

# Powerpole® Connectors

PP120 - Up to 240 Amps

POWERPOLE® PP120



PP120 series Powerpole® housings are designed to accommodate up to 1/0 AWG (50 mm<sup>2</sup>) wires and handle high currents up to 240 amps. Reducing bushings allow PP120 to accept down to 8 AWG (10 mm<sup>2</sup>) wires. Multiple colors of stackable housings combine with low resistance flat wiping technology to offer powerful connection capability.

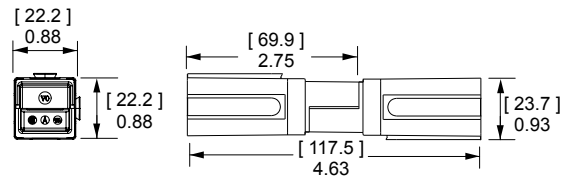
- Large Wire Range Accommodates up to 1/0 (50 mm<sup>2</sup>) Wire**  
*Reducing bushings allow as small as 8 (10 mm<sup>2</sup>) wire to be used*
- Low Resistance Silver Plated Copper Contacts**  
*Allows currents up to 240 amps*
- UL Rated for Hot Plugging up to 60 Amps**  
*Great for battery or other applications where the ability to interrupt circuits is required*

## PP120 ORDERING INFORMATION

### PP120 Housings

The second to largest Powerpole® housing can be used with wire contacts for up to 1/0 AWG (50 mm<sup>2</sup>) or busbar contacts.

Description	Part Numbers	
Minimum Quantity	500	50
Blue	1321-BK	1321
Black	1321G1-BK	1321G1
White	1321G2-BK	1321G2
Red	1321G3-BK	1321G3
Green	1321G4-BK	1321G4
Orange	1321G5-BK	1321G5
Brown	1321G6-BK	1321G6
Yellow	1321G7-BK	1321G7
Gray	1321G8-BK	1321G8

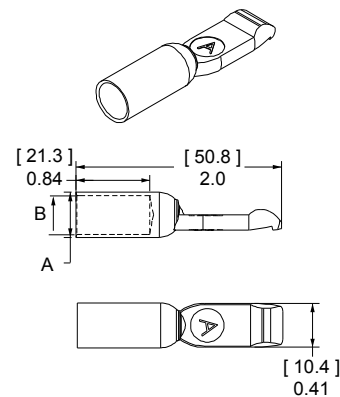


### PP120 Silver Plated Wire Contacts

Silver plated contacts offer superior electrical performance and durability up to 10,000 mating cycles. New contacts for 1 to 1/0 AWG (35 to 50 mm<sup>2</sup>) offer extended capability in the same housings. See reducing bushings in accessory section for smaller wires.

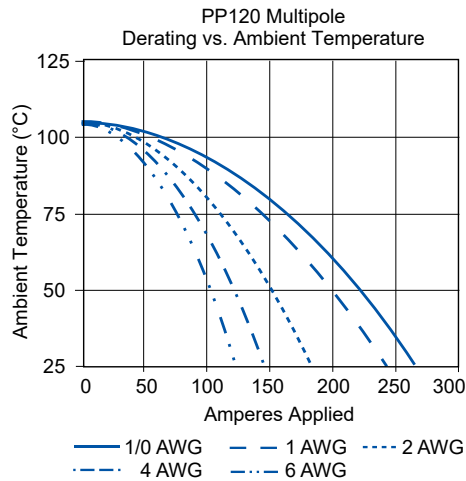
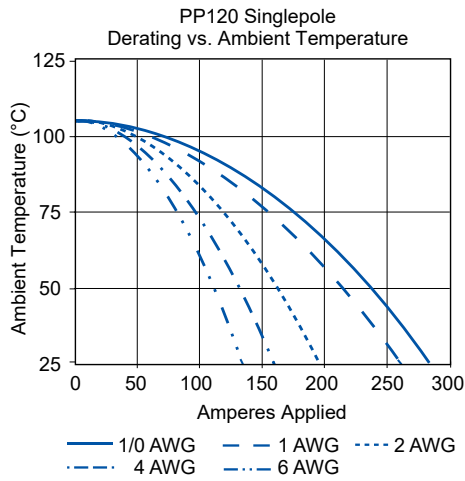
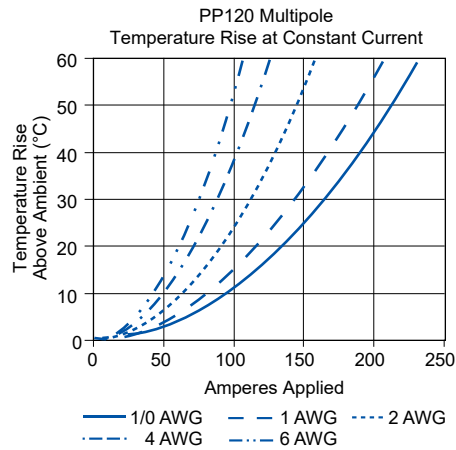
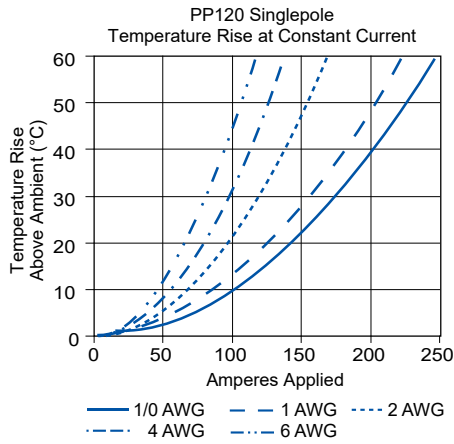
AWG	mm <sup>2</sup>	Mating Force	Loose Piece Part Numbers			- A -		- B -	
			600	500	50	inches	mm	inches	mm
1/0	53.5	Low	1323G2-BK	-	1323G2 *	0.52	13.21	0.44	11.18
1	42.4	Low	1323G1-BK	-	1323G1 *	0.47	11.94	0.39	9.91
2	33.6	High	-	1319-BK	1319	0.44	11.18	0.34	8.64
4	21.1	High	-	1319G4-BK	1319G4	0.44	11.18	0.29	7.37
6	13.3	High	-	1319G6-BK	1319G6	0.44	11.18	0.22	5.59

