

An IDEAL Company

Power Clip®
Connector Series

The Anderson Power Products Power Clip is designed as a low cost interconnection between two perpendicular power bus bars. The products high performance contact offers low voltage drop and superior amperage carrying capability. There is no mating connector to the Power Clip as it accepts a solid .125 inches or 3mm thick nickel or gold plated rectangular bus bar tab.

The product is often used in "N+1" rectifier, power supply and switching power supply applications. The Power Clip's design enables the connector to be blind mated in the deepest racks.

The Power Clip is recognized to UL1977 and CSA standard C22.2 and is rated for up to 300 amps continuous service. The product is also UL approved for hot plug current interruption of 100A at 48V and 200A at 42V using a gold plated bus bar tab.

#### **FEATURES**

### • High 300A Current Rating

Small size provides dense power packaging

#### Mates with .125 inches or 3mm Flat Bus Bar Blade

Simplifies construction and lowers cost

#### Blind Mating Design

Allows greater vertical chassis manufacturing tolerances

## Hot Pluggable Contact

Supports hot swapping on 48 volt DC bus

#### UL, TUV and CUR Recognized

Product safety and electrical performance has been verified to the highest standards



#### PRODUCT SPECIFICATIONS

Electrical		Mechanical		Materials	
Current Rating (Amperes) (1)		Insertion Force (lbs)	23 to 43	Housing	PBT UL94 V-0
UL	300	(N)	102 to 191	Contact Band	Beryllium copper alloy
CSA (30°C Rise)	200	Extraction Force (lbs)	10.5 to 30.5	Plating gold	0.4 to 0.6 microns over 2 to
UL / CSA Voltage Rating (AC/DC)	600	(N)	47 to 136		5 microns nickel
Operating Temperature Range		Mating		Contact Holder	Copper alloy
(C°) (F°)	-40° to 105° -40° to 221°	a. No Load ( mating cycles) b. Under Load (2)	500	Plating gold	0.1 to 0.2 microns
Average Contact Resistance (micro-ohm)	70	(Hot Plug 250 mating cycles @ 48V) (Hot Plug 250 mating cycles @ 42V)	100A 200A	(1) Ratings using nickel plated tab (2) Ratings using gold plated, solid copper tab    APP   C   S   III   IIII   III   III   III   III   III   III   III   III   III   III	

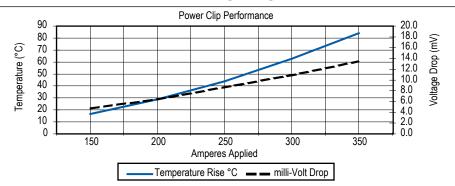
#### ORDERING INFORMATION

#### **Complete Connector**

Part

Number Description
PCL01 Power Clip Connector

#### TEMPERATURE CHART



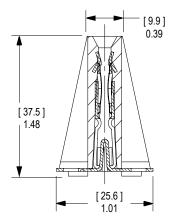
The graph shows the Power Clip electrical performance in terms of temperature rise and voltage drop at currents from 150A to 350A. The set up for the test consisted of the following:

• Six Power Clips were mounted on a bus bar that was 0.25 x 1.75 x 6.0 inches in diameter.

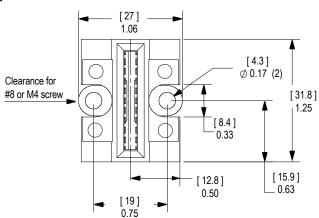
• The test samples were connected in series using 1/0 AWG wire attached to a 1" long and .125" thick nickel plated mating blades.

# **DIMENSIONS**

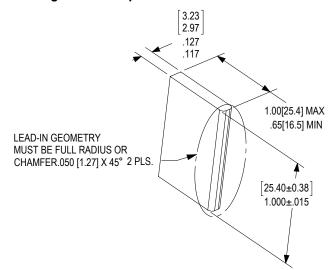
#### **Side View**



#### **Top View**



# **Mating Blade - Required Dimensions**



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