

DATA SHEET

SOLAR

TRUE DEEP-CYCLE AGM

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



12V

PRODUCT + PHYSICAL SPECIFICATIONS

Model	Terminal Type ^D	Dimensions ^B Inches (mm)			Weight Lbs. ^F (kg)	Handles	Installation Orientation
SAGM 12 205	M8/LT	Length	Width	Height ^C	131 (59)	Braided Rope	Horizontal and Vertical
		14.97 (380)	6.94 (176)	14.07 (357)			

ELECTRICAL SPECIFICATIONS

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

CHARGING INSTRUCTIONS

Charger Voltage Settings (at 77°F/25°C)						
System Voltage	6V	8V	12V	24V	36V	48V
Bulk	20% of C ₂₀					
Absorption Charge (2.40 VPC)	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 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

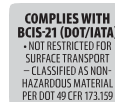
Operating Temperature	Self Discharge
-4°F to 122°F (-20°C to 50°C) At temperatures below 32°F (0°C) maintain a state of charge greater than 60%	Less than 3% per month depending on storage temperature conditions

STATE OF CHARGE MEASURE OF OPEN-CIRCUIT 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



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



Depth of Discharge (%)	Number of Cycles
0	5000
20	4800
40	4600
60	4300
80	4300
100	2000

The graph illustrates the relationship between temperature and the percent of available capacity. The x-axis represents the Percent of Available Capacity, ranging from 0% to 120%. The left y-axis represents Temperature in degrees Fahrenheit (°F), ranging from -40 to 140. The right y-axis represents Temperature in degrees Celsius (°C), ranging from -40 to 60. Two curves are plotted: a red curve for Temperature (°F) and a blue curve for Temperature (°C). The red curve starts at approximately 10°F at 0% capacity and decreases to approximately -30°F at 45% capacity. The blue curve starts at approximately -10°C at 35% capacity and increases to approximately 50°C at 120% capacity.

Percent of Available Capacity	Temperature (°F)	Temperature (°C)
0%	10	-
20%	0	-
35%	-15	-10
45%	-30	-
60%	-	0
80%	-	15
100%	-	35
120%	-	50

The graph illustrates the self-discharge rate of a battery over a 16-month period at four different temperatures. The State of Charge (SOC) starts at 100% and decreases over time. The Recharge Threshold is set at 75% SOC.

Storage Time (Months)	10°C (50°F) SOC (%)	25°C (77°F) SOC (%)	40°C (104°F) SOC (%)	30°C (86°F) SOC (%)
0	100	100	100	100
2	98	95	85	92
4	96	88	70	84
6	94	80	55	76
8	92	72	40	68
10	90	64	25	60
12	88	56	-	52
14	86	48	-	44
16	84	40	-	36

6.94 (176)
WIDTH

14.07 (357)
HEIGHT

13.99 (355)

6.89 (175)

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.