

Smartgen®

HGM9580 Bus Tie Bus Parallel Unit

USER MANUAL



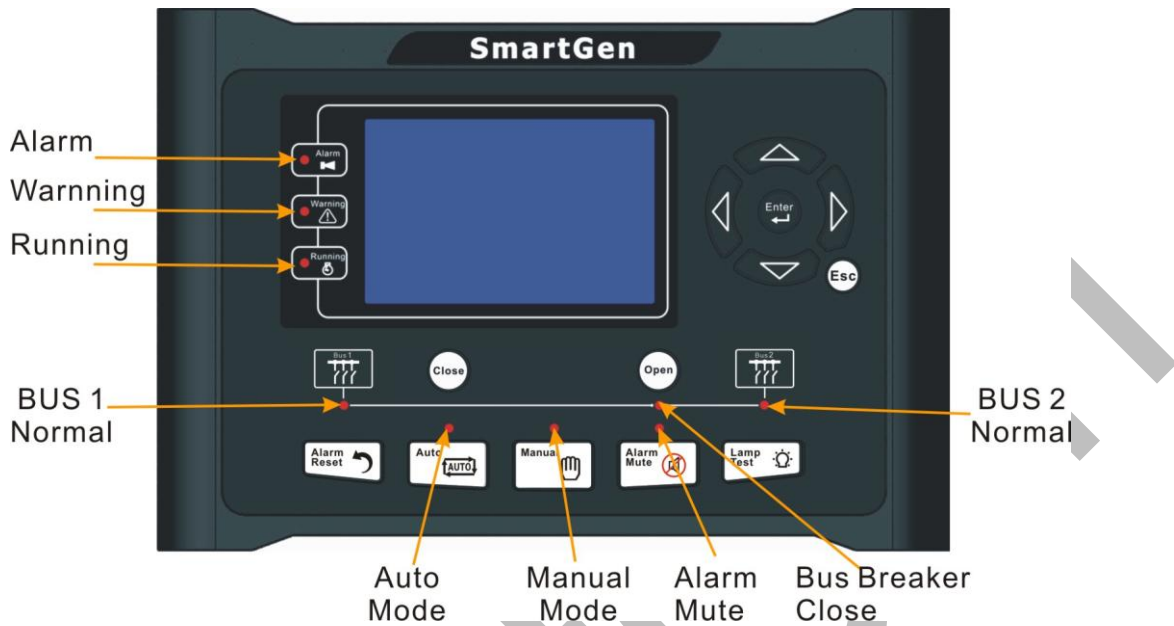
Smartgen Technology

3 SPECIFICATION

Parameter	Details
Working Voltage	DC8. 0V to 35. 0V, continuous power supply
Overall Consumption	<4W (Standby mode: ≤2W)
AC Input: 3 Phase 4 Wire 3 Phase 3 Wire Single Phase 2 Wire 2 Phase 3 Wire	AC15V - AC360V (ph-N) AC30V - AC620V (ph- ph) AC15V - AC360V (ph-N) AC15V - AC360V (ph-N)
Alternator Frequency	50Hz/60Hz
Flexible Relay Output 1	7A DC28V power supply output
Flexible Relay Output 2	7A DC28V power supply output
Flexible Relay Output 3	7A DC28V power supply output
Flexible Relay Output 4	7A AC250V volts free output
Flexible Relay Output 5	7A AC250V volts free output
Flexible Relay Output 6	7A AC250V volts free output
Flexible Relay Output 7	16A DC28V power supply output
Flexible Relay Output 8	16A DC28V power supply output
Case Dimensions	266mm x 182mm x 45mm
Panel Cutout	214mm x 160mm
Working Conditions	Temperature: (-25~+70)°C Humidity: (20~93)%RH
Storage Conditions	Temperature:(-25~+70)°C
Protection Level	IP55 Gasket
Insulation Intensity	Apply AC2.2kV voltage between high voltage terminal and low voltage terminal; The leakage current is not more than 3mA within 1min.
Weight	0.95kg

4 OPERATION

4.1 INDICATOR LIGHT



NOTE: Selected light indicators description:

Warning indicator and Alarm indicator:



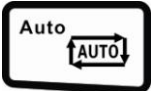









Alarm Type	Warning Indicator	Alarm Indicator
Warning	Slow flashing	Slow flashing
Trip Alarm	Off	Fast flashing

Running indicator: It is light on when both of bus 1 and bus 2 are normal; off when either of them is abnormal.

