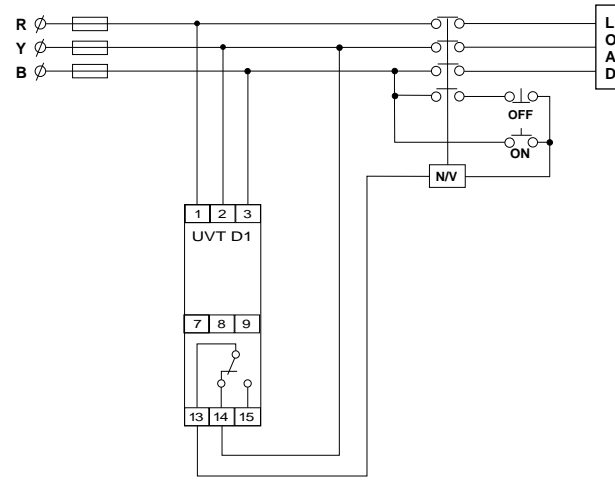


**ELECTRICAL CONNECTIONS IN POWER AND CONTROL WIRING UVT D1**

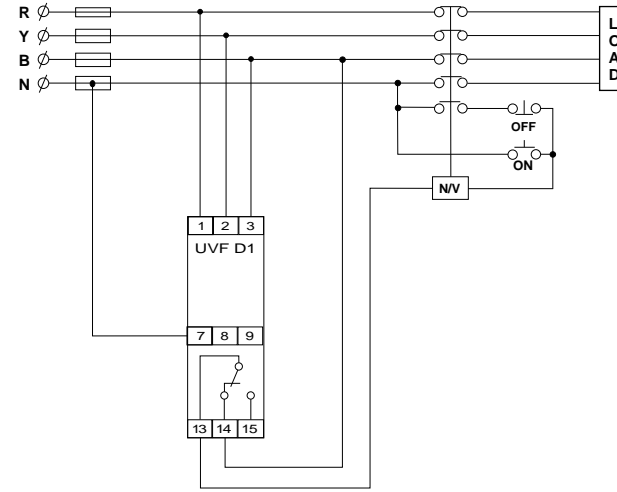
FIG 1



**NOTE :**  
 ■ RELAY CONTACT SHOWN IN HEALTHY CONDITION.

**ELECTRICAL CONNECTIONS IN POWER AND CONTROL WIRING UVF D1**

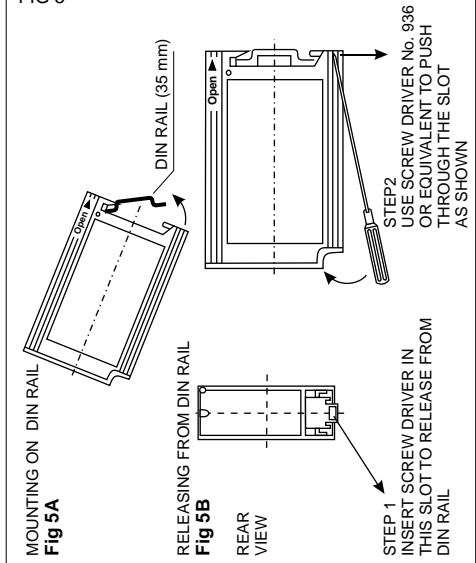
FIG 3



**NOTE :**  
 ■ RELAY CONTACT SHOWN IN HEALTHY CONDITION.

**MOUNTING ON AND RELEASING FROM DIN RAIL**

FIG 5



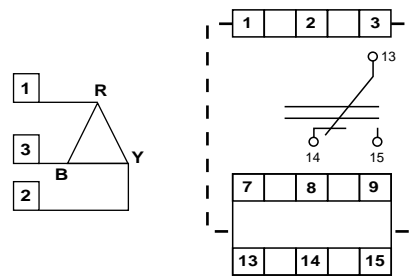
**INSTALLATION INSTRUCTION MANUAL FOR UNDER VOLTAGE RELAY**

**UVT D1, UVF D1**



**CONNECTION DIAGRAM UVT D1**

FIG 2



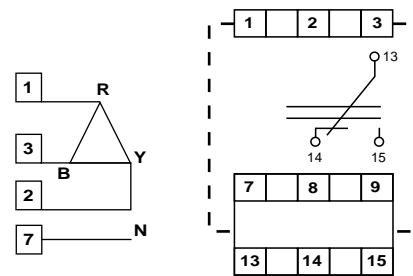
**INDICATIONS**  
 ON : POWER ON  
 UV : UNDER VOLTAGE TRIP

**TERMINAL DETAILS**  
 1-2-3 : R-Y-B PHASE VOLTAGE SENSING POINTS  
 14-13-15 : OUTPUT RELAY CONTACT (NO-C-NC)

**NOTE :**  
 ■ RELAY CONTACT SHOWN IN HEALTHY CONDITION.

**CONNECTION DIAGRAM UVF D1**

FIG 4



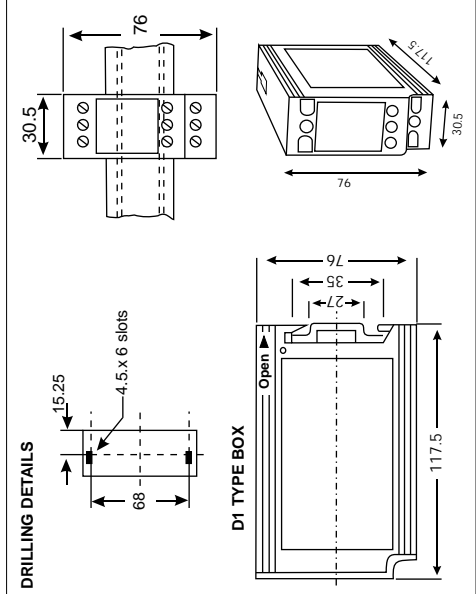
**INDICATIONS**  
 ON : POWER ON  
 UV : UNDER VOLTAGE TRIP

**TERMINAL DETAILS**  
 1-2-3 : R-Y-B PHASE VOLTAGE SENSING POINTS  
 7 : NEUTRAL POINTS  
 14-13-15 : OUTPUT RELAY CONTACT (NO-C-NC)

**NOTE :**  
 ■ RELAY CONTACT SHOWN IN HEALTHY CONDITION.

**MOUNTING DIMENSIONS**

FIG 6



**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  
 (9/ 04 /2001)

**INSTALLATION INSTRUCTIONS FOR UNDER VOLTAGE RELAY UVT D1, UVF D1**

**INTRODUCTION**

Thank you for selecting & purchasing MINILEC make Under Voltage Relay.

