EPC circuit breakers and enclosures with interlocked Arktite receptacles

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

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

Applications:

- EPC interlocked receptacles are designed for use as a service outlet for portable equipment
- Designed for use in damp, wet and corrosive locations, indoors or outdoors, in areas which are hazardous due to flammable vapors, gases or combustible dust, such as refineries, chemical plants and other processing and handling facilities of a hazardous nature

Features:

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made or broken under load; the circuit breaker cannot be closed until the plug is fully inserted and the plug cannot be withdrawn unless the breaker is open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

Certifications and compliances:

NEC:

- Class I, Divisions 1 & 2, Groups C, D
- Class II, Divisions 1 & 2, Groups F, G
- Class III

NEMA:

- NEMA 3, 7CD, 9FG, 12

ANSI/UL standard:

- UL1010

CEC:

- Class I, Divisions 1 & 2, Groups C, D
- Class II, Divisions 1 & 2, Group G
- Class III
- Encl. 3, 4

Standard materials:

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

Standard finishes:

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

Options:

Description	Suffix
• Special polarity	**S4**
Receptacle interior rotated 22½° to right (when viewed from face of receptacle) and plug changed to match	
Where two or more receptacles of the same ampere rating, style and number of poles are to be installed in the same area for use on different voltages	
Available on 30, 60 and 100A units only	
• Side bosses drilled and tapped same size as standard hubs	**S366**
Available on 30, 60 and 100A units only	
• Back boss drilled and tapped same size as standard hubs	**S367**
Available on 30, 60 and 100A units only	
• Breather and drain (Class I, Class II)	**S198V**
• Breather and drain (Class I only)	**S454V**

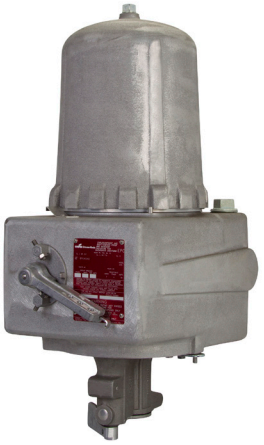
Electrical ratings:

- Receptacles – 30, 60, 100, 200 amperes
- Circuit breakers – 100 and 225 ampere frame sizes

Grounding:

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

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.



30A, 60A, 100A

200A

Interchangeability of plugs with other hazardous and non-hazardous location receptacles:

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

EPC circuit breakers and enclosures with interlocked Arktite receptacles

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

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

Ordering information:

100A frame size thermal magnetic circuit breaker with non-interchangeable thermal trip and non-adjustable magnetic trip

Circuit breaker			Enclosure				
						With circuit breaker	
Receptacle with spring door housing	Rating		Hub size	Circuit breaker amperage	Cat. # Without circuit breaker	Cat. # Cutler-Hammer "EHD"	Cat. # General Electric "TED"
30A 2-wire, 3-pole Style 2	2-pole, 480 VAC[A] or 250 VDC	600 VAC[B]	1¼"	20	EPC43032	EPC43032 WT20 2	EPC43032 TT20 2
				30		EPC43032 WT30 2	EPC43032 TT30 2
				40[C]		EPC43032 WT40 2	EPC43032 TT40 2
				50[C]		EPC43032 WT50 2	EPC43032 TT50 2
30A 3-wire, 4-pole Style 2	3-pole, 480 VAC[A] or 250 VDC	600 VAC[B]	1¼"	20	EPC43042	EPC43042 WT20 3	EPC43042 TT20 3
				30		EPC43042 WT30 3	EPC43042 TT30 3
				40[C]		EPC43042 WT40 3	EPC43042 TT40 3
				50[C]		EPC43042 WT50 3	EPC43042 TT50 3
60A 2-wire, 3 pole Style 2	2-pole, 480 VAC[A] or 250 VDC	600 VAC[B]	1¼"	50	EPC46032	EPC46032 WT50 2	EPC46032 TT50 2
				60		EPC66032 WT60 2	EPC66032 TT60 2
				70[C]		EPC66032 WT70 2	EPC66032 TT70 2
			2"	90[C]	EPC66032	EPC66032 WT90 2	EPC66032 TT90 2
				100[C]		EPC66032 WT100 2	EPC66032 TT100 2
60A 3-wire, 4-pole Style 2	3-pole, 480 VAC[A] or 250 VDC	600 VAC[B]	1¼"	50	EPC46042	EPC46042 WT50 3	EPC46042 TT50 3
				60		EPC66042 WT60 3	EPC66042 TT60 3
				70[C]		EPC66042 WT70 3	EPC66042 TT70 3
			2"	90[C]	EPC66042	EPC66042 WT90 3	EPC66042 TT90 3
				100[C]		EPC66042 WT100 3	EPC66042 TT100 3
100A 2-wire, 3-pole Style 2	2-pole, 480 VAC[A] or 250 VDC	600 VAC[B]	2"	60	EPC61032	EPC61032 WT60 2	EPC61032 TT60 2
				70		EPC61032 WT70 2	EPC61032 TT70 2
				90		EPC61032 WT90 2	EPC61032 TT90 2
				100		EPC61032 WT100 2	EPC61032 TT100 2
100A 3-wire, 4-pole Style 2	3-pole, 480 VAC[A] or 250 VDC	600 VAC[B]	2"	60	EPC61042	EPC61042 WT60 3	EPC61042 TT60 3
				70		EPC61042 WT70 3	EPC61042 TT70 3
				90		EPC61042 WT90 3	EPC61042 TT90 3
				100		EPC61042 WT100 3	EPC61042 TT100 3

