

**1P / 3PD / 3PY**

# Transient/Surge Absorbers

- Absorbs High Energy Electrical Spikes
- 12 Models Available from Stock
- Uses Standard 8-Pin Socket

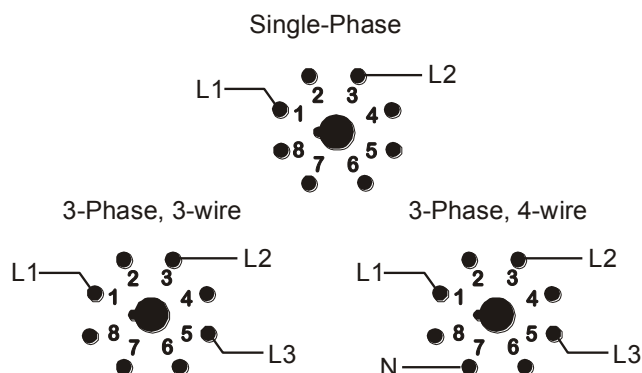


## DESCRIPTION

**Transient/Surge Absorbers (T/SA's)** provide system designers with a low cost, effective method of protecting sensitive electrical and electronic equipment from damage caused by switching transients, coil and motor backlash and near miss lightning strikes. There are 3 types available; single phase (1P), 3-phase DELTA 3-wire (3PD), and 3-phase WYE 4-wire (3PY). Each of these types are available in AC voltages of 120, 208, 240 and 480VAC.

T/SA's are designed using a ceramic and metal oxide technique which causes the resistance of the device to decrease abruptly if the rated voltage is exceeded. Voltage ranges are achieved by varying the types of oxide used in each model. Resistance changes are very fast, requiring less than 50 nanoseconds after the threshold voltage is exceeded. All models can repeatedly absorb in excess of 25,000 watt spikes without damage.

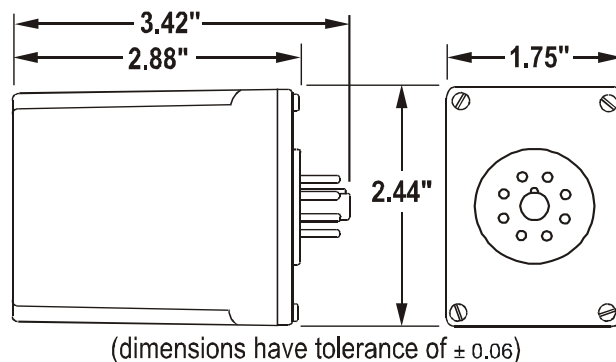
## PIN DIAGRAMS



## SPECIFICATIONS

Model	Line Type	Nominal AC Line Voltage	Max. VRMS	Max. DC Voltage
1P-120	1-phase	120VAC	140	180
3PD-120	3-phase, 3-wire		140 Ø - Ø	180 Ø - Ø
3PY-120	3-phase, 4-wire		135 Ø - Ø	200 Ø - Ø
1P-208	1-phase	208VAC	250	320
3PD-208	3-phase, 3-wire		250 Ø - Ø	320 Ø - Ø
3PY-208	3-phase, 4-wire		242 Ø - Ø	360 Ø - Ø
1P-240	1-phase	240VAC	275	350
3PD-240	3-phase, 3-wire		275 Ø - Ø	350 Ø - Ø
3PY-240	3-phase, 4-wire		303 Ø - Ø	450 Ø - Ø
1P-480	1-phase	480VAC	550	745
3PD-480	3-phase, 3-wire		550 Ø - Ø	745 Ø - Ø
3PY-480	3-phase, 4-wire		667 Ø - Ø	1010 Ø - Ø

## DIMENSIONS



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# 1P / 3PD / 3PY Transient/Surge Absorbers

READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING THIS DEVICE.  
KEEP THIS DATA SHEET FOR FUTURE REFERENCE.

