

STFE Elite Series - SolaHD Tracking Filters with Surge Protection

The STF 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

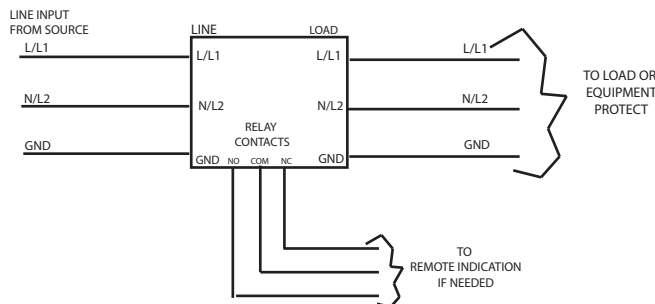
Catalog Number	Input Voltage	
	120 V	240 V
STFE03010N	Single Phase, 2 Wire + Ground	Single Phase, 2 Wire + Ground
STFE05010N	Single Phase, 2 Wire + Ground	Single Phase, 2 Wire + Ground
STFE10010N	Single Phase, 2 Wire + Ground	Single Phase, 2 Wire + Ground
STFE20010N	Single Phase, 2 Wire + Ground	Single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

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Specifications

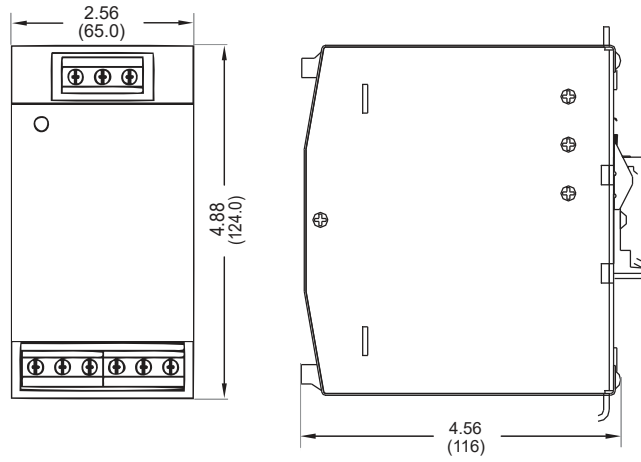
Description	STFEXXX10N	STFEXXX24L
Input Voltage	120 V (0-150 Vrms)	240 V (0-275 Vrms)
Line Frequency	47 - 63 Hz	
Response Time	< .5 nanoseconds normal mode, <5 nanoseconds common mode	
Enclosure	Fully Enclosed Metal Housing	
Fusing	Reference Fuse/Circuit Breaker Chart	
Status Indication	Green LED "OK"/form 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)



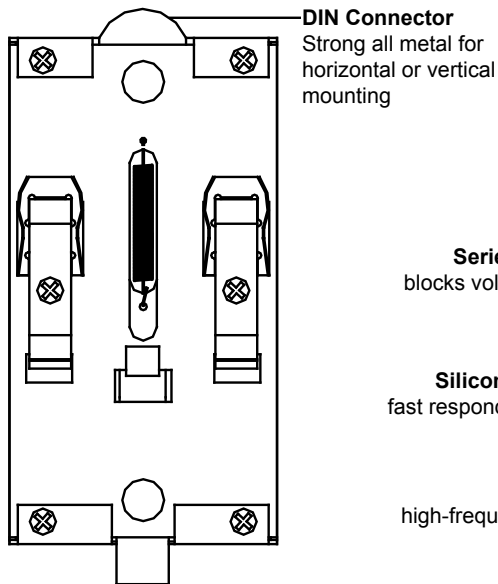
Wiring Specifications

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.

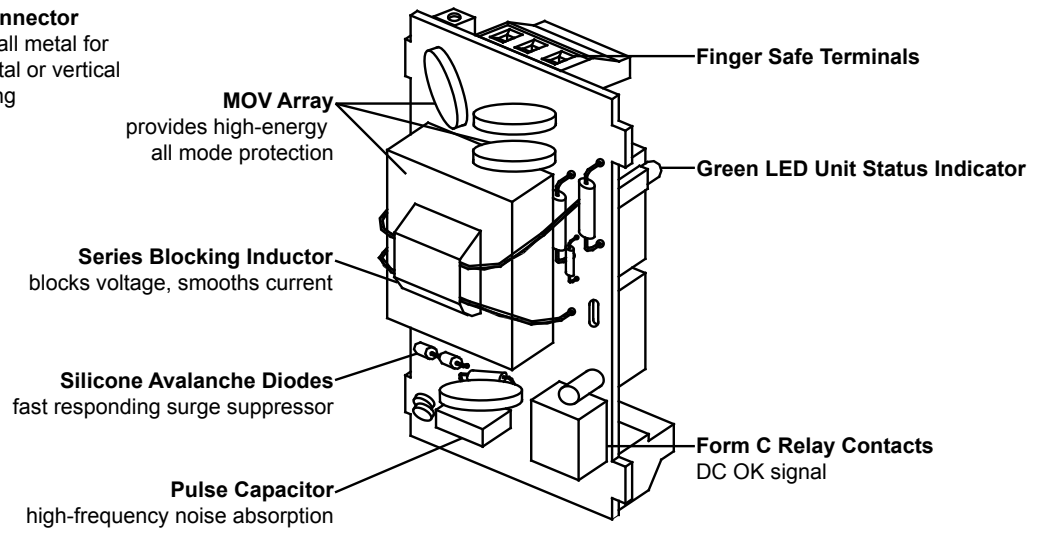
Internal Diagram

Rear View



DIN Connector
Strong all metal for horizontal or vertical mounting

Internal View of Components



MOV Array
provides high-energy all mode protection

Series Blocking Inductor
blocks voltage, smooths current

Silicone Avalanche Diodes
fast responding surge suppressor

Pulse Capacitor
high-frequency noise absorption

Finger Safe Terminals

Green LED Unit Status Indicator

Form C Relay Contacts
DC OK signal