



# MSJ Series

## MSJ-650 Datasheet

2V VRLA-AGM

### Specifications

Voltage (Vdc)	2
Ah Capacity (8-Hr 1.75 VPC @ 25°C)	658.40
Ah Capacity (20-Hr 1.75 VPC @ 25°C)	682.00
Ah Capacity (8-Hr 1.80 VPC @ 25°C)	640.80
Max Charge Current (A)	195.00
Max Discharge Current (A)	3900 (5sec)
Short Circuit Current (A)	13235
Internal Resistance	Approx. 0.26 mΩ
Terminal Type	I4 thread copper alloy terminal to accept M8 bolt
Terminal Torque	126±25 Kgf·cm / 109±22 Lbf·in / 12.3±2.5 N·m
Container Material	Flame Retardant ABS (UL 94-V0)
Weight (kg. / lb., Approx.)	46.60 / 102.71
Depth (D) (mm / in)	307.0±2.5 / 12.09±0.10
Width (W) (mm / in)	171.0±2.0 / 6.73±0.08
Height (H) (mm / in)	339.0±2.5 / 13.15±0.10
Design Life	Up to 20 Years in Standby Service at 25°C. Eurobat (20°C): >12 Years Very Long Life
Operating Temperature	Nominal: 25°C (77°F) Discharge: -15°C - 50°C (5°F-122°F) Charge/Storage: -15°C - 40°C (5°F - 104°F)
Float Charging Voltage	2.21 ~ 2.25 Vdc/battery 25°C (77°F)
Eq. Charging Voltage	2.35 Vdc/battery 25°C (77°F)
Self-Discharge	Less than 10% after 90 days, can be stored up to 6 months and 10 months with equalization charge* at 25C (77F); Full recharging is required before usage, and charged sooner if stored at higher temperature than 25C (77F).



Valve Regulated Lead Acid (VRLA) Battery

Maintenance-Free, Absorbent Glass Mat (AGM) Technology for Efficient Gas Recombination of up to 99%

Pure Lead Construction and Proprietary Elements

Designed for High-Capacity Float Service Standby Power Applications

Built in Accordance with IEC 60896-21/22:2004, UL1973 Listed (MH66728) and UL1989 Recognized (MH14533)

Certified by TUV NORD according to ISO 9001:2015





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### Constant Current Discharge Characteristics Per Battery: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.67V	1079	767	481	279	233	201	127	107	83.9	69.5	34.7	28.9
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

### Constant Power Discharge Characteristics Per Battery: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.67V	1960	1407	881	535	445	384	252	216	165	129	64.7	53.9
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

