

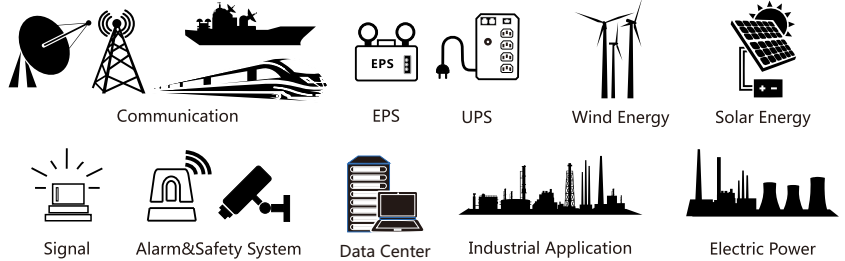
# TN2-200 [2V 200Ah]



## Product Features

| General Purpose (AGM)                                    |   | 10~12 years of design life@25°C                        |   |
|--|---|--|---|
| 100%<br>Model Coverage<br>Both Cycle & Float Application | ↑98%<br>Capacity Retention<br>High Purity Electrolyte | ↑20%<br>Charge Acceptance<br>Special Negative Additive | ↓50%<br>Grid Corrosion<br>Rare-earth patent alloy |

## Product Applications



## Physical Specifications

| Model   | Dimensions (mm/inch) |          |          |              | Weight (kg/lbs) | Terminal | Container                                 |
|---------|----------------------|----------|----------|--------------|-----------------|----------|---|
| TN2-200 | Length               | Width    | Height   | Total Height | 13.0/28.7       | I7       | ABS UL94-HB<br>(Optional: FR ABS UL94-V0) |
|         | 171/6.73             | 110/4.33 | 328/12.9 | 350/13.8     |                 |          |   |

## Product Specifications

| Nominal Voltage | Rated Capacity@25°C/77°F   | Internal Resistance | Max. Discharge Current | Operating Temp. Range   |
|-----------------|--|---------------------|------------------------|---|
| 2V              | 214Ah 20hr Rate (1.80V/cell)<br>200Ah 10hr Rate (1.80V/cell)<br>175Ah 5hr Rate (1.75V/cell)<br>159Ah 3hr Rate (1.70V/cell) | 0.69mΩ@25°C/77°F    | 1240A (5s)             | Discharge:-15~50°C (5~122°F)<br>Charge:0~40°C (32~104°F)<br>Storage:-15~40°C (5~104°F)<br>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 | 274  | 232   | 211   | 195   | 164   | 134   | 113 | 67.2 | 49.1 | 39.6 | 33.3 | 29.1 | 23.5 | 19.5 | 10.5 |
| 1.80V/cell | 336  | 263   | 236   | 211   | 174   | 140   | 118 | 70.1 | 51.1 | 40.8 | 34.3 | 29.9 | 24.1 | 20.0 | 10.7 |
| 1.75V/cell | 403  | 293   | 256   | 224   | 182   | 147   | 123 | 71.9 | 52.3 | 41.5 | 35.0 | 30.6 | 24.4 | 20.3 | 10.8 |
| 1.70V/cell | 442  | 320   | 274   | 236   | 191   | 152   | 125 | 73.1 | 53.1 | 42.4 | 35.6 | 31.1 | 24.7 | 20.6 | 11.0 |
| 1.67V/cell | 497  | 349   | 289   | 249   | 199   | 157   | 129 | 74.6 | 53.9 | 43.2 | 36.2 | 31.5 | 25.1 | 20.9 | 11.2 |
| 1.60V/cell | 564  | 382   | 310   | 264   | 209   | 162   | 133 | 75.8 | 54.8 | 43.7 | 36.8 | 31.8 | 25.4 | 21.0 | 11.4 |

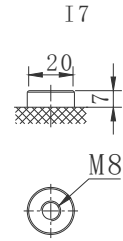
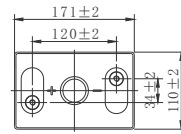
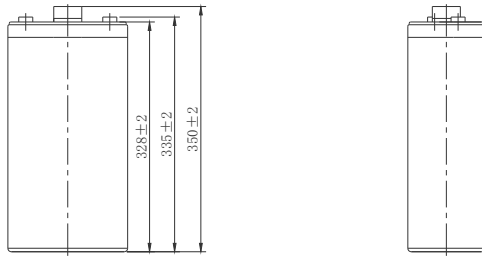
## Constant Power Discharge (W/cell)@25°C (77°F)

| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h  | 2h  | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|------|-------|-------|-------|-------|-------|-----|-----|------|------|------|------|------|------|------|
| 1.85V/cell | 509  | 439   | 405   | 378   | 322   | 267   | 224 | 135 | 99.3 | 80.3 | 67.9 | 59.4 | 48.2 | 40.0 | 21.5 |
| 1.80V/cell | 624  | 496   | 451   | 407   | 341   | 277   | 235 | 140 | 103  | 82.5 | 69.7 | 60.9 | 49.2 | 40.9 | 21.9 |
| 1.75V/cell | 748  | 551   | 488   | 431   | 357   | 289   | 243 | 144 | 105  | 83.9 | 71.0 | 62.2 | 49.9 | 41.5 | 22.1 |
| 1.70V/cell | 818  | 601   | 521   | 454   | 373   | 299   | 248 | 146 | 106  | 85.3 | 72.0 | 62.9 | 50.3 | 41.8 | 22.5 |
| 1.67V/cell | 917  | 653   | 547   | 477   | 387   | 308   | 254 | 148 | 108  | 86.6 | 72.9 | 63.5 | 50.8 | 42.4 | 22.8 |
| 1.60V/cell | 1037 | 710   | 585   | 503   | 404   | 317   | 260 | 150 | 109  | 87.4 | 73.9 | 64.1 | 51.3 | 42.5 | 23.2 |

