

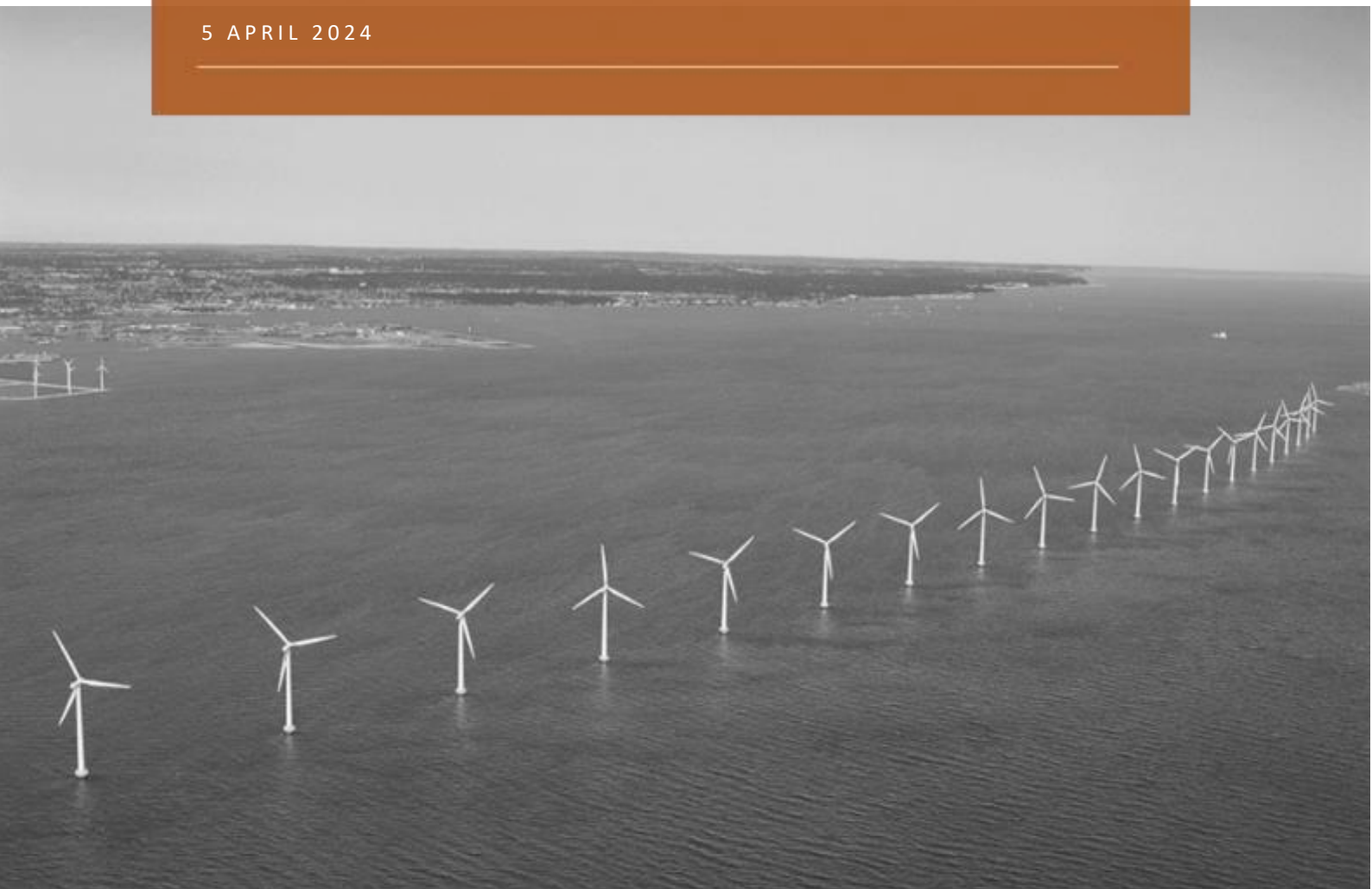


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Energy Island Baltic Sea

Revalidation Note on Site Wind Conditions Assessment
Energy Island Baltic Sea

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Executive Summary

Objective

The objective of this technical note is to revalidate the site wind conditions presented in the main report “Site Wind Conditions Assessment, Baltic Sea” issued in 2023 by EMD for Energinet in relation to the Energy Island project in the Baltic Sea [1].

Background

Energinet has commissioned the Energy Island project in the Baltic Sea. The Energy Island project is expected to generate significant amounts of renewable energy and reduce carbon emissions. As wind is the primary source of energy for the project, a thorough assessment of the site wind conditions is crucial for its successful implementation.

Methodology

The revalidation note updates the site wind conditions assessment, based on 2 years of onsite measurements using floating LiDAR systems (FLS) in the Baltic Sea Energy Island Offshore Wind farm Zone (OWF) and delivers the site wind condition parameters according to IEC 61400-1 [2], IEC 61400-3-1 [3] and in addition refers to Eurocode EN1991-1-4 [4] including the Danish annex [5], DS 472 ed.2 [6] and IEC 61400-15-1 CD [7].

The site wind conditions assessment is intended to serve as basis for:

- Preliminary site-suitability analysis of the Wind Turbine Generator (WTG) and Rotor Nacelle Assembly (RNA)
- Front-End Engineering and Design (FEED) of offshore support structures for WTGs and other structures.

The report presents the additional data obtained for the site with a recalculation of the site parameters affected by the extension of the measurement period. Methodologies, calculations and results unchanged from the main report are not presented in this note.

Measurements on Lot 4 were continued through a second year, while measurements were discontinued on Lot 3. The Lot 4 measurements were used to update the Primary Wind Model for the site.

Motion corrected turbulence data were provided from buoys in the North Sea and the Baltic Sea to facilitate a comparison of turbulence for the two regimes.

Calculations are done in windPRO 4.0, developed by EMD International A/S.



Results

The site condition parameters are summarized in Table 1.

Table 1. Summary table of Site Wind Condition parameters at the four selected positions on the Baltic Sea Energy Island OWF zone. All values refer to 150 m height above sea level (ASL) and are based on 1 (Position 1 and 3) or 2 years (Position 2 and 4) of onsite measurements.

Parameter	POSITION 1	POSITION 2	POSITION 3	POSITION 4
Mean wind speed	9.92 m/s	9.94 m/s	9.96 m/s	9.97 m/s
Weibull distribution, A parameter (scale)	11.20 m/s	11.22 m/s	11.25 m/s	11.25 m/s
Weibull distribution, k parameter (shape)	2.18	2.20	2.19	2.20
Normal wind profile power law exponent	0.097	0.096	0.097	0.096
Turbulence intensity mean value (TI_{μ}) at a 10-min average wind speed of 15m/s*	4.3%	4.3%	4.3%	4.3%
Turbulence intensity standard deviation (TI_{σ}) at a 10-min average wind speed of 15m/s*	2.0%	2.0%	2.0%	2.0%
Turbulence intensity 90% quantile at a 10-min average wind speed of 15m/s*	6.9%	6.9%	6.9%	6.9%
Mean air density	1.23 kg/m ³	1.23 kg/m ³	1.23 kg/m ³	1.23 kg/m ³
Mean air temperature	9.2°C	9.2°C	9.2°C	9.2°C
50-year extreme wind speed	40.7 m/s	40.7 m/s	40.7 m/s	40.7 m/s
1-year extreme wind speed	22.9 m/s	22.9 m/s	22.9 m/s	22.9 m/s
Wind shear for extreme wind speed extrapolation	0.20	0.20	0.20	0.20
Characteristic turbulence intensity at 50-year extreme wind speed	10.9%	10.9%	10.9%	10.9%
Air density for extreme wind	1.24 kg/m ³	1.24 kg/m ³	1.24 kg/m ³	1.24 kg/m ³

*Turbulence values at other wind speeds can be found in Appendix D.

The datasets produced by this study are available in a data package prepared for Energinet.



Recommendations

EMD recommends supporting the turbulence assessment with additional turbulence measurements. The Arkona mast, used for the nearby Arkona wind farm would likely provide good support.

EMD recommends investigating the mesoscale changes to the wind regime cause by extensive wind farm build up in the Baltic Sea region. EMD is performing such a study for Energinet, expected to become available May 2024.



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1 Introduction

EMD has been tasked by Energinet to provide a revalidation note, which complement the initial site wind conditions assessment [1] for the Energy Island Baltic Sea.

The objectives of the site wind conditions assessment are outlined in the Scope of Services Site Wind Conditions Assessment [8] provided by Energinet and aims for a site wind conditions assessment adequate for a preliminary site-suitability analysis for the Wind Turbine Generator (WTG) and Rotor Nacelle Assembly as well as input for Front-End Engineering and Design (FEED) of offshore support structures for WTGs and other structures.

The parameters for the wind condition assessment are listed in Table 2 and are defined according to IEC61400-1 [2], IEC 61400-3-1 [3] and IEC 61400-15-1 CD [7].

Table 2. List of Site Wind Condition Parameters.

SITE WIND PARAMETERS AT 150 M MSL	
Normal Conditions Parameters	Extreme Conditions Parameters
Mean wind speed	Extreme Turbulence Model (ETM) at hub height
Omnidirectional Weibull wind speed distribution parameters	Wind profile for extreme wind speed extrapolation with elevation
Wind profile for wind speed extrapolation with elevation	Wind profile for integrated load analysis
Wind profile for Integrated Load Analysis, Normal Wind Profile (NWP)	Turbulence intensity
Normal Turbulence Model (NTM)	Mean air density
Mean air density	Maximum 10-minute mean wind speed for a 50-year EWM
Mean air temperature	

The site wind condition parameter list is populated through a wind condition and resource assessment based on onsite floating LiDAR data from two locations and mesoscale WRF data. This model is supported by a selection of secondary stations located within meaningful distance of the Baltic Sea Energy Island wind farm zone.

The parameter list in this revalidation note is updated with results from the extended wind measurement campaign.

Beside the present note, measurement data as well as hindcast and long-term corrected datasets are provided in the form of time series text files.



All elevations throughout are referred to as Above Sea Level (ASL) with the reference sea level being the mean sea level.

A naming convention is used for turbulence conditioned on wind speed where 'mean turbulence' is the mean of 10-minute wind speed standard deviations (σ) within a wind speed bin. The 'standard deviation of turbulence' is the standard deviation across 10-minute wind speed standard deviations ($\sigma\sigma$) in a wind speed bin. Both these quantities (mean and standard deviation of turbulence) may be normalized to the wind speed of the wind speed bin in question, in this case the normalized turbulence is referred to as Turbulence Intensity (TI), either mean or standard deviation.

FLS is used as abbreviation for Floating LiDAR System.



2 Additional data for revalidation

Since the issue of the main report, “Site Wind Conditions Assessment, Baltic Sea” [1], the following data has been made available to EMD.

1. Measurement data from the buoy on Lot 4 until 22/11/2023
2. Motion corrected turbulence intensity measurements from buoys in the North Sea and the Baltic Sea.

Measurements on Lot 3 was discontinued after 1 year, providing no additional data since the main report.

Labelling convention on the lots is changed in the revalidation report to refer to lot number rather than the name of the buoy deployed at the lot.

Table 3. Measurement stations considered in the revalidation note, including measurement heights ASL and period.

NAME	TYPE	MEASUREMENT HEIGHT [M] ASL	MEASUREMENT PERIOD	LENGTH [YEARS]
Lot 3	LiDAR (FLS)	30 - 270	21/11/2021 – 21/11/2022	1
Lot 4	LiDAR (FLS)	30 - 270	22/11/2021 – 22/11/2023	2



3 On-Site Floating LiDAR Measurements

Energinet has commissioned two floating LiDAR measurements on site, operated by Fugro Norway AS. The buoys are labelled LiDAR Buoy 3, WS199 and LiDAR Buoy 4, SWLB044 and their deployment locations are labelled Lot 3 and Lot 4 respectively. These two locations are in the following also referred to as Position 1 and Position 2. The campaign was commenced on 21/11/2021. On Lot 3, measurement campaign ended after 1 year. On Lot 4 the measurement campaign ended on 22/11/2023, after 2 years of operation.

In addition to the documentation listed in the main report [1], EMD has received documentation as listed in Table 4.

In addition to the data used in the main report, EMD has received measurement data as monthly batches covering the period 22/11/2022 to 22/11/2023 for Lot 4, hence covering 2 two-year period, while the dataset for Lot 3 remains at 1 year.

Turbulence data with motion correction applied has been provided. Averaging over 10 minutes is considered sufficient to remove motion effects on mean wind speed data. This was verified during pre-deployment verification.

EMD has received documentation and measurements beyond those mentioned here, but those are not used directly in this study.



Table 4. List of documentation received on the Floating LiDAR Systems (FLS) in addition to documentation listed in the main report.

TITLE	SOURCE	DATE	CONTENT	REFERENCE
Energy Islands – Floating LiDAR Measurements, Monthly report (Lot 4), 24 instalments)	Fugro	25/03/2022 – 02/01/2024	Monthly reports on operation and measurements. Reports available until October – November 2023	[9]
Summary Reports of Major events (Lot 4, 6 instalments)	Fugro	21/06/2022 – 23/07/2023	6 event logs describing event with impact on measurements	[10]
Energy Islands – Floating LiDAR Measurements, Motion correction of turbulence intensity. WP1: North Sea pre-deployment verification tests	Fugro	04/12/2023	Verification of motion correction for buoys on Lot 1 and Lot 2 (North Sea)	[11]
Energy Islands – Floating LiDAR Measurements, Motion correction of turbulence intensity. WP3: Baltic Sea pre-deployment verification tests	Fugro	04/12/2023	Verification of motion correction for buoys on Lot 3 and Lot 4 (Baltic Sea)	[12]
Energy Islands – Floating LiDAR Measurements, Motion correction of turbulence intensity. WP2: North Sea campaign data	Fugro	04/12/2023	Documentation of motion corrected data for buoys on Lot 1 and Lot 2 (North Sea)	[13]
Energy Islands – Floating LiDAR Measurements, Motion correction of turbulence intensity. WP4: Baltic Sea campaign data	Fugro	04/12/2023	Documentation of motion corrected data for buoys on Lot 3 and Lot 4 (Baltic Sea)	[14]



3.1 Operation History

The measurement campaign starting on 21/11/2021 was continued on Lot 4 after the period covered by the main report. Fugro has submitted event logs, tracking faults and flaws with the buoys [10].

The only buoy used on Lot 3 was WS199.

The only buoy used on lot 4 was SWLB044.

3.1.1 Lot 4 (year 2)

26/11/2022 Gaps in the data start to appear from the LiDAR on SWLB044. These become increasingly frequent until 16/12/2022 where the LiDAR signals are no longer recorded. The event log comments that the gaps are due to low fuel. The SWLB044 was recovered for refuelling on 16/12/2022 and redeployed on 20/01/2023.

16/12/2022 The SWLB044 was recovered for refuelling and redeployed on 20/01/2023.

14/08/2023 SWLB044 is out of position for maintenance until 17/08/2023 and no data are recorded.

22/11/2023 End of measurement campaign

30/11/2023 SWLB044 is recovered.

3.2 Post-Processing of Data

3.2.1 Quality Control and Filtering Performed by Fugro

The quality control and filtering performed by Fugro is identical to that described in the main report [1].

The processing of the motion correction and the validation is described by Fugro [11] [12].

The additional files are provided in the data package (section 9).

3.2.2 Quality Control and Filtering Performed by EMD

The quality control and filtering by EMD follows the method described in the main report [1].

Three periods are excluded from the Lot 4 dataset:

Period 26/11/2022 to 20/01/2023 was removed. Until 16/12/2022 data are suffering increasing number of gaps due to fuel shortage [9]. To avoid potential bias the data were removed. From 16/12/2022 to 20/01/2023 there are no data as the buoy was removed.

Period 30/04/2023 to 02/05/2023 was removed. Data suffers from poor quality. Not commented by Fugro.

Period 14/08/2023 to 17/08-2023 contain no data. Buoy was removed for maintenance [9].



3.2.3 Recovery Rate and Data Substitution

Data repair on the second year LiDAR data are conducted in the same manner as described in the main report.

Data on Lot 4 are shear extrapolated from a lower height to fill in gaps using a shear matrix. The source heights and heights used to derive the shear matrix are presented in Table 6.

Horizontal repair as conducted in the main report was not possible for the second year on Lot 4 as the measurements on Lot 3 were discontinued.

No vertical data repair was conducted on Lot 3 for the second year as measurements were discontinued after year 1.

Horizontal data repair on Lot 3 was conducted by moving data from Lot 4 to Lot 3 according to the method described in the main report. As the transfer functions are based on the first year of data, they are identical to those used in the main report for year 1 data. The results are presented in Table 5 and Table 6.

As a result, Lot 4 data are left with a two-month gap during the 2022-2023 winter and with a poorer recovery rate in year 2 than year 1 due to missing horizontal repair.

The Lot 3 dataset consists of measured and repaired data for year 1, while year 2 consists exclusively of data synthesized from Lot 4.

The recovery rate after data repair has dropped from 98.2% at 150m height (both lots) after year 1 to 90.0% (Lot 3) and 89.9% Lot 4 after year 2.

Table 5. Data substitution, two-year period, Lot 3. Vertical data repair was only possible during year 1. Year 2 consists exclusively of data synthesized from Lot 4.

REPAIRED HEIGHT [M]	60	90	100	120	150	180	200	240	270
Source height [m]	40	60	90	100	120	150	180	200	240
Shear matrix heights [m]	40, 60, 90	60, 90, 100	90, 100, 120	100, 120, 150	120, 150, 180	150, 180, 200	180, 200, 240	200, 240, 270	200, 240, 270
Recovery rate before repair	49.4%	48.2%	48.1%	47.9%	47.7%	47.6%	47.6%	47.4%	47.4%
Recovery rate after shear repair	50.1%	50.0%	49.5%	49.4%	49.2%	49.1%	49.0%	49.0%	48.9%
Recovery rate after horizontal repair	91.5%	90.8%	90.3%	90.1%	89.9%	89.7%	89.5%	89.3%	89.3%
Share of repaired data	46.0%	47.0%	46.8%	46.8%	47.0%	46.9%	46.9%	46.9%	47.0%

*Table 6. Data substitution, two-year period, Lot 4. Horizontal repair not possible during year 2.*

REPAIRED HEIGHT [M]	60	90	100	120	150	180	200	240	270
Source height [m]	40	60	90	100	120	150	180	200	240
Shear matrix heights [m]	40, 60, 90	60, 90, 100	90, 100, 120	100, 120, 150	120, 150, 180	150, 180, 200	180, 200, 240	200, 240, 270	200, 240, 270
Recovery rate before repair	90.5%	89.1%	88.9%	88.6%	88.4%	88.2%	88.1%	87.8%	87.7%
Recovery rate after shear repair	90.9%	90.6%	89.1%	89.0%	88.7%	88.5%	88.3%	88.2%	88.0%
Recovery rate after horizontal repair	91.6%	91.4%	90.4%	90.2%	90.0%	89.8%	89.7%	89.6%	89.4%
Share of repaired data	1.2%	2.5%	1.7%	1.8%	1.8%	1.8%	1.8%	2.0%	1.9%



3.3 Data Analysis

EMD has combined the datafiles, forming time series of wind speed, wind direction, turbulence intensity and data package count for each measurement height. For 4 m height ASL, temperature, relative humidity and pressure is added. The signals for maximum wind speed and vertical wind speed are only added to the 150 m dataset.

As the 2-year dataset for Lot 3 has a very large contribution of synthesized data, the Lot 3 dataset submitted with the main report is here resubmitted as an alternative to the Lot 3 2-year dataset.

3.3.1 Wind Speed

The mean wind speed on the LiDAR measurements is calculated both as arithmetic mean wind speed and through a Weibull fit as Weibull-derived mean wind speed. The Weibull fitting is done in windPRO using an energy conservation condition [15].

The following Table 7 and Table 8 summarizes the resulting wind speeds before and after data substitution with the Weibull parameters being after data repair. Wind speed data from the weather station on the buoys (4 m) has not been repaired and extended. For this reason, the table for Lot 3 includes only 12 months of data at 4 m height.



Table 7. Weibull parameters of the repaired datasets, Lot 3.

HEIGHT [M]	PERIODS [MONTHS] (MEASURED PERIOD IN BRACKETS)	ARITHMETIC MEAN WIND SPEEDS, BEFORE DATA SUBSTITUTION [M/S]	ARITHMETIC MEAN WIND SPEEDS AFTER DATA SUBSTITUTION [M/S]	WEIBULL MEAN [M/S]	WEIBULL – A PARAMETER	WEIBULL – K PARAMETER
4	12	7.09	7.09	7.22	8.14	2.43
30	24 (12)	8.29	8.23	8.27	9.33	2.34
40	24 (12)	8.53	8.48	8.53	9.63	2.37
60	24 (12)	8.94	8.89	8.96	10.11	2.37
90	24 (12)	9.36	9.29	9.36	10.56	2.34
100	24 (12)	9.46	9.39	9.46	10.67	2.32
120	24 (12)	9.64	9.56	9.61	10.85	2.27
150	24 (12)	9.86	9.74	9.78	11.05	2.21
180	24 (12)	10.01	9.88	9.91	11.19	2.15
200	24 (12)	10.09	9.96	9.98	11.27	2.12
240	24 (12)	10.22	10.08	10.10	11.41	2.08
270	24 (12)	10.31	10.16	10.17	11.48	2.05

Table 8. Weibull parameters of the repaired datasets, Lot 4.

HEIGHT [M]	PERIODS [MONTHS]	ARITHMETIC MEAN WIND SPEEDS, BEFORE DATA SUBSTITUTION [M/S]	ARITHMETIC MEAN WIND SPEEDS AFTER DATA SUBSTITUTION [M/S]	WEIBULL MEAN [M/S]	WEIBULL – A PARAMETER	WEIBULL – K PARAMETER
4	24	7.02	7.02	7.09	8.01	2.27
30	24	8.31	8.3	8.38	9.46	2.32
40	24	8.57	8.56	8.64	9.75	2.33
60	24	8.98	8.95	9.05	10.21	2.33
90	24	9.38	9.34	9.43	10.64	2.27
100	24	9.47	9.45	9.54	10.77	2.25
120	24	9.64	9.62	9.69	10.94	2.20
150	24	9.84	9.81	9.87	11.14	2.14
180	24	9.98	9.96	9.99	11.28	2.08
200	24	10.06	10.04	10.06	11.36	2.06
240	24	10.19	10.16	10.17	11.48	2.01
270	24	10.27	10.24	10.24	11.56	1.99

Further details on the directional wind speed and Weibull distribution can be found in Appendix B.

3.3.2 Turbulence Intensity

Standard deviation of wind speed and hence turbulence intensity from LiDAR measurements are not immediately comparable to those of cup anemometers. The standards referred to in this study do not recognize turbulence intensity measurements from LiDARs and the observed turbulence data from the buoys are therefore not used or documented here. They are however included in the data package produced as part of the deliverables.

For the revalidation, motion corrected turbulence data for two buoys in the North Sea [16] and the two buoys in the Baltic sea was provided by Fugro. The motivation is to compare the turbulence of the two regimes to add confidence to the turbulence model for the Baltic Sea described in the main report.

None of the buoys were equipped with ideal instruments for motion correction, but through use of secondary instruments and an alternative methodology, motion correction was applied anyway. The method used for motion correction and verification against an unmoving LiDAR is describe by Fugro in [11] and [12].



WS170 (Lot 1, North Sea) was verified at the LEG platform (Lichtland), while WS181 (Lot 2, North Sea), WS199 (Lot 3, Baltic Sea) and SWLB044 (Lot 4, Baltic Sea) were verified at Frøya.

The verification documents provide documentation that the motion correction was successful at the LEG platform, and moderately successful at Frøya. With the exception of WS181, the mean bias error of motion corrected turbulence versus fixed mounted turbulence is acceptably low, but the documentation also allows for a substantial uncertainty. This means that even after the motion correction, the distortion caused by the motion has not become entirely eliminated and a substantial uncertainty must be taken into account when considering the absolute value of the turbulence data.

Please note that the objective of motion correction is only to cancel the error due to a moving platform. It does not convert LiDAR turbulence to a cup anemometer equivalent turbulence.

EMD has matched the motion corrected TI time series with the wind speed time series provided in the standard package for the first year of measurements. The recovery rate is low, especially for WS181 and WS199.

Table 9. Motion corrected turbulence intensity data processed from the first year of measurements.

BUOY	PERIOD START	PERIOD END	MEASUREMENT HEIGHT [M]	RECOVERY RATE
WS170	15/11/2021	15/11/2022	150	66.3%
WS181	15/11/2021	15/11/2022	150	33.9%
WS199	21/11/2021	21/11/2022	150	56.3%
SWLB044	22/11/2021	22/11/2022	150	78.0%

3.3.3 Wind Direction

The wind direction distribution for the 2 years of measurements is presented in Figure 1 and Figure 2. There is a rotation of the wind direction clockwise with increasing height of 9.9° (Lot 3) and 10.3° (Lot 4) from 30 m to 270 m, amounting to a rate of 0.041 and 0.043 deg/m. This is normal and consistent with the findings of the main report.

The direction distribution for each height can be found in Appendix B.

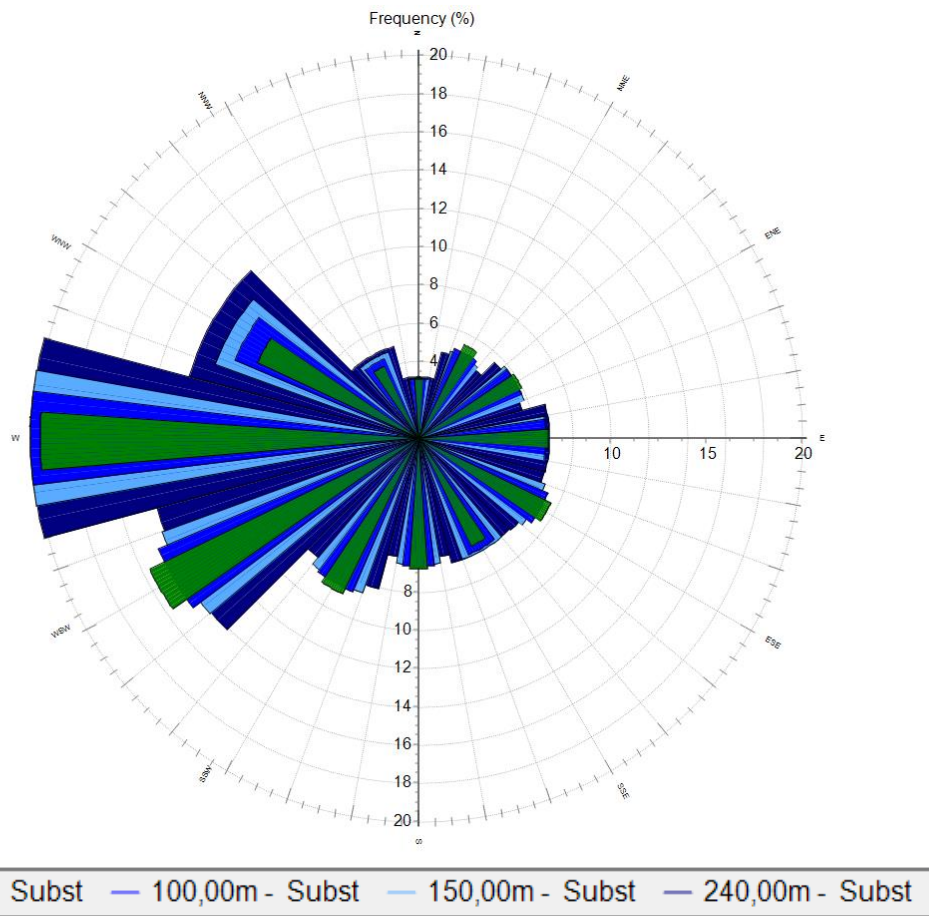


Figure 1. Directional distribution at selected heights of LiDAR measurements, Lot 3.

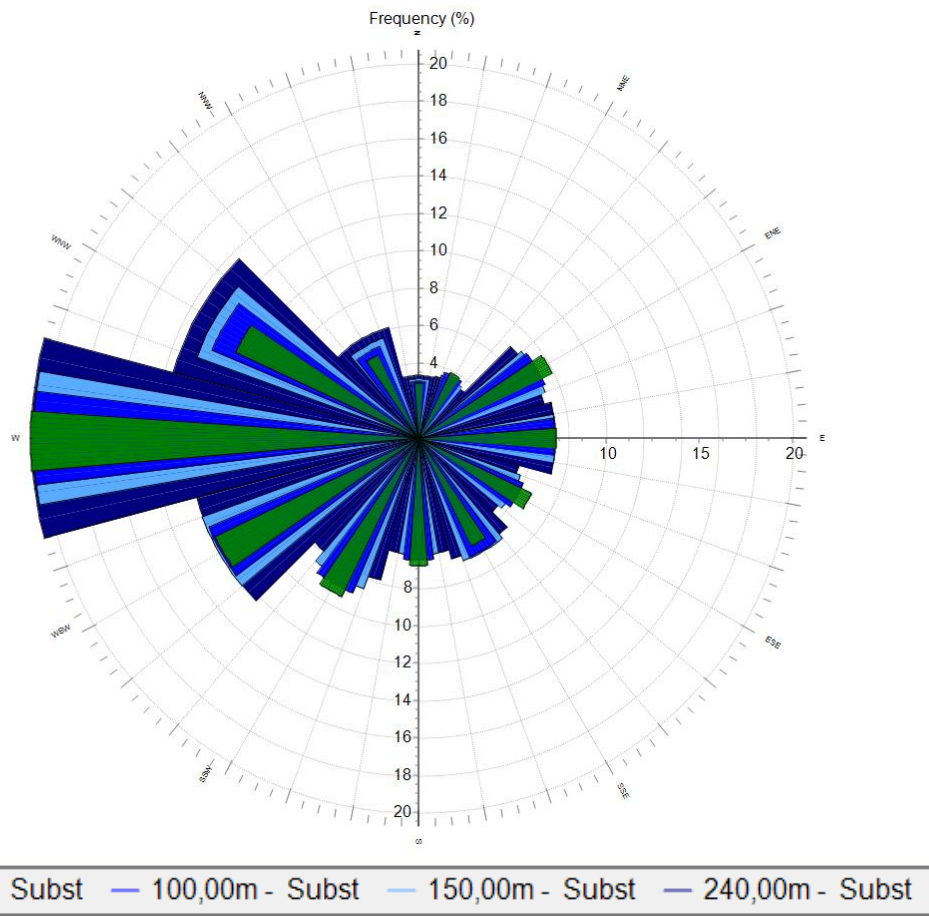


Figure 2. Directional distribution at selected heights of LiDAR measurements, Lot 4.



3.3.4 Diurnal Variations

There is a minor variation in wind speed across the day with marginally higher wind speed at night and lower wind speed at daytime. The pattern is identical for the two buoys.

The temperature at the buoy is almost uniform across the day during year 1. On Lot 4, there is a marginal diurnal difference across the day between year 1 and year 2. That could be a result of the missing 2 months of winter data. For this reason, year 1 temperatures are considered more reliable.

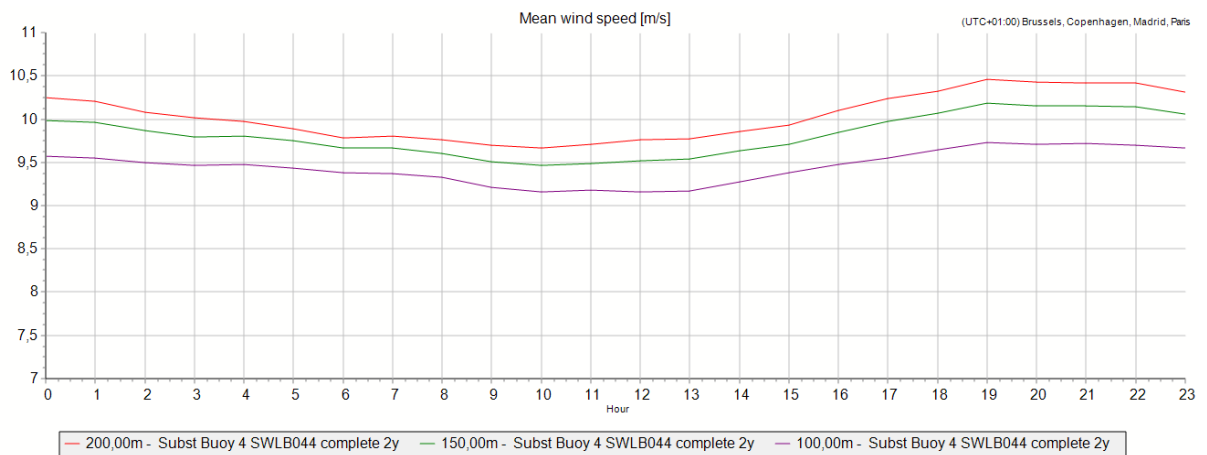


Figure 3. Diurnal wind speed variation, Lot 4.

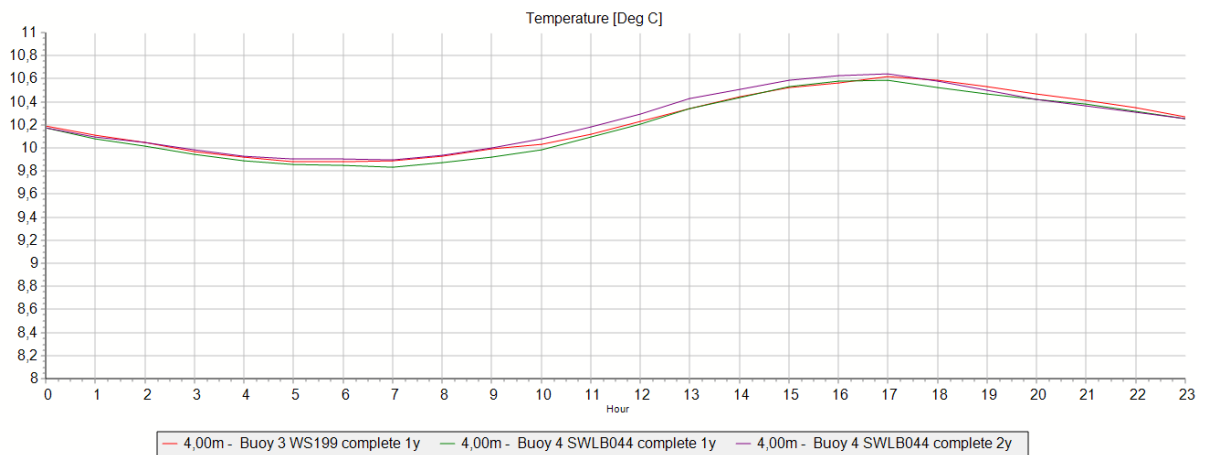


Figure 4. Diurnal temperature variation, Lot 3 (red), Lot 4 (green) and 2 years of temperature on Lot 4 (purple).



3.3.5 Seasonal Variations

The period of measurement has the typical pattern for the region with higher wind speed during winter than during summer.

The temperature at the buoy varies across the 2 years on Lot 4 from a mean temperature in December of 3.0°C to 18.9°C in August (4 m ASL).

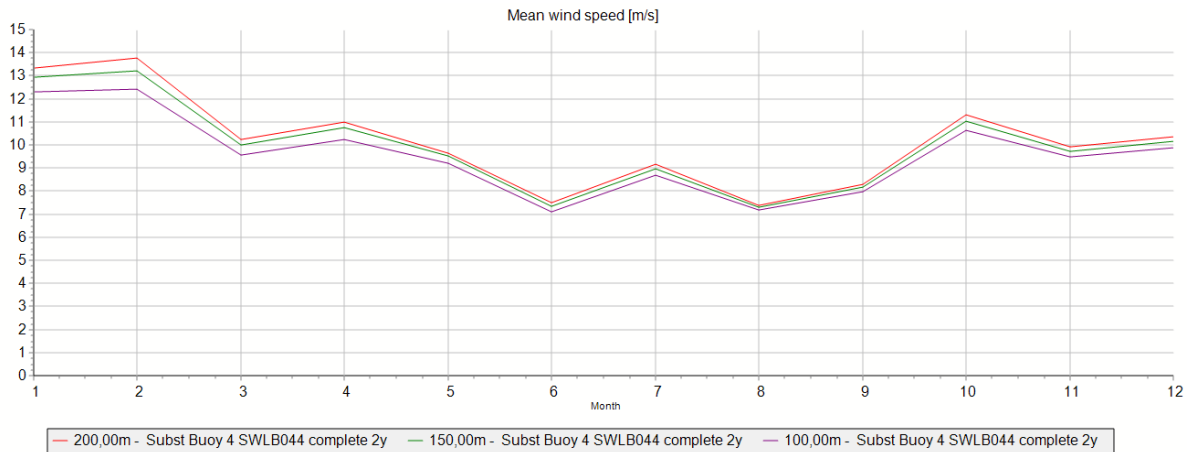


Figure 5. Monthly mean wind speed, Lot 4.

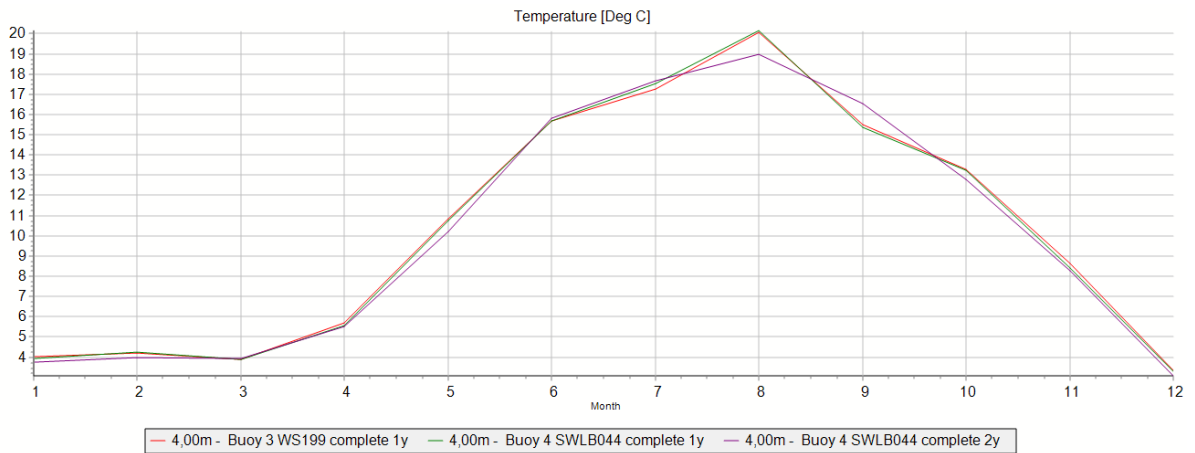


Figure 6. Monthly mean temperature, Year 1 at Lot 3 (red), year 1 at Lot 4 (green) and monthly mean of 2 years of temperature on Lot 4 (purple).



3.4 Measurement Uncertainty

The classification uncertainty, giving the maximum expected uncertainty, is obtained from the ZX300 classification document [17] as 1.41% (average at 130 and 135 m height). These heights are the tallest heights reported and are here considered representative of the 150 m measuring height. The classification table is included in Appendix A.

The verifications of the WS199 and SWLB044 buoy-mounted LiDARs were provided [18] [19]. Both verification tests were performed at Frøya, Norway.

In these studies the Key Performance Indicators (KPI) according to the OWA Roadmap [20] are tested and the verification uncertainty is here calculated according to the method suggested by the CT/OWA LiDAR Uncertainty Standard Review [21]. All KPI's were successfully fulfilled.

The reference LiDAR at Frøya is also ZX Z300 LiDAR and both reference LiDAR and the buoy mounted LiDARs were verified prior to the verification test at Pershore test site, UK.

The verification uncertainties from the verification reports are included in Appendix A for 120 m, the closest height to 150m.

The uncertainty from data repair is found by assuming a 20% uncertainty on the wind speed change from source to destination. With a 2% wind speed difference (from 120 to 150 m), this results in an uncertainty of 0.4% on wind speed of the synthesized data. At 150 m the vertically synthesized data contribute 0.3% of the dataset on WS199 and 0.5% of the dataset on SWLB044. Resulting vertical uncertainty is 0.002% on WS199 and 0.001% on SWLB044.

Horizontally at 150 m, a linear regression method is used to transfer data between the LiDARs. From section 6.1.2 it is found that an MCP transformation based on 1 year of concurrent data may be estimated to 1.5% uncertainty. Horizontally synthesized data contribute 46.7% of the dataset from WS199, resulting in an uncertainty of 0.7%, while on SWLB044 the horizontally synthesized data contribute 1.4% of the dataset, resulting on an uncertainty of 0.02%.

Combined, vertical and horizontal data repair contribute 0.70% uncertainty on WS199 and 0.02% uncertainty on SWLB044 at 150 m.

The verification and classification uncertainty are combined together with a contribution from the data repair to a combined uncertainty on the LIDAR measurements at 150 m (Table 10).

The larger uncertainty on Lot 3 due to the large quantity of synthesized data makes the use of two years of data on Lot 3 unattractive. The measurement uncertainty using 1 year of measurements only on Lot 3 has an uncertainty of 2.41%.



Table 10. Wind speed measurement uncertainty at 150 m ASL.

BUOY	CLASSIFICATION UNCERTAINTY	VERIFICATION UNCERTAINTY	DATA REPAIR UNCERTAINTY	TOTAL MEASUREMENT UNCERTAINTY
WS199 (Lot 3)	1.41%	1.95%	0.70%	2.51%
SWLB044 (Lot 4)	1.41%	2.34%	0.02%	2.74%



4 Reference Data

The mesoscale data used for the revalidation are the same as use in the main report. Only difference is that all datasets are extended to include data from the year 2023.



5 Long-term Correction

5.1 Review of Reference Data

5.1.1 Long-term Consistency

Compared to the reference data used for the main report, data from 2023 are included in the reference data dataset.

However, repeating the analysis described in the main report shows that both a 20-year period from 2004 to 2023 and a 21-year period from 2003 to 2024 results in a less consistent dataset. A 21-year period results in lower Mann-Kendall test values and in both cases, the long-term mean wind speed deviates from consistent mean wind speed found for the consistent period in the main report.

As the 2003 to 2022 period was found to be suitably consistent and representative of long-term conditions, this period continues to be the reference period for long-term conditions on the site.

2023 data from reference as well as the buoys are included, however, to generate transfer functions for long-term correction.

5.1.2 Selection of Reference Data and Reference Period

The decision on reference data choice from the main report remains valid and 20 years of EMD-WRF data from the position 1 and 2 (Lot 3 and Lot 4) spanning the period 2003 to 2022 continue to be the reference dataset.

5.2 Correlation between Onsite and Reference Data

5.2.1 Wind Speed and Energy Correlation

The concurrent period of LiDAR data and EMD-WRF data is 22 months (21/11/2021 to 22/11/2023), excluding the gap in measured data.

The correlation of the wind speed between LiDAR measurements and EMD-WRF data has not significantly changed with the addition of an extra year to the datasets (Table 11).

On Lot 3 the correlation has dropped marginally, caused by the second year data being exclusively data synthesized from Lot 4.

Conclusions on correlation are unchanged.

Table 11. Correlation coefficient r between the reference data (EMD-WRF, 150 m) and the onsite floating LiDAR data at 150 m ASL. Comparison between 1 year data reported in the main report and the addition of a second year of data.

REF: EMD-WRF	LOT 3		LOT 4	
CONCURRENT PERIOD	1 YEAR	2 YEARS	1 YEAR	2 YEARS
Wind Speed Correlation, r [%] hourly	94.7	94.1	94.9	95.0
Wind Energy Correlation, r [%] monthly	99.7	99.4	99.4	99.3

5.2.2 Wind Direction Correlation

The comparison between measured and reference wind direction distribution continue to show a good match and conclusion are unchanged from the main report. (Figure 7).

The 2 years of concurrent period is now very close to the long-term direction distribution (Figure 8).

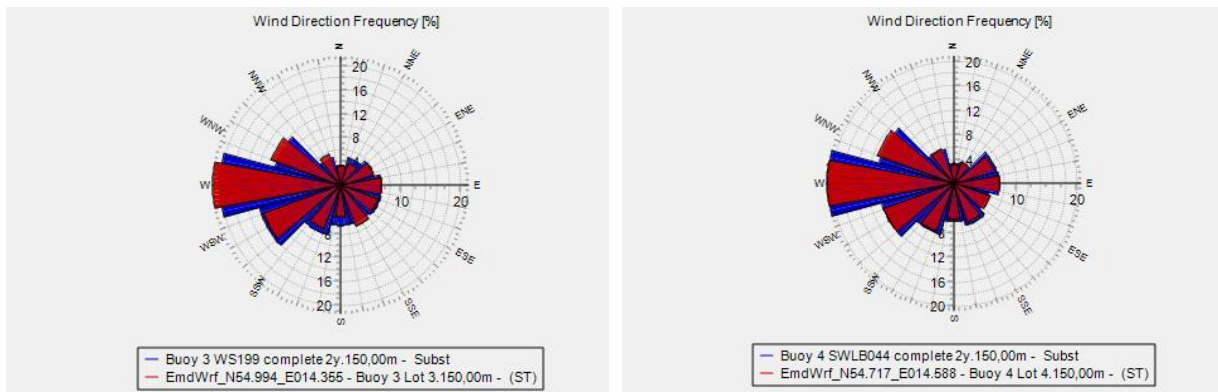


Figure 7. Wind direction roses for the concurrent period of LIDAR (blue) and EMD-WRF (red) data. Left: Lot 3, right: Lot 4.

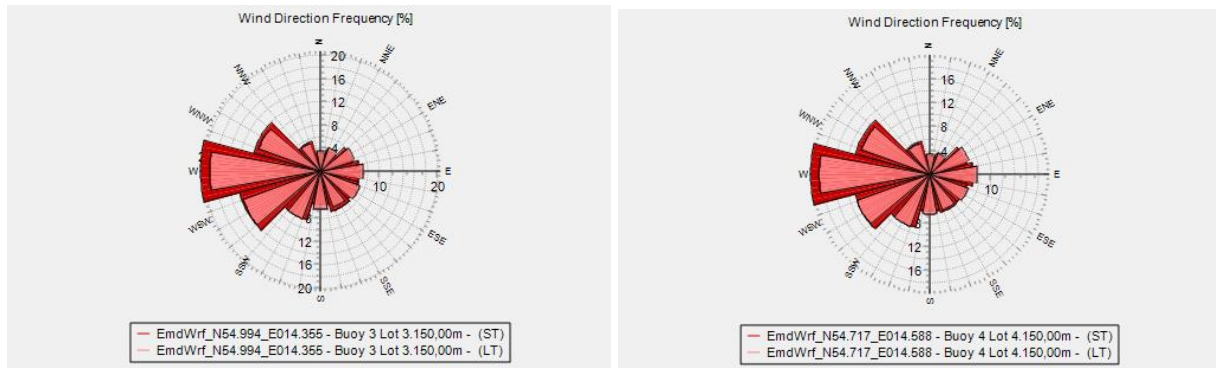


Figure 8. Wind direction roses for EMD-WRF data. Deep red represents the entire long-term period, light red represents the period concurrent with LIDAR measurements. Left: Concurrent period with Lot 3, right: Concurrent period with lot 4.

5.2.3 Long-term Correction and Validation

The KPI's for the long-term correction has slightly improved with the addition of a second year of data. The relative difference between different MCP methodologies is unchanged.

The matrix correction method continues to be the preferred method for long-term correction.

A comparison of KPI's between 1 year and 2 years on concurrent data is presented in Table 12 and Table 13.

Please note that the correlation and transfer functions are based on a reference dataset that includes the year 2023, but that the resulting long-term corrected dataset excludes 2023.

The long-term corrected wind speed for Lot 4 has only marginally changed from 9.87 m/s at 150 m height to 9.86 m/s.

The long-term corrected wind speed for Lot 3 has changed from 9.86 m/s at 150 m height to 9.77 m/s.



Table 12. Prediction test using a 24-hour slicing method and a self-test using the entire concurrent period. The parameter presented is over-prediction of production in percent. (Lot 3 - 150 m data). Comparison between 1 year concurrent data reported in the main report and 2 years of concurrent data.

REFERENCE: EMD-WRF LOCAL DATA: LOT 3, 150M	MATRIX	
	1 year	2 years
24-hour slicing test, % production	-0.26	0.16
Concurrent period test, % production	-0.08	-0.07
Kolmogorov-Smirnov test, %	0.93	0.71
Predicted long-term mean wind speed, m/s	9.86	9.77

Table 13. Prediction test using a 24-hour slicing method and a self-test using the entire concurrent period. The parameter presented is over-prediction of production in percent. (LOT 4 - 150 m data). Comparison between 1 year concurrent data reported in the main report and 2 years of concurrent data.

REFERENCE: EMD-WRF LOCAL DATA: LOT 4, 150M	MATRIX	
	1 year	2 years
24-hour slicing test, % production	-1.21	-0.90
Concurrent period test, % production	-0.59	-0.23
Kolmogorov-Smirnov test, %	1.00	0.56
Predicted long-term mean wind speed, m/s	9.87	9.86

The artificially generated time series (30 m to 270 m) represent the long-term wind climate and the 150 m results are presented in the following.



5.3 Long-Term Wind Climate

5.3.1 Long-term Wind Speed Distribution

The long-term wind speeds for the two buoys in Energy Island Baltic Sea OWF are summarized in the following tables. A detailed breakdown of the Weibull parameters can be found in Appendix C.

Table 14. Weibull parameters of the long-term wind data used, Lot 3.

LOT 3	PERIOD [Y]	ARITHMETIC MEAN WIND SPEEDS [M/S]	WEIBULL MEAN [M/S]	WEIBULL - A PARAMETER [M/S]	WEIBULL - K PARAMETER
30	20	8.28	8.34	9.40	2.41
40	20	8.51	8.59	9.69	2.44
60	20	8.95	9.05	10.21	2.46
90	20	9.31	9.42	10.62	2.40
100	20	9.42	9.52	10.74	2.38
120	20	9.60	9.69	10.94	2.33
150	20	9.77	9.84	11.11	2.25
180	20	9.91	9.95	11.24	2.18
200	20	10.00	10.03	11.33	2.15
240	20	10.13	10.16	11.47	2.11
270	20	10.21	10.23	11.55	2.08

*Table 15. Weibull parameters of the long-term wind data used, Lot 4.*

LOT 4	PERIOD [Y]	ARITHMETIC MEAN WIND SPEEDS [M/S]	WEIBULL MEAN [M/S]	WEIBULL - A PARAMETER [M/S]	WEIBULL - K PARAMETER
30	20	8.36	8.45	9.53	2.40
40	20	8.58	8.69	9.80	2.43
60	20	9.02	9.14	10.31	2.43
90	20	9.40	9.51	10.73	2.35
100	20	9.49	9.61	10.85	2.33
120	20	9.69	9.79	11.05	2.27
150	20	9.86	9.94	11.22	2.20
180	20	10.00	10.05	11.34	2.13
200	20	10.09	10.12	11.43	2.10
240	20	10.22	10.25	11.58	2.06
270	20	10.29	10.32	11.65	2.04

5.3.2 Long-term Wind Direction Distribution

The long-term frequency and energy distribution for the long-term corrected LiDAR data from Lot 3 and Lot 4 at 150 m ASL indicate a main wind direction from west.

