

PowerMate plugs, receptacles and connectors

Drilling rig pin and sleeve power connections

UL Listed
CSA Certified
NEMA 4X

9P

PowerMate™ is designed to support the modularity of drilling rig systems by providing safe and reliable power connections for rigging up and rigging down equipment quickly and efficiently.

This offering is the ideal rig power connection solution providing:

- Longer product life
- Reduced maintenance
- Enhanced safety
- Easy installation

The PowerMate product offering is compatible with all UL1686 Listed plugs and receptacles, including:

- Eaton's Crouse-Hinds series Arkrite
- Appleton Powertite®
- Killark VersaMate®

Applications:

- SCR/VFD houses to provide power to rig equipment, such as shakers, agitators, lighting circuits, mud pumps, motors, etc.
- Quickly and efficiently connect power during rig ups and disconnect power during rig downs

Specifiable features:

- Lockout plug
- Fixed safety insulator
- Diamond cable clamp
- Split pin contacts
- Suited for use with Type P cable

Certifications and compliances:

- Plugs (CCP 30A-150A, including CCP3034) hazardous location rated when used with Eaton's Crouse-Hinds series interlocked receptacles (ex. FSQC, EBBR models)
 - Class I, Division 1, Groups B, C, D (excludes 200A)
 - Class II, Division 1, Groups F, G (excludes 200A)
- CE marked (excludes RS option and 200A)
- UL standards: UL1682; UL1686; NEMA250; IEC60309-1; IEC60309-2
- CSA standard: CSA 22.2 No. 182.1
- Suited for use with Type P cable, flexible cord and cables rated for extra hard usage
- NEMA 4X

Standard materials:

- Receptacle housing, plug and cord connector bodies – high impact strength copper-free aluminum (less than 0.4% copper)
- Back boxes – cast aluminum
- Insulation – fiberglass-reinforced polyester
- Contacts – naval brass

Standard finishes:

- Copper-free aluminum – epoxy powder coat
- Fiberglass-reinforced polyester – natural (red)
- Naval brass – natural

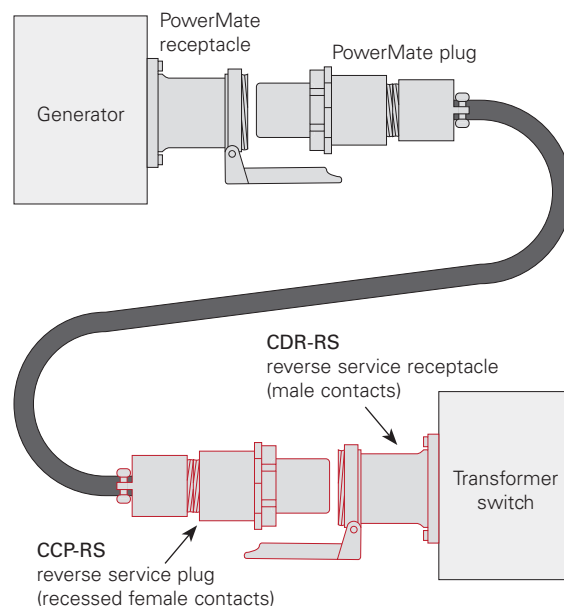


Electrical ratings:

- 30, 60, 100, 150, 200A; 600 VAC/250 VDC

Options:

Description	Suffix
• Reverse service.....	RS
<i>Receptacle assembled with plug interior (exposed contacts); plug assembled with receptacle interior (recessed contacts)</i>	
<i>For applications where plug is energized to feed normally de-energized receptacle; interiors are field interchangeable using only a screwdriver</i>	
<i>Excludes 150A and 200A units</i>	
• Special polarity.....	P4
<i>Receptacle interior rotated 22½° to right and plug changed to match</i>	
<i>For use where two or more receptacles of the same ampere rating, style and number of poles are to be installed in the same area for use on different voltages and/or frequencies</i>	
<i>Prevents insertion of a plug in a receptacle with different electrical rating</i>	

