JYC BATTERY MANUFACTURER CO.,LTD.

DC33-12 (12V33Ah)

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 8 years floating design life at 25℃.
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.
* 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

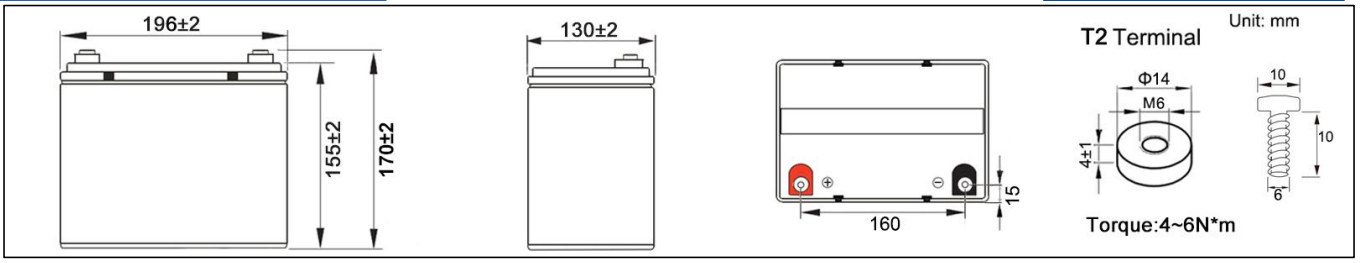
Construction

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

Specification

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated capacity (20 Hour rate)		33Ah	
Dimension	Length	Width	Height	Total Height
	196mm (7.72 inches)	130mm (5.12 inches)	155mm (6.10 inches)	170mm (6.69 inches)
Approx Weight	9.50kg(20.94lbs) ± 3%			
Internal Resistance	Full charged at 25℃(77℉):Approx 8.20mΩ			
Maximum Charge Current	9.9A			
Max.discharge current	396A (5Sec.)			
Short-circuit current	880A			
Operating Temperature Range	Nominal Operating Temperature	Discharge	Charge	Storage
	25℃(77℉)	-15℃~ 50℃ (5℉~122℉)	-15℃~ 40℃ (5℉~104℉)	-15℃~ 40℃ (5℉~104℉)
Capacity @ 25℃ (77℉)	20 hour rate(1.73A,10.5V)	10 hour rate(3.3A,10.5V)	3 hour rate(9.07A,10.2V)	1 hour rate(22.2A,9.6V)
	34.6Ah	33.0Ah	27.21Ah	22.20Ah
Capacity affected by Temp.(10HR)	40℃ (104℉)	25℃ (77℉)	0℃ (32℉)	-15℃ (5℉)
	102%	100%	85%	65%
Charge method at 25℃(77℉)	Float Charging Voltage	Equalization Charging Voltage	Cycle Use Voltage	
	13.5~13.8 VDC (-3mV/cell/℃)	14.1~14.4 VDC (-4mV/cell/℃)	14.4~15.0 VDC (-5mV/cell/℃)	

Outer dimension (mm)



Terminal Type

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25℃(77℉)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	100	69.5	54.5	44.2	34.5	20.5	12.00	8.67	5.77	3.87	3.20	1.69
	W	189	133.0	104.6	85.0	67.5	40.2	23.71	17.22	11.47	7.80	6.50	3.46
1.80V/cell	A	107	73.5	57.0	46.5	35.6	20.9	12.24	8.81	5.87	3.93	3.25	1.71
	W	199	139.1	108.6	88.8	69.2	41.0	24.09	17.45	11.64	7.87	6.56	3.48
1.75V/cell	A	113	77.2	59.7	48.4	36.5	21.3	12.43	8.95	5.96	3.98	3.30	1.73
	W	209	144.9	112.8	91.5	70.5	41.7	24.35	17.67	11.80	7.94	6.60	3.50
1.70V/cell	A	119	80.4	62.3	50.0	37.2	21.6	12.60	9.07	6.04	4.03	3.33	1.74
	W	218	150.0	117.0	94.2	71.7	42.2	24.61	17.88	11.93	8.01	6.64	3.51
1.67V/cell	A	122	82.3	64.3	50.9	37.7	21.8	12.72	9.15	6.08	4.06	3.35	1.75
	W	223	152.1	120.0	95.6	72.5	42.6	24.81	18.00	12.00	8.05	6.66	3.52
1.60V/cell	A	130	86.0	67.0	52.8	38.5	22.2	12.92	9.25	6.15	4.11	3.38	1.77
	W	236	157.5	125.0	98.5	73.7	43.2	25.14	18.20	12.11	8.11	6.70	3.54

