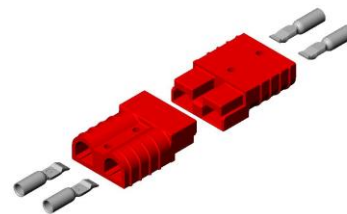


## TECHNICAL SPECIFICATION: QUICK DISCONNECT ASSEMBLY

**SB<sup>®</sup> HOUSING SB50-series**  
**LOOSE PIECE CONTACT CAT. NO. 5900**



### CONNECTOR MATERIAL PROPERTIES

Component	Property	Anderson Drawing Ref.
Housing	Polycarbonate, UL94 V0.	111923S1
Contact	Copper 99% min. (base metal)	B00376S
Plating	Silver 50 X 10 <sup>-6</sup> inches min.	N/A
Spring	Stainless Steel, 300 series	N/A

### ELECTRICAL PROPERTIES

Property	Standard/Method	Requirement	Typical Data
Rated Current	UL 1977	30°C Rise @ Rated Current	50 A per Pole with 6 AWG.
Rated Voltage	(see below)	(see below)	600 V Max. Rating
Dielectric Voltage Withstand	MIL-STD-202 301	No arcing, breakdown	Passed
Insulation Resistance	MIL-STD-202 302	50 X 10 <sup>7</sup> Ω Min.	>10 X 10 <sup>8</sup> Ω (Test Cond. B)
Initial Contact Resistance	MIL-STD-202 307	20 X 10 <sup>-3</sup> Ω Max.	<10 X 10 <sup>-3</sup> Ω
Temperature Rise	UL 498	30°C Rise @ Rated Current	30°C Rise, 50 A with # 6 AWG

### MECHANICAL PROPERTIES

Property	Standard/Method	Requirement	Typical Data
Contact Retention Force	UL 1977	20 lbf	> 50 lbf
Crimp Retention Force	UL 486A	(based on wire size)	Meets UL486A Pullout
Contact Barrel Wire Size	N/A	N/A	#6 AWG (see Note 3)
Max. Wire Insulation Dia.	N/A	N/A	.440 in. [11.2 mm] max.
Mechanical Shock	MIL-STD-202 213 Cond. A	20x10 <sup>-3</sup> Ω/no disc.> 1x10 <sup>-6</sup> s	Passed
Vibration	MIL-STD-202 204 Cond. A	20x10 <sup>-3</sup> Ω/no disc.> 1x10 <sup>-6</sup> s	Passed

### ENVIRONMENTAL CHARACTERISTICS (meets the following requirements):

Property / Test	Standard/Method	Requirement	Typical Data
Mixed Flowing Gas (Battelle II)	ASTM B827-92	20 X 10 <sup>-3</sup> Ω Max.	< 10 X 10 <sup>-3</sup> Ω
Operating Temperature Range	UL 1977	105°C Max.	-20 to 105°C (see Note 4)
Moisture Resistance	MIL-STD-1344, 1002.2, II	20 X 10 <sup>-3</sup> Ω Max.	< 10 X 10 <sup>-3</sup> Ω
Thermal Aging	MIL-STD-202-108 Con. C	20 X 10 <sup>-3</sup> Ω Max.	< 10 X 10 <sup>-3</sup> Ω
Temperature Cycling w/Humidity	5 to 65°C, 95%RH 150 cyc.	20 X 10 <sup>-3</sup> Ω Max.	< 10 X 10 <sup>-3</sup> Ω
Thermal Shock	MIL-STD-202, 107, A-3	20 X 10 <sup>-3</sup> Ω Max.	< 10 X 10 <sup>-3</sup> Ω

### NOTES:

1. Ratings/typical data is per mated pair.
2. See sheet 2 of this specification for contact and housing dimensions and Agency recognition/certification.
3. Other contact sizes are available for wire ranges from #6 AWG - #14 AWG. Contact Anderson Power Products for information.
4. This temperature range is based on the operating temperature range of the polycarbonate housing.

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