

**SLA BATTERY—DEEP CYCLE SERIES**

**Specification**

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	120Ah@10hr-rate (12.0A to 1.80V/cell @25°C)
Weight	Approx.36Kg
Terminal	M6,Φ=18
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	123.6Ah     20hr-rate (6.18A to 1.80V/cell @25°C)
	121.2Ah     10hr-rate (12.12A to 1.80V/cell @25°C)
	103.6Ah     5hr-rate (20.72A to 1.75V/cell @25°C)
	78Ah         1hr-rate (78.0A to 1.60V/cell @25°C)
Max. Discharge Current	600A(5sec)
Internal Resistance	Approx.3.0 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:≤36.0A
	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**

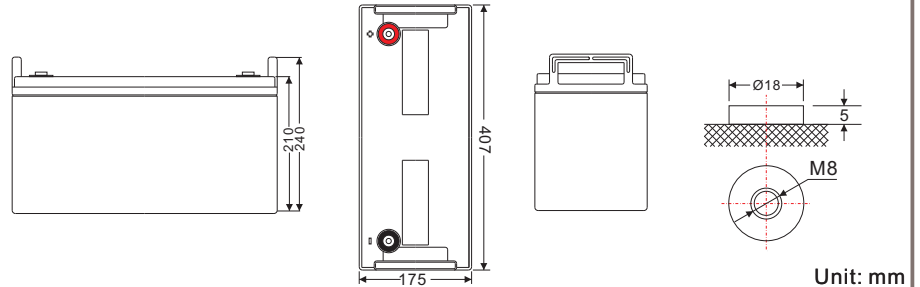
The MOTOMA deep cycle Series batteries with 12 years or more floating life which are designed for deep discharge application, it use the special chemical formula for plates,active paste material, slightly stronger electrolyte and low temperature design, which can withstand repeated deep cyclic application. 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	407±1mm (16.02 inches)
Width	175±1mm (6.88 inches)
Heigth	210±1mm (8.26 inches)
Total Heigth	240±1mm (9.44 inches)



Unit: mm

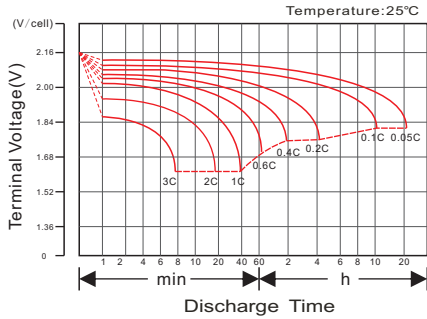
**Constant Current Discharge Characteristics: A (25°C)**

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	376.1	269.5	213.4	133.9	78.00	43.57	31.32	25.92	21.22	14.91	12.60	6.665
1.65V/cell	366.1	256.5	209.0	131.6	77.64	43.24	31.20	25.80	21.09	14.78	12.48	6.544
1.70V/cell	345.0	247.4	205.7	130.5	76.92	42.92	30.96	25.68	20.97	14.66	12.36	6.423
1.75V/cell	309.8	228.3	195.9	127.2	76.20	42.59	30.84	25.44	20.72	14.54	12.24	6.302
1.80V/cell	288.2	208.2	180.6	121.6	74.40	41.82	30.00	24.84	20.34	14.30	12.12	6.181
1.85V/cell	250.9	186.1	162.0	114.0	70.68	39.97	28.68	23.64	19.47	13.69	11.76	5.817

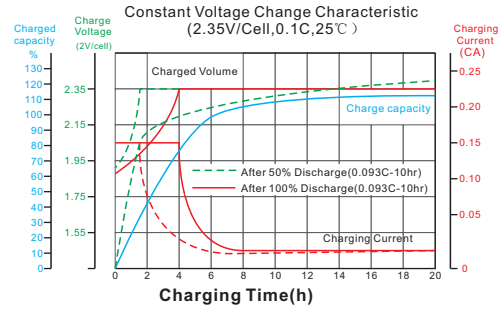
**Constant Power Discharge Characteristics: W (25°C)**

