

HV Series battery

HV Series VRLA batteries are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup HV Series Batteries are the general purpose batteries with 5 years floating design life at 25°C, Meet with IEC,BS,JIS and Eurobat standard,UL(MH62092),CE approved.



- * Emergency Power System
- * Communication equipment
- * Telecommunication systems
- * Uninterruptible power supplies
- * Electric toy car and wheelchairs, etc.

- * Power tools
- * Alarm system
- * Marine equipment
- * Medical equipment
- * Fire and Security System

General Features

- * Heavy Duty Grid
- * Mechanized assembly
- * Non-spillable construction
- * High Reliability and Stability
- * Sealed and Maintenance-free
- * Long Life and low self-discharge design

Construction

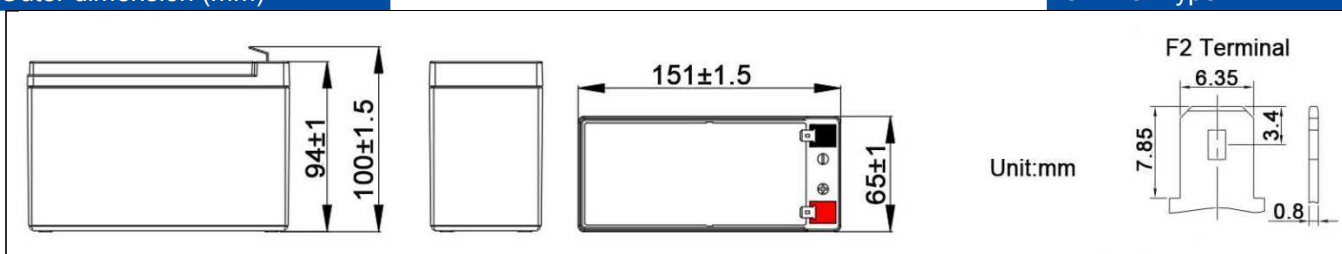
- * Positive ····· Lead dioxide
- * Electrolyte ··· Sulfuric acid
- * Separator ···· Fiber glass
- * Container ···· ABS(UL94-HB)/Flame Retardant ABS (UL94-V0)
- * Negative ····· Lead
- * Safety Valve ··· EPDR
- * Terminal ····· Copper

Specification

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated capacity (20 Hour rate)		7.5Ah	
Dimension	Length	Width	Height	Total Height
		151mm (5.94 inches)	65mm (2.56 inches)	94mm (3.70 inches)
Approx Weight	2.07kg(4.56 lbs) ± 3%			
Internal Resistance	Full charged at 25°C(77°F):Approx 26.5mΩ			
Maximum Charge Current	2.25A			
Max.discharge current	112A (5Sec.)			
Short-circuit current	250A			
Operating Temperature Range	Nominal Operating Temperature	Discharge	Charge	Storage
	25°C(77°F)	-15°C~ 50°C(5°F~122°F)	-15°C~ 40°C(5°F~104°F)	-15°C~ 40°C(5°F~104°F)
Capacity @ 25°C (77°F)	20 hour rate(0.39A, 10.5V)	10 hour rate(0.725A, 10.5V)	5 hour rate(1.239A, 10.5V)	1 hour rate(4.50A, 9.6V)
	7.8Ah	7.25Ah	6.195Ah	4.50Ah
Capacity affected by Temp.(20HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Charge method	Float Charging Voltage		Cycle Use Charging Voltage	
	13.5 ~ 13.8 VDC/Unit at 25°C(77°F)		14.4~ 15.0 VDC/Unit at 25°C(77°F)	

Outer dimension (mm)

