

#### KING POLARIS NEW ENERGY STOCK CO., LTD., SHANDONG

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山东金宝来新能源股份有限公司 KING POLARIS NEW ENERGY STOCK CO., LTD., SHANDONG

#### Hello!

Thank you for choosing and using CONCENPOWER energy storage system.

If you have any questions during use, please go to our official website (www.cocenpower.com) and we will provide you with corresponding technical support.

For more new products information, please check on the official website.



### Concentrate Power

## Stacked

**Energy Storage System** 

Stacked energy storage systems can be connected in series and parallel according to customer needs. The capacity of a single battery pack is divided into 2.66kwh, 5kwh, 10kwh, customers can choose according to their own needs

## High Voltage Series Connection System

7.5kWh-1200kWh energy storage system

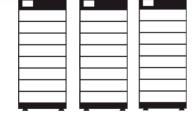
The CON-HVS battery cabinet is composed of 3-8 battery packs connected in series. The voltage range is from 153.6V to 409.6V. Depending on the capacity of a single battery pack, the capacity of a single battery cabinet ranges from 7.5kWh to 20kWh, 15kWh to 40kWh, and 30kWh to 80kWh. A single battery cabinet can support 1-3 phase inverters.

A CON-HVS energy storage system formed by connecting battery packs in series. In addition, 1 to 15 battery canbinets can be directly connected in parallel, and the total capacity can achieve 7.5kWh to 300kWh,15kWh to 600kWh, 30kWh to 1200kWh. The high-voltage series system works with the battery combiner box, which can support 1  $\sim$  3 phase inverters



#### **Battery Cabinet**

Multiple battery package connected in series



#### 15 x Battery Cabinet

Can support up to 15 battery cabinets in paralle connection

Voltage Range 153.6V to 409.6V



#### Change Anytime

The capacity of the battery cabinets can be freely combined according to the actual situation



#### High Voltage

High voltage output matches more electrical appliances

#### **Battery Package Series Connection**

The high-voltage battery cabinet is composed of 3-8 battery packs connected in series. The voltage range is from 153.6V to 409.6V. Depending on the capacity of a single battery pack, the capacity of a single battery cabinet ranges from 7.5kwh to 20kWh, 15kWh to 40kWh, and 30kWh to 80kWh. A single battery cabinet can support 1-3 phase inverters.

#### **Battery Cabinet Parallel Connection**

A high-voltage series energy storage system formed by connecting battery packs in series. In addition, 1 to 15 battery canbinets can be directly connected in parallel, and the total capacity can achieve 7.5kWh to 300kWh,15kWh to 600kWh, 30kWh to 1200kWh. The high-voltage series system works with the battery combiner box, which can support  $1 \sim 3$  phase inverters

#### Off Grid & Backup

High-capacity energy storage systems can be used for off-grid applications and emergency backup power. Whether it is for remote large-scale equipments or backup power for sensitive loads, CONCENPOWER can provide you with a suitable energy storage combination solution.

#### Residential & Commercial

Whether it is residential or commercial, you can build it with modular battery pack. For installers, the modular design can increase or decrease the capacity during the user's use.

#### Self Consumption

With the rise of electricity prices around the world, the reduction of subsidies for new energy power generation, and the generation of 'peak and valley' electricity prices, the self-consumption of new energy power generation will become the future.

#### 2.5kWh Series











Battery Package	High Voltage Battery Package (2.5kWh, 51.2V,26Kg)					
Number of Package	3	4	5	6	7	8
Usable Capacity	7.5kWh	10kWh	12.5kWh	15kWh	17.5kWh	20kWh
Cont. Output Current	100A	100A	100A	100A	100A	100A
Peak Output Current	120A,1s	120A,1s	120A,1s	120A,1s	120A,1s	120A,1s
Nominal Voltage	153.6V	204.8V	256V	307.2V	358.4V	409.6V
Operating Voltage	120~175.2V	160~233.6V	200~292V	240~350.4V	280~408.8V	320~467.2V
Dimensions (H/W/D)	840* 300*550mm	1020* 300*550mm	1200* 300*550mm	1380* 300*550mm	1560* 300*550mm	1740* 300*550mm

Operating Temperature	-10°C~50°C	
Battery Type	Lithium iron phosphate Battery (LiFePO4)	
Communication	RS485 + CAN	
Enclosure Protection Rate	IP55	
Round-trip Efficiency	≥ 95%	
Applications	OFF grid (Backup) / ON Grid + OFF Grid (Backup)	

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

#### 5 Kwh / 10Kwh Series













Battery Package	High Voltage Battery Package (5kWh, 51.2V,65Kg)						
5Kwh Package Usable Capacity	15kWh	20kWh	25kWh	30kWh	35kWh	40kWh	
Dimensions (H/W/D)	870* 435*700mm	1060* 435*700mm	1250* 435*700mm	1440* 435*700mm	1630* 435*700mm	1820* 435*700mm	
Battery Package		High Voltage Battery Package (10kwh, 51.2V,135Kg)					
10Kwh Package Usable Capacity	30kWh	40kWh	50kWh	60kWh	70kWh	80kWh	
Dimensions (H/W/D)	1095* 435*700mm	1360* 435*700mm	1625* 435*700mm	1890* 435*700mm	2155* 435*700mm	2420* 435*700mm	
Cont. Output Current	120A	120A	120A	120A	120A	120A	
Peak Output Current	150A,1s	150A,1s	150A,1s	150A,1s	150A,1s	150A,1s	
Nominal Voltage	153.6V	204.8V	256V	307.2V	358.4V	409.6V	
Operating Voltage	120~175.2V	160~233.6V	200~292V	240~350.4V	280~408.8V	320~467.2V	

Operating	Temperature

-10°C~50°C

Battery Type	Lithium iron phosphate Battery (LiFePO4)			
Communication	RS485 + CAN			
Enclosure Protection Rate	IP55			
Round-trip Efficiency	≥ 95%			
Applications	OFF grid (Backup) / ON Grid + OFF Grid (Backup)			

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application

<sup>2:</sup> Refer to battery warranty letter for conditional application



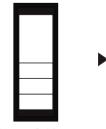
## Rack-mounted energy storage System

2.5kWh-900kWh energy storage system

The Rack-mounted battery cabinet is composed of 1-6 battery packs connected in parallel. The voltage is stable at 51.2V. Depending on the capacity of a single battery pack, the capacity of a single battery cabinet ranges from 2.5kWh to 15kWh, 5kWh to 30kWh, and 10kWh to 60kWh. A single battery cabinet can support 1-3 phase inverters.

