

Deep Cycle Series Battery

DC series VRLA batteries are superior deep cycle design with thick plates, high-density active materials And Slightly stronger electrolyte, Which can withstand repeated deep cyclic applications. Deep cycle series Batteries are the special design batteries with 10 years floating design life at 25 C. Meet with IEC, UL(MH62092),CE approved.

Application

- * Emergency Power System
- * Communication equipment
- * Telecommunication systems
- * Uninterruptible power supplies
- * Electric toy car and wheelchairs, etc.
- * Power tools
- * Golf cars and buggies
- * Marine equipment
- * Medical equipment
- * Solar and wind power system



General Features

- * Safety Sealing
- * Non-spillable construction
- * High power density
- * Excellent recovery from Deep discharge
- * Thick plates and high active materials
- * Longer Life and low self-discharge design

Construction

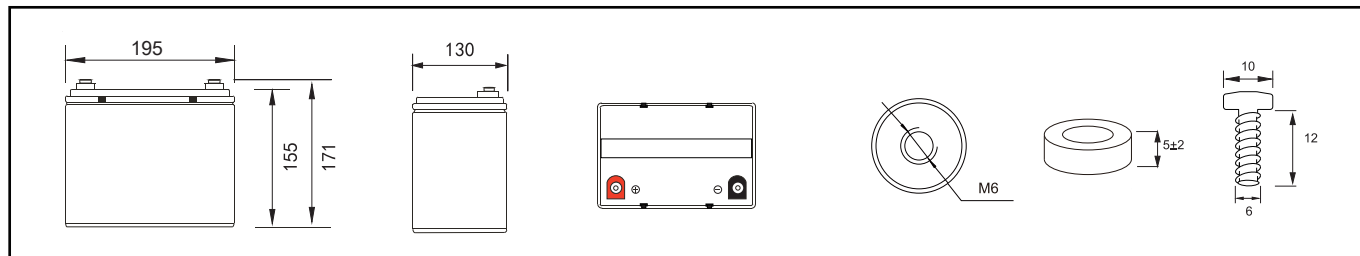
- * Positive Lead dioxide
- * Electrolyte Sulfuric acid
- * Separator Fiber glass
- * Container ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- * Negative Lead
- * Safety Valve EPDR
- * Terminal Copper

Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (10 Hour rate)		33Ah	
	Cells Per battery		DC 12V-33AH	
Dimension	Length	Width	Height	Total Height
	195mm (7.67 inches)	130mm (5.11 inches)	155mm (6.10 inches)	168mm (6.61 inches)
Approx Weight	9.75kg (21.31lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(3.55A,10.5V)	5 hour rate(6.40A,10.5V)	3 hour rate(9.31A,10.8V)	1 hour rate(22.8A,9.6V)
	33.5Ah	30Ah	27.93Ah	22.8Ah
Max.discharge current	360A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 8.6mΩ			
Capacity affected by Temp.(10 HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Self Discharge @25°C (77°F)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
	Cycle Use		Float Use	
Charge method @25°C (77°F)	14.40-14.70V (Initial charging current less than 10.8A)		13.50-13.80V	

Outer dimension (mm)

Terminal Type (mm)

