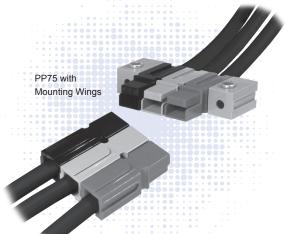
Powerpole[®] Connectors - PP75: up to 120 Amps



PP75 series Powerpole[®] housings can be used for wire-to-wire, wire-to-board, and wire-to-busbar applications. Wire sizes from #16 AWG (1.3 mm²) to #6 (13.3 mm²) offer power capabilities up to 120 amps per pole. Locking housings offer the capability to secure Powerpole[®] housings to each other and to mounting pads. Housings made from chemical resistant (CR) resin withstand industrial solvents better than standard housings.

- Large Wire Range Accommodates up to #6 (10mm²) Wire Reducing bushings allow as small as #16 (1.5 mm²) wire to be used
- Wire, PCB, and Busbar Contacts Allows one connection system to meet multiple needs
- Mini-Powerclaw PCB Contacts Minimize PCB Footprint Removes the PP75 housing from the board side

| PP75 ORDERING INFORMATION |

PP75 Standard Housings

The second smallest Powerpole[®] housing can be used with wire contacts up to 6 AWG [10mm²] as well as PCB and busbar contacts.

Description	Part Numbers			
Minimum Quantity	. 1,000	100		
Red	5916G7-BK	5916G7		
Green	5916G6-BK	5916G6		
Black	5916G4-BK	5916G4		
White	5916G5-BK	5916G5		
Blue	5916-BK	5916		
Yellow	5916G15-BK	5916G15		
Orange	5916G14-BK	5916G14		
Gray	5916G16-BK	5916G16		

PP75 Chemical Resistant (CR) Housings

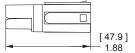
Has the same form and dimensions of the standard PP75 housing in a chemical resistant PBT/ PC blend housing. Suitable for use to -40° C.

Description	- Part Numbers -				
Minimum Quantity	1,000				
Red	P5916G7-BK				
Black	P5916G4-BK				
White	P5916G5-BK				
Blue	P5916-BK				

PP75 Locking Dovetail Housings

Offers dovetails for stacking housings that have a locking feature to prevent housings separating. Can mate to standard and chemical resistant housings, but cannot be stacked with them.

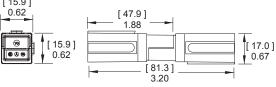
Description	Part Numbers			
Minimum Quantity	1,000	100		
Red	75LOKRED-BK	75LOKRED		
Green	75LOKGRN-BK	75LOKGRN		
Black	75LOKBLK-BK	75LOKBLK		
White	75LOKWHT-BK	75LOKWHT		
Blue	75LOKBLU-BK	75LOKBLU		
Gray	75LOKGRA-BK	75LOKGRA		



standard PP75 The sec

SECTION 2

bar contacts.



Front View

Mated Length

Material ID Located Here

(vo) (A) (D) V0 = Standard P = Chemical Resistant



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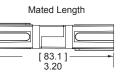


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PP75 Premate Ground Housings

Offers a first-mate, last-break connection when stacked together with PP75 housings. Stacks together with PP75 standard and chemical resistant housings. Housings are mechanically keyed to prevent cross mating with power positions.

Description	Part Numbers			
Minimum Quantity	1,000	100		
Green	5927G6-BK	5927G6		



[30.0]

1.18

[11.1]

0.44

A

[7.2]

0.28



P

[7.1]

0.28

PP75 Silver Plated Wire Contacts

Silver plated contacts offer the best electrical performance and durability up to 10,000 mating cycles. See reducing bushings in accessory section for smaller wires.

					Dimens	sions
		Mating	Loose	Piece	- 4	A -
AWG	mm²	Force	Part Nu	mbers	inches	mm
Minimum (Quantity		1,000	100		
6	13.3	Low	1307-BK	1307	0.22	5.59
6	13.3	High	5900-BK	5900	0.22	5.59
8	8.4	High	5952-BK	5952	0.19	4.83
12 to 10	3.3 to 5.3	Low	5953-BK	5953	0.14	3.56
12 to 10	3.3 to 5.3	High	5915-BK	5915	0.14	3.56



Silver plated contacts for use with the PP75 Premate Ground Housing. Rated to 10,000 mating cycles.

