Controller for Parallel Gensets

INTRODUCTION

The highly capable GC600 parallel genset controller is extremely well featured for parallel applications, it includes a large PLC to ensure customers´ onsite application requirements can be fully met. A large full colour display makes these controllers suitable for a wide range of applications while presenting operating status in a clear easy to view format. The GC600Mains version has all the features of the GC600 with an additional dedicated mains breaker control pushbutton.

The GC600 is suitable for parallel applications including multiple parallel gensets, single set parallel to mains and multiple sets parallel to mains. Where multiple mains parallel is part of the application the MC200 controller can also be used.

Both GC600 versions have a large PLC with a wide range of built in fuctions including PID blocks. Customised application logic is available, avoiding the use of external PLC.

Based on the load demand, the controller is able to automatically start/ stop the genset. A smart load management is available, in case of a power system composed by gensets of different nominal powers, it is possible to automatically select the most appropriate gensets able to supply the load, avoiding any waste of fuel and power.

Automatic running hours equalization is also available.

The GC600 and GC600Mains have a TFT 4.3" high-quality coloured display, for a clear visualization of the genset measurement and operating status.

Comprehensive communications are also available as standard, including USB, RS232, RS485 (insulated) and Ethernet for remote monitoring. The adjustable parameters of the controller allow its use for standard and much more demanding specialized applications.

All the parameters can be set directly by the controller's keyboard or, alternatively using the free software tool (BoardPRG4).

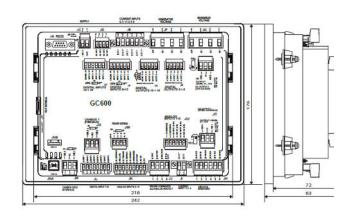
The GC600 and GC600Mains also feature a large memory for the storage of events and periodical data. The stored information can be viewed from the front panel display.

The GC600 and GC600Mains include a hardware watchdog able to advise the user in case of the internal microcontroller failure. This feature making the controller an excellent choice for critical power projects.

MAIN FEATURES

- Available in two versions: GC600 and GC600Mains
- Graphic color display TFT 4.3" 480 x 272 pixel
- Visual area 95 x 54 mm
- · PLC with PID functions included
- · Interfaced with both electronic and traditional engines
- Meets EUR Stage V and Tier 4 Final emissions compliance requirement
- Measurements: mains/bus and genset voltages, frequency; genset currents (.../5A or../1A)
- Active, reactive and apparent power measures
- Engine speed and battery charge voltage





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EMBEDDED FUNCTIONS

- Engine diagnostic codes
- Periodical/exercise test
- Real Time Clock with internal rechargeable Lithium battery
- Fuel pump management for external fuel tank
- Event log
- Pre-heat and coolant heater management
- Remote start and stop
- Override function
- Hours counter for maintenance schedule
- Daily counter with embedded calendar for the maintenance
- Embedded audible alarm sounder
- Engine speed measurement by pick-up, frequency or W terminal
- Programmable by PC or using the keyboard of the controller
- Remote firmware encryption update
- SMS communication

COMMUNICATIONS

- MODBUS RTU serial ports: RS232 and insulated RS485
- Ethernet port 10/100Mbps
- USB function for the configuration
- Internal clock with history log
- Direct interface to SIMONE for remote supervision

GC600/GC600 MAINS

- USB function for the configuration
- RS232 serial port Modbus RTU (external modems can be connected herel
- RS485 Insulated serial port Modbus RTU
- RJ45 Port as Ethernet interface TCP/IP
- Insulated CANBUS J1939 and MTU MDEC interface
- Insulated CANBUS (PMCBUS) for the load sharing

Options

- REWIND GPRS/GSM/GPS device
- PSTN/GSM Modem

- SNMP, NTP (for the automatic clock update), DNS and DHCP support load shedding
- Additional logics available with the PLC functions
- Internal active and reactive power regulation
- Internal load-sharing
- Internal synchronizer
- Powerful load management suitable for systems composed by gensets of different power ratings
- Insulated CAN interface for PMCBUS application (LOAD-SHARING and parallel management)
- Up to 16 gensets connected together
- Up to 16 MC200 supported
- Up to 4 alternative configurations
- Easy plant configuration
- Power reserve for unexpected changes in load demand
- Load ramp for both load and unload

TECHNICAL DATA

- Supply voltage: 7-32V DC
- Power consumption: typical less than 2W
- Auto mode, atandby, AMF active, LCD lamp saving active
- Operating frequency 50Hz or 60Hz
- LCD with backlight
- Recommended operating temperature: -30°C to +70°C
- Storage temperature: -30°C to +80°C
- Protection degree: IP65 (gasket included)
- Weight: 600grammes
- Overall dimension: 244 (W) x 178 (H) x 83 (D) mm
- Panel cut-out: 218 (W) x 159 (H) mm
- Specific function for French market EJP / EJP-T
- EMC: conform to EN61326-1
- Safety: built in conformity to EN61010-1









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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