Surge-Trap® Pluggable STPT2 Series - 40kA PV

SURGE PROTECTION FOR SOLAR-PHOTOVOLTAIC SYSTEMS

DC POWER LINE PROTECTION



STP T2 40 PV is the series of devices that provide advanced overvoltage protection to photovoltaic systems by utilizing Mersen's optimized dynamic thermal disconnection system, which does not require additional overcurrent protection (back-up fuse) due to its high short-circuit withstand rating. These surge protective devices are suitable for all PV applications: large-scale, rooftop and self-consumption (off-grid) DC installations. The series includes specific multipole products for multiple MPPT (Maximum power point tracker) inverters.

TECHNICAL DATA OVERVIEW

Class	Type 2 IEC 61643-31; Type 2 EN 50539-11; Type 2 UL 1449
Voltage Range DC	660 ... 1500 VDC
I_{scpv}	10000 A
SCCR	50 kA, 65 kA, 100 kA
Body Material	PA6 CT1; V-0
System type	Y PV, U PV, multiple MPPT
Number of poles	3, 5, 8
Format	Pluggable
Temperature range	-40 ... 85 ° C
Rigid wire Section	6 ... 35 mm²
Response Time	25 ns

FEATURES & BENEFITS

- Maximum discharge current (8/20µs): 40 kA
- Nominal discharge current (8/20µs): 10 kA, 20 kA
- Ucpv: 65, 80, 660, 1060 Vdc and 1500 Vdc
- Iscpv: 10 kA (EN 50539-11), no back-up fuse required
- SCCR: 50 kA, 65 kA, 100 kA (UL 1449 4th Ed.)
- DIN-rail mountable, plug-in format
- Multiple MPPT specific products with UL 1449 certification
- Visual and remote end of life indicators
- Reversible chassis to allow cable entry from above or below
- Mechanically coded cartridges to avoid cartridge replacement errors

APPLICATIONS

- Photovoltaic & wind

STANDARDS

- EN 50539-11
- UL 1449 4th Ed.
- IEC 61643-31

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PRODUCT RANGE



STPT2-40K1500V-YPVM

Large-scale and rooftop PV

Catalog number	Item number	Number of poles/ phases	Ucpv	I_{scpv}	I_{max} (8/20)	I_n (8/20)	U_p at I_n	Cartridge No L-N	Remote
Y PV									
STPT2-40K600V-YPV	83020138	3	660 VDC	10 kA	40 kA	20 kA	≤ 2.6 kV	SP2-40K600V-PV	No
STPT2-40K600V-YPVM	83020139	3	660 VDC	10 kA	40 kA	20 kA	≤ 2.6 kV	SP2-40K600V-PV	Yes
STPT2-40K1000V-YPV	83020140	3	1060 VDC	10 kA	40 kA	20 kA	≤ 4 kV	SP2-40K1000V-PV	No
STPT2-40K1000V-YPVM	83020141	3	1060 VDC	10 kA	40 kA	20 kA	≤ 4 kV	SP2-40K1000V-PV	Yes
STPT2-40K1500V-YPV	83020158	3	1500 VDC	10 kA	40 kA	15 kA	≤ 5 kV	SP2-40K1500V-PV	No
STPT2-40K1500V-YPVM	83020159	3	1500 VDC	10 kA	40 kA	15 kA	≤ 5 kV	SP2-40K1500V-PV	Yes



STPT2-40K1000V-8YPVM

Multipole for multiple MPPT inverters

Catalog number	Item number	Number of poles/ phases	Ucpv	I_{scpv}	I_{max} (8/20)	I_n (8/20)	U_p at I_n	Cartridge No L-N	Remote
Multiple MPPT									
STPT2-40K1000V-5YPVM	83020188	5	1060 VDC	10 kA	40 kA	20 A	≤ 4 kV	SP2-40K1000V-PV	Yes
STPT2-40K1000V-5Y2PVM	83020223	5	1060 VDC	10 kA	40 kA	20 A	≤ 4 kV	SP2-40K1000V-PV	Yes
STPT2-40K1000V-8YPVM	83020204	8	1060 VDC	10 kA	40 kA	20 A	≤ 4 kV	SP2-40K1000V-PV	Yes



SP2-40K1500V-PV

Replacement cartridges

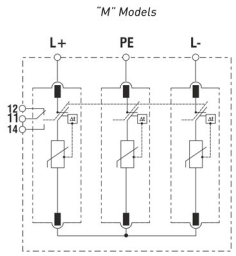
Catalog number	Item number	Ucpv	I_{scpv}	I_{max} (8/20)	I_n (8/20)	U_p at I_n
PV						
SP2-40K60V	83020008	65 VDC	1 kA	40 kA	20 kA	≤ 0.7 kV
SP2-40K75V	83020009	80 VDC	1 kA	40 kA	20 kA	≤ 0.8 kV
SP2-40K600V-PV	83020005	330 VDC	10 kA	40 kA	20 kA	≤ 1.3 kV
SP2-40K1000V-PV	83020006	530 VDC	10 kA	40 kA	20 kA	≤ 2 kV
SP2-40K1500V-PV	83020010	750 VDC	10 kA	40 kA	15 kA	≤ 2.5 kV

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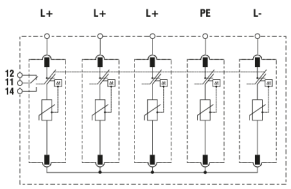
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ELECTRICAL DIAGRAMS

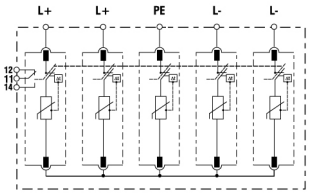
Y PV



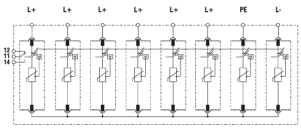
5Y PV



5Y2PV

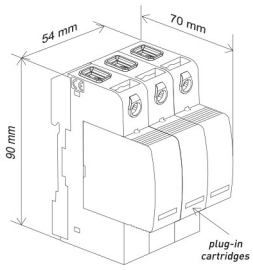


8Y PV

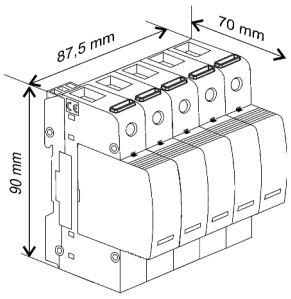


DIMENSIONS

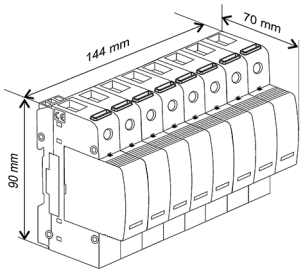
3 Poles



5 Poles



8 Poles



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