

UP-OPzS Series

6 OPzS 420

O P z S C E L L



Main Features

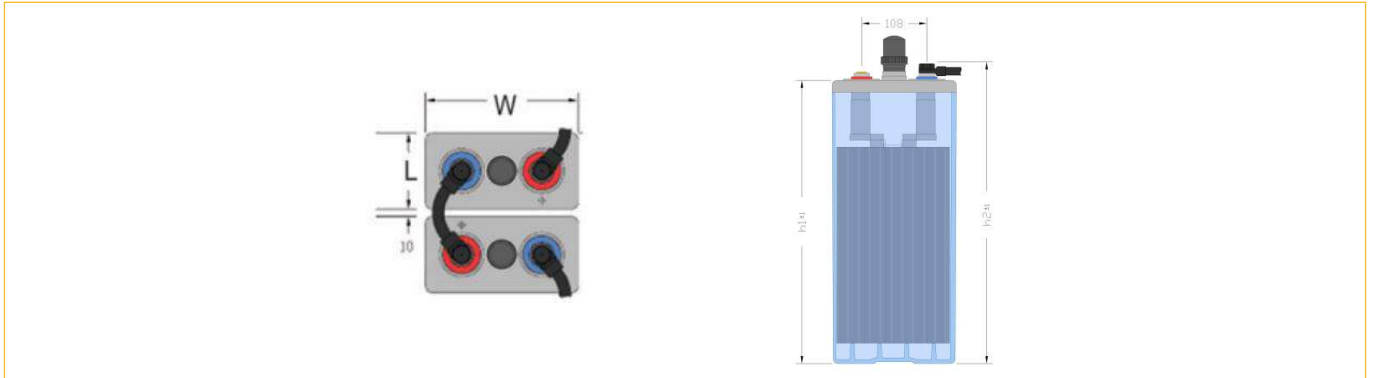
- **Design Life**
20 years at 20°C.
- **Water Refilling**
More than 2 years at 20°C.
- **IIEC 896-1**
2300 cycles.
- **Self Discharge**
Approx. 2% per month at 20°C.
- **Operating Temperature Range**
-20°C to 55°C, recommended 10°C to 30°C.
- **Full Conformity with**
DIN 40737-1, IIEC 896-11 and EN 50272-2.

Technical Specifications

| | |
|--|------------------------|
| Capacity (Ah), C100 (1,85 V/cell, 20°C) | 750 |
| Capacity (Ah), C10 (1,80 V/cell, 20°C) | 500 |
| Number of Plates (+) per Cell | 6 |
| Floating Voltage Set Point (V/cell) | 2.23 |
| Maximum Initial Charge Current (A) | 0.3 C10 |
| Recommended Boost Charge Voltage (V/cell) | 2.40 |
| Recommended End of Discharge Voltage (10-hr rate) (V/cell) | 1.80 |
| Short Circuit Current (A) | 4400 |
| Internal Resistance (mOhm) | 0.460 |
| Number of Cycles at 60% Depth of Discharge (20°C) | 2300 |
| Self-Discharge Rate per Month at 20°C | Approx. 2.5% |
| Dimensions in mm (L x W x H1 / H2) H1 = Height to the lid H2 = Height including connectors & bolts | 145 x 206 x 471 x 499 |
| Weight (kg) | Wet: 33.5 / Dry: 24.2 |
| Type and Number of Poles | M10 / 2 |
| Operating Temperature / Recommended Temperature | -20°C-55°C / 10°C-30°C |

* All dimensions and weights shown are subject to manufacturing tolerances.

