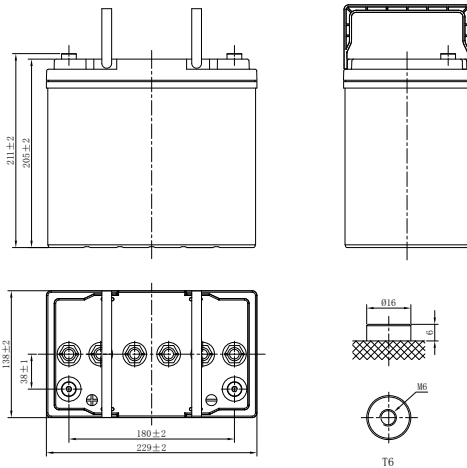


LPG SERIES-GEL BATTERY

LPG12-50 (12V50Ah)



CHARACTERISTICS

| Item | Specifications | |
|-------------------------------|---|---------------------|
| Rated Voltage | 12V | |
| Nominal Capacity (25°C) | C ₂₀ , 1.80V/cell | 50Ah |
| Dimension | Length | 229mm (9.02inches) |
| | Width | 138mm (5.43inches) |
| | Container Height | 205mm (8.07inches) |
| | Total Height | 211mm (8.31inches) |
| Approx Weight | 16.1kg (35.5lbs) | |
| Terminal | T6(M6) | |
| Container Material | ABS (UL94 HB or V-0 optional) | |
| Short-circuit current | 1150A | |
| Internal Resistance (25°C) | Approx 12.1 mΩ (Fully charged) | |
| Operating Temp. Range | Discharge | -20~60°C (-4~140°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) | |
| Max.Charging Current (25°C) | 0.25C | |
| Charge voltage (25°C) | Standby Use | Cycle Use |
| | 2.23-2.27V/cell | 2.35-2.40V/cell |
| Temp. Coefficient | -3mV/cell/°C | -5mV/cell/°C |
| | 40°C (104°F) | 103% |
| Effect of temp. to Capacity | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | ≤2.5% per month at 25°C (77°F). LPG series batteries may be stored 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. | |

DISCHARGE TABLE

| Constant Current Discharge (Amperes) at 25°C (77°F) | | | | | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
| 1.85V/cell | 64.5 | 55.9 | 44.0 | 39.8 | 29.1 | 23.0 | 17.4 | 13.5 | 10.2 | 8.39 | 7.37 | 6.49 | 5.31 | 4.61 | 2.38 |
| 1.80V/cell | 73.2 | 63.3 | 49.7 | 43.3 | 30.8 | 25.4 | 18.4 | 14.9 | 11.2 | 9.12 | 7.76 | 6.85 | 5.53 | 4.70 | 2.50 |
| 1.75V/cell | 79.4 | 68.6 | 53.7 | 44.2 | 31.9 | 28.5 | 20.2 | 16.0 | 11.7 | 9.39 | 8.00 | 7.08 | 5.63 | 4.85 | 2.57 |
| 1.70V/cell | 83.0 | 72.0 | 56.4 | 44.5 | 32.4 | 29.4 | 20.8 | 16.3 | 11.8 | 9.39 | 8.10 | 7.10 | 5.67 | 4.84 | 2.61 |
| 1.67V/cell | 87.3 | 75.0 | 58.4 | 45.8 | 33.0 | 30.0 | 21.2 | 16.7 | 12.0 | 9.56 | 8.23 | 7.20 | 5.72 | 4.89 | 2.63 |
| 1.60V/cell | 90.3 | 77.3 | 60.0 | 46.4 | 33.5 | 30.9 | 21.7 | 16.9 | 12.2 | 9.74 | 8.41 | 7.30 | 5.77 | 4.94 | 2.66 |
| Constant Power Discharge (Watts/cell) at 25°C (77°F) | | | | | | | | | | | | | | | |
| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
| 1.85V/cell | 121.3 | 105.8 | 83.6 | 76.0 | 56.0 | 44.7 | 33.9 | 26.4 | 20.0 | 16.5 | 14.6 | 12.8 | 10.6 | 9.15 | 4.57 |
| 1.80V/cell | 135.7 | 118.4 | 93.6 | 82.1 | 58.9 | 49.1 | 35.8 | 29.0 | 21.8 | 17.9 | 15.3 | 13.4 | 10.9 | 9.30 | 4.78 |
| 1.75V/cell | 144.8 | 126.4 | 99.9 | 83.1 | 60.7 | 54.6 | 38.9 | 30.9 | 22.6 | 18.3 | 15.6 | 13.9 | 11.1 | 9.59 | 4.92 |
| 1.70V/cell | 148.9 | 131.0 | 103.8 | 82.9 | 61.1 | 55.9 | 39.6 | 31.3 | 22.9 | 18.2 | 15.8 | 13.9 | 11.1 | 9.49 | 4.99 |
| 1.67V/cell | 154.7 | 135.0 | 106.6 | 84.7 | 61.9 | 56.8 | 40.3 | 31.8 | 23.2 | 18.5 | 16.0 | 14.1 | 11.2 | 9.59 | 5.03 |
| 1.60V/cell | 156.9 | 136.9 | 108.2 | 85.1 | 62.2 | 58.0 | 40.9 | 32.3 | 23.3 | 18.8 | 16.3 | 14.2 | 11.3 | 9.68 | 5.08 |

