

**12V 2 OPzS 100**



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 272 mm Width 205 mm Height 332 mm
Weight	Dry: 38 kg    Wet: 49 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

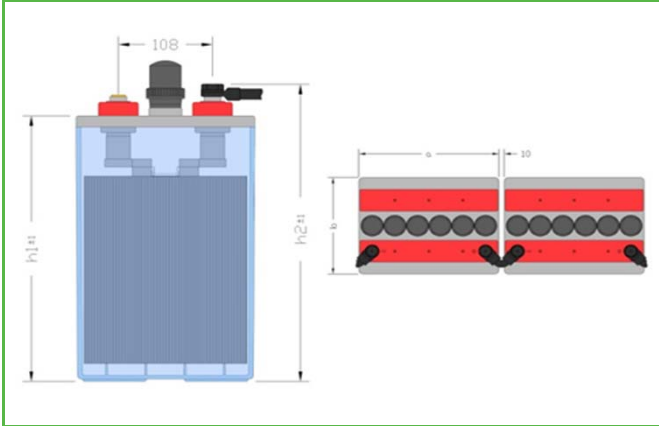
Constant Current Discharge (Amperes) at 20°C (68°F)															
F.V/Time	10min	20min	30min	40min	50min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h
1.90V/cell	51.0	51.0	45.0	40.9	36.8	34.1	24.5	19.1	15.7	13.5	11.6	10.3	9.5	8.9	8.5
1.85V/cell	69.5	69.5	59.9	52.4	47.7	43.6	28.9	22.5	18.3	15.7	13.7	12.2	10.9	10.4	9.6
1.80V/cell	97.4	79.7	69.5	61.0	54.5	49.1	32.7	24.5	19.7	16.4	14.3	12.6	11.6	9.7	10.3
1.75V/cell	115.9	94.0	78.4	68.1	59.9	53.8	33.4	25.2	19.7	16.4	14.4	13.3	11.9	10.8	10.3
1.70V/cell	133.5	105.6	85.1	71.5	62.4	55.8	34.4	25.5	20.4	17.0	14.7	13.4	12.2	11.1	10.3
1.65V/cell	156.7	114.5	88.5	73.6	63.0	57.5	36.8	25.9	20.7	17.4	15.2	13.5	12.3	11.1	10.3

Constant Power Discharge (Watts) at 20°C (68°F)															
F.V/Time	10min	20min	30min	40min	50min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h
1.90V/cell	96.8	96.8	85.6	78.0	70.3	65.3	47.2	36.7	30.2	26.0	22.3	19.8	18.3	17.1	16.3
1.85V/cell	126.1	126.1	110.2	96.9	88.4	81.1	54.4	42.7	34.9	29.9	26.2	23.4	21.0	20.2	18.8
1.80V/cell	175.4	141.5	124.9	110.5	99.3	89.7	60.8	46.0	37.3	31.0	27.2	24.1	22.3	18.8	19.0
1.75V/cell	206.2	164.2	138.1	121.4	107.4	97.4	61.8	47.3	37.3	31.1	27.4	25.5	23.0	21.1	19.1
1.70V/cell	231.3	180.6	147.9	126.1	111.4	100.5	63.8	48.0	38.7	32.4	28.0	25.7	23.7	22.3	19.6
1.65V/cell	263.1	194.4	154.3	129.5	111.7	102.9	68.3	48.8	39.6	34.8	29.2	26.5	23.7	22.3	19.6

