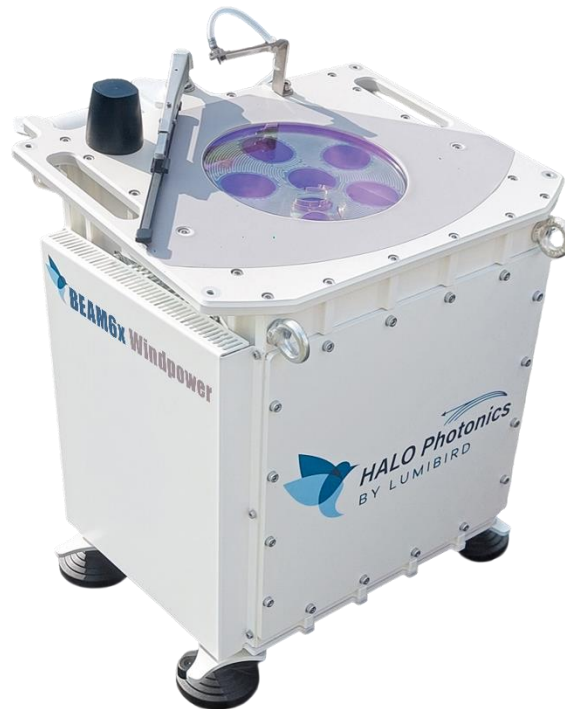


Next Generation Lidar Wind Profiler

BEAM6x Windpower



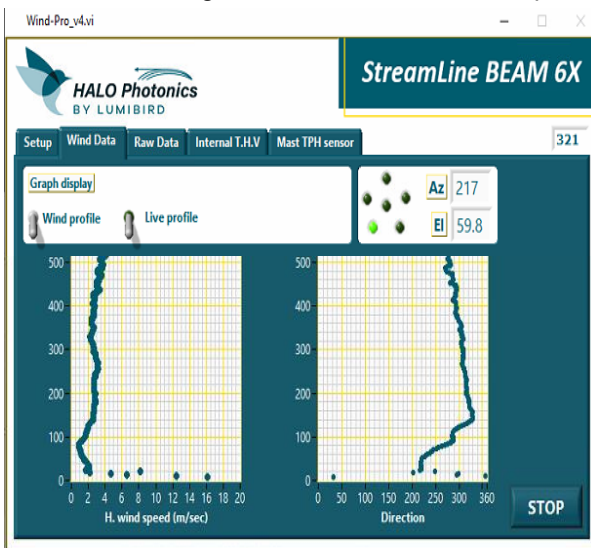
- Next generation of high performing Doppler lidar for wind studies within
- Powerful pulsed laser with 6 fixed beams (5 tilted and 1 vertical)
- Measuring range from 40 m up to 500 m
- 380 height ranges, overlapping range gating with 1.3 m increments
- High data availability even for upper height ranges (typ. $\geq 80\%$ @ 350 m)
- Easy and fast transportation and installation
- Output of raw line-of-sight data (radial velocity and SNR)
- Online calculation of 10 minutes averaged wind profiles
- Wide temperature range from $-40\text{ }^{\circ}\text{C}$ up to $+50\text{ }^{\circ}\text{C}$
- Comprehensive Built-In system status monitoring

Lidar Wind Profiler **BEAM6x Windpower**

The BEAM6x Windpower combines the long-term expertise of Lumibird's widely used Streamline lidars and the latest developments in laser technology and signal analysis. It uses 5 fixed tilted beams @ 60 ° elevation and one vertical beam to derive online vertical wind profiles of adjustable averaging intervals. The unique range overlapping provides profiling with a vertical spacing as fine as 1.3 m which allows to select the exact measuring heights of interest.

The BEAM6x Windpower offers compact design and low weight assuring a safe and easy handling and reducing all installation efforts. The measuring height of 500 m agl is an adequate response to the ongoing increase of the wind turbines hub heights and ensuring long-term usability.

Laser wavelength	1.5 µm, laser class 1M (eye-safe)
Pulse length	typ. 150 ns
Range of measuring heights	40 ... 500 m
Number of measuring heights	380 at 1.3 m increments
Availability	≥ 80 % @ 350 m (typically experienced)
Rays	5 tilted beams at 60 ° elevation, 1 vertical beam
Range of radial wind speed	± 38 m/s
Range of horizontal wind speed	0.2 ... 80 m/s
Range of wind direction	0 ... 360 °
Accuracy of wind speed	≤ 0.1 m/s or 2 %
Accuracy of wind direction	≤ 2 ° at wind speeds ≥ 5 m/s
Dwell time per beam	1 s
Averaging time of wind profiles	adjustable, typically 1 .. 30 minutes
Interfaces for data output and control	RJ45 Ethernet x2, USB x2, SVGA
Built-in memory	1 TB solid-state hard drive (other types available)
Position and time synchronization	GPS
Levelling	recording of 2-axis inclination sensor
Ambient operation conditions	-40 °C ... 50 °C (active cooling) / 5 ... 100 % RH
Power consumption	24 VDC, 60 W lidar/160 W extra for heating/cooling
Weight	30 kg (approx.)
Enclosure dimensions (L x W x H)	50 cm x 44 cm x 40 cm (approx.)
Windows cleaning	wiper



Metek GmbH is offering a variety of Doppler LIDAR systems for rental services and short term demonstrations.

In 08/2023 LUMIBIRD S.A. and METEK GmbH signed a comprehensive cooperation agreement regarding distribution, after sales service, maintenance and repair by METEK GmbH for 15 European countries. Pls. see our website www.metek.de or contact us by phone for more information about our products and services.

METEK GmbH reserves the rights to modify the specifications without prior notice.