



Energy storage power supply specifications

Project NO: 20320-CT-25.6V5KWH1KW

Model: /

Nominal Power: 1000W

Nominal Energy: 25.6KWh

Capacity: 200Ah



Energy storage power supply manual and data sheet



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1. Foreword

This spec describes all technical parameters for 20320-CT-25.6V5KWH1KW, for guiding the producing, test, and purchase.

2. Reference Standard

T.B.D

3. Basic Information

Description:	Portable energy storage power supply
Cell Type:	IFP23140160-50Ah
Chemistry:	LiFePO4
Cell configuration:	4P8S
Battery Nominal Voltage:	25.6V
Battery Nominal Capacity:	200Ah
Battery Nominal Energy:	5120Wh
AC Nominal Power:	1000W
Additional Function:	AC,USB, Type-c,DC

4. Electrical Characters

Index	Item	Parameter Spec	Remark
4.1 Battery Spec			
1	Rated Voltage	25.6V	
2	Rated Capacity	200Ah (0.2C charge and discharge 25°C)	
3	Charge Voltage	28.8V	Cut-off current : 0.05C
4	Rated Charge Current	40A	
5	Max Charge Current	100A	
6	Max Discharge Current	100A	
7	Internal Resistance	≤50mΩ	
8	Cell Operation Temperature	Charge: 0°C~45°C Discharge: -20°C~60°C	
9	Life Cycle	2000 times (80% DOD、25°C) Remaining 80% capacity	0.2C charge and discharge
4.2 Charge			
AC Charge			
1	Input Voltage Range	90-120	Rated 110VAC
2	Input Frequency	45Hz~65Hz	Rated 50/60Hz
3	Max Input Current	10A	AC
4	Max charging power	800W	
5	Power Factor	≥0.99	Full Load



PV charge				
1	System voltage		24V	
2	Maximum charging current		40A	
3	Maximum PV open circuit voltage		92V	The excess power will burn the MPPT
4	Rated charging current		40A	
5	Maximum PV input power PV		1040	
4.3 Inverter				
1	Rated Voltage		110Vac	
2	Rated output current		10A	
3	Output voltage range		90-110Vac	
4	Rated output frequency		50Hz /60Hz	Adjustable
5	Peak output		1500W	3s
6	Rated output		1000W	
7	The machine efficiency		88%	Under rated operating conditions
8	Output power factor		1	Under rated operating conditions
10	Dynamic transient recovery time		100ms	
11	Voltage waveform		Sine wave THD < 3% (linear load)	
			Sine wave THD < 8% (nonlinear load)	
12	Overload capacity		105-125% lasts no less than 10S, 125-150% lasts no less than 3s	
3	Number of output ports		4pcs	parallel
4.4 DC				
1	Type-C	Power	PD60W	2 output ports, each output 60W
		5V	5±0.2V	
		9V	9±0.4V	
		12V	12±0.4V	
		15V	15±0.7V	
		20V	20±1V	
		Current	3A	
1. Each channel supports 60W power; 2. Integrated PD2.0/3.0; 3. Support QC2.0/3.0 CLASS A/B; 4. Support MTK PE+1.1, FCP 5. Compatible with BC1.2/APPLE/SAMSUNG charging protocol				
2	DC5521	12V	12-12.5V	Four-way DC5521 and smoke outlet
	Cigarette Port	12V	12-12.5V	The output is 10A in total and can be single output 10A
	Current	10A		
Four-way DC5521 and smoke port output total 10A, can single output 10A				
3	OC3.0	Power	24W	
		Voltage/Current 1	5±0.2V/3.6A	
		Voltage/Current 2	9±0.4V/2.5A	

		Voltage/Current 2	12±0.6V/2A	
USB A 1 and USB A 2 support QC2.0/3.0 AFC FCP SCP VOOC separately, and support 5V2.4A simultaneously				
USB A 3 and USB A 4 support QC2.0/3.0 AFC FCP SCP VOOC separately, and support 5V2.4A simultaneously				
4	5V/2.4A	Power	12W	
Each outlet supports 5V2.4A				
4.5. Mechanical and Structure				
1	Dimension	588*260*515mm		
2	Weight	61 KG	Probably	
3	Color	Black		

5. Certification

T.B.D.

