

JA RESIDENTIAL ENERGY STORAGE SYSTEM

BlueStar All-In-One ESS



Single-phase
ESS

5kW/5kWh
(5/10/15/20kWh)

Three-phase
ESS

10kW/10kWh
(10/20/30/40kWh)

PRODUCT HIGHLIGHTS

SAFE

- CATL LFP battery
- Safe, reliable, 10-year warranty

SIMPLE

- All-in-one design, multiple battery expansion
- 30 mins quick installation

SMART

- Smart energy management system
- Real-time monitoring via global APP or Web

BATTERY MODEL

BLUESTAR-PACK

PHYSICAL		OPERATION	
Battery Type	LFP (LiFePO4)	Max. Charge/Discharge Current	50A / 80A
Weight	54kg	Rated DC power	4096W
Dimension (W x H x D)	540 x 490 x 240mm	Max. Charge/Discharge Power	2825W / 4096W
IP Protection	IP65	Operating Temperature Range	-10 to 50°C charging; -10 to 50°C discharging
Warranty	5 Year Product Warranty 10 Year Performance Warranty	Humidity	0 ~ 95% (No condensation)
Electrical		BMS	
Energy Capacity	5.12kWh	Power Consumption	< 2W
Usable Capacity	4.6kWh	Communication	CAN & RS-485
Depth of Discharge (DoD)	90%	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Nominal Voltage	51.2V		
DC Circuit Breaker	125A	Certificate	
Operating Voltage Range	44.8 - 56.5V	Safety(Cell)	Pack: IEC/EN 62619; UN 38.3 Cell: IEC/EN 62619; UN 38.3; UL 1973
Internal Resistance	< 20mΩ		
Cycle Life	10000 cycle		

HYBRID INVERTER MODEL

	BLUESTAR-INVERTER-1P-05K-EU	BLUESTAR-INVERTER-3P-10K-EU
PV String Input		
Max. Continuous PV Input Power	6.5kW	20kW
Max. DC Voltage	580V	1100V
MPPT Voltage Range	80 - 560V	140 - 1000V
Start Voltage	150V	200V
Number of MPPT Tracker	2	2
Strings Per MPPT Tracker	1	1
Max. Input Current Per MPPT	15A	15A
Max. Short-circuit Current Per MPPT	18A	20A
AC Output (Grid)		
Nominal AC Output Power	5kW	10kW
Max. AC Apparent Power	7.36kVA (from grid)	11kA (from grid)
Nominal AC Voltage	230Vac	400Vac
AC Grid Frequency Range	50 / 60Hz ± 5Hz	50 / 60Hz ± 5Hz
Max. Output Current	22A	16A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging	0.8 leading - 0.8 lagging
THDi	< 3%	< 3%
Battery Input		
Battery Type	LFP (LiFePO4)	LFP (LiFePO4)
Nominal Battery Voltage	48V	51.2V
Charging Voltage Range	40 - 60V	44 - 58V
Max. Charging Current/Discharging Current	100A	160 / 200A
Battery Capacity	100 - 400Ah	200 / 400 / 600 / 800Ah
AC Output (Backup)		
Max. AC Output Power	5kVA	10kVA
Nominal AC Output Power	4.6kW	9.2kW
Peak Output Apparent Power	6.9kVA	10kVA
Max. Output Current	20A	14.5A
Nominal Output Frequency	50 / 60Hz	50 / 60Hz
Output THDv (@Linear Load)	< 3% (Linear Load)	< 2% (Linear Load)
Efficiency		
Max. PV Efficiency	97.6%	97.6%
Euro. PV Efficiency	97.0%	97.0%
General Specifications		
Dimensions W x H x D	540 x 590 x 240mm	540 x 980 x 240mm
Weight	32kg	49kg
Operating Temperature Range	-25°C ~ +60°C	-25°C ~ +60°C
Cooling Type	Natural Convection	Natural Convection
Max. Operating Altitude	2000m	2000m
IP Class	IP65	IP65
Topology	Battery Isolation	Battery Isolation
Communication	RS-485 / CAN 2.0 / WIFI / 4G	RS-485 / CAN 2.0 / WIFI / 4G
Display	LCD / APP	LCD / APP
Certification & Standard	IEC/EN 62109-1&2; IEC/EN 61000-6-1; IEC/EN 61000-6-2; EN 61000-6-3; IEC/EN 61000-6-4; IEC/EN 61000-3-11; EN61000-3-12; IEC 60529; IEC 60068; IEC 61683; IEC 62116; IEC 61727; EN 50549-1; AS 4777.2; NRS 097; VDE-AR-N 4105; CEI 0-21; G98/G99; C10/11	IEC/EN 62109-1&2; IEC/EN 61000-6-1; IEC/EN 61000-6-2; EN 61000-6-3; IEC/EN 61000-6-4; IEC/EN 61000-3-11; EN 61000-3-12; IEC 60529; IEC 60068; IEC 61683; IEC 62116; IEC 61727; EN 50549-1; VDE-AR-N 4105; C10/11; VDE0126-1-1; CEI 0-21; NC Rfg; G98; EFS; NTS&UNE 217001

*Specification indexes may be subject to changes without prior notice.