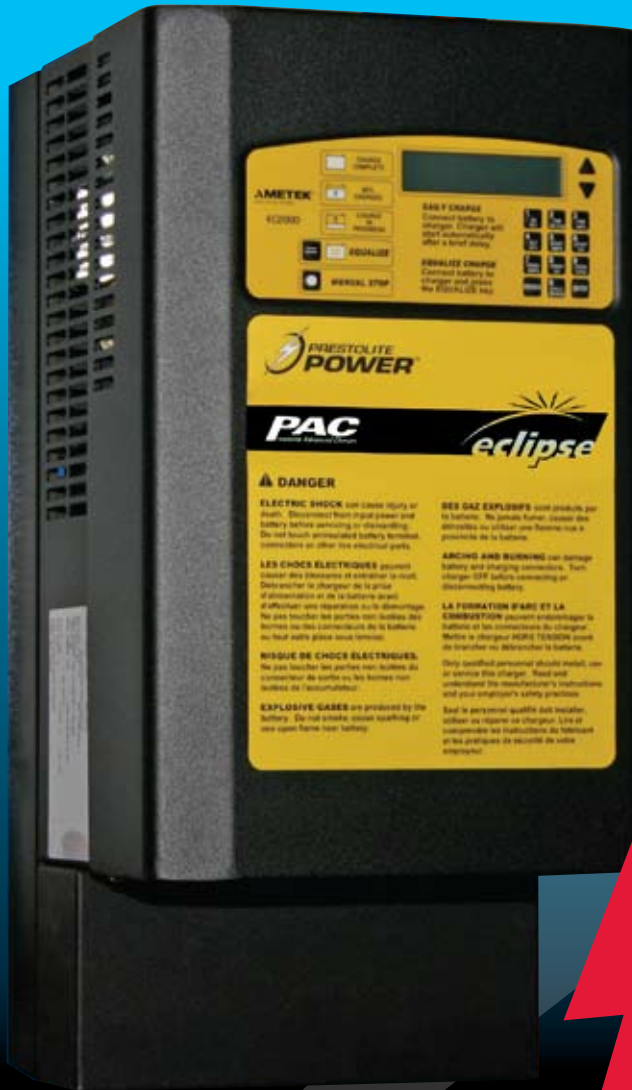


**PAC**  
restolite Advanced Charger

**eclipse**

High Frequency Industrial Battery Charger



## Setting the Industry Standard for High Frequency Performance

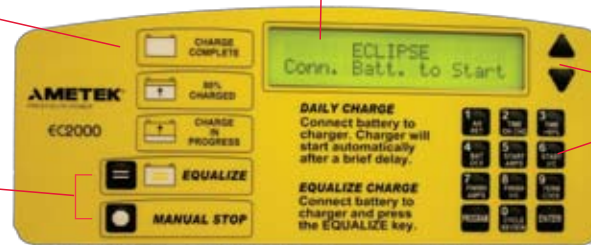
- ⚡ The AC characteristics of the PAC Eclipse series of chargers are ideal considering today's rising energy costs
- ⚡ High efficiency charging, 92% for reduced energy costs
- ⚡ Save on electric bills with the high energy efficiency of the PAC
- ⚡ High power factor >.94 for low installation costs
- ⚡ Multi-voltage and Multi-ampere hour operation
- ⚡ 100% rated to recharge fully discharged batteries in 8 hours or less
- ⚡ Save on transportation costs and mechanical installation with light weight and small size
- ⚡ Adapts to all battery types and applications with user selectable charge algorithms
- ⚡ All 3 phase units cUL listed

**AMETEK**<sup>®</sup>  
PRESTOLITE POWER

LED Status Indicators

2x20 Character Backlit, LCD Display

Equalize and Manual Stop



Sealed Membrane Keypad



## Eclipse

**The PAC Eclipse series of chargers set a new industry standard for efficiency, accuracy, and flexibility. The charger uses advanced MOSFET high frequency power conversion circuitry to provide efficient dependable service. Designed to recharge any 100% discharged lead-acid battery within the chargers rated capacity, flooded or sealed, in 8 hours or less. The Eclipse is engineered for energy efficient charging in one of the most compact packages available on the market today. With the Eclipse, the battery determines its own charge cycle rate based on its state of discharge. The Eclipse constantly monitors the battery's condition to provide the optimum charge with minimal temperature rise and it completes the charge at the proper current regardless of battery age, battery type, or electrolyte temperature**

### Efficient, Low Cost Operation

The advanced high frequency design of the Eclipse is extremely efficient at 92%, converting AC power to usable DC power with the minimum possible impact on the utility grid. The  $>.94$  power factor minimizes AC amp draw and thereby reduces installation costs.

### EC2000 Control

The new EC2000 control is nearly identical in functionality and programmability to AMETEK's popular UC2000 used in the Ultra product line. With a 40 character, alphanumeric LCD display, easy to read information is always available to follow the chargers status. In addition, 4 bright LED's provide charge status at a glance and the sealed membrane keypad allows for easy customer interface.

