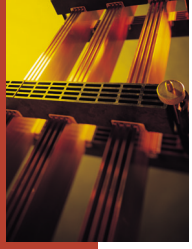
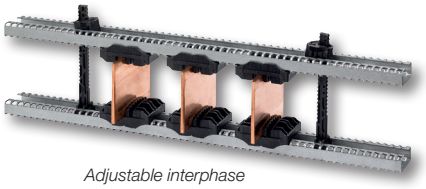




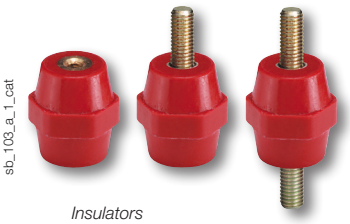
# Busbar supports

## Busbar



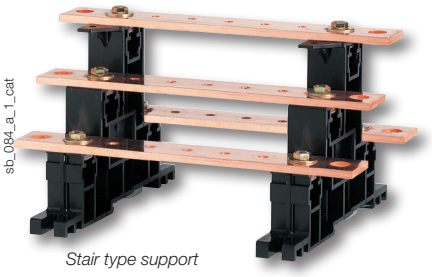
sb_195_a_1_cat

*Adjustable interphase*



sb_103_a_1_cat

*Insulators*



sb_084_a_1_cat

*Stair type support*

### The solution for

- Industrial Control Panels Manufacturers (UL 508A)
- Switchboards Manufacturers (UL 891)
- Distributors
- OEM/Machine Builders

### Approvals and certifications (1)

- ASEFA/LCIE

KEMA KEUR — Lloyd's Register

*(1) Product references on request.*

### Available on request

- Please contact us

## Function

SOCOMEC **insulating busbar supports** enable the fixing of copper or aluminium busbars.

## Characteristics

**Insulators**

- Polyester without halogen.
- UL94 VO self-extinguishing.
- Color red RAL 3002.
- Operating temperature from -40 to + 266°F.
- Deformation under load temperature (ASTM D643): > 392°F / 200°C.
- Dielectric constant (ASTM D150): 4/5.
- Arc resistance (ASTM D495): > 180 s.
- Water absorption (ASTM D570): < 0.3%.

**Busbar supports**

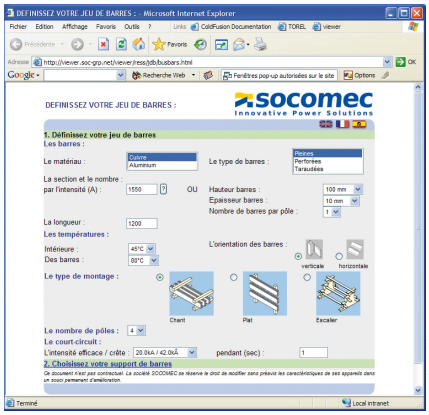
- High dielectric strength.
- High mechanical resistance.
- Non-magnetic assembly parts.
- High resistance to damp heat (supplied "with a conformal coating").

**Stair type supports**

- Thermoplastic material.
- UL 94 VO self-extinguishing.
- Insulating voltage: 1000 V.

## Software tool for size selection

**Mechanical Systems** is a software that can be utilized to size bar sets. It defines the configuration of the busbar system, including bar section and distance between supports, according to the required electrical characteristics of the panel in compliance with standard IEC 61439-1. The software runs on Windows® 7 and 10.
Visit our website www.socomec.us.




sb_201_b_1_fr_cat.eps



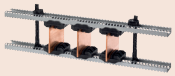
socomec Innovative Power Solutions

# Selection guide

## Edgewise mounting

100 A | 400 A | 500 A | 630 A | 1000 A | 1600 A | 2500 A | 4000 A | 5800 A | 7 000 A

Nominal current $I_n$



*SB C ER Power*

$I_{cc}$ up to **80 kA**

- Busbar supports with **adjustable interphase**

## Flat mounting

- **Unipolar** busbar supports

*SB 205*

*SB 306*

$I_{cc}$ up to **80 kA**

100 A | 400 A | 500 A | 630 A | 1000 A | 1600 A | 2500 A | 4000 A | 5800 A | 7 000 A

Nominal current $I_n$

*SB 7500*

$I_{cc}$ up to **50 kA**

*SB P 30*

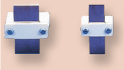
$I_{cc}$ up to **80 kA**

- **Multipolar** busbar supports

## Other supports

- **Unipolar** busbar supports

(1)



(2)

(3)

$I_{cc}$ up to **50 kA**

1. Hexagonal insulators
2. ***SB 1*** *and* ***SB 2***
3. ***SB 3***

100 A | 400 A | 500 A | 630 A | 1000 A | 1600 A | 2500 A | 4000 A | 5800 A | 7 000 A

Nominal current $I_n$

(4)

(5)

4. ***SB E 44***
5. ***SB P 10***
6. ***SB P 44***

(6)

$I_{cc}$ up to **30 kA**

$I_{cc}$ up to **40 kA**

- **4 Pole** busbar supports

## SB C ER P multipolar edgewise mounting busbar supports with adjustable interphase

## References

### Complete busbar support

| Designation | Thickness of bar (mm) | Width of bar (mm) | No. of bars | No. of poles | Reference |
|---|---|---|---|---|---|
| Complete support | 10 | 480 | 1 … 3 | 4 | 5025 **5135** |

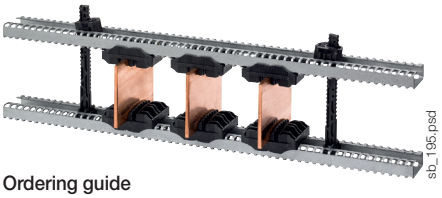
### Insert

| Designation | Thickness of bar (mm) | No. of bars | No. of poles | Quantity | To be ordered in multiples of | Reference |
|---|---|---|---|---|---|---|
| Insert for 5 mm bars | 5 | 3 | 3 P | 6 (1) | 8 | 5025 **5205** |
| Insert for 5 mm bars | 5 | 3 | 4 P | 8 (1) | 8 | 5025 **5205** |
| Insert for 10 mm bars | 10 | 2 | 3 P | 6 (1) | 4 | 5025 **5210** |
| Insert for 10 mm bars | 10 | 2 | 4 P | 8 (1) | 4 | 5025 **5210** |
| Insert for 10 mm bars | 10 | 3 | 3 P | 6 (1) | 1 | 5025 **5111** |
| Insert for 10 mm bars | 10 | 3 | 4 P | 8 (1) | 1 | 5025 **5111** |

### Mounting accessories

| Designation | Length (mm) | Quantity | To be ordered in multiples of | Reference |
|---|---|---|---|---|
| Stud kit (bar height 25 to 200 mm) | | 2 (1) | 4 | 5025 **5100** |
| Stud kit metal (bar height 0 to 100 mm) | | 2 | 2 | 5025 **5101** |
| Stud kit metal (bar height 0 to 200 mm) | | 2 | 2 | 5025 **5102** |
| 380 mm profile | 380 | 2 (1) | 4 | 5025 **5124** |
| 480 mm profile | 480 | 2 (1) | 4 | 5025 **5125** |
| 580 mm profile | 580 | 2 (1) | 4 | 5025 **5126** |
| 780 mm profile | 780 | 2 (1) | 4 | 5025 **5128** |
| 2 m profile | 2000 | | 4 | 5025 **5120** |
| Profile for Prisma enclosure (2) | 525 | 1 (1) | 1 | 5025 **5130** |

*(1) Quantity required for 1 busbar support inserts.*
*(2) Kit of 2 profiles and 4 brackets.*




### Ordering guide

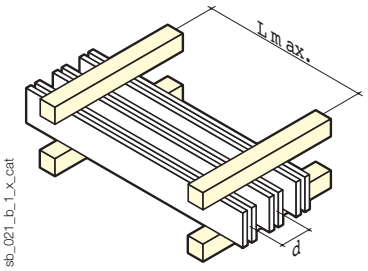
- For three poles, order: 6 x insetrs, 2 x studs, 2 x profiles.
- For four poles, order: 8 x inserts, 2 x studs, 2 x profiles.

