



PM500 AUTOMATIC VOLTAGE REGULATOR

SIMPLE ANALOG SETUP

Advanced voltage regulation and generator protection in an easy-to-use, robust package.

PERFORMANCE

Full wave regulator provides dynamic performance and motor starting equivalent to the DVR2000E+.

ROBUST PROTECTION

- Under Frequency with Front Panel Indicator and Adjustable Volts/Hz Operation
- Over Excitation Shut Down with Front Panel Indicator
- Replaceable Fuse on Back Panel

AGENCY APPROVAL

- UL Recognized and UL Certified for Canada – Component per UL file E222903
- CE mark for the European Union

FLEXIBLE OPERATION

- 0.25% Regulation Over Load Range at Rated Power Factor
- True RMS Sensing Three Phase or Single Phase for Superior Voltage Regulation
- 175V – 600Vac Direct Voltage Sensing Input
- 60Hz or 50Hz Sensing Input
- PMG Input Power Isolated from Generator Output
- Remote Voltage Adjust with 0 – 10Vdc or \pm 5Vdc Analog Signal and Fine Tune Adjustment Pot
- Manual Voltage Adjust at the Generator with Optional Field Mount Rheostat
- 5A or 1A CT Connections for Paralleling Applications with Adjustable Droop Range
- All Options DIP Switch or Jumper Selectable – No Programming Required

PM500 AUTOMATIC VOLTAGE REGULATOR

SPECIFICATIONS

Voltage Regulation – $\pm 0.25\%$ with $\leq 4\%$ engine governing

Voltage Build-up – Voltage build-up with residual voltage $> 5\text{Vac}$

Thermal Drift – 0.05% per $^{\circ}\text{C}$ change in AVR ambient temperature

Output Power, Continuous – 85Vdc at 3.5Adc ,
Forcing – 170Vdc , 7Adc for 10 seconds

Sensing (RMS) – 175 to 600Vac , $60/50\text{Hz}$, 3 phase/1 Phase

Exciter Field Resistance – 9 ohms, minimum

Input Power – 200 to 240Vac , $300 / 250$ Hz PMG Power Supply

Remote Voltage Adjustment – $\pm 20\%$ with $0-10\text{Vdc}$ or $\pm 5\text{Vdc}$

Manual Voltage Adjustment – $\pm 5\%$ with 500 ohm rheostat
 $\pm 10\%$ with 1000 ohm rheostat

Under Frequency Protection – 57Hz factory preset for 60Hz operation, 47Hz factory preset for 50Hz operation.

Weight – 1 lb (470g)

Operating Temperature – -40°C to $+60^{\circ}\text{C}$
(-40°F to $+158^{\circ}\text{F}$)

Storage Temperature – -40°C to $+85^{\circ}\text{C}$
(-40°F to $+185^{\circ}\text{F}$)

Power Dissipation – 12 watts

Size – $5.9"$ L x $5.3"$ W x $2.2"$ H
(150mm L x 135mm W x 55mm H)

Electromagnetic Compatibility Tests **Immunity**

IEC61000-4-2 Electrostatic Discharge (ESD)

IEC61000-4-3 Radiated RF

IEC61000-4-4 Electrical Fast Transient

IEC61000-4-5 Surge

IEC61000-4-6 Conducted RF

IEC61000-4-11

Emission

EN61204-3 Conducted RF

CISPR 22

IEC61000-3-2 Harmonic IEC

IEC61000-3-3 Flicker IEC

marathon[™]
Generators

100 East Randolph Street

Wausau, WI 54402-8003

Phone: 715-675-3359

Fax: 715-675-8026

www.marathonelectric.com

APPLICATION CONSIDERATIONS

The proper selection and application of power generation products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and its affiliated with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

For a copy of our Standard Terms and Conditions of Sale, Disclaimers of Warranty, Limitation of Liability and Remedy, please contact Customer Service at 1-800-324-1980. These terms and conditions of sale, disclaimers and limitations of liability apply to any person who may buy, acquire or use a Regal Beloit America Inc. product referred to herein, including any person who buys from a licensed distributor of these branded products.

BRAND NAMES and Regal are trademarks of Regal Beloit Corporation or one of its affiliated companies.

©2015, 2016 Regal Beloit Corporation, All Rights Reserved. • Printed in USA • GPN075

REGAL[™]