

SLA BATTERY—DEEP CYCLE SERIES

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	100Ah@10hr-rate (10.0A to 1.80V/cell @25°C)
Weight	Approx.30.5Kg
Terminal	M6,Φ=14&18
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	103Ah 20hr-rate (5.15A to 1.80V/cell @25°C)
	100Ah 10hr-rate (10.0A to 1.80V/cell @25°C)
	86Ah 5hr-rate (17.2A to 1.75V/cell @25°C)
	65Ah 1hr-rate (65.0A to 1.60V/cell @25°C)
Max. Discharge Current	500A(5sec)
Internal Resistance	Approx.3.5 mΩ(Fully charged)
Operating Temp. Range	Discharge: -20°C~50°C
	Charge : -10°C~50°C
	Storage : -10°C~40°C
Cycle Use	Charging Current:≤30.0A
	Voltage:14.6V~14.8V
	Temperature compensation:-30mV/°C
Standby Use	Charging Current:No limit
	Voltage:13.6V~13.8V
	Temperature compensation:-20mV/°C
Self-Discharge	less than 3% at 25°C
Design Life	12 years (floating charge)



Introduction

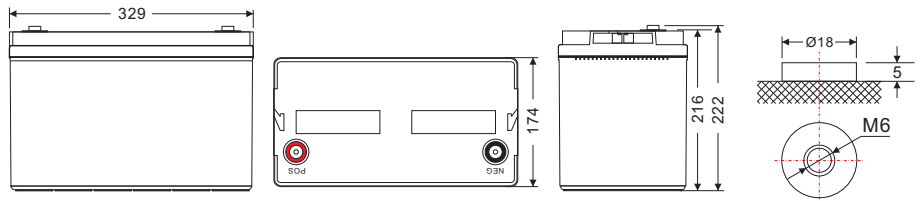
The MOTOMA deep cycle Series batteries with 12 years or more floating life which are designed for deep discharge application, it use the special chemical formula for plates, active paste material, slightly stronger electrolyte and low temperature design, which can withstand repeated deep cyclic application. The deep discharge cycles of deep cycle batteries can be more than 30% compared with other normal AGM batteries.

Applications

- ◆ Auto control system & ATM machine
- ◆ Electronic apparatus and equipment
- ◆ Emergency light & Emergency backup power supply & Alarm/Security system
- ◆ Power generation system (solar and wind power system, etc.)
- ◆ Communication power & DC power
- ◆ Electric Power System (EPS)
- ◆ Uninterruptable Power System (UPS)
- ◆

Dimensions

Length	329±1mm (12.95 inches)
Width	174±1mm (6.85 inches)
Height	216±1mm (8.50 inches)
Total Height	222±1mm (8.74 inches)



Unit: mm

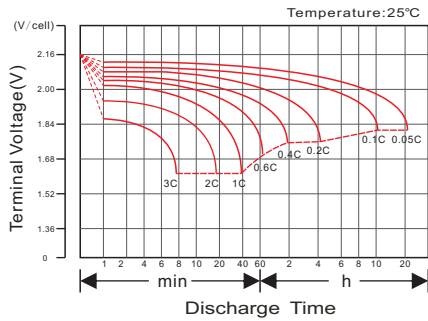
Constant Current Discharge Characteristics: A (25°C)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	313.4	224.6	177.8	111.6	65.00	36.31	26.10	21.60	17.68	12.42	10.50	5.554
1.65V/cell	305.1	213.7	174.2	109.7	64.70	36.04	26.00	21.50	17.58	12.32	10.40	5.453
1.70V/cell	287.5	206.2	171.5	108.7	64.10	35.76	25.80	21.40	17.47	12.22	10.30	5.352
1.75V/cell	258.1	190.2	163.2	106.0	63.50	35.49	25.70	21.20	17.26	12.12	10.20	5.251
1.80V/cell	240.2	173.5	150.5	101.4	62.00	34.85	25.00	20.70	16.95	11.92	10.10	5.150
1.85V/cell	209.1	155.0	135.0	94.96	58.90	33.31	23.90	19.70	16.22	11.41	9.796	4.848

