SMARTRONICS

MH26866

12-9E 301

12V 9Ah

Valve Regulated Lead Acid Battery / AGM Technology

P# 12-9E 301

*E: Economic series

Specifications

Nominal Voltage(V)		12V
Nominal Capacity		
20 hr rate	(0.450A to 1.750V/cell,25°C (77°F)	9AH
10 hr rate	(0.82A to 1.750V/cell,25°C (77°F)	8.2AH
5 hr rate	(1.54A to 1.750V/cell,25°C (77°F)	7.7AH
1C	(5.8A to 1.60V/cell,25°C (77°F)	5.8AH
Weight		Approx. 2.8 kg (6.178lbs)
Internal Resistance		Approx. 18mΩ
Maximum Discharge Current		135A (5sec)

Charging Methods at 25°C (77°F)

Cycle use:

Initial Charging Current less than	3.6A
Charging Voltage	2.40~2.45VPC
Coefficient	-30mV/°C

Standby use:

No limit on Initial Charging Current Voltage	
Charging Voltage	2.23~2.30VPC
Coefficient -20.0mV/°C	-20mV/°C

Operating Temperature Range

Charge	-10~60°C (14~140°F)
Discharge	-20~60°C (-4~140°F)
Storage	-20~60°C (-4~104°F)
Case Material	ABS
Terminal	F2

Description of torque value of hard ware for the terminals

Recommended torque value	M6: 7 N-m (122kgf-cm)
Maximum allowable torque value	M6: 9 N-m (153kgf-cm)

Self-Discharge

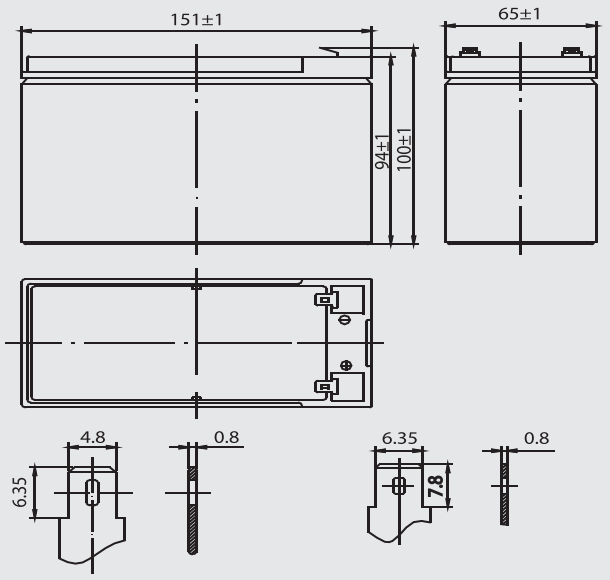
This series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.

For: Backup Power i.e. UPS, ...

Design life:

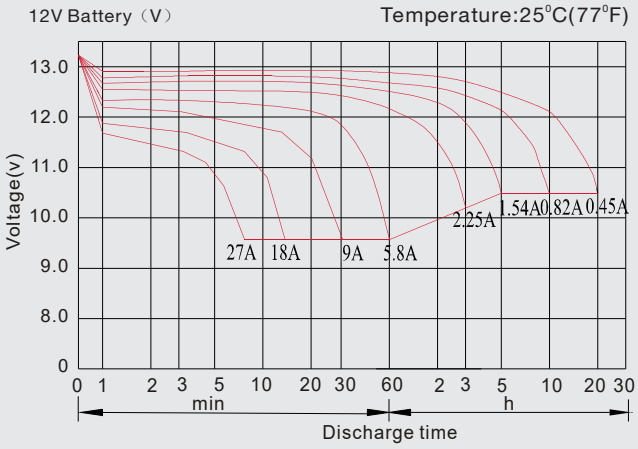
3-5 years (Ambient Temperature 20°c)

Dimensions



Terminal F1 Terminal F2(optional)

Discharge Characteristics



Constant Current Discharge (Amperes) at 25 °C (77°F)

