



SKU: VB029 | VOLTAGE: 12.8 V | CAPACITY: 40 AH | ENERGY: 512 WH

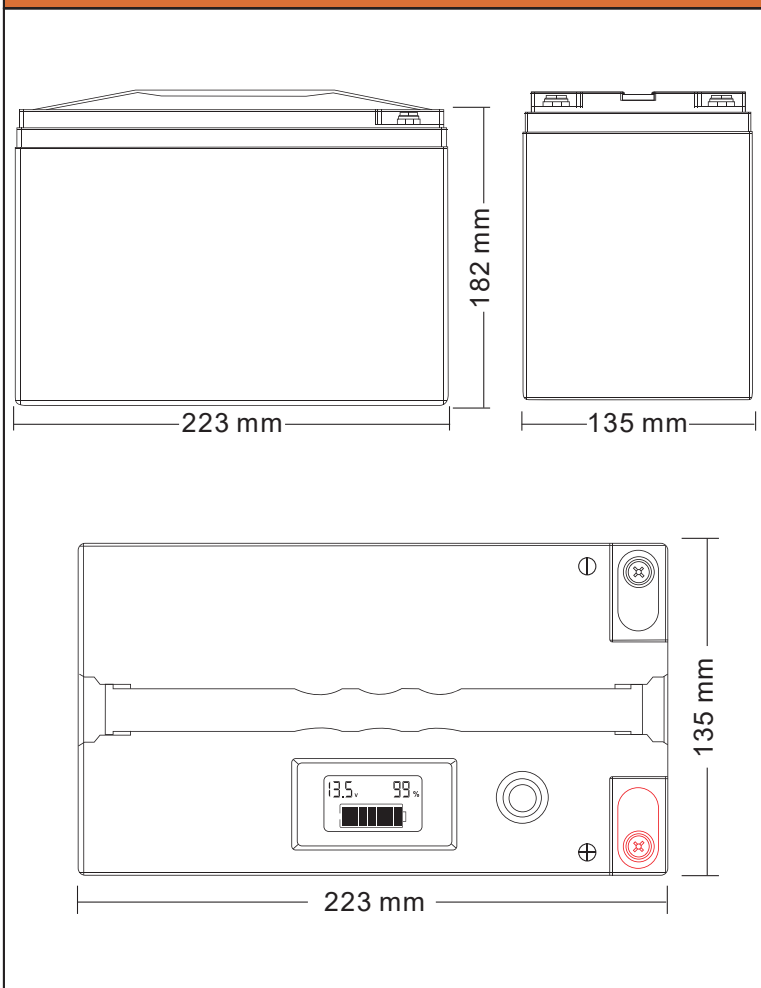
## ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	40 Ah
Resistance	≤10 mΩ
Efficiency	99%
Self Discharge	<3% per Month
Cell Type - Chemistry	LiFePO <sub>4</sub>

## CHARGING SPECIFICATIONS

Standard Charge Current	≤ 20 A
Max Charge Current	40 A
Float Charge Voltage	13.8 ± 0.2 V
Recommended Charge Voltage	14.4 V - 14.6 V
BMS Charge Protection Voltage	14.6 V (Single cell voltage: 3.65V)
Reconnect Voltage	14.4 V
Balancing Current	30 mA

## DIMENSIONAL SPECIFICATIONS



## DISCHARGING SPECIFICATIONS

Standard Discharge Current	20 A
Max Continuous Discharge Current	40 A
BMS Discharge Protection Current	100 A For 10 S
Peak Discharge Current	150 A For 5 S
BMS Discharge Protection Voltage	10.6 V ± 0.2 V
Reconnect Voltage	11.2 V ± 0.04 V
Short Circuit Protection	250 μs

## TEMPERATURE SPECIFICATIONS

Discharge Temperature	-20 °C - 60 °C
Charge Temperature	0 °C - 55 °C
BMS High Temperature Cut-Off	65 °C
BMS Reconnect Temperature	55 °C

## MECHANICAL SPECIFICATIONS

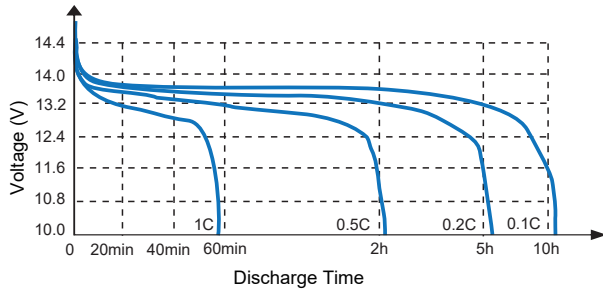
Dimensions (L x W x H)	223*135*182 mm
Net weight	5.4 kg
Terminal Type	M6
Shell Material	ABS
IP Rating	IP65

To ensure safe and efficient operation always refer to the latest edition of our datasheets, as published on our website [www.creabest.se](http://www.creabest.se). All trademarks are the property of their respective owners. All data subject to change without notice.

