H-Series
HYDRAULIC-MAGNETIC CIRCUIT BREAKER

The H-Series hydraulic-magnetic circuit breaker provides maximum and dependable circuit protection, while providing a cost effective, compact solution. By meeting the IEC spacing requirements, the H-Series is the ideal choice for international market applications. It also features a “trip-free” mechanism, which will open the contacts when a fault condition occurs, even if the handle is held in the ON position.

1-3 poles; 1-35 amps; 65VDC, 80VDC, 250VAC; UL recognized, CSA accepted, TUV & CCC certified.

Product Highlights:
• Choice of actuator styles
• UL1077, CCC, CSA, C22.2 and EN60934 approvals
• Compact size
• Temperature stable operation -40˚ C to +80˚ C
• Choice of terminals, including PCB
• Single or multi-pole configurations

Typical Applications:
• Telecom / Datacom
• Marine

Resources:
Configure a Complete Part
Download CAD & Sales Drawing

Carling Technologies
**Electrical Tables**

**Table A:** Lists UL Recognized, CSA Accepted and TUV Certified configurations and performance capabilities as a Component Supplementary Protector.

<table>
<thead>
<tr>
<th>H-SERIES: COMPONENT SUPPLEMENTARY PROTECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit Configuration</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Series</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Polarity Sensitive

**Electrical**

Maximum Voltage 250VAC 50/60Hz 80 VDC
Current Ratings Standard current coils: 1.00, 2.50, 5.00, 7.50, 10.0, 15.0, 20.0, 25.0, 30.0, 32.0, 35.0
SPDT: 10.1A-250VAC,
Auxiliary Switch Rating 1.0A-65VDC/0.5A-80VDC, 0.1A-125VAC (with gold contacts)

**Mechanical**

Endurance 10,000 ON-OFF operations @ 6 per minute; with rated current & voltage

**Physical**

Number of Poles 1-3
Weight Approx. 48 grams/pole (1.7 oz)
Internal Circuit Config. Series and Switch Only (with or without auxiliary switch)

**Agency Approvals**

UL Recognized under the Component Recognition Program as Protectors, Supplementary (Guide QVNU2 File E75596)
UL standard 1077
CCC certified, Certificate No. 2010010307447291
CSA Accepted Supplementary Protector
CSA standard C22.2 No. 235
TUV certified to EN60934, Certificate No. R50204086

*Manufacturer reserves the right to change product specification without prior notice.*
**3 | H-Series Circuit Breaker - Handle – Ordering Scheme**

<table>
<thead>
<tr>
<th>Series</th>
<th>Actuator</th>
<th>Poles</th>
<th>Circuit</th>
<th>Frequency &amp; Delay</th>
<th>Current Rating</th>
<th>Terminal</th>
<th>Actuator Color &amp; Legend</th>
<th>Mounting Barrier/Bezel</th>
<th>Agency Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>A</td>
<td>2</td>
<td>B</td>
<td>0</td>
<td>24</td>
<td>450</td>
<td>1 B</td>
<td>1 DC</td>
<td></td>
</tr>
</tbody>
</table>

**1 SERIES**
- H

**2 ACTUATOR**
- A: Handle, one per pole
- B: Handle, one per unit

**3 POLE**
- 1: One
- 2: Two
- 3: Three

**4 CIRCUIT**
- A: Switch Only (no coil)
- B: Series Trip (current)

**5 AUXILIARY / ALARM SWITCH**
- 0: without Aux Switch
- 1: 0.110 Q.C. term
- 2: 0.110 Solder Lug

**6 FREQUENCY & DELAY**
- 03: DC 50/60Hz, Switch Only
- 10: DC, Instantaneous
- 11: DC, Ultra Short
- 12: DC, Short
- 14: DC, Medium
- 16: DC, Long
- 20: 50/60 Hz Instantaneous
- 21: 50/60 Ultra Short
- 24: 50/60 Medium
- 26: 50/60 Long

