



- Optimal Three State Charging
- State of Charge/Service LEDs
- Low Standby Battery Drain
- Customizable Charge Algorithm
- Optional Control/Status Signals
- Optional Temp Compensation
- Vibration Resistant
- Reverse Polarity Protected
- Over Temperature Protected
- Over Current/Voltage Protected
- Waterproof-Hermetically Sealed
- UL/CSA1236 Certified
- Full Two Year Warranty

Description

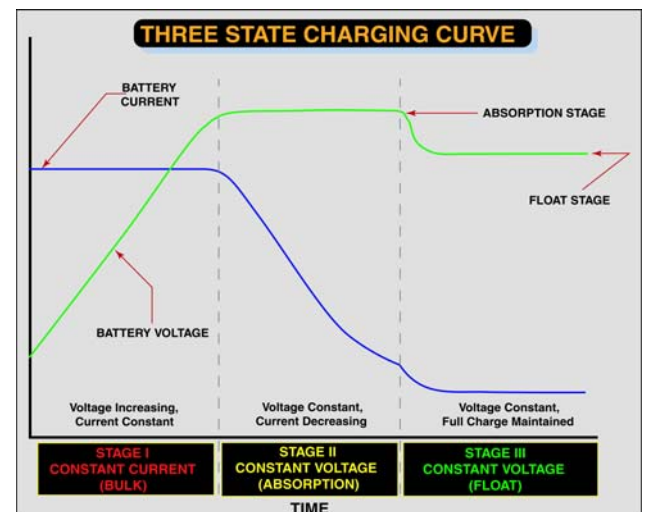
The CT500-5 is a rugged, waterproof and sophisticated three state lead-acid battery charger. With a wide operating temperature range (-20C to 50C) and UL/CSA1236 certification, this product is especially suited for high end industrial applications. The CT500-5 is factory programmable to accommodate several charging algorithms and an LED display

to indicate status. The charger is controlled by an embedded microcontroller that contains software developed by and proprietary to Charge tek. The CT500-5 precisely controls charging voltage and current to insure a complete recharge every time. The charger may be left connected indefinitely to the battery, maintaining full charge at all times.

Charging Specifications

| PARAMETER | DESCRIPTION/CONDITIONS | MIN | NOM | MAX | UNITS |
|--------------|--------------------------------------------------------------------------------|------|------|------|-------|
| V_{FSTERM} | Fast charge termination voltage, 25C | 14.4 | 14.6 | 14.8 | VDC |
| V_{FL} | Float voltage, $I_{OUT} < 1.0 A$, 25 C | 13.4 | 13.6 | 13.7 | VDC |
| I_{FS} | Fast charge current, $V_{BATTERY} = 12V$ | 4.5 | | 5.5 | Amps |
| I_{ABTERM} | Absorption mode charge termination current, Transition from Fast to Absorption | 1.7 | | 2.2 | Amps |
| I_{FLTERM} | Float charge termination current | 0.85 | | 1.5 | Amps |
| I_{SBY} | Standby Current, AC Off | | | 0.5 | ma |

Charging Algorithm: Supplies constant current to battery until V_{FSTERM} . Transition to Absorption Mode follows and regulates battery voltage at V_{FSTERM} until current decreases to I_{ABTERM} . Float Mode follows and regulates battery voltage at V_{FL} .



CT500-5 Datasheet

Input Specifications

| PARAMETER | DESCRIPTION/CONDITIONS | MIN | NOM | MAX | UNITS |
|---------------|------------------------|-----|-----|-----|-------|
| AC Voltage | 47 - 63Hz | 90 | 110 | 132 | VAC |
| Input Current | 90VAC, 15VDC Output | | 2.4 | | Amps |

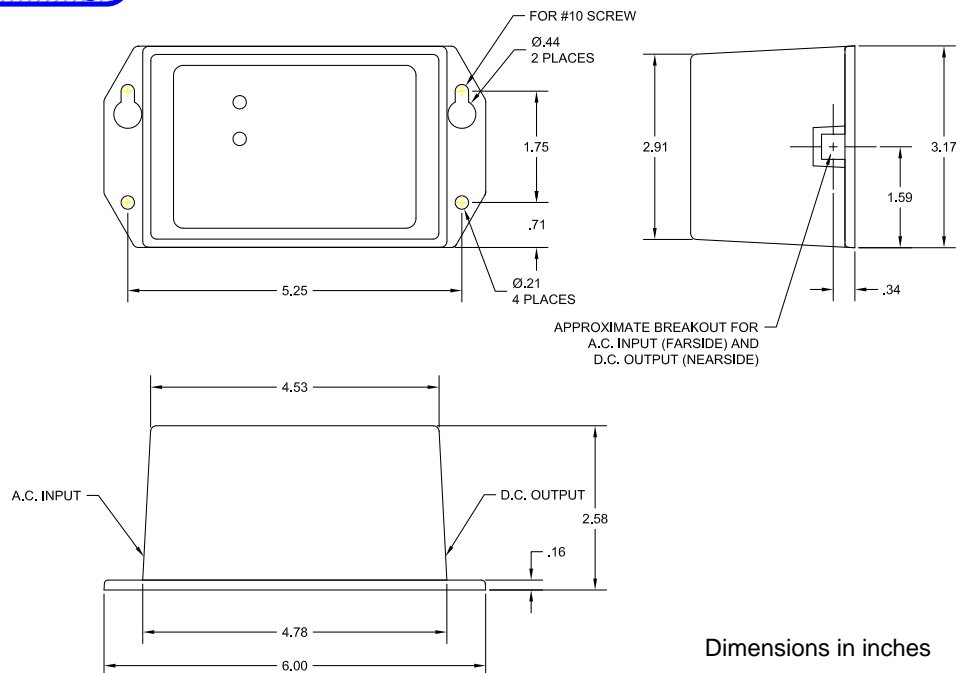
Environmental Specifications

| PARAMETER | CONDITIONS |
|-------------------------------------------|--------------------------------------------|
| Storage Temperature | -40C - 80C |
| Operating Temperature | -20C - 50C |
| Relative Humidity | 0 - 95C Relative Humidity (non-condensing) |
| Input to Output/Chassis Voltage Isolation | 2KV (leakage current less than 1mA) |
| Output to Chassis Voltage Isolation | 50V (can be increased/ consult factory) |

LED Indicators

| PARAMETER | BULK | FLOAT |
|-----------------------------|------|-------|
| State of Charge | Red | Green |
| Service (Return to factory) | Red | |

Outline and Mounting



PLEASE NOTE: Chargetek products are not authorized for use as components in life support systems, hazardous environments, nuclear control systems or other similar applications without the express written consent of the president of Chargetek, Inc. The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.