

Automatic Voltage Regulator (AVR) Type JS2

DESCRIPTION

This is a heavy duty AVR best suited for directly excited generators of any kVA, where the excitation current is higher than 6A (in which case a Type JS1 would be suitable). The typical application would be older alternators that have a high rotor current and that are fed via brushes directly to the excitation field.

SPECIFICATIONS

Max Excitation Voltage: 90V
Max Excitations Current: 35A

Full load excitation example:

Field Resistance	Field Current	Resulting AVR Voltage	
2 Ohm	22A	44V	OK
12 Ohm	12A	144V	Bad – Voltage too high
2.4 Ohm	37A	84V	Bad – Current too high

PRECAUTIONS

It is very important that the generator engine is in a good running condition. If there is a fuel shortage or the governor does not operate correctly, it causes the AVR to push a higher current into the field in order to maintain the voltage. This overloads the AVR, causing it to blow. Do not mount the AVR where excess vibration may damage components.

Before connecting the AVR, first run the engine and then excite the generator with a small DC current to see if the voltage builds up. If the voltage builds up, then the generator winding should be in working order. Fit the regulator and follow the directions for use.

DIRECTIONS FOR USE

1. Connect the 3 phase power winding and the neutral star point to the regulator as shown in the figure.
2. Connect the field excitation winding to the Regulator.
3. Start engine and adjust to the required voltage by using the coarse & fine current adjustment pots.
4. Load the engine to rated load.
5. If the engine is unstable (oscillating) then the stability pot must be adjusted until the voltage remains stable under load.

