'R' SERIES®

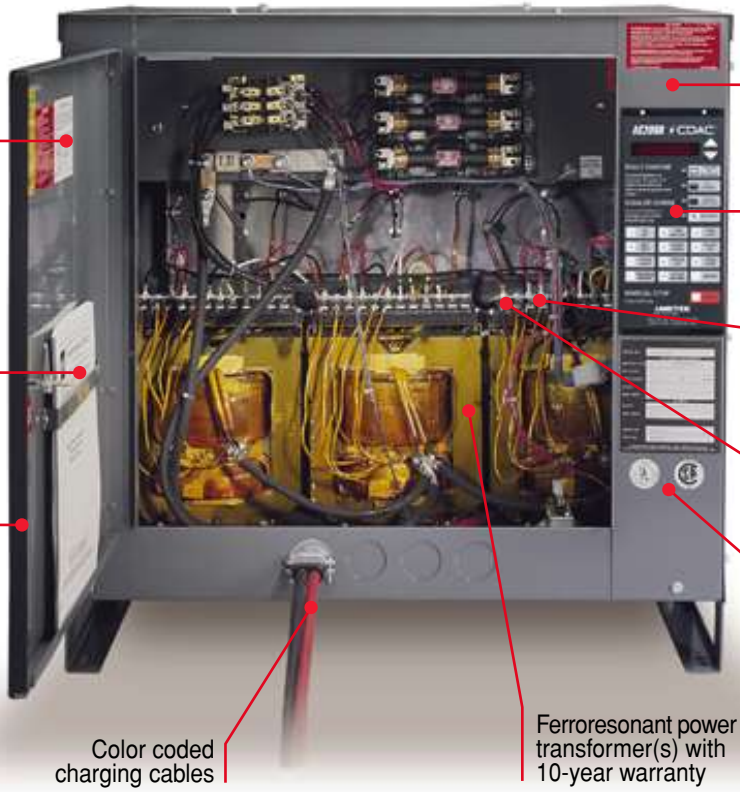
Ferroresonant Industrial Battery Chargers

The Quality Leader in Ferroresonant Industrial Chargers

- *A choice of 3 interchangeable controls for added flexibility*
- *Quality-built for years of trouble-free service*
- *Fail-safe design protects batteries*
- *Ten-year transformer and diode warranty*
- *CDAC compatible – applied technology to control material handling costs*
- *UL listed, CSA certified*

AMETEK®
PRESTOLITE POWER

'R' Series chargers, for dependable and efficient cl



Designed and rated for today's batteries

The 'R' Series is an industrial-rated battery charger, engineered to furnish an efficient, problem-free charge each time a battery is connected. The 'R' Series uses ferroresonant power conversion circuitry, which is virtually maintenance-free, to provide years of dependable service. The power conversion circuitry maximizes battery life by using a constantly tapering charge which is automatically regulated by the "On Charge" battery voltage. The output current of the charger is determined by the state of discharge of the battery. The battery is precisely charged, based on its depth of discharge.

Ideal for use on single and three shift operations, the 'R' Series charger is designed to recharge any 80% discharged lead acid battery in its ampere hour rating within 8 hours.

Interchangeable control design

The 'R' Series is designed to allow the quick and easy installation or removal of the controls. Unmatched in the industry, this design allows controls to be interchanged in minutes for greater control, flexibility and automation of any battery charging operation.

Battery and charger safeguards

The 'R' Series is internally protected against overload, short circuit, incorrect battery connection and voltage transients. In the event of a component failure, the charging rate will automatically go to "minimum," thus protecting the battery from damage. These safeguards protect the charger and battery, assuring longer life for both.

Single and three phase service

The 'R' Series is available in a variety of single and three phase models, providing multiple AC input voltages as standard. Most models are UL listed and CSA certified, and meet all BCI requirements.

Control options

Depending on your charging requirements, the 'R' Series charging operation can be controlled by any one of the following controls: AC500, AC1000 and AC2000.

Regulation

'R' Series charger will hold the finish rate of the charge within ±1%, even with line voltage variations as high as ±10%. This protects, and properly charges the battery, even when severe input voltage variations exist.

harging every time!

