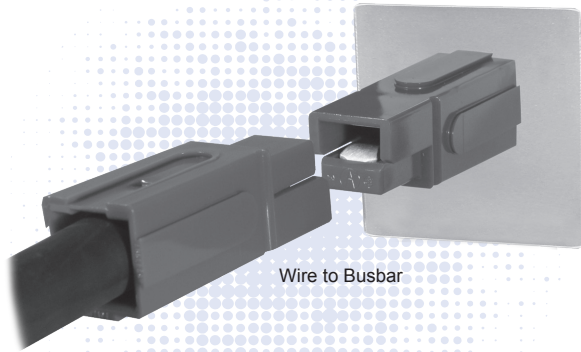


# Powerpole® Connectors - PP180: up to 350 Amps



PP180 are the largest of the Powerpole® series housings. They are designed to accommodate up to 3/0 (70 mm<sup>2</sup>) wires and handle high currents up to 350 amps. Busbar contacts are also available for power inputs and takeoffs. Color-coded housings minimize user confusion and the potential of cross mating circuits.

### Low Resistance Silver Plated Copper Contacts

- Allows currents up to 350 amps

### UL Rated for Hot Plugging up to 75 Amps

- Great for battery or other applications where the ability to interrupt circuits is required

### Busbar Contacts Work with Standard Housings

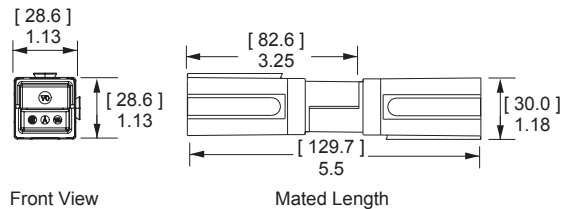
- Provides a hot swappable quick disconnect system for busbar power distribution

## | PP180 ORDERING INFORMATION |

### PP180 Housings

The largest Powerpole® housing can be used with wire contacts for up to 3/0 AWG [85mm<sup>2</sup>] or busbar contacts.

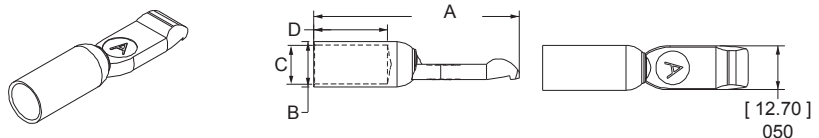
Description	----- Part Numbers -----	
Minimum Quantity ...	250	50
Red	1381G3-BK	1381G3
Green	1381G4-BK	1381G4
Black	1381G1-BK	1381G1
White	1381G2-BK	1381G2
Blue	1381-BK	1381



### PP180 Silver Plated Wire Contacts

Silver plated contacts offer superior electrical performance and durability up to 10,000 mating cycles. New contacts for 2/0 to 3/0 AWG (70 to 85 mm<sup>2</sup>) offer extended capability in the same housings. See Reducing bushings in accessory section for smaller wires.

AWG	mm <sup>2</sup>	Mating Force	----- Loose Piece Part Numbers -----				Dimensions							
			500	300	250	50	- A -		- B -		- C -		- D -	
Minimum Quantity						inches	mm	inches	mm	inches	mm	inches	mm	
3/0	85	Low	-	-	1328G2-BK	1328G2	2.35	59.69	0.70	17.78	0.58	14.73	1.04	26.42
2/0	67.4	Low	-	1328G1-BK	-	1328G1	2.35	59.69	0.64	16.26	0.49	12.45	1.04	26.42
1/0	53.5	High	1382-BK	-	-	1382	2.35	59.69	0.52	13.21	0.44	11.18	1.04	26.42
1	42.4	High	1347-BK	-	-	1347	2.35	59.69	0.52	13.21	0.39	9.91	1.04	26.42
2	33.6	High	1383-BK	-	-	1383	2.35	59.69	0.52	13.21	0.35	8.89	1.04	26.42
4	21.1	High	1384-BK	-	-	1384	2.35	59.69	0.52	13.21	0.30	7.62	1.04	26.42
6	13.3	High	1348-BK	-	-	1348	2.10	53.34	0.37	9.40	0.22	5.59	0.80	20.32

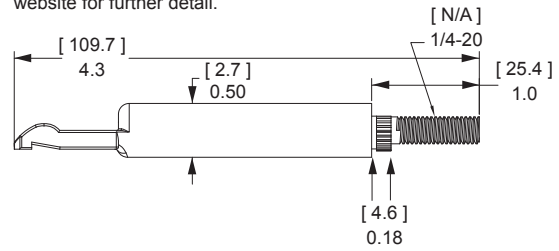


## PP180 Silver Plated Busbar Contacts

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 180BBS includes lock nuts. Locknuts must be ordered separately for 180BBS-BK.

