

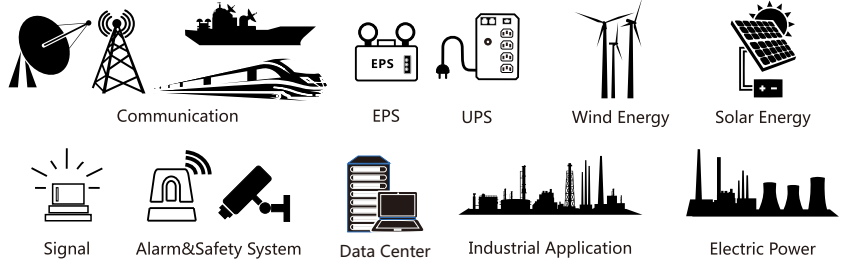
TN12-55 [12V 55Ah]



Product Features

| General Purpose (AGM) | | 6~10 years of design life@25°C | |
|-----------------------|--|--------------------------------|---|
| 100% | Model Coverage Both Cycle & Float Application | ↑98% | Capacity Retention High Purity Electrolyte |
| ↑20% | Charge Acceptance Special Negative Additive | ↓50% | Grid Corrosion Rare-earth patent alloy |

Product Applications



Physical Specifications

| Model | Dimensions ±5% (mm/inch) | | | | Weight (kg/lbs) | Terminal | Container |
|---------|--------------------------|------------|----------|--------------|-----------------|----------|---|
| TN12-55 | Length | Width | Height | Total Height | 16.4/36.2 | I3 | ABS UL94-HB (Optional: FR ABS UL94-V0) |
| | 229/9.02 | 138.5/5.45 | 211/8.31 | 216/8.50 | | | |

Product Specifications

| Nominal Voltage | Rated Capacity 25°C/77°F | Internal Resistance | Max. Discharge Current | Operating Temp. Range |
|-----------------|--|---------------------|------------------------|---|
| 12V | 58.2Ah 20hr Rate (1.80V/cell) 55.0Ah 10hr Rate (1.80V/cell) 48.2Ah 5hr Rate (1.75V/cell) 43.8Ah 3hr Rate (1.70V/cell) | 7.5mΩ@25°C/77°F | 396A (5s) | Discharge:-15~50°C (5~122°F) Charge:0~40°C (32~104°F) Storage:-15~40°C (5~104°F) Optimum:25±2°C (77±4°F) |

Constant Current Discharge (A)@25°C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 108 | 85.7 | 74.6 | 64.5 | 49.2 | 37.3 | 31.0 | 18.5 | 13.5 | 10.7 | 9.05 | 7.92 | 6.38 | 5.36 | 2.86 |
| 1.80V/cell | 132 | 100 | 83.9 | 70.3 | 52.1 | 39.7 | 32.5 | 19.3 | 14.0 | 11.2 | 9.42 | 8.22 | 6.57 | 5.50 | 2.91 |
| 1.75V/cell | 153 | 110 | 91.2 | 74.6 | 55.1 | 41.5 | 33.7 | 19.8 | 14.4 | 11.4 | 9.64 | 8.41 | 6.71 | 5.62 | 2.97 |
| 1.70V/cell | 170 | 119 | 95.0 | 77.5 | 57.8 | 42.9 | 34.8 | 20.1 | 14.6 | 11.7 | 9.80 | 8.54 | 6.83 | 5.72 | 3.03 |
| 1.67V/cell | 179 | 125 | 98.9 | 80.6 | 59.7 | 44.1 | 35.7 | 20.5 | 14.8 | 11.9 | 9.96 | 8.65 | 6.89 | 5.80 | 3.08 |
| 1.60V/cell | 191 | 133 | 104 | 84.6 | 62.6 | 45.7 | 36.5 | 20.9 | 15.1 | 12.0 | 10.1 | 8.76 | 6.96 | 5.88 | 3.14 |

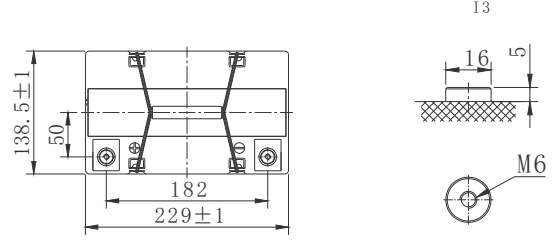
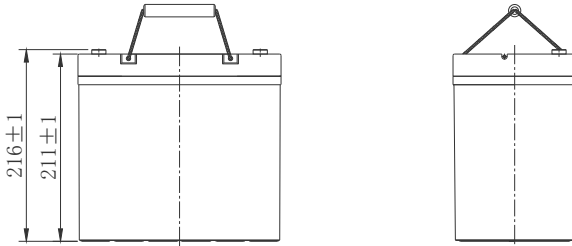
Constant Power Discharge (W/cell)@25°C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 201 | 162 | 143 | 125 | 96.9 | 74.0 | 61.7 | 37.1 | 27.3 | 21.8 | 18.5 | 16.2 | 13.1 | 11.0 | 5.89 |
| 1.80V/cell | 245 | 190 | 160 | 136 | 102 | 78.5 | 64.5 | 38.6 | 28.3 | 22.7 | 19.2 | 16.8 | 13.4 | 11.3 | 5.97 |
| 1.75V/cell | 283 | 208 | 174 | 144 | 108 | 82.0 | 66.8 | 39.5 | 28.9 | 23.1 | 19.5 | 17.1 | 13.7 | 11.5 | 6.08 |
| 1.70V/cell | 314 | 223 | 180 | 149 | 113 | 84.5 | 68.9 | 40.0 | 29.2 | 23.5 | 19.8 | 17.3 | 13.9 | 11.6 | 6.18 |
| 1.67V/cell | 330 | 235 | 187 | 154 | 116 | 86.6 | 70.3 | 40.8 | 29.6 | 23.8 | 20.1 | 17.5 | 14.0 | 11.8 | 6.27 |
| 1.60V/cell | 352 | 247 | 196 | 161 | 121 | 89.4 | 71.6 | 41.3 | 30.0 | 24.0 | 20.3 | 17.6 | 14.1 | 11.9 | 6.37 |