Bus 1 normal light: It is light on when bus 1 is normal; off when bus 1 is abnormal.

Bus 2 normal light: It is light on when bus 2 is normal; off when bus 2 is abnormal.

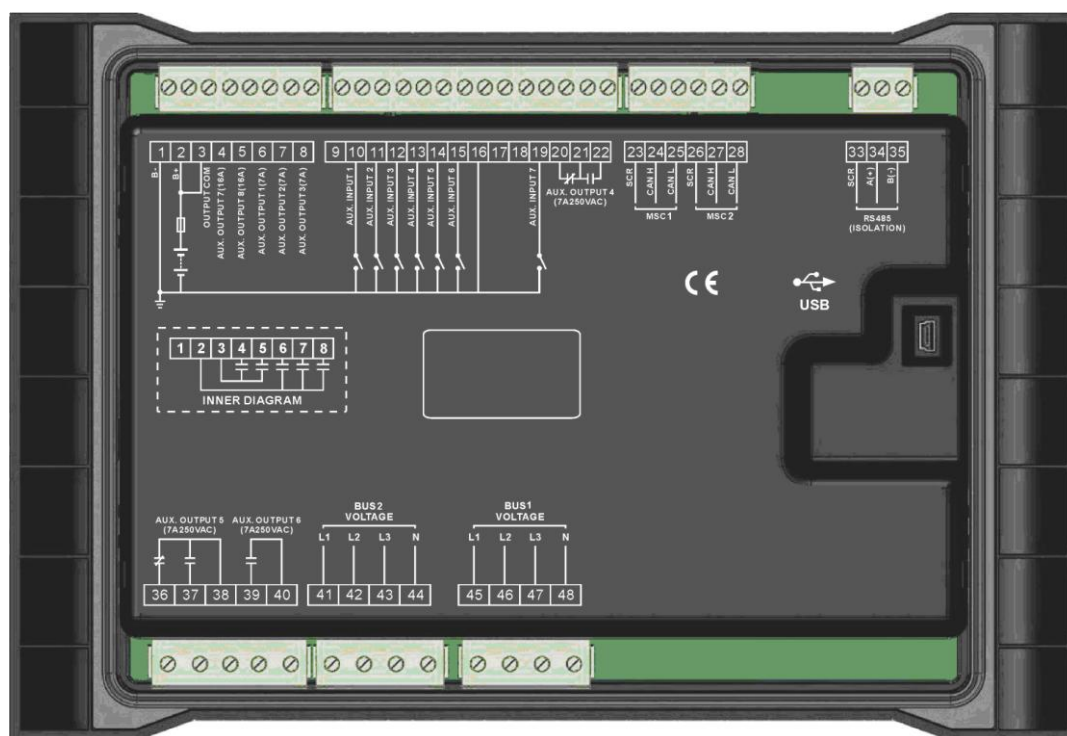
4.2 PUSHBUTTONS

	Alarm Reset	If alarm occurs, pressing the button can reset this alarm.
	Manual Mode	Press this key and controller enters in Manual mode.
	Auto Mode	Press this key and controller enters in Auto mode.
	Mute	Alarming sound off.
	Lamp test	Press this key can test the lamp is normal or not (lamp test).
	Close	Can control bus to switch on in Manual mode.
	Open	Can control bus to switch off in Manual mode.
	Up/Increase	1) Screen scroll; 2) Up cursor and increase value in setting menu.
	Down/Decrease	1) Screen scroll; 2) Down cursor and decrease value in setting menu.
	Left	1) Screen scroll; 2) Left move cursor in setting menu.
	Right	1) Screen scroll; 2) Right move cursor in setting menu.
	Set/Confirm	1) Pressing and holding for more than 3 seconds enters parameter setting menu; 2) In settings menu confirms the set value.
	Exit	1) Return to main menu; 2) Return to previous menu in setting menu.

