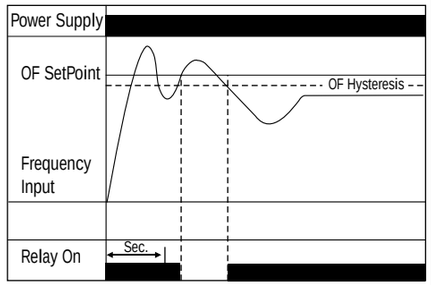
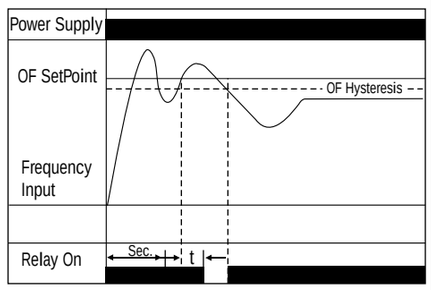
TIMING DIAGRAM

FIG 1 A



Power on Delay 3.5 ± 1.5 Sec. (Fixed)
Trip Delay Set to minimum (i.e. instantaneous)

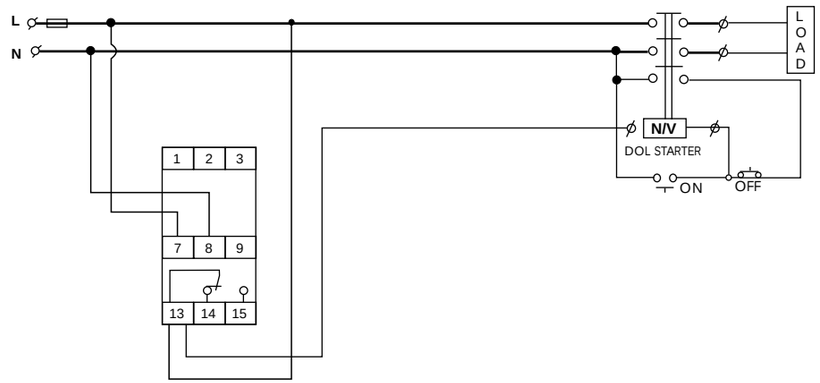
FIG 1 B



Power on Delay 3.5 ± 1.5 Sec. (Fixed)
Trip Delay Set to time 't'

ELECTRICAL CONNECTIONS IN POWER AND CONTROL WIRING

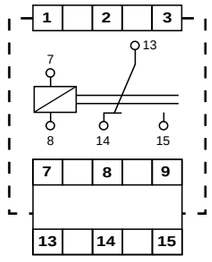
FIG 2



NOTES:
- RELAY CONTACTS SHOWN FOR UNIT IN HEALTHY CONDITION

ELECTRICAL CONNECTIONS DIAGRAM

FIG 3



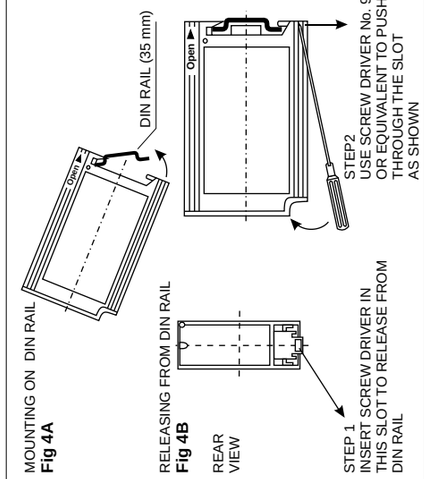
INDICATIONS:
ON : RELAY ON
OFF : OVER FREQUENCY TRIP

TERMINAL DETAILS
7-8 : SYSTEM SUPPLY
13-14-15 : OUT PUT RELAY CONTACT (C1-NO1-NC1)

