

# **BE350 Automatic Voltage Regulator**







Using enhanced technology, the BE350 voltage regulator is designed for use on 50/60 Hz brushless generators. This potted regulator is economical, small in size, and ruggedly constructed. It incorporates solid state technology with frequency compensation, automatic voltage build-up and EMI (electromagnetic interference) filtering as standard.

#### **F**EATURES

- Integrated circuitry for compact size, simplicity, and high reliability
- Extremely rugged
- Exciter field current 3.5 A continuous, 5 A forcing
- Regulation accuracy better than ±1.0% no-load to full-load
- Fast response
- Frequency compensation
- Internal fuse protection
- EMI suppression

### **B**ENEFITS

- Underfrequency compensation provides the ability to shed load to help improve generator recovery speed, which prevents generator damage and assists the machine to pick up critical loads.
- Integrated overexcitation protection removes excitation in potentially damaging conditions, protecting both the generator and the excitation system.
- Rugged construction and potted design for installation in harsh environments allows dependable operation to reduce or eliminate expensive service calls.
- Plug-and-play replacement for Marathon® Electric's SE350 for quick retrofitting.

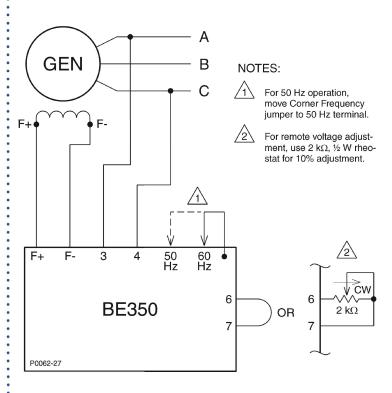


Figure 1 - BE350 Typical Connections

VISIT <u>www.basler.com</u>
FOR ADDITIONAL INFORMATION AND
STYLE CONFIGURATION TOOL.

Field Output

Maximum Continuous:

3.5 Adc at 73 Vdc (255 W)

One-Minute

Forcing: 5 Adc at 105 Vdc (525 W)

(with 240 Vac input)

Exciter Field DC

Resistance:  $21 \Omega \min$ 

**Input Power** 

Range: 190 to 240 Vac,  $\pm 10\%$ , 1-phase

Frequency:  $50/60 \text{ Hz}, \pm 10\%$ 

Burden: 500 VA

**Voltage Sensing** 

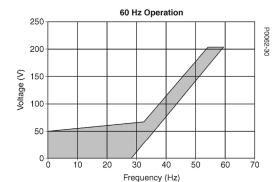
Range: 190 to 240 Vac,  $\pm 10\%$  1-phase

Frequency:  $50/60 \text{ Hz} \pm 10\%$ 

Burden: < 1 VA

**Power Dissipation** 

Maximum 8 W



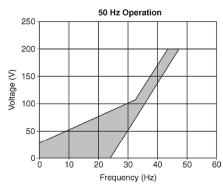


Figure 2 - Frequency Compensation Characteristics

### **SPECIFICATIONS**

Bussmann GDC-4A or equivalent Rating: 4 Aac. 250 Vac

Type: Glass tube, 5 x 20 mm, time

delayed

# **Voltage Adjustment Range**

171 to 264 Vac

Fuse

## **Regulation Accuracy**

Better than  $\pm 1.0\%$ , no-load to full-load

## Response Time

< 1.5 cycles for  $\pm 5\%$  change in sensing voltage

## • EMI Suppression

Internal EMI filtering

## **Voltage Buildup**

Automatic voltage buildup occurs for residual generator voltages as low as 10 Vac

**Environmental** 

Operating Temp: -40°C to 60°C (-40°F to 140°F)
Storage Temp: -65°C to 85°C (-85°F to 185°F)
Shock: 20 G in three perpendicular axes

Vibration:

2 to 27 Hz: 1.3 G

27 to 52 Hz: 0.914 mm double-amplitude

52 to 1000 Hz: 5 G

## Physical

Weight: 6.5 oz (184 g) net

Dimensions (WxHxD):

2.66" x 3.94" x 1.89"

(67.6 mm x 100.0 mm x 48.0 mm)

## **Agency Certification**

UL recognized, CSA certified

For complete specifications, download the instruction manual at <a href="https://www.basler.com">www.basler.com</a>.

## RELATED PRODUCTS

- BE1-11g Generator Protection System
  - Designed with a complete line of protection and control elements.
- BE2000E Digital Voltage Regulator
  - Designed to control the output of brushless excited synchronous generators equipped with single-phase PMGs.
- BE3 Series Industrial Relays
  - Provide a wide range of cost-saving options to simplify industrial application protection.
- BE300PM Voltage Regulator
  - A small, rugged, automatic voltage regulator designed to be used with a 240 V PMG.
- DECS-100 Digital Excitation Control System
  - Provides precise voltage regulation and exceptional system response, as well as valuable protection of the generator and excitation system.
- <u>DGC-2020ES Digital Genset Controller</u>
  - The total system solution for emergency and standalone generator set applications.
- DGC-2020HD Digital Genset Controller
  - A highly advanced integrated genset control system for your emergency, stand-alone, and paralleled generator set applications.

# Accessories

- · Motor Operated Potentiometer
  - The Motor Operated Potentiometer is an electromechanical device containing a motor-driven, variable potentiometer and the limit switches required to provide remote adjustment of resistance, voltage, or frequency.





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