

Technical specification for traction VRLA-cells

1. Application

BAE PzV-batteries are maintenance-free and are designed for a high cycle life and a high operational safety. The use of high quality components is the base for reliability and outstanding lifetime of BAE traction cells!

BAE PzV-batteries are ideal for motive power applications with focus on:

- minimization of maintenance costs
- light duty operation
- operation in food store.

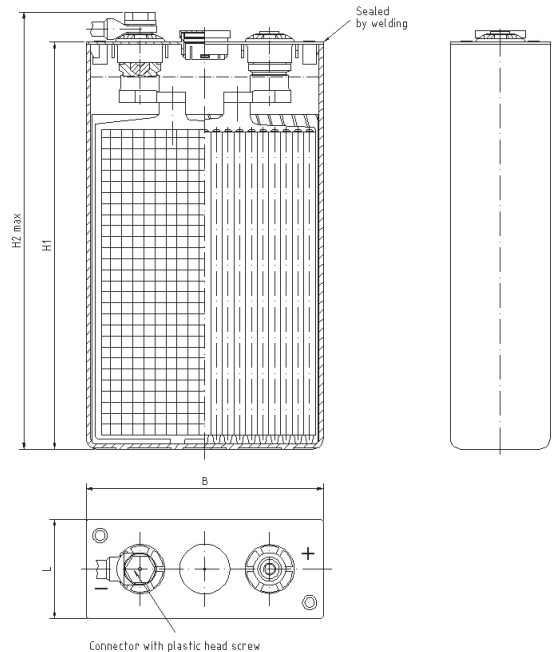
BAE PzV-batteries prove their superiority due to their unique characteristics:

- at charging „between the goods“ (i.e. outside of charging stations)
- where sensitive 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 connectors
Valve:	with flame arrestor



3. Operation

Operational temperature:	-10 °C to +45 °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 service life.	
No electrolyte spilling from the battery.	
Reduced ventilation requirements.	

4. Charging regime with IUI

t₁: initial current: I₁ = 15..20 A per 100 Ah C_{5h}
 t₂: charging at 2.4 V per cell, current reduction to I₂
 t₃: gas charging with I₂ = 1.2 A to 1.6 A per 100 Ah C_{5h}
 t₁, t₂ and t₃ are time intervals of charging steps.

(t₁ + t₂) is set of maximum 10 h for safety reasons,
 t₃ should be equal to (t₁ + t₂), but at least 1 h and maximum 4 h.

Warning:

If higher gas charging currents are used (during t₃), the cells will dry out.

5. Cycle life

Using the charging regime acc. to point 4 and observing the BAE operating instructions the 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	8.8
3 PzV 165	165	65	198	340	370	12.5
4 PzV 220	220	83	198	340	370	16.2
5 PzV 275	275	101	198	340	370	19.9
6 PzV 330	330	119	198	340	370	23.6
7 PzV 385	385	137	198	340	370	27.3
8 PzV 440	440	155	198	340	370	31.2
9 PzV 495	495	173	198	340	370	34.9
10 PzV 550	550	191	198	340	370	38.6
2 PzV 150	150	47	198	445	475	11.6
3 PzV 225	225	65	198	445	475	16.6
4 PzV 300	300	83	198	445	475	21.7
5 PzV 375	375	101	198	445	475	26.8
6 PzV 450	450	119	198	445	475	31.9
7 PzV 525	525	137	198	445	475	37.0
8 PzV 600	600	155	198	445	475	42.2
9 PzV 675	675	173	198	445	475	47.2
10 PzV 750	750	191	198	445	475	52.3
2 PzV 220	220	47	198	592	622	15.8
3 PzV 330	330	65	198	592	622	22.7
4 PzV 440	440	83	198	592	622	29.6
5 PzV 550	550	101	198	592	622	36.6
6 PzV 660	660	119	198	592	622	43.6
7 PzV 770	770	137	198	592	622	50.5
8 PzV 880	880	155	198	592	622	57.5
9 PzV 990	990	173	198	592	622	64.5
10 PzV 1100	1100	191	198	592	622	71.6
2 PzV 250	250	47	198	696	726	20.3
3 PzV 375	375	65	198	696	726	28.4
4 PzV 500	500	83	198	696	726	36.5
5 PzV 625	625	101	198	696	726	44.6
6 PzV 750	750	119	198	696	726	52.7
7 PzV 875	875	137	198	696	726	60.9
8 PzV 1000	1000	155	198	696	726	69.0
9 PzV 1125	1125	173	198	696	726	77.5
10 PzV 1250	1250	191	198	696	726	85.7

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

² Cell weight filled and charged ± 5 %

Height 1 is the height between container bottom and top of the lid.

Height 2 is the maximum height between container bottom and top of the bolts in assembled condition.