

Residential Energy Storage System

Lithium Battery Specification

Mode: RS-C51400A (Old model TB51400F-T105B)



| Issued Date | Version | Modified Content | | Registered |
|-------------------|---------|--|---------------|--------------|
| 2022.8.11 | V1.0 | First release | | Simon Chen |
| 2023.1.9 | V1.1 | Modify the Max. charge & discharge current | | Simon Chen |
| | | | | |
| TOPBAND 拓邦 | | Registered | Checked | Approved |
| | | Li Yujing | Simon Chen | Huang Yu |
| Customer | | Customer | Approved/Date | Checked/Date |
| Customer Model | | Approved | | |

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1. Features

- ◆ High safety LiFePO4 battery;
- ◆ Long cycle life (≥ 6000 cycles);
- ◆ Floor mounted rack;
- ◆ Ingress Protection grade:IP55;
- ◆ Support WIFI cloud and APP monitor;
- ◆ Optional RS485, CAN communication;
- ◆ Support Schneider, DEYE, Sol-Ark, Megarevo, SMA , Victron inverter;
- ◆ Support parallel use up to 20units;
- ◆ UL1973, UN38.3 certified;

2. Battery Specification

| Items | Description |
|--------------------------------------|---|
| Nominal voltage | 51.2V |
| Nominal capacity | 400Ah |
| Nominal energy | 20.0kWh |
| Usable energy | 19.2kWh |
| Cell Operation temperature | Discharge: $-20^{\circ}\text{C}\sim 60^{\circ}\text{C}$ ($-4^{\circ}\text{F}\sim 140^{\circ}\text{F}$) Charge: $0^{\circ}\text{C}\sim 45^{\circ}\text{C}$ ($32^{\circ}\text{F}\sim 113^{\circ}\text{F}$) |
| Charging Voltage | Normal charging: 56.0V; Float Charging: 54.0V |
| Max. charging current | 180A |
| End discharging voltage | 43.2V |
| Max. discharging current | Continuously: 180A; Peak: 500A(3S) |
| Cycle life@0.33C | ≥ 3000 cycles (DOD100%); ≥ 6000 cycles(DOD80%) |
| Life time | 10years |
| Dimensions(Width/Depth/ Height) | 498*408*1235 mm |
| Battery weight | Approx. 235kg |
| Certification | UN38.3, UL1973, UL9540A |
| Self-discharge rate | $\leq 3\%$ per month |
| Storage Temperature & Humidity Range | $-10\sim 30^{\circ}\text{C}$, 45%~85%RH |
| Installation environment | IP55, Indoor |
| Installation Attitude | $\leq 4,000\text{m}$ |

3. BMS Function

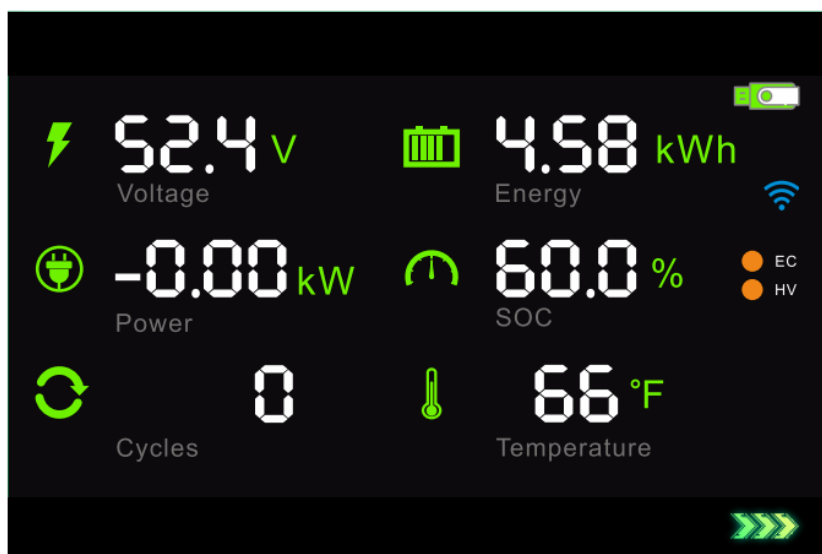
| Items | Description |
|------------------|--|
| Over charge | Over-charge alarm for each cell 3.60±0.03V (Not display in LCD or alarm LED) |
| | Over-charge protection for each cell 3.65±0.03V, Delay time:1s |
| | Over-charge release for each cell 3.35±0.03V |
| | Over-charge alarm for total voltage 57.6V±0.5V |
| | Over-charge protection for total voltage 58.4V±0.5V, Delay time:1s |
| | Over-charge release for total voltage 54.0V±0.5V |
| | Over-charge release method Under the release voltage |
| Over discharge | Over-discharge alarm for each cell 2.90±0.03V |
| | Over-discharge protection for each cell 2.70±0.03V, Delay time:1s |
| | Over-discharge release for each cell 3.15±0.03V |
| | Over-discharge alarm for total voltage 48.0V±0.5V |
| | Over-discharge protection for total voltage 43.2V±0.5V, Delay time:1s |
| | Over-discharge release for total voltage 50.4V±0.5V |
| | Over-discharge release method Charge to recovery |
| Over current | Charge over current alarm 220±10A |
| | Charge over current protection 260±5A, Delay time:5s |
| | Charge over current release method Auto release after 1min; |
| | Discharge over current alarm 220±5A |
| | Discharge over current protection 260±10A, Delay time:1s |
| | Over current release method Auto release after 1min |
| Over temperature | Charge over temperature alarm 50±3℃ |
| | Charge over temperature protection 55±3℃ |
| | Charge over temperature release 45±3℃ |
| | Discharge over temperature alarm 60±3℃ |
| | Discharge over temperature protection 65±3℃ |
| | Discharge over temperature release 55±3℃ |