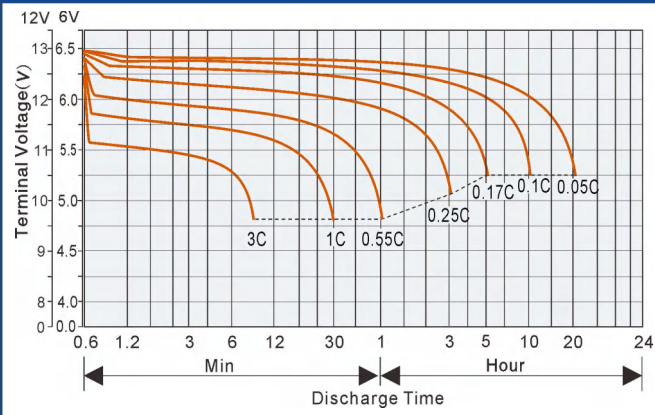
Terminal Type



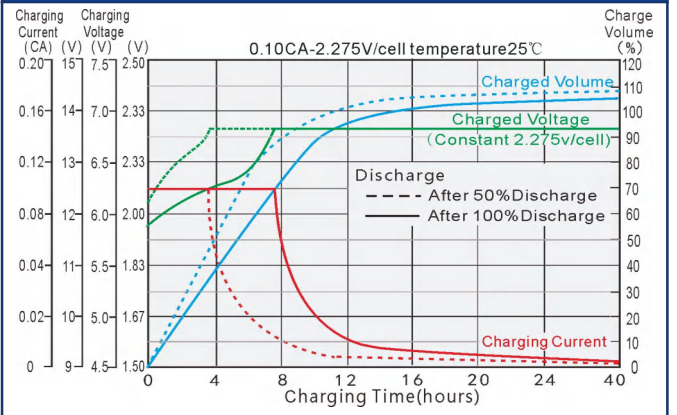
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	21.00	14.50	11.40	9.60	6.80	4.10	2.22	1.80	1.200	0.860	0.700	0.380
	W	38.62	27.17	21.57	18.37	13.19	8.02	4.35	3.54	2.370	1.710	1.403	0.767
1.80V/cell	A	22.20	15.10	11.80	9.85	6.96	4.19	2.29	1.85	1.220	0.875	0.712	0.385
	W	40.59	28.21	22.33	18.73	13.48	8.15	4.46	3.62	2.410	1.730	1.422	0.771
1.75V/cell	A	23.30	15.70	12.20	10.12	7.12	4.28	2.36	1.90	1.239	0.890	0.725	0.390
	W	42.47	29.15	22.99	19.14	13.66	8.26	4.56	3.70	2.430	1.760	1.443	0.777
1.70V/cell	A	24.50	16.30	12.50	10.38	7.27	4.37	2.43	1.94	1.258	0.905	0.737	0.395
	W	44.34	30.22	23.52	19.50	13.86	8.36	4.67	3.76	2.460	1.780	1.460	0.785
1.67V/cell	A	25.00	16.50	12.70	10.50	7.34	4.42	2.46	1.97	1.268	0.912	0.743	0.397
	W	45.00	30.43	23.84	19.68	13.91	8.43	4.71	3.80	2.470	1.790	1.466	0.787
1.60V/cell	A	26.40	17.30	13.20	10.80	7.50	4.50	2.50	2.00	1.280	0.920	0.750	0.400
	W	47.22	31.91	24.54	20.23	14.16	8.54	4.77	3.84	2.480	1.800	1.474	0.790

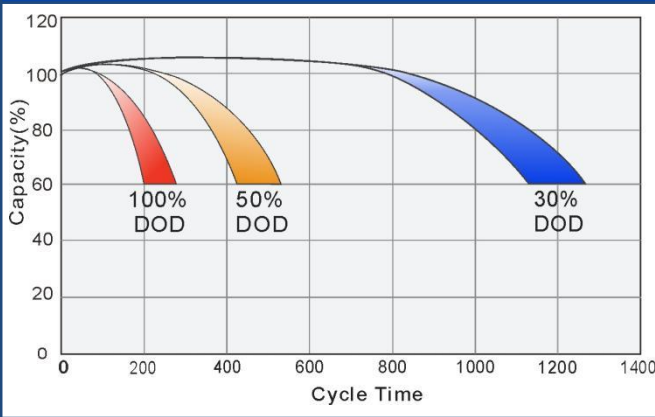
Discharge characteristic curve (25°C/77°F)