Dimensions



Constant Current Discharge in A (at 20°C)

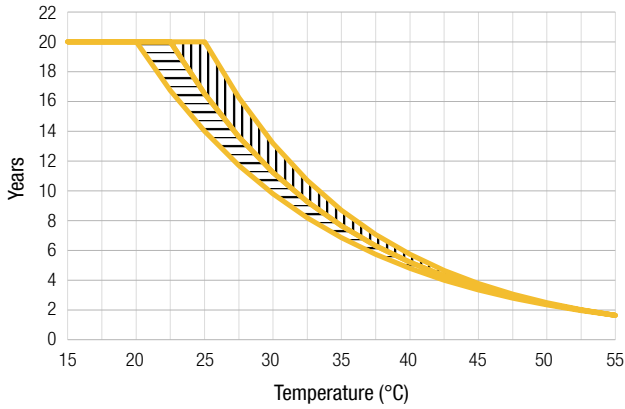
| End Voltage (V/cell) | Discharge Time | | | | | | | | | | | | | | |
|----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 7h | 8h | 10h | 12h | 20h |
| 1.60 V | 628.3 | 572.9 | 442.9 | 356.7 | 298.7 | 186.0 | 138.1 | 111.0 | 93.3 | 80.9 | 71.5 | 64.3 | 53.6 | 46.1 | 30.1 |
| 1.65 V | 566.0 | 521.2 | 416.0 | 342.9 | 290.9 | 183.5 | 136.6 | 109.9 | 92.5 | 80.2 | 70.9 | 63.7 | 53.2 | 45.8 | 29.8 |
| 1.70 V | 500.7 | 464.9 | 381.1 | 321.0 | 276.9 | 179.3 | 134.3 | 108.3 | 91.3 | 79.2 | 70.1 | 63.0 | 52.6 | 45.3 | 29.5 |
| 1.75 V | 433.0 | 404.7 | 339.2 | 291.5 | 255.2 | 171.4 | 130.1 | 105.5 | 89.2 | 77.5 | 68.7 | 61.8 | 51.7 | 44.5 | 29.1 |
| 1.80 V | 362.0 | 341.4 | 291.1 | 254.5 | 226.1 | 157.4 | 121.8 | 99.9 | 85.1 | 74.3 | 66.1 | 59.6 | 50.0 | 43.2 | 28.3 |
| 1.83 V | 317.8 | 302.4 | 260.0 | 229.1 | 205.3 | 145.9 | 114.2 | 94.4 | 80.8 | 70.9 | 63.2 | 57.2 | 48.1 | 41.7 | 27.5 |
| 1.85 V | 283.4 | 274.9 | 238.4 | 211.2 | 190.0 | 137.0 | 108.1 | 89.8 | 77.2 | 67.8 | 60.6 | 54.9 | 46.3 | 40.2 | 26.7 |
| 1.87 V | 248.8 | 246.5 | 216.3 | 192.4 | 173.8 | 127.0 | 101.0 | 84.4 | 72.8 | 64.1 | 57.5 | 52.1 | 44.1 | 38.4 | 25.6 |
| 1.90 V | 195.6 | 193.6 | 182.3 | 163.1 | 148.2 | 110.1 | 88.6 | 74.7 | 64.8 | 57.3 | 51.6 | 46.9 | 39.9 | 34.8 | 23.4 |

Constant Power Discharge in W/cell (at 20°C)