NOTES:
- RELAY CONTACTS SHOWN FOR UNIT IN HEALTHY CONDITION

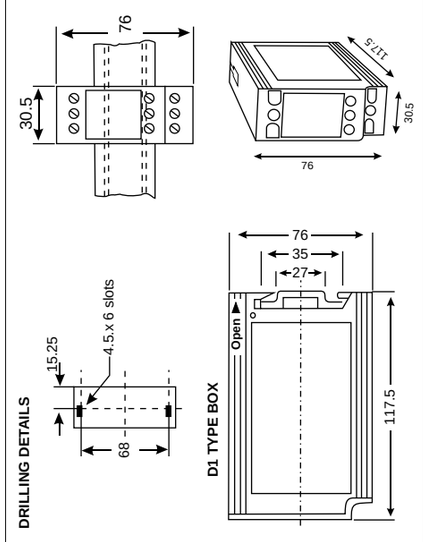
MOUNTING ON AND RELEASING FROM DIN RAIL

FIG 4



MOUNTING DIMENSIONS

FIG 5



INSTALLATION INSTRUCTION MANUAL FOR OVER FREQUENCY RELAY (SINGLE PHASE)

OFS D1

WARRANTY

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

Manufactured by:

minilec®

S. No. 1073/1-2-3, Pirangoot,
Tal. Mulshi, Dist. Pune - 412 111 (India)

VERSION 01
(15 / 04 / 2001)

INSTALLATION INSTRUCTIONS FOR OFS D1

INTRODUCTION

It`s the Company`s pleasure to enlist you as one of our esteemed user customers. Thank you for selecting & purchasing MINILEC make OVER FREQUENCY RELAY (Single phase) OFS D1

The following installation instructions would guide you in installing your single phase over frequency relay OFS D1 & making the best use of it.

OFS D1 operates on Frequency to voltage conversion principle and is used in single phase system supply where over frequency protection or monitoring is required.

MOUNTING

Your OFS D1 can be RAIL mounted or PANEL mounted. (See Fig. 4 for mounting on and for releasing from DIN RAIL Also see Fig. 5 for PANEL mounting & Drilling Details Dimensions).

CAUTION

Ensure that your OFS D1 is -

- Not installed near any heat sources like burner, sunlight, electric arc etc.
- Not subjected to abnormal vibrations.
- Not subjected to direct rains, stormy wind and dust.
- Installed as near to the starter as possible.

ELECTRICAL CONNECTIONS OF OFS D1

See Fig. 3 for electrical connection details of OFS D1.

See Fig. 2 for power and control wiring.

Sys. supply must be as marked on front cover plate. The output relay contacts 13 & 14 are to be connected in series with the no - volt coil of the contactor.

FUNCTIONING

The unit is provided with settable OF Trip settings, Fixed OF hysteresis gap setting. Settable Trip time setting and Fixed power on delay.

When the power is applied to the unit. the relay energises immediately ignoring abnormal frequency conditions experienced during start up. (for power on delay)

The unit works in Auto mode.

APPLICATION EXAMPLES

- Frequency supervision on AC generator sets.
- Over-frequency detection.
- Protection of frequency sensitive equipment.
- Detection of over frequency on generator set to prevent overheating.

TECHNICAL SPECIFICATIONS OF OFS D1

1. **System Supply :** 110/220/230/240/380/415 VAC, ± 20%.
2. **Frequency :** 50/60 Hz
3. **Power Consumption :** 5VA.
4. **Output RELAY Contact :** 1 CO
5. **Output Contact Rating :** 5A, 240 VAC (Resistive)
6. **Life Expectancy :** 0.5x 10^0 operations at 100% rating
7. **OF Trip setting :** 50 Hz to 10 Sec. (Variable)
8. **Set Accuracy :** ± 1 Hz w. r. t. Set Frequency
9. **Trip time delay :** 1 sec. to 10 sec. (Adjustable)
10. **Power on Delay :** 3.5 Sec.± 1.5 Sec. (Fixed)
11. **Reset Auto:**
12. **OF Hystersis :** 3%(Fixed)
13. **Indications :**
    ON (green) - Relay ON
    OF (Red) - Over Frequency TRIP
14. **Operating Conditions :**
    Temperature - 5^0 C to 60^0 C
    Humidity - Upto 95% R.H.
15. **Enclosure :** ABS
16. **Dimensions (mm) :**
    Overall : 76 x 30.5 x 117.5
    Mounting : 68 (Centre to Centre)
17. **Weight (Approx.) :** 350 gms.

TESTING PROCEDURE