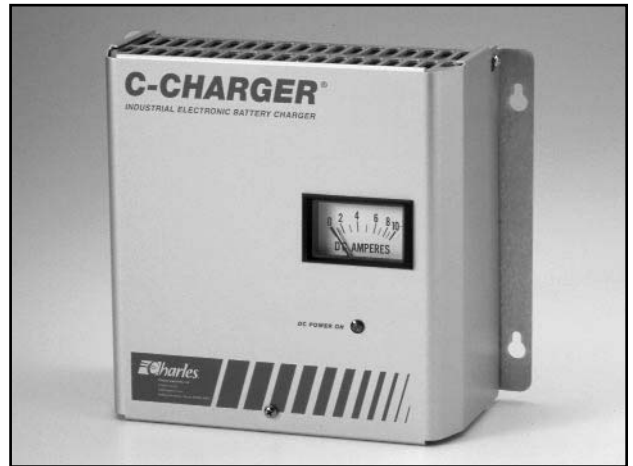
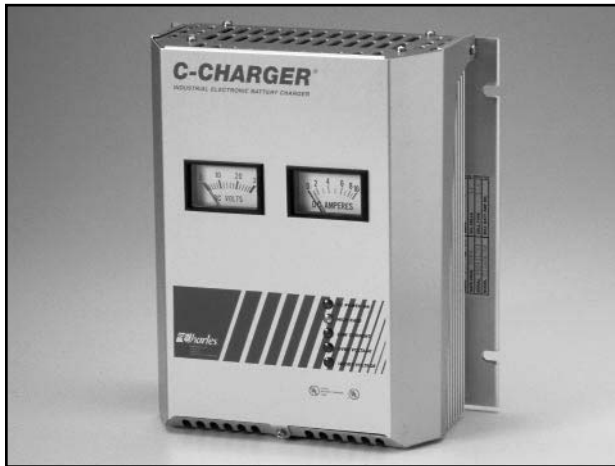


C-CHARGER®

Industrial Electronic Battery Chargers

Utilizing high-quality components and corrosion-resistant anodized aluminum housings, C-CHARGERS® are built to perform even in the toughest industrial environments.



Premium Series

12 & 24 Volt, 6 to 100 amp

The C-CHARGER® Premium Series is the superior choice for applications that require high-performance charging with UL listed products.

- Approved to UL's 1236 stringent specifications, testing and evaluation to ensure safety and reliability
- Field adjustable for output voltage and alarm limits
- Front panel DC ammeter and voltmeter
- AC and DC fuse protection
- No EMI interference; meets FCC Class B requirements
- Optional Accessory Board available
- Two year limited warranty

Basic Series

12 & 24 Volt, 3 to 20 amp

The C-CHARGER® Basic Series offers an economical battery charging solution without sacrificing performance and reliability.

- Designed to meet UL 1236 requirements to ensure safety and reliability
- Field adjustable for output voltages
- Front panel DC ammeter and power-on LED
- AC and DC fuse protection
- Virtually no EMI interference; meets FCC Class A requirements
- Optional ammeter
- One year limited warranty

Common Features

Durable, corrosion-resistant housing and components

- Housing constructed of durable anodized aluminum to withstand the heat and high humidity of harsh industrial environments
- Conformal coated printed circuit boards provide the ultimate in environmental protection

Runs cool and quiet at full capacity

- Heat sink eliminates the need for cooling fans on models 20 amps or less

Easy to install

- Exterior slots for ease of mounting
- Accessible terminal and fuse connections

Multi-step charging provides maximum efficiency

- Three-step charge profile
- Provides fast battery charging
- Prevents overcharging and damage, which extends battery life



Premium Series Features

Advanced LED Set

C-CHARGER Premium Series Electronic Chargers feature an advanced set of LEDs to display operating conditions and alarm warnings. 5 LEDs display a variety of conditions:

<u>Alarm</u>	<u>LED Color</u>
Power-On	Green
High Rate	Yellow
Low Current	Red
Over Voltage	Red
Under Voltage	Red

NOTE: All 3 outputs of each relay are accessible (i.e. normally open, normally closed and center position).

Premium Series Optional Equipment

Accessory Board

C-CHARGER Premium Series Electronic Chargers are available with or without an accessory option board.

