Plugs & Receptacles

Section P

Rugged construction, extensive configurations, custom capabilities and numerous interlocked designs provide safe and reliable NEC and IEC solutions for fixed or portable power applications





New Products in the Plugs & Receptacles Product Line	Section
• 150A Arktite®	1P
• Ark•Gard® ENR Receptacles	2P
• Ark•Gard® ENC Connectors	2P
• IEC 309 Light Industrial Devices	5P
• Custom Cable Assemblies	10P
• Posi-Max Power Distribution Panels	10P
• Portable Power Carts	10P

Notable changes to the Plugs & Receptacles section of this catalog

- New section 10P for Portable Power solutions

Considerations for Selection

The Plugs and Receptacles Section of the Cooper Crouse-Hinds Product Catalog contains complete technical information on the Cooper Crouse-Hinds line of these products.

In addition to product listings and features, the section contains information on interchangeability of plugs and receptacles, the different grounding methods incorporated in the construction of the units, and separate sections devoted to receptacles interlocked with switches and/or circuit breakers.

The Plug, Receptacles, and Interlocks featured in this section include the Arktite® pin and sleeve offering, Ark•Gard® NEMA blade-style units, IEC 309 devices, Ark-Trol® electrical connectors, and Cable-Gard™ cord and cable reels.

Arktite® Series

Metallic and non-metallic Arktite series units are available for use in hazardous and non-hazardous areas for general purpose, heavy duty applications in power circuits. All units through 100 ampere rating offer circuit breaking capability under load; some units are offered with interlocking mechanism with switch and/or circuit breaker, where dead front receptacles are desired, 400 ampere units are for service disconnect use only and are not for current interrupting.

An interchangeability table on the next page graphically shows interchangeability between products in the complete line of pin and sleeve type plugs and receptacles. Full electrical rating details are shown in the interchangeability charts at the beginning of each section in the Plugs and Receptacles Section of this catalog.

Ark•Gard Series®

The Ark•Gard® series is the ideal solution for rugged and industrial NEMA blade-style applications up to 20 amperes. This offering now includes the exciting new hazardous rated ENC Connector, the upgraded Frustration-Free ENP Plug and the ENR-GFCI Kit. The Ark•Gard line includes features that provide ease of installation, added safety, reduced maintenance costs, and increased product life.

IEC 309 Series

Cooper Crouse-Hinds has combined years of field-proven Arktite pin and sleeve expertise with German-North American precision engineering and manufacturing to offer the world's best IEC 309 plug and socket product line. Now available in light industrial, heavy duty industrial, and hazardous area designs, this global product line features the latest technological innovations to lead the way in IEC 309 performance.

ARK-trol® Series

Units are available for use in hazardous and non-hazardous areas for special purpose application in power and/or control circuits where environmental factors are important or a wide range of contacts, sizes and configurations is required.

Cable-Gard™ Series

Electric cord and cable reels are used extensively in modern factories for "managing" all loose extension cables to ensure safety, increase efficiency, and extend cable and portable equipment life.

Electric reels automatically transmit electric current (power or control) from a stationary position to a moving consumer of current.

Considerations for Selection

The considerations in the selection of plugs and receptacles are the electrical ratings desired and the physical location of the units. This information, together with the product features, construction details, and customer benefits, is shown on the individual pages in selecting the proper plugs and receptacles, other factors in addition to the electrical ratings and the physical aspects regarding location of the application (e.g., hazardous areas) should be considered. Principally, these factors are: interchangeability of plug and receptacle, interlocking and grounding.

Grounding

Cooper Crouse-Hinds utilizes two methods for completing the grounding circuit in plugs and receptacles.

Style 1:

A Style 1 plug is one in which the grounding conductor in the flexible cable is bonded to the plug sleeve by a pressure connector. A Style 1 receptacle is one which is grounded by virtue of the fact that it is an integral part of a grounded conduit system. On insertion, the plug sleeve makes contact with detent springs of the grounded receptacle housing before line and load poles engage, and on withdrawal, remains in contact until after line and load poles disengage. Therefore, exposed metal parts of the portable equipment or plug are suitably grounded.

Style 2:

A Style 2 plug is one in which the grounding conductor in the flexible cable is bonded to the extra (grounding) pole and sleeve by a pressure connector. A Style 2 receptacle is one in which the extra (grounding) pole is electrically connected to the equipment grounding conductor and the receptacle housing which itself is grounded by virtue of the fact that it is an integral part of a grounded conduit system. In a Style 2 receptacle, the grounding connection is made before line and load poles engage, and is broken after line and load poles disengage. Furthermore, upon insertion, the plug sleeve of metal shelled units makes contact with detent springs of the grounded receptacle housing before line and load poles engage, and on withdrawal, remains in contact until after line and load poles disengage. Therefore, exposed metal parts of the portable equipment or plug are suitably grounded.

This method is used on plugs and receptacles for hazardous areas, on configured Arktite and on all *Arktite* products made of *Krydon*® material.

It meets the National Electrical Code/Canadian Electrical Code requirements for this equipment. The Arktite line offers a choice of both methods; other plugs and receptacles are offered in one of the two styles (details are given on the individual pages). Details on construction and diagrams of both methods are found in Section 1P, see pages 1264–1265.

Interlocked Units

Where added safety is desired and for units of higher ratings, Sections 3P and 4P detail receptacles with interlocked switches and/or circuit breakers. The ability to break the load before removal of the plug, circuit protection and disconnect capability are the prime benefits to be derived from equipment shown in those sections.

Interchangebility Between Cooper Crouse-Hinds Product Families

A unique capability exists throughout much of the Cooper Crouse-Hinds plug and receptacle line that enables a variety of receptacles to be used with the same plug – provided the electrical rating and style of plug and receptacle are the same (see Interchangeability Table on next page). Where a common wiring system is in use, it is possible to use the same standard plug with a number of different receptacle assemblies located in different areas where each receptacle is selected to meet the physical or environmental requirement of the specific area. For example, a process industry facility could include Class I, Groups C and D areas and Class II, Group G areas as well as non-hazardous areas. A portable device suitable for use in the hazardous areas could be equipped with an APJ Arktite plug or NPJ Arktite plug made of *Krydon*® material and be used in all areas of the plant. The receptacle installation could include AR or NR units in the non-hazardous areas; DBR interlocked receptacles in the Class II, Groups F and G areas and FSQC or EPC interlocked receptacles in the Class I, Groups C and D areas – all of which will accept the same APJ or NPJ plug.

CPH plugs can also be used with any receptacle which accepts a standard APJ or NPJ Arktite plug of the same ampere rating, style, and number of poles. This feature permits the use of a portable device, suitable for hazardous locations, in all areas of a plant, but prevents the use of an "ordinary locations" device in the hazardous areas. The following table is a summary of possible combinations. Full details describing the possibilities for interchanging plugs and receptacles are given in this section of the Cooper Crouse-Hinds Product Catalog.

Interchangeability Table

Cooper Crouse-Hinds Heavy Duty Receptacles and Connectors†		Cooper Crouse-Hinds Pin and Sleeve Design Plugs†							
									
Cat. Pg.		APJ	AP	BHP	CPH	CPP	DP	NPJ	SP
Delayed Action for Hazardous Areas									
CPS	see pages 1296–1299					•			
CES/CESD	see pages 1309–1311				•				
Non-interlocked For Non-hazardous Areas									
APR	see page 1264	•	•		•	•		•	
AR	see page 1264	•	•		•	•		•	
CPR	see page 1300					•			
NR	see pages 1281–1282	•			•	•		•	
NPR	see pages 1281–1282	•			•	•		•	
Interlocked for Hazardous Areas									
BHR	see pages 1340–1341			•					•
EBBR	see pages 1337–1339	•			•			•	
EPC	see pages 1344–1345	•			•		•	•	
EPCB	see pages 1347–1348	•			•			•	
FSQC	see pages 1334–1335	•			•			•	
SRD	see pages 1342–1343			•					•
Interlocked for Non-hazardous Areas									
CSR	see pages 1322–1324	•			•			•	
DBR	see pages 1349–1350	•			•			•	
NBR	see pages 1327–1328	•			•			•	
NSR	see pages 1329–1330	•			•			•	
WSR	see page 1316	•			•			•	
WSQC	see page 1326	•			•			•	
WSRD	see page 1316	•			•			•	
WSRD SS	see pages 1318–1320	•			•			•	
WSRDW	see page 1316	•			•			•	

• Plugs mate with indicated receptacles.
† Consult individual catalog pages for complete listing of Cooper Crouse-Hinds plugs, receptacles and connectors.

Table of Contents

*Not suitable for hazardous areas in the United States in compliance with NEC regulations.

Industrial Heavy Duty
Application and Selection

Applications:

- Distribution of secondary electrical power
- Provide quick disconnect from power source

Considerations for Selection:

Electrical System:

- Amperage and voltage required for application

  Wiring system and number of conductors required. See page 1267 for contact sizes.

Compatibility with System:

- Need for interchangeability with plugs in existing system and within parts of new system. Grounding styles. Two styles utilized. See page 1265 for complete description to determine which is suitable for needs.

Mounting Arrangement:

- Three types of mounting available – surface, flush and panel

Application:

- Fixed receptacle for power outlet; cable connectors for portable cable extensions

Other Considerations:

- Wire sizes and recess dimensions available. See page 1267 for complete details. National Electrical Code, UL, NEMA, Canadian Electrical Code, CSA compliances
- Environment – need for operation in harsh, dirty or corrosive conditions

Options:

- Special polarity arrangements available as well as special back boxes and hub arrangements. See listing pages for details.

Quick Selector Chart

	Electrical Characteristics						
Receptacle Series	**Receptacle Type**	**Amperage (Range)**	**Volts (Max.)**	**No. of Poles (Range)**	**Grounding Style†**	**Mounting**	**Mating Plug**
APR	Portable cable	20, 30, 60, 100, 200, 400	600VAC 250VDC	2–5	1-2		APJ, NPJ, APQ, AP
AR	Fixed	20, 30, 60, 100, 150, 200, 400	600VAC 250VDC	2–5	1-2	Back box (surface)	APJ, NPJ, AP
AR Panel Mount	Fixed	30, 60, 100, 200	600VAC 250VDC	2–4	1-2	Panel mtg. (semi-flush)	APJ, NPJ, AP
NPR	Portable cable	30, 60, 100	600VAC 250VDC	3–4	2		NPQ, APJ, NPJ (fixed)
NR	Fixed	30, 60, 100	600VAC 250VDC	3–4	2	Back box (surface)	APJ, NPJ

†See page 1265 for detailed explanation.

Industrial Heavy Duty Interchangeability Chart

Interchangeability Chart

Many of the plugs listed in this section can be used interchangeably with receptacles from other sections, both in hazardous and non-hazardous areas, **provided electrical rating and style of plug and receptacle are the same**. The following table is a summary of possible combinations.

Plugs Shown in Section 1P	Can be Used with These Receptacle Series	Listed in Section	Plugs & Receptacle Electrical Rating
APJ, NPJ*	DBR	4P	30, 60, 100 amp. 3-wire, 3-pole 3-wire, 4-pole
	FSQ	4P	30 amp. 2-wire, 3-pole 3-wire, 4-pole
	EPC, EPCB, EBBR	4P	30, 60, 100 amp.† 2-wire, 3-pole 3-wire, 4-pole
	NBR, NSR	3P	30, 60, 100 amp. 3-wire, 3-pole 3-wire, 4-pole
	WSR	3P	30, 60, 100 amp. 3-wire, 3-pole 3-wire, 4-pole
	WSRD	3P	60 amp. 3-wire, 3-pole 3-wire, 4-pole

*NPJ, NR and NPR available in 2-wire, 3-pole and 3-wire, 4-pole electrical ratings only.
†150A EBBR available in 3-wire, 4-pole electrical rating.

Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

NEMA 4 Watertight

Industrial Heavy Duty Non-hazardous Areas

Applications:

Arktite circuit breaking plugs and receptacles are used:

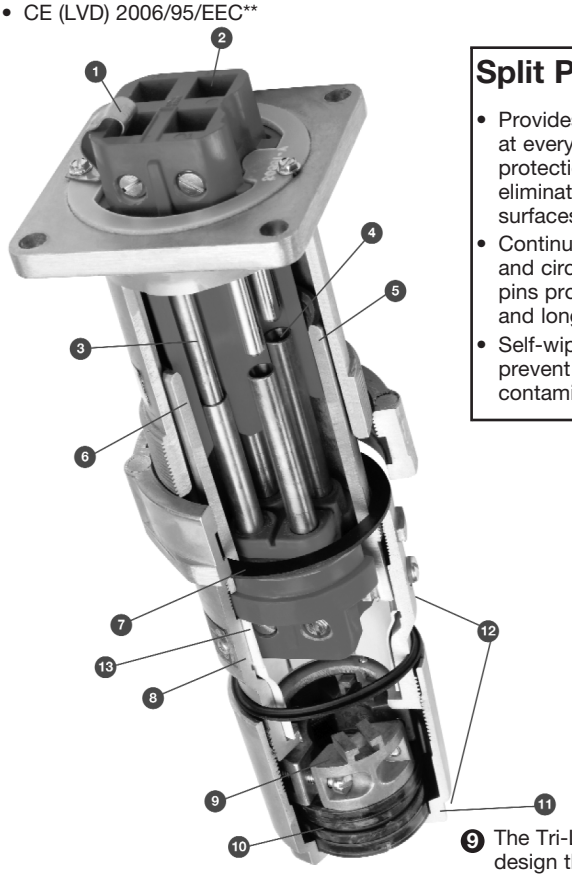
- To supply power to portable electrically operated devices such as motor-generator sets, compressors, heating and cooling units, welders, conveyors, lighting systems and similar equipment
- Where temporary power is needed, such as at trailers, building units, heavy machinery and similar equipment
- Wherever electrical loads must be quickly disconnected from power source
- In a typical installation, where a large machine utilizes a number of electrical motor drives and for ease of adjustment, removal, maintenance and replacement, each motor is connected by portable cord and *Arktite* receptacles rather than permanently wired
- In areas where dust, dirt, moisture and corrosion are a problem
- Indoors and outdoors in non-hazardous areas of chemical plants, process industry facilities, meat packing plants, manufacturing plants and similar industrial locations

Features:

- Circuit breaking: plugs through 100 ampere rating may be disconnected under load; 150-400 ampere units are for service disconnect use only.
- Receptacles accept only plugs of the same amperage rating, style and number of poles, making it impossible to mismate, and provides for positive polarization.
- Extra wide electrical spacing allows for maximum safety.
- Insulator materials are the result of intensive testing. Selection has been made based on highest dielectric strength, maximum mechanical and impact resistance, lowest moisture absorption and highest arc tracking resistance.
- A variety of installations is possible due to the availability of several types of back boxes.
- Designed to withstand rough usage and the effects of adverse environments.
- Reversible interiors, 30, 60 and 100 ampere (except 30 and 60 ampere, 5-pole) *Arktite* plug and receptacle interiors are interchangeable using a screwdriver. This makes it possible to feed a normally de-energized receptacle from an energized plug with usual *Arktite* safety; no energized contacts are exposed.

Certifications and Compliances:

- UL Standards: 1203*; 1682, 1686
- CSA Standard: C22.2 No. 182.1
- CE (LVD) 2006/95/EEC**



Split Pin Contact Design:

- Provides nearly 360° of contact at every insertion, ensuring protection against heat rise and eliminating arcing on critical surfaces
- Continuous contact over length and circumference of mated pins provides superior safety and long-term performance
- Self-wiping at every insertion to prevent environmental contamination build-up

- **The additional features below are called out in the illustration on this page**

1. The ground contact is bonded to the receptacle housing (Style 2)
2. Unimpeded, easy-access phase and ground terminals make wire termination quick and easy
3. Grounding contacts that make-first and break-last in the unlikely event of keyway failure
4. An arc formed when the plug is being removed is instantly snuffed in the deep confined insulated arcing chamber
5. A detent spring forms a parallel grounding path through the metallic plug sleeve and receptacle housing and is the first contact to make and the last to break
6. The plug sleeve is keyed to the receptacle to prevent mispolarization
7. The gasketing system provides unsurpassed watertight integrity (NEMA 4)
8. All aluminum Uni-Shell™ construction provides superior strength in abusive environments
9. The Tri-Lock™ cable grip has 3-piece design that equally distributes gripping power around perimeter of cable. Cord jacket does not get pinched, eliminating potential for damage to both internal conductors and external cable jacket. Cable grip is located inside plug housing, eliminating corrosion of vital hardware and making plug maintenance easy.
10. The unique Sure-Seal™ cable gland has two gasket sizes which fit entire range of cable diameters, reducing risk of improper assembly. The gasket ratchets into the Tri-lock™ cable grip to prevent plug from turning or loosening in high vibration areas.
11. Wrenching surfaces make Arktite plugs quick and easy to assemble
12. Smooth and contoured design of plug housing eliminates occurrence of cable grip snagging or breaking off. Tri-Lock™ screws are captive so cable grip cannot come apart during assembly. Prevents critical screws from getting lost during installation.
13. Plastic sleeve between insulator body and housing minimizes possibility of electrical shock in event of ground failure. Increases creepage and clearance protection.

* APJ and NPJ plugs only
** Excludes 200A and 400A APR Connectors

Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

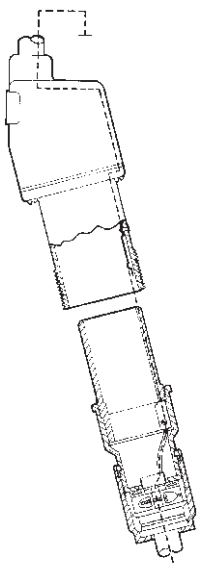
Industrial Heavy Duty Non-hazardous Areas

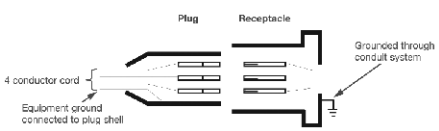
Grounding: Style 1 vs. Style 2

Cooper Crouse-Hinds Arktite devices utilize two methods, or styles, for completing the grounding circuit in plugs and receptacles. NEC reference 250.138 (A) & (B).

Style 1 – Metallic

A Style 1 plug is one in which the grounding conductor in the flexible cable is bonded to the plug sleeve by a pressure connector. A Style 1 receptacle is one which is grounded by virtue of the fact that it is an integral part of a grounded conduit system. On insertion, the plug sleeve makes contact with detent springs of the grounded receptacle housing before line and load poles engage, and on withdrawal, remains in contact until after line and load poles disengage. Therefore, exposed metal parts of the portable equipment or plug are suitably grounded.

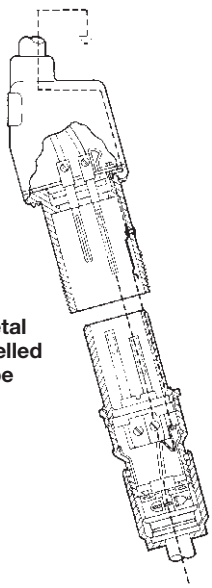




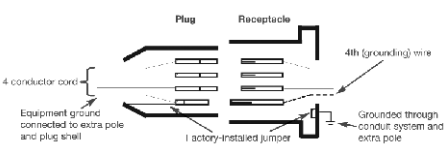
Style 1
Ground conductor attaches to shell.

Style 2 – Metallic

A Style 2 metallic housing plug is one in which the grounding conductor in the flexible cable is bonded to the extra (grounding) pole and metal plug sleeve by a pressure connector. A Style 2 metallic housing receptacle is one in which the extra (grounding) pole is electrically connected to the equipment grounding conductor and the metal receptacle housing which itself is grounded by virtue of the fact that it is an integral part of a grounded conduit system. In Style 2, non-metallic housing plugs and receptacles, the extra pole is used for grounding since the housings are non-conductive.



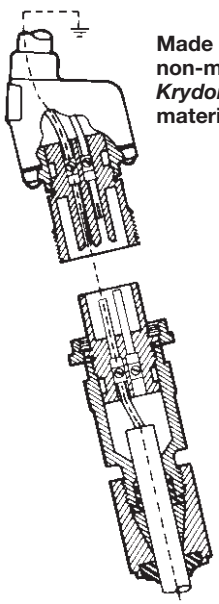
Metal shelled type



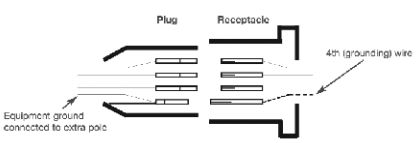
Style 2
Ground conductor attaches to contact, which is bonded to shell.

Style 2 – Non-metallic

In a Style 2 receptacle, the grounding connection is made before line and load poles engage, and is broken after the line load poles disengage. Furthermore, upon insertion, the plug sleeve of metal shelled units makes contact with detent springs of the grounded receptacle housing before line and load poles engage, and on withdrawal, remains in contact until after line and load poles disengage. Therefore, exposed metal parts of the portable equipment or plug are suitably grounded.



Made of non-metallic *Krydon* material



Arktite® Heavy Duty Circuit Breaking§ Plugs and Receptacles

NEMA 4 Watertight

Industrial Heavy Duty Non-hazardous Areas

Standard Materials:

- Metallic receptacle housings, plug and cord connector bodies – high impact strength copper-free aluminum
- Non-metallic receptacles, plugs and cord connectors – *Krydon*® fiberglass-reinforced polyester material
- Back boxes: 20, 30, 60, 100, 150 and 200 ampere – cast aluminum; 400 ampere – *Feraloy*® iron alloy
- Insulation (metallic products): (2-, 3-, and 4-pole) 30, 60, 100, 200, 400 ampere – fiberglass-reinforced polyester; 20, 30 ampere (5-pole) – melamine
- Contacts: pressure, solder, binding screw – brass; crimp/solder 20, 30, 60, 100 ampere – leaded red brass; crimp/solder 150, 200, 400 ampere – telurium copper

Standard Finishes:

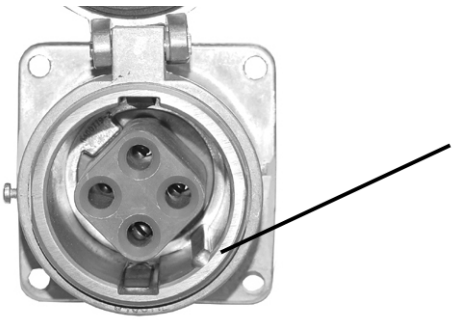
- *Feraloy* – electrogalvanized and aluminum acrylic paint
- Aluminum – natural
- *Krydon* fiberglass-reinforced polyester material – gray
- Fiberglass-reinforced polyester insulation – (red)
- Melamine – natural (brown)
- Brass – natural
- Leaded red brass – electro-tin-plate

Options:

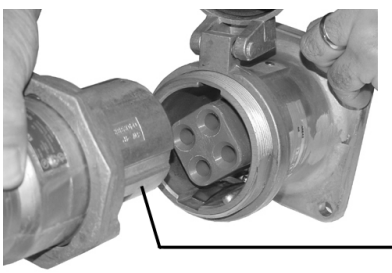
The following special options are available from factory by adding the suffix to the Cat. #:

Description **Suffix**

- Reversed contacts. Receptacle assembled with plug interior (exposed contacts), plug assembled with receptacle interior (recessed contacts). For applications where plug is energized to feed normally de-energized receptacle. Available on 30 through 400 ampere units... **S22**
- Special polarity. 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. Prevents insertion of a plug in a receptacle with different electrical rating. Available on 20 through 400 ampere units as follows:
- Receptacle interior rotated 22½° to right and plug changed to match (see photo to right)..... **S4**
- Corro-free™ epoxy powder finish for added corrosion resistance..... **S752**



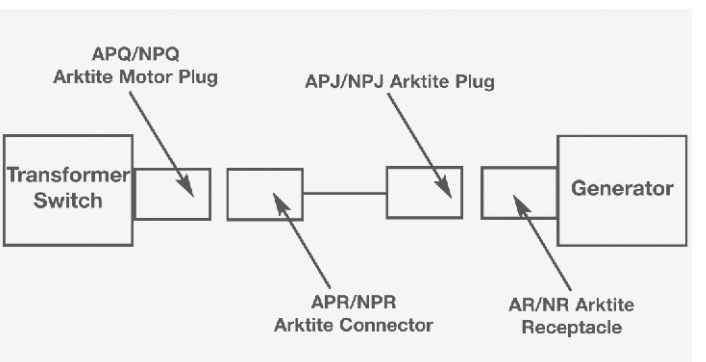
Arktite receptacles have a cast raised rib located inside the receptacle sleeve. The location of the rib is in a specific relationship to the receptacle insulator that houses the contacts.



The mating plug has a cast groove located on the outside of the plug sleeve. This groove lines up with the raised rib.

Accessories:

- Accessories include a variety of angle adapters, panel adapters and back boxes for *Arktite* receptacles. See pages 1284–1287.
- Included throughout 1P are wire mesh cable grips and protective caps for *Arktite* plugs.



Typical Installation

§150A, 200A and 400A rated units are for service disconnect use only.

Arktite® Heavy Duty Circuit Breaking§ Plugs and Receptacles

Industrial Heavy Duty Non-hazardous Areas

Arktite Horsepower Ratings
Locked-Rotor Interrupting

Ampere Rating Plug and Receptacle	Motor Horsepower† 120 Volts	240 Volts	480 Volts	600 Volts
Single-phase Electrical System				
30	2	3	7.5	10
60	5	10	25	20
100	10	20		
200	15	40		
Three-phase Electrical System				
30	3	5	10	10
60	10	20	40	50
100	15	30	40	25
200	30	60	25	15

Maximum Horsepower for Plug and Receptacle Combinations by Input Voltage*

Following values are typical horsepower ratings based on NEC Article 430 tables.
HP Ratings are based on the largest conductor size for each plug and receptacle combination per the Wire Size table below.

Ampere Rating Plug and Receptacle	Motor Horsepower✠ 240 Volts	480 Volts	600 Volts
30	15	30	40
60	20	40	50
100	30	60	75
150	40	75	100
200	60	125	150

Wire Sizes:

The table below lists the diameter of the wire recess in *Arktite* plug and receptacle contacts so that maximum size of bare conductor can be figured. Range of wire sizes shown in table is 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.

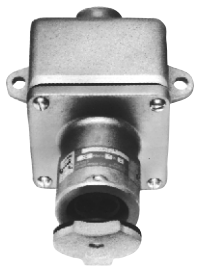
Diameter of Wire Recess in Plug and Receptacle Contacts

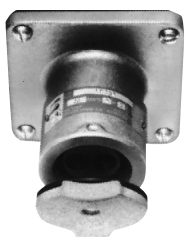
Ampere Rating	Contact Type	Diameter of Recess	Wire Size‡ Building	Extra Flex
20	Binding Screw	N/A	#14–#12	#14–#12
30 (2, 3, & 4-pole)	Pressure	.281	#10–#6	#10–#8
30 (2, 3, & 4-pole)	Crimp/Solder	.180	#10–#8**	#10–#8
30 (5-pole)	Solder	.188	#12–#6	#12–#8
60 (2, 3, 4 & 5-pole)	Pressure	.312	#6–#4	#8–#4
60 (3 & 4-pole)	Crimp/Solder	.277	#6–#4**	#8–#4
100 (2, 3 & 4-pole)	Pressure	.390	#4–#1	#4–#2
100 (3 & 4-pole)	Crimp/Solder	.390	#2–#1**	#2–#2
150 (4-pole)	Pressure	.390	#2–2/0	#2–1/0
200 (3 & 4-pole)	Pressure	.687	2/0–4/0	2/0–3/0
200 (Std. 3 & 4-pole)	Crimp/Solder	.560	#1–4/0	#1–3/0
200 (Lg. 3 & 4-pole)	Crimp/Solder	.750	4/0–250MCM	3/0–250MCM
400 (Std. 3 & 4-pole)	Crimp/Solder	.840	250–500MCM	250–400MCM
400 (Lg. 3 & 4-pole)	Crimp/Solder	1.25	500–1000MCM	400–750MCM

§150A, 200A and 400A rated units are for service disconnect use only.
† Horsepower ratings are based on Cooper Crouse-Hinds testing in which locked-rotor currents were interrupted by withdrawing the plug from the receptacle. It is highly recommended, however, that such use be limited to emergency conditions only; and that a horsepower rated switch be used for motor disconnect.
* This guide is for reference only. Consult your local electrical codes before installation.
✠ Cooper Crouse-Hinds does not recommend our plug and receptacle be used for disconnect under load.
**Smaller sizes may be used with well reducers – information available upon request.
‡Do not use wire size smaller than minimum size recommended.

Arktite® Heavy Duty Circuit Breaking Receptacles, Plugs and Connectors

20 A, 600 VAC/250 VDC, 50** – 400 hertz





Receptacle with Back Box

Config.	Hub Size	Descrip.	Cat. #
2W 2P	½	Spring Door	**ARE2211**
	½	Threaded Cap	**ARE2271**
2W 2P	¾	Spring Door	**ARE2212**
	¾	Threaded Cap	**ARE2272**

Receptacle

Config.	Descrip.	Cat. #
2W 2P	Spring Door	**AR221**
	Threaded Cap	**AR227**

Plug

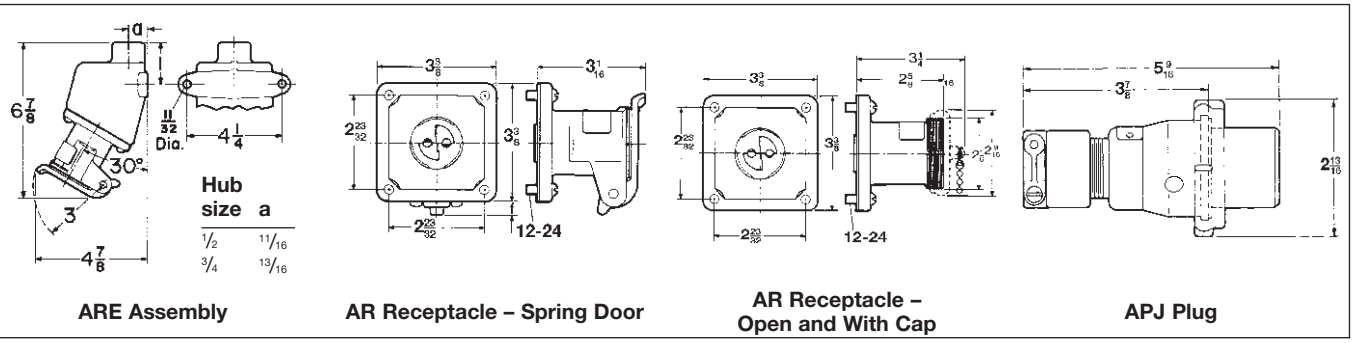
Config.	Cable Dia.	Descrip.	Cat. #
2W 2P	.250–.500	Fastening Ring	**APJ2271**
	.250–.500	Without Fastening Ring	**APJ2251**
2W 2P	.500–.875	Fastening Ring	**APJ2273**
	.500–.875	Without Fastening Ring	**APJ2253**

Connector

Config.	Cable Dia.	Descrip.	Cat. #
2W 2P	.250–.500	Connector	**APR2251**
	.500–.850	Connector	**APR2253**

Dimensions

In Inches:



ARE Assembly | **AR Receptacle – Spring Door** | **AR Receptacle – Open and With Cap** | **APJ Plug**

Note: For listing of additional back boxes, see page 1285.

**When used on systems less than 60 hertz, the receptacles, plugs and connectors are for disconnect use only.

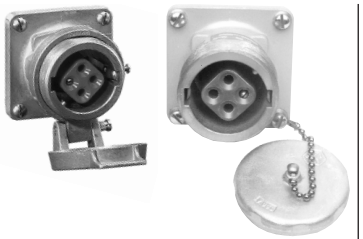
Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

NEMA 4 Watertight

30 A, 600 VAC/250 VDC, 50† – 400 hertz

Ordering Information:

Receptacle Assembly



Receptacle

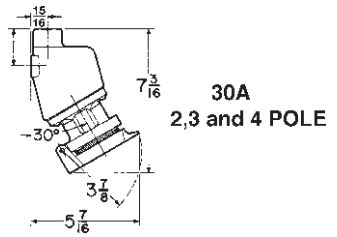
Mating Plug

Mating Connector

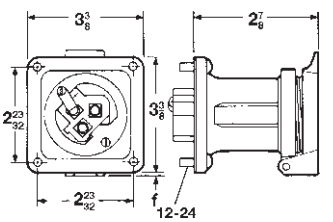
With ARE Back Boxes			Receptacle Housings Only		Mating APJ Plugs†		Mating APR Connectors	
Description	Hub Size (In.)	Spring Door Cat. #	Spring Door Cat. #	Threaded Cap Only Cat. #	Cat. #	Cable Dia.	Cat. #	Cable Dia.
Style 1								
2-wire, 2-pole	½ ¾	**ARE3211** **ARE3212**	**AR321**	**AR327**	**APJ3275**	0.39 to 1.20	**APR3255**	0.39 to 1.20
3-wire, 3-pole	¾ 1	**ARE3312** **ARE3313**	**AR331**	**AR337**	**APJ3375**	0.39 to 1.20	**APR3355**	0.39 to 1.20
4-wire, 4-pole	¾ 1	**ARE3412** **ARE3413**	**AR341**	**AR347**	**APJ3475**	0.39 to 1.20	**APR3455**	0.87 to 1.20
5-wire, 5-pole	1	**ARE3513**	**AR351**		**APJ3573**	.500 to .875	**APR3553**	.500 to .875
Style 2								
2-wire, 3-pole	¾ 1	**ARE3322** **ARE3323**	**AR332**	**AR338**	**APJ3385**	0.39 to 1.20	**APR3365**	0.39 to 1.20
3-wire, 4-pole	¾ 1	**ARE3422** **ARE3423**	**AR342**	**AR348**	**APJ3485**	0.39 to 1.20	**APR3465**	0.39 to 1.20
4-wire, 5-pole	1	**ARE3523**	**AR352**		**APJ3583** **APJ3585**	.500 to .875 .875 to 1.375	**APR3563** **APR3565**	.500 to .875 .875 to 1.375

Dimensions

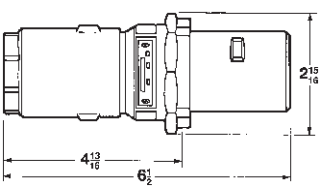
In Inches:



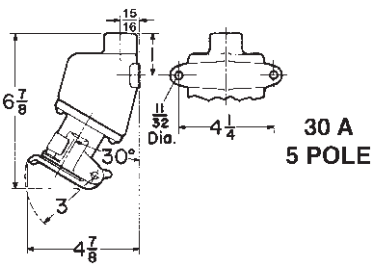
ARE Assembly

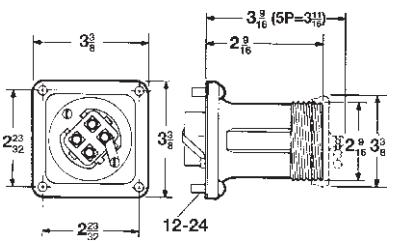


AR Receptacle – Spring Door

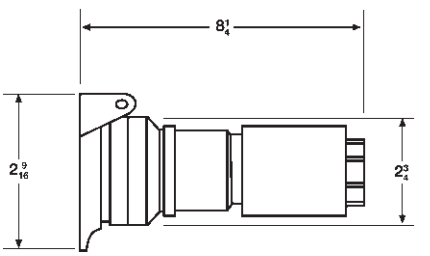


Plug





AR Receptacle – Open and With Cap



Connector

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

COOPER Crouse-Hinds

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

30 A, 600 VAC/250 VDC, 50† – 400 hertz

Plug Closure Caps:

Applications:

CPK caps for Arktite plugs are used:

- Where portable equipment is on a standby basis and plugs are not in use
- To effectively protect insulation and contacts from excessive moisture, dirt, dust and corrosion
- With 30, 60, 100, 150 and 200 ampere plugs with fastening ring and standard 200 ampere plugs for the clamp door housing

Ordering Information:

Config.	Cat. #
2P & 3P & 4P	**CPK13**
5P	**CPK32**

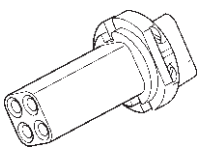
Standard Materials:

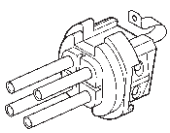
- Copper-free aluminum

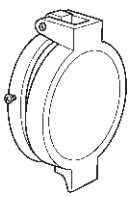
Standard Finishes:

- Natural

Replacement Parts:







Config.	Receptacle Interior	Plug Interior	Spring Door	Screw Cap
2W 2P	**ATP275**	**ATP270**	**QE50**	**QE13**
2W 3P	**ATP278**	**ATP273**		
3W 3P	**ATP276**	**ATP271**		
3W 4P	**ATP279**	**ATP274**		
4W 4P	**ATP277**	**ATP272**		
4W 5P	**ATP125**	**ATP109**	**N/A**	**N/A**
5W 5P	**ATP94**	**ATP73**		

Replacement Pin & Sleeve Contacts:

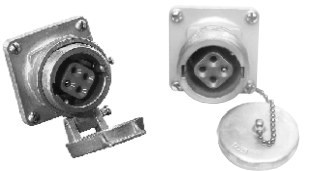
Description	Recep	Plug
Available as a kit only. 5 phase contacts & 1 ground contact included.	**AR30CONKIT**	**AP30CONKIT**

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

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

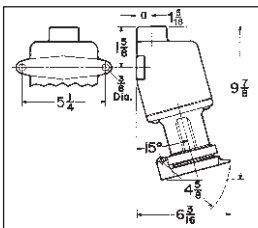
60 A, 600 VAC/250 VDC, 50† – 400 hertz

Ordering Information:

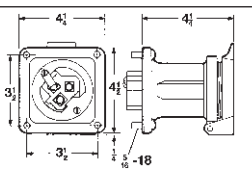


	Receptacle Assembly				Receptacle			Mating Plug		Mating Connector
	With AJ Back Boxes and Angle Adapters			With ARE Back Boxes	Receptacle Housing Only					
Description	Hub Size (In.)	Spring Door Cat. #	Threaded Cap Only Cat. #	Spring Door Cat. #	Spring Door Cat. #	Threaded Cap Only Cat. #	Cable Dia.	Cat. #	Cat. #
Style 1									
2-wire, 2-pole	1	**AREA6213**		**ARE6213**	**AR621**	**AR627**	0.50 to 1.45	**APJ6275**	**APR6255**
	1¼	**AREA6214**		**ARE6214**					
3-wire, 3-pole	1	**AREA6313**		**ARE6313**	**AR631**	**AR637**	0.50 to 1.45	**APJ6375**	**APR6355**
	1¼	**AREA6314**		**ARE6314**					
4-wire, 4-pole	1¼	**AREA6414**		**ARE6414**	**AR641**	**AR647**	0.50 to 1.45	**APJ6475**	**APR6455**
	1½	**AREA6415**		**ARE6415**					
5-wire, 5-pole	1¼		**AREA6574**			**AR657**	0.50 to 1.45	**APJ6575**	
	1½		**AREA6575**						
Style 2									
2-wire, 3-pole	1	**AREA6323**		**ARE6323**	**AR632**	**AR638**	0.50 to 1.45	**APJ6385**	**APR6365**
	1¼	**AREA6324**		**ARE6324**					
3-wire, 4-pole	1¼	**AREA6424**		**ARE6424**	**AR642**	**AR648**	0.50 to 1.45	**APJ6485**	**APR6465**
	1½	**AREA6425**		**ARE6425**					
4-wire, 5-pole	1¼		**AREA6584**			**AR658**	0.75 to 1.45	**APJ6585**	**APR6585**
	1½		**AREA6585**						**APR6567**

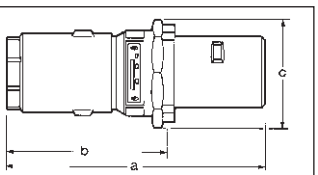
Dimensions (In Inches):



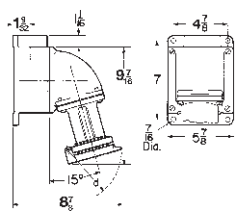
ARE Assembly

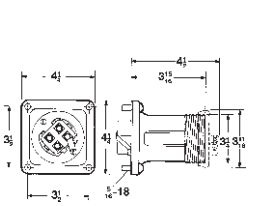


AR Receptacle – Spring Door

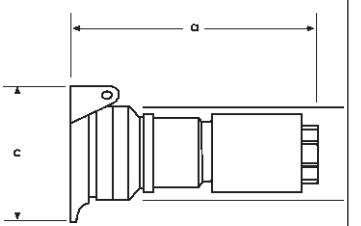


APJ Plug





AR Receptacle – Open and With Cap



APR Connector

Config.	Plug a	Plug b	Plug c	Connector a	Connector b	Connector c
2P or 3P	8½	5¾	3⅝	6½	3⅝	2 15/16
4P	8½	5 13/16	3¾	8¼	3⅝	2 15/16
5P	9	6 3/16	4 7/16	8¼	3⅝	3¼

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

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

60 A, 600 VAC/250 VDC, 50† – 400 hertz

Plug Closure Caps:

Applications:

CPK caps for *Arktite* plugs are used:

- Where portable equipment is on a standby basis and plugs are not in use
- To effectively protect insulation and contacts from excessive moisture, dirt, dust and corrosion
- With 30, 60, 100, 150 and 200 ampere plugs with fastening ring and standard 200 ampere plugs for the clamp door housing

Ordering Information:

Config.	Cat. #
2P & 3P	**CPK32**
4P	**CPK34**

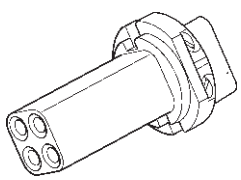
Standard Materials:

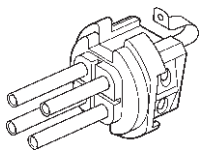
- Copper-free aluminum

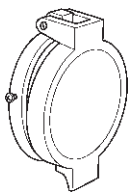
Standard Finishes:

- Natural

Replacement Parts:







Config.	Receptacle Interior	Plug Interior	Spring Door	Screw Cap
2W 2P	**ATP295**	**ATP290**	**QE51**	**QE32**
2W 3P	**ATP298**	**ATP293**		
3W 3P	**ATP296**	**ATP291**		
3W 4P	**ATP299**	**ATP294**	**QE52**	**QE34**
4W 4P	**ATP297**	**ATP292**		
4W 5P	**ATP385**	**ATP387**	**N/A**	**AR:11393B**
5W 5P	**ATP384**	**ATP386**	**N/A**	

Replacement Pin & Sleeve Contacts:

Description	Recep	Plug
Available as a kit only. 5 phase contacts & 1 ground contact included.	**AR60CONKIT**	**AP60CONKIT**

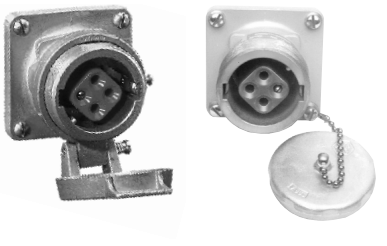
†For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

100 A, 600 VAC/250 VDC, 50† – 400 hertz
150 A, 600 VAC/250 VDC, 50† – 400 hertz

Ordering Information:

Receptacle Assembly



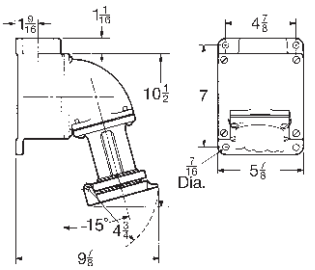
Receptacle

Mating Plug

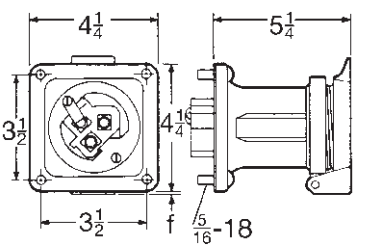
Mating Connector

Description	Hub Size (In.)	Receptacle Assembly Spring Door Cat. #	Receptacle Housings Only Spring Door Cat. #	Receptacle Housings Only Threaded Cap Only Cat. #	Cable Dia.	Mating Plug Cat. #	Mating Connector Cat. #
100A - Style 1							
2-wire, 2-pole	1¼ 1½	**AREA10214** **AREA10215**	**AR1021**	**AR1027**	0.875 to 1.70	**APJ10277**	**APR10257**
3-wire, 3-pole	1¼ 1½	**AREA10314** **AREA10315**	**AR1031**	**AR1037**	0.875 to 1.70	**APJ10377**	**APR10357**
4-wire, 4-pole	1½ 2	**AREA10415** **AREA10416**	**AR1041**	**AR1047**	0.875 to 1.70	**APJ10477**	**APR10457**
100 A - Style 2							
2-wire, 3-pole	1¼ 1½	**AREA10324** **AREA10325**	**AR1032**	**AR1038**	0.875 to 1.70	**APJ10387**	**APR10367**
3-wire, 4-pole	1½ 2	**AREA10425** **AREA10426**	**AR1042**	**AR1048**	0.875 to 1.70	**APJ10487**	**APR10467**
150 A - Style 2 *							
3-wire, 4-pole			**AR1542**	**AR1548**	0.875 to 1.70	**APJ15487**	

Dimensions (In Inches):

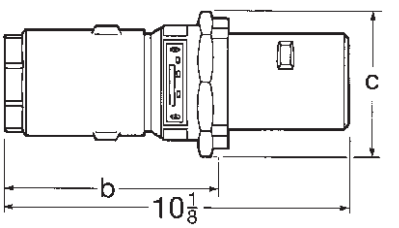


ARE Assembly



AR Receptacle – Spring Door

No. Poles	f
2 or 3	9/32
4	13/32

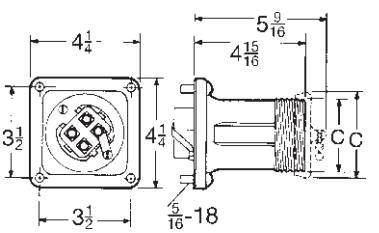


APJ Plug

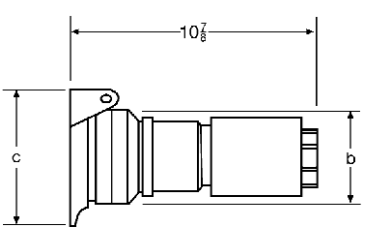
No. Poles	b	c
3	6 9/16	3 3/4
4	6 5/8	4 1/8

No. Poles	Housing	c
2 or 3	open	3 3/16
4	open	3 7/16
2 or 3	with cap	3 11/16
4	with cap	3 7/8

No. Poles	b	c
3	3 3/8	3 3/16
4	3 1/2	3 7/16



AR Receptacle – Open and With Cap



APR Connector

† For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.
* For 150A - Consult factory for additional options and configurations. Consult factory for certifications information.

COOPER Crouse-Hinds

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

100 A, 600 VAC/250 VDC, 50† – 400 hertz
150 A, 600 VAC/250 VDC, 50† – 400 hertz

Plug Closure Caps:

Applications:

CPK caps for *Arktite* plugs are used:

- Where portable equipment is on a standby basis and plugs are not in use
- To effectively protect insulation and contacts from excessive moisture, dirt, dust and corrosion
- With 30, 60, 100, 150 and 200 ampere plugs with fastening ring and standard 200 ampere plugs for the clamp door housing

Ordering Information

Config.	Cat. #
2P & 3P	**CPK62**
4P	**CPK64**

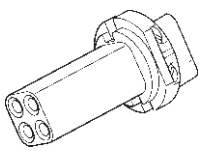
Standard Materials:

- Copper-free aluminum

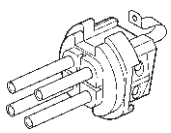
Standard Finishes:

- Natural

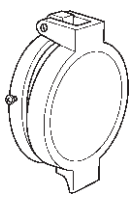
Replacement Parts:



Receptacle Interior



Plug Interior



Spring Door

Screw Cap

Config.	Receptacle Interior	Plug Interior	Spring Door	Screw Cap
2W 2P	**ATP315**	**ATP310**	**QE53**	**QE62**
2W 3P	**ATP318**	**ATP313**		
3W 3P	**ATP316**	**ATP311**		
3W 4P	**ATP319**	**ATP314**	**QE54**	**QE64**
4W 4P	**ATP317**	**ATP312**		
4W 5P	**N/A**	**N/A**	**N/A**	**N/A**
5W 5P	**N/A**	**N/A**		

Replacement Pin & Sleeve Contacts:

Description	Recep	Plug
Available as a kit only. 5 phase contacts & 1 ground contact included.	**AR100CONKIT**	**AP100CONKIT**

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

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies

NEMA 3R

200 A, 600 VAC/250 VDC, 50† – 400 hertz

See pages 1264–1267 for general Application, Features, Grounding, Standard Materials, Standard Finishes, Options, Accessories, Compliances, Electrical Rating Ranges, and Wire Sizes.

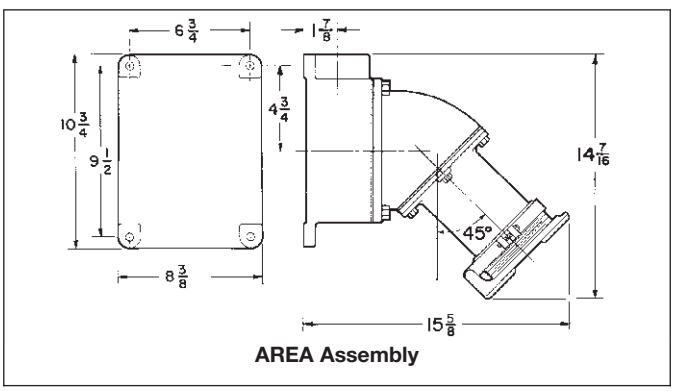
Features:

- Grounding contact wire terminators will accommodate ground wire of same size as phase wire
- Spring band contact design provides multiple points of electrical contact. Improves electrical reliability and significantly reduces effort required for insertion and withdrawal
- Crimp/solder and mechanical lug type contacts are available
- Large wire wells are available for "extra flexible" wire
- Larger wire well size connectors will interchange with connectors of other wire well size of same amperage and contact configuration
- Mechanical lug connectors will interchange with crimp/solder connectors of the same amperage and contact configuration
- Self-closing spring doors on receptacles and cord connectors provide environmental sealing
- Threaded nuts provide positive plug retention
- Two piece plug and cord connector design provide easy installation

1. For listing of additional back boxes, see page 1285.
2. S22 suffix for reverse interiors is available from factory only. Field conversion cannot be done.
3. Replacement interiors for standard units vs. S22 units vary in length. Specify the unit type when ordering parts.

Dimensions

In Inches:



AREA Assembly

Plug Closure Caps:

Applications:

CPK caps for *Arktite* plugs are used:

- Where portable equipment is on a standby basis and plugs are not in use
- To effectively protect insulation and contacts from excessive moisture, dirt, dust and corrosion
- With 30, 60, 100, 150 and 200 ampere plugs with fastening ring and standard 200 ampere plugs for the clamp door housing

Ordering Information:

Config.	Cat. #
3P	**CPK102**
4P	**CPK104**

Standard Materials:

- Copper-free aluminum

Standard Finishes:

- Natural

Wire Mesh Grips:

Applications:

Wire mesh grips are used:

- To provide secure cable termination
- To extend cable life
- With 20, 200 and 400 ampere plugs

Features:

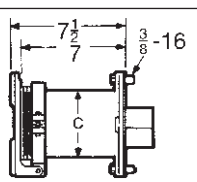
- Eliminate sharp radius of cable bend at the point where cable enters plug, thereby reducing cable failure
- Absorb longitudinal stresses placed on the point of termination caused by pulling the cable
- Gripping action increases in direct proportion to amount of tension applied to cable

Standard Material and Finishes:

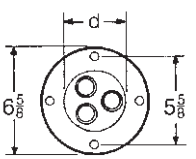
- Stainless steel wire braid – Natural

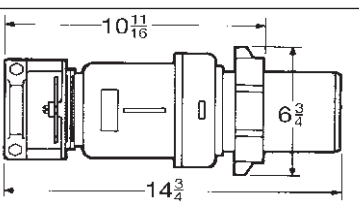
Ordering Information:

Plug Cable Range	Grip Range	Nominal Grip Length–Inches	Grip Cat. #
1.375 to 1.875	1.375 to 1.625	8	**K163**
	1.625 to 1.875	11	**K188**
1.875 to 2.500	1.875 to 2.000	10	**K200**
	2.000 to 2.250	11¾	**K225**

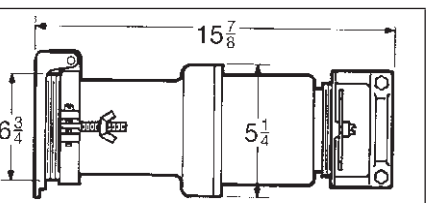


AR Receptacle





AP Plug



APR Connector

No. Poles	c	d
3	4 3/16	3 1/4
4	4 9/16	3 5/8

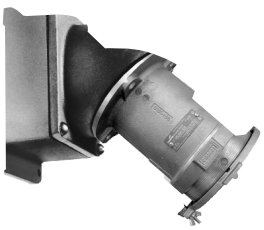
†For use on system less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.

COOPER Crouse-Hinds

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies

200 A, 600 VAC/250 VDC, 50† – 400 hertz

Ordering Information - Mechanical Lug Termination:



Receptacle Assembly

Receptacle w/ Mechanical Lug

Mating Plug

Mating Connector

Receptacle Assembly with AJ Back Boxes and Angle Adapters			Receptacle Housings only			
Description	Hub Size (In.)	Cat. #	Cat. #	Cable Dia.	Plug Cat. #	Connector Cat. #
Style 1 – Wire Well Takes 0.687" Maximum Conductor Size						
3-wire, 3-pole	1½	**AREAL20315**	**ARL2031**	0.875 to 1.375	**APL20355**	**APRL20315**
	2	**AREAL20316**		1.375 to 1.875	**APL20357**	**APRL20317**
	2½	**AREAL20317**		1.875 to 2.500	**APL20358**	**APRL20318**
4-wire, 4-pole	2	**AREAL20416**	**ARL2041**	0.875 to 1.375	**APL20455**	**APRL20415**
	2	**AREAL20416**		1.375 to 1.875	**APL20457**	**APRL20417**
	2½	**AREAL20417**		1.875 to 2.500	**APL20458**	**APRL20418**
				2.500 to 3.000	**APL20451**	**APRL204113**
Style 2 – Wire Well Takes 0.687" Maximum Conductor Size						
2-wire, 3-pole	1½	**AREAL20325**	**ARL2032**	0.875 to 1.375	**APL20365**	**APRL20325**
	2	**AREAL20326**		1.375 to 1.875	**APL20367**	**APRL20327**
	2½	**AREAL20327**		1.875 to 2.500	**APL20368**	**APRL20328**
3-wire, 4-pole	1½	**AREAL20425**	**ARL2042**	0.875 to 1.375	**APL20465**	**APRL20425**
	2	**AREAL20426**		1.375 to 1.875	**APL20467**	**APRL20427**
	2½	**AREAL20427**		1.875 to 2.500	**APL20468**	**APRL20428**

Ordering Information - Crimp/Solder Termination:

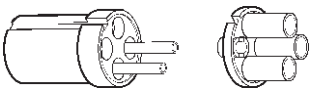
Receptable Assembly with AJ Back Boxes and Angle Adapters			Receptacle Housings only			
Description	Hub Size (In.)	Cat. #	Cat. #	Cable Dia.	Plug Cat. #	Connector Cat. #
Style 1 – Wire Well Takes 0.56" Maximum Conductor Size						
3-wire, 3-pole	1½	**AREA20315**	**AR2031**	0.875 to 1.375	**AP20355**	**APR20315**
	2	**AREA20316**		1.375 to 1.875	**AP20357**	**APR20317**
	2½	**AREA20317**		1.875 to 2.500	**AP20358**	**APR20318**
4-wire, 4-pole	2	**AREA20416**	**AR2041**	0.875 to 1.375	**AP20455**	**APR20415**
	2	**AREA20416**		1.375 to 1.875	**AP20457**	**APR20417**
	2½	**AREA20417**		1.875 to 2.500	**AP20458**	**APR20418**
Style 1 – Wire Well Takes 0.75" Maximum Conductor Size						
3-wire, 3-pole	1½	**AREA203125**	**AR20312**	1.375 to 1.875	**AP203511**	**APR203111**
	2	**AREA203126**		1.875 to 2.500	**AP203512**	**APR203112**
	2½	**AREA203127**				
4-wire, 4-pole	2	**AREA204126**	**AR20412**	1.375 to 1.875	**AP204511**	**APR204111**
	2	**AREA204126**		1.875 to 2.500	**AP204512**	**APR204112**
	2½	**AREA204127**		2.500 to 3.000	**AP204513**	**APR204113**
Style 2 – Wire Well Takes 0.56" Maximum Conductor Size						
2-wire, 3-pole	1½	**AREA20325**	**AR2032**	0.875 to 1.375	**AP20365**	**APR20325**
	2	**AREA20326**		1.375 to 1.875	**AP20367**	**APR20327**
	2½	**AREA20327**		1.875 to 2.500	**AP20368**	**APR20328**
3-wire, 4-pole	1½	**AREA20425**	**AR2042**	0.875 to 1.375	**AP20465**	**APR20425**
	2	**AREA20426**		1.375 to 1.875	**AP20467**	**APR20427**
	2½	**AREA20427**		1.875 to 2.500	**AP20468**	**APR20428**
Style 2 – Wire Well Takes 0.75" Maximum Conductor Size						
2-wire, 3-pole	1½	**AREA203225**	**AR20322**	0.875 to 1.375	**AP203610**	**APR203210**
	2	**AREA203226**		1.375 to 1.875	**AP203611**	**APR203211**
	2½	**AREA203227**		1.875 to 2.500	**AP203612**	**APR203212**
3-wire, 4-pole	1½	**AREA204225**	**AR20422**	1.375 to 1.875	**AP204611**	**APR204211**
	2	**AREA204226**		1.875 to 2.500	**AP204612**	**APR204212**
	2½	**AREA204227**				

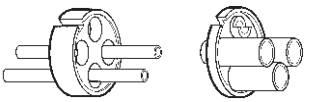
†For use on system less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.

Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies

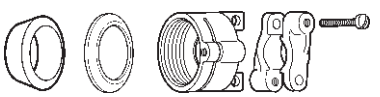
200 A, 600 VAC/250 VDC, 50† – 400 hertz

200A Replacement Parts





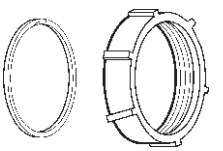
Config.	Receptacle Interior .56 wire well Cat. #	Receptacle Interior .75 wire well Cat. #	Plug Interior .56 wire well Cat. #	Plug Interior .75 wire well Cat. #	Brass Retaining Shoe .56 wire well Cat. #	Brass Retaining Shoe .75 wire well Cat. #
200A Standard and S4						
2W 3P	**ATP401**	**ATP402**	**ATP433**	**ATP434**	**0490335**	**0490335**
3W 3P	**ATP397**	**ATP398**	**ATP429**	**ATP430**	**0490327**	**0490328**
3W 4P	**ATP403**	**ATP404**	**ATP435**	**ATP436**	**0490337**	**0490337**
4W 4P	**ATP399**	**ATP400**	**ATP431**	**ATP432**	**0490331**	**0490332**
200A ST22 and S4 S22						
2W 3P	**ATP417**	**ATP418**	**ATP449**	**ATP450**	**0490335**	**0490335**
3W 3P	**ATP413**	**ATP414**	**ATP445**	**ATP446**	**0490327**	**0490328**
3W 4P	**ATP419**	**ATP420**	**ATP451**	**ATP452**	**0490337**	**0490337**
4W 4P	**ATP415**	**ATP416**	**ATP447**	**ATP448**	**0490331**	**0490332**



Cord Grip Assembly

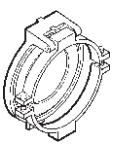
Cord Diameter Range

.875 – 1.375	**AP2 KIT1 M80**
1.375 – 1.875	**AP2 KIT2 M80**
1.875 – 2.500	**AP2 KIT3 M80**



Plug Clamp Nut

2W 3P 3W 3P	**AP:0401965**
2W 3P 3W 4P	**AP:0401964**

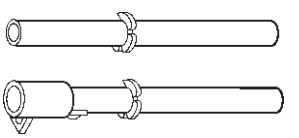


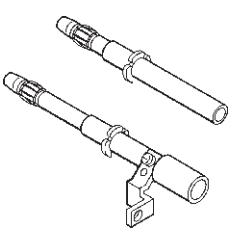
Rec Spring Door

AR:0401502-2
AR:0401502-1

Replacement Pin & Sleeve Contacts:

Type	Receptacle Cat. #	Receptacle Cat. #	Plug Cat. #	Plug Cat. #
200A Standard & S4	**.56 wire well**	**.75 wire well**	**.56 wire well**	**.75 wire well**
Phase Contact	**0490339**	**0490340**	**0490319**	**0490320**
Ground Contact	**0490343**	**0490344**	**0490323**	**0490324**
200A S22 & S4 S22	**.56 wire well**	**.75 wire well**	**.56 wire well**	**.75 wire well**
Phase Contact	**0490351**	**0490352**	**0490355T**	**0490356**
Ground Contact	**0490347**	**0490348**	**0490359**	**0490360**
200A Mechanical Lug	**.687 wire well**		**.687 wire well**	
Phase Contact	**0403688**		**0403678**	
Ground Contact	**0403687**		**0403677**	





†For use on system less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.

Arktite® Heavy Duty Receptacle Assemblies

400 A, 600 VAC/250 VDC, 50–400 hertz

Features:

- Grounding contact wire terminators will accommodate ground wire of same size as phase wire
- Spring band contact design provides multiple points of electrical contact. Improves electrical reliability and significantly reduces effort required for insertion and withdrawal
- Crimp/solder type contacts are standard
- Large wire wells are available for "extra flexible" wire
- Larger wire well size connectors will interchange with connectors of other wire well size of same amperage and contact configuration
- Self-closing spring doors on receptacles and cord connectors provide environmental sealing
- Threaded nuts provide positive plug retention
- Two piece plug and cord connector design provide easy installation
- For disconnect use only – not for current interrupting

1. For listing of additional back boxes, see page 1285. Illustration shows 3 blank plates and 1 hub plate.
2. S22 suffix for reverse interiors is available from factory only. Field conversion cannot be done.
3. Replacement interiors for standard units vs. S22 units vary in length. Specify the unit type when ordering parts.

