

Technical specification for traction VRLA - cells

1. Application

BAE PzV - batteries are maintenance-free and designed for a high cycle life and a high operational safety.

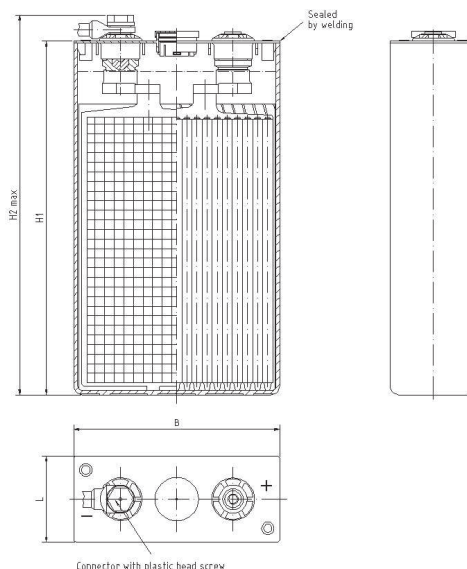
BAE PzV - batteries are ideal for motive power applications

- where no maintenance people are available,
- where charging should be made outside of charging stations between the goods,
- where sensible goods like fresh food are transported.



2. Design

Positive plate: robust tubular plate
 Alloy: PbCaSn, free of Cadmium and Antimony
 Electrolyte: gelled using pyrogenic silica
 Pole bushing: 100 % acid and gas tight
 Poles: with brass inlay and thread M10 female
 Connectors: bolt-on flexible, fully insulated intercell and terminal connectors
 Valve: with optimized opening pressure and with backfire barrier



3. Operation

Operational temperature: -10°C to $+45^{\circ}\text{C}$
 Regular discharges: up to 60 %
 Final charging current: maximal 1.6 A/100 Ah C_{5h}
 Self discharge: less than 2 % per month
 No topping up during the whole life.
 No electrolyte spilling from the battery.
 Reduced ventilation requirements.

4. Charging regime with IU1

t_1 : initial current: $I_1 = 15..20\text{ A}$ per 100 Ah C_{5h}
 t_2 : charging at 2.4 V per cell, current reduction to I_2
 t_3 : gas charging with $I_2 = 1.2\text{ A}$ to 1.6 A per 100 Ah C_{5h}
 t_1 , t_2 and t_3 are time intervals of charging steps.

$(t_1 + t_2)$ is set of maximum 10 h for safety reasons,
 t_3 should be equal to $(t_1 + t_2)$, but at least 1 h and maximum 4 h.

Warning:

If higher gas charging currents are used (during t_3), the cells will dry out.

5. Cycle life

Using the charging regime acc. to point 4 and observing of the BAE operating instructions following cycles can be expected:

20 % DOD	3,600 cycles
40 % DOD	1,800 cycles
60 % DOD	1,200 cycles
80 % DOD	900 cycles

Technical specification for BAE *Nova trans PzV*

6. Types, capacities, dimensions, weights

Cell type	5 h – capacity ¹ (C ₅) Ah	Length (L) mm	Width (B) mm	Height (H1) mm	Height (H2) mm	Weight ² kg
2 PzV 110	110	47	198	340	370	9.0
3 PzV 165	165	65	198	340	370	12.7
4 PzV 220	220	83	198	340	370	16.7
5 PzV 275	275	101	198	340	370	20.5
6 PzV 330	330	119	198	340	370	24.2
7 PzV 385	385	137	198	340	370	28.0
8 PzV 440	440	155	198	340	370	32.0
9 PzV 495	495	173	198	340	370	35.6
10 PzV 550	550	191	198	340	370	39.7
2 PzV 150	150	47	198	445	472	11.6
3 PzV 225	225	65	198	445	472	16.4
4 PzV 300	300	83	198	445	472	20.7
5 PzV 375	375	101	198	445	472	25.3
6 PzV 450	450	119	198	445	472	30.3
7 PzV 525	525	137	198	445	472	35.1
8 PzV 600	600	155	198	445	472	40.0
9 PzV 675	675	173	198	445	472	45.3
10 PzV 750	750	191	198	445	472	49.9
2 PzV 220	220	47	198	594	621	19.3
3 PzV 330	330	65	198	594	621	26.1
4 PzV 440	440	83	198	594	621	32.8
5 PzV 550	550	101	198	594	621	40.1
6 PzV 660	660	119	198	594	621	47.0
7 PzV 770	770	137	198	594	621	53.8
8 PzV 880	880	155	198	594	621	60.0
9 PzV 990	990	173	198	594	621	68.8
10 PzV 1100	1100	191	198	594	621	75.4
2 PzV 250	250	47	198	696	723	22.1
3 PzV 375	375	65	198	696	723	30.3
4 PzV 500	500	83	198	696	723	38.0
5 PzV 625	625	101	198	696	723	46.5
6 PzV 750	750	119	198	696	723	54.4
7 PzV 875	875	137	198	696	723	62.2
8 PzV 1000	1000	155	198	696	723	69.3
9 PzV 1125	1125	173	198	696	723	79.5
10 PzV 1250	1250	191	198	696	723	87.1

¹ Capacity at 30 °C (86 °F) according to DIN EN 60 254-1

² Cell weight filled and charged ± 5 %



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