

TP51100LFP 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

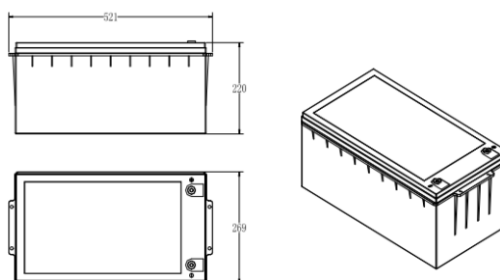
Certifications and standards

a. Products

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

b. MS certifications

- ISO9001
- ISO14001
- OHSAS 18001



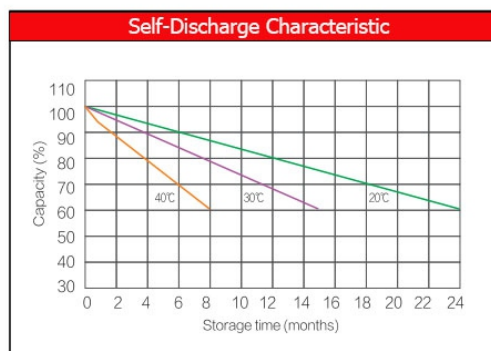
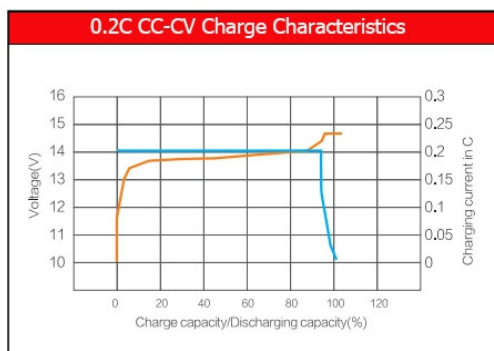
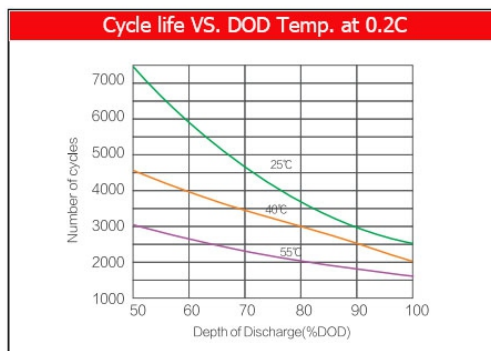
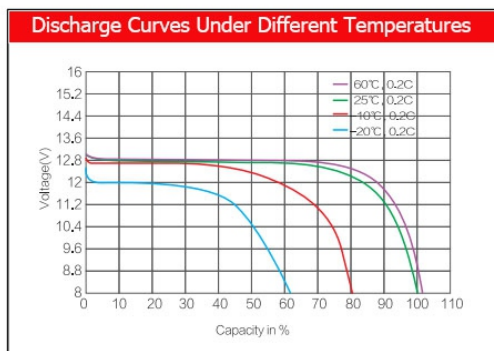
Specifications

| Nominal Characteristic | | |
|-----------------------------------|--------|-------------------------------|
| Battery model | | TP51100LFP |
| Nominal voltage | | 51.2V |
| Typical capacity | | 100Ah(25°C, 0.2C) |
| Typical energy | | 5120Wh |
| Cells type/chemistry | | Prismatic-LiFePO ₄ |
| Gravimetric Energy density | | 131Wh/Kg |
| Dimensions | Length | 521mm |
| | Width | 269mm |
| | Height | 220mm |
| Reference Weight | | 39Kg |
| 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 | | 100A |
| Max. continuous Charge Current | | 100A |
| 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 |
| Protection Class | | IP65 |

BMS specifications

| ITEM | CONTENT | CRITERION |
|---------------------------|---------------------------------------|-------------------------------|
| Voltage | Charging voltage | 3.65V/cell |
| | Balance voltage | 3.45V/cell |
| Current | Max continues charge current | 100A |
| | Max continues discharge current | 100A |
| 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 | 325A |
| | Detection delay time1 | 50~150mS |
| | Over charge current detection current | 130A |
| | Detection delay time | 300~800mS |
| Short Circuit Protection | Short Circuit Protection Current | 1300A, External short circuit |
| | Detection delay time | 400uS |
| | 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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