

## STFV Plus Series – Active Tracking® Filtering with Surge Protection

The SolaHD STFV Plus Series combines Active 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 90dB that occurs in a range of 100 kHz to 50 MHz. STFV Plus 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, single phase configuration. They are designed for years of trouble free operation and require little or no operator intervention after installation.

Active 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

- Non degrading, series filter/TVSS technology for total durability
- UL surge current capacity – 25,000 amps
- 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 amp
- Operating temperature from -40°C to +60°C
- Hardwired connection
- LED power indication
- Ten year limited warranty



### Certifications and Compliances

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

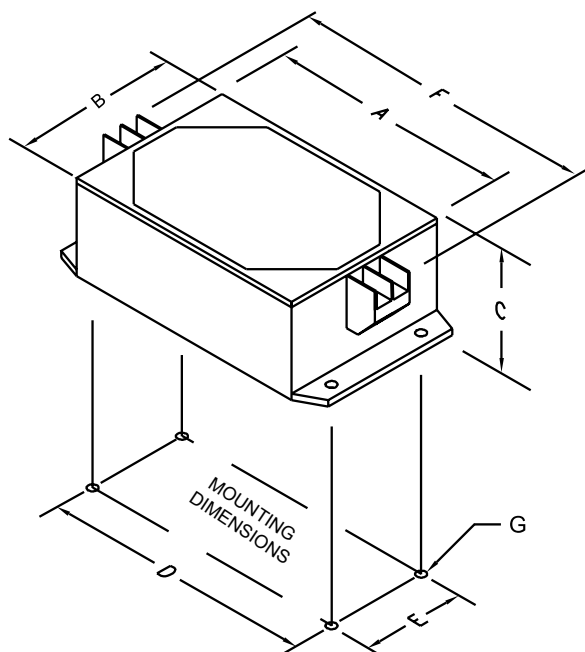
### Related Products

- Power Conditioners
- Uninterruptible Power Supplies
- Power Supplies

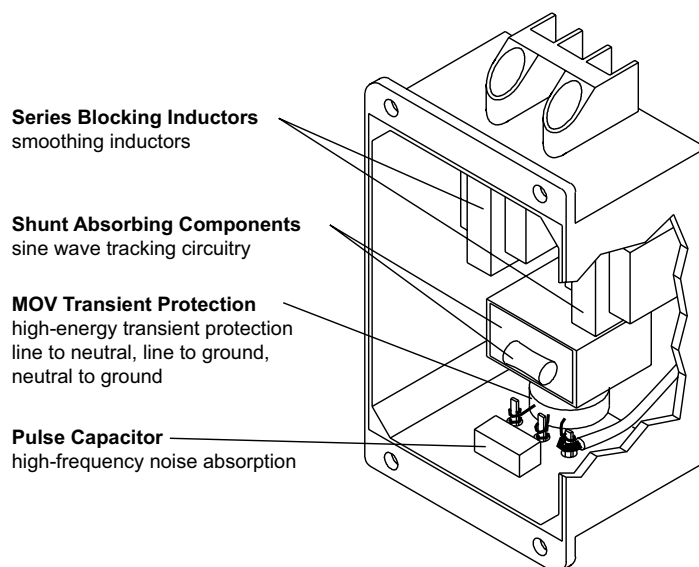
Selection Table

| Catalog Number                | Amps | Case Dim.<br>in (mm) – A x B x C             | Mounting Flange Dim.<br>in (mm) – D x E x F x G           | Number Min.<br>Wire Size<br>(AWG Suggested) | Screw Size | Fuse/Circuit Breaker Ampacity |       | Weight<br>lbs (kg) |
|-------------------------------|------|----------------------------------------------|-----------------------------------------------------------|---------------------------------------------|------------|-------------------------------|-------|--------------------|
|                               |      |                                              |                                                           |                                             |            | Suggest                       | Max   |                    |
| Single-Phase Models (120 Vac) |      |                                              |                                                           |                                             |            |                               |       |                    |
| STFV025-10N                   | 2.5  | 4.00 x 2.88 x 1.81<br>(101.6 x 73.2 x 46.0)  | 4.38 x 2.12 x 5.31 x 0.19<br>(111.3 x 53.8 x 134.9 x 4.8) | 26                                          | #6         | 2.5                           | 3.125 | 1.0 (.45)          |
| STFV050-10N                   | 5.0  | 4.00 x 2.88 x 1.81<br>(101.6 x 73.2 x 46.0)  | 4.38 x 2.12 x 5.31 x 0.19<br>(111.3 x 53.8 x 134.9 x 4.8) | 22                                          | #6         | 5                             | 6.25  | 1.3 (.59)          |
| STFV075-10N                   | 7.5  | 4.75 x 4.75 x 2.35<br>(120.7 x 120.7 x 59.7) | 5.25 x 3.50 x 6.25 x 0.19<br>(133.4 x 88.9 x 158.8 x 4.8) | 18                                          | #6         | 7.5                           | 6.25  | 2.0 (.91)          |
| STFV150-10N                   | 15.0 | 6.25 x 4.75 x 2.35<br>(158.8 x 120.7 x 59.7) | 6.75 x 3.50 x 7.75 x 0.19<br>(171.5 x 88.9 x 196.9 x 4.8) | 14                                          | #8         | 15                            | 18.75 | 3.5 (1.59)         |
| STFV300-10N                   | 30.0 | 7.75 x 4.75 x 2.35<br>(196.9 x 120.7 x 59.7) | 8.25 x 3.50 x 9.00 x 0.19<br>(209.6 x 88.9 x 228.6 x 4.8) | 10                                          | #8         | 30                            | 37.5  | 6.0 (2.72)         |
| Single-Phase Models (240 Vac) |      |                                              |                                                           |                                             |            |                               |       |                    |
| STFV025-24L                   | 2.5  | 4.00 x 2.88 x 1.81<br>(101.6 x 73.2 x 46.0)  | 4.38 x 2.12 x 5.31 x 0.19<br>(111.3 x 53.8 x 134.9 x 4.8) | 26                                          | #6         | 2.5                           | 3.125 | 1.3 (.59)          |
