

## POWER BLOCK



nVent ERIFLEX Power Blocks are the main DIN mounted output/input devices for connection between primary and secondary switchboard, or main input/output connection for machine or industrial equipment (such as invertor, air conditioning machines, etc.). The high short circuit rated large cross section blocks offer time savings and reliability in every panel configuration. The complete Power Blocks range offers multiple connection types with up to four cables, nVent ERIFLEX Flexibar Advanced, or IBSB Advanced power braids.

#### **CERTIFICATIONS**











#### **FEATURES**

Can be connected with round cross section cable or flat connection system like nVent ERIFLEX Flexibar Advanced or IBSB Advanced Insulated Braided Conductor

Compact power block with high short circuit current rating

Tinned copper or aluminum block allows for copper or aluminum conductor direct connections, or using ferrule

Screw retaining cover is hinged and removable

Design allows for visual inspection of conductor and confirmation of connection

Modular snap-together blocks for building multi-pole power blocks

Easily clips onto DIN rail or mounts to panel with screws

Voltage detection and measurement connection

95% fill ratio

RoHS compliant

Conforms to EN 45545 obtaining an HL3 classification for chapter R23 and HL2 classification for chapter R22

Halogen free plastic housing excluding the blue protection cover

### **SPECIFICATIONS**

Finish: Tinned

| Table 1/2         |                   |                      |  |                            |   |   |  |  |
|-------------------|-------------------|----------------------|--|----------------------------|---|---|--|--|
| Catalog<br>Number | Article<br>Number | Туре                 | Typical Application Current Rating, UL | Material                   | Line Side<br>Max<br>Conductor<br>Size, UL | Load Side<br>Max<br>Conductor<br>Size, UL |  |  |
| SB125AL           | 561161            | Cable-Cable          | 150 A                                  | Aluminum,<br>Thermoplastic | 1/0 AWG                                   | 1/0 AWG                                   |  |  |
| SB80              | 561150            | Cable-Cable          | 85 A                                   | Copper,<br>Thermoplastic   | #4  | #4  |  |  |
| SB80AL            | 561160            | Cable-Cable          | 85 A                                   | Aluminum,<br>Thermoplastic | #4  | #4  |  |  |
| SB125             | 561158            | Cable-Cable          | 150 A                                  | Copper,<br>Thermoplastic   | 1/0 AWG                                   | 1/0 AWG                                   |  |  |
| SB160AL           | 561162            | Cable-Cable          | 200 A                                  | Aluminum,<br>Thermoplastic | 3/0 AWG                                   | 3/0 AWG                                   |  |  |
| SB250AL           | 561163            | Cable-Cable          | 255 A                                  | Aluminum,<br>Thermoplastic | 250 kcmil                                 | 250 kcmil                                 |  |  |
| SB160             | 561151            | Cable-Cable          | 200 A                                  | Copper,<br>Thermoplastic   | 3/0 AWG                                   | 3/0 AWG                                   |  |  |
| SB400AL           | 561164            | Cable-Cable          | 335 A                                  | Aluminum,<br>Thermoplastic | 400 kcmil                                 | 400 kcmil                                 |  |  |
| SBF250            | 561171            | Flexibar-Cable       | 255 A                                  | Copper,<br>Thermoplastic   | 70 mm²                                    | 250 kcmil                                 |  |  |
| SBF400AL          | 561165            | Flexibar-Cable       | 335 A                                  | Aluminum,<br>Thermoplastic | 100 mm²                                   | 400 kcmil                                 |  |  |
| SB250             | 561159            | Cable-Cable          | 255 A                                  | Copper,<br>Thermoplastic   | 250 kcmil                                 | 250 kcmil                                 |  |  |
| SB2C400AL         | 561166            | Cable-2 Cables       | 335 A                                  | Aluminum,<br>Thermoplastic | 400 kcmil                                 | (2) 250 kcmil                             |  |  |
| SBF2C400AL        | 561167            | Flexibar-2<br>Cables | 335 A                                  | Aluminum,<br>Thermoplastic | 100 mm²                                   | (2) 250 kcmil                             |  |  |
| SB2C250           | 561170            | Cable-2 Cables       | 255 A                                  | Copper,<br>Thermoplastic   | 250 kcmil                                 | (2) 250 kcmil                             |  |  |
| SBF2C250          | 561172            | Flexibar-2<br>Cables | 255 A                                  | Copper,<br>Thermoplastic   | 70 mm²                                    | (2) 250 kcmil                             |  |  |
| SB400             | 561152            | Cable-Cable          | 335 A                                  | Copper,<br>Thermoplastic   | 400 kcmil                                 | 400 kcmil                                 |  |  |
| SBF400            | 561153            | Flexibar-Cable       | 335 A                                  | Copper,<br>Thermoplastic   | 100 mm²                                   | 400 kcmil                                 |  |  |
| SB630AL           | 561168            | Cable-Cable          | 545 A                                  | Aluminum,<br>Thermoplastic | 1,000 kcmil                               | 1,000 kcmil                               |  |  |
| SBF630AL          | 561169            | Flexibar-Cable       | 545 A                                  | Aluminum,<br>Thermoplastic | 240 mm²                                   | 1,000 kcmil                               |  |  |

