

ANDERSON
POWER
PRODUCTS

POWERCLAW



Quick disconnect

Tin-lead plated

Snap-On Interface

Fully insulated plastic housing

UL recognized and CSA approved

Hot Pluggable

Multiple color-coding and keying

Anti-static (ESD) packaging

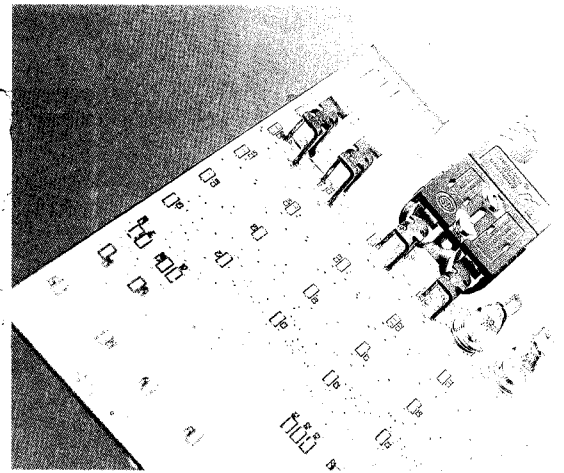
Vacuum packaging

The Powerclaw™

The Powerclaw™ series of connectors was designed to meet the high power requirements of the communications industry. The revolutionary three-claw attachment provides the contact surface-area needed for high board-level power. The contact is tin-lead plated to minimize contact resistance at high current and to ease soldering to the PCB.

In addition, Powerclaw's modular construction makes connecting and disconnecting a snap. The Powerclaw connectors allow a safe and convenient "hot swapping" when maintenance of the equipment is required. The connector's UL94V0 rated thermoplastic housing protects the operator, while the screw-less, snap-in connector system easily disconnects, eliminating the need for a professional electrician. These features make the Powerclaw connector system ideal for circuit card or cabinet applications because they facilitate equipment N+1 power redundancy.

The Powerclaw connectors can be mated with APP's standard 75-amp Powerpole, locking 75-amp Powerpole, and standard SB50 connectors. The single-pole configuration of the Powerclaw and Locking Powerclaw connectors is rated at 55 amps, while the two-pole SB Powerclaw connector is rated at 50 amps per pole. The high-power PCB Powerclaw connector joins APP's proven family of 25-amp PCB contacts, applicable in APP's 15/45 amp Powerpoles.



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PRODUCT INFORMATION

	PP Powerclaw	SB Powerclaw	Locking Powerclaw
Maximum Current (per Tin-Lead Contact)	55 amps	50 amps	55 amps
Maximum Voltage (AC or DC)	600 volts	600 volts	600 volts
Housing Material	Polycarbonate	Polycarbonate	Polycarbonate
Contact Material	Copper per ASTM-B-152	Copper per ASTM-B-152	Copper per ASTM-B-152
Contact Plating: Tin-Lead	.100 micro" 60/40 Pb-Sn over .050 micro" Ni	.100 micro" 60/40 Pb-Sn over .050 micro" Ni	.100 micro" 60/40 Pb-Sn over .050 micro" Ni
Contact Plating: Silver*	.100 micro Au over .050 micro" Ni	.100 micro Au over .050 micro" Ni	.100 micro Au over .050 micro" Ni
Mating/Unmating Forces	7 lb. Average	15 lb. Average	7 lb. Average
Suggested Board Thickness	.150" max.	.150" max.	.150" max.

*Silver is a custom option; Tin-lead plating is standard.

HIGH POWER PCB CONTACTS

Test Condition	Specification Tested to and Met:
Mechanical	
Sine Vibration	MIL-STD-1344, Method 2005, Test Condition I.
Mechanical Shock	MIL-STD-1344, Method 2004, Test Condition I.
Mating Force	APP Specification, 7 lb average mating force.
Durability	APP Specification, no base metal exposed after 50 cycles
Electrical	
Temperature Rise at rated current	UL 1977
Dielectric Voltage Withstand	MIL-STD-1344, Method 3001, Type 1.
Contact Resistance	MIL-STD-1344, Method 3004, Type 1.
Thermal	
Temperature Cycling	MIL-STD-1344, Method 1003, Test Condition A.
Humidity	MIL-STD-1344, Method 3001, Type 1.
Flammability	
PP-, LP-, SB-series	UL 94, 94V0.

