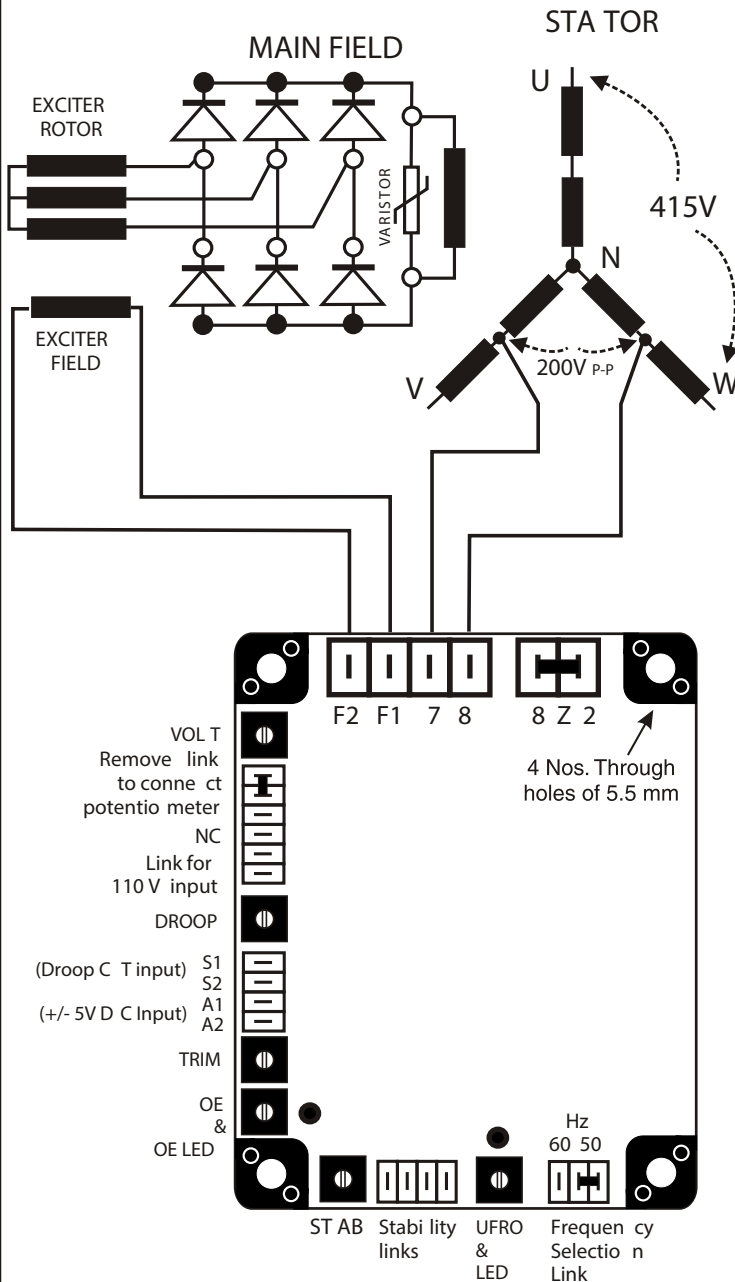


WARNING: To prevent personal injury or equipment damage only qualified technician / operator should install, operate or service this device

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

Typical connection diagram of AVR to alternator:

- 1) Input & sensing to AVR from center tap of stator winding. Voltage range can be between 160 to 260 V AC.
- 2) Input & sensing can be from mains terminal where 220 V terminal is available.
- 3) Input to AVR can be also from any one Phase & Neutral 220 V.



VOLT :

Rotate these pot clockwise to increase AC terminal voltage and anti-clockwise to decrease AC terminal voltage. A remote potentiometer of 1 K ohms can be connected by removing the link to achieve voltage adjustment in the range of +/- 5 %

STAB :

Stability potentiometer is factory set such that optimum response of voltage recovery is achieved during sudden load changes. In some cases in order to release burden on engine it is required to sluggish the recovery time of voltage, therefore to increase the response time STAB potentiometer is carefully rotated anti clockwise direction such that response time will increase resulting larger dip in terminal voltage during sudden load. Kindly note that by excessively rotating STAB potentiometer to clockwise direction at one stage voltage will become unstable and cause hunting. Again by gradually rotating the STAB pot to anti clockwise direction will stabilize the generator voltage. (It is advisable that only technically qualified person should adjust these pots.)

UFRO:

is not required to adjust these pot as it is factory set at 47 Hz for 50 Hz. For 60 Hz by removing the link, UFRO level will change to 57 Hz. If it is required to adjust then by rotating the pot to clockwise will increase UFRO level above 47 Hz and rotating anti clockwise will decrease UFRO level below 47 Hz. UFRO activation is indicated by UFRO LED.

OE:

Field voltage over excitation set pot is factory set to .65 V DC. It is required to cut off excitation voltage below 65 V, then connect DC volt meter across F1 & F2. Load the alternator such that required DC voltage is noted on volt meter. Now rotate OE pot anticlockwise till OE LED is just ON. Once LED is turned ON the internal timer will be activated and will cut off excitation Power. After 20 sec. It will be required to shut down engine to reset the tripping circuit.

DROOP (S1 & S2):

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 specified secondary current 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.

TRIM (A1 & A2):

An analogue signal of +/- 5V can be applied to A1 & A2 terminal to control PF or voltage of generator. An internal TRIM potentiometer is used to adjust the percentage of analogue signal feeding to control circuit..

SPECIFICATIONS:

INPUT VOLT AGE	110 to 260 V AC
SENSING VOLT AGE	110 to 260V AC
OUTPUT EXCL. VOLT AGE	95 V DC
OUTPUT EXCL. CURRENT	4 A DC. (12 A DC FOR 15 SECONDS)
INPUT FREQUENCY	50 / 60 Hz
RESIDUAL BUILD UP	5 V AC AT 50 Hz.
VOLT AGE REGULATION	+/- 1 %
UNDER FREQUENCY (UFRO / UFRO LED)	FACTORY SETTING 47 Hz, REMOVE LINK FOR 60 Hz INDICATION BY UFRO - LED
OVER EXCITATION CURRENT TRIP (OE / OEI) (Please rotate OE pot in anti clockwise direction to set excitation current tripping level below 65 V DC)	25 SECONDS DELAY TIMER. ADJUSTABLE POT RANGE 20 TO 95 V DC. INDICATION BY OE - LED (Factory setting 65 V DC max)
EXTERNAL POTENTIOMETER	+/- 5 % using 1 K Ohms pot
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)	128 X 94 X 45 mm
WEIGHT	270 gms

NOTE: Continuous development of our products entitles us to change specifications & other details without notice. Please contact factory for latest information.