

**FEATURES** Lithium Iron Phosphate (LiFePO4): the Safest Lithium Technology.  
 Integrated Battery Management System(BMS).  
 RS485/CANBus (Optional).  
 SOC LED Indicator.

**PERFORMANCE** Long Cycle Life > 4000cycles @80% DOD.  
 High Density, High Discharge Current, High Temperature Range.  
 Low Weight, Free Maintenance.  
 Fast Charging.  
 Environment Friendly.



## HD 12.8-100(12.8V100AH)

### BATTERY DATA SHEET

#### Electical Parameters

Nominal Voltage	12.8V
Rated Capacity	100Ah
Energy	1280Wh
Resistance	≤10m Ω
Efficiency	99%
Cycle Life	>4000cycles @ 80% DOD
Self Discharge	2% per Month
Max. Modules in Series/Parallel	4S/4P

#### Mechanical Parameters

Dimension(L x W x H)	306 x 168 x 210 mm 12 x 6.6 x 8.3"
Weight	11kg(24.2lbs)
Terminal Type	M8
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP56
Cell Type-Chemistry	LiFePO4 Battery Cell
SoC Display	LED indicator

#### Discharge Parameters

Continuous Discharge Current	100A
Pulse Discharge Current	300A(<5 seconds)
Recommended Volt. Disconnect	10V
BMS Discharge Cut-off Voltage	8V
Reconnect Voltage	9.2V
Short Circuit Protection	200~600 us

#### Charge Parameters

Charge Method	CC-CV
Charge Voltage	14.4~14.8V
Recommended Float Voltage	13.8V
Recommended Charge Current	25A
Maximum Charge Current	50
BMS Charge Cut-off Voltage	15.6V

#### Compliance Certificate

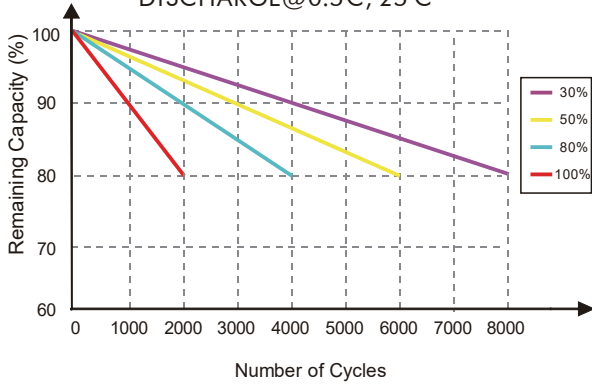
Certifications	UL2054, UL1973
	CE,ROHS,REACH
	IEC62133, IEC62619
	KC(Cell)
	BIS
Shipping Classification	UN3480, Class 9,UN38.3 & MSDS

#### Temperature Parameters

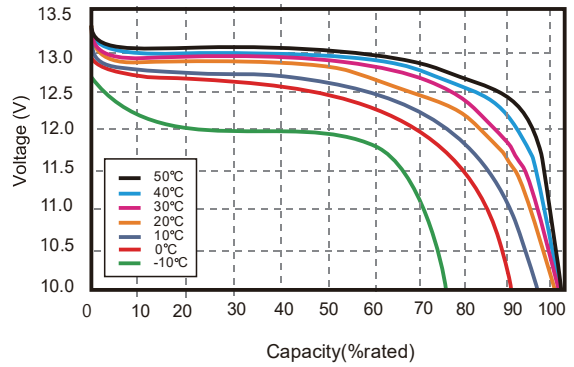
Discharge Temperature	-30 to 60°C (-22 to 140°F)
Charge Temperature	0 to 45°C (32 to 113°F)
Storage Temperature	-40 to 60°C(-40 to 140°F)
BMS High Temperature Cut-off	80°C(176°F)

## Performance Charateristics

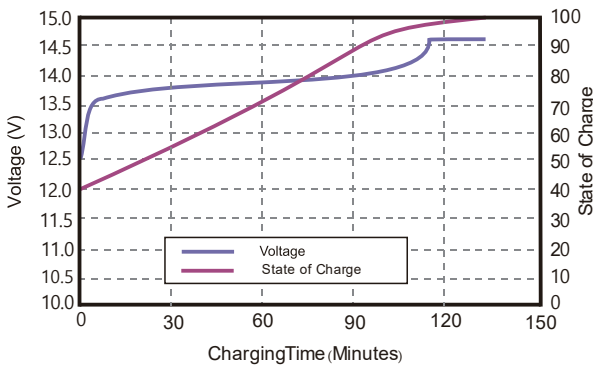
**CYCLE LIFE vs.DEPTH OF DISCHARGE(DOD)  
DISCHARGE@0.5C, 25°C**



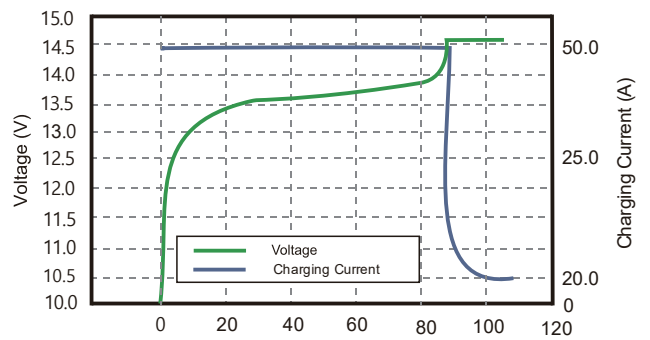
**DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @0.5C**



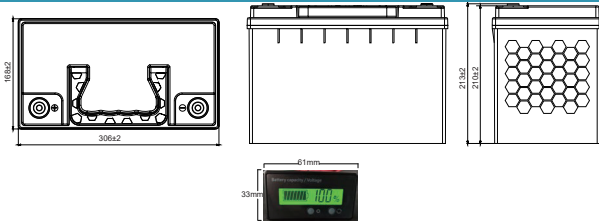
**STATE OF CHARGE CURVE @0.5C, 25°C**



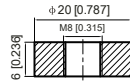
**CHARGING CHARACTERISTICS @0.5C, 25°C**



### Battery Dimension



M8 - 1.0x 8mm  
Threaded Hole



### Battery Applications

- + Touring car
- + Electric Ships
- + Floor Cleaning Machines
- + UPS backup power supply
- + Outdoor monitoring equipment
- + Solar energy storage equipment

### Battery Recycle



**NOTE:** Do Not Mix With Sealed Lead Acid Batteries When Recycling.  
See Orbus User's Manual for Proper Operation.  
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