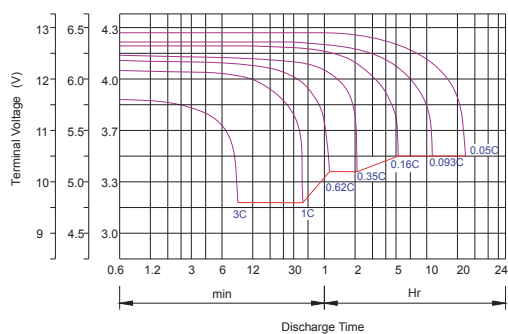


Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

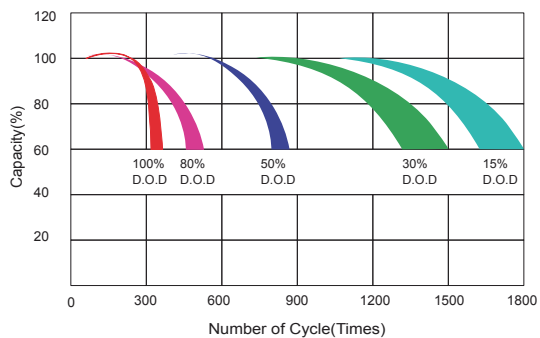
F.V/time	5MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	128.450	92.268	69.790	38.100	22.800	16.687	13.326	9.493	6.478	4.523	3.684	2.033
	237.574	176.137	134.695	75.895	45.486	33.319	26.664	18.993	12.962	9.051	7.370	4.068
1.67V	114.035	86.105	66.165	37.286	22.635	16.522	13.260	9.443	6.443	4.485	3.626	1.931
	210.880	164.354	127.797	74.311	45.159	32.997	26.553	18.928	12.914	8.993	7.271	3.872
1.70V	107.949	83.023	64.533	36.960	22.470	16.505	13.227	9.419	6.441	4.440	3.581	1.880
	199.669	158.574	124.742	73.664	44.884	32.977	26.498	18.885	12.914	8.907	7.183	3.771
1.75V	97.699	78.129	61.814	36.309	22.139	16.290	13.144	9.360	6.407	4.428	3.550	1.850
	180.716	149.258	119.610	72.419	44.333	32.581	26.327	18.776	12.852	8.889	7.127	3.714
1.80V	87.288	72.872	59.276	35.495	21.974	16.175	13.061	9.310	6.389	4.390	3.493	1.789
	161.497	139.267	114.877	70.827	44.058	32.430	26.166	18.686	12.823	8.819	7.017	3.594
1.85V	76.878	67.615	56.195	34.518	21.643	15.993	12.945	9.227	6.353	4.333	3.435	1.728
	142.277	129.276	109.017	68.927	43.460	32.146	25.945	18.538	12.764	8.713	6.909	3.475

Note: The above datas are average values. (Edition 2023-05)

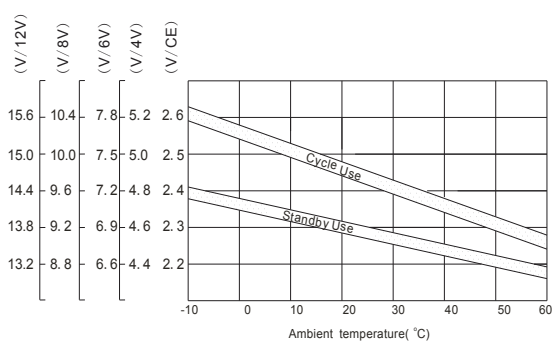
Discharge characteristic Curve



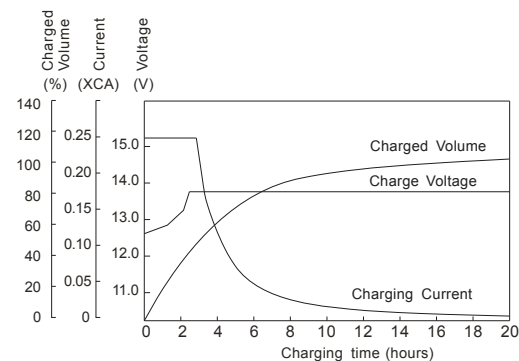
Cycle service life in relation to depth of discharge



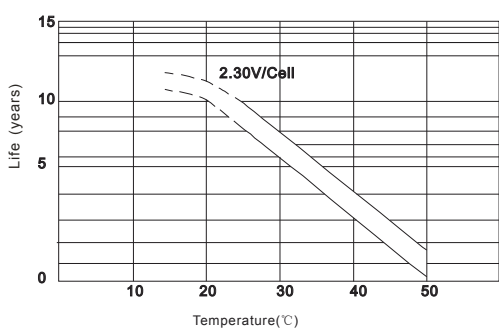
Relationship between charging voltage and temperature



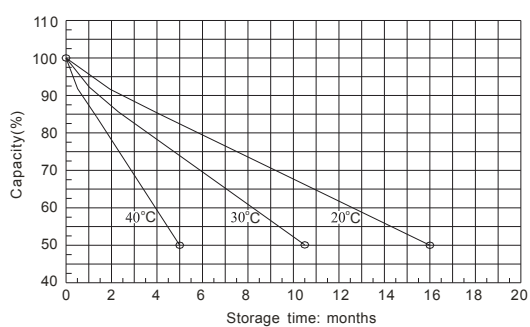
Constant voltage charging characteristic (0.25CA, at 25°C)



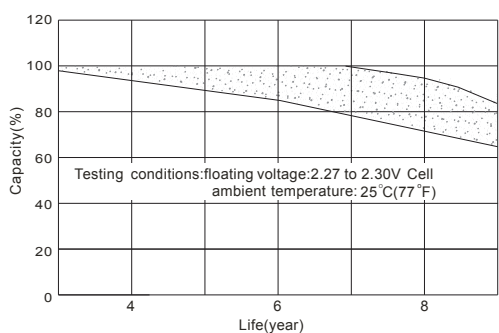
Temperature effects on float life



Self-discharge characteristic



Life characteristics of standby use



Charge characteristic Curve for standby use

