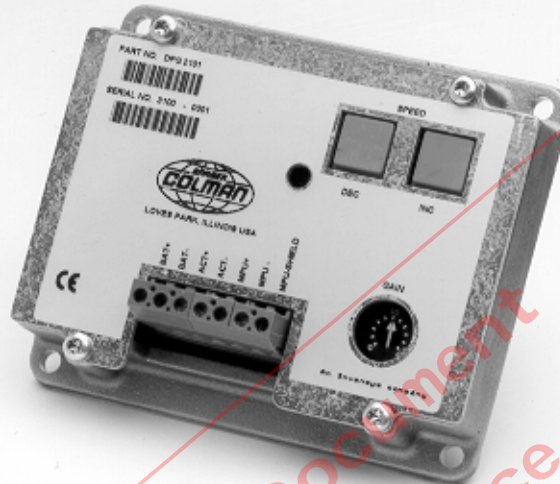




## PRODUCT SERIES: DPG 2000

### DYNA Programmable Governor for Isochronous Generators

DPG2100



The DPG2100 controller has widespread application for many diesel and gas engine generator sets. 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 also features an LED which provides an operating status symbol. Controller set up is simple with only speed and gain adjustments. The unit is suitable for both panel and engine mounting and uses a magnetic pickup for speed reference.

The DPG2100 has an internal FAILSAFE that instantly reacts to:

- Interruption of DC power returns actuator to minimum fuel position.
- Loss of speed reference signal cuts power to the actuator for spring return to minimum fuel position.

#### Low Cost

#### User Friendly/Operator Adjustable

#### .25% Precision Frequency Control

#### Superior Temperature Stability

#### Reverse Battery Protection

#### 9 - 30 VDC Input Voltage Range

#### Actuator Compatibility:

DYNA 2000  
 DYNA 2500  
 Power Flow gas valves  
 DYNA 7000  
 DYNA 70025

#### Other Models Available:

DPG 2200 - for Parallel Isochronous Generators  
 DPG 2300 - for Off-Highway Applications

Barber-Colman

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DYNA 298

## Controller Specifications

### Operating Voltages:

9 VDC minimum to 30 VDC maximum

**Maximum output current:** 7 amps continuous,  
14 amps ten seconds maximum

**Steady State Speed Band:**  $\pm .25\%$  over temperature  
range of  $-40^{\circ}\text{F}$  to  $+180^{\circ}\text{F}$ ,  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

### Ambient Operating Temperature:

$-40^{\circ}\text{F}$  to  $+180^{\circ}\text{F}$ ,  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

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

**Connections:** Euro-style terminal strip

**Weight:** .6lbs, .28kilograms

**Input signal:** 0-1000 Hz startup  
1000-11,000 Hz normal operation

**Mechanical Vibration:** Suitable for mounting per  
SAE J1455; 1 to 500Hz, 5G amplitude

### Input signal frequency from mag pickup:

Freq. (HZ) = (Engine rpm \* flywheel teeth)  $\div$  60 sec.

**Controller Adjustment:** Set speed using  
increase/decrease pushbuttons and Gain  
(270 degree adjustment)

**Temperature Stability:** .007 Hz @  $70^{\circ}\text{C}$

**Input signal voltage from mag pickup:**  
2.5 VAC RMS minimum during cranking

### Models (Replaces):

DPG-2101 (DYN1-1070x)

DPG-2102 (DYN1-1072x)

DPG-2104 (DYN1-1078x)

### Diagnostic LED:

Off - no power or reverse battery exists

1Hz - power on

3Hz - receiving speed signal

On - service required

#### - 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.

**Controller designed for negative ground systems only.**

Engine mounted controllers must not exceed temperature specification. Engine mounting is typically done on the flywheel housing where temperatures do not exceed specifications.

#### - NOTE -

Barber-Colman believes that all information provided herein is correct and reliable and reserves the right to update at any time. Barber-Colman does not assume any responsibility for its use unless otherwise expressly undertaken.

