## Powerpole® Connectors

PP15/45 - Up to 55 Amps



PP15/45 series are the smallest Powerpole® housings. They can be used for wire-to-wire or wire-to-board applications. Wire sizes from 20 to 10 AWG (0.75 to 6 mm<sup>2</sup>) offer power capabilities up to 55 amps per pole. Finger proof housings and the ability to incorporate first-mate last-break ground connectors enhance the capabilities of this Powerpole® series.

- High Power Density Up to 55 amps in a compact footprint
- Wire-to-Wire & Wire-to-Board Configurations Wire & PCB contacts can be used in the same housings
- Finger Proof Housings Available Protects against accidental contact with live circuits

### PP15/45 ORDERING INFORMATION

PP15/45 Finger Proof Housings
Improved on the original APP® design by adding ribs to mating interface to protect against accidental contact with live circuits. Meets the requirements of UL1977 section 10.2 and is rated IP20. Will not mate with standard housings.

Description	Part Numbers				
Description	Fait Nuill	Dels			
Minimum Quantity	2,500	200			
Red	1327FP-BK	1327FP			
Green	1327G5FP-BK	1327G5FP			
Black	1327G6FP-BK	1327G6FP			
White	1327G7FP-BK	1327G7FP			
Blue	1327G8FP-BK	1327G8FP			
Yellow	1327G16FP-BK	1327G16FP			

## PP15/45 Standard Housings

This original housing design has an open interface and is available in a wide array of colors. Will not mate with finger proof housings.

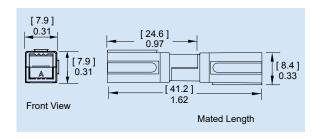
Description	Part Numl	bers
Minimum Quantity	2,500	200
Red	1327-BK	1327
Green	1327G5-BK	1327G5
Black	1327G6-BK	1327G6
White	1327G7-BK	1327G7
Blue	1327G8-BK	1327G8
Yellow	1327G16-BK	1327G16
Orange Gray	1327G17-BK 1327G17-BK 1327G18-BK	1327G17 1327G18
Brown	1327G21-BK	1327G21
Pink	1327G22-BK	1327G22
Purple	1327G23-BK	1327G23

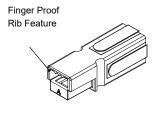
#### 45A Premate Ground Housings - for use with ground contacts only

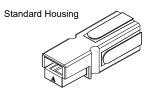
Will mate with standard Powerpole® housings.

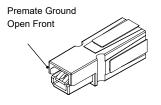
Description	Part Numbers			
Minimum Quantity	2,500	200		
Green	1827G1-BK	1827G1		

#### Finger Proof, Standard & Ground Housing Dimensions





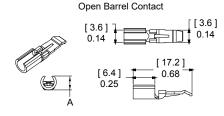




#### PP15/45 Tin Plated Power Contacts

Offer cost effective performance up to 1,500 mating cycles. See specifications and temperature charts for amperage ratings by wire size.

						Dimens	sions
			Mating	Loose Piece	Reeled	- A -	
Barrel	AWG	mm²	Force	Part Numb	pers	inches	mm
Minimu	m Quantity			200	5,000		
Open Open Open Open Open	14 to 10 K * 14 to 10 K * 14 to 10 SF * 14 to 10 SF * 16 to 12	2.1 to 5.3 2.1 to 5.3 2.1 to 6.0 2.1 to 6.0 1.3 to 3.3	High Low High Low High	269G3-LPBK 261G2-LPBK 201G1H-LPBK 200G1L-LPBK 269G1-LPBK	269G3 261G2 201G1H 200G1L 269G1	0.21 0.20 0.24 0.24 0.18	5.33 5.08 6.10 6.10 4.57
Open	16 to 12	1.3 to 3.3	Low	261G1-LPBK	261G1	0.18	4.57
Open	20 to 16	0.52 to 1.3	High	269G2-LPBK	269G2	0.16	4.06
Open	20 to 16	0.52 to 1.3	Low	262G1-LPBK	262G1	0.16	4.06



K \* - For #10 AWG class K stranded wire or smaller. For larger wires use superflex contacts.

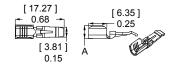
#### **PP15/45 Silver Plated Power Contacts**

Maximize performance by offering up to 10,000 mating cycles and are recommended for circuit interrupt or hot plug applications. See specifications and temperature charts for amperage ratings by wire size. Only closed barrel contacts are suitable for soldering.

