

EV12-50

12V 50Ah / 10hr rate

BATTERY Samson

Introduction

Samson EV AGM Series is designed for tough applications and repeated deep discharging. It is superior with the long cycle life, large current discharge capability, high reliability and safety. The range is the definitive choice for golf cart, electric medical equipment, automated guided vehicles (AGV), aerial lifts, floor cleaning equipment, robotics applications.

Battery Features

- Extra long cycle life and resistance to mechanical stress and the elements all in one battery.
- Maintenance-free
- Very high purity lead (purity rate 99.994%)
- Traction heavy duty grid design gives consistent active material adhesion and corrosion resistance.
- Fully tank formed plates for evenly formed and capacity matched plates.
- Low impurity electrolyte
- Recognized gas recombination efficiency greater than 99.9%
- Flame arresting pressure regulated safety sealing valves for safety.
- Low self-discharge
- Classified as non-spillable and not restricted for transportation by
 - > Air (IATA/ICAO provision 67)
 - > Surface (DOT-CFR-HMR49)
 - > Water (per IMDG amendment 27)

Electrical Specification

Design floating Life @ 25°C /77°F 10 years

Design Life Cycles @ 80% D.O.D. (25°C) 450 Cycles

Nominal Capacity @ 25°C /77°F

100	hour rate	0.54 to 1.75Vpc	60 Ah
10	hour rate	4.5 A to 1.75Vpc	50 Ah
5	hour rate	8.1 A to 1.75Vpc	45 Ah
3	hour rate	12 A to 1.70Vpc	40 Ah
1	hour rate	27 A to 1.60Vpc	30 Ah

Minutes of Discharge

25A to 10.5V 92 56A to 10.2V 35

75A to 10.2V 23 85A to 10.2V 19

100A to 10.2V 15

Cranking Amps

0°C /32°F 260 -18°C /0°F 215

Internal Resistance

(Fully charged battery @ 25°C /77°F) 9 mΩ

Max. Discharge Current @ 25°C /77°F 450 A (5S)

Short Circuit Current 800 A

Charge Methods: Constant voltage charge @ 25°C /77°F

Cycle Use 14.7 ~ 14.9V

Max. Current 12.5A

Standby Use 13.6 - 13.8V

Operating Temperature Range -20 ~ 60°C

Notes: battery voltage must be adjusted according to temperature.

Please refer to our recommendation.

Self-Discharge

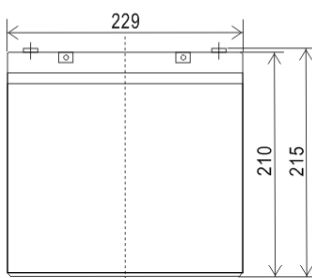
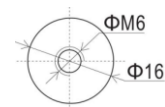
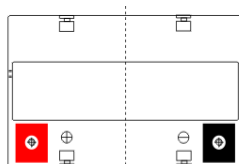
3% of capacity declined per month @ 25°C (77°F).

Battery Picture & Terminal Layout



Terminal Type: Female M6

Terminal Torque: 9-11 Nm



Dimension & Weight

Length	Dimension (± 2mm)			Weight (± 2%)
	Width	Height	Total Height	
229 mm	138 mm	208 mm	212 mm	18,2 kg
9,0 inch	5,4 inch	8,2 inch	8,3 inch	40,1 lbs

Typical Applications

- Golf Cart
- Tour Bus
- Electric Medical Equipments
- Aerial and Fork Lifts
- Automated guided vehicles (AGV)
- Golf Trolley
- Sweeper
- Floor Cleaning Machines
- Marine and RV