The following installation instructions would guide you in installing your Under Voltage Relay (i.e. UVT D1, UVF D1) and making the best use of it.

The above models are used in 3 system supply where under voltage protection is required.

**MOUNTING**

Any model of Under Voltage Relay series can be RAIL mounted or PANEL mounted. (See Fig. 5 for mounting on & releasing from DIN RAIL. Also see Fig. 6 for PANEL mounting & Drilling Details Dimensions.)

**CAUTION**

**Ensure that any model of Under Voltage Relay is -**

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

**ELECTRICAL CONNECTIONS FOR UNDER VOLTAGE RELAY**

See Fig. (2/4) for electrical connection diagram details of corresponding model of Under Voltage Relay.

See Fig. (1/3) for installation in power and control wiring of corresponding model of Under Voltage Relay

Connect the output relay contacts in series with the no - volt coil as required.

**FUNCTIONING**

**UVT D1**

The UVT D1 is used for monitoring phase to phase voltage between all three phases. The unit trips when the supply goes below the settings as per the requirement. This model is having both the delays i.e Trip time & power on delay. The Unit is having Auto operation mode.

**UVF D1**

The UVF D1 Model is used for monitoring phase to neutral voltages between all three phases. The UVF D1 is also having facility of variable under voltage setting with adjustable Trip Time & Fixed Power On Delay. The unit is having Auto operation mode.