## Characteristics

### 5 mm inserts for up to 3 bars and 10 mm inserts for up to 2 bars

| | L max. (support bars in mm) for | | | | | | |
|---|---|---|---|---|---|---|---|
| peak $I_{sc}$ | 82 kA | 114 kA | 152 kA | 165 kA | 187 kA | | |
| rms $I_{sc}$ | 39 kA | 52 kA | 69 kA | 75 kA | 85 kA | | |
| Bar x qty | | | | | | d min. (mm) | Iz (A) (1) |
| 50 x 5 x 1 | 500 | 325 | 175 | 150 | | 75 | 600 |
| 50 x 5 x 2 | 500 | 325 | 175 | 150 | 100 | 75 | 1050 |
| 50 x 5 x 3 | 500 | 325 | 175 | 150 | 100 | 75 | 1450 |
| 63 x 5 x 1 | 525 | 350 | 200 | 175 | | 75 | 700 |
| 63 x 5 x 2 | 525 | 350 | 200 | 175 | 125 | 75 | 1250 |
| 63 x 5 x 3 | 525 | 350 | 200 | 175 | 125 | 75 | 1800 |
| 80 x 5 x 1 | 525 | 350 | 200 | 175 | 125 | 75 | 900 |
| 80 x 5 x 2 | 525 | 350 | 200 | 175 | 125 | 75 | 1550 |
| 80 x 5 x 3 | 525 | 350 | 200 | 175 | 125 | 75 | 2200 |
| 100 x 5 x 1 | 550 | 375 | 225 | 200 | 175 | 75 | 1100 |
| 100 x 5 x 2 | 550 | 375 | 225 | 200 | 175 | 75 | 1900 |
| 100 x 5 x 3 | 550 | 375 | 225 | 200 | 175 | 75 | 2650 |
| 125 x 5 x 1 | 575 | 400 | 250 | 225 | 200 | 75 | 1300 |
| 125 x 5 x 2 | 575 | 400 | 250 | 225 | 200 | 75 | 2350 |
| 125 x 5 x 3 | 575 | 400 | 250 | 225 | 200 | 75 | 3250 |
| 80 x 10 x 1 | 1000 | 750 | 350 | 300 | 200 | 75 | 1300 |
| 80 x 10 x 2 | 1000 | 750 | 350 | 300 | 200 | 75 | 2300 |
| 100 x 10 x 1 | 1000 | 750 | 375 | 325 | 225 | 75 | 1550 |
| 100 x 10 x 2 | 1000 | 775 | 375 | 325 | 225 | 75 | 2750 |
| 125 x 10 x 1 | 1000 | 775 | 375 | 325 | 225 | 75 | 1900 |
| 125 x 10 x 2 | 1000 | 775 | 375 | 325 | 225 | 75 | 3350 |
| 160 x 10 x 1 | 1000 | 775 | 400 | 350 | 250 | 75 | 2350 |
| 160 x 10 x 2 | 1000 | 800 | 400 | 350 | 250 | 75 | 4150 |

*(1) Admissible busbar nominal current with a temperature inside the panel of between 113°F and 176°F.*
*For other mounting configurations, please contact us.*



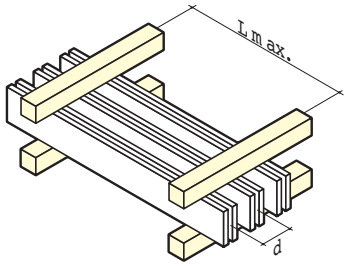

Adhering to the **maximum distance** between two supports ensures that the busbar supports are able to withstand the given short circuit current values. At these limits, distortion of the copper bars may occur. These deformations are permitted by standard IEC 61439-1 so long as they adhere to the insulation distances.

## Characteristics (continued)

### 10 mm insert / 3 bars

| peak $I_{sc}$ | L max. (bar supports in mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 63 kA | 82 kA | 114 kA | 152 kA | 165 kA | 187 kA | | |
| rms $I_{sc}$ | 30 kA | 39 kA | 52 kA | 69 kA | 75 kA | 85 kA | | |
| **Bar x qty** | | | | | | | **d (mm)** | **Iz (A) (1)** |
| 50 x 10 x 1 | 1000 | 1000 | 650 | 250 | 200 | 150 | 70 | 850 |
| 50 x 10 x 2 | 1000 | 1000 | 650 | 250 | 200 | 150 | 70 | 1550 |
| 50 x 10 x 3 | 1000 | 1000 | 650 | 250 | 200 | 150 | 70 | 2150 |
| 63 x 10 x 1 | 1000 | 1000 | 675 | 275 | 225 | 175 | 70 | 1050 |
| 63 x 10 x 2 | 1000 | 1000 | 675 | 275 | 225 | 175 | 70 | 1850 |
| 63 x 10 x 3 | 1000 | 1000 | 675 | 275 | 225 | 175 | 70 | 2600 |
| 80 x 10 x 1 | 1000 | 1000 | 700 | 300 | 250 | 175 | 70 | 1300 |
| 80 x 10 x 2 | 1000 | 1000 | 700 | 300 | 250 | 175 | 70 | 2300 |
| 80 x 10 x 3 | 1000 | 1000 | 700 | 300 | 250 | 175 | 70 | 3200 |
| 100 x 10 x 1 | 1000 | 1000 | 725 | 325 | 275 | 175 | 70 | 1550 |
| 100 x 10 x 2 | 1000 | 1000 | 725 | 325 | 275 | 175 | 70 | 2750 |
| 100 x 10 x 3 | 1000 | 1000 | 725 | 325 | 275 | 175 | 70 | 3250 |
| 125 x 10 x 1 | 1000 | 1000 | 725 | 350 | 275 | 200 | 70 | 1900 |
| 125 x 10 x 2 | 1000 | 1000 | 725 | 350 | 275 | 200 | 70 | 3350 |
| 125 x 10 x 3 | 1000 | 1000 | 725 | 350 | 275 | 200 | 70 | 4650 |
| 160 x 10 x 1 | 1000 | 1000 | 750 | 350 | 300 | 200 | 70 | 2350 |
| 160 x 10 x 2 | 1000 | 1000 | 750 | 350 | 300 | 200 | 70 | 4150 |
| 160 x 10 x 3 | 1000 | 1000 | 750 | 350 | 300 | 200 | 70 | 5800 |

*(1) Admissible busbar nominal current with a temperature inside the panel of between 113°F and 176°F.*
*For other mounting configurations, please contact us.*

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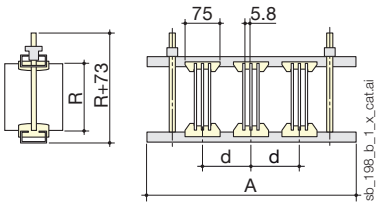
Adhering to the **maximum distance** between two supports ensures that the busbar supports are able to withstand the given short circuit current values. At these limits, distortion of the copper bars may occur. These deformations are permitted by standard IEC 61439-1 so long as they adhere to the insulation distances.

