

# CLB-Series

## THERMAL CIRCUIT PROTECTORS

**Rating:**

3 to 60A, 125-250VAC, 32VDC

**Approvals:**

UL, CUL, CSA, TUV, CE  
UL1500/ISO8846 for ignition  
protection/marine

**Dielectric Strength:**

2500 VAC/1 minute

**Interrupting capacity:**

2500 amps @ 32 VDC

**Insulation Resistance:**

100M ohms

**Operating Temperature:**

-10°C to 60°C

**Voltage drop:**

< 0.25 V

**Applications:**

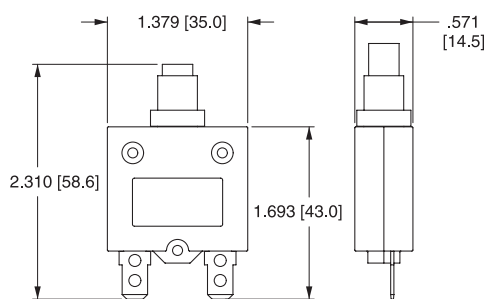
Household Appliances  
Transportation  
Marine  
Power Strips  
Medical Equipment  
Audio Visual Equipment  
Power Supplies

**ROHS Compliant**

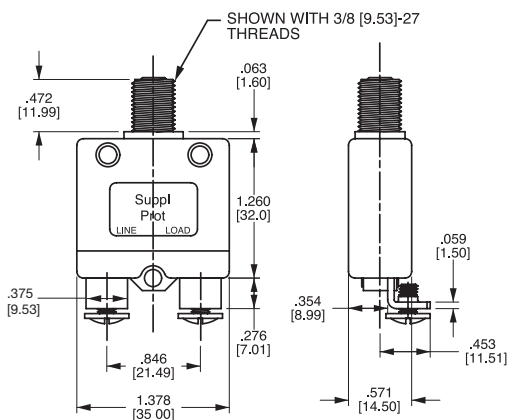
A COMPACT, SINGLE POLE, PUSH-TO-RESET  
FAMILY OF THERMAL CIRCUIT BREAKERS

**Dimensional Specifications:**

3-40A Construction



50 & 60A Construction



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CLB — 10 3 — 12 C 3 N — B — A /10

1  
Series

2  
Rating

3  
Voltage

4  
Mounting  
Hole

5  
Bushing  
Type

6  
Mounting  
Nut

7  
Indicator  
Plate

8  
Button

9  
Terminal

10  
Button Marking

### 1 SERIES CLB

### 2 RATING

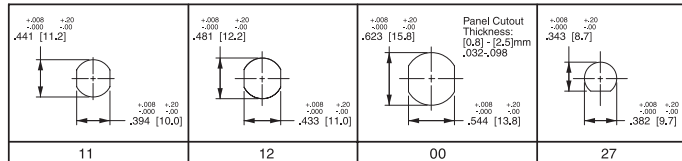
|    |        |                  |        |
|----|--------|------------------|--------|
| 03 | 3 amp  | 15               | 15 amp |
| 04 | 4 amp  | 18               | 18 amp |
| 05 | 5 amp  | 20               | 20 amp |
| 06 | 6 amp  | 25               | 25 amp |
| 07 | 7 amp  | 30               | 30 amp |
| 08 | 8 amp  | 35               | 35 amp |
| 10 | 10 amp | 40               | 40 amp |
| 12 | 12 amp | 50 <sup>13</sup> | 50 amp |
| 13 | 13 amp | 60 <sup>13</sup> | 60 amp |

### 3 VOLTAGE

3 125-250VAC/ 32 VDC

### 4 MOUNTING HOLE

11<sup>1</sup> M11  
12<sup>2</sup> M12  
00<sup>3</sup> Snap In Style  
27<sup>9</sup> 3/8" 27 UNS



### 5 BUSHING

#### METAL

A<sup>5</sup> Type A

B<sup>6</sup> Type B

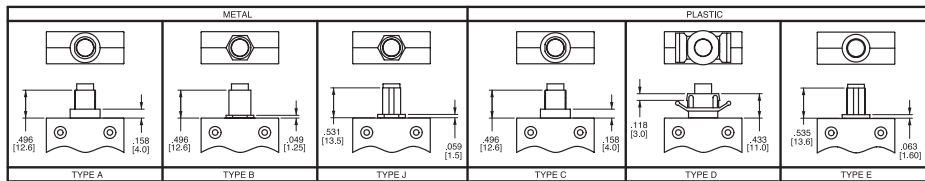
J<sup>8</sup> Type J

#### PLASTIC

C<sup>5</sup> Type C

D<sup>7</sup> Type D

E<sup>8</sup> Type E



### 6 MOUNTING NUT<sup>9</sup>

N None

1 Type 1

2 Type 2

3 Type 3

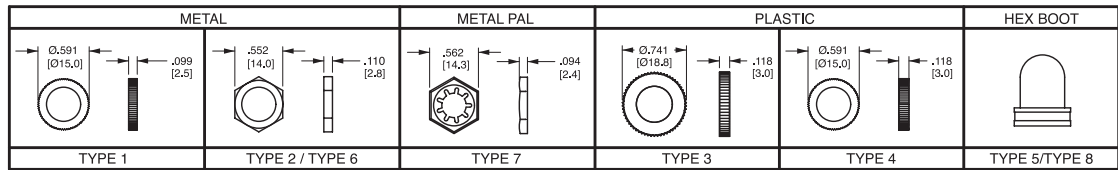
4 Type 4

5 Type 5

6<sup>12,15</sup> Type 6

7<sup>12</sup> Type 7

8<sup>12</sup> Type 8



NOTE: Type 5 is clear hex boot. Type 8 is black hex boot (available for bushings E & J only); Type 3 nut includes molded in "PRESS TO RESET" marking.

