SX460 AUTOMATIC VOLTAGE REGULATOR (AVR)

SPECIFICATION, INSTALLATION AND ADJUSTMENTS

GENERAL DESCRIPTION

The SX460 is a half-wave phase-controlled thyristor type Automatic Voltage Regulator (AVR) and forms part of the excitation system for a brushless generator.

In addition to regulating the generator voltage, the AVR circuitry includes underspeed and sensing loss protection to ensure safe, reliable control of the generator. Excitation power is derived directly from the generator terminals.

Positive voltage build up from residual levels is ensured by the use of efficient semiconductors in the power circuitry of the AVR.

The AVR is linked with the main stator windings and the exciter field windings to provide closed loop control of the output voltage with load regulation of +/- 1.5%.

In addition to being powered from the main stator, the AVR also derives a sample voltage from the output windings for voltage control purposes. In response to this sample voltage, the AVR controls the power fed to the exciter field, and hence the main field, to maintain the machine output volt

TECHNICAL SPECIFICATION

INPUT		
Voltage	85-125 V ac 170-250 V ac	} Jumper Selectable
Frequency	50-60 Hz nominal	
Phase	1	
OUTPUT		
Voltage	max 90 V dc at 207 V ac input	
Current	Continuous 4 A dc Transient 6 A for 10 seconds	
Field Resistance	15 Ω minimum	
REGULATION	(See Note 1) +/- 1%	
THERMAL DRIFT	(after 10 min) 1% for 40°C change in AVR ambient	
TYPICAL SYSTEM RESPONSE	Field current to 90%	80m