# TN2-200 [2V 200Ah]

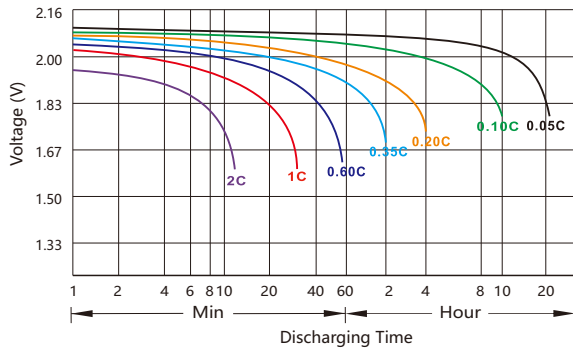


## Battery Dimensions(mm)

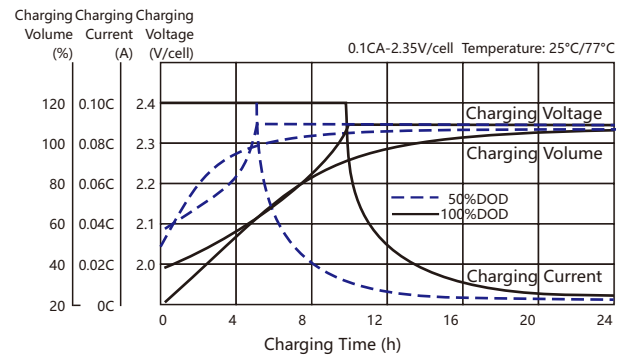


## Electrical Characteristics

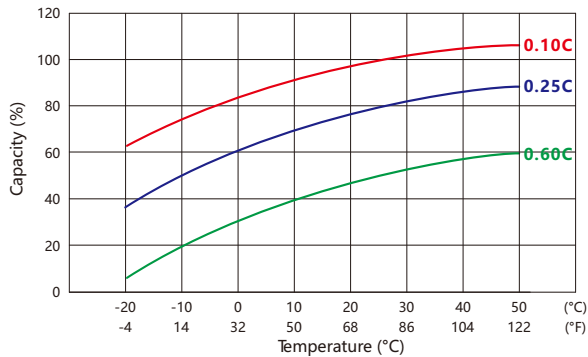
### Discharging Characteristics(25°C)



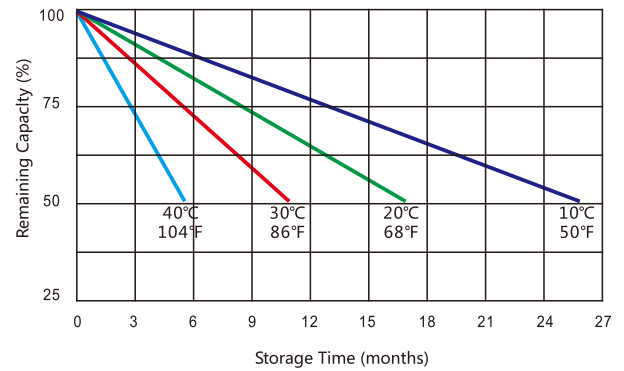
### Charging Characteristics(25°C)



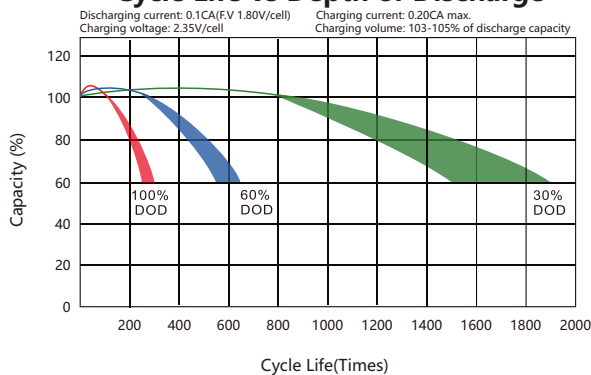
### Capacity vs Temperature



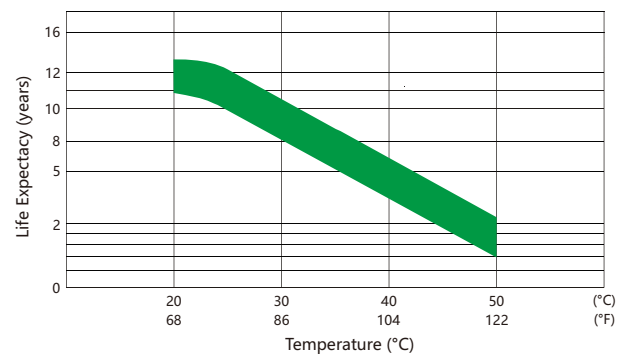
### Self-discharge vs Time



### Cycle Life vs Depth of Discharge



### Floating Life vs Temperature



## Usage and Maintenance

| Charge Current                      | Equalization Charge  | Float Charge  |
|-------------------------------------|--|---|
| Limited current: $\leq 0.2 C_{10}A$ | Constant Voltage: 2.35~2.4V@25°C(77°F)<br>Temp.Coefficient:-4mV/°C | Constant Voltage: 2.23~2.27V@25°C(77°F)<br>Temp.Coefficient:-3mV/°C |