### **Powerpole® Connectors** - PP15 to PP45 : 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 AWG (0.75 mm<sup>2</sup>) to #10 (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

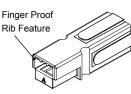
### PP15-45 ORDERING INFORMATION |

Powerpole® PP15 to 45

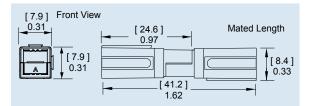
ECTION 2

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 Nu	mbers
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



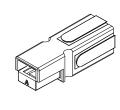
### PP15-45 Finger Proof & Standard & Ground **Housing Dimensions**



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

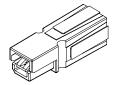


### 45A Premate Ground Housings - (for use with ground contacts only)

Green housings are keyed to prevent accidental mating with

standard or finger proof Powerpole® housings.

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



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### **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.

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

 $\mathsf{K}^\star$  - For #10 AWG class K stranded wire or smaller. For larger wires use superflex contacts.

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

#### **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.

								Dime	nsions	
			Mating	Loc	se Piece	Reeled	- A	۱-	- B	-
Barrel	AWG	mm²	Force	Part	Numbers	Part Numbers	inches	mm	inches	mm
Minimum	Quantity			5,000	200	5,000				
Open	14 to 10 K*	2.1 to 5.3	Low	-	261G3-LPBK	261G3	0.20	5.08	-	-
Open	14 to 10 SF*	2.1 to 6.0	Low	-	200G3L-LPBK	200G3L	0.24	6.10	-	-
Open	20 to 16	0.52 to 1.3	Low	-	262G2-LPBK	262G2	0.16	4.06	-	-
Closed	16 to 12	1.3 to 3.3	Low	1331-BK	1331	-	0.15	3.81	0.10	2.54
Closed	20 to 16	0.52 to 1.3	Low	1332-BK	1332	-	0.12	3.05	0.07	1.78

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

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

### 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.

					Reeled
			Mating	Loose Piece	Part
Туре	AWG	mm²	Force	- Part Numbers -	- Numbers -
Minimum Quantity			200	5,000	
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

### 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.

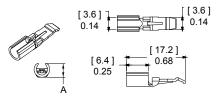
					Dimer	nsions		
	Mating	Loose I	Piece	- A	- A -		- B -	
Row	Force	Part Nur	mbers	inches	mm	inches	mm	
Minimum	Quantity .	1,000	100					
Тор	Low	1377G1-BK	1377G1	0.59	14.80	1.52	38.60	
	High	1317G1-BK	1317G1					
Bottom	Low	1377G2-BK	1377G2	0.29	7.20	1.36	34.50	
	High	1317G2-BK	1317G2					
Тор	Low	1377G11-BK	1377G11	0.59	14.80	1.21	30.70	
	High	1317G11-BK	1317G11					
Bottom	Low	1377G12-BK	1377G12	0.29	7.20	1.01	25.70	
	High	1317G12-BK	1317G12					

### 25A Vertical PCB Contacts Tin Plated

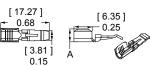
For mating with wire contacts only. Suitable for vertical applications up to 25A per pole, tin plating enhances solderability.

			Dimen	sions
Mating	Loose Piece		- A	<b>۱</b> -
Force	Part Numbers		inches	mm
Minimun	n Quantity 1,000	100		
Low	1377G3-BK	1377G3	2.22	56.40
High	1317G3-BK	1317G3	2.22	56.40
Low	1377G4-BK	1377G4	1.76	44.70
High	1317G4-BK	1317G4	1.76	44.70
Low	1377G13-BK	1377G13	1.17	29.70
High	1317G13-BK	1317G13	1.17	29.70

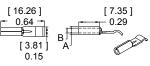
#### Open Barrel Contact



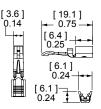
Open Barrel Contact

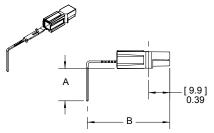


Closed Barrel Contact

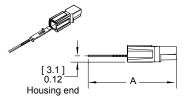


Open Barrel Premate Contact





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

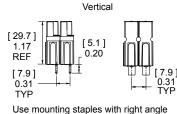


- 21 -

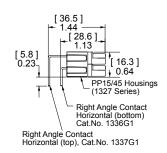
### 45A Right Angle and Vertical PCB Contacts Tin Plated

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.

