

The innovative SB<sup>®</sup> connectors provide cost-effective reliability, design flexibility and safety for your products' manufacture, installation and maintenance.

APP's 2 & 3 pole connectors are available with a 175 amp rating, 600 Volts continuous AC or DC operation. There are SB<sup>®</sup> connectors for many applications and wire sizes, #4 to 1/0 AWG (21.1 to 53.5mm<sup>2</sup>). Mechanical keys ensure connectors will only mate with connectors of the same color. Different color housings are selected to identify voltages, thus preventing mismatching of the power supply system.

## FEATURES

- **Mechanical keyed housings**  
*Prevents accidental mating of components operating at different voltage levels*
- **Flat wiping contact system**  
*Allows for minimal contact resistance at high current, wiping action cleans contact surface during disconnection*
- **Genderless design**  
*Makes assembly quick and easy and reduces number of parts stocked*



## PRODUCT SPECIFICATIONS

| Connector Model                                       | SB <sup>®</sup> 175       | Connector Model                            | SB <sup>®</sup> 175              |
|---|---------------------------|--|----------------------------------|
| UL Current Rating (Amperes)*                          | 175*                      | Life                                       |                                  |
| UL Voltage Ratings (Volts)                            | 600*                      | a. No load (Contact/Disconnect Cycles)     | To 10,000                        |
| Contact Barrel Wire Size (AWG)<br>(mm <sup>2</sup> )  | #4 to 1/0<br>21.1 to 53.5 | b. Under Load (Hot Plug 250 cycles @ 120V) | 75A                              |
| Maximum Wire Insulation Diameter (inches)<br>(mm)     | 0.75<br>19.01             | Avg. Connection/Disconnect (lbf)           | 25 (SB 2 Pole)<br>35 (SB 3 Pole) |
| AVG Contact Resistance*<br>(micro-ohms)               | 100                       | Operating Temperature Range °C**<br>°F     | -20° to 105°<br>-4° to 221°      |
| Insulation Withstanding<br>Test Voltage (Volts AC/DC) | 2200                      | Flammability Rating of Housing Material    | UL94 V-0                         |
| Contact Retention Force (lbf)                         | 300                       |  |                                  |



\* UL Rated for 65°C largest wire or cable size

\*\* Contact factory for higher temperature rated connector

SB<sup>®</sup>, UL and CSA Reference: This equipment is an Underwriters Laboratories Inc<sup>®</sup> recognized component. It is also listed by the Canadian Standards Association as certified.

## ORDERING INFORMATION

### 2 Pole Housing & 175 amp Contacts

| Part Number | Housing Color | Wire AWG | sq. mm |
|-------------|---------------|----------|--------|
| 6325G1      | Gray          | 1/0      | 53.5   |
| 6326G1      | Blue          | 1/0      | 53.5   |
| 6327G1      | Orange        | 1/0      | 53.5   |
| 6328G1      | Yellow        | 1/0      | 53.5   |
| 6329G1      | Red           | 1/0      | 53.5   |
| 6325G5      | Gray          | #2       | 33.6   |
| 6326G5      | Blue          | #2       | 33.6   |
| 6327G5      | Orange        | #2       | 33.6   |
| 6328G5      | Yellow        | #2       | 33.6   |
| 6329G5      | Red           | #2       | 33.6   |
| 6325G6      | Gray          | #4       | 21.1   |
| 6326G6      | Blue          | #4       | 21.1   |
| 6327G6      | Orange        | #4       | 21.1   |
| 6328G6      | Yellow        | #4       | 21.1   |
| 6329G6      | Red           | #4       | 21.1   |

### Housings Only

| Part Number | Description           |
|-------------|-----------------------|
| 940         | Gray                  |
| 941         | Blue                  |
| 942         | Orange                |
| 943         | Yellow                |
| 949         | Red                   |
| 2-7252G11   | Black, no voltage key |

### 175 amp Contacts

| Part Number | Description     | Wire AWG | sq. mm |
|-------------|-----------------|----------|--------|
| 944         | Contact set (2) | 1/0      | 53.5   |
| 1382        | Individual      | 1/0      | 53.5   |
| 947         | Contact set (2) | #2       | 33.6   |
| 1383        | Individual      | #2       | 33.6   |
| 948         | Contact set (2) | #4       | 21.1   |
| 1384        | Individual      | #4       | 21.2   |
| 948G1*      | Contact set (2) | #6       | 13.3   |
| 1348*       | Individual      | #6       | 13.3   |
| 944G1       | Contact set (2) | #1       | 42.4   |
| 1347        | Individual      | #1       | 42.4   |
| 180BBS      | Bus bar contact | N/A      | N/A    |

