

# Powertite™ Series Pin and Sleeve Plugs, Connectors and Receptacles

**NEC/CEC:**  
Listed for Ordinary (Unclassified) Locations  
NEMA 3, 4, 4X

## Applications

- Designed to supply power to portable or fixed electrical equipment such as motor generator units, welders, pumps, compressors, cellular relay stations, SCR/VFD houses, and similar equipment.
- Ideal for use in "ship to shore" and backup/temporary power applications.
- Suitable for use in locations where a weatherproof enclosure is required.
- Rough usage construction.



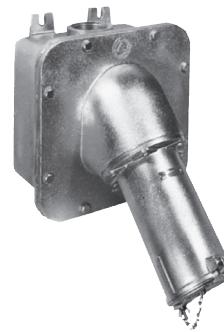
30 and 60 Amp



100 and 150 Amp



200 Amp



400 Amp

## Features

- Available in 30, 60, 100, 150, 200, and 400 Amp units.
- Available in two grounding styles: Style 1 (shell only) and Style 2 (shell and extra pole).
- Neoprene bushing compressed by cable collar prevents entrance of water. Bushing is highly resistant to hydrocarbon deterioration and is self-extinguishing.
- Locking screw and slot prevents plug cable collar from "backing off."
- Contacts exert constant pressure along entire contact surface and provide electrical continuity.
- Ambient temperature range of -25 °C to +40 °C (-13 °F to +104 °F).
- Insulating blocks provide greatest dielectric and mechanical strength and lowest arc tracking.
- Positive polarization: only plugs and receptacles of same style, number of poles and ampere rating can be used together.
- Circuit breaking: in 30, 60, 100, 150 and 200 Amp units, any arcing created as line and load terminals disengage is safely confined deep within terminal cavities. Plugs may be withdrawn in an emergency under full rated loads without separate disconnect switches (400 Amp plug is for disconnecting use only; not for current rupturing).
- 30, 60, 100, and 150 Amp Powertite™ plugs also suitable for classified locations when used with Appleton EBR, EBRH, JBR, MD2SR, or DBR explosionproof interlocking receptacles.
- Controlled length contacts ensure that ground makes first and breaks last for added safety.
- Intermatability ①: Intermateable with Crouse-Hinds + Arktite® and Powermate™, and Killark ♦ Versamate®.

## Standard Materials

- Plug, receptacle, connector and mounting box housings: copperfree (4/10 of 1% max.) aluminum
- Insulating blocks: glass filled polyester

## Standard Finishes

- Aluminum plug, receptacle, connector and mounting box housings: epoxy powder coat
- Insulating blocks and contacts: natural finish

## Options

- See Illustrated Options section for details.
- Standard Service, Reverse Service (Generator Application), and Special Polarization.
- Lock Collar accessory to secure plug and connector connections from unauthorized intentional disconnection.
- NEMA 4X Cap accessory for plugs to protect insulation and plug contacts from moisture, dirt, dust and corrosion when not in use.

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1682, UL 1686, UL 50E
- UL Listed: E145916, E145917
- cULus Listed: E145917 (200 Amp)
- CSA Standard: C22.2 No. 182.1-13
- CSA Certified: 065179
- NEMA 4X (30, 60, 100, 150, and 200 Amp)
- NEMA Configuration: FB11

## Related Products

- For classified location plugs and receptacles, see *Plugs and Receptacles: Hazardous Location*.

① Appleton Powertite series 30 through 100 Amps is UL Classified for use in specific combinations with Crouse-Hinds Arktite®. Killark Versamate® series UL Classified for use with Appleton Powertite series 30 through 200 Amps.

