



Sealed Lead-Acid Battery

UPG No. 45978

UB121000

Absorbant Glass Mat (AGM) technology for superior performance. Valve regulated, spill proof construction allows safe operation in any position. Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified. U.L. recognized under file number MH 20567.

Maintenance-Free

Specification

| | | | |
|---|--------------------|-----------|------|
| Nominal Voltage | 12 volts | | |
| Nominal Capacity | 77° F (25° C) | | |
| 20-hr. (5.0A) | 100 Ah | | |
| 10-hr. (9.3A) | 93 Ah | | |
| 5-hr. (17.0A) | 85Ah | | |
| 1-hr. (60.0A) | 60 Ah | | |
| Approximate Weight | 63.93 lbs (29 kgs) | | |
| Internal Resistance (approx.) | 5mΩ | | |
| Shelf Life (% of normal capacity at 77° F (25° C)) | | | |
| 3 Months | 6 Months | 12 Months | |
| 91% | 82% | 64% | |
| Temperature Dependency of Capacity | (20 hour rate) | | |
| 104° F | 77° F | 32° F | 5° F |
| 102% | 100% | 85% | 65% |



Charge Method (Constant Voltage)

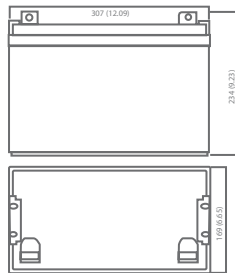
Cycle Use (Repeating Use)

| | |
|-----------------|-----------------|
| Initial Current | 30 A or smaller |
| Control Voltage | 14.5 - 14.9 V |

Float Use

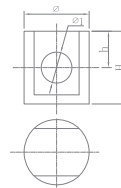
| | |
|-----------------|---------------|
| Control Voltage | 13.6 - 13.8 V |
|-----------------|---------------|

Physical Dimensions: in (mm)



L: 12.09in (307 mm)
W: 6.65in (169 mm)
H: 8.58in (140 mm)
TH: 9.23in (234 mm)
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

Terminals



| Dimension Type | Ø | Ø1 | H | h |
|----------------|------|-----|------|-----|
| Z1 | 17.0 | 8.0 | 21.5 | 9.0 |

Constant Current Discharge Characteristics Unit:A (25°C, 77°F)

| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 9.60V | 351.5 | 256.5 | 180.5 | 109.3 | 57.0 | 33.3 | 24.4 | 19.0 | 15.7 | 11.0 | 10.0 | 5.4 |
| 10.20V | 309.7 | 233.7 | 161.5 | 103.6 | 53.6 | 31.7 | 23.8 | 18.5 | 15.4 | 10.8 | 9.7 | 5.3 |
| 10.50V | 298.3 | 222.3 | 152.0 | 100.7 | 52.3 | 31.0 | 23.2 | 18.2 | 15.2 | 10.7 | 9.5 | 5.2 |
| 10.80V | 286.9 | 210.9 | 142.5 | 97.9 | 50.4 | 30.2 | 22.6 | 18.0 | 14.8 | 10.5 | 9.5 | 5.1 |
| 11.10V | 275.5 | 199.5 | 133.0 | 95.0 | 48.5 | 29.5 | 21.9 | 17.4 | 14.4 | 10.2 | 9.0 | 4.9 |

Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

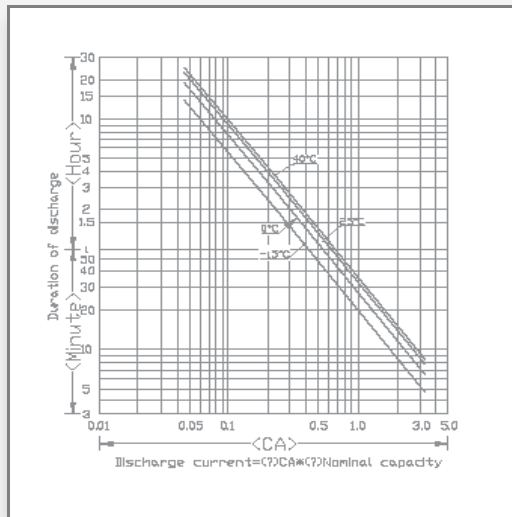
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|------|
| 9.60V | 3732.6 | 2818.7 | 1917.1 | 1160.0 | 660.3 | 384.8 | 283.1 | 220.4 | 181.5 | 128.3 | 115.9 | 62.4 |
| 10.20V | 3438.1 | 2594.5 | 1792.7 | 1149.5 | 620.4 | 367.7 | 275.5 | 214.7 | 142.6 | 125.4 | 113.1 | 60.8 |
| 10.50V | 3383.0 | 2521.3 | 1723.3 | 1141.9 | 600.4 | 359.1 | 268.9 | 210.9 | 175.8 | 124.5 | 111.2 | 60.0 |
| 10.80V | 3339.3 | 2454.8 | 1658.7 | 1139.1 | 584.3 | 351.5 | 263.2 | 207.1 | 172.9 | 121.6 | 110.2 | 59.8 |
| 11.10V | 3278.5 | 2374.1 | 1582.7 | 1130.5 | 576.7 | 350.6 | 260.3 | 206.2 | 172.0 | 120.7 | 107.4 | 58.0 |