## Dimensions

### Mounting

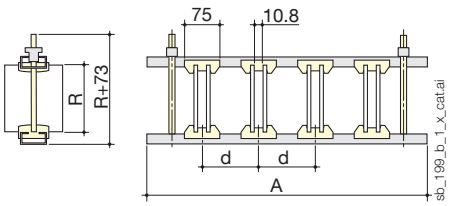
- 1 to 3 bars of 5 mm thickness, per phase.
- 1 to 3 bars of 10 mm thickness, per phase.
- Interphase distance: min. 70 mm and max. 200 mm.
- Use 2 studs positioned symmetrically on the extremity of the poles or between the outermost poles.

| A (mm) | Enclosure (mm) |
|---|---|
| 380 | 400 |
| 480 | 500 |
| 580 | 600 |
| 780 | 800 |



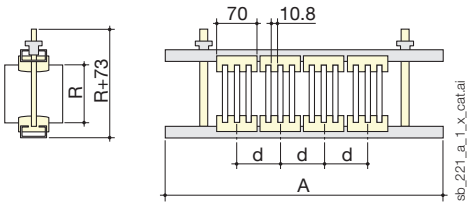

sb_198_b_1_x_cat.ai

5 mm insert / 3 bars




sb_199_b_1_x_cat.ai

10 mm insert / 2 bars




sb_221_a_1_x_cat.ai

10 mm insert / 3 bars

# SB 205 - SB 306 unipolar flat mounting busbar supports

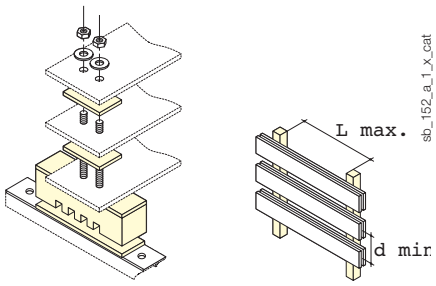
## References

| Support | Insulation voltage (VAC) | No. of bars | Bar width (mm) | To be ordered in multiples of | Reference |
|---|---|---|---|---|---|
| SB 205 | 1,000 | 1 - 3 | 100 | 6 | 5022 **5110** |
| SB 306 | 1,000 | 1 - 3 | 160 | 6 | 5023 **6110** |


## Characteristics

| Support | peak $I_{sc}$ / rms $I_{sc}$ / Bar x qty | L max. (support bars in mm) for 48 kA / 23 kA | 63 kA / 30 kA | 82 kA / 39 kA | 114 kA / 52 kA | 152 kA / 69 kA | 165 kA / 75 kA | d min. (mm) | Iz (A) (1) |
|---|---|---|---|---|---|---|---|---|---|
| SB 205 | 100 x 10 x 1 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 125 | 1550 |
| SB 205 | 100 x 10 x 2 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 125 | 2750 |
| SB 205 | 100 x 10 x 3 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 125 | 3850 |
| SB 306 | 160 x 10 x 1 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 175 | 2350 |
| SB 306 | 160 x 10 x 2 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 175 | 4150 |
| SB 306 | 160 x 10 x 3 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 175 | 5800 |

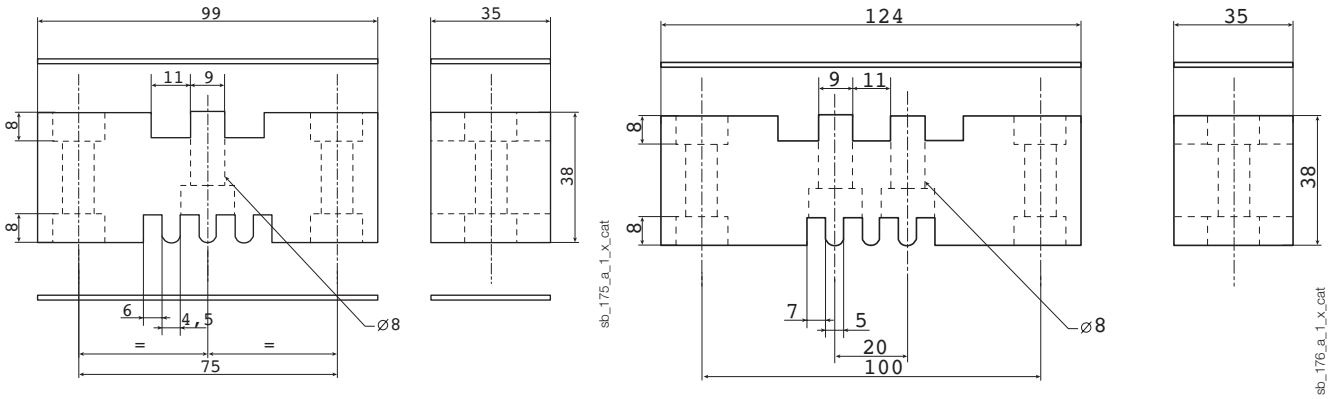
*(1) Admissible busbar nominal current with a temperature inside the panel of between 113°F and 176°F.*
*For other mounting configurations, please contact us.*




**Mounting**

- SB 205: 1 to 3 bars of max. recommended width 100 mm.
- SB 306: 1 to 3 bars of max. recommended width 160 mm.

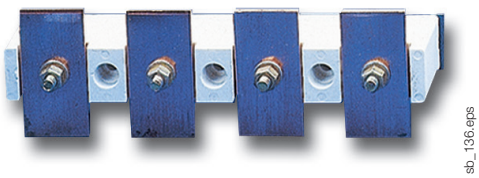
## Dimensions



# SB 7500 multipolar flat mounting busbar supports with fixed interphase

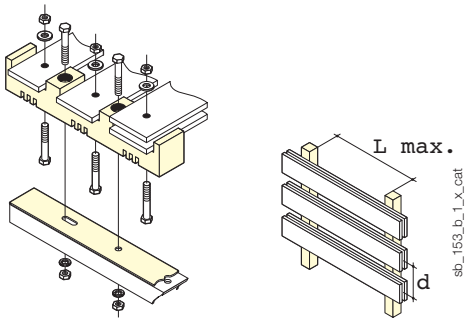
## References

| No. of poles | Insulation voltage (VAC) | Bar width (mm) | Pack qty | Reference |
|---|---|---|---|---|
| 3 P | 1,000 | 40 -50 | 1 | 5027 **5310** |
| 4 P | 1,000 | 40 -50 | 1 | 5027 **5410** |




