

NEW

KSTAR

# 3-Ph BluE Residential ESS

All In One Energy Storage System  
CATL Battery Solutions



CATL LFP Battery, Stable and safe  
Module, pack, system, triple protection



Adjustable power in each phase  
Support diesel generator control(DI/DO)



Modular design, Plug and play  
Mobile APP Monitoring



Supporting 200% oversized PV power  
On&OFF Grid parallel system

| Battery Model            |  | BluE-PACK5.1  |   |
|--------------------------|--|---|---|
| <b>Physical</b>          |  | <b>Operation</b>  |   |
| Battery type             | LFP (LiFePO4)  | Max. Charge/Discharge Current                                 | 50A/80A   |
| System Weight            | 54KG   | Rated DC power  | 4096W   |
| Dimension (W x H x D)    | 540*490*240mm  | Max. Charge/Discharge Power                                   | 2825W/4096W   |
| IP Protection            | IP65   | Operating Temperature Range                                   | 0 to 50°C charging<br>-10 to 50°C discharging   |
| Warranty                 | 5 Year Product Warranty,<br>10 Year Performance Warranty | Humidity  | 0~95% (No condensation)   |
| <b>Electrical</b>        |  | <b>BMS</b>  |   |
| Energy Capacity          | 5.12kwh  | Modules Connection  | Max.8   |
| Usable Capacity          | 4.6kwh   | Capacity  | 200/400/600/800Ah   |
| Depth of Discharge (DoD) | 90%  | Power Consumption   | <2W   |
| Nominal Voltage          | 51.2V  | Communication   | CAN & RS485   |
| DC Circuit Breaker       | 125A   | Monitoring Parameters   | System voltage, current, cell voltage, cell temperature, PCBA temperature measurement |
| Operating Voltage Range  | 44.8-56.5V   | <b>Certificate</b>  |   |
| Internal Resistance      | <20mΩ  | Safety(Cell)  |   |
| Cycle Life               | 10000cycle   | Pack: IEC/EN 62619;UN38.3<br>Cell: IEC/EN 62619;UN38.3;UL1973 |   |

| Hybrid Inverter Model               | E10KT                   |
|-------------------------------------|-------------------------|
| <b>PV String Input</b>              |                         |
| Max. Continuous PV Input Power      | 20kW                    |
| Max. DC Voltage                     | 1100V                   |
| Nominal Voltage                     | 720V                    |
| MPPT Voltage Range                  | 140V-1000V              |
| MPPT Voltage Range (Full Load)      | 420V-850V               |
| Start Voltage                       | 200V                    |
| Number of MPPT                      | 2                       |
| Strings Per MPPT                    | 1                       |
| Max. Input Current Per MPPT         | 15A                     |
| Max. Short-circuit Current Per MPPT | 20A                     |
| <b>AC Output (Grid)</b>             |                         |
| Nominal AC Output Power             | 10kW                    |
| Max. AC Apparent Power              | 11kVA                   |
| Nominal AC Voltage                  | 400Vac                  |
| AC Grid Frequency Range             | 50 / 60Hz±5Hz           |
| Nominal Output Current              | 14.5A                   |
| Max. Output Current                 | 16A                     |
| Power Factor (cosΦ)                 | 0.8leading-0.8lagging * |
| THDi                                | < 3%                    |
| <b>Battery Input</b>                |                         |
| Battery Type                        | LFP (LiFePO4)           |
| Nominal Battery Voltage             | 51.2V                   |
| Charging Voltage Range              | 44-58V                  |
| Max. Charging Current               | 160A                    |
| Max. Discharging Current            | 200A                    |
| Battery Capacity                    | 200/400/600/800Ah       |
| <b>AC Output (Backup)</b>           |                         |
| Nominal AC Output Power             | 9.2kW                   |
| Max. AC Output Power                | 10kVA                   |
| Nominal Output Current              | 13.3A                   |
| Max. Output Current                 | 14.5A                   |
| Nominal Output Voltage              | 400V                    |
| Nominal Output Frequency            | 50/60Hz                 |
| Output THDv (@Linear Load)          | <3% ( Linear Load )     |
| <b>Efficiency</b>                   |                         |
| Max. PV Efficiency                  | 97.60%                  |
| Euro. PV Efficiency                 | 97.00%                  |
| <b>Protection</b>                   |                         |
| Anti-islanding Protection           | Yes                     |
| Output Over Current Protection      | 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                     |
| <b>General Specifications</b>       |                         |
| Dimensions W x H x D                | 540*980*240mm           |
| Weight                              | 51kg                    |
| Operating Temperature Range         | -25°C~ +60°C            |
| Cooling Type                        | Natural Convection      |
| Max. Operation Altitude             | 2000m                   |
| Operation Humidity                  | 0~95% (No Condensation) |
| IP Class                            | IP65                    |
| Topology                            | Battery Isolation       |
| Communication                       | RS485/CAN2.0/WIFI/4G    |
| Display                             | LCD/APP                 |

\* 0.95leading-0.95lagging for Germany

**KSTAR**

Stock code: 002518



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