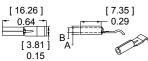
								Dimen	sions	
			Mating	Loo	se Piece	Reeled	- /	۸-	- B	-
Barrel	AWG	mm²	Force	Part	Numbers	Part Numbers	inches	mm	inches	mm
Minimum	Quantity			5,000	200	5,000				
Open Open Open Closed Closed	14 to 10 K * 14 to 10 SF * 20 to 16 16 to 12 20 to 16		Low Low Low Low Low	- - 1331-BK 1332-BK	261G3-LPBK 200G3L-LPBK 262G2-LPBK 1331 1332	261G3 200G3L 262G2 -	0.20 0.24 0.16 0.15 0.12	5.08 6.10 4.06 3.81 3.05	- - 0.10 0.07	- - 2.54 1.78

K \* - For #10 AWG class K stranded wire or smaller. For larger wires use superflex contacts.

#### Open Barrel Contact





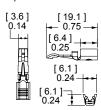


#### 45A Premate Ground Wire Contacts - for use with ground housing only

Tin or silver plated contacts are rated for ground or power. Hand tools are available for loose piece contacts. Reeled contacts can be used with high volume press and applicator tooling. Tin contacts are rated for up to 1,500 mating cycles. Silver contacts are rated up to 10,000 mating cycles.

Туре	AWG	mm²	Mating Force	Loose Piece Part Numbers	Reeled Part Numbers
Minimum Qua	intity			200	2,500
Open, Tin	14 to 10	2.1 to 6.0	Low	1830G1-LPBK	1830G1
Open, Silver	14 to 10	2.1 to 6.0	Low	1830G2-LPBK	1830G2

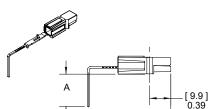
#### Open Barrel Premate Contact



#### 25A Right Angle PCB Contacts Tin Plated

Suitable for right angle applications up to 25A per pole. Tin plating enhances solderability. Cannot be mixed with 45A PCB contacts. For mating with wire contacts only.

					Dimer	nsions	
	Mating	Loose I	Piece	- A	۸ -	- B	3 -
Row	Force	Part Nu	Part Numbers		mm	inches	mm
Minimur	n Quantity	1,000	100				
Тор	Low High	1377G1-BK 1317G1-BK	1377G1 1317G1	0.58	14.80	1.52	38.60
Bottom	Low	1377G2-BK 1317G2-BK	1377G2 1317G2	0.29	7.20	1.36	34.50
Тор	Low	1377G11-BK	1377G11	0.58	14.80	1.21	30.70
Bottom	High Low High	1317G11-BK 1377G12-BK 1317G12-BK	1317G11 1377G12 1317G12	0.29	7.20	1.01	25.70

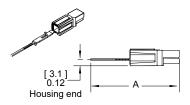


- Use mounting staples with right angle contacts (see accessories).
- · See website for PCB layout drawing.

#### 25A Vertical PCB Contacts Tin Plated

For mating with wire contacts only. Suitable for vertical applications up to 25A per pole, tin plating enhances solderability.

Mating Force	Loose Piece Part Numbers		- /	ensions A - s mm
Minimum Quantity Low High Low High Low High Low High	1,000 1377G3-BK 1317G3-BK 1377G4-BK 1317G4-BK 1377G13-BK 1317G13-BK		2.22 2.22 1.76 1.76 1.17 1.17	56.40 56.40 44.70 44.70 29.70 29.70



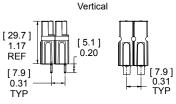
SF\*- Indicates wires with high stranding such as Super Flex.

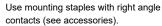
SF\*- Indicates wires with high stranding such as Super Flex.

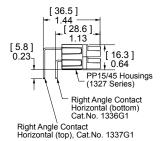
#### 45A Right Angle and Vertical PCB Contacts Tin Plated

Suitable for right angle or vertical applications up to 45A per pole. Tin plating enhances solderability. Right angle contacts cannot be mixed with 25A PCB contacts. For mating with wire contacts only.

	Loose Piece		
Description	Part Numbers		
Minimum Quantity	1,000	100	
Vertical	3-5911P1	1335G1	
Right Angle Bottom Row	3-5912P1	1336G1	
Right Angle Top Row	3-5913P1	1337G1	



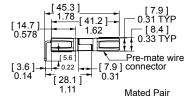




#### **45A Premate Ground PCB Contacts**

Right angle contacts are suitable for power or ground. Use to mate with 45A ground wire contacts. Tin plated contacts are rated up to 1,500 mating cycles. Can be used with other 45A PCB connectors in the bottom row.

	Mating Force	Loose Piece Part Numbers	
Minimum Quantity		1000	100
PCB, Bottom Row	Low	3-5952P1	1836G1



### PP15/45 ULTRASONICALLY BONDED ASSEMBLIES

Assemblies feature housings that are ultrasonically welded to create a one piece connector unit using an APP® special process. After welding, retaining pins are no longer required to secure the stacked housings to each other. This allows Powerpole® 15/45 connectors to be used as a durable one piece connector header. Contact customer service for configurations not shown below.

