Bussmann series Quik-Spec Power Module switch elevator disconnect

Catalog symbol:
- PS_

Description:
The Bussmann™ series Quik-Spec™ Power Module Switch is an all-in-one elevator disconnect switch available in configurations to meet virtually any single elevator shutdown and disconnect requirement.

Specifications:
Ratings
- Volts - 208, 240, 480, 600 Vac
- Amps - 30, 60, 100, 200, 400
- SCCR - 200 kA RMS

Agency information
- UL® 98 enclosed and dead-front switch - Guide WIAW, WIAW7 (Canada), File E182262
- cULus, NEMA® 1, UL 50, Listed enclosure cUL per Canadian Standards C22.2, No. 0-M91-CAN/CSA® C22.2, No. 4-M89 enclosed switch
- U.B.C. and C.B.C. seismic qualified, and I.B.C. approved

Features:
- 30-400 amp 600 Vac 3-phase fused power switch
- 200 kA RMS Short-Circuit Current Rating (SCCR)
- Shunt trip 120 V
- Fire safety interface relay
- Fire alarm voltage monitoring relay (to monitor shunt trip voltage)
- Ground lug
- Class J fuse mounting only
- Mechanically interlocked auxiliary contacts for hydraulic elevators with battery backup (5 amp 120 Vac rated)

Options:
- Control power transformer with fuses and blocks
- Key to test switch
- Pilot light – “ON”
- Isolated neutral lug
- NEMA 3R, 4, and 12 enclosures
- Type 1 Surge Protection Device (SPD) - 50 kA surge current capacity

For added protection, use the Bussmann series SAMI™ fuse covers to improve electrical safety [OSHA 1910.335(A)(2)(ii)]. See data sheet no. 1204.

1 Class J fuses not included.
2 Oversized 200% rated neutral option available where required by excessive non-linear loads.
3 Covers available up to 100A.
Catalog number system:

- **PS** = Power Module Switch
- **T48** = Control transformer
- **R1** = Key test switch (optional)
- **K** = Key
- **G** = Fire safety interface relay
- **N1** = Neutral lug (optional)
- **B** = Fire alarm voltage monitoring relay
- **F1** = To monitor shunt trip voltage
- **U** = Auxiliary contacts and surge protection

**Amp rating**
- 3 = 30A
- 6 = 60A
- 1 = 100A
- 2 = 200A
- 4 = 400A

**Fire safety interface relay**
- (3PDT, 10A, 12V)
- R1 = 120Vac Coil
- R2 = 24Vdc Coil

**Pilot light ON (optional)**
- G = Green
- R = Red
- W = White

**Auxiliary contacts and surge protection**
- B = Additional 2NO/2NC
- D = Additional 2NO/2NC
- U = Type 3R
- Z = Type 12
- Y = Type 4

**Enclosure**
- † = Type 1
- U = Type 3R
- Z = Type 12
- Y = Type 4

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**Conductor data:**

<table>
<thead>
<tr>
<th>Cat. no.</th>
<th>Amps</th>
<th>Conductor range</th>
<th>Lineside molded case switch connection (AI-Cu)</th>
<th>Loadside fuse block connection (AI-Cu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix</td>
<td></td>
<td></td>
<td>Torque</td>
<td>Screw head/ style</td>
</tr>
<tr>
<td>PS3</td>
<td>30</td>
<td>#14-1/0</td>
<td>#14-10</td>
<td>35 (3.9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#8</td>
<td>40 (4.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#6-4</td>
<td>45 (5.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#3-1/0</td>
<td>50 (5.6)</td>
</tr>
<tr>
<td>PS6</td>
<td>60</td>
<td>#14-1/0</td>
<td>#14-10</td>
<td>35 (3.9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#8</td>
<td>40 (4.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#6-4</td>
<td>45 (5.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#3-1/0</td>
<td>50 (5.6)</td>
</tr>
<tr>
<td>PS1</td>
<td>100</td>
<td>#14-1/0</td>
<td>#14-1/0</td>
<td>50 (5.6)</td>
</tr>
<tr>
<td>PS2</td>
<td>200</td>
<td>#4-4/0</td>
<td>#4-4/0</td>
<td>120 (13.5)</td>
</tr>
<tr>
<td>PS4</td>
<td>400</td>
<td>(2) #2-500kcmil</td>
<td>(2) #2-500kcmil</td>
<td>375 (42.4)</td>
</tr>
</tbody>
</table>

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* 100 VA with primary and secondary fusing (120 V secondary).
** For use only with R1 option.
† Type 1 standard, no suffix designator required.
**Conductor data:**

