



# Product Specifications

Power Base Max-X

Home Energy Storage System

**Version: V3.0**

**Date: 2021-11-25**



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## 1. Introduction

The Power Base Max-X is the Off-grid and Grid-Tied type of energy storage system which integrated battery system, inverter system and control system. Its application is very convenient, which input can directly connected the power grid, oil machine or photovoltaic panels, output can directly connected to the load. This system can provide a quick solution for photovoltaic energy storage or uninterrupted power supply.

## 2. Functions

The product adopts the cabinet type, the modular structure design, has the better installation and the transportation convenience. The system is equipped with efficient and accurate battery management system and energy management system, with perfect precharge, predischage, overcharge, overdischarge, overcurrent, overtemperature and short-circuit protection functions.

The system is composed of cabinet, battery modules and split-phase inverter.

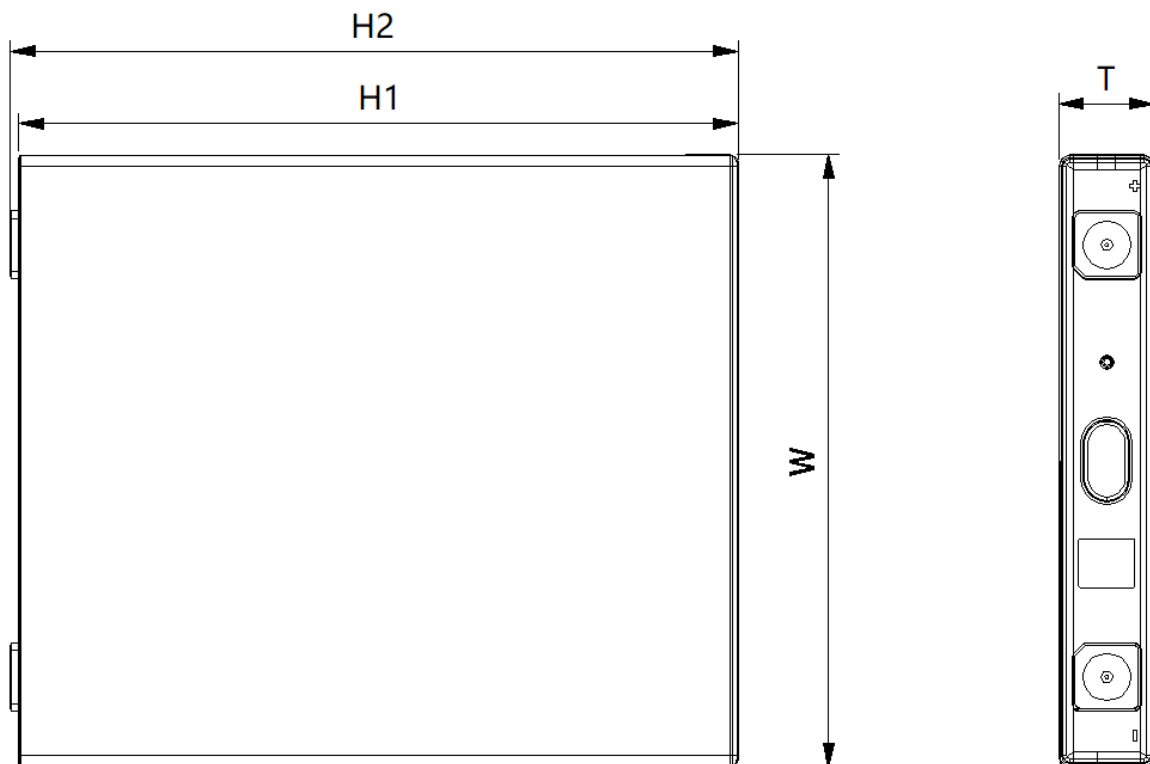
The system supports capacity expansion function and supports the parallel use of up to 9 cabinets. It is widely used in household energy storage, off-grid energy storage and other fields. The products have the following characteristics:

- When the grid power is suddenly cut off, stable power supply can be provided independently for users.
- When the power grid does not provide power for a long time, the generator is supported to connect in for power supply and system charging.
- Maximum 12kW load.
- It adopts power frequency inverter, with strong carrying capacity, stable and reliable operation and high safety performance.
- The system has three levels of protection function, better guarantee the safety of the product.
- The inverter is integrated with the lithium battery system, which occupies a smaller area and can be installed quickly and easily.
- The frame structure is adopted to realize the arbitrary capacity combination.
- Supports replacement of old and new lithium battery modules.



