

SPT12-7.2_(12V7.2AH)

Features

Maintenance-free operation
Compact design

Stable quality and high reliability
5 years design time (at 25°C)



Application

- Telecommunication system
- Alarm and security system
- Backup power for testing and measuring instruments
- UPS
- Emergency lighting
- Fire alarm and security systems
- Auto control system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply

Specifications

Nominal Voltage	12V (6 cells)	Operating Temp.Range	Discharge: -15 50°C (5 122°F)	
Nominal Capacity	7.2AH (20hr, 1.80V/cell, 25 °C/76°F)		Charge : 0 40°C (32 104°F)	
	6.8AH (10hr, 1.80V/cell, 25 °C/77°F)	Storage : -15 40°C (5 104°F)		
	6.1AH (5hr, 1.75V/cell, 25 °C/77°F)	Nominal Operating Temp.Range	25 ± 3°C (77 ± 5°F)	
	4.3AH (1hr, 1.60V/cell, 25 °C/77°F)	Cycle Use	14.2~14.4V (25°C/77°F) Temp.Coecient -30mV/ °C	
Dimension	Length	151 ± 2mm	Standby Use	Initial Charging Current Less than 2.2A
	Width	65 ± 2mm		13.5~13.8V (25°C/77°F) Temp.Coecient -20mV/ °C
	Container Height	94 ± 2mm	No limit on Initial Charging Current	
	Total Height(with Terminal)	100 ± 2mm	Capacity aected by Temperature	40°C (104°F) 103%
Approx Weight	Approx 2.18Kg	Self Discharge	25°C (77°F) 100%	
Terminal	F1 or F2		0°C (32°F) 86%	
Container Material	ABS		Sunstone SPT series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required.	
Max. Discharge Current	110A (5S)		For higher temperatures the time interval will be shorter.	
Internal Resistance	Approx 24mΩ			

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

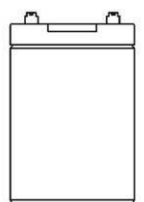
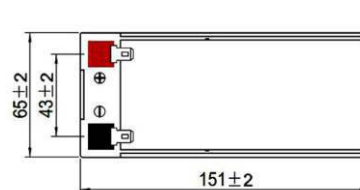
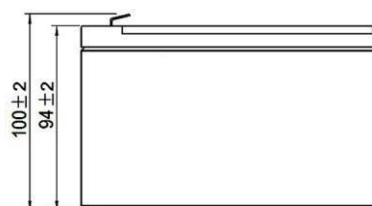
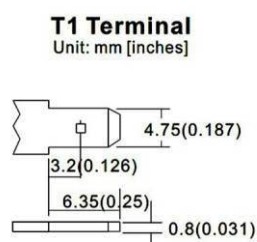
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	10h	20h
1.80V/cell	17.94	12.91	10.46	6.56	5.03	3.94	2.39	1.78	1.23	0.70	0.376
1.75V/cell	20.38	14.61	11.34	6.84	5.22	4.14	2.45	1.84	1.26	0.71	0.381
1.70V/cell	22.25	15.75	12.25	7.07	5.39	4.26	2.52	1.88	1.28	0.72	0.386
1.65V/cell	24.21	16.96	12.95	7.46	5.62	4.43	2.59	1.93	1.31	0.73	0.391
1.60V/cell	26.37	18.47	13.54	7.79	5.82	4.53	2.67	1.96	1.33	0.74	0.393

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

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	10h	20h
1.80V/cell	33.55	23.66	19.84	12.34	9.56	7.82	4.59	3.48	2.44	1.39	0.727
1.75V/cell	37.09	26.12	20.84	12.84	9.96	8.00	4.72	3.55	2.47	1.41	0.738
1.70V/cell	39.60	27.76	21.92	13.27	10.28	8.11	4.83	3.62	2.50	1.42	0.749
1.65V/cell	43.10	29.33	22.73	14.00	10.58	8.38	4.93	3.69	2.55	1.43	0.761
1.60V/cell	46.42	31.11	23.71	14.43	10.86	8.64	5.03	3.76	2.59	1.44	0.770

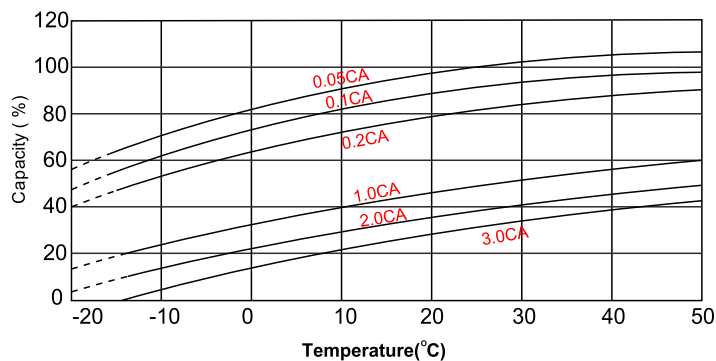
Note: The above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.