#### Single Row 1x2 Assemblies

Circuit Description	Housings Only	Housings with 45A Vertical PCB Contacts	Housings with 45A Right Angle PCB Contacts	Color & Type Position Matrix
Minimum Quantity DC 2 Wire Standard Housings DC 2 Wire Reverse Standard Housings DC 2 Wire Finger Proof DC 2 Wire Finger Proof Reverse	500 ASMPP30-1X2-RK ASMPP30-1X2-KR ASMFP30-1X2-RK ASMFP30-1X2-KR	500 ASMPV45-1X2-RK ASMPV45-1X2-KR ASMFV45-1X2-RK ASMFV45-1X2-KR	500 ASMPR45-1X2-RK ASMPR45-1X2-KR ASMFR45-1X2-RK ASMFR45-1X2-KR	1 2  RED/STD BLK/STD  BLK/STD RED/STD  RED/FP BLK/FP  BLK/FP RED/FP

#### Single Row 1x3 Assemblies

		Housings with			
		45A Right Angle		Color & Type	
Circuit Description	Housings Only	PCB Contacts		Position Matrix	x
Minimum Quantity DC 2 Wire Finger Proof with Ground AC Single Phase Finger Proof	500 ASMFP30-1X3-KER ASMFP30-1X3-KEW	500 ASMFR45-1X3-KER ASMFR45-1X3-KEW	1 BLK / FP BLK / FP	2 GRN / GND GRN / GND	3 RED / FP WHT / FP

#### **Two Row 2x1 Assemblies**

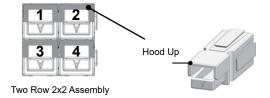
		Housings with	Housings with		
		45A Vertical	45A Right Angle	Color &	Туре
Circuit Description	Housings Only	PCB Contacts	PCB Contacts	Position	Matrix
Minimum Quantity	500	500	500	1	2
DC 2 Wire Finger Proof	ASMFP30-2X1-KR	ASMFV45-2X1-KR	ASMFR45-2X1-KR	BLK / FP	RED / FP
DC 2 Wire Finger Proof Mate	ASMFP30-2X1-RK	ASMFV45-2X1-RK	ASMFR45-2X1-RK	RED / FP	BLK / FP

#### Two Row 2x2 Assemblies

Circuit Description	Housings Only	Housings with 45A Vertical PCB Contacts	Housings with 45A Right Angle PCB Contacts		Color &	31	
Minimum Quantity AC 3 Phase, 3 Wire Finger Proof AC 3 Phase, 3 Wire Finger Proof Mate	500 ASMFP30-2X2-KRWE ASMFP30-2X2-WEKR	500 N/A	500 N/A ASMFR45-2X2-WEKR	1 BLK / FP WHT / FP	2 RED / FP GRN / GND	3 WHT / FP BLK / FP	4 GRN / GND RED / FP







Single Row 1x2 Assembly

Single Row 1x3 Assembly

Two Row 2x1 Assembly

STD = Standard Housing

FP = Finger Proof Housing

GND = Ground Housing

# Powerpole® Pak Connectors PP15/45



Powerpole® Pak connector shells enclose stacked groupings of PP15/45 sized housings in a durable black shell for a finished connector appearance and additional features. Inline, panel mount, and blindmate configurations are available. Plug shells offer the option of integral latches and strain relief to help secure your connection.

- Package Groupings of PP15/45 Connectors
   Provides a finished appearance while protecting the individual connectors with an outer shell
- Inline, Panel Mount, "T" or Blindmate Configurations
  Allows one connection system to meet multiple needs
- Optional Latching and Strain Relief Secures your connection and wires

For environmentally sealed connector shells to hold Powerpole® 15 to 180 connectors, see SPEC Pak® product series on our website <a href="https://www.andersonpower.com">www.andersonpower.com</a>





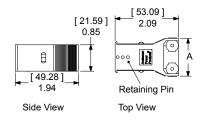


## POWERPOLE® PAK ORDERING INFORMATION - Powerpole® housings and contacts are sold separately

#### **Plug Shell Without Latch**

Can mate inline with other plug shells with or without latches, or mate to a panel mount receptacle. For use with Powerpole® wire connectors only. Cable Clamp and Hardware Pak or Retaining Pins must be ordered separately.

				Dimensions		
				- A		
Description	Pa	rt Numbers		inches	mm	
Minimum Quantity	1,000	500	25			
Black, 2 to 4 Poles	1461G1-BK	-	1461G1	1.24	31.50	
Black, 5 to 6 Poles	-	1461G2-BK	1461G2	1.56	39.62	
Black, 7 to 8 Poles	-	1461G3-BK	1461G3	1.87	47.50	



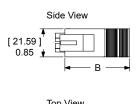
NOTE: Retaining pins are used to secure and position Powerpole\* housings in one of three positions in plug shells.

