



**Littelfuse®**



**Carling Technologies®**

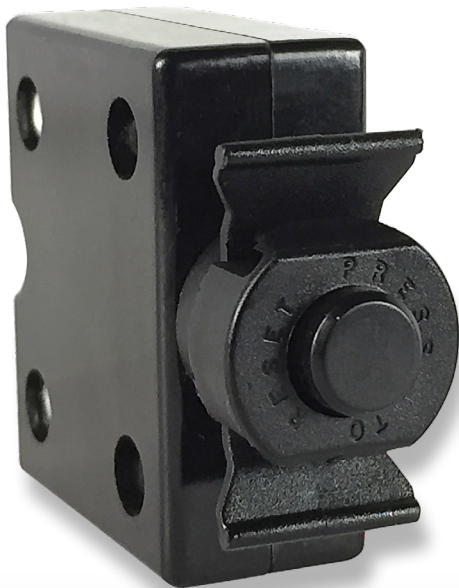
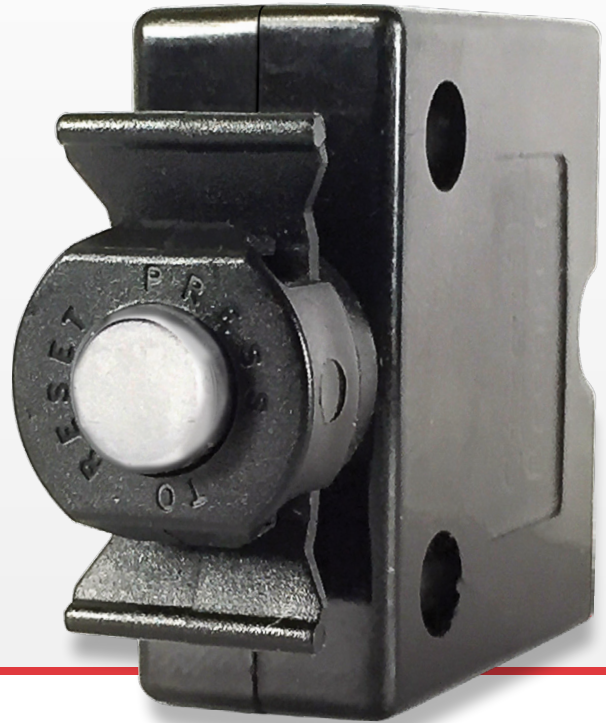
A Littelfuse® Brand

# CLB-Series

Thermal Circuit Breaker

**PRODUCT WEBPAGE**

*request sample, configure part*



## Push-to-Reset

Part of Carling's push-to reset family of thermal circuit breakers, the CLB-Series is designed with minimal moving parts, to assure cost-effective but reliable protection for a wide range of equipment applications. Offering a consistent trip point over temperatures ranging from -10°C to +60°C, this single pole breaker is rated from 3-60 amps, 125/250VAC, 32VDC with 1,000 AIC at 250VAC and 2,500 AIC at 32VDC.

**1**

Pole

**3-60**

Amps

**125-250**

VAC Max

**32**

VDC Max

## Typical Applications

- Household Appliances
- On/Off-Highway
- Medical Equipment
- Power Strips & Supplies
- Marine
- Audio-Visual Equipment

# Ordering Scheme

Sample  
Part Number

CLB - 10 3 - 12 C 3 N - B - A / 10

Selection

1

2

3

4

5

6

7

8

9

10

## 1. SERIES

CLB

## 2. RATING

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

## 3. VOLTAGE

3 125-250VAC / 32 VDC

## 4. MOUNTING HOLE <sup>see next page for diagram</sup>

|    |                            |
|----|----------------------------|
| 11 | M11 <sup>1</sup>           |
| 12 | M12 <sup>2</sup>           |
| 00 | Snap In Style <sup>3</sup> |
| 27 | 3/8" 27 UNS <sup>4</sup>   |

## 5. BUSHING <sup>see next page for diagram</sup>

| METAL |                      | PLASTIC |                     |
|-------|----------------------|---------|---------------------|
| A     | Type A <sup>6</sup>  | C       | Type C <sup>5</sup> |
| B     | Type B <sup>16</sup> | D       | Type D <sup>7</sup> |
| J     | Type J <sup>8</sup>  | E       | Type E <sup>8</sup> |

## 6. MOUNTING NUT <sup>9 see next page for diagram</sup>

|   |                      |   |                         |
|---|----------------------|---|-------------------------|
| N | None                 | 5 | Type 5                  |
| 1 | Type 1               | 6 | Type 6 <sup>4, 14</sup> |
| 2 | Type 2               | 7 | Type 7 <sup>4</sup>     |
| 3 | Type 3 <sup>17</sup> | 8 | Type 8 <sup>4</sup>     |
| 4 | Type 4               |   |                         |

