

LPGS SERIES - TRUE Hybrid GEL Battery

LPGS12-120(12V120AH)

Specification

| | |
|----------------------------------|---|
| Nominal Voltage | 12V |
| Nominal Capacity(10HR) | 120.0AH |
| Dimensions | Length 408 ± 3mm (16.1 inches) |
| | Width 177 ± 2mm (6.97 inches) |
| | Container Height 225 ± 3mm (8.86 inches) |
| | Total Height (with Terminal) 225 ± 3mm (8.86 inches) |
| Approx Weight | Approx 34.3 kg (75.6lbs) |
| Terminal | T11 |
| Container Material | ABS |
| Rated Capacity | 123.6 AH/6.18A (20hr, 1.80V/cell, 25°C/77°F) |
| | 120.0 AH/12.0A (10hr, 1.80V/cell, 25°C/77°F) |
| | 102.0 AH/20.4A (5hr, 1.75V/cell, 25°C/77°F) |
| | 88.5 AH/29.5A (3hr, 1.75V/cell, 25°C/77°F) |
| | 71.6 AH/71.6A (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 1200A (5s) |
| Internal Resistance | Approx 4.0mΩ |
| Operating Temp. Range | Discharge : -15~50°C (5~122°F) |
| | Charge : 0~40°C (32~104°F) |
| | Storage : -15~40°C (5~104°F) |
| Nominal Operating Temp. Range | 25 ± 3°C (77 ± 5°F) |
| Cycle Use | Initial Charging Current less than 36.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C |
| | No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C |
| Standby Use | |
| Capacity affected by Temperature | 40°C (104°F) 103% |
| | 25°C (77°F) 100% |
| | 0°C (32°F) 86% |
| Self Discharge | Leoch LPGS series batteries may be stored for up to 9 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |



Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system

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 | 193.5 | 152.1 | 129.3 | 108.2 | 85.5 | 64.9 | 53.7 | 34.2 | 26.5 | 21.8 | 18.5 | 16.1 | 13.1 | 11.1 | 6.00 |
| 1.80V/cell | 255.9 | 191.5 | 154.0 | 126.0 | 98.4 | 73.7 | 59.8 | 37.1 | 28.5 | 23.2 | 19.9 | 17.3 | 14.0 | 12.0 | 6.18 |
| 1.75V/cell | 294.5 | 214.8 | 171.7 | 138.4 | 104.9 | 77.9 | 63.2 | 38.9 | 29.5 | 24.0 | 20.4 | 17.8 | 14.3 | 12.1 | 6.24 |
| 1.70V/cell | 328.1 | 236.8 | 185.5 | 147.1 | 110.6 | 81.8 | 66.0 | 40.8 | 30.6 | 24.7 | 21.0 | 18.2 | 14.4 | 12.2 | 6.36 |
| 1.65V/cell | 358.3 | 253.1 | 195.3 | 154.8 | 115.9 | 84.3 | 68.3 | 41.9 | 31.7 | 25.5 | 21.4 | 18.6 | 14.7 | 12.3 | 6.42 |
| 1.60V/cell | 398.4 | 277.1 | 210.6 | 166.2 | 123.1 | 89.1 | 71.6 | 43.5 | 32.8 | 26.0 | 21.8 | 19.0 | 14.9 | 12.5 | 6.48 |

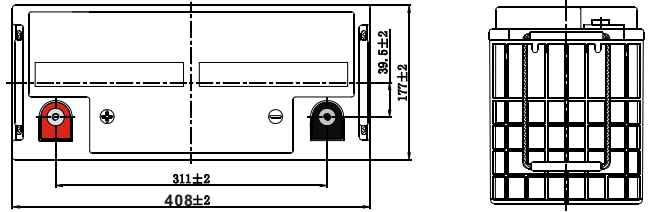
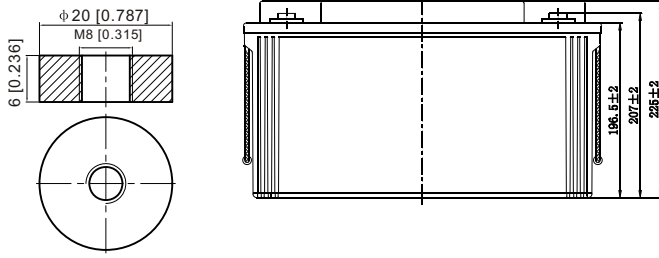
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 356.4 | 283.1 | 243.2 | 205.5 | 163.8 | 125.4 | 104.1 | 66.5 | 51.9 | 42.8 | 36.4 | 31.9 | 26.0 | 22.1 | 11.9 |
| 1.80V/cell | 466.9 | 352.6 | 285.9 | 236.1 | 186.2 | 141.2 | 115.2 | 71.9 | 55.5 | 45.3 | 39.0 | 34.1 | 27.7 | 23.8 | 12.3 |
| 1.75V/cell | 525.4 | 388.8 | 314.6 | 256.5 | 196.8 | 148.1 | 121.3 | 75.1 | 57.3 | 46.7 | 39.9 | 34.9 | 28.1 | 24.0 | 12.4 |
| 1.70V/cell | 568.2 | 418.3 | 334.5 | 270.2 | 206.1 | 154.6 | 126.1 | 78.5 | 59.1 | 48.0 | 40.8 | 35.6 | 28.4 | 24.1 | 12.6 |
| 1.65V/cell | 610.5 | 442.1 | 348.9 | 281.6 | 213.9 | 158.0 | 129.7 | 80.2 | 61.0 | 49.2 | 41.6 | 36.2 | 28.8 | 24.3 | 12.7 |
| 1.60V/cell | 663.1 | 472.9 | 369.9 | 299.2 | 225.4 | 166.0 | 135.2 | 82.8 | 62.9 | 50.2 | 42.3 | 36.9 | 29.1 | 24.7 | 12.8 |

