LiFePO4 Smart Battery

12,8V 12Ah

Bluetooth

VOLTIUM ENERGY

VE-SPBT-1212

VOLTIUMENERGY.COM

BATTERY FEATURES

- Long lasting superpower, LiFePO4 has up to 10 times more cycles than comparable lead acid batteries
- Lithium Iron Phosphate is the safest lithium technology on the market
- The intelligent Battery Management System (BMS) controls and balance the battery cells, protects the battery against over-charging, over-discharging and has temperature protection
- Double, triple or even quadruple the capacity or voltage through parallel or serial pairing
- Low self-discharge and the ability to charge quickly and efficiently
- Twice the usable capacity (100% DOD) than comparable lead acid batteries
- The battery can be mounted in any position and weighs only 40% of the weight of a comparable lead acid battery
- With our smart Bluetooth® app you can easily view and monitor all relevant data of your LiFePO4 battery

APPLICATIONS

- SPORT & RECREATION
- MOBILITY
- TRANSPORT
- DATA CENTER
- MEDICAL
- SOLAR
- UTILITY
- WIND

CERTIFICATES

- CE certificate
- UL 1642 cell certificate
- IEC 62133 cell certificate
- UN 38.3 certified
- ISO9001:2015 - Quality management systems

UN38.3 PASSED Transport Safety Certified

Bluetooth

DOWNLOAD THE APP OF VOLTIUM ENERGY

With our Bluetooth® app, you can view and monitor the current status of your LiFePO4 battery!

Download on the App Store

ANDROID APP ON Google play

LiFePO4 Smart Battery

12,8V 12Ah

Bluetooth

VOLTIUM ENERGY

VE-SPBT-1212

BATTERY SPECIFICATIONS

GENERAL SPECIFICATIONS	
Nominal Voltage	12,8V (4S)
Rated Capacity (CC 0.2C to 10V)	12Ah
Nominal Energy	153.6Wh
Internal Resistance	≤60mΩ
Terminal type	F2 faston
Cycle Life (@DOD 100% at 1C and ±25°C)	>3000
Cycle Life (@DOD 100% at 0.2C and ±25°C)	6000
Connection options	4 in series OR 4 in parallel
Communication	Bluetooth®

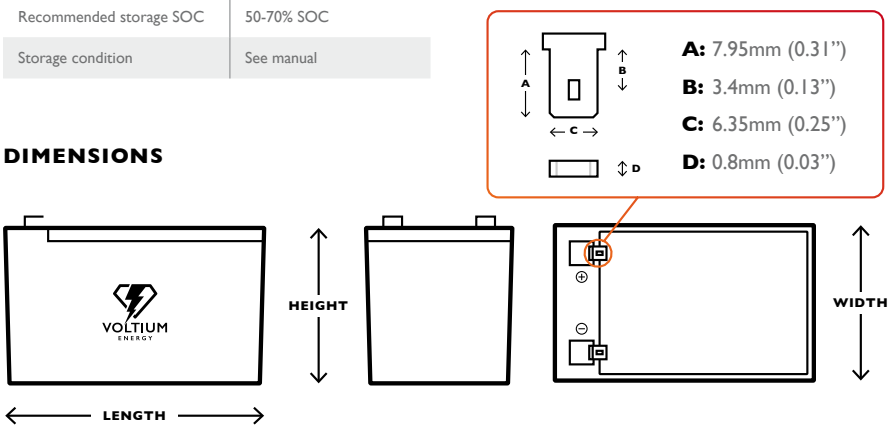
MECHANICAL CHARACTERISTICS	
Dimension	Length 151±2mm Width 98.5±2mm Height 95±2mm
Weight	Approx. 1.6Kg
Housing material	ABS

STORAGE SPECIFICATIONS	
Storage Temperature	0-25°C
Self-discharge rate	≤3% per month
Recommended storage SOC	50-70% SOC
Storage condition	See manual

CHARGE SPECIFICATIONS	
Battery operation temperature range @charging	0~45°C
Normal charge voltage	14.6 ±0.1V
Recommended float charge voltage (for Standby use)	13.8 ±0.1V
Max charge current	12A at ±25°C
Recommended charge current	0.2C
Charge Cut-off Voltage	15V ±0.2V

DISCHARGE SPECIFICATIONS	
Discharging temperature range	-20~60°C
Output Voltage Range	10.0~14.6V
Max discharge current	12A at ±25°C
Recommended discharge current	0.2C
Pulse discharge current	55A withstand 3s
Discharge Cut-off voltage	10.0V
Discharge temperature characteristics	-20°C / 70% capacity 0°C / 90% capacity 25°C / 100% capacity 60°C / 102% capacity

DIMENSIONS



L: 151mm (5.94") **H:** 95mm (3.74") **W:** 98,5mm (3.87")

BMS TECHNICAL SPECIFICATIONS

OVER CHARGE	
Over-charge protection for each cell (delay time)	3.75V ±0.05V (2s)
Over-charge release for each cell (delay time)	3.6V ±0.05V (2s)
Over-charge release method	When voltage is under release voltage

OVER DISCHARGE	
Over-discharge protection for each cell (delay time)	2.5V ±0.05V (2s)
Over-discharge release for each cell (delay time)	2.8V ±0.05V (2s)
Over-discharge release method	Charging recover

OVER CURRENT CHARGE	
Charge over-current protection (delay time)	1st protection / 20A ±5A (10s) 2nd protection / 25A ±5A (3s)
Over-current release method (delay time)	Discharge or auto release (60s)

OVER CURRENT DISCHARGE	
Discharge over-current protection (delay time)	60A ±5A (3s)
Over-current release method (delay time)	Charge or auto release (60s)

BATTERY TEMPERATURE CHARGING	
Temperature protection	Over / 60°C ±5°C (2s) Low / 0°C ±2°C (2s)
Release temperature	Over / 45°C ±2°C (2s) Low / 2°C ±2°C (2s)
Release method (delay time)	When temperature is on release

BATTERY TEMPERATURE DISCHARGING	
Over-temperature protection Battery	Over / 65°C ±5°C (2s) Low / -20°C ±2°C (2s)
Release temperature Battery	Over / 55°C ±5°C (2s) Low / -18°C ±2°C (2s)
Over-temperature protection Circuit	Over / 85°C ±5°C (2s)
Release temperature Circuit	Over / 70°C ±5°C (2s)
Release method (delay time)	When temperature is on release

SHORT CIRCUIT PROTECTION	
Function condition	External short circuit
Short circuit delay time	250-500 ms
Release mehod (delay time)	Remove load for the short circuit protection to release (30s)

To ensure safe and efficient operation always refer to the latest edition of our Technical Datasheet, as published on our website.

VOLTIUMENERGY.COM