

# 3C EBMB Series Circuit Breakers and Enclosures

Cl. I, Div. 1 & 2, Groups B, C, D  
Cl. II, Div. 1, Groups E, F, G  
Cl. II, Div. 2, Groups F, G  
Cl. III  
NEMA 3, 3R, 4 $\ddagger$ , 4X $\dagger\dagger$ , 7BCD, 9EFG, 12

Explosionproof  
Dust-Ignitionproof  
Raintight  
Wet Locations  
Watertight

## Applications:

EBM hinged cover motor control enclosures are used:

- For general motor control and circuit protection – indoors and outdoors – in damp, wet, dirty, dusty hazardous locations without the need for a protective shelter.
- In areas where frequent washdowns are necessary or where heavy rain or water spray is prevalent.
- To provide line disconnect means and short circuit protection.
- For service entrance, feeder or branch circuit protection for lighting, heating, appliance and motor circuits.
- On switchracks or other assemblies where it's desired that motor control be centrally located.

## Features:

- Rugged, corrosion resistant, cast copper-free aluminum construction (less than 0.4 of 1%).
- Circuit breaker operating handle located through the right side wall of the body permits visual confirmation of correct component assembly and operation.
- Total compliance to the wiring end room requirements of the National Electrical Code®.
- Semi-clamshell enclosure design, with an external flanged ground joint between body and cover makes interior components more accessible.
- Minimum enclosure-to-enclosure spacing with little interference between the opened cover and an adjacent enclosure.
- Copper-free aluminum hinges allow the cover to swing well out of the way.
- Stainless steel, quick release, captive, hex head cover bolts. Stainless steel springs provide clear indication cover bolts are fully retracted from body.
- Versatile, internal operating mechanisms allow for field adjustment to accommodate popular manufacturers' breakers.
- Simple, straightforward installation of breaker on pre-drilled mounting plate within enclosure. Mounting plate also field removable.
- Circuit breaker external operating handle can be padlocked in either "ON" or "OFF" positions.
- Neoprene cover gasket permanently attached to the cover seals out moisture.
- Bodies have top and bottom drilled and tapped entrances for power conduits and control conduits. Removable reducers are supplied, as standard, to accommodate smaller size conduits. All conduit entrances are plugged.
- Tap-on mounting feet.
- Optional EMPS control devices may be added to enclosure cover.
- Steel bracket for lifting larger enclosures during installation supplied as standard.



**EBM motor control enclosures accommodate popular makes of circuit breakers**

## Certifications and Compliances:

- NEC/CEC:
  - Class I, Division 1 & 2, Groups B, C, D
  - Class II, Division 1, Groups E, F, G
  - Class II, Division 2, Groups F, G
  - Class III
- UL Standards UL1203 – Hazardous (classified) locations/CSA Standards: C22.2 No. 30
- UL Subject 2062 - High AIC rating (Interrupting Capacity) For Groups C & D only
  - 240V 65,000 RMS Symm. Amperes
  - 480V 50,000 RMS Symm. Amperes
  - 600V 25,000 RMS Symm. Amperes
- NEMA 3, 3R, 4 $\ddagger$ , 4X $\dagger\dagger$ , 7BCD, 9EFG, 12

## Standard Materials:

- Body and cover – copper-free aluminum
- Operating handle – copper-free aluminum
- Operating shaft and bushing – stainless steel
- Interior parts – sheet steel, electrogalvanized
- Cover bolts, washers and retractile springs – stainless steel

## Electrical Rating Ranges:

- Circuit breakers – 100, 150, 225, 250, 400, 600, 800, 1000\* ampere frame sizes

‡Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

††With S752 or S753.

\*1000 Ampere Frame (max. 800 ampere trip)

National Electrical Code is a Registered Trademark of The National Fire Protection Association.

# EBMB Series Circuit Breakers and Enclosures

Cl. I, Div. 1 & 2, Groups B, C, D  
 Cl. II, Div. 1, Groups E, F, G  
 Cl. II, Div. 2, Groups F, G  
 Cl. III  
 NEMA 3, 3R, 4 $\ddagger$ , 4X $\ddagger$ , 7BCD, 9EFG, 12

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations  
 Watertight

**3C**

## Options:

The following options are available from factory by adding suffix to catalog number. Suffixes are added alphanumerically.

### Catalog Number System

EBMBB-①-WT30FDB36-②

① Options in this position are additions to the enclosure and should be listed alphanumerically.

② Options in this position are modifications to the circuit breaker and should be listed alphanumerically.

