

### 100kA/phase - 300kA/phase Models

#### Terminal Block Option



These units are the T45 Modular units in the 100kA - 300kA per Phase surge current capacity range. These *T45 Modular Surge Protective Devices*, have a 12" x 12" x 6" NEMA 4 rated steel exterior enclosure. This unit houses a surge module inside that is additionally protected by a NEMA 4X rated polycarbonate enclosure. This helps protect the surge modules during shipping, installation, and provides an extra level of personal safety.

These are Modular units; in the event of a module failure or the need to upgrade capacity, the module may be removed and replaced without disturbing the mounted external enclosure or the unit's wiring connections. Due to the internal module being in a NEMA 4X enclosure, replacement and upgraded modules are quick and easy to install, with a greatly mitigated risk of damage from the installer. After disconnecting power, the installer must simply attach the encased module to the mount, and connect the wires to the terminal block.

#### Rotary Disconnect Option



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. Each module houses dual LED status lights that indicate per phase health, Form "C" dry contact relays, and an Audible Alarm with a silence switch. The module also contains a Surge Counter that is externally viewable. The integrated external mount flange makes mounting quick and easy.

This unit utilizes a terminal block connection that allows for a range of connection from #10AWG to 2/0. It is available with a rotary disconnect option.

#### Features:

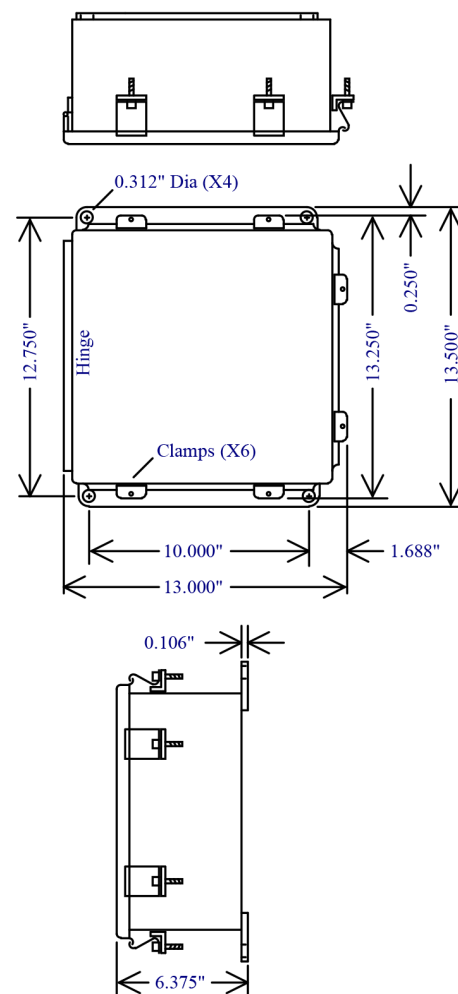
- 100kA, 150kA, 200kA, 250kA & 300kA/phase available
- Replaceable & Upgradable Module
- UL 1449 Fourth Edition Listed
- Available in UL 1449 Type 1 or Type 2 Configurations
- Sine Wave Tracking: UL 1449 Type 2  
UL 1283 Listed
- Audible Alarm with a Disable Switch
- Per Phase Dual LED Status Indication
- Externally Viewable Surge Counter
- Form C Dry Contacts

- NEMA 4 Steel Unit with NEMA 4X encased module installed inside
- 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



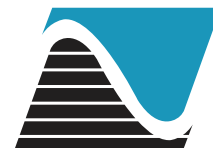
## T45 Modular Surge Protective Device 100kA - 300kA per Phase

General Technical Specifications	
Connection Type	Parallel, Terminal Lugs - #10AWG - 2/0 AWG Disconnect - #10AWG - 1/0
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)
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
Enclosure	NEMA 4, 12, & 13 Rated
Enclosure Size	13" x 13.5" x 6.375"
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**

**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  
**480D** = 480V 3 Phase Delta, (3W+G) - Fig 3  
**480H** = 480V 3 Phase Delta Hi-Leg (3W+G) - Fig 4

**Surge Current Capacity Code**

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

**A**  **AM**  **C** **M**

**Connection Type**  
**L** - Terminal Block  
**D** - Rotary Disconnect

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

**Options**  
**C** - Surge Counter

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

You may place the order as either part number.

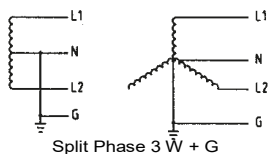
### Example Product number:

Filled in:

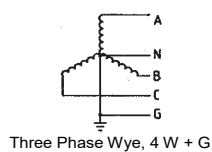
Complete:

T45 120Y 150 A L AM 1 C M = T45120Y150ALAM1CM

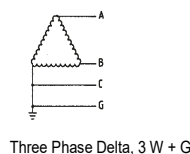
**Fig. 1**



**Fig. 2**



**Fig. 3**



**Fig. 4**