### 7 INDICATOR PLATE<sup>9</sup>

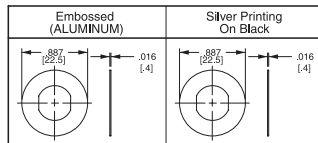
N None

A Embossed

B Silver Printing

on Black

All indicator plates are marked "circuit breaker press to reset".



Notes: All dimensions are in [mm]. Tolerance  $\pm .005$  [.127] unless otherwise specified.

1 Used with bushing A or B only.

2 Used with bushing C only.

3 Used with bushing D only.

4 Used with bushing E & J only.

5 Used with M12 mounting hole only.

6 Used with M11 mounting hole only.

7 Used with mounting hole 00 only.

8 Used with 27 mounting hole only.

9 All hardware available separately. Consult factory.

10 > 35 amp ratings must use solder joint to connect wire to non-screw type terminals.

11 Terminals are .040 [1.0] thickness for ratings > 35 amps.

12 Available with type E or J bushing only.

13 Available only with 10-24 unc. screw terms. (select type F, G, H, J only.) UL, CUL only.

14 Amp rating must match button marking (ex: "20" will be marked on the button of the breaker)

15 Thickness is 3.0 mm, .118 in.

16 Screw terminals are 8-32 UNC

### 8 BUTTON

B Black

R Red

W White

### 9 TERMINAL<sup>10,11,16</sup>

A Type A

B Type B

C Type C

D Type D

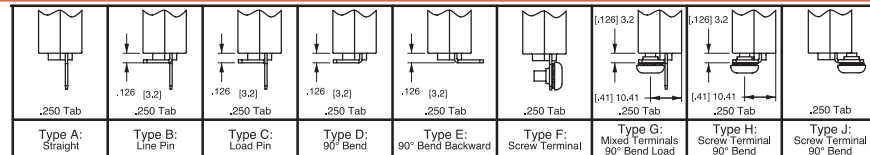
E Type E

F Type F

G Type G

H Type H

J Type J

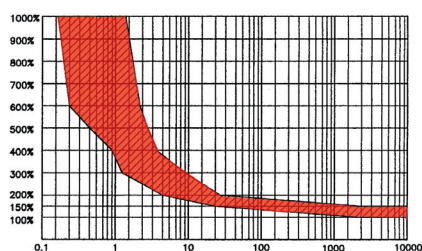


### 10 BUTTON MARKING (IF BLANK, NO MARKING.)<sup>14</sup> Button Marking Orientation:

line  load

|    |       |    |       |    |        |    |        |    |        |    |        |
|----|-------|----|-------|----|--------|----|--------|----|--------|----|--------|
| 03 | 3 amp | 06 | 6 amp | 10 | 10 amp | 15 | 15 amp | 25 | 25 amp | 40 | 40 amp |
| 04 | 4 amp | 07 | 7 amp | 12 | 12 amp | 18 | 18 amp | 30 | 30 amp | 50 | 50 amp |
| 05 | 5 amp | 08 | 8 amp | 13 | 13 amp | 20 | 20 amp | 35 | 35 amp | 60 | 60 amp |

### Time Delay



| CORRECTION FACTOR <sup>1</sup> |        |
|--------------------------------|--------|
| 0°C                            | x .67  |
| 10°C                           | x .72  |
| 15°C                           | x .83  |
| 18°C                           | x .87  |
| 25°C                           | x 1.00 |
| 32°C                           | x 1.05 |
| 40°C                           | x 1.18 |
| 50°C                           | x 1.33 |
| 60°C                           | x 1.67 |

| OVERLOAD | TRIP TIME      |
|----------|----------------|
| 100%     | NO TRIP        |
| 150%     | TRIP IN 1 HR.  |
| 200%     | 5 - 35 SEC.    |
| 300%     | 1 - 10 SEC.    |
| 400%     | .45 - 5.5 SEC. |
| 600%     | .1 - 20 SEC.   |

Notes:

Breaker must hold 100% of rated current and must trip at 150% and above, within the time limits shown in curve. Trip times specified at 25° ambient with no preloading.

1 To adjust the breaker rating for ambient temperature multiply the breaker rating by the factor. (ex: 5 amp rating at 0°C: 5 x .67 = 3.3 amp. Select 3 amp rating.)

\*Manufacturer reserves the right to change product specification without prior notice.

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