

# BATTERY CHARGER

CHR-14240 / CHR-26240



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# Important Safety Guide



Warning

Warning: Risk of electric shock:

*Please Read safety and warning guide before operating battery charger, users are responsible for any regulations required by special applications. Please do not connect AC or DC power before installation.*

1. Do not expose the charger under rain, snow, moist, water, or dust condition. To prevent over heating, do not block ventilation area or installed in a sealed case.
2. The design of charger is capable of continuous connection to AC and DC power system.
3. Please read manual and warning messages before using the charger and battery.
4. Please use only factory parts and suggested accessories. Unauthorized parts may risk of shock, fire, or injury.
5. Please do not disassemble charger. Attempting to repair machine may risk of fire and shock. Even the power is removed; the charger still contains residual electricity.
6. To prevent the risk of shocks, please remove AC, DC power and switch off controller before cleaning, maintenance, or installation.
7. Please do not use charger, if explosion, damage, or drop of charger occurred.
8. To prevent risk of shock and fire, please use correct wire gauge. Do not use damaged or low grade wire.
9. After connected to AC power, we advice wait for 10 seconds for green power LED to lit up, then connect to the lead acid battery. (note: this is a warm up procedure)
10. The battery voltage must be higher than the minimum charging voltage. Otherwise the charger automatically detects battery error and stops charging and the red error Led lit up.



# Installation :

## Installation Warning

Warning	Content
Cleaning	Please do not expose charger to metal dust or any conductible contamination, such contamination could damage the charger and void the warranty.
Cooling & Ventilation	To maintain best performance of the charger. Keep the environment between 0°C to 30°C and make sure the charger is installed in a well ventilated area. To prevent bad circulation or reduce the life of charge, keep at least 10CM between wall and ventilation area.
Humidity	The charger needs to be operated under dry environment. Please do not spill liquid on the charger. Do not install charger in an area exposed to rain or water.
Away from flammable material	The best solution is not to install the charger near gasoline tank or where fire equipment is needed.
Close to AC control panel	Try not to use extension cord.
Close to Battery	Prevent use of long or thin wire, use suggested length and size. Incorrect or long wire will affect the accuracy of the charger.

## 1. Specification

AC Voltage Input:

Voltage 90~132VAC (Commonly used on 110 VAC)

Voltage 190~250VAC (Commonly used on 220 VAC)

Frequency 50/60HZ

Adjustable DC output voltage (Please do not adjust the output voltage without permission from Monicon)

## 240W Series Battery Charger Comparison Table

Model	CHR-14240		CHR-26240	
	110V / 12V,20A	220V / 12V,20A	110V / 24V,10A	220V / 24V,10A
Input Voltage	90 ~ 132VAC	190 ~ 250VAC	90 ~ 132VAC	190 ~ 250VAC
Output Voltage Range ( Load=0A )	12.0V ~ 14.6V±0.2V ( Load=0A )		26.2V ~ 27.1V±0.2V ( Load=0A )	
Factory default setting	13.6V ± 0.1V		26.6V ± 0.1V	



Fan trigger temp.	Heat sink > 40°C	
Protections	O.C.P.、Reverse Polarity、Short Circuit、VAC detecting	
Max. Load	12V,20A ±1.5A	24V,10A ±1A
Min. Voltage	5.5VDC	8.5VDC
Fan Noise (dB)	35 ~ 50 db	
Efficiency	X > 75%	X > 80%

Charging Method : Float Charging

Protections : Constant Voltage、Limited current、Output Short Circuit、Reverse Polarity、Surge protection.

