

# EVG12-45

12V 45Ah / 10hr rate



## Introduction

**Samson EV GEL 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			54 Ah
10 hour rate 4.5 A to 1.75Vpc			45 Ah
5 hour rate 8.1 A to 1.75Vpc			40.5 Ah
3 hour rate 12 A to 1.70Vpc			36 Ah
1 hour rate 27 A to 1.60Vpc			27 Ah
Minutes of Discharge			
25A to 10.5V	80	56A to 10.2V	30
75A to 10.2V	20	85A to 10.2V	17
100A to 10.2V	13		
Cranking Amps			
0°C /32°F	235	-18°C /0°F	195
Internal Resistance			
(Fully charged battery @ 25°C /77°F )	6.5 mΩ		
Max. Discharge Current @ 25°C /77°F	400 A (5S)		
Charge Methods: Constant voltage charge @ 25°C /77°F			
Cycle Use	14.7 ~ 14.9V		
Max. Current	11.0A		
Standby Use	13.6 - 13.8V		
Operating Temperature Range	-20 ~ 60°C		
<i>Notes: battery voltage must be adjusted according to temperature. Please refer to our recommendation.</i>			
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	
197 mm	165 mm	170 mm	170 mm	13,5 kg
7,8 inch	6,5 inch	6,7 inch	6,7 inch	29,8 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

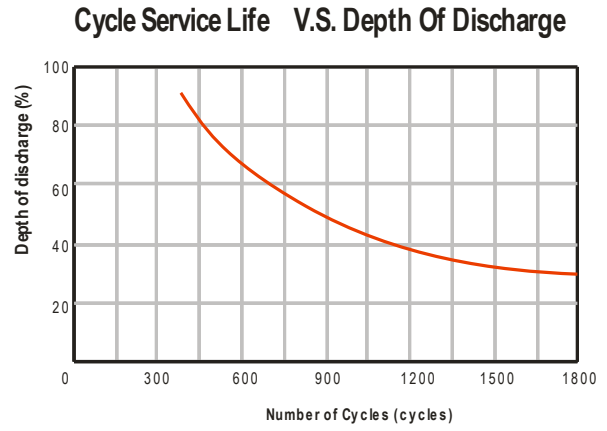
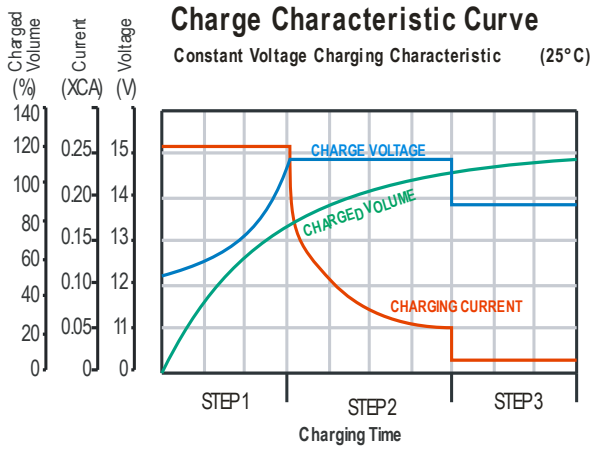


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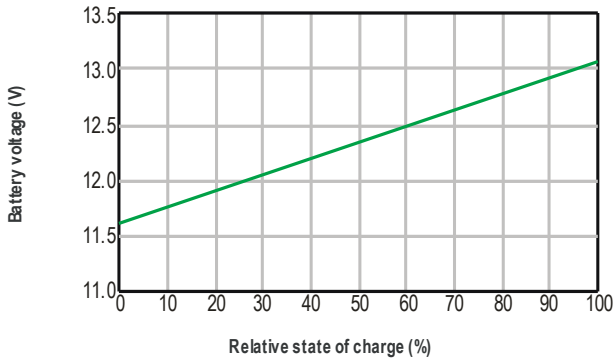
12V 45Ah / 10hr rate



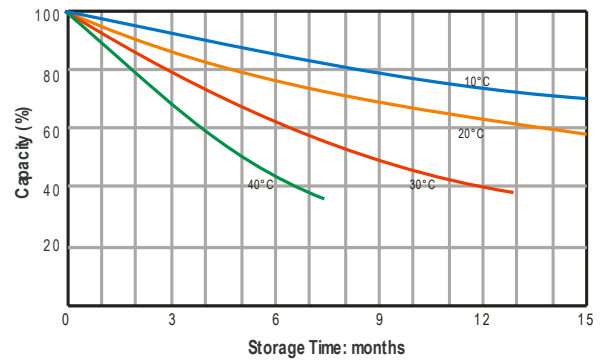
**Graphs**



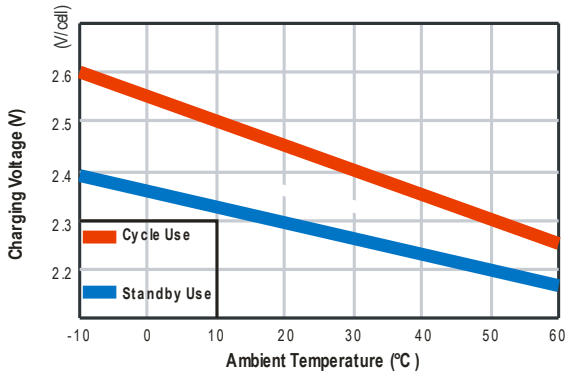
### OCV V.S. State of Charge (20°C)



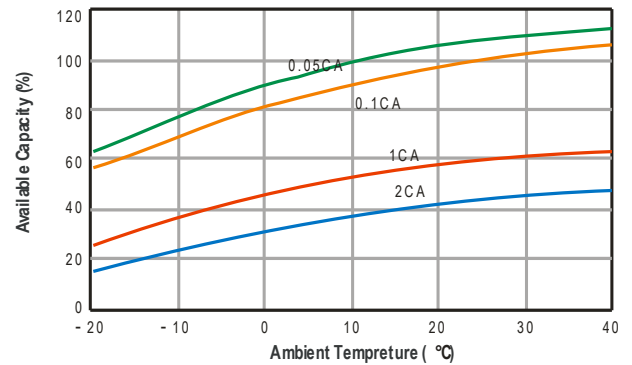
### Self-Discharge Characteristic



### Charging Voltage V.S. Temperature



### Temperature Effects On Capacity



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

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