

# Enhance safety and improve equipment performance with shunt trip and ground fault technology



1200 A shunt trip switch with integrated ground fault relay and sensor

Eaton's tried and true heavy-duty safety switch line expands to include shunt trip capability—remote switching and visible means of disconnect for commercial and industrial applications.

# EATON

Powering Business Worldwide

### 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.

### 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/1, 4 (painted steel), 4X (stainless steel)
- 30–1200 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



Integrated ground fault module, complete with viewing/access window available on 400–1200 A switches

### Application examples

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

### Key features

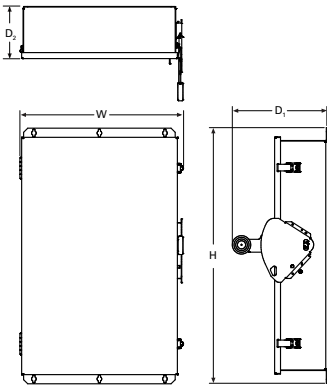
- Variety of coil voltages available
- Visible means of disconnect
- Standard heavy-duty safety switch design with integrated shunt trip module
- Passes Class 1 ground fault testing (1200% opening)
- Integral ground fault available for 480 Vac service entrance applications

### Product options

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

- ❶ Ground fault relay and sensor is available integrated into safety switch.
- ❷ Shunt trip switch provides solenoid/coil to facilitate shunt trip, specific relay and applicable power supply provided by others.

## Shunt trip safety switch—240 Vac and 600 Vac—dimensions and ratings



Ampere rating	Fuse class ❶	Number of poles	Enclosure dimensions ❷, exterior in inches (mm)			
			Height (H)	Width (W)	Depth (D <sub>1</sub> )	Depth (D <sub>2</sub> )
<b>Fusible</b>						
30	H	2, 3 or 4 ❸	21.58 (548.1)	11.58 (294.1)	11.43 (290.3)	5.58 (141.7)
60	H	2, 3 or 4 ❸	21.58 (548.1)	11.58 (294.1)	11.43 (290.3)	5.58 (141.7)
100	H	2, 3 or 4 ❸	24.95 (633.7)	14.89 (378.2)	11.51 (282.4)	5.58 (141.7)
200	H	2, 3 or 4	35.38 (898.7)	20.11 (510.8)	11.61 (294.9)	6.45 (163.8)
400	H	2, 3 or 4	57.47 (1459.7)	27.29 (693.2)	12.43 (315.7)	7.42 (188.5)
600	H	2, 3	62.97 (1599.4)	28.29 (718.6)	12.43 (315.7)	7.42 (188.5)
800	L	2, 3	71.72 (1821.7)	29.54 (750.3)	12.43 (315.7)	7.42 (188.5)
1200	L	2, 3	72.50 (1841.5)	47.23 (1199.6)	23.15 (588.0)	12.46 (316.5)
<b>Non-fusible</b>						
30	—	2, 3 or 4 ❸	21.58 (548.1)	11.58 (294.1)	11.43 (290.3)	5.58 (141.7)
60	—	2, 3 or 4 ❸	21.58 (548.1)	11.58 (294.1)	11.43 (290.3)	5.58 (141.7)
100	—	2, 3 or 4 ❸	24.95 (633.7)	14.89 (378.2)	11.51 (282.4)	5.58 (141.7)
200	—	2, 3 or 4	35.38 (898.7)	20.11 (510.8)	11.61 (294.9)	6.45 (163.8)
400	—	2, 3 or 4	57.47 (1459.7)	27.29 (693.2)	12.43 (315.7)	7.42 (188.5)
600	—	2, 3	62.97 (1599.4)	28.29 (718.6)	12.43 (315.7)	7.42 (188.5)
800	—	2, 3	71.72 (1821.7)	29.54 (750.3)	12.43 (315.7)	7.42 (188.5)
1200	L	2, 3	72.50 (1841.5)	47.23 (1199.6)	23.15 (588.0)	12.46 (316.5)

❶ 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.

