

Battery Module

Model No. : AT21.504kWh_battery module

The battery module is composed of 24 pcs of 280Ah/3.2V lithium iron phosphate batteries and one battery management unit (BMU). The batteries module are assembled as 12 cells in series and 2 string in parallel. The BMU ,battery management unit is the fundamental unit of the battery management system. The BMU is composed of a power supply module, a cell data sampling module, a temperature sampling module, a channel switch module, a balance control module, a communication module, a CPU and its peripheral circuits. It measures the single cell in real time. Battery voltage, total battery string voltage, external working power supply voltage, battery ambient temperature, balanced voltage (overvoltage and under-voltage protection), balanced current (charge/discharge), and can actively report real-time monitoring data to the Battery Cluster Management System (BCMS) through the CAN2.0 communication BUS and follow control command from BAMS.

Specifications and parameters of battery modules

No.	Item	Specification
1	Battery	3.2V 280Ah LFP Cell
2	Series and Parallel Circuits	2P12S
3	Rated Capacity	560Ah
4	Rated Voltage	38.4V
5	Rated Energy	21.504kWh
6	Standard charging conditions	Constant Power (CP), Constant Current (CC), Constant Voltage (CV)
		Power: 10.752kW (0.5CP)
		Termination voltage: 32.4V
7	Standard discharge conditions	Constant Power (CP), Constant Current (CC)
		Power: 10.752kW (0.5CP)
		Termination voltage: 32.4V
8	Max. discharge power	21.504kW (1CP)
9	Cycle Life	≥6000 times @25°C, 0.5C charge and discharge, Cell decays to 80% of the initial capacity under 90% DOD operation
10	System Voltage	≤1500V



11	Operating Temperature Range	+25 °C ~ +45 °C
12	Storage Temperature	-20 °C ~ +55 °C, the SOC should be kept at 30%~50%, and not exceed 6 months.
13	Humidity	≤85% RH (non-condensing)
14	Weight	150kg
15	Dimension	982*450*238mm (D*W*H)
16	Referent outlook diagram	