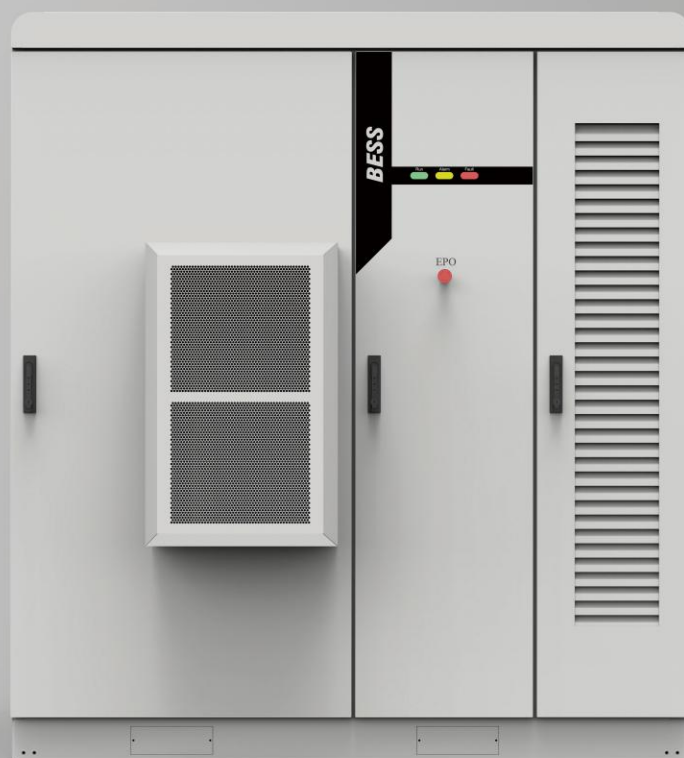




EnerArk Integrated Outdoor Battery Energy Storage Cabinet

MORE SECURE MORE PROFESSIONAL MORE INTELLIGENT MORE FLEXIBLE

V2.0



Vilion (Shenzhen) New Energy Technology Co., Ltd.

PRODUCT OVERVIEW

EnerArk Integrated Outdoor Battery Energy Storage Cabinet is a high-performance outdoor energy storage system launched by Vilion team with 15 years of electrochemical energy storage R&D and application experience. It can be used in various scenarios such as industrial and commercial emergency power backup, peak-load shifting, system capacity expansion and new energy power generation.

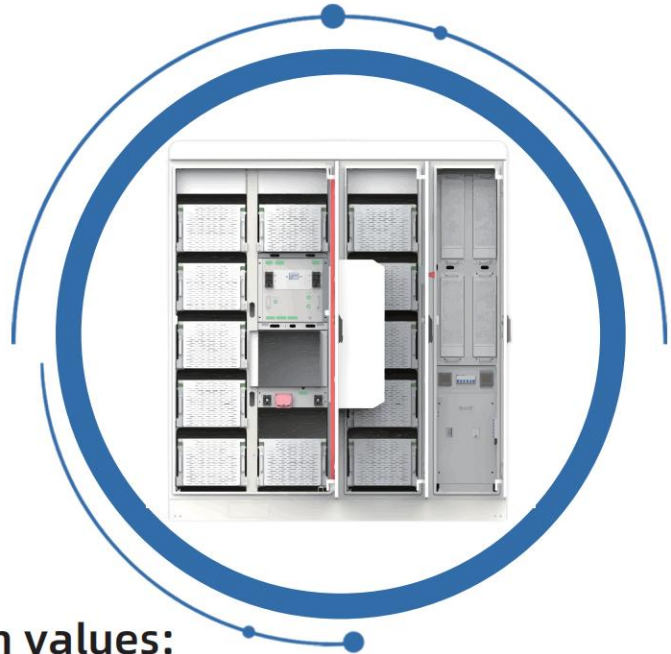
EnerArk adopts All-in-One design and integrates battery modules, intelligent Power Conversion System (PCS), Power Distribution Unit (PDU), Automatic Fire Suppression System (FSS), Temperature Control System (TCS), intelligent Monitoring System (IMS) and photovoltaic controller (MPPT) in One-Stop, which saves application space and is easy to transport, install and maintain. EnerArk is equipped with the EV-safety grade, high-performance lithium iron phosphate (LFP) batteries, and the battery cluster consists of a series of highly reliable automotive process modules. Battery Management System (BMS) automatically control and monitor the entire battery system in real time, and it also has functions such as battery balance management and fault self-diagnosis to ensure the safe and smooth operation of the module. At the same time, the Energy Management System (EMS) is responsible for the overall scheduling and operation management of the system, enabling 24-hour cloud data analysis and intelligent operation and maintenance.

