GC400
Genset Controller for Synchro/Parallel Applications

INTRODUCTION

GC400 is a comprehensive controller ideally suited for managing different types of synchro/parallel applications, especially for MPM (Multiple Prime Mover) and MSB (Multiple Stand-by) power plants, where the synchronization of several gensets is required. It can be installed easily and quickly, thanks to an internal load sharing and synchronizer.

GC400Mains version is the perfect controller for those plants where the reverse synchronization is required to avoid any drop voltage on load. All the necessary protections and features are included, with no additional dongles needed.

All the GC400 versions have a direct interface via CAN J1939 with a wide range of electronic engines (Volvo Penta, Scania, Perkins, MTU, Deutz, Cummins, John Deere, Caterpillar and others) and can also be used with traditional engines via embedded analogue sensors.

All the parameters can be set directly either by using the controller's keyboard or the free software tool.

A user-friendly graphical interface provides visual information about measures and alarms coming from the genset. Events and DTC logs can be accessed from the front panel and read on the display.

As well as providing local or remote control, a version with built in GPRS/GPS tracking (GC400Link) is particularly suited for mobile or rental applications, where asset tracking and monitoring is required.

MAIN FEATURES

- True RMS readings on generator voltages and currents. Neutral measure included.
- Additional current measurement for neutral or ground fault protection.
- Active, reactive and apparent power measurements.
- Engine speed measurement by pick-up, frequency or W.
- Graphic display with self or manual adjustable contrast based on the temperature.
- Insulated and auto-supplied J1939 and MTU MDEC CAN interface.
- Interface with traditional MPU engines.
- USB, RS232 and insulated RS485 serial port with MODBUS RTU protocol, ethernet interface with MODBUS TCP protocol.
- Real time clock with battery.
- Events and data recording.
- Android and iOS app available for monitoring and remote control.

EMBEDDED FUNCTIONS

- Engine diagnostic code.
- Periodical test.
- Real time clock with internal rechargeable lithium battery.
- Fuel pump management.
- 126 Events log.
- Pre-glow and coolant heater management.
- Remote start and stop.
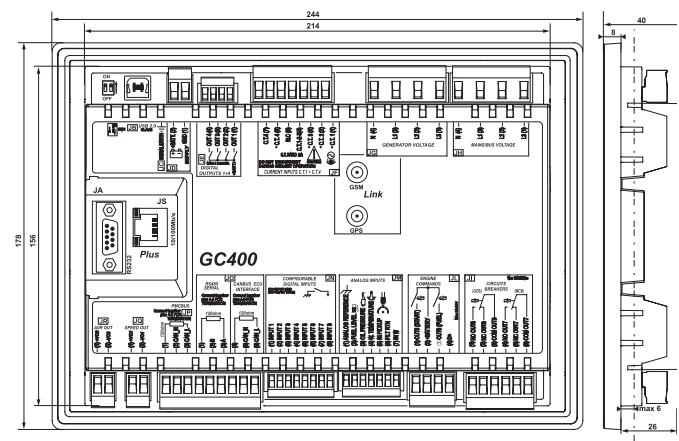
- Override function.
- Hours counter for the maintenance schedule.
- Daily counter with embedded calendar for the maintenance.
- Embedded alarm horn.
- Engine speed measurement by pick-up, frequency or W.
- Programmable by PC or using the keyboard of the controller.
- Remote firmware update.
- SMS communication.
- DHCP, DNS, NTP and SNMP Support are available.
- N.1 Threshold as load shedding.
- Internal active and reactive regulation.
- Internal load-sharing.
- Internal synchronizer.
- Powerful load management suitable for plants composed by gensets of different powers.
- CAN interface for ECU connection (J1939 and MTU MDEC).
- Insulated CAN interface for PMCBUS application (LOAD–SHARING and parallel management).
- Up to 16 gensets connected together.
- Up to 4 alternative configurations.
- Easy plant configuration.
- N.3 Levels of power reserve for expected changes of load.
- Load and unload ramps.

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GC400 COMMUNICATIONS

GC400/GC400 Mains

- N. 1 USB port.
- N. 1 RS232 Serial port Modbus RTU (support external modem).
- N. 1 RS485 Insulated serial port Modbus RTU.
- N. 1 RJ45 Port as Ethernet interface TCP/IP.
- N. 1 Insulated CANBUS J1939 and MTU MDEC interface.
- N. 1 additional CANBUS (PMCBUS) for the load sharing.

GC400 Link

- N. 1 USB port.
- N. 1 RS232 Serial port Modbus RTU.
- N. 1 RS485 Insulated serial port Modbus RTU.
- N. 1 Insulated CANBUS J1939 interface.
- N. 1 additional CANBUS (PMCBUS) for the load sharing.
- GPRS/GPS (2G/4G/5G ready) modem

Options

- REWIND - GPRS/GSM/GPS Device (SMS alarms and warnings).
- PSTN Modem (data calls for alarms and warnings).

TECHNICAL DATA

- Supply voltage: 7...32 Vdc.
- Power consumption: typical less than 2W (Auto mode, Standby, AMF active, LCD Lamp Saving active).
- Operating frequency 50Hz or 60Hz.
- LCD with backlight.
- Operating temperature: -25 °C to 60 °C.
- Burn in @ 50°C for 48h with test report for each controller.
- Protection degree: IP65 (gasket included).
- Weight: 750g
- Overall dimension: 244 (W) x 178 (H) x 40 (D) mm.
- Panel cut-out: 218 (W) x 159 (H) mm.
- Graphic display dimensions: 70x38mm - 128x64 pixel.
- Specific function for French market EJP / EJP-T.
- EMC: conform to EN61326-1.
- Safety: built in conformity to EN61010-1.

Mecc Alte Kit
Bundle Option

Lower Costs
Smart Logistics

Global Warranty
5 Years

User Friendly
Intuitive

The information contained in this document is substantially correct at the time of publication but may be subject to change. Please work with your Mecc Alte contact to confirm details.

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POWER FROM WITHIN