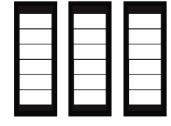
A Rack-mounted energy storage system formed by connect-

ing battery packs in parallel. In addition, 1 to 15 battery canbinets can be directly connected in parallel, and the total capacity can achieve 2.5kWh to 225kWh,5kWh to 450kWh, 10kWh to 900kWh. The low-voltage parallel system works with the battery combiner box, which can support 1-3 phase inverters



**Battery Cabinet** 

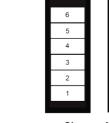
Multiple battery package connected in series



15 x Battery Cabinet

Can support up to 15 battery cabinets in paralle connection

Voltage Range stable at 51.2V



Change Anytime

The capacity of the battery cabinets can be freely combined according to the actual situation



51.2V Output

51.2V output matches more 1-3 phase high power inverter

#### **Battery Package Parallel Connection**

The Rack-mounted battery cabinet is composed of 1-6 battery packs connected in **parallel**. The voltage is stable at 51.2V. Depending on the capacity of a single battery pack, the capacity of a single battery cabinet ranges from 2.5kWh to 15kWh, 5kWh to 30kWh, and 10kWh to 60kWh. A single battery cabinet can support 1-3 phase inverters.

#### **Battery Cabinet Parallel Connection**

A Rack-mounted parallel energy storage system formed by connecting battery packs in parallel. In addition, 1 to 15 battery canbinets can be directly connected in parallel, and the total capacity can achieve 2.5kWh to 225kWh,5kWh to 450kwh, 10kWh to 900kWh. The low-voltage parallel system works with the battery combiner box, which can support 1-3 phase inverters

#### Off Grid & Backup

High-capacity energy storage systems can be used for off-grid applications and emergency backup power. Whether it is for remote large-scale equipments or backup power for sensitive loads, CONCENPOWER can provide you with a suitable energy storage combination solution.

#### Residential Use

The product configuration is more suitable for the field of home energy storage, and the stable system voltage of 51.2V can match more home inverters.

#### Self Consumption

With the rise of electricity prices around the world, the reduction of subsidies for new energy power generation, and the generation of 'peak and valley' electricity prices, the self-consumption of new energy power generation will become the future.

#### 2.5kWh Parallel

Battery Package		Battery Package (2.5kWh, 51.2V,26Kg)					
Number of Package	1	2	3	4	5	6	
Usable Capacity	2.5kWh	5kWh	7.5kWh	10kWh	12.5kWh	15kWh	
Cont. Output Current	52A	104A	104A	104A	104A	104A	
Peak Output Current	180A,1s	180A,1s	180A,1s	180A,1s	180A,1s	180A,1s	
Nominal Voltage	51.2V	51.2V	51.2V	51.2V	51.2V	51.2V	
Operating Voltage	40-58.4V	40-58.4V	40-58.4V	40-58.4V	40-58.4V	40-58.4V	
Dimensions (H/W/D)	480* 300*550mm	660* 300*550mm	840* 300*550mm	1020* 300*550mm	1200* 300*550mm	1380* 300*550mm	

Operating Temperature	-10°C~50°C	
Battery Type	Lithium iron phosphate Battery (LiFePO4)	
Communication	RS485 + CAN	
Enclosure Protection Rate	IP55	
Round-trip Efficiency	≥ 95%	
Applications	OFF grid (Backup) / ON Grid + OFF Grid (Backup)	

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

#### 5 kWh / 10kWh Parallel

Battery Package	Battery Package (5kWh, 51.2V,65Kg)						
5Kwh Package Usable Capacity	5kWh	10kWh	15kWh	20kWh	25kWh	30kWh	
Dimensions (H/W/D)	490* 435*650mm	680* 435*650mm	870* 435*650mm	1060* 435*650mm	1250* 435*650mm	1440* 435*650mm	
Battery Package		Battery Package (10kWh, 51.2V,135Kg)					
10Kwh Package Usable Capacity	10kWh	20kWh	30kWh	40kWh	50kWh	60kWh	
Dimensions (H/W/D)	565* 435*700mm	820* 435*700mm	1095* 435*700mm	1360* 435*700mm	1625* 435*700mm	1890* 435*700mm	
Cont. Output Current	52A	104A	104A	104A	104A	104A	
Peak Output Current	180A,1s	180A,1s	180A,1s	180A,1s	180A,1s	180A,1s	
Nominal Voltage	51.2V	51.2V	51.2V	51.2V	51.2V	51.2V	
Operating Voltage	40-58.4V	40-58.4V	40-58.4V	40-58.4V	40-58.4V	40-58.4V	

Operating Temperature	-10°C~50°C
Battery Type	Lithium iron phosphate Battery (LiFePO4)
Communication	RS485 + CAN
Enclosure Protection Rate	IP55
Round-trip Efficiency	≥ 95%
Applications	OFF grid (Backup) / ON Grid + OFF Grid (Backup)

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application

<sup>2:</sup> Refer to battery warranty letter for conditional application

Wall Mounting ESS system

Parallel connection energy storage system

4.8kWh / 9.6kWh
Parallel System
Wall Mounting

The wall design is adopted to reduce the position occupied during installation.

Support Any VArious Type Inverter









Villas

**Nomadic area** 

Farm

Household

### Product Parameters

Model	CON-WM4.8P	CON-WM9.6P
Battery Voltage Range	40V-58.4V	40-58.4V
Battery Capacity Range	100AH	200AH
MaximumCharging/DischargingCurrent	50A/100A	100A/200A
Battery Classification		LiFePO4
USB	RS485/	RS232/CAN(optional)
Battery Charging and Discharging Efficiency		≥92%
Maximum power	5.12KW	10.24KW
Cooling Mode	1	Natural cooling
Dimension(H//L)	568*165*453 mm	1000*100*770 mm
Weight	50kg	78kg
Monitoring		YES
PACK Cycle Life		es >80% primary capacity 0.2C charge /0.2C discharge)
Design Life		10 Years
Number in parallel		16P

1: Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

2: Refer to battery warranty letter for conditional application



**Energy Storage System** 

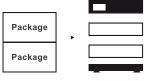
Stacked energy storage systems can be connected in series and parallel according to customer needs. The capacity of a single battery pack is divided into 2.5kwh, 5kwh, 10kwh, customers can choose according to their own needs

### Stacked All in one

Inverter + 51.2V Energy storage system

### Build-in inverter 5 kWh-80 kWh 51.2 V parallel energy storage system

The system adopts a stacked battery pack and inverter design, and distributors can freely combine the energy storage system capacity and inverter power according to the local market to cater to the local market. The battery capacity of this product is 2.5kWh, 5kWh, 10kWh, and can be matched with a 3-10kW inverter.



