LEOSPHERE
A VAISALA COMPANY

Product Spotlight

www.leosphere.com

WindCube

The industry-standard lidar for accurate, bankable wind data

WindCube® is the most flexible and accurate wind measurement technology available, for both onshore and offshore applications. It supports continuous measurement campaigns throughout all project phases thanks to its compact, plug-and-play design.

During the development phase, WindCube provides the bankable data needed to secure funding while minimizing risk; it also provides precise measurements for energy yield assessment. Operators often rely on WindCube for performance verification, since WindCube is fully IEC-classified.

WindCube can be positioned almost anywhere — offshore, onshore, and in complex terrain — and measures across the entire rotor sweep of today's turbines, at far greater heights than met masts. It is suitable for permanent or temporary applications with little or no environmental disruption, while increasing worker safety.

WindCube data has been validated by hundreds of independent studies and is accepted by all international standards and guidelines. On complex terrain, it uses FCR — also validated by formal studies. Wherever it is located, WindCube helps users optimize financial performance, increase efficiency, and maximize energy output.

Key Benefits

Powerful technology for better, more bankable data

WindCube provides accurate wind measurement up to 200 meters over 12 simultaneous heights. The result is better, bankable data and a more complete view of the wind profile — both of which help you secure funding, reduce uncertainties and the cost of equity, and minimize risk.

Mobility and ease of deployment

WindCube units are simple and fast to deploy, with few, if any, permitting or regulatory challenges. The system can stand alone or be co-located with a met mast.

Data at your fingertips with WindCube Insights software

WindCube comes packaged with WindCube Insights — an easy-to-use, secure, cloud-based tool that provides real-time insights, allowing you to access and manage your systems and data, whether you have one system or many.

WindCube at a glance

Applications

Supports all phases of a project lifecycle:

- Site prospection
- Wind resource assessment
- Site suitability and calibration
- Continuous wind monitoring
- Power performance verification
- Grid-loss compensation
- R&D applications

Features

Embedded FCR correction for direct measurement in complex terrain

IEC compliance for contractual performance testing (IEC 61400-12-1 ed2)

3-year warranty and maintenance with optional onsite maintenance

Includes WindCube Insights cloud-based data management system

Specifications

Wind data provided	Wind speed, wind direction, turbulence intensity, vertical wind speed, data availability
Range	40m to 200m
Speed accuracy	0.1 m/s
Speed range	0 to 60+ m/s
Speed uncertainty	2-3%
Direction accuracy	2°
Beam geometry	4 inclined beams at 28° + 1 vertical beam
Data storage	120GB industrial disk (10 years of data); WindCube Insights secure cloud-based server
Communication	LAN, USB, 3G modem, Modbus RTU, Wi-Fi
Temperature range	-30°C to 45°C / -22°F to 113°F
Compliance	CE, FCC, ICES
Data sampling rate	1Hz; 1s/1, 2, 5, 10min averaged (user-defined)
Housing classification	IP 67 (inner racks)
Power consumption	45W
Weight	46kg
Dimensions	L55 cm, W56cm, H55 cm

Why Leosphere, A Vaisala Company?

Leosphere WindCube lidars are the most widely used solutions in wind energy. Trusted by developers, operators, manufacturers, service providers, and many more stakeholders, they provide the reliable data and business outcomes companies need to thrive. Thousands of WindCube units are in service around the globe with some of the world's largest wind energy clients, as well as plenty of smaller, emerging ones.

Support and services you can count on

Wind energy isn't just about technology. It's about having the backing of a global partner that can directly support your business end-to-end, with complementary services, robust customer service, and consultation. Today, WindCube lidar technology is also backed by 80 years of experience and worldwide services.

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