

50kA/phase Model



This is the T45 Non-Modular unit in the 50kA per Phase surge current capacity. This T45 Non-Modular Surge Protective Device has a 5.2" x 3.2" x 2.8" NEMA 4X rated polycarbonate enclosure and weighs less than 1.5 pounds, making this the smallest T45 SPD. It has a watertight indoor/outdoor rating, a liquid-tight connector, and external mounting flanges. The flange brackets are removable, and the unit may be mounted with #6 screws. This second mounting location is beneath the cover screws and will exit where the brackets were attached, allowing for an even more compact install. This unit is the perfect fit for applications in which the SPD must fit in a small space or where high-capacity units are not required. These qualities also make this unit especially useful in downstream applications.

This is the smallest T45 unit; however, it is still available in a wide range of voltage and phase configurations. Each protected phase uses combined indication by a singular LED. It has Form "C" dry contact relays for remote indication capabilities. There is a separate "Power" LED to let users know it is energized and functional since the service LED will remain off unless there is a failure. All modes are monitored by the service LED.

It is available as either a UL 1449 Type 1 or Type 2 device. Despite its small size, this SPD in a Type 2 configuration is still equipped with a UL 1283 Listed filter.

This SPD uses advanced Thermally Protected Metal Oxide Varistors. They are in the same rugged MOVs as the larger units in the T45 family, and we continue to use symmetrical surge pathways to allow the unit to take a strike at its full capacity rating.

This unit has 36" of #12 AWG wire leads.

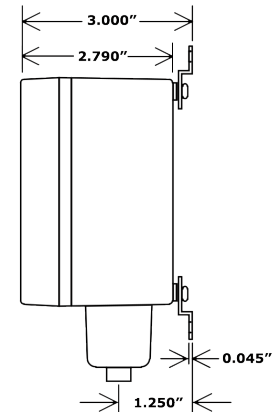
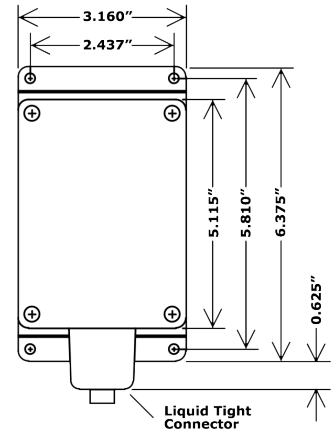
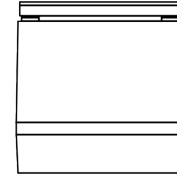
Features:

- 50kA/phase available
- Compact and easy to install
- UL 1449 Fourth Edition Listed
- Available in UL 1449 Type 1 or Type 2 Configurations
- Sine Wave Tracking: UL 1449 Type 2
UL 1283 Listed
- 36" of #12 AWG Wire Leads
- LED Status Indication
- Form "C" Dry Contacts
- Flange style mounting brackets pre-installed

- NEMA 4X rated enclosure for indoor & outdoor use
- Liquid tight connection
- 200kA SCCR
- Lifecycle tested to 12,000 10kA Impulses
- All modes of protection
- Thermally Protected MOVs
- Multiple MOV technology featuring large and robust MOVs
- Equidistant and symmetrical surge pathways for a true surge capacity rating
- 10 Year Warranty

T45 Non-Modular Surge Protective Device 50kA per Phase

General Technical Specifications	
Connection Type	Parallel, Wire Lead - #12 AWG
Voltage, Phase Configuration	120/240 Split Phase, (3W+G) 120/208V Three Phase Wye, (4W+G)* (127/220V Three Phase Wye, (4W+G))* (220/380V Three Phase Wye, (4W+G))** 277/480V Three Phase Wye (4W+G)** 240V Three Phase Delta (3W+G) 480V Three Phase Delta, (3W+G) 240/480V Three Phase Delta Hi-Leg, (4W+G)
Maximum Continuous Operating Voltage	120V, 150 VAC (125%); 127V, 150 VAC (118%); 220V, 320 VAC (145%); 240V, 320 VAC; 277V, 320 VAC; 480V, 550 VAC; All Others 115%
Surge Capacity	25kA/Mode, 50kA/Phase
Short Circuit Current Rating (SCCR)	200kAIC
Protection Modes	All Modes: L-N, L-L, L-G, N-G
Operating Frequency Range	47 - 63 Hz
UL 1449 Location Type	Type 1 (SPDs intended for Line or Load Side of Main Disconnect) or Type 2 (Intended for Load Side of Main Disconnect)
UL 1449 Nominal Discharge Current (In)	10 kA
Standards	UL 1449 4th Edition, CSA, UL 96A Lightning Protection Master Label compliant
Status Indication	Power and Service LEDs, Form "C" Dry Contact Relay
Enclosure	NEMA 4X Polycarbonate
Dimensions	5.115" x 3.16" x 2.79" (H x W x D)
Weight	1.40 lbs
50 Ohm EMI/RFI Attenuation	-50 db max(Type 2), -45db max(Type 1); from 10 kHz to 100MHz. The system provides up to 120dB insertion loss from 100 kHz to 100 MHz when used in a coordinated facility system.
Response Time	<0.5 nanoseconds
Operating Temperature	-40°C to +75°C
Operating Humidity	0% to 95% non-condensing
Warranty	10 Years

