

## THUNDER SKY WINSTON WATER-BASED LITHIUM BATTERY PERFORMANCE SPECIFICATION

**FEATURES** Winston Battery : the Safest Lithium Technology.  
Integrated Battery Management System(BMS).

**PERFORMANCE** Long Cycle Life>11000cycles @60% DOD.  
High Density, High Discharge Current, High Temperature Range.  
Low Weight, Free Maintenance.  
Fast Charging.  
Environment Friendly.

HD12.8-100(12.8V100Ah)

### BATTERY DATA SHEET

#### Electrical Parameters

Nominal Voltage	12.8V
Rated Capacity	100 Ah
Energy	1408Wh
Resistance	≤2.7mΩ
Efficiency	99%
Cycle Life	>11000cycles@0.5C,60% DOD
Self Discharge	1.5% per Month

#### Mechanical Parameters

Dimension(L x W x H)	313 x 175 x 198 mm
	12.3 x 6.8 x 7.8"
Weight	15.3kg
Terminal Type	M8
Battery Case	Metal/ABS
IP Grade	IP65
Cell chemistry	LiFeYPO4

#### Temperature Parameters

Discharge Temperature	-20 to 60°C (-4 to 140°F)
Charge Temperature	0 to 65°C (32 to 145 °F)
Storage Temperature	-20 to 60°C(-4 to 140°F)
BMS High Temperature Cut-off	80°C(176°F)

#### Discharge Parameters

Continuous Discharge Current	100A
Pulse Discharge Current	750A(<6 seconds)
Recommended Volt. Disconnect	10V
BMS Discharge Cut-off Voltage	9.2V
Short Circuit Protection	200~600 us

#### Charge Parameters

Charge Method	CC-CV
Charge Voltage	14.4±0.2V
Recommended Float Voltage	13.8V
Recommended Charge Current	50A
Maximum Charge Current	100A
BMS Charge Cut-off Voltage	14.8V

#### Compliance Certificate

Certifications	UL
	CE
	IEC
	IATF16949
Shipping Classification	BIS
	UN3480, Class 9,UN38.3



PRODUCTION BASE IN CHINA:

Oriental Smart Lion Energy Storage Battery Limited

China Address: No. 1056, Tangbian, Jishan Village, Xingtai Development Zone,  
Changtai County, Zhangzhou City, Fujian Province, P.R.C,363900

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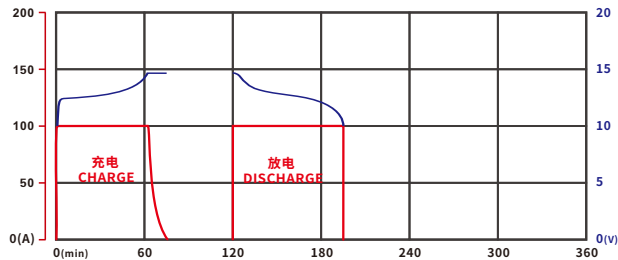
www.thundersky-winston.com



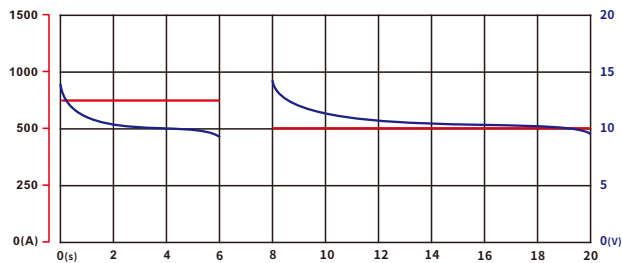
# Thunder Sky Winston Battery

## Performance Characteristics

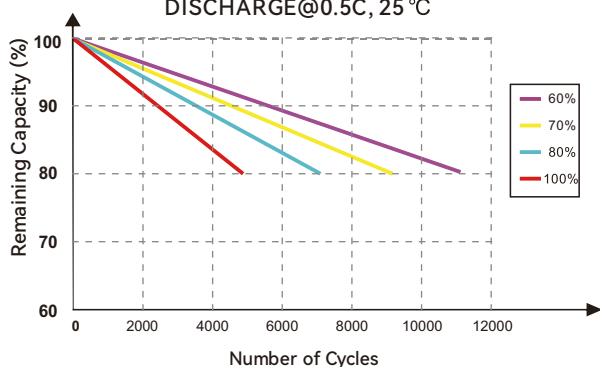
### TSWB-LP12V100AH CHARGE AND DISCHARGE BY 100A AT TEMPERATURE OF 25°C



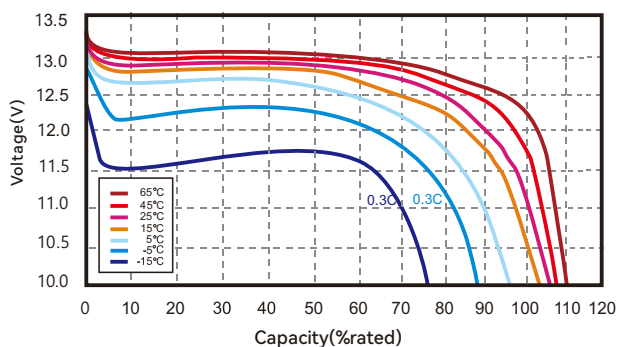
### TSWB-LP12V100AH PULSE DISCHARGE AT AMBIENT TEMPERATURE



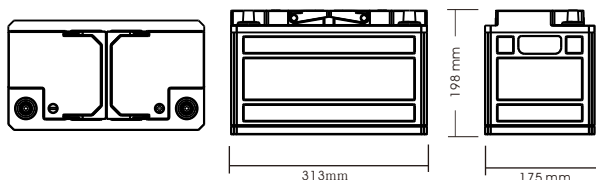
### CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD) DISCHARGE @ 0.5C, 25°C



### DISCHARGE CAPACITY at VARIOUS TEMPERATURES DISCHARGE @ 0.3-0.5C



## Battery Dimension



## Battery Applications

- + Data Center UPS
- + Telecom Backup Power
- + Car starting power supply
- + Solar Energy Storage System
- + Floor Cleaning Machines
- + Electric Mobilities (E-scooters, Wheelchair)
- + Golf Trolley & Golf Carts
- + Electric Ships

## BMS

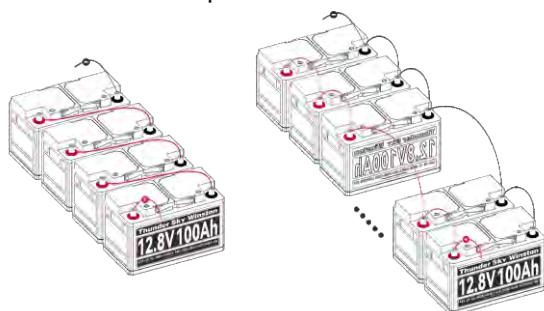
- + The BMS monitors and controls the individual cell of a battery and protects them from damage, such as overload and overvoltage

## Battery Recycle



## Series or parallel connection

up to 4 batteries can be connected in series or parallel to make a 48v battery pack



Parallel Connection  
12V Voltage



Series Connection  
48V Voltage

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