

MURPHYMATIC® Generator Engine Controller

A-9010B
Revised 05-03
Catalog Section 75
(00-02-0095)

FWMurphy

Model Series 900

Description

The MURPHYMATIC® Generator Engine Control System, Series A900 is designed to meet the requirements of the engine control, shutdown and alarm section of NFPA-110 “Emergency And Standby Power Systems”. The controller also meets the minimum requirements of NFPA-99 “Health Care Facilities” and the Canadian standard CAN/CSA-C282-M89 “Emergency Electrical Power Supply for Buildings” for engine control, shutdown and alarm systems. By combining one of the A900 series controls with generator instruments, a complete engine generator control panel meeting the above specifications can be provided.

Three basic models are available:

- **A901** for NFPA-110 Level 1
- **A902** for NFPA-110 Level 2
- **A903** for NFPA-110 Level 2 plus seven unlabeled alarm LED's for customer specified alarms.

All models are for automatic start and stop operation. Specify 12 VDC or 24 VDC. Each model consists of a Control/Display module and a plug-in Relay module.

This compact control is suitable for either 2-cycle or 4-cycle engines. Models designated for 2-cycle engines include alarms for “Air Damper Closed” and an “Overspeed Relay” to operate the air shutoff solenoid for overspeed shutdown.

Features

Features for each model are provided according to NFPA-99, NFPA-110, Canadian standard CAN/CSA-C282-M89. Typical features include:

- LED Visual Alarms
- Built-in Off-Auto-Test selector
- Lamp Test Pushbutton
- Adjustable Cycle Cranking
- Built-in Crank and Adjustable Disconnect Speed Switch
- Auxiliary Crank Disconnect Circuit
- Shutdown Bypass for Startup
- Built-in Overspeed Switch
- Nine (9) Alarm Indicating Circuits
- Loss of Speed Signal Shutdown
- Remote Shutdown
- Alarm Silence Pushbutton
- Alarm Relays per NFPA 110

- **Complete Controller—NO add-ons necessary**
- **Selectable Cycle Cranking**
- **Overcrank Protection**
- **Seven (7) First-out Shutdown Circuits**
- **Outputs for remote alarms**

Model A901-2



Specifications

Enclosure: General purpose intended for mounting in a standard electrical enclosure for indoor use.

Power Requirements: 12 VDC or 24 VDC (specify), negative ground.

Sensor Input: Normally open dry contact, 2 mA maximum; 8 VDC or less.

Speed signal from magnetic sensor or engine battery charging alternator; 2 volts RMS; 25-10,000 hertz.

Outputs:

Control/Display Module

For remote alarm and shutdown indication, sinking transistors that close to negative supply; 1 amp, 30 VDC maximum.

For an auxiliary starter contactor, transistor that closes to a positive supply (source).

Relay Module

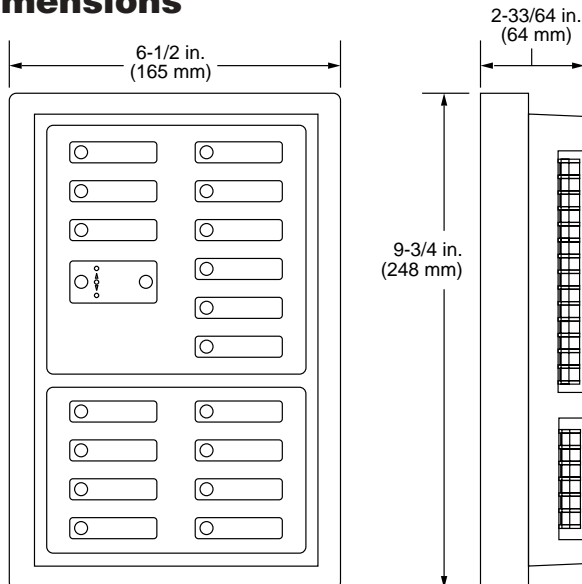
3 control relays; 7 amp, 30 VDC inductive.

3 alarm relays; 7 amp, 30 VDC inductive.

Field Wiring: Barrier terminal blocks rated 15 amp, 300 volts.

Operating Temperature: 4°F to 158°F (-20°C to 70°C).

Dimensions



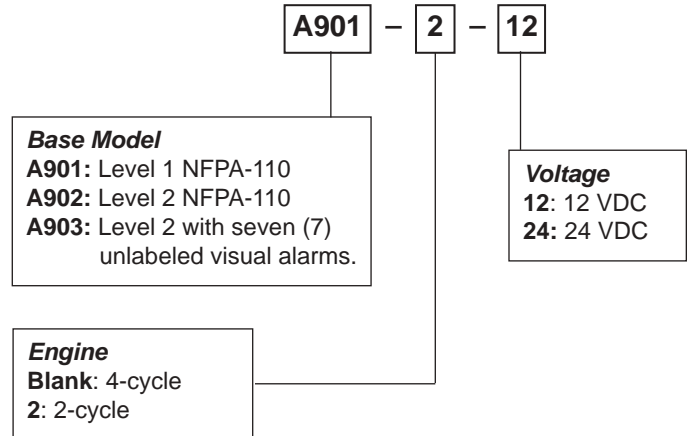
Approximate Shipping Weight: 4 lbs (1.8 kgs)

Approximate Shipping Dimensions:

12 in. (305 mm) x 7-1/2 in. (191 mm) x 5-1/2 in. (140 mm)

How to Order

To order the A900 that will suit your needs, please use the part number designation diagram below.



Warranty

A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

MGC900 Series Controller

Series A900 controllers are available—installed in a MGC Generator Set Control Panel. These MGC panels include one of the A900 series controllers, AC meters and selector switches, engine instruments and shutdown controls; all in a NEMA 1 drip-proof enclosure.

