Powerpole[®] Connectors PP120 - Up to 240 Amps

PP120 ORDERING INFORMATION

PP120 Housings

The second to largest Powerpole® housing can be used with wire contacts for up to 1/0 AWG (50 mm²) or busbar contacts.

Description	Part Num	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 series Powerpole^{*} housings are designed to accommodate up to 1/0 AWG (50 mm²) wires and handle high currents up to 240 amps. Reducing bushings allow PP120 to accept down to 8 AWG (10 mm²) 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 mm²) Wire

Reducing bushings allow as small as 8 (10 mm²) 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 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 mm²) offer extended capability in the same housings. See reducing bushings in accessory section for smaller wires.

		Mating				- A	-	- E	3 -
AWG	mm²	Force	Loose I	Piece Part Nu	mbers	inches	mm	inches	mm
Minim	num Qua	antity	600	500	50				
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

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











PP120 SPECIFICATIONS

ELECTRICAL		
Current Rating Amperes ¹	UL 1977	CSA
Singlepole UL 1977 (1/0 AWG)	240	155
2x2 Block UL 1977 (1/0 AWG)	200	110
Voltage Rating AC/DC		
UL 1977	600	
Dielectric Withstanding Voltage		
Volts AC	2,200	
Avg. Mated Contact Resistance Milliohms ¹		
5 1/2" of 2 AWG Wire	0.136	
UL Hot Plug Current Rating Amperes ⁴		
250 Cycles at 120V DC	60A	

MECHANICAL		
Wire Size Range	AWG	mm²
Wire Contacts with Bushings	10 to 1/0	5.3 to 53.5
Max. Wire Insulation Diameter	in.	mm
	0.600	15.240
Operating Temperature ²	°F	°C
	-4° to 221°	-20° to 105°
Mating Cycles No Load by Plating	Silver (Ag)	
Wire Contacts	10,000	
Avg. Mating / Unmating Force	Lbf.	N
	8	36
Min. Contact / Spring Retention Force	Lbf.	N
	60	267



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 II	NFORM	ATION
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Contact Termination Methods

Connector Series	Configuration	15	Creepage / Clearance per IEC 60950-1	Material Group			
	Single Pole	Unmated	4.36 mm				
PP120		Mated	4.36 mm	Illa			
PP120	Stacked	Unmated	4.36 mm				
	Powerpole®	Mated	4.36 mm				
PROTECTION							
Touch Safety with Wire Contacts							

				Material	
Connector Series	Configuration	ıs	Clearance per IEC		AMP Ra
			60950-1	Group	Voltage
	Single Pole	Unmated	4.36 mm		Breaking
PP120		Mated	4.36 mm	- Illa	Voltage
11120	Stacked	Unmated	4.36 mm	ma	FINGER
	Powerpole®	Mated	4.36 mm		Wire Siz
PROTECTION					Contact
Touch Safety	with Wire Cont	acts _			Climatic
IEC 60529	IP10	TU	Reproved		Cycle Lif

Polycarbonate

Stainless Steel

Copper Alloy

Wire Contacts

Wire Contacts

960°C (GWFI) / 850°C (GWIT)

V-0

Silver

ATTRIBUTES	PP120
AMP Rating AC/DC	120
Voltage Rating AC/DC (Steady State)	400 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	120 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC
FINGER Safety - Mated Only	IEC 60529- IP20
Wire Size Tested	50 mm²
Contact Series Tested	1323G2
Climatic Testing (Cold, Heat & MFG)	IEC 60512 Test- 11j, 11i & 11g
Cycle Life	IEC 60512 Test 9a- 5,000 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

MATERIALS

Plastic Resin

Contact Retention Spring

Housing Flammability Rating

Housing

UL94

Contact

Base

Plating

Crimp³

- 50 -

Hand Solder

Glow Wire

4 PP www.andersonpower.com

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.

				Dimensions		
			- A -		- B	-
Description	Part Nu	mbers	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.

