

# Surge-Trap<sup>®</sup> 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 and certified UL 1449 4th Ed. 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
SCCR	50 ... 100 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 ... 85 ° C
$I_{cc}$	25 kA
IP Code	20
Back-up fuse	125 A gG
Stranded wire Section	6 ... 25 mm <sup>2</sup>
Rigid wire Section	6 ... 35 mm <sup>2</sup>
Response Time	25 ns

## FEATURES & BENEFITS

- Maximum discharge current (8/20 $\mu$ s): 40kA per phase
- Nominal discharge current (8/20 $\mu$ s): 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
- File UL: E468946

## 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
- UL 1449 4th Ed.



Surge-Trap<sup>®</sup> Pluggable STPT2 Series - 40kA

## PRODUCT RANGE



STPT2-40K275V-1PM

## 1 Pole

Catalog number	Item number	U <sub>n</sub>	U <sub>c</sub>	I <sub>max</sub> (8/20)	I <sub>n</sub> (8/20)	U <sub>p</sub> at I <sub>n</sub>	Remote	Cartridge No	
								L-N	N-PE
<b>L-N (1Ph)</b>									
STPT2-40K150V-1P	83020104	120 VAC	150 V	40 kA	20 kA	≤ 1 kV	No	SP2-40K150V	-
STPT2-40K150V-1PM	83020105	120 VAC	150 V	40 kA	20 kA	≤ 1 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	≤ 1.5 kV	No	SP2-40K320V	-
STPT2-40K320V-1PM	83020109	277 VAC	320 V	40 kA	20 kA	≤ 1.5 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	-
<b>N-PE (N)</b>									
STPT2-40K-N	83020112	Neutral	277 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	Item number	U <sub>n</sub>	U <sub>c</sub>	I <sub>max</sub> (8/20)	I <sub>n</sub> (8/20)	U <sub>p</sub> at I <sub>n</sub>	Remote	Cartridge No	
								L-N	N-PE
<b>TT (1Ph+N)</b>									
STPT2-40K150V-2PG	83020114	120 VAC	150 V	40 kA	20 kA	≤ 1 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	≤ 1 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	≤ 1.5 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	≤ 1.5 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K320V	SP2-40K-N
<b>TNS (1Ph+N)</b>									
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	≤ 1 kV	No	SP2-40K150V	-
STPT2-40K150V-2PM	83020121	120 VAC	150 V	40 kA	20 kA	≤ 1 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	≤ 1.5 kV	No	SP2-40K320V	-
STPT2-40K320V-2PM	83020125	277 VAC	320 V	40 kA	20 kA	≤ 1.5 kV	Yes	SP2-40K320V	-
<b>IT (Ph+N) TNS (1Ph+N)</b>									
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	-

Surge-Trap<sup>®</sup> Pluggable STPT2 Series - 40kA

## PRODUCT RANGE



STPT2-40K275V-3PM

## 3 Poles

Catalog number	Item number	U <sub>n</sub>	U <sub>c</sub>	I <sub>max</sub> (8/20)	I <sub>n</sub> (8/20)	U <sub>p</sub> at I <sub>n</sub>	Remote	Cartridge No L-N
<b>TNC (3Ph)</b>								
STPT2-40K150V-3P	83020132	120 / 208 VAC	150 V	40 kA	20 kA	≤ 1 kV	No	SP2-40K150V
STPT2-40K150V-3PM	83020133	120 / 208 VAC	150 V	40 kA	20 kA	≤ 1 kV	Yes	SP2-40K150V
STPT2-40K275V-3P	83020134	230 / 400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	No	SP2-40K275V
STPT2-40K275V-3PM	83020135	230 / 400 VAC	275 V	40 kA	20 kA	≤ 1.3 kV	Yes	SP2-40K275V
STPT2-40K320V-3P	83020136	277 / 480 VAC	320 V	40 kA	20 kA	≤ 1.5 kV	No	SP2-40K320V
STPT2-40K320V-3PM	83020137	277 / 480 VAC	320 V	40 kA	20 kA	≤ 1.5 kV	Yes	SP2-40K320V
STPT2-30K750V-3P	83020102	400 / 690 VAC (IT) 690 / 1000 VAC (TNC)	750 V	30 kA	15 kA	≤ 3 kV	No	SP2-30K750V
STPT2-30K750V-3PM	83020103	400 / 690 VAC (IT) 690 / 1000 VAC (TNC)	750 V	30 kA	15 kA	≤ 3 kV	Yes	SP2-30K750V
<b>IT (3Ph) TNC (3Ph)</b>								
STPT2-40K440V-3P	83020142	230 / 400 VAC (IT) 400 / 690 VAC (TNC)	440 V	40 kA	20 kA	≤ 2 kV	No	SP2-40K440V
STPT2-40K440V-3PM	83020143	230 / 400 VAC (IT) 400 / 690 VAC (TNC)	440 V	40 kA	20 kA	≤ 2 kV	Yes	SP2-40K440V

