

# USER MANUAL

## APEX 1300 LFP Battery



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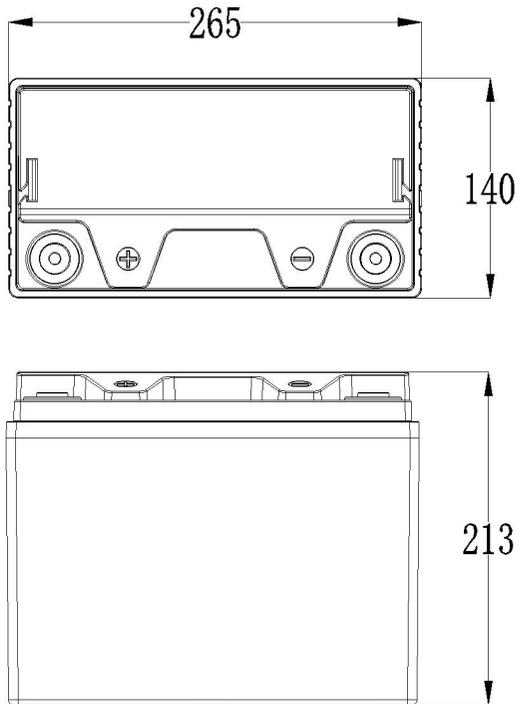
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# 1 Product Overview

APEX 1300 can be floor mounted,.

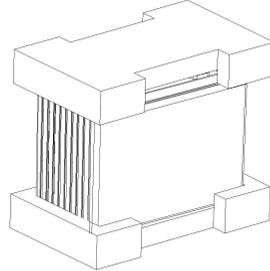
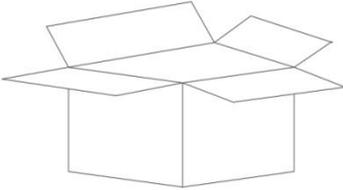
**APEX 1300 is not suitable for life-sustaining medical devices.**

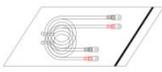
## 1.1 Appearance



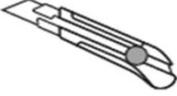
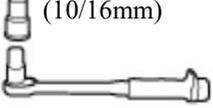
## 2 Installation Guide

### 2.1 Checking Deliverables



NO.	Pictures	Quantity	Description
1		1 pc	Battery
2		1 pc	User Manual
3		1 pair	Power cable
4		2 pcs	Wall Mount set screws

## 2.2 Tools

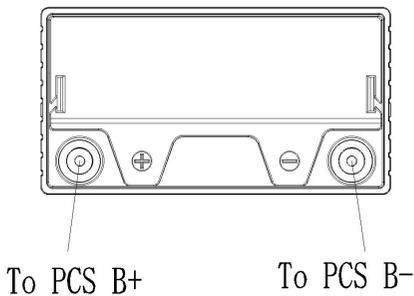
<b>Installation Tools</b>	Knife 	Measuring Tape 	Socket Wrench (10/16mm) 
	Hammer 	Cross Screwdriver 	Hammer Drill 
<b>Protection Tools</b>	ESD Gloves 	Safety Goggles 	Safety Shoes 