					Dimens	ions
			Loose F	liece	- A	-
Туре	AWG	mm²	Part Nun	nbers	inches	mm
Minimum Q	uantity		1,000	100		
Individual	6	13.3	1875G1-BK	1875G1	0.22	5.59
Individual	8	8.4	1875G2-BK	1875G2	0.19	4.83
Individual	12 to 10	3.3 to 5.3	1875G3-BK	1875G3	0.14	3.56

PP75 Silver Plated Busbar Contacts

Provide a quick disconnect input or output busbar connection. Busbar contacts are for mating with wire contacts only. Part number 75BBS includes lock nuts. Locknuts must be ordered separately for B01915P1.

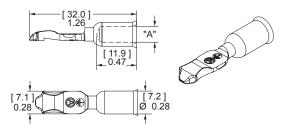
		Mating			
Туре	Thread	Force	P	art Numbers	3
Minimum (Quantity		1,000	20	10
Busbar	#10-24	High	B01915P1	-	75BBS
Lock Nut	#10-24	-	H1216P8	110G54	-

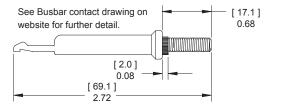
55A Right Angle Standard Powerclaw PCB Contacts

Standard Powerclaw contacts are for use inside a PP75 housing and provide a color coded right angle connection to the PCB.

Description Minimum Quantity Tin Plated Silver Plated		Part Numbers 100 PC5930T PC5930S	[5.2] 0.20 [22.2] (22.2] (0.87 () (22.2) () (22.2) () (22.2) () (22.2) () (22.2) () () () () () () () () () () () () ()	[1 0 [48.0] [66.0] 2.60 Second housing and	17.0] 0.67		PP75 Housing Standard Powerclaw Contact
--	--	---	--	---	----------------	--	--

in two pole version only.







- 33 -

55A Right Angle Mini Powerclaw PCB Contacts

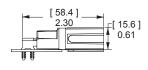
Right angle Mini Powerclaw contacts can be used on the PCB edge without a PP75 housing on the PCB side. A self polarizing design only allow PP75 wire housings to mate to PCB contacts one way.

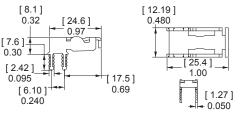
	Loose Piece			
Description	Part Numbers			
Minimum Quantity	1,000	100		
Tin Plated	PC5934T-BK	PC5934T		
Silver Plated	PC5934S-BK	PC5934S		

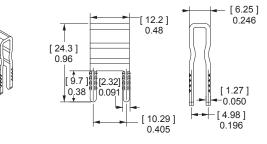
55A Vertical Mini Powerclaw PCB Contacts

Vertical Mini Powerclaw contacts save space by not requiring a PP75 housing on the PCB side. The guide housing is required for 2 pole applications to provide a polarized connection. (See PP75 accessories).

Description	Loose Piece Part Numbers		
Minimum Quantity .	1,500 100		
Tin Plated	PC5933T-BK	PC5933T	
Silver Plated	PC5933S-BK	PC5933S	

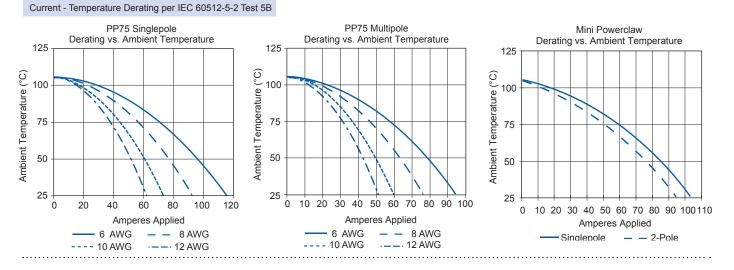




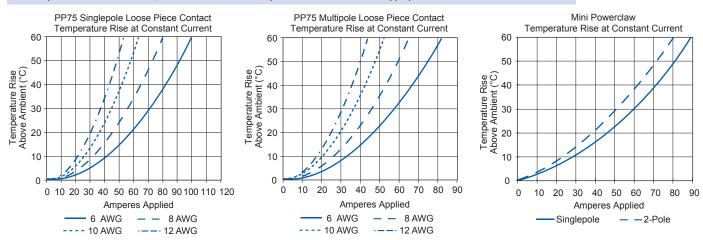


See PCB contact drawing on website for further detail.

Temperature rise charts are based on a 25°C ambient temperature.







NOTE: Powerclaw charts are based on #8 AWG equivalent copper foil on board side, mated to #6 AWG conductor on wire side.

