

# 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:**

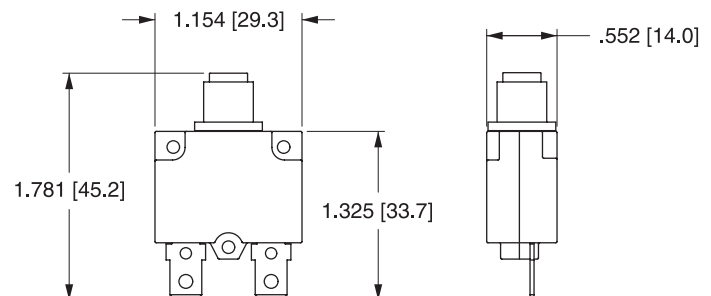
< 0.25 V

**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

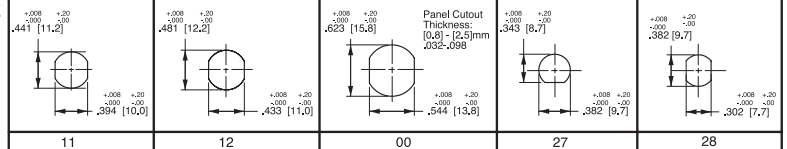
3 125-250VAC/ 32 VDC

### 2 RATING

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

### 4 MOUNTING HOLE

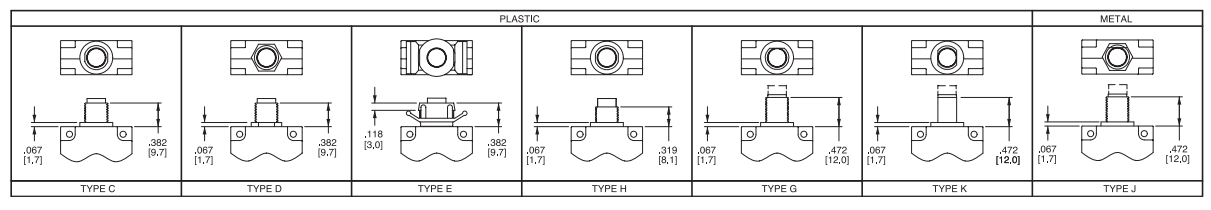
11<sup>1</sup> M11  
12<sup>2</sup> M12  
00<sup>3</sup> Snap In Style  
27<sup>9</sup> 3/8" 27 UNS  
28<sup>12</sup> 3/8" 27 UNS  
(double flatted)



### 5 BUSHING

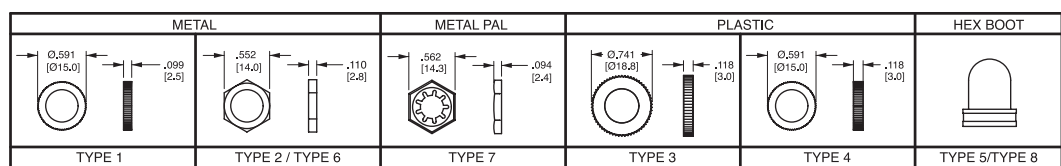
#### PLASTIC

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

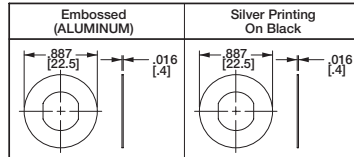


NOTE: Type 5 is clear hex boot. Type 8 is black hex boot (available for bushings G, J & K only); Type 3 nut includes molded in "PRESS TO RESET" marking.

### 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  $\pm .005$  [0.127] 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.

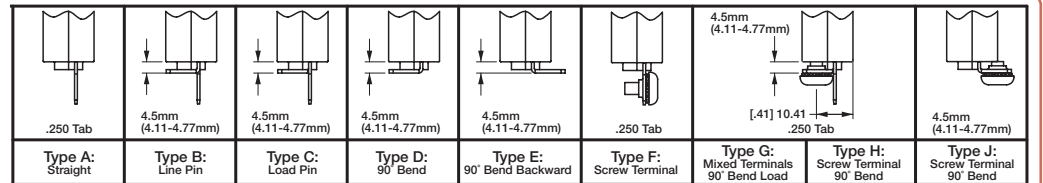
### 8 BUTTON

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

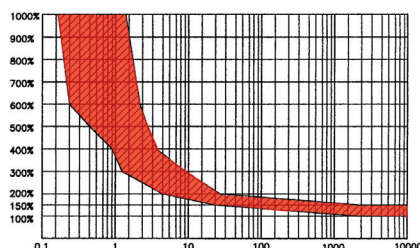


### 10 BUTTON MARKING (IF BLANK, NO MARKING.)<sup>10</sup> Button Marking Orientation:

line (20) load

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