Wire Mesh Grips:

Applications:

Wire mesh grips are used:

- To provide secure cable termination
- To extend cable life
- With 20, 200 and 400 ampere plugs

Features:

- Eliminate sharp radius of cable bend at the point where cable enters plug, thereby reducing cable failure
- Absorb longitudinal stresses placed on the point of termination caused by pulling the cable
- Gripping action increases in direct proportion to amount of tension applied to cable

Standard Material and Finishes:

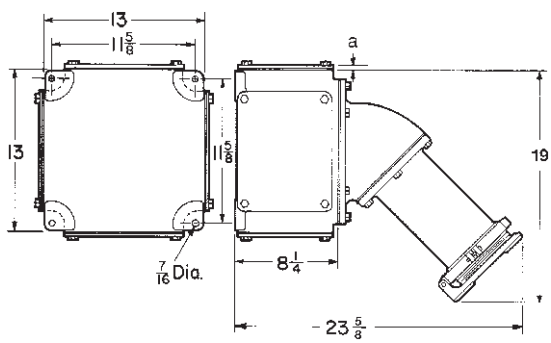
- Stainless steel wire braid – Natural

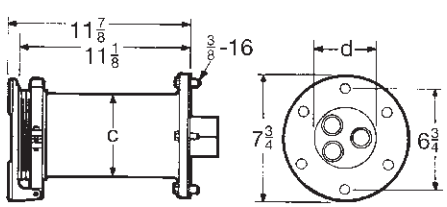
Ordering Information:

Plug Cable Range	Grip Range	Nominal Grip Length–Inches	Grip Cat. #
1.375 to 1.875	1.375 to 1.625	8	**K163**
	1.625 to 1.875	11	**K188**
1.875 to 2.500	1.875 to 2.000	10	**K200**
	2.000 to 2.250	11 3/4	**K225**

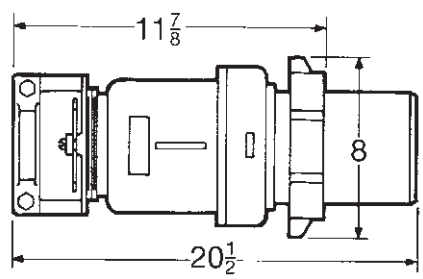
Dimensions

In Inches:

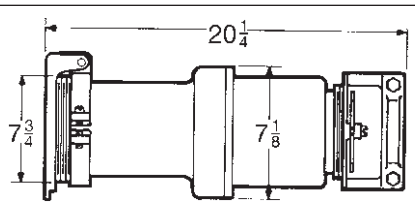




AR Receptacles



AP Plugs



APR Connectors

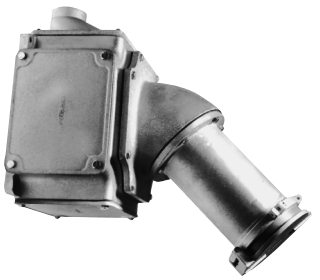
AREX Assemblies

Description	a	No. Poles	c	d
With blank hub plate	5/16	3	5 3/16	4 3/16
With hub plate max.	4 5/8	4	5 13/16	4 11/16

Arktite® Heavy Duty Receptacle Assemblies

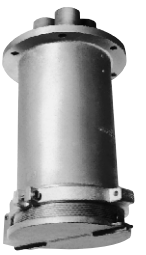
400 A, 600 VAC/250 VDC, 50–400 hertz

Ordering Information:



Receptacle Assembly

With AJ Back Boxes and Angle Adapters‡



Receptacle

Receptacle Housings only

Mating Plug

Mating Connector

Description	Hub Size (In.)	Spring Door Cover Cat. #	Spring Door Cat. #	Cable Dia.	Plug Cat. #	Connector Cat. #
Style 1 – Wire Well Takes .84" Maximum Conductor Size						
3-wire, 3-pole	2½	**AREX40317**	**AR4031**	1.375 to 1.875	**AP40357**	**APR40317**
	3	**AREX40318**		1.875 to 2.500	**AP40358**	**APR40318**
4-wire, 4-pole	2½	**AREX40417**	**AR4041**	1.375 to 1.875	**AP40457**	**APR40417**
	3	**AREX40418**		1.875 to 2.500	**AP40458**	**APR40418**
Style 1 – Wire Well Takes 1.25" Maximum Conductor Size						
3-wire, 3-pole	3	**AREX403128**	**AR40312**	2.500 to 3.000	**AP403510**	**APR403110**
	3½	**AREX403129**		3.000 to 3.800	**AP403512**	**APR403112**
	4	**AREX4031210**				
4-wire, 4-pole	4	**AREX4041210**	**AR40412**	2.500 to 3.000	**AP404510**	**APR404110**
	5	**AREX4041212**		3.000 to 3.800	**AP404512**	**APR404112**
Style 2 – Wire Well Takes .84" Maximum Conductor Size						
2-wire, 3-pole	2	**AREX40326**	**AR4032**	1.375 to 1.875	**AP40367**	**APR40327**
	2½	**AREX40327**		1.875 to 2.500	**AP40368**	**APR40328**
	3	**AREX40328**				
3-wire, 4-pole	2½	**AREX40427**	**AR4042**	1.375 to 1.875	**AP40467**	**APR40427**
	3	**AREX40428**		1.875 to 2.500	**AP40468**	**APR40428**
Style 2 – Wire Well Takes 1.25" Maximum Conductor Size						
2-wire, 3-pole	3	**AREX403228**	**AR40322**	2.500 to 3.000	**AP403610**	**APR403210**
	3½	**AREX403229**		3.000 to 3.500	**AP403612**	**APR403212**
	4	**AREX4032210**				
3-wire, 4-pole	4	**AREX4042210**	**AR40422**	2.500 to 3.000	**AP404610**	**APR404210**
	5	**AREX4042212**		3.000 to 3.500	**AP404612**	**APR404212**

‡Hub plates and blank plates may be interchanged to permit conduit feed from bottom or sides.

Non-metallic Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

Watertight§
Corrosion-Resistant
NEMA 4X

1P

Made of Krydon® Material, 600 VAC/250 VDC, 50–400 hertz

Applications:

Arktite circuit breaking plugs, receptacles, cord connectors and motor plugs are used:

- To supply power to portable electrical devices such as welders, motors, pumps, conveyors and other similar equipment
- Where electrical loads must be quickly disconnected from power sources
- In areas where severe corrosion hose down, moisture, dirt and dust are problems
- Indoors and outdoors in non-hazardous areas of chemical plants, sewage treatment facilities, cement plants, pulp and paper plants, food processing plants and other similar industries

Features:

- Plugs, receptacles, cord connectors, and motor plugs are molded of *Krydon* fiberglass-reinforced polyester material which is highly resistant to corrosion, heat, weathering and physical abuse

❶ Molded of Krydon fiberglass-reinforced non-metallic material which is highly resistant to corrosion, heat, weathering, and physical abuse

❷ Grounding contacts that make-first and break-last in the unlikely event of a keyway failure

❸ Split-pin contact design provides 360° of electrical contact

❹ Spring door provides environmental protection of receptacle (NEMA 4)

❺ Keyed for a perfect match in the molded one-piece insulator housing

❻ Sealing gaskets at all critical points inside Arktite plugs and receptacles protect against dust, dirt, mud, water, and corrosive contaminants

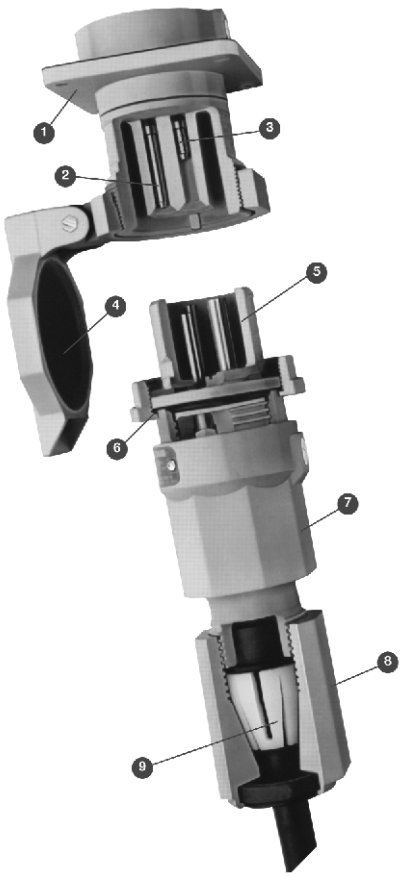
❼ Plugs can be used in both hazardous and non-hazardous areas when used with appropriately rated Arktite receptacles

❽ Total interchangeability with all existing Arktite products for comparable ratings and configurations

❾ A unique patented strain relief design prevents stress from reaching wire terminations at the contacts

Certifications and Compliances:

- UL Standard: 1682
- UL 1010 hazardous locations (NPJ plug only)
- Wet and damp locations, watertight
- CSA Standard C22.2 No. 182.1



Grounding:

- NPJ plugs are Style 2, which includes a grounding conductor in the flexible cord or cable that is electrically connected to the extra (grounding) pole.
- NR receptacles are Style 2, in which the ground connection is made before line and load poles engage, and is broken after line and load poles disengage.
- The National Electrical Code® and Canadian Electrical Code requires that under conditions favorable to corrosion, the grounding conductor for enclosures and equipment be of copper or other corrosion-resistant material in alternating current systems. This necessitates running another conductor, usually of copper, back to the common grounding electrode. This may be run through the conduit containing the circuit conductors. At the receptacle, this grounding conductor should be connected to the extra (grounding) pole by the pressure connector provided for that purpose. Where such an extra ground conductor is required, Style 2 receptacles should be used.

Interchangeability of Plugs With Other Non-hazardous and Hazardous Location Receptacles:

- Plugs listed for use with NRE/NREA assemblies are standard NPJ *Arktite* plugs. Other standard APJ and CPH plugs of the same rating, style and number of poles may be used with NR receptacles, as well as with AR and AREA, receptacles listed in Section 1P, with DR receptacles listed in Section 2P, with DBR, NBR, NSR, WSR, CSR, WSQC, and WSRD receptacles listed in Section 3P and with FSQ, EPC, FSQC, W2SR, C2SR and EPCB receptacles listed in Section 4P.
- Portable equipment, suitable for locations and equipped with the proper NPJ plug, can be used with non-hazardous AR receptacles; with DBR and WSR interlocked receptacles located in non-hazardous locations; with EPC, EPCB and FSQC receptacles for Class I, Groups B, C, D hazardous locations; with DR and DBR receptacles for Class II, Groups F, G hazardous locations; and with NBR/NSR, CSR interlocked receptacles for hose down and corrosive locations.

Standard Materials:

- Housing, interiors, spring doors, clamping rings – *Krydon* fiberglass-reinforced polyester material
- Gaskets and o-rings – neoprene
- Cable clamping basket – nylon
- Contacts – pressure – brass; crimp/solder – leaded brass
- Snap-on cap – molded elastomer
- Back boxes – copper-free aluminum

Standard Finishes:

- *Krydon* material – natural (gray)
- Neoprene – natural
- Elastomer – natural
- Brass – natural
- Leaded red brass – electro-tin-plated
- Aluminum – natural
- Stainless steel – natural

Options:

Description	Suffix
• Alternate polarization (4-pole plugs and receptacles only) – receptacle interior rotated 22½° to right and plug changed to match.....	**S4**
• Crimp/solder terminals.....	**T**
• *Corro-free*™ epoxy powder coat on back boxes and angle adapters.....	**Information on request**

§Wet and damp locations when used with spring door or snap-on cap, watertight when used with QE threaded cap.

Non-metallic Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

Watertight§
Corrosion-Resistant
NEMA 4X

Made of Krydon® Material, 30 A, 60 A and 100 A 600 VAC/250 VDC, 50■ – 400 hertz

Ordering Information:

NREA

NRE

	Receptacle Assembly			Receptacle		Mating Plugs	Mating Connectors	Motor Plugs
Amps	Description	Hub Size (In.)	Snap-on Cap/ Spring Door Cat. #†	Snap-on Cap/ Spring Door Cat. #†	Cord Dia.	Plug Cat. #	Cord Connector Cat. #	Motor Plug Cat. #
30	2-wire, 3-pole	¾ 1	**NRE3322** **NRE3323**	**NR332**	0.55–0.70 0.70–0.85	**NPJ3383** **NPJ3384**	**NPR3363** **NPR3364**	**NPQ338**
	3-wire, 4-pole	¾ 1	**NRE3422** **NRE3423**	**NR342**	0.55–0.70 0.70–0.85	**NPJ3483** **NPJ3484**	**NPR3463** **NPR3464**	**NPQ348**
60	2-wire, 3-pole	1 1¼	**NRE6323** **NRE6324**	**NR632**	0.75–1.07 1.07–1.35	**NPJ6384** **NPJ6385**	**NPR6364** **NPR6365**	**NPQ638**
	3-wire, 4-pole	1¼ 1½	**NRE6424** **NRE6425**	**NR642**	0.75–1.07 1.07–1.35	**NPJ6484** **NPJ6485**	**NPR6464** **NPR6465**	**NPQ648**
100	2-wire, 3-pole	1¼ 1½	**NREA10324‡** **NREA10325‡**	**NR1032**	0.93-1.21 1.21-1.50	**NPJ10386** **NPJ10387**	**NPR10366** **NPR10367**	**NPQ1038**
	3-wire, 4-pole	1½ 2	**NREA10425‡** **NREA10426‡**	**NR1042**	0.93-1.21 1.21-1.50	**NPJ10486** **NPJ10487**	**NPR10466** **NPR10467**	**NPQ1048**

■ For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.
§Wet and damp locations when used with spring door or snap-on cap, watertight when used with QE threaded cap.
†Krydon Arktite Receptacles are supplied with both a spring door and snap-on cap.
‡AJ back boxes are square, making it possible to install with hub in several positions.

Non-metallic Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

Made of Krydon® Material, 30 A, 60 A and 100 A 600 VAC/250 VDC, 50■ – 400 hertz

Dimensions
In Inches:

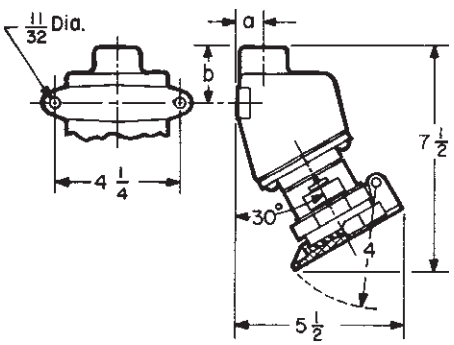


Fig. 1 – 30 A Receptacle Assemblies

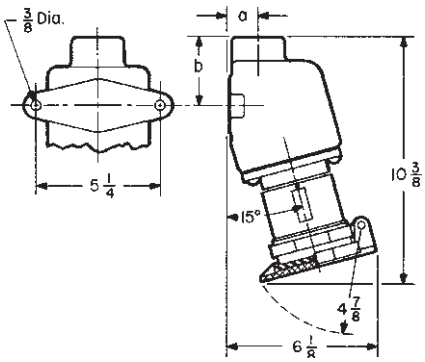


Fig. 2 – 60 A Receptacle Assemblies

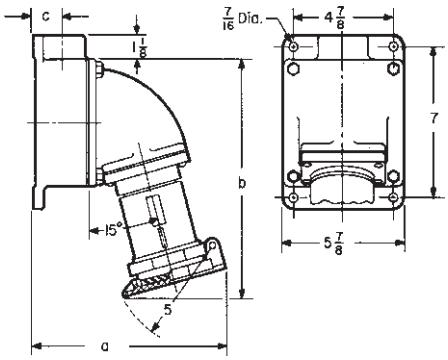


Fig. 3 – 60 and 100 A Receptacle Assemblies

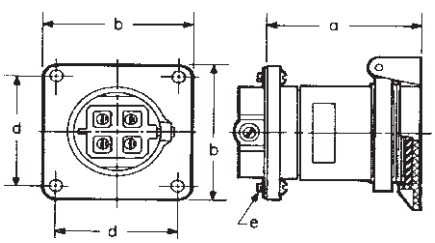


Fig. 4 – Spring Door Housings

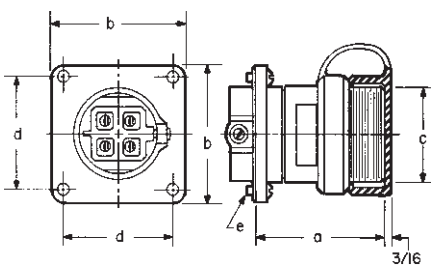


Fig. 5 – Housings with Cap

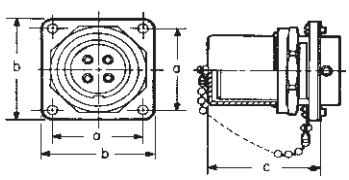


Fig. 6 – NPQ Motor Plugs

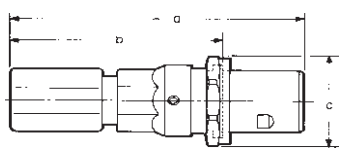


Fig. 7 – NPJ Plugs

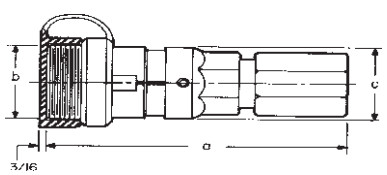


Fig. 8 – NPR Cord Connectors

NRE 30 and 60 A Assemblies – Fig. 1 and 2

Hub Size	Dimension a		Dimension b	
	30 A	60 A	30 A	60 A
3/4	13/16		1 7/8	
1	15/16	15/16	2	2 9/16
1 1/4		1 3/16		2 5/8
1 1/2		1 5/16		2 11/16

NREA 60 and 100 A Assemblies – Fig. 3

Dim.	60 A Hub Size	100 A Hub Size	
	1, 1 1/4, 1 1/2	1 1/4, 1 1/2	2
a	9	9 1/4	9 13/16
b	11	12	12
c	1 15/16	1 9/16	1 9/16

Housings - Fig. 4 and 5

Amps	No. Poles	Housing	a	b	c	d	e
30	3 or 4	Spring Door	3 1/4	3 3/8	—	2 3/4	12–24
	3 or 4	Open	2 13/16	3 3/8	2 9/16	2 3/4	12–24
60	3	Spring Door	4 1/2	4 1/4	—	3 1/2	5/16-18
	4	Spring Door	4 1/2	4 1/4	—	3 1/2	5/16-18
	3	Open	4 1/16	4 1/4	2 15/16	3 1/2	5/16-18
	4	Open	4 1/16	4 1/4	3 1/4	3 1/2	5/16-18
100	3	Spring Door	5 3/4	4 1/4	—	3 1/2	5/16-18
	4	Spring Door	5 3/4	4 1/4	—	3 1/2	5/16-18
	3	Open	5 5/16	4 1/4	3 3/16	3 1/2	5/16-18
	4	Open	5 5/16	4 1/4	3 7/16	3 1/2	5/16-18

■ For use on systems less than 60 hertz the receptacles, plugs and disconnectors are for disconnect use only.

NPQ Motor Plugs – Fig. 6

Amps/Poles	a	b	c
30 / 3 or 4	2 3/4	3 3/8	2 15/16
60 / 3 or 4	3 1/2	4 1/4	4 5/16
100 / 3 or 4	3 1/2	4 1/4	5 7/16

NPJ Plugs – Fig. 7

Amps/Poles	a	b	c
30 / 3 or 4	8 1/2	7	3 3/16
60 / 3	9 1/2	6 13/16	3 5/8
60 / 4	9 1/2	6 13/16	4
100 / 3	11 1/4	7 3/4	4
100 / 4	11 1/4	7 3/4	4 1/4

NPR Cord Connectors – Fig. 8

Amps/Poles	a	b	c
30 / 3 or 4	8 7/8	2 9/16	2 5/8
60 / 3	9 3/4	2 15/16	2 15/16
60 / 4	9 3/4	3 1/4	2 15/16
100 / 3	11 1/2	3 3/16	3 5/16
100 / 4	11 1/2	3 7/16	3 5/16

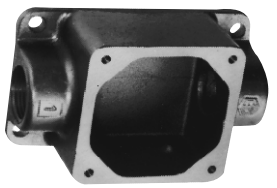
AR Back Boxes and Accessories for 20, 30, & 60 A Receptacle Housings

Dimensions see pages 1286–1287

ARE

Hub Size	20 / 30 A Cat. #	60 A Cat. #
½	**ARE13**	
¾	**ARE23**	
1	**ARE33**	**ARE36**
1¼		**ARE46**
1½		**ARE56**

ARRC



Hub Size	20 / 30 A Cat. #	60 A Cat. #
½	**ARRC13**	
¾	**ARRC23**	
1	**ARRC33**	**ARRC36**
1¼		**ARRC46**
1½		**ARRC56**

AR 15° Angle Adapter

For ARRH and ARRC back boxes

For steel panel or cabinet

Mounts On	Takes AR Receptacle Housings	Cat. #
ARRH and ARRC back boxes	20 and 30 amp.	**AR30**
ARRH and ARRC back boxes	60 amp.	**AR60**
Steel panel or cabinet	60, 100 and 150 amp.	**AR610**

ARRH

Hub Size	20 / 30 A Cat. #	60 A Cat. #
½	**ARRH13**	
¾	**ARRH23**	
1	**ARRH33**	**ARRH36**
1¼		**ARRH46**
1½		**ARRH56**

ARD

Hub Size	20 / 30 A Cat. #	60 A Cat. #
½	**ARD13**	
¾	**ARD23**	
1	**ARD33**	**ARD36**
1¼		**ARD46**
1½		**ARD56**

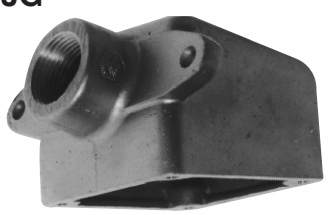
Spring Door Assembly

Used With	Cat. #
30 amp, 2, 3 & 4-pole	**QE50**
60 amp, 2 & 3-pole	**QE51**
60 amp, 4-pole	**QE52**
100 and 150 amp, 2 & 3-pole	**QE53**
100 and 150 amp, 4-pole	**QE54**

ARJ

Hub Size	20 / 30 A Cat. #	60 A Cat. #
½	**ARJ13**	
¾	**ARJ23**	
1	**ARJ33**	**ARJ36**
1¼		**ARJ46**
1½		**ARJ56**

ARJG



Hub Size	20 / 30 A Cat. #	60 A Cat. #
½	**ARJG13**	
¾	**ARJG23**	
1	**ARJG33**	**ARJG36**
1¼		**ARJG46**
1½		**ARJG56**

Cap and Chain

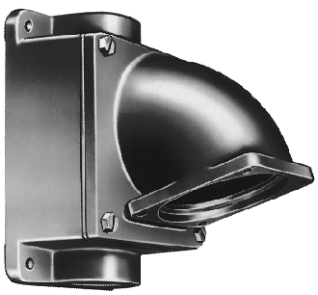
Used With	Cat. #
30 amp, 2, 3 & 4-pole	**QE13**
60 amp, 2 & 3-pole	**QE32**
60 amp, 4-pole	**QE34**
100 and 150 amp, 2 & 3-pole	**QE62**
100 and 150 amp, 4-pole	**QE64**

AJ and AJC Back Boxes with Angle Adapters for 60, 100, 200 & 400 A Receptacle Housings AJX Assemblies and Component Parts For 200 and 400 A Receptacle Housings

Dimensions
see pages 1286–1287

AJ Back Box with 60 / 100 / 150 A Angle Adapter

AJ Back Box with 200 / 400 A Angle Adapter



AJC Back Box with 60 / 100 / 150 A AJA Angle Adapter

AJC Back Box with 200 A Angle Adapter

AJ and AJC Back Boxes†

		60, 100 & 150 A		200 A		400 A	
Hub Size	Type	Box Only	Box & Adapter Assembly	Box Only	Box & Adapter Assembly	Box Only	Box & Adapter Assembly
1"	One Hub Feed Thru	AJ56* AJC56*	AJ37 AJC37				
1¼"	One Hub Feed Thru	AJ56* AJC56*	AJ47 AJC47				
1½"	One Hub Feed Thru	AJ56* AJC56*	AJ57 AJC57	AJ71*	AJ58		
2"	One Hub Feed Thru	AJ66 AJC66	AJ67 AJC67	AJ71*	AJ68	AJ82*	AJ69‡
2½"	One Hub Feed Thru			AJ71* AJC71	AJ78 AJC78	AJ82*	AJ79‡
3"	One Hub Feed Thru					AJ82*	AJ89‡
Angle Adapter		AJA6		AJA1		AJA2	

*Reducer supplied with assembly.
†AJ and AJC back boxes are square, making it possible to install with hub in several positions.
‡Use AJ69, AJ79 or AJ89 for cables up to 2 – #350MCM, 3 – #300MCM or 4 – #250MCM. For larger cables, use AJX69, etc., listed under assemblies.

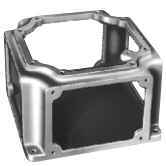
AJX Assemblies

Back Box with Angle Adapter, 3 Blank Plates and 1 Hub Plate

Hub Size	400 A Cat. #
2	AJX69
2½	AJX79
3	AJX89
3½	AJX929
4	AJX9210
5	AJX9212

AJX Component Parts

For use in making up assemblies with arrangements of hub plates (4 required) other than those listed.



Back Box

Angle Adapter

Type	Cat. #
Back Box 400 A	AJX99
Angle Adapter 400 A	AJ245

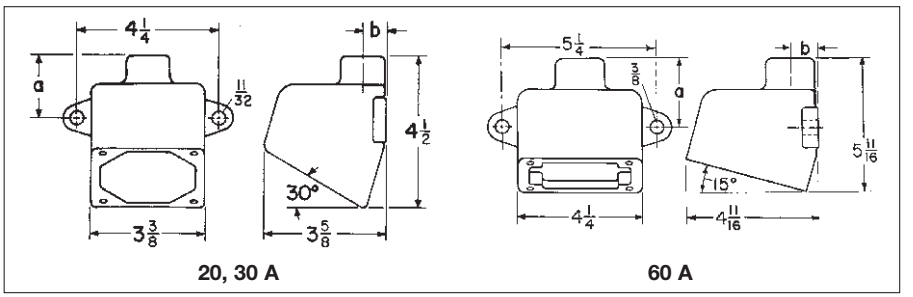
Hub Plate

Blank Plate

Hub Size	Hub Plate 400 A Cat. #	Blank Plate 400 A Cat. #
2	YYP96	YYP900
2½	YYP97	
3	YYP98	
3½	YYP99	
4	YYP910	
5	YYP9012	

Dimensions

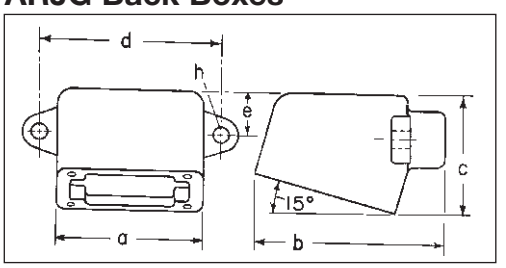
Dimensions (In Inches): ARE Back Boxes



20, 30 A 60 A

Cat. #	Rating	Size	a	b
13	20, 30 A	1/2	1 27/32	11/16
23	20, 30 A	3/4	1 27/32	13/16
33	20, 30 A	1	1 31/32	15/16
36	60 A	1	2 9/16	15/16
46	60 A	1 1/4	2 5/8	1 3/16
56	60 A	1 1/2	2 11/16	1 5/16

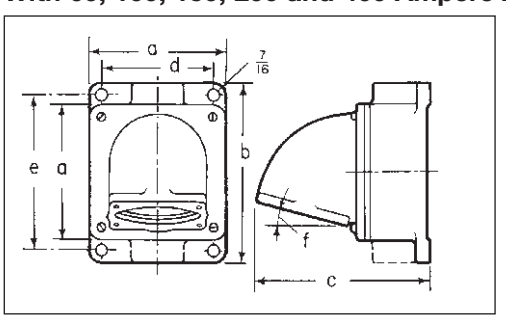
ARJG Back Boxes



Cat. #	Rating	Size	a	b	c	d	e	h Dia.
13	20, 30 A	1/2	3 3/8	4 15/32	2 3/4	4 1/4	1 3/8	11/32
23	20, 30 A	3/4	3 3/8	4 15/32	2 3/4	4 1/4	1 3/8	11/32
33	20, 30 A	1	3 3/8	4 19/32	2 3/4	4 1/4	1 3/8	11/32
36	60 A	1	4 1/4	5 5/8	4 11/16	5 1/4	1 5/8	3/8
46	60 A	1 1/4	4 1/4	5 11/16	4 11/16	5 1/4	1 5/8	3/8
56	60 A	1 1/2	4 1/4	5 3/4	4 11/16	5 1/4	1 5/8	3/8

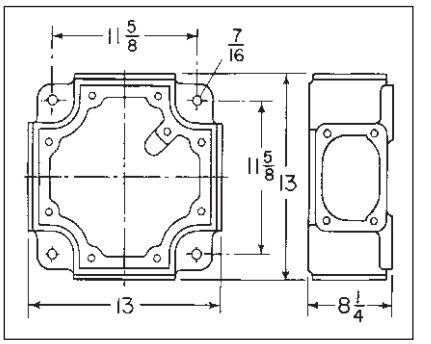
AJ and AJC

With 60, 100, 150, 200 and 400 Ampere Angle Adapters

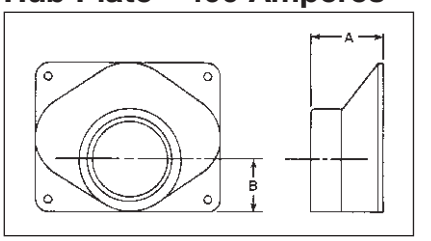


Cat. #	Rating	Size	a	b	c	d	e	f
37, 47, 57	60, 100 A	1, 1 1/4, 1 1/2	5 7/8	8	7 7/16	4 7/8	7	15°
67	60, 100 A	2	5 7/8	8	8	4 7/8	7	15°
58, 68, 78	200 A	1 1/2, 2, 2 1/2	8	10 3/4	9 7/8	6 3/4	9 1/2	45°
69, 79, 89	400 A	2, 2 1/2, 3	9	11 5/8	11 13/16	7 3/4	10 3/8	45°

AJX Back Body - 400 Amperes

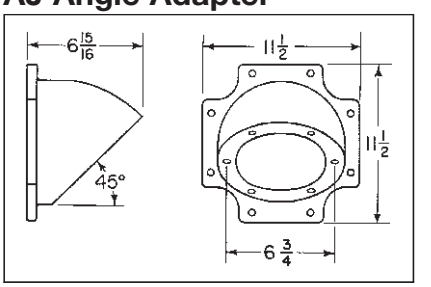


Hub Plate - 400 Amperes



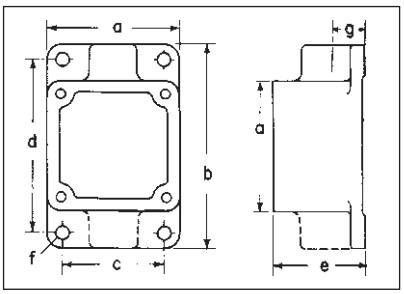
Cat. #	Hub Size	"A"	"B"
YYP96	2	3 3/4	1 11/16
YYP97	2 1/2	3 7/8	2 5/16
YYP98	3	3 7/8	2 5/16
YYP99	3 1/2	3 7/8	2 9/16
YYP910	4	3 7/8	2 13/16
YYP9012	5	4 5/8	3 7/16

AJ Angle Adapter



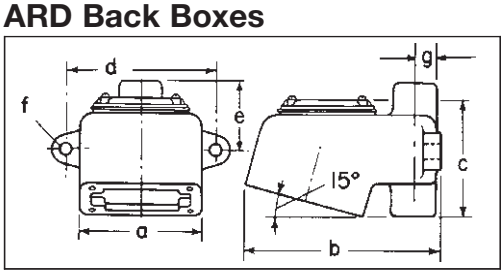
Dimensions

ARRC and ARRH Back Boxes



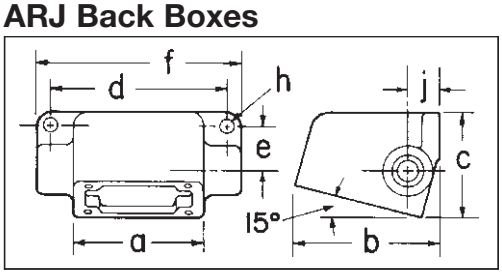
Cat. #	Rating	Size	a	b	c	d	e	f Dia.	g
13	20 / 30 A	1/2	3 3/8	5 5/16	2 5/8	4 9/16	2 1/4	11/32	11/16
23	20 / 30 A	3/4	3 3/8	5 5/16	2 5/8	4 9/16	2 1/4	11/32	13/16
33	20 / 30 A	1	3 3/8	5 5/16	2 5/8	4 9/16	2 1/4	11/32	15/16
36	60 A	1	4 1/4	6 1/2	3 1/2	5 3/4	3 1/8	7/16	1 3/8
46	60 A	1 1/4	4 1/4	6 1/2	3 1/2	5 3/4	3 1/8	7/16	1 3/8
56	60 A	1 1/2	4 1/4	6 1/2	3 1/2	5 3/4	3 1/8	7/16	1 3/8

ARD Back Boxes



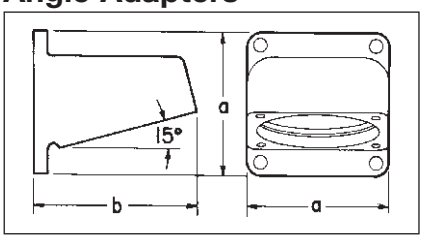
Cat. #	Rating	Size	a	b	c	d	e	f Dia.	g
13	20 / 30 A	1/2	3 3/8	5 5/16	3 23/32	4 1/4	1 27/32	11/32	11/16
23	20 / 30 A	3/4	3 3/8	5 5/16	3 23/32	4 1/4	1 27/32	11/32	13/16
33	20 / 30 A	1	3 3/8	5 5/16	3 23/32	4 1/4	1 27/32	11/32	15/16
36	60 A	1	4 1/4	7 1/16	5 3/4	5 1/8	2 3/4	3/8	1 5/16
46	60 A	1 1/4	4 1/4	7 1/16	5 3/4	5 1/8	2 3/4	3/8	1 5/16
56	60 A	1 1/2	4 1/4	7 1/16	5 3/4	5 1/8	2 3/4	3/8	1 5/16

ARJ Back Boxes



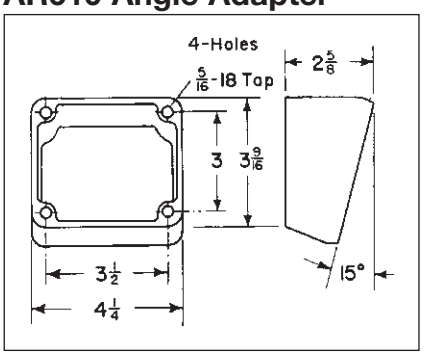
Cat. #	Rating	Size	a	b	c	d	e	f	h Dia.	j
13	20 / 30 A	1/2	3 3/8	3 5/8	2 3/4	4 5/8	1 7/32	5 5/16	11/32	15/16
23	20 / 30 A	3/4	3 3/8	3 5/8	2 3/4	4 5/8	1 7/32	5 5/16	11/32	15/16
33	20 / 30 A	1	3 3/8	3 5/8	2 3/4	4 5/8	1 7/32	5 5/16	11/32	15/16
36	60 A	1	4 1/4	4 11/16	4 11/16	5	1 23/32	6 3/8	3/8	1 5/16
46	60 A	1 1/4	4 1/4	4 11/16	4 11/16	5	1 23/32	6 3/8	3/8	1 5/16
56	60 A	1 1/2	4 1/4	4 11/16	4 11/16	5	1 23/32	6 3/8	3/8	1 5/16

AR30 and AR60 Angle Adapters



Cat. #	Rating	a	b
AR30	20 / 30 A	3 3/8	4 1/8
AR60	60 A	4 1/4	4 15/16

AR610 Angle Adapter



AR Arktite® Circuit Breaking Round Flange Receptacle Housings for Panel Mounting

Weatherproof
For use with APJ and AP Plugs

30/60/100/200 A, 600 VAC/250 VDC

Applications:

- AR round flange receptacle housings are designed specifically for semi-flush mounting in sheet metal panels or cabinets.

Features:

- Back boxes are not needed for these receptacle assemblies.
- Where wiring behind a panel is exposed and subject to either mechanical injury or contact by personnel, suitable shields or guards should be provided.

Certifications and Compliances:

- UL Standard: 1682

Standard Materials:

- Receptacle housings – copper-free aluminum
- Plug exteriors – copper-free aluminum
- Insulation: 30, 60, 100, 200 ampere – fiberglass-reinforced polyester
- Pressure and solder contacts – brass
- Crimp/solder contacts – leaded red brass

Standard Finishes:

- Copper-free aluminum – natural
- Brass – natural
- Fiberglass-reinforced polyester – natural (red)
- Leaded red brass – electro-tin-plate

Options:

Description	Suffix
Available with these assemblies are:	
• Reversed interiors	**S22**
• Special polarity	**S4**

See page 1266 for details.

For general information on application, features and grounding, see pages 1264–1267.

AR Receptacle housings with round flange and threaded cap

APJ Plugs with cable grip, neoprene bushing and fastening ring

APJ Plugs with cable grip, neoprene bushing and fastening ring

AR Arktite® Circuit Breaking Round Flange Receptacle Housings for Panel Mounting

30/60/100/200 A, 600 VAC/250 VDC

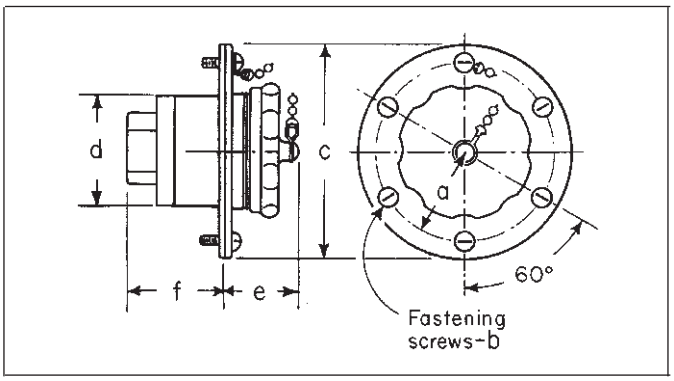
Ordering Information:

Amps	Style‡	Description	Recept. Cat. #	Cable Dia.	Plug Cat. #
30	1	3-wire, 3-pole*	AR6337	0.60 to 1.20	APJ3375
		4-wire, 4-pole*	AR6347	0.60 to 1.20	APJ3475
	2	3-wire, 4-pole*	AR6348	0.60 to 1.20	APJ3485
60	1	3-wire, 3-pole*	AR6637	0.75 to 1.45	APJ6375
		4-wire, 4-pole*	AR6647	0.75 to 1.45	APJ6475
	2	3-wire, 4-pole*	AR6648	0.75 to 1.45	APJ6485
100	1	3-wire, 3-pole*	AR61037	1.00 to 1.70	APJ10377
		4-wire, 4-pole*	AR61047	1.00 to 1.70	APJ10477
	2	3-wire, 4-pole*	AR61048	1.00 to 1.70	APJ10487
200	1	3-wire, 3-pole	AR62031§	.875 to 1.375	AP20355
				1.875 to 2.500	AP20358
	2	2-wire, 3-pole	AR62032§	.875 to 1.375	AP20365
				1.875 to 2.500	AP20368

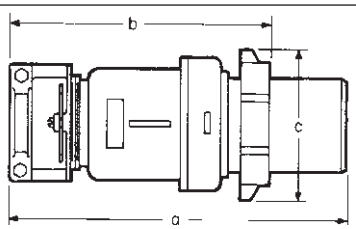
‡Style 1 – Grounded through shell. Style 2 – Grounded through extra pole and shell.
§200 ampere size is provided with clamp cover.
*Pressure connectors are standard. Crimp/solder type terminators are optionally available for 2, 3 and 4-pole 30 ampere, 3 and 4-pole 60 and 100 ampere. For details, see page 1267. To specify, add the suffix "T" to the catalog number.
For example: APJ3375-T (Plug) AR6337-T (Receptacle).

Dimensions (In Inches):

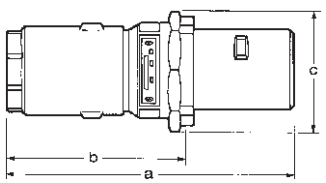
AR Round Flange Receptacles



Description	a	b	c	d	e	f
30 amp. 2, 3, 4-pole	2	12–24	4 3/4	2 7/16	1 5/8	2 1/4
60 amp. 2, 3-pole	2	12–24	4 3/4	2 13/16	1 7/8	3 3/8
60 amp. 4-pole	2	12–24	4 3/4	3 1/8	1 7/8	3 3/8
100 amp. 2, 3-pole	2	12–24	4 3/4	3 1/16	1 7/8	4 9/16
100 amp. 4-pole	2	12–24	4 3/4	3 5/16	1 7/8	4 9/16
200 amp. 3-pole	3 3/8	3/8-16	7 3/4	4 3/16	2 7/8	5 1/8



AP 200 A Plugs



APJ 30, 60 and 100 A Plugs

Amps	No. Poles	a	b	c
30	2, 3 or 4	6 1/2	4 13/16	2 15/16
60	2 or 3	8 1/2	5 3/4	3 5/8
60	4	8 1/2	5 13/16	3 3/4
100	2 or 3	10 1/8	6 9/16	3 3/4
100	4	10 1/8	6 5/8	4 1/8
200	3	14 3/4	10 11/16	6 3/4

These dimensions are approximate and vary with cable size.

APQ Arktite® Circuit Breaking Motor Plugs

APJ Plugs, APR Cable Connector Receptacles 30/60/100 A, 250 VDC/600 VAC, 50† – 400 hertz

Applications:

APQ motor plugs are used:

- On portable electric equipment

Features:

- Eliminates problem of storing and protecting a long length of portable cord and plug on portable device
- Connection to fixed receptacle used as power source is made with cord sets which may be hung on wall, out of the way
- Cord sets are made up using an APR receptacle at one end and an APJ plug at the other
- Cord sets may be used singly or connected together to provide longer lengths when needed
- With spare cord sets on hand, portable equipment may be kept in service while normal cord replacement is being made
- Where design of portable equipment permits, APQ motor plugs can be attached directly to a sheet metal panel or cabinet
- May be mounted on AR and AJ back boxes for conduit connection
- See typical installation diagram on next page

Certifications and Compliances:

- UL Standards: 1682
- CSA Standard: C22.2 No. 182.1

Standard Materials:

- Motor plugs: mounting plate – *Feraloy*®, iron alloy; protective sleeve – copper-free aluminum
- Plug and receptacle exteriors – copper-free aluminum
- Back boxes – copper-free aluminum
- Insulation – fiberglass-reinforced polyester
- Pressure and solder contacts – brass
- Crimp/solder contacts – leaded red brass

Standard Finishes:

- *Feraloy* – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- Brass – natural
- Fiberglass-reinforced polyester – natural (red)
- Leaded red brass – electro-tin-plate

Options:

Available with these assemblies are:

Description	Suffix
Special polarity	S4

See page 1266 for details.

APQ Motor Plugs with square flange, gaskets, fastening ring, and exposed contacts.

APR Cable Connector Receptacles with cable grip, neoprene bushing, and protected contacts.

APJ Plugs with cable grip, neoprene bushing, exposed contacts, and fastening ring.

Ordering Information:

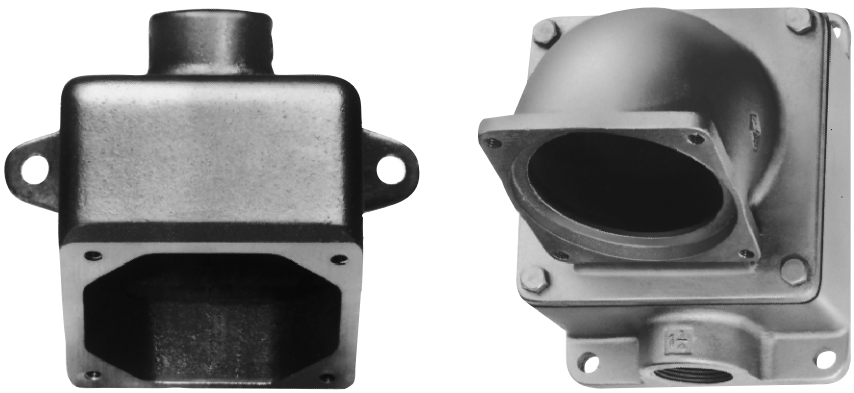
Amps	Style‡	Description	Plug Cat. #	Cable Dia.	Cable Connector Receptacle Cat. #	Motor Plug Cat. #
30	1	2-wire,* 2-pole	**APJ3275**	0.39 to 1.20	**APR3255**	**APQ327**
		3-wire,* 3-pole	**APJ3375**	0.39 to 1.20	**APR3355**	**APQ337**
		4-wire,* 4 -pole	**APJ3475**	0.39 to 1.20	**APR3455**	**APQ347**
	2	2-wire,* 3-pole	**APJ3385**	0.39 to 1.20	**APR3365**	**APQ338**
		3-wire,* 4-pole	**APJ3485**	0.39 to 1.20	**APR3465**	**APQ348**
60	1	2-wire,* 2-pole	**APJ6275**	0.50 to 1.45	**APR6255**	**APQ627**
		3-wire,* 3-pole	**APJ6375**	0.50 to 1.45	**APR6355**	**APQ637**
		4-wire,* 4-pole	**APJ6475**	0.50 to 1.45	**APR6455**	**APQ647**
	2	2-wire,* 3-pole	**APJ6385**	0.50 to 1.45	**APR6365**	**APQ638**
		3-wire,* 4-pole	**APJ6485**	0.50 to 1.45	**APR6465**	**APQ648**
100	1	2-wire,* 2-pole	**APJ10277**	0.875 to 1.70	**APR10257**	**APQ1027**
		3-wire,* 3-pole	**APJ10377**	0.875 to 1.70	**APR10357**	**APQ1037**
		4-wire,* 4-pole	**APJ10477**	0.875 to 1.70	**APR10457**	**APQ1047**
	2	2-wire,* 3-pole	**APJ10387**	0.875 to 1.70	**APR10367**	**APQ1038**
		3-wire,* 4-pole	**APJ10487**	0.875 to 1.70	**APR10467**	**APQ1048**

‡Style 1 – Grounded through shell. Style 2 – Grounded through extra pole and shell.
*Pressure connectors are standard. Crimp/solder type terminators are optionally available for 2, 3 and 4-pole 30 ampere, 3 and 4-pole 60 and 100 ampere. For details, see page 1267. To specify, add the suffix "T" to the catalog number.
For example:APJ3375-T (Plug) AR6337-T (Receptacle).

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

Typical Back Boxes

For APQ Arktite® Circuit Breaking Motor Plugs



Typical back boxes used with APQ Motor Plugs

ARE
For APQ 30 Amp.

Hub Size	Cat. #
½	**ARE13**
¾	**ARE23**
1	**ARE33**

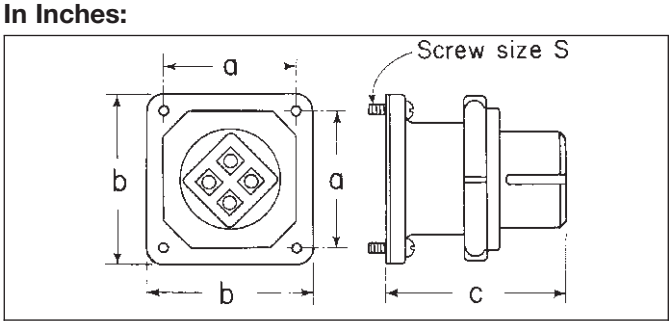
For APQ 60 Amp.

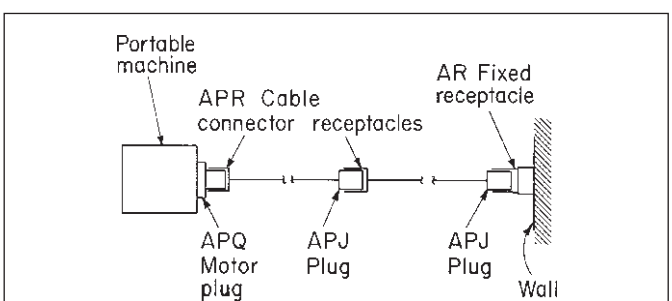
Hub Size	Cat. #
1	**ARE36**
1¼	**ARE46**
1½	**ARE56**

AJ
For APQ 60 and 100 Amp.

Hub Size	Cat. #
1	**AJ37**
1¼	**AJ47**
1½	**AJ57**
2	**AJ67**

Dimensions
In Inches:





Typical Installation

APQ Motor Plugs

Amps	a	b	c	s
30	2¾	3⅜	3⅝	12–24
60	3½	4¼	4⅞	5/16-18
100 (2 & 3-pole)	3½	4¼	6⅛	5/16-18
100 (4-pole)	3½	4¼	6 7/16	5/16-18

For additional back box listings, see pages 1284–1287.
For back box dimensions, see pages 1286–1287.

Plugs and Receptacles For Industrial Heavy Duty Hazardous Area Use

Application and Selection

Applications:

- To connect portable or movable electrical equipment, such as motors, motor-generator sets, tools, light systems.

Considerations for Selection:

Environmental:

- The environment of the enclosure location in terms of NEC/CEC compliance.
- Material and construction to withstand rough usage and atmospheric conditions.

Electrical:†

- Sufficient current carrying capacity to meet load requirements.
- Compatibility with electrical system (new or existing installation).
- Interchangeability of plugs with other hazardous and non-hazardous area receptacles.

See "Quick Selector" below and "Interchangeability Chart" on next page .

Options:

- Special polarity arrangements available as options, as well as special back boxes and hub arrangements for some series. See listing pages for details.

Quick Selector Chart

Receptacle Series	NEC Compliances	Electrical Rating†		Mating Plug
		Poles	Amps & Volts	
CES, CESD	Cl. I, Division 1 and 2, Groups C, D	2-wire, 3-pole 3-wire, 4-pole	30A, 120–240VAC 7A, 460VAC‡ 60A, 115–230VAC 30A, 460VAC‡	CPH
CPR	Non-hazardous	2-wire, 3-pole	20A, 125–250VAC 20A, 18VDC	CPP
CPS	Cl. I, Division 1 and 2, Groups C, D	2-wire, 3-pole 3-wire, 4-pole	20A, 125–250VAC 20A, 18VDC 30A, 125–250VAC 7A, 480VAC‡ 30A, 125–250VAC 7A, 460VAC‡	CPP
ENR	Cl. I, Division 1 and 2, Groups B, C, D Cl. II, Division 1 and 2, Groups F, G Cl. III	NEMA 5 & 6 Config.	15A, 125VAC 15A, 250VAC 20A, 125VAC 20A, 250VAC	ENP

‡CSA certified units are rated at 600 VAC.

†If higher ratings are needed, refer to receptacles interlocked with safety switches and circuit breakers in Section 4P.

WARNING: CPR *Arktite*® cable connectors are for use in non-hazardous areas only.

Interchangeability Chart

Many of the plugs listed in this section can be used interchangeably with receptacles from other sections, both in hazardous and non-hazardous areas, **provided electrical rating and style of plug and receptacle are the same.** The following table is a summary of possible combinations.

Plugs Shown in Section 2P	Can be Used with these Receptacle Series	Listed in Section	Plugs & Receptacle Electrical Rating
APJ	AR, NR, NPR FSQ, EPC, EPCB, EBBR DBR, WSR, NSR, NBR	1P 4P 3P, 4P	30 and 60 amp. 2-wire, 3-pole 3-wire, 4-pole 30 and 60 amp. 3-wire, 4-pole
CPH	AR, NR, NPR FSQ, EPC, EPCB, EBBR DBR, WSR, NBR, NSR	1P 4P 3P, 4P	30 and 60 amp. 2-wire, 3-pole 3-wire, 4-pole 30 and 60 amp. 3-wire, 4-pole
CPP	AR, NR, NPR DBR, WSR, NBR, NSR	1P 3P, 4P	30 amp. 2-wire, 3-pole 3-wire, 4-pole 30 amp. 3-wire, 4-pole

Arktite® Circuit Breaking CPS Receptacles and CPP Plugs

Delayed Action Factory Sealed

Cl. I, Div. 1 & 2, Groups C, D
Explosionproof
Wet Locations

Applications:

CPS receptacles, angle and straight types, and CPP plugs are used:

- With portable electrically operated devices such as motor-generator sets, compressors, conveyors, portable tools, lighting systems and similar equipment
- In locations which are hazardous due to the presence of flammable vapors or gases
- In damp or corrosive locations
- In petroleum refineries, chemical and petrochemical plants, and other process industry facilities where similar hazards exist

Fig. 1

Fig. 2

Fig. 3

Features:

- The delayed action feature permits the plug to be used as an emergency push-pull switch
- CPS receptacles are equipped with a rotating mechanism which prevents complete withdrawal of the CPP plug in one continuous movement. Details of operation are illustrated and explained below

  Figure 1 shows a CPS angle type receptacle assembly with CPP plug fully engaged.

  Figure 2 shows the plug withdrawn until it is stopped by the delayed action mechanism. In this position the circuit has been broken and the arc has been snuffed in the contact chambers. To completely withdraw the plug as shown in **Figure 3**, the delayed action release lever mush be rotated counterclockwise. The time required to actuate the mechanism permits dissipation of the arc-generated heat before contacts and arcing chambers are opened to the atmosphere. When inserting the plug, the reverse procedure is followed.
- CPS receptacles are factory sealed to simplify installation and wiring – external seals are not required
- Series 152 receptacles have top hinged cover design, with 45° downward angled receptacle housing, to provide superior environmental protection from accumulations of dust, snow, ice, and water
- Back boxes used for angle type receptacles are standard EDS bodies. Assemblies are listed with single and two gang bodies and dead end or through feed hubs – ½" to 1" sizes
- Back boxes used for straight type receptacles are available with a variety of hub arrangements in ½" and ¾" sizes
- All receptacles and 30 ampere plugs are provided with pressure terminals for ease of field wiring. 20 ampere plugs have solder terminals.

Certifications and Compliances:

- NEC/CEC:
  Class I, Division 1 and 2, Groups C, D
- UL Standard: 1010
- CSA Standard: C22.2 No. 30

Standard Materials:

- Receptacle housings – die cast copper-free aluminum
- EDS Back boxes – *Feraloy*® iron alloy (U.S.)/Copper-free aluminum (Canada)
- Other back boxes – Feraloy iron alloy
- Plug exteriors – copper-free aluminum or Krydon® fiberglass-reinforced polyester material (see listings)
- Insulation – all receptacles and plugs – Krydon fiberglass-reinforced polyester material
- Pressure or solder contacts – brass
- Crimp/solder contacts – leaded red brass

Standard Finishes:

- Copper-free aluminum – aluminum acrylic paint
- *Feraloy* – electrogalvanized and aluminum lacquer
- Fiberglass-reinforced polyester – natural (red, white)
- Brass – natural
- Leaded red brass – electro-tin-plate

Electrical Rating Ranges:

- Angle type – 20 and 30 amperes; 125 and 250 VAC
- Straight type – 20 amperes; 125 and 250 VAC

Grounding:

- NEC Article 501 and CEC Part 1 Section 18 requires that metal frames or exposed non-current-carrying metal parts of portable devices used in hazardous locations be grounded through an extra conductor in the portable cord
- CPS receptacles and CPP plugs are provided with an extra grounding pole
- In plugs, provision is made for attachment of the grounding wire to the grounding pole. In addition, direct connection is provided between plug and receptacle housings and the grounding pole. In the receptacle, grounding is accomplished through the conduit system

Interchangeability of Plugs with Non-hazardous Location Receptacles:

- 30 ampere CPP plugs can also be used with standard 30 ampere AR Arktite receptacles of the same style and number of poles, thus permitting portable devices suitable for use in hazardous locations to be connected to receptacles in both hazardous and non-hazardous areas

Note: Equipment to be used in hazardous areas must be suitable for use in the specific hazardous location.

Arktite® Circuit Breaking CPS Receptacles and CPP Plugs

Cl. I, Div. 1 & 2, Groups C, D
Explosionproof
Wet Locations

2P

Delayed Action
Factory Sealed

Options:

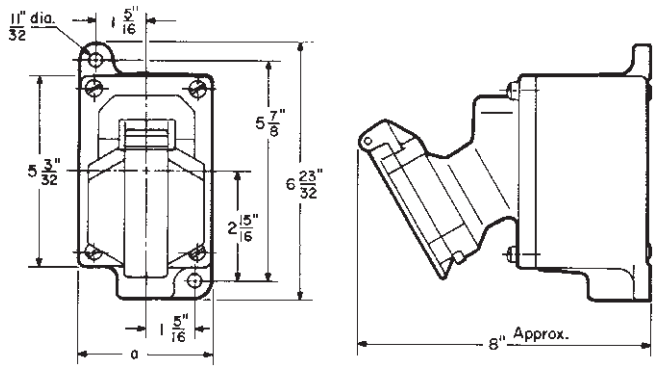
The following special options are available from factory by adding suffix to Cat. #:

Description	Suffix
Material: copper-free aluminum, natural finish, is available on certain back boxes. See listings	**SA**
Receptacle interior rotated 22½° to right (viewed from face) and plug changed to match. 30 ampere units only	**S4**
Combination of receptacles and EFS/EFD or EDS series devices, such as pilot lights, switches, pushbutton stations, etc., can be furnished using three, four and five gang bodies	**Specify**
Hub arrangements other than those listed can be supplied	**Specify**

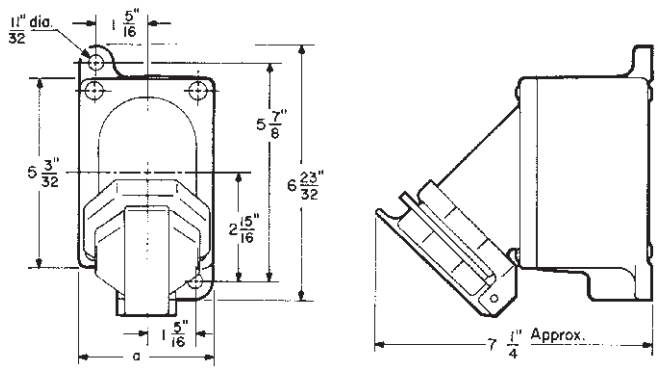
Dimensions

In Inches:

Angle Type Receptacles



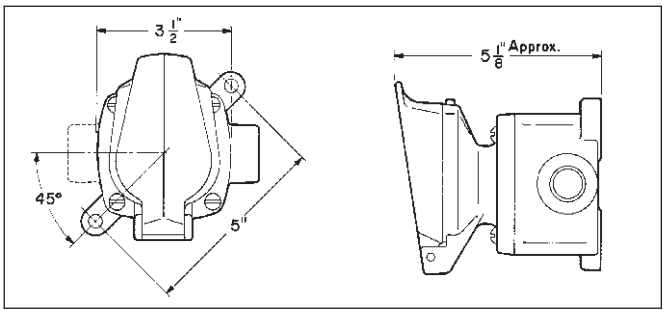
Series 152



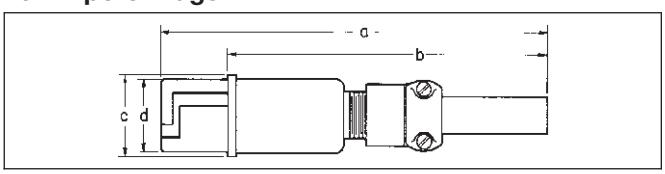
Series 532 and 732

a = 3½ for single gang
7 3/16 for two gang

Straight Type Receptacles



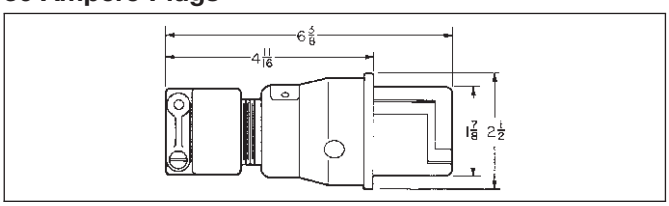
20 Ampere Plugs



Cat. #	a†	b†	c	d
CPP516‡	8 3/8	6 7/8	1 3/4	1 9/16
CPP512‡	7	5½	1 3/4	1 9/16

†These dimensions are approximate and vary with cable size.
‡ 20 amp plugs are furnished with solder terminations at standard, ground contacts have pressure terminations.

30 Ampere Plugs

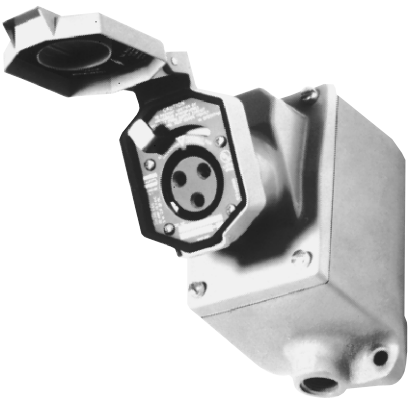


2P

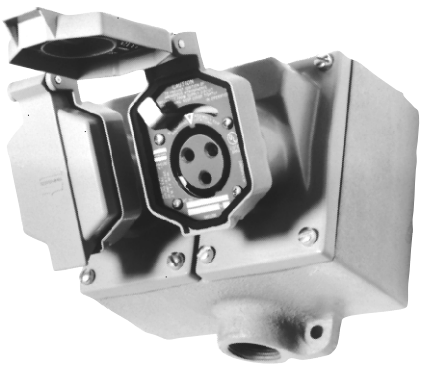
Arktite® Circuit Breaking CPS Receptacles and CPP Plugs

Delayed Action
Factory Sealed

Cl. I, Div. 1 & 2, Groups C, D
Explosionproof
Wet Locations

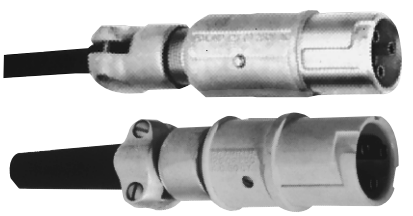


CPS152 – Single gang angle type



CPS152 – Two gang angle type

CPS152R – Receptacle unit only



CPP Plugs with
mechanical cable grip and neoprene bushing

Style 2 – Grounded Through Extra Pole and Shell

Rating	Description		Hub Size (In.)	Single Gang Receptacle Assembly Cat. #	Two Gang Receptacle Assembly Cat. #	Cable Dia. (In.)	Plug with Aluminum Handles Cat. #	Plug with High Impact Molded Composition Handle Cat. #	Receptacle Unit only Cat. #
20A, 1 HP, 125–250VAC, 60 hertz, 20A, 18VDC	2-wire, 3-pole	Dead End	½	CPS152 101*	CPS152 102*	.312 to .625†	CPP516‡	CPP512‡	CPS152R
			¾	CPS152 201*	CPS152 202*				
			1	CPS152 301*	CPS152 302*				
		Through Feed	½	CPS152 111*	CPS152 112*				
			¾	CPS152 211*	CPS152 212*				
			1	CPS152 311*	CPS152 312*				
30A, 1½ HP, 125–250VAC, 60 hertz, 7A, ½ HP, 480VAC**, 60 hertz	2-wire, 3-pole	Dead End	½	CPS532 101	CPS532 102	.375 to .875†	CPP4553		CPS532R
			¾	CPS532 201	CPS532 202				
			1	CPS532 301	CPS532 302				
		Through Feed	½	CPS532 111	CPS532 112				
			¾	CPS532 211	CPS532 212				
			1	CPS532 311	CPS532 312				
30A, 3 HP, 125–250VAC, 60 hertz, 7A, 1 HP, 480VAC**, 60 hertz	3-wire, 4-pole	Dead End	½	CPS732 101	CPS732 102	.375 to .875†	CPP4752		CPS732R
			¾	CPS732 201	CPS732 202				
			1	CPS732 301	CPS732 302				
		Through Feed	½	CPS732 111	CPS732 112				
			¾	CPS732 211	CPS732 212				
			1	CPS732 311	CPS732 312				

*Back boxes are available in copper-free aluminum. To order, add suffix SA to the Cat. No.
** CSA certified units are rated at 600 VAC at 7A.
† Receptacles will take any of the plugs grouped in the bracket opposite the receptacle listings.
‡ 20 amp plugs are furnished with solder terminations at standard, ground contacts have pressure terminations.

Delayed Action
Factory Sealed

CPS Straight Type

2-wire, 3-pole

20A, 1HP, 125–250VAC, 60–400 hertz, 20A, 18VDC

CPS Dead End

Hub Size (In.)	Assembly Cat. #	Body Cat. #
½	CPS14 120	CPS120
¾	CPS14 20	CPS20

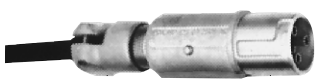
CPS Through Feed

Hub Size (In.)	Assembly Cat. #	Body Cat. #
½	CPS14 121	CPS121
¾	CPS14 21	CPS21

CPS Receptacle Unit
With Spring Door

Type	Cat. #
CPS Receptacle Unit with Spring Door	CPS14R

CPP Plugs
With Mechanical Cable Grip and Neoprene Bushing



With aluminum handle

With high impact molded composition handle

Cable Dia. (In.)	Aluminum Cat. #	Composition Cat. #
.312 to .625	CPP516	CPP512

CPS straight type shown with plug

Arktite® CPR Cable Connector Receptacles Delayed Action Circuit Breaking

Applications:

CPR *Arktite* delayed action cable connector receptacles are used in **non-hazardous areas only***:

- To make up adapter sets for connecting portable devices having CPP plugs to receptacles in non-hazardous areas. This is accomplished by equipping one end of the length of cable with the CPR receptacle and the other with a plug to mate with the receptacle in the non-hazardous area.
- To make up extension cords using the CPR receptacle at one end and a CPP plug at the other.

Features:

- Spring door housing with the same delayed action rotating mechanism provided in CPS receptacles
- Pressure terminals are furnished for ease of wiring
- Gland nut with mechanical cable grip and bushing for effective strain relief

Standard Materials:

- Housing – copper-free aluminum
- Insulation – fiberglass-reinforced polyester
- Contacts – brass

Standard Finishes:

- Copper-free aluminum – natural
- Fiberglass-reinforced polyester – natural (red)
- Brass – natural

*CSA certified unit suitable for Class I, Groups C and D (not available in USA).

Style 2 – Grounded Through Extra Pole and Shell

For Use With CPP516 and CPP512 Series Plugs

Description	Rating	Cable Dia.	Cat. #
2-wire, 3-pole	20A, 1HP, 125–250VAC, 60 hertz 20A, 18 VDC	.375 to .625	**CPR154**

ENP Plugs for Ark•Gard® ENR Receptacles and ENC Connectors

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. II, Div. 1 & 2, Groups F, G
Cl. III
NEMA 3, 7BCD, 9FG, 12

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

Applications:

ENP plugs are used:

- With portable electrical equipment such as compressors, tools, lighting systems, and similar devices
- In areas made hazardous by the presence of flammable vapors and gases or combustible dusts
- Wherever portable electrical equipment is likely to be transferred from hazardous to non-hazardous areas
- In damp and corrosive areas
- When power requirements do not exceed 20 amperes
- Where general purpose application is required

Features:

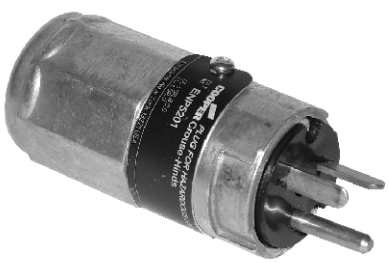
- Captive set screw design is now standard on all ENP plugs.
- Design assures ease of installation and reduces likelihood of losing critical components in the field.
- Insulator and contact components are now a single piece assembly.
- ENP plugs can be used in non-hazardous areas with standard U-ground NEMA/EEMAC configuration 5 and 6 receptacles, eliminating the need for two separately equipped portable units of the same type. The ENR receptacle will not accept standard NEMA/EEMAC configuration plugs.
- ENP plug handle body is designed with an internal cord strain relief mechanism and a cable sealing grommet which will accept various cable diameters.
- Field assembly is accomplished with standard tools.
- *Ark•Gard 2* receptacle incorporates three spring-loaded slide keys that prevent the receptacle face plate from being rotated until the ENP plug is fully inserted into the receptacle. To make the connection, the ENP plug is fully inserted, and the receptacle face moved inward by pushing the plug forward. The plug is then rotated, closing the circuit. As rotation begins, the plug becomes locked in the receptacle and cannot be accidentally disengaged. In making or breaking the circuit, any resulting electrical arc is confined in the factory-sealed chamber.