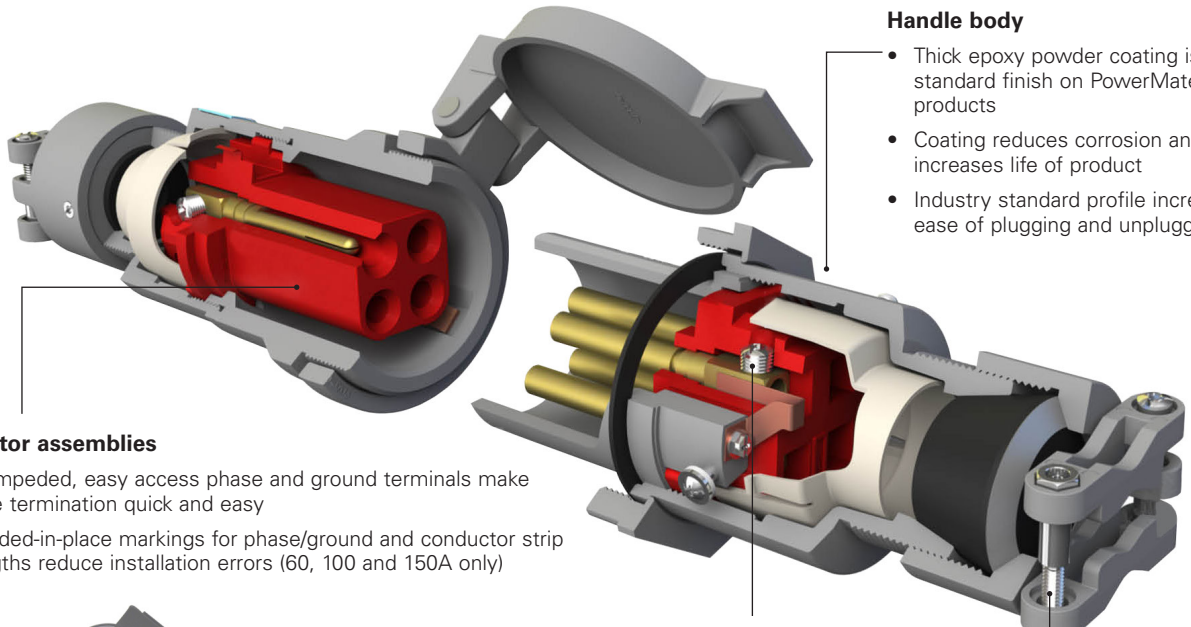


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Handle body

- Thick epoxy powder coating is standard finish on PowerMate products
- Coating reduces corrosion and increases life of product
- Industry standard profile increases ease of plugging and unplugging

Insulator assemblies

- Unimpeded, easy access phase and ground terminals make wire termination quick and easy
- Molded-in-place markings for phase/ground and conductor strip lengths reduce installation errors (60, 100 and 150A only)



Combination slot and hex lugs


- Increases ease of installation by allowing for more than one option for installation tools
- Hex head allows for easy achievement of specified torque value

Combination drive stainless steel hardware

- Increases ease of installation by allowing for more than one option for installation tools
- Stainless steel external hardware eliminates corrosion on critical components and extends product life

Spring and threaded cover options

- Each 30, 60, 100 and 150A receptacle comes with both spring cap and threaded cap to provide a variety of cover options
- 200A comes with spring cap and wing nuts to ensure environmental sealing




Extended cable range

- Industry's largest cable diameter range
- Specifically designed, third party tested and certified for use with Type P cable
- Sealing system utilizes industry standard bushings

Enhanced nomenclature and nameplate

- Easily understandable nomenclature increases ease of part configuration identification
- Mechanically attached nameplate ensures that critical information is permanently fixed to product



Exclusive features



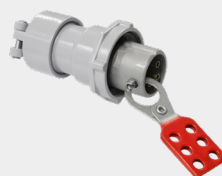
8-point diamond cable clamps

- 8 points of contact around diameter of cable for increased grip and even distribution of pressure
- Cable jacket does not get pinched, eliminating potential for damage to internal conductors



Split pin contact design

- Provides nearly 360° of contact at every insertion, ensuring protection against heat rise and eliminating arcing on critical surfaces
- Self-wiping at every insertion to remove foreign particles that create electrical resistance and product failure



Lockout plug

- Guarantees isolated power supply with OSHA compliant lockout/tagout
- Ensures plug cannot be inserted into receptacle when maintenance is being performed downstream of power supply