Easy to change AC input voltage

AC input voltage change-overs take just minutes because of the conveniently located taps and quick-connect jumpers.

Adjustable DC output

Rarely does the DC output of a charger need to be changed, but if necessary, adjustment can be made by changing conveniently located quick-connect jumpers.

Warranty

Ten-year warranty on power transformer and silicon diodes. One year on other components. Repair costs are minimized.

UL listed and CSA certified

Independently tested by Underwriters Laboratory and Canadian Standards Association to back our "safety first" design.

Convection cooled and quiet

The 'R' Series uses no fans to draw in dirty air and has low sound levels for quiet operation.

Functional cabinet design

The cabinet is constructed with heavy gauge sheet metal and finished with a durable, long-lasting powdered polyester baked finish. The cabinet is designed to provide direct access to the AC power connection points and conveniently facilitates any required service.

Flexible cabinet mounting

All case styles can be wall, bench or floor mounted and the B and C cases are stackable to save floor space.

Efficient, low cost operation

The copper-wound, ferroresonant transformer design of the 'R' Series is extremely efficient, converting the AC input power to usable DC output power for low cost operation.

CDAC compatible

The 'R' Series charger with an AC2000 control is capable of interfacing with the Charger Data Acquisition and Control, CDAC. See data sheet 1317.

Approximate charging time for 'R' Series chargers

The graph below shows the time required to completely recharge 80% and 100% discharged batteries with the 'R' Series charger. Curves are shown for both 80% and 100% depth-of-discharge (d.o.d.).

Example 1. How long will it take to charge a 450 A-H battery that is 80% discharged with a model 450A1-12R 'R' Series charger (450 A-H rated)? Battery capacity as a percent of charger rating equals –

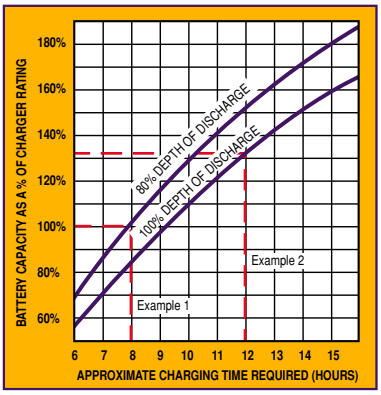
$$\frac{\text{450AH Battery}}{\text{450AH Charger}} = 100\%$$

Following the 100% line to the 80% d.o.d. curve yields **8 hours** recharge time.

Example 2. How long will it take to charge a 600 A-H battery that is 100% discharged with a model 450A1-12R 'R' Series charger? Battery capacity as a percent of charger capacity equals –

$$\frac{\text{600AH Battery}}{\text{450AH Charger}} = 133\%$$

Following the 133% line to the 100% d.o.d. curve yields approximately **12 hours** recharge time.



BCI MEMBER

MHEDA MEMBER

Full line of automatic start/stop controls

Series AC500 | Series AC1000 | Series AC2000

Control Features	Model AC500	AC1000	AC2000
Automatic start/stop	⚡	⚡	⚡
Timed delay start		⚡	⚡
PT/DV/DT termination	⚡	⚡	⚡
VT termination	⚡	⚡	⚡
Universal control for 6,12,18, 24,36 cell	⚡	⚡	⚡
Back-up timers	⚡	⚡	⚡
AC fail recovery	⚡	⚡	⚡
Battery/charger mismatch protection	⚡	⚡	⚡
Refresh charge	⚡	⚡	⚡
Automatic equalize	⚡	⚡	⚡
Full battery reject			⚡
Modular design	⚡	⚡	⚡
Optional start modes		⚡	⚡
Forming cycles		⚡	⚡
Extended run time		⚡	⚡
Optional equalize modes			⚡
CDAC compatible			⚡
Data-Mate compatible			⚡
30 cycle archive			⚡
Cool down		⚡	⚡
Thermal runaway protection			⚡

For more charger control information, see the following:
AC500 – data sheet 1323
AC1000 – data sheet 1322
AC2000 – data sheet 1320

Charger options

Tailor the mounting, wiring or control of your charger with options designed to meet your specific needs:

- 001 Extra length charging cable
- 002 Parallel charging cable with SBX connection
- 003 Series charging cable
- 010 Wall mounting bracket
- 101 Remote charger control box
- 500 Flange mounted fusible disconnect switch
- 512 Single-point wiring, 2-circuit
- 513 Single-point wiring, 3-circuit

Charger 'R' Series charger models

Application		Output	Model Number			AC Input, Amperes			Weight, lbs.
No. battery cells	Recommended battery ampere-hour range for 8 hour charge	DC output amperes 2.13 v/cell	A case	B case	C case	1-phase 120/208/240 volts	1-phase 208/240/480, 575 volts (see notes)	3-phase 208/240/480, 575 volts (see notes)	Approx. shipping weight
6	100-250	36	250A1-6R			6.0/3.5/3.0	3.5/3.0/1.5, 1.0		75
6	181-300	50	300A1-6R			8.1/4.7/4.1	4.7/4.1/2.0, 1.5		85
6	251-450	76	450A1-6R			13.2/7.6/6.6	7.6/6.6/3.3, 2.8		95
6	381-510	90	510A1-6R			15.0/8.7/7.6	8.7/7.6/3.8, 3.1		110
6	451-600	102		600B1-6R			10.6/9.2/4.6, 3.8		120
6	511-750	120		750B1-6R	750C3-6R		11.5/10.0/5.0, 4.2	6.1/5.3/2.6, 2.2	185/225
6	601-880	150		880B1-6R	880C3-6R		15.2/13.2/6.6, 5.5	9.0/8.0/4.0, 3.3	190/290
6	751-1050	176		1050B1-6R	1050C3-6R		17.0/15.0/7.5, 6.5	10.5/9.0/4.5, 3.7	205/285
6	881-1260	210			1260C3-6R			10.7/9.2/4.6, 3.8	290
12	181-300	50	300A1-12R			16.7/9.6/8.4	9.6/8.4/4.2, 3.5		95
12	251-450	76	450A1-12R				14.5/12.6/6.3, 5.2		105
12	381-510	90		510B1-12R	510C3-12R		16.8/14.6/7.3, 6.1	8.2/7.1/3.6, 3.0	190/280
12	451-600	102		600B1-12R	600C3-12R		18.5/16.1/8.1, 6.7	9.4/8.2/4.1, 3.4	195/283
12	511-750	120		750B1-12R	750C3-12R		22.7/19.8/9.9, 8.2	11.2/9.7/4.9, 4.1	205/285
12	601-880	150		880B1-12R	880C3-12R		29.1/25.3/12.7, 10.5	14.7/12.9/6.4, 5.3	230/295
12	751-1050	176		1050B1-12R	1050C3-12R		34.3/29.9/14.9, 12.4	17.7/15.5/7.7, 6.4	235/310
12	881-1260	210			1260C3-12R			21.3/18.6/9.3, 7.7	330
12	1051-1400	240			1400C3-12R			23.2/20.1/10.0, 8.5	370
12	1201-1600	280			1600C3-12R			28.0/25.0/12.5, 10.5	410
18	181-300	50	300A1-18R				12.8/11.1/5.6, 4.6		110
18	251-450	76		450B1-18R	450C3-18R		20.0/17.4/8.7, 7.2	11.0/10.0/5.0, 4.0	190/290
18	381-510	90		510B1-18R	510C3-18R		24.5/21.4/10.7, 8.9	13.3/11.6/5.8, 4.8	205/295
18	451-600	102		600B1-18R	600C3-18R		26.7/23.3/11.6, 9.7	15.7/13.7/6.9, 5.7	215/300
18	511-750	120		750B1-18R	750C3-18R		31.1/27.1/13.5, 11.3	17.3/15.1/7.6, 6.3	225/310
18	601-880	150		*880B1-18R	880C3-18R		42.9/37.4/18.7, 15.5	22.9/19.9/10.0, 8.3	290/320
18	751-1050	176			1050C3-18R			24.2/21.1/10.5, 8.8	370
18	881-1260	210			1260C3-18R			29.0/25.2/12.6, 10.5	385
18	1051-1400	240			1400C3-18R			33.6/29.3/14.7, 12.2	425
18	1201-1600	280			1600C3-18R			37.2/32.4/16.2, 13.5	450
24	0-380	76		450B1-24R			25.1/21.9/10.9, 9.1		219
24	381-510	90		510B1-24R	510C3-24R		31.5/27.5/13.7, 11.4	17.0/14.8/7.4, 6.2	225/290
24	451-750	120			750C3-24R			22.5/19.6/9.8, 8.2	320
24	601-880	150			880C3-24R			28.1/24.5/12.2, 10.2	380
24	751-1050	176			1050C3-24R			35.3/30.8/15.4, 12.8	375
24	881-1260	210			1260C3-24R			41.1/35.8/17.9, 14.9	450
24	1051-1400	240			1400C3-24R			43.4/37.8/18.9, 15.7	470
24	1201-1600	280			1600C3-24R			55.5/48.4/24.2, 20.1	510
30	251-450	76			450C3-30R			17.9/15.6/7.8, 6.5	305
36	181-300	50			300C3-36R			12.5/11.0/5.5, 4.5	310
36	251-450	76			450C3-36R			20.5/18.0/9.0, 7.5	325
36	381-510	90			510C3-36R			27.5/24.0/12.0, 10.0	365
36	451-750	120			750C3-36R			32.2/28.1/14.0, 11.7	390
36	601-880	150			880C3-36R			43.6/38.0/19.0, 15.8	415
36	751-1050	176			1050C3-36R			NA/43.0/21.5, 17.9	485

