



Pure Lead Carbon(Long Cycle Life)

PLC+C 180FT (12V 180Ah)

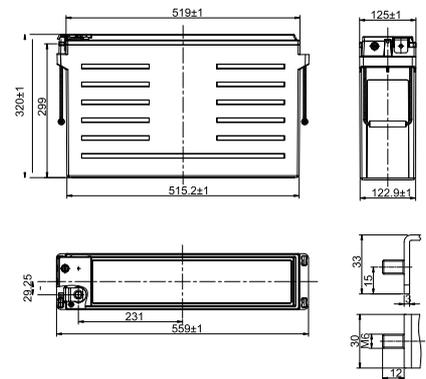


Specifications

| | | |
|------------------------------|--|-----------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | 20 hr, 1.80V/cell | 180Ah |
| Dimension | Length | 559±3mm (22.0 inches) |
| | Width | 125±2mm (4.92 inches) |
| | Container Height | 320±3mm (12.6 inches) |
| | Total Height | 320±3mm (12.6 inches) |
| Weight | Approx 57.6kg(127.0lbs) | |
| Terminal | Top Terminal M8 Insert, Front Terminal Adapter M6 Flag | |
| Container Material | PC-ABS flame retardant jar and cover to UL94V-0 | |
| Rated Capacity (25°C) | 200.0Ah | (100 hr, 2.00A, 1.75V/cell) |
| | 180.0Ah | (20hr, 9.00A, 1.80V/cell) |
| | 170.0Ah | (10hr, 17.0A, 1.80V/cell) |
| | 167.2Ah | (8hr, 20.9A, 1.75V/cell) |
| | 144.6Ah | (3hr, 48.2A, 1.75V/cell) |
| | 121.6Ah | (1hr, 121.6A, 1.60V/cell) |
| Max. Discharge Current | 3400A (5s) | |
| Internal Resistance (25°C) | Approx. 3.5mΩ(Fully charged) | |
| | Discharge | -40°C ~ 55°C(-40°F ~ 131°F) |
| | Charge | -20°C ~ 45°C (-4°F ~ 113°F) |
| | Storage | -20°C ~ 50°C (-4°F ~ 122°F) |
| Nominal Operating Temp.Range | 25±3°C (77±5°F) | |
| Max. Charging Current(25°C) | 180A | |
| Cycle Use | 2.35V~2.40V at 25°C(77°F) Temp. Coefficient -3mV/°C | |
| Standby Use | 2.25V~2.30V at 25°C(77°F) Temp. Coefficient -2mV/°C | |
| Effect of temp. to Capacity | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | PLC+C series batteries can be stored up to 24 months at 25°C(77°F), For higher temperatures the time interval will be shorter. Battery needs to be given a freshening charge when the OCV approach 2.10V/cell or when the maximum storage time is reached, whichever occurs first. | |



Layout



Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time | 30min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h | 24h | 48h | 72h | 100h |
|------------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 170.1 | 110.0 | 65.5 | 46.9 | 36.8 | 30.5 | 20.5 | 16.9 | 8.81 | 7.76 | 4.08 | 2.80 | 1.93 |
| 1.80V/cell | 176.6 | 112.9 | 66.5 | 47.6 | 37.4 | 31.1 | 20.8 | 17.0 | 9.00 | 7.92 | 4.17 | 2.86 | 1.97 |
| 1.75V/cell | 184.3 | 115.5 | 67.2 | 48.2 | 37.9 | 31.3 | 20.9 | 17.1 | 9.05 | 8.04 | 4.23 | 2.90 | 2.00 |
| 1.70V/cell | 190.0 | 117.5 | 68.0 | 48.7 | 38.1 | 31.5 | 21.0 | 17.2 | 9.08 | / | / | / | / |
| 1.65V/cell | 196.1 | 119.7 | 68.8 | 49.0 | 38.5 | 31.7 | 21.1 | 17.3 | 9.13 | / | / | / | / |
| 1.60V/cell | 202.1 | 121.6 | 69.8 | 49.5 | 38.8 | 32.0 | 21.2 | 17.5 | 9.16 | / | / | / | / |