<table>
<thead>
<tr>
<th>Cat. no. prefix</th>
<th>Amps</th>
<th>Conductor range</th>
<th>Wire size</th>
<th>Torque lb-in (N-m)</th>
<th>Screw head/style</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS3</td>
<td>30</td>
<td>#14-2</td>
<td>#14-10</td>
<td>35 (3.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#8</td>
<td>40 (4.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#6-2</td>
<td>45 (5.1)</td>
<td>Slot HD</td>
</tr>
<tr>
<td>PS6</td>
<td>60</td>
<td>#14-2</td>
<td>#14-10</td>
<td>35 (3.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#8</td>
<td>40 (4.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>#6-2</td>
<td>45 (5.1)</td>
<td>Slot HD</td>
</tr>
<tr>
<td>PS1</td>
<td>100</td>
<td>#14-1/0</td>
<td>#14-1/0</td>
<td>50 (5.6)</td>
<td></td>
</tr>
<tr>
<td>PS2</td>
<td>200</td>
<td>#6-250kcmil</td>
<td>#6-250kcmil</td>
<td>275 (31.1)</td>
<td>5/16” hex socket</td>
</tr>
<tr>
<td>PS4</td>
<td>400</td>
<td>(2) 1/0-300kcmil or (1) 750kcmil</td>
<td>(2) 1/0-300kcmil or (1) 750kcmil</td>
<td>500 (66.5)</td>
<td>3/8” hex socket</td>
</tr>
</tbody>
</table>

**Terminal block data:**

<table>
<thead>
<tr>
<th>Catalog no.</th>
<th>Wire range (Cu)</th>
<th>Torque lb-in (N-m)</th>
<th>Screw head/style</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>#22-1/10</td>
<td>5.3-7 (0.6-0.8)</td>
<td>Slot</td>
</tr>
</tbody>
</table>

**Switch maximum horsepower ratings:**

Ratings are based on three-phase, motor type and time-delay fuses.

<table>
<thead>
<tr>
<th>Voltage (Vac)</th>
<th>Switch amp rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30A (PS3)</td>
</tr>
<tr>
<td>208</td>
<td>5</td>
</tr>
<tr>
<td>240</td>
<td>5</td>
</tr>
<tr>
<td>480</td>
<td>10</td>
</tr>
<tr>
<td>600</td>
<td>15</td>
</tr>
</tbody>
</table>

The above table can be used for estimating switch amp ratings for motor loads based upon the motor horsepower. For general applications, excluding wound rotor and DC motors, NEC® 430.52 allows sizing at 175% of motor Full Load Amps (FLA) or the next standard size per NEC 240.6. If sizing at 175% will not allow the motor to start, NEC 430.52 will allow the fuses to be sized up to 225% of motor full load amps or the next size down.

NOTE: In sizing the fuses, the motor FLA is per NEC table 430.250, not per motor nameplate information. Inrush currents of motors may vary, consult motor manufacturer data for correct sizing. On elevator applications, motor load plus auxiliary loads need to be considered. Follow elevator manufacturer’s recommendation for correct fuse sizing.

**Standard shunt trip ratings:**

For 30-100 A, 200 A and 400 A Power Module Switches.

<table>
<thead>
<tr>
<th>Voltage (Vac)</th>
<th>Max inrush</th>
<th>Max ontime*</th>
<th>Momentary inrush</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Vac, 60 Hz</td>
<td>4 amps</td>
<td>1.5 cycles</td>
<td>140 VA</td>
</tr>
</tbody>
</table>

* Will handle up to 447 VA inrush.
Dimensions — in (mm):

<table>
<thead>
<tr>
<th>Catalog no. prefix</th>
<th>Amps</th>
<th>H</th>
<th>W</th>
<th>D1</th>
<th>D2</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS3</td>
<td>30</td>
<td>29.6 (752)</td>
<td>17.3 (439)</td>
<td>6.9 (165)</td>
<td>11.2 (284)</td>
<td>28.4 (721)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>PS6</td>
<td>60</td>
<td>32.6 (828)</td>
<td>21.3 (541)</td>
<td>7.0 (178)</td>
<td>11.3 (287)</td>
<td>31.1 (790)</td>
<td>17 (432)</td>
</tr>
<tr>
<td>PS1</td>
<td>100</td>
<td>54.6 (1387)</td>
<td>26.5 (673)</td>
<td>7.5 (190)</td>
<td>12.7 (323)</td>
<td>53.3 (1354)</td>
<td>22 (559)</td>
</tr>
<tr>
<td>PS4*</td>
<td>400</td>
<td>29.6 (752)</td>
<td>17.3 (439)</td>
<td>6.9 (165)</td>
<td>11.2 (284)</td>
<td>28.4 (721)</td>
<td>10 (254)</td>
</tr>
</tbody>
</table>

* PS4 dimensions shown are for NEMA 1 enclosure only. Contact factory for availability of other enclosure ratings.

Power Module Switch shipping weights*

<table>
<thead>
<tr>
<th>Switch catalog number family</th>
<th>Weight — lbs. (kgs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS1</td>
<td>58 (26.3)</td>
</tr>
<tr>
<td>PS2</td>
<td>76 (34.5)</td>
</tr>
<tr>
<td>PS3</td>
<td>58 (26.3)</td>
</tr>
<tr>
<td>PS4</td>
<td>198 (89.8)</td>
</tr>
<tr>
<td>PS6</td>
<td>58 (26.3)</td>
</tr>
</tbody>
</table>

* Weights for each catalog number family are average.
Power Module Switch wiring:

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**Options R1 & F1**

- **Option F1 Fire Alarm Voltage Monitoring Relay**
- **Option R1 Fire Alarm Voltage Monitoring Relay**

**Option A Battery Lowering Mechanically Interlocked Auxiliary Contacts**

**Option B Contacts**

**Option C Contacts**

**Option D Contacts**

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Electrical diagrams and wiring configurations are depicted, including connections and terminations for various options and configurations.

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Technical Data

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