**7 CURRENT RATING (AMPERES)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Current Rating (Amperes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>410</td>
<td>610 10.00 618 18.00</td>
</tr>
<tr>
<td>512</td>
<td>710 10.50 620 20.00</td>
</tr>
<tr>
<td>415</td>
<td>611 11.00 622 22.00</td>
</tr>
<tr>
<td>517</td>
<td>711 11.50 624 24.00</td>
</tr>
<tr>
<td>420</td>
<td>612 12.00 625 25.00</td>
</tr>
<tr>
<td>522</td>
<td>712 12.50 630 30.00</td>
</tr>
<tr>
<td>425</td>
<td>613 13.00 632 32.00</td>
</tr>
<tr>
<td>527</td>
<td>614 14.00 635 35.00</td>
</tr>
<tr>
<td>430</td>
<td>615 15.00</td>
</tr>
<tr>
<td>435</td>
<td>616 16.00</td>
</tr>
<tr>
<td>440</td>
<td>617 17.00</td>
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</table>

**VOLTAGE RATING**

<table>
<thead>
<tr>
<th>Code</th>
<th>Voltage Rating</th>
<th>Trip Volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A06</td>
<td>8DC 5DC</td>
<td>A65 65DC</td>
</tr>
<tr>
<td></td>
<td>55DC J65 65AC</td>
<td>55AC</td>
</tr>
<tr>
<td>A12</td>
<td>12DC 10DC</td>
<td>J06 6AC</td>
</tr>
<tr>
<td></td>
<td>5AC K20 120AC</td>
<td>65AC</td>
</tr>
<tr>
<td>A18</td>
<td>18DC 15DC</td>
<td>J12 12AC</td>
</tr>
<tr>
<td></td>
<td>10AC L40 240AC</td>
<td>130AC</td>
</tr>
<tr>
<td>A24</td>
<td>24DC 20DC</td>
<td>J18 18AC</td>
</tr>
<tr>
<td></td>
<td>15AC B10 110DC</td>
<td>59DC</td>
</tr>
<tr>
<td>A32</td>
<td>32DC 25DC</td>
<td>J24 24AC</td>
</tr>
<tr>
<td></td>
<td>20AC B20 120DC</td>
<td>65DC</td>
</tr>
<tr>
<td>A48</td>
<td>48DC 40DC</td>
<td>J48 48AC</td>
</tr>
<tr>
<td></td>
<td>40AC</td>
<td></td>
</tr>
</tbody>
</table>

**8 TERMINAL**
- 6: Printed Circuitboard Terminals

<table>
<thead>
<tr>
<th>Code</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>90 Facing Left</td>
</tr>
<tr>
<td>R</td>
<td>90 Facing Right</td>
</tr>
<tr>
<td>S</td>
<td>Straight</td>
</tr>
<tr>
<td>T</td>
<td>Long</td>
</tr>
</tbody>
</table>

**9 ACTUATOR COLOR & LEGEND**

<table>
<thead>
<tr>
<th>Code</th>
<th>Current</th>
<th>ON-OFF</th>
<th>Dual</th>
<th>Legend Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>Black</td>
<td>1</td>
<td>Black</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>White</td>
<td>2</td>
<td>Black</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>White</td>
<td>3</td>
<td>White</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>White</td>
<td>4</td>
<td>White</td>
</tr>
</tbody>
</table>

**10 MOUNTING / BARRIERS**

<table>
<thead>
<tr>
<th>Code</th>
<th>MOUNTING STYLE</th>
<th>BARRIERS</th>
<th>BEZEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Threaded Insert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**11 MAX. APPLICATION RATING**

<table>
<thead>
<tr>
<th>Code</th>
<th>Max. Application Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>65VDC</td>
</tr>
<tr>
<td>B</td>
<td>250VAC</td>
</tr>
<tr>
<td>M</td>
<td>80VDC</td>
</tr>
<tr>
<td>G</td>
<td>80VDC / 250VAC</td>
</tr>
</tbody>
</table>

