Keyitec **SURGETRONICS** *Transient Voltage Surge Suppressor*

Installation Instructions

MODEL NUMBERS:

Surgetronics 240-3D-N1-3-xx-B	**Surgetronics 380-3D-N1-3-xx-D**	**Surgetronics 480-3D-N1-3-xx-D**

BEFORE INSTALLING - MAKE CERTAIN THE SYSTEM VOLTAGE AND CONFIGURATION ON THE NAMEPLATE IS APPROPRIATE FOR YOUR FACILITY ELECTRICAL SERVICE

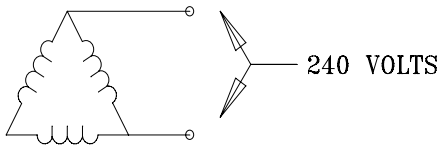
Cautions and Warnings

1. Serious injury or death may occur if this product is not installed correctly.
2. The unit should only be installed by Qualified Personnel.
3. Installation should conform to the National Electrical Code of the USA or appropriate local codes
4. The maximum size conductors are to be No. 4/0 AWG.
5. The maximum Service or Feeder Rating is 200 amperes.
6. Disconnect from energized circuits before installing or servicing.
7. MAKE CERTAIN THE SYSTEM VOLTAGE AND CONFIGURATION ON THE NAMEPLATE IS APPRORIATE FOR YOUR FACILITY ELECTRICAL SERVICE.

General Product Information and Specifications

Surgetronics 240-3D-N1-3-XX-B

- Nominal Voltage : 240 3 PHASE DELTA (See Nameplate)



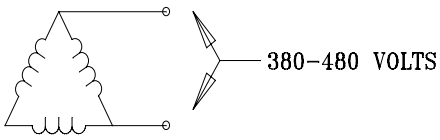
- Suitable For Use on a Circuit Capable of Delivering Not More Than 200,000 rms symmetrical Amperes, 280 volts maximum (Phase to Phase), When protected by a Listed Class L, Class J, Class R, or Class T fuse or a circuit breaker rated at 200 amperes or less.

- Suppressed Voltage Rating per UL1449 2nd. Edition: 700 volts

- Maximum Operating Surge Current: 200 kA (8/20μS) measured according to NEMA LS1
- Operating Temperature: -20° Celsius to 70° Celsius
- Fuse type: Class CC 4/10 A, Busman FNQ-R (OPTIONAL)

Surgetronics 380-3D-N1-3-XX-D

Nominal Voltage : 380 3 PHASE DELTA (See Nameplate)



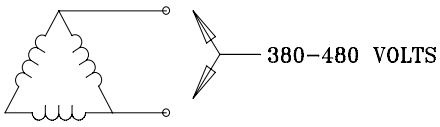
- Suitable For Use on a Circuit Capable of Delivering Not More Than 200,000 rms symmetrical Amperes, 480 volts maximum (Phase to Phase), When protected by a Listed Class L, Class J, Class R, or Class T fuse or a circuit breaker rated at 200 amperes or less.

- Suppressed Voltage Rating per UL1449 2nd. Edition: 1200 volts

- Maximum Operating Surge Current: 200 kA (8/20μS) measured according to NEMA LS1
- Operating Temperature: -20° Celsius to 70° Celsius
- Fuse type: Class CC 4/10 A, Busman FNQ-R (OPTIONAL)

Surgetronics 480-3D-N1-3-XX-D

- Nominal Voltage : 380-480 3 PHASE DELTA (See Nameplate)



- Suitable For Use on a Circuit Capable of Delivering Not More Than 200,000 rms symmetrical Amperes, 480 volts maximum (Phase to Phase), When protected by a Listed Class L, Class J, Class R, or Class T fuse or a circuit breaker rated at 200 amperes or less.

- Suppressed Voltage Rating per UL1449 2nd. Edition: 1200 volts

- Maximum Operating Surge Current: 200 kA (8/20μS) measured according to NEMA LS1
- Operating Temperature: -20° Celsius to 70° Celsius
- Fuse type: Class CC 4/10 A, Busman FNQ-R (OPTIONAL)

Mounting

The TVSS needs to be mounted to a solid, flat vertical surface capable of supporting 70 pounds. It is convenient to install the lower mounting studs/bolts first as the TVSS has slotted lower mounting lugs. Once the lower studs/bolts are installed, the TVSS may be lowered onto them and the correct location for the upper mounting studs/bolts can be marked through the holes in the upper mounting lugs.

Note: Do not use the mounting lugs to make the safety and protection ground.

Grounding

Ground connection is made to the ground stud mounted on the inside of the cabinet. The connection should be made by a short cable to the power ground or, in some installations, to the main ground bar at the installation location.

Connecting Cables

Installation and working practices should conform to the National Electrical Code of the USA or appropriate Local electrical codes.

Wiring for In-Line Connection (see Fig. 1)

In this connection type, the protected load or protected subpanel is fed directly from the TVSS. The overcurrent protector and conductors, which feed the TVSS, must be sized appropriately to accommodate the load currents and lightning surges. Any disconnector used should be capable of disconnecting normal load current as well as handling lightning surge currents.