PP75 TEMPERATURE CHARTS |

www.andersonpower.com

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| PP75 SPECIFICATIONS |

Electrical		Mechanical		
Current Rating Amperes 1	UL 1977 CSA	Wire Size Range	AWG	mm²
Wire to Wire (6 AWG)	120 70	Wire Contacts with Bushings	16 to 6	1.3 to 7
Wire to PCB (6-AWG)	55 50			
Wire to Busbar (6 AWG)	75	Max. Wire Insulation Diameter	in.	mm
			0.437	11.100
Voltage Rating AC/DC				
UL 1977	600	Operating Temperature ²	°F	°C
		Standard & Ground	-4° to 221°	-20° to
PCB Connector Recommende	ed Voltage ³	Chemical Resistant*	-40 to 221°	-40° to
per IEC 60950-1 Table 2L Poll	-	*Chemical resistant material not availabl	e for PCB guide housings	
Mini Vert. Contact Adjacent Po				
Mini Horiz. Contact Adjacent P		Mating Cycles No Load by Plating	Silver (Ag)	Tin (Sn
Standard Contact Adjacent Poles 635		Wire and PCB Contacts	10,000	1,500
Dielectric Withstanding Voltag	ge	Avg. Mating / Unmating Force	Lbf.	N
Volts AC	2,200	Wire to Wire Low Force Contacts	5	22
		Wire to Wire High Force Contacts	7	31
Avg. Mated Contact Resistand	ce Milliohms ¹	Standard Powerclaw to Wire	7	31
Wire Contact with 1 1/4" of #6 AWG 0.200		Mini Powerclaw to Wire	4	17
PCB Contact to Contact	0.500			
		PCB Specifications		
UL Hot Plug Current Rating Amperes - 250 cycles at 120V DC 6		/ DC ⁶ Mounting Style	Plated Through Hole	
Wire- wire	50A	Max PCB Thickness- in. [mm]	Standard: 0.15 [0.381]	
PCB- wire (Vertical Mini Power	rclaw) 40A		Mini: 0.25 [0.635]	
		Recommended Traces	#8 AWG Cross Section	
UL Ground Short Time Currer	nt Test - 75A Premate Grou	ld		
1530 Amps, #6 AWG Wire	6 Seconds	Min. Contact / Spring Retention Force		Ν
		Wire Housing	50	222
Materials		Min. On and A Olympics Distance D		
Housing		Min. Creepage / Clearance Distance P		mm
Standard Plastic Resin	Polycarbonate	Standard Powerclaw Adjacent Poles	0.260	6.6
Chem. Resistant Resin	Polycarbonate / PBT bl		0.087	2.2
Contact Retention Spring	Stainless Steel	Mini Horz. Powerclaw Adjacent Poles	0.079	2.0
Housing Flammability Rating	I	Mechanical Shock ⁵		
UL94	V-0	MIL-STD-202	213 Condition A	50g's
Glow Wire	960°C (GWFI) / 800°C			
		Vibration High Frequency ⁵		
Contact		MIL-STD-202	204 Condition A	10g's
Base	Copper Alloy			
Wire Plating	Silver			
PCB Plating	Sn or Ag over Ni			
Contact Termination Methods	5			
Crimp ⁴	Wire Contacts			
Hand Solder	Wire and PCB Contacts			
Solder Dip*	PCB Contacts			
Wave Solder*	PCB Contacts			
	. 05 00114010			

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

Wrench / Socket

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

Busbar Contacts

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 Without use of spacers to increase creepage and clearance distances.

⁴ Use APP recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.

⁵ Tested with contact part number 5900.

⁶ Based on 2 housings blocked together.







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SECTION 2 Powerpole® PP75

| IEC INFORMATION |

Connector Series	Configurations		Creepage / Clearance per IEC 60950-1	Material Group	
Single Pole	Single Pole	Unmated	2.97 mm		
		Mated	2.97 mm	Illa	
	Stacked Powerpole®	Unmated	2.97 mm		
	Slacked Fowerpole	Mated	2.97 mm	-	

Attributes	PP75
AMP Rating AC/DC	75
Voltage Rating AC/DC (Steady State)	250 V AC/DC (Operational)
Breaking Capacity -AMP Rating /Cycles	75 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC
FINGER Safety - Mated only	IEC 60529 - IP20
Wire Size tested	16 mm²
Contact Series Tested	5900
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

Touch Safety with Wire Contacts IEC 60529 IP10



NOTE 3: Refer to the Constructional Data form for additional information on our website., www.andersonpower.com

| POWERPOLE[®] PP75 ACCESSORIES |

Strain Relief Grommets

Use for strain relief in the back side of a PP75 housing. Wire gauge given for reference only, use grommet ID and wire OD to determine suitability in the end application.

