

## 12V 3 OPzS 150



Specification	
Float Charge	U = 2.23 V/cell ± 1%, between 10°C and 30°C $\Delta U/\Delta T = -0.004$ V/K below 10°C in the monthly average
Boost Charge	U = 2.35 to 2.40 V/cell, time limited
Dimension	Length 380 mm Width 205 mm Height 332 mm
Weight	Dry: 53 kg    Wet: 70 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%
Depth of Discharge	Normally up to 80% 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	76.7	76.7	67.5	61.3	55.2	51.1	36.8	28.6	23.5	20.2	17.3	15.4	14.2	13.3	12.8
1.85V/cell	104.3	104.3	89.9	78.8	71.6	65.4	43.5	33.8	27.6	23.5	20.4	18.2	16.4	15.6	14.4
1.80V/cell	146.1	119.5	104.3	91.4	81.8	73.6	49.1	36.8	29.6	24.5	21.4	18.9	17.4	15.6	15.4
1.75V/cell	173.8	141.1	117.5	102.2	89.9	80.8	50.0	37.9	29.6	24.5	21.4	19.9	17.7	16.2	15.4
1.70V/cell	200.3	158.4	127.8	107.3	93.6	83.8	51.6	38.3	30.7	25.5	22.0	20.1	18.2	16.6	15.4
1.65V/cell	235.1	171.7	132.9	110.4	94.5	86.3	55.2	38.9	31.2	26.1	22.8	20.2	18.4	16.6	15.5

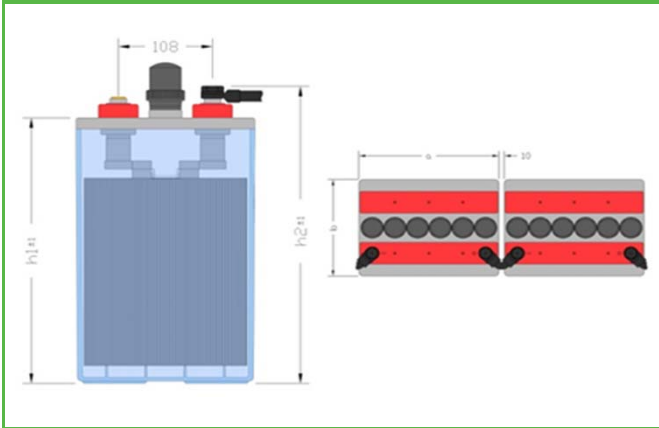
### Constant Power Discharge (Watts) at 20°C (68°F)

F.V/Time	10min	20min	30min	40min	50min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h
1.90V/cell	145.4	145.4	128.5	117.0	105.5	98.0	70.8	55.1	45.4	39.1	33.5	29.6	27.4	25.6	24.5
1.85V/cell	189.2	189.2	165.4	145.5	132.8	121.7	81.8	64.1	52.5	44.9	39.2	35.1	31.6	30.3	28.2
1.80V/cell	263.0	212.3	187.4	165.6	148.9	134.6	91.2	69.0	56.0	46.5	40.9	36.3	33.6	30.2	28.4
1.75V/cell	309.3	246.4	207.2	182.2	161.2	146.1	92.6	71.0	56.0	46.7	40.9	38.3	34.4	31.7	28.5
1.70V/cell	347.0	271.0	222.0	189.2	167.1	150.9	95.8	72.0	58.1	48.5	42.1	38.7	35.6	33.3	29.3
1.65V/cell	394.7	291.6	231.6	194.3	167.6	154.4	102.5	73.2	59.6	52.1	44.0	39.8	35.6	33.6	29.5

