

EG4812A

LiFePO₄ Lithium Battery

Longer Cycle Life: Offers up to 15 times longer cycle life and 5 times longer float/calendar life than lead acid battery.

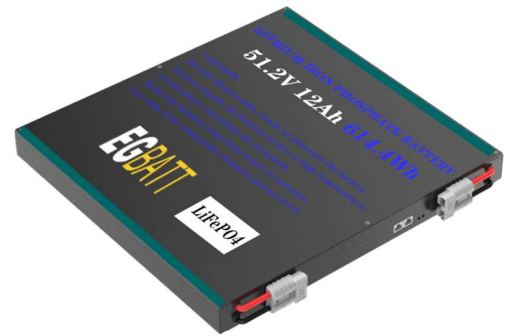
Lighter Weight: About 40% weight of a comparable lead acid battery, save up to 60% in weight.

Quick Charge: Short charge time compared with lead acid battery.

Low Self-Discharge: Lower self-discharge compared with lead acid battery, longer storage time without recharging.

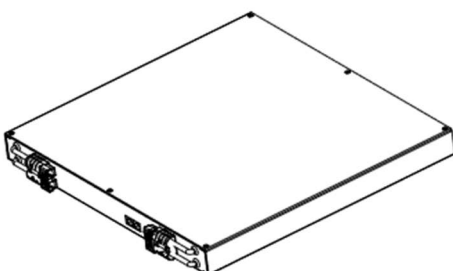
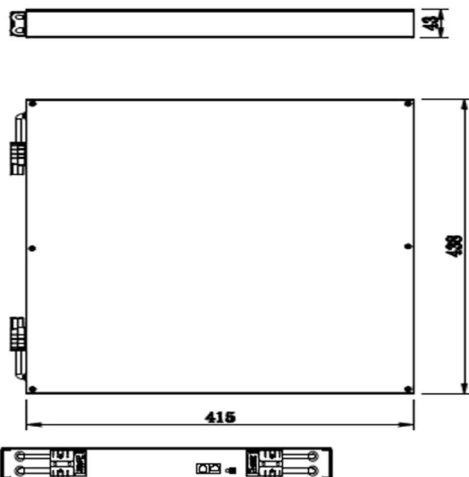
Superior Safety: Multi-protection methods built inside to protect the battery from overcharge, over discharge and short circuit situation.

High Efficient: Higher round-trip energy efficiency of the average (92%) than lead acid battery 80% (discharge from 100% to 0% and back to 100% charged).



Specifications

Nominal voltage		48V
Nominal capacity		12Ah
Dimensions	Length	418mm
	Width	438mm
	Height	43mm
	Total height	43mm
Approx. weight		12kg



Characteristics

Electrical Parameters (25°C)	Rated Voltage	48V
	Rated Capacity (C ₅)	12Ah
	Energy	576Wh
	Months Self Discharge	<1%
	Charge Efficiency	99.5%@ 1C
	Discharge Efficiency	96-99%@ 7C
Terminal type		Anderson SB50
Internal resistance (Fully charged, 25°C)		150mΩ
Cycle life		>3000 cycles @ 1C 100%D.O.D
Capacity affected by temperature	40°C	100%
	25°C	100%
	0°C	90%
	-10°C	75%
Nominal operating temperature		25°C± 3°C (77°F± 5°F)
Operating temperature range	Discharge	- 20°C~ 60°C (-4°F ~ 140°F)
	Charge	0°C~ 45°C (32°F ~ 113°F)
	Storage	0°C~ 40°C (32°F ~ 104°F)
Water Dust Resistance		IP21
Charge Voltage		54V
Equalization Turn-on Voltage		51.8V
Charge Current		12A
Backup time		8-15 min
Charge Cut off Voltage		54V
Max Continuous Discharge Current		84A
BMS Over Temperature Protection		65±5°C
Over discharge Protection Voltage		39V
Over discharge Recovery Voltage		40.5V
Short Circuit Protection		YES
Matched UPS		≤4KVA
Cell in Series and Parallel		15S4P
Mechanical	Cells	IFR26650-3000mAh
	Container	SPCC

