



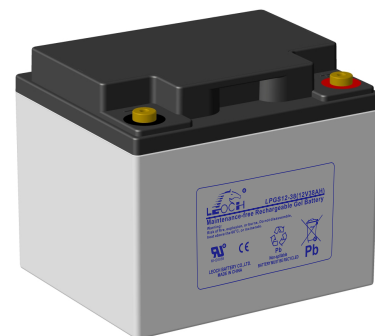
LPGS Series-Gel Battery

LPGS12-38(12V38Ah)

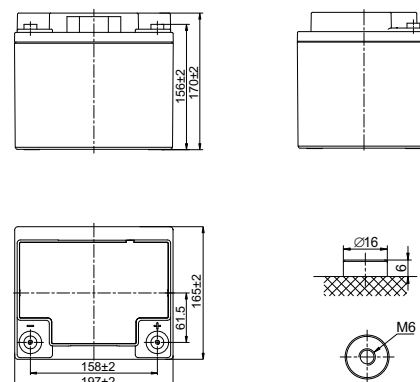


Specifications

| | | |
|-------------------------------|---|--------------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | 38Ah | (C ₁₀ , 1.80V/cell) |
| Dimension | Length | 197±2mm (7.76 inches) |
| | Width | 165±2mm (6.50 inches) |
| | Container Height | 170±2mm (6.69 inches) |
| | Total Height | 170±2mm (6.69 inches) |
| Approx Weight | 13.3 Kg (29.3 lbs) | |
| Terminal | M6 | |
| Container Material | ABS | |
| Rated Capacity (25°C) | 39.2 Ah | (20hr, 1.96A, 1.80V/cell) |
| | 38.0 Ah | (10hr, 3.80A, 1.80V/cell) |
| | 32.3 Ah | (5hr, 6.46A, 1.75V/cell) |
| | 28.1 Ah | (3hr, 9.35A, 1.75V/cell) |
| | 21.6 Ah | (1hr, 21.6A, 1.65V/cell) |
| Max. Discharge Current | 380A (5s) | |
| Internal Resistance (25°C) | Approx 10.0mΩ | |
| Operating Temp. Range | Discharge | -20 ~ 55°C (-4 ~ 131°F) |
| | Charge | -20 ~ 40°C (-4 ~ 104°F) |
| | Storage | -20 ~ 50°C (-4 ~ 122°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Cycle Use | Initial Charging Current less than 9.50A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| Standby Use | Initial Charging Current less than 9.50A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| Effect of temp. to Capacity | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | LPGS series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. | |



Layout



Constant Current Discharge (Amperes) at 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 | 61.3 | 48.2 | 41.0 | 34.3 | 27.1 | 20.6 | 17.0 | 10.8 | 8.41 | 6.91 | 5.87 | 5.11 | 4.16 | 3.53 | 1.90 |
| 1.80V/cell | 81.0 | 60.6 | 48.8 | 39.9 | 31.2 | 23.3 | 18.9 | 11.8 | 9.03 | 7.35 | 6.31 | 5.48 | 4.44 | 3.80 | 1.96 |
| 1.75V/cell | 93.3 | 68.0 | 54.4 | 43.8 | 33.2 | 24.7 | 20.0 | 12.3 | 9.35 | 7.60 | 6.46 | 5.64 | 4.51 | 3.84 | 1.98 |
| 1.70V/cell | 103.9 | 75.0 | 58.7 | 46.6 | 35.0 | 25.9 | 20.9 | 12.9 | 9.67 | 7.83 | 6.63 | 5.76 | 4.57 | 3.86 | 2.01 |
| 1.65V/cell | 113.5 | 80.2 | 61.8 | 49.0 | 36.7 | 26.7 | 21.6 | 13.3 | 10.0 | 8.06 | 6.79 | 5.88 | 4.65 | 3.90 | 2.03 |
| 1.60V/cell | 126.2 | 87.7 | 66.7 | 52.6 | 39.0 | 28.2 | 22.7 | 13.8 | 10.4 | 8.25 | 6.92 | 6.01 | 4.70 | 3.96 | 2.05 |

