

## 12V 14L SLA Battery

Capacity (25°C)	20HR (0.67A, 10.5V) = 13.4AH 10HR (1.30A, 10.5V) = 13.0AH 5HR (2.25A, 10.5V) = 11.3AH 1HR (9.2A, 10.5V) = 9.2AH
Operating Temperature Range	Charge = -15°C to +50°C Discharge = -20°C to +60°C Storage = -20°C to +60°C
Approx. Weight	4.6kg
Internal Resistance	Fully charged at $25^{\circ}C : \le 18m\Omega$
Self Discharge	3% per month at (25°C)
Capacity Affected by Temp. (20HR)	40°C = 102% 25°C = 100% 0°C = 85% -15°C = 65%
Charge Voltage (25°C)	Cycle Use = 14.4-14.7V (-30mV/°C) Max Current = 3.9A Float Use = 13.5-13.8V (-20mV/°C)
Dimensions (Nominal)	Length: 218mm (8.58 in.) Width: 71mm (2.80 in.) Height: 141mm (5.53 in.) Total Height: 141mm (5.53 in.)



- Completely sealed, maintenance-free, low self-discharge
- State of the art AGM and grid alloy formula technology
- Non-spillable, stable quality and high reliability with excellent re-charging performance
- Floating and standby use up to: 5 years
- Cycle use: Up to 260 cycles at 100% DoD
- Cycle use: Up to 500 Cycles at 50% DoD
- Container and Cover Material ABS UL94-HB
- Batteries UL1989 Certified



\*Pictures are for reference only





# Terminal Type



REV V1.0

# GA31462001 12V 13AH

## Effect of Temperature on Capacity 25°C (77°F)



#### Trickle (or Float) Service Life



## **Capacity Retention Characteristic**



#### Cycle Service Life



#### Regular Charge / Float Charge / Storage

- Charging voltage temperature compensation needs to be applied when temperature is below 0°C and above +45°C.
- Charging in temperatures below 0°C, the charge current should not exceed 0.1C as the core battery temperature can increase rapidly and damage the battery.
- During floating charge or when in storage, the life of the battery is cut in half for every 8°C temperature rise over 25°C.

#### Discharge

- · Discharging at elevated temperatures improves performance of the battery yet shortens its life due to accelerated aging.
- Low temperature affects the battery internal resistance and lowers its capacity. The battery provides 100% specified capacity at 25°C. It will deliver 50% of its stated capacity at -20°C with 0.1C discharge current and 20% with 2C discharge current.

Constant Current Discharge (A) at 25°C (77°F)											
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	10h	20h
1.85V/cell	40.2	27.8	21.9	12.3	8.87	4.55	3.10	2.57	2.13	1.25	0.64
1.80V/cell	44.7	30.3	23.3	13.1	9.07	4.71	3.30	2.62	2.19	1.27	0.65
1.75V/cell	48.1	31.8	24.2	13.7	9.20	4.83	3.38	2.67	2.25	1.30	0.67
1.70V/cell	51.5	33.2	25.1	14.1	9.32	4.92	3.45	2.72	2.31	1.32	0.68
1.67V/cell	53.0	33.7	25.4	14.1	9.37	4.96	3.48	2.75	2.33	1.33	0.69
1.60V/cell	57.7	35.3	26.5	14.6	9.53	5.05	3.55	2.83	2.41	1.35	0.71

Constant Power Discharge (W) at 25°C (77°F)											
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	10h	20h
1.85V/cell	73.0	51.8	41.7	22.6	16.9	8.73	5.97	5.03	4.27	2.43	1.23
1.80V/cell	81.2	56.6	44.3	24.5	17.5	9.20	6.34	5.22	4.41	2.54	1.29
1.75V/cell	87.3	59.3	46.0	26.1	18.0	9.47	6.55	5.38	4.54	2.59	1.33
1.70V/cell	93.6	61.9	47.6	27.4	18.4	9.73	6.73	5.51	4.64	2.64	1.37
1.67V/cell	96.5	62.8	48.1	27.7	18.5	9.80	6.77	5.55	4.68	2.66	1.38
1.60V/cell	105	65.9	50.3	28.4	18.9	10.1	6.93	5.68	4.84	2.72	1.43

**REV V1.0**