## SB<sup>®</sup> 350 Connectors Up to 500 Amps



The SB<sup>\*</sup> 350 is the largest connector in the series with power capabilities up to 500 amps with a 350 mcm wire. Wires ranging from 1/0 to 350 mcm (53.5 to 185 mm<sup>2</sup>) fit into the one piece housing available in standard PC or a chemical resistant PBT/PC blend. Silver plated wire or busbar contacts minimize electrical resistance while offering supreme durability and reliability.

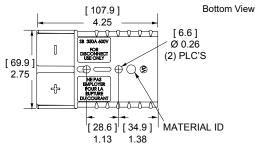
- Up to 350 mcm (185 mm<sup>2</sup>) Wires Allows UL rated currents up to 500 amps
- Chemical Resistant Housing Option Extends temperature range down to -40°C, while offering enhanced UV and chemical resistance
- Same Housings Used for Wire and Busbar Contacts Enables color-coded mechanically keyed wire to busbar connections

### SB<sup>®</sup> 350 ORDERING INFORMATION

#### SB® 350 Standard Housings

The largest SB<sup>®</sup> housings work with wire contacts up to 350 mcm (150 mm<sup>2</sup>) as well as busbar contacts. Genderless design mates with itself. Mechanical keys are color-coded. *NOTE:* SB<sup>®</sup> 350 Black and Blue Housings have the same keying features and can be intermated.

Description	Part Numbers		
Minimum Quantity	50	25	
Yellow	914-BK	914	
Orange	932-BK	932	
Red	913-BK	913	
Gray	906-BK	906	
Blue	912-BK	912	
Green	931-BK	931	
Black	2-7250G8	-	



P = Chemical Resistant

#### SB® 350 Chemical Resistant Housings

Same features as the Standard SB<sup>®</sup> 350 but molded in a chemical resistant PBT/ PC blend. Suitable for use to -40°C.

Description	Part Numbers		
Minimum Quantity	50	25	
Red	P913-BK	P913	
Gray	P906-BK	P906	

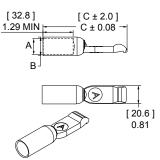


Mated Length

#### SB® 350 Silver Plated Wire Contacts

Silver plated contacts offer superior electrical performance and durability up to 10,000 mating cycles. See reducing bushings in accessory section for smaller wires.

							Dime	nsions		
	Mating				- A		- E	3 -	- C	-
AWG mm <sup>2</sup>	Force	Loose Pi	ece Part N	umbers	inches	mm	inches	mm	inches	mm
Minimum Quantity		200	150	50						
350 mcm 185	High	-	910-BK	910 *	0.75	19.05	0.87	22.10	3.04	77.2
300 mcm 152	High	-	910-BK	910 *	0.75	19.05	0.87	22.10	3.04	77.2
4/0 107.2	High	908-BK	-	908 *	0.64	16.26	0.75	19.05	3.03	77.0
3/0 85	High	916-BK	-	916 *	0.58	14.73	0.70	17.78	3.00	76.2
2/0 67.4	High	907-BK	-	907 *	0.49	12.45	0.64	16.26	2.96	75.2
1/0 53.5	High	917-BK	-	917 *	0.44	11.18	0.51	12.95	2.91	73.9



\* Sold as pairs. 2 parts shipped for every 1 part ordered.

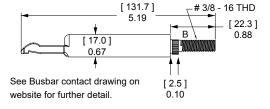


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#### SB® 350 Silver Plated Busbar Contacts

Use 2 busbar contacts per housing to provide a quick disconnect input or output busbar connection. Busbar contacts are for mating with wire contacts only. Part number 350BBS includes lock nuts. Locknuts must be ordered separately for B01998P1.

