



FPL Series-Long Standby Life FPL12-100(12V100Ah)

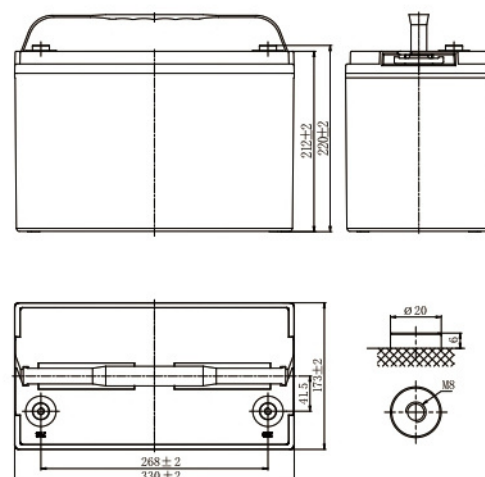
FORZAPLUS

Specifications

| | | |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | C ₁₀ , 1.80V/cell | 100Ah |
| Dimension | Length | 330±2mm (13.0 inches) |
| | Width | 173±2mm (6.81 inches) |
| | Container Height | 212±2mm (8.35 inches) |
| | Total Height | 220±2mm (8.66 inches) |
| Approx Weight | 30.5kg (67.2 lbs) | |
| Terminal | M8 | |
| Container Material | ABS | |
| Rated Capacity(25°C) | 105.0 Ah | C20(5.25A, 1.80V/cell) |
| | 100.0 Ah | C10(10.0A, 1.80V/cell) |
| | 84.5 Ah | C5(16.9A, 1.75V/cell) |
| | 77.1 Ah | C3(25.7A, 1.75V/cell) |
| Max. Discharge Current | 1000A (5s) | |
| | Internal Resistance(25°C) | Approx 5.0mΩ |
| Operating Temp. Range | Discharge | -15 ~ 50°C (5 ~ 122°F) |
| | Charge | -20 ~ 40°C (-4 ~ 104°F) |
| | Storage | -15 ~ 40°C (5 ~ 104°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Standby Use | Initial Charging Current less than 30A. Voltage 2.23V~2.27V at 25°C(77°F)Temp. Coefficient -3mV/°C | |
| Equalization Use | Initial Charging Current less than 30A. Voltage 2.35V~2.40V at 25°C(77°F)Temp. Coefficient -4mV/°C | |
| Cycle Use | Initial Charging Current less than 30A. Voltage 2.40V~2.50V at 25°C(77°F)Temp. Coefficient -5mV/°C | |
| | Effect of temp. to Capacity | 40°C (104°F) |
| 25°C (77°F) | | 100% |
| 0°C (32°F) | | 86% |
| Self Discharge | LPL 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 (77F)

| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 197.7 | 140.5 | 121.9 | 78.8 | 58.9 | 50.9 | 37.7 | 31.7 | 23.2 | 18.2 | 15.8 | 13.9 | 10.7 | 9.55 | 5.07 |
| 1.80V/cell | 224.8 | 159.5 | 138.1 | 85.8 | 62.4 | 52.7 | 38.9 | 32.7 | 25.2 | 19.4 | 16.6 | 15.0 | 11.3 | 10.0 | 5.25 |
| 1.75V/cell | 244.2 | 173.0 | 149.5 | 87.6 | 64.6 | 55.3 | 40.9 | 34.4 | 25.7 | 19.8 | 16.9 | 15.1 | 11.3 | 10.1 | 5.30 |
| 1.70V/cell | 261.0 | 184.5 | 158.8 | 89.3 | 65.9 | 56.4 | 41.7 | 35.1 | 26.2 | 20.2 | 17.2 | 15.2 | 11.5 | 10.2 | 5.36 |
| 1.65V/cell | 270.1 | 190.3 | 163.4 | 90.7 | 66.9 | 57.3 | 42.4 | 35.6 | 26.4 | 20.5 | 17.6 | 15.2 | 11.7 | 10.3 | 5.42 |
| 1.60V/cell | 279.7 | 196.8 | 168.5 | 92.0 | 67.9 | 58.1 | 43.0 | 36.1 | 26.7 | 20.7 | 17.8 | 15.3 | 11.8 | 10.5 | 5.49 |