PART NUMBER INFORMATION

PC <small>(Powerclaw)</small>	—	XXX <small>(Color)</small>	—	X <small>(Plating)</small>	—	XX <small>(Housing)</small>
		BLK-Black RED-Red BLU-Blue WHT-White GRY-Gray GRN-Green		T-Tin S-Silver		PP-Powerpole 75 amp LP-Locking Powerpole 75 amp SB-SB50 amp
Example: Blue 75 amp locking Powerclaw with tin plating (PC-BLU-T-LP)						
Powerclaw Mounting Staples						
				PC Staple 1 = 1 pole mounting staple		
				PC Staple 2 = 2 pole mounting staple		

POWERCLAW FEATURES

Quick disconnect avoids need for system maintenance or calibrated torquing

Tin-lead plated for easy soldering and minimal contact resistance at high current

Snap-On Interface ensures foolproof assembly and proper connection

Fully insulated plastic housing provides the user with a safe connection

UL recognized and CSA approved for certified workmanship and reliability

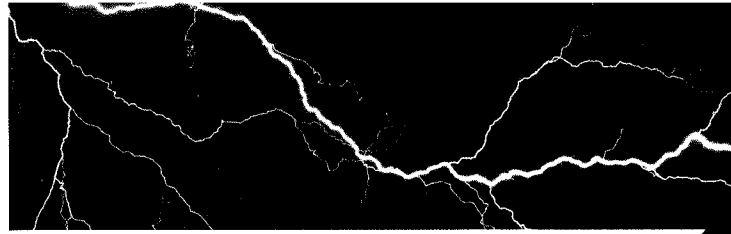
Meets UL hot-spark requirements so that equipment can be hot swapped

Mating connector accepts wire gauges from #10 to #6 for design flexibility

Multiple color-coding and keying provides design flexibility

Anti-static packaging meets electronics PCB requirements

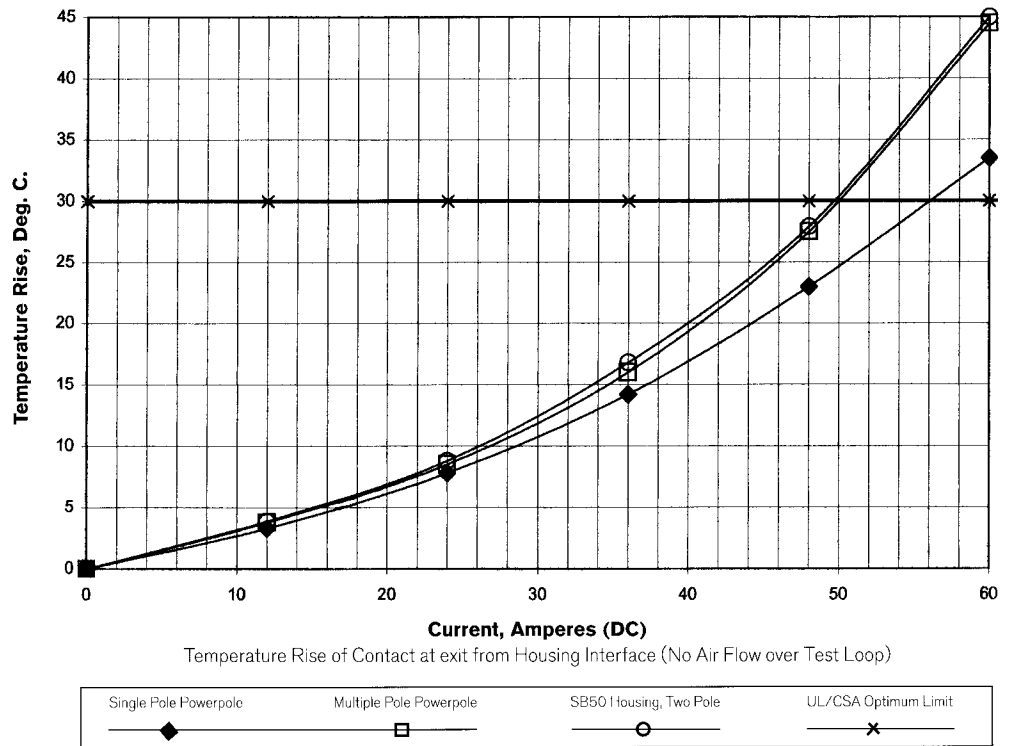
Vacuum packaging prevents tarnishing of contacts during shelf life



