

Powered by



MSJ 300 ▶ 2V 305 Ah

MSJ 300 is a long service life battery up to 20 years expected life under normal float charge. As with all CSB batteries, all are rechargeable, highly efficient, leak proof and maintenance free.

► Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	305Ah @ 10hr-rate to 1.80V per cell @25 °C (77°F)
Weight	Approx. 21.8 kg(48.1 lbs)
Maximum Discharge Current	1800A(5sec)
Internal Resistance	Approx. 0.33 mΩ
Operating Temperature Range	Discharge: -20°C~50°C (-4°F~122°F) Charge: 0°C~40°C (32°F~104°F) Storage: -20°C~40°C (-4°F~104°F)
Nominal Operating Temperature Range	25°C±3°C (77°F±5°F)
Float Charging Voltage	2.23±0.02/Cell at 25 °C (77°F) Temp. Coefficient ±3.3mV/°C (±1.8mV/°F)
Recommended Maximum Charging Current Limit	90A
Equalization / Cycle Use Charging Voltage	2.35V Temps coefficient ±3.3mV/°C (±1.8mV/°F)
Terminal	Pb-Ca-Sn Alloy Recessed Terminal
Container Material	The container and cover are made of flame retardant plastics which meet ABS(UL 94-V0) specifications. The oxygen index level is higher than 28



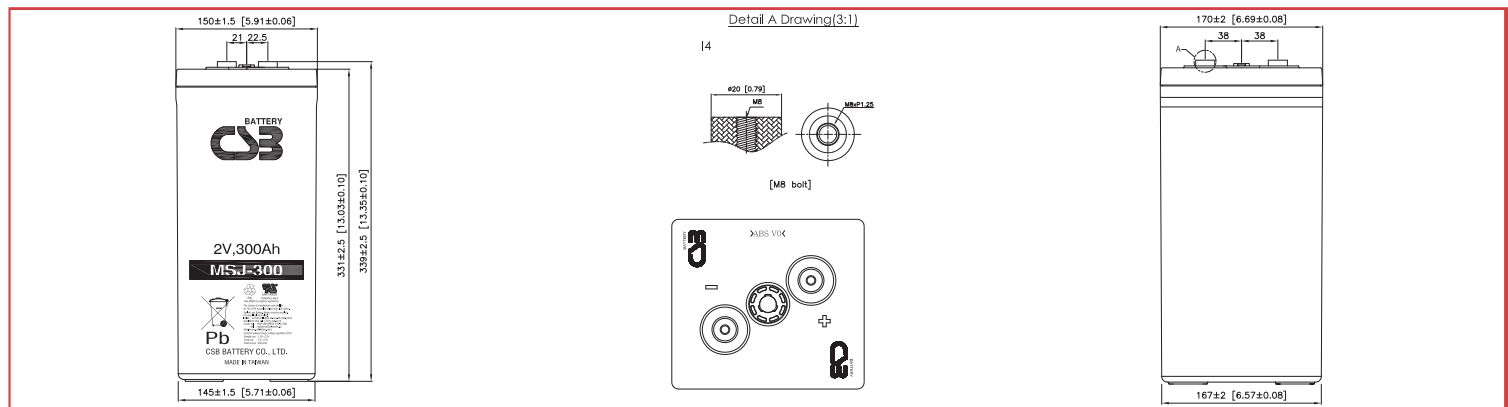
CSB-manufactured **VRLA** (Absorbent Glass Mat type) batteries are UL-recognized components under UL1989.

CSB is also certified by ISO 9001 and ISO 14001.

► Dimensions :

Unit: mm (inch)

Overall Height (H)	Container height (h)	Length (L)	Width (W)
339±2.5 (13.35±0.10)	331±2.5 (13.03±0.10)	170±2 (6.69±0.08)	150±1.5 (5.91±0.06)



Constant Current Discharge Characteristics Unit:A (25°C, 77°F)

