SPECIFICATIONS & TECHNICAL DETAILS OF AVR UVR6

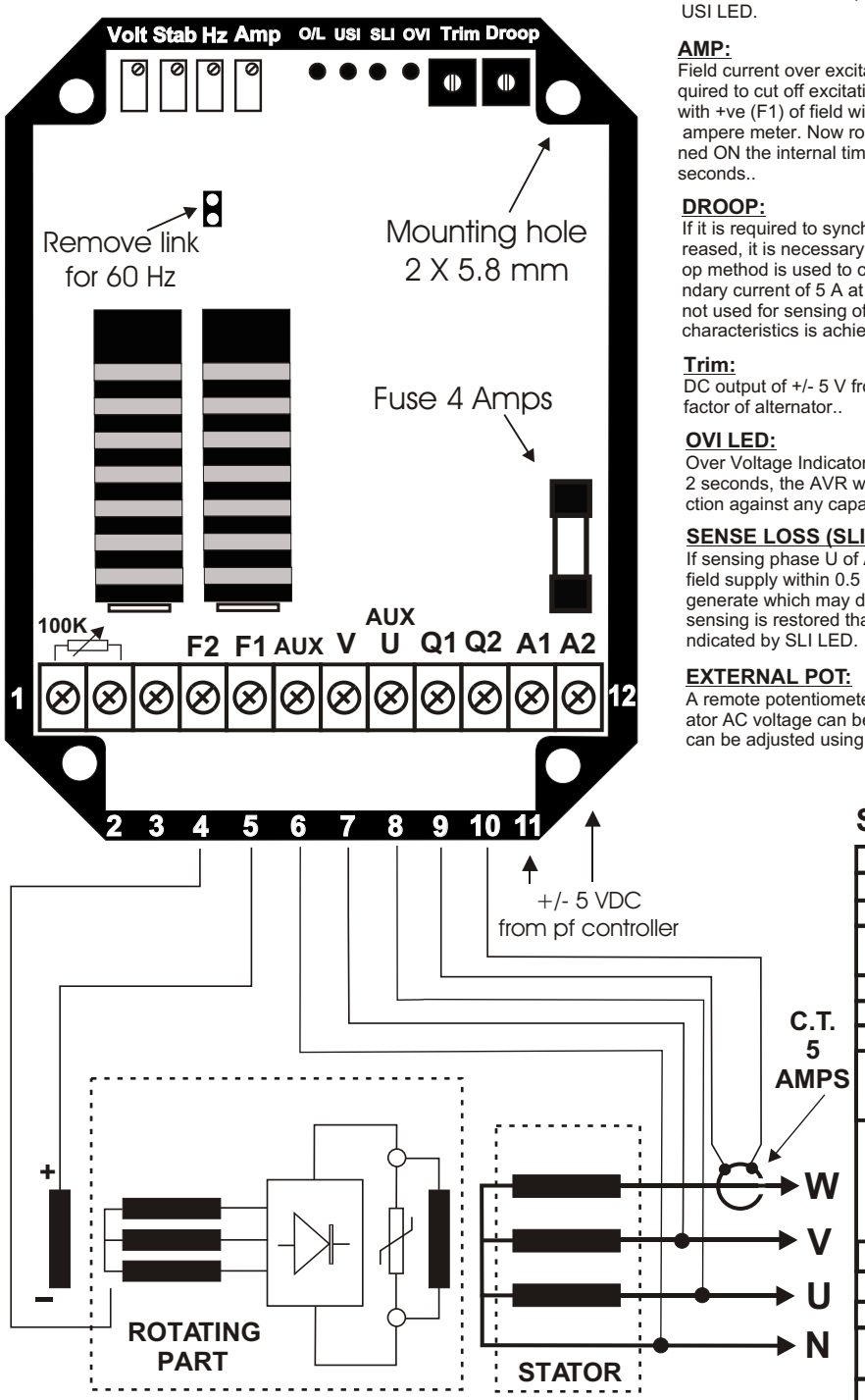
WARNING: To prevent personal Injury or equipment damage only qualified technician / operator should install, operate or service this device

CAUTION: While using meager & high potential equipment, disconnect all connections of AVR. Incorrect use of such equipments could damage components of AVR

