

FEATURES

- Mechanical keyed housings**
Prevents accidental mating of components operating at different voltage levels
- Single-piece housing and unitized construction**
Provides industrial quality and durability
- PCB mounted Quick disconnect**
Avoids the need for unfastening ring type terminals
- Straight and right angle terminal**
Provides flexibility of parallel or perpendicular mounting to the PCB
- Genderless design**
Makes assembly quick and easy and reduces number of parts stocked
- Flat wiping contact system**
Allows for minimal contact resistance at high current, wiping action cleans contact surface during disconnection
- Silver plated contacts**
Offers greater longevity when using high power, elevated temperature applications
- UL approved for current interrupt**
Safe for "Hot Plug" of battery power
- Wide product range - for 50, 120, 175 and 350 amps**
Allows versatility to choose product best suited to design requirements
- UL94 V-0 housing material**
Provides security in knowledge that the connector chosen meets strict UL flammability ratings



PRODUCT RANGE

UL Current Rating (Amperes)*	50* to 350*
UL Voltage Ratings (Volts)	600*
Contact Barrel Wire Size (AWG)	#16 to 300 mcm
(mm ²)	1.3 to 152.0
Maximum Wire Insulation Diameter (inches)	0.44 to 1.10
(mm)	11.2 to 27.9
AVG Contact Resistance* (micro-ohms)	200 to 50
Insulation Withstanding Test Voltage (Volts AC/DC)	2200
Contact Retention Force (lbf)	50 to 500
Life	
a. No load (Contact/Disconnect Cycles)	To 10,000
b. Under Load (Hot Plug) Max Amps (250 cycles @ 120V)	50A to 100A
Avg. Connection/Disconnect (lbf)	15 to 35
Operating Temperature Range °C**	-20° to 105°
°F	-4° to 221°
Flammability Rating of Housing Material	UL94 V-0



* UL Rated for 65°C largest wire or cable size
 ** Contact factory for higher temperature rated connectors

Recommended Voltage Key Color Code

Voltage	12V	18V	24V	36V	48V	72V	80V	96V	120V	144V
Color	Yellow	Orange	Red	Gray	Blue	Green	Black	Brown	Purple	White

PRODUCT INFORMATION

Invented by Anderson Power Products®, the innovative SB® connectors provide cost-effective reliability, design flexibility and mistake-proof capability for your products' manufacture, installation and maintenance. APP's 2 & 3 pole connectors are available for 50, 120, 175 and 350 amp ratings for use to 600 Volts continuous AC or DC operation. There are SB® connectors for many applications and wire sizes, #16 (1.3 mm²) to 300 mcm (152.0 mm²). 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.

The housings are interchangeable and genderless interconnects. Insert contacts into housings and plug together for a clever, simple and low-cost solution to power interconnection. Low-detent contacts are also offered for low insertion/withdrawal force applications. Contacts are available in reeled and loose piece designs to support all production needs from very high volumes to engineering prototype and low-volume customized products.

Markets: UPS Systems, Telecommunications, Forklift Trucks, Wheelchairs, Electric Vehicles, Chargers, Power Electronics & Much More.



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www.andersonpower.com

The innovative SB[®] connectors provide cost-effective reliability, design flexibility and safety for your products' manufacture, installation and maintenance.

APP's 2 pole connector is available with a 50 amp rating, 600 Volts continuous AC or DC operation. There are SB[®] connectors for many applications and wire sizes, #6 to #16 AWG (13.3 to 1.3 mm²). 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.

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Prevents accidental mating of components operating at different voltage levels
- **Single-piece housing and unitized construction**
Provides industrial quality and durability
- **Genderless design**
Makes assembly quick and easy and reduces number of parts stocked



PRODUCT SPECIFICATIONS

Connector Model	SB [®] 50	Connector Model	SB [®] 50
UL Current Rating (Amperes)*	50*	Life	
UL Voltage Ratings (Volts)	600*	a. No load (Contact/Disconnect Cycles)	To 10,000
Contact Barrel Wire Size (AWG) (mm ²)	#6 to #16 13.3 to 1.3	b. Under Load (Hot Plug 250 cycles @ 120V)	50A
Maximum Wire Insulation Diameter (inches) (mm)	0.44 11.2	Avg. Connection/Disconnect (lbf)	10 - low detent 15 - high detent
AVG Contact Resistance* (micro-ohms)	200	Operating Temperature Range °C** °F	-20° to 105° -4° to 221°
Insulation Withstanding Test Voltage (Volts AC/DC)	2200	Flammability Rating of Housing Material	UL94 V-0
Contact Retention Force (lbf)	50		