Thread	Mating Force	----- Loose Piece Part Numbers -----		
Minimum Quantity		1,000	120	10
Busbar 1/4-20	High	180BBS-BK	180BBS	-
Lock Nut 1/4-20	N/A	H1216P7	110G56	110G55

See Busbar contact drawing on website for further detail.



## PP180 SPECIFICATIONS

### Electrical

Current Rating Amperes <sup>1</sup>	UL 1977	CSA
Singlepole (wire-wire) (3/0 AWG)	350	230
2x2 Block (wire-wire) (3/0 AWG)	350	
Singlepole (wire-busbar) (1/0 AWG)	180	
<b>Voltage Rating AC/DC</b>		
UL 1977	600	
<b>Dielectric Withstanding Voltage</b>		
Volts AC	2,200	
<b>Avg. Mated Contact Resistance Milliohms <sup>1</sup></b>		
6" of 1/0 AWG wire	0.100	
<b>UL Hot Plug Current Rating Amperes <sup>4</sup></b>		
250 cycles at 120V DC	75A	

### Mechanical

<b>Wire Size Range</b>	<b>AWG</b>	<b>mm<sup>2</sup></b>
Wire Contacts with Bushings	10 to 3/0	5.3 to 85
<b>Max. Wire Insulation Diameter</b>	<b>in.</b>	<b>mm</b>
	0.900	22.860
<b>Operating Temperature <sup>2</sup></b>	<b>°F</b>	<b>°C</b>
	-4° to 221°	-20° to 105°
<b>Mating Cycles No Load by Plating</b>	<b>Silver (Ag)</b>	
Wire and Busbar Contacts	10,000	
<b>Avg. Mating / Unmating Force</b>	<b>Lbf.</b>	<b>N</b>
Wire & Busbar Contacts	10	44
<b>Min. Contact / Spring Retention Force</b>	<b>Lbf.</b>	<b>N</b>
	120	534

### Materials

<b>Housing</b>	
Plastic Resin	Polycarbonate
Contact Retention Spring	Stainless Steel
<b>Housing Flammability Rating</b>	
UL94	V-0
Glow Wire	960°C (GWFI) / 850°C (GWIT)
<b>Contact</b>	
Base	Copper Alloy
Plating	Silver
<b>Contact Termination Methods</b>	
Crimp <sup>3</sup>	
Hand Solder	
Wrench / Socket*	

\*Busbar Contacts Only

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

NOTE 2: Amp ratings are stated per position and based on all positions being fully loaded.

<sup>1</sup> 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.

<sup>2</sup> Limited by the thermal properties of the connector plastic housing.

<sup>3</sup> Use APP recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.

<sup>4</sup> Based on 2 housings blocked together.



# IEC INFORMATION |

Connector Series	Configurations		Creepage / Clearance per IEC 60950-1	Material Group
PP180	Single Pole	Unmated	6.02 mm	IIIa
		Mated	6.02 mm	
	Stacked Powerpole®	Unmated	6.02 mm	
		Mated	6.02 mm	

Attributes	PP180
AMP Rating AC/DC	180
Voltage Rating AC/DC (Steady State)	500 V AC/DC (Operational)
Breaking Capacity -AMP Rating /Cycles	180 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC
FINGER Safety - Mated only	IEC 60529 - IP20
Wire Size tested	70 mm <sup>2</sup>
Contact Series Tested	1382G2
Climatic Testing (Cold,Heat & MFG)	IEC 60512 Test -11j, 11i & 11g,
Cycle Life	IEC 60512 Test 9a - 5000 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

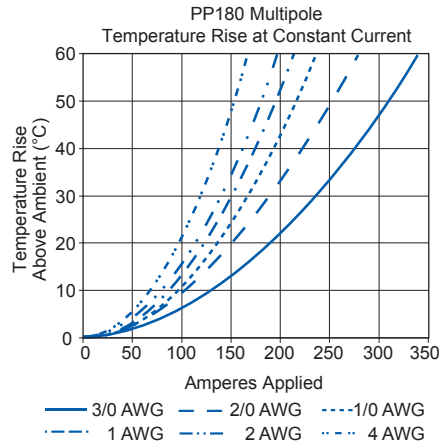
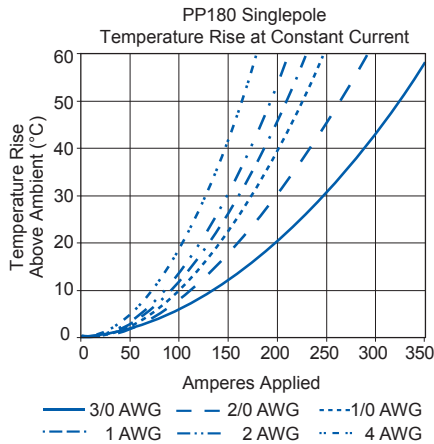
Protection
<b>Touch Safety with Wire Contacts</b>
IEC 60529 IP10

