

**SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE**

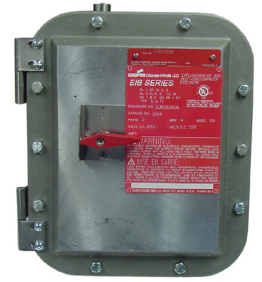
### APPLICATION

EIB Series Circuit Breakers and Enclosures are used to provide service entrance, feeder or branch circuit protection for lighting, heating, appliance and motor circuits.

EIB Series Circuit Breakers and Enclosures provide disconnect means, short circuit protection and thermal time delay overload protection.

EIB Series Circuit Breakers and Enclosures are suitable for use in Class I, Groups B, C, D; Class II, Groups E, F, G; Class III; and Zones 1 & 2, Group IIB + H<sub>2</sub> hazardous (classified) locations, as defined by the National Electrical Code® as well as in damp, wet or corrosive locations. They are suitable for NEMA Type 3, 4, 4X applications.

EIB Series Circuit Breakers and Enclosures should be installed, inspected, maintained and operated by qualified and competent personnel only.

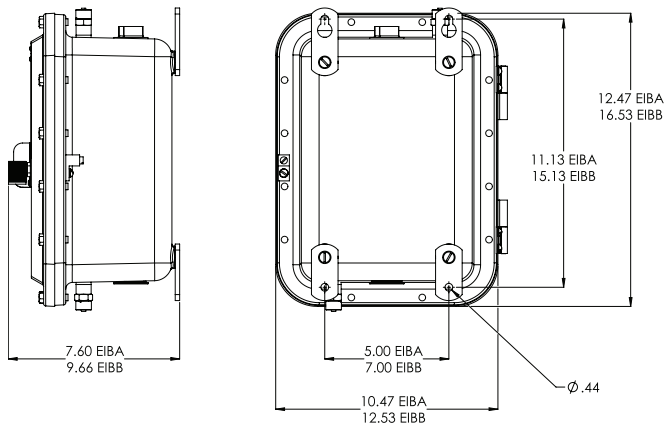


### INSTALLATION

#### ⚠ WARNING

To avoid risk of electrical shock, electrical power must be OFF before and during installation and maintenance.

- Select a mounting location that will provide suitable strength and rigidity for supporting the circuit breaker enclosure, all contained wiring and devices. Figure 1 shows the mounting dimensions of the EIB Series Enclosures.



**FIGURE 1**

- Remove cover bolts securing cover. Carefully open cover fully to prevent damage to the machined joint and cover gasket. Remove circuit breaker cover (applicable to EIB Enclosure furnished without circuit breaker) and mounting kit from inside enclosure.
- Install mounting feet.  
Use four (4) 5/16-18 screws supplied to attach mounting feet to pre-drilled holes on back wall of enclosure.
- Securely fasten enclosure to the mounting location, then attach into conduit system. Install approved conduit or cable sealing fittings in all conduit entries within 18 inches of enclosure.

#### ⚠ CAUTION

**To avoid risk of ignition:** hazardous location information indicating Class and Group listing of each device is marked on the nameplate of each enclosure. Any device penetrating the enclosure must maintain the explosionproof integrity of the enclosure.

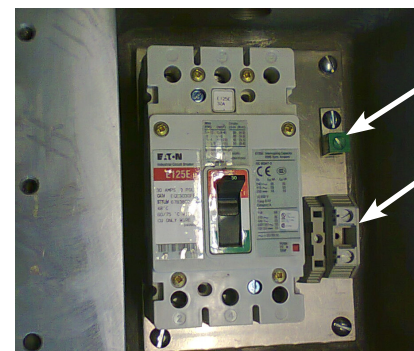
#### ⚠ CAUTION

**To avoid risk of ignition:** hammers or prying tools must not be allowed to damage the flat machined joint surfaces or cover gasket. Do not handle covers roughly, or place them on surfaces that might damage or scratch the flat machined joint surfaces.

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

- EIB Enclosure furnished with circuit breaker:

A. To remove circuit breaker and mounting plate from enclosure, loosen four (4) 1/4-20 x 1/2" screws that secure the circuit breaker mounting plate to the enclosure. Lift out the mounting plate and circuit breaker.



**FIGURE 2**

C. Carefully pull wires in the enclosure, making sure they are long enough to make the required connections. Strip away enough insulation from the end of each wire to make the required connections.

D. Reinstall mounting plate and circuit breaker into the enclosure so that the circuit breaker load terminals are on the bottom. Tighten the four (4) mounting plate screws to provide a good ground connection between the mounting plate and the enclosure. Now proceed to Step #7.

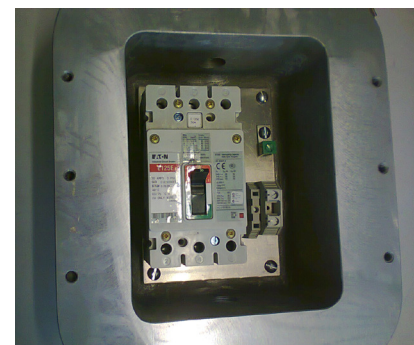
- For EIB Enclosures furnished without circuit breaker:

Select circuit breaker from Table 1 (ordered separately).

A. Remove mounting plate from enclosure by loosening four (4) 1/4-20 x 1/2 screws that secure the mounting plate to the enclosure, and lift out.