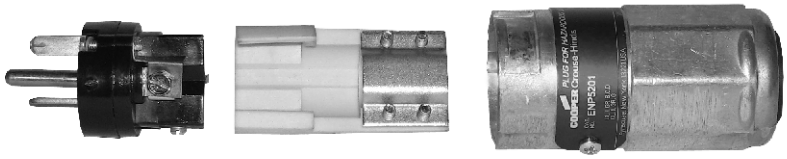
Certifications and Compliances:

- NEC:
  - Class I, Division 1 and 2, Groups B, C, D
  - Class II, Division 1 and 2, Groups F, G
  - Class III
- ANSI/UL Standard 1010
- NEMA/EEMAC 3, 7BCD, 9FG
- CEC:
  - Class I, Division 1 and 2, Groups B, C, D
  - Class II, Division 1 and 2, Group G
  - Class III

Standard Materials:

- Plug Body - die cast copper-free
- Interior – nylon 100
- Contacts – brass
- Plug bushing – neoprene





Standard Finishes:

- Copper-free aluminum – aluminum acrylic paint
- Brass – natural

Electrical Rating Ranges:

- Plugs:
  - 15 amperes; 125 VAC and 250 VAC, 50–400 hertz
  - 20 amperes; 125 VAC and 250 VAC, 50–400 hertz

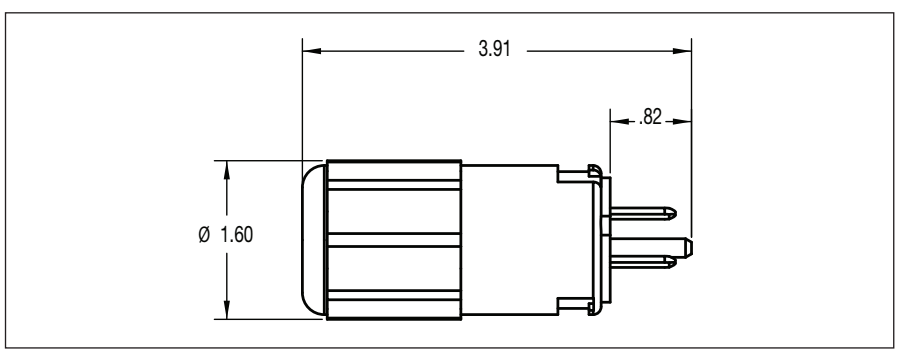
Grounding:

- NEC Article 501 and CEC Section 18 requires that metal frames or exposed non-current-carrying metal parts of portable devices used in hazardous locations be grounded through an extra conductor in the portable cord. ENR Receptacles and ENP Plugs are provided with an extra grounding pole.

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

Dimensions

In Inches:



Ark•Gard® ENR Dead Front Interlocked Circuit Breaking Receptacles

ENP Plugs

Cl. I, Div. 1 & 2, Groups B†, C, D
Cl. II, Div. 1 & 2, Groups F, G
Cl. III
NEMA 3, 7BCD, 9FG, 12

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

Applications:

ENR receptacles and ENP plugs are used:

- With portable electrical equipment such as compressors, tools, lighting systems, and similar devices
- In areas made hazardous by the presence of flammable vapors and gases or combustible dusts
- Wherever portable electrical equipment is likely to be transferred from hazardous to non-hazardous areas
- In damp and corrosive areas
- When power requirements do not exceed 20 amperes
- Where general purpose application is required

Features:

- *Ark•Gard 2* receptacle incorporates three spring-loaded slide keys that prevent the receptacle face plate from being rotated until the ENP plug is fully inserted into the receptacle. To make the connection, the ENP plug is fully inserted, and the receptacle face moved inward by pushing the plug forward. The plug is then rotated, closing the circuit. As rotation begins, the plug becomes locked in the receptacle and cannot be accidentally disengaged. In making or breaking the circuit, any resulting electrical arc is confined in the factory-sealed chamber.
- Factory-sealed chamber encloses the potential arcing components between two explosionproof threaded joints. These threads are specially coated to guarantee freedom of movement, which ensures on-off action. No additional seals are required.
- One piece molded gasket seals cover plate and ENP plug when plug is inserted, providing full environmental protection at the receptacle face.
- Top-hinged cover design with 45° downward angle provides superior protection in damp, wet, and dirty locations.
- Field assembly is accomplished with standard tools.
- Use standard EDS back boxes.

Certifications and Compliances:

- NEC:
  Class I, Division 1 and 2, Groups B†, C, D
  Class II, Division 1 and 2, Groups F, G
  Class III
- ANSI/UL Standard 1010
- NEMA/EEMAC 3, 7BCD, 9FG
- CEC:
  Class I, Division 1 and 2, Groups B, C, D
  Class II, Division 1 and 2, Group G
  Class III

Standard Materials:

- Receptacle housing and spring door – die cast copper-free aluminum
- Interior – *Krydon*® fiberglass-reinforced polyester material
- Contacts: receptacle blade – brass; receptacle switch – silver
- Receptacle cover hinge pin and spring – stainless steel
- Receptacle gasket – neoprene

Standard Finishes:

- Copper-free aluminum – aluminum acrylic paint
- Brass – natural

Electrical Rating Ranges:

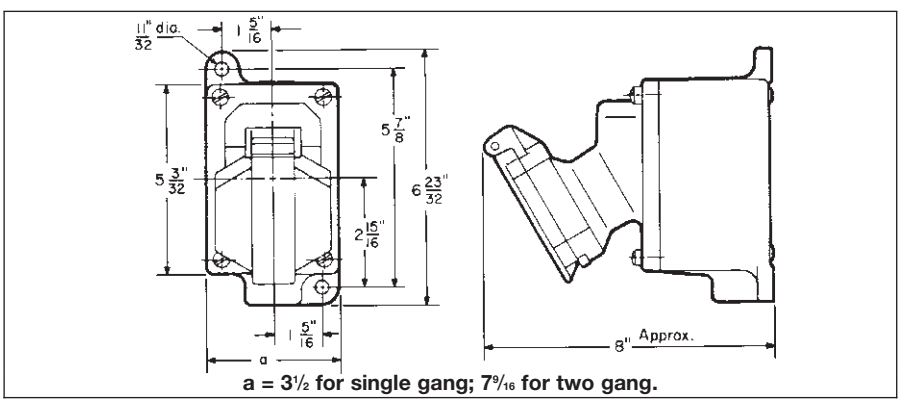
- Receptacles:
  15 amperes; 125 VAC and 250 VAC, 50–400 hertz
  20 amperes; 125 VAC and 250 VAC, 50-400 hertz

Grounding:

- NEC Article 501 and CEC Section 18 requires that metal frames or exposed non-current-carrying metal parts of portable devices used in hazardous locations be grounded through an extra conductor in the portable cord. ENR Receptacles and ENP Plugs are provided with an extra grounding pole.

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

Dimensions
In Inches:



a = 3½ for single gang; 7⁹⁄₁₆ for two gang.

†Receptacle units alone (i.e. ENR5201) are not suitable for Class I, Group B.

Ark•Gard® ENR Dead Front Interlocked Circuit Breaking Receptacles

Cl. I, Div. 1 & 2, Groups B†, C, D
Cl. II, Div. 1 & 2, Groups F, G
Cl. III
NEMA 3, 7BCD, 9FG, 12

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

ENP Plugs

Ordering Information:




15 A	15 A Receptacle Rating	Description	Hub Size	Single Gang* Receptacle Assembly Cat. #	Two Gang** Receptacle Assembly Cat. #	Receptacle† Unit Only Cat. #	NEMA Config.	15 A Plug‡ Cat. #	NEMA Config.
	15 Amp 125 Volt	Dead End	½"	ENR11151	ENR12151	ENR5151		ENP5151	
			¾"	ENR21151	ENR22151				
			1"	ENR31151	ENR32151				
		Through Feed	½"	ENRC11151	ENRC12151				
			¾"	ENRC21151	ENRC22151				
			1"	ENRC31151	ENRC32151		5-15R		5-15P
	15 Amp 250 Volt	Dead End	½"	ENR11152	ENR12152	ENR6152		ENP6152	
			¾"	ENR21152	ENR22152				
			1"	ENR31152	ENR32152				
		Through Feed	½"	ENRC11152	ENRC12152				
			¾"	ENRC21152	ENRC22152				
			1"	ENRC31152	ENRC32152		6-15R		6-15P

20 A	20 A Receptacle Rating	Description	Hub Size	Single Gang Receptacle Assembly Cat. #	Two Gang Receptacle Assembly Cat. #	Receptacle Unit Only Cat. #	NEMA Config.	20 A Plug Cat. #	NEMA Config.
	20 Amp 125 Volt	Dead End	½"	ENR11201	ENR12201	ENR5201		ENP5201	
			¾"	ENR21201	ENR22201				
			1"	ENR31201	ENR32201				
		Through Feed	½"	ENRC11201	ENRC12201				
			¾"	ENRC21201	ENRC22201				
			1"	ENRC31201	ENRC32201		5-20R		5-20P
	20 Amp 250 Volt	Dead End	½"	ENR11202	ENR12202	ENR6202		ENP6202	
			¾"	ENR21202	ENR22202				
			1"	ENR31202	ENR32202				
		Through Feed	½"	ENRC11202	ENRC12202				
			¾"	ENRC21202	ENRC22202				
			1"	ENRC31202	ENRC32202		6-20R		6-20P

†Receptacle units alone (i.e. ENR5201) are not suitable for Class I, Group B.
*Single gang assemblies purchased with an EDS back box are suitable for Class I, Group B.
**Dual gang assemblies purchased with an EDS back box are suitable for Class I, Group C, D only. For Class I, Group B rating, add the letter B to the Cat. No. Example: ENRB22201. Seals must be installed within 1½" of each conduit opening.
‡ENP Plugs use #12 or #14 AWG type S, SO, ST or STO cord with range of .540 to .635 inches diameter.
Note: 15A with copper-free aluminum EDS, EDSC back boxes. 20A with *Feraloy*® iron alloy EDS, EDSC back boxes.

Ark•Gard® ENC Connectors

Hazardous Locations:
CSA Certified
Cl. I, Groups B, C, D
Cl. II, Group G, Coal Dust
Cl. III
NEMA 3R, Weatherproof

ENC Connector:

- This ENC connector makes it safe and easy to bring power wherever it is needed. It provides versatility for making cord sets for connecting portable devices in both hazardous and non-hazardous locations

Applications:

Hazardous ENC Connectors are used:

Standard maintenance or plant turnarounds to provide power connections for:

- Portable hand lamps for visual inspections
- Portable light fixtures for general illumination
- Portable hand tools such as saws or grinders

Standard operation to provide a means of quick disconnect to move or disassemble equipment such as:

- Motor generator units
- Portable control rooms
- Pumps and motors

Common applications include:

- Refineries
- Chemical Plants
- LNG facilities
- Wastewater Treatment Facilities
- Drilling and Exploration

Certifications and Compliances:

- CSA Certified CSA C22.2 No. 159M
- Class I, Groups B, C, D
- Class II, Group G, Coal Dust
- Class III
- NEMA 3R, Weatherproof
- NEC article 501.140 compliance

Standard Materials:

- Connector bodies – high impact strength copper-free aluminum
- Insulation – fiberglass-reinforced polyester material
- Contacts: receptacle blade – brass; receptacle switch – silver; plug – brass

Standard Finishes:

- Aluminum – natural
- Fiberglass-reinforced polyester - red

Options:

Description	Suffix
• Corro-free™ epoxy powder finish for added corrosion resistance	S752

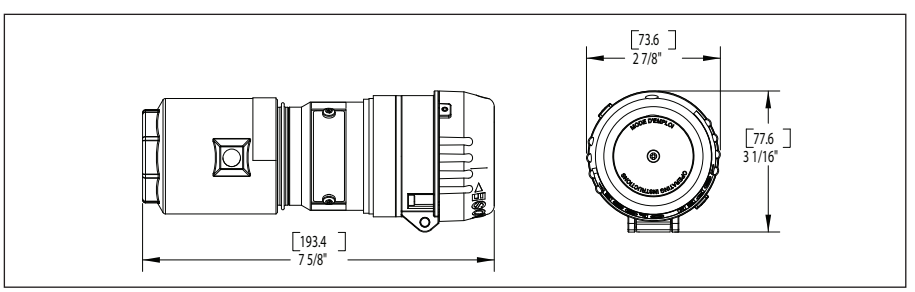
Electrical Rating Ranges:

- 15 Amp and 20 Amp
- 125 VAC and 250 VAC

Ordering Information:

15A/20A Rating	Cord Range	Connector Cat. #	NEMA Config.	Plug Cat. #	NEMA Config.
15 Amp 125 Volt	0.39-1.20	**ENC5151 CAN**	 5-15R	**ENP5151**	 5-15P
15 Amp 250 Volt	0.39-1.20	**ENC6152 CAN**	 6-15R	**ENP6152**	 6-15P
20 Amp 125 Volt	0.39-1.20	**ENC5201 CAN**	 5-20R	**ENP5201**	 5-20P
20 Amp 250 Volt	0.39-1.20	**ENC6202 CAN**	 6-20R	**ENP6202**	 6-20P

Dimensions
In Inches:



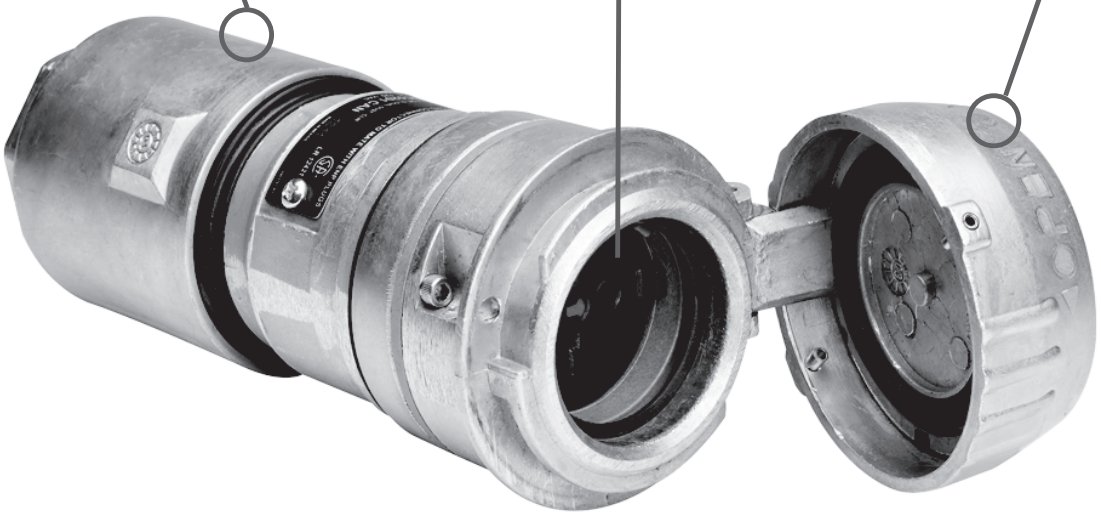
COOPER Crouse-Hinds

FEATURES AND BENEFITS

Uni-Shell™ Handle Body:
- Provides a smooth durable external surface that prevents the connector from getting snagged on equipment or other cables

Spring-Loaded Sliding Key Offers Increased Safety:
- Rejects standard NEMA/EEMAC configuration plugs that could cause an arc in a hazardous area
- Prevents the faceplate from being rotated until the ENP plug is fully inserted

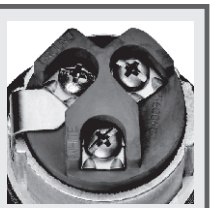
Increased Environmental Reliability with Hinged-Locking Cover:
- Provides weather protection in damp, wet and dirty locations
- Cover stays closed until connection with ENP plug is required



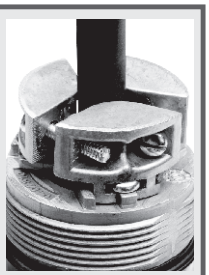
Plug Gaskets:
- Two gaskets cover the entire range of cable diameters reducing risk of improper assembly
- Gasket ratchets into tri-lock cable grip to prevent connector from turning or loosening

Improved Safety with Integral Lockout/Tagout:
- Eliminates risk of operator or contractor plugging in process equipment when conditions are unsafe

Saddle Clamp Terminals:
- Increased safety with easy-to-terminate connection points for reliable conductor terminations

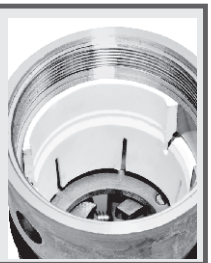


Increased Safety with Captive Tri-Lock Design:
- Three points of contact prevent pinching of cables that could damage internal conductors or cable jacket
- Captive screws prevent critical components from getting lost during installation



Mates with Cooper Crouse-Hinds Frustration-Free ENP Plug

Snap-In Internal Insulator:
- Increases safety of personnel with intermediate insulator between conductors and metallic outer shell



2P Ark•Gard® Series ENR-GFCI Kits

Cl. I, Div. 1 & 2, Groups B*, C, D
Cl. II, Div. 1, Groups E, F, G
Cl. II, Div. 2, Groups F, G
Cl. III
NEMA/EFC 7CD, 9EFG, 12

Explosionproof
Dust-Ignitionproof

Applications:

ENR-GFCI Kits are used:

- To interrupt a circuit when ground fault is detected on equipment which may be handled by personnel in hazardous locations
- With portable electrical equipment such as tools, lighting systems, compressors and similar devices for personnel protection
- In branch circuits of 15 to 20 amperes at 125 volts AC

In applications such as:

- Refineries
- Chemical Plants
- LNG Facilities
- Wastewater Treatment Facilities
- Drilling and Exploration

Features:

- Allows for a single part number to be specified, ordered and delivered on-site, significantly reducing the cost of order processing, material handling and misplacement of materials.
- Ark•Gard ENR-GFCI Kit components meet all UL and CSA requirements for ground fault protection in hazardous locations.
- Includes all of the value-added features of the ENR Receptacle.
- The GFCI protects personnel against possible injury due to unwanted ground faults; meets requirements for personnel protection as defined in the National Electrical Code®.
- Field installation is accomplished with standard tools.

Standard Materials:

ENR Receptacle:

- Receptacle housing, spring door and plug body – die cast copper-free aluminum
- Interiors: receptacle – *Krydon*® fiberglass-reinforced polyester material
- Contacts: receptacle blade – brass; receptacle switch – silver
- Receptacle cover hinge pin and spring – stainless steel
- Receptacle gasket – neoprene
- Back Box – Feraloy® iron alloy

GFS Ground Fault Circuit Interrupter:

- Cover – sand cast copper-free aluminum
- Sealing well – die cast copper-free aluminum
- Pushbuttons and guards – stainless steel
- Shaft seals – neoprene
- Interior: body – polycarbonate; contacts – brass

Standard Finishes:

ENR Receptacle:

- Feraloy iron alloy – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – aluminum acrylic paint
- Brass – natural

GFS Ground Fault Circuit Interrupter:

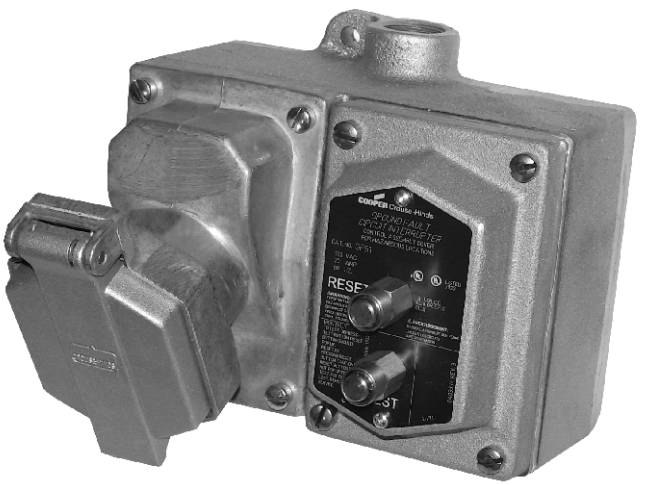
- Copper-free aluminum – aluminum lacquer
- Stainless steel – natural
- Polycarbonate – natural (ivory)
- Brass – natural

Electrical Rating Ranges:

- 15 and 20 amperes
- 125 VAC
- 5 mlliampere trip setting
- Class A per ANSI/UL943

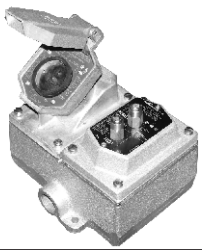
Certifications and Compliances:

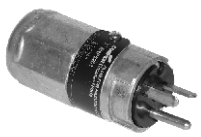
- NEC/CEC Listed Components
  Class I, Division 1 and 2, Groups B*, C, D
  Class II, Division 1, Groups E, F, G
  Class II, Division 2, Groups F, G
  Class III
- ANSI/UL Standard: 943, 1203
- NEMA/EEMAC 7CD, 9EFG, 12
- CSA Standard: C22.2 No. 30, 144



*Tested and Cooper Crouse-Hinds Certified for Group B

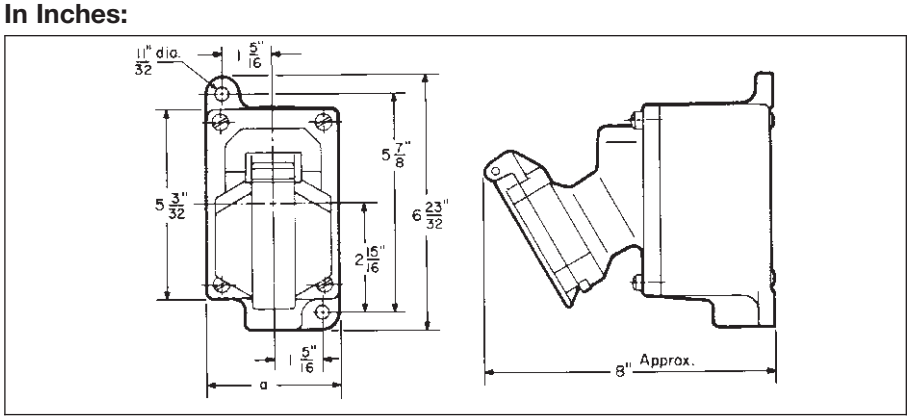
Ordering Information:





Receptacle Rating	Description	Hub Size	Cat. #	NEMA Config.	Plug Cat. #	NEMA Config.
15 Amp **125 Volt**	Dead End	½"	**ENR12151 GFI**		**ENP5151**	
		¾"	**ENR22151 GFI**			
		1"	**ENR32151 GFI**			
	Through Feed	½"	**ENRC12151 GFI**			
		¾"	**ENRC22151 GFI**			
		1"	**ENRC32151 GFI**	5-15R		5-15P
20 Amp **125 Volt**	Dead End	½"	**ENR12201 GFI**		**ENP5201**	
		¾"	**ENR22201 GFI**			
		1"	**ENR32201 GFI**			
	Through Feed	½"	**ENRC12201 GFI**			
		¾"	**ENRC22201 GFI**			
		1"	**ENRC32201 GFI**	5-20R		5-20P

Dimensions
In Inches:



*Tested and Cooper Crouse-Hinds Certified for Group B

GFS Ground Fault Circuit Interrupter

Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. II, Div. 2, Groups F, G
Cl. III
NEMA/EFC 7CD, 9EFG, 12

Explosionproof
Dust-Ignitionproof

Applications:

GFS ground fault circuit interrupters are used:

- With portable electrical equipment such as tools, lighting systems, compressors and similar devices for personnel protection
- In areas made hazardous by the presence of flammable vapors, gases or combustible dusts
- In branch circuits of 15 to 20 amperes at 125 volts AC
- In conjunction with ENR or CPS152 receptacles

Features:

- Factory sealed chamber encloses the ground fault circuit interrupter (GFCI) and its potentially arcing components in an enclosure with explosionproof ground joints. No additional sealing is required when proper body is used.
- GFCI protects personnel against possible injury due to unwanted ground faults; meets requirements for personnel protection as defined in the *National Electrical Code®*.
- GFCI is feed-through type to serve several receptacles.
- Decentralized GFCI protection on branch circuits permits immediate identification of circuit where a ground fault is occurring; does not interrupt power on total branch circuit if tripped or when periodically tested; significantly reduces incidence of nuisance tripping; provides for use of 125 VAC portable lighting even when working on metal floors or catwalks.
- Field installation is accomplished with standard tools.
- Can be installed on any Cooper Crouse-Hinds single or multiple gang EDS or EDSC device box.

Certifications and Compliances:

- NEC/CEC
  - Class I, Division 1 and 2, Groups C, D
  - Class II, Division 1, Groups E, F, G
  - Class II, Division 2, Groups F, G
  - Class III
- ANSI/UL Standard: 943, 1203
- NEMA/EEMAC 7CD, 9EFG, 12
- CSA Standard: C22.2 No. 30, 144

Standard Materials:

- Cover – sand cast copper-free aluminum
- Sealing well – die cast copper-free aluminum
- Pushbuttons and guards – stainless steel
- Shaft seals – neoprene
- Interior: body – polycarbonate; contacts – brass

Standard Finishes:

- Copper-free aluminum – aluminum lacquer
- Stainless steel – natural
- Polycarbonate – natural (ivory)
- Brass – natural

Electrical Rating Ranges:

- 20 amperes
- 125 VAC
- 5 milliampere trip setting
- Class A per ANSI/UL943

Ordering Information:

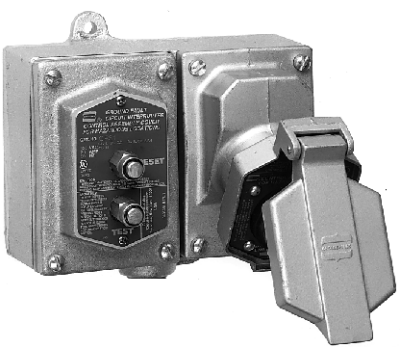
Amps	Description	Cat. #
20	Factory-sealed ground fault circuit interrupter – 5 milliampere trip	**GFS1**

Application Recommendations:

- GFS-1 can be installed in an EDS back box (see page 511) for point-of-use protection or for protection of downstream receptacles.

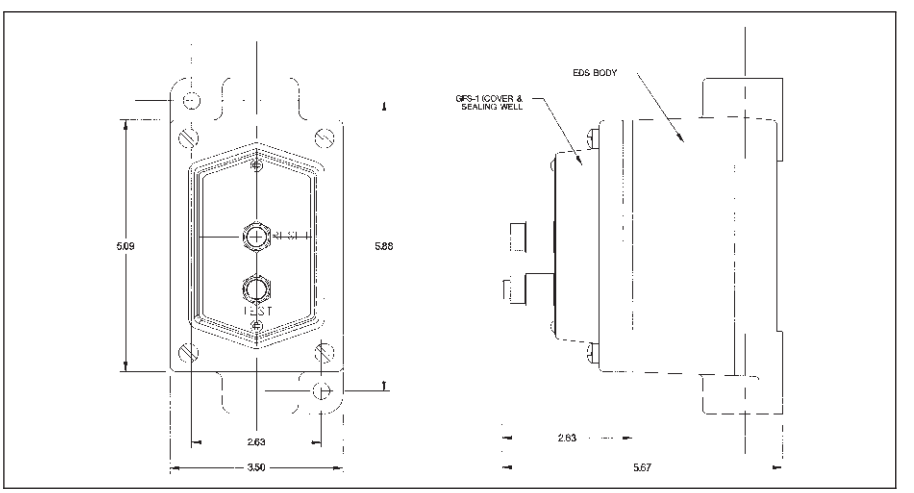
GFS-1 with EDS271 back box

GFS-1 can be used with ENR or CPS receptacles and EDS back box for circuit interrupter protection of portable equipment.



GFS-1 with EDS172 back box and ENR5201 receptacle

Dimensions
In Inches:



COOPER Crouse-Hinds

CES and CESD Arktite Receptacles

CESD – Cl. I, Div. 1 & 2, Group D*
CES – Cl. I, Div. 1 & 2, Groups C, D
Explosionproof
Wet Locations
Factory Sealed

2P

Delayed Action Circuit Breaking CPH Plugs

Applications:

CES and CESD receptacles with CPH plugs are used:

- With portable electrically operated devices such as motor-generator sets, compressors, conveyors, portable tools, lighting systems and similar equipment
- In locations which are hazardous due to the presence of flammable vapors or gases
- In damp or corrosive locations
- At petroleum refineries, chemical and petrochemical plants, and other process industry facilities where similar hazards exist

Features:

- CES and CESD receptacles are equipped with a delayed action rotating sleeve which prevents complete withdrawal of the CPH plug in one continuous movement
- The delayed action feature permits the plug to be used as an emergency push-pull switch
- Details of operation are illustrated and described to the right:
- Receptacles are factory sealed to simplify installation and wiring. External seals are not required.
- The 30 ampere receptacles are provided with pressure terminals for field connection. The 60 ampere receptacles have flexible leads. Plugs are equipped with solder terminals.
- Two arrangements are provided for the ¾" and 1¼" conduit hubs, as shown in the listings and dimensions see page 1310.

Certifications and Compliances:

- NEC/CEC:
  CES – Class I, Division 1 and 2, Groups C, D;
  CESD – Class I, Division 1 and 2, Group D*
- ANSI/UL Standard: 1010
- CSA Standard: C22.2 No. 182.1

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Figure 1 above shows a CES receptacle assembly with CPH plug fully engaged.

Figure 2 shows the plug withdrawn until it is stopped by the delayed action sleeve. In this position the circuit has been broken and the arc has been snuffed in the contact chambers.

Figure 3 shows the delayed action receptacle sleeve rotated approximately 45° to allow withdrawal of plug from receptacle.

Figure 4 shows the plug completely withdrawn. To accomplish this, the delayed action sleeve must be rotated counterclockwise. The time required to actuate the mechanism permits dissipation of the arc-generated heat before contacts and arcing chambers are opened to the atmosphere. When inserting the plug, the reverse procedure is followed.

Standard Materials:

- Back boxes – *Feraloy*® iron alloy
- Receptacle housings – 30 ampere – copper-free aluminum; 60 ampere – *Feraloy*® iron alloy
- Plug bodies – copper-free aluminum
- Insulation – *Krydon*® fiberglass-reinforced polyester
- Contacts – brass or hard-drawn copper

Standard Finishes:

- *Feraloy* – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- *Krydon* material – red
- Brass and copper – natural

Grounding:

- NEC article 501 and CEC Part 1 Section 18 require that metal frames or exposed non-current-carrying metal parts of portable devices used in hazardous locations be grounded through an extra conductor in the portable cord.
- CES and CESD receptacles and CPH plugs are provided with an extra grounding pole for attachment of the grounding wire. In the plugs, provision is made for attachment of the grounding wire to the grounding pole. In addition, direct connection is provided between plug and receptacle housings and the ground pole. In the receptacles, grounding is accomplished through the conduit system.

Interchangeability of Plugs with Non-hazardous Location Receptacles:

- CPH plugs can also be used with standard AR and NR receptacles of the same ampere rating, style and number of poles, thus permitting portable devices which are suitable for use in hazardous locations to be connected to receptacles in both hazardous and non-hazardous areas
- Portable devices for non-hazardous areas equipped with APJ and NPJ *Arktite* plugs cannot be used with CES and CESD receptacles

Electrical Rating Ranges:

- 30 and 60 amperes

Options:

The following special options are available from the factory by adding the suffix to the Cat. #:

Description	Suffix
• Special polarity – 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. Receptacle interior rotated 22½° clockwise when viewed from face and plug changed to match	S4

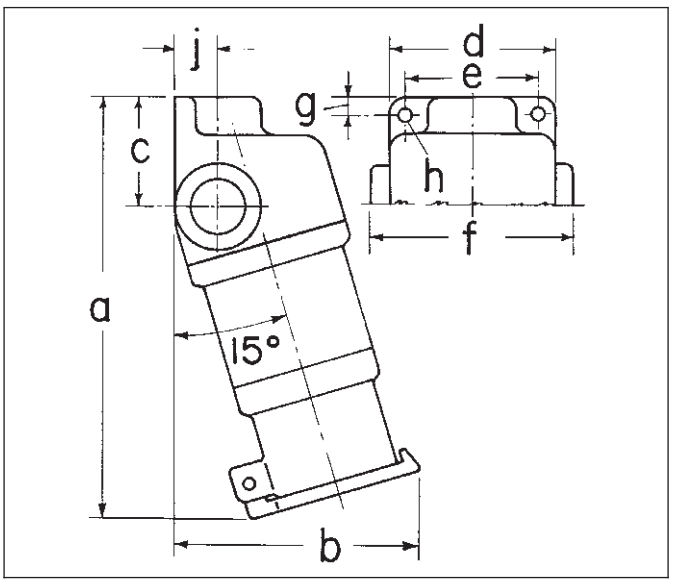
*For U.S. CESD are also suitable for Class I, Group C when used with immediately adjacent seals.

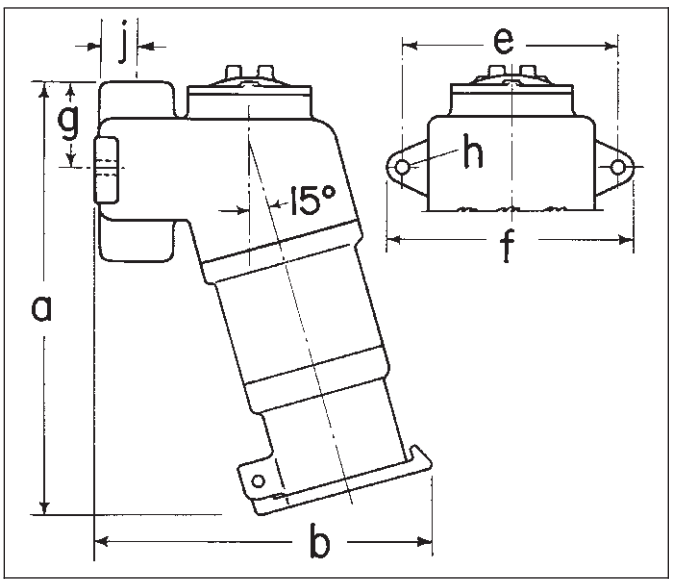
CES and CESD Arktite® Receptacles

Delayed Action Circuit Breaking
CPH Plugs Dimensions

CESD – Cl. I, Div. 1 & 2, Group D*
CES – Cl. I, Div. 1 & 2, Groups C, D
Explosionproof
Wet Locations
Factory Sealed

Dimensions
In Inches:



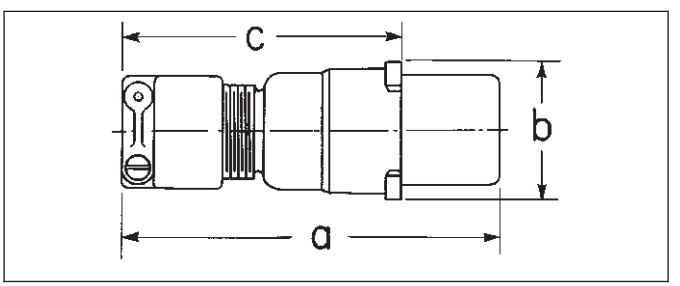


CES

Cat. #	a	b	c	d	e	f	g	h	j
CES2213 CES2214	7 7/16	4 5/8	2 3/16	3 3/8	2 3/4	4 1/8	5/16	11/32	7/8
CES4233 CES4234	12	7	2 7/8	5 1/4	4 3/8	6 1/8	7/16	13/32	1 1/8

CESD

Cat. #	a	b	e	f	g	h	j
CESD2213 CESD2214	7 5/8	6 3/8	4 1/4	5	1 7/8	11/32	13/16
CESD4233 CESD4234	13 1/2	9 5/8	6 1/4	7 1/4	3	13/32	1 3/16



CPH

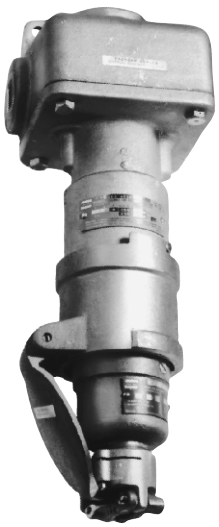
Cat. #	a	b	c
CPH7713	6	2 3/8	4 5/16
CPH7913	6 7/16	2 3/8	4 3/4
CPH7714	6	2 3/8	4 5/16
CPH7914	6 7/16	2 3/8	4 3/4
CPH7733	7 3/4	2 3/4	5
CPH7933	8 1/8	2 3/4	5 3/8
CPH7734	7 3/4	3 1/16	5
CPH7934	8 1/8	3 1/16	5 3/8

*In U.S. CESD are also suitable for Class I, Group C when used with immediately adjacent seals.

CES and CESD Arktite® Receptacles

CESD – Cl. I, Div. 1 & 2, Group D*
CES – Cl. I, Div. 1 & 2, Groups C, D
Explosionproof
Wet Locations
Factory Sealed

Delayed Action Circuit Breaking CPH Plugs



CES Receptacles with three hubs – one on each side and one at top – and two pipe plugs with CPH plug fully engaged.

CESD Receptacles with vertical through feed hubs and one pipe plug. Removable threaded cover at top to facilitate pulling wires.

CES/CESD Receptacles

Hub Size (In.)	Circuit	Phase	Max. HP	Max. Amps	Volts at 60 Cycles AC	CES Cat. #	CESD Cat. #
¾	2-wire, 3-pole	1	½ 1½	7 30	480† 120 to 240	**CES2213**	**CESD2213**
¾	3-wire, 4-pole	3	1 3	7 30	480† 120 to 240	**CES2214**	**CESD2214**
1¼	2-wire, 3-pole	1	3	30 60	480† 120 to 240	**CES4233**	**CESD4233**
1¼	3-wire, 4-pole	3	5	30 60	480† 120 to 240	**CES4234**	**CESD4234**

CPH Plugs with mechanical cable grip and neoprene bushing.

CPH Plugs

Circuit	Phase	Max. HP	Max. Amps	Volts at 60 Cycles AC	Cable Diameter .375 to .875	Cable Diameter .500 to .875	Cable Diameter .875 to 1.375
2-wire, 3-pole	1	½ 1½	7 30	480† 120 to 240	**CPH7713**		**CPH7913**
3-wire, 4-pole	3	1 3	7 30	480† 120 to 240	**CPH7714**		**CPH7914**
2-wire, 3-pole	1	3	30 60	480† 120 to 240		**CPH7733**	**CPH7933**
3-wire, 4-pole	3	5	30 60	480† 120 to 240		**CPH7734**	**CPH7934**

†CSA certified units are rated at 600 volts.
*In U.S. CESD are also suitable for Class I, Group C when used with immediately adjacent seals.

Plugs and Receptacles
Industrial Heavy Duty Interlocked
Non-hazardous

Industrial Heavy Duty Interlocked Application and Selection

Applications:

- Where extra protection is a requirement; interlocked units provide dead front receptacles; connection cannot be made or broken when unit is under load
- In areas where dirt, moisture, and corrosion are a problem; to supply power for portable electrical equipment and provide safe disconnect means and short circuit protection

Considerations for Selection:

Environmental:

- The environment of the enclosure location in terms of NEMA/EEMAC type required
- Material and construction to withstand rough usage and corrosive atmospheric conditions

Electrical:

- Sufficient current carrying capacity to meet load requirements
- Compatibility with electrical system (new or existing installations)
- Interchangeability of plugs with hazardous and non-hazardous area receptacles

Function:

- Switch vs. circuit breaker See "Quick Selector Chart" below and "Interchangeability Chart" on next page.

Options:

- Special polarity and conduit arrangements are available to meet specific needs. See individual listing pages for details.

Quick Selector Chart

Series	Receptacle Interlocked With	NEMA/EEMAC Rating	Mating Plug	Electrical Characteristics	
CSR	Disconnect switch	3, 4X, 12	APJ/NPJ	Circuit breaker: 30, 60 amp. 600VAC Fusible or non-fusible	Receptacle: 30, 60 amp. 600VAC 3-wire, 4-pole
NBR	Circuit breaker	3, 12	APJ/NPJ	Circuit breaker: 100 amp. frame size 250VDC/600VAC 3-pole	Receptacle: 30, 60, 100 amp. 250VDC/600VAC 3-wire, 3-pole 3-wire, 4-pole
NSR	Disconnect switch	3, 12	APJ/NPJ	Switch: 30, 60, 100 amp. 250VDC/240VAC 600VAC 3-pole Fusible or non-fusible	Receptacle: 30, 60, 100 amp. 250VDC/600VAC 3-wire, 3-pole 3-wire, 4-pole
WSR	Disconnect switch	3R, 4, 12	APJ/NPJ	Switch: 30, 60, 100 amp. 250VDC/240VAC 600VAC 3-pole Fusible or non-fusible	Receptacle: 30, 60, 100 amp. 250VDC/600VAC 3-wire, 3-pole 3-wire, 4-pole
WSRD	Disconnect switch	3R, 12	APJ/NPJ	Switch: 60 amp. 250VDC/240VAC 600VAC 3-pole Fusible or non-fusible	Receptacle: 60 amp. 250VDC/600VAC 3-wire, 3-pole 3-wire, 4-pole

Industrial Heavy Duty Interlocked Interchangeability Chart

Interchangeability Chart

Many of the plugs listed in this section can be used interchangeably with receptacles from other sections, both in hazardous and non-hazardous areas, **provided electrical rating and style of plug and receptacle are the same.** The following table is a summary of possible combinations.

Plugs Shown in Section 3P	Can be Used with these Receptacle Series	Listed in Section	Plug & Receptacle Electrical Rating
AP	AR	1P	200 and 400 amp. 3-wire, 4-pole
APJ/NPJ	AR DBR, EBBR FSQ, EPC, EPCB	1P 4P 4P	30, 60, 100 amp. 3-wire, 3-pole 3-wire, 4-pole
SP	BHR	4P	30, 60, 100 amp. 2-wire, 3-pole 3-wire, 4-pole 4-wire, 5-pole

WSR, WSRD, WSRDW Interlocked Arktite® Receptacles with Enclosed Disconnect Switches

30, 60, 100A
NEMA 3, 3R, 4, 12
Raintight
Watertight
Corrosion-Resistant

WSR

Aluminum
NEMA 3R, 4, 12

WSRD

Sheet Metal
NEMA 3R, 12

WSRDW

Sheet Metal
Viewing Window
NEMA 3R, 12

Applications:

- The WSR and WSRD disconnect switches are used as a service outlet for portable or fixed electrical equipment – generators, compressors, welders, etc.
- They are designed for use in non-hazardous areas where dust, moisture and corrosion may be a problem.
- Designed for flush or surface mounting.
- A fusible type switch, when used, also provides short circuit protection.

Features:

WSR and WSRD:

- Switches are NEMA type HD heavy duty 3-pole, with visible blades; a quick make-and-break mechanism with reinforced, positive pressure type blade and jaw construction. Fusible types have fuse clips with steel reinforcing springs of positive pressure type. Pressure connectors are used for wire connectors.
- For maximum safety, the spring door receptacle at the bottom of the unit is mechanically interlocked with the switch operating mechanism. The switch *cannot be closed* until the plug is fully inserted and the plug *cannot be withdrawn or inserted* unless the switch is open. With the switch open, *accidental plug withdrawal is prevented* by the interlock mechanism. Withdrawal can only be accomplished by activation of the interlock release lever located on the receptacle.
- Enclosures are compact and rectangular in shape with a gasketed, hinged door.
- Enclosure, handle and other exterior parts are corrosion resistant.
- The switch enclosure covers are interlocked with the body and operating mechanism and cannot be opened when the plug is engaged and the switch is closed ("ON"). When the switch *is open*, the switch *cannot* be put in a closed ("ON") position with the door open.

WSR:

- Mounting lugs may be rotated 90° or moved to the vertical centerline portion for pole mounting.
- Side hinged covers are retained in a closed position by compression spring draw-pull catches, which permit the opening or closing of the cover without tools.
- The switch operating handle may be padlocked in the "ON" or "OFF" position, thereby preventing unauthorized operation of the switch and/or opening of the enclosure. Up to three padlocks may be used. In addition, a unique hinge arrangement has been devised to allow the door of the unit to be padlocked. This feature allows operation while preventing unqualified or unauthorized entry.

Certifications and Compliances:

WSR:

- NEMA 3R, 4, 12 (enclosure)
- UL Standard 98

WSRD:

- NEMA 3R, 12
- UL Standard 98

Standard Materials:

WSR and WSRD:

- Receptacle housings and plug exteriors – copper-free aluminum
- Insulation (plug and receptacle) – fiberglass-reinforced polyester
- Pressure contacts – brass
- Crimp/solder contacts – leaded red brass

WSR:

- Enclosure – copper-free aluminum
- Operating handle – copper-free aluminum
- Other exterior parts – stainless steel

WSRD:

- Enclosure – sheet steel
- Operating handle – sheet steel
- Other exterior parts – stainless steel

Standard Finishes:

- Copper-free aluminum – WSR enclosure, plug exteriors – natural
- Leaded red brass – electro-tin-plate
- Brass – natural
- Sheet steel – baked grey enamel
- Fiberglass-reinforced polyester – natural (red)

Electrical Rating Ranges:

- 3 and 4 pole; fusible or non-fusible; 240 VAC, 250 VDC; 600 VAC
- 30, 60, 100 amperes
- 7½ to 75 HP

Options:

Description	Suffix
• Interiors rotated 22½° to the right (viewed from face).....	**S4**
• Auxiliary switch, 600 VAC-DC heavy duty pushbutton station rating, can be supplied, and its contacts will close after safety switch contacts open and close before safety switch opens.....	**S483**

COOPER Crouse-Hinds

WSR, WSRD, WSRDW Interlocked Arktite® Receptacles with Enclosed Disconnect Switches

30, 60, 100A
NEMA 3, 3R, 4, 12
Raintight
Watertight
Corrosion-Resistant

APJ/NPJ Plugs

System	Amps	Conduit Opening Sizes§	WSR 240VAC 600VAC 250VDC Cat. #	WSR Max. HP Rating 240VAC	WSR Max. HP Rating 480VAC	WSR Max. HP Rating 600VAC	WSRD‡■ For viewing window see note 2 600VAC 250VDC Cat. #	WSRD Max.† HP Rating 480VAC	WSRD Max.† HP Rating 600VAC
3-Wire, 3-Pole Style 1, Fusible	30	1	**WSR3351***	7½	15	20	**WSRD3351***	15	20
	60	1¼	**WSR6351***	15	30	50	**WSRD6351***	30	50
	100	1½	**WSR10351***	30	60	75	**WSRD10351***	60	75
3-Wire, 4-Pole Style 2, Fusible	30	1	**WSR3352***	7½	15	20	**WSRD3352***	15	20
	60	1¼	**WSR6352***	15	30	50	**WSRD6352***	30	50
	100	1½	**WSR10352***	30	60	75	**WSRD10352***	60	75
3-Wire, 3-Pole Style 1, Non-fusible	30	1	**WSR33541**	7½	15	20	**WSRD33541**	15	20
	60	1¼	**WSR63541**	15	30	50	**WSRD63541**	30	50
	100	1½	**WSR103541**	30	60	75	**WSRD103541**	60	75
3-Wire, 4-Pole Style 2, Non-fusible	30	1	**WSR33542**	7½	15	20	**WSRD33542**	15	20
	60	1¼	**WSR63542**	15	30	50	**WSRD63542**	30	50
	100	1½	**WSR103542**	30	60	75	**WSRD103542**	60	75

*Arranged for NEC Class H fuses. May be field converted to NEC Class J fuses.
§Furnished with reducer which may be removed to obtain one size larger opening. Locknut and bushing used must meet NEC requirements (WSR only).
†Ratings of unfused and fusible switches with time delay fuses.
■ Viewing window – add "W" to prefix, i.e.: WSRDW6352.
‡Conduit entrances not furnished.

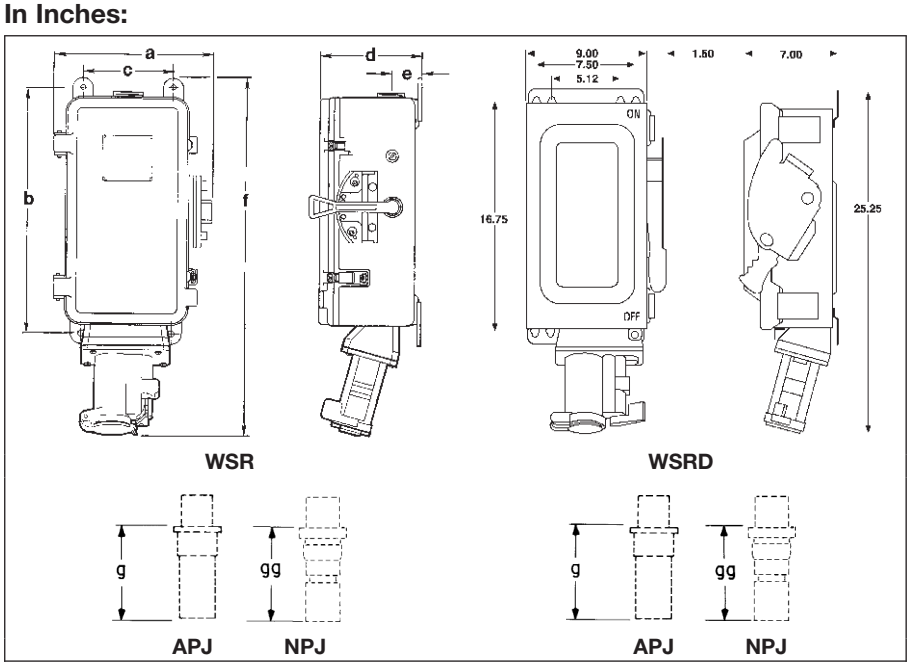
APJ/NPJ Plugs

Amps	Max. Volts	Outside Dia. of Cable, Flexible Conduit or Armored Cable	Style 1†† 3-wire, 3-pole Cat. #	Style 2†† 3-wire, 4-pole Cat. #
30	250 DC 600 AC	0.60 to 1.20 0.55 to .070 0.70 to 0.85	**APJ3375**	**APJ3485** **NPJ3483** **NPJ3484**
60	250 DC 600 AC	0.75 to 1.45 0.75 to 1.07 1.07 to 1.35	**APJ6375**	**APJ6485** **NPJ6484** **NPJ6485**
100	250 DC 600 AC	1.00 to 1.70 0.93 to 1.21 1.21 to 1.50	**APJ10377**	**APJ10487** **NPJ10486** **NPJ10487**

††Style 1 - Grounded through shell. Style 2 - Grounded through extra pole and shell. For a detailed description of these grounding methods, see page 1264.

Dimensions

In Inches:



WSR

Dims.	30 Amps	60 Amps	100 Amps
a	11¾	11¾	14⅞
b	20 1/16	20 1/16	26 5/16
c	6 9/16	6 9/16	9 9/16
d	7¼	7¼	8¼
e	2 15/32	2 15/32	2⅞
f	27 11/16	28 11/16	35⅝
g	4¾	5¼	7¼
gg	7	6 13/16	7¾
Mtg. Holes	⅜	⅜	7/16

Dim. "g" and "gg" are exposed portion of plug when engaged with receptacle.

WSRD

Dims.	60 Amps
g	5 13/16
gg	6 13/16
Mtg. Holes	5/16

Dim. "g" and "gg" are exposed portion of plug when engaged with receptacle.

Arktite® WSRD SM S901 Stainless Steel Interlocked Receptacles

Fused and Non-fused

30, 60 and 100 Amp
Enclosure Type 3, 4, 4X, 12
IP66
UL and cUL Listed

Watertight
Corrosion-Resistant

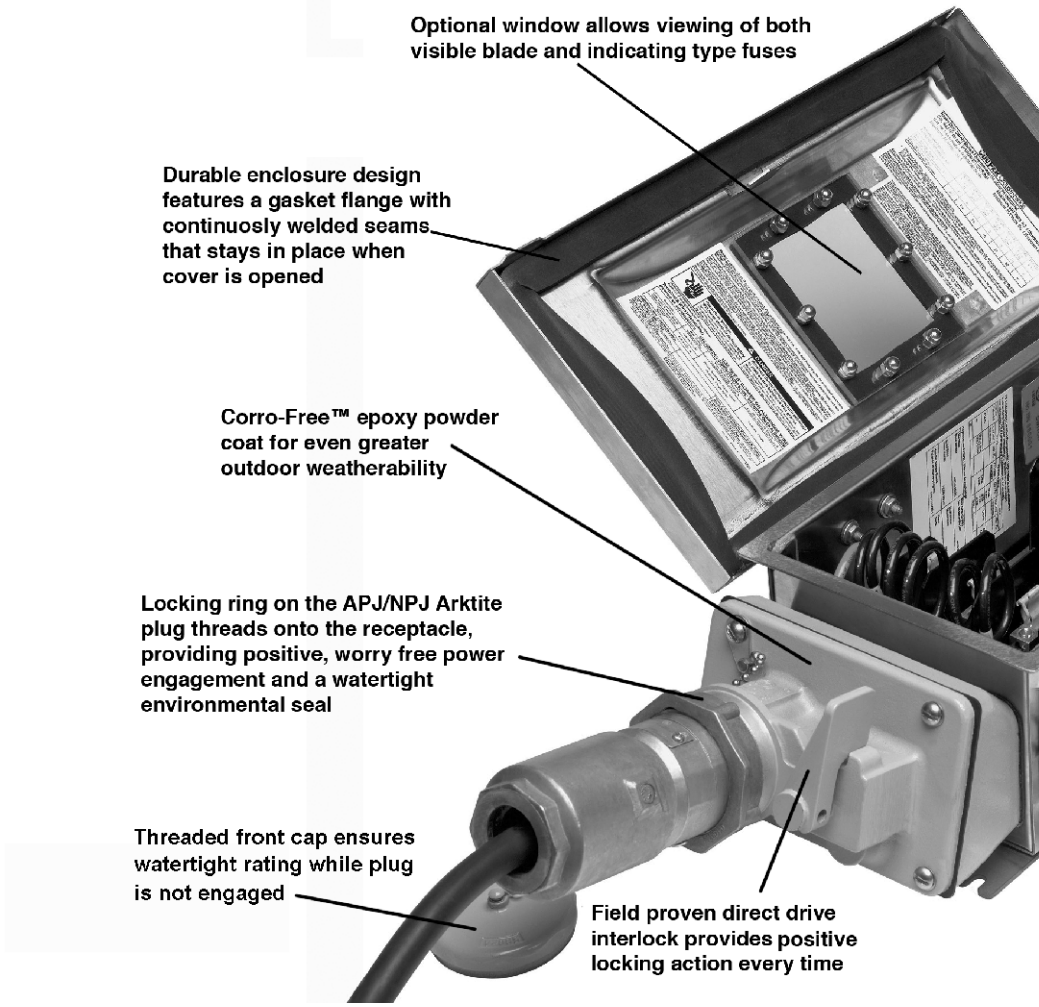
WSRD SM S901 Series Stainless Steel Arktite® Interlocked Receptacles

Cooper Crouse-Hinds Arktite Stainless Steel Interlocks prevent engagement and disengagement of the plug under load, providing safe portable connections and extended product life.

Available in 30–100 Amp in both fused and non-fused versions, the Stainless Steel Interlock is rated Enclosure Type 4X watertight and features an optional viewing window.

Arktite Stainless Steel Interlocked Receptacles:

- Supply power to portable or fixed electrical equipment such as welders, compressors, conveyors, portable tools, lighting systems and similar equipment.
- Are used in damp or corrosive locations.
- Are ideal for use in wet locations and hosedown areas.



Additional Features and Benefits:

- Heavy duty Arktite receptacle is compatible with existing Cooper Crouse-Hinds Arktite plugs of same rating and configuration
- Self-wiping, naval brass contacts in receptacle assure reliable performance and long dependable life
- Stainless steel interior hardware
- Ground bar supplied as standard and connected to 4th wire in receptacle
- UL and cUL Listed

Ordering Information: 3-Pole, 4-Wire - 600 VAC

Amps	Cat. #	Description	Weight (lbs.)	Cooper Crouse-Hinds Mating Arktite Plug Cat. #
30	**WSRDW3352 SM S901**	Fused w/Window	24	**APJ3485 & NPJ3485**
30	**WSRD33542 SM S901**	Non-fused	22	**APJ3485 & NPJ3485**
30	**WSRDW33542 SM S901**	Non-fused w/Window	22	**APJ3485 & NPJ3485**
60	**WSRDW6352 SM S901**	Fused w/Window	30	**APJ6485 & NPJ6485**
60	**WSRD63542 SM S901**	Non-fused	29	**APJ6485 & NPJ6485**
60	**WSRDW63542 SM S901**	Non-fused w/Window	29	**APJ6485 & NPJ6485**
100	**WSRDW10352 SM S901**	Fused w/Window	36	**APJ10487 & NPJ10487**
100	**WSRD103542 SM S901**	Non-fused	35	**APJ10487 & NPJ10487**
100	**WSRDW103542 SM S901**	Non-fused w/Window	35	**APJ10487 & NPJ10487**

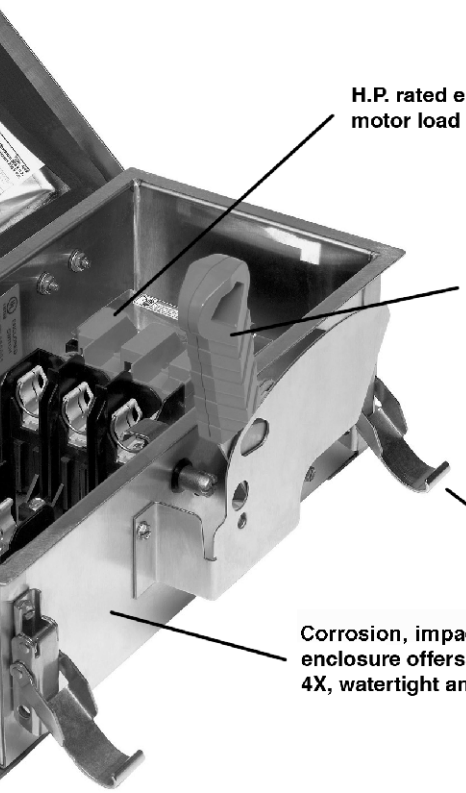
COOPER Crouse-Hinds

Arktite® WSRD SM S901 Stainless Steel Interlocked Receptacles

Fused and Non-fused

30, 60 and 100 Amp
Enclosure Type 3, 4, 4X, 12
IP66
UL and cUL Listed

Watertight
Corrosion-Resistant



Optional window allows viewing of both visible blade and indicating type fuses.

Plug locks into receptacle, providing positive, worry-free power engagement as well as watertight protection.

Complies with OSHA lockout/tagout requirements.

Heavy-duty, epoxy coated cast aluminum receptacle with stainless steel interlocking mechanism for superior durability and corrosion resistance.

Certifications and Compliances:

- UL Listed – (UL Standards 98, 1682)
- cUL Listed (Certified by UL to CSA Standards C22.2 Nos. 4, 182.1)
- Enclosure Type 3, 4, 4X, 12
- IP66 Enclosure

Standard Materials:

- Enclosure – Type 304 stainless steel
- Hardware – stainless steel
- Receptacle Housing – aluminum
- Power Contacts – naval brass
- Interlock Mechanism – stainless steel

Standard Finishes:

- Stainless Steel – natural
- Aluminum – Corro-free™ epoxy powder
- Brass – natural

Options:

Description	Suffix
• Factory Installed Auxiliary Contacts	**S483**
• Rotated Interior (22½° to right)	**S4**

Arktite® WSRD SM S901 Stainless Steel Interlocked Receptacles

Fused and Non-fused

30, 60 and 100 Amp
Enclosure Type 3, 4, 4X, 12
IP66
UL and cUL Listed

Watertight
Corrosion-Resistant

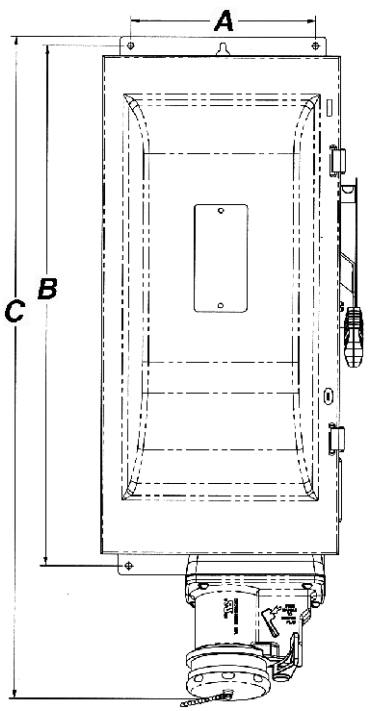
Horsepower Ratings

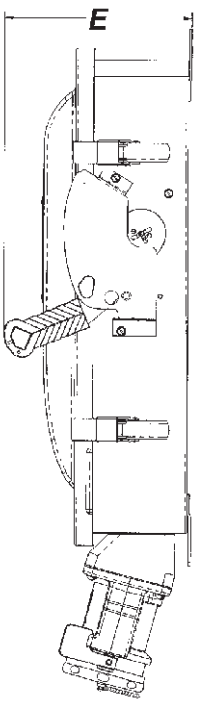
Cat. #	Amps	Fusing	240 VAC (1 PH)	240 VAC (3 PH)	480 VAC (1 PH)	480 VAC (3 PH)	600 VAC (1 PH)	600 VAC (3 PH)	250 VDC
WSRD33542 SM S901	30	Non-fused	5	10	7.5	20	10	30	5
WSRDW33542 SM S901	30	Non-fused	5	10	7.5	20	10	30	5
WSRDW3352 SM S901	30	Fused	1.5 (3)	3 (7.5)	3 (7.5)	5 (15)	3 (10)	7.5 (20)	5
WSRD63542 SM S901	60	Non-fused	10	20	20	50	25	60	10
WSRDW63542 SM S901	60	Non-fused	10	20	20	50	25	60	10
WSRDW6352 SM S901	60	Fused	3 (10)	7.5 (15)	5 (20)	15 (30)	10 (25)	15 (50)	10
WSRD103542 SM S901	100	Non-fused	15	40	30	75	40	100	20
WSRDW103542 SM S901	100	Non-fused	15	40	30	75	40	100	20
WSRDW10352 SM S901	100	Fused	7.5 (15)	15 (30)	10 (30)	25 (60)	15 (40)	30 (75)	20

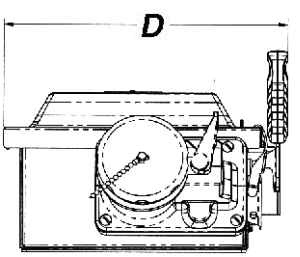
Note:
Values for Non-Fused units are maximum horsepower.
Values for Fused units are standard horsepower with standard fuse and (maximum horsepower with time delay).

Dimensions

In Inches:







Amps	A	B	C	D	E
30	5.47	16.49	23.49	9.00	8.61
60	7.99	18.49	25.49	11.52	8.61
100	8.47	24.18	31.18	12.00	8.61

Arktite® CSR Series Non-metallic Interlocked Receptacles

Fused and Non-fused

30, 60 and 100 Amp
Enclosure Type 3, 4, 4X, 12
IP66
UL and cUL Listed

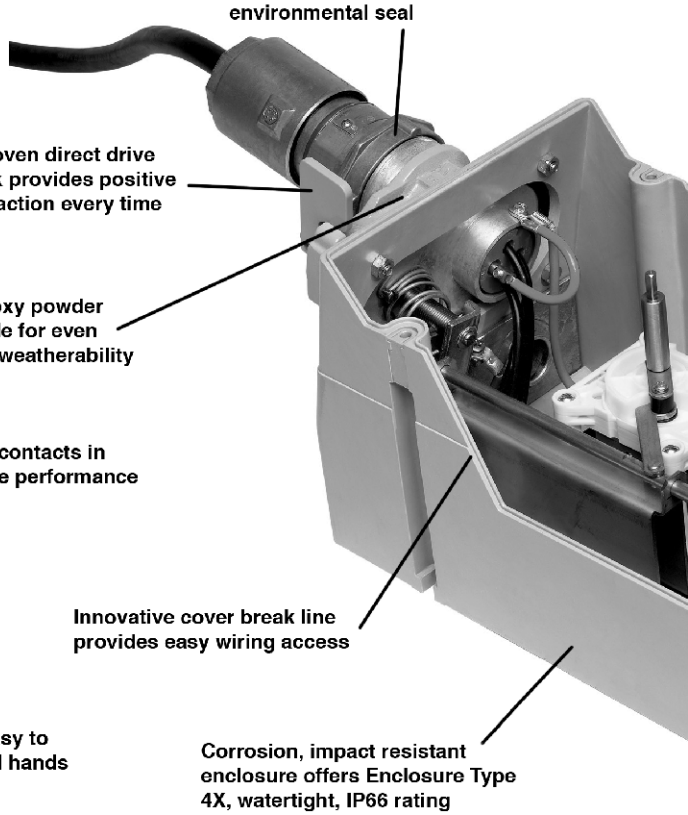
Watertight
Corrosion-Resistant

CSR Series Compact Interlocked Arktite® Receptacles

Cooper Crouse-Hinds interlocked receptacles prevent engagement and disengagement of the plug under load, providing safe portable connections and extended product life.