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

| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 369.1 | 264.4 | 230.7 | 150.7 | 113.2 | 98.5 | 73.0 | 61.6 | 45.4 | 35.7 | 31.1 | 27.5 | 21.3 | 19.0 | 10.1 |
| 1.80V/cell | 412.9 | 295.8 | 258.1 | 162.7 | 119.2 | 101.4 | 75.1 | 63.3 | 49.0 | 38.0 | 32.6 | 29.5 | 22.3 | 19.9 | 10.4 |
| 1.75V/cell | 440.7 | 315.7 | 275.4 | 164.8 | 122.7 | 106.0 | 78.6 | 66.3 | 49.9 | 38.6 | 33.1 | 29.6 | 22.4 | 20.0 | 10.5 |
| 1.70V/cell | 463.3 | 331.9 | 289.6 | 166.7 | 124.3 | 107.5 | 79.8 | 67.4 | 50.6 | 39.1 | 33.5 | 29.7 | 22.7 | 20.2 | 10.6 |
| 1.65V/cell | 470.9 | 337.2 | 294.3 | 167.9 | 125.4 | 108.5 | 80.6 | 68.1 | 50.9 | 39.6 | 34.1 | 29.8 | 23.0 | 20.4 | 10.7 |
| 1.60V/cell | 477.4 | 342.0 | 298.4 | 168.6 | 126.1 | 109.3 | 81.2 | 68.6 | 51.1 | 39.9 | 34.4 | 29.9 | 23.2 | 20.6 | 10.9 |



FPL Series-Long Standby Life FPL12-100(12V100Ah)

FORZAPLUS

Applications

- UPS and EPS
- Emergency light
- Railway signal and aircraft signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply, DC power supply

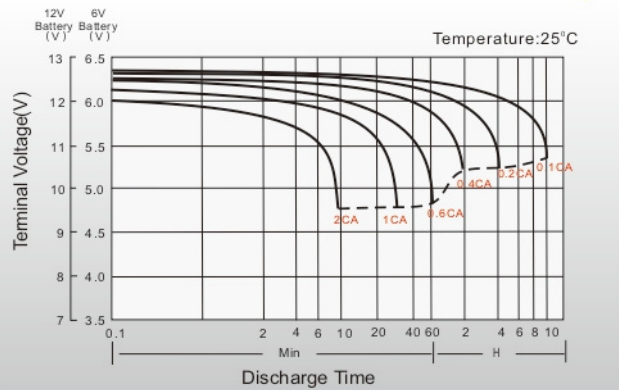
General features

- 12 years design life(25°C)
- Grid refining technology and the thicker plates are used to extend the battery standby life and reduce the plate grid corrosion speed
- Using oxygen recombination technology: maintenance-free
- Unique vent valve design: control water losing, prevent air and spark going inside

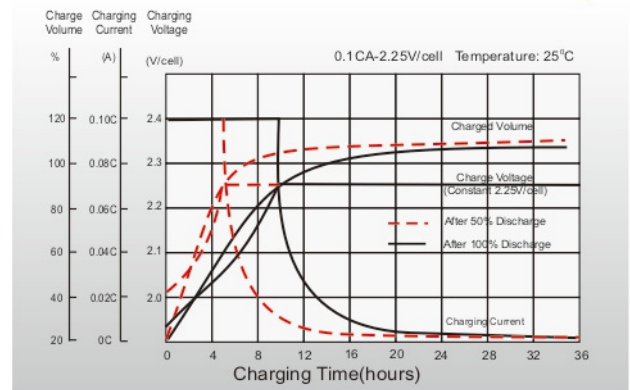
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch®IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

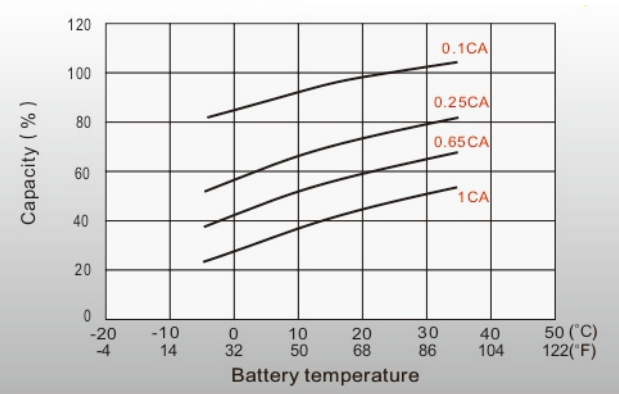
Discharge Characteristics



Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life

