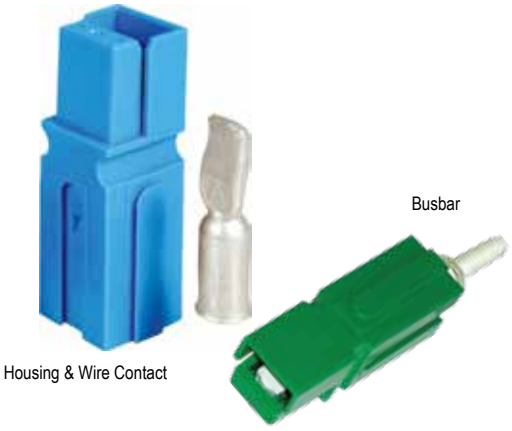
Powerpole® Connector

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.

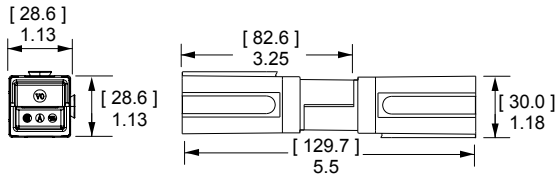
- **Low Resistance Silver Plated Copper Contacts**
  Allows currents up to 350 amps
- **UL Rated for Hot Plugging up to 75 Amps**
  Great for battery or other applications where the ability to interrupt circuits is required
- **Busbar Contacts Work with Standard Housings**
  Provides a hot swappable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

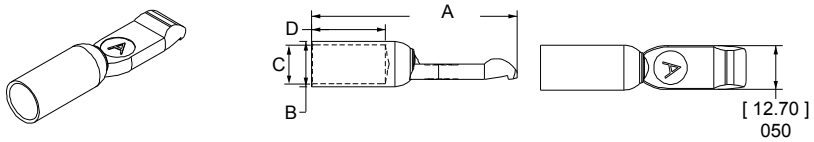


PP180 Silver Plated Wire Contacts

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					- A -		- B -		- C -		- D -	
AWG	mm²	Force	Loose Piece Part Numbers				inches	mm	inches	mm	inches	mm	inches	mm
Minimum Quantity			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

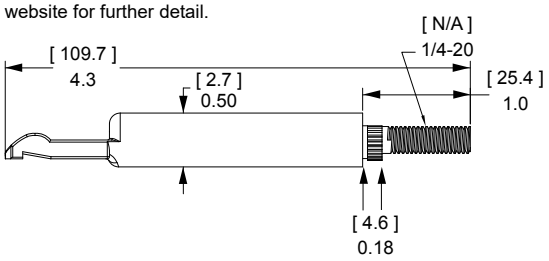


PP180 Silver Plated Busbar Contacts

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.

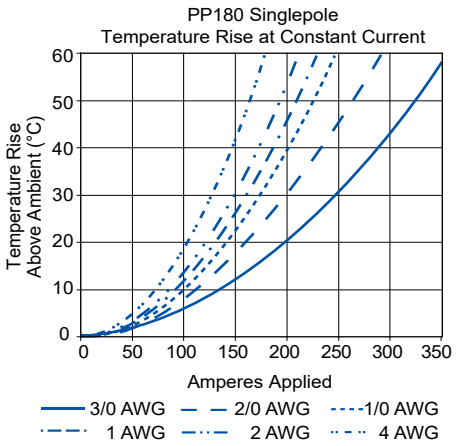
Thread	Mating Force	Loose Piece Part Numbers		
Minimum Quantity		1,000	120	10
Busbar 1/4-20	High	180BBS-BK	180BBS	-
Lock Nut 1/4-20	N/A	H1216P7	110G56	110G55

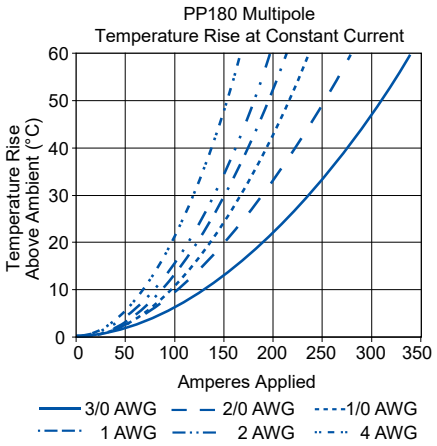
See Busbar contact drawing on website for further detail.