6. System Block Diagram

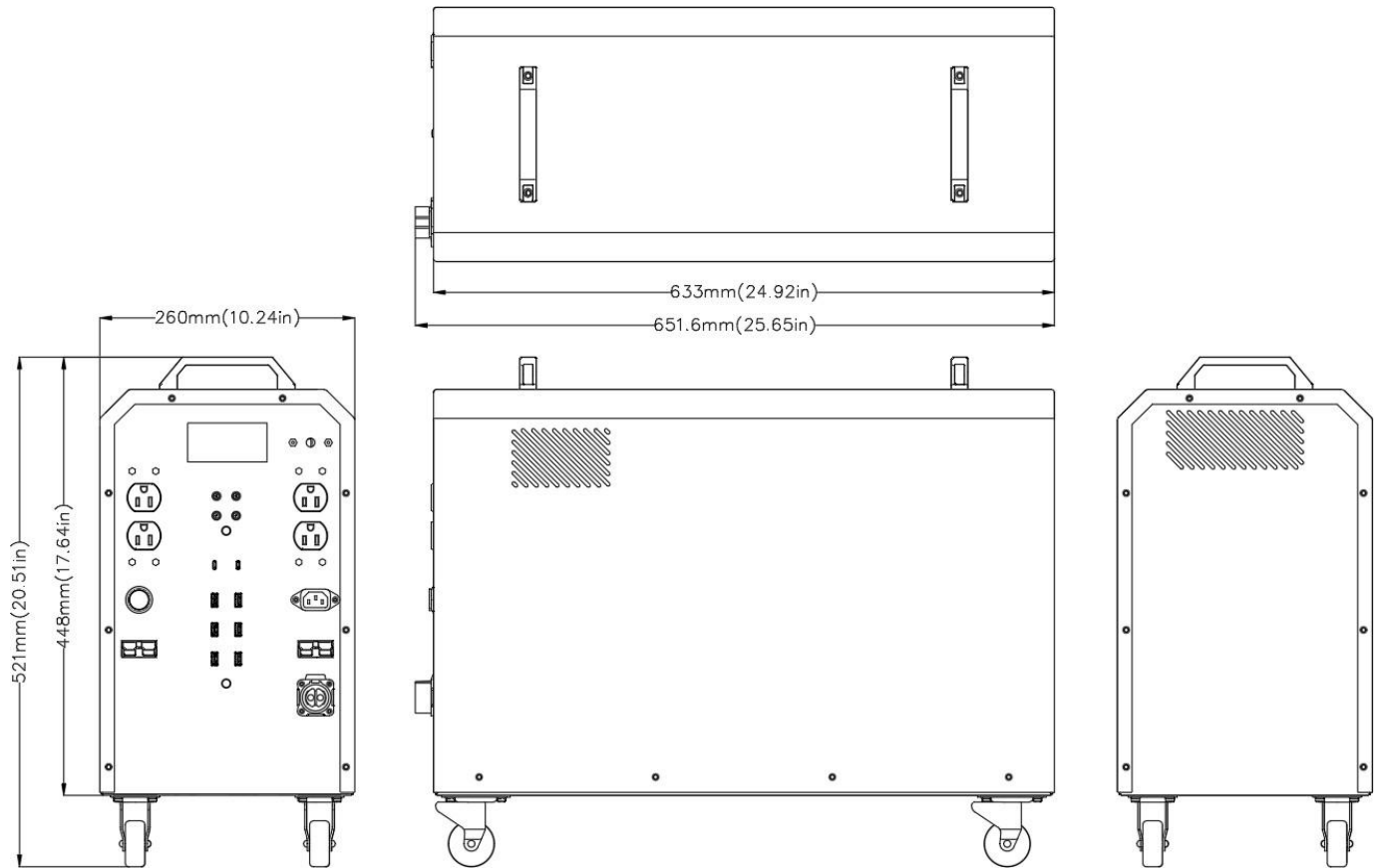
T.B.D.

7. Mechanical Information

7.1. Sample Picture



7.2. The drawing of structural dimension



7.3. Display panel



(1) Battery Capacity



Percentage power display indicates the current battery power. Orange circle rolls while charging. The display is not displayed when the communication with the battery protection board is abnormal.

(2) **Remaining Charge Time**



It displays the remaining charging time.

(3) **Remaining Discharge Time**



It displays battery available time.

(4) **Input Power**



When charging, it will display the total input power of charging. Otherwise, 0W will be displayed.



It indicates the current charging status of the solar panel,



It indicates the current AC charging status.

(5) **Output Power**



It displays load power after startup and load connection.



The current power is the output power of DC and USB and LED indicator board, when only this icon is on.



If this icon is on, the current power is the inverter output power. When the two ICONS are lit up at the same time, it indicates the total output power. When an exception occurs, the exception code can be displayed:

二、 **Electrical Connection**

Conventional Exception Display:

dCSC: DC Short Trouble; dCOC:

DC Overcurrent Fault; ACSC: AC

Short Trouble; ACOC: AC

Overcurrent Fault;

inOV: The input overvoltage is faulty;

inUV: The input undervoltage is faulty;

Other exception display:

E+ Exception source + code number.

