MOTOMA®
Power into the Future

VRLA BATTERY | 12V-120G | 12V120Ah

SLA BATTERY—GEL TECHNOLOGY SERIES

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	120Ah@10hr-rate (12.0A to 1.80V/cell @25℃)
Weight	Approx.33.5Kg
Terminal	M8,Φ=16&18
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	123Ah 20hr-rate (6.15A to 1.80V/cell @25℃) 120Ah 10hr-rate (12.0A to 1.80V/cell @25℃) 103Ah 5hr-rate (20.6A to 1.75V/cell @25℃) 75.0Ah 1hr-rate (75.0A to 1.60V/cell @25℃)
Max. Discharge Current	600A(5sec)
Internal Resistance	Approx.3.5mΩ(Fully charged)
Operating Temp. Range	Discharge: -40℃~60℃ Charge : -20℃~50℃ Storage : -40℃~60℃
Cycle Use	Charging Current:≤24.0A Voltage:14.2V~14.4V Temperature compensation:-30mV/℃
Standby Use	Charging Current:No limit Voltage:13.6V~13.8V Temperature compensation:-20mV/℃
Self-Discharge	less than 1% at 25°C
Design Life	15 years (floating charge)

Introduction

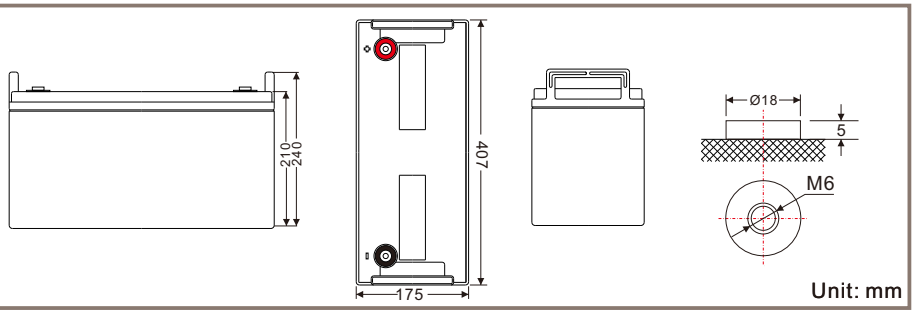
The MOTOMA GEL-TECH batteries designed with 15+ years service life. The SOLID-GEL system can avoid corrosion and stratification. The special separator can properly prevent short-circuit. It can offer high deep discharge ability, super thermal stability, good recovery-ability after deep discharging. The deep discharge cycles of GEL-TECH batteries can be more than 50% 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 (6.81 inches)
Heigth	210±1mm (8.47 inches)
Total Heigth	240±1mm (9.45 inches)



Constant Current Discharge Characteristics: A (25℃)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	408.7	292.9	213.1	133.8	75.61	43.17	30.36	25.13	21.16	14.60	12.58	6.651
1.65V/cell	397.8	278.7	208.7	131.6	75.26	42.84	30.25	25.01	21.04	14.49	12.46	6.531
1.70V/cell	374.9	268.8	205.5	130.4	74.57	42.52	30.01	24.89	20.91	14.37	12.34	6.410
1.75V/cell	336.6	248.1	195.6	127.1	73.87	42.19	29.90	24.66	20.66	14.25	12.21	6.289
1.80V/cell	303.8	226.2	180.3	121.6	72.12	41.44	29.08	24.08	20.29	14.01	12.09	6.168
1.85V/cell	264.5	202.2	161.7	113.9	68.52	39.60	27.80	22.92	19.42	13.42	11.73	5.805

Constant Power Discharge Characteristics: W (25℃)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	3893	3558	2620	1887	1081	620.7	438.0	362.9	306.2	211.8	176.8	93.38
1.65V/cell	3813	2719	2052	1491	860.6	494.6	349.7	289.7	243.5	168.8	140.0	73.98
1.70V/cell	3600	2628	2025	1473	854.3	490.1	347.6	288.3	242.7	167.3	139.2	73.25
1.75V/cell	3241	2429	1930	1440	845.9	485.5	345.5	286.2	240.5	165.9	137.8	72.53
1.80V/cell	2916	2205	1774	1374	825.0	478.4	337.1	278.5	236.7	162.4	136.3	71.80
1.85V/cell	2517	1958	1584	1288	781.7	456.3	320.4	265.2	224.8	156.7	132.0	68.90

