

SAFETY PRECAUTIONS

1. The device must be installed by a qualified person,
2. Disconnect all power before working on the device. Don't touch any terminal when the power is ON.
3. Verify correct terminal connection when wiring.
4. Don't dismantle or repair the device whether it operates normally, otherwise no responsibility is assumed by producer and seller.
5. Never use the device at the site which can be invaded by corrode gas, strong sunshine light and rain.
6. Clean the device with a dry cloth.
7. Fail to follow these instructions will result in serious injury or death.

FEATURES

- Microcontroller based.
- True RMS monitoring
- Protection parameters setting by knobs
- N phase failure protection for RD-MV35N/36N/37N
- 1x SPDT relay output 8A
- LED indication for supply and output state
- 1 module Din-rail mounting

TECHNICAL DATA

| Models | RS-MV31~37 | RS-MV31N~37N |
|--|---|--------------|
| Supply terminals | L1,L2,L3 | L3,N |
| U> setting value | (105%-125%)xUn | |
| U< setting value | (75%-95%)xUn | |
| Asymmetry setting | adjustable: 5%~20%; fixed: 8% | |
| U> trip delay | adjustable: 0.1~10s; fixed: 2s | |
| U< trip delay | adjustable: 0.1~10s; fixed: 2s | |
| Asymmetry trip delay | adjustable: 0.1~10s; fixed: 2s | |
| Voltage hysteresis | 6V | 5V |
| Asymmetry hysteresis | 2% | |
| Trip time for incorrect phase sequence and phase failure | =0.2s | |
| Voltage measurement error | =1% | |
| Delay error | ±5%+0.1s | |
| Knob setting error | 1% x scale value | |
| Rated insulation voltage | 480V | |
| Output contacts | 1C/O | |
| Current rating | 8A/250V AC1 | |
| Mechanical life | 10 ⁶ | |
| Electrical life | 10 ⁵ | |
| Protection degree | IP20 | |
| Pollution degree | 3 | |
| Altitude | =2000m | |
| Operating temperature | -20°C~55°C | |
| Permissible relative humidity | =50% at 40°C(without condensation) | |
| Storage temperature | -30°C~70°C | |
| Wire size/Torque | 0.5mm ² ~2.5mm ² /0.5Nm | |
| Mounting | TH-35 Rail(EN60715) | |

| Models | U> | U< | Phase failure | Phase sequence | Asymmetry |
|------------|----|----|---------------|----------------|-----------|
| RS-MV31(N) | | | ● | ● | |
| RS-MV32(N) | | | ● | ● | ● |
| RS-MV33(N) | | | ● | ● | ● |
| RS-MV34(N) | ● | ● | ● | | |
| RS-MV35(N) | ● | ● | ● | | |
| RS-MV36(N) | ● | ● | ● | ● | |
| RS-MV37(N) | ● | ● | ● | ● | ● |

| Models | Supply voltage (Un) | Note |
|---------|---------------------|--------------|
| RS-MV30 | 3x208 | 3phase 3wire |
| RS-MV32 | 3x220 | 3phase 3wire |
| RS-MV33 | 3x240 | 3phase 3wire |
| RS-MV38 | 3x380 | 3phase 3wire |
| RS-MV39 | 3x400 | 3phase 3wire |
| RS-MV35 | 3x415 | 3phase 3wire |
| RS-MV31 | 3x380/220 | 3phase 4wire |
| RS-MV32 | 3x400/230 | 3phase 4wire |
| RS-MV33 | 3x415/240 | 3phase 4wire |

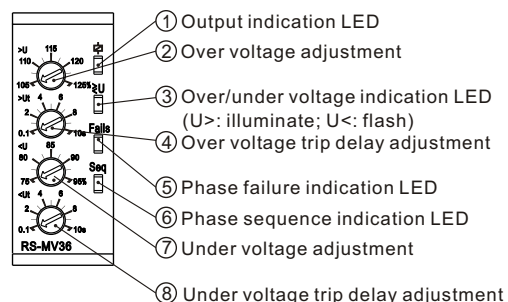
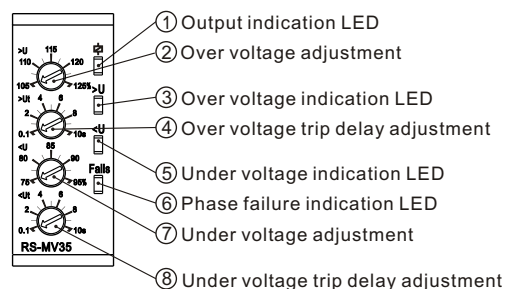
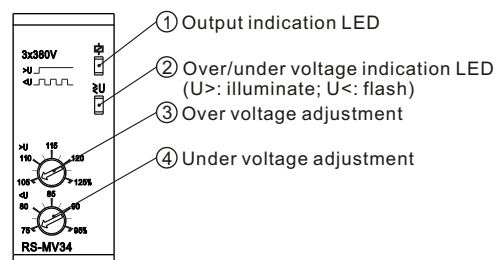
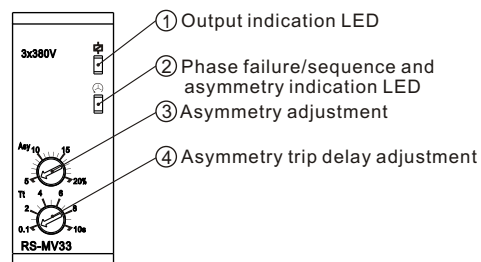
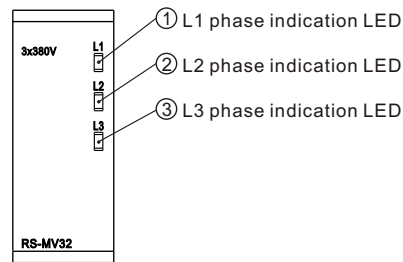
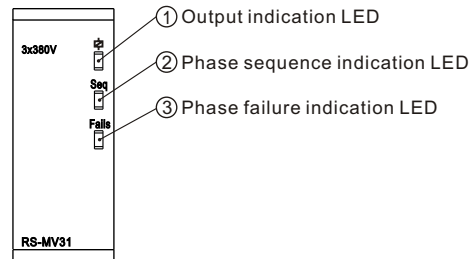
RS-MV SERIES