## 7. INDICATOR PLATE <sup>9 see next page for diagram</sup>

|   |                 |   |                          |
|---|-----------------|---|--------------------------|
| N | None            | B | Silver Printing on Black |
| A | Embossed Legend |   |                          |

## 8. BUTTON

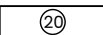
|   |       |   |     |   |       |
|---|-------|---|-----|---|-------|
| B | Black | R | Red | W | White |
|---|-------|---|-----|---|-------|

## 9. TERMINAL <sup>10,11,15 see next page for diagram</sup>

|   |        |   |        |   |        |
|---|--------|---|--------|---|--------|
| A | Type A | E | Type E | J | Type J |
| B | Type B | F | Type F | K | Type K |
| C | Type C | G | Type G | R | Type R |
| D | Type D | H | Type H |   |        |

## 10. BUTTON MARKING (IF BLANK, NO MARKING) <sup>13</sup>

Button Marking Orientation:

line  load

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

Notes: Tolerance  $\pm .005$  [.127] unless otherwise specified.

- Used with bushing A or B only.
- Used with bushing A or C only.
- Used with bushing D only.
- Used with bushing E & J only.
- Used with M12 mounting hole only.
- Used with M11 and M12 mounting hole only.
- Used with mounting hole 00 only.
- Used with 27 mounting hole only.
- All hardware available separately.
- Greater than 35 amp rating must use solder joint to connect wire to non-screw type terminals.
- Terminals are .040 [.10] thickness for ratings greater than 35 amps. Terminals are .315 [.8] thickness is for ratings less than 35 amps.
- Available only with 10-24 unc. screw terms. (select type F, G, H, J only.) UL, CUL only.
- Amp rating must match button marking (ex: "20" will be marked on the button of the breaker) Thickness is 3.0 mm, .118 in.
- Screw terminals are 8-32 UNC.
- Used with M11 mounting hole only.
- Includes molded in "PRESS TO RESET" marking.

 [Configure Complete Part Number >](#)

 [Browse Standard Parts >](#)

# Ordering Scheme Diagrams

## 4. MOUNTING HOLE

|                                    |                                    |                                                                                                 |                                  |
|------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------|
| <br>441<br>[11.2]<br>394<br>[10.0] | <br>481<br>[12.2]<br>433<br>[11.0] | <br>623<br>[15.8]<br>544<br>[13.8]<br>Panel Cutout Thickness:<br>[0.8] - [2.5]mm<br>.032 - .098 | <br>343<br>[8.7]<br>382<br>[9.7] |
| 11                                 | 12                                 | 00                                                                                              | 27                               |

## 5. BUSHING

| METAL                             |                                   |                                   | PLASTIC                           |                                   |                                   |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <br>496<br>[12.6]<br>158<br>[4.0] | <br>496<br>[12.6]<br>158<br>[4.0] | <br>531<br>[13.5]<br>158<br>[4.0] | <br>496<br>[12.6]<br>158<br>[4.0] | <br>118<br>[3.0]<br>433<br>[11.0] | <br>535<br>[13.6]<br>158<br>[4.0] |
| TYPE A                            | TYPE B                            | TYPE J                            | TYPE C                            | TYPE D                            | TYPE E                            |

## 6. MOUNTING NUT

| METAL                                  | METAL PAL                            | PLASTIC                                | HEX BOOT                               |
|----------------------------------------|--------------------------------------|----------------------------------------|----------------------------------------|
| <br>0.591<br>[015.0]<br>0.099<br>[2.5] | <br>.552<br>[14.0]<br>0.110<br>[2.8] | <br>0.741<br>[018.8]<br>0.118<br>[3.0] | <br>0.591<br>[015.0]<br>0.118<br>[3.0] |
| TYPE 1                                 | TYPE 2 / TYPE 6                      | TYPE 3                                 | TYPE 4                                 |
|                                        |                                      |                                        | TYPE 5/TYPE 8                          |

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

## 7. INDICATOR PLATE

| Embossed<br>(ALUMINUM)             | Silver Printing<br>On Black        |
|------------------------------------|------------------------------------|
| <br>887<br>[22.5]<br>0.016<br>[.4] | <br>887<br>[22.5]<br>0.016<br>[.4] |