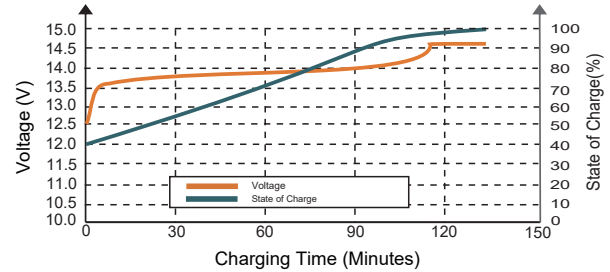


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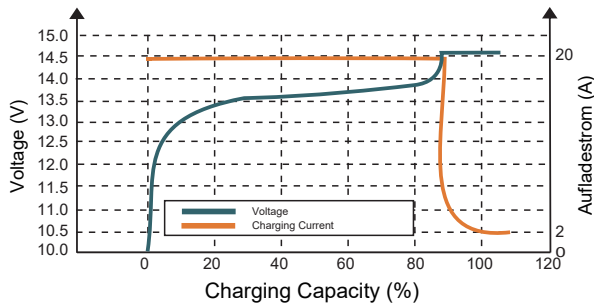
DISCHARGE CURVE AT DIFFERENT RATES (25°C)



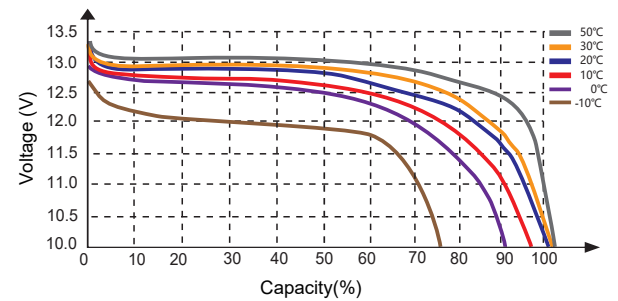
STATE OF CHARGE CURVE (0.5C, 25°C)



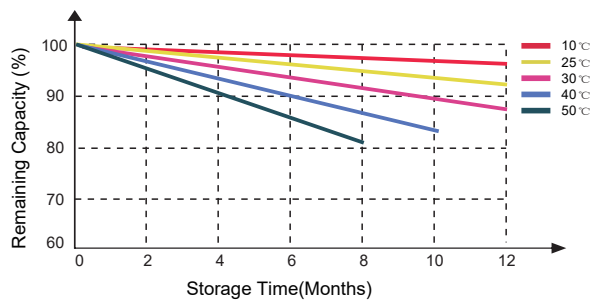
CHARGING CHARACTERISTICS (0.5C, 25°C)



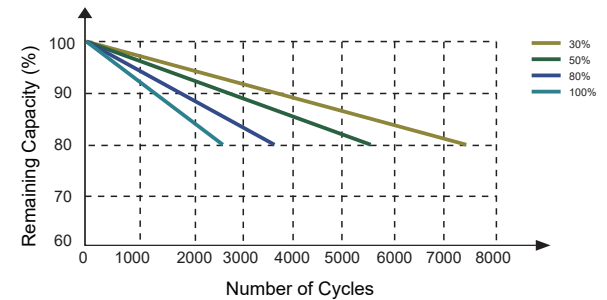
DIFFERENT TEMPERATURE DISCHARGE CURVE (0.5C)



DIFFERENT TEMPERATURE SELF-DISCHARGE CURVE



DIFFERENT DOD DISCHARGE CYCLE LIFE CURVE



## FEATURE LIFEPO4 BATTERY



### HIGH TEMPERATURE RESISTANCE

The peak value of lithium iron phosphate electric heating can reach 350°C-500°C, while lithium manganate and cobalt acid lithium is only around 200°C, with a wide operating temperature range (-20°C-75°C).



### BMS CONTROL

The battery management system monitors and adapts to battery conditions to maximize performance and safety.



### HIGH SECURITY

The P-O bond in the lithium iron phosphate crystal is stable and difficult to decompose. Even at high temperature or overcharge, it will not collapse and generate heat like lithium cobalt oxide or form strong oxidizing substances, so it has good safety.



### ENVIRONMENTAL PROTECTION

Lithium iron phosphate batteries are generally considered to be free of any heavy metals and rare metals (the nickel-hydrogen battery requires rare metals), non-toxic (SGS certification), pollution-free and meets European RoHS regulations, and is an absolute green battery.



### LONG CYCLE LIFE

At 80% depth of discharge, the number of cycles exceeds 3,000, and a 2-year warranty is provided.



### LIGHT WEIGHT

The volume of a LiFePO4 battery with the same specification and capacity is the volume of a lead-acid battery, the weight is 1/3 of the lead-acid battery. Allowing for simple installation and transportation.