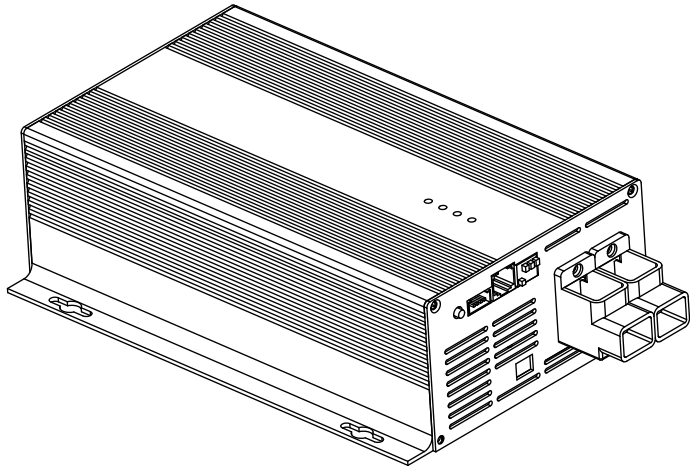


OLYS

ENG



Smart Battery Charger

Model: AC1230PRO|12V,30A

AC2415PRO|24V,15A

AC4810PRO|48V,10A

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.

2. Function

2. 1. **4-stage charging mode**

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

2. 2. **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 compensation

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

2. 3. **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

2. 4. **Low current mode (50% current)**

The charger is charged with 50% current of standard specification

2. 5. **Night mode**

Night mode charging, Keep 10% fan speed allowed during charging process, and Keep silent, the charging current will reduce to 10A (AC1230 PRO) / 6A (AC2415PRO) 3A (AC4810PRO)

2. 6. **DC Power supply mode**

Charger outputs constant voltage, It can be used as a DC power supply,

Reference parameter table of output voltage and current

Note: DC power supply mode, disable battery selection function and temperature compensation

2. 7. **Fan control**

Detect charging current and charger temperature to change fan speed

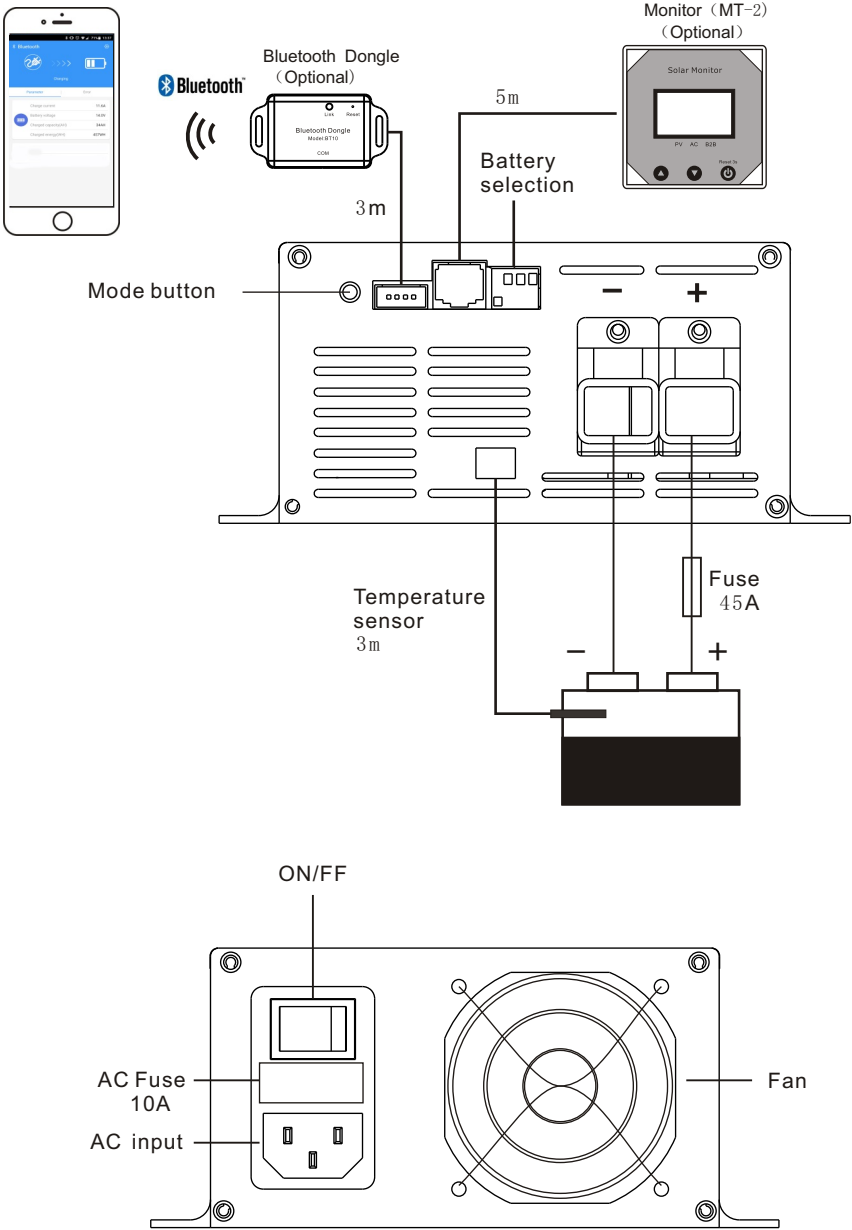
2. 8. **Lithium battery 0V automatic activation charging**

