

**24 OPzS 3000**



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 576 mm Width 212 mm Height 772 mm
Weight	Dry: 163 kg      Wet: 227.7 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	777.1	760.1	735.1	636.5	524.2	457.9	398.7	356.1	294.3	253.7	160.6
1.87V/cell	1032.1	991.6	924.6	727.4	596.1	513.2	451.8	400.1	332.5	284.3	162.5
1.83V/cell	1319.4	1257.7	1104.4	851.0	683.8	576.3	503.6	441.0	365.3	307.7	171.1
1.80V/cell	1573.1	1475.4	1235.2	930.0	738.5	617.6	535.5	465.8	383.2	320.8	180.9
1.75V/cell	1911.3	1733.2	1408.9	1017.9	794.1	655.8	565.3	481.3	398.1	329.8	185.2
1.70V/cell	2337.3	2025.4	1540.0	1078.6	825.6	671.9	582.0	499.9	410.1	332.9	186.9

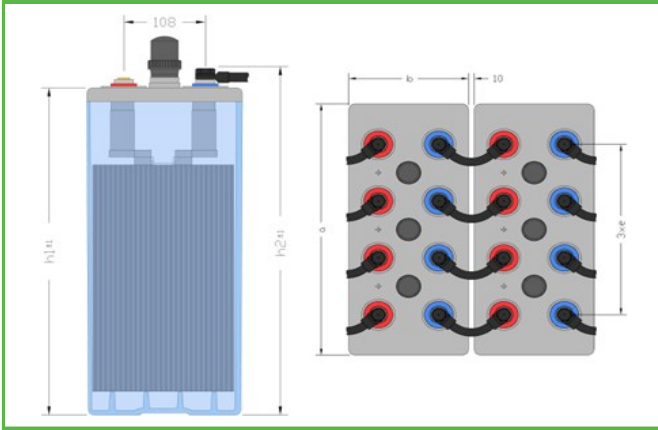
**Constant Power Discharge (Watts) at 20°C (68°F)**

F.V/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V/cell	1478.9	1450.3	1410.0	1228.4	1017.4	890.7	775.0	695.4	574.0	499.6	319.6
1.87V/cell	1947.5	1872.1	1752.0	1387.9	1142.7	993.1	877.5	776.1	647.4	555.9	318.5
1.83V/cell	2431.7	2332.9	2043.1	1597.3	1297.2	1096.1	961.9	846.7	705.4	595.1	335.4
1.80V/cell	2867.7	2694.1	2274.0	1731.6	1386.1	1164.2	1012.7	885.4	736.1	615.2	354.6
1.75V/cell	3405.9	3126.8	2565.5	1878.1	1478.6	1228.2	1065.0	907.7	759.7	627.5	361.6
1.70V/cell	4057.6	3607.2	2778.2	1981.5	1523.2	1251.7	1092.3	941.8	410.1	631.5	355.4