The accessory option board includes:

- Over voltage and under voltage relay and LED outputs
- Summary relay output—activates with:
 - Under voltage
 - Over voltage
 - Current failure
 - Loss of power
- Loss of power output relay, no LED
- External temperature compensation -3.25 mv/degree C./cell (requires optional external temperature compensation probe)

C-CHARGER® Basic Series Charger Specifications

Available in 12 & 24 Volt, 3 to 20 amp models

	Input Voltage*	Battery Type	Equalize Rate Output Voltage	Float Rate Output Voltage	Weight (lbs.)	Dimensions (in.)		
						H	W	D
3 AMP Models								
93-CI1203-EB	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	2.1	7.5"	8.9"	4"
93-CI2403-EB	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	2.1	7.5"	8.9"	4"
5 AMP Models								
93-CI1205-EB	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	2.1	7.5"	8.9"	4"
93-CI2405-EB	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	2.1	7.5"	8.9"	4"
10 AMP Models								
93-CI1210-EB	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	2.1	7.5"	8.9"	4"
93-CI2410-EB	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	10.5"	9.6"	5"
20 AMP Models								
93-CI1220-EB	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	2.1	7.5"	8.9"	4"
93-CI2420-EB	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	10.5"	9.6"	5"

NOTES:

1. Ambient temperature range: -20°C to +60°C
2. All models are furnished with cooling fans

* Will accept variances in input voltage from 90-135 VAC and variances in frequency from 45-60 Hz with no degradation of output.



C-CHARGER® Premium Series Charger Specifications

Available in 12 & 24 Volt, 6 to 100 amp models

	Option Board	Input Voltage*	Battery Type	Equalize Rate Output Voltage	Float Rate Output Voltage	Weight (lbs.)	Dimensions (in.)		
							H	W	D
6 AMP Models									
93-CI1206-EP	Yes	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
9N-CI1206-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
93-CI1206-EPI	Yes	220 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
9N-CI1206-EPI	No	220 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
93-CI2406-EP	Yes	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
9N-CI2406-EP	No	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
93-CI2406-EPI	Yes	220 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
9N-CI2406-EPI	No	220 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
10 AMP Models									
93-CI1210-EP	Yes	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
9N-CI1210-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
93-CI1210-EPI	Yes	220 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
9N-CI1210-EPI	No	220 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
93-CI2410-EP	Yes	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
9N-CI2410-EP	No	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
93-CI2410-EPI	Yes	220 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
9N-CI2410-EPI	No	220 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
20 AMP Models									
93-CI1220-EP	Yes	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
9N-CI1220-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
93-CI1220-EPI	Yes	220 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
9N-CI1220-EPI	No	220 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	5.5	11"	9.5"	5"
93-CI2420-EPI	Yes	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
9N-CI2420-EPI	No	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
93-CI2420-EPI	Yes	220 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
9N-CI2420-EPI	No	220 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	5.5	11"	9.5"	5"
30 AMP Models									
9N-CI1230-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	7.5	13"	9.5"	5"
9N-CI2430-EP	No	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	12	15"	9.5"	5"
40 AMP Models									
9N-CI1240-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	9	13"	9.5"	5"
9N-CI2440-EP	No	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	12	15"	9.5"	5"
50 AMP Models									
9N-CI1250-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	12	15"	9.5"	5"
9N-CI2450-EP	No	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	16	20"	9.5"	5"
60 AMP Models									
9N-CI1260-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	12	15"	9.5"	5"
9N-CI2460-EP	No	120 VAC	Lead Acid, Gel & NICAD	28.2 VDC	27.3 VDC	16	20"	9.5"	5"
80 AMP Model									
9N-CI1280-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	16	20"	9.5"	5"
100 AMP Model									
9N-CI12100-EP	No	120 VAC	Lead Acid, Gel & NICAD	14.1 VDC	13.65 VDC	16	20"	9.5"	5"

NOTES:

1. Ambient temperature range: -20°C to +60°C
2. All 6 to 20 amp chargers are equipped with voltmeter and ammeter
3. All 30 to 100 amp chargers are equipped with ammeter
4. Model CI2420 and all 30 amp and higher chargers are furnished with cooling fans
5. All models are UL, cUL and CE listed



* 120 VAC models will accept variances in input voltage from 90-135 VAC and variances in frequency from 45-60 Hz with no degradation of output. 220 VAC models will accept variances in input voltage from 180-220 VAC and variances in frequency from 45-60 Hz with no degradation of output.



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

Also Available from Charles Industries

Visit our website (www.charlesindustries.com) for more information about the full line of C-Charger Battery Chargers, including:



C-CHARGER®
Auto Equalize Battery Chargers

C-CHARGER®
Engine Generator Set Float Battery Chargers



C-CHARGER®
Single-Rate Float Battery Chargers

Contact your Charles sales representative for specific product information.



Technical Support


- Field-proven and unequalled technical support
- 24-hour technical support hotline
- Training courses available

Visit our website at <http://www.charlesindustries.com>

Charles Industries, Ltd.
Industrial Group
5600 Apollo Drive
Rolling Meadows, IL 60008 USA

Voice: (847) 806-6300
FAX: (847) 806-6352
E-mail: mktserv@charlesindustries.com



 and C-CHARGER™ are trademarks of Charles Industries, Ltd.