

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	7.0AH	
Dimension	Length	151±2mm (5.95 inches)
	Width	64.5±1mm (2.54 inches)
	Container Height	94.5±1mm (3.72 inches)
	Total Height (with Terminal)	100±1mm (3.94 inches)
	Approx Weight	Approx 2.18 kg (4.81lbs)
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	7.00AH/0.350A	(20hr, 1.80V/cell, 25 °C/77°F)
	6.53AH/0.653A	(10hr, 1.80V/cell, 25 °C/77°F)
	6.00AH/1.20A	(5hr, 1.75V/cell, 25 °C/77°F)
	5.37AH/1.79A	(3hr, 1.75V/cell, 25 °C/77°F)
	4.55AH/4.55A	(1hr, 1.60V/cell, 25 °C/77°F)
Max. Discharge Current	105A (5s)	
Internal Resistance	Approx 23mΩ	
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 ±6°F)	
Cycle Use	Initial Charging Current less than 2.1A. 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	ZINOVA ZS series batteries may be stored for up to 6 months at 25°C (77°F) and then a refreshing charge is required. For higher temperatures the time interval will be shorter.	



### 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



### 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	18.0	12.8	10.48	8.79	6.53	4.79	3.88	2.29	1.89	1.36	1.14	0.98	0.774	0.640	0.345
1.80V/cell	21.4	14.3	11.4	9.44	6.94	5.05	4.03	2.39	1.74	1.40	1.17	1.01	0.791	0.653	0.350
1.75V/cell	24.2	15.6	12.2	10.0	7.29	5.27	4.18	2.45	1.79	1.43	1.20	1.03	0.806	0.663	0.357
1.70V/cell	26.7	16.7	12.9	10.6	7.69	5.46	4.32	2.51	1.83	1.46	1.22	1.06	0.817	0.672	0.361
1.65V/cell	28.5	17.7	13.5	10.9	7.86	5.62	4.46	2.57	1.86	1.48	1.23	1.06	0.826	0.680	0.365
1.60V/cell	30.6	18.6	14.1	11.3	8.09	5.78	4.55	2.61	1.89	1.50	1.25	1.07	0.834	0.685	0.367

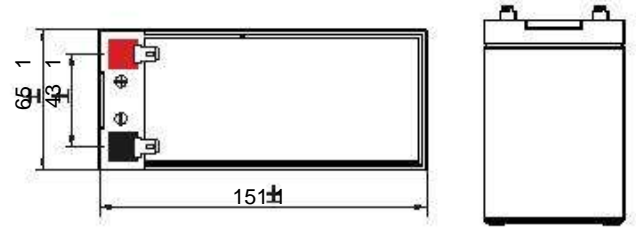
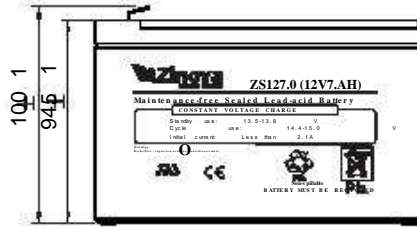
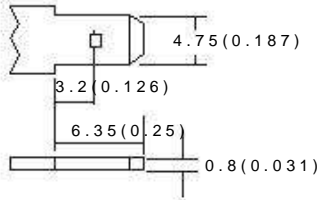
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	34.2	24.5	20.2	17.1	12.8	9.44	7.64	4.56	3.37	2.72	2.29	1.99	1.565	1.296	0.701
1.80V/cell	40.2	27.2	21.9	18.3	13.5	9.91	7.96	4.72	3.47	2.79	2.34	2.03	1.593	1.318	0.708
1.75V/cell	45.1	29.5	23.3	19.3	14.2	10.3	8.23	4.85	3.55	2.85	2.39	2.06	1.616	1.334	0.719
1.70V/cell	48.2	31.3	24.5	20.1	14.7	10.6	8.48	4.96	3.62	2.89	2.42	2.09	1.633	1.347	0.725
1.65V/cell	52.6	32.9	25.5	20.8	15.2	10.9	8.73	5.05	3.66	2.93	2.45	2.11	1.649	1.359	0.731
1.60V/cell	55.5	34.3	26.3	21.5	15.5	11.2	8.98	5.12	3.72	2.96	2.47	2.13	1.660	1.367	0.734

