● 1P Heavy Duty Plugs and Receptacles

Plugs and Receptacles Industrial Heavy Duty Non-Hazardous

Description	Page No.
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Arktite® Series	
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20A	970
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60A	974, 975
100A	976, 977
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Configured Arktite® ARC/APJC Style	
Technical Data	986, 987
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1P Plugs and Receptacles

Industrial Heavy Duty Application and Selection

Application:

- 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 969 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 967 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 969 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 Chara	cteristics					
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
APRC	Portable cable	30, 60, 100	600VAC 250VDC	3-5	2		APJC, APQC
AR	Fixed	20, 30, 60, 100, 200, 400	600VAC 250VDC	2-5	1-2	Back box (surface)	APJ, NPJ, AP
ARC	Fixed	30, 60, 100	600VAC 250VDC	3-5	2	Back box (surface)	APJC
AR	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 967 for detailed explanation.





Plugs and Receptacles

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*	DR	2P	30, 60 amp. 2-wire, 2-pole 3-wire, 3-pole 4-wire, 4-pole 2-wire, 3-pole 3-wire, 4-pole
	DBR	3P	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
СРН	AR, NR*, NPR*	1P	30 and 60 amp. 2-wire, 3-pole
	DR, CES, CESD	2P	
	FSQ, EPC, EPCB, DBR	4P	
	DBR, NBR, NSR, WSR, WSRD	3P	30 and 60 amp. 3-wire, 4-pole

 $^{^{\}star}$ NPJ, NR and NPR available in 2-wire, 3-pole and 3-wire, 4-pole electrical ratings only.

Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

Industrial Heavy Duty Non-Hazardous Areas

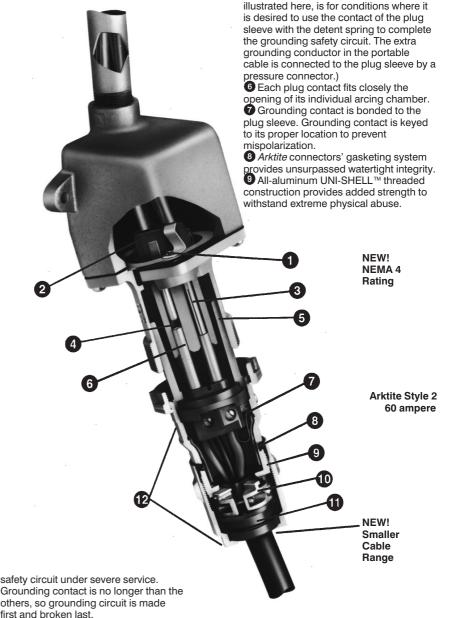
Application:

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 200 ampere rating may be disconnected under load; 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 deenergized receptacle from an energized plug with usual Arktite safety; no energized contacts are exposed.
- Additional features are indicated in the view at right;
- Grounding contact in Style 2 is bonded to the receptacle housing.
- 2 Easily wired interior assemblies in receptacles and plugs. See table on page 938 for type of contacts in units.
- 3 Arktite Style 2, illustrated here, has an extra grounding contact which forms a parallel circuit with the circuit formed by the plug sleeve and receptacle detent spring, and assures continuity of the grounding



4 The arc formed by pulling the plug is instantly snuffed in the deep, confined insulated arcing chamber while the plug contact is still a considerable distance inside. The arc cannot travel over to the

other side of the circuit or to the housing.

Detent spring forms a grounding path from plug sleeve to receptacle housing. Arktite plugs and receptacles are made in two styles. With either style, the portable appliance is grounded before it is energized and remains grounded until after it is deenergized. (Arktite Style 1, not

 Arktite's TRI-LOCK™ cable grip has three clamps that tighten around the cable to securely lock it in place, even when subjected to extreme flexing and jerking.

igrking.

The unique SURE-SEAL™ cable gland provides a complete environmental seal by distributing pressure equally around the circumference of the cable.

Wrenching surfaces make Arktite connector quick and easy to assemble.

1P Heavy Duty Plugs



Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

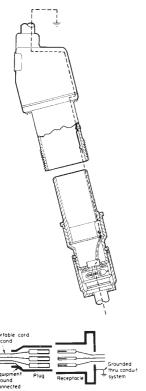
Industrial Heavy Duty Non-Hazardous Areas

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.

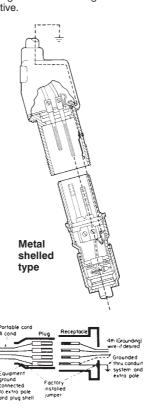




Style 1
Ground conductor attaches to shell.

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.

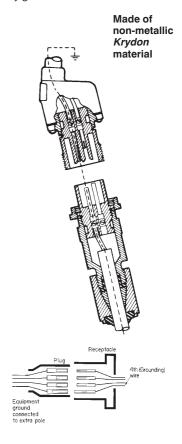




Style 2
Ground conductor
attaches to contact,
which is bonded to shell.

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.





Arktite® Heavy Duty Circuit Breaking§ Plugs and Receptacles

Industrial Heavy Duty Non-Hazardous Areas

Options:

• The following special options are available from factory by adding suffix to Cat. No.:

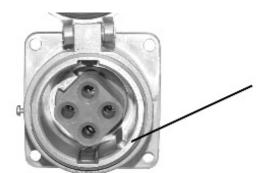
Suffix to be Added to

Cat. # Description

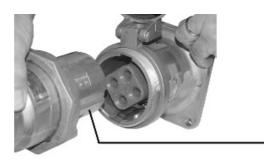
S22.....Reversed contacts. Receptacle assembled with plug interior (exposed contacts), plug assembled with receptacle interior (recessed contacts). For applications where plug is energized to feed normally deenergized receptacle. Available on 30 through 400 ampere units NOTE: 30 (2, 3, 4-pole), 60 and 100 ampere interiors can be interchanged in the field using a screwdriver. Factory conversion is required for 200 and 400 ampere products.

S4.....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 degrees to right and plug changed to match (See photo to right)



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.

Standard Materials:

- Metallic receptacle housings, plug and cord connector bodies – high impact strength copper-free aluminum
- Nonmetallic receptacles, plugs and cord connectors *Krydon*® fiberglass-reinforced polyester material
- Back boxes: 20, 30, 60, 100 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 leaded red brass; 20, 30, 60, 100 ampere telurium copper; 200, 400 ampere

Standard Finishes:

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

§ 400A rated units are for service disconnect use only.

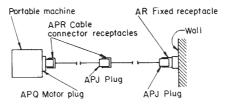
Accessories:

Accessories include a variety of angle adapters, panel adapters and back boxes for *Arktite* receptacles, listed on pages 990-993. Included throughout 1P are wire mesh cable grips and protective caps for *Arktite* plugs.

Certifications and Compliances:

- UL Standards: 1682, 514; 1010 (APJ and NPJ plugs only)
- CSA Standard: C22.2 No. 182.1

Typical installation



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COOPER Crouse-Hinds

Arktite® Heavy Duty Circuit Breaking§ Plugs and Receptacles

Industrial Heavy Duty Non-Hazardous Areas

Arktite Horsepower Ratings

Locked-Rotor Interrupting

• Emergency Interrupting

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

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	Contact	Diameter	Wire Size‡	
Rating	Туре	of Recess	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
200 (Std. 3 & 4-pole)	Crimp/Solder	.56	#1-4/0	#1-3/0
200 (Lg. 3 & 4-pole)	Crimp/Solder	.75	4/0-250MCM	3/0-250MCM
400 (Std. 3 & 4-pole)	Crimp/Solder	.84	250-500MCM	250-400MCM
400 (Lg. 3 & 4-pole)	Crimp/Solder	1.25	500-1000MCM	400-750MCM

^{**} Smaller sizes may be used with well reducers – information on request.

