MOTOMA®
Power into the Future

VRLA BATTERY | MS12V120 | 12V120Ah

SLA BATTERY—STANDARD SERIES

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	120Ah@10hr-rate (12.0A to 1.80V/cell @25℃)
Weight	Approx.36.0Kg
Terminal	M8,Φ=18
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	124.2Ah 20hr-rate (6.21A to 1.80V/cell @25℃) 120.0Ah 10hr-rate (12.0A to 1.80V/cell @25℃) 104.0Ah 5hr-rate (20.8A to 1.75V/cell @25℃) 78.3Ah 1hr-rate (78.3A to 1.60V/cell @25℃)
Max. Discharge Current	960A(5sec)
Internal Resistance	Approx.3.6mΩ(Fully charged)
Operating Temp. Range	Discharge: -20℃~50℃ Charge : -10℃~50℃ Storage : -20℃~40℃
Cycle Use	Charging Current:≤36.0A Voltage:14.6V~14.8V Temperature compensation:-30mV/℃
Standby Use	Charging Current:No limit Voltage:13.6V~13.8V Temperature compensation:-20mV/℃
Self-Discharge	less than 3% at 25℃
Design Life	12 years (floating charge)

Introduction

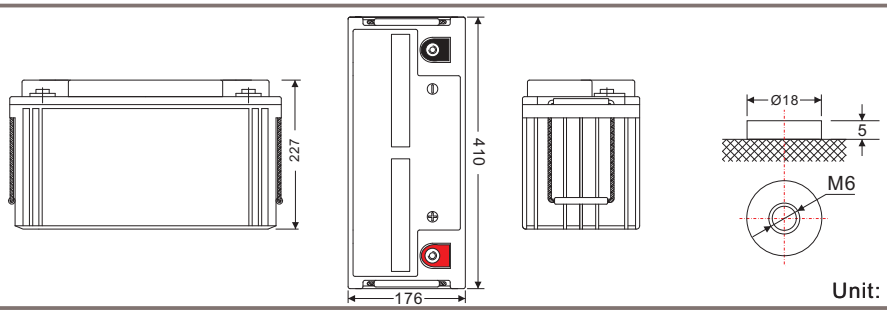
The MOTOMA standard series batteries designed with 12 years or more service life for general purpose, which designed with advanced technology, super heavy duty grid, high performance plates and electrolyte.The standard series batteries have long and reliable standby life and high consistency for better performance in series usage.

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	410±1mm (16.14 inches)
Width	176±1mm (6.93 inches)
Heigth	227±1mm (8.94 inches)
Total Heigth	227±1mm (8.94 inches)



Unit: mm

Constant Current Discharge Characteristics: A (25℃)

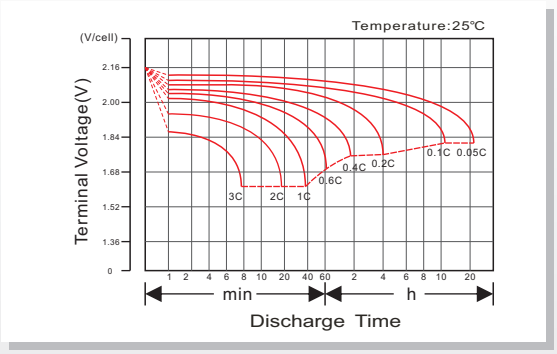
F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	378.0	270.9	214.5	134.5	78.39	43.79	31.48	26.05	21.32	14.98	12.67	6.699
1.65V/cell	367.9	257.7	210.1	132.3	78.03	43.46	31.36	25.93	21.20	14.86	12.54	6.577
1.70V/cell	346.7	248.6	206.8	131.1	77.30	43.13	31.11	25.81	21.07	14.74	12.42	6.455
1.75V/cell	311.3	229.4	196.9	127.9	76.58	42.80	30.99	25.57	20.82	14.62	12.30	6.333
1.80V/cell	289.7	209.2	181.5	122.2	74.77	42.03	30.15	24.96	20.44	14.37	12.18	6.211
1.85V/cell	252.2	187.0	162.8	114.53	71.03	40.17	28.82	23.76	19.57	13.76	11.814	5.846

Constant Power Discharge Characteristics: W (25℃)

