

Deep Cycle Series Battery

DC series VRLA batteries are designed with a continuous rolling and stamping grid structure, which can withstand repeated deep cyclic applications.

Deep cycle series Batteries are the special design batteries with 15 years floating design life at 25°C. Meet with IEC, BS,JIS and Eurobat standard.UL(MH62092),CE approved.

Application

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

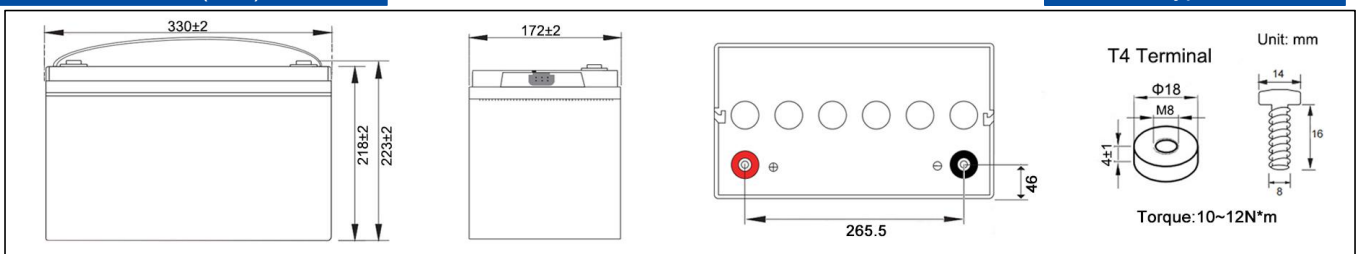
Construction

- * 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 (6 cells per unit)	
	Rated capacity (10 Hour rate)		100Ah	
Dimension	Length	Width	Height	Total Height
	330mm (12.99 inches)	172mm (6.77 inches)	218mm (8.58 inches)	223mm (8.78 inches)
Approx Weight	28.2kg (62.17lbs) ± 3%			
Internal Resistance	Full charged at 25°C(77°F): Approx 3.78mΩ			
Maximum Charge Current	30A			
Max.discharge current	1000A (5Sec.)			
Short-circuit current	1850A			
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)	10 hour rate(10.0A,10.8V)	5 hour rate(17.28A,10.5V)	3 hour rate(25.77A,10.2V)	1 hour rate(61.5A,9.6V)
	100.0Ah	86.4Ah	77.31Ah	61.50Ah
Capacity affected by Temp.(10HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Charge method at 25°C(77°F)	Float Charging Voltage	Equalization Charging Voltage	Cycle Use Voltage	
	13.5~13.8 VDC (-3mV/cell/°C)	14.1~14.4 VDC (-4mV/cell/°C)	14.4~15.0 VDC (-5mV/cell/°C)	

Outer dimension (mm)

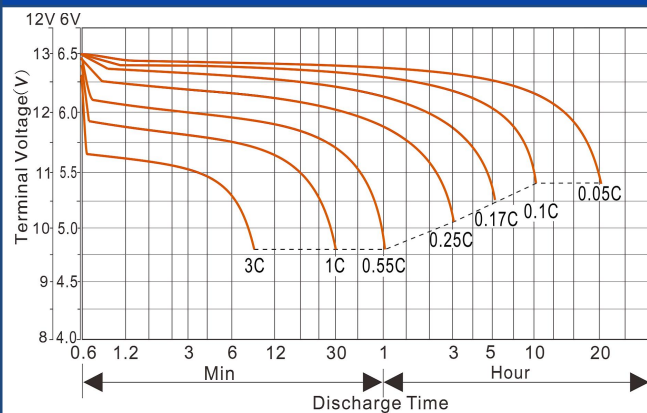


Terminal Type

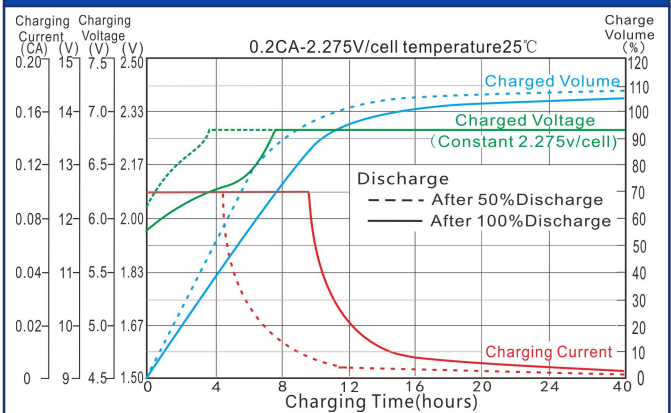
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	235	180	145	121	93.5	56.8	35.3	24.54	16.67	11.81	9.89	5.25
	W	440	343	279	235	182.9	112.3	70.4	49.13	33.50	23.77	19.92	10.59
1.80V/cell	A	265	195	156	128	97.5	58.0	35.9	25.00	17.00	12.00	10.00	5.30
	W	488	367	297	246	189.3	114.1	71.4	49.91	34.08	24.11	20.11	10.68
1.75V/cell	A	292	209	165	135	101.1	59.1	36.4	25.41	17.28	12.17	10.07	5.35
	W	529	388	311	258	194.9	115.8	72.1	50.61	34.57	24.41	20.22	10.77
1.70V/cell	A	317	222	173	141	104.3	60.2	36.9	25.77	17.52	12.31	10.13	5.39
	W	565	408	324	267	199.9	117.4	72.9	51.22	34.99	24.67	20.31	10.84
1.67V/cell	A	330	228	177	144	105.9	60.7	37.1	25.92	17.62	12.37	10.16	5.41
	W	584	416	330	272	202.3	118.2	73.2	51.47	35.17	24.77	20.36	10.88
1.60V/cell	A	350	238	183	149	108.0	61.5	37.5	26.20	17.76	12.44	10.20	5.43
	W	611	430	338	279	205.4	119.4	73.9	51.95	35.42	24.89	20.43	10.91