**12 AGENCY APPROVAL**

<table>
<thead>
<tr>
<th>Code</th>
<th>Agency Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Without approvals</td>
</tr>
<tr>
<td>C</td>
<td>UL Recognized, CSA Accepted</td>
</tr>
<tr>
<td>E</td>
<td>UL Recognized, CSA Accepted, TUV Certified</td>
</tr>
<tr>
<td>5</td>
<td>UL Recognized, CSA Accepted, TUV Certified, CCC Certified</td>
</tr>
</tbody>
</table>

**Notes:**
1. Actuator Option A: handle tie pin, spacer & retainers provided unassembled on multipole units.
2. Actuator Option B: handle location as viewed from front of panel: 2 pole: left pole; 3 pole: center pole
3. Standard multipole units have all poles identical, except when specifying auxiliary switch
4. Auxiliary switch available on Series Trip and Switch Only circuits to 32A. On multipole units, only one auxiliary switch is normally supplied, mounted in extreme right pole.
5. Separate Pole Type Voltage Coils not rated for continuous duty. Available only with delay code 10 & 20. Only Available with Agency code C.
6. For other current ratings, consult factory.
7. Voltage code 4 available to 25A max.

**Contact Information:**
- Email: sales@carlingtech.com  Application Support: team2@carlingtech.com
- Phone: (860) 793–9281  Fax: (860) 793–9231  www.carlingtech.com
Dimensional Specifications: in. [mm]

Notes:
1. All dimensions are in inches [millimeters].
2. Tolerance ±0.020 [±0.51] unless otherwise specified.

POLE 3
POLE 2
POLE 1

MULTI-POLE IDENTIFICATION SCHEME AS VIEWED FROM TERMINAL END OF BREAKER.

LINE
LOAD
POLE 1
POLE 2
POLE 3

SCREW TYPE TERMINALS IN SERIES TRIP CIRCUIT CONFIGURATION SHOWN. FOR OTHER CONFIGURATIONS, SEE CIRCUIT AND TERMINAL DIAGRAMS.

Screw Type
Screw Type

0.118 [3.00]

FLAT
DOMED

TOLERANCES ±0.005
[±.12] UNLESS OTHERWISE SPECIFIED

HA1, HB2, HB3
HA2, HB4

PANEL CUTOUT DETAIL

0.156DIA [3.96]
2 PLCS TYP PER POLE
0.515DIA [14.00]
1.260 [32.00]
0.787 [20.00]
0.630 [16.00 TYP PER POLE]
HA1, HB2, HB3
HA2, HB4

0.196 [4.99]
0.660 [16.50 MAX.

0.535DIA [13.60]

0.635 [16.13]

0.630 [16.00] TYP
1.280 [32.50] MAX.

0.650 [16.50] MAX.

1.413 [35.90] 1.654 [42.00]
PC Terminal Diagrams: in. [mm]

**PRINTED CIRCUIT BOARD MOUNTING TERMINAL CODE R**

- .492 (12.50)
- .051 (1.30)
- 2 PLCS
- .031 (.79)

- 2.354 (59.78)
- .197 (5.00)
- 1.795 (45.59)
- .020 (.50)
- .047 (1.20)
- 7 PLCS
- .032 (.82)
- .130 (3.30)

**PRINTED CIRCUIT BOARD MOUNTING TERMINAL CODE L**

- .492 (12.50)
- .051 (1.30)
- 2 PLCS
- .031 (.79)

- 2.354 (59.78)
- .197 (5.00)
- 1.795 (45.59)
- .020 (.50)
- .047 (1.20)
- 7 PLCS
- .138 (3.50)

**PRINTED CIRCUIT BOARD MOUNTING TERMINAL CODE S & T**

- .582 (14.79)
- .157 (3.99)

- 1.413 (35.90)
- 1.413 (35.90)

- .315 (8.00)
- .197 (5.00)
- .047 (1.20)
- 4 PLCS

**PC TERMINAL T**

- .315 (8.00)
- .197 (5.00)
- .047 (1.20)
- 4 PLCS

**PC TERMINAL S**

Notes:
1. All dimensions are in inches [millimeters].
PC Terminal Diagrams: in. [mm]