Description	Position in Cat. #	Suffix
• Ambient compensated circuit breaker trip setting.....	②	<b>AC</b>
• Pilot light, 120VAC, red jewel, w/blank indicating plate.....	①	<b>J1†</b>
• Pilot light, 120VAC, green jewel, w/blank indicating plate.....	①	<b>J3 †</b>
• LED pilot lights in place of standard incandescent pilot lamps.....	①	<b>LED</b>
• Start-stop pushbuttons (requires 2 spaces).....	①	<b>PB23 †‡</b>
• Space heater, 120 volt, 25 watts.....	①	<b>R11</b>
• Space heater, 240 volt, 25 watts.....	①	<b>R22</b>
• Space heater, 480 volt, 25 watts.....	①	<b>R44</b>
• Insulated neutral w/2 connectors.....	①	<b>S146</b>
• Grounded neutral stud w/3 connectors (50, 100, 225 amp).....	①	<b>S178</b>
• Std. drain, Class I, B, C & D; Class II, E F & G, Class III.....	①	<b>S756 ‡</b>
• Std. breather & drain, Class I, B, C & D; Class II, E, F & G; Class III.....	①	<b>S756V ‡</b>
• External epoxy finish.....	①	<b>S752</b>
• Internal and external epoxy finish.....	①	<b>S753</b>
• Aux. switch on circuit breaker, 1A & 1B contacts.....	②	<b>S784</b>
• Aux. switch on circuit breaker, 2A & 2B contacts.....	②	<b>S785</b>
• 12 point term. block – 30 amp, 300 V.....	①	<b>S786</b>
• General purpose control relay, 4 pole N.O., contacts rated 10A @ 600V, coil 120VAC, 50–60 Hertz.....	①	<b>S787</b>



EBMB Series circuit breaker enclosures are available with breakers from 100 to 1000\* amp frame sizes.

\*1000 Ampere Frame (max. 800 ampere trip.)

†If desired, markings on indicating plates may be added to catalog number. Select from the list of standard markings and DSL Legend Plate listings see page 449.

‡Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

††With S752 or S753.

# 3C EBMB Series Circuit Breakers and Enclosures

Cl. I, Div. 1 & 2, Groups B, C, D  
 Cl. II, Div. 1, Groups E, F, G  
 Cl. II, Div. 2, Groups F, G  
 Cl. III

NEMA 3, 3R, 4 $\ddagger$ , 4X $\ddagger\ddagger$ , 7BCD, 9EFG, 12

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations  
 Watertight

## Ordering Information:

- To order an enclosure complete with circuit breaker, insert the manufacturer's symbols in the designated positions of the catalog number. Symbols are shown below.
- Enclosures can be ordered without circuit breakers. Select from listings below.

## EBMB Series Enclosures for Circuit Breakers

Circuit Breaker			Enclosures		
Poles $\ddagger$	Voltage Rating	Circuit Breaker Frame Size	Without Circuit Breaker Cat. #	Circuit Breaker Amp Rating	With Circuit Breaker Cat. #
3	240VAC or 125–250VDC	100 Amp. Frame	<b>EBMBA</b> *	15A through 70A	<b>EBMBA TT<math>\textcircled{2}</math>TEB32</b>
3	240VAC or 125–250VDC	150 Amp. Frame	<b>EBMBA</b> † §	10A through 70A	<b>EBMBA TT<math>\textcircled{2}</math>TEB32</b>
3	480VAC or 250VDC	100 Amp. Frame	<b>EBMBA</b> *	15A through 70A	<b>EBMBA <math>\textcircled{1}\textcircled{2}\textcircled{3}\textcircled{34}</math></b>
3	480VAC or 250VDC	150 Amp. Frame	<b>EBMBA</b> † §	10A through 70A	<b>EBMBA TT<math>\textcircled{2}</math>TED34</b>
3	600VAC	150 Amp. Frame	<b>EBMBA</b> † § ■	10A through 70A	<b>EBMBA <math>\textcircled{1}\textcircled{2}\textcircled{3}\textcircled{36}</math></b>
3	240VAC or 125–250VDC	100 Amp. Frame	<b>EBMBB</b> *	15A through 100A	<b>EBMBB TT<math>\textcircled{2}</math>TEB32</b>
3	240VAC or 125–250VDC	150 Amp. Frame	<b>EBMBB</b> † §	10A through 150A	<b>EBMBB TT<math>\textcircled{2}</math>TEB32</b>
3	480VAC or 250VDC	100 Amp. Frame	<b>EBMBB</b> *	15A through 100A	<b>EBMBB <math>\textcircled{1}\textcircled{2}\textcircled{3}\textcircled{34}</math></b>
3	480VAC or 250VDC	150 Amp. Frame	<b>EBMBB</b> † §	10A through 150A	<b>EBMBB TT<math>\textcircled{2}</math>TED34</b>
3	600VAC	150 Amp. Frame	<b>EBMBB</b> † § ■	15A through 150A	<b>EBMBB <math>\textcircled{1}\textcircled{2}\textcircled{3}\textcircled{36}</math></b>
3	600VAC	250 Amp. Frame	<b>EBMBG</b> ▲	70A through 250A	<b>EBMBG <math>\textcircled{1}\textcircled{2}\textcircled{3}\textcircled{36}</math></b>
3	600VAC or 250VDC	400 Amp. Frame	<b>EBMBK</b> ▼	100A through 400A	<b>EBMBK <math>\textcircled{1}\textcircled{2}\textcircled{3}\textcircled{36}</math></b>
3	600VAC or 250VDC	600 Amp. Frame	<b>EBMBL</b> ♠	250A through 600A	<b>EBMBL WT<math>\textcircled{2}\textcircled{3}\textcircled{36}</math></b>
3	600VAC or 250VDC	800 Amp. Frame	<b>EBMBL</b> ♥	300A through 800A	<b>EBMBL WT<math>\textcircled{2}\textcircled{3}\textcircled{36}</math></b>