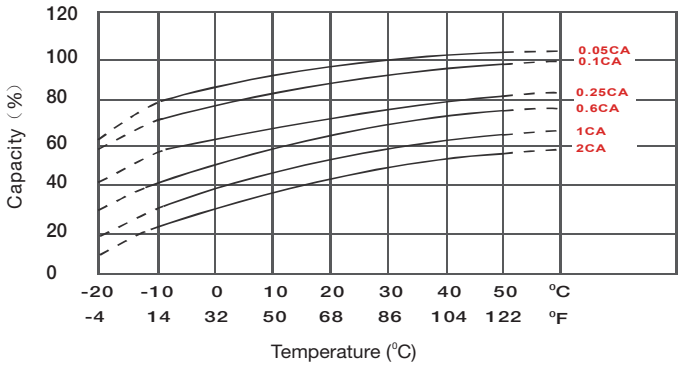
F.V (V/cell) \ Time	5min	10min	15min	30min	60min	3h	5h	10h	20h
1.80	29.6	21.0	13.9	8.45	5.51	2.14	1.53	0.82	0.44
1.75	30.3	22.1	14.6	8.91	5.66	2.20	1.54	0.82	0.45
1.70	30.9	22.9	16.1	9.36	5.71	2.25	1.55	0.84	0.46
1.65	32.1	23.6	16.5	9.79	5.75	2.29	1.56	0.86	0.46
1.60	33.0	24.2	17.0	9.90	5.80	2.33	1.60	0.87	0.47

Constant Power Discharge (Watts/cell) at 25 °C (77°F)

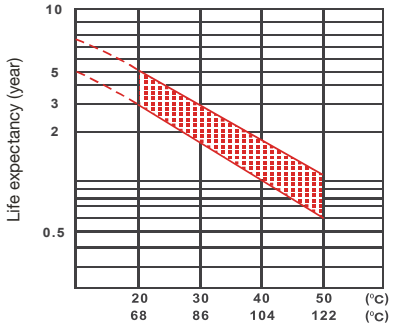
F.V (V/cell) \ Time	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.80	58.0	39.2	28.4	16.6	12.2	10.4	5.77	3.92	2.85
1.75	61.4	41.1	30.2	17.6	12.9	10.7	5.94	4.08	2.92
1.70	64.8	42.9	31.1	18.5	13.7	11.0	6.08	4.20	2.98
1.65	68.3	44.3	33.1	19.1	14.2	11.2	6.23	4.29	3.04
1.60	71.7	44.8	33.6	19.6	14.5	11.5	6.30	4.34	3.10

Specifications subject to change without notice.

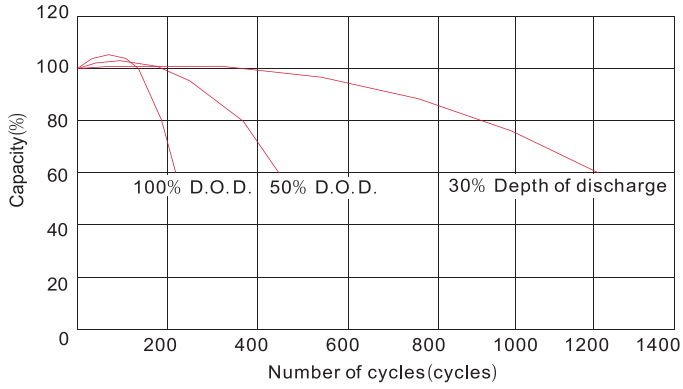
Temperature Effects in Relation to Battery Capacity



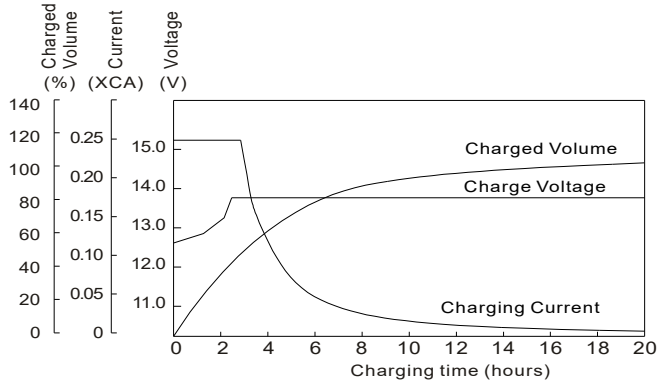
Effect of Temperature on Long Term Float Life



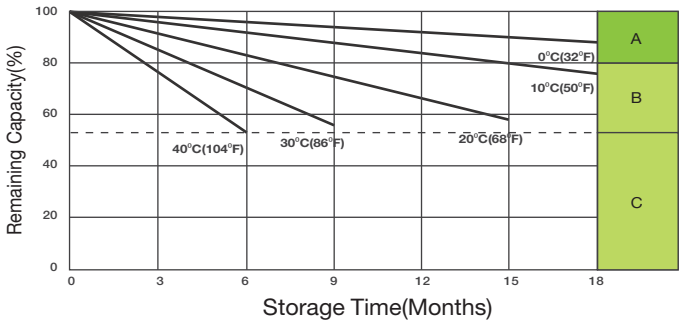
Cycle Life in Relation to Depth of Discharge



Float Charging Characteristics



Self Discharge Characteristics



A No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)

B Supplementary charge required before use. Optional charging way as below:

1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8~10hours at limited current 0.05CA.

C Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.