



Product specification intelligent charger

Product specification

Shenzhen Wate Technology Co., Ltd.

Please read this specification carefully before using this product.

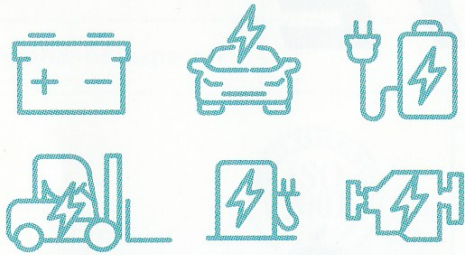
## Introduction

### Product characteristics

- Adopt switching power supply technology without power frequency transformer, thus having AC and DC compatible input function and wide input voltage range. Using advanced switching power supply control technology and components, as well as careful design, the whole machine is small in size, light in weight and high in efficiency, ensuring stable and reliable long-term full-load operation.
- This power supply adopts three-stage full intelligent charging and is full of revolving lamps.
- It has perfect protection function. The built-in heat dissipation fan can effectively dissipate heat and prolong the service life of the fan, has the protection of output over-voltage, over-current and short circuit, can prevent severe power shortage, and has reverse connection function

## Main purposes

The power supply is widely used for charging electric vehicles, forklifts, electric vehicles, electric toy vehicles, electric bumpercars, storage batteries, lead-acid batteries, nickel-hydrogen batteries, lithium batteries, and can be used as switching power supplies and other equipment.

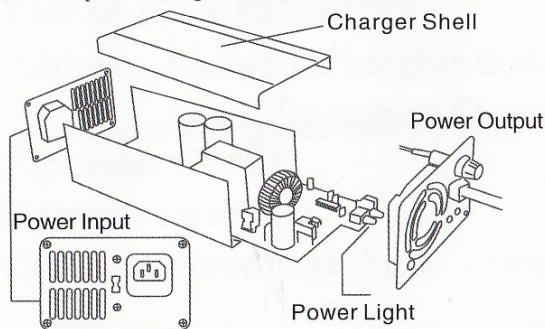


## Environmental conditions

Storage temperature:  $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$   
 Working temperature:  $-5^{\circ}\text{C} \sim 45^{\circ}\text{C}$   
 Relative temperature:  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$   
 Atmospheric pressure: 70~106kPa

## Introduction of working principle

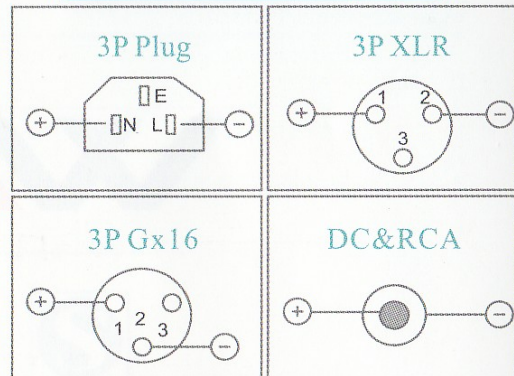
The AC or DC input voltage goes through the "input notch" circuit to the "rectification filter" circuit to obtain a high voltage ( about 300V ) DC voltage. The "power conversion" reverses the high-voltage direct current to high-frequency alternating current of about 50kHz, converts it to the voltage required for output through a high-frequency transformer, and then obtains the output voltage through high-frequency rectification and filtering. The control circuit samples the output voltage and output current, and generates a pulse width modulation (PWM) signal after closed loop feedback to control the "power conversion" circuit, so that the output voltage or current is kept stable, and the output voltage stabilization and constant current are sampled from the output side, thus achieving high stability and reliability. The "protection circuit" short circuit protection and reverse connection protection. It has the protection functions of output over-voltage, over-current, short circuit and others



## Main technical parameters

- Input voltage: AC110/230Vac, 50Hz~60Hz.
- Output voltage: 75.6 V; Output constant current: 4 A.
- Ripple voltage: total ripple voltage  $V_{pp} \leq 2\%$ ; overall efficiency  $\geq 90\%$ .
- Insulation resistance: input -- output:  $\geq 20\text{M}\Omega$ ; input -- shell:  $\geq 20\text{M}\Omega$ ; output -- shell:  $\geq 220\text{M}\Omega$ ..
- Insulation strength: input-- output: AC1500V, 10mA, 1 minute; input -- shell: AC1500V, 10mA, 1 minute ; output -- shell: AC1500V, 10mA, 1 minute.
- Mean time to failure:  $\geq 5000\text{h}$ .

