SigmasTek

SP6-7
(6V7AH/T1)

Specifications

Nominal Voltage	6V	
Nominal Capacity (20HR)	7AH	
Dimension	Length	151mm (5.95 inches)
	Width	34mm (1.34 inches)
	Height	94mm (3.70 inches)
	Total Height (with Terminal)	100mm (3.94 inches)
Approximate Weight	1.15 kg (2.54 lbs)	
Battery Type	Valve Regulated Lead-Acid Battery, AGM Design	
Terminal Type	T1	
Rated Capacity	7.08AH	(20hr,1.75V/cell,25°C/77°F)
	6.69AH	(10hr,1.75V/cell,25°C/77°F)
	5.95AH	(5hr,1.75V/cell,25°C/77°F)
	5.91AH	(3hr,1.60V/cell,25°C/77°F)
	4.40AH	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	105A	
Internal Resistance	15mΩ	
Operating Temp. Range	Discharge:	-20°C (-4°F)~50°C (122°F)
	Charge:	-20°C (-4°F)~50°C (122°F)
	Storage:	-20°C (-4°F)~40°C (104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Container Material	ABS (Option: 94-HB & 94-V0 flame retardant case)	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	SigmasTek SP series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is recommended. For higher temperatures the time interval will be shorter.	

Applications

- Uninterruptible Power Supply (UPS)
- Electric wheelchairs, scooters, bikes
- Electronic apparatus and equipment
- Alarm and security systems
- Emergency first responder equipment
- Emergency lighting
- Medical devices
- Electric carts
- Telecom equipment
- Switchgear
- Solar power systems

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

F.V. (V/cell) \ Discharge Time	5min	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	27.0	18.4	13.6	8.05	4.40	2.56	1.97	1.30	0.848	0.704	0.367
1.65V	24.5	16.9	12.7	7.63	4.35	2.45	1.91	1.25	0.840	0.696	0.365
1.70V	22.2	15.7	11.9	7.23	4.26	2.42	1.83	1.22	0.827	0.682	0.360
1.75V	20.2	14.4	11.2	6.94	4.13	2.36	1.79	1.19	0.816	0.669	0.354
1.80V	17.9	13.1	10.2	6.69	3.94	2.27	1.75	1.16	0.802	0.651	0.350
1.85V	13.3	10.2	8.48	5.67	3.52	2.08	1.63	1.08	0.756	0.631	0.347

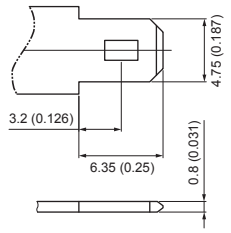
Constant Power Discharge (Watts Per Cell) at 25°C (77°F)

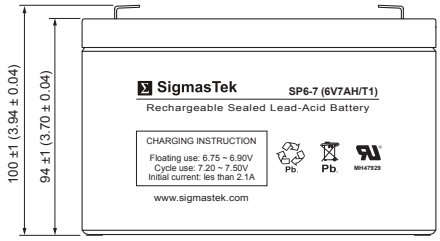
F.V. (V/cell) \ Discharge Time	5min	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	44.8	31.2	23.8	14.7	8.26	4.85	3.76	2.50	1.656	1.383	0.722
1.65V	41.6	29.4	22.6	14.0	8.23	4.67	3.67	2.43	1.644	1.370	0.719
1.70V	38.2	27.5	21.4	13.4	8.10	4.63	3.54	2.37	1.622	1.345	0.710
1.75V	35.7	25.8	20.3	12.9	7.88	4.53	3.45	2.31	1.602	1.319	0.698
1.80V	32.4	23.9	18.9	12.6	7.57	4.38	3.40	2.26	1.578	1.286	0.692
1.85V	24.4	18.9	15.8	10.8	6.79	4.04	3.18	2.12	1.492	1.250	0.686

