

CMB-Series

Thermal Circuit Breaker

PRODUCT WEBPAGE

request sample, configure part



Miniature, Push-to-Reset

Part of Carling's push-to-reset family of thermal circuit breakers, the miniature CMB-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 3-20 amps, 125/250VAC, 32VDC with 1,000 AIC at 250VAC and 2,500 AIC at 32VDC.

1

Pole

3-20

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 **CMB - 10 3 - 11 C 3 N - B - A / 10**

Selection 1 2 3 4 5 6 7 8 9 10

1. SERIES

CMB

2. RATING

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

3. VOLTAGE

3 125-250VAC / 32 VDC

4. MOUNTING HOLE see next page for diagram

11	M11 ¹
12	M12 ²
00	Snap In Style ³
27	3/8" 27 UNS ¹⁵
28	3/8" 27 UNS (double flattened) ¹²

5. BUSHING see next page for diagram

PLASTIC		METAL	
C	Type C ⁴	J	Type J ⁸
D	Type D ⁴		
E	Type E ⁵		
G	Type G ⁸		
H	Type H ⁶		
K	Type K ¹³		

6. MOUNTING NUT ⁷ see next page for diagram

N	None	5	Type 5
1	Type 1	6	Type 6 ¹⁴
2	Type 2	7	Type 7 ⁹
3	Type 3 ¹¹	8	Type 8 ⁹
4	Type 4		

7. INDICATOR PLATE ⁹ see next page for diagram

N	None	B	Silver Printing on Black
A	Embossed Legend		

8. BUTTON

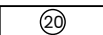
B	Black	R	Red	W	White
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9. TERMINAL ^{10,11,15} see next page for diagram

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) ¹³

Button Marking Orientation:

line  load

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

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

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

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Ordering Scheme Diagrams

4. MOUNTING HOLE

 +.008 +.20 -.000 -.00 .441 [11.2] +.008 +.20 -.000 -.00 .394 [10.0]	 +.008 +.20 -.008 -.00 .481 [12.2] +.008 +.20 -.000 -.00 .433 [11.0]	 +.008 +.20 -.000 -.00 .623 [15.8] Panel Cutout Thickness: [0.8] - [2.5]mm .032 - .098 +.008 +.20 -.000 -.00 .544 [13.8]	 +.008 +.20 -.000 -.00 .343 [8.7] +.008 +.20 -.000 -.00 .382 [9.7]	 +.008 +.20 -.000 -.00 .382 [9.7] +.008 +.20 -.000 -.00 .302 [7.7]
11	12	00	27	28

5. BUSHING

PLASTIC						METAL
 .067 [1.7] 382 [9.7]	 .067 [1.7] 382 [9.7]	 .118 [3.0] 382 [9.7]	 .067 [1.7] 319 [8.1]	 .067 [1.7] 472 [12.0]	 .067 [1.7] 472 [12.0]	 .067 [1.7] 472 [12.0]
TYPE C	TYPE D	TYPE E	TYPE H	TYPE G	TYPE K	TYPE J

6. MOUNTING NUT

METAL	METAL PAL	PLASTIC	HEX BOOT
 Ø.591 [Ø15.0] .099 [2.5]	 .552 [14.0] .110 [2.8]	 .562 [14.3] .094 [2.4]	 Ø.741 [Ø18.8] .118 [3.0]
TYPE 1	TYPE 2/ TYPE 6	TYPE 7	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 (ALUMINUM)	Silver Printing On Black
 .887 [22.5] .016 [.4]	 .887 [22.5] .016 [.4]

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

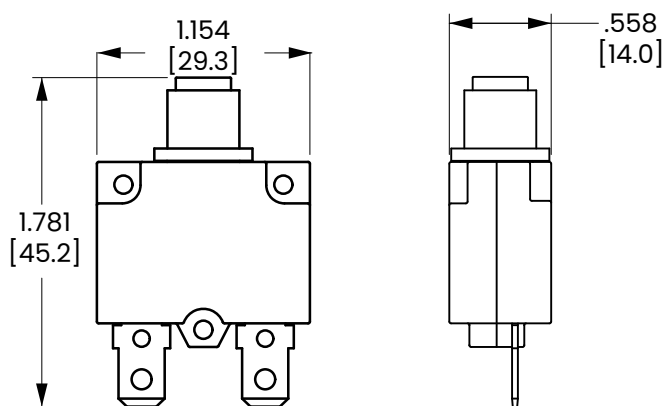
9. TERMINAL

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

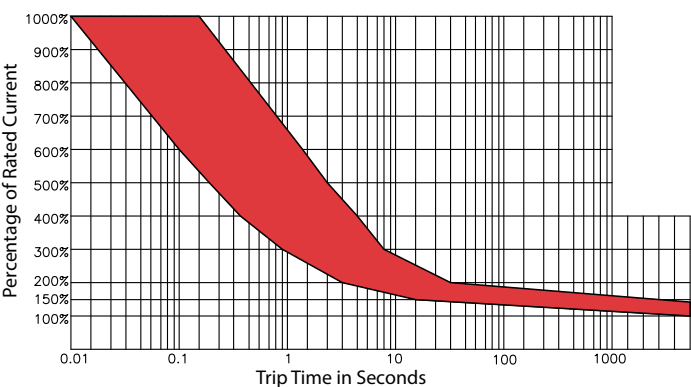
F,G,H,J terminals are 8-32 UNC

Dimensional Specs

inches [millimeters]



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

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

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