

TAB OPzS

TAB OPzS STATIONARY BLOCKS (CELLS) ARE PRODUCED IN THE CONVENTIONAL LEAD-ACID TECHNOLOGY.

Stationary batteries of the OPzS type are intended for the supply of telecommunication facilities, computers, emergency lightning, alarm, control and monitoring systems in power plants and distribution stations, at railway stations, airports etc.



The stationary batteries of the type OPzS are manufactured according to DIN 40736, EN 60896, EN 61427 and IEC 896-1 regulations.

DESIGN

- 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 electrolyte-tight, sliding-pole
- CONNECTOR
 - » Flexible insulated copper cable with cross-section of 35, 50, 70, 95 or 120 mm² (35, 50 or 70 mm²)*
- KIND OF PROTECTION
 - » IP 25 regarding DIN 40050, touch protected according VBG 4

CHARGING

- IU - CHARACTERISTIC
 - » I_{max} without limitation
- 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

DISCHARGE CHARACTERISTICS

- 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

OPERATIONAL DATA

- DESIGN LIFE
 - » Up to 20 years (18 years)* at 20 °C
- WATER FILLING INTERVAL
 - » More than 2 years at 20 °C
- IEC 896-1 CYCLES
 - » 1500 (1200)*
- SELF-DISCHARGE
 - » Approx. 2 % per month at 20 °C
- OPERATIONAL TEMPERATURE
 - » -20 °C to 55 °C, recommended 10 °C to 30 °C
- VENTILATION REQUIREMENT
 - » f1=0,5 (low-antimony alloy) according EN 50272-2
- MEASUREMENTS ACCORDING
 - » DIN 40 737 part 1
- TESTS ACCORDING
 - » IEC 896-1
- SAFETY STANDARDS
 - » VDE 0510 part 2 and EN 50272-2
- TRANSPORT
 - » No dangerous goods during road transport

TYPE	IEC 896-1		Dimensions (mm) L×W×H	Weight (kg)	C10 (Ah)	C24 (Ah)	C48 (Ah)	C72 (Ah)	C100 (Ah)	C120 (Ah)	C240 (Ah)	N° of poles
	Ri (mΩ)	Isc (kA)			Uf=1,80V at 20°C	Uf=1,85V at 25°C	Uf=1,85V at 25°C	Uf=1,85V at 25°C	Uf=1,85V at 25°C	Uf=1,85V at 25°C		
BLOCKS												
12V 1 OPzS 50	20,00	613	272×205×392	26/39	51	59	66	71	73	74	76	
12V 2 OPzS 100	9,30	1290	272×205×392	38/50	103	118	132	141	146	147	151	
12V 3 OPzS 150	6,90	1739	380×205×392	53/69	154	177	198	212	218	221	227	
6V 4 OPzS 200	2,20	2703	272×205×392	36/47	204	236	264	282	291	294	302	
6V 5 OPzS 250	1,90	3175	380×205×392	44/61	255	295	330	353	364	368	378	
6V 6 OPzS 300	1,60	3846	380×205×392	52/68	307	354	396	423	437	441	453	
CELLS												
2 OPzS 100	1,48	1350	103×206×420	8,7/13,7	109	121	135	145	151	152	158	2
3 OPzS 150	1,08	1845	103×206×420	11/16	158	182	203	218	226	228	237	2
4 OPzS 200	0,84	2376	103×206×420	13/18	212	242	270	290	301	304	316	2
5 OPzS 250	0,69	3887	124×206×420	16/22	264	303	338	363	376	380	395	2
6 OPzS 300	0,58	3438	145×206×420	18/26	317	363	405	435	452	456	474	2
5 OPzS 350	0,64	3137	124×206×536	20/29	385	424	473	508	527	532	553	2
6 OPzS 420	0,55	3641	145×206×536	24/34	465	508	567	609	632	638	664	2
7 OPzS 490	0,48	4169	166×206×536	28/39	540	593	662	711	737	745	774	2
6 OPzS 600	0,45	4466	145×206×711	35/50	654	726	810	870	903	912	948	2
8 OPzS 800	0,33	6035	210×191×711	46/65	868	968	1080	1160	1204	1216	1264	4
10 OPzS 1000	0,26	7720	210×233×711	57/80	1090	1210	1350	1450	1510	1520	1580	4
12 OPzS 1200	0,23	8814	210×275×711	66/93	1304	1450	1620	1740	1810	1830	1900	4
12 OPzS 1500	0,23	8605	210×275×861	88/119	1659	1820	2030	2180	2260	2280	2370	4
16 OPzS 2000	0,17	12042	212×397×837	115/160	2200	2420	2700	2900	3010	3040	3160	6
20 OPzS 2500	0,13	15007	212×487×837	145/200	2751	3030	3380	3630	3760	3800	3950	8
24 OPzS 3000	0,12	17390	212×576×837	170/240	3298	3630	4050	4350	4520	4560	4740	8

The acid density in an electrically charged cell is 1,24 ± 0,1 kg/l at 293°K (+20°C). When cycling only 80 % of the rated capacity shall be used. Deep discharge may reduce the operation life time.

The charging voltage for solar applications has to be restricted:
At daily discharge below 0,2 × C100 - 2,30V-2,35V
At daily discharge above 0,2 × C100 up to 0,3 × C100 2,35V-2,40V

MAINTENANCE

- EVERY 6 MONTH
 - » Check battery voltage, pilot block voltage, temperature
- EVERY 12 MONTH
 - » Take down battery voltage, block voltage, temperature