



MSJ 300

2V 300Ah

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

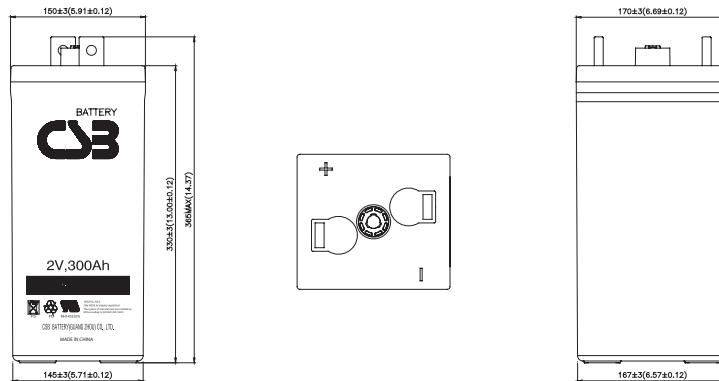
Cells Per Unit	1
Voltage Per Unit	2
Capacity	300Ah @ 10hr-rate to 1.80V per cell @25 °C (77°F)
Weight	Approx. 22.2 kg(48.94 lbs)
Maximum Discharge Current	1800A(5sec)
Internal Resistance	Approx. 0.44 mΩ
Operating Temperature Range	Discharge: -20°C~50°C (-4°F~122°F) Charge: 0°C~40°C (32°F~104°F) Storage: -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 and Cycle Service	2.35V Temps coefficient -3.3mV/°C (-1.8mV/°F)
Terminal	Pb-Ca-Sn Alloy(L Terminal)
Container Material	The container and cover are made of flame retardant plastics which meet ABS(UL 94-V0/File E88637) specifications.The oxygen index level is higher than 28



CSB-manufactured batteries are UL-recognized components under UL924 and UL1989. CSB is also certified by ISO 9001 and ISO 14001.

Dimensions

Unit:(mm)



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

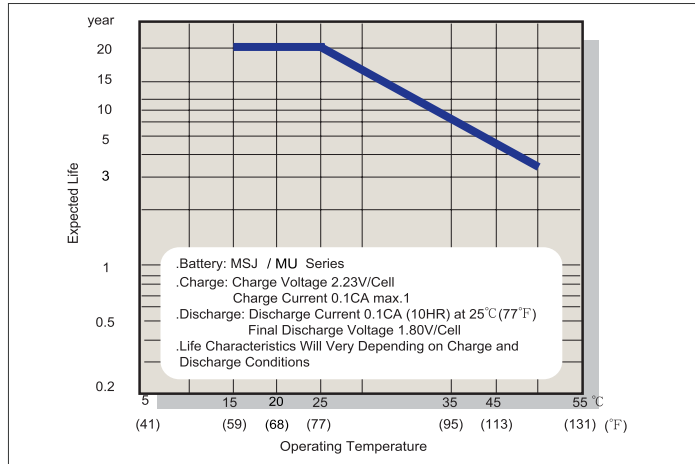
F.V/Time	15MIN	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	476	316	194	115	86.0	68.0	58.0	50.0	40.0	34.0
1.65V	453	303	185	111	82.0	66.0	55.5	48.3	39.0	32.4
1.70V	423	286	182	109	81.0	65.0	54.6	47.6	38.0	32.0
1.75V	375	254	168	103	76.0	61.9	52.0	45.0	37.0	31.0
1.80V	323	234	158	99.0	73.0	61.2	50.0	44.0	36.0	30.0
1.83V	273	211	146	93.0	70.0	56.0	48.0	42.0	34.0	29.0

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

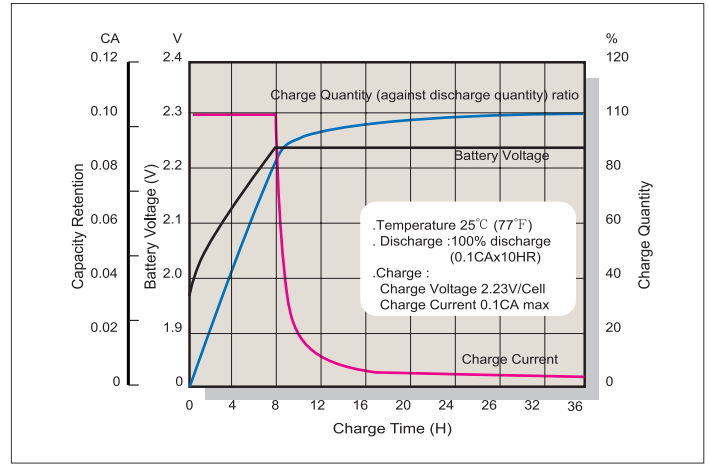
F.V/Time	15MIN	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	834	562	346	208	156	125	106	93.0	75.0	63.0
1.65V	826	559	345	206	154	124	105	92.0	74.0	62.5
1.70V	760	520	334	202	151	123	104	91.0	73.0	62.0
1.75V	684	469	312	193	145	118	100	87.0	71.0	60.0
1.80V	588	432	294	185	139	115	97.0	85.0	69.0	59.0
1.83V	497	389	271	174	133	105	92.0	81.0	66.0	57.0

- All mentioned values are average values.
- Cycle Information : 300~400 cycles@DOD80%, 600~700 cycles@DOD50%, 900~1200 cycles@DOD30%

