

3P5WVSPC-005®

3 Phase 5 Wire Voltage and Surge Protection Control



- *Easy to install*
- *All 3 phases Voltage Monitoring*
- *Phase sequence/Imbalance protection*
- *Earth Voltage monitoring*
- *Nuisance free Delay before trip*
- *LED Indication of Status*
- *Power on delay*
- *Delay after each fault*
- *Time Save Delay on each Fault*
- *Surge protection on all phases*
- *Surge protection between Neutral & Earth*
- *LED indication of Surge Arresters operational*
- *Designed for extra-long service life*

Another product from the **Usedasun®** range.

This Voltage Monitoring switcher control uses a microprocessor to monitor the three-phase voltage & phase sequence coming in from the supply and also checks the voltage between Neutral and Earth. If the voltage monitored is within 15% above or below nominal, then the internal relay will close. This potential free contact can then be used in any control circuit to allow the equipment under protection to operate. In the case that the voltage between Earth and Neutral exceeds 20V, indicating that there is an earth fault, the equipment under protection will disconnect to ensure that safety is not compromised.

A built in timer creates a delay on power up, and after a fault has been detected and cleared. There is also a built in internal timer, which operates during a fault condition, in which the fault time is measured, and if it has been longer than the 3 minutes delay, when fault is cleared, the controller will switch the relay within 30 seconds to speed up the equipment operation under the units protection.

Along with the voltage monitoring, a 5 wire surge arrester is incorporated as another level of protection against surges across phase to Neutral and Neutral to Earth. With this type of protection, in the case that there is a loss in either the system Earth wire or Neutral, due to bad connections or stolen cables, the surge arrester will still apply surge protection. Other protection includes lightning surges and manmade surges such as motors, HVAC and lifts etc, and also when power re-established after fuses/circuit breakers breaking, contactors switching or an outage, e.g. cables dug up.

A number of LEDs are incorporated to indicate the status of the equipment, such as

- Over voltage
- Under voltage
- Delay on timer
- Earth/Neutral Fault
- Phase Sequence or phase imbalance
- Surge LEDs indicate when surge protection is operational

3P5WVSPC-005® Specifications

General Specifications

Mains Voltage Monitoring

Input Voltage Neutral to Phase	230VAC Nominal
Over Voltage trip +15% Nominal	265V AC
Under Voltage Trip -15% Nominal	195V AC
Phase Imbalance	3%
Earth to Neutral trip voltage	>20V AC
Physical Dimensions	
Weight	
Packaged dimensions	
Packed weight	

5Wire Surge Arrester Specifications

Nominal A.C. voltage for single phase system (UN)	230V (L-N)
Nominal A.C. Voltage for 3 phase system (UN)	400V (L1-L2-L3)
Max. continuous operating A.C. voltage 1P (Uc)	275V
Max. continuous operating A.C. voltage 3P (Uc)	460V
Lightning impulse current (10/350 µs) [L+N-PE] (It)	25kA
Nominal discharge current (8/20 µs) [L-N]/[N-PE] (In)	≤ 1.5 / ≤ 1.5 kV
Voltage protection level [L-N]/[N-PE] (Up)	12.5/25kA
Response time (tA)	≤ 100 nS

The following certificate numbers are covered by the Surge Arrester
HV/107286

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