

TAB TRACTION BATTERIES



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BS

BATTERY ASIA (THAILAND) CO.,LTD.

609 Rama2 Road, Samaedam, Bangkhuntien, Bangkok 10150 Thailand

Tel. +66 2453 1975-77 E-mail : info@batteryasia.co.th www.batteryasia.co.th

STANDARD CHARACTERISTIC DATA

23Ah/plate

[h1 = 216, h2 = 240 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 46 E	2 Pgi 135	46	45	3,7	3,0
3 PzB 69 E	3 Pgi 135	69	61	5,4	4,2
4 PzB 92 E	4 Pgi 135	92	77	6,9	5,4
5 PzB 115 E	5 Pgi 135	115	93	8,4	6,6
6 PzB 138 E	6 Pgi 135	138	109	10,0	7,8
7 PzB 161 E	7 Pgi 135	161	125	11,6	9,0
8 PzB 184 E	8 Pgi 135	184	141	13,2	10,2
9 PzB 207 E *	9 Pgi 135	207	157	15,3	11,9
10 PzB 230 E *	10 Pgi 135	230	173	16,9	13,1
11 PzB 253 E *	11 Pgi 135	253	189	18,4	14,3

32Ah/plate

[h1 = 260, h2 = 284 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 64 E	2 Pgi 190	64	45	5,1	4,0
3 PzB 96 E	3 Pgi 190	96	61	7,1	5,6
4 PzB 128 E	4 Pgi 190	128	77	9,2	7,2
5 PzB 160 E	5 Pgi 190	160	93	11,3	8,8
6 PzB 192 E	6 Pgi 190	192	109	13,2	10,3
7 PzB 224 E	7 Pgi 190	224	125	15,0	11,7
8 PzB 256 E	8 Pgi 190	256	141	16,8	13,1
9 PzB 288 E *	9 Pgi 190	288	157	19,1	14,9
10 PzB 320 E *	10 Pgi 190	320	173	20,9	16,3
11 PzB 352 E *	11 Pgi 190	352	189	22,7	17,7

42Ah/plate

[h1 = 326, h2 = 350 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 84 E	2 Pgi 250	84	45	6,9	5,4
3 PzB 126 E	3 Pgi 250	126	61	9,4	7,3
4 PzB 168 E	4 Pgi 250	168	77	11,9	9,3
5 PzB 210 E	5 Pgi 250	210	93	14,5	11,3
6 PzB 252 E	6 Pgi 250	252	109	17,3	13,5
7 PzB 294 E	7 Pgi 250	294	125	20,0	15,6
8 PzB 336 E	8 Pgi 250	336	141	22,3	17,6
9 PzB 378 E *	9 Pgi 250	378	157	25,2	19,9
10 PzB 420 E *	10 Pgi 250	420	173	27,6	21,8
11 PzB 462 E *	11 Pgi 250	462	189	30,0	23,7

55Ah/plate

[h1 = 399, h2 = 423 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 110 E	2 Pgi 310	110	45	7,6	6,1
3 PzB 165 E	3 Pgi 310	165	61	10,5	8,5
4 PzB 220 E	4 Pgi 310	220	77	13,5	11,0
5 PzB 275 E	5 Pgi 310	275	93	16,5	13,5
6 PzB 330 E	6 Pgi 310	330	109	19,6	15,9
7 PzB 385 E	7 Pgi 310	385	125	22,6	18,4
8 PzB 440 E	8 Pgi 310	440	141	25,6	20,8
9 PzB 495 E	9 Pgi 310	495	157	29,1	23,8
10 PzB 550 E	10 Pgi 310	550	173	32,1	26,3
11 PzB 605 E	11 Pgi 310	605	189	35,2	28,7

65Ah/plate

[h1 = 453, h2 = 477 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 130 E	2 Pgi 360	130	45	8,2	6,8
3 PzB 195 E	3 Pgi 360	195	61	12,0	10,1
4 PzB 260 E	4 Pgi 360	260	77	15,5	13,0
5 PzB 325 E	5 Pgi 360	325	93	19,0	16,0
6 PzB 390 E	6 Pgi 360	390	109	22,6	18,9
7 PzB 455 E	7 Pgi 360	455	125	26,1	21,8
8 PzB 520 E	8 Pgi 360	520	141	29,6	24,5
9 PzB 585 E *	9 Pgi 360	585	157	33,6	27,9
10 PzB 650 E *	10 Pgi 360	650	173	37,2	30,6
11 PzB 715 E *	11 Pgi 360	715	189	40,7	33,3