Fixed safety insulator

- Prevents electrical shock and shorts with plastic barrier between insulator body and metal housing
- Fixed-in-place design ensures insulator will not be lost or discarded during cable termination process (30, 60, 100 and 150A only)

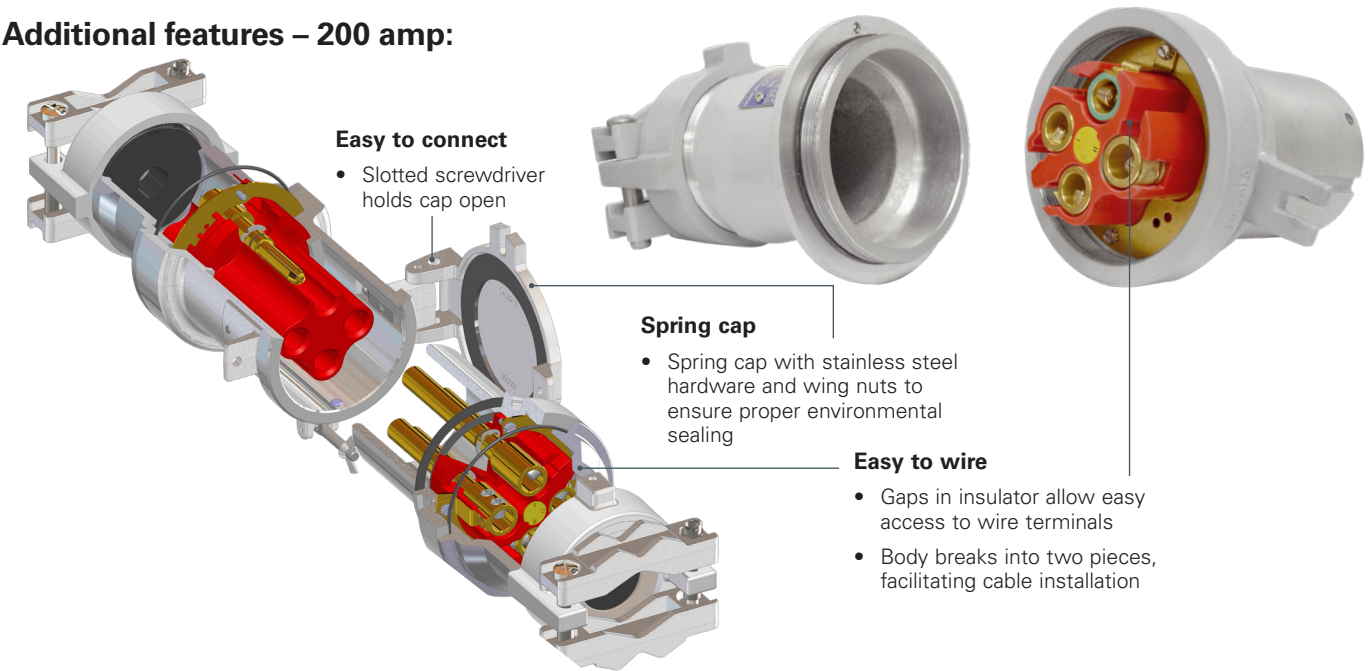
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Additional features – 200 amp:



Horsepower ratings:

Amperage	Voltage
30, 60, 100, 150, 200	600 VAC, 50-400 Hz; 250 VDC ^A

Maximum horsepower for plug and receptacle combinations by input voltage

Typical horsepower ratings based on NEC Article 430 tables. HP ratings are based on the largest conductor size for each plug and receptacle combination.

Amperage	Motor horsepower ^B		
	240V	480V	600V
30	15	30	40
60	20	40	50
100	30	60	75
150	40	75	100
200	60	125	150

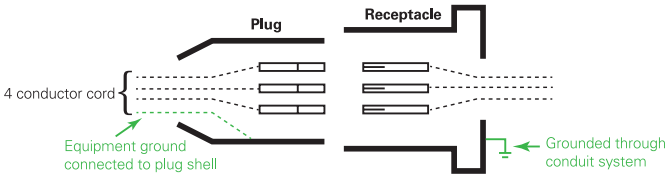
Wire sizes:

The wire size table lists the diameter of the wire recess in PowerMate plug and receptacle contacts so that maximum size of bare conductor can be determined. Range of wire sizes shown in table are intended only as a guide. Depending on type of wire used (building wire, flexible or extra flexible cable) and its construction (number and size of strands), bare copper diameters vary widely.