Lo	ose Piece
Pa	rt Numbers
1,000	100
3-5911P1	1335G1
3-5912P1	1336G1
3-5913P1	1337G1
	Pa 1,000 3-5911P1



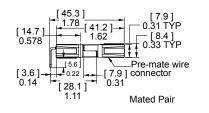
contacts (see accessories).



### **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	Loose	Piece
	Force	Part Nu	mbers
Minimum Quantity PCB, Bottom Row	Low	1000 3-5952P1	100 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	500	500	500	1 2
DC 2 Wire Standard Housings DC 2 Wire Reverse Standard Housings DC 2 Wire Finger Proof DC 2 Wire Finger Proof Reverse	ASMPP30-1X2-RK ASMPP30-1X2-KR ASMFP30-1X2-RK ASMFP30-1X2-KR	ASMPV45-1X2-RK ASMPV45-1X2-KR ASMFV45-1X2-RK ASMFV45-1X2-KR	ASMPR45-1X2-RK ASMPR45-1X2-KR ASMFR45-1X2-RK ASMFR45-1X2-KR	RED/STD BLK/STD BLK/STD RED/STD RED/FP BLK/FP BLK/FP RED/FP

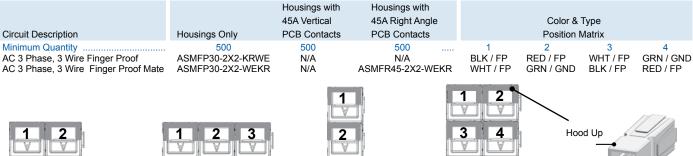
#### Single Row 1x3 Assemblies

		Housings with			
		45A Right Angle		Color & Type	
Circuit Description	Housings Only	PCB Contacts		Position Matrix	
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 DC 2 Wire Finger Proof	500 ASMFP30-2X1-KR	500 ASMFV45-2X1-KR	500 ASMFR45-2X1-KR	1 BLK / FP	2 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**



Single Row 1x2 Assembly

Single Row 1x3 Assembly

STD = Standard Housing

FP = Finger Proof Housing

GND = Ground Housing

Two Row 2x1 Assembly

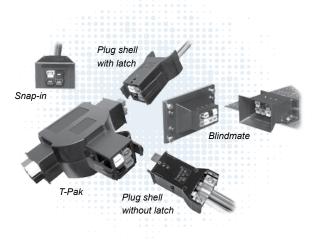
Two Row 2x2 Assembly



Type

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### **Powerpole® Pak Connectors** - PP15 to PP45



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® 15-180 connectors, see SPEC Pak® product series on our website, www.andersonpower.com

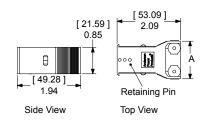
### | POWERPOLE® PAK ORDERING INFORMATION |

### **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.

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

Powerpole® housings and contacts are sold separately. See page 20 for ordering information.



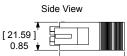
NOTE: Retaining pins are used to secure and position Powerpole® housings in one of three positions in plug shells.

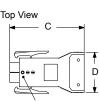
Max wire O.D. for 2-4 pole plug shells is 0.60 inches [15.2mm<sup>2</sup>]. For all other plug shells is 0.63 inches [ 16.0 mm<sup>2</sup>].

### **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 seperately.

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





**Retaining Pin** 



23

### 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, 5-6 Poles	1460G23-BK	1460G23	

### [73.5] 2.90 [51.4] [26.1] 2.02 1.03

[21.5]

0.85

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

[19.56]

0.77

Retaining Pin

Retaining Pin

[81.5]

3 21

[1.78]

0.07

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

### **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.

					Number of	Dimens	sions	Knock (	Out Size
					Retaining Pins	- E	-	- Wid	th -
	Description	Pa	art Numbers		to Order	inches	mm	inches	mm
	Minimum Quantity	1,000	500	25					
	Black, 2-4 Poles	1470G1-BK	-	1470G1	1	1.50	38.10	1.25	31.75
	Black, 5-6 Poles	-	1470G2-BK	1470G2	2	1.88	47.75	1.62	41.15
	Black, 7-8 Poles	-	1470G3-BK	1470G3	3	2.13	54.10	1.88	47.75
5	Black, 9-10 Poles	-	1470G4-BK	1470G4	4	2.44	61.98	2.19	55.63
	* Height = [25.4 mn	n] 1.0 in.							

