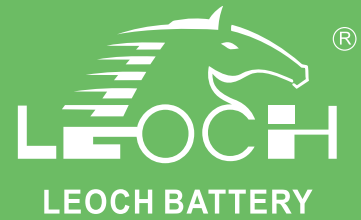




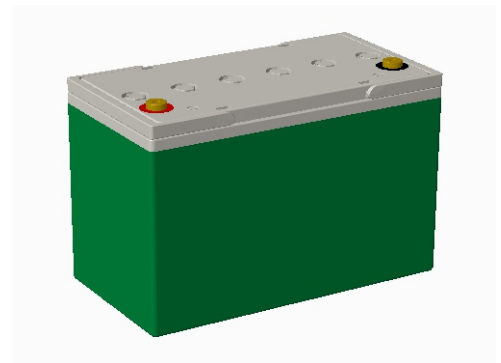
# LRC Series-Lead Carbon

## LRC12-80

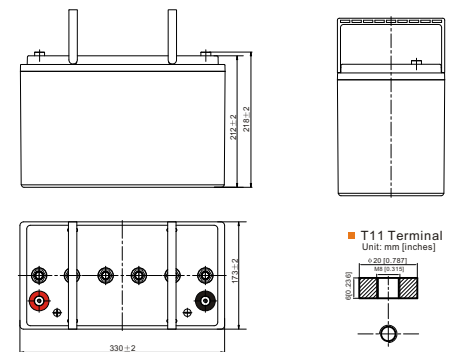


### Specifications

|                                |                         |                                |
|--------------------------------|-------------------------|--------------------------------|
| Rated Voltage                  | 12V                     |                                |
| Nominal Capacity               | 82 Ah                   | (C <sub>10</sub> , 1.80V/cell) |
| Dimension                      | Length                  | 330±2mm (13.0 in.)             |
|                                | Width                   | 173±2mm (6.81 in.)             |
|                                | Container Height        | 212±2mm (8.35 in.)             |
|                                | Total Height            | 218±2mm (8.58 in.)             |
| Approx Weight                  | 39.0Kg (72.8lbs)        |                                |
| Terminal                       | M8                      |                                |
| Container Material             | ABS                     |                                |
| Rated Capacity (25°C)          | 100Ah                   | (10hr, 8.2A, 1.80V/cell)       |
|                                | 75 Ah                   | (5hr, 15.0A, 1.75V/cell)       |
|                                | 64.5 Ah                 | (3hr, 21.5A, 1.75V/cell)       |
| Short Circuit Current          | 800A                    |                                |
| Internal Resistance(25°C)      | Approx. 7.0mΩ           |                                |
| Operating Temp. Range          | Discharge               | -20°C~55°C (-4°F~131°F)        |
|                                | Charge                  | -20°C~40°C (-4°F~104°F)        |
|                                | Storage                 | -20°C~50°C (-4°F~122°F)        |
| Nominal Operating Temp. Range  | 25±3°C (77±5°F)         |                                |
| Max. Discharging Current(25°C) | 50.0A                   |                                |
| Max. Charging Current(25°C)    | 30.0A                   |                                |
| Charge voltage(25°C)           | Cycle(Equalization)     | 2.30~2.40V/cell                |
|                                | Temp. Coefficient       | -4mV/cell/°C                   |
| Effect of temp. to Capacity    | 40°C (104°F)            | 106%                           |
|                                | 25°C (77°F)             | 100%                           |
|                                | 0°C (32°F)              | 86%                            |
| Self Discharge                 | ≤3.5% per month at 25°C |                                |



### Layout



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

| F.V./Time  | 0.5h | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 7h   | 8h   | 10h  | 20h  |
|------------|------|------|------|------|------|------|------|------|------|------|------|
| 1.95V/cell | 39.2 | 29.4 | 18.7 | 14.7 | 12.5 | 10.6 | 9.3  | 8.30 | 7.60 | 6.30 | 3.40 |
| 1.90V/cell | 49.1 | 35.7 | 22.2 | 17.3 | 14.6 | 12.3 | 10.7 | 9.6  | 8.8  | 7.30 | 3.90 |
| 1.85V/cell | 58.4 | 40.6 | 25.8 | 20.1 | 17.1 | 14.4 | 12.5 | 11.0 | 9.9  | 8.00 | 4.30 |
| 1.80V/cell | 65.4 | 44.6 | 27.5 | 21.0 | 17.6 | 14.7 | 12.7 | 11.1 | 10.1 | 8.20 | 4.40 |
| 1.75V/cell | 69.4 | 46.1 | 27.8 | 21.5 | 17.8 | 15.0 | 12.9 | 11.4 | 10.2 | 8.40 | 4.50 |
| 1.70V/cell | 72.5 | 47.1 | 28.1 | 22.0 | 18.2 | 15.3 | 13.1 | 11.6 | 10.3 | 8.50 | 4.60 |