### 3 Pole Housing & 175 amp Contacts

| Part Number | Housing Color | Wire AWG | sq. mm |
|-------------|---------------|----------|--------|
| 6316        | Gray          | 1/0      | 53.5   |
| 6316G9      | Gray          | #1       | 42.4   |
| 6316G10     | Gray          | #2       | 33.6   |

### 3 Pole Housing Only

| Part Number | Description              |
|-------------|--------------------------|
| 902         | Gray, springs & hardware |

\* Thin wall

Note: For additional colors please contact customer service

HEADQUARTERS: 13 Pratts Junction Road, P.O. Box 579, Sterling, MA 01564 T:978-422-3600 F:978-422-3700

EUROPE: Rathealy Road, Fermoy Co. Cork, Ireland T:353-(0)25-32277 F:353-(0)25-32296

ASIA/PACIFIC: IDEAL Anderson Asia Pacific Ltd., Unit 922-928 Topsail Plaza, 11 On Sum Street, Shatin N.T., Hong Kong T:852-2636-0836 F:852-2635-9036

CHINA: IDEAL Anderson Technologies (Shenzhen) Ltd., Block A8 Tantou W. Ind. Par, Songgang Baoan District, Shenzhen, PR. China 51810 T: 86-755-2768-2118 F: 86-755-2768-2218

TAIWAN: IDEAL Anderson Asia Pacific Ltd., Taiwan Branch, 4F-2, No.116, Dadun 20th St., Situn District, Taichung City 407, Taiwan (R.O.C.) T: 886-4-2310-6451 F:886-4-2310-6460

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## ORDERING INFORMATION & DIMENSIONS

### Accessories

| Part Number | Description   |
|-------------|---|
| 995G1       | Handle, hardware & lock washers - Gray                                  |
| 995G3       | Handle, hardware & lock washers - Red                                   |
| 923         | Manual release, locking half with clamps and hardware                   |
| 924         | Manual release, mounting half with clamps and hardware                  |
| 110G56      | Lock nut for use with Bus bar contact                                   |
| SB175-LO    | Safety lockout  |
| 111197G1    | Charger key   |
| 134G2       | Dust cover  |
| 945         | Cable clamps  |
| 945G3       | Cable clamps-2 single conductor with hardware. Use with "A" frame only. |
| 946G1       | Cable clamps-1 twin conductor with hardware. Use with "A" frame only.   |

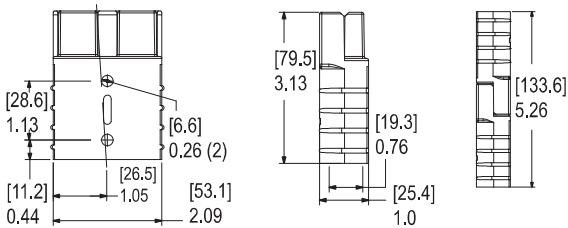
### Bushings

| Part Number | Description  | Wire       |              |
|-------------|--------------|------------|--------------|
|             |              | AWG        | sq. mm       |
| 5648        | Use with 944 | 1/0 to #10 | 53.5 to 5.1  |
| 5663        | Use with 944 | 1/0 to #6  | 53.5 to 13.3 |
| 5687        | Use with 944 | 1/0 to #1  | 53.5 to 42.4 |
| 5690        | Use with 944 | 1/0 to #2  | 53.5 to 33.6 |
| 5693        | Use with 944 | 1/0 to #4  | 53.5 to 21.2 |

### Tooling

| Part Number | Description                         |
|-------------|-------------------------------------|
| 1368        | Hand tool for 1/0 to #1 (53.5/42.4) |
| 1387G1      | Pneumatic tool                      |
| 1388G3      | - die for 1/0 to #1 (53.5/42.4)     |
| 1388G5      | - die for #4                        |
| 1389G5      | - locator for #4                    |
| 1389G3      | - locator for 1/0 to #1 (53.5/42.4) |
| 1303G4      | - die for 1/0 to #4 (53.5/21.1)     |
| 1304G4      | - locator for 1/0 to #4 (53.5/21.1) |