Efficiency : Full Load > 75 %

Working Temperature : -30~ 70 °C

Storage Temperature : -40~120 °C

Relative Humidity : Max. 90 %

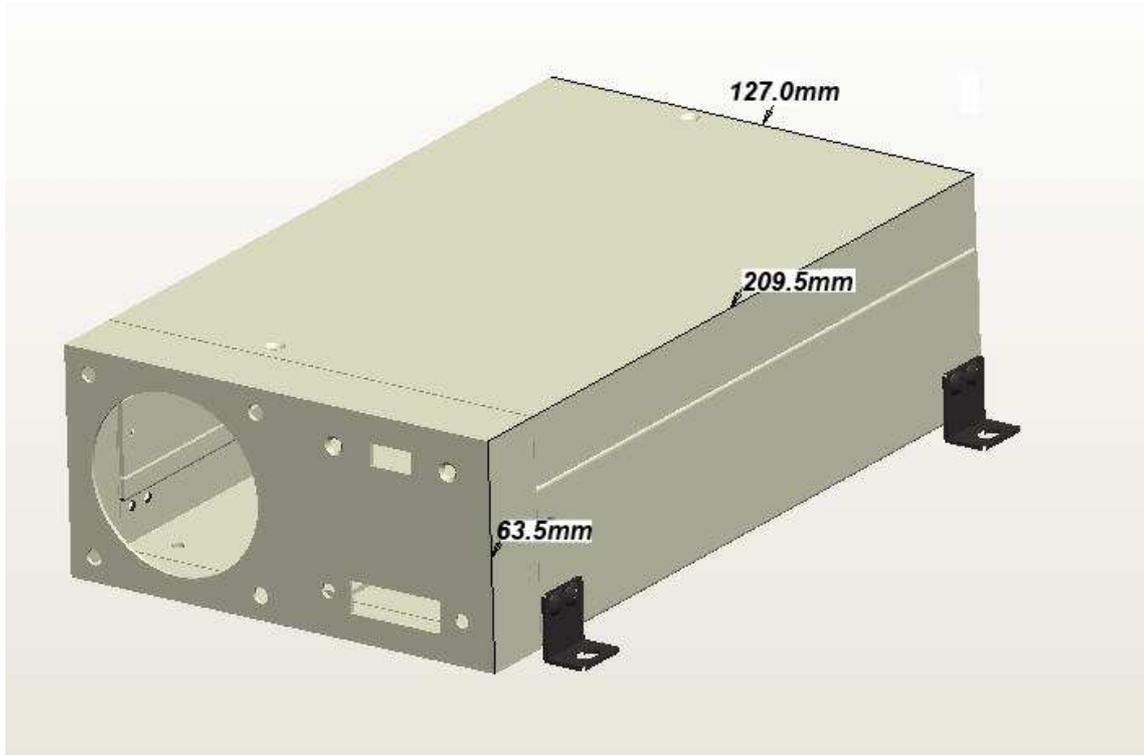
Dimensions : 210 mm(L)\* 127mm (W) \* 64mm (H)

Weight : 1700 g ±50 g

## 2. Installation and Operation

- 2.1 Make sure AC voltage selector switch on the battery charger is set to correct voltage. Turn off AC power source before connecting to N、L terminals.
- 2.2 Connect positive and negative terminals of the battery to the positive and negative output terminals of the charger; then turn on the AC power.  
Note: The charger is equipped with start protection; the current output is disabled, if the terminals are not connected.
- 2.3 The automatic battery charger is quipped with charging loop detection. The charger stops automatically when the battery is fully charged. User does not need to shut down the charger or remove the battery.
- 2.4 The charger is equipped with short and reverse polarity protections.
- 2.5 If red Error LED is on, please turn off the charger and check the polarities and all the connections on the battery and charger. To avoid accident, do not force charge the battery.
- 2.6 Please use accessories came with the charger. Do not use long screws; it might punch through the case or internal circuit board.

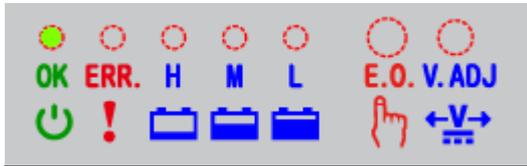
### 3. Dimensions



## 4. LED Indicators

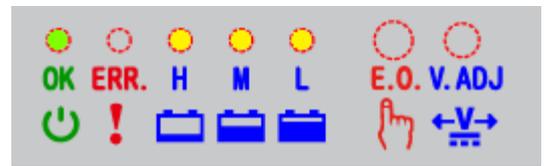
LED	Color	Description
Power	Green	Charger is on
Error	Red	Charger is interrupted
H	Yellow	High current charging state
M	Yellow	Normal charging state
L	Yellow	Low current charging state

Examples :

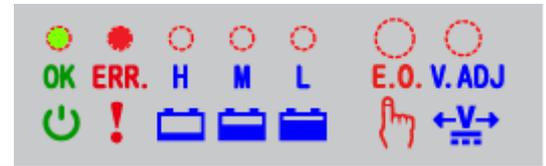


Charger is ON and ready to charge the battery.

The battery might be full and the charger returned to the standby mode.



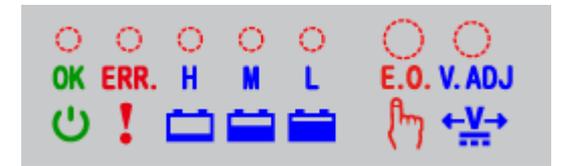
The charger is operating at maximum current output.



Charging interrupted, in protection mode.

Causes : Not connected to the battery  
 O.C.P.、  
 Short circuit、  
 Reverse polarity、  
 Under voltage、  
 Burned fuse

**Solutions** : Check connections、  
 Battery Voltage、  
 Battery specifications、  
 Battery polarity、  
 Fuse



All the LEDs OFF :

1. Charger is damaged and burned the fuse.
2. VAC is off

**Solutions** :

1. Power off then check power source and connection.
2. If power source is normal , check for burned fuse.