

100kA/phase - 300kA/phase Model



This is the T45 Non-Modular unit in the 100kA - 300kA per Phase surge current capacity range.

This *T45 Non-Modular Surge Protective Device*, has a 9" x 6" x 4" NEMA 4X rated polycarbonate enclosure. This unit is highly versatile due to the small form factor, the watertight indoor/outdoor rating, and external mounting flanges. These features allow this unit to be placed in most locations that require an SPD, without taking up much space, or requiring time consuming mounting procedures.

This unit is more compact than its modular counterpart, but it still houses a full array of status indication. Each protected phase is separately indicated by a dual color LED, it has an audible alarm with a silence switch, and Form "C" Relays. It is also available with an externally viewable surge counter(optional).

It is available in surge current capacities from 100kA - 300kA/phase, in increments of 50kA/phase spanning the range. The large range of current capacity is another testament to the versatility of this unit. It can be placed anywhere that the larger Terminal Block unit in the same capacity range can go; provided the wire size properly fits the application, and there is no need for a steel enclosure.

The modules use advanced Thermally Protected Metal Oxide Varistors. The large capacity MOVs, with symmetrical surge pathways, allow these modules to take a strike at their full capacity rating. They come in a variety of voltage and phase configurations. UL 1449 Type 2 configurations have a UL 1283 listed filter installed.

This SPD has 5ft of #10 AWG wire leads.

Features:

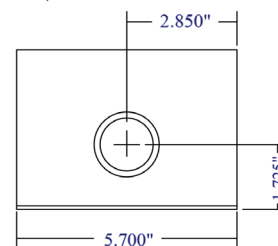
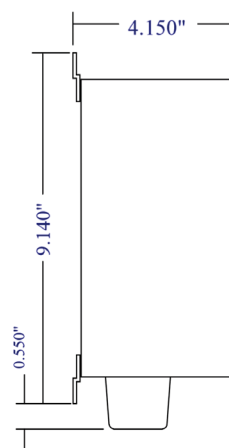
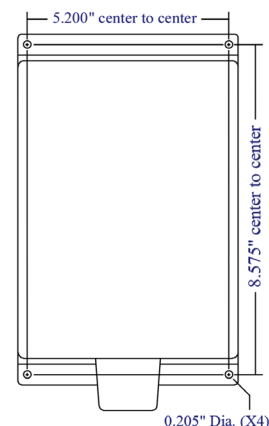
- 100kA, 150kA, 200kA, 250kA & 300kA/phase available
- Compact and easy to install
- UL 1449 Fourth Edition Listed
- Available in UL 1449 Type 1 or Type 2 Configurations
- Sine Wave Tracking: UL 1449 Type 2
UL 1283 Listed
- Audible Alarm with a Disable Switch
- Per Phase Dual LED Status Indication
- Form C Dry Contacts
- Flange style mounting brackets pre-installed

- NEMA 4X rated enclosure for indoor & outdoor use
- 20kA Inominal
- 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 100kA - 300kA per Phase

General Technical Specifications	
Connection Type	Parallel, Wire Lead - #10 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	50 kA/Mode, 100kA/Phase 75 kA/Mode, 150kA/Phase 100 kA/Mode, 200kA/Phase 125 kA/Mode, 250kA/Phase 150 kA/Mode, 300kA/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)	20 kA
Standards	UL 1449 4th Edition, CSA, UL 96A Lightning Protection Master Label compliant
Status Indication	Dual Colored LEDs, Audible Alarm, Form C Relay, Surge Counter(Optional)
Enclosure	NEMA 4X Polycarbonate
Enclosure Size	9.14" x 5.7" x 4.15" (H x W x D)
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

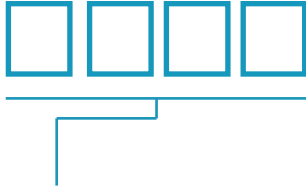
**This is a 277/480V unit, and can be used in 220/380V applications

Rev 23.04.20-1.2



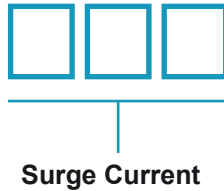
T45 Non-Modular Surge Protective Device 100kA - 300kA per Phase

T45



Voltage & Phase Configuration Code

120S = 120/240V Split Phase (3W+G)- Fig 1
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
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

050 = 100kA/Phase
075 = 150kA/Phase
100 = 200kA/Phase
125 = 250kA/Phase
150 = 300kA/Phase

A

W

A J



UL 1449 Location Type

1 - Type 1
2 - Type 2



Options

S - Standard
C - Surge Counter

M

Connection Type

W - Wire Lead

*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.

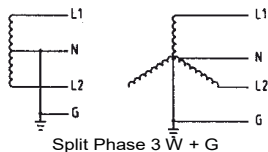
Example Product number:

Filled in:

Complete:

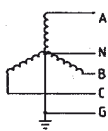
T45 120Y 100 A W A J 1 S M = T45120Y100AWAJ1SM

Fig. 1



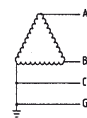
Split Phase 3 W + G

Fig. 2



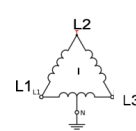
Three Phase Wye, 4 W + G

Fig. 3



Three Phase Delta, 3 W + G

Fig. 4



Three Phase Delta Hi Leg, 4 W + G

