

UP-OPzV Series

2 OPzV 100

1 2 V - B L O C K



GRID



TELECOM



GENSET



UPS



Main Features

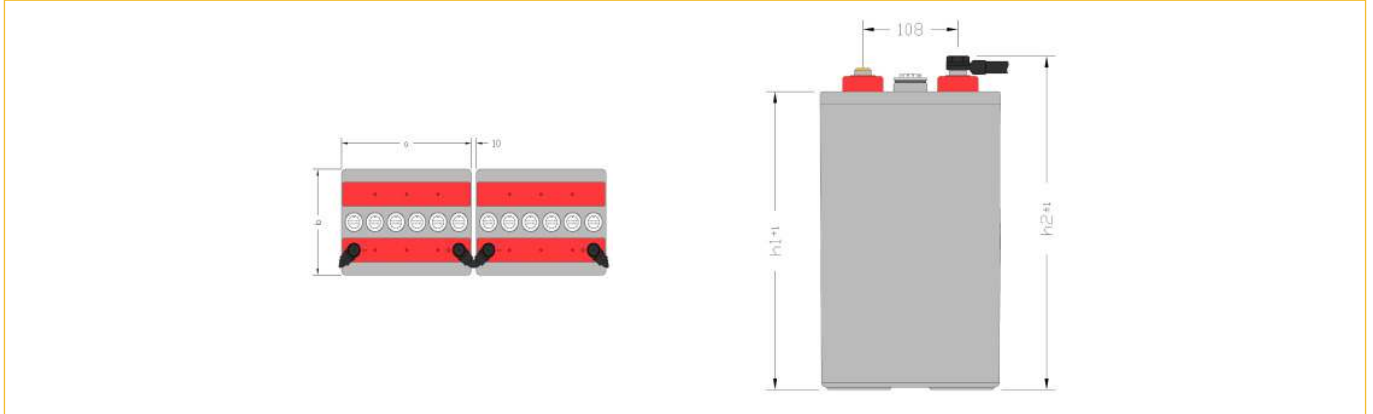
- OPzV batteries are characterized by maintenance-free, long service life, excellent reliable performance even in harsh conditions (high operating temperatures or unstable power network), thus providing a premium, efficient and cost effective energy solution.
- Optimum design, according to DIN international standards, exclusive use of high quality raw materials, robust construction and state of the art manufacturing processes make this OPzV range the ideal solution for stand-by applications requiring high level of safety and reliability.
- Design Life: More than 15 years at 20°C.
- IEC 896-1: 1200 cycles.
- Full Conformity with IEC 896-1, IEC 60896-21 and EN 61427.

Technical Specifications

| | |
|---|---------------------------------|
| Capacity (Ah), C10 (1,8 V/cell, 20°C) | 102 |
| Capacity (Ah), C8 (1,75 V/cell, 20°C) | 102.4 |
| Number of Plates (+) per Cell | 2 |
| Floating Voltage Set Point (V/cell) | 2.25 |
| Maximum Initial Charge Current (A) | 0.3 C10 |
| Recommended Boost Charge Voltage (V/cell) | 2.35 |
| Recommended End of Discharge Voltage (10-hr rate) (V/cell) | 1.80 |
| Short Circuit Current (A) | 1240 |
| Internal Resistance (mOhm) | 9.90 |
| Number of Cycles at 60% Depth of Discharge (20°C) | 2000 |
| Self-Discharge Rate per Month at 20°C | Approx. 2% |
| Dimensions in mm (L x W x H1 x H2) H1 = Height to the lid H2 = Height to the pole | 272 x 205 x 332 x 371 |
| Weight (kg) | 52 |
| Type and Number of Poles | M10 / 2 |
| Operating Temperature / Recommended Temperature | -20°C to 45°C / 10°C to 30°C |



