

Remote Battery Monitoring System



Features

- ▶ Provides and stores information on critical system functions to help keep track of your battery bank reserve, ensuring adequate power capacity to run appliances.
- ▶ Monitors the total accumulated charge power from sources such as PV arrays, wind power systems, and generator sets.
- ▶ Easy-to-install: Simply mount your meter, connect the shunt to your battery cables, and plug in the communication cable.
- ▶ LED Display allowing easy access to all monitored information.
- ▶ Adjustable flashing LED indicators provide a recharge reminder and warn against low battery voltage.
- ▶ Backed by a two-year warranty.

The TM500A Monitors

- ▶ **Battery Voltage:** From 8 to 32 VDC or expand your range from 16 to 70 VDC with the optional 48 VDC adapter (order separately)
- ▶ **Net Amp Hours:** $\pm 167,000$ amp hours DC
- ▶ **Battery Charge Level:** Indicates low charge, 30 to 90% charge in 5% increments, and full charge.
- ▶ **Cumulative Amp Hours Removed:** Monitors battery bank usage which can be used to estimate battery life.
- ▶ **Days Since Full:** Days since the battery bank was fully charged – encourages proper battery management by warning of system problems.
- ▶ **Battery Highest Voltage:** Monitors charge controllers and battery chargers – can be reset.
- ▶ **Battery Lowest Voltage:** Monitors system to detect malfunctions or failures – can be reset.

Options

- ▶ The TM500A can be ordered with (TM500A) or without (TM500A-NS) a shunt.
- ▶ An optional high voltage shunt board (TM-48) is available for 48 VDC systems. The adapter mounts on the shunt.

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TM500A

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Electrical Specifications

Models	TM500A	TM500A & TM48
Battery Volts	8 - 35 VDC \pm 0.1 VDC	16 - 70 VDC \pm 0.2 VDC
Battery Amps	0.1 - 999 amps DC \pm 1.5% (+ least significant digit)	0.1 - 999 amps DC \pm 1.5% (+ least significant digit)
Resolution	0.1 amp DC (0.1 to 99.9 amps DC)	0.1 amp DC (0.1 to 99.9 amps DC)
	1.0 amp DC (100 to 999 amps DC)	1.0 amp DC (100 to 999 amps DC)
Net Amp Hours	\pm 167,000 amp hours	0.01 - \pm 167,000 amp hours
Battery Level %	Lo, 30 to 90% in 5% increments, Full	Lo, 30 to 90% in 5% increments, Full
Current Draw (Typical)		
Display off	16 mA	16 mA
Display on	32 mA	32 mA
Monitoring Functions		
Days Since Full	0.01 - 655 days – resets if battery is disconnected	0.01 - 655 days – resets if battery is disconnected
Cumulative Amp Hours Removed	0 - 999,000 aH – settings retained if battery disconnected	0 - 999,000 aH – settings retained if battery disconnected
Battery Highest Volts	< 35.1 VDC	<70.2 VDC
Battery Lowest Volts	> 8.0 VDC	> 16.0 VDC

General Specifications

Specified Temperature Range	32 °F to 122 °F (0 °C to 50 °C)
Enclosure Type	Plastic - surface or flush mount
Unit Weight	2.5 lb (1.13 kg)
Shipping Weight	3 lb (1.36 kg)
Dimensions (H x W x D)	3 7/8" x 5 3/8" x 1 1/4" (14 cm x 9.5 cm x 3.2 cm)
Shipping Dimensions	5.25" x 8.75" x 5.5" (13.3 cm x 22.2 cm x 14 cm)
Mounting	Flush or surface mount
Warranty	2 years
Part Numbers	TM500A – meter with shunt, 50' (15 m) communication cable, and low voltage shunt board
	TM500A-NS – meter with 50' (15 m) communication cable and low voltage shunt board for shunt, shunt not included
	TM-48 – high voltage shunt board for 48 VDC systems

Features & Options

Shunt	Deltec 500 amp / 50 mV with plug-in compatibility cable adapter and cable
Display	3½ digit, 7 segment, red LED numeric display with 4 additional LED indicators, including warning indicators