## **Technical concept**

A variable-speed but stall-controlled wind turbine - isn't that a contradiction? Not for the WTN 250i!

Thanks to its full-speed converter, it is independent of the mains frequency in speed control and can actively control the aerodynamic stall effect of the rotor blades (stall control) upon a certain ratio between wind and rotor speed. Based on that and especially during low wind, the power is used more effectively and at the same time, in the case of a lot of wind, the limitation is ensured, as e.g. necessary for the German Grid Codes.

The mechanical design is based on its solid predecessor, of which it also has the rotor diameter of 29 or 30m including the aerodynamic tip brake system. All this makes the WTN 250i competitive at a rated power of 250kW and especially interesting for large consumers.

Of course, the inverter can also be used to control all other network conditions, such as Reactive power control and LVRT. This is now already required in a few countries and might follow in others.

Ultimately, the WTN 250i can be used autonomously or in combination with other energy sources and / or storage systems, but also in isolated networks, in order to reduce the dependence on diesel generators. Combined with its transport facilities on normal truck sizes the WTN 250i is ideal for remote area applications.

# Legal possibilities

Since the WTN 250i can also be supplied with hub heights of 25 or 30m, it remains below an overall height of 50m and may not require comprehensive planning approvals. In opposite we are able to offer also higher tower solutions for low wind areas.

If necessary we can limit the rated power also to 225 or 200 kW to get grid applications made easier or special FITs approval.

It goes without saying that the WTN 250i is certified in accordance with the Machinery Directive 2006/42 / EC and can therefore bear the CE mark without restrictions

### Management

Of course, Wind Technik Nord also offers its full maintenance contract for the WTN 250i, which, combined with our 5-years warranty, ensures high availability.

Please contact us for further information.

Technical Details:	
Rated power:	250kW (adjustable)
Hub height	25, 30, 40 and 50m
Rotor Diameter:	29 and 30m
Blades:	WTN 13.4
Gearbox:	Helical
Yaw System:	active
Safety system:	Tip brakes

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WTN250i

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