

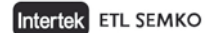
## Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	2.1AH	
Dimensions	Length	178±2mm (7.00 inches)
	Width	35±1mm (1.38 inches)
	Container Height	60±1mm (2.36 inches)
	Total Height (with Terminal)	66±1mm (2.60 inches)
Approx Weight	Approx 0.96 kg (2.12lbs)	
Terminal	T1	
Container Material	ABS	
Rated Capacity	2.10 AH/0.105A	(20hr , 1.80V/cell,25°C/77°F)
	1.95AH/0.195A	(10hr,1.80V/cell,25°C/77°F)
	1.78 AH/0.357A	(5hr,1.75V/cell,25°C/77°F)
	1.61 AH/0.536A	(3hr,1.75V/cell,25°C/77°F)
	1.32 AH/1.32A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	31.5A (5s)	
Internal Resistance	Approx 90mΩ	
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 0.63A.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	General purpose 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.	
	Life expectancy	3~5 years at 25°C with charge voltage of 2.25V/cell



## 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



Conform to:  
IEC60896-21&22 and/or IEC61427

## 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	4.00	3.07	2.54	2.20	1.70	1.25	1.06	0.625	0.489	0.397	0.324	0.281	0.227	0.189	0.104
1.80V/cell	5.37	3.92	3.07	2.60	2.01	1.46	1.18	0.682	0.526	0.424	0.348	0.302	0.240	0.195	0.105
1.75V/cell	6.05	4.31	3.36	2.80	2.08	1.51	1.24	0.707	0.536	0.434	0.357	0.310	0.245	0.201	0.106
1.70V/cell	6.66	4.70	3.58	2.94	2.17	1.57	1.28	0.725	0.550	0.445	0.366	0.316	0.248	0.205	0.108
1.65V/cell	7.35	5.07	3.81	3.12	2.29	1.61	1.31	0.735	0.574	0.461	0.376	0.323	0.252	0.209	0.109
1.60V/cell	8.11	5.51	4.08	3.33	2.42	1.68	1.32	0.767	0.591	0.475	0.389	0.330	0.254	0.211	0.110

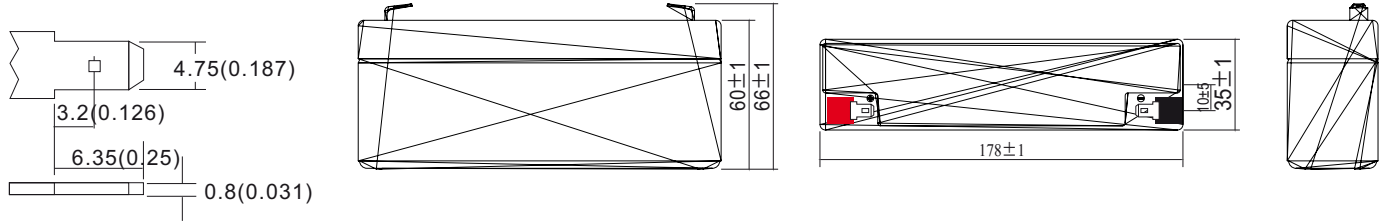
## Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	7.31	5.67	4.75	4.15	3.24	2.41	2.04	1.21	0.95	0.777	0.635	0.553	0.448	0.375	0.206
1.80V/cell	9.71	7.16	5.66	4.83	3.77	2.78	2.27	1.31	1.02	0.825	0.679	0.590	0.473	0.386	0.208
1.75V/cell	10.7	7.75	6.10	5.15	3.88	2.86	2.36	1.36	1.03	0.840	0.694	0.605	0.480	0.396	0.210
1.70V/cell	11.5	8.25	6.43	5.37	4.01	2.96	2.43	1.39	1.06	0.861	0.711	0.616	0.487	0.403	0.213
1.65V/cell	12.5	8.82	6.78	5.66	4.20	3.01	2.47	1.40	1.10	0.887	0.728	0.628	0.493	0.411	0.216
1.60V/cell	13.4	9.36	7.13	5.96	4.40	3.12	2.48	1.45	1.13	0.913	0.749	0.639	0.497	0.415	0.217