Standards&Certificates



- ✓ **System** BS7671、IEC 62933、IEC62619、CE-EMC、UKCA、UN3480
- ✓ **Cell** IEC 62619、UL1973、UL9540A
- ✓ **Pack** IEC 62619、UN38.3
- ✓ **PCS** IEC62477、G99

WHY CHOOSE ENERAK?



Key advantages and Customom values:



Safety

- EV-safety, high-performance LFP battery.
- “Separate cluster, separate management” of batteries.
- Fault self-diagnosis and self-recovery.
- Design patent of preventing flame outward expansion.
- IP55 Protection grade.



Intelligent Management

- 24-hour cloud intelligent maintenance.
- Quick fault location and analysis.
- Intelligent temperature control, reducing power consumption.



All-in-One Design

- Highly integrated design.
- Easy to transport, install and operate.
- Plug and play, clicking one-button for start&stop.



Minimalism Appearance

- Simply and industrial aesthetic appearance.
- Compact structure.
- Space-saving.



Flexible Application

- Modular design of structure and components, flexibly apply to micro-grid, integrated Solar+Storage+EV Charging and other industrial and commercial application scenarios by different functional configurations.
- Support multiple parallel connection and collaborative control.

PRODUCT PARAMETERS

◎ **Type** **EnerArk-NBN -P30** **EnerArk-NBN -P50** **EnerArk-NBN -P100**

◎ Battery Parameters

Cell type		LFP-280Ah	
Module type		1P20S	
Battery cluster configuration	1P120S~1P240S	1P140~1P240S	1P240S
Battery capacity (BOL)	107.5kWh~215kWh	125.4kWh~215kWh	215kWh
Battery voltage range	336V-864V	392V-864V	672V-864V

◎ AC Side on-grid Parameters

Grid type		3P4W	
Rated charging & discharging power	30kW	50kW	100kW
Rated grid voltage		AC400V	
Grid voltage range		-15%~+15%	
Frequency range		50±5Hz	
Rated current	43A	72A	144A
Power factor		0.8 (Leadding) ~ 0.8 (Lagging)	
Output harmonic		≤3%	

◎ General Parameters

Size (W*H*D)	1900mm*2100mm*1330mm		
Max. weight	2500kg		
Protection grade	IP55(Battery room) , IP34 (Electrical room)		
Seismic intensity grade	Degree 8 (IEC60980)		
Anti-corrosion grade	C3		
Operation temperature	-20°C ~ 50°C		
Relative humidity	0~95%(Non-condensing)		
Operation altitude	<2000m		
Cooling method	Battery part: A/C, Power part: Forced air cooling		
Noise	≤75dB		
Fire extinguishing system	Automatic fire extinguishing (FM200)		

