



HGM4020T

HGM4020T gset controller is specially designed for mobile communication base station, and its functions are completely followed by the actual situation of the mobile station. It not only fits with auto start/stop gset function in multiple boot conditions, data measurement function, alarm protection function and etc, but also can monitor machine room temperature and voltage of battery packs to realize dual power ATS function between mains and load or mains and air conditioner.

Product Code : 6010096

Power Supply : DC(8-35)V

Case Dimensions : 135*110*44(mm)

Panel Cutout : 116*90(mm)

Operating Temp. : (-25~+70)°C

Weight : 0.32kg

COMPLETE DESCRIPTION

HGM4020T genset controller is specially designed for mobile communication base station, and its functions are completely followed by the actual situation of the mobile station. It not only fits with auto start/stop genset function in multiple boot conditions, data measurement function, alarm protection function and etc, but also can monitor machine room temperature and voltage of battery packs to realize dual power ATS function between mains and load or mains and air conditioner. HGM4020T genset controller adopts micro-processor technology with precision parameters measuring, fixed value adjustment, time setting and set value adjusting and etc functions. All parameters can be configured from front panel or through programmable interface (USB or RS485 interface) 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

- 132x64 LCD with backlight, selectable language interface (Chinese and English), push-button operation;
- Hard-screen acrylic material been used to protect screen with great wear-resisting and scratch-resisting functions.
- Silicone panel and pushbuttons can be used in extreme temperature environment.
- RS485 communication interface enable "Three remote functions" (remote control, remote measuring and remote communication) according to MODBUS protocol.
- 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;
- Collects and shows mains 3-phase voltage/frequency, generator 3-phase voltage/frequency, generator 3-phase current, and generator 3-phase power parameters.
- | Mains | Generator |
|----------------------------------|----------------------------------|
| Line voltage (Uab, Ubc, and Uca) | Line voltage (Uab, Ubc, and Uca) |
| Phase voltage (Ua, Ub, and Uc) | Phase voltage (Ua, Ub, and Uc) |
| Frequency Hz | Frequency Hz |
| Phase sequence | Phase sequence |

Gen	
Current Ia, Ib, Ic	A (unit)
Each phase and total active power P	kW (unit)
Reactive power Q	kvar (unit)
Apparent power S	kVA (unit)
Power factor PF	
Accumulate total generator power W	kWh (unit)
Output percentage with load	%
- For Mains, controller has over and under voltage and loss of phase detection functions, and mains have rules can be selected; for generator, controller has over/ under voltage, over/under frequency, over current and over power protection functions.
- Precision measure and display parameters about Engine.

Oil Pressure (OP)	kPa/psi/bar all be displayed
Fuel Level (FL)	%(unit) Fuel Quantity Left L(unit)
Speed (RPM)	r/min (RPM)
Voltage of Battery	V (unit)
Voltage of Charger	V (unit)
Hour count accumulation	
Start times accumulation	

10. Machine room temperature can be collected, if temperature is too high, air conditioner in the machine will be started;
11. Battery pack voltage(48V) can be collected, if battery pack is under voltage, generator will be started to charge the battery;
12. 6 start conditions can be grouped at random: mains abnormal signal, remote start signal, mains abnormal and temperature of machine room is high, mains abnormal and battery pack voltage is low, scheduled start, and cycle start/stop;
13. 6 relay output ports, including 1 start output, 1 fuel output (programmable), 4 programmable outputs, in which programmable output port 4 shares the same port with input port 5 (can be set);
14. 7 digital input ports, in which input port 6 and input port 7 can be multiplexed as flexible sensor 1 and flexible sensor 2;
15. 2 flexible sensors, which can be selected as temperature sensor, pressure sensor or fuel level sensor; flexible sensor 1 also can be configured as machine room temperature sensor;
16. Multiple temperature, pressure and fuel level sensors can be used directly and its parameter can be user-defined;
17. Able to control 2 ATS;
18. Multiple crank disconnect conditions (speed sensor, gen frequency and oil pressure) can be selected;
19. Access monitoring function, which can provide security for the machine room;
20. With emergency start function;
21. With scheduled not run function(monthly, weekly, daily, duration time can be set);
22. With flywheel tooth number automatic recognition function;
23. With event log and real-time clock. Maximum 99 event logs can be memorized(loop save).
24. Parameter setting function: users can configure parameters and user-defined parameters will be stored in the internal FLASH to avoid lose parameters in case of power dropout. All parameters can be configured from front panel or through programmable interface (USB or RS485 interface) via PC.;
25. Widely power supply range DC(8~35)V, suitable for different starting battery voltage environment.
26. Waterproof security level IP65 due to rubber seal installed between the controller enclosure and panel fascia;
27. With metal fixing clips;
28. Modular design, anti-flaming ABS plastic enclosure, pluggable connection terminals and embedded installation way; compact structure with easy mounting.

