

Datasheet

Sealed Lead-Acid Battery

General Purpose

727-0382(6V7.0Ah)

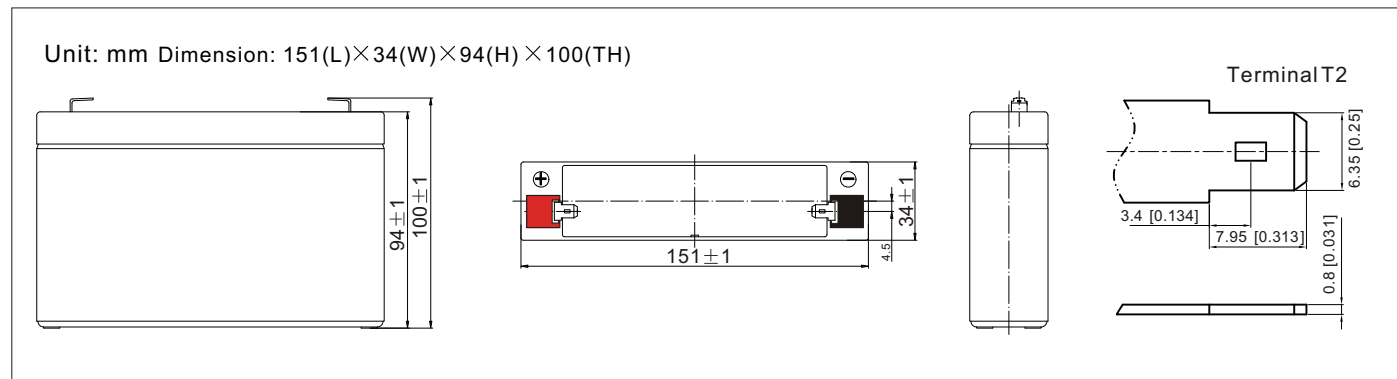
Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	7.0Ah@20hr-rate to 1.80V per cell @25°C
Weight	Approx 1.10 kg
Max. Discharge Current	105A (5 sec)
Internal Resistance	Approx 15mΩ
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	6.75 to 6.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	2.1A
Equalization and Cycle Service	7.2 to 7.5 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	T2
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

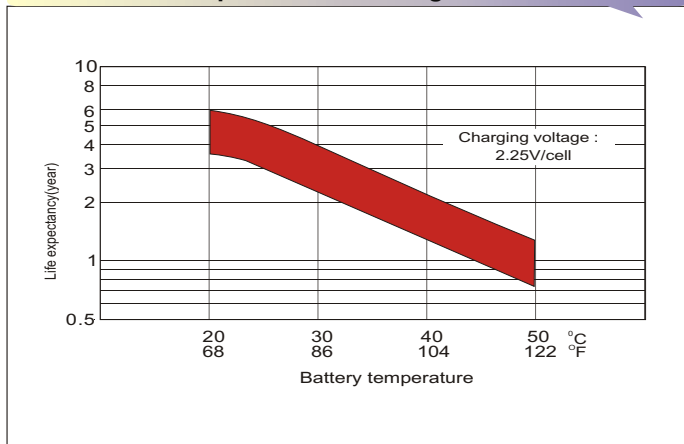
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	13.3	10.2	8.48	7.33	5.67	4.18	3.52	2.08	1.63	1.32	1.08	0.94	0.756	0.631	0.347
1.80V/cell	17.9	13.1	10.2	8.67	6.69	4.86	3.94	2.27	1.75	1.41	1.16	1.01	0.802	0.651	0.350
1.75V/cell	20.2	14.4	11.2	9.32	6.94	5.04	4.13	2.36	1.79	1.45	1.19	1.03	0.816	0.669	0.354
1.70V/cell	22.2	15.7	11.9	9.80	7.23	5.24	4.26	2.42	1.83	1.48	1.22	1.05	0.827	0.682	0.360
1.65V/cell	24.5	16.9	12.7	10.4	7.63	5.37	4.35	2.45	1.91	1.54	1.25	1.08	0.840	0.696	0.365
1.60V/cell	27.0	18.4	13.6	11.1	8.05	5.60	4.40	2.56	1.97	1.58	1.30	1.10	0.848	0.704	0.367