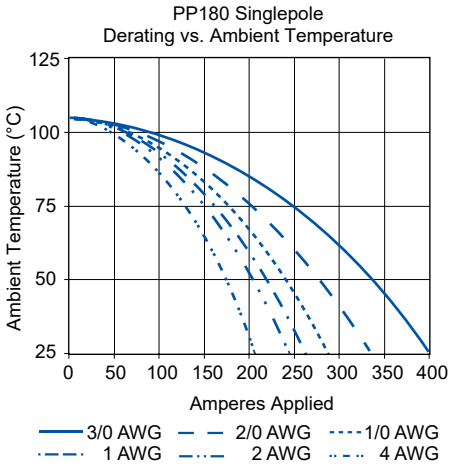


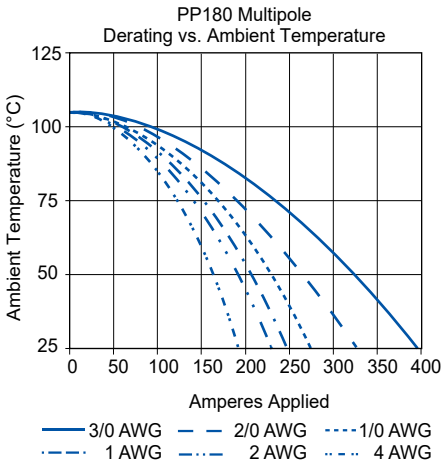
PP180 CONNECTOR TEMPERATURE CHARTS - Temperature rise charts are based on a 25°C ambient temperature.

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)**	**N**
Wire and Busbar Contacts	10,000	44
Avg. Mating / Unmating Force	**Lbf.**	**N**
Wire & Busbar Contacts	10	44
Min. Contact / Spring Retention Force	**Lbf.**	**N**
	120	534

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 [3]	
Hand Solder	
Wrench / Socket *	

* Busbar Contacts Only

c UL us File No. E26226 © 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
PP180	Single Pole	Unmated	6.02 mm	IIIa
		Mated	6.02 mm	
	Stacked Powerpole®	Unmated	6.02 mm	
		Mated	6.02 mm	

PROTECTION	
Touch Safety with Wire Contacts	
IEC 60529	IP10

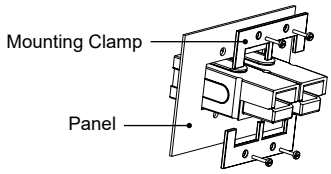
ATTRIBUTES	PP180
AMP Rating AC/DC	180
Voltage Rating AC/DC (Steady State)	500 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	180 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC
FINGER Safety - Mated Only	IEC 60529 - IP20
Wire Size Tested	70 mm²
Contact Series Tested	1382G2
Climatic 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

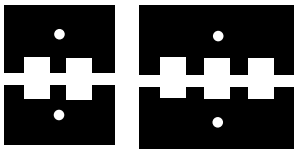
POWERPOLE® PP180 ACCESSORIES

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

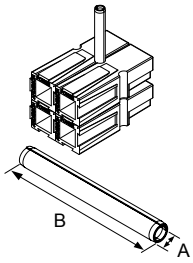




Retaining Pins

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		Dimensions - 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

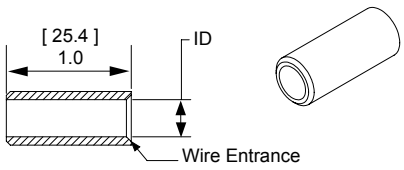


Reducing Bushings

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 AWG	Contact Barrel Size mm²	Wire Size AWG	Wire Size mm²	Part Numbers				Dimensions - ID - inches	Dimensions - ID - mm
Minimum 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 www.andersonpower.com

Powerpole®

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

Wire Size		Loose Piece Part Number		Loose Piece Contact Crimp Tools							
AWG	mm²	Tin Plating	Silver Plating	Hand Tool	OR	Pneumatic Bench Tool	+	Die	+	Locator	Number of Crimps
PP15 / 45 Flat Wiping Power & Ground											
16 to 20	1.3 to 0.52	N/A	1332	1309G2 or 1309G8		N/A		N/A		N/A	Single
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							
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								
10 to 14	5.3 to 2.1	200G1L-LPBK	200G3L-LPBK	1309G6 or 1309G8							
10 to 14	5.3 to 2.1	201G1H-LPBK	N/A								
310 to 14	5.3 to 2.1	1830G1-LPBK	1830G2-LPBK								
PP75											
6	13.3	N/A	1307	1309G4		1387G1		1388G6		1389G6	Single
			5900								
8	8.4		1875G1							1389G21	
10 to 12	5.3 to 3.3		5952							1389G6	
			1875G2							1389G21	
			5953					1388G7		1389G6	
			5915								
			1875G3							1389G21	
PP120											
1/0	53.5	N/A	1323G2	1368 Series		1387G1		1388G3		1389G4	Single
1	42.4		1323G1								
2	33.6		1319					1388G4			
4	21.2		1319G4								
6	13.3		1319G6								
PP180											
3/0	85	N/A	1328G2	1368 Series		1387G2		1303G12		1304G32	Double
2/0	53.5		1328G1								
1/0	53.5		1382					1303G13			
1	42.4		1347								
2	33.6		1383								
4	21.1		1384								
6	13.3		1348			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	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			

Your Best Connection™

2020-0055 DS-PP180 REV C7

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