							Dimen	isions
Conta	ct Barrel Size	Wire S	Size				- ID) -
AWG	mm²	AWG	mm²	Pa	art Numbers		inches	s mm
Minim	um 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 <u>www.andersonpower.com</u>

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Powerpole®

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

AWGnm ^a Tin PlatingSilver PlatingHand ToolORBench+Die+Locatorof Cri16 0201.3 to 0.52N/A1332130962130962130962130962130962130962130962130962130962130962130962130962130962130962130962130962130962130962130963	Wire	e Size	Loose Piece	Loose Piece Part Number			Loose Piece Contact Crimp Tools						
16 to 20 13 to 0.52 N/A 1332 1309G2 of of 1309G2 of 1309G2 of 1309G3 1309G3 of 1309G	AWG	mm²	Tin Plating	Silver Plating	Hand Tool	OR	Bench	+	Die	+	Locator	Number of Crimps	
12 to 16 3.3 to 1.3 N/A 1331 130962 o''''''''''''''''''''''''''''''''''''				PP15 / 4	45 Flat Wiping	g Pow	er & Ground						
 	16 to 20	1.3 to 0.52	N/A	1332									
16 16 20 1.3 10.0.2 2621-1PK 2462-1PK 130968 1406 16 0.0 3.1 0.10 2662-1PK 26163-1PK 2616-	12 to 16	3.3 to 1.3	N/A	1331									
161020 1310.052 26962-LPBK N/A Image: Constraint of the section of the s	16 to 20	1.3 to 0.52	262G1-LPBK	262G2-LPBK									
1010 14 13 5.1 5.1251G2-LPBK 269G3-LPBK 3.3 to 1.3261G3-LPBK 269G3-LPBK 3.3 to 2.11010 269G3-LPBK 	16 to 20	1.3 to 0.52	269G2-LPBK	N/A									
1010 10 1010 111010 10 1010 111010 11 1010 111000 11 1000 111000 11 10	12 to 16	3.3 to 1.3	261G1-LPBK	N/A									
12 to 16 3.3 to 1.3 269G1-PBK N/A 1399G8 1399G8 1309G8 1309G8 14000 14000 5.3 to 2.1 259G3.1-PBK N/A 1309G8 1389G1 1389G1 <td< td=""><td>10 to 14</td><td>5.3 to 2.1</td><td>261G2-LPBK</td><td>261G3-LPBK</td><td></td><td></td><td>NI/A</td><td></td><td></td><td></td><td>NI / A</td><td>Single</td></td<>	10 to 14	5.3 to 2.1	261G2-LPBK	261G3-LPBK			NI/A				NI / A	Single	
101014 5.3 to 2.1 2693-14PK VA Image: Constraint of the section of the s	12 to 16	3.3 to 1.3	269G1-LPBK	N/A			N/A		N/A		N/A	Single	
10 to 14 5.3 to 2.1 201G1H-LPBK N/A 1309G6 or 300G8 Image: state sta	10 to 14	5.3 to 2.1	269G3-LPBK	N/A									
1010 14 5.3 to 2.1 2016 IH-IPK N/A or 310 to 14 5.3 to 2.1 1830G1-LPK 1830G2-LPK or	10 to 14	5.3 to 2.1	200G1L-LPBK	200G3L-LPBK									
310 to 14 5.3 to 2.1 1830G1-LPBK 1309G2-LPBK 1309G8 I	10 to 14	5.3 to 2.1	201G1H-LPBK	N/A									
6 13.3 1307 5900 138960 138960 8 8.4 187561 138961 138960	310 to 14	5.3 to 2.1	1830G1-LPBK	1830G2-LPBK									
6 13.3 5900 5900 138964 138964 138964 1389621 <td></td> <td>1</td> <td>1</td> <td></td> <td>PP7</td> <td>5</td> <td>1</td> <td></td> <td>1</td> <td></td> <td>1</td> <td>1</td>		1	1		PP7	5	1		1		1	1	
50059059076				1307									
no n	6	13.3		5900	_						1389G6		
10 to 12 5.3 to 3.3 Ia7562 Ia7562 Ia7562 Ia8761 Ia860 Ia89621	8	8.4		1875G1	_		1388G6	1388G6		1389G21	Cingle		
