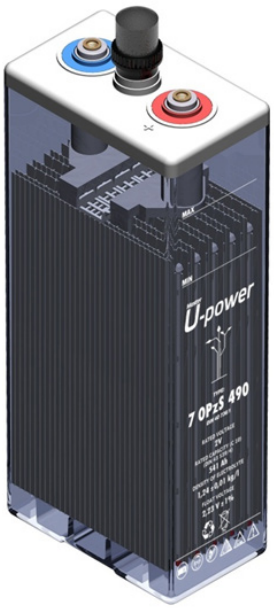
STATIONARY Valve Regulated Tubular Plate

Upower
Unlimited power

UP-OPzS Series

7 OPzS 490

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)	811
Capacity (Ah), C10 (1,80 V/cell, 20°C)	541
Number of Plates (+) per Cell	7
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)	4950
Internal Resistance (mOhm)	0.410
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	166 x 206 x 471 x 499
Weight (kg)	Wet: 38.4 / Dry: 27.6
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.*

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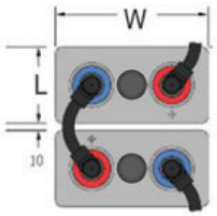
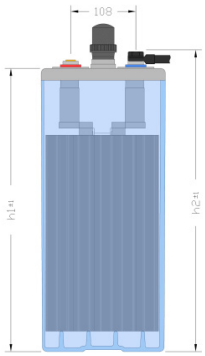
Dimensions





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	710.7	650.8	508.3	411.2	344.8	214.4	158.9	127.5	107.2	92.8	82.0	73.6	61.4	52.8	34.3
1.65 V	638.9	590.5	475.3	393.8	334.8	211.3	157.1	126.2	106.1	91.9	81.3	73.0	60.9	52.4	34.1
1.70 V	564.1	525.3	433.8	367.1	317.4	206.1	154.3	124.3	104.7	90.7	80.3	72.1	60.2	51.8	33.7
1.75 V	487.0	456.2	384.5	331.7	291.2	196.3	149.1	120.9	102.2	88.8	78.7	70.7	59.1	50.9	33.2
1.80 V	407.8	383.9	328.9	288.3	256.9	179.5	139.0	114.1	97.2	84.8	75.5	68.0	57.0	49.3	32.3
1.83 V	354.3	339.4	293.0	258.9	232.4	165.9	130.1	107.6	92.1	80.7	72.0	65.1	54.8	47.4	31.3
1.85 V	311.8	307.3	268.3	238.2	214.7	155.4	122.8	102.1	87.7	77.1	68.9	62.4	52.7	45.7	30.3
1.87 V	276.5	271.1	243.1	216.7	196.0	143.7	114.5	95.7	82.6	72.8	65.2	59.2	50.1	43.5	29.0
1.90 V	218.1	216.5	204.2	183.2	166.6	124.1	100.1	84.3	73.2	64.8	58.3	53.0	45.1	39.3	26.4

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	1129.3	1042.8	840.3	699.5	598.6	387.2	291.8	236.5	200.1	174.0	154.4	139.0	116.4	100.4	65.8
1.65 V	1045.4	971.3	797.6	674.4	583.4	382.4	289.0	234.5	198.5	172.7	153.3	138.0	115.6	99.8	65.4
1.70 V	950.6	887.9	742.1	636.5	557.3	374.0	284.4	231.3	196.1	170.7	151.6	136.6	114.5	98.8	64.8
1.75 V	845.0	792.7	672.6	585.1	518.1	357.8	275.7	225.6	191.8	167.4	148.8	134.2	112.6	97.3	63.9
1.80 V	727.9	686.1	589.5	519.3	464.9	330.4	258.7	213.9	183.1	160.5	143.2	129.5	109.0	94.4	62.3
1.83 V	640.8	616.9	533.3	472.8	425.7	307.9	243.5	202.6	174.3	153.3	137.2	124.3	105.0	91.2	60.5
1.85 V	577.7	567.8	493.5	439.0	396.7	290.1	231.0	193.1	166.6	147.0	131.7	119.5	101.2	88.0	58.7
1.87 V	513.2	508.6	451.7	403.3	365.6	270.1	216.6	181.9	157.5	139.2	125.0	113.7	96.5	84.1	56.3
1.90 V	414.5	409.4	385.5	345.9	314.9	235.9	191.0	161.6	140.6	124.8	112.5	102.5	87.4	76.4	51.6