# Cable Clamp & Hardware Pak

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

	Screw Head	Cable			
Description	Туре	Туре	Pa	art Numbers -	
Minimum Qua	antity		1,000	500	25
2-4 Poles	Straight Slot	Bundled	115G1-BK	-	115G1
5-6 Poles	Straight Slot	Bundled	115G2-BK	-	115G2
7-8 Poles	Straight Slot	Bundled	115G3-BK	-	115G3
9-10 Poles	Straight Slot	Bundled	-	115G4-BK	115G4
2-4 Poles	Philips	Bundled	115G7-BK	-	115G7
5-6 Poles	Philips	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.

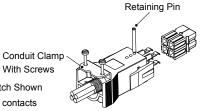
Description	Screw Head Type	Cable Type	Part Num	ibers
Minimum Qua	ntity	Bundled	1,000	25
5-6 Poles	Philips		115G23-BK	115G23

### 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
2-4 Poles	110G10

# With Screws



Plug Shell With Latch Shown Shell, housing and contacts are sold separately.



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 Num	nber
Minimum Quantity	1,000	100
Retaining Pin	110G9-BK	110G9



Shell and housing are sold separately.

Cable (	Clamp
With Se	crews
Without Latch Shown	

positions in receptacle shells.

[ 27.94 ]

1.10

Plug Shell Without Latch Shown

Shell, housing and contacts are sold separately.



Retaining Pins

www.andersonpower.com

### **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® 10-45 connectors. The receptacle side can be used with wire or PCB contacts. Hardware bag includes retaining pins.

Description	Part	Numbers
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, <u>www.andersonpower.com</u> to learn more.

[ 0.64 ]

0.025

[88.6]

[ 38.6 ]

1 52

• [21.5]

0.85

[ 76.4

Plug Outline

[5.0] Ø 0.20 4

[30.2]

1.19

[4.4]

0.17

[50.8]

2 00

[367]

45

¥

[3.05]

[36.7]

1.45

[58 93 ]

[47.24] 1.860

Receptacle Outline

[29.14]

-1.147-

320

[24.38]

0.960

13.46]

[0.64]

0.025

0.530

### "T" Pak 2 Way Splitter

The Powerpole<sup>®</sup> "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<sup>®</sup> Pak plugs with #12 AWG wire.

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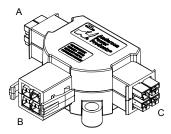
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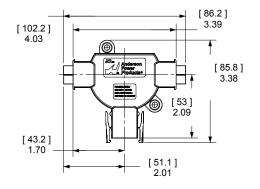
For OEM manufacturing scale applications, the "T" Pak can be loaded with custom configurations of any of our finger proof, standard, or ground housings and contacts in the PP15-45 series. Contact sales or customer service for additional information.

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 PP 15-45 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 PP 15-45 Housings & (3) 261G2-LPBK contacts with (1) 45A Green Premate Ground Housing and 1830G1-LPBK contact. Cable clamp & hardware pak also included.









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### | PP15-45 & POWERPOLE® PAK SPECIFICATIONS |

