

STFE Elite Series - SolaHD Tracking Filters with Surge Protection

The STFE Elite DIN Rail Mount Series combines SolaHD 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 -90 dB that occurs in a frequency range of 100 kHz to 50 MHz, and common mode noise to a minimum of 60 dB that occurs in a frequency range of 5 MHz to 50 MHz. STFE provides the industry's best IEEE C62.41 Category A and B Ringwave protection.

The STFE Series is 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
- Transient protection in all modes (L-N, L-G, and N-G)
- Single phase applications up to 20 Amps
- Operating temperature from -40 °C to +50 °C (-40 °F to +122 °F)
- 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

-  UL Recognized Component
 - UL 1449, Type 4 locations
 - UL 1283
 - CSA C22.2 No. 8
- ABS Type Approval (Pending)
- CE Compliance (Pending)
- RoHS Compliant

Related Products

- Power Conditioners
- Uninterruptible Power System
- Power Supplies

Selection Table

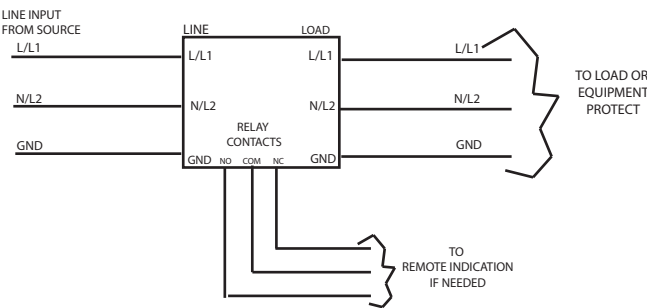
| Catalog Number | Input Voltage | |
|----------------|---------------|-------------------------------|
| STFE03010N | 120 V | Single Phase, 2 Wire + Ground |
| STFE05010N | 120 V | Single Phase, 2 Wire + Ground |
| STFE10010N | 120 V | Single Phase, 2 Wire + Ground |
| STFE20010N | 120 V | Single Phase, 2 Wire + Ground |
| STFE03024L | 240 V | Single Phase, 2 Wire + Ground |
| STFE05024L | 240 V | Single Phase, 2 Wire + Ground |
| STFE10024L | 240 V | Single Phase, 2 Wire + Ground |
| STFE20024L | 240 V | Single Phase, 2 Wire + Ground |

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Specifications

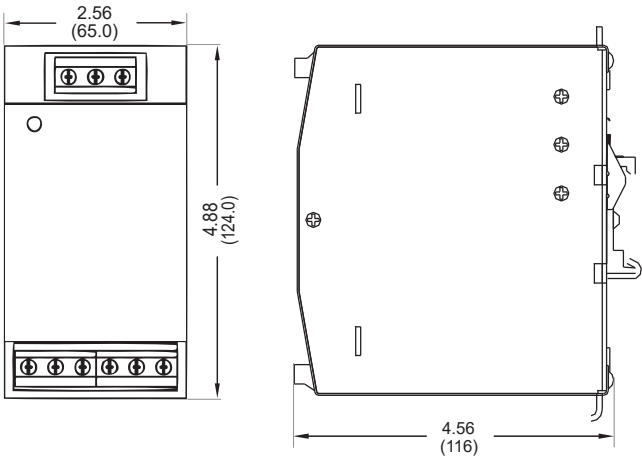
| Description | STFEXXX10N | STFEXXX24L |
|--------------------------------------|--|---------------------|
| Input Voltage | 120 V (0-150 Vrms) | 240 V (0-275 Vrms) |
| Line Frequency | 47 - 63 Hz | |
| Response Time | < .5 nanoseconds normal mode, <5 nanoseconds common mode | |
| Enclosure | Fully 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 (-40 °F to +122 °F) at full load Derate Linearly to 60% at +70 °C (+158 °F) | |
| Weight – lbs (kg) | 1.7 (0.70) | |
| Dimensions – in (mm) (H x W x D) | 4.88 x 2.56 x 4.56 (124.0 x 65.0 x 116.0) | |
| Operating Humidity | 0% to 95% Non-condensing | |
| Peak Surge Current Capability | Per Phase | 19,500 Amps |
| | Line to Neutral | 13,000 Amps |
| | Line to Ground | 6,500 Amps |
| | Neutral to Ground | 6,500 Amps |
| Load Surge Current Rating | 10 milliseconds | 5 x Nominal |
| | 1 second | 3 x Nominal |
| | 10 seconds | 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 (IEEE C62.41) | Typical Category A Ringwave (6 kV, 200 A, 100 kHz) | < 60 V Peak |
| | Typical Category B Ringwave (6 kV, 500 A, 100 kHz) | <100 V Peak UL 1449 |
| Warranty | 5 year limited warranty | |