Fault source: 0 indicates a DC fault. 1 indicates an AC fault;

Code number: 1/2 indicates output short-circuit or overcurrent, 3/4 indicates overtemperature,

5 indicates input overvoltage, 6 indicates input undervoltage, and 9 indicates that the fan is abnormal.

(6) **Inverter Frequency Display**

50Hz 60Hz After the inverter is enabled, the current inverter output frequency is 50Hz or 60HZ. Otherwise, the inverter output frequency is not displayed.

(7) **Inverter Voltage Display**

220v 110v After the inverter is turned on, 110V or 220V will be displayed. Otherwise, it will not be displayed.

(8) **Light Status Display**



When the lamp is on, it indicates that the lamp is on. Otherwise, it will not be displayed.

(9) **No Load Automatic Shutdown Status Display**



When it is on, it indicates that the current work is in the state of automatic shutdown with low current (power). Otherwise, it will not be displayed.

(10) **Abnormal Indication**



When it is on, it indicates that the current working status is abnormal. Otherwise, it will not be displayed.

(11) **Low Temperature Alarm**



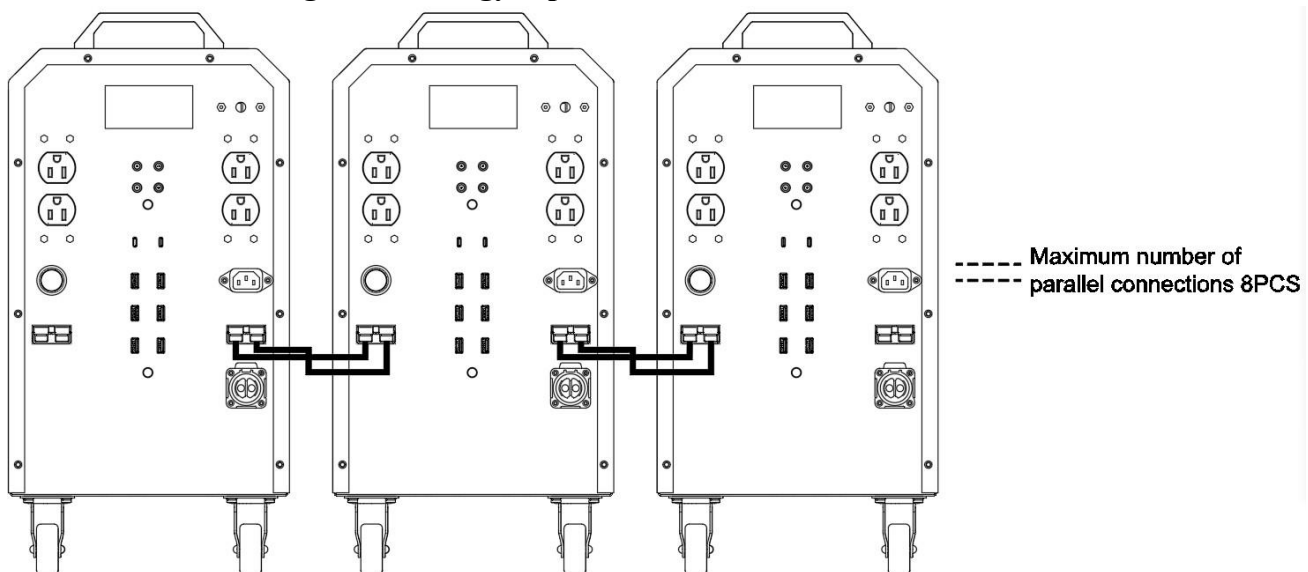
When it is steady on, charging is prohibited at low temperature; when it is blinking, discharging is prohibited at a low temperature; when it is normal, it is not displayed.

(12) **High Temperature Alarm**



When it is steady on, it indicates that charging is prohibited at high temperature. When it is blinking, it indicates that discharging is prohibited at high temperature.

7.4. Schematic diagram of energy expansion

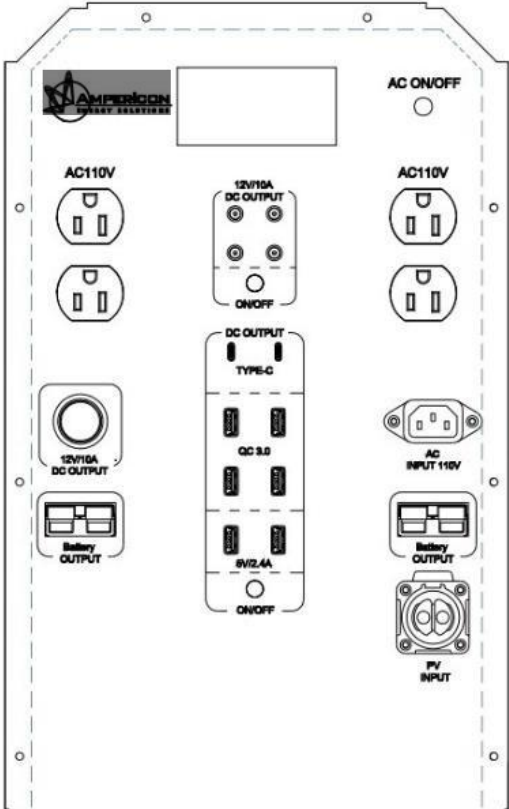


7.5. Label

70*50mm

7.6. Silk Print

Date	Version	Change Content	Name
2021/07/26	A0	Initial release	GuipinLu
2021/08/24	A1	Drawing revision and update	GuipinLu



