

## INSTALLATION INSTRUCTIONS FOR D3 MPR3

### INTRODUCTION

Thank you for selecting and purchasing MINILEC make Motor Protection Relay. The following installation instruction would guide you in installing your D3 MPR3 making the best use of it. This unit offers protection against-

- \* OVERLOAD.
- \* PHASE LOSS.
- \* CURRENT UNBALANCE.

This is an auxiliary relay and it should be used along with starter only. The effective working of the unit will depend on efficient working of the starter. Before installing your unit check whether the starter is operating perfectly by starting with the "ON" push button and switching off by "OFF" push button. If the operation of START and STOP are imperfect the starter needs to be serviced. Do not install your unit with faulty starter.

### CAUTION

1. Ensure that the above relay is-
  - \* Not installed near any heat sources like Burner, Sunlight, Electric arc etc.
  - \* Not subjected to abnormal vibrations.
  - \* Installed as near to starter as possible.

- \* Not subjected to Direct heat, sunlight, rain, stormy wind and Dust.
2. Working of the product is affected by the frequency variation and harmonic distortion in applications like Genset Supply or UPS Supply. Care should be taken to ensure that the net resultant unbalance Supply is not beyond the unbalance trip limits of your unit.
3. **If the product is not installed as per guideline given by Minilec, Our company will not be responsible for any wrong connection, damage, Injury, accident etc.**

### ELECTRICAL CONNECTION

See Fig. 1 for installation of the unit in the power and control wiring. Connect Auxiliary supply voltage at terminal 11 & 12 as marked on side cover plate of the unit. Connect 3Ø current input (R-Y-B) as per shown in wiring diagram. The output relay contacts 15 & 16 are to be connected in series with the no volt coil of the contactor. Remote Reset facility is provided at terminal 13 & 14

### MOUNTING

This model is suitable for Din Rail or Panel mounting.

## WARRANTY

AGAINST ALL MANUFACTURING DEFECTS FOR 18 MONTHS FROM DATE OF SUPPLY OR 12 MONTHS FROM DATE OF INSTALLATION WHICHEVER IS EARLIER

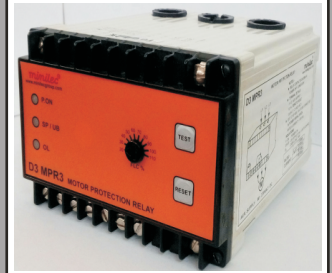
MANUFACTURED BY:

**minilec**®

www.minilecgroup.com  
S. NO. 1073/ 1-2-3, AT POST : PIRANGUT, TAL: MULSHI, DIST: PUNE (INDIA) PIN : 412 111  
VERSION 01 (13/ 01/ 19)

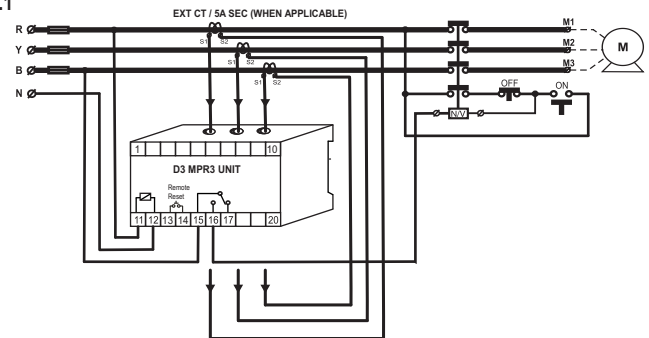
## INSTALLATION INSTRUCTION MANUAL FOR MOTOR PROTECTION RELAY

D3 MPR3



## ELECTRICAL CONNECTION IN POWER & CONTROL WIRING FOR D3 MPR3

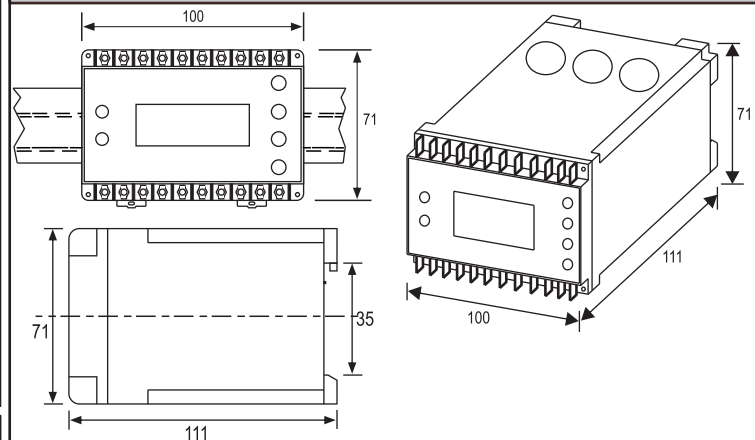
FIG.1



NOTE :- 1) EXTERNAL CT OF SEC 5A TO BE CONNECTED IN POWER WIRING WHEN RATED CURRENT > 100A  
2) RELAY CONTACTS SHOWN FOR UNIT IN POWER OFF / TRIP CONDITION.