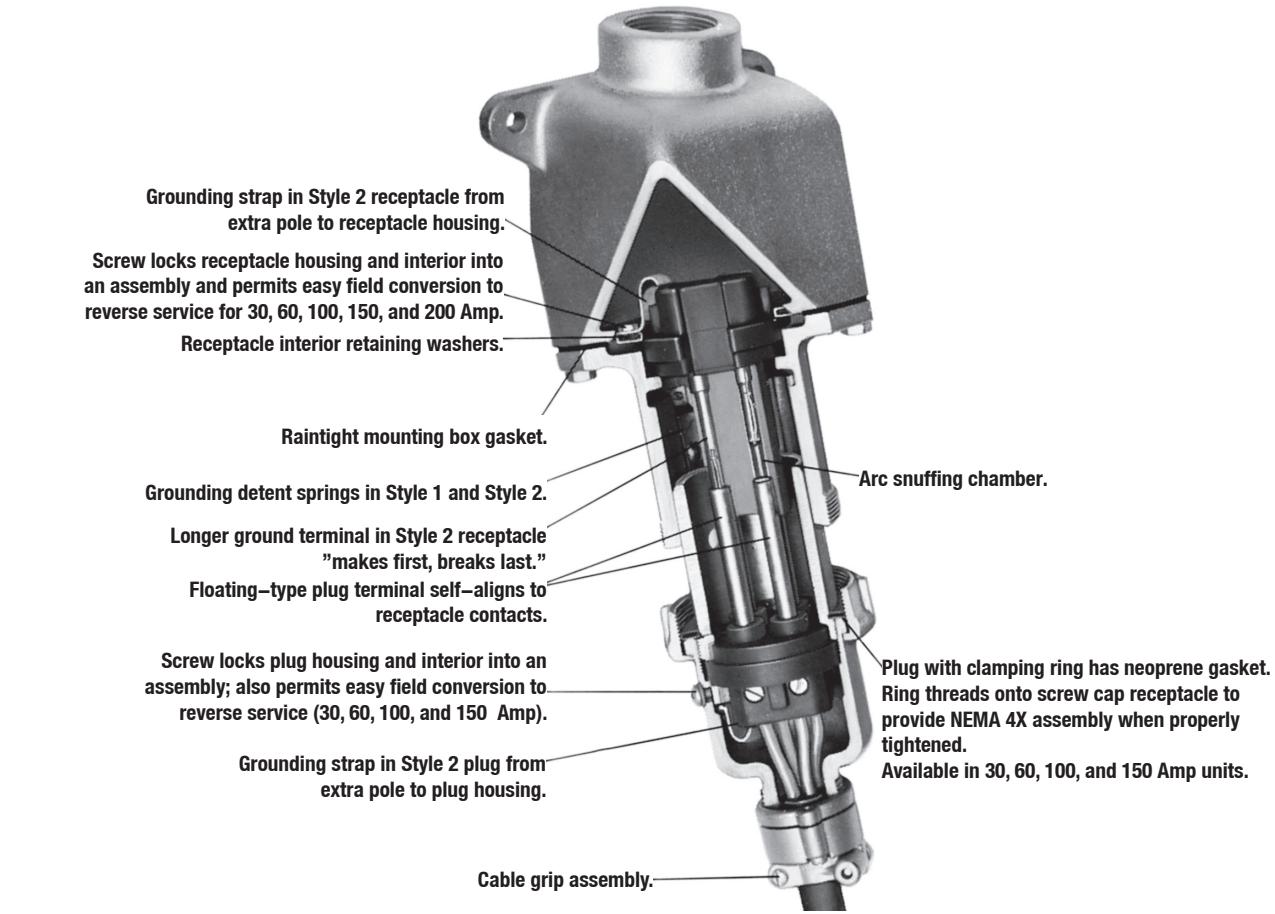
+ Arktite is a registered trademark of Cooper Crouse-Hinds.

♦ Versamate is a registered trademark of Hubble Killark.

# Powertite™ Series Pin and Sleeve Plugs, Connectors and Receptacles

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## Illustrated Features

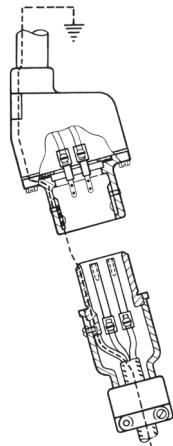


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## Illustrated Features

### Grounding Styles



Style 1  
(Shell Only)

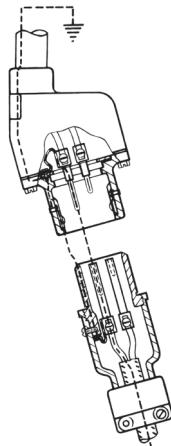
Portable cord,  
4-conductor

Grounding  
thru conduit  
system

PLUG

RECEPTACLE

Equipment  
grounding  
connected  
to plug shell



Style 2  
(Shell and Extra Pole)

Portable cord,  
4-conductor

RECEPTACLE

PLUG

Fourth  
(grounding)  
wire,  
if desired

Grounding  
thru conduit  
system and  
extra pole

Factory  
installed  
jumper

Equipment  
grounding  
connected  
to extra pole  
and plug shell

**Plug**—Equipment grounding conductor is wired directly to solderless lug which is connected to the plug housing with a pressure connector. All terminals are "current carrying."

