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TP24100LFP 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)

IEC62619

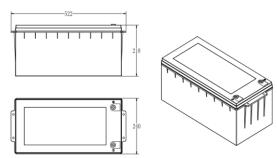
- FCC
- UN38.3

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- b.MS certifications
- ISO9001
- ISO14001
- OHSAS 18001
- Specifications

Nominal Characteristic Battery model TP24100LFP Nominal voltage 25.6V Typical capacity 100Ah(25°C,0.2C) Typical energy 2560Wh Cells type/chemistry Prismatic-LiFePQ, Gravimetic Energy density 107Wh/Kg Dimensions Length 522mm Midth 240mm Height 218mm Reference Weight 24Kg Case Material ABS Cycle life >2000 cycles(100% DoD) Elertic Characristics 2000 cycles(100% DoD) Elertic Characristics CC/CV Charge method CC/CV Charge voltage Range 100A Max.continuous Discharge Current 100A Discharge Voltage 200A End of Discharge Voltage 10V Operation Environment 0°C ~55°C Charge Temperature -20°C ~60°C Storage Temperature -20°C ~60°C Storage Temperature -20°C ~60°C Storage Temperature -20°C ~60°C			
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Cells type/chemistryPrismatic-LiFePQ4Gravimetic Energy density107Wh/KgDimensionsLength Width 240mm HeightDimensionsLength 240mm 240mm HeightReference Weight24KgCase MaterialABSCycle life>2000 cycles(100% DoD)Electric Characristics24KgCharge methodCC/CVCharge voltage Range14.3~14.6VMax.continuous Discharge Current100ADischarge Voltage100ADischarge Voltage10VOperation Environment10VCharge Temperature0°C~55°CDischarge Temperature-20°C~60°CStorage Temperature-20°C~60°C	Typical capacity		100Ah(25℃,0.2C)
Gravimetic Energy density107Wh/KgDimensionsLength Width Height522mm 240mm 218mmReference Weight24KgCase MaterialABSCycle life>2000 cycles(100% DoD)Electric CharacristicsCC/CVCharge methodCC/CVCharge voltage Range14.3~14.6VMax.continuous Discharge Current100ADischarge Pulse Current (10 sec)200AEnd of Discharge Voltage10VOperation Environment0°C~55°CDischarge Temperature-20°C~60°CStorage Temperature-20°C~60°C	Typical energy		2560Wh
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Case MaterialABSCycle life>2000 cycles(100% DoD)Electric CharacristicsCharge methodCC/CVCharge voltage Range14.3~14.6VMax.continuous Discharge Current100AMax.continuous Charge Current100ADischarge Pulse Current (10 sec)200AEnd of Discharge Voltage10VOperation Environment°C~55°CCharge Temperature°C~60°CStorage Temperature-20°C~60°CStorage Temperature-20°C~60°C	Dimensions	Width	240mm
Cycle life>2000 cycles(100% DoD)Electric CharacristicsCC/CVCharge methodCC/CVCharge voltage Range14.3~14.6VMax.continuous Discharge Current100AMax.continuous Charge Current100ADischarge Pulse Current (10 sec)200AEnd of Discharge Voltage10VOperation EnvironmentCharge Temperature0°C~55°CDischarge Temperature-20°C~60°CStorage Temperature-20°C~60°C	Reference Weight		24Kg
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Discharge Pulse Current (10 sec) 200A 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	Max.continuous Discharge Current		100A
End of Discharge Voltage 10V Operation Environment 0°C~55°C Charge Temperature 0°C~60°C Storage Temperature -20°C~60°C	Max.continuous Charge Current		100A
Operation EnvironmentCharge Temperature0°C~55°CDischarge Temperature-20°C~60°CStorage Temperature-20°C~60°C	Discharge Pulse Current (10 sec)		200A
Charge Temperature0°C~55°CDischarge Temperature-20°C~60°CStorage Temperature-20°C~60°C	End of Discharge Voltage		10V
Discharge Temperature -20°C~60°C Storage Temperature -20°C~60°C	Operation Environment		
Storage Temperature -20°C~60°C	Charge Temperature		0°C~55℃
	Discharge Temperature		-20℃~60℃
Protection Class IP65	Storage Temperature		-20℃~60℃
	Protection Class		IP65





TP24100LFP

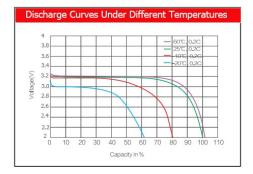


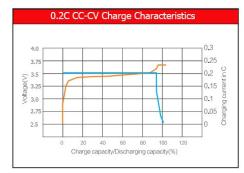
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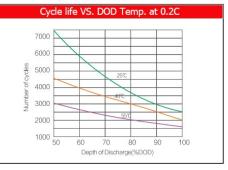
BMS specifications

ITEM	CONTENT	CRITERION
Voltage	Charging voltage Balance voltage	3.65V/cell 3.45V/cell
Current	Max continues charge current Max continues discharge current	100A 100A
Over charge Protection	Over charge detection voltage Over charge detection delay time Over charge release voltage	3.75±0.05V 1~3S 3.6±0.05V
Over discharge Protection	Over discharge detection voltage Over discharge detection delay time Over discharge release voltage	2.5±0.05V 1~3S 2.70±0.10V
Over current protection	Over discharge current protection Detection delay time1 Over charge current detection current Detection delay time	400A 500~1500mS 160A 300~800mS
Short Circuit Protection	Short Circuit Protection Current Detection delay time Release condition	1680A,External short circuit 400uS Cut load and charging
Battery temperature	Over-temperature protection Release temperature	65±5℃ 50±5℃

Performance curve









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