BCC2405 MK2 BATTERY CHARGER
USER MANUAL

Software Version

No.	Version	Date	Note
1	V1.0	2023-11-01	Original release.

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Symbol Description

Symbol	Description
 Note	Remind operators to operate correctly, otherwise it may cause the equipment not to work correctly.
 Be care	It is indicated that potential hazards can damage equipment without proper precautions.
 Warning	It is indicated if appropriate preventive measures are not taken, potentially dangerous situations may result in death, serious personal injury or significant property losses.

Warning

1. The installation of this equipment must be carried out by professionals.
2. When installing and operating the Charger, please read the entire instruction manual first.
3. Any maintenance and commissioning of the equipment must be familiar with all the equipment, safety standards and precautions in advance, otherwise it may cause personal injury or damage to related equipment.
4. This product is specially designed for charging lead-acid batteries. Because of the output contains impulse components, it can not be directly used as a power supply for electronic equipment without lead-acid batteries. Otherwise, it may cause interference or even damage to electronic devices.

Be Care

1. Please pay attention to prevent water or other liquid from being sprinkled on this charger.
2. When using this charger, we should pay attention to ventilation and heat dissipation and keep away from high temperature and heat radiation.

Catalogue

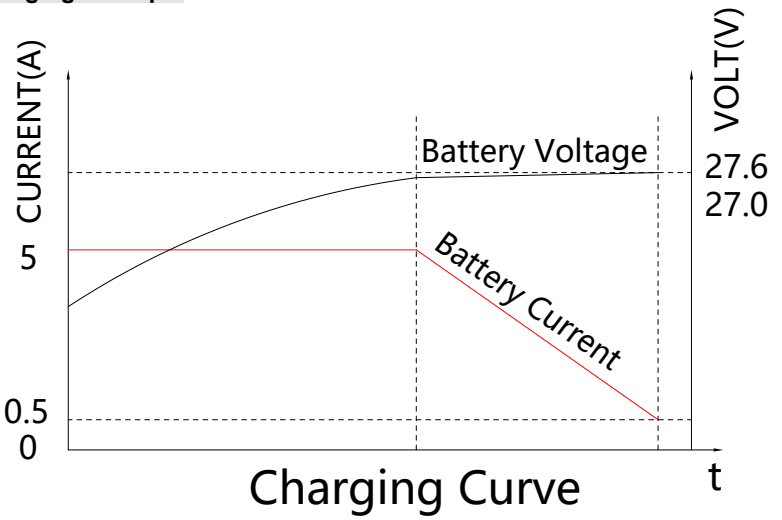
1. Summary

The charger is specially designed for the lead-acid battery used in the engine. It adopts the two-stage intelligent control mode of constant current fast charging, current limiting and trickle floating charging. It can be charged for a long time without damage to the battery. It can maintain the full state of the battery and ensure the service life of the battery. The charger can be used in parallel with the engine charging generator without disconnecting the charger during the operation of the engine.

2. Main Features

- ◆ Large area for heat dissipation, good effect and strong anti-interference ability.
- ◆ The use of aluminium for heat dissipation, good heat dissipation and high interference resistance;
- ◆ Using advanced switching power supply mode, wide AC input voltage range.
- ◆ Two stage intelligent charging to maintain battery power automatically.
- ◆ With over-current, short circuit and reverse connection protection.
- ◆ It has charging voltage fine tuning function.
- ◆ It has LED led, which can indicate the working state of the charger.

3. Charging Principle



Charging Curve

The charger is designed according to the characteristics of the lead-acid battery used in the engine, and adopts the two-stage intelligent control mode of constant current fast charging, trickle floating charging. When the battery voltage is lower than the presets value, the charging current decreases with the increase of the battery voltage and enters the current-limiting charging stage. Thereafter, the charging current only counteracts the self-discharge of the battery, and maintains the battery in full state without disconnecting the charger, which has no effect on the battery life.

4. Specification

Category	Items	BCC2405
Input	Nominal AC Voltage	AC 95~280V
	Max. AC Voltage	AC 90~305V
	AC Frequency	50Hz/60Hz
	Max. Input Power	165W
	Max. Input Current	2A
	Max. Efficiency	>85%
Output	Charging Current	5A,(Error±2%)
	No-load Voltage	27.6V, (Error ±1%)
	Max. Output Power	135W
	No-load power consumption	<3W(Error ±1%)
Insulation	Insulation Resistance	Between input and output, input and shell both are: DC500V 1min R>500MQ
	Insulation Voltage	Between input and output, input and shell both are: DC 1500V 1min Leakage current: I<3.5mA.
Working Condition	Working Temperature	-30-55°C
	Storage Temperature	-40-85°C
	Working Humidity	20%RH-93% RH(No condensation)
Profile	Dimension	155mmx95mmx51mm(Length*Width*Height)
	Mounting hole distance	132mm×80mm(Length*Width)
	Weight	0.5kg

5. Operation instruction

◆ **Charge voltage regulation:**

When the charger is installed on site for voltage regulation, the battery must be disconnected from the charger and the voltage potentiometer (VOLT ADJ.) must be adjusted at the same time as the output voltage of the charger is measured until the appropriate value is reached.