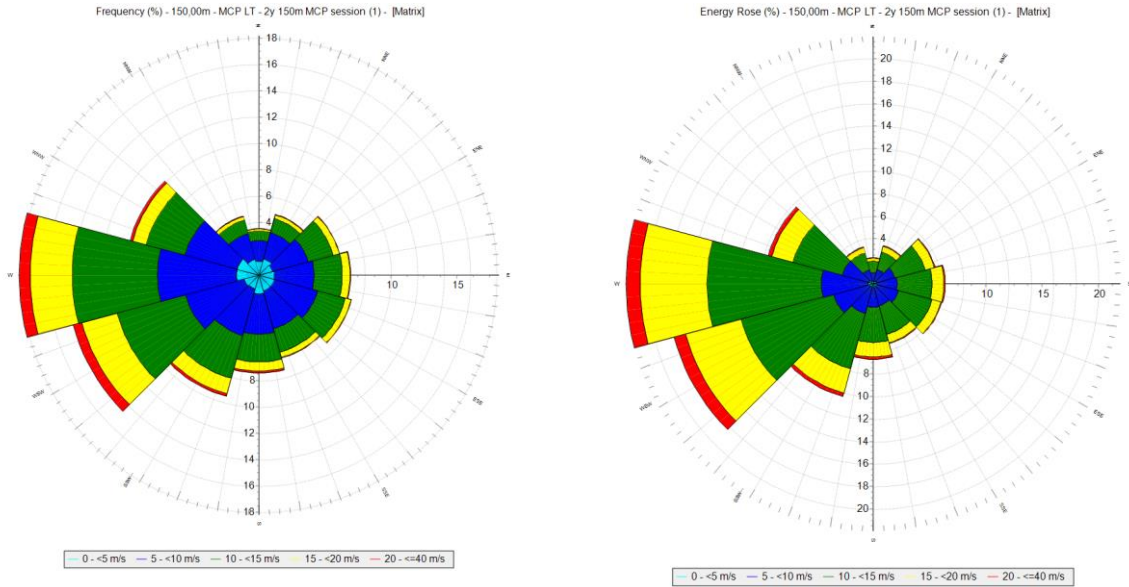


Figure 9. Left: wind direction distribution of long-term corrected LiDAR data (Lot 3) at 150 m. Right: Energy distribution of long-term corrected LiDAR data (Lot 3) at 150 m. Both are divided in wind speed intervals.

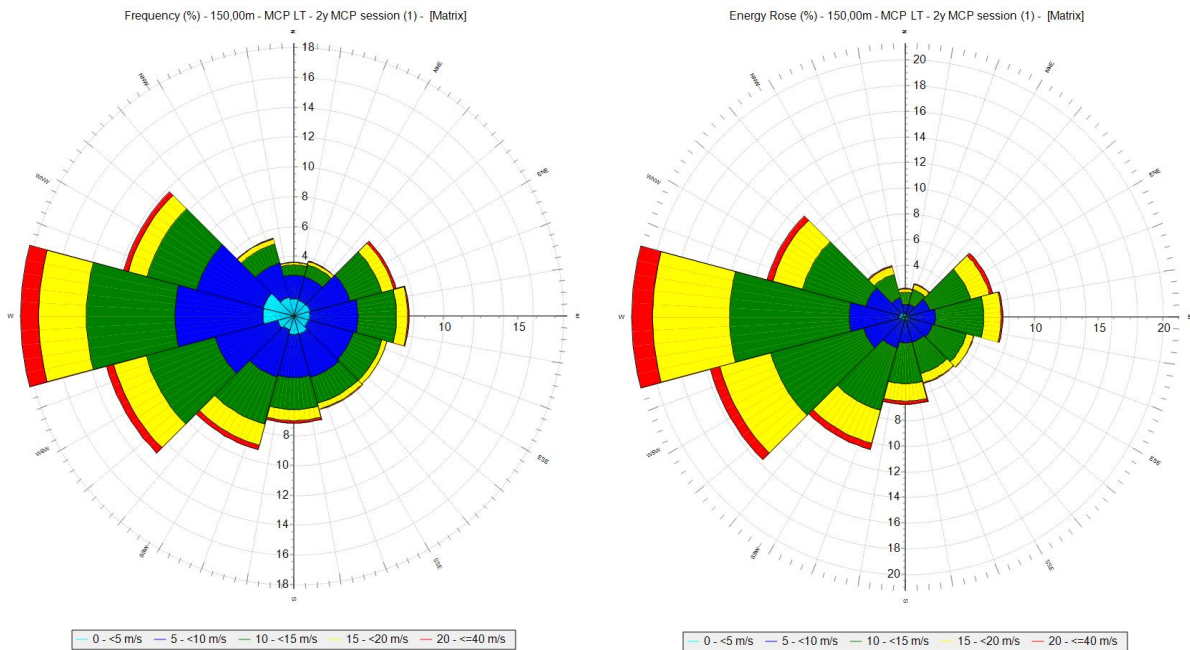


Figure 10. Left: wind direction distribution of long-term corrected LiDAR data (Lot 4) at 150 m. Right: Energy distribution of long-term corrected LiDAR data (Lot 4) at 150 m. Both are divided in wind speed intervals.



5.3.3 Long-term Diurnal Variations

The diurnal long-term wind speed is comparable to the observed diurnal wind speed. Figure 11 shows the diurnal variations for Lot 4. The pattern is identical for the two buoys. The long-term diurnal variation is similar to the observed 1-year dataset and matches well the long-term diurnal variation based on 1 year of observations presented in the main report (green).

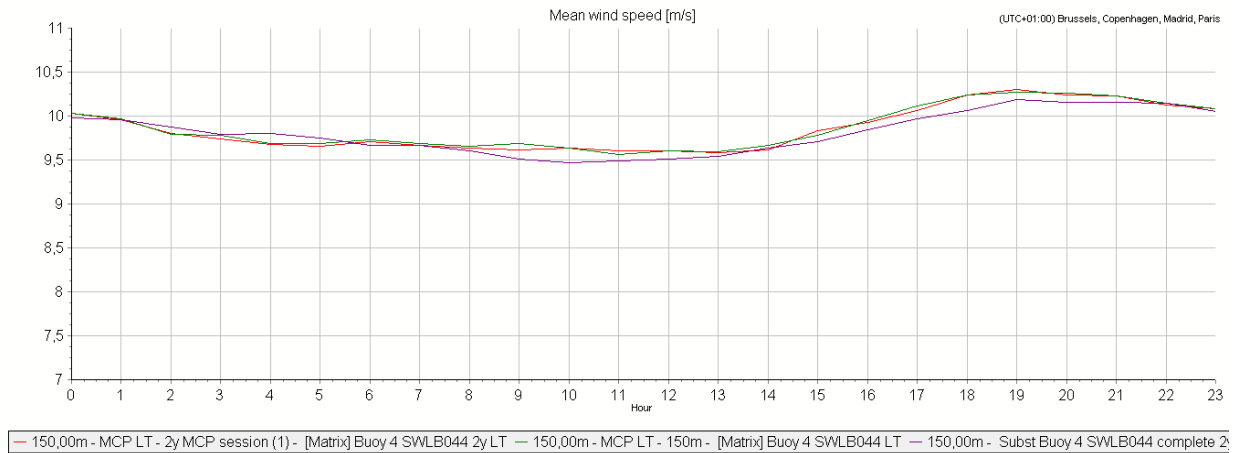


Figure 11. Diurnal wind speed, long-term corrected based on 2 years of measurements (red), long-term corrected based on 1 years of measurements (green) and observed (purple), Lot 4.

5.3.4 Long-term Seasonal Variations

The long-term seasonal variation of wind speed at 150 m is presented in Figure 12 for Lot 4 and compared to the actual 2 years of observation. Whereas the seasonal variation of the measurements is based on a 2-year period, the seasonal variation of the long-term time series is an average of 20 years of data and therefore predictably smoother. The long-term derived seasonal variation based on 2 years of measurements is identical to the seasonal variation based on 1 year of observations presented in the main report.

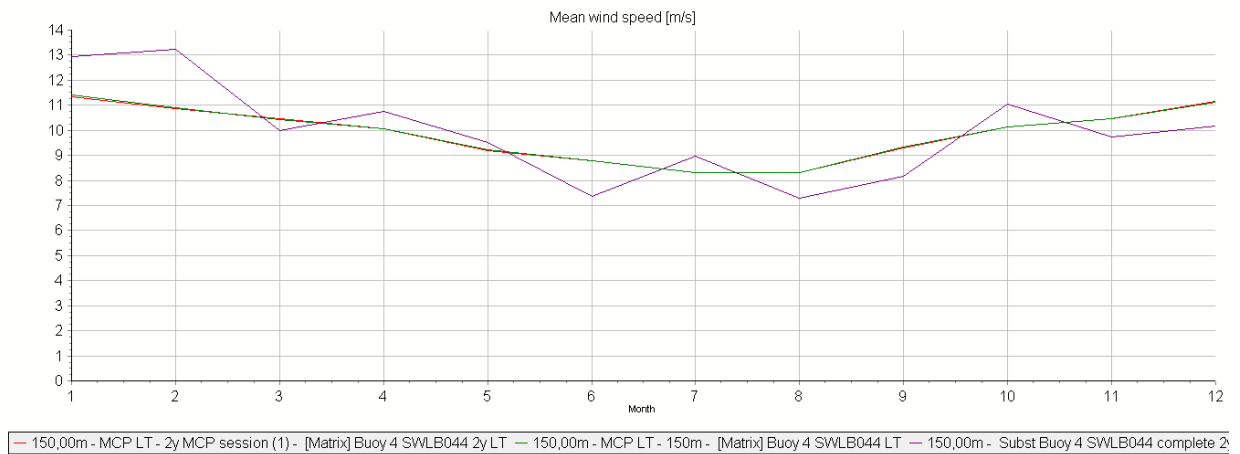


Figure 12. Seasonal variation of long-term corrected dataset (red) and observed dataset (purple) at 150 m, Lot 4. The long-term seasonal variation based on 2 years of measurements (green) is identical to the new seasonal variation.



6 Comparison of Wind Models

The primary wind model for Energy Island Baltic Sea has been updated with a second year of LiDAR measurements at Lot 4.

These measurements were used to extend Lot 3 data to also include 2 years of data.

The datasets include a two-month gap from late November to late January.

The datasets have been long-term corrected, resulting in a 20-year time series for each of the two positions. The long-term corrected wind models are labelled “Primary mode 2y as” opposed to the reported Primary model in the main report, which is henceforth labelled “Primary model 1y”.

The wind speed of Primary mode 2y for Lot 3 has a marginally lower wind speed than Primary model 1y (Table 16 and Figure 13) and an slightly different directional distribution (Figure 15).

The wind speed of Primary mode 2y for Lot 4 has an almost identical wind speed and wind speed distribution to the Primary model 1y (Table 17 and Figure 14) and a very similar direction distribution to that of Primary model 1y (Figure 16).

As the dataset for Lot 3 for the second year consist of synthesized data, it is likely that this causes the difference and that we should expect wind distributions very similar to Primary model 1 as seen on Lot 4. This would be a good argument for using Primary model 1y rather than Primary model 2y data for Lot 3.

Compared to secondary models based on FINO2 and Taggen data, the difference between Primary model 1y and Primary model 2y are well within the range of those models (Table 16 and Table 17).

The decision is therefore that the final primary model consists of Primary model 1y for Lot 3 and Primary model 2y for Lot 4.

Table 16. Comparison of model results at Position 1, Lot 3, 150 m ASL.

Position 1, Lot 3	PRIMARY MODEL, 1 YEAR	PRIMARY MODEL, 2 YEARS	TRANSFERRED FINO2 MODEL	TRANSFERRED TAGGEN MODEL
Wind speed [m/s]	9.86	9.77	9.99	9.71
Wind speed relative to primary model	100.9%		102.3%	99.4%



Table 17. Comparison of model results at Position 2, Lot 4, 150 m ASL.

Position 2, Lot 4	PRIMARY MODEL, 1 YEAR	PRIMARY MODEL, 2 YEARS	TRANSFERRED FINO2 MODEL	TRANSFERRED TAGGEN MODEL
Wind speed [m/s]	9.87	9.86	9.93	9.68
Wind speed relative to primary model	100.1%		100.7%	98.2%

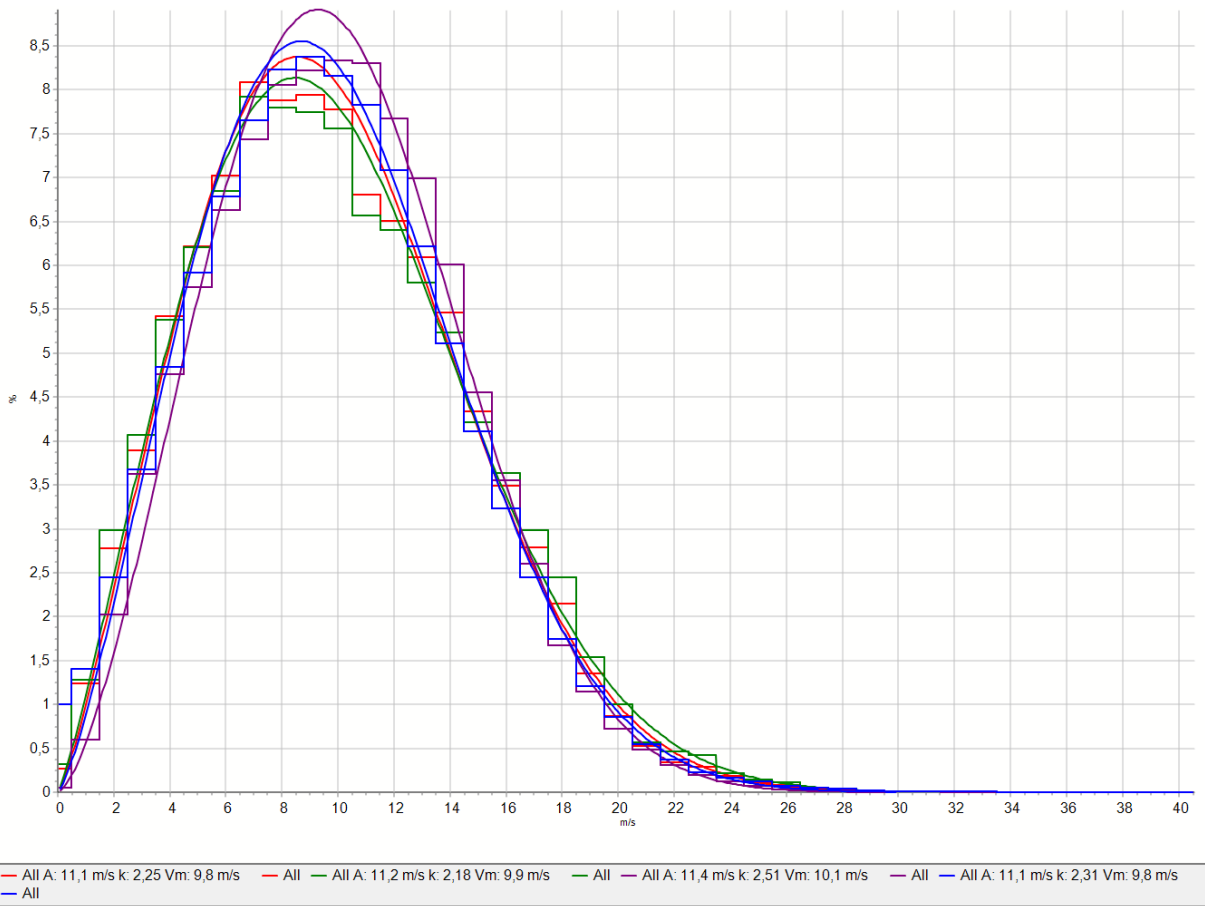


Figure 13. Wind speed probability function for the four datasets at Position 1, Lot 3. Primary model based on 2 years (red), Primary model based on 1 year (green), FINO2 (purple) and Taggen (blue).

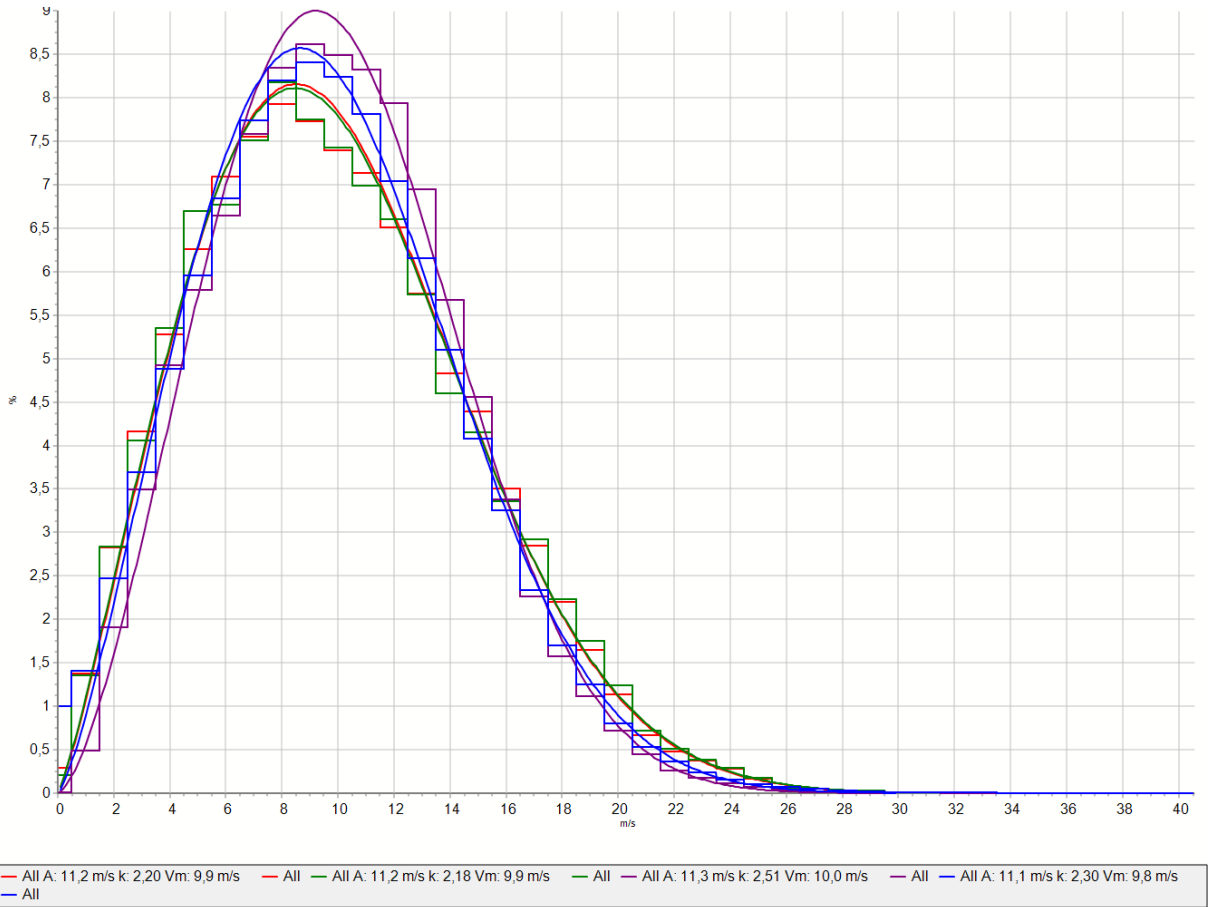


Figure 14. Wind speed probability function for the four datasets at Position 2, Lot4. Primary model based on 2 years (red), Primary model based on 1 year (green), FINO2 (purple) and Taggen (blue).

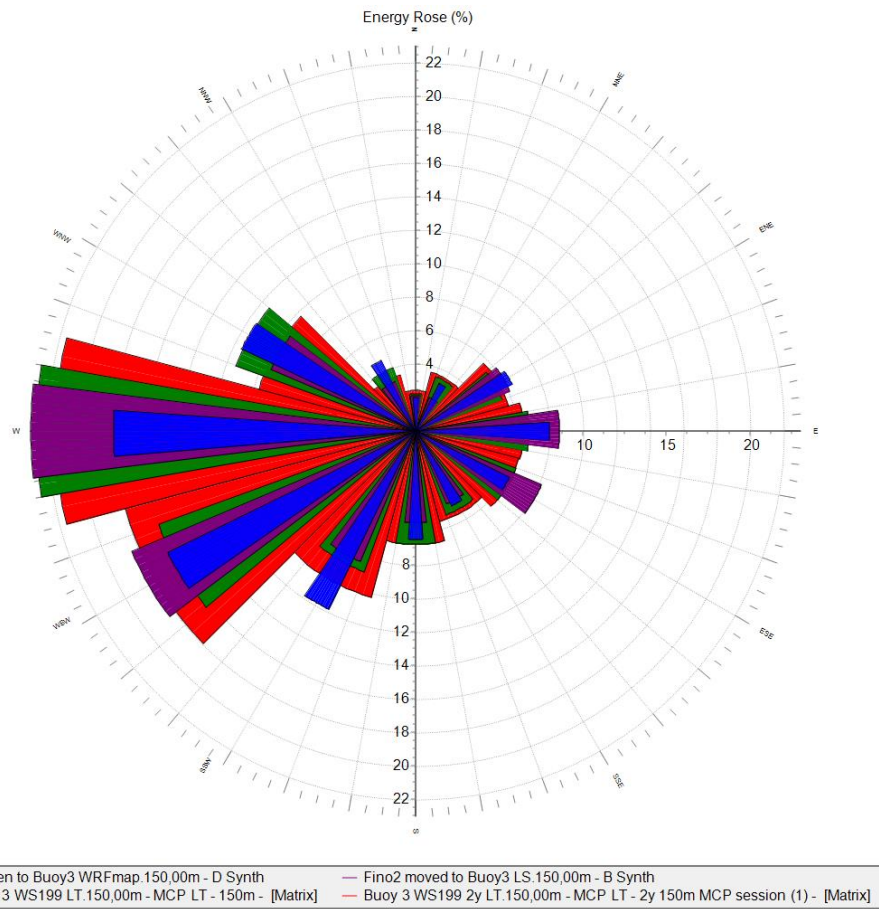


Figure 15. Directional distribution of the four long-term wind models at Position 1, Lot 3. Primary model based on 2 years (red), Primary model based on 1 year (green), FINO2 (purple) and Taggen (blue).

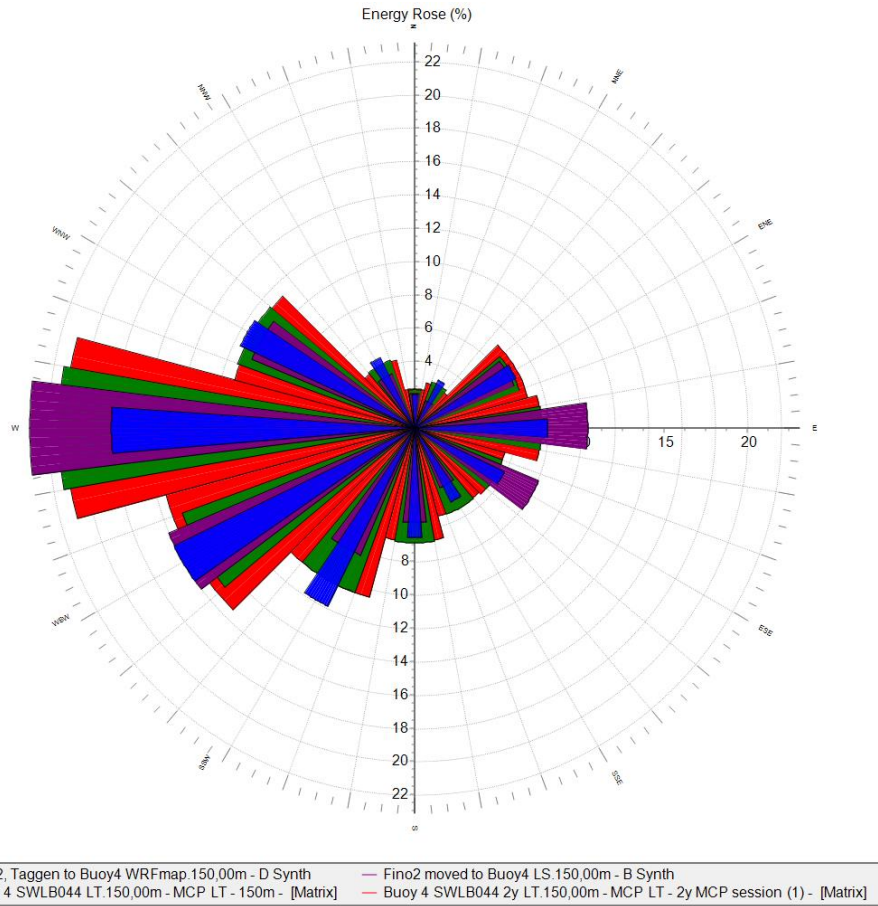


Figure 16. Directional distribution of the four long-term wind models at Position 2, Lot 4. Primary model based on 2 years (red), Primary model based on 1 year (green), FINO2 (purple) and Taggen (blue).



6.1 Uncertainty of Primary Wind Model

6.1.1 Measurement Uncertainty

Uncertainty on measurements was discussed in section 3.4. The results are summarized in Table 18.

Table 18. Measurement uncertainty.

BUOY	TOTAL MEASUREMENT UNCERTAINTY
WS199 (Lot 3) (1y)	2.41%
SWLB044 (Lot 4) (2y)	2.74%

6.1.2 Long-term Correction Uncertainty

The long-term correction uncertainty consists of components with very low uncertainty (correlation, reference consistency, reference period length) and one component with moderate uncertainty, which is the measurement period. This is therefore the dominant uncertainty with very minor contributions from other components.

Based on [22], the combined long-term correction uncertainty of a 1-year period will range between 1.5% and 4% and for a 2-year period between 1% and 3%.

For the long-term correction, three different references (EMD-WRF, ERA5 and NORA3) were tested using four different methods in a sensitivity analysis. The standard deviation on predicted wind speed of these was 0.4%. The references are, however, not entirely independent from each other which make this standard deviation unreliable. Instead, the range from minimum to maximum resulting wind speed can be used as an indicator of the uncertainty. This range is 1.3% for WS199 and 1.3% for Lot 4. Adding a second year only marginally reduced the spread on SWLB044.

We therefore consider an uncertainty on long-term correction of 1.5% a reasonable value for long-term correction of the primary data from Lot 3 and 1.3% from Lot 4.

6.1.3 Very Long-term Uncertainty

The future climate uncertainty is the potential difference in mean wind speed of the next 20 years from the past period considered in the wind study. Northern Europe is subject to longwave oscillations meaning that a 20-year operation period can be quite different from the very long-term average. As suggested by [22], we estimate that for a 20-year dataset in this region this uncertainty is 1.5 % on wind speed.

This is supported by [23] who indicate 20-year multidecadal variability amplitude of the Baltic Sea on yield around 3%. Given a yield to wind speed ratio near unity, this translates well to wind speed and results in an uncertainty of wind speed of 1.5%.



6.1.4 Year-to-year Variability

Based on the annual variation on the EMD-WRF data the inter-annual variability is 4.4% at Lot 3 and 4.2% at Lot 2. Over a 20-year lifetime this uncertainty is reduced to 0.82% and 0.78% respectively.

6.1.5 Total Uncertainty

The uncertainty components are combined to a total wind speed uncertainty. A total is given for 1- and 20-year period.

The results from the secondary data provide a standard deviation on the three reported wind speed results (FINO2, Taggen and the buoy) for each buoy at 1.4% at Lot 3 and 1.3% at Lot 4. Due to the horizontal extrapolation distortion and in some cases poorer measurement uncertainty than at the buoys, the uncertainty on the transferred secondary data should be considered higher than on the local data, however the standard deviation of the results from the three different models remain within the range of the total wind speed uncertainty of the primary model (Table 19) and therefore confirm the primary model.

Table 19. Combined uncertainty on long-term wind data. Uncertainty given as one standard deviation wind speed.

WIND DATA UNCERTAINTY	LOT 3		Lot 4	
	1 YEAR	20 YEARS	1 YEAR	20 YEARS
Measurement uncertainty	2.41%	2.41%	2.74%	2.74%
Long-term correction uncertainty	1.5%	1.5%	1.3%	1.3%
Very long-term uncertainty	1.5%	1.5%	1.5%	1.5%
Annual variability	4.4%	0.98%	4.2%	0.94%
Total	5.45%	3.36%	5.39%	3.51%



7 Flow Modelling

7.1 Wind Resource Map

The main report presents a wind resource map for the BSEI OWF [1].

The updated Primary model is unchanged for Lot3, WS199 and almost identical for Lot 4, SWLB044. Therefore, the resource map is also unchanged.

7.2 Wind Resource Model for Position 3 and 4

This site parameter assessment includes data for a third and a fourth position beside the two measurement locations.

The location of Position 3 and 4 was selected as representative of section of the OWF not covered by the two buoys. Coordinates for Position 3 and 4 are presented in Table 20. The location of position 3 is 17 km southwest of Position 1 and 33 km northwest of Position 2. Position 4 is 35 km southeast of Position 1 and 22 km northeast of Position 2. Please note that Position 3 will be under influence of the operating Arkona and Wikinger wind farms, plus any further development in that sector. The data presented here for position 3 and 4 are for ambient conditions with the same influence from operating wind turbines as experienced at Position 1 and 2.

Table 20. Coordinates for Position 3 and 4.

	UTM WGS84, ZONE 32		GEOGRAPHICAL COORDINATES WGS84	
Position 3	831,363	6,094,706	14.1682°	54.8892°
Position 4	874,818	6,093,803	14.8412°	54.8503°

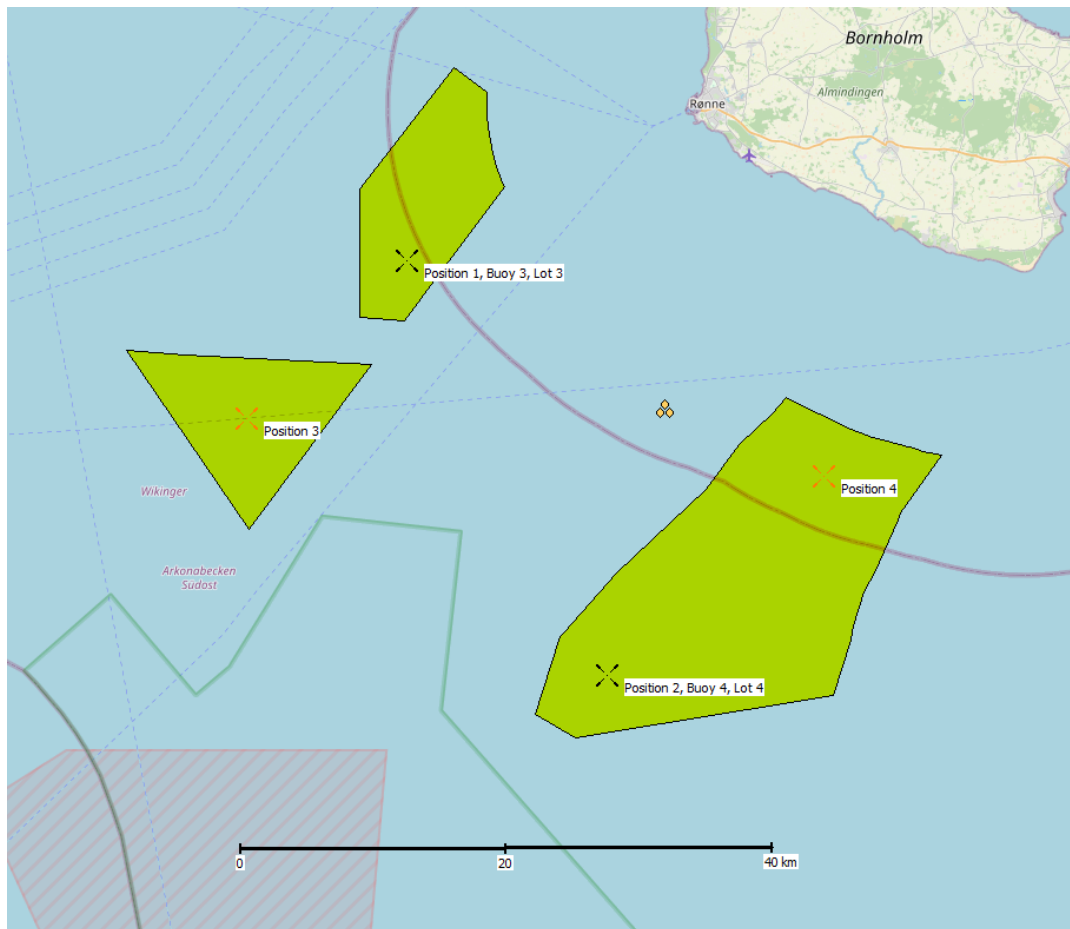


Figure 17. Location of measurement points and the selected Position 3 and 4.

For Position 3 and 4 a long-term time series has been produced for 150 m ASL.

This is achieved through the gradient file method available in windPRO. With this method observed data are moved around the site using a wind resource map. From the wind resource map, the Weibull A parameter of the Weibull distribution is picked up from the location of the observed data and the prediction location and the ratio is applied to the observed time series. A specific ratio is found for each of 12 direction sectors. No change is made to the wind direction data.

For Position 3 the resulting time series at 150 m was generated using the long-term corrected time series for Lot 3 at 150 m (Primary model 1y) and the recalibrated wind resource map. This data basis is the same as in the main report and the resulting wind distribution is identical.

For Position 4 the resulting time series at 150 m was generated using the long-term corrected time series for Lot 4 at 150 m (Primary model 2y) and the recalibrated wind resource map.

In principle, with this method, a time series can be extracted for any location on the site using the wind data time series and the gradient file. Both are included as deliverables.

The time series for Position 3 and 4 includes wind speed and wind direction for 20 years in an hourly resolution.



The arithmetic mean wind speed at both Position 3 and 4 is 9.90 m/s. The Weibull distributions are presented in Table 21. Details can be found in Appendix C.

Table 21. Weibull parameters of the long-term wind data, Position 3 and 4.

POSITION	PERIOD [Y]	ARITHMETIC MEAN WIND SPEEDS [M/S]	WEIBULL MEAN [M/S]	WEIBULL - A PARAMETER [M/S]	WEIBULL - K PARAMETER
Position 3, 150 m	20	9.90	9.96	11.25	2.187
Position 4, 150 m	20	9.89	9.97	11.25	2.197



8 Siting Parameters

This chapter outlines the requested siting parameters for assessment of structural integrity of wind turbines in accordance with the relevant design standards: IEC 61400-1 Ed. 4 [2], IEC 61400-3-1 Ed. 1 [3], IEC 61400-15-1 CD [7], DS 472 Ed 2. [6], and EN1991-1-4 including the Danish Annex DK NA EN1991-1-4 [4] [5].

The siting parameters are only presented here if they differ from those presented in the main report.

For siting parameters that require turbine specific information, the following has been assumed.

Table 22. Turbine specific information used for siting parameters.

TURBINE SPECIFICATION	VALUE
Hub height	150 m
Rotor diameter	240 m
Cut-in wind speed	3 m/s
Cut-out wind speed	25 m/s
Wind turbine class	II

8.1 Normal Wind Conditions

Normal wind conditions have been derived in accordance with IEC 61400-3-1 Ed. 1 [3], IEC 61400-1 Ed. 4 [2] and IEC 61400-15-1 CD [7]. All parameters except for the wind speed distribution have been estimated as omnidirectional characteristic values. This is in line with the IEC 61400-3-1, which allows omnidirectional values to be considered for offshore sites that are far away from the coast where the environment generally exhibits little directional variation.

Due to the site location being offshore, the terrain is classified as “not complex” (terrain complexity factor is 1.0) and the wind flow is assumed without any inclination (flow inclination 0°).

8.1.1 Wind Speed Distribution

The 10-min mean wind speed probability distribution at hub height is modelled by a Weibull distribution for each direction [2]. The distributions are estimated based on long-term corrected data from the LiDARs. Note that the temporal resolution of these data is 1 hour, but according to IEC 61400-3-1 the long-term probability distribution of mean wind speed may be assumed to be independent of averaging periods between 10 minutes and 3 hours. The results are summarized in the Table 23 to Table 26 below. Mean wind speed is derived from the Weibull distribution. Details can be found in Appendix C.

Wind speed distributions are updated for position 2 (Lot 4) and position 4.



Table 23. Weibull distribution parameters based on long-term corrected LIDAR data at 150 m ASL (Primary model 1y), Position 1 - WS199. Wind speeds are derived from the Weibull distribution.

POSITION 1 – WS199 SECTOR	A PARAMETER [M/S]	K PARAMETER [-]	FREQUENCY [%]	MEAN WIND SPEED [M/S]
Mean	11.20	2.184	100.00	9.92
0-N	7.98	1.854	3.58	7.08
1-NNE	9.24	1.910	4.51	8.19
2-ENE	10.48	2.200	5.96	9.28
3-E	10.56	2.196	7.29	9.35
4-ESE	10.00	2.370	7.35	8.87
5-SSE	9.73	2.337	6.37	8.62
6-S	10.68	2.129	7.22	9.46
7-SSW	11.38	2.329	8.68	10.08
8-WSW	13.09	2.480	13.50	11.62
9-W	13.01	2.462	18.89	11.54
10-WNW	11.16	2.212	11.45	9.89
11-NNW	9.24	2.067	5.21	8.19



Table 24. Weibull distribution parameters based on long-term corrected LIDAR data at 150 m ASL (Primary model 2y), Position 2 – SWLB044. Wind speeds are derived from the Weibull distribution.

POSITION 2 – WSLB044 SECTOR	A PARAMETER [M/S]	K PARAMETER [-]	FREQUENCY [%]	MEAN WIND SPEED [M/S]
Mean	11.22	2.197	100.00	9.94
0-N	8.28	1.878	3.59	7.35
1-NNE	8.92	1.874	3.81	7.92
2-ENE	11.12	2.221	7.09	9.85
3-E	10.87	2.480	7.70	9.64
4-ESE	9.95	2.614	6.45	8.84
5-SSE	9.77	2.306	6.50	8.65
6-S	10.75	2.177	7.17	9.52
7-SSW	12.23	2.483	9.26	10.85
8-WSW	12.66	2.596	12.97	11.24
9-W	12.82	2.247	18.29	11.36
10-WNW	10.81	2.099	11.77	9.57
11-NNW	9.39	2.041	5.39	8.32



Table 25. Weibull distribution parameters based on long-term corrected LIDAR data at 150 m ASL (Primary model 1y), moved to Position 3. Wind speeds are derived from the Weibull distribution.

POSITION 3 SECTOR	A PARAMETER [M/S]	K PARAMETER [-]	FREQUENCY [%]	MEAN WIND SPEED [M/S]
Mean	11.25	2.187	100.00	9.96
0-N	7.99	1.856	3.58	7.10
1-NNE	9.23	1.911	4.51	8.19
2-ENE	10.48	2.201	5.96	9.29
3-E	10.65	2.196	7.29	9.43
4-ESE	10.11	2.381	7.35	8.97
5-SSE	9.82	2.335	6.37	8.71
6-S	10.77	2.138	7.22	9.54
7-SSW	11.41	2.327	8.68	10.11
8-WSW	13.18	2.480	13.50	11.69
9-W	13.02	2.461	18.89	11.54
10-WNW	11.17	2.213	11.45	9.89
11-NNW	9.32	2.068	5.21	8.25



Table 26. Weibull distribution parameters based on long-term corrected LIDAR data at 150 m ASL (Primary model 2y), moved to Position 4. Wind speeds are derived from the Weibull distribution.

POSITION 4 SECTOR	A PARAMETER [M/S]	K PARAMETER [-]	FREQUENCY [%]	MEAN WIND SPEED [M/S]
Mean	11.25	2.197	100.00	9.97
0-N	8.64	1.886	3.59	7.67
1-NNE	9.16	1.868	3.81	8.14
2-ENE	11.55	2.236	7.09	10.23
3-E	10.83	2.464	7.70	9.61
4-ESE	9.75	2.606	6.45	8.66
5-SSE	9.66	2.304	6.50	8.56
6-S	10.71	2.179	7.17	9.49
7-SSW	12.07	2.485	9.26	10.71
8-WSW	12.64	2.599	12.97	11.22
9-W	12.90	2.248	18.29	11.43
10-WNW	10.83	2.099	11.77	9.59
11-NNW	9.48	2.029	5.39	8.40

8.1.2 Normal Wind Profile (NWP)

The site-specific normal wind profile is characterised by the mean wind shear power law coefficient (α_c). According to IEC 61400-1 Ed. 4 [2] the site-specific omnidirectional characteristic wind shear should be evaluated as the energy-weighted average of the sector-wise values.

In the main report the power coefficient describing the shear is presented based on 1 year of measurements. It is also presented how shear is a function of season. With 2 months of data missing on both Lot 3 and Lot 4, the second year of data includes a seasonal bias. The bias is cancelled by calculating the shear in 2 months bins. For the November-December bin and for the January-February bin, the shear is based only the first year of data, while for the remaining bins, shear is based on data from both years. The monthly shear is presented in Table 27.

The synthesized data for the second year on Lot 3 was deemed suitable for the shear calculation.



Power law coefficient based on heights 120 m, 150 m, and 180 m, the expected hub height range, and, secondly, the shear across to expected rotor range, based on 30 m, 100 m, 150 m, 180 m and 270 m height data are presented in table Table 27 and Table 28.

For Position 3, the Position 1 shear can be assumed while for Position 4, the Position 2 shear can be assumed.

Table 27. Site specific omnidirectional wind shear exponent by season. Shear values in italics are based on first year of measurements.

POSITION	WIND SHEAR POWER LAW EXPONENT [-]	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	YEAR
Position 1 – Lot 3	Hub height range 120 m to 180 m	<i>0.137</i>	0.090	0.063	0.055	0.068	<i>0.063</i>	0.079
	Rotor range 30m to 270m	<i>0.135</i>	0.118	0.110	0.072	0.077	<i>0.062</i>	0.096
Position 2 – Lot 4	Hub height range 120 m to 180 m	<i>0.143</i>	0.084	0.056	0.056	0.065	<i>0.055</i>	0.077
	Rotor range 30m to 270m	<i>0.137</i>	0.115	0.112	0.079	0.077	<i>0.063</i>	0.097

Table 28. Site specific omnidirectional wind shear exponent.

WIND SHEAR POWER LAW EXPONENT [-]	POSITION 1 – LOT 3	POSITION 2 – LOT 4
Hub height range 120 m to 180 m	0.079	0.077
Rotor range 30m to 270m	0.096	0.097



8.1.3 Normal Turbulence Model (NTM)

TURBULENCE MODEL AND FIT

The main report presents a turbulence model for the EIBS OWF based on FINO2 measurements. The addition of a second year of onsite LiDAR data has no impact on the turbulence model.

An effort to validate the presented turbulence model has been made by comparing LiDAR data from the Energy Island North Sea [24] with LiDAR data from Energy Island Baltic Sea. Fugro has supplied motion corrected LiDAR data [13] [14], which, ideally should make the turbulence data comparable, though different from the submitted model based on cup anemometer measurements.

The turbulence model presented for EINS [24] has a high degree of confidence as it is supported by several measurement location around the North Sea. On the other hand, EMD was not able to confirm the turbulence model for the Baltic Sea through alternative sources and it must therefore be considered weaker than the North Sea model. The Baltic Sea model has a lower turbulence than the North Sea and this difference is expected to be found as well when comparing the motion corrected LiDAR turbulence data from the North Sea and the Baltic Sea.

Motion corrected data was submitted from four LiDAR buoys. The two buoys with the highest availability, WS170 and SWLB044 are plotted against the presented models from the North Sea and the Baltic Sea in Figure 18 and Figure 19. WS170 (Lot 1, Lot 2) represents the North Sea and SWLB044 (Lot 4) represents the Baltic Sea. The presented LiDAR data are confirmed by the other two LiDARs.

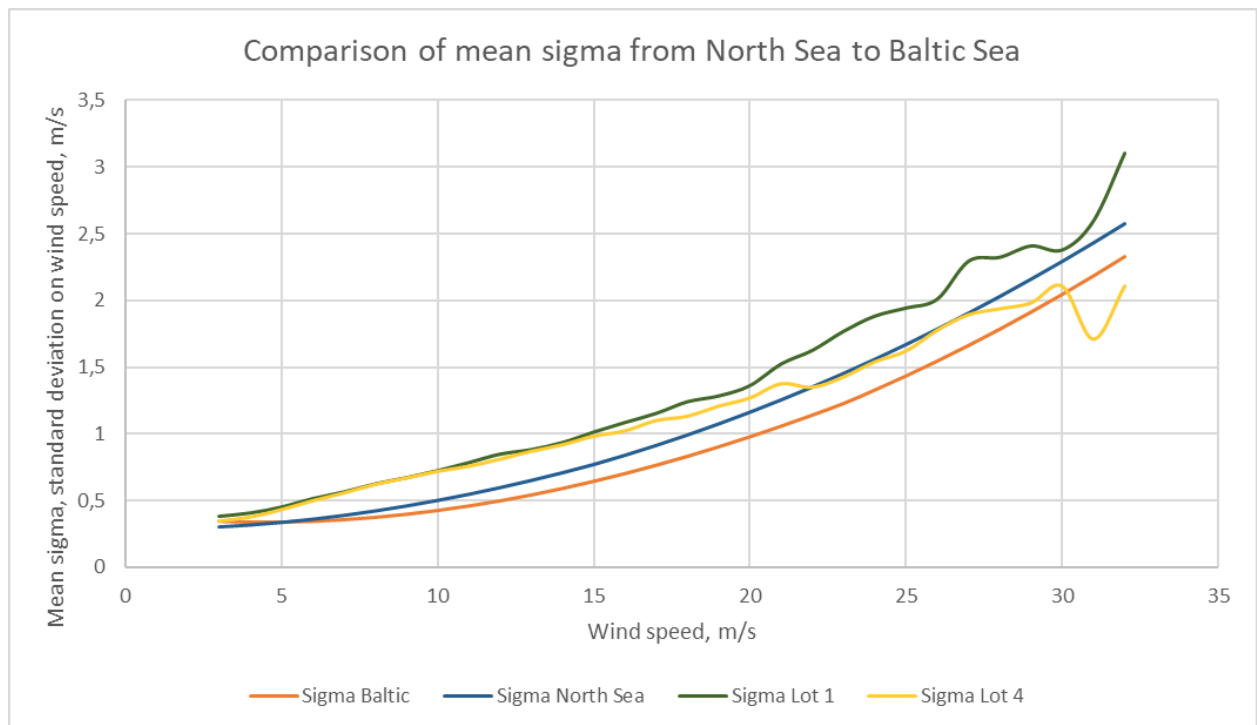


Figure 18. Mean sigma (standard deviation of wind speed) as a function of wind speed. Presented models for Energy Island North Sea and Energy Island Baltic Sea compared to one Lidar in the North Sea OWF (Lot 1, Lot 2) and one in the Baltic Sea OWF (Lot 4).

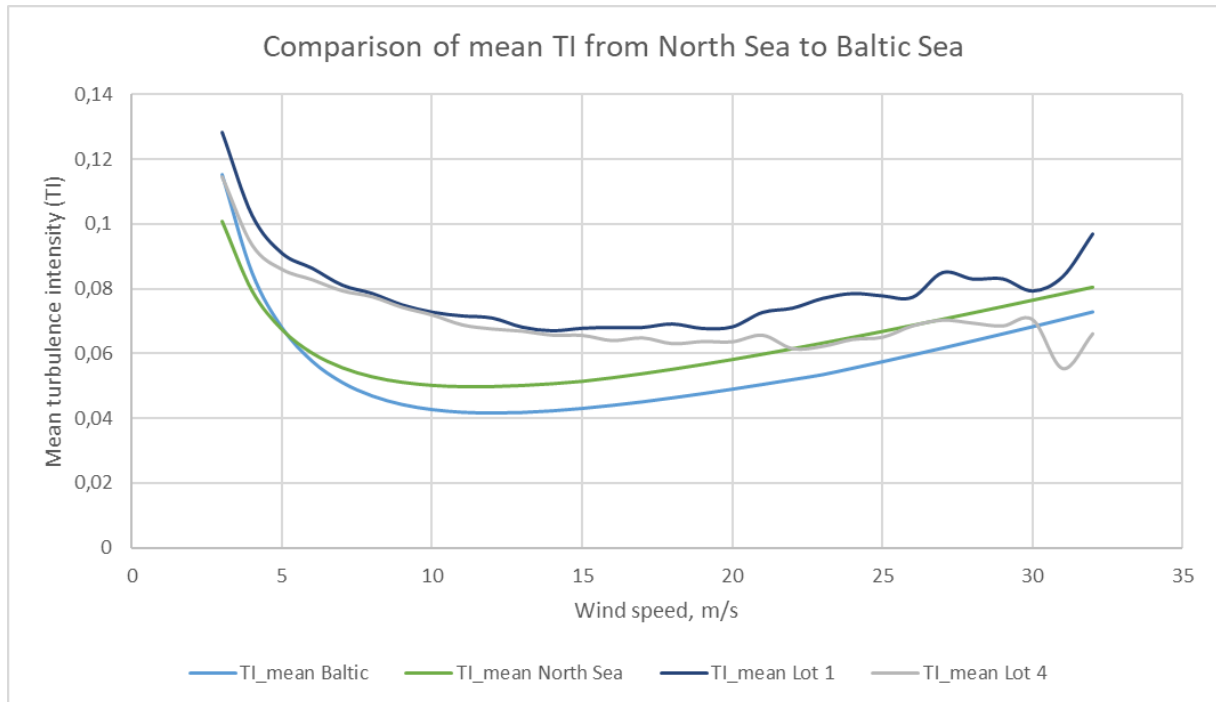


Figure 19. Mean Turbulence intensity (TI) as a function of wind speed. Presented models for Energy Island North Sea and Energy Island Baltic Sea compared to one Lidar in the North Sea OWF (Lot 1, Lot 2) and one in the Baltic Sea OWF (Lot 4).

At very high wind speeds, the motion corrected turbulence data confirms the turbulence model difference between the two locations. There is a very high uncertainty on the values of the LiDAR measurements which is demonstrated by the absolute difference in turbulence to the presented models, but also inherent in the motion correction itself. The WS170 motion correction verification with the LEG platform contained less noise than that from the SWLB044 verification with Frøya, and this difference may distort the data.

We find that the difference between the motion corrected LiDAR data verify that there is expected to be a difference in turbulence between the North Sea and the Baltic Sea, but that the difference between motion corrected LiDAR data from the two locations is not consistent enough to suggest a correction factor for the Baltic Sea turbulence model. The uncertainty involved would be unacceptable.

LiDAR derived turbulence data are also not supported by the relevant IEC standard.

For these reasons, the turbulence model presented in the main report is unchanged.

8.1.4 Air Density

Air density during normal wind conditions is characterised by its average value at hub height, which is here set to 150 m.



Based on long-term mean temperature found in section 8.1.5, air density is calculated at 150 m elevation assuming standard pressure at this height of 996 hPa. The resulting air density is 1.228 kg/m³ for both position 1 and 2. This is used as primary result.

Mean air density (150 m)	1.23 kg/m³
---------------------------------	------------------------------

8.1.5 Air Temperature

Air temperature was measured on Lot 4 through the second year of the campaign. The average temperature measured during that period was 10.2°C. The temperature has been long-term corrected with EMD-WRF Europe+ data from the buoy locations to 9.6°C. On Lot 3, the measured temperature after 1 year was also 10.2°C. This was long-term corrected to 9.5°C. These temperatures conform with temperatures at surrounding meteorological stations.

The temperature at 150 m has been found using the atmospheric lapse rate of -2.0 K/km derived from the EMD-WRF Europe+ data. The result is 9.2°C at both lots at 150m ASL.

The EMD-WRF time series at 100 m has been calibrated to represent the LiDAR position at 150m height by applying an offset 0.7°C on both lots (difference between EMD-WRF Europe+ and measurements). The resulting time series has then been used to estimate how many hours the temperature is outside the normal and extreme temperature ranges defined in the IEC 61400-3-1 as -10°C to 30°C and -15°C to 40°C, respectively. The results are summarized in Table 29 and Table 30. The probability of temperatures falling outside the defined ranges is assessed by Gaussian distributions fitted to either the 10% highest or lowest temperatures [15].

The temperatures reported here are slightly higher than in the main report due to a change in the calculation method.

For Position 3, temperature at Position 1 can be assumed, while for Position 4, temperature for Position 2 can be assumed.

*Table 29. Temperature assessment at Position 1 – Lot 3 (150m). Identical to main report*

CHECK	TMIN [°C]	TMAX [°C]	< TMIN [H/YEAR]	> TMAX [H/YEAR]	TOTAL HOURS OUTSIDE RANGE [H/YEAR]
Normal range	-10.0	30.0	0.808	0.470	1.278
Extreme range	-15.0	40.0	0.004	0.000	0.004
Mean air temperature					9.2°C
Standard deviation air temperature					6.7°C
Maximum temperature					31.4°C
Minimum temperature					-9.0°C

Table 30. Temperature assessment at Position 2 – Lot 4 (150m). Updated with year 2 measurements.

CHECK	TMIN [°C]	TMAX [°C]	< TMIN [H/YEAR]	> TMAX [H/YEAR]	TOTAL HOURS OUTSIDE RANGE [H/YEAR]
Normal range	-10.0	30.0	1.703	1.061	2.764
Extreme range	-15.0	40.0	0.016	0.000	0.016
Mean air temperature					9.2°C
Standard deviation air temperature					6.8°C
Maximum temperature					31.5°C
Minimum temperature					-10.3C

8.2 Extreme Wind Conditions

The extreme wind model is unchanged compared to the main report [1].



With a 2-month gap during the period with highest concentration of extreme wind speeds, the second year of data on Lot 4 are heavily biased and will not improve the results for the extreme conditions analysis.

8.3 Summary Table of Siting Parameters

The requested omnidirectional siting parameters are summarized in the table below.

Table 31. Summary table of siting parameters (150m).

Parameter	POSITION 1	POSITION 2	POSITION 3	POSITION 4
Mean wind speed	9.92 m/s	9.94 m/s	9.96 m/s	9.97 m/s
Weibull distribution, A parameter (scale)	11.20 m/s	11.22 m/s	11.25 m/s	11.25 m/s
Weibull distribution, k parameter (shape)	2.18	2.20	2.19	2.20
Normal wind profile power law exponent	0.097	0.096	0.097	0.096
Turbulence intensity mean value (TI_{μ}) at a 10-min average wind speed of 15m/s*	4.3%	4.3%	4.3%	4.3%
Turbulence intensity standard deviation (TI_{σ}) at a 10-min average wind speed of 15m/s*	2.0%	2.0%	2.0%	2.0%
Turbulence intensity 90% quantile at a 10-min average wind speed of 15m/s*	6.9%	6.9%	6.9%	6.9%
Mean air density	1.23 kg/m ³	1.23 kg/m ³	1.23 kg/m ³	1.23 kg/m ³
Mean air temperature	9.2°C	9.2°C	9.2°C	9.2°C
50-year extreme wind speed	40.7 m/s	40.7 m/s	40.7 m/s	40.7 m/s
1-year extreme wind speed	22.9 m/s	22.9 m/s	22.9 m/s	22.9 m/s
Wind shear for extreme wind speed extrapolation	0.20	0.20	0.20	0.20
Characteristic turbulence intensity at 50-year extreme wind speed	10.9%	10.9%	10.9%	10.9%
Air density for extreme wind	1.24 kg/m ³	1.24 kg/m ³	1.24 kg/m ³	1.24 kg/m ³

*Turbulence values at other wind speeds can be found in Appendix D.



9 Data Package

EMD has submitted datasets in support of this study. These are as far as it is possible provided in accessible formats.

9.1 Raw Buoy Data

The raw data from the two buoys, WS199 and SWLB044 are provided as presented to EMD. These are the monthly data conforming to the description in this report.

The files are located in the folder Raw buoy data.

Four sets of data files are provided for each buoy. These the files used in this study:

- LiDAR buoy other parameters
Containing temperature data
- LiDAR buoy position data
Containing a time series record of the buoy location.
- LiDAR buoy wind parameters
Containing wind speed and wind direction data
- LiDAR buoy wind stats
Containing a record of returned data packages (data quality signal)

Please refer to Fugro's documentation for details on the content and data structure of the files [25]

For convenience, the raw data files are combined in a single text file. The text file can be imported directly into windPRO, but as an open format, it is generally accessible. Please note that maximum wind speed and vertical wind speed are only prepared for 150 m height data series.

- Lot 3 raw data 1y.txt
- Lot 4 raw data 2y.txt

Both datasets are included as windPRO Meteo objects in an Object export file

- Raw buoy data.wpobjects

The object export files can be imported into windPRO 4.0 or later by right-clicking in the Object list and select Import -> Import from windPRO object export file.



9.2 Filtered and Repaired LIDAR Data

Datasets for the filtered and repaired datasets are provided. The filter and repair process is described in section 3.2.3. The two datasets represent one complete year of data for Lot 3 and two complete years of data for Lot 4. The 2 year complete dataset for Lot 3 is added for reference. The text file can be imported directly into windPRO, but as an open format, it is generally accessible.

- Lot 3 1 year complete.txt
- Lot 3 2 year complete.txt
- Lot 4 2 year complete.txt

The text file includes measurements at all heights. Measurements on the buoy (non-LIDAR data) are for practical reasons set at 4 m. The dataset is organized in columns, grouped by height. Data for a given height with SampleStatus flagged as "1" is disabled by EMD.

The content of the columns is explained in Table 32.

Both datasets are included as windPRO Meteo objects in an Object export file

- Complete 2y buoy data.wpobjects

The object export files can be imported into windPRO 4.0 or later by right-clicking in the Object list and select Import -> Import from windPRO object export file.



Table 32. Column explanation for data time series.

COLUMN LABEL	DESCRIPTION
TimeStamp	Date and time, dd/mm/yyyy hh.mm
MeanWindSpeedUID_xx,xm	Mean wind speed at height xx.x m, m/s
DirectionUID_xx,xm	Wind direction at height xx.x m, m/s
TurbIntUID_xx,xm	Turbulence intensity at height xx.x m
OtherUID_xx	Number of datapackages received at height xx.x m, m/s
WindSpeedVerticalUID_xx,xm	Vertical wind speed at height xx.x m, m/s
MaxWindspeedUID_xx,xm	Maximum wind speed at height xx.x m, m/s
OtherUID_xx,xm	Info flag at height xx.x m
TemperatureUID_4.0m,xm	Temperature at 4m, °C
RelativeHumidity_UID_4.0m,xm	Relative humidity at 4m, %
PressureUID_4.0m,xm	Pressure at 4m, hPa
Comment_xx,xm	Comments for height xx.x m (not used)
TimeStampStatus_12,0m	Internal setting for WindPRO
SampleStatus_12,0m	Status flag on entire sample: 0: OK, 1: disabled, 2: below limit, 4: above limit, 8: duplicate, 16: null value, 32: missing, 128: other error
DataStatus_yyyy_xx,xm	Status flag for parameter yyyy flagged at height xx.x m. Settings as for Sample Status.
DataStatus.....	Datastatus for other parameters.



9.3 Long-term Corrected LiDAR data

The long-term corrected time series at Position 1, 2, 3 and 4 are included in the data package. Position 1 and 2 (Lot 3 and Lot 4) include all LiDAR measurement heights. Position 3 and 4 only includes the 150 m height.

- Position 1 Lot 3 LTC.txt
- Position 2 Lot 4 LTC.txt
- Position 3 LTC.txt
- Position 4 LTC.txt

Parameters included are wind speed and wind direction. Data format follows the format described above. The text file can be imported directly into windPRO, but as an open format, it is generally accessible.

All three datasets are included as windPRO Meteo objects in an Object export file.

- LTC Position 1-4 2y.wpobjects

The object export files can be imported into windPRO 4.0 or later by right-clicking in the Object list and select Import -> Import from windPRO object export file.

9.4 EMD-WRF Dataset

The EMD-WRF datasets for the Position 1 (Lot 3), Position 2 (Lot 4), Position 3 and Position 4 are included in the data package. Compared to the data from the main report, the datasets for Position 1 and Position 4 are extended to include 2023 data.

Text file export with selected parameters are included for each location

- EMD-WRF Position 1.txt
- EMD-WRF Position 2.txt
- EMD-WRF Position 3.txt
- EMD-WRF Position 3.txt

The data columns are described in Table 33.

Temperature, Heatflux and Stability (1/L) signals are prepared for the 100 m data only.

All EMD-WRF datasets are included as windPRO Meteo objects in an Object export file.

- EMD-WRF Position 1-4.wpobjects

The object export file can be imported into windPRO 4.0 or later by right-clicking in the Object list and select Import -> Import from windPRO object export file. The object export file includes more parameters than presented in the text file.



Table 33. Column explanation for EMD-WRF data time series.

COLUMN LABEL	DESCRIPTION
TimeStamp	Date and time, dd/mm/yyyy hh.mm
MeanWindSpeedUID_xx,xm	Mean wind speed at height xx.x m, m/s
DirectionUID_xx,xm	Wind direction at height xx.x m, m/s
TurbIntUID_xx,xm	Turbulence intensity at height xx.x m
TemperatureUID_100,0m	Temperature at height at 100 m, C
HeatFluxUID_100,0m	Heat flux at height at 100 m, W/m ²
StabilityUID_100,0m	Stability (1/L) at 100 m, 1/m
Comment_xx,xm	Comments for height xx.x m (not used)
TimeStampStatus_12,0m	Internal setting for WindPRO
SampleStatus_12,0m	Status flag on entire sample: 0: OK, 1: disabled, 2: below limit, 4: above limit, 8: duplicate, 16: null value, 32: missing, 128: other error
DataStatus_yyyy_xx,xm	Status flag for parameter yyyy flagged at height xx.x m. Settings as for Sample Status.
DataStatus	Datstatus for other parameters.

9.5 Turbulence Data

The FINO2 dataset was used as primary data for the turbulence analysis. Data for the measurement heights 91, 71 and 51 m are included in the data package. Data from 340° to 40° has been removed.

- 7y FINO2 data filtered.txt

Parameters included are wind speed, wind direction and turbulence intensity. Data format follows the format described above. The text file can be imported directly into windPRO, but as an open format, it is generally accessible.

The FINO2 dataset is included as windPRO Meteo objects in an Object export file.

- 7y FINO2 data filtered.wpobjects



The object export file can be imported into windPRO 4.0 or later by right-clicking in the Object list and select Import -> Import from windPRO object export file. The object export file includes more parameters than presented in the text file.

9.6 Wind Resource Map/Gradient File

The wind resource map used as a gradient file in section 7.1 is provided as an .rsf file (recognized WAsP format).

- Wind res map_Res_500_Hub_150,0_3._calibrated_Rescale 150m_150,0m.rsf



10 References

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- [5] Eurocode, EN1991-1-4 DK NA, 2007.
- [6] Dansk Standard, DS 472 Ed. 2: Forudsætninger for vindmøllekonstruktioner i Danmark, 2007.
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Appendix A. Verification and Classification Uncertainty

Verification uncertainty at 120 m height for WS199 [18].

WS199 height 120 m													
BIN lower [m/s]	BIN upper [m/s]	# of 10 min data sets	V _{sd} [m/s]	V _{mm} [m/s]	V _{maxsd} [m/s]	V _{minsd} [m/s]	Std _{v_{sd}} [m/s]	Std _{v_{sd}} /√n [m/s]	Mean deviation [%]	RSD Mounting uncertainty [%]	Separation Uncertainty [%]	V _{all} Uncertainty [%]	V _{so} Uncertainty (k=1) [%]
3.75	4.25	50	4.02	3.99	5.34	2.98	0.37	0.052	0.57%	0.50%	0.18%	1.84%	2.38%
4.25	4.75	73	4.57	4.48	5.53	3.89	0.29	0.033	1.84%	0.50%	0.18%	1.76%	2.70%
4.75	5.25	74	5.07	5.01	5.58	4.26	0.24	0.028	1.21%	0.50%	0.18%	1.67%	2.20%
5.25	5.75	88	5.60	5.49	6.45	4.84	0.27	0.029	1.90%	0.50%	0.18%	1.64%	2.62%
5.75	6.25	92	6.00	6.00	7.12	5.11	0.31	0.033	0.04%	0.50%	0.18%	1.73%	1.89%
6.25	6.75	126	6.61	6.51	7.60	5.90	0.31	0.028	1.64%	0.50%	0.18%	1.65%	2.42%
6.75	7.25	102	7.10	6.99	9.16	6.16	0.37	0.037	1.63%	0.50%	0.18%	1.52%	2.35%
7.25	7.75	130	7.61	7.51	8.84	6.82	0.36	0.031	1.32%	0.50%	0.18%	1.55%	2.14%
7.75	8.25	108	8.08	7.99	10.17	7.18	0.41	0.040	1.12%	0.50%	0.18%	1.49%	2.00%
8.25	8.75	112	8.62	8.50	10.01	7.88	0.37	0.035	1.48%	0.50%	0.18%	1.47%	2.19%
8.75	9.25	86	9.05	9.02	10.36	8.08	0.42	0.046	0.40%	0.50%	0.18%	1.52%	1.74%
9.25	9.75	89	9.66	9.55	10.77	8.91	0.35	0.037	1.15%	0.50%	0.18%	1.44%	1.96%
9.75	10.25	96	10.12	10.00	11.32	9.30	0.38	0.039	1.16%	0.50%	0.18%	1.43%	1.95%
10.25	10.75	69	10.67	10.47	13.90	9.80	0.51	0.062	1.89%	0.50%	0.18%	1.47%	2.52%
10.75	11.25	82	11.09	10.98	12.57	10.17	0.42	0.047	0.96%	0.50%	0.18%	1.45%	1.87%
11.25	11.75	62	11.57	11.49	12.66	10.27	0.44	0.055	0.71%	0.50%	0.18%	1.47%	1.78%
11.75	12.25	70	12.04	12.00	13.54	10.95	0.43	0.051	0.33%	0.50%	0.18%	1.49%	1.67%
12.25	12.75	68	12.64	12.51	13.89	11.60	0.44	0.054	1.10%	0.50%	0.18%	1.54%	2.01%
12.75	13.25	57	13.04	12.99	14.09	12.10	0.38	0.050	0.35%	0.50%	0.18%	1.50%	1.67%
13.25	13.75	70	13.55	13.46	14.32	12.65	0.35	0.042	0.62%	0.50%	0.18%	1.69%	1.90%
13.75	14.25	43	14.03	13.98	14.92	12.79	0.44	0.067	0.35%	0.50%	0.18%	1.66%	1.84%
14.25	14.75	29											
14.75	15.25	21											
15.25	15.75	25											
15.75	16.25	21											

Verification uncertainty at 120 m height for SWLB044 [19].

SWLB044 height 120 m													
BIN lower [m/s]	BIN upper [m/s]	# of 10 min data sets	V _{sd} [m/s]	V _{mm} [m/s]	V _{maxsd} [m/s]	V _{minsd} [m/s]	Std _{v_{sd}} [m/s]	Std _{v_{sd}} /√n [m/s]	Mean deviation [%]	RSD Mounting uncertainty [%]	Separation Uncertainty [%]	V _{all} Uncertainty [%]	V _{so} Uncertainty (k=1) [%]
3.75	4.25	49	4.03	4.00	5.17	3.30	0.36	0.051	0.82%	0.50%	0.24%	1.84%	2.45%
4.25	4.75	79	4.57	4.48	5.66	3.97	0.32	0.036	1.94%	0.50%	0.24%	1.76%	2.79%
4.75	5.25	77	5.08	5.01	6.42	4.21	0.33	0.037	1.39%	0.50%	0.24%	1.67%	2.36%
5.25	5.75	93	5.65	5.50	6.40	4.96	0.30	0.032	2.67%	0.50%	0.24%	1.64%	3.23%
5.75	6.25	103	6.06	6.00	7.36	4.74	0.40	0.039	0.90%	0.50%	0.24%	1.73%	2.13%
6.25	6.75	131	6.64	6.51	8.11	5.87	0.37	0.033	2.05%	0.50%	0.24%	1.65%	2.73%
6.75	7.25	105	7.17	6.99	9.37	6.34	0.41	0.040	2.63%	0.50%	0.24%	1.52%	3.14%
7.25	7.75	133	7.65	7.50	9.39	6.83	0.41	0.036	1.94%	0.50%	0.24%	1.55%	2.59%
7.75	8.25	112	8.16	7.99	10.59	6.97	0.50	0.048	2.11%	0.50%	0.24%	1.49%	2.70%
8.25	8.75	111	8.61	8.50	10.37	7.77	0.42	0.040	1.33%	0.50%	0.24%	1.47%	2.11%
8.75	9.25	86	9.11	9.02	10.44	7.73	0.47	0.050	1.06%	0.50%	0.24%	1.52%	2.01%
9.25	9.75	90	9.67	9.54	10.91	8.64	0.44	0.047	1.33%	0.50%	0.24%	1.44%	2.09%
9.75	10.25	95	10.12	10.00	11.50	9.19	0.43	0.045	1.22%	0.50%	0.24%	1.43%	2.01%
10.25	10.75	68	10.61	10.48	11.59	9.63	0.40	0.048	1.23%	0.50%	0.24%	1.47%	2.05%
10.75	11.25	82	11.19	10.98	12.72	10.01	0.50	0.055	1.90%	0.50%	0.24%	1.45%	2.50%
11.25	11.75	62	11.57	11.49	13.08	10.15	0.47	0.060	0.76%	0.50%	0.24%	1.47%	1.82%
11.75	12.25	69	12.18	12.00	13.45	11.01	0.47	0.056	1.48%	0.50%	0.24%	1.49%	2.22%
12.25	12.75	68	12.64	12.51	14.18	11.44	0.51	0.062	1.04%	0.50%	0.24%	1.54%	2.00%
12.75	13.25	57	13.18	12.99	13.89	12.28	0.44	0.058	1.46%	0.50%	0.24%	1.50%	2.21%
13.25	13.75	70	13.61	13.46	14.94	12.62	0.47	0.056	1.10%	0.50%	0.24%	1.69%	2.13%
13.75	14.25	43	14.05	13.98	15.81	13.10	0.48	0.073	0.51%	0.50%	0.24%	1.66%	1.90%
14.25	14.75	29											
14.75	15.25	21											
15.25	15.75	25											
15.75	16.25	21											



Type specific classification uncertainty from classification report for ZX300 by DNV-GL [17]

ZX300 Type Class Table												
Heights	EVs	Max influence (m x Range)							Preliminary accuracy	Type specific class	Standard uncertainty	
		Temperature Gradient	Air Temperature	Turbulence Intensity	Wind Veer	Wind Shear	Air Density	Rain				Flow inclination angle
[m]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	
135	-1.85	-1.81	0.46	0.60	-2.48	*	-0.59	0.71	3.78	2.67	1.54	
130	-2.03	-1.34	0.62	0.57	-1.14	*	-0.60	1.17	3.11	2.20	1.27	
125	-1.80	-1.37	0.70	0.59	-1.20	*	-0.96	1.07	3.07	2.17	1.25	
120	-1.91	-1.13	0.78	0.58	-0.61	*	-0.92	0.96	2.83	2.00	1.16	
115	-1.97	-0.90	0.87	0.57	-0.02	*	-0.87	0.86	2.70	1.91	1.10	
110	-2.03	-0.66	0.95	0.57	0.57	*	-0.80	0.76	2.71	1.92	1.11	
105	-2.09	-0.42	1.04	0.56	1.16	*	-0.77	0.65	2.88	2.04	1.18	
100	-1.52	2.50	1.71	0.00	1.02	-0.45	-0.01	0.55	3.61	2.55	1.47	
95	-1.18	1.96	1.47	0.12	1.17	-0.33	0.20	0.22	2.99	2.12	1.22	
90	-0.82	1.42	1.43	0.23	1.31	-0.20	0.23	-0.11	2.57	1.81	1.05	
85	-0.46	0.91	1.40	0.34	1.52	-0.07	0.25	-0.66	2.43	1.72	0.99	
80	-0.10	0.57	1.50	0.47	1.68	0.05	0.28	-0.63	2.47	1.75	1.01	
75	0.11	0.61	1.61	0.60	2.23	0.18	0.30	-0.59	2.96	2.10	1.21	
70	0.14	1.11	1.33	0.72	2.79	0.31	0.28	-0.56	3.43	2.43	1.40	
65	0.23	1.35	1.09	0.89	2.36	0.75	0.26	-0.52	3.21	2.27	1.31	
60	0.23	1.77	0.86	1.04	2.05	1.13	0.24	-0.49	3.28	2.32	1.34	
55	0.25	2.07	0.71	0.45	1.91	1.51	0.23	*	3.32	2.34	1.35	
50	0.28	1.03	0.52	0.61	1.60	1.89	0.28	*	2.83	2.00	1.15	
45	0.32	0.41	0.39	0.77	1.29	2.27	0.31	*	2.82	2.00	1.15	
40	0.16	-0.22	0.27	0.93	0.99	2.66	0.35	*	3.03	2.14	1.24	
35	0.10	-0.61	0.41	0.45	0.13	0.48	0.38	*	1.07	0.75	0.44	
30	0.03	-0.76	0.53	0.34	-0.44	-0.41	0.41	*	1.23	0.87	0.50	
25	0.02	-0.78	0.67	0.29	-1.01	-1.30	0.45	*	2.01	1.42	0.82	
20	0.00	-0.71	0.82	0.23	-1.58	-2.18	0.48	*	2.95	2.09	1.21	

* EV was not assessed in the height



**Appendix B. Filtered and Repaired Dataset:
Position 1 (Lot 3) 1 year + 2 year,
Position 2 (Lot 4) 2 year**



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06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

270,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			10,24	6,88	7,05	8,81	8,56	8,20	9,25	8,52	10,22	11,70	12,39	10,97	10,03
0		0,49	2	0	0	1	1	0	0	0	0	0	0	0	0
1	0,50	1,49	804	61	69	82	40	56	72	106	88	57	59	56	58
2	1,50	2,49	1320	123	76	97	63	64	82	129	129	131	124	151	151
3	2,50	3,49	2280	150	174	127	200	189	149	180	199	192	269	314	314
4	3,50	4,49	2822	167	166	191	313	292	255	154	226	286	287	326	159
5	4,50	5,49	3065	172	209	173	289	226	296	257	254	334	346	319	190
6	5,50	6,49	3505	267	224	168	257	214	268	336	244	414	481	403	229
7	6,50	7,49	3695	318	251	263	257	285	234	212	246	389	457	517	266
8	7,50	8,49	3867	251	201	138	272	439	231	154	261	360	627	601	332
9	8,50	9,49	3674	147	146	115	205	408	294	212	210	317	635	677	308
10	9,50	10,49	3530	116	110	85	218	315	274	250	219	280	785	648	230
11	10,50	11,49	3447	56	103	142	164	292	221	232	267	336	825	566	243
12	11,50	12,49	3338	30	60	163	148	202	323	254	252	413	798	515	180
13	12,50	13,49	3090	41	43	144	132	115	284	160	195	383	801	610	182
14	13,50	14,49	2880	35	38	125	121	79	213	145	248	397	794	545	140
15	14,50	15,49	2335	28	32	100	110	53	198	105	226	336	621	388	138
16	15,50	16,49	1692	19	28	54	101	58	103	67	128	231	487	271	145
17	16,50	17,49	1354	14	9	63	99	20	51	31	110	173	448	213	123
18	17,50	18,49	1099	11	5	61	38	14	19	23	113	164	426	125	100
19	18,50	19,49	880	3	2	28	20	2	23	10	104	173	351	83	81
20	19,50	20,49	697	0	0	8	9	0	21	4	52	135	329	71	68
21	20,50	21,49	532	0	0	3	2	1	9	6	43	121	231	85	31
22	21,50	22,49	358	0	0	0	0	1	2	6	37	92	113	91	16
23	22,50	23,49	240	0	0	0	0	0	0	3	12	66	81	70	8
24	23,50	24,49	167	0	0	0	0	0	0	2	6	44	52	52	11
25	24,50	25,49	164	0	0	0	0	0	0	1	12	40	56	49	6
26	25,50	26,49	122	0	0	0	0	0	0	1	8	42	39	32	0
27	26,50	27,49	124	0	0	0	0	0	0	0	12	37	34	37	4
28	27,50	28,49	107	0	0	0	0	0	0	0	7	46	27	22	5
29	28,50	29,49	80	0	0	0	0	0	0	0	1	25	38	14	2
30	29,50	30,49	74	0	0	0	0	0	0	0	0	17	40	17	0
31	30,50	31,49	57	0	0	0	0	0	0	0	1	13	26	17	0
32	31,50	32,49	29	0	0	0	0	0	0	0	0	8	15	6	0
33	32,50	33,49	11	0	0	0	0	0	0	0	0	4	6	1	0
34	33,50	34,49	5	0	0	0	0	0	0	0	0	4	0	1	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

240,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			10,15	6,77	7,09	8,65	8,60	8,27	9,20	8,45	10,14	11,73	12,21	10,80	9,98
0		0,49	2	0	0	0	0	0	0	1	1	0	0	0	0
1	0,50	1,49	802	60	72	81	40	57	64	116	83	55	70	51	53
2	1,50	2,49	1314	126	86	90	68	73	88	127	133	122	121	146	134
3	2,50	3,49	2324	164	159	155	177	174	175	191	205	195	273	307	149
4	3,50	4,49	2793	164	166	173	290	287	256	166	234	273	303	338	143
5	4,50	5,49	3142	178	210	188	297	230	303	248	271	330	372	324	191
6	5,50	6,49	3550	263	226	192	263	220	251	354	263	410	469	411	228
7	6,50	7,49	3712	319	249	268	252	291	229	207	242	399	482	502	272
8	7,50	8,49	3782	224	210	131	268	420	258	168	261	310	614	602	316
9	8,50	9,49	3741	149	138	122	212	427	267	222	212	327	664	698	303
10	9,50	10,49	3601	110	111	106	224	320	272	243	225	303	784	674	229
11	10,50	11,49	3468	60	107	126	186	274	220	250	280	338	850	550	227
12	11,50	12,49	3407	35	61	142	135	220	332	247	247	464	820	527	177
13	12,50	13,49	3172	39	58	157	137	136	267	164	220	384	861	598	151
14	13,50	14,49	2880	34	33	135	138	74	232	139	253	388	784	526	144
15	14,50	15,49	2286	23	38	72	103	70	197	101	224	331	619	350	158
16	15,50	16,49	1687	12	20	58	109	54	83	57	134	257	481	295	127
17	16,50	17,49	1324	11	10	70	95	23	52	32	113	164	443	183	128
18	17,50	18,49	1041	12	4	44	26	7	28	27	118	174	387	125	89
19	18,50	19,49	897	3	1	29	16	6	21	9	102	198	342	79	91
20	19,50	20,49	701	0	2	8	9	3	22	5	54	136	328	81	53
21	20,50	21,49	484	0	0	0	2	0	4	6	41	123	195	86	27
22	21,50	22,49	293	0	0	0	0	1	2	6	16	80	107	70	11
23	22,50	23,49	212	0	0	0	0	0	2	4	16	57	61	61	11
24	23,50	24,49	171	0	0	0	0	0	0	2	11	47	62	38	11
25	24,50	25,49	164	0	0	0	0	0	0	1	10	40	66	43	4
26	25,50	26,49	107	0	0	0	0	0	0	2	10	31	33	31	0
27	26,50	27,49	122	0	0	0	0	0	0	0	9	50	24	32	7
28	27,50	28,49	109	0	0	0	0	0	0	0	5	42	39	22	1
29	28,50	29,49	79	0	0	0	0	0	0	0	0	22	39	18	0
30	29,50	30,49	58	0	0	0	0	0	0	0	0	14	29	15	0
31	30,50	31,49	38	0	0	0	0	0	0	0	0	18	14	6	0
32	31,50	32,49	15	0	0	0	0	0	0	0	0	5	10	0	0
33	32,50	33,49	6	0	0	0	0	0	0	0	0	3	2	1	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project: Energy Island Baltic Sea

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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

200,00m - Subst

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and bins 0 through 41.





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Calculated:
06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

180,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,95	6,61	7,21	8,39	8,64	8,48	8,99	8,42	10,04	11,47	11,85	10,53	9,51
0		0,49	1	0	0	0	0	0	0	0	0	0	1	0	0
1	0,50	1,49	767	61	49	75	33	55	84	99	89	51	68	55	48
2	1,50	2,49	1403	156	107	107	71	90	74	145	131	109	127	138	148
3	2,50	3,49	2312	169	149	149	180	144	184	191	203	223	272	282	166
4	3,50	4,49	2757	178	161	172	252	252	302	154	226	276	297	334	153
5	4,50	5,49	3160	168	207	173	271	230	318	246	273	365	366	336	207
6	5,50	6,49	3643	235	231	240	268	259	248	356	299	409	482	387	229
7	6,50	7,49	3743	294	256	279	232	332	224	222	225	355	559	490	275
8	7,50	8,49	4003	247	218	151	263	400	257	225	285	355	658	615	329
9	8,50	9,49	3819	133	130	126	210	453	287	219	234	304	707	700	316
10	9,50	10,49	3799	91	124	114	249	346	256	299	268	316	842	650	244
11	10,50	11,49	3624	75	87	122	176	287	247	257	262	428	939	524	220
12	11,50	12,49	3502	46	76	147	164	211	325	184	304	482	861	541	161
13	12,50	13,49	3290	31	93	169	130	175	257	163	278	384	886	566	158
14	13,50	14,49	2847	25	34	102	122	119	273	113	283	391	799	464	122
15	14,50	15,49	2244	12	34	76	121	77	155	111	221	303	614	374	146
16	15,50	16,49	1565	16	16	60	101	53	86	53	139	197	477	266	101
17	16,50	17,49	1314	10	13	54	79	20	47	44	115	218	433	171	110
18	17,50	18,49	1021	14	3	34	25	10	24	40	111	252	340	87	81
19	18,50	19,49	799	2	3	20	10	15	13	7	61	175	341	80	72
20	19,50	20,49	557	0	0	1	6	7	9	4	54	112	245	83	36
21	20,50	21,49	370	0	0	0	0	0	3	8	34	90	136	78	21
22	21,50	22,49	221	0	0	0	0	0	1	3	12	67	83	44	11
23	22,50	23,49	159	0	0	0	0	0	0	6	11	47	55	32	8
24	23,50	24,49	155	0	0	0	0	0	0	1	16	42	61	32	3
25	24,50	25,49	133	0	0	0	0	0	0	0	12	38	46	36	1
26	25,50	26,49	128	0	0	0	0	0	0	0	8	53	35	29	3
27	26,50	27,49	108	0	0	0	0	0	0	0	7	42	35	23	1
28	27,50	28,49	66	0	0	0	0	0	0	0	0	20	29	17	0
29	28,50	29,49	54	0	0	0	0	0	0	0	0	20	25	9	0
30	29,50	30,49	20	0	0	0	0	0	0	0	0	6	10	4	0
31	30,50	31,49	10	0	0	0	0	0	0	0	0	7	3	0	0
32	31,50	32,49	1	0	0	0	0	0	0	0	0	0	1	0	0
33	32,50	33,49	1	0	0	0	0	0	0	0	0	1	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

150,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,79	6,51	7,32	8,16	8,57	8,51	8,95	8,42	9,82	11,25	11,65	10,23	9,28
0		0,49	3	0	0	0	0	0	0	0	0	1	2	0	0
1	0,50	1,49	765	59	48	54	50	59	71	105	88	52	66	56	57
2	1,50	2,49	1529	169	116	125	99	103	81	163	113	112	148	160	140
3	2,50	3,49	2296	169	140	172	171	140	183	186	209	243	271	264	148
4	3,50	4,49	2772	175	182	147	224	224	294	136	239	313	300	352	186
5	4,50	5,49	3175	174	204	196	246	274	298	255	274	358	351	339	206
6	5,50	6,49	3594	228	211	244	259	291	236	365	326	379	471	365	219
7	6,50	7,49	3845	291	258	275	233	339	255	231	252	377	565	502	267
8	7,50	8,49	4196	232	237	170	277	411	250	219	275	386	726	635	378
9	8,50	9,49	3864	128	147	109	227	423	309	254	256	294	716	685	316
10	9,50	10,49	3980	108	121	121	269	372	282	274	299	351	917	638	228
11	10,50	11,49	3713	67	76	119	179	294	281	234	290	484	965	517	207
12	11,50	12,49	3566	32	111	138	161	219	323	168	355	475	870	552	162
13	12,50	13,49	3396	24	110	131	120	176	298	146	348	416	944	532	151
14	13,50	14,49	2808	25	53	118	127	137	246	122	224	392	788	445	131
15	14,50	15,49	2095	12	20	53	93	109	134	126	200	274	597	356	121
16	15,50	16,49	1598	15	22	62	110	51	82	74	123	223	492	243	101
17	16,50	17,49	1264	10	7	46	68	17	36	55	126	272	386	145	96
18	17,50	18,49	978	13	6	25	26	13	15	24	96	226	368	84	82
19	18,50	19,49	729	1	2	15	12	16	9	14	49	160	309	79	63
20	19,50	20,49	448	0	0	2	6	0	4	6	41	111	186	64	28
21	20,50	21,49	261	0	0	0	0	0	3	9	17	68	98	53	13
22	21,50	22,49	185	0	0	0	0	0	0	4	15	61	74	24	7
23	22,50	23,49	162	0	0	0	0	0	0	2	15	40	68	35	2
24	23,50	24,49	137	0	0	0	0	0	0	1	6	41	59	29	1
25	24,50	25,49	128	0	0	0	0	0	0	0	5	57	39	24	3
26	25,50	26,49	114	0	0	0	0	0	0	0	10	46	34	24	0
27	26,50	27,49	66	0	0	0	0	0	0	0	2	17	33	14	0
28	27,50	28,49	48	0	0	0	0	0	0	0	2	18	22	5	1
29	28,50	29,49	25	0	0	0	0	0	0	0	0	10	12	3	0
30	29,50	30,49	8	0	0	0	0	0	0	0	0	5	3	0	0
31	30,50	31,49	3	0	0	0	0	0	0	0	0	2	1	0	0
32	31,50	32,49	1	0	0	0	0	0	0	0	0	1	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

120,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,59	6,43	7,30	7,93	8,57	8,47	8,78	8,33	9,64	10,98	11,36	9,94	9,06
0		0,49	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0,50	1,49	776	70	46	57	51	67	81	94	78	51	77	53	51
2	1,50	2,49	1601	184	130	133	117	99	89	177	112	118	140	149	153
3	2,50	3,49	2284	173	125	180	152	137	202	201	207	256	245	267	139
4	3,50	4,49	2817	159	194	152	208	239	279	155	248	333	310	355	185
5	4,50	5,49	3192	165	209	183	250	283	271	259	278	332	400	339	223
6	5,50	6,49	3649	227	208	264	241	325	218	371	323	370	491	393	218
7	6,50	7,49	3951	274	281	269	258	337	236	260	272	370	607	489	298
8	7,50	8,49	4277	223	237	183	251	429	265	240	305	412	794	589	349
9	8,50	9,49	4113	141	165	126	265	435	310	256	288	310	809	701	307
10	9,50	10,49	4165	107	115	115	281	364	320	317	302	420	982	619	223
11	10,50	11,49	3818	62	93	105	191	330	296	204	372	493	978	506	188
12	11,50	12,49	3715	18	130	125	138	226	339	163	385	551	923	565	152
13	12,50	13,49	3313	24	108	131	128	172	238	155	328	459	922	508	140
14	13,50	14,49	2828	17	47	109	130	171	242	136	238	370	760	465	143
15	14,50	15,49	2043	11	19	47	113	102	131	144	173	266	602	323	112
16	15,50	16,49	1536	22	6	59	102	42	63	84	125	291	465	180	97
17	16,50	17,49	1163	12	9	40	58	15	13	42	115	270	393	117	79
18	17,50	18,49	890	14	6	23	22	18	12	13	66	188	376	75	77
19	18,50	19,49	548	0	0	3	10	4	1	9	47	121	232	72	49
20	19,50	20,49	340	0	0	2	3	0	4	10	20	88	143	46	24
21	20,50	21,49	183	0	0	0	1	0	0	5	23	45	84	18	7
22	21,50	22,49	175	0	0	0	0	0	1	2	8	36	85	37	6
23	22,50	23,49	137	0	0	0	0	0	0	1	3	47	66	19	1
24	23,50	24,49	127	0	0	0	0	0	0	0	10	57	41	18	1
25	24,50	25,49	111	0	0	0	0	0	0	0	9	44	38	19	1
26	25,50	26,49	63	0	0	0	0	0	0	0	6	16	31	10	0
27	26,50	27,49	46	0	0	0	0	0	0	0	0	21	21	4	0
28	27,50	28,49	20	0	0	0	0	0	0	0	0	8	9	3	0
29	28,50	29,49	8	0	0	0	0	0	0	0	0	5	3	0	0
30	29,50	30,49	5	0	0	0	0	0	0	0	0	4	1	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

100,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,42	6,45	7,23	7,78	8,58	8,35	8,61	8,28	9,45	10,73	11,09	9,69	8,91
0		0,49	4	0	0	0	0	0	0	1	2	0	0	1	0
1	0,50	1,49	784	56	54	52	57	68	88	90	81	58	73	61	46
2	1,50	2,49	1642	163	134	143	119	100	94	172	122	126	156	157	156
3	2,50	3,49	2335	188	134	171	146	146	205	210	198	253	257	255	172
4	3,50	4,49	2803	149	177	174	219	249	269	166	262	340	284	346	168
5	4,50	5,49	3245	151	220	172	232	296	268	268	284	327	430	376	221
6	5,50	6,49	3699	235	217	278	231	333	218	365	328	381	479	411	223
7	6,50	7,49	4117	280	274	263	248	392	231	244	279	412	728	480	286
8	7,50	8,49	4366	201	292	184	281	395	282	257	315	404	785	609	361
9	8,50	9,49	4319	138	181	107	246	478	345	301	306	361	877	684	295
10	9,50	10,49	4275	100	108	108	315	395	290	312	344	430	1051	582	240
11	10,50	11,49	4062	54	116	121	197	321	302	223	400	590	1038	529	171
12	11,50	12,49	3695	16	126	120	139	263	301	169	368	548	950	535	160
13	12,50	13,49	3410	24	98	132	141	181	271	179	334	491	933	509	117
14	13,50	14,49	2615	15	45	79	125	163	216	146	234	348	736	386	122
15	14,50	15,49	1965	11	10	51	119	86	108	123	169	306	560	311	111
16	15,50	16,49	1411	21	8	45	107	16	41	78	118	283	452	141	101
17	16,50	17,49	1086	17	3	43	47	23	13	27	93	250	401	96	73
18	17,50	18,49	756	10	4	18	12	7	3	14	55	161	324	83	65
19	18,50	19,49	452	2	3	3	11	0	3	10	32	101	182	55	50
20	19,50	20,49	237	0	0	0	4	0	1	8	30	52	101	26	15
21	20,50	21,49	183	0	0	0	0	0	1	2	9	51	87	23	10
22	21,50	22,49	151	0	0	0	0	0	0	0	4	43	72	30	2
23	22,50	23,49	136	0	0	0	0	0	0	1	9	54	47	21	4
24	23,50	24,49	112	0	0	0	0	0	0	0	7	49	39	16	1
25	24,50	25,49	68	0	0	0	0	0	0	0	5	26	29	8	0
26	25,50	26,49	51	0	0	0	0	0	0	0	7	20	18	6	0
27	26,50	27,49	25	0	0	0	0	0	0	0	0	7	15	3	0
28	27,50	28,49	13	0	0	0	0	0	0	0	0	8	4	1	0
29	28,50	29,49	4	0	0	0	0	0	0	0	0	2	2	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

90,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,31	6,37	7,21	7,68	8,55	8,29	8,48	8,17	9,35	10,58	10,91	9,62	8,79
0		0,49	3	0	0	0	0	1	0	0	0	0	0	2	0
1	0,50	1,49	814	59	56	57	60	71	86	103	75	63	71	57	56
2	1,50	2,49	1665	161	142	156	116	94	101	182	132	113	158	169	141
3	2,50	3,49	2370	200	134	161	140	143	204	209	205	260	265	252	197
4	3,50	4,49	2853	143	193	159	223	279	262	164	259	353	285	353	180
5	4,50	5,49	3348	168	222	178	239	313	270	276	301	351	446	374	210
6	5,50	6,49	3827	228	227	291	250	366	233	352	352	377	513	388	250
7	6,50	7,49	4157	266	280	261	240	403	200	249	284	419	773	484	298
8	7,50	8,49	4528	207	307	170	287	453	280	262	340	441	832	626	323
9	8,50	9,49	4445	136	182	96	274	484	383	304	309	393	890	700	294
10	9,50	10,49	4479	85	136	109	340	425	282	313	373	480	1103	603	230
11	10,50	11,49	4100	47	134	105	187	351	291	247	387	598	1064	519	170
12	11,50	12,49	3823	18	134	124	147	255	306	178	380	605	1002	523	151
13	12,50	13,49	3425	19	88	134	157	189	264	205	346	459	919	524	121
14	13,50	14,49	2557	12	34	74	121	147	191	123	234	361	765	361	134
15	14,50	15,49	1853	13	9	53	118	83	75	103	169	314	532	277	107
16	15,50	16,49	1319	24	7	41	95	24	37	71	128	296	398	125	73
17	16,50	17,49	1058	19	4	33	43	19	8	21	85	225	409	104	88
18	17,50	18,49	642	7	6	18	17	3	3	15	37	141	267	69	59
19	18,50	19,49	408	2	1	3	8	0	3	6	36	87	153	58	51
20	19,50	20,49	220	0	0	0	3	0	2	6	23	46	100	23	17
21	20,50	21,49	176	0	0	0	0	0	0	1	6	42	89	28	10
22	21,50	22,49	134	0	0	0	0	0	0	0	6	40	64	23	1
23	22,50	23,49	140	0	0	0	0	0	0	0	9	69	43	19	0
24	23,50	24,49	93	0	0	0	0	0	0	0	2	34	33	22	2
25	24,50	25,49	59	0	0	0	0	0	0	0	10	27	15	7	0
26	25,50	26,49	38	0	0	0	0	0	0	0	1	8	22	7	0
27	26,50	27,49	21	0	0	0	0	0	0	0	0	9	11	1	0
28	27,50	28,49	9	0	0	0	0	0	0	0	0	5	4	0	0
29	28,50	29,49	3	0	0	0	0	0	0	0	0	3	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

60,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW	Mean
0		0,49	8,91	6,29	7,01	7,40	8,40	8,05	8,00	7,78	8,94	10,05	10,34	9,26	8,45	0
1	0,50	1,49	899	68	68	64	56	69	102	129	79	63	74	66	61	0
2	1,50	2,49	1723	146	139	147	123	94	107	192	130	122	167	182	174	0
3	2,50	3,49	2441	168	158	165	173	157	195	212	218	276	267	240	212	0
4	3,50	4,49	3037	165	200	174	199	310	282	210	269	356	319	341	212	0
5	4,50	5,49	3507	169	214	202	239	354	274	304	310	349	518	366	208	0
6	5,50	6,49	4112	231	229	290	250	378	270	371	345	479	585	444	240	0
7	6,50	7,49	4470	274	322	267	248	419	227	263	296	477	832	549	296	0
8	7,50	8,49	4881	186	312	156	287	498	354	299	380	516	958	623	312	0
9	8,50	9,49	4953	119	184	96	326	586	336	352	416	534	1084	678	242	0
10	9,50	10,49	4752	86	183	104	326	500	268	326	461	573	1148	586	191	0
11	10,50	11,49	4214	44	161	104	208	346	243	289	430	716	1022	481	170	0
12	11,50	12,49	3834	12	99	137	184	229	308	178	379	605	1056	513	134	0
13	12,50	13,49	3018	16	61	113	139	144	212	161	303	444	873	446	106	0
14	13,50	14,49	2149	13	18	52	122	115	131	122	196	334	570	329	147	0
15	14,50	15,49	1439	17	8	43	103	62	39	72	118	288	434	163	92	0
16	15,50	16,49	1138	20	1	31	69	17	13	37	68	272	421	113	76	0
17	16,50	17,49	780	18	4	29	34	4	5	10	57	160	296	85	78	0
18	17,50	18,49	462	3	5	12	10	0	3	4	36	91	166	67	65	0
19	18,50	19,49	264	2	2	1	7	0	0	5	19	53	113	31	31	0
20	19,50	20,49	169	0	0	0	1	0	0	2	3	49	76	26	12	0
21	20,50	21,49	131	0	0	0	0	0	0	0	4	43	59	24	1	0
22	21,50	22,49	119	0	0	0	0	0	0	0	8	47	37	27	0	0
23	22,50	23,49	89	0	0	0	0	0	0	0	7	43	22	16	1	0
24	23,50	24,49	56	0	0	0	0	0	0	0	7	19	23	7	0	0
25	24,50	25,49	32	0	0	0	0	0	0	0	3	10	18	1	0	0
26	25,50	26,49	20	0	0	0	0	0	0	0	0	7	11	2	0	0
27	26,50	27,49	8	0	0	0	0	0	0	0	0	6	2	0	0	0
28	27,50	28,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	28,50	29,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

40,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			8,52	6,21	6,76	7,08	8,15	7,67	7,62	7,45	8,48	9,51	9,84	8,97	8,08
0		0,49	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0,50	1,49	924	68	73	67	61	63	109	109	97	59	76	61	81
2	1,50	2,49	1792	164	144	148	118	109	122	198	138	133	171	167	180
3	2,50	3,49	2616	161	163	173	177	184	205	237	239	314	292	259	212
4	3,50	4,49	3217	171	217	179	215	324	291	241	293	347	372	352	215
5	4,50	5,49	3874	168	226	226	253	381	309	341	349	450	550	403	218
6	5,50	6,49	4403	240	270	306	261	397	254	377	319	536	717	484	242
7	6,50	7,49	4863	262	358	262	293	433	291	284	398	527	968	535	252
8	7,50	8,49	5283	187	274	118	319	638	349	326	443	634	1053	659	283
9	8,50	9,49	5449	118	203	94	373	695	363	429	483	622	1171	657	241
10	9,50	10,49	4869	89	207	109	314	500	252	339	507	707	1110	551	184
11	10,50	11,49	3994	36	102	120	198	310	230	256	403	698	1020	466	155
12	11,50	12,49	3473	15	89	129	175	129	265	149	361	513	1032	491	125
13	12,50	13,49	2433	17	46	70	133	53	157	164	222	389	658	397	127
14	13,50	14,49	1724	15	5	45	100	91	84	88	131	299	493	261	112
15	14,50	15,49	1349	22	6	36	90	40	26	39	82	276	493	145	94
16	15,50	16,49	886	13	3	35	56	9	8	10	69	181	320	112	70
17	16,50	17,49	589	15	4	19	22	2	8	5	50	120	216	73	55
18	17,50	18,49	325	3	3	4	9	0	0	4	15	76	126	43	42
19	18,50	19,49	153	0	1	0	3	0	0	0	4	36	78	21	10
20	19,50	20,49	118	0	0	0	1	0	0	0	2	34	54	21	6
21	20,50	21,49	117	0	0	0	0	0	0	0	4	46	41	25	1
22	21,50	22,49	103	0	0	0	0	0	0	0	12	52	19	19	1
23	22,50	23,49	53	0	0	0	0	0	0	0	11	12	19	11	0
24	23,50	24,49	34	0	0	0	0	0	0	0	2	10	21	1	0
25	24,50	25,49	15	0	0	0	0	0	0	0	0	9	4	2	0
26	25,50	26,49	6	0	0	0	0	0	0	0	0	4	2	0	0
27	26,50	27,49	2	0	0	0	0	0	0	0	0	2	0	0	0
28	27,50	28,49	0	0	0	0	0	0	0	0	0	0	0	0	0
29	28,50	29,49	0	0	0	0	0	0	0	0	0	0	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.19

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Frequency distribution (TAB file data)

30,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			8,28	6,06	6,66	6,91	7,99	7,41	7,39	7,21	8,18	9,20	9,55	8,74	8,04
0		0,49	1	0	0	0	0	0	1	0	0	0	0	0	0
1	0,50	1,49	946	76	77	75	64	66	97	119	87	64	77	69	75
2	1,50	2,49	1874	171	145	154	121	119	125	196	150	132	187	171	203
3	2,50	3,49	2725	162	155	182	179	179	240	255	250	327	309	284	203
4	3,50	4,49	3422	188	218	188	212	349	306	275	319	381	420	371	195
5	4,50	5,49	4051	170	248	223	268	396	341	300	346	498	595	437	229
6	5,50	6,49	4725	238	277	320	278	438	281	416	375	595	818	461	228
7	6,50	7,49	5192	251	384	242	286	507	304	318	445	605	1014	555	281
8	7,50	8,49	5467	169	281	114	346	718	382	368	476	666	1083	593	271
9	8,50	9,49	5519	112	216	106	394	686	325	433	534	643	1182	658	230
10	9,50	10,49	4817	83	195	118	325	475	219	322	477	765	1106	552	180
11	10,50	11,49	3742	34	86	98	186	187	211	222	386	685	1045	456	146
12	11,50	12,49	3177	13	77	127	138	67	246	164	330	468	898	516	133
13	12,50	13,49	2197	16	39	60	144	59	145	113	170	362	603	344	142
14	13,50	14,49	1647	15	7	50	81	97	76	66	94	300	533	226	102
15	14,50	15,49	1178	20	6	29	88	26	18	20	78	256	429	127	81
16	15,50	16,49	802	21	3	32	46	2	8	9	66	146	284	103	82
17	16,50	17,49	448	6	2	14	18	0	1	5	23	93	170	54	62
18	17,50	18,49	223	2	2	4	6	0	0	0	7	54	85	29	34
19	18,50	19,49	140	0	1	0	3	0	0	0	3	36	69	24	4
20	19,50	20,49	132	0	0	0	0	0	0	0	4	45	54	25	4
21	20,50	21,49	104	0	0	0	0	0	0	0	10	45	25	22	2
22	21,50	22,49	77	0	0	0	0	0	0	0	10	36	23	8	0
23	22,50	23,49	33	0	0	0	0	0	0	0	4	9	17	3	0
24	23,50	24,49	28	0	0	0	0	0	0	0	1	11	14	2	0
25	24,50	25,49	4	0	0	0	0	0	0	0	0	2	2	0	0
26	25,50	26,49	3	0	0	0	0	0	0	0	0	3	0	0	0
27	26,50	27,49	0	0	0	0	0	0	0	0	0	0	0	0	0
28	27,50	28,49	0	0	0	0	0	0	0	0	0	0	0	0	0
29	28,50	29,49	0	0	0	0	0	0	0	0	0	0	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.19

