



LIFTIANS AGV CHARGER

Specifications V1.0



JANUARY 21, 2022

LIFTIANS INC.

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1 Product Overview

This charging system is a floor-standing intelligent charging device according to the charging technical requirements of AGV battery packs.

The device adopts a programmable controller as the main control unit, which provides a convenient and intuitive man-machine exchange operation interface; the main circuit adopts a high-frequency switching power supply circuit, which has the characteristics of light weight, small size, high efficiency, and high precision of voltage regulation and current regulation. The whole set of equipment is easy to operate, reliable, completely protected and highly automated. We provide communication interface and contact signal (charging/standby/full and fault) for AGV background monitoring, and interact with the real-time data and working status of the host computer.

Output parameters: 1~60V, 10~100A fast current output.

2 Product Specifications

AC input voltage: AC180V~240V 50Hz

Input frequency: 50~60Hz

DC output voltage: DC 48V (adjusted according to the AGV body condition)

Maximum output voltage: $54.6 \pm 0.2V$

DC output current: DC 25A (adjusted according to the AGV body condition)

Maximum output current: $25 \pm 0.2A$

Maximum output power: 1500W

Noise: $\leq 50dB$

Version: Charger 1.0



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Cooling method: air cooling

Dimensions: length 508*width 475*height 360mm

Weight: 30kg

Installation method: ground fastening

Power cord length: 1.5m

Charging interface: bipolar charging head

Accessibility: Clamshell

3 Charging Protection Features

NO	Item	Technical Parameters	Remarks
1	Voltage limit protection	The output voltage of the charger will not exceed the set maximum charging voltage of the battery.	
2	Overheat protection	Inside temperature >65°C, automatic shutdown Transformer temperature >110°C, automatic shutdown	
3	Current limit protection	The output current of the charger will not exceed the set maximum battery charging current.	Constant current.
4	Short circuit protection	When the output is short-circuited, the charger cannot work normally, the output returns to normal, and the charger can recover by itself.	Connect DC first, then AC
5	Reverse connection protection	When the output line is connected reversely, the charger will not work until the user connects it correctly.	Connect DC first, then AC

4 Charging instructions

NO	Item	Status	Remarks
1	Connect to power	LED1: Red light LED2: Green light	
2	Charging	LED1: Red light LED2: Red light	
3	Full	LED1: Red light LED2: Green light	
4	Output voltage display	Yes	
5	Output current display	Yes	

5 Safety & electromagnetic compatibility

NO	Item		Standard (or test condition)	Remarks
1	Withstand voltage test	input-output	1500Vac/2s \leq 5mA	no fault
2	Insulation resistance	input-ground	\geq 200M Ω @500Vac	
3	Leakage current		<3.5mA	
4	safety standard		<input checked="" type="checkbox"/> CE <input type="checkbox"/> RoHs <input type="checkbox"/> GS <input type="checkbox"/> UL <input type="checkbox"/> CCC <input type="checkbox"/> SAA <input type="checkbox"/> PSE <input type="checkbox"/> KC	
5	Electromagnetic compatibility		EN55014-2:1997+A1:2001+A2:2008	
6	Low voltage test LVD		EN60335-1:2002+EN60335-2-29:2002	



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6 Environmental testing requirements

NO	Item	Technical Parameters	Remarks
1	Maximum ambient working temperature	+40°C	normal performance
2	Lowest ambient working temperature -10°C Normal performance	-10°C	normal performance
3	Maximum storage temperature	+70°C	After 2 hours of returning to normal temperature, the charger can work normally.
4	The minimum storage temperature	-20°C	The charger can work normally after returning to normal temperature for 2 hours.

