



**BLACK
HORSE**



Traction Batteries



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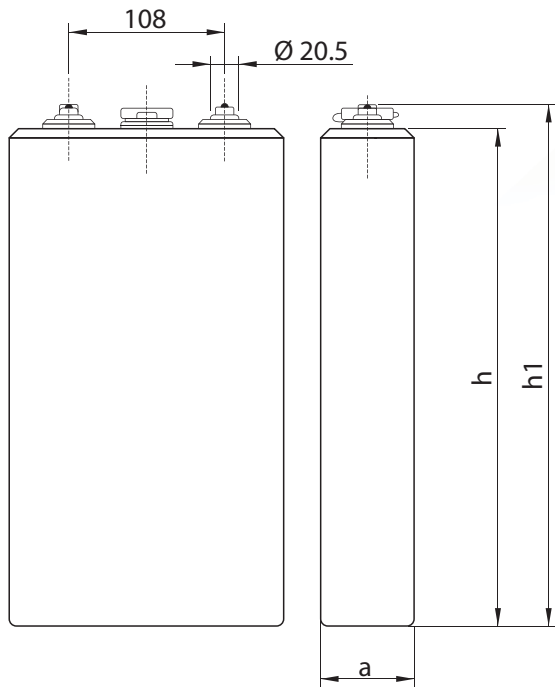


Lead traction batteries are used for propulsion of different types of Battery Electric Vehicles (BEVs), like forklifts, electric trolleys, electric lifting equipments, and many others.

Single PzS traction section consists of pasted negative and tubular positive grids. Total surface and the number of plates determines the capacity of the section given as 5-hour discharge rate capacity (C5).

Fabrika Akumulatora Sombor A.D. (FAS) offers many different section types (DIN and DIN-S design), described by capacity and dimensions. The whole range of traction sections are made in accordance to the following standards:

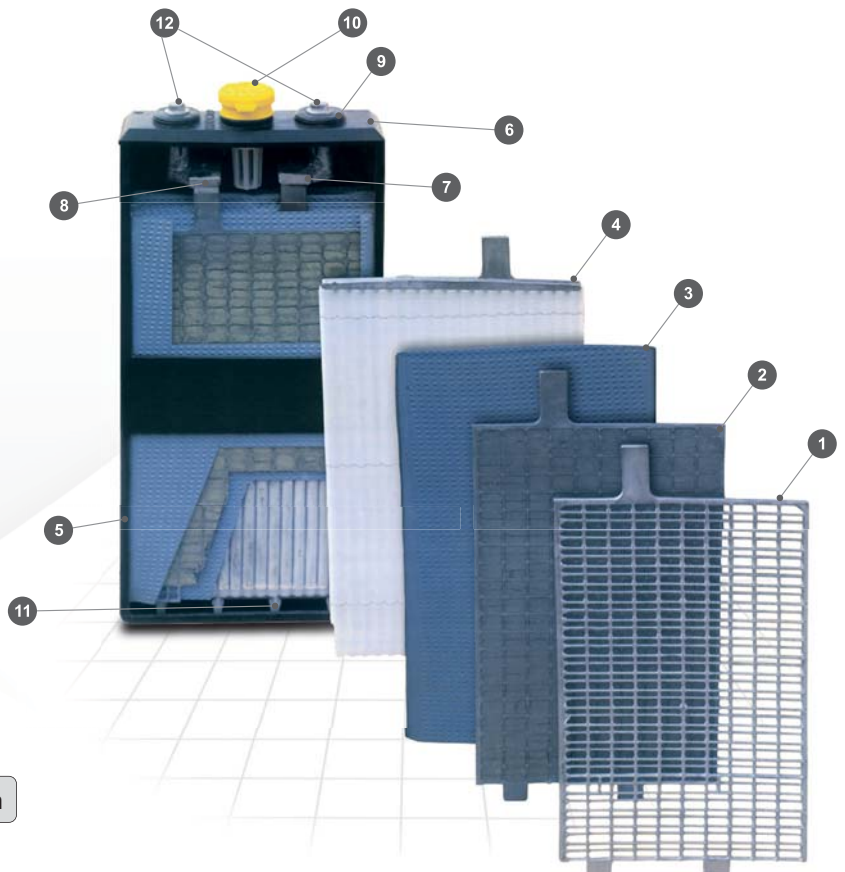
DIN EN 60254-1, DIN EN 60254-2, DIN 43535/1998