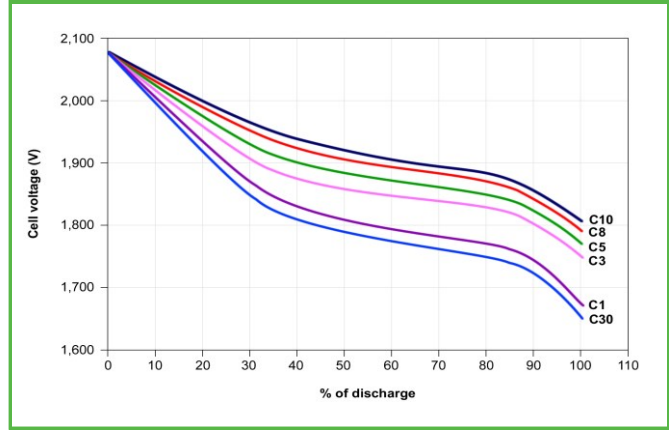


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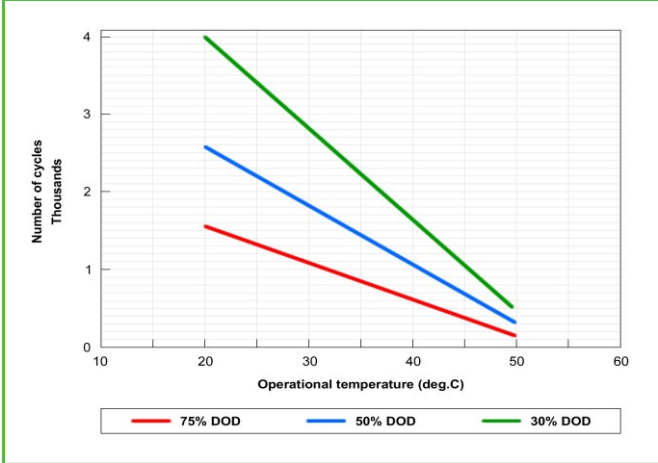
**Dimension**



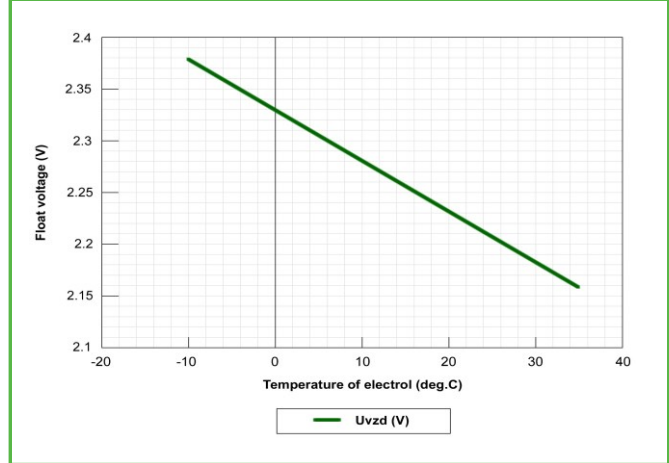
**Voltage vs. % of discharge at Cx**



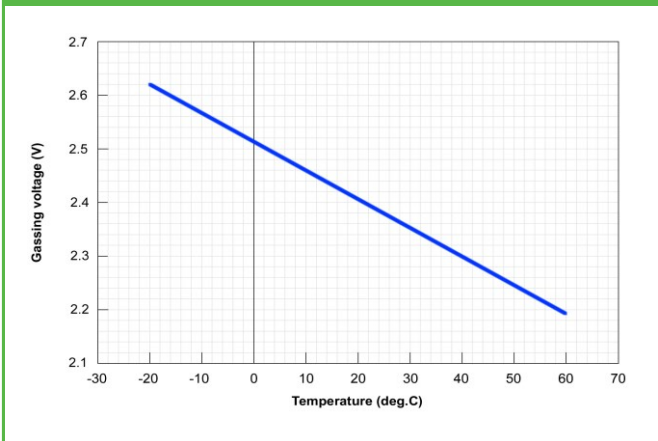
**Lifetime in cycles vs. temperature at DOD**



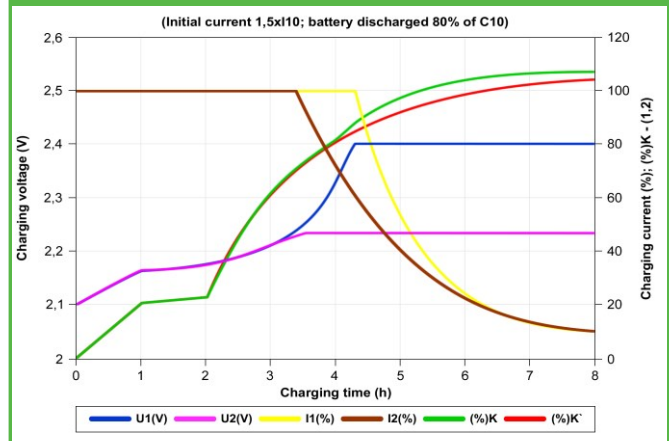
**Float voltage as f (T)**



**Gassing voltage as f (T)**



**Charging of OPzS cells with IU charger**



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