Enhance safety and improve equipment performance with shunt trip technology

**Product description**

The shunt trip technology enhances safety by providing a means to open a safety switch electronically. When using an emergency stop, safety interlock or similar means, the remote operation capability of the shunt trip switch no longer requires personnel to manually open the switch with the handle, enhancing safety and improving productivity.

The shunt trip safety switch can be configured to meet the needs of safety applications in industrial and commercial environments. The switches can be signaled to electronically operate the trip mechanism and interrupt the flow of power when a defined electrical condition is detected via protection relay (for example, ground fault, undervoltage, blown fuse shutdown).

The shunt trip safety switch builds on Eaton’s extensive portfolio of safety switch solutions, incorporating a side-handle operation mechanism and visible blade indication that have decades of successful installation and operation.

**Application examples**

- E-stop
- Safety interlocking
- Machinery OEM interlocking
- Remote opening (distant from switch)
- Cost-effective solution for high-interrupt applications
- Ground fault
- Phase reversal / phase loss
- Blown fuse shutdown
- Undervoltage release

**Key features**

- Variety of coil voltages available
- Visible means of disconnect
- Standard heavy-duty safety switch design with integrated shunt trip module
- Passes Class 1 ground fault testing (1200% opening)

**Product options**

Flex Center modifications available, such as viewing windows, pilot lights and more.

- Contact factory for availability of 1200 A switch.
- Shunt trip switch provides solenoid/coil to facilitate shunt trip, specific relay and applicable power supply provided by others.

**Product ratings**

- UL® 98 file number E5239 (600 Vac maximum)
- CSA® C22.2 No. 4, file number LL69743 (600 Vac maximum)
- Enclosure ratings:
  - NEMA® 12/3R, 4 (painted steel), 4X (stainless steel)
- 30–800 A (240–600 Vac)
- Horsepower ratings are the same as Eaton’s standard heavy-duty safety switches
- Fusible devices have short-circuit ratings of up to 200 KAIC
### Shunt trip safety switch—240 Vac and 600 Vac—dimensions and ratings

<table>
<thead>
<tr>
<th>Ampere rating</th>
<th>Fuse class</th>
<th>Number of poles</th>
<th>Enclosure dimensions, exterior in inches (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Height (H)</td>
</tr>
<tr>
<td>Fusible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>H</td>
<td>2, 3 or 4</td>
<td>21.58 (548.1)</td>
</tr>
<tr>
<td>60</td>
<td>H</td>
<td>2, 3 or 4</td>
<td>21.58 (548.1)</td>
</tr>
<tr>
<td>100</td>
<td>H</td>
<td>2, 3 or 4</td>
<td>24.95 (633.7)</td>
</tr>
<tr>
<td>200</td>
<td>H</td>
<td>2, 3 or 4</td>
<td>35.38 (898.7)</td>
</tr>
<tr>
<td>400</td>
<td>H</td>
<td>2, 3 or 4</td>
<td>57.47 (1459.7)</td>
</tr>
<tr>
<td>600</td>
<td>H</td>
<td>2, 3</td>
<td>62.97 (1599.4)</td>
</tr>
<tr>
<td>800</td>
<td>L</td>
<td>2, 3</td>
<td>71.72 (1821.7)</td>
</tr>
<tr>
<td>Non-fusible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>2, 3 or 4</td>
<td>21.58 (548.1)</td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>2, 3 or 4</td>
<td>21.58 (548.1)</td>
</tr>
<tr>
<td>100</td>
<td></td>
<td>2, 3 or 4</td>
<td>24.95 (633.7)</td>
</tr>
<tr>
<td>200</td>
<td></td>
<td>2, 3 or 4</td>
<td>35.38 (898.7)</td>
</tr>
<tr>
<td>400</td>
<td></td>
<td>2, 3</td>
<td>57.47 (1459.7)</td>
</tr>
<tr>
<td>600</td>
<td></td>
<td>2, 3</td>
<td>62.97 (1599.4)</td>
</tr>
<tr>
<td>800</td>
<td></td>
<td>2, 3</td>
<td>71.72 (1821.7)</td>
</tr>
</tbody>
</table>

- **Class H fuse clips** supplied as standard on fusible devices 30–600 A, Class L for 800 A; Class R, J, T fuse clips available.
- **Accurate for all enclosure NEMA type ratings—**12/3R, 4, 4X stainless steel.
- Four-pole devices are wider than dimension for 30, 60 and 100 A devices. Consult factory for details.

### Terminal/lug wire range

<table>
<thead>
<tr>
<th>Ampere rating</th>
<th>Minimum—maximum Wire type</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>#14–#2 Cu/Al</td>
</tr>
<tr>
<td>60</td>
<td>#14–#2 Cu/Al</td>
</tr>
<tr>
<td>100</td>
<td>#14–1/0 Cu/Al</td>
</tr>
<tr>
<td>200</td>
<td>#6–300 kcmil Cu/Al</td>
</tr>
<tr>
<td>400</td>
<td>(2) 1/0–300 kcmil or (1) 1/0–750 kcmil Cu/Al</td>
</tr>
<tr>
<td>600</td>
<td>(1) #2–600 kcmil and (1) 1/0–750 kcmil Cu/Al</td>
</tr>
<tr>
<td>800</td>
<td>(4) 1/0–750 kcmil Cu/Al</td>
</tr>
</tbody>
</table>

### Catalog numbering system

#### Switch series

- **STS** = Shunt trip switch (UL)
- **CTS** = Shunt trip switch (CSA)

#### Protection

- **F** = Fusible without neutral
- **N** = Fusible with neutral
- **U** = Non-fusible

#### NEMA enclosure rating

- **D** = NEMA 12/3R
- **P** = NEMA 4 (painted steel)
- **W** = NEMA 4X (stainless steel 304)
- **X** = NEMA 4X (stainless steel 316)

#### Terminal/lug wire range

- **Blank** = No auxiliary switches
- **1** = 1NO/1NC alarm switch only
- **2** = 1NO/1NC auxiliary contact only
- **3** = 2NO/2NC auxiliary contacts only
- **4** = 1NO/1NC auxiliary contact and 1NO/1NC alarm switch
- **5** = 2NO/2NC auxiliary contacts and 1NO/1NC alarm switch

#### Shunt trip coil voltage

- **1** = 24 Vac
- **2** = 48 Vac
- **3** = 120 Vac
- **4** = 240 Vac
- **5** = 480 Vac
- **6** = 24 Vdc
- **7** = 48 Vdc
- **8** = 125 Vdc

#### Maximum system voltage

- **2** = 240 Vac
- **8** = 600 Vac

#### Ampere rating

- **1** = 30 A
- **2** = 60 A
- **3** = 100 A
- **4** = 200 A
- **5** = 400 A
- **6** = 600 A
- **7** = 800 A
- **8** = 1200 A