

# EA08A-2000

## *Generator Automatic Voltage Regulator Operation Manual*



Self Excited Automatic Voltage Regulator  
Using IGBT's Insulated- Gate Bipolar Transistors

For use in Marathon\* generators with PMG

\* Use only for reference purpose only. This is not a Marathon Product

# 1. Specifications

## Sensing Input Terminals

From 0 to 110v terminal (95 to 140 Volts)

From 0 to 220v terminal (170 to 260 Volts)

From 0 to 480v terminal (340 to 520 Volts)

Under/Frequency 50 or 60 Hz -

DIP Switch selectable

## Voltage Regulation

< ±0.5% using a 4% engine governor

## Voltage Build-up

Residual Volt. > 5 VAC

## Output Voltage

Maximum 90VDC @220VAC

## Output Current

Continuous 8 A

Max 12 A for 10 sec

## External Volts Adjustment

±10% @ 1KΩ

## PMG Input 200v Max

2 wire PMG

## Thermal Drift

0.05% per Degree C change in AVR ambient

## Analog Voltage Input

10% generator voltage per 1VDC

## Current Compensation

5 Amp CT (S2 to S1) 1 Amp CT (S2 to S3)

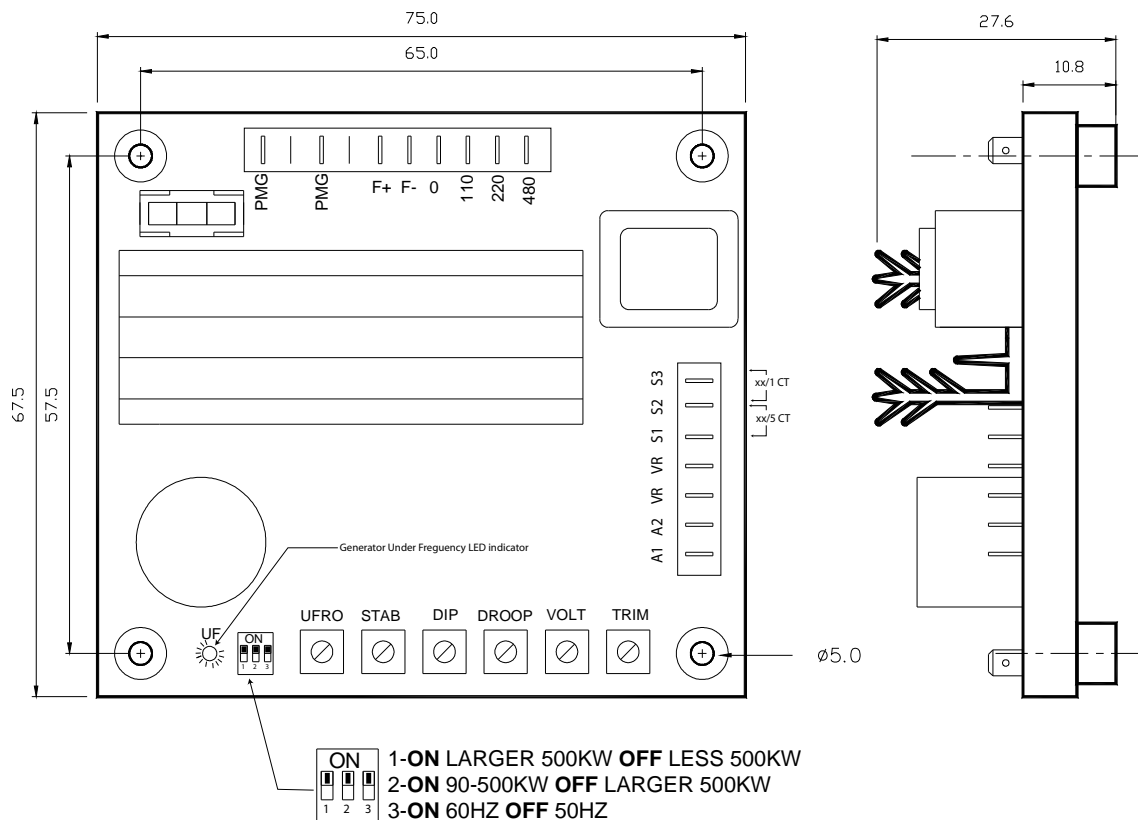
Maximum 4% @ P.F. = 0.8

## Dimensions

150mm L \* 135mm W \* 55.3mm H

## Weight

600g ± 5%



Using a megger may cause damage to the semiconductors in this AVR

## 2. WIRING

1. 0V to 110V  
0V to 220V  
0V to 480V Sensing Input terminals
2. F+ & F- To Field
3. Connect the two PMG wires--The Capacitor is not needed with this AVR
4. S1-S2-S3: 5 Amp CT use terminals S1 & S2  
1 Amp CT use terminals S1 & S3
5. VR-VR Remote voltage adjustment 1k $\Omega$
6. A1 & A2 Provided Connection to PF controller or other devices, designed to work with signals up to +/- 5 Volts. Inputs must be fully floating. TRIM Adjustable