| Catalog<br>Number | Article<br>Number | Туре                 | Typical Application Current Rating, UL | Material                             | Line Side<br>Max<br>Conductor<br>Size, UL | Load Side<br>Max<br>Conductor<br>Size, UL |
|-------------------|-------------------|----------------------|--|--------------------------------------|---|---|
| SBF2C630AL        | 561173            | Flexibar-2<br>Cables | 760 A                                  | Aluminum,<br>Thermoplastic           | 240 mm²                                   | 500 kcmil                                 |
| SB2C2C1000AL      | 561175            | 2 Cables-2<br>Cables | 840 A                                  | Aluminum,<br>Thermoplastic           | (2) 600 kcmil                             | (2) 600 kcmil                             |
| SB2C400           | 561154            | Cable-2 Cables       | 335 A                                  | Copper,<br>Thermoplastic             | 400 kcmil                                 | (2) 250 kcmil                             |
| SB2C1000AL        | 561174            | Cable-2 Cables       | 545 A                                  | Aluminum,<br>Thermoplastic           | 1,000 kcmil                               | (2) 600 kcmil                             |
| SBF2C400          | 561155            | Flexibar-2<br>Cables | 335 A                                  | Copper,<br>Thermoplastic             | 100 mm²                                   | (2) 250 kcmil                             |
| SBF3C1000AL       | 561176            | Flexibar-3<br>Cables | 1260 A                                 | Aluminum,<br>Thermoplastic           | 500 mm²                                   | (3) 600 kcmil                             |
| SB630             | 561156            | Cable-Cable          | 545 A                                  | Copper,<br>Thermoplastic 1,000 kcmil |   | 1,000 kcmil                               |
| SBF4C1600AL       | 561177            | Flexibar-4<br>Cables | 1680 A                                 | Aluminum,<br>Thermoplastic           | 800 mm²                                   | (4) 600 kcmil                             |
| SBF630            | 561157            | Flexibar-Cable       | 545 A                                  | Copper,<br>Thermoplastic             | 240 mm²                                   | 1,000 kcmil                               |

| Table 2/2      |                |  |                               |  |  |  |  |  |
|----------------|----------------|--|-------------------------------|--|--|--|--|--|
| Catalog Number | Article Number | Short Term Withstand<br>Current (Icw) 1s | Certifications                |  |  |  |  |  |
| SB125AL        | 561161         | 6kA                                      | CE, ERIFLEX SB, cUR, UR, RoHS |  |  |  |  |  |
| SB80           | 561150         | 3kA                                      | CE, ERIFLEX SB, UR, RoHS      |  |  |  |  |  |
| SB80AL         | 561160         | 3kA                                      | CE, ERIFLEX SB, cUR, UR, RoHS |  |  |  |  |  |
| SB125          | 561158         | 6kA                                      | CE, ERIFLEX SB, UR, RoHS      |  |  |  |  |  |
| SB160AL        | 561162         | 14.4kA                                   | CE, ERIFLEX SB, cUR, UR, RoHS |  |  |  |  |  |
| SB250AL        | 561163         | 14.4kA                                   | CE, ERIFLEX SB, cUR, UR, RoHS |  |  |  |  |  |
| SB160          | 561151         | 14.4kA                                   | CE, ERIFLEX SB, UR, RoHS      |  |  |  |  |  |
| SB400AL        | 561164         | 28.8kA                                   | CE, ERIFLEX SB, cUR, UR, RoHS |  |  |  |  |  |
| SBF250         | 561171         | 14.4kA                                   | CE, ERIFLEX SB, UR, RoHS, UL  |  |  |  |  |  |
| SBF400AL       | 561165         | 28.8kA                                   | CE, ERIFLEX SB, cUR, UR, RoHS |  |  |  |  |  |
| SB250          | 561159         | 14.4kA                                   | CE, ERIFLEX SB, UR, RoHS      |  |  |  |  |  |

