

48V RACK-MOUNTED LI-ION BATTERY

MODELS

BTESF48V50-R
BTESF48V100-R
BTESF48V150-R



SAFETY

- Automotive-grade pack technology and production process to guarantee safety
- Directional explosion-proof valve design to isolate rarely occurring cell failures, ensuring 100% safety
- Comprehensive thermal simulation and testing to control the temperature rise of each cell within the designed specification in the case of high-rate discharge

BATTERY MANAGEMENT SYSTEM (BMS)

- Separate control and protection for the charge and discharge processes to maximize system availability
- Real-time detection of voltage, current, temperature, SOH, SOC and a variety of protection
- Support for parallel connection

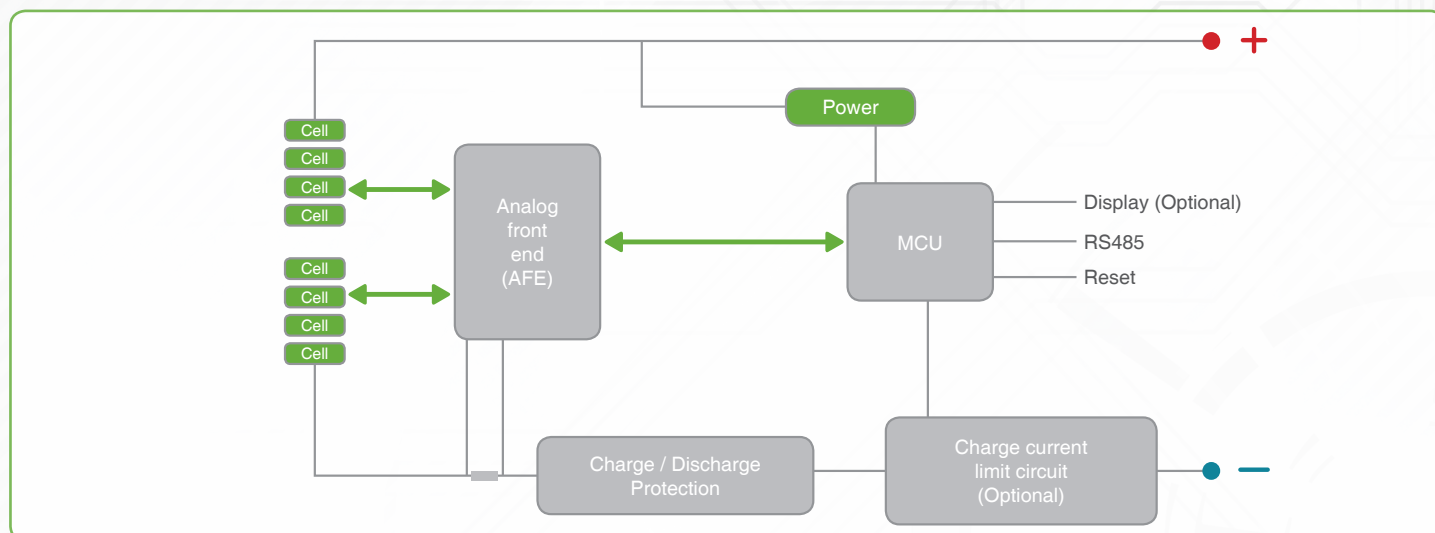
CELL

- LFP prismatic cells with high safety and reliability
- Fully automated production following a mature and stable process, ensuring consistent charge/discharge performance and life span
- IEC62133, UL, and UN38.3 certifications

COMMUNICATION AND PROTOCOL

- RS485 and RS232 interfaces for network connection
- A variety of optional accessories (RS485-to-SNMP adapter, GPS module, etc.)

CIRCUIT TOPOLOGY



PRODUCT SPECIFICATIONS

MODEL	BTESF48V50-R	BTESF48V100-R	BTESF48V150-R
Rated Voltage (V)	51.2		
Rated Capacity (Ah)	50	100	150
Total Energy (Wh)	2560	5120	7680
Recharge Voltage (V)	55.2		
Max. Recharge Current (A) ①	50	100	100
Max. Discharge Current (A)	50	100	100
EOD Voltage (V)	44.0		
Peak Discharge Power (W)-3s	3360	6720	6720
Dimension: D x W x H (mm)	430*400*133	430*430*177	442*430*175
Weight (kg)	28	51	62
Protection Class	IP20		
Working Temperature Range (°C)	Recharge: 0 to +55°C Discharge: -20 to +55°C		
Humidity	0 ~ 95 % RH (non-condensing)		
Protection	Over voltage protection (Cell & System) Low voltage protection (Cell & System) High temperature protection Low temperature protection Short circuit protection Over current protection		
Parallel or Series	Support parallel only		
Other Optional Accessories	Display RS485 to SNMP		
Communication ②	RS485 (Modbus) / RS232		

① For parallel connection, the charge current limiting function must be enabled to limit the charge current to 10A for 50Ah, 20A for 100Ah and 150Ah batteries.

② RS485 is the default

This series of rack-mounted li-ion batteries are designed for the solar/back-up market. This series combines safe and reliable LFP prismatic cells with dedicated BMS to guarantee high reliability safety and scalability when used with different systems. New li-ion batteries can be used with old ones in a system. The product can be installed in a 19" or 21" standard cabinet or rack.

The expected cycle life for these batteries when installed, operated and maintained as per the manual(s) are as follows:

At $\leq 25^{\circ}\text{C}$ and $\leq 0.3\text{C}$ charge/discharge current:

- $\leq 60\%$ DOD, 7000 cycles
- $\leq 80\%$ DOD, 6000 cycles
- $\leq 90\%$ DOD, 5000 cycles

At $\leq 45^{\circ}\text{C}$ and $\leq 0.3\text{C}$ charge/discharge current:

- $\leq 60\%$ DOD, 5000 cycles
- $\leq 80\%$ DOD, 4000 cycles
- $\leq 90\%$ DOD, 3000 cycles