Electrical			Mechanical		
Current Rating Amperes 1	UL 197	7 CSA/TUV	Wire Size Range	AWG	mm²
Singlepole Wire to Wire (10 A Singlepole Ground Wire to Wire	e or PCB (10 AWG) 45	40 35		20 to 10	0.75 to 6.0
3x3 Block Wire to Wire (10 AV	,	27	Max. Wire Insulation Diameter	in.	mm
Singlepole 25A PCB to Wire ( 2x3 Block 25A PCB to Wire (1	12 AWG) 25	- 22 *		0.175	4.450
Singlepole 45A PCB to Wire (		40 *	Operating Temperature <sup>2</sup>	°F	°C
2x3 Block 45A PCB to Wire (1	10 AWG) 45	25 *	Powerpole <sup>®</sup> Housings & Powerpole <sup>®</sup> Pak Shells	-4° to 221°	-20° to 105
Voltage Rating AC/DC			Mating Cycles No Load by Plating	Silver (Ag)	Tin (Sn)
UL 1977	600		PCB to Wire	Silver (Ag)	1,500
			Wire to Wire	10.000	1,500
Dielectric Withstanding Volta Volts AC					1,000
Volts AC	2,200		Avg. Mating / Unmating Force	Lbf.	N
Avg. Mated Contact Resistan	nce Milliohms <sup>1</sup>		Low Force Wire, High Force PCB, & Ground	3	13
15A Wire Contact with 5/8" of			High Force Wire	5	22
Avg. Mated Contact Resistan 15A Wire Contact with 5/8" of 30A Wire Contact with 5/8" of 45A Wire Contact with 5/8" of			Low Force PCB	2	9
45A Wire Contact with 5/8" of	#10 AWG 0.525				
45A PCB Contact to Contact	0.500		Min. Contact / Spring Retention Force	Lbf.	Ν
25A PCB Contact to Contact	0.600			20	90
UL Hot Plug Current Rating A	Amperes <sup>5</sup>		Powerpole <sup>®</sup> Pak Latch Avg. Defeat Force	Lbf.	N
45A Wire Contact with 5/8" of 45A PCB Contact to Contact 25A PCB Contact to Contact <b>UL Hot Plug Current Rating A</b> 250 cycles at 72V DC 250 cycles at 120V DC	45A		Towerpole Tak Later Avg. Deleat Toree	150	667
250 cycles at 120V DC	30A				
			PCB Specifications		
UL Ground Short Time Curre			Mounting Style	Plated Through Hole	
750 Amps, #10 AWG Wire 470 Amps, #12 AWG Wire	4 Seco 4 Seco		PCB Thickness- in. [mm]	0.090 - 0.150	(2.3-3.8)
470 Allips, #12 AVVG Wile	4 3600	nus	25A PCB Recommended Traces	#12 AWG Cross Section	
			45A PCB Recommended Traces	#10 AWG Cross Section	
Materials			Mechanical Shock <sup>4</sup>		
Housing			MIL-STD-202	213 Condition A	50q's
Plastic Resin	Polycarbonate				0
Contact Retention Spring	Stainless Steel		Vibration High Frequency <sup>4</sup>		
			MIL-STD-202	204 Condition A	10g's
Housing Flammability Rating UL94	9 V-0				
Glow Wire	v-0 825°C (GWFI) / 80	0°C (GWIT)			
Contact	0				
Base Plating	Copper Alloy Tin or Silver				
C C					
Contact Termination Methods					
Crimp <sup>3</sup>	Wire Contacts	0			
Hand Solder	1331, 1332 & PCE	Contacts			
Solder Dip Wave Solder	PCB Contacts PCB Contacts				
wave Solder	PUB Contacts				

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

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<sup>1</sup>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.

<sup>2</sup> Limited by the thermal properties of the connector plastic housing.

<sup>3</sup> Use APP recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.

<sup>4</sup> Tested with contact part number 261G2.

<sup>5</sup> Based on 2 housings blocked together.







### | IEC INFORMATION |

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

Attributes *	PP45	PP45 FP
AMP Rating AC/DC	45	45 Amp
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 - 5000 Cycles	IEC 60512 Test 9a - 5000 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

\* Inmated and unmated condition

### Protection

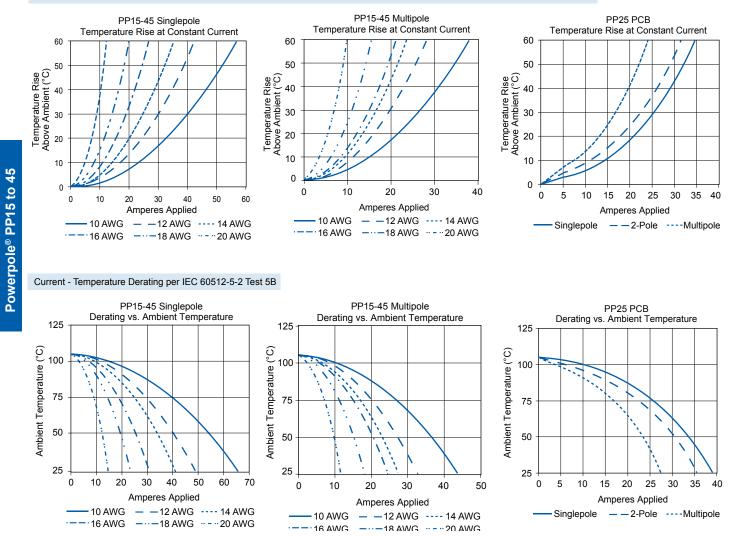
Touch Safety with Finger Proof Housings & WireContacts or PCB Mating InterfaceUL1977 Sec. 10.2PassIEC 60950PassIEC 60529IP20