[†] 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.

[‡] Do not use wire size smaller than minimum size recommended.

^{§ 400}A rated units are for service disconnect use only.

Notes Page





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 No. #
2W 2P	1/2	Spring Door	ARE2211
	1/2	Threaded Cap	ARE2271
2W 2P	3/ ₄	Spring Door	ARE2212
	3/ ₄	Threaded Cap	ARE2272





Receptacle

Config.	Descrip.	Cat No. #
2W 2P	Spring Door Threaded Cap	AR221 AR227





Plug

Config.	Cable Dia.	Descrip.	Cat No. #
2W 2P	.250500	Fastening Ring	APJ2271
	.250500	W/O Fastening Ring	APJ2251
2W 2P	.500–.875	Fastening Ring	APJ2273
	.500–.875	W/O Fastening Ring	APJ2253

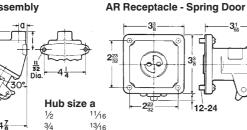


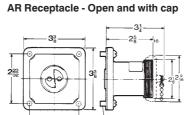
Connector

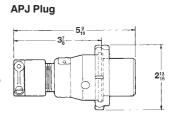
Config.	Cable Dia.	Descrip.	Cat No. #
2W 2P	.250500	Connector	APR2251
	.500850	Connector	APR2253

Dimensions

ARE Assembly







NOTE: For listing of additional back boxes, see pages 999 and 991.

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

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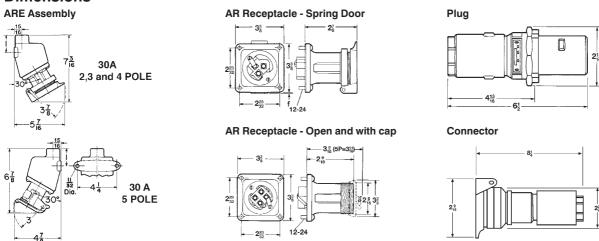
1P Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

30 A, 600 VAC/250 VDC, 50**-400 hertz

Receptacle Assembly Receptacle Receptacle Receptacle Plug Connector Author Connector

With ARE Bac Style 1	k Boxes		Receptacle Housings Only Style 1	,	Mating APJ Plugs† Style 1		Mating APR Connectors Style 1	
Description	Hub‡ Size	Spring Door Cat. #	Spring Door Cat. #	Threaded Cap Only Cat. #	Cat. #	Cable Dia.	Cat. #	Cable Dia.
2-wire, 2-pole	1/2 3/4	ARE3211 ARE3212	AR321	AR327	APJ3275	0.39 to 1.20	APR3255	0.39 to 1.20
3-wire, 3-pole	3/ ₄ 1	ARE3312 ARE3313	AR331	AR337	APJ3375	0.39 to 1.20	APR3355	0.39 to 1.20
4-wire, 4-pole	³ ⁄ ₄ 1	ARE3412 ARE3413	AR341	AR347	APJ3475	0.39 to 1.20	APR3455	0.87 to 1.02
5-wire, 5-pole	1	ARE3513	AR351		APJ3573	.500 to .875	APR3553	.500 to .875
Style 2			Style 2		Style 2			Style 2
2-wire, 3-pole	³ ⁄ ₄ 1	ARE3322 ARE3323	AR332	AR338	APJ3575	.875 to 1.375	APR3555	.875 to 1.375
3-wire, } 4-pole }	³ / ₄ 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





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

COOPER Crouse-Hinds

30 A, 600 VAC/250 VDC, 50**-400 hertz

Plug Closure Caps:

Application:

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 and 200 ampere plugs with fastening ring and standard 200 ampere plugs for the clamp door housing

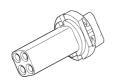
Standard Materials:

• Copper-free aluminum

Standard Finishes:

Natural

Replacement Parts:





Config.

5P

2P & 3P & 4P



Cat No. #

CPK13

CPK32



Config.	Receptacle Interior	Plug Interior	Spring Door	Screw Cap
2W 2P	ATP275	ATP270		
2W 3P	ATP278	ATP273		
3W 3P	ATP276	ATP271	QE50	QE13
3W 4P	ATP279	ATP274		
4W 4P	ATP277	ATP272		
4W 5P	ATP125	ATP109	N/A	N/A
5W 5P	ATP94	ATP73	14/7	13/7

Replacement Pin & Sleeve Contacts:

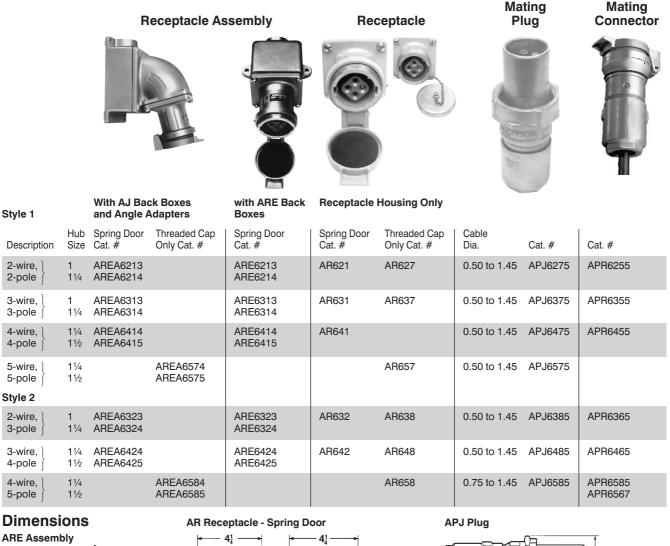
Description	Recep	Plug
Available as a kit only.		
5 phase contacts & 1 ground contact included	AR30CONKIT	AP30CONKIT

^{**} For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.

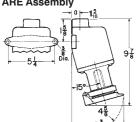


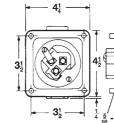
Arktite® Heavy Duty Circuit Breaking 1P **Receptacle Assemblies and Housings**

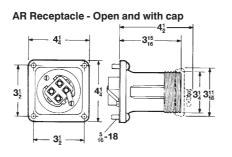
60 A, 600 VAC/250 VDC, 50**-400 hertz

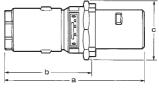




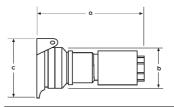








APR Connector



	Plug			C	nnect	or
Config	а	b	С	а	b	С
2P or 3P	81/2	53/4	3 5⁄8	6½	3 5⁄8	2 ¹⁵ / ₁₆
4P	81/2	5 ¹³ ⁄ ₁₆	33/4	81/4	3 5⁄8	2 ¹⁵ /16
5P	9	6 ³ ⁄ ₁₆	47/16	81/4	3 5⁄8	31/4

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

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60 A, 600 VAC/250 VDC, 50**-400 hertz

Plug Closure Caps:

Application:

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 and 200 ampere plugs with fastening ring and standard 200 ampere plugs for the clamp door housing

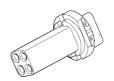
Standard Materials:

• Copper-free aluminum

Standard Finishes:

Natural

Replacement Parts:





Config.

