



# U3 LiFePO<sub>4</sub> Battery Module

Quick Installation Guide

**Revision A** 



### **ACT U3 LiFePO4 Battery Module Quick Installation Guide**

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This document is produced to assist professional and properly trained personnel with installation and maintenance issues for the product. The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice.

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#### **Revision History**

Revision	Date	Reason for Change
Α	10/19/2015	Initial release



## Quick Installation Guidelines for U3 Series 48 V 50 Ah Lithium Battery Module

#### 1. Battery installation warnings

- 1) Fix battery in place, avoid vibrations and shocks.
- 2) Do not put battery in a place where a spark might occur (such as near a switch, fuse etc.) in case of hydrogen emission while charging.
- 3) Do not put battery in a sealed place or an area where gas can easily accumulate.
- 4) If it is necessary to put the battery into equipment, the battery should be placed near the bottom of the equipment to avoid rising temperatures. Do not allow the battery to contact the inner walls of the equipment.
- 5) Do not put battery close to hot objects (such as transformers etc.).

#### 2. Battery connection warnings

- 1) Insulate metal installation tools (e.g. wrench) with insulating tape before installation.
- 2) Connect batteries first, then connect the battery bank to charger or load.
- 3) If several strings of batteries need to be connected in parallel, connect series connections first, then parallel connections. In order to ensure proper cooling conditions, the space between batteries should be at least 10 mm.
- 4) Cover the surface of the battery pole with an adequate amount of antirust before and after installation.
- 5) Power up the battery bank after correctly measuring the total voltage.



#### 3. Installation of battery module

#### 1) Install and fasten

Insert system into a 19 inch cabinet. Fix system screws onto the shelf using mounting ears on both sides of the cabinet.

A hanging installation also can be adopted. Affix the system using screws on the lampstand with installing ears on both sides of the cabinet.

#### 2) Earth connection

Connect earth using a flexible cable above 16 AWG through the earth connecting hole on the right side of the back of the cabinet. Ensure that the connection is properly secured.

#### 3) Battery output connecting

Connect the output terminals "+" and "-" of the LiFePO4 battery module to a power system with the black and red flexible cable

If multiple battery modules need to be connected in parallel, please connect the output terminals of battery module "+" to "+" and "-" to "-."

#### 4) System power on

When system installation has been completed, the battery should be in a dormant state. The battery will enter a normal operational state after powering on, and can then be charged or discharged.

#### 5) Connect RS-485 communication port

If necessary, the COM1 and COM2 of a PC can be connected to the RS-485 communication port of the battery system front panel with a communication cable.

The RS-485 communication port can also be used to monitor battery parameters according to different communication software.







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