Arktite Compact Interlocked Receptacles are Used:

- To supply power to portable or fixed electrical equipment such as welders, compressors, conveyors, portable tools, lighting systems and similar equipment.
- In damp or corrosive locations.
- In wet locations.
- In hosedown areas.



Additional Features and Benefits:

- Enclosure Type 4X, Watertight, IP66.
- Compact enclosure is designed to fit into the web of an I-beam.
- Heavy duty Arktite® receptacle is compatible with existing Cooper Crouse-Hinds Arktite® plugs of same rating and configuration.
- Bussmann® CubeFuse™ with Indicator – the world's first "finger-safe" industrial power fuse.
- Front mounted handle permits the interlocked receptacles to be easily mounted side by side or in tight spots.
- Molded-in-place mounting feet require only four screws to mount the entire unit.
- UL and cUL Listed.

Ordering Information: 600 VAC

Amps	Configuration	Hub Size	Fusing	Cat. #	Mating Cat. #
30	3W, 4P	1"	Fused	**CSR3352**	**APJ3485/NPJ3484**
30	3W, 4P	1"	Non-fused	**CSR33542**	**APJ3485/NPJ3484**
60	3W, 4P	1¼"	Fused	**CSR6352**	**APJ6485/NPJ6484**
60	3W, 4P	1¼"	Non-fused	**CSR63542**	**APJ6485/NPJ6484**

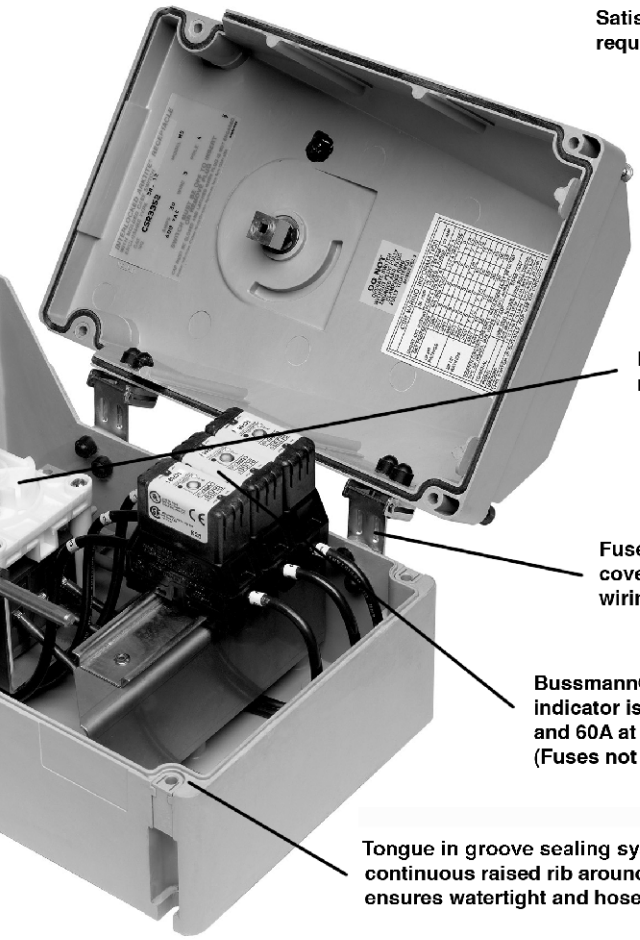
COOPER Crouse-Hinds

Arktite® CSR Series Non-metallic Interlocked Receptacles

Fused and Non-fused

30, 60 and 100 Amp
Enclosure Type 3, 4, 4X, 12
IP66
UL and cUL Listed

Watertight
Corrosion-Resistant



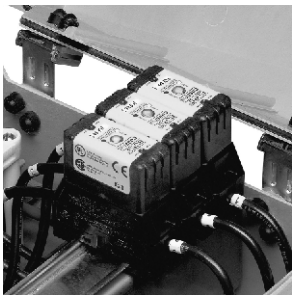
Satisfies OSHA lockout / tagout requirements

H.P. rated enclosed switch for motor load applications

Fused CSR offers a hinged cover for easy access when wiring or replacing fuses.

Bussmann® CubeFuse™ with indicator is fully rated for 30A and 60A at 600VAC. (Fuses not included.)

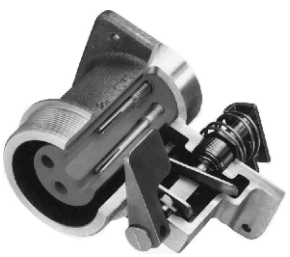
Tongue in groove sealing system with continuous raised rib around enclosure ensures watertight and hosedown ratings



Fully rated for 30A and 60A at 600 VAC. For use with Bussmann CubeFuse. Fuses not included.

Plug locks into receptacle, providing positive, worry-free power engagement as well as watertight protection.

Complies with OSHA lockout/ tagout requirements.



Heavy-duty, epoxy coated cast aluminum receptacle with stainless steel interlocking mechanism for superior durability and corrosion resistance.

Certifications and Compliances:

- UL Listed – (UL Standards 508, 1682)
- cUL Listed (Certified by UL to CSA Standards C22.2 Nos. 14, 182.1)
- Enclosure Type 3, 4, 4X, 12
- IP66 Enclosure

Standard Materials:

- Enclosure – fiber reinforced polyester
- Hardware – stainless steel
- Receptacle Housing – aluminum
- Power Contacts – naval brass
- Interlock Mechanism – stainless steel
- Zinc Hubs – NEMA 4X

Standard Finishes:

- Aluminum – Corro-free™ epoxy powder
- Brass – natural
- Stainless Steel – natural

Options:

Description	Suffix
• Factory Installed Auxiliary Contacts	S483
• Rotated Interior (22½° to right)	S4

Horsepower Ratings:

Amps	250 VAC	480 VAC	600 VAC
30	10 HP	20 HP	25 HP
60	20 HP	40 HP	40 HP

Arktite® CSR Series Non-metallic Interlocked Receptacles

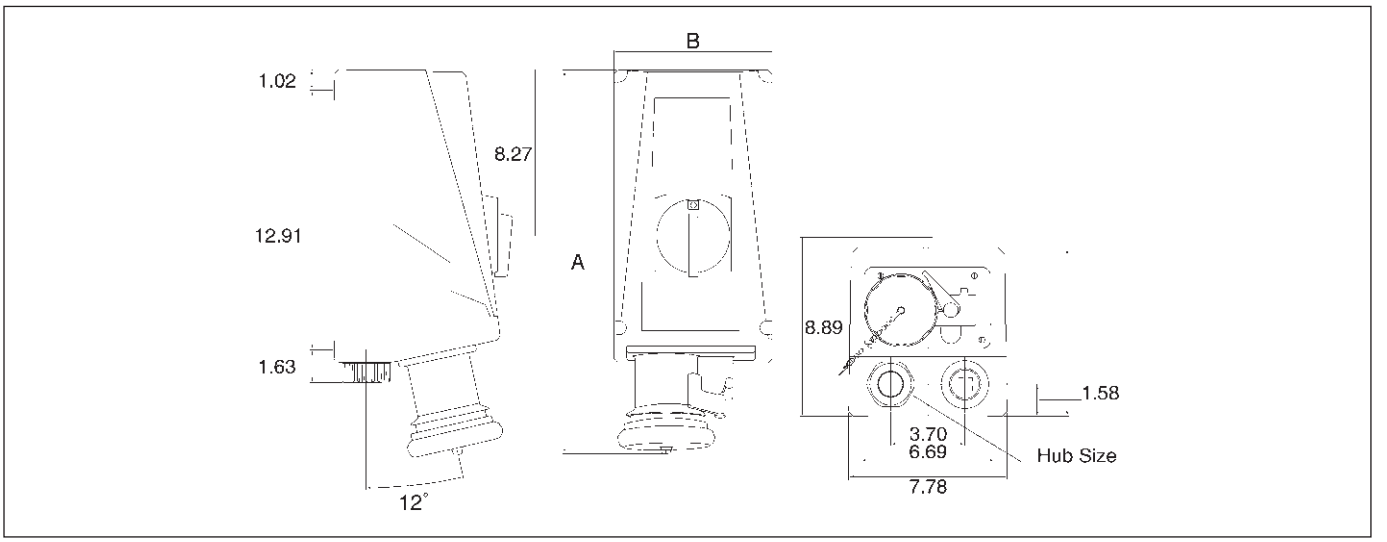
Fused and Non-fused

30, 60 and 100 Amp
Enclosure Type 3, 4, 4X, 12
IP66
UL and cUL Listed

Watertight
Corrosion-Resistant

Dimensions

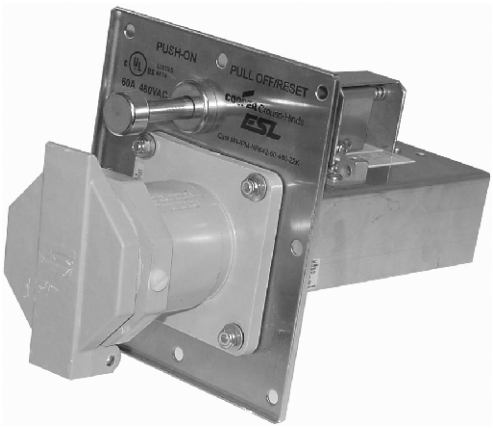
In Inches:



Amps	Style	Dimension A	Dimension B	Hub Size
30	Fused	18.26	8.00	1"
30	Non-fused	18.26	7.87	1"
60	Fused	19.26	8.00	1¼"
60	Non-fused	19.26	7.87	1¼"

Interlocked Power Modules

Cooper Crouse-Hinds Interlocked Power Modules are ideal for the harsh, heavy duty environments of welding applications. The Welder Series Power Module is a unique patented design that employs a mechanical interlock linkage system that interfaces with the power receptacle and the built in circuit breaker. It is ideal for protecting the safety of your personnel and your valuable welding equipment.



Applications:

- Ship building yards
- Ports
- Offshore platform fabrication yards
- Test stations at remote sites
- Military heavy equipment manufacturing

Features:

- Mechanically interlocked to prevent insertion or withdrawal of plug under load
- Circuit breaker protected
- Stainless steel and die cast construction provides durability and corrosion resistance
- Flanged design for easy panel mounting and flexibility of Power Stand design
- Arktite® receptacle accepts existing Cooper Crouse-Hinds Arktite die cast and Krydon® plugs of the same rating and configuration

Certifications and Compliances:

- UL/cUL Listed Module
- UL 498 Listed
- CSA Certified Molded Case Circuit Breaker

Standard Materials and Finishes:

- Frame, On/Off Rod, Interlock Mechanism, Fasteners - Stainless steel
- Receptacle Housing - Die cast aluminum or Krydon
- Power Contacts - Naval brass
- Receptacle Insulator - Krydon

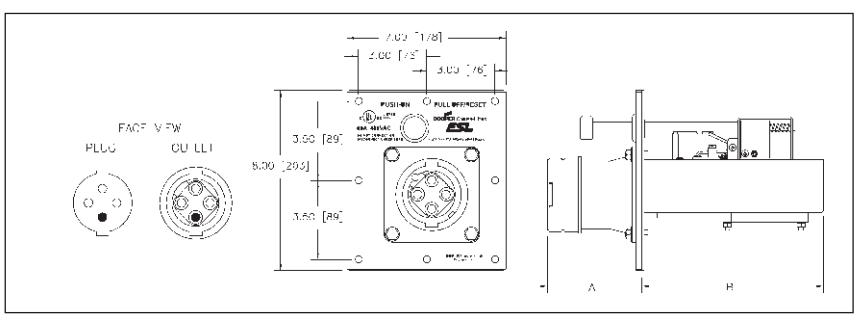
Ordering Information:

3 Wire 4 Pole 480 VAC 22K AIC Rating*

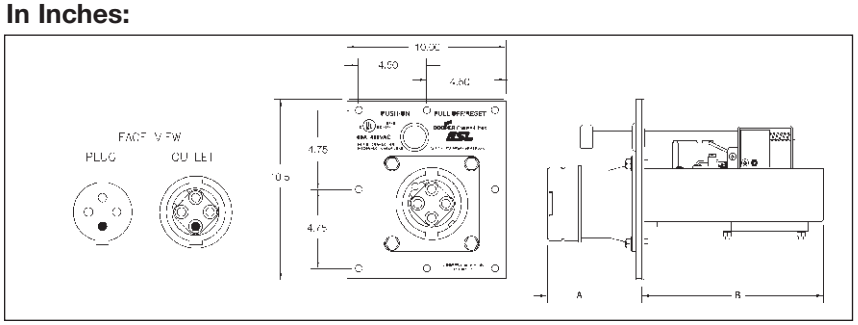
			Dimensions	
Amps	**Recept.**	**Cat. #**	**A**	**B**
30	Die cast	**M4IPM AR342 3048022K**	2.8	8.00
30	Krydon	**M4IPM NR342 3048022K**	3.1	8.00
60	Die cast	**M4IPM AR642 6048022K**	4.3	8.00
60	Krydon	**M4IPM NR642 6048022K**	4.5	8.00
100	Die cast	**M4IPM AR1042 10048022K**	5.3	8.00
100	Krydon	**M4IPM NR1042 10048022K**	5.6	8.00
200	Die cast	**M4IPM AR2042 20048022K**	7.3	10.0
200	Die cast	**M4IPM AR2042 20060010K**	7.3	10.0
200	Die cast	**M4IPM AR2042 20060025K**	7.3	10.0

*65K AIC rating available, substitute 65K for 22K in catalog number

Dimensions - 30, 60, 100 A
In Inches:



Dimensions - 200 A
In Inches:



WSQC Interlocked Arktite® Receptacles with Enclosed Switches

APJ Plugs

30 and 60A
600 VAC
NEMA 3R, 12

Raintight
Dust-tight

Applications:

WSQC dead front interlocked receptacles with APJ, NPJ, BP or FP plugs are used:

- To supply power to portable electrical equipment such as hand lamps, lighting systems, power tools, conveyors, welders, compressors, etc.
- In damp, wet or corrosive locations
- Indoors or outdoors in non-hazardous areas
- In locations where mounting area is confined and compact equipment is required

Features:

- NEMA 3R, 12
- Rainproof, dust-tight
- Available in 30 and 60 amps
- Horsepower rated switch
- Smallest footprint for interlocked receptacles
- Padlockable in OFF position; meets OSHA lockout/tagout requirements
- Compatible with Arktite® APJ aluminum and NPJ Krydon® material non-metallic plugs

Certifications and Compliances:

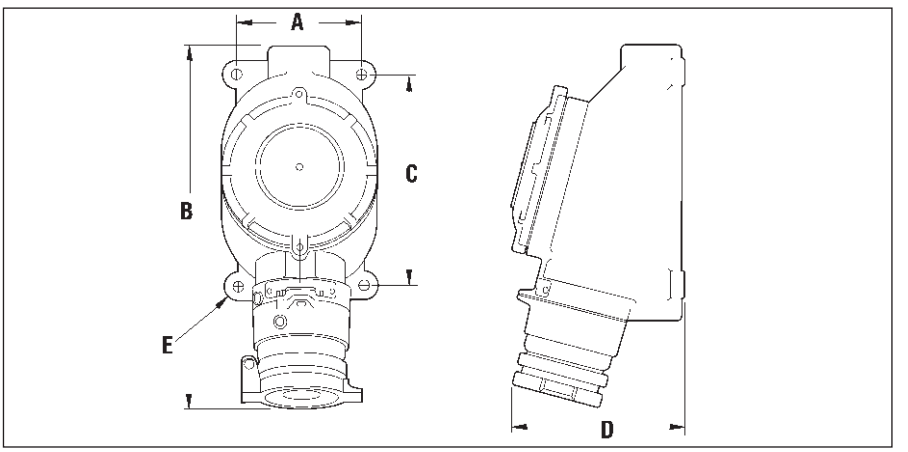
- NEMA 3R, 12
- CSA Standard: C22.2 No. 14, 182.1
- UL and cUL Listed

Standard Materials:

- Enclosure – copper-free aluminum
- Cover and spring door – copper-free aluminum
- Insulator – Krydon® material
- Contacts – brass
- Cover gasket – neoprene

Dimensions

In Inches:



Amps	A	B	C	D	E
30A	3 1/8	9 3/4	—	5 3/4	3/8
60A	5	14 7/16	8 1/2	7	13/32

Horsepower Ratings:

	Single Phase				Three Phase			
Amps	120V	240V	480V	600V	120V	240V	480V	600V
30A	2	5	7 1/2	7 1/2	3	7 1/2	15	15
60A		10	25	30		10	25	30

Ordering Information:

Amps	Hub	Config.	Cat. #
30A	3/4"	2W3P	**WSQC2330**
	1"	2W3P	**WSQC3330**
	3/4"	3W4P	**WSQC2340**
	1"	3W4P	**WSQC3340**
60A	1 1/2"	2W3P	**WSQC5630**
	1 1/2"	3W4P	**WSQC5640**

Options:

Description	Suffix
• Interior rotated 22 1/2° to the right (viewed from face) ex: WSQC5640 S4	**S4**

COOPER Crouse-Hinds

NBR Arktite® Interlocked Receptacles with Enclosed Circuit Breakers

APJ/NPJ Arktite Plugs

Applications:

NBR *Arktite* interlocked receptacles with enclosed circuit breakers are used:

- To supply power and provide short circuit protection, thermal overload protection, and a disconnect means for portable electrical equipment such as motor generator sets, compressors, conveyors, and other similar equipment
- In locations where corrosion is present such as in offshore and marine locations, pulp and paper mills, chemical plants, food processing, and sewage treatment plants
- Indoors and outdoors in damp, wet or hosedown locations

Features:

- Enclosures are made of *Krydon*® high impact strength fiberglass-reinforced polyester material having excellent resistance to corrosion and heat
- Receptacles are mechanically interlocked with circuit breakers which provide a disconnect means, short circuit protection, and thermal time delay overload protection
- For maximum safety, the spring door receptacle at the bottom is mechanically interlocked with the circuit breaker operating mechanism. The circuit breaker cannot be closed until the plug is fully inserted and the plug cannot be withdrawn unless the breaker is open
- Enclosure has hinged access door for easy wiring and maintenance. Three screws, hidden behind access door in door frame, prevent disassembly when door is locked
- Enclosure access door is mechanically interlocked with operating handle and cannot be opened unless operating handle operator is in "OFF" position
- A *Krydon* material hub (not mounted) is supplied with each enclosure as follows:

Rating	Hub Size (In.)	Cat. #
30A	¾	**NHUB2**
60A	1¼	**NHUB4**
100A	2	**NHUB6**

For alternate hub sizes, see page 658

- Receptacle has self-closing spring door assembly to provide environmental protection
- Operating handle can be padlocked in "OFF" position. Breaker is trip-free of handle and will open under short circuit or overload when handle is in the "ON" position
- Provided with top and bottom mounting feet which may be rotated 90° to vertical or horizontal mounting positions

Certifications and Compliances:

- NEMA 3, 3R, 4*, 4X*, 12
- ANSI/UL Standard: 489
- UL Standard: 1682
- CSA

Standard Materials:

- Enclosure, covers and operating handles – *Krydon* fiberglass-reinforced polyester material
- Operating shafts – stainless steel
- Receptacle housings – copper-free aluminum
- Receptacle insulators – *Krydon* material
- Crimp/solder contacts – leaded red brass

Standard Finishes:

- Copper-free aluminum – baked on powder epoxy
- Stainless steel – natural
- Enclosure – natural
- Receptacle insulators – natural (red)
- Brass – natural
- Leaded red brass – electro-tin-plated

Electrical Rating Range:

- Receptacles – 30, 60 and 100 amperes
- Circuit Breakers – 100 ampere frame size

Note: For additional dimensional data, see page 504, enclosure catalog number NCB1024.

Options:

Description	Suffix
Special polarity – for use where two or more receptacles of the same ampere rating, style and number of poles are to be installed on the same premises for use of different voltages. Receptacle interior rotated 22½° to right (viewed from face) and plug changed to match ..... Hubs for other conduit sizes can be supplied. See page 658.	**S4**

Interchangeability of Plugs With Other Non-hazardous and Hazardous Location Receptacles:

- Plugs listed for use with NBR assemblies are standard *Arktite* APJ/NPJ plugs. Other standard APJ/NPJ and CPH plugs of the same rating, style and number of poles may be used with NBR receptacles, as well as EBBR, EPC and EPCB receptacles listed in Section 4P
- Portable equipment, suitable for the locations and equipped with the proper plug, can be used with non-hazardous rated AR receptacles, DBR and WSR interlocked receptacles located in non-hazardous locations, with EBBR, EPC and EPCB receptacles for Class I, Groups B, C, D hazardous locations, with DR and DBR interlocked receptacles for Class II, Groups F, G hazardous locations, and with NBR/NSR interlocked receptacles for wet and corrosive locations

*30 and 60A Style 2 only.

NBR Arktite® Interlocked Receptacles with Enclosed Circuit Breakers

3-Pole, 600 VAC
NEMA 3, 3R, 4, 4X, 12
Watertight
Corrosion-Resistant

APJ/NPJ Arktite Plugs▲

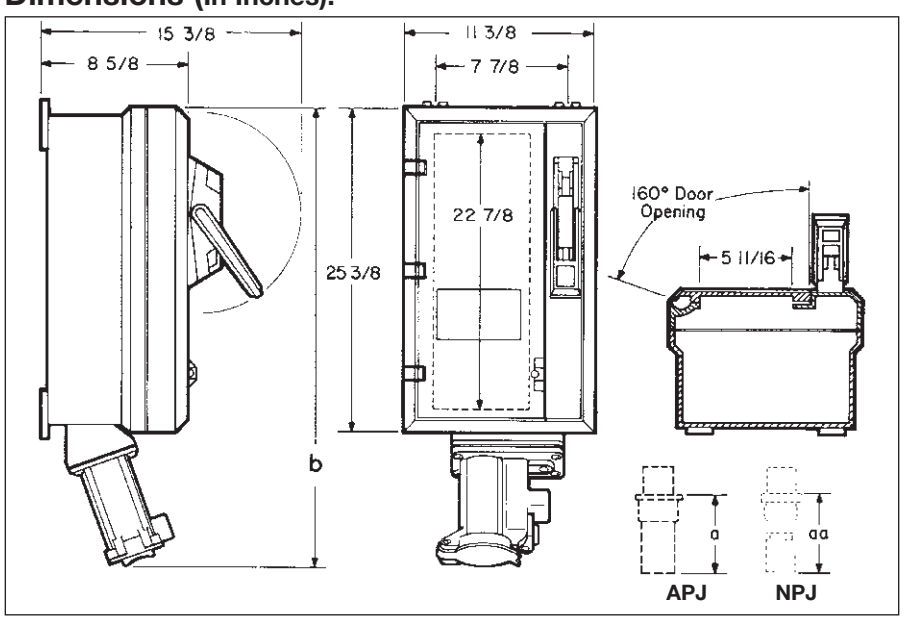
100 Ampere Frame Size with Non-interchangeable Trip‡§

Receptacle With Spring Door Housing	Enclosure Hub Size (In.)	Ckt. Brkr. Amps	Without Circuit Breaker Cat. #	With Cutler-Hammer Circuit Breaker Cat. #
Style 1†				
30 amp., 3-wire, 3-pole	¾	20	NBR53731	NBR53731 WT20 3
		30		NBR53731 WT30 3
		40		NBR53731 WT40 3*
		50		NBR53731 WT50 3*
60 amp., 3-wire, 3-pole	1¼	50	NBR56731	NBR56731 WT50 3
		60		NBR56731 WT60 3
		70		NBR56731 WT70 3*
		90		NBR56731 WT90 3*
		100		NBR56731 WT100 3*
100 amp., 3-wire, 3-pole	2	60	NBR51731	NBR51731 WT60 3
		70		NBR51731 WT70 3
		90		NBR51731 WT90 3
		100		NBR51731 WT100 3
Style 2†				
30 amp., 3-wire, 4-pole	¾	20	NBR53742	NBR53742 WT20 3
		30		NBR53742 WT30 3
		40		NBR53742 WT40 3*
		50		NBR53742 WT50 3*
60 amp., 3-wire, 4-pole	1¼	50	NBR56742	NBR56742 WT50 3
		60		NBR56742 WT60 3
		70		NBR56742 WT70 3*
		90		NBR56742 WT90 3*
		100		NBR56742 WT100 3*
100 amp., 3-wire, 4-pole	2	60	NBR51742	NBR51742 WT60 3
		70		NBR51742 WT70 3
		90		NBR51742 WT90 3
		100		NBR51742 WT100 3

*Circuit breaker trip rating may exceed receptacle rating for welding equipment applications only, as higher trip rating may not protect wiring.
†Style 1 – Grounded through shell. Style 2 – Grounded through extra pole and shell. For a detailed description of these grounding methods, see page 1265.
§Also available with interchangeable trip breakers. Specify on order.
‡ For detailed information on circuit breaker selection, see Section 3C.

▲ Pressure connectors are standard. Crimp/solder type terminators are optionally available for 3 and 4-pole 30, 60 and 100 ampere. For details, see page 1267. To specify, add the suffix "T" to the catalog number.
For example: APJ3375-T (Plug).

Dimensions (In Inches):



APJ/NPJ Plugs
600 VAC
With Cable Grip and Neoprene Bushing

APJ

NPJ

Amps	Cable O.D. Range	Style 1† 3-wire, 3-pole Cat. #	Style 2† 3-wire, 4-pole Cat. #
30	0.60 to 1.20	APJ3375	APJ3485
	0.55 to 0.70		NPJ3483
	0.70 to 0.85		NPJ3484
60	0.75 to 1.45	APJ6375	APJ6485
	0.75 to 1.07		NPJ6484
	1.07 to 1.35		NPJ6485
100	1.00 to 1.70	APJ10377	APJ10487
	0.93 to 1.21		NPJ10486
	1.21 to 1.50		NPJ10487

Amps	b	a	aa
30	31⅜	4 13/16	7
60	33	5 13/16	6 13/16
100	33¾	6⅝	7¾

Dim. "a" and "aa" are exposed portion of plug when engaged with receptacle.

NSR Arktite® Interlocked Receptacles With Enclosed Disconnect Switches

NEMA 3, 3R, 4*, 4X*, 12
Watertight
Corrosion-Resistant

APJ/NPJ Arktite Plugs

Applications:

NSR *Arktite* interlocked receptacles with enclosed disconnect switches are used:

- To provide a power disconnect for fixed or portable electrical equipment such as welders, generators and compressors where the switch will be subject to frequent operation
- To provide short circuit protection when a fusible switch is needed
- In non-hazardous indoor or outdoor areas where corrosion, dust, hosedown and moisture may be a problem such as in offshore and marine locations, pulp and paper mills, chemical plants, sewage treatment plants and food processing facilities

Features:

- Enclosures are made of *Krydon*® high impact strength fiberglass-reinforced polyester material having excellent resistance to corrosion and heat
- Switches are NEMA type HD heavy duty 3-pole, enclosed blade; a quick make-and-break mechanism with reinforced, positive pressure type blade and jaw construction. Fusible switches have fuse clips with steel reinforcing springs
- For maximum safety, the spring door receptacle at the bottom is mechanically interlocked with the switch operating mechanism. The switch cannot be closed until the plug is fully inserted and the plug cannot be withdrawn unless the switch is open
- Switch enclosure access door is mechanically interlocked with switch and cannot be opened unless switch operator is in "OFF" position
- Enclosure has hinged access door for easy wiring and maintenance. Three screws, located behind access door in door frame, prevent disassembly when door is locked
- A *Krydon* material hub (not mounted) is supplied with each enclosure as follows:

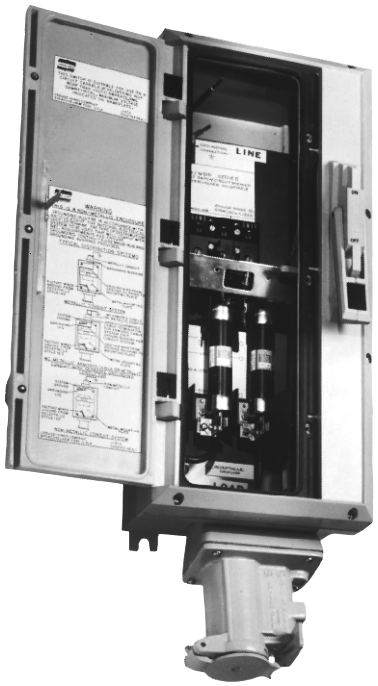
Rating	Hub Size (In.)	Cat. #
30A	¾	**NHUB2**
60A	1¼	**NHUB4**
100A	2	**NHUB6**

For alternate hub sizes, see page 658

- Receptacle has self-closing spring door assembly to provide environmental protection
- Mounting feet may be rotated 90° to horizontal or vertical mounting positions
- Switch operating handle may be padlocked in the "OFF" position, preventing unauthorized operation of the switch

Certifications and Compliances:

- NEMA 3, 3R, 4*, 4X*, 12
- UL Standard: 1682, 98



Interchangeability of Plugs With Other Non-hazardous and Hazardous Location Receptacles:

- Plugs listed for use with NSR assemblies are standard *Arktite* APJ/NPJ plugs.

  Other standard APJ/NPJ and CPH plugs of the same rating, style and number of poles may be used with NSR receptacles, as well as with EBBR, EPC and EPCB receptacles listed in Section 4P
- Portable equipment, suitable for the locations and equipped with the proper plug, can be used with non-hazardous rated AR receptacles, DBR and WSR interlocked receptacles located in non-hazardous locations, with EBBR, EPC and EPCB receptacles for Class I, Groups B, C, D hazardous locations, with DR and DBR interlocked receptacles for Class II, Groups F, G hazardous locations, and with NBR/NSR interlocked receptacles for wet and corrosive locations

Standard Materials:

- Receptacle housings – copper-free aluminum
- Insulators (plug and receptacle) – *Krydon* material
- Crimp/solder contacts – leaded red brass
- Enclosure and operating handle – *Krydon* fiberglass-reinforced polyester material
- Other exterior parts – stainless steel

Standard Finishes:

- Copper-free aluminum – baked-on powder epoxy
- Stainless steel – natural
- Leaded red brass – electro-tin-plated
- Enclosure – natural (gray)
- Insulator (plug and receptacle) – natural (red)

Options:

Description	Suffix
Special polarity – for use where two or more receptacles for the same ampere rating, style and number of poles are to be installed in the same area for use on different voltages. Receptacle interior rotated 22½° to right (viewed from face) and matching plug	**S4**

Hubs for other conduit sizes can be supplied. See page 658.

*30 and 60A Style 2 only.

NSR Arktite® Interlocked Receptacles With Enclosed Disconnect Switches

240 and 600 VAC
250 VDC
NEMA 3, 3R, 4, 4X, 12
Watertight
Corrosion-Resistant

APJ/NPJ Arktite Plugs††

Amps	Conduit Opening Sizes§	240VAC/250VDC Style 1† 3-wire, 3-pole Cat. #	240VAC/250VDC Style 2† 3-wire, 4-pole Cat. #	240VAC/250VDC AC HP Rating	240VAC/250VDC DC HP Rating	600VAC/250VDC Style 1† 3-wire, 3-pole Cat. #	600VAC/250VDC Style 2† 3-wire, 4-pole Cat. #	600VAC/250VDC AC HP Rating	600VAC/250VDC DC HP Rating
Fusible									
30	¾	**NSR331‡**	**NSR332‡**	3	5	**NSR3351***	**NSR3352***	7½	5
60	1¼	**NSR631‡**	**NSR632‡**	5	10	**NSR6351***	**NSR6352***	20	10
100	2	**NSR1031‡**	**NSR1032‡**	10	20	**NSR10351***	**NSR10352***	30	20
Non-Fusible									
30	¾	**NSR3341**	**NSR3342**	7½	5	**NSR33541**	**NSR33542**	20	5
60	1¼	**NSR6341**	**NSR6342**	20	10	**NSR63541**	**NSR63542**	50	10
100	2	**NSR10341**	**NSR10342**	30	20	**NSR103541**	**NSR103542**	75	20

APJ/NPJ Plugs

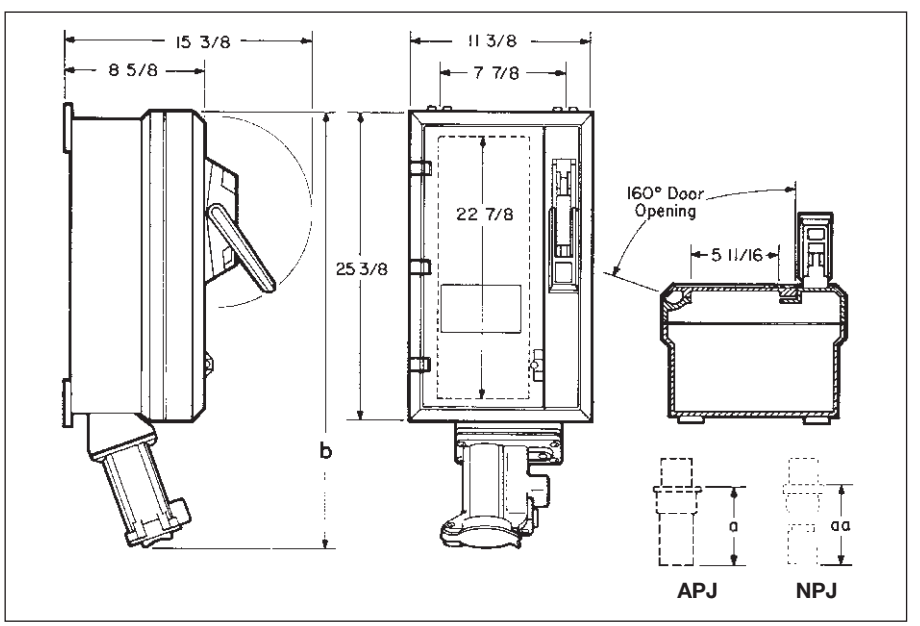
600VAC/250VDC, with Cable Grip and Neoprene Bushing

Amps	Cable O.D. Range	Style 1† 3-wire, 3-pole Cat. #	Style 2† 3-wire, 4-pole Cat. #
30	0.60 to 1.20	**APJ3375**	**APJ3485**
	0.55 to 0.70		**NPJ3483**
	0.70 to 0.85		**NPJ3484**
60	0.75 to 1.45	**APJ6375**	**APJ6485**
	0.75 to 1.07		**NPJ6484**
	1.07 to 1.35		**NPJ6485**
100	1.00 to 1.70	**APJ10377**	**APJ10487**
	0.93 to 1.21		**NPJ10486**
	1.21 to 1.50		**NPJ10487**

*Arranged for NEC Class H fuses. May be field converted to NEC Class J fuses.
‡Fuse clips accommodate NEC Class H fuses. For NEC Class J fuses, use 600V switches.
†Style 1 – Grounded through shell. Style 2 – Grounded through extra pole and shell. For a detailed description of these grounding methods, see page 1265.
§For alternate hub sizes, refer to catalog page see page 846.
††Pressure connectors are supplied as standard. To specify crimp/solder type terminators add the suffix "T" to the catalog number. For example: APJ3375-T (Plug).

Dimensions

In Inches:



Amps	b	a	aa
30	31⅜	4 13/16	7
60	33	5 13/16	6 13/16
100	33¾	6⅝	7¾

Dim. "a" and "aa" are exposed portion of plug when engaged with receptacle.

4P Plugs and Receptacles

Industrial Heavy Duty Interlocked
Application and Selection
Hazardous

Applications:

- Where extra protection is a requirement. Interlocked units provide dead front receptacles; connection cannot be made or broken when unit is under load.
- In areas made hazardous by flammable vapors, gases or dusts; to supply power for portable electrical equipment and provide safe disconnect means and short circuit protection.

Considerations for Selection:

Environmental:

- The environment of the enclosure location in terms of NEC/CEC compliance and NEMA/EEMAC type required.
- Material and construction to withstand rough usage and atmospheric conditions.

Electrical:

- Sufficient current-carrying capacity to meet load requirements.
- Compatibility with electrical system (new or existing installation).
- Interchangeability of plugs with other hazardous and non-hazardous area receptacles.

Function:

- Switch vs. circuit breaker.

Options:

- Special polarity arrangements, material options, accessories, and optional arrangements of enclosure interiors are available to meet specific application needs. See listing pages for details.

Quick Selector Chart

Series	NEC/CEC & NEMA/EEMAC Compliances	Receptacles Interlocked With	Page	Mating Plugs	Electrical Rating
BHR	Class I, Division 1 and 2, Groups B, C, D Class II, Division 1 and 2, Groups F, G Class III NEMA: 3, 4, 7BCD, 9FG, 12	Factory sealed switch	See pages 1340–1341	BHP	30, 60, 100 amp. 480VAC 2-wire, 3-pole 3-wire, 4-pole 4-wire, 5-pole
DBR	NEC: Class II, Division 1 and 2, Groups F, G NEC: Class III NEMA/EFC: 3, 9FG, 12 CEC: Class II, Division 1 and 2, Group G CEC: Class III Encl. 3, 5	Circuit breaker	See pages 1349–1350	APJ/NPJ	Circuit breaker: 100 amp. frame size 250VDC/600VAC Receptacle: 30, 60, 100 amp. 2-wire, 3-pole 3-wire, 3-pole 3-wire, 4-pole
EBBR	Class I, Division 1 and 2, Groups B, C, D Class II, Division 1 and 2, Groups F, G Class III NEMA 3, 3R, 7BCD, 9FG, 12	Circuit breaker	See pages 1337–1339	APJ/NPJ	Receptacle: 30, 60, 100, 150 amp. 3-wire, 4-pole
EPC	NEC: Class I, Division 1 and 2, Groups C, D NEC: Class II, Division 1 and 2, Groups F, G NEC: Class III NEMA: 3, 7CD, 9FG, 12 CEC: Class I, Division 1 and 2, Groups C, D CEC: Class II, Division 1 and 2, Group G CEC: Class III Encl. 3, 4	Circuit breaker	See pages 1344–1345	APJ/NPJ	Circuit breaker: 100 amp. frame size 480VAC/250VDC Receptacle: 30, 60, 100 amp. 2-wire, 3-pole 3-wire, 4-pole
EPC	Class I, Division 1 and 2, Group D Class II, Division 1 and 2, Groups F, G Class III NEMA: 3, 7D, 9FG, 12	Circuit breaker	See pages 1344–1345	DP	Circuit breaker: 225 amp. frame size 600VAC/250VDC Receptacle: 200 amp. 3-wire, 4-pole
EPCB	NEC: Class I, Division 1 and 2, Groups B, C, D NEC: Class II, Division 1 and 2, Groups F, G NEC: Class III NEMA: 3, 7BCD, 9FG, 12 CEC: Class I, Division 1 and 2, Groups B, C, D CEC: Class II, Division 1 and 2, Group G CEC: Class III Encl. 3, 4	Circuit breaker	See pages 1347–1348	APJ/NPJ	Circuit breaker: 100 amp. frame size 600VAC/250VDC Receptacle: 30, 60, 100 amp. 2-wire, 3-pole 3-wire, 4-pole

Plugs and Receptacles

Industrial Heavy Duty Interlocked
Quick Selector and Interchangeability Chart
Hazardous

Quick Selector Chart

Series	NEC/CEC & NEMA/EEMAC Compliances	Receptacles Interlocked With	Page	Mating Plugs	Electrical Rating
FSQ	NEC: Class I, Division 1 and 2, Groups B, C, D NEC: Class II, Division 1 and 2, Groups F, G NEC: Class III NEMA: 3, 7BCD, 9FG, 12 CEC: Class I, Division 1 and 2, Groups B, C, D CEC: Class II, Division 1 and 2, Groups G CEC: Class III Encl. 3, 5	Switch	See pages 1334–1336	APJ/NPJ	30A 250V/20A 600VAC 2-wire, 3-pole 3-wire, 4-pole 60 & 100 amp. 2-wire, 3-pole 3-wire, 4-pole
SRD	Class I, Division 1 and 2, Group D Class II, Division 1 and 2, Groups F, G Class III NEMA: 3, 7D, 9FG, 12	Factory sealed switch	See pages 1342–1343	5P	30 & 60 amp. 480VAC 2-wire, 3-pole 3-wire, 4-pole 4-wire, 5-pole

Interchangeability Chart

Many of the plugs listed in this section can be used interchangeably with receptacles from other sections, both in hazardous and non-hazardous areas, **provided electrical rating and style of plug and receptacle are the same.** The following table is a summary of possible combinations.

Plugs Shown in Section 4P	Can be Used with These Receptacle Series	Listed in Section	Plug & Receptacle Electrical Rating
APJ/NPJ	AR, NR EPC, EPCB, DBR, EBBR, CSR, FSQC	1P 4P	30, 60, 100 amp. 3-wire, 4-pole
	NBR, NSR, WSR, CSR, WSRD, WSRDW, WSQC, WSRD SM S901	3P	30, 60, 100 amp. 3-wire, 3-pole 3-wire, 4-pole
BHP	BHR SRD	4P	30, 60, 100 amp. 2-wire, 3-pole 3-wire, 4-pole 4-wire, 5-pole
SP	BHR SRD	4P	30, 60 amp. 2-wire, 3-pole 3-wire, 4-pole 4-wire, 5-pole

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

FSQC Arktite® Dead Front Interlocked Receptacles and Switches

APJ/NPJ Arktite Plugs

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EEMAC 3, 7BCD, 9FG, 12

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

Applications:

FSQC dead front switched interlock receptacles are used:

- To supply power to portable electrical equipment such as hand lamps, lighting systems, power tools, conveyors, welders and similar equipment.
- In areas which are hazardous due to the presence of flammable vapors or gases and combustible dusts.
- In damp, wet or corrosive locations.
- Indoors or outdoors at petroleum refineries, chemical and petrochemical plants and facilities for processing and handling grain, flour and starch.

Features:

- Compatible with Arktite® APJ aluminum and NPJ Krydon® plugs
- Switch cannot be turned "ON" until plug is fully inserted and rotated
- Plug cannot be withdrawn under load
- Cover cannot be removed when switch is "ON"
- Satisfies OSHA lockout tagout requirement
- Smallest mounting footprint for interlocks

Certifications and Compliances:

- NEMA 3, 7BCD, 9FG, 12
- NEC/CEC:
  Class I, Division 1 & 2, Groups B, C, D
  Class I, Zone 1, Group IIB + Hydrogen
  Class II, Division 1 & 2, Groups F, G
  Class III
- ANSI/UL Standards: 1010 UL Listed
- CSA Standards: C22.2 No. 30 cUL Listed & C22.2 No. 159

Materials:

- Enclosure – copper-free aluminum
- Cover and spring door – copper-free aluminum
- Insulator – Krydon®
- Contacts – brass

Options:

Description	Suffix
Special polarity, receptacle interior rotated 22½°.....	**S4**

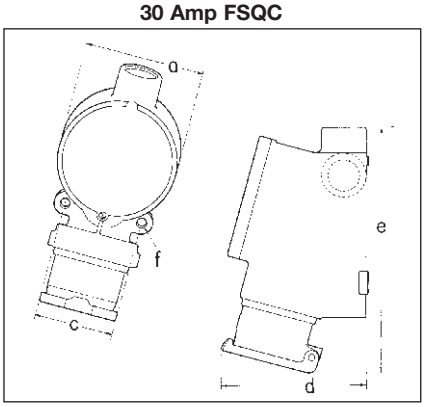
Interchangeability of Plugs with Other Hazardous and Non-hazardous Location Receptacles:

- Plugs listed for FSQC receptacles on 1043 are standard APJ/NPJ plugs. Other standard APJ/NPJ of the same rating, style and number of poles may be used with FSQC receptacles as well as with DBR, EBBR, EPC and EPCB receptacles listed in Section 2P and 4P.
- As a result, portable equipment suitable for the location and equipped with the proper plug can be used with AR series receptacles for non-hazardous areas, EBBR, EPC, EPCB, and FSQC receptacles for Class I hazardous locations; DBR receptacles for Class II hazardous locations.

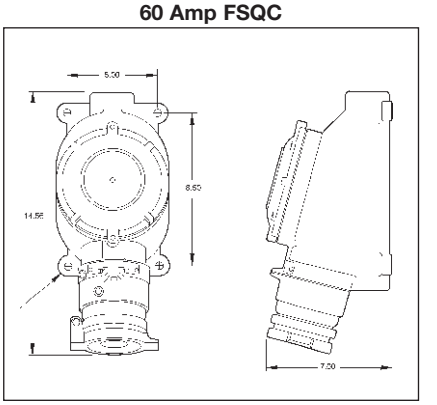
Dimensions

In Inches:

30 Amp FSQC



60 Amp FSQC



Dimensions

	Maximum Dimensions a	b	c	d	e	f
30A	10.00	3.12	Ø .38	5.75	N/A	3.75
60A	14.56	5.00	Ø .41	7.00	8.50	4.63

FSQC Arktite® Dead Front Interlocked Receptacles and Switches

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EEMAC 3, 7BCD, 9FG, 12

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

APJ/NPJ Arktite Plugs

FSQC Receptacles
With Spring Door Through Feed Hubs

Horsepower Rating:

Amps	Single Phase 120V	240V	480V	600V
30A	2	5	7½	7½
60A	—	10	25	30

Amps	Three Phase 120V	240V	480V	600V
30A	3	7½	15	15
60A	—	10	25	30

Ordering Information:

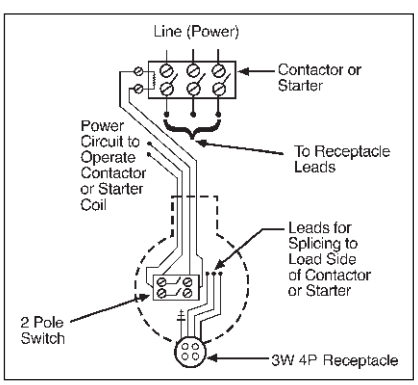
Amps	Hub	Config.	Description	Cat. #	Matching Plug
30A	¾"	2W3P	2-Pole Switch	**FSQC2320**	**APJ3385**
		3W4P	3-Pole Switch	**FSQC2430**	**APJ3485**
	1"	2W3P	2-Pole Switch	**FSQC3320**	**APJ3385**
		3W4P	3-Pole Switch	**FSQC3430**	**APJ3485**
60A	1½"	2W3P	2-Pole Switch	**FSQC5630**	**APJ6385**
		3W4P	3-Pole Switch	**FSQC5640**	**APJ6485**

FSQC for Use with Magnetic Motor Starters or Contactors

FSQC units listed below operate in the same way as standard units but are intended *only for use with magnetic motor starters or contactors (see Wiring Diagram 1).*

Receptacles have leads for splicing to conductors from the load side of contactor. The switch actuated by the plug is wired into the starter or contactor coil circuit and controls only this circuit. The starter or contactor is energized only when the plug is fully inserted and rotated to close the switch. Since the plug is inserted or withdrawn only when the switch is open, the circuit cannot be made or broken under the load.

Plugs used are standard APJ units and special polarity units listed are recommended where interchange with devices for other wiring systems is possible.



Wiring Diagram 1
FSQC2390 and 3390 only

FSQC Receptacles
With Spring Door Through Feed Hubs

No. of Poles	Hub Size	Receptacle Cat. #	Cable Dia.	Mating Plug Cat. #
Standard Configuration				
3W, 4P	¾	**FSQC2390**	0.39-1.20	**APJ3485**
3W, 4P	1	**FSQC3390**	0.55-0.70	**NPJ3483**
3W, 4P	1		0.70-0.85	**NPJ3484**
Special Polarity Configuration				
3W, 4P	¾	**FSQC2390 S4**	0.39-1.20	**APJ3485 S4**
3W, 4P	1	**FSQC3390 S4**	0.55-0.70	**NPJ3483 S4**
			0.70-0.85	**NPJ3484 S4**

4P 100 Amp FSQ Dead Front Interlocked

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA 3, 3R, 4, 4X*, 7BCD, 9FG, 12
Explosionproof

NEMA 4
Watertight

Applications:

- To supply power to portable or fixed electrical equipment such as welders, pumps, motors, machine tools, conveyors, oil rigs, mixers, grain elevators, petroleum refineries, chemical and petrochemical plants
- In hazardous areas containing flammable vapors or gases and combustible dusts
- In damp, wet or hosedown environments
- In highly corrosive locations

Features:

- NEMA Type 4 watertight
- Suitable for Group B
- Compact housing
- Simple operation
- Compatible with Arktite® APJ aluminium and NPJ Krydon® plugs
- H.P.-rated enclosed switch
- 4 mounting feet can be rotated for flexibility in positioning to surface
- Wiring channel provided under switch for easy wire routing to terminals
- Dual bottom-feed hubs and one top hub for convenient feed-through installation
- Bread-loose fork lugs case in place for easy removal of cover

Certifications and Compliances:

- NEMA 3, 3R, 4, 4X*, 7BCD, 12
  Class I, Divisions 1 and 2, Groups B, C, D
  Class I, Zone 1, Group IIB + H_2
  Class II, Divisions 1 and 2, Groups F, G
  Class III
- ANSI/UL Standards: 1010 and 98 UL Listed
- cUL Listed, CSA Standard C22.2 No. 30, C22.2 No. 159

*NEMA 4X when ordered with suffix S752.

Materials:

- Body – copper-free aluminum
- Cover – copper-free aluminum
- Locking collar – Feraloy® iron alloy
- Insulator – Krydon® material
- Contacts – brass

Options:

Description	Suffix
• Special polarity – receptacle interior rotated 22½° to right (example: FSQC61040 S4)	**S4**
• NEMA 4X – epoxy powder coated (example: FSQC61040 S752)	**S752**
• Auxiliary contact	**S483**
• Breather/Drain	**S756V**

Safety First:

- Power cannot be turned "on" until plug is fully inserted and Uni-Loc collar is rotated
- When Uni-Loc collar is in "on" position, plug is locked in place to prevent disengagement under load
- Cover cannot be removed while switch is "on"
- Cover-Loc™ design prevents switch from being turned "on" while cover is removed
- Uni-Loc collar aligns with lug on housing to permit OSHA lockout/tagout in the "off" position

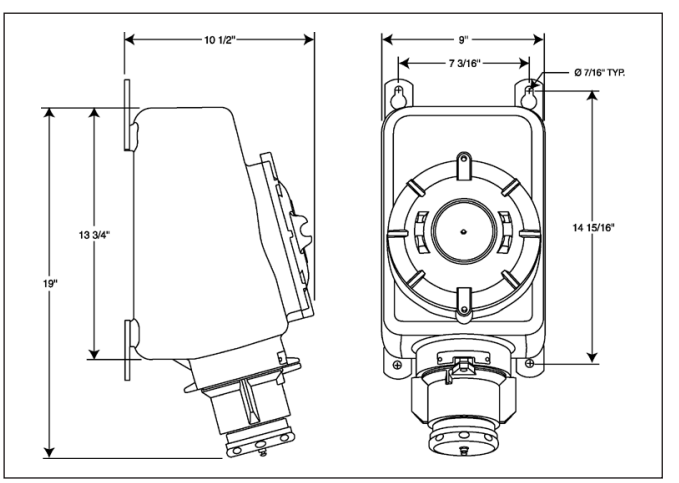
Electrical Rating:

- 100A, 600VAC

Ordering Information:

Rating	Config.	Hub Size	HP Rating	Cat. #
100A, 600 VAC	3W4P	2"	50 HP @ 600V, 480V	**FSQC61040**

Dimensions
In Inches:



4P

COOPER Crouse-Hinds

EBBR Series Interlocked Arktite® Receptacles with Circuit Breakers

30, 60, 100 Amp Interlocked Receptacles

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F†, G
Cl. III
NEMA 3, 3R, 7BCD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

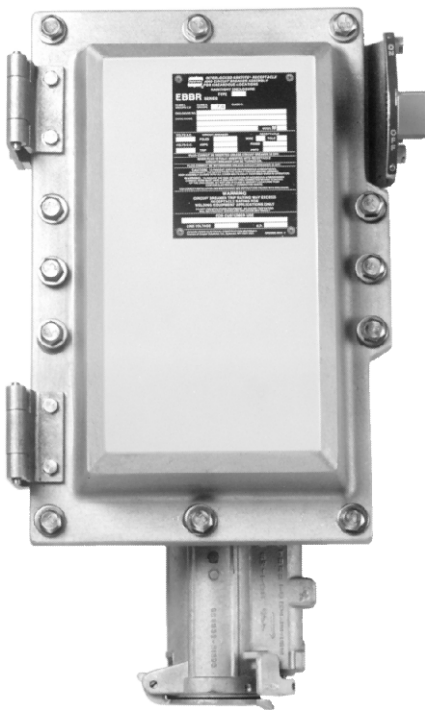
Applications:

EBBR interlocked receptacles with circuit breakers are used:

- As a service outlet for portable equipment – indoors or outdoors – in damp, wet, corrosive locations, without the need for a protective shelter.
- In areas which are hazardous due to flammable vapors, gases or combustible dust, e.g., refineries, chemical plants, and other processing and handling facilities of a hazardous nature.
- In areas where frequent washdowns are necessary or where heavy rain or water spray is prevalent.

Features:

- Rugged, corrosion resistant, cast copper-free aluminum construction.
- Accepts compatible Arktite plug of same rating and configuration.
- Mechanical interlock mechanism for dead front construction.
- Receptacles are mechanically interlocked with circuit breakers to provide disconnect means, short circuit protection and thermal time delay overload protection.
- A spring door receptacle, located at the bottom of the unit, is mechanically interlocked with the circuit breaker operating mechanism for safe and dependable operation.
- Plug and receptacle contacts cannot be made or broken under load. The circuit breaker cannot be closed until the plug is fully inserted and the plug cannot be withdrawn unless the breaker is de-energized.
- Operating handles can be padlocked in either "ON" or "OFF" positions. Breakers are trip-free of the handles and will open under short circuit or overload even if the handle is locked in the "ON" position.
- Component operating handles located through the right side wall of the body permits visual confirmation of correct component assembly and operation.
- Total compliance to the wiring and room requirements of the National Electrical Code®.
- Semi-clamshell enclosure design, with an external machined flat joint flamepath between body and cover makes interior components easily accessible.
- Minimum enclosure-to-enclosure spacing with little interference between the opened cover and an adjacent enclosure.
- Copper-free aluminum hinges allow the cover to swing well out of the way.
- Stainless steel, quick release, captive, hex head cover bolts. Stainless steel springs provide clear indication cover bolts are fully retracted from body.
- Versatile, internal operating mechanisms allow for field adjustment to accommodate popular manufacturers' breakers.



- Simple, straightforward installation of breaker on pre-drilled mounting plate within enclosure.
- Neoprene cover gasket permanently attached to the cover seals out moisture.
- Bodies have top drilled and tapped entrance for power conduit (1½") plus one at the top and one at the bottom for a breather and drain (½"). Breather and drain entrances are plugged.
- Tap-on mounting feet.

Certifications and Compliances:

- NEC:
  Class I, Division 1 and 2, Groups B, C, D
  Class II, Division 1 and 2, Groups F†, G
  Class III
- NEMA: 3, 3R, 7BCD, 9FG, 12
- UL Standard: 1203

Standard Materials:

- Body, cover, and receptacle – copper-free aluminum
- Contact insulator (receptacles and plugs) – fiberglass-reinforced polyester
- Receptacle contacts – leaded red brass
- Pressure contacts (plugs) – brass
- Operating handle – copper-free aluminum
- Operating shafts and bushings – stainless steel
- Interior parts – heavy gauge sheet steel, zinc plated
- Cover bolts, washer and retractile springs – stainless steel

Standard Finishes:

- Copper-free aluminum – natural
- Fiberglass-reinforced polyester – natural (red)
- Brass – natural
- Leaded red brass – electro-tin-plated
- Stainless steel – natural

Electrical Rating Ranges:

- Circuit breakers – 20–150 amps
- Receptacles – 30, 60, 100, 150 amp
- 3-wire, 4-pole configuration

Options:

The following options are available from the factory by adding suffix to the Cat. #:

Description **Suffix**

- Receptacle interior rotated 22½° to right (viewed from face) and plug changed to match.....**S4**
- Breather (ECD13) at top, Drain (ECD11) at bottom.....**S198V**
- Group B Breather and Drain.....**S756V**
- External Powder Epoxy Finish.....**S752**

Grounding:

- EBBR interlocked receptacles and matching plugs are provided with an extra grounding pole for attaching a grounding wire. In addition, direct connection is provided between receptacle and metallic plug and the grounding pole. If a compatible non-metallic plug made of Krydon® fiberglass-reinforced polyester material is used, grounding is accomplished through the extra grounding pole only. If a separate grounding wire is not installed in the enclosure, grounding is accomplished through the conduit system.

†Caution: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

EBBR Series Interlocked Arktite® Receptacles with Circuit Breakers

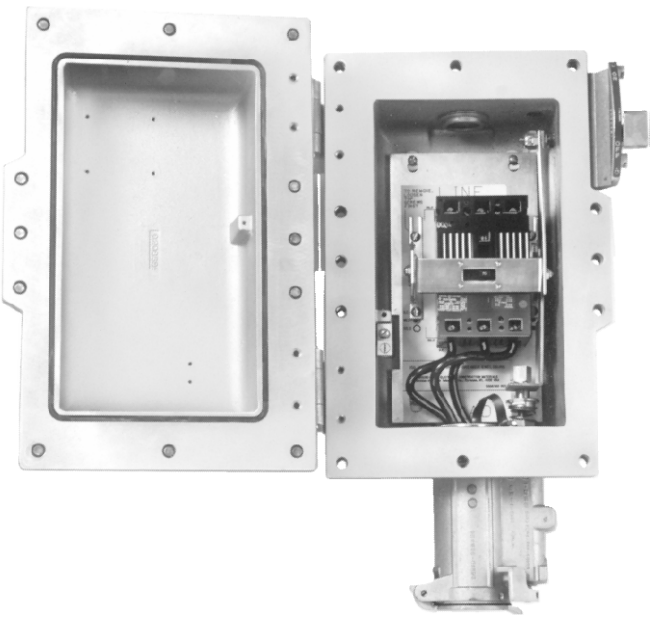
30, 60, 100 Amp Interlocked Receptacles

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F†, G
Cl. III
NEMA 3, 3R, 7BCD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

Interchangeability of Plugs with Other Hazardous and Non-hazardous Location Receptacles:

- Plugs listed for use with EBBR receptacles are standard Arktite APJ/NPJ plugs. Standard APJ/NPJ and also CPH plugs of the same rating, style and number of poles may be used with EBBR receptacles, as well as with DBR, EPC and EPCB receptacles listed in Section 4P of the catalog.
- As a result, portable equipment suitable for the location and equipped with the proper plug can be used with AR/NR series receptacles for non-hazardous locations; EBBR, EPC and EPCB receptacles for Class I and II hazardous locations; and DR and DBR receptacles for Class II hazardous locations.



Complete EBBR receptacle with circuit breaker installed.

Ordering Information:

Receptacle With Spring Door Housing	Hub Size (In.)	Circuit Breaker Rating	Circuit Breaker Amps	Without Circuit Breaker Cat. #	w/Cutler-Hammer Breaker	w/G.E. Breaker	w/Square D Breaker
30 Amp 3-wire 4-pole Style 2	1½	3-pole 480VAC+ or 250 VDC	20	**EBBRA304**	**EBBRA304 WT20 3**	**EBBRA304 TT20 3**	**EBBRA304 DT20 3**
			30	**EBBRA304**	**EBBRA304 WT30 3**	**EBBRA304 TT30 3**	**EBBRA304 DT30 3**
			40	**EBBRA304**	**EBBRA304 WT40 3***	**EBBRA304 TT40 3***	**EBBRA304 DT40 3***
			50	**EBBRA304**	**EBBRA304 WT50 3***	**EBBRA304 TT50 3***	**EBBRA304 DT50 3***
60 Amp 3-wire 4-pole Style 2	1½	3-pole 480VAC+ or 250 VDC	50	**EBBRA604**	**EBBRA604 WT50 3**	**EBBRA604 TT50 3**	**EBBRA604 DT50 3**
			60	**EBBRA604**	**EBBRA604 WT60 3**	**EBBRA604 TT60 3**	**EBBRA604 DT60 3**
			70	**EBBRA604**	**EBBRA604 WT70 3***	**EBBRA604 TT70 3***	**EBBRA604 DT70 3***
			90	**EBBRB604**	**EBBRB604 WT90 3***	**EBBRB604 TT90 3***	**EBBRB604 DT90 3***
			100	**EBBRB604**	**EBBRB604 WT100 3***	**EBBRB604 TT100 3***	**EBBRB604 DT100 3***
100 Amp 3-wire 4-pole Style 2	1½	3-pole 480VAC+ or 250 VDC	50	**EBBRA104**	**EBBRA104 WT50 3**	**EBBRA104 TT50 3**	**EBBRA104 DT50 3**
			60	**EBBRA104**	**EBBRA104 WT60 3**	**EBBRA104 TT60 3**	**EBBRA104 DT60 3**
			70	**EBBRA104**	**EBBRA104 WT70 3**	**EBBRA104 TT70 3**	**EBBRA104 DT70 3**
			90	**EBBRB104**	**EBBRB104 WT90 3**	**EBBRB104 TT90 3**	**EBBRB104 DT90 3**
			100	**EBBRB104**	**EBBRB104 WT100 3**	**EBBRB104 TT100 3**	**EBBRB104 DT100 3**
150 Amp‡ 3-wire 4-pole Style 2	1½	3-pole 480VAC+ or 250 VDC	100	**EBBRB154**	**EBBRB154 WT100 3**		
			125	**EBBRB154**	**EBBRB154 WT125FDB 3**		
			150	**EBBRB154**	**EBBRB154 WT150FDB 3**		

+Enclosures with 600 Volt circuit breakers are available. Add suffix "FDB" Ex: EBBRA304 – WT20FDB-3.
*Circuit breaker trip rating may exceed receptacle rating for welding equipment applications only, as higher trip rating may not protect wiring.
‡150A also available in A size enclosure for areas with space constraints (ie EBBRA154).
†Caution: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

EBBR Series Interlocked Arktite® Receptacles with Circuit Breakers

30, 60, 100 Amp Interlocked Receptacles

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F†, G
Cl. III
NEMA 3, 3R, 7BCD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

Amps	Cable O.D. Range	3-wire, 4-pole Cat. # Aluminum	Krydon material
	0.60 to 1.20	**APJ3485**	
30	0.55 to 0.70		**NPJ3483**
	0.70 to 0.85		**NPJ3484**
	0.75 to 1.45	**APJ6485**	
60	0.75 to 1.07		**NPJ6484**
	1.07 to 1.35		**NPJ6485**
	1.00 to 1.70	**APJ10487**	
100	0.93 to 1.21		**NPJ10486**
	1.21 to 1.50		**NPJ10487**

APJ and NPJ Arktite Plugs

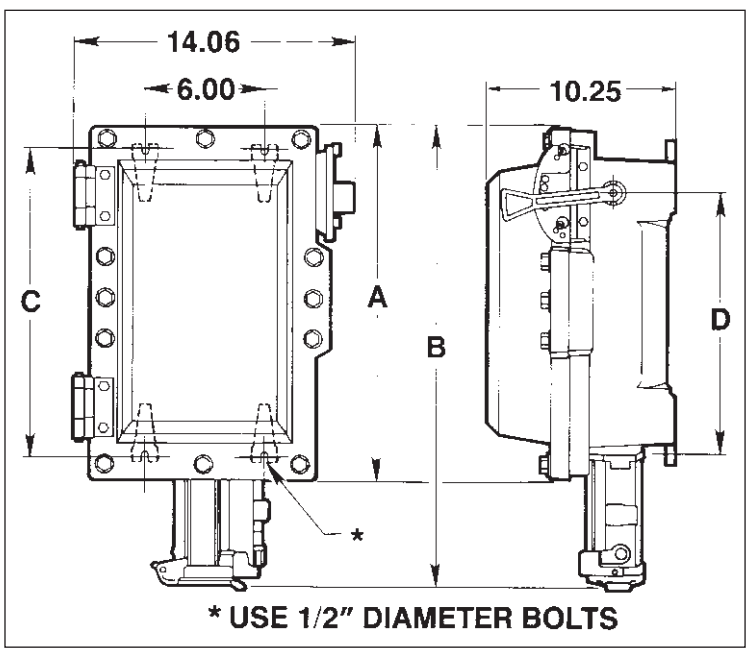
Aluminum APJ series

Krydon® material NPJ series (non-metallic)

Both APJ and NPJ series plugs may be used with EBBR series interlocked receptacles.

