C-CHARGER® AA SERIES™ AUTO EQUALIZE BATTERY CHARGERS

Electrically, the C-Charger is a paragon of efficiency and simplicity. It uses a ferroresonant transformer with integral self-regulation. It has been intelligently designed to be completely devoid of any complicated switching circuits that could possibly burn out. There are no tubes nor delicate electronics to fail or to cause radio frequency interference (RFI).

Voltage output to the batteries remains at a safe and constant DC level from full load to no load, even if AC power runs as high as 132 VAC or as low as 108 VAC. This automatic voltage regulation relieves strain on internal electrical components and lengthens the lifespan of the unit. All components are designed to operate safely and continuously in an ambient temperature as high as 122° F.

The Auto Equalizer Battery Charger is the first C-Charger to offer fully automatic equalizing. The advantages of automatic equalizing are clear: no manual switching or settings, no waiting for power failure, no 9 to 24 hour overcharges, and no failure to return to float due to high load currents. The addition of an Auto Equalizer Charger expands the equalizing options of the C-Charger line, which also includes Float/ Equalize Switch, 0-24 Hour Timer, and 0-24 Hour Automatic Equalizer Timer.

If battery voltage drops below a set value (i.e. 25.5 VDC), the charger switches to the equalize mode and the yellow equalize indicator illuminates. The charger remains in equalize mode until the battery voltage reaches another set value (i.e. 28 VDC). This ensures that the battery is completely recharged and not cycled. At this voltage the charger is switched to the float mode and the yellow equalize indicator turns off.



If battery voltage remains low, a red low voltage alarm indicator illuminates. If battery voltage remains high, a red high voltage alarm indicator illuminates. An optional summary alarm relay is available for remote locations. Adjustable low and high voltages permit users to tailor the charging system to specific batteries. Precise setting of these voltages is provided by fifteen turn potentiometers.

Features

- UL Listed
- Fully automatic equalizing
- Constant voltage
 output/continuous duty
- Equalize indicator and test button
- AC Power On indicator
- Low Voltage indicator



- High Voltage indicator
- DC ammeter and voltmeter
- AC circuit breaker
- Terminal board
- Vacuum impregnated, ferroresonant transformer for reliability
- Stainless steel for corrosion resistance
- Flush meters
- Isolated positive and negative: can be used as a negative voltage charger
- Two year limited warranty

Specifications

AC Input
Operating Temperature
Storage Temperature
Cooling
DC Output
- Float

- Equalize

Current Limit

Enclosure

108-132 volts/60 Hz (220 volts/50 Hz optional) 0° to 50° C (32° to 122° F) -20° to 60° C (-4° to 140° F) Convection

2.16 VPC for lead Acid, 1.45 VPC for nickel cadmium 2.33 VPC for lead Acid, 1.55 VPC for nickel cadmium

Approximately 135%

304 stainless steel hinged cover to facilitate installation

Model	D.C. Output		Height	Width	Depth	Approx.	
Number	Amps	System Voltage	Inches	Inches	Inches	Weight	
12 Volt							
AA1206*	6	12	11	9	8.5	12	
AA1210*	10	12	11	9	8.5	14	
AA1220*	20	12	11	9	8.5	22	
24 Volt							
AA2406*	6	24	11	9	8.5	14	
AA2410*	10	24	11	9	8.5	22	
AA2420*	20	24	13	16.5	8.5	38	
32 Volt							
AA3206	6	32	11	9	8.5	22	
AA3210	10	32	11	9	8.5	26	
*III Listad							

*UL Listed

Optional Accessories

- Remote summary relay
- Battery temperature compensation
- Low DC voltage alarm relay
- High DC voltage alarm relay
- Current failure relay

Ordering Information

When ordering, please specify:

- 1. Model number
- 2. AC input: voltage & frequency
- 3. Battery type and number of cells
- 4. Ampere-hour capacity of battery
- 5. Recharge time desired
- 6. Description of load
- 7. Options

Contact your Charles sales representative for specific product information.





D-IND001-B01 Rev. 3

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Combined Low/High voltage

alarm relays

AC power failure relay