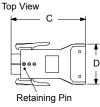
Max wire O.D. for 2 to 4 pole plug shells is 0.60 inches (15.2 mm $^2$ ). For all other plug shells is 0.63 inches (16.0 mm $^2$ ).

#### **Plug Shell With Latch**

Can mate inline with other plug shells without latches, or mate to a panel mount receptacle. For use with Powerpole® wire connectors only. Cable Clamp and Hardware Pak or Retaining Pins must be ordered separately.

				Dimensions					
				- B	-	- C	; <b>-</b>	- D	-
Description	P	art Numbers		inches	mm	inches	mm	inches	mm
Minimum Quantity	1,000	500	25						
Black, 2 to 4 Poles	1460G1-BK	-	1460G1	1.94	49.28	2.25	57.15	1.24	31.50
Black, 5 to 6 Poles	-	1460G2-BK	1460G2	1.94	49.28	2.25	57.15	1.56	39.62
Black, 7 to 8 Poles	-	1460G3-BK	1460G3	1.94	49.28	2.25	57.15	1.87	47.50
Black, 9 to 10 Poles	-	1460G4-BK	1460G4	2.51	63.75	2.82	71.63	1.84	46.74

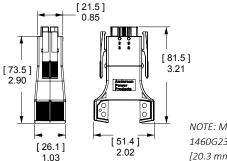




#### Plug Shell With Latch & Non-Conductive Strain Relief

New 2X3 Powerpole® Pak offers an improved ergonomic shell for easier latch operation as well as a plastic, non-conductive strain relief. The new strain relief can accommodate up to a 6 conductor 10 AWG cable. Can mate to a panel mount receptacle. For use with Powerpole® wire connectors only. Cable Clamp and Hardware Pak or Retaining Pins must be ordered separately. To be used with 115G23 cable clamp only.

Description	Part Numbers	
Minimum Quantity	1,000	25
Black, 5 to 6 Poles	1460G23-BK	1460G23



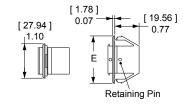
NOTE: Max wire O.D. for 1460G23 is 0.80 inches [20.3 mm<sup>2</sup>].

#### **Snap-in Receptacle Shell**

Mate to plug shells with or without latches, or mate to another panel mount receptacle to create a bulkhead to bulkhead connection. For use with Powerpole® wire or PCB connectors. Order the number of retaining pins for each receptacle as shown below separately.

Description	Part	Numbers		Number of Retaining to Order	Dimens - E inches	-	Knock O - Wid inches	th -
Minimum Quantity	1,000	500	25					
Black, 2 to 4 Poles	1470G1-BK	-	1470G1	1	1.50	38.10	1.25	31.75
Black, 5 to 6 Poles	-	1470G2-BK	1470G2	2	1.88	47.75	1.62	41.15
Black, 7 to 8 Poles	-	1470G3-BK	1470G3	3	2.13	54.10	1.88	47.75
Black, 9 to 10 Poles	-	1470G4-BK	1470G4	4	2.44	61.98	2.19	55.63

<sup>\*</sup> Height = (25.4 mm) 1.0 in.

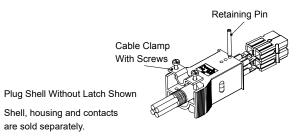


NOTE: Retaining pins are used to secure and position Powerpole® housings in one of two positions in receptacle shells.

#### Cable Clamp & Hardware Pak

Includes cable clamp, 2 screws, and required amount of retaining pins for each configuration.

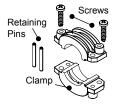
	Screw	Cable			
Description	Head Type	Type	Pa	rt Numbers	
Minimum Qua	ntity		1,000	500	25
2 to 4 Poles	Straight Slot	Bundled	115G1-BK	-	115G1
5 to 6 Poles	Straight Slot	Bundled	115G2-BK	-	115G2
7 to 8 Poles	Straight Slot	Bundled	115G3-BK	-	115G3
9 to 10 Poles	Straight Slot	Bundled	-	115G4-BK	115G4
2 to 4 Poles	Phillips	Bundled	115G7-BK	-	115G7
5 to 6 Poles	Phillips	Bundled	115G8-BK	-	115G8



#### Cable Clamp & Hardware Pak

Includes 2 cable clamp halves, 2 screws and 2 retaining pins. To be used with 1460G23 Plug Shell only.

	Screw	Cable		
Description	Head Type	Туре	Part Nun	nbers
Minimum Qua	antity Philips	Bundled	1,000 115G23-BK	25 115G23



#### Flexible Conduit Clamp & Hardware Pak

Includes cable clamp, 2 screws, and need amount of retaining pins for each configuration.