## Characteristics

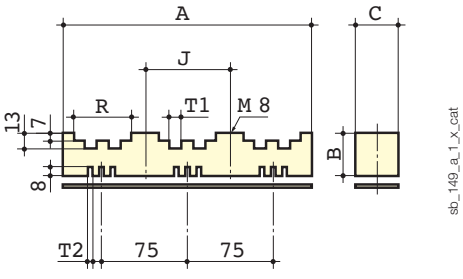
| | L max. (support bars in mm) for | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| peak $I_{sc}$ | 24 kA | 48 kA | 63 kA | 82 kA | 114 kA | 152 kA | | |
| rms $I_{sc}$ | 12 kA | 23 kA | 30 kA | 39 kA | 52 kA | 69 kA | | |
| Bar x qty | | | | | | | d (mm) | Iz (A) |
| 50 x 5 x 1 | 1000 | 1000 | 950 | 725 | 525 | 450 | 75 | 600 |
| 50 x 5 x 2 | 1000 | 1000 | 1000 | 1000 | 975 | 850 | 75 | 1,050 |




Mounting: SB 7500: 1 to 2 bars of max. width 50 mm per pole. Fixed interphase of 75 mm.

## Dimensions

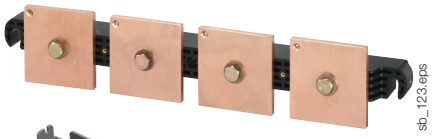
| No. of poles | A | B | C | J | R | $T_1$ | $T_2$ |
|---|---|---|---|---|---|---|---|
| 3 P | 220 | 38 | 35 | 75 | 52.5 | 11 | 6 |
| 4 P | 295 | 38 | 35 | 75 | 52.5 | 11 | 6 |



# SB P 30 multipolar flat mounting busbar supports with fixed interphase

## References

| No. of poles | Insulation voltage (VAC) | Bar width (mm) | Pack qty | Reference |
|---|---|---|---|---|
| 3 P | 1000 | 50 -100 | 1 | 5023 **0310** |
| 4 P | 1000 | 50 -80 | 1 | 5023 **0410** |


sb_123.eps

| Mounting bracket<br>Accessories | To be ordered in multiples of | Reference |
|---|---|---|
| 2 mounting brackets for SB P 30 | 1 | 5024 **9002** |


sb_211_a_1_cat

| Bar fixing screws<br>Accessories | To be ordered in multiples of | Reference |
|---|---|---|
| Grub screws for mounting 1 bar | 25 | 5119 **4601** |
| Grub screws for mounting 2 bars back-to-back | 25 | 5119 **4602** |
| Grub screws for mounting 3 back-to-back bars | 25 | 5119 **4603** |


sb_210_a_1_cat

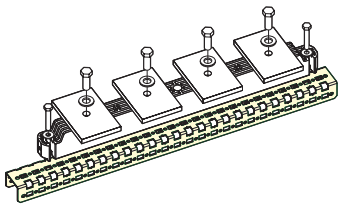
## Characteristics

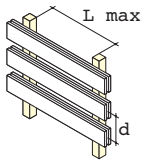
### d = 123 mm

| peak $I_{sc}$ | L max. (support bars in mm) for | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 63 kA | 84 kA | 110 kA | 143 kA | 165 kA | 176 kA | 187 kA | 220 kA | | |
| rms $I_{sc}$ | 30 kA | 40 kA | 50 kA | 65 kA | 75 kA | 80 kA | 85 kA | 100 kA | | |
| Bar x qty | | | | | | | | | d (mm) | Iz (A) |
| 50 x 5 x 1 | 1000 | 950 | 525 | 300 | 225 | 200 | 175 | 130 | 123 | 600 |
| 63 x 5 x 1 | 1000 | 925 | 525 | 300 | 225 | 200 | 175 | 130 | 123 | 700 |
| 80 x 5 x 1 | 1000 | 900 | 500 | 300 | 225 | 175 | 175 | 125 | 123 | 900 |
| 80 x 5 x 2 | 1000 | 900 | 500 | 300 | 225 | 175 | 175 | 125 | 123 | 1,550 |
| 50 x 10 x 1 | 1000 | 950 | 525 | 300 | 225 | 200 | 175 | 130 | 123 | 850 |
| 50 x 10 x 2 | 1000 | 975 | 525 | 300 | 225 | 200 | 175 | 135 | 123 | 1,550 |
| 63 x 10 x 1 | 1000 | 925 | 525 | 300 | 225 | 200 | 175 | 130 | 123 | 1,050 |
| 63 x 10 x 2 | 1000 | 950 | 525 | 300 | 225 | 200 | 175 | 130 | 123 | 1,850 |
| 80 x 10 x 1 | 1000 | 900 | 500 | 300 | 225 | 175 | 175 | 125 | 123 | 1,300 |
| 80 x 10 x 2 | 1000 | 925 | 500 | 300 | 225 | 200 | 175 | 125 | 123 | 2,300 |
| 80 x 10 x 3 | 1000 | 950 | 525 | 300 | 225 | 200 | 175 | 130 | 123 | 3,200 |

### d = 185 mm

| peak $I_{sc}$ | L max. (support bars in mm) for | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 63 kA | 84 kA | 110 kA | 143 kA | 165 kA | 176 kA | 187 kA | 220 kA | | |
| rms $I_{sc}$ | 30 kA | 40 kA | 50 kA | 65 kA | 75 kA | 80 kA | 85 kA | 100 kA | | |
| Bar x qty | | | | | | | | | d (mm) | Iz (A) |
| 50 x 5 x 1 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 63 x 5 x 1 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 80 x 5 x 1 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 80 x 5 x 2 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 100 x 5 x 1 | 1000 | 1000 | 775 | 450 | 325 | 300 | 250 | 175 | 185 | 1100 |
| 100 x 5 x 2 | 1000 | 1000 | 775 | 450 | 325 | 300 | 250 | 175 | 185 | 1900 |
| 100 x 5 x 3 | 1000 | 1000 | 775 | 450 | 350 | 300 | 250 | 175 | 185 | 2650 |
| 50 x 10 x 1 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 50 x 10 x 2 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 63 x 10 x 1 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 63 x 10 x 2 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 80 x 10 x 1 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 80 x 10 x 2 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 80 x 10 x 3 | 1000 | 1000 | 800 | 475 | 350 | 300 | 275 | 200 | 185 | |
| 100 x 10 x 1 | 1000 | 1000 | 775 | 450 | 325 | 300 | 250 | 175 | 185 | 1550 |
| 100 x 10 x 2 | 1000 | 1000 | 775 | 450 | 350 | 300 | 250 | 175 | 185 | 2750 |
| 100 x 10 x 3 | 1000 | 1000 | 775 | 450 | 350 | 300 | 275 | 175 | 185 | 3850 |


sb_160_a_1_x_cat

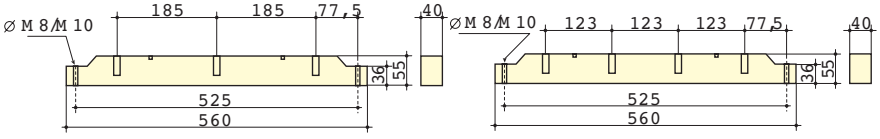


sb_200_a_1_x_cat

### Mounting

- 3 poles: 1 to 3 bars of max. width 100 mm per pole, fixed interphase of 185 mm
- 4 poles: 1 to 3 bars of max. width 80 mm per pole, fixed interphase of 123 mm

