# ESS 10kW~40kW

## Battery Energy Storage All-in-One Three Phase

10kWh  16kWh  20kWh  25kWh  30kWh  40kWh

### • Features

- Unique integrated inverter, MPPT and battery pack design

- LiFePO4 Battery inside

- Optional WIFI module for real-time remote monitoring• High reliability intelligent BMS .

- Unique automatic calibration active banlancing technology BMS syestem.

### • Applications

On&off-grid     PV generation     Peak & Valley Reduction     Back-up power

# • Technical Parameter

| ESS Battery Energy Storage All-in-One | | | | | | |
|---|---|---|---|---|---|---|
| Model | ESS 10KW | ESS 16KW | ESS 20KW | ESS 25KW | ESS 30KW | ESS 40KW |
| **Input** | | | | | | |
| Nominal Voltage | 48V three phase/400V three phase | | | | | |
| Voltage Range | -10%+15% | | | | | |
| Frequency | 50Hz±2% | | | | | |
| THDIin | ≤3% at 100% of the nominal load | | | | | |
| Power Factor | >0.99 from 50% to 100% of nominal load | | | | | |
| **Output with mains(AC-AC)** | | | | | | |
| Nominal Voltage | 400V three phase | | | | | |
| Nominal Power | 10KVA | 16KVA | 20KVA | 25KVA | 30KVA | 40KVA |
| Active power | 10KW | 16KW | 20KW | 25KW | 30KW | 40KW |
| DC-AC Efficiency | ≥96.5% | | | | | |
| Voltage variation (static) | ±1% | | | | | |
| Voltage variation (dynamic 0- 100%;100-0%) | ±1% | | | | | |
| THDv on nominal power (linear load) | According to the actual load | | | | | |
| THDv on nominal power (not linear load P.F.= 1) | According to the actual load | | | | | |
| Frequency | 50Hz | | | | | |
| Frequency tolerance | ±2% | | | | | |
| Current Crest Factor | >3:1 | | | | | |
| Overload capability: 10 min 60 sec | 120% 1oad rate with no bypass intervention, 60 sec 150% load rate with no bypass intervention,over current protection | | | | | |
| **Battery** | | | | | | |
| Type | Lithium ion | | | | | |
| Unit capacity | 48KWH | 64KWH | 80KWH | 96KWH | 128KWH | 160KWH |
| Nominal BESS Battery Voltage | 51.2VDC | | | | | |
| Battery charger type | PWM hi efficiency,one in each power module | | | | | |
| Charging Cycle | Intelligent with boost charge and advanced management | | | | | |
| Max Charging Current | 140A | | | | | |
| Independent battery configuration (max) | Parallel connection up to 10 PCS | | | | | |
| **Mechanical and Miscellaneous** | | | | | | |
| IP | IP54 | | | | | |
| Color | RAl Grey/Black | | | | | |
| Technology rectifier/ booster/ inverter | MOSFET | | | | | |
| Communication Interface | RS485(user)x1 CAN x1 SNMP Slot x1 | | | | | |
| Input/Output connections | 3P+N+PE Connectors on Terminal Block | | | | | |
| Cooling Method | Air Conditioning with fan | | | | | |