AiSIKAI®
POWER THE FUTURE

BAC SERIES BATTERY CHARGER

Model Description

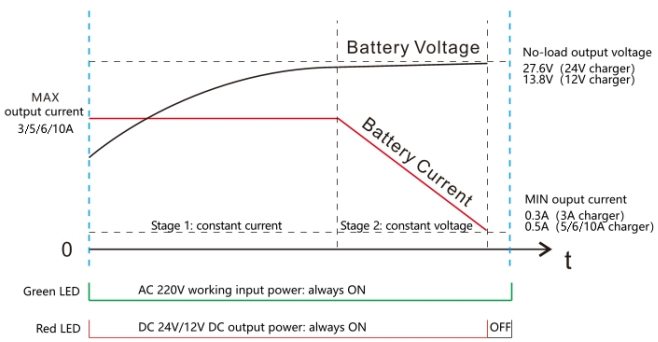
BAC	24V	03
Battery charger	voltage	Maximum charging current

Performance and characteristics



1. Designed in switch power structure. Wide range of the input voltage. Small volume, light weight and high efficiency.
2. Automatic charge using the 2-stage charging method(i.e., constant current first and then constant voltage). The process is in full accordance with the battery charging characteristics, and can prevent overcharging of lead-acid battery and maximize battery life.
3. Have protection functions for short-circuit and reverse connection.
4. Charging voltage and current can be regulated by potentiometer on site.
5. LED status display: AC power indication, charging indication
6. Horizontal instllation. Easy to install.

Charging Principle



Charging Curve

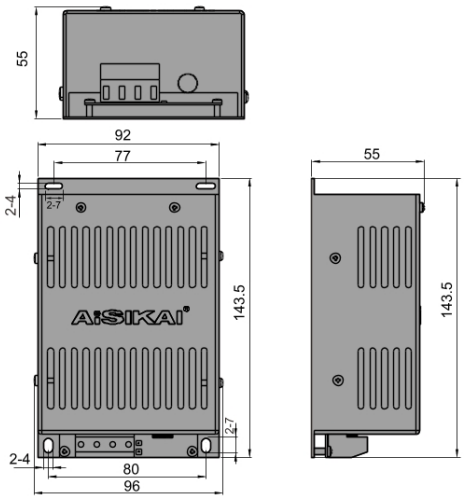
Considering charging property of the lead-acid battery , BAC06A battery charger uses 2-stage charging method and charge mode is “constant–current”. When battery voltage is under the threshold, it is charging in constant-current mode ; when the battery voltage is higher than the threshold , the chargingcurrent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

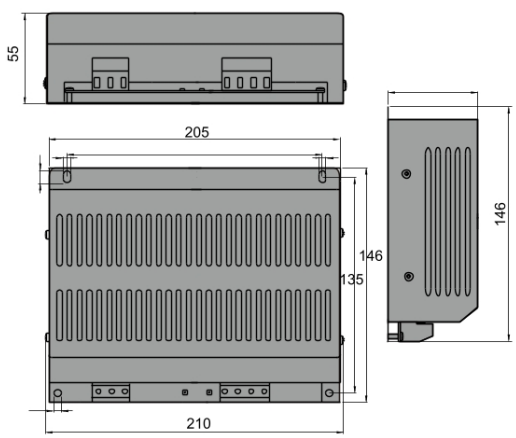
Category	Items	12V	24V
Model	BAC	BAC-1206	BAC-2403/2405/2410
Input	Nominal input voltage	AC (100～240) V	
	Max input voltage	AC (90～305) V	
	Frequency	50Hz/60Hz	
	Max input current	2.5A	2.5A/2.5A/4A
	Efficiency	>85%	
Output	Charging current	4A～6A, error±2%	2A～3A/5A/10A, error±2%
	Factory charging current	6A	3A/5A/10A
	Max output power	135W	135W/135W/290W
	Min output voltage	7.5V	
	No-load output voltage	13.8V, error±1%	27.6V, error±1%
	No-load consumption	<3W	
Insulation	Insulation resistance	When between input and output, output and shell are both DC500V 1min, the insulation resistance RL≥50MΩ	
	Insulation voltage	When between input and output, output and shell are both AC1500V 50Hz 1min, the leakage current IL≤3.5mA	
Working conditions	Working temperature	(-30～+55)℃	
	Storage temperature	(-40～+85)℃	
	Working humidity	0%RH～95%RH(no condensation)	
Structure	Weight	0.65kg	0.65/0.65/1.15kg
	Dimensions(L*W*H mm)	143*96*55(3A/5A/6A);	205*146*55(10A);

Case Dimensions

BAC-1206、BAC-2403、BAC-2405



BAC-2410



Operation Instructions

1. Connect AC 220V to terminals L and N. BVR multiwire copper wires are recommended. Wires for 3A/5A/6A chargers should be no thinner than 1mm2 ; wires for 10A chargers should be no thinner than 1.5mm2 .
2. Connect terminal B+ to “+”of battery; connect terminal B- to “-”of battery. BVR multiwire copper wires are recommended.Wires for 3A/5A/6A chargers should be no thinner than 1.5mm²; wires for 10A chargers should be no thinner than 2.5mm².
3. POWER: green indicator of power status. On when charger works normally.
4. CHARGING: red indicator of charge status. On when the charge current is larger than 0.3A(0.5A).
5. VOLT: regulator potentiometer of charging voltage.
6. AMP: regulator potentiometer of charging current.
7. The output FUSE is 10A. The fuse will burn out if the output is wired reversely. At this time, there is no output voltage.After correcting the output wiring and replacing the fuse, the charger can work normally.
8. Steps of fuse replacement:
   8.1. Use a screwdriver to press in slightly and screw counterclockwise a little. Then pull the fuse out.(unsuitable operation or excessive force may damage the fuse holder)
   8.2. Insert the new fuse into the fuse holder. Use a screwdriver to press in slightly and screw clockwise a little.

Note:
1.The internal output of the charger is connected to diode and current limiting circuit. The charger can be used in parallel with the charging generator on the engine. It is not necessary to disconnect the charger when starting.
2.When used on generator sets, it is recommended to connect the charging calbe to the battery terminal separately, because a voltage drop will be generated on the charging cable due to the high charging current, which can affect the sensor sampling accuracy.

BAC-1206、BAC-2403、BAC-2405



BAC-2410

