

EB Series Circuit Breakers and Enclosures

Explosionproof, Dust-Ignitionproof

NEC:

Class I, Division 1 and 2, Groups B, C, D

Class II, Division 1 and 2, Groups E, F, G

Class III

NEMA 3R, 4X[▼], 7BCD, 9EFG

Applications

- Thermal magnetic circuit breaker provides over current and short circuit protection and safe disconnect.
- Thermal time delay overload protection for service entrance, feeder or branch circuits used for lighting, heating, motors and equipment.
- Suitable for use in indoor or outdoor classified locations.

Features

- Corrosion-resistant, non-sparking copperfree aluminum with two-coat epoxy finish. Shafts and bushings are stainless steel (300 Series).
- Interior components removable as an assembly to facilitate wire pulling.
- Ample space for wiring and installation of accessories.
- Breaker handle has lock bracket that can be padlocked in ON or OFF position—accommodates up to three padlocks.
- Tapped, plugged openings provided as standard for optional drain and breather.
- Hinged (left side), removable covers secured by stainless steel (300 Series) hex-head, screwdriver-slotted captive “quick bolts.”
- Mating surfaces precision milled.
- Easy mounting—four removable mounting brackets have keyhole openings. Straps are steel with triple-coat finish.
- Positive-operating breaker handle has spring steel actuator that self-locates on breaker handle to prevent damage to breaker toggle if door is closed without aligning door with breaker toggle position.
- Each standard feed-thru opening (one at top and one at bottom) has an aluminum reducing bushing to protect conductor insulation.

Standard Materials

- Housings: copperfree (4/10 or 1% max.) aluminum
- Shaft, bushings and exposed hardware: stainless steel (300 Series)

Standard Finishes

- Housings: two-coat epoxy enamel
- Stainless steel shaft, bushings and exposed hardware: passivated

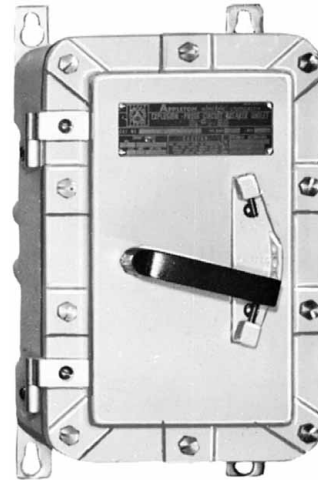
Options

Must be listed in alphanumeric sequence at the end of the catalog number.

- Ground stud (grounded neutral or grounding wire), add suffix —EGS.
- Grounded neutral lug, add suffix —GNL.
- Insulated neutral lug, add suffix —INL.
- Drain and breather set, add suffix —DV.
- For NEMA 4X (not suitable for Group B), add suffix —N4.
- For +50 °C (+122 °F) breaker rating, add suffix —V.

NEC Certifications and Compliances

- UL Standard: UL 1203
- UL Listed: E84577



▼ For NEMA 4X, add —N4 suffix (not suitable for Group B).

EB Series Circuit Breakers and Enclosure Options and Accessories

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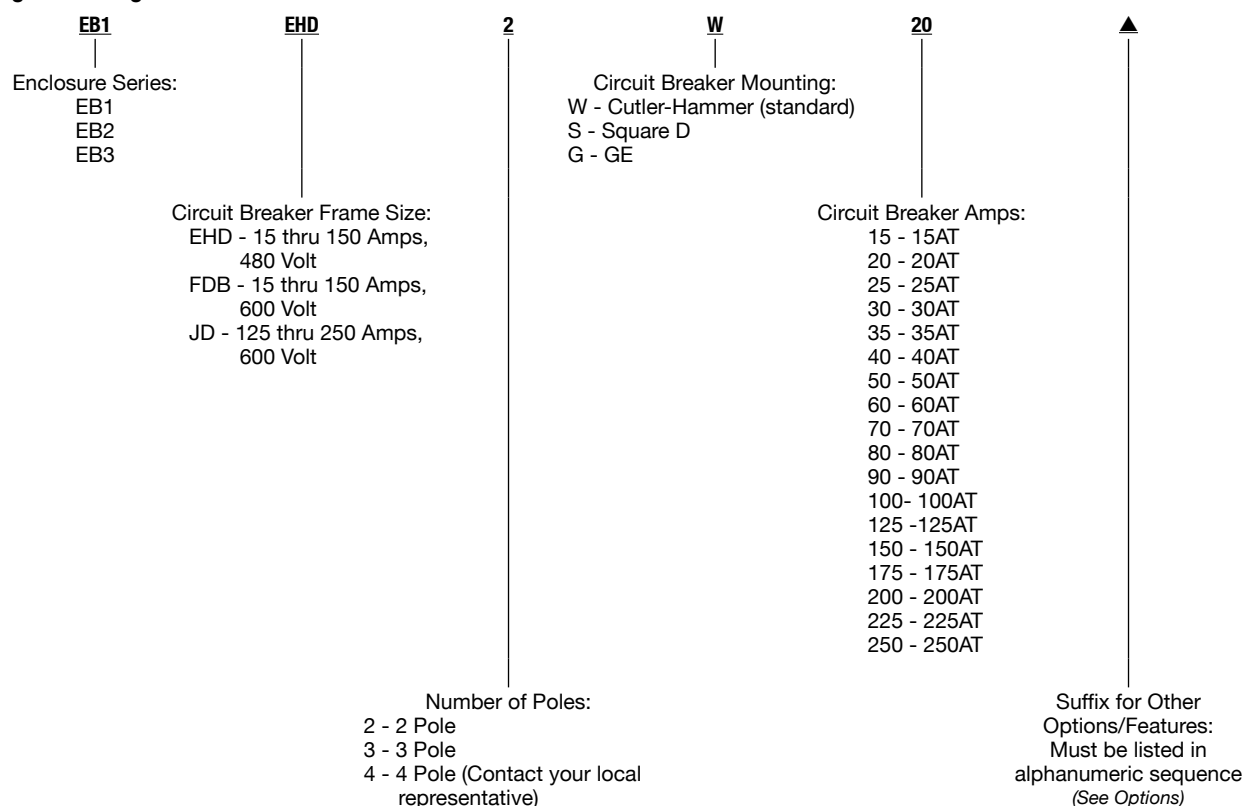
Ordering Instructions

