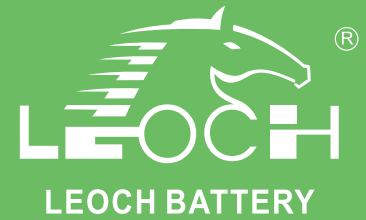




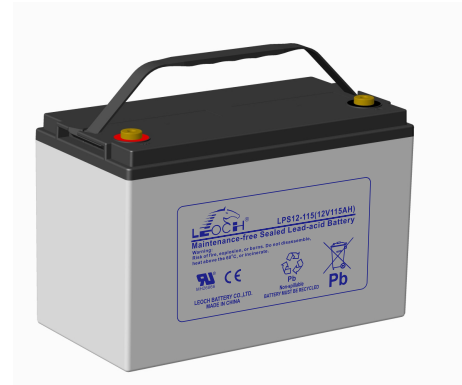
# LPS Series-Solar Power

## LPS12-115(12V115Ah)

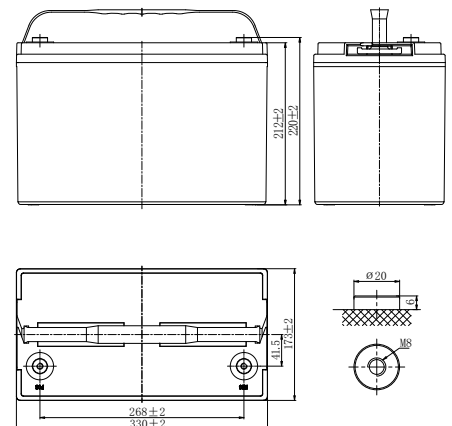


### Specifications

|                               |                                                                                                                       |                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Rated Voltage                 | 12V                                                                                                                   |                                 |
| Nominal Capacity              | 115.0Ah                                                                                                               | (C <sub>100</sub> , 1.80V/cell) |
| Dimension                     | Length                                                                                                                | 330±2mm (12.99 inches)          |
|                               | Width                                                                                                                 | 173±2mm (6.81 inches)           |
|                               | Container Height                                                                                                      | 212±2mm (8.35 inches)           |
|                               | Total Height                                                                                                          | 220±2mm (8.66 inches)           |
| Approx Weight                 | 30.6Kg (67.5 lbs)                                                                                                     |                                 |
| Terminal                      | M8                                                                                                                    |                                 |
| Container Material            | ABS                                                                                                                   |                                 |
| Rated Capacity (25°C)         | 115.0Ah                                                                                                               | (100hr, 1.15A, 1.80V/cell)      |
|                               | 105.0Ah                                                                                                               | (20hr, 5.25A, 1.80V/cell)       |
|                               | 100.0Ah                                                                                                               | (10hr, 10.0A, 1.80V/cell)       |
|                               | 89.0Ah                                                                                                                | (5hr, 17.8A, 1.75V/cell)        |
|                               | 64.6Ah                                                                                                                | (1hr, 64.6A, 1.60V/cell)        |
| Max. Discharge Current        | 1000A (5s)                                                                                                            |                                 |
| Internal Resistance (25°C)    | Approx 4.9mΩ                                                                                                          |                                 |
| Operating Temp. Range         | Discharge                                                                                                             | -20 ~ 55°C (-4 ~ 131°F)         |
|                               | Charge                                                                                                                | 0 ~ 40°C (32 ~ 104°F)           |
|                               | Storage                                                                                                               | -15 ~ 50°C (5 ~ 122°F)          |
| Nominal Operating Temp. Range | 25±3°C (77±5°F)                                                                                                       |                                 |
| Cycle Use                     | Initial Charging Current less than 25.0A. Voltage                                                                     |                                 |
|                               | 14.1V~14.4V at 25°C(77°F) Temp. Coefficient -30mV/°C                                                                  |                                 |
| Standby Use                   | Initial Charging Current less than 25.0A. Voltage                                                                     |                                 |
|                               | 13.5V~13.8V at 25°C(77°F) Temp. Coefficient -20mV/°C                                                                  |                                 |
| Effect of temp. to Capacity   | 40°C (104°F)                                                                                                          | 103%                            |
|                               | 25°C (77°F)                                                                                                           | 100%                            |
|                               | 0°C (32°F)                                                                                                            | 86%                             |
| Self Discharge                | LPS series batteries may be stored for up to 6 months                                                                 |                                 |
|                               | at 25°C(77°F) and then a freshening charge is required.<br>For higher temperatures the time interval will be shorter. |                                 |



### Layout



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

| F.V/Time   | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 48h  | 72h  | 100h | 120h  |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 52.5 | 29.9 | 23.8 | 19.4 | 16.6 | 15.0 | 11.7 | 9.39 | 4.93 | 2.11 | 1.45 | 1.08 | 0.940 |
| 1.80V/cell | 55.6 | 31.5 | 25.0 | 20.3 | 17.2 | 15.5 | 12.0 | 10.0 | 5.25 | 2.25 | 1.55 | 1.15 | 1.00  |
| 1.75V/cell | 59.0 | 33.0 | 25.7 | 21.1 | 17.8 | 15.9 | 12.2 | 10.2 | 5.36 | 2.30 | 1.58 | 1.17 | 1.02  |
| 1.70V/cell | 61.7 | 34.2 | 26.5 | 21.6 | 18.1 | 16.2 | 12.4 | 10.3 | 5.41 | 2.32 | 1.60 | 1.18 | 1.03  |
| 1.67V/cell | 63.9 | 35.2 | 27.3 | 22.1 | 18.4 | 16.5 | 12.6 | 10.4 | 5.46 | 2.34 | 1.61 | 1.20 | 1.04  |
| 1.60V/cell | 64.6 | 35.8 | 27.8 | 22.4 | 18.7 | 16.7 | 12.7 | 10.5 | 5.51 | 2.36 | 1.63 | 1.21 | 1.05  |