## Surge-Trap® Pluggable STPT2 Series - 40kA

## PRODUCT RANGE



STPT2-40K275V-4PM

## 4 Poles

Catalog number	Item number	U <sub>n</sub>	U <sub>c</sub>	I <sub>max</sub> (8/20)	I <sub>n</sub> (8/20)	U <sub>p</sub> at I <sub>n</sub>	Remote	Cartridge No	
								L-N	N-PE
<b>TT (3Ph+N)</b>									
STPT2-40K150V-4PG	83020144	120/208 VAC	150 V	40 kA	20 kA	≤ 1 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	≤ 1 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	≤ 1.5 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	≤ 1.5 kV (L-N) ≤ 1.5 kV (N-PE)	Yes	SP2-40K320V	SP2-40K-N
<b>TNS (3Ph+N)</b>									
STPT2-40K150V-4P	83020150	120/208 VAC	150 V	40 kA	20 kA	≤ 1 kV	No	SP2-40K150V	-
STPT2-40K150V-4PM	83020151	120/208 VAC	150 V	40 kA	20 kA	≤ 1 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	≤ 1.5 kV	No	SP2-40K320V	-
STPT2-40K320V-4PM	83020155	277/480 VAC	320 V	40 kA	20 kA	≤ 1.5 kV	Yes	SP2-40K320V	-
<b>IT (3Ph+N) TNS (3Ph+N)</b>									
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	-

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# Surge-Trap® Pluggable STPT2 Series - 40kA

## PRODUCT RANGE



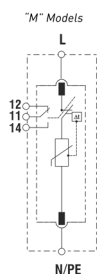
SP2-40K275V

### Replacement cartridges

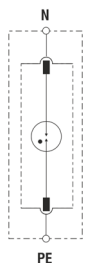
Catalog number	Item number	$U_n$	$U_c$	$I_{max}$ (8/20)	$I_n$ (8/20)	$U_p$ at $I_n$
<b>L-N</b>						
SP2-40K60V	83020008	48 VAC	60 V	40 kA	20 kA	$\leq 0.7$ kV
SP2-40K75V	83020009	60 VAC	75 V	40 kA	20 kA	$\leq 0.8$ kV
SP2-40K150V	83020001	120 VAC	150 V	40 kA	20 kA	$\leq 1$ kV
SP2-40K275V	83020002	230 VAC	275 V	40 kA	20 kA	$\leq 1.3$ kV
SP2-40K320V	83020003	277 VAC	320 V	40 kA	20 kA	$\leq 1.5$ kV
SP2-40K440V	83020004	400 VAC	440 V	40 kA	20 kA	$\leq 2$ kV
SP2-30K750V	83020007	690 VAC	750 V	30 kA	15 kA	$\leq 3$ kV
<b>N-PE</b>						
SP2-40K-N	83020000	Neutral	277 V	40 kA	20 kA	$\leq 1.5$ kV

## ELECTRICAL DIAGRAMS

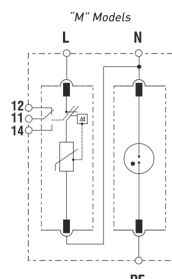
**L-N (1Ph)**



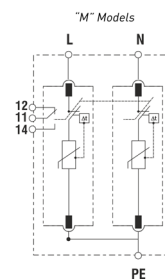
**N-PE (N)**



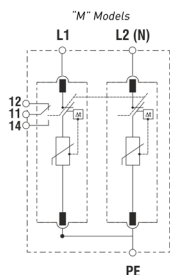
**TT (1Ph+N) - 2PG**



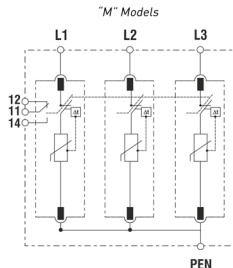
**TNS (1Ph+N) - 2P**



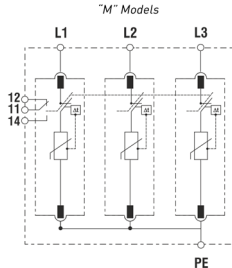
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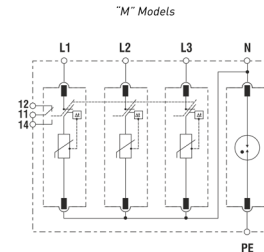
**TNC (3Ph) - 3P**



**IT (3Ph) - 3P**



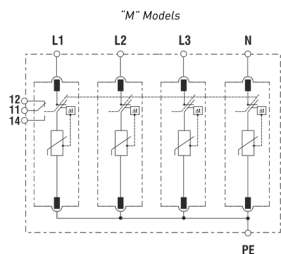
**TT (3Ph+N) - 4PG**



# Surge-Trap<sup>®</sup> Pluggable STPT2 Series - 40kA

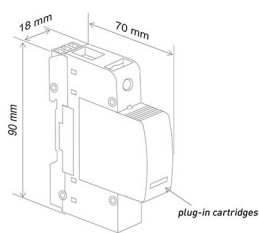
## ELECTRICAL DIAGRAMS

### TNS (3Ph+N) - 4P

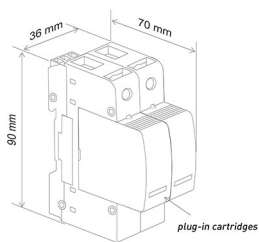


## DIMENSIONS

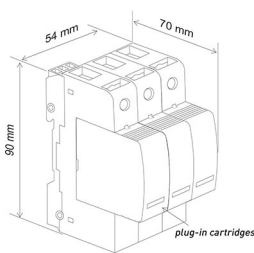
### 1 Pole



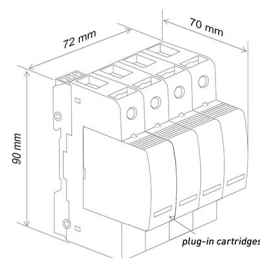
### 2 Poles



### 3 Poles



### 4 Poles



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