G       | 3Ph Y<br>4W+G   |
| Max Continuous Operating Voltage (Uc)    | 180 V            | 150/300 V        | 275 V                          | 350 V            | 550 V            | 350/700 V        | 180/360 V           | 180/275 V          | 440/880 V       |
| Frequency                                | 0 - 600 Hz       | 0 - 600 Hz       | 0 - 600 Hz                     | 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            | 200kA               | 200                | 200             |
| Nominal Discharge Current (In), Per Mode | 20kA 8/20<br>μs  | 20kA 8/20<br>μs  | 20kA 8/20<br>μs                | 20kA 8/20<br>μs  | 20kA 8/20<br>μs  | 20kA 8/20<br>μs  | 20kA 8/20<br>μs     | 20kA 8/20<br>μs    | 20kA 8/20<br>μs |
| Max Discharge Current (Imax), Per Phase  | 160kA<br>8/20 μs | 160kA<br>8/20 μs | 160kA<br>8/20 μs               | 160kA<br>8/20 μs | 160kA<br>8/20 μs | 160kA<br>8/20 μs | 160kA<br>8/20 μs    |                    |                 |
| Voltage Protection Rating (VPR), N-PE    | 600V             | 500V             |                                | 1000V            |                  | 1000V            | 600V                | 700<br>1000        | 1500            |
| Voltage Protection Rating (VPR), L-N     | 700V             | 600V             |                                | 1200V            |                  | 1200V            | 700V                | 700<br>900         | 1500            |
| Voltage Protection Rating (VPR), L-PE    | 700V             | 700V             | 1000V                          | 1000V            | 1800V            | 1000V            | 700V                | 700<br>1000        | 1500            |
| Voltage Protection Rating (VPR), L-L     |                  | 1000V            | 1200V                          |                  | 1800V            | 2000V            | 1200V               | 1200<br>1500       | 2500            |

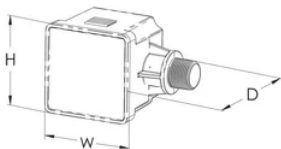
| Catalog Number                    | SES160B1 20V                                                                          | SES160B2 08Y                                                                          | SES160B2 40D                                                                          | SES160B2 40V                                                                          | SES160B4 80D                                                                          | SES160B4 80Y                                                                          | SES160B1 20240SP                                                                      | SES160B1 20240D                                                   | SES160B6 00Y                                                      |
|-----------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|
| Protection Modes                  | All modes protected                                                                   | All modes protected                                                                   | All modes protected                                                                   | 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<br>Audible alarm<br>Change-over contact (Form C dry), 240 VAC/2A | 1 green LED per line<br>Audible alarm<br>Change-over contact (Form C dry), 240 VAC/2A | 1 green LED per line<br>Audible alarm<br>Change-over contact (Form C dry), 240 VAC/2A | 1 green LED per line<br>Audible alarm<br>Change-over contact (Form C dry), 240 VAC/2A | 1 green LED per line<br>Audible alarm<br>Change-over contact (Form C dry), 240 VAC/2A | 1 green LED per line<br>Audible alarm<br>Change-over contact (Form C dry), 240 VAC/2A | 1 green LED per line<br>Audible alarm<br>Change-over contact (Form C dry), 240 VAC/2A | 1 green LED per line<br>Audible alarm                             | 1 green LED per line<br>Audible alarm                             |
| 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                                                                           | 2 A @ 240 V                                                                           | 2.0 A @ 240 V                                                     | 2.0 A @ 240 V                                                     |
| Remote Contacts                   | Yes                                                                                   | Yes                                                                                   | Yes                                                                                   | Yes                                                                                   | Yes                                                                                   | Yes                                                                                   | Yes                                                                                   | Yes                                                               | Yes                                                               |
| Lead Length                       | 457mm                                                                                 | 457mm                                                                                 | 457mm                                                                                 | 457mm                                                                                 | 457mm                                                                                 | 457mm                                                                                 | 457mm                                                                                 | 457.2mm                                                           | 457.2mm                                                           |
| Lead Size                         | 3.31 mm <sup>2</sup>                                                                  | 3.31 mm <sup>2</sup>                                                                  | 3.31 mm <sup>2</sup>                                                                  | 3.31 mm <sup>2</sup>                                                                  | 3.31 mm <sup>2</sup>                                                                  | 3.31 mm <sup>2</sup>                                                                  | 3.31 mm <sup>2</sup>                                                                  | 3 - 35                                                            | 3 - 35                                                            |
| 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                                                                          | -40 to 85 °C                                                                          | -40 - 85                                                          | -40 - 85                                                          |
| Enclosure Material                | Polycarbonate                                                                         | Polycarbonate                                                                         | Polycarbonate                                                                         | Polycarbonate                                                                         | Polycarbonate                                                                         | Polycarbonate                                                                         | Polycarbonate                                                                         | Polycarbonate                                                     | Polycarbonate                                                     |
| Enclosure Rating                  | NEMA®-4X<br>UL® 50E Type 4                                                            | NEMA®-4X<br>UL® 50E Type 4                                                            | NEMA®-4X<br>UL® 50E Type 4                                                            | NEMA®-4X<br>UL® 50E Type 4                                                            | NEMA®-4X<br>UL® 50E Type 4                                                            | NEMA®-4X<br>UL® 50E Type 4                                                            | NEMA®-4X<br>UL® 50E Type 4                                                            | NEMA®-4X<br>UL® 50E Type 4                                        | NEMA®-4X<br>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                                                                  | 3/4" straight nipple                                                                  | 3/4" straight nipple                                              | 3/4" straight nipple                                              |
| Unit Weight                       | 0.53 kg                                                                               | 0.53 kg                                                                               | 0.53 kg                                                                               | 0.53 kg                                                                               | 0.53 kg                                                                               | 0.53 kg                                                                               | 0.53 kg                                                                               | 0.53 kg                                                           | 0.53 kg                                                           |
| Certification Details             | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                     | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                     | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                     | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                     | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                     | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                     | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode                     | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode | CSA C22.2 No. 269.1<br>UL® 1449 Edition 5<br>Type 1/2, 20 kA Mode |