⚠ WARNING: Default password is 00318, user can change it in case of others change the advanced parameters setting. Please clearly remember the password after changing. If you forget it, please contact Smartgen services and send all PD information in the controller page of “**ABOUT**” to us.

6 WIRING CONNECTION

HGM9580 controller's rear as following:

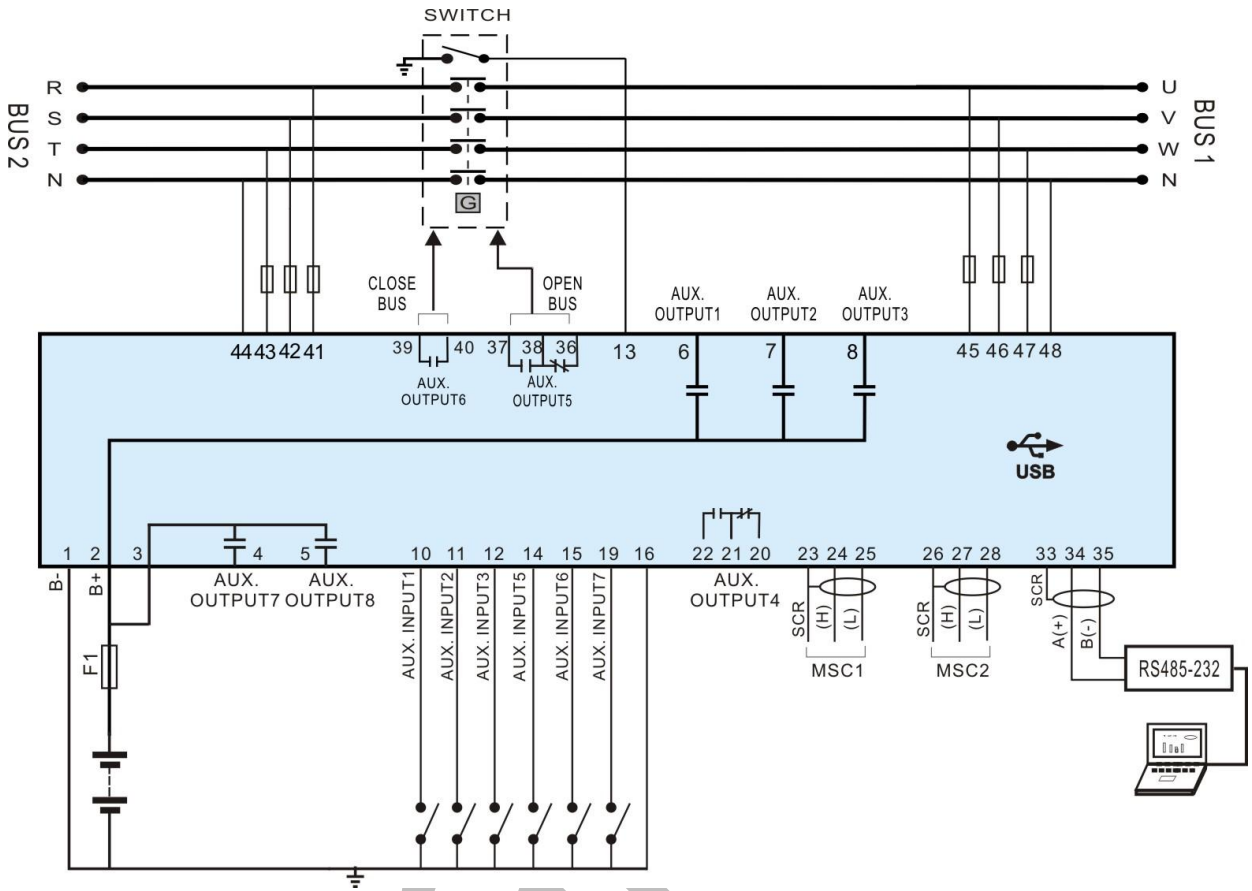


Description of terminal connection:

NO.	Functions	Cable Size	Remark
1	DC input B-	2.5mm ²	Connected with negative of starter battery.
2	DC input B+	2.5mm ²	Connected with positive of starter battery. If wire length is over 30m, better to double wires in parallel. Max. 20A fuse is recommended.
3	COM Output 7,8	2.5mm ²	Connected with B+.
4	Aux. output 7	1.5mm ²	B+ is supplied by 3 point, rated 16A.
5	Aux. output 8	1.5mm ²	B+ is supplied by 3 point, rated 16A.
6	Aux. output 1	1.5mm ²	B+ is supplied by 2 point, rated 7A.
7	Aux. output 2	1.5mm ²	B+ is supplied by 2 point, rated 7A.
8	Aux. output 3	1.5mm ²	B+ is supplied by 2 point, rated 7A.
9	Reserved	/	This is reserved terminals, do not connect to wire.
10	Aux. input 1	1.0mm ²	Ground connected is active (B-)
11	Aux. input 2	1.0mm ²	Ground connected is active (B-)
12	Aux. input 3	1.0mm ²	Ground connected is active (B-)

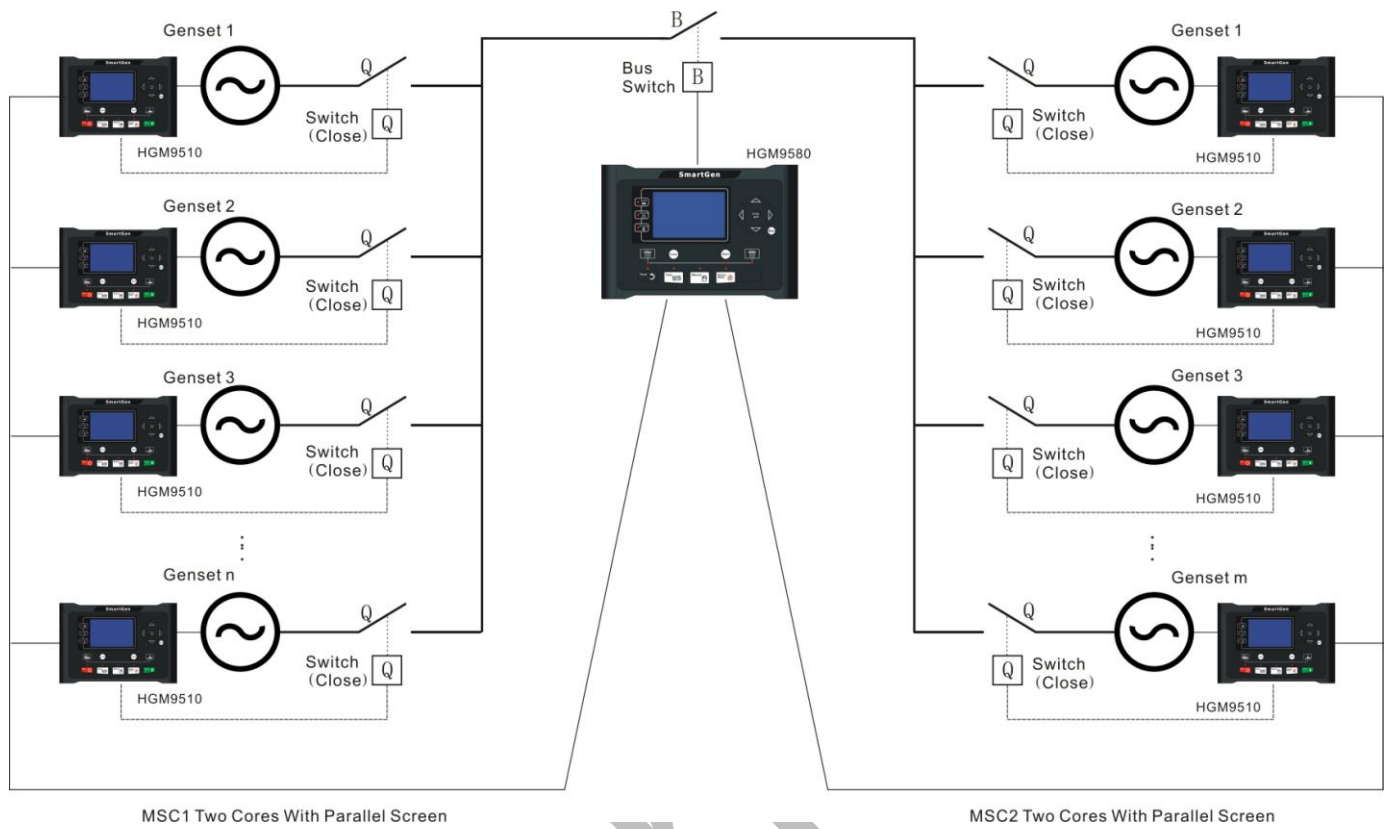
8 TYPICAL DIAGRAM

HGM9580 Typical Diagram



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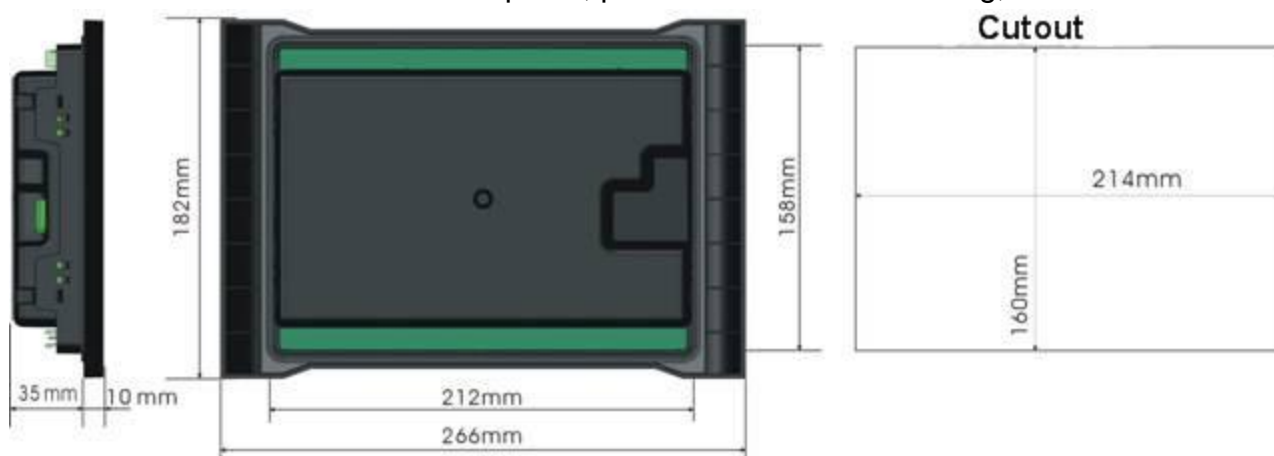
9 TYPICAL APPLICATION



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10 INSTALLATION

Controller is panel built-in design; it is fixed by clips when installed. The controller's overall dimensions and cutout dimensions for panel, please refers to as following,



1) Battery Voltage Input

NOTE: HGM9580 controller can suit for widely range of battery voltage DC(8~35)V. Negative of battery must be connected with the engine shell. The diameter of wire which from power supply to battery must be over 2.5mm². If floating charge configured, please firstly connect output wires of charger to battery's positive and negative directly, then, connect wires from battery's positive and negative to controller's positive and negative input ports in order to prevent charge disturbing the controller's normal working.

2) Output And Expand Relays

CAUTION: All outputs of controller are relay contact output type. If need to expand the relays, please add freewheel diode to both ends of expand relay's coils (when coils of relay has DC current) or, add resistance-capacitance return circuit (when coils of relay has AC current), in order to prevent disturbance to controller or others equipment.

3) Withstand Voltage Test

CAUTION! When controller had been installed in control panel, if need the high voltage test, please disconnect controller's all terminal connections, in order to prevent high voltage into controller and damage it.

11 USB

Users can set the controller's parameters and monitor the controller's status via the test software which provided by Smartgen company. The connection way between PC and controller as following:

