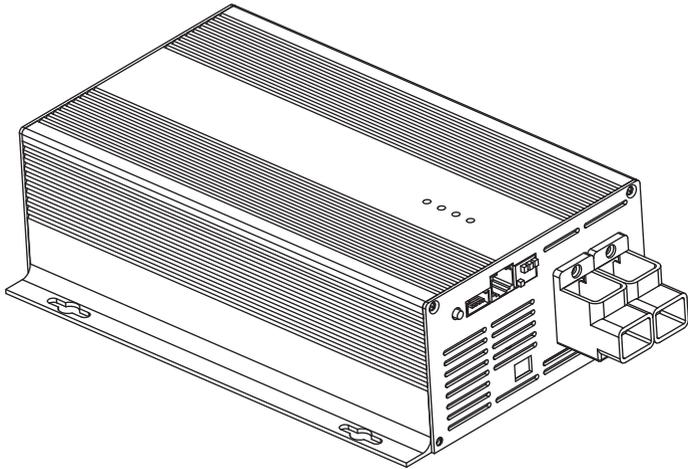


# OLYS

ENG



## Smart Battery Charger

Model: AC1230PRO|12V,30A

AC2415PRO|24V,15A

# 1. Safety instructions



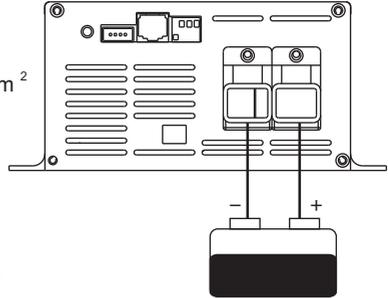
## **CAUTION: CAREFULLY READ AND FOLLOW ALL SAFETY INSTRUCTIONS**

- Ensure that the area around the battery and charger is well ventilated.
- do not cover or place anything on the top of the charger.
- do not place the charger on top of the battery.
- ensure that there is no spark or ignition source near the battery;  
The battery will release explosive gas when charged.
- battery acid is corrosive; If the battery acid comes into contact with the skin, rinse it with water immediately.
- do not attempt to charge non rechargeable or frozen batteries.
- children or people who cannot read and understand the instructions shall not use the charger manual unless they are under the strict supervision of the person in charge, So as to ensure the use of the charger and safely store and use the charger in a place out of the reach of children.
- the charger must be connected in the following order:
  1. Connect the charger output DC cable to the battery terminal, away from the battery and any fuel line / power supply
  2. Connect the AC power cable to the main power outlet and turn on the AC switch
- after charging, the charger must be disconnected in the following sequence (opposite to the connection sequence):
  1. Disconnect the AC power cable from the main power outlet
  2. Disconnect the DC cable to the chassis
  3. Disconnect the DC cable connected to the battery terminal
- power connections must comply with local electrical regulations.  
If the AC power cable is damaged, please contact the manufacturer or service agent
- the charger can only be plugged into a grounded AC power outlet.

# 1. Quick start guide

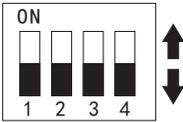
1. Connect the charger to the battery with a DC cable. Make sure the cable is firmly connected. Solid, the cable diameter is recommended to be more than 6mm<sup>2</sup>

**Note:** connect the charger terminal first, and then connect the battery



2. Select battery type and 0 °C charging function

4Pin DIP Switch



Lithium battery 0 °C charging function

1	0°C charge
↑	NO
↓	YES

Battery Selection

Battery type	2	3	4
GEL (14.3V)	↑	↑	↑
Lead-acid (14.4V)	↑	↑	↓
AGM (14.7V)	↑	↓	↑
LiFePO4(13.9V)	↑	↓	↓
LiFePO4(14.2V)	↓	↑	↑
LiFePO4(14.4V)	↓	↑	↓
LiFePO4(14.6V)	↓	↓	↑
Li-ion(12.6V)	↓	↓	↓

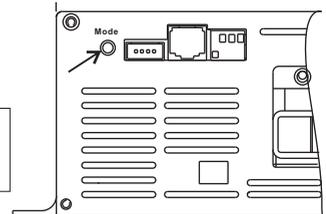
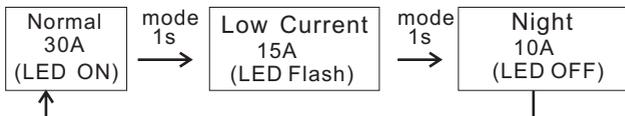
- NOTE:**
1. The 0 °C charging function is only applicable to charging lithium batteries, Lead acid battery do not need to be set
  2. If 0 °C charging function is required, external temperature sensor (RTs) must be connected. If not, the charger can charge by default

3. Connect the AC cable to the main power outlet

NOTE: AC power socket with grounding wire

4. Select charging mode (default Normal mode)

Press and hold "mode" for 1s, and the yellow light flashes quickly. Release the button and change to another mode. The three modes cycle



## 3. Function

### 3. 1. Bluetooth+APP (optional)

Connected to the Bluetooth module BT10, Download app "chargerconnect", The mobile phone can display charging parameters and fault information in real time



### 3. 2. 4-stage charging mode

pre charging, constant current charging(ABS), constant voltage charging(Bulk) and floating charging

### 3. 3. Temperature compensation

Temperature compensation charging voltage, automatic compensation according to ambient temperature; This ensures that the battery is charged at the optimum charging voltage, Regardless of the climate, there is no need to manually adjust the settings.

