

LPS SERIES-Solar Power

LPS12-285 (12V287.5AH)

Specification

| | | |
|----------------------------------|--|--------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity(100HR) | 287.5AH | |
| Dimension | Length | 522±3mm (20.55 inches) |
| | Width | 268±3mm (10.55 inches) |
| | Container Height | 220±3mm (8.66 inches) |
| | Total Height (with Terminal) | 226±3mm (8.90 inches) |
| Approx Weight | Approx 74.0 Kg (163.2 lbs) | |
| Terminal | T11 | |
| Container Material | ABS | |
| Rated Capacity | 287.5 AH/2.88A | (100hr, 1.80V/cell, 25°C/77°F) |
| | 262.0 AH/13.1A | (20hr, 1.80V/cell, 25°C/77°F) |
| | 250.0 AH/25.0A | (10hr, 1.80V/cell, 25°C/77°F) |
| | 218.0 AH/43.6A | (5hr, 1.75V/cell, 25°C/77°F) |
| | 151.9 AH/151.9A | (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 2500A (5s) | |
| Internal Resistance | Approx 2.5mΩ | |
| 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 75.0A. Voltage | |
| | 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| Standby Use | No limit on Initial Charging Current Voltage | |
| | 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| Capacity affected by Temperature | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | Leoch LPS 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. | |



Applications

- ◆ Green energy systems (solar, wind, hydro, etc)
- ◆ Solar power stations
- ◆ Telecommunications installations
- ◆ Measurement stations
- ◆ Pump systems
- ◆ Signal station
- ◆ Survey and Mapping system
- ◆ Emergency lighting
- ◆ Railway crossing
- ◆ Traffic lights
- ◆ Street lightening
- ◆ Lawn lamp
- ◆ Street signs
- ◆ SOS pillars
- ◆ Alarm installations
- ◆ Weekend cottage camping
- ◆ Caravans
- ◆ Boats or buoys



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

| F.V/Time | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h | 48h | 100h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 284.4 | 236.3 | 183.5 | 145.3 | 117.6 | 76.6 | 57.8 | 47.4 | 40.1 | 28.0 | 24.0 | 12.7 | 5.73 | 2.82 |
| 1.80V/cell | 315.3 | 259.9 | 198.0 | 154.3 | 124.0 | 81.5 | 61.0 | 49.7 | 42.0 | 29.3 | 25.0 | 13.1 | 5.82 | 2.88 |
| 1.75V/cell | 349.7 | 284.7 | 213.0 | 165.0 | 133.7 | 85.4 | 64.4 | 51.8 | 43.6 | 30.2 | 25.5 | 13.4 | 5.91 | 2.90 |
| 1.70V/cell | 382.1 | 310.9 | 234.0 | 172.3 | 141.3 | 90.0 | 67.5 | 54.0 | 45.4 | 31.3 | 26.3 | 13.7 | 5.98 | 2.94 |
| 1.65V/cell | 404.6 | 328.1 | 246.5 | 183.0 | 146.1 | 93.1 | 70.0 | 55.9 | 47.0 | 32.2 | 26.9 | 14.0 | 6.09 | 2.98 |
| 1.60V/cell | 443.5 | 356.3 | 262.0 | 189.7 | 151.9 | 97.0 | 72.3 | 57.7 | 48.6 | 33.0 | 27.5 | 14.3 | 6.19 | 3.01 |

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

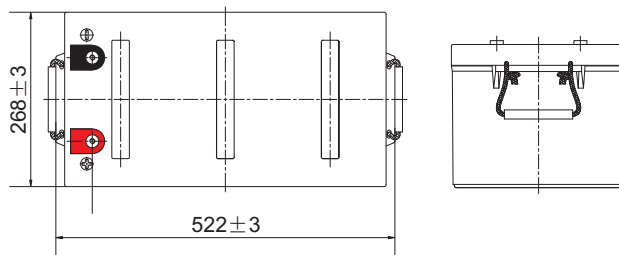
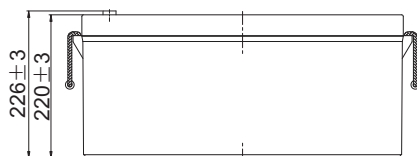
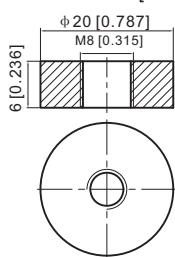
| F.V/Time | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h | 48h | 100h |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.85V/cell | 533.5 | 447.7 | 351.6 | 280.8 | 228.7 | 149.6 | 113.2 | 93.0 | 78.9 | 55.5 | 47.6 | 25.3 | 11.5 | 5.64 |
| 1.80V/cell | 583.5 | 485.2 | 373.6 | 294.6 | 239.2 | 158.0 | 118.8 | 97.0 | 82.4 | 58.1 | 49.6 | 26.1 | 11.6 | 5.74 |
| 1.75V/cell | 639.4 | 526.5 | 398.6 | 313.3 | 256.7 | 164.9 | 125.0 | 101.0 | 85.3 | 59.6 | 50.7 | 26.6 | 11.8 | 5.78 |
| 1.70V/cell | 688.9 | 570.7 | 435.5 | 326.1 | 270.3 | 173.4 | 130.7 | 105.1 | 88.6 | 61.8 | 52.2 | 27.1 | 11.9 | 5.85 |
| 1.65V/cell | 726.7 | 600.1 | 456.9 | 344.7 | 278.6 | 178.9 | 135.3 | 108.5 | 91.5 | 63.4 | 53.3 | 27.7 | 12.1 | 5.93 |
| 1.60V/cell | 780.4 | 642.1 | 480.2 | 353.7 | 287.0 | 184.9 | 138.9 | 111.4 | 94.3 | 64.9 | 54.4 | 28.3 | 12.3 | 5.97 |

