

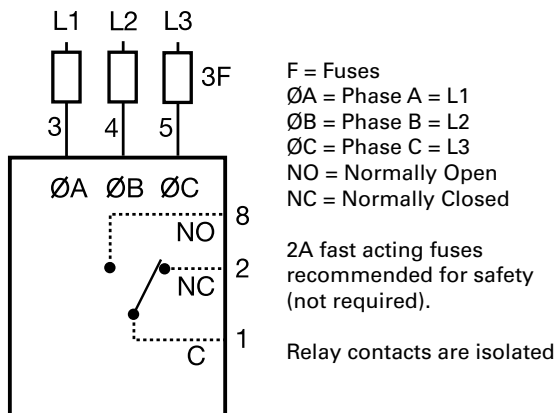
PLM SERIES

Voltage Monitor



8-PIN

Wiring Diagram



Ordering Information

MODEL	LINE VOLTAGE	VOLTAGE UNBALANCE (FIXED)	TRIP DELAY (FIXED)
PLM6405	240VAC	4%	5 sec
PLM6502	240VAC	5%	2 sec
PLM6805	240VAC	8%	5 sec
PLM8405	380VAC	4%	5 sec
PLM9405	480VAC	4%	5 sec
PLM9502	480VAC	5%	2 sec
PLM9805	480VAC	8%	5 sec

If you don't find the part you need, call us for a custom product 800-843-8848

Description

The PLM Series is a 3-phase voltage monitor that continuously monitors each of the three phases. Monitors both delta and wye systems and no connection to neutral is required. The microcontroller circuit design protects against undervoltage, voltage unbalance, phase loss and phase reversal. Protection is assured when regenerated voltages are present.

Operation

The output relay is energized and the LED glows green when all voltages are acceptable and the phase sequence is correct. Under and unbalanced voltages must be sensed for a continuous trip delay period before the relay de-energizes. Reset is automatic upon correction of the fault condition. The output relay will not energize if a fault condition is sensed as power is applied. The LED flashes red during the trip delay, then glows red when the output de-energizes. The LED flashes green/red if phase reversal is sensed.

Field Adjustment

Set voltage adjustment knob at the desired operating line voltage for the equipment. This adjustment automatically sets the undervoltage trip point. Apply power. If the PLM fails to energize, (LED glows red) check wiring of all three phases, voltage, and phase sequence. If phase sequence is incorrect, the LED flashes green/red. To correct this, swap any two line voltage connections at the mounting socket. No further adjustment should be required.

Features & Benefits

FEATURES	BENEFITS
Quick octal 8-pin mounting	Small footprint with universal mounting: ideal replacement for hundreds of competitive part numbers.
Proprietary microcontroller based circuitry	Constant monitoring of single-phase, low voltage, high voltage, voltage unbalance, phase reversal.
LED diagnostics	Quick visual indicator for trip versus normal operation.
Isolated, 10A, SPDT output contacts	Allows control of loads for AC voltages
Adjustable nominal voltage set point	Allows setting for specific application voltage to optimize protection
Simple 3-wire connection for delta or wye systems	Allows flexibility across wide range of systems
ASME A17.1 Rule 210.6	Complies with safety codes for elevators, escalators, moving walkways
NEMA MG1 14:30, 14:35	Complies with safety codes for motors and generators
IEEE C62.41-1991 Level B	Complies with safety codes for surge and voltage protection

PLM SERIES

Accessories



BZ1 Front Panel Mount Kit

Provides an easy method of through-the-panel mounting of 8-pin or 11-pin plug-in timers, flashers, and other controls.



OT08PC Octal 8-pin Socket

8-pin 35mm DIN rail or surface mount. Rated at 10A @ 600VAC. Surface mounted with two #6 screws or snaps onto a 35 mm DIN rail.



LPSM003ZXID (Indicating), LPSM003Z (Non-indicating) Fuse Holders

Littelfuse POWR-SAFE Dead Front holders provide optimum protection to personnel for Class CC and Midget-Style fuses. 600 VAC/DC



OKLK002.T Midget Fuse (2 Amp)

10 x 38 fast acting, high-interrupting capacity, current-limiting type fuse. 600 Vac/500 Vdc



C103PM (AL) DIN Rail

35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.

Specifications

Line Voltage

Type

3-phase delta or wye with no connection to neutral

Operating Voltage

Model

240
380
480

Adj. Line Voltage Range

200-240VAC
360-430VAC
400-480VAC

Line Voltage Max

270VAC
480VAC
530VAC

AC Line Frequency

50/100 Hz

Phase Sequence

ABC

Power Consumption

≅ 2W for 240V units
≅ 3W for 380 - 480V units

Low Voltage & Voltage Unbalance

Type

Voltage detection with delayed trip & automatic reset

Low Voltage

Trip

88 - 92% of adjusted line voltage

Reset Voltage

Plus 3% of trip voltage

Voltage Unbalance

Trip

Factory fixed from 4 - 8%

Reset on Balance

-0.7% unbalance typical

Trip Delay

Range

Factory fixed from 2 - 20s

Tolerance

±15%

Phase Reversal & Phase Loss

Response Time

≤ 200ms

Phase Loss

> 35% unbalance

Reset

Automatic

Output

Type

Electromechanical relay

Form

Isolated, SPDT

Rating

10A resistive @ 240VAC, 277VAC max;
1/2 Hp @ 240VAC; 1/4 Hp @ 120VAC
Mechanical - 1 x 10⁷; Electrical - 1 x 10⁵

Life

Protection

Surge

IEEE C62.41-1991 Level B

Isolation Voltage

≥ 2500V RMS input to output

Mechanical

Mounting*

8-pin plug-in socket rated 600VAC

Dimensions

H 81.3 mm (3.2"); **W** 60.7 mm (2.39");
D 45.2 mm (1.78")

Environmental

Operating/Storage

Temperature

-40° to 60°C / -40° to 85°C

Weight

≅ 4.4 oz (125 g)

*CAUTION: Select an octal socket rated for 600VAC operation.

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