



# DATA SHEET

12V 100Ah Lithium  
SP-12V100-SRV

12V 100AH (LifePO4)  
SUPER SLIM Deep Cycle Battery

**Battery:** Deep cycle lithium iron phosphate

**BMS Solution:** MosFets / IC.

**Color:** Black or White.

**Cycle Life:** >3000 cycles @ 70%DOD

**Very low self discharge:** (<3 % per month)

**Certification:** : CE, RoHS, UN 38.3

**Flexible deployment:** up to 16 packs in parallel.

**Deep discharge:** allowed up to 100 %

**Excellent temperature range:** (-20 °C up to +60 °C)

**Bluetooth Monitoring:** Optional

About 50 % lighter and 40% smaller than equivalent Lead-AGM battery with same usable energy.

## Discharge/Charge

Max Continuous Discharge current	100A
Peak Current	300A (10s)
Discharge Pluse Current	500A±50A (31±10ms)
Discharge Cut-off Voltage	8.8V (2.2V±0.05v) pc
Max Charge Current	100A
Recommended Charge Current	5A-50A
End of Charge voltage	14.4V±0.2V
BMS Over Charge Voltage Cut-off	15V (3.75V±0.05v) pc
Balancing Voltage	3.6V±0.05v pc
Cell Balancing current	72±10mA

## Mechanical

Terminal Type	2*Anderson Connectors
Weight	28.66 LBS (13KG)
Case Dimension (L*W*H)	23.62" x 10.63" x 2.56" (600 x 270 x 65mm)
Case Material	Stainless steel case
Enclosure Protection	IP65
Cell Type/Chemistry	Prismatic-LiFePO4 battery
BMS Functions: Low voltage, high voltage, over temp, over current, short-circuit protection, passive balance function, etc.	

## Electrical

Nominal Voltage	12.8V
Rated Capacity	100Ah
Energy	1280Wh
Operation Voltage	8.8V-14.4V
Self-Discharge	3% / per month
Efficiency	99%
Max Module in Series	4 pcs
Max Module in Parallel	20pcs
Short Circuit Protection	200-800µs Auto recover or charge release

## Temperature

Discharge Temperature	-20~+65°C
Charge Temperature	-20~+45°C
Storage Temperature Range	-20~+45°C
Battery High Temperature Protection	60-65°C
BMS Temperature Protection	90°C
Self Heating	(optional)
Self Heating Mode	(optional)

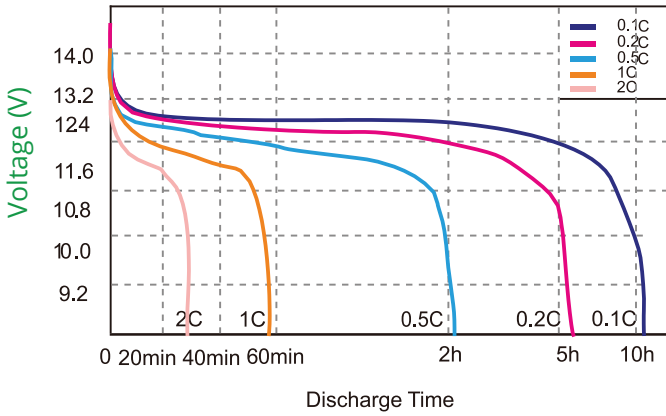
## Dimensional



# PERFORMANCE CHARACTERISTICS

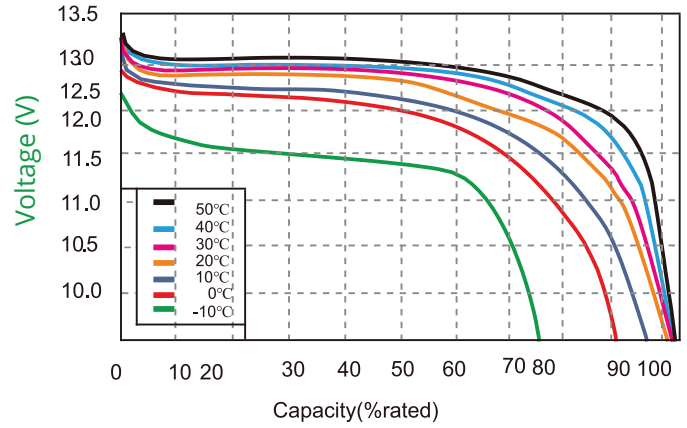
## Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