The diagram shows the front panel of a power station chassis. It includes two AC 110V input ports at the top, a central DC output section with a 12V/10A output, a DC output TYPE-C port, a QC 3.0 port, and a 5V/2.1A output. On the right side, there is an AC 110V input port, an AC input 110V port, a battery output port, and a PV input port. The top left corner features the AMPERICON logo.

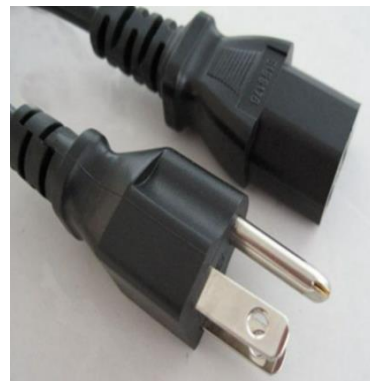
Remark:

1. The chassis base surface is sprayed with powder and black color.
2. The silk screen is white and it's line width 0.7mm.
3. The screen printing effect drawing should be confirmed with the project leader.

1st ANGLE				SELECT LEVEL			
DIM.	I	II	III	LEVEL			
<3	±0.03	±0.05	±0.15	II	Drawing No. 20320-BJ-01-A1		
>3~50	±0.05	±0.10	±0.15		N of Material Chassis Base		
>50~100	±0.05	±0.10	±0.2		Ps of material 1.03.006.0043		
>100	±0.05	±0.15	±0.3		Material / Unit		
ANGULAR	±0.5°	±0.5°	±1°		Page 1/1 Ratio 10:1 Version A/1		

7.7. Accessories.

Solar charging connector



7.8. Packing





8. Precautions

Direction for Use:

1. Please read the specifications or instructions carefully before using the product.
2. In the process of use, should be away from the heat source, high pressure, do not fall.
3. Do not short-circuit the positive and negative poles, do not disassemble and install the battery by yourself, and do not let the battery be placed in the damp place, so as to avoid danger.
4. When not used for a long time, please store the battery well and let the battery be in a semi-charged state. Please wrap the battery with non-conductive material to avoid direct metal contact with the battery, which may cause damage to the battery. Store the battery in a cool and dry place.
5. Please handle the discarded batteries safely and properly, and do not put them into fire or water.

Danger warnings

1. Do not disassemble or install batteries or components inside the product.
The product has internal protection mechanism and protection circuit to avoid the occurrence of danger. Improper disassembly and assembly will damage the protection function, which will cause the product to heat, smoke, distort or burn.
2. Do not short-circuit the battery inside the product
Do not connect the anode and cathode of the battery with metal, and do not store and move the battery pack and metal sheet together. If the battery is short-circuited, excessive current will flow through it, which will damage the fuse.
3. It is strictly prohibited to heat and incinerate the battery inside the product.
Heating and burning the battery will cause the battery barrier to melt, loss of safety functions or electrolyte combustion, overheating will make the battery hot, smoke, deformation or combustion.
4. Avoid using it near a heat source.
Do not use in the vicinity of fire source, oven or above 80°C environment, overheating will lead to internal short circuit, make it hot, smoke, deformation or combustion.
5. do not soak the product to make the internal battery wet.
Do not wet the battery, not to put the battery into water, otherwise it will cause the loss of internal protection circuit and function of the battery and abnormal chemical reaction, the battery may heat, smoke, deformation or combustion.
6. Do not live dismantling machine.



When the product is working, there is a high voltage inside. Before disassembling the machine, it must be shut down first to ensure that all the output interfaces have no voltage.

7. Do not damage the product.

Do not use metal chisel into the product, hammer or throw or other methods to destroy the battery, otherwise the battery will cause heat, smoke, deformation or burning, and even dangerous.

8. Direct welding on the battery body inside the product is prohibited.

Overheat will cause the battery isolator to melt, loss of safety protection function, make the battery heat, smoke, deformation or combustion.

9. Do not touch the leaky battery directly

Leakage of electrolyte will cause skin discomfort, in case of electrolyte into the eyes, rinse with water as soon as possible, and quickly sent to the hospital for treatment.。