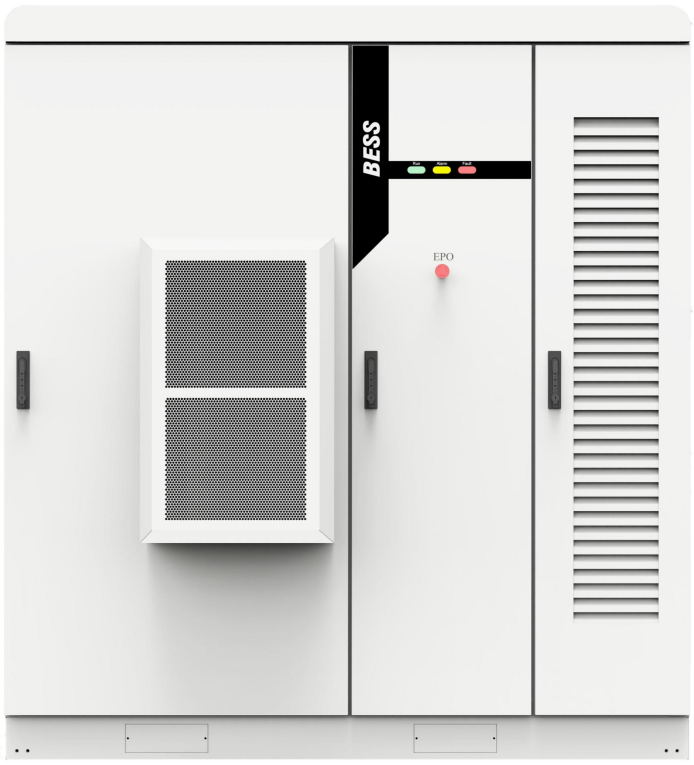
Outdoor Cabinet Air Cooling Energy Storage System

Epoch Series

LEOCH BATTERY



*The appearance of the product is for reference only, and the final delivered product shall prevail

PRODUCT APPLICATIONS

- Peak Shaving
- Energy Arbitrage
- Grid Support Services
- Renewable Energy Integration
- Time-of-Use

4 tiers of safety design for higher **safety** and reliability.

System response time < 100ms. Grid auxiliary service.

Accessing of **solar, wind turbine, diesel generator**, etc.

Parallel connection of multiple cabinets up to **60 Nos** for larger power & capacity.

Modularized design and **easy & quick O&M** optimize the system utilization.

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PRODUCT FEATURES

- Plug-and-Play for ready to use
- Compact with modular design
- Parallel operation up to 60Nos
- Unbalanced loads operation
- Support with solar
- MPPT for PV input (Optional)
- Virtual Power Plant enabled
- IP55 grade, suitable for outdoor
- Intelligent remote monitoring
- Product standard warranty: 5 years

PRODUCT OVERVIEW

Epoch series are a compact and Plug-and-Play outdoor cabinet air cooling energy storage system with easy to be transported, installed and maintained. It is an All-in-One system comprises of PCS, batteries, BMS, EMS, MPPT, automatic fire control system and temperature control system. High-performance EV grade LiFePo4 batteries ensures high safety and reliability with four layers of safety protection with intelligent BMS design. The synergy of the system components and unique design enable to achieve effective charging and discharging for various applications with high energy density and maximized battery life time to provide the lower LCOS. It supports AC Coupling and DC coupling applications with its ease in integration and suitable for all ranges of C&I energy storage projects.

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PRODUCT PARAMETERS

Model	Epoch-S30/***/***-W-WL	Epoch-S50/***/***-W-WL	Epoch-S100/215/***-W-WL
Battery Parameters			
Battery cell type & capacity	$LiFePO_4$ - 280Ah		
Module model	IP20S		
Battery storage capacity range	125kWh~215kWh	125kWh~215kWh	215kWh
AC Side Parameters			
Grid connection type	3P4W		
Charging / discharging power	30kW	50kW	100kW
Rated grid voltage	AC 400V		
Grid voltage range	±15%		
Frequency range	50 (±5) Hz		
Rated AC output current	43A	72A	144A
Power factor	0.8 (Leading) ~ 0.8 (Lagging)		
Harmonics	≤3% (at rated power)		
General Parameters			
Dimensions (W*H*D)	1686mm*2093mm*1354mm		
Maximum weight	2500kg		
Degree of protection	IP55 (Battery Cabinet) IP54 (Electrical Cabinet)		
Cooling method type	Battery Cabinet (air conditioner) & Electrical Cabinet (forced air cooling)		
Fire fighting system	Combustible gas detection + Novec1230 + water fire protection		
Anti-corrosion grade	C3		
Relative humidity	0-95% (non-condensing)		
Altitude**	< 2000m		
Operating temperature*	-20℃ ~ 50℃		
Noise level	≤75dB		
Communication interface	RS485, Ethernet		
Communication protocol	Modbus RTU, Modbus TCP/IP		
Product standard warranty	5 years, 6000 cycles 0.5C, 95%DOD, EOL:70%, (can be extended up to 10 years)		
PV Side Parameters (Optional)			
Maximum PV input power	30kW/60kW	30kW/60kW/90kW/120kWW	30kW/60kW/90kW/120kW
MPPT voltage range	200V-850V		
Number of MPPTs	1/1	1/1/2/2	1/1/2/2
Number of PV inputs	1/1	1/1/2/2	1/1/2/2
Maximum input current	100A/200A	100A/200A/300A/400A	100A/200A/300A/400A