**Receptacle**—Two detent spring clips engage the grounded plug housing on plug insertion-grounded plug shell makes contact with receptacle ground spring before line and load poles are engaged. Grounding path is maintained until after current-carrying contacts disengage. All terminals are "current carrying."

**Plug**—Equipment grounding conductor is not only connected to the solderless lug in the plug housing, but also to an extra grounding pole. Grounding pole has copper alloy grounding jumper strap that connects to plug housing.

**Receptacle**—Two detent spring clips engage grounded plug housing on plug insertion. Jumper from extra grounding pole is electrically connected to a screw on receptacle housing. Longer grounding pole "makes first and breaks last."

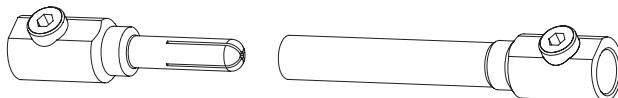
### Pin and Sleeve Design ①



30, 60, and 100 Amp Pressure Wire Terminals.  
Solid Brass Contacts with Beryllium Copper Springs.



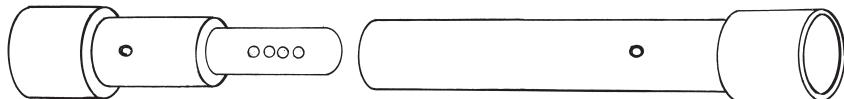
150 Amp Pressure Wire Terminals.  
Solid Copper Contacts with Beryllium Copper Springs.



200 Amp Pressure Wire Terminals. Solid Copper Split-Type Contact.



400 Amp 0.84" Solder Well Wire Terminals. Solid Copper Contacts with Four Spring-Loaded Borosilicate Bearings.



400 Amp 1.25" Solder Wire Well Terminals. Solid Copper Contacts with Four Spring-Loaded Borosilicate Bearings.

① Pins and sleeves are not sold separately. Must be purchased as entire interior replacement. Available on the Replacement Internors pages.

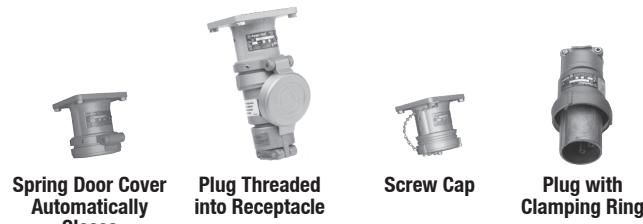
# Powertite™ Series Pin and Sleeve Plugs, Connectors and Receptacles

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## Illustrated Features

### Spring Door and Screw Cap

30, 60, 100, and 150 Amp spring door and screw cap receptacles are threaded to accept clamping ring ACP plug. The ring threads onto the receptacle to form a raintight assembly with plug in use-and also to prevent plug fallout. When the plug is withdrawn, the gasketed spring door cover closes tightly against receptacle opening automatically, providing weatherproof protection. Spring door has stainless steel spring and shaft.



### Spring Door Cover

30, 60, 100, and 150 Amp units may be located at any position in a 360° circle by adjusting a setscrew. Set screw also allows complete removal of cover. Spring door available on 200 Amp units.

*NOTE: Spring Door cover in open positions for illustration only.*

Spring Door Cover Automatically Closes      Plug Threaded into Receptacle      Screw Cap      Plug with Clamping Ring



### ACP Plugs

Supplied with bushings to accommodate a wide variety of cable diameters.



### Reversible Cable Clamps

Permits wide cable range (just loosen screws and flip over). Each position accommodates one of two bushings. Convenient in installations having different cable sizes.