## Dimensions



sb_154_c_1_x_cat

# ■ **Hexagonal insulators** unipolar flat mounting busbar supports
## Female to female hexagonal insulator

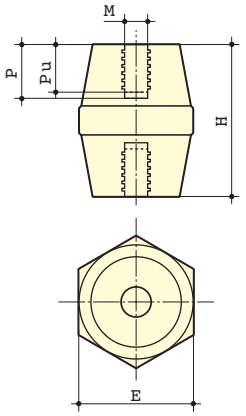
## References

| Height H (mm) | Threading M | Depth P (mm) | Depth Pu (mm) | Diameter E (mm) | Pack qty | Reference |
|---|---|---|---|---|---|---|
| 20 | M4 | 8 | 5.5 | 19 | 1 | 5031 **2004** |
| 20 | M6 | 8 | 5.5 | 19 | 1 | 5031 **2006** |
| 25 | M6 | 10 | 7 | 21 | 1 | 5031 **2506** |
| 30 | M6 | 10 | 7 | 33 | 1 | 5031 **3006** |
| 30 | M8 | 12 | 9 | 33 | 1 | 5031 **3008** |
| 35 | M6 | 12 | 9 | 33 | 1 | 5031 **3506** |
| 35 | M8 | 12 | 9 | 33 | 1 | 5031 **3508** |
| 35 | M10 | 12 | 9 | 33 | 1 | 5031 **3510** |
| 40 | M8 | 15 | 12 | 40 | 1 | 5031 **4008** |
| 40 | M10 | 15 | 12 | 40 | 1 | 5031 **4010** |
| 45 | M8 | 15 | 12 | 41 | 1 | 5031 **4508** |
| 45 | M10 | 15 | 12 | 41 | 1 | 5031 **4510** |
| 50 | M8 | 20 | 17 | 46 | 1 | 5031 **5008** |
| 50 | M10 | 20 | 17 | 46 | 1 | 5031 **5010** |
| 50 | M12 | 20 | 17 | 46 | 1 | 5031 **5012** |
| 60 | M10 | 20 | 17 | 50 | 1 | 5031 **6010** |
| 65 | M10 | 20 | 17 | 55 | 1 | 5031 **6510** |
| 70 | M12 | 25 | 21 | 55 | 1 | 5031 **7012** |

sb_104_a_2_cat

## Characteristics

| Height H (mm) | Threading | Voltage Nominal (V) AC/DC | Insulation voltage (VAC) 50 Hz 1 min | Insulation voltage (VAC) Peak | Mechanical characteristics (daN) Flexion | Mechanical characteristics (daN) Traction | Tightening torque max. (Nm) |
|---|---|---|---|---|---|---|---|
| 20 | M4 | 500 | 3000 | 5500 | 70 | 170 | 9 |
| 20 | M6 | 500 | 3000 | 5500 | 100 | 190 | 8 |
| 25 | M6 | 500 | 3000 | 5500 | 170 | 370 | 12 |
| 30 | M6 | 1000 | 6000 | 11000 | 200 | 650 | 22 |
| 30 | M8 | 1000 | 6000 | 11000 | 360 | 800 | 40 |
| 35 | M6 | 1400 | 9000 | 16000 | 230 | 720 | 25 |
| 35 | M8 | 1400 | 9000 | 16000 | 380 | 900 | 42 |
| 35 | M10 | 1400 | 9000 | 16000 | 320 | 800 | 44 |
| 40 | M8 | 2000 | 12000 | 21500 | 620 | 1200 | 50 |
| 40 | M10 | 2000 | 12000 | 21500 | 620 | 1100 | 60 |
| 45 | M8 | 2000 | 12000 | 21500 | 550 | 1200 | 55 |
| 45 | M10 | 2000 | 12000 | 21500 | 550 | 1100 | 65 |
| 50 | M8 | 2000 | 12000 | 21500 | 650 | 1800 | 60 |
| 50 | M10 | 2000 | 12000 | 21500 | 650 | 1700 | 70 |
| 50 | M12 | 2000 | 12000 | 21500 | 660 | 13000 | 130 |
| 60 | M10 | 2400 | 12000 | 27000 | 560 | 1600 | 85 |
| 65 | M10 | 2400 | 12000 | 27000 | 750 | 1600 | 90 |
| 70 | M12 | 2400 | 12000 | 27000 | 750 | 1500 | 135 |




sb_105_c_1_x_cat

## ■ **Hexagonal insulators** unipolar flat mounting busbar supports (continued)

### Male to female hexagonal insulator

#### References

| Height H (mm) | Threading M | Depth P (mm) | Depth Pu (mm) | Diameter E (mm) | Length W (mm) | Pack qty | Reference |
|---|---|---|---|---|---|---|---|
| 16 | M4 | 6 | 5 | 14 | 26 | 1 | 5038 **1604** |
| 16 | M5 | 6 | 5 | 14 | 26 | 1 | 5038 **1605** |
| 25 | M5 | 10 | 7 | 20 | 35 | 1 | 5038 **2505** |
| 25 | M6 | 10 | 7 | 20 | 35 | 1 | 5038 **2506** |
| 35 | M8 | 12 | 9 | 32 | 50 | 1 | 5038 **3508** |
| 35 | M10 | 12 | 9 | 32 | 65 | 1 | 5038 **3510** |
| 50 | M8 | 15 | 17 | 46 | 75 | 1 | 5038 **5008** |
| 50 | M10 | 20 | 17 | 46 | 80 | 1 | 5038 **5010** |
| 60 | M10 | 20 | 17 | 50 | 85 | 1 | 5038 **6010** |

sb_106_a_2_cat

### Male to male hexagonal insulator

#### References

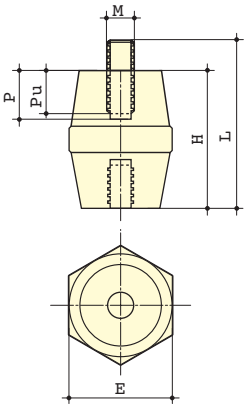
| Height H (mm) | Threading M | Depth P (mm) | Depth Pu (mm) | Diameter E (mm) | Length W (mm) | Pack qty | Reference |
|---|---|---|---|---|---|---|---|
| 16 | M4 | 6 | 5 | 14 | 26 | 1 | 5038 **1604** |
| 16 | M5 | 6 | 5 | 14 | 26 | 1 | 5038 **1605** |
| 25 | M5 | 10 | 7 | 20 | 35 | 1 | 5038 **2505** |
| 25 | M6 | 10 | 7 | 20 | 35 | 1 | 5038 **2506** |
| 35 | M8 | 12 | 9 | 32 | 50 | 1 | 5038 **3508** |
| 35 | M10 | 12 | 9 | 32 | 65 | 1 | 5038 **3510** |
| 50 | M8 | 15 | 17 | 46 | 75 | 1 | 5038 **5008** |
| 50 | M10 | 20 | 17 | 46 | 80 | 1 | 5038 **5010** |
| 60 | M10 | 20 | 17 | 50 | 85 | 1 | 5038 **6010** |

