

EnerArk-M

Integrated Outdoor Battery Energy Storage Cabinet



Vilion-BESS
energy flowing with demand

- All-in-One and highly integrated design
- Parallel operation of multiple cabinets
- Supporting DC coupling with solar
- Compact design and brilliant energy storage application experience



- 5 tiers of safety design** and **water firefighting** for higher safety.
- Quickly System response for **grid auxiliary service**.
- Accessing of **solar, wind turbine, diesel generator**, etc.
- Parallel connection** of multiple cabinets for larger power & capacity.
- Modularized design and **easy & quick O&M** optimize the system utilization.



Office Park/Community

- Peak-load Shifting
- TOU Tariff Arbitrage
- Electricity Cost Saving
- Grid Auxiliary Service



Solar + Storage + Charging Station

- Store Extra Solar Energy
- Peak-load Shifting
- Electricity Cost Saving
- Eco-friendly Solution



Plaza/Hospital/Hotel

- Peak-Shaving
- Backup Power
- Demand Side Response
- Power Quality Optimization
- TOU Tariff Arbitrage



Solar + Storage Microgrid

- Backup Power
- Store Extra Solar Energy
- Distributed Energy Integration
- Optimizing The Power Grid Upgrading

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Parameters	EnerArk-M-NBN-P30	EnerArk-M-NBN-P50
Battery Parameters		
Cell type & capacity	LiFePO ₄ – 280Ah	
Battery module type	1P20S	
System capacity range	107kWh	
AC Side On-grid Parameters		
Grid type	3P4W	
Charging/discharging power	30kW	50kW
Grid voltage range	AC 400V ±15%	
Frequency range	45Hz ~ 55Hz	
Rated AC output current	43A	72A
Power factor	0.8 (Leading) ~ 0.8 (Lagging)	
Harmonics	≤3% (@rated power)	
AC Side Off-grid Parameters		
Wiring method	3P4W+PE	
Output voltage range	400(±1%)V	
Rated output power	30kW	50kW
Rated output Frequency	50Hz	
Frequency accuracy	0.2Hz	
General Parameters		
Dimension (W*H*D)	1233mm*2093mm*1304mm	
Max. weight	About 1500kg	
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 suppression	
Anti-corrosion grade	C3	
Relative humidity	0-95% (non-condensing)	
Operating temperature *	-20°C~50°C	
Operating altitude**	<2000m	
Noise emission	≤75dB	
Communication interface	RS485, Ethernet	
Communication protocol	Modbus RTU, Modbus TCP/IP	
Warranty	5 years, (can be extended to 10 years)	
PV Side Parameters (Optional)		
Max. PV input power	30kW/60kW	30kW/60kW/90kW/100kW
MPPT voltage range	200V~850V	200V~850V
Number of MPPT	1/1	1/1/2/2
Number of PV inputs	1/1	1/1/2/2
Max. input current	100A/200A	100A/200A/300A/400A
Certifications		
System: CE(IEC61000,IEC62477),IEC62619,UN3480,CEI021(on going),CEI016(on going), VDE2510(on going) Converter: G99, VDE4105, EN50549, AS/NZS 4777,CE(IEC61000,IEC62477) , IEC62109, NC RfG,NRS097,VDE4110(on going) Cell: IEC62619, UL1973, UL1642, UL9540A PACK: UN38.3		

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

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



Global Headquarters: Vilion (Shenzhen) New Energy Technology Co., Ltd.
EU Headquarters: Vilion Tech. B.V. (Amsterdam, Netherlands.)
Tel: +86 0755 89454625
Email: Contact@szweilan.com

Version No.: 1.1

Website: www.szvilion.com

Add: Lianzhan Industrial Park, No.2 Lanjing North Road, Pingshan District, Shenzhen, China.

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