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

2. 9. **lithium battery 0°C charging function**

The 0°C charging function of lithium battery can be selected through the DIP switch

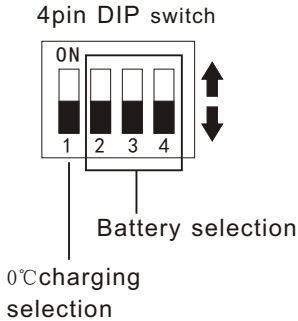
3. Connection diagram



4. Setting

4. 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-acid(14.4V)	↑	↑	↓
AGM(14.7V)	↑	↓	↑
LiFePO4(13.9V)	↑	↓	↓
LiFePO4(14.2V)	↓	↑	↑
LiFePO4(14.4V)	↓	↑	↓
LiFePO4(14.6V)	↓	↓	↑
Lithium-ion(12.6V)	↓	↓	↓

Note: 24V charger, value* 2, 48V charger, value*4

4. 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

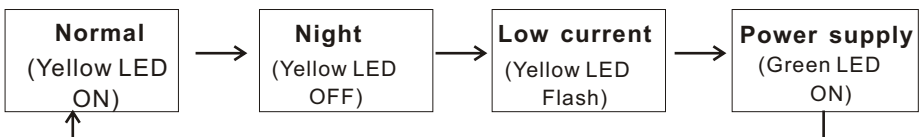
1	0°C charging
↑	NO
↓	YES

4. 3. Function mode selection

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 4 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 charging
- Night: Low speed and low current charging
- Low current: 50% rated current charging

DC power supply : Charger outputs constant voltage



6. LED Indicator Status

“Mode” : Yellow & Green double color lamp

Normal	Yellow LED ON
Night	Yellow LED OFF
Low current	Yellow LED Flash
DC power supply	Green LED ON

“Battery Full” : Green

Battery Full	ON
Battery not fully charged	OFF

“Charging” : Blue

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

“Error” : Red

No fault	OFF
No battery connected	ON
Hardware overcurrent	1 time / 3.5 seconds
Software overcurrent	Flash 2 times continuously, pause for 3.5 seconds
Charging timeout	Flash 3 times continuously, pause for 3.5 seconds
Over temperature protection	Flash 4 times continuously, pause for 3.5 seconds
Input overvoltage	Flash 5 times continuously, pause for 3.5 seconds
Input low voltage	Flash 6 times continuously, pause for 3.5 seconds
Output undervoltage	Flash 7 times continuously, pause for 3.5 seconds
Communication error	1 time / 1second
Battery specification error	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 ₄ (13.9V)	13.9V	13.8V
LiFePO ₄ (14.2V)	14.2V	13.8V
LiFePO ₄ (14.4V)	14.4V	13.8V
LiFePO ₄ (14.6V)	14.6V	13.8V
Lithium-ion(12.6V)	12.6V	12.5V

Note: 24V charger, value* 2, 48V charger, value*4

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), 72mV/°C (48V)

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

9. APP Operating Instructions

9. 1. Bluetooth module BT10 (optional)

Optional parts need to be purchased separately



9. 2. Download APP

Search and download "**ChargeConnect**" in Google play Store or Apple Store, Or scan QR code to download



Google Play
andriod



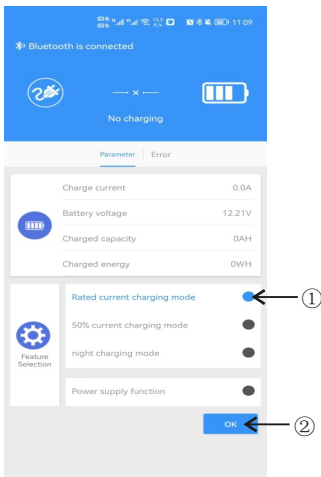
IOS



ChargerConnect

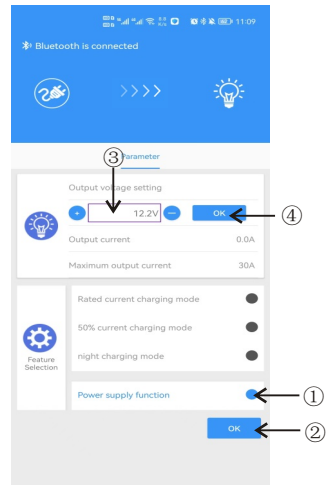
9. 3. Working mode selection

1. Select one of the 4 modes
2. Press "Confirm"



9. 4. DC power supply setting

- select "Power supply" -- "Confirm"
 - set "output voltage" -- "confirm"
- Refer to parameter table for voltage setting range



10. Technical specifications

Model	AC1230 Pro	AC2415 Pro	AC4810 Pro
Input voltage and frequency range	180V-260VAC 50HZ		
Efficiency	>90%		
Battery voltage	12V	24V	48V
Max.output current-Normal mode	30A	15A	10A
Max.output current-low current mode	15A	7.5A	5A
Max.output current-Night mode(quiet mode)	10A	6A	3A
Max battery capacity (recommended)	300AH	150AH	100AH
Min battery capacity (recommended)	100AH	50AH	30AH
DC Power supply voltage/current (Default)	12.6V/30A	25.2V/15A	50.4V/10A
DC Power supply voltage (APP setting range)	12V-13.8V	24V-27.6V	48V-55.2V
Temperature compensation (Except lithium battery)	18mV/°C	36mV/°C	72mV/°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		