ENERARK-2.0

Integrated Outdoor Battery Energy Storage Cabinet

PRODUCT OVERVIEW

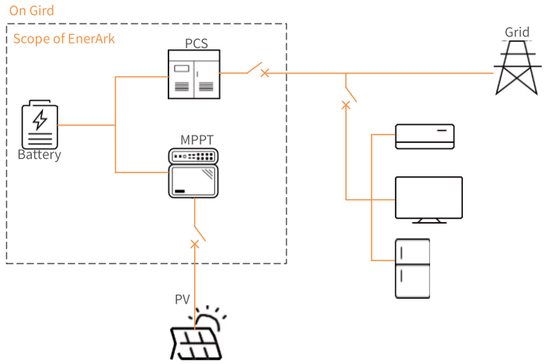
The whole system is plug-and-play, easy to be transported, installed and maintained. It is an one-stop integration system and consist of battery module, PCS, PV controler (MPPT) (optional) , control system, fire control system, temperature control system and monitoring system. The synergy of the system components can achieve effective charging and discharging. It adopts AC coupled microgrid structure, PCS, load, grid, and access to AC bus, and the corresponding control strategy is developed according to the actual case to ensure the safety of power supply.

The battery cluster consists of modules connected in series, and the whole battery system is controlled by BCM to monitor the cluster voltage and current in real time. The battery module consists of LiFePo4 battery cells. It adopts distributed BMM control system with functions of collecting the battery voltage, battery temperature and battery equalization to ensure the module works effectively and safely.

PRODUCT FEATURES

- High-performance LiFePo4 battery to ensure high safety and reliability for energy storage.
- Intelligent temperature control to ensure the optimal temperature environment and lower system power consumption.
- Real-time data backup.
- Automatic fire fighting system with high safety.
- Patented design with pressure relief and flame arrest.
- One-button start, automatic operating and it support multiple parallel connection.
- Protection class IP55, suitable for outdoor use.
- Four layers of safety protection design for higher safety and reliability.
- Remote viewing service.

TYPICAL LAYOUTS



PRODUCT PARAMETERS

Model	EnerArk2.0-30P	EnerArk2.0-60P	EnerArk2.0-100P
Battery parameters			
Cell Type	LFP-280Ah	LFP-280Ah	LFP-280Ah
Module Model	IP20S	IP20S	IP20S
System Configuration	1P100S~1P160S	1P240S	1P240S
Battery Capacity (BOL)	89kWh~143kWh	215kWh	215kWh
Battery voltage range	280V-576V	672V-864V	672V-864V
AC on-grid parameters			
Grid Type	3P4W	3P4W	3P4W
Rated charge/discharge power	30KW	60kW	100kW
Rated grid voltage	AC400V	AC400V	AC400V
Grid Voltage range	-15%~+15%	-15%~+15%	-15%~+15%
Rated grid frequency	50Hz	50Hz	50Hz
Frequency range	±5Hz	±5Hz	±5Hz
Rated current	43A	86A	172A
Power Factor	0.8 (Leading) ~0.8 (Lagging)	0.8 (Leading) ~0.8 (Lagging)	0.8 (Leading) ~0.8 (Lagging)
Output Harmonics (Rated power)	⩽3%	⩽3%	⩽3%
General parameters			
Dimension (W*H*D)	1500*2100*1230mm	1900*2100*1230mm	1900*2100*1230mm
Max Weight	2000kg	2500kg	2500kg
IP Protection Rating	IP54 (Battery room) IP54 (Electrical room)	IP54 (Battery room) IP54 (Electrical room)	IP54 (Battery room) IP54 (Electrical room)
Seismic Intensity Rating	8 degree (IEC60980)	8 degree (IEC60980)	8 degree (IEC60980)
Anti-corrosion grade	C3	C3	C3
Operating temperature【1】	-20°C～50°C	-20°C～50°C	-20°C～50°C
Relative Humidity	0-95% (Non-condensing)	0-95% (Non-condensing)	0-95% (Non-condensing)
Altitude【2】	＜2000m	＜2000m	＜2000m
Cooling method	Battery room: air conditioning Electrical room: forced air cooling	Battery room: air conditioning Electrical room: forced air cooling	Battery room: air conditioning Electrical room: forced air cooling
Noise	⩽75dB	⩽75dB	⩽75dB
System efficiency	⩾85%	⩾85%	⩾85%
Cycle life	10years or＞6000cycles	10years or＞ 6000cycles	10years or＞6000cycles
Fire fighting System	Automatic fire extinguishing	Automatic fire extinguishing	Automatic fire extinguishing
Fire extinguishing media	FM200	FM200	FM200
Communication Interface	RS485、Ethernet	RS485、Ethernet	RS485、Ethernet
Communication protocols	Modbus RTU、Modbus TCP/IP	Modbus RTU、Modbus TCP/IP	Modbus RTU、Modbus TCP/IP
Warranty	5years	5years	5years
Photovoltaic side parameters (Optional)			
Maximum input module power	30KW	60kW/120KW	60kW/120KW
MPPT Voltage Range	200V-850V	200V-850V	200V-850V
Number of MPPT paths	1	1/2	1/2
Number of PV input channels	1	1/2	1/2
Maximum input current	100A	100A/200A	100A/200A

Notes:

【1】The system will be derated when the ambient temperature exceeds 45°C.

【2】The system will be derated when the altitude is between 2000 and 3000m.

Standard Certification:

【1】System:BS7671、GB/T 36558、IEC 62933　【2】Cell:GB/T 36276、IEC 62619、UL1973、UL9540A　【3】PCS: GB/T 34120、G99

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