

selec**MPR-3M-2**
Operating Instructions**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 SUPPLY230V AC, $\pm 15\%$ (MPR-3M-2-230V)(Factory set)415V AC, $\pm 15\%$ (MPR-3M-2-415V)(Factory set)**FREQUENCY**

45-65Hz

ELECTRICAL CONNECTION3 ϕ 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 I_{max} : To select motor current rating

Motor current rating=(x I_{max}) 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.

ACCURACYTime : $\pm 5\%$ of full scale $\pm 100\text{msec}$ Current : $\pm 5\%$ of full scale**OUTPUT SPECIFICATION**

Output contact : 2 C/O (DPDT)

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

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.

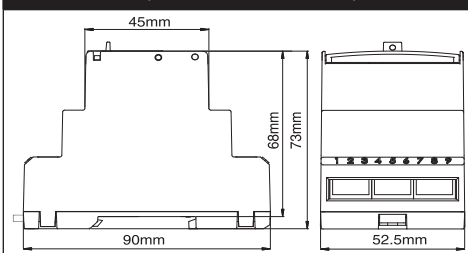
Read complete instructions prior to installation and operation of the unit.

WIRING GUIDELINES**WARNING**

1. To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
2. 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.

DIMENSIONS (All dimensions in mm)**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

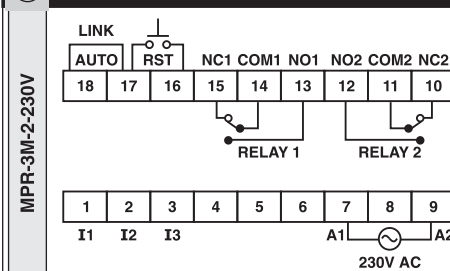
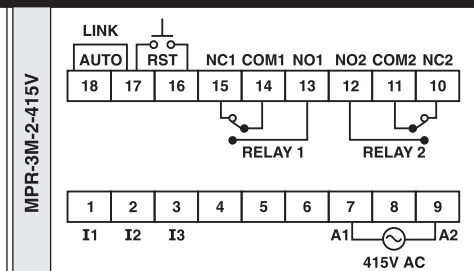
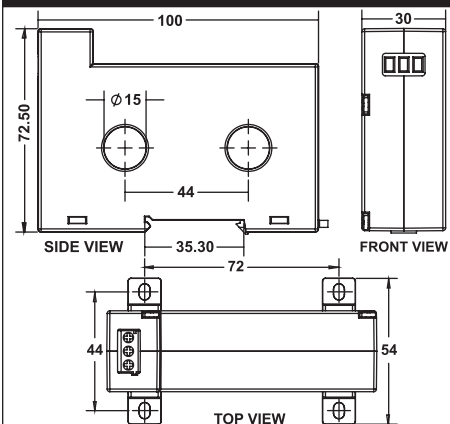
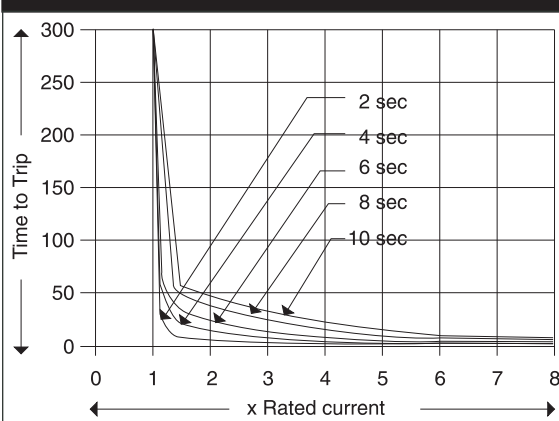
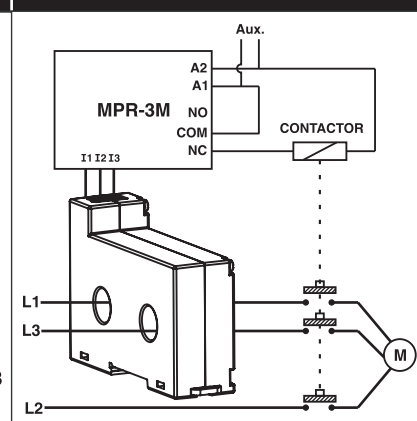
TERMINAL CONNECTIONS**CT DIMENSIONS****MOTOR RATED CURRENT SELECTION**

TABLE 1		TABLE 2		TABLE 3	
Knob Position	Motor Current Rating	Knob Position	Motor Current Rating	Knob Position	Motor Current Rating
0.3	3A	0.3	12A	0.3	24A
0.4	4A	0.4	16A	0.4	32A
0.5	5A	0.5	20A	0.5	40A
0.6	6A	0.6	24A	0.6	48A
0.7	7A	0.7	28A	0.7	56A
0.8	8A	0.8	32A	0.8	64A
0.9	9A	0.9	36A	0.9	72A
1.0	10A	1.0	40A	1.0	80A

GRAPH 1**Thermal Overload Curve**

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 .

WIRING DIAGRAM

NOTE : Use of contactor recommended

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

ORDER CODE INFORMATION

PRODUCT	SUPPLY	CERTIFICATION	
		CE	UL
MPR-3M-2-230V	230V AC, $\pm 15\%$	—	—
MPR-3M-2-415V	415V AC, $\pm 15\%$	—	—

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