



Premium Lead Batteries

Renewable Energy Applications



SOLAR



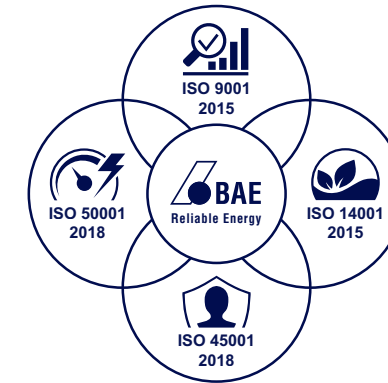
WIND



HYDROPOWER



BIOMASS



SHORT PROFILE

Since 1899 BAE stands synonym for highest quality and reliability in the market for industrial lead batteries. Nowadays we are an independent medium-sized company with a well-established position in the international battery market.

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 centres, electrical power supply facilities and telecommunication infrastructure.

Since many years BAE also operates in the market of renewable energy and provides solutions for a reliable and environmental-friendly electrical power supply. 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.

Top quality, reliability and sustainability are the core elements of the long-lasting success of our products.

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 the highest quality standards, which are embedded in our company philosophy and we have been certified according to the quality management standard ISO 9001 in 1995.

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. As a consequence BAE only sources components from suppliers which are located within the EU-27.

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. As an early adapter to the fulfilment of the highest environmental standards BAE has already been certified to the environmental management standard ISO 14001 in 2004.

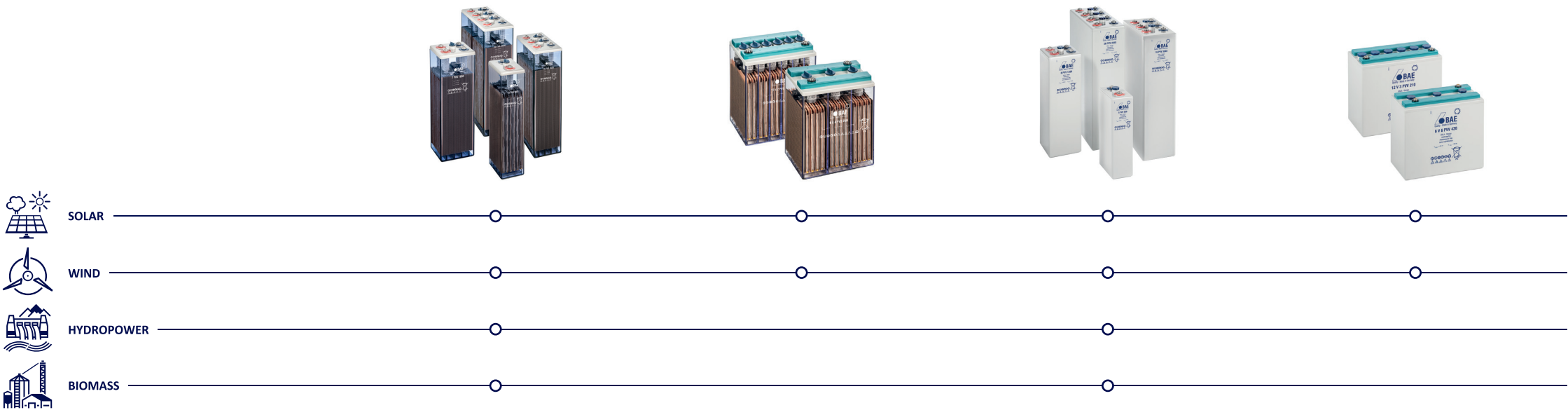
As a further step in our sustainable corporate strategy, we successfully implemented the certification of a management system for occupational health and safety in 2012 and the energy management system according to the ISO 50001 Standard in 2013. We successfully added the ISO 45001 certification in 2020.

Lead batteries consist of lead, plastic parts and acid of which all components are almost to 100% recyclable. This whole EU-certified and registered recycling process makes the lead battery one of the most environmental friendly energy sources.

Our aim is simple:

“the chemistry must be right”

Premium Lead Batteries



Typ	PVS Cells	PVS Block	PVV Cells	PVV Block
Technology	Vented (VLA)	Vented (VLA)	Valve regulated (VRLA)	Valve regulated (VRLA)
Maintenance	Low maintenance	Low maintenance	Maintenance free	Maintenance free
Nominal capacity (C ₁₀₀) ¹⁾	140 – 4.420 Ah	70 – 430 Ah	140 – 4.710 Ah	70 – 1.260 Ah
Nominal voltage	2 V	12 V, 6 V	2 V	12 V, 6 V
Positive electrode	Tubular Low antimony	Tubular Low antimony	Tubular Lead calcium	Tubular Lead calcium
Container (UL-94 rating)	SAN (HB)	SAN (HB)	ABS (HB/V-O)	SAN/ABS (HB/V-O)
Electrolyte	Liquid	Liquid	GEL	GEL
Water-refilling-interval ²⁾	Up to 3 years	Up to 3 years	N/A	N/A
Horizontal operation (optional)	No	No	YES	YES
Typical discharge time	1 – 240 h	1 – 240 h	1 – 240 h	1 – 240 h
Pole bushing	100% tight	100% tight	100% tight	100% tight
Cycles IEC 60896-11/-21	> 1.500	> 1.200	> 1.500	> 1.500
Cycles IEC 61427 (at 40 °C)	> 3.150	> 2.700	> 3.000	> 2.100
Charge voltage at cyclic operation (V/cell)	2.30 – 2.40	2.30 – 2.40	2.30 – 2.40	2.30 – 2.40
Float voltage at non cyclic operation (V/cell)	2.23	2.23	2.25	2.25

Reference temperature: 20 °C

¹⁾ Capacity at 100 h discharge.

²⁾ Reference values. The real water-refilling-interval for vented batteries depends on many factors, e.g. ambient temperature and specific battery operation.

QUALITY – MADE IN GERMANY

BAE SECURA SOLAR batteries are the perfect and safe choice for the energy supply in renewable energy applications, such as photovoltaic power generation, stand-alone photovoltaic systems and hybrid applications. BAE solar batteries meet all requirements of modern renewable energy applications, with a very wide range of sizes and different lead technologies. Therefore, BAE solar batteries have been approved for a wide range of industrial energy systems, even under extreme conditions, as well as in private households, e.g. to increase the content of self-consumed solar energy to a maximum level.

For renewable energy applications, BAE offers extreme low maintenance VLA batteries with liquid electrolyte and maintenance free batteries in progressive VRLA-Gel technology with fixed electrolyte. Due to the high cyclic requirements BAE solar batteries with positive tubular plates are the exclusive solution for high life-time performance. Reliability, a superior life-time and excellent deep discharge capabilities are the hallmarks of our batteries. Based on the outstanding characteristics of the single batteries, compact and powerful tailor-made solutions are available, like the SUN DEPOT for residential applications.

BAE SECURA SOLAR batteries reflect outstanding quality and usability by:

- Highest cycle performance approved acc. to IEC 61427, supported by outstanding tubular electrode quality
- Excellent charge acceptance with high efficiency, improved by carbon black additives
- Best deep discharge capability design, with microporous leaf separator
- Perfect reliability concurrent with minimal maintenance effort and lowest cleaning requirements, due to absolute tight pole bushing in BAE “Panzerpol” design
- Unique external inter-cell connector design for all solar block batteries secures best energy transfer and provides single cell monitoring
- Safe and long term proven technology
- Cost neutral and well-established recycling process