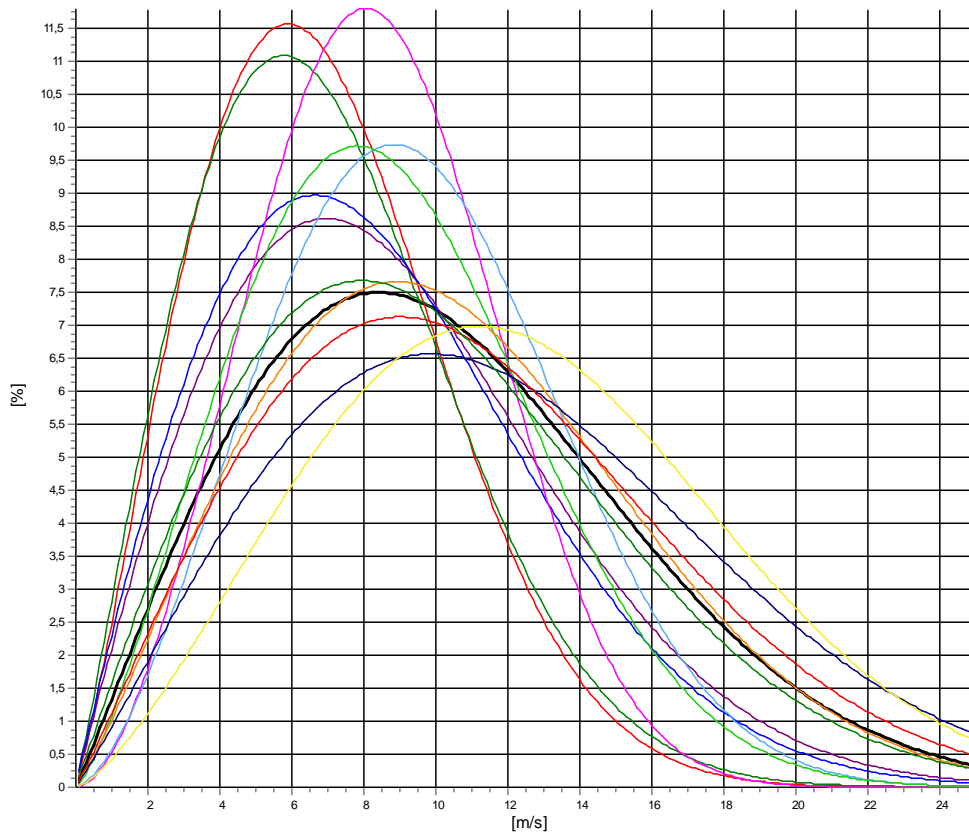
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **270,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,85	2,170	3,91	6,95
1-NNE	7,93	2,074	3,78	7,03
2-ENE	9,91	1,984	4,53	8,78
3-E	9,50	1,977	5,95	8,42
4-ESE	9,43	2,809	6,46	8,40
5-SSE	10,67	2,588	7,04	9,48
6-S	9,91	2,351	5,91	8,78
7-SSW	11,86	2,173	7,60	10,50
8-WSW	13,48	2,092	11,78	11,94
9-W	14,03	2,404	20,81	12,44
10-WNW	12,36	2,078	15,34	10,94
11-NNW	11,21	2,006	6,89	9,93
Mean	11,65	2,053	100,00	10,32



All A: 11,7 m/s k: 2,05 Vm: 10,3 m/s	N A: 7,9 m/s k: 2,17 Vm: 7,0 m/s	NNE A: 7,9 m/s k: 2,07 Vm: 7,0 m/s	ENE A: 9,9 m/s k: 1,98 Vm: 8,8 m/s
E A: 9,5 m/s k: 1,98 Vm: 8,4 m/s	ESE A: 9,4 m/s k: 2,81 Vm: 8,4 m/s	SSE A: 10,7 m/s k: 2,59 Vm: 9,5 m/s	S A: 9,9 m/s k: 2,35 Vm: 8,8 m/s
SSW A: 11,9 m/s k: 2,17 Vm: 10,5 m/s	WSW A: 13,5 m/s k: 2,09 Vm: 11,9 m/s	W A: 14,0 m/s k: 2,40 Vm: 12,4 m/s	WNW A: 12,4 m/s k: 2,08 Vm: 10,9 m/s
NNW A: 11,2 m/s k: 2,01 Vm: 9,9 m/s			



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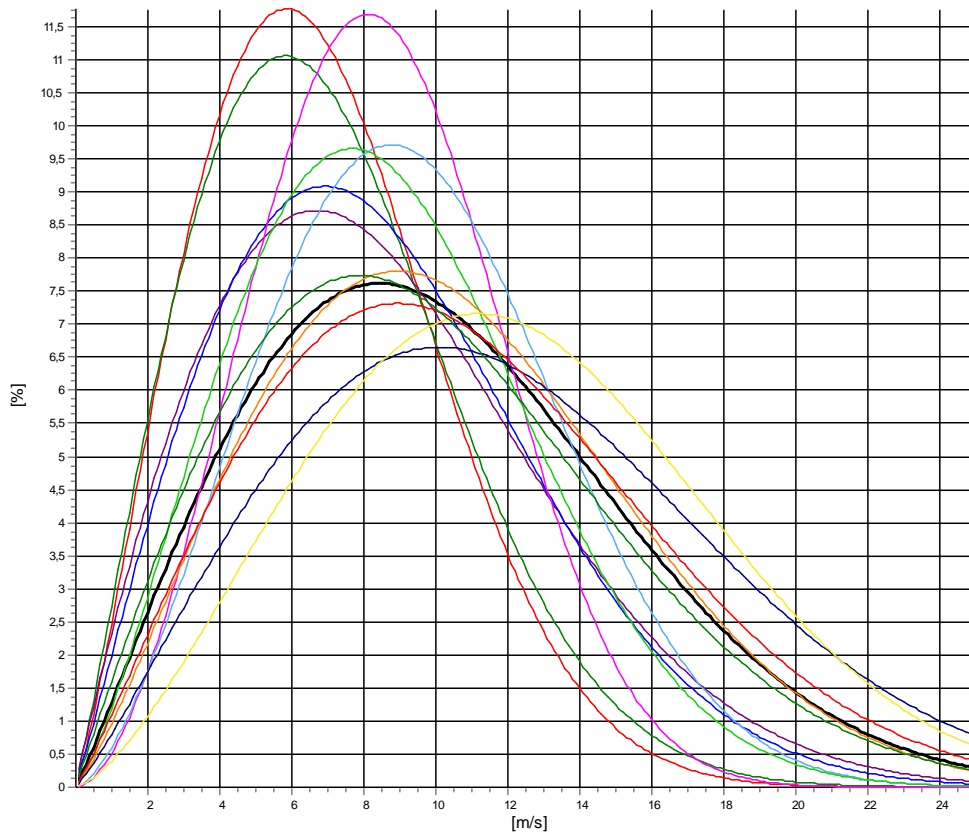
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **240,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,75	2,188	3,86	6,87
1-NNE	7,97	2,083	3,81	7,06
2-ENE	9,68	1,950	4,56	8,58
3-E	9,60	2,050	5,92	8,50
4-ESE	9,50	2,808	6,54	8,46
5-SSE	10,62	2,567	7,04	9,43
6-S	9,82	2,306	6,01	8,70
7-SSW	11,77	2,207	7,76	10,43
8-WSW	13,54	2,149	11,83	11,99
9-W	13,86	2,445	20,88	12,29
10-WNW	12,15	2,109	15,13	10,76
11-NNW	11,12	2,009	6,67	9,85
Mean	11,57	2,082	100,00	10,25



All A: 11,6 m/s k: 2,08 Vm: 10,2 m/s	N A: 7,8 m/s k: 2,19 Vm: 6,9 m/s	NNE A: 8,0 m/s k: 2,08 Vm: 7,1 m/s	ENE A: 9,7 m/s k: 1,95 Vm: 8,6 m/s
E A: 9,6 m/s k: 2,05 Vm: 8,5 m/s	ESE A: 9,5 m/s k: 2,81 Vm: 8,5 m/s	SSE A: 10,6 m/s k: 2,57 Vm: 9,4 m/s	S A: 9,8 m/s k: 2,31 Vm: 8,7 m/s
SSW A: 11,8 m/s k: 2,21 Vm: 10,4 m/s	WSW A: 13,5 m/s k: 2,15 Vm: 12,0 m/s	W A: 13,9 m/s k: 2,45 Vm: 12,3 m/s	WNW A: 12,2 m/s k: 2,11 Vm: 10,8 m/s
NNW A: 11,1 m/s k: 2,01 Vm: 9,9 m/s			





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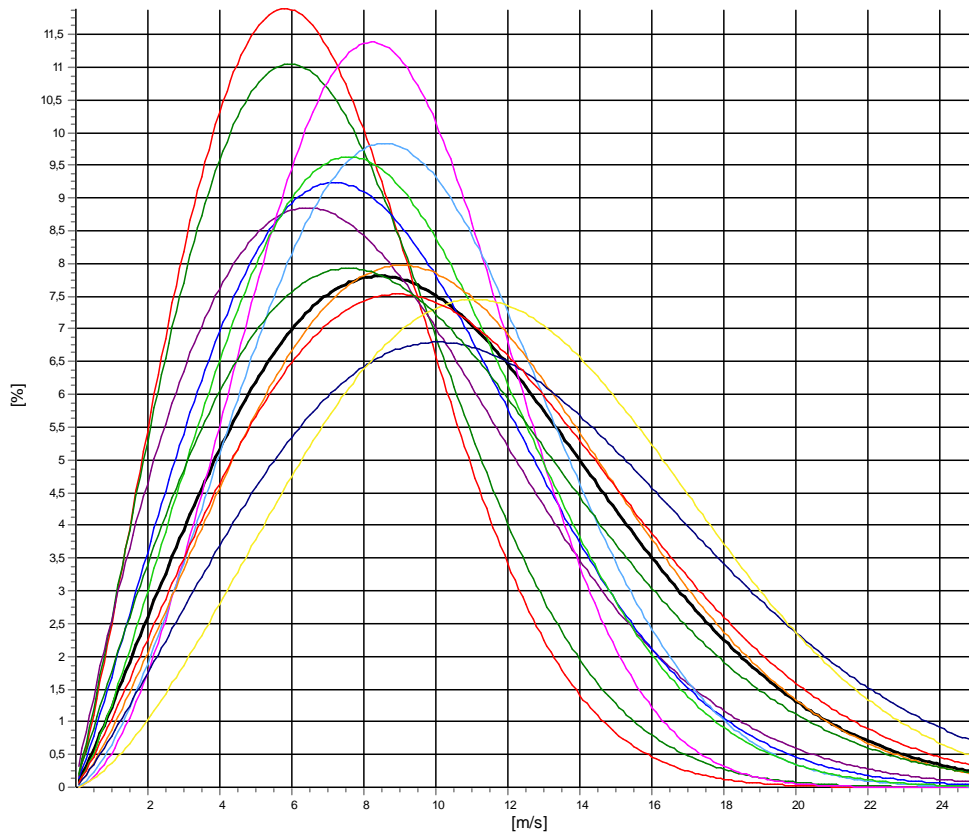
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **200,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,69	2,194	3,84	6,81
1-NNE	8,06	2,114	3,87	7,14
2-ENE	9,44	1,919	4,57	8,38
3-E	9,69	2,128	5,79	8,58
4-ESE	9,66	2,774	6,72	8,60
5-SSE	10,42	2,547	7,08	9,25
6-S	9,77	2,282	6,04	8,66
7-SSW	11,72	2,259	7,96	10,38
8-WSW	13,35	2,171	11,98	11,82
9-W	13,58	2,506	20,82	12,05
10-WNW	11,96	2,150	14,78	10,60
11-NNW	10,77	1,985	6,55	9,55
Mean	11,42	2,117	100,00	10,12



All A: 11,4 m/s k: 2,12 Vm: 10,1 m/s	N A: 7,7 m/s k: 2,19 Vm: 6,8 m/s	NNE A: 8,1 m/s k: 2,11 Vm: 7,1 m/s	ENE A: 9,4 m/s k: 1,92 Vm: 8,4 m/s
E A: 9,7 m/s k: 2,13 Vm: 8,6 m/s	ESE A: 9,7 m/s k: 2,77 Vm: 8,6 m/s	SSE A: 10,4 m/s k: 2,55 Vm: 9,3 m/s	S A: 9,8 m/s k: 2,28 Vm: 8,7 m/s
SSW A: 11,7 m/s k: 2,26 Vm: 10,4 m/s	WSW A: 13,4 m/s k: 2,17 Vm: 11,8 m/s	W A: 13,6 m/s k: 2,51 Vm: 12,0 m/s	WNW A: 12,0 m/s k: 2,15 Vm: 10,6 m/s
NNW A: 10,8 m/s k: 1,98 Vm: 9,5 m/s			





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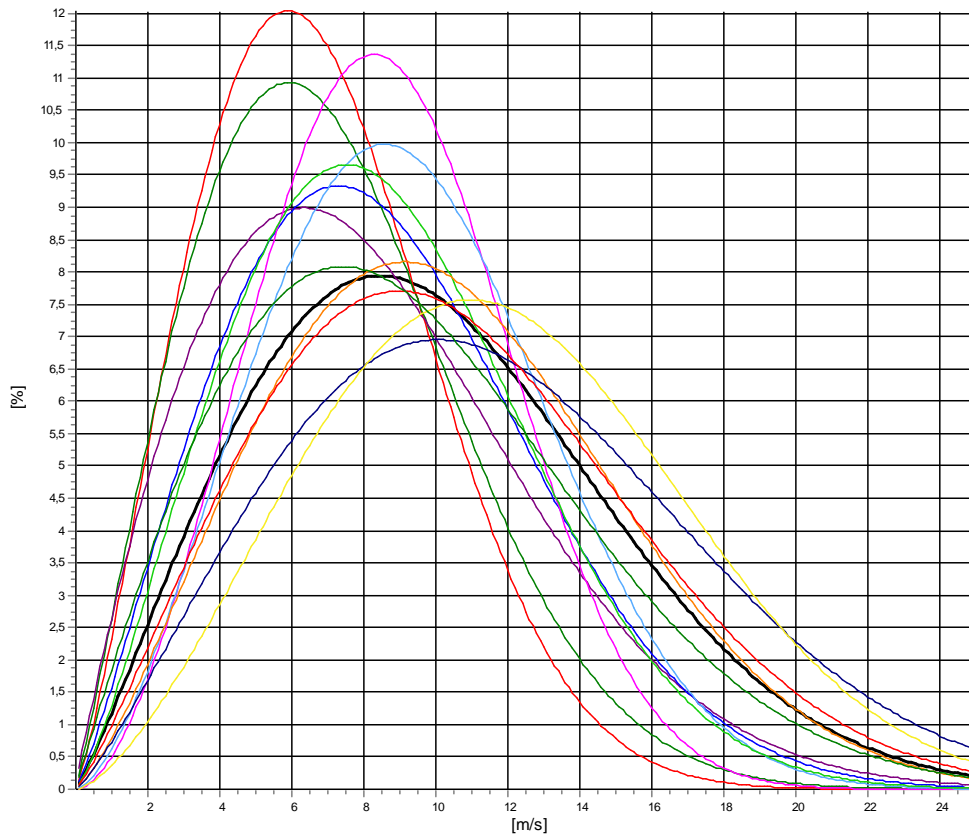
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **180,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,69	2,233	3,80	6,81
1-NNE	8,08	2,088	3,86	7,16
2-ENE	9,29	1,919	4,60	8,24
3-E	9,71	2,167	5,74	8,60
4-ESE	9,71	2,786	6,85	8,65
5-SSE	10,38	2,579	7,12	9,22
6-S	9,72	2,274	6,11	8,61
7-SSW	11,66	2,314	8,06	10,33
8-WSW	13,23	2,211	11,90	11,72
9-W	13,42	2,518	21,00	11,91
10-WNW	11,86	2,192	14,43	10,50
11-NNW	10,56	1,986	6,53	9,36
Mean	11,33	2,146	100,00	10,04



All A: 11,3 m/s k: 2,15 Vm: 10,0 m/s	N A: 7,7 m/s k: 2,23 Vm: 6,8 m/s	NNE A: 8,1 m/s k: 2,09 Vm: 7,2 m/s	ENE A: 9,3 m/s k: 1,92 Vm: 8,2 m/s
E A: 9,7 m/s k: 2,17 Vm: 8,6 m/s	ESE A: 9,7 m/s k: 2,79 Vm: 8,6 m/s	SSE A: 10,4 m/s k: 2,58 Vm: 9,2 m/s	S A: 9,7 m/s k: 2,27 Vm: 8,6 m/s
SSW A: 11,7 m/s k: 2,31 Vm: 10,3 m/s	WSW A: 13,2 m/s k: 2,21 Vm: 11,7 m/s	W A: 13,4 m/s k: 2,52 Vm: 11,9 m/s	WNW A: 11,9 m/s k: 2,19 Vm: 10,5 m/s
NNW A: 10,6 m/s k: 1,99 Vm: 9,4 m/s			



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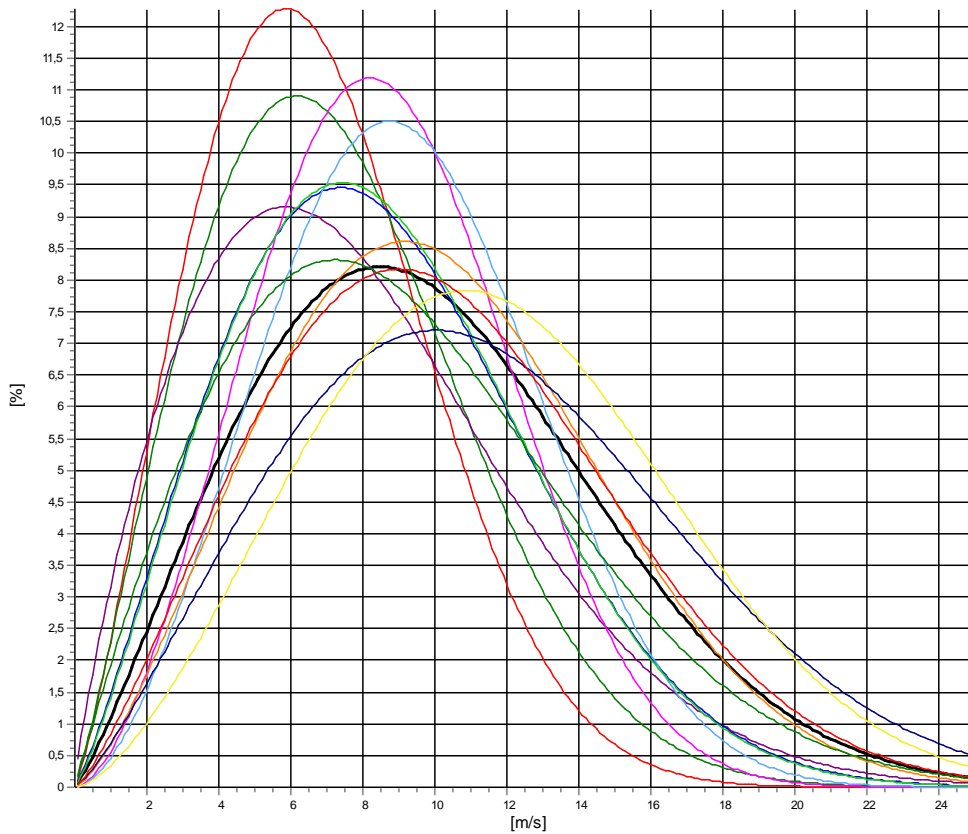
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **150,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,60	2,257	3,73	6,73
1-NNE	8,26	2,148	4,00	7,31
2-ENE	8,94	1,851	4,49	7,94
3-E	9,70	2,206	5,71	8,59
4-ESE	9,70	2,731	7,09	8,63
5-SSE	10,35	2,735	7,13	9,21
6-S	9,71	2,230	6,13	8,60
7-SSW	11,43	2,418	8,22	10,13
8-WSW	12,97	2,262	12,11	11,49
9-W	13,18	2,571	21,03	11,70
10-WNW	11,57	2,297	13,96	10,25
11-NNW	10,28	1,990	6,40	9,11
Mean	11,16	2,200	100,00	9,88



All A: 11,2 m/s k: 2,20 Vm: 9,9 m/s	N A: 7,6 m/s k: 2,26 Vm: 6,7 m/s	NNE A: 8,3 m/s k: 2,15 Vm: 7,3 m/s	ENE A: 8,9 m/s k: 1,85 Vm: 7,9 m/s
E A: 9,7 m/s k: 2,21 Vm: 8,6 m/s	ESE A: 9,7 m/s k: 2,73 Vm: 8,6 m/s	SSE A: 10,3 m/s k: 2,74 Vm: 9,2 m/s	S A: 9,7 m/s k: 2,23 Vm: 8,6 m/s
SSW A: 11,4 m/s k: 2,42 Vm: 10,1 m/s	WSW A: 13,0 m/s k: 2,26 Vm: 11,5 m/s	W A: 13,2 m/s k: 2,57 Vm: 11,7 m/s	WNW A: 11,6 m/s k: 2,30 Vm: 10,2 m/s
NNW A: 10,3 m/s k: 1,99 Vm: 9,1 m/s			





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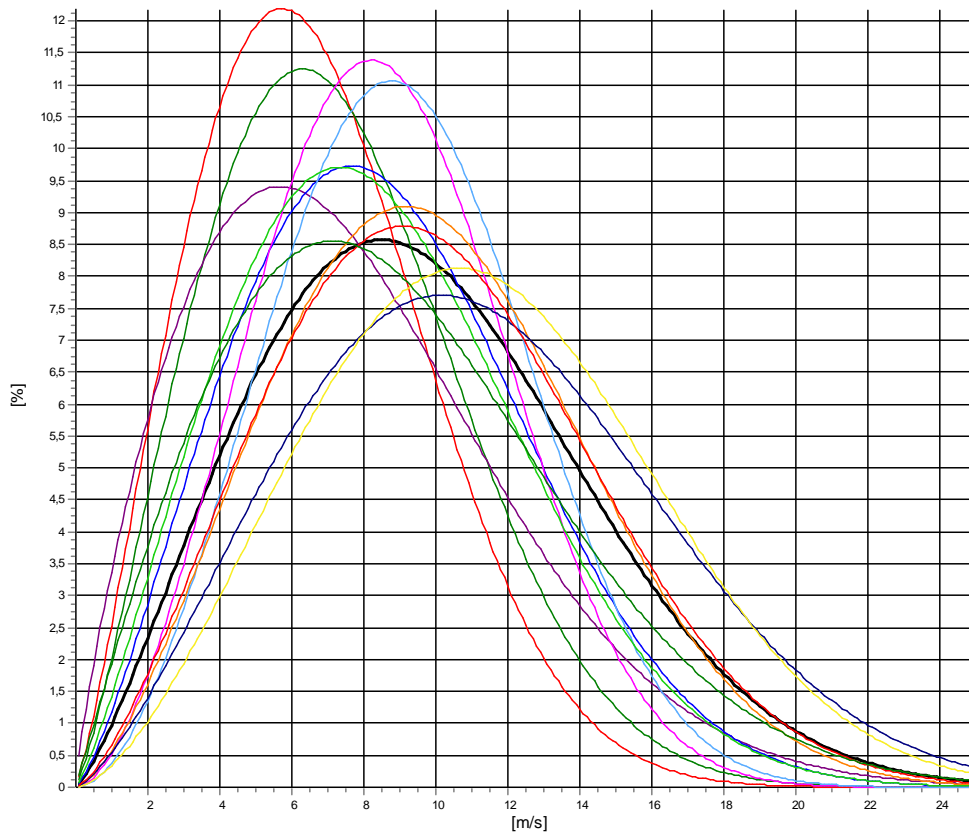
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **120,00m - Subst**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,54	2,209	3,67	6,67
1-NNE	8,23	2,234	4,10	7,29
2-ENE	8,68	1,846	4,44	7,71
3-E	9,79	2,317	5,72	8,67
4-ESE	9,65	2,772	7,31	8,59
5-SSE	10,20	2,862	6,96	9,09
6-S	9,56	2,240	6,36	8,47
7-SSW	11,20	2,527	8,37	9,94
8-WSW	12,71	2,404	12,24	11,27
9-W	12,84	2,604	21,25	11,40
10-WNW	11,28	2,442	13,37	10,01
11-NNW	10,06	2,010	6,21	8,92
Mean	10,96	2,277	100,00	9,71



All A: 11,0 m/s k: 2,28 Vm: 9,7 m/s	N A: 7,5 m/s k: 2,21 Vm: 6,7 m/s	NNE A: 8,2 m/s k: 2,23 Vm: 7,3 m/s	ENE A: 8,7 m/s k: 1,85 Vm: 7,7 m/s
E A: 9,8 m/s k: 2,32 Vm: 8,7 m/s	ESE A: 9,7 m/s k: 2,77 Vm: 8,6 m/s	SSE A: 10,2 m/s k: 2,86 Vm: 9,1 m/s	S A: 9,6 m/s k: 2,24 Vm: 8,5 m/s
SSW A: 11,2 m/s k: 2,53 Vm: 9,9 m/s	WSW A: 12,7 m/s k: 2,40 Vm: 11,3 m/s	W A: 12,8 m/s k: 2,60 Vm: 11,4 m/s	WNW A: 11,3 m/s k: 2,44 Vm: 10,0 m/s
NNW A: 10,1 m/s k: 2,01 Vm: 8,9 m/s			



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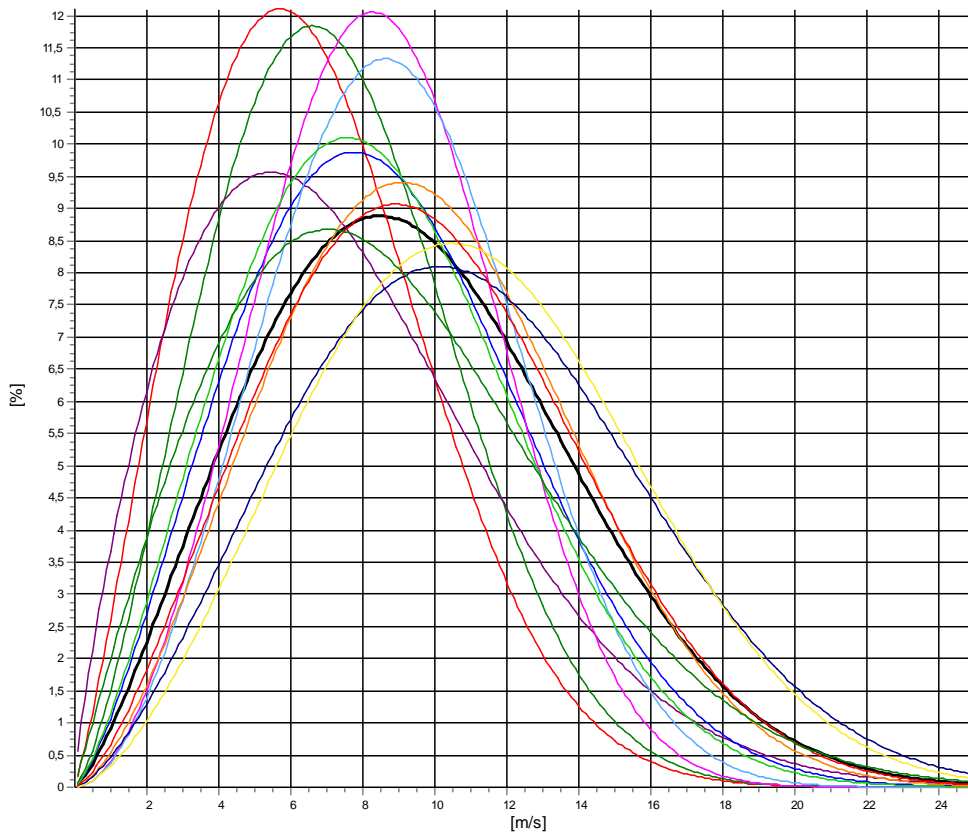
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: 100,00m - Subst

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,54	2,190	3,52	6,68
1-NNE	8,27	2,403	4,24	7,33
2-ENE	8,46	1,818	4,35	7,52
3-E	9,80	2,368	5,76	8,68
4-ESE	9,55	2,929	7,52	8,52
5-SSE	10,01	2,878	6,82	8,93
6-S	9,56	2,360	6,47	8,47
7-SSW	11,00	2,578	8,45	9,77
8-WSW	12,45	2,496	12,46	11,05
9-W	12,52	2,650	21,36	11,12
10-WNW	11,01	2,465	12,96	9,77
11-NNW	9,92	2,009	6,09	8,79
Mean	10,78	2,335	100,00	9,55



All A: 10,8 m/s k: 2,34 Vm: 9,6 m/s	N A: 7,5 m/s k: 2,19 Vm: 6,7 m/s	NNE A: 8,3 m/s k: 2,40 Vm: 7,3 m/s	ENE A: 8,5 m/s k: 1,82 Vm: 7,5 m/s
E A: 9,8 m/s k: 2,37 Vm: 8,7 m/s	ESE A: 9,6 m/s k: 2,93 Vm: 8,5 m/s	SSE A: 10,0 m/s k: 2,88 Vm: 8,9 m/s	S A: 9,6 m/s k: 2,36 Vm: 8,5 m/s
SSW A: 11,0 m/s k: 2,58 Vm: 9,8 m/s	WSW A: 12,5 m/s k: 2,50 Vm: 11,1 m/s	W A: 12,5 m/s k: 2,65 Vm: 11,1 m/s	WNW A: 11,0 m/s k: 2,46 Vm: 9,8 m/s
NNW A: 9,9 m/s k: 2,01 Vm: 8,8 m/s			





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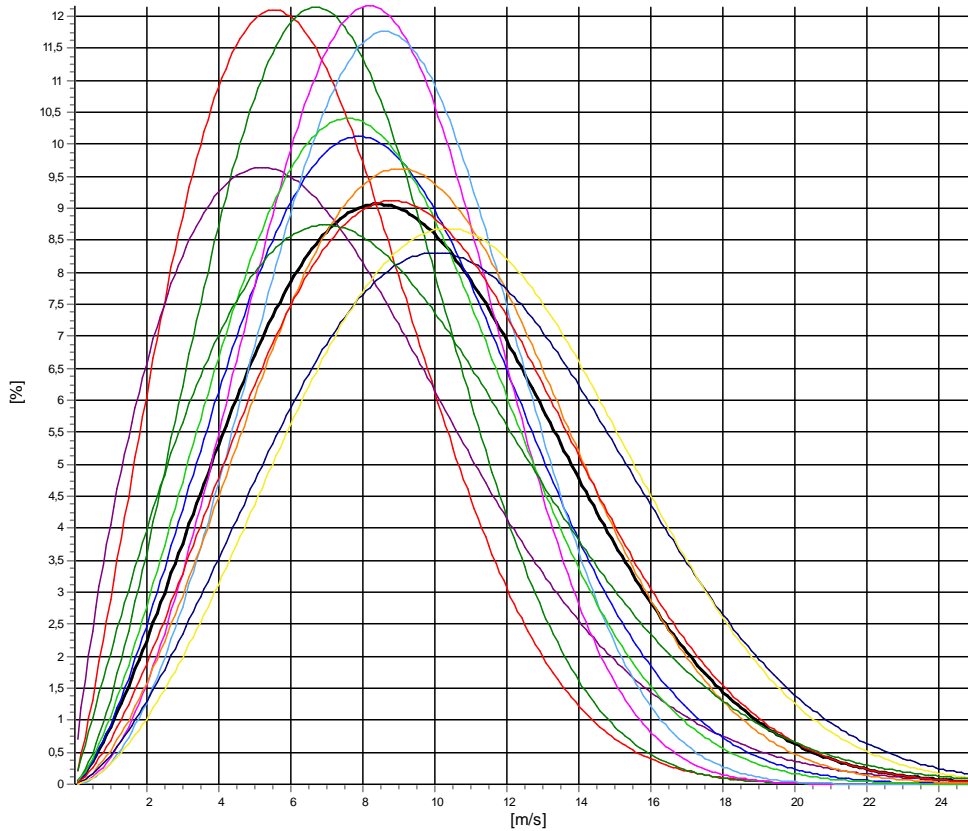
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **90,00m** - **Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,43	2,143	3,45	6,58
1-NNE	8,26	2,476	4,37	7,32
2-ENE	8,30	1,777	4,23	7,38
3-E	9,80	2,441	5,83	8,69
4-ESE	9,45	2,923	7,81	8,43
5-SSE	9,91	2,969	6,62	8,84
6-S	9,46	2,418	6,45	8,39
7-SSW	10,86	2,606	8,54	9,64
8-WSW	12,26	2,525	12,59	10,88
9-W	12,32	2,683	21,36	10,95
10-WNW	10,92	2,455	12,74	9,69
11-NNW	9,83	2,004	6,02	8,71
Mean	10,65	2,360	100,00	9,44



— All A: 10,7 m/s k: 2,36 Vm: 9,4 m/s	— N A: 7,4 m/s k: 2,14 Vm: 6,6 m/s	— NNE A: 8,3 m/s k: 2,48 Vm: 7,3 m/s	— ENE A: 8,3 m/s k: 1,78 Vm: 7,4 m/s
— E A: 9,8 m/s k: 2,44 Vm: 8,7 m/s	— ESE A: 9,5 m/s k: 2,92 Vm: 8,4 m/s	— SSE A: 9,9 m/s k: 2,97 Vm: 8,8 m/s	— S A: 9,5 m/s k: 2,42 Vm: 8,4 m/s
— SSW A: 10,9 m/s k: 2,61 Vm: 9,6 m/s	— WSW A: 12,3 m/s k: 2,52 Vm: 10,9 m/s	— W A: 12,3 m/s k: 2,68 Vm: 11,0 m/s	— WNW A: 10,9 m/s k: 2,46 Vm: 9,7 m/s
— NNW A: 9,8 m/s k: 2,00 Vm: 8,7 m/s			



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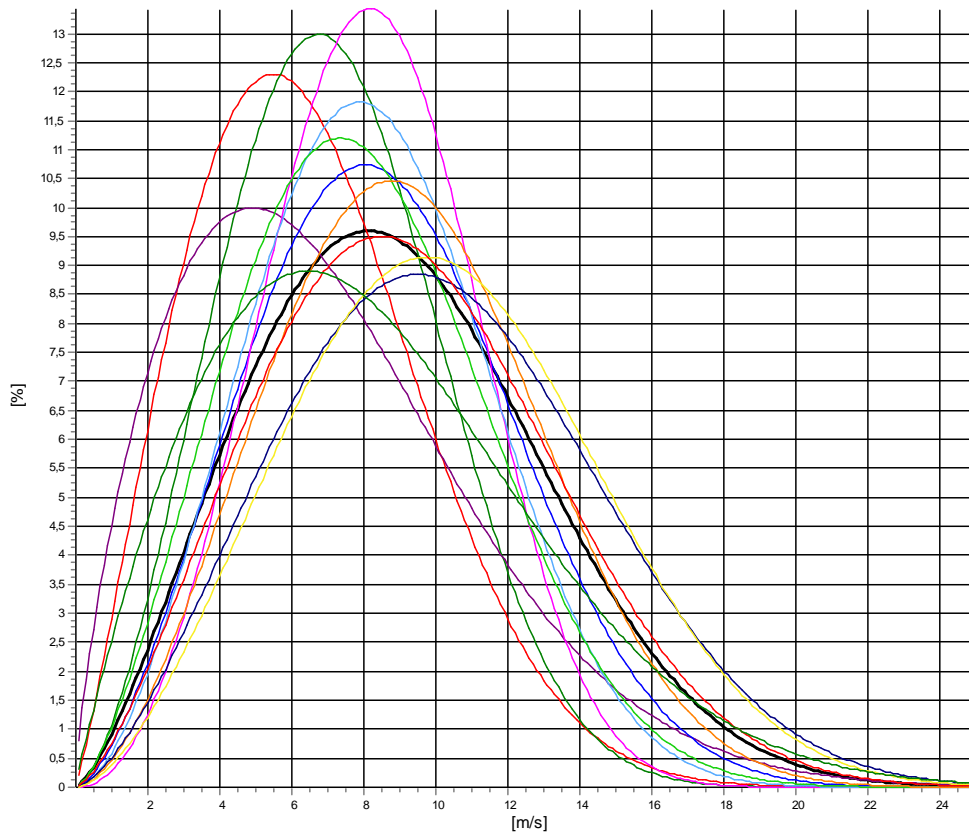
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **60,00m - Subst**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,34	2,157	3,33	6,50
1-NNE	8,10	2,631	4,49	7,20
2-ENE	7,95	1,756	4,15	7,08
3-E	9,70	2,596	5,89	8,61
4-ESE	9,20	3,178	8,13	8,24
5-SSE	9,28	2,768	6,39	8,26
6-S	9,02	2,501	6,71	8,01
7-SSW	10,37	2,731	8,62	9,23
8-WSW	11,57	2,543	13,15	10,27
9-W	11,64	2,669	21,16	10,35
10-WNW	10,51	2,465	12,16	9,32
11-NNW	9,42	1,931	5,81	8,36
Mean	10,19	2,399	100,00	9,03



— All A: 10,2 m/s k: 2,40 Vm: 9,0 m/s	— N A: 7,3 m/s k: 2,16 Vm: 6,5 m/s	— NNE A: 8,1 m/s k: 2,63 Vm: 7,2 m/s	— ENE A: 7,9 m/s k: 1,76 Vm: 7,1 m/s
— E A: 9,7 m/s k: 2,60 Vm: 8,6 m/s	— ESE A: 9,2 m/s k: 3,18 Vm: 8,2 m/s	— SSE A: 9,3 m/s k: 2,77 Vm: 8,3 m/s	— S A: 9,0 m/s k: 2,50 Vm: 8,0 m/s
— SSW A: 10,4 m/s k: 2,73 Vm: 9,2 m/s	— WSW A: 11,6 m/s k: 2,54 Vm: 10,3 m/s	— W A: 11,6 m/s k: 2,67 Vm: 10,3 m/s	— WNW A: 10,5 m/s k: 2,46 Vm: 9,3 m/s
— NNW A: 9,4 m/s k: 1,93 Vm: 8,4 m/s			



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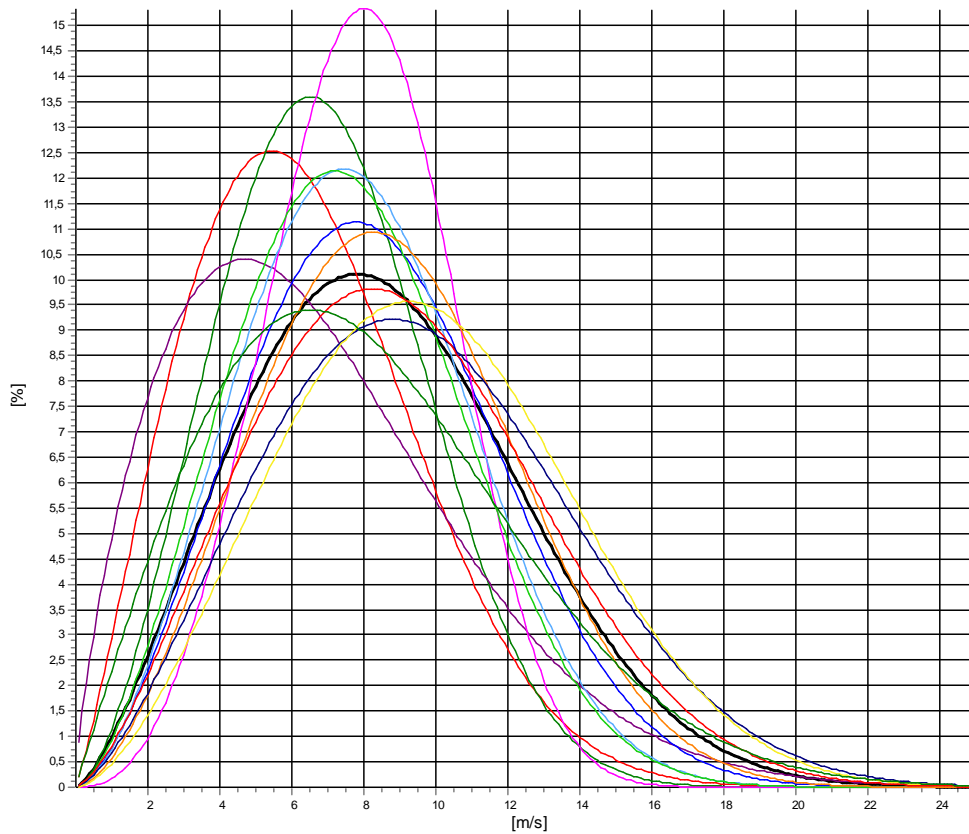
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period Period: Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: 40,00m - Subst

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,24	2,171	3,35	6,41
1-NNE	7,80	2,657	4,55	6,93
2-ENE	7,62	1,748	4,06	6,79
3-E	9,38	2,606	6,02	8,33
4-ESE	8,81	3,512	8,28	7,93
5-SSE	8,84	2,704	6,31	7,86
6-S	8,64	2,621	6,83	7,68
7-SSW	9,83	2,699	8,80	8,74
8-WSW	10,87	2,476	13,46	9,64
9-W	11,07	2,651	21,03	9,84
10-WNW	10,17	2,467	11,80	9,02
11-NNW	9,18	2,020	5,52	8,13
Mean	9,74	2,420	100,00	8,63



All A: 9.7 m/s k: 2.42 Vm: 8.6 m/s	N A: 7.2 m/s k: 2.17 Vm: 6.4 m/s	NNE A: 7.8 m/s k: 2.66 Vm: 6.9 m/s	ENE A: 7.6 m/s k: 1.75 Vm: 6.8 m/s
E A: 9.4 m/s k: 2.61 Vm: 8.3 m/s	ESE A: 8.8 m/s k: 3.51 Vm: 7.9 m/s	SSE A: 8.8 m/s k: 2.70 Vm: 7.9 m/s	S A: 8.6 m/s k: 2.62 Vm: 7.7 m/s
SSW A: 9.8 m/s k: 2.70 Vm: 8.7 m/s	WSW A: 10.9 m/s k: 2.48 Vm: 9.6 m/s	W A: 11.1 m/s k: 2.65 Vm: 9.8 m/s	WNW A: 10.2 m/s k: 2.47 Vm: 9.0 m/s
NNW A: 9.2 m/s k: 2.02 Vm: 8.1 m/s			





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06/03/2024 15.19

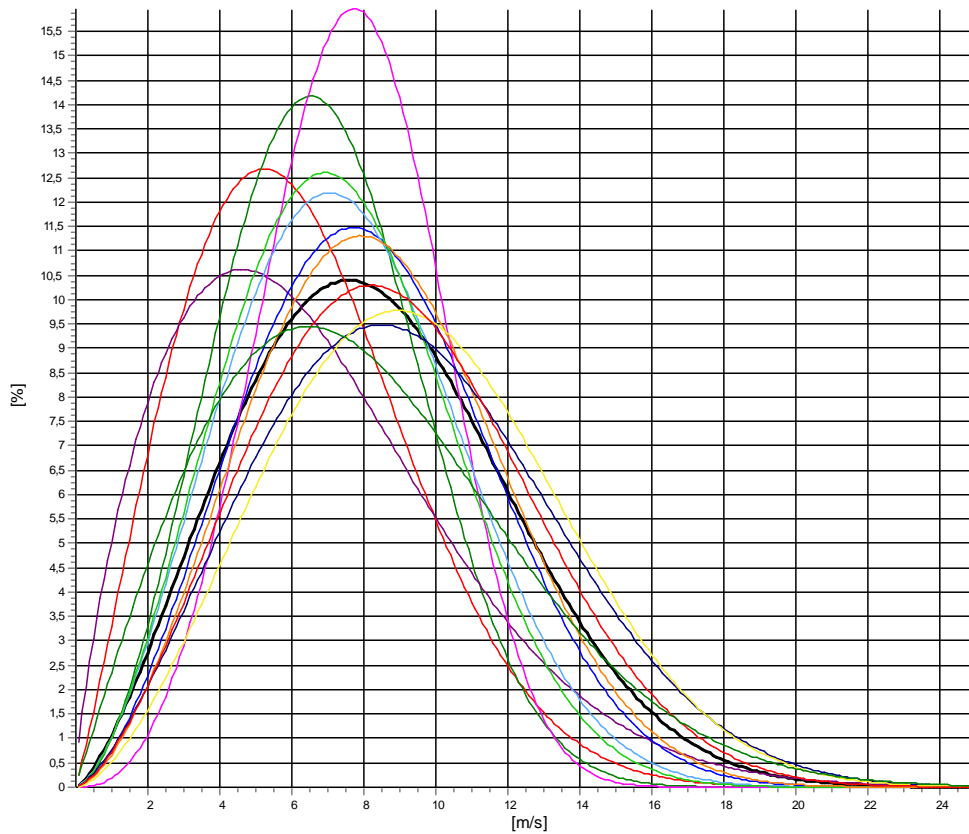
Meteo data report - Weibull data overview

Mast: Lot 3 complete 1y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2022 (12,0 months)

Height: **30,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,05	2,126	3,32	6,25
1-NNE	7,70	2,749	4,59	6,85
2-ENE	7,48	1,753	4,06	6,66
3-E	9,22	2,648	6,04	8,20
4-ESE	8,51	3,532	8,30	7,66
5-SSE	8,52	2,590	6,31	7,57
6-S	8,33	2,622	6,84	7,40
7-SSW	9,44	2,676	8,82	8,39
8-WSW	10,50	2,456	13,72	9,31
9-W	10,75	2,626	20,96	9,55
10-WNW	9,99	2,556	11,56	8,87
11-NNW	9,11	2,011	5,48	8,07
Mean	9,47	2,420	100,00	8,39



All A: 9,5 m/s k: 2,42 Vm: 8,4 m/s	N A: 7,1 m/s k: 2,13 Vm: 6,2 m/s	NNE A: 7,7 m/s k: 2,75 Vm: 6,9 m/s	ENE A: 7,5 m/s k: 1,75 Vm: 6,7 m/s
E A: 9,2 m/s k: 2,65 Vm: 8,2 m/s	ESE A: 8,5 m/s k: 3,53 Vm: 7,7 m/s	SSE A: 8,5 m/s k: 2,59 Vm: 7,6 m/s	S A: 8,3 m/s k: 2,62 Vm: 7,4 m/s
SSW A: 9,4 m/s k: 2,68 Vm: 8,4 m/s	WSW A: 10,5 m/s k: 2,46 Vm: 9,3 m/s	W A: 10,7 m/s k: 2,63 Vm: 9,5 m/s	WNW A: 10,0 m/s k: 2,56 Vm: 8,9 m/s
NNW A: 9,1 m/s k: 2,01 Vm: 8,1 m/s			





Project: Energy Island Baltic Sea

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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and values for bins 0 to 41.





Project:
Energy Island Baltic Sea

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Calculated:
06/03/2024 16.06

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

240,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			10,08	7,16	8,10	9,19	9,30	8,31	9,32	8,59	9,89	11,64	11,88	10,31	9,25
0		0,49	35	0	0	11	18	4	0	1	1	0	0	0	0
1	0,50	1,49	1165	87	99	114	100	130	78	136	102	61	70	76	112
2	1,50	2,49	2245	189	148	146	174	178	149	209	239	184	166	238	225
3	2,50	3,49	3902	232	315	254	279	296	279	344	371	366	407	490	269
4	3,50	4,49	5045	275	335	278	465	492	389	342	418	577	613	608	253
5	4,50	5,49	5925	311	454	326	501	462	527	529	536	683	701	567	328
6	5,50	6,49	6656	340	444	435	533	501	495	619	565	875	858	666	325
7	6,50	7,49	7353	372	501	554	466	625	581	460	609	937	1151	747	350
8	7,50	8,49	7405	271	402	399	541	742	502	404	558	926	1306	950	404
9	8,50	9,49	6982	204	281	350	456	672	406	475	467	767	1462	1044	398
10	9,50	10,49	6923	200	239	433	510	582	438	447	496	734	1456	1075	313
11	10,50	11,49	6396	152	248	392	440	467	381	411	509	716	1491	908	281
12	11,50	12,49	5918	99	178	294	308	391	452	385	500	861	1410	790	250
13	12,50	13,49	5592	65	190	289	318	285	394	312	479	833	1397	847	183
14	13,50	14,49	5196	54	129	286	348	207	382	323	432	843	1315	706	171
15	14,50	15,49	4115	67	134	221	259	143	309	207	346	793	1000	452	184
16	15,50	16,49	3113	35	70	167	239	119	185	119	228	627	788	392	144
17	16,50	17,49	2464	33	44	145	195	65	163	75	191	500	673	246	134
18	17,50	18,49	1861	24	54	97	111	27	113	57	166	383	567	165	97
19	18,50	19,49	1479	4	24	58	55	16	72	30	142	382	490	110	96
20	19,50	20,49	1131	1	14	17	28	3	28	16	83	298	477	110	56
21	20,50	21,49	810	0	19	2	23	0	4	8	67	226	317	115	29
22	21,50	22,49	550	0	20	3	10	1	2	6	37	159	221	78	13
23	22,50	23,49	447	0	12	1	15	0	2	4	47	136	151	65	14
24	23,50	24,49	338	0	7	2	16	0	0	2	30	103	128	38	12
25	24,50	25,49	260	0	3	2	15	0	0	1	14	74	104	43	4
26	25,50	26,49	166	0	0	0	10	0	0	2	14	52	57	31	0
27	26,50	27,49	172	0	0	0	2	0	0	0	12	75	44	32	7
28	27,50	28,49	153	0	0	0	0	0	0	0	6	59	65	22	1
29	28,50	29,49	91	0	0	0	0	0	0	0	0	29	44	18	0
30	29,50	30,49	69	0	0	0	0	0	0	0	0	15	39	15	0
31	30,50	31,49	57	0	0	0	0	0	0	0	0	19	32	6	0
32	31,50	32,49	24	0	0	0	0	0	0	0	0	8	16	0	0
33	32,50	33,49	7	0	0	0	0	0	0	0	0	3	3	1	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project:
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Calculated:
06/03/2024 16.06

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

200,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,96	7,14	8,09	9,17	9,19	8,48	9,13	8,57	9,81	11,47	11,67	10,13	9,03
0		0,49	37	0	0	12	22	1	0	0	1	1	0	0	0
1	0,50	1,49	1133	87	83	109	94	102	91	121	129	63	66	86	102
2	1,50	2,49	2333	192	170	144	181	190	144	214	236	189	175	259	239
3	2,50	3,49	3871	236	300	241	291	265	309	342	384	380	375	467	281
4	3,50	4,49	5089	284	335	297	419	454	433	341	430	586	626	625	259
5	4,50	5,49	6040	311	454	337	485	452	538	567	557	725	691	574	349
6	5,50	6,49	6666	321	438	495	505	506	515	617	579	882	850	635	323
7	6,50	7,49	7465	354	507	552	467	658	584	464	616	955	1221	748	339
8	7,50	8,49	7560	277	426	454	551	718	493	433	552	962	1314	950	430
9	8,50	9,49	7130	203	294	377	420	720	428	476	495	770	1506	1046	395
10	9,50	10,49	7112	186	244	431	513	598	434	483	554	740	1529	1090	310
11	10,50	11,49	6449	144	254	412	425	451	388	409	484	797	1543	866	276
12	11,50	12,49	6022	123	192	316	323	398	443	379	533	878	1442	787	208
13	12,50	13,49	5793	66	194	296	356	305	422	314	499	899	1445	795	202
14	13,50	14,49	5172	41	138	347	304	222	402	320	499	812	1288	641	158
15	14,50	15,49	4051	66	125	237	265	152	267	197	318	766	1013	482	163
16	15,50	16,49	3082	43	64	170	228	132	214	113	255	597	750	365	151
17	16,50	17,49	2388	34	53	133	159	68	150	73	214	494	663	229	118
18	17,50	18,49	1813	21	47	85	79	44	99	76	159	441	537	133	92
19	18,50	19,49	1351	4	23	42	35	20	37	18	121	361	489	118	83
20	19,50	20,49	1017	1	16	13	23	7	14	13	83	253	437	106	51
21	20,50	21,49	727	0	25	5	19	1	1	10	68	212	264	102	20
22	21,50	22,49	490	0	18	3	15	0	3	7	40	143	176	70	15
23	22,50	23,49	351	0	8	5	11	0	0	3	37	106	128	38	15
24	23,50	24,49	302	0	0	2	17	0	0	2	19	106	114	40	2
25	24,50	25,49	227	0	0	0	13	0	0	3	16	68	85	39	3
26	25,50	26,49	171	0	0	0	6	0	0	0	13	72	47	29	4
27	26,50	27,49	155	0	0	0	0	0	0	0	5	77	46	27	0
28	27,50	28,49	101	0	0	0	0	0	0	0	3	32	48	17	1
29	28,50	29,49	71	0	0	0	0	0	0	0	0	19	42	10	0
30	29,50	30,49	68	0	0	0	0	0	0	0	0	25	33	10	0
31	30,50	31,49	22	0	0	0	0	0	0	0	0	14	6	2	0
32	31,50	32,49	3	0	0	0	0	0	0	0	0	1	2	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	1	0	0	0	0	0	0	0	0	1	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project: Energy Island Baltic Sea

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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

Table with 12 columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. It contains frequency distribution data for various wind directions and speeds.