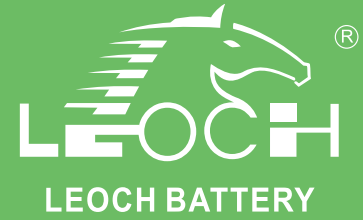
### Constant Power Discharge (Watts/cell) at 25°C (77°F)

| F.V./Time  | 0.5h  | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 7h   | 8h   | 10h  | 20h  |
|------------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.95V/cell | 73.5  | 54.9 | 35.7 | 27.4 | 23.2 | 19.8 | 17.5 | 16.1 | 15.1 | 12.6 | 6.80 |
| 1.90V/cell | 91.8  | 66.6 | 42.5 | 32.1 | 27.1 | 23.1 | 20.5 | 18.7 | 17.6 | 14.6 | 7.80 |
| 1.85V/cell | 111.3 | 79.3 | 50.1 | 38.1 | 31.8 | 26.9 | 23.7 | 21.6 | 20.1 | 16.6 | 8.70 |
| 1.80V/cell | 122.4 | 83.2 | 52.5 | 39.1 | 32.6 | 27.4 | 24.1 | 21.8 | 20.3 | 16.8 | 8.80 |
| 1.75V/cell | 137.5 | 86.2 | 52.7 | 39.7 | 33.1 | 27.9 | 24.6 | 22.2 | 20.5 | 16.9 | 8.90 |
| 1.70V/cell | 140.1 | 87.2 | 53.0 | 40.6 | 33.5 | 28.5 | 25.1 | 22.8 | 20.6 | 17.1 | 9.00 |



# LRC Series-Lead Carbon

## LRC12-80



### Applications

- Mobile container storage system
- Peak load shifting energy storage system
- Load tracking energy storage system
- Oil and electricity hybrid energy storage system
- Grid frequency adjustment energy storage system
- New energy communication base station, IDC, UPS etc.
- New energy generation (solar, wind, PV/wind hybrid) access to energy storage systems

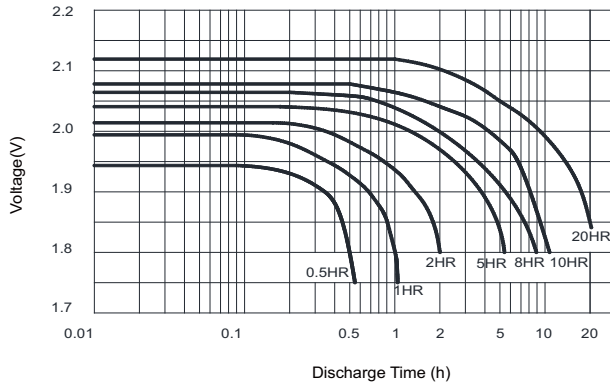
### General Features

- Design life  $\geq 12$  years
- Adopt super carbon technology + deep cycle technology
- Excellent charging acceptance and super fast charge/large discharge performance
- Modular design and installation for less space, easy installation & maintenance
- Innovative robust design to ensure superb safety and reliability
- Horizontal installation, solve the problem of electrolyte stratification

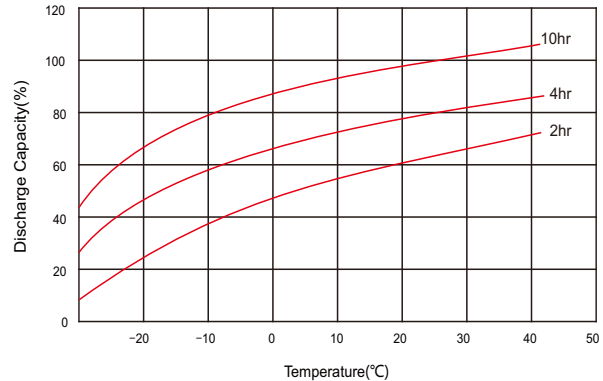
### Standards

- Compliance with IEC 61427, BS EN 61427 standards
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO14001 certified production facilities

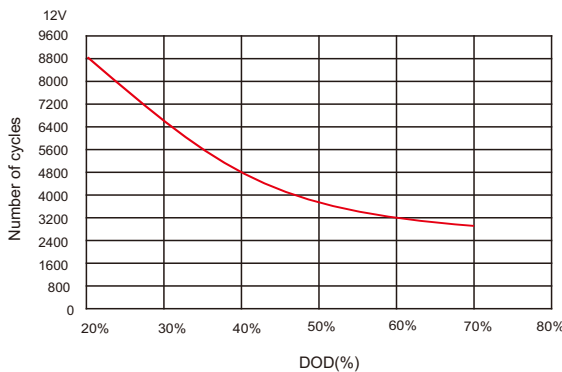
### Discharge Characteristics



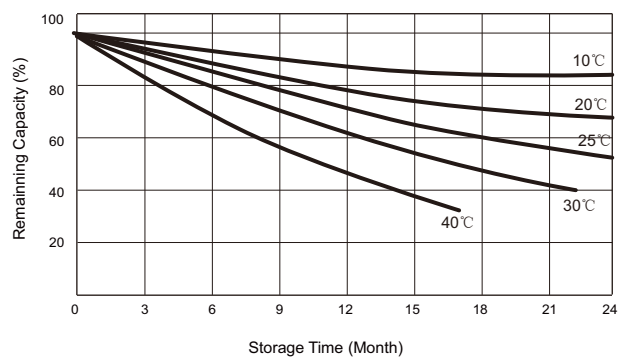
### Temperature effects in relation to battery capacity



### Cycle Life in Relation to DOD



### Self Discharge Characteristics



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Publication No.: LB-LRC12-80-PD-EN-V1.0-202005