



HGM8120A

HGM8110A/8120A genset controllers are especially designed for extremely high/low temperature environment (-40~+70)°C. The controllers can operate reliability in extreme temperature conditions with the help of VFD display and the components that resist extreme temperature. All display informations are Chinese (also can be set as English). Operation information, status information and faults information are all displayed which make commissioning convenience for factory personnel. Controller has strong ability of anti-electromagnetic interference, can be used under complex electromagnetic interference environment. Easy to maintain and upgrade due to the plug-in terminal.

Product Code : 6010025

Power Supply : DC(8-35)V

Case Dimensions : 240*172*57(mm)
Panel Cutout : 214*160(mm)
Operating Temp. : (-40~+70)°C
Weight : 0.8kg

COMPLETE DESCRIPTION

HGM8110A/8120A genset controllers are especially designed for extremely high/low temperature environment (-40~+70)°C. The controllers can operate reliability in extreme temperature conditions with the help of VFD display and the components that resist extreme temperature. All display informations are Chinese (also can be set as English). Operation information, status information and faults information are all displayed which make commissioning convenience for factory personnel. Controller has strong ability of anti-electromagnetic interference, can be used under complex electromagnetic interference environment. Easy to maintain and upgrade due to the plug-in terminal.

HGM8110A/8120A genset controllers integrate digitization, intelligentization and network technology which are used for genset automation and monitor control system of single unit to achieve automatic start/stop, data measure, alarm protection and “four remote” (remote control, remote measuring, remote communication and remote regulating).

HGM8110A/8120A genset controllers adopt micro-processor technology with precision parameters measuring, fixed value adjustment, time setting and set value adjusting and etc..Majority parameters can be configured from front panel, and all parameters can be configured by RS485 interface (or RS232) to adjust via PC. It can be widely used in all types of automatic genset control system with compact structure, advanced circuits, simple connections and high reliability.

Performance and characteristics

HGM8100A series controller has two types

HGM8110A: ASM (Automatic Start Module), used for single automation systems.

HGM8120A: AMF (Auto Mains Failure), updates based on HGM8110A, moreover, has mains electric quantity monitoring and mains/generator automatic transfer control function, especially for automatic system composed by generator and mains.

1. With ARM-based 32-bit SCM, highly integrated hardware, new reliability level.
2. Vacuum fluorescent display (VFD), selectable Chinese/English interface which can be chosen at the site, making commissioning convenience for factory personnel;
3. Widely temperature range: (-40~70) °C, can be used in extreme temperature environment.
4. Suitable for 3-phase 4-wire, 3-phase 3-wire, single phase 2-wire, and 2-phase 3-wire systems with voltage 120/240V and frequency 50/60Hz;
5. Collects and shows 3-phase voltage, current, power parameter and frequency of generator or mains.

6. For Mains, controller has over and under voltage, over and under frequency, loss of phase and phase sequence wrong detection functions; For generator, controller has over and under voltage, over and under frequency, loss of phase, phase sequence wrong, over and reverse power, over current detection functions;
7. 3 fixed analog sensors (temperature, oil pressure and liquid level);
8. 2 configurable sensors can be set as sensor of temperature, oil pressure or fuel level;
9. Precision measure and display parameters about Engine,
10. Protection: automatic start/stop of the gen-set, ATS(Auto Transfer Switch) control with perfect fault indication and protection function;
11. All output ports are relay-out;
12. Parameter setting: parameters can be modified and stored in internal EEPROM memory and cannot be lost even in case of power outage; most of them can be adjusted using front panel of the controller and all of them can be modified using PC via RS485/RS232 ports.
13. More kinds of curves of temperature, oil pressure, fuel level can be used directly and users can define the sensor curves by themselves;
14. Multiple crank disconnect conditions (speed sensor, oil pressure, generator frequency) are optional;
15. Real time clock and run time accumulation function. 99 pieces of event logs can be circularly stored and inquired on the spot; also can be print or be inquired via PC.
16. Scheduled start & stop generator (can be set as start genset once a week/month).
17. With maintenance function. Actions (warning, shutdown or trip and stop) can be set when maintenance time out;
18. Can be used on pumping units and as an indicating instrument (indicate and alarm are enable only, relay is inhibited);
19. Accumulative total electric energy. Users can reset it and re-accumulative the value which make convenience to users to count the total value as their wish.
20. Widely Power supply range: DC(8~35)V, suitable to12/24V start battery voltage environment.
21. With international standard MODBUS communication protocol, better error checking capability, and with RS232 and RS485(coupling isolation) communication interface, can realized functions of remote control, remote measuring, remote communication and remote regulating.
22. Waterproof security level IP55 due to rubber seal installed between the controller enclosure and panel fascia;
23. Metal fixing clips enable perfect in high temperature environment;
24. Modular design, pluggable connection terminals and embedded installation way; compact structure with easy mounting.

PARAMETER LIST

Function Item	Parameter
Display	VFD
Operation Panel	PC
Language	Chinese & English

Function Item	Parameter
Digital Input	6
Relay Output	8
Analogue Input	5
AMF	●
AC System	1P2W/2P3W/3P3W/3P4W
Alternator Voltage	(15~360)V(ph-N)
Alternator Frequency	50/60Hz
kW/Amp Detecting & Display	●
Monitor Interface	RS485/RS232
Programmable Interface	RS232
RTC & Event Log	●
Scheduled Start Genset	●
Maintenance	●
DC Supply	DC(8-35)V
Case Dimensions(mm)	240*172*57
Panel Cutout(mm)	214*160
Operating Temp.	(-40~+70)°C

HGM8120A Typical Application

HGM8120A Typical wiring diagram