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

** Contact factory for higher temperature rated connector

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

ORDERING INFORMATION

2 Pole Housing & 50 amp Contacts

Part Number	Housing Color	Wire AWG	Wire sq. mm
6319	Gray	#6	13.3
6319G1	Gray	#10/12	5.3/3.3
6331G1	Red	#6	13.3
6331G2	Red	#10/12	5.3/3.3
6331G3	Black	#6	13.3
6331G4	Black	#10/12	5.3/3.3
6331G5	Blue	#6	13.3
6331G6	Blue	#10/12	5.3/3.3
6331G7	Yellow	#6	13.3
6331G8	Yellow	#10/12	5.3/3.3
6331G9	Green	#6	13.3
6331G10	Green	#10/12	5.3/3.3
6331G11	Orange	#6	13.3
6331G12	Orange	#10/12	5.3/3.3

* LD - low detent or HD - high detent

Note: For additional colors please contact customer service

Housings Only

Part Number	Description	Wire AWG	Wire sq. mm
992	Gray	#6	13.3
992G1	Red	#6	13.3
992G2	Black	#6	13.3
992G4	Blue	#6	13.3
992G5	Yellow	#6	13.3
992G6	Green	#6	13.3
992G7	Orange	#6	13.3

50 amp Contacts*

Part Number	Description	Wire AWG	Wire sq. mm
903G1	Contact set (2) 5900	#6	13.3
904G1	Contact set (2) 5915	#10/12	5.3/3.3
5900	Individual - HD	#6	13.3
1307	Individual - LD	#6	13.3
5952	Individual - HD	#8	8.4
5953	Individual - LD	#10/12	5.3/3.3
5914	Individual - HD	#10	5.26
5915	Individual - HD	#10/12	5.3/3.3

50 amp contacts continued

Part Number	Description	Wire AWG	Wire sq. mm
265G1	Reel, silver - HD	#6/8	13.3/8.4
265G2	Reel, silver - HD	#10/12	5.3/3.3
265G3	Reel, silver - LD	#6/8	13.3/8.4
265G4	Reel, silver - LD	#10/12	5.3/3.3
265G5	Reel, tin - HD	#6/8	13.3/8.4
265G6	Reel, tin - HD	#10/12	5.3/3.3
265G7	Reel, tin - LD	#6/8	13.3/8.4
265G8	Reel, tin - LD	#10/12	5.3/3.3
75BBS	Bus bar contact	N/A	N/A

Accessories

Part Number	Description
SB50-HDL-Red	Handle & hardware, red
134G1	Dust cover, red
990	Cable clamp & hardware, self attaching, 2C
990G2	Cable clamp, 2 single conductors

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ORDERING INFORMATION

accessories continued

Part Number	Description
990G1	Cable clamp & hardware-screw mounting-2C
5905	Cable clamp-1 twin conductor with hardware
110G57	Lock nut for use with bus bar contact

Bushings

Part Number	Description	Reduces From AWG	sq. mm
5910	Use with 5900 or 1307	#6 to #10/12	13.3 to 5.3/3.3
5912	Use with 5900 or 1307	#6 to #8	13.3 to 8.4
5913	Use with 5900 or 1307	#6 to #14/16	13.3 to 2.1/1.3

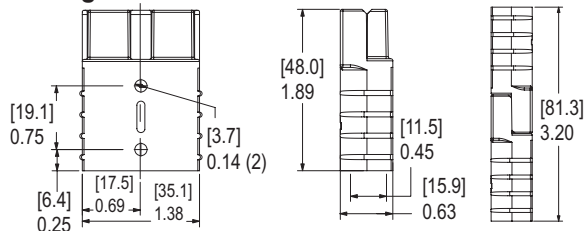
Tooling

Part Number	Description
1309G4	Hand tool
1387G1	Pneumatic tool
1388G6	- die for #6 to #16 AWG
1388G7	- die for #10 to #12 AWG
1389G6	- locator for #6 to #16 AWG
1389G7	- locator for #10 to #12 AWG
260G16	Applicator only (110V & 220V)
*	Applicator & Press (220V, 50Hz)
*	Press only (110V, 60Hz)