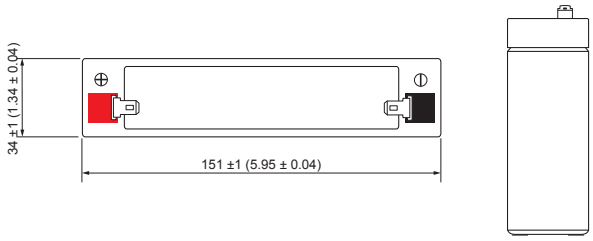
Dimensions

T1 Terminal

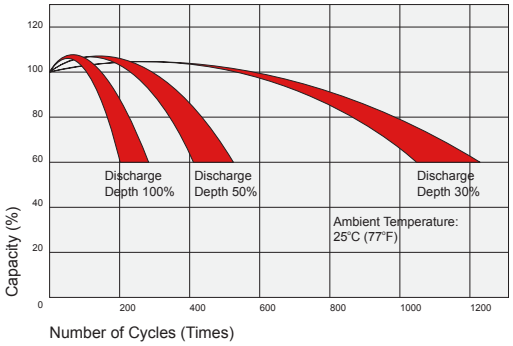
Unit: mm (inches)



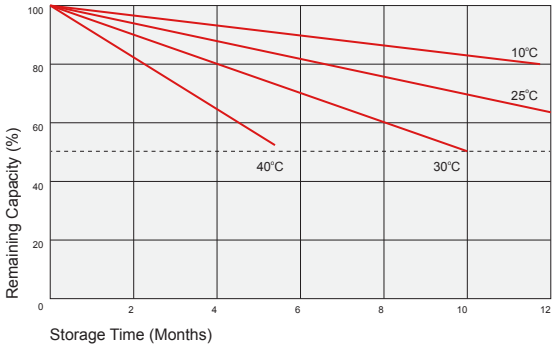




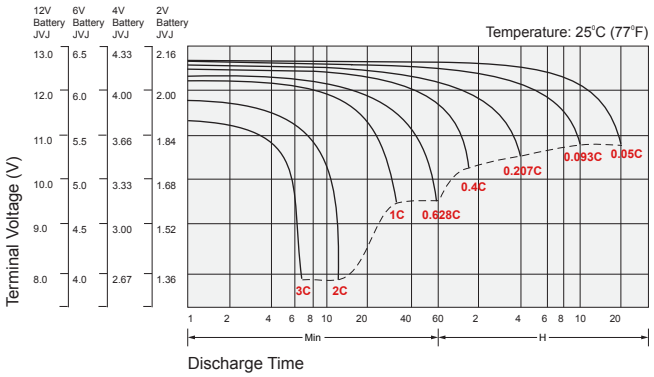
Cycle Service Life



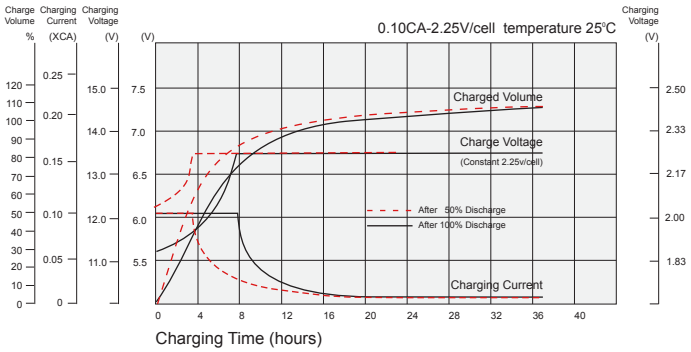
Self Discharge Characteristics



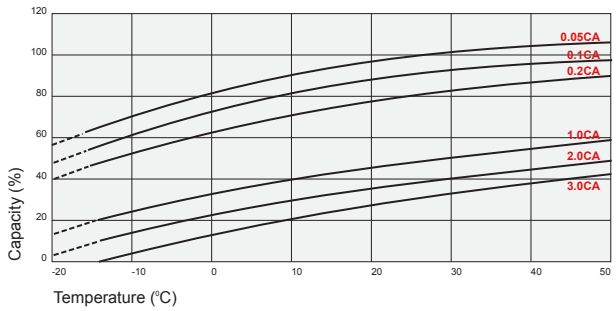
Discharge Characteristics



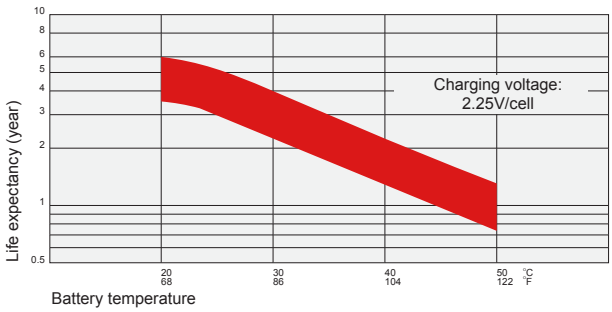
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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