

Powered by



TPL 121350A ▶12V 135Ah

TPL 121350A is a front terminal battery up to 12 years expected life under normal float charge As with all CSB batteries, all are rechargeable, highly efficient, leak proof and maintenance free.



► Specification

| | |
|--|--|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Capacity | 135Ah @ 8hr-rate to 1.75V per cell @25 °C(77°F) |
| Weight | Approx. 53.6kg(118.17 lbs) |
| Maximum Discharge Current | 800A(5sec) |
| Internal Resistance | Approx. 6.5 m Ω |
| Operating Temperature Range | Discharge: -15°C~50°C (5 °F~122°F) Charge: -15°C~40°C (5 °F~104°F) Storage: -15°C~40°C (5 °F~104°F) |
| Nominal Operating Temperature Range | 25°C±3°C(77°F±5°F) |
| Float Charging Voltage | 2.275 ± 0.025V / Cell at 25 °C (77°F) Temp. Coefficient ±3.3mV/°C(± 1.8mV/°F) |
| Recommended Maximum Charging Current Limit | 40.5A |
| Equalization / Cycle Use Charging Voltage | 2.45V Temps coefficient ±0.05mV/°C(± 1.8mV/°F) |
| Terminal | I2-Thread lead alloy recessed terminal to accept M6 bolt |
| Terminal Hardware Initial Torque | 120-in-lbs.(13.58 N-m) |
| Container Material | ABS(UL94-V0) & (UL94-HB) / L.O.I higher than 28 |

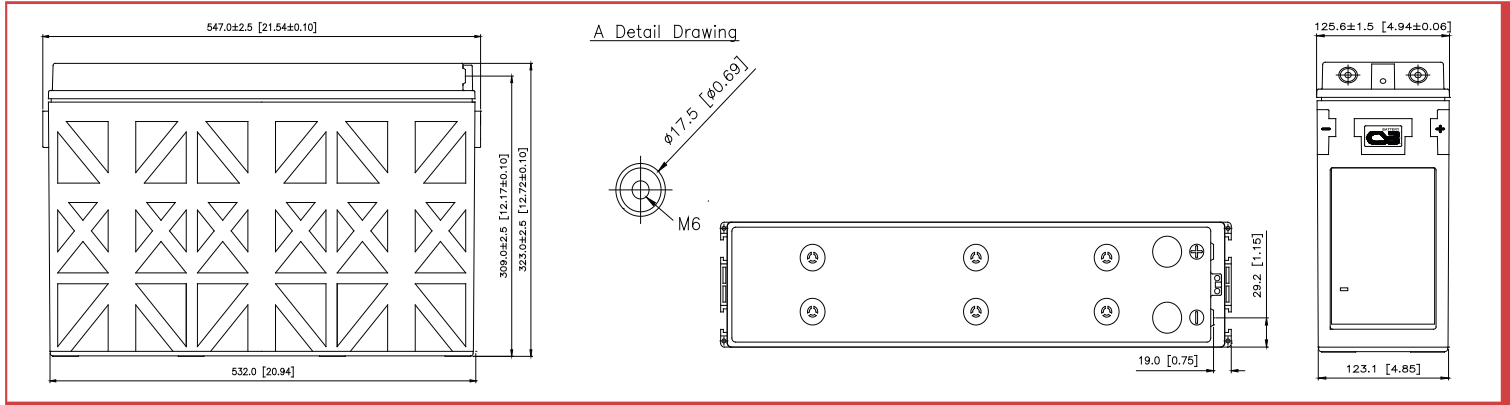


CSB-manufactured **VRLA** (Absorbent **G**lass **M**at type) batteries are UL-recognized components under UL1989.

CSB is also certified by ISO 9001 and ISO 14001.

► Dimensions :

| | | |
|------------------------|-----------------------|-----------------------|
| Overall Height (H) | Length (L) | Width (W) |
| Unit: mm (inch) | | |
| 323.0±2.5 (12.72±0.10) | 547.0±2.5(21.54±0.10) | 125.6±1.5 (4.94±0.06) |