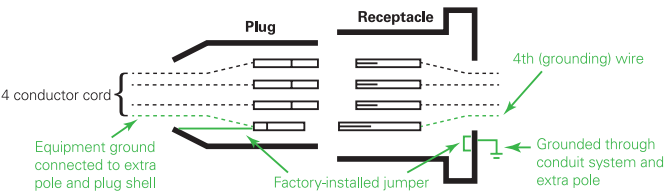
Diameter: wire recess in plug and receptacle contacts

Amperage	Contact type	Diameter of recess	Wire size ^C extra flex
30 (2-, 3- and 4-pole)	Pressure	0.281"	#10 to #8
60 (2-, 3- and 4-pole)	Pressure	0.312"	#8 to #4
100 (2-, 3- and 4-pole)	Pressure	0.390"	#4 to #2
150 (4-pole)	Pressure	0.390"	#2 to 1/0
200 (3- and 4-pole)	Pressure	0.687"	2/0 to 250 MCM

Grounding:



Style 1 units complete the grounding circuit through the metallic plug shell, receptacle housing or connector shell.



Style 2 units with metal housing have a separate designated ground contact that is bonded to the metallic housing. The metallic housing of the plug, receptacle or connector forms a parallel ground circuit through the receptacle or connector detent spring.

^AThis guide is for reference only. Consult your local electrical codes before installation.

^BEaton's Crouse-Hinds Division recommends circuit breaking use be limited to emergency conditions only and that a horsepower rated switch or Eaton's Crouse-Hinds series interlocked receptacle be used for making and breaking under load.

^CDo not use wire size smaller than minimum size recommended.

PowerMate plugs, receptacles and connectors

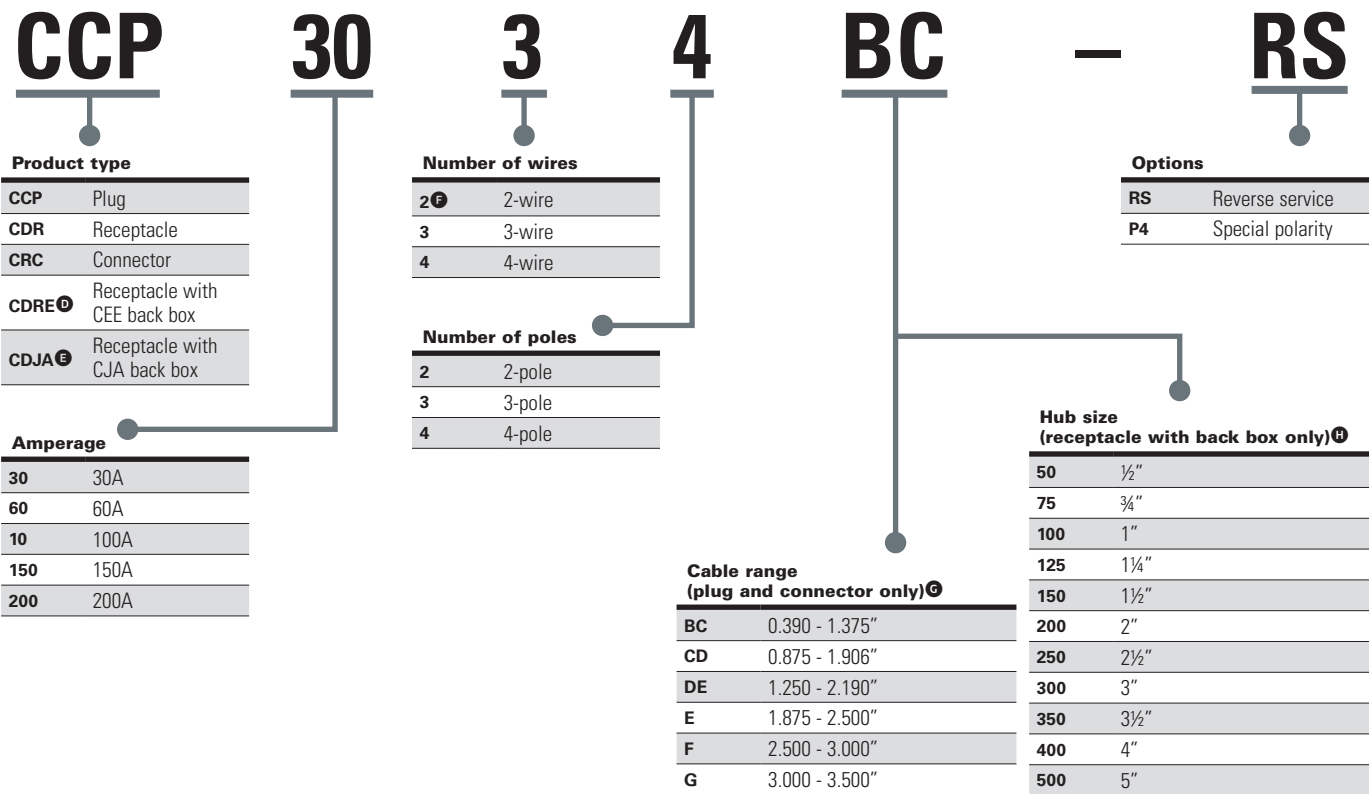
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Ordering information:

Part number example
CCP3034BC – RS



[Ⓓ] Available with 30A and 60A receptacle.

[Ⓔ] Available with 60A, 100A, 150A and 200A receptacle.

[Ⓕ] Available with 30A, 60A and 100A product.

[Ⓖ] Cable range only applies to specific plug catalog numbers.

[Ⓗ] Hub size only applies to specific receptacle catalog numbers.

PowerMate plugs, receptacles and connectors

30A and 60A, 600 VAC/250 VDC, 50•-400 Hz

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Ordering information – 30A:

Receptacles, plugs, connectors



Description and configuration	Cat. # Receptacle	Plug		Cord connector	
		Cable range	Cat. # Plug	Cable range	Cat. # Cord connector
2-wire, 2-pole, Style 1	CDR3022	0.390 - 1.375"	CCP3022BC	0.390 - 1.375"	CRC3022BC
2-wire, 3-pole, Style 2	CDR3023	0.390 - 1.375"	CCP3023BC	0.390 - 1.375"	CRC3023BC
3-wire, 3-pole, Style 1	CDR3033	0.390 - 1.375"	CCP3033BC	0.390 - 1.375"	CRC3033BC
3-wire, 4-pole, Style 2	CDR3034	0.390 - 1.375"	CCP3034BC	0.390 - 1.375"	CRC3034BC
4-wire, 4-pole, Style 1	CDR3044	0.390 - 1.375"	CCP3044BC	0.390 - 1.375"	CRC3044BC

Back boxes



Hub size	CEE	CERH	CERC
1/2"	CEE13	CERH13	CERC13
1 1/4"	CEE23	CERH23	CERC23
1 1/2"	CEE33	CERH33	CERC33

- Standard Corro-free epoxy powder coat finish for increased corrosion resistance
- For optional reversed interior, use suffix 'RS'
- For optional rotated interior, use suffix 'P4'
- Maximum conductor size (wire well) 0.281"

Ordering information – 60A:

Receptacles, plugs, connectors



Description and configuration	Cat. # Receptacle	Plug		Cord connector	
		Cable range	Cat. # Plug	Cable range	Cat. # Cord connector
2-wire, 2-pole, Style 1	CDR6022	0.440 - 1.375"	CCP6022BC	0.440 - 1.375"	CRC6022BC
2-wire, 3-pole, Style 2	CDR6023	0.440 - 1.375"	CCP6023BC	0.440 - 1.375"	CRC6023BC
3-wire, 3-pole, Style 1	CDR6033	0.440 - 1.375"	CCP6033BC	0.440 - 1.375"	CRC6033BC
3-wire, 4-pole, Style 2	CDR6034	0.440 - 1.375"	CCP6034BC	0.440 - 1.375"	CRC6034BC
4-wire, 4-pole, Style 1	CDR6044	0.440 - 1.375"	CCP6044BC	0.440 - 1.375"	CRC6044BC

Back boxes



Hub size	CEE	CERH	CJA	CERC
1"	CEE36	CERH36	CJA310	CERC36
1 1/4"	CEE46	CERH46	CJA410	CERC46
1 1/2"	CEE56	CERH56	CJA510	CERC56
2"	–	–	CJA610	–

- Standard Corro-free epoxy powder coat finish for increased corrosion resistance
- For optional reversed interior, use suffix 'RS'
- For optional rotated interior, use suffix 'P4'
- Maximum conductor size (wire well) 0.312"

① For use on systems less than 60 Hz, the receptacles, plugs and connectors are for disconnect use only.