### Energy Saving Features

Further enhance energy savings by utilizing the EC2000's programmable start modes. Using the Delayed or Time-of-Day start modes of the EC2000 to charge your batteries during off-peak hours can yield up to 50% in additional energy cost saving. The EC2000 also offers Time-of-Day Block-Out to lower utility bills and reduce peak demand by blocking out a period of charging time on one or more chargers.

### Automatic or Manual Equalize Operation

All Eclipse chargers are shipped with Automatic Equalize enabled to ensure that your batteries routinely receive an equalize charge of three hours beyond the normal DV/DT charger termination. Auto Equalize can be set for one of two options, Number of Cycles, or Day of Week.

When any automatic equalize function is selected, the equalize button on the keyboard is disabled to prevent unnecessary equalize charges. The ability to automatically equalize batteries provides an exact schedule of equalize charges for better battery maintenance and longer battery life.

### Control Equalization Cycles

When an AMETEK BID is attached to the battery, it tracks and records completed charge cycles. When the battery is connected to the charger, the Eclipse reads the BID information to determine how many charge cycles have been completed since it was last equalized. When the number of completed cycles matches the user selected equalize interval, the charger will equalize that battery. This ensures that each battery is equalized at the intervals selected by the customer regardless of which charger is connected.

### Battery Cool Down

Battery cool down allows the battery to cool down before use, which allows for increased control of battery rotation, resulting in increased battery efficiency and longer life. Battery cool down can be programmed from the EC2000 keypad from 0-8 hours in one hour increments. After the recharge is complete, the display will read "battery cool down" until the predetermined cool down period has ended, at which time the charge complete LED is illuminated.

### Regulation

The Eclipse is designed to hold the finish voltage rate to within  $\pm 1\%$  and the finish current to within  $\pm 2\%$  over a wide range of line voltage variations.

### Mounting Options

Normally wall mounted, an optional stand is available for rack and floor mounting. With the stand, the chargers can be stacked up to 3 high. Wheels can be added for portability. A wall mounting bracket is included as standard equipment.

### Quiet Fan Cooling

The Eclipse utilizes an advanced fan design to cool the electronics, extending life while providing low sound levels for quiet operation.

## Warranty, 10-3-1

For the original purchaser, repair costs are minimized through a 10 year warranty on power transformers, plus 3 years on electronic PC boards, and 1 year on other components.

## Prevent Overcharging

Back-up timers protect your batteries from overcharging by shutting the charger off in the event that the battery does not reach 80% charged in 9 hours, or does not reach charge complete within 4 hours of reaching the 80% charged point. The charger also monitors the ampere hours returned and if the ampere hours returned exceed the rated ampere hour capacity by 125%, the charger will shutdown, protecting your battery from harmful overcharging. (150% on equalize cycles.)

## Charge Cycle Archive

The Eclipse will collect and save 21 items of charge cycle information for the last 500 charge cycles. This valuable information can then be reviewed manually from the front panel, or it can also be downloaded using our Data-Link system.

## Operating Modes

**Multi-cell:** automatically matches output voltage to battery

**Fixed-cell:** set for specific battery voltage, rejects others

**BID Mode:** information programmed in BID determines charger operation

**Timer Start:** operated as a manual timer for maintenance and shop charging

## Charges all Battery Types

The precisely controlled output of the Eclipse allow this charger to charge all battery types. It charges flooded lead acid batteries as well as Gel Cell and AGM with just a few keypad entries to change the programming. In addition to pre-programmed charging algorithms, there is a programmable custom curve available for special application or future battery developments.

## Battery Identification Module



The functionality of the Eclipse charger can be greatly enhanced through the addition of the optional Battery Identification Module, BID. The BID is programmed with

battery information including rated AH capacity, rated voltage, battery type and more.

Batteries with BID's will be automatically recognized by the charger, allowing the charger to charge at the proper voltage and current levels for the type of battery connected. The BID eliminates any manual charger settings.

## BID with Ampere-Hour Accumulator



When equipped, a battery with an ampere-hour accumulator BID will transmit to the EC2000 control, the updated AH data. The accumulated AH's

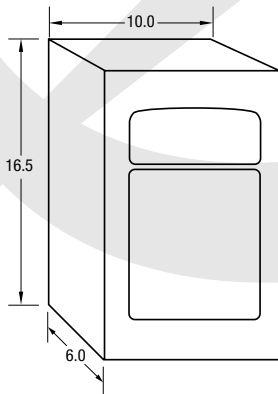
for both charge and discharge cycles are stored in the BID along with the lifetime average battery temperature, and is readable from the EC2000 control and through the Data-Link System.

