

BE300PM Automatic Voltage Regulator



Overview

Using enhanced technology, the BE300PM voltage regulator is designed for use with a 240 V PMG. This potted regulator is economical, small in size, ruggedly constructed, and incorporates solid state technology with frequency compensation.



Features

- Integrated circuitry for compact size, simplicity, high reliability
- Extremely rugged
- Exciter field current 3 A continuous, 5 A forcing
- Regulation accuracy better than $\pm 1.0\%$ no load to full load
- Fast response
- Frequency compensation
- Internal fuse protection
- Electromagnetic Interference (EMI) suppression

Benefits

- 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 shutdown allows the voltage regulator to shut itself down, protecting both the generator and the excitation system.
- Potted design allows installation in harsh environments.
- Plug-and-play replacement for Marathon® Electric's PM300 for quick retrofitting.

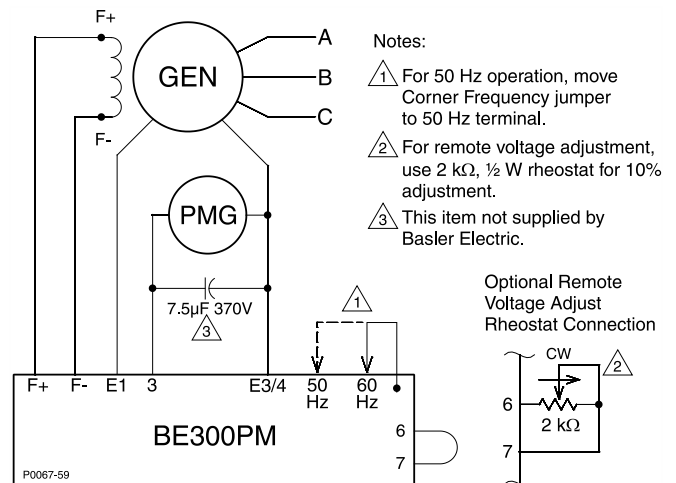


Figure 1 - BE300PM Connection Diagram for a Typical Application

Specifications

Field Output

Maximum Continuous: 3.0 Adc at 63 Vdc (190 W)
 One-Minute Forcing: 5.0 Adc at 105 Vdc (500 W)
 (with 240 Vac input)
 Exciter Field DC
 Minimum Resistance: 15 Ω

Input Power

Range: 171 to 264 Vac, 1-phase
 Frequency: 250 to 300 Hz, ±10%
 Burden: 500 VA

Generator Voltage Sensing

Range: 171 to 264 Vac, 1-phase
 Frequency: 50 to 75 Hz
 Burden: < 1 VA

Power Dissipation

8 W maximum

Fuse

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

Regulation Accuracy

Better than ±1.0%, no load to full load

EMI Suppression

Internal EMI filtering

Voltage Buildup

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

Agency/Certifications

CSA certified, China RoHS compliant

Environmental

Operating Temp: -40°C to 60°C (-40°F to 140°F)
 Storage Temp: -40°C to 85°C (-40°F to 185°F)
 Moisture and Humidity: MIL-STD-705B, Method 711-1C
 Salt Fog: Per ASTM B117-73
 Shock: 15 G in three perpendicular planes
 Vibration:
 20 to 60 Hz: 0.035" displacement,
 1 million cycles @ 30 Hz in all planes

Physical

Weight: 6.5 oz (184 g) net
 Dimensions (WxHxD):
 2.66" x 2.20" x 3.94"
 (68 mm x 56 mm x 95 mm)

For complete specifications, download the instruction manual at www.basler.com.

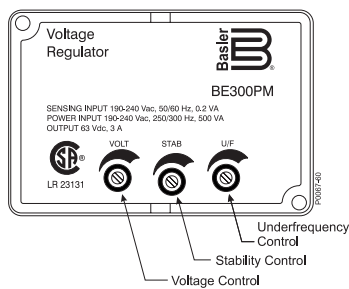


Figure 2 - BE300PM Potentiometer Controls

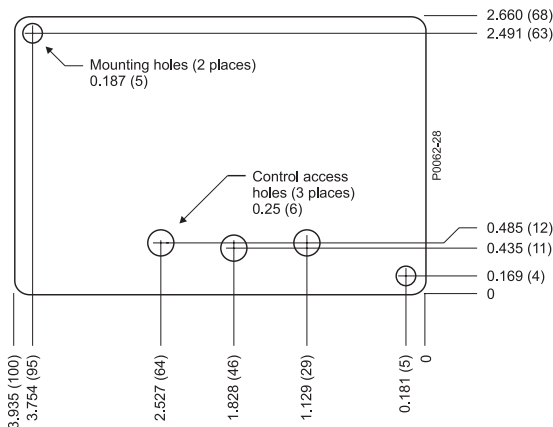


Figure 3 - BE300PM Panel Drilling and Mounting Dimensions in Inches (Millimeters)

Related Products

BE1-FLEX Protection, Automation and Control System

Designed to be configurable for nearly any Power System Application.

BE2000E Digital Voltage Regulator

Designed to control the output of brushless excited synchronous generators equipped with single-phase PMGs.

ES Series Protection Relays

Provide a wide variety of cost-saving options to simplify industrial application protection.

BE350 Automatic Voltage Regulator

Designed for use on 50/60 Hz brushless generators. This potted regulator is economical, small in size, and ruggedly constructed.

DECS-150 Digital Excitation Control System

Provides precise voltage regulation, exceptional system response, and valuable protection of the generator and excitation system.

DGC-2020HD Digital Genset Controller

A highly advanced integrated genset control system for your emergency, stand-alone, and paralleled generator set applications.

DGC-2020ES Digital Genset Controller

The total system solution for emergency and standalone generator set applications.

Accessories

MVC Manual Voltage Controllers

Provides backup manual source for excitation in the event of AVR failure