

# MGC400

## Murphy Generator Control Panel

The MGC400 is a flexible genset control panel that provides powerful control and monitoring for industrial genset applications. The panel integrates Murphy's robust EMS-GC10 genset controller in a NEMA1 Type 2 enclosure with rubber shock mounts, an ON/OFF switch, circuit breaker, emergency stop and engine harness connector. The engine harness connector is compatible with Murphy's broad line of MIH harnesses covering a wide range of electronic and mechanical engines. Current transformers are also available through our Industrial Panel Division.

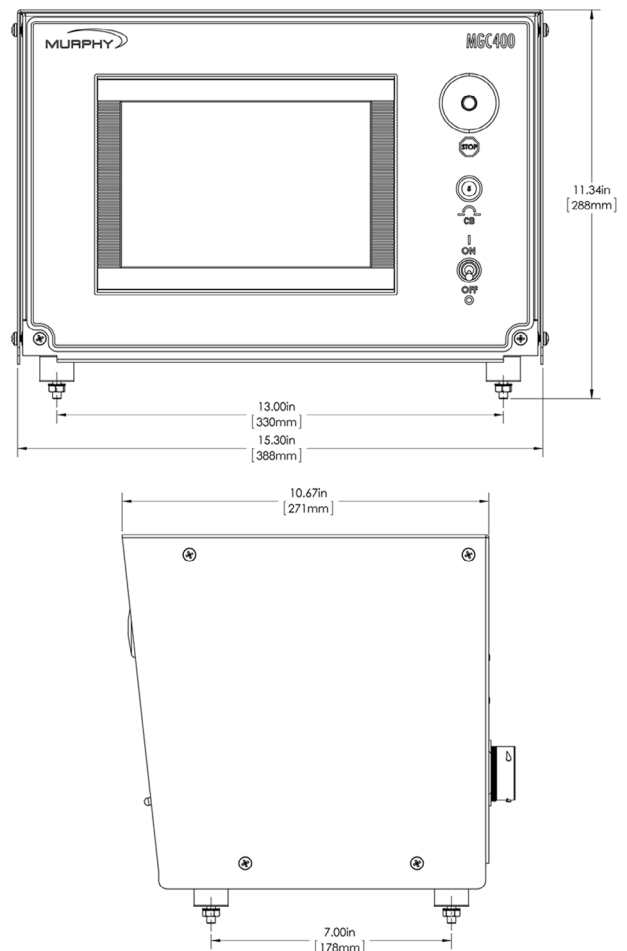
The EMS-GC10 Genset Controller unit delivers field-adjustable operating parameters but may require further configuration using the utility software. The MGC400 panel is a complete generator monitoring, controlling and protection solution with Murphy standard configuration. Custom software configurations for variable engines types and models are also available. The panel is also ideal for use with a remote modem or a SCADA system via MODBUS RTU protocol over RS485. Advanced local logic capabilities are provided by a programmable logic tool (M-logic) built into the PC configuration tool of the controller unit. This allows for custom use of the digital I/O and predefining conditions for new functions.

### Features

- Rugged and Reliable Panel for Prime Mover, Backup and Standby Power Applications
- Supports Gensets Ranging from 50 kw up to MW sized
- Works with Mechanical and Electronic J1939 Engines
- Controls, Monitors and Protects both the Engine and Generator
- Tier 4/Euro Stage IIIB Ready
- Easy-to-use PC Configuration Tool



### Dimensions



# Specifications

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## Technical Specifications

**3 Phase Generator Monitoring for:** Voltage, Current, Frequency, Power, Reactive Power

### Generator Protection:

- Over/Under Voltage (ANSI Code No. 59/27)
- Over/Under Frequency (ANSI Code No. 81)
- Overcurrent (ANSI Code No. 51)
- Reverse/Overload Power (ANSI Code No. 32)
- Voltage Unbalanced (ANSI Code No. 60)

**EMS-GC10 AC Input Voltage:** 50 VAC up to 480 VAC (+20%) phase-to-phase (UL/cUL listed to 300 VAC maximum)

### Measuring Operating Current:

1A or 5A AC (from a current transformer)

**Display:** 128 x 64 pixel backlit STN monochrome LCD, five lines; capable for graphics, symbols and text

**Real Time Clock:** For date and time

**Enclosure:** Powder-coated Cold Rolled Steel

**Mounts:** Four rubber isolation shock mounts

**Engine Harness Connector:** 21 pin, Deutsch HDP24-24-21PE

## Environmental Specifications

**Operating DC Voltage:** 6 to 36V continuous

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

**Storage Temperature:** -40° to 185°F (-40° to 85°C)

### Relative Humidity:

97% RH in accordance with IEC 60068-2-30, test Db

**Enclosure Sealing:** NEMA1 Type 2

**NOTE:** The EMS-GC10 has IP65 protection when it is mounted or sealed to the panel using a gasket around the back side of the unit.

## Physical Specifications

**Dimensions:** 15.30 in x 11.34 in x 10.67 in (388.5 mm x 288 mm x 271.1 mm)

**Weight:** 18 lb. (8.16 kg)

# How to Order

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| Part Number | Model and Description                | Notes                         |
|-------------|--------------------------------------|-------------------------------|
| 75700621    | MGC400: Generator control panel unit | Murphy standard configuration |

Custom software configurations for variable engines types and models are also available.

To order from the website go to: [www.fwmurphy.com](http://www.fwmurphy.com)

Details about Murphy Industrial Harnesses (MIH) solutions can be viewed at: [www.fwmurphy.com/products/panels/mih](http://www.fwmurphy.com/products/panels/mih)

Please contact our Industrial Panels Division for more information about supplying current transformers.