

# U5

## 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

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.

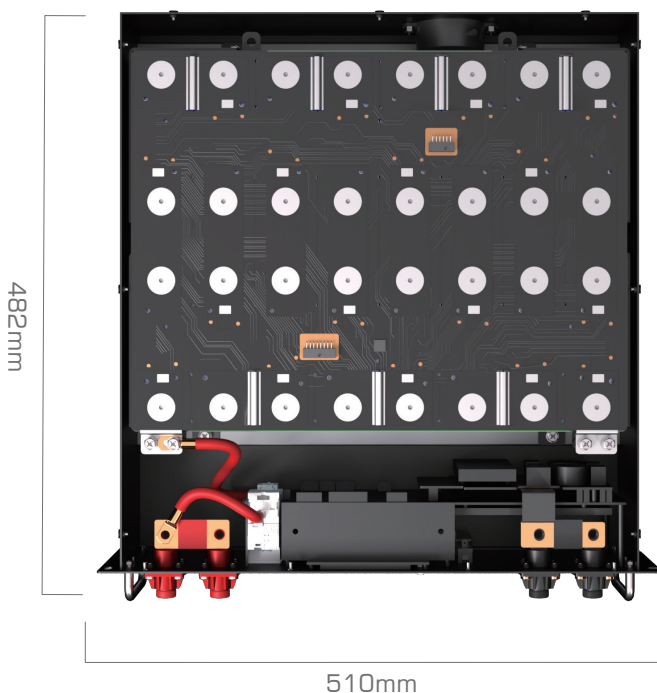
### ★ BMS

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 / INTERNAL WIRING

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

## U5 DIMENSIONS





Technical Specification		U5(51.2V100Ah)	
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	58.4V(Adjustable)		
Rated Charge Current	50A (2.56KW) @77°F		
Rated Discharge Current	100A (5.12KW) @77°F		
Energy Scalable	Max. 63 units in parallel (tested)		
Enclose Protection Rate	IP22		
Communication	RS232/RS485 → PC software CAN/RS485 → Inverters		
Storage	Recommended stored at above 50% SOC, 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
Temperature Accuracy	≤2 C	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

\*Note: The default BMS in the module allows for 100A charging current maximum. To achieve higher charging currents, please navigate to <https://www.wireenergy.net> 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.