

RID 7 OPzS490 / 2V

TECHNICAL INFORMATION:

- 2 Voltage (V)
- 550 Capacity C10 (Ah)
- $C_{10}/10h = 55 A$ Discharge current
- 1,80 V Final discharge voltage/cell
- $1,24 \pm 0,01 \text{ kg/l}$ at 20°C Nominal S.G. of electrolyte
- 20°C Rated temperature
- $20 \pm 1 \text{ Nm}$ Specified torque for poll screws
- 0,48 mOm Internal resistance
- 4169 A Short circuit current
- < 2% per month at 20°C Self-discharge
- 166x206x536 LxWxH (mm)
- EN IEC 62485-2 Ventilation requirement
- 39 kg $\pm 5\%$ Total Weight (kg)
- DIN 40736-1 DIN Marking

CHARGING:

- I max without limitation IU - characteristic
- U = 2,23 V/cell +- 1% Float charge
- U = 2,35 to 2,40 V/cell Boost charge
- $\Delta U/\Delta T = - 0,004 \text{ V/K}$ Temp. Correction factor

DESIGN:

- Positive electrode: **Tubular plate with a nonwoven polyester gauntlet and solid grids in corrosion resistant LA-PbSbSe alloy**
- Negative electrode: **Pasted type with long-life expander material**
- Separation: **Micro porous separator**
- Electrolyte: **Sulphuric acid with a density of 1,24 kg/l**
- Container: **high impact transparent SAN with ABS lid in grey color**
- Plugs: **Ceramic plugs according to DIN 40740**
- Pole: **M10 brass insertion**
- Pole sealing: **100% gas and electrolyte tight sliding pole**
- Connectors: **Flexible insulated copper cables, with cross-section of 35 mm²**
- Type of protection: **IP 25 regarding DIN 40050, touch protected according to VBG 4**

MAINTENANCE:

- Every 6 months: **Check battery voltage, pilot cells voltage, temperature**
- Every 12 months: **Check and record battery and cells voltages and temperatures#**

OPERATIONAL DATA:

- Operational temperature: **-20°C to 55°C;**
- Recommended operational temperature: **10°C to 30°C**
- Design life: **20 years at 20°C; 10 years at 30°C; 5 years at 40°C**
- Maintenance free: **no topping up water during operational life**
- EN 60896-11 cycles: **> 1500**
- Transport: **No dangerous goods during air, sea and land transport**

DISCHARGE CHARACTERISTICS:

- Reference temperature: **20°C**
 - Initial capacity: **100%**
 - Depth of discharge (DOD): **up to 80%***
- * Deep discharges more than 80% DOD or discharges beyond final discharge voltages (dependent on discharge current) should be avoided*



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Discharge at constant current [A] at 20°C

Cells [V]	15 min	30 min	1h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1,65 V	520	416	299	195	148	121	106	91,1	74,2	61,2	34,0
1,70 V	481	384	276	180	137	111	97,5	84,2	68,6	56,6	31,5
1,75 V	425	349	262	178	135	110	95,1	81,3	66,6	55,9	30,9
1,80V	358	309	238	166	131	107	92,8	80,4	65,8	55,0	30,4
1,83 V	315	276	228	156	123	102	88,5	76,3	63,4	53,5	29,7
1,87 V	253	231	187	139	111	92	80,4	70,2	58,4	50,0	29,3
1,90 V	188	183	164	120	97,1	80,9	71,3	63,8	53,1	47,1	28,0

Discharge at constant power [W] at 20°C

Cells [V]	15 min	30 min	1h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1,65 V	889	732	532	353	272	224	197	171	140	121	65
1,70 V	835	685	499	330	253	208	183	159	130	107	60
1,75 V	757	630	477	328	252	206	179	154	127	107	60
1,80V	648	563	439	310	245	202	176	153	126	106	60
1,83 V	580	511	426	293	233	193	169	146	122	104	58
1,87 V	475	436	354	265	212	177	156	136	114	98	58
1,90 V	359	349	315	232	188	157	139	122	104	93	56