

## STFE Elite Series - Active Tracking® Filters with Surge Protection

The SolaHD STF Elite DIN Rail Mount Series combines Active Tracking® technology with UL Listed surge protection to protect against the full spectrum of voltage transients and surges. It continuously tracks the input AC power line responding instantly into action upon detecting extraneous high frequency noise and high voltage transients caused by everyday events such as turning on machinery, motors, or equipment.

The STFE Series attenuates or reduces the amplitude of normal mode noise to a minimum of 90dB that occurs in a frequency range of 100KHz to 50MHz, and common mode noise to a minimum of 60dB that occurs in a frequency range of 5MHz to 50MHz. STFE provides the industry's best IEEE C62.41 Category "A & B" Ringwave protection.

They are built to meet your unique requirements, and are available in hardwired DIN Rail mount, single phase configuration. They are designed for years of trouble free operation and require little or no operator intervention after installation.

### Applications

- Control Panels
- Factory Automation Installations
- Point of Use Industrial Equipment
- Programmable Logic Controllers
- Dedicated Industrial and Machine Tools Equipment

### Features

- Series connected DIN Rail mounted filter
- Durable metal mount clip
- UL Listed surge current capacity – 45,000 Amps
- Transient protection in all modes (L-N, L-G, and N-G)
- Single phase applications up to 20 Amp
- Operating temperature from -40°C to +50°C
- Screw terminal connections
  - Reliable and convenient screw clamp connections
  - Accept 10-16 AWG wire
  - Meet IP20 specifications for ingress protection
- LED status indication
- Form C contact for remote monitoring
- Five year limited warranty



### Certifications and Compliances

- **cULus** UL Recognized Component
  - UL 1449, 3rd Edition, Type 4 locations
  - UL 1283
  - CSA C22.2 No. 8
- **CE** - EN 61643-11:2002
- RoHS Compliant

### Related Products

- Power Conditioners
- Uninterruptible Power System
- Power Supplies

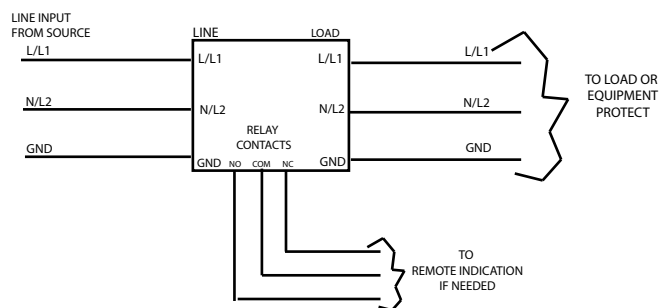
### Selection Table

| Catalog Number     | Input Voltage                |                              |
|--------------------|------------------------------|------------------------------|
|                    | 120 V                        | 240 V                        |
| <b>STFE030-10N</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |
| <b>STFE050-10N</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |
| <b>STFE100-10N</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |
| <b>STFE200-10N</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |
| <b>STFE030-24L</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |
| <b>STFE050-24L</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |
| <b>STFE100-24L</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |
| <b>STFE200-24L</b> | Single Phase 2 Wire + Ground | Single Phase 2 Wire + Ground |