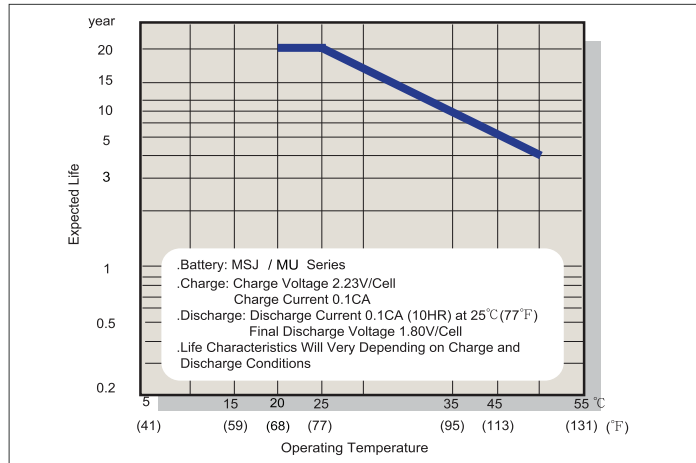
F.V/Time	15MIN	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	556	372	228	130.6	93.6	72.4	59.0	50.0	39.1	32.3
1.67V	498	354	222	129.0	92.6	71.6	58.4	49.5	38.7	32.1
1.70V	468	342	218	127.9	92.0	71.1	58.1	49.2	38.5	31.9
1.75V	421	311	207	125.0	90.3	69.8	57.1	48.4	38.0	31.5
1.80V	360	276	191	119.5	87.1	67.4	55.3	47.1	37.0	30.7
1.83V	318	253	179	114.4	83.7	65.0	53.5	45.7	35.9	29.8

Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

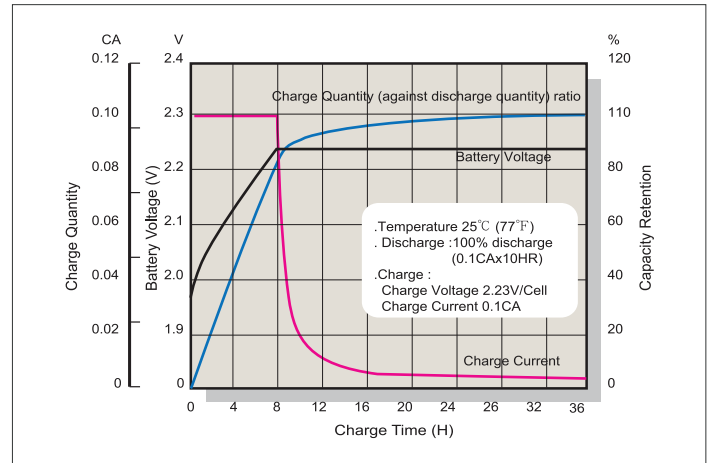
F.V/Time	15MIN	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	974	675	414	249.2	178.6	140.9	117.1	100.3	76.9	60.2
1.67V	905	649	406	246.8	177.1	140.0	116.4	99.7	76.3	59.7
1.70V	869	633	400	245.1	176.1	139.3	115.8	99.3	75.9	59.5
1.75V	794	591	384	240.1	173.3	137.5	114.4	98.1	74.8	58.6
1.80V	712	534	358	230.6	167.7	133.8	111.5	95.7	72.5	57.0
1.83V	642	498	338	221.4	162.2	130.1	108.5	93.3	70.3	55.2

Ratings presented herein are subject to revision without notice. Please refer to www.csb-battery.com to confirm the latest version.

