INSTALLATION INSTRUCTION MANUAL PHASE FAILURE RELAY / SPP WITH WATER LEVEL GUARD / PHASE SEQUENCE RELAY



These relay's are phase failure relay & offers protection against

- * Unbalanced voltage condition.
- * Phase failure condition.
- * Phase sequence reversal condition.
- * Dry running condition for pumps.

MOUNTING :

These relay's can be Rail Mounted or Panel Mounted. It is suitable for 35mm RAIL .

TRIP SETTING, TRIP DELAY AND RESETTING :

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These refer following table of respective relay.

TEC	CHNICAL SPECIFICATIONS OF	VSP D1	VSP D2	VPG D1	USP D1	S1 VMR7
1.	SYSTEM SUPPLY VOLTAGE :	110/220/230/240/380/415/440 VAC + 20%	110 / 220 / 230 / 240 / 380 / 415 VAC <u>+</u> 20%	415 VAC, 3Ø ± 20 %	415 VAC <u>+</u> 20 %	380-440 VAC ± 20 % 3phase-3 wire
2.	AUX. SUPPLY :	110/220/230/240/380/415/440 VAC + 20%	110 / 220 / 230 / 240 / 380 / 415 VAC ± 20%	NA	IN BUILT	In - Built from three phase
3.	FREQUENCY :	50 / (60) Hz, ± 3%	50 / (60) Hz, ± 3%	50 Hz <u>+</u> 3%	50 Hz, <u>+</u> 3%	48 to 63 hz.
4.	POWER CONSUMPTION :	3 VA (max.)	3 VA (max.)	3 VA Max.	3 VA (max.)	3 VA (max.)
5.	OUTPUT RELAY CONTACT :	1 Changeover	2 Changeover	1 Changeover	1 Changeover\	1CO.
6.	OUTPUT CONTACT RATING [RESISTIVE]:	5Amp., 240 VAC	5Amp., 240 VAC	5 A, 240 VAC (Resistive)	5Amp., 240 VAC	5 Amp, 240VAC [resistive]
7.	LIFE EXPECTANCY :	0.5 x 10 ⁶ operations at 100% rating	0.5 x 10 ⁶ operations at 100% rating	0.5 x 10 ^e Operations At 100% Rating	0.5 x 10 ⁶ operations at 100% rating	0.5 x 10 ^e operations at 100% rating
8.	UNBALANCE TRIP SETTING :	40V ± 6V	30 to 70V <u>+</u> 6V	40V± 6V (Fixed) Dry Running: As Per Sensor Prod Positioning	60V <u>+</u> 6V	NA
9.	SET ACCURACY :	NA	± 10% of set value	NA	NA	NA
10.	TRIP TIME DELAY :	3.5 Sec. ± 1.5 Sec.	3.5 Sec. <u>+</u> 1.5 Sec.	2 to 5 seconds	3.5 Sec. <u>+</u> 1.5 Sec.	Instant
11.	TEST PUSH BUTTON DELAY :	NA	3.5 Sec. <u>+</u> 1.5 Sec	NA	NA	NA
12.	RESETTING :	Auto Reset	Auto, Manual, Remote Reset	Auto Reset	Auto Reset	Auto reset
13.	RESET GAP :	10 - 18V	10 - 18V	10 - 18 V	10 - 18V	NA
14.	INDICATION :	L1 : Green - Power ON	L1 : Green - Power ON	NA	L1 : Green - Power ON	L1 : Green - Power ON
14.		L2 : Red - Trip	L2 : Red - Trip		L2 : Red - Trip	L2 : Red - RLY (Steady ON for RP)
15.	ENCLOSURE :	ABS.	ABS.	ABS	ABS.	S1 SERIES-ABS,PC-ABS
16.	DIMENSIONS [mm] :	Overal : 76 X 30.5 X 117.5	Overall : 76 x 56.5 x 117.5	76 x 30.5 x 117.5	Overall : 76 X 30.5 X 117.5	OVERALL = 96 X 17.5 X 60
		Mounting : 68 center to center	Mounting : 68 x 27	68 [Center To Center]	Mounting : 68 center to center	MOUNTING = Rail Mounting
17.	MOUNTING :	35 mm Rail Mounting & Panel Mounting	35 mm Rail Mounting & Panel Mounting	Panel Mounting And 35 mm Rail Mounting	35 mm Rail Mounting & Panel Mounting	35 mm Rail Mounting & Panel Mounting
18.	WEIGHT [gms] :	320 (approx.)	400 (approx.)	300	320 (approx.)	70
19.	OPERATING CONDITIONS :	TEMPERETURE : -5°C to + 60°C	TEMPERETURE : -5°C to + 60°C	-5°C to 60° C	TEMPERETURE : -5°C to + 60°C	TEMPERATURE = -5°C to +60°C
19.		HUMIDITY : Upto 95% Rh	HUMIDITY : Upto 95% R.H.	Upto 95 % R.H.	HUMIDITY : Upto 95% Rh	HUMIDITY = Upto 95% RH
20.	Level Sensor : Weight	NA	NA	1 No.Stainless Steel Prod Approx. Weight: 15gms	NA	NA
21.	Liquid Resistance :	NA	NA	150 K. Ohms	NA	NA