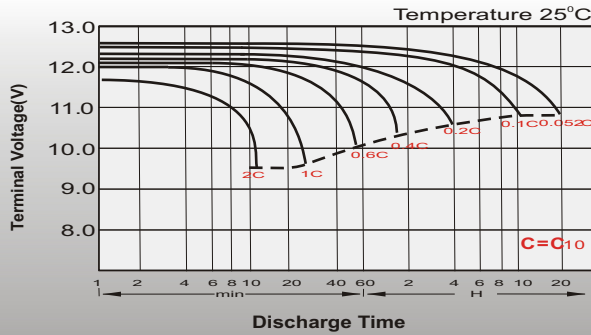
Dimensions

T11 Terminal

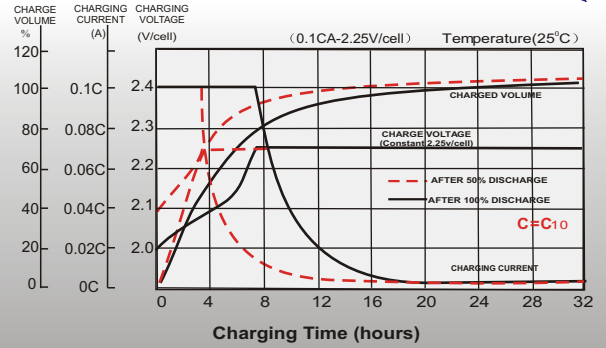
Unit: mm [inches]



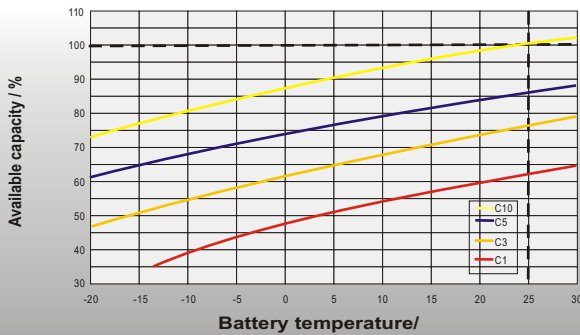
Discharge Characteristics



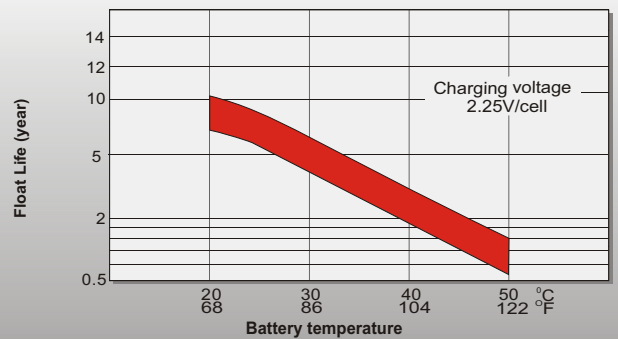
Float Charging Characteristics



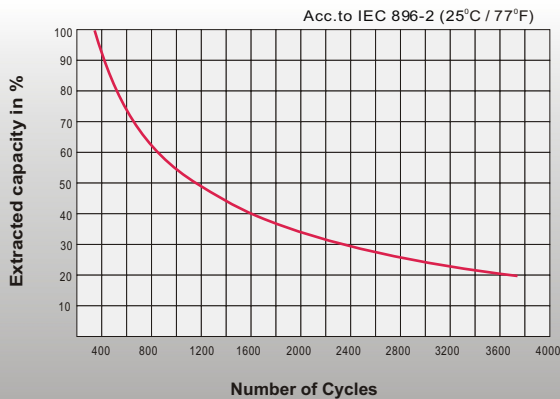
Temperature Effects in Relation to Battery Capacity



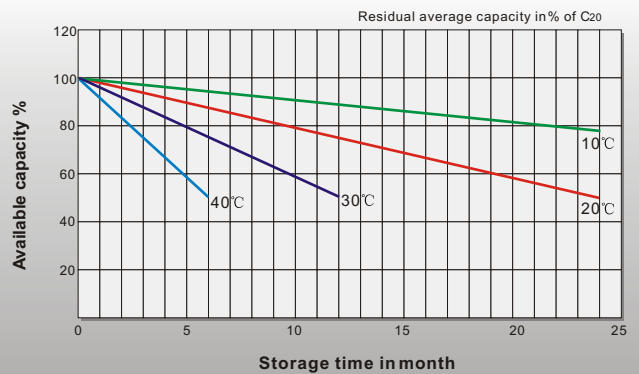
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time



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