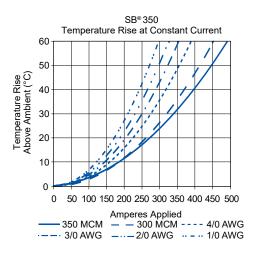
		Mating		
Туре	Thread	Force	Loose Piece	Part Numbers
Minimum	Quantity		50	10
Busbar	3/8-16	High	B01998P1	350BBS
Lock Nut	3/8-16	-	H1216P9	110G73

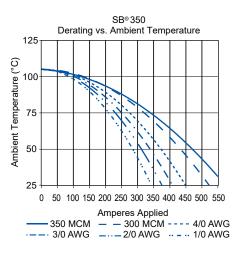


NOTE: Has not been tested by UL.

# $SB^{\circledast}$ 350 CONNECTOR TEMPERATURE CHARTS - Temperature rise charts are based on a 25°C ambient temperature.

#### Current - Temperature Derating per IEC 60512-5-2 Test 5B





### SB<sup>®</sup> 350 CONNECTOR SPECIFICATIONS

Current Rating Amperes <sup>1</sup> UL 1977         Sold         323           Vblage Rating AC/DC         0         324           UL 1977         600         1           Delectric Withstanding Voltage         2,200         1           Volts AC         2,200         1           12 1/2" of 300 mcm Wire         0.050         1           Both Public Current Rating Amperes - Wires E-Wires         0.050         1	ELECTRICAL						
Voltage Rating AC/DCUL 1977600Dielectric Withstanding VoltageVolts AC2,200Avg. Mated Contact Resistance Milliohms 12 1/2" of 300 mcm Wire0.050Hot Plug Current Rating Amperes - Wire & Busbar	Current Rating Amperes <sup>1</sup>	UL 1977	CSA				
UL 1977600Dielectric Withstanding Voltage2,200Volts AC2,200Avg. Mated Contact Resistance Milliohms 12 1/2" of 300 mcm Wire2 1/2" of 300 mcm Wire0.050Hot Plug Current Rating Amperes - Wire & Busbar	Wire-to-Wire (350 mcm)	500	325				
Dielectric Withstanding Voltage       Volts AC       2,200       Avg. Mated Contact Resistance Milliohms <sup>1</sup> 2 1/2" of 300 mcm Wire     0.050       Hot Plug Current Rating Amperes - Wire & Busbar	Voltage Rating AC/DC						
Volts AC2,200Avg. Mated Contact Resistance Milliohms 12 1/2" of 300 mcm Wire0.050Hot Plug Current Rating Amperes - Wire & Busbar	UL 1977	600					
Avg. Mated Contact Resistance Milliohms <sup>1</sup> 2 1/2" of 300 mcm Wire       0.050         Hot Plug Current Rating Amperes - Wire & Busbar	Dielectric Withstanding Voltage						
2 1/2" of 300 mcm Wire 0.050 Hot Plug Current Rating Amperes - Wire & Busbar	Volts AC	2,200					
Hot Plug Current Rating Amperes - Wire & Busbar	Avg. Mated Contact Resistance Milliohms <sup>1</sup>						
	2 1/2" of 300 mcm Wire	0.050					
	Hot Plug Current Rating Amperes - Wire & Busbar						
250 cycles at 120V DC 100A	250 cycles at 120V DC	100A					

MECHANICAL		
Wire Size Range	AWG	mm²
Wire Contacts with Bushings	1/0 to 350 mcm	53.5 to 185
Max. Wire Insulation Diameter	in.	mm
	1.100	27.900
Operating Temperature <sup>2</sup>	°F	°C
Standard	-4° to 221°	-20° to 105°
Chemical Resistant	-40 to 221°	-40° to 105°
Mating Cycles No Load by Plating	Silver (Ag)	
Wire and Busbar Contacts	10,000	
Avg. Mating / Unmating Force	Lbf.	N
2 Pole	30	133
Min. Contact / Spring Retention Force	Lbf.	N
	150	667

Specifications continued on next page



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#### MATERIALS

Housing	
Standard Plastic Resin	Polycarbonate
Chem. Resistant Resin	Polycarbonate / PBT blend
Contact Retention Spring	Stainless Steel
Housing Flammability Rating	
UL94	V-0
Glow Wire	960°C (GWFI) / 800°C GWIT)
Wire & Busbar Contacts <sup>4</sup>	
Base	Copper Alloy
Plating	Silver
<b>Contact Termination Methods</b>	
Crimp <sup>3</sup>	Wire Contacts
Hand Solder	Wire Contacts
Wrench / Socket	Busbar Contacts

c







NOTE 1: See IEC 60664-1 for working voltage.