Provide catalog number from listing tables. Enclosures are supplied with Cutler-Hammer circuit breakers as standard. Table below shows enclosure sizes for Cutler-Hammer and other makes of breakers that can be accommodated, and are available on special order. To order enclosure with other than Cutler-Hammer breaker, replace the **W** in the catalog number with the Manufacturer's Symbol for the desired breaker of another make: **G**—General Electric; **S**—Square D.

Catalog Number Explanation

Appleton catalog numbers incorporate a simple, systemized method of designating enclosure and component specifications. For example, an EB Series enclosure with breaker is cataloged as follows:

Catalog Numbering Guide



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 **Appleton**

▲ To complete the catalog number please add the appropriate suffix for other options/features. These suffixes can be found in the modifications table in this section.

▼ For NEMA 4X, add **-N4** suffix (not suitable for Group B).

EB Series Circuit Breakers and Enclosure Accommodation Table

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Circuit Breaker Options for EB Series Enclosures

Catalog Number Symbol	Breaker Frame Size		Trip Range Amps	Bolt-On (EB) Enclosure	Maximum Volts	Trip Type
W	GE					
E	—	TEB	15-100	EB1 (15-50A) EB2 (70-100A)	240	Non-Interchangeable
EH	EHD	TED	15-100	EB1 (15-50A) EB2 (70-100A)	480	Non-Interchangeable
F	FDB	THED	15-150	EB1 (15-50A) EB2 (70-150A)	600	Non-Interchangeable
FJ	JD ①	TFJ	70-225 ①	EB3	600	Non-Interchangeable
TFJ	—	TFJ	70-225 ①	EB3	600	Interchangeable

DISTRIBUTION EQUIPMENT: NEC/CEC EXPLOSIONPROOF CIRCUIT BREAKERS



① JD also available in 250 Amp.

▼ For NEMA 4X, add —N4 suffix (not suitable for Group B).

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NEC:

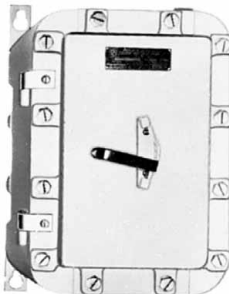
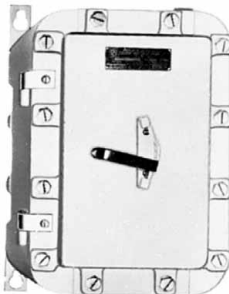
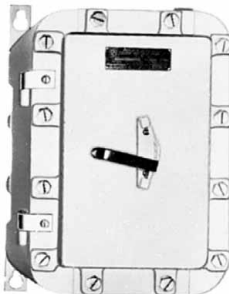
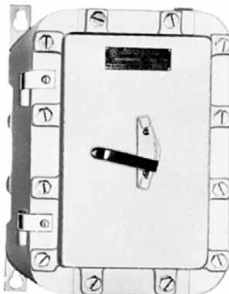
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Bolt-On (Type EB) — EHD and FDB Frames 15 thru 150 Amps. JD Frames 125 thru 250 Amps

