TPRO320-1 Datasheet

- Optimal Three State Charging
- State of Charge/Amp/AC 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
- Full Two Year Warranty

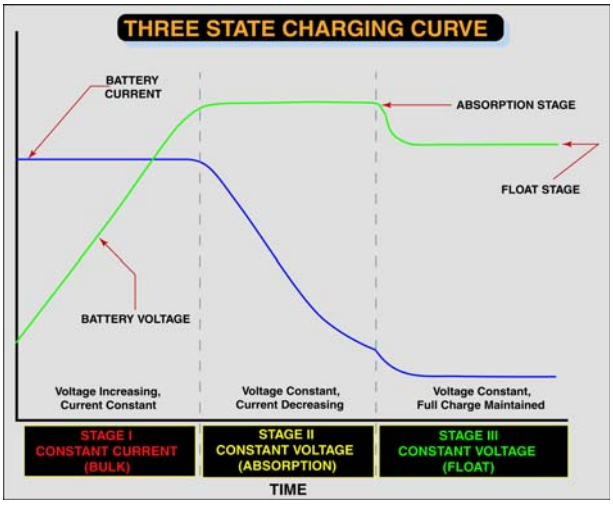
Description

The TPRO320-1 is a rugged, waterproof and sophisiticated three state lead-acid battery charger with three 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 TPRO320-2 is factory programmable to accommodate several charging algorithms and an LED display to indicate status. Total output current of 20 amps is distributed among Banks1, 2 & 3 depending on state of charge as 20/0/0, 0/20/0, 0/0/20, 7/7/7 or any ratio summing to 20 amps. Output current and 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 per Bank

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, (sum of Banks 1,2 & 3)	20	21	22	Amps
I_{ABTERM}	Absorption mode charge termination current,Transition from Fast to Absorption	4.0	5.0	6.0	Amps
I_{FLTERM}	Float charge termination current	2.5	3.0	3.5	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 $V_{FL.}$



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Input Specifications

PARAMETER	DESCRIPTION/CONDITIONS	MIN	NOM	MAX	UNITS
AC Voltage	47 - 63Hz	90	110	132	VAC
Input Current	90VAC, 15VDC Each Output		6.0		Amps

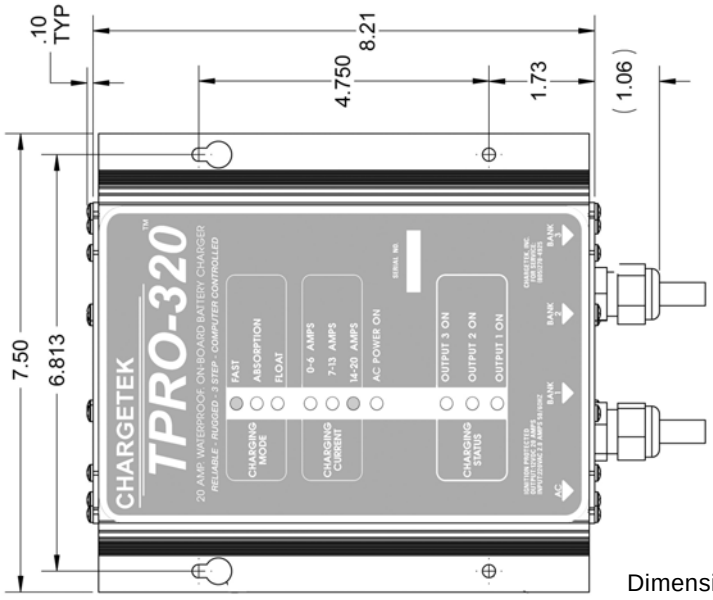
Environmental Specifications

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)

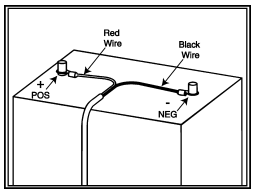
LED Indicators

PARAMETER	RED	YELLOW	GREEN
State of Charge	Bulk	Absorption	Float
Charging Current in Amps	14 - 20	7 - 14	0 - 7
Input AC Power			On
Battery Connected on Bank 1			On
Battery Connected on Bank 2			On
Battery Connected on Bank 3			On

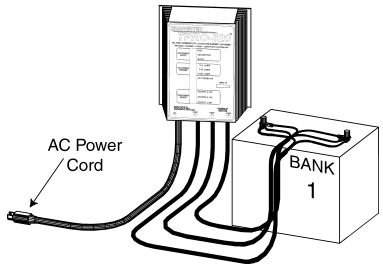
Outline and Mounting



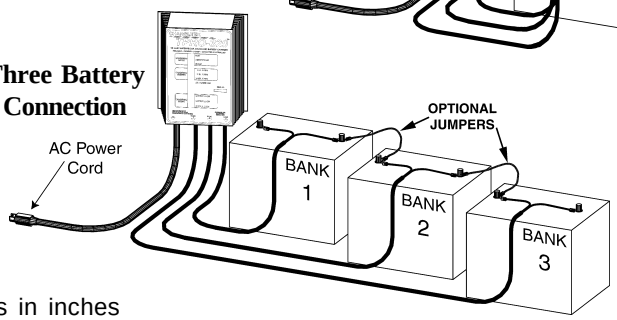
Do not leave any lead set disconnected when charging less than three batteries.



Single Battery Connection



Three Battery Connection



Dimensions in inches

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