



VRLA Rechargeable Battery

MSB-400 (MSB-400FR) (2V, 400Ah)



FEATURES

- Sealed structure, no electrolyte leakage or spill.
- High performance alloy to secure corrosion-proof feature.
- Unique electrolyte system achieves maximum service life.
- Low self-discharge rate, lower than 3% capacity loss per month.
- Special paste formula promotes the good charging acceptance.
- Electrolyte with gel technology.

APPLICATION

- Telecom
- UPS
- Central Office
- Energy Storage Systems



SPECIFICATIONS

Nominal Voltage	2 V
Nominal Capacity	400Ah @ 10 hour rate F.V.(1.80V/cell)
Approx. Weight	31.5Kg(69.4lbs.)
Terminals	B6 (Fitting M8 bolt & nut) I3 is optional
Internal Resistance	≤ 0.8m Ω (Fully Charged)
Max. Discharge Current	1760 A (5 sec.)
Max. Charge Current	100 A
Operating Temperature Range	Charge : 0°C~40°C(32°F~104°F) Discharge : -20°C~50°C(-4°F~122°F) Storage : -20°C~40°C(-4°F~104°F)
Safety Valve	Opening pressure 10~35 kPa
Container Material	ABS(UL94-HB, UL94-V0 is optional)

ISO 9001	
ISO14001	
UL	
TLC	
TSE	
● IEC60896-21/22	
● JIS C 8704-2	
● GB/T19638.2	
● YD/T799	

DIMENSION(mm/inch)	OUTER DIMENSIONS	TERMINAL TYPE
Length 211±2.0 (8.31±0.08)		Terminal B6
Width 176±2.0 (6.92±0.08)		Terminal I3
Container Height 329±2.0 (12.95±0.08)		Terminal Hardware Initial Torque: 10.0 Nm ± 5%
Total Height 357±2.0 (14.06±0.08)		

Constant power discharge characteristics at 25 °C/77 °F Unit: W

F.V. (V/cell) \ Discharge Time	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	6 Hr	8 Hr	10 Hr	12 Hr	20 Hr
1.85V	524.6	360.0	231.6	180.4	140.2	120.8	107.6	89.0	74.4	64.48	40.18
1.80V	582.0	396.0	250.0	191.1	154.4	131.6	114.6	95.2	78.7	67.59	42.13
1.75V	637.6	420.0	265.0	201.2	161.8	137.6	119.6	98.2	82.2	69.91	43.38
1.70V	700.0	448.0	274.0	208.1	165.0	141.0	122.6	100.2	85.0	71.54	44.10
1.65V	752.0	462.0	278.0	212.3	168.4	143.0	125.0	102.0	86.2	72.55	44.47
1.60V	767.0	466.0	282.0	214.3	170.4	145.0	125.6	103.0	87.0	72.89	44.60

Constant current discharge characteristics at 25 °C/77 °F Unit: A

F.V. (V/cell) \ Discharge Time	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	6 Hr	8 Hr	10 Hr	12 Hr	20 Hr
1.85V	280.0	192.0	122.0	94.3	74.0	62.6	54.0	44.0	37.4	32.41	20.20
1.80V	312.0	212.0	132.0	100.0	81.6	68.0	58.0	48.4	40.0	34.33	21.40
1.75V	344.6	226.0	140.6	105.9	85.6	72.0	62.0	50.6	42.2	35.87	22.26
1.70V	382.0	242.4	146.6	110.4	87.8	74.4	64.0	52.4	43.8	36.87	22.90
1.65V	409.0	252.2	150.6	114.0	90.0	76.4	66.4	54.0	44.6	37.34	23.20
1.60V	430.0	258.6	155.0	116.5	91.6	77.6	67.0	55.0	45.0	37.69	23.26

All data shall be changed without prior notice, BB reserves the right to explain and update the information contained herein.