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	3582	2701	2250	1479	892.1	501.2	361.4	299.5	245.6	173.0	141.7	74.86
1.65V/cell	3509	2579	2204	1461	887.8	499.3	360.7	298.8	244.1	172.2	140.3	74.13
1.70V/cell	3313	2493	2174	1444	881.3	494.7	358.6	297.4	243.4	170.8	139.5	73.40
1.75V/cell	2983	2304	2073	1411	872.6	490.1	356.4	295.2	241.1	169.3	138.1	72.68
1.80V/cell	2766	2092	1904	1347	851.0	482.9	347.8	287.3	237.4	165.7	136.6	71.95
1.85V/cell	2388	1858	1701	1262	806.4	460.6	330.5	273.6	225.4	159.9	132.3	69.04

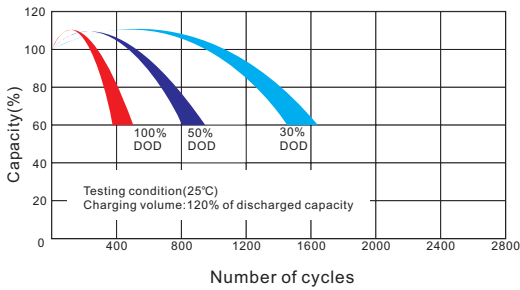
**Discharge Characteristics Curve**



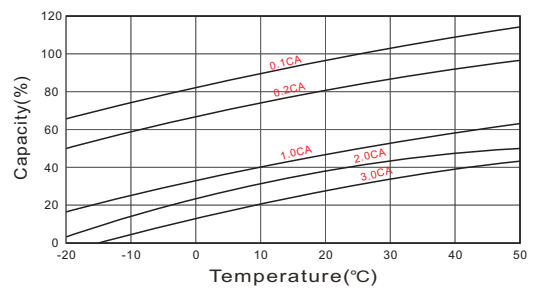
**Charging Characteristics Curve**



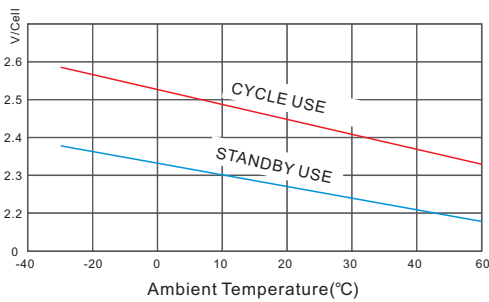
**Cycle life in relation to depth of Discharge**



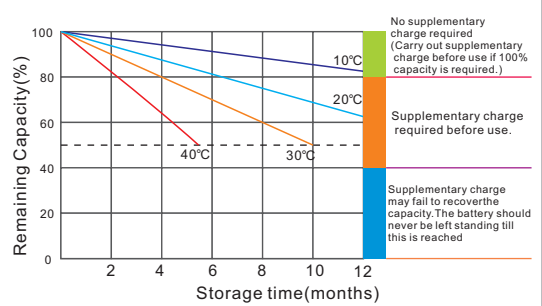
**Temperature effects on Capacity**



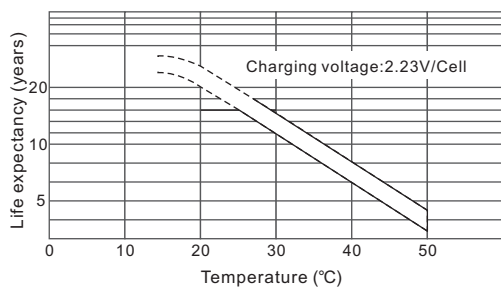
**Relationship between charging voltage and temperature**



**Self-discharge Characteristics**



**Temperature effects on Float life**



**Life Characteristics of Standby use**