7 Installation and precautions

7.1 Installation

7.1.1 This charging system is adapted to the series battery packs produced by our company;

7.1.2 The charging system is connected to 220V AC power supply. When the power indicator LED1 is red and LED2 is red, it means charging starts;

7.1.3 When the LED2 light turns from red to green, it means that the battery is fully charged;

7.1.4 The charging system display screen can display the output voltage and power, and the display interface can be switched through the V/A switch;

7.2 Precautions

7.2.1 The charging system should be stored and used in a dry/ventilated/dust-free environment, pay attention to moisture and waterproof;

7.2.2 This charging system will generate heat when it is working, so it is strictly forbidden to cover and block the exhaust vent;

7.2.3 Pay attention to the correct connection of the positive and negative poles. If the positive and negative poles are incorrectly connected, it will cause a short circuit alarm and safety risks; 8) Please avoid operation by non-related personnel or close to the charging pile area.

8 Exterior and dimensions

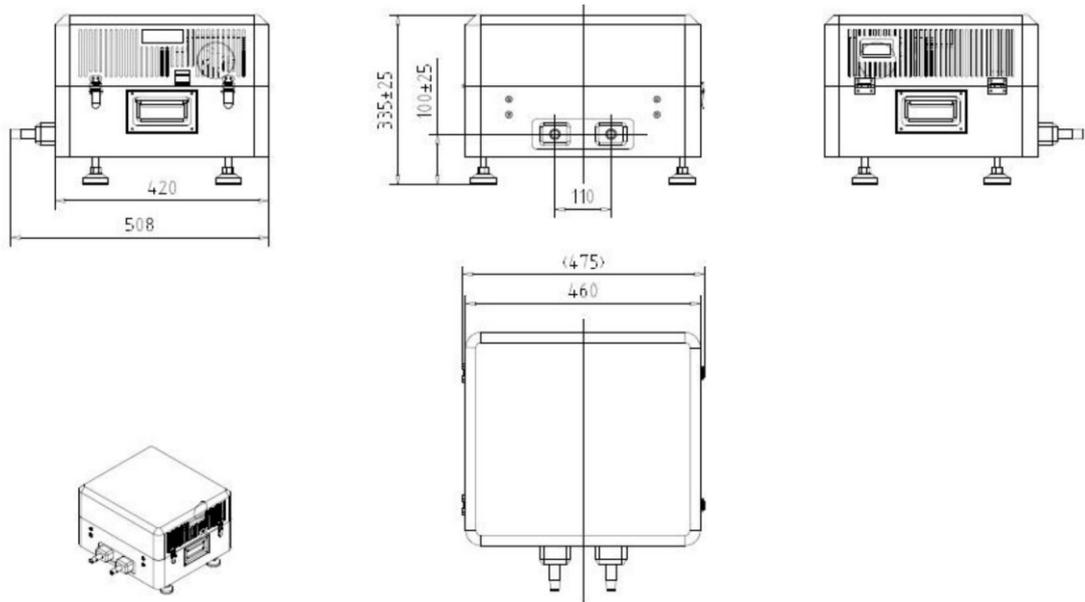
8.1 Exterior



Cover: Sheet metal

Color: Beige

8.2 Dimensions (in mm)



9 Packaging and Transportation

9.1 Inner packaging

The shell is covered with sheet by the original factory, filled with material such as foam, PE film, etc.

9.2 Outer packing

The packing label includes product name, product model, instructions and packing list/delivery list.

Material requirements: wooden case is recommended, to prevent extrusion and scraping of the product.



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9.3 Transportation

Suitable for truck loading, should be placed in a cool and dry place, please be careful when loading and unloading.

9.4 Storage

When the product is not in use, it should be placed in the packaging. The temperature range of the warehouse should be $-20\sim 70^{\circ}\text{C}$, and the normal temperature should be $-20\sim 50^{\circ}\text{C}$, the relative humidity should be $5\sim 90\%$, and the surrounding environment should be free of harmful gases, flammables, explosives, corrosive chemicals and strong mechanical vibration, shock and magnetic field interference. It must be placed at least 20cm high from the ground and 50cm away from walls, heat sources, and vents. The charging equipment can be stored for two years under this storage condition, and it must be tested again after two years. The charging equipment must be energized once every three months, and the energizing time should be no less than 0.5 hour.

10 Charging curve