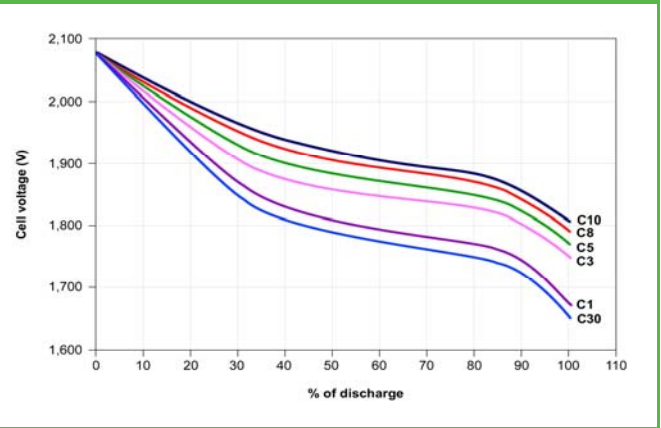


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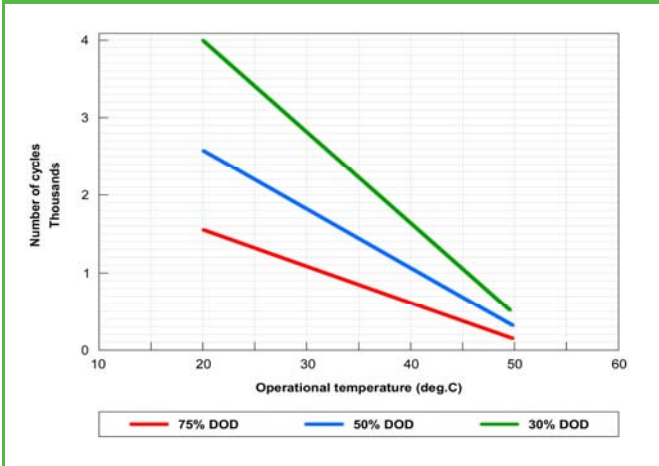
**Dimension**



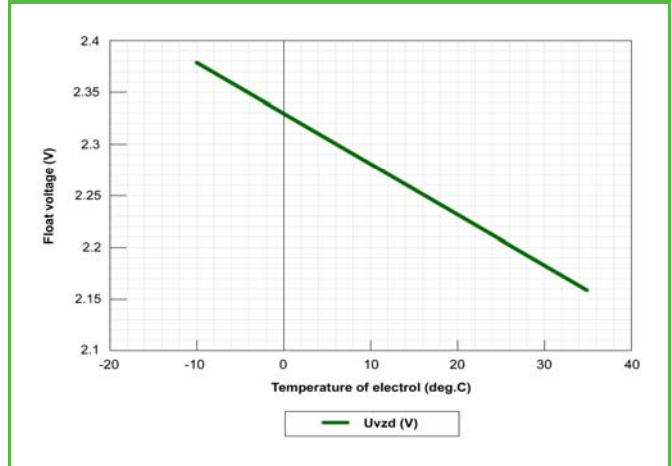
**Voltage vs. % of discharge at Cx**



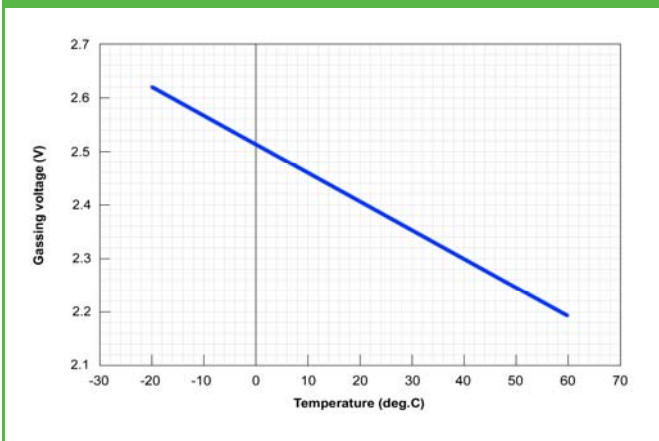
**Lifetime in cycles vs. temperature at DOD**



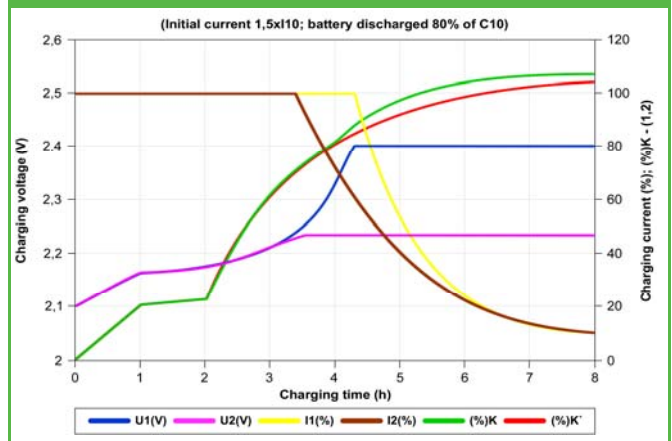
**Float voltage as f (T)**



**Gassing voltage as f (T)**



**Charging of OPzS with IU charger**



ETL SEMKO