		Dimensions		
			A -	
Description	- Part Numbers -	inches	s mm	
Minimum Quantity	100			
#6 AWG, Black	114411P2	0.35	8.89	
#8 AWG, Black	114411P1	0.25	6.35	
#10 - 12 AWG, Black	114411P3	0.17	4.32	

Mounting Wing for Standard or CR Housings

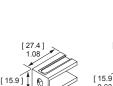
Mounting wings can be used to secure dovetailed Powerpole® 75 series housings by passing fasteners through the wings in either a horizontal or vertical orientation. Useful for sheet metal panels, printed circuit boards, and many other mounting surfaces. Fasteners not included.

Description	Part Numbers			
Minimum Quantity	1,000	100		
Blue, Round Hole	1399G20-BK	1399G20		
Blue, Oval Hole	1399G7-BK	1399G7		

Mounting Wing for Locking Housings

Mounting wings can be used to secure Powerpole® 75 series housings with locking dovetails by passing fasteners through the wings in either a horizontal or vertical orientation. Useful for sheet metal panels, printed circuit boards, and many other mounting surfaces. Fasteners not included.

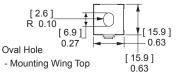
Description	Part Numbers				
Minimum Quantity	1,000	100			
Blue, Oval Hole	75LOKWNGBLU-BK	75LOKWNGBLU			
Blue, Round Hole	75LOKWNGBLU-R-BK	75LOKWNGBLU-R			











0.63

[15.9]

0.63









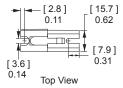
- Both Versions

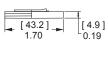
[27.4] 1.08

Surface Mount for Locking Housings

Use to secure Powerpole® 75 series housings with locking dovetails to a flat surface. Useful for sheet metal panels, printed circuit boards, and many other mounting surfaces. Fasteners not included.

Description	Part Numbers					
Minimum Quantity	. 1,000	100				
Blue	75LOKSMTBLU-BK	75LOKSMTBLU				



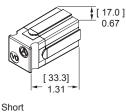


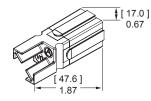


Spacer

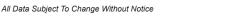
Use to separate housings under high power to minimize power capability derating due to heat rise. They are recommended for squaring off a block of Powerpole® 75 housings to enable mounting accessories or retaining pins to be used. Combining long and short spacers opposite each other in a mated block adds keying features, or use two short spacers to avoid interference.

Description	Part Numbers				
Minimum Quantity	1000	100			
Red, Short	1399G23-BK	1399G23			
Red, Long	1399G21-BK	1399G21			





Long



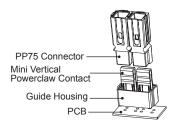


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Guide Housings for Vertical Mini Powerclaw Contacts

Prevents polarity being reversed when a two pole PP75 block is mated to vertical mini Powerclaw contacts. Fastening hardware not included.

Description	on Part Numbers				
Minimum Quantity	1,000	100			
Black Guide Housing	PC-HSG-PP-BK	PC-HSG-PP			



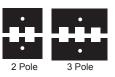
Mounting Clamp

Mounting clamps can be used for fastening a block of Powerpole® 75 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	50 sets of 2
2 or 4 Pole	1463G1
3 or 6 Pole	1463G2

Mounting Clamp

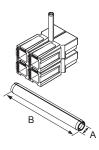
Panel



Retaining Pins

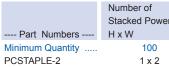
Retaining pins are used to keep stacked Powerpole® 75 series housings from separating. Retaining pins are inserted in the circular opening between two housings stacked side by side. Dimension B is +/- 0.015 in or 0.38 mm.

			DIMENSIONS			
			- A -		- E	3 -
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	111812P6	110G18	0.196 / 0.207	4.98 / 5.26	1.000	25.400

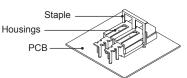


PCB Mounting Staples

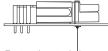
Reduce strain on solder joints during mating and unmating. Staples bend over the underside of the PCB board to lock the housings in place. Staples are an interference fit with housings.







Slide staple over housings and into the holes in the board.

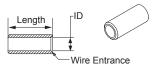


Fasten the staple by bending the leads on the bottom of the board.