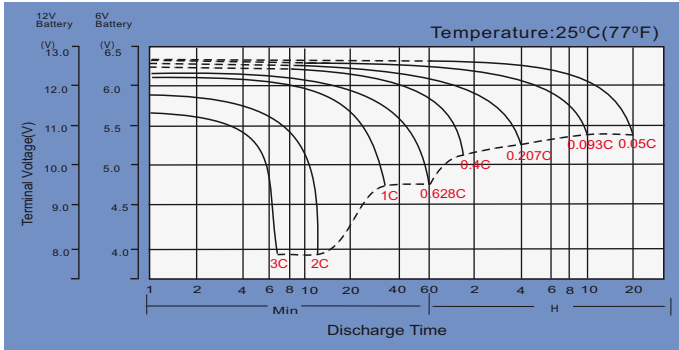
# Dimensions

## T1 Terminal

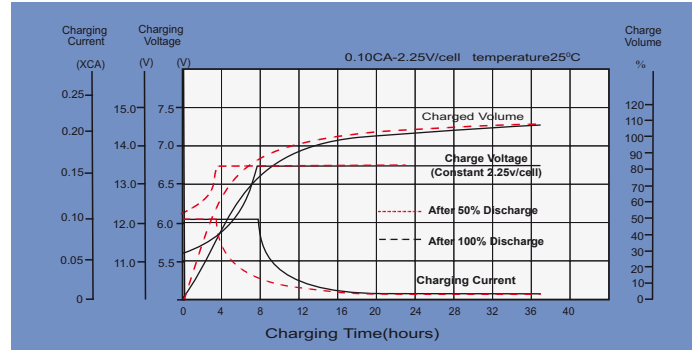
Unit: mm [inches]



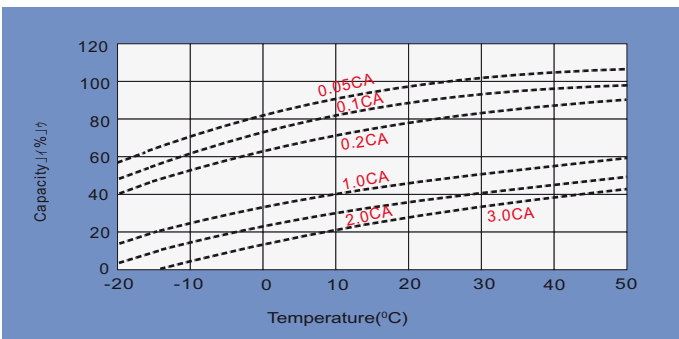
## Discharge Characteristics



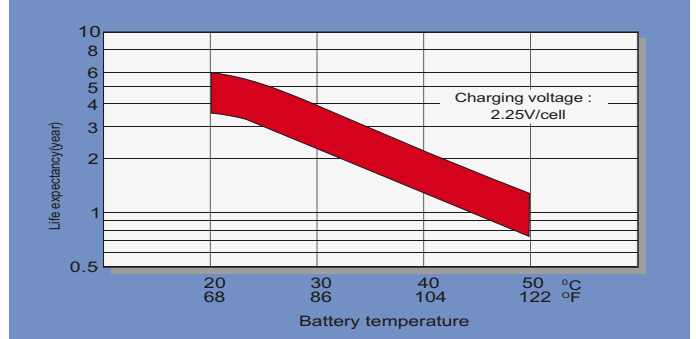
## Float Charging Characteristics



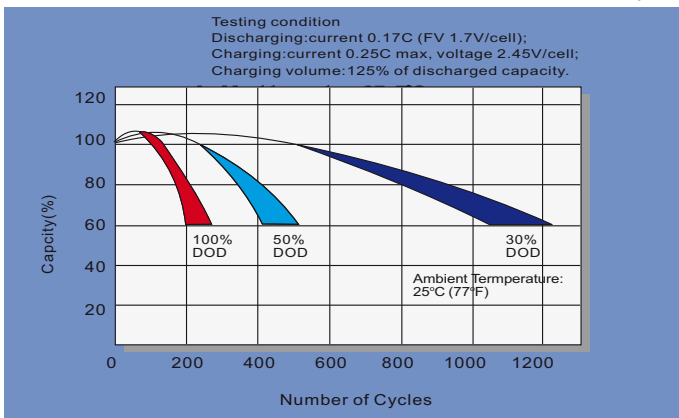
## Temperature Effects in Relation to Battery Capacity



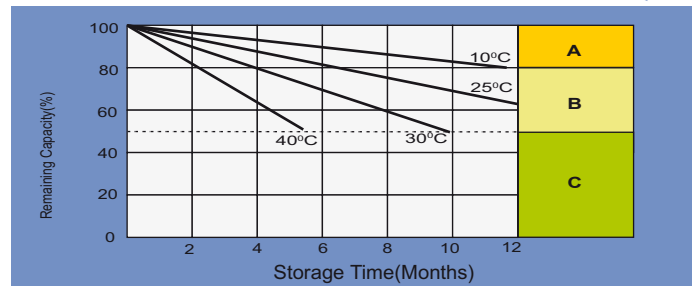
## Effect of Temperature on Long Term Float Life



## 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.