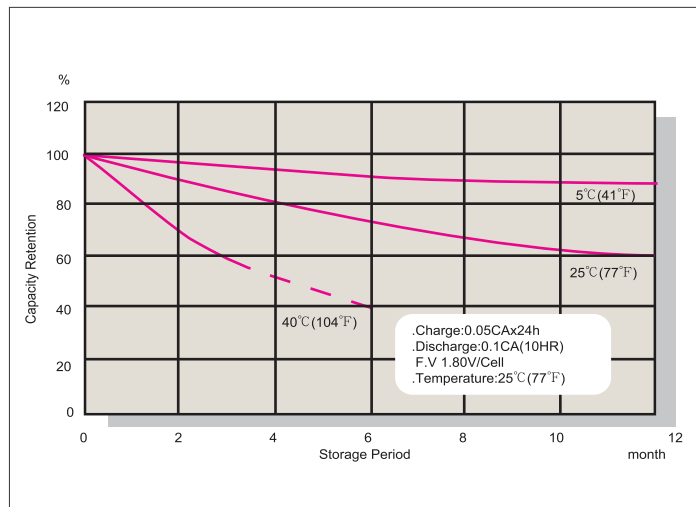
Expected Life V.S Operating Temperature



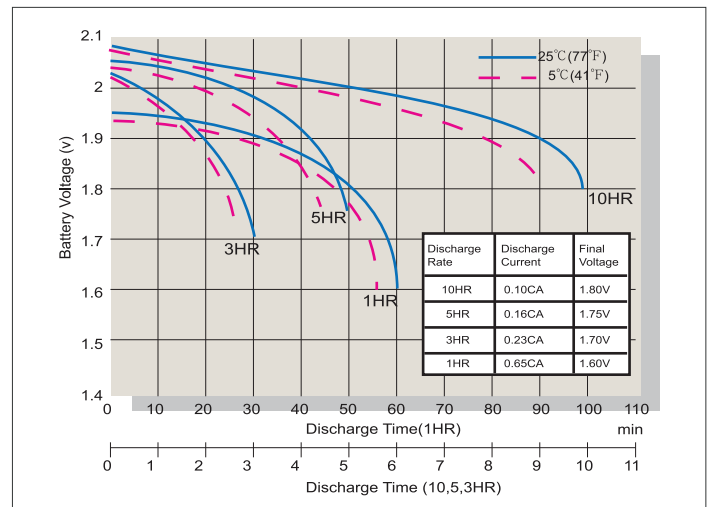
Typical Constant Voltage Charge Characteristics



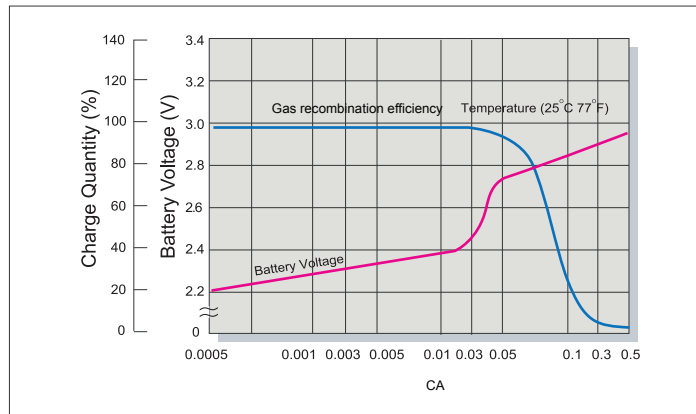
Capacity Retention Characteristics



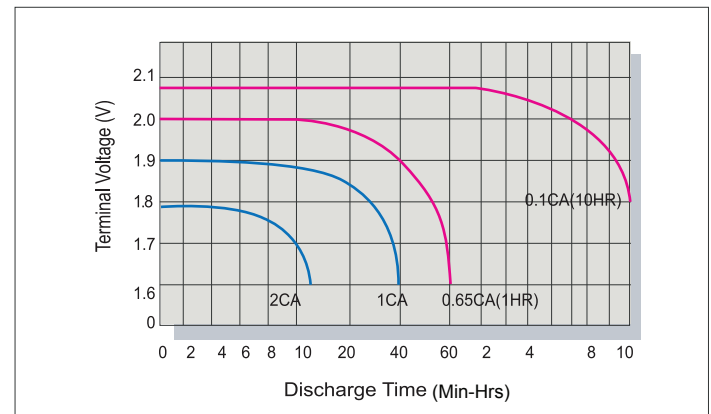
Discharge Characteristics



Oxygen Recombination Efficiency Chart



Terminal Voltage (V) and Discharge Time 25°C (77°F)



Charging Procedures

Application	Charge Voltage (V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Standby	25°C (77°F)	2.23	2.21~2.25	0.3C

Discharge Current VS. Discharge Voltage

Discharge Current (A)	Final Discharge Voltage (V/Cell)
0.05C > A	1.90
0.15C > A ≥ 0.05C	1.80
0.20C > A ≥ 0.15C	1.75
0.40C > A ≥ 0.20C	1.70
A > 0.40C	1.60

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