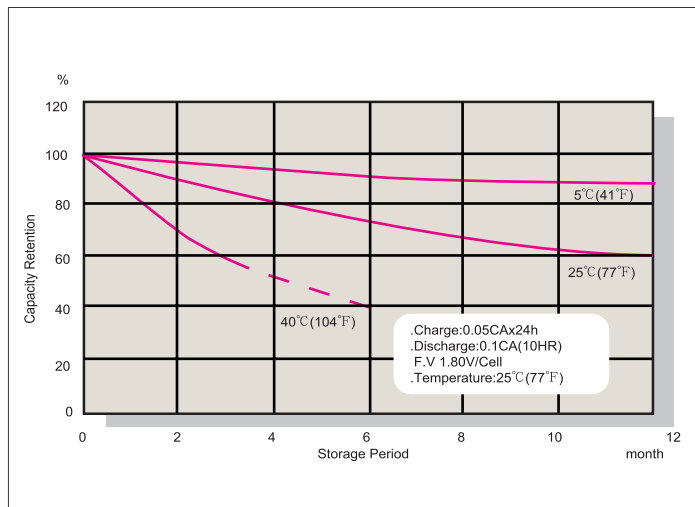
Expected Life V.S Operating Temperature



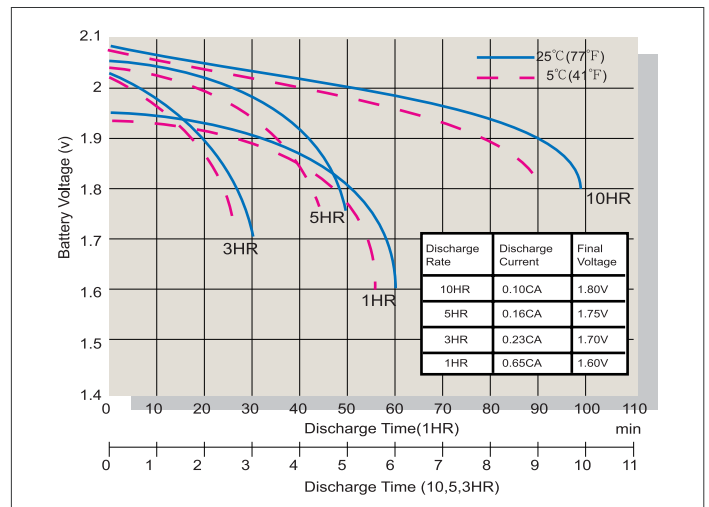
Typical Constant Voltage Charge Characteristics



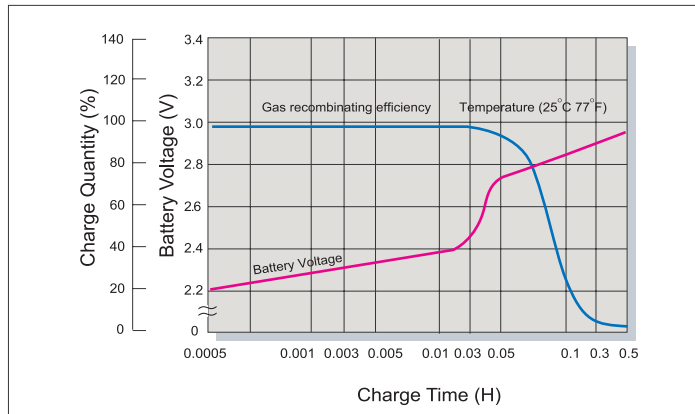
Capacity Retention Characteristics



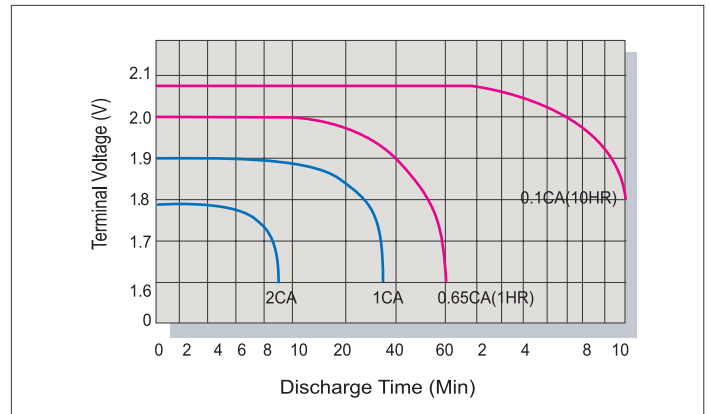
Discharge Characteristics



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
0.20 C > A ≥ 0.15C	1.75
0.40 C > A ≥ 0.20 C	1.70
A > 0.40 C	1.60

Sales Office URL:WWW.CSB-BATTERY.COM

CSB BATTERY CO., LTD.
 TAIWAN OFFICE
 Tel: +886-2-2555-5600
 Fax: +886-2-2555-3300
 E-mail: service@csb-battery.com.tw

CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.
 SHANGHAI OFFICE
 Tel: +86-21-5046-1622, 5046-0833
 Fax: +86-21-5064-3314

CSB BATTERY TECHNOLOGIES, INC
 USA OFFICE
 Tel: +1-817-244-7777/1-8003 CSBUSA(272872)
 Fax: +1-817-244-4445
 E-mail: csb@csb-battery.com

CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.
 BEIJING OFFICE
 Tel: +86-10-6597-8060, 6597-8070
 Fax: +86-10-6597-8050
 E-mail: chinasisl@csb-battery.com

CSB BATTERY OF NETHERLANDS B.V
 NETHERLANDS OFFICE
 Tel: +31(0) 180 418 140
 Fax: +31(0) 180 418 327
 E-mail: eurossales@csb-battery.com

CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.
 SHENZHEN OFFICE
 Tel: +86-755-2694-2788/2606/2706
 Fax: +86-755-2694-2748
 E-mail: she@csb-battery.com.tw