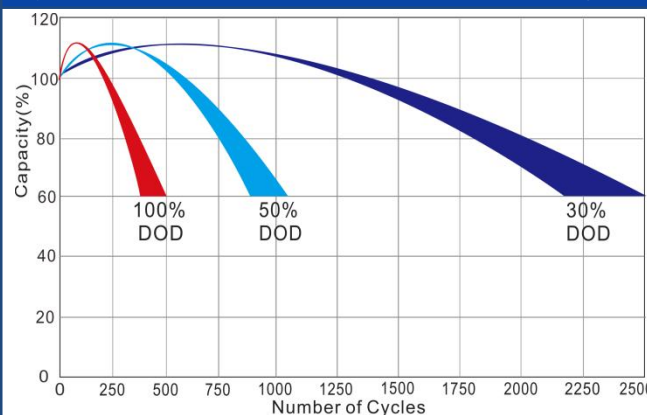
Discharge characteristic curve (25°C/77°F)



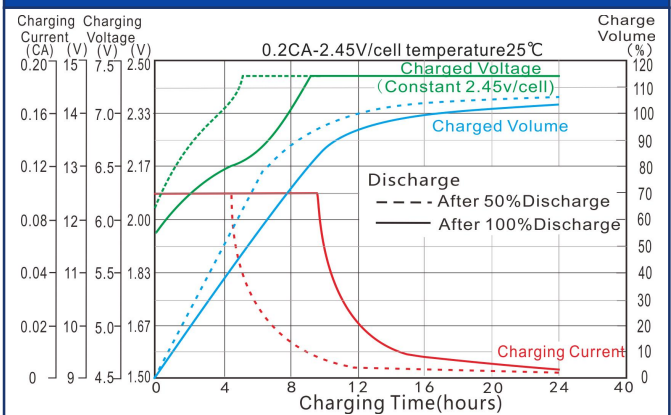
Charging characteristic curve of floating charge (25°C/77°F)



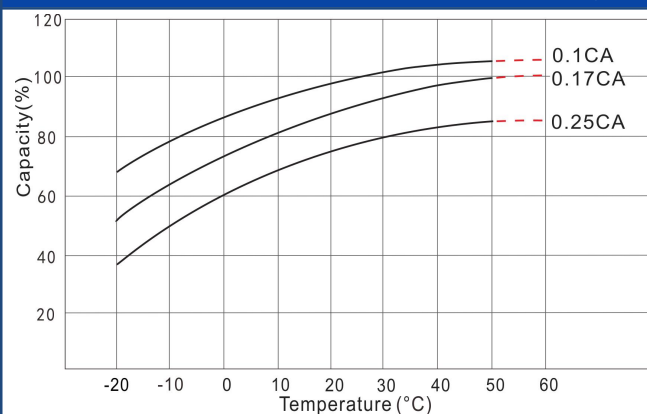
Cycle service life in relation to depth of discharge



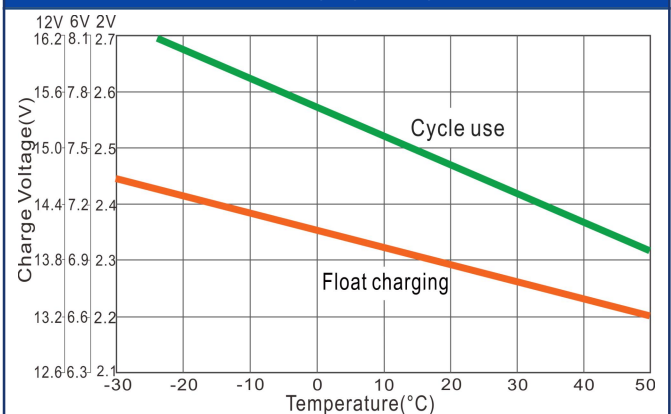
Cyclic charging characteristic curve (25°C/77°F)



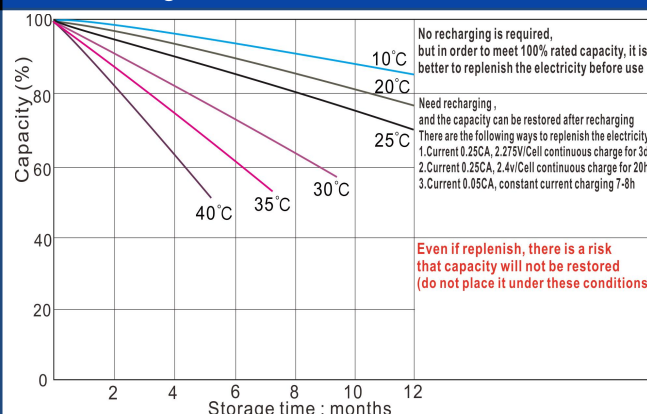
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life

