

Specifications

Nominal Voltage	12V	
Nominal Capacity (20HR)	18AH	
Dimension	Length	181mm (7.13 inches)
	Width	76mm (3.00 inches)
	Height	167mm (6.59 inches)
	Total Height (with Terminal)	167mm (6.59 inches)
	Approximate Weight	5.75 kg (12.67 lbs)
Battery Type	Valve Regulated Lead-Acid Battery, AGM Design	
Terminal Type	NB	
Rated Capacity	18.8AH	(20hr, 1.75V/cell, 25°C/77°F)
	17.3AH	(10hr, 1.75V/cell, 25°C/77°F)
	15.4AH	(5hr, 1.75V/cell, 25°C/77°F)
	16.9AH	(3hr, 1.60V/cell, 25°C/77°F)
	10.8AH	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	270A	
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 HR 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



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	70.5	47.2	33.0	20.1	10.8	6.31	5.62	3.31	2.18	1.84	1.00
1.67V	65.9	42.2	32.0	19.3	10.6	6.24	4.75	3.24	2.15	1.80	0.97
1.70V	60.6	41.0	31.0	17.5	10.3	6.20	4.52	3.16	2.14	1.76	0.95
1.75V	60.1	38.0	30.2	16.7	10.1	6.12	4.37	3.08	2.12	1.73	0.94
1.80V	53.0	35.5	27.3	15.4	9.40	5.94	4.28	3.02	2.10	1.72	0.92
1.85V	48.0	30.3	24.6	14.8	9.22	5.80	4.20	2.80	2.00	1.70	0.90

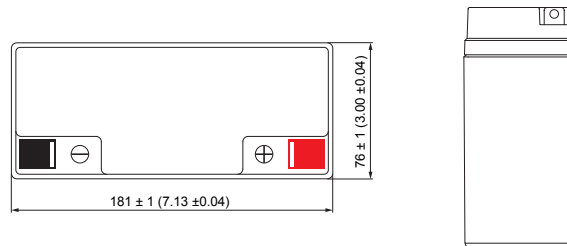
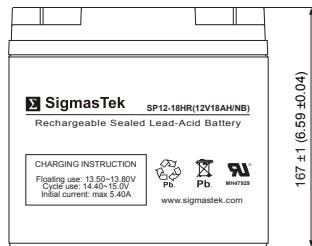
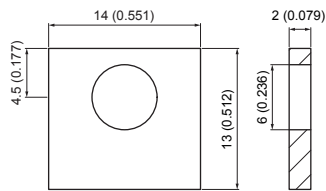
Constant Power Discharge (Watts Per Cell) at 25°C (77°F)

F.V. (V/cell) \ Discharge Time	5min	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	136.0	86.7	66.7	39.2	22.0	11.8	8.78	5.86	3.94	3.46	1.80
1.67V	131.7	82.2	65.8	38.7	21.9	11.7	8.73	5.83	3.93	3.43	1.78
1.70V	126.7	75.5	64.2	38.2	21.5	11.7	8.67	5.82	3.93	3.43	1.78
1.75V	119.2	71.0	63.0	37.3	21.2	11.5	8.60	5.77	3.88	3.41	1.77
1.80V	102.5	67.7	60.8	36.2	20.7	11.2	8.42	5.76	3.85	3.36	1.75
1.85V	91.70	62.5	55.0	32.5	19.8	10.9	8.20	5.48	3.84	3.33	1.73