SR. NO.	PARAMETERS	D3 MPR3
1.	SYSTEM SUPPLY VOLTAGE	415 VAC ± 20%
2.	AUX. SUPPLY	110 / 240VAC ± 20%
3.	FREQUENCY	50 Hz / 60 Hz ± 3%
4.	OUTPUT RELAY CONTACTS	1CO
5.	OUTPUT CONTACT RATING	5 Amp, 240VAC [RESISTIVE]
6.	RATED I/P CURRENT	5A / 20A / 50A / 100A (OPTIONAL)
7.	FLC SETTING	20% TO 110% of Rated Current
8.	CURRENT UB TRIP SETTING	50% of FLC ± 10% (fixed)
9.	OVERLOAD TRIP SETTING	As per Inverse Time Charc' 10Sec fixed
10.	TRIP TIME DELAY PHASE LOSS (SP), UNBALANCE (UB) OVERLOAD	4 SEC ± 1 SEC. AS PER IDMTL CHARC' - 10SEC
11.	INDICATIONS 1) ON (RUN MODE) 2) SP / UB 3) OL	GREEN (STEADY ON) RED (STEADY ON / FLASHING) RED (STEADY ON)
12.	TEST / RESET	MANUAL (PUSH BUTTON ON UNIT), REMOTE RESET
13.	ENCLOSURE	D3 - ABS ENCLOSURE
14.	DIMENSIONS (L X W X D) (mm)	71 x 100 x 111
15.	MOUNTING	35mm DIN RAIL MOUNTING
16.	WEIGHT (APPROX.)	350 gms.
17.	OPERATING CONDITIONS	TEMPERATURE = -5 °C TO +60 °C HUMIDITY = UPTO 95% Rh.

## MOUNTING DIMENSIONS

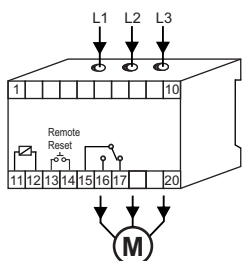


## TESTING PROCEDURE

If you need to test the functioning of D3 MPR3 without connecting it in the control circuit of the motor starter. Provide Auxiliary supply 110 / 240 VAC at terminals 11 & 12 of the unit. Check the output relay contacts at 15 & 16. Indication 'P.ON' ( Green LED ) should be ON. Press TEST push button on the front plate of the unit. Wait for 4-7 sec, check discontinuity at terminals 15 & 16 of the unit. Also LED indication SP/UB and OL should be ON. Reset your D3 MPR3 by either pressing RESET push button on Front plate of the unit OR by shorting terminals 13 & 14 of the unit.

If these operations are perfect, connect your D3 MPR3 in the Motor Circuit. Consult MINILEC if you find any irregularities in the above mentioned operations.

## CONNECTION DIAGRAM

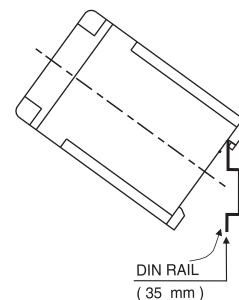


### NOTES :-

- RELAY CONTACTS SHOWN IN POWER OFF CONDITION
  - TERMINAL DETAILS:  
11-12 : AUX.SUPPLY  
13-14 : REMOTE RESET  
15-16-17 : C1-NO1-NC1
  - EXT. CT OF SEC. 5A TO BE CONNECTED IN POWER WIRING WHEN RATED CURRENT > 100 Amp
- INDICATIONS :  
P. ON - POWER ON  
SP/UB - SP (STEADY ON) / UB (FLASHING)  
OL - OVER LOAD TRIP

RATED CURRENT	5 Amp
	20 Amp
	50 Amp
	100 Amp

## MOUNTING ON DIN RAIL



## OVERLOAD (IDMTL) CHARACTERISTICS

