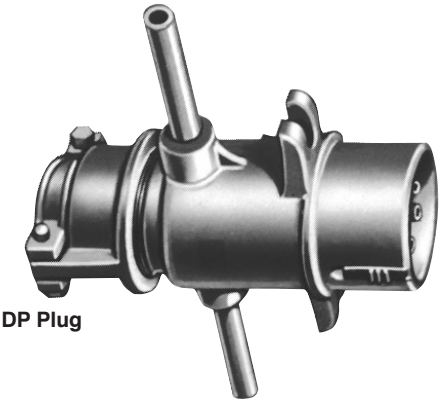
APJ/NPJ◆◆ and DP Arktite® Plugs with Cable Grip and Neoprene Bushing

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

APJ/NPJ and DP Arktite Plugs

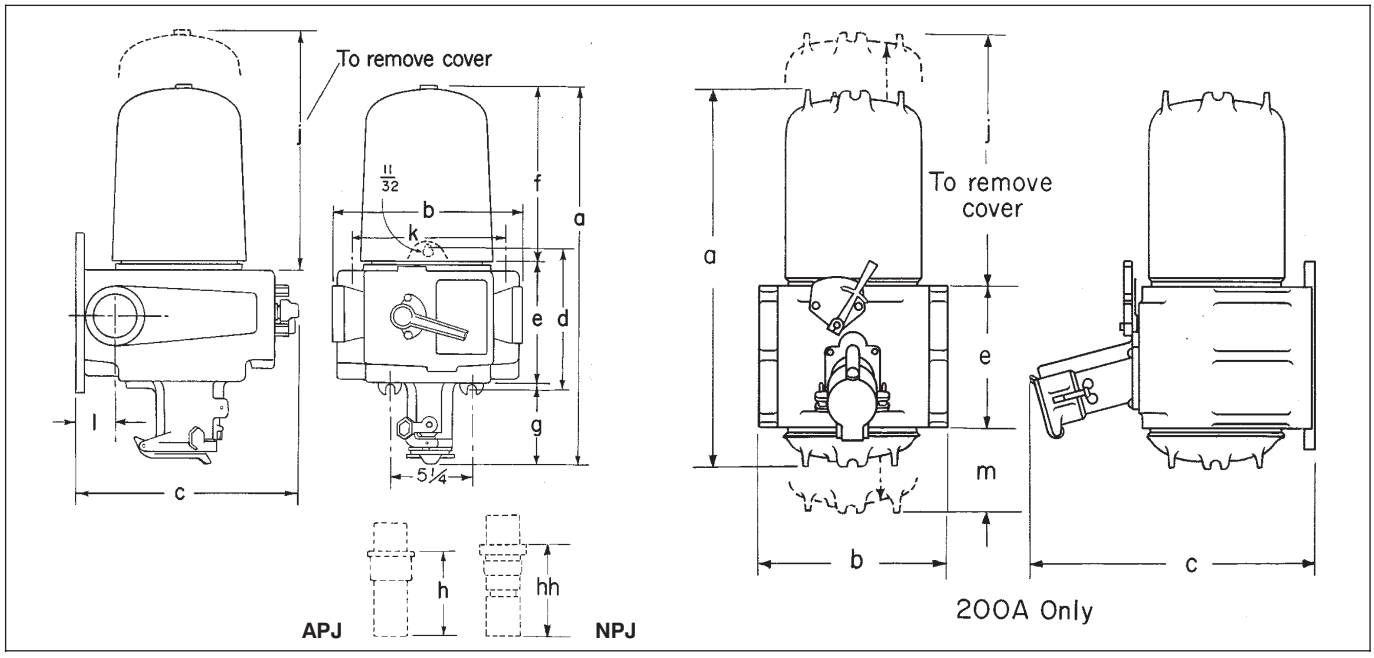
600VAC/250VDC with Cable Grip and Neoprene Bushing – Style 2

