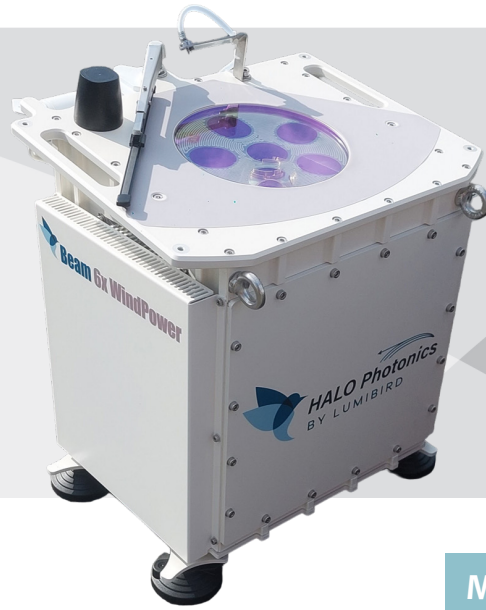


BEAM6x WindPower

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**

“

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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www.halo-photonics.com



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Quispamsis, NB, Canada
Phone: 506 849 0026
Mobile: 506 651 6882 (Paul)
www.sentrexwind.com
Exclusive Distributor in Canada



BEAM6x WindPower

500 m range vertical wind profiler pulsed LiDAR

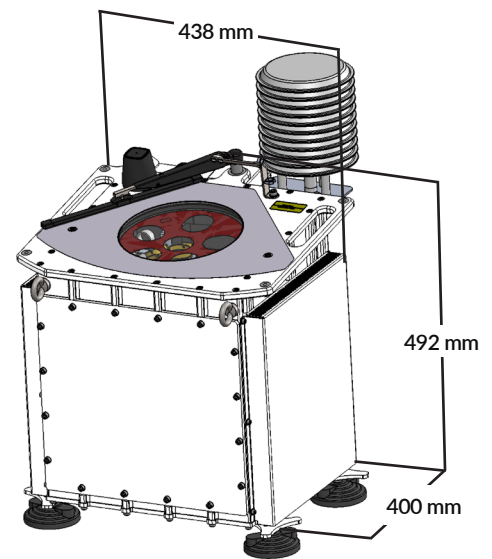


| Measurement performance | Value | Notes |
|-------------------------|---|---|
| Beam geometry | 5 inclined beams at 30 ° and 1 vertical beam | Switch from one beam to the next |
| Measurement range | 40 up to 500 m | Availability depends on environmental factors such as visibility, type of aerosols 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 | |

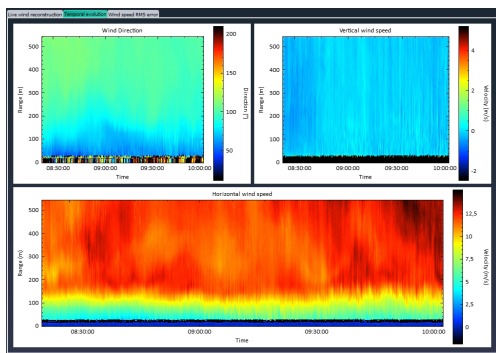
| Utility | Value | Notes |
|---------------------------|----------------------------|--|
| System dimensions | 492 mm x 438 mm x 400 mm | Height x Width x Depth |
| Weight | 29.2 kg | |
| Direct input power supply | 24 +/- 0.5 VDC | |
| Power consumption | 50 W between -10 and 30 °C | 70W above 30 °C 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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