

BluE Residential ESS

All In One Energy Storage System, CATL Battery Solutions

▶ **Safety:**

CATL LFP Battery, stable and safe.
Module, pack, system, triple protection.
IP65, outdoor installation, away from living room.

▶ **Simple:**

Modular design, single person can carry and install it.
Plug and play, 30 min quick installation
Space saving; 0.15 sq. m foot print.

▶ **Interconnection:**

Global cloud platform & Mobile APP,
anytime and any where.
Open API, support power internet applications.



Battery Model

Physical

Battery type	LFP (LiFePO4)
System Weight	58KG
Dimension (W x D x H)	540*500*240
IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty

Electrical

Energy Capacity	5.12kwh
Usable Capacity	4.6kwh
Depth of Discharge (DoD)	90%
Nominal Voltage	51.2V
Max. Short-circuit Current (Fuse)	125A
Operating Voltage Range	44.8-56.5V
Internal Resistance	<20mΩ
Cycle Life	10000cycle

BluE-PACK5.1

Operation

Max. Charge / Discharge Current	50A/80A
Rated DC power	4096W
Max. Charge / Discharge Power	2825W/4096W
Operating Temperature Range	0 to 50 C charging -10 to 50 C discharging
Humidity	0~95% (No condensation)

BMS

Modules Connection	4
Capacity	100-400Ah
Power Consumption	<2W
Communication	CAN & RS485
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement

Certificate

Safety(Cell)	IEC/EN 62619;UN38.3
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*Maximum 4 battery pack in parallel.

Hybrid Inverter Model	BluE-S 3680D	BluE-S 5000D
PV String Input		
Max. recommended PV power	4800	6500
Max. DC voltage	580	580
Nominal voltage	400	400
MPPT voltage range	120V-550V	120V-550V
Start voltage	130V	130V
MPPT voltage range	184~550V	230~550V
Number of MPP tracker	2	2
Strings per MPP tracker	1	1
Max. input current per MPPT	15A	15A
Max. short-circuit current per MPPT	18A	18A
AC Output (Grid)		
Nominal AC output power	3680W	4999W
Max. AC apparent power	7360VA (from grid)	7360VA (from grid)
Maximum AC output power	3680W	4999W
Nominal AC voltage	230Vac	230Vac
AC grid frequency range	50 / 60Hz±5Hz	50 / 60Hz±5Hz
Max. output current	16A	22A
Max. input current	32A	32A
Power factor (cosφ)	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%
Battery Input		
Battery Type	LFP (LiFePO4)	LFP (LiFePO4)
Nominal Battery Voltage	51.2V	51.2V
Max. Charging Voltage	57.6V	57.6V
Max. Charging Current	50A	100A
Max. Discharging Current	80A	100A
Battery Capacity	100-400Ah	100-400Ah
Charging Strategy for Li-Ion Battery	Depend on the BMS	Depend on the BMS
AC Output (Backup)		
Max. Output Apparent Power	4000VA	5000VA
Peak Output Apparent Power	6900VA 10sec	6900VA 10sec
Max. Output Current	16A	20A
Nominal Output Voltage	230±0.2%	230±0.2%
Nominal Output Frequency	50/60Hz±0.2%	50/60Hz±0.2%
Output THDv (@Linear Load)	<2% (Linear load)	<2% (Linear load)
Efficiency		
Max. PV Efficiency	97.6%	97.6%
Euro. PV efficiency	97.0%	97.0%
Max. Battery to Load Efficiency	94.0%	94.0%
Battery charged by PV Max. Efficiency	98.0%	98.0%
Protection		
DC switch	Bipolar DC Switch (125A/Pole)	Bipolar DC Switch (125A/Pole)
Anti-islanding protection	Yes	Yes
Output over current	Yes	Yes
DC reverse polarity protection	Yes	Yes
String fault Detection	Yes	Yes
AC/DC surge protection	DC Type II;AC Type III	DC Type II;AC Type III
Insulation detection	Yes	Yes
AC short circuit protection	Yes	Yes
General Specifications		
Dimensions W x H x D (mm)	540*590*240	
Weight(kg)	32	
Operating temperature range	0°C~+55°C(Charging)/-20°C~+55°C(DisCharging)	
Noise (dB)	<25	
Cooling type	Natural Convection	
Max. operation altitude	2000m	
Max. operation humidity	0~95% (No condensation)	
IP class	IP65	
Topology	Battery Isolation	
Communication	RS485/CAN2.0/WIFI/4G	
Display	LCD/APP	
Certification & Standard	IEC/EN 62109-1&2;IEC/EN61000-6-1;IEC/EN61000-6-2;EN61000-6-3; IEC/EN61000-6-4;IEC/EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727;EN50549-1; AS 4777.2;NRS 097;VDE-AR-N-4105;CEI0-21;G98;G99;C10/C11	

KSTAR

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