Amps	Cable O.D. Range	2-wire, 3-pole Cat. #	3-wire, 4-pole Cat. #
	0.60 to 1.20	APJ3385	APJ3485
30	0.55 to 0.70	NPJ3383	NPJ3483
	0.70 to 0.85	NPJ3384	NPJ3484
	0.75 to 1.45	APJ6385	APJ6485
60	0.75 to 1.07	NPJ6384	NPJ6484
	1.07 to 1.35	NPJ6385	NPJ6485
	1.00 to 1.70	APJ10387	APJ10487
100	0.93 to 1.21	NPJ10386	NPJ10486
	1.21 to 1.50	NPJ10387	NPJ10487
200	1.875 to 2.50	DP20468	Solder Only .56 Wire Well

◆ ◆ 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).

DP Wire Size	
Building #1 – 4/0	**Extra Flex** #1 – 3/0

Dimensions



Recept.	Breaker	a	b	c	d	e	f	g	h	hh	j	k	l	m
30 Amp.	20-50 Amp.	24	10⅝	14⅜	9⅜	7 11⁄16	11¾	4 9⁄16	4 13⁄16	7	20¾	7⅜	2 1⁄16	
60 Amp.	50 Amp.	24½	10⅝	14⅜	9⅜	7 11⁄16	11¾	5 1⁄16	5 13⁄16	6 13⁄16	20¾	7⅜	2 1⁄16	
60 Amp.	70-100 Amp.	24½	12 13⁄16	14⅜	9⅜	7 11⁄16	11¾	5 1⁄16	5 13⁄16	6 13⁄16	20¾	9¼	2⅝	
100 Amp.	70-100 Amp.	25¼	12 13⁄16	14⅜	9⅜	7 11⁄16	11¾	5 13⁄16	6⅝	7¾	20¾	9¼	2⅝	
200 Amp.	125-225 Amp.	36	18	27		13½					34¼			5½

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

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

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.

Product 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

Materials:

- Enclosure – Feraloy® iron alloy or copper-free aluminum
- Cover and spring door – copper-free aluminum
- Insulator – Krydon®
- Contacts – brass

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 Standard C22.2 No. 30 cUL Listed & C22.2 No. 159

Options:

Description	Suffix
Special polarity, receptacle interior rotated 22½°	S4
Copper-free aluminum enclosure – 60A only	SA

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	Catalog Number
30A	¾″	2W3P	2 Pole Switch	FSQC2320
		3W4P	3 Pole Switch	FSQC2430
	1″	2W3P	2 Pole Switch	FSQC3320
		3W4P	3 Pole Switch	FSQC3430
60A	1½″	2W3P	2 Pole Switch	FSQC5630
		3W4P	3 Pole Switch	FSQC5640

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. (Wiring diagram 1)*

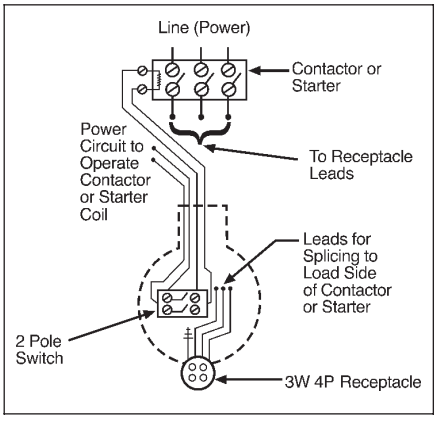
Receptacles have leads for splicing to conductors from the load side of contactor. The switch actuated by the plug is wired into the starter or contactor coil circuit and controls only this circuit. The starter or contactor is energized only when the plug is fully inserted and rotated to close the switch. 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.

FSQC Receptacles
With Spring Door
(Through Feed Hubs)
30 Amperes, 250 VAC or VDC; 20 Amperes, 600 VAC

APJ/NPJ Plugs

No. of Poles	Hub Size	Receptacle Cat. #	Cable Dia.	Plug Cat. #
3-wire 4-pole	¾	FSQC2390	0.60 to 1.20	APJ3485
	¾	FSQC2390-S4		APJ3485-S4
			0.55 to 0.70	NPJ3483
				NPJ3483-S4
	1	FSQC3390	0.70 to 0.85	NPJ3484
	1	FSQC3390-S4		NPJ3484-S4



Wiring Diagram 1
(FSQC2390 and 3390 only)

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

Application:

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.

