



# XP Series-Ultra High Rate XP12-810(12V810W)

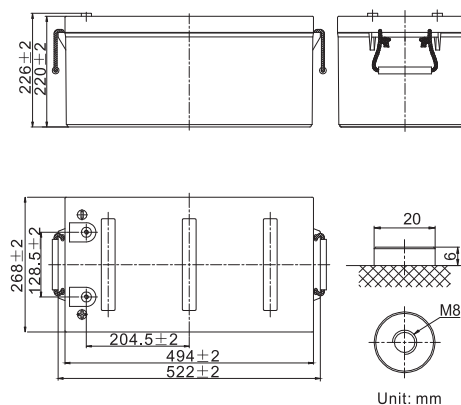


## Specifications

|  |                     |                           |
|--|---------------------|---------------------------|
| Rated Voltage                                  | 12V                 |                           |
| Nominal Rate (W <sub>15</sub> , 1.67V/cell)    | 810.0W/cell         |                           |
| Nominal Capacity(C <sub>20</sub> , 1.80V/cell) | 250Ah               |                           |
| Dimension                                      | Length              | 522±2mm (20.55 inches)    |
|  | Width               | 268±2mm (10.55 inches)    |
|  | Container Height    | 220±2mm (8.66 inches)     |
|  | Total Height        | 226±2mm (8.90 inches)     |
| Approx. Weight                                 | 72.5 Kg (159.8 lbs) |                           |
| Terminal                                       | T11                 |                           |
| Container Material                             | ABS                 |                           |
| Rated Capacity (25°C)                          | 262.0 Ah            | (20hr, 13.1A, 1.80V/cell) |
|  | 250.0 Ah            | (10hr, 25.0A, 1.80V/cell) |
|  | 219.0 Ah            | (5hr, 43.8A, 1.75V/cell)  |
|  | 192.6 Ah            | (3hr, 64.2A, 1.75V/cell)  |
|  | 149.9 Ah            | (1hr, 149.9A, 1.67V/cell) |
| Max. Discharge Current                         | 2500A               |                           |
| Internal Resistance (25°C)                     | 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)     |                           |
| Max. Charging Current(25°C)                    | 75.0A               |                           |
| Charge voltage(25°C)                           | Float               | 13.5V                     |
|  | Temp. Coefficient   | -3mV/cell/°C              |
|  | Equalization        | 14.1~14.4V                |
| Effect of temp. to Capacity                    | 40°C (104°F)        | 103%                      |
|  | 25°C (77°F)         | 100%                      |
|  | 0°C (32°F)          | 86%                       |
| Self Discharge                                 | ≤3%/month @ 25°C    |                           |



## Layout



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

| F.V/Time   | 15min | 20min | 30min | 1h    | 1.5h  | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 357.4 | 302.5 | 223.8 | 123.4 | 98.8  | 79.1 | 57.8 | 47.5 | 39.7 | 28.0 | 23.4 | 12.3 |
| 1.80V/cell | 399.7 | 338.3 | 250.3 | 136.6 | 108.1 | 86.0 | 62.5 | 51.2 | 42.8 | 30.0 | 25.0 | 13.1 |
| 1.75V/cell | 426.4 | 360.9 | 267.0 | 141.6 | 111.7 | 88.7 | 64.2 | 52.5 | 43.8 | 30.5 | 25.4 | 13.3 |
| 1.70V/cell | 448.5 | 379.6 | 280.8 | 146.8 | 115.5 | 91.5 | 66.1 | 53.8 | 44.7 | 31.1 | 25.8 | 13.5 |
| 1.67V/cell | 455.7 | 385.7 | 285.3 | 149.9 | 117.6 | 93.0 | 67.1 | 54.6 | 45.3 | 31.4 | 26.0 | 13.7 |
| 1.60V/cell | 462.2 | 391.2 | 289.4 | 157.2 | 122.8 | 96.9 | 69.6 | 56.4 | 46.7 | 32.2 | 26.6 | 14.0 |