COMPLIANCE TO STANDARDS

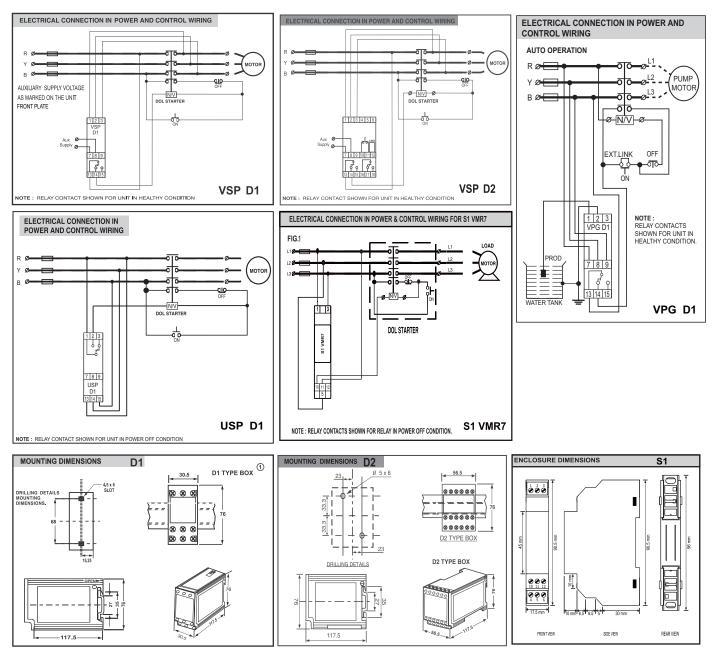
	TEST	IEC STD.		TEST	IEC STD.
1.	EFT Test of Auxiliary Supply	61000-4-4	7.	H.V. Test (Dielectric Test)	60255-5
2.	EFT Test of System Supply	61000-4-4		H.V. Test (Dielectric Test)	60255-5
3.	Surge Test of Auxiliary Supply	61000-4-5	8.	Insulation Resistance Test	60255-5
4.	Surge Test of System Supply	61000-4-4	9.	Dry Heat Test	60068-2-2
5.	*Voltage Interruption, Variation	61000-4-11	10.	Damp Heat test (Steady State)	60068-2-30
	& Dip Test		11.	Damp Heat test (cyclic test)	60068-2-78
6.	ESD Test (Contact Discharge)	61000-4-2			
	ESD Teast (Air Discharge)	61000-4-2			

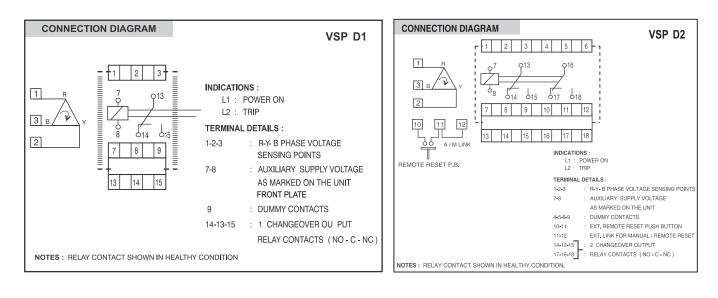
Note: * applicable foe VSP D1 & VSP D2

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

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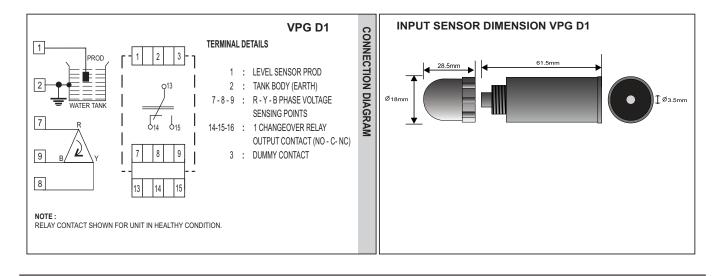


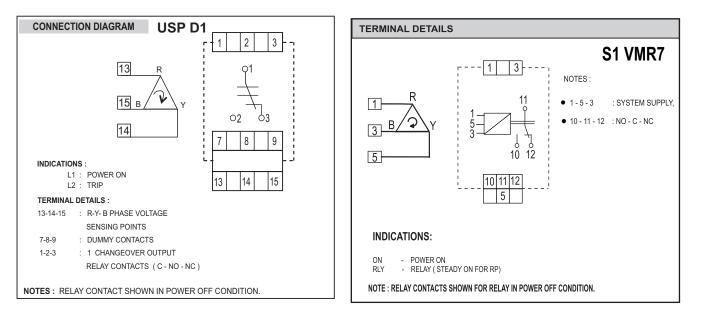


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