### ①Circuit Breakers:

Manufacturer	Symbol
Cutler-Hammer	WT
General Electric	TT

### ② Select Trip Setting from below:

100 Amp Frame (EHD)\* – 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100  
 150 Amp. Frame (TEB, TED, HFD)†§■ – 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150  
 225 / 250 Amp Frame (JD, JDB, HJD)▲ – 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250  
 400 Amp. Frame (KD, KDB, HKD)▼ – 100, 125, 150, 175, 200, 225, 250, 300, 350, 400  
 600 Amp. Frame (LD, HLD)♠ – 250, 300, 350, 400, 450, 500, 600  
 800 Amp Frame (MD)♥ – 300, 350, 400, 450, 500, 600, 700, 800

### ③Select Circuit Breaker Frame Type based on frame size, voltage, and manufacturer desired:

Manufacturer	100 Amp. Frame and 150 Amp. Frame			250 Amp. Frame $\textcircled{1}$ ▲	400 Amp. Frame 600VAC	600 Amp. Frame 600VAC	800 Amp. Frame 600VAC
	240V AC	480V AC	600V AC				
Cutler-Hammer	—	EHD	FDB HFD♣	JD $\textcircled{1}$ JDB♣ HJD♣	KD $\textcircled{1}$ KDB♣ HKD★	LD HLD★	MD
General Electric	TEB	TED	TED				

$\textcircled{1}$ —Interchangeable Trip Unit

♣—Non-Interchangeable Trip Unit

♣—Cutler-Hammer HFD and HJD are rated at 65 kAIC at 480V and 25 kAIC at 600V.

★—Cutler-Hammer HKD and HLD are rated at 65 kAIC at 480V and 35 kAIC at 600V.

‡ Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

‡‡With S752 or S753.

■ Depending on availability from the circuit breaker manufacturer 1 and 2 pole can be furnished. Information available upon request. Example of an adjusted part number - EBMBB WT100EDH34 becomes EBMBB WT100EDH24.

\* EBMBA will accept 15 through 70 amp. trip, EBMBB will accept 15 through 100 amp. trip.

† EBMBA will accept 10 through 70 amp. trip, EBMBB will accept 10 through 150 amp. trip.

§ General Electric TEB frame available 10 through 100 amp. trip. TED frame available 10 through 150 amp. trip.

■ Cutler-Hammer FDB and HFD frame available 15 through 150 amp. trip.

▲ Cutler-Hammer JD and JDB types are 250 amp. frame, available 70, 90, 100 and 125 through 250 amp. trip.

▼ Cutler-Hammer KD and KDB frames available 100 through 400 amp. trip.

♠ Cutler-Hammer LD and HLD frame available 300 through 400 and 500, 600 amp. trip.

♥ Cutler-Hammer MD frame available 400 and 500 through 800 amp. trip.

