MPR-3M

Motor Protection Relay

PRELIMINARY DATASHEET

Features:

- 3Ø - 3Wire Input
- Monitors Overload Current, Phase Asymmetry, Phase Failure & Phase Sequence
- LED Indication: Power ON, Trip
- Test and Reset buttons via front / remote
- DIN Rail Mount

Size: 52.5mm (Width)

Technical Specifications

Display

Type	Analog
No. of LEDs	3

Input Specifications

Functions	
Measurements	Overload Current, Phase Asymmetry, Phase Failure & Phase Sequence
Alarm Indications	Trip
Reset	Auto / Manual / Remote
Electrical Connection	3Ø - 3Wire
Auxiliary Supply	
Supply Voltage	230 / 415V AC ±20%
System Supply	220 - 240 / 380 - 440V AC ±20%
VA Rating	3VA max. (Will vary)
Frequency	45 - 65Hz
Trip Settings	
Phase Sequence	Yes
Phase Failure	Yes
Phase Asymmetry (Fixed)	50% of Motor Current ±10%
Trip Time Settings	
Power On Delay (Fixed)	<500ms
Trip Time Delay (Fixed)	5.5s ±1.5s
Overload Trip Delay	As per IDMTL graph
Recovery Delay Time	<250ms
For Overload	As per curve (Cold curve)
Accuracy	
Trip Setting Accuracy	±5% of set value
Time Setting Accuracy	±5% of setting ±100ms
CT Setting	
CT Ratio (Will vary)	10A / 100mA 80A / 100mA 40A / 100mA

Output Specifications

Output Contact	2 C/O (SPDT)
Contact Rating	5A@240V AC
Electrical Life	1 x 10^5 (100000)
Mechanical Life	1 x 10^7 (10000000)

LED Indication

LED1 (Green)	Power ON
LED2 (Red)	Relay 1 (SP Continuously ON after trip)
LED3 (Red)	Relay 2 (OL Continuously ON after trip)

Environmental Specifications

Temperature	Operating : -5 to 60°C Storage: -20 to 75°C
Humidity (non-condensing)	Upto 95% RH
Degree of Protection	IP20 for Terminals IP30 for Enclosure

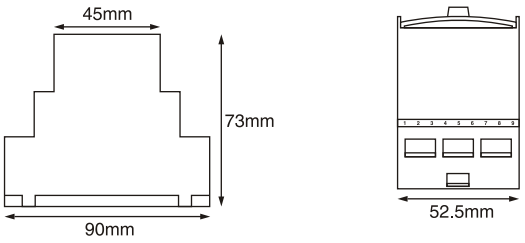
Mechanical Specifications

Rotating knob	1
Size	52.5mm (width)
Mounting	DIN Rail
Weight	440 gms (Will vary)
Conductor cross section (Solid)	4 Sq mm@30A
Conductor cross section sleeved (Standard)	1 x (0.5 to 2.5) Sq mm
Screw tightening torque	0.5 N-m

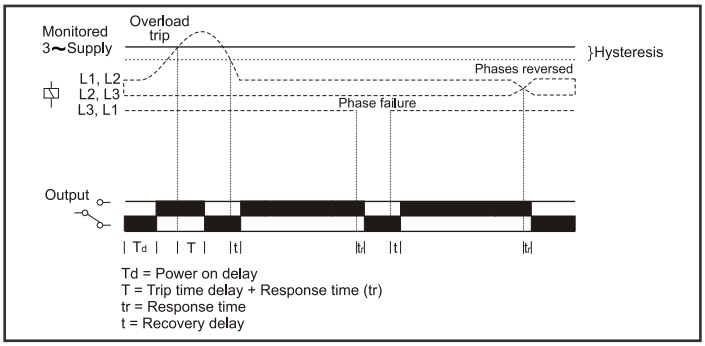
LED Indication Chart

Conditions	Power ON	Relay 1	Relay 2	Relay Status
Nominal Condition	ON	OFF	OFF	ON
Overload Current	ON	ON	ON	OFF
Phase Reverse	ON	ON	ON	OFF
Phase Asymmetry	ON	ON	ON	OFF
Phase Failure	ON	ON	ON	OFF

Dimensions

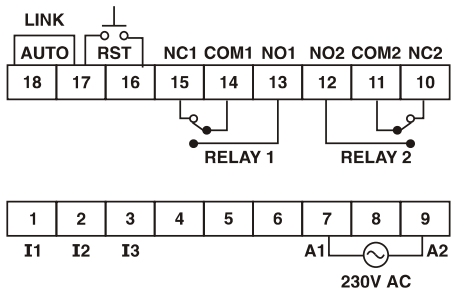


Timing Diagram

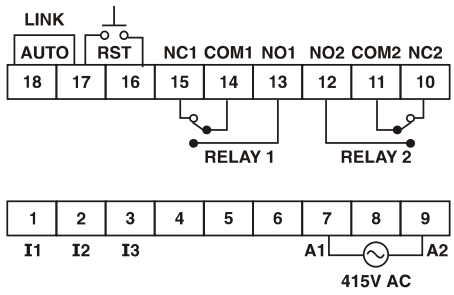


Terminal Connections

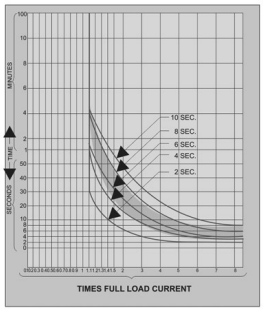
MPR-3M-2-230V



MPR-3M-2-415V



Inverse Time Characteristics (IDMTL) Graph



Ordering Information

Part No.	Supply Voltage	Certification
MPR-3M-2-230V	230V AC ±20%	---
MPR-3M-2-415V	415V AC ±20%	---