

TP4850LFP lithium LiFePO₄ battery pack

TOPAK TP series lithium ion battery is a powerful LiFePO₄ battery product, has the highest capacity in a standard casing available on the market. The highly sophisticated and integrated BMS with very low self consumption, brings safety, functionality and ease of use together in a lightweight and robust casing. The batteries has been especially designed to provide energy for RV (Recreational Vehicles), Marine, Energy storage, etc. Bluetooth and LED indicators, LCD screen, self-heated functions could be optional.



Benefits of Lithium

- High capacity, low weight, increased energy in given space
- Fast charging
- High operational reliability
- Safest lithium technology
- Excellent long life times
- Built-in intelligent BMS to protect the battery pack at any time and prolong its service life
- Maintenance free

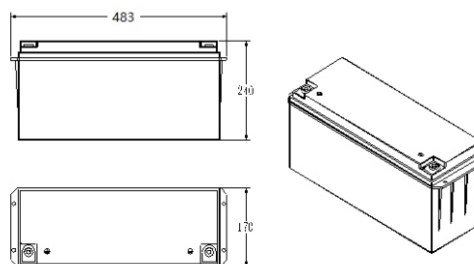
Certifications and standards

a. Products

- UL1642(cells)
- FCC
- UN38.3
- IEC62619

b. MS certifications

- ISO9001
- ISO14001
- OHSAS 18001



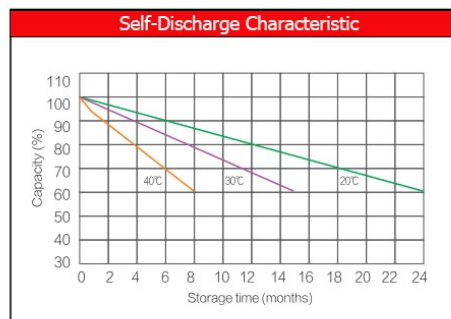
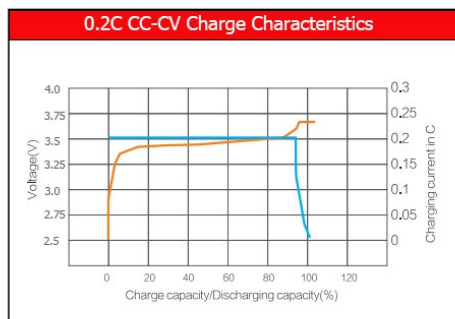
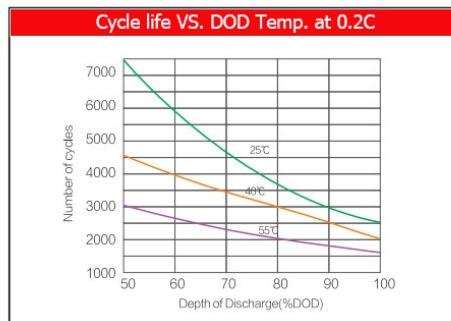
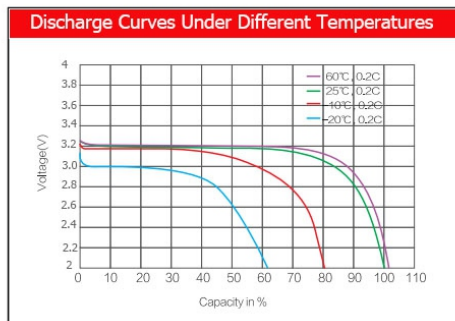
Specifications

Nominal Characteristic		
Battery model		TP4850LFP
Nominal voltage		48V
Typical capacity		50Ah(25°C, 0.2C)
Typical energy		2400Wh
Cells type/chemistry		Prismatic-LiFePO ₄
Gravimetric Energy density		100Wh/Kg
Dimensions	Length	483mm
	Width	170mm
	Height	240mm
Reference Weight		24Kg
Case Material		ABS
Cycle life		>2000 cycles(100% DoD)
Electric Characteristics		
Charge method		CC/CV
Charge voltage Range		14.3~14.6V
Max.continuous Discharge Current		50A
Max.continuous Charge Current		50A
Discharge Pulse Current (10 sec)		100A
End of Discharge Voltage		10V
Operation Environment		
Charge Temperature		0°C~55°C
Discharge Temperature		-20°C~60°C
Storage Temperature		-20°C~60°C
Protection Class		IP56

BMS specifications

ITEM	CONTENT	CRITERION
Voltage	Charging voltage	3.65V/cell
	Balance voltage	3.45V/cell
Current	Max continues charge current	50A
	Max continues discharge current	50A
Over charge Protection	Over charge detection voltage	3.75±0.05V
	Over charge detection delay time	1~3S
	Over charge release voltage	3.6±0.05V
Over discharge Protection	Over discharge detection voltage	2.5±0.05V
	Over discharge detection delay time	1~3S
	Over discharge release voltage	2.70±0.10V
Over current protection	Over discharge current protection	175A
	Detection delay time1	50~150mS
	Over charge current detection current	70A
	Detection delay time	300~800mS
Short Circuit Protection	Short Circuit Protection Current	700A, External short circuit
	Detection delay time	450uS
	Release condition	Cut load and charging
Battery temperature	Over-temperature protection	65±5°C
	Release temperature	50±5°C

Performance curve



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