



# MSJ series MSJ-500



## Valve Regulated Lead Acid Battery

Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

#### 【Design Life】

Up to 20 Years in Standby Service at 25°C  
Eurobat (20°C) : >12 YEARS VERY LONG LIFE

#### 【Operating Temperature Range】

Nominal Operating Temperature : 25°C (77°F)  
Discharge : -15°C ~ 50°C (5°F~122°F)  
Charge: -15°C ~ 40°C (5°F~104°F)  
Storage: -15°C ~ 40°C (5°F~104°F)

#### 【Float Charging Voltage】

2.21 ~ 2.25 VDC/Unit at 25°C (77°F)

#### 【Equalization Charging Voltage】

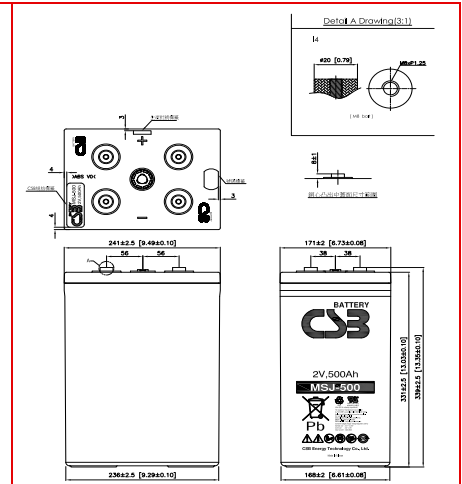
2.35 VDC/Unit at 25°C (77°F)

#### 【Self Discharge】

Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F); Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F).

### Specification

Nominal Voltage	2V (single cell per unit)	
Nominal Capacity	500 Ah @10hr-rate to 1.80V per cell @25°C (77°F)	
Weight	Approx. 36.50 Kg (80.45 lbs)	
Maximum Discharge Current	3000 A (5sec)	
Internal Resistance	Approx. 0.28 mΩ	
Short Circuit Current	9953A	
Maximum Charge Current	150 A	
Terminal types	I4 thread copper alloy terminal to accept M8 bolt	
Terminal tightening torque	126±25 Kg·cm / 109±22 Lbf·in / 12.3±2.5 N·m	
Container Material	Flame Retardant Polypropylene (UL 94-V0)	
Dimensions	Depth (D)	241.0±2.5 mm      9.49±0.10 inch
	Width (W)	171.0±2.0 mm      6.73±0.08 inch
	Container height (h)	331.0±2.5 mm      13.03±0.10 inch
	Overall Height (H)	339.0±2.5 mm      13.15±0.10 inch



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

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	927	621	380	218	181	156	98.4	83.3	65.1	53.9	26.9	22.4
1.67V	830	590	370	215	179	154	97.4	82.5	64.6	53.4	26.7	22.3
1.70V	780	570	363	213	178	153	96.8	82.0	64.2	53.2	26.6	22.2
1.75V	702	519	345	208	174	151	95.2	80.7	63.3	52.5	26.2	21.9
1.80V	600	459	319	199	167	145	92.1	78.5	61.7	51.1	25.6	21.3
1.83V	530	421	298	191	161	140	89.1	76.2	59.9	49.7	24.9	20.7

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

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	1623	1125	691	415	346	298	195	167	128	101	50.5	42.1
1.67V	1508	1082	677	411	343	295	194	166	127	100	49.8	41.5
1.70V	1448	1054	667	408	341	294	193	165	127	99.1	49.5	41.3
1.75V	1323	986	640	400	334	289	191	164	125	97.7	48.9	40.7
1.80V	1187	890	597	384	323	280	186	160	121	94.9	47.5	39.6
1.83V	1070	830	563	369	311	270	181	155	117	92.0	46.0	38.3

Please refer to the official site for the latest rating confirmation. URL: [www.csb-battery.com](http://www.csb-battery.com)

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Recognized under UL 1989,  
and certified by ISO 9001, 14001, 45001, 50001.



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