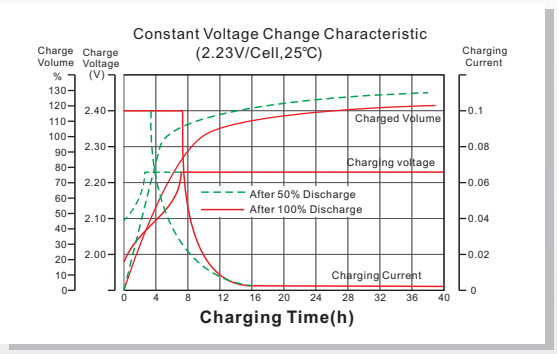
F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	3600	2714	2262	1487	896.5	503.7	363.2	301.0	246.8	173.8	142.4	75.23
1.65V/cell	3527	2592	2215	1468	892.2	501.8	362.5	300.3	245.3	173.1	141.0	74.50
1.70V/cell	3329	2506	2185	1451	885.7	497.1	360.4	298.8	244.6	171.6	140.2	73.77
1.75V/cell	2998	2316	2083	1418	877.0	492.5	358.2	296.7	242.3	170.2	138.8	73.04
1.80V/cell	2780	2102	1914	1354	855.3	485.3	349.5	288.7	238.6	166.5	137.3	72.31
1.85V/cell	2400	1867	1709	1268	810.4	462.9	332.1	275.0	226.5	160.7	132.9	69.39

MOTOMA POWER CO.,LTD
Http: / /www.motoma.com
E-mail:info@motoma.com

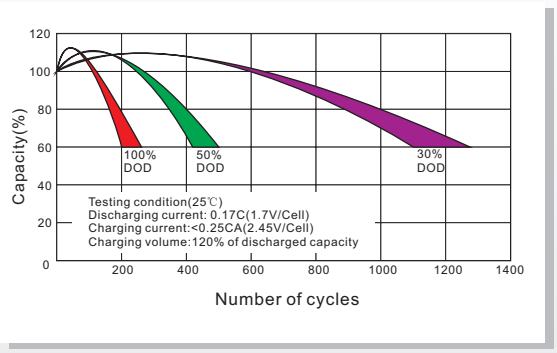
Discharge Characteristics Curve



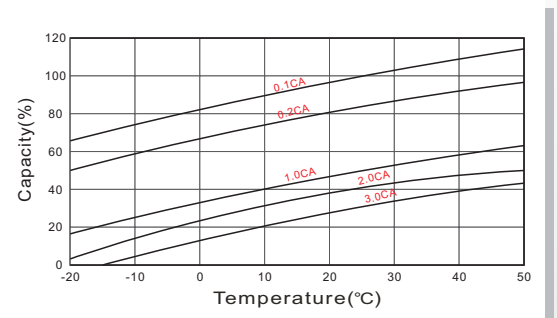
Charging Characteristics Curve



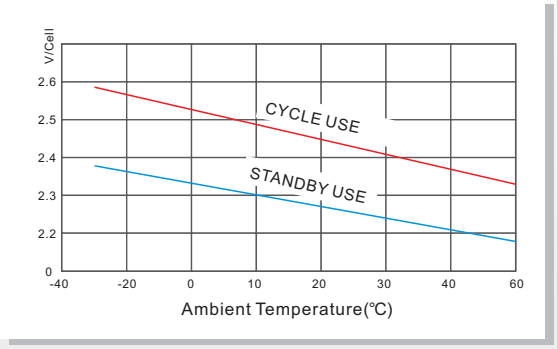
Cycle life in relation to depth of Discharge



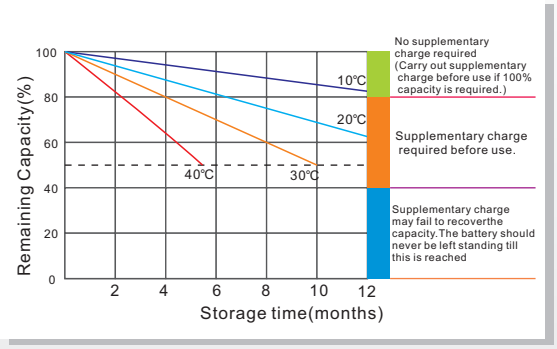
Temperature effects on Capacity



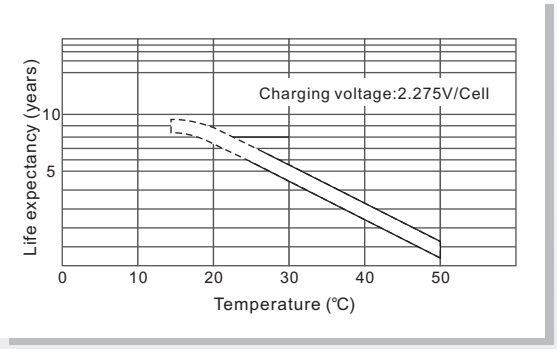
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use