10 to 12 5.3 to 3.3 Image: state interval and image:				5952	100001		120701			1389G6			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			N/A	1875G2	1309G4	150904	138/G1				1389G21	Single	
5915 5915 138867 138867 1 <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<>	10 to 12			5953							100000		
1/0 53.5 1323G2 1323G1 1323G1 1388G3 1388G3 1388G4 1389G4 Single 2 33.6 N/A 1319 1368 Series 1387G1 1388G4 1389G4 Single 4 21.2 1319G4 1319G4 1319G4 1319G4 1388G4 1388G4 Single 3/0 85 1328G1 1328G1 1328G1 1387G2 1303G12 1303G12 1304G32 Doub 1/0 53.5 N/A 1347 1368 Series 1387G2 1387G2 1303G12 1304G32 Doub	10 10 12			5915					1388G7		1389G6		
1/0 53.5 1323G2 1323G1 1323G1 13863 13863 1388G3 1389G4 1389G4 <t< td=""><td></td><td></td><td></td><td>1875G3</td><td></td><td></td><td></td><td></td><td></td><td colspan="2">1389G21</td><td></td></t<>				1875G3						1389G21			
1 42.4 2 33.6 4 21.2 1319 1319G4 1319G4 1328G1 1328G1 1387G2 1303G12 1304G32 1304G32 Doub				_	PP12	20	1				1		
1 42.4 1323G1 1323G1 1368 Series 1387G1 Image: Constraint of the series of th	1/0	53.5		1323G2					1200.02				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1	42.4		1323G1					138863				
6 13.3 1319G6 I I I I I I I 3/0 85 1328G2 1328G1 1328G1 1303G12 1304G32 100ub 1 42.4 N/A 1347 1368 Series 1387G2 1387G2 1303G12 1304G32 100ub	2	33.6	N/A	1319	1368 Series		1387G1				1389G4	Single	
PP180 3/0 85 1328G2 1303G12 1303G12 2/0 53.5 1328G1 1382 1303G12 1303G12 1/0 53.5 1382 1387G2 1303G12 1304G32 1 42.4 N/A 1347 1368 Series 1387G2 100	4	21.2		1319G4					1388G4				
3/0 85 2/0 53.5 1/0 53.5 1 42.4 N/A 1347 1368 Series	6	13.3		1319G6									
2/0 53.5 1328G1 1303G12 1303G12 1/0 53.5 1382 1387G2 1304G32 Doub					PP18	30							
2/0 53.5 1328G1 1328G1 1382 1/0 53.5 1382 1387G2 1304G32 1 42.4 N/A 1347 1368 Series	3/0	85		1328G2					1202012				
1 42.4 N/A 1347 1368 Series 1387G2 1304G32 Doub	2/0	53.5		1328G1	1368 Series				1303012	1303G12			
1 42.4 N/A 1347 1368 Series	1/0	53.5		1382			120702				1204022	Double	
	1	42.4	N/A	1347			120/02		1202012		1304032	Double	
2 33.6 1383	2	33.6		1383					2196023				
4 21.1 1384	4	21.1		1384									
6 13.3 1348 1387G1 1388G4 1389G3 Single	6	13.3		1348			1387G1		1388G4		1389G3	Single	
Insertion / Extraction Tool for PP15/45 Contacts = 111038G2	Insertion /		ol for PP15/45 Co		2				1	1	1	-	

NOTE: see website for the most current information.

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Wire Size		Reeled Part Number		Reeled Contact Crimp Tools		
AWG	mm²	Tin Plating	Silver Plating	APP [®] Applicator	+	APP [®] Press
PP15/45 Flat Wiping Power & Ground						
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			

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