

# BAE *NOVA TRANS* BAE *SPECIAL RAIL*

Made in  
  
Germany

Material Handling Equipment



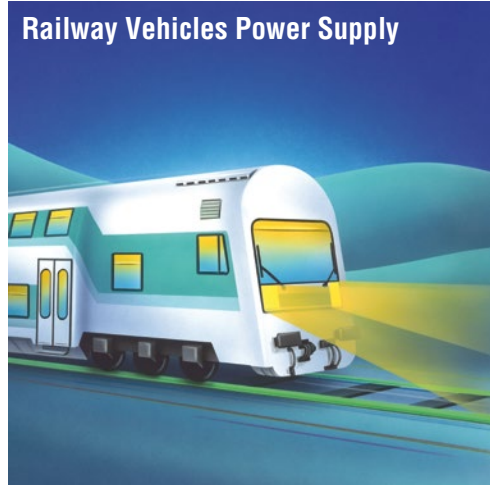
Warehouse Handling Equipment



On-Board Power Supply















Railway Vehicles Power Supply



## Batteries for Motive Power and Rail Traffic Applications










# Batteries for Motive Power and Rail Traffic A

Applications	Motive Power	Motive Power	Rail Traffic	Rail Traffic
	 	 	 	 
Type	<b>PzS</b>	<b>PzV</b>	<b>PzS</b>	<b>PzS</b>
				
Technology	Vented (VLA) (EUW <sup>1</sup> prepared)	Valve regulated (VRLA)	Vented (VLA) (EUW <sup>1</sup> prepared)	Vented (VLA) (EUW <sup>1</sup> prepared)
Maintenance	Low maintenance	Maintenance free	Low maintenance	Low maintenance
Nominal capacity (5 h)	120 – 1,550 Ah	110 – 1,250 Ah	120 – 1,550 Ah	165 – 440 Ah
Nominal voltage	2 V	2 V	2 V	2 V
Positive electrode	19 tubes plate	19 tubes plate	19 tubes plate	23 tubes plate
Width	198 mm	198 mm	198 mm	238 mm
Container (UL-94 rating)	PP (HB/V-0)	PP (HB/V-0)	PP (HB/V-0)	PP (HB/V-0)
Electrolyte	Diluted sulphuric acid	GEL	Diluted sulphuric acid	Diluted sulphuric acid
Plug/Valve	Vent plug with electro- lyte level indicator; optional with BAE <b>AQUAMATIC</b>	Valve with flash arrestor	Vent plug with electro- lyte level indicator; optional with BAE <b>AQUAMATIC</b>	Vent plug with electro- lyte level indicator; optional with BAE <b>AQUAMATIC</b>
Pole bushing	BAE screwed pole 100% acid and gas tight	BAE screwed pole 100% acid and gas tight	BAE screwed pole 100% acid and gas tight	BAE screwed pole 100% acid and gas tight
Type of thread	M10 with brass inlay	M10 with brass inlay	M10 with brass inlay	M10 with brass inlay
Cycles acc. to DIN EN 60254-1, IEC 60254-1	20% DoD: 6,000	20% DoD: 3,600	20% DoD: 6,000	20% DoD: 6,000
	40% DoD: 3,000	40% DoD: 1,800	40% DoD: 3,000	40% DoD: 3,000
	60% DoD: 2,000	60% DoD: 1,200	60% DoD: 2,000	60% DoD: 2,000
	80% DoD: 1,500	80% DoD: 900	80% DoD: 1,500	80% DoD: 1,500

Reference temperature: 30 °C

<sup>1</sup> Electrolyte agitation BAE **AIRTEC**

# Applications

Rail Traffic	Rail Traffic	Rail Traffic
		
		
PzV	PzV	GiV
		
Valve regulated (VRLA)	Valve regulated (VRLA)	Valve regulated (VRLA)
Maintenance free	Maintenance free	Maintenance free
110 – 1,250 Ah	150 – 400 Ah	75 – 500 Ah
2 V	2 V	2 V
19 tubes plate	23 tubes plate	Flat plate
198 mm	238 mm	198 mm
PP (HB/V-0)	PP (HB/V-0)	PP (HB/V-0)
GEL	GEL	GEL
Valve with flash arrestor	Valve with flash arrestor	Valve with flash arrestor
BAE screwed pole 100% acid and gas tight	BAE screwed pole 100% acid and gas tight	BAE screwed pole 100% acid and gas tight
M10 with brass inlay	M10 with brass inlay	M10 with brass inlay
20% DoD: 3,600	20% DoD: 3,600	High power performance battery; not suitable for cyclic applications
40% DoD: 1,800	40% DoD: 1,800	
60% DoD: 1,200	60% DoD: 1,200	
80% DoD: 900	80% DoD: 900	

## Quality – Made in Germany

BAE NOVA TRANS batteries are designed to highest quality standards with focus on maximal energy throughput over life-time, best total cost of ownership and robustness against environmental conditions. They are especially suitable for demanding applications – from multi-shift or shift plus operation to warehousing in food markets.

