

INSTALLATION INSTRUCTION MANUAL UNDER / OVER VOLTAGE RELAY

D1 VCR1



D1 VCR1 is used where under / over voltage protection of single phase system supply is required

CAUTION

Ensure that **D1 VCR1** is -

- * Not installed near any heat sources like burner, sunlight, electric arc etc.
- * Not subjected to abnormal vibration.
- * Not subjected to direct heat, sunlight, rain, stormy wind and dust

Notes:

Under / Over voltage sensing to D1 VCR1 is taken from system supply points given at terminal 7 & 8. Unit will trip within 3.5 sec.(± 1.5 sec.) If system supply is below the specified under voltage cut off value or above the specified over voltage cut off value.

FUNCTIONING

D1 VCR1 provides continuous surveillance of the monitored circuit. When the measured voltage is below the specified under voltage cut off value or above the specified over voltage cut off value, the output relay contact changes. Under and over voltage settings are site selectable & to be by using front pots.

The unit is having auto reset mode. When monitored voltage is normalized again contact changeovers to healthy condition.

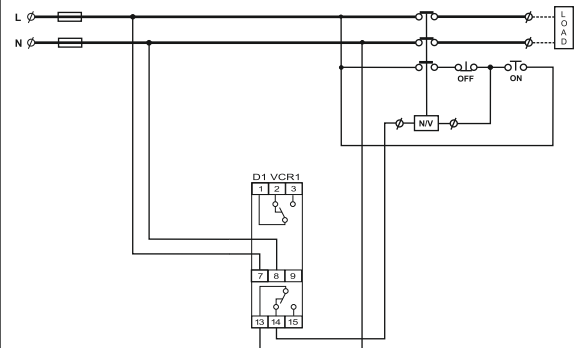
TRIP SETTING, TRIP DELAY AND RESETTING

		Under Voltage	Over Voltage
1.	Cut off at	Site selectable between 75% to 95% (of monitored supply) (± 2 % of set value)	Site selectable between 105% to 120% (of monitored supply) (± 2 % of set value)
2.	Trip Time Delay	3.5 sec.(± % of set value)	3.5 sec.(± % of set value)
3.	Auto Reset Gap	Cut off value plus 3% (±1%) of system. supply	Cut off value Less 3% (±1%) of system. supply

TECHNICAL SPECIFICATIONS OF UNDER / OVER VOLTAGE RELAY

1.	System Supply:	110/220/230/240 VAC, +20%, -25%
2.	Aux. Supply :	Not applicable
3.	Frequency :	50/60/ Hz ±3%
4.	Output Relay Contact :	2 CO
5.	Output Contact Rating :	5A, 240 VAC [Resistive]
6.	UV Trip Setting:	75% to 95% of system supply
7.	OV Trip Setting:	105 % to 120% of System supply
8.	Setting accuracy :	± 2 % of set value.
9.	Trip Time Delay :	3.5 se. (± 1.5 sec)
10.	Reset ting :	Auto reset
11.	UV / OV Reset Gap :	3% (± 1%) of sys. supply.
12.	Indication :	POWER ON (Green) : Power On UV (RED) : Under Voltage Trip OV (Red) : Over Voltage Trip
13.	Enclosure :	ABS
14.	Dimensions : (mm)	Overall : 76x30.5x117.5 Mounting : 68 center to center Temperature -5 C to =60 C Humidity upto 95% R.H.
16.	Weight :	180 gms.

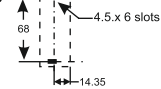
ELECTRICAL CONNECTIONS IN POWER AND CONTROL WIRING



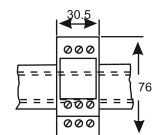
NOTE : RELAY CONTACT SHOWN FOR UNIT IN HEALTHY (ENERGISED) CONDITION.

MOUNTING DIMENSIONS

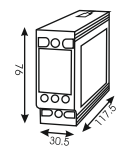
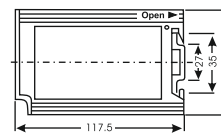
DRILLING DETAILS MOUNTING DIMENSIONS



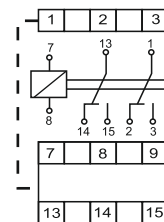
D1 TYPE BOX



D1 TYPE BOX



CONNECTIONS DIAGRAM



INDICATIONS

POWER ON
UV : UNDER VOLTAGE TRIP
OV : OVER VOLTAGE TRIP

TERMINAL DETAILS

7 - 8 : SYSTEMS SUPPLY AS MARKED ON THE UNIT
13-14-15 : OUTPUT RELAY CONTACT (C1 - NO1 - NC1)
1 - 2 - 3 : OUTPUT RELAY CONTACT (C2 - NO2 - NC2)
9 : DUMMY TERMINAL.

NOTES:

- SYSTEM SUPPLY TO BE CONNECTED AS MENTIONED ON THE UNIT.
- RELAY CONTACTS SHOWN FOR UNIT IN HEALTHY (ENERGISED) CONDITION.
- UNIT WILL REMAIN IN TRIPPED CONDITION IF SYSTEM VOLTAGE IS BELOW UV SETTING OR ABOVE OV SETTING DURING POWER ON.

COMPLIANCE TO STANDARDS

	TEST	IEC STD.
1.	EFT Test of Auxiliary Supply	61000-4-4
2.	Surge Test of Auxiliary Supply	61000-4-5
3.	Voltage Interruption, Variation & Dip Test	61000-4-11
4.	ESD Test (Contact Discharge)	61000-4-2
	ESD Teast (Air Discharge)	61000-4-2
5.	H.V. Test (Dielectric Test)	60255-5
6.	Insulation Resistance Test	60255-5
8.	Dry Heat Test	60068-2-2
9.	Damp Heat test (Steady State)	60068-2-30
10.	Damp Heat test (cyclic test)	60068-2-78

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