### Housing

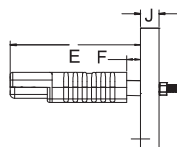


### Bus Bar Mounting Table

| Part Number | - E - |      | - F - |      |
|-------------|-------|------|-------|------|
|             | mm    | in.  | mm    | in.  |
| 180BBS      | 88,9  | 3.50 | 10,2  | 0,40 |

| Part Number | - J -    |           |
|-------------|----------|-----------|
|             | mm       | in.       |
| 180BBS      | 5,0-19,0 | 0,20-0,75 |



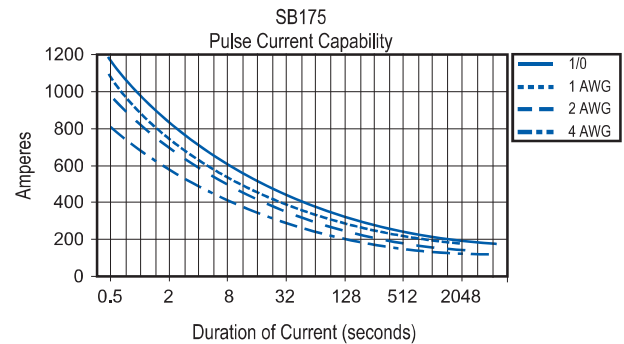
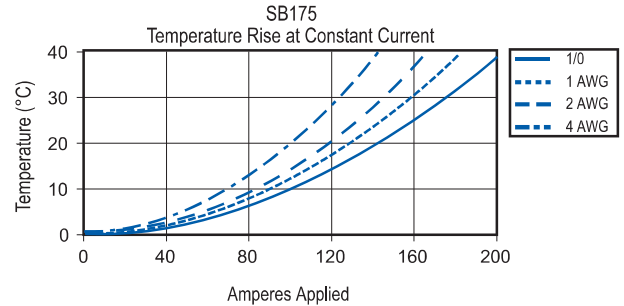
CSA Certified  
File No. LR25154



File No. E26226

All Data Subject To Change Without Notice

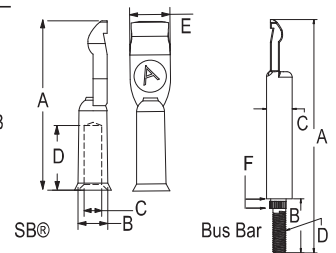
## TEMPERATURE RISE CHART



### Contacts

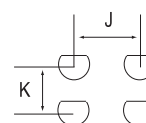
| Part Number | -A-   |      | -B-  |      | -C-  |      | -D-  |          |
|-------------|-------|------|------|------|------|------|------|----------|
|             | mm    | in.  | mm   | in.  | mm   | in.  | mm   | in.      |
| 944         | 59.7  | 2.35 | 13.1 | 0.52 | 11.1 | 0.44 | 27.4 | 1.08     |
| 947         | 59.7  | 2.35 | 13.1 | 0.52 | 8.9  | 0.35 | 27.4 | 1.08     |
| 948         | 59.7  | 2.35 | 13.1 | 0.52 | 7.5  | 0.30 | 25.9 | 1.02     |
| 944G1       | 59.7  | 2.35 | 13.1 | 0.52 | 9.9  | 0.39 | 27.4 | 1.08     |
| 948G1       | 53.3  | 2.10 | 9.3  | 0.37 | 11.7 | 0.46 | 21.3 | 0.84     |
| 180BBS      | 109.0 | 4.29 | 25.4 | 1.00 | 12.7 | 0.50 | N/A  | ¼-20Thd. |

| Part Number | -E-  |     | -F- |      |
|-------------|------|-----|-----|------|
|             | mm   | in. | mm  | in.  |
| 944         | 12.7 | 0.5 | N/A | N/A  |
| 947         | 12.7 | 0.5 | N/A | N/A  |
| 948         | 12.7 | 0.5 | N/A | N/A  |
| 944G1       | 12.7 | 0.5 | N/A | N/A  |
| 948G1       | 12.7 | 0.5 | N/A | N/A  |
| 180BBS      | N/A  |     | 4.6 | 0.18 |



### Bus Bar Layout

| Part Number | -J-  |      | -K-       |           | -L-  |       | -M-  |       |
|-------------|------|------|-----------|-----------|------|-------|------|-------|
|             | mm   | in.  | mm        | in.       | mm   | in.   | mm   | in.   |
| 180BBS      | 26.8 | 1.05 | 26.8(min) | 1.05(min) | 9.53 | 0.375 | 3.43 | 0.135 |



Mounting Dimensions

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