

# UP Series

## 20 OPzV 2500

O P z V C E L L



### Main Features

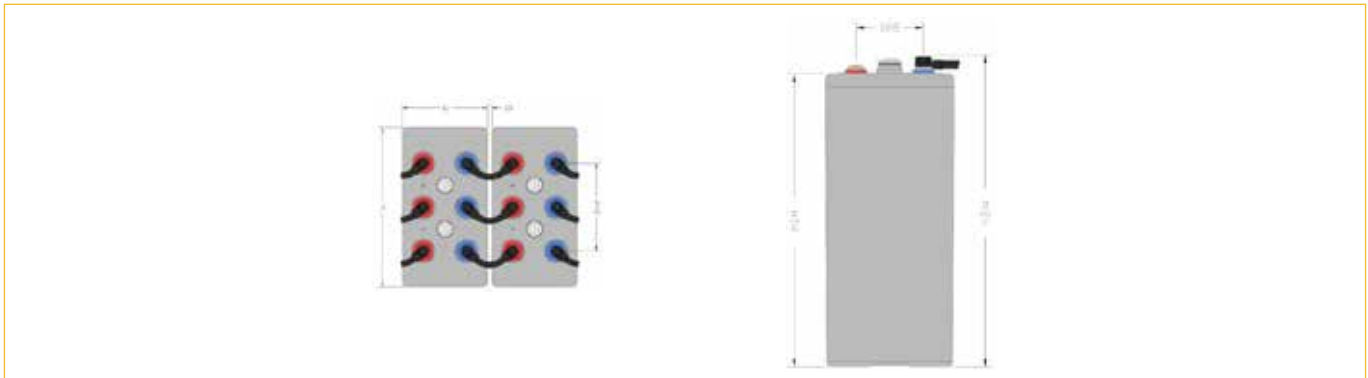
- **Design Life**  
More than 15 years at 20°C.
- **IIEC 896-1**  
1500 cycles.
- **Self Discharge**  
Approx. 2% per month at 20°C.
- **Operating Temperature Range**  
-20°C to 55°C, recommended 10°C to 30°C.
- **Full Conformity with**  
IIEC 896-1, IEC 60896-21 and EN 61427.

### Technical Specifications

Capacity (Ah), C100 (1,85 V/cell, 20°C)	3510
Capacity (Ah), C10 (1,80 V/cell, 20°C)	2700
Number of Plates (+) per Cell	20
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)	16600
Internal Resistance (mOhm)	0.123
Number of Cycles at 60% Depth of Discharge	2500
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 including connectors & bolts	487 x 212 x 769 x 797
Weight (kg)	195.3
Type and Number of Poles	M10 / 8
Operating Temperature / Recommended Temperature	-20°C - 45°C/10°C - 30°C

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

Dimensions



Constant Current Discharge in A (at 20°C)

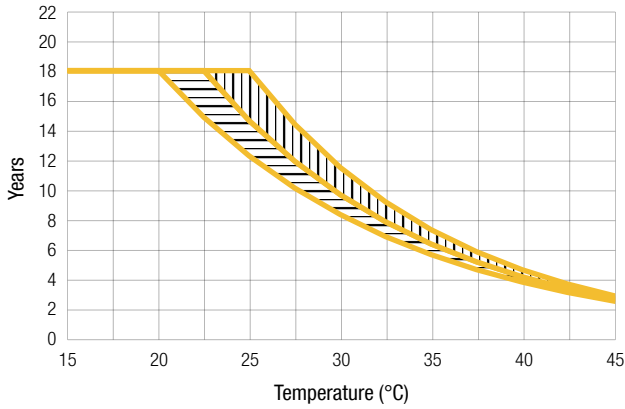
End Voltage (V/cell)	Discharge Time														
	10min	15min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	20h
1.60 V	2916.0	2744.9	2291.3	1930.6	1651.2	1039.9	771.2	619.1	519.7	449.4	396.8	355.8	296.0	254.1	164.4
1.65 V	2610.3	2472.3	2106.2	1808.8	1574.9	1021.4	761.2	612.2	514.3	445.0	393.0	352.5	293.3	251.9	163.0
1.70 V	2296.2	2188.2	1896.3	1656.7	1462.8	986.2	744.1	601.0	505.9	438.2	387.4	347.7	289.5	248.7	161.1
1.75 V	1960.7	1896.1	1665.8	1477.3	1322.0	922.3	710.0	579.3	490.4	426.1	377.4	339.3	283.0	243.4	158.0
1.80 V	1628.5	1588.9	1419.6	1274.3	1153.8	832.0	652.0	538.0	459.3	401.5	357.2	322.1	270.0	233.0	152.2
1.83 V	1402.9	1381.9	1265.6	1142.9	1041.4	765.9	606.8	503.9	432.0	379.0	338.1	305.5	256.9	222.2	146.1
1.85 V	1253.9	1243.4	1161.3	1052.4	962.4	716.6	572.1	477.3	410.6	361.0	322.6	292.0	246.0	213.1	140.6
1.87 V	1124.2	1117.8	1055.7	960.1	880.8	663.5	533.7	447.6	386.4	340.5	304.9	276.4	233.4	202.6	134.2
1.90 V	909.2	902.6	878.7	818.6	754.2	577.1	469.4	396.8	344.5	304.9	273.9	249.0	211.2	183.8	122.8

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

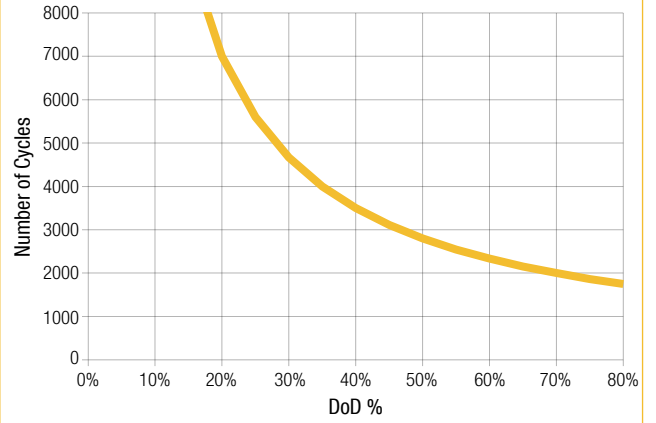
End Voltage (V/cell)	Discharge Time														
	10min	15min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	20h
1.60 V	4565.1	4302.7	3643.6	3136.8	2741.7	1817.7	1379.1	1121.9	950.3	827.1	734.0	661.0	553.2	477.2	312.3
1.65 V	4232.2	4003.5	3432.9	2987.5	2639.2	1789.5	1363.8	1111.2	942.0	820.2	728.1	655.8	549.1	473.7	310.2
1.70 V	3855.7	3660.5	3175.8	2795.0	2490.7	1735.0	1336.4	1093.2	928.5	809.4	719.0	647.9	542.8	468.6	307.0
1.75 V	3438.7	3276.3	2872.4	2554.2	2296.8	1638.7	1281.9	1057.6	902.6	789.2	702.5	633.9	532.0	459.7	301.9
1.80 V	2957.1	2850.5	2520.4	2263.0	2053.3	1500.8	1189.7	990.4	851.0	747.8	668.2	604.7	509.7	441.7	291.8
1.83 V	2578.4	2554.2	2288.1	2064.6	1882.3	1396.6	1116.8	934.2	805.6	709.9	635.7	576.3	487.1	423.1	281.0
1.85 V	2369.0	2354.6	2125.3	1922.7	1758.4	1317.5	1059.9	889.9	769.4	679.3	609.2	552.9	468.2	407.2	271.4
1.87 V	2122.2	2091.1	1954.3	1773.8	1626.5	1230.4	995.8	839.6	728.0	644.1	578.5	525.8	446.1	388.5	259.9
1.90 V	1723.6	1717.4	1685.5	1537.6	1415.8	1085.1	886.0	751.9	655.1	581.7	524.0	477.3	406.4	354.9	239.2

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

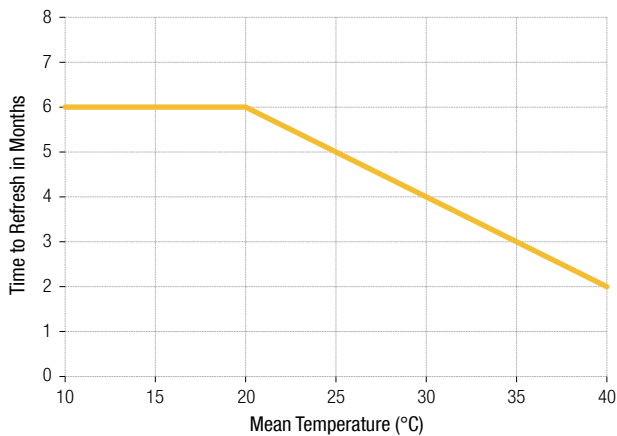
Expected Service Life vs. Operating Temperature



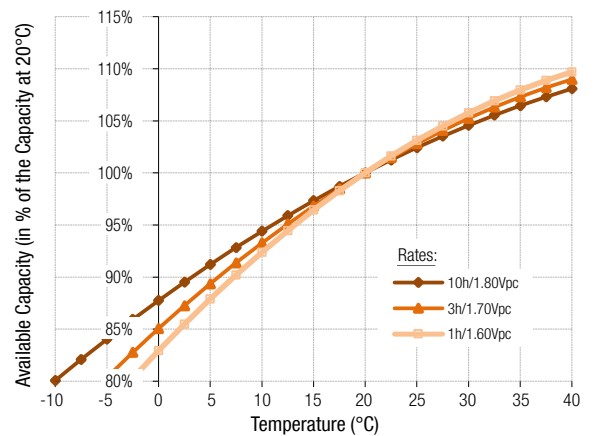
Number of Cycles vs. DOD



Time to Refresh vs. Temperature



Capacity vs. Temperature



Float Voltage Setting vs. Operating Temperature

