



- Optimal three stage charging
- State of charge / service LEDs
- Low standby battery drain
- Customizable charge algorithm
- Dual - isolated banks
- State of charge current sharing
- Vibration resistant
- Reverse polarity protected
- Over temperature protected
- Over current / voltage protected
- Waterproof / hermetically sealed
- UL/CSA 1236 certified
- Two year warranty

Description

The CT500-1 is a rugged, waterproof and sophisticated three stage lead-acid battery charger with two isolated banks. With a wide operating temperature range (-20C to 50C) and UL/CSA 1236 certification, this product is especially suited for high end industrial and marine applications. The CT500-1 is factory programmable to accommodate several charging algorithms and an LED display to indicate status. Total out-

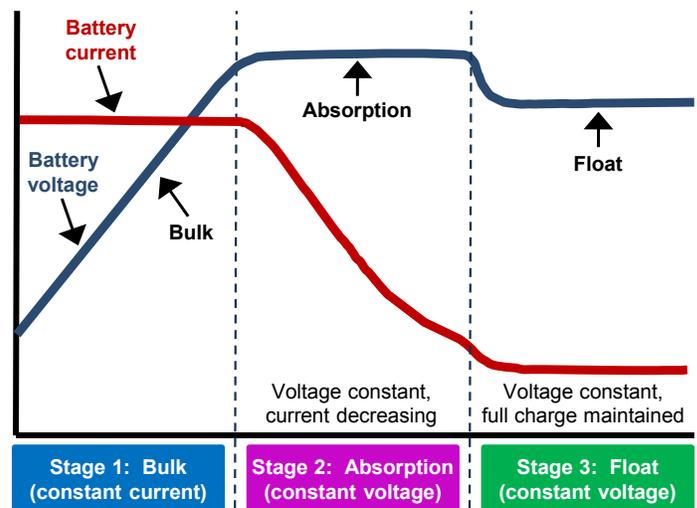
put current is 5 amps and distributed between Bank 1 and Bank 2 depending upon state of charge as 0/5, 5/0, 2.5/2.5 or any other ratio summing to 5 amps. Output current and battery voltage are controlled precisely to insure a complete recharge. The charger may be left connected indefinitely to the battery, 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	13.2	13.4	13.6	VDC
I_{FS}	Fast charge current, $V_{BATTERY} = 24V$	5.0		6.0	Amps
I_{ABTERM}	Absorption mode charge termination current, transition from fast to absorption	2.0		2.5	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} .

Three stage charging curve



CT500-1 Datasheet

Input specifications

PARAMETER	DESCRIPTION / CONDITIONS	MIN	NOM	MAX	UNITS
AC voltage	47 - 63Hz	90	110	132	VAC
Input current	90VAC, 30VDC output		2.3		Amps

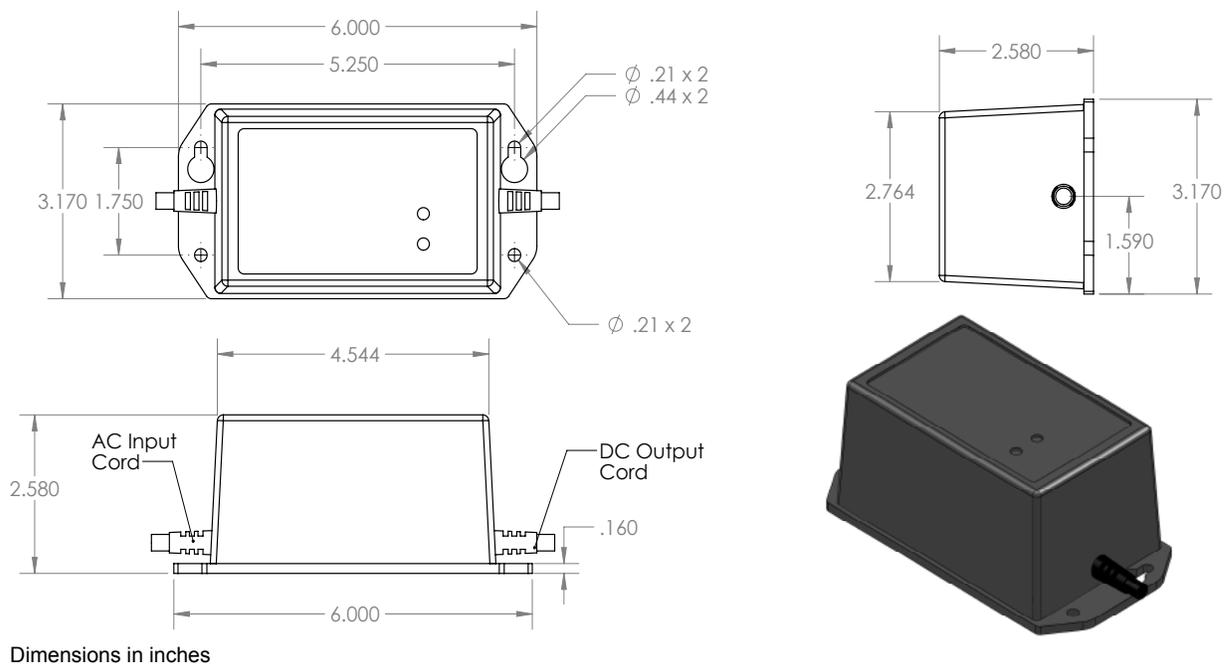
Environmental specifications

PARAMETER	DESCRIPTION / CONDITIONS
Storage temperature	-40°C - 80°C
Operating temperature	-20°C - 50°C
Relative humidity	0 - 95% 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	DESCRIPTION	RED	GREEN
Charging mode	Indicates state of charge	Charging	Float
Service indicator	Indicates a charger failure	Fault	

Outline and mounting



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