

# 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**

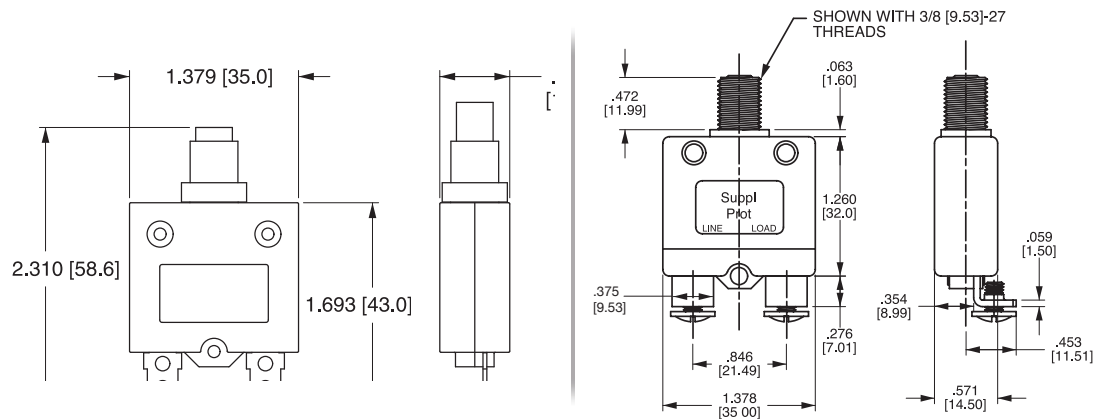


A COMPACT, SINGLE POLE, PUSH-TO-RESET FAMILY OF THERMAL CIRCUIT BREAKERS

**Dimensional Specifications:**

3-40A Construction

50 & 60A Construction



**Carling Technologies™**

Innovative Designs. Powerful Solutions.

**Carling Technologies, Inc.**

60 Johnson Avenue, Plainville, CT 06062

Email: sales@carlingtech.com

Application Support: team2@carlingtech.com

Phone: 860.793.9281 Fax: 860.793.9231

[www.carlingtech.com](http://www.carlingtech.com)

# 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

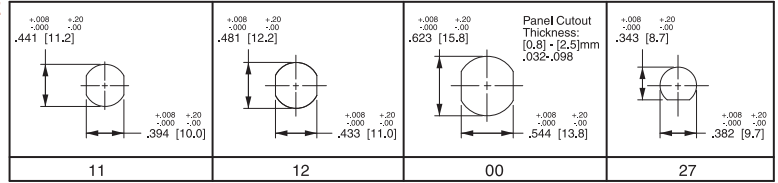
03	3 amp	15	15 amp
04	4 amp	18	18 amp
05	5 amp	20	20 amp
06	6 amp	25	25 amp
07	7 amp	30	30 amp
08	8 amp	35	35 amp
10	10 amp	40	40 amp
12	12 amp	50 <sup>12</sup>	50 amp
13	13 amp	60 <sup>12</sup>	60 amp

