



DIN 35mm

## Features :

- 3Ø - 3 Wire, 3Ø - 4 Wire Input
- Monitors Under Voltage, Over Voltage, Under Frequency, Over Frequency, Phase Asymmetry, Phase Failure and Phase Sequence
- True RMS Measurement
- Power ON Delay, Trip Time Delay and Recovery Time Delay
- Adjustable Switching Hysteresis
- Two Separate Alarm Relays
- DIN Rail Mount

Certifications :  

### Display Specifications

|                    |                        |
|--------------------|------------------------|
| Type               | Digital                |
| Display            | Liquid Crystal Display |
| No. of LED         | 3                      |
| No. of Push Button | 3                      |

### LED Indication Chart

| Condition                                       | 'ON' LED | 'R1' LED | 'R2' LED |
|-------------------------------------------------|----------|----------|----------|
| Nominal Condition                               | ON       | OFF      | OFF      |
| Fault Condition If Programming Relay1           | ON       | ON       | OFF      |
| Fault Condition If Programming Relay2           | ON       | OFF      | ON       |
| Fault Condition (If Programming For Both Relay) | ON       | ON       | ON       |

### Input Specifications

|                        |                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Functions</b>       |                                                                                                                 |
| Measurements           | Under voltage, Over voltage, Under frequency, Over frequency, Phase asymmetry, Phase failure and Phase sequence |
| Time Setting           | Power ON delay, Trip time delay and Recovery time delay                                                         |
| Alarm Indications      | Trip                                                                                                            |
| Latching               | Selectable                                                                                                      |
| Reset                  | Auto / Manual                                                                                                   |
| Electrical Connection  | 3Ø - 3 wire, 3Ø - 4 wire                                                                                        |
| <b>Measuring Range</b> |                                                                                                                 |
| (RMS Value)            | 280 to 520V AC (L - L)<br>160 to 300V AC (L - N)                                                                |
| <b>Trip Settings</b>   |                                                                                                                 |
| Under Voltage          | 280 to 520V AC (L - L) [for 3Ø - 3 wire]<br>160 to 300V AC (L - N) [for 3Ø - 4 wire]                            |
| Over Voltage           | 280 to 520V AC (L - L) [for 3Ø - 3 wire]<br>160 to 300V AC (L - N) [for 3Ø - 4 wire]                            |
| Under Frequency        | 45 / 65Hz                                                                                                       |
| Over Frequency         | 45 / 65Hz                                                                                                       |
| Phase Failure          | Yes                                                                                                             |
| Phase Sequence         | Yes                                                                                                             |
| Phase Asymmetry        | 5.0 - 99.9%                                                                                                     |

### Trip Time Settings

|                     |             |
|---------------------|-------------|
| Power ON Delay      | 2 - 99.9sec |
| Trip Time Delay     | 0 - 99.9sec |
| Recovery Time Delay | 0 - 99.9sec |
| Response Time       | < 200ms     |

### Hysteresis

|           |             |
|-----------|-------------|
| Voltage   | 1.0 - 99.9V |
| Frequency | 0.2 - 2Hz   |
| Asymmetry | 2 - 20%     |

### Resolution

|           |       |
|-----------|-------|
| Voltage   | 1V    |
| Frequency | 0.1Hz |

### Accuracy

|           |                  |
|-----------|------------------|
| Voltage   | ±1% of set value |
| Frequency | ±0.3Hz           |

### Output Specifications

|                         |                                          |
|-------------------------|------------------------------------------|
| No. of Relays           | 2                                        |
| Type of Output (Relay1) | 1 C/O (SPDT)                             |
| Type of Output (Relay2) | 1 C/O (SPDT)                             |
| Relay Rating            | NO / 5A@250V AC<br>NC / 3A@250V AC (res) |

### Auxiliary Supply Specifications

|                   |                                                  |
|-------------------|--------------------------------------------------|
| Supply Voltage    | Self powered                                     |
| Operating Range   | 280 to 520V AC (L - L)<br>160 to 300V AC (L - N) |
| Power Consumption | 50VA max                                         |
| Frequency         | 45 / 65Hz                                        |

