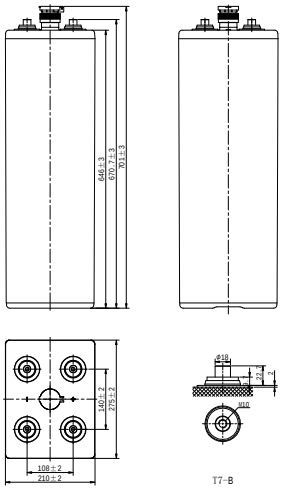
# OPzS SERIES-FLOODED BATTERY

12OPzS1200 (2V1200Ah)

LEOCH BATTERY




## CHARACTERISTICS

| Item | | Specifications |
|---|---|---|
| Rated Voltage | | 2V |
| Nominal Capacity (20℃) | $C_{10}$,1.80V/cell | 1200Ah |
| Dimension | Length | 275mm (10.8inches) |
| | Width | 210mm (8.27inches) |
| | Container Height | 646mm (25.4inches) |
| | Total Height | 701mm (27.6inches) |
| Approx Weight | | 91.7kg (202.2lbs) |
| Dry Weight | | 67.7kg (149.3lbs) |
| Terminal | | T7-B(M10) |
| Container Material | | SAN transparent container |
| Short-circuit current | | 7200A |
| Internal Resistance (20℃) | | Approx 0.45 mΩ (Fully charged) |
| Operating Temp. Range | Discharge | -15~55℃ (5~131°F) |
| | Charge | 0~45℃ (32~113°F) |
| | Storage | -15~45℃ (5~113°F) |
| Nominal Operating Temp. Range | | 25±5℃ (77±9°F) |
| Max.Charging Current (20℃) | | 0.15C |
| Charge voltage (20℃) | Standby Use | Cycle Use |
| | 2.23-2.25V/cell | 2.40-2.45V/cell |
| Temp. Coeffcient | -3mV/cell/℃ | -5mV/cell/℃ |
| Effect of temp. to Capacity | 40℃ (104°F) | 103% |
| | 20℃ (68°F) | 100% |
| | 0℃ (32°F) | 86% |
| Self Discharge | ≤4% per month at 20°C | |

## DISCHARGE TABLE

**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 | 476.4 | 348.0 | 268.0 | 221.9 | 191.5 | 168.2 | 137.1 | 114.9 | 63.1 | 52.9 | 19.0 | 14.2 | 12.2 |
| 1.80V/cell | 556.8 | 383.4 | 292.8 | 239.8 | 204.4 | 178.6 | 144.2 | 120.0 | 65.6 | 55.0 | 19.7 | 14.8 | 12.7 |
| 1.75V/cell | 604.8 | 408.0 | 308.4 | 250.5 | 213.2 | 185.4 | 148.3 | 122.7 | 66.8 | 56.0 | 20.1 | 15.1 | 12.9 |
| 1.70V/cell | 637.2 | 426.0 | 318.4 | 258.3 | 218.9 | 190.0 | 150.8 | 124.7 | 68.0 | / | / | / | / |
| 1.65V/cell | 662.4 | 436.2 | 328.0 | 264.3 | 223.8 | 193.6 | 153.5 | 126.8 | 68.9 | / | / | / | / |
| 1.60V/cell | 685.2 | 446.4 | 333.6 | 268.2 | 226.8 | 196.3 | 155.4 | 128.3 | 69.6 | / | / | / | / |

**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 | 891.5 | 656.4 | 508.0 | 422.3 | 366.1 | 323.1 | 264.4 | 222.7 | 122.8 | 102.9 | 36.7 | 27.4 | 23.4 |
| 1.80V/cell | 1026.8 | 715.2 | 549.1 | 451.8 | 387.2 | 340.4 | 276.0 | 230.8 | 126.6 | 106.1 | 37.8 | 28.3 | 24.2 |
| 1.75V/cell | 1101.2 | 754.4 | 574.0 | 469.1 | 402.0 | 351.2 | 282.3 | 234.6 | 128.4 | 107.6 | 38.4 | 28.7 | 24.5 |
| 1.70V/cell | 1149.3 | 781.9 | 588.9 | 481.2 | 411.0 | 358.7 | 286.1 | 237.5 | 130.0 | / | / | / | / |
| 1.65V/cell | 1185.8 | 797.2 | 603.7 | 490.8 | 418.4 | 364.4 | 290.0 | 240.7 | 131.3 | / | / | / | / |
| 1.60V/cell | 1216.6 | 811.8 | 611.0 | 495.5 | 421.9 | 367.6 | 292.1 | 242.3 | 131.9 | / | / | / | / |