PowerMate plugs, receptacles and connectors

100A and 150A, 600 VAC/250 VDC, 50•-400 Hz

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Ordering information – 100A:

Receptacles, plugs, connectors



Description and configuration	Cat. # Receptacle	Plug		Cord connector	
		Cable range	Cat. # Plug	Cable range	Cat. # Cord connector
2-wire, 2-pole, Style 1	CDR1022	0.875 - 1.906"	CCP1022CD	0.875 - 1.906"	CRC1022CD
2-wire, 3-pole, Style 2	CDR1023	0.875 - 1.906"	CCP1023CD	0.875 - 1.906"	CRC1023CD
3-wire, 3-pole, Style 1	CDR1033	0.875 - 1.906"	CCP1033CD	0.875 - 1.906"	CRC1033CD
3-wire, 4-pole, Style 2	CDR1034	0.875 - 1.906"	CCP1034CD	0.875 - 1.906"	CRC1034CD
4-wire, 4-pole, Style 1	CDR1044	0.875 - 1.906"	CCP1044CD	0.875 - 1.906"	CRC1044CD

Back boxes (100A and 150A)



Hub size	CJA	CJA adapter only
1"	CJA310	CJA100
1 1/4"	CJA410	
1 1/2"	CJA510	
2"	CJA610	

- Standard Corro-free epoxy powder coat finish for increased corrosion resistance
- For optional reversed interior, use suffix 'RS'
- For optional rotated interior, use suffix 'P4'
- Maximum conductor size (wire well) 0.390"

Ordering information – 150A:

Receptacles, plugs, connectors



Description and configuration	Cat. # Receptacle	Plug		Cord connector	
		Cable range	Cat. # Plug	Cable range	Cat. # Cord connector
3-wire, 4-pole, Style 2	CDR15034	0.875 - 1.906"	CCP15034CD	0.875 - 1.906"	CRC15034CD
		1.250 - 2.190"	CCP15034DE	1.250 - 2.190"	CRC15034DE
4-wire, 4-pole, Style 1	CDR15044	0.875 - 1.906"	CCP15044CD	0.875 - 1.906"	CRC15044CD
		1.250 - 2.190"	CCP15044DE	1.250 - 2.190"	CRC15044DE

For use on systems less than 60 Hz, the receptacles, plugs and connectors are for disconnect use only.

PowerMate plugs, receptacles and connectors

200A, 600 VAC/250 VDC, 50[Ⓚ]-400 Hz





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Ordering information – 200A:

Receptacles, plugs, connectors



Description and configuration	Cat. # Receptacle	Plug	Cord connector		
		Cable range	Cat. # Plug	Cable range	Cat. # Cord connector
2-wire, 3-pole, Style 2 	CDR20023	0.875 - 1.906"	CCP20023CD	0.875 - 1.906"	CRC20023CD
		1.875 - 2.500"	CCP20023E	1.875 - 2.500"	CRC20023E
3-wire, 3-pole, Style 1 	CDR20033	0.875 - 1.906"	CCP20033CD	0.875 - 1.906"	CRC20033CD
		1.875 - 2.500"	CCP20033E	1.875 - 2.500"	CRC20033E
3-wire, 4-pole, Style 2 	CDR20034	0.875 - 1.906"	CCP20034CD	0.875 - 1.906"	CRC20034CD
		1.875 - 2.500"	CCP20034E	1.875 - 2.500"	CRC20034E
4-wire, 4-pole, Style 1 	CDR20044	0.875 - 1.906"	CCP20044CD	0.875 - 1.906"	CRC20044CD
		1.875 - 2.500"	CCP20044E	1.875 - 2.500"	CRC20044E

Back boxes



Hub size	CJA	CJAC (through feed)	CJA adapter only
1½"	CJA520	–	
2"	CJA620	–	CJA200
2½"	CJA720	CJAC720	

- Standard Corro-free epoxy powder coat finish for increased corrosion resistance
- For optional reversed interior, use suffix 'RS'
- For optional rotated interior, use suffix 'P4'
- Maximum conductor size (wire well) 0.281"

[Ⓚ]For use on systems less than 60 Hz, the receptacles, plugs and connectors are for disconnect use only.

