

Powerfree 12

Introduce

Powerfree 12 adopts integrated design, delicate and beautiful, easy to install, equipped with long-life lithium ion battery, can provide electricity for residential, public facilities, small factories and so on.

Equipped with an efficient and flexible battery management system, it can switch between charging and discharging according to the power supply, load and PV. The large-capacity configuration can meet the continuous power supply of 5KW household load for two hours, so as to ensure the demand of household electricity.

Product features

- High efficiency, energy saving and stable power supply;
- intelligent design, highly visual, can be intuitive to display the system running state.
- Humanized alarm function and perfect online protection function, with high reliability;
- High performance, high safety lithium iron phosphate energy storage battery;

Powerfree 12 is designed with LiFePO₄ chemistry battery which has been widely recognized as one of the safest battery technologies. LiFePO₄ chemistry features stable structures and its thermal runaway temperature is over 480 °C. That's 100% higher than NCM and NCA chemistry. It is designed for residential and commercial applications with absolute safety.

- High Power Output

Powerfree 12 has the highest output power in industry, which brings the highest performance to customers. The system is able to reach 2C at peak to support critical loads such as A/C and pumps, etc.

- Easy Installation and Uninterruptible Maintenance

All Powerfree 12 systems have modular design featuring uninterruptible maintenance, and

easy installation.

- Flexible Extension Life Time

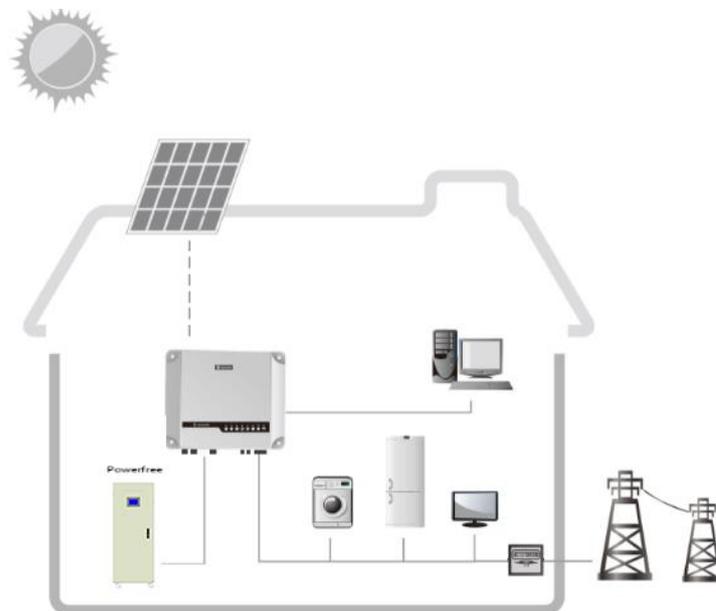
Powerfree 12 is equipped with modular design and smart BMS (Battery Management System), allowing extension throughout its lifetime. It also support parallel connection between Powerfree 12 with maximum number 8, the total capacity can reach 96kWh.

- Natural Cooling

Powerfree 12 is designed with natural cooling providing optimum efficiency.

Application

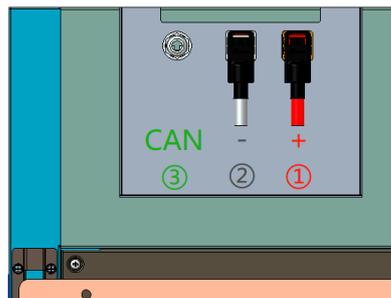
- Suitable for ordinary household electricity demand
- Suitable for energy shortage areas, ease the pressure of the grid
- It is suitable for use as emergency power supply in areas with frequent natural disasters
- Suitable for power instability or isolated island off the grid area power supply
- It is suitable for power supply in frontier post and other areas without power supply



Overview of Powerfree 12



External interface



Back outlet

Compare list of back outlet:

No.	Interface	Mark	Function
①	+	+	Positive cable from inverter
②	-	-	Negative cable from inverter
③	CAN	CAN	CAN communication cable

Technical Data

Model	Powerfree 12
Product Description	Rechargeable Li-ion
System parameter	51.2 V/240 Ah
Total Energy	12 kWh
Usable Capacity	10.8 kWh
DOD	90%
Rated DC Power	5.12 kW
Max Charge Power	5.84 kW
Max discharge Power (kW)	7kW
Maximum Charge Current (A)	100A
Maximum discharge Current (A)	120A
Fault Current (A)	400A
Charge Mode	CC-CV/ CP
Rated charging current	100 A
Discharge Mode	CC/ CP
Rated discharging current	100 A
Round-Trip Efficiency	>92%
Operating Voltage Range	40~58.4 V
Communication	CAN/ RS485
Dimensions	400 x 650 x 1650mm (Without casters)
Net Weight	220kg
Enclosure Protection Rating	IP 56
Charging Temperature	0°C to +50°C
Discharging Temperature	-20°C to +55°C
Warranty/Life	10years/3500S
Certificate & Safety Standard	IEC62619、AS/NZS 62368
Scalability	Max 8 systems in parallel
Compatible Inverters	Goodwe/Solis/Growatt/Voltronic
Application	On Grid (Self consumption / On Grid + Backup) and Off Grid