



# MSV series MSV-200



## Valve Regulated Lead Acid Battery

Maintenance-Free Sealed Lead Acid Battery.

Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

## Design for Standby Power Applications

### 【Design Life】

Up to 15 Years in Standby Service at 25°C  
Eurobat (20°C) : 12 years and longer, Long Life

### 【Operating Temperature Range】

Nominal Operating Temperature : 25°C (77°F)  
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)

### 【Float Charging Voltage】

2.21 ~ 2.25 VDC/Unit at 25°C (77°F)

### 【Equalization Charging Voltage】

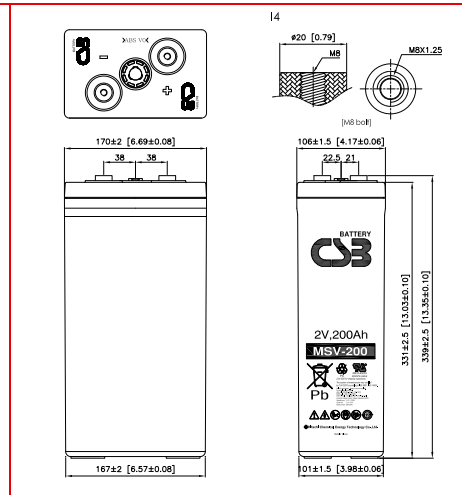
2.35 VDC/Unit at 25°C (77°F)

### 【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	200 Ah @10hr-rate to 1.80V per cell @25°C (77°F)		
Weight	Approx. 13.60 Kg (29.97 lbs)		
Maximum Discharge Current	1200 A (5sec)		
Internal Resistance	Approx. 0.59 mΩ		
Short Circuit Current	2968A		
Maximum Charge Current	60 A		
Terminal type	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	Depth (D)	170.0±2.0 mm	6.69±0.08 inch
	Width (W)	106.0±1.5 mm	4.17±0.06 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	3HR	4HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	285	196	130	76.5	57.5	45.5	38.5	33.5	26.5	22.5	11.3	9.38
1.67V	260	187	124	74.0	54.5	44.0	37.0	32.0	26.0	22.0	11.0	9.17
1.70V	241	182	122	72.5	54.0	43.5	36.5	31.5	25.5	21.5	10.8	8.96
1.75V	210	168	112	68.5	50.5	41.1	34.5	30.0	24.5	20.5	10.3	8.54
1.80V	183	147	106	66.0	48.5	39.5	33.5	29.5	24.0	20.0	10.0	8.33
1.83V	159	130	97.5	62.0	46.5	37.5	32.0	28.0	22.8	19.5	9.75	8.13

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

F.V/Time	15MIN	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	466	344	231	139	104	83.5	70.5	62.0	50.0	42.0	21.0	17.5
1.67V	427	330	230	138	103	82.5	70.0	61.5	49.5	41.5	20.8	17.3
1.70V	407	319	223	135	101	82.0	69.5	60.5	48.5	41.0	20.5	17.1
1.75V	368	298	208	129	96.5	78.5	66.5	58.0	47.5	40.0	20.0	16.7
1.80V	336	267	196	124	92.5	75.5	64.5	56.5	46.0	39.5	19.8	16.5
1.83V	286	231	181	116	88.5	71.9	61.5	54.0	44.0	38.0	19.0	15.8

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.