Description Part Number
Minimum Quantity 100
2 to 4 Poles 110G10

## Conduit Clamp With Screws Shell, housing and contacts



Retaining Pin

#### **Retaining Pin for Snap-in Receptacle**

Order the number of retaining pins for each receptacle shown in the Snap-in Receptacle Shell ordering information. Pins are also required for the plug side when the Cable Clamp & Hardware Pak is not ordered.

Description	Part Numbers		
Minimum Quantity	1,000	100	
Retaining Pin	110G9-BK	110G9	



are sold separately.



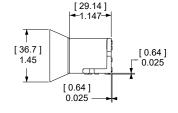
Shell and housing are sold separately.

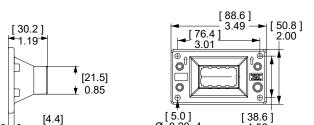


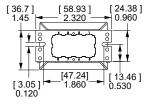
#### **Blindmate Pak Connector**

Ideal for panel to panel, bulkhead to bulkhead, or rack mount applications that require the power connector to compensate for up to 0.45 in. (11.43 mm) of misalignment in either axis. Eight positions can be filled with Powerpole® 10 to 45 connectors. The receptacle side can be used with wire or PCB contacts. Hardware bag includes retaining pins.

Description	Part N	umbers
Minimum Quantity	50	25
2x4 Blindmate Plug Shell, Hardware & Pins	-	BMPP10-45P
2x4 Blindmate Receptacle Shell, Hardware & Pins	-	BMPP10-45R
2x4 Blindmate Plug Shell	BMHSG-P	-
2x4 Blindmate Receptacle Shell	BMHSG-R	-
Hardware Bag Plug Side	-	110G50
Hardware Bag Receptacle Side	-	110G51







See our innovative MARC Connector that offers straight-on or rotational blindmate capability. MARC holds 6 PP15/45 power contacts and 2 PP15/45 premate ground contacts in a high temperature housing. Visit our website www.andersonpower.com to learn more.



[86.2]

3.39

#### "T" Pak 2 Way Splitter

0.17

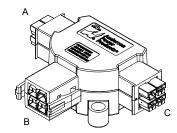
The Powerpole® "T" Pak connector is a 2 way electrical splitter that splits electrical current from one incoming circuit into two outgoing circuits. The standard configuration is pre-wired for AC 3 phase, 3 wire plus ground configurations. The "T" Pak can also be used for AC single phase plus ground or DC 2 wire plus ground applications by not using either the red or white power positions. "T" Pak is pre-wired from the factory allowing plug and play field installation of modular office and industrial equipment. UL recognition up to 20 amps and 600 volts is achieved when mating Powerpole® Pak plugs with 12 AWG wire.

For OEM manufacturing scale applications, the "T" Pak can be loaded with custom configurations of any of our finger proof, standard, or ground housings and contacts in the PP15/45 series. Contact sales or customer service for additional information.

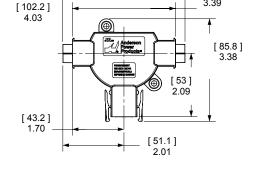
Description	Part Numbers
Minimum Quantity	80
Assembled "T" Pak	20-01
Mating Plug Shell with Latch 2x2	26-01
Mating Plug Shell without Latch 2x2	27-01

Standard configuration for each side of the T includes (1) each Red, Black, and White Standard PP15/45 Housings & 261G2-LPBK contacts with (1) 45A Green Premate Ground Housing and 1830G1-LPBK contact.

Mating plug shells include (1) each Red, Black, and White Standard PP15/45 Housings & (3) 261G2-LPBK contacts with (1) 45A Green Premate Ground Housing and 1830G1-LPBK contact. Cable clamp & hardware pack also included.



