

## Chennic Pulse Battery Charger



**Please read this manual carefully before use the charger!**

**For more information please contact:**

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## ◆ **Packaging list**

| Item   | Charger | Input Wire | Output Wire | Manual |
|--------|---------|------------|-------------|--------|
| Amount | 1       | 1          | 1           | 1      |

## ◆ **Feature Overview**



This is an intelligent battery charger, which adopts advanced high frequency switching mode power supply technology, and Pulse Current. The charging or recovery process is controlled intelligently by a high performance microprocessor.

Approved battery charge algorithms for ideal charging, which can not only make the charging with high efficiency, but also can resume the battery capacity and increase the battery life span. Fully sealed enclosure with provides improved reliability in demanding environments, and the advantages of light weight, compact size and long life design make the charger more competitive than any other battery chargers

Some charger modules can be used in parallel directly to increase charging current and realize fast-speed charging.

## Instruction

### ◆ Type Table

| Type       | Battery Voltage | Charge current |
|------------|-----------------|----------------|
| JCPC-1240  | 12V             | 40A            |
| JCPC-2430  | 24V             | 30A            |
| JCPC-3625  | 36V             | 25A            |
| JCPC-4825  | 48V             | 25A            |
| JCPC-4830  | 48V             | 30A            |
| JCPC-6030  | 60V             | 30A            |
| JCPC-6035  | 60V             | 35A            |
| JCPC-7220  | 72V             | 20A            |
| JCPC-7225  | 72V             | 25A            |
| JCPC-9620  | 96V             | 20A            |
| JCPC-14412 | 144V            | 12A            |
| JCPC-14420 | 144V            | 20A            |

(Note: the above is for input 220VAC, other type is available.)

### ◆ Specification

|                          |                           |
|--------------------------|---------------------------|
| AC Input Voltage:        | AC110V±10% or AC220V±15%  |
| AC Input Frequency:      | 45Hz—65Hz                 |
| Max AC Input current:    | 14A@110V, 7A@220V         |
| DC Output Voltage:       | See the Type Table        |
| DC Output current:       | See the Type Table        |
| Maximum Efficiency:      | ≥88%                      |
| Environmental Enclosure: | IP32                      |
| Immunity-Europe:         | EN61200-4-2/3/5/6/11      |
| Safety-North America:    | UL2202/UL1564 2nd Edition |
| Shock & Vibration:       | SAEJ1378                  |
| Operating Temperature:   | -20℃-50℃(-22-122)         |

Dimensions 271mm(10.7")X178mm(7.0")X92mm(3.6")

Net Weight:: 4.0kgs (8.8bls)

**For details please check charging step section.**

## LED Indicator

### ◆ Operation Indication

**Stand By:** POWER LED is on Self-checking: Battery is connected, all green LEDs are flashing 15 times, and the fan is running rapidly.

**Pulse current charging:** RUN LED is on, and the other four little LEDs indicate the volume of the battery step by step.

**100% Charge Indicator:** All LEDs except the 'RUN' LED are on. The charger stops charging and the fan stops.

### ◆ Protection Indications

**Over current:** Electronic current limit, manual reset. RUN LED is off; the two middle LEDs of Volume are on.

**Thermal Protection:** Shut down if thermal is over 85℃, auto-reset. RUN LED is off; the two LEDs of Volume are flashing.

**Over-time protection:** Shut down. RUN LED is off; the three LEDs of Volume are on.

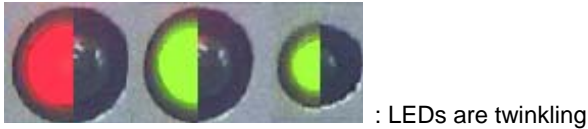
**Battery Fault:** Shut down, auto-reset. RUN LED is off; the four LEDs of Volume are flashing

**Reverse Polarity:** Electronic protection, auto-reset1.

**Thermal Self-Protection:** When the internal temperature of the charger exceeds 75℃, the charging current will reduce automatically. If exceeds 95℃, the charger will shutdown protectively. When the internal temperature drops, it will resume charging automatically.

## Charging Step

### The states of charger:



|   |  |   |   |
|---|--|---|---|
| <p><b>State 1.</b><br/>Stand-by</p>           | <p><b>State 2.</b><br/>Self-checking</p>           | <p><b>State 3.</b><br/>Normal charging</p>  | <p><b>State 4.</b><br/>Full</p>                 |
| <p><b>State 5.</b><br/>Thermal protection</p> | <p><b>State 6.</b><br/>Over-current protection</p> | <p><b>State 7.</b><br/>Abnormal battery</p> | <p><b>State 8.</b><br/>Over-time protection</p> |

#### State 1. Stand-by

Only the 'POWER' LED is on, which imply no batteries is connected to the charger.

#### State 2. Self-checking

The 'POWER' LED is on, and other five green LEDs are twinkling, and the fan is running rapidly. After battery is connected to the charger, the charger will go into the self-checking state. This state takes 15 seconds. In this period, the charger will not only check whether the battery is 48-volt batteries, but also check the environment temperature to do the temperature compensation.

#### State 3. Normal charging

In this state the 'POWER' LED and 'RUN' LED are on, and the other four little LEDs indicates the volume of the battery. While the battery is disconnected from the charger, the charger will back to the stand-by state.

#### State 4. Full

When the battery is fully charged, all LEDs except the 'RUN' LED are on. The charger stops charging and the fan stops. While the battery is disconnected from the charger, the charger will back to the stand-by state.