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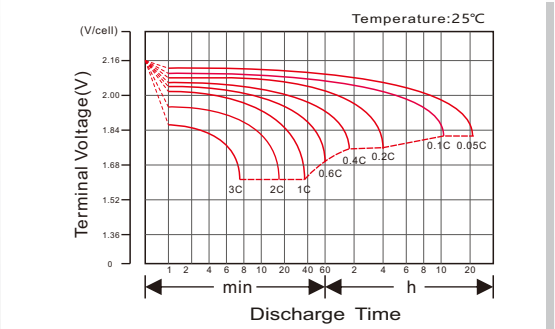
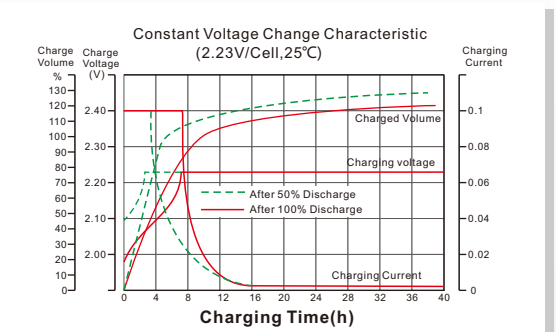
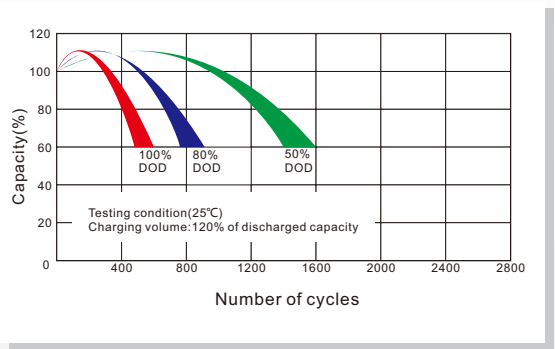
Discharge Characteristics Curve



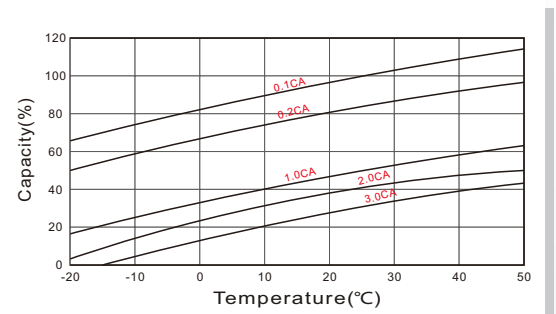
Charging Characteristics Curve



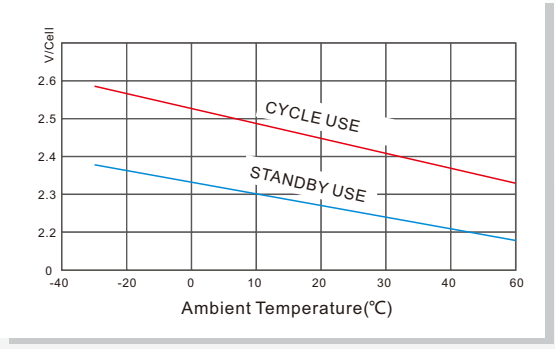
Cycle life in relation to depth of Discharge



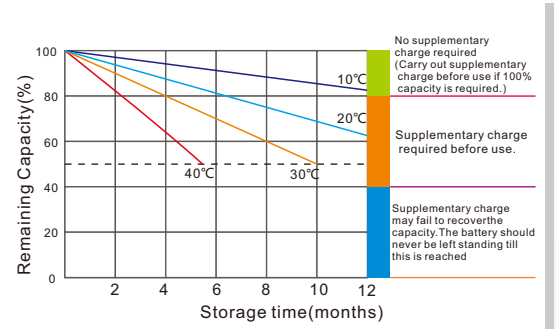
Temperature effects on Capacity



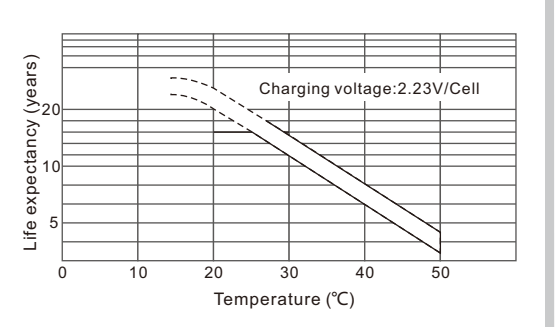
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use