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

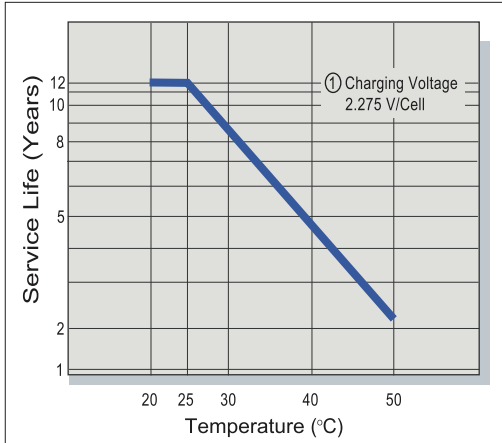
| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 7HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.67V | 250 | 159 | 93.2 | 68.1 | 54.2 | 39.9 | 32.1 | 26.7 | 22.8 | 19.8 | 17.6 | 14.3 | 7.51 |
| 1.70V | 236 | 153 | 91.0 | 66.7 | 53.6 | 39.5 | 31.7 | 26.3 | 22.4 | 19.6 | 17.2 | 14.2 | 7.43 |
| 1.75V | 213 | 144 | 87.2 | 64.7 | 52.7 | 38.4 | 30.8 | 25.3 | 21.6 | 18.9 | 16.9 | 13.8 | 7.26 |
| 1.80V | 189 | 132 | 82.3 | 62.2 | 51.3 | 37.2 | 29.4 | 24.5 | 21.1 | 18.3 | 16.3 | 13.5 | 7.09 |
| 1.83V | 174 | 125 | 79.1 | 60.7 | 49.9 | 35.9 | 28.5 | 23.8 | 20.5 | 17.8 | 15.8 | 13.0 | 6.92 |
| 1.85V | 164 | 119 | 76.4 | 59.2 | 48.7 | 35.0 | 27.9 | 23.2 | 20.0 | 17.5 | 15.5 | 12.8 | 6.75 |
| 1.90V | 142 | 106 | 69.4 | 56.4 | 43.3 | 31.9 | 25.3 | 21.1 | 18.0 | 15.9 | 14.2 | 11.7 | 6.24 |

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

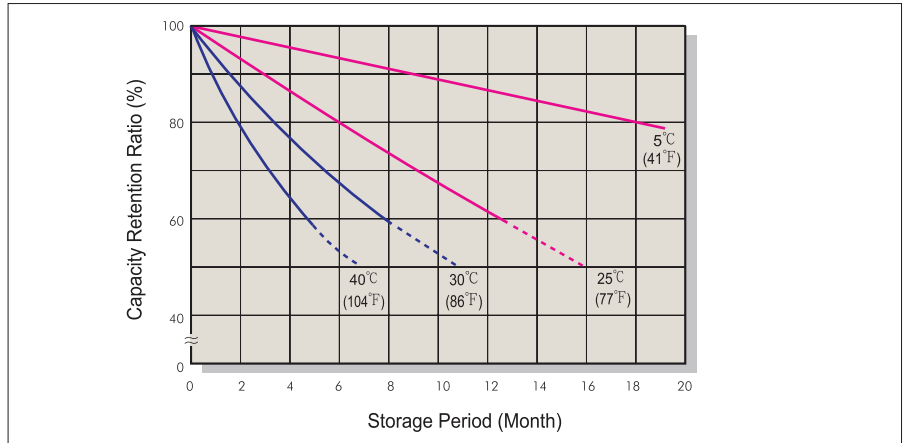
| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 7HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|------|------|
| 1.67V | 2,658 | 1,718 | 1,022 | 751 | 602 | 447 | 362 | 301 | 257 | 224 | 198 | 162 | 85.2 |
| 1.70V | 2,544 | 1,672 | 996 | 739 | 601 | 446 | 360 | 299 | 256 | 223 | 196 | 161 | 84.9 |
| 1.75V | 2,339 | 1,586 | 958 | 716 | 587 | 440 | 354 | 292 | 249 | 218 | 195 | 160 | 84.1 |
| 1.80V | 2,095 | 1,488 | 927 | 699 | 574 | 432 | 342 | 286 | 247 | 214 | 191 | 157 | 83.2 |
| 1.83V | 1,954 | 1,387 | 893 | 684 | 561 | 420 | 335 | 280 | 242 | 210 | 186 | 153 | 81.8 |
| 1.85V | 1,857 | 1,343 | 871 | 668 | 545 | 410 | 330 | 275 | 237 | 207 | 184 | 152 | 80.3 |
| 1.90V | 1,631 | 1,233 | 818 | 628 | 515 | 381 | 303 | 253 | 216 | 190 | 170 | 141 | 75.2 |

Ratings presented herein are subject to revision without notice. Please refer to www.csb-battery.com to confirm the latest version.

