

Datasheet

Sealed Lead-Acid Battery General Purpose

698-8082(12V2.9Ah)

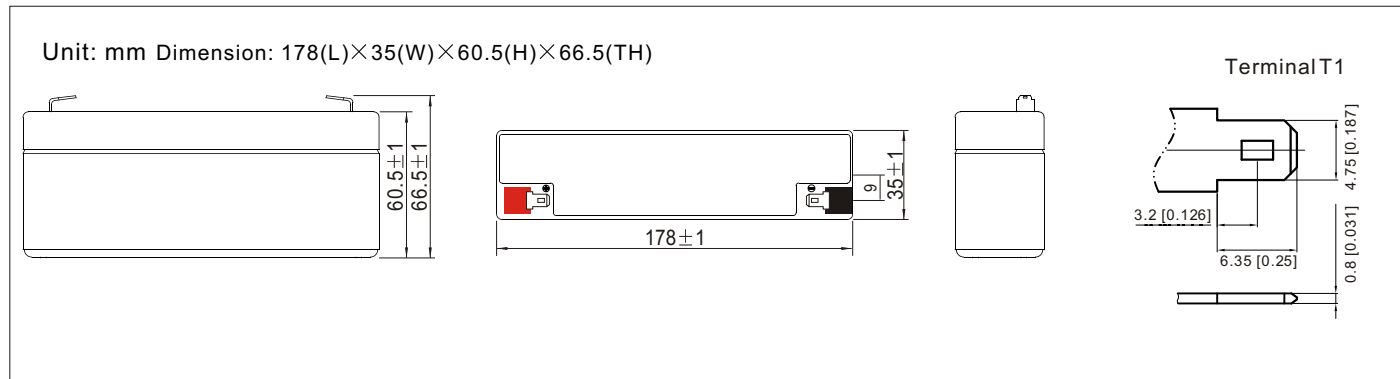
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	2.9Ah@20hr-rate to 1.80V per cell @25°C
Weight	Approx 1.05 kg
Max. Discharge Current	43.5A (5 sec)
Internal Resistance	Approx 45mΩ
Operating Temp.Range	Discharge : -15~50°C (5~122°F) Charge : 0~40°C (32~104°F) Storage : -15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Float charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	0.87A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C
Self Discharge	The batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	T1
Container Material	A.B.S. (UL94-HB) , Flammability resistance of UL94-V0 can be available upon request.

Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system

Dimensions



Constant Current Discharge Characteristics : A (25 °C)

Amps

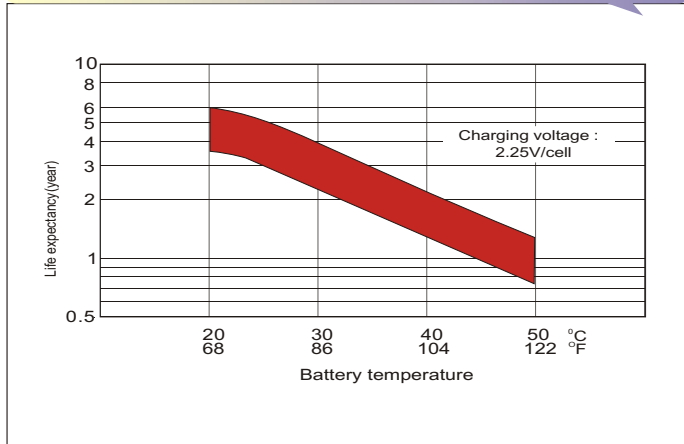
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	5.57	3.88	3.20	2.78	2.23	1.71	1.40	0.856	0.652	0.536	0.455	0.394	0.313	0.260	0.144
1.80V/cell	6.85	4.63	3.71	3.14	2.47	1.87	1.51	0.909	0.685	0.563	0.474	0.411	0.325	0.270	0.145
1.75V/cell	8.11	5.24	4.09	3.42	2.63	1.98	1.59	0.948	0.710	0.581	0.487	0.421	0.334	0.275	0.146
1.70V/cell	9.20	5.78	4.43	3.67	2.77	2.06	1.65	0.987	0.733	0.595	0.499	0.432	0.339	0.280	0.149
1.65V/cell	10.1	6.21	4.69	3.85	2.88	2.14	1.72	1.02	0.751	0.608	0.510	0.440	0.344	0.283	0.151
1.60V/cell	10.6	6.47	4.88	3.98	2.96	2.19	1.76	1.05	0.769	0.623	0.521	0.449	0.351	0.288	0.152

Constant Power Discharge Characteristics : W (25 °C)