### 3. Basic Features

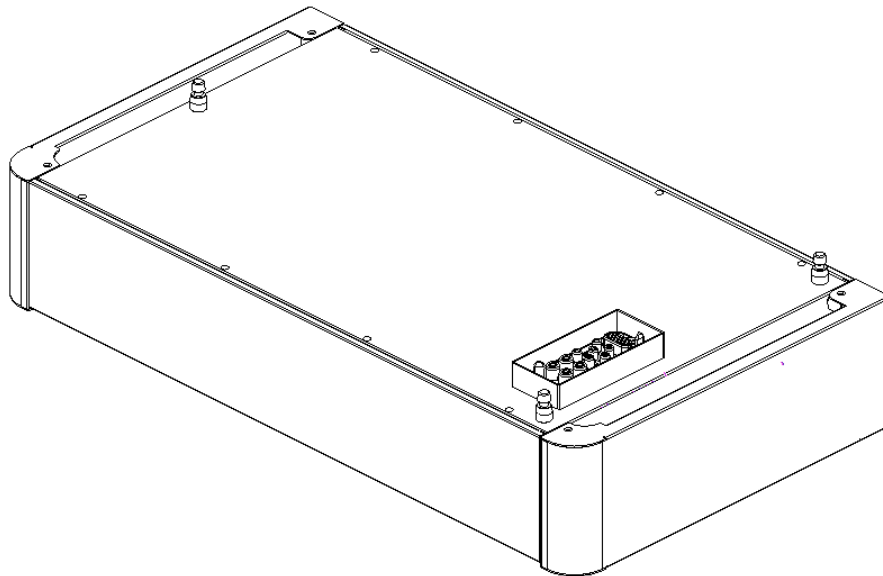
#### 3.1. Cell Parameters





No.	Items	Parameters	
1	Cell Type	LiFePO4 Prismatic	
2	Nominal Capacity	100Ah	
3	Nominal Voltage	3.2V	
4	Maximum Charge Current	Continuous	1C
5		Peak for 30s	2C
6	Maximum Discharge Current	Continuous	1C
		Peak for 30s	3C
7	Temperature Range	Charging	0°C~55°C
		Discharging	-20°C-55°C
		Recommended Working	15°C~35°C
8	Dimensions	W	174.7±0.5mm
		H1	204.5±0.5mm
		H2	207.0±0.5mm
		T	27.5±0.5mm
9	Weight	2.18±50g	

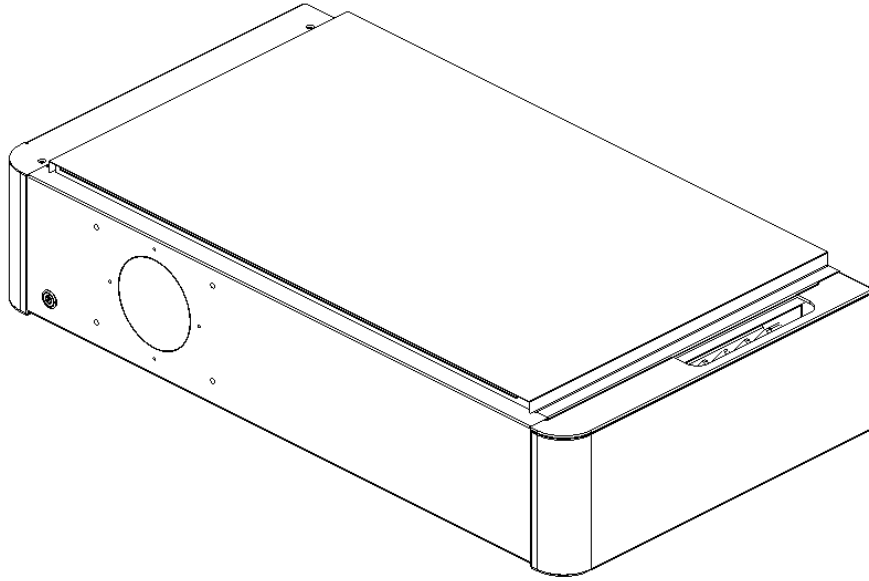
### 3.2. Battery Module Parameters



No.	Items	Parameters	
1	Model	ZR-FS48100-15OSJ1	ZR-FS48100-16OSJ1
2	Cell Configuration	15S1P	16S1P
3	Nominal Voltage	48V	51.2V
4	Nominal Capacity	100Ah	100Ah
5	Nominal Energy	4800Wh	5120Wh
6	Weight (Approx.)	49kg±1kg	51kg±1kg
7	Dimensions (W*D*H)	735*400*175±2mm	



### 3.3. Main Control Module Parameters



No.	Items	Parameters
1	Model	ZR-MC100-200M2
2	Operation Voltage Range	33.6V~62.4V
3	Maximum Operation Current	≤300A
4	Communication	CAN、RS485、RS232
5	Weight(Approx.)	18kg
6	Dimensions (W*D*H)	735*400*162±2mm

