

## Installation Instructions

### MODEL NUMBERS:

Surgetronics 120-3Y-M3-4-XX-A(B)	Surgetronics 240-3Y-M3-4-XX-B
Surgetronics 277-3Y-M3-4-XX-C	Surgetronics 347-3Y-M3-4-XX-D

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

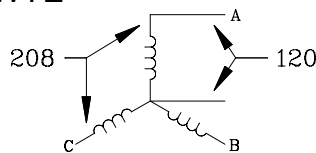
### Cautions and Warnings

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 and should conform to the National Electrical Code of the USA or appropriate local codes
4. The maximum size conductors are to be No. 2 AWG.
5. The maximum Service or Feeder Rating is 100 amperes.
6. Disconnect from energized circuits before installing or servicing.
7. **MAKE CERTAIN THE SYSTEM VOLTAGE AND CONFIGURATION ON THE NAMEPLATE IS APPROPRIATE FOR YOUR FACILITY ELECTRICAL SERVICE**

### General Product Information and Specifications

#### Surgetronics 120-3Y-M3-4-XX-A(B)

Nominal Voltage: 120/208 3 phase WYE



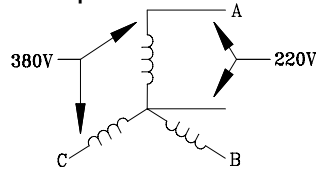
Suitable For Use on a Circuit Capable of Delivering Not More Than 100,000 rms symmetrical Amperes, 150 volts maximum (Phase to Neutral), when protected by a Listed Class J, Class L, Class R, or Class T fuse or a circuit breaker rated at 100 amperes or less.

SPD Suppressed Voltage Rating per UL1449 2nd Edition: L-G 400 volts: N-G 400 volts  
 Surgetronics 120-3Y-M3-4-XX-B L-G 700 volts; N-G 700 volts

Maximum Operating Surge Current: 100 kA (8/20 $\mu$ S) measured according to NEMA LS1  
 Operating Temperature: -20° Celsius to 70° Celsius

### Surgetronics 240-3Y-M3-4-XX-B

Nominal Voltage: 220/380 OR 240/415 3 phase WYE

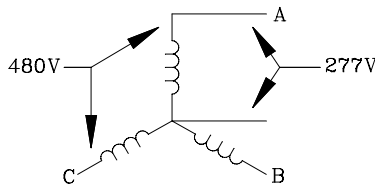


Suitable For Use on a Circuit Capable of Delivering Not More Than 100,000 rms symmetrical Amperes, 280 volts maximum (Phase to Neutral), when protected by a Listed Class J, Class L, Class R, or Class T fuse or a circuit breaker rated at 100 amperes or less.

SPD Suppressed Voltage Rating per UL1449 2nd Edition: L-G 700 volts; N-G 700 volts  
Maximum Operating Surge Current: 100 kA (8/20 $\mu$ S) measured according to NEMA LS1  
Operating Temperature: -20° Celsius to 70° Celsius

### Surgetronics 277-3Y-M3-4-XX-C

Nominal Voltage: 277/480Y, 3 phase WYE

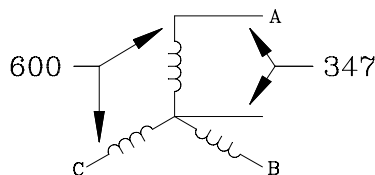


Suitable For Use on a Circuit Capable of Delivering Not More Than 100,000 rms symmetrical Amperes, 350 volts maximum (Phase to Neutral), when protected by a Listed Class J, Class L, Class R, or Class T fuse or a circuit breaker rated at 100 amperes or less

SPD Suppressed Voltage Rating per UL1449 2nd Edition: L-G 900 volts; N-G 900 volts  
Maximum Operating Surge Current: 100 kA (8/20 $\mu$ S) measured according to NEMA LS1  
Operating Temperature: -20° Celsius to 70° Celsius

### Surgetronics 347-3Y-M3-4-XX-D

Nominal Voltage: 347/600Y, 3 phase WYE



Suitable For Use on a Circuit Capable of Delivering Not More Than 100,000 rms symmetrical Amperes, 380 volts maximum (Phase to Neutral), when protected by a Listed Class J, Class L, Class R, or Class T fuse or a circuit breaker rated at 100 amperes or less

SPD Suppressed Voltage Rating per UL1449 2nd Edition: L-G 1200 volts; N-G 1200 volts  
Maximum Operating Surge Current: 100 kA (8/20 $\mu$ S) measured according to NEMA LS1  
Operating Temperature: -20° Celsius to 70° Celsius

WyeM3

## Mounting

The TVSS needs to be mounted to a solid, flat vertical surface capable of supporting 35 pounds. The Surgetronics TVSS unit should be secured by the mounting flanges using appropriate hardware.

Note: Do not use the mounting flange 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 disconnecter used should be capable of disconnecting normal load current as well as handling lightning surge currents.

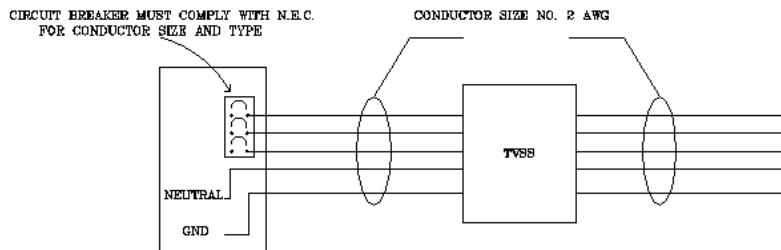
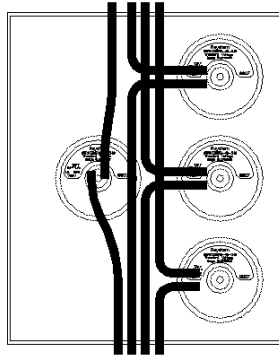


Fig. 1

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

This is the most convenient configuration for installation. However, due to the added voltages which are developed in the connecting conductors, it does not provide the best level of protection to the load. This connection uses 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.

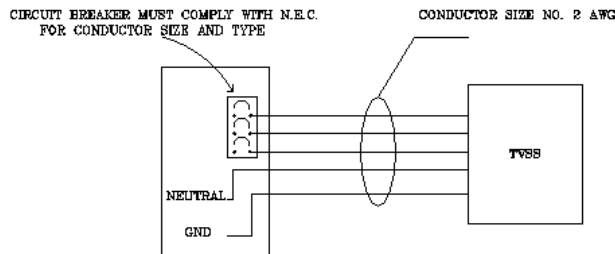
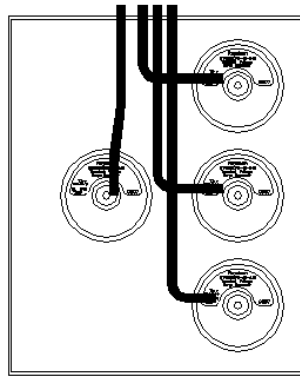


Fig. 2

### 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 TVSS suppressor modules, connectors, etc. Do not come in contact with these, as there is a danger of electrocution!

### For Assistance or Service

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