Connection Diagram



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Dimensional Diagram - in. (mm)



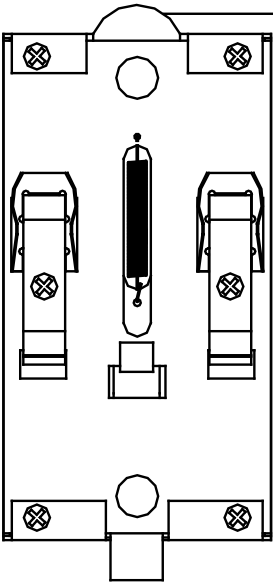
Wiring Specifications

| Catalog Number | Amps | Min Wire Size * (AWG Suggested) | Fuse/Circuit Breaker Ampacity | |
|-------------------------------|------|------------------------------------|----------------------------------|--------|
| | | | Suggest | Max |
| Single phase Models (120 Vac) | | | | |
| STFE03010N | 3.0 | 24 | 3 A | 3.75 A |
| STFE05010N | 5.0 | 22 | 5 A | 6.25 A |
| STFE10010N | 10.0 | 20 | 10 A | 12.5 A |
| STFE20010N | 20.0 | 12 | 20 A | 25 A |
| Single phase Models (240 Vac) | | | | |
| STFE03024L | 3.0 | 24 | 3 A | 3.75 A |
| STFE05024L | 5.0 | 22 | 5 A | 6.25 A |
| STFE10024L | 10.0 | 20 | 10 A | 12.5 A |
| STFE20024L | 20.0 | 12 | 20 A | 25 A |

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

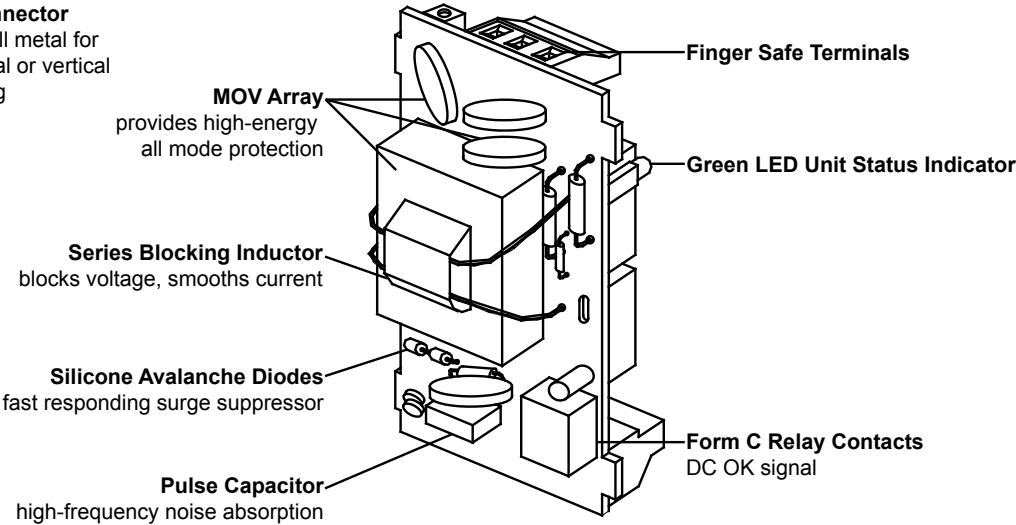
Internal Diagram

Rear View



DIN Connector
Strong all metal for horizontal or vertical mounting

Internal View of Components



Mouser Electronics

Authorized Distributor

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

SolaHD:

[STFE100-24L](#) [STFE10010N](#)