### 3.4. System Features



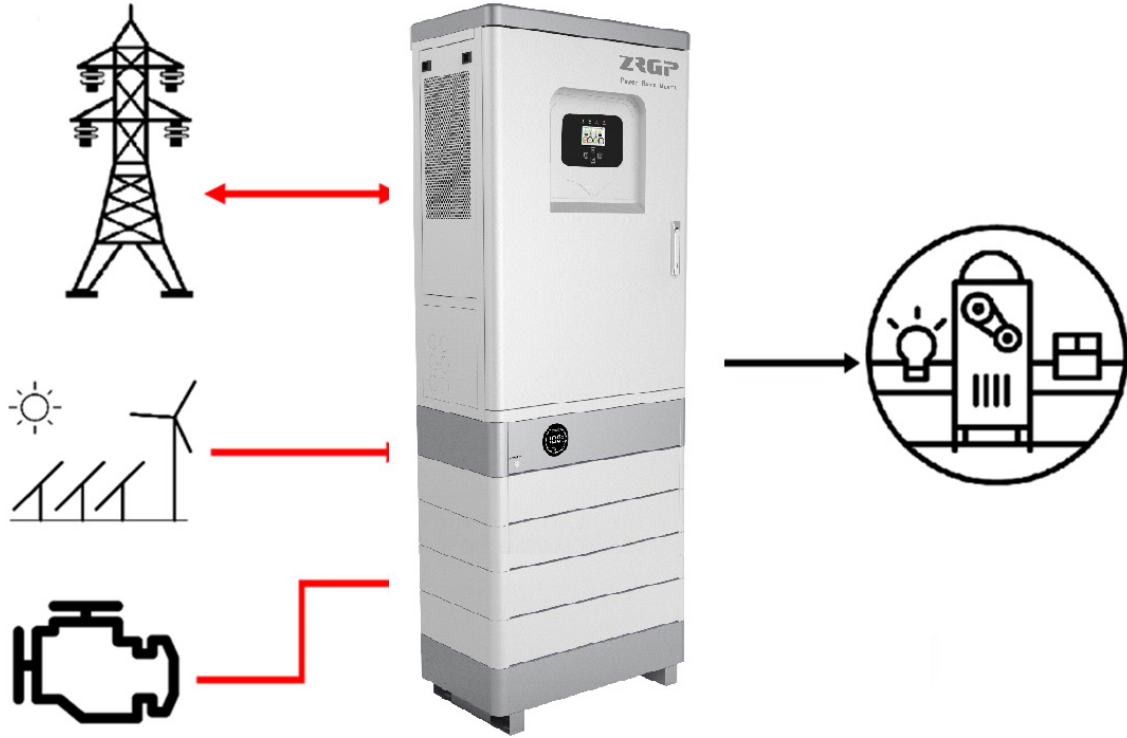


Basic Information		
Rated Energy	19.2kWh	20.48kWh
Battery Module Type	ZR-FC48100-150SJ1	ZR-FC48100-160SJ1
Inverter Module Type	Sol-Ark LIMITLESS 15K-LV	
Rated Power	15000W	
Nominal Output Voltage RMS	120/240/208V split phase	
Output Frequency	50Hz/60Hz	
Inverter Efficiency (Peak)	97.5%	
Response Time (Grid-Tied to Off-Grid)	5ms	
Operating temperature	-20℃ ~55℃, >45℃ derating	
Solar Output Power 12000W		
Max allowed PV Power	17,000W	
Max PV power delivered to Battery & AC outputs	15,000W	
Max DC voltage	500V	
MPPT voltage range	125-425V	
MPPT Starting voltage	150V	
Number of MPPT	3	
Solar Strings per MPPT	2	
Max DC current per MPPT (self limiting)	26	
Max AC Coupled Input (Micro/String Inverters)	24,000W	
AC Output Power 9000W On Grid & 8000W Off Grid		
Connections	120/240/208V split phase	
Continuous AC power to Grid (On Grid)	15,000W 62.5A L-L (240V)	
Continuous AC power to Loads (Off Grid)	12,000W 50A L-L (240V)	
Surge AC power 10sec	24,000VA L-L (240V)	
Parallel Stacking	12	
Continuous AC power with Grid or Generator	48000W 200A L-L (240V) 24000W 200A L-N (120V)	
Sell back power modes	Limited to Household or Full Grid-Tied	
Design (DC to AC)	Transformer less DC	
Power Factor	+-0.9 - 1.0	
Mechanical Specifications		
Dimension(W*H*D)	735*1985*400mm ± 2mm	
Net weight (Approximate )	307kg&315 ± 2kg	
Level of protection	IP55	

## 4. System Structure

### 4.1. System Features

The application architecture of the system is shown as follows:



### 4.2. System Wiring Schematic

The system wiring schematic of the system is shown as follows:

