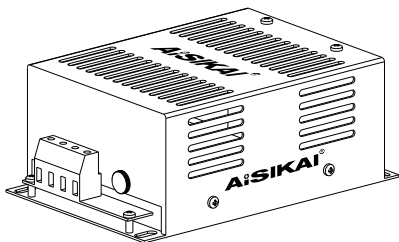




*Professional manufacture*

# **BAC06A SERIES BATTERY CHARGER**

## **MANUAL V1.1**



**JIANGSU AISIKAI ELECTRIC CO.,LTD**

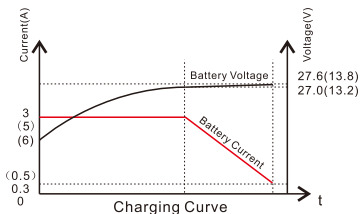
## ► SUMMARY

BAC06A series switching battery charger using the latest switch power components is designed for charging lead-acid starting battery which is suitable for lead-acid battery float charge. The maximum charging current for 12V charger is 6A and the maximum charge current for 24V charger is 5A.

## ► PERFORMANCE AND CHARACTERISTICS

1. Designed in switching power structure , wide range of AC voltage input, small volume, light weight and high efficiency;
2. Two-stage charging method (constant current firstly and then constant voltage), fully considering charging property of the lead-acid battery , can avoid overcharging and extend the battery life to the fullest;
3. With short circuit and reverse connection protection;
4. Charging voltage and current can be adjusted via potentiometer on the spot.
5. LED display: AC power indication and charging indication;
6. Horizontal type for installation of BAV06A, easy to install;

## ► CHARGING PRINCIPLE



Considering charging property of the lead-acid battery , BAC06A battery charger uses 2-stage charging method and charge mode is “constant-current”. When battery voltage is under the threshold, it is charging in constant-current mode ; when the battery voltage is higher than the threshold , the charging

current is decreasing as the battery voltage is rising until it reaches the set voltage , and then charge mode is turned into “ floating charge ” . Charge current is gradually reducing and battery voltage is rising up to the set value. When charging current is lower than 0.3A (24V 5A to 0.5A) , the battery is basically fully charged (charging indicator eliminates) . Afterwards , charging current will offset self-discharge of the battery . Thus the charger can maintain a full charged condition and extend the battery life.

## ►SPECIFICATION

Category	Items	12V	24V
Input	Nominal Voltage (AC)	AC(100~240)V	
	Max.AC Voltage	AC(90~280)V	
	AC Frequency	50Hz/60Hz	
	Max. Input Current	2.5A	
	Efficiency	>82%	
Output	Charging Current	4A~6A , (Error $\pm 2\%$ )	2A~3A/5A, (Error $\pm 2\%$ )
	Factory Charging Current	6A	3A、5A
	Max. Power	135W	
	Min. Voltage	7.5V	
	No-load Voltage	13.8V, (Error $\pm 1\%$ )	27.6V, (Error $\pm 1\%$ )
	No-load Power consumption	<3W	
Insulation	Insulation Resistance	Between input and output,input and shell both are: DC500V 1min,Insulation resistance: $R_L \geq 50M\Omega$	
	Insulation Voltage	Between input and output,input and shell both are: AC1500V 50Hz 1min,Leakage current: $I_L \leq 3.5mA$	
Working Condition	Working Temperature	$(-30 \sim 55)^{\circ}C$	
	Storage Temperature	$(-40 \sim 85)^{\circ}C$	
	Working Humidity	10%RH~95%RH(No condensation)	
Profile	Weight	0.65kg	
	Dimension	143mm × 96mm × 55mm(Length × width × Height)	

## ►SETTING

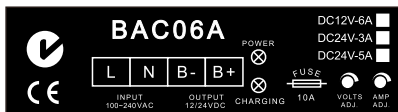
### ● Voltage Adjustment

When adjusting the voltage , disconnect the battery from the charger, and then measure the output voltage of the charger while adjusting voltage potentiometer (VOLT) to a proper value.

### ● Current Adjustment

Connect battery output firstly . When battery voltage is under 25.0V (12.5V), adjust the current potentiometer (AMP) and set proper charge current . Output current can also be estimated according to the current potentiometer, which is recommended.

## ►OPERATION



BAC06A

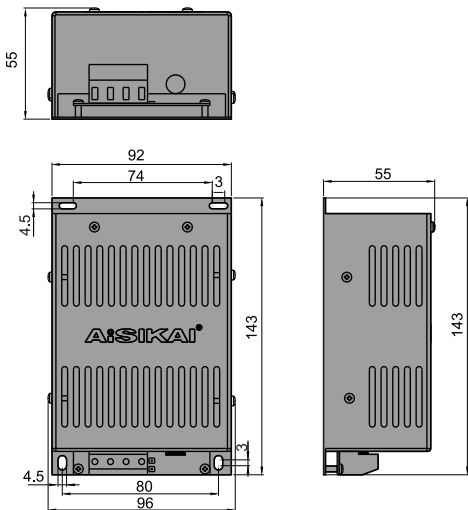
1. Terminals L and N connect AC 220V, using multi-strand BVR 1mm<sup>2</sup> copper wires.
2. Terminals B+ and B- connect battery positive and negative, using multi-strand BVR 1.5 mm<sup>2</sup> copper wires.
3. POWER: Power indicator. When charger works, it'll illuminate.
4. CHARGING : Battery charging indicator . When charging current is over 0.3A (0.5A), it will illuminate.
5. VOLT: Voltage adjustment potentiometer.
6. AMP: Current adjustment potentiometer.
7. Output 10A fuse . Reverse connection will cause fuse blown . After correcting the connection and changing another fuse, it can continue working.
8. Procedures of changing fuse:
  - a. Press hard on the slotted screwdriver , screw counter-clockwise and then take out the fuse . Improper operation or over tightening may damage the block.

b. Put a new fuse into the block, press the slotted screwdriver and screw clockwise.

Note:1. Because there is diode and current-limiting circuit inner the charger, it can be used together with charging generator, and there is no need to disconnect the charger when cranking.

2. During genset is running , high current will cause voltage drop in charging line , so recommend separately connecting to battery terminal to avoid disturbance on sampling precision.

## ► CASE DIMENSIONS



## ► ORDERING INFORMATION

When ordering BAC06 Series chargers, please choose charger types according to installation and voltage as the chart below:

Model	Installation	Battery Type	Rated Output Current
BAC06A-12V	horizontal	12V	6A
BAC06A-24V	horizontal	24V	3A
BAC06A-24V	horizontal	24V	5A

### MANUFACTURER INFORMATION

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