



## HGM4010N

HGM400N series 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 measurement, alarm protection and “three remote” (remote control, remote measuring and remote communication; SG485 module must be fitted). It fit with LCD display, optional languages interface (Chinese, English, Spanish, Turkish, Russian and French), and it is reliable and easy to use.

Product Code : 6010058

Power Supply : DC(8~35)V

Case Dimensions : 126\*109\*44(L\*W\*H)(mm)

Panel Cutout : 110\*90(mm)

Operating Temp. : (-25~70)°C

Weight : 0.26kg

## COMPLETE DESCRIPTION

HGM400N series 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 measurement, alarm protection and “three remote” (remote control, remote measuring and remote communication; SG485 module must be fitted). It fit with LCD display, optional languages interface (Chinese, English, Spanish, Turkish, Russian and French), and it is reliable and easy to use.

HGM400N series genset controllers adopt micro-processor technology with precision parameters measuring, fixed value adjustment, time setting and set value adjusting and etc. All parameters can be configured from front panel or through USB interface by using 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**

HGM400N series controller has two types:

HGM410N: ASM (Automatic Start Module), it controls generator to start/stop by remote signal;

HGM420N: AMF (Auto Mains Failure), updates based on HGM410N, moreover, has mains electric quantity monitoring and mains/generator automatic transfer control function, especially for automatic system composed by generator and mains.

1. 132x64 LCD with backlight, selectable language interface (Chinese, English, Spanish, Turkish, Russian and French), push-button operation;
2. Improved LCD wear-resistance and scratch resistance due to hard screen acrylic;
3. Silicon panel and pushbuttons for better operation in high/low 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 voltage, under voltage and loss of phase detection functions; For generator, controller has over voltage, under voltage, over frequency, under frequency, over current and over power detection functions;
7. Precision collect and display parameters about Engine,
8. Control & Protection: automatic start/stop of the genset, ATS(Auto Transfer Switch) control with perfect fault indication and protection function;
9. With ETS(Energize To Stop), idle control, pre-heat control, speed raise control and speed drop control function, All output ports are relay-out;

10. Parameter setting: parameters stored in internal FLASH can be modified and cannot be lost even in case of power outage; all the controller parameters can be adjusted using front panel of the controller or via USB or RS485 interface by using PC.
11. Multiplex input port 3 and 4 can be used in various fields: input 3 can be used as auxiliary input port or fuel level sensor while input 4 can be used as auxiliary input port or configurable sensor.
12. More kinds of curves of temperature, oil pressure, fuel level can be used directly and users can define the sensor curves by themselves;
13. Configurable sensor: can be set as temperature sensor, oil pressure sensor or fuel level sensor, enable the detection of double temperature, double oil-pressure and double fuel level.
14. Multiple crank disconnect conditions (magnetic pickup, oil pressure, generator frequency) are optional;
15. With emergency start function;
16. With fly teeth auto-recognize function;
17. Widely Power supply range: DC(8~35)V, suitable to different start battery voltage environment.
18. All parameters used digital adjustment, instead of conventional analog modulation with normal potentiometer, more reliability and stability;
19. With maintenance function. Types (date or running time) can be set. Actions (warning, alarm shut down) can be set when maintenance time out;
20. IP55 waterproofness with rubber-ring gasket;
21. With metal fixing clips;
22. Modular design, self-extinguished ABS plastic enclosure, pluggable connection terminals and embedded installation way; compact structure with easy mounting.

