# WT5100
## 51.2V RACK BATTERY

The 51.2V 100Ah rack battery pack is made of lithium iron phosphate cells. The module design gives the user the freedom to select the power capacity, providing up to 163.8Kw with a maximum power of 32 in parallel.

**Safety Certified via:**
ISO 9001,UL1973, PSE
UL9540A, IEC, CE, EMC

**Energy**
51.2V 100Ah
(5.12KWh)

**Weight**
46KG

**10 Years**
Warranty

★ **CCS** NEW

CCS integrates 1-2 FPCs (Insulating film, conductor, adhesive), copper and aluminum bars and other structural parts. **It has outstanding advantages in terms of safety, light weight, and regular layout due to its insulation and high integration, ultra-thin thickness, and ultra-softness.**

★ **BMS**

**Lithium batteries manufactured by wirentech are optimized by its battery BMS, through monitoring cells, to provide protection against overcharge, over discharge, short circuit.**
The BMS helps to ensure safe and accurate operation.

★ **HEAVY DUTY BUSBAR** NEW

Copper busbar, which expands the contact area between copper bar, breaker and module, adopts the technique of high-temperature chemical nickel plating. It performs well in electrical and thermal conductivity, corrosion resistance and low internal resistance and ensures stable performance, large space and simple repair.

# WT5100
## DIMENSIONS



482mm
510mm
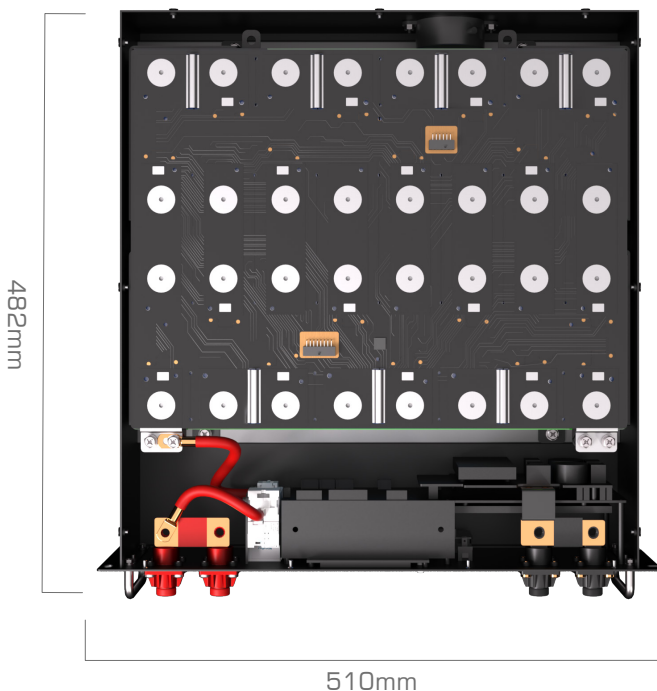
138mm
510mm

## Technical Specification

| | |
|---|---|
| Operation Voltage | 44 . 8V~ 57.5V |
| Dimensions | 482*510*138mm |
| Weight | 46KG |
| Warranty | 10 Years |
| LiFe Time | 15 Years @ 68°F |
| Cycle life | 6000+ |
| Energy | 51.2V 100Ah (5.12KWh) |
| Max. Charge Voltage | 57.6V |
| Max. Charge Current | 50A (2.56KW) @77°F |
| Max. Discharge Current | 100A (5.12KW) @77°F |
| Energy Scalable | Max. 32 units in parallel |
| Enclose Protection Rate | IP22 |
| Communication | RS232/RS485→ PC software<br>CAN/RS485 → Inverters |
| Storage | Recommended stored at above 50% SOC,<br>test @ 90 Days, recharge if below 52V |

## BMS Parameters

| Charge | Spec | Delay | Recovery |
|---|---|---|---|
| Cell Voltage Protection | 3.65V | 1 sec | 3.45V |
| Module Voltage Protection | 58.2V | 1 sec | 13.8V |
| Over Charging Current 1 | >99A | 1 sec | |
| Over Charging Current 2 | >110A | 0.3 sec | |
| Temperature Protection | <-5°C or >65°C | 1 sec | >0°C or <60°C |

| Discharge | | | |
|---|---|---|---|
| Cell Voltage Protection | 2.5V | 1 sec | 2.7V |
| Module Voltage Protection | 40.2V | 1 sec | 43.2V |
| Over Discharging Current 1 | >99A | 1sec | |
| Over Discharging Current 2 | >130A | 0.3 sec | |
| Short-Circuit | >260A | 0.5 mS | |
| Temperature Protection | <-20°C or >70°C | 4sec | 4>-15°C or <65°C |

| BMS | Parameter | | Condition |
|---|---|---|---|
| PCB Temperature Protection | >90°C | 4 sec | <85°C |
| Cell Balance | 1A | Passive Balance | Cell Voltage Difference >50mV |
| Temperature Accuracy | ≤2℃ | Cycle Measurement | Measuring Range -40 to 100°C |
| Voltage Accuracy | 10mV（cell) | Cycle Measurement | For Cells & Module |
| Current Accuracy | 2% | Cycle Measurement | Measuring Range -200 to 200°C |
| SOC | 5% | | Integral Calculation |
| Power Consumption - Sleep/Off Mode | <330uA | Sleep & Off Mode | Storage/Transport |
| Power Consumption - Operating Mode | <80mA | Operating Mode | Charging/Discharging |

Scan the QR code to download the latest information

*Note: The default BMS in the module allows for 100A charging current maximum. To achieve higher charging currents, please navigate to https:www.wirentech.com for the most up to date firmware.

Please also make note that if the battery firmware is updated to allow 200A maximum charge, the internal thermal sensors will throttle the charge current to what the BMS deems necessary to prevent overheating.