Note: The above datas are average values. (Edition 2024-08 A1)

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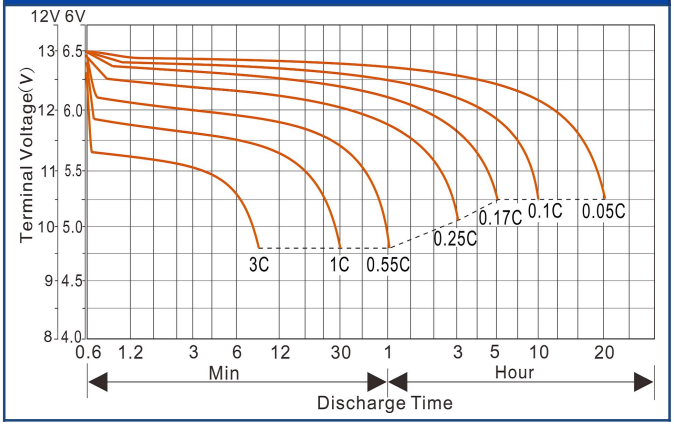
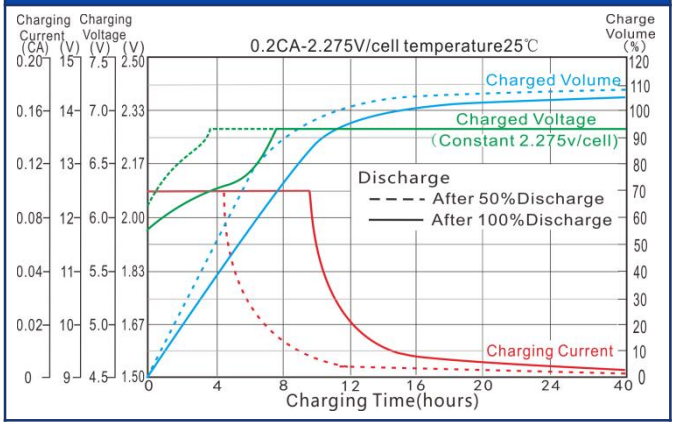
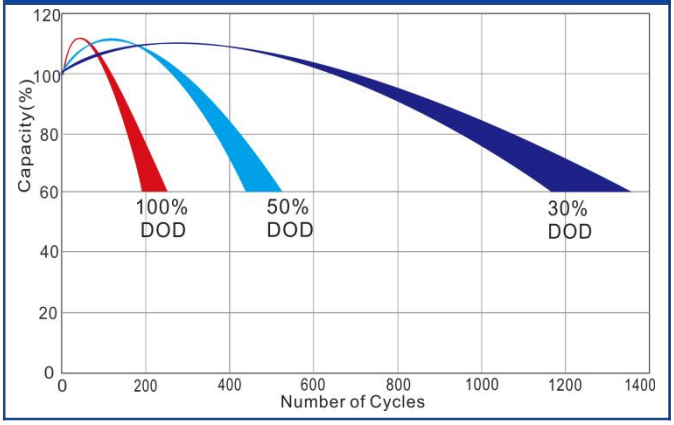
Discharge characteristic curve (25℃/77℉)



