# selec



MPR-3M-2

#### FEATURES

- Single Phase, Phase unbalance, Phase sequence, Overload trip current and Dry run
- User selectable trip time curve and
- motor current rating
- Din rail mounting
- DPDT relay output
- Auto, Manual and Remote reset function

#### SPECIFICATIONS

#### DISPLAY

3 LED Indication

AUXILIARY SUPPLY

230V AC, ±15% (MPR-3M-2-230V)(Factory set) 415V AC, ±15% (MPR-3M-2-415V)(Factory set)

# FREQUENCY

45-65Hz ELECTRICAL CONNECTION

3 Ø 3 wire

POWER RATING :- 5VA max

#### TRIP SETTING

Phase unbalance : 50% of motor current(fixed) Dry run: 50% of rated current(fixed) **T(sec.) setting** : To select 2 sec, 4 sec, 6 sec, 8 sec, 10 sec trip time curve in overload trip curve

graph (Refer graph 1)

**x Imax :** To select motor current rating Motor current rating=(x Imax) x (CT max rating) (For Motor rated current selection refer table 1, 2, 3 for 10A, 40A, 80A CT respectively.)

## TRIP TIME

Single phase trip : 5sec. Phase unbalance: 5sec. Phase sequence : 5sec. Dry run trip: 5sec

#### Overload trip : As per graph 1 RECOVERY SETTING

Auto mode : When healthy condition occurs device reset automatically after 15 min. (Short terminal 17 & 18) Remote/manual reset : When healthy condition

occurs device reset by connecting 16 and 17 terminal or by application of reset key. ACCURACY

Time : ±5% of full scale ±100msec Current : ±5% of full scale

#### OUTPUT SPECIFICATION Output contact : 2 C/O (DPDT)

Output contact : 2 C/O (DFDT) Output rating : NC : 5A@ 240V AC NO : 5A@ 240V AC

### LED INDICATION

ON (Green LED) : Power ON SP (Red LED) : Single phase, Phase unbalance, Phase sequence OL (Red LED) : Overload current, Dry run

# MECHANICAL SPECIFICATIONS

- Dimension:52.5x90x73mm Mounting :52.5mm DIN Rail mount
- Screw tightening torque : 0.5N.m ENVIRONMENTAL SPECIFICATIONS
  - Indoor use
- Altitude of up to 2000 meters
  Pollution degree 2
- Temperature : Operating:0° to 50°C Storage : -20° to 70°C
- Humidity : Up to 95% RH, non-condensing Weight

### 180gms

# **A** SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument. If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by

the equipment.

If there is physical damage to the unit then do not use it. Read complete instructions prior to installation and operation of the unit.

# WIRING GUIDELINES

#### **3** WARNING

- To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
- Wiring shall be done strictly according to the terminal layout with shortest connections. Confirm that all connections are correct.

# **CAUTION**

To ensure the safe operation of unit, check the wiring and connections.



LED INDICATION CHART							
Various Conditions	'ON' LED	'SP' LED	'OL' LED	Relay			
Healthy Condition	ON	OFF	OFF	De-energized			
Single phase	ON	ON	OFF	Energized			
Phase Unbalance	ON	ON	OFF	Energized			
Phase Sequence	ON	ON	OFF	Energized			
Overload	ON	OFF	ON	Energized			
Dry run	ON	OFF	Blink	Energized			

Doc. name : OP INST MPR-3M-2 OP489-V02(Page 1 of 2)\_\_\_



#### LINK NC1 COM1 NO1 NO2 COM2 NC2 16 15 14 13 12 11 18 17 10 RELAY 1 RELAY 2 1 2 3 4 5 6 7 8 I1 I2 I3 A1L 415V AC

# MOTOR RATED CURRENT SELECTION



# Thermal Overload Curve

FRONT VIEW



Note-1)When zero current is detected in all 3 phases, it will not be considered as Phase loss or Under current.

2)Test condition to be verified at no load condition .

ORDER CODE INFORMATION					
PRODUCT	SUPPLY	CERTIFICATION			
		CE	UL		
MPR-3M-2-230V	230V AC, ±15%	—	—		
MPR-3M-2-415V	415V AC, ±15%	—	—		



(Specifications are subject to change, since development is a continuous process.)

# Selec Controls Pvt. Ltd., India

Factory Address :
EL-27/1, Electronic Zone, TTC Industrial Area, MIDC, Mahape,
Navi Mumbai - 400 710, INDIA.
Tel. No. : +91-22-41 418 419/430   Fax No. : +91-22-28471733
Toll free : 1800 227 353 (BSNL/MTNL Subscribers only)
Website : www.selec.com   Email : sales@selec.com

Doc. name : OP INST MPR-3M-2 OP489-V02(Page 2 of 2)

 $\Theta$ 

35.30

0

0

**GRAPH 1** 

SIDE VIEW

Curve WIRING DIAGRAM