Powerpole[®] Connector PP180 - Up to 350 Amps



PP180 are the largest of the Powerpole^{*} series housings. They are designed to accommodate up to 3/0 (70 mm²) 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.

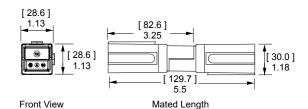
- Low Resistance Silver Plated Copper Contacts Allows currents up to 350 amps
- UL Rated for Hot Plugging up to 75 Amps Great for battery or other applications where the ability to interrupt circuits is required
- Busbar Contacts Work with Standard Housings
 Provides a hot swappable quick disconnect 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 (85 mm²) 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			



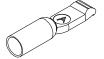
PP180 Silver Plated Wire Contacts

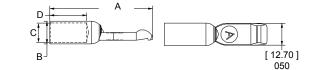
Silver plated contacts offer superior electrical performance and durability up to 10,000 mating cycles. New contacts for 2/0 to 3/0 AWG (70 to 85 mm²) offer extended capability in the same housings. See Reducing bushings in accessory section for smaller wires.

							Dimensions							
		Mating					- /	۹ -	- 1	В -	- (D -	- D -	-
AWG	mm²	Force	Lo	ose Piece Pa	rt Numbers		inches	mm	inches	s mm	inches	s mm	inches	mm
Minimu	ım Quar	ntity	500	300	250	50								
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

* Extended range

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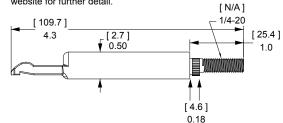


PP180 Silver Plated Busbar Contacts

Use 1 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.

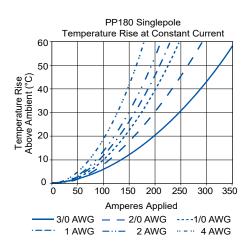
Thread	Mating Force	Loose Pie	ce Part Nur	nbers
Minimum Quantity		1,000	120	10
Busbar 1/4-20	High	180BBS-BK	180BBS	-
Lock Nut 1/4-20	N/A	H1216P7	110G56	110G55

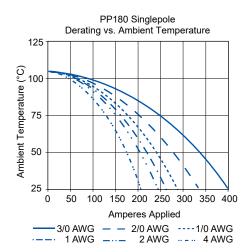
See Busbar contact drawing on website for further detail.

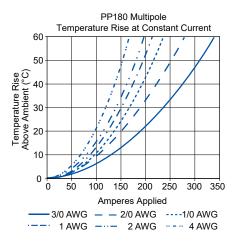


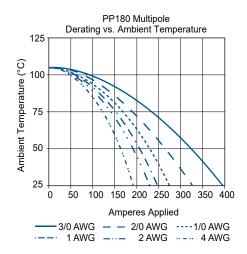
PP180 CONNECTOR TEMPERATURE CHARTS - Temperature rise charts are based on a 25°C ambient temperature.

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











PP180 SPECIFICATIONS

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

MECHANICAL		
Wire Size Range	AWG	mm²
Wire Contacts with Bushings	10 to 3/0	5.3 to 85
Max. Wire Insulation Diameter	in.	mm
	0.900	22.860
Operating Temperature ²	°F	°C
	-4° to 221°	-20° to 105°
Mating Cycles No Load by Plating	Silver (Ag)	Ν
Wire and Busbar Contacts	10,000	44
Avg. Mating / Unmating Force	Lbf.	Ν
Wire & Busbar Contacts	10	44
Min. Contact / Spring Retention Force	Lbf.	N
	120	534



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 ³	
Hand Solder	

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.

CSA Certified File No. LR25154 REACH

APP

V APF

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.

CSUS File No. E26226

* Busbar Contacts Only

Wrench / Socket *

IEC INFORMATION

Connector Series	Configuration	S	Creepage / Clearance per IEC 60950-1	Material Group
55400	Single Pole	Unmated	6.02 mm	
		Mated	6.02 mm	Illa
PP180	Stacked	Unmated	6.02 mm	IIId
	Powerpole [®]	Mated	6.02 mm	

PROTECTION

Touch Safety with Wire Contacts

IP10

IEC 60529



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 mm²
Contact Series Tested	1382G2
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

An Interact Comparison www.andersonpower.com

POWERPOLE[®] PP180

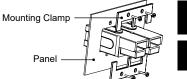
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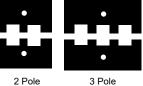
POWERPOLE® PP180 ACCESSORIES

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

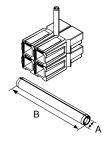




Retaining Pins

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.