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Calculated:
06/03/2024 16.06

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

150,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,74	7,07	8,15	8,92	9,10	8,55	8,96	8,52	9,58	11,15	11,35	9,76	8,66
0		0,49	31	0	0	4	23	1	0	0	0	1	2	0	0
1	0,50	1,49	1126	79	69	105	115	107	85	121	124	62	66	93	100
2	1,50	2,49	2457	232	172	188	187	193	133	242	230	184	185	279	232
3	2,50	3,49	3912	237	271	261	296	303	320	352	362	410	381	443	276
4	3,50	4,49	5127	258	350	270	382	367	478	350	454	652	614	645	307
5	4,50	5,49	6087	315	447	366	432	466	520	598	620	723	677	552	371
6	5,50	6,49	6793	300	426	494	565	570	490	630	635	872	902	603	306
7	6,50	7,49	7600	342	505	603	443	703	541	531	629	961	1247	755	340
8	7,50	8,49	7808	276	473	448	550	714	476	465	544	993	1445	940	484
9	8,50	9,49	7504	189	333	362	510	713	491	523	553	780	1621	1030	399
10	9,50	10,49	7482	201	274	498	555	626	458	494	561	780	1711	1027	297
11	10,50	11,49	6588	158	223	366	425	462	440	438	553	887	1569	792	275
12	11,50	12,49	6371	92	286	327	378	382	498	352	632	954	1506	751	213
13	12,50	13,49	6051	58	246	383	311	321	450	336	650	879	1527	710	180
14	13,50	14,49	5000	51	160	326	289	250	375	265	387	866	1298	583	150
15	14,50	15,49	3996	61	92	174	274	204	265	228	341	770	993	450	144
16	15,50	16,49	2877	49	56	169	233	135	173	136	225	559	737	297	108
17	16,50	17,49	2260	26	57	109	121	91	96	101	214	539	602	195	109
18	17,50	18,49	1623	22	42	38	72	37	59	39	147	416	540	123	88
19	18,50	19,49	1210	2	23	21	41	18	14	31	89	319	485	99	68
20	19,50	20,49	775	0	28	5	19	0	4	15	72	219	298	84	31
21	20,50	21,49	511	0	10	10	15	0	3	15	48	133	195	67	15
22	21,50	22,49	377	0	5	6	8	0	0	10	24	137	147	31	9
23	22,50	23,49	290	0	3	3	14	0	0	2	19	91	119	36	3
24	23,50	24,49	231	0	0	1	11	0	0	1	8	85	95	29	1
25	24,50	25,49	183	0	0	0	15	0	0	0	5	79	57	24	3
26	25,50	26,49	143	0	0	0	5	0	0	0	10	57	47	24	0
27	26,50	27,49	79	0	0	0	0	0	0	0	2	23	40	14	0
28	27,50	28,49	67	0	0	0	0	0	0	0	2	25	34	5	1
29	28,50	29,49	38	0	0	0	0	0	0	0	0	15	20	3	0
30	29,50	30,49	11	0	0	0	0	0	0	0	0	8	3	0	0
31	30,50	31,49	3	0	0	0	0	0	0	0	0	2	1	0	0
32	31,50	32,49	1	0	0	0	0	0	0	0	0	1	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

Table with 13 columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and bins 0 to 41.





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06/03/2024 16.06

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

100,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,39	7,04	8,07	8,62	8,92	8,47	8,58	8,26	9,27	10,65	10,83	9,30	8,34
0		0,49	39	0	0	10	23	2	0	1	2	0	0	1	0
1	0,50	1,49	1159	77	74	104	118	110	109	108	122	70	73	90	104
2	1,50	2,49	2640	221	200	213	231	184	164	268	242	208	190	282	237
3	2,50	3,49	3937	282	265	265	257	277	359	359	343	434	375	430	291
4	3,50	4,49	5262	242	339	292	379	396	470	403	484	717	595	642	303
5	4,50	5,49	6209	290	440	324	434	489	507	585	667	721	773	612	367
6	5,50	6,49	7137	310	439	562	571	616	475	685	685	925	973	604	292
7	6,50	7,49	7877	336	531	594	515	753	516	506	601	1054	1414	704	353
8	7,50	8,49	8247	245	548	471	575	720	493	539	619	1053	1635	894	455
9	8,50	9,49	8268	220	400	418	534	810	540	579	579	919	1847	1050	372
10	9,50	10,49	7746	204	272	514	576	665	488	525	607	883	1784	921	307
11	10,50	11,49	7256	136	300	416	408	535	515	428	703	1117	1715	761	222
12	11,50	12,49	6753	88	334	379	344	446	512	365	686	1073	1586	743	197
13	12,50	13,49	5997	61	279	330	378	349	384	326	604	1007	1478	655	146
14	13,50	14,49	4684	42	134	236	300	264	368	272	406	864	1181	480	137
15	14,50	15,49	3591	62	73	170	281	188	235	192	303	739	844	375	129
16	15,50	16,49	2542	56	47	96	162	129	96	109	221	600	709	204	113
17	16,50	17,49	1863	33	56	72	91	45	42	54	168	495	597	125	85
18	17,50	18,49	1274	14	41	25	51	7	10	36	109	320	480	112	69
19	18,50	19,49	826	2	22	9	42	0	3	24	62	208	325	73	56
20	19,50	20,49	452	0	7	8	16	0	1	10	46	114	192	41	17
21	20,50	21,49	370	0	1	14	6	0	1	3	16	140	148	29	12
22	21,50	22,49	296	0	0	6	14	0	0	0	6	116	119	32	3
23	22,50	23,49	216	0	0	3	8	0	0	1	9	92	78	21	4
24	23,50	24,49	159	0	0	5	14	0	0	0	7	63	53	16	1
25	24,50	25,49	89	0	0	0	9	0	0	0	5	28	39	8	0
26	25,50	26,49	65	0	0	0	3	0	0	0	7	24	25	6	0
27	26,50	27,49	44	0	0	0	0	0	0	0	0	17	24	3	0
28	27,50	28,49	15	0	0	0	0	0	0	0	0	9	5	1	0
29	28,50	29,49	4	0	0	0	0	0	0	0	0	2	2	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 16.06

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

90,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,29	6,98	8,01	8,54	8,86	8,40	8,47	8,13	9,19	10,52	10,68	9,23	8,26
0		0,49	45	0	0	18	24	1	0	0	0	0	0	2	0
1	0,50	1,49	1183	88	78	102	127	105	112	119	112	79	71	96	94
2	1,50	2,49	2722	226	223	231	215	189	175	296	256	191	189	303	228
3	2,50	3,49	3998	290	258	257	254	283	355	359	360	457	377	426	322
4	3,50	4,49	5357	244	365	266	390	436	469	389	487	743	600	654	314
5	4,50	5,49	6290	306	433	337	439	508	505	593	685	748	791	592	353
6	5,50	6,49	7322	299	448	604	571	663	485	675	707	940	1018	590	322
7	6,50	7,49	7955	320	555	578	511	778	483	503	600	1075	1476	704	372
8	7,50	8,49	8534	247	571	469	606	808	515	539	669	1127	1681	893	409
9	8,50	9,49	8385	229	418	416	548	797	581	561	575	946	1856	1085	373
10	9,50	10,49	8039	192	309	554	584	703	489	522	668	943	1836	946	293
11	10,50	11,49	7325	119	337	393	400	588	514	457	714	1107	1746	735	215
12	11,50	12,49	6924	99	335	411	382	453	495	351	679	1161	1632	724	202
13	12,50	13,49	5955	52	258	292	339	345	402	349	640	996	1472	670	140
14	13,50	14,49	4549	40	128	245	282	247	357	229	406	859	1161	447	148
15	14,50	15,49	3421	66	68	134	278	228	171	169	299	736	801	352	119
16	15,50	16,49	2368	56	42	79	158	90	81	100	230	617	643	187	85
17	16,50	17,49	1796	40	60	65	75	37	29	48	167	447	599	129	100
18	17,50	18,49	1166	10	41	30	65	4	6	41	80	297	428	98	66
19	18,50	19,49	710	2	14	10	30	0	3	9	67	166	274	81	54
20	19,50	20,49	441	0	6	11	14	0	2	9	36	129	179	36	19
21	20,50	21,49	359	0	0	14	9	0	0	1	8	131	151	32	13
22	21,50	22,49	260	0	0	7	10	0	0	0	6	111	100	24	2
23	22,50	23,49	210	0	0	4	13	0	0	0	9	99	66	19	0
24	23,50	24,49	131	0	0	4	13	0	0	0	2	41	47	22	2
25	24,50	25,49	76	0	0	1	9	0	0	0	10	28	21	7	0
26	25,50	26,49	59	0	0	0	0	0	0	0	1	20	31	7	0
27	26,50	27,49	30	0	0	0	0	0	0	0	0	13	16	1	0
28	27,50	28,49	11	0	0	0	0	0	0	0	0	5	6	0	0
29	28,50	29,49	3	0	0	0	0	0	0	0	0	3	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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06/03/2024 16.06

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

60,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			8,89	6,95	7,80	8,23	8,55	8,11	7,97	7,83	8,75	10,03	10,13	8,88	7,93
0		0,49	42	0	0	21	21	0	0	0	0	0	0	0	0
1	0,50	1,49	1357	97	108	105	123	125	123	150	136	83	74	120	113
2	1,50	2,49	2816	203	240	222	231	197	197	273	261	202	214	321	255
3	2,50	3,49	4246	268	303	263	311	313	353	363	395	495	424	422	336
4	3,50	4,49	5709	275	359	285	374	485	495	470	526	801	647	627	365
5	4,50	5,49	6616	307	420	362	462	544	541	617	708	813	926	552	364
6	5,50	6,49	7942	311	487	650	586	687	549	667	718	1128	1180	660	319
7	6,50	7,49	8621	329	610	651	576	807	523	523	697	1139	1666	745	355
8	7,50	8,49	9271	230	566	589	618	852	623	617	714	1255	1900	908	399
9	8,50	9,49	8932	227	444	509	625	916	561	563	704	1092	1976	995	320
10	9,50	10,49	8746	175	412	572	608	842	499	572	815	1144	1955	910	242
11	10,50	11,49	7736	129	375	466	442	627	502	497	806	1249	1760	667	216
12	11,50	12,49	6676	85	336	326	346	437	478	297	696	1197	1634	664	180
13	12,50	13,49	5306	61	195	285	269	285	361	317	568	969	1315	554	127
14	13,50	14,49	3854	42	119	160	236	247	232	216	355	795	895	398	159
15	14,50	15,49	2622	65	60	82	189	117	78	115	234	665	679	231	107
16	15,50	16,49	1976	52	47	61	127	30	18	71	144	544	644	150	88
17	16,50	17,49	1385	39	54	57	78	8	5	29	103	333	485	109	85
18	17,50	18,49	825	10	23	21	53	0	3	9	50	206	289	89	72
19	18,50	19,49	529	3	7	10	28	0	0	6	25	164	200	50	36
20	19,50	20,49	347	0	0	13	14	0	0	2	4	138	129	33	14
21	20,50	21,49	262	0	0	8	8	0	0	0	4	116	98	26	2
22	21,50	22,49	198	0	0	8	11	0	0	0	9	76	66	27	1
23	22,50	23,49	131	0	0	2	16	0	0	0	7	53	36	16	1
24	23,50	24,49	82	0	0	2	12	0	0	0	7	23	31	7	0
25	24,50	25,49	60	0	0	1	6	0	0	0	3	21	28	1	0
26	25,50	26,49	26	0	0	0	0	0	0	0	0	9	15	2	0
27	26,50	27,49	8	0	0	0	0	0	0	0	0	6	2	0	0
28	27,50	28,49	0	0	0	0	0	0	0	0	0	0	0	0	0
29	28,50	29,49	0	0	0	0	0	0	0	0	0	0	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project: Energy Island Baltic Sea

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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

Table with 13 columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and 41 bins of wind speed data.





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Calculated:
06/03/2024 16.06

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

30,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			8,23	6,61	7,43	7,45	7,97	7,38	7,28	7,18	8,00	9,25	9,41	8,36	7,55
0		0,49	44	0	0	20	23	0	1	0	0	0	0	0	0
1	0,50	1,49	1430	118	133	120	126	115	137	142	126	75	78	125	135
2	1,50	2,49	3195	238	257	240	253	230	242	320	267	246	261	336	305
3	2,50	3,49	4941	272	304	292	354	366	387	433	479	645	559	530	320
4	3,50	4,49	6405	316	374	331	439	522	570	637	609	855	754	670	328
5	4,50	5,49	7836	317	511	506	574	612	674	693	819	1085	1078	592	375
6	5,50	6,49	9178	331	557	780	729	824	569	725	811	1314	1532	700	306
7	6,50	7,49	10110	326	683	873	750	907	615	625	855	1433	1944	768	331
8	7,50	8,49	10342	240	594	699	741	1087	673	745	826	1391	2064	921	361
9	8,50	9,49	9822	210	522	464	731	1052	529	743	975	1284	2053	959	300
10	9,50	10,49	8592	159	442	414	587	772	473	500	907	1392	1922	792	232
11	10,50	11,49	6514	131	311	282	318	405	390	372	657	1237	1608	607	196
12	11,50	12,49	5400	75	275	266	218	166	355	311	550	1026	1360	635	163
13	12,50	13,49	3854	45	187	158	232	101	222	227	327	820	941	438	156
14	13,50	14,49	2858	50	55	88	171	125	120	115	198	723	799	300	114
15	14,50	15,49	2120	57	77	54	167	38	26	45	131	565	687	182	91
16	15,50	16,49	1392	51	53	68	92	8	10	12	97	312	472	124	93
17	16,50	17,49	819	14	11	23	63	0	1	5	34	234	292	73	69
18	17,50	18,49	509	3	3	11	40	0	0	0	11	175	176	51	39
19	18,50	19,49	328	1	1	11	24	0	0	0	4	133	116	31	7
20	19,50	20,49	240	0	0	7	11	0	0	0	5	81	102	29	5
21	20,50	21,49	176	0	0	7	15	0	0	0	10	70	50	22	2
22	21,50	22,49	113	0	0	1	14	0	0	0	10	40	40	8	0
23	22,50	23,49	61	0	0	1	16	0	0	0	4	15	22	3	0
24	23,50	24,49	47	0	0	0	6	0	0	0	1	17	21	2	0
25	24,50	25,49	7	0	0	0	2	0	0	0	0	3	2	0	0
26	25,50	26,49	3	0	0	0	0	0	0	0	0	3	0	0	0
27	26,50	27,49	0	0	0	0	0	0	0	0	0	0	0	0	0
28	27,50	28,49	0	0	0	0	0	0	0	0	0	0	0	0	0
29	28,50	29,49	0	0	0	0	0	0	0	0	0	0	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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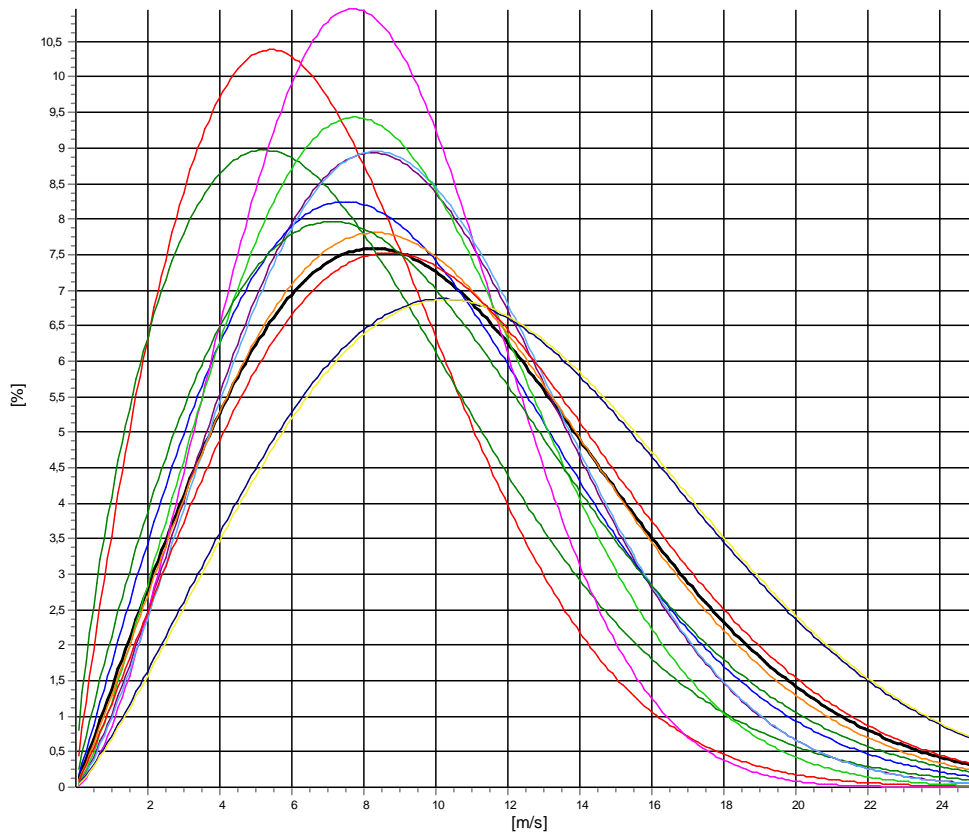
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **270,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	8,02	1,907	3,28	7,11
1-NNE	8,74	1,712	4,62	7,80
2-ENE	10,58	2,293	5,53	9,37
3-E	10,48	2,022	6,95	9,29
4-ESE	9,37	2,552	6,70	8,32
5-SSE	10,63	2,318	6,71	9,42
6-S	9,98	2,283	6,19	8,84
7-SSW	11,34	2,096	8,03	10,04
8-WSW	13,38	2,212	14,16	11,85
9-W	13,48	2,231	20,10	11,94
10-WNW	11,80	2,104	12,64	10,45
11-NNW	10,47	1,913	5,09	9,29
Mean	11,48	2,046	100,00	10,17



All A: 11,5 m/s k: 2,05 Vm: 10,2 m/s	N A: 8,0 m/s k: 1,91 Vm: 7,1 m/s	NNE A: 8,7 m/s k: 1,71 Vm: 7,8 m/s	ENE A: 10,6 m/s k: 2,29 Vm: 9,4 m/s
E A: 10,5 m/s k: 2,02 Vm: 9,3 m/s	ESE A: 9,4 m/s k: 2,55 Vm: 8,3 m/s	SSE A: 10,6 m/s k: 2,32 Vm: 9,4 m/s	S A: 10,0 m/s k: 2,28 Vm: 8,8 m/s
SSW A: 11,3 m/s k: 2,10 Vm: 10,0 m/s	WSW A: 13,4 m/s k: 2,21 Vm: 11,8 m/s	W A: 13,5 m/s k: 2,23 Vm: 11,9 m/s	WNW A: 11,8 m/s k: 2,10 Vm: 10,4 m/s
NNW A: 10,5 m/s k: 1,91 Vm: 9,3 m/s			



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Calculated:
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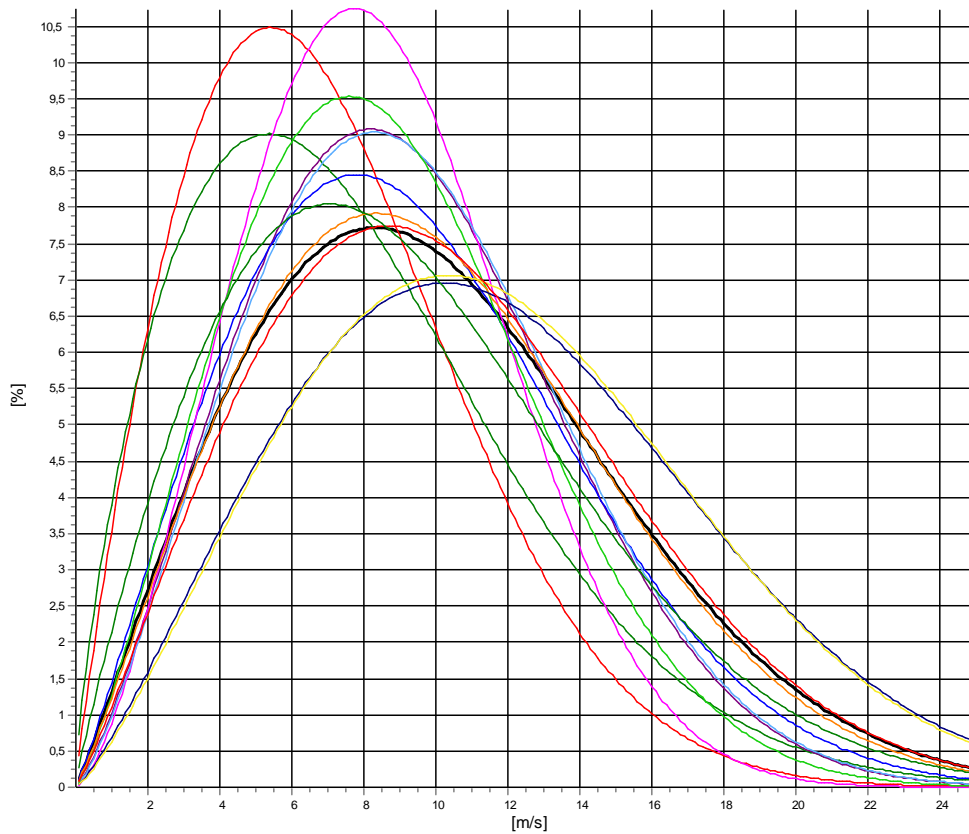
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **240,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,97	1,918	3,21	7,07
1-NNE	8,77	1,739	4,64	7,81
2-ENE	10,47	2,313	5,61	9,28
3-E	10,55	2,118	6,84	9,35
4-ESE	9,47	2,521	6,81	8,40
5-SSE	10,57	2,326	6,73	9,36
6-S	9,83	2,269	6,30	8,71
7-SSW	11,29	2,126	8,15	10,00
8-WSW	13,33	2,238	14,15	11,81
9-W	13,32	2,280	20,22	11,80
10-WNW	11,64	2,150	12,39	10,31
11-NNW	10,38	1,918	4,95	9,21
Mean	11,41	2,080	100,00	10,10



All A: 11,4 m/s k: 2,08 Vm: 10,1 m/s	N A: 8,0 m/s k: 1,92 Vm: 7,1 m/s	NNE A: 8,8 m/s k: 1,74 Vm: 7,8 m/s	ENE A: 10,5 m/s k: 2,31 Vm: 9,3 m/s
E A: 10,6 m/s k: 2,12 Vm: 9,3 m/s	ESE A: 9,5 m/s k: 2,52 Vm: 8,4 m/s	SSE A: 10,6 m/s k: 2,33 Vm: 9,4 m/s	S A: 9,8 m/s k: 2,27 Vm: 8,7 m/s
SSW A: 11,3 m/s k: 2,13 Vm: 10,0 m/s	WSW A: 13,3 m/s k: 2,24 Vm: 11,8 m/s	W A: 13,3 m/s k: 2,28 Vm: 11,8 m/s	WNW A: 11,6 m/s k: 2,15 Vm: 10,3 m/s
NNW A: 10,4 m/s k: 1,92 Vm: 9,2 m/s			





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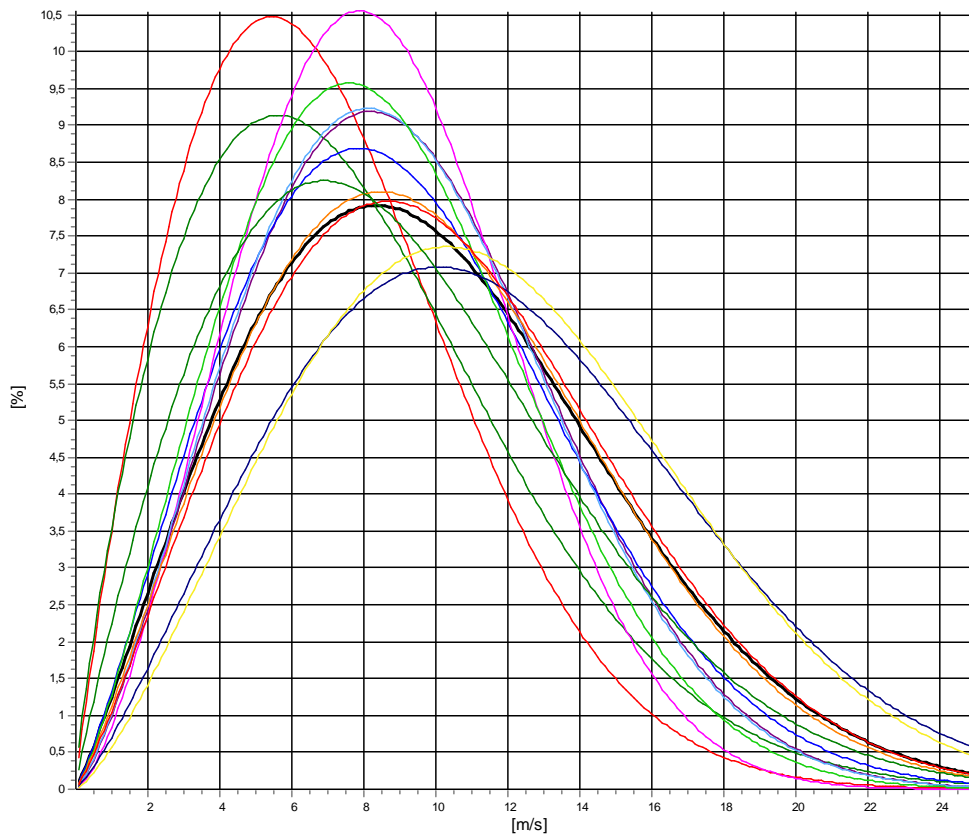
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **200,00m - Subst**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,98	1,921	3,18	7,08
1-NNE	8,81	1,801	4,68	7,83
2-ENE	10,41	2,334	5,85	9,23
3-E	10,45	2,172	6,60	9,25
4-ESE	9,64	2,522	6,86	8,55
5-SSE	10,34	2,326	6,80	9,17
6-S	9,79	2,271	6,36	8,67
7-SSW	11,23	2,179	8,38	9,94
8-WSW	13,11	2,241	14,24	11,62
9-W	13,07	2,348	20,10	11,58
10-WNW	11,46	2,191	12,08	10,15
11-NNW	10,13	1,919	4,87	8,99
Mean	11,27	2,121	100,00	9,98



All A: 11,3 m/s k: 2,12 Vm: 10,0 m/s	N A: 8,0 m/s k: 1,92 Vm: 7,1 m/s	NNE A: 8,8 m/s k: 1,80 Vm: 7,8 m/s	ENE A: 10,4 m/s k: 2,33 Vm: 9,2 m/s
E A: 10,4 m/s k: 2,17 Vm: 9,3 m/s	ESE A: 9,6 m/s k: 2,52 Vm: 8,6 m/s	SSE A: 10,3 m/s k: 2,33 Vm: 9,2 m/s	S A: 9,8 m/s k: 2,27 Vm: 8,7 m/s
SSW A: 11,2 m/s k: 2,18 Vm: 9,9 m/s	WSW A: 13,1 m/s k: 2,24 Vm: 11,6 m/s	W A: 13,1 m/s k: 2,35 Vm: 11,6 m/s	WNW A: 11,5 m/s k: 2,19 Vm: 10,1 m/s
NNW A: 10,1 m/s k: 1,92 Vm: 9,0 m/s			





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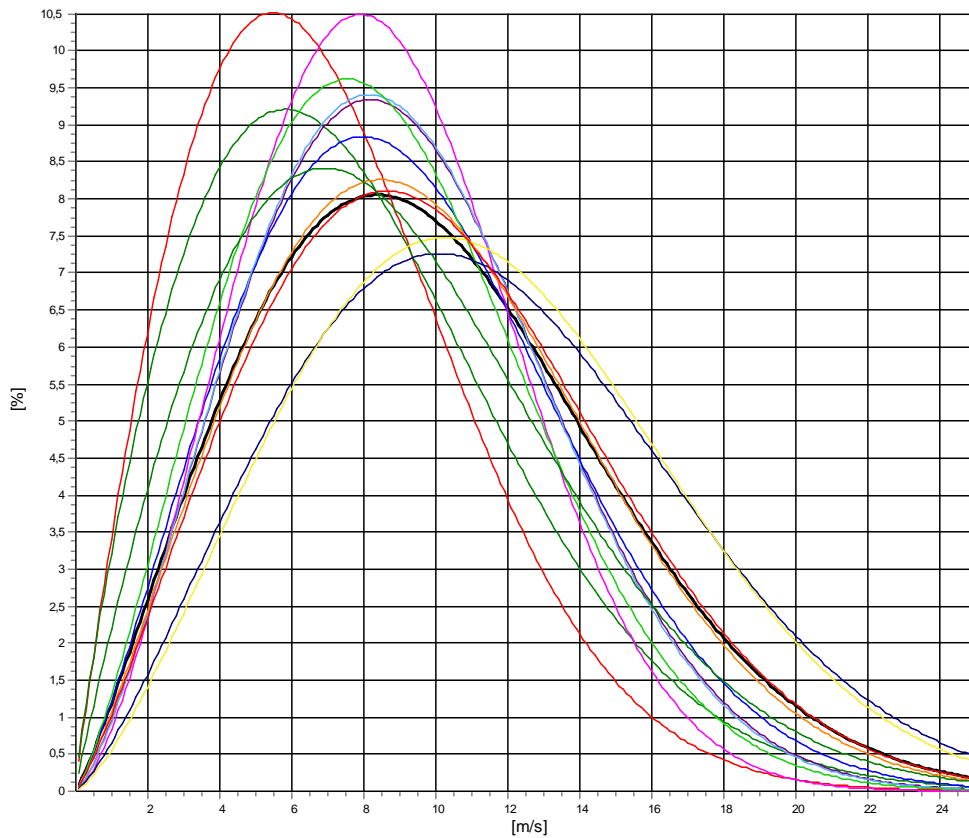
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **180,00m - Subst**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,99	1,936	3,18	7,09
1-NNE	8,88	1,850	4,68	7,88
2-ENE	10,34	2,361	5,91	9,16
3-E	10,45	2,225	6,59	9,25
4-ESE	9,68	2,519	6,90	8,59
5-SSE	10,29	2,369	6,79	9,12
6-S	9,74	2,269	6,45	8,63
7-SSW	11,13	2,212	8,50	9,86
8-WSW	12,98	2,286	14,17	11,50
9-W	12,94	2,368	20,23	11,47
10-WNW	11,35	2,212	11,76	10,05
11-NNW	10,01	1,944	4,84	8,87
Mean	11,19	2,152	100,00	9,91



All A: 11,2 m/s k: 2,15 Vm: 9,9 m/s	N A: 8,0 m/s k: 1,94 Vm: 7,1 m/s	NNE A: 8,9 m/s k: 1,85 Vm: 7,9 m/s	ENE A: 10,3 m/s k: 2,36 Vm: 9,2 m/s
E A: 10,4 m/s k: 2,22 Vm: 9,3 m/s	ESE A: 9,7 m/s k: 2,52 Vm: 8,6 m/s	SSE A: 10,3 m/s k: 2,37 Vm: 9,1 m/s	S A: 9,7 m/s k: 2,27 Vm: 8,6 m/s
SSW A: 11,1 m/s k: 2,21 Vm: 9,9 m/s	WSW A: 13,0 m/s k: 2,29 Vm: 11,5 m/s	W A: 12,9 m/s k: 2,37 Vm: 11,5 m/s	WNW A: 11,3 m/s k: 2,21 Vm: 10,1 m/s
NNW A: 10,0 m/s k: 1,94 Vm: 8,9 m/s			





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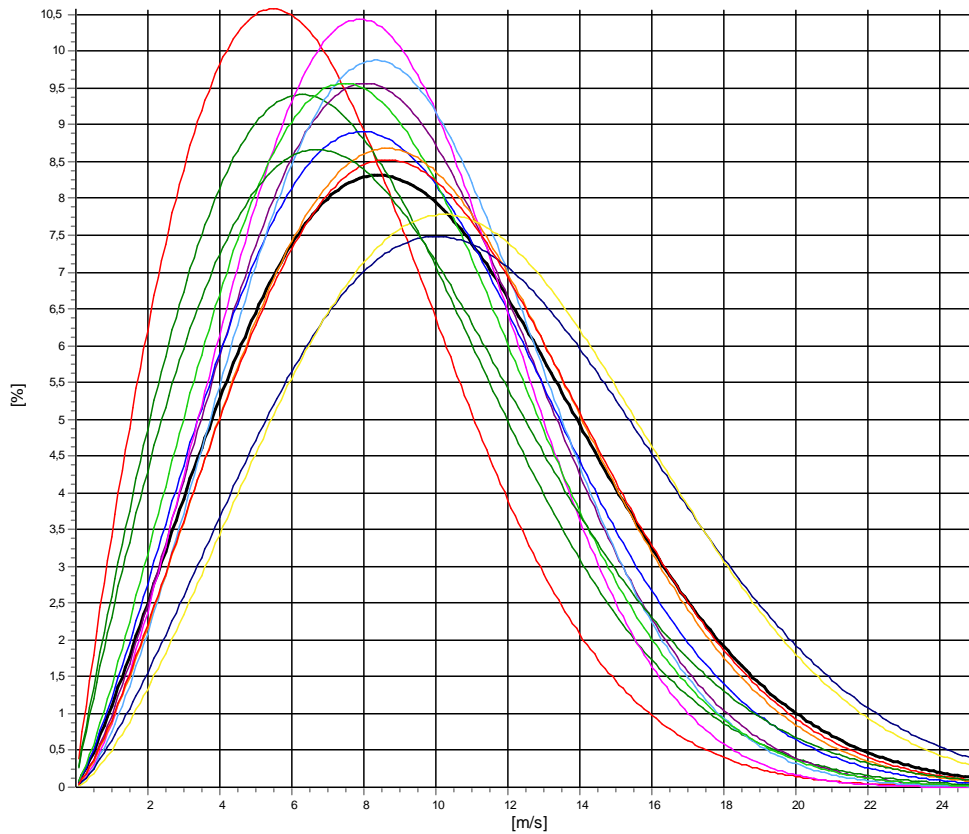
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **150,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,96	1,942	3,12	7,06
1-NNE	9,01	1,964	4,81	7,99
2-ENE	10,14	2,374	5,85	8,99
3-E	10,39	2,232	6,65	9,20
4-ESE	9,68	2,502	7,04	8,59
5-SSE	10,22	2,499	6,73	9,07
6-S	9,71	2,241	6,63	8,60
7-SSW	11,01	2,327	8,60	9,75
8-WSW	12,76	2,326	14,25	11,30
9-W	12,72	2,436	20,26	11,28
10-WNW	11,10	2,298	11,29	9,83
11-NNW	9,72	1,945	4,77	8,62
Mean	11,05	2,208	100,00	9,78



All A: 11,0 m/s k: 2,21 Vm: 9,8 m/s	N A: 8,0 m/s k: 1,94 Vm: 7,1 m/s	NNE A: 9,0 m/s k: 1,96 Vm: 8,0 m/s	ENE A: 10,1 m/s k: 2,37 Vm: 9,0 m/s
E A: 10,4 m/s k: 2,23 Vm: 9,2 m/s	ESE A: 9,7 m/s k: 2,50 Vm: 8,6 m/s	SSE A: 10,2 m/s k: 2,50 Vm: 9,1 m/s	S A: 9,7 m/s k: 2,24 Vm: 8,6 m/s
SSW A: 11,0 m/s k: 2,33 Vm: 9,8 m/s	WSW A: 12,8 m/s k: 2,33 Vm: 11,3 m/s	W A: 12,7 m/s k: 2,44 Vm: 11,3 m/s	WNW A: 11,1 m/s k: 2,30 Vm: 9,8 m/s
NNW A: 9,7 m/s k: 1,95 Vm: 8,6 m/s			



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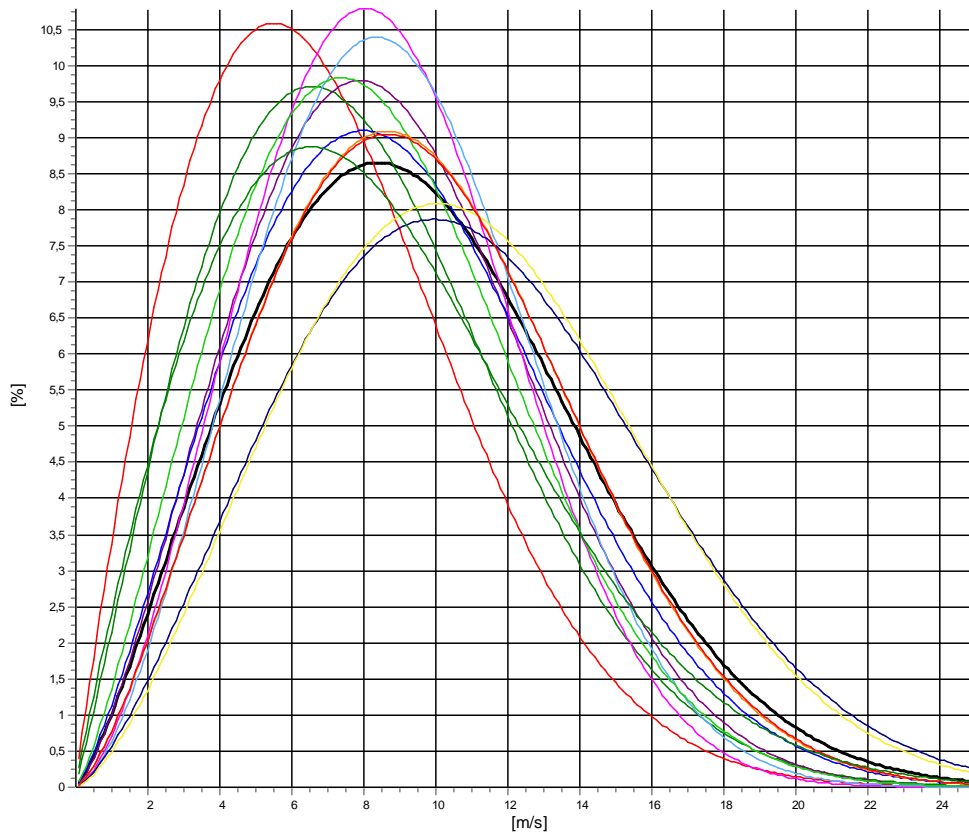
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **120,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,97	1,947	3,13	7,07
1-NNE	9,04	2,070	4,95	8,01
2-ENE	9,93	2,381	5,80	8,80
3-E	10,31	2,272	6,72	9,14
4-ESE	9,68	2,606	7,15	8,60
5-SSE	10,06	2,611	6,68	8,94
6-S	9,54	2,269	6,76	8,45
7-SSW	10,82	2,415	8,61	9,59
8-WSW	12,45	2,403	14,54	11,03
9-W	12,40	2,476	20,26	11,00
10-WNW	10,84	2,408	10,80	9,61
11-NNW	9,51	1,948	4,62	8,43
Mean	10,85	2,273	100,00	9,61



All A: 10,8 m/s k: 2,27 Vm: 9,6 m/s	N A: 8,0 m/s k: 1,95 Vm: 7,1 m/s	NNE A: 9,0 m/s k: 2,07 Vm: 8,0 m/s	ENE A: 9,9 m/s k: 2,38 Vm: 8,8 m/s
E A: 10,3 m/s k: 2,27 Vm: 9,1 m/s	ESE A: 9,7 m/s k: 2,61 Vm: 8,6 m/s	SSE A: 10,1 m/s k: 2,61 Vm: 8,9 m/s	S A: 9,5 m/s k: 2,27 Vm: 8,4 m/s
SSW A: 10,8 m/s k: 2,42 Vm: 9,6 m/s	WSW A: 12,4 m/s k: 2,40 Vm: 11,0 m/s	W A: 12,4 m/s k: 2,48 Vm: 11,0 m/s	WNW A: 10,8 m/s k: 2,41 Vm: 9,6 m/s
NNW A: 9,5 m/s k: 1,95 Vm: 8,4 m/s			



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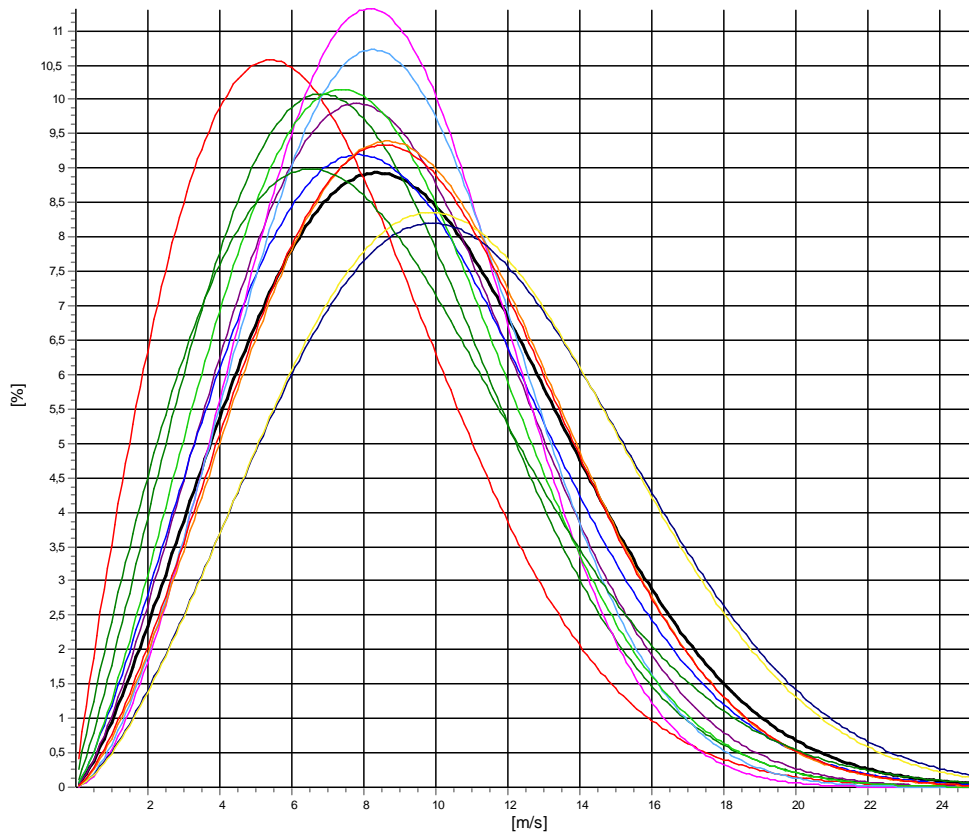
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **100,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,92	1,927	3,07	7,03
1-NNE	9,04	2,184	5,05	8,01
2-ENE	9,80	2,387	5,83	8,69
3-E	10,17	2,261	6,67	9,01
4-ESE	9,63	2,746	7,35	8,57
5-SSE	9,87	2,649	6,62	8,77
6-S	9,42	2,330	6,71	8,35
7-SSW	10,67	2,475	8,74	9,46
8-WSW	12,20	2,472	14,75	10,83
9-W	12,10	2,504	20,27	10,74
10-WNW	10,62	2,444	10,43	9,42
11-NNW	9,42	1,959	4,50	8,35
Mean	10,67	2,322	100,00	9,46



All A: 10,7 m/s k: 2,32 Vm: 9,5 m/s	N A: 7,9 m/s k: 1,93 Vm: 7,0 m/s	NNE A: 9,0 m/s k: 2,18 Vm: 8,0 m/s	ENE A: 9,8 m/s k: 2,39 Vm: 8,7 m/s
E A: 10,2 m/s k: 2,26 Vm: 9,0 m/s	ESE A: 9,6 m/s k: 2,75 Vm: 8,6 m/s	SSE A: 9,9 m/s k: 2,65 Vm: 8,8 m/s	S A: 9,4 m/s k: 2,33 Vm: 8,3 m/s
SSW A: 10,7 m/s k: 2,47 Vm: 9,5 m/s	WSW A: 12,2 m/s k: 2,47 Vm: 10,8 m/s	W A: 12,1 m/s k: 2,50 Vm: 10,7 m/s	WNW A: 10,6 m/s k: 2,44 Vm: 9,4 m/s
NNW A: 9,4 m/s k: 1,96 Vm: 8,3 m/s			





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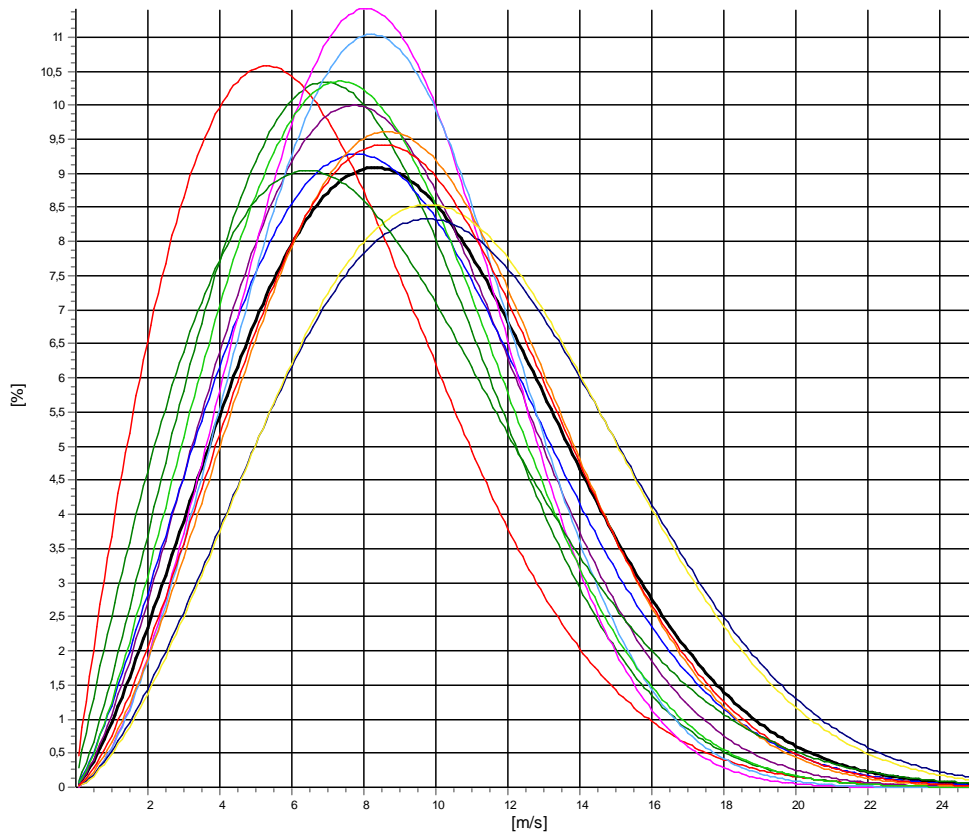
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **90,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,86	1,904	3,06	6,98
1-NNE	9,01	2,251	5,17	7,98
2-ENE	9,72	2,381	5,79	8,62
3-E	10,09	2,266	6,64	8,94
4-ESE	9,52	2,736	7,60	8,47
5-SSE	9,75	2,705	6,51	8,67
6-S	9,30	2,351	6,61	8,24
7-SSW	10,58	2,522	8,86	9,39
8-WSW	12,04	2,478	14,87	10,68
9-W	11,94	2,531	20,15	10,59
10-WNW	10,56	2,453	10,31	9,37
11-NNW	9,33	1,948	4,44	8,27
Mean	10,56	2,340	100,00	9,36



— All A: 10,6 m/s k: 2,34 Vm: 9,4 m/s	— N A: 7,9 m/s k: 1,90 Vm: 7,0 m/s	— NNE A: 9,0 m/s k: 2,25 Vm: 8,0 m/s	— ENE A: 9,7 m/s k: 2,38 Vm: 8,6 m/s
— E A: 10,1 m/s k: 2,27 Vm: 8,9 m/s	— ESE A: 9,5 m/s k: 2,74 Vm: 8,5 m/s	— SSE A: 9,8 m/s k: 2,71 Vm: 8,7 m/s	— S A: 9,3 m/s k: 2,35 Vm: 8,2 m/s
— SSW A: 10,6 m/s k: 2,52 Vm: 9,4 m/s	— WSW A: 12,0 m/s k: 2,48 Vm: 10,7 m/s	— W A: 11,9 m/s k: 2,53 Vm: 10,6 m/s	— WNW A: 10,6 m/s k: 2,45 Vm: 9,4 m/s
— NNW A: 9,3 m/s k: 1,95 Vm: 8,3 m/s			



