

SmartGen HGM6110U

SmartGen HGM6110U Genset Controller User Manual

Model: HGM6110U

1. INTRODUCTION

The SmartGen HGM6110U is an advanced automatic control module designed for generator sets. It provides comprehensive monitoring, protection, and operational control functions, including automatic start/stop, data measurement, alarm protection, and remote control capabilities. This manual provides essential information for the proper installation, operation, and maintenance of your HGM6110U controller.

2. PRODUCT OVERVIEW

The HGM6110U controller features a user-friendly interface with an LCD display and tactile buttons for easy navigation and control. It is designed to manage various aspects of genset operation, ensuring reliable power generation.



Figure 1: Front panel of the SmartGen HGM6110U Genset Controller. It features an LCD screen at the top center, flanked by navigation buttons (Up, OK, Down) on the right. Below the screen are indicator lights for 'Alarm' and 'Running'. The main control area includes buttons for 'Generator' (with Close/Open and C/O), 'Load' (with Close/Open and C/O), 'Stop', 'Man' (Manual), 'Auto', 'Test on load', 'Menu', and 'Start'. Green terminal blocks are visible at the bottom for wiring connections.

Key Components:

- **LCD Display:** Shows operational parameters, alarms, and menu options.
- **Navigation Buttons (Up, OK, Down):** Used to scroll through menus and confirm selections.
- **Alarm Indicator:** Illuminates when an alarm condition is detected.
- **Running Indicator:** Illuminates when the generator is operating.
- **Control Buttons:** Include Stop, Manual, Auto, Test on Load, Menu, and Start for various operational modes and settings.
- **Generator/Load C/O Buttons:** Control the closing and opening of generator and load contactors.

3. SETUP AND INSTALLATION

Proper installation is crucial for the safe and reliable operation of the HGM6110U controller. It is recommended that installation be performed by qualified personnel.

3.1 Safety Precautions

- Ensure all power sources are disconnected before installation or maintenance.
- Follow all local electrical codes and safety regulations.
- Wear appropriate personal protective equipment (PPE).

3.2 Mounting

Mount the controller in a secure, vibration-free location, away from direct sunlight, excessive heat, moisture, and corrosive environments. Ensure adequate ventilation around the unit.

3.3 Wiring

Connect the controller according to the wiring diagram provided with your specific genset and controller model. Pay close attention to:

- **Power Supply:** Connect to the appropriate DC power source.
- **Sensor Inputs:** Connect engine sensors (oil pressure, water temperature, fuel level, etc.).
- **Generator Voltage/Current Inputs:** Connect to the generator's output for monitoring.
- **Output Relays:** Connect to the starter motor, fuel solenoid, generator contactor, and load contactor.
- **Communication Ports:** If applicable, connect for remote monitoring or configuration.

Double-check all connections for correctness and tightness before applying power.

4. OPERATING INSTRUCTIONS

The HGM6110U offers several operating modes to suit different application requirements.

4.1 Powering On/Off

- **Power On:** Ensure the DC power supply is connected and switched on. The LCD will illuminate.
- **Power Off:** Disconnect the DC power supply.

4.2 Operating Modes

- **Manual Mode (Man button):** In this mode, the generator can be started and stopped manually. Press the **Start** button to initiate the start sequence and the **Stop** button to shut down the generator.

- **Auto Mode (Auto button):** The controller will automatically start and stop the generator based on configured parameters, such as mains power failure or remote start signals. This is the primary mode for unattended operation.
- **Test on Load Mode (Test on load button):** This mode allows the generator to start and run under load for testing purposes, typically without waiting for a mains failure.

4.3 Generator and Load Contactor Control

- The **C/O** buttons associated with 'Generator' and 'Load' symbols are used to manually close or open the respective contactors when in Manual mode or during specific test sequences.

4.4 Menu Navigation

- Press the **Menu** button to enter the main menu.
- Use the **Up** and **Down** arrow buttons to scroll through menu options.
- Press the **OK** button to select an option or confirm a setting.
- Refer to the detailed programming manual for specific parameter settings and configurations.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your HGM6110U controller.

- **Cleaning:** Periodically clean the controller's exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the display and buttons are free from dust and debris.
- **Connection Inspection:** Annually inspect all wiring connections for tightness and signs of corrosion. Loose connections can lead to intermittent operation or damage.
- **Environmental Check:** Ensure the operating environment remains within specified limits (temperature, humidity).
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates that may improve performance or add features. Follow update instructions carefully.

6. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For complex problems, consult a qualified technician.

6.1 Controller Not Powering On

- **Check DC Power Supply:** Verify that the power supply is connected correctly and providing the specified voltage.
- **Check Fuses:** Inspect any inline fuses on the power supply line to the controller.

6.2 Generator Fails to Start

- **Check Fuel Level:** Ensure there is sufficient fuel in the generator's tank.
- **Check Battery:** Verify the generator's starting battery is charged and connections are secure.
- **Review Alarms:** Check the LCD display for any active alarm messages that might be preventing startup.
- **Verify Wiring:** Ensure all engine control wiring (starter, fuel solenoid) is correctly connected.

6.3 Alarm Indication

- When the 'Alarm' indicator illuminates, check the LCD display for specific alarm messages. These messages will guide you to the nature of the fault (e.g., low oil pressure, high water temperature, overspeed).
- Address the underlying cause of the alarm before attempting to reset or restart the generator.



7. SPECIFICATIONS





Feature	Detail
Brand	SmartGen
Model Number	HGM6110U
Display Type	LCD
Color	Black
Manufacturer Part Number	HGM6110U

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the documentation provided with your purchase or contact your authorized dealer or the manufacturer directly. Keep your purchase receipt as proof of purchase.

