



TX-B105

## BATTERY PACK



## USER MANUAL

Please read this manual carefully before operating and retain it for future reference.

[info@temax-solar.com](mailto:info@temax-solar.com)

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## 1. Safety Precautions

This section describes the safety information that must be observed when working with battery packs. To prevent any damages, or personal injury, and to ensure the performance of the battery packs, please read this section carefully and observe the safety precautions at all times.

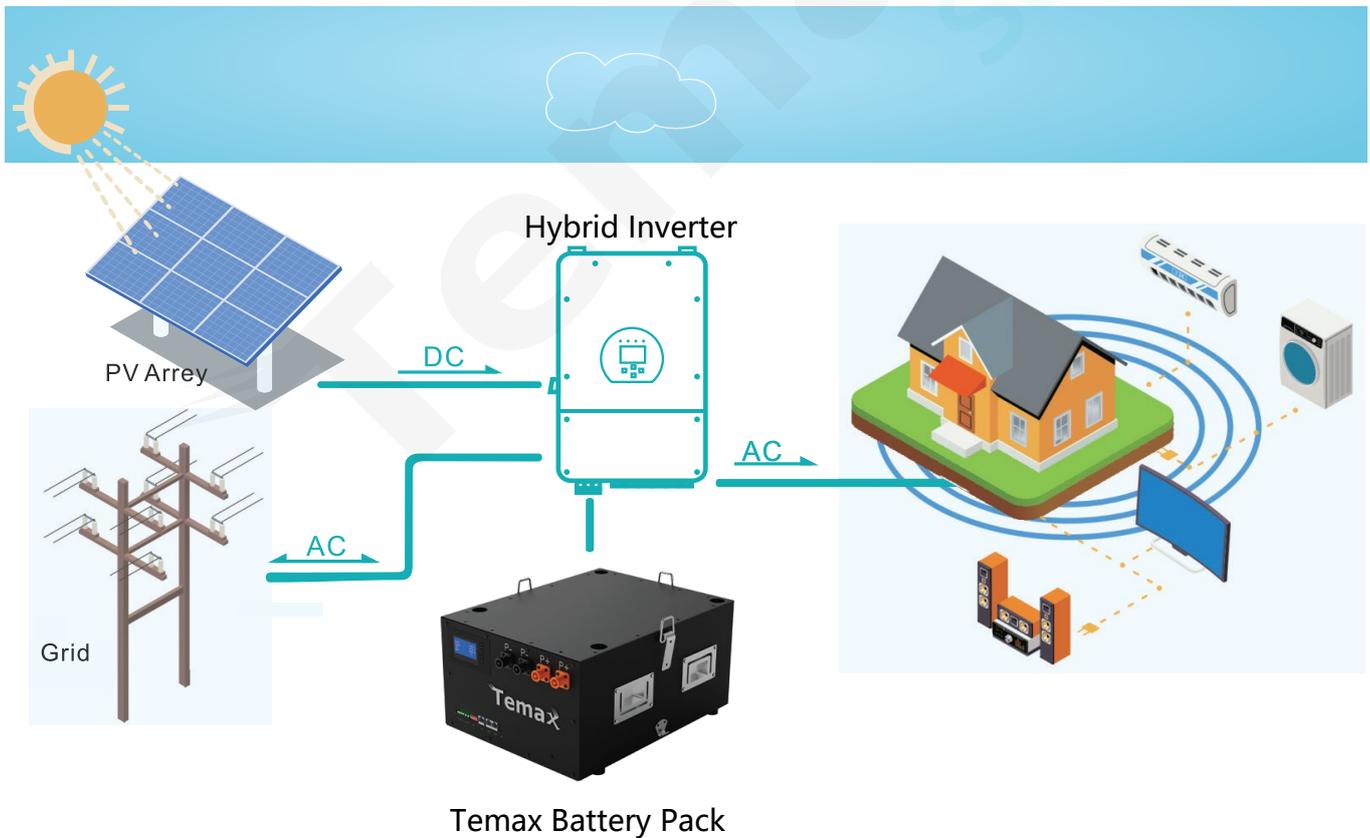
### 1.1 Precautions

- It is very important and necessary to read the user manual carefully before installing or using the product. Failure to do so or to follow any of the instructions or warnings in this document can result in electrical shock, serious injury or death, and could damage the battery, or potentially rendering it inoperable.
- If the battery pack is stored for long time, it is required to charge them every six months, and the SOC should be no less than 50%.
- Please recharged the battery pack within 12 hours, after fully discharged.
- All the battery pack terminals must be disconnected before any maintenance.
- Do not use cleaning solvents to clean battery pack.
- Do not expose battery pack to flammable or harsh chemicals, or corrosive gases or liquids.
- Do not paint any part of battery pack, include any internal or external components.
- Do not expose the battery pack to direct sunlight for extended periods of time.
- Do not connect battery pack with PV solar wiring directly.
- Do not insert any foreign object into any part of the battery pack.

### 1.2 Warning

- Do not touch the battery pack with wet hands.
- Do not crush, drop or puncture the battery pack.