PowerMate plugs, receptacles and connectors

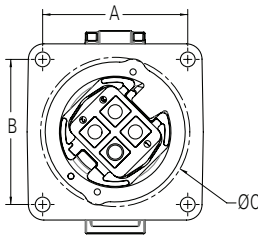
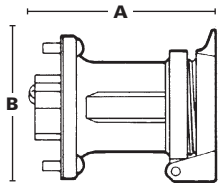
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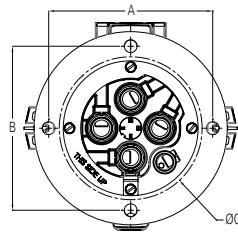
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Dimensions (in inches):

Receptacle



30-150A

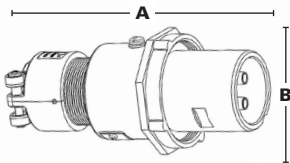


200A

Amperage	A	B
30A	2.875	3.375
60A, 3-pole	4.250	4.500
60A, 4-pole	4.250	4.500
100A, 3-pole	5.250	4.250
100A, 4-pole	5.250	4.250
150A CD	5.250	4.250
150A DE	5.250	4.250
200A	7.875	7.188

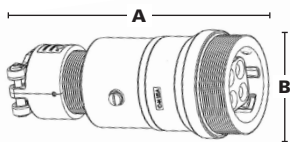
Amperage	A	B	C
30A	2.720	2.720	2.770
60A, 3-pole	3.500	3.500	3.440
60A, 4-pole	3.500	3.500	3.440
100A, 3-pole	3.500	3.500	3.670
100A, 4-pole	3.500	3.500	3.670
150A CD	3.500	3.500	3.670
150A DE	3.500	3.500	3.670
200A	5.630	5.630	4.610

Plug



Amperage	A	B
30A	6.500	2.313
60A, 3-pole	8.170	3.625
60A, 4-pole	8.170	3.750
100A, 3-pole	10.800	3.750
100A, 4-pole	10.800	4.125
150A CD	10.800	4.125
150A DE	10.800	4.125
200A	13.125	7.500

Connector



Amperage	A	B
30A	6.600	2.563
60A, 3-pole	8.300	2.313
60A, 4-pole	8.300	2.313
100A, 3-pole	11.500	3.188
100A, 4-pole	11.500	3.438
150A CD	11.500	3.438
150A DE	11.500	3.438
200A	14.000	8.200

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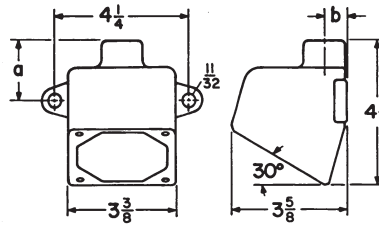
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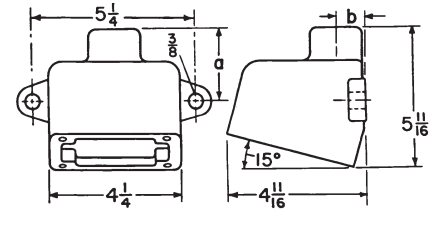
Dimensions (in inches) (continued):

Back boxes (30A and 60A)

Cat. #	Amps	Hub size	A	B
CEE13	30	1/2"	1.844	0.688
CEE23	30	3/4"	1.844	0.813
CEE33	30	1"	1.969	0.938
CEE36	60	1"	2.563	0.938
CEE46	60	1 1/4"	2.625	1.188
CEE56	60	1 1/2"	2.688	1.313