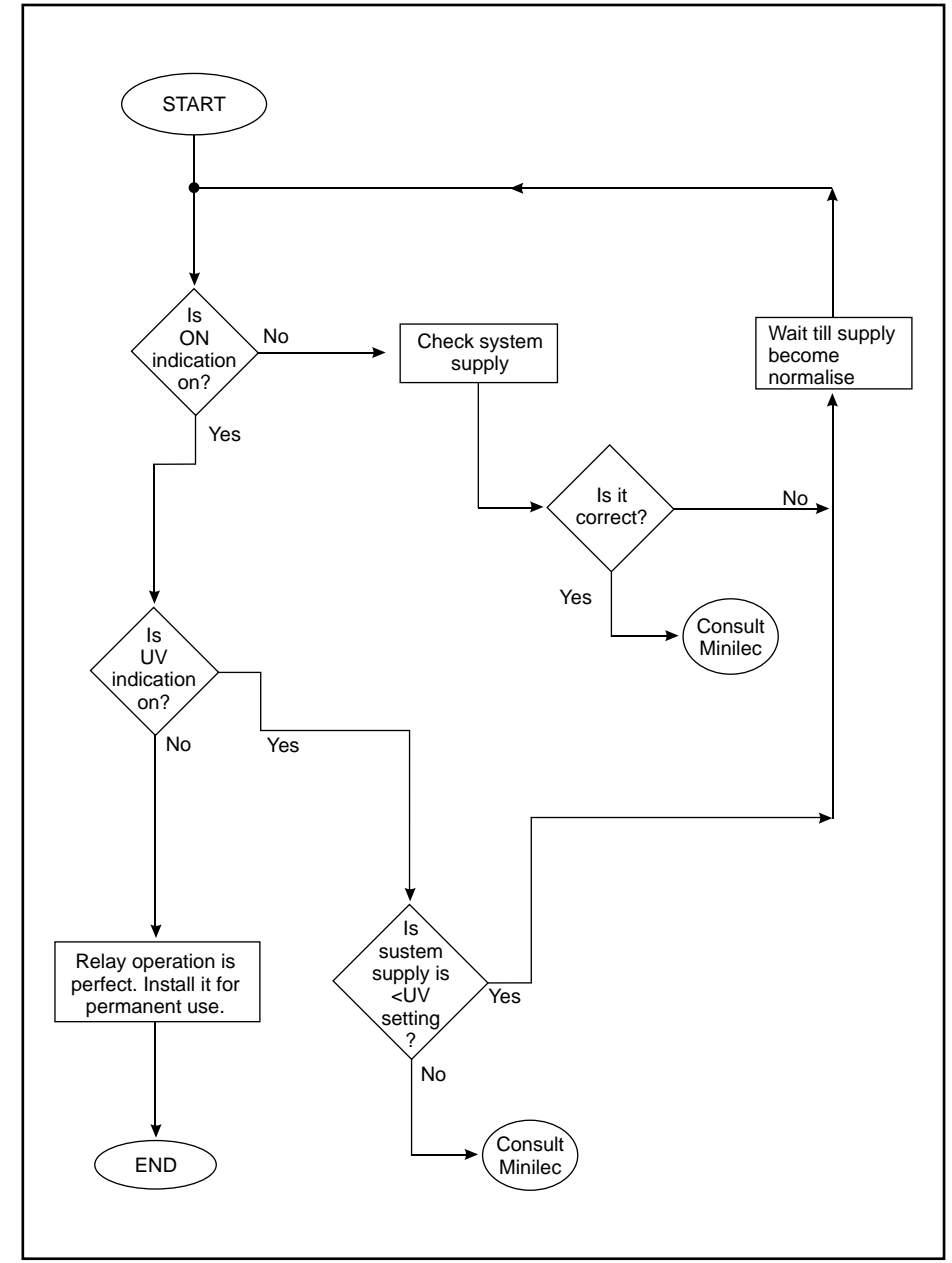
**TECHNICAL SPECIFICATIONS OF UNDER VOLTAGE RELAY**

- System Supply**  
UVT D1 : 110/220/230/240/380/415/440 VAC, +20%, -25% (3 Phase 3 Wire)  
UVF D1 : 110/220/230/240/380/415/440 VAC, +20%, -25% (3 Phase 3 Wire)

**Common specifications for all models**

- Aux Supply** : Not applicable
- Frequency** : 50/60 Hz  $\pm$  3%
- Output Relay Contact** : 1CO
- Output Contact Rating** : 5 A, 240 VAC (Resistive)
- UV Trip Setting** : 75% to 95% (variable) of monitored supply
- Trip Time Delay** : 1 to 10 Sec. (Adjustable)
- Power on Delay** : 3.5 Sec.  $\pm$  1.5 Sec. (Fixed)
- Reset** : Auto
- Reset Gap** : 3%  $\pm$  1% of monitored Supply
- Set Accuracy** :  $\pm$  2% of set Value Upto 25°C, 1% drift per 10°C after 25°C
- Indication** : ON (Green) Power On  
UV (Red) Under Voltage TRIP
- Operating Conditions** : Temp -5° C to 60° C  
Humidity Upto 95% R. H.
- Enclosure** : ABS
- Dimensions** : (mm)  
Overall 76 X 30.5 X 117.5  
Mounting 68 (Center to Center)
- Weight** : 330 gms.

**TESTING PROCEDURE**



**TRIP SETTING, TRIP DELAY AND RESETTING**

	Under Voltage
1. Cut off at	Site Selectable between 75% to 95% ( $\pm$ 2% of Set value)
2. Cut in at	(Set value plus 3% $\pm$ 1% of monitored Supply)
3. Trip Time Delay	1-10 Sec. (Adjustable)
4. Power On Delay	3.5 Sec. $\pm$ 1.5 Sec. (Fixed)
5. Resetting	Auto