



# NATIONWIDE BATTERY



## SOLAR

TRUE DEEP-CYCLE AGM

### SAGM 12 205



**BEST VALUE IN SOLAR & STORAGE APPLICATION**

#### • MAINTENANCE FREE – AGM VALVE REGULATED

- BCI Group N/A, 12V
- Reserve Capacity [Ah@20hr rate]: 205
- Reserve Capacity [Ah@100hr rate]: 216
- Energy [kWh]: 2.46
- Weight: 125 (57) lbs.
- Length: 14.97 in (380 mm)
- Width: 6.94 in (176 mm)
- Height: 14.07 in (357 mm)
- M8/LT terminal



Maintenance free



IEC61427



### Deep-Cycle Solar AGM

Engineered for best value and worry-free storage, **Trojan Solar AGM** maintenance-free batteries can be counted on day in and day out as a reliable power source for a wide range of off-grid and unreliable grid applications, including:

- Remote micro-grids
- Solar street signs/lights
- Off-grid cabins/tiny house
- Oil & gas
- Solar home systems
- Residential & commercial backup
- Telecom

## Designed for Best Value in Solar + Storage Applications



### DEEP-CYCLE SOLAR

*Daily use in off-grid or poor-grid applications*

- Remote micro-grids
- Solar street signs/lights
- Off-grid cabins/tiny house
- Oil & gas
- Solar home systems
- Residential & commercial backup
- Telecom



### RUGGED CONSTRUCTION

*Proven Trojan engineering excellence*

- Ruggedized polypropylene case
- Optimized paste formulation for deep-cycle operation
- Reinforced cell compression
- Flame arrestors
- Manufacturing excellence
- Abuse tolerant and safe

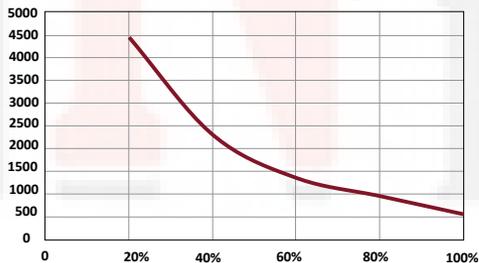


### MAINTENANCE FREE

*Ultimate in long-life maintenance-free*

- Premium absorbed glass mat separator
- Horizontal and vertical installations
- Top-facing or front-facing terminals for ease of installation

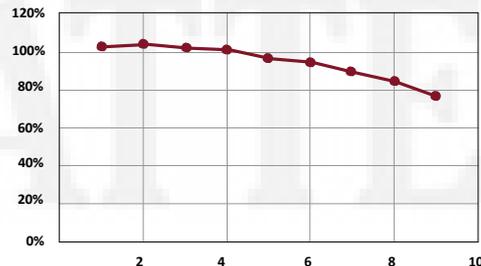
Trojan Solar Cycle Life vs. Depth of Discharge



#### Long Life in Solar Applications

- High cycle life
- Partial SOC operation
- Deep discharge capability

Sustained Capacity over IEC Life Test



#### Sustained Capacity

- Maintains high capacity throughout life, unlike typical VRLA batteries
- Ensures reliability and functionality for life



#### Most Usable Energy

- Highest Ah and kWh throughput
- Lowest cost of energy over lifetime
- Best overall battery value

MODEL SAGM 12 205  
 VOLTAGE 12V  
 CAPACITY 205Ah @ 20Hr  
 MATERIAL Polypropylene  
 BATTERY COLOR VRLA AGM / Non-Spillable / Maintenance-Free  
 WATERING Maroon  
 IEC 61427 No Watering Required 8+ Years Life



12V

### PRODUCT + PHYSICAL SPECIFICATIONS

Model	Terminal Type <sup>2</sup>	Dimensions <sup>3</sup> Inches (mm)			Weight Lbs. <sup>4</sup> (kg)	Handles	Installation Orientation
		Length	Width	Height			
SAGM 12 205	M8/LT	14.97 (380)	6.94 (176)	14.07 (357)	125 (57)	Braided Rope	Horizontal and Vertical

### ELECTRICAL SPECIFICATIONS

Voltage	Capacity <sup>A</sup> Amp-Hours (Ah)					Energy kWh	Internal Resistance (mΩ)	Short Circuit Current (A)
	10-Hr	20-Hr	48-Hr	72-Hr	100-Hr			
12V	174	205	210	213	216	2.46	4.5	2790