### 2.2.1 Installation Step (Floor Mounted)

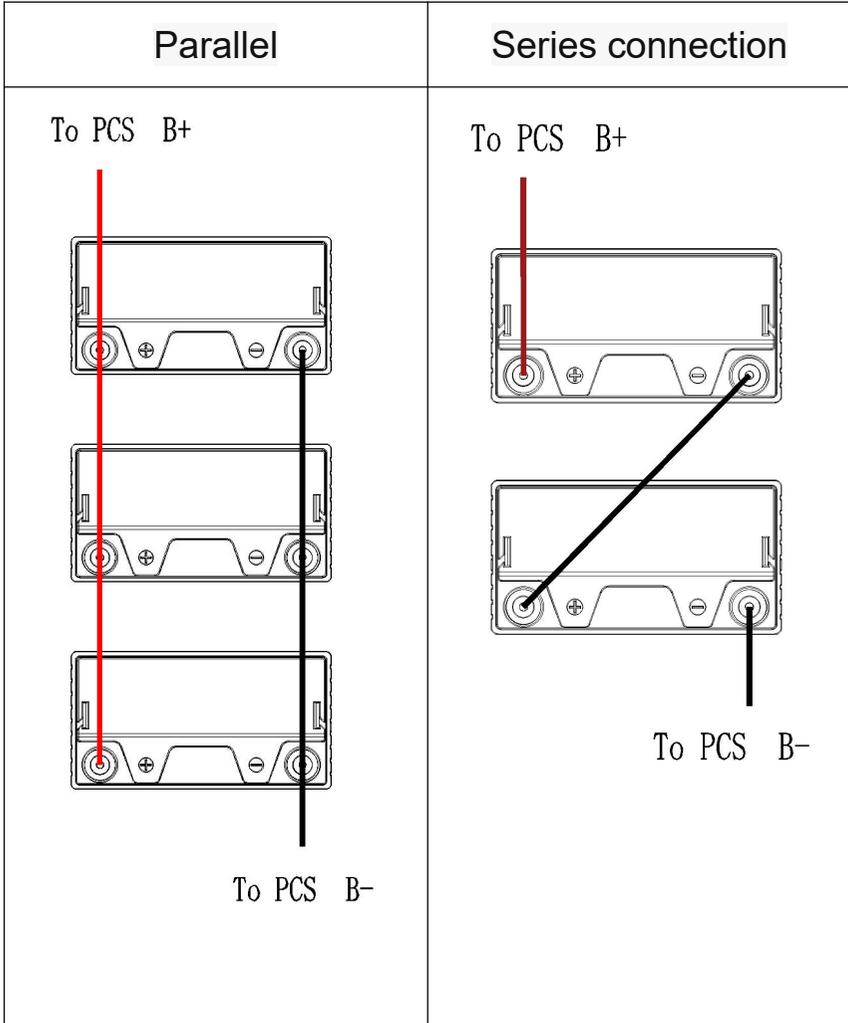
#### Step 1

put APEX 1300 on floor.

**Step 2** Connect power cable.



**Step 3** Refer to the following diagram when multiple batteries are connected in parallel:



### 3 Technical Specifications

Basic Project		Parameter
Nominal Voltage		12.8V
Nominal Capacity		102Ah
Nominal Energy		1305Wh
Charge Voltage		56.16V
Charge Current		50A
Discharge Voltage Range		10.8V~14.6V
Discharge Current		100A
Communication Mode		/
Working Temperature	Charge	0°C~55°C
	Discharge	-20°C~55°C
Storage Temperature	Short Term (within 1 month)	-10°C~45°C
	Long Term (within 1 year)	0°C~35°C
Storage Humidity		<95% RH
Cell Type		LiFePO <sub>4</sub> , Lithium Iron Phosphate
Size		H265*W140*D213(mm)
Weight		10KG
IP Level		IP65

## 4 Maintenance

### 4.1 Recharge Requirements During Storage

Batteries should be stored in temperature between  $-10^{\circ}\text{C} \sim +45^{\circ}\text{C}$ , and recharged regularly according to the following table with 0.2C (20A) current to 50% SOC after long time storage.

#### Recharge requirement during storage

Storage Temperature	Storage Relative Humidity	Storage Time	SOC
Below $-10^{\circ}\text{C}$	/	Not Allowed	/
$-10\sim 25^{\circ}\text{C}$	5%~70%	$\leq 12$ months	$30\% \leq \text{SOC} \leq 60\%$
$25\sim 35^{\circ}\text{C}$	5%~70%	$\leq 6$ months	$30\% \leq \text{SOC} \leq 60\%$
$35\sim 45^{\circ}\text{C}$	5%~70%	$\leq 3$ months	$30\% \leq \text{SOC} \leq 60\%$
Above $45^{\circ}\text{C}$	/	Not Allowed	/

### 4.2 Recharge Requirements When Over Discharged

Please recharge over discharged ( $>90\%$  DOD) batteries according to the following table, otherwise over discharged battery will be damaged.

#### Recharge requirement when battery is over discharged

Storage Temperature	Storage Time	Note
$-10\sim 25^{\circ}\text{C}$	$\leq 15$ days	Battery disconnected from PCS
$25\sim 45^{\circ}\text{C}$	$\leq 7$ days	
$-10\sim 45^{\circ}\text{C}$	$< 12$ hours	Battery connected to PCS