225A frame size circuit breaker with interchangeable thermal magnetic trip[D]

Circuit breaker		Enclosure				
					With circuit breaker	
Receptacle with spring door housing	Rating	Hub size	Circuit breaker amperage	Cat. # Without circuit breaker	Cat. # Cutler-Hammer "KB"	Cat. # General Electric "TFK"
200A 3-wire, 4-pole Style 2	3-pole, 600 VAC or 250 VDC	3"	125	EPC604 2042	EPC604 2042 WT125 3	EPC605 2042 TT125 3
			150		EPC604 2042 WT150 3	EPC605 2042 TT150 3
			175		EPC604 2042 WT175 3	EPC605 2042 TT175 3
		3"	200	EPC605 2042	EPC604 2042 WT200 3	EPC605 2042 TT200 3
			225[C]		EPC604 2042 WT225 3	EPC605 2042 TT225 3

[A] Enclosures with 600V circuit breakers from the U.S. are available. Information available upon request.

[B] CSA certified units are supplied with 600 VAC FDB frame circuit breakers.

[C] Circuit breaker trip rating may exceed receptacle rating for welding equipment applications only, as higher trip rating may not protect wiring.

[D] 200A units are suitable for Class I, Group D (NEMA 7D).

EPC circuit breakers and enclosures with interlocked Arktite receptacles

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

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

Ordering information (continued):

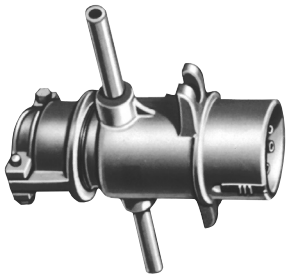
Arktite APJ/NPJⓔ and DP plugs

600 VAC/250 VDC with cable grip and neoprene bushing – Style 2

Amperage	Cable O.D. range	Cat. # 2-wire, 3-pole	Cat. # 3-wire, 4-pole
30Ⓔ	0.60 - 1.20"	APJ3385	APJ3485
	0.55 - 0.70"	NPJ3383	NPJ3483
	0.70 - 0.85"	NPJ3384	NPJ3484
60Ⓔ	0.75 - 1.45"	APJ6385	APJ6485
	0.75 - 1.07"	NPJ6384	NPJ6484
	1.07 - 1.35"	NPJ6385	NPJ6485
100Ⓔ	1.00 - 1.70"	APJ10387	APJ10487
	0.93 - 1.21"	NPJ10386	NPJ10486
	1.21 - 1.50"	NPJ10387	NPJ10487
200	1.875 - 2.500"		DP20468