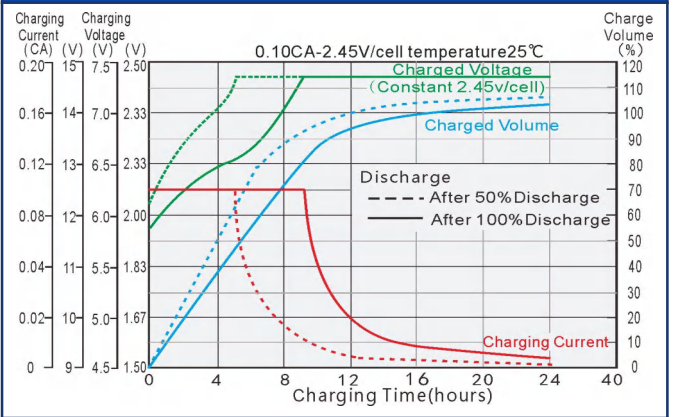
Charging characteristic curve of floating charge (25°C/77°F)



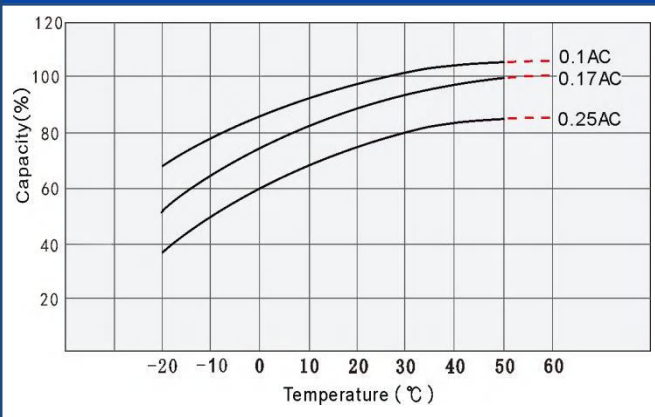
Cycle service life in relation to depth of discharge



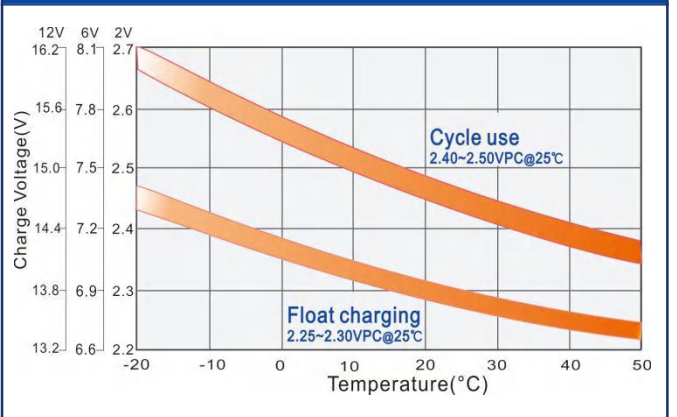
Cyclic charging characteristic curve (25°C/77°F)



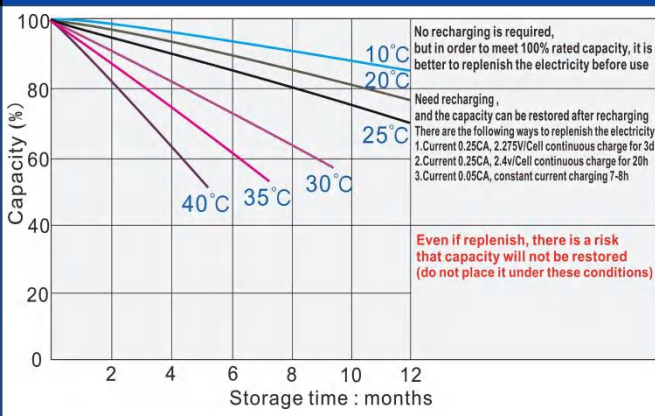
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life