Dimensions

In Inches:



EBBRA

Amps	A	B	C	D
30	19.40	22.85	17.25	14.50
60	19.40	23.95	17.25	14.50
100	19.40	24.70	17.25	14.50
150	19.40	24.70	17.25	14.50

EBBRB

A	B	C	D
26.90	31.45	24.75	22.00
26.90	32.20	24.75	22.00
26.90	32.20	24.75	22.00

†Caution: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

BHR Dead Front Interlocked Receptacles with Factory Sealed Switch

BHP Plugs

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA 3, 4, 7BCD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

Applications:

BHR dead front interlocked receptacles and switches with BHP plugs are used:

- To supply power to portable electrical equipment such as motor-generator sets, compressors, heating and cooling units, lighting systems, conveyors, and similar equipment
- Primarily in areas which are hazardous due to the presence of hydrogen or gases, or vapors of equivalent hazard such as manufactured gas
- In damp, wet, or corrosive locations
- Indoors or outdoors in hydrogen areas of process industries, missile bases where hydrogen fuel is used, and gas manufacturing plants

Features:

- BHR receptacles feature a built-in rotary switch which is operated automatically when the plug is inserted and withdrawn. The switch, capable of making and breaking the circuit at full rated load, is operated by a helical blade in the center of the plug
- The plug and receptacle contacts cannot be made or broken under load. When the plug is inserted, the plug and receptacle contacts engage before the switch closes. When the plug is withdrawn, the switch opens before the plug and receptacle contacts disengage. This sequence of operation provides maximum safety in a dead front receptacle. Arcing is isolated in a flame and dust-tight chamber
- Operation is simple, safe and positive. To disconnect the portable device, the plug fastening ring is unscrewed and the plug simply pulled straight out. No separate interlock device or operating handle need be actuated
- Positive engagement without mismatching is assured by a distinct physical polarization of the plug and receptacle in every rating
- Plugs are furnished with pressure terminations. Receptacles are furnished with flexible leads for splicing to the supply conductors. A large threaded cover provides access to the wiring compartment
- As shown in the listings, assemblies are available for top, bottom or through feed conduit arrangements in ¾" to 2" sizes

Certifications and Compliances:

- Class I, Division 1 and 2, Groups B, C, D
- Class II, Division 1 and 2, Groups F, G
- Class III
- NEMA: 3, 4, 7BCD, 9FG, 12
- ANSI/UL Standard: 1010

Standard Materials:

- Receptacle housings – copper-free aluminum
- Seals – malleable iron
- Plug exteriors – copper-free aluminum
- Insulation – high impact glass filled phenolic
- Contacts – brass

Standard Finishes:

- Copper-free aluminum – natural
- Malleable iron – electrogalvanized and aluminum lacquer
- Phenolic – natural (black)
- Brass – silver plated

Options:

- Special polarity – where two or more receptacles of the same ampere rating and number of poles are to be installed in the same areas for use on different voltages, alternate polarizations can be furnished. Details on request.

Electrical Rating Ranges:

- 30, 60 and 100 amperes, 480VAC

Grounding:

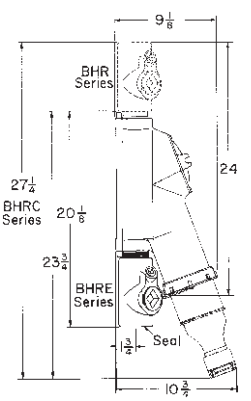
- BHR receptacles and BHP plugs are provided with an extra grounding pole. In plugs, provision is made for attachment of the grounding wire to the grounding pole. In addition, direct connection is provided between the plug and receptacle housings and the grounding pole. In the receptacle, grounding is accomplished through the conduit system

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

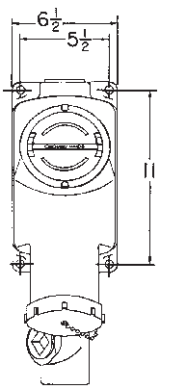
BHR/BHP in use.

BHR/BHP separated showing helical driver.

Dimensions
In Inches:



BHR/BHP



BHR only

COOPER Crouse-Hinds

BHR Dead Front Interlocked Receptacles with Factory Sealed Switch

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA 3, 4, 7BCD, 9FG, 12

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

BHP Plugs, 480 VAC, 60–400 hertz

Receptacles

Receptacles are supplied ready to install with a threaded cap. Through feed hubs are standard. Sealing fittings, nipples and closure plugs ordered separately depending on application. Receptacles can be configured for Top Feed, Bottom feed or Through feed.

Amps	Config.	Hub Size (In.)	Cat. #
30	2-wire, 3-pole	¾	**BHRC3382N**
	2-wire, 3-pole	1	**BHRC3383N**
	3-wire, 4-pole	¾	**BHRC3482D**
	3-wire, 4-pole	1	**BHRC3483D**
	4-wire, 5-pole	1	**BHRC3583 NW**
	4-wire, 5-pole	1¼	**BHRC3584 NW**
60	2-wire, 3-pole	1¼	**BHRC6384N**
	2-wire, 3-pole	1½	**BHRC6385N**
	3-wire, 4-pole	1¼	**BHRC6484D**
	3-wire, 4-pole	1½	**BHRC6485D**
	4-wire, 5-pole	1¼	**BHRC6584 NW**
	4-wire, 5-pole	1½	**BHRC6585 NW**
100	2-wire, 3-pole	1¼	**BHRC10384N**
	2-wire, 3-pole	1½	**BHRC10385N**
	3-wire, 4-pole	1½	**BHRC10485D**
	3-wire, 4-pole	2	**BHRC10486D**
	4-wire, 5-pole	1½	**BHRC10585 NW**
	4-wire, 5-pole	2	**BHRC10586 NW**

Plugs

Plugs mate to BHR receptacles. Plugs are supplied with threaded locking ring that threads onto receptacle housing for secure connection and environmental seal. Mechanical external cord grip and neoprene bushing provided for secure cord retention and environmental seal.

Amps	Config.	Cable Dia.	Cat. #
30	2-wire, 3-pole	.500 - .875	**BHP3383N**
	2-wire, 3-pole	.875 - 1.375	**BHP3385N**
	3-wire, 4-pole	.500 - .875	**BHP3483D**
	3-wire, 4-pole	.875 - 1.375	**BHP3485D**
	4-wire, 5-pole	.500 - .875	**BHP3583 NW**
	4-wire, 5-pole	.875 - 1.375	**BHP3585 NW**
60	2-wire, 3-pole	.500 - .875	**BHP6383N**
	2-wire, 3-pole	.875 - 1.375	**BHP6385N**
	3-wire, 4-pole	.500 - .875	**BHP6483D**
	3-wire, 4-pole	.875 - 1.375	**BHP6485D**
	4-wire, 5-pole	.875 - 1.375	**BHP6585 NW**
	4-wire, 5-pole	1.375 - 1.875	**BHP6587 NW**
100	2-wire, 3-pole	.875 - 1.375	**BHP10385N**
	2-wire, 3-pole	1.375 - 1.875	**BHP10387N**
	3-wire, 4-pole	.875 - 1.375	**BHP10485D**
	3-wire, 4-pole	1.375 - 1.875	**BHP10487D**
	4-wire, 5-pole	.875 - 1.375	**BHP10585 NW**
	4-wire, 5-pole	1.375 - 1.875	**BHP10587 NW**

SRD Dead Front Interlocked Receptacles with Factory Sealed Switch

SP Plugs, 480 VAC, 60–400 hertz

Cl. I, Div. 1 and 2, Group D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA 3, 7D, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

Applications:

SRD dead front interlocked receptacles, switches, and SP plugs are used:

- To supply power to portable electrical equipment such as motor-generator sets, compressors, heating and cooling units, lighting systems, conveyors and similar equipment
- In areas which are hazardous due to the presence of flammable vapors or gases and combustible dusts
- In damp, wet or corrosive locations
- Indoors or outdoors at petroleum refineries, chemical and petrochemical plants, as well as facilities for processing and handling grain, flour and starch

Features:

- SRD receptacles feature a built-in rotary switch that operates automatically when the plug is inserted and withdrawn. The switch, capable of making and breaking the circuit at full rated load, is operated by a helical blade in the center of the plug.
- The plug and receptacle contacts cannot be made or broken under load. When the plug is inserted, the plug and receptacle contacts engage before the switch closes. When the plug is withdrawn, the switch opens before the plug and receptacle contacts disengage. This sequence of operation provides the maximum safety of a dead front receptacle. Arcing is isolated in a flame and dust-tight chamber.
- Operation is simple, safe and positive. To disconnect the portable device, the plug is simply pulled straight out. No separate interlock device or operating handle need be actuated.
- Positive engagement without mismating is assured by a distinct physical polarization of plug and receptacle in every rating.
- Plugs are furnished with pressure terminations. Receptacles are furnished with flexible leads for splicing to the supply conductors. A threaded cover at the top provides access to the wiring compartment.
- Back box is provided with 1¼" vertical through feed hubs.

Certifications and Compliances:

- NEC:
  Class I, Division 1 and 2, Group D
  Class II, Division 1 and 2, Groups F, G
  Class III
- NEMA 3, 7D, 9FG, 12
- ANSI/UL Standard: 1010

Standard Materials:

- Back box – *Feraloy*® iron alloy
- Threaded cover – copper-free aluminum
- Receptacle housings and plug exteriors – copper-free aluminum
- Insulation – high impact glass filled phenolic
- Contacts – brass

Standard Finishes:

- *Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- Phenolic – natural (black)
- Brass – silver plated

Options:

- Special polarity – where two or more receptacles of the same ampere rating and number of poles are to be installed in the same area for use on different voltages, alternate polarizations can be furnished. Details on request.

Electrical Rating Ranges:

- 30 and 60 amperes, 480VAC

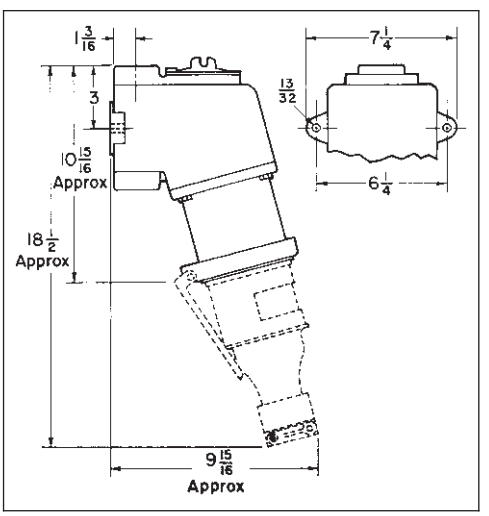
Grounding:

- SRD receptacles and SP plugs are provided with an extra grounding pole. In plugs, provision is made for attachment of a grounding wire to the grounding pole. In addition, direct connection is provided between plug and receptacle housings and the grounding pole. In the receptacle, grounding is accomplished through the conduit system.

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

Dimensions

In Inches:



SRD Dead Front Interlocked Receptacles with Factory Sealed Switch

SP Plugs, 480 VAC, 60–400 hertz

Cl. I, Div. 1 and 2, Group D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA 3, 7D, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

SRD Receptacle with spring door

SP Plug

SRD Receptacle with threaded cap

SP Plug with fastening ring

Back Box – 1¼" Vertical Through Feed Hubs

Rating	Description	With Spring Door Cat. #	With Cable Grip and Neoprene Bushing		With Threaded Cap Cat. #	With Cable Grip and Neoprene Bushing	
			Cable Dia.	Cat. #		Cable Dia.	Cat. #
30 amp.	2-wire, 3-pole	SRD3324N	.500 to .875 .875 to 1.375	SP3363N SP3365N	SRD3384N	.500 to .875 .875 to 1.375	SP3383N SP3385N
	3-wire, 4-pole	SRD3424D	.500 to .875 .875 to 1.375	SP3463D SP3465D	SRD3484D	.500 to .875 .875 to 1.375	SP3483D SP3485D
	4-wire, 5-pole	SRD3524 NW	.500 to .875 .875 to 1.375	SP3563 NW SP3565 NW	SRD3584 NW	.500 to .875 .875 to 1.375	SP3583 NW SP3585 NW
60 amp.	2-wire, 3-pole	SRD6324N	.500 to .875 .875 to 1.375	SP6363N SP6365N	SRD6384N	.500 to .875 .875 to 1.375	SP6383N SP6385N
	3-wire, 4-pole	SRD6424D	.500 to .875 .875 to 1.375	SP6463D SP6465D	SRD6484D	.500 to .875 .875 to 1.375	SP6483D SP6485D
	4-wire, 5-pole	SRD6524 NW	.875 to 1.375 1.375 to 1.875	SP6565 NW SP6567 NW	SRD6584 NW	.875 to 1.375 1.375 to 1.875	SP6585 NW SP6587 NW

EPC Circuit Breakers and Enclosures with Interlocked Arktite® Receptacles

APJ/NPJ† and DP Arktite Plugs

Cl. I, Div. 1 and 2, Groups C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EFC 3, 7CD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

Applications:

- The EPC interlock receptacle is designed for use as a service outlet for portable equipment
- It is designed for use in damp, wet and corrosive locations, indoors or outdoors, in areas which are hazardous due to flammable vapors, gases or combustible dust. For example: refineries, chemical plants, and other processing and handling facilities of a hazardous nature

Features:

- Mechanical interlock mechanism for dead front construction
- Receptacles are mechanically interlocked with circuit breakers to provide disconnect means, short circuit protection and thermal time delay overload protection
- A spring door receptacle, located at bottom of 30, 60 and 100 ampere units and at front of 200 ampere units, is mechanically interlocked with the circuit breaker operating mechanism for maximum safety
- Plug and receptacle contacts cannot be made or broken under load. The circuit breaker cannot be closed until the plug is fully inserted and the plug cannot be withdrawn unless the breaker is open
- Operating handles can be padlocked in either "ON" or "OFF" positions. Breakers are trip-free of the handles and will open under short circuit or overload even if the handle is locked in the "ON" position
- Quick installation and leveling is provided by the three-point mounting arrangement which has one keyhole slot at top and two open slots at bottom
- Bodies have four taper-tapped conduit hubs with integral bushings. Two are located at top and two directly below. Sizes are as shown in the listings.

Certifications and Compliances:

- NEC:
  Class I, Division 1 and 2, Groups C, D
  Class II, Division 1 and 2, Groups F, G
  Class III
- NEMA: 3, 7CD, 9FG, 12
- ANSI/UL Standard: 1010
- CEC:
  Class I, Division 1 and 2, Groups C, D
  Class II, Division 1 and 2, Group G
  Class III
  Encl. 3, 4

Standard Materials:

- Bodies, covers and receptacle housings – copper-free aluminum
- Operating handles – copper-free aluminum
- Operating shafts – stainless steel
- Interior parts – sheet steel
- Insulation (receptacles and plugs) – fiberglass-reinforced polyester
- Pressure contacts – brass
- Crimp/solder contacts – leaded red brass

Standard Finishes:

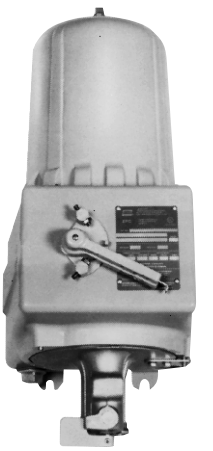
- Copper-free aluminum – natural
- Stainless steel – natural
- Sheet steel – electrogalvanized with chromate finish
- Brass – natural
- Fiberglass-reinforced polyester – natural (red)
- Leaded red brass – electro-tin-plate

Electrical Rating Ranges:

- Receptacle ratings: 30, 60, 100 and 200 amperes
- Circuit breakers: 100 and 225 ampere frame sizes

Grounding:

- EPC interlocked receptacles and matching plugs are provided with an extra grounding pole for attaching a grounding wire. In addition, direct connection is provided between plug and receptacle and the grounding pole. If a separate grounding wire is not installed in the enclosure, grounding is accomplished through the conduit system.



30, 60 and 100 ampere size EPC

200 ampere size EPC

Options:

The following special options are available by adding suffix to Cat. #:

Description	Suffix
Special polarity – used 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. Available on 30, 60 and 100 ampere units as follows: Receptacle interior rotated 22½° clockwise when viewed from face of receptacle and plug changed to match	**S4**
Side bosses drilled and tapped same size as standard hubs, 30, 60 and 100 ampere units only	**S366**
Back boss drilled and tapped same size as standard hubs, 30, 60 and 100 ampere units only	**S367**
Breather and drain (Class I, Class II)	**S198V**
Breather and drain (Class I only)	**S454V**

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

†Pressure connectors are standard. Crimp/solder type terminators are optionally available for 2, 3 and 4-pole 30 ampere, 3 and 4-pole 60 and 100 ampere. For details, see page 1267. To specify, add the suffix "T" to the catalog number. For example: APJ3365-T (Plug).

Interchangeability of Plugs with Other Hazardous and Non-hazardous Location Receptacles:

- Plugs listed for use with 30, 60 and 100 ampere EPC assemblies are standard *Arktite* APJ/NPJ plugs. Other standard APJ and CPH plugs of the same rating, style and number of poles may be used with EPC receptacles, as well as with DBR, EBBR and EPCB receptacles listed elsewhere in this section.
- As a result, portable equipment suitable for the location and equipped with the proper plug can be used with AR/NR series receptacles for non-hazardous locations: EBBR, EPC and EPCB receptacles for Class I hazardous locations; DR and DBR receptacles for Class II hazardous locations.

Ordering Information:

100 Ampere Frame Size Thermal-magnetic Circuit Breaker with Non-interchangeable Thermal Trip and Non-adjustable Magnetic Trip

Circuit Breaker			Enclosure				
						With Circuit Breaker	
Receptacle with Spring Door Housing	Rating		Hub Size (In.)	Ckt. Bkr. Amps	Without Circuit Breaker Cat. #	Cutler-Hammer "EHD" Cat. #	General Electric "TED" Cat. #
30 amp. 2-wire, 3-pole, Style 2	2-pole, 480VAC‡ or 250 VDC	600VAC†	1¼	20 30 40* 50*	EPC43032	EPC43032 WT20 2 EPC43032 WT30 2 EPC43032 WT40 2 EPC43032 WT50 2	EPC43032 TT20 2 EPC43032 TT30 2 EPC43032 TT40 2 EPC43032 TT50 2
30 amp. 3-wire, 4-pole, Style 2	3-pole, 480VAC‡ or 250 VDC	600VAC†	1¼	20 30 40* 50*	EPC43042	EPC43042 WT20 3 EPC43042 WT30 3 EPC43042 WT40 3 EPC43042 WT50 3	EPC43042 TT20 3 EPC43042 TT30 3 EPC43042 TT40 3 EPC43042 TT50 3
60 amp. 2-wire, 3 pole, Style 2	2-pole, 480VAC‡ or 250 VDC	600VAC†	1¼ 2	50 60 70* 90* 100*	EPC46032 EPC66032	EPC46032 WT50 2 EPC66032 WT60 2 EPC66032 WT70 2 EPC66032 WT90 2 EPC66032 WT100 2	EPC46032 TT50 2 EPC66032 TT60 2 EPC66032 TT70 2 EPC66032 TT90 2 EPC66032 TT100 2
60 amp. 3-wire, 4-pole, Style 2	3-pole, 480VAC‡ or 250 VDC	600VAC†	1¼ 2	50 60 70* 90* 100*	EPC46042 EPC66042	EPC46042 WT50 3 EPC66042 WT60 3 EPC66042 WT70 3 EPC66042 WT90 3 EPC66042 WT100 3	EPC46042 TT50 3 EPC66042 TT60 3 EPC66042 TT70 3 EPC66042 TT90 3 EPC66042 TT100 3
100 amp. 2-wire, 3-pole, Style 2	2-pole, 480VAC‡ or 250 VDC	600VAC†	2	60 70 90 100	EPC61032	EPC61032 WT60 2 EPC61032 WT70 2 EPC61032 WT90 2 EPC61032 WT100 2	EPC61032 TT60 2 EPC61032 TT70 2 EPC61032 TT90 2 EPC61032 TT100 2
100 amp. 3-wire, 4-pole, Style 2	3-pole, 480VAC‡ or 250VDC	600VAC†	2	60 70 90 100	EPC61042	EPC61042 WT60 3 EPC61042 WT70 3 EPC61042 WT90 3 EPC61042 WT100 3	EPC61042 TT60 3 EPC61042 TT70 3 EPC61042 TT90 3 EPC61042 TT100 3

225 Ampere Frame Size Circuit Breaker with Interchangeable Thermal Magnetic Trip††

Circuit Breaker		Enclosure				
					With Circuit Breaker	
Receptacle with Spring Door Housing	Rating	Hub Size (In.)	Ckt. Bkr. Amps	Without Circuit Breaker Cat. #	Cutler-Hammer "KB" Cat. #	General Electric "TFK" Cat. #
200 amp. 3-wire, 4-pole, Style 2	3-pole, 600VAC or 250 VDC	3	125 150 175	EPC604 2042	EPC604 2042 WT125 3 EPC604 2042 WT150 3 EPC604 2042 WT175 3	EPC605 2042 TT125 3 EPC605 2042 TT150 3 EPC605 2042 TT175 3
		3	200 225*	EPC605 2042	EPC604 2042 WT200 3 EPC604 2042 WT225 3	EPC605 2042 TT200 3 EPC605 2042 TT225 3

*Circuit breaker trip rating may exceed receptacle rating for welding equipment applications only, as higher trip rating may not protect wiring.
††200 ampere units are suitable for Class I, Group D (NEMA 7D).
‡Enclosures with 600 volt circuit breakers from U.S.A. are available. Information on request.
†CSA Certified units are supplied with 600VAC FDB frame circuit breakers.

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

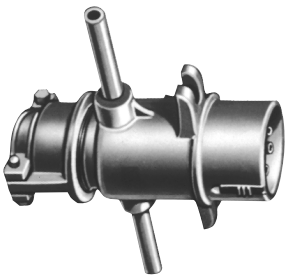
APJ/NPJ† and DP Arktite® Plugs with Cable Grip and Neoprene Bushing

Cl. I, Div. 1 and 2, Groups C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EFC 3, 7CD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

APJ Plug

NPJ Plug



DP Plug

Ordering Information - APJ/NPJ and DP Arktite Plugs

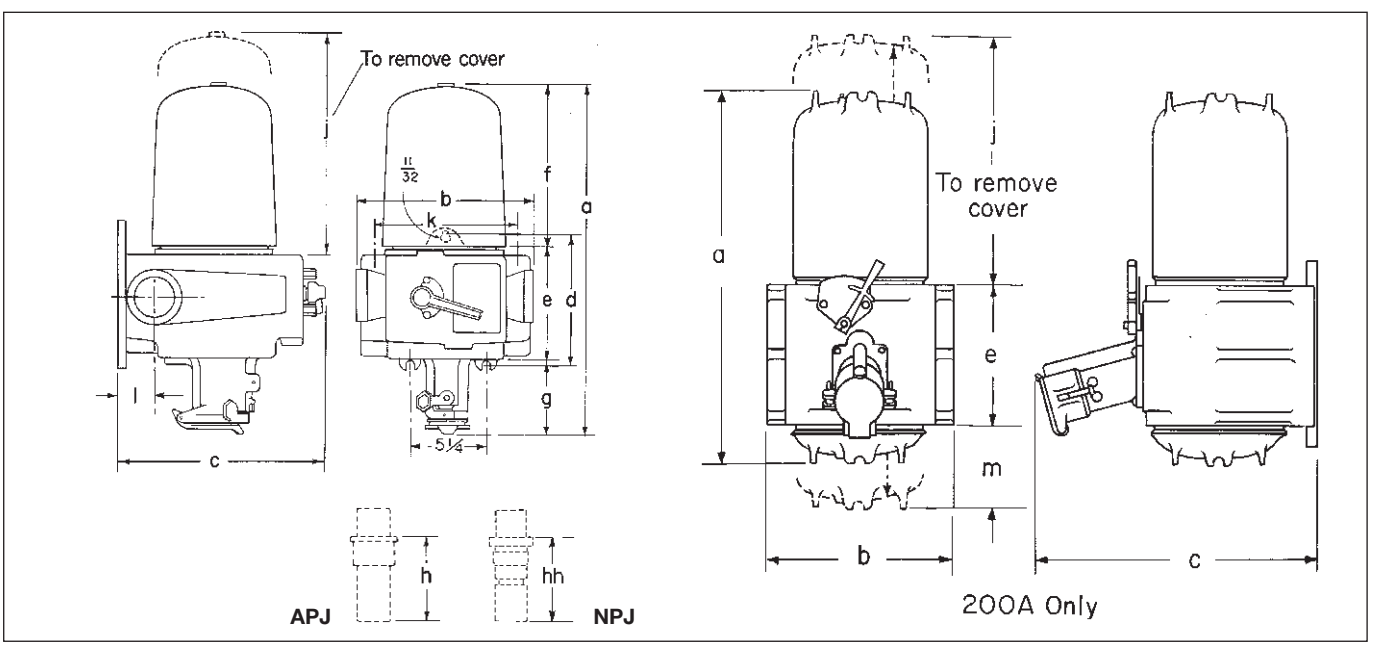
600VAC/250VDC with Cable Grip and Neoprene Bushing – Style 2

Amps	Cable O.D. Range	2-wire, 3-pole Cat. #	3-wire, 4-pole Cat. #
30	0.60 to 1.20	**APJ3385**	**APJ3485**
	0.55 to 0.70	**NPJ3383**	**NPJ3483**
	0.70 to 0.85	**NPJ3384**	**NPJ3484**
60	0.75 to 1.45	**APJ6385**	**APJ6485**
	0.75 to 1.07	**NPJ6384**	**NPJ6484**
	1.07 to 1.35	**NPJ6385**	**NPJ6485**
100	1.00 to 1.70	**APJ10387**	**APJ10487**
	0.93 to 1.21	**NPJ10386**	**NPJ10486**
	1.21 to 1.50	**NPJ10387**	**NPJ10487**
200†	1.875 to 2.50		**DP20468**

†Pressure connectors are supplied as standard. To specify crimp/solder type terminations add the suffix "T" to the catalog number. For example: APJ3385-T (Plug).

Dimensions

In Inches:



Recept.	Breaker	a	b	c	d	e	f	g	h	hh	j	k	l	m
30 Amp.	20–50 Amp.	24	10 5/8	14 3/8	9 3/8	7 11/16	11 3/4	4 9/16	4 13/16	7	20 3/4	7 3/8	2 1/16	
60 Amp.	50 Amp.	24 1/2	10 5/8	14 3/8	9 3/8	7 11/16	11 3/4	5 1/16	5 13/16	6 13/16	20 3/4	7 3/8	2 1/16	
60 Amp.	70–100 Amp.	24 1/2	12 13/16	14 3/8	9 3/8	7 11/16	11 3/4	5 1/16	5 13/16	6 13/16	20 3/4	9 1/4	2 5/8	
100 Amp.	70–100 Amp.	25 1/4	12 13/16	14 3/8	9 3/8	7 11/16	11 3/4	5 13/16	6 5/8	7 3/4	20 3/4	9 1/4	2 5/8	
200 Amp.	125–225 Amp.	36	18	27		13 1/2					34 1/4			5 1/2

Dim. "h" and "hh" are exposed portion of plug when engaged with receptacle.

EPCB Circuit Breakers and Enclosures with Interlocked Arktite® Receptacles

APJ/NPJ Arktite Plugs‡

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EFC 3, 7BCD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

Applications:

- The EPCB interlock receptacle is designed for use as a service outlet for portable equipment. The circuit breaker provides overcurrent and short circuit protection
- It has a mechanical interlock mechanism for dead front construction and no load make or break feature
- It is designed for use in damp, wet and corrosive locations, indoors or outdoors, in areas which are hazardous due to flammable vapors, gases or combustible dust. For example: refineries, chemical plants, and other processing and handling facilities of a hazardous nature

Features:

- Spring door receptacle located at the bottom is mechanically interlocked with the circuit breaker operating mechanism for maximum safety. Plug and receptacle contacts cannot be made or broken under load. The circuit breaker cannot be closed until the plug is fully inserted and the plug cannot be withdrawn unless the breaker is open
- Operating handles can be padlocked in either "ON" or "OFF" positions. Breakers are trip-free of the handles and will open under short circuit or overload even if the handle is locked in the "ON" position
- Quick installation and leveling is provided by the three-point mounting arrangement having one keyhole slot at top and two open slots at bottom
- Bodies have four 1¼" taper tapped conduit hubs with integral bushings. Two are located at top and two directly below
- When installing, seals suitable for Class I, Group B hazardous areas must be located within 1½" of each conduit opening

Certifications and Compliances:

- NEC:
  Class I, Division 1 and 2, Groups B, C, D
  Class II, Division 1 and 2, Groups F, G
  Class III
- NEMA: 3, 7BCD, 9FG, 12
- ANSI/UL Standard: 1010
- CEC:
  Class I, Division 1 and 2, Groups B, C, D
  Class II, Division 1 and 2, Group G
  Class III
- Encl. 3, 4

Standard Materials:

- Bodies, covers and receptacle housings – copper-free aluminum
- Operating handles – copper-free aluminum
- Operating shafts – stainless steel
- Interior parts – sheet steel
- Insulation – fiberglass-reinforced polyester
- Pressure contacts – brass
- Crimp/solder contacts – leaded red brass

Standard Finishes:

- Copper-free aluminum – natural
- Stainless steel – natural
- Sheet steel – zinc electroplate with chromate finish
- Brass – natural
- Fiberglass-reinforced polyester – natural (red)
- Leaded red brass – electro-tin-plate

Electrical Rating Ranges:

- Receptacle ratings: 30, 60 and 100 amperes
- Circuit breakers: 100 ampere frame size

Options:

The following special options are available by adding the suffix to the Cat. #:

Description	Suffix
• Special polarity. 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. Receptacle interior rotated 22½° to right (viewed from face) and plug changed to match	**S4**
• Side bosses drilled and tapped same size as standard hubs	**S366**
• Back boss drilled and tapped same size as standard hubs	**S367**

Interchangeability of Plugs with Other Hazardous and Non-hazardous Location Receptacles:

- Plugs listed for use with EPCB assemblies are standard *Arktite* APJ/NPJ plugs. Other standard APJ and CPH plugs of the same rating, style and number of poles may be used with EPCB receptacles as well as DBR and EPC receptacles listed elsewhere in this section
- As a result, portable equipment suitable for the location and equipped with the proper plug can be used with AR/NR series receptacles for non-hazardous locations; EBBR, EPC and EPCB receptacles for Class I hazardous locations; DR and DBR receptacles for Class II hazardous locations

Grounding:

- EPCB interlocked receptacles and matching plugs are provided with an extra grounding pole for attaching a grounding wire. In addition, direct connection is provided between plug and receptacle and the grounding pole. If a separate grounding wire is not installed in the enclosure, grounding is accomplished through the conduit system

‡Pressure connectors are supplied as standard. To specify crimp/solder type terminations add the suffix "T" to the catalog number. For example: APJ3365-T (Plug).

EPCB Circuit Breakers and Enclosures with Interlocked Arktite® Receptacles

APJ/NPJ Arktite Plugs‡

Cl. I, Div. 1 and 2, Groups B, C, D
Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EFC 3, 7BCD, 9FG, 12
Explosionproof

Dust-Ignitionproof
Raintight
Wet Locations

Ordering Information:

100 Ampere Frame Size Thermal-magnetic Circuit Breaker with Non-interchangeable Thermal Trip and Non-adjustable Magnetic Trip

Circuit Breaker Receptacle with Spring Door Housing	Rating	Enclosure with Circuit Breaker Hub Size (In.)	Ckt. Bkr. Amps	Cutler-Hammer	General Electric
30 amp. 2-wire, 3-pole, Style 2	2-pole, 600VAC or 250 VDC	1¼	20	**EPCB43632 WT20HFD 2**	**EPCB43632 TT20TED 2**
			30	**EPCB43632 WT30HFD 2**	**EPCB43632 TT30TED 2**
			40*	**EPCB43632 WT40HFD 2**	**EPCB43632 TT40TED 2**
			50*	**EPCB43632 WT50HFD 2**	**EPCB43632 TT50TED 2**
30 amp. 3-wire, 4-pole, Style 2	3-pole, 600VAC or 250 VDC	1¼	20	**EPCB43642 WT20HFD 3**	**EPCB43642 TT20TED 3**
			30	**EPCB43642 WT30HFD3**	**EPCB43642 TT30TED 3**
			40*	**EPCB43642 WT40HFD 3**	**EPCB43642 TT40TED 3**
			50*	**EPCB43642 WT50HFD 3**	**EPCB43642 TT50TED 3**
60 amp. 2-wire, 3-pole, Style 2	2-pole, 600VAC or 250 VDC	1¼	50	**EPCB46632 WT50HFD 2**	**EPCB46632 TT50TED 2**
			60*	**EPCB46632 WT60HFD 2**	**EPCB46632 TT60TED 2**
			70*	**EPCB46632 WT70HFD 2**	**EPCB46632 TT70TED 2**
			90*	**EPCB46632 WT90HFD 2**	**EPCB46632 TT90TED 2**
			100*	**EPCB46632 WT100HFD 2**	**EPCB46632 TT100TED 2**
60 amp. 3-wire, 4-pole, Style 2	3-pole, 600VAC or 250 VDC	1¼	50	**EPCB46642 WT50HFD 3**	**EPCB46642 TT50TED 3**
			60*	**EPCB46642 WT60HFD 3**	**EPCB46642 TT60TED 3**
			70*	**EPCB46642 WT70HFD 3**	**EPCB46642 TT70TED 3**
			90*	**EPCB46642 WT90HFD 3**	**EPCB46642 TT90TED 3**
			100*	**EPCB46642 WT100HFD 3**	**EPCB46642 TT100TED 3**
100 amp. 2-wire, 3-pole, Style 2	2-pole, 600VAC or 250 VDC	1¼	70	**EPCB41632 WT70HFD 2**	**EPCB41632 TT70TED 2**
			90	**EPCB41632 WT90HFD 2**	**EPCB41632 TT90TED 2**
			100	**EPCB41632 WT100HFD 2**	**EPCB41632 TT100TED 2**
100 amp. 3-wire, 4-pole, Style 2	3-pole, 600VAC or 250 VDC	1¼	70†	**EPCB41642 WT70HFD 3**	**EPCB41642 TT70TED 3**
			90†	**EPCB41642 WT90HFD 3**	**EPCB41642 TT90TED 3**
			100†	**EPCB41642 WT100HFD 3**	**EPCB41642 TT100TED 3**

‡Pressure connectors are supplied as standard. To specify crimp/solder type terminators add the suffix "T" to the catalog number. For example: APJ3385-T (Plug).
*Circuit breaker trip rating may exceed receptacle rating for welding equipment applications only, as higher trip rating may not protect wiring.
†For detailed information on circuit breaker selection see Section 3C.

APJ Plug

NPJ Plug

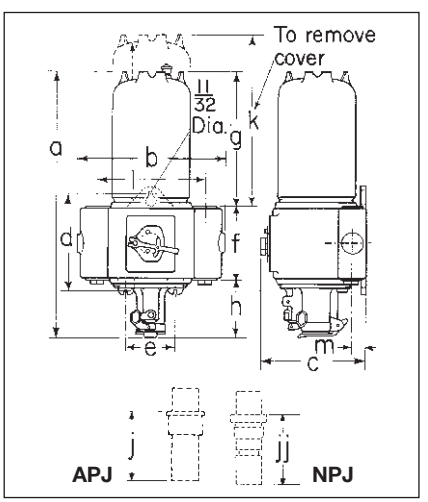
APJ/NPJ Arktite Plugs

600VAC/250VDC with Cable Grip and Neoprene Bushing – Style 2

Amps	Cable O.D. Range	2-wire, 3-pole Cat. #	3-wire, 4-pole Cat. #
30	0.60 to 1.20	**APJ3385**	**APJ3485**
	0.55 to 0.70	**NPJ3383**	**NPJ3483**
	0.70 to 0.85	**NPJ3384**	**NPJ3484**
60	0.75 to 1.45	**APJ6385**	**APJ6485**
	0.75 to 1.07	**NPJ6384**	**NPJ6484**
	1.07 to 1.35	**NPJ6385**	**NPJ6485**
100	1.00 to 1.70	**APJ10387**	**APJ10487**
	0.93 to 1.21	**NPJ10386**	**NPJ10486**
	1.21 to 1.50	**NPJ10387**	**NPJ10487**

Dimensions

In Inches:



Receptacle	a	b	c	d	e	f
30 Amp.	26 1/4	11 5/16	11 3/4	8 5/8	5	7 3/4
60 Amp.	26 3/4	11 5/16	11 3/4	8 5/8	5	7 3/4
100 Amp.	27 1/2	11 5/16	11 3/4	8 5/8	5	7 3/4

Receptacle	g	h	j	jj	k	l	m
30 Amp.	13 9/16	4 15/16	4 13/16	7	24 3/4	8 3/16	1 5/8
60 Amp.	13 9/16	5 7/16	5 13/16	6 13/16	24 3/4	8 3/16	1 5/8
100 Amp.	13 9/16	6 3/16	6 5/8	7 3/4	24 3/4	8 3/16	1 5/8

Dim "j" and "jj" are exposed portion of plug when engaged with receptacle.

COOPER Crouse-Hinds

DBR Interlocked Arktite® Receptacles With Enclosed Circuit Breakers

APJ/NPJ Arktite Plugs‡

Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EEMAC 3, 9FG, 12
Dust-Ignitionproof
Raintight

Applications:

DBR interlocked *Arktite* receptacles with enclosed circuit breakers and APJ/NPJ *Arktite* plugs are used:

- To supply power to portable electrical equipment such as motor-generator sets, compressors, heating and cooling units, conveyors, and similar equipment
- In locations where hazardous dusts are present, as in grain processing and handling plants, chemical plants and certain food processing industries
- Indoors or outdoors in damp, wet or corrosive locations

Features:

- Receptacles are mechanically interlocked with circuit breakers to provide disconnect means, short circuit protection and thermal time delay overload protection.
- Enclosures are compact and rectangular in shape permitting close spacing.
- For maximum safety, the spring door receptacle at the bottom is mechanically interlocked with the circuit breaker operating mechanism. The circuit breaker cannot be closed until the plug is fully inserted and the plug cannot be withdrawn unless the breaker is open.
- Operating handles can be padlocked in either "ON" or "OFF" positions. Breakers are trip-free of the handles and will open under short circuit or overload even if the handle is locked in the "ON" position.
- Enclosure is provided with a drilled and tapped conduit opening at top center, equipped with a threaded-in bushing. The size furnished is 1½", and removing the bushing permits the use of a 2" conduit.

Certifications and Compliances:

- NEC:
  Class II, Division 1 and 2, Groups F, G
  Class III
- NEMA/EEMAC: 3, 9FG, 12
- UL Standard: 698, 1010
- CEC:
  Class II, Division 1 and 2, Group G
  Class III
- Encl. 3, 5

Standard Materials:

- Bodies, covers and operating handles – copper-free aluminum
- Operating shafts – stainless steel
- Receptacle housings and plug exteriors – copper-free aluminum
- Insulation: plugs and receptacles – fiberglass-reinforced polyester
- Pressure contacts – brass
- Crimp/solder contacts – leaded red brass

Standard Finishes:

- Copper-free aluminum – plug exterior, enclosure and receptacle housing – natural
- Stainless steel – natural
- Brass – natural
- Fiberglass-reinforced polyester – natural (red)
- Leaded red brass – electro-tin-plate

Options:

The following special options are available by adding suffix to Cat. #:

Description	Suffix
• Special polarity – 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. Receptacle interior rotated 22½° clockwise when viewed from receptacle face and plug changed to match	**S4**
• Breather (drain furnished as standard)	**S219**
• Conduit arrangements other than standard can be supplied. Details on request.	

Electrical Rating Ranges:

- Receptacle ratings: 30, 60 and 100 amperes
- Circuit breakers: 100 ampere frame size

Interchangeability of Plugs with Other Hazardous and Non-hazardous Location Receptacles:

- Plugs listed for use with DBR assemblies are standard *Arktite* APJ/NPJ plugs. Other standard APJ/NPJ and CPH plugs of the same rating, style and number of poles may be used with DBR receptacles, as well as with EBBR, EPC and EPCB receptacles listed in Section 4P.
- As a result, portable equipment suitable for the locations and equipped with the proper plug can be used with AR receptacles for non-hazardous locations, with EBBR, EPC and EPCB receptacles for Class I hazardous locations, and with DR and DBR interlocked receptacles for Class II hazardous locations.

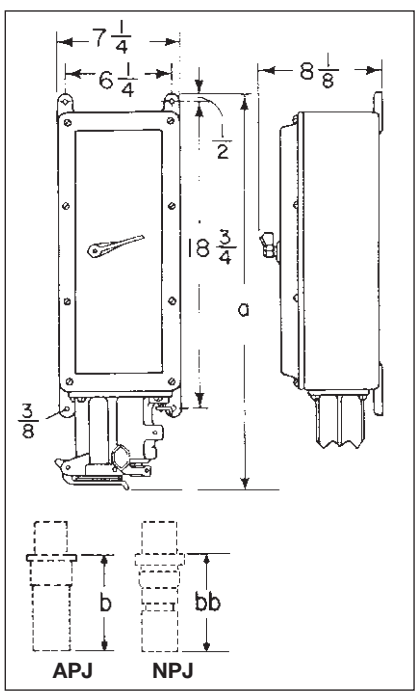
Dimensions:

Amps	a	b	bb
30	21¾	6½	7
60	22¾	8½	6 13/16
100	23½	10⅛	7¾

Dim. "b" and "bb" are exposed portion of plug when engaged with receptacle.

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

Dimensions
In Inches:



‡Pressure connectors are standard. Crimp/solder type terminators are optionally available for 3 and 4-pole, 30, 60 and 100 ampere. For details, see page 1267. To specify, add the suffix "T" to the catalog number. For example: AP3375-T (Plug).

DBR Interlocked Arktite® Receptacles With Enclosed Circuit Breakers

Cl. II, Div. 1 and 2, Groups F, G
Cl. III
NEMA/EEMAC 3, 9FG, 12
Dust-Ignitionproof
Raintight

Ordering Information:

100 Ampere Frame Size with Non-interchangeable Thermal Trip and Non-adjustable Magnetic Trip

Receptacle With Spring Door Housing†	Circuit Breaker Rating	Enclosure Hub Size (In.)	Ckt. Bkr. Amps	Without Circuit Breaker Cat. #	With Circuit Breaker Cat. # Cutler-Hammer "FDB"
30 amp., 3-wire, 3-pole, Style 1	3-pole 600VAC	1½	20	**DBR53731**	**DBR53731 WT20 3**
			30		**DBR53731 WT30 3**
			40		**DBR53731 WT40 3***
			50		**DBR53731 WT50 3***
30 amp., 2-wire, 3-pole, Style 2	2-pole 600VAC or 250 VDC	1½	20	**DBR53732**	**DBR53732 WT20 2**
			30		**DBR53732 WT30 2**
			40		**DBR53732 WT40 2***
			50		**DBR53732 WT50 2***
30 amp., 3-wire, 4-pole, Style 2	3-pole 600VAC	1½	20	**DBR53742**	**DBR53742 WT20 3**
			30		**DBR53742 WT30 3**
			40		**DBR53742 WT40 3***
			50		**DBR53742 WT50 3***
60 amp., 3-wire, 3-pole, Style 1	3-pole 600VAC	1½	50	**DBR56731**	**DBR56731 WT50 3**
			60		**DBR56731 WT60 3**
			70		**DBR56731 WT70 3***
			90		**DBR56731 WT90 3***
			100		**DBR56731 WT100 3***
60 amp., 2-wire, 3-pole, Style 2	2-pole 600VAC or 250 VDC	1½	50	**DBR56732**	**DBR56732 WT50 2**
			60		**DBR56732 WT60 2**
			70		**DBR56732 WT70 2***
			90		**DBR56732 WT90 2***
			100		**DBR56732 WT100 2***
60 amp., 3-wire, 4-pole, Style 2	3-pole 600VAC	1½	50	**DBR56742**	**DBR56742 WT50 3**
			60		**DBR56742 WT60 3**
			70		**DBR56742 WT70 3***
			90		**DBR56742 WT90 3***
			100		**DBR56742 WT100 3***
100 amp., 3-wire, 3-pole, Style 1	3-pole 600VAC	1½	60	**DBR51731**	**DBR51731 WT60 3**
			70		**DBR51731 WT70 3**
			90		**DBR51731 WT90 3**
			100		**DBR51731 WT100 3**
100 amp., 2-wire, 3-pole, Style 2	2-pole 600VAC or 250 VDC	1½	60	**DBR51732**	**DBR51732 WT60 2**
			70		**DBR51732 WT70 2**
			90		**DBR51732 WT90 2**
			100		**DBR51732 WT100 2**
100 amp., 3-wire, 4-pole, Style 2	3-pole 600VAC	1½	60	**DBR51742**	**DBR51742 WT60 3**
			70		**DBR51742 WT70 3**
			90		**DBR51742 WT90 3**
			100		**DBR51742 WT100 3**

*Circuit breaker trip rating may exceed receptacled rating for welding equipment applications only, as higher trip rating may not protect wiring.
‡ For detailed information on circuit breaker selection, see Section 3C.
†Style 1 – Grounded through shell. Style 2 – Grounded through extra pole and shell. For a detailed description of these grounding methods, see page 1265.

APJ/NPJ Arktite Plugs

Amps	Cable O.D. Range	Style 1† 3-wire, 3-pole Cat. #	Style 2† 2-wire, 3-pole Cat. #	Style 2† 3-wire, 4-pole Cat. #
30	0.60 to 1.20	**APJ3375**	**APJ3385**	**APJ3485**
	0.55 to 0.70		**NPJ3383**	**NPJ3483**
	0.70 to 0.85		**NPJ3384**	**NPJ3484**
60	0.75 to 1.45	**APJ6375**	**APJ6385**	**APJ6485**
	0.75 to 1.07		**NPJ6384**	**NPJ6484**
	1.07 to 1.35		**NPJ6385**	**NPJ6485**
100	1.00 to 1.70	**APJ10377**	**APJ10387**	**APJ10487**
	0.93 to 1.21		**NPJ10386**	**NPJ10486**
	1.21 to 1.50		**NPJ10387**	**NPJ10487**

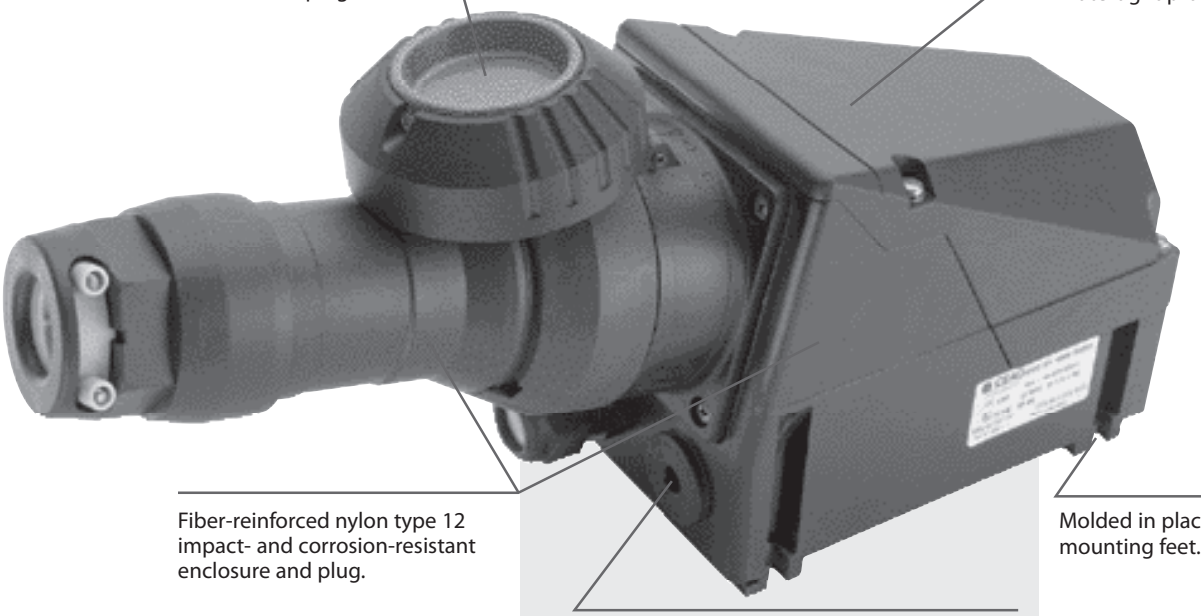
APJ Plug

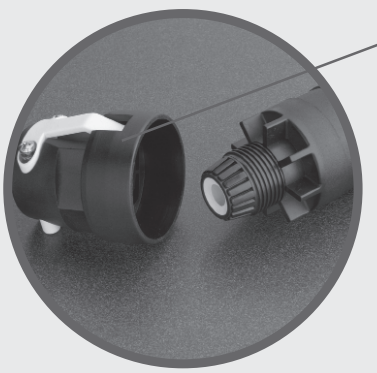
NPJ Plug

Plugs, Connectors, Receptacles, Inlets, and Interlocks

Non-hazardous and Hazardous

Hazardous Heavy Duty

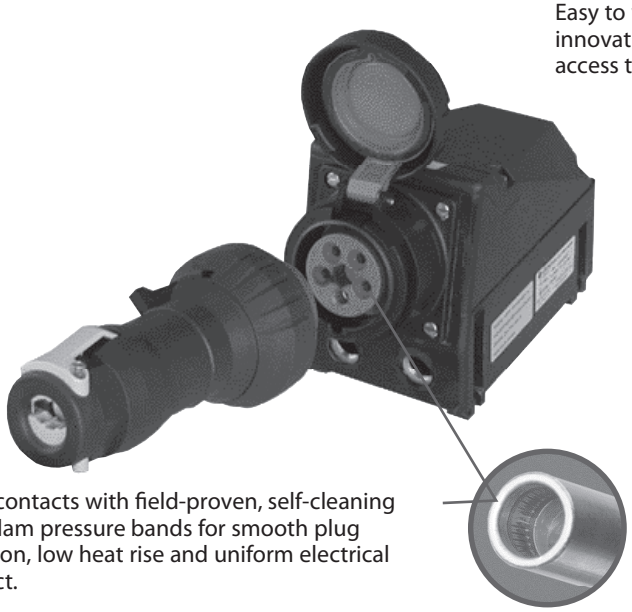




HEAVY DUTY STRAIN RELIEF

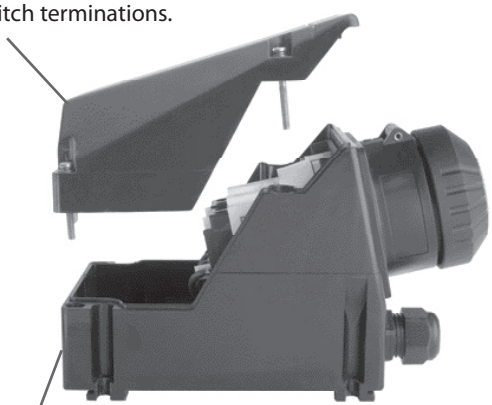
Offering superior pullout protection and significantly reducing the occurrence of seal failure, our external stain relief system absorbs all tensile and torsional forces. In addition, an extremely long and dependable inside seal provides added protection.

Hazardous Heavy Duty



Brass contacts with field-proven, self-cleaning multi-lam pressure bands for smooth plug insertion, low heat rise and uniform electrical contact.

Easy to wire. Cover removes along an innovative break line that permits full access to internal switch terminations.



Factory sealed switch provides Zone 1 & 2, Div. 2 explosion protection. Receptacle is dead-front until plug is fully engaged and rotated to activate switch. Plug cannot be removed under load. Switch is horsepower, and AIC-rated.

Applications:

- Where hazardous gases may be present
- In areas prone to dust, dirt, vibration, hard use, and abuse
- In locations where complete protection against water jets and even temporary flooding is required
- In corrosive environments caused by chemicals, atmospheres, and water
- Ideal for heavy duty industrial applications, such as: chemical plants, mining, drilling, steel/grain/flour mills, pharmaceuticals, portable power

Features:

- Mechanically interlocked plug and receptacle - plug cannot be engaged or disengaged under load
- Simple "insert plug and twist" design to activate internal switch
- Self-cleaning multi-lam contacts provide reliable power connection
- Compact size, easy to handle and install
- OSHA lockout/tagout
- Dual bottom entry Zone 1 Myers™ Hubs
- Full wiring access, saves time and money
- VØ rated materials

Certifications and Compliances:

- AEx de IIC T6
- Class I, Zone 1, Division 2, Groups A, B, C, D
- EEx ed IIC T6
- Ex II 2G/D
- UL*, cUL
- PTB 99 ATEX 1039
- IP66, NEMA 4X
- CE
- VDE
- GOST-R

*20A, 30A, 60A, 100A Pin Configuration to IEC 309½ Series 2 - UL Listed
16A, 32A, 63A, 125A Pin Configuration to IEC 309½ Series 1 - Not UL Listed

Standard Materials:

- Enclosure - type 12 nylon
- Plug Body - fiber-reinforced nylon
- Hardware - stainless steel
- Contacts - brass

Options:

Description	Suffix
Auxiliary contacts for PLC or pilot light applications.....	**S483**

IEC 309 Plugs and Interlocks

Hazardous Heavy Duty

Cl. I, Zone 1 & 2, Div. 2
NEMA 4X
IP66
GOST-R

Hazardous Area Pin and Sleeve Ordering Information:

Amps	Cable Gland	Myers Hub	Wires and Poles	Configuration Receptacle / Connector	Configuration Plug / Inlet	Voltage	Interlock Receptacle	Plug
16A	M20		2W3P			110-120	**GHG 511 4304 R3001**	**GHG 511 7304 R0001**
	M20		2W3P			220-240	**GHG 511 4306 R3001**	**GHG 511 7306 R0001**
	M25		3W4P			220-240	**GHG 511 4409 R3001**	**GHG 511 7409 R0001**
	M25		3W4P			380-415	**GHG 511 4406 R3001**	**GHG 511 7406 R0001**
	M25		3W4P			500	**GHG 511 4407 R3001**	**GHG 511 7407 R0001**
	M25		3W4P			690	**GHG 511 4405 R3001**	**GHG 511 7405 R0001**
	M25		4W5P			380-415	**GHG 511 4506 R3001**	**GHG 511 7506 R0001**
20A		½	2W3P			125	**GHG 511 4304 L3001**	**GHG 511 7304 L0001**
		½	2W3P			250	**GHG 511 4306 L3001**	**GHG 511 7306 L0001**
		¾	3W4P			3Ø250	**GHG 511 4409 L3001**	**GHG 511 7409 L0001**
		¾	3W4P			3Ø480	**GHG 511 4407 L3001**	**GHG 511 7407 L0001**
		¾	3W4P			3Ø600	**GHG 511 4405 L3001**	**GHG 511 7405 L0001**
30A		1	3W4P			3Ø250	**GHG 512 4409 L3001**	**GHG 512 7409 L0001**
		1	3W4P			3Ø480	**GHG 512 4407 L3001**	**GHG 512 7407 L0001**
		1	3W4P			3Ø600	**GHG 512 4405 L3001**	**GHG 512 7405 L0001**
32A	M32		3W4P			220-240	**GHG 512 4409 R3001**	**GHG 512 7409 R0001**
	M32		3W4P			380-415	**GHG 512 4406 R3001**	**GHG 512 7406 R0001**
	M32		3W4P			500	**GHG 512 4407 R3001**	**GHG 512 7407 R0001**
	M32		3W4P			690	**GHG 512 4405 R3001**	**GHG 512 7405 R0001**
	M32		4W5P			380-415	**GHG 512 4506 R3001**	**GHG 512 7506 R0001**
60A		1¼	3W4P			3Ø250	**GHG 514 4409 L3001**	**GHG 514 7409 L0001**
		1¼	3W4P			3Ø480	**GHG 514 4407 L3001**	**GHG 514 7407 L0001**
		1¼	3W4P			3Ø600	**GHG 514 4405 L3001**	**GHG 514 7405 L0001**

COOPER Crouse-Hinds

Hazardous Heavy Duty

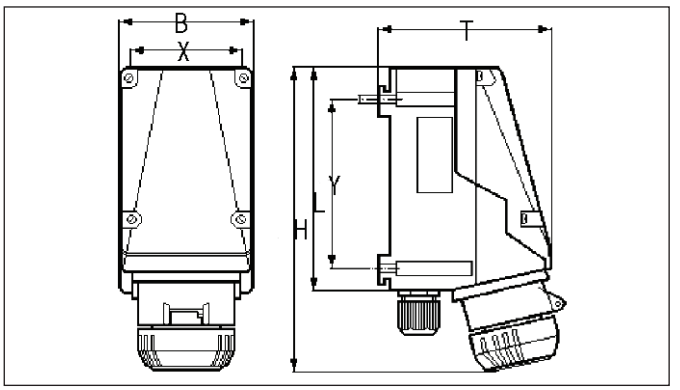
Hazardous Area Pin and Sleeve Ordering Information:

Amps	Cable Gland	Myers Hub	Wires and Poles	Configuration: Receptacle / Connector	Configuration: Plug / Inlet	Voltage	Interlock Receptacle	Plug
63A	M40		3W4P			220-240	**GHG 514 4409 R3001**	**GHG 514 7409 R0001**
	M40		3W4P			380-415	**GHG 514 4406 R3001**	**GHG 514 7406 R0001**
	M40		3W4P			500	**GHG 514 4407 R3001**	**GHG 514 7407 R0001**
	M40		3W4P			690	**GHG 514 4405 R3001**	**GHG 514 7405 R0001**
	M40		4W5P			380-415	**GHG 514 4506 R3001**	**GHG 514 7506 R0001**
100A		1½	3W4P			125/250	**GHG 515 4412 L3001**	**GHG 515 7412 L0001**
		1½	3W4P			3Ø250	**GHG 515 4409 L3001**	**GHG 515 7409 L0001**
		1½	3W4P			3Ø480	**GHG 515 4407 L3001**	**GHG 515 7407 L0001**
		1½	3W4P			3Ø600	**GHG 515 4405 L3001**	**GHG 515 7405 L0001**
		1½	4W5P			230-400	**GHG 515 4506 L3001**	**GHG 515 7506 L0001**
125A	M63		3W4P			220-240	**GHG 515 4409 R3001**	**GHG 515 7409 R0001**
	M63		3W4P			380-415	**GHG 515 4406 R3001**	**GHG 515 7406 R0001**
	M63		3W4P			500	**GHG 515 4407 R3001**	**GHG 515 7407 R0001**
	M63		3W4P			690	**GHG 515 4405 R3001**	**GHG 515 7405 R0001**
	M63		4W5P			380-415	**GHG 515 4506 R3001**	**GHG 515 7506 R0001**

Cl. I, Zone 1 & 2, Div. 2
NEMA 4X
IP66
GOST-R

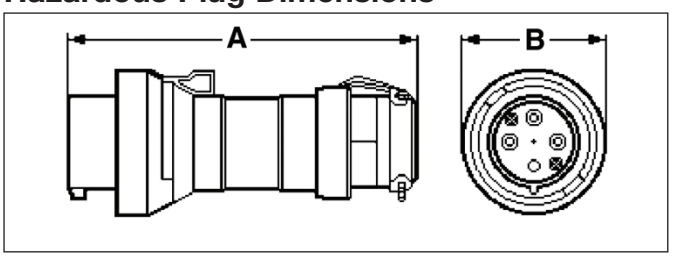
Hazardous Heavy Duty

Hazardous Interlock Receptacle Dimensions



	16/20A		30/32A	60/63A	
	3P	4/5P	4/5P	4/5P	100/125A
B	3.50	4.30	4.70	7.90	8.90
X	3.15	3.94	4.33	7.09	8.10
T	4.80	5.80	6.60	8.90	10.00
Y	4.53	5.31	6.70	10.87	11.90
L	6.10	6.90	8.10	14.60	13.30
H	8.80	9.30	11.50	18.70	21.10

Hazardous Plug Dimensions



	16/20A			30/32A	60/63A	
	3P	4P	5P	4/5P	4/5P	100/125A
A	6.70	7.40	7.40	9.80	10.70	12.32
B	2.80	3.00	3.30	3.90	4.30	5.16
Cord Dia. Range (In.)	0.515-0.827			0.515-1.102	0.630-1.378	0.827-2.28

Additional Products

10A and 20A multi-pin interlock receptacle and plugs are available - please contact factory for ordering information.

16A and 32A flange receptacles and connectors are available - please contact factory for ordering information.

IEC 309 Plugs, Connectors, Receptacles, Inlets, and Mechanical Interlocks

NEMA 4X
IP66
Watertight

5P

Non-hazardous Heavy Duty Industrial

Applications:

- Where complete protection against dirt, dust, water jets, and even temporary flooding is required
- In damp or corrosive locations
- In areas prone to vibration, hard use, and abuse
- In environments that demand safety, ease of use, reliability, and durability
- Ideal for heavy duty industrial applications, such as: shipyards, military, marine/marina environments, pulp and paper, heavy manufacturing, wastewater treatment, portable power

Features:

- Voltage, configured, color coded
- Watertight
- Impact- and corrosion-resistant
- Receptacles mount to Cooper Crouse-Hinds back boxes
- Innovative finger lock keeps cord grip secured
- Positive grommet seal system at cord entry
- Funneled wire pockets
- Lockout/tagout
- High grade brass contacts
- VØ insulating material
- Multi-lam sleeve bands

Standard Materials:

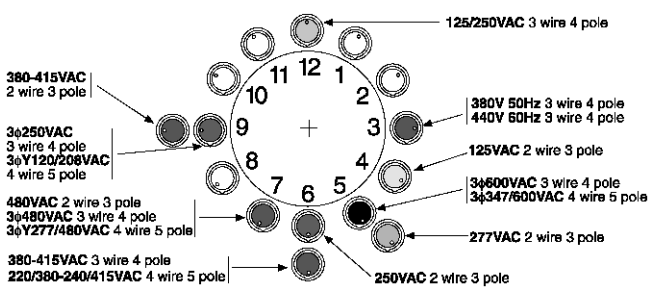
- Receptacle Housing - RIP, nylon, VØ
- Contact Carrier - fiber-reinforced thermoplastic, VØ
- Pins and Sleeves - brass
- Multi-lam Bands - copper beryllium
- Assembly Screws - stainless steel
- Plug - type 6/6 nylon, VØ
- Receptacle Hinge Pin - stainless steel
- Gaskets - silicon

Certifications and Compliances:

- Listed UL498, 1682, and 1686
- CSA C22.2 No. 182.1
- IEC 309-1 and 309-2
- NEMA 4X
- IEC IP66

Making a Connection is Easy

A clock face is used to represent the grounding contact position for all female connectors and receptacles. With the keyway at the bottom, the female grounding contact will appear to one of the twelve hour positions. To identify the system voltage, identify the housing color and hour location of the connector or receptacle grounding contact.



