

# LITHIUM IRON PHOSPHATE BATTERY

**FEATURES** Lithium Iron Phosphate (LiFePO<sub>4</sub>): the Safest Lithium Technology.  
Integrated Battery Management System(BMS).  
RS485 Interface.  
SOC LED Indicator.

**PERFORMANCE** Long Cycle Life > 2000cycles @80% DOD.  
High Density, High Discharge Current, High Temperature Range.  
Low Weight, Free Maintenance.  
Fast Charging.  
Environment Friendly.



HA-LFP-51.2-8(51.2V8Ah)

## BATTERY DATA SHEET

### Electrical Parameters

Nominal Voltage	51.2V
Rated Capacity	8Ah
Energy	410Wh
Resistance	≤50m Ω
Efficiency	99%
Cycle Life	>2000cycles @ 0.5°C, 100% DOD
Self Discharge	2% per Month
Max. Modules in Parallel	1S/4P

### Mechanical Parameters

Dimension(L x W x H)	166x 175x 125 mm
	6.54 x 6.89 x 4.92"
Weight	3.5kg(7.72lbs)
Terminal Type	M5
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP65
Cell Type-Chemistry	LiFePO <sub>4</sub> Cylindrical Cell
SOC Display	LED Indicator

### Discharge Parameters

Continuous Discharge Current	24A
Pulse Discharge Current	50A(<5 seconds)
Recommended Volt. Disconnect	40V
BMS Discharge Cut-off Voltage	32V
Reconnect Voltage	36.8V
Short Circuit Protection	200~600 us

### Charge Parameters

Charge Method	CC-CV
Charge Voltage	57.6~59.2V
Recommended Float Voltage	55.2V
Recommended Charge Current	8A
Maximum Charge Current	24A
BMS Charge Cut-off Voltage	62.4V

### Compliance Certificate

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

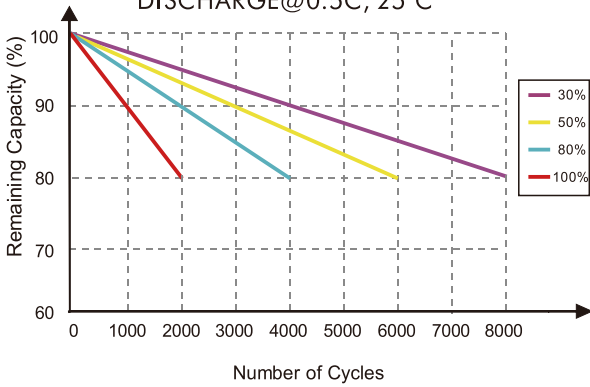
### Temperature Parameters

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)

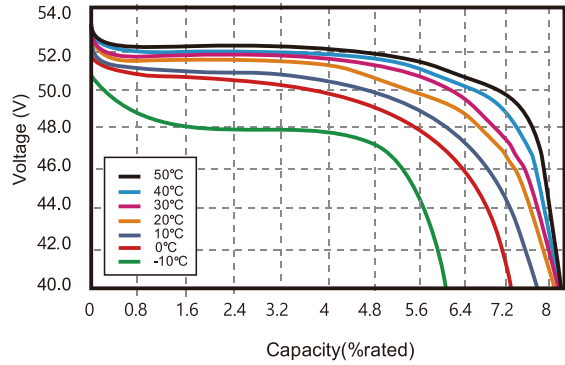


**Performance Charateristics**

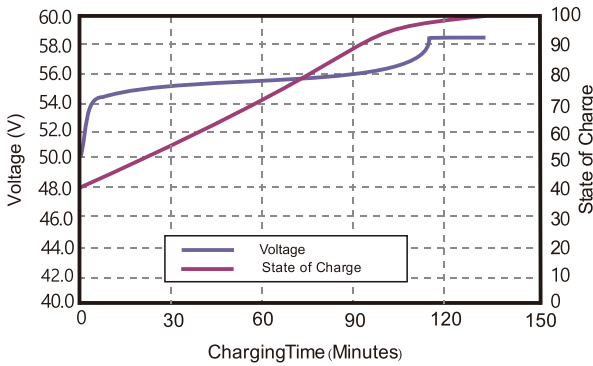
**CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)  
DISCHARGE@0.5C, 25°C**



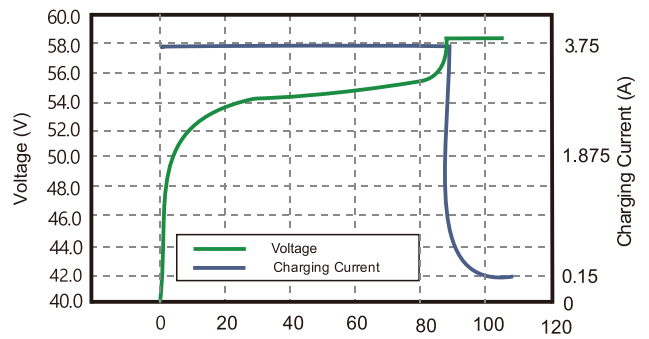
**DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @0.5C**



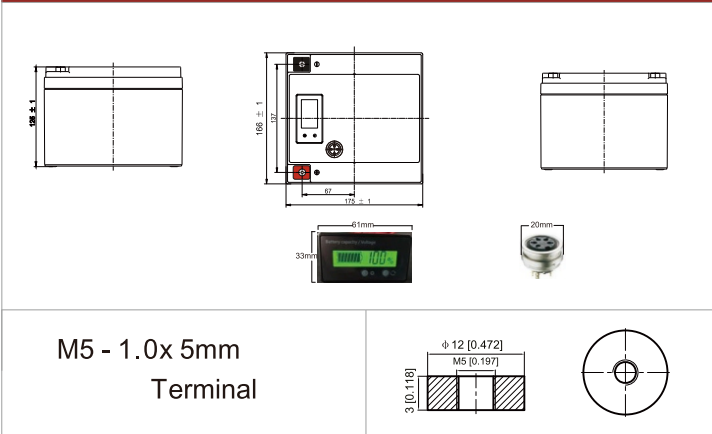
**STATE OF CHARGE CURVE @0.5C, 25°C**



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



**Battery Dimension**



**Battery Applications**

- + Data Center UPS
- + Telecom Backup Power
- + Military Power Supply
- + Solar Energy Storage System
- + Solar Street LED Lightings
- + Autonomously Guided Vehicles (AGVs)
- + Industrial Robotics & Handling Equipment
- + Aerial Work Platform
- + Floor Cleaning Machines
- + Power Tools, Lawn Mower
- + Electric Bike & Motorcycles
- + Electric Mobilities( E-scooters, Wheelchair)
- + Golf Trolley & Golf Carts
- + Medical Devices
- + Electric Ships
- + Passenger Vehicles

**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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