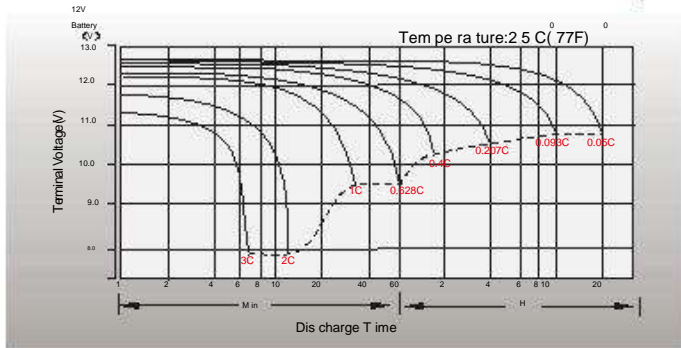
## Dimensions

### T1 Terminal

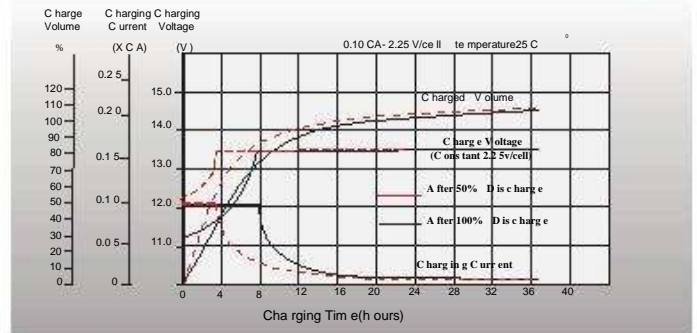
Unit: mm [inches]



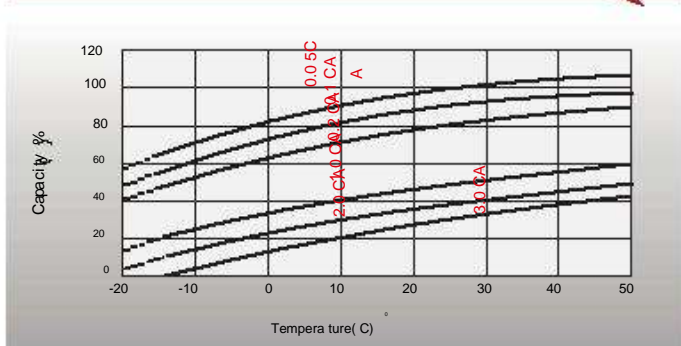
## Discharge Characteristics



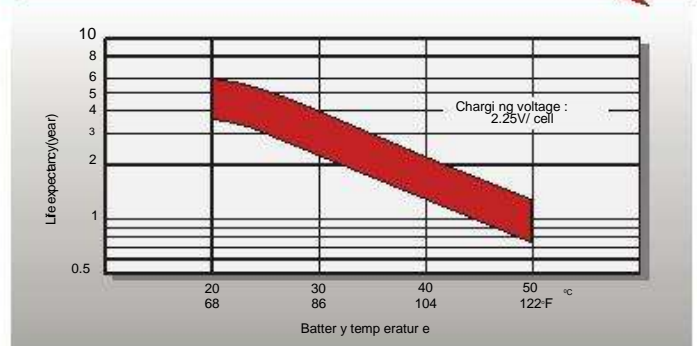
## Float Charging Characteristics



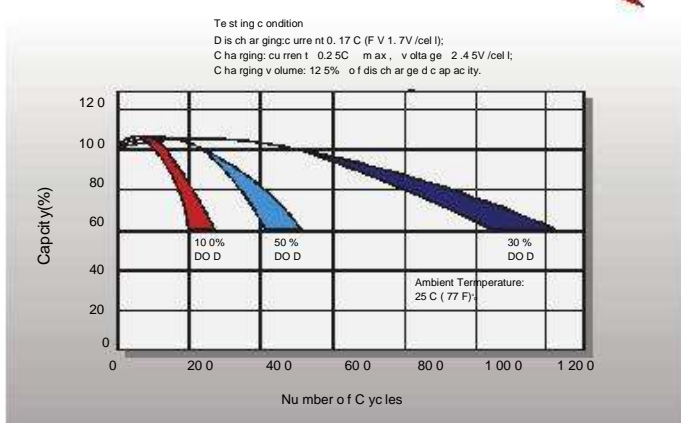
## Temperature Effects in Relation to Battery Capacity



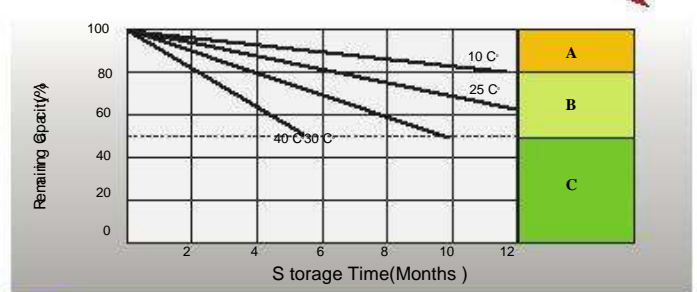
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



- A** No supplementary charge required (Carry out supplementary charge before use if 100% cap acy is require d.)
- B** Supplementary charge required before use. Optimal charging way as below:
  - 1.Charged for a above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
  - 2.Charged for a above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
  - 3.Charged for 8-10hours at limited current 0.05 CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is recharged.

Sales Office

