

Arktime® Heavy Duty Circuit Breaking§ Plugs and Receptacles

NEMA 4 Watertight

1P

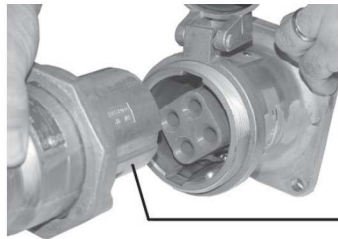
Industrial Heavy Duty Non-hazardous Areas

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 – tellurium copper



Arktime 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 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

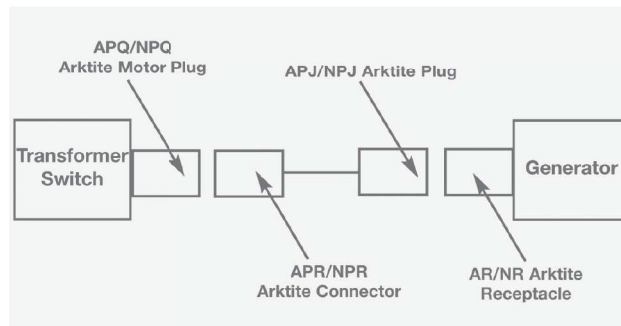
Options:

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 | |

Accessories:

- Accessories include a variety of angle adapters, panel adapters and back boxes for *Arktime* receptacles, see pages 1332–1335.
- Included throughout 1P are wire mesh cable grips and protective caps for *Arktime* plugs.



Typical Installation

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

Crouse-Hinds

by **E.T.N**

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1P Arktite® Heavy Duty Circuit Breaking Plugs and Receptacles

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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 Eaton's 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.

‡ Eaton's 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.

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Arktite® Heavy Duty Circuit Breaking Receptacle Assemblies and Housings

NEMA 4 Watertight

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

Ordering Information:



With ARE Back Boxes



Receptacle Housings Only



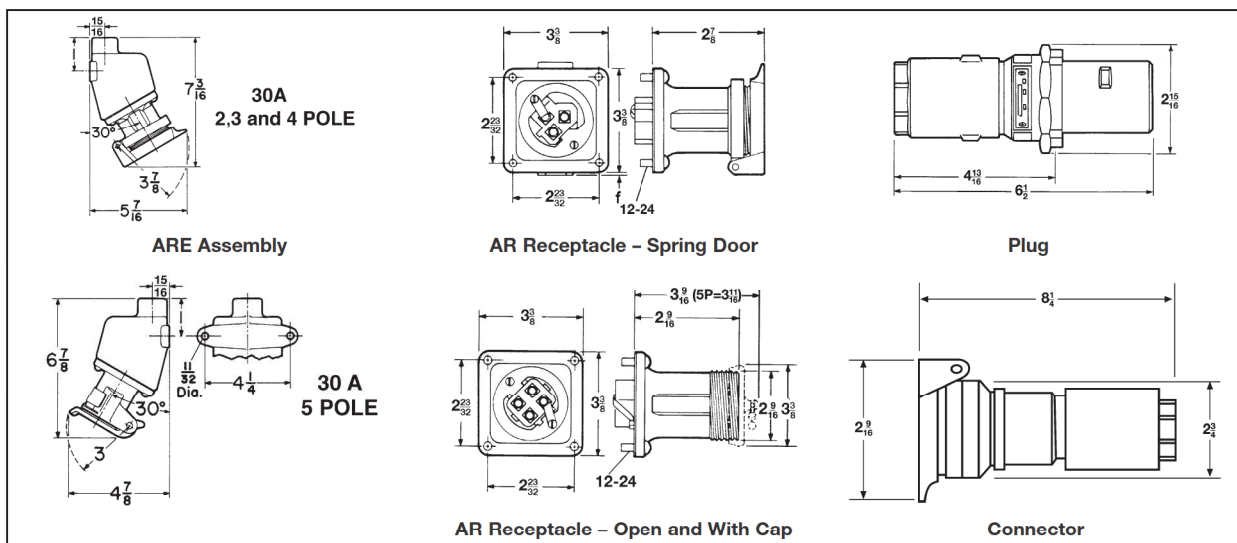
Mating APJ Plugs†



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 }	1/2	ARE3211	AR321	AR327	APJ3275	0.39 to 1.20	APR3255	0.39 to 1.20
3-wire, 3-pole }	3/4	ARE3312	AR331	AR337	APJ3375	0.39 to 1.20	APR3355	0.39 to 1.20
4-wire, 4-pole }	1	ARE3412	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 }	3/4	ARE3322	AR332	AR338	APJ3385	0.39 to 1.20	APR3365	0.39 to 1.20
3-wire, 4-pole }	1	ARE3422	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:



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

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