\* Extended range



# PP120 CONNECTOR TEMPERATURE CHARTS - Temperature rise charts are based on a 25°C ambient temperature.

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



POWERPOLE® PP120

# PP120 SPECIFICATIONS

## ELECTRICAL

<b>Current Rating Amperes <sup>1</sup></b>	<b>UL 1977</b>	<b>CSA</b>
Singlepole UL 1977 (1/0 AWG)	240	155
2x2 Block UL 1977 (1/0 AWG)	200	110
<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>		
5 1/2" of 2 AWG Wire	0.136	
<b>UL Hot Plug Current Rating Amperes <sup>4</sup></b>		
250 Cycles at 120V DC	60A	

## MATERIALS

### Housing

Plastic Resin	Polycarbonate
Contact Retention Spring	Stainless Steel

### Housing Flammability Rating

UL94	V-0
Glow Wire	960°C (GWFI) / 850°C (GWIT)

### Contact

Base	Copper Alloy
Plating	Silver

### Contact Termination Methods

Crimp <sup>3</sup>	Wire Contacts
Hand Solder	Wire Contacts

## MECHANICAL

<b>Wire Size Range</b>	<b>AWG</b>	<b>mm<sup>2</sup></b>
Wire Contacts with Bushings	10 to 1/0	5.3 to 53.5
<b>Max. Wire Insulation Diameter</b>	<b>in.</b>	<b>mm</b>
	0.600	15.240
<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 Contacts	10,000	
<b>Avg. Mating / Unmating Force</b>	<b>Lbf.</b>	<b>N</b>
	8	36
<b>Min. Contact / Spring Retention Force</b>	<b>Lbf.</b>	<b>N</b>
	60	267



File No. E26221



CSA Certified  
File No. LR25154



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.

- 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.
- 3 - Use APP® recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.
- 4 - Based on 2 housings blocked together.

## IEC INFORMATION

Connector Series	Configurations	Creepage / Clearance per IEC 60950-1	Material Group
PP120	Single Pole	Unmated	4.36 mm
		Mated	4.36 mm
	Stacked Powerpole®	Unmated	4.36 mm
		Mated	4.36 mm

## PROTECTION

### Touch Safety with Wire Contacts

IEC 60529	IP10
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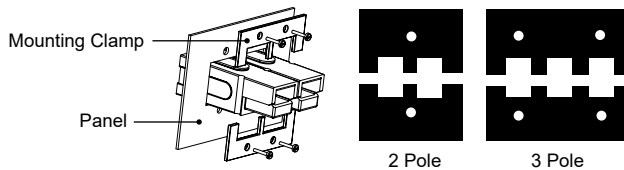
ATTRIBUTES	PP120
<b>AMP Rating AC/DC</b>	120
<b>Voltage Rating AC/DC (Steady State)</b>	400 V AC/DC (Operational)
<b>Breaking Capacity - AMP Rating / Cycles</b>	120 Amp / 10 Cycles
<b>Voltage Rating (Breaking Capacity)</b>	220 VDC
<b>FINGER Safety - Mated Only</b>	IEC 60529- IP20
<b>Wire Size Tested</b>	50 mm <sup>2</sup>
<b>Contact Series Tested</b>	1323G2
<b>Climatic Testing (Cold, Heat &amp; MFG)</b>	IEC 60512 Test- 11j, 11i & 11g
<b>Cycle Life</b>	IEC 60512 Test 9a- 5,000 Cycles
<b>Mechanical Strength Impact</b>	IEC 60512-5 @ 29.5 Inches-Dropped 8 times
<b>Temperature Range</b>	-20°C to 105°C -4°F to 221°F

# POWERPOLE® PP120 ACCESSORIES

## Mounting Clamp

Mounting clamps can be used for fastening a block of Powerpole® 120 series housings to a panel. Connector blocks must be a complete square for the clamps to work properly. Fastening hardware not included.

