

# LITHIUM IRON PHOSPHATE BATTERY

**FEATURES** Lithium Iron Phosphate (LiFePO4): the Safest Lithium Technology.  
Integrated Battery Management System(BMS).  
Communication protocol:CANBus

**PERFORMANCE** Long Cycle Life > 2000cycles @100% DOD.  
High Density, High Discharge Current, High Temperature Range.  
Low Weight, Free Maintenance.  
Fast Charging.  
Environment Friendly.



HA-LFP-12.8-20(12.8V20Ah)

## BATTERY DATA SHEET

### Electrical Parameters

Nominal Voltage	12.8V
Rated Capacity	20Ah
Energy	256Wh
Resistance	≤50m Ω
Efficiency	99%
Cycle Life	>2000cycles @1C, 100% DOD
Self Discharge	3% per Month

### Mechanical Parameters

Dimension(L x W x H)	181x77x167 mm 7.1x 3 x 6.6"
Weight	less than 2.27kg(5.0 lbs)
Terminal Type	M5
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP56
Cell Type-Chemistry	LiFePO4 Cell

### Discharge Parameters

Continuous Discharge Current	20A
Pulse Discharge Current	60A(<3seconds)
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	10A
Maximum Charge Current	20A
BMS Charge Cut-off Voltage	15.6V

### Compliance Certificate

Certifications	UL1642(cell)
	CE
	IEC62133 & CB
	KC
	BIS
Shipping Classification	UN3480, Class 9, UN38.3

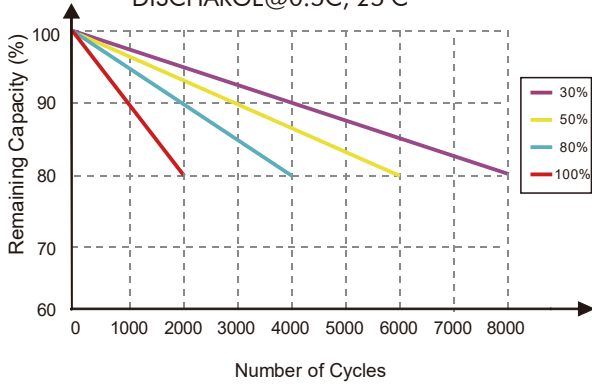
### Temperature Parameters

Discharge Temperature	-30 to 75°C (-22 to 167°F)
Charge Temperature	0 to 45°C (32 to 113°F)
Storage Temperature	-30 to 75°C (-22 to 167°F)
BMS High Temperature Cut-off	80°C(176°F)

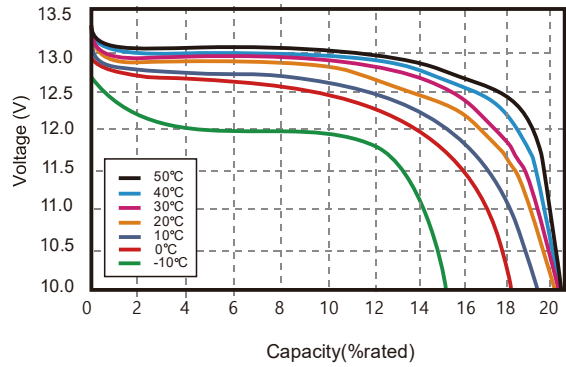


## Performance Characteristics

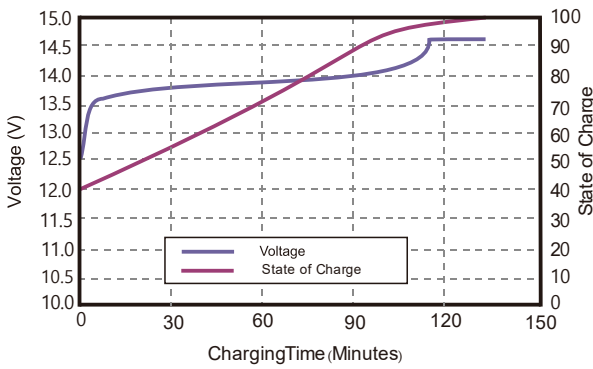
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)  
DISCHARGE@0.5C, 25 C °



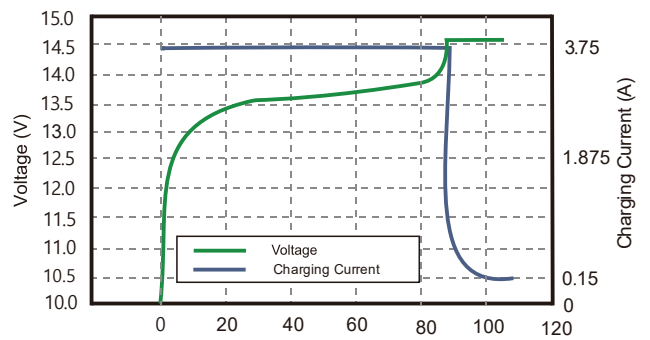
DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @0.5C



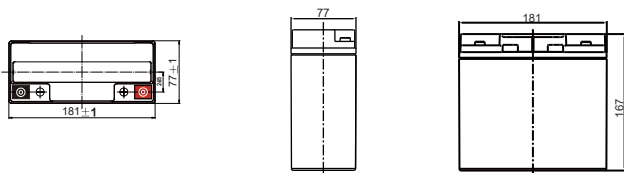
STATE OF CHARGE CURVE @0.5C, 25 C



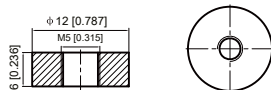
CHARGING CHARACTERISTICS @0.5C, 25°C



### Battery Dimension



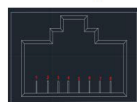
M5 - 1.0x 5mm  
Terminal



CAN Communication  
Battery modules mutually communicate through this RJ45

Pin Number	Pin definition
1- 2, 7- 8	NC
4	CAN-L
5	CAN-H
3- 6	GND

connector.



### Battery Applications

- + Military Power Supply
- + Industrial Robotics & Handling Equipment
- + Aerial Work Platform
- + Floor Cleaning Machines
- + Power Tools, Lawn Mower
- + Motorcycle battery
- + Car starting battery

### Battery Recycle



**NOTE:** Do Not Mix With Sealed Lead Acid Batteries When Recycling.

See Haidi User's Manual for Proper Operation.

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