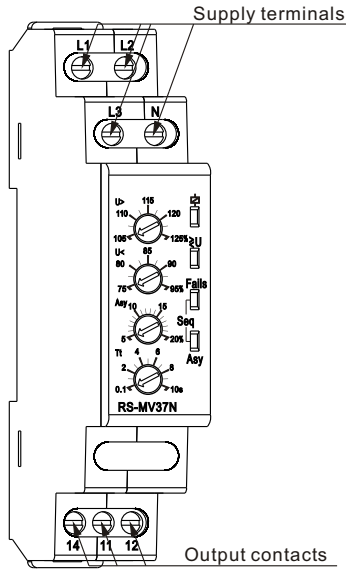
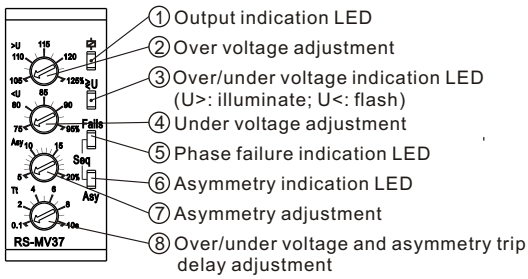


VOLTAGE MONITORING RELAY

Please read complete instructions prior to installation and operation of the device.

APPEARANCE





INSTALLATION

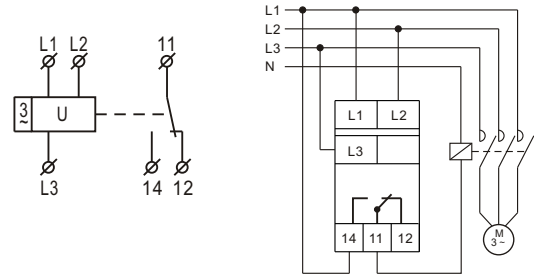
- 1 Set threshold value and trip delay by knobs
- 2 If faults detected after relay energised, the output relay stays open
3. In the event of a voltage fault, the relay opens at the end of the delay set
4. Measured voltage value

$$Asy = \frac{U_{max} - U_{min}}{U_n}$$

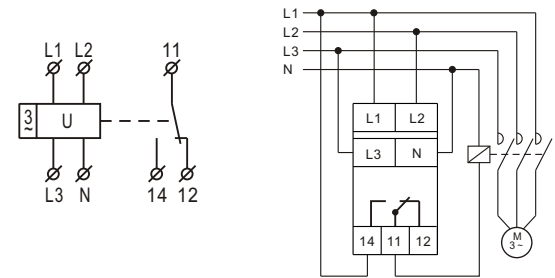
U_{max}: Max. phase voltage;
U_{min}: Min phase voltage

WIRING DIAGRAMS

○ RS-MV31/32/33/34/35/36/37

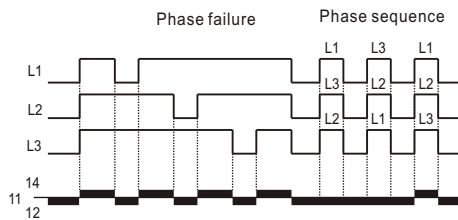


○ RS-MV31N/32N/33N/34N/35N/36N/37N

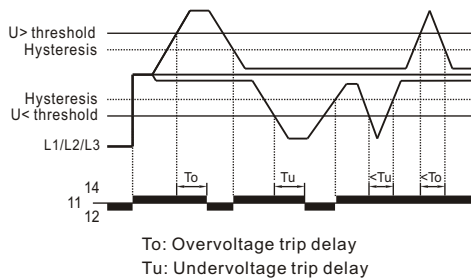


FUNCTION DIAGRAMS

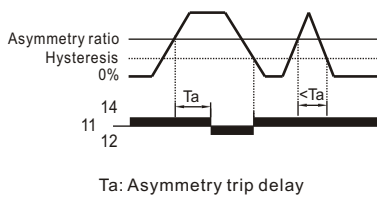
● Phase failure and phase sequence



● Overvoltage and undervoltage



● Asymmetry



DIMENSIONS

