

MU 330

2V 330Ah

MU 330 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

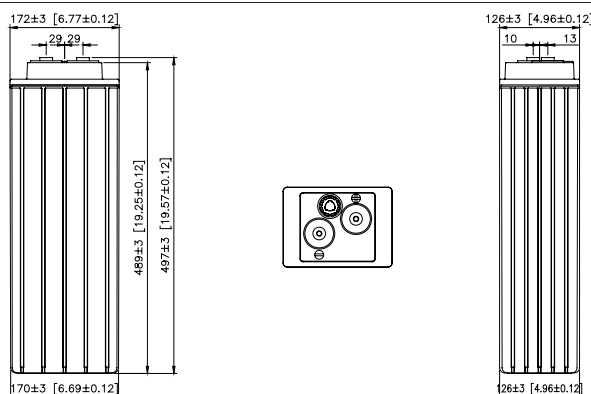
Cells Per Unit	1
Voltage Per Unit	2
Capacity	330Ah @ 10hr-rate to 1.80V per cell @25 °C (77°F)
Weight	Approx. 22.5 kg(49.60 lbs)
Maximum Discharge Current	1980A(5sec)
Internal Resistance	Approx.0.4~0.8m Ω
Operating Temperature Range	Discharge: -20°C~50°C (-4°F~122°F) Charge: 0°C~40°C (32°F~104°F) Storage: -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	99A
Equalization and Cycle Service	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 UL 94-V0 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)

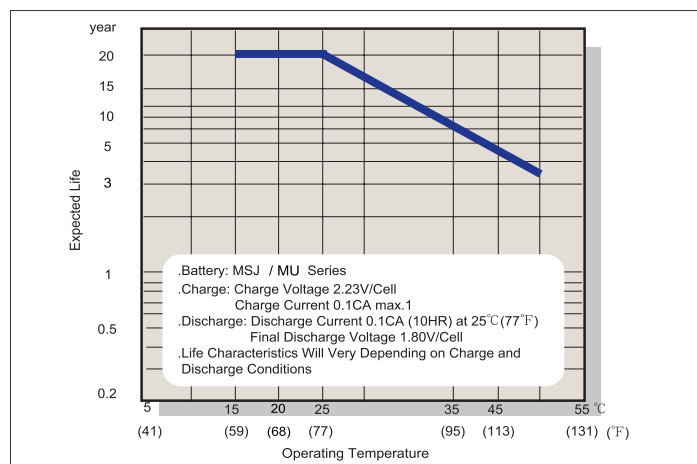
F.V/Time	60MIN	90MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	224	167	137	103	82.0	68.0	58.0	45.0	35.0
1.65V	217	163	133	100	80.0	66.0	56.0	43.0	35.0
1.70V	210	159	130	97.0	77.0	64.0	55.0	42.0	34.0
1.75V	195	150	123	92.0	74.0	61.0	53.0	41.0	33.0
1.80V	181	140	117	88.0	71.0	59.0	50.0	40.0	33.0
1.83V	161	128	108	82.0	66.0	55.0	47.0	38.0	31.0

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

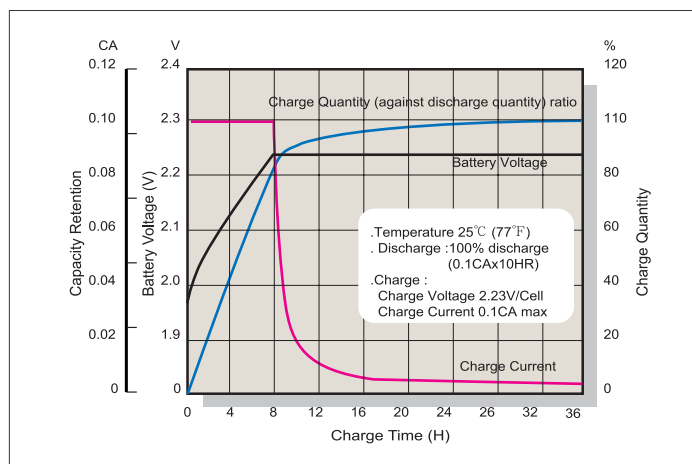
F.V/Time	60MIN	90MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	386	291	241	183	144	122	104	81.0	67.0
1.65V	378	287	238	179	143	120	103	81.0	67.0
1.70V	370	282	234	175	142	117	102	80.0	66.0
1.75V	349	268	225	169	137	114	99.0	78.0	64.0
1.80V	327	254	215	163	132	110	95.0	75.0	62.0
1.83V	314	246	209	159	129	108	93.0	74.0	61.0