Reducing Bushings

Use with contact part number 5900-BK or 1307-BK to allow a smaller wire to be used with the connector. Electrical capability is derated with smaller wire.

							Dime	ensions	
						- IC) -	- Len	igth -
Contact Barrel Size	Wire Size		Part N	Numbers		inches	mm	Inches	mm
Minimum Quantity			3,000	1,000	100 .				
#6 AWG [13.3 mm ²]	#8 AWG [8.4 mm ²]		-	5912-BK	5912	0.18	4.57	0.45	11.43
#6 AWG [13.3 mm ²]	#12- 10 AWG [3.3- 5	5.3 mm²]	5910-BK	-	5910	0.14	3.56	0.47	11.94
#6 AWG [13.3 mm ²]	#16- 14 AWG [1.3- 2	2.1 mm²]	5913-BK	-	5913	0.09	2.29	0.47	11.94



For environmentally sealed connector shells to hold Powerpole® 15-180 connectors, see SPEC Pak® product series on our website, www.andersonpower.com

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Powerpole[®] - Tooling Information

Wire	Size	Reeled P	eled Part Numbers Reeled Contact Crimp		ntact Crimp Tool
AWG	mm²	Tin Silver Plating Plating		APP Applicator	+ APP Press
	PP15 /	45 Flat W	& Ground		
#16 / 20	1.3 / 0.52	262G1	262G2		
#16 / 20	1.3 / 0.52	269G2	N/A		
#12 / 16	3.3 / 1.3	261G1	N/A	TD0101	
#10 / 14	5.3 / 2.1	261G2	261G3	IDUIUI	115V= TE0101
#12 / 16	3.3 / 1.3	269G1	N/A		230V = TE0102
#10 / 14	5.3 / 2.1	269G3	N/A		2300 - 120102
#10 / 14	5.3 / 2.1	200G1L	200G3L		
#10 / 14	5.3 / 2.1	201G1H	N/A	TD0102	
#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	rs Loose Piece Contact Crimp Tool				ΤοοΙ		
AWG	mm²	Tin Plating	Silver Plating	Hand Tool	Pneumatic Bench r Tool		⊦ Locator	Number of Crimps		
	1	PP1	5 / 45 Flat Wip	oing Pow	er & Grour	nd	1			
#16 / 20	1.3 / 0.52	N/A	1332							
#12 / 16	3.3 / 1.3	N/A	1331	1309G2	1309G2 - or		2			
#16 / 20	1.3 / 0.52	262G1-LPBK	262G2-LPBK	1309G8						
#16 / 20	1.3 / 0.52	269G2-LPBK	N/A							
#12 / 16	3.3 / 1.3	261G1-LPBK	N/A							
#10 / 14	5.3 / 2.1	261G2-LPBK	261G3-LPBK	1309G3 or	N/A	N/A	N/A	Single		
#12 / 16	3.3 / 1.3	269G1-LPBK	N/A	1309G8						
#10 / 14	5.3 / 2.1	269G3-LPBK	N/A							
#10 / 14	5.3 / 2.1	200G1L-LPBK	200G3L-LPBK	1309G6						
#10 / 14	5.3 / 2.1	201G1H-LPBK	N/A	or						
310 / 14	5.3 / 2.1	1830G1-LPBK	1830G2-LPBK	- 1309G8						
			PF	P75						
#6	13.3		1307				1389G6			
		-	5900							
#8	8.4	-	1875G1			1388G6	1389G21			
		N/A	5952	1309G4	1387G1		1389G6	Single		
#10 / 12	5.3 / 3.3		1875G2 5953			1388G7	1389G21	enigie		
	0.07010		5915				1389G6			
			1875G3			130007	1389G21			
				120						
1/0	53.5		1323G2							
#1	42.4		1323G1			1388G3				
#2	33.6	N/A	1319	1368	1387G1		1389G4	Single		
#4	21.2		1319G4	Series		1388G4				
#6	13.3		1319G6							
				180						
3/0	85		1328G2			10000				
2/0	53.5		1328G1			1303G12				
1/0	53.5		1382							
#1	42.4	N/A	1347		1387G2 1303G13 1304G3		Double			
#2	33.6		1383	Series						
#4	21.1		1384							
#6	13.3		1348		1387G1	1388G4	1389G3	Single		

1. NOTE: See website for the most current information.

2. NOTE: Insertion / Extraction fool for PP15/45 contacts = 111038G2



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

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