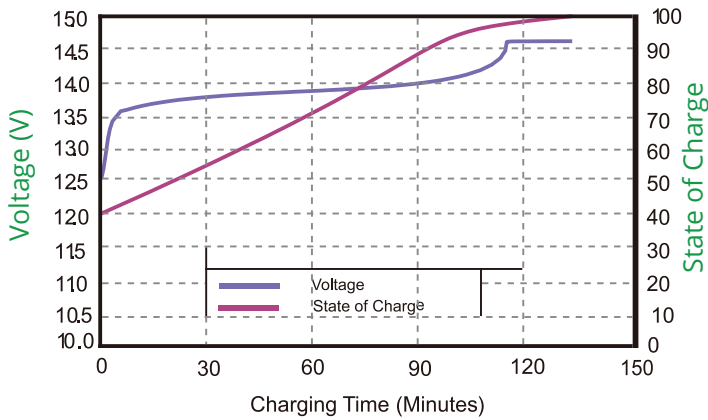
## Different Temperature Discharge Curve

Different Rate Temperature Discharge Curve @0.5C



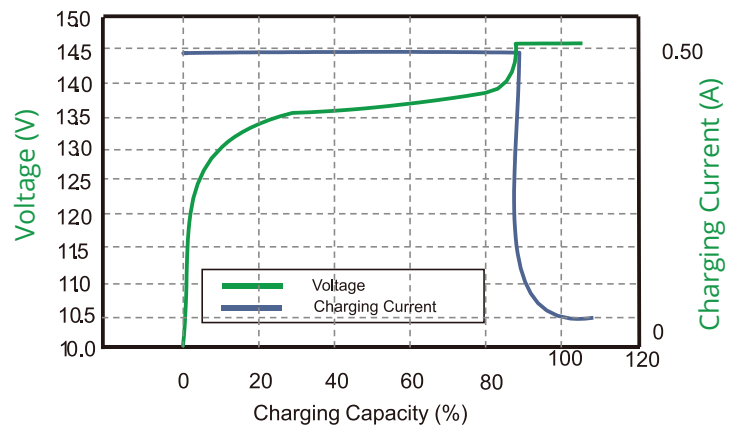
## State of Charge Curve

State Charge Curve @0.5C 25°C



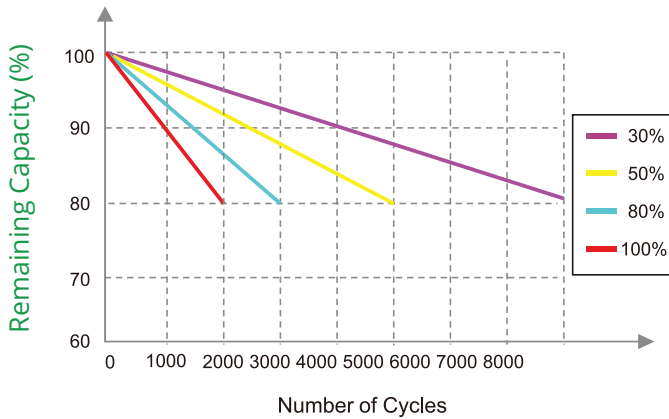
## Charging Characteristics

Charging Characteristics @0.5C 25°C



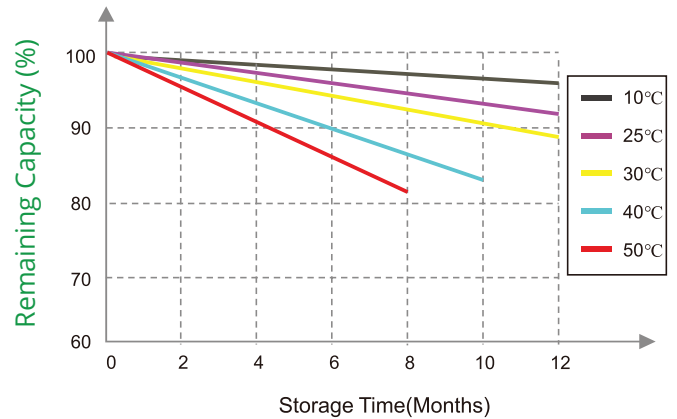
## Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



## Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve



MSDS UN38.3