Traction Cells

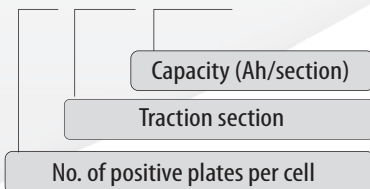
Technical Features

- | | |
|-----------------------------|------------------|
| 1 Negative grid | 7 Positive post |
| 2 Negative plate | 8 Negative post |
| 3 Polyethylene separator | 9 Rubber sealing |
| 4 Positive plate | 10 Cell plug |
| 5 Container (polypropylene) | 11 Settling rib |
| 6 Polypropylene cover | 12 Terminals |



Designation of DIN cells:

5 PzS 350



5P70



60Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS120	2P60	120	45	196	340	365	6.6	8.4
3PzS180	3P60	180	63				9.5	12.1
4PzS240	4P60	240	81				12.5	15.5
5PzS300	5P60	300	99				15.7	19
6PzS360	6P60	360	118	197	340	365	17.9	22.5
7PzS420	7P60	420	136				21.2	26.1
8PzS480	8P60	480	155	198	340	365	24.4	29.8
9PzS540	9P60	540	173				26.5	33.2
10PzS600	10P60	600	191				28.8	36.8

125 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS250	2P125	250	47	198	560	585	12.4	15.1
3PzS375	3P125	375	65				17.6	21.8
4PzS500	4P125	500	83				22.3	27.4
5PzS625	5P125	625	101				28.3	33.9
6PzS750	6P125	750	119				32.5	40.4
7PzS875	7P125	875	137				38.3	47.4
8PzS1000	8P125	1000	155				43.5	53.7
9PzS1125	9P125	1125	173				49.7	59
10PzS1250	10P125	1250	191				54.3	65.6

80 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS160	2P80	160	45	196	400	425	8.4	10.2
3PzS240	3P80	240	63				11.8	14.4
4PzS320	4P80	320	81				14.7	18.6
5PzS400	5P80	400	99				18.9	23.1
6PzS480	6P80	480	118	197	400	425	21.3	26.8
7PzS560	7P80	560	136				26	31.9
8PzS640	8P80	640	155	198	400	425	28.7	35.8
9PzS720	9P80	720	173				33.2	41.1
10PzS800	10P80	800	191				37.1	45.3

130 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS260	2P130	260	47	198	695	720	14.8	21.8
3PzS390	3P130	390	65				18.5	25
4PzS520	4P130	520	83				23.2	31.2
5PzS650	5P130	650	101				28.4	38
6PzS780	6P130	780	119				34.8	46.5
7PzS910	7P130	910	137				40.2	54.3
8PzS1040	8P130	1040	155				44.8	60.2
9PzS1170	9P130	1170	173				51.6	69.7
10PzS1300	10P130	1300	191				56.7	76.2

90 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS180	2P90	180	47	198	475	500	9.5	12.1
3PzS270	3P90	270	65				13.3	17.3
4PzS360	4P90	360	83				17.5	21.9
5PzS450	5P90	450	101				21.7	26.5
6PzS540	6P90	540	119				25.2	31.6
7PzS630	7P90	630	137				29.2	36.4
8PzS720	8P90	720	155				33.7	41.1
9PzS810	9P90	810	173				37.5	47
10PzS900	10P90	900	191				42.1	51.3

140 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS280	2P140	280	47	198	695	720	16.4	21.9
3PzS420	3P140	420	65				19.7	26.2
4PzS560	4P140	560	83				25.5	33.3
5PzS700	5P140	700	101				30.2	40.2
6PzS840	6P140	840	119				36	48.1
7PzS980	7P140	980	137				42.6	56.5
8PzS1120	8P140	1120	155				47.7	63.6
9PzS1260	9P140	1260	173				53.1	71.1
10PzS1400	10P140	1400	191				58.7	78.1

110 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS220	2P110	220	47	198	560	585	10.7	14.3
3PzS330	3P110	330	65				15.8	20.3
4PzS440	4P110	440	83				21.2	26
5PzS550	5P110	550	101				24.7	31.8
6PzS660	6P110	660	119				30	37.9
7PzS770	7P110	770	137				35.7	43.8
8PzS880	8P110	880	155				41.2	49.8
9PzS990	9P110	990	173				44.7	55.7
10PzS1100	10P110	1100	191				49.8	61.5

115 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS230	2P115	230	47	198	560	585	11.9	14.7
3PzS345	3P115	345	65				17.4	21
4PzS460	4P115	460	83				21.7	26.8
5PzS575	5P115	575	101				26	32.3
6PzS690	6P115	690	119				31.9	38.9
7PzS805	7P115	805	137				38.1	46.5
8PzS920	8P115	920	155				43	52.6
9PzS1035	9P115	1035	173				47.8	58.4
10PzS1150	10P115	1150	191				52.3	64