Clockwise adjustment of the VOLT ADJ. potentiometer can increase the output voltage and reduce the output voltage by counterclockwise adjustment.

Note: 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.

Note: During gen-set is running, high current will cause voltage drop in charging line, so recommend separately connecting to battery terminal to avoid disturbance on sampling precision.

6. Panels and instructions

◆ Panel diagram

◆ Descriptions of terminal connection

No.	Function	Description	Cable cross sectional area
L	AC input L	AC input,MAX AC95-280V.	1.0mm^2
N	AC input N		1.0mm^2
PE	GND connected terminal	Internally connected with shell.	1.5mm^2
B-	Battery B-	Charger output negative.	1.5mm^2
B+	Battery B+	Charger output positive.	1.5mm^2

◆ Indicator function description

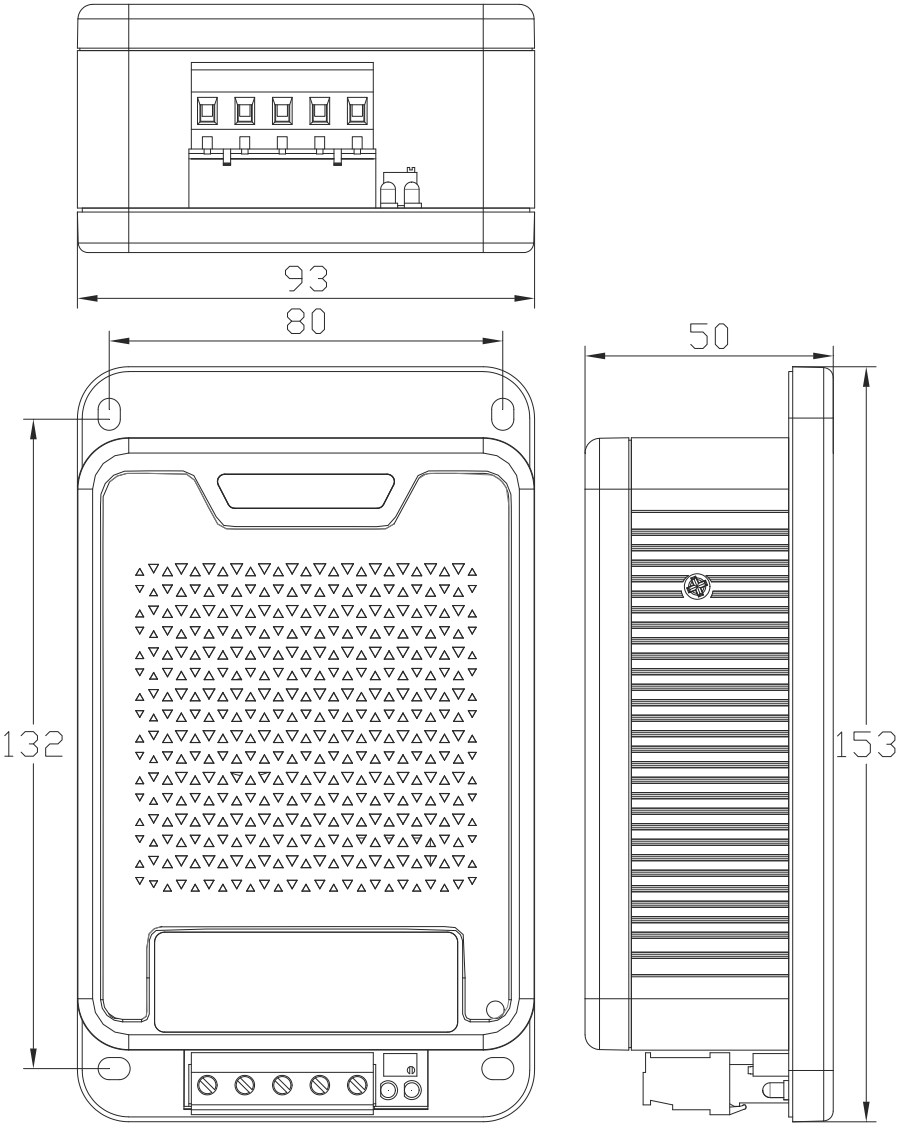
Indicator	Status	Function
POWER	ON	Power status indication that the charger is energized.
	OFF	The charger is not energized or failed.
CHARGING	ON	The charger is in charging state, and the output current is >0.5A.
	OFF	The charger is in floating charge state, and the output current is <0.5A.

7. Overall Dimension and Terminal connection

◆ **Overall Dimension:**

◆ The battery charger is installed by four screws with the diameter of 4MM.

◆ Installation size as below :W80mm * H132mm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