

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	3-60	125-250	32
Pole	Amps	VAC Max	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 ¹²
08	8 amps	20	20 amps	60	60 amps ¹²

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 ⁴

5. BUSHING ^{see next page for diagram}

METAL		PLASTIC	
A	Type A ⁶	C	Type C ⁵
B	Type B ¹⁶	D	Type D ⁷
J	Type J ⁸	E	Type E ⁸

6. MOUNTING NUT ^{9 see next page for diagram}

N	None	5	Type 5
1	Type 1	6	Type 6 ^{4,14}
2	Type 2	7	Type 7 ⁴
3	Type 3 ¹⁷	8	Type 8 ⁴
4	Type 4		

7. INDICATOR PLATE ^{9 see next page for diagram}

N	None	B	Silver Printing on Black
A	Embossed Legend		

8. BUTTON

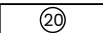
B	Black	R	Red	W	White
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9. TERMINAL ^{10,11,15 see next page for diagram}

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	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 ±.005 [127] unless otherwise specified.

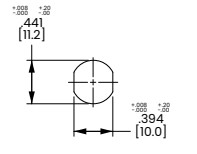
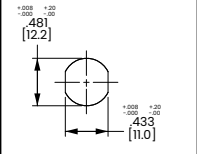
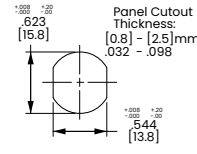
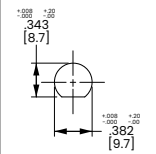
- 1 Used with bushing A or B only.
- 2 Used with bushing A or C only.
- 3 Used with bushing D only.
- 4 Used with bushing E & J only.
- 5 Used with M12 mounting hole only.
- 6 Used with M11 and M12 mounting hole only.
- 7 Used with mounting hole 00 only.
- 8 Used with 27 mounting hole only.
- 9 All hardware available separately.
- 10 Greater than 35 amp rating must use solder joint to connect wire to non-screw type terminals.
- 11 Terminals are .040 [1.0] thickness for ratings greater than 35 amps. Terminals are .315 [0.8] thickness for ratings less than 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) Thickness is 3.0 mm, .118 in.
- 14 Thickness is 3.0 mm, .118 in.
- 15 Screw terminals are 8-32 UNC.
- 16 Used with M11 mounting hole only.
- 17 Includes molded in "PRESS TO RESET" marking.

 [Configure Complete Part Number >](#)

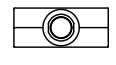
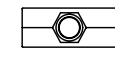
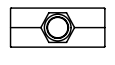
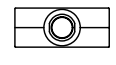

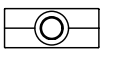
 [Browse Standard Parts >](#)

Ordering Scheme Diagrams

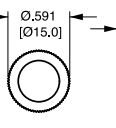
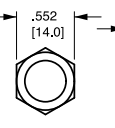
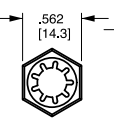
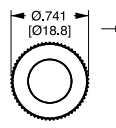
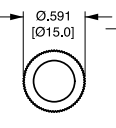
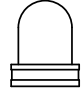
4. MOUNTING HOLE

 <p> $\begin{matrix} +.008 & -.002 \\ 44 \\ [11.2] \end{matrix}$ $\begin{matrix} +.008 & -.002 \\ .394 \\ [10.0] \end{matrix}$ </p>	 <p> $\begin{matrix} +.008 & -.002 \\ 48 \\ [12.2] \end{matrix}$ $\begin{matrix} +.008 & -.002 \\ .433 \\ [11.0] \end{matrix}$ </p>	 <p> Panel Cutout Thickness: $[0.8] - [2.5] \text{mm}$ $.032 - .098$ </p> <p> $\begin{matrix} +.008 & -.002 \\ .623 \\ [15.8] \end{matrix}$ $\begin{matrix} +.008 & -.002 \\ .544 \\ [13.8] \end{matrix}$ </p>	 <p> $\begin{matrix} +.008 & -.002 \\ .343 \\ [8.7] \end{matrix}$ $\begin{matrix} +.008 & -.002 \\ .382 \\ [9.7] \end{matrix}$ </p>
11	12	00	27

5. BUSHING

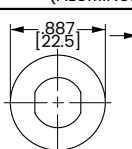
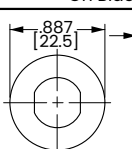
METAL			PLASTIC		
					
$\begin{matrix} .496 \\ [12.6] \end{matrix}$ $\begin{matrix} .158 \\ [4.0] \end{matrix}$	$\begin{matrix} .496 \\ [12.6] \end{matrix}$ $\begin{matrix} .049 \\ [1.25] \end{matrix}$	$\begin{matrix} .531 \\ [13.5] \end{matrix}$ $\begin{matrix} .059 \\ [1.5] \end{matrix}$	$\begin{matrix} .496 \\ [12.6] \end{matrix}$ $\begin{matrix} .158 \\ [4.0] \end{matrix}$	$\begin{matrix} .118 \\ [3.0] \end{matrix}$ $\begin{matrix} .433 \\ [11.0] \end{matrix}$	$\begin{matrix} .535 \\ [13.6] \end{matrix}$ $\begin{matrix} .063 \\ [1.60] \end{matrix}$
TYPE A	TYPE B	TYPE J	TYPE C	TYPE D	TYPE E