## GENERAL SAFETY

POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE T/SA.  
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.  
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

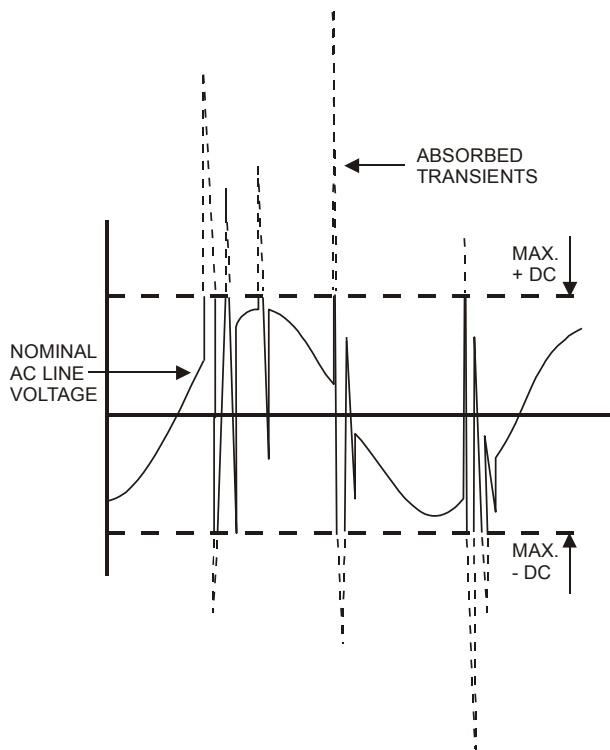
## Installation Instructions

### INSTALLATION

Shown are connection diagrams for the three models of Transient/Surge Absorbers. Make sure that you have the correct model and voltage for the system in which it is installed.

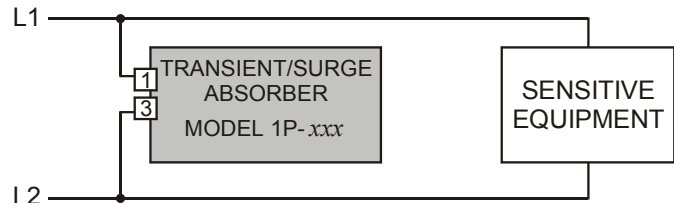
**CAUTION: If the wrong device is connected to your circuit, one of two things will happen:**

1. If the nominal line voltage is **higher** than the rating of the T/SA installed, the T/SA will very likely be damaged immediately upon application of the line voltage.
2. If the nominal line voltage is **lower** than the rating of the T/SA installed, the T/SA will not be as effective in removing transients and surges. In this case, however, the T/SA will not be damaged.

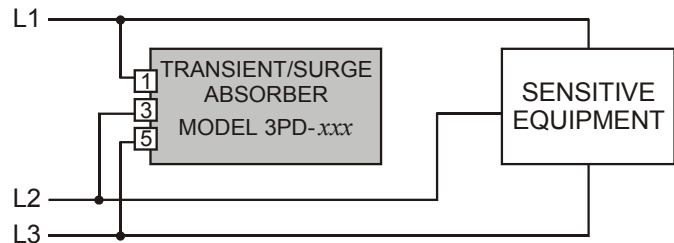


### CONNECTION DIAGRAMS

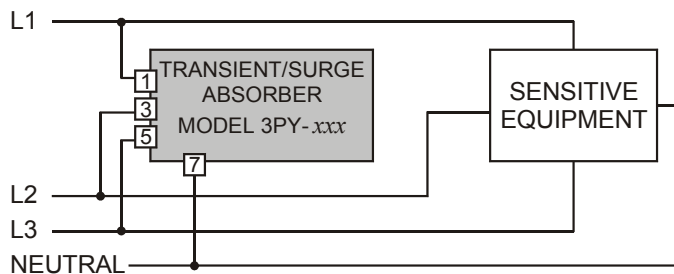
#### Single Phase



#### 3-Phase, 3-Wire



#### 3-Phase, 4-Wire



### WARRANTY

This product is warranted to be free from defects in materials and workmanship, and is covered by our exclusive **5-year Unconditional Warranty**. Should this device fail to operate for any reason, we will repair it for five years from the date of manufacture. For complete warranty details, see the *Terms and Conditions of Sales* page in the front section of the Time Mark catalog or contact Time Mark at 1-800-862-2875.



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