



Product Specifications

Power Base Venus Series

High-Voltage LiFePO4 Battery System for UPS

Version	Prepare	Check	Approve	Date
V1.0	ZJM			2020-06-10
V1.1	ZJM			2021-01-14



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1. Introduction

The Power Base Venus series product is a high-voltage lithium iron phosphate battery storage system independently developed in-house by Glory Energy (Shenzhen) Co., Ltd. The rated voltage of the system is 512Vdc or ± 256 Vdc, and the maximum which meets the requirements of 50kW power supply.

2. Features

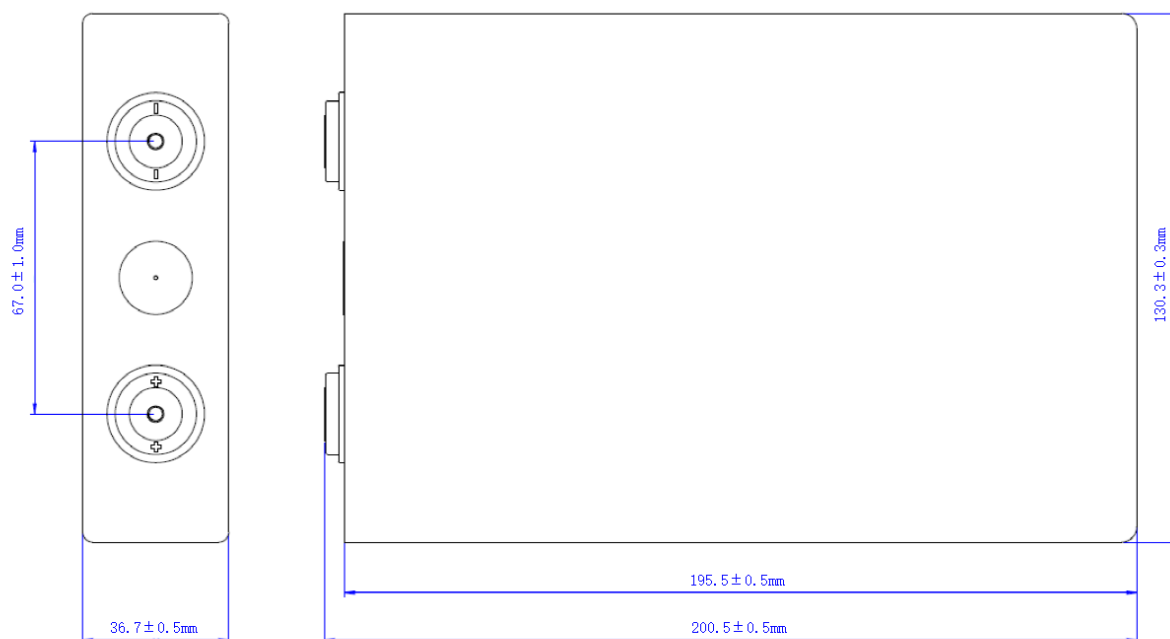
- Adopt high safety, long life, excellent performance LiFePO4 prismatic cells;
- Support up to 1C continuous discharge;
- Over 4000 times of cycle life;
- Intelligent BMS to ensure a safe reliable operation;
- Multiple communications including RS485, CAN;
- Modular rack design for easier installation and smaller footprint.





3. Specifications

3.1. Cell Parameters



No.	Items	Parameters	
1	Cell Type	LiFePO4 Prismatic	
2	Nominal Capacity	100Ah	
3	Nominal Voltage	3.2V	
4	Maximum Charge Current	Continuous	1C
5	Maximum Discharge Current	Continuous	1C
		Peak for 30s	3C
6	Temperature Range	Charging	0°C ~ 55°C
		Discharging	-20°C-55°C
		Recommended Working	15°C ~ 35°C
7	Weight	1980±50g	



3.2. Battery Module Parameters



No.	Items	Parameters
1	Model	GA-FE48100-1635R1
2	Cell Configuration	16S1P
3	Nominal Capacity	100Ah
4	Nominal Energy	5120Wh
5	Weight (Approx.)	42kg
6	Dimensions (W*D*H)	440*408*152 mm (Handles and connectors are not included)