- 1 Based on: 105°C rated or better cable of the largest size. Properly calibrated APP® recommended tooling, and a 25°C ambient temperature. UL rating not to exceed the maximum operating temperature. CSA rating below a 30°C temperature rise.
- 2 Limited by the thermal properties of the connector plastic housing.

SP

- 3 Use APP® recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.
- 4 Has not been tested by UL.

### **IEC INFORMATION**

Connector Series	Configurations	Creepage / Clearance per IEC 60950-1	Material Group
SB® 350	Unmated	5.66 mm	Illa
28° 350	Mated	5.66 mm	IIId

PROTECTION		
Touch Safety	with Wire Contacts	
IEC 60529	IP10 unmated	TÜV Rissisland

ATTRIBUTES	SB® 350
AMP Rating AC/DC	350
Voltage Rating AC/DC (Steady State)	500 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	100 Amp / 10 cycles
Voltage Rating (Breaking Capacity)	125 VDC
Finger Safety - Mated Only	IEC 60529 - IP20
Wire Size Tested	120 mm²
Contact Series Tested	908
Climatic Testing (Cold, Heat & MFG)	IEC 60512 Test -11j, 11i & 11g
Cycle Life	IEC 60512 Test 9a - 5,000 Cycles
Mechanical Strength Impact	IEC 60512-5 @ 29.5 Inches - Dropped 8 Times
Temperature Range	-20 °C to 105 °C
	-4 °F to 221 °F

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### SB® 350 ACCESSORIES

#### Cable Clamps \*

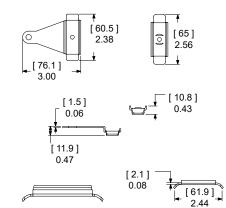
Durable metal cable clamps securely hold cables to prevent accidental strain or pulls from dislodging wire or contacts from the housing. Cable clamps are recommended for solder terminated wires.

	Cable	Size		
	Min / Max	Min / Max		
Description	Inches O.D.	mm O.D.	Part Number	
Minimum Quantity			10	
Bolt On for Discrete Conductor	1.00 to 0.35	25.4 to 8.8	996G1	996G1

\* Torque value 50 (in - lbs) / 5.6 (Nm)

NOTE: For assembly of clamp to housing only

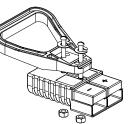
The given wire O.D. information is an estimate. Cable clamps should be evaluated for performance with the actual wire to be used.



#### Handles \*

Handles are made out of durable PC plastic. Hardware to attach to connector body included in kits.

Description	Part Numbers		
Minimum Quantity	100	25	
Gray Handle Kit	-	995G2	
Red Handle Kit	-	995G4	
Handle Only, Gray	3-5074P1	-	
Handle Only, Red	3-5074P3	-	
Handle Only, Black	3-5074P5	-	
Hardware Bag	-	106G7	



\* Torque value 50 (in - lbs) / 5.6 (Nm) NOTE: For assembly of clamp to housing only

#### **Dust Cover**

Prevents dust and dirt from entering the mating interface of the connector when unmated. NOTE: Not a Hermetic Seal.

Description	Part Numbers			
Minimum Quantity	500	50		
Dust Cover with Lanyard Strap, Red	113890P3	134G3		



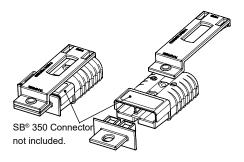
#### SB® 350 Lockout

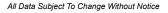
Works with standard lockout - tagout equipment to prevent access to the mating interface of the connector. Made from durable PC plastic.

 Description
 Part Number

 Minimum Quantity
 25

 Red Lockout - Tagout Kit
 SB350-LOCKOUT







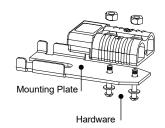
#### Manual Release Bracket - Mounting Side \*

Works with the Locking Side to ease mating and unmating connectors.

