

CAUTION

1. **SAVE THIS INSTRUCTIONS-** This manual contains important safety and operating instructions for GC100-48A battery charger.
Please read the caution of batteries or devices you want to charge firstly!
2. When charging, batteries can emit explosive gases, therefore it is essential to prevent flames and sparks. The charger is designed for charging lead-acid batteries. Do not use for any other purpose.
3. Always provide good ventilation when charging.
4. Use of an attachment not recommended or sold by Gudy Electronics Ltd may result in a risk of fire, electric shock or serious injury to persons.
5. To reduce risk of damage to electric plug and cord, pull by the plug rather than by the cord when disconnecting charger.
6. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure that: a) Pins on plug of extension cord are the same number, size and shape as those of plug on charger; b) Extension cord is properly wired and in good electrical condition; and c) Wire size is large enough for AC ampere rating as specified in “technical data”.
7. Do not operate charger with a damaged cord or plug-return the charger to the place where purchased.
8. Never operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way; take it to a qualified serviceman.
9. Do not disassemble the charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
10. To reduce risk of electric shock, unplug charger from AC outlet before attempting any maintenance or cleaning. Turning off controls will not reduce the risk.



GC100-48A 48V Lead-Acid Battery Charger User's Manual



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Brief Introduction

GC100-48A is based on switchmode technology, which make it them more efficient and smaller, and with microprocessor controlled to make it very accurate. It is programmed smart (Im-Uo-Up) charging process, It is designed for all kinds of 48V lead-acid battery, such as SLA, AGM and Gel battery. Stage “Im” will give bulk current charging. Then, “Uo” stage is followed, the output voltage is limited on 58.8V(for 48V battery); When the battery is nearly full, stage”Up” will turn on duty. At this stage, the battery is charged completely and the charger give some pulse to maintenance the battery.

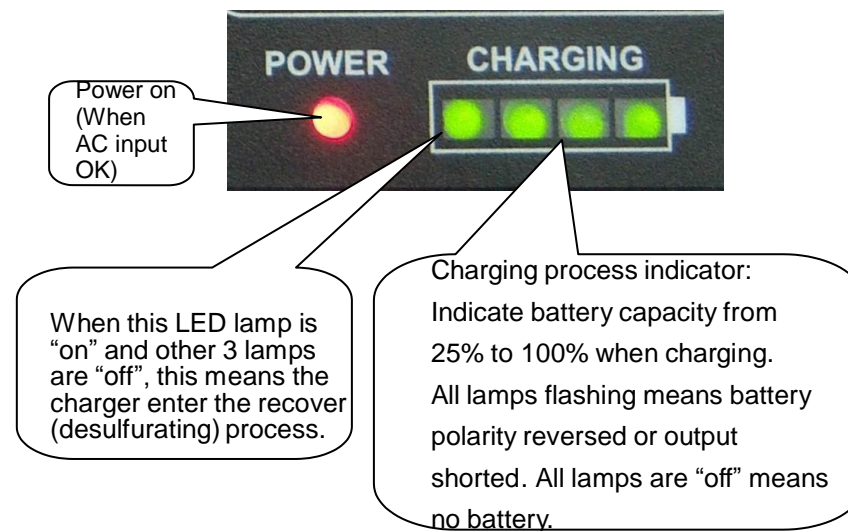
What’s more, It can display the charging process, indicate the battery capacity from 25% to 100% timely. This is helpful for user.

For more safety, it will enable protection mode when the battery polarity reversed or the output connectors shorted.

Specs for GC100-48A

Input Voltage	100-240VAC, 50-60Hz			
Input Current	1.6A			
Back current drain	1.3mA			
Charge voltage	GC100-12A	GC100-24A	GC100-36A	GC100-48A
Limited	14.7V ± 1%	29.4V ± 1%	44.1V ± 1%	58.8V ± 1%
Bulk charge current	5A	2.8A	1.8A	1.5A
Operate Temperature	-20°C~50°C			
Cooling	Natural convection. Do not cover the charger.			
Charge principle	4 stages: Ud-Im-Uo-Up (Note:For 24V, 36V and 48V, Ud is absent)			
Battery type	All types of 48V lead-acid batteries.(SLA, Gel, AGM....)			
Battery capacity	7-80Ah			
Size	170 x 71 x 51mm			
Enclosure	IP54 (Dust protected, Water splashing resistance)			
Weight	400g			

Display Panel



How to use:

1. Connect the AC cord to the socket, The “power” lamp will light on solid.
2. Connect positive charger clip (red) to positive battery terminal, the black clip to negative. (You can use other dc plugs to connect battery), the “25%~100%” lamps will light on flowing. If the battery polarity reversed or output shorted, all lamps will flashing, please check the setup.
3. Depend on the charged capacity, 25%~100% lamps will lights up solid sequence, until the battery is fully charged. Then you can power off the charger and disconnect the battery or you can charge a new battery if you need.

The table shows the duration of 80% state charged for an empty battery.

Battery type (Ah)	GC100-12A	GC100-24A	GC100-36A
12	Not recommend	5	7 hours
22	5	9	12 hours
40	9	14 hours	20 hours
80	16 hours	Not recommend	Not recommend