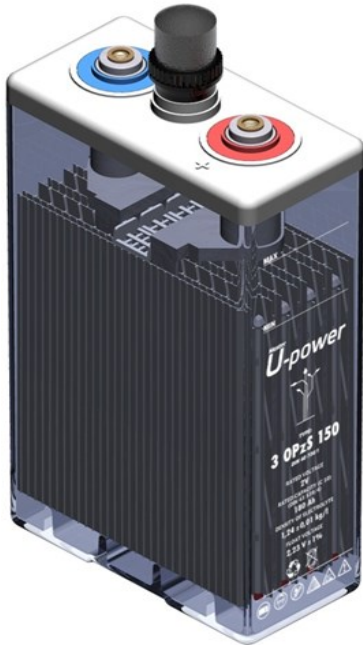


**3 OPzS 150**



**Specification**

Float Charge	U = 2.23 V/cell ± 1%, between 10°C and 30°C ΔU/ΔT = -0.004 V/K below 10°C in the monthly average
Boost Charge	U = 2.35 to 2.40 V/cell, time limited
Dimension	Length 103 mm Width 206 mm Height 355 mm
Weight	Dry: 10.6 kg      Wet: 17.1 kg
Self Discharge	Approx. 2% per month at 20°C
Positive Electrode	Tubular plate with low antimony alloy (< 2 %)
Negative Electrode	Flat with long life expander active material
Separation	Microporous separator
Electrolyte	Sulphuric acid of 1.24 kg/l at 20°C
Container	High impact, transparent SAN
Lid	ABS (SAN)* in grey color
Blocks with Blind Cells	4V, 6V, 8V, 10V
Plugs	Ceramic plugs according to DIN 40740
Pole Sealing	100 % gas-and electrolytetight, sliding-pole
Connector	Flexible insulated copper cable with cross-section of 35, 50, 70, 95 or 120 mm <sup>2</sup> (35, 50 or 70 mm <sup>2</sup> )*
Kind of Protection	IP 25 regarding DIN 40050, touch protected according VBG 4
Reference Temperature	20°C at C10 (1.80 V/cell) and 25°C at C100 (1.85 V/cell)
Initial Capacity	100% Normally up to 80%
Depth of Discharge	More than 80% DOD or discharges beyond final discharge voltages (dependent on discharge current) have to be avoided

**Constant Current Discharge (Amperes) at 20°C (68°F)**

F.V/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V/cell	68.6	62.6	50.7	35.8	28.8	23.9	20.9	18.9	15.9	13.9	5.5
1.87V/cell	90.4	75.4	59.1	41.8	33.2	27.8	23.7	20.9	17.3	14.3	6.2
1.83V/cell	109.2	90.0	67.6	46.3	35.8	30.2	25.2	22.2	18.5	15.4	6.4
1.80V/cell	122.9	99.1	72.4	50.8	38.2	31.6	27.2	23.4	18.7	15.5	8.7
1.75V/cell	142.9	109.8	77.9	51.4	39.2	31.7	27.3	23.2	18.8	15.8	8.8
1.70V/cell	155.4	122.8	83.4	52.3	40.0	31.8	28.5	23.9	19.4	15.8	8.8

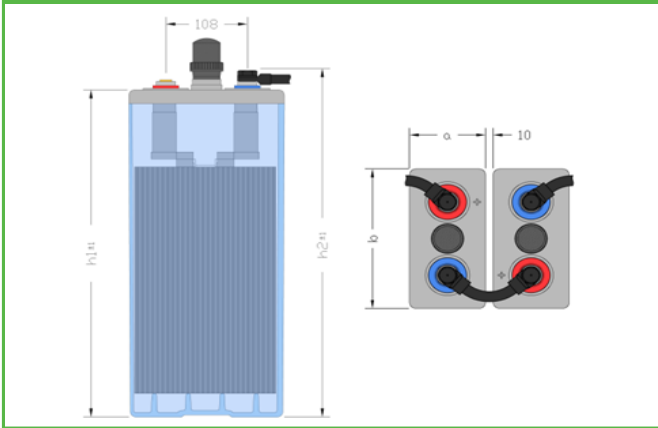
**Constant Power Discharge (Watts) at 20°C (68°F)**

F.V/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V/cell	130.5	119.5	97.2	69.1	56.0	46.4	40.6	36.9	31.0	27.4	11.0
1.87V/cell	170.5	142.3	112.0	79.7	63.7	53.8	46.1	40.6	33.8	28.0	12.2
1.83V/cell	201.3	167.0	125.1	86.8	67.9	57.4	48.1	42.5	35.7	29.8	12.5
1.80V/cell	224.1	181.0	133.2	94.6	71.6	59.5	51.4	44.5	36.0	29.6	17.0
1.75V/cell	254.7	198.0	141.9	94.9	72.9	59.5	51.4	43.7	35.9	30.0	17.2
1.70V/cell	269.7	218.7	150.4	96.1	73.8	59.3	53.6	45.0	19.4	30.0	16.8

