

# CMB-Series

## THERMAL CIRCUIT PROTECTORS

**Rating:**

3 to 20A, 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:**

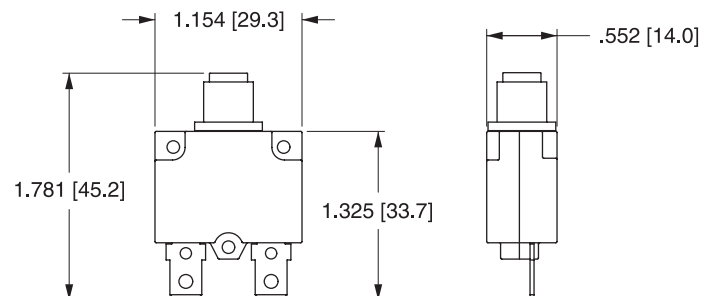
< 0.25 V

**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:**

**Carling Technologies®**

Innovative Designs. Powerful Solutions.

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**CMB** — **10** **3** — **11** **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 CMB

### 3 VOLTAGE

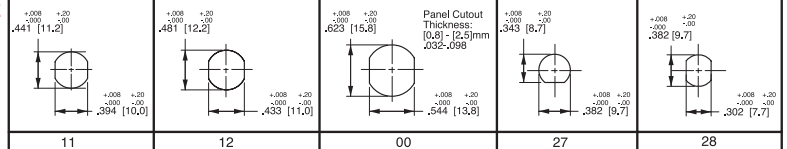
3 125-250VAC/ 32 VDC

### 2 RATING

|           |        |
|-----------|--------|
| <b>10</b> | 10 amp |
| <b>03</b> | 3 amp  |
| <b>04</b> | 4 amp  |
| <b>05</b> | 5 amp  |
| <b>06</b> | 6 amp  |
| <b>07</b> | 7 amp  |
| <b>08</b> | 8 amp  |
| <b>12</b> | 12 amp |
| <b>13</b> | 13 amp |
| <b>14</b> | 14 amp |
| <b>15</b> | 15 amp |
| <b>16</b> | 16 amp |
| <b>20</b> | 20 amp |

### 4 MOUNTING HOLE

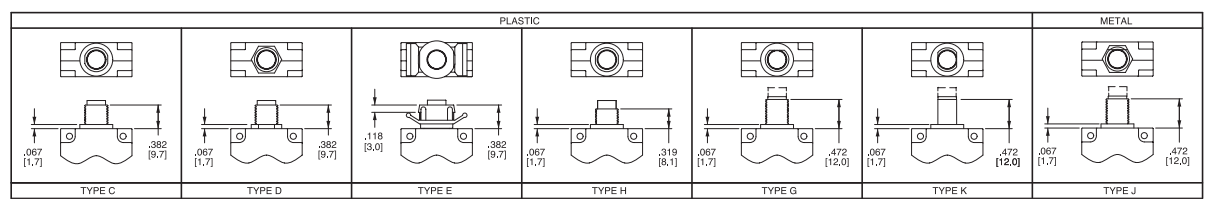
**11<sup>1</sup>** M11  
**12<sup>2</sup>** M12  
**00<sup>3</sup>** Snap In Style  
**27<sup>9</sup>** 3/8" 27 UNS  
**28<sup>12</sup>** 3/8" 27 UNS  
(double flatted)



### 5 BUSHING

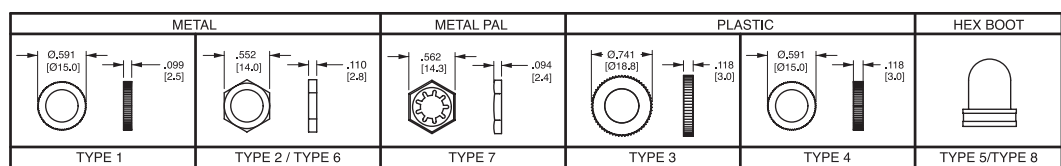
#### PLASTIC

**C<sup>4</sup>** Type C  
**D<sup>4</sup>** Type D  
**E<sup>5</sup>** Type E  
**G<sup>8</sup>** Type G  
**H<sup>6</sup>** Type H  
**K<sup>13</sup>** Type K  
**METAL**  
**J<sup>8</sup>** Type J



### 6 MOUNTING NUT<sup>7</sup>

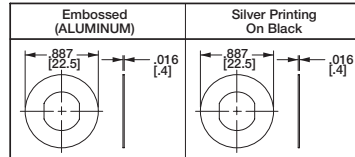
**N** None  
**1** Type 1  
**2** Type 2  
**3<sup>11</sup>** Type 3  
**4** Type 4  
**5** Type 5  
**6<sup>14</sup>** Type 6  
**7<sup>9</sup>** Type 7  
**8<sup>9</sup>** Type 8



NOTE: 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<sup>7</sup>

**N** None  
**A** Embossed Legend  
**B** Silver Printing  
on Black



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

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

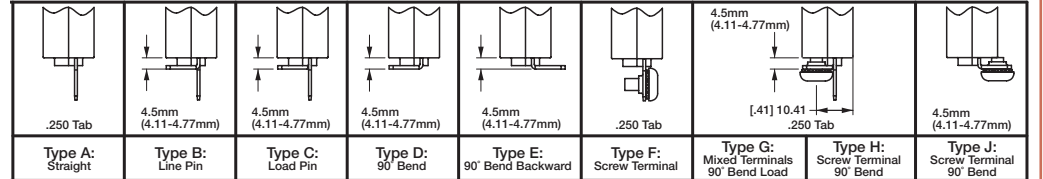
- Used with bushing C or D only.
- Used with H bushing only.
- Used with bushing E only.
- Used with M11 mounting hole only.
- Used with mounting hole 00 only.
- Used with M12 mounting hole only.
- All hardware available separately. Consult factory.
- Available with mounting hole 27 only.
- Available with G, J or K bushing only.
- Amp rating must match button marking (ex: 20 will be marked on the button of CMB-203-27G3N-W-A/20).
- Includes molded in "PRESS TO RESET" marking.
- Available with K bushing only.
- Available with mounting hole 28 only.
- Thickness is 3.0 mm, .118 in.

### 8 BUTTON

**B** Black **R** Red **W** White

### 9 TERMINAL

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



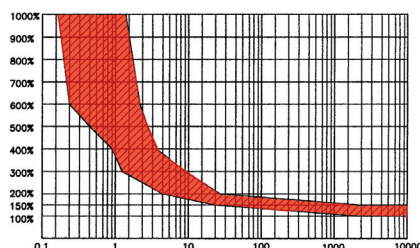
F,G,H,J TERMINALS ARE 8-32 UNC

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

line **(20)** load

|           |       |           |       |           |       |           |        |           |        |           |        |           |        |
|-----------|-------|-----------|-------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
| <b>03</b> | 3 amp | <b>05</b> | 5 amp | <b>07</b> | 7 amp | <b>10</b> | 10 amp | <b>13</b> | 13 amp | <b>15</b> | 15 amp | <b>20</b> | 20 amp |
| <b>04</b> | 4 amp | <b>06</b> | 6 amp | <b>08</b> | 8 amp | <b>12</b> | 12 amp | <b>14</b> | 14 amp | <b>16</b> | 16 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.
- 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.) 2500 amps @ 32 VDC only. AIC rating is 1000 amps for AC applications.

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

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