3.3. Main Control Module Parameters



No.	Items		Parameters
1	Model		GA-MC500-150M
2	Operation Voltage Range		200Vdc – 600Vdc
3	Maximum Operation Current		≤125A
4	Communication	BATT COM	CAN, Battery Module Parallel, BMS power supply
		LCD COM	RS485 , Monitoring Devices
		Link A, Link B	Cabinet Parallel, PCS communications
		CAN/RS485	communication interface with PC



5	Weight	10.5kg±30g
6	Dimensions (W*D*H)	440*408*133 mm (Handles and connectors are not included)

3.4. System Parameters

±256V 51.2kWh

512V 51.2kWh

3.4.1. General Specifications



No.	Items		Parameters	
1	Nominal Voltage		±256V 51.2kWh	512V 51.2kWh
2	Voltage	Recommend Charging	±284V	568V
		Max. Charging	±292V	584V
		Discharge Cut-off	±240V	480V
3	Main Control Module		GA-MC500-150M	
4	Battery Module Type		GA-FE48100-1635R1	

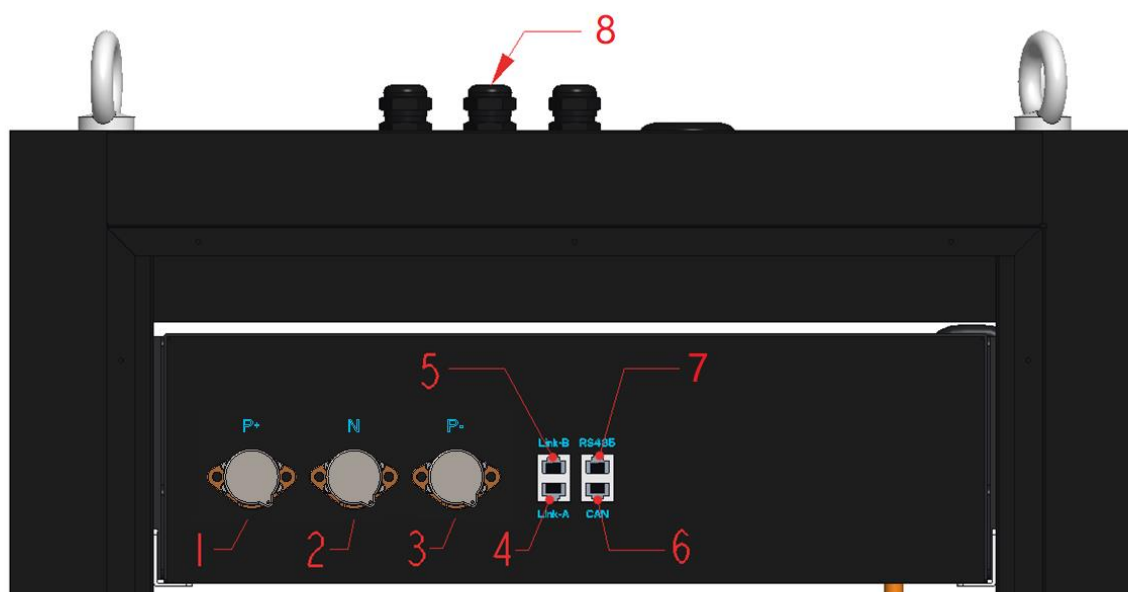


5	Battery Module QTY		10
6	Module Configuration		160S1P
7	Nominal Capacity		100Ah
8	Nominal Energy		51.2kWh
9	Chemistry		LiFePO4
10	Current	Max. Charging	100A
		Max. Discharging	100A
		Peak for 30s	150A
11	Weight (Approx.)		500kg
12	Dimensions (L*H*W))		600*2020*600 mm
13	Communication		RS485, CAN
14	Cycle Life		3500 times@80%DOD
15	Designed Calendar Life		≥10 years
16	Safety Function		Over-charge, Over-discharge, Over-current, Low/High-temperature, Low-voltage, Short-circuit Protections
17	Parallel Capability		Maximum 10 units (Recommended 6 units)
18	Cable Outlet		Top-back

3.4.2. Environment Specifications

No.	Items	Parameters
1	Charging Temperature Range	0°C~45°C
2	Discharging Temperature Range	-10°C~55°C
3	Best Operating Temperature Range	15°C~35°C
4	Storage Temperature Range	0°C~45°C
5	Transport Temperature	-40°C~45°C
6	Humidity	5%RH~95%RH
7	Altitude	0~4000m

