



VRLA Rechargeable Battery

MSU-1200 (MSU-1200FR)

(2V, 1200Ah)

FEATURES

- Sealed structure, no electrolyte leakage or spill.
- High performance alloy to secure corrosion-proof feature.
- Unique electrolyte system achieves maximum service life.
- Special paste formula promotes the good charging acceptance.
- Electrolyte with gel technology.
- 15 years design life floating charging.

APPLICATION

- UPS
- Central Office
- Telecom
- Energy Storage Systems



SPECIFICATIONS

| | | |
|-----------------------------|---|------------------------|
| Nominal Voltage | 2V | |
| Nominal Capacity(25°C) | 10 Hour Rate F.V.(1.80V/cell) | 1200 Ah |
| | 3 Hour Rate F.V.(1.80V/cell) | 900 Ah |
| | 1 Hour Rate F.V.(1.75V/cell) | 660 Ah |
| Approx. Weight | 71.5Kg(157.6lbs.) | |
| Terminals | B6 (Fitting M8 bolt & nut) I3 is optional | |
| Max. Discharge Current | 4800 A (5 sec.) | |
| Max. Charge Current | 300 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) |
| Self Discharge | < 3% per month (25°C) | |
| Internal Resistance | ≤ 0.5mΩ (Fully Charged) | |
| Container Material | ABS(UL94-HB, UL94-V0 is optional) | |



ISO 9001

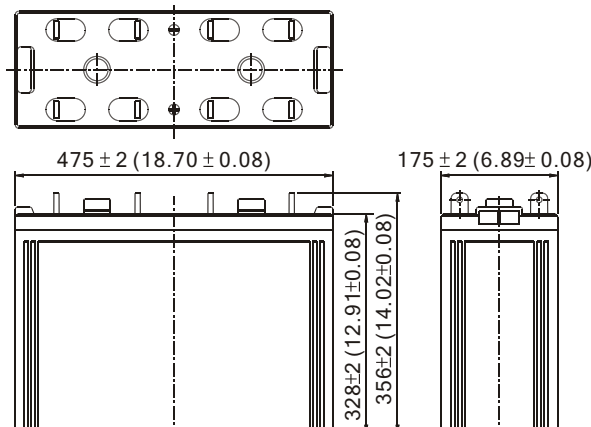


ISO14001

- IEC60896-21/22
- JIS C 8704-2
- GB/T19638.2
- YD/T799

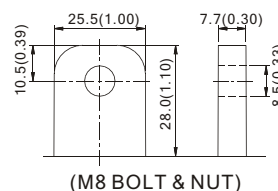
OUTER DIMENSIONS mm(inch)

| Length (L) | Width (W) | Container Height (H) | Total Height (TH) |
|---------------------|--------------------|----------------------|---------------------|
| 475±2.0(18.70±0.08) | 175±2.0(6.89±0.08) | 328±2.0(12.91±0.08) | 356±2.0(14.02±0.08) |