### 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>4</sup> 3/8" 27 UNS



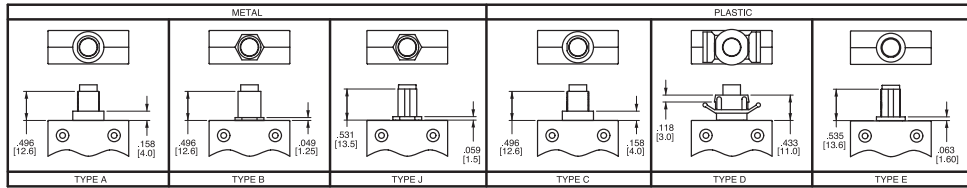
### 5 BUSHING

#### METAL

A<sup>5</sup> Type A  
B<sup>6</sup> Type B  
J<sup>8</sup> Type J

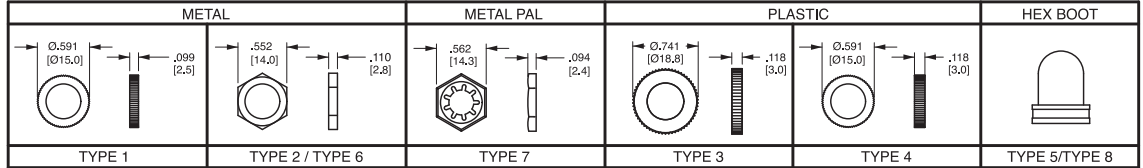
#### PLASTIC

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>4,14</sup> Type 6  
7<sup>4</sup> Type 7  
8<sup>4</sup> Type 8

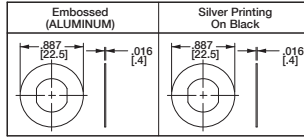


NOTE: Type 5 is clear hex boot. Type 8 is black hex boot (available for bushings E & J only); Type 3 nut includes molded in "PRESS TO RESET" marking.

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

N None  
A Embossed  
B Silver Printing on Black

All indicator plates are marked "Suppl. Prot. press to reset".



Notes: All dimensions are in [mm]. Tolerance  $\pm 0.05$  [ .127 ] unless otherwise specified.

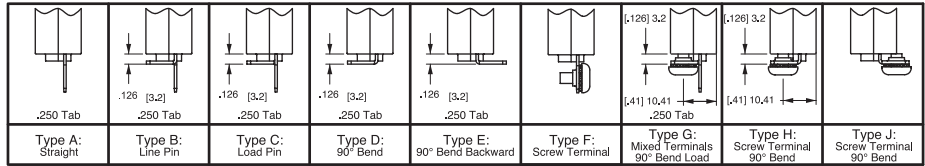
- 1 Used with bushing A or B only.
- 2 Used with bushing C only.
- 3 Used with bushing D only.
- 4 Used with bushing E & J only.
- 5 Used with M12 mounting hole only.
- 6 Used with M11 mounting hole only.
- 7 Used with mounting hole 00 only.
- 8 Used with 27 mounting hole only.
- 9 All hardware available 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 & .315 [8] thickness is for ratings < 35 amps.
- 12 Available only with 10-24 unc. screw terms. (select type F, G, H, J only.) UL, CUL only.
- 13 Amp rating must match button marking (ex: "20" will be marked on the button of the breaker)
- 14 Thickness is 3.0 mm, .118 in.
- 15 Screw terminals are 8-32 UNC

### 8 BUTTON

B Black      R Red      W White

### 9 TERMINAL<sup>10,11,15</sup>

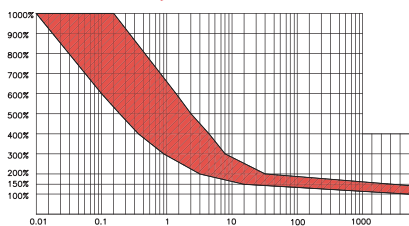
A Type A      F Type F  
B Type B      G Type G  
C Type C      H Type H  
D Type D      J Type J  
E Type E



### 10 BUTTON MARKING (IF BLANK, NO MARKING.)<sup>13</sup> Button Marking Orientation: line (20) 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



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

DERATING FACTOR	
-10°C	X1.70
-5°C	X1.60
0°C	X1.50
5°C	X1.40
10°C	X1.30
15°C	X1.20
20°C	X1.10
25°C	X1.00

DERATING FACTOR	
30°C	X0.90
35°C	X0.85
40°C	X0.80
45°C	X0.75
50°C	X0.70
55°C	X0.65
60°C	X0.60

OVERLOAD	TRIP TIME
100 %	NO TRIP
150 %	TRIP IN 1 HR
200 %	4.0~40 sec
300 %	0.9~8.0 sec
400 %	0.42~5.0 sec
500 %	0.25~3.0 sec
600 %	0.1~1.8 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.)