

WindCube Nacelle Long Range

VAISALA

Product Spotlight

A generational leap in Power Performance Testing

WindCube® Nacelle lidar is the most reliable, accurate lidar for IEC-compliant Power Performance Testing (PPT). Maximize your wind farm power output and project profitability with robust data and ease of use – onshore and offshore.

DNV, in collaboration with Vaisala, has classified the WindCube Nacelle as the first nacelle lidar to comply with the IEC 61400-50-3 standard.



Key benefits

WindCube Nacelle is equipped with outstanding data analysis and reporting capabilities that integrate both lidar and turbine data (including time synchronization) for calculations as accurate as what can be achieved using met masts.

Enjoy out-of-the-box simplicity, including standardized lidar and turbine data filters, simple configurability, and clear power curve analytics.

Windcube Insights - Analytics is an easy-to-use, cloud-based tool that can be installed and used quickly and easily, without the intense training usually needed to manage PPT.

Ease of deployment, universal compatibility, and simple structure make it non-intrusive and easy to integrate into existing wind energy operations.

Why Vaisala?

We are innovators, scientists, and discoverers who are helping fundamentally change how the world is powered. Vaisala elevates wind and solar customers around the globe so they can meet the greatest energy challenges of our time. Our pioneering approach reflects our priorities of thoughtful evolution in a time of change and extending our legacy of leadership.

Vaisala is the only company to offer 360° of weather intelligence for smarter renewable energy, nearly anywhere on the planet. Every solution benefits from our 85+ years of experience, deployments in 170+ countries, and unrivaled thought leadership.

Our innovation story, like the renewable energy story, continues.

WindCube Nacelle leverages our deep industry expertise with more than 400 successful lidar deployments, on 100+ wind turbine models onshore and offshore, and has been proven to dramatically reduce operational cost while increasing efficiency.

With an unprecedented range of up to 700m, WindCube Nacelle is the only lidar on the market to meet the range requirements for any current and future wind turbine. The enhanced measurement range provides a complete picture of the wind profile with accuracy and reliability as good as or better than met masts.

To adapt to onshore and offshore range requirements while providing the most competitive solution, the WindCube Nacelle PPT portfolio includes two versions:

1. WindCube Nacelle: 50–450m range, ideal for onshore turbines
2. WindCube Nacelle Long Range: 50–700m range, ideal for offshore turbines

Applications

- PPT
- Warranty power curve
- Yaw misalignment correction
- Nacelle transfer function calibration

Services

Golden Lidar validation by DNV included with every new WindCube Nacelle.

WindCube®: The gold standard

WindCube® is the iconic and trusted gold standard in wind lidar. The turnkey product suite offers innovative, reliable, and highly accurate solutions for thousands of customers across the globe. Borne from a passion to advance the field, WindCube continues to take wind energy ever higher through a commitment to four guiding principles:

- Trustworthy, superior metrology
- Unrivaled thought leadership
- Innovative lidars from a one-stop shop
- Easy, reliable global solution

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