2P & 3P

4P



Cat No. #

CPK32

CPK34



Config.	Receptacle Interior	Plug Interior	Spring Door	Screw Cap	
2W 2P	ATP295	ATP290			
2W 3P	ATP298	ATP293	QE51	QE32	
3W 3P	ATP296	ATP291			
3W 4P	ATP299	ATP294	- QE52	QE34	
4W 4P	ATP297	ATP292	QL32	QL04	
4W 5P	ATP385	ATP387	N/A	AR:11393B	
5W 5P	ATP384	ATP386	N/A	AH. 11393B	

Replacement Pin & Sleeve Contacts:

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

 $[\]begin{tabular}{ll} \star* For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only. \end{tabular}$



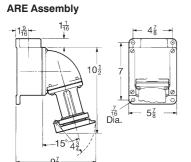
1P Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

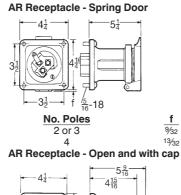
100 A, 600 VAC/250 VDC, 50**-400 hertz

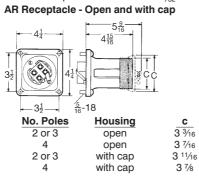
Receptacle Assembly Receptacle Plug Connector Wating Plug Connector

Style 1			Receptacle H	ousings Only			
Description	Hub Size	Spring Door Cat. #	Spring Door Cat. #	Threaded Cap Only Cat. #	Cable Dia.	Cat. #	Cat. #
2-wire, 2-pole	1 ½ 1½	AREA10214 AREA10215	AR1021	AR1027	0.875 to 1.70	APJ10277	APR10257
3-wire, 3-pole	1 1/4 1 1/2	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
Style 2 2-wire, \ 3-pole	1½ 1½	AREA10324 AREA10325	Style 2 AR1032	AR1038	Style 2 0.875 to 1.70	APJ10387	APR10367
3-wire, 4-pole	1½ 2	AREA10425 AREA10426	AR1042	AR1048	0.875 to 1.70	APJ10487	APR10467

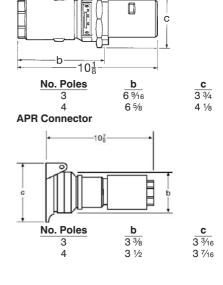
Dimensions











US: 1-866-764-5454 CAN: 1-800-265-0502 Copyright® 2006 Cooper Crouse-Hinds



 $^{^{\}star\star}\,\text{For use on systems less than 60 hertz\,the receptacles, plugs and connectors are for disconnect use only}$

Cat No. #

CPK62

CPK64

100 A, 600 VAC/250 VDC, 50**-400 hertz

Plug Closure Caps:

Application:

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 and 200 ampere plugs with fastening ring and standard 200 ampere plugs for the clamp door housing

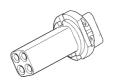
Standard Materials:

• Copper-free aluminum

Standard Finishes:

Natural

Replacement Parts:





Config.

2P & 3P

4P





Config.	Receptacle Interior	Plug Interior	Spring Door	Screw Cap
2W 2P	ATP315	ATP310		
2W 3P	ATP318	ATP313	QE53	QE62
3W 3P	ATP316	ATP311]	
3W 4P	ATP319	ATP314	- QE54	QE64
4W 4P	ATP317	ATP312	QL04	QL0+
4W 5P	N/A	N/A	N/A	N/A
5W 5P	N/A	N/A	TN/A	IV/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

200 A. 600 VAC/250 VDC. 50**-400 hertz

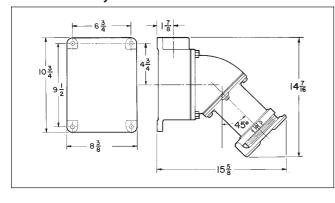
See pages 966-969 for general Application, Features, Grounding, Standard Materials, Standard Finishes, Options, Accessories, Compliances, Electrical Rating Ranges, and Wire Sizes.

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 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

- 1. For listing of additional back boxes, see page 991.
- 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 AREA Assembly



Plug Closure Caps:

Application:

CPK caps for *Arktite* plugs are used:

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



Config. Cat No. # CPK102 3P Standard Materials: 4P **CPK104** • Copper-free aluminum

Standard Finishes:

Natural

Wire Mesh Grips:

Application:

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

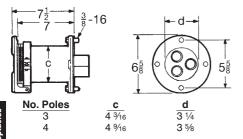
Standard Material & Finishes:

• Stainless steel wire braid - Natural

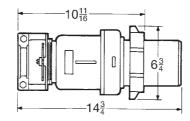
Ordering Information:

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

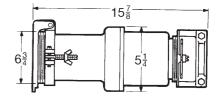
AR Receptacle



AP Plua



APR Connector



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

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Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies

200 A, 600 VAC/250 VDC, 50**-400 hertz



Style 1 – Wire V	Well Takes	s .56" Maximum C	onductor Size			
Description	Hub Size	Spring Door Cover Cat. #	Spring Door Cat. #	Cable Dia.	Plug Cat. #	Connector Cat. #
3-wire, 3-pole	1½ 2 2½	AREA20315 AREA20316 AREA20317	AR2031	0.875 to 1.375 1.375 to 1.875 1.875 to 2.500	AP20355 AP20357 AP20358	APR20315 APR20317 APR20318
4-wire, 4-pole	2 2½	AREA20416 AREA20417	AR2041	0.875 to 1.375 1.375 to 1.875 1.875 to 2.500	AP20455 AP20457 AP20458	APR20415 APR20417 APR20418
Style 1 – Wire V	Well Takes	s .75" Maximum C	onductor Size			
3-wire, 3-pole	1½ 2 2½	AREA203125 AREA203126 AREA203127	AR20312	1.375 to 1.875 1.875 to 2.500	AP203511 AP203512	APR203111 APR203112
4-wire, 4-pole	2 2½	AREA204126 AREA204127	AR20412	1.375 to 1.875 1.875 to 2.500 2.500 to 3.000	AP204511 AP204512 AP204513	APR204111 APR204112 APR204113
Style 2 – Wire \	Well Take	s .56" Maximum C	conductor Size			
2-wire, 3-pole	1½ 2 2½	AREA20325 AREA20326 AREA20327	AR2032	0.875 to 1.375 1.375 to 1.875 1.875 to 2.500	AP20365 AP20367 AP20368	APR20325 APR20327 APR20328
3-wire, 4-pole	1½ 2 2½	AREA20425 AREA20426 AREA20427	AR2042	0.875 to 1.375 1.375 to 1.875 1.875 to 2.500	AP20465 AP20467 AP20468	APR20425 APR20427 APR20428
Style 2 – Wire \	Style 2 – Wire Well Takes .75" Maximum Conductor Size					
2-wire, 3-pole	1½ 2 2½	AREA203225 AREA203226 AREA203227	AR20322	0.875 to 1.375 1.375 to 1.875 1.875 to 2.500	AP203610 AP203611 AP203612	APR203210 APR203211 APR203212
3-wire, 4-pole	1½ 2 2½	AREA204225 AREA204226 AREA204227	AR20422	1.375 to 1.875 1.875 to 2.500	AP204611 AP204612	APR204211 APR204212

Option:

• Mechanical lug wire conductor terminations. Add "L" to catalog prefix i.e. : ARL2042



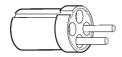




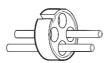
Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies

200 A, 600 VAC/250 VDC, 50**-400 hertz

200A Replacement Parts











200A Standard and S4

2W 3P	
3W 3P	
3W 4P	
4\M 4D	

Receptacle Interior		Plug Interior		Brass Retaining Shoe	
.56 wire well	.75 wire well	.56 wire well	.75 wire well	.56 wire well	.75 wire well
ATP401	ATP402	ATP433	ATP434	0490335	0490335
ATP397	ATP398	ATP429	ATP430	0490327	0490328
ATP403	ATP404	ATP435	ATP436	0490337	0490337
ATP399	ATP400	ATP431	ATP432	0490331	0490332

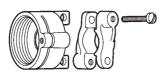
200A ST22 and S4 S22

2W 3P 3W 3P 3W 4P 4W 4P

Receptacle Interior		Plug Interior		Brass Retaining Shoe	
.56 wire well	.75 wire well	.56 wire well	.75 wire well	.56 wire well	.75 wire well
ATP417	ATP418	ATP449	ATP450	0490335	0490335
ATP413	ATP414	ATP445	ATP446	0490327	0490328
ATP419	ATP420	ATP451	ATP452	0490337	0490337
ATP415	ATP416	ATP447	ATP448	0490331	0490332













Cord Grip Assembly

Cord Diameter Range

.875 - 1.375 1.375 - 1.875

AP2 KIT1 M80 AP2 KIT2 M80 1.875 - 2.500 AP2 KIT3 M80

Plug Clamp Nut

2W 3P 3W 3P 2W 3P 3W 3P

AP:0401965 AP:0401964

Rec Spring Door

AR:0401502-2 AR:0401502-1

Replacement Pin & Sleeve Contacts

200A Standard & S4

Phase Contact **Ground Contact**

Recep	tacle	Plug		
.56 wire well	.75 wire well	.56 wire well	.75 wire well	
0490339 0490343	0490340 0490344	0490319 0490323	0490320 0490324	



200A S22 & S4 S22

Recep	tacle	Plug		
.56 wire well	.75 wire well	.56 wire well	.75 wire well	
0490351 0490347	0490352 0490348	0490355T 0490359	0490356 0490360	



Phase Contact **Ground Contact**



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 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

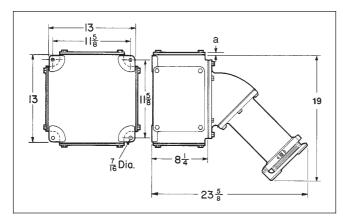
NOTES:

- 1. For listing of additional back boxes, see page 991. 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.

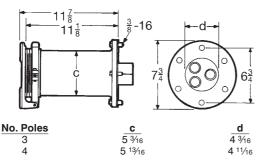
Dimensions

AREX Assemblies

Description a
With blank
hub plate 5/16
With hub
plate max. 45/8



AR Receptacles



Wire Mesh Grips



Application:

- Wire mesh grips are used:

 to provide secure cable termination
- to extend cable life
- with 20, 200 and 400 ampere plugs

Features:

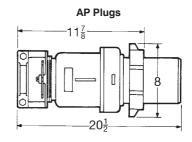
- Eliminate sharp radius of cable bend at the point where cable enters plug, thereby reducing cable failure
- Absorb longitudinal stresses placed on the point of termination caused by pulling the cable
- Gripping action increases in direct proportion to amount of tension applied to cable

Standard Material & Finishes:

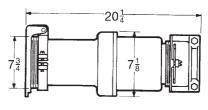
• Stainless steel wire braid - Natural

Ordering Information:

Plug		Nominal Grip	
Cable	Grip	Length –	Grip
Range	Range	Inches	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



APR Connectors



1P Arktite® Heavy Duty Receptacle Assemblies

400 A, 600 VAC/250 VDC, 50-400 hertz

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

[†] Furnished with cable grip and neoprene bushing.





 $[\]mbox{\rlap{$\frac{1}{2}$}}$ 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**

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

0

Watertight§ Corrosion-Resistant NEMA 4X Dimensions Pg. 984

Application:

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

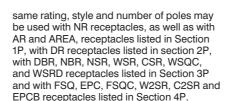
- to supply power to portable electrical devices such as welders, motors, pumps, conveyors and other similar equipment
- where electrical loads must be quickly disconnected from power sources
- in areas where severe corrosion hose down, moisture, dirt and dust are problems
- indoors and outdoors in non-hazardous 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 fiberglassreinforced polyester material which is highly resistant to corrosion, heat, weathering and physical abuse
- 1 2-stage cord sealing system positively grips cord and protects against environmental contaminants
- 2 Spring door provides environmental protection of receptacle
- Elastomeric snap-on caps provide environmental protection of receptacles and cord connectors
- Threaded construction allows quick assembly and disassembly for installation or maintenance
- 3 Grounding contact circuit is made first and broken last
- 4 Contact design provides multiple points of electrical contact for full-load circuit breaking capability
- Total interchangeability with all existing Arktite products for comparable ratings and configurations
- 5 Unique environmental sealing system includes o-ring gaskets on all contacts and between housing parts for NEMA 4 integrity
- 6 Threaded clamping ring provides plug
- Pressure contact wire terminals are
- standard. Crimp/solder terminals are optional NPQ motor plugs and NPR cable
- connectors offer reversed interior capability Unique cord and cable gripping system provides positive strain relief

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



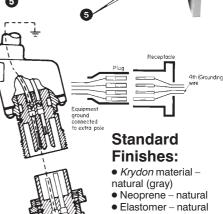
 Portable equipment, suitable for locations. and equipped with the proper NPJ plug, can be used with non-hazardous AR receptacles; with DBR and WSR interlocked receptacles located in non-hazardous locations; with EPC, EPCB and FSQC receptacles for Class I, Groups B, C, D hazardous locations; with DR and DBR receptacles for Class II, Groups F, G hazardous locations; and with NBR/ NSR, CSR interlocked receptacles for hose down and corrosive locations.

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 and receptacle conditions favorable to corrosion, the grounding conductor for enclosures and equipment be of copper or other corrosionresistant 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.

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



- Brass natural
- Leaded red brass electro-tin-plated
- Aluminum natural
- Stainless steel natural

Options:

- Alternate polarization (4-pole plugs and receptacles only) receptacle interior rotated 22½ degrees to right and plug changed to match - add suffix S4 to Cat. No.
- Crimp/solder terminals add suffix T to Cat.
- Corro-free[™] epoxy powder coat on back boxes and angle adapters - information on

Certifications and Compliances:

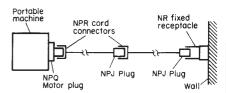
• UL Standard: 1682

Style 2 -

Typical 3-wire,

4-pole plug

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

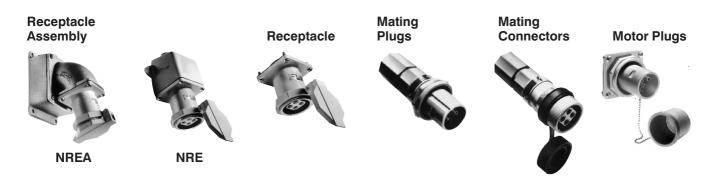




Non-Metallic Arktite® Heavy Duty Circuit Breaking Motor Plugs, Plugs & Cord Connectors

Watertight§ Corrosion-Resistant NEMA 4X

Made of Krydon® Material, 30 A, 60 A and 100 A 600 VAC/250 VDC, $50^{**}\!-\!400$ hertz