| STFV050-24L                   | 5.0  | 4.75 x 4.75 x 2.35<br>(120.7 x 120.7 x 59.7) | 5.25 x 3.50 x 6.25 x 0.19<br>(133.4 x 88.9 x 158.8 x 4.8) | 22                                          | #6         | 5                             | 6.25  | 2.0 (.91)          |
| STFV075-24L                   | 7.5  | 6.25 x 4.75 x 2.35<br>(158.8 x 120.7 x 59.7) | 6.75 x 3.50 x 7.75 x 0.19<br>(171.5 x 88.9 x 196.9 x 4.8) | 18                                          | #6         | 7.5                           | 9.375 | 3.5 (1.59)         |
| STFV150-24L                   | 15.0 | 7.75 x 4.75 x 2.35<br>(196.9 x 120.7 x 59.7) | 8.25 x 3.50 x 9.00 x 0.19<br>(209.6 x 88.9 x 228.6 x 4.8) | 14                                          | #8         | 15                            | 18.75 | 5.8 (2.63)         |
| STFV300-24L                   | 30.0 | 7.75 x 4.75 x 2.35<br>(196.9 x 120.7 x 59.7) | 8.25 x 3.50 x 9.00 x 0.19<br>(209.6 x 88.9 x 228.6 x 4.8) | 10                                          | #8         | 30                            | 37.5  | 6.0 (2.72)         |

Dimensional Diagram



System Design



## STFV Specifications

| Description                                    | Value                                                                             |                 |
|------------------------------------------------|-----------------------------------------------------------------------------------|-----------------|
| Input Voltage                                  | 120 Vac Models                                                                    | 0-150 Vrms      |
|                                                | 240 Vac Models                                                                    | 0-275 Vrms      |
| Line Frequency                                 | 50/60 Hz                                                                          |                 |
| Configuration                                  | Single Phase (2 wire + ground)                                                    |                 |
| Response Time                                  | < 5 ns                                                                            |                 |
| 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 at full load<br>Derate Linearly to 60% at +70°C                    |                 |
| 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 (8 x 20 $\mu$ s) | Per Phase                                                                         | 25,000 Amps     |
|                                                | Line to Neutral                                                                   | 12,500 Amps     |
|                                                | Line to Ground                                                                    | 12,500 Amps     |
|                                                | Neutral to Ground                                                                 | 12,500 Amps     |
| Load Surge Current Rating                      | 10m sec                                                                           | 5 x Nominal     |
|                                                | 1 sec                                                                             | 3 x Nominal     |
|                                                | 10 sec                                                                            | 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, 200A, 100 kHz)                                 | < 10 volts peak |
|                                                | Typical Category B Ringwave (6 kV, 500A, 100 kHz)                                 | < 50 volts peak |
| Warranty                                       | 10 year limited warranty                                                          |                 |

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

# Mouser Electronics

Authorized Distributor

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Sola/Hevi-Duty:

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