

## 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-M1	BluE-S 5000D-M1
<b>PV String Input</b>		
Max. DC Input Power (W)	4800	6500
Max. DC Input Voltage (V)	580	580
Nominal voltage (V)	400	400
MPPT voltage range	120V-550V	120V-550V
Startup voltage	130V	130V
MPPT voltage range at full load	184~550V	230~550V
Number of MPPT	2	2
No. of Strings per MPPT	1	1
Max. input current per MPPT	13A	13A
Max. short-circuit current per MPPT	16A	16A
<b>AC Output (Grid)</b>		
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%
<b>Battery Input</b>		
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
<b>AC Output (Backup)</b>		
Max. Output Apparent Power	4000VA	4000VA
Peak Output Apparent Power	6900VA 10sec	6900VA 10sec
Max. Output Current	16A	16A
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%	<2% (Linear load) /<2%
<b>Efficiency</b>		
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%
<b>Protection</b>		
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
<b>General Specifications</b>		
Dimensions W x H x D (mm)	540*640*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	
Display	LCD/APP	
Certification & Standard	AS/NZS 4777.2; CEI 0-16; IEC/EN 62109-1&2, IEC62040-1; IEC62116;IEC61727; EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4,EN61000-4-16, EN61000-4-18, EN61000-4-29	

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