



# MSV series MSV-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 15 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】

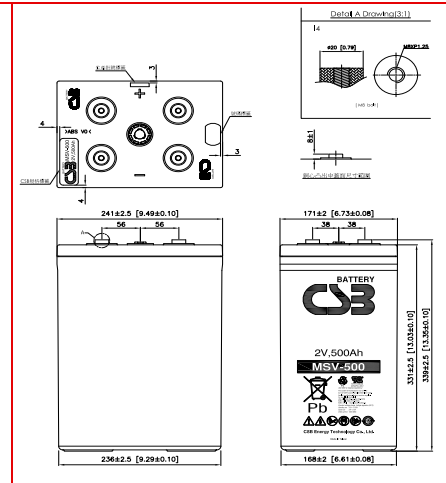
2.35 VDC/Unit at 25°C (77°F)

#### 【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. 31.20 Kg (68.76 lbs)		
Maximum Discharge Current	3000 A (5sec)		
Internal Resistance	Approx. 0.39 mΩ		
Short Circuit Current	7258 A		
Maximum Charge Current	150 A		
Terminal types	I4 thread copper alloy terminal to accept M8 bolt		
Terminal tightening torque	126±25 Kgf·cm / 109±22 Lbf·in / 12.3±2.5 N·m		
Container Material	Flame Retardant ABS (UL 94-V0)		
Dimensions	Length (L)	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	732	512	329	194	164	143	96.7	82.8	64.9	52.7	26.4	22.0
1.67V	664	494	326	191	161	140	96.5	82.6	64.6	52.2	26.1	21.8
1.70V	639	478	321	189	160	139	95.8	82.1	64.3	51.8	25.9	21.6
1.75V	577	460	310	186	157	136	94.5	81.2	63.9	51.2	25.6	21.3
1.80V	512	427	295	177	151	132	91.7	79.1	62.6	50.0	25.0	20.8
1.83V	442	382	268	163	141	125	88.4	75.9	59.6	47.2	23.6	19.7

### 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	1223	894	588	367	312	274	180	156	125	102	51.0	42.5
1.67V	1149	870	581	364	310	272	178	154	124	101	50.5	42.1
1.70V	1118	850	575	361	308	270	177	154	123	100	50.0	41.7
1.75V	1038	810	561	352	302	267	176	153	122	99.2	49.6	41.3
1.80V	943	774	531	348	298	263	173	150	120	98.2	49.1	40.9
1.83V	834	699	496	327	281	248	170	147	117	95.9	48.0	40.0

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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