



# GC250

Compact Auto Start and Automatic Mains Failure controller for single genset

## DESCRIPTION

Despite the compact dimensions, **GC250** includes the main engine and alternator protections like oil pressure, coolant temperature, frequency, voltage, current, power and fuel level.

The same controller can be used for electronic engines with CAN interface J1939 and MTU MDEC protocols, and MPU engines (non-electronic) as well.

Configuring the inputs, outputs and protections, **GC250** can be easily adapted to suit a wide range of applications.

**GC250** offers a wide, graphic display 128 x 64 pixels providing icons for alarms/warning and for signalling the status of the engine, controller and data logs as well.

All the parameters can be set directly by the controller's keyboard or, alternatively using the free software tool (**BoardPRG3**), available from SICES' website.

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## INPUTS - OUTPUTS AND AUXILIARY FUNCTIONS



4 Digital inputs



4 Digital output



3 Analogue inputs



AND/OR Logic control



Event history log



USB port



TIER4 final STAGE V

- N. 4 digital inputs.
- N. 3 Analogue inputs + N.1 Additional digital Input, which can be used as analogue.
- N.1 Analogue input for D+ (if not used in this way, it can be used as not isolated digital inputs).
- N. 4 Transistor digital outputs.
- Engine diagnostic code.
- AND/OR Configurable logics.

## MAIN FEATURES

- > AUTO-START and AMF (Automatic Mains Failure) controller for single gensets.
- > Large LCD display with LED backlight and icons.
- > Compact dimensions.
- > 3 Phases mains (utility) sensing.
- > 3 Phases generator sensing.
- > 3 x CTs inputs.
- > True RMS measurements: kW, kVA, kVAr, pf, kWh (phase & total).
- > 4 Configurable digital inputs.
- > 3 Configurable analogue inputs + 1 (shared with a digital input) + 1 for D+.
- > Interface for traditional and J1939 engines.
- > USB serial port for configuration and FW update.
- > Data recording: 64 Events log, 64 (slow) + 42 (fast) periodical recordings.
- > Remote start and stop.
- > Embedded horn alarm.
- > Real Time Clock with internal rechargeable Lithium battery.
- > Periodical test.
- > Free configuration software **BoardPRG3**.

## MEASURES

<b>Mains Voltages:</b>	L1-N, L2-N, L3-N, L1-L2, L2-L3, L3-L1. True RMS measures. Max 300Vac CAT III (L-N). Max 520Vac CAT III (L-L).
<b>Generator voltages:</b>	L1-N, L2-N, L3-N, L1-L2, L2-L3, L3-L1. True RMS measures. Max 300Vac CAT III (L-N). Max 520Vac CAT III (L-L).
<b>Generator currents:</b>	L1, L2, L3. True RMS measures. Rated current: 5A.
<b>Generator and mains frequency meter:</b>	Resolution = 0.1 Hz. Accuracy = ±50ppm, ±35ppm/°C (typical).
<b>Battery voltmeter:</b>	Resolution = 0.1V.
<b>Oil pressure gauge:</b>	Configuration for the most commonly used sensors are available. Custom sensor configuration is also possible.
<b>Coolant or oil thermometer:</b>	Configuration for the most commonly used sensors are available. Custom sensor configuration is also possible.
<b>Fuel level:</b>	Configuration for the most commonly used sensors are available.
<b>Engine revolution counter:</b>	By frequency detection.
<b>D+</b>	<b>for voltage alternator and battery charger measuring.</b>








## PROTECTIONS

- Engine protections**
  - Fuel reserve.
  - Min./Max. fuel level.
  - Min./Max. battery voltage.
  - Min./Max. oil pressure and temperature.
  - Min./Max. coolant temperature.
  - Max. power (32).
  - Closing failure of mains contactor or genset contactor.
  - Engine over crank.
  - Over speed from generator frequency
  - Belt breakage.
  - Operating conditions not reached.
  - Emergency Stop.
  
- Generator protections**
  - Underfrequency (81U).
  - Overfrequency (81O).
  - Undervoltage (27).
  - Overvoltage (59).
  - Time dependent overcurrent (51).
  - Instantaneous overcurrent (50).
  - Phases sequence (47).
  - Currents and voltages unbalance (46/47).
  
