



A00954

PRM 2
Phase Rotation/Loss
Monitor

Manual V1.4

PRM2 Manual

Part numbers: A00954

Version 1.4

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1 OVERVIEW

The Phase Rotation Module is a compact, panel mounted, low power, three phase monitor device to provide both phase rotation and phase loss monitoring.

The three line/load phases to be monitored and earth, are connected to the PRM module.

A remote display is available for monitoring purposes.

1.1 INDICATION

LEDs are provided for:

- Power On
- Unit Healthy
- CW Phase Rotation
- CCW Phase Rotation
- A Phase Power
- B Phase Power
- C Phase Power

Remote display (optional) LEDs are provided for:

- CW Phase Rotation
- CCW Phase Rotation
- A Phase Power
- B Phase Power
- C Phase Power

1.2 CONTACTS

Separate voltage free changeover relay contacts are provided for:

- Phases OK
- CW phase rotation
- CCW phase rotation

1.3 DIMENSIONS

Base unit:

75 x 100 x 110mm

Remote display (optional):

50 x 51 x 17mm (display protrusion, including label)

22mm diameter (panel cutout)

2 OPERATION

Control voltage must be applied.

With no phase voltages present:

PWR LED	ON
Healthy LED	OFF
Phase A, B, C LEDs	OFF
Rotation LEDs	OFF
V OK contact	DE-ENERGISED
CW contact	DE-ENERGISED
CCW contact	DE-ENERGISED

With all phase voltages healthy:

PWR LED	ON
Healthy LED	ON
CW or CCW LED	ON
Phase A, B, C LEDs	ON
V OK contact	ENERGISED
CW or CCW contact	ENERGISED

Loss of 1 or 2 phases:

PWR LED	ON
Healthy LED	OFF
Active phase LEDs	ON
Inactive phase LEDs	OFF
Rotation LEDs	OFF
V OK contact	DE-ENERGISED
CW contact	DE-ENERGISED
CCW contact	DE-ENERGISED

3 INSTALLATION

3.1 GENERAL RECOMMENDATIONS

Connect the remote display (optional).
Connect the module control voltage.
Connect the contacts as required.

The PRM2 module is direct connected to the 3 phases and earth, for systems up to 1100VAC.

The Earth connection IS REQUIRED.

Segregate the phase wiring from control voltage and PRM2 contact wiring.

3.2 TERMINAL CONNECTIONS

1	110V	16	A
2	110V	17	
3		18	B
4		19	
5		20	C
6		21	
7	CW COM	22	Earth
8	CW NC	23	
9	CW NO	24	
10	CCW COM	25	Display Common
11	CCW NC	26	Display CW (yellow)
12	CCW NO	27	Display CCW (orange/black)
13	V-OK COM	28	Display C (blue)
14	V-OK NC	29	Display B (white)
15	V-OK NO	30	Display A (red)

4 SPECIFICATIONS

System Voltage

415 - 1100VAC 50/60Hz 3 phase 4 wire system.

Phase Voltage

Nominal: 240 – 635VAC

Phase Loading to Earth: 6.8MegOhms AC/DC

Phase Rotation

Requires all 3 phases to close a Rotation contact.

Phase Rotation contacts are opened if 1 or more phases are missing.

Delay: ~ 2 seconds

Phase Loss

Requires all 3 phases healthy to close the Phase Voltage contact.

Voltage: ~ 180VAC

Delay: ~ 2 seconds

Test Voltage (Module)

2000VAC / 2000VDC 1 minute (Any phase to earth)

Module Power Input:

110VAC 50/60Hz

Operating Temp: 0 - 50 Deg Celsius

Enclosure:

Dimensions: 100W x 75H x 110D

Material: High impact resistant polycarbonate enclosure.

Mounting: Din Rail and 2 x screw mounting.

Terminals: Cage screw slotted terminals.

Weight: 350g

Ordering: **A00954 – PRM2 110VAC**
 A00955 – PRD remote display

5 TYPICAL CONNECTION DIAGRAM