* Consult factory

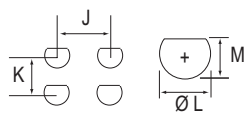
DIMENSIONS

Housing



Bus Bar Layout

Part Number	- J -	- K -	- L -	- M -
	mm in.	mm in.	mm in.	mm in.
75BBS	19.1 0.75	17.3(min) 0.68(min)	6.73 0.265	2.92 0.115

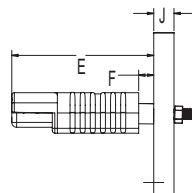


Mounting Dimensions

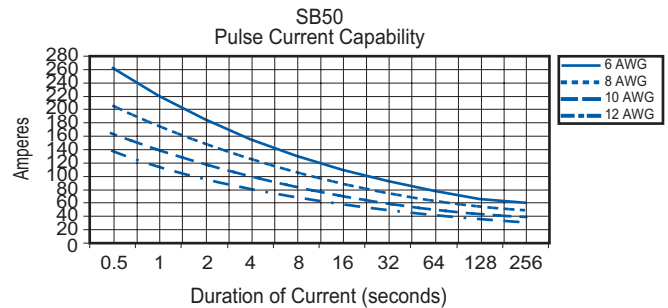
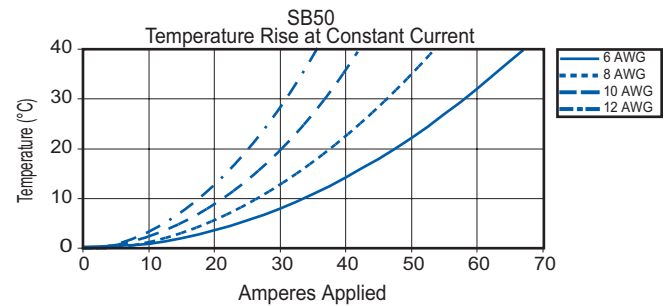
Bus Bar Mounting Table

Part Number	-E-	-F-
	mm in.	mm in.
75BBS	53.3 2.10	5.10 0.20

Part Number	-J-
	mm in.
75BBS	3.0 - 12.7 0.12 - 0.50



TEMPERATURE RISE CHARTS



Contacts

Part Number	-A-	-B-	-C-	-D-	-E-
	mm in.	mm in.	mm in.	mm in.	mm in.
1307	30.0 1.18	7.2 0.28	5.6 0.22	11.4 0.45	7.1 0.28
5900	30.0 1.18	7.2 0.28	5.6 0.22	11.4 0.45	7.1 0.28
5914	29.7 1.17	4.8 0.19	3.5 0.14	11.4 0.45	7.1 0.28
5915	30.0 1.18	7.2 0.28	3.5 0.14	11.4 0.45	7.1 0.28
5952	30.0 1.18	7.2 0.28	4.7 0.19	11.4 0.45	7.1 0.28
5953	30.0 1.18	7.2 0.28	3.5 0.14	11.4 0.45	7.1 0.28
904G1	30.0 1.18	7.2 0.28	3.5 0.14	11.4 0.45	7.1 0.28
903G1	30.0 1.18	7.2 0.28	5.6 0.22	11.4 0.45	7.1 0.28
265G1	31.8 1.25	9.1 0.36	9.1 0.36	22.9 0.90	8.1 0.32
265G2	31.8 1.25	7.4 0.29	6.9 0.27	22.9 0.90	8.1 0.32
265G3	31.0 1.22	9.1 0.36	9.1 0.36	22.9 0.90	8.1 0.32
265G4	31.0 1.22	7.4 0.29	6.9 0.27	22.9 0.90	8.1 0.32
265G5	31.8 1.25	9.1 0.36	9.1 0.36	22.9 0.90	8.1 0.32
265G6	31.8 1.25	7.4 0.29	6.9 0.27	22.9 0.90	8.1 0.32
265G7	31.0 1.22	9.1 0.36	9.1 0.36	22.9 0.90	8.1 0.32
265G8	31.0 1.22	7.4 0.29	6.9 0.27	22.9 0.90	8.1 0.32
75BBS	See Bus Bar Section				