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 DR receptacles listed in Section 2P and 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.

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. No.

Description	Suffix to be Added to Cat. #
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. Available as follows:	
• Receptacle interior rotated 22½ degrees 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	

Certifications and Compliances:

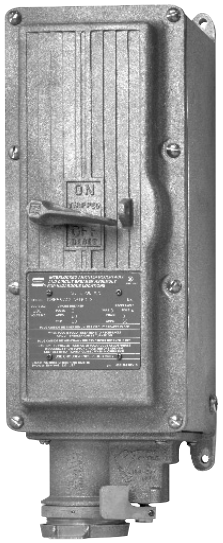
- NEC: Class II, Division 1 and 2, Groups F,G Class III
- NEMA/EEMAC: 3, 9FG, 12
- UL Standard: 698, 1010
- CEC: Class II, Division 1 and 2, Group G Class III
- Encl.: 3,5

Electrical Rating Ranges:

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

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

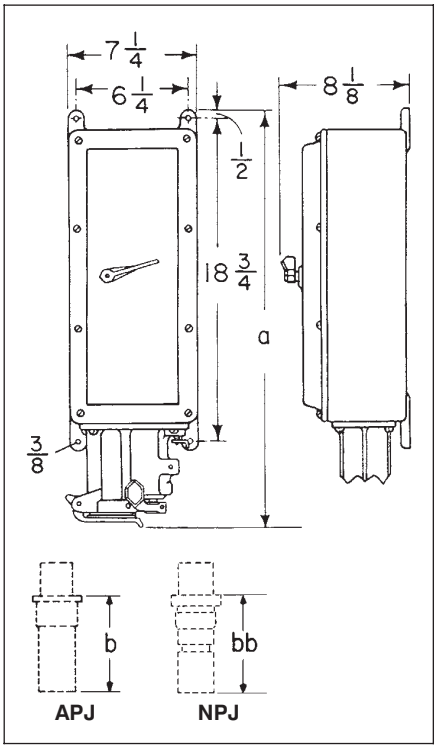
Dim. ''b'' and ''bb'' are exposed portion of plug when engaged with receptacle.



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.

♦ ♦ Pressure connectors are standard. Crimp/solder type terminators are optionally available for 3 and 4-pole, 30, 60 and 100 ampere. For details, see table on page 938. To specify, add the suffix ''T'' to the catalog number. For example: AP3375-T (Plug)

Dimensions:



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

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	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 250VDC	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 250VDC	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 250VDC	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.

◆ ◆ Pressure connectors are standard. Crimp/solder type terminators are optionally available for 3 and 4-pole 30, 60 and 100 ampere. For details, see table on page 938. To specify, add the suffix "T" to the catalog number. For example: APJ3375-T (Plug)

† Style 1 – Grounded through shell. Style 2 – Grounded through extra pole and shell. For a detailed description of these grounding methods, see page 937.

‡ For circuit breaker Cat. No. refer to Section 6C, Table 9, List FDB. For detailed information on circuit breaker selection, see Section 6C.

APJ/NPJ Arktite Plugs

600VAC/250VDC with Cable Grip and Neoprene Bushing

APJ Plug

NPJ Plug

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. #
	0.60 to 1.20	APJ3375	APJ3385	APJ3485
30	0.55 to 0.70		NPJ3383	NPJ3483
	0.70 to 0.85		NPJ3384	NPJ3484
	0.75 to 1.45	APJ6375	APJ6385	APJ6485
60	0.75 to 1.07		NPJ6384	NPJ6484
	1.07 to 1.35		NPJ6385	NPJ6485
	1.00 to 1.70	APJ10377	APJ10387	APJ10487
100	0.93 to 1.21		NPJ10386	NPJ10486
	1.21 to 1.50		NPJ10387	NPJ10487