Amps	Description	Hub Size	Snap-on Cap/ Spring Door Cat. # ①	Snap-on Cap/ Spring Door Cat. # ①	Cord Dia.	Plug Cat. #	Cord Connector Cat. #	Motor Plug Cat. #
	2-wire, 3-pole	³ ⁄ ₄ 1	NRE3322 NRE3323	NR332	0.55-0.70 0.70-0.85	NPJ3383 NPJ3384	NPR3363 NPR3364	NPQ338
30	3-wire, 4-pole	³ ⁄ ₄ 1	NRE3422 NRE3423	NR342	0.55-0.70 0.70-0.85	NPJ3483 NPJ3484	NPR3463 NPR3464	NPQ348
	2-wire, 3-pole	1 11⁄4	NRE6323 NRE6324	NR632	0.75–1.07 1.07–1.35	NPJ6384 NPJ6385	NPR6364 NPR6365	NPQ638
60	3-wire, 4-pole	1½ 1½	NRE6424 NRE6425	NR642	0.75–1.07 1.07–1.35	NPJ6484 NPJ6485	NPR6464 NPR6465	NPQ648
	2-wire, 3-pole	11/4 11/2	NREA10324‡ NREA10325‡	NR1032	0.93–1.21 1.21–1.50	NPJ10386 NPJ10387	NPR10366 NPR10367	NPQ1038
100	3-wire, 4-pole	1½ 2	NREA10425‡ NREA10426‡	NR1042	0.93-1.21 1.21-1.50	NPJ10486 NPJ10487	NPR10466 NPR10467	NPQ1048





 $[\]ensuremath{\textcircled{0}}$ Krydon Arktite Receptacles are supplied with both a spring door and snap-on cap.

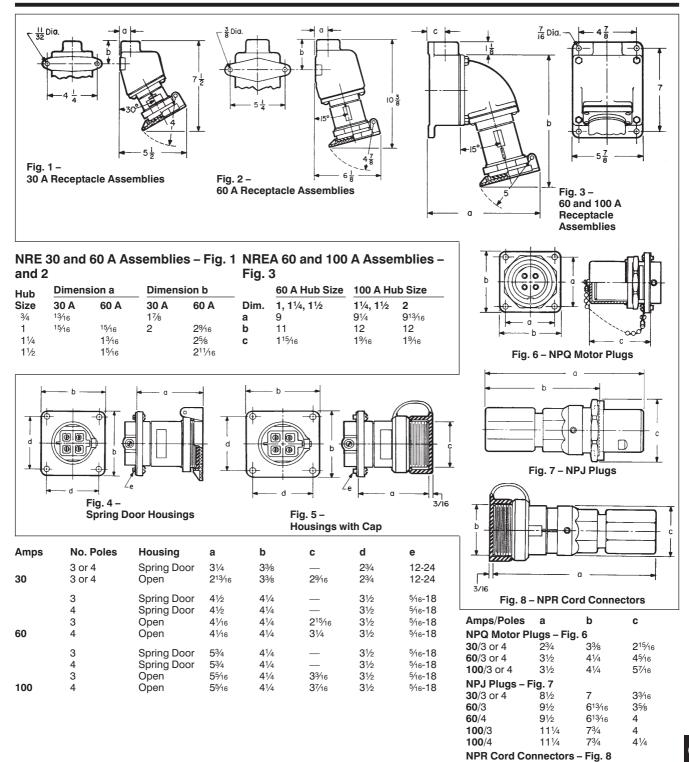
[§] Wet and damp locations when used with spring door or snap-on cap, watertight when used with QE threaded cap.

AJ back boxes are square, making it possible to install with hub in several positions.

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

Non-Metallic Arktite® Heavy Duty Circuit Breaking Motor Plugs, Plugs & Cord Connectors

Made of Krydon $^\circ$ Material, 30 A, 60 A and 100 A 600 VAC/250 VDC, $50^{**}-400$ hertz



^{**} For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only.



25/8

215/16

215/16

35/16

35/16

2⁹/₁₆ 2¹⁵/₁₆

31/4

33/16

37/16

30/3 or 4

60/3

60/4

100/3

100/4

87/8

93/4

93/4

111/2

Heavy-Duty and Voltage Polarized

Configured Arktite® Power Connectors offer the heavy-duty metal construction of our standard Arktite line, plus voltage configuration. This combination is the ultimate in pin and sleeve connector reliability and safety. The new Configured Arktite Connector series incorporates a unique voltage polarization system that insures that only receptacles and plugs rated for the same voltage can be physically connected. This assures a safe and correct electrical connection every time. Compliance with the National Electrical Code® article 210-7 requirement for non-interchangeability of receptacles and plugs on the same premises with different voltages is now easier than ever. Equipment damage due to the misapplication of the wrong voltage using these connectors when properly installed can be virtually eliminated.

This new connector series is not intermateable with our standard line of Arktite power connectors, but it utilizes many of the same time-tested construction features that have been the proven standard of excellence in the electrical industry for years. Configured Arktite Power Connectors are available in 4 or 5 pole (includes ground contact) versions for 30, 60, or 100 amp requirements. Every plug and receptacle is marked numerically and color coded for the specific voltage making it simple and easy to determine the proper plug and receptacle combination. A larger ground contact and unique keying system insures that only the connectors of the same voltage



will intermate. Five distinct configurations are available covering the most common voltages in industry.

Configured Arktite Power Connectors are designed for rugged use in the most abusive applications. The unique gasketing system provides a sure seal even in the most adverse environments. They also feature the Cooper Crouse-Hinds patented TRI-LOCK™ cable grip that securely locks the cable in place even when subjected to extreme flexing and jerking. The larger ground contact makes first, breaks last, and is bonded to the metal housing

to insure all metal parts are properly grounded. The power contacts are specially designed and located in arc quenching chambers to allow these connectors to be safely disconnected under load. Cooper Crouse-Hinds Configured Arktite Power Connectors are designed in compliance with the latest UL, CSA and NEMA standard.

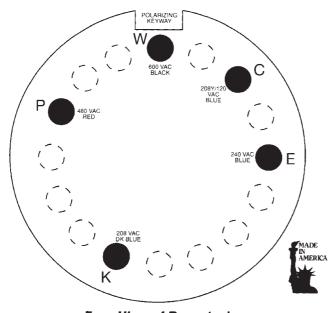
Applications:

Configured Arktite voltage polarized 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 a power source.
- 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.

Accessories:

Accessories include a variety of angle adapters, panel adapters, and back boxes for Configured Arktite receptacles. They include protective caps for Configured Arktite plugs and receptacles.



Face View of Receptacle

Footnote: • indicates ground contact position.

indicates position not used.

US: 1-866-764-5454 CAN: 1-800-265-0502 Copyright® 2006 Cooper Crouse-Hinds



● 1P Heavy Duty Plugs and Receptacles

Configured Arktite® Heavy Duty Power Connectors

Rainproof 30 to 100 A 600 VAC/250 VDC 60-400 hertz

Voltage/Color Configurations

A 16 position 'face' is used to illustrate the grounding contact location for receptacles. To identify the system voltage, identify the housing color and position of the receptacle grounding contact or marking on the polarizer.