- Always dispose of the battery pack according to local safety regulations.
- Store and recharge the battery pack in a manner in accordance with this user manual.
- Ensure reliable grounding.
- Do not reverse the polarity when installing.
- Do not short circuit the terminals, remove all jewelry items that could cause a short circuit before installation and handling.
- Disconnect battery from power or loads, and then power off battery before installation and maintenance.
- The battery packs should be not stacked more than specified numbers.
- Continued operation of a damaged battery pack can result in dangerous situation.



## 2. Introduction



### TX-B105

#### 2.1 Features

- EVE 3.2V 105Ah LiFePO4 prismatic cells.
- Battery cell is made from lithium iron phosphate (LiFePO4) with safety performance and longer cycle life.
- Specially designed plastic cell holder features fire proof and insulation. 16 cells in a battery module, then connected with BMS.
- BMS has over-discharge, over-charge, over-current, high and low temperature warning and protection functions.
- BMS monitors the charge and discharge state, and balance the current and voltage of each cell.

- BMS comes with upper computer system for real-time cell and pack voltage, current, temperature, and battery status monitoring and recording.
- Flexible configuration, max. 16 packs can be connected in parallel for expanding capacity and power with 8 DIP switches.
- Pre-programmed with multi-protocols, Temax TX-B105 51.2V 105Ah works with multi-brands of inverters.

## 2.2 Specification

Basic Parameters	TX-B105
Nominal Voltage (V)	51.2V
Nominal Capacity (Ah)	105Ah @0.5C discharge current 25±2℃
Nominal Power (Wh)	5.38KWh
Dimension (mm)	460*353*225mm
Weight (Kg)	47KG±2KG
Discharge Cut-off Voltage (V)	44V
Charge Voltage (V)	56.4V
Continuously Charge/Discharge Current (A)	50A @25±2℃ (Recommended)
Working Temperature	0~50℃(Charge)
	-10~50℃(Discharge)
	-20~55℃(Storage)
SOC Range	5%-100%
Recommended SOC Range	10-90%
Communication Interface	CAN (Default)or RS485
Humidity	10% - 85%
IP level	IP 20

## 2.4 Cell Features Specifications

EVE 3.2V 105Ah lithium iron phosphate (LiFePO4) aluminum case prismatic rechargeable battery cell.

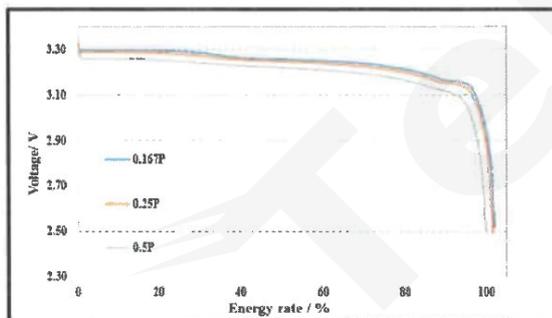
Nominal Voltage	3.2V
Nominal Capacity	105Ah
Weight	1.98 Kg
AC Impedance Resistance (1KHz)	0.25 mΩ

Refer to the cell specification for more detailed information.

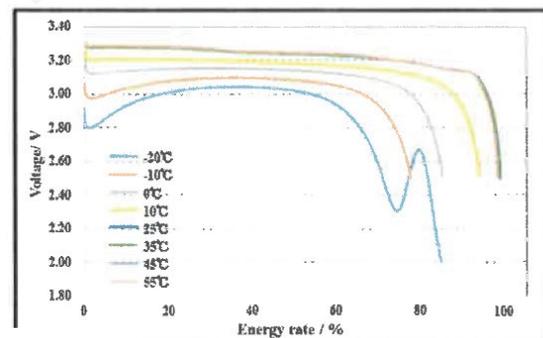
Temax International applies high quality Grade A cells inside the battery box. And did the following designs to prolong the battery pack cycle life.

- Judging by the current testing report below, if the battery pack charging and discharging at 0.5C, the battery pack could reach a cycle life of 6000 times or more at the remaining capacity of 80% capacity state at 25°C room temperature, 100%DOD.
- The real capacity of each single cell is 285Ah.

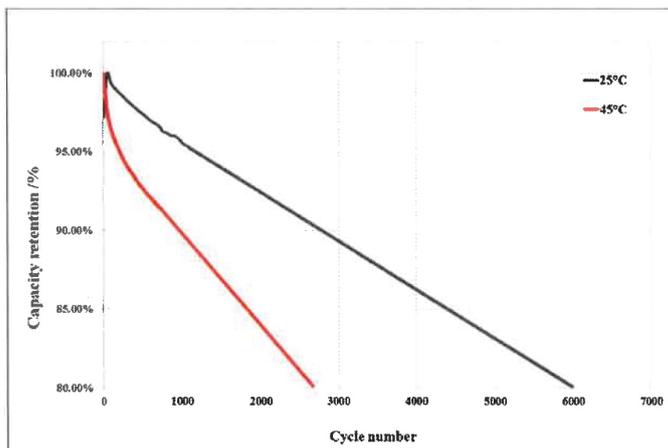
1、Rate discharge curve at 25°C



2、Discharge curve at different temperatures(0.5P)



3. Cycle curve (charge/discharge:0.5C/0.5C, 3.65V-2.5V)





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E-mail: [info@temax-solar.com](mailto:info@temax-solar.com)

Website: <https://www.temax-solar.com/>