CONNECTION DIAGRAM TO 3 PHASE + N ALTERNATOR

Presets marked as "Volts, Stab,Hz & Amp are 25 Turns and Trim, Droop are single Turn type

Q1,Q2 & A1,A2 inputs are used for synchronizing of 2 or more alternators, other wise no connections



VOLTS:
Rotate these pot clockwise to increase AC terminal voltage and anticlockwise to decrease AC terminal voltage

STAB:
If there is AC terminal voltage hunting than slowly rotate STAB pot anticlockwise to stabilize the voltage. Do not excessively rotate anticlockwise other wise response time will increase resulting larger dip in terminal voltage during sudden load. Excessively rotating the STAB pot in clockwise direction will result in voltage hunting. **(It is advis able that only technically qualified person should adjust these pot.)**

Hz:
It is not required to adjust these pot as it is factory set at 47 Hz for 50 Hz. Alternator. For 60 Hz remove link located near Hz potentiometer, which sets level to 57 Hz. In case if it is required to set frequency level to any other frequency then rotating Hz pot clock wise will increase frequency level above 47 Hz(57Hz). And rotating Hz pot to anti clock wise directions will decrease frequency level below 47 Hz. In both case activation is indicated by USI LED.

AMP:
Field current over excitation set pot is factory set to maximum clockwise (4 Amps). If it is required to cut off excitation current below 4 Amps, then connect DC ampere meter in series with +ve (F1) of field wire. Load the alternator such that required DC current is noted on ampere meter. Now rotate AMP pot anticlockwise till OLI LED is just ON. Once LED is turned ON the internal timer will be activated and will cut off excitation Power after 15 to 20 seconds..

DROOP:
If it is required to synchronize more than one generator, so that system capacity can be increased, it is necessary that power sharing between all generators is equal. Quadrature droop method is used to control reactive current of generators. A current transformer with secondary current of 5 A at full load of generator is connected third phase of generator which is not used for sensing of AVR. The direction of secondary current should be such that droop characteristics is achieved.DROOP characteristics of +/- 10 % can be achieved at 5 Ampere.

Trim:
DC output of +/- 5 V from power factor (pf) controller can be input A1 & A2 to control power factor of alternator..

OVI LED:
Over Voltage Indicator LED.When ever terminal voltage exceeds 470 to 480 V for more than 2 seconds, the AVR will cut off excitation and terminal voltage will drop to zero. This is protection against any capacitive loads due to which alternator voltage increases.

SENSE LOSS (SLI):
If sensing phase U of AVR is accidently disconnected then in such condition AVR will cut off field supply within 0.5 to 1 second of sense loss. This will prevent excessive high voltage to generate which may damage generator winding, AVR and load connected to generator. If sensing is restored than AVR will generate voltage to its specified level. Sense loss will be I ndicated by SLI LED.

EXTERNAL POT:
A remote potentiometer of 100K / 1W is connected to 1 & 2 terminal of AVR so that generator AC voltage can be adjusted from remote location. AC voltage in the range of +/- 5 % can be adjusted using external potentiometer.

SPECIFICATIONS:

INPUT VOLTAGE	80 to 270 V AC
SENSING VOLTAGE	100 to 415 V AC
OUTPUT EXCI. VOLTAGE	100 V DC max.
OUTPUT EXCI. CURRENT	4 A DC. (12 A DC FOR 15 - SECONDS)
INPUT FREQUENCY	50 / 60 Hz
RESIDUAL BUILD UP	5 V AC AT 50 Hz.
VOLTAGE REGULATION	+ / - 1 %
UNDER FREQUENCY (UFRO / UFI LED)	FACTORY SETTING 47 Hz, REMOVE LINK FOR 57 Hz. INDICATION BY UFI - LED
OVER EXCITATION CURRENT TRIP (AMP / OEI) (Please rotate AMP pot in anticlockwise direction to set excitation current tripping level below 5 A DC)	25 SECONDS DELAY TIMER. ADJUSTABLE POT RANGE 0 - 4 ADC. INDICATION BY OEI - LED (Factory setting 5 A DC max)
EXTERNAL POTENTIOMETER	+/- 5 % using 100 K Ohms pot
DROOP (Q1 & Q2, 5Amp C.T.)	+/- 10 % at 5 Amperes
TRIM (A1 & A2)	+/- 5 V DC
VIBRATION	20-100Hz 50 mm/sec 100Hz - 2 Khz 3.3g
OPERATING TEMPERATURE	-40 TO +70 °C
STORAGE TEMPERATURE	-55 TO +80 °C
RELATIVE HUMIDITY	0 TO +70 C : 95 %
FUSE (FAST ACTING)	4 AMPS (Size: 20 X 5 mm)
DIMENSIONS (L X B X H)	150 X 115 X 38 mm
WEIGHT	415 gms