#### Modular System Design

Reducing transportation costs, users can freely combine according to their



#### Stacking Design

Reduce the product's requirements for the installation environment and reduce the difficulty of installation; increase the flexibility of system movement.



#### Four-corner Horizontal Pads

Avoid the occurrence of electrical conduction caused by the direct contact of the metal shell with the ground, which will cause unnecessary losses; in addition, the adjustable foot design is more helpful for moisture-proofing the product and reducing the need for ground flatness.

#### **Multiple Protection System**

#### • BMU energy storage system centralized management protection system

Real-time monitoring of the operation of each battery unit, and centralized management of each battery unit. It has protection for the overall system overcurrent, overvoltage, overload, temperature, etc. In case of special circumstances, the system can be adjusted and managed in time.

#### ·BMS battery unit management system

Protect the battery unit, and monitor the battery voltage, temperature, and various operating parameters of the battery unit in real time. While transmitting the running information to the BMU, the battery unit is also individually protected.

#### ·Air switch protection

In order to increase the safety of the overall system, in addition to the one-button start function, each module of the system is equipped with an air switch. Avoid system overcurrent and overvoltage during installation and use.

#### Zero-voltage Charging Start

This system supports zero-voltage charging start function. That is to avoid the situation that the system cannot be activated and operated after long-term transportation or storage. After the system has not been used for a long time, it only needs to be charged to activate the system.

#### **Build-in Industry Frequency Inverter**

This product contains a build-in 5kw industry frequency inverter, which has strong overload capacity and stable operation. No additional configuration of inverter is required. The integrated combination design eliminates the need for users to reserve additional inverter installation space, avoids complicated system connection lines, and increases the safety factor.

#### 2.5 kWh 1-4 Battery Pack









Battery Package	Ва	Battery Package (2.5kWh, 51.2V,26Kg, 550*300*180mm)					
Number of Package	1	2	3	4			
Usable Capacity	2.5kWh	5kWh	7.5kWh	10kWh			
Cont. Output Current	100A	100A	100A	100A			
Peak Output Current	150A	150A	150A	150A			
Nominal Voltage	51.2V	51.2V	51.2V	51.2V			
Operating Voltage	40~58.4V	40~58.4V	40~58.4V	40~58.4V			
Szie (L/W/H)	550*300*480mm	550*300*660mm	550*300*840mm	550*300*1020mm			
Weight (Kg)	58	84	110	136			

Operating Temperature	-10°C~50°C	
Charging Temperature	Above 0 °C	
Battery Type	Lithium iron phosphate battery(LiFePO4)	
Communication	RS485,CAN	
Enclosure Protection Rating	IP55	
Life Cycle	3000 times	
Warranty	5 Years	

#### 2.5 kWh 5 - 8 Battery Pack









	_						
Battery Package	Battery Package (2.5kWh, 51.2V,26Kg, 550*300*180mm)						
Number of Package	5	6	7	8			
Usable Capacity	12.5kWh	15kWh	17.5kWh	20kWh			
Cont. Output Current	100A	100A	100A	100A			
Peak Output Current	150A	150A	150A	150A			
Nominal Voltage	51.2V	51.2V	51.2V	51.2V			
Operating Voltage	40~58.4V	40~58.4V	40~58.4V	40~58.4V			
Szie (L/W/H)	550*300*1200mm	550*300*1380mm	550*300*1560mm	550*300*1740mm			
Weight (Kg)	162	188	214	240			

### Inverter Parameter

Inverter Type	Industry Frequency Inverter	
Rate Output Power	3000W	
AC Input/Output Voltage	160-260V / 80~130V	
AC Input/Output Frequency	50 / 60Hz	
Solar Controller	Build-in MPPT *2 Road	
Solar Input Current	MAX. 80A *2	
Solar Input Voltage	60-180V	

### 5 kWh 1-4 Battery Pack







Battery Package	Battery Package (5.12kWh, 51.2V,45Kg, 700*435*190mm)								
Number of Package	1	1 2 3 4							
Usable Capacity	5.12kWh	10.24kWh	15.36kWh	20.48kWh					
Cont. Output Current	100A	100A	100A	100A					
Peak Output Current	150A	150A	150A	150A					
Nominal Voltage	51.2V	51.2V	51.2V	51.2V					
Operating Voltage	40~58.4V	40~58.4V	40~58.4V	40~58.4V					
Szie (L/W/H)	700*435*490mm	700*435*680mm	700*435*870mm	700*435*1060mm					
Weight (Kg)	95	143	192	240					

Operating Temperature	-10°C~50°C
Charging Temperature	Above 0 °C
Battery Type	Lithium iron phosphate battery(LiFePO4)
Communication	RS485,CAN
Enclosure Protection Rating	IP55
Life Cycle	3000 times
Warranty	5 Years

### 5 kWh 5 - 8 Battery Pack









Battery Package	Battery Package (5.12kWh, 51.2V,45Kg, 700*435*190mm)						
Number of Package	5	6	7	8			
Usable Capacity	25.6kWh	30.72kWh	35.84kWh	40.96kWh			
Cont. Output Current	100A	100A	100A	100A			
Peak Output Current	150A	150A	150A	150A			
Nominal Voltage	51.2V	51.2V	51.2V	51.2V			
Operating Voltage	40~58.4V	40~58.4V	40~58.4V	40~58.4V			
Szie (L/W/H)	700*435*1250mm	700*435*1440mm	700*435*1630mm	700*435*1820mm			
Weight (Kg)	289	338	387	436			

#### Inverter **Parameter**

Inverter Type	Industry Frequency Inverter
Rate Output Power	5000W/10000W
AC Input/Output Voltage	160-260V / 80~130V
AC Input/Output Frequency	50 / 60Hz
Solar Controller	Build-in MPPT *2 Road
Solar Input Current	MAX. 80A*2
Solar Input Voltage	60-180V

### 10 kWh Battery Pack







Battery Package	Battery Package (10.24kWh, 51.2V,83Kg, 700*435*265mm)						
Number of Package	1	2	3	4			
Usable Capacity	10kWh	20kWh	30kWh	40kWh			
Cont. Output Current	200A	200A	200A	200A			
Peak Output Current	250A	250A	250A	250A			
Nominal Voltage	51.2V	51.2V	51.2V	51.2V			
Operating Voltage	40~58.4V	40~58.4V	40~58.4V	40~58.4V			
Szie (L/W/H)	700*435*565mm	700*435*830mm	700*435*1095mm	700*435*1010mm			
Weight (Kg)	141	224	307	390			

