

# Fusible Shunt Trip Switch

Industrial Control Panel

ENGINEERED SOLUTIONS

EMERGENCY SAFETY EQUIPMENT



Mersen's fusible shunt trip switch is a UL Listed industrial control panel offering remote load-break disconnection capability to emergency circuits. An array of available options allows for maximum functionality to be built into a single compact panel. Panels built for elevator applications feature control transformers (fusing both primary and secondary sides), a fire safety interface relay with a fire alarm voltage monitoring relay, and mechanically interlocked auxiliary contacts. Use of Mersen's Amp-Trap 2000® AJT<sup>1</sup> Class J fuses permits easy selective coordination, while providing the panel and its components with superior current limitation and the ability to withstand high fault conditions. AJT fuses provide added system reliability since no maintenance or periodic testing is required as with other electromechanical overcurrent devices.

## APPLICATIONS:

- Elevator controls
- Building emergency systems
- Data processing rooms

## RATINGS:

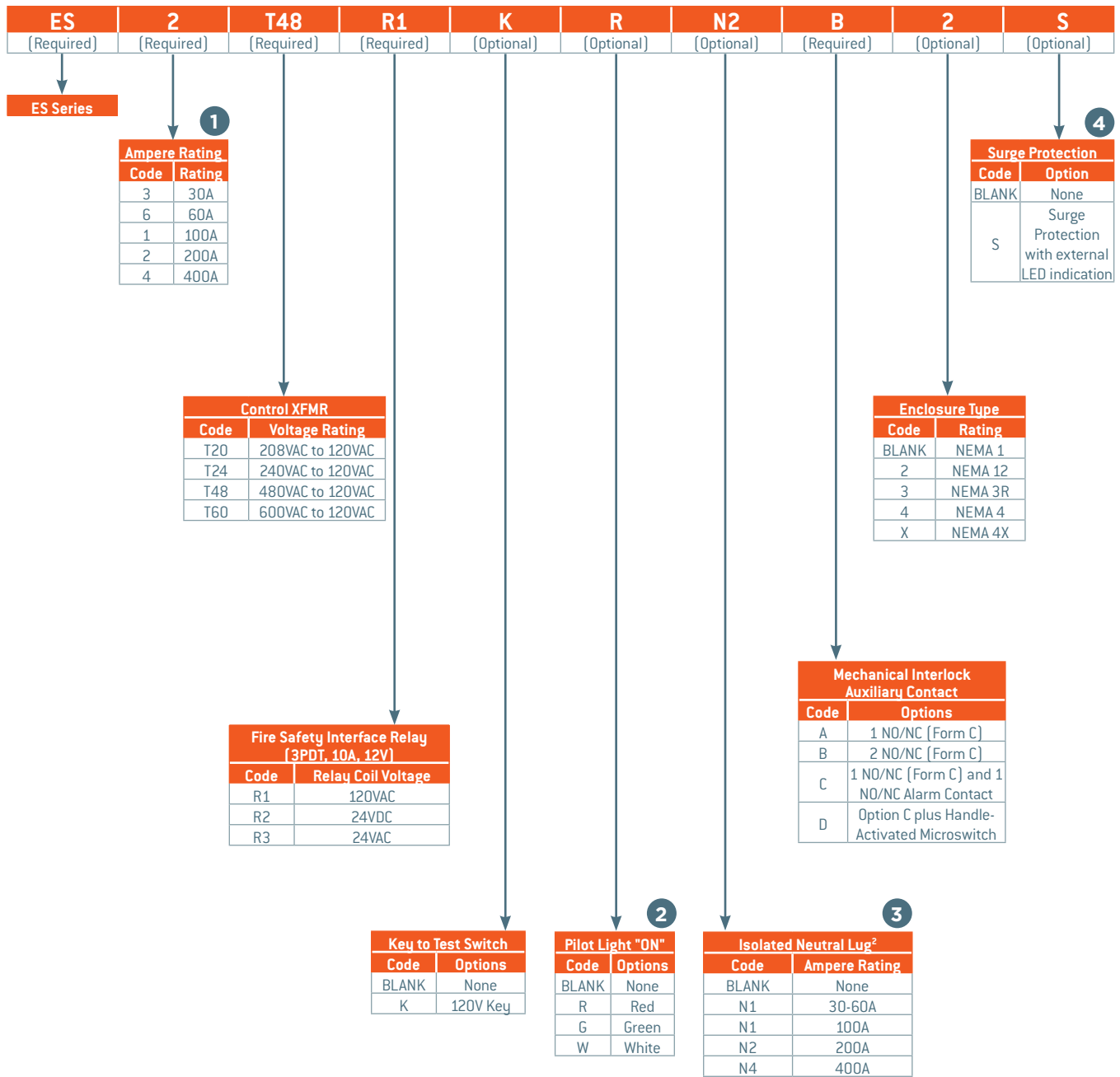
- **Volts:** 208VAC, 240VAC, 480VAC, 600VAC. DC ratings available; consult factory.
- **Amps:** 30A, 60A, 100A, 200A, 400A
- **SCCR:** Varies depending on system voltage and ampere rating. See table on following page.