27 - 01 Mates With B

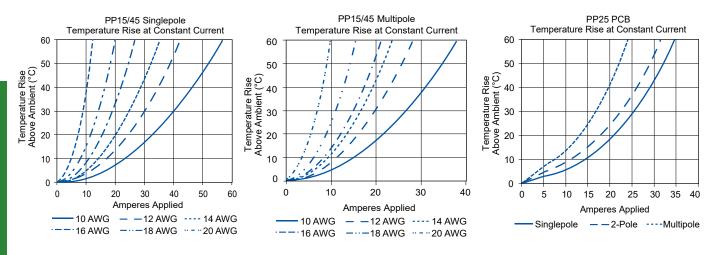


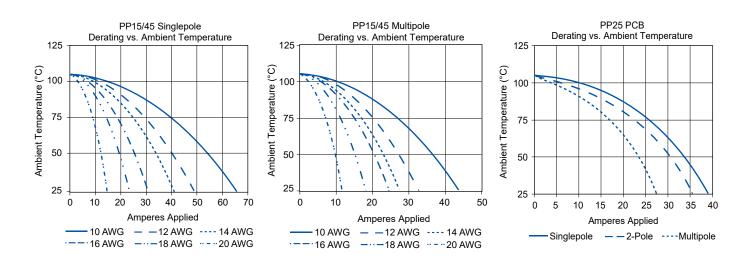


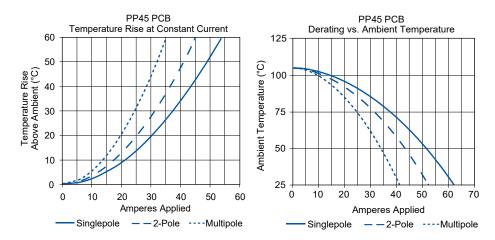
26 - 01 Mates With A & C

## PP15/45 CONNECTOR TEMPERATURE CHARTS - Temperature rise charts are based on a $25^{\circ}$ C ambient temperature.

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







NOTE: PP25 PCB charts based on 0.002 in² foil on board side, mated to 12 AWG conductor on wire side. PP45 PCB charts based on 10 AWG equivalent copper foil on board side, mated to 10 AWG conductor on wire side.

## PP15/45 & POWERPOLE® PAK SPECIFICATIONS

Current Rating Amperes <sup>1</sup>	UL 1977	CSA / TUV
Singlepole Wire-to-Wire (10 AWG)	55	40
Singlepole Ground Wire-to-Wire or PCB (10 AWG)	45	35
3x3 Block Wire-to-Wire (10 AWG)	40	27
Singlepole 25A PCB-to-Wire (12 AWG)	25	=
2x3 Block 25A PCB-to-Wire (12 AWG)	25	22 *
Singlepole 45A PCB-to-Wire (10 AWG)	45	40 *
2x3 Block 45A PCB-to-Wire (10 AWG)	45	25 *
Voltage Rating AC/DC		
UL 1977	600	
Dielectric Withstanding Voltage		
Volts AC	2,200	
Avg. Mated Contact Resistance Milliohms <sup>1</sup>		
15A Wire Contact with 5/8" of 16 AWG	0.875	
30A Wire Contact with 5/8" of 12 AWG	0.600	
45A Wire Contact with 5/8" of 10 AWG	0.525	
45A PCB Contact to Contact	0.500	
25A PCB Contact to Contact	0.600	
UL Hot Plug Current Rating Amperes 5		
250 Cycles at 72V DC	45A	
250 Cycles at 120V DC	30A	
UL Ground Short Time Current Test - 45A Premate Gr	ound	
750 Amps, 10 AWG Wire	4 Seconds	
470 Amps, 12 AWG Wire	4 Seconds	

MATERIAL	
Housing	
Plastic Resin	Polycarbonate
Contact Retention Spring	Stainless Steel
Housing Flammability Rating	
UL94	V-0
Glow Wire	825°C (GWFI) / 800°C (GWIT)
Contact	
Base	Copper Alloy
Plating	Tin or Silver
<b>Contact Termination Methods</b>	
Crimp <sup>3</sup>	Wire Contacts
Hand Solder	1331, 1332 & PCB Contacts
Solder Dip	PCB Contacts
Wave Solder	PCB Contacts









5			
MECHANICAL			
Wire Size Range	AWG	mm²	
	20 to 10	0.75 to 6.0	
Max. Wire Insulation Diameter	in.	mm	
	0.175	4.450	
Operating Temperature <sup>2</sup>	°F	°C	
Powerpole® Housings & Powerpole® Pak Shells	-4° to 221°	-20° to 105°	
Mating Cycles No Load by Plating	Silver (Ag)	Tin (Sn)	
PCB-to-Wire	-	1,500	
Wire-to-Wire	10,000	1,500	
Avg. Mating / Unmating Force	Lbf.	N	
Low Force Wire, High Force PCB, & Ground	3	13	
High Force Wire	5	22	
Low Force PCB	2	9	
Min. Contact / Spring Retention Force	Lbf.	N	
	20	90	
Powerpole® Pak Latch	Lbf.	N	
Avg. Defeat Force	150	667	
PCB Specifications			
Mounting Style	Plated Through	Hole	
PCB Thickness - in. (mm)	0.090 to 0.150	2.3 to 3.8	
25A PCB Recommended Traces	12 AWG Cross S	ection	
45A PCB Recommended Traces	10 AWG Cross Section		
Mechanical Shock <sup>4</sup>			
MIL-STD-202	213 Condition A	50g's	
Vibration High Frequency 4			
MIL-STD-202	204 Condition A	10g's	

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.

- \* No TUV Recognition
- 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 Tested with contact part number 261G2.
- 5 Based on 2 housings blocked together.