Note: 1. Charging the lithium battery without temperature compensation2.

The temperature sensor (RTs) is an optional part and needs to be purchased separately If not connected, no temperature compensation

### 3. 4. Protection function

Overheating protection: the internal temperature  $> 85^{\circ}\text{C}$  ,charger stop working

Current reduction protection: the internal temperature  $> 70^{\circ}\text{C}$  ,  
the current is reduced by 50% for charging

Short circuit protection: battery is short circuited and the charger stops working

Reverse connection protection: the battery is reversely connected and the charger does not work

### 3. 5. Low current mode (50% current)

The charger is charged with 50% current of standard specification

### 3. 6. Night mode

Night mode charging, Keep 10% fan speed allowed during charging process, and Keep silent , the charging current will reach 10A (AC1230 PRO) or 6A(AC2415PRO)

### 3. 7. Fan speed control

Detect charging current and charger temperature to change fan speed

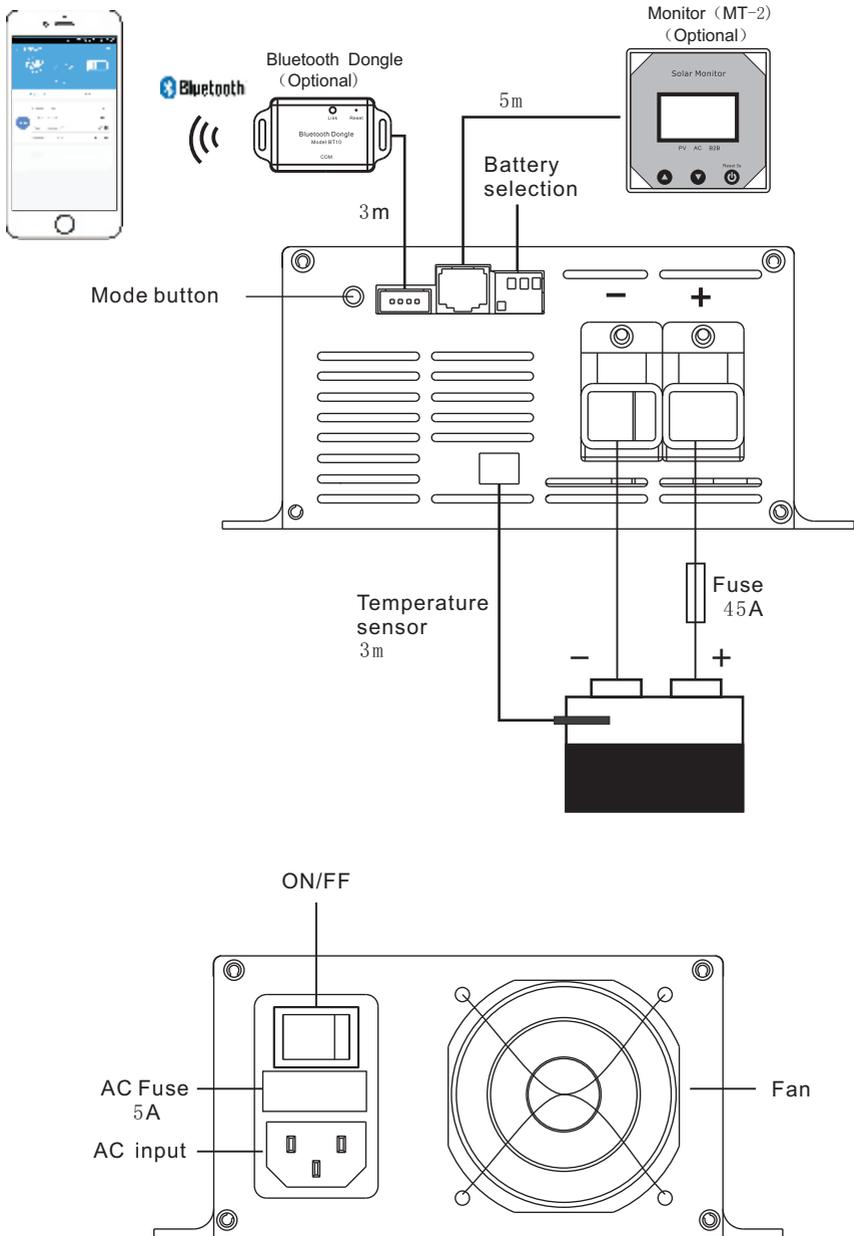
### 3. 8. Lithium battery 0V automatic activation charging

When the lithium battery is low voltage protection (UVP) state, the charger can automatically activate the lithium battery charging

### 3. 9. lithium battery $0^{\circ}\text{C}$ charging function

The  $0^{\circ}\text{C}$  charging function of lithium battery can be selected through the DIP switch

