

KENERSYS



POWERING INNOVATION
WITH SYNERDRIVE TECHNOLOGY





HIGH QUALITY TURBINES ARE OUR DRIVE
INNOVATION OUR COMPETITIVE EDGE
We simply call it SYNERDRIVE TECHNOLOGY




Wind energy significantly reduces the emissions of greenhouse gas carbon dioxide in the power sector. The “Wind Energy Revolution” is indispensable to achieve the ambitious climate protection goals worldwide.

With feed-in-tariffs or green-certificate systems being introduced the last decade in many countries, there is a huge and growing global demand for emission-free wind power, which can be installed quickly and almost everywhere in the world.

At KENERSYS, we have brought together engineering specialists, logistics and manufacturing experts, sales professionals and administrators with one common objective: to develop, produce and market high quality, highly efficient and highly reliable turbines – with focus on low maintenance, on maximizing power generation and on matching different grid conditions worldwide. And satisfy our customers’ needs.

To meet the market demand worldwide.



KENERSYS is a renowned wind turbine manufacturing company with an in-depth knowledge in designing, manufacturing and marketing high-quality on-shore wind turbines.

The company was founded in 2003 as a German engineering and consulting company, providing wind turbine technical expertise, technical due diligences, turbine design and strategies for well-known manufacturers and component suppliers. In 2007 the company became part of the newly founded wind turbine manufacturer KENERSYS.

With the engineering team having over 400 years of expert knowledge, the KENERSYS GLOBAL TECHNOLOGY CENTER, based in Muenster (Germany) comprises the most experienced and innovative specialists of the wind industry. This unique technical competence ensures quality and reliability for our customers and provides KENERSYS with a sound base for expanding its position in the wind turbine market.

KENERSYS leverages the strength of its shareholders – the global manufacturing and supply chain expertise of the Kalyani Group and the experience and knowledge across the energy value chain from First Reserve Corporation.

KALYANI GROUP

Established in 1960s, the Kalyani Group today is a leading industry house with a group turnover over USD 2.5 bn. The company with 10,000 employees worldwide has business interests in engineering steel, forgings, automotive components, specialty chemicals and Renewable Energy & infrastructure.

FIRST RESERVE CORP.

First Reserve is the leading, most experienced, energy-focused private equity firm in the world having invested approximately USD 12.5 bn in equity. First Reserve was founded in 1984 and is the oldest private equity company dedicated to investments in the energy sector.



KENERSYS K82 2.0 MW at Göteborg, Sweden



Production plant at Baramati, India



Production plant at Wismar, Germany

KENERSYS PRODUCTS

KENERSYS concentrates on multi-megawatt on-shore turbines. The three platforms KENERSYS K82 2.0 MW, K100 2.5 MW and K110 2.4 MW are pitch regulated, variable speed, full conversion turbines with a synchronous generator. They are designed to suit wind regimes according to IEC Type Class IIa and IIIa.

KENERSYS PRODUCT PHILOSOPHY

TECHNOLOGY LEADERSHIP

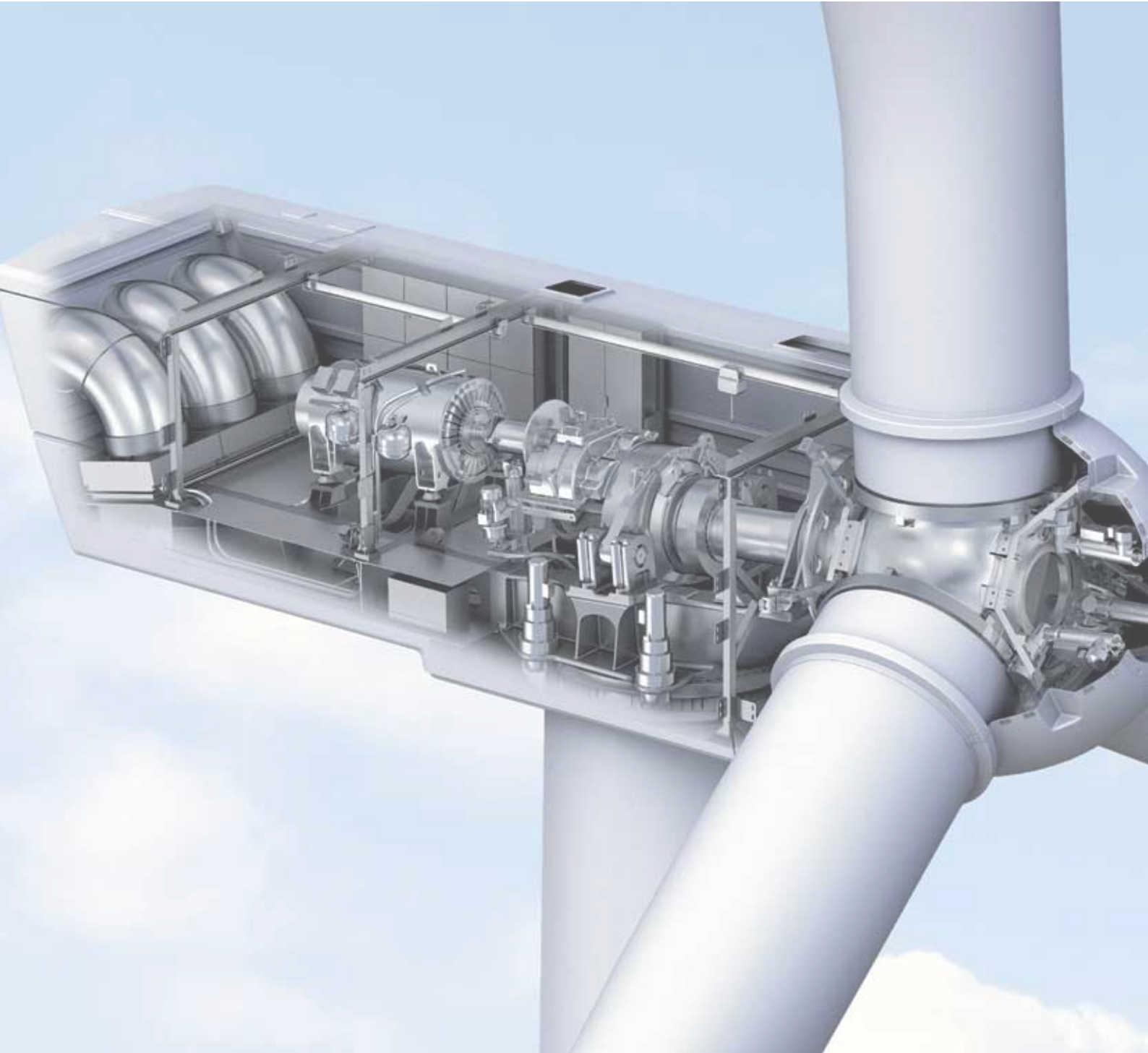
Knowing in detail the advantages and disadvantages of existing concepts, KENERSYS has developed three turbine platforms, KENERSYS K82 2.0 MW, K100 2.5 MW and K110 2.4 MW, by combining the advantages of a distributed drive train concept with a synchronous generator and a full conversion system – the KENERSYS SYNERDRIVE TECHNOLOGY.