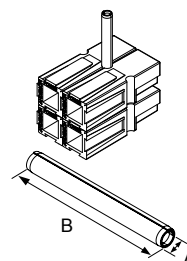
Description	Part Numbers
Minimum Quantity	20 sets of 2
2 Pole	1464G1
3 Pole	1464G2



## Retaining Pins

Retaining pins are used to keep stacked Powerpole® 120 series housings from separating. Retaining pins are inserted in the circular opening between two housings stacked side by side. Dimension B is +/- 0.015 in or 0.38 mm.

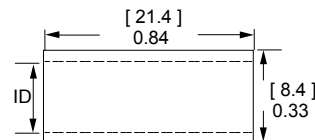
Description	Part Numbers		Dimensions			
			- A -		- B -	
	inches	mm	inches	mm	inches	mm
Minimum Quantity	1,000	100				
1 Block High	111812P7	110G19	0.196 / 0.207	4.98 / 5.26	0.560	14.220
2 Block High	111812P8	110G20	0.196 / 0.207	4.98 / 5.26	1.500	38.100



## Reducing Bushings

Use with contact part number 1319-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 -	
AWG	mm²	AWG	mm²				inches	mm
Minimum Quantity				2,000	1,000	100		
2	33.6	4	21.2	5919-BK	-	5919	0.28	7.11
2	33.6	6	16	-	5920-BK	5920	0.23	5.84
2	33.6	10 to 8	5.3 to 8.4	5921-BK		5921	0.18	4.57



NOTE: Combination of a bushing and contact is not UL approved.

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



# Powerpole®

Tooling Information - APP® Applicators are Mechanical Feed Style and do not Require an Air Feed Kit.

POWERPOLE® TOOLING

Wire Size		Loose Piece Part Number		Loose Piece Contact Crimp Tools							
AWG	mm <sup>2</sup>	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 to 20	1.3 to 0.52	N/A	1332	1309G2 or 1309G8							
12 to 16	3.3 to 1.3	N/A	1331								
16 to 20	1.3 to 0.52	262G1-LPBK	262G2-LPBK								
16 to 20	1.3 to 0.52	269G2-LPBK	N/A								
12 to 16	3.3 to 1.3	261G1-LPBK	N/A	1309G3 or 1309G8		N/A		N/A		N/A	Single
10 to 14	5.3 to 2.1	261G2-LPBK	261G3-LPBK								
12 to 16	3.3 to 1.3	269G1-LPBK	N/A								
10 to 14	5.3 to 2.1	269G3-LPBK	N/A	1309G6 or 1309G8							
10 to 14	5.3 to 2.1	200G1L-LPBK	200G3L-LPBK								
10 to 14	5.3 to 2.1	201G1H-LPBK	N/A								
310 to 14	5.3 to 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								
			5952								
			1875G2								
10 to 12	5.3 to 3.3		5953								
			5915								
			1875G3								
								1388G7		1389G6	
										1389G21	
<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								
								1388G4			
<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								
								1303G13			
						1387G1		1388G4		1389G3	Single

Insertion / Extraction Tool for PP15/45 Contacts = 111038G2

NOTE: see website for the most current information.

Wire Size		Reeled Part Number		Reeled Contact Crimp Tools		
AWG	mm <sup>2</sup>	Tin Plating	Silver Plating	APP® Applicator	+	APP® Press
<b>PP15/45 Flat Wiping Power &amp; Ground</b>						
16 to 20	1.3 to 0.52	262G1	262G2	TD0101		115V = TE0101 230V = TE0102
16 to 20	1.3 to 0.52	269G2	N/A			
12 to 16	3.3 to 1.3	261G1	N/A			
10 to 14	5.3 to 2.1	261G2	261G3			
12 to 16	3.3 to 1.3	269G1	N/A			
10 to 14	5.3 to 2.1	269G3	N/A			
10 to 14	5.3 to 2.1	200G1L	200G3L	TD0102		
10 to 14	5.3 to 2.1	201G1H	N/A			
10 to 14	5.3 to 2.1	1830G1	1830G2			

### Your Best Connection™

2020-0055 DS-PP120 REV C7

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