



Product Specifications

Power Base Mate HV Series UPS Lithium Battery System

Version	Prepare	Check	Approve	Date
V1.0	ZJM			2020-06-12
V2.0	ZJM			2020-12-23



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1. Introduction

The Power Base Mate HV series product is a high-voltage lithium iron phosphate battery storage system independently developed in-house by Glory Energy Technology (Shenzhen) Co., Ltd. The rated voltage of the single module is 48V, series connection is allowed up to 5 modules of 256V. Parallel of multi systems is supported.

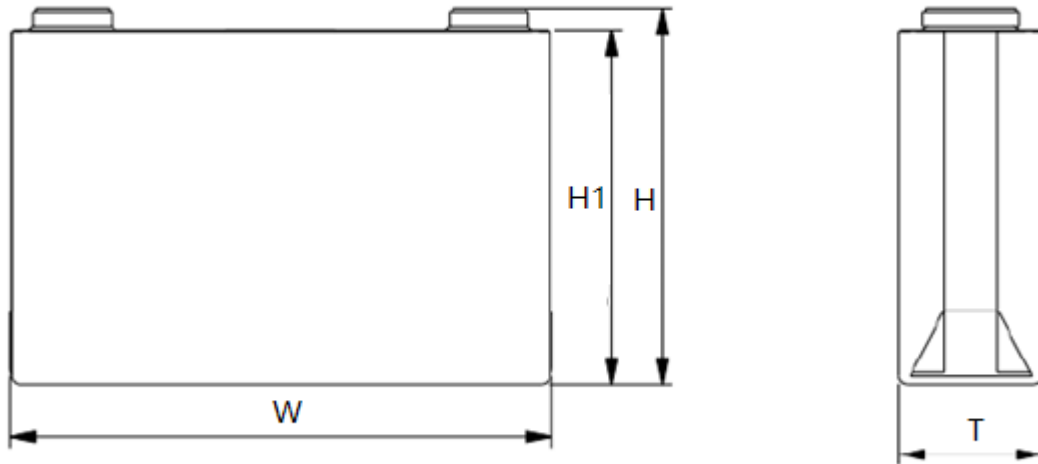
2. Features

- Adopt high safety, long life, excellent performance LiFePO4 prismatic cells;
- Over 4000 times of cycle life;
- Intelligent BMS to ensure a safe reliable operation;
- Parallel on cabinet level available;
- Multiple communications including RS485, CAN;
- Modular rack design for easier installation and smaller landscape.



3. Specifications

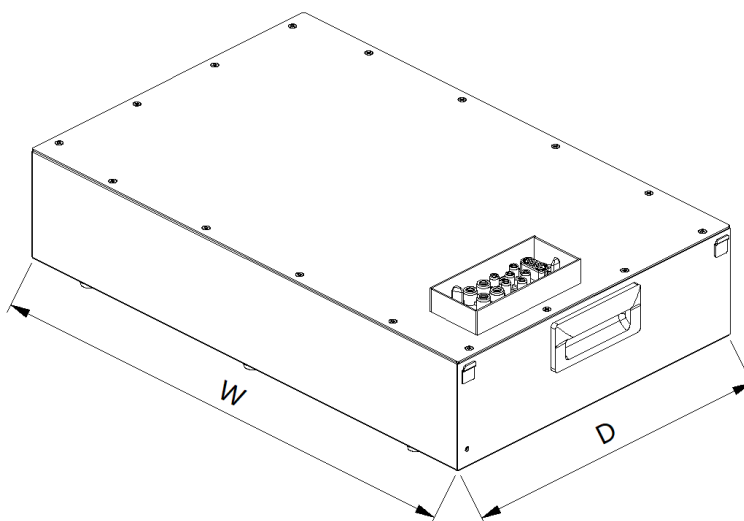
3.1. Cell Parameters



No.	Items		Parameters	
1	Cell Type		LiFePO4 Prismatic	
2	Nominal Voltage		3.2V	
3	Nominal Capacity		50Ah	100Ah
4	Maximum Charge Current	Continuous	50A	100A
5		Peak for 10s	100A	200A
6	Maximum Discharge Current	Continuous	50A	100A
		Peak for 30s	150A	300A
7	Dimensions (T*W*H)		39*148*101mm	27*174*207mm
8	Weight		1.18±0.05kg	2.18±0.05kg
9	Temperature Range	Charging	0°C ~ 55°C	
		Discharging	-20°C-55°C	
		Recommended Working	15°C ~ 35°C	

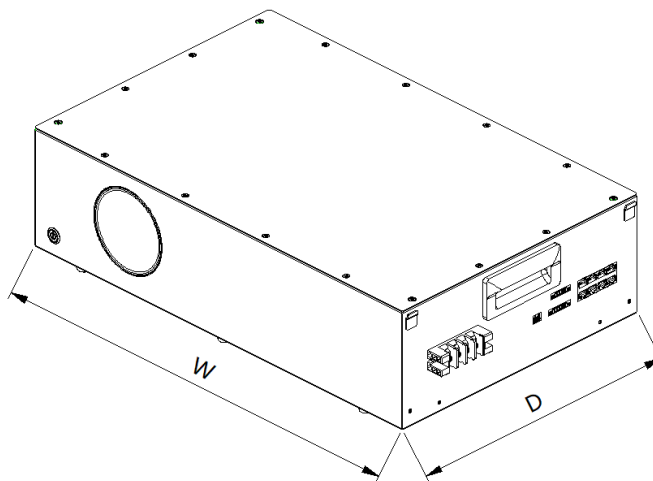


3.2. Battery Module Parameters



No.	Items	Parameters	
1	Model	GA-FS4850-16OSR1	GA-FS48100-16OSR1
2	Cell Configuration	16S1P	16S1P
3	Nominal Capacity	50Ah	100Ah
4	Nominal Energy	2560Wh	5120Wh
5	Weight (Approx.)	36kg	45kg
6	Dimensions (W*D*H)	567*350*160±2mm	648*400*175±2mm

