

# Surge-Trap<sup>®</sup> PV Pluggable SPD



## About the Surge-Trap PV Pluggable SPD

This Surge-Trap SPD provides advanced overvoltage protection to photovoltaic systems by utilizing Mersen's patented TPMOV design. The Surge-Trap Pluggable base is designed to be mounted on 35mm DIN-rail while plugs are easily replaceable upon failure without touching the base or the hassle of rewiring. It also features visual indicator, easy installation, fail-safe design, mechanical coding and remote monitoring.

## Features/Benefits

- Easy installation or retrofit
- DIN-rail mountable
- Fail-safe / self-protected design
- Remote indicator
- Visual Indicator
- No additional overcurrent protection required
- Two-year warranty
- Globally accepted



## Applications

- Re-combiner (sub-combiner, array combiner, master combiner) applications
- Inverter DC input protection
- Battery charge controllers

## Ratings

- 200kA SCCR
- Operating & storage temp: -25° to +60°C
- Wiring range: #6 to #14 AWG



## Approvals

- IEC 61643-1
- ANSI/IEEE C62.41
- CE
- RoHS Compliant



## Catalog Numbers - SPDs\*

	STP600YPVM	STP1000YPVM	STP1200YPVM
Nominal Voltage	600 VDC	1000 VDC	1200 VDC
Max Operating Voltage (Uc)	720 VDC	1200 VDC	1440 VDC
Nominal Discharge Current (I <sub>n</sub> , kA)	20	10	10
Max. Discharge Current (I <sub>max</sub> <sup>1</sup> , 8/20, kA)	40	40	40
Voltage Protection Level (U <sub>p</sub> @ I <sub>n</sub> , kV)	< 2.0	< 4.0	< 4.0
Replacement Plug Part No	SP350PV	SP670PV	SP745PV
Operating Temperature	-25°C to 60°C		
ISCWPV (kA)	10		
L/R	≤1mS		
Application	Type 2		
Standard	IEC 61643-1		

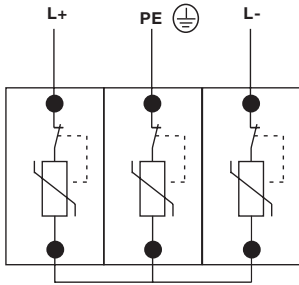
\* Includes base & plugs

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## Wiring Diagram

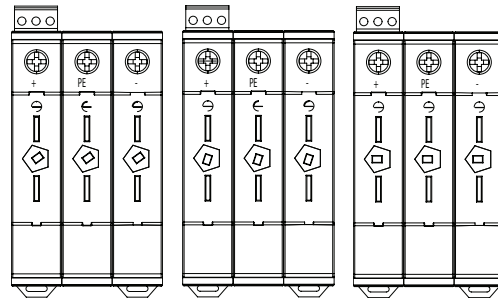


### Wire Installation

#6 – #14 AWG, 60/75°C  
Copper wire shall be used.  
Maximum torque to be applied to terminal screws is 2.0 newton-meter (14.75 in-lb). Strip back wire insulation 6mm (1/4").

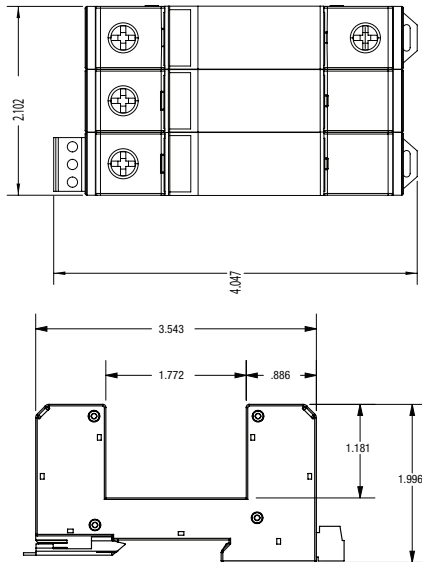
STP600YPVM / STP1000YPVM / STP1200YPVM

## Base & Voltage Key Orientation

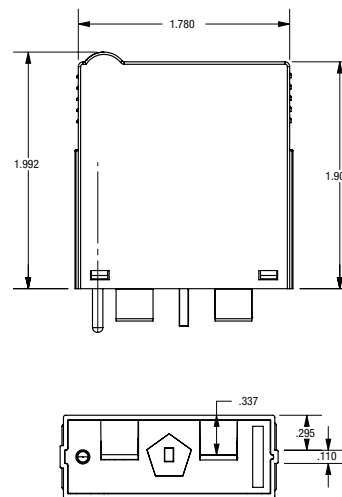


STP600YPVM / STP1000YPVM / STP1200YPVM

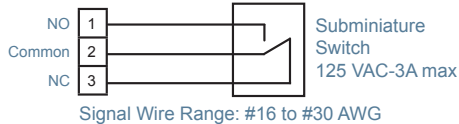
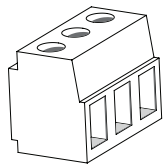
## Base Measurements



## Plug Measurements



## Microswitch Details



### Auxiliary Micro-Switch Installation

Remote signaling is available on all Surge-Trap products that specify a remote indicator. #16 – #30 AWG signal wire may be used. The maximum continuous current rating for the remote indicator is 3A.

- ▶ Terminal Torque 2.2 lb-in
- ▶ Cont. between Comm + NO = Product Offline, Not Protected
- ▶ Cont. between Comm + NC = Product Online, Protected