Plot of multiplier temperature rise

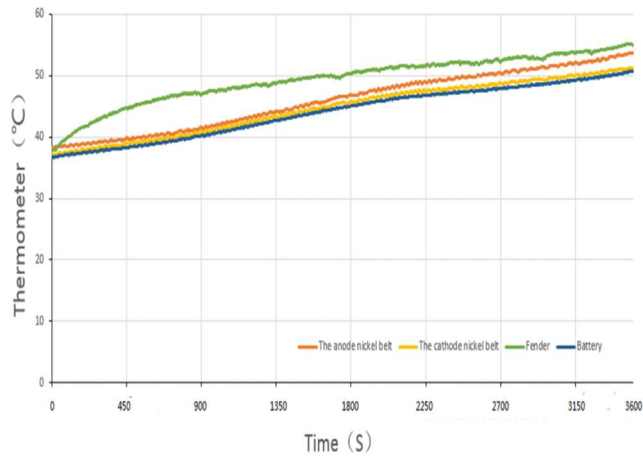
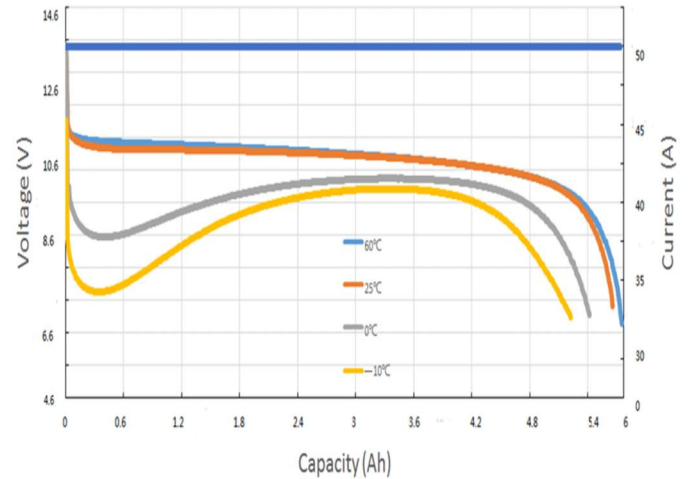
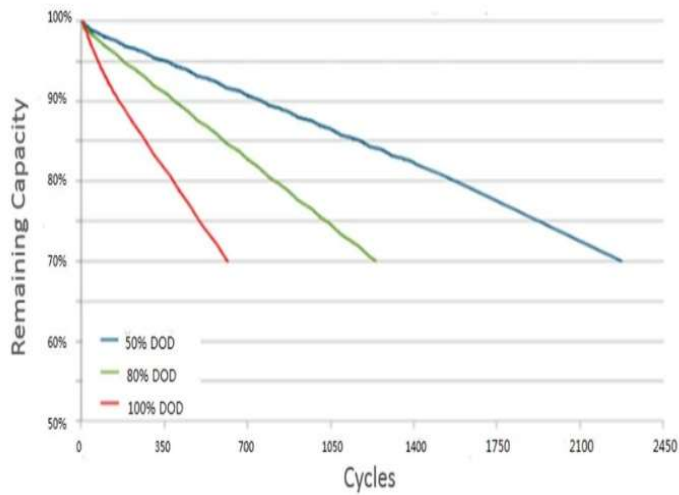


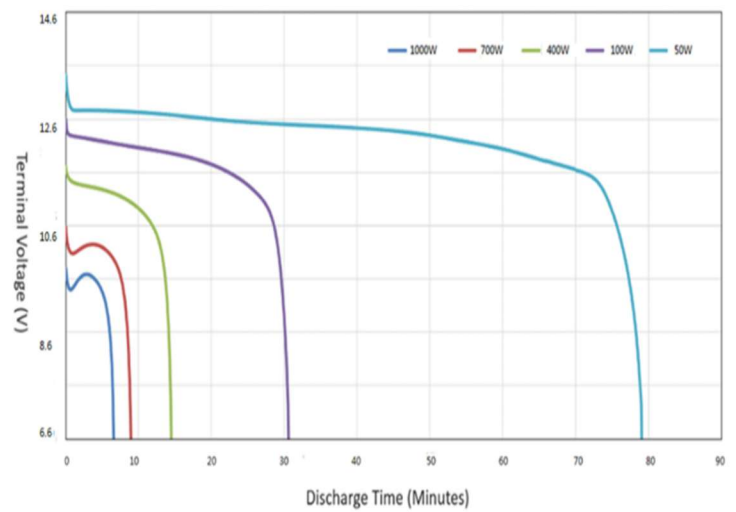
Diagram of maximum current discharge at different temperatures



Cycle graphs of different DOD lifetime



Different constant power discharge curve



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