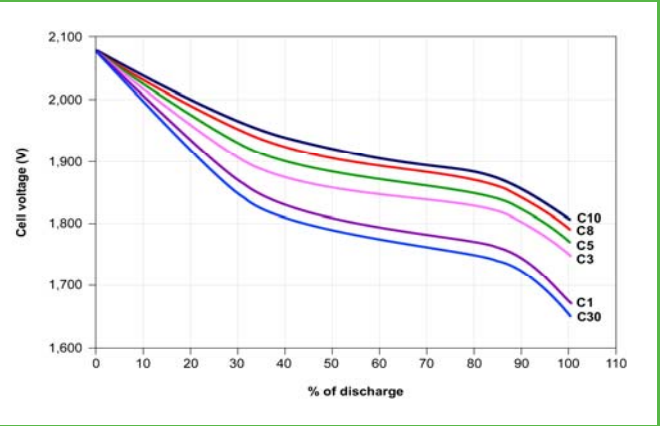


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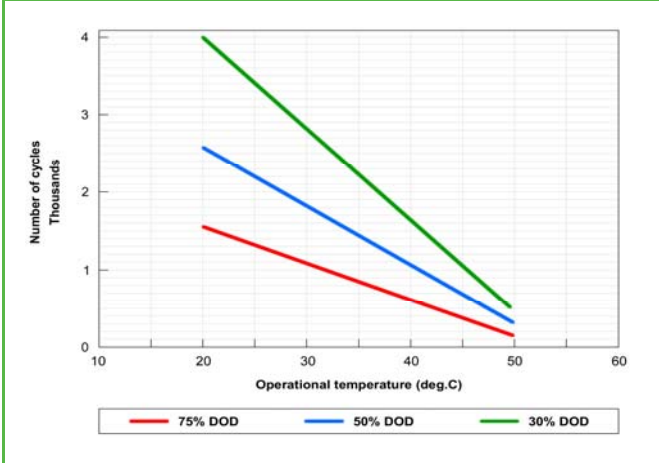
**Dimension**



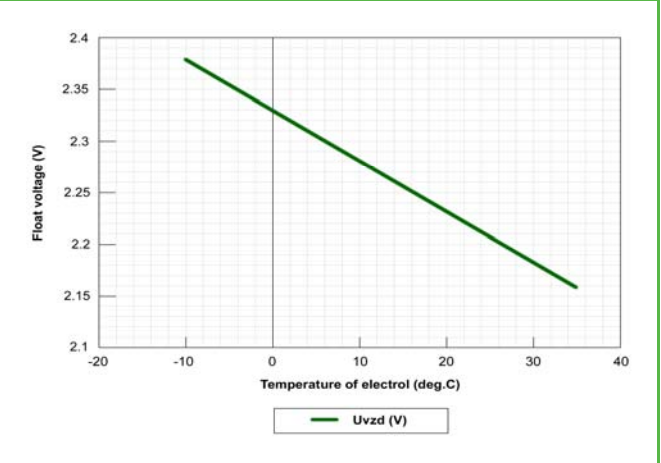
**Voltage vs. % of discharge at Cx**



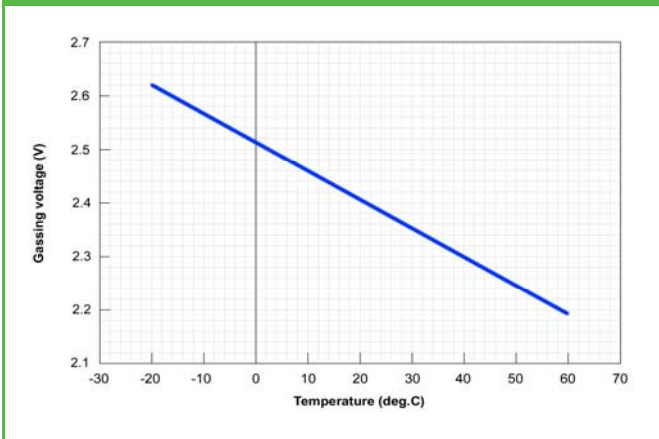
**Lifetime in cycles vs. temperature at DOD**



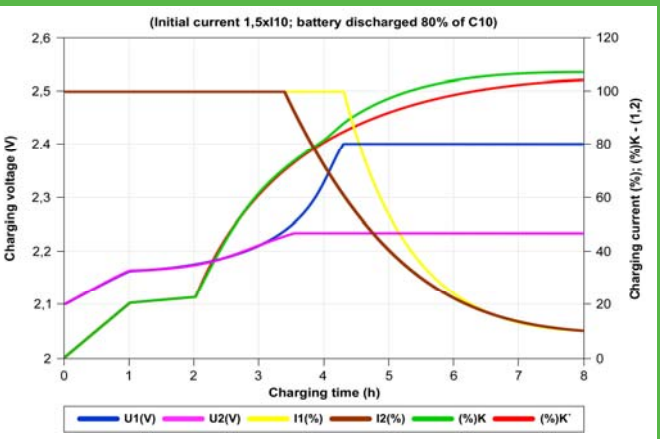
**Float voltage as f (T)**



**Gassing voltage as f (T)**



**Charging of OPzS with IU charger**



ETL SEMKO

