

LDP 12-85 (12.8V 85Ah)

lithium iron phosphate (LiFePO₄) battery

**Your best power choice
for energy storage system!**



Advantage summary

- Direct Lead Acid Battery (AGM/GEL) replacement for 85AH.
- Faster charge, 1 hour of charging can provide up to 90% charge (Optional)
- High energy density and conversion efficiency
- Environmental Friendly, without any heavy metals
- High cycle times and longer service life of >3000 cycles @100% DOD
- Great high temperature performance
- Safety in use: Advanced intelligent BMS inside, No explosion, No fire.
- Ultra low self discharge rate <1.5%/month
- No maintenance required through out the lifetime.
- Great power saver
- Superior DOD (100%) over lead acid batteries.
- No acid splash and carbon mono-oxide emission so no need expensive battery maintenance room.

Application

- Wheel chair, sweeper, electric vehicle, robot
- Solar/wind energy storage system
- UPS Backup power
- Telecommunication
- Medical equipment
- Solar Street light



ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	84 Ah
Capacity @ 0.5C	120 min
Energy	1075.2 Wh
Resistance	≤45 mΩ
Self Discharge	<1.5% Per Month
Maximum Modules In Series	Up to 4S (51.2V)

CHARGE SPECIFICATIONS

Recommended Charge Current	16.8 A
Maximum Charge Current	42.0 A
Recommended Charge Voltage	14.2 V-14.6 V
BMS Charge Voltage Cut-Off	15.2 V (3.8 ±0.025 VPC) (1.1 ±0.4 s)
Reconnect Voltage	14.4 V (3.6 ±0.05 VPC)
Charging Method	CC-CV

DISCHARGE SPECIFICATIONS

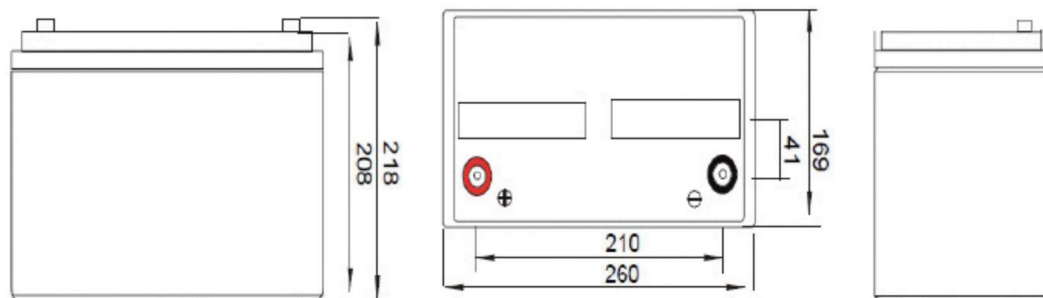
Maximum Continuous Discharge Current	60 A
Peak Discharge Current	120 A (<3s)
Recommended Low Voltage Disconnect	11 V (2.75 VPC)
BMS Discharge Voltage Cut-Off	8 V (2.0 ±0.08 VPC) (20 ±6 ms)
Reconnect Voltage	10 V (2.5 ±0.05 VPC)
Short Circuit Protection	200-600 μs

TEMPERATURE SPECIFICATIONS

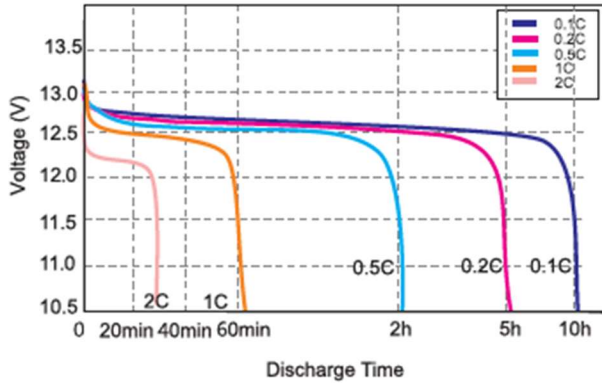
Discharge Temperature	- 4 °F to 140 °F (-20°C to 60 °C)
Charge Temperature	32 °F to 140 °F (0 °C to 60 °C)
Recommend Storage Temperature	32°F to 104 °F (0°C to 40 °C)

