

WindCube Scan

Long-range, fully flexible wind data for wind farm development and operations



Key Benefits

Versatility and reliability

WindCube Scan offers full 3D scanning with typical ranges up to 3km, 6km, or 10km (depending on model) — as well as multiple scanning patterns that make it ideal for many campaign types. The system boasts outstanding uptime, reliability, and a robust onsite maintenance program, making it an ideal solution for long-term projects. And it can be moved and repurposed to support a variety of applications, providing outstanding value over time.

At-a-glance data insight and reporting

Get rich campaign insight through your choice of data management tools. WindCube Scan offers flexible data management through API requests, communication with an FTP server, or through a user-friendly and robust graphical user interface.

Supported by the industry leader

WindCube Scan is supported by decades of experience, scientific tools and expertise, and industry-standard support services — all of which enable customers to get the most from their equipment over its full life span.

Wind farms are growing larger and more densely filled with turbines, and turbine technology continues to evolve. WindCube® Scan reliably and affordably provides accurate wind mapping and wake analysis that are now indispensable to onshore and offshore projects.

WindCube Scan is the industry's tool of choice for providing reliable, precise spatial wind data at any stage of a wind farm project, from prospecting to operation. Suitable for short-term rental changing placements during development campaigns or long-term operations.

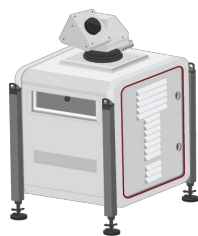
WindCube units feature rugged, industrial designs and can be placed in extreme environments. They are among the most flexible and accurate wind measurement technologies available complementing met masts and accurate vertical profiling lidars. Each system is fully configurable for several uses including monitoring, atmospheric cross-sectioning, and wind profiling.



WindCube Scan at a glance

Applications

- Large-scale wind resource assessment, onshore or offshore
- Measurement of wind turbine wake and wind farm blockage effect
- Short-term forecasting for farm power prediction
- Single or multiple power performance tests run simultaneously



Key features

Full 3D fast scan

Fully configurable lidar scanning strategy based on PPI, RHI, DBS and single beam scans to meet all needs

Provides NetCDF files, a robust auto-documented format that gives flexibility to the user

A wind reconstruction tool proven by international third parties is also available

Dedicated reprocessing and display software

API available for user's own configuration and data access

WindCube Scan series specifications

	100S	200S	400S
Typical wind measurement range	3km	6km	10km
Maximum range	14.7km	14.7km	15km+
Scanner rotation speed	Up to 30°/s		
Accumulation time	From 0.1s to 10s		
Data transfer	Ethernet/LAN		
Data format	Export in NetCDF by graphic interface or to FTP server		
API type	REST web API		
API functionalities	Lidar configuration and monitoring; status/activities/logs monitoring; data download (JSON stream and NetCDF files)		
Weight	232kg (without options)		
Temperature range	-30°C to +45°C (-22° to 113 F°)		
Power consumption	500W to 1.600W		

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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