sb_107_a_2_cat

### Male to female and male to male hexagonal insulator

#### Characteristics

| Height H (mm) | Threading | Voltage Nominal (V) AC/DC | Insulating voltage (VAC) 50 Hz 1 min | Insulating voltage Peak | Mechanical characteristics (daN) Flexion | Mechanical characteristics (daN) Traction | Tightening torque max. (Nm) |
|---|---|---|---|---|---|---|---|
| 16 | M4 | 500 | 3000 | 5500 | 100 | 150 | 3 |
| 16 | M5 | 500 | 3000 | 5500 | 100 | 150 | 6 |
| 25 | M5 | 500 | 3000 | 11000 | 180 | 400 | 6 |
| 25 | M6 | 500 | 3000 | 11000 | 180 | 400 | 12 |
| 35 | M8 | 1400 | 9000 | 16000 | 380 | 900 | 42 |
| 35 | M10 | 1400 | 9000 | 16000 | 320 | 800 | 44 |
| 50 | M8 | 2000 | 12000 | 21500 | 650 | 1800 | 60 |
| 50 | M10 | 2000 | 12000 | 21500 | 650 | 1700 | 70 |
| 60 | M10 | 2400 | 12000 | 27000 | 560 | 1600 | 85 |




sb_068_d_1_x_cat

### Grub screw

#### References

| Length (mm) | Thread | To be ordered in multiples of | Reference |
|---|---|---|---|
| 20 | M6 | 20 | 5032 **2006** |
| 20 | M8 | 20 | 5032 **2008** |
| 25 | M6 | 20 | 5032 **2506** |
| 25 | M8 | 20 | 5032 **2508** |
| 30 | M6 | 20 | 5032 **3006** |
| 30 | M8 | 20 | 5032 **3008** |
| 40 | M8 | 20 | 5032 **4008** |
| 40 | M10 | 20 | 5032 **4010** |
| 50 | M12 | 20 | 5032 **5012** |

sb_121_a_2_cat

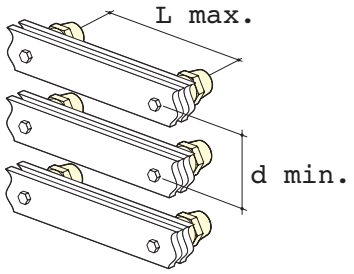
## Define your exact busbar

> For your busbar, fitted with hexagonal insulators, to be mechanically resistant to a short-circuit, it must correspond to the table below.
Values according to IEC 61439-1.

### General characteristics

| | | | L max. (support bars in mm) for | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | peak $I_{sc}$ | 24 kA | 48 kA | 63 kA | 82 kA | 114 kA | | |
| | | rms $I_{sc}$ | 12 kA | 23 kA | 30 kA | 39 kA | 52 kA | | |
| Height H (mm) | Threading | Bar x qty | | | | | | d min. (mm) | Iz (A) (1) |
| 20 | M4 | 15 x 5 x 1 | 400 | 100 | | | | 45 | 220 |
| 20 | M4 | 20 x 5 x 1 | 400 | 100 | | | | 45 | 280 |
| 25 | M6 | 15 x 5 x 1 | 550 | 135 | | | | 45 | 220 |
| 25 | M6 | 20 x 5 x 1 | 525 | 135 | | | | 45 | 280 |
| 25 | M6 | 25 x 5 x 1 | 575 | 145 | | | | 50 | 330 |
| 30 | M6 | 15 x 5 x 1 | 675 | 165 | | | | 45 | 220 |
| 30 | M6 | 20 x 5 x 1 | 650 | 165 | | | | 45 | 280 |
| 30 | M6 | 25 x 5 x 1 | 725 | 175 | 105 | | | 50 | 330 |
| 30 | M8 | 15 x 5 x1 | 850 | 250 | 155 | | | 45 | 220 |
| 30 | M8 | 20 x 5 x 1 | 1000 | 250 | 155 | | | 45 | 280 |
| 30 | M8 | 25 x 5 x 1 | 1000 | 275 | 170 | 100 | | 50 | 330 |
| 35 | M6 | 15 x 5 x 1 | 700 | 175 | 100 | | | 45 | 220 |
| 35 | M6 | 20 x 5 x 1 | 675 | 170 | 100 | | | 45 | 280 |
| 35 | M6 | 25 x 5 x 1 | 750 | 175 | 110 | | | 50 | 330 |
| 35 | M8 | 15 x 5 x 1 | 850 | 275 | 160 | | | 45 | 220 |
| 35 | M8 | 20 x 5 x 1 | 1000 | 275 | 160 | | | 45 | 280 |
| 35 | M8 | 25 x 5 x 1 | 1000 | 300 | 175 | 105 | | 50 | 330 |
| 35 | M8 | 32 x 5 x 1 | 1000 | 325 | 175 | 110 | | 55 | 410 |
| 35 | M10 | 20 x 5 x 1 | 850 | 200 | 125 | | | 45 | 280 |
| 35 | M10 | 25 x 5 x 1 | 950 | 225 | 135 | | | 50 | 330 |
| 35 | M10 | 32 x 5 x 1 | 1000 | 250 | 150 | | | 55 | 410 |
| 40 | M8 | 20 x 5 x 1 | 1000 | 325 | 175 | 110 | | 45 | 280 |
| 40 | M8 | 25 x 5 x 1 | 1000 | 350 | 200 | 125 | | 50 | 330 |
| 40 | M8 | 32 x 5 x 1 | 1000 | 375 | 225 | 135 | | 55 | 410 |
| 40 | M10 | 20 x 5 x 1 | 1000 | 325 | 175 | 110 | | 45 | 280 |
| 40 | M10 | 25 x 5 x 1 | 1000 | 350 | 200 | 125 | | 50 | 330 |
| 40 | M10 | 32 x 5 x 1 | 1000 | 375 | 225 | 135 | | 55 | 410 |
| 45 | M8 | 25 x 5 x 1 | 1000 | 425 | 250 | 150 | | 50 | 330 |
| 45 | M8 | 32 x 5 x 1 | 1000 | 475 | 175 | 160 | | 55 | 410 |
| 45 | M8 | 50 x 5 x 1 | 1000 | 625 | 350 | 200 | 110 | 75 | 600 |
| 45 | M10 | 25 x 5 x 1 | 1000 | 425 | 250 | 145 | | 50 | 330 |
| 45 | M10 | 32 x 5 x 1 | 1000 | 450 | 250 | 160 | | 55 | 410 |
| 45 | M10 | 50 x 5 x 1 | 1000 | 600 | 350 | 200 | 110 | 75 | 600 |
| 50 | M8 | 25 x 5 x 1 | 1000 | 450 | 250 | 155 | | 50 | 330 |
| 50 | M8 | 32 x 5 x 1 | 1000 | 475 | 275 | 170 | | 55 | 410 |
| 50 | M8 | 50 x 5 x 1 | 1000 | 650 | 375 | 225 | 115 | 75 | 600 |
| 50 | M10 | 32 x 5 x 1 | 1000 | 525 | 300 | 175 | | 55 | 410 |
| 50 | M10 | 50 x 5 x 1 | 1000 | 700 | 400 | 225 | 125 | 75 | 600 |
| 60 | M10 | 50 x 5 x 1 | 1000 | 700 | 400 | 225 | 125 | 75 | 600 |
| 65 | M10 | 50 x 5 x 1 | 1000 | 775 | 450 | 250 | 135 | 75 | 600 |