# OPzS SERIES-FLOODED BATTERY

12OPzS1200 (2V1200Ah)

LEOCH BATTERY

## APPLICATIONS

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

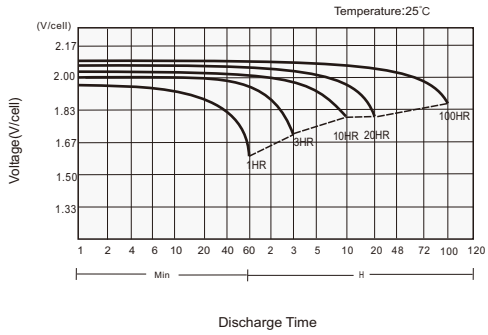
## GENERAL FEATURES

- 20 years design life (20℃)
- Positive electrodes-die-cast tubular plates with low antimony lead alloy for longer life
- Transparent SAN Containers to allow electrolyte level and cell condition to be monitored visually
- Excellent standby and cycling behaviour - long life

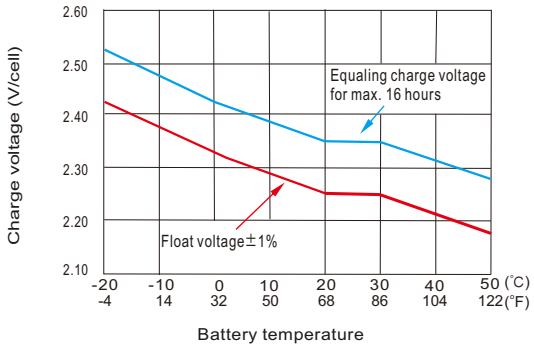
## STANDARDS

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

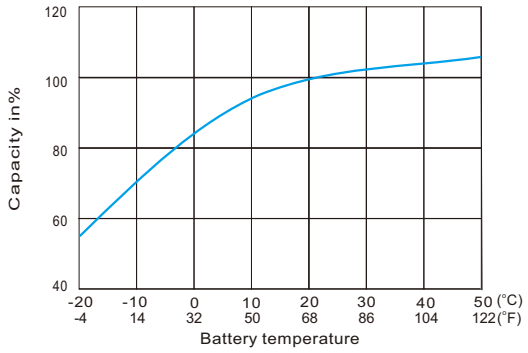
### Discharge Characteristics



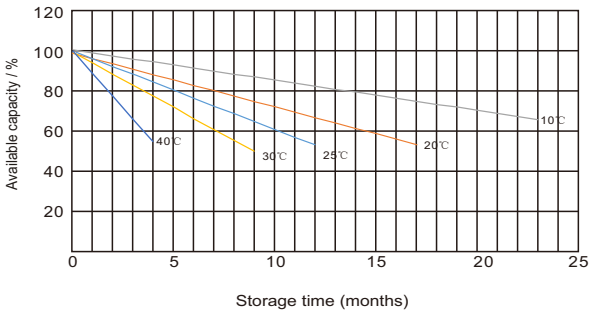

### Charge Voltage vs Ambient Temperature Curve




### Discharge Capacity vs Ambient Temperature Curve ($I_{10}$A)




### Self Discharge Characteristics





**Leoch International Technology Ltd.**
www.leoch.com

**Leoch Batteries Pte Ltd**
www.leoch.sg

**Leoch Battery Corporation**
www.leochamericas.com

**Leoch Europe S.A.**
www.leoch.eu



Data above is recommended and the picture is only for battery effect display, Leoch reserve the final right of explanation.
© LEOCH. All rights reserved.Trademarks and logos are the property of LEOCH and its affiliates unless otherwise noted.Subject to revisions without prior notice. E&OE.



Publication No.:LB-12OPzS1200-PD-EN-V2.0-20240130