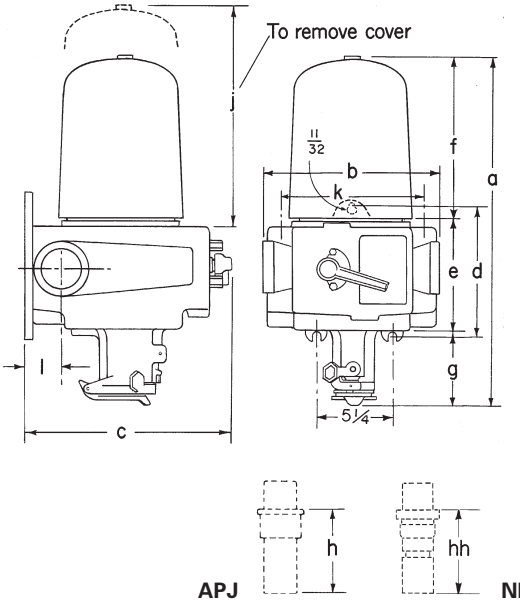
APJ plug

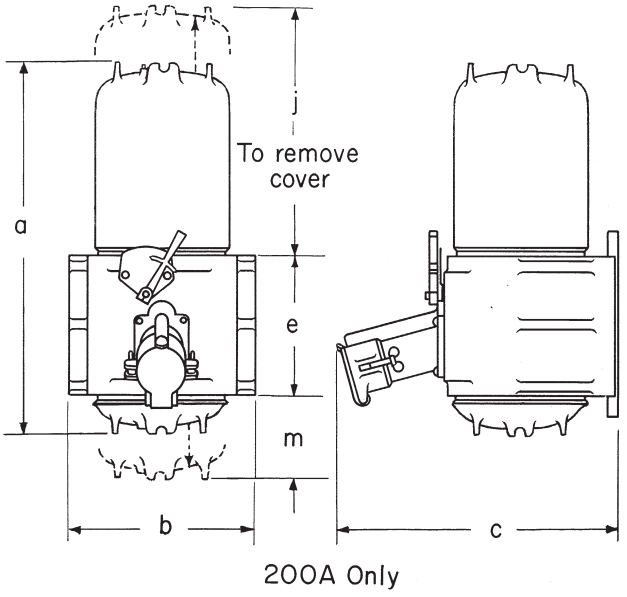
NPJ plug



DP plug

Dimensions (in inches):





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

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

ⓔPressure connectors are standard. Crimp/solder type terminators are optionally available for 2-, 3- and 4-pole 30A, 3- and 4-pole 60A and 100A. For details, see Section 1P. To order, add suffix 'T' to end of catalog number. For example: APJ3365-T (plug).

EPCB circuit breakers and enclosures with interlocked Arktite receptacles

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

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

Applications:

- EPCB interlocked receptacles are designed for use as a service outlet for portable equipment; the circuit breaker provides overcurrent and short circuit protection
- EPCBs have a mechanical interlock mechanism for dead front construction and no load make or break feature
- Designed for use in damp, wet and corrosive locations, indoors or outdoors, in areas which are hazardous due to flammable vapors, gases or combustible dust, such as refineries, chemical plants and other processing and handling facilities of a hazardous nature

Features:

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

Certifications and compliances:

NEC:

- Class I, Divisions 1 & 2, Groups B, C, D
- Class II, Divisions 1 & 2, Groups F, G
- Class III

NEMA:

- NEMA 3, 7BCD, 9FG, 12

ANSI/UL standard:

- UL1010

CEC:

- Class I, Divisions 1 & 2, Groups B, C, D
- Class II, Divisions 1 & 2, Group G
- Class III

Enclosure:

- Encl. 3, 4

Standard materials:

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

Standard finishes:

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

Options:

Description **Suffix**

- Special polarity.....**S4**

  Receptacle interior rotated 22½° to right (viewed from face) and plug changed to match

  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
- Side bosses drilled and tapped same size as standard hubs **S366**
- Back boss drilled and tapped same size as standard hubs **S367**

Electrical ratings:

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

Grounding:

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

Interchangeability of plugs with other hazardous and non-hazardous location receptacles:

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

EPCB circuit breakers and enclosures with interlocked Arktite receptacles

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

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

Ordering information:

100A frame size thermal magnetic circuit breaker with non-interchangeable thermal trip and non-adjustable magnetic trip