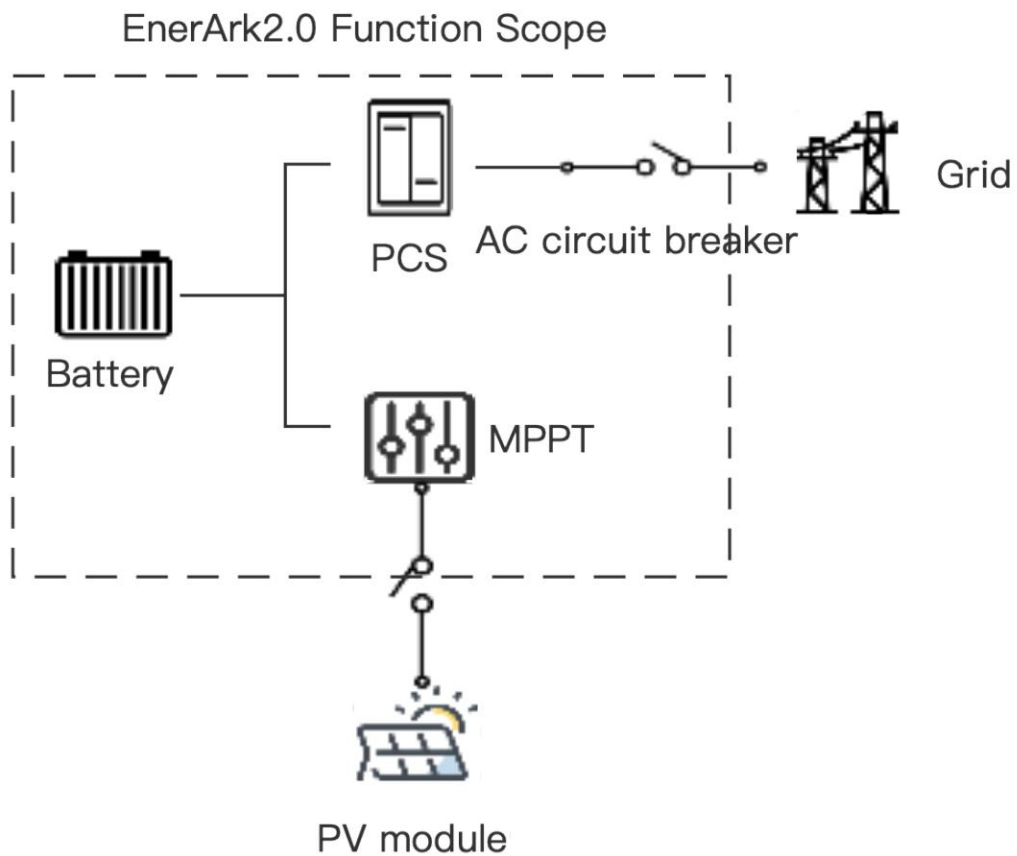
◎ External Interface Parameters

Communication interface	RS485, Ethernet
Communication potocol	Modbus RTU or TCP/IP