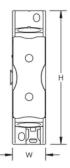
| Catalog Number | Article Number | Short Term Withstand<br>Current (Icw) 1s | Certifications                |
|----------------|----------------|--|-------------------------------|
| SB2C400AL      | 561166         | 28.8kA                                   | CE, ERIFLEX SB, cUR, UR, RoHS |
| SBF2C400AL     | 561167         | 28.8kA                                   | CE, ERIFLEX SB, cUR, UR, RoHS |
| SB2C250        | 561170         | 14.4kA                                   | CE, ERIFLEX SB, RoHS, UL      |
| SBF2C250       | 561172         | 14.4kA                                   | CE, ERIFLEX SB, RoHS, UL      |
| SB400          | 561152         | 28.8kA                                   | CE, ERIFLEX SB, UR, RoHS      |
| SBF400         | 561153         | 28.8kA                                   | CE, ERIFLEX SB, UR, RoHS      |
| SB630AL        | 561168         | 60kA                                     | CE, ERIFLEX SB, cUR, UR, RoHS |
| SBF630AL       | 561169         | 60kA                                     | CE, ERIFLEX SB, cUR, UR, RoHS |
| SBF2C630AL     | 561173         | 60kA                                     | CE, ERIFLEX SB, RoHS, UL      |
| SB2C2C1000AL   | 561175         | 72kA                                     | CE, ERIFLEX SB, RoHS, UL      |
| SB2C400        | 561154         | 28.8kA                                   | CE, ERIFLEX SB, UR, RoHS      |
| SB2C1000AL     | 561174         | 72kA                                     | CE, ERIFLEX SB, RoHS, UL      |
| SBF2C400       | 561155         | 28.8kA                                   | CE, ERIFLEX SB, UR, RoHS      |
| SBF3C1000AL    | 561176         | 72kA                                     | CE, ERIFLEX SB, RoHS, UL      |
| SB630          | 561156         | 60kA                                     | CE, ERIFLEX SB, UR, RoHS      |
| SBF4C1600AL    | 561177         | 96kA                                     | CE, ERIFLEX SB, RoHS, UL      |
| SBF630         | 561157         | 60kA                                     | CE, ERIFLEX SB, UR, RoHS      |

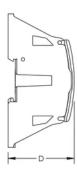
# ADDITIONAL PRODUCT DETAILS

SBF250 is UL® 1953 Listed when used with SB250SPCR. Max Working Voltage for UL 1953 applications is 1250 VAC/DC.

Blue protection cover is less than 7% of the overall product weight.

| Design Guideline for Distribution Blocks, Power Blocks and Power Terminals               |     |     |      |      |      |      |      |      |      |      |
|--|-----|-----|------|------|------|------|------|------|------|------|
| Derating according to Ambient* Temperature (°F) to maintain working temperature of 185°F |     |     |      |      |      |      |      |      |      |      |
| Ambient Temperature (°F)   | 86° | 95° | 104° | 113° | 122° | 131° | 140° | 149° | 158° | 167° |
| Derating Coefficient (d)   | 1   | 1   | 1    | 0.94 | 0.88 | 0.82 | 0.75 | 0.67 | 0.58 | 0.47 |
| *environment around the terminal blocks inside the enclosure                             |     |     |      |      |      |      |      |      |      |      |





### **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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