

### 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
- \* Alarm system
- \* Marine equipment
- \* Medical equipment
- \* Fire and Security System



### General Features

- \* Heavy Duty Grid
- \* Mechanized assembly
- \* Non-spillable construction
- \* High Reliability and Stability

### Construction

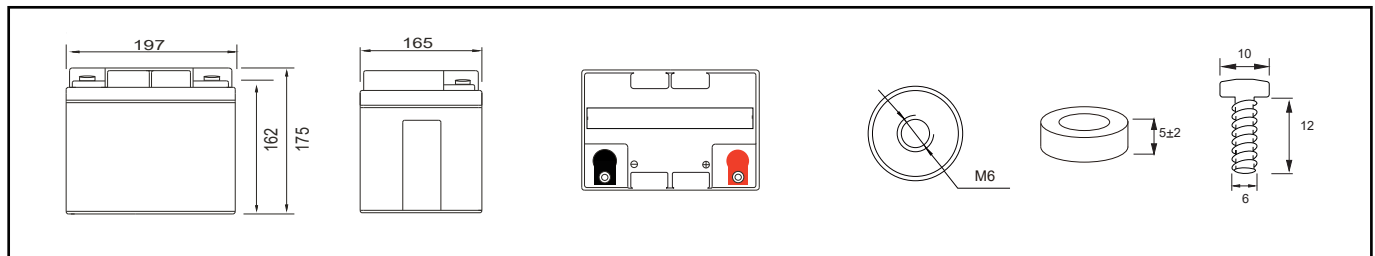
- \* Positive Lead dioxide
- \* Negative Lead
- \* Electrolyte Sulfuric acid
- \* Safety Valve EPDR
- \* Separator Fiber glass
- \* Terminal Copper
- \* Container....ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)

### Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (10 Hour rate)		40Ah	
	Cells Per battery		DC 12V-40AH	
Dimension	Length	Width	Height	Total Height
	197mm (7.75 inches)	165mm (6.49 inches)	162mm (6.37 inches)	175mm (7.13 inches)
Approx Weight	12.2kg (26.45lbs) ± 3%			
Capacity @ 25°C (77°F)	20 hour rate(10.5V)	10 hour rate(10.8V)	5 hour rate(10.5V)	1 hour rate(9.6V)
	45.0Ah	40.2Ah	39.35Ah	24.0Ah
Max.discharge current	456A (5 Sec.)			
	Full charged at 25°C(77°F): Approx 9mΩ			
Capacity affected by Temp.(20 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
	98%		94%	74%
Charge method @25°C (77°F)	Cycle Use		Float Use	
	14.40-14.7V (Initial charging current less than 11.4A)		13.50-13.80V	

### Outer dimension (mm)

### Terminal Type (mm)

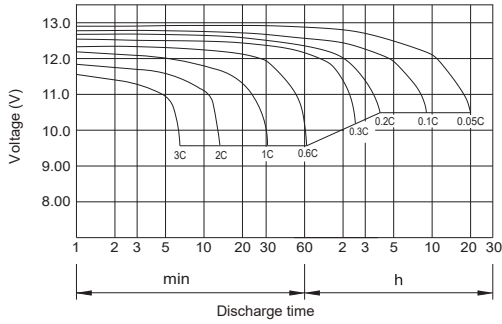


Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

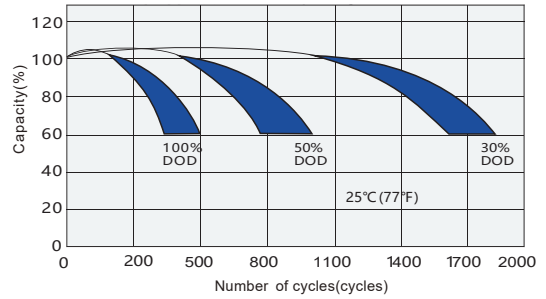
F.V/VTIME		15MIN	30MIN	60MIN	90MIN	2 HR	3HR	5HR	8HR	10HR	20HR
1.60V/cell	A	73.100	47.500	24.000	17.565	14.807	10.548	7.198	5.097	4.151	2.308
	W	141.083	94.620	47.880	35.072	29.626	21.104	14.402	10.198	8.305	4.617
1.67V/cell	A	69.303	46.485	23.826	17.391	14.733	10.492	7.158	5.054	4.086	2.192
	W	133.858	92.645	47.536	34.734	29.504	21.031	14.349	10.133	8.192	4.396
1.70V/cell	A	67.594	46.079	23.652	17.374	14.696	10.466	7.157	5.003	4.034	2.134
	W	130.659	91.838	47.246	34.713	29.442	20.984	14.349	10.036	8.093	4.281
1.75V/cell	A	64.746	45.267	23.304	17.148	14.604	10.400	7.119	4.989	4.000	2.100
	W	125.283	90.286	46.667	34.296	29.252	20.862	14.280	10.016	8.030	4.216
1.80V/cell	A	62.088	44.252	23.130	17.026	14.512	10.345	7.099	4.946	3.935	2.031
	W	120.326	88.301	46.377	34.137	29.073	20.762	14.248	9.937	7.906	4.080

