

SL12-260 Deep Cycle battery provides superior high integrity and reliability. It is specially designed for frequent cycling charge and discharge. By using strong grids, thick plate and special active material are designed for repeated deep-discharge applications. It is designed for up to 10 years in standby service or more than 260 cycles at 100% discharge in cycle service.



Battery case: Flame-retardant



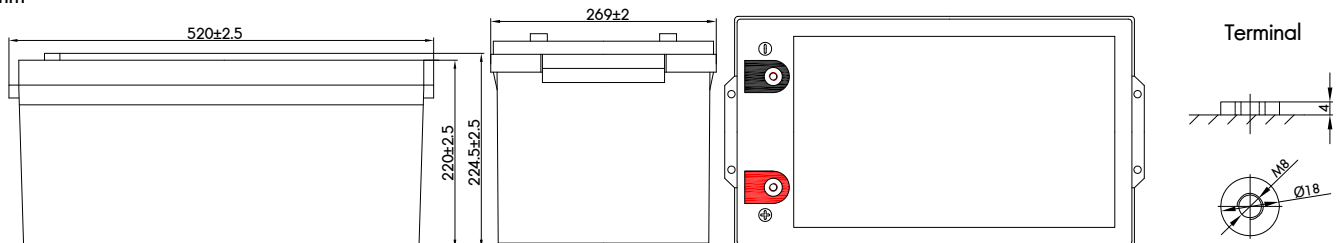
Specification

| | |
|---|--|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Capacity | 240Ah @10hr-rate to 1.8V per cell @25°C |
| Weight | Approx. 73 kg |
| Max. Discharge Current | 2000A (5sec) |
| Internal Resistance | Approx. 2.7mΩ |
| Operating Temperature Range | Discharge: -15°C~50°C Charge: -15°C~40°C Storage: -15°C~40°C |
| Nominal Operating Temperature Range | 25°C±3°C |
| Float Charging Voltage | 13.5 to 13.8VDC per unit @25°C |
| Recommended Max. Charging Current Limit | 62.5A |
| Equalization and Cycle Service | 14.4 to 14.8VDC per unit @25°C |
| Self Discharge | Battery can be stored for more than 6 months at 25°C, self-discharge rate less than 3% per month. Charging before use is recommended. For higher temperature, the time interval will be shorter. |
| Terminal | Thread lead alloy recessed terminal to accept M8 bolt |
| Container Material | Flammability resistance of UL94-V0 |

Dimension

Dimension: 520 (L) x 269 (W) x 220 (H) x 224.5 (TH)

Unit: mm



Constant Current Discharge Characteristics : A (25°C)

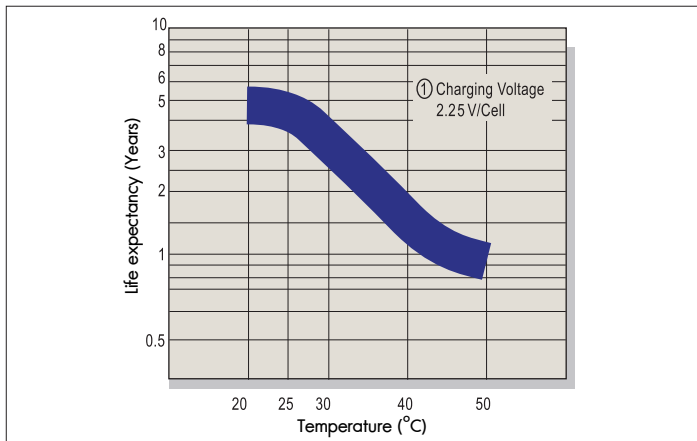
| F.V/Time | 15min | 30min | 1h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-----|------|------|------|------|------|
| 1.60V | 418 | 270 | 162 | 68.8 | 45.8 | 31.5 | 26.1 | 14.0 |
| 1.67V | 406 | 264 | 161 | 67.4 | 45.5 | 31.5 | 26.1 | 13.9 |
| 1.70V | 398 | 261 | 158 | 67.4 | 45.3 | 31.4 | 26.1 | 13.9 |
| 1.75V | 376 | 252 | 154 | 66.1 | 44.6 | 31.1 | 26.0 | 13.8 |
| 1.80V | 349 | 241 | 147 | 63.3 | 43.3 | 30.6 | 25.6 | 13.6 |
| 1.85V | 301 | 224 | 136 | 59.2 | 40.3 | 29.2 | 24.5 | 13.1 |

Constant Current Discharge Characteristics : W/Cell (25°C)

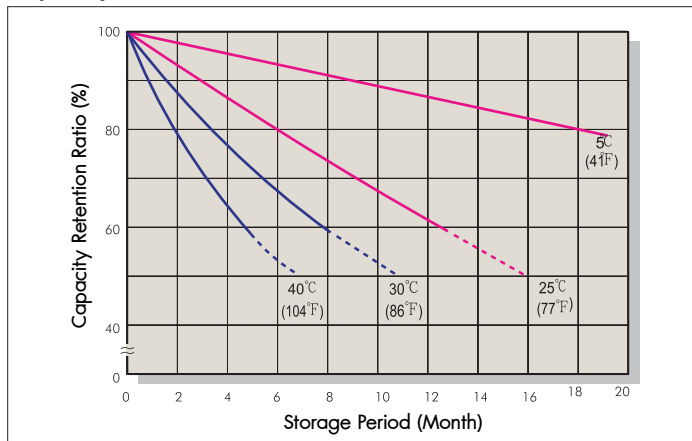
| F.V/Time | 15min | 30min | 1h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-----|-------|------|------|------|------|
| 1.60V | 793 | 446 | 277 | 128.0 | 89.4 | 61.7 | 51.5 | 27.5 |
| 1.67V | 743 | 433 | 274 | 126.6 | 89.2 | 61.4 | 51.5 | 27.3 |
| 1.70V | 687 | 420 | 271 | 126.6 | 88.9 | 61.2 | 51.3 | 27.2 |
| 1.75V | 612 | 396 | 264 | 123.9 | 87.8 | 60.7 | 50.9 | 27.0 |
| 1.80V | 525 | 367 | 257 | 119.7 | 85.3 | 59.7 | 50.1 | 26.7 |
| 1.85V | 422 | 329 | 242 | 111.5 | 80.2 | 57.7 | 48.6 | 25.9 |

