



SE350

INTRODUCTION

The SE350 voltage regulator is an encapsulated electronic voltage regulator that controls the output of a brushless AC generator by regulating the current into the exciter field.

SPECIFICATION	SE350 REGULATOR
Sensing & Power Input	190-240 Vac
Burden	500 VA
Output Power- Continuous	73 Vdc at 3.5 Adc (255w)
Output Power - Forcing(240 Vac Input Power)	105 Vdc at 5 Adc (525w)
Regulation	1.0%
Remote Voltage Adjustment Range	± 10% with 2000 ohm rheostat ± 5% with 1000 ohm rheostat
Frequency Compensation	Adjustable
Roll off frequency	54-61 Hz for 60 Hz 45-51 Hz for 50 Hz
Operation	Weight 6.5 oz.
Operating Temperature	- 40°C to + 60°C
Storage Temperature	- 65°C to + 85°C
Power Dissipation	8 watts maximum
Size	3.94" L X 2.66" W X 2.20: H
Voltage Buildup	Internal provisions for automatic voltage buildup from generator residual voltage as low as 10 Vac.
EMI Suppression	Internal Electromagnetic Interference Filter (EMI Filter)

WARNING

**TO PREVENT PERSONAL INJURY OR EQUIPMENT DAMAGE
ONLY QUALIFIED PERSONNEL SHOULD
INSTALL, OPERATE, OR SERVICE THIS DEVICE.**

**CAUTION: DO NOT megger or high-pot the generator with the regulator connected.
DO NOT high-pot the regulator.**

The SE350 voltage regulator can be mounted in any plane, following are mounting dimensions.

**VIEWING TERMINAL END OF THE REGULATOR
DIMENSIONS FOR MOUNTING TERMINAL SIDE UP**

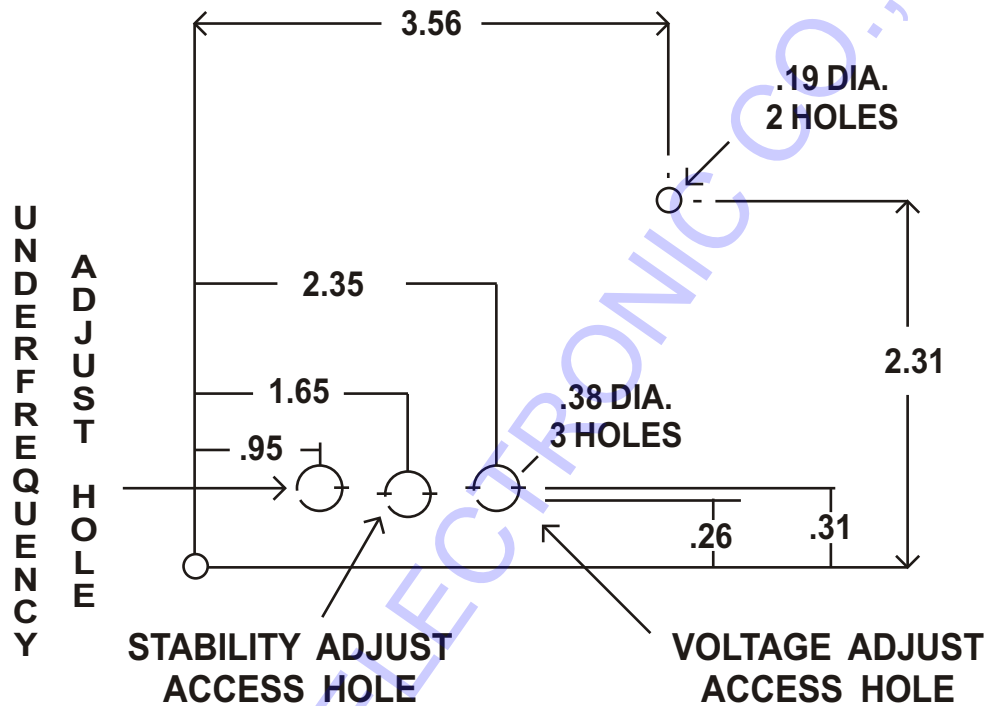


FIGURE 1

FUSE

A 4 Amp, 250 V, 5 X 20 mm fuse is supplied with the regulator (Part A-527066). It can be located on the rear face of the voltage regulator.

EXCITER POWER CIRCUIT

Connect the regulator wire F+ to the generator F+ or F1 field terminal.
Connect the regulator wire F- to the generator F- or F2 field terminal.
See Figure 2 for typical connection diagram

SENSING/POWER INPUT CIRCUIT

Input power and sensing is achieved through terminals 3 and 4.
The voltage input requirement of the SE350 is 190 to 240 Vac. See Figure 2

PRELIMINARY SET-UP

Ensure the voltage regulator is correctly connected to the generator. Refer to the specific connection diagram supplied with the generator.

Set the regulator voltage adjust to full counter-clockwise (minimum voltage level).

Set the remote voltage adjust (if used) to the center position.

Set the stability control full clockwise (maximum stability level).

Connect the positive lead of a 100 V D.C. voltmeter to F1 and the negative lead of the voltmeter to F2 or use an appropriate AC voltmeter on the generator output leads.

SYSTEM START-UP

Start and run the generator at no load and rated speed. The generator voltage should build up to a minimum level. (Actual level is dependent upon connection). If it does not build up, refer to field flashing section in generator manual.

Slowly adjust the voltage control until the generator voltage reaches the nominal value. If used, adjust the remote voltage rheostat to set the generator voltage to the exact value desired.

Turn the stability adjust counter-clockwise until instability is shown on either of the voltmeters mentioned in the "PRELIMINARY SET-UP" section. With the system operating in an unstable condition, slowly adjust the stability control clockwise until generator stability is reached.

Interrupt regulator power for a short time (approximately 1-2 seconds).

If the generator remains stable, no further adjustment is necessary. If the generator does not remain stable, increase the stability slightly and interrupt regulator power again.

This procedure should be repeated until system stability is reached and maintained.