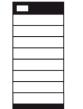
Operating Temperature	-10°C~50°C	
Charging Temperature	Above 0 °C	
Battery Type	Lithium iron phosphate battery(LiFePO4)	
Communication	RS485,CAN	
Enclosure Protection Rating	IP55	
Life Cycle	3000 times	
Warranty	5 Years	

#### 10 kWh 5 - 8 Battery Pack









Battery Package	Battery Package (10.24kWh, 51.2V,83Kg, 700*435*265mm)						
Number of Package	5	6	7	8			
Usable Capacity	50kWh	60kWh	70kWh	80kWh			
Cont. Output Current	200A	200A	200A	200A			
Peak Output Current	250A	250A	250A	250A			
Nominal Voltage	51.2V	51.2V	51.2V	51.2V			
Operating Voltage	40~58.4V	40~58.4V	40~58.4V	40~58.4V			
Szie (L/W/H)	700*435*1625mm	700*435*1890mm	700*435*2115mm	700*435*2420mm			
Weight (Kg)	473	556	639	722			

#### Inverter **Parameter**

Inverter Type	Industry Frequency Inverter	
Rate Output Power	5000W /10000W	
AC Input/Output Voltage	160-260V / 80~130V	
AC Input/Output Frequency	50 / 60Hz	
Solar Controller	Build-in MPPT *2 Road	
Solar Input Current	MAX. 80A*2	
Solar Input Voltage	60-180V	



## Integrative Power Bank

3kW-10kW all in one energy storage

An integrated power bank is a compact, self-contained, enclosed energy storage device that integrates a battery system and an inverter. It directly outputs AC power for use by electrical equipment. Depending on the model, the capacitance is 5kWh to 10kWh, the AC output power is 3kW to 10kW, and the output voltage is 110V/220V. This product can support customer customization.



#### **DUAL INPUT**

- Support AC utility and solar dual input mode, convenient for different situations
- Quickly switch working modes to ensure stable power supply



#### **FELIXIBILITY**

- Grounding design, installation does not require a load-bearing wall
- Wheel design, move the product easily



#### **COMPLETE PROTECTION**

- More than 5 protection modes, ensure smooth operation of the product
- Multiple protection, protect your safety while protecting the product



#### **EASY INSTALLATION**

- Compact and light, single person installation
- Integrated design, no need for multi-line links, simple operation

#### Off-Grid & Backup

High-capacity energy storage systems can be used for off-grid applications and emergency backup power. In some areas where there is a shortage of electricity, this product can be used as a backup power supply. Whether it is home or work, CONCENPOWER can provide you with continuous power.

#### **Economical & Environmentally Friendly**

With the rise of electricity prices, the global energy crisis and the changes in the global environment, new energy power generation can be environmentally friendly while being economical.

#### **LFP Batteries**

The product uses Lithium Iron Phosphate (LFP) batteries to ensure maximum safety, life cycle and power. Strong stability allows the product to be used in a wide range of temperatures and regions.

#### Integrative & convenient

With the design of the inverter + energy storage system, the user does not need redundant wiring, which simplifies the installation steps. In addition, users do not need to consider the choice of inverters, CONCENPOWER provides users with more suitable one-stop energy storage services

#### **5ms** Mode Switch Time

Shorter working mode switching, when the battery is exhausted, the system can automatically switch modes within 5ms, and the electrical appliances at the user end will not be affected in any way, protecting the life of the electrical appliances.

#### Wider Application

This series of products reduces the requirements for the installation environment and is more in line with the diversified market.

There is no need to configure an additional inverter, and there is no need to choose a load-bearing wall for installation.

### **Energy Storage System**

General Information						
Product No.	CON-H53	CON-H55	CON-H510	CON-H103	CON-H105	CON-H1010
Product size			600*300	)*1000 mm		
Product weight	80kg	91kg	130kg	120kg	128kg	130kg
Package size			695*395	5*1150 mm		
Product gross weight	106kg	117kg	156kg	146kg	154kg	156kg
Working temperature	0 ~ 40 °C					
Working altitude	less than 2000m					
Battery information						
Battery type	Lithium iron phosphate battery					
Battery rate voltage			5	1.2V		
Battery capacity		5000 Wh			10000 Wh	

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

### Inverter Parameter

AC output information							
Inverter type			Pure sine wave	frequency inve	erter		
Inverter rate power	3kW	3kW 5kW 10kW 3kW 5kW 10kW					
Inverter MAX. power	6kW	10kW	20kW	6kW	10kW	20kW	
AC output voltage			80-130V	/ 160-240V			
AC output frequency			50Hz - 60Hz in	telligent monito	or		
Product input informat	ion						
AC input voltage			80-130V	/ 160-240V			
AC input frequency			50Hz - 60Hz in	telligenct mon	itor		
Solar controller	Build-in MPPT						
Solar input voltage	72V						
Solar input currenct	60A / 80A						
Protection system							
Over / under voltage p	protection YES						
Over current protection	on YES						
Over / under temperat	ture protection YES						
DC breaker	YES						

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application

<sup>2:</sup> Refer to battery warranty letter for conditional application



### High Voltage ESS System + Hybrid Inverter

**Build-in Hybrid 1/3 phase inverter High Voltage energy storage system** 

This system consists of 1 to 2 high-voltage battery banks connected in series and paired with a high-voltage hybrid inverter.Battery system customers can have two specifications: 4.8kwh and 9.6kwh. Customers can combine and form the required energy storage system according to their own needs.

The inverter matched with this series of products is a hybrid inverter, which can fully realize grid-connected, off-grid, UPS and other functions. In addition, there are 1phase output and 3phase output to choose from.



**MAX.BATTERY EFFICIENCY 96%** 

**MAX.SYSTEM EFFICIENCY 98%** 



#### **TWICE PV INPUT**

Up to 2 times PV input, 50% kW for Loads and 50% for Battery charging.

#### GRID FORMING FUNCTION

Found fixed grid for the operation of on-gird inverters during power outage.

#### INVERTER PARALLEL FUNCTION

Supports a maximum of 6 inverters in parallel, with sharing one group of batteries.

#### **BATTERY SHARING**

Support battery sharing of energy storage system, for balancing SOC equalization

#### GENERATOR CONTROL

Automatic generator control with auto-start and state feedback. Local EMS+-Cloud+APP control interface.

#### LOAD COMPATIBILITY

Load monitoring accuracy of 30 W. Battery discharging threshold of 10 W. UPS-level control, compatible with inductive loads.



