

# MURPHYMATIC® Generator Engine Controller

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

## 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

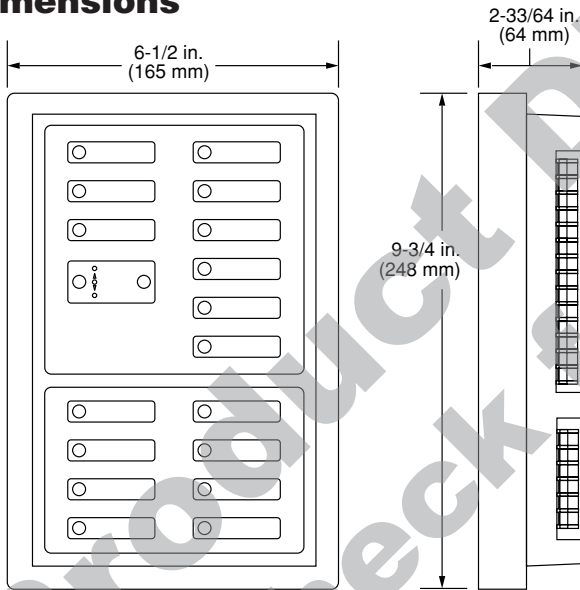
3 control relays; 7 amp, 30 VDC inductive.

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.

A901 - 2 - 12

### Base Model

**A901:** Level 1 NFPA-110

**A902:** Level 2 NFPA-110

**A903:** Level 2 with seven (7) unlabeled visual alarms.

### Voltage

**12:** 12 VDC

**24:** 24 VDC

### Engine

**Blank:** 4-cycle

**2:** 2-cycle

## Warranty

A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to [www.fwmurphy.com/support/warranty.htm](http://www.fwmurphy.com/support/warranty.htm)

## 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 selectors switches, engine instruments and shutdown controls; all in a NEMA 1 drip-proof enclosure.



# MURPHY

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