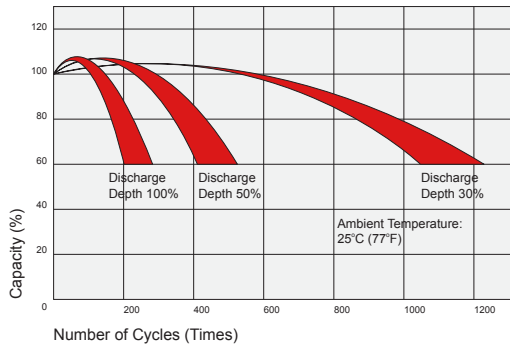
Dimensions

NB Terminal

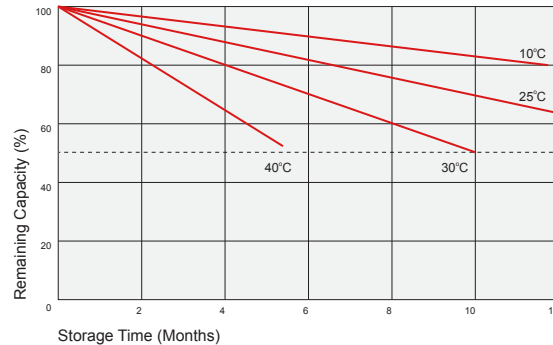
Unit: mm (inches)



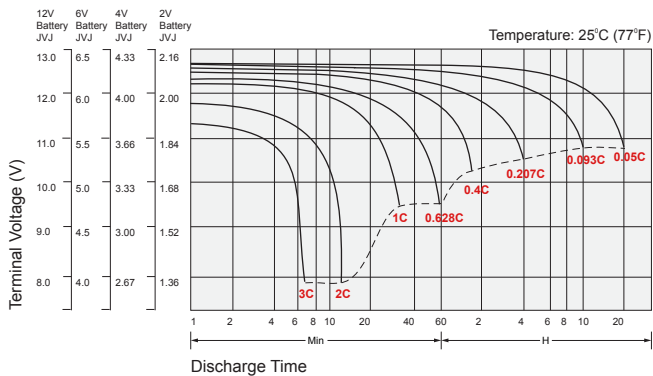
Cycle Service Life



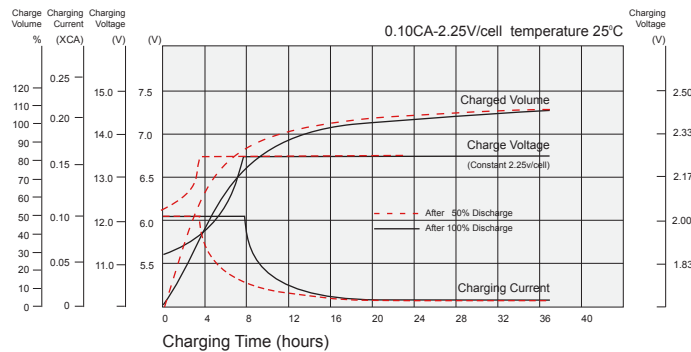
Self Discharge Characteristics



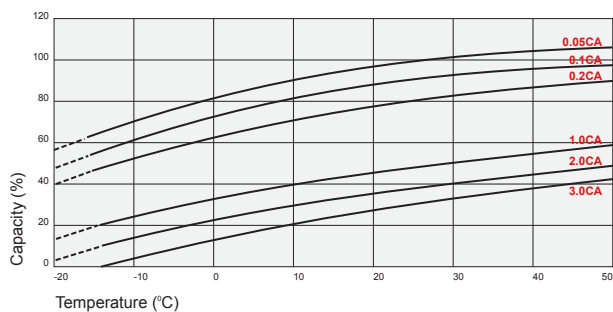
Discharge Characteristics



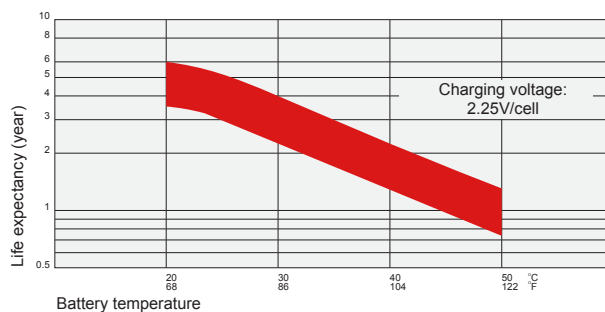
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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