


### 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

		
 ISO14001	 ISO9001	



## Specification

Nominal Voltage	12V
Nominal Capacity(20HR)	5.0AH
Dimensions	Length 90± 1mm (3.54 inches)
	Width 70± 1mm (2.76 inches)
	Container Height 101± 2mm (3.98 inches)
	Total Height (with Terminal) 107± 2mm (4.21 inches)
Approx Weight	Approx 1.44 kg (3.17lbs)
Terminal	T1 / T2
Container Material	ABS
Rated Capacity	5.00 AH/0.250A (20hr, 1.80V/cell, 25°C/77°F)
	4.60 AH/0.460A (10hr, 1.80V/cell, 25°C/77°F)
	4.29 AH/0.858A (5hr, 1.75V/cell, 25°C/77°F)
	3.84 AH/1.28A (3hr, 1.75V/cell, 25°C/77°F)
	3.28AH/3.28A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	75A (5s)
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)
Cycle Use	Initial Charging Current less than 1.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40°C (104°F) 103%
	25°C ( 77°F) 100%
	0°C ( 32°F) 86%
Self Discharge	ALLSAI LP 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.

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	13.9	10.3	8.28	6.75	5.02	3.68	3.01	1.73	1.24	0.983	0.842	0.717	0.563	0.455	0.245
1.80V/cell	15.1	10.8	8.58	6.96	5.15	3.76	3.07	1.75	1.26	1.00	0.850	0.726	0.570	0.460	0.250
1.75V/cell	16.3	11.3	8.92	7.17	5.27	3.83	3.13	1.78	1.28	1.01	0.858	0.735	0.577	0.466	0.253
1.70V/cell	17.6	11.8	9.25	7.38	5.39	3.91	3.18	1.81	1.29	1.03	0.875	0.745	0.584	0.472	0.254
1.65V/cell	18.3	12.2	9.42	7.51	5.47	3.95	3.21	1.83	1.31	1.03	0.875	0.750	0.588	0.475	0.256
1.60V/cell	19.9	12.9	9.83	7.80	5.63	4.06	3.28	1.86	1.33	1.05	0.892	0.763	0.598	0.483	0.258

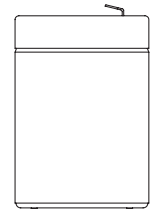
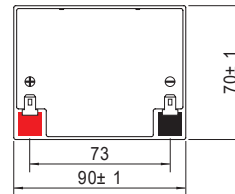
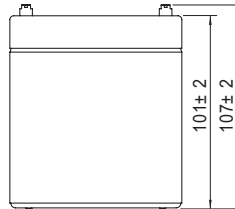
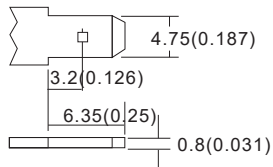
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	26.5	19.6	15.9	13.0	9.67	7.15	5.86	3.38	2.43	1.94	1.65	1.42	1.12	0.900	0.490
1.80V/cell	28.6	20.5	16.4	13.3	9.92	7.27	5.95	3.42	2.47	1.97	1.68	1.43	1.13	0.917	0.495
1.75V/cell	30.7	21.4	16.9	13.7	10.1	7.38	6.03	3.46	2.50	1.99	1.69	1.45	1.14	0.925	0.500
1.70V/cell	32.8	22.3	17.4	14.0	10.3	7.49	6.12	3.51	2.53	2.01	1.72	1.47	1.16	0.933	0.505
1.65V/cell	33.9	22.8	17.8	14.3	10.4	7.56	6.17	3.53	2.55	2.03	1.73	1.48	1.17	0.942	0.508
1.60V/cell	36.6	24.0	18.4	14.7	10.7	7.72	6.28	3.59	2.59	2.06	1.75	1.50	1.18	0.958	0.516

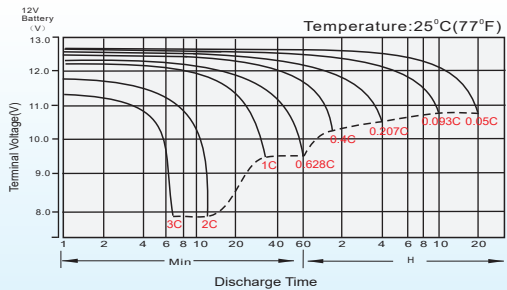
## Dimensions

### T1 Terminal

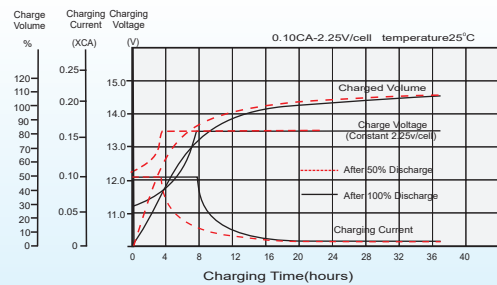
Unit: mm [inches]



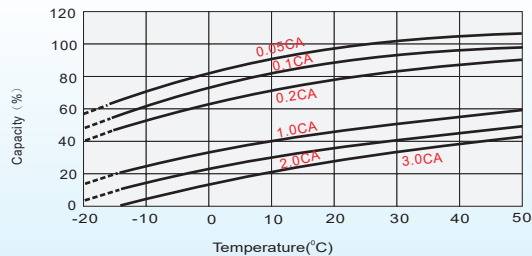
## Discharge Characteristics



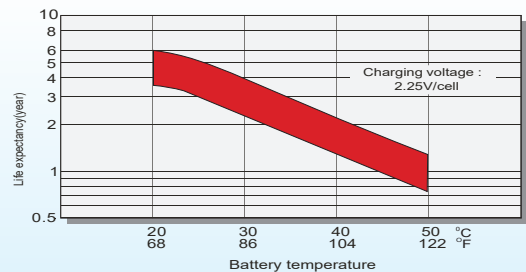
## Float Charging Characteristics



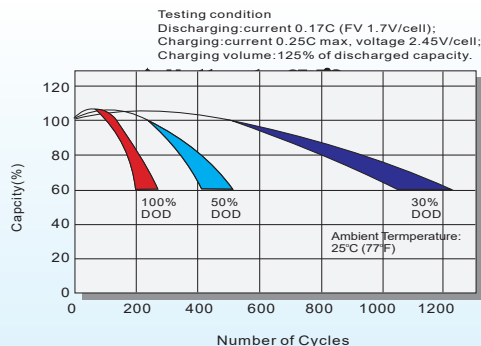
## Temperature Effects in Relation to Battery Capacity



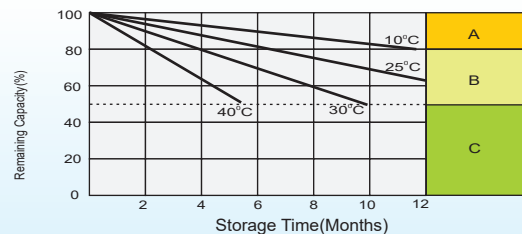
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



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