

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



Intercon-
nection

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

Battery Model		BluE-PACK5.1	
Physical		Operation	
Battery type	LFP (LiFePO4)	Max. Charge/Discharge Current	50A/80A
System Weight	58KG	Rated DC power	4096W
Dimension (W x D x H)	540*500*240	Max. Charge/Discharge Power	2825W/4096W
IP Protection	IP65	Operating Temperature Range	0 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	Modules Connection	4
Usable Capacity	4.6kwh	Capacity	100-400Ah
Depth of Discharge (DoD)	90%	Power Consumption	<2W
Nominal Voltage	51.2V	Communication	CAN & RS485
Max. Short-circuit Current (Fuse)	125A	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Operating Voltage Range	44.8-56.5V	Certificate	
Internal Resistance	<20mΩ	Safety(Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973
Cycle Life	10000cycle		

*Maximum 4 battery pack in parallel.

Hybrid Inverter Model	BluE-S 5000D
PV String Input	
Max. DC Voltage	580
Nominal Voltage	400
MPPT Voltage Range	80V-560V
Start Voltage	130V
Number of MPP Tracker	2
Strings Per MPP Tracker	1
Max. Input Current Per MPPT	15A
Max. Short-circuit Current Per MPPT	18A
AC Output (Grid)	
Nominal AC Output Power	4999W
Max. AC Apparent Power	7360VA (from grid)
Max. AC Output Power	4999W
Nominal AC Voltage	230Vac
AC Grid Frequency Range	50 / 60Hz±5Hz
Max. Output Current	22A
Max. Input Current	32A
Power Factor (cosΦ)	0.8leading-0.8lagging
THDi	<3%
Battery Input	
Battery Type	LFP (LiFePO4)
Nominal Battery Voltage	48V
Max. Charging Voltage Range	40-60V
Max. Charging Current	100A
Max. Discharging Current	100A
Battery Capacity	100-400Ah
Charging Strategy for Li-Ion Battery	Depend on the BMS
AC Output (Backup)	
Max. Output Apparent Power	5000VA
Peak Output Apparent Power	6900VA 10sec
Max. Output Current	20A
Nominal Output Voltage	230V±0.2%
Nominal Output Frequency	50/60Hz±0.2%
Output THDv (@Linear Load)	<2% (Linear Load)
Efficiency	
Max. PV Efficiency	97.6%
Euro. PV Efficiency	97.0%
Protection	
DC Switch	Bipolar DC Switch (125A/Pole)
Anti-islanding Protection	Yes
Output Over Current	Yes
DC Reverse Polarity Protection	Yes
String Fault Detection	Yes
AC/DC Surge Protection	DC Type II;AC Type III
Insulation Detection	Yes
AC Short Circuit Protection	Yes
General Specifications	
Dimensions W x H x D	540*590*240mm
Weight	32kg
Operating Temperature Range	-25°C~+60°C
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

*1. Nominal AC output power is 4999W for Australia and 4600W for Germany and South Africa.

*2. Maximum output current is 21.7A for Australia and 20A for Germany and South Africa.

KSTAR

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