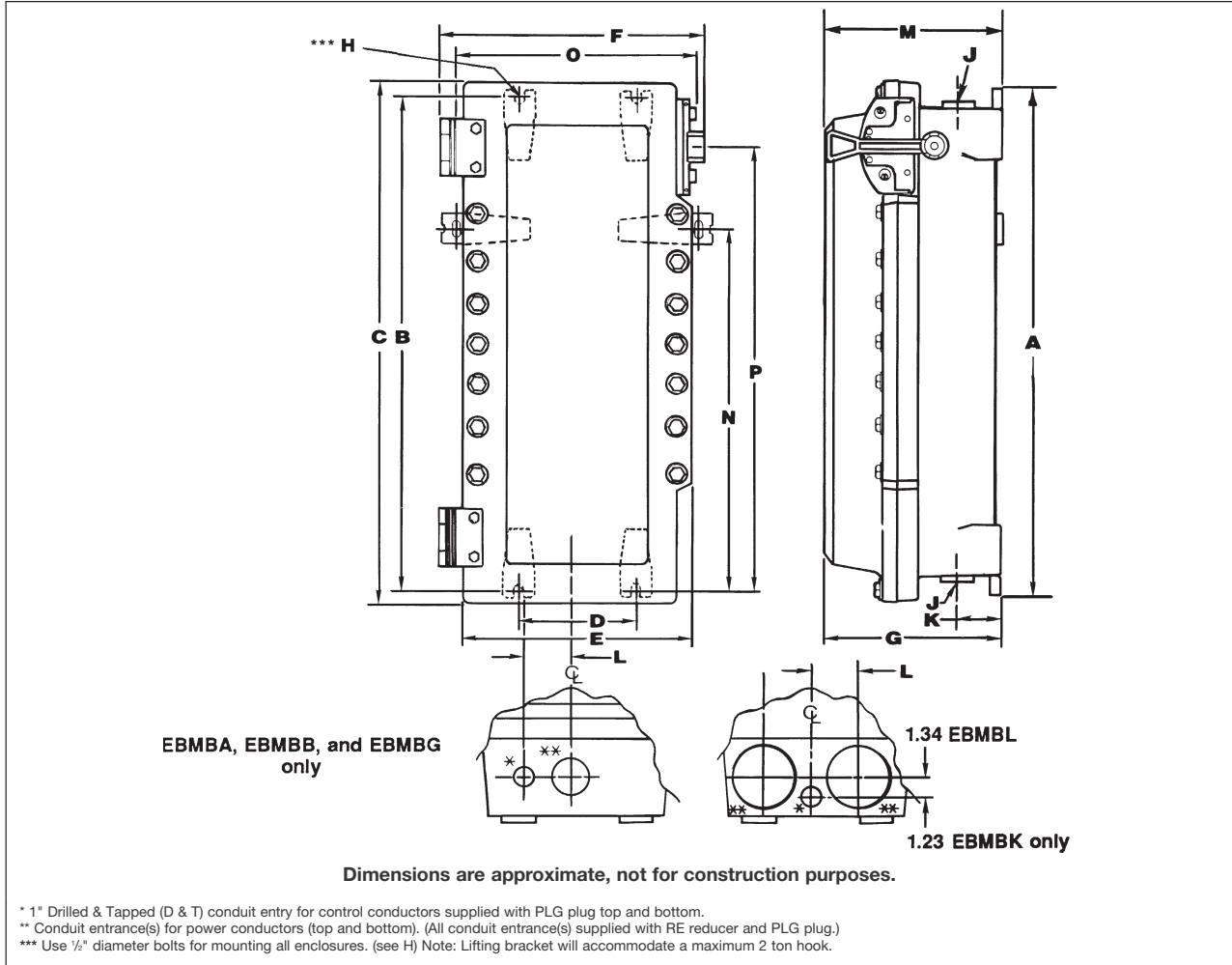
# EBMB Series Circuit Breakers and Enclosures

Cl. I, Div. 1 & 2, Groups B, C, D  
 Cl. II, Div. 1, Groups E, F, G  
 Cl. II, Div. 2, Groups F, G  
 Cl. III  
 NEMA 3, 3R, 4‡, 4X††, 7BCD, 9EFG, 12

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations  
 Watertight

**3C**

## Dimensions In Inches:



Enclosure Only Cat. #	Enclosure Size Symbol	Dimensions							J** Conduit Entry Trade Size D&T§	w/RE	Dimensions					
		A	B	C	D	E	F	G			K	L	M	N	O	P
<b>100 Amp Frame</b>																
EBMBA	A	18.25	17.25	19.40	6.00	13.03	14.78	10.25	2"	1.5"	3.25	3.13	10.25	—	—	14.50
<b>100 and 150 Amp Frame</b>																
EBMBB	B	25.75	24.75	26.90	6.00	13.03	14.78	10.25	2"	1.5"	3.25	3.13	10.25	—	—	22.00
<b>225 and 250 Amp Frame</b>																
EBMBG	G	37.50	36.50	39.28	6.00	13.03	14.78	10.25	3.0"	2.5"	3.25	3.13	10.25	—	—	34.06
<b>400 Amp Frame</b>																
EBMBK	K	43.12	41.50	42.65	12.00	17.65	20.28	10.92	(2)3"	(2)2.5"	3.25	3.00	10.92	—	—	29.23
<b>600, 800 and 1000 Amp Frame†</b>																
EBMBL	L	53.25	51.50	53.28	12.00	17.90	20.58	13.03	(2)4"	(2)3.5"	4.00	3.50	13.13	41.50	18.40	29.88

†1000 Ampere Frame (max. 800 ampere trip)

‡Enclosure not suitable for NEMA 4 or 4X with cover mounted operators. Breather and drain entries must be plugged for NEMA 4 rating.

††With S752 or S753.

§Drilled & Tapped.