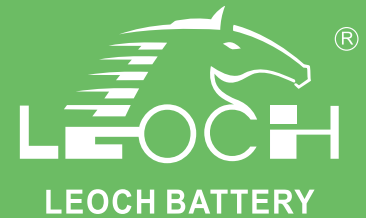
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time   | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 48h  | 72h  | 100h | 120h |
|------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 102.1 | 58.5 | 46.7 | 38.1 | 32.7 | 29.5 | 23.1 | 18.6 | 9.80 | 4.23 | 2.92 | 2.18 | 1.90 |
| 1.80V/cell | 107.4 | 61.3 | 48.8 | 39.8 | 33.8 | 30.4 | 23.7 | 19.8 | 10.4 | 4.49 | 3.11 | 2.38 | 2.07 |
| 1.75V/cell | 113.1 | 63.8 | 50.0 | 41.2 | 34.8 | 31.3 | 24.0 | 20.1 | 10.6 | 4.58 | 3.17 | 2.43 | 2.11 |
| 1.70V/cell | 117.5 | 65.8 | 51.3 | 42.0 | 35.3 | 31.7 | 24.4 | 20.3 | 10.7 | 4.62 | 3.20 | 2.44 | 2.13 |
| 1.67V/cell | 121.1 | 67.6 | 52.7 | 42.9 | 35.8 | 32.2 | 24.7 | 20.5 | 10.8 | 4.66 | 3.22 | 2.47 | 2.15 |
| 1.60V/cell | 121.3 | 68.2 | 53.3 | 43.2 | 36.2 | 32.5 | 24.8 | 20.6 | 10.9 | 4.70 | 3.25 | 2.49 | 2.17 |



# LPS Series-Solar Power

## LPS12-115(12V115Ah)



### Applications

- Solar energy (wind energy) household system /communication / communication base station;
- Movable energy storage system;
- Solar traffic lights;
- Solar, wind and solar power generation;
- Emergency lighting system.

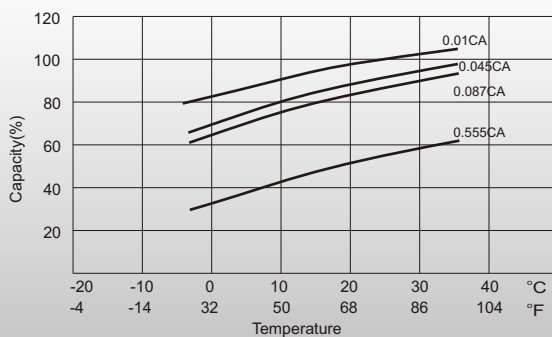
### General Features

- Adopted advantage AGM technology
- Operation temperature  $-20\sim 55^{\circ}\text{C}$
- $\leq 3\%$  Self discharge per month
- Fast recharge

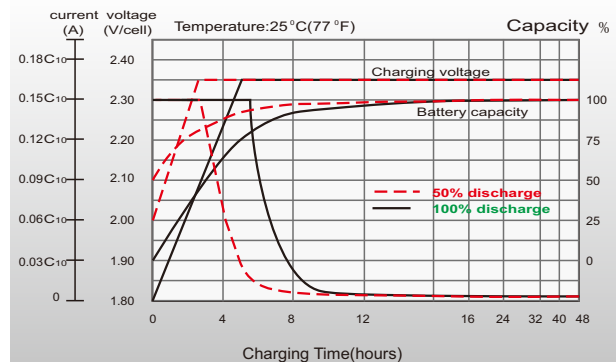
### Standards

- IEC 60896 Certified
- UL, CE Certified
- Classified as "Long Life" according to Eurobat
- Manufactured in Leoch® IATF16949, ISO 9001, ISO 14001 and OHSAS 18001 certified production facilities

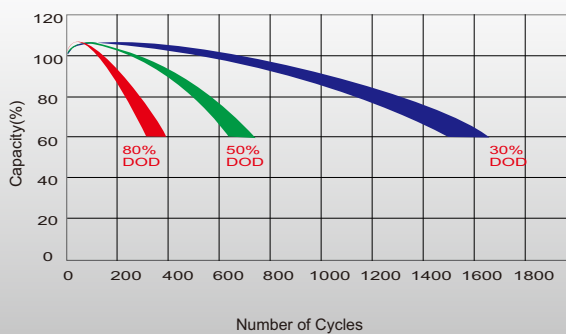
### Temperature Effects in Relation to Battery Capacity



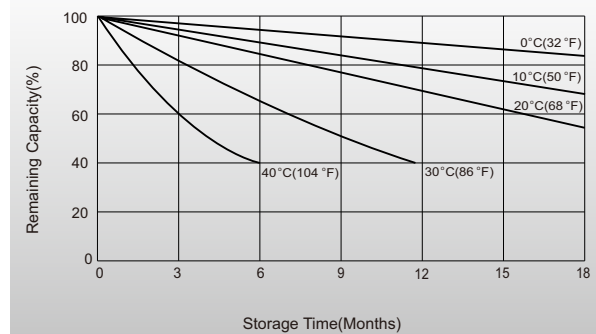
### Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### Self Discharge Characteristics



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