Constant Power Discharge Characteristics : W (25°C)

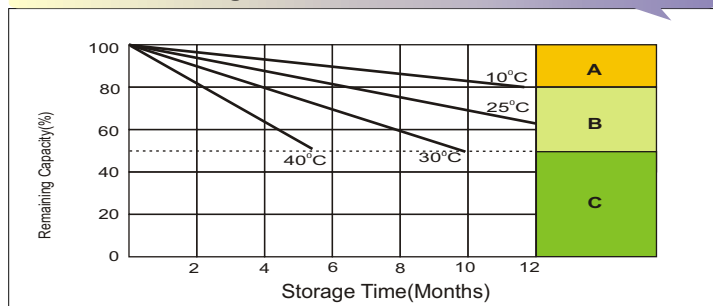
Watts

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	24.4	18.9	15.8	13.8	10.8	8.03	6.79	4.04	3.18	2.59	2.12	1.84	1.492	1.250	0.686
1.80V/cell	32.4	23.9	18.9	16.1	12.6	9.26	7.57	4.38	3.40	2.75	2.26	1.97	1.578	1.286	0.692
1.75V/cell	35.7	25.8	20.3	17.2	12.9	9.52	7.88	4.53	3.45	2.80	2.31	2.02	1.602	1.319	0.698
1.70V/cell	38.2	27.5	21.4	17.9	13.4	9.86	8.10	4.63	3.54	2.87	2.37	2.05	1.622	1.345	0.710
1.65V/cell	41.6	29.4	22.6	18.9	14.0	10.0	8.23	4.67	3.67	2.96	2.43	2.09	1.644	1.370	0.719
1.60V/cell	44.8	31.2	23.8	19.9	14.7	10.4	8.26	4.85	3.76	3.04	2.50	2.13	1.656	1.383	0.722

Effect of Temperature on Long Term Float Life

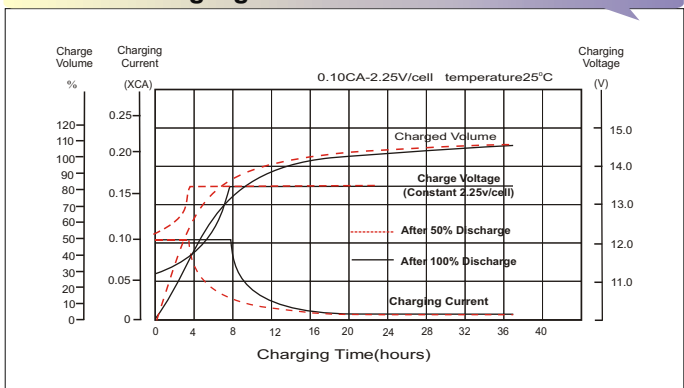


Self Discharge Characteristics

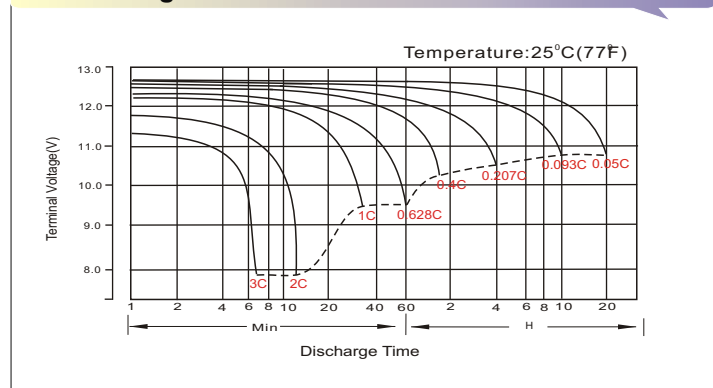


- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 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 7.2V, 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.