

# LEXRON

## LX 42AH 12V

## LX Series GEL type battery

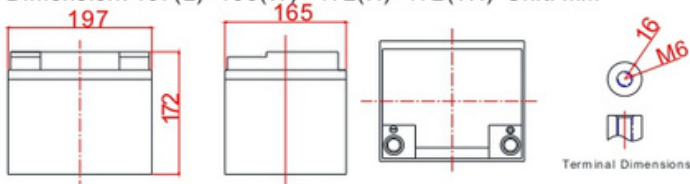


### General Features

- > High corrosion resistant performance: Pb-Ca multi-alloy grid
- > High energy density and power density
- > Optimized capability of instant high-current discharging
- > Excellent charge acceptance ability
- > Excellent deep cycle discharge capability
- > Strong high and low temperature performance
- > Precision sealing technology
- > Long life



Dimension: 197(L)×165(W)×172(H)×172(TH) Unit: mm



### Applications

- > UPS/EPS
- > Power systems
- > Telecommunications system
- > Emergency lighting, Auto control system
- > Solar/wind generating storage cyclic
- > Other general purpose

### Specification

|                        |  |
|------------------------|--|
| Nominal Voltage        | 12V  |
| Nominal Capacity       | 42Ah   |
| Design life            | 12 years   |
| Terminal               | M6   |
| Approx. Weight         | Approx 14.0kg  |
| Container Material     | ABS  |
| Rated Capacity         | 42.0Ah 10Hour Rate (4.20A to 10.8V)                  |
|                        | 33.6Ah 3Hour Rate (11.2A to 10.8V)                   |
|                        | 27.5Ah 1Hour Rate (27.5A to 10.5V)                   |
| Internal resistance    | Full charged at 25°C: 12.2 mΩ                        |
| Max. Discharge Current | 480A(5S)   |
| Operating Temperature  | Discharge: -20 ~50°C(-4 ~ 122°F)                     |
|                        | Charge: -20 ~50°C(-4 ~ 122°F)                        |
|                        | Storage: -20 ~50°C(-4 ~ 122°F)                       |
| Charge current:        | Max. 10.5A ; Recom.4.2A                              |
| Charge Method (25 °C)  | Float Charge: 13.5-13.8V, recom. 13.5V(-18mV/ °C)    |
|                        | Equalize charge: 13.8-14.1V, recom. 14.1V(-24mV/ °C) |
|                        | Cycle charge: 14.4-15.0V, recom. 14.4V(-30mV/ °C)    |
| Self discharge         | 3% of capacity declined per month at 25°C            |

### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

| FV/Time | 5min | 15min | 30min | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|------|------|------|------|------|------|------|
| 1.60V   | 148  | 79.5  | 48.4  | 28.2 | 16.2 | 11.8 | 7.91 | 5.19 | 4.37 | 2.29 |
| 1.65V   | 144  | 77.1  | 47.6  | 28.1 | 16.2 | 11.7 | 7.82 | 5.15 | 4.33 | 2.28 |
| 1.70V   | 138  | 75.5  | 46.7  | 27.9 | 16.0 | 11.4 | 7.74 | 5.10 | 4.28 | 2.27 |
| 1.75V   | 127  | 73.0  | 46.3  | 27.5 | 15.8 | 11.3 | 7.65 | 5.06 | 4.24 | 2.26 |
| 1.80V   | 113  | 68.0  | 44.3  | 26.8 | 15.4 | 11.2 | 7.46 | 5.02 | 4.20 | 2.25 |
| 1.85V   | 101  | 60.7  | 40.4  | 24.8 | 14.7 | 10.6 | 7.08 | 4.81 | 4.07 | 2.21 |

### Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

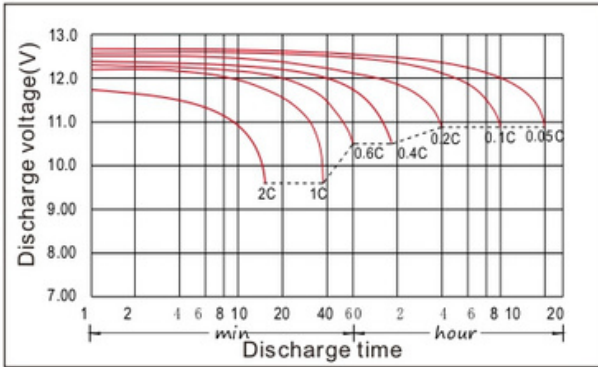
| FV/Time | 5min | 15min | 30min | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|------|------|------|------|------|------|------|
| 1.60V   | 248  | 140   | 87.5  | 53.4 | 30.7 | 22.4 | 15.0 | 10.1 | 8.40 | 4.54 |
| 1.65V   | 238  | 138   | 86.7  | 53.0 | 30.6 | 22.2 | 14.9 | 10.0 | 8.32 | 4.52 |
| 1.70V   | 237  | 135   | 86.7  | 52.6 | 30.5 | 21.9 | 14.8 | 9.95 | 8.23 | 4.49 |
| 1.75V   | 222  | 135   | 86.3  | 52.2 | 30.3 | 21.8 | 14.7 | 9.88 | 8.15 | 4.47 |
| 1.80V   | 204  | 128   | 84.2  | 51.9 | 30.2 | 21.7 | 14.5 | 9.80 | 8.06 | 4.45 |
| 1.85V   | 182  | 114   | 77.2  | 48.1 | 28.9 | 20.7 | 13.9 | 9.46 | 7.94 | 4.41 |

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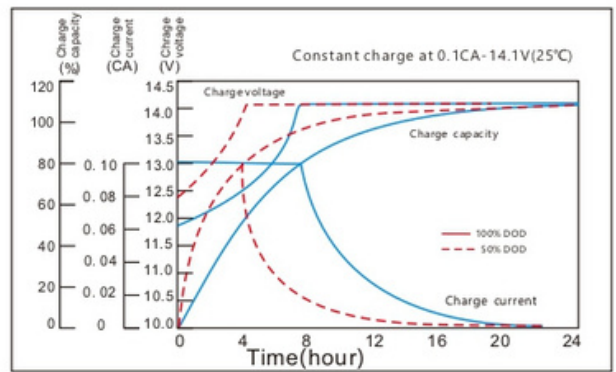
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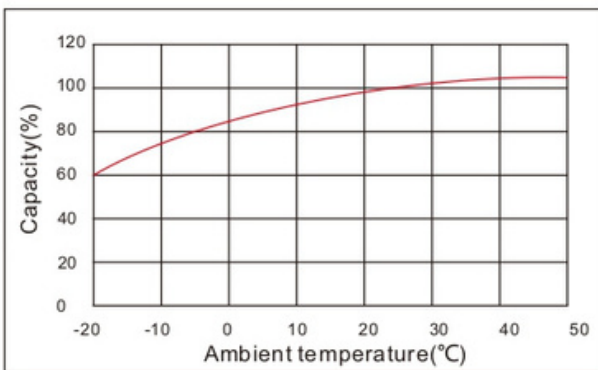
Discharge characteristic



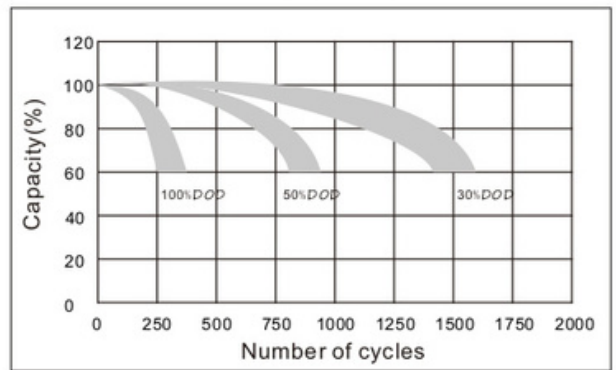
Charging characteristic



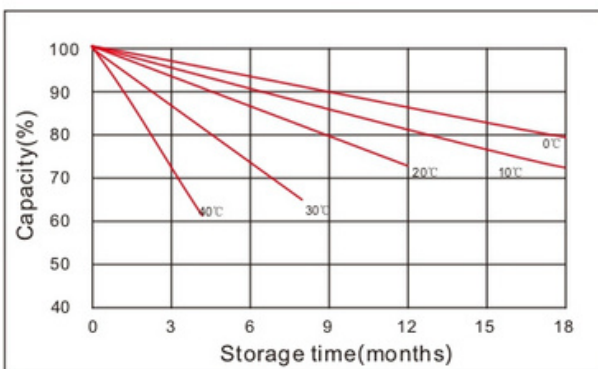
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



The effect of temperature on float life

