

IEEE/UL Battery  
Sizing by  
**MooreU**  
610-952-6067  
www.mooreu.com



# OPzS Series-Flooded Battery 24 OPzS3000(2V3000Ah)

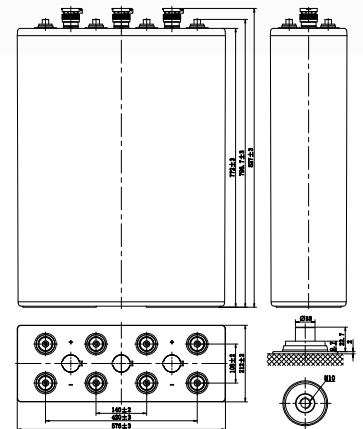


## Specifications

|                               |  |                          |
|-------------------------------|--|--------------------------|
| Rated Voltage                 | 2V   |                          |
| Nominal Capacity              | $C_{10}, 1.80V/cell$                               | 3000.0Ah                 |
| Dimension                     | Length   | 576±2mm (22.68 inches)   |
|                               | Width  | 212±3mm (8.35 inches)    |
|                               | Container Height                                   | 772±3mm (30.39 inches)   |
|                               | Total Height                                       | 827±3mm (32.56 inches)   |
| Approx Weight                 | Without Electrolyte                                | 164.8kg (362.56lbs)      |
|                               | With Electrolyte                                   | 224.8 kg (494.56lbs)     |
| Terminal                      | M10  |                          |
| Container Material            | SAN transparent container                          |                          |
| Rated Capacity                | 3000.0 Ah  | (10hr,300.0A,1.80V/cell) |
|                               | 2664.5 Ah  | (5hr,532.9A,1.75V/cell)  |
|                               | 2313.0 Ah  | (3hr,771.0A,1.75V/cell)  |
|                               | 1713.0 Ah  | (1hr,1713.0A,1.60V/cell) |
| Max. Discharge Current        | 24000A (5s)  |                          |
| Internal Resistance (20°C)    | Approx 0.38mΩ                                      |                          |
| Operating Temp.Range          | Discharge  | -15 ~ 55°C (5 ~ 131°F)   |
|                               | Charge   | 0 ~ 45°C (32 ~ 113°F)    |
|                               | Storage  | -15 ~ 45°C (5 ~ 113°F)   |
| Nominal Operating Temp. Range | 25±5°C (77±9°F)                                    |                          |
| Cycle Use                     | Initial Charging Current less than 0.15CA. Voltage |                          |
|                               | 2.40V~2.45V at 20°C(68°F)Temp. Coefficient -5mV/°C |                          |
| Standby Use                   | Initial Charging Current less than 0.15CA. Voltage |                          |
|                               | 2.23V~2.25V at 20°C(68°F)Temp. Coefficient -3mV/°C |                          |
| Effect of temp. to Capacity   | 40°C (104°F)                                       | 103%                     |
|                               | 20°C (68°F)  | 100%                     |
|                               | 0°C (32°F)   | 86%                      |
| Self Discharge                | ≤4% per month at 20°C                              |                          |



## Layout



## Constant Current Discharge (Amperes) at 20 °C (68°F)

| F. V/Time  | 1h     | 2h     | 3h    | 4h    | 5h    | 6h    | 8h    | 10h   | 20h   | 24h   | 72h  | 100h | 120h |
|------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 1.85V/cell | 1191.0 | 870.0  | 670.0 | 554.7 | 478.8 | 420.5 | 342.7 | 287.2 | 157.7 | 132.3 | 47.5 | 35.6 | 30.5 |
| 1.80V/cell | 1392.0 | 958.5  | 732.0 | 599.6 | 510.9 | 446.5 | 360.5 | 300.0 | 164.0 | 137.5 | 49.4 | 37.0 | 31.7 |
| 1.75V/cell | 1512.0 | 1020.0 | 771.0 | 626.3 | 532.9 | 463.5 | 370.7 | 306.7 | 167.1 | 140.1 | 50.3 | 37.7 | 32.3 |
| 1.70V/cell | 1593.0 | 1065.0 | 796.0 | 645.8 | 547.3 | 474.9 | 376.9 | 311.9 | 170.0 | /     | /    | /    | /    |
| 1.65V/cell | 1656.0 | 1090.5 | 820.0 | 660.8 | 559.5 | 484.1 | 383.6 | 317.1 | 172.4 | /     | /    | /    | /    |
| 1.60V/cell | 1713.0 | 1116.0 | 834.0 | 670.5 | 567.0 | 490.8 | 388.4 | 320.8 | 174.0 | /     | /    | /    | /    |