75Ah/plate

[h1 = 513, h2 = 537 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 150 E	2 Pgi 413	150	45	10,0	7,5
3 PzB 225 E	3 Pgi 413	225	61	13,9	10,8
4 PzB 300 E	4 Pgi 413	300	77	17,8	14,1
5 PzB 375 E	5 Pgi 413	375	93	21,6	17,5
6 PzB 450 E	6 Pgi 413	450	109	25,6	20,9
7 PzB 525 E	7 Pgi 413	525	125	29,6	24,1
8 PzB 600 E	8 Pgi 413	600	141	33,5	27,4
9 PzB 675 E *	9 Pgi 413	675	157	38,2	31,1
10 PzB 750 E *	10 Pgi 413	750	173	42,3	34,2
11 PzB 825 E *	11 Pgi 413	825	189	46,4	37,3

86Ah/plate

[h1 = 567, h2 = 591 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 172 E	2 Pgi 450	172	45	10,7	8,3
3 PzB 258 E	3 Pgi 450	258	61	15,0	11,8
4 PzB 344 E	4 Pgi 450	344	77	19,3	15,2
5 PzB 430 E	5 Pgi 450	430	93	23,7	18,6
6 PzB 516 E	6 Pgi 450	516	109	28,1	22,0
7 PzB 602 E	7 Pgi 450	602	125	32,6	25,4
8 PzB 688 E	8 Pgi 450	688	141	37,1	28,8
9 PzB 774 E	9 Pgi 450	774	157	42,3	32,9
10 PzB 860 E	10 Pgi 450	860	173	46,9	36,3
11 PzB 946 E	11 Pgi 450	946	189	51,4	39,7

100Ah/plate

[h1 = 608, h2 = 632 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 200 E	2 Pgi 492	200	45	11,8	9,4
3 PzB 300 E	3 Pgi 492	300	61	16,6	13,5
4 PzB 400 E	4 Pgi 492	400	77	21,5	17,5
5 PzB 500 E	5 Pgi 492	500	93	26,4	21,6
6 PzB 600 E	6 Pgi 492	600	109	31,5	25,6
7 PzB 700 E	7 Pgi 492	700	125	36,4	29,7
8 PzB 800 E	8 Pgi 492	800	141	41,4	33,7
9 PzB 900 E	9 Pgi 492	900	157	47,1	38,6
10 PzB 1000 E	10 Pgi 492	1000	173	52,0	42,7
11 PzB 1100 E	11 Pgi 492	1100	189	56,9	46,7

108Ah/plate

[h1 = 688, h2 = 712 mm | length = b = 157,5 mm]

CELL TYPE	TAB DESIGNATION	CAPACITY 5 h	WIDTH mm	WEIGHT with acid	WEIGHT dry
2 PzB 216 E	2 Pgi 530	216	45	13,5	9,9
3 PzB 324 E	3 Pgi 530	324	61	18,9	14,3
4 PzB 432 E	4 Pgi 530	432	77	24,3	18,7
5 PzB 540 E	5 Pgi 530	540	93	29,7	23,2
6 PzB 648 E	6 Pgi 530	648	109	35,1	27,6
7 PzB 756 E	7 Pgi 530	756	125	40,5	32,1
8 PzB 864 E	8 Pgi 530	864	141	45,9	36,5
9 PzB 972 E	9 Pgi 530	972	157	52,0	41,6
10 PzB 1080 E	10 Pgi 530	1080	173	57,4	46,0
11 PzB 1188 E	11 Pgi 530	1188	189	62,8	50,4

Electrolyte density by 30 °C: 1,29 ± 0,01 kg/l.

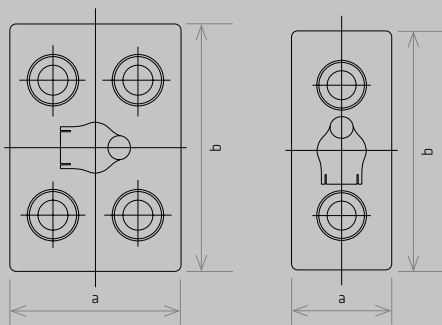
Weight tolerance is ± 5 %.