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

| F.V/Time   | 15min | 20min | 30min | 1h    | 1.5h  | 2h    | 3h    | 4h    | 5h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 1.85V/cell | 643.1 | 544.3 | 402.7 | 264.0 | 198.6 | 158.3 | 119.9 | 98.8  | 84.3 | 59.8 | 50.0 | 26.3 |
| 1.80V/cell | 719.3 | 608.7 | 450.4 | 278.2 | 207.1 | 166.3 | 124.8 | 102.6 | 87.2 | 61.1 | 51.2 | 26.9 |
| 1.75V/cell | 767.3 | 649.4 | 480.4 | 294.1 | 218.5 | 173.1 | 129.5 | 106.0 | 89.9 | 62.1 | 51.6 | 27.1 |
| 1.70V/cell | 807.1 | 683.1 | 505.4 | 304.2 | 225.5 | 178.7 | 132.7 | 108.4 | 91.4 | 62.8 | 52.0 | 27.3 |
| 1.67V/cell | 820.0 | 694.0 | 513.4 | 313.4 | 232.0 | 183.4 | 136.2 | 110.3 | 92.6 | 63.4 | 52.4 | 27.5 |
| 1.60V/cell | 831.7 | 703.9 | 520.8 | 320.5 | 236.6 | 186.8 | 137.4 | 111.4 | 94.0 | 64.1 | 53.1 | 27.9 |



# XP Series-Ultra High Rate XP12-810(12V810W)



## Applications

- UPS
- Hospitals & Testing Laboratories
- Emergency Power Supply
- Electric starting
- Telecommunications
- Data Centers

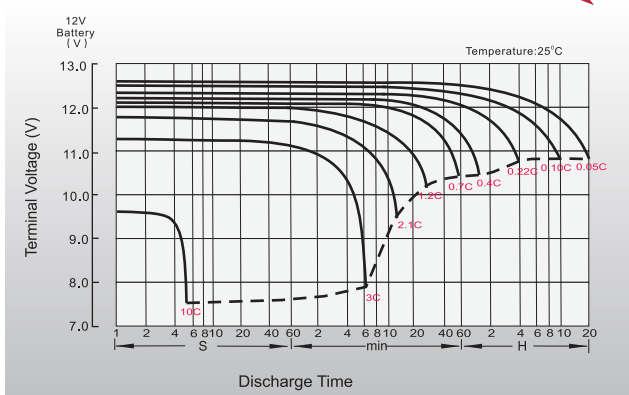
## General Features

- Special designed grids for optimized high power density
- Oversized partition intercell welds, providing low resistance connections & minimal power loss
- Advanced lead tin calcium alloy, reduces grid corrosion & promotes long battery life
- Performance excels at high rates of discharge & recharge
- High integrity post seal for long life

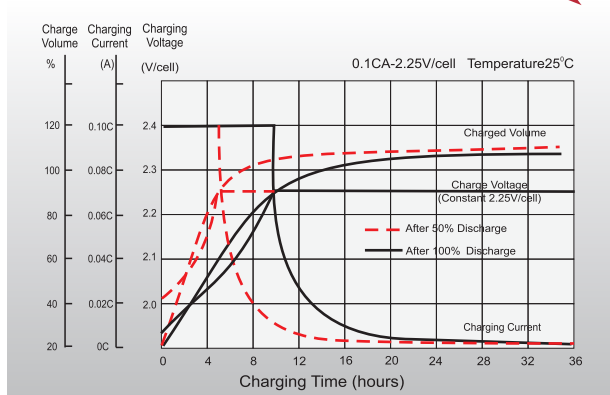
## Standards

- Compliance with IEC 60896 standards
- Classified as "Long Life" according to Eurobat
- CE, UL Certified
- Manufactured in Leoch®TS16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