Note: The above datas are average values. (Edition 2023-07)

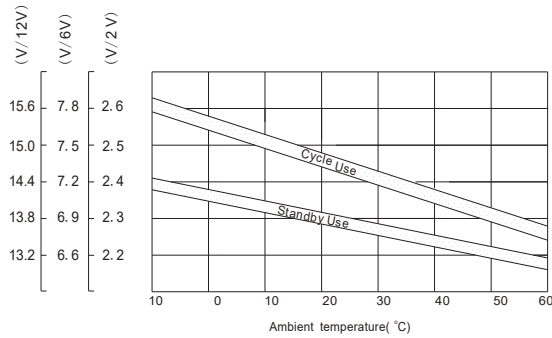
**Discharge characteristic Curve**



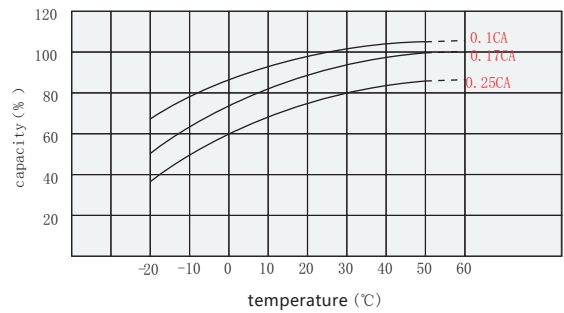
**Cycle service life in relation to depth of discharge**



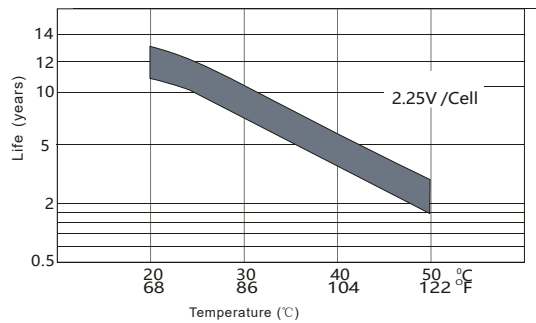
**Relationship between charging voltage and temperature**



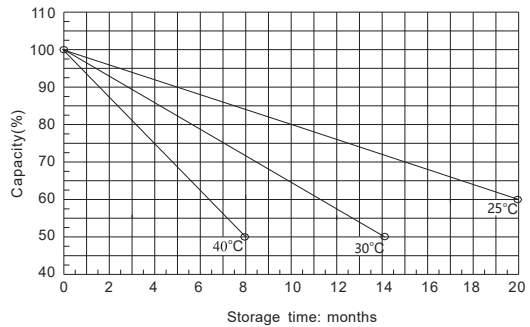
**Relationship between temperature and capacity**



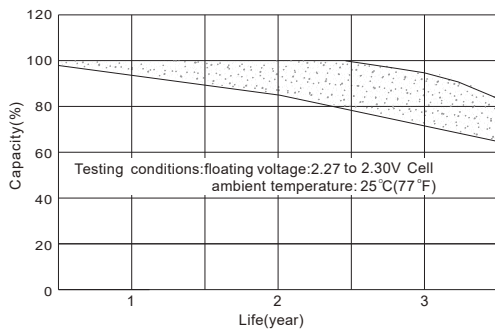
**Temperature effects on float life**



**Self-discharge characteristic**



**Life characteristics of standby use**



**Charge characteristic Curve for standby use**