Notes:
1. All dimensions are in inches [millimeters].
H-Series Circuit Breaker - Curved Rocker – Ordering Scheme

1 SERIES (VISI ROCKER)

2 ACTUATOR ¹

J Vertical - Indicator OFF
K Vertical - Indicator ON

3 POLE ²

1 One
2 Two
3 Three

4 CIRCUIT

A Switch Only (no coil)
B Series Trip (current)

5 AUXILIARY / ALARM SWITCH

D without Aux Switch
3 0.110 Q.C. term with gold contacts
2 0.110 Q.C. term
1 0.110 Solder Lug

6 FREQUENCY & DELAY

03 DC, 50/60Hz, Switch Only
10 DC, Instantaneous
11 DC, Ultra Short
12 DC, Short
14 DC, Medium
16 DC, Long
20 50/60 Hz Instantaneous
21 50/60 Hz Ultra Short
22 50/60 Hz Short
24 50/60 Hz Medium
26 50/60 Hz Long

7 CURRENT RATING (AMPERES) ⁵

CODE AMPERES
410 1.00
512 1.25
615 1.50
717 1.75
820 2.00
922 2.25
1025 2.50
1127 2.75
1230 3.00
1335 3.50
1440 4.00

VOLTAGE RATING

CODE RATING TRIP VOLS
A06 6DC 5DC
A12 12DC 10DC
A18 18DC 15DC
A24 24DC 20DC
A32 32DC 25DC
A48 48DC 40DC

B0 10 - 450 - 1 B 1 - A C

8 TERMINAL

1 Push ON 0.250 Tab (Q.C.)
2 Screw B-32 with upturned lugs
3 Screw B-32 (bus type)
4 Screw M4 with upturned lugs

9 ACTUATOR COLOR & LEGEND

Actuator Color I/O ON-OFF Dual
White A B 2
Red F G 3
Green H J 4
Blue K L 5
Yellow M N 6
Gray P Q 7
Orange R S 8

10 MOUNTING / BARRIERS ⁶

MOUNTING STYLE BARRIERS HALF ROCKER GUARD BRACKET COLOR
Threaded Insert
1 6-32 x 0.195 inches no no Black
2 6-32 x 0.195 inches yes no Black
3 ISO M3 x 5mm no yes Black
4 ISO M3 x 5mm yes no Black
5 ISO M3 x 5mm yes yes Black
6 ISO M3 x 5mm no no White
7 6-32 x 0.195 inches yes no White
8 6-32 x 0.195 inches yes yes White
9 6-32 x 0.195 inches no no White
10 6-32 x 0.195 inches yes yes White
11 ISO M3 x 5mm no yes White
12 ISO M3 x 5mm yes no White
13 ISO M3 x 5mm yes yes White
14 6-32 x 0.195 inches no no Gray
15 6-32 x 0.195 inches yes no Gray
16 6-32 x 0.195 inches yes yes Gray
17 ISO M3 x 5mm no yes Gray
18 ISO M3 x 5mm yes no Gray
19 ISO M3 x 5mm yes yes Gray
20 6-32 x 0.195 inches yes no Gray
21 6-32 x 0.195 inches yes yes Gray
22 ISO M3 x 5mm no yes Gray
23 ISO M3 x 5mm yes no Gray
24 ISO M3 x 5mm yes yes Gray

11 MAX. APPLICATION RATING

A 65VDC
D 250VAC
M 7 80VDC
4 9 80VDC / 250VAC

12 AGENCY APPROVAL

A Without approvals
C UL Recognized, CSA Accepted
E UL Recognized, CSA Accepted, TUV Certified
5 UL Recognized, CSA Accepted, TUV Certified, CCC Certified