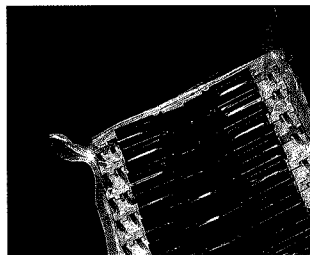
TEMPERATURE RISE

Temperature Rise at Constant Currents: Powerclaw™

Tested in Accordance with EIA 364-70, No enclosure, 25+/-5 deg. C. ambient
(#8 AWG Foil on Board Side, #6 AWG conductor on wire side, Contact Cat. No. 5900)



PACKAGING



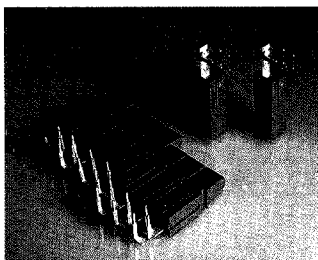
"Powerclaw Packaging"
(Orders will be shipped in silver, non-transparent, plastic bags.)

Powerclaw connectors (PP, Locking, SB) are packaged in ESD plastic and foam for easy assembly use compatible with the electronics market requirements. The packaging is vacuum sealed, which prevents any tarnishing or environmental reactions to occur on the contact. The vacuum pack is easily opened at assembly by puncturing the bag. Each bag will be labeled and bar-coded for convenient assembly count.

