

# 3-Ph BluE Residential ESS

All In One Energy Storage System CATL Battery Solutions



- Safety
- Simple
- Adaptable
- Efficient

| Battery Model            |                                                          | BluE-PACK5.1                                                  |                                                                                       |
|--------------------------|----------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Physical</b>          |                                                          | <b>Operation</b>                                              |                                                                                       |
| Battery Type             | LFP (LiFePO4)                                            | Max. Charge/Discharge Current                                 | 50A/80A                                                                               |
| 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 <sup>1</sup>          | 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)          | <2% ( Linear Load )     |
| <b>Efficiency</b>                   |                         |
| Max. PV Efficiency                  | 97.6%                   |
| Euro. PV Efficiency                 | 97.0%                   |
| <b>Protection</b>                   |                         |
| Anti-islanding Protection           | Yes                     |
| Output Over Current Protection      | Yes                     |
| DC Reverse Polarity Protection      | Yes                     |
| String Fault Detection              | Yes                     |
| DC/AC 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                              | 49kg                    |
| Operating Temperature Range         | -25°C ~ +60°C           |
| Cooling Type                        | Natural Convection      |
| Max. Operating Altitude             | 2000m                   |
| Operating 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.  
 1. Minimum voltage for inverter to start power output.