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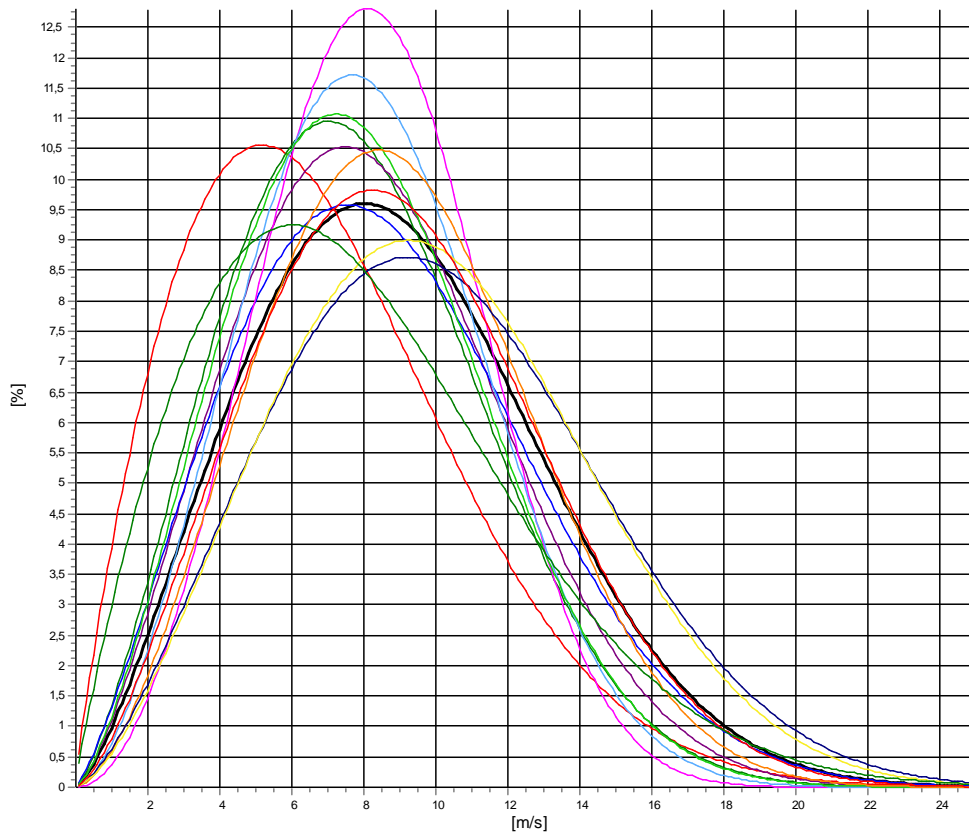
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **60,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,80	1,871	3,02	6,92
1-NNE	8,86	2,376	5,36	7,85
2-ENE	9,34	2,417	5,95	8,28
3-E	9,76	2,263	6,61	8,65
4-ESE	9,25	3,027	7,81	8,26
5-SSE	9,13	2,684	6,38	8,12
6-S	8,97	2,445	6,62	7,95
7-SSW	10,07	2,641	9,02	8,95
8-WSW	11,41	2,453	15,28	10,12
9-W	11,30	2,522	20,00	10,03
10-WNW	10,18	2,469	9,64	9,03
11-NNW	8,95	1,890	4,31	7,95
Mean	10,11	2,375	100,00	8,96



— All A: 10,1 m/s k: 2,37 Vm: 9,0 m/s	— N A: 7,8 m/s k: 1,87 Vm: 6,9 m/s	— NNE A: 8,9 m/s k: 2,38 Vm: 7,9 m/s	— ENE A: 9,3 m/s k: 2,42 Vm: 8,3 m/s
— E A: 9,8 m/s k: 2,26 Vm: 8,6 m/s	— ESE A: 9,3 m/s k: 3,03 Vm: 8,3 m/s	— SSE A: 9,1 m/s k: 2,68 Vm: 8,1 m/s	— S A: 9,0 m/s k: 2,45 Vm: 8,0 m/s
— SSW A: 10,1 m/s k: 2,64 Vm: 9,0 m/s	— WSW A: 11,4 m/s k: 2,45 Vm: 10,1 m/s	— W A: 11,3 m/s k: 2,52 Vm: 10,0 m/s	— WNW A: 10,2 m/s k: 2,47 Vm: 9,0 m/s
— NNW A: 9,0 m/s k: 1,89 Vm: 7,9 m/s			



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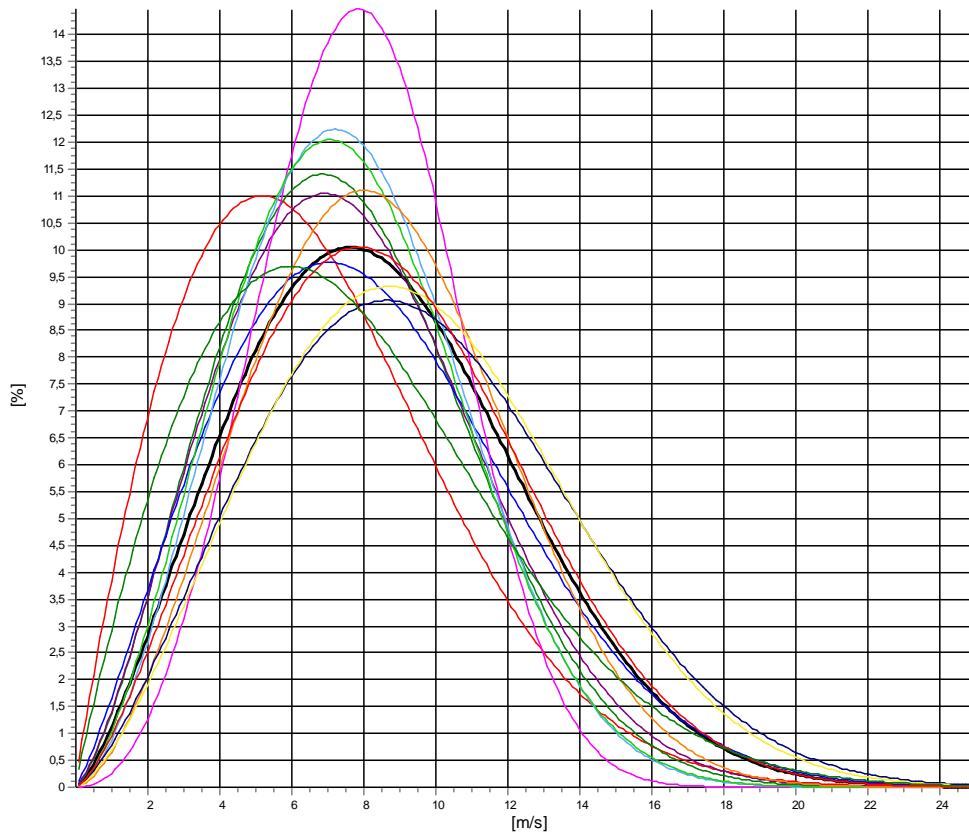
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **40,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,59	1,920	3,09	6,74
1-NNE	8,58	2,402	5,43	7,61
2-ENE	8,74	2,360	5,99	7,74
3-E	9,33	2,184	6,78	8,26
4-ESE	8,79	3,285	7,70	7,88
5-SSE	8,64	2,647	6,28	7,68
6-S	8,56	2,568	6,84	7,60
7-SSW	9,56	2,660	9,06	8,50
8-WSW	10,80	2,403	15,62	9,58
9-W	10,75	2,476	19,76	9,54
10-WNW	9,82	2,427	9,30	8,70
11-NNW	8,67	1,938	4,15	7,69
Mean	9,63	2,366	100,00	8,53



All A: 9,6 m/s k: 2,37 Vm: 8,5 m/s	N A: 7,6 m/s k: 1,92 Vm: 6,7 m/s	NNE A: 8,6 m/s k: 2,40 Vm: 7,6 m/s	ENE A: 8,7 m/s k: 2,36 Vm: 7,7 m/s
E A: 9,3 m/s k: 2,18 Vm: 8,3 m/s	ESE A: 8,8 m/s k: 3,29 Vm: 7,9 m/s	SSE A: 8,6 m/s k: 2,65 Vm: 7,7 m/s	SA A: 8,6 m/s k: 2,57 Vm: 7,6 m/s
SSW A: 9,6 m/s k: 2,66 Vm: 8,5 m/s	WSW A: 10,8 m/s k: 2,40 Vm: 9,6 m/s	W A: 10,8 m/s k: 2,48 Vm: 9,5 m/s	WNW A: 9,8 m/s k: 2,43 Vm: 8,7 m/s
NNW A: 8,7 m/s k: 1,94 Vm: 7,7 m/s			



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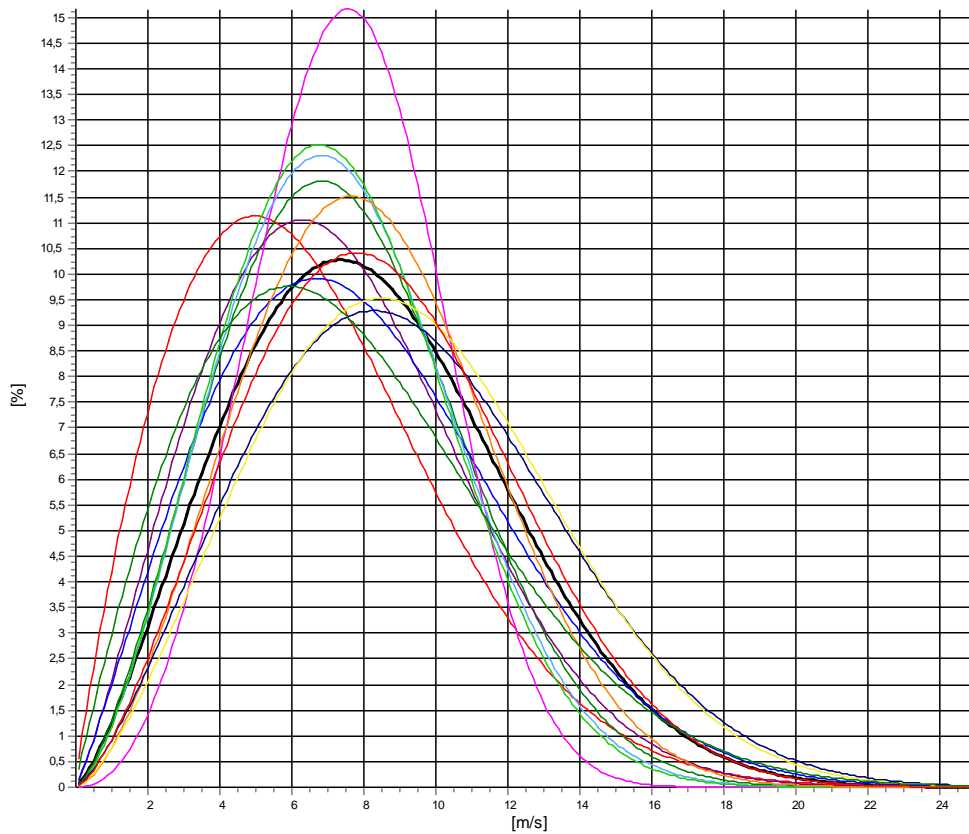
Meteo data report - Weibull data overview

Mast: Lot 3 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **30,00m** - Subst

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,43	1,887	3,07	6,60
1-NNE	8,44	2,461	5,55	7,49
2-ENE	8,29	2,202	5,93	7,34
3-E	9,01	2,123	6,95	7,98
4-ESE	8,45	3,309	7,61	7,58
5-SSE	8,31	2,542	6,22	7,38
6-S	8,22	2,558	6,90	7,30
7-SSW	9,17	2,641	9,04	8,15
8-WSW	10,44	2,373	15,75	9,26
9-W	10,48	2,465	19,65	9,29
10-WNW	9,61	2,473	9,24	8,53
11-NNW	8,61	1,937	4,08	7,64
Mean	9,33	2,339	100,00	8,27



All A: 9,3 m/s k: 2,34 Vm: 8,3 m/s	N A: 7,4 m/s k: 1,89 Vm: 6,6 m/s	NNE A: 8,4 m/s k: 2,46 Vm: 7,5 m/s	ENE A: 8,3 m/s k: 2,20 Vm: 7,3 m/s
E A: 9,0 m/s k: 2,12 Vm: 8,0 m/s	ESE A: 8,4 m/s k: 3,31 Vm: 7,6 m/s	SSE A: 8,3 m/s k: 2,54 Vm: 7,4 m/s	S A: 8,2 m/s k: 2,56 Vm: 7,3 m/s
SSW A: 9,2 m/s k: 2,64 Vm: 8,1 m/s	WSW A: 10,4 m/s k: 2,37 Vm: 9,3 m/s	W A: 10,5 m/s k: 2,47 Vm: 9,3 m/s	WNW A: 9,6 m/s k: 2,47 Vm: 8,5 m/s
NNW A: 8,6 m/s k: 1,94 Vm: 7,6 m/s			





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Thomas Sørensen / ts@emd.dk
Calculated:
06/03/2024 15.25

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

270,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			10,24	7,08	7,58	9,68	9,89	7,99	9,37	8,90	9,99	11,22	12,28	10,63	9,28
0		0,49	8	0	0	2	1	0	2	2	0	0	1	0	0
1	0,50	1,49	1207	94	102	79	86	118	109	103	104	87	86	129	110
2	1,50	2,49	2532	202	194	169	188	169	139	214	246	261	292	234	224
3	2,50	3,49	4150	242	298	364	340	272	280	275	303	449	605	416	306
4	3,50	4,49	5048	288	350	335	404	398	380	406	370	486	687	557	387
5	4,50	5,49	5827	383	356	441	464	303	422	519	592	625	715	642	365
6	5,50	6,49	6544	344	290	486	504	450	483	541	584	697	988	764	413
7	6,50	7,49	7144	411	282	557	458	551	564	427	515	840	1103	915	521
8	7,50	8,49	7144	261	215	556	498	583	471	414	543	738	1206	1169	490
9	8,50	9,49	6844	208	187	454	512	565	438	422	531	610	1271	1194	452
10	9,50	10,49	6328	197	158	366	501	488	438	409	436	590	1283	1039	423
11	10,50	11,49	6254	138	166	439	495	393	484	345	383	635	1446	924	406
12	11,50	12,49	5949	117	123	504	479	331	427	301	387	680	1347	891	362
13	12,50	13,49	5475	92	132	354	408	231	383	297	428	765	1250	848	287
14	13,50	14,49	5117	80	87	341	406	118	372	298	433	836	1152	754	240
15	14,50	15,49	4041	44	59	245	331	102	307	259	375	687	960	499	173
16	15,50	16,49	3017	31	69	223	206	49	191	155	192	526	813	427	135
17	16,50	17,49	2362	26	31	167	152	15	147	127	119	386	741	320	131
18	17,50	18,49	2114	20	27	156	170	2	82	92	115	363	725	234	128
19	18,50	19,49	1658	14	28	133	88	2	85	51	138	266	622	143	88
20	19,50	20,49	1358	3	17	83	87	1	41	30	160	227	494	141	74
21	20,50	21,49	924	1	11	37	56	0	9	22	95	164	354	124	51
22	21,50	22,49	676	0	8	14	24	0	0	5	55	129	291	116	34
23	22,50	23,49	533	0	12	11	22	0	0	3	30	98	231	118	8
24	23,50	24,49	460	0	4	10	10	0	0	2	25	71	223	102	13
25	24,50	25,49	399	0	4	15	14	0	0	2	28	56	200	76	4
26	25,50	26,49	270	0	4	2	14	0	0	1	18	38	147	42	4
27	26,50	27,49	182	0	2	2	19	0	0	0	18	24	87	29	1
28	27,50	28,49	137	0	0	0	12	0	0	1	15	22	56	29	2
29	28,50	29,49	107	0	0	0	4	0	0	1	5	18	55	24	0
30	29,50	30,49	95	0	0	0	0	0	0	0	2	14	54	25	0
31	30,50	31,49	80	0	0	0	0	0	0	0	0	13	53	14	0
32	31,50	32,49	57	0	0	0	0	0	0	0	0	6	45	6	0
33	32,50	33,49	40	0	0	0	0	0	0	0	0	2	38	0	0
34	33,50	34,49	34	0	0	0	0	0	0	0	0	1	33	0	0
35	34,50	35,49	6	0	0	0	0	0	0	0	0	1	5	0	0
36	35,50	36,49	1	0	0	0	0	0	0	0	0	0	1	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project:
Energy Island Baltic Sea

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Calculated:
06/03/2024 15.25

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

240,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			10,16	7,06	7,70	9,66	9,92	8,00	9,34	8,77	10,05	11,10	12,13	10,49	9,18
0		0,49	9	2	0	2	1	1	1	1	0	0	1	0	0
1	0,50	1,49	1227	87	107	90	87	130	106	111	89	94	80	126	120
2	1,50	2,49	2574	214	185	182	173	179	161	239	236	294	285	213	213
3	2,50	3,49	4203	250	290	361	314	287	290	305	295	466	598	432	315
4	3,50	4,49	5026	268	330	310	401	374	365	416	402	516	699	557	388
5	4,50	5,49	5910	382	362	462	463	301	436	524	619	615	749	639	358
6	5,50	6,49	6557	348	282	471	489	469	499	559	580	699	978	773	410
7	6,50	7,49	7205	382	282	552	452	556	551	446	538	842	1133	922	549
8	7,50	8,49	7144	275	218	549	494	599	446	409	555	688	1259	1188	464
9	8,50	9,49	6923	210	204	452	522	567	463	452	509	621	1237	1214	472
10	9,50	10,49	6491	199	164	387	524	483	431	390	464	646	1321	1062	420
11	10,50	11,49	6362	125	179	457	491	436	510	356	383	660	1474	880	411
12	11,50	12,49	5962	108	138	469	471	340	432	350	391	736	1310	874	343
13	12,50	13,49	5473	82	121	384	424	222	370	283	437	777	1257	859	257
14	13,50	14,49	5135	79	86	320	398	135	394	307	472	829	1151	732	232
15	14,50	15,49	3951	46	76	255	326	87	313	232	363	686	936	461	170
16	15,50	16,49	3000	30	63	237	220	56	196	158	197	514	789	404	136
17	16,50	17,49	2450	22	34	174	158	11	149	111	143	441	743	325	139
18	17,50	18,49	2051	25	17	159	144	2	94	90	147	353	682	219	119
19	18,50	19,49	1652	12	33	133	100	1	80	49	147	258	618	138	83
20	19,50	20,49	1252	5	21	71	77	5	19	42	150	221	445	129	67
21	20,50	21,49	915	1	13	40	51	0	6	7	81	164	372	123	57
22	21,50	22,49	604	0	10	8	22	0	0	6	57	117	242	123	19
23	22,50	23,49	505	0	7	10	24	0	0	1	37	93	220	101	12
24	23,50	24,49	458	0	8	10	9	0	0	0	33	62	229	98	9
25	24,50	25,49	357	1	3	9	16	0	0	4	22	56	185	54	7
26	25,50	26,49	219	0	5	2	16	0	0	2	23	23	119	27	2
27	26,50	27,49	175	0	3	0	17	0	0	0	17	28	80	28	2
28	27,50	28,49	124	0	0	0	11	0	0	1	11	16	62	22	1
29	28,50	29,49	121	0	0	0	1	0	0	0	9	14	69	28	0
30	29,50	30,49	86	0	0	0	0	0	0	0	0	20	51	14	1
31	30,50	31,49	52	0	0	0	0	0	0	0	0	3	41	8	0
32	31,50	32,49	44	0	0	0	0	0	0	0	0	1	39	4	0
33	32,50	33,49	35	0	0	0	0	0	0	0	0	0	35	0	0
34	33,50	34,49	14	0	0	0	0	0	0	0	0	1	12	1	0
35	34,50	35,49	4	0	0	0	0	0	0	0	0	1	3	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project: Energy Island Baltic Sea

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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and values for bins 0 to 41.





Project:
Energy Island Baltic Sea

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Calculated:
06/03/2024 15.25

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

180,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,96	7,02	7,68	9,65	9,78	8,19	9,24	8,64	10,08	10,81	11,76	10,07	8,91
0		0,49	15	3	1	2	1	1	1	0	2	0	0	3	1
1	0,50	1,49	1175	89	93	99	102	94	100	87	104	93	75	139	100
2	1,50	2,49	2685	177	197	183	166	184	192	248	249	314	312	211	252
3	2,50	3,49	4206	264	297	347	281	321	302	302	304	445	581	441	321
4	3,50	4,49	5128	279	305	307	404	346	362	420	445	547	701	632	380
5	4,50	5,49	6085	379	405	460	476	288	454	535	629	671	783	623	382
6	5,50	6,49	6545	347	282	461	503	449	508	596	564	714	1003	741	377
7	6,50	7,49	7395	343	295	560	466	567	589	460	522	869	1187	1014	523
8	7,50	8,49	7371	302	219	550	507	610	489	448	567	724	1313	1171	471
9	8,50	9,49	7131	198	220	489	536	602	444	483	484	634	1397	1188	456
10	9,50	10,49	6656	182	193	382	564	506	416	411	519	675	1418	1008	382
11	10,50	11,49	6462	127	163	474	503	489	500	358	385	715	1459	902	387
12	11,50	12,49	6158	105	133	533	464	385	460	347	445	777	1378	808	323
13	12,50	13,49	5736	107	151	350	492	228	434	280	527	822	1309	784	252
14	13,50	14,49	5044	62	86	335	406	141	401	295	549	830	1091	637	211
15	14,50	15,49	3823	31	79	258	314	106	340	198	336	648	934	413	166
16	15,50	16,49	3024	44	42	289	194	56	222	133	222	532	790	367	133
17	16,50	17,49	2485	23	29	208	153	15	137	100	202	484	746	275	113
18	17,50	18,49	1931	18	32	149	108	6	89	94	199	330	637	170	99
19	18,50	19,49	1503	10	31	119	91	11	25	57	163	232	544	138	82
20	19,50	20,49	1079	0	17	62	71	1	7	20	106	204	382	147	62
21	20,50	21,49	712	1	10	17	25	3	1	4	78	130	299	115	29
22	21,50	22,49	526	0	9	16	26	2	0	2	57	87	248	67	12
23	22,50	23,49	430	0	15	9	15	0	0	4	42	57	201	75	12
24	23,50	24,49	341	0	7	1	12	0	0	5	28	44	199	43	2
25	24,50	25,49	258	0	3	2	14	0	0	2	22	34	139	41	1
26	25,50	26,49	196	0	3	0	19	0	0	3	11	31	97	30	2
27	26,50	27,49	134	0	0	0	12	0	0	0	18	17	63	23	1
28	27,50	28,49	91	0	0	0	6	0	0	0	6	10	52	17	0
29	28,50	29,49	84	0	0	0	1	0	0	0	1	9	58	15	0
30	29,50	30,49	39	0	0	0	0	0	0	0	0	2	32	5	0
31	30,50	31,49	42	0	0	0	0	0	0	0	0	0	42	0	0
32	31,50	32,49	21	0	0	0	0	0	0	0	0	0	21	0	0
33	32,50	33,49	6	0	0	0	0	0	0	0	0	2	4	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project:
Energy Island Baltic Sea

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Calculated:
06/03/2024 15.25

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

150,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,81	6,99	7,69	9,59	9,66	8,24	9,12	8,63	9,97	10,57	11,55	9,81	8,79
0		0,49	10	1	1	1	1	1	0	2	0	0	0	1	2
1	0,50	1,49	1181	100	84	98	97	80	91	87	111	106	93	132	102
2	1,50	2,49	2718	174	195	201	185	187	183	219	266	308	315	232	253
3	2,50	3,49	4308	252	304	339	308	363	336	299	311	467	565	462	302
4	3,50	4,49	5103	261	339	315	368	325	381	450	448	543	639	638	396
5	4,50	5,49	6146	379	370	479	468	301	452	530	675	638	816	655	383
6	5,50	6,49	6675	324	300	464	499	472	525	576	596	759	1040	774	346
7	6,50	7,49	7414	350	282	573	450	511	584	489	535	854	1248	1012	526
8	7,50	8,49	7624	293	232	588	501	629	542	470	573	754	1386	1196	460
9	8,50	9,49	7288	199	249	477	583	615	480	482	522	628	1523	1119	411
10	9,50	10,49	6770	162	189	403	602	545	440	416	505	690	1414	979	425
11	10,50	11,49	6558	128	157	498	537	439	506	373	437	789	1437	888	369
12	11,50	12,49	6428	121	166	515	504	383	497	331	506	858	1456	810	281
13	12,50	13,49	5827	93	136	396	466	254	468	299	612	823	1259	755	266
14	13,50	14,49	4952	53	92	318	371	162	430	284	562	810	1112	553	205
15	14,50	15,49	3810	31	81	319	324	102	311	190	305	662	927	392	166
16	15,50	16,49	3073	32	41	312	211	58	190	127	268	558	808	340	128
17	16,50	17,49	2302	27	29	185	117	35	113	114	221	422	694	255	90
18	17,50	18,49	1813	23	30	138	95	16	66	102	193	283	606	168	93
19	18,50	19,49	1346	5	32	106	90	2	14	39	150	243	458	123	84
20	19,50	20,49	976	1	22	54	53	1	5	20	97	153	404	120	46
21	20,50	21,49	576	1	9	16	11	3	0	2	76	87	263	88	20
22	21,50	22,49	462	0	14	11	20	1	0	6	49	50	219	82	10
23	22,50	23,49	378	1	8	3	12	0	0	6	36	41	213	52	6
24	23,50	24,49	315	0	6	1	15	0	0	3	24	47	186	31	2
25	24,50	25,49	208	0	2	0	15	0	0	1	11	33	116	29	1
26	25,50	26,49	157	0	0	0	20	0	0	0	13	13	90	20	1
27	26,50	27,49	95	0	0	0	10	0	0	0	8	16	47	14	0
28	27,50	28,49	85	0	0	0	2	0	0	0	2	4	57	20	0
29	28,50	29,49	47	0	0	0	1	0	0	0	0	3	40	3	0
30	29,50	30,49	33	0	0	0	0	0	0	0	0	0	32	1	0
31	30,50	31,49	23	0	0	0	0	0	0	0	0	3	20	0	0
32	31,50	32,49	7	0	0	0	0	0	0	0	0	1	6	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project:
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Calculated:
06/03/2024 15.25

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

120,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,62	6,95	7,63	9,51	9,53	8,26	8,96	8,53	9,86	10,28	11,23	9,53	8,60
0		0,49	10	0	1	0	2	2	0	0	0	2	1	1	1
1	0,50	1,49	1267	99	89	107	79	97	95	102	119	121	103	151	105
2	1,50	2,49	2782	191	208	222	177	204	185	206	270	288	327	243	261
3	2,50	3,49	4333	257	302	317	321	337	342	309	318	481	578	485	286
4	3,50	4,49	5151	249	362	329	361	339	389	466	466	534	633	623	400
5	4,50	5,49	6209	334	359	480	453	311	451	552	683	636	884	664	402
6	5,50	6,49	6876	324	325	444	514	517	519	573	628	778	1095	827	332
7	6,50	7,49	7464	326	278	559	489	506	563	492	566	885	1314	1024	462
8	7,50	8,49	7854	281	251	634	481	648	566	507	588	757	1501	1166	474
9	8,50	9,49	7568	206	270	494	615	676	546	497	568	679	1517	1090	410
10	9,50	10,49	7032	150	213	454	639	552	485	422	517	745	1451	975	429
11	10,50	11,49	6876	122	159	518	558	435	514	367	530	886	1577	862	348
12	11,50	12,49	6552	120	173	540	484	353	520	376	577	931	1436	797	245
13	12,50	13,49	5884	78	128	419	426	264	492	290	681	845	1287	703	271
14	13,50	14,49	4818	43	105	358	372	165	444	283	499	772	1106	497	174
15	14,50	15,49	3927	36	72	397	339	138	250	200	378	665	914	378	160
16	15,50	16,49	2748	39	47	231	181	65	145	141	259	489	775	285	91
17	16,50	17,49	2212	34	24	189	105	55	93	126	214	348	669	258	97
18	17,50	18,49	1611	16	30	138	83	11	34	57	202	270	549	129	92
19	18,50	19,49	1093	2	34	68	68	1	6	23	134	161	429	107	60
20	19,50	20,49	765	1	22	32	30	3	1	11	101	97	334	100	33
21	20,50	21,49	461	2	13	13	6	1	0	4	58	46	222	76	20
22	21,50	22,49	401	0	10	1	22	0	0	4	38	40	210	69	7
23	22,50	23,49	357	0	6	0	12	0	0	5	29	57	209	35	4
24	23,50	24,49	237	0	0	2	21	0	0	1	9	41	136	26	1
25	24,50	25,49	151	0	2	0	16	0	0	0	8	12	97	16	0
26	25,50	26,49	111	0	0	0	13	0	0	0	10	14	57	16	1
27	26,50	27,49	76	0	0	0	7	0	0	0	5	4	46	14	0
28	27,50	28,49	48	0	0	0	2	0	0	0	2	1	40	3	0
29	28,50	29,49	33	0	0	0	0	0	0	0	0	1	31	1	0
30	29,50	30,49	28	0	0	0	0	0	0	0	0	2	25	1	0
31	30,50	31,49	1	0	0	0	0	0	0	0	0	0	1	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	1	0	0	0	0	0	0	0	0	1	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





Project: Energy Island Baltic Sea

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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. It contains frequency data for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

90,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,34	6,84	7,48	9,35	9,25	8,28	8,69	8,45	9,57	9,91	10,75	9,25	8,38
0		0,49	7	1	1	0	2	0	0	0	0	1	0	1	1
1	0,50	1,49	1440	97	121	126	105	100	104	119	134	129	121	163	121
2	1,50	2,49	2906	207	230	214	179	195	191	203	273	298	363	299	254
3	2,50	3,49	4312	257	303	337	296	324	349	336	325	459	586	449	291
4	3,50	4,49	5468	268	370	324	381	354	399	452	513	551	708	672	476
5	4,50	5,49	6309	305	363	464	496	307	449	554	704	670	967	659	371
6	5,50	6,49	7258	315	344	458	514	552	503	610	657	828	1213	904	360
7	6,50	7,49	7831	334	275	611	534	544	555	524	610	935	1491	1010	408
8	7,50	8,49	8324	285	303	619	584	718	589	570	611	831	1651	1102	461
9	8,50	9,49	8056	195	299	572	742	704	582	569	612	735	1576	1055	415
10	9,50	10,49	7471	148	205	565	691	559	544	381	525	862	1589	1008	394
11	10,50	11,49	7262	147	145	590	511	449	522	427	675	1005	1638	810	343
12	11,50	12,49	6959	97	189	620	475	413	531	482	712	960	1478	755	247
13	12,50	13,49	5857	66	147	421	492	243	497	342	670	825	1287	638	229
14	13,50	14,49	4681	33	96	456	350	147	370	264	548	749	1061	433	174
15	14,50	15,49	3551	39	76	311	241	172	175	212	355	590	897	342	141
16	15,50	16,49	2449	39	34	217	149	89	105	143	206	398	681	312	76
17	16,50	17,49	1825	27	31	155	71	30	54	69	205	318	601	170	94
18	17,50	18,49	1273	14	39	86	73	0	8	39	167	179	465	114	89
19	18,50	19,49	908	1	32	45	65	1	0	14	114	92	383	104	57
20	19,50	20,49	577	2	15	15	21	3	0	9	64	66	255	100	27
21	20,50	21,49	409	1	10	6	14	1	0	4	34	34	239	57	9
22	21,50	22,49	330	0	6	3	15	0	0	3	23	51	186	35	8
23	22,50	23,49	245	0	0	2	18	0	0	0	6	41	144	31	3
24	23,50	24,49	160	0	0	1	20	0	0	0	8	17	98	16	0
25	24,50	25,49	118	0	0	1	15	0	0	0	12	15	58	17	0
26	25,50	26,49	86	0	0	2	10	0	0	0	6	3	51	14	0
27	26,50	27,49	42	0	0	1	0	0	0	0	0	2	33	6	0
28	27,50	28,49	31	0	0	0	1	0	0	0	0	0	29	1	0
29	28,50	29,49	16	0	0	0	0	0	0	0	0	1	14	1	0
30	29,50	30,49	3	0	0	0	0	0	0	0	0	1	2	0	0
31	30,50	31,49	3	0	0	0	0	0	0	0	0	1	2	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.25

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

60,00m - Subst															
Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			8,95	6,76	7,28	9,02	8,79	8,18	8,26	8,06	9,08	9,45	10,21	8,97	8,11
0		0,49	8	0	1	1	0	0	0	0	0	2	3	0	1
1	0,50	1,49	1586	107	146	141	108	137	108	116	139	152	131	175	126
2	1,50	2,49	3024	195	233	207	198	182	211	242	261	339	389	292	275
3	2,50	3,49	4425	250	338	352	327	346	337	344	348	473	586	433	291
4	3,50	4,49	5727	296	312	337	429	333	420	475	538	584	822	707	474
5	4,50	5,49	6756	328	373	441	505	312	490	611	755	758	1118	689	376
6	5,50	6,49	7635	295	368	483	619	577	492	654	647	869	1364	906	361
7	6,50	7,49	8312	326	335	683	562	617	595	558	679	984	1593	987	393
8	7,50	8,49	8916	291	332	713	674	800	662	637	704	857	1739	1061	446
9	8,50	9,49	8478	195	281	640	864	676	591	566	596	888	1724	1068	389
10	9,50	10,49	8335	133	225	697	653	650	599	439	732	1017	1774	1025	391
11	10,50	11,49	7826	138	151	651	535	596	513	592	862	1031	1676	777	304
12	11,50	12,49	6865	96	189	641	500	479	480	403	791	887	1515	665	219
13	12,50	13,49	5405	63	158	468	350	241	404	302	633	818	1235	515	218
14	13,50	14,49	3954	31	94	331	248	193	265	259	403	663	898	416	153
15	14,50	15,49	2819	41	46	244	161	103	122	161	284	483	767	311	96
16	15,50	16,49	1934	37	22	196	83	24	36	69	195	334	619	238	81
17	16,50	17,49	1372	31	43	90	61	0	13	29	133	218	512	144	98
18	17,50	18,49	996	10	34	51	85	0	1	12	89	115	399	120	80
19	18,50	19,49	650	2	23	30	45	1	0	5	50	75	286	100	33
20	19,50	20,49	410	0	8	4	15	1	0	1	18	44	238	63	18
21	20,50	21,49	307	0	4	3	18	1	0	0	6	50	172	44	9
22	21,50	22,49	234	0	0	2	17	0	0	0	4	33	137	38	3
23	22,50	23,49	157	0	0	1	19	0	0	0	9	20	92	15	1
24	23,50	24,49	144	0	0	1	20	0	0	0	13	12	76	22	0
25	24,50	25,49	75	0	0	0	14	0	0	0	6	8	39	8	0
26	25,50	26,49	37	0	0	0	3	0	0	0	0	2	28	4	0
27	26,50	27,49	31	0	0	0	1	0	0	0	0	0	30	0	0
28	27,50	28,49	8	0	0	0	0	0	0	0	0	0	7	1	0
29	28,50	29,49	5	0	0	0	0	0	0	0	0	2	3	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Calculated:
06/03/2024 15.25

Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind speed bins (0 to 41).





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Calculated:
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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Frequency distribution (TAB file data)

30,00m - Subst

Bin	Start	End	Sum	0-N	1-NNE	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			8,30	6,46	7,01	8,35	8,06	7,45	7,49	7,35	8,30	8,72	9,48	8,55	7,77
0		0,49	3	1	0	0	2	0	0	0	0	0	0	0	0
1	0,50	1,49	1640	113	141	146	118	122	118	159	127	159	137	174	126
2	1,50	2,49	3384	217	265	256	211	224	254	257	288	396	403	307	306
3	2,50	3,49	5113	277	327	375	353	403	347	404	439	558	758	514	358
4	3,50	4,49	6307	286	335	393	488	358	482	611	613	737	894	693	417
5	4,50	5,49	7894	340	385	508	651	418	595	766	825	923	1333	762	388
6	5,50	6,49	8802	331	386	619	665	718	658	708	760	1018	1678	900	361
7	6,50	7,49	9232	320	389	852	765	777	720	541	814	1061	1758	891	344
8	7,50	8,49	10086	268	329	920	916	966	694	682	748	985	1992	1056	530
9	8,50	9,49	9681	190	258	923	851	888	593	797	941	999	1841	1041	359
10	9,50	10,49	8765	117	219	815	654	736	530	473	1055	1008	1891	915	352
11	10,50	11,49	6747	108	186	534	328	432	385	431	783	986	1608	693	273
12	11,50	12,49	5479	87	199	488	302	219	360	300	611	849	1245	608	211
13	12,50	13,49	3960	61	115	318	228	98	248	251	434	635	901	475	196
14	13,50	14,49	2962	38	45	262	165	62	137	167	246	507	850	361	122
15	14,50	15,49	1998	36	35	200	101	17	47	52	147	389	629	258	87
16	15,50	16,49	1416	27	53	101	63	2	14	19	104	224	555	166	88
17	16,50	17,49	1016	18	45	60	89	0	3	9	73	116	402	111	90
18	17,50	18,49	592	2	18	23	54	1	0	2	21	68	282	83	38
19	18,50	19,49	404	2	4	2	16	3	0	0	12	39	235	68	23
20	19,50	20,49	266	0	0	2	19	1	0	0	4	39	142	48	11
21	20,50	21,49	225	0	0	4	19	0	0	0	12	35	121	29	5
22	21,50	22,49	165	0	0	1	21	0	0	0	13	19	96	15	0
23	22,50	23,49	111	0	0	4	19	0	0	0	9	4	59	16	0
24	23,50	24,49	52	0	0	0	8	0	0	0	3	2	38	1	0
25	24,50	25,49	18	0	0	0	1	0	0	0	0	2	15	0	0
26	25,50	26,49	13	0	0	0	0	0	0	0	0	0	13	0	0
27	26,50	27,49	3	0	0	0	0	0	0	0	0	1	2	0	0
28	27,50	28,49	2	0	0	0	0	0	0	0	0	2	0	0	0
29	28,50	29,49	0	0	0	0	0	0	0	0	0	0	0	0	0
30	29,50	30,49	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30,50	31,49	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31,50	32,49	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32,50	33,49	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33,50	34,49	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36,50	37,49	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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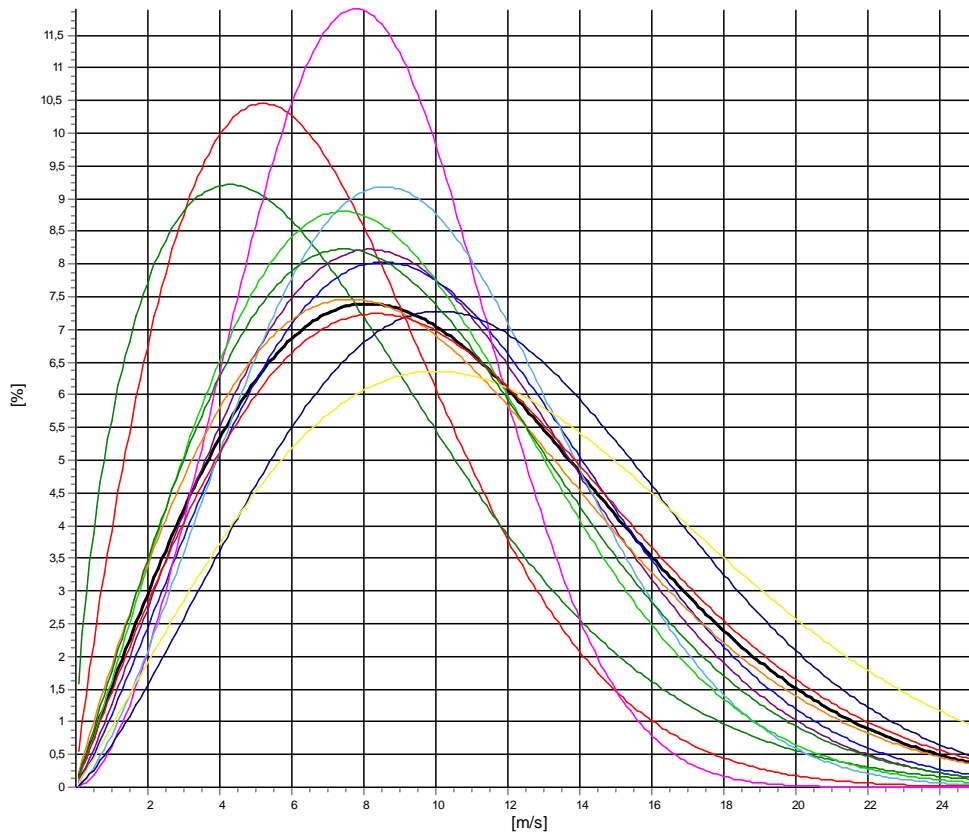
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **270,00m - Subst**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,85	1,865	3,40	6,97
1-NNE	8,19	1,565	3,42	7,36
2-ENE	10,95	2,147	6,95	9,70
3-E	11,33	2,178	7,39	10,03
4-ESE	9,17	2,751	5,46	8,16
5-SSE	10,70	2,413	6,64	9,48
6-S	10,09	2,106	6,08	8,93
7-SSW	11,20	1,919	7,70	9,93
8-WSW	12,97	2,293	12,12	11,49
9-W	13,77	2,063	20,89	12,20
10-WNW	11,82	1,994	13,75	10,48
11-NNW	10,47	2,015	6,20	9,28
Mean	11,56	1,990	100,00	10,24



All A: 11,6 m/s k: 1,99 Vm: 10,2 m/s	N A: 7,9 m/s k: 1,86 Vm: 7,0 m/s	NNE A: 8,2 m/s k: 1,56 Vm: 7,4 m/s	ENE A: 11,0 m/s k: 2,15 Vm: 9,7 m/s
E A: 11,3 m/s k: 2,18 Vm: 10,0 m/s	ESE A: 9,2 m/s k: 2,75 Vm: 8,2 m/s	SSE A: 10,7 m/s k: 2,41 Vm: 9,5 m/s	S A: 10,1 m/s k: 2,11 Vm: 8,9 m/s
SSW A: 11,2 m/s k: 1,92 Vm: 9,9 m/s	WSW A: 13,0 m/s k: 2,29 Vm: 11,5 m/s	W A: 13,8 m/s k: 2,06 Vm: 12,2 m/s	WNW A: 11,8 m/s k: 1,99 Vm: 10,5 m/s
NNW A: 10,5 m/s k: 2,01 Vm: 9,3 m/s			





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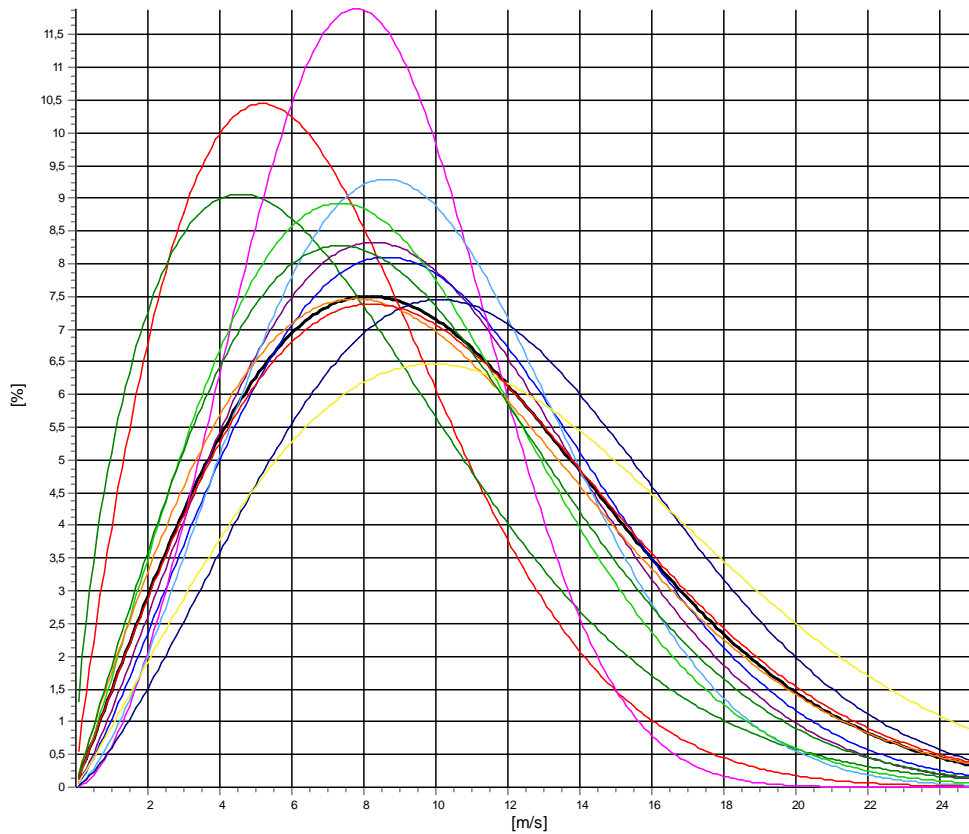
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **240,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,85	1,860	3,34	6,97
1-NNE	8,41	1,604	3,44	7,54
2-ENE	10,95	2,185	6,95	9,70
3-E	11,35	2,210	7,32	10,05
4-ESE	9,18	2,753	5,56	8,17
5-SSE	10,68	2,444	6,70	9,47
6-S	9,95	2,106	6,21	8,81
7-SSW	11,28	1,941	7,86	10,00
8-WSW	12,85	2,336	12,26	11,39
9-W	13,60	2,076	20,69	12,05
10-WNW	11,63	2,002	13,55	10,30
11-NNW	10,37	2,002	6,13	9,19
Mean	11,48	2,013	100,00	10,17



All A: 11,5 m/s k: 2,01 Vm: 10,2 m/s	N A: 7,8 m/s k: 1,86 Vm: 7,0 m/s	NNE A: 8,4 m/s k: 1,60 Vm: 7,5 m/s	ENE A: 10,9 m/s k: 2,19 Vm: 9,7 m/s
E A: 11,3 m/s k: 2,21 Vm: 10,0 m/s	ESE A: 9,2 m/s k: 2,75 Vm: 8,2 m/s	SSE A: 10,7 m/s k: 2,44 Vm: 9,5 m/s	S A: 10,0 m/s k: 2,11 Vm: 8,8 m/s
SSW A: 11,3 m/s k: 1,94 Vm: 10,0 m/s	WSW A: 12,9 m/s k: 2,34 Vm: 11,4 m/s	W A: 13,6 m/s k: 2,08 Vm: 12,0 m/s	WNW A: 11,6 m/s k: 2,00 Vm: 10,3 m/s
NNW A: 10,4 m/s k: 2,00 Vm: 9,2 m/s			





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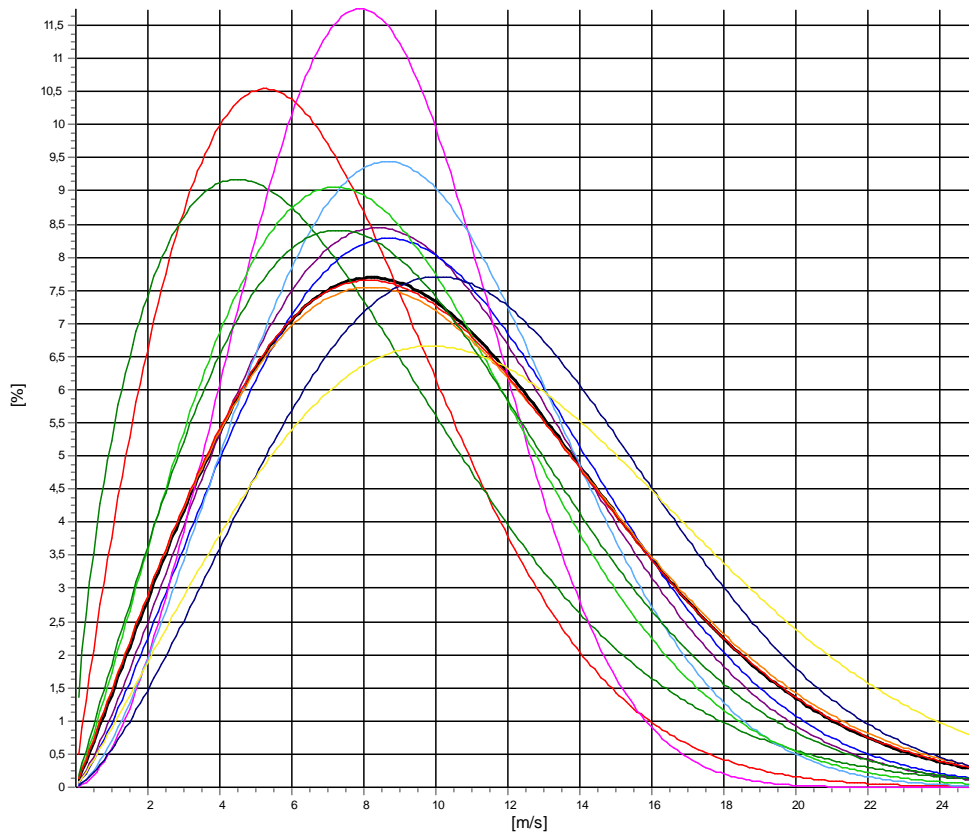
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **200,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,86	1,891	3,30	6,97
1-NNE	8,30	1,600	3,46	7,44
2-ENE	10,94	2,226	6,97	9,69
3-E	11,27	2,257	7,38	9,98
4-ESE	9,32	2,760	5,69	8,29
5-SSE	10,64	2,485	6,79	9,44
6-S	9,80	2,104	6,24	8,68
7-SSW	11,44	2,022	8,05	10,14
8-WSW	12,63	2,384	12,35	11,19
9-W	13,37	2,113	20,55	11,84
10-WNW	11,34	2,037	13,29	10,05
11-NNW	10,24	2,013	5,94	9,08
Mean	11,36	2,056	100,00	10,06



All A: 11,4 m/s k: 2,06 Vm: 10,1 m/s	N A: 7,9 m/s k: 1,89 Vm: 7,0 m/s	NNE A: 8,3 m/s k: 1,60 Vm: 7,4 m/s	ENE A: 10,9 m/s k: 2,23 Vm: 9,7 m/s
E A: 11,3 m/s k: 2,26 Vm: 10,0 m/s	ESE A: 9,3 m/s k: 2,76 Vm: 8,3 m/s	SSE A: 10,6 m/s k: 2,48 Vm: 9,4 m/s	S A: 9,8 m/s k: 2,10 Vm: 8,7 m/s
SSW A: 11,4 m/s k: 2,02 Vm: 10,1 m/s	WSW A: 12,6 m/s k: 2,38 Vm: 11,2 m/s	W A: 13,4 m/s k: 2,11 Vm: 11,8 m/s	WNW A: 11,3 m/s k: 2,04 Vm: 10,1 m/s
NNW A: 10,2 m/s k: 2,01 Vm: 9,1 m/s			





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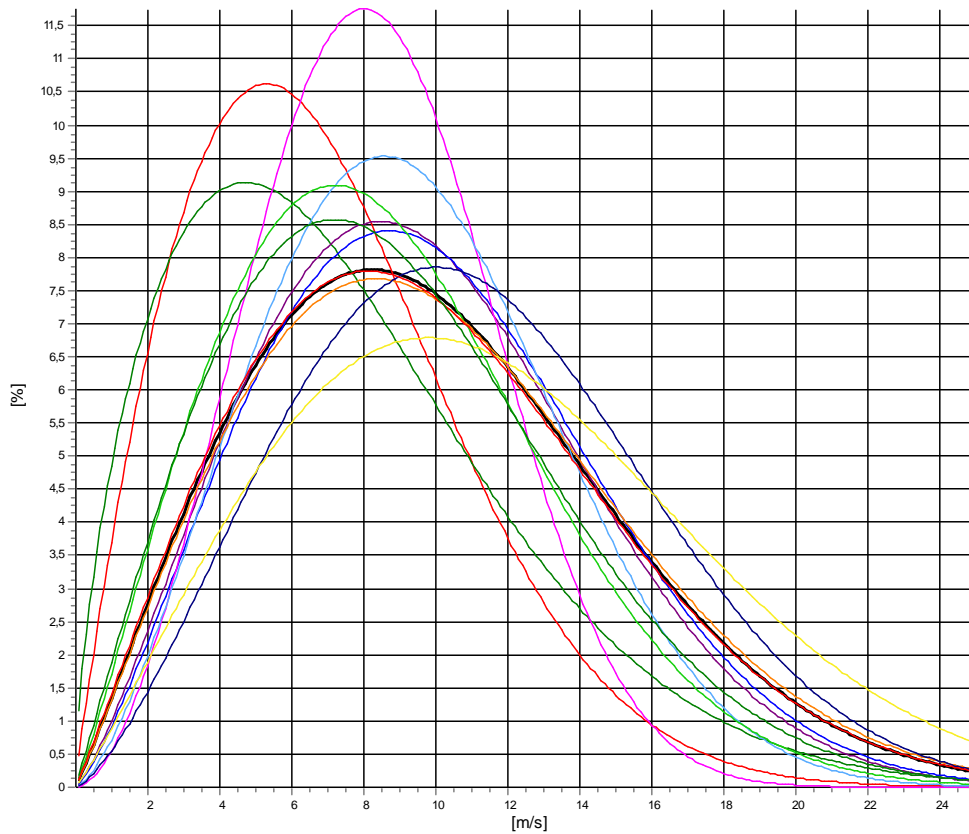
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **180,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,84	1,907	3,27	6,95
1-NNE	8,42	1,639	3,51	7,53
2-ENE	10,96	2,267	7,05	9,71
3-E	11,21	2,285	7,33	9,93
4-ESE	9,40	2,792	5,72	8,37
5-SSE	10,54	2,484	6,85	9,35
6-S	9,78	2,110	6,23	8,66
7-SSW	11,45	2,077	8,24	10,14
8-WSW	12,50	2,412	12,36	11,08
9-W	13,19	2,130	20,63	11,68
10-WNW	11,23	2,061	12,95	9,94
11-NNW	10,08	2,023	5,85	8,93
Mean	11,28	2,084	100,00	9,99



