

SB®175 Connector

The innovative SB® 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® connectors for many applications and wire sizes, #4 to 1/0 AWG (21.1 to 53.5mm²). 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 ®175	Connector Model	SB ®175
UL Current Rating (Amperes)*	175*	Life a. No load (Contact/Disconnect Cycles)	To 10.000
UL Voltage Ratings (Volts)	600*	b. Under Load (Hot Plug 250 cycles @ 120V)	75A
Contact Barrel Wire Size (AWG) (mm²)	#4 to 1/0 21.1 to 53.5	Avg. Connection/Disconnect (lbf)	25 (SB 2 Pole) 35 (SB 3 Pole)
Maximum Wire Insulation Diameter (inches) (mm)	0.75 19.01	Operating Temperature Range °C**	-20° to 105° -4° to 221°
AVG Contact Resistance* (micro-ohms)	100	Flammability Rating of Housing Material	UL94 V-0
Insulation Withstanding Test Voltage (Volts AC/DC)	2200	* UL Rated for 65°C largest wire or cable size  ** Contact factory for higher temperature rated connector	
Contact Retention Force (lbf)	300	SB®, UL and CSA Reference: This equipment is an Underwriters Laboratories II It is also listed by the Canadian Standards Association as certified.	nc® recognized component.

### ORDERING INFORMATION

# 2 Pole Housing & 175 amp Contacts

Part	Housing	Wire	
Number	Color	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
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### 175 amp Contacts

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	Wire	
Description	AWG	sq. mm
Contact set (2)	1/0	53.5
Individual	1/0	53.5
Contact set (2)	#2	33.6
Individual	#2	33.6
Contact set (2)	#4	21.1
Individual	#4	21.2
Contact set (2)	#6	13.3
Individual `´	#6	13.3
Contact set (2)	#1	42.4
Individual	#1	42.4
Bus bar contact	N/A	N/A
	Description Contact set (2) Individual	Wire   Description   AWG   Contact set (2)   1/0   Individual   1/0   Contact set (2)   #2   Individual   #2   Contact set (2)   #4   Individual   #4   Contact set (2)   #6   Individual   #6   Contact set (2)   #1   Individual   #1   Individual   #1

# 3 Pole Housing & 175 amp Contacts

Part	Housing	Wir	е
Number	Color	AWG	sq. mm
6316	Gray	1/0	53.5
6316G9	Gray	#1	42.4
6316G10	Grav	#2	33.6

### 3 Pole Housing Only

Part		
Number	Description	
902	Gray, springs & hardware	

<sup>\*</sup> Thin wall Note: For additional colors please contact customer service



## SB®175 Connector

## 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-lockout	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.

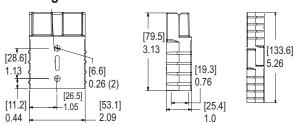
### **Bushings**

Part		Wire			
Number	Description	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

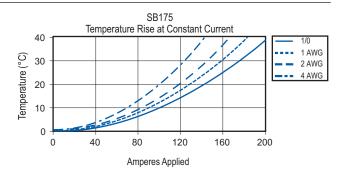


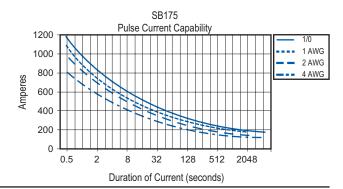
### **Bus Bar Mounting Table**

Part	- E -		- F	-			
Number	mm i	in.	mm	in.		<b>-</b> +J+-	
180BBS	88.9 3	3.50	10.2	0.40	-		
						E F—	
Part		- J -					
Number	mm		in.		4	<del>" " " " " " " " " " " " " " " " " " " </del>	
180BBS	5.0 -19	0.0	0.20 -0.75	5		4	
© CSA	Certified	5.A	. <b>71</b> ° u	I <b>C</b> File N	o. E26226	All Data Subject To Chance Mit	
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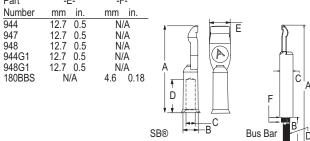
### TEMPERATURE RISE CHART





### **Contacts**

Part	-A-	-B-	-C-	-D-	
Number	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 1/4-20Thd.	
Part	-E-	-F-			
Number	mm in.	mm in.			
944	12.7 0.5	N/A	A	<del></del>	<b>A</b>
947	12.7 0.5	N/A	I C	<b>├</b>	//



### **Bus Bar Layout**

Part	- J	-	- K -		- L	-	- M	-
Number	mm	in.	mm	in.	mm	in.	mm	in.
180BBS	26.77	1.054	26.77(min)	1.054(min)	9.53	0.375	8.20	0.323

