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
Electrical Tables

### Table A: Voltage and Current Rating

<table>
<thead>
<tr>
<th>Circuit Configuration</th>
<th>Voltage</th>
<th>Current Rating</th>
<th>Interrupting Capacity (Amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max Rating</td>
<td>Frequency</td>
<td>Phase</td>
</tr>
<tr>
<td>Series</td>
<td>120/240</td>
<td>50 / 60</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>240 1</td>
<td>50 / 60</td>
<td>1</td>
</tr>
</tbody>
</table>

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

### Electrical

- **Maximum Voltage**: 120/240VAC 50/60 Hz
- **Current Ratings**: Standard current coils: 0.200, 0.350, 0.500, 0.750, 1.00, 2.50, 5.00, 7.50, 10.0, 15.0, 20.0 Amps. Other ratings available - consult ordering scheme.
- **Auxiliary/Alarm Switch Rating(s)**: 10.1A 250VAC
- **Dielectric Strength**: Meets UL and CSA Requirements and can withstand 1500 VAC, 60Hz for one minute between all electrically isolated terminals.
- **Insulation Resistance**: Minimum of 100 Megohms @ 500VDC
- **Overload**: 50 operations @ 600% rated current
- **Inrush Pulse Tolerance**: Standard delays 12x rated current, high inrush delays 25x for 1/2 cycle @ 60 Hz
- **Resistance / Impedance (Across circuit breaker terminals)**:

<table>
<thead>
<tr>
<th>CURRENT (AMPS)</th>
<th>TOLERANCE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10 - 5.0</td>
<td>± 15</td>
</tr>
<tr>
<td>5.1 - 20.0</td>
<td>± 25</td>
</tr>
</tbody>
</table>

**Agency Approvals**

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

### 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

- **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

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Series</th>
<th>Polles</th>
<th>Circuit</th>
<th>Auxiliary Switch</th>
<th>Current Rating</th>
<th>Terminal</th>
<th>Actuator Color</th>
<th>Mounting/Barriers</th>
<th>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>1C</td>
</tr>
</tbody>
</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
1. without Aux Switch
2. S.P.D.T., 0.093 Q.C. Term.
3. S.P.D.T., 0.110 Q.C. Term.
4. S.P.D.T., 0.110 Solid Lug
5. S.P.S.T., 0.187 Q.C. Term.
6. 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)

<table>
<thead>
<tr>
<th>CODE</th>
<th>AMPERES</th>
<th>AMPERES</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>0.10</td>
<td>280</td>
</tr>
<tr>
<td>215</td>
<td>0.15</td>
<td>285</td>
</tr>
<tr>
<td>220</td>
<td>0.20</td>
<td>290</td>
</tr>
<tr>
<td>225</td>
<td>0.25</td>
<td>295</td>
</tr>
<tr>
<td>230</td>
<td>0.30</td>
<td>310</td>
</tr>
<tr>
<td>235</td>
<td>0.35</td>
<td>312</td>
</tr>
<tr>
<td>240</td>
<td>0.40</td>
<td>315</td>
</tr>
<tr>
<td>245</td>
<td>0.45</td>
<td>317</td>
</tr>
<tr>
<td>250</td>
<td>0.50</td>
<td>320</td>
</tr>
<tr>
<td>255</td>
<td>0.55</td>
<td>322</td>
</tr>
<tr>
<td>260</td>
<td>0.60</td>
<td>325</td>
</tr>
<tr>
<td>265</td>
<td>0.65</td>
<td>327</td>
</tr>
<tr>
<td>270</td>
<td>0.70</td>
<td>330</td>
</tr>
<tr>
<td>275</td>
<td>0.75</td>
<td>335</td>
</tr>
</tbody>
</table>

### 8 TERMINAL
1. **J**: Screw M5 Back Connect
2. **K**: Screw 10-32 Back Connect
3. **N**: Screw M4 Back Connect
4. **Y**: Screw 8-32 Back Connect

### 9 ACTUATOR COLOR & LEGEND
- **Actuator Color**: ON-OFF Dual Legend Color
- **Legend Color**: White
- **Black**: Black
- **Red**: Red
- **Green**: Green
- **Gray**: Gray
- **Orange**: Orange

### 10 MOUNTING
- **BARRIER**
1. 6-32 x .195 in. Threaded Inserts (Offset)
2. 6-32 x .195 in. Threaded Inserts with Actuator Guard (Standard)
3. 6-32 x .195 in. Threaded Inserts with Actuator Guard (Offset)
4. 30 degree bus terminals

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

### 12 AGENCY APPROVAL
- **A**: Without Approvals
- **G**: UL489 Listed
- **3**: 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 IO 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.

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