### **IEC INFORMATION**

Connector Series	Configurations		Creepage / Clearance per IEC 60950-1	Material Group
	Single Pole	Unmated	1.64 mm	
		Mated	1.64 mm	
	Stacked Powerpole®	Unmated	1.64 mm	
PP15/45		Mated	1.64 mm	
Standard	PCB - 25A	Unmated	1.64 mm	IIIa
		Mated	1.64 mm	
	PCB - 45A	Unmated	1.39 mm	
		Mated	1.39 mm	

Connector Series	Configurations		Creepage / Clearance per IEC 60950-1	Material Group
	Single Pole	Unmated	1.64 mm	
		Mated	4.20 mm	
	Stacked Powerpole®	Unmated	1.64 mm	
PP15/45		Mated	4.20 mm	IIIa
Finger Proof	PCB - 25A	Unmated	1.64 mm	IIIa
		Mated	2.90 mm	
	PCB - 45A	Unmated	1.39 mm	
		Mated	1.39 mm	

ATTRIBUTES	PP45	PP45 FINGER PROOF
AMP Rating AC/DC	45	45
Voltage Rating AC/DC (Steady State)	160 V AC/DC (Operational)	400 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	30 Amp / 10 Cycles	30 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC	220 VDC
FINGER Safety - Mated Only	IEC 60529 - IP20	IEC 60529 - IP20 *
Wire Size Tested	6 mm²	6 mm² (10AWG)
Contact Series Tested	200G3L	200G3L
Climatic Testing (Cold, Heat & MFG)	IEC 60512 Test - 11j, 11i & 11g	IEC 60512 Test-11j, 11i & 11g
Cycle Life	IEC 60512 Test 9a - 5,000 Cycles	IEC 60512 Test 9a - 5,000 Cycles
Mechanical Strength Impact	IEC 60512-5 @ 29.5 Inches - Dropped 8 Times	IEC 60512-5 @ 29.5 Inches - Dropped 8 Times
Temperature Range	-20°C to 105°C	-20°C to 105°C
	-4°F to 221°F	-4°F to 221°F

<sup>\*</sup> Mated and unmated for the PP15/45 FP version only

#### **PROTECTION**

Touch Safety with Finger Proof Housings & Wire Contacts or PCB Mating Interface

UL1977 Sec. 10.2	Pass
IEC 60950	Pass
IEC 60529	IP20

**Touch Safety With Standard Housings** 

IEC 60529 IP10



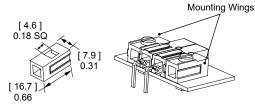


### POWERPOLE® 15/45 ACCESSORIES

#### **Mounting Wing**

Secure dovetailed Powerpole® 15/45 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.

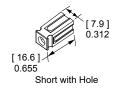
Description	Part Numbers		
Minimum Quantity	2,500	100	
Red	1399G9-BK	1399G9	
Blue	1399G8-BK	1399G8	

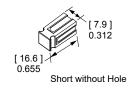


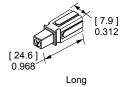
#### **Spacer**

Used to separate housings under high power to minimize derating. They are recommended for squaring off a block of Powerpole® 15/45 housings for use in connector shells and mounting clamps. Use a combination of long and short spacers opposite each other in a mated block to add keying features or use two short spacers to avoid interference. Spacers with holes can also be used to fasten the blocked housings to a surface with a fastener.

Part Num	bers
2,500	100
1399G1-BK	1399G1
1399G2-BK	1399G2
1399G6-BK	1399G6
1399G10-BK	1399G10
1399G13-BK	1399G13
1399G14-BK	1399G14
1399G17-BK	1399G17
	1399G1-BK 1399G2-BK 1399G6-BK 1399G10-BK 1399G13-BK 1399G14-BK



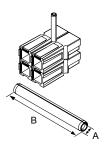




#### **Retaining Pins**

Keep stacked Powerpole® 15/45 series housings from separating. Retaining pins are inserted in the circular opening between two housings stacked side by side.

				Dimensions		
			- A -		- B -	
Description	Part Nur	mbers	inches	mm	inches	mm
Minimum Quantity	1,000	100				
1 Block High	H1507P38	110G16	0.093 / 0.103	2.360 / 2.62	0.250	6.350
2 Block High	111812P5	110G17	0.093 / 0.103	2.360 / 2.62	0.440	11.180



#### **Mounting Clamp**

Mounting clamps can be used for fastening a block of Powerpole® 15/45 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	100 sets of 2
2 or 4 Pole	1462G1
3 or 6 Pole	1462G2
4 or 8 Pole	1462G3







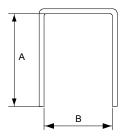


4 or 8 Pole

#### **PCB Mounting Staples**

PCB staples are soldered into place to secure Powerpole® 15/45 series housings in a horizontal configuration to the board. Reduce strain on soldering joints during mating and unmating.