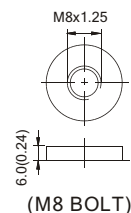


TERMINAL TYPE

● Terminal B6

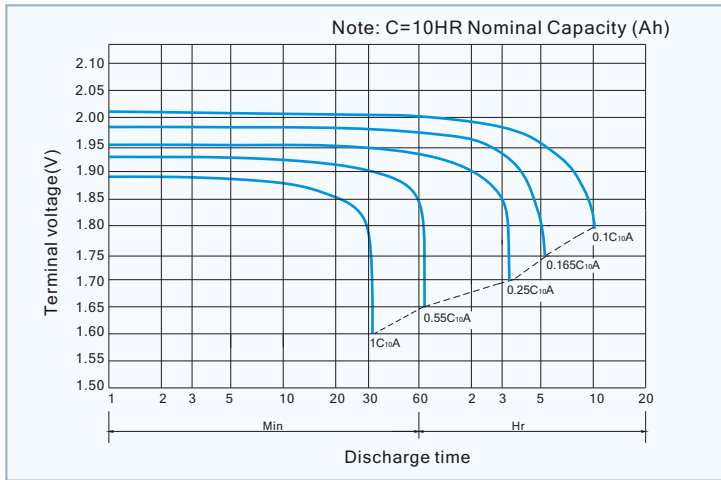


● Terminal I3

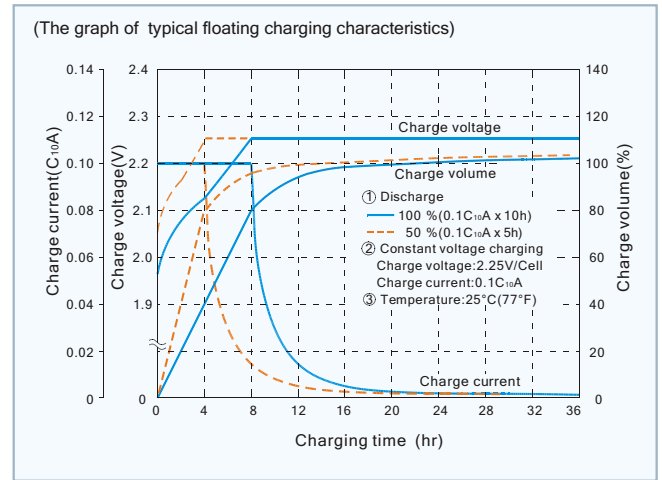


Terminal Hardware Initial Torque: 10.0 Nm ± 5%

MSU-1200 (MSU-1200FR) discharge characteristics (25°C /77°F)



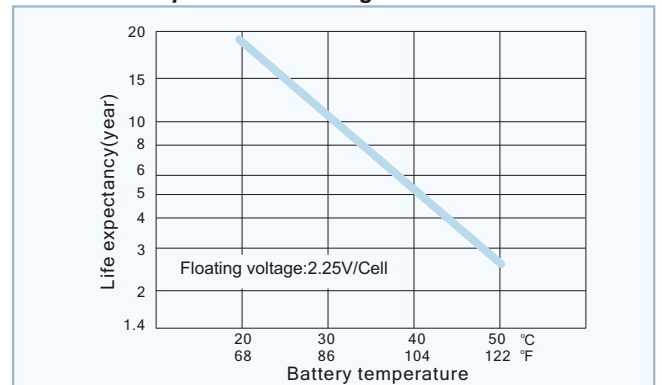
Battery Charging Characteristics



Charging Procedure

| Application | Charging method | Charging Voltage at 25°C (V/cell) | Temperature compensation coefficient of charging voltage (mV/°C/cell) | Charging time 0.1C _{10A} , 25°C (h) | |
|--------------------------|---|-----------------------------------|---|--|---------------|
| | | | | 100% discharge | 50% discharge |
| For standby power Source | Constant voltage (with current restriction) | 2.23~2.25 | -3 | 24 | 20 |

Effect Of Temperature On Long Term Float Life



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 | 1573.8 | 1080.0 | 694.8 | 541.2 | 420.6 | 362.4 | 322.8 | 267.0 | 223.2 | 193.44 | 120.53 |
| 1.80V | 1746.0 | 1188.0 | 750.0 | 573.3 | 463.2 | 394.8 | 343.8 | 285.6 | 236.2 | 202.78 | 126.39 |
| 1.75V | 1912.8 | 1260.0 | 795.0 | 603.6 | 485.3 | 412.8 | 358.8 | 294.6 | 246.7 | 209.73 | 130.15 |
| 1.70V | 2100.0 | 1344.0 | 822.0 | 624.2 | 495.0 | 423.0 | 367.8 | 300.6 | 255.0 | 214.63 | 132.30 |
| 1.65V | 2256.0 | 1386.0 | 834.0 | 636.9 | 505.2 | 429.0 | 375.0 | 306.0 | 258.6 | 217.66 | 133.42 |
| 1.60V | 2301.0 | 1398.0 | 846.0 | 643.0 | 511.2 | 435.0 | 376.8 | 309.6 | 261.0 | 218.67 | 133.80 |

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 | 840.0 | 576.0 | 366.0 | 282.9 | 222.0 | 187.9 | 162.0 | 132.0 | 112.2 | 97.24 | 60.59 |
| 1.80V | 936.0 | 636.0 | 396.0 | 300.0 | 244.8 | 204.0 | 174.0 | 145.2 | 120.0 | 103.00 | 64.20 |
| 1.75V | 1033.8 | 678.0 | 421.8 | 317.6 | 256.8 | 216.0 | 186.0 | 151.8 | 126.6 | 107.61 | 66.78 |
| 1.70V | 1146.0 | 727.2 | 439.8 | 331.1 | 263.4 | 223.2 | 192.0 | 157.2 | 131.4 | 110.60 | 68.70 |
| 1.65V | 1227.0 | 756.6 | 451.8 | 342.1 | 270.0 | 229.2 | 199.2 | 162.0 | 133.8 | 112.02 | 69.60 |
| 1.60V | 1290.0 | 775.8 | 465.0 | 349.4 | 274.8 | 232.8 | 201.0 | 165.0 | 135.0 | 113.06 | 69.78 |

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

Trial A/1 REV. Jan.2011

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