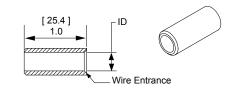
			Dimensions						
			- /	- B	-				
Description	Part Num	nbers	inc	mr	mm				
Minimum Quantity	1,000	100							
1 Block High	111812P6	110G18	0.196 / 0.207	4.98 / 5.26	1.000	25.400			
2 Block High	111812P8	110G20	0.196 / 0.207	4.98 / 5.26	1.500	38.100			



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							Dimen - ID		
AWG	mm²	AWG	mm²		Part Numbers				
Minimu	Im Quantity			1,500	1,000	500	100		
1/0	53.5	1	42.4	-	-	5687-BK	5687	0.39	9.91
1/0	53.5	2	33.6	5690-BK	-	-	5690	0.34	8.64
1/0	53.5	4	21.2	-	5693-BK	-	5693	0.27	6.86
1/0	53.5	6	13.3	-	5663-BK	-	5663	0.22	5.59
1/0	53.5	10 to 8	5.3 to 8.4	5648-BK	-	-	5648	0.19	4.83



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.

AWGmm ⁴ The PlatingSilver PlatingHand TooORBench*Die*Dicatorof I6161.3 to 0.52N/A1332130962130962130962131013101309621310130962131013096213101309621310130962131013096213101309621309631309	Wire Size		Loose Piece Part Number		Loose Piece Contact Crimp Tools							
16 to 20 1.3 to 0.52 N/A 1332 1309G2 0'' 1309G3	NG	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 13052 26261-PBK 26261-PBK 130962 130963				PP15 / 4	45 Flat Wiping	g Pow	er & Ground					
11.1 1.1 10 11.1 10 <td>to 20</td> <td>1.3 to 0.52</td> <td>N/A</td> <td>1332</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	to 20	1.3 to 0.52	N/A	1332								
16 1 2 0.0 1.3 1 0.0 1.5 0.0 20 0 0.0 1.7 0 0.0 1.7 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 0	to 16	3.3 to 1.3	N/A	1331	or 1309G8 1309G3 or 1309G8 1309G6							
161 to 20 26962-UBK N/A Image: Constraint of the sector o	to 20	1.3 to 0.52	262G1-LPBK	262G2-LPBK								
1010 14 5.3 to 2.1 26162-PBK 26163-PBK 130963 <	to 20	1.3 to 0.52	269G2-LPBK	N/A			N/A					
100 143.5 0 2.1200 10 K200 10 K200 10 K012 to 163.3 to 1.3269 G1-IPBKN/A1309 G81309 G8N/A	to 16	3.3 to 1.3	261G1-LPBK	N/A								
12 to 16 3.3 to 1.3 269G1-LPBK N/A 1309G8 10 to 14 5.3 to 2.1 269G3-LPBK N/A 10 to 14 5.3 to 2.1 200G1L-LPBK 200G3L-LPBK 1309G6 10 to 14 5.3 to 2.1 201G1H-LPBK N/A 1309G6 1309G6 10 to 14 5.3 to 2.1 201G1H-LPBK N/A 1309G6 10066 11006 310 to 14 5.3 to 2.1 1830G1-LPBK 1830G2-LPBK 1309G6 110066 11006 6 8.4 5950 1875G1 1388G6 1388G6 1389G6 10 to 12 5.3 to 3.3 1875G1 1387G1 1388G6 1389G6 10 to 12 5.3 to 3.3 1875G1 1387G1 1388G6 1389G6 10 to 12 5.3 to 3.3 1875G3 1387G1 1388G6 1389G6 10 to 12 5.3 to 3.3 1319 1368 1387G1 1388G6 1389G1 10 to 12 5.3 to 3.3 1319 13863 1387G1 1388G3 1389G1 10 to 12 5.3 to 3.3 1319G1 13866 1387G1	to 14	5.3 to 2.1	261G2-LPBK	261G3-LPBK					N/A		N/A	Single
101014 5.3 to 2.1 269G3-LPBK N/A - <	to 16	3.3 to 1.3	269G1-LPBK	N/A								
10 to 14 53 to 2.1 201G H-LPBK N/A 1309G6 1309G6 Image: Section of the secti	to 14	5.3 to 2.1	269G3-LPBK	N/A								
10 to 14 5.3 to 2.1 201G 11-LPBK IXA 0 1309G8 0 10	to 14	5.3 to 2.1	200G1L-LPBK	200G3L-LPBK								
310 to 14 3.5 to 2.1 1830G1-LPBK 1830G2-LPBK 130968 I	to 14	5.3 to 2.1	201G1H-LPBK	N/A								
6 13.3 1307 1307 1307 138960 138960 138961	0 to 14	5.3 to 2.1	1830G1-LPBK	1830G2-LPBK								
