

# Industrial Battery Chargers

*Single and Three-Phase  
Ferroresonant Industrial Battery Chargers*

- > BATTERY-MATE® 100
- > BATTERY-MATE® 80
- > BATTERY-MATE® 60



**AMETEK®**  
PRESTOLITE POWER

# Choosing the right battery charger

The economically priced Battery-Mate family of chargers is industrial rated, value-designed, and extensively engineered to furnish an efficient, problem free charge each time a battery is connected. The inherently efficient ferroresonant circuitry is still the most utilized method of charging flooded lead acid batteries. This 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 every time, based on its depth of discharge.

## Automatic Operation

After the battery is connected, these chargers automatically start the charging operation. When the battery is fully charged, the charger automatically terminates the charge cycle. This insures a complete charge cycle without operator intervention.

## Interchangeable Control Design

The Battery-Mate family of chargers 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 the utmost flexibility and automation of any charging operation.

## Single and Three-Phase Service

The Battery-Mate family of chargers is available in single and three phase models. Each model provides multiple AC input voltages for increased flexibility of the charging operation.

## Easy to Change AC Input Voltage and Adjustable DC Output

AC input reconfigurations take just minutes because of conveniently located taps and quick-connect jumpers. In rare instances where changes to the DC output are required, necessary adjustments are made simple with conveniently located quick-connect jumpers.

## Battery Charger Safeguards

All Battery-Mate chargers are internally protected against overload, short circuit, reverse polarity connection, voltage transients and other unsafe failure modes. These safeguards protect the charger and battery, assuring longer life for both.

## 100% Finish Rate

All Battery-Mate chargers are designed to provide a higher finish rate than any similar rated ferroresonant charger. Because of this higher finish rate, batteries receive the precise recharge characteristics they require to maximize battery life.



## **Battery-Mate® 100**

### **Feature and Benefits:**

- > Charges 100% discharged batteries in 8 hours or less
- > Designed for multiple shift, heavy duty applications
- > Ten year full warranty
- > Interchangeable control design
- > Fail-safe design
- > UL and cUL listed; meets BCI requirements
- > CDAC compatible

## **Battery-Mate® 80**

### **Feature and Benefits:**

- > Charges 80% discharged batteries in 8 hours or less
- > Designed for multiple shift, medium duty applications
- > One year full warranty, plus nine years on power transformers and diodes
- > Interchangeable control design
- > Fail-safe design
- > UL and cUL listed; meets BCI requirements
- > CDAC compatible

## **Battery-Mate® 60**

### **Feature and Benefits:**

- > Charges 80% discharged batteries in 10 hours or less
- > Designed for light duty applications
- > One year full warranty, plus nine years on power transformers and diodes
- > Interchangeable control design
- > Fail-safe design
- > UL and cUL listed; meets BCI requirements

## CONTROLLER FEATURE COMPARISON



### FERRORESONANT

CONTROL FEATURES	AC500	AC1000	AC2000
Automatic start/stop	X	X	X
Modular design for interchangeability	X	X	X
Five second safety delay after connection	X	X	X
Universal control for 6, 12, 18, 24 and 36 cell	X	X	X
Universal control for all AH capacity batteries	X	X	X
Digital display		X	X
Alpha numeric display		X	X
LED lamp test	X	X	X
Maximum over and undercharge protection (PT/DV/DT) termination	X	X	X
Voltage/time charge termination	X	X	X
Delayed start capability		X	X
Time of day start capability			X
Time of day block-out capability			X
Push to start capability		X	X
<b>CHARGE CYCLE REVIEW</b>			
One touch review of charge cycle information		X	X
Ampere hours returned to the battery recorded and displayed		X	X
Battery voltage at start and finish recorded and displayed		X	X
Battery amperage at start and finish recorded and displayed		X	X
Open circuit voltage recorded and displayed		X	X
Charge termination code recorded and displayed		X	X
Elapsed charging time recorded and displayed		X	X
Review data during charge cycle			X
<b>CHARGE STATUS INDICATORS</b>			
Low current shutdown signaled by display or LED indicators	X	X	X
0-80% backup timer signaled by display or LED indicators	X	X	X
80% end backup timer signaled by display or LED indicators	X	X	X
Manual stop signaled by display or LED indicators	X	X	X
AC power applied indication		X	X
Selectable display or readout during the charge cycle			X
80% charged LED	X	X	X
Charge complete LED	X	X	X
Equalize in progress LED	X	X	X
<b>CHARGING FUNCTIONS</b>			
Battery forming, programmable (0-30 cycles)		X	X
Fault lockout capability		X	X
New battery recognition during an AC power failure	X	X	X
AC fail recovery protection	X	X	X
Adjustable 80% point	X	X	X
Battery/charger voltage mismatch discrimination, (hi/lo batt)	X	X	X
Full battery reject		X	X
Low battery voltage override	X	X	X
Battery/charger disconnect shutdown	X	X	X
Back-up timer protection	X	X	X
Refresh charge fixed (72 hours)	X		
Refresh charge programmable (8-99 hours)		X	X
Extended run time, programmable (0-60 minutes)		X	X
Cool down time, programmable (0-8 hours)		X	X
2 times input voltage protection	X	X	X
Push-button stop	X	X	X
Manual equalize push button	X	X	X
Automatic equalize by cycle fixed to every fifth cycle	X		
Automatic equalize by cycle adjustable		X	X
Automatic day of week equalize			X
CDAC system compatibility (with exp. PCB)			X
DataMate system compatibility			X
Battery I.D. programming capability			X
High current shutdown protection			X
Password protection of features settings			X
99 cycles of archived charge cycle data retained			X
Auto equalize by BID cycle			X
Staggered AC fail restore			X

RED X INDICATES FEATURE GAINED BY GOING TO THE NEXT LEVEL CONTROLLER

**AMETEK, Inc.** is a leading global manufacturer of electronic instruments and electric motors with annualized sales of \$1.4 billion. AMETEK has 8,300 colleagues working at more than 70 facilities in the United States and 18 other countries around the world.

**AMETEK Prestolite Power** has been a leader in industrial battery chargers for over 85 years. Formerly Hobart Brothers Battery Charger Division, we have set the industry standard worldwide for superior battery charging solutions. We manufacture ferroresonant and silicon-controlled rectifier (SCR) industrial battery chargers. We also offer complete fleet management systems for material handling applications. Our product line ranges from the flexible, full-featured ULTRA CHARGE family of products with our automatic temperature compensations and multi-cell/multi-ampere capabilities to the economical LTD Charger product offering.

DISTRIBUTED BY:

*AMETEK Prestolite Power reserves the right to change product specifications without notice.*



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