

# SURGE-TRAP SERIES

Surge Protection  
Devices

**Mersen**  
Distributed by Robertshaw®



STXH240S05



STXR480Y05  
STXR480Y05A

## Features and Benefits

- For use with ANSI/UL Type 1 or 2 Surge Protection Device (SPD) installations
- Designed with industry leading Mersen TPMOV® technology
- Compact footprint designed to align easily with AC disconnect switches
- Easy to read 180° LED status indicator: green - on, out - replace SPD
- NEMA 4X non-metallic enclosure for outdoor or indoor use
- Optional audible alarm and remote dry contacts (STXR480Y05A only)
- UL 1449 4th Edition
- NATE® accreditation training class available (2-HR CEH)

## Description

Mersen® Surge-Trap® Series Surge Protection Devices (SPDs), distributed by Robertshaw®, safeguard residential air conditioning (A/C) units including mini-splits, furnaces and air handlers from costly voltage surge events, such as fluctuations in power often generated from inside a home or building, and from an outside source like lightning. Compact in size, the Surge-Trap Series provides Type 1 and Type 2 surge protection to help maintain safe, reliable A/C and furnace performance.

The 120/240 dual-voltage single phase model STXH240S05 safeguards residential A/C and furnace equipment, and the 3-phase models STXR480Y05 and STXR480Y05A are used for Commercial and Industrial applications.

**\$25,000**  
Connected  
Equipment  
Warranty

**3** Year  
Limited  
Warranty  
STXH240S05

**5** Year  
Limited  
Warranty  
STXR480Y05  
STXR480Y05A

**RHS**  
COMPLIANT



## Applications

- AC units / mini-splits / heat pumps
- Controls boards / transformers / relays / sensors
- Furnaces / air handlers
- Refrigeration systems
- Motors / ECM motors

## Training



Installation training provided by Robertshaw® sales representative. NATE®-Certified Technicians earn a 2-hour credit toward continued education requirements.

## Replacement Information

|             |  |
|-------------|--|
| STXH240S05  | Intermatic: AG3000<br>Ditek: D50-CM, DTK-120/240CM+, DTK-120HW<br>Mars: 83904, 83905, 83915<br>Supco: LBK10 5-2-1<br>(CPS): SPD60, SPD150<br>ICM: ICM515, ICM516, ICM517 |
| STXR480Y05  | Ditek: DTK-4803CMXPLUS<br>Intermatic: AG4803C3   |
| STXR480Y05A | Ditek: DTK-4803CMXPLUS<br>Intermatic: AG4803C3   |

# SURGE-TRAP SERIES

## Surge Protection Devices



### Specifications

| Part numbers                              | STXH240S05   | STXR480Y05   | STXR480Y05A  |
|---|--|--|--|
| Description                               | Surge Protection Device  | Surge Protection Device  | Surge Protection Device with optional audible alarm and remote dry contacts  |
| Electrical rating                         | 120/240 VAC, 50/60Hz   | 277/480 VAC, 50/60Hz   | 277/480 VAC, 50/60Hz   |
| Phase                                     | Single   | 3 Phase WYE  | 3 Phase WYE  |
| Modes of protection                       | 3  | 10   | 10   |
| Surge capacity                            | 50 kA  | 50 kA  | 50 kA  |
| Nominal discharge current rating (In)     | 20 kA  | 20 kA  | 20 kA  |
| Short circuit current rating (SCCR)       | 200 kA   | 200 kA   | 200 kA   |
| Max. continuous operating voltage (MCOV)* | L-L 300, L-N 150   | L-L 640, L-N 320, L-G 470, N-G 150   | L-L 640, L-N 320, L-G 470, N-G 150   |
| Voltage protection rating (VPR)*          | L-L 1000, L-N 600  | L-L 2000, L-N 1200, L-G 1800, N-G 700  | L-L 2000, L-N 1200, L-G 1800, N-G 700  |
| Flammability                              | UL94-5VA   | UL94-5VA   | UL94-5VA   |
| End-of-life LED indicator                 | Yes (180° visual)  | Yes (180° visual)  | Yes (180° visual)  |
| Wiring                                    | Pre-wired 18" 10 AWG   | Pre-wired 3' (1m) 10 AWG   | Pre-wired 3' (1m) 10 AWG   |
| Mounting type                             | 1/2" – 14 threaded hub. Includes sealing locking washer, 1/2" knockouts with 18" leads | 3/4" – 14 threaded hub includes locking washer, 3/4" knockouts with 3' leads, Optional mounting bracket for surface mount applications | 3/4" – 14 threaded hub includes locking washer, 3/4" knockouts with 3' leads, Optional mounting bracket for surface mount applications |
| Operating temperature                     | -40°F to 185°F (-40°C to 85°C)   | -40°F to 185°F (-40°C to 85°C)   | -40°F to 185°F (-40°C to 85°C)   |

\*Note: L-N = Line to Neutral, L-L = Line to Line, L-G = Line to Ground, N-G = Neutral to Ground

### Surge Protection Terms to Know

- **Surge** – The fluctuation in power that may cause damage to electrical equipment including HVAC equipment and appliances.
- **Metal Oxide Varistor (MOV)** – The most common SPD technology.
- **Thermally Protected Metal Oxide Varistor (TPMOV)** – Mersen's patented SPD technology; rated the best performing, most reliable surge suppression technology on the market.
- **Maximum Continuous Operating Voltage (MCOV)** – The maximum steady state voltage the SPD can withstand without becoming a fire or safety hazard. Also known as surge capacity or surge rating.
- **Nominal Discharge Current (IN)** – UL's test program term to measure peak current that can pass through a SPD and remains functional after 15 surges. The highest nominal discharge current rating by UL is 20kA.
- **UL1449 4th Edition** – Meets Underwriter's Laboratory highest standard of testing for SPDs.
- **Short Circuit Current Rating (SCCR)** – The amount of "available" current the SPD can be subjected to and also safely disconnect from the power source under short circuit conditions.
- **Voltage Protection Rating (VPR)** – The voltage allowed through the SPD after protecting a surge event. Similar to a golf score, the lower the rating, the better.
- **Type 1 Surge Protection** – Protect sensitive electronics from the damaging effects of electrical surges; installed before the main device in the load center.
- **Type 2 Surge Protection** – Protect sensitive electronics from the damaging effects of electrical surges. Intended for the installation of AC power and cable at the point of entrance to the building.

