

### Specifications

Nominal Voltage	12V	
Nominal Capacity (20HR)	50AH	
Dimension	Length	197mm (7.76 inches)
	Width	165mm (6.50 inches)
	Height	170mm (6.69 inches)
	Total Height (with Terminal)	170mm (6.69 inches)
	Approximate Weight	14.50 kg (31.96 lbs)
Battery Type	Valve Regulated Lead-Acid Battery, AGM Design	
Terminal Type	NB / IT	
Rated Capacity	49.6AH	(20hr, 1.75V/cell, 25°C/77°F)
	46.7AH	(10hr, 1.75V/cell, 25°C/77°F)
	39.3AH	(5hr, 1.75V/cell, 25°C/77°F)
	39.0AH	(3hr, 1.60V/cell, 25°C/77°F)
	27.6AH	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	540A	
Internal Resistance	9mΩ	
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



### 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	190	121	82.6	45.1	27.6	17.0	13.0	8.56	5.70	4.85	2.57
1.65V	188	116	77.2	44.1	26.6	16.4	12.6	8.29	5.65	4.71	2.56
1.70V	186	114	72.7	43.7	25.7	16.0	12.1	8.07	5.56	4.67	2.53
1.75V	170	107	68.1	42.0	25.0	15.4	11.8	7.86	5.48	4.62	2.48
1.80V	153	95.1	62.3	40.5	23.9	14.8	11.6	7.68	5.39	4.22	2.46
1.85V	127	78.1	60.4	33.1	23.0	13.0	10.4	7.09	5.13	4.22	2.27

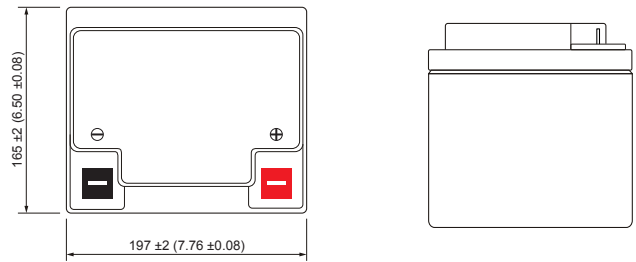
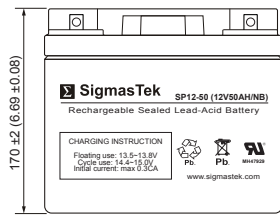
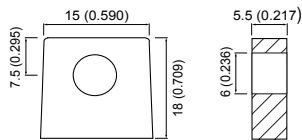
### Constant Power Discharge (Watts Per Cell) at 25°C (77°F)

F.V. (V/cell) \ Discharge Time	5min	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	333.3	216.7	163.3	88.6	56.3	29.7	24.7	16.3	10.90	9.31	4.83
1.65V	325.0	210.7	160.0	84.5	55.2	29.2	24.1	15.8	10.80	9.22	4.81
1.70V	322.0	207.2	157.5	80.8	53.5	28.8	23.2	15.4	10.70	9.05	4.75
1.75V	313.3	193.8	150.0	78.1	51.7	27.5	22.6	15.1	10.50	8.97	4.67
1.80V	266.7	173.2	133.5	75.8	50.3	27.0	22.3	14.7	10.40	8.89	4.63
1.85V	225.5	144.3	112.2	60.2	47.3	25.7	20.7	14.1	9.87	8.20	4.33