QUALITY FIRST

All main components have been developed in cooperation with renowned and certified global suppliers – most of the components have an “in-built” track record with a high number of running systems. The turbines are assembled at the KENERSYS production plant in Wismar at the Baltic Sea (Germany) under lean production conditions and can easily be shipped worldwide. The production plant at Baramati in India serves the Asia-Pacific market.

OPEN SOURCE SOLUTION

KENERSYS turbines are the first “open source solution” in the wind industry: By providing all relevant turbine data via CASCADA, the KENERSYS SCADA system, and an easy access to the spare parts list, the KENERSYS open source philosophy allows the customers to service the turbines with external partners or enables them to do all the operation and maintenance work on their own.



Cut section view of a KENERSYS turbine

CUTTING EDGE TECHNOLOGY



SYNERDRIVE TECHNOLOGY is the KENERSYS evolutionary and synergetic drive train technology that combines a robust mechanical drive train concept with a unique electrical architecture to easily fulfil all modern grid requirements and harsh grid and climate conditions.

SYNERDRIVE TECHNOLOGY FEATURES



GRIDSHAPER is the KENERSYS unique full power conversion system providing a perfect decoupling from the grid as well as stable power output.



COOLRIDE provides higher efficiency by water cooling for gear-box oil, generator (oil-to-water heat exchanger) and rectifier unit. The air is taken from outside and directly blown out for an improved corrosion protection.



INTERNAL SUPPLY UNIT (ISU) supplies the turbine with power for internal consumers, with constant voltage and frequency using the kinetic energy of the turbine's idling also above cut-out and below cut-in wind speeds.

In ISU ISLAND MODE, the turbines stay in a "ready to operate" mode during grid downtime: When the grid comes back, the turbines can immediately reconnect to the grid and start production. With ISU GRID IMPACT PROTECTOR, the turbine electronics are completely protected against any grid irregularities and extreme load peaks.



CASCADA sets a new standard in wind turbines supervision and control with a cascade of possibilities in monitoring, remote control and data integration.



TAILORMADE O&M packages are a modular offering from routine maintenance to long-term full service contracts with availability guarantee. With KENERSYS "open source service" experienced customers are enabled to operate and maintain the turbines themselves – as certified O&M partners.



Erection of a K82 2.0 MW at Satara District, Maharashtra, India

WE ARE FOCUSED ON OUR CUSTOMERS' NEEDS

At KENERSYS we understand the needs of our customers. We will give you support right from the start. Whether you want to familiarize yourself with our products or if you need support with the project planning, installation and service, our engineering team, commissioning engineers and service experts will give you professional advice at all project stages.

YOUR BENEFITS

- ⊕ State-of-the-Art products
- ⊕ Short delivery times
- ⊕ Transparency in communication and product
- ⊕ Quick response, quick decisions in all stages
- ⊕ Assistance already in the project planning phase
- ⊕ Direct access to the engineering specialists
- ⊕ Tailor-made service contracts



KENERSYS



KALYANI

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With people who think fast and develop the future with you.
With wind turbines that secure your return on investment.
With uncompromised quality that reduces the costs long-term.
With comprehensive knowledge of future developments.
With a worldwide service network.

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