## 3. ADJUSTMENTS

- TRIM:** Input sensitivity for terminal A1 & A2  
**VOLT:** Generator output Volts adjust  
**DROOP:** Droop adjustment  
**DIP:** Load Acceptance Adjustment (LAN)  
**STAB:** Stability Adjustment  
**UFRO:** Change knee point  
**DIP SWITCHES** Set generator reaction time

### DIP Switch1

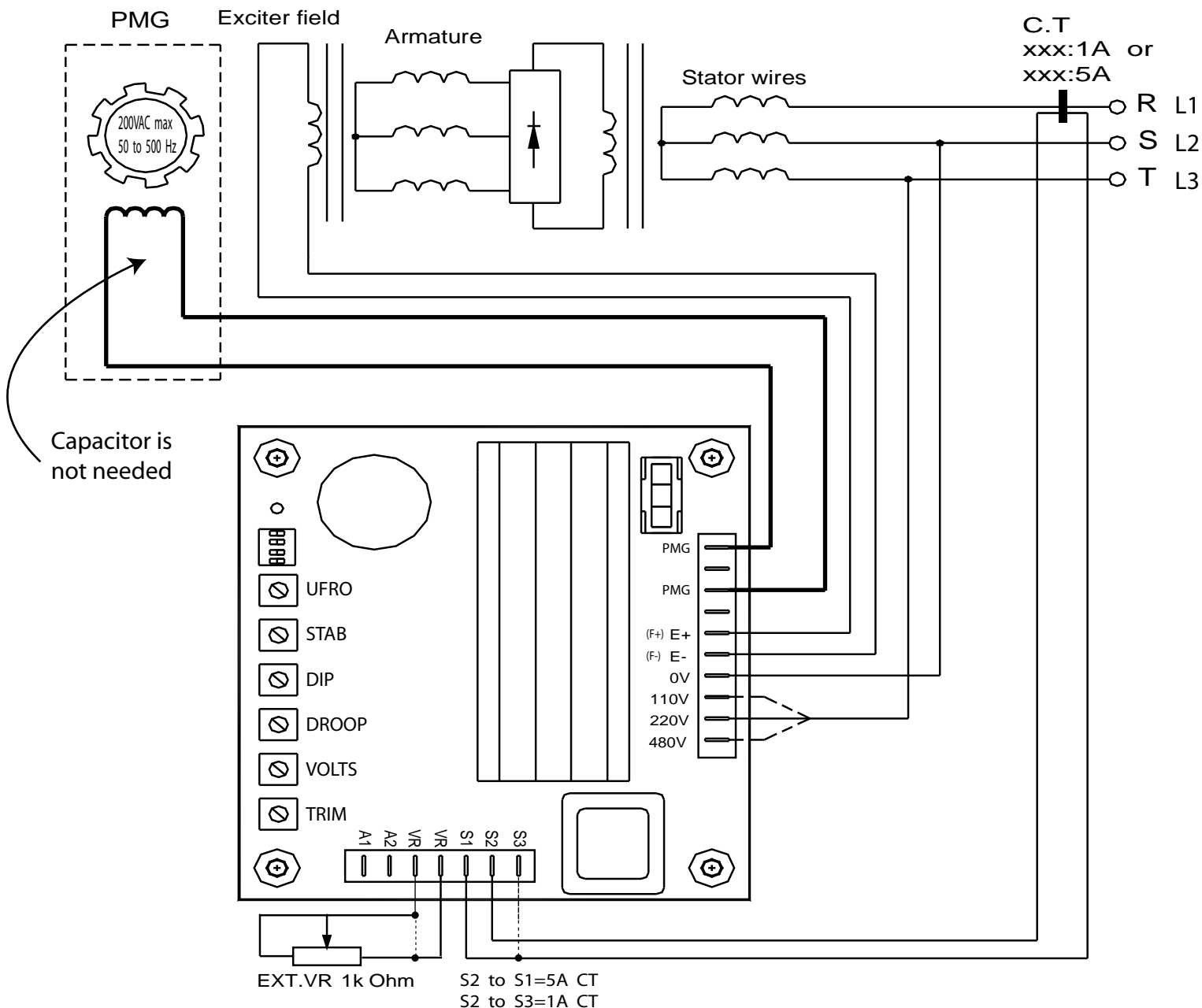
- ON = Larger then 500 kw  
 OFF = Less then 500 kw

### DIP Switch 2

- ON = From 90 to 500kw  
 OFF = Less then 90kw

### DIP Switch 3

- ON = 60Hz  
 OFF = 50Hz



※ Use original spare (10A) fuse for replacement.

※ Product's specification and appearance may be modified without prior notice.