

Surge-Trap® Pluggable STPT2 Series - 40kA

SURGE PROTECTION FOR POWER LINES

DIN-RAIL IEC TYPE 2 / CLASS II



STP T2 40 is the series of Type 2/Class II devices for discharging voltage surges, in accordance with EN/IEC 61643. Suitable for the second stage of protection in supply distribution panels in which Type 1 protection devices are installed upstream, or for the first stage of protection in commercial or other applications not exposed to direct strikes and with no external lightning protection system.

TECHNICAL DATA OVERVIEW

Class	Type 2 / Class II
U_n	48V, 60V, 120/208V, 230/400V, 277/480V, 400/690V
I_{max}	40 kA
I_n (8/20)	20 kA
Body Material	PA66 CT1; V-0
System type	TT, TNS, TNC, IT
Number of Poles	1,2,3,4
Format	Pluggable
Temperature range	-40 ... 80 ° C
I_{cc}	25 kA
IP Code	20
Back-up fuse	125 A gG
Stranded wire Section	6 ... 25 mm ²
Rigid wire Section	6 ... 35 mm ²
Response Time	25 ns

FEATURES & BENEFITS

- Maximum discharge current (8/20µs): 40kA per phase
- Nominal discharge current (8/20µs): 20kA per phase
- TNS, TNC, TT and IT networks
- $U_n(L-N/L-L)$: 48V, 60V, 120/208V, 230/400V, 277/480V, 400/690V & higher
- DIN-rail mountable, plug-in format
- 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
- Back-up fuse: 125 A gG

APPLICATIONS

- Industry and automation
- Commercial and residential installations
- Telecom & IT & Data Centers
- LED outdoor lighting
- Water treatment
- Smart grid & LV Metering
- Photovoltaic & wind

STANDARDS

- IEC 61643-11
- EN 61643-11



Surge-Trap® Pluggable STPT2 Series - 40kA

PRODUCT RANGE



STPT2-40K275V-1PM

1 Pole

Catalog number	Reference number	U _n	U _c	I _{max} (8/20)	I _n (8/20)	U _p at I _n	Remote	Cartridge No	
								L-N	N-PE
L-N (1Ph)									
STPT2-40K150V-1P	83020104	120 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	No	SP2-40K150V	-
STPT2-40K150V-1PM	83020105	120 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	Yes	SP2-40K150V	-
STPT2-40K275V-1P	83020106	230 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	No	SP2-40K275V	-
STPT2-40K275V-1PM	83020107	230 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	Yes	SP2-40K275V	-
STPT2-40K320V-1P	83020108	277 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	No	SP2-40K320V	-
STPT2-40K320V-1PM	83020109	277 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	Yes	SP2-40K320V	-
STPT2-40K440V-1P	83020110	400 VAC	440 V	40 kA	20 kA	≤ 2 kV	No	SP2-40K440V	-
STPT2-40K440V-1PM	83020111	400 VAC	440 V	40 kA	20 kA	≤ 2 kV	Yes	SP2-40K440V	-
STPT2-30K750V-1P	83020100	690 VAC	750 V	30 kA	15 kA	≤ 3 kV	No	SP2-30K750V	-
STPT2-30K750V-1PM	83020101	690 VAC	750 V	30 kA	15 kA	≤ 3 kV	Yes	SP2-30K750V	-
N-PE (N)									
STPT2-40K-N	83020112	Neutral	265 V	40 kA	20 kA	≤ 1.5 kV	No	-	SP2-40K-N

