

# 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-51.2-10(51.2V10Ah)

## BATTERY DATA SHEET

### Electrical Parameters

Nominal Voltage	51.2V
Rated Capacity	10Ah
Energy	512Wh
Resistance	≤30mΩ
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)	197x 165x 170 mm ±2mm
	7.76 x 6.5 x 6.69"
Weight	5.3kg(11.66lbs)
Terminal Type	M6
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	30A
Pulse Discharge Current	40A(<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	10A
Maximum Charge Current	20A
BMS Charge Cut-off Voltage	62.4V

### Compliance Certificate

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

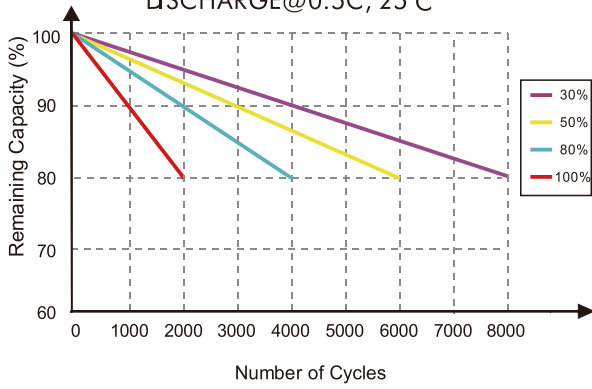
### Temperature Parameters

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)

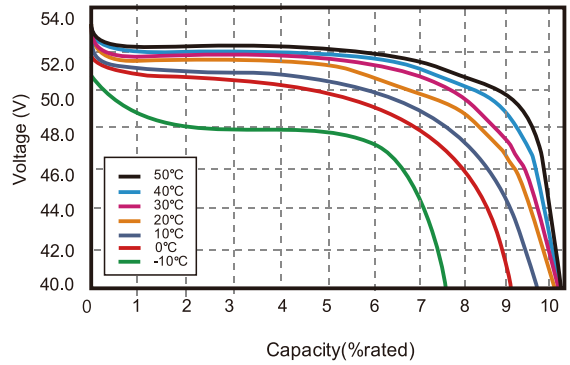


Performance Charateristics

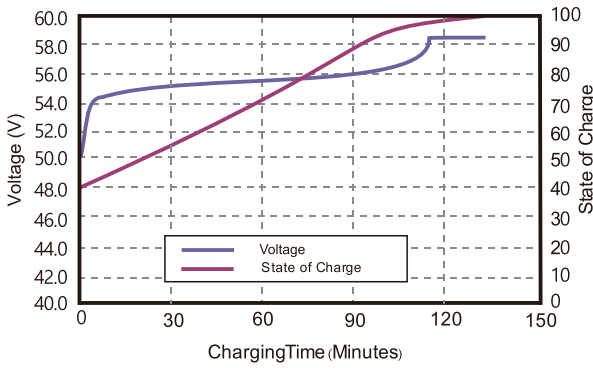
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)  
DISCHARGE@0.5C, 25°C



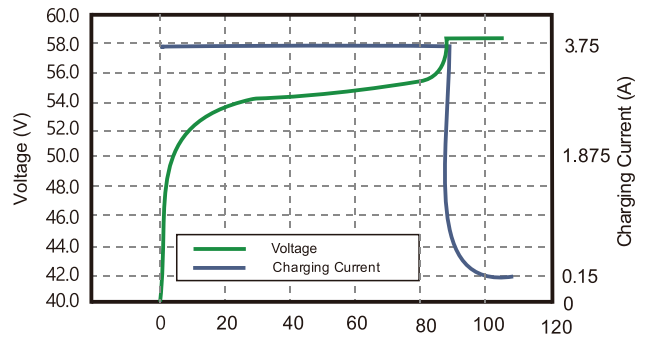
DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @0.5C



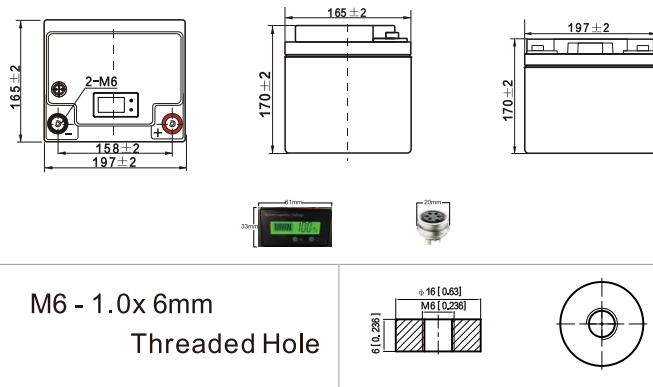
STATE OF CHARGE CURVE @0.5C, 25°C



CHARGING CHARACTERISTICS @0.5C, 25°C



Battery Dimension



Battery Recycle



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

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