

Nordex wind turbines: Safely stowed at a lofty height



Over the past ten years, the amount of energy generated from wind power in Germany has more than quadrupled. For example, Nordex has added three new wind turbines to the Siegbach wind farm in the densely wooded Schelder Wald in Hesse. And it is technology from another Hesse-based company – Rittal – that ensures the plant keeps on running under conditions that can often be extreme.

“As a manufacturer of wind turbines, we are extremely keen that the integrated components don’t just work reliably, but can also be installed and maintained quickly and easily.”

Thomas Brix, Head of System Department Electrical Engineering at Nordex

The tallest of the three 2.5 megawatt turbines in Siegbach wind farm measures 190 metres from base to rotor tip. The farm is designed to generate 16 million kilowatt hours of electricity each year – enough for around 6,400 households.

Local and secure

The technology inside the turbines comes from the local area. From the base of the tower to the nacelle way up in the air, Rittal enclosures provide the comprehensive protection required to keep the integrated components operating smoothly. The demands are high, because the enclosures are subjected to strong vibrations and high temperature fluctuations.

Case Study

Rittal GmbH

Flexible and expandable

Wind turbines convert mechanical energy into electrical energy. In addition to the rotor, drive shaft and gear mechanism, this requires a whole host of electrical and electronic components – converters, controllers, safety devices and communication and monitoring modules are all integrated into TS 8 enclosures from Rittal. Due to their profiles, system punchings and exceptional flexibility, these enclosures offer a diverse range of application options. Key advantages include the ability to configure the enclosures on two mounting levels and direct baying, which means that customers can subsequently extend the enclosures in a spacesaving manner.

Specially secured

Due to the constant movements and vibrations that affect the turbines, the enclosures are also springmounted on rubber bearings and steel beams. This, combined with the earthquake kits used to reinforce the enclosures, provides the ideal protection to ensure the turbines in the Siegbach wind farm keep on working.

Rittal

Rittal, headquartered in Herborn, Germany, is a leading global provider of solutions for industrial enclosures, power distribution, climate control and IT infrastructure, as well as software and services. Systems made by Rittal are deployed across a variety of industrial and IT applications, including vertical sectors such as the transport industry, power generation, mechanical and plant engineering, IT and telecommunications. Rittal is active worldwide with 10,000 employees and 58 subsidiaries. Its broad product range includes infrastructure solutions for modular and energy-efficient data centres with innovative concepts for the security of physical data and systems. Leading software providers EPLAN and Cideon complement the value chain, providing interdisciplinary engineering solutions, while Rittal Automation Systems offer automation systems for switchgear construction. Founded in Herborn in 1961 and still run by its owner, Rittal is the largest company in the Friedhelm Loh Group. The Friedhelm Loh Group operates worldwide with 18 production sites and 78 international subsidiaries. The entire group employs more than 11,500 people and generated revenues of around €2.2 billion in 2015. In 2016, it was named one of Germany's leading employers by the Top Employers Institute, for the eighth year running. Within the scope of a Germany-wide survey, Focus Money magazine identified the Friedhelm Loh Group as one of the nation's best providers of vocational training.

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