



# MSV Series

## MSV-400 Datasheet

2V VRLA-AGM

### Specifications

Voltage (Vdc)	2
Ah Capacity (8-Hr 1.75 VPC @ 25°C)	408.00
Ah Capacity (20-Hr 1.75 VPC @ 25°C)	424.00
Ah Capacity (8-Hr 1.80 VPC @ 25°C)	400.00
Max Charge Current (A)	120.00
Max Discharge Current (A)	2400 (5sec)
Short Circuit Current (A)	--
Internal Resistance	Approx. 0.43 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.)	24.90 / 54.88
Length (L) (mm / in)	197.0±2.0 / 7.76±0.08
Width (W) (mm / in)	170.0±2.0 / 6.69±0.08
Height (H) (mm / in)	339.0±2.5 / 13.15±0.10
Design Life	Up to 15 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	543	399	253	156	132	115	76.7	65.8	51.7	42.9	21.4	17.9
1.75V	476	354	237	152	129	113	75.4	64.8	51.0	42.3	21.2	17.6
1.80V	428	313	222	146	124	109	73.5	63.3	50.0	41.6	20.8	17.3

### 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	871	701	465	289	242	210	141	123	98.5	83.1	41.6	34.6
1.75V	842	631	442	282	238	207	140	121	97.8	82.5	41.3	34.4
1.80V	755	566	420	273	232	203	139	120	96.8	81.5	40.8	34.0