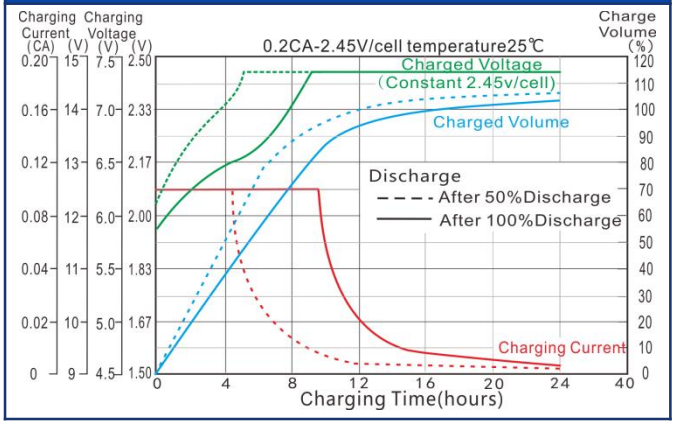
Charging characteristic curve of floating charge(25℃/77℉)



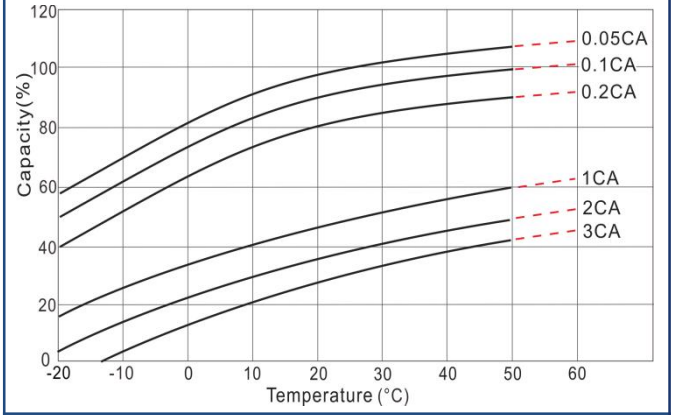
Cycle service life in relation to depth of discharge



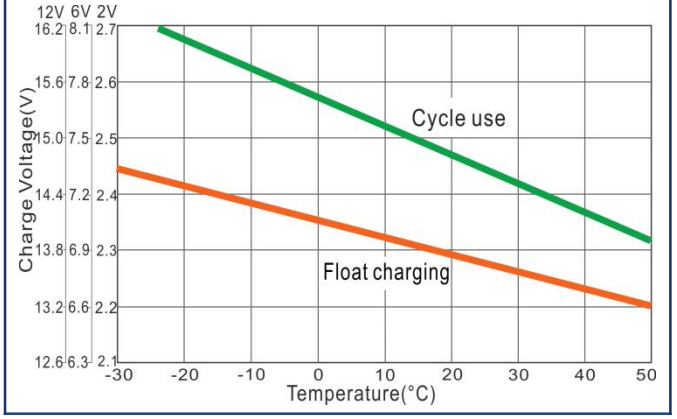
Cyclic charging characteristic curve (25℃/77℉)



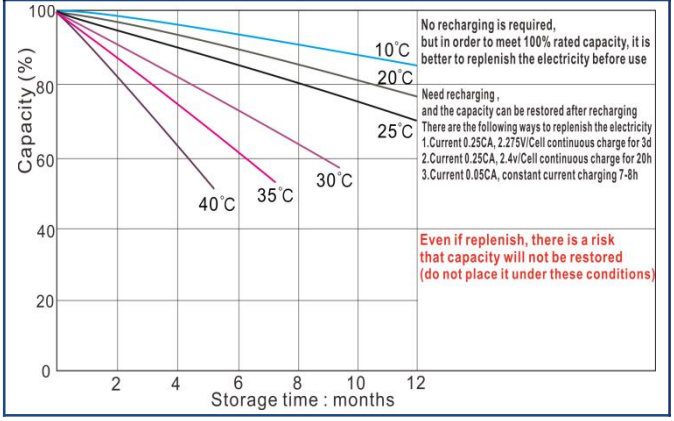
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life