

NPL12-100SL

Neutron Power (12.8V) LiFePO4 (LFP) Slimline series batteries are light weight and ultra-thin design for UTE, 4WD and Marine applications.

The prismatic LFP cells are intrinsically more reliable, powerful and have a longer cycle life than its AGM counterparts. The added built-in BMS enables the battery further protection and performance as it constantly analyses the voltage, temperature, and finer cell balancing.

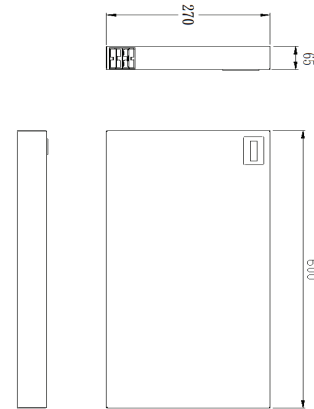


Metal Case

Features

- Made from eco-friendly materials
- Construction of high-quality prismatic cells
- Currently the safest lithium technology in the market
- Excellent resistance against harsh conditions and abuse
- Less than 3% self-discharge per month
- Maintenance-free and modular
- Up to 60% weight saving compared to its AGM counterparts
- LCD screen for SOC display
- Built-in safety protections
- 5 Years warranty
- Design life of up to 15-20 years

Size

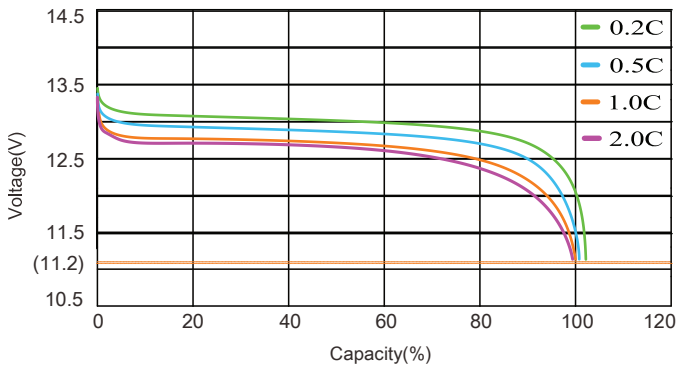


Specification

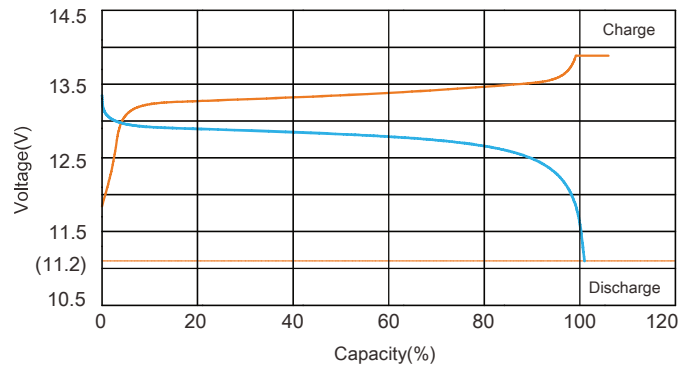
Voltage Range(V)	9.2~14.6	Life Cycle (0.5C/0.25C,80%DOD @ 25°C)	Approx 4000
Cell	3.2V100Ah	Short-circuit Current (< 10ms)	Approx. 1200A
Cell Series&Parallels	4S1P	Dimension (L*W*T)	(600*270*65)mm
Rated Voltage(V)	12.8	Total Weight (Kg)	Approx. 15
Rated Capacity(Ah)	100	Internal Resistance (Fully charged @ 25°C)	≤10 mΩ
Rated Energy(KWh)	1.28	Thermal Management	Convection cooling
Maximum Charge Current(A)	100	Operating Temperature Charge	0~50°C
Maximum Discharge Current(A)	200	Operating Temperature Discharge	-20~65°C
Pulse Current(A)(≤5s)	600	Operating Humidity	60±25%R.H.
End of Discharge Voltage(V)	11.2		
Recommended Charge Voltage(V)	13.6~13.8		

Characteristics Curve

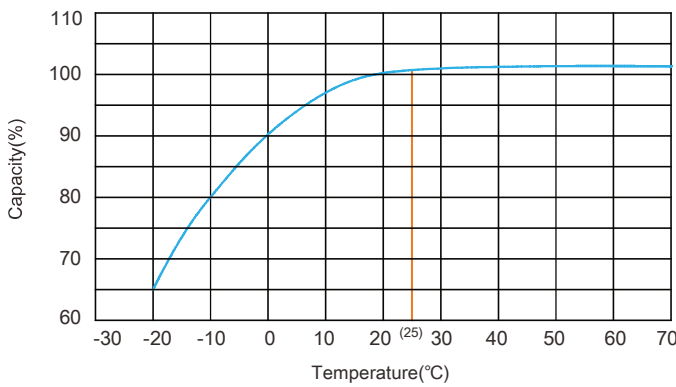
Discharge Performance at 25°C



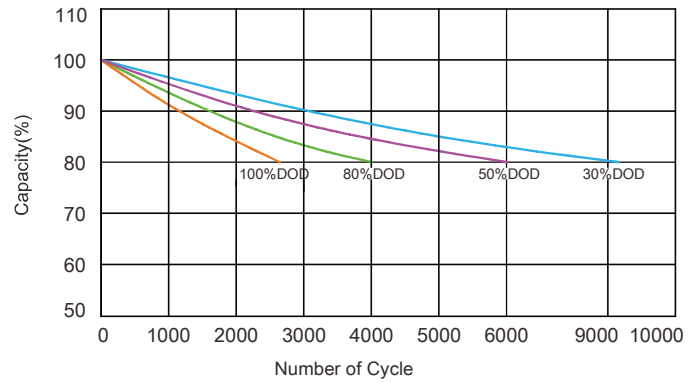
Charge and Discharge at 25°C, 0.5C



Temperature Effects on Capacity at 0.5C



Cycle Life with DOD at 25°C
0.5C Discharge and 0.25C Charge



MECHANICAL SPECIFICATIONS

Case Material	SPCC
Cell Type-Chemistry	Prismatic LiFePO4
Terminal Type	2*175 Anderson
IP Grade	IP2X

BMS CHARACTERISTICS

Recommended Charge Current	< 50A
Maximum Charge Current	100A
Maximum Continuous Discharge Current	200A
Recommended Charge Voltage	13.6V-13.8V
Max Charge Voltage	14.6V
Over Charge Protection Voltage Range	14.8-15.2V
Charge Mode	CC/CV
Over Discharge Protection Voltage Range	8.4-10V

Performance Data

Time(min)	30	60	90	120	180	240
Constant Power(kw)	2.56	1.28	0.86	0.64	0.42	0.32
Constant Current(A)	200	100	66.6	50	33.3	25



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