

ADVANCED 100

DATA SHEET

LiFePO4
12.8V
Battery



Battery Service life:

The Advanced 100 is a 12.8V 100Ah Lithium battery. It provides 3000 cycles (10 years) compared to 500 cycles (3 years) of a typical lead-acid battery.

At 11.4kg the Advanced 100 weighs approximately one third of the weight of a typical lead-acid battery.

Safety protection:

The Teconnex Power Advanced 100 has an inbuilt Battery Management System (BMS) to protect the unit from overcharging, deep discharging, overheating and short circuiting.


MADE IN THE UK



TECONNEX
POWER

Electrical Specifications

| | |
|-----------------------------------|--------|
| Nominal Voltage | 12.8V |
| Nominal Capacity at 25°C | 100Ah |
| Energy Efficiency | >98% |
| Resistance at 50% State of Charge | ≤30mΩ |
| Nominal Energy at 25°C | 1280Wh |

Mechanical Specifications

| | |
|------------------------|---------------------------|
| Dimensions (L x W X H) | 328mm x 172.5mm x 217.3mm |
| Weight | 11.4 Kg |
| Terminal Connections | M8 thread |
| Terminal Torque | 11-13 Nm |
| Enclosure Protection | IP55 |
| Cell Type & Chemistry | Prismatic LiFePO4 |

Discharge Specifications

| | |
|---|----------------------|
| Max Continuous Discharge Current | 100A |
| Peak Discharge Current | 110A for 10 Seconds |
| BMS Low Discharge Voltage cut-off | 10V after 10 Seconds |
| Recommended Discharge Current | 50A |
| Operating temperature less than 75% relative humidity | -20°C to +50°C |

Charge Specifications

| | |
|---|---------------------|
| Max Continuous Charge Current | 100A |
| Peak Charge Current | 110A for 10 Seconds |
| Recommended Charge Current | 50A |
| Operating temperature less than 75% relative humidity | +1°C to +50°C |

Environmental & Storage condition

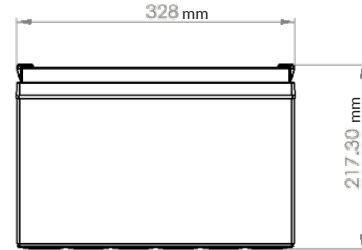
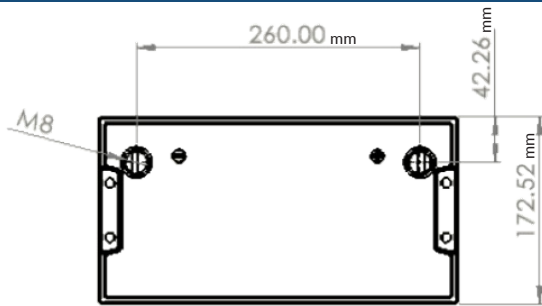
| | |
|---|--|
| Operating temperature less than 75% relative humidity | <ul style="list-style-type: none">Storage temperature<ul style="list-style-type: none"><1 year : -20 to +25°C Ambient temp<3 months : -20 to +45°C Ambient temp0.35% Self discharge rate |
|---|--|

| Abbreviation | Meaning |
|--------------|---------------|
| V | Voltage |
| A | Amps |
| Ah | Amps per hour |
| Nm | Newton-metre |

| Abbreviation | Meaning |
|--------------|-----------------|
| mΩ | Milliohm |
| Wh | Watts per hour |
| Kg | Kilogram |
| °C | Degrees celsius |

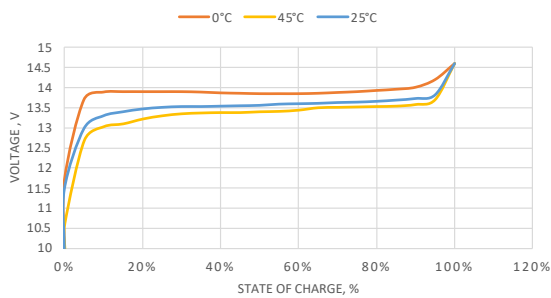


Dimensional Specifications

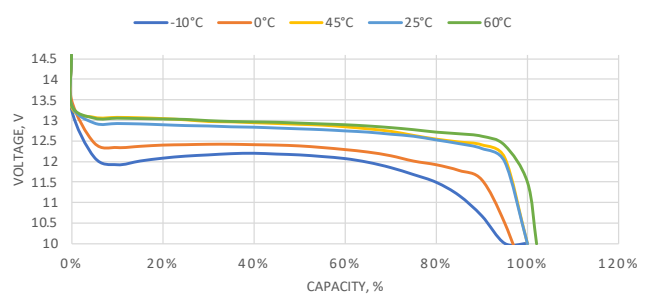


Performance Characteristics

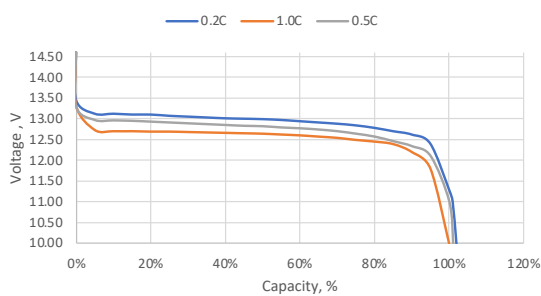
CHARGE VOLTAGE CHARACTERISTICS AT VARIOUS TEMPERATURE @ 0.5C



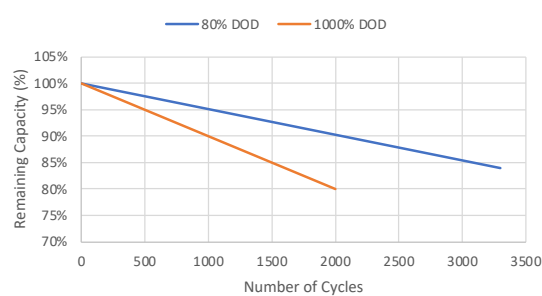
DISCHARGE VOLTAGE CHARACTERISTICS AT VARIOUS TEMPERATURE @ 0.5C



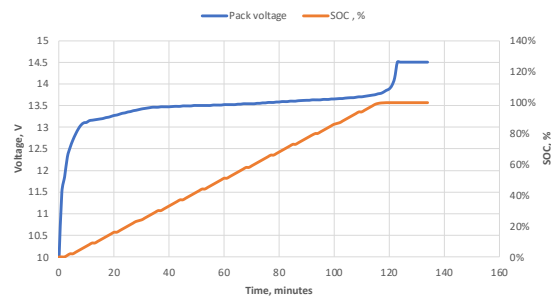
DISCHARGE VOLTAGE CHARACTERISTICS AT VARIOUS C-RATE @ 25°C



DIFFERENT DEPTH OF DISCHARGE LIFE CURVE @ 0.5C 25°C



CHARGE VOLTAGE & STATE OF CHARGE (SOC) CHARGING 0.5C @ 25°C



The C-rate is the rate the battery is charged or discharged. For example, a C rate of 1C means the battery will be charged from 0-100% in one hour and 0.5C means the battery will be charged in two hours.