Ordering is Easy

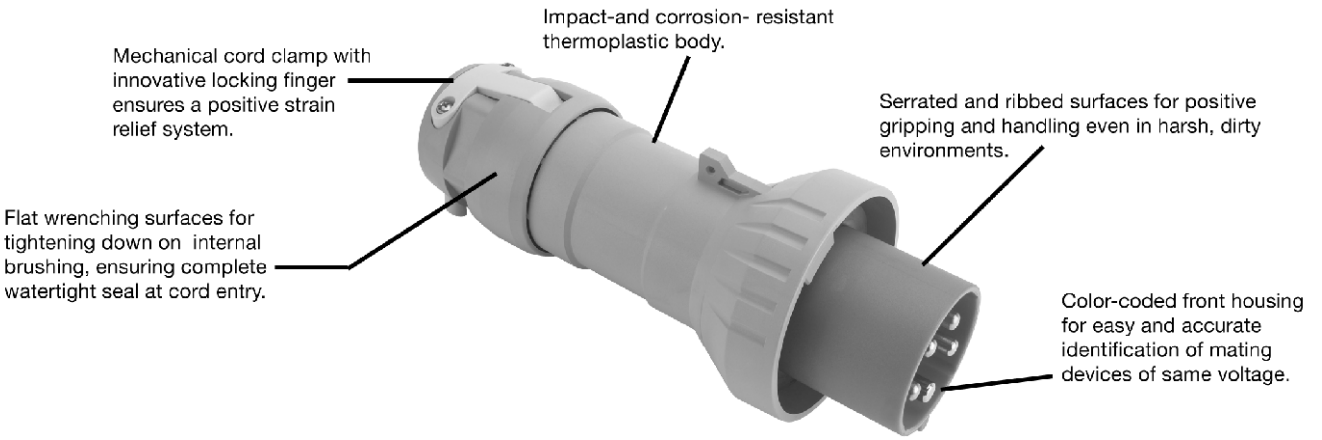
GH Prefix	4 1st digit	20 2nd–4th digit	R 1st letter	7 Last digit	W Last letter
GH = Cooper Crouse-Hinds Heavy Duty Industrial	3 = 3 pole 4 = 4 pole 5 = 5 pole	16 = 16 Amp 20 = 20 Amp 30 = 30 Amp 32 = 32 Amp 60 = 60 Amp 63 = 63 Amp 100 = 100 Amp 125 = 125 Amp	P = Plug C = Connector R = Receptacle Straight B = Inlet MI = Mechanical Interlock	Clock position of female grounding contact	W = Watertight

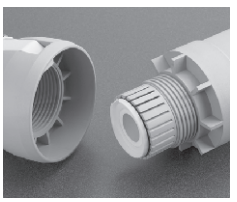
IEC 309 Plugs, Connectors, Receptacles, Inlets, and Mechanical Interlocks

NEMA 4X
IP66
Watertight

Non-hazardous Heavy Duty Industrial

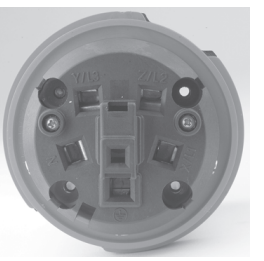
Plug





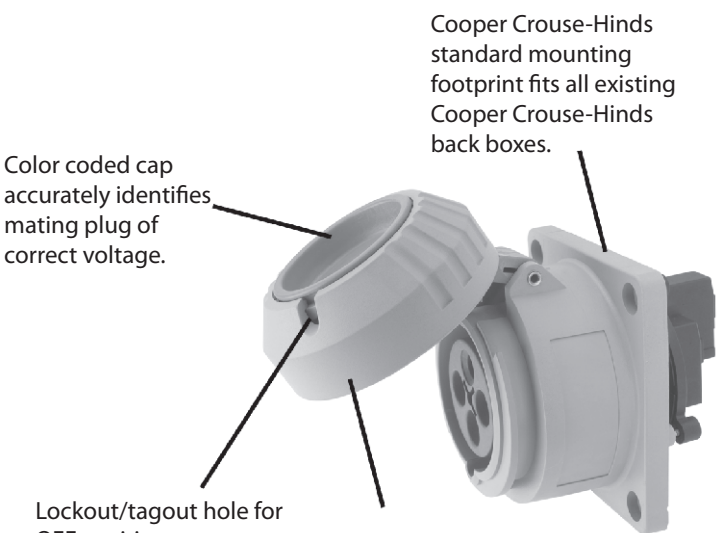
Locking finger seats into web pockets when cord grip is tightened down, securing back cap in place even under heavy usage and vibration.

Nickel-plated brass contacts offer long-life corrosion protection. Compression lugs provide reliable mechanical wire

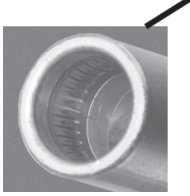


Funneled wiring pockets for ease of inserting stranded wire. Deep pocket marked X, Y, and Z keep bare conductors safely confined and isolated from adjacent wires.

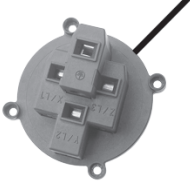
Receptacle



Impact-resistant thermoplastic contact carrier provides superior electrical insulation and V flammability rating.



Brass contacts with self-cleaning, field-proven, multi-lam pressure bands for smooth pin insertion, low heat rise, and quality electrical performance.



Funneled wire termination pockets have all screw heads on same side for easy conductor insertion and quick wiring.

COOPER Crouse-Hinds

IEC 309 Pin and Sleeve Mechanical Interlocks

Non-hazardous Heavy Duty Industrial
20 & 30A - North American Ratings Series 2
16 & 32A - International Ratings Series 1

Applications:

- To supply power to portable or fixed electrical equipment, such as welders, motor generator sets, compressors, conveyors, portable tools, lighting systems, and similar equipment
- In damp or corrosive locations
- In wet locations
- In hose down areas
- For short circuit protection when ordered with optional fusing

Features:

- Mechanically interlocked, dead-front receptacle - plug cannot be engaged or disengaged under load
- Enclosure has continuous form-in-place gasket
- Meets OSHA's lockout/tagout requirements - can be padlocked in "OFF" position
- Industrial switch is horsepower rated for motor load applications
- Available with optional fusing for short circuit protection

Certifications and Compliances:

- UL Standards: 508, 1682
- CSA Standard: C22.2 Nos. 14, 182.1
- Enclosure type: 3, 4X, 12
- IP66

Standard Materials:

- Enclosure - fiber-reinforced polyester
- External Hardware - stainless steel
- Contacts - brass
- Contact Carrier - fiber-reinforced thermoplastic

Horsepower Ratings:

		Three Phase		
Amps	**Description**	**250VAC**	**480VAC**	**600VAC**
20A	Unfused	7.5	15	20
30A	Unfused	10	20	25
	Fused	10	20	25
60A	Unfused	20	40	40
	Fused	20	40	50
100A	Unfused	25	50	40

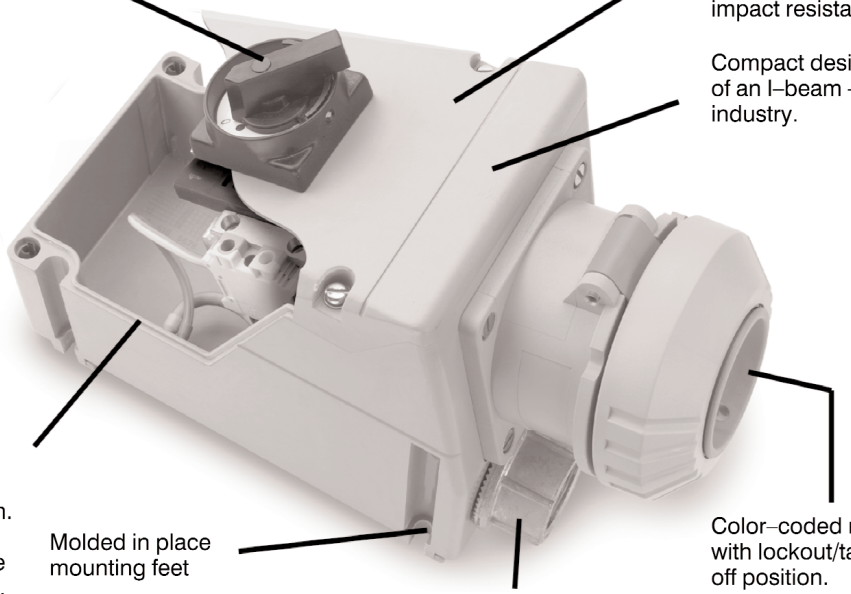
Options:

Description	**Suffix**
Auxiliary contacts for PLC or pilot light applications.....	**S483**

IEC 309 Pin and Sleeve Mechanical Interlocks

NEMA 4X
IP66
Watertight

Non-hazardous Heavy Duty Industrial
20 & 30A - North American Ratings Series 2
16 & 32A - International Ratings Series 1



OSHA lockout/tagout handle

Fiber–reinforced polyester housing provides superior corrosion and impact resistance.

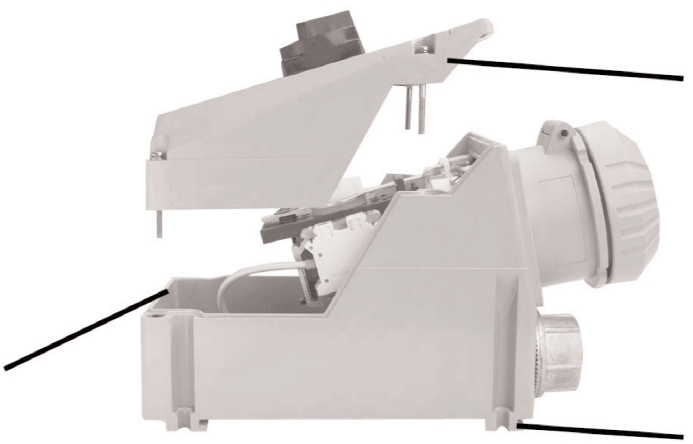
Compact design fits in the web of an I–beam – smallest in the industry.

Tongue and groove IP66 watertight sealing system. Continuous raised rib around perimeter of base seats in channel in cover. Channel has a seamless, one–piece gasket that stays in place when cover is removed.

Molded in place mounting feet

Color–coded receptacle cover with lockout/tagout hole for off position.

Myers® NPT or metric threaded hubs for IEC connectors.



Easy to wire. Cover removes along an innovative break line that permits full access to internal switch terminations.

Thick, sturdy walls won't warp from hot and cold water washdown.
Maintains gasket seal between cover and box.

Raised mounting pads allow firm mounting to uneven surfaces. Provides water channel between wall and enclosure.

Non-hazardous Heavy Duty Industrial
20 and 30A - North America Ratings Series 2
16 and 32A - International Ratings Series 1

Ordering Information:

Watertight Devices

Amps	Wires & Poles	Configuration: Recept./Conn.	Configuration: Plug/Inlet	Voltage	Receptacle	Plug	Connector	Inlet	Interlock Unfused
16A	2W3P			110–120	**GH316R4W**	**GH316P4W**	**GH316C4W**	**GH316B4W**	**GH316MI4W***
	2W3P			220–240	**GH316R6W**	**GH316P6W**	**GH316C6W**	**GH316B6W**	**GH316MI6W***
	3W4P			380–415	**GH416R6W**	**GH416P6W**	**GH416C6W**	**GH416B6W**	**GH416MI6W**
	4W5P			220/380 240/415	**GH516R6W**	**GH516P6W**	**GH516C6W**	**N/A**	**GH516MI6W***
20A	2W3P			125	**GH320R4W**	**GH320P4W**	**GH320C4W**	**GH320B4W**	**GH320MI4W***
	2W3P			250	**GH320R6W**	**GH320P6W**	**GH320C6W**	**GH320B6W**	**GH320MI6W***
	2W3P			480	**GH320R7W**	**GH320P7W**	**GH320C7W**	**GH320B7W**	**GH320MI7W***
	3W4P			125/250	**GH420R12W**	**GH420P12W**	**GH420C12W**	**GH420B12W**	**GH420MI12W**
	3W4P			3Ø250	**GH420R9W**	**GH420P9W**	**GH420C9W**	**GH420B9W**	**GH420MI9W**
	3W4P			3Ø480	**GH420R7W**	**GH420P7W**	**GH420C7W**	**GH420B7W**	**GH420MI7W**
	3W4P			3Ø600	**GH420R5W**	**GH420P5W**	**GH420C5W**	**GH420B5W**	**GH420MI5W**
	4W5P			3ØY120/208	**GH520R9W**	**GH520P9W**	**GH520C9W**	**N/A**	**GH520MI9W***
	4W5P			3ØY277/480	**GH520R7W**	**GH520P7W**	**GH520C7W**	**N/A**	**GH520MI7W***
	4W5P			3ØY347/600	**GH520R5W**	**GH520P5W**	**GH520C5W**	**N/A**	**GH520MI5W***
30A	2W3P			125	**GH330R4W**	**GH330P4W**	**GH330C4W**	**GH330B4W**	**GH330MI4W**
	2W3P			250	**GH330R6W**	**GH330P6W**	**GH330C6W**	**GH330B6W**	**GH330MI6W**
	2W3P			480	**GH330R7W**	**GH330P7W**	**GH330C7W**	**GH330B7W**	**GH330MI7W**
	3W4P			3Ø250	**GH430R9W**	**GH430P9W**	**GH430C9W**	**GH430B9W**	**GH430MI9W**
	3W4P			3Ø480	**GH430R7W**	**GH430P7W**	**GH430C7W**	**GH430B7W**	**GH430MI7W**
	3W4P			3Ø600	**GH430R5W**	**GH430P5W**	**GH430C5W**	**GH430B5W**	**GH430MI5W**
	4W5P			3ØY120/208	**GH530R9W**	**GH530P9W**	**GH530C9W**	**N/A**	**GH530MI9W**
	4W5P			3ØY277/480	**GH530R7W**	**GH530P7W**	**GH530C7W**	**N/A**	**GH530MI7W**
	4W5P			3ØY347/600	**GH530R5W**	**GH530P5W**	**GH530C5W**	**N/A**	**GH530MI6W**
32A	2W3P			110–120	**GH332R4W**	**GH332P4W**	**GH332C4W**	**GH332B4W**	**GH332MI4W**
	2W3P			220–240	**GH332R6W**	**GH332P6W**	**GH332C6W**	**GH332B6W**	**GH332MI6W**
	3W4P			380–415	**GH432R6W**	**GH432P6W**	**GH432C6W**	**GH432B6W**	**GH432MI6W**
	4W5P			220/380	**GH532R6W**	**GH532P6W**	**GH532C6W**		**GH532MI6W**

*Alternate Switch Design. Does not have a switch handle. Switch is activated by inserting plug: rotating plug to turn switch 'ON'.

IEC 309 Pin and Sleeve Mechanical Interlocks

NEMA 4X
IP66
Watertight

Non-hazardous Heavy Duty Industrial
60 and 100A - North America Ratings Series 2
63 and 125A - International Ratings Series 1

Ordering Information:

Amps	Wires & Poles	Configuration		Voltage	Watertight Devices				
		Recept./Conn.	Plug/Inlet		Receptacle	Plug	Connector	Inlet	Interlock Unfused
60A	2W3P			125	GH360R4W	GH360P4W	GH360C4W	GH360B4W	GH360MI4W
	2W3P			250	GH360R6W	GH360P6W	GH360C6W	GH360B6W	GH360MI6W
	2W3P			480	GH360R7W	GH360P7W	GH360C7W	GH360B7W	GH360MI7W
	3W4P			125/250	GH460R12W	GH460P12W	GH460C12W	GH460B12W	GH460MI12W
	3W4P			3Ø250	GH460R9W	GH460P9W	GH460C9W	GH460B9W	GH460MI9W
	3W4P			3Ø480	GH460R7W	GH460P7W	GH460C7W	GH460B7W	GH460MI7W
	3W4P			3Ø600	GH460R5W	GH460P5W	GH460C5W	GH460B5W	GH460MI5W
	4W5P			3ØY120/208	GH560R9W	GH560P9W	GH560C9W	GH560B9W	GH560MI9W
	4W5P			3ØY277/480	GH560R7W	GH560P7W	GH560C7W	GH560B7W	GH560MI7W
	4W5P			3ØY347/600	GH560R5W	GH560P5W	GH560C5W	GH560B5W	GH560MI5W
63A	2W3P			220–240	GH363R6W	GH363P6W	GH363C6W	GH363B6W	GH363MI6W
	3W4P			380–415	GH463R6W	GH463P6W	GH463C6W	GH463B6W	GH463MI6W
	4W5P			220/380 240/415	GH563R6W	GH563P6W	GH563C6W	GH563B6W	GH563MI6W
100A	2W3P			125	GH3100R4W	GH3100P4W	GH3100C4W	GH3100B4W	GH3100MI4W
	2W3P			250	GH3100R6W	GH3100P6W	GH3100C6W	GH3100B6W	GH3100MI6W
	2W3P			480	GH3100R7W	GH3100P7W	GH3100C7W	GH3100B7W	GH3100MI7W
	3W4P			125/250	GH4100R12W	GH4100P12W	GH4100C12W	GH4100B12W	GH4100MI12W
	3W4P			3Ø250	GH4100R9W	GH4100P9W	GH4100C9W	GH4100B9W	GH4100MI9W
	3W4P			3Ø480	GH4100R7W	GH4100P7W	GH4100C7W	GH4100B7W	GH4100MI7W
	3W4P			3Ø600	GH4100R5W	GH4100P5W	GH4100C5W	GH4100B5W	GH4100MI5W
	4W5P			3ØY120/208	GH5100R9W	GH5100P9W	GH5100C9W	GH5100B9W	GH5100MI9W
	4W5P			3ØY277/480	GH5100R7W	GH5100P7W	GH5100C7W	GH5100B7W	GH5100MI7W
	4W5P			3ØY347/600	GH5100R5W	GH5100P5W	GH5100C5W	GH5100B5W	GH5100MI5W
125A	2W3P			220–240	GH3125R6W	GH3125P6W	GH3125C6W	GH3125B6W	GH3125MI6W
	3W4P			380–415	GH4125R6W	GH4125P6W	GH4125C6W	GH4125B6W	GH4125MI6W
	4W5P			220/380 240/415	GH5125R6W	GH5125P6W	GH5125C6W	GH5125B6W	GH5125MI6W

COOPER Crouse-Hinds

Angled Back Box Adapters

Non-hazardous Heavy Duty Industrial
For 20, 30, 60 & 100 Amp
IEC 309 Receptacles and Inlets

Cooper Crouse-Hinds Angled Back Box Adapters install IEC 309 receptacles or inlets to existing back boxes at a 15° angle, eliminating plug cord stress and maximizing wiring capacity.

Designed with a square footprint, the angled back box adapter allows the conduit openings to be positioned vertically or horizontally.

Angled adapters install directly onto existing Cooper Crouse-Hinds Back Boxes!

20/30 Amp **60 Amp** **100 Amp**

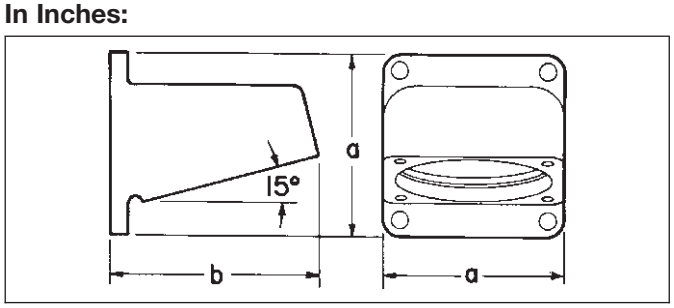
Features:

- Square footprint on adapter allows back box conduit openings to be positioned vertically or horizontally
- 15° angle eliminates cord stress on attached plug
- Heavy duty cast aluminum back boxes are ideal for abusive environments
- Epoxy powder coat finish available for additional corrosion resistance
- Stainless steel hardware
- Quick and easy to install
- Neoprene gasket provided between adapter and back box for additional weather resistance

Ordering Information:

Rating of Receptacle or Inlet	Angled Adapter Cat. #	Mating Square Back Box Cat. #
20A	**AR30**	**ARRH/ARRC 13, 23, 33**
30A	**AR30**	**ARRH/ARRC 13, 23, 33**
60A	**AR601**	**ARRH/ARRC 36, 46, 56**
100A	**AR100**	**AJ/AJC 46, 56**

Dimensions
In Inches:

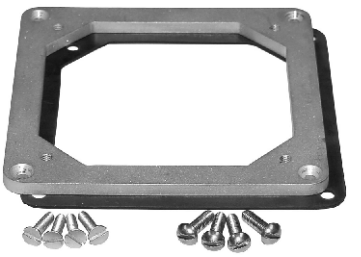


Cat. #	A	B	Receptacle/Inlet Footprint
AR30	3.4	3.9	2.74 × 2.74
AR601	4.3	4.9	3.03 × 3.34
AR100	5.9	6.2	4.09 × 4.09

5P Adapter Plates

Non-hazardous Heavy Duty Industrial
For 20, 30, 60 & 100 Amp
IEC 309 Receptacles and Inlets

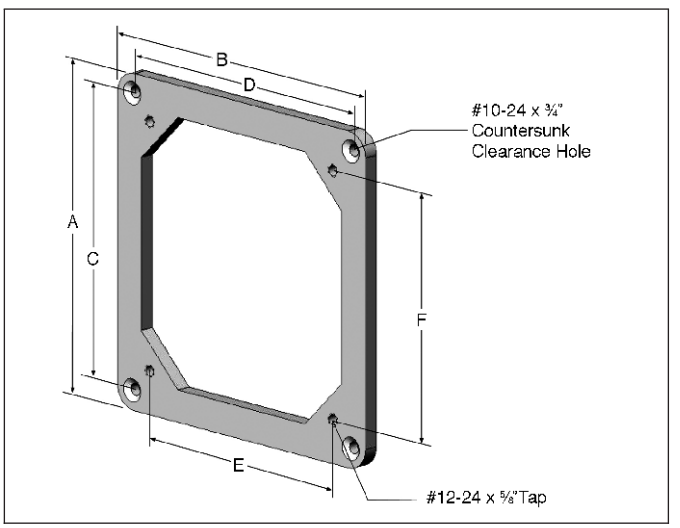
Cooper Crouse-Hinds H-Series Adapter Plates permit a Cooper Crouse-Hinds IEC 309 receptacle or inlet to be mounted to a Hubbell® back box.



Features:

- Heavy duty aluminum plate fits directly to the Hubbell footprint
- Adapter plate is engineered to be used with the gasket that is provided with the Cooper Crouse-Hinds receptacle or inlet
- Provided gasket maintains watertight integrity between adapter plate and Hubbell box
- Stainless steel hardware provided for attaching adapter plate to back box and receptacle or inlet to adapter plate
- Corrosion-resistant
- Quick and easy to install

Dimensions
In Inches:



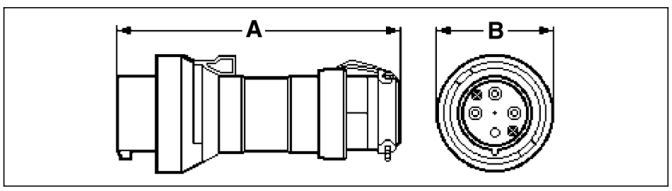
	Overall Size		Hubbell Footprint		Cooper Crouse-Hinds Footprint	
Cat. #	**A**	**B**	**C**	**D**	**E**	**F**
CHAP30H	4.03	3.78	3.13	3.13	2.74	2.74
CHAP60H	4.53	4.53	3.88	3.88	3.03	3.35
CHAP100H	5.53	5.53	4.88	4.88	4.09	4.09

Ordering Information:

Rating of Cooper Crouse-Hinds Receptacle or Inlet	Cat. # of Hubbell Back Box	Adapter Plate Cat. #
20A/30A	**BB201W/BB301W**	**CHAP30H**
60A	**BB601W/BB602W**	**CHAP60H**
100A	**BB1001W/BB1002W**	**CHAP100H**

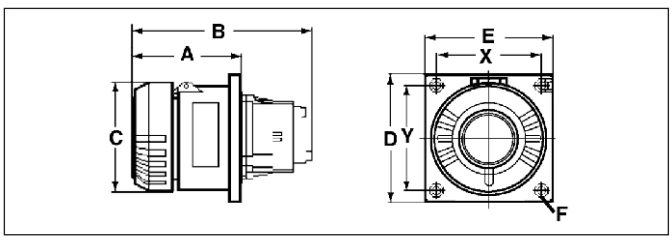
Non-hazardous Heavy Duty Industrial Dimensions

Plug Dimensions
In Inches:



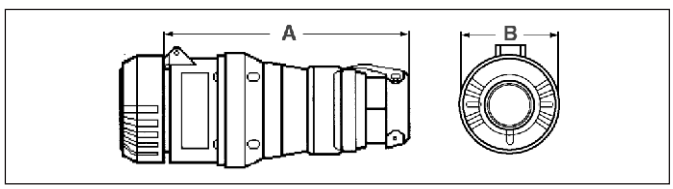
Amps	A	B	Cord Range 3-Pole	4-Pole	5-Pole
20/16A	7.37	3.00	0.315–0.748	0.315–0.748	0.472–0.827
30/32A	7.37	3.00	0.314–0.748	0.315–0.748	0.472–0.827
60/63A	10.71	4.33	0.630–1.378	0.630–1.378	0.827–1.378
100/125A	12.32	5.16	0.827–1.89	0.827–2.28	1.22–2.28

Receptacle Dimensions
In Inches:



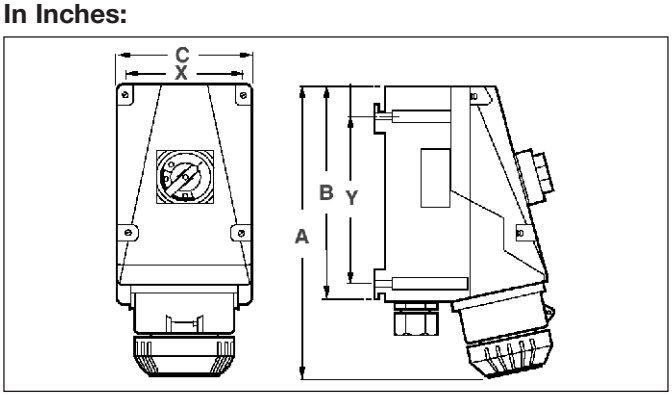
Amps	A	B	C	D	E	F Dia.	MTC. X	Dims. Y
20/16A	2.95	4.37	3.31	3.38	3.38	0.236	2.74	2.74
30/32A	3.35	4.92	3.74	3.38	3.38	0.236	2.74	2.74
60/63A	4.57	6.18	4.61	4.13	4.13	0.236	3.50	3.50
100/125A	4.81	6.56	4.80	5.12	5.32	0.250	4.09	4.09

Connector Dimensions
In Inches:



Amps	A	B	Cord Range 3-Pole	4-Pole	5-Pole
20/16A	8.58	3.38	0.315–0.748	0.315–0.827	0.472–0.827
30/32A	10.40	3.82	0.315–0.748	0.315–0.827	0.472–0.827
60/63A	12.52	4.61	0.630–1.378	0.630–1.378	0.827–1.378
100/125A	13.40	5.32	0.827–1.89	0.827–2.28	1.22–2.28

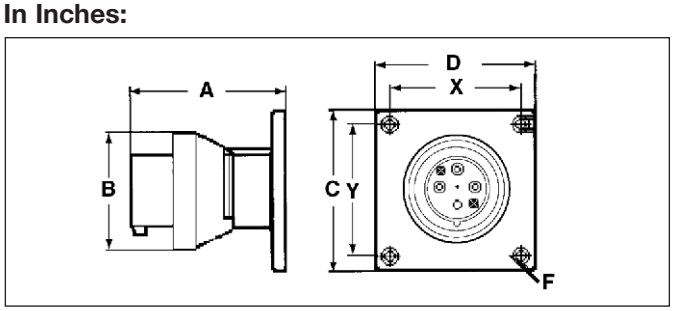
Interlock Dimensions
In Inches:



Amps	A	B	C	X	Y	20, 30 60, 100A Hub	16, 32, 63, 125A Cable Gland
20/16A*	8.8	6.7	3.5	3.7	4.5	½	M20
20/16A	9.3	6.9	4.3	3.9	5.3	¾	M25
30/32A	11.2	8.07	4.7	4.3	6.7	1	M32
60/63A	18.7	12.3	7.9	7.1	10.9	1¼	M40
100/125A	21.1	13.3	8.9	8.1	11.9	1½	M63

*3 Pole only.

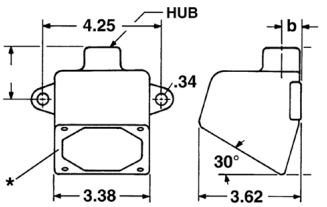
Inlet Dimensions
In Inches:



Amps	A	B	C	D	F Dia.	MTC. X	Dims. Y
20/16A	3.27	3.02	3.38	3.38	0.236	2.74	2.74
30/32A	4.26	3.75	3.38	3.38	0.236	2.74	2.74
60/63A	5.44	4.34	4.13	4.13	0.236	3.50	3.50
100/125A	5.48	5.20	5.12	5.32	0.250	4.09	4.09

Non-hazardous Heavy Duty Industrial Accessories

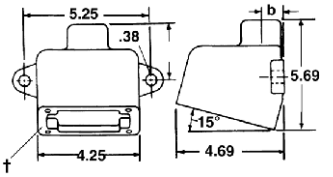
Back Box Dimensions
In Inches:



Cat. #	Hub	A	B
ARE13	½	1.84	0.69
ARE23	¾	1.84	0.81
ARE33	1	1.97	0.94

*Footprint: 2.74 x 2.74

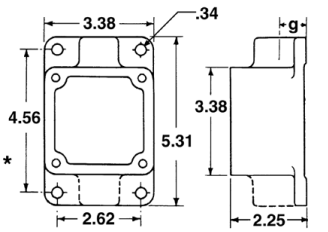
60A & 63A Cast Aluminum



Cat. #	Hub	A	B
ARE36	1	2.56	0.69
ARE46	1¼	2.62	1.19
ARE56	1½	2.69	1.31

†Footprint: 5.4 x 2.74

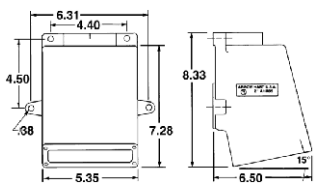
16, 20, 30, & 32A Cast Aluminum



Cat. #	Hub	Hub Config.	G
ARRH13	½	Dead End	0.69
ARRH23	¾	Dead End	0.81
ARRH33	1	Dead End	0.94
ARRC13	½	Feed Thru	0.69
ARRC23	¾	Feed Thru	0.81
ARRD33	1	Feed Thru	0.94

*Footprint: 2.74 x 2.74

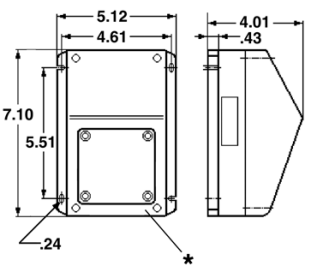
100A & 125A Cast Aluminum



Cat. #	Type
CHBB1	100A & 125A Cast Aluminum

‡Footprint: 4.09 x 4.09

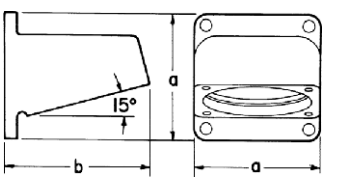
30A Non-metallic



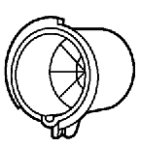
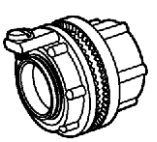
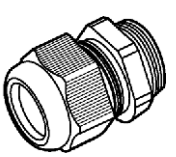
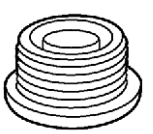
Cat. #	Type
CHBB2	30A Non-metallic

*Footprint: 2.74 x 2.74 (Not UL Listed)

Aluminum Fits ARRH and ARRC 30A Angle Adapter Cast



Cat. #	A	B
AR30	3.38	4.12

Type		Plug Closure Cap	Enclosure Myers Hub	Enclosure Cable Gland	Enclosure Closure Plug
20/16A	3-pole 4-pole 5-pole	**CHCC320** **CHCC420** **CHCC520**	**STM 1** **STM 2**	**CHCG20** **CHCG25**	**CHCP20** **CHCP25**
30/32A	3-pole 4-pole 5-pole	**CHCC3430** **CHCC530**	**STM 3**	**CHCG40**	**CHCG40**
60/63A	3-pole 4-pole 5-pole	**CHCC60**	**STM 4**	**CHCG50**	**CHCP50**
100/125A	3-pole 4-pole 5-pole	**CHCC100**	**STM 5**	**CHCG63**	**CHCP63**

IEC 309 Plugs, Connectors, Receptacles, and Inlets

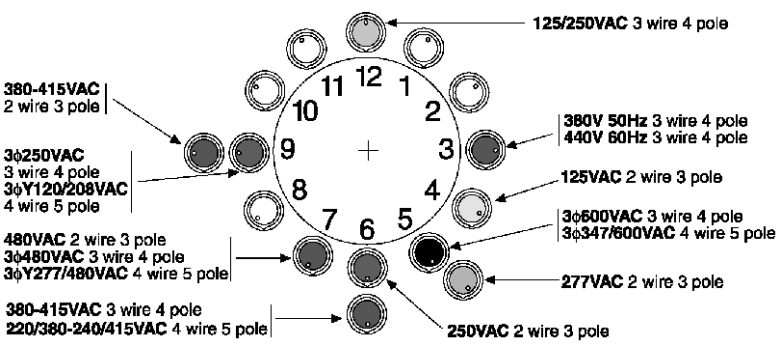
Non-hazardous Light Industrial

Applications:

- In indoor and outdoor environments
- In locations with splashing water (IP44) or hose down locations (IP67)
- Where lightweight, non-metallic devices are desirable
- Ideal for light industrial applications, such as: construction sites, light manufacturing, agriculture, food and beverage processing, computer/computer power equipment, restaurants/industrial kitchen equipment

Making a Connection is Easy

A clock face is used to represent the grounding contact position for all female connectors and receptacles. With the keyway at the bottom, the female grounding contact will appear to one of the twelve hour positions. To identify the system voltage, identify the housing color and hour location of the connector or receptacle grounding contact.



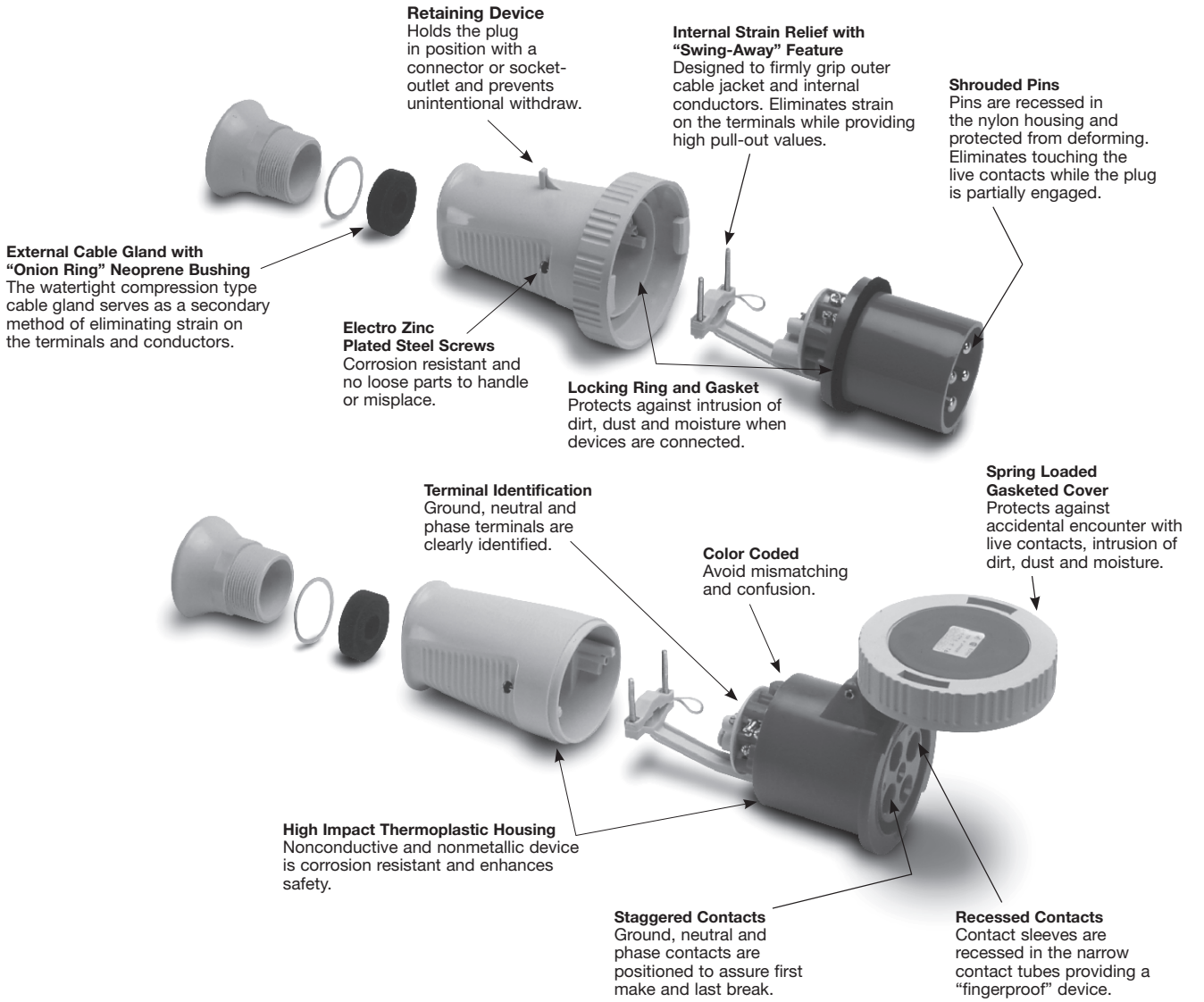
Ordering is Easy

CH Prefix	4 1st digit	20 2nd–4th digit	R 1st letter	7 Last digit	W Last letter
CH = Cooper Crouse-Hinds Light Industrial	3 = 3 pole 4 = 4 pole 5 = 5 pole	16 = 16 Amp 20 = 20 Amp 30 = 30 Amp 32 = 32 Amp 60 = 60 Amp 63 = 63 Amp 100 = 100 Amp 125 = 125 Amp	P = Plug C = Connector R = Receptacle Straight RA = Receptacle 15° Angled RA80 = Receptacle 80° Angled B = Inlet MI = Mechanical Interlock MIB = Circuit Breaker Interlock SMR = Surface Mount Receptacle	Clock position of female grounding contact	W = Watertight S = Splashproof

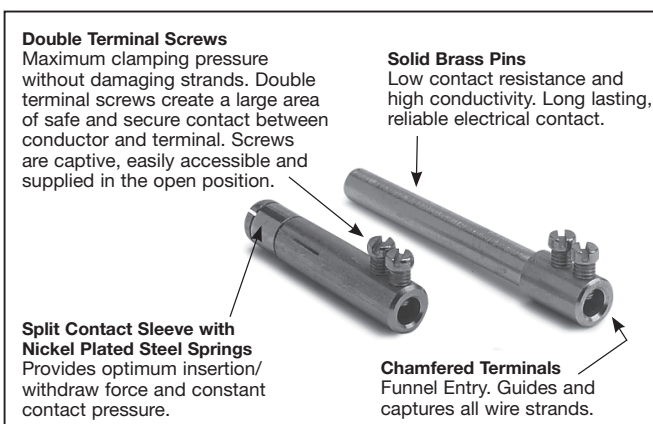
IEC 309 Plugs, Connectors, Receptacles, and Inlets

Non-hazardous Light Industrial

NEMA 4X
IP67
Watertight / Splashproof



Retaining Device
Cooper Crouse-Hinds pin & sleeve devices are provided with a mechanical arrangement which holds a plug or connector in position when it is in proper engagement, and prevents its unintentional withdraw.



COOPER Crouse-Hinds

Non-hazardous Light Industrial

Compliance with OSHA Lockout Requirements
Cooper Crouse-Hinds Mechanical Interlock's bright red handle can be locked in the "OFF" position as a method of compliance with OSHA lockout requirements. The handle can accept up to a 5/16" padlock shaft.

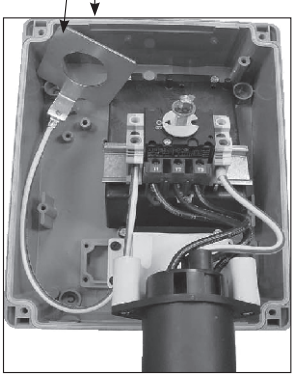
Watertight NEMA 4X, 12K Enclosure
Cooper Crouse-Hinds Mechanical Interlocks are gasketed and rated as a Watertight NEMA 4X, 12K enclosure. The nonmetallic enclosure, while abuse and corrosion resistant, is also nonconductive which enhances the safety of the product.

Compact Size
All versions and sizes are designed to fit within the web of an 8" column. This compact size allows the use of columns as a mounting location.

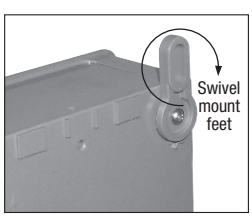
Easy Identification
Catalog number, rating and certifications are indicated on the label for easy identification of mating devices.

Color Coded Receptacle Covers
Receptacle covers are color-coded by voltage in accordance with IEC 309 standard.

Grounding Plate
Cooper Crouse-Hinds Mechanical Interlocks are supplied with a free floating grounding plate. Because of this unique method of grounding, conduit entry may be made from the top, bottom or side. No other brand offers this type of installation versatility.

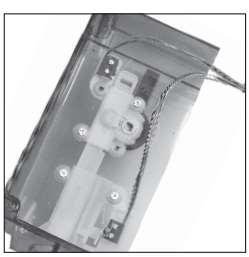


A Pre-Molded Offset Dimple
Cooper Crouse-Hinds does not install a hub at the top of our mechanical interlocks, rather a pre-molded offset dimple (drill point) is provided instead of a conduit entry hole. This allows the installer to choose the size of the conduit to be used, and the location where the conduit will be attached to the enclosure (top, bottom or side entry) without the use of knockout plugs and reducers. Arranging the conduit entry hole at the dimple location will prevent condensation from falling directly on the interior electrical components, such as the switch. It will also allow for more room to pull conductors when wiring. Approximately 40% of all entry is from the bottom.



Swivel Mount Feet (135°)
Swivel mount feet can be used for installations where irregular or tight fit applications exist.

Completely Compatible
Completely compatible with not only Cooper Crouse-Hinds IEC 309-1 and 309-2 plugs, but with any manufacturer's plugs that conform to the IEC 309 standards and color coding system anywhere in the world. When Cooper Crouse-Hinds IP67 plugs are used in conjunction with NEMA 4X rated Cooper Crouse-Hinds Mechanical Interlocks, both devices are NEMA 4X rated.



Micro Switch
Available upon request. May be used to transmit signal when plug is inserted or when switch is turned to the "ON" position. May also be used for indicator light to display and confirm when switch is turned "ON" or "OFF". Consult technical service for price and delivery.

Horsepower Ratings:

			Three Phase		
Amperage	**Wires/Poles**	**120VAC**	**240VAC**	**480VAC**	**600VAC**
20 and 30	2W, 3P	2	5	10	-
20 and 30	3W, 4P	2	10	20	25
20 and 30	4W, 5P	10	-	20	25
60 and 100	2W, 3P	3	7.5	15	-
60 and 100	3W, 4P	3	15	25	30
60 and 100	4W, 5P	15	-	25	30

Non-hazardous Light Industrial Ordering Information

Pin and Sleeve Ordering Information:

20A and 30A
North American Ratings Series 2

16A and 32A
International Ratings Series 1

Watertight Devices*

Amps	Wires and Poles	Configuration Receptacle/ Connector	Configuration Plug/ Inlet	Voltage	Straight Receptacle	Angled 15° Receptacle†	Surface Mount Receptacle	Plug	Connector	Inlet	Interlock Unfused	Circuit Breaker Interlock
16A	2W3P			110-130	CH316R4W	CH316RA4W	CH316SMR4W	CH316P4W	CH316C4W	CH316B4W	CH316MI4W	CH316MIB4W
	2W3P			220-240	CH316R6W	CH316RA6W	CH316SMR6W	CH316P6W	CH316C6W	CH316B6W	CH316MI6W	CH316MIB6W
	3W4P			380-400	CH416R6W	CH416RA6W	CH416SMR6W	CH416P6W	CH416C6W	CH416B6W	CH416MI6W	CH416MIB6W
	4W5P			220-380 & 240-415	CH516R6W	CH516RA6W	CH516SMR6W	CH516P6W	CH516C6W	CH516B6W	CH516MI6W	CH516MIB6W
20A	2W3P			125	CH320R4W	CH320RA4W	CH320SMR4W	CH320P4W	CH320C4W	CH320B4W	CH320MI4W	CH320MIB4W
	2W3P			250	CH320R6W	CH320RA6W	CH320SMR6W	CH320P6W	CH320C6W	CH320B6W	CH320MI6W	CH320MIB6W
	2W3P			480	CH320R7W	CH320RA7W	CH320SMR7W	CH320P7W	CH320C7W	CH320B7W	CH320MI7W	CH320MIB7W
	3W4P			125/250	CH420R12W	CH420RA12W	CH420SMR12W	CH420P12W	CH420C12W	CH420B12W	CH420MI12W	CH420MIB12W
	3W4P			3Ø250	CH420R9W	CH420RA9W	CH420SMR9W	CH420P9W	CH420C9W	CH420B9W	CH420MI9W	CH420MIB9W
	3W4P			3Ø480	CH420R7W	CH420RA7W	CH420SMR7W	CH420P7W	CH420C7W	CH420B7W	CH420MI7W	CH420MIB7W
	3W4P			3Ø600	CH420R5W	CH420RA5W	CH420SMR5W	CH420P5W	CH420C5W	CH420B5W	CH420MI5W	CH420MIB5W
	4W5P			3ØY120/208	CH520R9W	CH520RA9W	CH520SMR9W	CH520P9W	CH520C9W	CH520B9W	CH520MI9W	CH520MIB9W
	4W5P			3ØY277/480	CH520R7W	CH520RA7W	CH520SMR7W	CH520P7W	CH520C7W	CH520B7W	CH520MI7W	CH520MIB7W
	4W5P			3ØY347/600	CH520R5W	CH520RA5W	CH520SMR5W	CH520P5W	CH520C5W	CH520B5W	CH520MI5W	CH520MIB5W
30A	2W3P			125	CH330R4W	CH330RA4W	CH330SMR4W	CH330P4W	CH330C4W	CH330B4W	CH330MI4W	CH330MIB4W
	2W3P			250	CH330R6W	CH330RA6W	CH330SMR6W	CH330P6W	CH330C6W	CH330B6W	CH330MI6W	CH330MIB6W
	2W3P			480	CH330R7W	CH330RA7W	CH330SMR7W	CH330P7W	CH330C7W	CH330B7W	CH330MI7W	CH330MIB7W
	3W4P			125/250	CH430R12W	CH430RA12W	CH430SMR12W	CH430P12W	CH430C12W	CH430B12W	CH430MI12W	CH430MIB12W
	3W4P			3Ø250	CH430R9W	CH430RA9W	CH430SMR9W	CH430P9W	CH430C9W	CH430B9W	CH430MI9W	CH430MIB9W
	3W4P			3Ø480	CH430R7W	CH430RA7W	CH430SMR7W	CH430P7W	CH430C7W	CH430B7W	CH430MI7W	CH430MIB7W
	3W4P			3Ø600	CH430R5W	CH430RA5W	CH430SMR5W	CH430P5W	CH430C5W	CH430B5W	CH430MI5W	CH430MIB5W
	4W5P			3ØY120/208	CH530R9W	CH530RA9W	CH530SMR9W	CH530P9W	CH530C9W	CH530B9W	CH530MI9W	CH530MIB9W
	4W5P			3ØY277/480	CH530R7W	CH530RA7W	CH530SMR7W	CH530P7W	CH530C7W	CH530B7W	CH530MI7W	CH530MIB7W
	4W5P			3ØY347/600	CH530R5W	CH530RA5W	CH530SMR5W	CH530P5W	CH530C5W	CH530B5W	CH530MI5W	CH530MIB5W
32A	2W3P			110-130	CH332R4W	CH332RA4W	CH332SMR4W	CH332P4W	CH332C4W	CH332B4W	CH332MI4W	CH332MIB4W
	2W3P			220-240	CH332R6W	CH332RA6W	CH332SMR6W	CH332P6W	CH332C6W	CH332B6W	CH332MI6W	CH332MIB6W
	3W4P			380-400	CH432R6W	-	CH432SMR6W	CH432P6W	CH432C6W	CH432B6W	CH432MI6W	CH432MIB6W
	4W5P			220-380 & 240-415	CH532R6W	CH532RA6W	CH532SMR6W	CH532P6W	CH532C6W	CH532B6W	CH532MI6W	CH532MIB6W

*Splashproof IP44 products are also available - please contact factory.

†Angled 80° receptacles are also available. To order, add suffix "80" directly after "RA" in the angled 15° receptacle catalog number (Example: CH330RA804W).

250VDC and Barge Overflow products are also available - please contact factory.

Non-hazardous Light Industrial Ordering Information

Pin and Sleeve Ordering Information:

60A and 100A
North American Ratings Series 2

63A and 125A
International Ratings Series 1

Watertight Devices*

Amps	Wires and Poles	CONFIGURATION Receptacle/ Connector	CONFIGURATION Plug/ Inlet	Voltage	Straight Receptacle	Angled 15° Receptacle†	Surface Mount Receptacle	Plug	Connector	Inlet	Interlock Unfused	Circuit Breaker Interlock
60A	2W3P			125	CH360R4W	CH360RA4W	-	CH360P4W	CH360C4W	CH360B4W	CH360MI4W	CH360MIB4W
	2W3P			250	CH360R6W	CH360RA6W	-	CH360P6W	CH360C6W	CH360B6W	CH360MI6W	CH360MIB6W
	2W3P			480	CH360R7W	CH360RA7W	-	CH360P7W	CH360C7W	CH360B7W	CH360MI7W	CH360MIB7W
	3W4P			125/250	CH460R12W	CH460RA12W	CH460SMR12W	CH460P12W	CH460C12W	CH460B12W	CH460MI12W	CH460MIB12W
	3W4P			3Ø250	CH460R9W	CH460RA9W	CH460SMR9W	CH460P9W	CH460C9W	CH460B9W	CH460MI9W	CH460MIB9W
	3W4P			3Ø480	CH460R7W	CH460RA7W	CH460SMR7W	CH460P7W	CH460C7W	CH460B7W	CH460MI7W	CH460MIB7W
	3W4P			3Ø600	CH460R5W	CH460RA5W	CH460SMR5W	CH460P5W	CH460C5W	CH460B5W	CH460MI5W	CH460MIB5W
	4W5P			3ØY120/208	CH560R9W	CH560RA9W	CH560SMR9W	CH560P9W	CH560C9W	CH560B9W	CH560MI9W	CH560MIB9W
	4W5P			3ØY277/480	CH560R7W	CH560RA7W	CH560SMR7W	CH560P7W	CH560C7W	CH560B7W	CH560MI7W	CH560MIB7W
	4W5P			3ØY347/600	CH560R5W	CH560RA5W	CH560SMR5W	CH560P5W	CH560C5W	CH560B5W	CH560MI5W	CH560MIB5W
63A	2W3P			220-240	CH363R6W	CH363RA6W	-	CH363P6W	CH363C6W	CH363B6W	CH363MI6W	CH363MIB6W
	3W4P			380-400	CH463R6W	CH463RA6W	CH463SMR6W	CH463P6W	CH463C6W	CH463B6W	CH463MI6W	CH463MIB6W
	4W5P			220-380 & 240-415	CH563R6W	CH563RA6W	CH563SMR6W	CH563P6W	CH563C6W	CH563B6W	CH563MI6W	CH563MIB6W
100A	2W3P			125	CH3100R4W	CH3100RA4W	CH3100SMR4W	CH3100P4W	CH3100C4W	CH3100B4W‡	CH3100MI4W	CH3100MIB4W
	2W3P			250	CH3100R6W	CH3100RA6W	CH3100SMR6W	CH3100P6W	CH3100C6W	CH3100B6W‡	CH3100MI6W	CH3100MIB6W
	2W3P			480	CH3100R7W	CH3100RA7W	CH3100SMR7W	CH3100P7W	CH3100C7W	CH3100B7W‡	CH3100MI7W	CH3100MIB7W
	3W4P			125/250	CH4100R12W	CH4100RA12W	CH4100SMR12W	CH4100P12W	CH4100C12W	CH4100B12W‡	CH4100MI12W	CH4100MIB12W
	3W4P			3Ø250	CH4100R9W	CH4100RA9W	CH4100SMR9W	CH4100P9W	CH4100C9W	CH4100B9W‡	CH4100MI9W	CH4100MIB9W
	3W4P			3Ø480	CH4100R7W	CH4100RA7W	CH4100SMR7W	CH4100P7W	CH4100C7W	CH4100B7W‡	CH4100MI7W	CH4100MIB7W
	3W4P			3Ø600	CH4100R5W	CH4100RA5W	CH4100SMR5W	CH4100P5W	CH4100C5W	CH4100B5W‡	CH4100MI5W	-
	4W5P			3ØY120/208	CH5100R9W	CH5100RA9W	CH5100SMR9W	CH5100P9W	CH5100C9W	CH5100B9W‡	CH5100MI9W	CH5100MIB9W
	4W5P			3ØY277/480	CH5100R7W	CH5100RA7W	CH5100SMR7W	CH5100P7W	CH5100C7W	CH5100B7W‡	CH5100MI7W	CH5100MIB7W
	4W5P			3ØY347/600	CH5100R5W	CH5100RA5W	CH5100SMR5W	CH5100P5W	CH5100C5W	CH5100B5W‡	CH5100MI5W	-
125A	2W3P			110-130	CH3125R4W	CH3125RA4W	CH3125SMR4W	CH3125P4W	CH3125C4W	CH3125B4W‡	CH3125MI4W	CH3125MIB4W
	3W4P			380-400	CH4125R6W	CH4125RA6W	CH4125SMR6W	CH4125P6W	CH4125C6W	CH4125B6W‡	CH4125MI6W	CH4125MIB6W
	3W4P			500	CH4125R7W	CH4125RA7W	CH4125SMR7W	CH4125P7W	CH4125C7W	CH4125B7W‡	CH4125MI7W	-
	4W5P			220-380 & 240-415	CH5125R6W	CH5125RA6W	CH5125SMR6W	CH5125P6W	CH5125C6W	CH5125B6W‡	CH5125MI6W	CH5125MIB6W

*Splashproof IP44 products are also available - please contact factory.
†Angled 80° receptacles are also available. To order, add suffix "80" directly after "RA" in the angled 15° receptacle catalog number (Example: CH330RA804W).
‡100A and 125A inlets are straight. 250VDC and Barge Overflow products are also available - please contact factory.

IEC 309 Plugs, Connectors, Receptacles, and Inlets

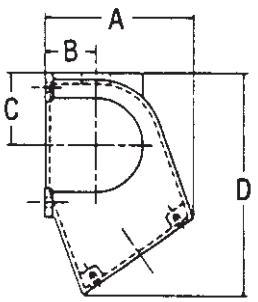
NEMA 4X
IP67
Watertight / Splashproof

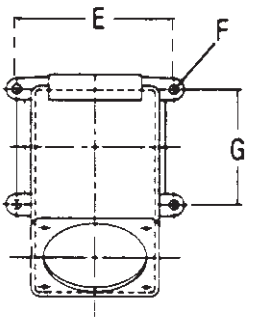
Non-hazardous Light Industrial Back Boxes and Accessories

Back Boxes - for use with straight watertight and splashproof receptacles

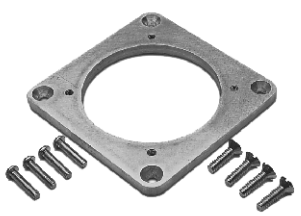
Cat. #	Description	Hub Size	Dimensions (Inches) A	B	C	D	E	F	G	Cubic Inch Capacity
BE3-B75	20° angle for 20A, 4 and 5 pole receptacles and all 30A receptacles	¾"	3.34	0.97	1.12	4.12	4.00	0.25	-	20.4
BE3-B100		1"	3.34	0.97	1.12	4.12	4.00	0.25	-	20.4
BE6-B125	20° angle for all 60A receptacles	1¼"	4.41	1.41	2.09	5.63	5.00	0.28	3.00	59.7
BE6-B150		1½"	4.41	1.41	2.09	5.63	5.00	0.28	3.00	59.7
BE10-B150	20° angle for all 100A receptacles	1½"	5.18	1.78	2.50	7.71	5.50	0.34	4.00	96.6
BE10-B200		2"	5.18	1.78	2.50	7.71	5.50	0.34	4.00	96.6

Epoxy coated cast aluminum junction boxes are corrosion-resistant and designed to pass the 500-hour salt spray test, the UL hose down, and external icing tests.





Back Box Adapter Plates - for use with Hubbell back boxes



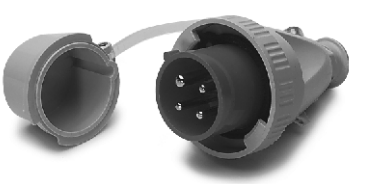
Cat. #	Receptacle	For Use with Hubbell Back Box
CHAP20H	20A, 3-Pole	BB201W, BB301W, FT202W, or FT302W
CHAP30H	20A, 4- & 5-Pole 30A, 3-, 4- & 5-Pole	BB201W, BB301W, FT202W, or FT302W
CHAP60H	60A, 3-, 4- & 5-Pole	BB601W, BB602W, or FW60/100
CHAP100H	100A, 3-, 4- & 5-Pole	BB1001W, BB1002W, or FW60/100

Watertight Closure Caps - for use with watertight male plugs and inlets

Cat. #	Poles	Amperage Rating	Std. Pkg. Qty.
CHCC320	3	20A	5
CHCC3430		30A	5
CHCC60		60A	2
CHCC100		100A	2
CHCC420	4	20A	5
CHCC3430		30A	5
CHCC60		60A	2
CHCC100		100A	2
CHCC520	5	20A	5
CHCC530		30A	5
CHCC60		60A	2
CHCC100		100A	2

Pre-installed Closure Caps

Closure caps provide watertight or splashproof protection to disconnected plugs and inlets. The possibility of removing or misplacing the cap can be eliminated by securing the chain or nylon strap to the inlet flange. If the closure cap will be fastened to a plug, Cooper Crouse-Hinds can pre-install the cap on the device. This factory installation assures safe and reliable utilization of the two components. Contact customer service for ordering information.



COOPER Crouse-Hinds

Electrical:

Insulation Resistance
- 500V for 1 min. resistance ≥ 5MΩ

Dielectric Voltage Withstand
- 3000V for 1 min.

Ground Path Current
- See "Minimum Ground Path Current Test" table

Endurance, Connect, and Disconnect Cycles
- See "Minimum Endurance Test" table

Current Interrupting
- Certified for current interrupting at full rated current and voltage

Overload Test (Power factor 0.75-0.80)
- Tested for current interrupting at 150% of the rated current and 100% of the rated voltage for 50 cycles

Temperature Rise
- Maximum 30°C rise at full rated current (after overload)

Resistance to Arcing
- Continuation of overload test for an additional 200 cycles

Mechanical:

Mold Stress Relief
- 70°C (158°F) for 7 hours

Humidity
- 32°C (89.6°F), 93% humidity for 7 days (168 hours)

Cable Secureness
- See "Minimum Cable Secureness Test" table

Impact
- A device is wired with a 90" (2300mm) length of flexible cord and dropped from 30" (760mm) 8 times; the device is then conditioned for 6 hours at -25°C and immediately subjected to a repeated impact test

Crushing
- 250 lbs. for 1 minute; the device is then conditioned for 6 hours at -25°C and immediately subjected to a repeated crushing test

Withdrawal Force
- See "Minimum Withdrawal Forces Test" table

Strength of Insulating Base and Support
- 110% of specified tightening torque on terminal screws

Polarization Integrity
- Matching devices will not mate so that the ground is energized, even when polarization feature is removed and 40 lb. (180 N) insertion force is applied

Environmental:

Flammability
- V-2 or better per UL94 or CSA 22.2 No. 0.6

Ambient Temperature Range
- Minimum: -25°C (-13°F) with impact
- Maximum: 90°C (194°F)

Resistance to Corrosion
- Ferrous parts immersed for 10 min. in a 10% solution of ammonium chloride at a temperature of 20°C

Moisture Resistance
- Watertight (IP67): Device immersed for 24 hours in water at a temp. of 25°C, the highest point of the device being 2" (5cm) below the water level
- Splashproof (IP44): Device is sprayed with water for 10 min. and immediately afterwards subjected to splashing water in all directions (360°)

UV Resistance
- Exposed plastic materials are UV stabilized

Minimum Ground Path Current Test:

Device Rating Amperes	Minimum Size Grounding Conductor AWG	Minimum Size Grounding Conductor mm²	Time, Seconds	Test Current, Amperes
20	12	3.3	4	470
30	10	5.3	4	750
60	10	5.3	4	750
100	8	8.4	4	1180

A test current that far exceeds the device rating is passed through the mating devices and grounding wires.

Minimum Endurance Test:

Device Rating Amperes	Cycles with Load at Rated Current and Voltage	No-Load Cycles	Sequence
20	5000	0	-
30	1000	1000	Alternating
60	1000	1000	Alternating
100	250	250	Alternating

A test sequence is conducted by using a no-load, followed by a load sequence. The power factor of the load is 0.75 to 0.80.

Minimum Cable Secureness Test:

Device Rating	Force		Torque		Maximum Displacement	
Amperes	lb.	N	ft-lb.	N•m	Inches	mm
20	30	133	0.4	0.54	3/32	2.38
30	75	333	0.5	0.68	3/32	2.38
60	150	667	1.0	1.4	3/32	2.38
100	150	667	2.0	2.7	3/32	2.38

The flexible cord or cable is simultaneously twisted and pulled. Values for the applied twisting torque and force of pull are shown. In all cases, the cord displacement is less than 3/32 inches.

Minimum Withdrawal Forces Test:

Device Rating	Minimum Withdrawal Force		
Amperes	lb.	N	Time, Min.
20	5	22	1
30	6	27	1
60	15	67	1
100	20	89	1

The pressure exerted by mating contacts of a plug and connector must be sufficient to prevent unintentional withdrawal during normal use. During the test, any locking rings or retaining means are not to be engaged.

These products are listed to applicable UL Standards and requirements by Underwriters Laboratories Inc. UL1682, UL1686.

IEC 309 Plugs, Connectors, Receptacles, and Inlets

Non-hazardous Light Industrial International Performance Specifications

NEMA 4X
IP67
Watertight / Splashproof

Electrical:

Insulation Resistance (Per IEC 309-1, Clause 19)
- 500V for 1 min. resistance ≥ 5MΩ

Dielectric Strength (Per IEC 309-1, Clause 19)
- 3000V for 1 min.

Norm. Operation, Connect & Disconnect Cycles (Per IEC 309-1, Clause 21)
- See "Minimum Connect and Disconnect Cycles" table

Breaking Capacity (Per IEC 309-1, Clause 20)
- Tested at 110% of the rated operating voltage and 125% of the rated current

Temperature Rise (Per IEC 309-1, Clause 22)
- Maximum 50K rise at full rated current

Mechanical:

Cable Secureness (Per IEC 309, Clause 23)
- See "Minimum Cable Secureness Test" table

Impact (Per IEC 309, Clause 24)
- A device is wired with a 2.25m length of flexible cord and dropped from a height of 75cm, 8 times; the device is then tested for applicable degrees of protection against moisture

Environmental:

Flammability
- Self-extinguishing per IEC 309-1, Clause 27

Ambient Temperature Range
- Minimum: -25°C with impact
- Maximum: 90°C

Moisture Resistance
- Watertight (IP67): Device immersed for 24 hours in water at a temp. of 25°C, the highest point of the device being 5cm (2") below the water level
- Splashproof (IP44): Device is sprayed with water for 10 min. and immediately afterwards subjected to splashing water in all directions (360°)

UV Resistance
- Exposed plastic materials are UV stabilized

Minimum Connect and Disconnect Cycles:

Device Rating Amperes	Cycles with Load at Rated Current and Voltage	No-Lead Cycles	Sequence
16	5000 p.f. of 0.6	0	-
32	1000 p.f. of 0.6	1000	Alternating
63	1000 p.f. of 0.6	1000	Alternating
125	250 p.f. of 0.7	250	Alternating

The test sequence is conducted by using a no-lead, following by a load sequence.

Minimum Cable Secureness Test:

Device Rating Amperes	Force	Torque	Maximum Displacement
	N	N•m	mm
16	80	0.350068	2
32	100	0.425	2
63	120	0.8	2
125	200	1.5	2

The flexible cord or cable is twisted and pulled. Values for the applied twisting torque and force of pull are shown. In all cases, the cord displacement is less than 2mm.

IEC 309-1 and 309-2 Mechanical Interlocks

Non-hazardous Light Industrial Performance Specifications

Electrical:

Dielectric Voltage Withstand
- 3000V

Maximum Working Voltage
- 600V RMS (switch version); 480V RMS (circuit breaker version)

Current Interrupting
- Certified for current interrupting at full rated current and voltage

Short Circuit Withstand Rating
- Suitable for use on a circuit capable of delivering not more than 10,000 RMS symmetrical amperes at the voltage rating of the receptacle

Operations
- Mechanical: 10,000 cycles
- Electrical: 6,000 cycles

Mechanical:

Impact Resistance
- In accordance with UL746C

Terminal Identification
- In accordance with UL, CSA, and international conventions

Product Identification
- Identification, ratings, and color code in accordance with UL, CSA, and IEC requirements

Lockout / Tagout
- "ON" and "OFF" lockout/tagout capability at switch handle; complies with OSHA Reg. 29CFR 1910.147

Mounting
- Switch Version (internal or external adjustable mounting feet)
- Compact Version (internal mounting)
- Circuit Breaker Version (internal or external adjustable mounting feet)

Environmental:

Moisture Resistance
- Watertight IP67 (washdown); UL Type 4X splashproof (IP44)

Flammability
- UL94-5VA & V0 classifications

Operating Temperatures
- Maximum Continuous: 60°C (140°F)
- Minimum Continuous: -40°C (-40°F)

UV Resistance
- UV stabilized material

Chemicals
- Resists most standard industrial hydrocarbons, acids, bases, and solvents

Materials:

Enclosure (all exterior components)
- UL94-5VA/V0, UV stabilized, impact modified Valox

Contact Carrier
- Molded arc resistant UL94-V0 thermoplastic

Gaskets
- Neoprene or EPDM

Contacts (NEMA 4X, Watertight IP67)
- Brass, nickel plated

Contacts (Splashproof IP44)
- Brass

Hardware (screws and springs)
- Steel with zinc plated blue chromate or nickel plating

Approvals and Compliances:
- UL508 (switch version) motor disconnect
- UL508 (compact version) manual motor controller
- UL231 & UL489 (circuit breaker version)
- UL1682 & 1686
- CSA C22.2 No. 14, 182.1
- IEC 309-1 & IEC 309-2

IEC 309 Plugs, Connectors, Receptacles, and Inlets

Non-hazardous Light Industrial Materials

NEMA 4X
IP67
Watertight / Splashproof

Plug:

- Assembly Screws* - steel, electro zinc plated
- Friction Ring* - steel, electro zinc plated
- Gland Cap - polycarbonate blend
- Grommet - solid neoprene
- Housing (Front and Back) - type 6 nylon
- Internal Cord Clamp - type 6 nylon
- Locking Ring - type 6 nylon
- Pins (Watertight) - brass, nickel plated
- Pins (Splashproof) - brass
- Sealing Gasket - neoprene
- Terminal Screws - steel, nickel plated

Inlet:

- Housing - type 6 nylon
- Locking Ring - type 6 nylon
- Mounting Flange - type 6 nylon
- Pins (Watertight) - brass, nickel plated
- Pins (Splashproof) - brass
- Sealing Gasket - neoprene
- Terminal Screws - steel, nickel plated

*Stainless steel available upon request.