| Catalog Number | SES160B1<br>20V                                                                                                                                                                                  | SES160B2<br>08Y                                                                                                                                                                                  | SES160B2<br>40D                                                                                                                                                                                  | SES160B2<br>40V                                                                                                                                                                                  | SES160B4<br>80D                                                                                                                                                                                  | SES160B4<br>80Y                                                                                                                                                                                  | SES160B1<br>20240SP                                                                                                                                                                              | SES160B1<br>20240D                                                                                                                                                                               | SES160B6<br>00Y                                                                                                                                                                                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Complies With  | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C | ANSI®/IE<br>EE®<br>C62.41.2-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.41.1-<br>2002 Cat<br>A, Cat B,<br>Cat C<br>ANSI®/IE<br>EE®<br>C62.45-<br>2002 Cat<br>A, Cat B,<br>Cat C |
| Depth (D)      | 74.4mm                                                                                                                                                                                           | 74.4mm                                                                                                                                                                                           | 74.4mm                                                                                                                                                                                           | 74.4mm                                                                                                                                                                                           | 74.4mm                                                                                                                                                                                           | 74.4mm                                                                                                                                                                                           | 74.4mm                                                                                                                                                                                           | 74.42mm                                                                                                                                                                                          | 74.42mm                                                                                                                                                                                          |
| Height (H)     | 106.7 mm                                                                                                                                                                                         | 106.7 mm                                                                                                                                                                                         | 106.7 mm                                                                                                                                                                                         | 106.7 mm                                                                                                                                                                                         | 106.7 mm                                                                                                                                                                                         | 106.7 mm                                                                                                                                                                                         | 106.7 mm                                                                                                                                                                                         | 106.68                                                                                                                                                                                           | 106.68                                                                                                                                                                                           |
| Width (W)      | 82.6 mm                                                                                                                                                                                          | 82.6 mm                                                                                                                                                                                          | 82.6 mm                                                                                                                                                                                          | 82.6 mm                                                                                                                                                                                          | 82.6 mm                                                                                                                                                                                          | 82.6 mm                                                                                                                                                                                          | 82.6 mm                                                                                                                                                                                          | 82.55                                                                                                                                                                                            | 82.55                                                                                                                                                                                            |
| Certifications | UL, cUL                                                                                                                                                                                          | cUL, UL                                                                                                                                                                                          | UL, cUL                                                                                                                                                                                          | cUL, UL                                                                                                                                                                                          | UL, cUL                                                                                                                                                                                          | cUL, UL                                                                                                                                                                                          | cUL, UL                                                                                                                                                                                          |                                                                                                                                                                                                  |                                                                                                                                                                                                  |

## ADDITIONAL PRODUCT DETAILS

Optional Flush Plate available: SES160BFP

## 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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