

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

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	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 In It is also listed by the Canadian Standards Association as certified.	c® recognized component.

ORDERING INFORMATION

2 Pole Housing & 175 amp Contacts

Part	Housing	•	/ire		
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

175 amp Contacts

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Part		Wi	re
Number	Description	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	Housing	Wire)
Number	Color	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



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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-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.

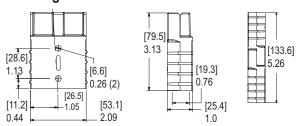
Bushings

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			

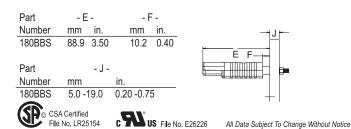
Tooling

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)

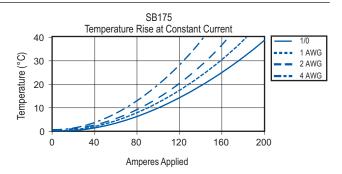
Housing

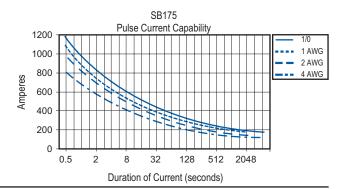


Bus Bar Mounting Table



TEMPERATURE RISE CHART





Contacts

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Part	-A-		-E	3-	-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 i	n.	mm i	n.					
944	12.7 0).5	N/A					=	R
0.47	107 0	\ E	NI/A		T	/ \		-	7)

Part	-E-	-F-		
Number	mm in.	mm in.		
944	12.7 0.5	N/A		
947	12.7 0.5	N/A	I H	\vdash
948	12.7 0.5	N/A		
944G1	12.7 0.5	N/A	H	
948G1	12.7 0.5	N/A	A 🖳	M
180BBS	N/A	4.6 0.18	T-1-7	
			* <u>* /</u>	\square
				_C
			SB® -	-В

Bus Bar Layout

Part		- J	-	- K -		- L	-	- M	-
Numbe	er	mm	in.	mm	in.	mm	in.	mm	in.
180BB	S	26.77	1.054	26.77(min)	1.054(min)	9.53	0.375	8.20	0.323

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