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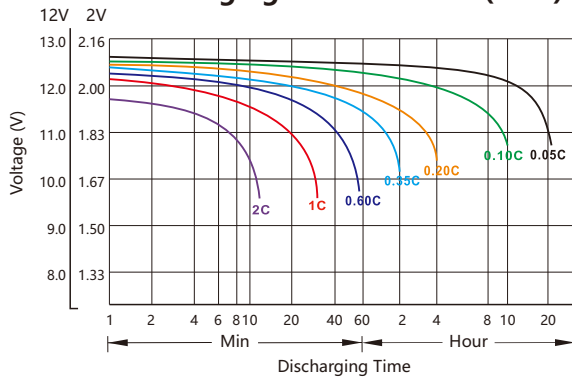


Battery Dimensions(mm)

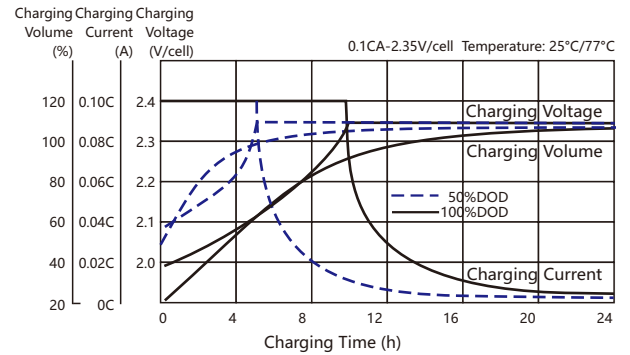


Electrical Characteristics

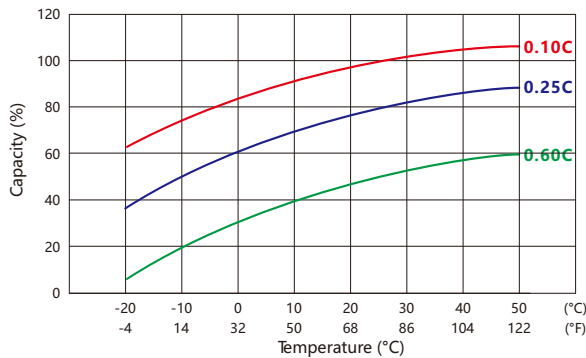
Discharging Characteristics(25°C)



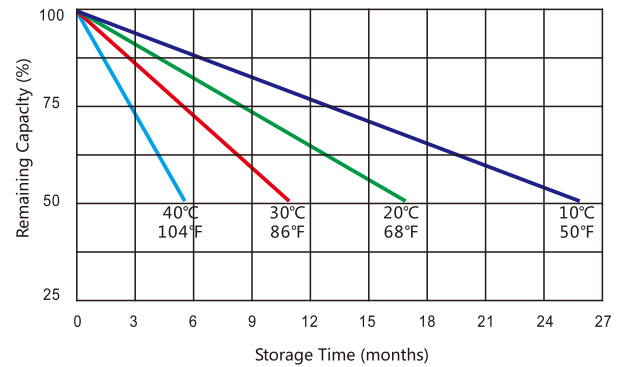
Charging Characteristics(25°C)



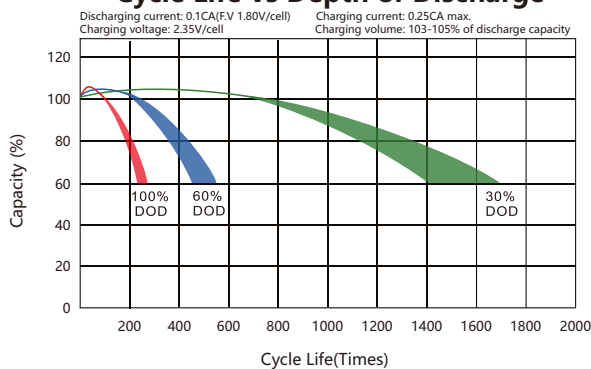
Capacity vs Temperature



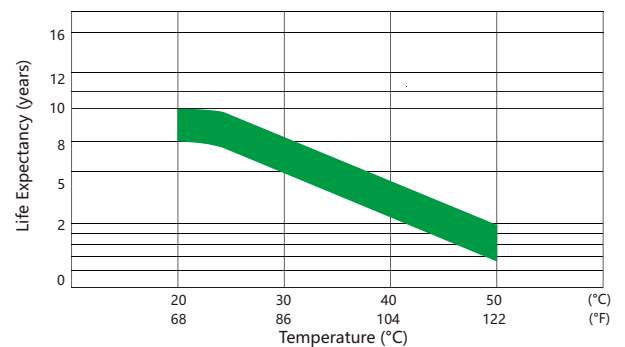
Self-discharge vs Time



Cycle Life vs Depth of Discharge



Floating Life vs Temperature



Usage and Maintenance

| Charge Current | Equalization Charge | Float Charge |
|---------------------------------------|--|--|
| Limited current : $\leq 0.25 C_{10}A$ | Constant Voltage: 14.1~14.4V@25°C(77°F) Temp.Coefficient:-24mV/°C | Constant Voltage: 13.5~13.8V@25°C(77°F) Temp.Coefficient:-18mV/°C |