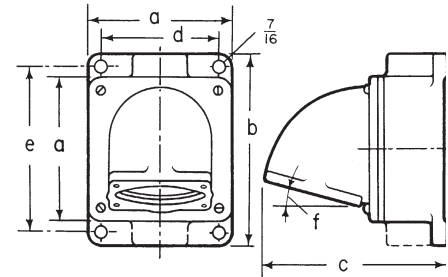
30A



60A

Back boxes with 60A, 100A, 150A and 200A angle adapters

Cat. #	Amperage	Hub size	A	B	C	D	E	F
CJA310	60, 100, 150	1"	5.875	8.000	7.438	4.875	7.000	15°
CJA410	60, 100, 150	1 1/4"	5.875	8.000	7.438	4.875	7.000	15°
CJA510	60, 100, 150	1 1/2"	5.875	8.000	7.438	4.875	7.000	15°
CJA610	60, 100, 150	2"	5.875	8.000	8.000	4.875	7.000	15°
CJA520	200	1 1/2"	8.000	10.750	9.875	6.750	9.500	45°
CJA620	200	2"	8.000	10.750	9.875	6.750	9.500	45°
CJA720	200	2 1/2"	8.000	10.750	9.875	6.750	9.500	45°
CJAC720	200	2 1/2"	8.000	10.750	9.875	6.750	9.500	45°



- Back boxes are standard with Corro-free epoxy powder coat finish for increased corrosion resistance
- Through feed back boxes are furnished with one close-up plug in bottom recessed hub
- CJA back boxes are recommended when additional wiring space is required
- The angle adapter on CJA back boxes can be installed at 90° rotations, making it possible to enter hub from several directions

PowerMate plugs, receptacles and connectors

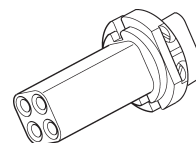
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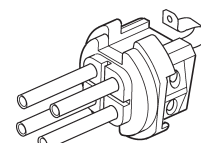
Replacement parts:

Standard replacement parts

Complete insulator assembly		Cat. # 30A	Cat. # 60A	Cat. # 100A	Cat. # 150A	Cat. # 200A
2-wire, 2-pole	CDR-CRC	CRI-3022	CRI-6022	CRI-1022	–	–
	CCP	CPI-3022	CPI-6022	CPI-1022	–	–
2-wire, 3-pole	CDR-CRC	CRI-3023	CRI-6023	CRI-1023	–	CRI-20023
	CCP	CPI-3023	CPI-6023	CPI-1023	–	CPI-20023
3-wire, 3-pole	CDR-CRC	CRI-3033	CRI-6033	CRI-1033	–	CRI-20033
	CCP	CPI-3033	CPI-6033	CPI-1033	–	CPI-20033
3-wire, 4-pole	CDR-CRC	CRI-3034	CRI-6034	CRI-1034	CRI-15034	CRI-20034
	CCP	CPI-3034	CPI-6034	CPI-1034	CPI-15034	CPI-20034
4-wire, 4-pole	CDR-CRC	CRI-3044	CRI-6044	CRI-1044	CRI-15044	CRI-20044
	CCP	CPI-3044	CPI-6044	CPI-1044	CPI-15044	CPI-20044



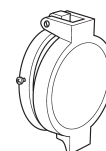
CRI receptacle and connector interior



CPI plug interior

Miscellaneous replacement parts

Amps	Config.	Cat. # CDR spring cover	Cat. # CDR threaded cover	Cat. # CCP fastening ring	Cat. # Bushing kit
30	2-, 3- and 4-pole	PTSC30	PTTC30	CLMPR30	PTGB30
60	2-, 3- and 4-pole	PTSC60A	PTTC60A	CLMPR23P60	PTGB60
		PTSC60B	PTTC60B	CLMPR4P60	
100	2-, 3- and 4-pole	PTSC100A	PTTC100A	CLMPR23P100	PTGBCD
		PTSC100B	PTTC100B	CLMPR4P100	
150	4-pole	PTSC150B	PTTC150B	CLMPR4P150	PTGBCD (CD size)
					PTGBDE (DE size)



Spring cover



Threaded cover



Bushing kit

Amps	Config.	Cat. # CDR spring cover	Cat. # Brass retaining ring	Cat. # Plug contact	Cat. # Plug ground contact	Cat. # Receptacle contact	Cat. # Receptacle ground contact	Cat. # Bushing kit
200	3-pole	PTLC200	PTBR2003	PTPC200	PTPC200G	PTRC200	PTRC200G	PTGB200CD (CD size)
	4-pole		PTBR2004					PTGB200E (E size)