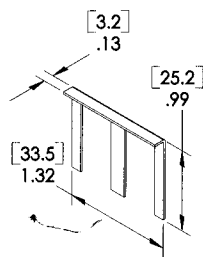
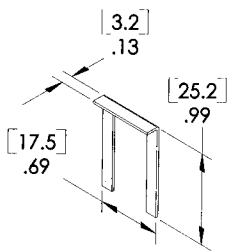
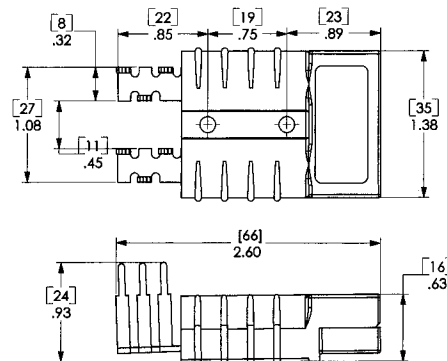
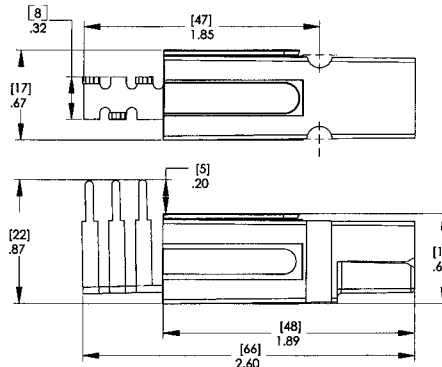
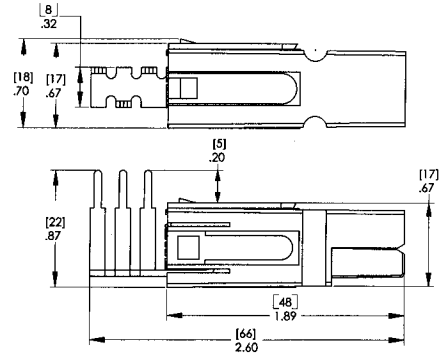
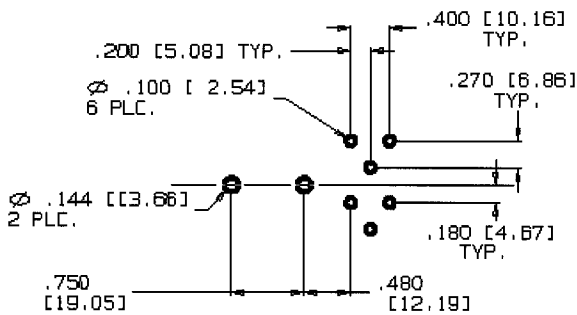
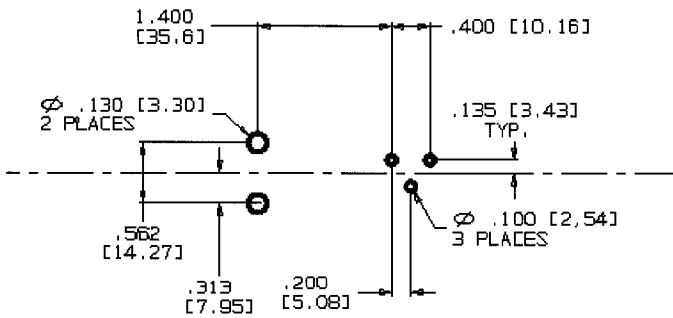
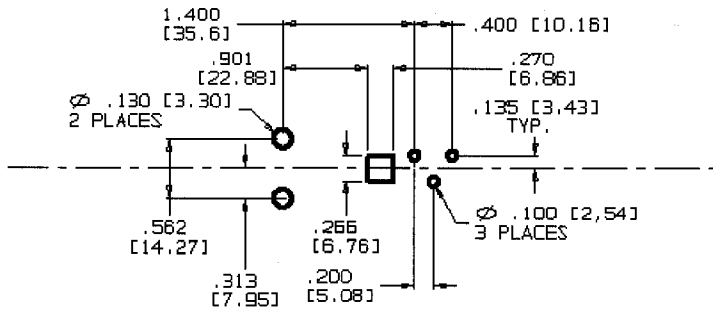
PACKAGING QUANTITIES

PP Powerclaw 20 per bag
Locking Powerclaw 20 per bag
SB Powerclaw 10 per bag

Modular high "Power to the Board"



P O W E R C L A W S P E C I F I C A T I O N S



GENERAL INSTALLATION INSTRUCTIONS

1. Install Powerclaw assembly onto circuit board and verify proper insertion of leads through the circuit board.
2. Slide staple over Powerclaw or Locking Powerclaw or insert mounting screws into SB Powerclaw* and insert into board.
3. Fasten staple by bending the leads on the opposite side of the board. Fasten screws by use of proper nuts on opposite side of board.
4. Verify that the edge of the Powerclaw contact touches the edge of the housing on the top face. This insures proper contact alignment in housing.
5. Solder circuit board leads by wave or hand soldering. We suggest performing solder reflow operations prior to insertion and installation of Powerclaw connectors.

* Screws not included in connector; suggested size 6-32UNC.

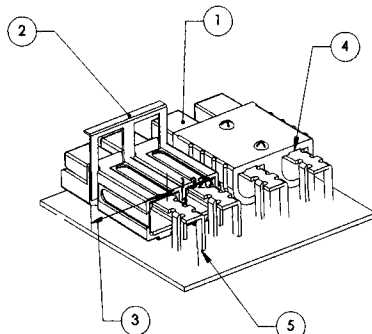
APP

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