3.3. Main Control Module Parameters



No.	Items	Parameters	
1	Model	GA-MC500-100M1	GA-MC500-100M2
2	Operation Voltage Range	200Vdc – 500Vdc	
3	Maximum Operation Current	≤100A	
4	Communication	CAN、RS485、RS232	
5	Weight	15kg±300g	
6	Dimensions (W*D*H)	567*350*150±2mm	648*400*150±2mm

3.4.



3.5. System Parameters



3.5.1. General Specifications

No.	Items		Parameters							
1	Model		HV-Mate_50 Series				HV-Mate_100 Series			
2	Main Control Module		GA-MC500-100M1				GA-MC500-100M2			
3	Battery Module Type		GA-FS4850-16OSR1				GA-FS48100-16OSR1			
4	Nominal Capacity(Ah)		50				100			
5	Chemistry		LiFePO4							
6	Battery Module QTY		2	3	4	5	2	3	4	5
7	Module Configuration		32S1P	48S1P	64S1P	80S1P	32S1P	48S1P	64S1P	80S1P
8	Nominal Energy(kWh)		5.12	7.68	10.24	12.8	10.24	15.36	20.48	25.6
9	Voltage	Nominal(V)	102.4	153.6	204.8	256	102.4	153.6	204.8	256
		Recommend Charging(V)	113.6	170.4	227.2	284	113.6	170.4	227.2	284
		Max. Charging(V)	116.8	175.2	233.6	292	116.8	17.52	233.6	292
		Discharge Cut-off(V)	93.7	140.6	187.5	234.4	93.7	140.6	187.5	234.4
10	Current	Max. Charging(A)	50				80			
		Max. Discharging(A)	50				80			
		Peak for 10s(A)	75				100			
11	Weight (Approx.)		203kg @12.8 kWh				236kg @25.6 kWh			
12	Dimensions (L*H*W))		635 x 965 x 350 mm @12.8 kWh				735*1040 *400mm @25.6 kWh			
13	Communication		RS485, CAN							
14	Cycle Life		4000 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)							

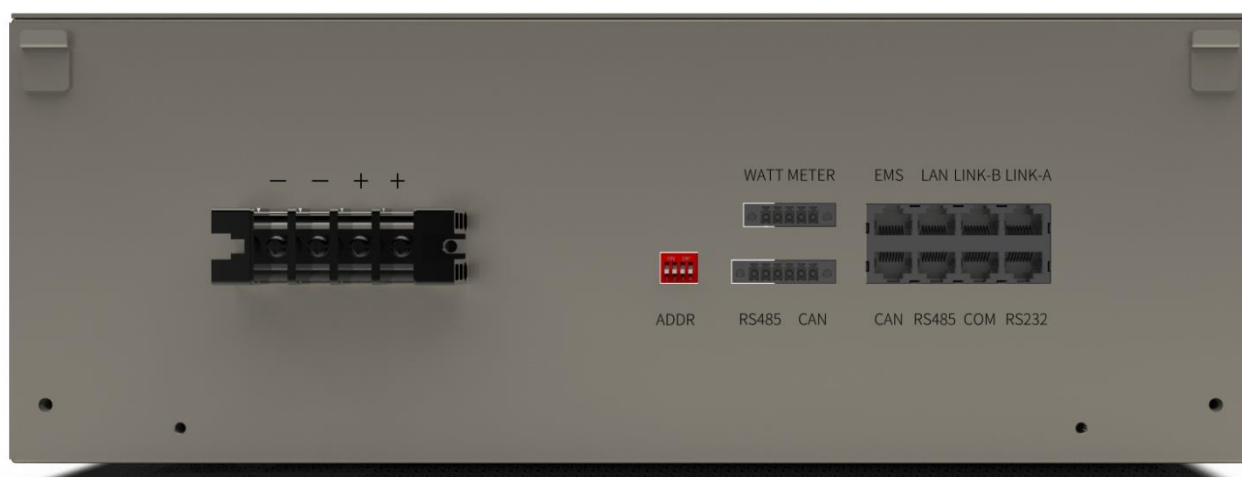


18	Cable Outlet	Top-back
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3.5.2. Environment Specifications

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

3.5.3. Interface View



No.	Items	Instructions
1	Link-A	Multi-device parallel connection
2	Link-B	Multi-device parallel connection
3	LAN	TCP/IP communication connection
4	EMS	EMS communication connection
5	Watt Meter	Watt Meter connection
6	RS232	RS232 communication connection
7	COM	Upper computer communication connection
8	RS485	Inverter RS485 communication connection
9	CAN	Inverter CAN communication connection
10	CAN	Inverter CAN communication connection
11	RS485	Inverter RS485 communication connection
12	ADDR	Address Dial Switch
13	+	Power anode*2
14	-	Power cathode*2

4. Electrical Schematic



