

STFV Plus Series

SolaHD Tracking Filtering with Surge Protection

Series
STFV Plus

The STFV Plus Series combines SolaHD Tracking filtration for low-energy noise and surge protection for high-energy transients. 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.

These devices are designed to meet UL 1283 for Electromagnetic Interference Filters. STFV Plus attenuates or reduces the amplitude of high-frequency noise to a maximum of -90 dB that occurs in a range of 100 kHz to 50 MHz. STFV Plus provides the industry's best IEEE C62.41 Category A and B Ringwave protection.

They are designed for years of trouble free operation and require little or no operator intervention after installation.

SolaHD Tracking Filters Plus is one part of a total power quality solution. They can be used alone or in conjunction with other SolaHD products to solve more complex power quality problems.

Applications

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

Features

- Series filter/SPD technology for total durability
- High impact plastic case, epoxy encapsulated enclosure
- Transient protection in all modes (L-N, L-G, and N-G)
- Single phase applications up to 30 Amps
- Operating temperature from -40 °C to +60 °C (-40 °F to +140 °F)
- Hardwired connection
- LED power indication
- Ten year limited warranty



Certifications and Compliances

-  UL Recognized Component
 - UL 1283
 - CSA C22.2 No. 8
 - * RoHS Compliant

Features

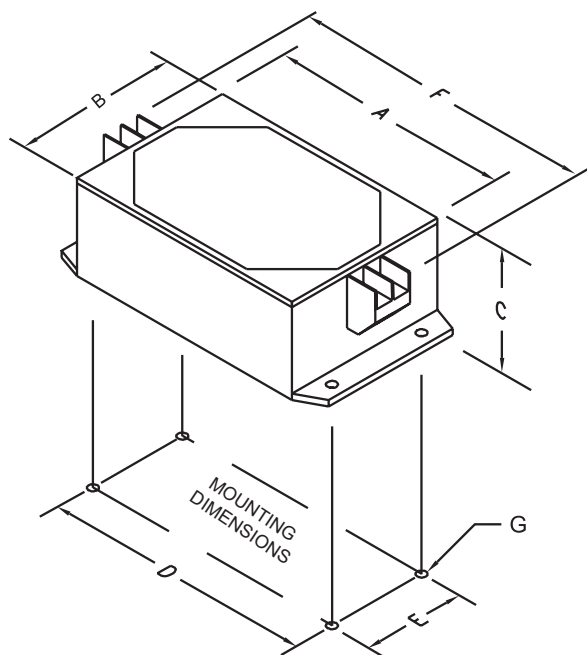
- Power Conditioners
- Uninterruptible Power Supplies
- Power Supplies

Power Protection and Conditioning

Selection Table

Catalog Number	Amps	Case Dim. in (mm) - A x B x C	Mounting Flange Dim. in (mm) - D x E x F x G	Number Min. Wire Size (AWG Suggested)	Screw Size	Fuse/Circuit Breaker Ampacity		Weight lbs (kg)	ICxxx Equivalent
						Suggest	Max		
STFV05010N	5.0	4.00 x 2.88 x 1.81 (101.6 x 73.2 x 46.0)	4.38 x 2.12 x 5.31 x 0.19 (111.3 x 53.8 x 134.9 x 4.8)	22	#6	5	6.25	1.3 (.59)	IC105
STFV15010N	15.0	6.25 x 4.75 x 2.35 (158.8 x 120.7 x 59.7)	6.75 x 3.50 x 7.75 x 0.19 (171.5 x 88.9 x 196.9 x 4.8)	14	#8	15	18.75	3.5 (1.59)	IC115
STFV30010N	30.0	7.75 x 4.75 x 2.35 (196.9 x 120.7 x 59.7)	8.25 x 3.50 x 9.00 x 0.19 (209.6 x 88.9 x 228.6 x 4.8)	10	#8	30	37.5	6.0 (2.72)	IC130

Dimensional Diagram



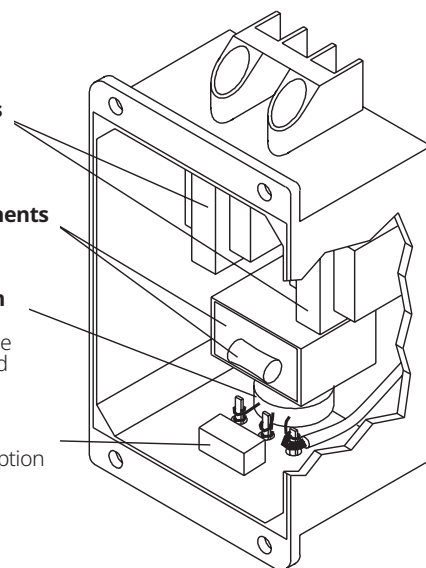
System Design

Series Blocking Inductors
smoothing inductors

Shunt Absorbing Components
sine wave tracking circuitry

MOV Transient Protection
high-energy transient
protection line to neutral, line
to ground, neutral to ground

Pulse Capacitor
high-frequency noise absorption



Power Protection and Conditioning

Specifications

Description	Value	
Input Voltage	0-150 Vrms	
Line Frequency	50/60 Hz	
Configuration	Single Phase (2 Wire + Ground)	
Response Time	< 5 nanoseconds	
Enclosure	High impact plastic case, 94V-0, Vacuum impregnated magnetics, epoxy encapsulated	
Fusing	External	
Status Indication	Green LED	
Connection/Mounting Type	Series/Panel Mount	
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F) at full load Derate Linearly to 60% at +70 °C (+158 °F)	
Operating Humidity	0% to 95% Non-condensing	
Mean Time Between Failure (MTBF)	Greater than 100,000 hours (Mil. Std. 217F)	
Packaging	High impact plastic case, vacuum impregnated magnetics, epoxy encapsulated	
Peak Surge Current Capability (8x20 µs)	Per Phase	13,000 Amps
	Line to Neutral	6,500 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 (Forward Reverse)	100 kHz to 50 MHz	-90 dB Max
Transient Reduction * (IEEE C62.41)	Typical Category A Ringwave (6 kV, 200 A, 100 kHz)	< 10 Volts peak
	Typical Category B Ringwave (6 kV, 500 A, 100 kHz)	< 50 Volts peak
Warranty	10 year limited warranty	

* All measurements in volts. IEEE test results with no AC applied.

Availability, design and specifications are subject to change without notice.
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