#### HIGH PERFORMANCE

200% PV over management;
200% backup overload capacity,
50A battery current;
Max. efficiency 98%,
Battery efficiency 96%;
Load monitoring accuracy 10W
Battery discharging threshold 10W;



#### HIGH RELIABILITY

UPS level redundant protection
against backup load breakdown;
Three-level firmware
two-level hardware battery protection;
Multiple temperature monitoring
delicate thermal management;
Max. 6 Inverters in parallel to increase
power availability.



#### HIGH INTELLIGENCE

Internal EMS optimizes home energy

supply automatically;
PV production forecast;
Built-in electric power service, FCAS, VPP
Online monitoring, online diagnosis,
online service.

#### 3 Phase Inverter 4.8kwh battery pack

	CON-INV-3PH8K	CON-INV-3PH10K	CON-INV-3PH12K
	PV II	NPUT	
Max. PV Input Power	16kW	20kW	22.5kW
Max. PV Input Voltage		1100V	
MPPT Range		140~950V	
Max. Input Current		16A / 16A / 16A	
Max. Short Circuit Current		24A / 24A / 24A	
MPPT Trackers		3	
Strings Per MPPT Tracker		1/1/1	
	AC P	ORT	
Rated Grid Output Power	8kVA	10kVA	12kVA
Max. Grid Input Power	16kVA	20kVA	22.5kVA
Rated Grid / Backup Voltage		220/380Vac,230/400Vac, 3/N/PE	
Rated Grid / Backup Frequency		50/60Hz	
Surge Backup Power	16kVA / 16kW	20kVA/20kW	24kVA/24kW
Rated Backup Power	8kVA	10kVA	12kVA
THDi		<3%	
THDv	<3%	(Linear Load)/<5%(Non-linear Lo	oad)
DCV		<100mV	
Crest Ratio		3:1	
Transfer Time		<10ms	

	EFFICIENCY		
Max. Efficiency	98.4%		
Max. Round Trip Efficiency	96%		
	GENERAL DATA		
Operating Temperature Range	-20~60°C		
Topology	Transformerless		
Dimensions (W*H*D)	590×416×205mm		
Weight	25kg		
Load Monitoring	Meter / CT / Backup box		
External Communication	RS-485 / WIFI / 4G / Ethernet		
Grid Regulation VDE-A	AR-N 4105:2018, G98, G99, C10/11:2021, NTS 631, RD647:2020		
UNE 217002:2020, CEI 0-21, VDE 0126-1-1, NRS 097-2-1, AS/NZS 4777.2:2020, EN 50549-			
Safety Regulation	IEC/EN 62109-1&2, IEC/EN 62477-1:2012		
	BATTERT INFORMATION		
Battery Type	LFP		
Battery Capacity	4.8kWh		
Usable Capacity	4.6kWh		
Depth of Discharge (DoD)	95%		
Nominal Battery Voltage	96V		
Operating Voltage Range	90~108V		
Max. Charging Current	50A		
Max. Discharging Current	50A		
Operating Temperature Range	Charge:0 <t<50°c discharge:-10<t<50°c<="" td=""></t<50°c>		
Cycle Lifetime	8000		
Series	1~6 in series		
Dimensions (W*H*D)	590x430x205 mm		

Weight 39.2kg

Communication CAN / RS-485 (Optional)

Safety Regulation IEC 62619:2017, IEC 62040:2017

Transportation UN38.3

#### SYSTEM GENERAL INFORMATION

Operating Altitude ≤3000m (>3000m Derating)

Relative Humidity 0~95% (No Condensing)

Protection Degree IP65

Cooling Natural Convection

Noise <30dB

Warranty 5 years / 10 years

EMC IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4

## 1 Phase Inverter 4.8kwh /9.6kwh battery pack

	CON-INV-1PH4K	CON-INV-1PH5K	CON-INV-1PH6K
	PV INI	PUT	
Max. PV Input Power	8kW	10kW	12kW
Max. PV Input Voltage		1100V	
MPPT Range		140~950V	
Max. Input Current		16A / 16A / 16A	
Max. Short Circuit Current		24A / 24A / 24A	
MPPT Trackers		3	
Strings Per MPPT Tracker		1/1/1	
	AC PC	RT	
Rated Grid Output Power	4kVA	5kVA	6kVA
Max. Grid Input Power	8kVA	10kVA	12kVA
Rated Grid / Backup Voltage	22	20/380Vac, 230/400Vac, 3/N/PE	
Rated Grid / Backup Frequency		50 / 60Hz	
Surge Backup Power	8kVA / 8kW	10kVA / 10kW	12kVA / 12kW
Rated Backup Power	4kVA	5kVA	6kVA
THDi		<3%	
THDv	<3% (	Linear Load) / <5%(Non-linear L	_oad)
DCV		<100mV	
Crest Ratio		3:1	
Transfer Time		<10ms	

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application

	EFFICIENCY	,	
Max. Efficiency	98%	98%	98.2%
Max. Round Trip Efficiency		96%	

#### GENERAL DATA

Operating Temperature Range -20~60 °C

Topology Transformerless

Dimensions (W\*H\*D) 590×416×205mm

Weight 25kg

Load Monitoring Meter / CT / Backup box

External Communication RS-485 / WIFI / 4G / Ethernet

Grid Regulation VDE-AR-N 4105:2018, G98, G99, C10/11:2021, NTS 631, RD647:2020

UNE 217002:2020, CEI 0-21, VDE 0126-1-1, NRS 097-2-1, AS/NZS 4777.2:2020, EN 50549-1

Safety Regulation IEC/EN 62109-1&2, IEC/EN 62477-1:2012

#### BATTERT INFORMATION

Battery Type LFP

Battery Capacity 4.8kWh 9.6kWh

Usable Capacity 4.6kWh 9.1kWh

Depth of Discharge (DoD) 95%

Nominal Battery Voltage 96V

Operating Voltage Range 90~108V

Max. Charging Current 50A

Max. Discharging Current 50A

Operating Temperature Range Charge:0<T<50 °C /Discharge:-10<T<50 °C

Cycle Lifetime 8000

Series 1~6 in Series 1~6 in Parallel

Dimensions (W\*H\*D) 590x430x205 mm 590x730x205 mm

Weight 39.2kg 86kg

Communication CAN / RS-485 (Optional)

Safety Regulation IEC 62619:2017, IEC 62040:2017

Transportation UN38,3

#### SYSTEM GENERAL INFORMATION

Operating Altitude ≤3000m (>3000m Derating)

Relative Humidity 0~95% (No Condensing)

