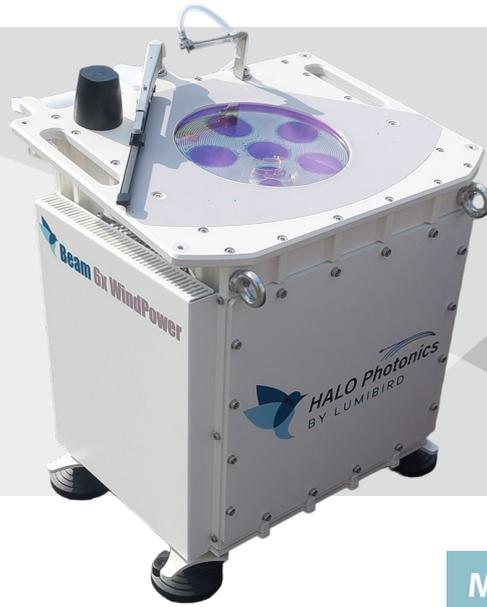


BEAM6x WindPower

500 m range vertical wind profiler pulsed LiDAR



MAIN FEATURES

- DNV classified up to 200 m according to IEC61400-50-2 standards
- True push-button installation and operation
- Highest data availability from 40 to 500 m
- Up to 380 user selectable heights (every 1.3 m)
- Best stand-alone operation (low consumption, high temperature range, low weight, large data storage)
- Lightweight and compact (single person deployable)
- High reliability with Lumibird laser inside

MAIN APPLICATIONS

- **WIND RESOURCE ASSESSMENT**
- **WIND TURBINE POWER CURVES**
- **WIND TURBINE WAKE STUDIES**

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The **BEAM6x** WindPower is a self-contained, turnkey vertical wind profiler pulsed Doppler LiDAR system designed specifically for wind energy applications. These rugged units are easy to install and operate in all weather conditions and terrain. They benefit from Lumibird's >25 years of laser design and manufacturing expertise and Halo Photonics' fast data processing algorithms.

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03/26 - Lumibird reserves the right to modify the specifications without prior notice. Photos are not contractual.

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BEAM6x WindPower

500 m range vertical wind profiler pulsed LiDAR

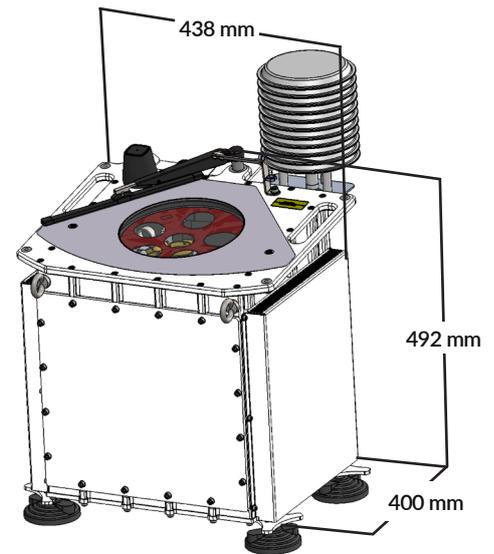


Measurement performance	Value	Notes
Beam geometry	5 inclined beams at 30 ° and 1 vertical beam	Switch from one beam to the next
Measurement range	40 up to 500 m	Availability depends on environmental factors such as visibility, type of aerosols and variation of refractive index in the atmosphere.
Data sampling rate	Standard 1 Hz, configurable from 0.5 to 10 Hz	Configurable acquisition time from 100 ms to 2 s
Measuring distances	Up to 380	User defined every 1.3m available
Wind speed range	0 to 76 m/s	
Wind direction range	0 – 360 °	
Speed accuracy	< 0.1 m/s	By design
Speed uncertainty	< 2.3% from 60 m to 100 m < 1.6% from 100 m to 170 m < 1.3% from 170 m to 200 m	For 10-min averages, as assessed by 3rd parties according to IEC61400-12-1 Ed.2. Uncertainty figures are final accuracy class divided by $\sqrt{3}$
Direction accuracy	2 °	

Environmental specifications	Value	Notes
Operating temperature	-40 to +50 °C	Chamber, no solar loading
Operating humidity	0 to 95 % Relative Humidity	
Housing classification	IP67	
Laser safety compliance	Class 1M	IEC60825-1:2014
Rain protection	Wiper and inclined window	
Snow protection	Inclined surface, window heater and wiper	
Shocks and vibrations	ISTA / FEDEX 6B	

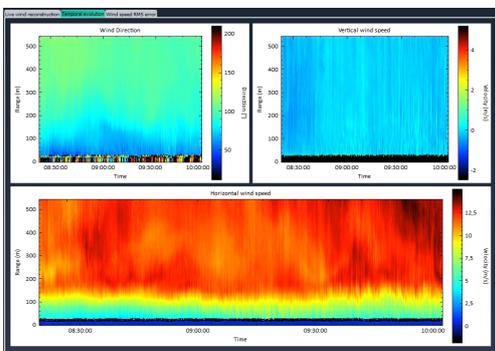
Utility	Value	Notes
System dimensions	492 mm x 438 mm x 400 mm	Height x Width x Depth
Weight	29.2 kg	
Direct input power supply	24 +/- 0.5 VDC	
Power consumption	50 W between -10 and 30 °C	70W above 30 °C 155W at -40°C
PTH Sensor	Included	Can be installed on sensor or mast. Model: Rika RK330-01 or equivalent

Data Output	Value	Notes
Output data	RealTimeData at configured acquisition time and 10-min average: •GPS coordinates •Time stamp •External PTH •Radial speeds •Horizontal speed (min, max, avg) •Vertical speed •Wind direction •Wind reconstruction error •Turbulence intensity •SNR (intensity)	
Data storage	1TB SSD	
Data file format	.txt (Tab-Separated Values)	
Communication	2 x RJ45 Ethernet and Wi-Fi	Wi-Fi for field configuration, disableable. Power over Ethernet port supporting IEEE 802.3af/at standards
Time synchronization	GPS, NTP	
Data retrieval	Web interface or SSH	



LASER RADIATION
 DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS
 CLASS 1M LASER PRODUCT

- COMPATIBLE WITH**
- Power pack (solar panel, battery, fuel cell on a trailer)
 - 3G/4G/5G or satellite router
 - IEC 61400-50-2:2022 / IEC61400-12-1 verification



WindOhm screenshot

Wind resource assessment

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