BATTERY

MSJ series

MSJ-650

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℃
Eurobat (20℃) : >12 YEARS VERY LONG LIFE

【 Operating Temperature Range】
Nominal Operating Temperature : 25℃(77℉)
Discharge : -15℃ ~ 50℃ (5℉~122℉)
Charge: -15℃ ~ 40℃ (5℉~104℉)
Storage: -15℃ ~ 40℃ (5℉~104℉)

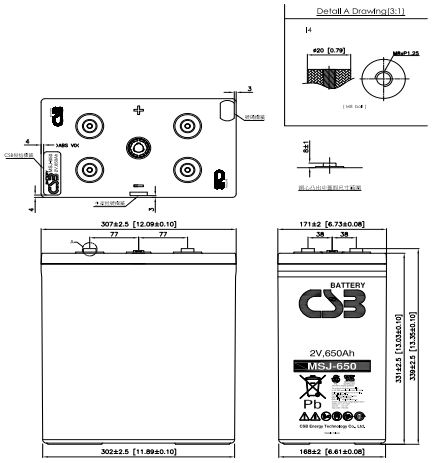
【 Float Charging Voltage】
2.21 ~ 2.25 VDC/Unit at 25℃ (77℉)

【Equalization Charging Voltage 】
2.35 VDC/Unit at 25℃ (77℉)

【 Self Discharge】
Less than 10% after 90 days, can be stored up to 6 months at 25℃ (77℉); Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25℃ (77℉).

Specification

Nominal Voltage	2V (single cell per unit)		
Nominal Capacity	650 Ah @10hr-rate to 1.80V per cell @25℃ (77℉)		
Weight	Approx. 46.60 Kg (102.71 lbs)		
Maximum Discharge Current	3900 A (5sec)		
Internal Resistance	Approx. 0.26 mΩ		
Short Circuit Current	13235A		
Maximum Charge Current	195 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	Depth (D)	307.0±2.5 mm	12.09±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℃, 77℉)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	1205	807	494	283	235	203	128	108	84.6	70.0	35.0	29.2
1.67V	1079	767	481	279	233	201	127	107	83.9	69.5	34.7	28.9
1.70V	1014	741	472	277	231	199	126	106	83.5	69.1	34.6	28.8
1.75V	912	675	449	271	226	196	124	105	82.3	68.2	34.1	28.4
1.80V	780	597	414	259	218	189	120	102	80.1	66.5	33.2	27.7
1.83V	690	548	388	248	209	181	116	99.0	77.9	64.6	32.3	26.9

Constant Power Discharge Characteristics Unit: W (25℃, 77℉)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	2109	1463	898	540	450	387	254	217	167	130	65.2	54.3
1.67V	1960	1407	881	535	445	384	252	216	165	129	64.7	53.9
1.70V	1883	1371	867	531	443	382	251	215	164	128	64.0	53.3
1.75V	1721	1281	832	520	435	375	248	213	162	127	63.5	52.9
1.80V	1543	1157	776	500	419	363	242	207	157	123	61.7	51.4
1.83V	1391	1079	732	480	404	351	235	202	152	120	59.8	49.8

Please refer to the official site for the latest rating confirmation. URL: www.csb-battery.com Issued: 201112

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

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