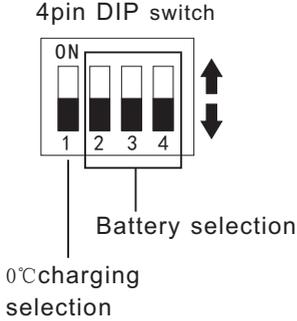
# 4. Connection diagram



# 5. Setting

## 5. 1. Battery selection

The DIPswitch numbers 2, 3 and 4 are used to select the battery type. Refer to the following table. It is recommended to select the battery before charging, if the battery type is changed during charging, the charging will stop for a few seconds, and then recharge according to the new battery parameters



Battery type	2	3	4
GEL (14.3V)	↑	↑	↑
Lead-adic(14.4V)	↑	↑	↓
AGM(14.7V)	↑	↓	↑
LiFePO4(13.9V)	↑	↓	↓
LiFePO4(14.2V)	↓	↑	↑
LiFePO4(14.4V)	↓	↑	↓
LiFePO4(14.6V)	↓	↓	↑
Lithium-ion(12.6V)	↓	↓	↓

## 5. 2. 0 °C charging function of lithium battery

DIP switch No. 1 is used to select 0 °C charging of lithium batteryfunction

### REMARKS:

- 0 °C charging function is only applicable to charging lithium battery. Default charging of lead-acid battery
- If 0 °C charging function is required, external temperature transmitter must be purchased separately, Charger will be charged by default if it is not connected

1	0°C charging
↑	NO
↓	YES

## 5. 3. Charging Mode

Press and hold the "mode" button for 1s while charging or before the battery is not connected. The mode indicator will flash quickly. Release the button to change the charging mode. The three modes will change cyclically. If there is no other operation within 5S, the mode will take effect. The charger will recharge according to the new mode

Normal: Rated current

Low current: 50% rated current

Night: No fan mode, 6. 5A(AC1230PRO), 5A(AC2415PRO)



## 6. LED Indicator Status

"Mode" : Yellow

Normal	ON
Low current	Flash
Night	OFF

"Battery Full" : Green

Battery Full	ON
Battery not fully charged	OFF

"Charging" : Blue

No charging or charging timeout	OFF
Constant current charging (ABS)	Slow flash (1time/2S)
Constant voltage charging (BULK)	Fast flash (1time/1S)
Float charging	ON

"Error" : Red

No fault	OFF
No battery connected	ON
硬件过流	1 time / 3.5 seconds
软件过流	Flash 2 times continuously, pause for 3.5 seconds
充电超时	Flash 3 times continuously, pause for 3.5 seconds
过温保护	Flash 4 times continuously, pause for 3.5 seconds
输入过压	Flash 5 times continuously, pause for 3.5 seconds
输入低压	Flash 6 times continuously, pause for 3.5 seconds
输出欠压	Flash 7 times continuously, pause for 3.5 seconds
控制板与AC板通信失败	1 time / 1second
电池规格错误	2 time / 1second

Note: flashing frequency: 1 time / 1s

## 7. Charging parameters

Battery type	Absorption	Float
GEL	14.3V	13.8V
Lead-acid (14.4V)	14.4V	13.5V
AGM (14.7V)	14.7V	13.5V
LiFePO <sub>4</sub> (13.9V)	13.9V	13.8V
LiFePO <sub>4</sub> (14.2V)	14.2V	13.8V
LiFePO <sub>4</sub> (14.4V)	14.4V	13.8V
LiFePO <sub>4</sub> (14.6V)	14.6V	13.8V
Lithium-ion(12.6V)	12.6V	12.5V

Note: 24V charger, multiply all parameters by 2

## 8. Optional accessories

### 8.1 Temperature sensor (RTS)



Specification: NTC 10K

measure the external environment temperature, for lead-acid batteries  
Temperature compensation for charging parameters,  
compensation value; 18mV/°C (12V), 36mV/°C (24V)

Note: the temperature sensor is not connected, and the charging is based on the default 25 °C standard parameter

### 8.2 Monitor(MT-2)



Display battery voltage, charging current,  
charging AH, charging WH

### 8.3 Bluetooth dongle



Connect the mobile phone app (chargerconnect) to display the battery in real time Voltage, charging current, charging AH, charging WH, and fault information

## 2. Technical specifications

Model	AC1230 Pro	AC2415 Pro
Input voltage and frequency range	180V-260VAC 50HZ	
Efficiency	>90%	
Battery voltage	12V	24V
Max.output current-Normal mode	30A	15A
Max.output current-low current mode	15A	7.5A
Max.output current-Night mode(quiet mode)	10A	6A
Max battery capacity (recommended)	300AH	150AH
Min battery capacity (recommended)	100AH	50AH
Temperature compensation (lead-acid only)	18mV/°C	36mV/°C
Charge algorithm	4-stage adaptive	
Protection	Reverse polarity (fuse), output short circuit, over temperature	
Operating temperature	-20 to +50°C	
Material & Colour	Aluminium,Iron grey	
Battery connection	M8 screw	
Protection category	IP22 (indoor use)	
Weight	1.4kg	
Dimensions (h x w x d)	221×155×70mm	