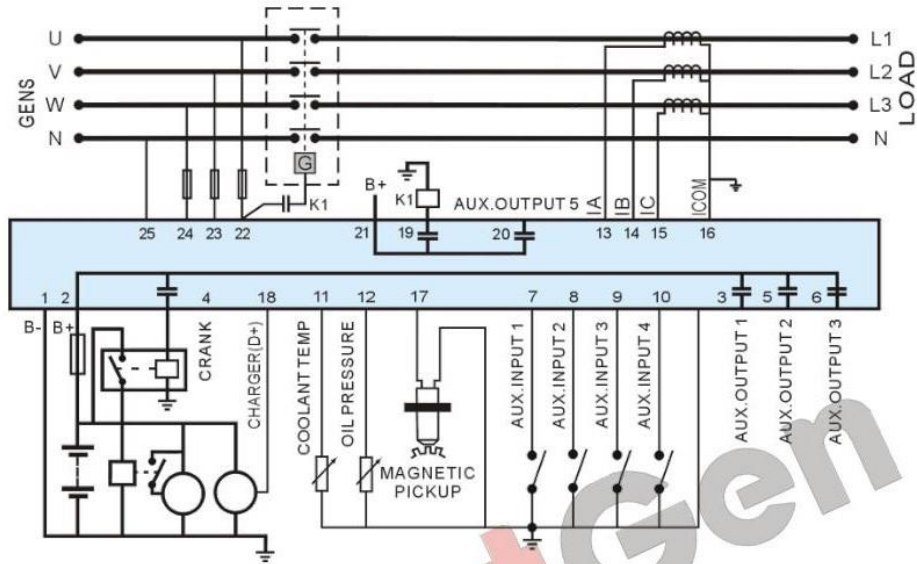
## **PARAMETER LIST**

<b>Function Item</b>	<b>Parameter</b>
Display	LCD(132*64)
Operation Panel	Silicon Rubber
Language	Chinese & English & Others
Digital Input	4
Relay Output	6
Analogue Input	4
AC System	1P2W/2P3W/3P3W/3P4W
Alternator Voltage	(15~360)V(ph-N)
Alternator Frequency	50/60Hz
kW/Amp Detecting & Display	●

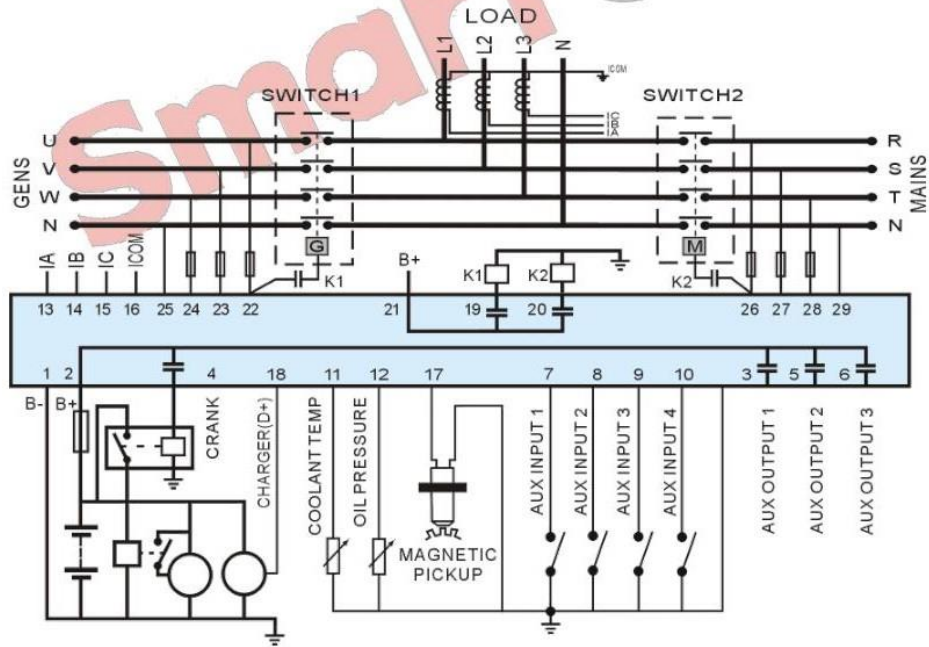
<b>Function Item</b>	<b>Parameter</b>
Monitor Interface	USB
Programmable Interface	USB
RTC & Event Log	●
Scheduled Start Genset	●
Maintenance	●
DC Supply	DC(8~35)V
Case Dimensions(mm)	126*109*44
Panel Cutout(mm)	110*90
Operating Temp.	(-25~+70)°C

## HGM4010n Typical Application

HGM410N Typical wiring diagram



HGM420N Typical wiring diagram



Single Phase 2 Wire (HGM420N)