NOTE 3: Refer to the Constructional Data form for additional information on our website., [www.andersonpower.com](http://www.andersonpower.com)

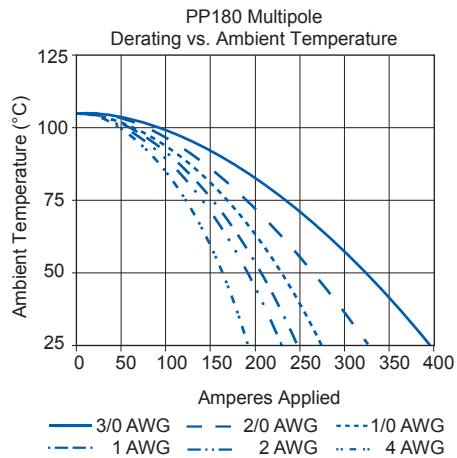
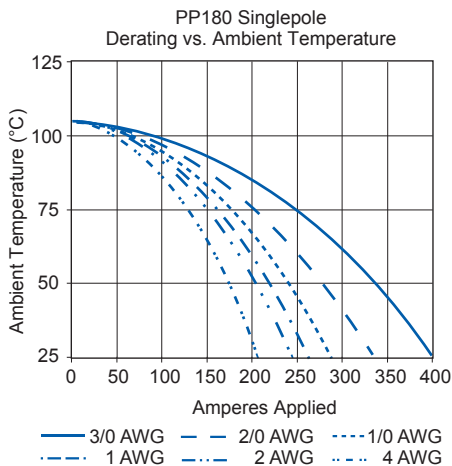


## PP180 TEMPERATURE CHARTS | Temperature rise charts are based on a 25°C ambient temperature.

For Temperature Rise Above 60°C, Consult the Extended Temperature Rise Charts in the Appropriate Product Section on the Website.



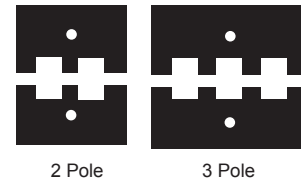
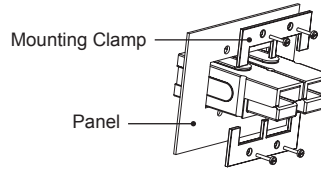
Current - Temperature Derating per IEC 60512-5-2 Test 5B



# | POWERPOLE® PP180 ACCESSORIES |

## Mounting Clamp

Mounting clamps can be used for fastening a block of Powerpole® 180 series housings to a panel. Connector blocks must be a complete square for the clamps to work properly. Fastening hardware not included.

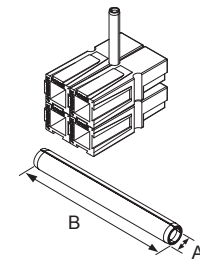


Description	- Part Numbers -
Minimum Quantity ...	20 sets of 2 .....
2 Pole	1465G1
3 Pole	1465G2

## Retaining Pins

Retaining pins are used to keep stacked Powerpole® 180 series housings from separating. Retaining pins are inserted in the circular opening between two housings stacked side by side. Dimension "B" is +/- .015 in or .38 mm.

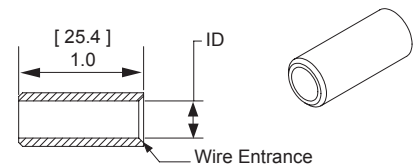
Description	Part Numbers		Dimensions			
			- A - inches		- B - mm	
Minimum Quantity ...	1,000	100				
1 Block High	111812P6	110G18	0.196 / 0.207	4.98 / 5.26	1.000	25.400
2 Block High	111812P8	110G20	0.196 / 0.207	4.98 / 5.26	1.500	38.100



## Reducing Bushings

Use with contact part number 1382-BK to allow a smaller wire to be used with the connector. Electrical capability is derated with smaller wire.