6 13.3 5900 5900 187561 5952 138761 5952 138761 5952 138761 138866 1389621 1389624			I		PP7	5	1		1		1	1
8.4 187561 138866 1389621 952 130964 138761 138866 1389621 10 to 12 5.3 to 3.3 167562 130964 138761 138867 138966 1389621 10 to 12 5.3 to 3.3 167562 130964 138761 138867 138966 138962 10 to 12 5.3 to 3.3 137563 137563 138867 138966 138966 10 to 12 5.3 to 3.3 132362 132361 138868 138863 138864 138964 514 10 to 12 53.5 131964 1368 Series 138761 138864 138964 514 10 to 12 53.5 131964 1368 Series 138761 138864 138964 514 10 to 12 131964 131964 138864 138864 138964 514 10 to 12 131964 131964 138864 138864 188964 514 10 to 12 131964 131964 138964 188964 188964 188964 188964 188964 188964 188964 <td< td=""><td></td><td></td><td></td><td>1307</td><td></td><td></td><td></td><td rowspan="8"></td><td rowspan="5">1388G6</td><td></td><td></td><td></td></td<>				1307					1388G6			
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10 to 12 5.3 to 3.3 187562 138964 138761 4.4 1389621 1389624 1		8.4		1875G1	1309G4						1389G21	
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		5.3 to 3.3		1875G2							1389G21	
5915 5915 138867 138867 100 1389621 187563 187563 1389621 1389621 1389621 100 53.5 132362 132361 138867 138863 138863 138964 1	to 12			5953					1388G7		100000	
1/0 53.5 1323G2 1323G1 1388G3 1388G3 1388G4 1389G4				5915							139900	
				1875G3							1389G21	
1 42.4 2 33.6 4 21.2 5 1319G4 1319G4 1319G4 1319G4 1388G4 1319G4 1388G4 1319G4 1319G4 1319G6 1388G4 1319G4 1319G4 1319G4 1319G4 1319G4 1319G4 1319G4 1319G6			1	_	PP12	20	1					
1 42.4 2 33.6 4 21.2 5 1319G4 1319G4 1319G4 1319G4 1319G4 1319G4 1319G4 1319G6 1388G4 1319G6 1388G4 1319G6 1388G4 1319G6 1388G4 1319G6 1388G4	0	53.5		1323G2	1368 Series	1:	1387G1		1200.02			
4 21.2 131964 138864 6 13.3 131966 138864		42.4	N/A	1323G1					138863			
6 13.3 1319G6 I		33.6		1319				1388G4			1389G4	Single
PP180 3/0 85 1328G2		21.2		1319G4					1388G4			
3/0 85 1328G2 1303G12		13.3		1319G6								
1303G12					PP18	30						
2/0 53.5 1328G1	D	85	N/A	1328G2	1368 Series		1387G2		1202012		1304G32	Double
	D	53.5		1328G1					1303012			
1/0 53.5 1382 1387C2 1387C2 1304C32 Da	D	53.5		1382					1303G13			
1 42.4 N/A 1347 1368 Series		42.4		1347								
2 33.6 1383		33.6		1383								
4 21.1 1384		21.1		1384								
6 13.3 1348 1387G1 1388G4 1389G3 Sin		13.3		1348			1387G1		1388G4		1389G3	Single
Insertion / Extraction Tool for PP15/45 Contacts = 111038G2			ol for PP15/45 Co		2	1			1	1	1	

NOTE: see website for the most current information.

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Wir	e Size	Reeled Pa	rt 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			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	TD0101							
10 to 14	5.3 to 2.1	261G2	261G3	100101							
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								
10 to 14	5.3 to 2.1	201G1H	N/A	TD0102							
10 to 14	5.3 to 2.1	1830G1	1830G2								

Your Best Connection™

2020-0055 DS-PP180 REV C7

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