LPG SERIES-GEL BATTERY

LPG12-50 (12V50Ah)



APPLICATIONS

- Telecommunications
- Solar system
- Wind power system
- Engine starting
- Wheelchair, Floor cleaning machines, Golf trolley, Boats

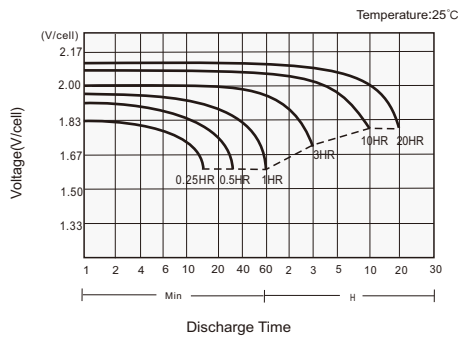
GENERAL FEATURES

- 12 years design life (25°C)
- Gelled electrolyte for superior thermal management, long float life
- Efficient gas recombination decreases gassing/water and extends battery life
- Robust design - resilient in harsh conditions
- Proof against deep discharge - greater long-term energy delivery and cycle life

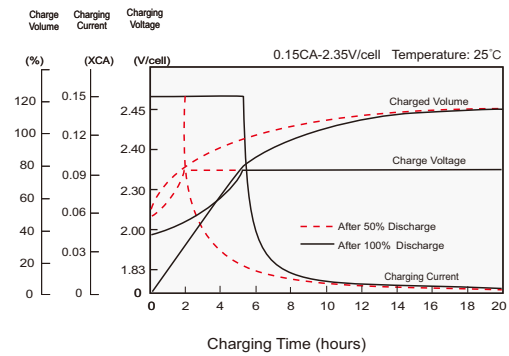
STANDARDS

- IEC60896 Certified
- Classified as "Long Life" according to Eurobat
- UL, CE Approved
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

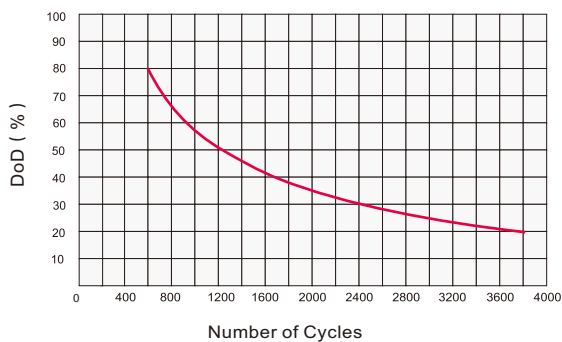
Discharge Characteristics



Charging Characteristics



Cycle Life in Relation to DoD



Self Discharge Characteristics

