

BESS-50KW/100KWH

BES-H50X100

The BES-H50X100 is a versatile energy solution designed for large residential complexes, retail spaces, agricultural sites, and small-scale industrial applications. It integrates power generation, conversion, storage, and utilization into a single, robust system. With high-performance hardware and advanced IoT software, the BES-H50X100 supports various operational modes, including self-consumption, time-of-use (TOU) optimization, and backup power. This flexible system is engineered to meet daily energy needs and can easily integrate with additional equipment, such as diesel generators, to enhance grid stability, security, and cost-effectiveness for end-users.

High Performance

- Up to 200% PV oversizing for higher energy generation
- Global MPP scan for maximum energy harvest
- Max. 40A DC input current for high power solar panel

Ultimate Safety

- Four-level fire safety for added protection
- Smart IV Curve Scan for early panel fault detection
- Terminal temperature detection, ensuring system safety

Smart Management

- Advanced EMS algorithms to ensure system safety and stability
- Cloud-based technology for remote monitoring and maintenance
- Quick status detection and fault recording for fast fault location and analysis

Flexible Adaptability

- Grid-connected and off-grid support
- Modular design for easy scalability
- Three-phase unbalanced output for reliable operation



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BESS

Model	BES-H50X100
DC Parameters	
Max. recommended PV array power	100 kWp
Max. PV input voltage	1100V
Nominal PV input voltage	620V
Start-up voltage	180V
MPPT voltage range	150 ~ 950V
Max. input current per MPPT	40A
Isc PV array Short Circuit Current per MPPT	50A
No. of MPP trackers / Strings per MPP tracker	5 / 2
AC Parameters	
Rated output power	50kW
Max. apparent power	50kVA
Nominal AC voltage	3/N/PE, 220/380 V 3/N/PE, 230/400 V
Nominal AC frequency	50 Hz / 60 Hz
Rated output current	72.5A
Max. output continuous current	75.8A
Adjustable Power Factor range	~ 1 (0.8 lagging to 0.8 leading)
THDi (rated power)	< 3%
Battery Parameters	
Battery type	LiFePO4
Battery voltage	100 ~ 800V
Rated charge/discharge current	160A (80A × 2)
Rated charge/discharge power	55kW
System Parameters	
Weight (with inverter)	1500 kg
Dimensions (with inverter) (W × H × D)	1000*2120*1200 mm
Noise	≤70dB
Self-consumption at night	< 30W
Operating ambient temperature range	-25 ~ 60°C
Relative humidity	0 ~ 95% RH (non-condensing)
Ingress protection	Cabinet: IP55; Inverter: IP66
Cooling concept	Smart air cooling
Max. operating altitude	2000m
Fire protection	Aerosol (Optional: Novecl230) / Water
Topology	Non-isolated
Standard	IIEC62619, IEC63056:2000, IEC61000, IEC62477-1, UN38.3