Dimensions



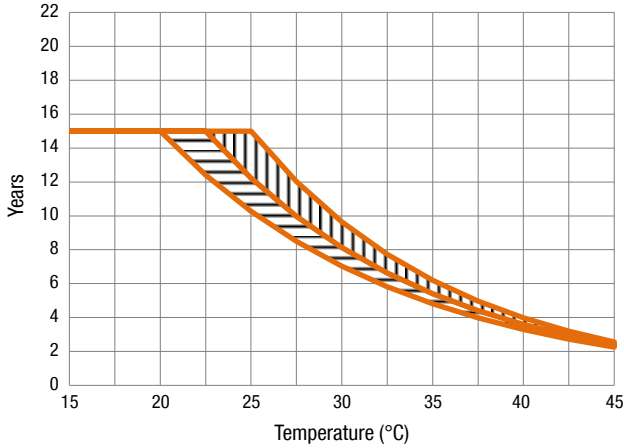
Constant Current Discharge in A (at 20°C)

| End Voltage (V/cell) | Discharge Time | | | | | | | | | | | | | | |
|----------------------|----------------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|
| | 10 min | 15 min | 30 min | 45 min | 1 h | 2 h | 3 h | 4 h | 5 h | 6 h | 7 h | 8 h | 10 h | 12 h | 20 h |
| 1.60 V | 163.2 | 143.9 | 103.9 | 80.7 | 66.5 | 40.3 | 29.5 | 23.5 | 19.6 | 16.9 | 14.9 | 13.3 | 11.0 | 9.4 | 6.0 |
| 1.65 V | 148.7 | 132.9 | 99.7 | 79.0 | 65.4 | 39.8 | 29.2 | 23.3 | 19.5 | 16.8 | 14.7 | 13.2 | 10.9 | 9.3 | 6.0 |
| 1.70 V | 132.9 | 120.1 | 92.7 | 75.3 | 63.4 | 39.2 | 28.8 | 23.0 | 19.2 | 16.5 | 14.6 | 13.0 | 10.8 | 9.2 | 5.9 |
| 1.75 V | 116.2 | 105.9 | 83.8 | 69.3 | 59.2 | 37.8 | 28.0 | 22.4 | 18.8 | 16.2 | 14.3 | 12.8 | 10.6 | 9.1 | 5.8 |
| 1.80 V | 98.7 | 90.7 | 73.2 | 61.6 | 53.2 | 35.0 | 26.4 | 21.3 | 17.9 | 15.5 | 13.7 | 12.3 | 10.2 | 8.7 | 5.6 |
| 1.83 V | 88.0 | 81.1 | 66.2 | 56.2 | 48.9 | 32.6 | 24.8 | 20.1 | 17.0 | 14.8 | 13.1 | 11.7 | 9.8 | 8.4 | 5.4 |
| 1.85 V | 80.7 | 74.7 | 61.3 | 52.3 | 45.8 | 30.9 | 23.6 | 19.2 | 16.2 | 14.1 | 12.5 | 11.2 | 9.4 | 8.1 | 5.2 |
| 1.87 V | 73.1 | 68.1 | 56.3 | 48.3 | 42.4 | 28.9 | 22.2 | 18.1 | 15.4 | 13.4 | 11.9 | 10.7 | 8.9 | 7.7 | 5.0 |
| 1.90 V | 60.8 | 58.0 | 48.4 | 41.8 | 37.0 | 25.6 | 19.8 | 16.3 | 13.9 | 12.1 | 10.8 | 9.7 | 8.1 | 7.0 | 4.6 |

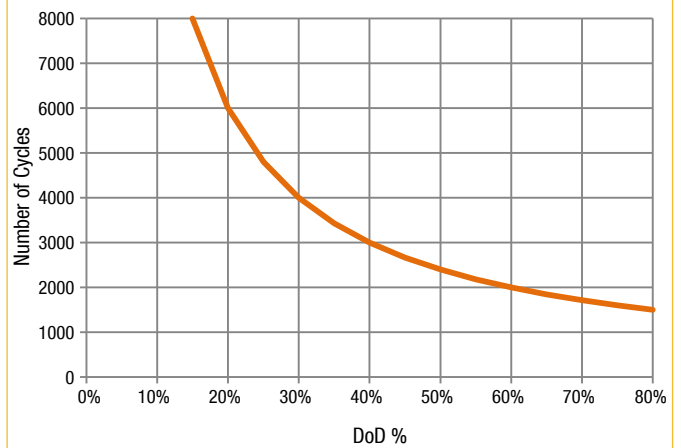
Constant Power Discharge in W/cell (at 20°C)