*(1) Admissible busbar nominal current with a temperature inside the panel of between 113°F and 176°F.*
*For other mounting configurations, please contact us.*

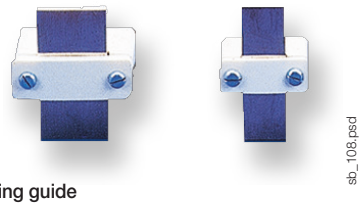



sb_164_a_1_x_cat

# SB 1 - SB 2 multipolar flat mounting busbar supports

## References

| Support | Insulation voltage (VAC) | No. of bars | Bar width (mm) | To be ordered in multiples of | Reference |
|---|---|---|---|---|---|
| SB 1 | 690 | 1 | 20 -25 | 6 | 5021 **0110** |
| SB 2 | 690 | 1 | 32 -40 | 6 | 5022 **0110** |

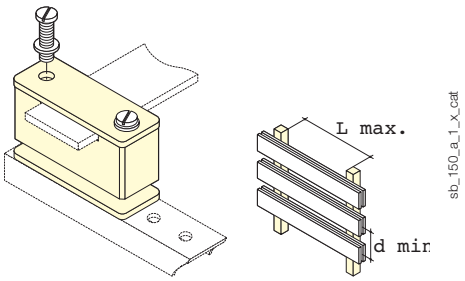



**Ordering guide**
SB 1: bar of max. width 25 mm
SB 2: bar of max. width 40 mm

## Characteristics

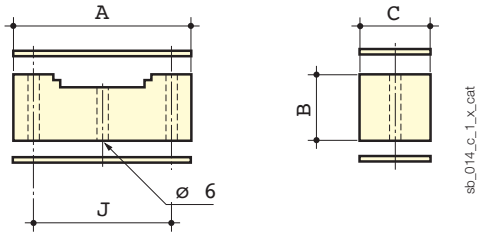
| | | L max. (support bars in mm) for | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | peak $I_{sc}$ | 24 kA | 48 kA | 63 kA | 82 kA | 114 kA | | |
| | rms $I_{sc}$ | 12 kA | 23 kA | 30 kA | 39 kA | 52 kA | | |
| Support | Bar x qty | | | | | | d min. (mm) | Iz (A) (1) |
| SB 1 | 20 x 3 x 1 | 650 | 325 | 250 | 175 | 135 | 50 | 210 |
| SB 1 | 20 x 5 x 1 | 850 | 425 | 325 | 250 | 175 | 50 | 280 |
| SB 1 | 25 x 5 x 1 | 1000 | 525 | 400 | 300 | 200 | 50 | 330 |
| SB 2 | 32 x 5 x 1 | 1000 | 750 | 575 | 450 | 300 | 70 | 410 |
| SB 2 | 40 x 5 x 1 | 1000 | 950 | 700 | 550 | 400 | 70 | 500 |

*(1) Admissible busbar nominal current with a temperature inside the panel of between 113°C and 176°C.*
*For other mounting configurations, please contact us.*




## Dimensions

| Support | A | B | C | J |
|---|---|---|---|---|
| SB 1 | 50 | 23 | 20 | 34 |
| SB 2 | 68 | 23 | 23.5 | 50 |



# SB 3 multipolar flat mounting busbar supports

## References

| Support | Insulation voltage (VAC) | No. of bars | Bar width (mm) | To be ordered in multiples of | Reference |
|---|---|---|---|---|---|
| SB 3 without screws | 690 | 1 - 2 | 32 -63 | 6 | 5023 **0111** |
| SB 3 with screws (1) | 690 | 1 - 2 | 32 -63 | 6 | 5023 **0110** |

*(1) SB 3 bars and with screws.*

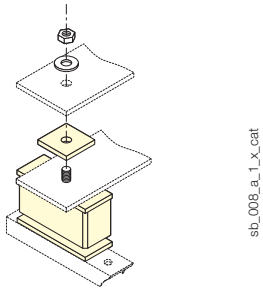

**Ordering guide**

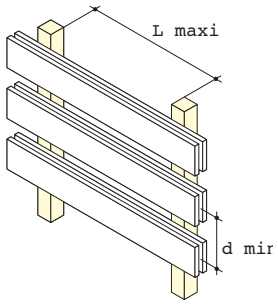
SB 3: 1 to 2 bars of max. recommended width 63 mm.

## Characteristics

| | L max. (support bars in mm) for | | | | | | |
|---|---|---|---|---|---|---|---|
| peak $I_{sc}$ | 24 kA | 48 kA | 63 kA | 82 kA | 114 kA | | |
| rms $I_{sc}$ | 12 kA | 23 kA | 30 kA | 39 kA | 52 kA | | |
| Bar x qty | | | | | | d min. (mm) | Iz (A) (1) |
| 32 x 5 x 2 | 1000 | 1000 | 925 | 700 | 500 | 70 | 580 |
| 40 x 5 x 2 | 1000 | 1000 | 1000 | 1000 | 1000 | 70 | 700 |
| 50 x 5 x 2 | 1000 | 1000 | 1000 | 925 | 675 | 75 | 850 |
| 63 x 5 x 2 | 1000 | 1000 | 1000 | 1000 | 1000 | 85 | 1000 |

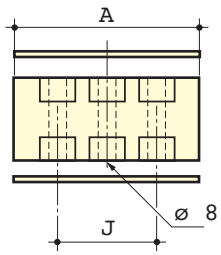
*(1) Admissible busbar nominal current with a temperature inside the panel of between 113°F and 176°F.*
*For other mounting configurations, please contact us.*

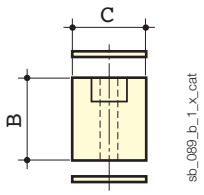



## Dimensions

| Support | A | B | C | J |
|---|---|---|---|---|
| SB 3 without screws | 65 | 32 | 28 | 36 |
| SB 3 with screws | 65 | 32 | 28 | 36 |

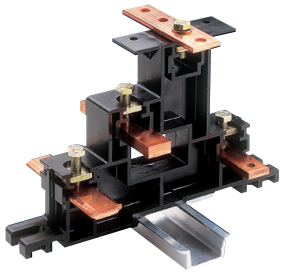


# SB E 44 four pole stair type supports

## References

| No. of poles | Pack qty | Reference |
|---|---|---|
| 4 P | 1 | 5028 **0410** |
| **Accessories** | **Pack qty** | **Reference** |
| 270 mm long protection screen kit | 1 | 5028 **0411** |
| 420 mm long protection screen kit | 1 | 5028 **0412** |
| 620 mm long protection screen kit | 1 | 5028 **0413** |
| Set of 20 protection screen adaption spacers | 1 | 5028 **0415** |