Surge-Trap® Pluggable STPT2 Series - 40kA

PRODUCT RANGE



STPT2-40K275V-2PM

2 Poles

Catalog number	Reference number	U _n	U _c	I _{max} (8/20)	I _n (8/20)	U _p at I _n	Remote	Cartridge No	
								L-N	N-PE
TT (1Ph+N)									
STPT2-40K150V-2PG	83020114	120 VAC	150 V	40 kA	20 kA	≤ 0.9 kV (L-N) ≤ 1.5 kV (N-PE)	No	SP2-40K150V	SP2-40K-N
STPT2-40K150V-2PGM	83020115	120 VAC	150 V	40 kA	20 kA	≤ 0.9 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K150V	SP2-40K-N
STPT2-40K275V-2PG	83020116	230 VAC	275 V	40 kA	20 kA	≤ 1.3 kV (L-N) ≤ 1.5 kV (N-PE)	No	SP2-40K275V	SP2-40K-N
STPT2-40K275V-2PGM	83020117	230 VAC	275 V	40 kA	20 kA	≤ 1.3 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K275V	SP2-40K-N
STPT2-40K320V-2PG	83020118	277 VAC	320 V	40 kA	20 kA	≤ 1.4 kV (L-N) ≤ 1.5 kV (N-PE)	No	SP2-40K320V	SP2-40K-N
STPT2-40K320V-2PGM	83020119	277 VAC	320 V	40 kA	20 kA	≤ 1.4 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K320V	SP2-40K-N
TNS (1Ph+N)									
STPT2-40K60V-2P	83020128	48 VAC	60 V	40 kA	20 kA	≤ 0.7 kV	No	SP2-40K60V	-
STPT2-40K60V-2PM	83020129	48 VAC	60 V	40 kA	20 kA	≤ 0.7 kV	Yes	SP2-40K60V	-
STPT2-40K75V-2P	83020130	60 VAC	75 V	40 kA	20 kA	≤ 0.8 kV	No	SP2-40K75V	-
STPT2-40K75V-2PM	83020131	60 VAC	75 V	40 kA	20 kA	≤ 0.8 kV	Yes	SP2-40K75V	-
STPT2-40K150V-2P	83020120	120 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	No	SP2-40K150V	-
STPT2-40K150V-2PM	83020121	120 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	Yes	SP2-40K150V	-
STPT2-40K275V-2P	83020122	230 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	No	SP2-40K275V	-
STPT2-40K275V-2PM	83020123	230 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	Yes	SP2-40K275V	-
STPT2-40K320V-2P	83020124	277 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	No	SP2-40K320V	-
STPT2-40K320V-2PM	83020125	277 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	Yes	SP2-40K320V	-
IT (Ph+N) TNS (1Ph+N)									
STPT2-40K440V-2P	83020126	230 VAC (IT) 400 VAC (TNS)	440 V	40 kA	20 kA	≤ 2 kV	No	SP2-40K440V	-
STPT2-40K440V-2PM	83020127	230 VAC (IT) 400 VAC (TNS)	440 V	40 kA	20 kA	≤ 2 kV	Yes	SP2-40K440V	-

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

Surge-Trap® Pluggable STPT2 Series - 40kA

PRODUCT RANGE



STPT2-40K275V-3PM

3 Poles

Catalog number	Reference number	U _n	U _c	I _{max} (8/20)	I _n (8/20)	U _p at I _n	Remote	Cartridge No L-N
TNC (3Ph)								
STPT2-40K150V-3P	83020132	208 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	No	SP2-40K150V
STPT2-40K150V-3PM	83020133	208 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	Yes	SP2-40K150V
STPT2-40K275V-3P	83020134	400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	No	SP2-40K275V
STPT2-40K275V-3PM	83020135	400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	Yes	SP2-40K275V
STPT2-40K320V-3P	83020136	480 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	No	SP2-40K320V
STPT2-40K320V-3PM	83020137	480 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	Yes	SP2-40K320V
STPT2-30K750V-3P	83020102	690 VAC 1000 VAC	750 V	30 kA	15 kA	≤ 3 kV	No	SP2-30K750V
STPT2-30K750V-3PM	83020103	690 VAC 1000 VAC	750 V	30 kA	15 kA	≤ 3 kV	Yes	SP2-30K750V
IT (3Ph) TNC (3Ph)								
STPT2-40K440V-3P	83020142	400 VAC (IT) 690 VAC (TNC)	440 V	40 kA	20 kA	≤ 2 kV	No	SP2-40K440V
STPT2-40K440V-3PM	83020143	400 VAC (IT) 690 VAC (TNC)	440 V	40 kA	20 kA	≤ 2 kV	Yes	SP2-40K440V

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

Surge-Trap[®] Pluggable STPT2 Series - 40kA

PRODUCT RANGE



STPT2-40K275V-4PM

4 Poles

Catalog number	Reference number	U _n	U _c	I _{max} (8/20)	I _n (8/20)	U _p at I _n	Remote	Cartridge No	
								L-N	N-PE
TT (3Ph+N)									
STPT2-40K150V-4PG	83020144	120/208 VAC	150 V	40 kA	20 kA	≤ 0.9 kV (L-N) ≤ 1.5 kV (N-PE)	No	SP2-40K150V	SP2-40K-N
STPT2-40K150V-4PGM	83020145	120/208 VAC	150 V	40 kA	20 kA	≤ 0.9 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K150V	SP2-40K-N
STPT2-40K275V-4PG	83020146	230/400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV (L-N) ≤ 1.5 kV (N-PE)	No	SP2-40K275V	SP2-40K-N
STPT2-40K275V-4PGM	83020147	230/400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K275V	SP2-40K-N
STPT2-40K320V-4PG	83020148	277/480 VAC	320 V	40 kA	20 kA	≤ 1.4 kV (L-N) ≤ 1.5 kV (N-PE)	No	SP2-40K320V	SP2-40K-N
STPT2-40K320V-4PGM	83020149	277/480 VAC	320 V	40 kA	20 kA	≤ 1.4 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K320V	SP2-40K-N
TNS (3Ph+N)									
STPT2-40K150V-4P	83020150	120/208 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	No	SP2-40K150V	-
STPT2-40K150V-4PM	83020151	120/208 VAC	150 V	40 kA	20 kA	≤ 0.9 kV	Yes	SP2-40K150V	-
STPT2-40K275V-4P	83020152	230/400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	No	SP2-40K275V	-
STPT2-40K275V-4PM	83020153	230/400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	Yes	SP2-40K275V	-
STPT2-40K320V-4P	83020154	277/480 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	No	SP2-40K320V	-
STPT2-40K320V-4PM	83020155	277/480 VAC	320 V	40 kA	20 kA	≤ 1.4 kV	Yes	SP2-40K320V	-
IT (3Ph+N) TNS (3Ph+N)									
STPT2-40K440V-4P	83020156	230/400 VAC (IT) 400/690 VAC (TNS)	440 V	40 kA	20 kA	≤ 2 kV	No	SP2-40K440V	-
STPT2-40K440V-4PM	83020157	230/400 VAC (IT) 400/690 VAC (TNS)	440 V	40 kA	20 kA	≤ 2 kV	Yes	SP2-40K440V	-