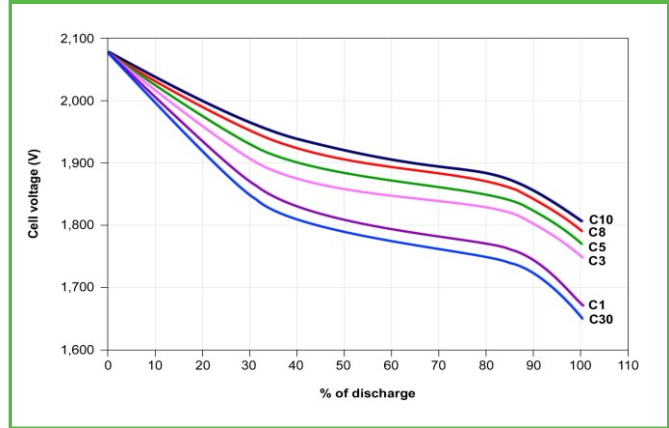


**3 OPzS 150**

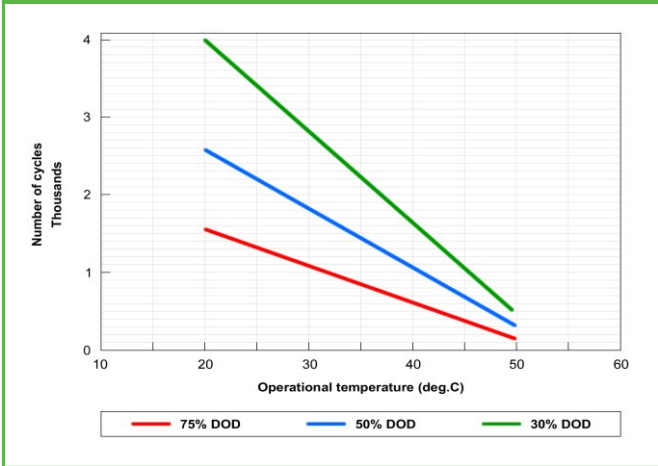
**Dimension**



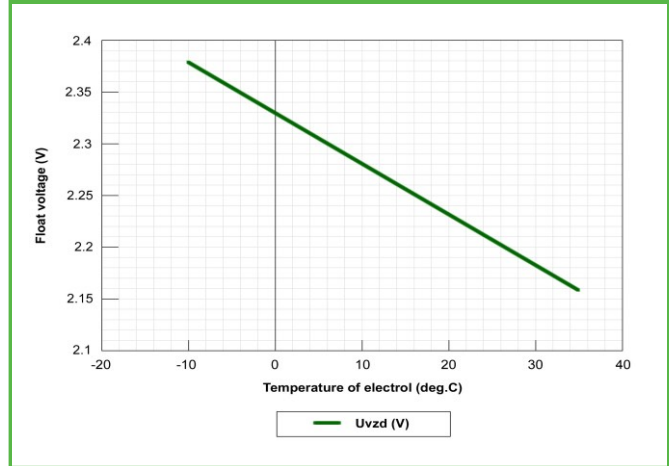
**Voltage vs. % of discharge at Cx**



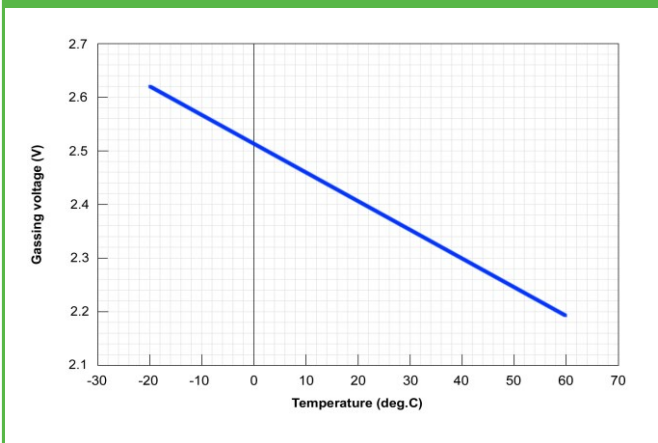
**Lifetime in cycles vs. temperature at DOD**



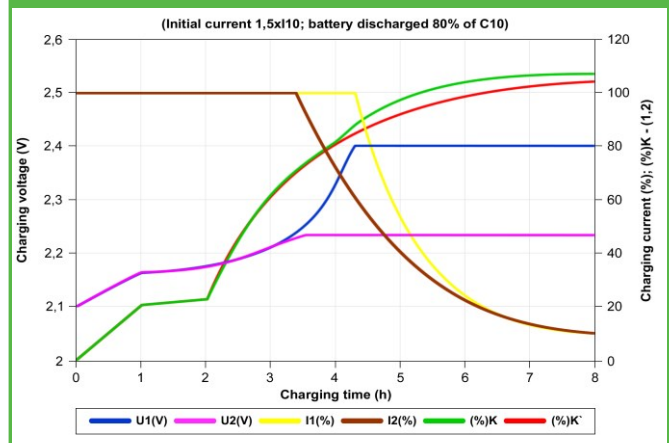
**Float voltage as f (T)**



**Gassing voltage as f (T)**



**Charging of OPzS cells with IU charger**



ETL SEMKO



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