## APPROVALS:

- cUL 508A Listed Industrial Control Panel, File E233863

ES

ES SERIES - FUSIBLE SHUNT TRIP DISCONNECT SWITCH



PART SELECTION AND ORDERING NOTES

- 1** The ampere rating determines the fuse holder size and range of fuse sizes that may be installed. AJT fuses are sold separately, as they are to be sized to the elevator's motor rating
- 2** Fire Alarm Voltage Monitoring Relay included in all Mersen offerings. No additional part suffixes required. (Competitor Options F1 and F3)
- 3** Neutral lug rating should be greater than or equal to the switch ampere rating. For 200% lug over sizing, select next higher rating. N4 is suitable for 200% over sizing at 400A.
- 4** When "-S" option is selected, Mersen "Surge-Trap® Pluggable" TPMOV® with microswitch and front panel LED indication is installed. Voltage selection determines nominal voltage rating of TPMOV; with 75kA surge capacity.



| Highlights  |  |
|---|--|
| <ul style="list-style-type: none"> <li>Shunt trip switch – allows for tripping of the main line power via remote signal</li> <li>Fused switch – provides high current-limitation and short circuit withstand</li> </ul> | <ul style="list-style-type: none"> <li>Padlockable handle – allows panel to be locked with switch in the off position ensuring load side power isolation during servicing</li> </ul> |

| Optional Features  |   |
|--|---|
| <ul style="list-style-type: none"> <li>Primary Voltage (208, 240, 480 or 600 VAC)</li> <li>Fire safety relay for control interface (3PDT Relay, choice of Coil Voltage: 120 VAC, 24 VDC or 24VAC)</li> <li>Oil-tight key switch to test 2 position selector switch</li> <li>Oil-tight power enabled indicator light (choice of colors: red, green or white)</li> <li>Isolated neutral lug – 100%. Oversized 200% for excessive Non-Linear loads</li> </ul> | <ul style="list-style-type: none"> <li>Auxiliary and alarm contacts are both Form C contacts. The auxiliary contacts change state when the switch is in the on position. Alarm contacts change state when the switch is in the tripped position. The alarm contact is located in place of the second auxiliary contact</li> <li>NEMA 12, 3R, 4 or 4X enclosure available</li> <li>DC Shunt Trip Switch Version Available – Consult Factory</li> </ul> |

| Dimensions and Optional Neutral Lug Sizes |                   |                    |                       |                       |
|---|-------------------|--------------------|-----------------------|-----------------------|
| Ampere Rating (A)                         | 30, 60, 100       |                    | 200                   | 400                   |
| Dimensions                                | H x W x D         |                    | H x W x D             | H x W x D             |
| NEMA Rating                               | NEMA 1            | NEMA 3R, 4, 4X, 12 | NEMA 1, 3R, 4, 4X, 12 | NEMA 1, 3R, 4, 4X, 12 |
| Voltage ▼                                 | Figure 1          | Figure 2           | Figure 2              | Figure 2              |
| 208 VAC 3φ                                | 24.4 x 16.3 x 8.7 | 24 x 20 x 8        | 30 x 24 x 8           | 36 x 30 x 8           |
| 240 VAC 3φ                                | 24.4 x 16.3 x 8.7 | 24 x 20 x 8        | 30 x 24 x 8           | 36 x 30 x 8           |
| 480 VAC 3φ                                | 24.4 x 16.3 x 8.7 | 24 x 20 x 8        | 30 x 24 x 8           | 36 x 30 x 8           |
| 600 VAC 3φ                                | 24.4 x 16.3 x 8.7 | 24 x 20 x 8        | 30 x 24 x 8           | 36 x 30 x 8           |
| Neutral Lug Size                          | 2/0 - #14         | 2/0 - #14          | 350 - #6              | 2 x 500 - #4          |

Figure 1

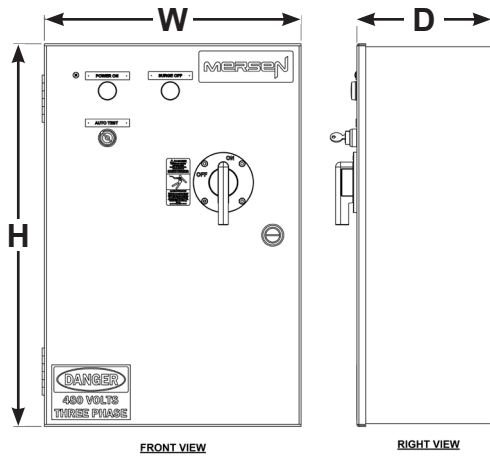
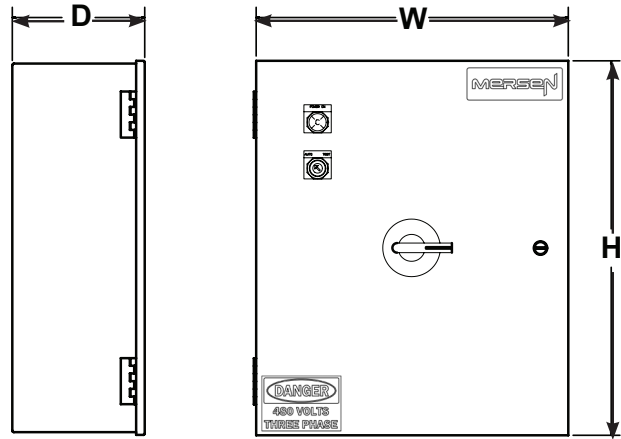


Figure 2



| Short-Circuit Current Ratings (BASED ON UL489 STANDARDS) |                              |     |     |
|--|------------------------------|-----|-----|
| AMP  | RMS SYMMETRICAL AMPERES (kA) |     |     |
|  | UL A.I.R.                    |     |     |
|  | VOLTS (AC)                   |     |     |
|  | 240                          | 480 | 600 |
| 30   | 65                           | 25  | 18  |
| 60   | 65                           | 25  | 18  |
| 100  | 65                           | 25  | 18  |
| 200  | 65                           | 35  | 22  |
| 400  | 65                           | 35  | 25  |