Standard Materials:

- Metallic receptacle housings, plug, and connector bodies – high impact strength copper-free aluminum
- Back boxes cast aluminum
- Insulators:
- 3, 4, and 5 pole fiberglass-reinforced polyester
- Contacts:
- Pressure screw type brass
- Polarizers PBT polyester

Standard Finishes:

- Aluminum natural
- Fiberglass-reinforced polyester insulator gray
- Brass natural

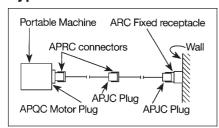
Certifications and Compliances:

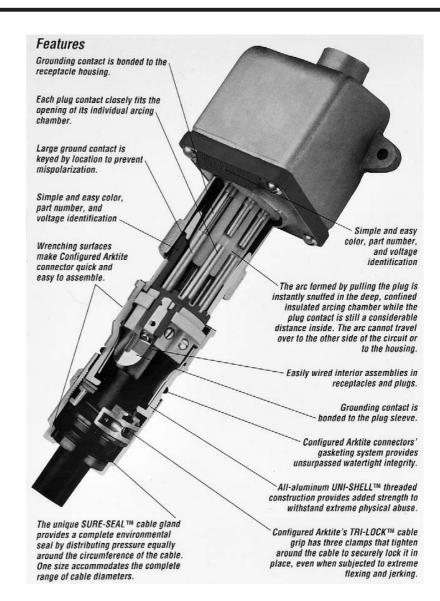
UL Standards: 1682 and 1686CSA Standard: C22.2 No. 182.1

Electrical Rating Ranges:

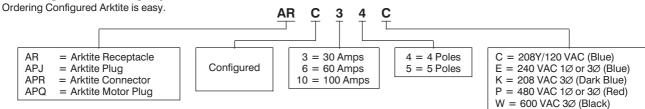
- Voltage 600 VAC; 60 to 400 hertz; 250 VDC
- Amperes 30, 60, and 100
- Horsepower Rating same as standard product. See page 969.

Typical Installation:





Catalog Numbering System:





30 Amp Plugs, Receptacles, Connectors, Motor Plugs

Heavy-Duty Voltage Polarized Circuit Breaking NEMA 3R Rainproof UL/CSA





Poles	Volt Rating	Color	Plug Cat. No.	w/Spring Door* Cat. No.
4	208 VAC 3Ø	Dark Blue	APJC34K	ARC34K
4	240 VAC 3Ø	Blue	APJC34E	ARC34E
4	480 VAC 3Ø	Red	APJC34P	ARC34P
4	600 VAC 3Ø	Black	APJC34W	ARC34W
5	208Y/120 VAC	Blue	APJC35C	ARC35C
	4 4 4 4	4 208 VAC 3Ø 4 240 VAC 3Ø 4 480 VAC 3Ø 4 600 VAC 3Ø	4 208 VAC 3Ø Dark Blue 4 240 VAC 3Ø Blue 4 480 VAC 3Ø Red 4 600 VAC 3Ø Black	Poles Volt Rating Color Cat. No. 4 208 VAC 3Ø Dark Blue APJC34K 4 240 VAC 3Ø Blue APJC34E 4 480 VAC 3Ø Red APJC34P 4 600 VAC 3Ø Black APJC34W

Back Box Ordering Information - See pages 990 and 991.

60 Amp Plugs, Receptacles, Connectors, Motor Plugs

Heavy-Duty Voltage Polarized Circuit Breaking NEMA 3R Rainproof UL/CSA





Amps	Poles	Volt Rating	Color	Plug Cat. No.	Receptacle w/Spring Door* Cat. No.
60	4	480 VAC 3Ø	Red	APJC64P	ARC64P
60	4	600 VAC 3Ø	Black	APJC64W	ARC64W
60	5	208Y/120 VAC	Blue	APJC65C	ARC65C

Back Box Ordering Information - See pages 990 and 991.

♦ Configured Interlocks are available. – See page 1027.





100 Amp Plugs, Receptacles, Connectors, Motor Plugs

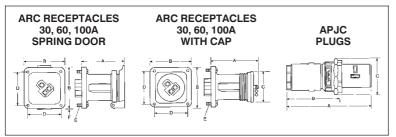
Heavy-Duty Voltage Polarized Circuit Breaking NEMA 3R Rainproof UL/CSA





Amps	Poles	Volt Rating	Color	Plug Cat. No.	Receptacle w/Spring Door* Cat. No.
100	4	208 VAC 3Ø	Dark Blue	APJC104K	ARC104K
100	4	240 VAC 3Ø	Blue	APJC104E	ARC104E
100	4	480 VAC 3Ø	Red	APJC104P	ARC104P
100	4	600 VAC 3Ø	Black	APJC104W	ARC104W
100	5	208Y/120 VAC	Blue	APJC105C	ARC105C

Dimensions



ARC Recentacles

Amps	Housing	Α	В	С	D	E	F
30	Spring door	27/8	3%		2 ²³ / ₃₂	12-24	3/4
30	w/cap	3 ³ ⁄ ₁₆	3 %	3	2 ²³ / ₃₂	12-24	
60	Spring door	41/4	41/4		31/2	5/16-18	9/32
60	w/cap	41/2	41/4	311/16	31/2	5/16-18	
100	Spring door	51/4	41/4		31/2	5/16-18	13/32
100	w/cap	5%16	41/4	37/8	31/2	5/16-18	
	APJC Plugs						
Amps	Α	В	С				
30	6½	413/16	215/16				
60	81/2	5 ¹³ / ₁₆	33/4				
100	10 ¹ / ₈	6 5⁄8	41/8				

♦ Configured Interlocks are available. – See page 1027.







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

Dimensions Pages 992 and 993



ARE

Hub Size	20/30 A Cat. #	60 A Cat. #
1/2 3/4	ARE13 ARE23	
1	ARE33	ARE36
11/4		ARE46
11/2		ARE56



ARRH

Hub Size	20/30 A Cat. #	60 A Cat. #
1/ ₂ 3/ ₄	ARRH13 ARRH23	
1	ARRH33	ARRH36
11/4		ARRH46
11/2		ARRH56



ARJ

Hub Size	20/30 A Cat. #	60 A Cat. #
1/2	ARJ13	
3/4	ARJ23	
1	ARJ33	ARJ36
11/4		ARJ46
11/2		ARJ56



ARRC

Hub	20/30 A	60 A
Size	Cat. #	Cat. #
1/2 3/4 1 1 1/4 1 1/2	ARRC13 ARRC23 ARRC33	ARRC36 ARRC46 ARRC56



ARD

Hub Size	20/30 A Cat. #	60 A Cat. #
1/2	ARD13	
3/4	ARD23	
1	ARD33	ARD36
11/4		ARD46
11/2		ARD56



ARJG

Hub Size	20/30 A Cat. #	60 A Cat. #
1/2	ARJG13	
3/4	ARJG23	
1	ARJG33	ARJG36
11/4		ARJG46
11/2		ARJG56



For ARRH and ARRC back boxes



For steel panel or cabinet

AR 15° Angle Adapter

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 and 100 amp.	AR610



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 amp, 2 & 3-pole	QE53
100 amp, 4-pole	QE54



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 amp, 2 & 3-pole	QE62
100 amp. 4-pole	QE64



• 1P Heavy Duty Plugs and Receptacles

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



AJ Back Box with 60/100 A Angle Adapter



AJ Back Box with 200/400 A Angle Adapter



AJC Back Box with 60/100 A AJA Angle Adapter



AJC Back Box with 200 A Angle Adapter

AJX Assemblies

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

Hub Size	400 A Cat. #
2	AJX69
21/2	AJX79
3	AJX89
31/2	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 400 A Cat. # AJX99



Angle Adapter 400 A Cat. # AJ245



Hub Plate					
Hub Size	400 A Cat. #				
2	YYP96				
21/2	YYP97				
3	YYP98				
31/2	YYP99				
4	YYP910				
5	YYP9012				