## BID with Electrolyte Sensor

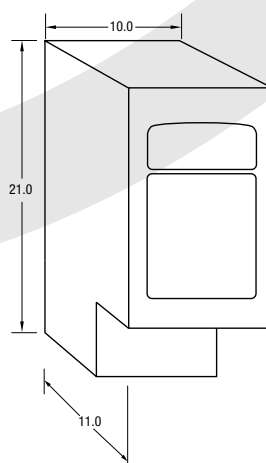


The addition of an electrolyte sensor to the standard BID allows the charger to sense when the connected battery needs to be checked for electrolyte levels. At charge

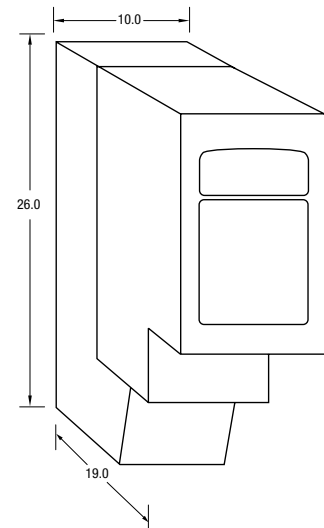
complete, the BID will send a signal to the charger that the electrolyte level is low, and the control will display a message instructing the operator to check the battery.



Eclipse, Single Phase



Eclipse - S Case, 3-Phase



Eclipse - D Case, 3-Phase

Number Battery Cells	Model Number	Maximum Battery Amp-Hour Capacity for 8 Hrs.	DC Output Amps	Phase	AC Input Amps at 240 VAC 60 Hertz-1 ph	AC Input Amps at 480 VAC 60 Hertz-3 ph	Approx. Weight (lbs.)
Single Phase 100%							
6,9,12	300PAC1-12G	300	50	1	7		36
6,9,12	375PAC1-12G	375	60	1	8.2		36
6,9,12	500PAC1-12G	500	80	1	11.0		36
6,9,12	600PAC1-12G	600	100	1	13.6		36
6,9,12	750PAC1-12G	750	120	1	16.0		36
6,9,12,18	500PAC1-18G	500	80	1	16.0		36
Three Phase 100%							
6,9,12	500PACS3-12G	500	80	3		3.5	50
6,9,12	600PACS3-12G	600	100	3		4.2	53
6,9,12	750PACS3-12G	750	120	3		5.2	53
6,9,12	925PACS3-12G	925	150	3		6.3	53
6,9,12	1050PACS3-12G	1050	170	3		7.0	53
6,9,12,18	600PACS3-18G	600	100	3		6.0	50
6,9,12,18	800PACS3-18G	800	130	3		7.8	53
6,9,12,18	925PACS3-18G	925	150	3		9.0	53
6,9,12,18	1050PACS3-18G	1050	170	3		10.5	53
6,9,12,18	1200PACD3-18G*	1200	196	3		11.8	119
6,9,12,18	1400PACD3-18G*	1400	228	3		13.6	121
6,9,12,18	1600PACD3-18G*	1600	260	3		15.6	121
6,9,12,18,24	500PACS3-24G	500	80	3		6.4	50
6,9,12,18,24	600PACS3-24G	600	100	3		8.0	50
6,9,12,18,24	800PACS3-24G	800	130	3		10.5	53
6,9,12,18,24	925PACD3-24G*	925	150	3		12.1	119
6,9,12,18,24	1050PACD3-24G*	1050	170	3		13.6	119
6,9,12,18,24	1200PACD3-24G*	1200	196	3		15.7	119
6,9,12,18,24	1400PACD3-24G*	1400	228	3		18.2	121
6,9,12,18,24	1600PACD3-24G*	1600	260	3		21.0	121
6,9,12,18,24,36,40**	375PACS3-40G	375	60	3		8.0	50
6,9,12,18,24,36,40**	500PACS3-40G	500	80	3		10.5	50
6,9,12,18,24,36,40**	600PACD3-40G*	600	100	3		13.4	115
6,9,12,18,24,36,40**	800PACD3-40G*	800	130	3		17.4	115

\*\* Control does not auto select between 36 and 40 cell. \* Double Pack - D Case  
Note: Some Single Phase models available in 120VAC.

Wall Mounting Bracket included as standard equipment

**Distributed By:**

**Dimensions:**  
1-phase: 16-1/2" H x 10" W x 6" D  
3-phase "S" Case: 21" H x 10" W x 11" D  
3-phase "D" Case: 26" H x 10" W x 19" D

**OPTIONS**

Stand Kit:	197758-001 for 1 ph
	197758-003 for 3 ph "S" Case
	197994-003 for 3 ph "D" Case
Stacking Kit:	197760-012 for 1 ph - 2 high
	197760-013 for 1 ph - 3 high
	197760-032 for 3 ph - 2 high "S" Case
	197760-033 for 3 ph - 3 high "S" Case
	197995-032 for 3 ph - 2 high "D" Case
	197995-033 for 3 ph - 3 high "D" Case
Portable Mtg. Kit w/ Stand:	197759-001 for 1 ph
	197759-003 for 3 ph "S" Case
	198050-001 for 3 ph "D" Case
AC Cord & Wheel Kit:	(Can be added to the Stand Kit for portability.)
	197759-011 for 1 ph
	197759-013 for 3 ph "S" Case & "D" Case
	197760-001 (for one stack) "S" Case ONLY
	197995-001 (for one stack) "D" Case ONLY

Plates & Hdwr. Only for converting stand kit into stacking kit:  
Plates & Hdwr. Only for converting stand kit into stacking kit:



**PRESTOLITE POWER**

Manufactured by **AMETEK** PRESTOLITE POWER

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Because we continually improve our products, specifications are subject to change without notice.  
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