EnerArk

Integrated Outdoor Battery Energy Storage Cabinet

NBN-241K NBN-120K



All-in-One & Plug-and-Play

- All-in-one integration of battery, BMS, PCS, fire protection, thermal management, power distribution, EMS and MPPT
- Factory pre-commissioned for rapid on-site deployment

Intelligent O&M

- Cloud-based monitoring, remote diagnosis, automatic reporting and fault location
- Reduces on-site inspections and lowers O&M labor costs

Safety & Reliability

- Five-level safety protection: cell level, battery module level, cabinet level, system level and station level
- Built-in fire protection: Novec 1230 + water-based fire suppression system

Flexible Expansion & Wide Compatibility

- Modular design supporting multi-cabinet parallel connection, with configurable capacity and power
- Compatible with PV, wind power, grid, and diesel generator
- Supports diversified revenue models: peak shaving, load shifting, demand management, frequency regulation, etc

Technical Parameters

Model	NBN-241K		NBN-120K	
Battery Parameters				
Cell type & capacity	$LiFePO_4$ - 314Ah			
Battery module type	1P20S			
System capacity	241kWh		120kWh	
AC Side On-grid Parameters				
Grid type	3P4W+PE			
Charging/discharging power	120kW	60kW	60kW	30kW
Grid voltage range	AC400V ±15%			
Frequency range	50(± 5) Hz / 60(± 5) Hz			
Rated AC output current	173A	87A	87A	43A
Power factor	0.8 (Leading) ~ 0.8 (Lagging)			
Harmonics	≤ 3% (at rated power)			
AC Side Off-grid Parameters				
Load type	3P4W+PE			
Rated output power	120kW	60kW	60kW	30kW
Rated output voltage	AC 400V±1%			
Rated output frequency	50Hz / 60Hz			
Rated current	173A	87A	87A	43A
General Parameters				
Dimension (W*H*D)	1686mm*2093mm*1392mm		1220mm*2093mm*1340mm	
Max. weight	2600kg		About 1500kg	
Protection level	IP55 (Battery cabinet), IP54 (Electrical cabinet)			
Cooling method	HVAC (Battery cabinet) & Forced air cooling (Electrical cabinet)			
Fire fighting system	Combustible gas detection + Water fire suppression + Novec1230 + [optional] gas aerosol fire extinguishing system			
Anti-corrosion grade	C3			
Relative humidity	0-95% (non-condensing)			
Operating temperature*	-30℃ ~ 50℃			
Operating altitude**	< 3000m			
Noise level	≤ 75dB			
Communication interface & protocol	RS485, Ethernet | Modbus RTU, Modbus TCP/IP			
Display	HMI			
Warranty	5-year product warranty | 10-year performance guarantee			
PV Side Parameters (Optional)				
Max. PV input power	60kW/120kW		30kW/60kW/120kW	
MPPT voltage range	300V ~ 800V (< 241kWh); 300V ~ 680V (= 241kWh)			
Number of MPPT	1/2		1/1/2	
Number of PV inputs	1/2		1/1/2	
Max. input current	200A/400A		100A/200A/400A	
Certifications				

System: CE(IEC61000, IEC62477), IEC62619, UN3480, IEC62933, GB/T36276
Cell: IEC62619, UL1973, UL1642, UL9540A, GB/T36276, ROHS
PACK: UN38.3, GB/T36276
PCS: G99, IEC62109, NC-RfG, EN/IEC62477, EN50549-1, EN50549-2, EN/IEC61000, AS/NZS 4777, VDE4105, NRS097, VDE4110, R25&TOR, C10/11, EIFS2018, etc.

* The system will be derated when the ambient temperature exceeds 45℃.
** The system will be derated when the altitude exceeds 3000m.

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