6. MOUNTING NUT

METAL	METAL PAL	PLASTIC	HEX BOOT
			
$\begin{matrix} 0.591 \\ [\text{Ø}15.0] \end{matrix}$ $\begin{matrix} .099 \\ [2.5] \end{matrix}$	$\begin{matrix} .552 \\ [14.0] \end{matrix}$ $\begin{matrix} .110 \\ [2.8] \end{matrix}$	$\begin{matrix} .562 \\ [14.3] \end{matrix}$ $\begin{matrix} .094 \\ [2.4] \end{matrix}$	$\begin{matrix} 0.741 \\ [\text{Ø}18.8] \end{matrix}$ $\begin{matrix} .118 \\ [3.0] \end{matrix}$
TYPE 1	TYPE 2 / TYPE 6	TYPE 7	TYPE 3
			
$\begin{matrix} 0.591 \\ [\text{Ø}15.0] \end{matrix}$ $\begin{matrix} .118 \\ [3.0] \end{matrix}$			
TYPE 4	TYPE 5 / TYPE 8		

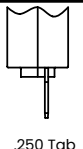
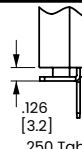
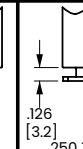
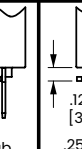
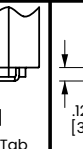
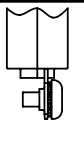
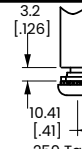

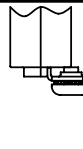
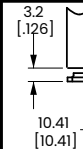
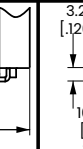
Type 5 is clear hex boot. Type 8 is black hex boot (available for bushings G, J & K only); Type 3 nut includes molded in "PRESS TO RESET" marking.

7. INDICATOR PLATE

Embossed (ALUMINUM)	Silver Printing On Black
	
$\begin{matrix} .887 \\ [22.5] \end{matrix}$ $\begin{matrix} .016 \\ [.4] \end{matrix}$	$\begin{matrix} .887 \\ [22.5] \end{matrix}$ $\begin{matrix} .016 \\ [.4] \end{matrix}$

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

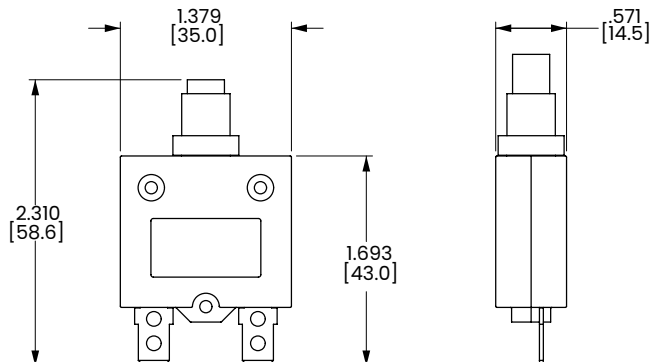
9. TERMINAL

										
.250 Tab	$\begin{matrix} .126 \\ [3.2] \end{matrix}$.250 Tab	$\begin{matrix} .126 \\ [3.2] \end{matrix}$.250 Tab	$\begin{matrix} .126 \\ [3.2] \end{matrix}$.250 Tab	$\begin{matrix} .126 \\ [3.2] \end{matrix}$.250 Tab		$\begin{matrix} 3.2 \\ [.126] \end{matrix}$ $\begin{matrix} 10.41 \\ [.41] \end{matrix}$.250 Tab	$\begin{matrix} 3.2 \\ [.126] \end{matrix}$ $\begin{matrix} 10.41 \\ [.41] \end{matrix}$.250 Tab		$\begin{matrix} 3.2 \\ [.126] \end{matrix}$ $\begin{matrix} 10.41 \\ [10.41] \end{matrix}$.250 Tab	$\begin{matrix} 3.2 \\ [.126] \end{matrix}$ $\begin{matrix} 10.41 \\ [.41] \end{matrix}$.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

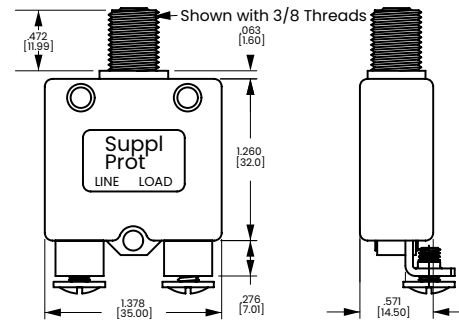
Dimensional Specs

inches [millimeters]

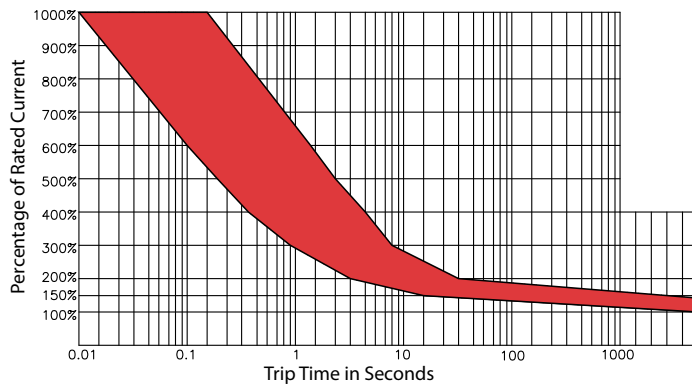
3-40A Construction



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 ¹	
-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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