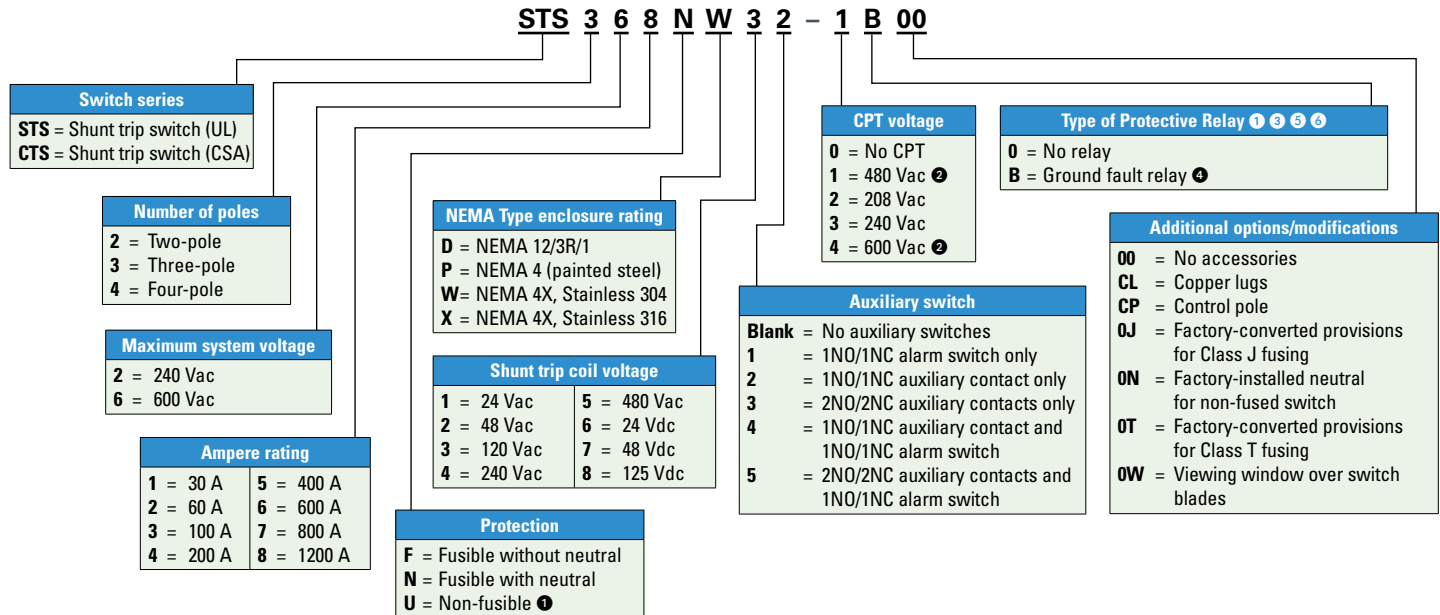
❷ Accurate for all enclosure NEMA type ratings—12/3R, 4, 4X stainless steel.

❸ Four-pole devices are wider than dimension for 30, 60 and 100 A devices. Consult factory for details.

### Terminal/lug wire range

Ampere rating	Minimum–maximum	Wire type	Ampere rating	Minimum–maximum	Wire type
30	#14–#2	Cu/Al	400	(2) 1/0–300 kcmil or (1) 1/0–750 kcmil	Cu/Al
60	#14–#2	Cu/Al	600	(1) #2–600 kcmil and (1) 1/0–750 kcmil	Cu/Al
100	#14–1/0	Cu/Al	800	(4) 1/0–750 kcmil	Cu/Al
200	#6–300 kcmil	Cu/Al	1200	(4) 1/0–750 kcmil	Cu/Al

### Catalog numbering system



❶ Ground fault relays can only be used with fusible switches.

❷ Available for 600 Vac switches only.

❸ Shunt trip safety switch with relay protection must use 120 Vac coils.

❹ Available for 400–1200 A fusible switches only.

❺ Only one relay option allowed.

❻ Relay viewing window standard with relay option.

**Eaton**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
Eaton.com

© 2019 Eaton  
All Rights Reserved  
Printed in USA  
Publication No. PA008004EN / Z22745  
August 2019

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Follow us on social media to get the latest product and support information.