Cells from 9-11 PzB types are available with 4 poles only.

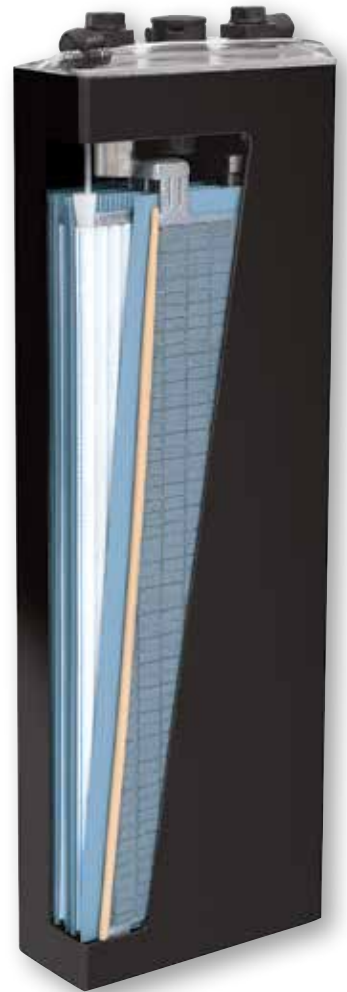
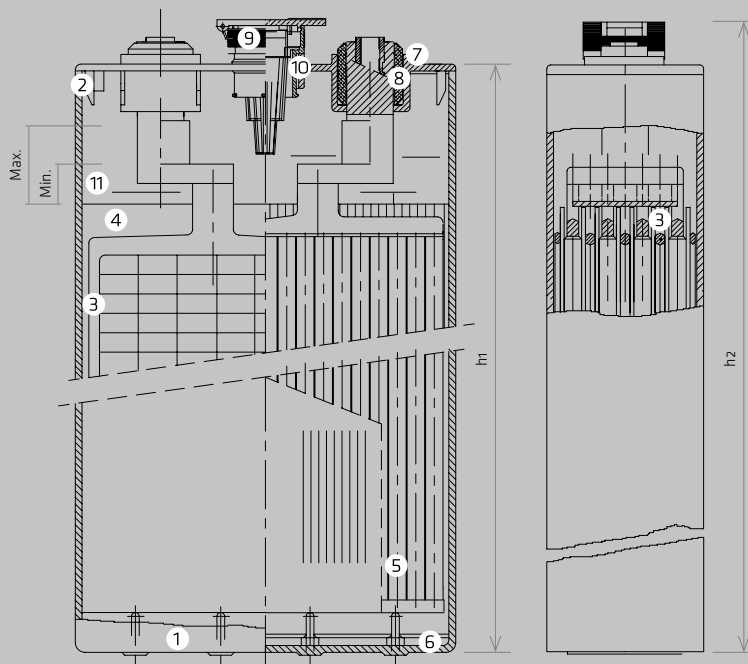
Traction

IN CASE OF PROBLEMS WITH ORDERING WE WILL BE GLAD TO ADVISE AND ASSIST YOU IN THE SELECTION OF THE SUITABLE TYPE OF BATTERY.



In order that the batteries would meet all your demands, we kindly ask you to enclose the following data with your order:

- + battery **voltage**
- + **capacity** of the battery at a five-hour discharge rate
- + **dimensions** of the battery tray
- + **designation and type** of the electric machine
- + any **special demands**
- + a battery **drawing** (when possible)



All measures and weights are within standard production tolerances.

Electrical values are approximate.

Technical modifications are reserved without prior notice.

- 1 Polypropilene container
- 2 Polypropilene cover
- 3 Negative grid Plate
- 4 Microporous separator
- 5 Positive armoured tube Plate
- 6 Settling rib
- 7 Terminal post
- 8 Rubber sealing
- 9 Cell plug \varnothing 35,5
- 10 Plug sealing \varnothing 35,5
- 11 Electrolite

h1 = 570 mm, h2 = 593 mm length = 198 mm

CELL TYPE	Capacity C5 (Ah)	Width (mm)	Weight with acid (kg)	Weight dry (kg)
2 PzRM 230	230	47	14,5	11,1
3 PzRM 345	345	65	20,4	15,6
4 PzRM 460	460	83	26,2	20,2
5 PzRM 575	575	101	32,0	25,0
6 PzRM 690	690	119	37,8	29,8
7 PzRM 805	805	137	43,6	34,7
8 PzRM 920	920	155	49,4	39,5