- Mains protections**
  - Min./Max. mains voltage (27/59).
  - Min./Max. mains frequency (81U/81O).
  - Mains failure.

**Power and power factor measures are available as total measures and for each single phase too. Maximum power and current reached values, are registered with date and time**

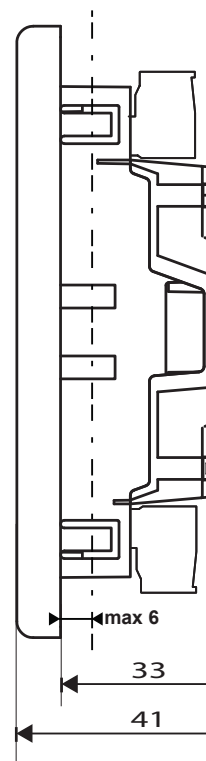
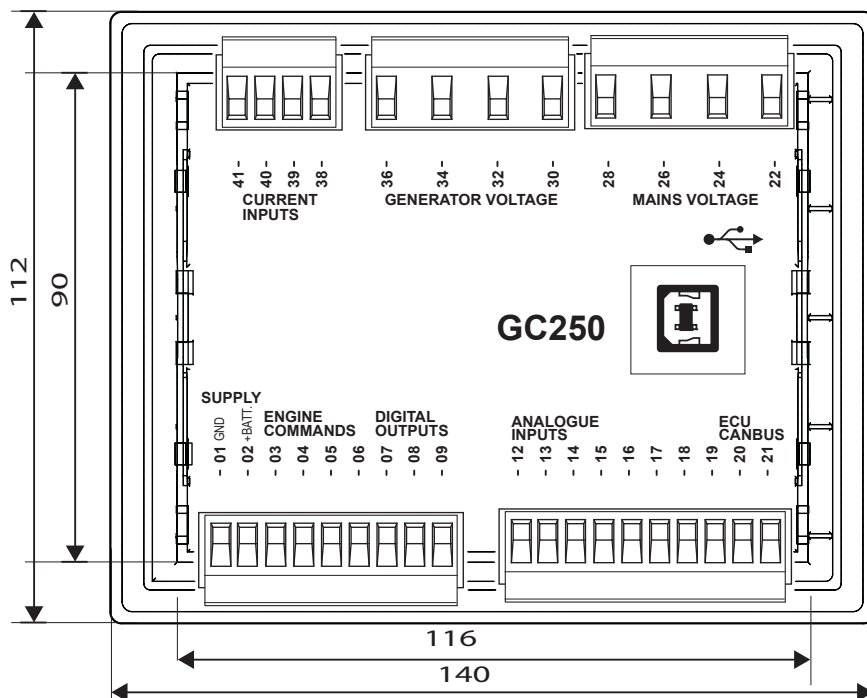
## USER FRIENDLY SYMBOLS

GC250 display offers a full set of prompt, intuitive information, with clear symbols and codes concerning the alarm occurred. When an ECU engine is connected, the description of its alarms is available as well.

	<b>MIN. VOLTAGE GENERATOR</b>
	<b>MAX. GENERATOR FREQUENCY</b>
	<b>OVER SPEED</b>
	<b>MIN. FUEL LEVEL</b>
	<b>HIGH COOLANT TEMPERATURE</b>
	<b>LOW BATTERY VOLTAGE</b>
	<b>FAILURE ENGIN CANBUS</b>

## TECHNICAL DATA

- > Operating temperature: -30°C to 70°C.
- > Storage temperature: -30°C to 80°C.
- > Dimensions: 141 (W) x 113 (H) x 39 (D) mm.
- > Cut-Out dimensions: 118(W) x 92 (H) mm.
- > Weight: 250gr.
- > LCD display 128x64 with LED backlight.
- > Protection degree: IP65 (with complimentary gasket).



CERTIFIED MANAGEMENT SYSTEM  
ISO 9001 - ISO 14001  
BS OHSAS 18001



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**S.I.C.E.S. SRL**

*Società Italiana Costruzione  
Elettriche Sumirago*

Via Molinello 8B, 21040  
Jerago con Orago (VA) Italy

Tel. +39 0331 212941  
Fax +39 0331 216102  
sales@sices.eu

100% PROUDLY ITALIAN