APPLICATIONS

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55 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS110	2P55	110	45	196	340	365	6.7	8.2
3PzS165	3P55	165	63				9.5	12.1
4PzS220	4P55	220	81				12.5	15.2
5PzS275	5P55	275	99				16	18.6
6PzS330	6P55	330	118	197	340	365	18.3	22.1
7PzS385	7P55	385	136				21	25.6
8PzS440	8P55	440	155	198	340	365	23	28.3
9PzS495	9P55	496	173				26.9	32.8
10PzS550	10P55	550	191				30.2	36.4

70 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS140	2P70	140	45	196	400	425	8.2	9.9
3PzS210	3P70	210	63				11.8	14.5
4PzS280	4P70	280	81				15.1	18.5
5PzS350	5P70	350	99				18.9	22.9
6PzS420	6P70	420	118	197	400	425	22.4	26.4
7PzS490	7P70	490	136				25.6	30.1
8PzS560	8P70	560	155	198	400	425	29.1	34.9
9PzS630	9P70	630	173				31.1	39.1
10PzS700	10P70	700	191				33.7	43.4

80 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS160	2P80	160	47	198	475	500	8.4	11.9
3PzS240	3P80	240	65				13.3	17.1
4PzS320	4P80	320	83				18	21.8
5PzS400	5P80	400	101				22.2	26.7
6PzS480	6P80	480	119				26.3	31.7
7PzS560	7P80	560	137				30.3	36.6
8PzS640	8P80	640	155				34.4	40
9PzS720	9P80	720	173				42.2	39.1
10PzS800	10P80	800	191				44.7	50.6

100 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS200	2P100	200	47	198	560	585	11.6	14.4
3PzS300	3P100	300	65				16.5	20.3
4PzS400	4P100	400	83				22.1	25.8
5PzS500	5P100	500	101				27.1	31.6
6PzS600	6P100	600	119				32.2	37.4
7PzS700	7P100	700	137				37.6	43.8
8PzS800	8P100	800	155				42.4	49.1
9PzS900	9P100	900	173				47.7	57
10PzS1000	10P100	1000	191				52.7	61

120 Ah / plate

Cell Type	FAS Designation	Capacity 5h rate (Ah)	Dimensions (mm)				Cell weight +/- 5% (kg)	
			Length - b	Width - a	Height - h	Height - hi	Dry	Acid included
2PzS240	2P120	240	47	198	695	720	12.9	17.5
3PzS360	3P120	360	65				19.7	24.8
4PzS480	4P120	480	83				26	32.3
5PzS600	5P120	600	101				31.6	39.3
6PzS720	6P120	720	119				37.8	46.2
7PzS840	7P120	840	137				44	53.7
8PzS960	8P120	960	155				50	61
9PzS1080	9P120	1080	173				55.8	68.2
10PzS1200	10P120	1200	191				60.6	75.2

Traction Batteries and Cells are manufactured either with:

- Flexible Connections or
- Rigid (Non-flexible) Connections

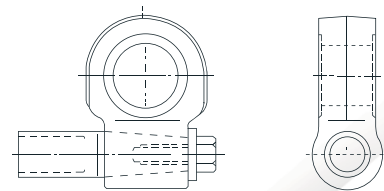
Rigid Connection-Welded

Flexible Connection - Bolted / Elastic copper connector

Used flexible connectors are: 35-95 mm to 35-300 mm and 50-95 mm to 50-300 mm



Plate Type	Number of plates	Capacity (Ah)	Discharge Hour Rate(h)	Discharge Current (A)	Charging Current (A)
P55	3/4	165	5	33	IF - 24.75 IIF - 8.25 Dor. 8.25
	4/5	220	5	44	IF - 33 IIF - 11 Dor. - 11
	5/6	275	5	55	IF - 43.5 IIF - 14.5 Dor. - 14.5
P70	3/4	210	5	42	IF - 31.5 IIF - 10.5 Dor. - 10.5
	4/5	280	5	56	IF - 42 IIF - 14 Dor. - 14
	5/6	350	5	70	IF - 52.5 IIF - 17.5 Dor. - 17.5
P80	3/4	240	5	48	IF - 36 IIF - 12 Dor. - 12
	4/5	320	5	64	IF - 48 IIF - 16 Dor. - 16
	5/6	400	5	80	IF - 60 IIF - 20 Dor. - 20
P100	3/4	300	5	60	IF - 45 IIF - 15 Dor. - 15
	4/5	400	5	80	IF - 60 IIF - 20 Dor. - 20
	5/6	500	5	100	IF - 75 IIF - 25 Dor. - 25
P120	3/4	360	5	72	IF - 54 IIF - 18 Dor. - 18
	4/5	480	5	96	IF - 72 IIF - 24 Dor. - 24
	5/6	600	5	120	IF - 90 IIF - 30 Dor. - 30



Cable Connectors DIN 43 596-50