Specifications subject to change without notice.

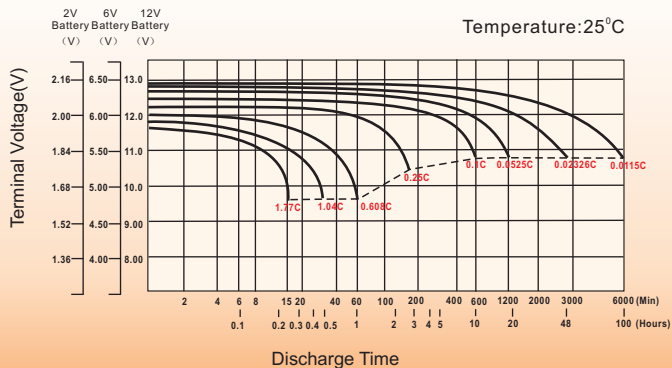
Dimensions

T11 Terminal

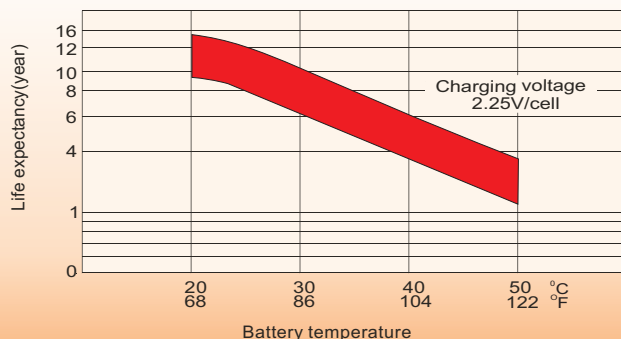
Unit: mm [inches]



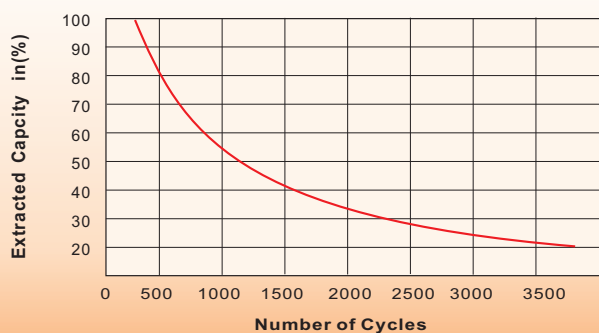
Discharge Characteristics



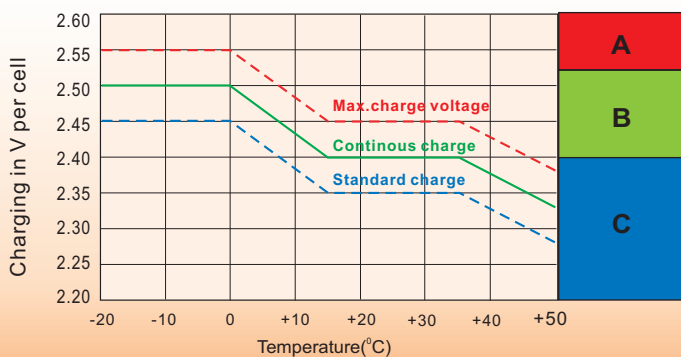
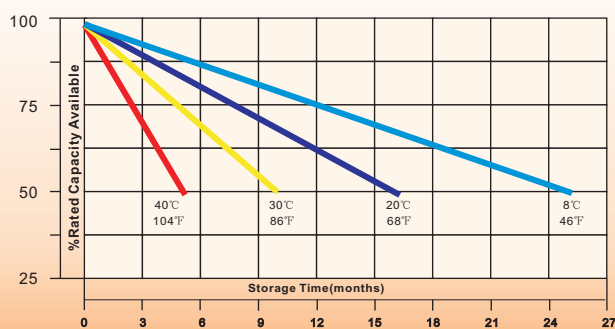
Effect of Temperature on Long Term Float Life



Cycle Service Life



Self-Discharge at Different Temperatures



Charge Mode

- A** With switch regulator (two-step controller) charge on curve max. charge voltage for max. 2 hrs/day then switch over to continuous charge
- B** Standard charge without switching
- C** Boost charge (Equalizing charge with external generator) charge on curve continuous charge for max. 5 hrs/month, then switch over to curve Standard charge

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