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

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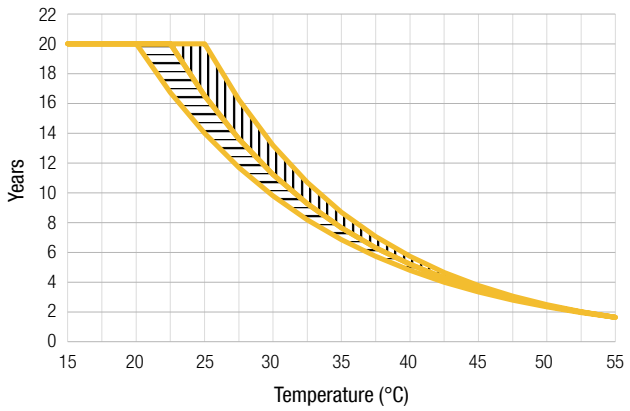
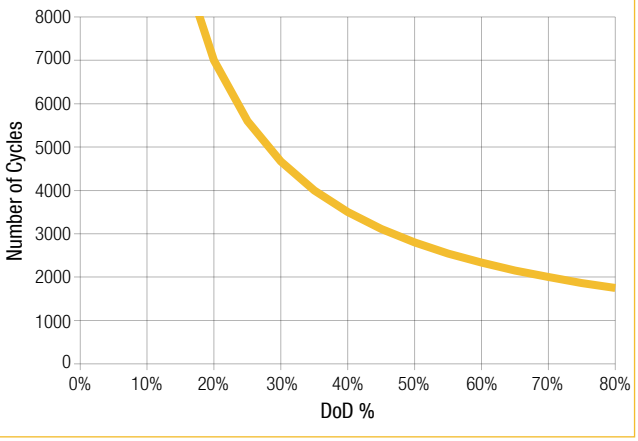
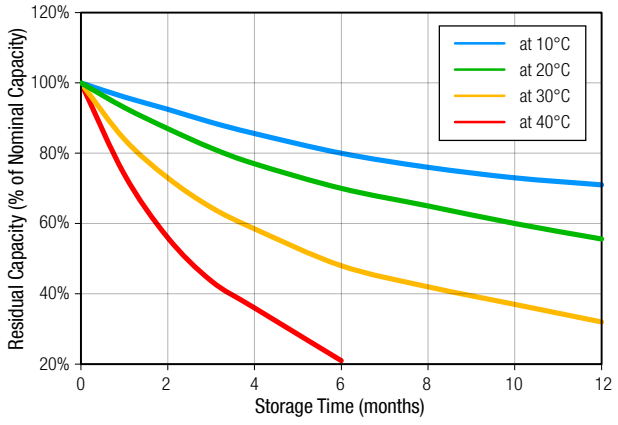
Expected Service Life vs. Operating Temperature



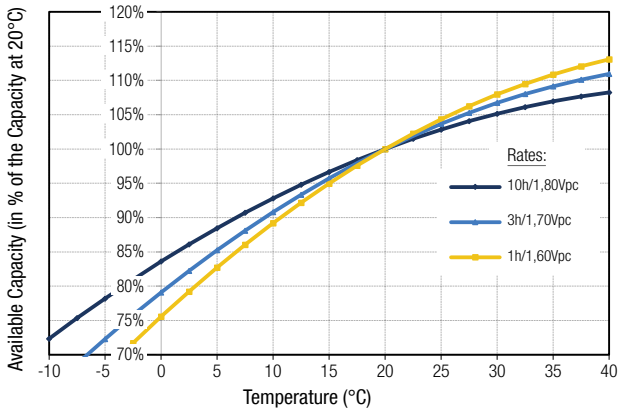
Number of Cycles vs. DOD



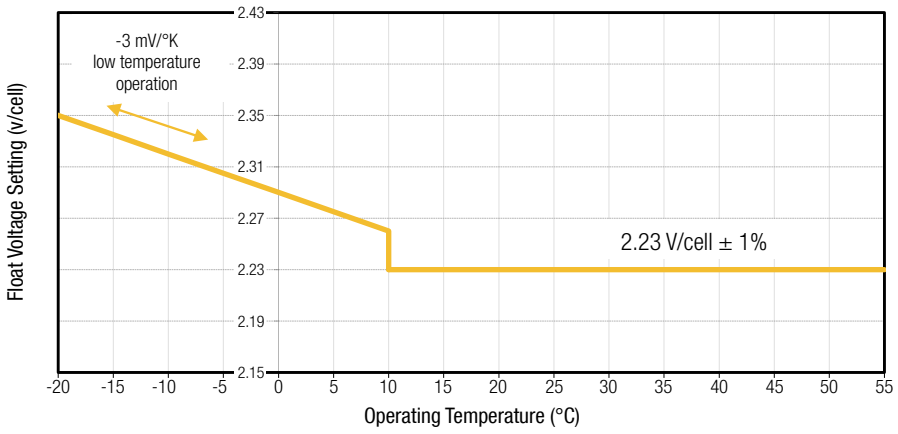
Self-Discharge Characteristics



Capacity vs. Temperature



Float Voltage Setting vs. Operating Temperature



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