TB-Series
HYDRAULIC-MAGNETIC CIRCUIT BREAKER

The TB-Series is a space saving, tandem pole circuit breaker specifically designed to fit a two pole breaker into a one rack unit, making it ideal for datacom and PDU applications.

The TB-Series is designed with a common trip linkage ensuring if one pole trips, the tandem pole simultaneously trips. It also features a trip-free mechanism, a safety feature making it impossible to manually hold the contacts closed during overcurrent or fault conditions. TB-Series options include available handle guard to prevent inadvertent actuation and an auxiliary switch.

2 poles; ratings from 0.10 to 20 amps, 120/240VAC; UL 489 Listed, TUV, IEC/EN 60947-2.

Product Highlights:
• Fits in 1RU
• 2 Pole Protection in a 1 Pole Package
• Common Trip Included
• Optional Auxiliary Switch

Typical Applications:
• Datacom
• Power Distribution Units

Resources:
Configure a Complete Part
Download CAD & Sales Drawing
Watch Product Video
Electrical Tables

Table A: Voltage and Current Rating

<p>| TB SERIES TABLE A: UL489 LISTED, cUL and TUV CERTIFIED CIRCUIT BREAKERS |
|---------------------------------|--------|-----------|-----------|</p>
<table>
<thead>
<tr>
<th>Circuit Configuration</th>
<th>Voltage</th>
<th>Current Rating</th>
<th>Interrupting Capacity (Amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Rating</td>
<td>Frequency</td>
<td>Phase</td>
<td>Full Load Amps</td>
</tr>
<tr>
<td>Series</td>
<td>120/240</td>
<td>50 / 60</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>240</td>
<td>50 / 60</td>
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</tbody>
</table>

Notes:
1 Voltage rating requires wiring configuration according to TUV, see Dimensional Specifications drawings for wiring diagram.

Mechanical

Endurance 6,000 ON-OFF operations @ 6 per minute; with rated Current and Voltage. 4,000 ON-OFF operations with no load.

Trip Free All TB-Series Circuit Breakers will trip on overload, even when Handle is forcibly held in the ON position.

Trip Indication The operating Actuator moves positively to the OFF position when an overload causes the breaker to trip.

Physical

Internal Circuit Configurations Series, with or without auxiliary / alarm switch

Weight Approximately 170g/5.75oz per unit

Standard Colors Housing – Black Actuator – White or Black with contrasting ON-OFF legends

Mounting Refer to the dimensional specifications page

Environmental

Designed and tested in accordance with requirements of specification MIL-PRF-55629 & MIL-STD-202 as follows:

Shock Withstands 100G’s, 6ms sawtooth while carrying rated current per Method 213B, Test Condition "I". Instantaneous and ultra short curves tested @ 90% of rated current.

Vibration Withstands 0.060" excursion from 10-55Hz, and 10G’s 55-500Hz, at rated current per Method 204D, Test Condition A. Instantaneous and ultrashort curves tested @ 90% of rated current.

Moisture Resistance/ Humidity Method 106G, i.e. ten 24-hour cycles @ +25°C to +65°C, 80-98% RH

Salt Spray Method 101E, Condition A (90-95% RH@ 5% NaCl Solution, 96 hours)

Thermal Shock Method 107G, Condition A (Five cycles @ -55°C to +25°C to +85°C to 25°C)

Operating Temperature -20° C to +85° C

Storage Temperature -40° C to +85° C

Agency Approvals

UL Listed (489) as Molded Case Circuit Breakers
TUV Certified IEC/EN 60947-2
CUL Certified CAN/CSA 22.2 No. 5

