



# MSJ series MSJ-400



## Valve Regulated Lead Acid Battery

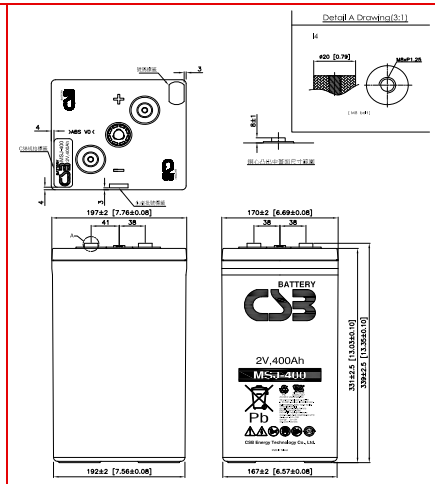
Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

<b>【Design Life】</b> Up to 20 Years in Standby Service at 25°C Eurobat (20°C) : >12 YEARS VERY LONG LIFE <b>【 Operating Temperature Range】</b> 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)	<b>【 Float Charging Voltage】</b> 2.21 ~ 2.25 VDC/Unit at 25°C (77°F) <b>【Equalization Charging Voltage】</b> 2.35 VDC/Unit at 25°C (77°F) <b>【 Self Discharge】</b> 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).
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### Specification

Nominal Voltage	2V (single cell per unit)		
Nominal Capacity	400 Ah @10hr-rate to 1.80V per cell @25°C (77°F)		
Weight	Approx. 28.60 Kg (63.03 lbs)		
Maximum Discharge Current	2400 A (5sec)		
Internal Resistance	Approx. 0.30 mΩ		
Short Circuit Current	6065A		
Maximum Charge Current	120 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 ABS (UL 94-V0)		
Dimensions	Depth (D)	197.0±2.0 mm	7.76±0.08 inch
	Width (W)	170.0±2.0 mm	6.69±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	704	496	304	174	145	125	78.7	66.6	52.1	43.1	21.6	18.0
1.67V	631	472	296	172	143	123	77.9	66.0	51.6	42.7	21.4	17.8
1.70V	593	456	290	171	142	123	77.4	65.6	51.4	42.5	21.3	17.7
1.75V	533	415	276	167	139	120	76.1	64.6	50.7	42.0	21.0	17.5
1.80V	456	368	255	159	134	116	73.7	62.8	49.3	40.9	20.5	17.0
1.83V	403	337	239	153	128	112	71.3	60.9	47.9	39.8	19.9	16.6

### 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	1233	900	552	332	277	238	156	134	102	80.2	40.1	33.4
1.67V	1146	866	542	329	274	236	155	133	102	79.6	39.8	33.2
1.70V	1101	843	534	327	272	235	154	132	101	79.3	39.6	33.0
1.75V	1006	789	512	320	267	231	153	131	100	78.2	39.1	32.6
1.80V	902	712	478	307	258	224	149	128	97	75.9	38.0	31.6
1.83V	813	664	451	295	249	216	145	124	94	73.6	36.8	30.7

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.