HGM4020t Typical Application

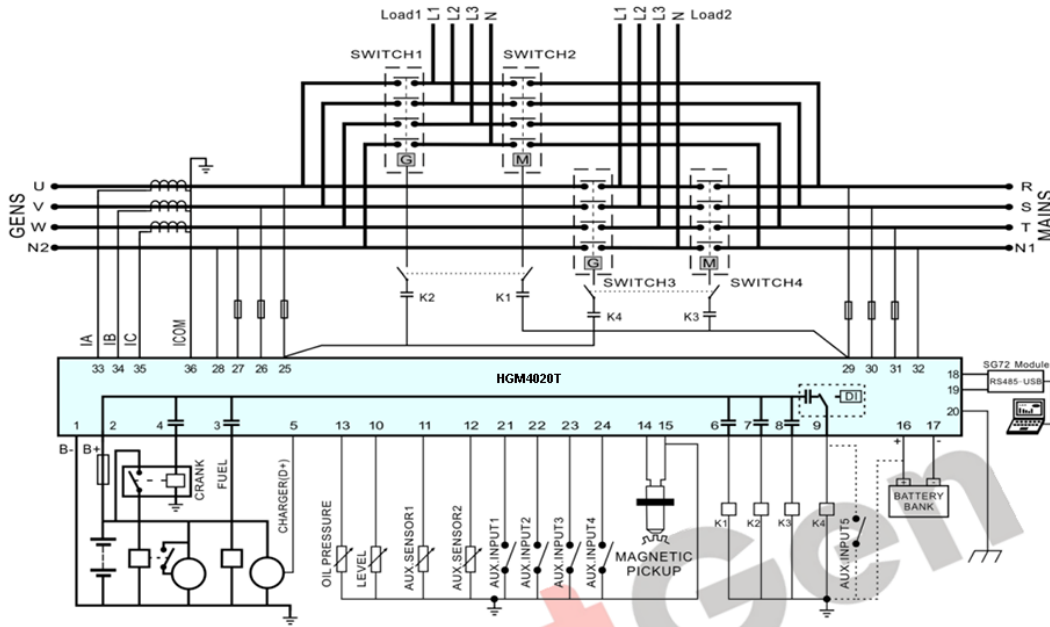


Fig.3 - Typical Application Drawing 1

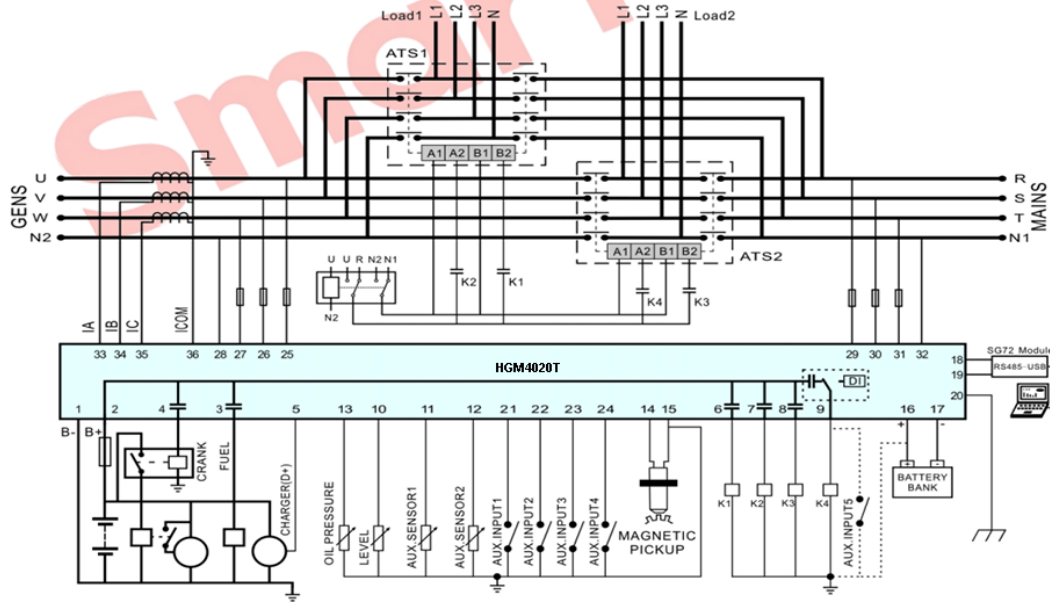


Fig.4 - Typical Application Drawing 2