Blank Plate 400 A Cat. # YYP900

AJ and AJC Back Boxes[†]

			60 & 100A	200A		400A	
HUB SIZE	TYPE	BOX ONLY	BOX & ADAPTER ASSEMBLY	BOX ONLY	BOX & ADAPTER ASSEMBLY	BOX ONLY	BOX & ADAPTER ASSEMBLY
4"	ONE HUB	AJ56*	AJ37				
1"	FEED THRU	AJC56*	AJC37				
41/8	ONE HUB	AJ56*	AJ47				
11/4"	FEED THRU	AJC56*	AJC47				
41/8	ONE HUB	AJ56	AJ57	AJ71*	AJ58		
11/2"	FEED THRU	AJC56	AJC57				
2"	ONE HUB	AJ66	AJ67	AJ71*	AJ68	AJ82*	AJ69
2	FEED THRU	AJC66	AJC67				
21/2"	ONE HUB			AJ71	AJ78	AJ82*	AJ79
272	FEED THRU			AJC71	AJC78		
3"	ONE HUB					AJ82	AJ89
3"	FEED THRU						
ANG	SLE ADAPTER		AJA6		AJA1		AJA2

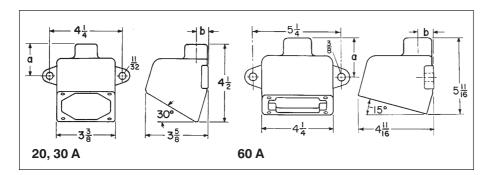
*REDUCER SUPPLIED WITH ASSEMBLY

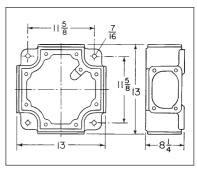
† AJ and AJC back boxes are square, making it possible to install with hub in several positions.

 $\mbox{$\updownarrow$}$ 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.

Back Boxes 1P

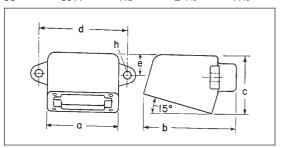
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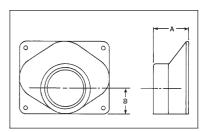


ARE

Cat. #	Rating	Size	а	b
13	20, 30A	1/2	1 ²⁷ / ₃₂	11/16
23	20, 30A	3/4	1 ²⁷ / ₃₂	13/16
33	20, 30A	1	1 ³¹ / ₃₂	¹⁵ /16
36	60 A	1	2 9⁄16	15/16
46	60 A	11/4	2 5/8	13/16
56	60 A	11/2	211/16	1 5/16

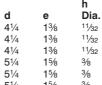


AJX Back Body 400 Amperes



ARJG

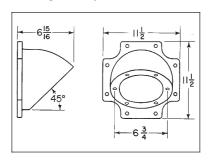
Cat. #	Rating	Size	а	b	С	d	е	n Dia.
13	20, 30A	1/2	33/8	415/32	23/4	41/4	13/8	11/32
23	20, 30A	3/4	33/8	4 ¹⁵ / ₃₂	23/4	41/4	13/8	11/32
33	20, 30A	1	33/8	419/32	23/4	41/4	13/8	11/32
36	60 A	1	41/4	5 5⁄8	411/16	51/4	15⁄8	3/8
46	60 A	11/4	41/4	5 ¹¹ / ₁₆	411/16	51/4	15/8	3/8
56	60 A	11/2	41/4	53/4	411/16	51/4	15/8	3/8



Hub Plate

	Hub		
	Size	"A"	"B"
YYP96	2	33/4	1 ¹¹ / ₁₆
YYP97	21/2	37/8	2 5/16
YYP98	3	37/8	2 5/16
YYP99	31/2	37/8	2 9/16
YYP910	4	37/8	2 ¹³ / ₁₆
YYP9012	5	45/8	37/16

AJ Angle Adapter



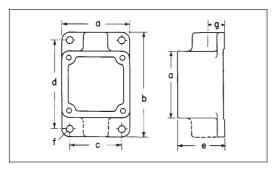
AJ and AJC

With 60, 100, 200 and 400 Ampere Angle Adapters

Cat. #	Rating	Size	а	b	С	d	е	f
37, 47, 57	60, 100 A	1, 11/4, 11/2	5 7/8	8	7 7⁄16	47/8	7	15°
67	60, 100A	2	57/8	8	8	47/8	7	15°
58, 68, 78	200 A	11/2, 2, 21/2	8	10¾	97/8	63/4	91/2	45°
69. 79. 89	400 A	2, 21/2, 3	9	115/8	11 ¹³ /16	73/4	103/8	45°

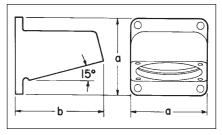


Dimensions



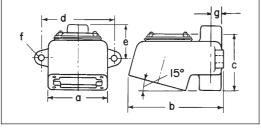
ARRC and ARRH

Cat. # 13 23 33 36 46	Rating 20/30 A 20/30 A 20/30 A 60 A 60 A	Size 1/2 3/4 1 1 1/4 11/4	a 3 ³ / ₈ 3 ³ / ₈ 3 ³ / ₈ 4 ¹ / ₄ 4 ¹ / ₄	b 55/16 55/16 55/16 61/2 61/2 61/2	c 25/8 25/8 25/8 31/2 31/2 31/2	d 49/16 49/16 49/16 53/4 53/4	e 2 ¹ / ₄ 2 ¹ / ₄ 2 ¹ / ₄ 3 ¹ / ₈ 3 ¹ / ₈	Dia. 11/32 11/32 11/32 7/16 7/16 7/46	g 11/16 13/16 15/16 13/8 13/8 13/8
56	60 A	11/2	41/4	6½	31/2	53/4	31/8	⁷ ⁄16	1 %



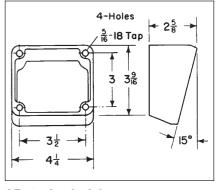
AR30 and AR60 Angle Adapters

		_	•
Cat. #	Rating	а	b
AR30	20/30 A	3%	41/8
AR60	60 A	41/4	4 ¹⁵ / ₁₆

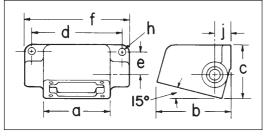




Cat. #	Rating	Size	а	b	С	d	е	Dia.	g
13	20/30 A	1/2	3%	5 5⁄16	323/32	41/4	127/32	11/32	11/16
23	20/30 A	3/4	3 %	5 ⁵ ⁄16	323/32	41/4	1 ²⁷ / ₃₂	11/32	¹³ / ₁₆
33	20/30 A	1	3 %	5 ⁵ ⁄16	323/32	41/4	1 ²⁷ / ₃₂	11/32	¹⁵ ⁄16
36	60A	1	41/4	71/16	53/4	51/8	23/4	3/8	1 5⁄16
46	60 A	11/4	41/4	71/16	53/4	51/8	23/4	3/8	1 5⁄16
56	60 A	11/2	41/4	71/16	53/4	51/8	23/4	3/8	1 5⁄16



AR610 Angle Adapter



ARJ

Cat. #	Rating	Size	а	b	С	d	е	f	Dia.	j
13	20/30 A	1/2	3 %	3 5⁄8	23/4	45/8	17/32	5 5/16	11/32	15/16
23	20/30 A	3/4	3 %	3 5⁄8	23/4	45/8	17/32	5 5/16	11/32	15/16
33	20/30 A	1	3 %	3 5⁄8	23/4	45/8	17/32	5 5/16	11/32	15/16
36	60 A	1	41/4	411/16	411/16	5	1 ²³ / ₃₂	6 3⁄8	3/8	1 5⁄16
46	60 A	11/4	41/4	411/16	411/16	5	123/32	6 %	3/8	1 5/16
56	60 A	11/2	41/4	411/16	411/16	5	123/32	63/8	3/8	1 5/16



Application:

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.