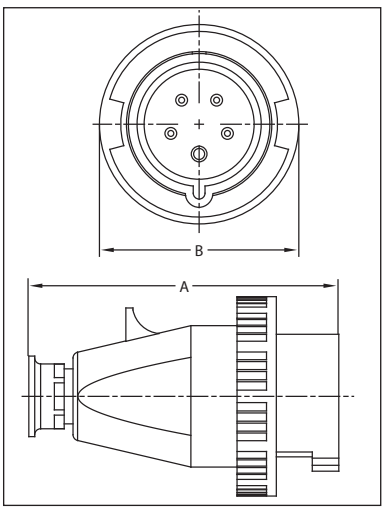
Connector:

- Assembly Screws* - steel, electro zinc plated
- Cover - type 6 nylon
- Cover Fastener - nickel plated brass, brass, or macrolon
- Cover Spring - stainless steel (A2)
- Friction Ring* - steel, electro zinc plated
- Gland Cap - polycarbonate blend
- Grommet - solid neoprene
- Housing (Front and Back) - type 6 nylon
- Internal Cord Clamp - type 6 nylon
- Sealing Gasket - neoprene
- Sleeve Spring - steel, nickel plated
- Sleeves (Watertight) - brass, nickel plated
- Sleeves (Splashproof) - brass
- Terminal Screws - steel, nickel plated

Receptacle:

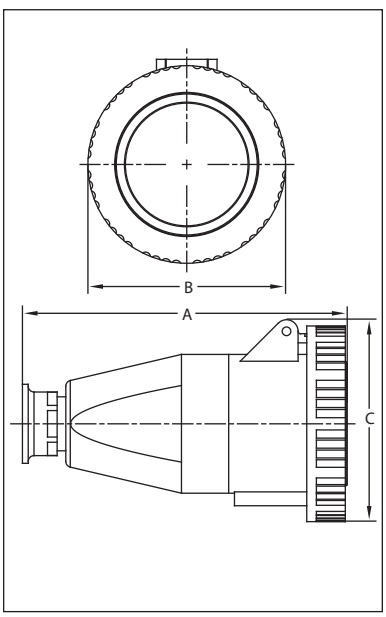
- Cover - type 6 nylon
- Cover Fastener - nickel plated brass, brass, or macrolon
- Cover Spring - stainless steel (A2)
- Housing - type 6 nylon
- Mounting Flange - type 6 nylon
- Sealing Gasket - neoprene
- Sleeve Spring - steel, nickel plated
- Sleeves (Watertight) - brass, nickel plated
- Sleeves (Splashproof) - brass
- Terminal Screws - steel, nickel plated

Non-hazardous Light Industrial Dimensions



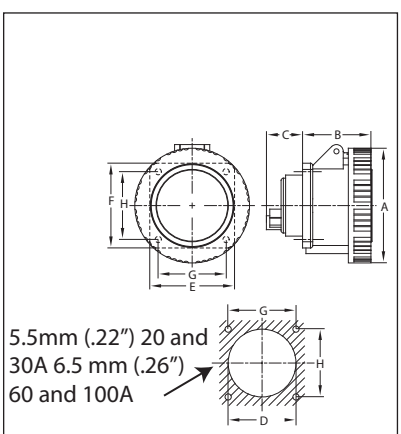
Watertight Plugs (IP67) Dimensions:

Amps			Dimensions		Cord Grip Range	
N.A.	Intl.	Poles	A	B		
			inch (mm)	inch (mm)	N. American	International
20	16	3	4.96 (126)	2.83 (72)	0.275-0.530 (7.0-13.5)	0.275-0.530 (7.0-13.5)
20	16	4	5.20 (132)	3.19 (81)	0.395-0.825 (10.0-21.0)	0.275-0.630 (7.0-16.0)
20	16	5	5.20 (132)	3.46 (88)	0.395-0.825 (10.0-21.0)	0.275-0.630 (7.0-16.0)
30	32	3	6.14 (156)	3.78 (96)	0.395-0.825 (10.0-21.0)	0.395-0.825 (10.0-21.0)
30	32	4	6.14 (156)	3.78 (96)	0.650-1.10 (16.5-28.0)	0.395-0.825 (10.0-21.0)
30	32	5	6.14 (156)	4.06 (103)	0.650-1.10 (16.5-28.0)	0.395-0.825 (10.0-21.0)
60	63	3, 4 & 5	9.57 (243)	4.33 (110)	0.650-1.50 (16.5-38.0)	0.650-1.50 (16.5-38.0)
100	125	3, 4 & 5	12.40 (315)	5.12 (130)	0.950-1.90 (24.0-48.0)	0.950-1.90 (24.0-48.0)



Watertight Connectors (IP67) Dimensions:

Amps			Unit of Measure	Dimensions			Cord Grip Range	
N.A.	Intl.	Poles		A	B	C	N. American	International
20	16	3	inch	5.35	2.83	3.07	0.275-0.530	0.275-0.530
			mm	136	72	78	7.0-13.5	7.0-13.5
20	16	4	inch	5.63	3.19	3.35	0.395-0.825	0.275-0.630
			mm	143	81	85	10.0-21.0	7.0-16.0
20	16	5	inch	5.63	3.46	3.58	0.395-0.825	0.275-0.630
			mm	143	88	91	10.0-21.0	7.0-16.0
30	32	3	inch	6.97	3.78	3.78	0.395-0.825	0.395-0.825
			mm	177	96	96	10.0-21.0	10.0-21.0
30	32	4	inch	6.97	3.78	3.78	0.650-1.10	0.395-0.825
			mm	177	96	96	16.5-28.0	10.0-21.0
30	32	5	inch	6.97	4.06	4.13	0.650-1.10	0.395-0.825
			mm	177	103	105	16.5-28.0	10.0-21.0
60	63	3, 4 & 5	inch	10.0	4.33	4.61	0.650-1.50	0.650-1.50
			mm	255	110	117	16.5-38.0	16.5-38.0
100	125	3, 4 & 5	inch	13.1	5.12	5.12	0.950-1.90	0.950-1.90
			mm	332	130	130	24.0-48.0	24.0-48.0



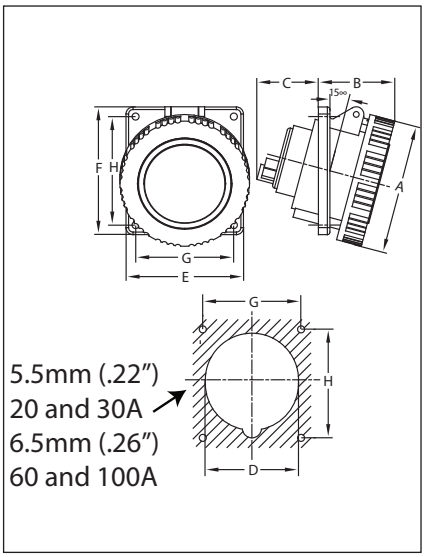
Watertight Receptacles (IP67) Dimensions - Straight:

Amps			Unit of Measure	Dimensions							
N.A.	Intl.	Poles		A	B	C	D	E	F	G	H
20	16	3	inch	2.82	2.05	1.10	1.81	2.44	2.44	1.85	1.85
			mm	71.5	52	28	46	62	62	47	47
20	16	4	inch	3.19	2.05	1.10	2.36	2.95	2.95	2.36	2.36
			mm	81	52	28	60	75	75	60	60
20	16	5	inch	3.46	2.05	1.10	2.36	2.95	2.95	2.36	2.36
			mm	88	52	28	60	75	75	60	60
30	32	3 & 4	inch	3.78	2.56	1.06	2.36	2.95	2.95	2.36	2.36
			mm	96	65	27	60	75	75	60	60
30	32	5	inch	4.06	2.56	1.06	2.36	2.95	2.95	2.36	2.36
			mm	103	65	27	60	75	75	60	60
60	63	3, 4 & 5	inch	4.29	3.27	2.05	3.54	3.94	4.21	3.03	3.35
			mm	109	83	52	90	100	107	77	85
100	125	3, 4 & 5	inch	5.12	3.78	2.52	3.54	4.49	4.49	3.54	3.54
			mm	130	96	64	90	114	114	90	90

IEC 309 Plugs, Connectors, Receptacles, Inlets, and Interlocks

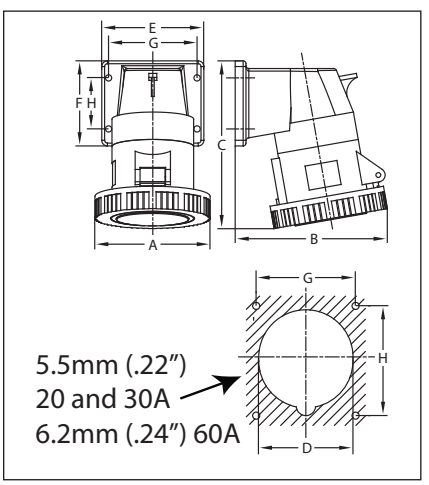
Non-hazardous Light Industrial Dimensions

NEMA 4X
IP67
Watertight / Splashproof



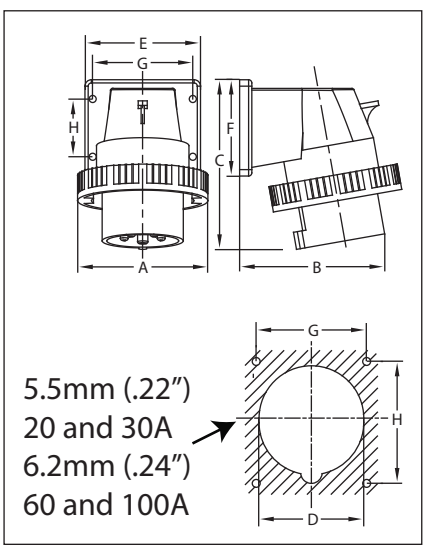
Watertight Receptacles (IP67) Dimensions - Angled 15°:

Amps			Unit of Measure	Dimensions							
N.A.	Intl.	Poles		A	B	C	D	E	F	G	H
20	16	3	inch	2.82	1.93	1.61	2.01	2.44	2.68	1.85	1.85
			mm	71.5	49	41	51	62	68	47	47
20	16	4	inch	3.19	2.05	1.50	2.87	3.62	3.94	3.03	3.35
			mm	81	52	38	73	92	100	77	85
20	16	5	inch	3.46	2.05	1.50	2.87	3.62	3.94	3.03	3.35
			mm	88	52	38	73	92	100	77	85
30	32	3 & 4	inch	3.78	2.20	1.85	2.87	3.62	3.94	3.03	3.35
			mm	96	56	47	73	92	100	77	85
30	32	5	inch	4.06	2.36	1.85	2.87	3.62	3.94	3.03	3.35
			mm	103	60	47	73	92	100	77	85
60	63	3, 4 & 5	inch	4.29	3.23	2.52	3.19	3.94	4.21	3.03	3.35
			mm	109	82	64	81	100	107	77	85
100	125	3, 4 & 5	inch	5.12	3.70	2.95	3.54	4.49	4.49	3.54	3.54
			mm	130	94	75	90	114	114	90	90



Watertight Receptacles (IP67) Dimensions - Angled 80°:

Amps			Unit of Measure	Dimensions							
N.A.	Intl.	Poles		A	B	C	D max	E	F	G	H
20	16	3	inch	2.83	3.46	4.29	1.18	2.56	2.05	2.17	1.18
			mm	72	88	109	30	65	52	55	30
20	16	4	inch	3.19	4.25	4.84	1.50	3.15	2.60	2.68	1.57
			mm	81	108	123	38	80	66	68	40
20	16	5	inch	3.46	4.25	4.84	1.50	3.15	2.60	2.68	1.57
			mm	88	108	123	38	80	66	68	40
30	32	3 & 4	inch	3.78	4.76	5.71	1.73	3.54	2.95	3.07	1.77
			mm	96	121	145	44	90	75	78	45
30	32	5	inch	4.06	4.84	5.71	1.73	3.54	2.95	3.07	1.77
			mm	103	123	145	44	90	75	78	45
60	63	3, 4 & 5	inch	4.33	5.63	7.99	2.20	4.49	4.49	3.54	3.54
			mm	110	143	203	56	114	114	90	90

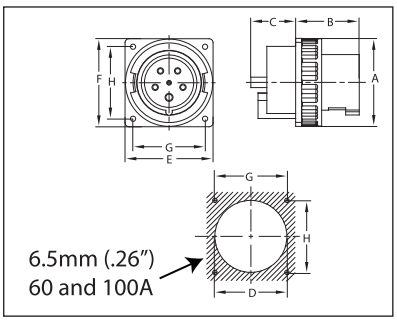


Watertight Inlets (IP67) Dimensions - Angled 80°:

Amps			Unit of Measure	Dimensions							
N.A.	Intl.	Poles		A	B	C	D	E	F	G	H
20	16	3	inch	2.83	3.19	3.86	1.18	2.56	2.05	2.17	1.18
			mm	72	81	98	30	65	52	55	30
20	16	4	inch	3.19	3.90	4.33	1.50	3.15	2.60	2.68	1.57
			mm	81	99	110	38	80	66	68	40
20	16	5	inch	3.50	4.06	4.45	1.50	3.15	2.60	2.68	1.57
			mm	89	103	113	38	80	66	68	40
30	32	3	inch	3.78	4.45	5.12	1.73	3.54	2.95	3.07	1.77
			mm	96	113	130	44	90	75	78	45
30	32	4	inch	3.78	4.45	5.12	1.73	3.54	2.95	3.07	1.77
			mm	96	113	130	44	90	75	78	45
30	32	5	inch	4.02	4.61	5.12	1.73	3.54	2.95	3.07	1.77
			mm	102	117	130	44	90	75	78	45
60	63	3, 4 & 5	inch	4.33	5.00	7.20	2.20	4.49	4.49	3.54	3.54
			mm	110	127	183	56	114	114	90	90

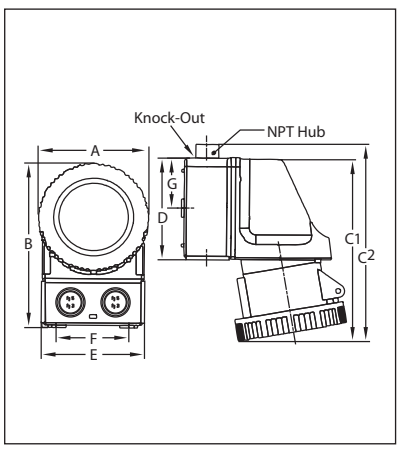
COOPER Crouse-Hinds

Non-hazardous Light Industrial Dimensions



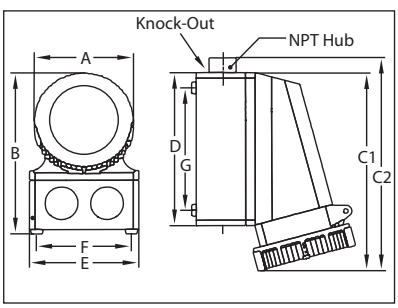
Watertight Inlets (IP67) Dimensions - Straight:

Amps			Unit of Measure	Dimensions							
N.A.	Intl.	Poles		A	B	C	D	E	F	G	H
100	125	3	inch	5.12	3.70	2.20	3.54	5.12	5.12	4.09	4.09
			mm	130	94	56	90	130	130	104	104
100	125	4	inch	5.12	3.70	2.20	3.54	5.12	5.12	4.09	4.09
			mm	130	94	56	90	130	130	104	104
100	125	5	inch	5.12	3.70	2.20	3.54	5.12	5.12	4.09	4.09
			mm	130	94	56	90	130	130	104	104



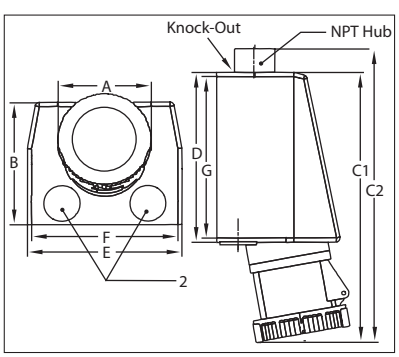
Watertight Receptacles (IP67) Dimensions - Surface Mount, Angled 80º

Amps				Dimensions								
N.A.	Intl.	Wire	Unit of Measure	A	B	C1	C2	D	E	F	G	Hub Size
20	16	3 Wire	inch	2.83	5.51	6.46	7.13	3.78	3.74	2.62	1.87	¾"
			mm	72	140	164	181	96	95	66.5	47.5	
20	16	4 Wire	inch	3.19	5.67	6.46	7.13	3.78	3.74	2.62	1.87	¾"
			mm	81	144	164	181	96	95	66.5	47.5	
20	16	5 Wire	inch	3.46	5.79	6.46	7.13	3.78	3.74	2.62	1.87	¾"
			mm	88	147	164	181	96	95	66.5	47.5	
30	32	3 Wire	inch	3.78	6.06	6.93	7.60	3.78	3.74	2.62	1.87	¾"
			mm	96	154	176	193	96	95	66.5	47.5	
30	32	4 Wire	inch	3.78	6.06	6.93	7.60	3.78	3.74	2.62	1.87	¾"
			mm	96	154	176	193	96	95	66.5	47.5	
30	32	5 Wire	inch	4.06	6.14	6.93	7.60	3.78	3.74	2.62	1.87	¾"
			mm	103	156	176	193	96	95	66.5	47.5	



Watertight Receptacles (IP67) Dimensions - Surface Mount, Angled 80º:

Amps				Dimensions								
N.A.	Intl.	Wire	Unit of Measure	A	B	C1	C2	D	E	F	G	Hub Size
60	63	4 Wire	inch	4.33	7.01	8.82	9.76	6.77	4.76	4.09	5.35	1 ¼"
			mm	110	178	224	248	172	121	104	136	
60	63	5 Wire	inch	4.33	7.01	8.82	9.76	6.77	4.76	4.09	5.35	1 ¼"
			mm	110	178	224	248	172	121	104	136	

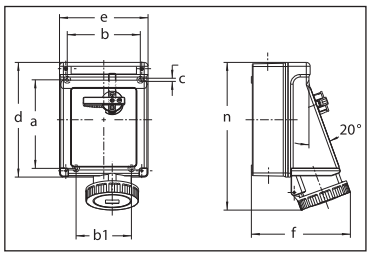


Watertight Receptacles (IP67) Dimensions - Surface Mount, Angled 80º:

Amps				Dimensions								
N.A.	Intl.	Wire	Unit of Measure	A	B	C1	C2	D	E	F	G	Hub Size
100	125	3 Wire	inch	5.12	7.48	16.0	16.9	10.4	8.66	7.87	9.45	2"
			mm	130	190	406	430	263	220	200	240	
100	125	4 Wire	inch	5.12	7.48	16.0	16.9	10.4	8.66	7.87	9.45	2"
			mm	130	190	406	430	263	220	200	240	
100	125	5 Wire	inch	5.12	7.48	16.0	16.9	10.4	8.66	7.87	9.45	2"
			mm	130	190	406	430	263	220	200	240	

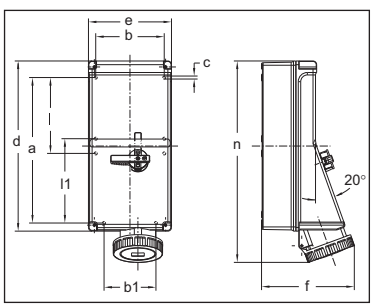
IEC 309 Plugs, Connectors, Receptacles, Inlets, and Interlocks

Non-hazardous Light Industrial Dimensions



IEC 309-1 and 309-2 Mechanical Interlock Dimensions:

Amps		Wires and Poles	Unit of Measure							IP44	NEMA 4X IP67	IP44	NEMA 4X IP67
N.A.	Intl.			a	b	b1	c	d	e	f	f	n	n
20	16	2W3P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.17	7.60	10.55	10.63
			mm	183	151	114	6.5	237	183	182	193	268	270
20	16	3W4P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.36	7.64	10.63	10.71
			mm	183	151	114	6.5	237	183	187	194	270	272
20	16	4W5P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.24	7.72	10.75	10.91
			mm	183	151	114	6.5	237	183	184	196	273	277
30	32	2W3P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.36	7.91	11.10	11.22
			mm	183	151	114	6.5	237	183	187	201	282	285
30	32	3W4P	inch	7.20	5.94	4.49	0.26	9.33	720	7.36	7.91	11.10	11.22
			mm	183	151	114	6.5	237	183	187	201	282	285
30	32	4W5P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.44	7.91	11.18	11.38
			mm	183	151	114	6.5	237	183	189	201	284	289
60	63	2W3P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.72	8.23	11.89	12.17
			mm	183	151	114	6.5	237	183	196	209	302	309
60	63	3W4P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.72	8.23	11.89	12.17
			mm	183	151	114	6.5	237	183	196	209	302	309
60	63	4W5P	inch	7.20	5.94	4.49	0.26	9.33	7.20	7.72	8.23	11.89	12.17
			mm	183	151	114	6.5	237	183	196	209	302	309



IEC 309-1 and 309-2 Mechanical Interlock Dimensions:

Amps		Wires and Poles	Unit of Measure							NEMA 4X IP44	NEMA 4X IP44
N.A.	Intl.			a	b	b1	c	d	e	f	n
100	125	2W3P	inch	12.44	5.94	4.96	0.26	14.57	7.20	9.57	17.72
			mm	316	151	126	6.5	370	183	243	450
100	125	3W4P	inch	12.44	5.94	4.96	0.26	14.57	7.20	9.57	17.72
			mm	316	151	126	6.5	370	183	243	450
100	125	4W5P	inch	12.44	5.94	4.96	0.26	14.57	7.20	9.57	17.72
			mm	316	151	126	6.5	370	183	243	450

WLRS, WLRD and WLGF Wet Location Covers

For NEMA Configuration Receptacle Interiors
For FS and FD Cast Device Boxes
Flush Device Boxes

Applications:

WLRS, WLRD and WLGF series covers are suitable for use in wet and damp locations. WLGF is suitable for damp and wet locations only when cover is closed. WLRS and WLRD series wiring device covers are designed to meet the total NEC Code requirements for wet locations – Article 410-57:

> "A receptacle installed outdoors where exposed to weather or in other wet locations shall be in a weatherproof enclosure, the integrity of which is not affected when the receptacle is in use (attachment plug cap inserted)."

Use WLRS, WLRD and WLGF:

- Wherever portable equipment is required
- As general purpose utility receptacle covers
- For industrial, commercial or residential use
- In areas where electrical requirements do not exceed medium duty ratings
- To mount FS and FD single-gang or multi-gang boxes having individual cover openings (see Sect. 2F for listings)
- To mount on most flush device boxes (see Accessories)

Features:

WLRS, WLRD and WLGF covers:

- Self-closing spring door assures protection of wiring device at all times, in wet and damp locations
- One piece EPDM gasket provides environmental protection of wiring device at all times
- Specially formulated elastomeric gasketing material offers excellent resistance to ozone, weather and temperature extremes of –50°F to 260°F
- Die cast, copper-free aluminum construction with aluminum lacquer finish provides maximum corrosion resistance
- Positive ground path ensured for all exposed metal parts

NEMA configuration receptacle interiors:

- Comply with NEMA Standards WD-1 and WD-5
- Grounded through an extra contact in all types except 3-phase applications; self-grounded in duplex variety
- Back and side wired
- Offered in single and duplex configurations for use with standard plugs
- Specification grade

Certifications and Compliances:

- ANSI/UL Standard: 514A
- NEC Code 410-57
- NEMA Standards: WD-1, 1983 (Straight Blade) and WD-5, 1982 (Locking Type)

Standard Materials:

- WLRS, WLRD and WLGF face plate and cover – die cast copper-free aluminum
- Cover hinge spring – stainless steel
- Cover screws – corrosion resistant metal
- Gasket – WLRS and WLRD – ethylene propylene rubber (EPDM)
- Gasket – WLGF – neoprene

Standard Finishes:

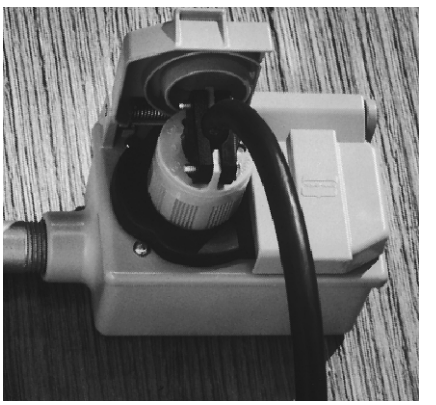
- Copper-free aluminum

Electrical Rating Ranges:

- 15 amperes; 125, 250, or 277 volts
- 20 and 30 amperes; 125, 250, 277, 480, 600, 125/250, 208/120, 480/277 or 600/347 volts

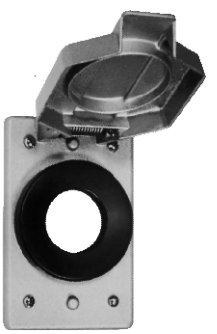
Accessories:

- Flush mounting adapter – WLRA-1 required for mounting on device boxes (not required with WLGF)

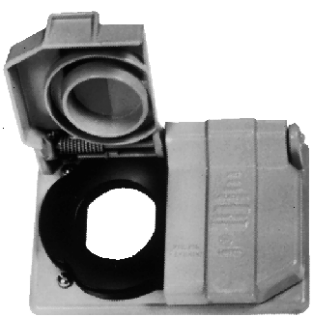


Typical Installation

Spring Door Covers – with Gasket*



Single Cover



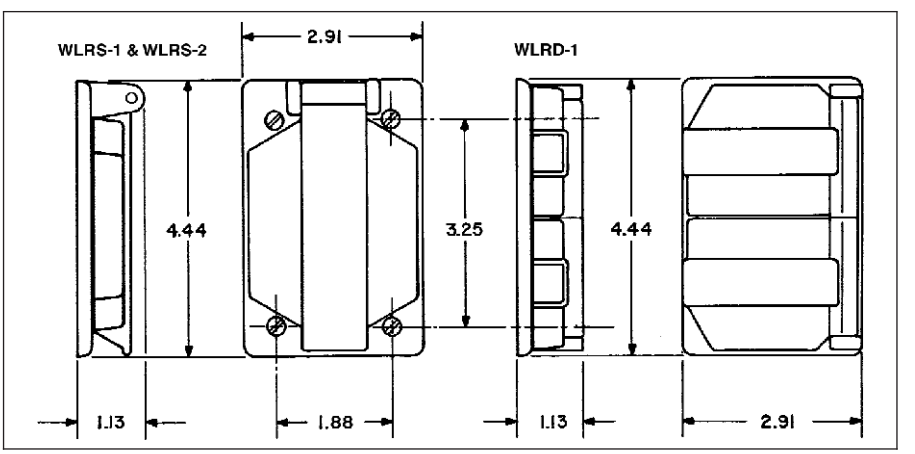
Duplex Cover

Cat. #	Description	Opening Dia.
WLRS1	Single cover	1⅜"
WLRS2	Single cover	1½"
WLRD1	Duplex cover	1⅜"

*Patent Number 4,058,358

Dimensions

In Inches:



Covers with and without NEMA Configuration Receptacles

Single Device

Type	Volts	NEMA Configuration	Complete Cover with Receptacle Assy. Cat. #	Spring Door Cover & Gasket Only Cat. #‡
For Non-locking Blade Plugs				
2-Pole 3-Wire Grounding **15 Amp**	125V	5-15R	**WLRS 5 15**	**WLRS1**
	250V	6-15R	**WLRS 6 15**	**WLRS1**
2-Pole 3-Wire Grounding **20 Amp**	125V	5-20R	**WLRS 5 20**	**WLRS1**
	250V	6-20R	**WLRS 6 20**	**WLRS1**
For Locking Blade Plugs				
2-Pole 3-Wire Grounding **15 Amp**	125V	L5-15R	**WLRS L5 15**	**WLRS1**
	250V	L6-15R	**WLRS L6 15**	**WLRS1**
2-Pole 3-Wire Grounding **20 Amp**	125V	L5-20R	**WLRS L5 20**	**WLRS2**
	250V	L6-20R	**WLRS L6 20**	**WLRS2**

Duplex Device

Type	Volts	NEMA Configuration	Complete Cover with Receptacle Assy. Cat. #	Spring Door Cover & Gasket Only Cat. #‡
For Non-locking Blade Plugs				
2-Pole 3-Wire Grounding **15 Amp**	125V	5-15R	**WLRD 5 15**	**WLRD1**
	250V	6-15R	**WLRD 6 15**	**WLRD1**
2-Pole 3-Wire Grounding **20 Amp**	125V	5-20R	**WLRD 5 20**	**WLRD1**
	250V	6-20R	**WLRD 6 20**	**WLRD1**
For Locking Blade Plugs				
2-Pole 3-Wire Grounding **15 Amp**	125V	L5-15R	**WLRD L5 15**	**WLRD1**

Wet Location Covers for GFCI Duplex Receptacles:

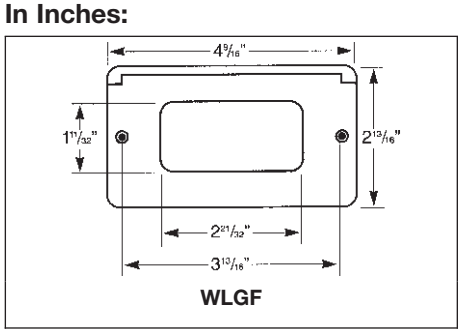
WLGF - horizontal mount for flush device boxes.

WLGF FS - horizontal mount for FS and FD device boxes.

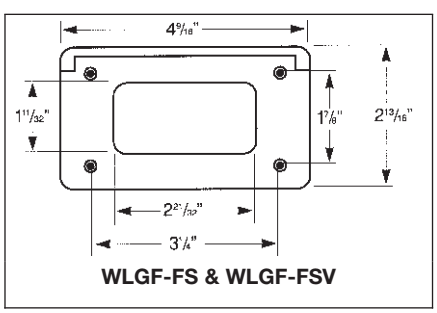
WLGF FSV – vertical mount for FS and FD device boxes.

Dimensions

In Inches:



WLGF



WLGF-FS & WLGF-FSV

‡ Must be used with a wet locations rated wiring device.

Cable-Gard™ Static Discharge Reels

Applications:

Static discharge reels are used for grounding portable machines and equipment in hazardous areas, such as fuel transfer trucks, grain elevators, dockside loading facilities and barges. When properly clamped to ground the static discharge reel safely dissipates static electrical build-up and reduces the chance of sparking and the potential for explosion.

SDR-50

Features:

- Automatic rewinding
- Rugged steel construction
- Compact enclosed design
- Positive ratchet lock
- Lock on/lock off switch
- Steel cable installed
- 100 amp universal jaw-type grounding clamp
- Safety orange polyester baked-on finish

Standard Materials:

- Housing – steel construction

Standard Finishes:

- Housing – orange polyester; baked on finish

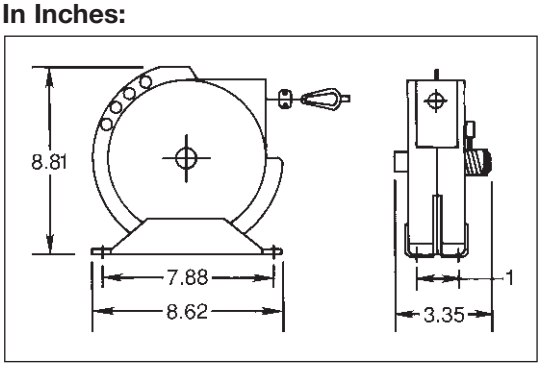
Ordering Information:

Cable Length (Feet)	Description	Weight Complete lbs.	(Kg)	Cat. #
50	Single 7 × 30 steel*	12	(5.4)	**SDR 50**
50	35' plus 2 × 15' for Y (steel*)	13	(5.9)	**SDR 50Y**
50	Nylon covered cable*	12	(5.4)	**SDR 50N**

*Static discharge reels are supplied complete with 3/32" steel aircraft cable. DC resistance is approximately one ohm per 50 ft. of steel cable.

Dimensions

In Inches:



Applications:

Cable-Gard cable reels are designed for the constant, predictable pull of a machine and are designed for reliable operation in many applications. Typical uses include travelling cars, mobile hoists and various objects being lifted under power such as lifting magnets on cranes.

Features:

- Unitized slip ring assembly transfers current from stationary to rotary. Brushes are an integral part of the slip ring assembly.
- Safe to change spring motor that is sized per application, clock type spring with window shade type action. Sealed in disposable housing, spring is never exposed to unravel and possibly harm.
- Watertight cable entrance terminates cord to reel spool with positive grip, watertight seal.
- Large junction box with ¾" NPT conduit entrance may be positioned in choice of four directions.
- Multi-position roller guide is adjustable to 4 different positions. Allows easy adaptation of reel to positioning requirements of the application and controlled uniform retraction of cable onto spool. Roller guides are optional; consult factory.
- Baked-on powder epoxy finish provides tightly bonded, homogenous shield to abrasion and corrosion.
- Ratchet lock is provided for window shade type action. May be easily disengaged in field for constant tension applications.

Certifications and Compliances:

- ANSI/UL 355
- CSA C22.2
- NEMA 3, 3R

Standard Materials:

- Frame, spool – steel

Standard Finishes:

- Baked on powder epoxy – orange

Options:

Description **Suffix**

- Ball stop – keeps cable from rewinding out of reach in hand-pull applications.

Cable Range O.D. Min./Max. **Suffix**

.38 – .50 ..... **C1**
.50 – .75 ..... **C2**
.75 – 1.00 ..... **C3**

Ball stop may be ordered separately; use suffix number as catalog number.

- Pivot base – Pivot base allows 340° rotation of reel. Required for applications demanding reel self-alignment to direction of the cable run. ..... **S**

To order separately:

Series	Pivot Base Cat. #
W14	**PB14**
W16	**PB16**
W19	**PB19**

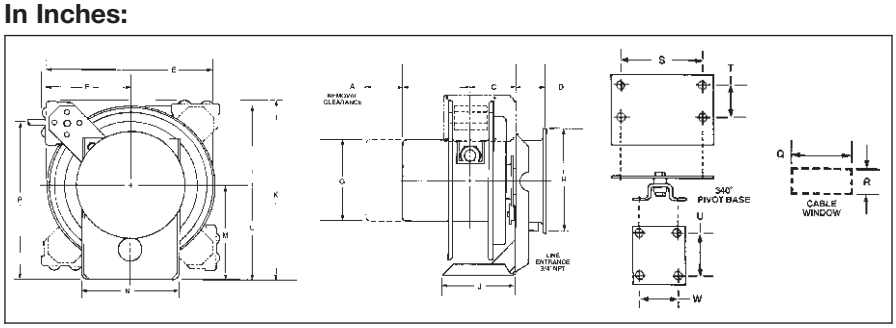
- Reel supplied less cable ..... **NS**

Electrical Ranges:

- 600 VAC (cable reel)
- Cord: #16 – #10, Type "SO", #8, Type "W", or Type "G" (see listings).

Dimensions

In Inches:



Frame Size	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
W14	3.75	2.75	13.75	8.25	7.00	9.25	6.12	16.25	15.00	8.12	8.00	14.25	2.50	1.25
W16	5.50	2.75	15.75	9.31	7.00	9.25	7.94	18.25	17.00	9.12	8.50	16.25	3.00	1.25
W19	5.75	2.75	19.00	10.00	10.50	9.25	7.00	20.50	20.25	10.75	11.00	18.50	3.50	1.25

Slip Ring Housing Dimensions:

W14			W16			W19		
Poles/Amps	**A**	**B**	**Poles/Amps**	**A**	**B**	**Poles/Amps**	**A**	**B**
1–4; 30 Amps	4.50	5.69	1–4; 30 Amps	4.50	5.94	1–4; 30 Amps	3.25	5.44
5–8; 30 Amps	6.00	7.19	5–8; 30 Amps	6.00	7.44	5–8; 30 Amps	4.50	6.69
9–12; 30 Amps	7.50	8.69	9–12; 30 Amps	7.50	8.94	9–12; 30 Amps	6.00	8.19
1–4; 55 Amps	6.00	7.19	1–4; 54 Amps	6.00	7.44	1–4; 55 Amps	4.50	6.69

Applications:

Cable-Gard cable reels are designed for the constant, predictable pull of a machine and are designed for reliable operation in many applications. Typical uses include travelling cars, mobile hoists and various objects being lifted under power such as lifting magnets on cranes.

Features:

- Unitized slip ring assembly transfers current from stationary to rotary. Brushes are an integral part of the slip ring assembly.
- Safe to change spring motor that is sized per application, clock type spring with window shade type action. Sealed in disposable housing, spring is never exposed to unravel and possibly harm.
- Watertight cable entrance terminates cord to reel spool with positive grip, watertight seal.
- Large junction box with ¾" NPT conduit entrance may be positioned in choice of four directions.
- Multi-position roller guide is adjustable to 4 different positions. Allows easy adaptation of reel to positioning requirements of the application and controlled uniform retraction of cable onto spool. Roller guides are optional; consult factory.
- Baked-on powder epoxy finish provides tightly bonded, homogenous shield to abrasion and corrosion.
- Ratchet lock is provided for window shade type action. May be easily disengaged in field for constant tension applications.

Certifications and Compliances:

- ANSI/UL 355
- CSA C22.2
- NEMA 3, 3R

Standard Materials:

- Frame, spool – steel

Standard Finishes:

- Baked on powder epoxy – orange

Options:

Description **Suffix**

- Ball stop – keeps cable from rewinding out of reach in hand-pull applications.

Cable Range O.D. Min./Max. **Suffix**

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To order separately:

Series	Pivot Base Cat. #
W14	**PB14**
W16	**PB16**
W19	**PB19**

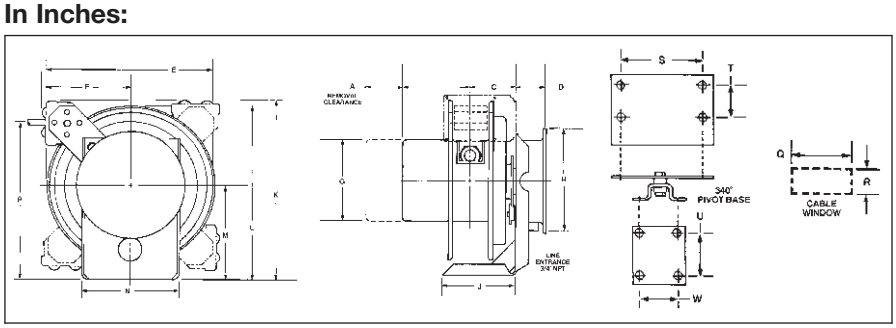
- Reel supplied less cable ..... **NS**

Electrical Ranges:

- 600 VAC (cable reel)
- Cord: #16 – #10, Type "SO", #8, Type "W", or Type "G" (see listings).

Dimensions

In Inches:

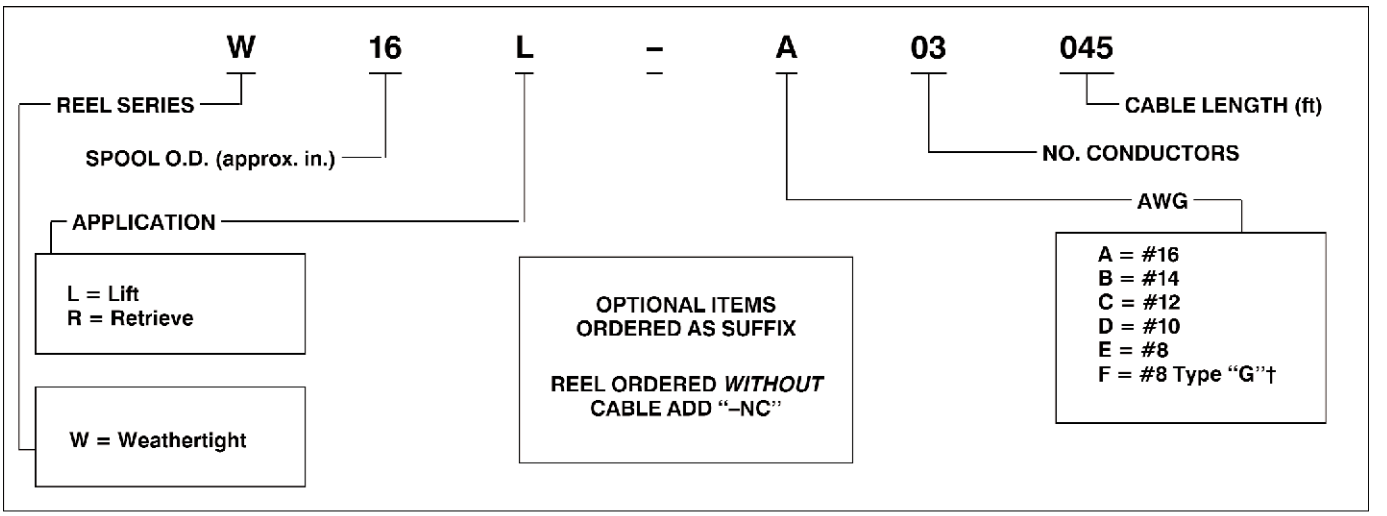


Frame Size	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
W14	3.75	2.75	13.75	8.25	7.00	9.25	6.12	16.25	15.00	8.12	8.00	14.25	2.50	1.25
W16	5.50	2.75	15.75	9.31	7.00	9.25	7.94	18.25	17.00	9.12	8.50	16.25	3.00	1.25
W19	5.75	2.75	19.00	10.00	10.50	9.25	7.00	20.50	20.25	10.75	11.00	18.50	3.50	1.25

Slip Ring Housing Dimensions:

W14			W16			W19		
Poles/Amps	**A**	**B**	**Poles/Amps**	**A**	**B**	**Poles/Amps**	**A**	**B**
1–4; 30 Amps	4.50	5.69	1–4; 30 Amps	4.50	5.94	1–4; 30 Amps	3.25	5.44
5–8; 30 Amps	6.00	7.19	5–8; 30 Amps	6.00	7.44	5–8; 30 Amps	4.50	6.69
9–12; 30 Amps	7.50	8.69	9–12; 30 Amps	7.50	8.94	9–12; 30 Amps	6.00	8.19
1–4; 55 Amps	6.00	7.19	1–4; 54 Amps	6.00	7.44	1–4; 55 Amps	4.50	6.69

Catalog Numbering System:



† Type "G" cable is supplied with a ground conductor.

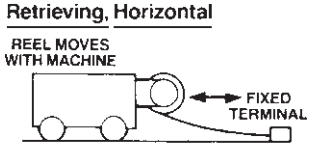
Reel Selection Process:

Determine:

1. **Cable Size and No. of Conductors**
   Be sure to choose cable that will adequately handle the current load (include ground when stating number of conductors). If the desired cable is not listed, consult factory.
2. **Cable Length**
   Reels in this brochure will handle up to 150 feet of cable. Decide how far your equipment will travel from the reel and choose the appropriate column. The amount of cable needed to install the cable on the reel has been included. However, you must add:
   1) the amount of cable needed for Hook-Up to your equipment, and
   2) Cable Sag Allowance if "Stretch" applications (see footnote*). Round up to the nearest footage on the selection chart.

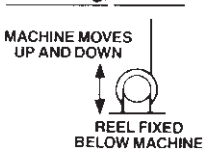
   Cable Length Needed = Equipment Travel Distance Plus Hook-Up Plus Sag Allowance. (Sag allowance needed for "stretch" applications only.)
3. **Type Of Cable**
   This is important as stranding and construction vary. Cable-Gard reels are provided with cable as listed in the electrical ranges listed on previous page.
4. **Application**

Retrieving, Horizontal



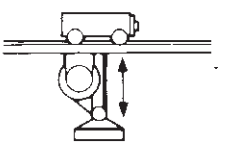
A horizontal retrieve application is identified when the reel is mounted on the moving equipment. The reel pays out and picks up the cable from a tray or other support.

Retrieving, Vertical



This application requires the reel to wind and unwind the cable but not lift or support the cable. A typical example is where the reel is mounted to the ground and the cable is attached to an elevating machine. In some cases the cable is anchored above and the reel rides up and down on an elevating machine.

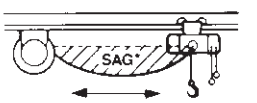
Lifting, Vertical



Any application where cable is simply hoisted vertically with the reel lifting only the weight of the cable. Special considerations must be given to any weight added to the end of the cable such as a push-button station. Listed spring tension is not designed to accommodate added weight. Consult the manufacturer for a specific recommendation.

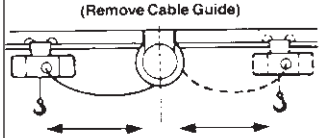
Stretching*, Horizontal

END MOUNTING



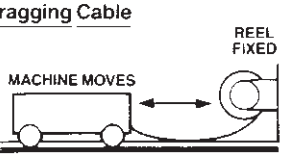
In addition to being capable of lifting cables vertically, all reels listed will stretch cables horizontally as shown. When stretching horizontally (unsupported, except at the reel and the moving current consumer) the sag or droop of the cable may be important. Spring tension on these reels is designed to provide for 8 - 10% sag at the midpoint of travel when fully extended. Stronger tension could be a problem for light, free moving loads which tend to be pulled toward the reel. The cable weight alone can pull a light load.

CENTER MOUNTING
(Remove Cable Guide)



CENTER MOUNTING (cable guide is removed) can save over the cost of end mounting. For example, a machine traveling 50 ft can be serviced by a center-mounted reel equipped with 25 ft. of cable. A comparable end-mounted reel would require the full 50 ft. of cable.

Dragging Cable



Drag applications refer to a reel mounted in a fixed (non-moving) position and the cable terminated on a moving machine. As the *machine* moves, the cable is pulled off of the reel and "dragged" over the surface. This is **NOT** a recommended application because of abuse to the cable resulting in shortened life.

*Sag allowance must be considered when figuring cable length for STRETCH applications. Add 1 ft. of cable for each 50 ft. of working cable calculated for your application. (Working cable excludes hook-up length.)

Reels for Lifting/Stretching:

EXAMPLES:

A hoist is to travel 52 feet along an I-beam – this is a Stretch application. Required cable is 4 Conductor/No. 14. Hook-up is 2 feet.

The following EXAMPLES appear in bold type in the selection charts.

1. If the reel must be END MOUNTED, the required cable length would be 52 feet, plus 2 feet for the hook-up plus 2 feet for sag consideration*. Round up to 60 feet per the available footage in the chart below. The correct model to choose would be **W16L-B04060**.
2. If the reel may be CENTER MOUNTED, only half as much cable is required – it will be used in both directions. Half of the required length would be 26 feet, plus 2 feet for the hook-up plus 1 foot for sag consideration for a total of 29 feet. Round up to 30 feet and choose model **W14L-B04030**. A savings will be realized because less cable was used and, thus, a smaller reel was required.

Selection Chart:

Wire Size	No. of Cond.	20 Feet	30 Feet	40 Feet	50 Feet	60 Feet	70 Feet
16	3	W14L A03020	W14L A03030	W14L A03040	W16L A03050	W16L A03060	W19L A03070
	4	W14L A04020	W14L A04030	W14L A04040	W16L A04050	W16L A04060	W19L A04070
	6	W14L A06020	W14L A06030	W14L A06040	W14L A06050	W16L A06060	W19L A06070
	8	W16L A08020	W16L A08030	W16L A08040	W16L A08050	W16L A08060	W19L A08070
	10	W16L A10020	W16L A10030	W16L A10040	W16L A10050	W19L A10060	W19L A10070
	12	W16L A12020	W16L A12030	W16L A12040	W16L A12050	W19L A12060	W19L A12070
14	3	W14L B03020	W14L B03030	W14L B03040	W14L B03050	W16L B03060	W16L B03070
	4	W14L B04020	**W14L B04030**	W14L B04040	W14L B04050	**W16L B04060**	W16L B04070
	6	W14L B06020	W14L B06030	W16L B06040	W16L B06050	W16L B06060	W19L B06070
	8	W14L B08020	W16L B08030	W16L B08040	W16L B08050	W19L B08060	W19L B08070
	10	W14L B10020	W16L B10030	W19L B10040			
	12	W16L B12020	W16L B12030	W19L B12040			
12	3	W14L C03020	W14L C03030	W14L C03040	W14L C03050	W16L C03060	W19L C03070
	4	W14L C04020	W14L C04030	W14L C04040	W16L C04050	W16L C04060	W19L C04070
	6	W14L C06020	W16L C06030	W16L C06040	W19L C06050	W19L C06060	
	8	W14L C08020	W16L C08030	W19L C08040			
10	3	W14L D03020	W14L D03030	W14L D03040	W16L D03050	W16L D03060	W19L D03070
	4	W14L D04020	W14L D04030	W16L D04040	W16L D04050	W19L D04060	W19L D04070
	6	W16L D06020					
8	2	W14L E02020	W16L E02030	W16L E02040	W19L E02050		
	3	W16L E03020	W16L E03030	W19L E03040			
	3†	W14L F03020	W16L F03030	W19L F03040			
	4	W16L E04020	W16L E04030	W19L E04040			

*Sag allowance must be considered when figuring cable length for Stretch applications. Add 1 foot of cable for each 50 feet of working cable calculated for your application. (Working cable excludes hook-up length.)
†Type "G" cable.

Reels for Retrieving:

EXAMPLES:
A moving car is to travel 55 feet. Required cable is 4 Conductor/No. 10. Extra cables needed to hook up to the car is 2 feet.

The following EXAMPLES appear in bold type in the selection charts.

1. If the reel must be END MOUNTED, the required cable length would be 55 feet, plus 2 feet for the hook-up. Round up to 60 feet per the available footage in the chart below. The correct model to choose would be **W19R-D04060**.
2. If the reel may be CENTER MOUNTED, only half as much cable is required – it will be used in both directions. Half of the required length would be 27.5 feet, plus 2 feet for the hook-up for a total of 29.5 feet. Round up to 30 feet and choose model **W14R-D04030**. A savings will be realized because less cable was used and, thus, a smaller reel was required.

Selection Chart:

Wire Size	No. of Cond.	20 Feet	30 Feet	40 Feet	50 Feet	60 Feet	70 Feet
16	3	W14R A03020	W14R A03030	W14R A03040	W16R A03050	W16R A03060	W19R A03070
	4	W14R A04020	W14R A04030	W14R A04040	W16R A04050	W16R A04060	W19R A04070
	6	W14R A06020	W14R A06030	W14R A06040	W14R A06050	W16R A06060	W19R A06070
	8	W14R A08020	W14R A08030	W16R A08040	W16R A08050	W16R A08060	W19R A08070
	10	W14R A10020	W14R A10030	W16R A10040	W16R A10050	W19R A10060	W19R A10070
	12	W14R A12020	W14R A12030	W16R A12040	W16R A12050	W19R A12060	W19R A12070
14	3	W14R B03020	W14R B03030	W14R B03040	W14R B03050	W16R B03060	W19R B03070
	4	W14R B04020	W14R B04030	W14R B04040	W14R B04050	W16R B04060	W19R B04070
	6	W14R B06020	W14R B06030	W16R B06040	W16R B06050	W16R B06060	W19R B06070
	8	W14R B08020	W16R B08030	W16R B08040	W19R B08050	W19R B08060	W19R B08070
	10	W14R B10020	W16R B10030	W19R B10040			
	12	W16R B12020	W16R B12030	W19R B12040			
12	3	W14R C03020	W14R C03030	W14R C03040	W14R C03050	W16R C03060	W16R C03070
	4	W14R C04020	W14R C04030	W14R C04040	W16R C04050	W16R C04060	W19R C04070
	6	W14R C06020	W16R C06030	W16R C06040	W19R C06050	W19R C06060	W19R 06070
	8	W14R C08020	W16R C08030	W19R C08040			
	10						
	12						
10	3	W14R D03020	W14R D03030	W14R D03040	W16R D03050	W16R D03060	W16R D03070
	4	W14R D04020	**W14R D04030**	W16R D04040	W16R D04050	**W19R D04060**	W19R D04070
	6	W14R D06020	W19R D06030	W19R D06040			
	8	W19R D08020	W19R D08030				
8	2	W14R E02020	W16R E02030	W16R E02040	W19R E02050	W20AR E02060	
	3	W14R E03020	W16R E03030	W19R E03040			
	3†	W14R F03020	W16R F03030	W19R F03040			
	4	W16R E04020	W16R E04030	W19R E04040			

†Type "G" cable.

8P Special Purpose Plugs and Receptacles

Application

Applications:

Special purpose plugs and receptacles listed in this section are for use in non-hazardous areas, where environmental or application considerations require non-standard plugs and receptacles. Included in this section are ARK-trol® plugs and receptacles (RPC and RPE).

ARK-trol Plugs and Receptacles (RPC and RPE):

- Are used with a wide range of equipment requiring a variety of contact configurations under conditions of hard usage and exposure to rigorous environments.
- Two basic types: RPC – circuit breaking power connectors; RPE – control circuit, power and welding connectors.

RPC – A variety of configurations (with a maximum of five-poles) are available for one and three-phase circuits. Electrical range is 30, 60, 100, 200 amperes at a maximum of 600 VAC.

RPE – A wider range of configurations are available, including options with up to 39 pins. Both types are available (either as standard or as option) with solder well terminals for high reliability, or crimp or pressure terminals for ease of installation. Listings on the following pages show complete assemblies with mating plugs and components. For information on features, options, components and complete assemblies,
see pages 1393–1395.

RPC Circuit Breaking Power Connectors
RPE Control Circuit and Power Connectors

Applications:

ARK-trol RPC circuit breaking power connectors and RPE control circuit power connectors are used:

- With a wide variety of portable electrical equipment
- For connection of devices ranging from simple lighting units, power tools, and similar portables requiring only a power supply circuit, to sophisticated control and instrumentation assemblies requiring disconnect
- Under conditions of hard usage and where exposed to dust, dirt, water, corrosion and chemical attack, providing high reliability and trouble-free service
- Indoors or outdoors in non-hazardous areas of petroleum refineries, chemical and petrochemical plants, manufacturing plants, military installations and similar locations
- On machine tools and similar equipment

Features:

- All *ARK-trol* connectors have the same properties, characteristics and environmental capabilities outlined under "Compliances"

Construction:

- All *ARK-trol* plug, receptacle and cord connector shell parts are of high-strength impact extruded aluminum, hard coated with a high density anodize finish. The resultant assemblies are lightweight, extremely strong, free from surface defects and flaws, and with superior resistance to abrasion, corrosion and chemical attack.
- "Tri-Disc" insert assemblies consist of two rigid insulators with a silicone rubber wafer between to provide a cushioning action against mechanical damage and to effect a positive seal against penetration by water, moisture, dust, gas and other undesirable matter. Assembly of the inserts compresses the silicone wafer to seal against the inner wall of the plug or receptacle shell, and around each individual contact.
- *ARK-trol* insulating material is of high dielectric and mechanical strength with low moisture absorption and excellent resistance to arc tracking. Socket contacts are each enclosed in a separate chamber in the silo insulator. Arcs formed while making or breaking a circuit are quickly snuffed out in the chambers.
- Contacts are removable and, for ease of installation, are snapped into the insert assemblies after wire termination. Termination methods employed are solder, crimp and pressure. Solder well contacts are standard and are furnished unless otherwise specified. Crimp contacts are available in all sizes and configurations. Pressure contacts, due to increased terminal area, are available only in certain assemblies as shown in the listings.
- For cable strain relief and watertight seal, plugs and cord connector recpetacles are provided with gland nut and tapered neoprene bushing.
- Contacts are removable and, for ease of installation, are snapped into the insert assemblies after wire termination. Termination methods employed are solder, crimp and pressure. Solder well contacts are standard and are furnished unless otherwise specified. Crimp contacts are available in all sizes and configurations. Pressure contacts, due to increased terminal area, are available only in certain assemblies as shown in the listings.
- For cable strain relief and watertight seal, plugs and cord connector recpetacles are provided with gland nut and tapered neoprene bushing.

Positive Polarization:

- Polarization of *ARK-trol* connectors is such that plugs and receptacles cannot be mated incorrectly.
- Insert assemblies must be correctly aligned and will fit plug and receptacle shells in one position only, because of a raised key on the inner wall of the shells.
- Seven keys on the inner wall of the receptacle and seven mating keyways on the outer diameter of the plug shell are spaced so that the plug and receptacle can be mated in one position only. One key and one keyway are larger than the other six as a guide to rapid connection, easily performed under adverse field conditions – even in total darkness.

Interchangeability:

- Shell components and insert assemblies in each diameter are interchangeable. Both male and female basic shells will accept either pin or socket inserts. This feature permits the use of both plug and receptacle in either an energized or de-energized condition.

Grounding:

- Grounded connectors have pin and socket contacts with integral grounding straps which press against the inner wall of plug, receptacle and cord connector shells, effectively bonding the shells to the grounding contacts.
- Grounding socket contacts are longer than current carrying contacts to make first and break last, assuring a positive ground before circuits are energized and after circuits are de-energized.

Standard Materials:

- Back boxes and adapters – copper-free aluminum
- Plug, receptacle and cord connector shells – impact extruded aluminum
- Insulation – diallyl phthalate (DAP)
- Insulation – fiberglass-reinforced polyester material
- Sealing wafer – silicone rubber
- Contacts – hard drawn copper

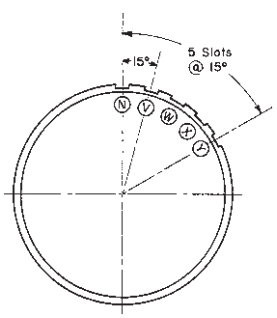
Standard Finishes:

- Copper-free aluminum – natural
- Impact extruded aluminum – hard coat anodized
- Diallyl phthalate – natural (blue)
- Fiberglass-reinforced polyester material – natural (red)
- Silicone – natural (grey)
- Copper – silver plated

Options:

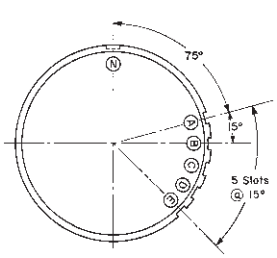
- Alternate polarities – ungrounded connectors. Standard polarity is position "N" shown below. Alternate positions "V", "W", "X" or "Y" can be furnished. To order, substitute for the letter "N" in the listed Cat. No., the letter for the desired polarization.

Example: RPC217-127–SO1N-ARE23 with polarity "X" becomes RCP217-127–SO1X-ARE23.



- Alternate polarities – grounded connectors. Standard polarity is position "A" shown below. Alternate positions "B", "C", "D" or "E" can be furnished. To order, substitute for the letter "A" in the listed Cat. No., the letter for the desired polarization.

Example: RPC217-127–SO2A-ARE23 with polarity "D" becomes RPC217-127–SO2D-ARE23.



RPC Circuit Breaking Power Connectors
RPE Control Circuit and Power Connectors

Options (continued):

- Crimp type contacts – available on all assemblies with solder well contacts. To order, add letter "T" to Cat. No., immediately following polarity letter.

Examples: RPC217-127–S01N-ARE23 and RPC217-127–S02A-ARE23 except with crimp contacts would be ordered as RPC217-127–S01NT-ARE23 and RPC217-127–S02AT-ARE23 respectively.

- Alternate cable strain relief methods for plugs and connectors:

  Stainless steel wire mesh cord grip. To order, add letter "K" to first section of Cat. No.

  Example: RPC117-150–P01N with wire mesh grip would be ordered as RPCK117-150–P01N.

Adapter for use with liquid tight/rigid conduit. To order, add letters "LT" to first section of catalog number.

Example: RPC117-150–P01N with liquid tight/conduit adapter would be ordered as RPCLT117-150–P01N.

Electrical Rating Ranges:

- Voltage – 250, 480 and 600VAC
- Frequency – 50* to 400 hertz
- See listings for specific ratings

Ampere Ratings:

- Ratings given in the table at right are applicable to RPC circuit breaking power connectors and RPE control connectors, as indicated.
- RPC connectors are capable of making or breaking circuits at the full rated load indicated in the table on the listing pages.
- Contact assemblies of RPE connectors have the current carrying capabilities shown in the table, as defined by applicable military specifications (MS) and NEC requirements, for circuits not made or broken under load. It should be noted that these non-interrupting ampere ratings exceed the NEC rating of the corresponding wire size.

Contact Size AWG	RPC Circuit Breaking Connectors NEC Rating	RPE Connectors Non-Interrupting Ampere Rating	
		MS(AN)	NEC
#16		22	16
#12	20A	41	30
#10	30A	57	40
#4	60A	135	90
1 / 0	100A	250	160
4 / 0	200A	335	225

Certifications and Compliances:

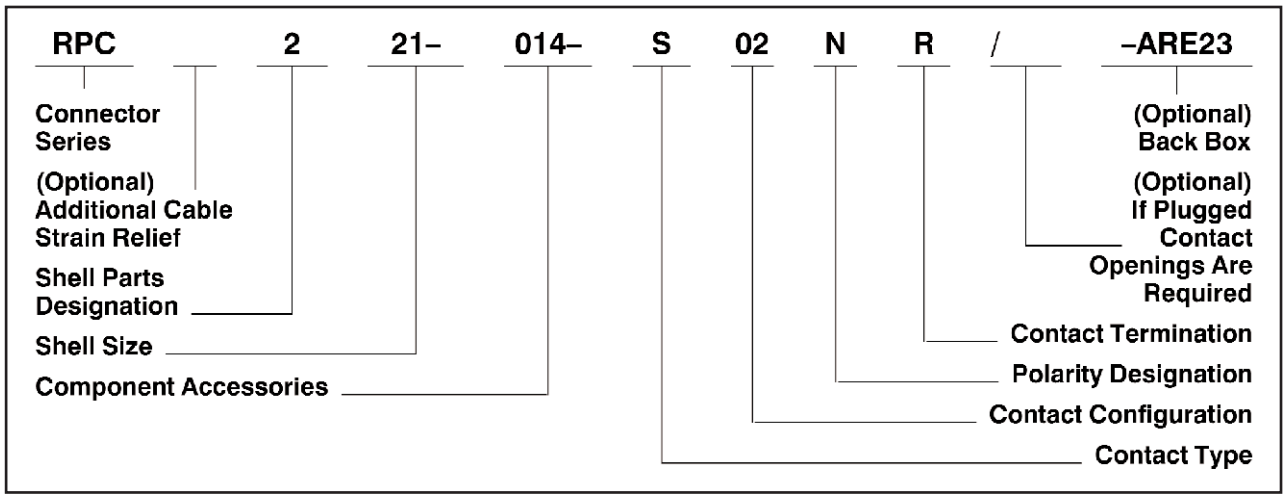
Properties	Characteristics
Industrial use	excludes dust, lint, fibers and flying, oil seepage and coolant seepage – meets J.I.C. Standard
Driptight	excludes falling moisture or dirt – materials unaffected by condensation
Weather resistant (weatherproof)	performs normally in outdoor areas
Watertight	excludes water by hose spray or stream
Dust-tight	excludes dust, but performs normally if dust is accidentally enclosed during disconnect
Chemical resistance	high resistant to alkalis, strong caustics, acids, petroleum base and organic solvents
Pressure	300 psi external – 200 psi internal

Compliance with Military Specifications

Environment	Performance Data
Corrosion resistance	salt spray 300 days. MIL-STD-810E
Temperature	–80°F to 275°F, meeting requirements of MIL-STD-810E
Air leakage	exceeds Class E specification MIL-STD-810E
Dust resistance	exceeds requirements of MIL-STD-810E
Shock resistance	50G exceeds MIL-STD-810E
Vibration	exceeds 20G, method II, MIL-STD-810E
Humidity & moisture	exceeds Class E specification MIL-STD-810E
ANSI/UL Standard	498

*For use on system less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.

Catalog Numbering System



Connector Series:
RPC – circuit breaking
RPE – for disconnect use only
RPX – hazardous (gasoline or equivalent hazards, see Section 9P)

Additional Cable Strain Relief (Optional):
K = Wire mesh cord grip
LT = Liquidtight/conduit connection

Shell Parts Designation:
0 = No shell part required
1= Plug shell
2 = Receptacle
3 = Cord connector
4 = Connector handle body only
5 = Plug shell (long)
6 = Receptacle (long)
7 = Cord connector (long)

Shell Size:
Inside Diameter measured in X/16" (017, 021, 033, 041, i.e., 017 shell size = $^{17}/_{16}$")

Component Accessories:
This code indicates the combination of shell parts to fit your application; e.g., 014 = square flanged receptacle with insert retaining nut and dust cap; 150 = plug handle body, bushing, and clamping nut for cable with a diameter of .250 to .625.