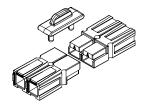
			Dimensions			
Part			- A		- E	3 -
Numbers	HxW	Length	inches	mm	inches	mm
Minimum Qu	uantity 10	00				
114555P1	1 x 1	Short	0.47	12.0	0.28	7.0
114555P2	1 x 2	Short	0.47	12.0	0.57	14.5
114555P3	1 x 3	Short	0.47	12.0	0.89	22.5
114555P7	1 x 4	Short	0.47	12.0	1.20	30.5
114555P10	2 x 1	Short	0.79	20.0	0.28	7.0
114555P6	2 x 2	Short	0.79	20.0	0.57	14.5
114555P9	2 x 2	Long	0.91	23.0	0.57	14.5



#### **Retention Clip**

Retention clips prevent Powerpole® 15/45 blocks from unintended disconnects. They feature a tab for easy insertion and removal.

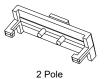
Description	Part Number
Minimum Quantity	100
1 Block High	110G68

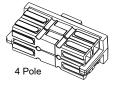


#### **Block Lok**

Block locks secure mated Powerpole® 15/45 series housings together. For use in high vibration or shock applications where connectors are unmated infrequently.

Description	Part Numbers					
Minimum Quantity	100					
2 Pole, Black	110G21					
4 Pole, Black	110G12					





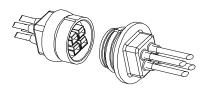
Shown without Powerpoles

Shown with Powerpoles

#### **Splash Boot**

Splash boots protect a 2x2 block of any combination of Powerpole® 15/45 series housings and feature snip off sealed ends for flexibility in wire O.D. Designed for through panel or inline applications. Not a hermetic seal.

Description	Part Numbers
Minimum Quantity	25
Female, Black	1441G1
Male, Black	1442G1



#### **Dust Cover for Powerpole® Pak**

Protect your Powerpole® Pak connector from most foreign material and potentially prevent premature degradation of the product. Contact customer service for the other possible configurations.

Description	Part Num	Dimensions - A -	
Minimum Quantity	2,500	500	
2x2, Orange	2-8831P1-BK	2-8831P1	1.32 (33.5)
2x3 Orange	2-8831P2-BK	2-8831P2	1.42 (36.0)







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

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## Powerpole®

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

Wir	e Size	Loose Piece	Loose Piece Contact Crimp Tools									
AWG	mm²	Tin Plating	Silver Plating	Hand Tool	OR	Pneumatic Bench Tool	+	Die	+	Locator	Number of Crimps	
			PP15 / 4	15 Flat Wipinខ្	Pow	er & Ground						
16 to 20	1.3 to 0.52	N/A	1332									
12 to 16	3.3 to 1.3	N/A	1331	1309G2		N/A		N/A				
16 to 20	1.3 to 0.52	262G1-LPBK	262G2-LPBK	or 1309G8								
16 to 20	1.3 to 0.52	269G2-LPBK	N/A									
12 to 16	3.3 to 1.3	261G1-LPBK	N/A							N/A	Single	
10 to 14	5.3 to 2.1	261G2-LPBK	261G3-LPBK	1309G3			N					
12 to 16	3.3 to 1.3	269G1-LPBK	N/A	or 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									
10 to 14	5.3 to 2.1	201G1H-LPBK	N/A	1309G6 or								
310 to 14	5.3 to 2.1	1830G1-LPBK	1830G2-LPBK	1309G8								
	'			PP7	5			'		'		
-	42.2		1307							120066		
6	13.3		5900							1389G6		
8	8.4		1875G1				1388G6		1389G21			
		N1/A	5952	120064		120761					1389G6	Single
		N/A 3.3	1875G2	- 1309G4 -	1387G1						1389G21	Single
10 to 12	5.3 to 3.3		5953								120000	
			5915				1				1388G7	
			1875G3							1389G21		
				PP12	:0							
1/0	53.5		1323G2					1388G3				
1	42.4		1323G1			1387G1	130003					
2	33.6	N/A	1319	1368 Series						1389G4	Single	
4	21.2		1319G4					1388G4				
6	13.3		1319G6									
				PP18	0							
3/0	85		1328G2					1303G12				
2/0	53.5		1328G1					1303012				
1/0	53.5		1382			1387G2				1304G32	Double	
1	42.4	N/A	1347	1368 Series		130/02		1303G13		1304032	Double	
2	33.6		1383					1303013				
4	21.1		1384									
		The second secon	1	1	1			T. Control of the Con	1	t and the second second	1	

NOTE: see website for the most current information.



Wir	e Size	Reeled Part Number		Reeled Cont	tact	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						
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			115V = TE0101 230V = TE0102			
10 to 14	5.3 to 2.1	269G3	N/A			2007 120102			
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™

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