| End Voltage (V/cell) | Discharge Time | | | | | | | | | | | | | | |
|----------------------|----------------|--------|--------|--------|-------|------|------|------|------|------|------|------|------|------|------|
| | 10 min | 15 min | 30 min | 45 min | 1 h | 2 h | 3 h | 4 h | 5 h | 6 h | 7 h | 8 h | 10 h | 12 h | 20 h |
| 1.60 V | 255.9 | 228.5 | 172.2 | 137.8 | 115.6 | 72.5 | 53.9 | 43.4 | 36.4 | 31.5 | 27.9 | 25.0 | 20.8 | 17.9 | 11.6 |
| 1.65 V | 240.0 | 215.9 | 166.5 | 135.2 | 114.0 | 71.8 | 53.5 | 43.0 | 36.2 | 31.3 | 27.7 | 24.8 | 20.6 | 17.7 | 11.5 |
| 1.70 V | 221.2 | 200.4 | 157.2 | 129.9 | 110.8 | 70.8 | 52.8 | 42.5 | 35.8 | 31.0 | 27.4 | 24.6 | 20.4 | 17.6 | 11.4 |
| 1.75 V | 199.5 | 181.9 | 145.1 | 121.3 | 104.6 | 68.5 | 51.6 | 41.6 | 35.1 | 30.4 | 26.9 | 24.1 | 20.1 | 17.3 | 11.2 |
| 1.80 V | 174.9 | 160.4 | 129.8 | 109.9 | 95.5 | 64.0 | 48.8 | 39.7 | 33.6 | 29.2 | 25.9 | 23.3 | 19.4 | 16.7 | 10.9 |
| 1.83 V | 158.8 | 146.1 | 119.2 | 101.6 | 88.8 | 60.2 | 46.2 | 37.7 | 32.0 | 27.9 | 24.8 | 22.3 | 18.7 | 16.1 | 10.5 |
| 1.85 V | 147.4 | 136.0 | 111.6 | 95.4 | 83.7 | 57.2 | 44.1 | 36.1 | 30.7 | 26.8 | 23.8 | 21.5 | 18.0 | 15.5 | 10.2 |
| 1.87 V | 135.7 | 125.4 | 103.5 | 88.9 | 78.2 | 53.9 | 41.7 | 34.3 | 29.2 | 25.5 | 22.7 | 20.5 | 17.2 | 14.9 | 9.8 |
| 1.90 V | 115.5 | 108.8 | 90.5 | 78.2 | 69.2 | 48.3 | 37.6 | 31.0 | 26.5 | 23.2 | 20.7 | 18.7 | 15.8 | 13.6 | 9.0 |

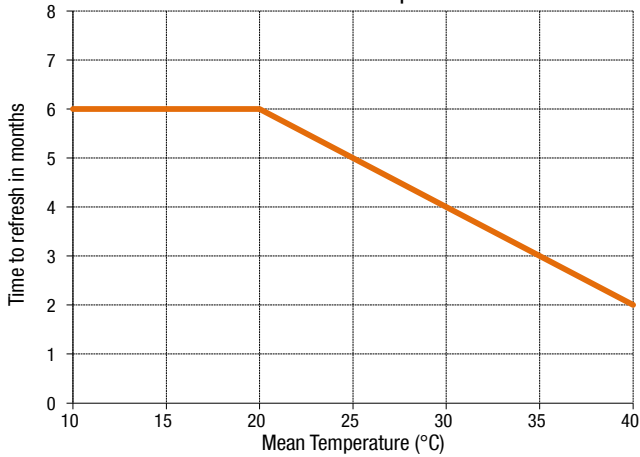
Expected Service Life vs. Operating Temperature



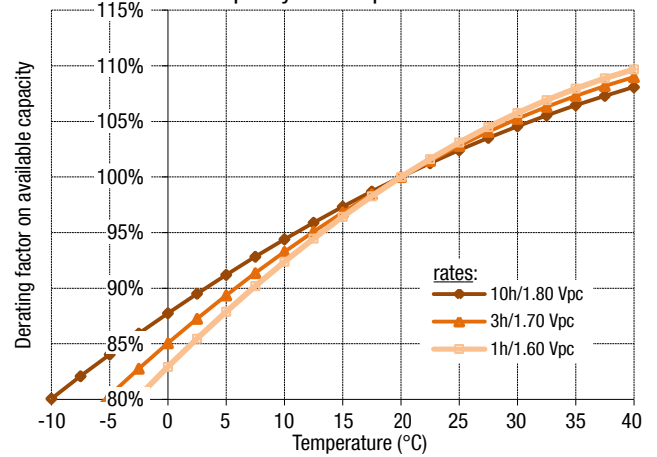
Number of Cycles vs. DOD



Time to Refresh vs. Temperature



Capacity vs. Temperature



Float Voltage Setting vs. Operating Temperature