Circuit breaker		Enclosure with circuit breaker			
Receptacle with spring door housing	**Rating**	**Hub size**	**Circuit breaker amperage**	**Cat. # Cutler-Hammer**	**Cat. # General Electric**
30A 2-wire, 3-pole Style 2	2-pole, 600 VAC or 250 VDC	1¼"	20	EPCB43632 WT20HFD 2	EPCB43632 TT20TED 2
			30	EPCB43632 WT30HFD 2	EPCB43632 TT30TED 2
			40[A]	EPCB43632 WT40HFD 2	EPCB43632 TT40TED 2
			50[A]	EPCB43632 WT50HFD 2	EPCB43632 TT50TED 2
30A 3-wire, 4-pole Style 2	3-pole, 600 VAC or 250 VDC	1¼"	20	EPCB43642 WT20HFD 3	EPCB43642 TT20TED 3
			30	EPCB43642 WT30HFD3	EPCB43642 TT30TED 3
			40[A]	EPCB43642 WT40HFD 3	EPCB43642 TT40TED 3
			50[A]	EPCB43642 WT50HFD 3	EPCB43642 TT50TED 3
60A 2-wire, 3-pole Style 2	2-pole, 600 VAC or 250 VDC	1¼"	50	EPCB46632 WT50HFD 2	EPCB46632 TT50TED 2
			60[A]	EPCB46632 WT60HFD 2	EPCB46632 TT60TED 2
			70[A]	EPCB46632 WT70HFD 2	EPCB46632 TT70TED 2
			90[A]	EPCB46632 WT90HFD 2	EPCB46632 TT90TED 2
			100[A]	EPCB46632 WT100HFD 2	EPCB46632 TT100TED 2
60A 3-wire, 4-pole Style 2	3-pole, 600 VAC or 250 VDC	1¼"	50	EPCB46642 WT50HFD 3	EPCB46642 TT50TED 3
			60[A]	EPCB46642 WT60HFD 3	EPCB46642 TT60TED 3
			70[A]	EPCB46642 WT70HFD 3	EPCB46642 TT70TED 3
			90[A]	EPCB46642 WT90HFD 3	EPCB46642 TT90TED 3
			100[A]	EPCB46642 WT100HFD 3	EPCB46642 TT100TED 3
100A 2-wire, 3-pole Style 2	2-pole, 600 VAC or 250 VDC	1¼"	70	EPCB41632 WT70HFD 2	EPCB41632 TT70TED 2
			90	EPCB41632 WT90HFD 2	EPCB41632 TT90TED 2
			100	EPCB41632 WT100HFD 2	EPCB41632 TT100TED 2
100A 3-wire, 4-pole Style 2	3-pole, 600 VAC or 250 VDC	1¼"	70[B]	EPCB41642 WT70HFD 3	EPCB41642 TT70TED 3
			90[B]	EPCB41642 WT90HFD 3	EPCB41642 TT90TED 3
			100[B]	EPCB41642 WT100HFD 3	EPCB41642 TT100TED 3

Arktite APJ/NPJ[C] plugs

600 VAC/250 VDC with cable grip and neoprene bushing – Style 2

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

APJ plug

NPJ plug

[A] Circuit breaker trip rating may exceed receptacle rating for welding equipment applications only, as higher trip rating may not protect wiring.

[B] For detailed information on circuit breaker selection, see Section 3C.

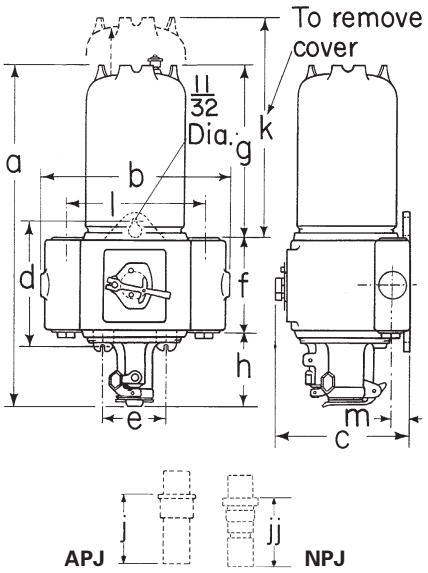
[C] Pressure connectors are supplied as standard. To order crimp/solder type terminators, add suffix 'T' to end of catalog number. For example: APJ3385-T (plug).

EPCB circuit breakers and enclosures with interlocked Arktite receptacles

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

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

Dimensions (in inches):



Receptacle	a	b	c	d	e	f	g	h	j	jj	k	l	m
30A	26 1/4	11 5/16	11 3/4	8 5/8	5	7 3/4	13 9/16	4 15/16	4 13/16	7	24 3/4	8 3/16	1 5/8
60A	26 3/4	11 5/16	11 3/4	8 5/8	5	7 3/4	13 9/16	5 7/16	5 13/16	6 13/16	24 3/4	8 3/16	1 5/8
100A	27 1/2	11 5/16	11 3/4	8 5/8	5	7 3/4	13 9/16	6 3/16	6 5/8	7 3/4	24 3/4	8 3/16	1 5/8

Dimensions 'j' and 'jj' are exposed portion of plug when engaged with receptacle.