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
- Leaded red brass electro-tin-plate

Options:

Available with these assemblies are:

- Reversed interiors (add suffix S22 to Cat.
- Special polarity (add suffix S4 to Cat. No.) See page 968 for details.

Certifications and **Compliances:**

• UL Standard: 1682

NOTE: For general information on application, features and grounding, see pages 966 to 969.



AR Receptacle housings with round flange and threaded cap



APJ Plugs with cable grip, Neoprene bushing and fastening



AP Plugs with cable grip, Neoprene bushing and fastening

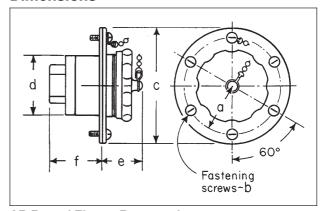
1P Heavy Duty Plugs and Recentacles

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

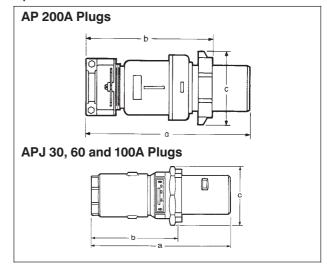
30/60/100/200 A, 600 VAC/250 VDC, AP and APJ Plugs

Amps	Style‡	Description 3-wire, 7 *	Recept. Cat. #	Cable Dia.	Plug Cat. #
00	1	3-pole } 4-wire, ↑ *	AR6337	0.60 to 1.20	APJ3375
30	2	4-pole } 3-wire, 1 *	AR6347	0.60 to 1.20	APJ3475
		4-pole	AR6348	0.60 to 1.20	APJ3485
	1	3-wire, } * 3-pole }	AR6637	0.75 to 1.45	APJ6375
60	2	4-wire, } * 4-pole }	AR6647	0.75 to 1.45	APJ6475
		3-wire, } * 4-pole	AR6648	0.75 to 1.45	APJ6485
	1	3-wire, } * 3-pole }	AR61037	1.00 to 1.70	APJ10377
100	2	4-wire, } * 4-pole	AR61047	1.00 to 1.70	APJ10477
		3-wire, } * 4-pole }	AR61048	1.00 to 1.70	APJ10487
200	1	3-wire, 3-pole	AR62031 ♦	.875 to 1.375 1.875 to 2.500	AP20355 AP20358
	2	2-wire, 3-pole	AR62032 ♦	.875 to 1.375 1.875 to 2.500	AP20365 AP20368

Dimensions



AR Round Flange Receptacles							
Description	а	b	С	d	е	f	
30 amp. 2, 3, 4-pole	2	12-24	4 ³ / ₄	27/16	15⁄8	21/4	
60 amp. 2, 3-pole	2	12-24	43/4	2 ¹³ / ₁₆	17⁄8	3%	
60 amp. 4-pole	2	12-24	43/4	31/8	17⁄8	3%	
100 amp. 2, 3-pole	2	12-24	43/4	31/16	17⁄8	49/16	
100 amp. 4-pole	2	12-24	43/4	3 5⁄16	17/8	49/16	
200 amp. 3-pole	33/8	3⁄8- 16	73/4	43/16	27/8	51/8	



Amps	No. Poles	а	b	С
30	2, 3 or 4	61/2	413/16	215/16
60	2 or 3	81/2	53/4	35/8
60	4	81/2	5 ¹³ / ₁₆	33/4
100	2 or 3	101//8	6 %16	33/4
100	4	101//8	6 5⁄/8	41/8
200	3	14¾	1011/16	63/4

 $[\]ensuremath{\dagger}$ These dimensions are approximate and vary with cable size.



^{♦ 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 table on page 969. To specify, add the suffix "T" to the catalog number. For example:

APJ3375-T (Plug)

AR6337-T (Receptacle)

APQ Arktite® Circuit Breaking Motor Plugs

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

Application:

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
- Cord sets may be used singly or connected together to provide longer lengths when
- 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 page



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 Pluas with cable grip, Neoprene bushing, exposed contacts, and fastening ring.

Standard Materials:

- Motor plugs: mounting plate Feralov®, 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
- Leaded red brass electro-tin-plate

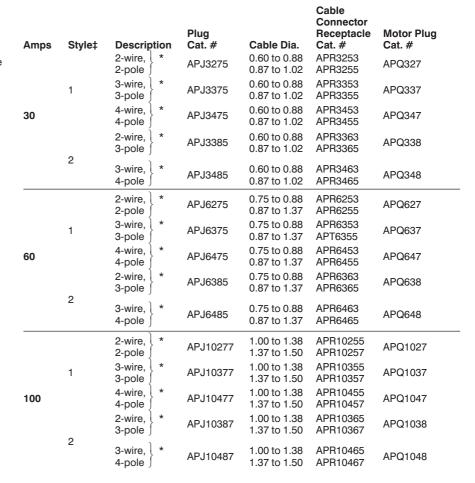
Options:

Available with these assemblies:

• Special polarity (add suffix S4 to Cat. No.) See page 968 for details.

Certifications and **Compliances:**

- UL Standards: 514, 1682CSA Standard C22.2 No. 182.1
- NOTE: For general information on application, features and grounding, refer to pages 966 to 969.
- ‡ Style 1 Grounded through shell. Style 2 Grounded through extra pole and shell.
- * Pressure connectors are standard. Crimp/solder terminators are optionally available for 2, 3 and 4 pole 30 ampere. 3 and 4-pole 60 and 100 ampere. For details, see page 969. To specify, add the suffix "T" to the catalog number. For example: APR3355-T (Connector) APJ3375-T (Plug)
- ** For use on systems less than 60 hertz the receptacles, plugs and connectors are for disconnect use only



996

COOPER Crouse-Hinds



Typical back boxes used with APQ motor plugs

ARE

For APQ 30 Amp.

Hub	
Size	Cat. #
1/2	ARE13
3/4	ARE23
1	ARE33

For APQ 60 Amp.

Hub Size

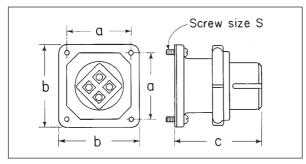
Cat. # ARE36 11/4 ARE46 ARE56 11/2

AJ

For APQ 60 and 100 Amp.

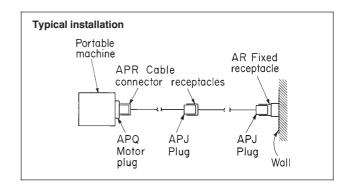
Cat.
AJ37
AJ47
AJ57
AJ67

Dimensions



APQ Motor Plugs

Amps.	а	b	С	s
30	23/4	33/8	3 5⁄8	12-24
60	31/2	41/4	47/8	5/16- 18
100	31/2	41/4	61/8	5/16- 18
(2 & 3-pc	ole)			
100 (4-pole)	3½	41/4	6 ⁷ ⁄16	5/16-18



For additional back box listings, see pages 990 and 991. For back box dimensions, see pages 992 and 993.