### CHARGING INSTRUCTIONS

System Voltage	Charger Voltage Settings (at 77°F/25°C)					
	6V	8V	12V	24V	36V	48V
Bulk	20% of C <sub>20</sub>					
Absorption Charge (2.40VPC)	7.20	9.60	14.40	28.80	43.20	57.60
Float Charge (2.25 VPC)	6.75	9.00	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

Add	Subtract
0.005 volt per cell for every 1°C below 25°C	0.005 volt per cell for every 1°C above 25°C
0.0028 volt per cell for every 1°F below 77°F	0.0028 volt per cell for every 1°F above 77°F

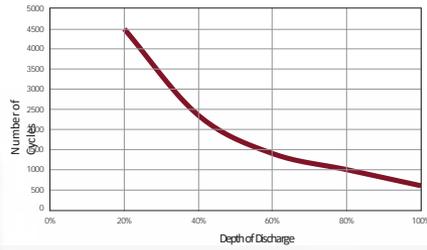
### OPERATIONAL DATA

Operating Temperature	Self Discharge
-4°F to 122°F (-20°C to 50°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

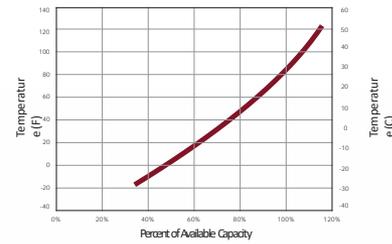
### STATE OF CHARGE MEASURE OF OPEN-CIRCUIT

Percentage Charge	Cell	6 Volt
100	2.14	6.42
75	2.09	6.27
50	2.04	6.12
25	1.99	5.97
0	1.94	5.82

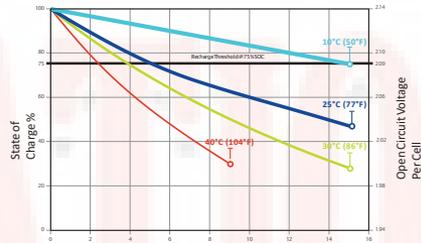
### SOLAR CYCLE-LIFE



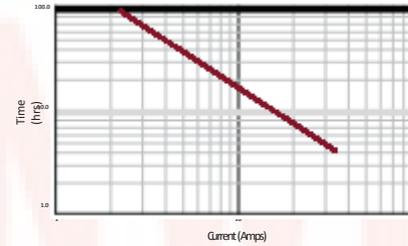
### CAPACITY VS. OPERATING TEMPERATURE



### SELF DISCHARGE VS. TIME<sup>E</sup>

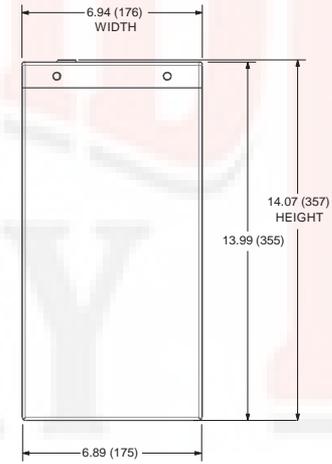
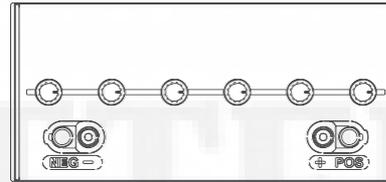
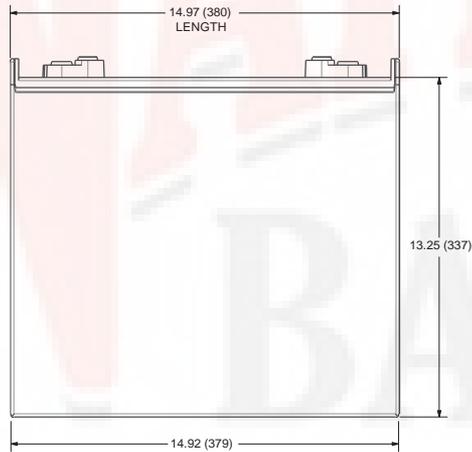


### TROJAN SAGM 12 205 PERFORMANCE



### BATTERY DIMENSIONS

Dimensions Inches (mm) - shown with M8, height is 12.07 with LT



### TERMINAL CONFIGURATIONS

#### M8



Battery Height with Terminal in Inches (mm)  
10.57 (268)

Torque Values: in-lb (Nm)  
Bolt: 85 - 90 (10 - 11)

#### 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 1.75V/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. A boost charge should be performed every 6 months when batteries are in storage.  
F. Weight may vary.