Constant Power Discharge (Watts/cell) at 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 | 112.9 | 89.7 | 77.0 | 65.1 | 51.9 | 39.7 | 33.0 | 21.1 | 16.4 | 13.6 | 11.5 | 10.1 | 8.25 | 7.01 | 3.78 |
| 1.80V/cell | 147.8 | 111.7 | 90.5 | 74.8 | 59.0 | 44.7 | 36.5 | 22.8 | 17.6 | 14.4 | 12.4 | 10.8 | 8.77 | 7.54 | 3.89 |
| 1.75V/cell | 166.4 | 123.1 | 99.6 | 81.2 | 62.3 | 46.9 | 38.4 | 23.8 | 18.1 | 14.8 | 12.6 | 11.1 | 8.90 | 7.60 | 3.92 |
| 1.70V/cell | 179.9 | 132.5 | 105.9 | 85.6 | 65.3 | 49.0 | 39.9 | 24.9 | 18.7 | 15.2 | 12.9 | 11.3 | 9.01 | 7.63 | 3.99 |
| 1.65V/cell | 193.3 | 140.0 | 110.5 | 89.2 | 67.7 | 50.0 | 41.1 | 25.4 | 19.3 | 15.6 | 13.2 | 11.5 | 9.13 | 7.70 | 4.02 |
| 1.60V/cell | 210.0 | 149.7 | 117.1 | 94.7 | 71.4 | 52.6 | 42.8 | 26.2 | 19.9 | 15.9 | 13.4 | 11.7 | 9.22 | 7.81 | 4.06 |



LPGS Series-Gel Battery

LPGS12-38(12V38Ah)



Applications

- Communication power supply
- Engine starting
- Pump systems
- Alarm installations
- Marine and power stations

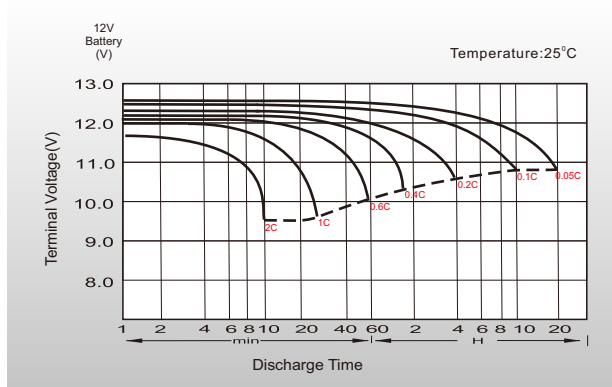
General Features

- Adopted advantage AGM-GEL technology
- Operation temperature $-20\sim 55^{\circ}\text{C}$
- $\leq 3\%$ Self discharge @ 25°C

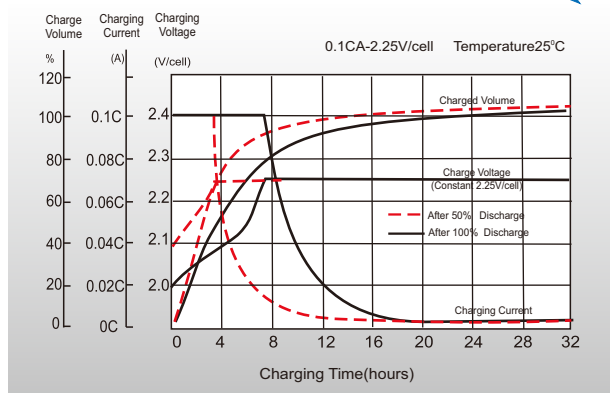
Standards

- IEC 60896 Certified
- Classified as "Long Life" according to Eurobat
- UL Certified, CE Certified
- Manufactured in Leoch® IATF16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities

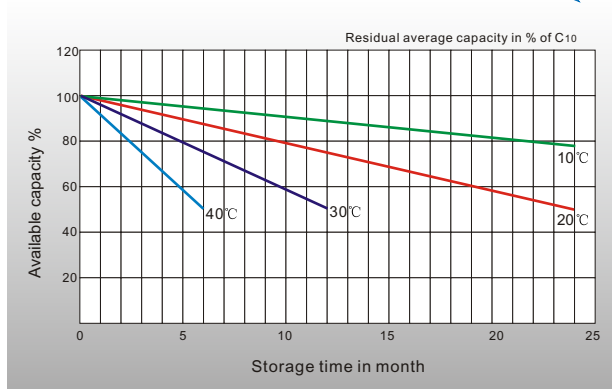
Discharge Characteristics



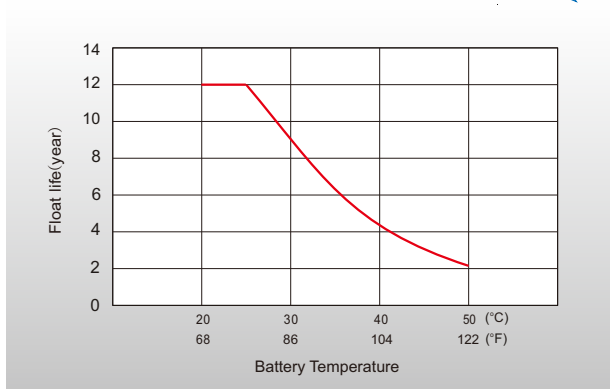
Float Charging Characteristics



General Relation of Capacity VS. Storage Time



Effect of Temperature on Long Term Float Life



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