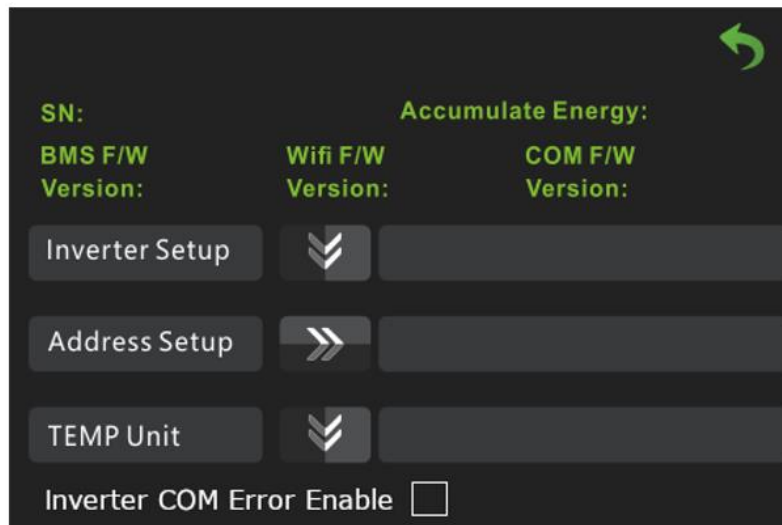
| | | |
|------------------------------|--|--------|
| Under temperature | Charge under temperature alarm | 3±3℃ |
| | Charge under temperature protection | 0±3℃ |
| | Charge under temperature release | 5±3℃ |
| | Discharge under temperature alarm | -15±3℃ |
| | Discharge under temperature protection | -20±3℃ |
| | Discharge under temperature release | -10±3℃ |
| Communication | CAN, RS485 | |
| Pre-charge & start | Can start-up inverters with total power up to 30kW inverter. | |
| WIFI Monitor | Support APP & cloud platform | |
| Series & Parallel connection | Prohibit serial connection; Support max. 20pcs in parallel. | |

4. Product pictures

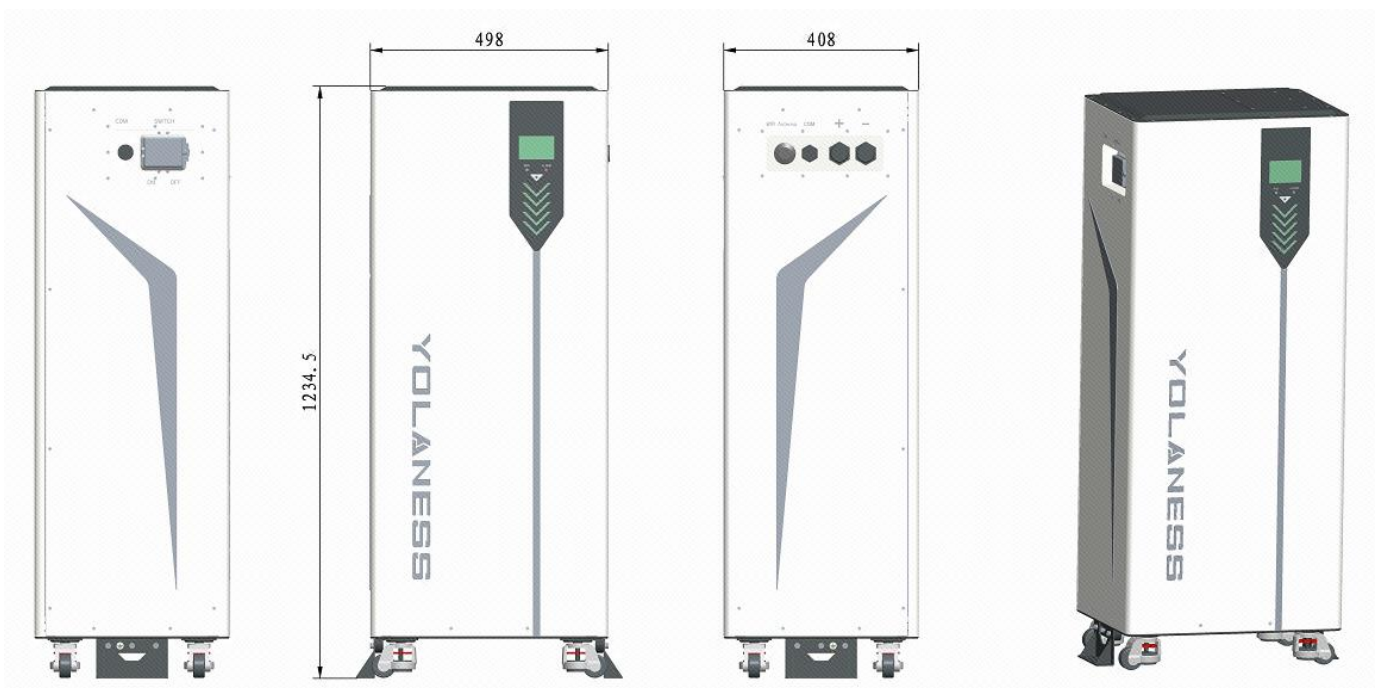
LCD

LCD can display **Voltage**、Residual **Energy**、**Power**、**SOC**、**Cycles**、**Temperature**. User also can browse battery factory information, and **select inverter** protocol, battery parallel **Address** and **Temperature unit**.





Product dimension:



LITHIUM BATTERY

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SMART ENERGY, SMART HOME

LITHIUM BATTERY PLATFORM

User Login

Please Enter Account

Please Enter Password

Please Enter Verification Code 

Sign In

[Forgot password](#)

App interface:

