

SLA BATTERY—STANDARD SERIES

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	4.5Ah@20hr-rate (0.225A to 1.80V/cell @25°C)
Weight	Approx. 1.5Kg
Terminal	F1
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	4.5Ah 20hr-rate (0.225A to 1.80V/cell @25°C)
	4.3Ah 10hr-rate (0.43A to 1.80V/cell @25°C)
	3.9Ah 5hr-rate (0.78A to 1.75V/cell @25°C)
	3.2Ah 1hr-rate (3.2A to 1.60V/cell @25°C)
Max. Discharge Current	67.5A(5sec)
Internal Resistance	Approx. 38mΩ(Fully charged)
Operating Temp. Range	Discharge: -20°C~50°C
	Charge : -10°C~50°C
	Storage : -20°C~40°C
Cycle Use	Charging Current: ≤1.35A
	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	6 years (floating charge)



Introduction

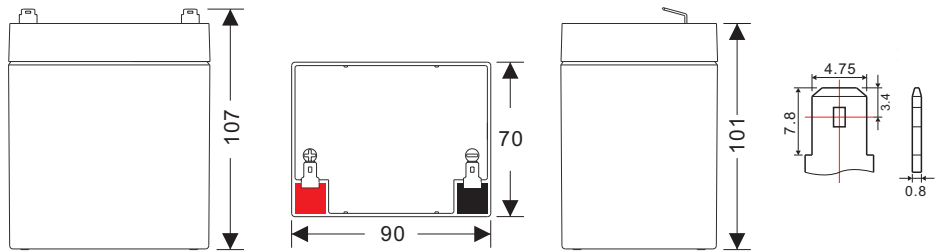
The MOTOMA standard series batteries designed with 6 years or more service life for general purpose, which designed with advanced technology, super heavy duty grid, high performance plates and electrolyte. The standard series batteries have long and reliable standby life and high consistency for better 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	90±1mm (3.54 inches)
Width	70±1mm (2.76 inches)
Height	101±1mm (3.98 inches)
Total Height	107±1mm (4.21 inches)



Unit: mm

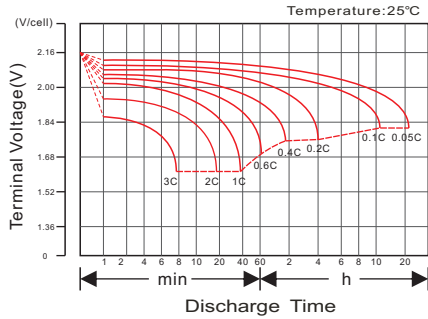
Constant Current Discharge Characteristics: A (25°C)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	18.22	12.18	9.363	5.410	3.201	1.669	1.181	0.969	0.803	0.533	0.461	0.259
1.65V/cell	17.56	11.70	9.063	5.327	3.183	1.656	1.176	0.964	0.798	0.530	0.456	0.249
1.70V/cell	16.61	11.34	8.855	5.286	3.160	1.652	1.172	0.959	0.793	0.528	0.452	0.245
1.75V/cell	15.01	10.61	8.394	5.166	3.113	1.632	1.167	0.955	0.789	0.526	0.447	0.235
1.80V/cell	13.40	9.890	7.929	5.041	3.067	1.604	1.158	0.950	0.784	0.524	0.438	0.226
1.85V/cell	11.81	9.163	7.467	4.917	3.026	1.580	1.149	0.946	0.779	0.522	0.433	0.221

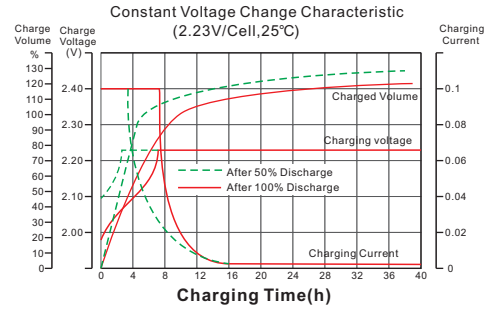
Constant Power Discharge Characteristics: W (25°C)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	199.3	129.5	105.2	64.93	38.39	20.00	14.14	11.57	11.32	6.403	5.451	3.047
1.65V/cell	194.1	129.4	103.7	63.87	38.27	19.88	14.11	11.54	11.23	6.352	5.395	2.935
1.70V/cell	190.2	125.5	101.4	63.46	38.19	19.83	14.09	11.54	11.20	6.343	5.339	2.879
1.75V/cell	171.9	120.3	96.08	61.94	37.55	19.52	14.00	11.46	11.17	6.326	5.283	2.767
1.80V/cell	153.5	112.6	90.77	60.47	36.92	19.25	13.89	11.37	11.15	6.300	5.199	2.683
1.85V/cell	135.2	104.8	85.49	59.00	36.28	18.96	13.78	11.29	11.12	6.300	5.115	2.600

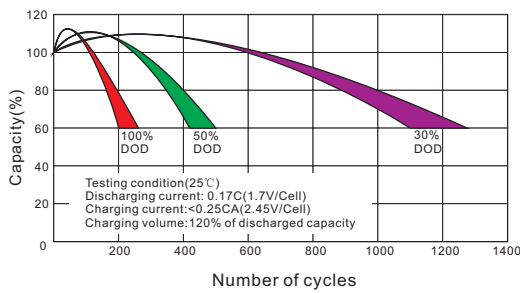
Discharge Characteristics Curve



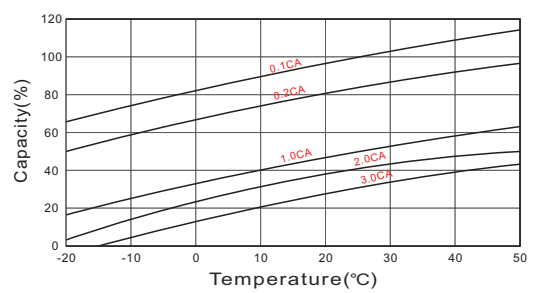
Charging Characteristics Curve



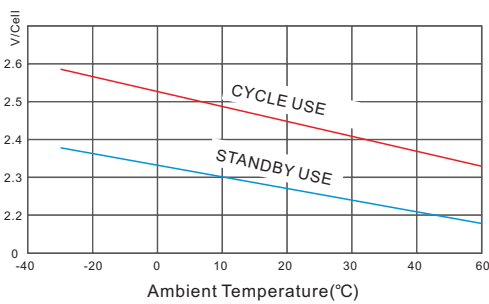
Cycle life in relation to depth of Discharge



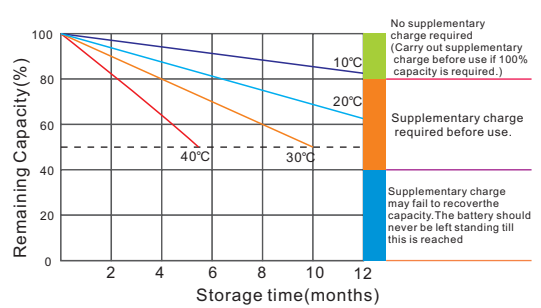
Temperature effects on Capacity



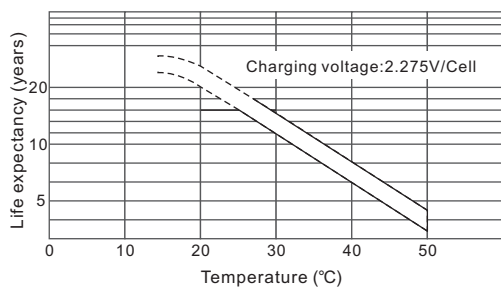
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

