TROJAN BATTERY COMPANY

DATA SHEET

SOLAR SAES 12 135

MODEL **SAES 12 135**
VOLTAGE **12**
CAPACITY **134Ah @ 20Hr**
MATERIAL **Polypropylene**
BATTERY **VRLA AGM / Non-Spillable / Maintenance-Free**
COLOR **Maroon**
WATERING **No Watering Required**
IEC 61427 **8+ Years Life**

12 VOLT

PHYSICAL SPECIFICATIONS

MODEL NAME	TERMINAL TYPE	DIMENSIONS [B] INCHES (mm)			WEIGHT [F] LBS. (kg)	HANDLES	INSTALLATION ORIENTATION
		LENGTH	WIDTH	HEIGHT [C]			
SAES 12 135	M8/LT	12.96 (329)	7.06 (179)	10.96 (278)	85 (39)	Embedded	Horizontal and Vertical

ELECTRICAL SPECIFICATIONS

VOLTAGE	CAPACITY [A] AMP-HOURS (Ah)					ENERGY (kWh)	INTERNAL RESISTANCE (mΩ)	SHORT CIRCUIT CURRENT (amps)
	10-Hr	20-Hr	48-Hr	72-Hr	100-Hr	20-Hr		
12	115	134	140	142	144	1.60	4.3	2920

CHARGING INSTRUCTIONS

CHARGER VOLTAGE SETTINGS (AT 77°F/25°C)				
SYSTEM VOLTAGE	**12V**	**24V**	**36V**	**48V**
Maximum Charge Current (A)	50% of C_{20}			
Absorption Voltage (2.40 V/cell)	14.40	28.80	43.20	57.60
Float Voltage (2.25 V/cell)	13.50	27.00	40.50	54.00

Do not install or charge batteries in a sealed or non-ventilated compartment. Constant under or overcharging will damage the battery and shorten its life as with any battery.

CHARGING TEMPERATURE COMPENSATION

ADD	SUBTRACT
0.005 volt per cell for every 1°C below 25°C 0.0028 volt per cell for every 1°F below 77°F	0.005 volt per cell for every 1°C above 25°C 0.0028 volt per cell for every 1°F above 77°F

OPERATIONAL DATA

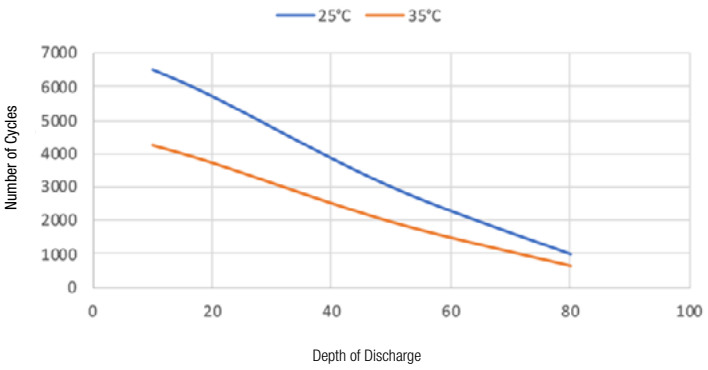
OPERATING TEMPERATURE	SELF DISCHARGE
-40°F to 140°F (-40°C to +60°C). At temperatures below 32°F (0°C) maintain a state of charge greater than 60%.	Less than 3% per month depending on storage temperature conditions.