Circuit Breaker					Catalog Numbers	
Frame Size	Number of Poles	Tap Size (Inches) ①	Amp Rating	Enclosure Only	With Circuit Breaker ②	
EHD Frame — 15 Amps thru 100 Amps; 480 Vac (60 Hz) or 250 Vdc						
	EHD	2	15	EB1	EB1EH2W15	
			20		EB1EH2W20	
			30		EB1EH2W30	
			40		EB1EH2W40	
			50		EB1EH2W50	
			60		EB1EH2W60	
	2	70	EB2	EB2EH2W70		
		90		EB2EH2W90		
		100		EB2EH2W100		
	EHD	3	15	EB1	EB1EH3W15	
			20		EB1EH3W20	
			30		EB1EH3W30	
			40		EB1EH3W40	
			50		EB1EH3W50	
			60		EB1EH3W60	
	2	70	EB2	EB2EH3W70		
		90		EB2EH3W90		
		100		EB2EH3W100		
FDB Frame — 15 Amps thru 150 Amps; 600 Vac (60 Hz) or 250 Vdc						
	FDB	2	15	EB1	EB1F2W15	
			20		EB1F2W20	
			30		EB1F2W30	
			40		EB1F2W40	
			50		EB1F2W50	
			60		EB1F2W60	
	2	70	EB2	EB2F2W70		
		90		EB2F2W90		
		100		EB2F2W100		
		125		EB2F2W125		
	FDB	3	150	EB1	EB2F2W150	
			15		EB1F3W15	
			20		EB1F3W20	
			30		EB1F3W30	
			40		EB1F3W40	
			50		EB1F3W50	
	2	60	EB2	EB1F3W60		
		70		EB2F3W70		
		90		EB2F3W90		
		100		EB2F3W100		
	2	3	125	EB2	EB2F3W125	
			150		EB2F3W150	
			175		EB3JB2W125	
			200		EB3JB2W150	
	3	3	225	EB3	EB3JB2W175	
			250		EB3JB2W200	
			125		EB3JB2W225	
			150		EB3JB2W250	
			175		EB3JB3W150	
			200		EB3JB3W175	
3	3	225	EB3	EB3JB3W200		
		250		EB3JB3W225		
		250		EB3JB3W250		

① Bolt-On Series conduit openings are tapped to size shown. A removable aluminum reducer bushing is furnished for each opening which, when installed, makes the conduit opening one size smaller.

② Cutler-Hammer breaker provided as standard. For GE breaker change **W** to **G**; For Square D breaker change **C** to **S**.

▼ For NEMA 4X, add **-N4** suffix (not suitable for Group B).

DISTRIBUTION EQUIPMENT: NEC/CEC EXPLOSIONPROOF CIRCUIT BREAKERS

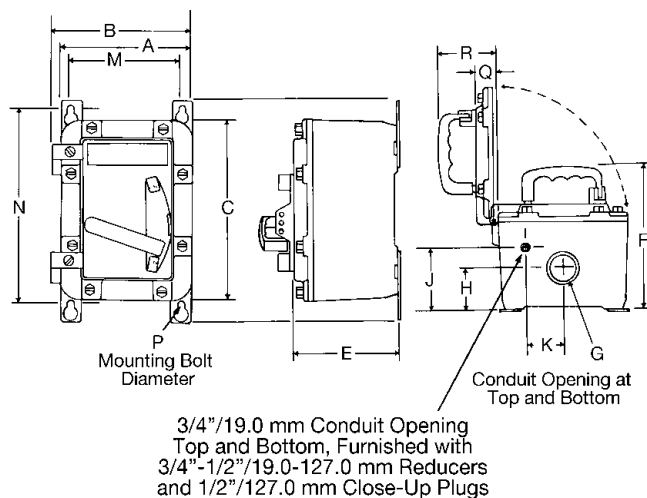
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Dimensions in Millimeters (Inches)



Dimension	EB1	EB2	EB3
A	196.8 (7.75)	231.9 (9.13)	376.6 (14.38)
B	209.5 (8.25)	244.6 (9.63)	387.3 (15.25)
C ①	308.1 (12.13)	358.9 (14.13)	511.3 (20.13)
D	374.6 (14.75)	425.4 (16.75)	625.6 (24.63)
E	165.1 (6.50)	182.6 (7.19)	270.0 (10.63)
F	225.5 (8.88)	244.6 (9.63)	330.2 (13.00)
G ②	38.1 (1.50)	50.8 (2.00)	76.2 (3.00)
H	57.9 (2.38)	69.0 (2.72)	116.5 (4.59)
J	86.6 (3.41)	95.2 (3.75)	169.9 (6.69)
K	65.0 (2.56)	65.0 (2.56)	104.9 (4.13)
M	155.7 (6.13)	190.5 (7.50)	308.1 (12.13)
N	336.5 (13.25)	384.3 (15.13)	581.1 (22.88)
P	9.5 (0.375)	9.5 (0.375)	17.1 (0.675)
Q	26.6 (1.50)	44.4 (1.75)	57.1 (2.25)
R	98.5 (3.88)	104.9 (4.13)	120.6 (4.75)

Approximate Weight in Kilograms (Pounds)

	EB1	EB2	EB3
Enclosure Only	6.34 (14)	12.23 (27)	27.70 (61)
With Breaker ③	7.70 (17)	14.95 (33)	32.20 (71)

- ① For Drains and Breathers, add 50.8 mm (2") to dimension C. Close-up plugs furnished when enclosures are ordered without drains and breathers.
 ② Conduit openings are tapped to size shown. A removable reducer bushing is furnished for each opening which, when installed, makes the conduit opening one size smaller.
 ③ Approximate weights with breaker reflect largest size that will fit in each respective enclosure.
 ▼ For NEMA 4X, add —N4 suffix (not suitable for Group B).