



Spec. of Charger

Customer		Product	Lithium Battery Charger
Model No.	BQ-330W55V/55V6A-01	Product No.	BQ-54.6V6A-001

Updating History

Version	Date	Before update	After Update	Reason for update
V1.0	Aug 5, 2019			



Shanghai Boquan Electronic Technology Co., Ltd
Tel: 021-69587686, 69589737 Fax: 021-69589733

Add: Rm201-216, Bldg. #7, No.787 Kangqiao Rd, Pudong, Shanghai, China 201315

Please sign back this spec. before manufacturing, or it will be deemed all the content has been confirmed by the buyer.

Prepared By	Xiang Ziwen	Checked By	Xiang Ziwen	Approved By	Jiang Tian
-------------	-------------	------------	-------------	-------------	------------

Contents

1. Input characteristics

- 1.1 Rated input voltage
- 1.2 Input voltage range
- 1.3 Input frequency range
- 1.4 Efficiency
- 1.5 No-load power
- 1.6 No-load input current

2. Characteristics of light output and charging functionality instructions

- 2.1 Rated output voltage
- 2.2 Output current
- 2.3 Output Voltage Range
- 2.4 Output voltage ripple and noise
- 2.5 Minimum battery charge voltage
- 2.6 The highest voltage to maintain constant-current charge
- 2.7 Constant-current charge
- 2.8 Light conversion -red light turnto green
- 2.9 Light conversion - green light to red light

3. Features

- 3.1 Over-current protection
- 3.2 Short-circuit protection
- 3.3 Anti-intrusion protection
- 3.4 Internal temperature protection

4. Environmental characteristics

- 4.1 Dielectric Strength (Pressure)
- 4.2 Insulation Resistance
- 4.3 Temperature
- 4.4 Humidity

5. Mechanical properties

5.1 Shell Size

5.2 Color

6. The specifications of the iutput AC line

7. Finished map products

8. The specifications of the output DC line

9. Label

10. Manual

Electrical performance requirements

1. Input characteristics

Serial number	Conditions	Specifications
1.1 Rated input voltage	\	220V
1.2 Input voltage range	Continuously	AC 176-264V
1.3 Input frequency range	Continuously	47Hz -63Hz
1.4 Efficiency	Vin 176Vac/ Vout 2.8A Vin 264Vac/ Vout 2.8A	Min85%
1.5 No-load power	Vin 220Vac/Vout 0A	$\leq 2W$
1.6 No-load input current	Vin 220Vac/Vout 0A	$\leq 50 \text{ mA}$

2. Output and charge characteristics, functional lights instructions

Serial number	Conditions	Specifications
2.1 Rated output voltage	DC 4.2V*13	54.6V
2.2 Output current	constant voltage mode	6A \pm 0.2A
2.3 Output Voltage Range	at the output end of DC cable	54.0V-54.6V
2.4 Output voltage Ripple and Noise:(0.1uF Ceramic Cap and 50 V 10uF Aluminum Cap.Paralleled between the end of output cable,BW=20MHz)	Vin 220V/Vout 2.8A	$\leq 500\text{mVp-p}$

<p>2.5 Minimum battery charge voltage</p>	<p>Battery discharge in a long time after the arrival of an automatic protection that will shut down output, the point is the minimum charge voltage point</p>	<p>30±2V</p>
<p>2.6 The highest voltage to maintain constant-current charge</p>	<p>By the constant current into the battery when the voltage at constant pressure, usually by the charge compensation and the relevant specifications of the output line</p>	<p>≥ 52V</p>
<p>2.7 Constant-current charge</p>	<p>Battery charging voltage to the minimum to the maximum voltage between the constant-current charge, the charge current to meet the requirements of current customers range called the constant-current charge.</p>	<p>30±2V 至 52±0.5V, 6A±0.2A</p>
<p>2.8 Light conversion - red light turn to green</p>	<p>Red light to green light shows battery has been fully charged, such light shows battery charging state directly.</p>	<p>650mA ±50mA</p>
<p>2.9 Light conversion - green light to red light</p>	<p>Intuitively reflect the state of charge.</p>	<p>700mA±100mA</p>

3. Features

Serial number	Conditions	Specifications
<p>3.1 Over-current protection</p>	<p>When internal or external charger failure, such as short circuit or overload, charger will stop working until failures removed.</p>	<p>Protection without damage.</p>

3.2 Anti-intrusion	When charge saturation, unplug the power cord but battery charger is still connected, battery energy will not flow backward into charger.	No intrusion
3.3 Time off	The maximum charging time from the start to the end of the charger, after which the charger shuts off the output	Shut down the output after 12±0.5 hours
3.4 Internal temperature protection	Charger in the process of charging, the charger internal temperature, the temperature exceeds the set value, the temperature of the charger will turn off the charge current protection, stop charging.	Internal temperature protection 80±2℃

4. Enviromental Features

Serial number	Conditions	Specifications
4.1 Dielectric Strength:(pressure-resistance)	Between AC input and secondary applied AC 1.5kV, 1 minute test time, and cut off current shall be less than 10 mA.AC 3.75kV, test time 3 Sec.for mass production.	(No fire, arc gap, super-leak)
4.2 (Insulation Resistance)	Between AC input and secondary applied 500Vdc, 1 minute test time. 500Vdc, test time 3 Sec.for mass production.	≥20MΩ
4.3 Temperature	Operation Storage	0℃ to +55℃ -40℃ to +60℃
4.4 Humidity	Operation Storage	20% ~85% 10%~95%

5. Mechanical properties

Serial number	Conditions	Specifications
5.1 Shell Size (Length x width x Height)	Overall dimensions	19.5cm*10.0cm*6.8cm ref
5.2 Color		
SHELL		Black
DC Line		Black

6. The specifications of the input AC line



7. Products photo



Note: Logo can be customized as per needs.

8. The specifications of the output DC line

Note: DC line will be different as per customers needs

9. Label (ref)

锂离子电池充电器

CumSumI

型号: BQ-54.6V6A-001

输入: AC176V-264V

375W 50-60Hz

输出: DC54.6V 6.0A

10. Manual

Intelligent lithium charger Manual

First, the characteristics of:

Smart charger for this product. The use of switching power supply technology, superior performance electric bicycle lithium battery charger dedicated, It has the characteristics of the following advantages:

- 1, adaptive wide input voltage range (100-300Vac)
- 2, A variety of output protection, effective in preventing cell damage.
- 3, the output ripple noise
- 4, short-circuit current is 0, to prevent short circuit damage and to avoid unnecessary short-
- 5, moisture-proof

Second, the scope of application:

The charger for a 13 string 48V/15-30AH rechargeable lithium battery pack.

Third, charging methods:

DC line charge will be the first rechargeable battery pack port access, the latter connected to AC input line. Unplug the charger should be disconnected from AC power, unplug the DC-side charging port.

Fourth, Troubleshooting:

1, the output indicator light does not shine:

- a. Check for AC input
- b. Enter the line interface to check whether the bad

May have excluded the above, please send plant maintenance, not to self-repair.

2, output instructions Constant green light:

- a. output connector is connected
- b. can not use the battery
- c. whether there are short-circuit output

May have excluded the above, please send plant maintenance, not to self-repair.

3, the output red-Heng Liang instructions:

- a. whether or not damage the battery

May have excluded the above, please send plant maintenance, not to self-repair.

Note:

There is high pressure, to prevent the risk of electric shock, do not open the charger to carry out maintenance on their own!

If you have any questions, please contact the dealer or repair station.

Warning: the prohibition to non-rechargeable batteries!