Intelligent Solar Energy Storage Solution

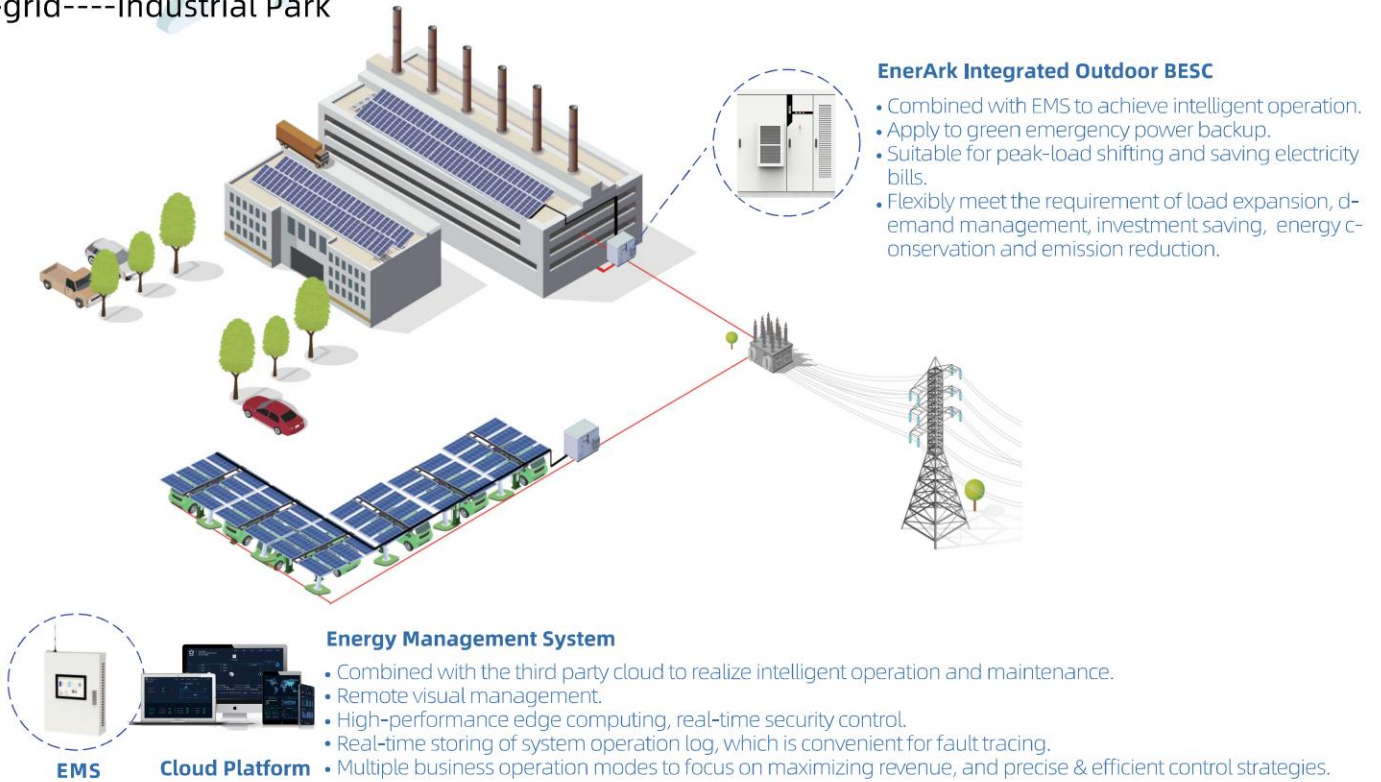
EnerArk Typical Function Diagram

(Millisecond class seamless on-grid/off-grid switching)

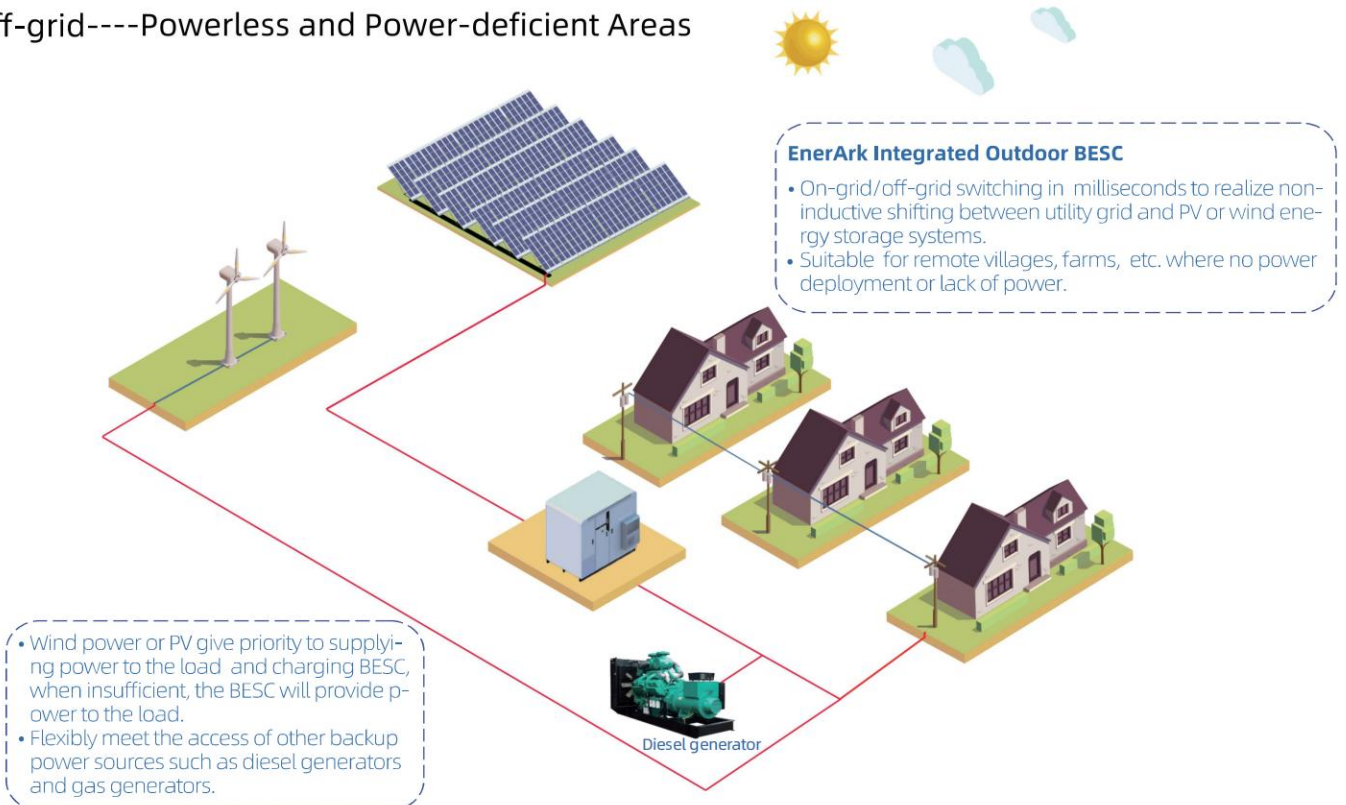


ENERARK APPLICATION SCENARIOS

On-grid----Industrial Park

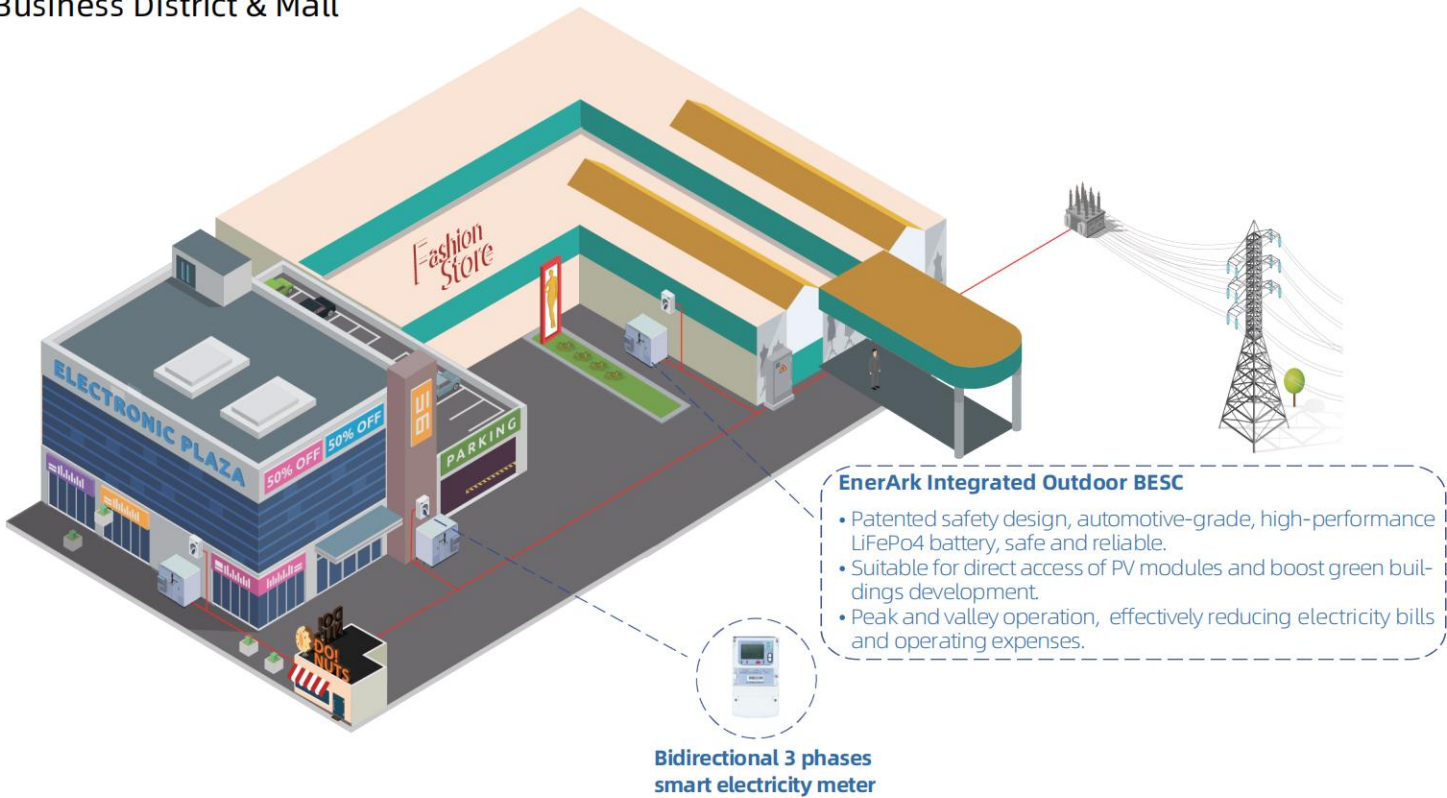


Off-grid----Powerless and Power-deficient Areas

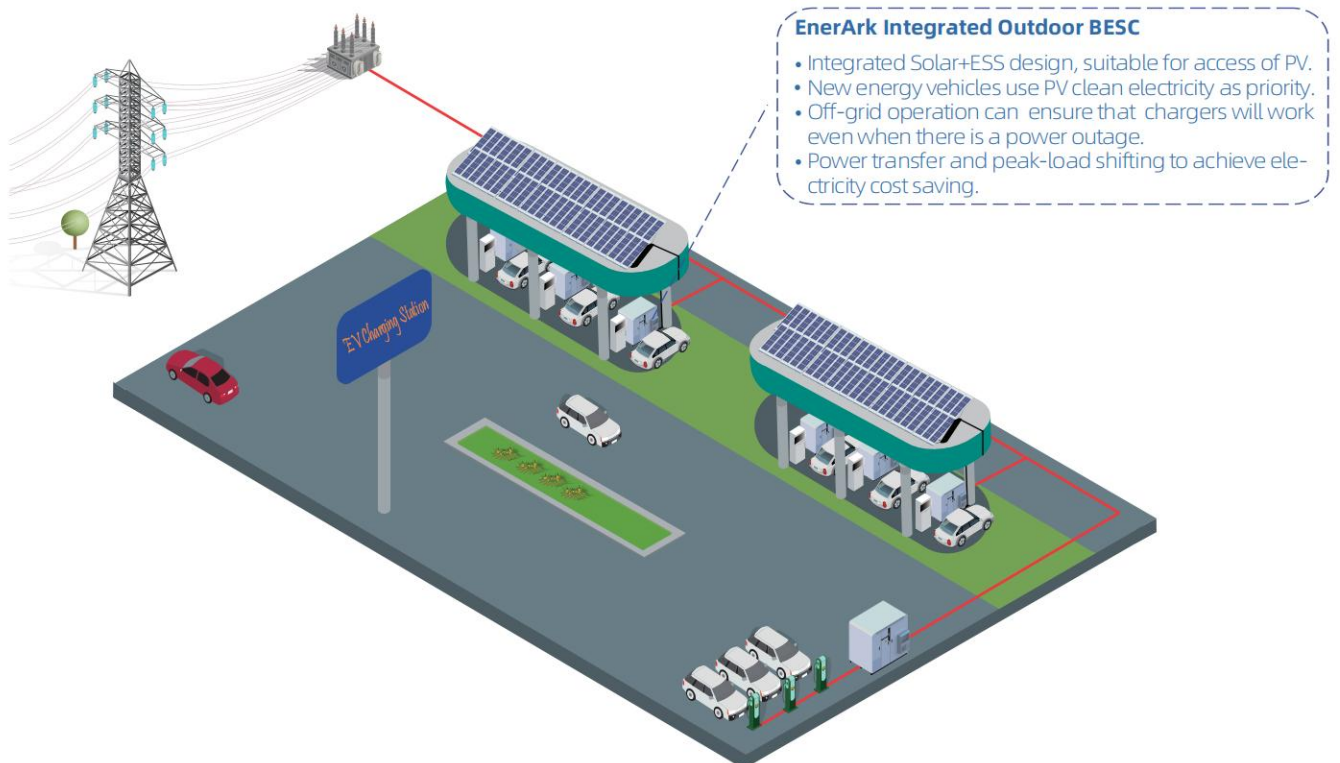


ENERARK APPLICATION SCENARIOS

Business District & Mall



Integrated Solar+ESS Charging Station





Vilion-BESS
energy flowing with demand
未蓝 让“绿色” 随需而动

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