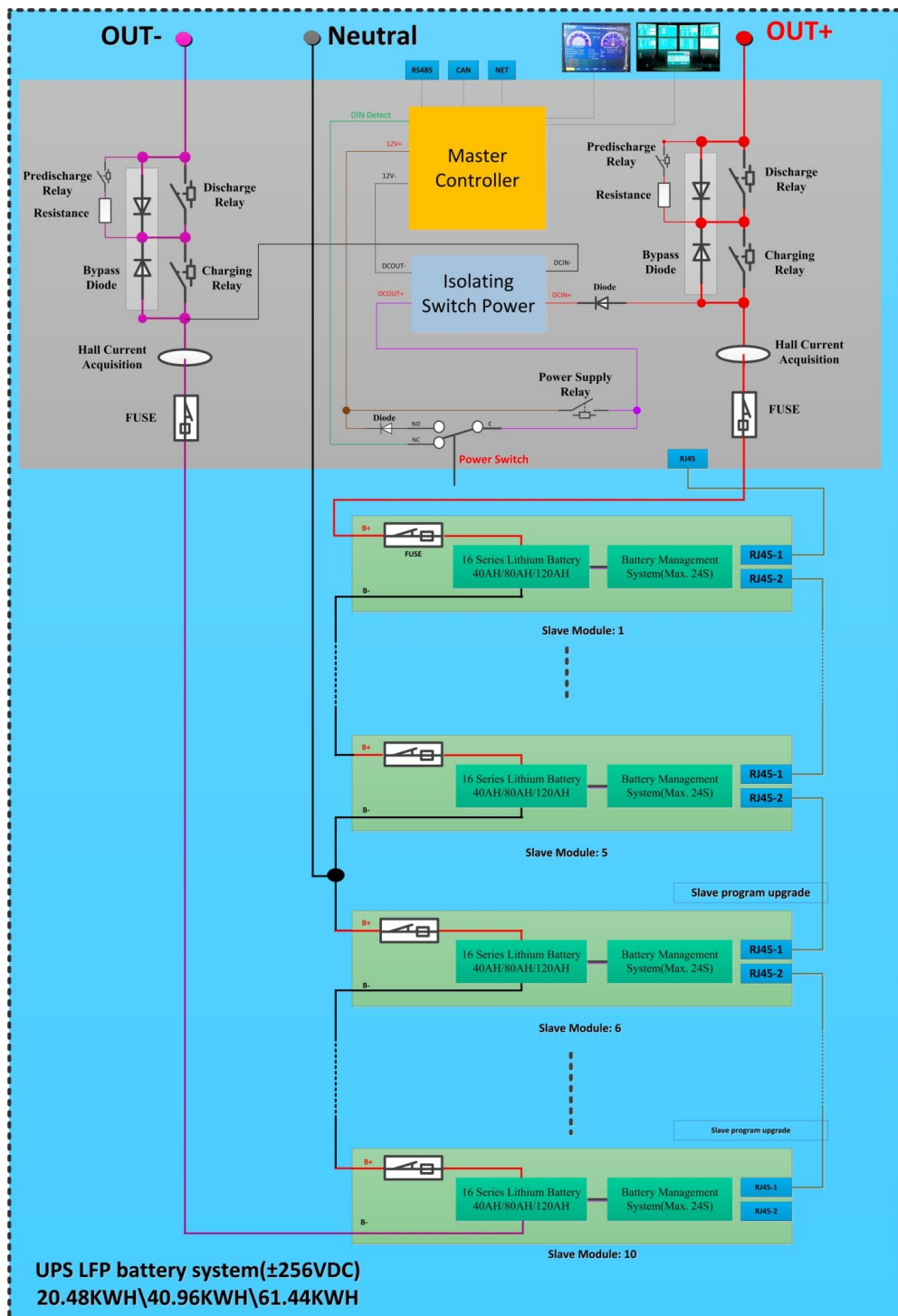
3.4.3. Output definition





No.	Items	Instructions
1	P+	Positive Pole
2	N	Neutral
3	P-	Negative Pole
4	Link-A	Parallel communication
5	Link-B	Parallel communication
6	CAN	Inverter communication
7	RS485	Inverter communication
8	PG16*3	Cable Entry

4. Electrical Schematic



5.

