STATIONARY Valve Regulated Tubular Plate

Upower
Unlimited power

UP-OPzS Series

12 OPzS 1200

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)	1993
Capacity (Ah), C10 (1,80 V/cell, 20°C)	1329
Number of Plates (+) per Cell	12
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)	9250
Internal Resistance (mOhm)	0.220
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	275 x 210 x 646 x 674
Weight (kg)	Wet: 91.9 / Dry: 66.8
Type and Number of Poles	M10 / 4
Operating Temperature / Recommended Temperature	-20°C-55°C / 10°C-30°C

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

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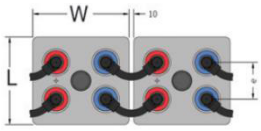
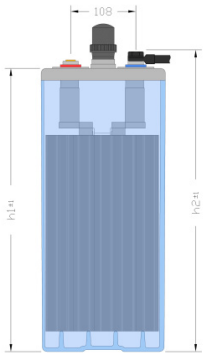
Dimensions





Constant Current Discharge in A (at 20°C)

	Discharge Time														
End Voltage (V/cell)	10min	15min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	20h
1.60 V	1526.2	1416.7	1145.8	950.1	808.9	516.6	388.7	315.2	266.6	232.0	205.9	185.4	155.4	134.3	88.3
1.65 V	1370.9	1282.2	1064.2	901.1	779.2	508.1	383.9	311.9	264.0	229.8	204.1	183.9	154.2	133.2	87.7
1.70 V	1208.4	1138.4	966.2	834.3	732.3	493.5	376.3	306.8	260.2	226.7	201.5	181.6	152.4	131.8	86.8
1.75 V	1040.0	987.6	853.3	750.3	668.3	467.0	362.4	297.7	253.6	221.6	197.3	178.1	149.7	129.6	85.5
1.80 V	855.5	831.4	728.8	650.3	587.4	425.7	336.9	280.2	240.7	211.6	189.1	171.3	144.6	125.5	83.3
1.83 V	731.8	726.4	649.6	583.9	531.2	393.5	315.1	264.1	228.1	201.4	180.7	164.1	139.1	121.1	80.9
1.85 V	661.8	657.1	595.1	537.3	491.1	368.8	297.7	250.9	217.6	192.7	173.2	157.6	134.1	117.0	78.6
1.87 V	575.9	571.1	539.7	489.5	448.9	341.5	278.0	235.6	205.2	182.3	164.3	149.8	127.8	111.8	75.5
1.90 V	461.4	458.5	444.9	415.1	382.8	296.0	243.8	208.5	182.8	163.2	147.7	135.2	115.9	101.8	69.4

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

	Discharge Time														
End Voltage (V/cell)	10min	15min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	20h
1.60 V	2419.4	2259.9	1876.4	1596.4	1387.9	925.9	710.0	582.3	496.2	434.0	386.8	349.6	294.5	255.4	169.5
1.65 V	2239.1	2102.8	1774.7	1530.1	1344.4	912.6	702.6	577.0	492.0	430.6	383.9	347.1	292.5	253.7	168.4
1.70 V	2035.6	1920.7	1645.7	1438.2	1276.9	889.1	690.1	568.6	485.8	425.6	379.7	343.5	289.6	251.3	167.0
1.75 V	1809.5	1715.1	1489.0	1318.1	1183.2	846.7	666.9	553.3	474.6	416.9	372.6	337.4	285.0	247.6	164.8
1.80 V	1532.2	1485.2	1304.7	1168.1	1059.8	780.5	624.5	523.5	452.4	399.5	358.4	325.5	276.1	240.5	160.9
1.83 V	1360.9	1335.5	1181.1	1064.0	970.9	727.7	588.0	496.0	430.7	381.8	343.6	312.9	266.4	232.7	156.7
1.85 V	1227.2	1203.6	1093.6	989.1	905.6	686.5	558.5	473.3	412.4	366.4	330.5	301.4	257.3	225.2	152.5
1.87 V	1090.0	1083.0	1002.3	909.8	835.8	640.3	524.4	446.7	390.6	348.0	314.5	287.4	246.1	215.8	146.9
1.90 V	869.2	865.3	851.3	783.1	722.8	561.4	464.5	398.7	350.7	313.9	284.7	261.0	224.5	197.6	135.7

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

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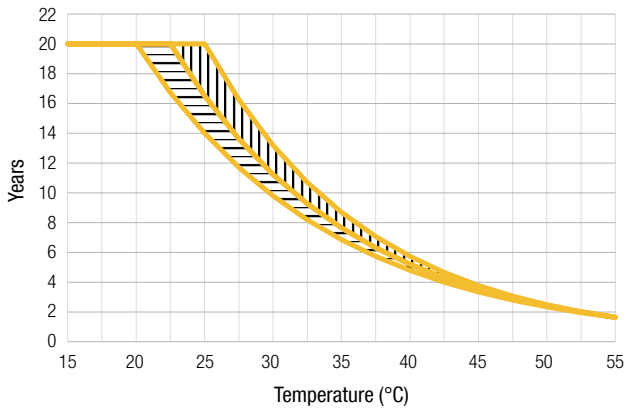
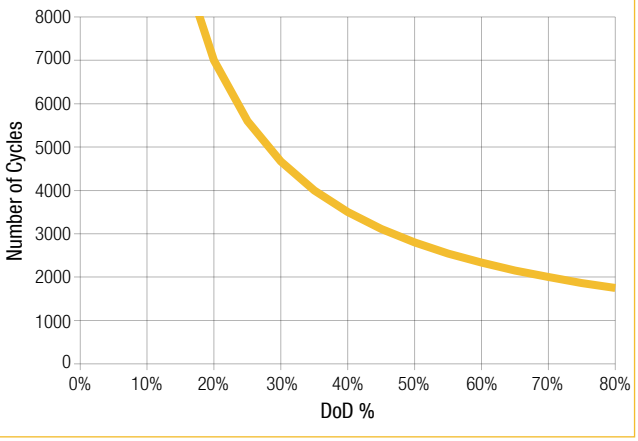
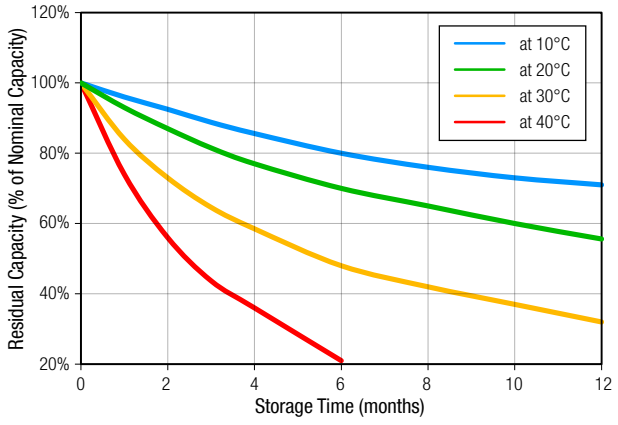
Expected Service Life vs. Operating Temperature



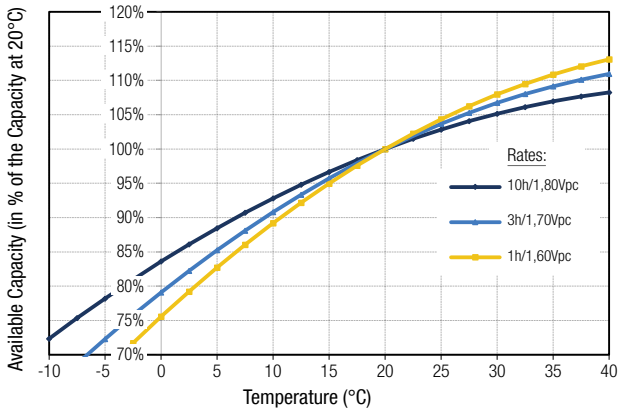
Number of Cycles vs. DOD



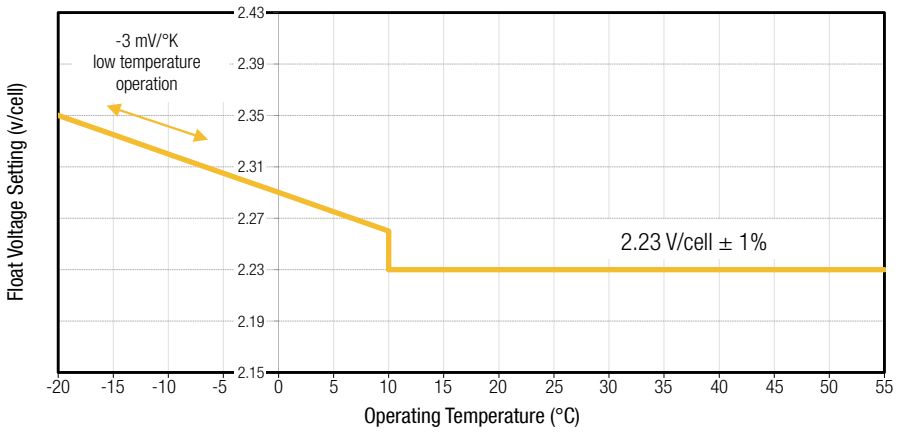
Self-Discharge Characteristics



Capacity vs. Temperature



Float Voltage Setting vs. Operating Temperature



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