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CONNECTING AVR UVR6 TO ISOLATED AUXILLARY WINDING

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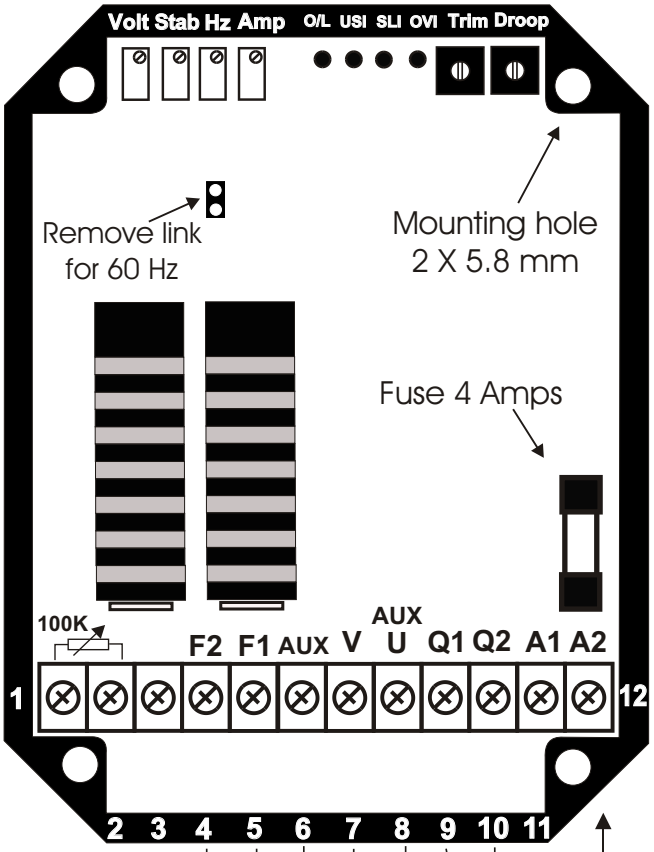

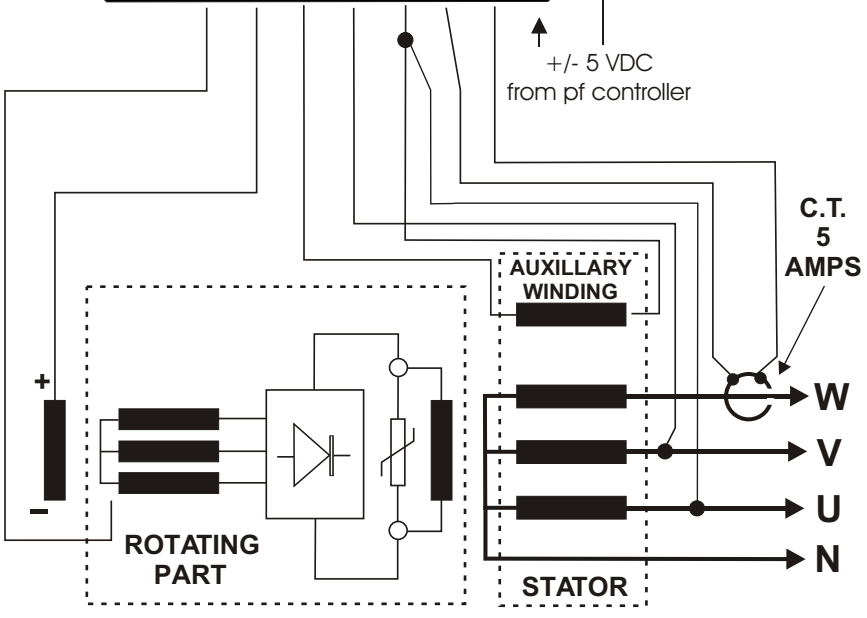

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