Other relevant information

Contry of origin: **China** HS Code (harmonized system code): **85 07 10 00**

UN-Transport declaration: **UN2800** Customs tariff number **8507 10 20 80**

Cetificates

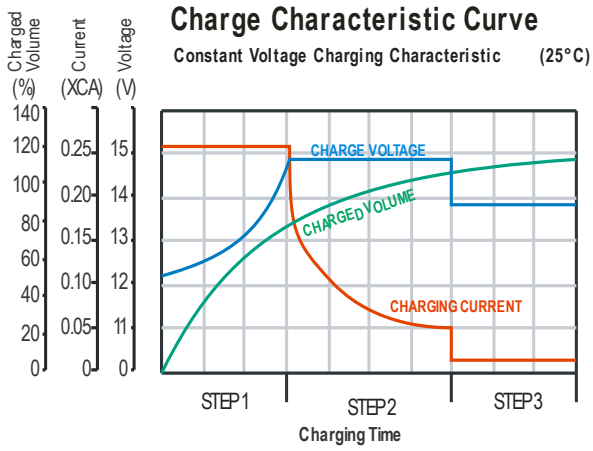


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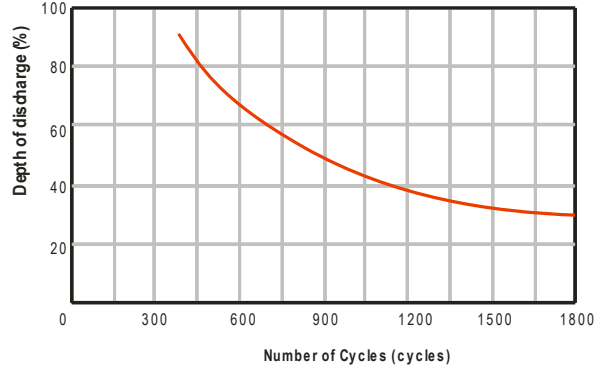
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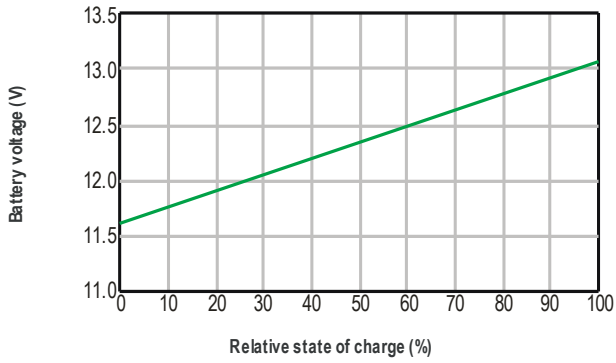
Graphs



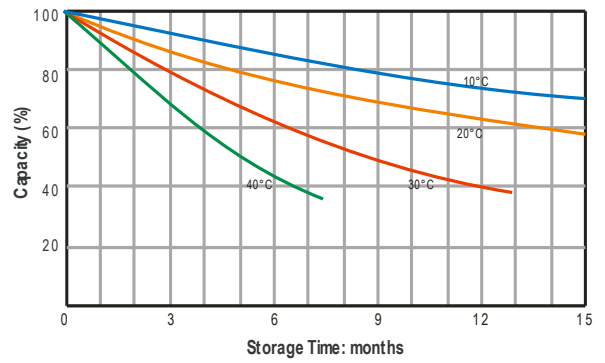
Cycle Service Life V.S. Depth Of Discharge



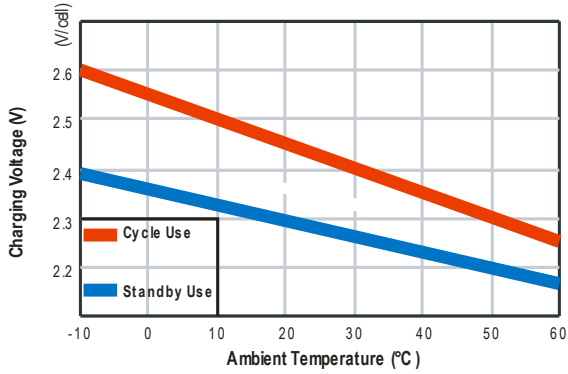
OCV V.S. State of Charge (20°C)



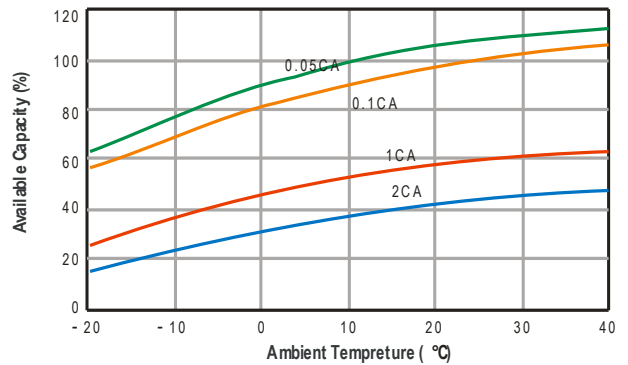
Self-Discharge Characteristic



Charging Voltage V.S. Temperature



Temperature Effects On Capacity



Subject to revision without notice. Please contact our sales representatives for latest version.