#### State 5. Thermal protection

The three LEDs are twinkling. In this state, the charger stops charging and the fan run fast in order to prevent over-heating damaging the charger. After the charger is cool, the charger will automatically back to self-checking process.

#### State 6. Over-current protection

The three LEDs are twinkling, which mostly indicates there is faulty in charger or battery. In this state, the charger and fan stop.

Turn off the line supply and wait until all the LED is off. Turn on the line supply will restart the charger. (Notice: do not open the case of the charger!)

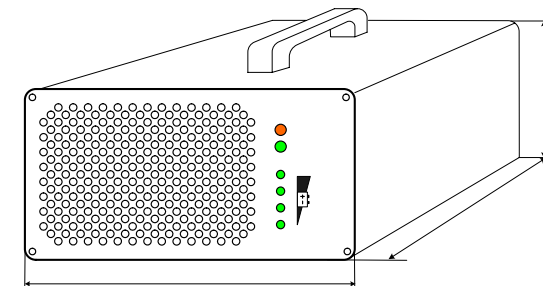
#### State 7. Abnormal battery

The 'POWER' LED is on, and all the four little LEDs are twinkling together. This state occur when the voltage of battery is too high or too low exceeding the normal voltage of 48-volt lead acid batteries. If this state occurs, please check the batteries.

#### State 8. Over-time protection

If the batteries had been charged for more than 12 hours and the batteries are still not full, the charger will stop charging in order to protect the batteries. Then the charger comes to this state.

### ■ Installation Size



## Trouble Shooting Guide

If your charger can't work normally, please exam before you ask to repair the machine as follows:

| Trouble phenomenon  | Cause analysis  | Resolve methods   |
|---|---|---|
| Batteries are too hot and bubbling seriously.                   | Some break and shortage are inside of the battery.                                | Exam storage battery, change the damaged storage battery.             |
| Shortage of electricity after completely charged                | The batteries are too old   | Change the whole storage battery group.                               |
|   | Output wire is longer than 5 meters, which lead to voltage dropping too much.     | Recover the output wire to standard length                            |
| Stop charging after a short well, and batteries are still empty | Connected the Earth Wire instead of Naught Wire.                                  | Connect the Earth Wire correctly                                      |
|   | Check if the charger is under Thermal Self-Protection.                            | Check if the wind hole is blocked. If it is blocked, please clean it. |
|   |   | Check if the fan is working, if fan does not work, change it          |
| The Power LED is bright but the charge does not work            | Check if the connect is well connected, or the charger is under Reverse Polarity. | Connect the connector correctly. Then plug the charger in             |
|   | If the batteries are worn out   | Change batteries to charge again                                      |
| The Power LED is not bright                                     | If the AC input wire is connected   | Connect the charger correctly   |

Please contact with us if the charger can't work normally after checking in accordance with the above-mentioned

## Operation Instruction

1. This charger is only suitable for lead-acid battery. The total voltage is formed by 2V, 6V or 12V single battery.

2. Don't use charger with different voltage and current confusedly. The charger is divided mainly by standard pile. Please follow the cable on the charge. For example: the charger for 48V can't charge for 24V, it will lead to owing sufficiently and excess sufficiently

### Attentions

To reduce the risk of electric shock, do not remove cover. Refer servicing to qualified service personnel. Disconnect the mains supply before connecting or disconnecting the links to the battery. Read the instruction manual carefully before use. Verify that the selected charge curve is suitable for the type of battery you have to re-charge.

### Routine Maintenance

1 The charger should be mounted in place of good air flowing condition, out of the reach of rain. Clean and safe environment is suggested.

2 It is prohibited to open the case during charging.

3 Three-core AC power supply cable with enough current rating must be applied for input. The grounding wire must be connected well to the earth system.

4. It is prohibited for non-professional staff to open the case.

5 The charger should be packaged and store well in case of long time off duty.

6. This charger is designed for charging battery, can not be used as Voltage Converter.

7. Batteries can not be discharged when charging;

8. electrolyte should be lower than 55°C, if higher have to cool down or stop charging.

## Security guide



**Warning:** Alert the users for dangerous operation.



**Attention:** Remind the users of important operation.



Please don't open the charger to repair by yourself



Please do not change power supply wire yourself



AC power supply must work with well-connected earth line system. Be sure to install earth wire correctly.



Prevent the charger suffering from raining.



The output wires should be connected well with socket. In case of broken or loose, replace them with the same type of wires.



Switch off the machine if abnormal sound or odor appears. Contact our service person.



Please do not extend or alternate the output wire improperly.



Please do not block the venting channel of the charger.



Switch off and disconnect the charger before shifting



The battery voltage must conform to the type of charger.



Do not pull the output wires heavily in order to prevent damage.

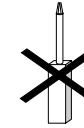
## General Warning:



Up Put



No Drenching



No Dismantling



No dust

## Warranty

The charger is warranted for a period of 1 year since delivery, including parts and labor, excluding the following cases:

1. Damage caused by using the charger i incorrectly.
2. Damage caused by opening the charger without company permission
3. Damage caused by transportation
4. Damage caused by damping
5. Damage caused by supply power over-shooting out of the range of specifications
6. Damage caused by pulling the input or output wires improperly
7. Under-charge of battery due to improper extension of input or output wires.
8. Damage caused by other improper operations.

**Note: Specifications subject to change without notice.**