Contact Barrel Size	Wire Size	Part Numbers				Dimensions - ID -	
		1,500	1,000	500	100	inches	mm
1/0 AWG [53.5 mm²]	#1 AWG [42.4 mm²]	-	-	5687-BK	5687	0.39	9.91
1/0 AWG [53.5 mm²]	#2 AWG [33.6 mm²]	5690-BK	-	-	5690	0.34	8.64
1/0 AWG [53.5 mm²]	#4 AWG [21.2 mm²]	-	5693-BK	-	5693	0.27	6.86
1/0 AWG [53.5 mm²]	#6 AWG [13.3 mm²]	-	5663-BK	-	5663	0.22	5.59
1/0 AWG [53.5 mm²]	#10 - 8 AWG [5.3 - 8.4 mm²]	5648-BK	-	-	5648	0.19	4.83



For environmentally sealed connector shells to hold Powerpole® 15-180 connectors, see SPEC Pak® product series on our website, [www.andersonpower.com](http://www.andersonpower.com)



# Powerpole®

## - Tooling Information

Wire Size		Reeled Part Numbers		Reeled Contact Crimp Tool	
AWG	mm²	Tin Plating	Silver Plating	APP Applicator +	APP Press
<b>PP15 / 45 Flat Wiping Power &amp; Ground</b>					
#16 / 20	1.3 / 0.52	262G1	262G2	TD0101	115V= TE0101 230V = TE0102
#16 / 20	1.3 / 0.52	269G2	N/A		
#12 / 16	3.3 / 1.3	261G1	N/A		
#10 / 14	5.3 / 2.1	261G2	261G3		
#12 / 16	3.3 / 1.3	269G1	N/A		
#10 / 14	5.3 / 2.1	269G3	N/A		
#10 / 14	5.3 / 2.1	200G1L	200G3L	TD0102	
#10 / 14	5.3 / 2.1	201G1H	N/A		
#10 / 14	5.3 / 2.1	1830G1	1830G2		

\* APP applicators are mechanical feed style and do not require an air feed kit.

Wire Size		Loose Piece Part Numbers		Loose Piece Contact Crimp Tool				
AWG	mm²	Tin Plating	Silver Plating	Hand Tool Or	Pneumatic Bench Tool +	Die +	Locator	Number of Crimps
<b>PP15 / 45 Flat Wiping Power &amp; Ground</b>								
#16 / 20	1.3 / 0.52	N/A	1332	1309G2 or 1309G8	N/A	N/A	N/A	Single
#12 / 16	3.3 / 1.3	N/A	1331					
#16 / 20	1.3 / 0.52	262G1-LPBK	262G2-LPBK					
#16 / 20	1.3 / 0.52	269G2-LPBK	N/A	1309G3 or 1309G8	N/A	N/A	N/A	Single
#12 / 16	3.3 / 1.3	261G1-LPBK	N/A					
#10 / 14	5.3 / 2.1	261G2-LPBK	261G3-LPBK					
#12 / 16	3.3 / 1.3	269G1-LPBK	N/A	1309G6 or 1309G8	N/A	N/A	N/A	Single
#10 / 14	5.3 / 2.1	269G3-LPBK	N/A					
#10 / 14	5.3 / 2.1	200G1L-LPBK	200G3L-LPBK					
#10 / 14	5.3 / 2.1	201G1H-LPBK	N/A	1309G6 or 1309G8	N/A	N/A	N/A	Single
310 / 14	5.3 / 2.1	1830G1-LPBK	1830G2-LPBK					
<b>PP75</b>								
#6	13.3	N/A	1307	1309G4	1387G1	1388G6	1389G6	Single
			5900					
#8	8.4		1875G1				1389G21	
			5952				1389G6	
			1875G2				1389G21	
#10 / 12	5.3 / 3.3		5953				1389G6	
			5915				1389G21	
		1875G3						
<b>PP120</b>								
1/0	53.5	N/A	1323G2	1368 Series	1387G1	1388G3	1389G4	Single
#1	42.4		1323G1					
#2	33.6		1319					
#4	21.2		1319G4					
#6	13.3		1319G6					
<b>PP180</b>								
3/0	85	N/A	1328G2	1368 Series	1387G2	1303G12	1304G32	Double
2/0	53.5		1328G1					
1/0	53.5		1382					
#1	42.4		1347					
#2	33.6		1383					
#4	21.1		1384					
#6	13.3		1348					
						1387G1		

- NOTE: See website for the most current information.
- NOTE: Insertion / Extraction tool for PP15/45 contacts = 111038G2

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