All mentioned values are average values

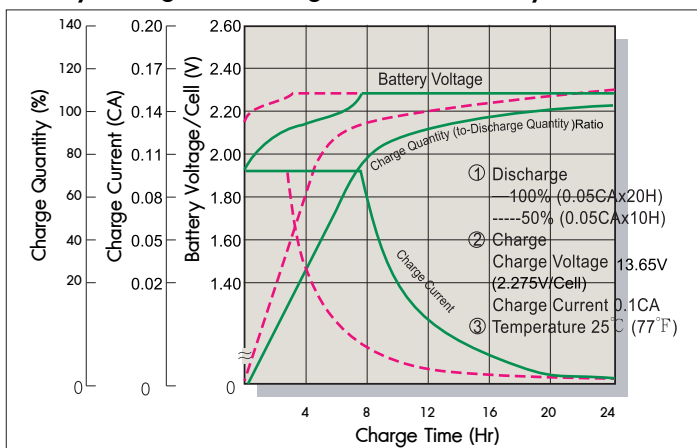
Trickle (or Float) Design Life



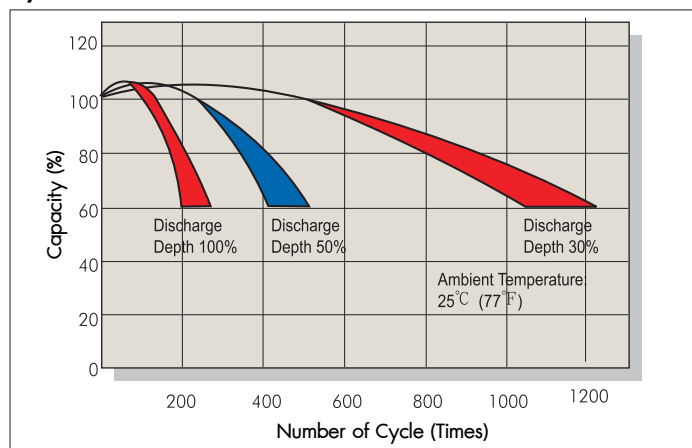
Capacity Retention Characteristic



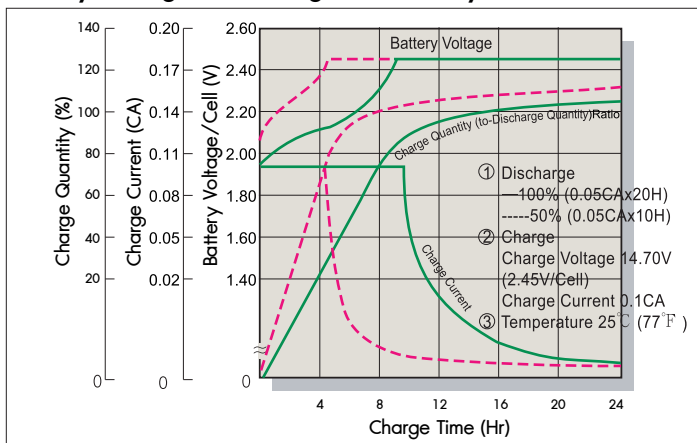
Battery Voltage and Charge Time for Standby Use



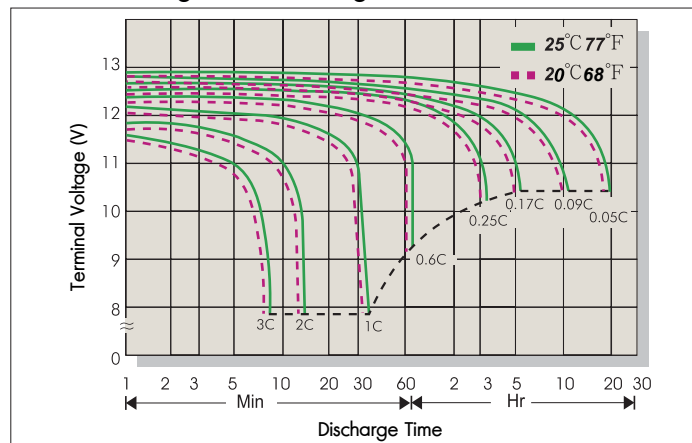
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage and Discharge Time



Charging Procedures

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

Discharge Current VS Discharge Voltage

| Final Discharge Voltage (V/cell) | 1.75 | 1.7 | 1.65 | 1.6 |
|----------------------------------|------------|-------------------|-----------------|----------|
| Discharge Current (A) | 0.2C > (A) | 0.2C < (A) < 0.5C | 0.2C < (A) < 1C | (A) > 1C |

Effect of Temperature on Capacity (20HR)

| Temperature | Dependency of Capacity (20HR) |
|-------------|-------------------------------|
| 40°C | 102% |
| 25°C | 100% |
| 0°C | 85% |
| -15°C | 65% |

Self-discharge Characteristics

| Charge Voltage (V/cell) | Preservation Rate |
|-------------------------|-------------------|
| 3 months | 91% |
| 6 months | 82% |
| 9 months | 64% |