## Default anode and cathode of DC output terminal



ENL connector  
 Cannon connector  
 Aviation connector  
 DC connector and RCA connector

## Operating methods and precautions

### ! Precautions

- Unpacking: when unpacking, check the random accessories in the box, that is, one instruction manual and one power cord.
- Check before electrifying: before electrifying the charger stored and transported, check whether the screws are loose, whether there is any abnormal power cord in appearance, whether the binding post is shaken off and whether it is affected with damp, etc. If any of the above-mentioned phenomena occur, they should be properly dealt with in a timely manner.

## Operation methods

- Should first be in the output without battery power, LED1 power indicator, LED2 charging indicator
- Check that the battery is properly connected first, then turn on the power. When charging, LED2 ( red light ) will be on, and the internal heat dissipation fan will rotate.
- After connecting the battery, if the battery is full, it will automatically switch to silk charging, and LED2 ( green light ) will be on.
- If the battery is unplugged in the floating state and the full state, the charger must be turned off.
- The internal heat dissipation air duct is from front to back. During use, the air convection before and after the power supply should be kept smooth, and there should be no other objects nearby to block the air convection circulation.
- Handling in case of failure: if it is found that the machine is not working properly after starting up, disconnect the "power switch" and cut off the input power cord in time, carefully check whether the input line of the power supply is connected correctly and reliably, and whether the connecting column nut is loose. if there is a problem that the user is difficult to handle, do not open the casing without authorization, because there is high voltage in the machine, do not open the casing for repair without being familiar with professional knowledge, and contact our company or distributor for repair

## Product advantages

Fully automatic, surge charge, flat charge, full flow charge and full automatic shutdown;

High precision current and voltage locking ensures full charge and no overcharge;

Have the protection of over current, over voltage and short circuit, safe and reliable;

Conversion efficiency is more than 90%, with small volume, light weight and high efficient environmental protection;

The indicator light is on, and the product has all-aluminum casing, and is beautiful, firm and durable;

European CE, environmental protection ROHS, safety certification, export quality.

The lithium battery off current is set to 5% of the constant charging current by our company, and can be set to 3-10% of the constant charging current according to the battery characteristics.

## Matters of Guarantee

- This product is guaranteed for one year.
- During the use of this product, the company will not undertake the warranty obligation if the following conditions occur
  - Damage to the product caused by violation of product instructions
  - Damage caused by improper installation and assembly
  - Damage to Products Caused by Exceeding Allowable Use Environment
  - Damage to products caused by unauthorized modification or self-repair;
  - Product damage due to abnormal external force
  - Product damage caused by natural disasters or other force majeure.
- For quality problems arising from warranty coverage, the company's responsibility is limited to the product itself, and it does not assume the responsibility and extension.

## Warranty Card



### Warranty details:

- The warranty period of the products is 12 months ( counting from the date when the purchase certificate is issued )
- One copy of warranty card, no compensation for loss
- Contact the dealer with this card and purchase quality certificate to enjoy free warranty or replacement.
- During the warranty period, all faults caused by the quality of the product itself shall be guaranteed by this card

### The following conditions are not free of charge

- No warranty card or product label
- Damage caused by self - dismantling
- Faults caused by water inflow or drop or man-made mechanical failure
- Failures or damages caused by force majeure

Customer name: \_\_\_\_\_ Contact method: \_\_\_\_\_

Contact address: \_\_\_\_\_ Purchase date: \_\_\_\_\_

Product name: \_\_\_\_\_ Product model: \_\_\_\_\_

## Product Qualification Certificate



Product name	Wate intelligent charger
Product registered number	
Dimension	
Production batch number	
Verification date	
Number of inspector	



MADE IN CHINA

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