*Manufacturer reserves the right to change product specification without prior notice.
<table>
<thead>
<tr>
<th>1 TYPE</th>
<th>2 SERIES</th>
<th>3 POLES</th>
<th>4 CIRCUIT</th>
<th>5 AUXILIARY SWITCH</th>
<th>6 FREQUENCY &amp; TIME DELAY</th>
<th>7 CURRENT RATING (AMPERES)</th>
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<th>10 MOUNTING STYLE</th>
<th>11 APPLICATION RATING</th>
<th>12 AGENCY APPROVAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>B</td>
<td>2</td>
<td>B</td>
<td>0</td>
<td>24</td>
<td>620</td>
<td>J</td>
<td>21</td>
<td>1</td>
<td>C</td>
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</table>

### 1 TYPE
- **T**: Tandem Breaker

### 2 SERIES
- **B**: B-Series Circuit Breaker

### 3 POLES
- **2**: Two

### 4 CIRCUIT
- **B**: Series Trip (Current)

### 5 AUXILIARY SWITCH
- **0**: without Aux Switch
- **1**: S.P.D.T., 0.093 Q.C. Term.
- **2**: S.P.D.T., 0.110 Q.C. Term.
- **3**: S.P.D.T., 0.110 Solder Lug
- **4**: S.P.S.T., 0.187 Q.C. Term.
- **5**: S.P.S.T., 0.187 Q.C. Term.

### 6 FREQUENCY & TIME DELAY
- **21**: 50/60Hz Ultra Short
- **22**: 50/60Hz Short
- **24**: 50/60Hz Medium
- **26**: 50/60Hz Long
- **42**: 50/60Hz Short, High-inrush
- **44**: 50/60Hz Medium, High-inrush
- **46**: 50/60Hz Long, High-inrush

### 7 CURRENT RATING (AMPERES)

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<th>CODE</th>
<th>AMPERES</th>
<th>210</th>
<th>215</th>
<th>220</th>
<th>225</th>
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<th>240</th>
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### 8 TERMINAL
- **J**: Screw M5 Back Connect
- **K**: Screw 10-32 Back Connect
- **N**: Screw M4 Back Connect
- **Y**: Screw 8-32 Back Connect

### 9 ACTUATOR COLOR & LEGEND
- **Actuator Color**: ON-OFF Dual Legend Color
- **Legend Color**: Black
- **White**: B 1
- **Black**: D 2
- **Red**: G 3
- **Green**: J 4
- **Blue**: L 5
- **Gray**: Q 7
- **Orange**: S 8
- **Yellow**: N 6
- **Brown**: K 8
- **Blue**: L 5
- **Red**: G 3
- **Green**: J 4
- **Black**: D 2
- **White**: B 1
- **Gray**: Q 7
- **Orange**: S 8
- **Yellow**: N 6
- **Brown**: K 8

### 10 MOUNTING STYLE
- **HORIZONTAL MOUNTING STYLE**
  - **BARRIER**: Offset
  - **6-32 x .195 in. Threaded Inserts**: Standard
  - **ISO M3 x 5 mm Threaded Inserts**: Offset
  - **ISO M3 x 5 mm Threaded Inserts**: Standard

### 11 APPLICATION RATING
- **C**: 120/240 Vac

### 12 AGENCY APPROVAL
- **A**: Without Approvals
- **G**: UL489 Listed
- **34**: UL489 Listed, TUV Certified

**Notes:**
1. Pole with auxiliary switch is supplied with 30 degree bus terminals.
2. Only available with terminal codes J,K,N,Y.
3. Supplied with one auxiliary switch. See dimensional specs drawings for location.
4. TUV certification only available with I/O ON/OFF markings (Actuator code: 1,2,3,4,5,6,7,8)
Dimensional Specifications: in. [mm]

Notes:
1. All dimensions are in inches [millimeters].
2. Tolerance ± 0.20 [0.51] unless otherwise specified.

Wiring Diagrams:
Authorized Sales Representatives and Distributors

Click on a region of the map below to find your local representatives and distributors or visit www.carlingtech.com/findarep.

About Carling

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.

To view all of Carling’s environmental, quality, health & safety certifications please visit www.carlingtech.com/environmental-certifications
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