POWERSTAR PLUS™

SCR Opportunity Charger

The PowerStar Plus Delivers Dependable Charging, with Easy operation & Low Energy Costs.

- Simple solution to opportunity charging
- Charges batteries up to 80% in 3 hours or less
- Charge rates as high as 50A/100
- Fail-safe design protects batteries
- Automatically compensates for battery operating temperature with BID
- Compatible with:
  - Battery Identification Module (BID)
  - BID with AH Accumulator
  - Data Link
- No Gassing feature
- Excellent warranty

PowerStar Plus

The PowerStar Plus meets the highest standards for accuracy, efficiency, flexibility and reliability. Designed to recharge batteries from 20% state of charge to 80% state of charge in 3 hours or less. The charger uses SCR power conversion circuitry, which is virtually maintenance free, providing years of dependable service. With the PowerStar Plus, the battery determines its own charge rate based on its state of discharge, electrolyte temperature, and battery age. The charger provides a constant current-constant voltage-constant current (I-E-I) charge curve to eliminate the possibility of overcharge, even with line voltage variations, and it completes the charge at the proper current regardless of battery age or specific gravity.

Opportunity Charging

Opportunity charging is exactly what its name implies: the chance to charge your fleet's batteries at every reasonable opportunity: break times, lunch, shift changes… anytime the operator is off the truck for more than a few minutes.

Opportunity charging can be performed at various rates, with trade offs for each option. A high rate of charge, 40 or 50 amps per 100AH of battery capacity, will generate more heat in the battery and may require battery modifications, but the high rate of charge also returns more ampere hours in a given amount of time. A lower rate of charge, 25-35 amps per 100AH of battery capacity, will allow the battery to run cooler, the battery will not have to be modified, but the amount of ampere hours returned is less than with a high rate opportunity charger in the same amount of time.

The PowerStar Plus opportunity charger can allow you to reduce battery to truck ratios to one-to-one. That means you can eliminate costly battery handling equipment and extra batteries, and further boost your bottom line.

Output Curve Monitoring

The PowerStar Plus's unique curve monitoring feature protects the battery from over or undercharging caused by charger component failure.

AMETEK®
PRESTOLITE POWER

POWERSTAR PLUS™

SCR Opportunity Charger

Temperature Compensation

Temperature remains one of the biggest causes of shortened battery life. With the elevated output currents of opportunity chargers like the PowerStar Plus, it's more important than ever to make sure you can accurately monitor battery electrolyte temperature. That's why the SCR2000 control communicates with the optional Battery Identification Module (BID). The BID not only monitors battery temperature, it allows the charger to compensate by adjusting the output profile to minimize temperature rise, and suspend the charging process if temperatures reach a critical level.

The PowerStar Plus continuously monitors the temperature of the battery through the BID and will adjust its output to provide the maximum charge rate while minimizing temperature rise. The **Maximum Battery Temperature** feature allows you to set the maximum allowable temperature for your batteries as determined by your battery supplier, from 80 to 150 degrees Fahrenheit. If the battery temperature reaches this setting, the charger will shut down and remain in standby until the temperature of the battery cools to a level 5 degrees cooler than the maximum temperature, at which time the charger will resume charging the battery.

BID or BID with AH Accumulator

AMETEK highly recommends the use of a BID or BID with AH Accumulator for any battery being opportunity charged. The BID allows the charger to automatically compensate for the higher electrolyte temperatures normally associated with opportunity charging. To support extended warranties, many battery manufacturers require the use of a device that will monitor and track battery temperature and AH's discharged from the battery. The BID with AH Accumulator satisfies this requirement. Contact your battery supplier for their warranty details.

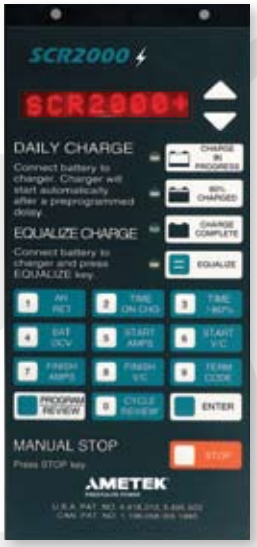
The BID with AH Accumulator continuously samples both charge and discharge current over 100 times each second, capturing and storing every AH of battery throughput, including fast transient truck controller regeneration currents. This AH data and the battery average temperature can be quickly retrieved from the PowerStar Plus via the Data Link, allowing the user to gauge the remaining battery life and utilization.

SCR2000 Plus

Archive the last 99 charge cycles

Automatic compensation for electrolyte temperature

Prevents thermal runaway



Gassing Control Feature

Because opportunity chargers are often installed throughout your facility, you may want to delay the gassing portion of the charge cycle to a time when there are fewer people working and less activity. This user adjustable feature allows you to delay gassing from 1-8 hours. If during your workday, the battery is never on charge for more than one hour, simply set the delay for one hour. If a connected battery reaches the gassing voltage within one hour, the charger will suspend charging. At the end of the delay time, the charger will resume its normal charge routine, taking the battery through the essential gassing portion and finish charge the battery.

Fan Control

Some models of the PowerStar Plus are equipped with a cooling fan, pulling air in through the bottom of the cabinet and exhausting out the top. To minimize operating costs and extend fan life, the fan turns off as soon as the output drops below 30% of its rated capacity.

Warranty/10-3-1

For the original purchaser, repair costs are minimized through a ten-year warranty on power transformers, diodes and silicon controlled rectifiers, plus three years on electronic PC boards and one year on other components.

DISTRIBUTED BY:

BCI MEMBER

MHEDA MEMBER

AMETEK®
PRESTOLITE POWER

Data Sheet: 1339 05/09 Replaces: original

2220 Corporate Drive • Troy, Ohio 45373
Phone: 800.367.2002 • Fax: 800.654.4024
www.prestolitepower.com