Notes:
1 Half guard construction have OFF protection for actuator
2 Standard multipole units have all poles identical, except when specifying auxiliary switch
3 Auxiliary switch available on Series Trip and Switch Only circuits to 32A. On multipole units, only one auxiliary switch is normally supplied, mounted in extreme right pole.
4 Separate Pole Type Voltage Coils not rated for continuous duty. Available only with delay code 10 & 20. Only Available with Agency code C.
5 For other current ratings, consult factory.
6 On Visi-Rocker, Visi portion of rocker cannot be the same color as the bezel. Remainder of rocker same color as bezel.
7 26-35A Polarity sensitive, only available as 1 pole unit.
8 Voltage code 4 available to 25A max.
### 8 TERMINAL

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Push ON 0.250 Tab (Q.C.)</td>
</tr>
<tr>
<td>2</td>
<td>Screw 8-32 with upturned lugs</td>
</tr>
<tr>
<td>3</td>
<td>Screw 8-32 (bus type)</td>
</tr>
<tr>
<td>A</td>
<td>Screw M4 with upturned lugs</td>
</tr>
<tr>
<td>B</td>
<td>Screw M4 (bus type)</td>
</tr>
</tbody>
</table>

### 9 ACTUATOR COLOR & LEGEND

<table>
<thead>
<tr>
<th>Actuator Color</th>
<th>I-O</th>
<th>ON-OFF</th>
<th>Dual Legend Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>A</td>
<td>B</td>
<td>Black</td>
</tr>
<tr>
<td>Black</td>
<td>C</td>
<td>D</td>
<td>White</td>
</tr>
<tr>
<td>Red</td>
<td>F</td>
<td>G</td>
<td>Black</td>
</tr>
<tr>
<td>Green</td>
<td>H</td>
<td>J</td>
<td>White</td>
</tr>
<tr>
<td>Blue</td>
<td>K</td>
<td>L</td>
<td>Black</td>
</tr>
<tr>
<td>Yellow</td>
<td>M</td>
<td>N</td>
<td>Black</td>
</tr>
<tr>
<td>Gray</td>
<td>P</td>
<td>Q</td>
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</tr>
<tr>
<td>Orange</td>
<td>R</td>
<td>S</td>
<td>Black</td>
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</tbody>
</table>

### 10 MOUNTING / BARRIERS

<table>
<thead>
<tr>
<th>Mounting Style</th>
<th>BARRIERS</th>
<th>HALF ROCKER BRACKET COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threaded Insert</td>
<td>Printed Circuitboard Terminals</td>
<td></td>
</tr>
</tbody>
</table>

### 11 MAX. APPLICATION RATING

<table>
<thead>
<tr>
<th>Agency Approval</th>
<th>Voltage Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>65VDC</td>
</tr>
<tr>
<td>B</td>
<td>250VAC</td>
</tr>
<tr>
<td>C</td>
<td>80VDC</td>
</tr>
<tr>
<td>D</td>
<td>80VDC / 250VAC</td>
</tr>
</tbody>
</table>

### Notes:
1. Push-To-Reset actuator shall OFF portion of rocker shrouded.
2. Standard multipole units have all poles identical, except when specifying auxiliary switch.
3. Auxiliary switch available on Series Trip and Switch Only circuits to 32A. On multipole units, the auxiliary switch is normally supplied, mounted in extreme right pole.
4. Separate Pole Type Voltage Coils are rated for continuous duty. Available only with Agency code C.
5. For other current ratings, consult factory.
6. 26-35A Polarity sensitive, only available as 1 pole unit.
7. Voltage code available to 25A max.
Dimensional Specifications: in. [mm]

**1-POLE (N1J)**

Screw type terminals in series trip circuit configuration shown. For other configurations, see circuit and terminal diagrams.

**2-POLE (NJ2)**

Optional "Rocker Guard".

**3-POLE (HJ3)**

Multi-pole identification scheme as viewed from terminal end of breaker.