Protection Degree IP65

Cooling Natural Convection

Noise <30dB

Warranty 5 years / 10 years

EMC IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application



## Portable Power Station

500W - 2000W Portable Energy Storage system



The portable power station is specially designed for customers with mobile power needs. The product power ranges from 500W to 2000W, which can meet the needs of different electrical appliances. Customers can use this product to charge mobile electronic devices such as mobile phones and laptops, which solves the problem of power shut down of mobile devices during the journey; secondly, for customers traveling outdoors, this product can drive high-power electrical appliances, such as Electrical rice cooker, kettle and other heating equipment



#### **DUAL INPUT**

- Support AC utility and solar dual input mode, convenient for different situations
- Quickly switch working modes to ensure stable power supply



#### STRONG SHELL

- Solve the shortcomings of traditional plastic products fragile
- Not afraid of heavy pressure, durable



#### **COMPLETE PROTECTION**

- More than 5 protection modes, ensure smooth operation of the product
- Multiple protection, protect your safety while protecting the product



#### SEPARATED DC + AC DESIGN

 The AC part and the DC part are designed on both sides of the chassis, which not only increases the safety factor of the user, but also improves the product life

#### **Travel Friendly**

During travel, it can effectively charge various travel equipment and mobile electronic equipment. Improve the travel experience.

#### **Emergency Power Supply**

In an emergency, the product can be used as an emergency power supply, and the multi-function charging port can match different types of equipment.



#### **Multiple Protection**

Multiple protection, such as under-voltage protection, over-voltage protection, etc. make the product safe, reliable, and have a long service life. While protecting the safety of consumers, it also improves the service life of products and electrical appliances.



#### 2 Charge Mode

Support 2 charging modes, photovoltaic charging and mains charger charging.

Ensure that the environment can operate normally under different usage environments.



#### Multiple Electrical Port

In order to adapt to the use of different electronic equipment, the product is equipped with a variety of AC output ports, equipped with various electric port, USB and Type-C, it can charge various mobile devices.



#### **Attractive and Durable**

The metal shell has a high level of protection and is attractive and durable.

The surface treatment technology of the plastic sprayed shell is anti-corrosion and wear-resistant, and is more suitable for various environments.

### **Energy Storage** System





	2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CONCORDER CONCORDER		2 11 2 30 6	CONCENTRATE	
General Information						
Product No.	IBO-55	IBO-510	IBW-1010	IBW-1020	IBW-2020	IBW-2520
Product size	310*300*	*200 mm		310*460*	280 mm	
Working temperature			0 ~	40 °C		
Working altitude			less tha	an 2000m		
Battery information						
Battery type			Lithium iron p	hosphate batter	у	
Battery rate voltage	12.8V	12.8V	25.6V	25.6V	25.6V	25.6V
Battery capacity	614 Wh	614 Wh	1075Wh	1075Wh	1843 Wh	2560 Wh
AC output information						
Inverter type			Pure sine	wave inverter		
Inverter rate power	500W	1000W	1000W	2000W	2000W	2000W
Inverter MAX. power	1000W	2000W	2000W	4000W	4000W	4000W
AC output voltage			80-130V	/ 160-240V		
AC output frequency			50Hz - 60Hz ii	ntelligent monito	or	

### Product Information

Product input information						
AC input voltage	80-130V / 160-240V					
AC input frequency	50Hz - 60Hz intelligenct monitor					
Solar controller	Build-in PWM					
Solar input voltage	24V	24V	36V	36V	36V	36V
Solar input currency	15A					
Protection system						
Over / under voltage pr	Over / under voltage protection		Y	ES		
Over current protection	on YES					
Over / under temperatu	ure protection YES					

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application

## DC Portable Power Station

768Wh - 1280Wh DC Energy Storage system

The DC portable power bank uses high-efficiency photovoltaic panels for charging, which effectively solves the inconvenience caused by no charging input outdoors. This outdoor power bank can be effectively connected to DC power equipments, such as DC refrigerators, fans and charge mobile phones and other electronic devices to charge. It is widely used in camping, self-driving tours, yurts and other places.



Balance protection



Short-circut protection



Low-voltage protection



High-voltage protection



Charge protection



Over-current protection



Temperature protection



Overload protection

#### Product Information

Product Parameter						
Product model	CON-BL60	CON-BL80	CON-BL100			
Battery capacity	12.8V 60Ah 786Wh	12.8V 60Ah 786Wh	12.8V 60Ah 786Wh			
Battery type	L	ithium iron phosphate batter	у			
Protection system	• •	, over-discharge protection, o	•			
DC output	over-temperature protection, short-circuit protection, over-voltage protection  12V 15A 2*USB					
Power indicator	Voltmeter indicator light					
Matching lighting equipment	12V 2W LED					
Input	Original charger or 50w solar panel (it is recommended to use original solar panel 50W*2)					
Product weight	10.2kg	12.4kg	14kg			
Product size	31*36*9cm					
Product size	31*39*9cm (including terminal)					
Lighting system (optional)	2*5w LED bulbs (including 5m wire)					

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application

### Iron Shell DC Battery Bank

768Wh - 1280Wh DC Battery Bank

This series product has a waterproof plug and an anti-collision metal shell, and the inverter is built into the sub-power supply, which effectively saves product space and is more convenient to carry and store. It is widely used in fishing, cross-country, yurts and other travel.

In addition, the DC battery bank can also be equipped with an external inverter according to the customer's own needs, and has high flexibility.



#### WIDER RANGE OF USE

Not only can be used as a separate battery system, but also can be used as accessories for new energy power generation systems. For example, the power supply system of various DC appliances such as photovoltaic refrigerators and photovoltaic small appliances.



#### FREE COMBINATION

• Customers can freely match inverters with different powers according to their own needs. In this way, if the customer needs to replace the inverter later, or the inverter is damaged, there is no need to dismantle the machine for maintenance, and the corresponding accessories can be directly replaced



#### EASY CUSTOMIZATION

Customers can provide
 manufacturers with corresponding
 technical parameters according to
 their actual needs. The high
 flexibility and adaptability of this
 product can provide supporting
 services for different users

### **Energy Storage** System

Product Paramete						
Model	CON-BL60A	CON-BL80A	CON-BL100A			
Battery capacity	60Ah (786Wh)	80Ah (1024Wh)	100Ah (1280Wh)			
Battery Voltage	12.8V	12.8V	12.8V			
Battery type	lithium iron phosphate battery					
Protection system	overcharge protection, overdischarge protection, overcurrent protection, overtemperature protection, short-circuit protection, over voltage protection					
Power indicator	voltmeter indicator					
Input	100w Solar panel(recommended to use the original solar panel) or the original optional charger					
Product weight	10kg	12.8kg	15kg			
Product volume	33.5*23*12cm	33.5*29.5*12cm	40*29.5*12cm			
External inverter (optional)	300W	500W	700W			

#### Inverter

Product Paramete			
Inverter type		Pure sine wave inverter	
Rated output power	300W	500W	700W
AC output voltage		220V	
AC output frequency		50Hz	
AC output plug		1*50Hz multifunctional plug	ı

## Energy Storage System This series of products is specially designed for energy storage, and is mainly used in probatteries", photovoltaic farm power generation new energy power generation and energy series. wer generation and s instead of lead-acid projects, comprehensive ower base station projects.