h1 = 720 mm, h2 = 743 mm length = 198 mm

CELL TYPE	Capacity C5 (Ah)	Width (mm)	Weight with acid (kg)	Weight dry (kg)
2 PzRM 280	280	47	21,1	14,9
3 PzRM 420	420	65	26,0	19,9
4 PzRM 560	560	83	32,6	25,6
5 PzRM 700	700	101	39,9	31,4
6 PzRM 840	840	119	47,2	37,1
7 PzRM 980	980	137	54,5	42,9
8 PzRM 1120	1120	155	61,8	48,6

WATER REFILL INTERVAL IS dramatically reduced

Traction **AQUALESS**

CELL DESIGN WITH HIGHEST ELECTROLYTE RESERVE AND PROVEN EPzS TECHNOLOGY USING TUBULAR PLATES WITH LOW ANTIMONY ALLOYS IN COMBINATION WITH AN ADJUSTED CHARGING REGIME RESULTS IN EXTENDED WATERING INTERVALS. TAB PzRM CELLS ARE MANUFACTURED AND TESTED ACCORDING TO EN60254-1 AND IEC 254-1.

Main advantages of TAB Aqualess (PzRM) batteries:

- + water refill interval is dramatically reduced
- + reduced water consumption
- + low maintenance and operational costs
- + 50 to 80% reduced gas release and ventilation requirements
- + 20 to 30% less charging time
- + cost saving due to lower energy consumption from 10-20%
- + recharging factor reduced from standard to 1,07
- + operating temperatures reduced in average for 5°C

TAB Aqualess Battery specifications:

- + water refilling interval up to 100 cycles (at normal duty applications with 80%DOD C5, 1 cycle per day; Electrolyte T=30°C)
- + for these batteries proper chargers must be used (Hf, IUla, pulse chargers) with recharging factor 1,07
- + cells are equipped with Electrolyte Mixing system (using charger with integrated air pump) to prevent electrolyte stratification and to ensure optimised charging
- + batteries are assembled with Central Water Filling system
- + each battery has an Electrolyte Level Sensor. With its red light it gives signal to the user when water refilling is needed.



AQUAMATIC



AIRMATIC



LEVEL SENSOR



TOPPING UP TO 100 CYCLES

Battery application. Traction batteries TAB of type EPzS and PzB are appropriated for propulsion of different electrical machines (forklifts, mine locomotives, etc.).

One of the very important production part of your company is internal logistics. We are introducing our traction batteries TAB which have been satisfying the most demanding users for more than half a century. **Batteries are known by their: high capacity, long life-time, resistance to vibrations, short charging times, low consumption of distilled water, simple maintenance.**

We assemble individual cells (2V) into batteries with different voltages, capacities and dimensions which suite to all types of electrical machines. Wide production program covers the range of DIN (EPzS) and BS (PzB) cells according to EN60254 - 1,2 and IEC 254 - 1,2.

WE PRODUCE BATTERIES / CELLS IN WELDED AND BOLTED VERSION



BOTH VERSIONS ARE BEING MANUFACTURED:

- + **DRY-CHARGED VERSION:** a battery / cell have to be filled up with an electrolyte and supplementary charged before use. The Plates are already formed and in special process protected against oxidation. They can be stored up to two years.
- + **ELECTROLYTE-CHARGED:** a battery / cell can be installed immediately, because it is already filled up with electrolyte and electrically charged as well.



WE HIGHLY RECOMMEND THE USE OF ADDITIONAL SYSTEMS:

- + **CENTRAL WATER FILLING SYSTEM** which enables a quick and precise service of the whole battery under any working conditions.
- + **CAPACITIVE BATTERY ELECTROLYTE LEVEL SENSOR** which with clearly visible green light indicates electrolyte at proper specified level. Flashing red light indicates that the electrolyte level is bellow minimum and battery needs to be refilled with demineralised water to avoid permanent damage of the battery.
- + **ELECTROLYTE MIXING SYSTEM** which allows faster charging of battery. Yet, the battery with a 100 % daily charge (maximum charging current is $2,5 \times I_5$) can not be damaged during this time.

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