Contact Type:
P = Pin (male)
S = Socket (female)

Contact Configuration:
This assigned code indicates the actual configuration of the contacts (pin and socket) in the insert assembly for a particular shell size. This is based upon electrical ratings (amperage and voltage) and the number of contacts required. It does not indicate the number of contacts in the configuration.

Polarity Designation:
N = Standard position – ungrounded
V, W, X or Y = Alternate positions – (ungrounded)
A = Standard position – grounded
B, C, D or E = Alternate positions – (grounded)

Contact Termination:
Blank = Solder well
(standard unless noted)
R = Pressure (See complete ordering information that follows for availability)
T = Crimp (available in all configurations)

Plugged Contact Openings (Optional):
This option allows greater flexibility, allowing for unique wiring requirements. The number following the slash indicates the total number of contacts that will be supplied (including ground contact, if applicable); all other openings in the insert assembly will be plugged.

Back Boxes (Optional):
See page 1407 for back box information.

RPC Circuit Breaking Power Connectors With Solder Well Terminals†

	Circuit Description	Volts (VAC)	Contact Size	Shell Size	Hub Size (In.)	Square Flanged Receptacle, Dust Cap and Back Box Cat. # (For Surface Mounting)‡*	Motor Plug with Dust Cap Cat. #
20 Amps							
Grounded	4w, 5p	480	#12	017	¾ 1	**RPC217 014 S09A ARE23** **RPC217 014 S09A ARE33**	**RPC117 157 P09A**
Ungrounded	5w, 5p	480	#12	017	¾ 1	**RPC217 014 S08N ARE23** **RPC217 014 S08N ARE33**	**RPC117 157 P08N**
30 Amps							
Grounded	2w, 3p	480	#10	017	¾ 1	**RPC217 014 S02A ARE23** **RPC217 014 S02A ARE33**	**RPC117 157 P02A**
	3w, 4p	480	#10	017	¾ 1	**RPC217 014 S04A ARE23** **RPC217 014 S04A ARE33**	**RPC117 157 P04A**
	4w, 5p	480	#10	021	¾ 1	**RPC221 014 S17A ARE23** **RPC221 014 S17A ARE33**	**RPC121 157 P17A**
Ungrounded	3w, 3p	480	#10	017	¾ 1	**RPC217 014 S01N ARE23** **RPC217 014 S01N ARE33**	**RPC117 157 P01N**
	4w, 4p	480	#10	017	¾ 1	**RPC217 014 S03N ARE23** **RPC217 014 S03N ARE33**	**RPC117 157 P03N**
	5w, 5p	480	#10	021	¾ 1	**RPC221 014 S16N ARE23** **RPC221 014 S16N ARE33**	**RPC121 157 P16N**
60 Amps							
Grounded	3w, 4p	600	#4	033	1¼ 1½	**RPC233 014 S08A ARE46** **RPC233 014 S08A ARE56**	**RPC133 157 P08A**
	4w, 5p	480	#4	033	1¼ 1½	**RPC233 014 S09A ARE46** **RPC233 014 S09A ARE56**	**RPC133 157 P09A**
Ungrounded	4w, 4p	600	#4	033	1¼ 1½	**RPC233 014 S05N ARE46** **RPC233 014 S05N ARE56**	**RPC133 157 P05N**
	5w, 5p	480	#4	033	1¼ 1½	**RPC233 014 S06N ARE46** **RPC233 014 S06N ARE56**	**RPC133 157 P06N**

RPC Circuit Breaking Power Connectors With Solder Well Terminals†

Cable Diameter Range	Cord Connector Cat. #§	Plug Cat. #§
.250 to .625	**RPC317 160 S09A**	**RPC117 150 P09A**
.625 to .875	**RPC317 161 S09A**	**RPC117 151 P09A**
.250 to .625	**RPC317 160 S08N**	**RPC117 150 P08N**
.625 to .875	**RPC317 161 S08N**	**RPC117 151 P08N**
.250 to .625	**RPC317 160 S02A**	**RPC117 150 P02A**
.625 to .875	**RPC317 161 S02A**	**RPC117 151 P02A**
.250 to .625	**RPC317 160 S04A**	**RPC117 150 P04A**
.625 to .875	**RPC317 161 S04A**	**RPC117 151 P04A**
.625 to 1.000	**RPC321 161 S17A**	**RPC121 151 P17A**
1.000 to 1.187	**RPC321 395 S17A**	**RPC121 387 P17A**
.250 to .625	**RPC317 160 S01N**	**RPC117 150 P01N**
.625 to .875	**RPC317 161 S01N**	**RPC117 151 P01N**
.250 to .625	**RPC317 160 S03N**	**RPC117 150 P03N**
.625 to .875	**RPC317 161 S03N**	**RPC117 151 P03N**
.625 to 1.000	**RPC321 161 S16N**	**RPC121 151 P16N**
1.000 to 1.187	**RPC321 395 S16N**	**RPC121 387 P16N**
.875 to 1.375	**RPC333 163 S08A**	**RPC133 153 P08A**
1.375 to 1.625	**RPC333 396 S08A**	**RPC133 388 P08A**
1.625 to 1.875	**RPC333 397 S08A**	**RPC133 389 P08A**
.875 to 1.375	**RPC333 163 S09A**	**RPC133 153 P09A**
1.375 to 1.625	**RPC333 396 S09A**	**RPC133 388 P09A**
1.625 to 1.875	**RPC333 397 S09A**	**RPC133 389 P09A**
.875 to 1.375	**RPC333 163 S05N**	**RPC133 153 P05N**
1.375 to 1.625	**RPC333 396 S05N**	**RPC133 388 P05N**
1.625 to 1.875	**RPC333 397 S05N**	**RPC133 389 P05N**
.875 to 1.375	**RPC333 163 S06N**	**RPC133 153 P06N**
1.375 to 1.625	**RPC333 396 S06N**	**RPC133 388 P06N**
1.625 to 1.875	**RPC333 397 S06N**	**RPC133 389 P06N**

Note: RPC with pressure terminals are also available, see pages 1400-1403.

†Solder well terminals provided as standard. Crimp contacts are optionally available, add suffix T to catalog number. Example: RPC217-014-S09AT-ARE23.
‡For square flanged receptacle *without* dust cap, change the middle three digits of the catalog number from 014 to 127. Example: RPC217-127-S09A-ARE23.
*For square flanged receptacle with dust cap for panel mounting, delete the last digits of the catalog number specifying the backbox. Example: RPC217-014-S09A.
§For plugs and cord connectors:
Liquidtight/Conduit Adapter –
To order with adapter, add letters "LT" to first section of catalog number. Example: RPCLT317-160-S09A.
Additional Cable Strain Relief Options –
• Stainless steel wire mesh grip – To order, add letter "K" to first section of catalog number. Example: RPCK317-160-S09A.

RPC Circuit Breaking Power Connectors With Solder Well Terminals†

	Circuit Description	Volts (VAC)	Contact Size	Shell Size	Hub Size (In.)	Square Flanged Receptacle, Dust Cap and Back Box Cat. # (For Surface Mounting)‡*	Motor Plug Cat. #
100 Amps							
Grounded	4w, 5p	600	1/0	041	1½ 2	**RPC641 014 S04A AJ57** **RPC641 014 S04A AJ67**	**RPC541 157 P04A**
Ungrounded	5w, 5p	600	1/0	041	1½ 2	**RPC641 014 S02N AJ57** **RPC641 014 S02N AJ67**	**RPC541 157 P02N**
200 Amps							
Grounded	3w, 4p	480	4/0	041	2 2½	**RPC641 014 S10A AJ68** **RPC641 014 S10A AJ78**	**RPC541 157 P10A**

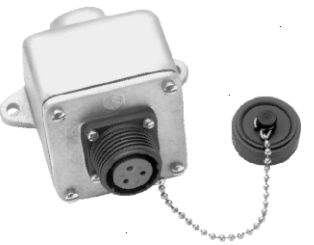
RPC Circuit Breaking Power Connectors With Solder Well Terminals†

Cable Diameter Range	Cord Connector Cat. #§	Plug Cat. #§
1.375 to 1.875	**RPC741 164 S04A**	**RPC541 154 P04A**
1.875 to 2.062	**RPC741 398 S04A**	**RPC541 390 P04A**
2.062 to 2.250	**RPC741 399 S04A**	**RPC541 391 P04A**
1.375 to 1.875	**RPC741 164 S02N**	**RPC541 154 P02N**
1.875 to 2.062	**RPC741 398 S02N**	**RPC541 390 P02N**
2.062 to 2.250	**RPC741 399 S02N**	**RPC541 391 P02N**
1.375 to 1.875	**RPC741 164 S10A**	**RPC541 154 P10A**
1.875 to 2.062	**RPC741 398 S10A**	**RPC541 390 P10A**
2.062 to 2.250	**RPC741 399 S10A**	**RPC541 391 P10A**

Note: RPC with pressure terminals are also available, see pages 1400–1403.

†Solder well terminals provided as standard. Crimp contacts are optionally available, add suffix T to catalog number. Example: RPC217-014-S09AT-ARE23.
‡For square flanged receptacle *without* dust cap, change the middle three digits of the catalog number from 014 to 127. Example: RPC217-127-S09A-ARE23.
*For square flanged receptacle with dust cap for panel mounting, delete the last digits of the catalog number specifying the backbox. Example: RPC217-014-S09A.
§For plugs and cord connectors:
Liquidtight/Conduit Adapter –
To order with adapter, add letters "LT" to first section of catalog number. Example: RPCLT317-160-S09A.
Additional Cable Strain Relief Options –
• Stainless steel wire mesh grip – To order, add letter "K" to first section of catalog number. Example: RPCK317-160-S09A.

RPC Circuit Breaking Power Connectors With Pressure Terminals



	Circuit Description	Volts (VAC)	Contact Size	Shell Size	Hub Size (In.)	Square Flanged Receptacle, Dust Cap and Back Box Cat. # (For Surface Mounting)■‡	Motor Plug Cat. #
30 Amps							
Grounded	2w, 3p	600	#10	021	¾ 1	**RPC221 014 S04AR ARE23** **RPC221 014 S04AR ARE33**	**RPC121 157 P04AR**
Ungrounded	3w, 3p	600	#10	021	¾ 1	**RPC221 014 S02NR ARE23** **RPC221 014 S02NR ARE33**	**RPC121 157 P02NR**
60 Amps							
Grounded	3w, 4p	600	#4	033	1¼ 1½	**RPC233 014 S08AR ARE46** **RPC233 014 S08AR ARE56**	**RPC133 157 P08AR**
	4w, 5p	480	#4	033	1¼ 1½	**RPC233 014 S09AR ARE46** **RPC233 014 S09AR ARE56**	**RPC133 157 P09AR**
Ungrounded	4w, 4p	600	#4	033	1¼ 1½	**RPC233 014 S05NR ARE46** **RPC233 014 S05NR ARE56**	**RPC133 157 P05NR**
	5w, 5p	480	#4	033	1¼ 1½	**RPC233 014 S06NR ARE46** **RPC233 014 S06NR ARE56**	**RPC133 157 P06NR**

For alternate polarizations, see page 1393, "Options" section.

RPC Circuit Breaking Power Connectors With Pressure Terminals

Cable Diameter Range	Cord Connector Cat. #*	Plug Cat. #*
.250 to .625	**RPC321 160 S04AR**	**RPC121 150 P04AR**
.625 to 1.000	**RPC321 161 S04AR**	**RPC121 151 P04AR**
.250 to .625	**RPC321 160 S02NR**	**RPC121 150 P02NR**
.625 to 1.000	**RPC321 161 S02NR**	**RPC121 151 P02NR**
.875 to 1.375	**RPC333 163 S08AR**	**RPC133 153 P08AR**
1.375 to 1.625	**RPC333 396 S08AR**	**RPC133 388 P08AR**
1.625 to 1.875	**RPC333 397 S08AR**	**RPC133 389 P08AR**
.875 to 1.375	**RPC333 163 S09AR**	**RPC133 153 P09AR**
1.375 to 1.625	**RPC333 396 S09AR**	**RPC133 388 P09AR**
1.625 to 1.875	**RPC333 397 S09AR**	**RPC133 389 P09AR**
.875 to 1.375	**RPC333 163 S05NR**	**RPC133 153 P05NR**
1.375 to 1.625	**RPC333 396 S05NR**	**RPC133 388 P05NR**
1.625 to 1.875	**RPC333 397 S05NR**	**RPC133 389 P05NR**
.875 to 1.375	**RPC333 163 S06NR**	**RPC133 153 P06NR**
1.375 to 1.625	**RPC333 396 S06NR**	**RPC133 388 P06NR**
1.625 to 1.875	**RPC333 397 S06NR**	**RPC133 389 P06NR**

■ For square flanged receptacle *without* dust cap, change the middle three digits of the catalog number from 014 to 127. Example: RPC221-127-S04AR-ARE23.
‡For square flanged receptacle with dust cap for panel mounting, delete the last digits of the catalog number specifying the backbox. Example: RPC221-014-S04AR.
*For plugs and cord connectors:
Liquidtight/Conduit Adapter –
To order with adapter, add letters "LT" to first section of catalog number. Example: RPCLT321-160-S04AR.
Additional Cable Strain Relief Options –
• Stainless steel wire mesh grip – To order, add letter "K" to first section of catalog number. Example: RPCK321-160-S04AR.

RPC Circuit Breaking Power Connectors With Pressure Terminals

	Circuit Description	Volts (VAC)	Contact Size	Shell Size	Hub Size (In.)	Square Flanged Receptacle, Dust Cap and Back Box Cat. # (For Surface Mounting)■‡	Motor Plug Cat. #
100 Amps							
Grounded	4w, 5p	600	1/0	041	1½ 2	**RPC641 014 S04AR AJ57** **RPC641 014 S04AR AJ67**	**RPC541 157 P04AR**
Ungrounded	5w, 5p	600	1/0	041	1½ 2	**RPC641 014 S02NR AJ57** **RPC641 014 S02NR AJ67**	**RPC541 157 P02NR**

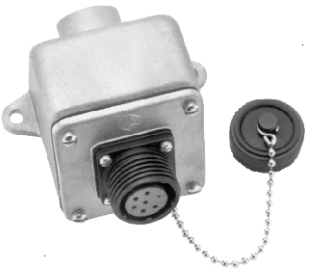
For alternate polarizations, see page 1393, "Options" section.

RPC Circuit Breaking Power Connectors With Pressure Terminals

Cable Diameter Range	Cord Connector Cat. #*	Plug Cat. #*
1.375 to 1.875	**RPC741 164 S04AR**	**RPC541 154 P04AR**
1.875 to 2.062	**RPC741 398 S04AR**	**RPC541 390 P04AR**
2.062 to 2.250	**RPC741 399 S04AR**	**RPC541 391 P04AR**
1.375 to 1.875	**RPC741 164 S02NR**	**RPC541 154 P02NR**
1.875 to 2.062	**RPC741 398 S02NR**	**RPC541 390 P02NR**
2.062 to 2.250	**RPC741 399 S02NR**	**RPC541 391 P02NR**

■ For square flanged receptacle *without* dust cap, change the middle three digits of the catalog number from 014 to 127. Example: RPC221-127-S04AR-ARE23.
‡For square flanged receptacle with dust cap for panel mounting, delete the last digits of the catalog number specifying the backbox. Example: RPC221-014-S04AR.
*For plugs and cord connectors:
Liquidtight/Conduit Adapter –
To order with adapter, add letters "LT" to first section of catalog number. Example: RPCLT321-160-S04AR.
Additional Cable Strain Relief Options –
• Stainless steel wire mesh grip – To order, add letter "K" to first section of catalog number. Example: RPCK321-160-S04AR.

RPE Control Circuit and Power Connectors With Solder Well Terminals†



Circuit Description	Contact Size	Amps	Volts (VAC)	Shell Size	Hub Size (In.)	Square Flanged Receptacle, Dust Cap and Back Box Cat. # (For Surface Mounting)‡*	Motor Plug Cat. #
Control							
6w, 7p	#12	20	480	017	¾ 1	**RPE217 014 S06A ARE23** **RPE217 014 S06A ARE33**	**RPE117 157 P06A**
7w, 7p	#12	20	480	017	¾ 1	**RPE217 014 S05N ARE23** **RPE217 014 S05N ARE33**	**RPE117 157 P05N**
12w, 12p	#16	16	250	017	¾ 1	**RPE217 014 S07N ARE23** **RPE217 014 S07N ARE33**	**RPE117 157 P07N**
18w, 19p	#12	20	250	021	¾ 1	**RPE221 014 S08A ARE23** **RPE221 014 S08A ARE33**	**RPE121 157 P08A**
19w, 19p	#12	20	250	021	¾ 1	**RPE221 014 S09N ARE23** **RPE221 014 S09N ARE33**	**RPE121 157 P09N**
38w, 39p	#12	20	250	033	1¼ 1½	**RPE233 014 S19A ARE46** **RPE233 014 S19A ARE56**	**RPE133 157 P19A**
39w, 39p	#12	20	250	033	1¼ 1½	**RPE233 014 S17N ARE46** **RPE233 014 S17N ARE56**	**RPE133 157 P17N**

RPE Control Circuit and Power Connectors With Solder Well Terminals

Cable Diameter Range	Cord Connector Cat. #§	Plug Cat. #§
.250 to .625	**RPE317 160 S06A**	**RPE117 150 P06A**
.625 to .875	**RPE317 161 S06A**	**RPE117 151 P06A**
.250 to .625	**RPE317 160 S05N**	**RPE117 150 P05N**
.625 to .875	**RPE317 161 S05N**	**RPE117 151 P05N**
.250 to .625	**RPE317 160 S07N**	**RPE117 150 P07N**
.625 to .875	**RPE317 161 S07N**	**RPE117 151 P07N**
.625 to 1.000	**RPE321 161 S08A**	**RPE121 151 P08A**
1.000 to 1.187	**RPE321 395 S08A**	**RPE121 387 P08A**
.625 to 1.000	**RPE321 161 S09N**	**RPE121 151 P09N**
1.000 to 1.187	**RPE321 395 S09N**	**RPE121 387 P09N**
.875 to 1.375	**RPE333 163 S19A**	**RPE133 153 P19A**
1.375 to 1.625	**RPE333 396 S19A**	**RPE133 388 P19A**
.875 to 1.375	**RPE333 163 S17N**	**RPE133 153 P17N**
1.375 to 1.625	**RPE333 396 S17N**	**RPE133 388 P17N**

†Solder well terminals provided as standard. Crimp contacts are optionally available, add suffix T to catalog number. Example: RPE633-014-S24NT-AJ57.
‡For square flanged receptacle *without* dust cap, change the middle three digits of the catalog number from 014 to 127. Example: RPE633-127-S24N-AJ57.
*For square flanged receptacle with dust cap for panel mounting, delete the last three digits of the catalog number specifying the backbox. Example: RPE633-014-S24N.
§For plugs and cord connectors:
Liquidtight/Conduit Adapter –
To order with adapter, add letters "LT" to the first section of the catalog number. Example: RPELT733-396-S24N.
Additional Cable Strain Relief Options –
• Stainless steel wire mesh grip – To order, add letter "K" to first section of the catalog number. Example: RPEK733-396-S24N.

Accessories

For #16 Through #10 Contacts:

The RPE017-440 crimping tool has been designed to crimp a wide range of solid and stranded type conductors. The crimping head is adjusted and sealed at the factory. The tool automatically crimps and gauges all size contacts without readjustment.

Contact Removal Tools:

The contact removal tool extracts the contact from the insert assembly without complete disassembly of the connector.

Cat #	Description
RPE017 402T	for use with #16 contacts.
RPE017 403T	for use with #12 contacts.
RPE017 404T	for use with #10 contacts.

Dust Caps:

For Receptacles
For RPC or RPE Series

Cat. #	Description
RPE017 009	
RPE021 009	Dust Cap w/Eyelet for
RPE033 009	Receptacle
RPE041 009	

For Mounting RPC and RPE Square Flanged Receptacles

FS Back Box

Back Boxes
FS and FSC

Hub Size in.	FS† Cat. #	FSC† Cat. #
½	FS1 SA	FSC1 SA
¾	FS2 SA	FSC2 SA
1	FS3 SA	FSC3 SA

ARE Back Box

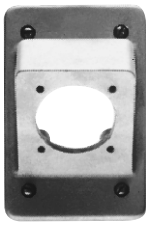
ARE‡

Hub Size in.	Cat. #	Rating
½	ARE13	
¾	ARE23	30A
1	ARE33	
1	ARE36	
1¼	ARE46	60A
1½	ARE56	

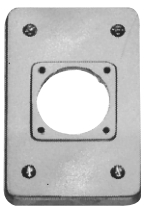
AJ Black Box

AJ‡

Hub Size in.	Cat. #	Rating
1	AJ37	
1¼	AJ47	60A and
1½	AJ57	100A
2	AJ67	
1½	AJ58	
2	AJ68	200A
2½	AJ78	



45° Angle adapter



Flat adapter

Adapters
Shell Sizes of Square Flanged Receptacles

45° Angle		Flat	
017 Cat. #	021 Cat. #	017 Cat. #	021 Cat. #
RPE017 156	RPE021 156	RPE017 141	RPE021 142

Shell Sizes of Square Flanged Receptacles

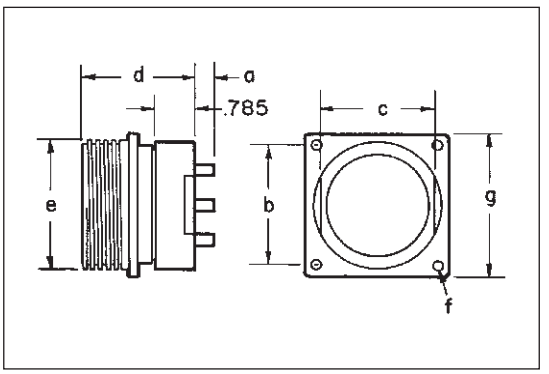
Flat			
017 Cat. #	021 Cat. #	033 Cat. #	041 Cat. #
RPE017 143	RPE021 144		
		RPE033 145	RPE041 146

Shell Sizes of Square Flanged Receptacles

Flat	
033 Cat. #	041 Cat. #
RPE033 145	RPE041 146
	RPE041 147

† Any of the FS or FD single gang, two gang tandem or multiple gang boxes with individual cover openings may be used with these adapters. For listings, dimensions and other details refer to Section 3F.
‡ Other AR and AJ back boxes may be used with these adapters. For listings, dimensions and other details refer to Section 1P.

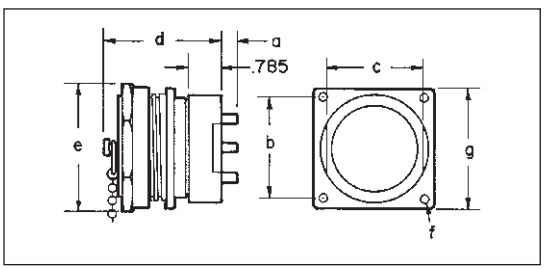
RPC Circuit Breaking Power Connectors
RPE Control Circuit and Power Connectors
Dimensions (Inches)



Square Flanged Receptacle

Shell Type and Size	b	c	d	e	f	g
217	1.375	1.317	2.165	1.562	.190	1.750
221	1.750	1.692	2.165	2.000	.190	2.250
233	2.375	2.317	2.165	2.625	.214	2.875
241	2.813	2.817	2.165	3.187	.250	3.438
633	2.375	2.317	2.915	2.625	.214	2.875
641	2.813	2.817	2.915	3.187	.250	3.438

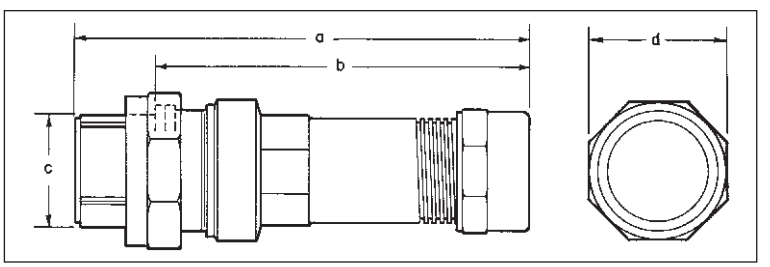
a	Contact for AWG Wire
0.1875	#16, #12, #10
0.250	#4
0.375	1/0
0.500	4/0



Square Flanged Receptacle with Dust Cap

Shell Type and Size	b	c	d	e	f	g
217	1.375	1.317	2.812	1.927	.190	1.750
221	1.750	1.692	2.812	2.468	.190	2.250
233	2.375	2.317	2.812	3.145	.214	2.875
241	2.813	2.817	2.812	3.754	.250	3.438
633	2.375	2.317	3.552	3.145	.214	2.875
641	2.813	2.817	3.552	3.754	.250	3.438

Dimension a – same as above

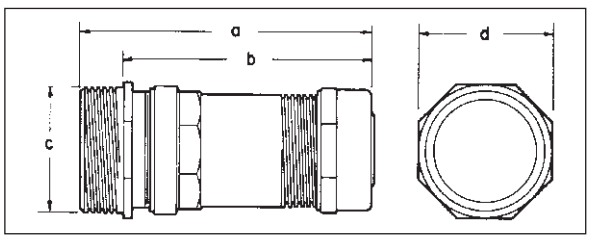


Plug

Shell Type and Size	a†	b†	c	d
117	5.033	4.133	1.270	1.921
121	5.090	4.190	1.675	2.468
133	6.093	5.193	2.295	3.140
141	6.653	5.753	2.800	3.750
533	6.843	5.193	2.295	3.140
541	7.403	5.753	2.800	3.750

† These dimensions are approximate and vary with cable size.

RPC Circuit Breaking Power Connectors
RPE Control Circuit and Power Connectors
Dimensions (Inches)

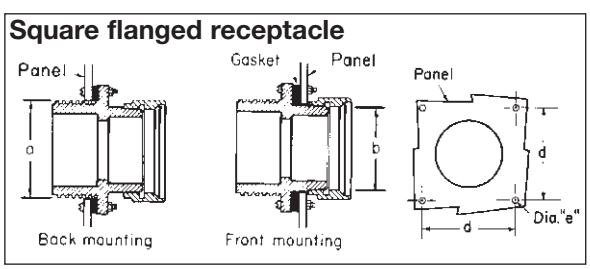


Cord Connector Receptacle

Shell Type and Size	a†	b†	c	d
317	5.033	4.116	1.562	1.812
321	5.090	4.173	1.885	2.300
333	6.093	5.176	2.625	3.140
341	6.653	5.736	3.187	3.730
733	6.843	5.176	2.625	3.140
741	7.403	5.736	3.187	3.730

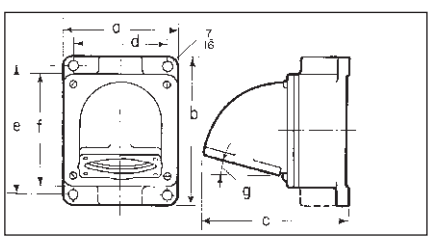
† These dimensions are approximate and vary with cable size.

Square flanged receptacle



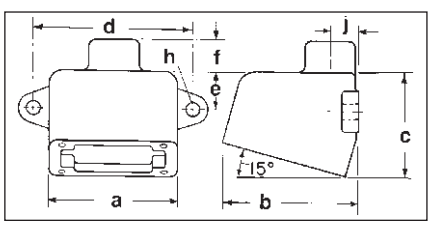
Panel Mounting Methods

Shell Size	Back Mounting a	Back Mounting d	Back Mounting e	Front Mounting b	Front Mounting d	Front Mounting e
017	$1\frac{19}{32}$	$1\frac{3}{8}$	$\frac{3}{16}$	$1\frac{17}{32}$	$1\frac{3}{8}$	$\frac{3}{16}$
021	$2\frac{1}{32}$	$1\frac{3}{4}$	$\frac{3}{16}$	$1\frac{31}{32}$	$1\frac{3}{4}$	$\frac{3}{16}$
033	$2\frac{21}{32}$	$2\frac{3}{8}$	$\frac{7}{32}$	$2\frac{21}{32}$	$2\frac{3}{8}$	$\frac{7}{32}$
041	$3\frac{7}{32}$	$2\frac{13}{16}$	$\frac{1}{4}$	$3\frac{5}{32}$	$2\frac{13}{16}$	$\frac{1}{4}$



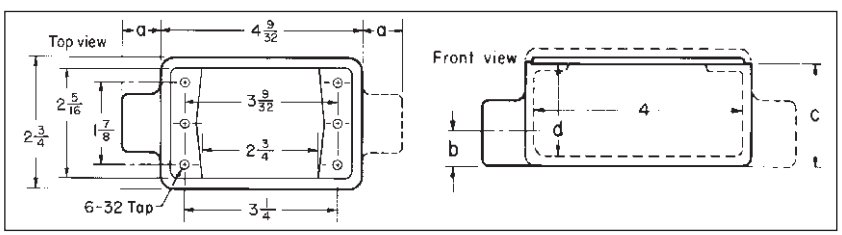
AJ Back Boxes

Form	Size	a	b	c	d	e	f	g
C and D	$\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$	$5\frac{7}{8}$	8	$7\frac{7}{16}$	$4\frac{7}{8}$	7	$5\frac{7}{8}$	15°
C and D	2	$5\frac{7}{8}$	8	8	$4\frac{7}{8}$	7	$5\frac{7}{8}$	15°
E	$1\frac{1}{2}$, 2, $2\frac{1}{2}$	8	$10\frac{3}{4}$	$9\frac{7}{8}$	$6\frac{3}{4}$	$9\frac{1}{2}$	8	45°



ARE Back Boxes

Form	Size	a	b	c	d	e	f	h dia.
B	$\frac{1}{2}$	$3\frac{3}{8}$	$3\frac{5}{8}$	$2\frac{3}{4}$	$4\frac{1}{4}$	1	$\frac{27}{32}$	$\frac{11}{32}$
B	$\frac{3}{4}$	$3\frac{3}{8}$	$3\frac{5}{8}$	$2\frac{3}{4}$	$4\frac{1}{4}$	1	$\frac{27}{32}$	$\frac{11}{32}$
B	1	$3\frac{3}{8}$	$3\frac{5}{8}$	$2\frac{3}{4}$	$4\frac{1}{4}$	1	$\frac{31}{32}$	$\frac{11}{32}$
C	1	$4\frac{1}{4}$	$4\frac{11}{16}$	$4\frac{11}{16}$	$5\frac{1}{4}$	$1\frac{5}{8}$	$\frac{15}{16}$	$\frac{3}{8}$
C	$1\frac{1}{4}$	$4\frac{1}{4}$	$4\frac{11}{16}$	$4\frac{11}{16}$	$5\frac{1}{4}$	$1\frac{5}{8}$	1	$\frac{3}{8}$
C	$1\frac{1}{2}$	$4\frac{1}{4}$	$4\frac{11}{16}$	$4\frac{11}{16}$	$5\frac{1}{4}$	$1\frac{5}{8}$	$1\frac{1}{16}$	$\frac{3}{8}$



FS/FSC Boxes

Series	Hub Size	a	b	c	d
FS	$\frac{1}{2}$	$\frac{7}{8}$	$\frac{5}{8}$	$1\frac{7}{8}$	$1\frac{11}{16}$
	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{3}{4}$	$1\frac{7}{8}$	$1\frac{11}{16}$
	1	1	$\frac{7}{8}$	$1\frac{7}{8}$	$1\frac{11}{16}$

Applications:

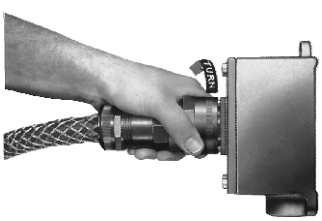
RPX "Time-Slot" delayed action connectors are used:

- In areas which are hazardous due to the presence of gasoline or gases or vapors of equivalent hazard (comparable to NEC Class I, Group D), where construction and test procedures are required to meet applicable sections of MIL-STD-810E
- For connection of devices ranging from simple lighting units, power tools and similar portables requiring only a power circuit to sophisticated control and instrumentation assemblies requiring disconnect

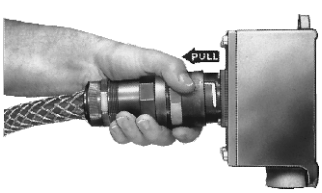
Features:

The same basic features, described in detail in Section 8P for RPC and RPE connectors, apply to RPX connectors as well and include the following:

- High-strength impact extruded aluminum shell parts
- "Tri-Disc" insert assemblies
- Contacts snap in after termination
- Positive polarization
- Interchangeability of inserts in each shell size
- Grounding contacts, where used, make first and break last
- The RPX "Time-Slot" delayed action feature prevents complete withdrawal of the plug in one continuous movement, eliminating the possibility of a circuit-breaking arc occurring in a hazardous area. Details of operation are shown in the illustrations below.

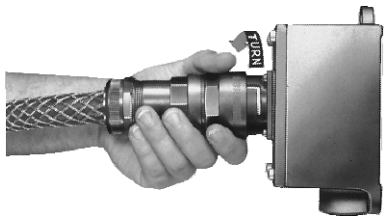


A. Turn plug clamping nut counterclockwise 45° to unlock plug.

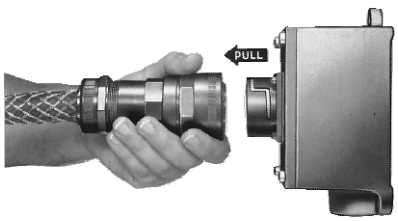


B. Pull to disengage pin and socket contacts, breaking circuit while contacts are still inside the receptacle. Any resulting electrical arc is quenched within the receptacle sockets.

*RPX series are suitable for hazardous areas due to the presence of gasoline or other gases or vapors of equivalent hazard (comparable to N.E.C. Class I, Group D), where construction and test procedures are required to meet applicable sections of MIL-STD-810E.
†For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.



C. Turn plug clamping nut an additional 45° counterclockwise to the release position, thereby effecting delayed action.



D. Disengage plug and receptacle.

Certifications and Compliances:

- RPX delayed action connectors have the same physical properties, characteristics and environmental capabilities of RPC and RPE connectors listed in Section 8P. For detailed information on these properties, see page 1394.
- In addition to these properties, the "Time-Slot" delayed action feature permits disconnect under full rated load with no possibility of an exposed arc, thus meeting the stringent requirements of Military Specifications MIL-STD-810E

Standard Materials:

- Back boxes and adapters – *Feraloy*® iron alloy
- Plug, receptacle and cord connector shells – impact extruded aluminum
- Insulation – diallyl phthalate (DAP)
- Sealing wafer – silicone rubber
- Contacts – hard drawn copper

Standard Finishes:

- *Feraloy* – zinc electroplate and aluminum acrylic paint
- Impact extruded aluminum – hard coat anodized
- Diallyl phthalate – natural (blue)
- Silicone rubber – natural (grey)

Options:

The following options available for RPC and RPE connectors are also applicable to RPX connectors. For complete details see pages 1393–1394

- Alternate polarities – ungrounded and grounded connectors
- Crimp type contacts
- Wire mesh cord grip

Electrical Rating Ranges:

- 10, 20, 30 and 60 amperes
- 50† to 400 hertz
- 250, 480 and 600VAC
- See listings for specific ratings

Special Purpose†; ARK-trol® Electrical Connectors

RPX "Time-Slot" Delayed Action Connectors With Solder Well Terminals‡, Hazardous Areas*

Cl. I, Div. 1 & 2, Group D*
Explosionproof
Raintight
Dimensions see page 1418

POWER	Circuit Description	Contact Size	Amps	Volts (VAC)	Shell Size	Hub Size (In.)	Square Flanged Receptacle, Dust Cap and Back Box Cat. # (For Surface Mounting)§
20 amps							
Grounded	4w, 5p	#12	20	480	017	¾	**RPX217 914 S09A EDSC271**
						1	**RPX217 914 S09A EDSC371**
Ungrounded	5w, 5p	#12	20	480	017	¾	**RPX217 914 S08N EDSC271**
						1	**RPX217 914 S08N EDSC371**
30 amps							
Grounded	2w, 3p	#10	30	480	017	¾	
						1	**RPX217 914 S02A EDSC371**
	3w, 4p	#10	30	480	017	¾	**RPX217 914 S04A EDSC271**
						1	**RPX217 914 S04A EDSC371**
	4w, 5p	#10	30	480	021	¾	**RPX221 914 S17A EDSC271**
						1	**RPX221 914 S17A EDSC371**
Ungrounded	3w, 3p	#10	30	480	017	¾	**RPX217 914 S01N EDSC271**
						1	**RPX217 914 S01N EDSC371**
	4w, 4p	#10	30	480	017	¾	**RPX217 914 S03N EDSC271**
						1	**RPX217 914 S03N EDSC371**
	5w, 5p	#10	30	480	021	¾	**RPX221 914 S16N EDSC271**
						1	**RPX221 914 S16N EDSC371**

Special Purpose†; ARK-trol® Electrical Connectors

RPX "Time-Slot" Delayed Action Connectors With Solder Well Terminals, Hazardous Areas*

Cl. I, Div. 1 & 2, Group D*
Explosionproof
Raintight
Dimensions see page 1418

Cable Diameter Range	Cord Connector Cat. #■	Plug Cat. #■
.250 to .625	**RPX317 160 S09A**	**RPX117 150 P09A**
.625 to .875	**RPX317 161 S09A**	**RPX117 151 P09A**
.250 to .625	**RPX317 160 S08N**	**RPX117 150 P08N**
.625 to .875	**RPX317 161 S08N**	**RPX117 151 P08N**
.250 to .625	**RPX317 160 S02A**	**RPX117 150 P02A**
.625 to .875	**RPX317 161 S02A**	**RPX117 151 P02A**
.250 to .625	**RPX317 160 S04A**	**RPX117 150 P04A**
.625 to .875	**RPX317 161 S04A**	**RPX117 151 P04A**
.625 to 1.000	**RPX321 161 S17A**	**RPX121 151 P17A**
1.000 to 1.187	**RPX321 395 S17A**	**RPX121 387 P17A**
.250 to .625	**RPX317 160 S01N**	**RPX117 150 P01N**
.625 to .875	**RPX317 161 S01N**	**RPX117 151 P01N**
.250 to .625	**RPX317 160 S03N**	**RPX117 150 P03N**
.625 to .875	**RPX317 161 S03N**	**RPX117 151 P03N**
.625 to 1.000	**RPX321 161 S16N**	**RPX121 151 P16N**
1.000 to 1.187	**RPX321 395 S16N**	**RPX121 387 P16N**

† For alternate polarizations, see page 1393, "Options" section.
‡ Solder well terminals provided as standard. Crimp contacts are optionally available, add suffix T to catalog number. Example: RPX217-914-S09AT-EDSC271.
§ For square flanged receptacle *without* dust cap, change the middle three digits of the catalog number from 914 to 913. Example: RPX217-913-S09A-EDSC271.
■ For plugs and cord connectors:
Liquidtight/Conduit Adapter –
To order with adapter, add letters "LT" to first section of catalog number. Example: RPXLT317-160-S09A.
Additional Cable Strain Relief Options –
• Stainless steel wire mesh grip – To order, add letter "K" to first section of catalog number. Example: RPXK317-160-S09A.

*RPX series are suitable for hazardous areas due to the presence of gasoline or other gases or vapors of equivalent hazard (comparable to N.E.C. Class I, Group D), where construction and test procedures are required to meet applicable sections of MIL-E-5272C and MIL-E-4970A.

Special Purpose†; ARK-trol® Electrical Connectors

RPX "Time-Slot" Delayed Action Connectors With Solder Well Terminals‡, Hazardous Areas*

Cl. I, Div. 1 & 2, Group D*
Explosionproof
Raintight
Dimensions see page 1418

POWER	Circuit Description	Contact Size	Amps	Volts (VAC)	Shell Size	Hub Size (In.)	Square Flanged Receptacle, Dust Cap and Back Box Cat. # (For Surface Mounting)§
60 Amps							
Grounded	3w, 4p	#4	60	600	033	1¼	**RPX233 914 S08A CES42**
	4w, 5p	#4	60	480	033	1¼	**RPX233 914 S09A CES42**
Ungrounded	4w, 4p	#4	60	600	033	1¼	**RPX233 914 S05N CES42**
	5w, 5p	#4	60	480	033	1¼	**RPX233 914 S06N CES42**
CONTROL							
	6w, 7p	#12	20	480	017	¾ 1	**RPX217 914 S06A EDSC271** **RPX217 914 S06A EDSC371**
	7w, 7p	#12	20	480	017	¾ 1	**RPX217 914 S05N EDSC271** **RPX217 914 S05N EDSC371**
	18w, 19p	#12	20	250	021	¾ 1	**RPX221 914 S08A EDSC271** **RPX221 914 S08A EDSC371**
	19w, 19p	#12	20	250	021	¾ 1	**RPX221 914 S09N EDSC271** **RPX221 914 S09N EDSC371**
	38w, 39p	#12	20	250	033	1¼	**RPX233 914 S19A CES42**
	39w, 39p	#12	20	250	033	1¼	**RPX233 914 S17N CES42**

Special Purpose†; ARK-trol® Electrical Connectors

RPX "Time-Slot" Delayed Action Connectors With Solder Well Terminals, Hazardous Areas*

Cable Diameter Range	Cord Connector Cat. #■	Plug Cat. #■
.875 to 1.375	**RPX333 163 S08A**	**RPX133 153 P08A**
1.375 to 1.625	**RPX333 396 S08A**	**RPX133 388 P08A**
1.625 to 1.875	**RPX333 397 S08A**	**RPX133 389 P08A**
.875 to 1.375	**RPX333 163 S09A**	**RPX133 153 P09A**
1.375 to 1.625	**RPX333 396 S09A**	**RPX133 388 P09A**
1.625 to 1.875	**RPX333 397 S09A**	**RPX133 389 P09A**
.875 to 1.375	**RPX333 163 S05N**	**RPX133 153 P05N**
1.375 to 1.625	**RPX333 396 S05N**	**RPX133 388 P05N**
1.625 to 1.875	**RPX333 397 S05N**	**RPX133 389 P05N**
.875 to 1.375	**RPX333 163 S06N**	**RPX133 153 P06N**
1.375 to 1.625	**RPX333 396 S06N**	**RPX133 388 P06N**
1.625 to 1.875	**RPX333 397 S06N**	**RPX133 389 P06N**
.250 to .625	**RPX317 160 S06A**	**RPX117 150 P06A**
.625 to .875	**RPX317 161 S06A**	**RPX117 151 P06A**
.250 to .625	**RPX317 160 S05N**	**RPX117 150 P05N**
.625 to .875	**RPX317 161 S05N**	**RPX117 151 P05N**
.625 to 1.000	**RPX321 161 S08A**	**RPX121 151 P08A**
1.000 to 1.187	**RPX321 395 S08A**	**RPX121 387 P08A**
.625 to 1.000	**RPX321 161 S09N**	**RPX121 151 P09N**
1.000 to 1.187	**RPX321 395 S09N**	**RPX121 387 P09N**
.875 to 1.375	**RPX333 163 S19A**	**RPX133 153 P19A**
1.375 to 1.625	**RPX333 396 S19A**	**RPX133 388 P19A**
.875 to 1.375	**RPX333 163 S17N**	**RPX133 153 P17N**
1.375 to 1.625	**RPX333 396 S17N**	**RPX133 388 P17N**

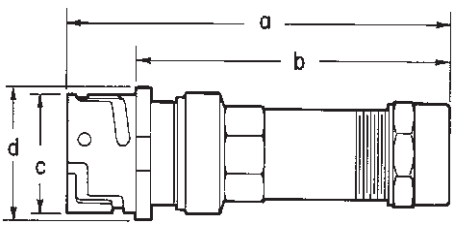
† For alternate polarizations, see page 1393, "Options" section.
‡Solder well terminals provided as standard. Crimp contacts are optionally available, add suffix T to catalog number. Example: RPX217-914-S09AT-EDSC271.
§For square flanged receptacle *without* dust cap, change the middle three digits of the catalog number from 914 to 913. Example: RPX217-913-S09A-EDSC271.
■ For plugs and cord connectors:
Liquidtight/Conduit Adapter –
To order with adapter, add letters "LT" to first section of catalog number. Example: RPXLT317-160-S09A.
Additional Cable Strain Relief Options –
• Stainless steel wire mesh grip – To order, add letter "K" to first section of catalog number. Example: RPXK317-160-S09A.

*RPX series are suitable for hazardous areas due to the presence of gasoline or other gases or vapors of equivalent hazard (comparable to N.E.C. Class I, Group D), where construction and test procedures are required to meet applicable sections of MIL-E-5272C and MIL-E-4970A.

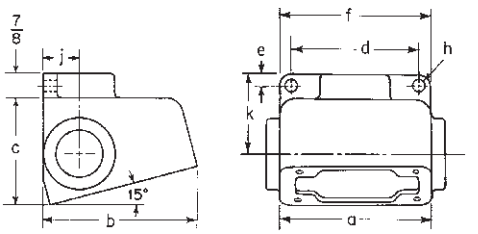
RPX "Time-Slot" Delayed Action Connectors

Dimensions
In Inches:

RPX Cord Connector Receptacle



CES42*



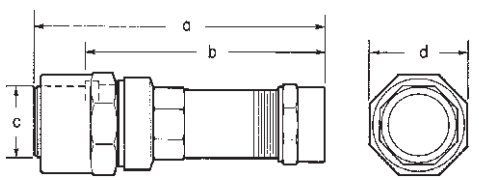
Cord Connector Receptacle

Shell Type and Size	a‡	b‡	c	d
317	5.033	4.116	1.560	1.812
321	5.090	4.173	2.000	2.300
333	6.093	5.176	2.625	3.140

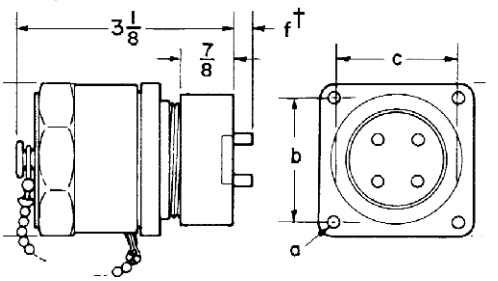
CES42*

Size	a	b	c	d	e	f	h dia.	j	k
1 1/4	5 1/4	5 1/4	3 11/16	4 3/8	7/16	5 1/4	7/16	1 1/8	2 7/8

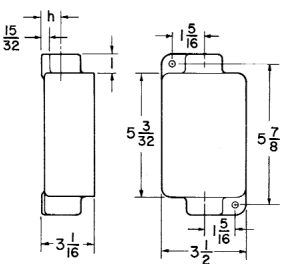
RPX Plug



RPX Connectors Square Flanged Receptacle with Dust Cap



Back Boxes



RPX Plug

Shell Type and Size	a‡	b‡	c	d
117	5.033	4.133	1.270	1.921
121	5.090	4.190	1.675	2.468
133	6.093	5.193	2.295	3.140

RPX Connectors Square Flanged Receptacle with Dust Cap

Shell Type and Size	a	b	c	d
217	.190	1.375	1.317	1.750
221	.190	1.750	1.692	2.250
233	.214	2.375	2.317	2.875

Back Boxes

Cat. #	h	l
EDSC271	7/8	13/16
EDSC371	1	15/16

†Dimension "f"; 0.1875 for #16, #12 and #10 contacts 0.250 for #4 contacts.
‡These dimensions are approximate and vary with cable size.
*CES42 takes 60 ampere receptacle housings.

10P Portable Power Capabilities

Total solutions from Cooper Crouse-Hinds to meet the industry's ever-increasing need for safe and reliable temporary power

Virtually all industries today need equipment to provide temporary power, either in the event of an emergency or during standard operations such as maintenance in a factory. Cooper Crouse-Hinds offers turn-key solutions as well as traditional out-of-the box products that effectively meet these needs.

The Cooper Crouse-Hinds Advantage:

- Custom turn-key capabilities allow customers to specify and order complete portable power carts and enclosures
- Increase safety for temporary power needs by eliminating the opportunity of incorrect product being assembled together for temporary power and maintenance turnarounds which can result in injury to on-site personnel and contractors
- Minimize time for maintenance work, plant turnaround planning, and preparation by having completely assembled, reliable and robust solutions provided directly to site
- Dedicated staff with a focus on the oil and gas, military, disaster relief, and entertainment industries
- Engineering support, including AutoCAD and design specifications
- UL approved assemblies, including suitability for Class I, Division 1 & 2 applications

Target Markets and Applications:

- Petrochemical facilities (land and offshore)
- Cellular towers and telecommunications
- Disaster relief
- Generator / power packs / power distribution center manufacturers
- Military bases / installations (defense contractors)
- Government agencies (Department of Homeland Security, etc.)
- Gas stations / convenience stores / pharmacies
- Shipyards (new construction and repair)
- Entertainment
- Food service / commissaries
- Manufacturing
- Surface mining
- Wind or solar power
- Backfeeding buildings for super structures; hard-wired outlets fed from generators or power packs and carts; provision of power to engines, conveyor belts, welding equipment, ventilation fans; cable assemblies and wiring harnesses; construction applications; special customized applications for the provision of temporary power

Classifications and Available Electrical Standards:

- **NEC Solutions** - NEC designs, components, and standards compliance
- **IEC Solutions** - IEC designs, components, and standards compliance

Portable Power Solutions Offering:

- Pre-assembled cable assemblies
- Power distribution receptacle panels
- Power carts and specialty products

Cooper Crouse-Hinds provides the broadest offering of custom cable assembly solutions to be utilized in conjunction with portable power needs. Customers can choose from a variety of connectors, sizes, and lengths. Whether you are looking for NEC configurations such as a Cam-Lok®, Posi-Lok®, or Arktite®, or IEC configurations such as IEC 309 or Ex-Link, Cooper Crouse-Hinds can meet customers' needs.

The cable assembly incorporates a custom-made solution utilizing either Cooper Crouse-Hinds branded connectors or any other connector on the market. These units are offered in jumper and tail configurations from 52A to 600A solutions. They can be customized to meet the needs of the customer with UL/cUL listed devices and UL1581 standard cable. Canadian specific cable requirements are also available. Not only will you receive a complete turn-key solution of the best quality, you will also have the reputation of Cooper Crouse-Hinds behind your product.

Applications:

Heavy Industrial Applications
- Mining
- Hazardous locations
- Facility maintenance
- Military grade needs

Emergency Preparedness / Disaster Relief
- Hurricane regions
- Severe weather (ice storms / tornadoes)
- Data centers
- Cell towers
- Pharmacies
- Banks
- Retail
- Water treatment
- Utilities
- Gas stations
- Toll roads

Construction Applications
- Portable generators
- Welding equipment
- Heavy tools

Features:

- Customizable assembly offers a turn-key solution, providing significant cost and time savings
- Offers a one-stop solution and eliminates contractors assembling on-site
- Color coded assemblies (available in black, yellow, red, orange, green, white, blue, and brown) provide easy mateability identification and ensure safety
- Temperature rated cable allows for reliable performance in demanding environments
- Resistant to oil, solvent, ozone, aging, and abrasion
- Flame retardant jacket
- Ranges from 52 amp - 600 amp

Certifications and Compliances:

- UL/cUL listed devices
- ATEX certified devices
- UL1581 standard cable
- Canadian specific cable requirements available
- MSHA
- OSHA compliant

Ordering Information - Cable Assembly Configurator*

	Cable Assembly	Type	Cable Size	Cable Type	Connector Series	Connector Color Configuration	Cable Length
Example:	**C**	**1**	**20**	**W**	**16**	**A**	**25**
Options:	C	**1** (Extension) **2** (Pigtail)	**2** (#2) **20** (2/0) **40** (4/0)	**SC** (Type SC) **W** (Type W) **DLO** (Type DLO)	(1) **15** (E1015) **16** (EZ1016) (1) **17** (E1017) **200** (E0200) **315** (E0315) **400** (E0400)	**A** (Black) **B** (White) **C** (Red) **D** (Blue) **E** (Green) **F** (Brown) **G** (Orange) **H** (Yellow)	(2) **3M** (3 Feet Male) (2) **3F** (3 Feet Female) (2) **5M** (5 Feet Male) (2) **5F** (5 Feet Female) (2) **10M** (10 Feet Male) (2) **10F** (10 Feet Female (3) **25** (25 Feet) (3) **50** (50 Feet) (3) **100** (100 Feet)

Notes:

(1) Denotes quotes available upon request

(2) Pigtail only

(3) Extension cables only (custom lengths available upon request)

Connector Color Configuration Code:

16 Series Extension Cable Connectors	***200 Series Extension Cable Connectors***	***315 Series Extension Cable Connectors***	***400 Series Extension Cable Connectors***
A (EZ1016-8362/8387)	*A (E0200-183/283)*	*A (E0315-183/283)*	*A (E0400-183/283)*
B (EZ1016-8367/8392)	*B (E0200-182/282)*	*B (E0315-182/282)*	*B (E0400-182/282)*
C (EZ1016-8364/8389)	*C (E0200-184/284)*	*C (E0315-184/284)*	*C (E0400-184/284)*
D (EZ1016-8368/8393)	*D (E0200-185/285)*	*D (E0315-185/285)*	*D (E0400-185/285)*
E (EZ1016-8366/8391)	*E (E0200-181/281)*	*E (E0315-181/281)*	*E (E0400-181/281)*
F (EZ1016-8369/8394)	*F (E0200-199/288)*	*F (E0315-196/296)*	*F (E0400-196/296)*
G (EZ1016-8365/8390)	*G (E0200-195/289)*	*G (EO315-195/295)*	*G (EO400-195/295)*
H (EZ1016-8363/8388)	*H (E0200-192/286)*	*H (E0315-192/292)*	*H (E0400-192/292)*
16 Series Pigtail Female	***200 Series Pigtail Female***	***315 Series Pigtail Female***	***400 Series Pigtail Female***
A (EZ1016-8387)	*A (E0200-283)*	*A (E0315-283)*	*A (E0400-283)*
B (EZ1016-8392)	*B (E0200-282)*	*B-E0315-282)*	*B-E0400-282)*
C (EZ1016-8389)	*C (E0200-284)*	*C (E0315-284)*	*C (E0400-284)*
D (EZ1016-8393)	*D (E0200-285)*	*D (E0315-285)*	*D (E0400-285)*
E (EZ1016-8391)	*E (E0200-281)*	*E (E0315-281)*	*E (E0400-281)*
F (EZ1016-8394)	*F (E0200-288)*	*F (E0315-296)*	*F (E0400-296)*
G (EZ1016-8390)	*G (E0200-289)*	*G (E0315-295)*	*G (E0400-295)*
H (EZ1016-8388)	*H (E0200-286)*	*H (E0315-292)*	*H (E0400-292)*
16 Series Pigtail Male	***200 Series Pigtail Male***	***315 Series Pigtail Male***	***400 Series Pigtail Male***
A (EZ1016-8362)	*A (E0200-183)*	*A (E0315-183)*	*A (E0400-183)*
B (EZ1016-8367)	*B (E0200-1820*	*B-E0315-182)*	*B-E0400-182)*
C (EZ1016-8364)	*C (E0200-184)*	*C (E0315-184)*	*C (E0400-184)*
D (EZ1016-8368)	*D (E0200-185)*	*D (E0315-185)*	*D (E0400-185)*
E (EZ1016-8366)	*E (E0200-181)*	*E (E0315-181)*	*E (E0400-181)*
F (EZ1016-838369)	*F (E0200-199)*	*F (E0315-196)*	*F (E0400-196)*
G (EZ1016-8365)	*G (E0200-195)*	*G (E0315-195)*	*G (E0400-195)*
H (EZ1016-8363)	*H (E0200-192)*	*H (E0315-192)*	*H (E0400-192)*

* Cooper Crouse-Hinds is able to manufacture multiple combinations of extension and feeder cable assemblies for both NEC and IEC applications. Cable assemblies can be custom designed using a large variety of product series, cable lengths and cable types. Splitter or adapter combinations are also available (Arktite to Cam-Lok, Arktite to IEC, IEC to Mil-spec, Arktite to Mil-spec, etc.) Please consult factory for custom configurations.

Posi-Max Series
Power Distribution Panel

Customized solutions for providing temporary power.

No other manufacturer has the unique ability to deliver customized portable power solutions quickly and safely in the event of a power outage.

Cooper Crouse-Hinds Posi-Max is a power distribution panel that provides a quick and safe method of connection to portable generators. The unique Posi-Max design allows for quick and safe restoration of essential power services.

The Posi-Max Series is available in 200A to 1200A and the enclosure can be customized to meet specific environmental and configuration needs. The heart of the system is the field-proven Posi-Lok® power distribution system designed to meet Articles 520.53(K) and 530.22(A) of the NEC®. The sequential port interlock requires the user to connect and disconnect each plug in the proper sequence ensuring ground connection. This single pole system allows for easy connection in any situation.

Posi-Max panel in cold rolled steel with epoxy powder paint

Applications:

The Posi-Max Series is used to back feed buildings for quick power restoration in the event of an outage. It is an ideal solution for safe and reliable power restoration for:

- Banks
- Cell Towers
- Data Centers
- Gas Stations
- Pharmacies
- Retail Stores
- Stadiums, Sports Arenas
- Toll Roads
- Utilities
- Water Treatment Facilities

Features and Benefits:

- 200A - 1200A service
- Color coded polarity for ease of use
- Quick access cable entry door
- Lockout capability for safety and security
- Available with E1016 Cam-Lok® connection for enhanced safety and sequential interlocked capability
- Available with manual transfer switches
- Quick restoration of essential services
- Limit switch options available

Component Certifications and Compliances:

- NEMA 3R, 4*, 4X*, 12
- Enclosure UL and cUL listed
- Posi-Lok panel UL and CSA Listed
- Posi-Lok and Cam-Lok connector UL and CSA Listed
- Article compliance: 520.53(K) and 530.22(A) of the NEC

Materials and Finishes:

- Enclosure:
  Cold rolled steel - epoxy powder paint
  Stainless steel - natural
- Hardware - stainless steel
- Gasket - neoprene

*NEMA 4, 4X when bottom panel door is closed.

Posi-Max Features:

Factory wired to distribution block - for ease of installation

Quick release latch for a tool-free operation.

Padlock hasp provides lockout/tagout compliance

Color coded polarity - for easy recognition of mating plug - preventing electrical damage to equipment

Posi-Lok Power Distribution System - allows for use of lighter, single conductor cables rated at higher amperages

Smooth entry integral bushing design allows for safe cable pulling preventing damage to cable installation

Foam-in-place gasketed doors for NEMA 3R, 4*, 4X*,12 rating - ideal for wet and inclement weather

Easy access hinged bottom panel allows for quick power up while providing environmental protection while not in use

NEMA 4, 4X when bottom panel door is closed

Sequential port interlock - connections require the user to connect or disconnect each plug in sequence for increased (built-in) safety

Custom Capabilities

We can design the Posi-Max unit to meet your exact specifications for color, material, and finish.

All the design choices are yours!

Ordering Information:

	Posi Max Type	Connection Type	Amp	Panel Posi / Cam-Lok Color Configuration	Enclosure Type	Limit Switch Options	Disconnect Options (PM3 only)
Example:	**PM1**	**EO**	**400**	**1687**	**N3RPS**	**LS5**	**CB**
Options:	PM1 (Wired to distribution block)	EO (Posi Lok)	200	1685 (Female GR, WH, BK)	N1PS (NEMA 1 Painted Steel)	LS1 (1st Position)	CB† (Circuit breaker)
	PM2 (Direct wire; no distribution block)	CO (Cam Lok)	315	1686NN (Female Non Neutral GR, BK, RD, BU)	N3RPS (NEMA 3R Painted Steel)	LS2 (2nd Position)	FDS‡ (Fused disconnect switch)
	PM3 (With disconnect options)		400	1696 (Female GR, WH, BK, RD)	N3RSS (NEMA 3R Stainless Steel)	LS3 (3rd Position)	NFDS (Non-fused disconnect switch)
			600	1687 (Female GR, WH, BK, RD, BU)		LS4 (4th Position)	CBMTS† (Circuit breaker manual transfer switch)
			800	1702* / 1890 (Female GR, WH, BR, ORG, YEL)		LS5 (5th Position)	FMTS‡ (Fused manual transfer switch)
			1200	1885 (Female GR, WH, WH, BK, RD, BU)		LS6 (6th Position)	NFMTS (Non-fused manual transfer switch)
				1660 (Male GR, WH, BK)		LSAll (All Positions)	NFMTS (Non-fused manual transfer switch)
				1661NN (Male Non Neutral GR, BK, RD, BU)			
				1672 (Male GR, WH, BK, RD)			
				1662 (Male GR, WH, BK, RD, BU)			
				1703** / 1891 (Male GR, WH, BR, ORG, YEL)			
				1860 (Male GR, WH, WH, BK, RD, BU)			

Note:
*1702 panel configuration for 315 AMP to 1200 AMP; 1890 panel configuration for 200 AMP.
**1703 panel configuration for 315 AMP to 1200 AMP; 1891 panel configuration for 200 AMP.
†Voltage and AIC rating required.
‡Voltage required.

Panel Posi / Cam Lok Configuration Code:
- BK: Black
- BR: Brown
- BU: Blue
- GR: Green
- ORG: Orange
- RD: Red
- WH: White
- YEL: Yellow

Cooper Crouse Hinds Power Carts and Specialty Portable Power products provide a customized solution that is suitable for all of your portable power needs.

The products are a safe and reliable solution designed and engineered to meet demanding customer requirements. Power carts and specialty portable power products can be tailored for industrial, harsh or hazardous applications around the globe to meet NEC, CEC and IEC codes and standards.

Applications:

- Manufacturing
- Food Service and Processing
- Utilities
- Government
- Mining
- Marine - Military, Shipyards, Cargo, Commuter Ferries, etc.
- Rail
- Transportation
- Pulp and Paper
- Entertainment
- Military

Features and Benefits:

- Minimize time for planning and preparation of plant turnarounds by having customized, reliable and robust solutions provided by a qualified manufacturer
- Increase safety during maintenance turnarounds by eliminating the use of incorrect or unsafe product that could result in injury to on-site personnel and contractors

Examples of Power Carts and Specialty Portable Power Products:

**Job Site Trailer Distribution Rack
NEMA 3R, Skid Mounted**

**Transformer Cart
45 KVA, Skid Mounted**

**Transformer Cart
30KVA, 480V, 2 Wheels**

**Transformer Cart
30KVA, 480V, 4 Wheels**

**Main Breaker Cart
250A, 122/208V, 2 Wheels**

**Transformer Cart
30KVA, 480V, 4 Wheels**

**Transformer Cart
10KVA, 480V, 2 Wheels**

**Transformer Cart
480V, NEMA 3R, 2 Wheels**

**Portable Floodlight
Class I, Division 2, 2 wheels**

**Hanging Floodlight
Class I, Division 2**

Ordering Information Checklist:

Cooper Crouse-Hinds power carts and specialty portable power solutions are custom-built to meet each customer's exact requirements.

Utilize the questions below to consider options available to you and to capture your specific needs. Then contact your local Cooper Crouse-Hinds Sales Representative and we'll work with you design a custom portable power solution just for you.

Classification: What is the classification of the area where this unit is to be used?

- NEMA 1
- NEMA 3 / 3R
- NEMA 4 / 4X
- Class I, Division 1
- Class I, Division 2
- Class II, Division 1
- Class II, Division 2
- Class I, Zone 1
- Class I, Zone 2
- IP54
- IP66

Voltage: What are the voltage requirements for this application?

Phases: Is this a single phase or three phase application?

Transformer: Is there a transformer required, and if so, what are the primary and secondary voltage requirements?

MCB or Disconnect Switch: Does this unit require circuit protection and/or a disconnect switch on the primary, and if so, what are the electrical rating requirements?

Fuse: Must the solution be fused or non-fused?

Lifts: Must the solution provide fork blade access, lifting eyes, or casters for this unit? If lifting eyes or casters are required, what size and type?

Size: Are there any size constraints that we should be aware of?

Distribution Panel: If a distribution panel is utilized on the secondary distribution, what type is preferred?

Load Center: Do you want a load center (plug in breakers) or panelboard (bolt on breakers)?

Interrupting Requirements: What are the interrupting requirements for this application? 10KAIC, 14KAIC, 22KAIC, or higher?

Connection Type: What type of connection do you want on the primary? (Arktite® or IEC 309). What types and how many receptacles are required on the secondary of this unit? (50 amp twist lock, 30 amp twist lock, GFI's, etc.)

Painting/Markings: Are there any requirements as far as paint or markings? Do you want Safety Yellow or Orange or do you want it painted in your company colors? Do you want to have reflector strips applied on the unit? Do you want to have your company name, logo, and phone number on the unit?

Certifications: What listings are required for this unit (UL, ETL, FM, ATEX, etc.)?

Lead Time Requirements: Are there any special lead time requirements for this inquiry that we should be aware of?

10P