



• Wattuneed Lithium Battery 12.8 V 48 Ah •

Electrical characteristics	Rated voltage	12.8V
	Rated capacity	48Ah
	Energy	614.4Wh
	Life cycle management	> 2000 cycles at 0.2 C 80% DOD
	Month of self-discharge	<3%
	Load efficiency	>99% @0.2C
	Efficiency of the landfill	96-99%@0.5C
Standard Charge	Charging voltage	14,6 ± 0,2 V
	Charge Mode	CC/CV
	Charging current	25A
	Max. Charging current	50A
	Load break voltage	14,6 ± 0,2 V
Standard discharge	Direct current	50A
	Max. pulse current	70A (<2s)
	Discharge cut-off voltage	10V
	Depth of discharge	90% DOD
Environnement	Charge Temperature	0 °C to 55 (32F to 131F) @ 60 ± 25% relative humidity
	Discharge temperature	-20 °C to 60 (-4F to 140F) @ 60 ± 25% relative humidity
	Storage temperature	-20 °C to 45 (-4F to 113F) @ 60 ± 25% relative humidity
	IP Class	IP65
Mechanics	Plastic box	ABS + PC (top cover can be removed for maintenance)
	Weight	6,5 kg
	Dimensions	229mm x 139mm x 209 mm
	Package size	290mm x 190mm x 270mm
Applications	Installation	Parallel and series connection
	Control	Integrated Battery Management System (BMS). Independent voltage/voltage display (4S).
	Supervision	Surveillance Bluetooth, application smartphone

• Advantages •



• Longer service life

Service life at 80% of the depth of discharge (DoD) ≥ 3000
Lifetime at 50% of the depth of discharge (DoD) LiFePO₄ battery ≥ 4500
The upper cover is removable, making it easy to maintain the battery.



• Super-secure Lihtium technology (LifePO4)

Stable chemical composition - LiFePO₄, no gas, no danger of explosion or fire.
An integrated battery management system (BMS) prevents any failure in advance
premature due to environmental influences or misuse.



• Standard size design

Perfect replacement of the AGM/GEL battery without changing the charging structure/
original unloading.



• Light weight

More than half the weight reduction compared to the AGM/GEL battery.



• Larger useful capacity

Depth of discharge up to 90% depth of discharge, about 40% more than the AGM/GEL battery.



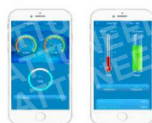
• Wider operating temperature range

Range -20°C...+60°C.



• Low self-discharge

Only about 3% per month for storage / non-use.



• Monitoring of practical monitoring and maintenance

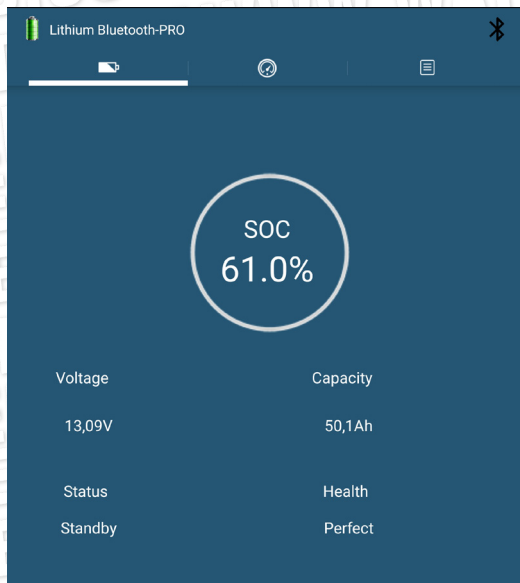
Dedicated smartphone application to monitor battery status via Bluetooth.
The upper cover is removable, making it convenient for battery maintenance.



• BMS protection

Each W12V48Ah has a built-in battery management system that protects the battery from extreme cases. It displays the overall voltage of the charge/discharge current and the battery temperature.

• Mobile application •



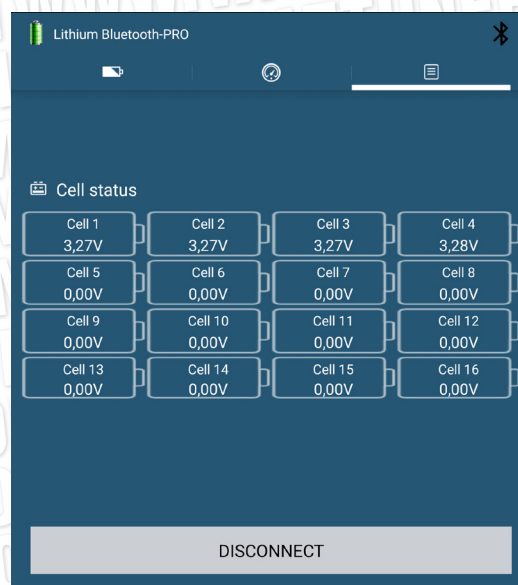
Home page

The application's home page displays all available information about the running battery.