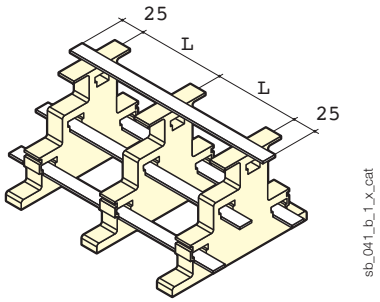
sb_038.eps

## Characteristics

| | L max. (support bars in mm) for | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | peak $I_{sc}$ | 10 kA | 15 kA | 24 kA | 38 kA | 48 kA | 63 kA | |
| | rms $I_{sc}$ | 6 kA | 9 kA | 12 kA | 19 kA | 23 kA | 30 kA | |
| **Support** | **Bar x qty** | | | | | | | **Iz (A)** [1] |
| Type 1 | 15 x 3 x 1 | 950 | 625 | 400 | 250 | 175 | | 160 |
| Type 1 | 15 x 5 x 1 | 1000 | 825 | 500 | 300 | 175 | | 220 |
| Type 1 | 15 x 6 x 1 | 1000 | 900 | 550 | 300 | 200 | | 250 |
| Type 1 | 15 x 8 x 1 | 1000 | 1000 | 650 | 300 | 200 | | 290 |
| Type 1 | 20 x 3 x 1 | 1000 | 825 | 525 | 300 | 175 | | 210 |
| Type 1 | 20 x 5 x 1 | 1000 | 1000 | 675 | 300 | 175 | | 280 |
| Type 1 | 20 x 6 x 1 | 1000 | 1000 | 750 | 300 | 175 | | 310 |
| Type 1 | 20 x 8 x 1 | 1000 | 1000 | 775 | 300 | 175 | | 370 |
| Type 1 | 32 x 5 x 1 | 1000 | 1000 | 675 | 250 | 170 | | 410 |
| Type 1 | 32 x 6 x 1 | 1000 | 1000 | 675 | 250 | 170 | | 460 |
| Type 2 | 15 x 3 x 1 | 950 | 625 | 400 | 250 | 200 | 150 | 160 |
| Type 2 | 15 x 5 x 1 | 1000 | 825 | 500 | 325 | 250 | 175 | 220 |
| Type 2 | 15 x 6 x 1 | 1000 | 900 | 550 | 350 | 275 | 200 | 250 |
| Type 2 | 15 x 8 x 1 | 1000 | 1000 | 650 | 400 | 325 | 225 | 290 |
| Type 2 | 20 x 3 x 1 | 1000 | 825 | 525 | 325 | 250 | 200 | 210 |
| Type 2 | 20 x 5 x 1 | 1000 | 1000 | 675 | 425 | 325 | 225 | 280 |
| Type 2 | 20 x 6 x 1 | 1000 | 1000 | 750 | 450 | 375 | 225 | 310 |
| Type 2 | 20 x 8 x 1 | 1000 | 1000 | 850 | 525 | 375 | 225 | 370 |
| Type 2 | 32 x 5 x 1 | 1000 | 1000 | 1000 | 525 | 325 | 175 | 410 |
| Type 2 | 32 x 6 x 1 | 1000 | 1000 | 1000 | 525 | 325 | 175 | 460 |

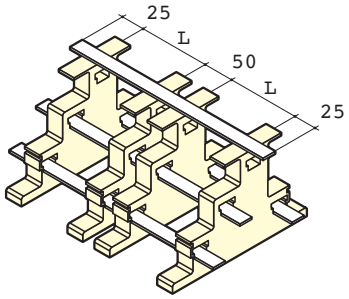
*(1) Admissible busbar nominal current with a temperature inside the panel of between 113°F and 176°F.*
*For other mounting configurations, please contact us.* **N.B.:** *Iz indicated is for a solid (undrilled) busbar.*

## Dimensions



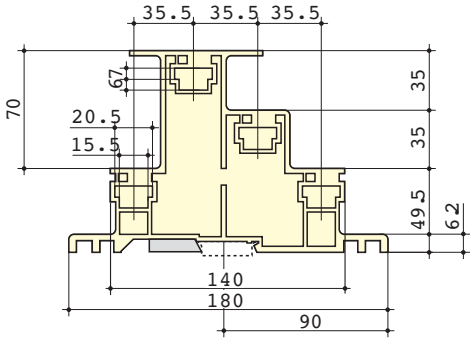

sb_041_b_1_x_cat

Type 1: Busbars including 3 (or more) equally spaced SB E 44 supports.




sb_047_a_1_x_cat

Type 2: Busbars with 3 (or more) SB E 44 supports with doubled intermediary supports.




sb_036_e_1_x_cat

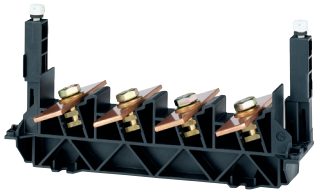
Mounting with eliptical holes: 150 to 170 mm.

# SB P 44 four pole flat mounting busbar support with fixed interphase, for mounting angled bars

## References

| No. of poles | Insulation voltage (VAC) | Bar width (mm) | Pack qty | Reference |
|---|---|---|---|---|
| 4 P | 1,000 | 20 -32 | 1 | 5026 **0450** |

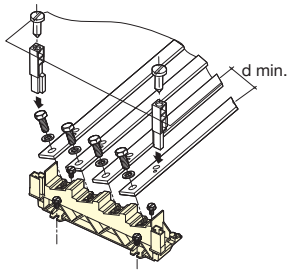
SB P 44: 1 bar of 5 or 10 mm thickness with a width of 20, 25, 30 or 32 mm.
Please note: protection cover not supplied.



sb_170.psd

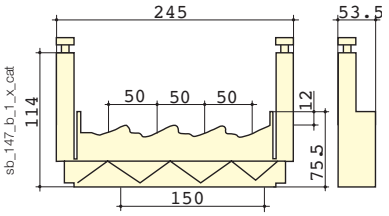
## Characteristics

| peak $I_{sc}$ | L max. (support bars in mm) for | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 10 kA | 15 kA | 24 kA | 48 kA | 63 kA | 82 kA | | |
| rms $I_{sc}$ | 6 kA | 9 kA | 12 kA | 23 kA | 30 kA | 39 kA | | |
| Bar x qty | | | | | | | d min. (mm) | Iz (A) |
| 20 x 5 x 1 | 1000 | 1000 | 800 | 350 | 200 | 125 | 50 | 280 |
| 25 x 5 x 1 | 1000 | 1000 | 1000 | 350 | 200 | 125 | 50 | 330 |
| 32 x 5 x 1 | 1000 | 1000 | 1000 | 350 | 200 | 120 | 50 | 390 |
| 25 x 10 x 1 | 1000 | 1000 | 1000 | 350 | 200 | 125 | 50 | 500 |
| 30 x 10 x 1 | 1000 | 1000 | 1000 | 350 | 200 | 120 | 50 | 580 |
| 32 x 10 x 1 | 1000 | 1000 | 1000 | 350 | 200 | 120 | 50 | 610 |




sb_165_c_1_x_cat

## Dimensions




sb_147_b_1_x_cat