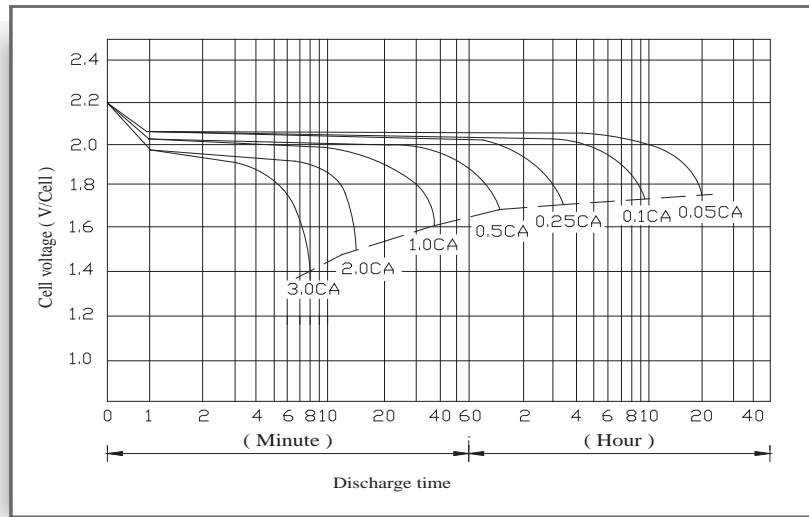
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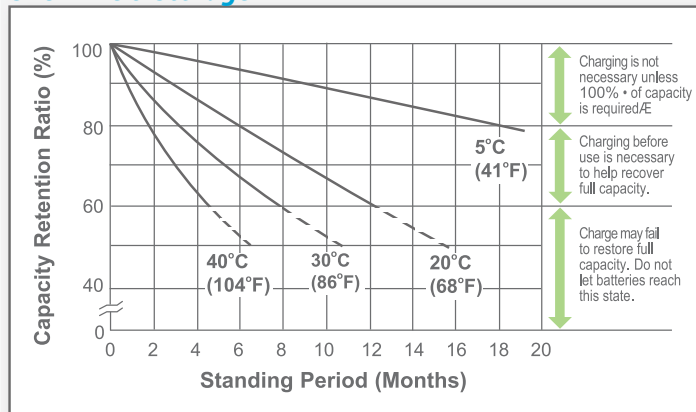
Discharge Time vs. Discharge Current



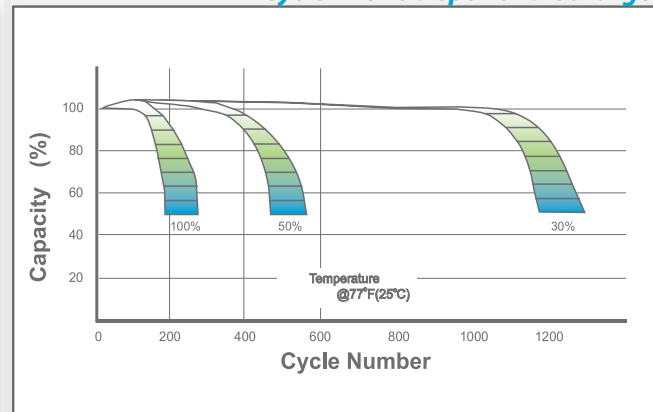
Discharge Characteristics



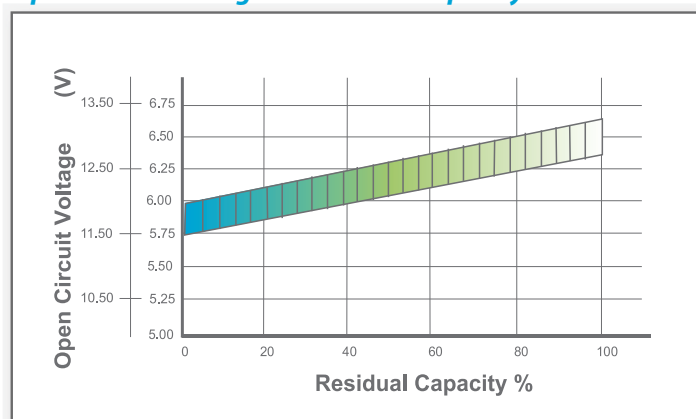
Shelf Life & Storage



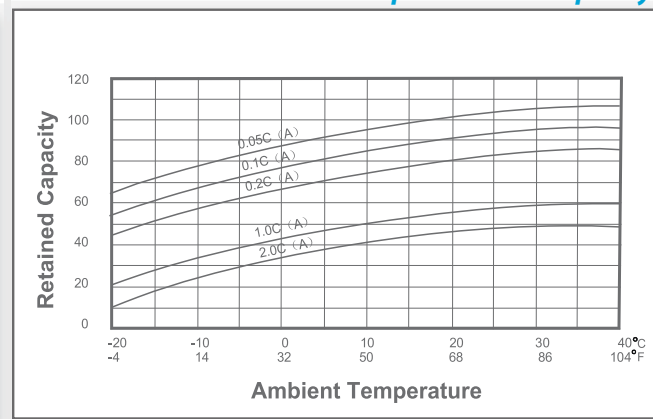
Cycle Life vs Depth of Discharge



Open Circuit Voltage vs Residual Capacity



Effect of Temperature on Capacity



Charge Current & Final Discharge Voltage

| Application | Charge Voltage(V/Cell) | | | Max.Charge Current | Final Discharge Voltage V/Cell | Discharge Current(A) | 1.75 | 1.70 | 1.60 | 1.30 |
|-------------|------------------------|-----------|-----------------|--------------------|--------------------------------|----------------------|---------------|---------------|----------|------|
| | Temperature | Set Point | Allowable Range | | | | | | | |
| Cycle Use | 25°C(77°F) | 2.45 | 2.40-2.50 | 0.3C | Discharge | 0.2C<(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C | |
| Standby | 25°C(77°F) | 2.325 | 2.30-2.35 | | | | | | | |



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