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

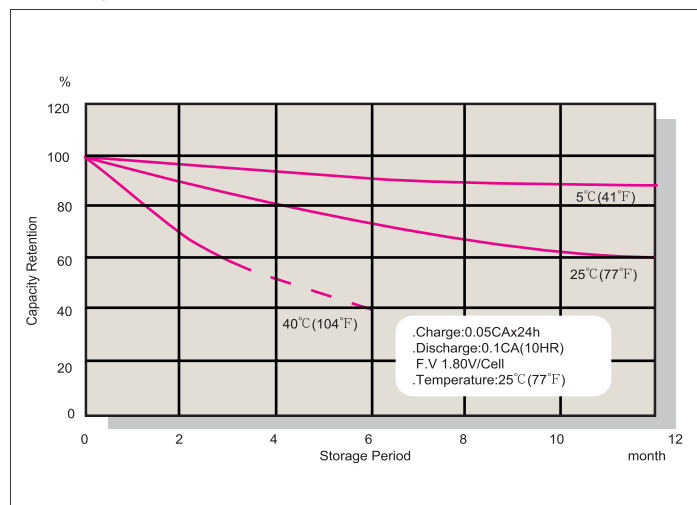
Expected Life V.S Operating Temperature



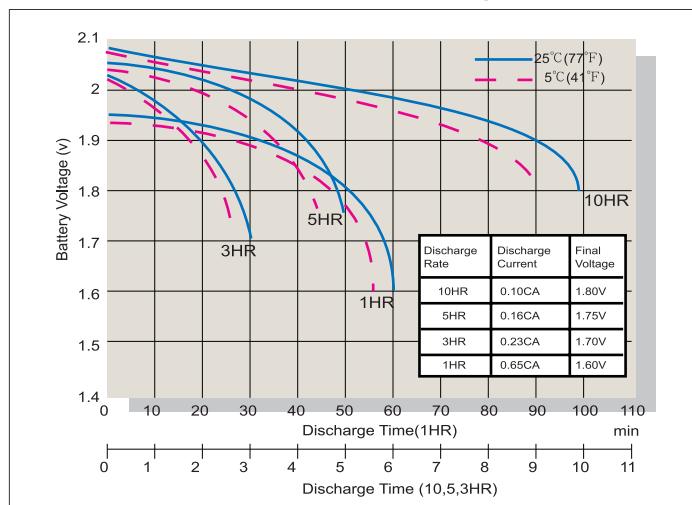
Typical Constant Voltage Charge Characteristics



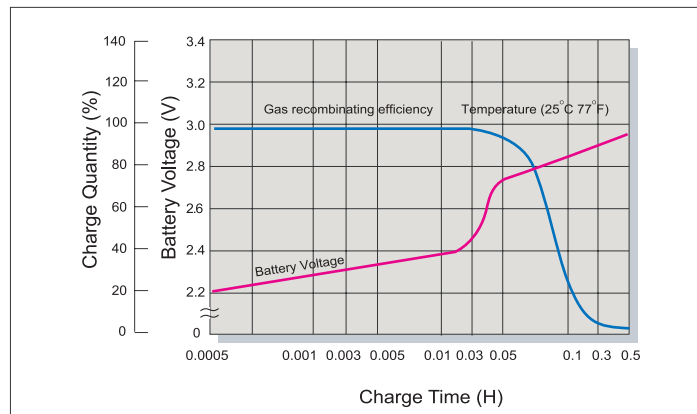
Capacity Retention Characteristics



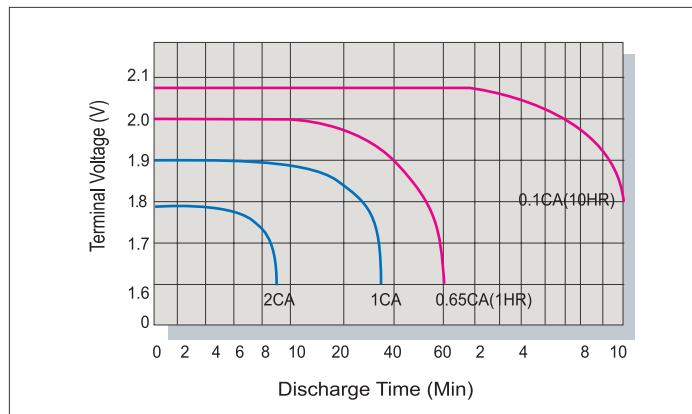
Discharge Characteristics



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
0.20C > A ≥ 0.15C	1.75
0.40C > A ≥ 0.20C	1.70
A > 0.40C	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: chinasis@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: eurosales@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