BAE SPECIAL RAIL batteries for railway vehicles provide energy for traction, cranking, steering, security lighting, and on-board power supply. They are suitable for all applications in the fields of emergency power supply in passenger cars, starting the engines of diesel locomotives, and upgrading electric locomotives.

BAE offers batteries in an extreme low maintenance VLA battery design with liquid electrolyte and in a maintenance free VRLA battery design with fixed (GEL) electrolyte. Reliability, a superior life-time and excellent deep-discharge capabilities are the hallmarks of our batteries.

BAE NOVA TRANS and BAE SPECIAL RAIL batteries reflect outstanding quality and usability by:

- Unique double-sealed, screwed pole bushing for highest reliability and reduction of maintenance effort to minimum
- Robust tubular plate technology for highest durability and cycle stability
- Excellent charge acceptance with high efficiency improved by carbon black additives accelerating the availability at daily loads
- Optional automatic refilling system BAE **AQUAMATIC** and electrolyte agitation BAE **AIRTEC** (PIT = "Pipe in Tube" technology) for reduction of operating costs
- Powerful tailor-made solutions, e.g. in terms of flame-retardant properties (UL-94 rating)
- Safe and long term proven technology
- Cost neutral and well-established recycling process

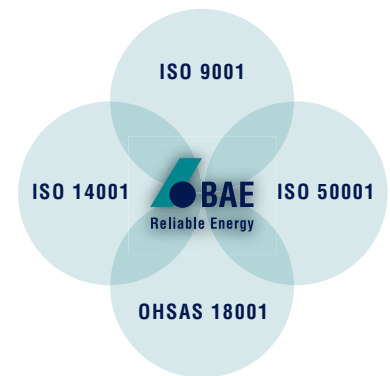
## Short Profile

Since 1899 BAE stands synonym for quality and reliability in the market for industrial lead batteries. The core business of BAE is the production of stationary batteries, especially wherever electricity needs to flow uninterrupted like in the emergency power supply for data centers, electrical power supply facilities and telecommunication infrastructure. Since many years BAE also operates in the market for renewable energy and provides solutions for a reliable and environmental-friendly electrical power supply. Moreover BAE produces batteries for motive power and railway applications. Nowadays we are an independent medium-sized company with a well-established position in the international battery market. BAE excels in its customer orientation and quality is our hallmark. A highly flexible and process-orientated structure enables us to provide our customers with tailor-made solutions.



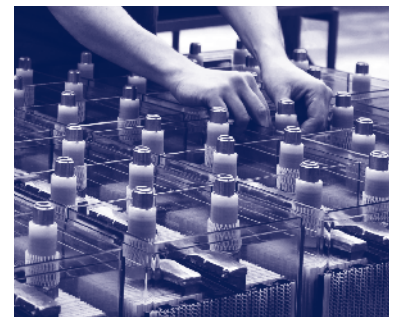
## Quality

As a well-recognized manufacturer for premium industrial batteries BAE is aware of its responsibilities to customers, its employees, society and environment. The commitment to quality and the fulfilment of the highest environmental standards, which are embedded in our company standards, have led to a certification according to the quality management standard ISO 9001 in 1995 and to the environmental management standard ISO 14001 in 2004. The implementation of a management system for "Occupational Health- and Safety Assessment Series" (OHSAS 18001) in the year 2012 underlines our focus for continuous process improvements. BAE quality management pervades to all areas and the highest quality standards already apply to the selection and procurement of the components which are used in our products. During the different production steps the quality of the raw materials, the intermediate products and the actual production procedure will be checked consequently. Critical issues will be checked 100% to ensure that only products of highest quality level will be supplied to our customers.



## Environment

As a producer of high quality lead batteries BAE is aware of its responsibilities towards society and environment. Efficient environmental measures prevent emissions and waste products are disposed and recycled directly where possible during the production process. Lead batteries consist of lead, plastic parts and acid of which all components are almost to 100% recyclable. The used lead will be fully reused again as secondary lead and the plastic parts get removed before the process of lead recycling and are prepared for further using such as in the automobile industry. This whole certified and registered recycling process makes the lead battery one of the most environmental friendly energy sources. Besides we established in 2013 an energy management system according to the ISO 50001 standard to improve all of our energy-related processes and prove our company's responsibility for the environment. Top quality and reliability are the core elements of the success of our products. Our aim is simple: "The chemistry must be right".



BAE Batterien GmbH  
Wilhelminenhofstraße 69/70  
12459 Berlin  
GERMANY

Tel.: +49 (0) 30 53001-661  
Fax: +49 (0) 30 53001-667  
E-mail: [info@bae-berlin.de](mailto:info@bae-berlin.de)  
[www.bae-berlin.de](http://www.bae-berlin.de)