### **Industry Energy storage system**



A single battery cabinet is composed of 8 battery packs connected in series, with a voltage of 409.6V. A single battery cabinet can support a 3-phase inverter. In addition, 1 to 16 battery cabinets can be directly connected in parallel, and the capacity of a single cabinet can reach 80 kWh to 114 kWh.

The flexible and diverse product combination of the industrial and commercial energy storage system can meet the different energy storage needs in the industrial and commercial fields. Support the use of mechanical equipment in large factories and commercial places.

#### (a) Automatic switching of two-way mode

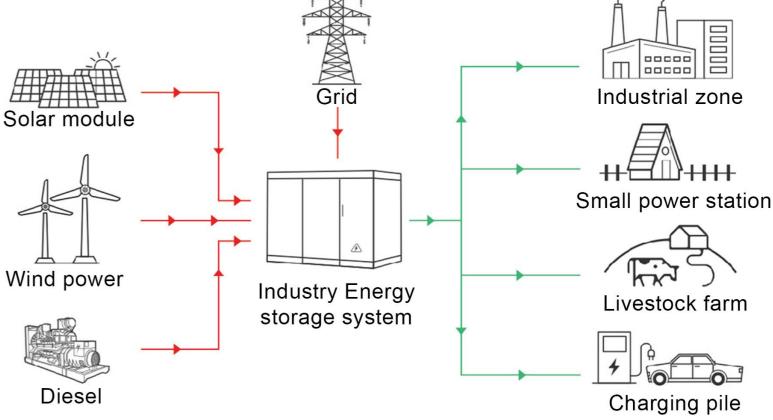
- Automatically detect the operation of the system.
   When the battery is exhausted, it automatically switches to AC mains mode.
- Built-in timer, you can set the operating time of different working modes independently.



#### Multiple input modes

- Suitable for hybrid energy storage such as Solar, diesel, and wind power
- Off-grid energy storage

### Application scenarios



#### Support the use of high-power mechanical equipment

- 1. The use of industry frequency inverter can support the use of high-power industrial and commercial equipment.
- 2. Strong overload capacity, can withstand the instantaneous high current release when large equipment is started.

#### Large-capacity grid energy storage system

- 1. Expandable energy storage solution.
- 2. Customized design based on customer requirements.
- 3. Applicable to large-capacity energy storage system occasions.

#### **Parameters**

Model	CIC20	CIC30	CIC40	CIC50	CIC60	CIC80	CIC100
Inverter parameters							
Inverter power	20KVA	30KVA	40KVA	50KVA	60KVA	80KVA	100KVA
Inverter type			Indust	try frequency i	inverter		
Phase				3 phase+N+	G		
AC input range				380Vac ± 20	1%		
Frequency range				45Hz ~ 55Hz	2		
Output voltage		Battery r	mode: 380Va	ac ± 3%; AC	mode: 380\	/ac ± 20%	
Frequency range (ACs mo	de)			45Hz ~ 55Hz	2		
Frequency range (Battery	mode)			50Hz ± 0.1H	Z		
Overload (AC mode)	AC mod	de (100% ~ 1	110%: 10 mini	utes; 110% ~ <sup>-</sup>	130%: 1 minu	te; >130%: 1	second)
Overload (Battery mode)	Battery mod	de (100% ~ 1	110%: 30 seco	onds; 110% ~	130%: 10 sed	conds; >130%	: 1 second)
Current peak ratio				3: 1 max			
Total harmonic distortion			Linear lo	ad <3%; non-	linear load		
Balanced load voltage				< ± 1%			
Unbalanced load voltage				< ± 5%			
Switching time				<10ms			
Waveform			Pur	e sine wave in	verter		
Maximum efficiency				85%			
Noise			<58	dB ( 1m dista	nce )		
Load monitoring				Yes			
PV input MPPT							
System voltage				384V			
Rated current				100A			
Charging method		M	PPT automati	c maximum p	ower point tra	cking	
Dynamic response recover	ry time			≤10s			

Static power consumption				≤500us			
Overall efficiency				≤2W			
Voltage range		≥96.5%					
MPPT working voltage rang	e	384V: DC450V-750V;					
Maximum PV input power		36kW					
Battery parameters							
Battery type		Lithium iron phosphate Battery(LiFePO4)					
Battery cabinet capacity		114.4kWh ( Single battery cabinet )					
Battery nominal voltage		409.6V					
Working voltage range		320 ~ 467.2V					
Continuous output current		120A					
Peak output current		150A,1s					
Working temperature range		-10°C ~ 50°C					
General data							
Model	CIC20	CIC30	CIC40	CIC50	CIC60	CIC80	CIC100
Working temperature range				0 ~ 40°C			
Working altitude			<95%	and no conde	nsation		
Working relative humidity	<10	00m (power	decreases by	1% for every	100m increa	se, up to 500	00m)
External communication				RS485 + CAN			
Grid regulation		Yes					
Safety supervision	Yes						
Waterproof device	Yes						
Surge protection device		Yes					
Protection level				IP65			
In Protection	nput polarity	reverse prot	ection; outpu	t polarity reve	rse protection	n; high voltag	e protection;
Totection	low volta	low voltage protection; short circuit protection; over temperature protection					

Cooling device Air-cooled Fire protection device Aerosol Off-grid (backup) Application area

Dimensions (L\*W\*H) 2437\*1000\*1824mm

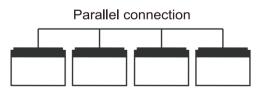
Weight ( Kg ) 1616.1 1676.1 1726.1 1776.1 1896.1 1976.1 2276.5

## Replacement LiFePO4 to Lead-acid

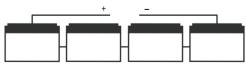
LiFePO4 battery replaces lead-acid battery for series and parallel connection

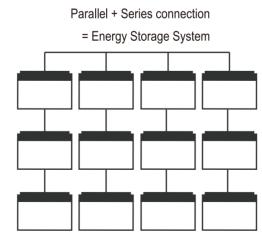
This product can directly replace traditional lead-acid batteries for series and parallel use. While retaining the characteristics of lead-acid batteries that can be freely connected and combined, it integrates the high discharge depth of lithium iron phosphate batteries.