***** The system will be derated when the ambient temperature exceeds 45℃.

****** The system will be derated when the altitude is between 2000 and 3000m.

Certifications:

Epoch System: CE (IEC61000, IEC62477), IEC62619, CEI021(on going),CEI016(on going), VDE2510(on going);

Battery Cell: IEC 62619, UL1973, UL1642, UL9540A;

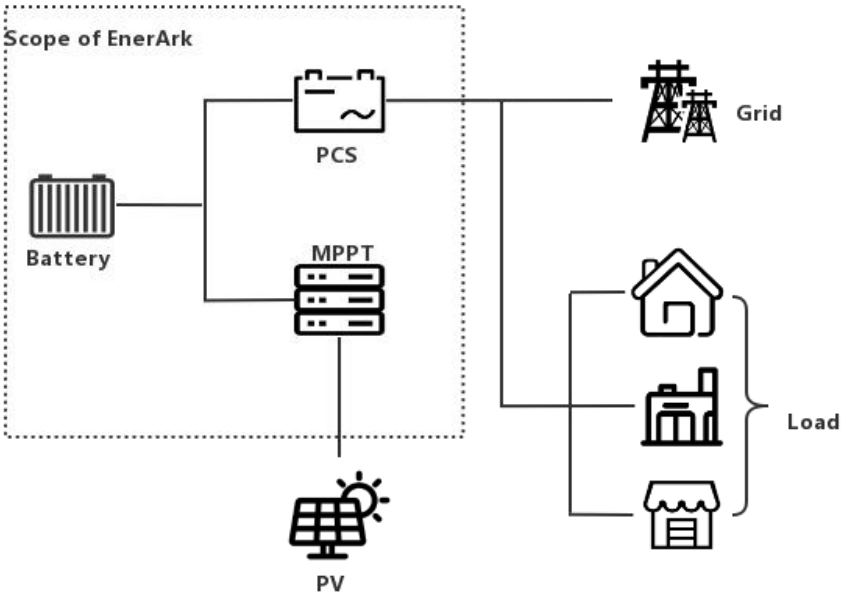
Battery Pack: UN38.3;

PCS: G99, VDE4105, EN50549, AS/NZS 4777, CE(IEC61000, IEC62477) ,IEC62109, NC RfG, NRS097,VDE4110(on going)

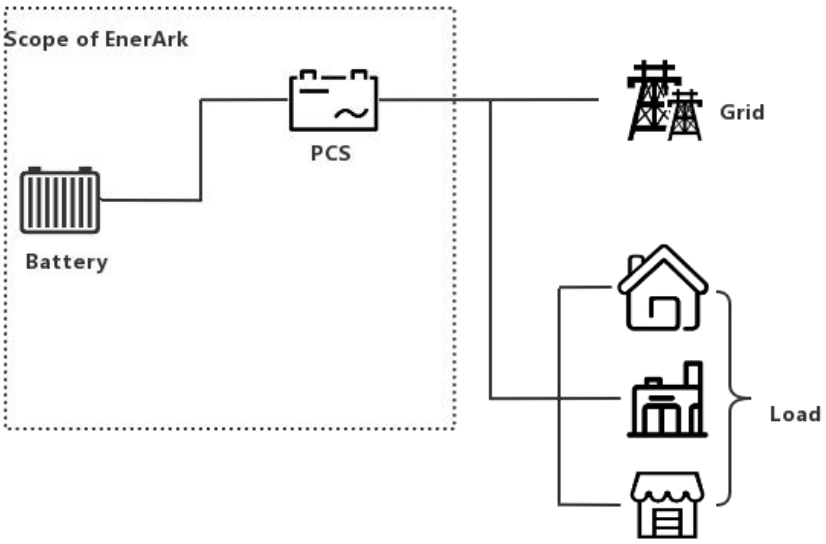
Note: Product specifications are subject to change without any prior notice as per regular modifications made by company.

TOPOLOGY MAP

On-grid/Off-grid & PV:



On-gird:



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