Three Phase Voltage Relay

PVM-P

Specifications

Electrical

Line Voltage:
110VAC to 480VAC, 3Ø
Frequency: 50/60Hz
Line Voltage Ranges:
120 Series - 110VAC to 120VAC, 3Ø
208 Series - 208VAC, 3Ø
240 Series - 220VAC to 240VAC, 3Ø
400 Series - 440VAC to 480VAC, 3Ø
Undervoltage:
Adj. to 12% below minimum nominal
Overvoltage:
Adj. to 12% above maxmum nominal
Phase Rotation: A - B - C
Phase Loss:
Complete loss to 65% of nominal
Overvoltage Protection (Max.):
120 Series - 150VAC
208 Series - 300VAC
240 Series - 300VAC
400 Series - 550VAC
Drop-out Delay: 0.2 sec., fixed
Power Consumption: 2VA

Output Contacts:
5 Amps @ 240VAC
125VA @ 120/240VAC
100,000 Full Load Cycles
10,000,000 Mechanical Cycles

Physical

Mounting: Plug-In
Termination: 8 Pin
Packaging: Dust Cover
Weight: 4.5 oz. Approx.

Ambient Temperatures

Operating: 0°C to 65°C
U.L. Operating: 0°C to 40°C
Storage: -30°C to 85°C

Sockets

120 thru 240 Series:
IDEC: SR2P-05, SR2P-06
480 Series:
Custom: OT08

- **Plug-In Package**
- **Adj. Overvoltage**
- **Adj. Undervoltage**
- **Phase Loss (Single Phasing)**
- **Phase Rotation**
- **Status LED**
- **Drop-Out Delay**
- **Automatic Reset**
- **240 Volt Control Contact Rating**
- **5 Amp, SPDT**

with appropriate socket

Ordering Information

PVM - 240A - 200P

R-K Model

3Ø Input Voltages
120A - 110 to 120VAC
208A - 208VAC
240A - 220 to 240VAC
480A - 440 to 480VAC

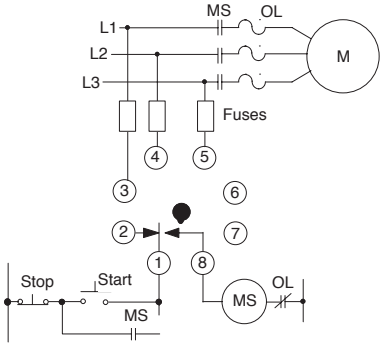
Adjustments
100P - Fixed (Specify Voltages)
200P - Adjustable
400P - Undervoltage Only

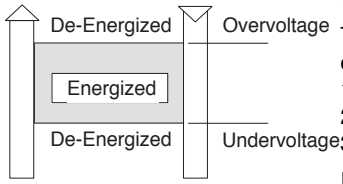
Note: PVM-240A-400P covers 208 to 240VAC (Adj. Code "400P" only)

Connections

The PVM-Ps should be connected to the line voltage on the load side of the last line fuse before the motor and on the line side of the starter (MS).

M = Motor
MS = Motor Starter
OL = Overloads
Fuses = ≤1 amp (optional)





Operation

The PVM-P's output contacts energize when:
1. All the phases are present;
2. The voltages are within set points;
3. The phases are in proper rotation.

If any of these conditions shift beyond the setpoints, the output contact will de-energize after a .2 second fixed time delay period. Single phase conditions will only be detected if there is a substantial loss of voltage in one phase. In some applications, motors that continue to rotate after the loss of a phase may re-generate voltages that simulate the line conditions. Consider R-K's PVC or PVR series if loss of phase is critical in your applications.

Dimensions