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

| F.V/Time | 30min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h | 24h | 48h | 72h | 100h |
|------------|-------|-------|-------|------|------|------|------|------|------|------|-----|-----|------|
| 1.85V/cell | 334.1 | 218.1 | 130.8 | 93.9 | 74.1 | 61.6 | 41.6 | 35.6 | 18.0 | 15.9 | 8.4 | 5.8 | 3.97 |
| 1.80V/cell | 344.3 | 222.6 | 132.1 | 95.1 | 75.0 | 62.4 | 42.0 | 35.7 | 18.3 | 16.1 | 8.5 | 5.8 | 4.02 |
| 1.75V/cell | 356.2 | 226.3 | 133.1 | 95.9 | 75.5 | 62.7 | 42.1 | 35.8 | 18.3 | 16.3 | 8.6 | 5.9 | 4.05 |
| 1.70V/cell | 363.9 | 229.1 | 133.9 | 96.3 | 75.9 | 63.0 | 42.2 | 35.4 | 18.3 | / | / | / | / |
| 1.65V/cell | 372.9 | 232.3 | 135.1 | 96.7 | 76.2 | 63.2 | 42.3 | 36.0 | 18.4 | / | / | / | / |
| 1.60V/cell | 380.6 | 233.8 | 135.6 | 97.0 | 76.4 | 63.5 | 42.6 | 36.2 | 18.4 | / | / | / | / |



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Applications

- Residential or light-commercial off-grid
- Backup / self-consumption renewable energy storage
- Outdoor cabinet
- High voltage power station
- Mobile Power Supply for Vehicles
- Base station with unstable power grid

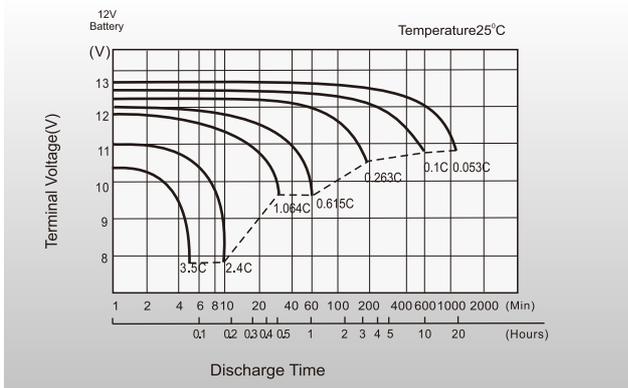
General Features

- Advanced Pure Lead Carbon Technology
- Exceptional PSOC Performance
- Low self-discharging rate
- Fast charging acceptance: 1 hour to 90% SoC
- Excellent high rate discharge performance

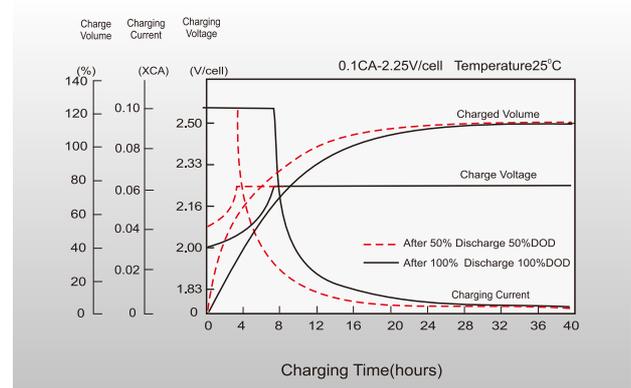
Standards

- Compliance with IEC 60896 standards
- Manufactured in Leoch® IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

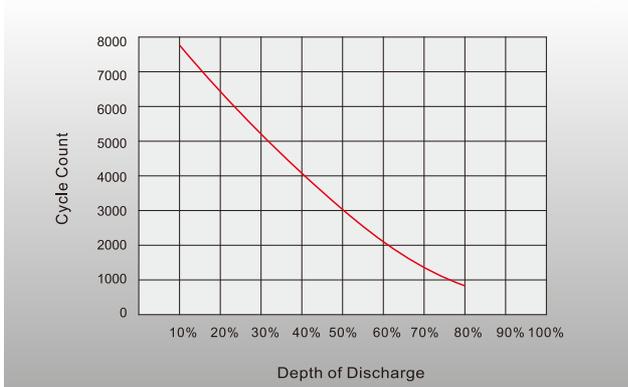
Discharge Characteristics



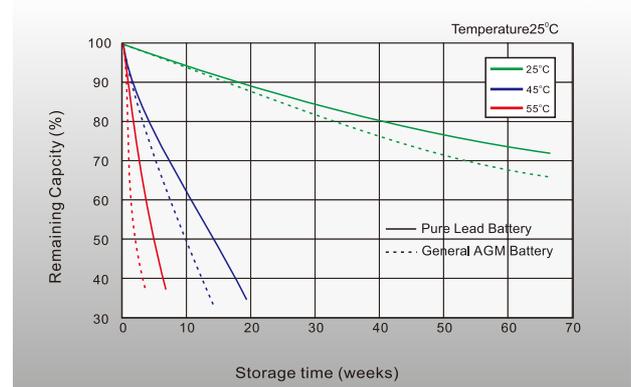
Float Charging Characteristics



Cycle Life vs. Depth of Discharge



Self-discharge Characteristics



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