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

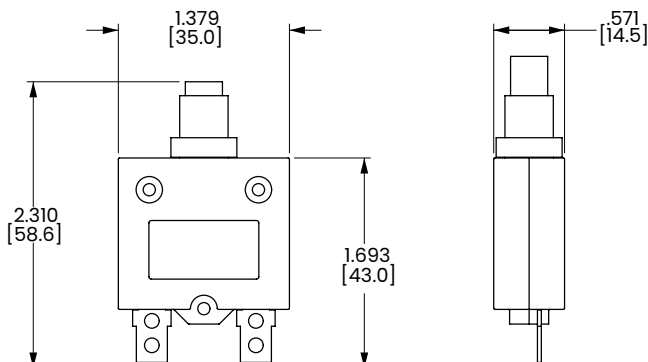
## 9. TERMINAL

|                      |                               |                               |                               |                                  |                               |                                                 |                                                 |                                        |                                                   |                                                 |
|----------------------|-------------------------------|-------------------------------|-------------------------------|----------------------------------|-------------------------------|-------------------------------------------------|-------------------------------------------------|----------------------------------------|---------------------------------------------------|-------------------------------------------------|
| <br>.250 Tab         | <br>.126<br>[3.2]<br>.250 Tab | <br>.126<br>[3.2]<br>.250 Tab | <br>.126<br>[3.2]<br>.250 Tab | <br>.126<br>[3.2]<br>.250 Tab    | <br>Screw Terminal            | <br>3.2<br>[.126]<br>10.41<br>[.41]<br>.250 Tab | <br>3.2<br>[.126]<br>10.41<br>[.41]<br>.250 Tab | <br>Screw Terminal<br>90° Bend         | <br>3.2<br>[.126]<br>10.41<br>[10.41]<br>.250 Tab | <br>3.2<br>[.126]<br>10.41<br>[.41]<br>.250 Tab |
| TYPE A :<br>Straight | TYPE B :<br>Line Pin          | TYPE C :<br>Load Pin          | TYPE D :<br>90° Bend          | TYPE E :<br>90° Bend<br>Backward | TYPE F :<br>Screw<br>Terminal | TYPE G :<br>Mixed Terminals<br>90° Bend Line    | TYPE H :<br>Screw Terminal<br>90° Bend          | TYPE J :<br>Screw Terminal<br>90° Bend | TYPE R :<br>Screw Terminal<br>without             | TYPE K :<br>Mixed Terminals<br>90° Bend Load    |

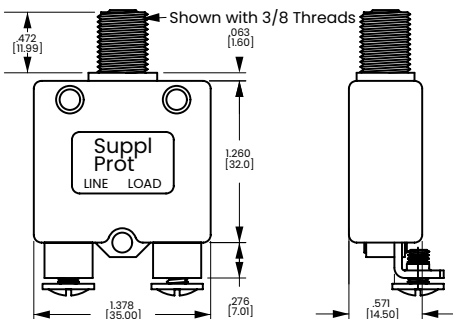
# Dimensional Specs

inches [millimeters]

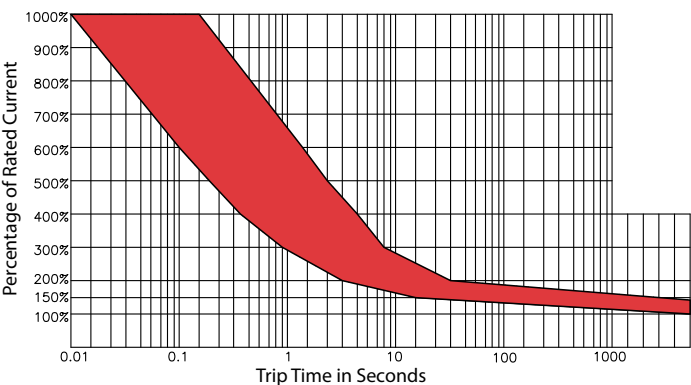
## 3-40A Construction



## 50 & 60A Construction



# Time Delay



| Overload | Trip Time       |
|----------|-----------------|
| 100%     | No Trip         |
| 135%     | 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%     | 0.01 ~ 1.8 sec. |

| Trip Time Factor <sup>1</sup> |        |
|-------------------------------|--------|
| -10 °C                        | x 1.70 |
| -5 °C                         | x 1.60 |
| 0 °C                          | x 1.50 |
| 5 °C                          | x 1.40 |
| 10 °C                         | x 1.30 |
| 15 °C                         | x 1.20 |
| 20 °C                         | x 1.10 |
| 25 °C                         | x 1.00 |
| 30 °C                         | x 0.90 |
| 35 °C                         | x 0.85 |
| 40 °C                         | x 0.80 |
| 45 °C                         | x 0.75 |
| 50 °C                         | x 0.70 |
| 55 °C                         | x 0.65 |
| 60 °C                         | x 0.60 |

Notes:  
1. Trip Time factor is a guideline that indicates ambient temperature effect on trip times at various overload values.

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