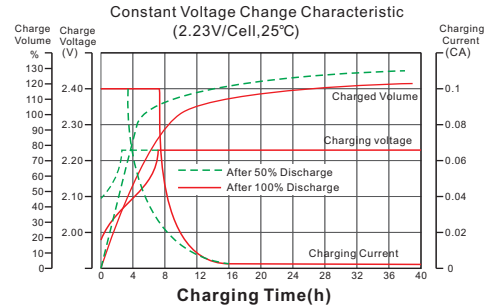
Constant Power Discharge Characteristics: W (25°C)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	298.5	2250	1875	1233	743.4	417.7	301.2	249.6	204.7	144.1	118.1	62.38
1.65V/cell	292.4	2149	1836	1218	739.8	416.1	300.6	249.0	203.4	143.5	116.9	61.78
1.70V/cell	276.0	2078	1811	1203	734.4	412.2	298.8	247.8	202.8	142.3	116.3	61.17
1.75V/cell	248.6	1920	1727	1176	727.2	408.4	297.0	246.0	200.9	141.1	115.1	60.56
1.80V/cell	230.5	1743	1587	1122	709.2	402.4	289.8	239.4	197.8	138.1	113.9	59.96
1.85V/cell	199.0	1548	1417	1052	672.0	383.8	275.4	228.0	187.8	133.2	110.2	57.54

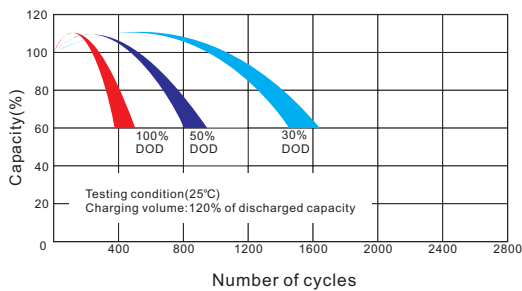
Discharge Characteristics Curve



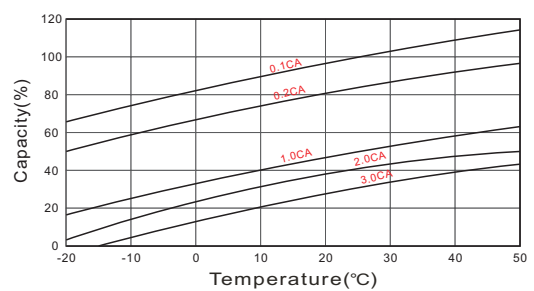
Charging Characteristics Curve



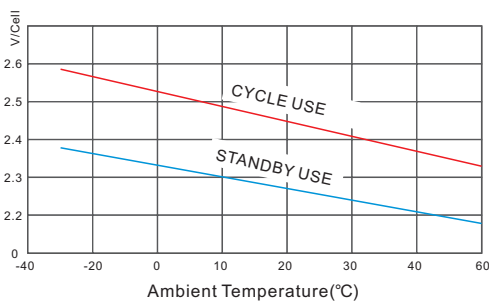
Cycle life in relation to depth of Discharge



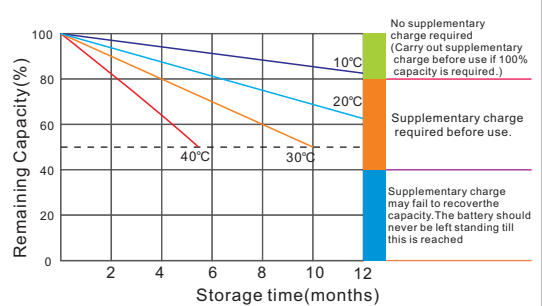
Temperature effects on Capacity



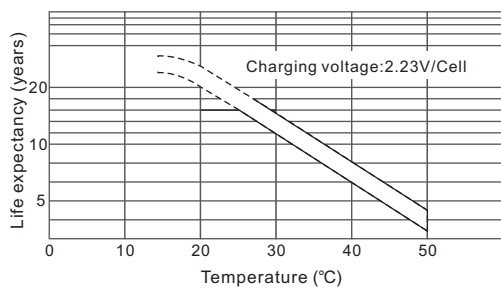
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