## Constant Power Discharge (Watts/cell) at 20 °C (68°F)

| F. V/Time  | 1h     | 2h     | 3h     | 4h     | 5h     | 6h    | 8h    | 10h   | 20h   | 24h   | 72h  | 100h | 120h |
|------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|------|------|------|
| 1.85V/cell | 2228.6 | 1640.9 | 1270.0 | 1055.7 | 915.1  | 807.7 | 661.0 | 556.7 | 307.0 | 257.3 | 91.7 | 68.5 | 58.6 |
| 1.80V/cell | 2567.0 | 1788.0 | 1372.8 | 1129.4 | 968.1  | 850.9 | 690.1 | 576.9 | 316.6 | 265.4 | 94.6 | 70.7 | 60.4 |
| 1.75V/cell | 2753.0 | 1885.9 | 1435.0 | 1172.7 | 1005.0 | 878.0 | 705.7 | 586.5 | 321.0 | 269.1 | 95.9 | 71.7 | 61.3 |
| 1.70V/cell | 2873.3 | 1954.8 | 1472.3 | 1203.1 | 1027.5 | 896.7 | 715.2 | 593.7 | 324.9 | /     | /    | /    | /    |
| 1.65V/cell | 2964.6 | 1993.0 | 1509.4 | 1226.9 | 1046.1 | 911.0 | 725.0 | 601.7 | 328.3 | /     | /    | /    | /    |
| 1.60V/cell | 3041.4 | 2029.4 | 1527.5 | 1238.8 | 1054.8 | 918.9 | 730.3 | 605.8 | 329.8 | /     | /    | /    | /    |



# OPzS Series-Flooded Battery

## 24 OPzS3000(2V3000Ah)



### Applications

- Telecommunications
- Buoy lighting
- Standby power
- Railway signalling
- Emergency lighting systems
- Alternative power (solar, wind)
- Maritime standby power on ships and ashore

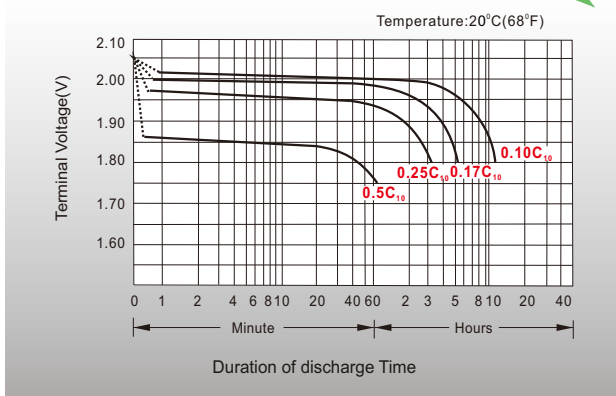
### General Features

- 20 years design life(20°C)
- Lower self discharge
- Higher thermal capacity, no thermal runaway will occur
- Superior deep cycle performance
- Wide operation temperature range

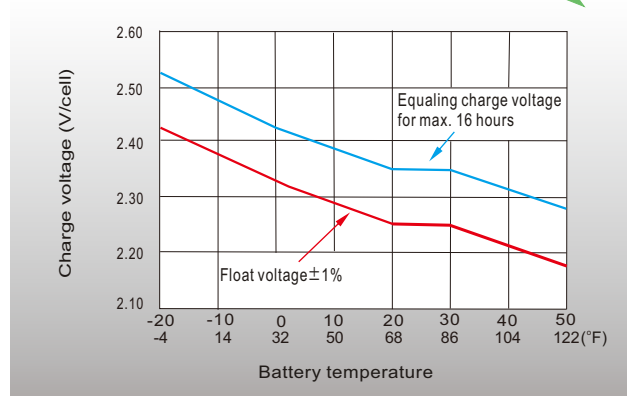
### Standards

- Acc. to IEC60896, DIN 40736 standards
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

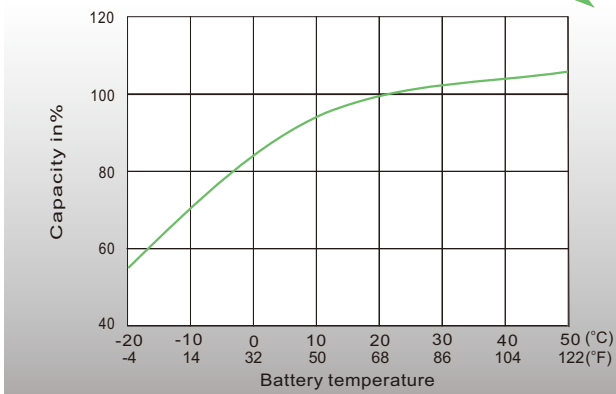
### Discharge Characteristics



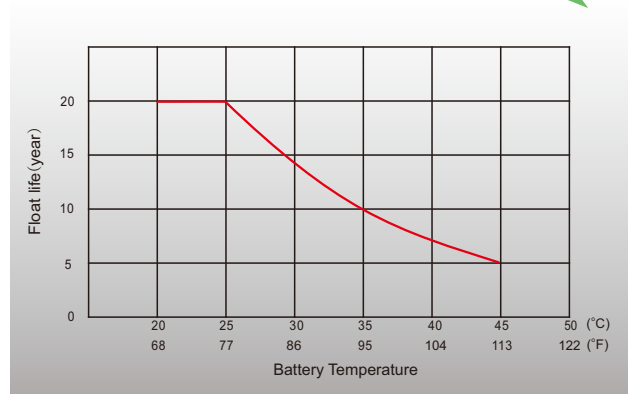
### Charge voltage Vs ambient temperature curve



### Discharge capacity Vs Ambient temperature curve (10A)



### Effect of Temperature on Long Term Float Life



## Sales Offices Worldwide

#### China Sales Office

5th Floor, Xinbaohui Bldg., Nanhai Blvd.,  
Nanshan, Shenzhen, China. 518052  
Tel: +86-755-86036060 (100 lines)  
Fax: +86-755-26067269  
E-mail: 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.com)  
[Http://www.leoch.us](http://www.leoch.us)

© 2022 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-24 OPzS3000-PD-EN-V2.1-202205