

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	45Ah@10hr-rate (4.5A to 1.80V/cell @25°C)
Weight	Approx. 13.8Kg
Terminal	M6, Ø=14
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	46.4Ah 20hr-rate (2.32A to 1.80V/cell @25°C)
	45.0Ah 10hr-rate (4.5A to 1.80V/cell @25°C)
	39.0Ah 5hr-rate (7.8A to 1.75V/cell @25°C)
	29.0Ah 1hr-rate (29.0A to 1.60V/cell @25°C)
Max. Discharge Current	450A(5sec)
Internal Resistance	Approx. 8.8mΩ(Fully charged)
Operating Temp. Range	Discharge: -20°C~50°C
	Charge : -10°C~50°C
	Storage : -20°C~40°C
Cycle Use	Charging Current: ≤13.5A
	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

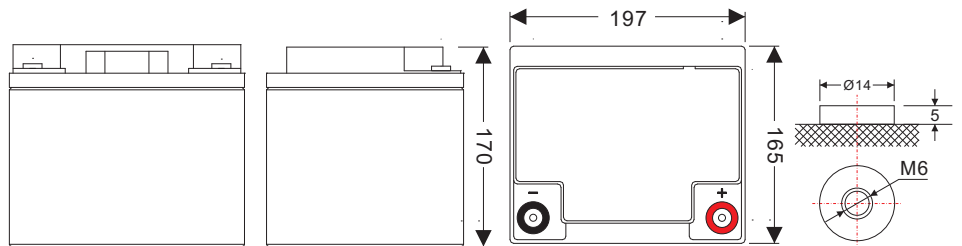
The MOTOMA standard series batteries designed with 12 years or more service life for general purpose, which designed with advanced technology, super heavy duty grid, high performance plates and electrolyte. The standard series batteries have long and reliable standby life and high consistency for better 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	197±1mm (7.76 inches)
Width	165±1mm (6.50 inches)
Height	172±1mm (6.69 inches)
Total Height	172±1mm (6.69 inches)



Unit: mm

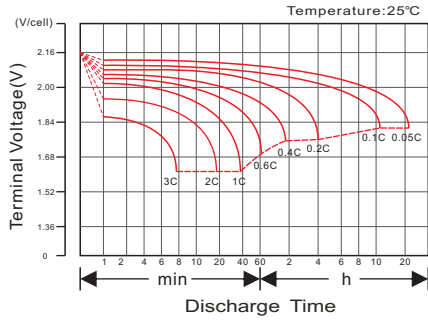
Constant Current Discharge Characteristics: A (25°C)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	142.2	104.7	80.43	52.01	29.40	17.24	11.80	9.769	7.996	5.618	4.750	2.512
1.65V/cell	138.1	99.64	78.78	51.15	29.26	17.11	11.76	9.723	7.949	5.572	4.704	2.466
1.70V/cell	134.0	96.12	77.54	50.70	28.99	16.98	11.67	9.678	7.902	5.526	4.659	2.421
1.75V/cell	120.3	88.70	73.83	49.43	28.72	16.85	11.62	9.588	7.808	5.481	4.613	2.375
1.80V/cell	108.6	80.88	68.05	47.26	28.04	16.55	11.31	9.362	7.667	5.389	4.567	2.329
1.85V/cell	94.56	72.29	61.04	44.28	26.64	15.82	10.81	8.909	7.337	5.161	4.430	2.192

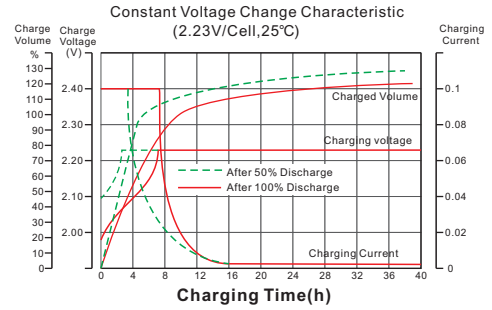
Constant Power Discharge Characteristics: W (25°C)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	1387	1036	865.5	557.6	336.2	198.3	136.2	112.9	92.56	65.19	53.41	28.21
1.65V/cell	1350	989.2	847.5	550.6	334.6	197.6	135.9	112.6	92.00	64.91	52.86	27.94
1.70V/cell	1310	956.2	836.0	544.2	332.1	195.8	135.1	112.1	91.72	64.37	52.59	27.66
1.75V/cell	1179	883.5	797.1	531.8	328.9	193.9	134.3	111.3	90.87	63.82	52.04	27.39
1.80V/cell	1061	802.2	732.4	507.6	320.7	191.1	131.1	108.3	89.46	62.45	51.49	27.12
1.85V/cell	915.6	712.5	654.0	475.6	303.9	182.3	124.5	103.1	84.94	60.26	49.85	26.02

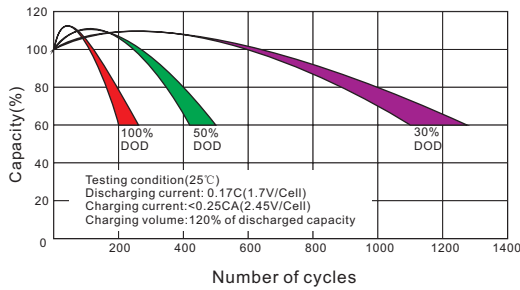
Discharge Characteristics Curve



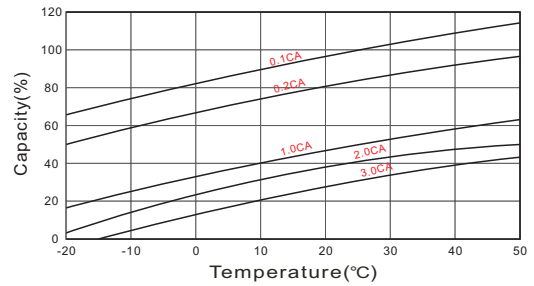
Charging Characteristics Curve



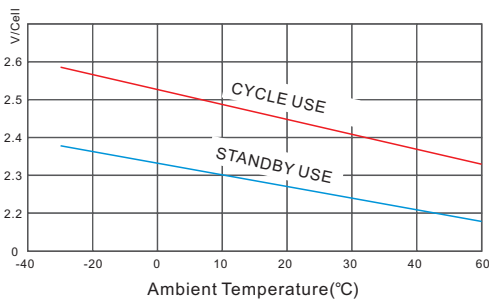
Cycle life in relation to depth of Discharge



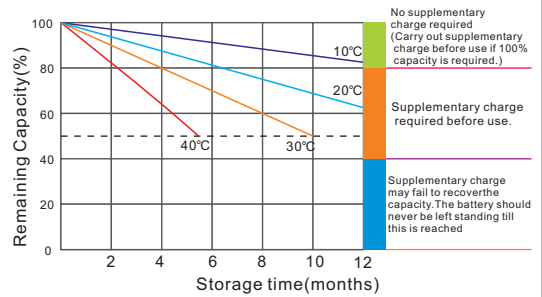
Temperature effects on Capacity



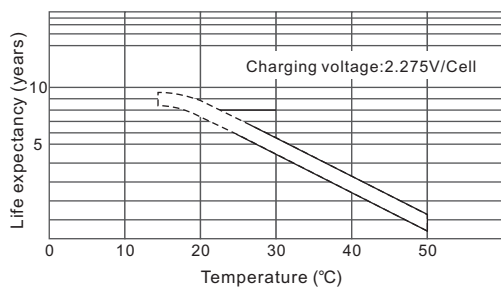
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