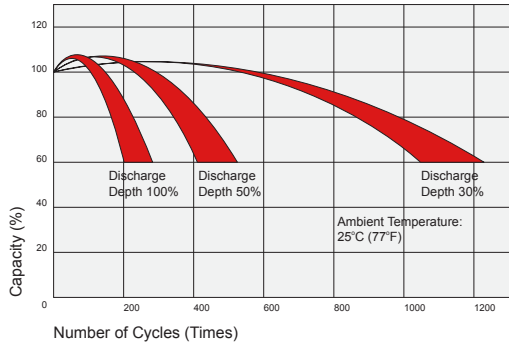
## Dimensions

### NB Terminal

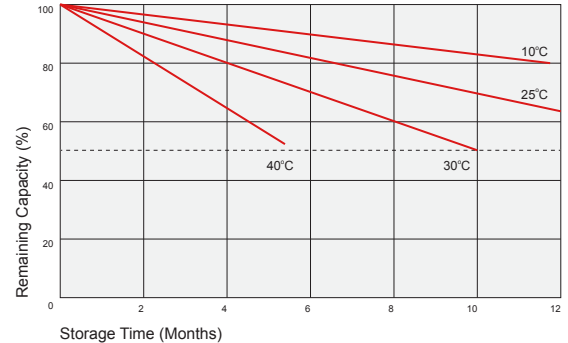
Unit: mm (inches)



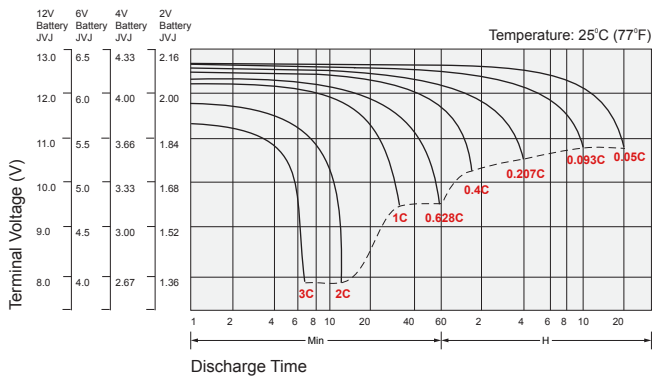
## Cycle Service Life



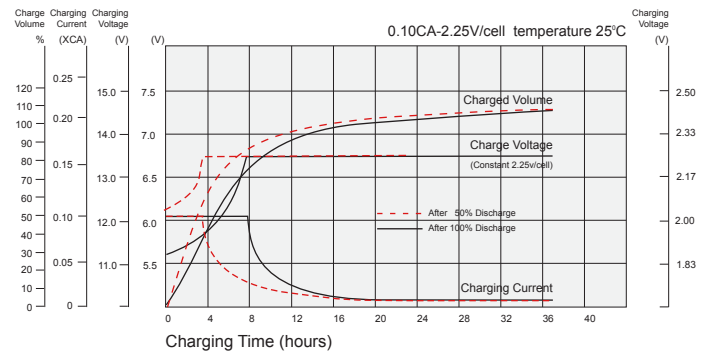
## Self Discharge Characteristics



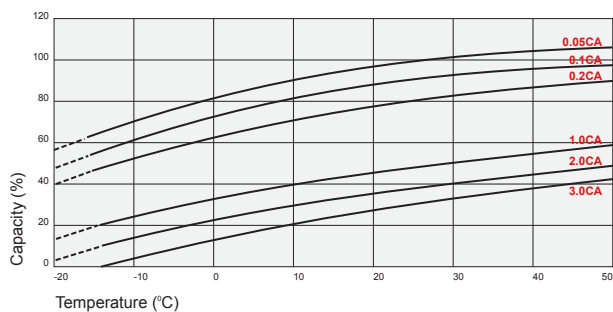
## Discharge Characteristics



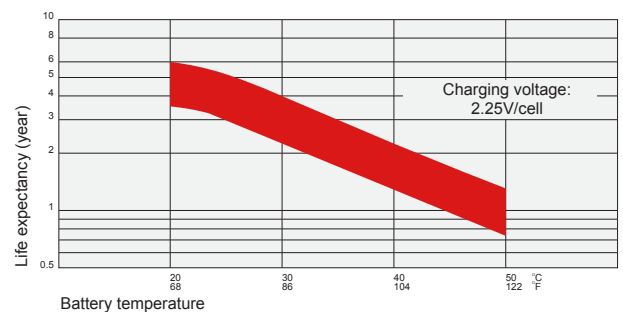
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Temperature Effects on Long Term Float Life



## Contact Information

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