MECHANICAL SPECIFICATIONS

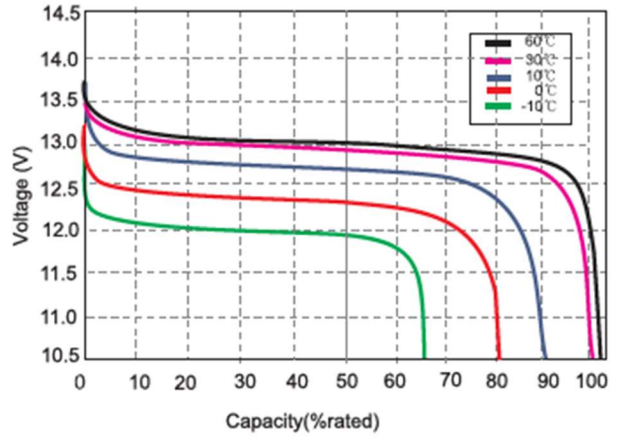
Dimensions (L x W x H)	10.2 x 6.7 x 8.6 " 260 x 169 x 218 mm
Weight	10.2 Kg
Terminal Type	M8
Case Material	ABS
Enclosure Protection	IP55



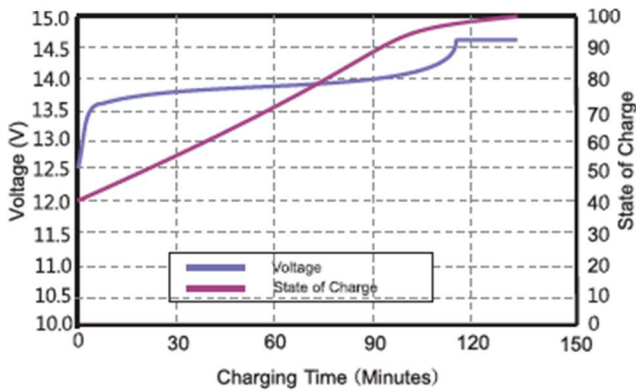
Different Rate Discharge Curve @25°C



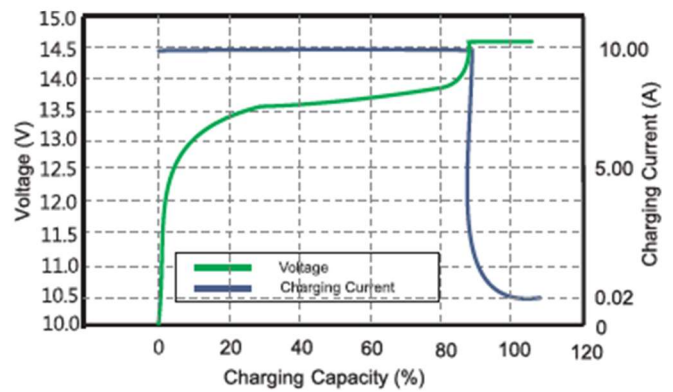
Different Temperature Discharge Curve @0.5C



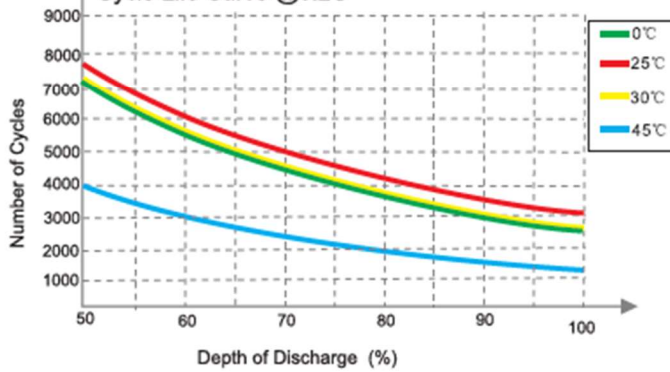
State of Charge Curve @0.5C 25°C



Charging Characteristics @0.5C 25°C



Different DOD Discharge and Different Temperature Cycle Life Curve @0.2C



Different Temperature Self Discharge Curve

