



## 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 performance and motor starting equivalent to the DVR2000E+.

### ROBUST PROTECTION

- Under Frequency with Front Panel Indicator and Adjustable Volts/Hz Operation
- Over Voltage with Replaceable Fuse and Emergency Operation Mode
- Over Excitation with Front Panel Indicator

### FLEXIBLE OPERATION

- 208V – 600V Direct Voltage Sensing Input
- Three Phase or Single Phase Regulation
- 60Hz or 50Hz Operation
- Remote Voltage Adjust via 0 – 10Vdc Analog Signal with 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** –  $\leq 0.5\%$  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** –  $170\text{Vdc}$  at  $5\text{Adc}$ ,  
**Forcing** –  $170\text{Vdc}$ ,  $7\text{Adc}$  for 10 seconds.

**Sensing (Average)** –  $208$  to  $600\text{Vac}$ ,  $60/50\text{Hz}$ , 3 Phase/1 Phase

**Exciter Field Resistance** – 9 ohms, minimum

**Input Power** –  $30$  to  $260\text{Vac}$ ,  $300 / 250$  Hz PMG Power Supply

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

**Manual Voltage Adjustment** –  $\pm 10\%$  with  $500$  ohm rheostat  
 $\pm 20\%$  with  $1000$  ohm rheostat

**Under Frequency Protection** –  $57\text{Hz}$  factory preset for  $60\text{Hz}$  operation

**Field Adjustable** -  $47\text{Hz}$  factory preset for  $50\text{Hz}$  operation

**Weight** – 1 lb (470g)

**Operating Temperature** –  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$   
( $-40^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ )

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

**Power Dissipation** – 12 watts

**Size** –  $5.9''$  L x  $5.3''$  W x  $2.2''$  H  
( $150\text{mm}$  L x  $135\text{mm}$  W x  $55\text{mm}$  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

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Generators

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