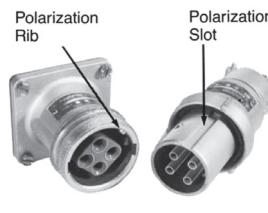
1st Position

2nd Position

## Illustrated Options

### Standard Service

Energized receptacle has recessed male contacts to reduce danger of accidental touching. Plug has female contacts that are energized only upon insertion in receptacle.

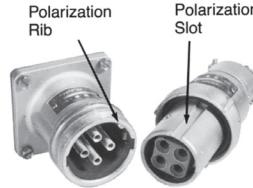


Male Receptacle Interior

Female Plug Interior

### Reverse Service (Generator Application)

Useful where a "hot" plug feeds a dead receptacle. Reverse service is often used for generator applications where the receptacle houses a dead plug interior. Plug houses an energized receptacle interior, which has recessed male contacts to reduce danger of accidental touching. 30, 60, 100, 150, and 200 Amp units can be easily converted to reverse service in the field when matching plug and receptacle are ordered. 400 Amp unit is only available as a factory assembled item at extra cost. Add suffix **-RS** to receptacle or connector.



Female Plug Interior

Male Receptacle Interior

### Special Polarization

Special polarization is available on 30, 60, 100, 200, and 400 Amp units. Prevents plug insertion in a receptacle or connector wired for a different voltage. In installations where there are different line voltages, the special polarization option is desirable. This allows only plugs and receptacles wired for the same line voltage to be mated together. The receptacle or connector interior is positioned 22-1/2°, relative to the polarization rivet, to the right (as specified) of standard, and plug is polarized to correspond. Add suffix **-P4** to the standard or reverse service plug, receptacle or connector.

### Lock Collar

Secures Plug and Connector connections to prevent intentional disconnection by unauthorized personnel. For use with 60 and 100 Amp Series Plugs and Connectors. Collar clamps around fully tightened Plug and Connector and secured via a padlock. Order item PTLC60100.



### NEMA 4X Cap

Protects plug insulation and contacts from moisture, dirt, dust and corrosion when not in use. See product page for item number information.

# Powertite™ 100 and 150 Amp Pin and Sleeve Plugs and Receptacles

600 Vac, 250 Vdc, 50-400 Hz

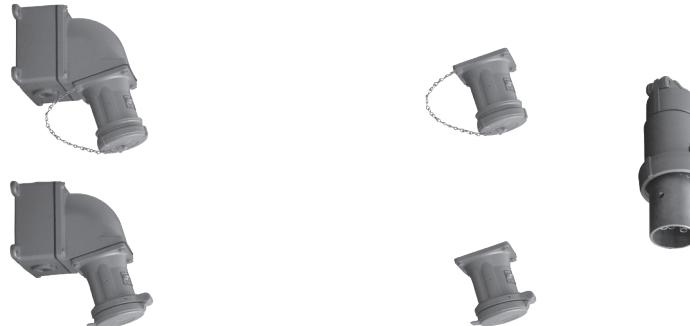
Pressure Wire Terminals – 100 Amp: Wire Recess Diameter: .391". Wire Size Range: #4—#1 Building; #4—#2 Extra Flex.

150 Amp: Wire Recess Diameter: .525". Wire Size Range: #2—2/0 Building; #2—#2/0 Extra Flex.

NEC/CEC:

Listed for Ordinary (Unclassified) Locations

NEMA 3, 4, 4X



Grounding Style	Wire/Pole	Receptacle with AJA Mounting Box ①	Hub Size (Inches)	Receptacle Only ③	Clamping Ring Plug ②	Plug Cable Dia. (Inches)
100 Amp Style 1 (Shell Only)	2W, 2P	<b>ADJA1022-125</b>	1-1/4	<b>ADR1022</b>	<b>ACP1022CD</b>	.875 to 1.906
		<b>ADJA1022-150</b>	1-1/2			
	3W, 3P	<b>ADJA1033-125</b>	1-1/4	<b>ADR1033</b>	<b>ACP1033CD</b>	.875 to 1.906
		<b>ADJA1033-150</b>	1-1/2			
	4W, 4P	<b>ADJA1044-150</b>	1-1/2	<b>ADR1044</b>	<b>ACP1044CD</b>	.875 to 1.906
		<b>ADJA1044-200</b>	2			
100 Amp Style 2 (Shell and Extra Pole)	2W, 3P	<b>ADJA1023-125</b>	1-1/4	<b>ADR1023</b>	<b>ACP1023CD</b>	.875 to 1.906
		<b>ADJA1023-150</b>	1-1/2			
	3W, 4P	<b>ADJA1034-150</b>	1-1/2	<b>ADR1034</b>	<b>ACP1034CD</b>	.875 to 1.906
		<b>ADJA1034-200</b>	2			
150 Amp Style 2 (Shell and Extra Pole)	3W, 4P	<b>ADJA15034-150</b>	1-1/2	<b>ADR15034</b>	<b>ACP15034CD</b>	.875 to 1.906
		<b>ADJA15034-200</b>	2		<b>ACP15034DE</b>	

Receptacles are provided with spring door and screw cover.

For Reverse Service, add suffix **-RS** to Catalog Number.

For Special Polarization for 100 Amp units, add suffix **-P4** to Catalog Number. (Not available for 150 Amp units.)

## Horsepower Ratings at Full-Load Current

Below values are derived from NEC article 430 Table 430.250. The voltages listed are nominal motor voltages.

Amp	Motor Phase	240 Vac	Motor Horsepower	
			480 Vac	600 Vac
100	3-Phase	30HP	75HP	100HP
150	3-Phase	50HP	100HP	150HP

## Horsepower Ratings for Emergency Disconnect Under Load

Not for normal starting and stopping, but plug may be withdrawn in an emergency if within these maximum HP ratings.

Amp	Motor Phase	120 Vac	Motor Horsepower		
			240 Vac	480 Vac	600 Vac
100	1-Phase	7-1/2HP	15HP	30HP	30HP
	3-Phase	10HP	20HP	40HP	40HP
150	3-Phase	Do Not Disconnect Under Load			

① For additional mounting boxes, see Aluminum Mounting Boxes.

② Plug and receptacle combination is NEMA 4X rated when clamping ring is fully tightened on receptacle.

③ Receptacle is NEMA 4X rated when screw cover is fully engaged when the receptacle is not in use.

# Powertite™ 100 and 150 Amp Pin and Sleeve Connectors and Plugs

600 Vac, 250 Vdc, 50-400 Hz

Pressure Wire Terminals – 100 Amp: Wire Recess Diameter: .391". Wire Size Range: #4—#1 Building; #4—#2 Extra Flex.

150 Amp: Wire Recess Diameter: .525". Wire Size Range: #2—2/0 Building; #2—#2/0 Extra Flex.

NEC/CEC:

*Listed for Ordinary (Unclassified) Locations*

NEMA 3, 4, 4X

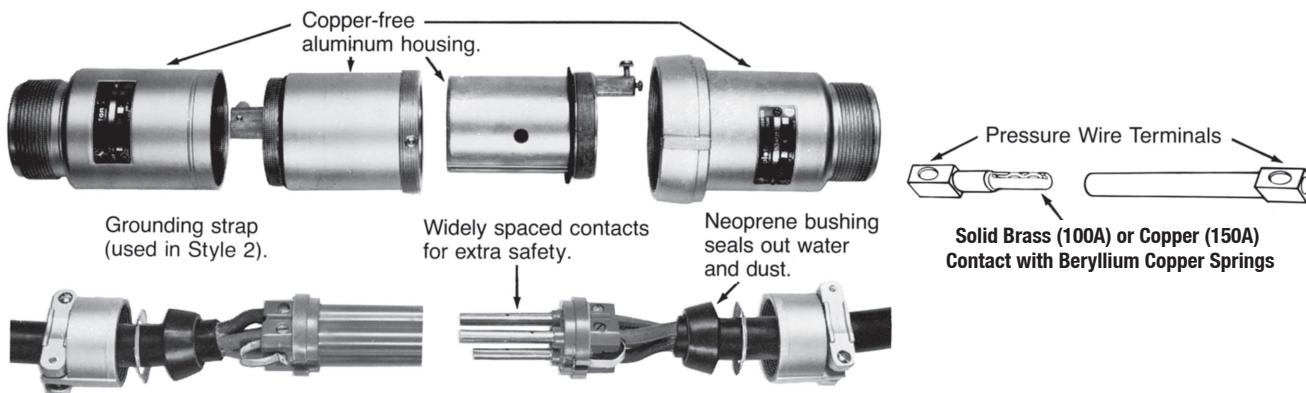


Grounding Style	Wire/Pole	Connector Body Only	Clamping Ring Plug ①	Connector/Plug Cable Dia. (Inches)
100 Amp Style 1 (Shell Only)	2W, 2P	ARC1022CD	ACP1022CD	.875 to 1.906
	3W, 3P	ARC1033CD	ACP1033CD	.875 to 1.906
	4W, 4P	ARC1044CD	ACP1044CD	.875 to 1.906
100 Amp Style 2 (Shell and Extra Pole)	2W, 3P	ARC1023CD	ACP1023CD	.875 to 1.906
	3W, 4P	ARC1034CD	ACP1034CD	.875 to 1.906
150 Amp ② Style 2 (Shell and Extra Pole)	3W, 4P	ARC15034CD	ACP15034CD	.875 to 1.906
	3W, 4P	ARC15034DE	ACP15034DE	1.250 to 2.187

For Reverse Service, add suffix **-RS** to Catalog Number.

For Special Polarization for 100 Amp units, add suffix **-P4** to Catalog Number. (Not available for 150 Amp units.)

## Pin and Sleeve Design



**Energized contacts** deeply recessed to reduce danger of accidental touching, minimize possibility of exposed arcs. Insulator quenches arcing, and is resistant to abnormal heat and to fire.

**Plug mechanical cable clamps** provide strain relief at conductor connections, allow easy cable replacement.

**Pressure wire terminals** allow cable to be readily replaced when necessary. Terminal screws grip conductors firmly. Spring contacts provide constant pressure.

① Plug and receptacle combination is NEMA 4X rated when clamping ring is fully tightened on receptacle.

② Powertite 150 Amp ARC connectors are not UL listed or CSA certified.

# Powertite™ Lock Collar 60 and 100 Amp

## For Plugs and Connectors

### Applications

- Secures Plug and Connector connections to prevent intentional disconnection by unauthorized personnel.
- For use with 60 and 100 Amp Series Plugs and Connectors.
- Collar clamps around fully tightened Plug and Connector and secured via a padlock.

### Standard Materials

- Shell: PA6 plastic
- Rubber inserts: NR rubber
- Padlock: Stainless steel



Open View



Keyed Padlock Feature



Closed View

### Ordering Information

Catalog Number	Amp	For Use With 60 Amp Series Plug and Connector	For Use With 100 Amp Series Plug and Connector
PTLC60100	60 & 100	ACP6022BC & ARC6022BC	ACP1022CD & ARC1022CD
		ACP6033BC & ARC6033BC	ACP1033CD & ARC1033CD
		ACP6044BC & ARC6044BC	ACP1044CD & ARC1044CD
		ACP6023BC & ARC6023BC	ACP1023CD & ARC1023CD
		ACP6034BC & ARC6034BC	ACP1034CD & ARC1034CD

# Powertite™ 30, 60, 100, and 150 Amp Caps For Plug

NEC/CEC:  
Listed for Ordinary (Unclassified) Locations  
NEMA 4X

## Applications

- Protects insulation and plug contacts from excessive moisture, dirt, dust, and corrosion when portable equipment is not in use.
- For use with 30 Amp 3-Pole and 4-Pole, 60 Amp 4-Pole and 100 and 150 Amp 4-Pole plugs.
- Cap is secured to plug by aviation cable. When in use the cap is held in place with standard plug clamping ring.

## Standard Materials

- Cap: ABS plastic



## Ordering Information

Catalog Number	Amp	For Use With
ACPCAP3034	30	ACP3023BC
		ACP3033BC
		ACP3034BC
		ACP3044BC
ACPCAP6004	60	ACP6034BC
		ACP6044BC
ACPCAP1004	100	ACP1034CD
		ACP1044CD
		ACP15034CD
	150	ACP15034DE