● PHASE PROTECTION & DRY RUN PROTECTION & ELECTRONIC OVERLOAD

PM-019/ PM-019N

3 PHASE UNDER & OVER VOLTAGE AND PHASE MONITOR RELAY

PRIMUS

CE



Socket

Description

- 3 Phase Under & Over Voltage and Phase Monitor Relay : PM-019/ PM-019N is Relay to protect over-under voltage ans phase loss for 3 phase 3 wires system(PM-019) and 3 phase 4 wires (PM-019N).
- Seperated keypads under voltage between 80 to 95% voltage and over voltage between 105 to 120% voltage.
- Phase Loss in one of each phase or more than one phase even it will reverse from motor back e.m.f. because motor has dry run condition.
- In case of PM-019N (3 phase 4 wires) if neutron get lost, relay will not operate.
- LED will turn on when relay operated.
- Suitable for protecting loads in 3 phase electrical system have damage from over-under and phase loss.

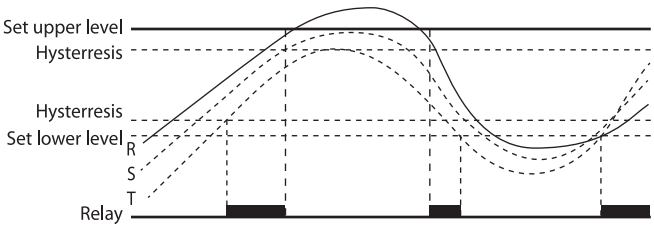
Specification

Model.		PM-019	PM-019N
Power Supply		3 Phase 3 Wire	3 Phase 4 Wire
		110, 220, 380, 400VAC ±10% 50/60Hz	
Power Consumption		2.5 VA	
Display		Red LED (Under Voltage / Relay OFF)	
		Red LED (Over Voltage / Relay OFF)	
		Green LED (Relay ON)	
Input	Scale Adjustment	Over Voltage Scale 105 to 120% Volt	
		Under Voltage Scale 80 to 95% Volt	
	Hysteresis	2VAC	
	Accuracy	±2VAC	
Output	Relay Output	1 Relay Output 10A 250VAC	
Ambient Operation	Temperature	-10°C to 60°C	
	Humidity	85 % RH Non-Condensing	
Ambient Storage	Temperature	-20°C to 80°C	
	Humidity	85 % RH Non-Condensing	
Protection Degree		IP40	
Installation		DIN RAIL Mounting	
Material		ABS-V0	
Size (mm.)		80 x 38 x 83.5	
Weight (kg.)		210	

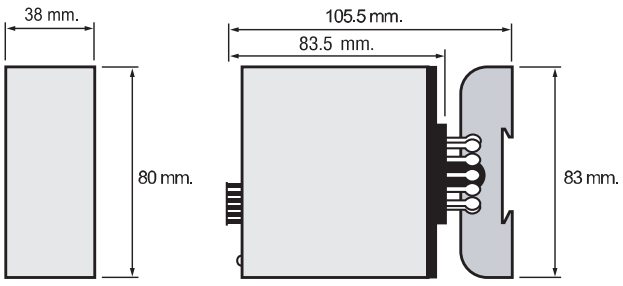
Operation

When the PM-019/PM-019N is connected to a 3-phase electrical system and the voltage remains within normal conditions (not higher than the preset UL value and not lower than the preset LL value) with all phases present, the relay contact will operate to enable the load circuit. The LED will turn on to indicate that the relay is active. However, if an undervoltage, overvoltage, or phase loss occurs beyond the preset limits, the relay contact will stop operating to disconnect the circuit. The LED will turn off to indicate that the relay has stopped operating, thereby protecting the load from damage.

Operation Graph

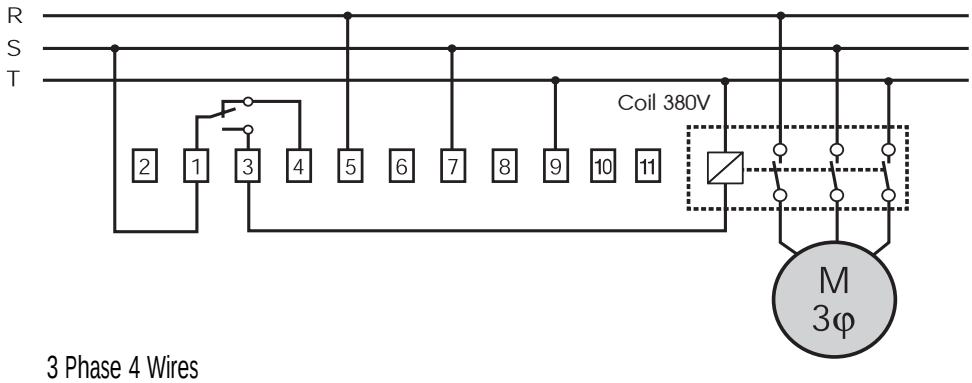


Dimension

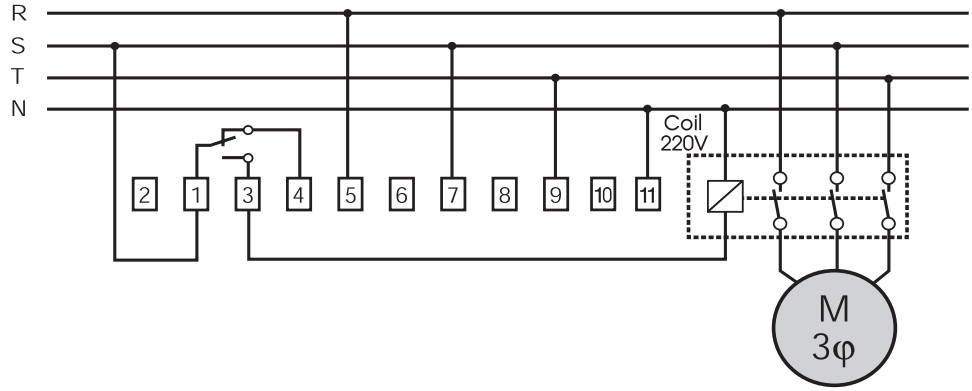


Wiring Diagram

3 Phase 3Wires



3 Phase 4 Wires



Ordering Code

□ - □

Electrical System	
PM-019	3 Phase 3 Wire
PM-019N	3 Phase 4 Wire

Power Supply	
110VAC	3 x 110VAC
220VAC	3 x 220VAC
380VAC	3 x 380VAC
400VAC	3 x 400VAC

* For model PM-019N
Power supply 380 VAC only.