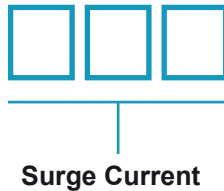
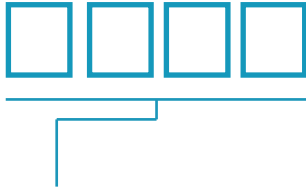


*This is a 120/208V unit, and can be used in 127/220V applications

**This is a 277/480V unit, and can be used in 220/380V applications

T45 Non-Modular Surge Protective Device 50kA per Phase

T45



S M

Voltage & Phase Configuration Code

- 120S** = 120/240V Split Phase (3W+G) - Fig 1
- 120N** = 120V Single Phase (L1, N, G) - Fig 5
- 120Y** = 120/208V 3 Phase Wye, (4W+G)* - Fig 2
- 127Y** = 127/220V 3 Phase Wye, (4W+G)* - Fig 2
- 220Y** = 220/380V 3 Phase Wye, (4W+G)** - Fig 2
- 277Y** = 277/480V 3 Phase Wye (4W+G)** - Fig 2
- 240L** = 240V Single Phase (L1, L2, G) - Fig 6
- 240D** = 240V 3 Phase Delta (3W+G) - Fig 3
- 240H** = 240/480V 3 Phase Delta Hi-Leg (4W+G) - Fig 4
- 480D** = 480V 3 Phase Delta, (3W+G) - Fig 3

Surge Current Capacity Code
025 = 50kA/Phase

Connection Type
W - Wire Lead

UL 1449 Location Type
1 - Type 1
2 - Type 2

Example Product number:

Filled in:

Complete:

T45 120Y 025 A W AJ 1 S M = T45120Y025AWAJ1SM

*This is a 120/208V unit, and can be used in 127/220V applications

**This is a 277/480V unit, and can be used in 220/380V applications

You may place the order as either part number.

Fig. 1

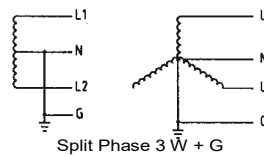


Fig. 2

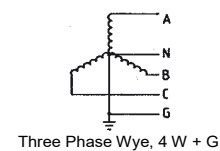
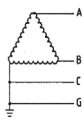
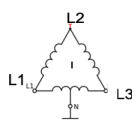


Fig. 3



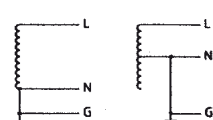
Three Phase Delta, 3 W + G

Fig. 4



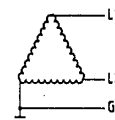
Three Phase Delta Hi Leg, 4 W + G

Fig. 5



Single Phase L-N, 2 W + G

Fig. 6



Single Phase L-L, 2 W + G

System Voltage Compatibility

Model Voltage/Phase Code	Nominal System Voltages	System Configuration	MCOV	I _n	SCCR	UL 1449 Voltage Protection Rating			
						L-N	L-G	N-G	L-L
120N	120	Single Phs, 2W+G	150	10kA	200kA	700	700	700	
120S	120/240	Split Phs, 3W+G	150	10kA	200kA	700	700	700	1200
120Y	120/208; 127/220	3 Phs Wye, 4W+G	150	10kA	200kA	700	700	700	1200
127Y	120/208; 127/220	3 Phs Wye, 4W+G	150	10kA	200kA	700	700	700	1200
220Y	220/380; 240/415; 277/480	3 Phs Wye, 4W+G	320	10kA	200kA	1200	1200	1200	2000
240L	240	Single Phs, 2W+G	320	10kA	200kA		1200		1200
240H	240/480	3 Phs Delta Hi-leg, 4W+G	320/550	10kA	200kA	1200/1800	1200/1800	1200	2000/3000
277Y	220/380; 240/415; 277/480	3 Phs Wye, 4W+G	320	10kA	200kA	1200	1200	1200	2000
240D	220; 230; 240	3 Phs Delta, 3W+G	320	10kA	200kA		1200		1200
480D	380; 400; 415; 440; 460; 480	3 Phs Delta, 3W+G	550	10kA	200kA		1800		3000
600D	525; 600	3 Phs Delta, 3W+G	690	10kA	200kA		2000		4000