**Notes:**
1. All dimensions are in inches [millimeters].
Dimensional Specifications: in. [mm]

1-POLE (H31)

PUSH-TO-RESET ACTUATOR

2-POLE (H72)

3-POLE (H73)

Notes:
1. All dimensions are in inches [millimeters].
2. Tolerance ±0.005 [0.12] unless otherwise specified.
**PC Terminal Diagrams: in. [mm]**

**PRINTED CIRCUIT BOARD MOUNTING TERMINAL CODE R**

**PRINTED CIRCUIT BOARD MOUNTING TERMINAL CODE L**

**PRINTED CIRCUIT BOARD MOUNTING TERMINAL CODE S & T**

**P.C. TERMINAL T**

**P.C. TERMINAL S**

**Notes:**
1. All dimensions are in inches [millimeters].
2. Tolerance ±0.020 [±0.51] unless otherwise specified.
Notes:
1. All dimensions are in inches (millimeters).
2. Tolerance ±0.020 [±0.51] unless otherwise specified.
## H-Series Circuit Breaker – Circuit & Terminal Diagrams

### Circuit & Terminal Diagrams: in. [mm]

#### HANDLE POSITION VS. AUX SWITCH MODE

<table>
<thead>
<tr>
<th>CIRCUIT BREAKER MODE</th>
<th>HANDLE POSITION</th>
<th>AUX. SWITCH MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>![Image]</td>
<td>NC NO C</td>
</tr>
<tr>
<td>ON</td>
<td>![Image]</td>
<td>NC NO C</td>
</tr>
<tr>
<td>ELECTRICAL TRIP</td>
<td>![Image]</td>
<td>NC NO C</td>
</tr>
</tbody>
</table>

#### TERMINAL DIMENSIONAL DETAIL & RATING

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>DIMENSION [in.] [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAB (O.C.)</td>
<td>0.294 [7.47]</td>
</tr>
<tr>
<td>Ø0.067 [1.71]</td>
<td>0.250 [6.35]</td>
</tr>
<tr>
<td>UP TURN LUG</td>
<td>0.294 [7.47]</td>
</tr>
<tr>
<td>#8-32 ≤ 32 AMP M4 ≤ 32 AMP</td>
<td>0.354 [9.00]</td>
</tr>
<tr>
<td>BUS</td>
<td>0.294 [7.47]</td>
</tr>
<tr>
<td>90 facing left ≤ 32 AMP</td>
<td>0.354 [9.00]</td>
</tr>
<tr>
<td>90 facing right ≤ 32 AMP</td>
<td>0.087 [2.22]</td>
</tr>
<tr>
<td>P.C. TERMINAL</td>
<td>0.197 [5.00]</td>
</tr>
<tr>
<td>Ø0.067 [1.71]</td>
<td>0.047 [1.20]</td>
</tr>
<tr>
<td>P.C. TERMINAL</td>
<td>0.354 [9.00]</td>
</tr>
<tr>
<td>90 facing left ≤ 32 AMP</td>
<td>0.315 [8.00]</td>
</tr>
<tr>
<td>STRAIGHT (SHORT) ≤ 32 AMP</td>
<td>0.047 [1.20]</td>
</tr>
<tr>
<td>STRAIGHT (LONG) ≤ 32 AMP</td>
<td>0.197 [5.00]</td>
</tr>
</tbody>
</table>

#### TABLE A: TIGHTENING TORQUE SPECIFICATIONS

<table>
<thead>
<tr>
<th>THREAD SIZE</th>
<th>TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>#6-32 &amp; M3 MOUNTING HARDWARE</td>
<td>7.9 IN-LBS [0.85-1.0 NM]</td>
</tr>
<tr>
<td>#8-32 &amp; M4 THREAD TERMINAL SCREW</td>
<td>12.15 IN-LBS [1.4-1.7 NM]</td>
</tr>
</tbody>
</table>