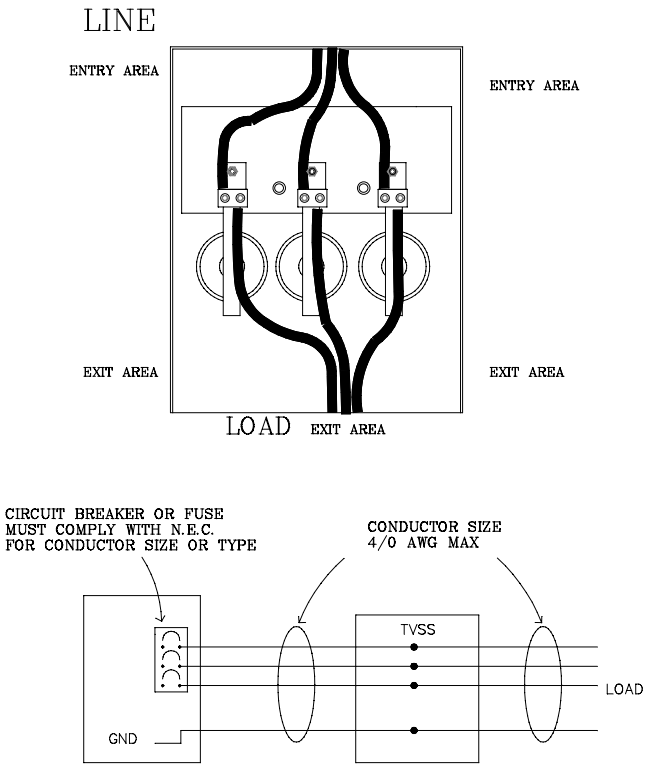


Fig. 1

Wiring for “T” or Parallel style connection (see Fig. 2)

This is the most convenient configuration for installation. However, due to the added voltages that are developed in the connecting conductors, it does not provide the best level of protection to the load. This connection uses a short, as straight as possible, cables to connect to existing cables or bus bars without breaking the feed to the load. This method may also be connected as if it were a branch circuit protecting a distribution panel and its loads.

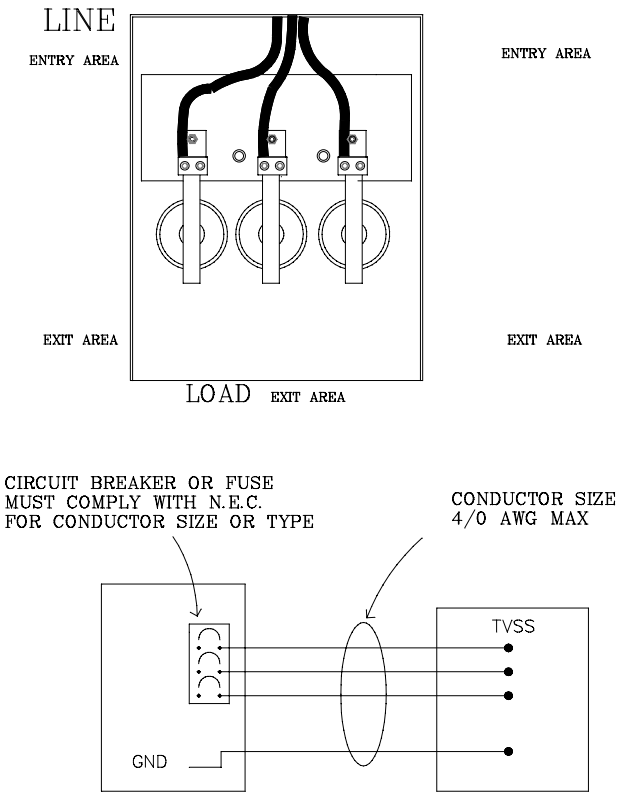


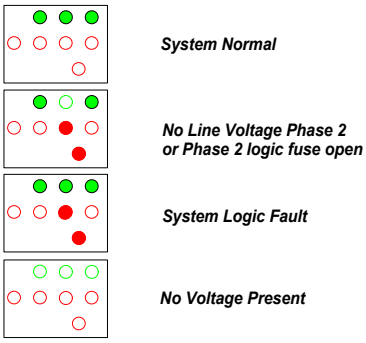
Fig. 2

Powering Up the Surgetronics TVSS Unit

Close the housing door, and turn the latch one quarter of a turn clockwise with a suitable screwdriver.
Warning: the Surgetronics TVSS contains live parts inside the cabinet; for example bus bars, connectors, etc. Do not come in contact with these, as there is a danger of electrocution!

Control Panel Indicator Lights and Alarms (option) (see Fig.3)

Normal operation is indicated by the illumination of three green phase lights and no alarm lights. In the event of a fault, (i.e. Loss of power, loss of a single phase), a series of Indicators will identify the type of fault. There is also an audible alarm that may be disabled by depressing a switch located on the control board.



Surge Counter (option)

The surge counter system used in the Surgetronics TVSS increments when a current has been diverted through the Everprotect protector modules in the event of an overvoltage condition. The surge counter system will detect both “positive” or “negative” surges, transients, or conditions, which cause the protector modules to operate.

For Assistance or Service

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