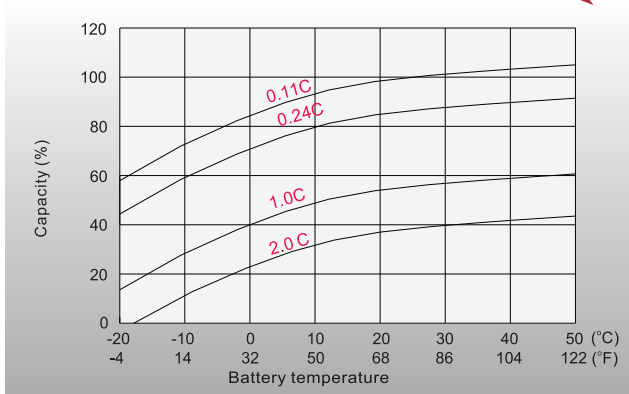
## Discharge Characteristics



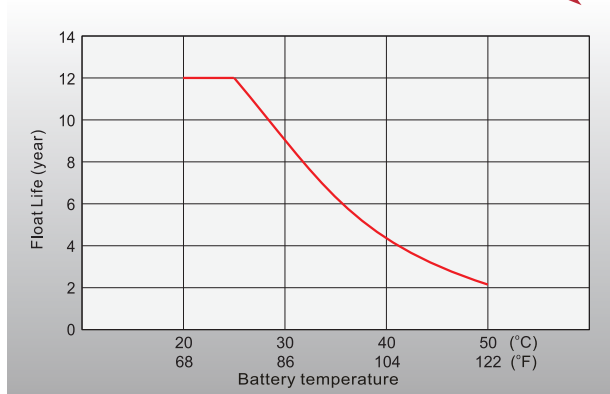
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Temperature Effects on Long Term Float Life



## Sales Offices Worldwide

### China Sales Office

5th Floor, Xinhua Bldg., Nanhai Blvd.,  
Nanshan, Shenzhen, China. 518052  
Tel: +86-755-86036060 (100 lines)  
Fax: +86-755-26067269  
E-mail: sales.export@leoch.com

### HongKong Sales Office

Workshop C, 33/F, TML Tower, No. 3 Hoi Shing Road,  
Tsuen Wan, New Territories, Hong Kong  
Tel: +852 35786666  
Fax: +44 1452 690125  
E-mail: sales.hk@leoch.com

### Singapore Sales Office

No. 1 Tech Park Crescent,  
Singapore 638131  
Tel: +65 68636078  
Fax: +65 6863 6079  
Email: sales.sg@leoch.com

### Australia Sales Office

2 /29 Tarlington Place, Smithfield, NSW 2164  
Australia  
Tel: 02 9756 0950  
E-mail: sales.au@leoch.com

### North America Sales Office

19751 Descartes  
Foothill Ranch, CA 92610, USA  
Tel: 949-588-5853  
Fax: 949-588-5966  
E-mail: sales@leoch.us

### UK Sales Office

9B Wheatstone Court, Waterwells, Business Park,  
Gloucester, GL2-2AQ, UK United Kingdom  
Tel: +44(0) 1452 729428 / 1452 729696  
Fax: +44 1452 690125  
E-mail: Sales.Europe@leoch.com

### EMEA Sales Office

1 Deligiorgi St., 121 31 Athens,  
Greece  
Tel: +30 210 5760318 (2 lines)  
E-mail: support\_EMEA@leoch.com

### India Sales Office

Shed no.A-53(b), 2nd Stage of Peenya Industrial Area,  
Bangalore North Taluk, Bangalore-560058, India  
Tel: +91-80-23440018/23440019  
Fax: +91-80-23440017  
E-mail: indiasales@leoch.com



<http://www.leoch.com>  
<http://www.leoch.us>

© 2018 LEOCH. All rights reserved.  
Trademarks and logos are the property of LEOCH and its affiliates unless otherwise noted.  
Subject to revisions without prior notice.

Publication No.: LB-XP12-810-PD-EN-V1.1-201903