B. Carefully pull wires in the enclosure, making sure they are long enough to make the required connections. Strip away enough insulation from the end of each wire to make the required connections.

C. Assemble circuit breaker to mounting plate using the proper holes indicated on the mounting plate. Attach the circuit breaker cover (included with the EIB empty enclosure) to the circuit breaker. Mounting hardware is provided in sealed plastic bag.



**FIGURE 3**

D. Reinstall mounting plate and circuit breaker into the enclosure so that the circuit breaker load terminals are on the bottom. Tighten the four (4) mounting plate screws to provide a good ground connection between the mounting plate and the enclosure.

7. Make electrical connections utilizing the wiring scheme established for the circuit breaker. See Table 2. Connect green equipment grounding conductor to the ground lug on the mounting plate.
8. Test wiring for correctness by performing a continuity check and check for unwanted grounds with an insulation resistance tester.

**⚠ CAUTION**

**To avoid risk of ignition:** clean both machined joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat machined joint surfaces. Surfaces must seat fully against each other to provide a proper explosionproof joint.

9. Make sure cover and body machined joint surfaces are clean and not scratched. Make sure the operator and fork are in the OFF position. Make sure circuit breaker is in off position. Close cover to approximate position, and line up bolt holes of cover with body. Cover and body bolt holes must match up. Hand start the corner bolts. Fully tighten all cover bolts in the cover. See Table 1. Check operation of circuit breaker operator.

**TABLE 1**

Enclosure	Cover Screw	Required Torque (ft.-lbs)
EIBA	5/16-18	20 - 25
EIBB	3/8-16	35 - 40

10. Pour sealing compound into sealing fittings in accordance with the instructions supplied with each of the approved fittings and sealing compound package labels.

**⚠ CAUTION**

Hazardous location information specifying Class and Group listing of each device is marked on the nameplate of each enclosure. Conduit sealing fittings **MUST** be installed in each attached conduit run (within 18 inches of the enclosure) to comply with the National Electrical Code plus any other applicable standards, as required. All unused conduit openings must be closed with an approved plug such as Crouse-Hinds PLG Series. Plug must engage a minimum of five (5) full threads and be a minimum of 1/8 inch thick. **NO CONDUIT OPENINGS ARE TO BE ADDED IN THE FIELD.**

**TABLE 2**

MAXIMUM WIRE SIZE	
EIBA	10 AWG
EIBB	3 AWG

RECOMMENDED TORQUE VALUE	
Wire Size (AWG)	Torque (in.-lb.)
14-10	35
8	40
6-4	45
3	50

## MAINTENANCE

**⚠ WARNING**

Always disconnect primary source of electrical power before opening enclosure.

1. Electrical and mechanical inspection of all components must be performed on a regular schedule determined by the environment and frequency of use. It is recommended that inspection be performed a minimum of once a year.
2. If necessary to open enclosure for inspection or service, always disconnect primary power source and refer to cautionary statement or nameplate before removing cover.
3. Perform visual, electrical and mechanical checks on all components on a regular basis.

Visually check for undue heating evidenced by discoloration of wires or other components, damaged or worn parts or leakage evidenced by water or corrosion in the interior.

Electrically check to make sure that all connections are clean and tight and that contacts in the components make and break as required.

Mechanically check that all parts are properly assembled and operating mechanisms move freely.

4. EIB gasketed classified enclosures: do not attempt field replacement or repair of cover gasket. Instead, remove damaged gasket and continue to use cover without gasket. This will assure safety for use in Class I and Class II hazardous (classified) locations. However, the enclosure will not be watertight.

**⚠ CAUTION**

**To avoid risk of ignition:** clean both machined joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat machined joint surfaces. Surfaces must seat fully against each other to provide a proper explosionproof joint.

In addition to these required maintenance procedures, we recommend an Electrical Preventative Maintenance Program as described in the National Fire Protection Association Bulletin NFPA No. 70B.

## EIB CIRCUIT BREAKER SELECTION TABLE

### EIBA ENCLOSURE

Amperage	Manufacturer	Breaker Catalog #
15	Cutler-Hammer	EGE3015FFG or PDG13F0015TFFJ
20	Cutler-Hammer	EGE3020FFG or PDG13F0020TFFJ
25	Cutler-Hammer	EGE3025FFG or PDG13F0025TFFJ
30	Cutler-Hammer	EGE3030FFG or PDG13F0030TFFJ
35	Cutler-Hammer	EGE3035FFG or PDG13F0035TFFJ

### EIBB ENCLOSURE

Amperage	Manufacturer	Breaker Catalog #
40	Cutler-Hammer	EGE3040FFG or PDG13F0040TFFJ
45	Cutler-Hammer	EGE3045FFG or PDG13F0045TFFJ
50	Cutler-Hammer	EGE3050FFG or PDG13F0050TFFJ
60	Cutler-Hammer	EGE3060FFG or PDG13F0060TFFJ
70	Cutler-Hammer	EGE3070FFG or PDG13F0070TFFJ
80	Cutler-Hammer	EGE3080FFG or PDG13F0080TFFJ
90	Cutler-Hammer	EGE3090FFG or PDG13F0090TFFJ
100	Cutler-Hammer	EGE3100FFG or PDG13F0100TFFJ

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