W57 series
Compact, Push To Reset Only
P&B Thermal Circuit Breaker

Features
• New, compact design.
• 3 to 20 amp ratings.
• Cannot be manually tripped.
• Button extends for visual trip indication.
• Push button to reset breaker.
• Numerous mounting and termination options.
• Optional bottom marking of amperage rating.

Agency Approvals
W57 series is UL1077 Recognized as Supplementary Protectors,
File E69543, for Canada and the United States. Available models
meet Ignition Protection requirements in accordance with UL1500.
Approved to VDE 0642/EN60934 (Circuit Breakers for Equipment).
License Number 40007874 (excludes models rated 3-4A and >15A).
CCC mark compliant, certificate 2004010307123217.

Users should thoroughly review the technical data before selecting a product part
number. It is recommended that users also seek out the pertinent approvals files
of the agencies/laboratories and review them to confirm the product meets the
requirements for a given application.

Electrical Data @ 25°C
Calibration: Will continuously carry 100% of rating.
May trip between 101% and 134%, but must trip at 135% of
rating within one hour at +25°C.
Dielectric Strength: 1,500VAC (60 seconds).

Time vs. Current Trip Curve @ +25°C

Overload Trip Times
100% No Trip
115% Trip in 1 hour
120% 1.2 - 12.0 Sec.
125% 0.6 - 5.0 Sec.
130% 0.4 - 2.8 Sec.
135% 0.3 - 1.8 Sec.
140% 0.18 - 0.9 Sec.
145% 0.12 - 0.7 Sec.
150% 0.07 - 0.4 Sec.

Ambient Compensation Table

<table>
<thead>
<tr>
<th>Ambient Temperature in °C</th>
<th>3-4A Models</th>
<th>5-20A Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10</td>
<td>.70</td>
<td>.77</td>
</tr>
<tr>
<td>0</td>
<td>.75</td>
<td>.85</td>
</tr>
<tr>
<td>10</td>
<td>.82</td>
<td>.90</td>
</tr>
<tr>
<td>20</td>
<td>.90</td>
<td>.95</td>
</tr>
<tr>
<td>25</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>30</td>
<td>1.10</td>
<td>1.05</td>
</tr>
<tr>
<td>40</td>
<td>1.25</td>
<td>1.15</td>
</tr>
<tr>
<td>50</td>
<td>1.61</td>
<td>1.25</td>
</tr>
<tr>
<td>60</td>
<td>2.15</td>
<td>1.40</td>
</tr>
</tbody>
</table>

To use this chart: Divide the breaker rating by the correction factor to
determine the compensated rating. Calculate the overloads in terms of
the compensated rating to use the published trip curve.
Do not use these devices outside their specified operating temperature ranges.

Typical Resistance vs. Current Rating @ +25°C

<table>
<thead>
<tr>
<th>Current Rating in Amps</th>
<th>Typical Resistance in Ohms</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>0.083</td>
</tr>
<tr>
<td>4.0</td>
<td>0.062</td>
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<tr>
<td>5.0</td>
<td>0.050</td>
</tr>
<tr>
<td>6.0</td>
<td>0.042</td>
</tr>
<tr>
<td>7.0</td>
<td>0.036</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Rating in Amps</th>
<th>Typical Resistance in Ohms</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.0</td>
<td>0.031</td>
</tr>
<tr>
<td>10.0</td>
<td>0.025</td>
</tr>
<tr>
<td>12.0</td>
<td>0.021</td>
</tr>
<tr>
<td>15.0</td>
<td>0.017</td>
</tr>
<tr>
<td>20.0</td>
<td>0.012</td>
</tr>
</tbody>
</table>

Optional Protective Boot
Silicone rubber boot is bonded to integral aluminum nut.
1-1423696-5
Black boot for W57 with 3/8”-24 bushing.

1-1423696-6
Clear boot for W57 with M11 X 1.0 bushing.
### Ordering Information

<table>
<thead>
<tr>
<th>Typical Part No.</th>
<th>W</th>
<th>57</th>
<th>-X</th>
<th>B</th>
<th>1</th>
<th>A</th>
<th>4</th>
<th>A</th>
<th>1</th>
<th>0</th>
<th>-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designator:</td>
<td>W</td>
<td>Circuit breaker</td>
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<td></td>
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<tr>
<td>Series Number:</td>
<td>57</td>
<td>Compact, Single Pole, Push-to-Reset, Thermal Model</td>
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<tr>
<td>Circuit Function:</td>
<td>X</td>
<td>Series Trip</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Button Color &amp; Rate Marking:</td>
<td>A</td>
<td>White, plain, no rate marking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>White, red rate marking (vertical)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>White, black rate marking (vertical)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>D</td>
<td>Black, plain, no rate marking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Black, white rate marking (horizontal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>White, red rate marking (horizontal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### Mounting Bushings and Recommended Panel Cutouts

#### Option 1 – M11 X 1.0 Thread

#### Option 2 & 6 – 3/8” - 24UNF Thread

#### Option 4 – Snap In Option

#### Option 5 – M11 X 1.0 Thread

#### Option 7 – M12 X 1.0 Thread

#### Option 8 – 3/8” - 24UNF Thread

### Ordering Note:

Mounting hardware can be ordered separately. Some options are subject to extended leadtimes and significant minimum order quantities.

**W57-XB1A4A10-5**  
**W57-XB1A4A10-10**  
**W57-XB1A7A10-5**  
**W57-XB1A7A10-10**  
**W57-XB1A4A10-20**  
**W57-XB1A7A10-20**

### Our Authorized Distributors

Our authorized distributors are more likely to stock the following items for immediate delivery.