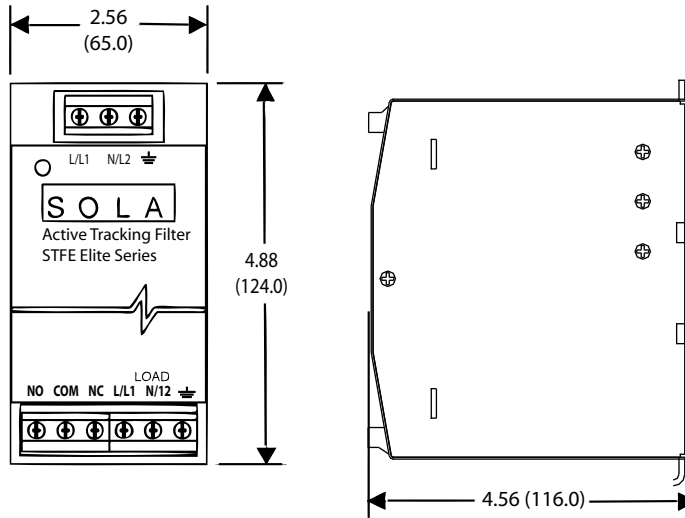
## STFE Specifications

| Description                          | STFEXXX-10N   | STFEXXX-24L         |
|--------------------------------------|---|---------------------|
| Input Voltage                        | 120 V (0-150 Vrms)  | 240 V (0-275 Vrms)  |
| Line Frequency                       | 47 - 63 Hz  |                     |
| Response Time                        | < .5 ns normal mode, <5 ns common mode                              |                     |
| Enclosure                            | Fully Enclosed Metal Housing  |                     |
| Fusing                               | Reference Fuse/Circuit Breaker Chart                                |                     |
| Status Indication                    | Green LED "OK"/Form C Contact/10 Amps @ 250 Vac or 5 Amps @ 100 Vdc |                     |
| Connection/Mounting Type             | DIN Rail Mount  |                     |
| Operating Temperature                | -40°C to +50°C at full load Derate Linearly to 60% at +70°C         |                     |
| Weight – lbs (kg)                    | 1.7 lbs (0.70 kg)   |                     |
| Dimensions – in (mm)<br>(H x W x D)  | 4.88 x 2.56 x 4.56<br>(124.0 x 65.0 x 116.0)                        |                     |
| Operating Humidity                   | 0% to 95% Non-condensing  |                     |
| Peak Surge Current Capability        | Per Phase   | 30,000 Amps         |
|                                      | Line to Neutral   | 20,000 Amps         |
|                                      | Line to Ground  | 10,000 Amps         |
|                                      | Neutral to Ground   | 10,000 Amps         |
| Load Surge Current Rating            | 10m Sec   | 5 x Nominal         |
|                                      | 1 sec   | 3 x Nominal         |
|                                      | 10 sec  | 2 x Nominal         |
| Frequency Response                   |   |                     |
| Normal Mode (Forward–Reverse)        | 100 kHz to 50 MHz   | 90 dB Max           |
| Common Mode (Forward–Reverse)        | 5 MHz to 50 MHz   | 60 dB Max           |
| Transient Reduction<br>(IEEE C62.41) | Typical Category A Ringwave<br>(6 kV, 200A, 100 kHz)                | < 60 V Peak         |
|                                      | Typical Category B Ringwave<br>(6 kV, 500A, 100 kHz)                | <100 V Peak UL 1449 |
| Warranty                             | 5 year limited warranty   |                     |

## Connection Diagram



Dimensional Diagram - in. (mm)



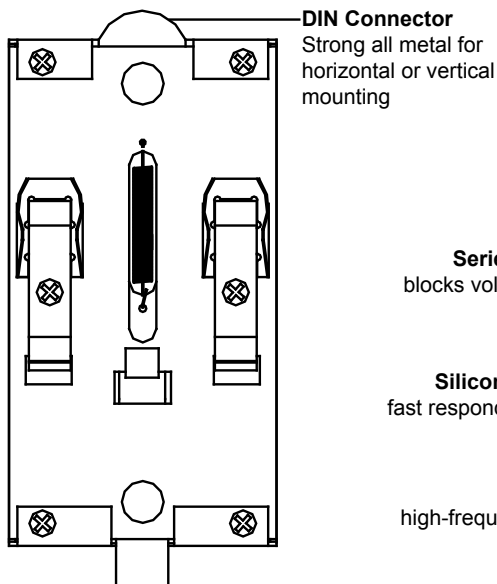
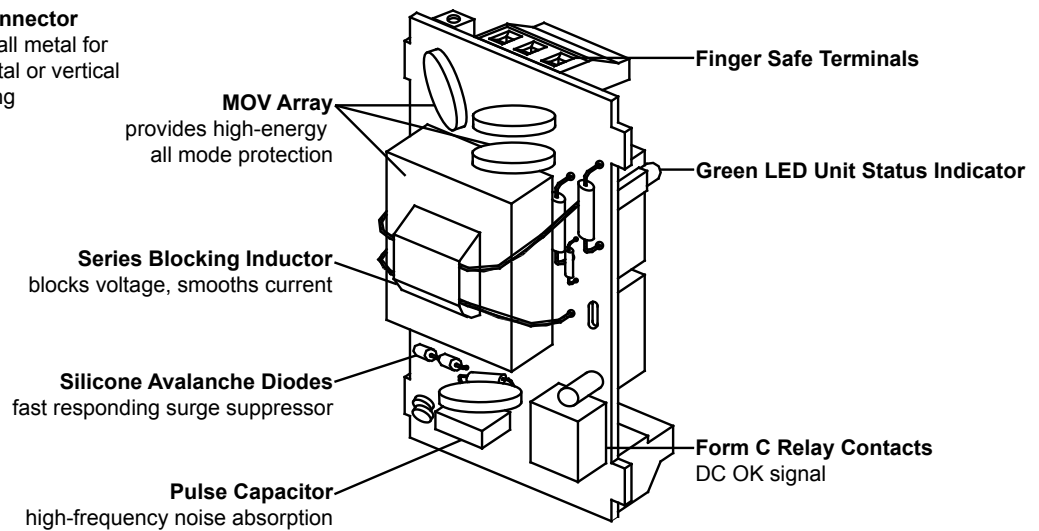
Wiring Specifications

| Catalog Number                | Amps | Min Wire Size *<br>(AWG Suggested) | Fuse/Circuit Breaker<br>Ampacity |       |
|-------------------------------|------|------------------------------------|----------------------------------|-------|
|                               |      |                                    | Suggest                          | Max   |
| Single-Phase Models (120 Vac) |      |                                    |                                  |       |
| STFE030-10N                   | 3.0  | 24                                 | 3A                               | 3.75A |
| STFE050-10N                   | 5.0  | 22                                 | 5A                               | 6.25A |
| STFE100-10N                   | 10.0 | 20                                 | 10A                              | 12.5A |
| STFE200-10N                   | 20.0 | 12                                 | 20A                              | 25A   |
| Single-Phase Models (240 Vac) |      |                                    |                                  |       |
| STFE030-24L                   | 3.0  | 24                                 | 3A                               | 3.75A |
| STFE050-24L                   | 5.0  | 22                                 | 5A                               | 6.25A |
| STFE100-24L                   | 10.0 | 20                                 | 10A                              | 12.5A |
| STFE200-24L                   | 20.0 | 12                                 | 20A                              | 25A   |

\* 16 AWG wire or larger may be required by code dependent upon the application.

Internal Diagram

Rear View

Internal View  
of Components

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Sola/Hevi-Duty:

[STFE030-10N](#) [STFE030-24L](#) [STFE050-10N](#) [STFE050-24L](#) [STFE100-24L](#) [STFE200-10N](#) [STFE200-24L](#)