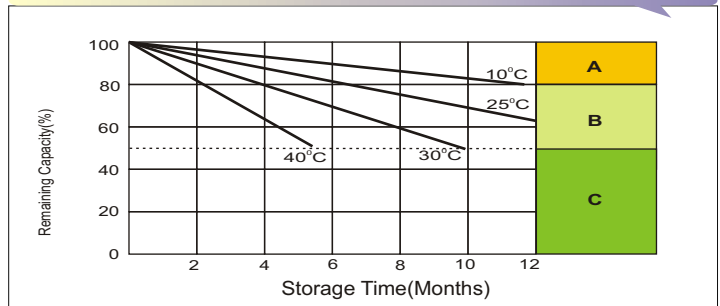
Watts

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	10.5	7.39	6.16	5.38	4.35	3.36	2.76	1.69	1.30	1.07	0.910	0.790	0.630	0.525	0.290
1.80V/cell	12.8	8.74	7.07	6.04	4.77	3.64	2.95	1.79	1.35	1.12	0.943	0.820	0.649	0.540	0.291
1.75V/cell	14.9	9.78	7.73	6.52	5.07	3.84	3.09	1.86	1.39	1.14	0.963	0.835	0.663	0.547	0.292
1.70V/cell	16.8	10.7	8.29	6.95	5.29	3.97	3.20	1.92	1.43	1.17	0.981	0.850	0.669	0.553	0.296
1.65V/cell	18.2	11.3	8.67	7.22	5.46	4.10	3.32	1.97	1.46	1.19	0.998	0.863	0.676	0.558	0.298
1.60V/cell	18.8	11.7	8.93	7.37	5.56	4.15	3.36	2.01	1.49	1.21	1.01	0.875	0.687	0.565	0.299

Effect of Temperature on Long Term Float Life

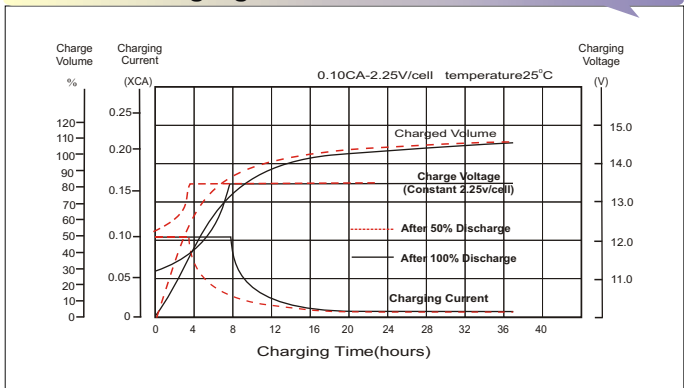


Self Discharge Characteristics

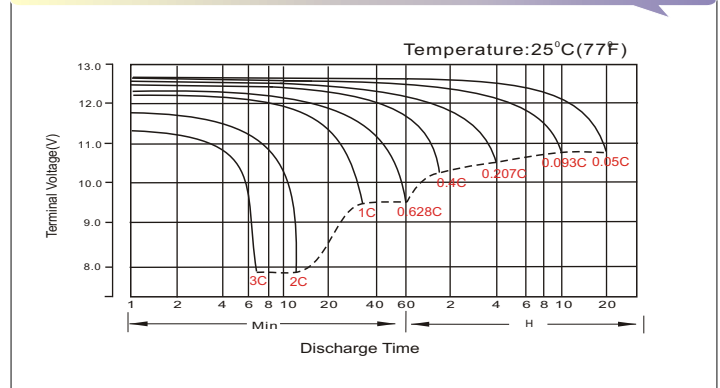


- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8-10 hours at limited current 0.05CA.
- C** Avoid this storage period unless regular Top charge. Supplementary charge may often fail to recover the full capacity

Float Charging Characteristics



Discharge Characteristics



Available Capacity Subject to Temperature

Battery Type	-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
AGM Battery 6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	0.1C until the voltage reaching 14.4V, then 0.1Cx4h

Maintenance & Cautions

Float Service:
◆ It is recommended to check battery/Float voltage each month.
Equalisation charge:
◆ Equalisation charging is recommended once every 3 to 6 months using.
◆ Discharge 100% rated capacity.
◆ Charge 2.35v/cell constant voltage, maximum 0.3CA 24hrs.
Cyclic Service:
◆ Temperature compensation for varying temperatures:
- Charge voltage -3mV/Cell/degC from 25degC norm.
◆ The service life of your battery will be affected by:
- The number of discharge cycles, depth of discharge, ambient temperature and charging voltage.