**W57-XB1A4A10-5**  
**W57-XB1A4A10-10**  
**W57-XB1A7A10-5**  
**W57-XB1A7A10-10**  
**W57-XB1A7A10-20**  
**W57-XB1A7A10-20**

**ORDERING NOTE:** Mounting hardware can be ordered separately. Some options are subject to extended leadtimes and significant minimum order quantities.

### Specifications

- **Dimensions:** In inches over millimeters, unless otherwise specified. Dimensions are shown for reference purposes only. Specifications and availability subject to change.
- **Contact Information:**
  - USA: 1-800-522-6752  
  - Canada: 1-905-470-4425  
  - Mexico: 01-800-733-8926  
  - C. America: 52-55-1106-0803  
  - UK: 44-8706-080208  
  - South America: 55-11-2103-6000  
  - Hong Kong: 852-2735-1628  
  - Japan: 81-44-844-8013  
  - China: 86-10-6651-1260

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**Ordering Information**:  
- **Typical Part Number:** W57-XB1A4A10-5  
- **Max. Operating Voltage (AC):**  
  - 1 = 250VAC  
  - 2 = 125VAC/50VDC  
- **Nameplate:**  
  - 0 = None  
  - 1 = Embossed aluminum  
  - 2 = Silver color printing on black color  
  - 3 = Black color printing on silver color  
- **UL Recognition:**  
  - Leave Blank = UL1077 recognized breaker  
  - M = Model meeting Ignition Protection requirements in accordance with UL1500, in addition to UL1077 recognition†

**Notes:**  
- Codes 1 and 3 are similar in size to 7/16” bushings (not exact equivalent).
- Code 7 is similar in size to a 15/32” bushing (not exact equivalent).
- Our authorized distributors are more likely to stock the following items for immediate delivery.
Termination Options

<table>
<thead>
<tr>
<th>Option A</th>
<th>Option C</th>
<th>Option D</th>
<th>Option E</th>
<th>Option B</th>
<th>Option F or I</th>
<th>Option G</th>
<th>Option H</th>
</tr>
</thead>
<tbody>
<tr>
<td>.250 QC Straight</td>
<td>.250 QC 45°</td>
<td>.250 QC 90°</td>
<td>.250 QC/PCB 270°</td>
<td>.250 QC 90°</td>
<td>.250 QC/PCB 270° (small hole)</td>
<td>.250 QC Straight with #8-32 Load Term. Bent 90°</td>
<td></td>
</tr>
</tbody>
</table>

Mounting Hardware Options

- Knurled Nut
- Hex Nut
- Integrated Knurled Nut with Small Holes
- Lockwasher

ALTERNATE TEETH TWISTED IN OPPOSITE DIRECTIONS

Mounting Hardware Dimensions

<table>
<thead>
<tr>
<th>Dimension Code</th>
<th>Bushing Diameter</th>
<th>Plastic Knurled Nut</th>
<th>Integrated Plastic Knurled Nut w/Holes</th>
<th>Metal Knurled Nut</th>
<th>Metal Hex Nut</th>
<th>Lockwasher</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3/8&quot; M11</td>
<td>.74 (18.8)</td>
<td>.74 (18.8)</td>
<td>.59 (15.0)</td>
<td>.55 (14.0)</td>
<td>.49 (12.5)</td>
</tr>
<tr>
<td></td>
<td>3/8&quot; M12</td>
<td>.74 (18.8)</td>
<td></td>
<td>.59 (15.0)</td>
<td>.55 (14.0)</td>
<td>.587 (14.9)</td>
</tr>
<tr>
<td>B</td>
<td>3/8&quot; M11</td>
<td>.126 (3.2)</td>
<td></td>
<td>.079 (2.0)</td>
<td>.079 (2.0)</td>
<td>.02 (5.5)</td>
</tr>
<tr>
<td></td>
<td>3/8&quot; M12</td>
<td>.126 (3.2)</td>
<td>.13 (3.3)</td>
<td>.102 (2.6)</td>
<td>.118 (3.0)</td>
<td>.02 (5.5)</td>
</tr>
</tbody>
</table>

Mounting Hardware Ordering Information

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic</td>
<td>1 (M11)</td>
<td>-</td>
<td>1423696-8</td>
<td>2-1423696-2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2 (3/8&quot;)</td>
<td>-</td>
<td>1423696-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Metal</td>
<td>5 (M11)</td>
<td>-</td>
<td>1423696-4</td>
<td>1423696-6</td>
<td>1-1423696-2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>6 (3/8&quot;)</td>
<td>-</td>
<td>1423696-0</td>
<td>1423696-3</td>
<td>1-1423696-1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>7 (M12)</td>
<td>-</td>
<td>1423696-5</td>
<td>1423696-7</td>
<td>1-1423696-3</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>8 (3/8&quot;)</td>
<td>-</td>
<td>1-1423696-0</td>
<td>1423696-3</td>
<td>1-1423696-1</td>
<td>-</td>
</tr>
</tbody>
</table>

Optional Bottom Marking of Rating

- Knurled Nut
- Hex Nut
- Integrated Knurled Nut with Small Holes
- Lockwasher

Embossed Aluminum
- Imprinted Aluminum (Either Silver on Black or Black on Silver)

Nameplates

- .846 DIA. (21.5) .018 (.4) THICK
- .846 DIA. (21.5) .018 (.4) THICK