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

Surge-Trap® Pluggable STPT2 Series - 40kA

PRODUCT RANGE



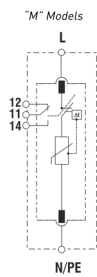
SP2-40K275V

Replacement cartridges

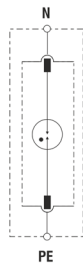
Catalog number	Reference number	U_n	U_c	I_{max} (8/20)	I_n (8/20)	U_p at I_n
L-N						
SP2-40K60V	83020008	48 VAC	60 V	40 kA	20 kA	≤ 0.7 kV
SP2-40K75V	83020009	60 VAC	75 V	40 kA	20 kA	≤ 0.8 kV
SP2-40K150V	83020001	120 VAC	150 V	40 kA	20 kA	≤ 0.9 kV
SP2-40K275V	83020002	230 VAC	275 V	40 kA	20 kA	≤ 1.3 kV
SP2-40K320V	83020003	277 VAC	320 V	40 kA	20 kA	≤ 1.4 kV
SP2-40K440V	83020004	400 VAC	440 V	40 kA	20 kA	≤ 2 kV
SP2-30K750V	83020007	690 VAC	750 V	30 kA	20 kA	≤ 3 kV
N-PE						
SP2-40K-N	83020000	Neutral	265 V	40 kA	20 kA	≤ 1.5 kV

ELECTRICAL DIAGRAMS

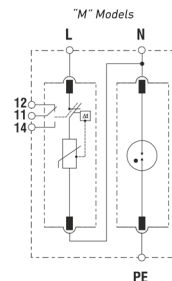
L-N (1Ph)



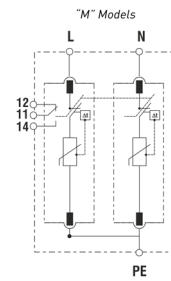
N-PE (N)



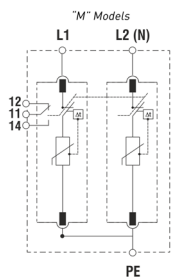
TT (1Ph+N) - 2PG



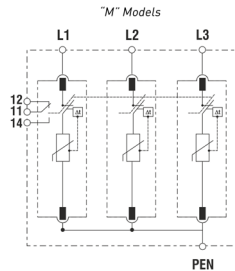
TNS (1Ph+N) - 2P



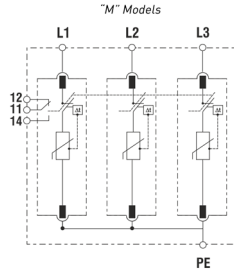
IT (1Ph+N) - 2P



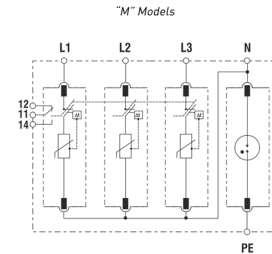
TNC (3Ph) - 3P



IT (3Ph) - 3P



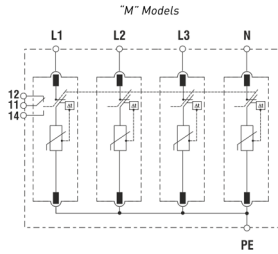
TT (3Ph+N) - 4PG



Surge-Trap[®] Pluggable STPT2 Series - 40kA

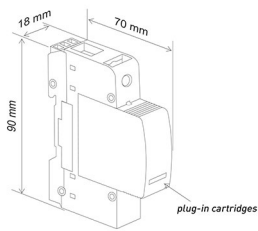
ELECTRICAL DIAGRAMS

TNS (3Ph+N) - 4P

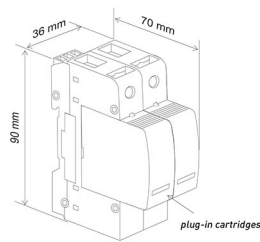


DIMENSIONS

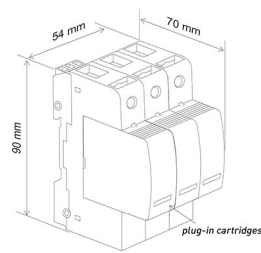
1 Pole



2 Poles



3 Poles



4 Poles