Touch Safety With Standard Housings IEC 60529 IP10



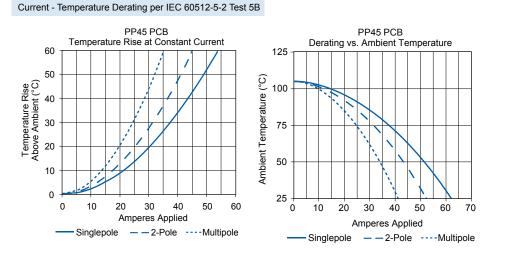
NOTE 3: Refer to the Constructional Data form for additional information on our website., www.andersonpower.com





For Temperature Rise Above 60°C, Consult the Extended Temperature Rise Charts in the Appropriate Product Section on the Website.

For Temperature Rise Above 60°C, Consult the Extended Temperature Rise Charts in the Appropriate Product Section on the Website.



NOTE: PP25 PCB charts based on 0.002 in<sup>2</sup> 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.



APP

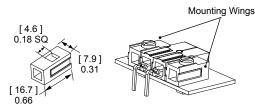
**SECTION 2** 

### | 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.

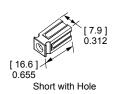
Description	Part Numbers			
Minimum Quantity	2,500	100		
Red	1399G9-BK	1399G9		
Blue	1399G8-BK	1399G8		

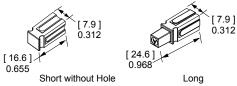


### Spacer

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.

Description	Part Num	bers
Minimum Quantity	2,500	100
Red, Short w/ Hole	1399G1-BK	1399G1
Red, Long	1399G2-BK	1399G2
Red, Short	1399G6-BK	1399G6
Black, Long	1399G10-BK	1399G10
Blue, Short	1399G13-BK	1399G13
White, Short w/ Hole	1399G14-BK	1399G14
White, Long	1399G17-BK	1399G17

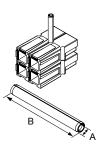




### **Retaining Pins**

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 -		- E	3 -
Description	Part Num	bers	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

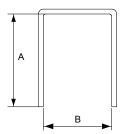


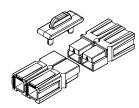


### **PCB Mounting Staples**

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	ΗxW	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**

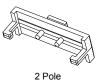
Retention clips prevent Powerpole® 15-45 blocks from unintended disconnects. They feature a tab for easy insertion and removal.

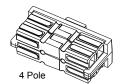
Description	Part Number
Minimum Quantity	100
1 Block High	110G68

### **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

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





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# Powerpole<sup>®</sup> - Tooling Information

Wire	Size	Reeled Part Numbers		Reeled Co	ntact Crimp Tool
AWG	mm²	Tin Plating	Silver Plating	APP Applicator	+ APP Press
	PP15 /	45 Flat W	iping Power	& 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	TDOTOT	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		Loose Piece Contact Crimp Tool				
AWG	mm²	Tin Plating	Silver Plating	Hand Tool <mark>O</mark>	Pneumatic Bench r Tool		+ Locator	Number of Crimps
PP15 / 45 Flat Wiping Power & Ground								
#16 / 20	1.3 / 0.52	N/A	1332	1309G2 or 1309G8		N/A	N/A	Single
#12 / 16	3.3 / 1.3	N/A	1331		N/A			
#16 / 20	1.3 / 0.52	262G1-LPBK	262G2-LPBK					
#16 / 20	1.3 / 0.52	269G2-LPBK	N/A					
#12 / 16	3.3 / 1.3	261G1-LPBK	N/A	1309G3 or 1309G8 1309G6 or 1309G8				
#10 / 14	5.3 / 2.1	261G2-LPBK	261G3-LPBK					
#12 / 16	3.3 / 1.3	269G1-LPBK	N/A					
#10 / 14	5.3 / 2.1	269G3-LPBK	N/A					
#10 / 14	5.3 / 2.1	200G1L-LPBK	200G3L-LPBK					
#10 / 14	5.3 / 2.1	201G1H-LPBK	N/A					
310 / 14	5.3 / 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 / 12	5.3 / 3.3		5952				1389G6	
			1875G2 5953			1388G7	1389G21	
			5955				1389G6	
			1875G3				1389G21	
				120				
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 1303G13	1304G32	Double
2/0	53.5		1328G1					
1/0	53.5		1382					
#1	42.4		1347					
#2	33.6		1383					
#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



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