*Not UL or CSA listed and not available in 50 Hz.

NOTE 1: Single phase chargers can be connected to one phase of a three-phase power system.

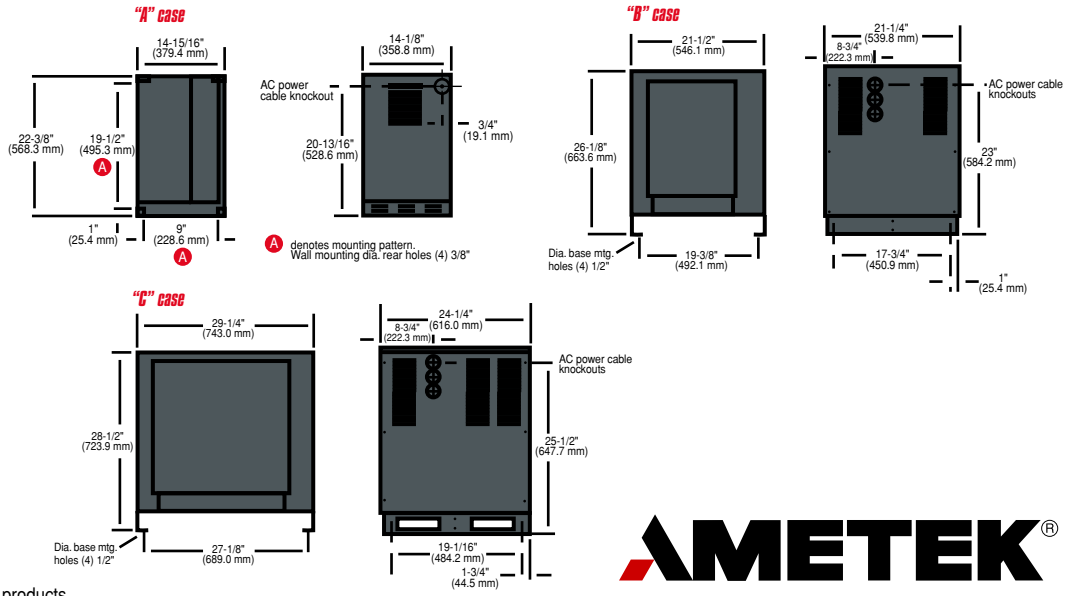
NOTE 2: Contact factory for availability on non-standard voltages, non-standard cell sizes, 50 Hertz chargers, or special applications.

NOTE 3: All chargers are furnished with standard non-explosive proof battery charging connector and 8 ft. (A case) or 10 ft. (B and C case) output cable.

NOTE 4: Standard voltages for single and three phase models are 208/240/480.

NOTE 5: Not all options are available for models listed, contact factory for availability.

Dimensions



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