FCCD SERIES

BATTERY CHARGER

USER MANUAL

Shanghai Fortrust Power Electric CO.,LTD

Installation &. Instruction

I. OVERVIEW

FCCD series switching battery charger adopts the latest switch power components, which is designed for charging lead-acid starting battery according to its property. The charger is suitable for lead-acid battery float charge. The maximum charge current for 12V charger is 6A; the maximum charge current for 24V charger is 3A.

II. PERFORMANCE AND CHARACTERISTICS

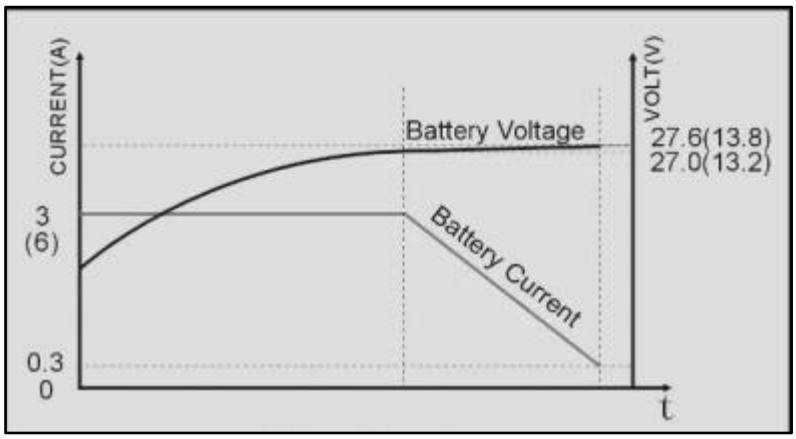
a) Designed in switching power structure, wide range of AC voltage input, small volume, light weight and high efficiency.

b) 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.

c) With short circuit and reverse connection protection.

d) LED display: Power indication and charging indication.

III. CHARGING PRINCIPLE



CHARGING CURVE

According to charging property of the lead-acid battery, 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, the battery is basically fully charged (charging indicator eliminates). Afterwards, charging current will offset self-discharge of the battery and long time charging does no harm to the battery. Thus the charger can not only maintain a full charged condition and but also ensure the battery life.

IV. SPECIFICATION

Category	Items	12V	24V
Input Characteristic	Nominal AC Voltage	AC (100～250)V	
	Max. AC Voltage	AC (90～280)V	
	AC Frequency	50Hz/60Hz	
	Max. Input Current	2A	
Output Characteristic	Charging Current	4A～6A,(Error±2%)	2A～3A,(Error±2%)
	Factory Charging Current	6A	3A
	Max. Power	85W	
	Min. Voltage	7.5V	
	No-load Voltage	13.8V, (Error ±1%)	27.6V, (Error ±1%)
	No-load power consumption	<3W	
Insulation	Insulation Resistance	Between input and output, input and shell both are: DC500V 1min R_L≥500MΩ	
	Insulation Voltage	Between input and output, input and shell both are: AC1500V 50Hz 1min Leakage current: I_L≤3.5mA。	
Working Conditions	Working Temperature	(-30～+55)°C	
	Storage Temperature	(-40～+85)°C	
	Working Humidity	10%RH～95%RH (No condensation)	

V. INSTALLATION INSTRUCTIONS

Charger wiring: Terminals L and N connect AC 220V，Terminals + and - connect battery positive and negative.

VI. Notes

6.1 The product is specially designed for battery charging, as for the output contains pulse components, it is not suitable to be directly used as the power supply of electronic equipment if not connected to the battery , otherwise it will cause interference or even damage to electronic equipment.

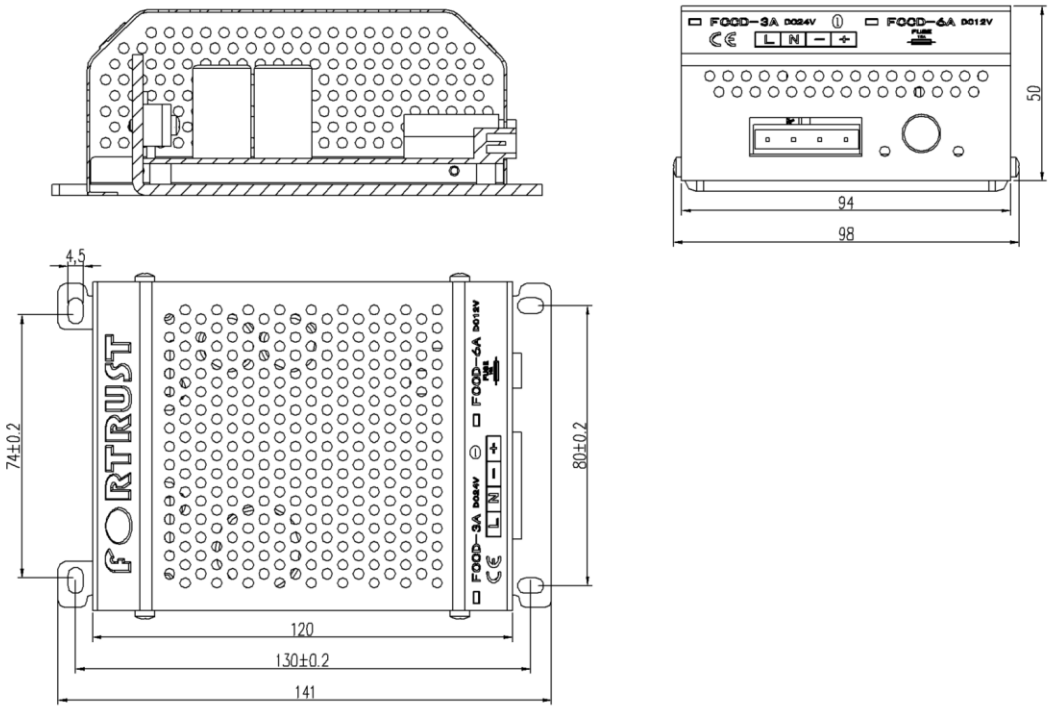
6.2 It is not appropriate to install the charger directly on the diesel unit without good anti-shock measures.

6.3 The product should be protected from water stop or other liquid sprinkling, at the same time, and it needs ventilation and heat dissipation and away from high temperature and heat radiation.

VII. Charger Model

Model	Output Type	Order Code
FCCD-6A DC12V	12V/6A	161210929
FCCD-3A DC24V	24V/3A	161210930

Outside View



Fortrust Products reserves the right to improve and change the appearance and design of the products without prior notice. Products and accessories are subject to the physical objects.

FORTRUST®

Address: Room 803, Building A, Senlan Meilun Building, 555 Lansong Road, Pudong New District, Shanghai
Tel: 19851351321
Postcode: 200137
Factory Address: No.49 Mingzhu Road, Qidong Coastal Area, Jiangsu Province, China.
Tel:19851351386
Postcode：226236
Web：www.fortrustpowerele.com
Email: info@fortrust.cn