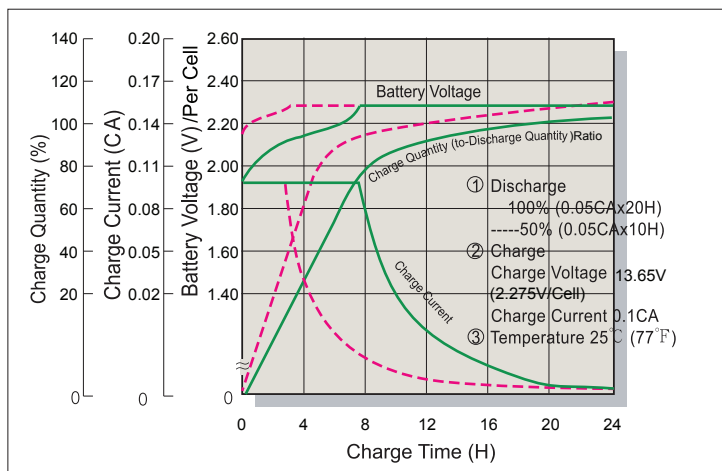
Trickle (or Float) Service Life



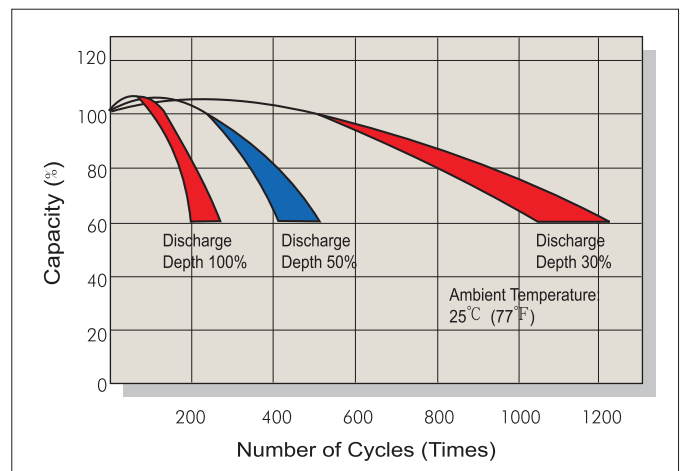
Capacity Retention Characteristic



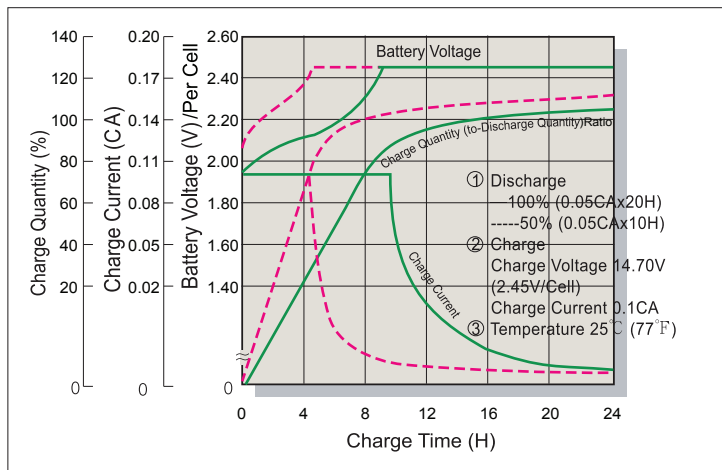
Battery Voltage and Charge Time for Standby Use



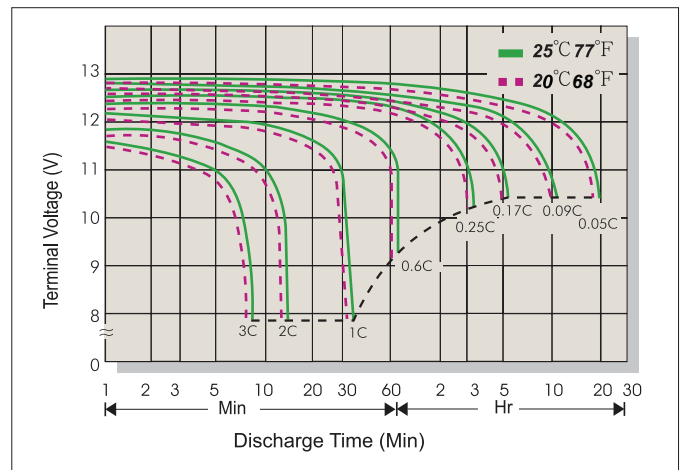
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



Charging Procedures

| Application | Charge Voltage(V/Cell) | | | Max. Charge Current |
|-------------|------------------------|-----------|-----------------|---------------------|
| | Temperature | Set Point | Allowable Range | |
| Cycle Use | 25°C(77°F) | 2.45 | 2.40~2.50 | 0.3C |
| Standby | 25°C(77°F) | 2.275 | 2.25~2.30 | |

Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.75 | 1.70 | 1.60 | 1.30 |
|--------------------------------|----------|---------------|---------------|----------|
| Discharge Current(A) | 0.2C>(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |

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