Related Documents - HGM6110U

	<p>SmartGen MGC100 Genset Controller User Manual</p> <p>User manual for the SmartGen MGC100 Genset Controller, detailing its features, specifications, operation, connections, parameters, and troubleshooting for genset management.</p>
	<p>Smartgen HGM7211/HGM7221 Genset Controller User Manual</p> <p>This user manual provides comprehensive details on the Smartgen HGM7211 and HGM7221 series genset controllers. These advanced units are designed for automated operation and monitoring of single-unit gensets, enabling automatic start/stop, data measurement, alarm protection, and remote communication.</p>

	<p>SmartGen HGM93XXMPU(CAN) Series Genset Controller User Manual</p> <p>This user manual provides comprehensive information on the SmartGen HGM93XXMPU(CAN) series genset controllers. It details the features, specifications, operation, wiring, protection mechanisms, and troubleshooting for these advanced automatic genset control systems, designed for reliable and efficient generator management.</p>
	<p>SmartGen HGM9310MPU/9320MPU/9310CAN/9320CAN Genset Controller User Manual</p> <p>Comprehensive user manual for SmartGen HGM9310MPU, HGM9320MPU, HGM9310CAN, and HGM9320CAN series genset controllers. Covers features, specifications, operation, protection, wiring, and troubleshooting for generator automation and monitoring.</p>
	<p>SmartGen HGM6100N Series Genset Controller User Manual</p> <p>Comprehensive user manual for the SmartGen HGM6100N series genset controllers, detailing features, operation, specifications, and connections for automatic control and monitoring of single gensets.</p>
	<p>SmartGen HGM6100N Series Genset Controller User Manual - Automatic Control & Monitoring</p> <p>Comprehensive user manual for the SmartGen HGM6100N series genset controllers, detailing features, operation, specifications, and connections for models like HGM6110N, HGM6120N, HGM6110NC, HGM6120NC, HGM6110CAN, and HGM6120CAN.</p>

Documents - SmartGen – HGM6110U



[\[pdf\]](#) User Manual

HGM6100U INSTRUCTION Smartgen HGM6110U 6120U 6110UC 6120UC V1 4 en smartgen cn data
HGM6100U SERIES **HGM6110U**/6110UC/6120U/6120UC GENSET CONTROLLER
USER MANUAL SMARTGEN ZHENGZHOU TECHNOLOGY CO., LTD. Chinese
trademark English trademark SmartGen -- make your generator smart SmartGen
Technology Co., Ltd. No.28 Jinsuo Road Zhengzhou Henan Province P. R. China
Tel: 0086-371-679888...

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[\[pdf\]](#) User Manual Specifications Declaration of Conformity

HGM6100U INSTRUCTION Smartgen Series Automatic Control Controllers HGM6110U 6110UC

Instruction user manual Manual Pressing this key will set the module as mode Auto Running with load Controller is under testing Under gen run automatically when gens normal HGM6110UC without Gens Close Open Can control to switch on or off in USER MANUAL Technology Contents stop generator reset shutdown alarm Press at least 3 seconds test 1433229744 doc diytrade docdvr 1306637 43604353

HGM6100U Series Automatic Control Controllers

HGM6110U/6110UC/6120U/6120UC USER MANUAL Smartgen Technology

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[\[pdf\]](#) User Manual Specifications

HGM6100U INSTRUCTION Smartgen Controller is under manual testing mode Under this gen set will run automatically with load when gens normal HGM6110U RM without V1 en smartgen cn data SmartGen

User v1 HGM6120U Generator controller remote monitoring Outdated Models control module designed for 6100E 6100U2C series controllers It used single unit system to realize functions of start stop genset alarms display and etc via RS485 port Module can be in only monitor not or transferred by local Remote

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HGM6100U-RM REMOTE CONTROL MODULE USER MANUAL SMARTGEN

ZHENGZHOU TECHNOLOGY CO., LTD. HGM6100U-R ... 00U-RM REMOTE

MONITORING MODULE 2 PERFORMANCE AND CHARACTERISTICS HGM6100U-

RM series has two types: **HGM6110U-RM**: remote monitoring module for

HGM6110U/6110E/6110U2C series controllers; HGM6120U-RM: re...

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HGM6100U **HGM6110U**/6120U/6110UC/6120UC SMARTGEN ZHENGZHOU
TECHNOLOGY CO., LTD. SmartGen Smart Gen generator . 28 86-371-67988888 86-
371-67981888 86-371-67991553 86-371-67992951 86-371-67981000 400-0318-139 :
86-371-67992952 <http://www.smartgen.com.cn/> <http://www.smartgen.c...>
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HGM6100U **HGM6110U**/6120U/6110UC/6120UC 2011-09-15 1.0 2012-06-04 1.1
2014-10-28 1.2 2015-07-20 1.3 Smartgen smart gen generator 28 86-371-67988888
86-371-67981888 86-371-67991553 86-371-67992951 86-371-67981000 400-0318-
139 : 86-371-67992952 <http://www.smartge...>
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HGM6100U Smartgen HGM6100U RM V1 0 cn smartgen data
HGM6100U-RM SMARTGEN ZHENGZHOU TECHNOLOGY CO., LTD. HGM6100U-
RM 1. 0U-RM LCD 132x64 , HGM6100U-RM 1.0 2016-12-19 4 13
HGM6100U-RM 2. HGM6100U-RM **HGM6110U**-RM **HGM6110U**/6110E/6110U2C
HGM6120U-RM HGM6120U/6120E/6120U2C LCD 132x64 RS48...
lang:nl score:31 filesize: 977.15 K page_count: 13 document date: 2017-04-20