



DVR[®] 2000E+

Digital Voltage Regulator

Advanced Features

CAN Bus Communication

Allows for the integration of the DVR[®]2000E+ as a node on a CAN Network for the purpose of controlling or monitoring regulator performance.



True RMS Single and Three Phase Voltage Sensing

Connect in the sensing mode you prefer. Sense 100 to 600 Volts $\pm 10\%$ at 50 or 60 Hz.

True Three Phase Power Monitoring

Additional CT inputs enable you to sense current on all three phases.

Generator Soft Start

Controlled increase to rated voltage limits overshoot during voltage build-up in AVR regulation modes.

Frame Specific PID Selection

Tuning your regulator for your Marathon Electric generator has never been easier. Simply select the appropriate frame size and your gains are set.

Four Digit HMI Display

Whether you are changing settings or monitoring regulator status, this display provides a more intuitive feedback.

Expandable Platform

Paves the way for adding features like shunt power capability and RTD monitoring through expansion modules.

DVR[®] 2000E+ Specifications

Voltage Regulation – 0.25% over load range at rated power factor and constant generator frequency.

Output Power – 75 Vdc, 3.0 Adc continuous rating and 150 Vdc, 7.5 Adc forcing capability for one minute.

Exciter Field DC Resistance – 18 to 25Ω range

Voltage Adjustment – Minimum if ±10% of nominal voltage range. Remote adjustment can be made up to 150 feet from voltage regulator.

Input Power – 180 to 240 Vac, 250 to 300 Hz PMG power supply

Operating Temperature – From -40°C to +70°C (-40°F to +158°F)

Storage Temperature – From -40°C to +85°C (-40°F to +185°F)

Ingress Protection – IP52 (front side mounted in conduit box); IP10 (rear side with protective cover)

Shock – 20 Gs in 3 perpendicular planes

Vibration – 1 G at 5 to 26 Hz; 0.050” double amplitude (27 to 52 Hz); 7 Gs at 53 to 500 Hz

Weight – 3 lb. (1361 g)

Humidity Testing – Per MIL-STD-705B, Method 711-D

Salt Fog Testing – Per MIL-STD-810E

CAN Protocol – SAE J1939

Regulator Sensing – 100 to 600 Vac, 50/60 Hz, 1-phase/3-phase

EMI Compatibility

Immunity

Meets EN 61000-6-2: 2005
Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments.

Emission

Meets EN 61000-6-4: 2007
Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments

EMI Compatibility Tests

Immunity

Electrostatic Discharge (ESD):

IEC 61000-4-2

Radiated RF: IEC 61000-4-3

Electrical Fast Transient (EFT) / Burst:

IEC 61000-4-4

Conducted RF: IEC 61000-4-6

Power Frequency and Magnetic Field:
IEC 61000-4-8

Emmision

Radiated RF: EN 61000-6-4: 2007, 30 MHz to 1000 MHz

This regulator meets MIL-STD-461C, Part 9 for radiated and conducted emissions and radiated susceptibility when mounted in the generator conduit box.



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