Dimensions unitmm[inches]

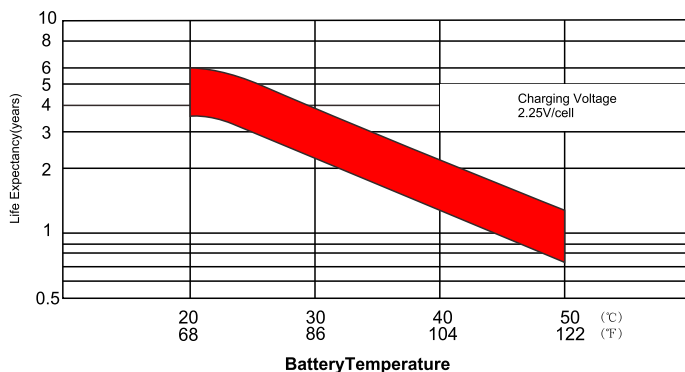


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Temperature Effects in Relation to Battery Capacity

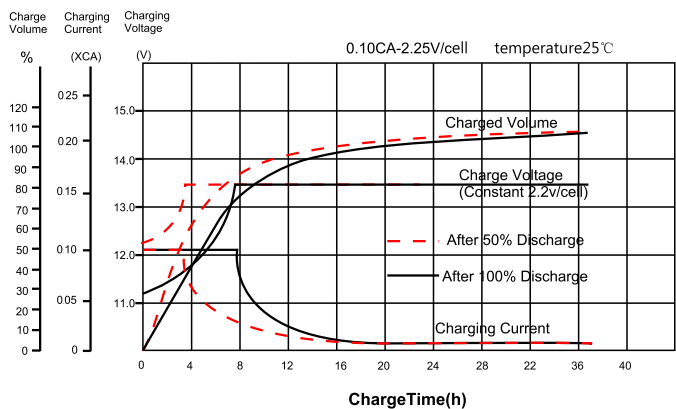


Effect of temperature on long term out life



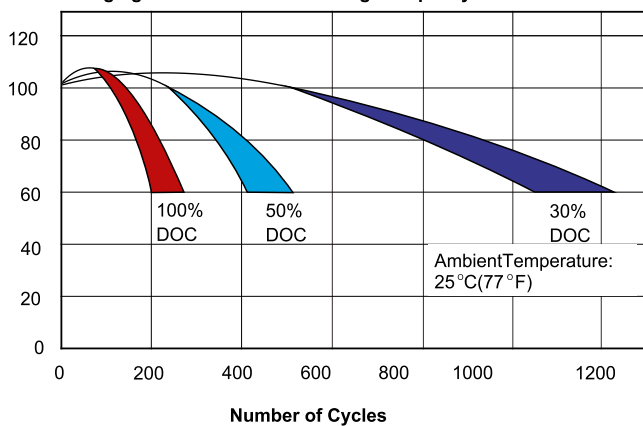
Float charging characteristics

Cycle Life in Relation to Depth of Discharge



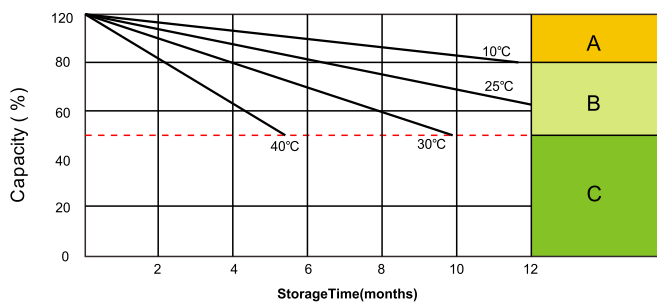
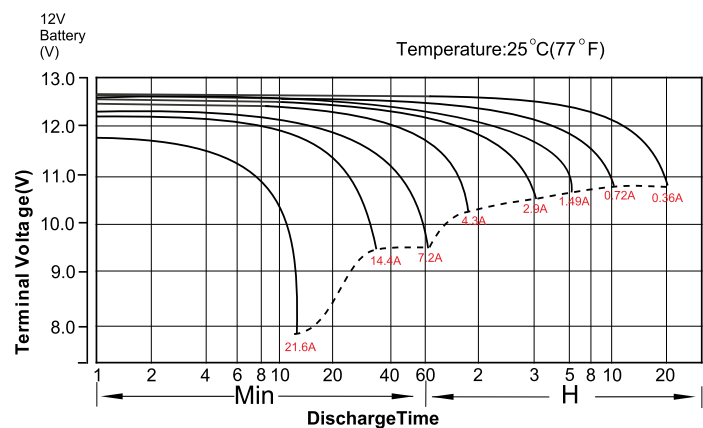
Testing condition

Discharging: current 0.17C(FV 1.7V/cell);
Charging: current 0.25C max, voltage 2.45V/cell;
Charging volume:125% of discharged capacity.



Discharge characteristics Curve

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 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10hours 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.