RECYCLE RESPONSIBLY

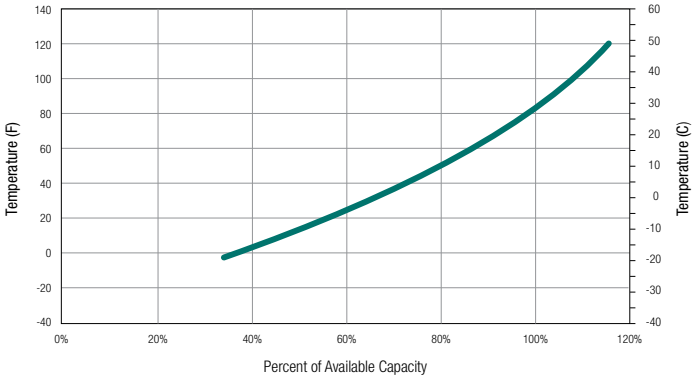
STATE OF CHARGE MEASURE OF OPEN-CIRCUIT VOLTAGE

PERCENTAGE CHARGE	CELL	12 VOLT
100	2.14	12.84
75	2.09	12.54
50	2.04	12.24
25	1.99	11.94
0	1.94	11.64

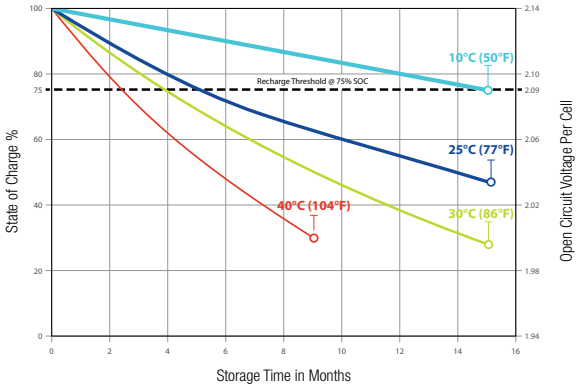
SOLAR CYCLE VS DEPTH OF DISCHARGE



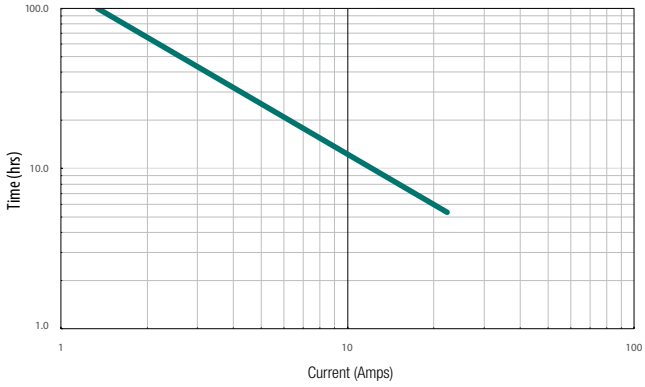
PERCENT CAPACITY VS. TEMPERATURE



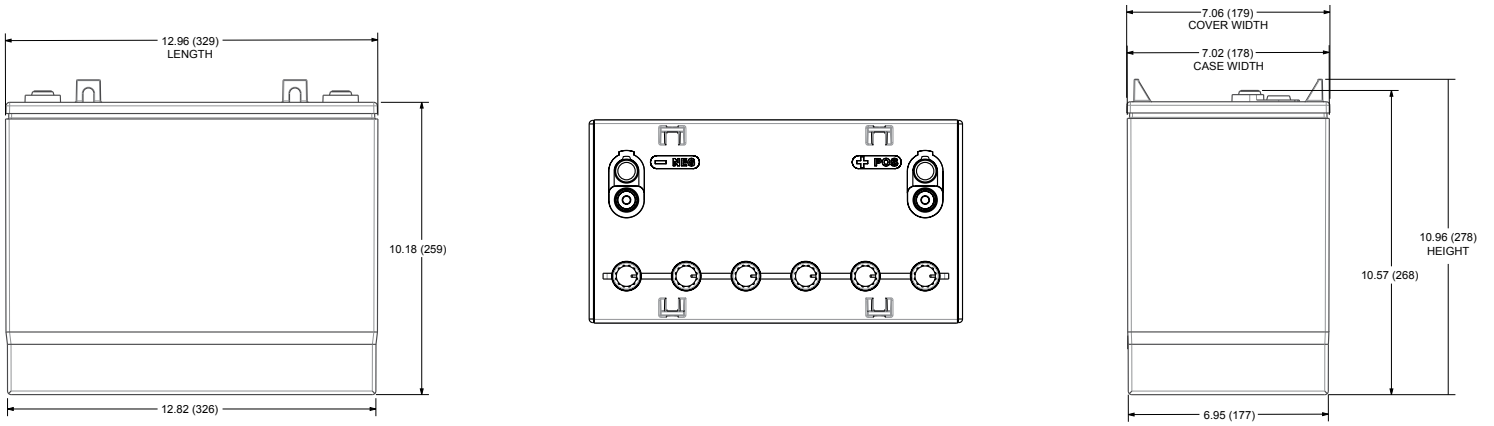
SELF DISCHARGE VS. TIME [E]



TROJAN SAES 12 135 PERFORMANCE



BATTERY DIMENSIONS (shown with M8, height is 12.07 (307) with LT)



TERMINAL TYPE [D]

15 M8	M8
	**Battery Height with Terminal in Inches (mm)** 10.57 (268) **Torque Values in-lb (Nm)** Bolt: 85 – 90 (10 – 11)

15 M8	M8 WITH LT ADAPTER (ADAPTER PROVIDED BUT NOT INSTALLED)
	**Battery Height with Terminal in Inches (mm)** 12.07 (307) **Torque Values in-lb (Nm)** Connection to M8: 85 – 90 (10 – 11) Connection to LT: 65 – 75 (7.5 – 8.5) **Bolt Size** M8 x 1.25

A. The amount of amp-hours (Ah) a battery can deliver when discharged at a constant rate at 86°F (30°C) for all rates and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
B. Dimensions may vary depending on type of handle or terminal. Batteries should be mounted with 0.5 inches (12.7 mm) spacing minimum.
C. Height taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.
D. Terminal images are representative only.
E. Batteries in storage should be charged when they decline to 75% State of Charge (SOC).
F. Weight may vary.

Designed in compliance with applicable BCI, DIN, BS and IEC standards.
Tested in compliance to BCI and IEC standards.

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