Description	Part Numbers				
Minimum Quantity	66	25	10		
Bracket and Hardware Kit	-	-	922G1		
Bracket Only	B00229P1	-	-		
Hardware Bag	-	106G6	-		

\* Torque value 50 (in - lbs) / 5.6 (Nm)

NOTE: For assembly of brackets to housing only



#### Manual Release Bracket - Locking Side with Cable Clamp \*

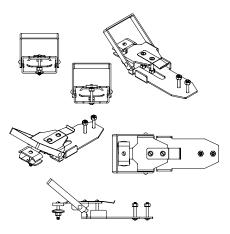
Works with the Mounting Side to ease mating and unmating connectors.

	Cable		
	Min / Max	Min / Max	
Description	Inches O.D.	mm O.D.	Part Number
Minimum Quantity			10
Bracket and Hardware Kit w/ Clamp Kit	0.94 to 0.61	23.7 to 15.5	919

\* Torque value 50 (in - lbs) / 5.6 (Nm)

NOTE: For assembly of bracket to housing only

The given wire O.D. information is an estimate. Cable clamps should be evaluated for performance with the actual wire to be used.



#### Manual Release Bracket - Locking Side no Cable Clamp \*

Part Number

10

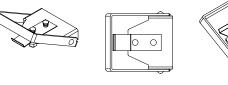
919G1

Works with the Battery side to ease mating and unmating connectors.

Description Minimum Quantity Bracket and Hardware Kit No Clamp Kit

\* Torque value 50 (in lbs) / 5.6 (N - M)

NOTE: For assembly of bracket to housing only

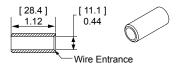




#### **Reducing Bushings: for Use with Contact Part Number 907**

Use with contact part number 907-BK to allow a smaller wire to be used with the connector. Electrical capability is derated with smaller wire.

Contact Barrel Size	Wire	Size				
AWG mm	AWG	mm²	Part Numbers			
Minimum Quantity			500	100		
2/0 67.4	1/0	53.5	5918-BK	5918		



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### SB<sup>®</sup> Tooling Information

Wire	e Size	Loose Piece Part Number	Loose Piece Contact Crimp Tools								
AWG	mm²	Silver Plating	Hand Tool	OR	Pneumatic Tool	+	Die	+	Locator	Number of Crimps	
	SB <sup>®</sup> 50										
		1307									
6	13.3	5900					1388G6		1389G6		
8	8.4	5952	1309G4		1387G1					Single	
10 to 12	5.3 to 3.3	5953					1388G7		1389G7		
10 10 12	5.5 10 5.5	5915					120001		129201		
	SB® 120										
1	42.4	1323G1					1388G3				
2	33.6	1319	1368 Series	1387G1				1389G4	Single		
4	21.2	1319G4				1388G4					
6	13.3	1319G6									
	1	1		SB® 1	75						
1/0	53.5	1382	-	1387G2							
1	42.4	1347	1368 Series			1303G13		1304G32	Double		
2	33.6	1383		1368 Series		138702		1202012		1504652	Double
4	21.1	1384									
6	13.3	1348			1387G1		1388G4		1389G3	Single	
				SB® 3	50						
350 mcm	185	910			N/A						
300 mcm	152	910									
4/0	107.2	908	1368 Series				1303G3			Double	
3/0	85	916			1387G2				1304G31	Double	
2/0	67.4	907			130/02		1303G12		1304031		
1/0	53.5	917	1								

NOTE: See website for the most current information.

### SB<sup>®</sup> 2/0 Tooling Information

Wire	e Size	Loose Piece Part Number	Loose Piece Contact Crimp Tools							
AWG	mm²	Silver Plating	Hand Tool	OR	Pneumatic Tool	+	Die	+	Locator	Number of Crimps
2/0	53.5	1328G1	1368		1387G2		1303G12		1304G32	Double

NOTE: See website for the most current information.

#### Your Best Connection<sup>™</sup>

#### 2020-0055 DS-SB350 REV C7

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