Overall voltage

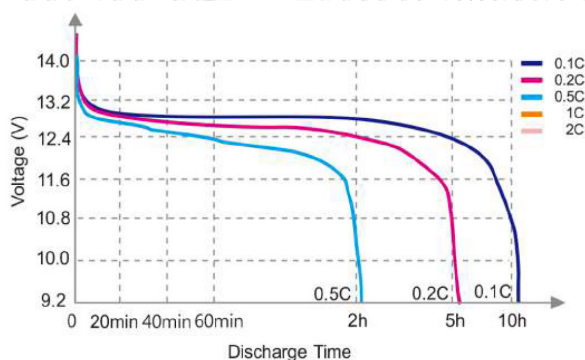
Display of the overall voltage of the charge/discharge current, the battery temperature and the number of cycles.



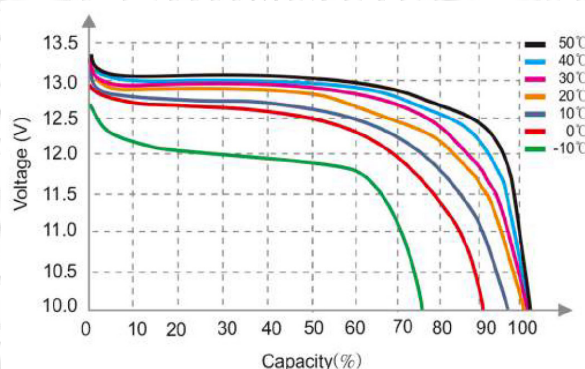
Battery status

On this tab you can find the status of each cell from the application. (Here 4 elements in series).

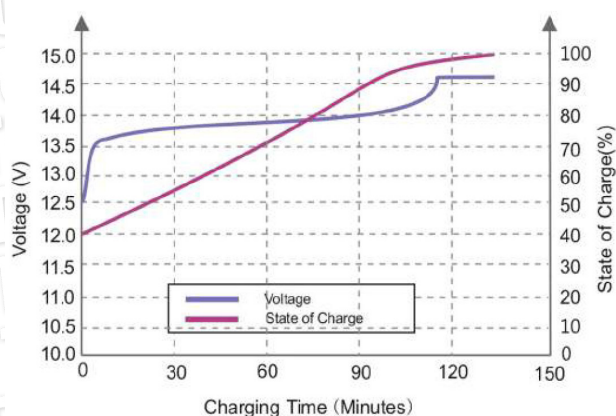
Different flow curve (25°C)



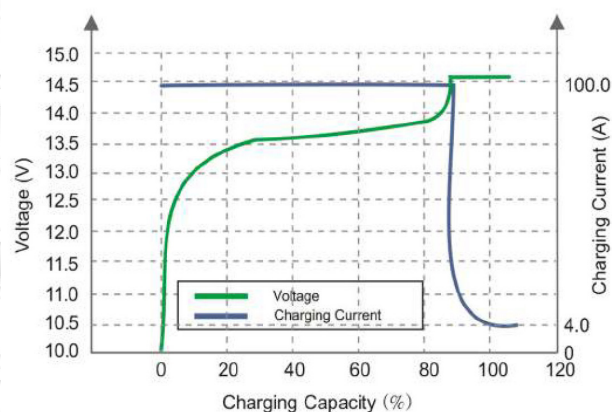
Different discharge temperature curve (0.5C)



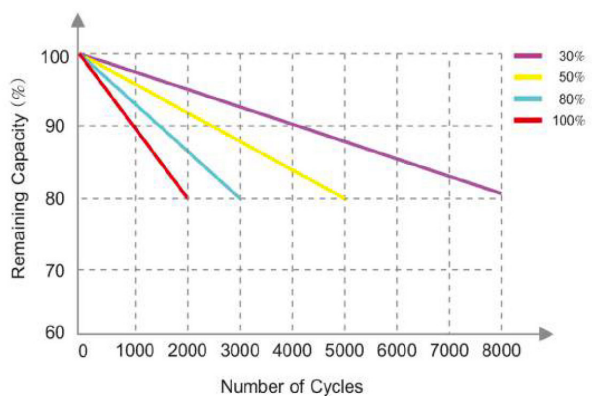
State of charge curve (0.5C, 25°C)



Load characteristics (0.5C, 25°C)



Life time curve different from the DOD discharge cycle (0.5C)



Self-discharge curve with different temperature

