

Smartgen®

BAC06

Battery Auto Charger

OPERATING MANUAL



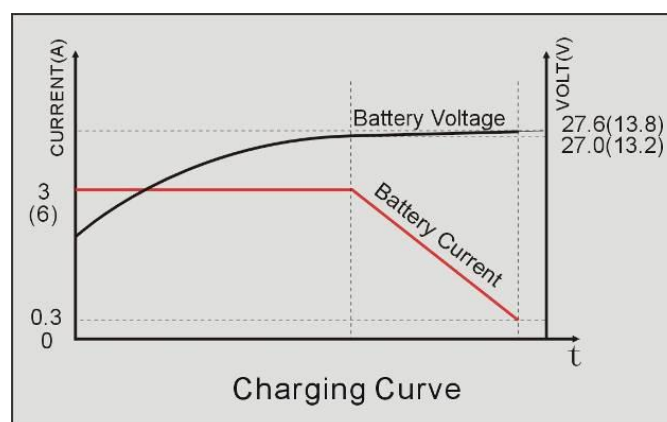
Smartgen Electronics

BAC06 switch-type battery charger adopts the latest switch power components, especially for lead-acid battery recharging characteristics and design, suitable for lead-acid battery float charging (long-term added floating filling). The maximum charging current is 6A when battery voltage is 12V; the maximum charging current is 3A when battery voltage is 24V.

1. Performance characteristics

- 1) Using two stages charging method (first constant-current and then constant voltage), fully automatic charge according to the characteristic, can prevent from the lead acid cell overcharge, to the maximum extent increase battery life.
- 2) Apply to 12V or 24V battery.
- 3) With short circuit protection function.
- 4) Output voltage and current can be adjusted.
- 5) State LED display: AC power and battery charging indicator.
- 6) Using switch power source structure, wide range of input voltage, small volume, light weight, high efficiency.

2. Charging principle



According to the characteristic of lead-acid battery, 2 stages charging method, when the battery voltage is under default value, charging for constant-current, when the battery voltage is much higher default value, the charge current is decrease following by the charge voltage increase, until it preset float voltage, then

entering in float mode. When in float mode, the charging current gradually reduce, and charging with constant voltage.

3. Parameter standard

The battery voltage	12V	24V
Maximum charging current	6A	3A
Battery voltage adjustment range	(13~14.5)V	(26~29)V
Charging current adjustment range	(3~7)A	(1.5~3.5)A
AC input voltage	(95~280)VAC	
AC input frequency	50/60Hz	
The power output when input is 220V (maximum output current)	120W	115W
No-load power consumption	Less than 3W	
Efficiency	More than 80%	More than 85%
Working temperature	(-40~60)°C	
Storage temperature	(-40~85)°C	
Weight	0.65kg	
Case dimension	143×92×52(L×W×H)mm	

4. ADJUST

1. Voltage Adjust

In the field adjustable voltage, disconnected from the output voltage, measure the output voltage of the charger, adjusting voltage potentiometer (VOLT).

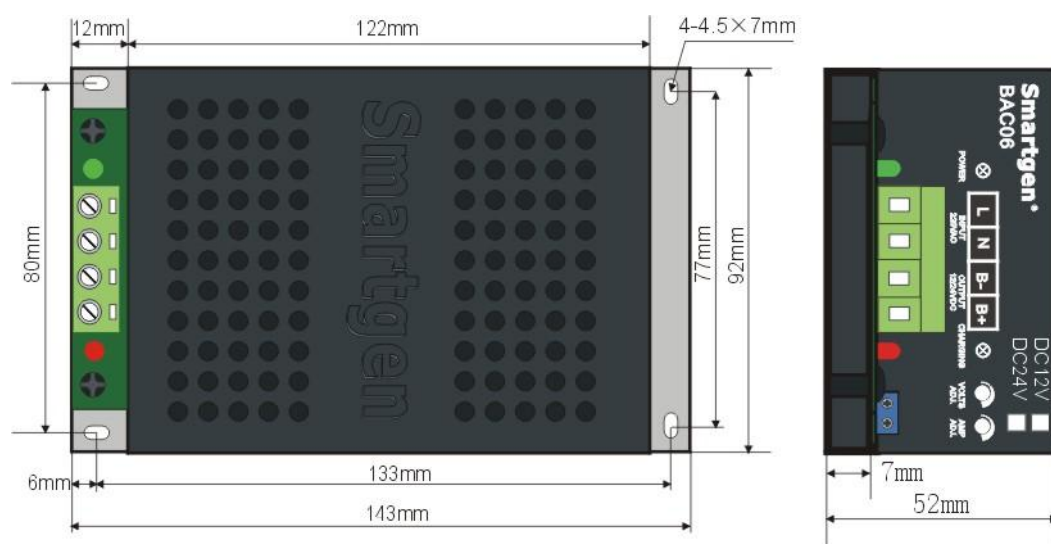
2. Current Adjust

Output connected with battery, surely that the battery voltage is under than 24.0V (12.0 V), adjusting the current potentiometer (AMP), setting the proper charging current. According to the current potentiometer can estimate the output current size scale.

5. Operating instructions

1. Terminals L and N to connect AC220V, use BVR 1mm² with multi strand copper wire.
2. Terminals BAT+ and BAT- to connect battery "+", "-" pole, use BVR1.5mm² with multi strand copper wire.
3. POWER: Power indicator, lit during normal working.
4. CHARGING: Battery charging indicator, lit when charging current is more than 0.3A.
5. VOLT: Battery voltage adjusts potentiometer.
6. AMP: Charging current adjust potentiometer.

6. Case and Dimension



7. Order information

Type:

BAC06-24V for 24V Battery, output current is 3A.

BAC06-12V for 12V Battery, output current is 6A.