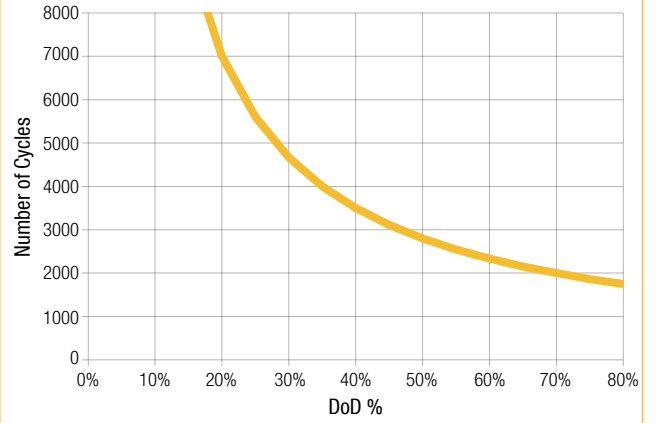
| End Voltage (V/cell) | Discharge Time | | | | | | | | | | | | | | |
|----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 7h | 8h | 10h | 12h | 20h |
| 1.60 V | 999.3 | 919.2 | 734.9 | 609.2 | 520.7 | 336.9 | 254.2 | 206.2 | 174.6 | 151.9 | 134.9 | 121.5 | 101.8 | 87.9 | 57.7 |
| 1.65 V | 926.4 | 858.0 | 699.8 | 589.1 | 508.6 | 332.9 | 251.8 | 204.5 | 173.2 | 150.8 | 133.9 | 120.7 | 101.1 | 87.3 | 57.3 |
| 1.70 V | 843.8 | 786.0 | 652.9 | 557.9 | 487.4 | 326.1 | 248.0 | 201.9 | 171.2 | 149.2 | 132.5 | 119.4 | 100.1 | 86.5 | 56.8 |
| 1.75 V | 751.3 | 703.3 | 593.7 | 514.8 | 454.7 | 313.0 | 240.9 | 197.2 | 167.7 | 146.4 | 130.2 | 117.5 | 98.6 | 85.2 | 56.1 |
| 1.80 V | 648.8 | 610.1 | 522.0 | 458.5 | 409.7 | 290.1 | 226.9 | 187.5 | 160.5 | 140.7 | 125.6 | 113.5 | 95.6 | 82.8 | 54.7 |
| 1.83 V | 581.0 | 549.3 | 473.2 | 418.5 | 376.2 | 271.0 | 214.1 | 178.1 | 153.1 | 134.7 | 120.5 | 109.2 | 92.3 | 80.1 | 53.2 |
| 1.85 V | 519.9 | 506.6 | 438.6 | 389.3 | 351.2 | 256.0 | 203.5 | 170.1 | 146.7 | 129.4 | 115.9 | 105.2 | 89.1 | 77.5 | 51.7 |
| 1.87 V | 466.7 | 456.2 | 402.0 | 358.2 | 324.3 | 238.8 | 191.2 | 160.5 | 138.9 | 122.8 | 110.3 | 100.2 | 85.1 | 74.2 | 49.7 |
| 1.90 V | 375.2 | 372.4 | 344.0 | 308.1 | 280.2 | 209.3 | 169.3 | 143.1 | 124.5 | 110.5 | 99.6 | 90.7 | 77.3 | 67.6 | 45.7 |

* Upower reserves the right to change or revise without notice any information or detail given in this publication.

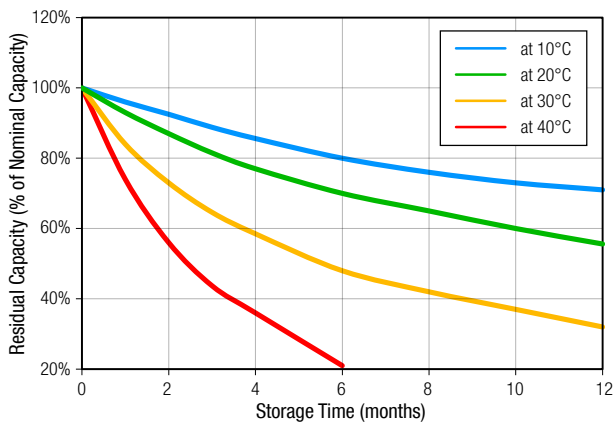
Expected Service Life vs. Operating Temperature



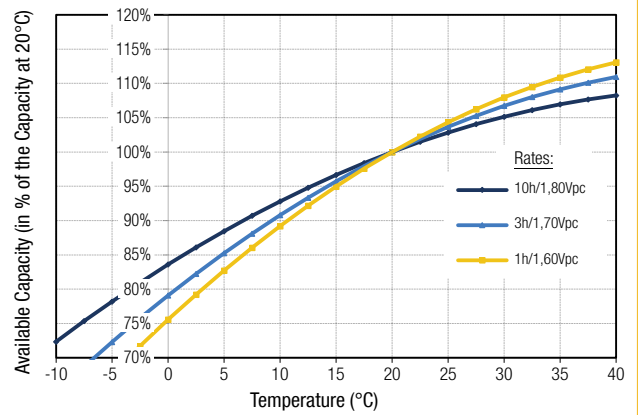
Number of Cycles vs. DOD



Self-Discharge Characteristics



Capacity vs. Temperature



Float Voltage Setting vs. Operating Temperature