Widely applicable to various lead-acid battery application environments, such as golf carts, electric low-speed vehicles, sightseeing vehicles, solar lamps, solar monitoring, etc.



Series connection





### **Energy Storage System**

#### **Product Parameter**

Battery Type	Lithium iron phosphate Battery (LiFePO4)
Batttery Pack Capacity	1331 Wh
Cont. Ouput Current	100A
Max Outout Current	120A
Cont. Input Current	100A
Max. Input Current	120A
Bttery Pack Voltage	12.8V
Operating Voltage	10V~14.4V
Operating Temperature	-10°C~50°C
Enclosure Protection Rating	≥ 95%
Weight	10.5Kg
Dimensions (H/W/D)	212mm**330mm*175mm

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 1C charge& 1.5C discharge

## **Communication**Base Station

#### Rack-mounted energy storage system

This product is designed for large-scale photovoltaic power generation, communication signal base stations, and large-scale factory backup power. With the self-developed management system, it can detect the operation status of the energy storage system in each location in real time.

The product supports customized services according to the application scenario and actual situation. You only need to provide the corresponding parameters, and we can provide the product. In addition, we can also provide the design of the overall plan.

# Design Develop Create Design your product in the most cost effective way possible. Develop Develop Manufacture your product to the quality and timeline you need.

### **Case Parameter**

#### 30KW/61.44kWh for base station

Application Picture	REAL REAL REAL REAL REAL REAL REAL REAL
Battery Type	Lithium iron phosphate Battery (LiFePO4)
Batttery Pack Capacity	3.2V 100Ah
Cont. Ouput Current	250A
System Rate Voltage	614.4 Vdc
System Working Voltage	480V~700.8 Vdc
Charging /Discharging Rate	≤ 0.5C
DOD	90%
Temperature Control	Industrial Air Conditional
Operating Temperature	-20°C ~ +55°C
Protection Level	IP54
Communication	RS 485 / RJ485
Fire Protection	Aerosol
Weight	1t
Size	1300mm * 820mm * 2300mm





#### Safety

More the 5+protection system

#### **Optimal Electricity Cost**

Long cycle life & excellent performance

#### Compact Design (3U in Height)

Module design

#### Easy Installation & Scale Up

Multiple to be parallel setting on software

#### **Hight Compatibility**

Compatible with most of brands inverter



- Excellent high temperature performance
- Use lithium iron phosphate battery, high safety performance



#### CYCLE LIFE

- Excellent performance, module design
- Long cycle life, up to 6000 times of use



#### **CONVERSION EFFICIENCY**

- High energy density and conversion efficiency
- Multiple devices can be set in parallel



#### BMS BATTERY MANAGEMENT SYSTEM

- Adopt high-performance BMS battery management system
- Compatible with most brands of inverters

#### **RACK-MOUNTED**

Rack-mounted energy storage batteries can be used for industrialenergy storage, can be used with inverters of different specifications, can also be used with UPS or PCS, can be used as a backup powersupply, can be started immediately when the city power is interrupted provide continuous power supply, ensure the normal operation of the data center, help enterprises reduce electricity costs and improve power quality.

#### **WALL-MOUNTED**

Wall-mounted energy storage batteries can be used for home energystorage, and can support inverters of various specifications. It can be used as a home emergency power supply. When the city power is cutoff, it can provide emergency power to ensure the continuity of homeelectricity use.



If the power stored in a single battery pack is limited and cannot meet the power demand, the system can be expanded by connecting multiple low-voltage energy storage batteries in parallel, supporting up to 8 batteries in parallel to meet large power consumption requirements.

#### Wide compatibility

Compatible with most hybrid inverters, the application scenarios are not limited to home energy storage, but also widely used in communication base stations, UPS, computer rooms and other scenarios.

#### Customization

Design and customize products according to different customer needs and local infrastructure construction to meet customer needs to the greatest extent.

### Product Parameter

Miodei	NP51100A1 Pover Lite	
Cell Type	LiFePO4	
Net Weight	43kg	
Dimension(LengthxwidthxHeight)	440*530*132mm	
Waterproof Rate	IP20	
Calendar Life	10 years	
Nominal Current(Recommended)	50A(0.5C)	
Nominal Energy	5.12kWh	
Discharge Depth	90%	
Nominal Voltage	51.2V	
Working Voltage Range	48V-57.6V	
Designed Life-span	6000 Cycles	
Max Continuous Discharging Current (Cell)	100A(1C)	
Working Temperature Range	0℃~50℃	
Communication Protocol	CAN/RS485/RS232 / Dry Contact	
Certificate	TUV/IEC 62619/I=CE-IEC 61000 IEC 62040/UN38.3	

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 0.5C charge& 1C discharge

### Product Parameter



Nominal Voltage	51.2V(16S)
Nominal Capacity	100Ah/200Ah
Working Voltage Range	37.5V~54.7V (16S)
Working Current Range	40V~58.4V (16S)
Standard Charging Current	0.5C
Maximum Charging Current	1C
Standard Discharging Current	0.5C
Maximum Discharging Current	1C
Maximum Cut-off Voltage for Chargi	ng 58.4V(16S)
End-off Current	0.05C
End-off Voltage	40V(16S)
PACK Cycle Life	6000 times ≥80% primarycapacity (25°C±2°C 0.2C charge/0.2Cdischarge)
Battery System Shell Material	Black Q235
Design Life	10 years
Parallel Function	A maximum of 64 batteries can beconnected in parallel
Charging Current limitted Function	10A 15A 20A
Communication Mode	RS232, RS485, CAN
Working Temperature(°C)	Charge 0~ 55°c, Discharge-20~+60°C
Storage Temperature(°C)	Recommended temperature0~+30°C

<sup>1:</sup> Test conditions: 25 °C, 100 % depth of discharge (DOD), 0.5C charge& 1C discharge

<sup>2:</sup> Refer to battery warranty letter for conditional application

<sup>2:</sup> Refer to battery warranty letter for conditional application

## Be Partner

#### Let's concentrate power

The CO-Partner program is an optional program for distributors and installers who want to join CONCENPOWER. If you want to participate in CONCENPOWER more, or want to get rewards from installing CONCENPOWER, you can contact us.

Want to join the CONCENPOWER family? Join now!!



### CONCENPOWER

Make Impossible to Possible

The world is worth exploring....