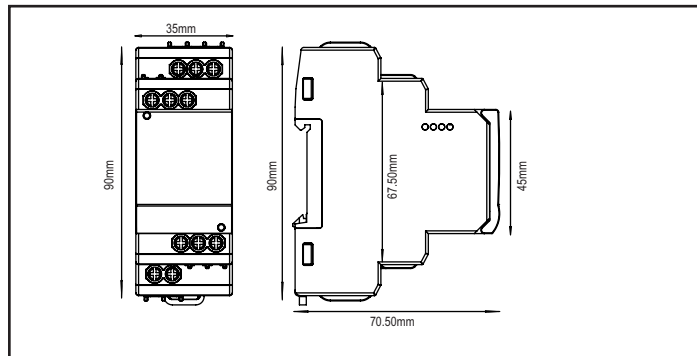
### Environmental Specifications

|                              |                                                                          |
|------------------------------|--------------------------------------------------------------------------|
| Temperature                  | Operating Temperature : 0° to 55°C<br>Storage Temperature : -20° to 70°C |
| Humidity (non-condensing)    | 95% RH                                                                   |
| Pollution Degree             |                                                                          |
| For PCB                      | 2                                                                        |
| For Product                  | 3                                                                        |
| Degree of Protection Devices | IP20                                                                     |

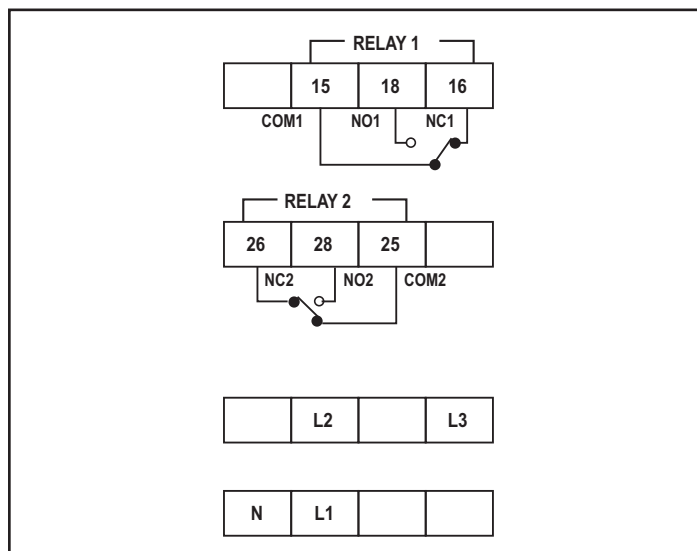
## Mechanical Specifications

|                         |          |
|-------------------------|----------|
| Mounting                | DIN Rail |
| Weight                  | 135g     |
| Screw Tightening Torque | 0.5 NM   |

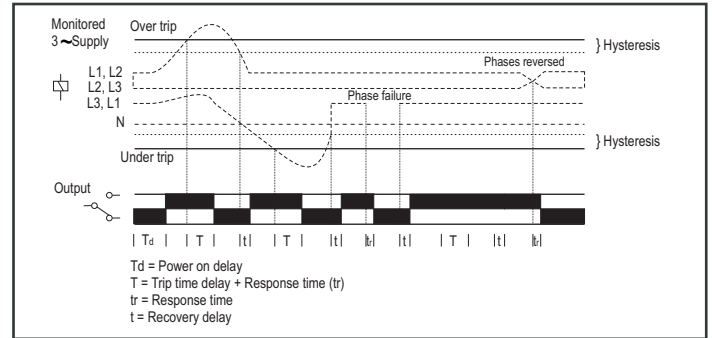
## Dimensions



## Terminal Connection



## Timing Diagram



## Compliance

## Applicable EMI / EMC Standards

Product Standard : IEC 60947-2

| Category                          | Reference Standards | Testing Level |
|-----------------------------------|---------------------|---------------|
| Electrostatic Discharge           | IEC 61000-4-2       | Level-3       |
| Electrical Fast Transient / Burst | IEC 61000-4-4       | Level-3       |
| Electromagnetic Field             | IEC 61000-4-3       | Level-3       |
| Surge                             | IEC 61000-4-5       | Level-3       |
| Conducted RF                      | IEC 61000-4-6       | Level-2       |
| Rated Power Frequency             | IEC 61000-4-8       | Level-4       |
| Voltage Dip / Short Interruptions | IEC 61000-4-11      | Level-3       |
| Conducted Emissions               | CISPR-11            | Class-B       |
| Radiated Emissions                | CISPR-11            | Class-A       |
| Emission & Immunity               | IEC 61326-1         |               |
| Safety                            | IEC 61010-1         |               |

## Ordering Information

| Product Code              | Operating Range | Certification |
|---------------------------|-----------------|---------------|
| 900VPR-2-280/520V-CE      | 280 to 520V AC  | CE            |
| 900VPR-2-280/520V-CU-RoHS | 280 to 520V AC  | UL LISTED     |