



Product Information

PRODUCT SERIES: DPG-2401

DYNA Programmable Governor for Isochronous Generators with Load Sharing Capability

The DPG-2401 has been specifically designed for application on Cummins engines with EFC valve equipped with PT fuel pumps.

This microprocessor based, digital controller performs across a wide speed range offering extremely fast engine response to speed or load change and stable isochronous operation.

The controller provides isochronous or droop speed control with both adjustable start up fuel limit and ramp time. Separately programmable proportional, integral, and derivative gains are provided for tailoring governor response to many engine applications. A two-digit LED display indicates selected control parameters and parameters values.

The DPG-2401 has an internal FAILSAFE that instantly reacts to DC power interruption and loss of speed reference signal. The actuator returns to minimum fuel in the case of either event.



Actuators Compatibility:

EFC Valves

Other Models Available:

DPG 2100 – for Generators
DPG 2200 – Load Sharing Generators
DPG 2300 – Off-highway

Improved ILS Speed Adjustment and Voltage Measurement Ranges

Improved Remote Speed Potentiometer Resolution

Automatic Calibration of the Remote Speed Potentiometer

Isochronous Speed Control

Droop Operation – 0 to 10 % of Set Speed with 1/10 Percent Resolution

User Friendly/Operator Adjustable

.25% Precision Frequency Control

Superior Temperature Stability

Reverse Battery Protection

9 - 30 VDC Input Voltage Range

Smoke Control on Start Up

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Controller Specifications

Operating Voltages:

9 VDC minimum to 30 VDC maximum

Maximum controlled output current: 7amps

Maximum surge current: 14 amps for ten seconds

Steady State Speed Band: $\pm .25\%$ over temperature

Range of -40°F to $+ 180^{\circ}\text{F}$, -40°C to $+ 82^{\circ}\text{C}$

Ambient Operating Temperature:

-40°F to $+ 180^{\circ}\text{F}$, -40°C to $+ 82^{\circ}\text{C}$

Sealing: Oil, water, and dust resistant via conformal coating and die cast enclosure

Connections: Terminal Strip

Weight: .75lbs, .34 kilograms

Input Signal: 0-1000 Hz startup
1000 – 11,000 Hz normal operation

Mechanical Vibration: Suitable for mounting per SAE J1455

Input signal frequency from mag pickup:
 $\text{Freq. (HZ)} = (\text{Engine rpm} * \text{flywheel teeth}) \div 60 \text{ sec.}$

Controller Adjustment

The DPG-2401 governor's built-in user interface provides the means to setup and fine tune its operation. Most user adjustable parameters and features can be selected, displayed and programmed using the built-in keypad and LED display. The keypad is used for both parameter selection and parameter modification. The LED display shows the parameter number of the parameter to be selected or the selected parameter's current value.

- CAUTION -

As a safety measure, the engine should be equipped with an independent overspeed shutdown device in the event of failure which may render the governor inoperative.

- NOTE -

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