#### TABLE B: TIGHTENING TORQUE SPECIFICATIONS

<table>
<thead>
<tr>
<th>TERMINAL DESCRIPTION</th>
<th>DEPTH BEHIND PANEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN</td>
<td>1.996 [50.70]</td>
</tr>
<tr>
<td>TAB (O.C.)</td>
<td>SOLDER TYPE</td>
</tr>
<tr>
<td>1.996 [50.70]</td>
<td>2.447 [62.67]</td>
</tr>
<tr>
<td>SCREW TYPE</td>
<td>2.000 [50.80]</td>
</tr>
<tr>
<td>2.447 [62.67]</td>
<td>2.000 [50.80]</td>
</tr>
<tr>
<td>110 TAB (O.C.)</td>
<td>2.000 [50.80]</td>
</tr>
<tr>
<td>2.447 [62.67]</td>
<td>2.252 [57.16]</td>
</tr>
<tr>
<td>AUX. SWITCH*</td>
<td>2.252 [57.16]</td>
</tr>
</tbody>
</table>

* AVAILABLE ON SERIES TRIP AND SWITCH ONLY CIRCUITS. WHEN CALLED FOR ON MULTI-POLE UNITS, ONLY ONE AUX. SWITCH IS NORMALLY SUPPLIED, AS SHOWN IN MULTI-POLE IDENTIFICATION SCHEME.

1. ALL DIMENSIONS ARE IN INCHES [mm]
2. TOLERANCE ±0.020 [0.51] UNLESS OTHERWISE SPECIFIED.
## Circuit & Terminal Diagrams: in. [mm]

<table>
<thead>
<tr>
<th>Circuit Breaker Profile</th>
<th>Circuit Schematic: Switch Only (No Coil)</th>
<th>Circuit Schematic: Series Trip</th>
<th>Switch Code</th>
<th>Circuit Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Terminals</td>
<td>Switch Only (No Coil)</td>
<td>Series Trip</td>
<td>A 0</td>
<td>B 0</td>
</tr>
<tr>
<td>5 Terminals 0.377 [9.58]</td>
<td>Switch Only (No Coil)</td>
<td>Series Trip With Auxiliary</td>
<td>A 1 2 3</td>
<td>B 1 2 3</td>
</tr>
<tr>
<td>3 Terminals</td>
<td>Shunt Trip</td>
<td></td>
<td>D 0</td>
<td></td>
</tr>
<tr>
<td>4 Terminals</td>
<td>Relay Trip</td>
<td></td>
<td>F G 0</td>
<td></td>
</tr>
</tbody>
</table>

### Auxiliary Switch Terminal Detail

1. All dimensions are in inches [mm]
2. Tolerance ±0.020 [0.51] unless otherwise specified.

---

**Image Description:**
- **Circuit Breaker Profile:** Diagrams showing the layout of circuit breakers with 2, 5, 3, and 4 terminals.
- **Circuit Schematic:** Diagrams illustrating the wiring connections for switch-only and series trip configurations.
- **SWITCH ONLY (NO COIL):** Various configurations are shown for different numbers of terminals.
- **SERIES TRIP:** Diagrams for series trip configurations with and without auxiliary switches.
- **AUXILIARY SW. TUV.UL.:** Auxiliary switch terminals with standards and grades.

**Dimensions:**
- Line: Various line dimensions are highlighted.
- Load: Load dimensions are specified for each terminal.

**Legend:**
- **Load Tab:** Dimensioned as TAB (Q.C.) for load connections.
- **Solder Type Tab:** Dimensioned as TAB (Q.C.) for soldering requirements.
- **0.050DIA:** Diameter dimension for circular connections.
- **0.070DIA:** Diameter dimension for wider circular connections.
- **0.110:** Dimension for tab and soldering points.
- **0.126:** Diameter for circular connection points.
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Founded in 1920, Carling Technologies is a leading manufacturer of electrical and electronic switches and assemblies, circuit breakers, electronic controls, power distribution units, and multiplexed power distribution systems. With four ISO9001 and IATF16949 registered manufacturing facilities and technical sales offices worldwide, Carling Technologies Sales, Service and Engineering teams do much more than manufacture electrical components, they engineer powerful solutions! To learn more about Carling please visit www.carlingtech.com/company-profile.

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