

# TAB UPS BATTERIES

TAB UPS batteries are robust and for high discharge - performances optimised lead-acid batteries.



The main application for TAB UPS are Uninterruptable Power Supplies (UPS) in the size of 50 to 250kVA. The battery is perfectly suited to start diesel engines for the auxiliary power supply.



Uf V/cell	1,80	1,75	1,75	1,70	1,63	1,60	IEC 896-1		Dimensions			Weight	
Discharging Time (h)	C10	60	30	15	10	5	Ri	Isc	L	W	H	Dry	Wet
Cell Type	Ah			W/cell			mΩ	kA		mm			kg
<b>12V 1 UPS 100</b>	41	42	64	92	120	181	16,8	0,73	272	205	392	22	33
<b>12V 2 UPS 200</b>	59	73	112	169	218	323	8,4	1,46	272	205	392	30,1	41
<b>12V 3 UPS 300</b>	86	103	162	246	313	465	5,6	2,2	272	205	392	38,2	49
<b>12V 4 UPS 400</b>	114	135	210	322	410	606	4,2	2,93	272	205	392	47,3	58
<b>12V 5 UPS 500</b>	147	169	264	412	520	755	3,36	3,66	380	205	392	62,3	78
<b>12V 6 UPS 600</b>	179	204	327	500	629	895	2,8	4,39	380	205	392	70,5	86
<b>6V 7 UPS 700</b>	206	237	384	588	737	1040	1,2	5,13	272	205	392	37,1	49
<b>6V 8 UPS 800</b>	247	272	440	676	848	1187	1,05	5,86	272	205	392	41,9	53
<b>6V 9 UPS 900</b>	271	306	492	742	913	1294	0,93	6,59	380	205	392	52	68
<b>6V 10 UPS 1000</b>	293	342	558	812	1014	1403	0,84	7,32	380	205	392	57	72
<b>6V 11 UPS 1100</b>	325	381	592	879	1098	1509	0,76	8,05	380	205	392	59	75
<b>6V 12 UPS 1200</b>	347	418	640	946	1178	1613	0,7	8,79	380	205	392	63	86
<b>2V 24 UPS 2400</b>	742	816	1321	2027	2544	3562	0,13	17,58	205	272	392	41,9	53
<b>2V 30 UPS 3000</b>	879	1027	1674	2437	3042	4209	0,1	21,9	205	380	392	57	72
<b>2V 36 UPS 3600</b>	1041	1253	1920	2837	3535	4838	0,08	26,3	205	380	392	63	86

100 W is the average power per plate at the 10 min rate Uf=1,63.

Electrolyte density: 1,28 ± 0,01 kg/l at 20 °C.

All measures and weights are within standard production tolerances. Electrical values are approximative. Technical modifications are reserved without prior notice.

## Design

### POSITIVE ELECTRODE

- » Robust-plate with circular bars in a corrosion-resistant PbSe alloy < 2% Sb

### NEGATIVE ELECTRODE

- » Flat plate with long life expander and low antimony alloy

### SEPARATION

- » Microporous separator

### ELECTROLYTE

- » Sulphuric acid of 1,28 kg/l

### CONTAINER

- » High impact, transparent SAN

### LID

- » SAN in dark grey colour

### BLOCKS WITH BLIND CELLS

- » 4V, 6V, 8V, 10V

### PLUGS

- » Ceramic plugs or optional ceramic funnel plugs according to DIN 40740

### POLE SEALING

- » 100 % gas-and electrolyte-tight, sliding-pole

### POLE

- » M10, brass insert

### CONNECTOR

- » Flexible insulated copper cable, with cross-section of 35, 50, 70, 95 or 120 mm<sup>2</sup>

### KIND OF PROTECTION

- » IP 25 regarding DIN 40050, touch protected according VBG 4

## Charging

### IU - CHARACTERISTIC

- » I<sub>max</sub> without limitation

### FLOAT CHARGE

- » U = 2,25 to 2,27 V/cell ± 1 %, between 10 °C and 55 °C
- » dU/dT = -0,004 mV/°K below 10 °C in the monthly average

### BOOST CHARGE

- » U = 2,35 to 2,40 V/cell, time limited

### CHARGING TIME UP TO 92 %

- » 6h with 1,5\*I<sub>10</sub> initial current, 2,23 V/cell, 50 % C<sub>10</sub> discharged

## Discharge characteristics

### REFERENCE TEMPERATURE

- » 20 °C

### 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

## Maintenance

### EVERY 6 MONTH

- » Check battery voltage, pilot block voltage, temperature

### EVERY 12 MONTH

- » Take down battery voltage, block voltage, temperature

## Operational data

### OPERATIONAL LIFE

- » Up to 12 years at 20 °C

- » Up to 6 years at 30 °C

- » Up to 3 years at 40 °C

### WATER REFILLING INTERVAL

- » More than 3 years at 20 °C

### IEC 896-1 CYCLES

- » 800

### SELF-DISCHARGE

- » Approx. 3 % per month at 20 °C

### OPERATIONAL TEMPERATURE

- » -20 °C to 55 °C,

recommended 10 °C to 30 °C

### VENTILATION REQUIREMENT

- » f<sub>1</sub>=0,5 (low-antimony alloy)

according VDE 0510 part 2

### MEASUREMENTS ACCORDING

- » DIN 40 737 part 3

### TESTS ACCORDING

- » IEC 896-1,

### APPLICABLE STANDARDS

- » VDE 0510 part 2

### TRANSPORT

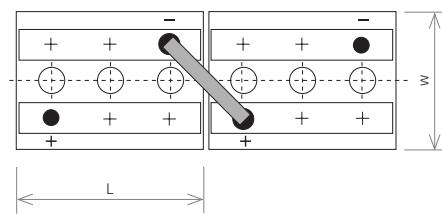
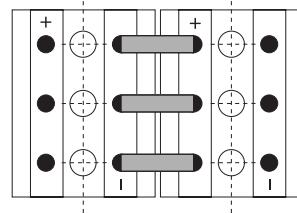
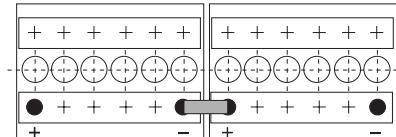
- » No dangerous goods during road transport

## 6V 7 UPS 700

Rated voltage  
Number of positive plates  
Power Watt/cell

10 min U<sub>f</sub>=1,63 V/cell

## Connections



## Dimensions