All A: 11,3 m/s k: 2,08 Vm: 10,0 m/s	N A: 7,8 m/s k: 1,91 Vm: 7,0 m/s	NNE A: 8,4 m/s k: 1,64 Vm: 7,5 m/s	ENE A: 11,0 m/s k: 2,27 Vm: 9,7 m/s
E A: 11,2 m/s k: 2,29 Vm: 9,9 m/s	ESE A: 9,4 m/s k: 2,79 Vm: 8,4 m/s	SSE A: 10,5 m/s k: 2,48 Vm: 9,4 m/s	S A: 9,8 m/s k: 2,11 Vm: 8,7 m/s
SSW A: 11,5 m/s k: 2,08 Vm: 10,1 m/s	WSW A: 12,5 m/s k: 2,41 Vm: 11,1 m/s	W A: 13,2 m/s k: 2,13 Vm: 11,7 m/s	WNW A: 11,2 m/s k: 2,06 Vm: 9,9 m/s
NNW A: 10,1 m/s k: 2,02 Vm: 8,9 m/s			



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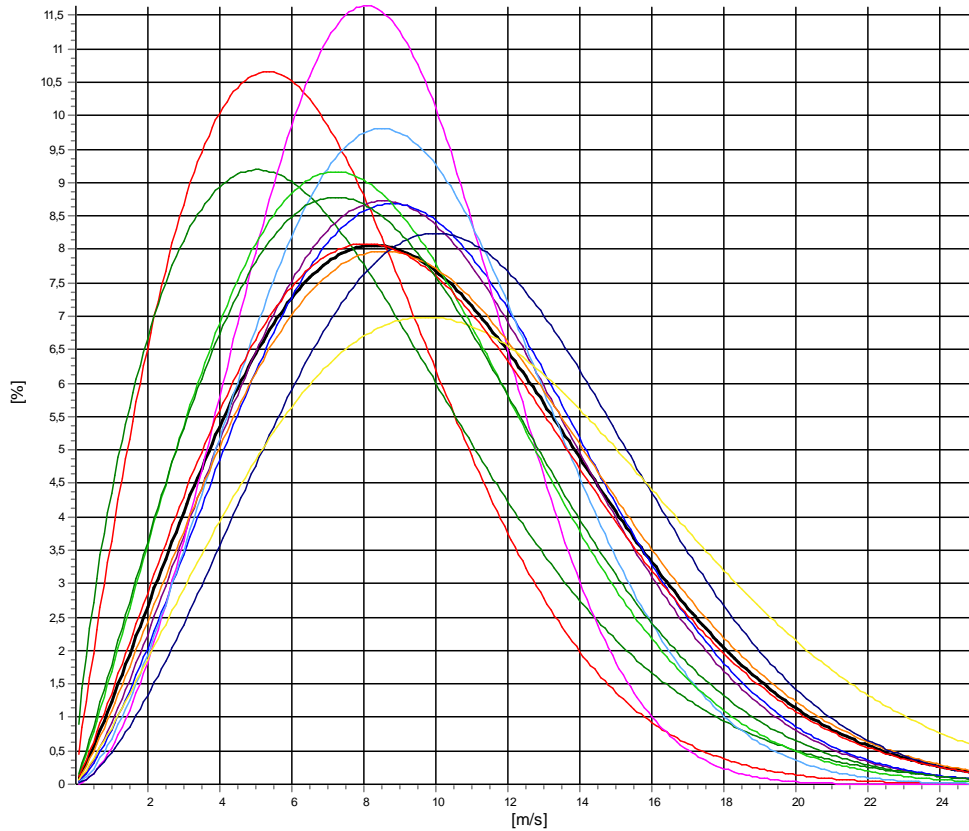
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **150,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,83	1,917	3,18	6,95
1-NNE	8,51	1,701	3,56	7,59
2-ENE	10,91	2,317	7,19	9,66
3-E	11,11	2,359	7,32	9,85
4-ESE	9,47	2,783	5,79	8,43
5-SSE	10,39	2,529	6,98	9,22
6-S	9,75	2,122	6,25	8,63
7-SSW	11,39	2,175	8,57	10,09
8-WSW	12,27	2,504	12,30	10,88
9-W	12,96	2,166	20,58	11,48
10-WNW	10,97	2,103	12,61	9,72
11-NNW	9,97	2,062	5,67	8,83
Mean	11,14	2,140	100,00	9,87



All A: 11,1 m/s k: 2,14 Vm: 9,9 m/s	N A: 7,8 m/s k: 1,92 Vm: 6,9 m/s	NNE A: 8,5 m/s k: 1,70 Vm: 7,6 m/s	ENE A: 10,9 m/s k: 2,32 Vm: 9,7 m/s
E A: 11,1 m/s k: 2,36 Vm: 9,8 m/s	ESE A: 9,5 m/s k: 2,78 Vm: 8,4 m/s	SSE A: 10,4 m/s k: 2,53 Vm: 9,2 m/s	S A: 9,7 m/s k: 2,12 Vm: 8,6 m/s
SSW A: 11,4 m/s k: 2,18 Vm: 10,1 m/s	WSW A: 12,3 m/s k: 2,50 Vm: 10,9 m/s	W A: 13,0 m/s k: 2,17 Vm: 11,5 m/s	WNW A: 11,0 m/s k: 2,10 Vm: 9,7 m/s
NNW A: 10,0 m/s k: 2,06 Vm: 8,8 m/s			



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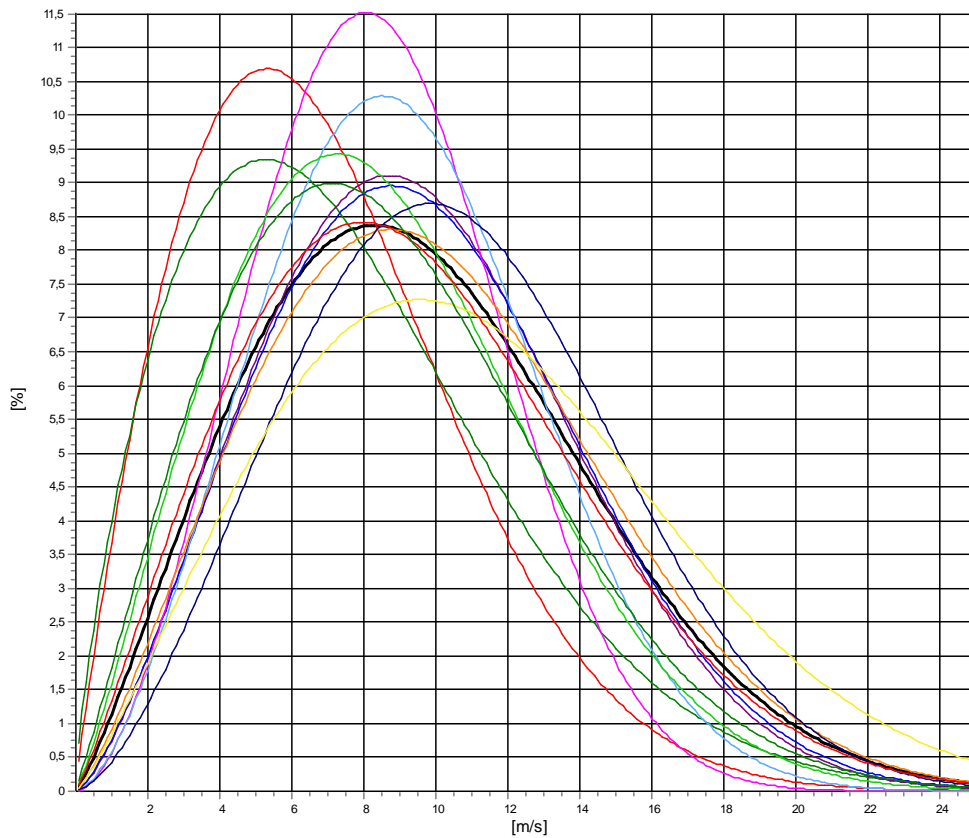
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **120,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,81	1,917	3,07	6,93
1-NNE	8,51	1,760	3,67	7,58
2-ENE	10,84	2,430	7,32	9,61
3-E	10,96	2,409	7,24	9,71
4-ESE	9,50	2,756	5,98	8,45
5-SSE	10,23	2,631	6,99	9,09
6-S	9,64	2,173	6,33	8,53
7-SSW	11,31	2,277	8,91	10,01
8-WSW	11,91	2,580	12,21	10,58
9-W	12,60	2,200	20,60	11,16
10-WNW	10,69	2,145	12,24	9,47
11-NNW	9,78	2,076	5,44	8,66
Mean	10,94	2,200	100,00	9,69



All A: 10,9 m/s k: 2,20 Vm: 9,7 m/s	N A: 7,8 m/s k: 1,92 Vm: 6,9 m/s	NNE A: 8,5 m/s k: 1,76 Vm: 7,6 m/s	ENE A: 10,8 m/s k: 2,43 Vm: 9,6 m/s
E A: 11,0 m/s k: 2,41 Vm: 9,7 m/s	ESE A: 9,5 m/s k: 2,76 Vm: 8,5 m/s	SSE A: 10,2 m/s k: 2,63 Vm: 9,1 m/s	S A: 9,6 m/s k: 2,17 Vm: 8,5 m/s
SSW A: 11,3 m/s k: 2,28 Vm: 10,0 m/s	WSW A: 11,9 m/s k: 2,58 Vm: 10,6 m/s	W A: 12,6 m/s k: 2,20 Vm: 11,2 m/s	WNW A: 10,7 m/s k: 2,15 Vm: 9,5 m/s
NNW A: 9,8 m/s k: 2,08 Vm: 8,7 m/s			



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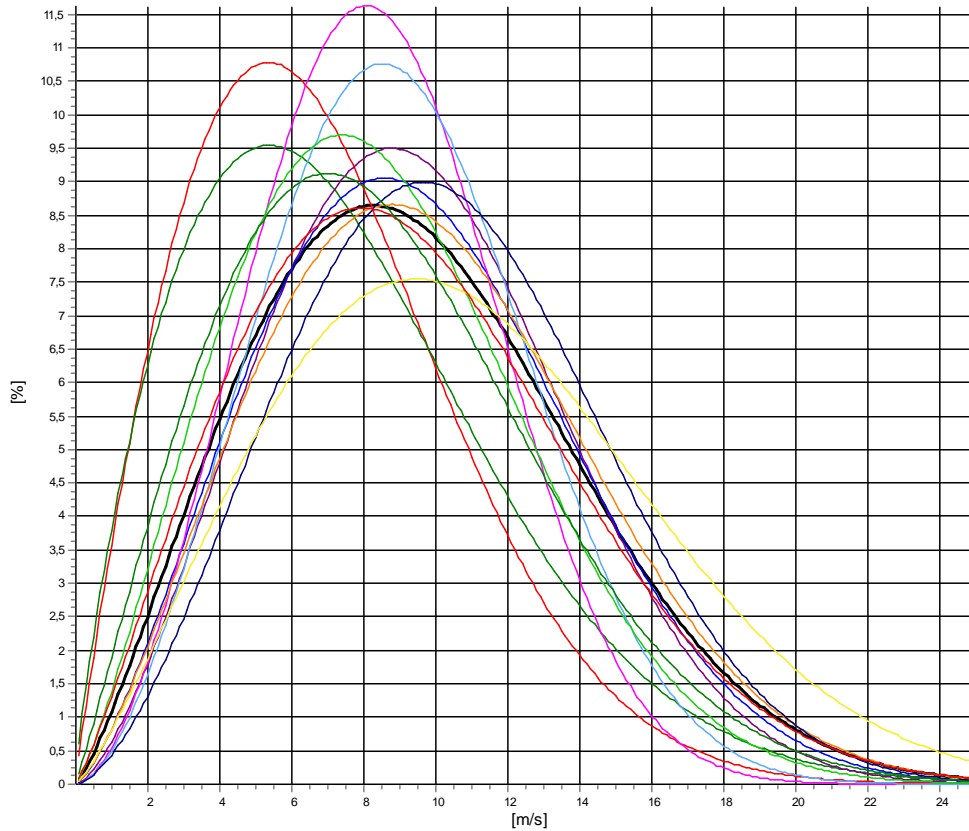
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y ; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **100,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,80	1,938	3,02	6,91
1-NNE	8,44	1,802	3,78	7,50
2-ENE	10,73	2,529	7,33	9,52
3-E	10,77	2,390	7,28	9,55
4-ESE	9,47	2,781	6,11	8,43
5-SSE	10,08	2,732	6,91	8,97
6-S	9,61	2,250	6,51	8,51
7-SSW	11,11	2,351	9,00	9,85
8-WSW	11,62	2,609	12,19	10,32
9-W	12,31	2,244	20,57	10,91
10-WNW	10,54	2,172	11,99	9,34
11-NNW	9,63	2,072	5,31	8,53
Mean	10,77	2,248	100,00	9,54



All A: 10,8 m/s k: 2,25 Vm: 9,5 m/s	N A: 7,8 m/s k: 1,94 Vm: 6,9 m/s	NNE A: 8,4 m/s k: 1,80 Vm: 7,5 m/s	ENE A: 10,7 m/s k: 2,53 Vm: 9,5 m/s
E A: 10,8 m/s k: 2,39 Vm: 9,5 m/s	ESE A: 9,5 m/s k: 2,78 Vm: 8,4 m/s	SSE A: 10,1 m/s k: 2,73 Vm: 9,0 m/s	S A: 9,6 m/s k: 2,25 Vm: 8,5 m/s
SSW A: 11,1 m/s k: 2,35 Vm: 9,8 m/s	WSW A: 11,6 m/s k: 2,61 Vm: 10,3 m/s	W A: 12,3 m/s k: 2,24 Vm: 10,9 m/s	WNW A: 10,5 m/s k: 2,17 Vm: 9,3 m/s
NNW A: 9,6 m/s k: 2,07 Vm: 8,5 m/s			



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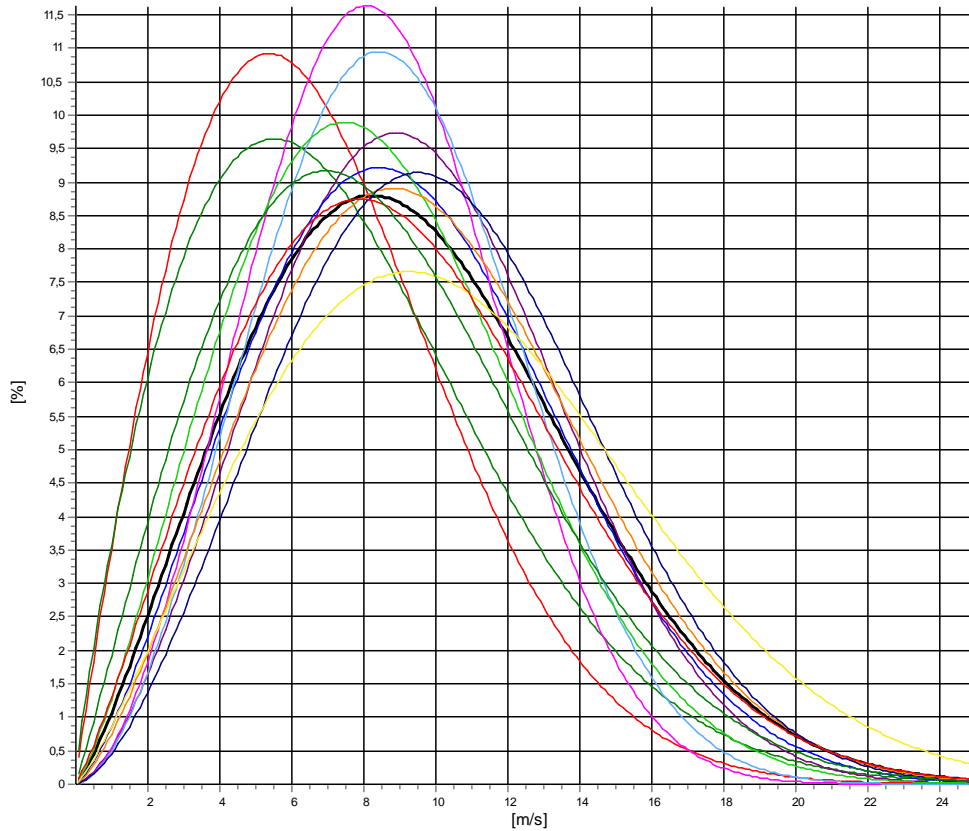
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **90,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,75	1,957	2,99	6,87
1-NNE	8,45	1,839	3,78	7,50
2-ENE	10,72	2,603	7,51	9,52
3-E	10,57	2,389	7,35	9,37
4-ESE	9,47	2,782	6,14	8,43
5-SSE	9,96	2,747	6,79	8,86
6-S	9,57	2,301	6,58	8,48
7-SSW	11,01	2,408	9,12	9,76
8-WSW	11,44	2,611	12,11	10,16
9-W	12,08	2,231	20,66	10,70
10-WNW	10,43	2,186	11,73	9,24
11-NNW	9,57	2,069	5,25	8,48
Mean	10,64	2,268	100,00	9,43



All A: 10,6 m/s k: 2,27 Vm: 9,4 m/s	N A: 7,7 m/s k: 1,96 Vm: 6,9 m/s	NNE A: 8,4 m/s k: 1,84 Vm: 7,5 m/s	ENE A: 10,7 m/s k: 2,60 Vm: 9,5 m/s
E A: 10,6 m/s k: 2,39 Vm: 9,4 m/s	ESE A: 9,5 m/s k: 2,78 Vm: 8,4 m/s	SSE A: 10,0 m/s k: 2,75 Vm: 8,9 m/s	S A: 9,6 m/s k: 2,30 Vm: 8,5 m/s
SSW A: 11,0 m/s k: 2,41 Vm: 9,8 m/s	WSW A: 11,4 m/s k: 2,61 Vm: 10,2 m/s	W A: 12,1 m/s k: 2,23 Vm: 10,7 m/s	WNW A: 10,4 m/s k: 2,19 Vm: 9,2 m/s
NNW A: 9,6 m/s k: 2,07 Vm: 8,5 m/s			



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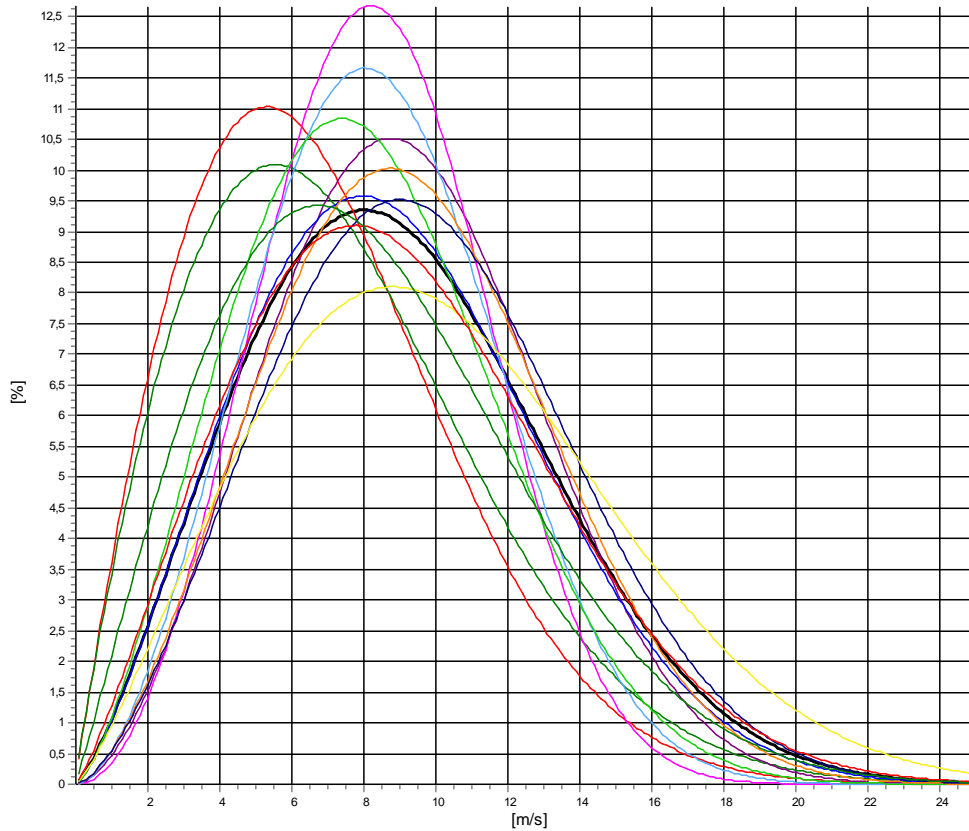
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y; Complete period **Period:** Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: **60,00m - Subst**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,66	1,954	2,97	6,79
1-NNE	8,23	1,900	3,85	7,31
2-ENE	10,33	2,735	7,68	9,19
3-E	10,07	2,356	7,38	8,92
4-ESE	9,35	3,030	6,50	8,36
5-SSE	9,45	2,780	6,57	8,41
6-S	9,16	2,447	6,71	8,13
7-SSW	10,48	2,628	9,22	9,31
8-WSW	10,89	2,584	12,15	9,67
9-W	11,47	2,242	20,71	10,16
10-WNW	10,16	2,226	11,22	9,00
11-NNW	9,28	2,059	5,01	8,22
Mean	10,21	2,325	100,00	9,05



All A: 10,2 m/s k: 2,33 Vm: 9,0 m/s	N A: 7,7 m/s k: 1,95 Vm: 6,8 m/s	NNE A: 8,2 m/s k: 1,90 Vm: 7,3 m/s	ENE A: 10,3 m/s k: 2,74 Vm: 9,2 m/s
E A: 10,1 m/s k: 2,36 Vm: 8,9 m/s	ESE A: 9,4 m/s k: 3,03 Vm: 8,4 m/s	SSE A: 9,4 m/s k: 2,78 Vm: 8,4 m/s	S A: 9,2 m/s k: 2,45 Vm: 8,1 m/s
SSW A: 10,5 m/s k: 2,63 Vm: 9,3 m/s	WSW A: 10,9 m/s k: 2,58 Vm: 9,7 m/s	W A: 11,5 m/s k: 2,24 Vm: 10,2 m/s	WNW A: 10,2 m/s k: 2,23 Vm: 9,0 m/s
NNW A: 9,3 m/s k: 2,06 Vm: 8,2 m/s			





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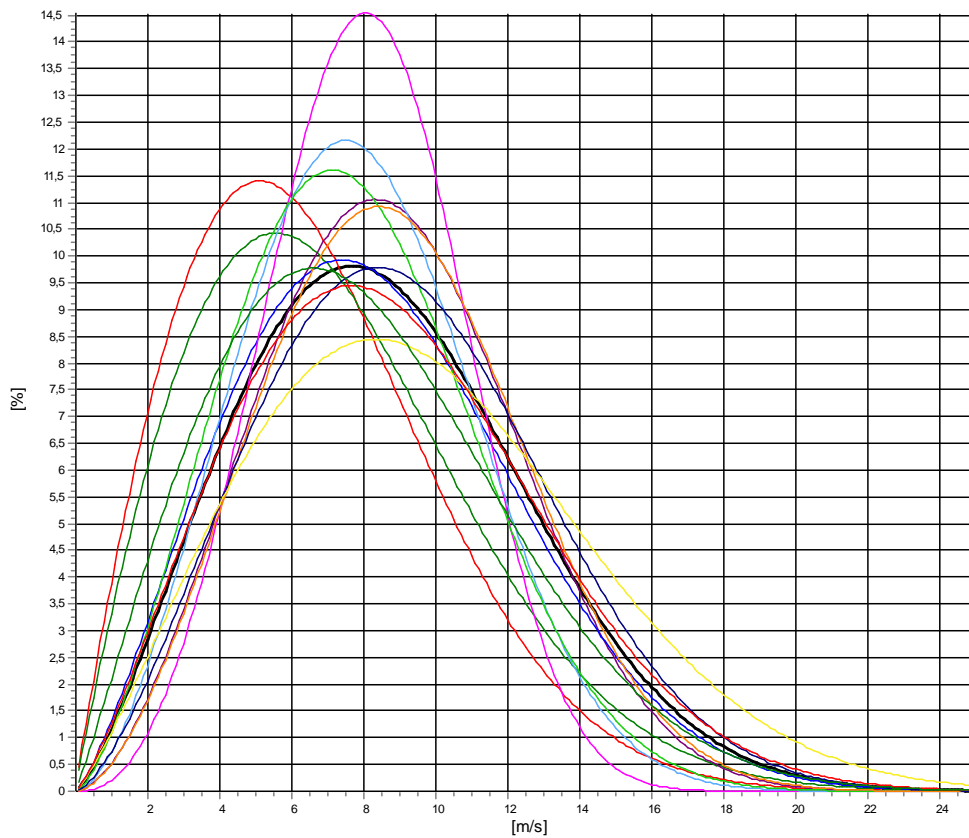
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: 40,00m - Subst

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,40	1,947	2,91	6,56
1-NNE	8,07	1,942	3,89	7,16
2-ENE	9,85	2,741	7,93	8,76
3-E	9,50	2,289	7,36	8,42
4-ESE	8,95	3,371	6,72	8,04
5-SSE	8,88	2,712	6,41	7,90
6-S	8,73	2,511	6,81	7,75
7-SSW	9,95	2,735	9,41	8,85
8-WSW	10,30	2,494	12,07	9,14
9-W	10,92	2,221	20,74	9,67
10-WNW	9,90	2,264	10,80	8,77
11-NNW	9,03	2,088	4,94	8,00
Mean	9,75	2,334	100,00	8,64



All A: 9,8 m/s k: 2,33 Vm: 8,6 m/s	N A: 7,4 m/s k: 1,95 Vm: 6,6 m/s	NNE A: 8,1 m/s k: 1,94 Vm: 7,2 m/s	ENE A: 9,8 m/s k: 2,74 Vm: 8,8 m/s
E A: 9,5 m/s k: 2,29 Vm: 8,4 m/s	ESE A: 9,0 m/s k: 3,37 Vm: 8,0 m/s	SSE A: 8,9 m/s k: 2,71 Vm: 7,9 m/s	S A: 8,7 m/s k: 2,51 Vm: 7,7 m/s
SSW A: 9,9 m/s k: 2,74 Vm: 8,8 m/s	WSW A: 10,3 m/s k: 2,49 Vm: 9,1 m/s	W A: 10,9 m/s k: 2,22 Vm: 9,7 m/s	WNW A: 9,9 m/s k: 2,26 Vm: 8,8 m/s
NNW A: 9,0 m/s k: 2,09 Vm: 8,0 m/s			





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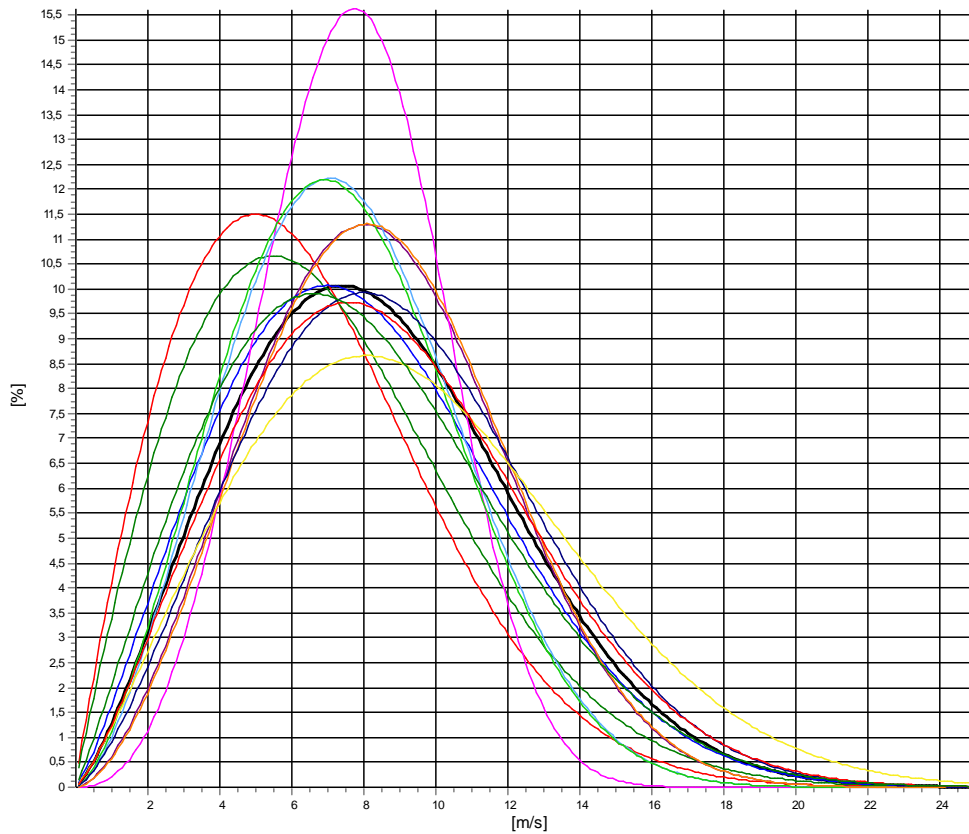
Meteo data report - Weibull data overview

Mast: Lot 4 complete 2y; Complete period Period: Full period: 21/11/2021 - 22/11/2023 (24,0 months)

Height: 30,00m - Subst

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,29	1,930	2,95	6,47
1-NNE	7,92	1,951	3,88	7,02
2-ENE	9,53	2,700	8,10	8,47
3-E	9,15	2,216	7,38	8,10
4-ESE	8,55	3,467	6,69	7,69
5-SSE	8,51	2,594	6,42	7,56
6-S	8,42	2,549	6,88	7,47
7-SSW	9,58	2,726	9,43	8,53
8-WSW	9,96	2,433	12,21	8,83
9-W	10,61	2,210	20,63	9,40
10-WNW	9,72	2,298	10,57	8,61
11-NNW	8,98	2,109	4,86	7,95
Mean	9,46	2,317	100,00	8,38



All A: 9,5 m/s k: 2,32 Vm: 8,4 m/s	N A: 7,3 m/s k: 1,93 Vm: 6,5 m/s	NNE A: 7,9 m/s k: 1,95 Vm: 7,0 m/s	ENE A: 9,5 m/s k: 2,70 Vm: 8,5 m/s
E A: 9,1 m/s k: 2,22 Vm: 8,1 m/s	ESE A: 8,5 m/s k: 3,47 Vm: 7,7 m/s	SSE A: 8,5 m/s k: 2,59 Vm: 7,6 m/s	S A: 8,4 m/s k: 2,55 Vm: 7,5 m/s
SSW A: 9,6 m/s k: 2,73 Vm: 8,5 m/s	WSW A: 10,0 m/s k: 2,43 Vm: 8,8 m/s	W A: 10,6 m/s k: 2,21 Vm: 9,4 m/s	WNW A: 9,7 m/s k: 2,30 Vm: 8,6 m/s
NNW A: 9,0 m/s k: 2,11 Vm: 8,0 m/s			



Appendix C. Long-term Corrected Dataset: Position 1 (Lot 3), Position 2 (Lot 4), Position 3, Position 4



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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y ; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

240,00m - MCP LT - 240m - [Matrix]

Table with 12 columns (Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW) and 41 rows of data.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. It contains a matrix of wind frequency data for various directions and wind speed bins.





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Calculated:
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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y ; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

180,00m - MCP LT - 180m - [Matrix]															
Bin	Start	End	Sum	0-N	1-NNW	2-ENE	3-E	4-ESE	5-SSE	6-S	7-SSW	8-WSW	9-W	10-WNW	11-NNW
Mean			9,98	7,14	8,28	9,28	9,42	8,94	8,69	9,36	9,94	11,54	11,70	10,11	8,40
0		0,49	481	33	35	61	28	27	29	85	59	24	49	30	21
1	0,50	1,49	2420	216	204	180	99	159	109	294	270	222	206	194	267
2	1,50	2,49	5049	448	293	388	417	241	307	519	529	463	542	529	373
3	2,50	3,49	7130	357	436	448	593	509	584	550	631	819	921	786	496
4	3,50	4,49	9212	451	524	672	795	811	908	638	834	1041	1006	969	563
5	4,50	5,49	11271	596	576	685	1014	971	1021	1085	1029	1248	1234	1118	694
6	5,50	6,49	12257	875	853	808	900	931	885	979	1023	1319	1593	1265	826
7	6,50	7,49	13119	849	848	887	1135	1226	816	791	886	1257	1938	1627	859
8	7,50	8,49	13727	680	628	664	1061	1365	1041	800	1022	1388	2134	1873	1071
9	8,50	9,49	12751	414	499	713	954	1147	977	920	980	1274	2303	1798	772
10	9,50	10,49	12785	415	570	726	998	1004	664	1029	1319	2577	1683	750	
11	10,50	11,49	11926	206	450	550	732	843	775	854	1079	1833	2519	1435	650
12	11,50	12,49	10713	158	470	672	779	830	678	752	933	1483	2158	1343	457
13	12,50	13,49	10288	107	334	580	615	767	681	497	853	1444	2575	1488	347
14	13,50	14,49	9383	136	248	531	576	578	527	619	927	1580	2171	1215	275
15	14,50	15,49	7444	136	234	520	609	483	396	479	740	1072	1605	927	243
16	15,50	16,49	6039	89	132	335	574	305	294	424	593	1039	1459	597	198
17	16,50	17,49	4747	63	112	257	319	172	171	371	431	1018	1281	392	160
18	17,50	18,49	4519	41	74	224	278	141	104	316	367	1097	1303	436	138
19	18,50	19,49	3249	19	45	120	132	46	45	174	239	759	1181	387	102
20	19,50	20,49	2303	13	39	64	102	33	29	126	224	552	817	266	38
21	20,50	21,49	1392	10	21	46	56	27	10	89	126	370	440	182	15
22	21,50	22,49	819	3	15	10	27	11	5	72	86	292	229	65	4
23	22,50	23,49	698	3	6	14	15	3	2	31	45	211	278	89	1
24	23,50	24,49	557	1	5	3	12	1	1	8	34	205	224	62	1
25	24,50	25,49	370	2	1	4	6	1	1	1	12	116	183	43	0
26	25,50	26,49	233	0	2	5	6	1	0	2	5	89	82	41	0
27	26,50	27,49	189	0	0	2	0	0	0	1	7	53	96	30	0
28	27,50	28,49	83	0	2	0	0	1	0	0	1	20	54	5	0
29	28,50	29,49	78	0	0	0	1	0	0	0	1	26	41	9	0
30	29,50	30,49	46	0	1	0	1	0	0	0	1	16	24	3	0
31	30,50	31,49	23	0	0	0	1	0	0	0	0	7	11	4	0
32	31,50	32,49	12	0	0	0	0	0	0	0	0	4	6	2	0
33	32,50	33,49	3	0	0	0	0	0	0	0	0	2	1	0	0
34	33,50	34,49	2	0	0	0	0	0	0	0	0	0	2	0	0
35	34,50	35,49	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35,50	36,49	1	0	0	0	0	0	0	0	0	0	1	0	0
37	36,50	37,49	1	0	0	0	0	0	0	0	0	0	1	0	0
38	37,50	38,49	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38,50	39,49	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39,50	40,49	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40,50		0	0	0	0	0	0	0	0	0	0	0	0	0





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNW, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

120,00m - MCP LT - 120m - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNW, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind speed bins.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

90,00m - MCP LT - 90m - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

60,00m - MCP LT - 60m - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

40,00m - MCP LT - 40m (1) - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNW, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 3 LT 1y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

30,00m - MCP LT - MCP 30m - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





Project:
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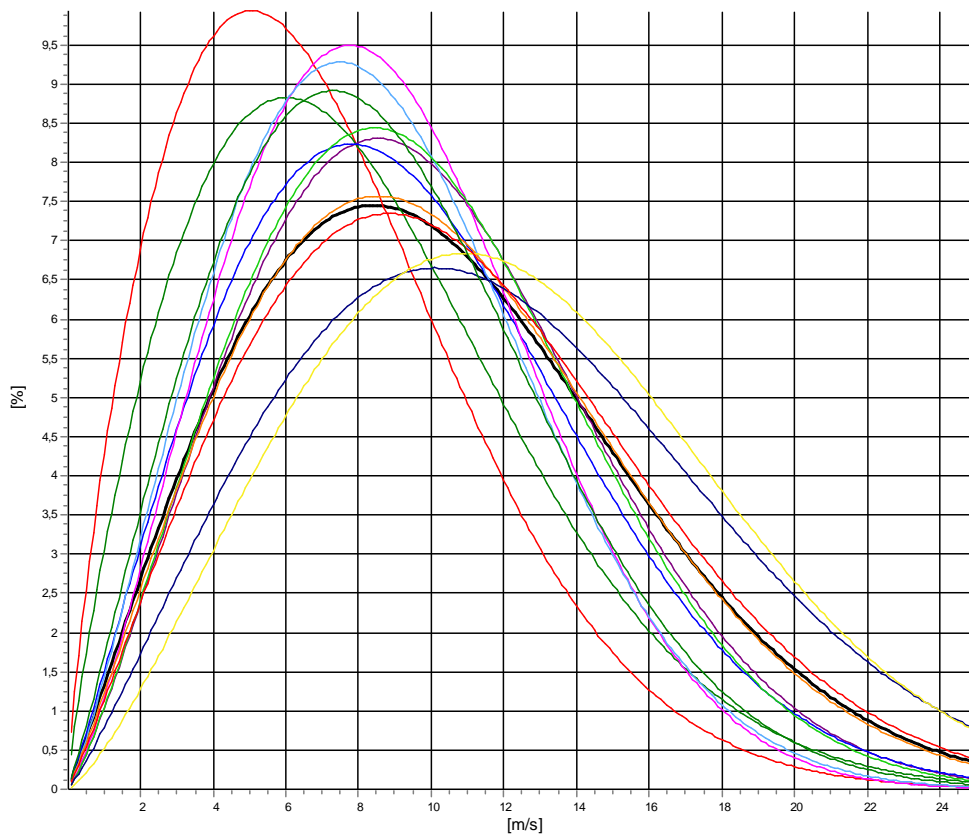
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Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 270,00m - MCP LT - 270m - [Matrix]

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	8,04	1,777	3,74	7,16
1-NNE	9,22	1,839	4,28	8,20
2-ENE	11,14	2,229	5,72	9,87
3-E	10,69	2,078	7,45	9,47
4-ESE	9,96	2,296	7,02	8,82
5-SSE	9,86	2,197	6,12	8,74
6-S	11,00	2,240	6,84	9,74
7-SSW	11,67	2,091	8,08	10,34
8-WSW	13,55	2,150	13,08	12,00
9-W	13,92	2,317	19,52	12,33
10-WNW	12,05	2,095	12,68	10,67
11-NNW	9,92	2,094	5,49	8,79
Mean	11,69	2,047	100,00	10,35



All A: 11,7 m/s k: 2,05 Vm: 10,4 m/s	N A: 8,0 m/s k: 1,78 Vm: 7,2 m/s	NNE A: 9,2 m/s k: 1,84 Vm: 8,2 m/s	ENE A: 11,1 m/s k: 2,23 Vm: 9,9 m/s
E A: 10,7 m/s k: 2,08 Vm: 9,5 m/s	ESE A: 10,0 m/s k: 2,30 Vm: 8,8 m/s	SSE A: 9,9 m/s k: 2,20 Vm: 8,7 m/s	S A: 11,0 m/s k: 2,24 Vm: 9,7 m/s
SSW A: 11,7 m/s k: 2,09 Vm: 10,3 m/s	WSW A: 13,5 m/s k: 2,15 Vm: 12,0 m/s	W A: 13,9 m/s k: 2,32 Vm: 12,3 m/s	WNW A: 12,0 m/s k: 2,10 Vm: 10,7 m/s
NNW A: 9,9 m/s k: 2,09 Vm: 8,8 m/s			





Project:
Energy Island Baltic Sea

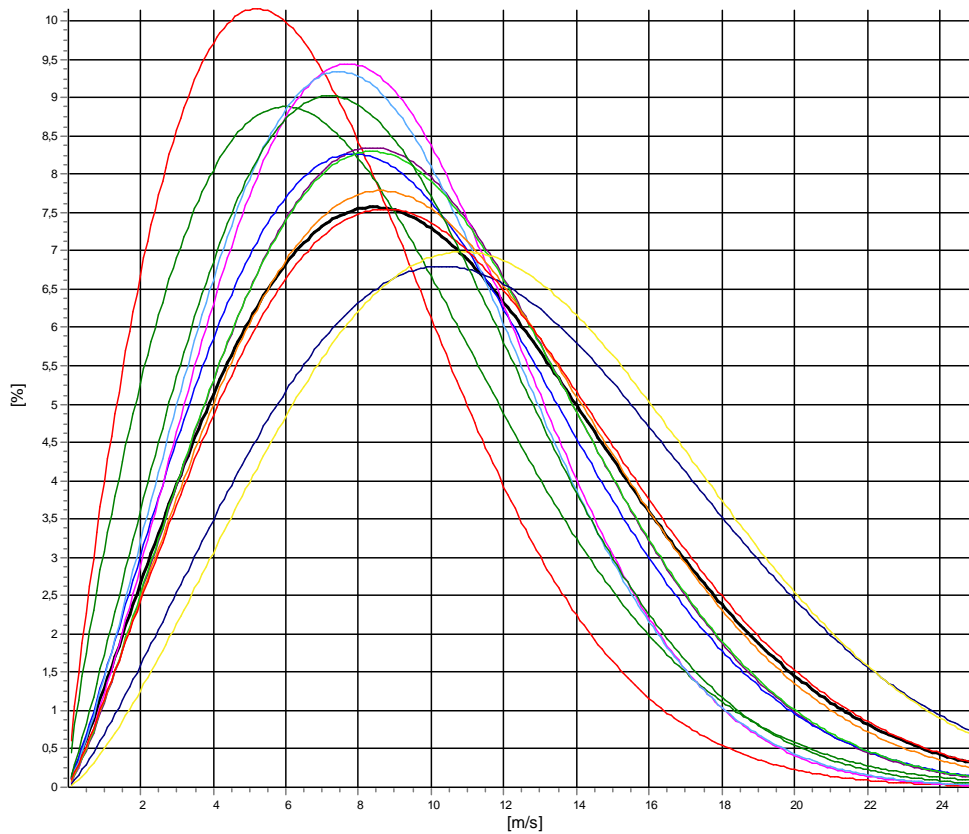
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Calculated:
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Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 240,00m - MCP LT - 240m - [Matrix]

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	8,00	1,832	3,64	7,11
1-NNE	9,17	1,837	4,33	8,15
2-ENE	11,01	2,210	5,82	9,75
3-E	10,72	2,096	7,33	9,49
4-ESE	9,95	2,276	7,06	8,81
5-SSE	9,83	2,204	6,19	8,70
6-S	11,03	2,197	6,93	9,77
7-SSW	11,54	2,141	8,21	10,22
8-WSW	13,53	2,212	13,26	11,99
9-W	13,75	2,346	19,24	12,19
10-WNW	11,80	2,114	12,58	10,45
11-NNW	9,81	2,097	5,40	8,69
Mean	11,60	2,069	100,00	10,27



All A: 11,6 m/s k: 2,07 Vm: 10,3 m/s	N A: 8,0 m/s k: 1,83 Vm: 7,1 m/s	NNE A: 9,2 m/s k: 1,84 Vm: 8,1 m/s	ENE A: 11,0 m/s k: 2,21 Vm: 9,8 m/s
E A: 10,7 m/s k: 2,10 Vm: 9,5 m/s	ESE A: 9,9 m/s k: 2,28 Vm: 8,8 m/s	SSE A: 9,8 m/s k: 2,20 Vm: 8,7 m/s	S A: 11,0 m/s k: 2,20 Vm: 9,8 m/s
SSW A: 11,5 m/s k: 2,14 Vm: 10,2 m/s	WSW A: 13,5 m/s k: 2,21 Vm: 12,0 m/s	W A: 13,8 m/s k: 2,35 Vm: 12,2 m/s	WNW A: 11,8 m/s k: 2,11 Vm: 10,5 m/s
NNW A: 9,8 m/s k: 2,10 Vm: 8,7 m/s			



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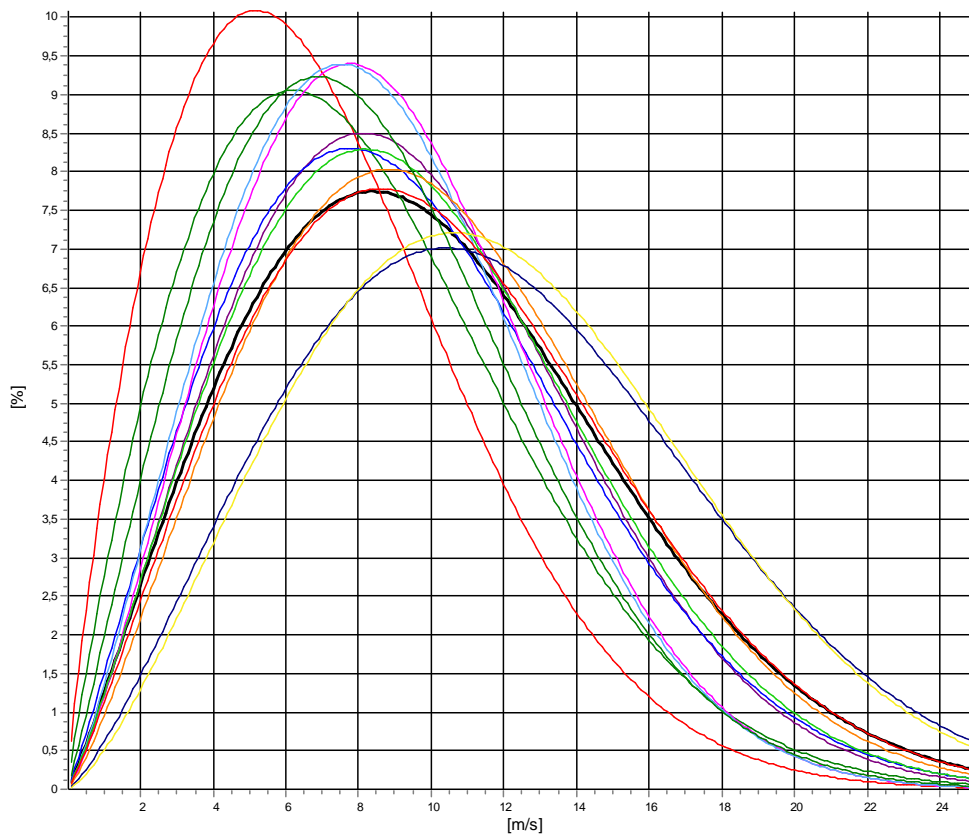
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+45 6916 4850
Thomas Sørensen / ts@emd.dk
Calculated:
06/03/2024 15.31

Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 200,00m - MCP LT - 200m - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	8,03	1,820	3,64	7,14
1-NNE	9,18	1,903	4,37	8,14
2-ENE	10,74	2,190	5,78	9,51
3-E	10,62	2,084	7,34	9,41
4-ESE	9,99	2,277	7,15	8,85
5-SSE	9,85	2,229	6,28	8,72
6-S	10,91	2,161	7,04	9,66
7-SSW	11,52	2,230	8,37	10,20
8-WSW	13,40	2,278	13,35	11,87
9-W	13,42	2,367	19,11	11,90
10-WNW	11,56	2,143	12,18	10,23
11-NNW	9,48	2,063	5,38	8,40
Mean	11,44	2,098	100,00	10,13



All A: 11,4 m/s k: 2,10 Vm: 10,1 m/s	N A: 8,0 m/s k: 1,82 Vm: 7,1 m/s	NNE A: 9,2 m/s k: 1,90 Vm: 8,1 m/s	ENE A: 10,7 m/s k: 2,19 Vm: 9,5 m/s
E A: 10,6 m/s k: 2,08 Vm: 9,4 m/s	ESE A: 10,0 m/s k: 2,28 Vm: 8,9 m/s	SSE A: 9,8 m/s k: 2,23 Vm: 8,7 m/s	S A: 10,9 m/s k: 2,16 Vm: 9,7 m/s
SSW A: 11,5 m/s k: 2,23 Vm: 10,2 m/s	WSW A: 13,4 m/s k: 2,28 Vm: 11,9 m/s	W A: 13,4 m/s k: 2,37 Vm: 11,9 m/s	WNW A: 11,6 m/s k: 2,14 Vm: 10,2 m/s
NNW A: 9,5 m/s k: 2,06 Vm: 8,4 m/s			



Project:
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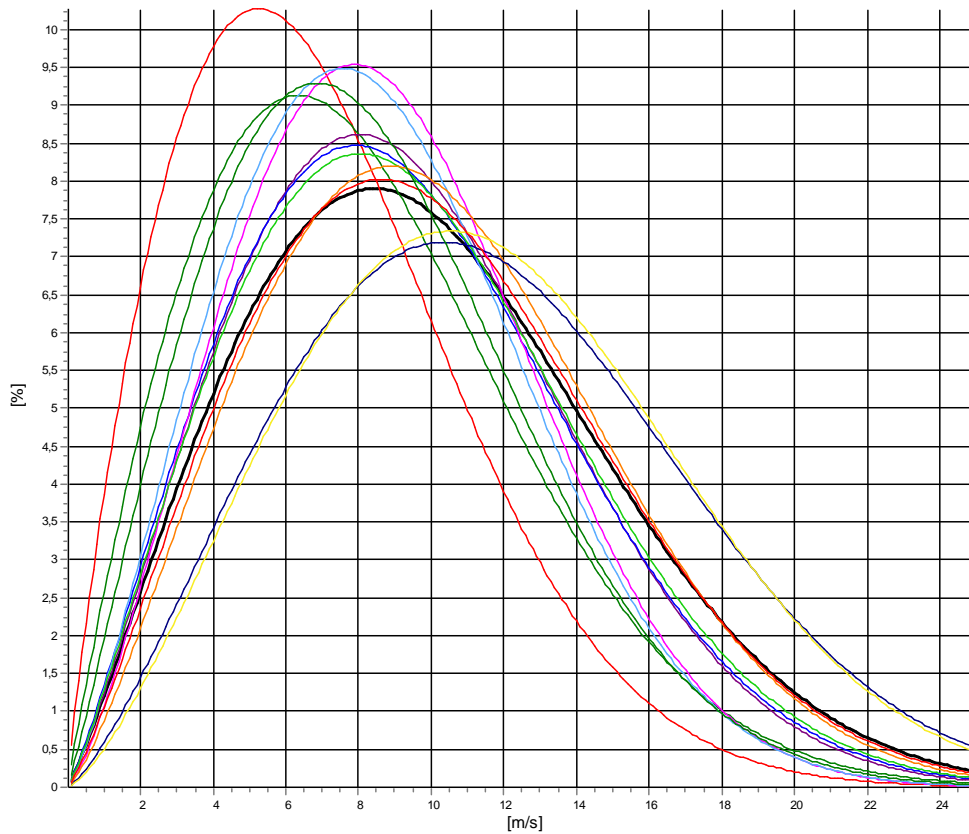
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+45 6916 4850
Thomas Sørensen / ts@emd.dk
Calculated:
06/03/2024 15.31

Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 180,00m - MCP LT - 180m - [Matrix]

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,97	1,856	3,61	7,08
1-NNE	9,22	1,942	4,37	8,17
2-ENE	10,60	2,192	5,80	9,39
3-E	10,61	2,143	7,32	9,40
4-ESE	10,04	2,334	7,21	8,89
5-SSE	9,82	2,252	6,31	8,70
6-S	10,78	2,150	7,13	9,54
7-SSW	11,47	2,278	8,57	10,16
8-WSW	13,22	2,315	13,50	11,71
9-W	13,24	2,382	18,96	11,74
10-WNW	11,39	2,194	11,92	10,09
11-NNW	9,45	2,072	5,32	8,37
Mean	11,34	2,132	100,00	10,04



— All A: 11,3 m/s k: 2,13 Vm: 10,0 m/s	— N A: 8,0 m/s k: 1,86 Vm: 7,1 m/s	— NNE A: 9,2 m/s k: 1,94 Vm: 8,2 m/s	— ENE A: 10,6 m/s k: 2,19 Vm: 9,4 m/s
— E A: 10,6 m/s k: 2,14 Vm: 9,4 m/s	— ESE A: 10,0 m/s k: 2,33 Vm: 8,9 m/s	— SSE A: 9,8 m/s k: 2,25 Vm: 8,7 m/s	— S A: 10,8 m/s k: 2,15 Vm: 9,5 m/s
— SSW A: 11,5 m/s k: 2,28 Vm: 10,2 m/s	— WSW A: 13,2 m/s k: 2,31 Vm: 11,7 m/s	— W A: 13,2 m/s k: 2,38 Vm: 11,7 m/s	— WNW A: 11,4 m/s k: 2,19 Vm: 10,1 m/s
— NNW A: 9,4 m/s k: 2,07 Vm: 8,4 m/s			



Project:
Energy Island Baltic Sea

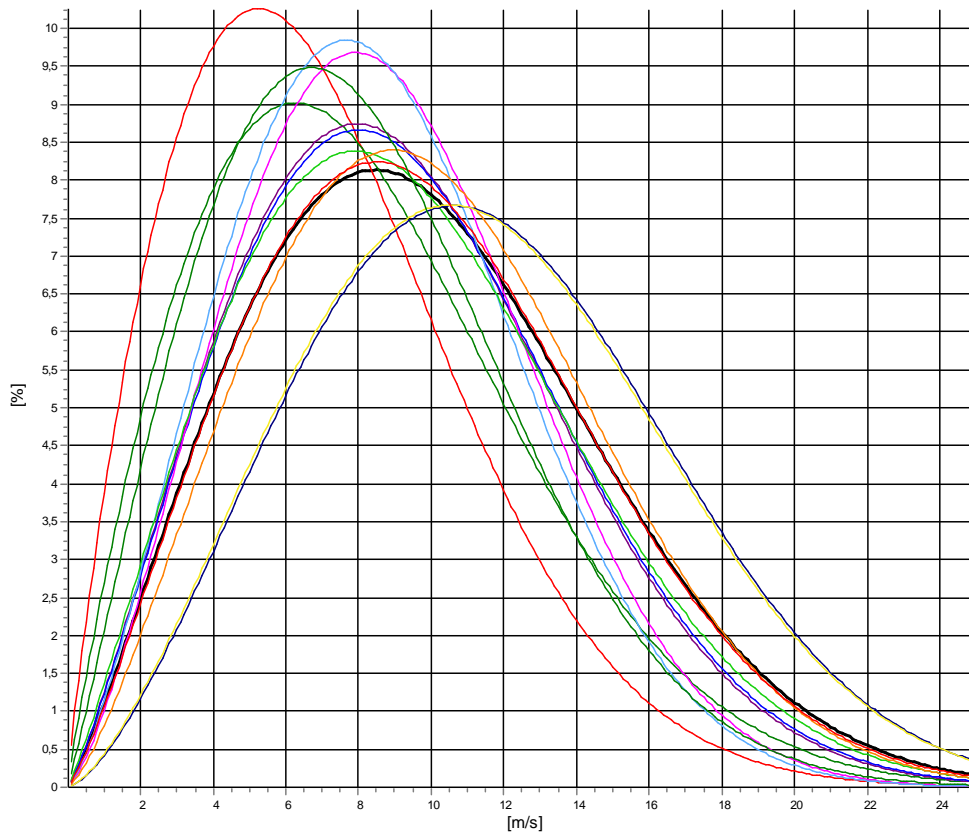
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Thomas Sørensen / ts@emd.dk
Calculated:
06/03/2024 15.31

Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 150,00m - MCP LT - 150m - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,98	1,854	3,58	7,08
1-NNE	9,23	1,910	4,51	8,19
2-ENE	10,48	2,199	5,96	9,28
3-E	10,56	2,196	7,29	9,35
4-ESE	10,00	2,370	7,35	8,87
5-SSE	9,73	2,337	6,37	8,62
6-S	10,68	2,129	7,22	9,46
7-SSW	11,38	2,328	8,67	10,08
8-WSW	13,09	2,480	13,50	11,62
9-W	13,01	2,462	18,89	11,54
10-WNW	11,16	2,212	11,45	9,89
11-NNW	9,24	2,067	5,21	8,19
Mean	11,20	2,184	100,00	9,92



All A: 11,2 m/s k: 2,18 Vm: 9,9 m/s	N A: 8,0 m/s k: 1,85 Vm: 7,1 m/s	NNE A: 9,2 m/s k: 1,91 Vm: 8,2 m/s	ENE A: 10,5 m/s k: 2,20 Vm: 9,3 m/s
E A: 10,6 m/s k: 2,20 Vm: 9,4 m/s	ESE A: 10,0 m/s k: 2,37 Vm: 8,9 m/s	SSE A: 9,7 m/s k: 2,34 Vm: 8,6 m/s	S A: 10,7 m/s k: 2,13 Vm: 9,5 m/s
SSW A: 11,4 m/s k: 2,33 Vm: 10,1 m/s	WSW A: 13,1 m/s k: 2,48 Vm: 11,6 m/s	W A: 13,0 m/s k: 2,46 Vm: 11,5 m/s	WNW A: 11,2 m/s k: 2,21 Vm: 9,9 m/s
NNW A: 9,2 m/s k: 2,07 Vm: 8,2 m/s			



Project:
Energy Island Baltic Sea

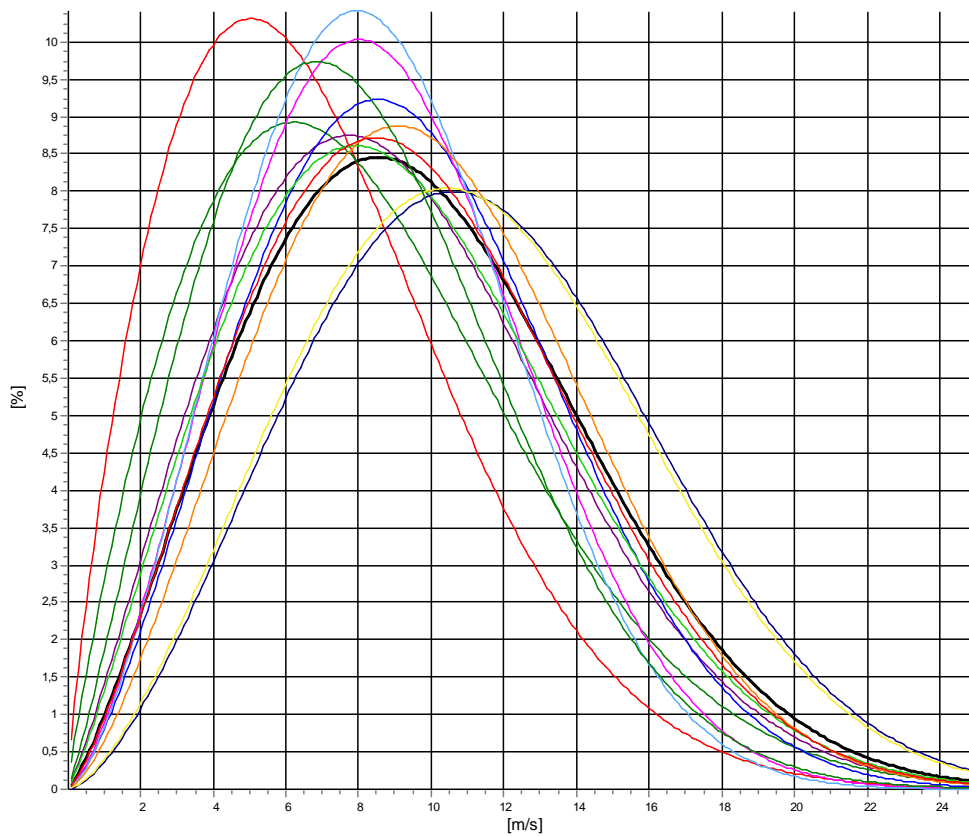
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Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 120,00m - MCP LT - 120m - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,84	1,813	3,61	6,97
1-NNE	9,27	1,887	4,59	8,23
2-ENE	10,32	2,155	6,05	9,14
3-E	10,64	2,413	7,33	9,43
4-ESE	9,91	2,451	7,51	8,79
5-SSE	9,73	2,512	6,40	8,63
6-S	10,53	2,168	7,21	9,33
7-SSW	11,23	2,459	8,80	9,96
8-WSW	12,88	2,563	13,84	11,44
9-W	12,72	2,539	18,65	11,29
10-WNW	10,86	2,299	10,94	9,62
11-NNW	9,21	2,136	5,06	8,16
Mean	11,05	2,260	100,00	9,79



All A: 11,1 m/s k: 2,26 Vm: 9,8 m/s	N A: 7,8 m/s k: 1,81 Vm: 7,0 m/s	NNE A: 9,3 m/s k: 1,89 Vm: 8,2 m/s	ENE A: 10,3 m/s k: 2,15 Vm: 9,1 m/s
E A: 10,6 m/s k: 2,41 Vm: 9,4 m/s	ESE A: 9,9 m/s k: 2,45 Vm: 8,8 m/s	SSE A: 9,7 m/s k: 2,51 Vm: 8,6 m/s	S A: 10,5 m/s k: 2,17 Vm: 9,3 m/s
SSW A: 11,2 m/s k: 2,46 Vm: 10,0 m/s	WSW A: 12,9 m/s k: 2,56 Vm: 11,4 m/s	W A: 12,7 m/s k: 2,54 Vm: 11,3 m/s	WNW A: 10,9 m/s k: 2,30 Vm: 9,6 m/s
NNW A: 9,2 m/s k: 2,14 Vm: 8,2 m/s			



Project:
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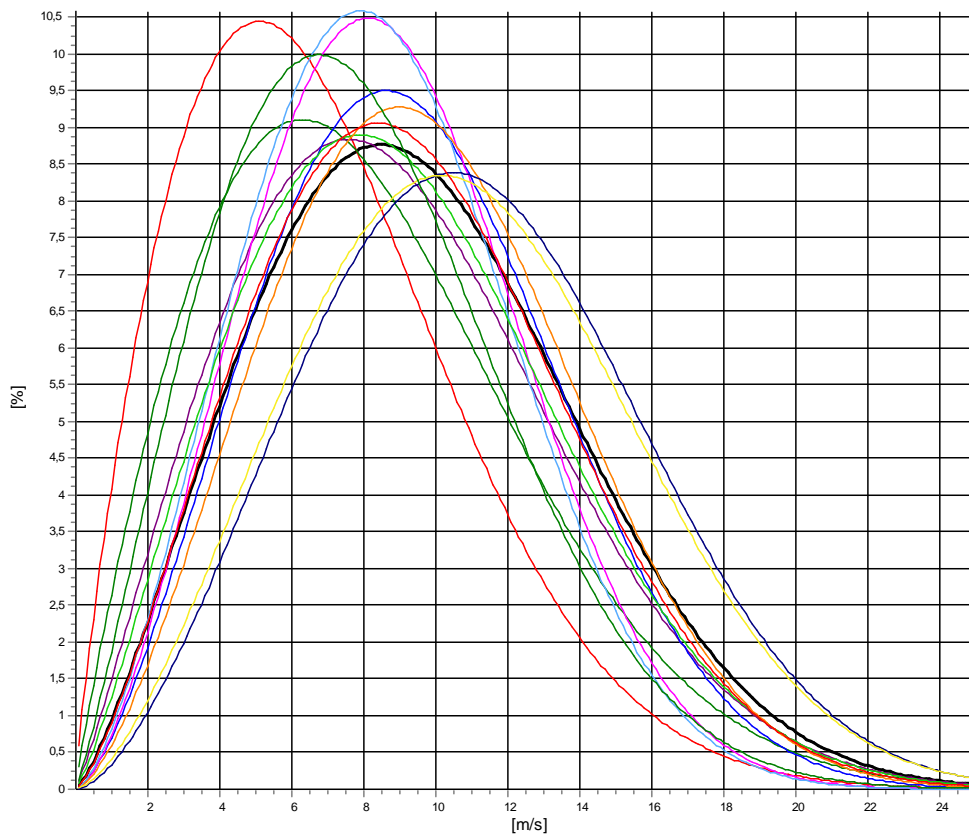
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Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 100,00m - MCP LT - 100m - [Matrix]

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,81	1,843	3,52	6,94
1-NNE	9,20	1,927	4,69	8,16
2-ENE	10,17	2,142	6,06	9,00
3-E	10,60	2,492	7,28	9,41
4-ESE	9,83	2,566	7,64	8,73
5-SSE	9,64	2,535	6,39	8,56
6-S	10,35	2,216	7,28	9,16
7-SSW	10,99	2,529	9,01	9,75
8-WSW	12,55	2,633	14,03	11,16
9-W	12,34	2,563	18,53	10,96
10-WNW	10,63	2,353	10,55	9,42
11-NNW	9,03	2,154	5,03	8,00
Mean	10,84	2,313	100,00	9,61



All A: 10,8 m/s k: 2,31 Vm: 9,6 m/s	N A: 7,8 m/s k: 1,84 Vm: 6,9 m/s	NNE A: 9,2 m/s k: 1,93 Vm: 8,2 m/s	ENE A: 10,2 m/s k: 2,14 Vm: 9,0 m/s
E A: 10,6 m/s k: 2,49 Vm: 9,4 m/s	ESE A: 9,8 m/s k: 2,57 Vm: 8,7 m/s	SSE A: 9,6 m/s k: 2,54 Vm: 8,6 m/s	S A: 10,3 m/s k: 2,22 Vm: 9,2 m/s
SSW A: 11,0 m/s k: 2,53 Vm: 9,7 m/s	WSW A: 12,6 m/s k: 2,63 Vm: 11,2 m/s	W A: 12,3 m/s k: 2,56 Vm: 11,0 m/s	WNW A: 10,6 m/s k: 2,35 Vm: 9,4 m/s
NNW A: 9,0 m/s k: 2,15 Vm: 8,0 m/s			



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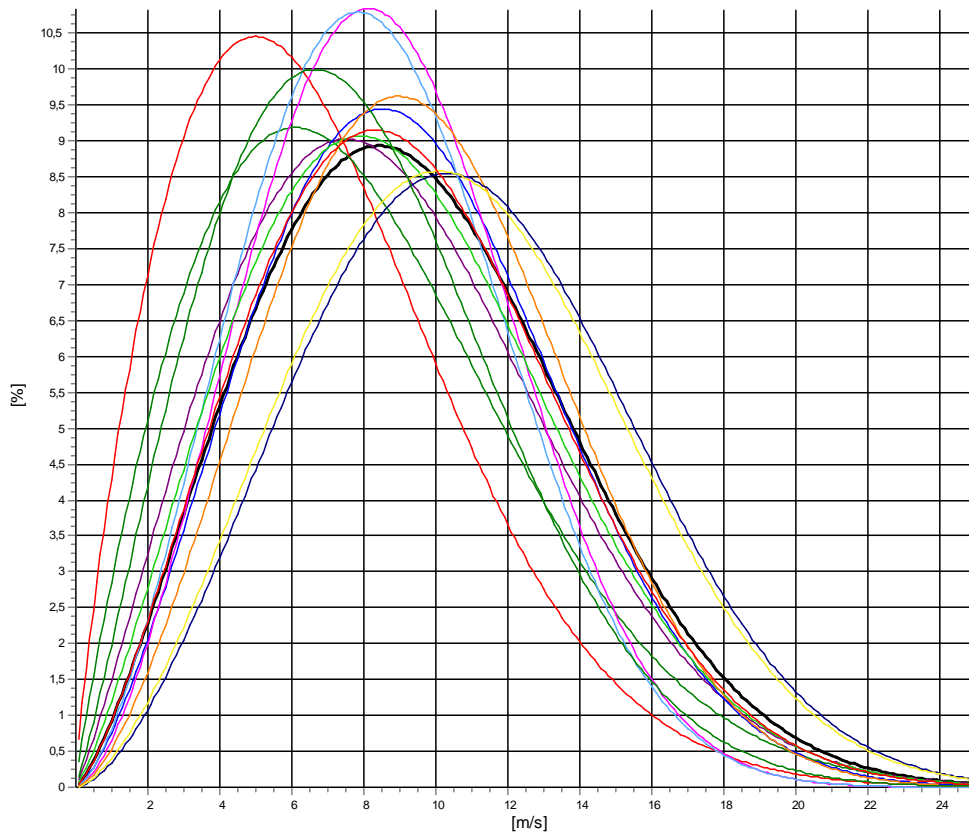
Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **90,00m - MCP LT - 90m - [Matrix]**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,74	1,820	3,43	6,88
1-NNE	9,04	1,902	4,80	8,03
2-ENE	10,01	2,159	6,11	8,87
3-E	10,54	2,456	7,27	9,35
4-ESE	9,74	2,642	7,71	8,65
5-SSE	9,53	2,557	6,29	8,46
6-S	10,27	2,250	7,43	9,10
7-SSW	10,83	2,599	9,04	9,62
8-WSW	12,35	2,643	14,20	10,98
9-W	12,15	2,601	18,39	10,79
10-WNW	10,53	2,356	10,34	9,33
11-NNW	8,96	2,132	4,99	7,94
Mean	10,71	2,333	100,00	9,49



— All A: 10,7 m/s k: 2,33 Vm: 9,5 m/s	— N A: 7,7 m/s k: 1,82 Vm: 6,9 m/s	— NNE A: 9,0 m/s k: 1,90 Vm: 8,0 m/s	— ENE A: 10,0 m/s k: 2,16 Vm: 8,9 m/s
— E A: 10,5 m/s k: 2,46 Vm: 9,3 m/s	— ESE A: 9,7 m/s k: 2,64 Vm: 8,7 m/s	— SSE A: 9,5 m/s k: 2,56 Vm: 8,5 m/s	— S A: 10,3 m/s k: 2,25 Vm: 9,1 m/s
— SSW A: 10,8 m/s k: 2,60 Vm: 9,6 m/s	— WSW A: 12,4 m/s k: 2,64 Vm: 11,0 m/s	— W A: 12,2 m/s k: 2,60 Vm: 10,8 m/s	— WNW A: 10,5 m/s k: 2,36 Vm: 9,3 m/s
— NNW A: 9,0 m/s k: 2,13 Vm: 7,9 m/s			



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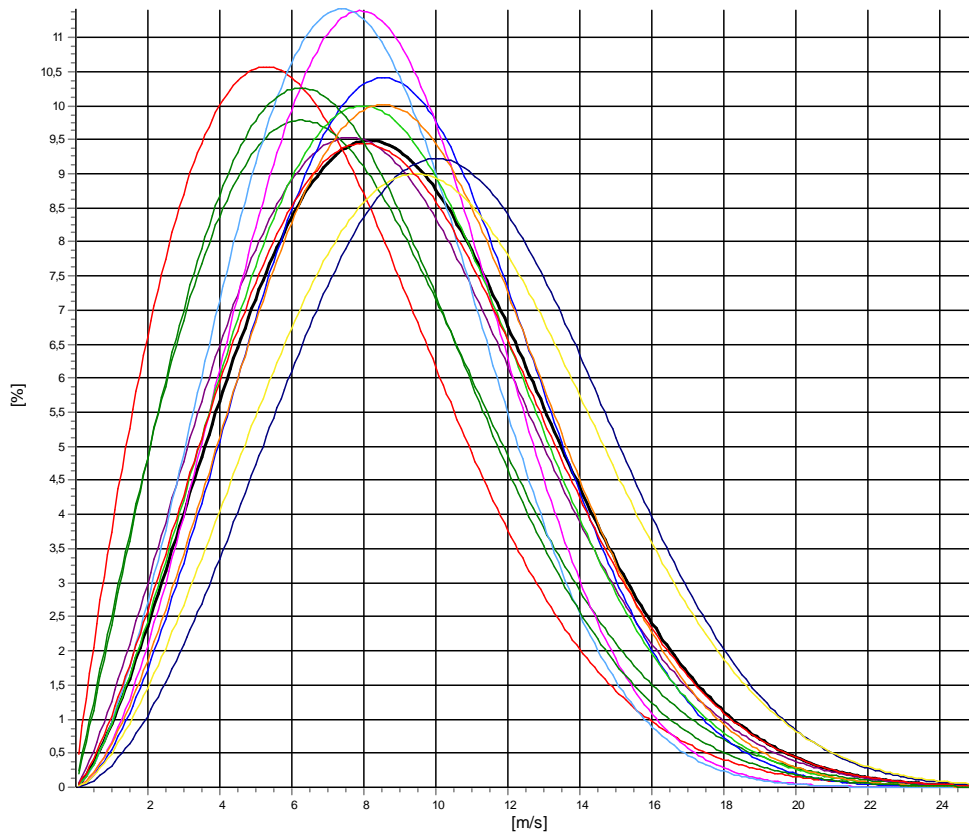
Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **60,00m - MCP LT - 60m - [Matrix]**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,84	1,896	3,50	6,96
1-NNE	8,81	2,015	5,05	7,81
2-ENE	9,83	2,269	5,99	8,71
3-E	10,20	2,661	7,20	9,07
4-ESE	9,40	2,687	8,17	8,36
5-SSE	8,98	2,550	6,21	7,97
6-S	9,90	2,435	7,42	8,77
7-SSW	10,33	2,576	9,17	9,17
8-WSW	11,81	2,742	14,59	10,51
9-W	11,45	2,564	18,05	10,17
10-WNW	10,14	2,336	9,91	8,99
11-NNW	8,57	2,077	4,76	7,59
Mean	10,27	2,388	100,00	9,10



All A: 10,3 m/s k: 2,39 Vm: 9,1 m/s	N A: 7,8 m/s k: 1,90 Vm: 7,0 m/s	NNE A: 8,8 m/s k: 2,02 Vm: 7,8 m/s	ENE A: 9,8 m/s k: 2,27 Vm: 8,7 m/s
E A: 10,2 m/s k: 2,66 Vm: 9,1 m/s	ESE A: 9,4 m/s k: 2,69 Vm: 8,4 m/s	SSE A: 9,0 m/s k: 2,55 Vm: 8,0 m/s	S A: 9,9 m/s k: 2,44 Vm: 8,8 m/s
SSW A: 10,3 m/s k: 2,58 Vm: 9,2 m/s	WSW A: 11,8 m/s k: 2,74 Vm: 10,5 m/s	W A: 11,5 m/s k: 2,56 Vm: 10,2 m/s	WNW A: 10,1 m/s k: 2,34 Vm: 9,0 m/s
NNW A: 8,6 m/s k: 2,08 Vm: 7,6 m/s			





Project:
Energy Island Baltic Sea

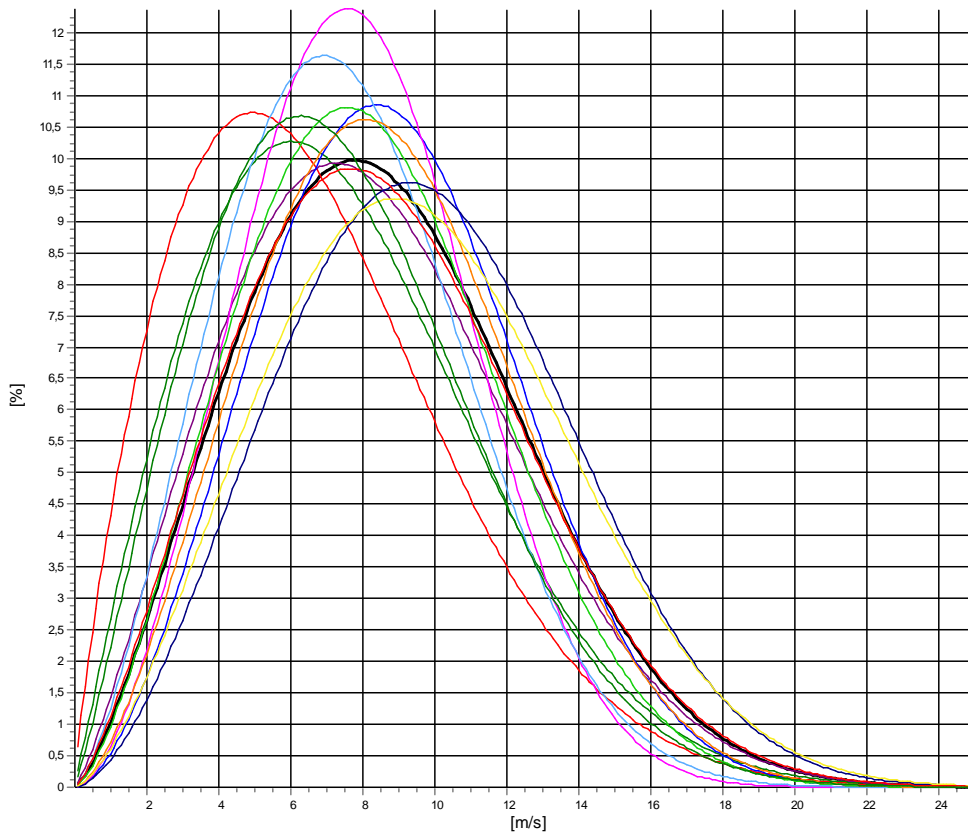
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Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 40,00m - MCP LT - 40m (1) - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,60	1,839	3,50	6,75
1-NNE	8,43	2,027	5,18	7,47
2-ENE	9,41	2,257	5,85	8,33
3-E	9,94	2,711	7,41	8,84
4-ESE	8,89	2,776	8,18	7,91
5-SSE	8,57	2,458	6,23	7,60
6-S	9,31	2,490	7,53	8,26
7-SSW	9,78	2,586	9,24	8,68
8-WSW	11,07	2,668	14,95	9,84
9-W	10,88	2,525	17,71	9,65
10-WNW	9,76	2,343	9,60	8,65
11-NNW	8,42	2,141	4,62	7,45
Mean	9,78	2,389	100,00	8,67



All A: 9,8 m/s k: 2,39 Vm: 8,7 m/s	N A: 7,6 m/s k: 1,84 Vm: 6,7 m/s	NNE A: 8,4 m/s k: 2,03 Vm: 7,5 m/s	ENE A: 9,4 m/s k: 2,26 Vm: 8,3 m/s
E A: 9,9 m/s k: 2,71 Vm: 8,8 m/s	ESE A: 8,9 m/s k: 2,78 Vm: 7,9 m/s	SSE A: 8,6 m/s k: 2,46 Vm: 7,6 m/s	SA: 9,3 m/s k: 2,49 Vm: 8,3 m/s
SSW A: 9,8 m/s k: 2,59 Vm: 8,7 m/s	WSW A: 11,1 m/s k: 2,67 Vm: 9,8 m/s	W A: 10,9 m/s k: 2,53 Vm: 9,7 m/s	WNW A: 9,8 m/s k: 2,34 Vm: 8,6 m/s
NNW A: 8,4 m/s k: 2,14 Vm: 7,5 m/s			



Project:
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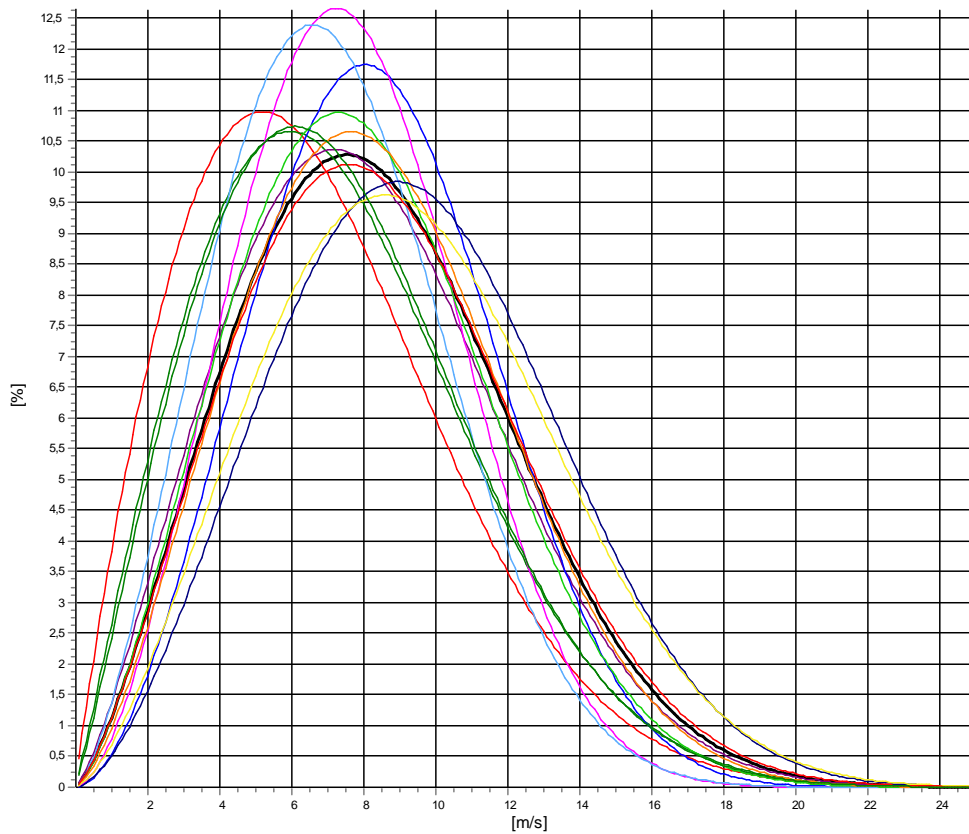
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Meteo data report - Weibull data overview

Mast: Lot 3 LT 1y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 30,00m - MCP LT - MCP 30m - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,61	1,919	3,59	6,75
1-NNE	8,21	2,063	5,20	7,28
2-ENE	9,17	2,314	5,90	8,13
3-E	9,42	2,795	7,31	8,39
4-ESE	8,57	2,728	8,33	7,62
5-SSE	8,10	2,482	6,10	7,19
6-S	9,05	2,446	7,61	8,03
7-SSW	9,42	2,481	9,24	8,36
8-WSW	10,72	2,638	15,07	9,52
9-W	10,51	2,505	17,61	9,33
10-WNW	9,57	2,371	9,58	8,48
11-NNW	8,28	2,110	4,44	7,33
Mean	9,46	2,384	100,00	8,39



All A: 9,5 m/s k: 2,38 Vm: 8,4 m/s	N A: 7,6 m/s k: 1,92 Vm: 6,8 m/s	NNE A: 8,2 m/s k: 2,06 Vm: 7,3 m/s	ENE A: 9,2 m/s k: 2,31 Vm: 8,1 m/s
E A: 9,4 m/s k: 2,80 Vm: 8,4 m/s	ESE A: 8,6 m/s k: 2,73 Vm: 7,6 m/s	SSE A: 8,1 m/s k: 2,48 Vm: 7,2 m/s	S A: 9,1 m/s k: 2,45 Vm: 8,0 m/s
SSW A: 9,4 m/s k: 2,48 Vm: 8,4 m/s	WSW A: 10,7 m/s k: 2,64 Vm: 9,5 m/s	W A: 10,5 m/s k: 2,51 Vm: 9,3 m/s	WNW A: 9,6 m/s k: 2,37 Vm: 8,5 m/s
NNW A: 8,3 m/s k: 2,11 Vm: 7,3 m/s			



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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

270,00m - MCP LT - 2y 270m MCP session (1) - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and values for bins 0 to 41.





Project: Energy Island Baltic Sea

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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

240,00m - MCP LT - 2y 240m MCP session (1) - [Matrix]

Table with 14 columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. It contains frequency distribution data for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

200,00m - MCP LT - 2y 200m MCP session (1) - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

180,00m - MCP LT - 2y 180m MCP session (1) - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

150,00m - MCP LT - 2y MCP session (1) - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

120,00m - MCP LT - 2y 120m MCP session (1) - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and values for bins 0 to 41.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. It contains frequency distribution data for various wind directions and speeds.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

90,00m - MCP LT - 2y 90m MCP session (1) - [Matrix]

Table with 13 columns (Bin, Start, End, Sum, 0-N, 1-NNW, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW) and 42 rows of frequency data.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

60,00m - MCP LT - 2y 60m MCP session (1) - [Matrix]

Table with 13 columns (Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW) and 42 rows of frequency data.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

40,00m - MCP LT - 2y 40m MCP session (1) - [Matrix]

Table with 13 columns (Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW) and 42 rows of data.





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Meteo data report - Frequency distribution (TAB file data)

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

30,00m - MCP LT - 2y 30m MCP session (1) - [Matrix]

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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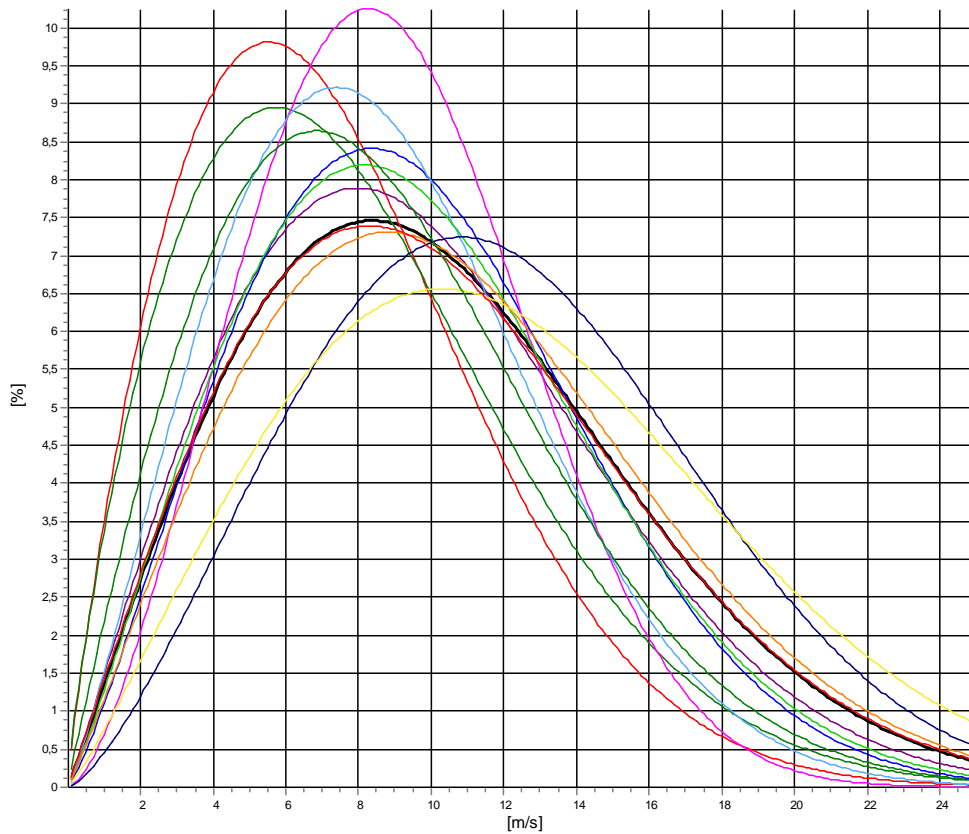
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y ; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: 270,00m - MCP LT - 2y 270m MCP session (1) - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	8,36	1,862	3,77	7,43
1-NNE	9,00	1,804	3,64	8,01
2-ENE	11,04	2,048	6,89	9,78
3-E	10,94	2,215	7,67	9,69
4-ESE	10,04	2,559	6,21	8,91
5-SSE	9,84	2,169	6,16	8,71
6-S	10,96	2,137	6,73	9,70
7-SSW	12,07	2,085	8,36	10,69
8-WSW	13,54	2,407	12,78	12,00
9-W	13,75	2,155	19,12	12,18
10-WNW	11,66	2,015	12,87	10,33
11-NNW	9,82	1,966	5,80	8,70
Mean	11,65	2,040	100,00	10,32



All A: 11,7 m/s k: 2,04 Vm: 10,3 m/s	N A: 8,4 m/s k: 1,86 Vm: 7,4 m/s	NNE A: 9,0 m/s k: 1,80 Vm: 8,0 m/s	ENE A: 11,0 m/s k: 2,05 Vm: 9,8 m/s
E A: 10,9 m/s k: 2,22 Vm: 9,7 m/s	ESE A: 10,0 m/s k: 2,56 Vm: 8,9 m/s	SSE A: 9,8 m/s k: 2,17 Vm: 8,7 m/s	S A: 11,0 m/s k: 2,14 Vm: 9,7 m/s
SSW A: 12,1 m/s k: 2,08 Vm: 10,7 m/s	WSW A: 13,5 m/s k: 2,41 Vm: 12,0 m/s	W A: 13,8 m/s k: 2,15 Vm: 12,2 m/s	WNW A: 11,7 m/s k: 2,01 Vm: 10,3 m/s
NNW A: 9,8 m/s k: 1,97 Vm: 8,7 m/s			





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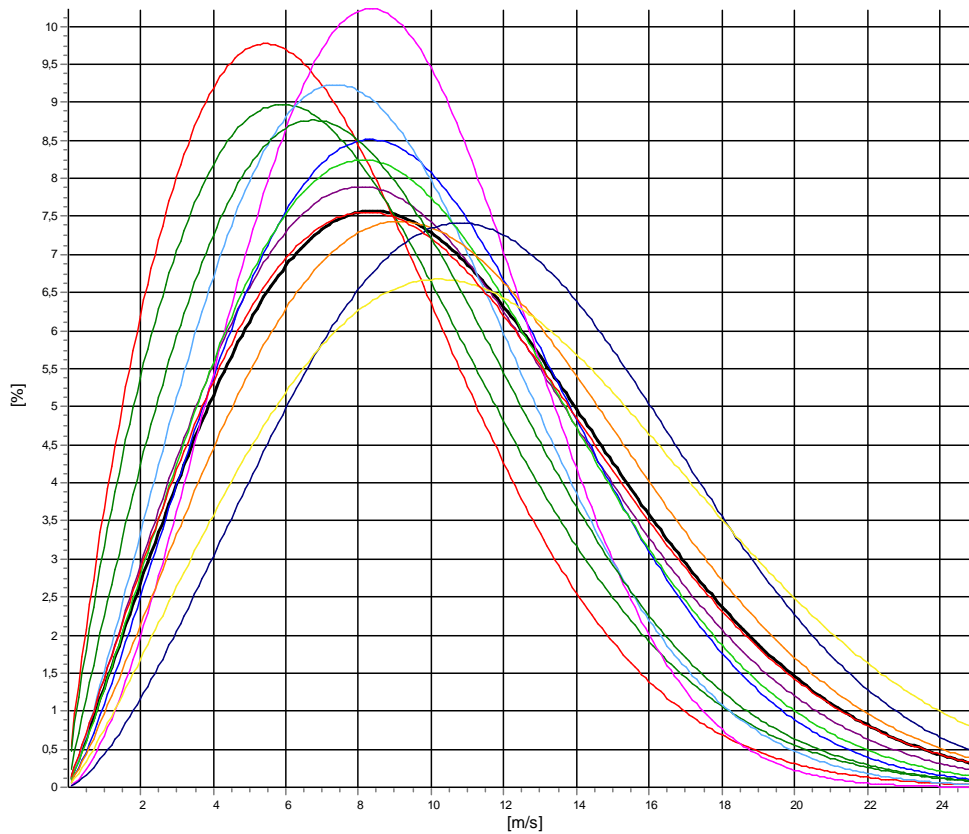
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y ; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: 240,00m - MCP LT - 2y 240m MCP session (1) - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	8,34	1,840	3,72	7,41
1-NNE	9,07	1,834	3,59	8,06
2-ENE	11,10	2,063	6,97	9,83
3-E	10,88	2,230	7,67	9,63
4-ESE	10,09	2,570	6,28	8,96
5-SSE	9,82	2,169	6,20	8,70
6-S	10,89	2,138	6,91	9,65
7-SSW	12,17	2,163	8,57	10,78
8-WSW	13,38	2,444	12,87	11,87
9-W	13,58	2,167	18,90	12,03
10-WNW	11,46	2,029	12,64	10,16
11-NNW	9,68	1,967	5,69	8,58
Mean	11,58	2,064	100,00	10,25



All A: 11,6 m/s k: 2,06 Vm: 10,3 m/s	N A: 8,3 m/s k: 1,84 Vm: 7,4 m/s	NNE A: 9,1 m/s k: 1,83 Vm: 8,1 m/s	ENE A: 11,1 m/s k: 2,06 Vm: 9,8 m/s
E A: 10,9 m/s k: 2,23 Vm: 9,6 m/s	ESE A: 10,1 m/s k: 2,57 Vm: 9,0 m/s	SSE A: 9,8 m/s k: 2,17 Vm: 8,7 m/s	S A: 10,9 m/s k: 2,14 Vm: 9,6 m/s
SSW A: 12,2 m/s k: 2,16 Vm: 10,8 m/s	WSW A: 13,4 m/s k: 2,44 Vm: 11,9 m/s	W A: 13,6 m/s k: 2,17 Vm: 12,0 m/s	WNW A: 11,5 m/s k: 2,03 Vm: 10,2 m/s
NNW A: 9,7 m/s k: 1,97 Vm: 8,6 m/s			





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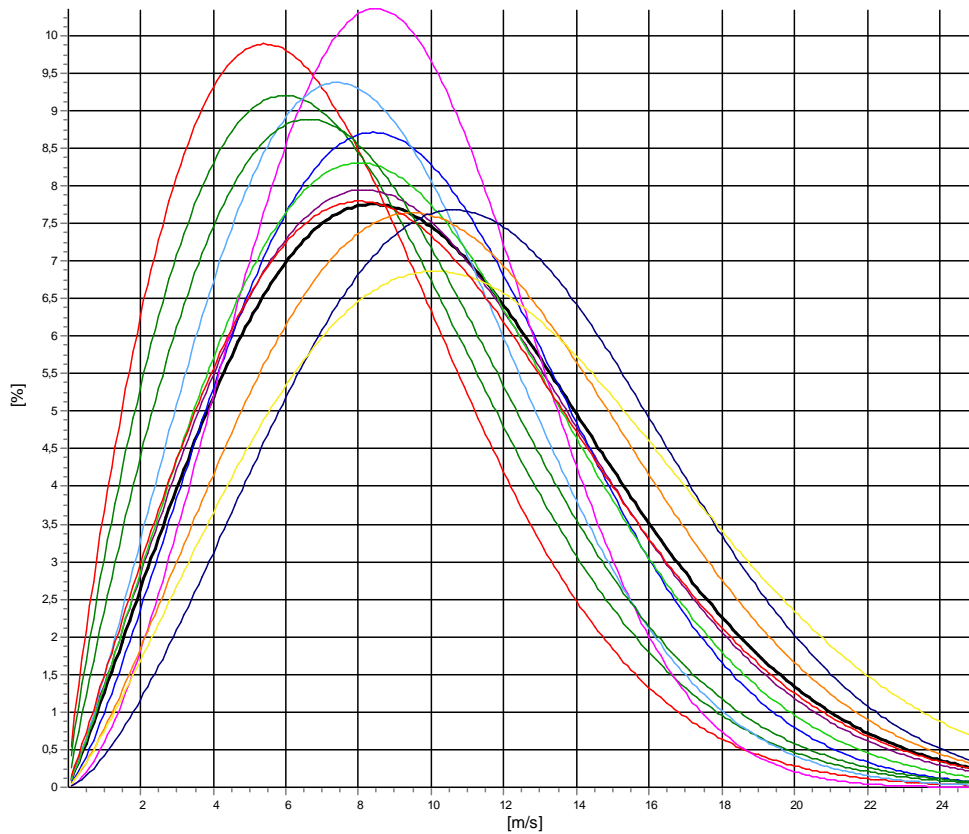
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Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y ; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)
Height: 200,00m - MCP LT - 2y 200m MCP session (1) - [Matrix]

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	8,26	1,847	3,74	7,34
1-NNE	8,96	1,874	3,68	7,95
2-ENE	11,12	2,090	7,03	9,85
3-E	10,82	2,286	7,69	9,59
4-ESE	10,16	2,629	6,33	9,03
5-SSE	9,76	2,195	6,24	8,65
6-S	10,79	2,130	6,99	9,55
7-SSW	12,25	2,263	8,75	10,85
8-WSW	13,08	2,481	12,93	11,60
9-W	13,32	2,194	18,72	11,80
10-WNW	11,15	2,040	12,36	9,88
11-NNW	9,53	1,959	5,53	8,45
Mean	11,43	2,099	100,00	10,12



All A: 11,4 m/s k: 2,10 Vm: 10,1 m/s	N A: 8,3 m/s k: 1,85 Vm: 7,3 m/s	NNE A: 9,0 m/s k: 1,87 Vm: 8,0 m/s	ENE A: 11,1 m/s k: 2,09 Vm: 9,8 m/s
E A: 10,8 m/s k: 2,29 Vm: 9,6 m/s	ESE A: 10,2 m/s k: 2,63 Vm: 9,0 m/s	SSE A: 9,8 m/s k: 2,19 Vm: 8,6 m/s	S A: 10,8 m/s k: 2,13 Vm: 9,6 m/s
SSW A: 12,2 m/s k: 2,26 Vm: 10,8 m/s	WSW A: 13,1 m/s k: 2,48 Vm: 11,6 m/s	W A: 13,3 m/s k: 2,19 Vm: 11,8 m/s	WNW A: 11,2 m/s k: 2,04 Vm: 9,9 m/s
NNW A: 9,5 m/s k: 1,96 Vm: 8,4 m/s			



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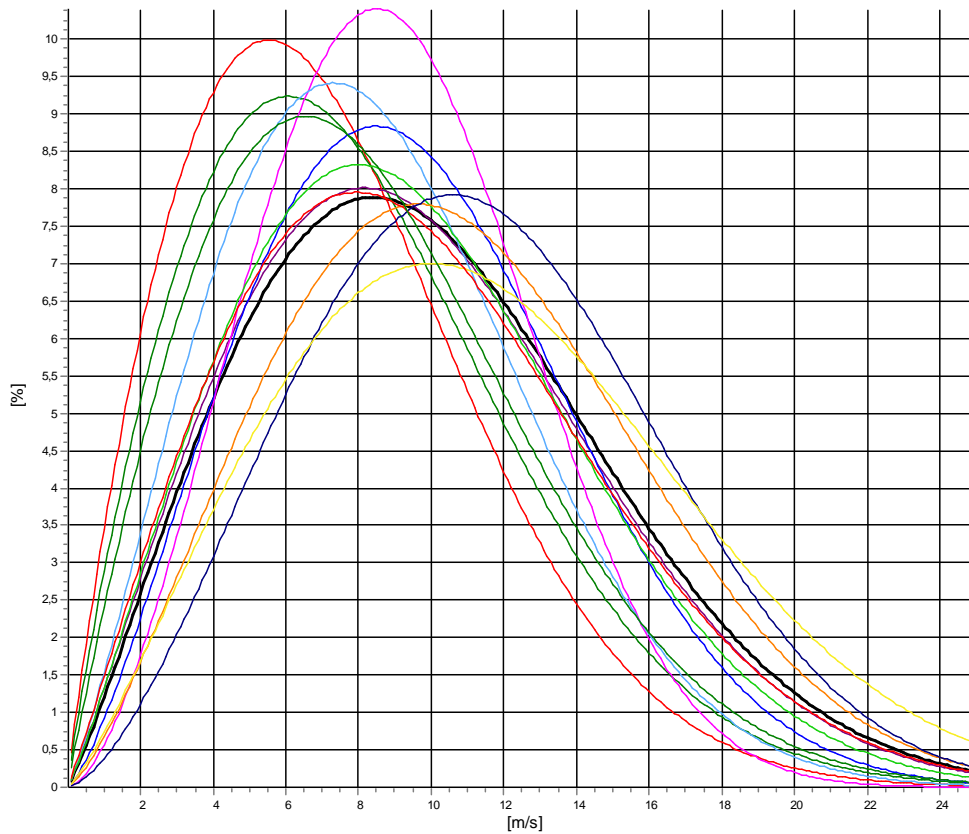
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **180,00m - MCP LT - 2y 180m MCP session (1) - [Matrix]**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	8,27	1,884	3,66	7,34
1-NNE	8,99	1,901	3,72	7,98
2-ENE	11,09	2,106	7,05	9,82
3-E	10,81	2,326	7,75	9,57
4-ESE	10,17	2,648	6,34	9,03
5-SSE	9,67	2,182	6,32	8,57
6-S	10,78	2,135	7,09	9,55
7-SSW	12,27	2,332	8,92	10,88
8-WSW	12,91	2,537	12,94	11,45
9-W	13,14	2,213	18,62	11,64
10-WNW	10,99	2,057	12,08	9,74
11-NNW	9,43	1,956	5,52	8,36
Mean	11,34	2,129	100,00	10,05



All A: 11,3 m/s k: 2,13 Vm: 10,0 m/s	N A: 8,3 m/s k: 1,88 Vm: 7,3 m/s	NNE A: 9,0 m/s k: 1,90 Vm: 8,0 m/s	ENE A: 11,1 m/s k: 2,11 Vm: 9,8 m/s
E A: 10,8 m/s k: 2,33 Vm: 9,6 m/s	ESE A: 10,2 m/s k: 2,65 Vm: 9,0 m/s	SSE A: 9,7 m/s k: 2,18 Vm: 8,6 m/s	SA A: 10,8 m/s k: 2,14 Vm: 9,5 m/s
SSW A: 12,3 m/s k: 2,33 Vm: 10,9 m/s	WSW A: 12,9 m/s k: 2,54 Vm: 11,5 m/s	W A: 13,1 m/s k: 2,21 Vm: 11,6 m/s	WNW A: 11,0 m/s k: 2,06 Vm: 9,7 m/s
NNW A: 9,4 m/s k: 1,96 Vm: 8,4 m/s			



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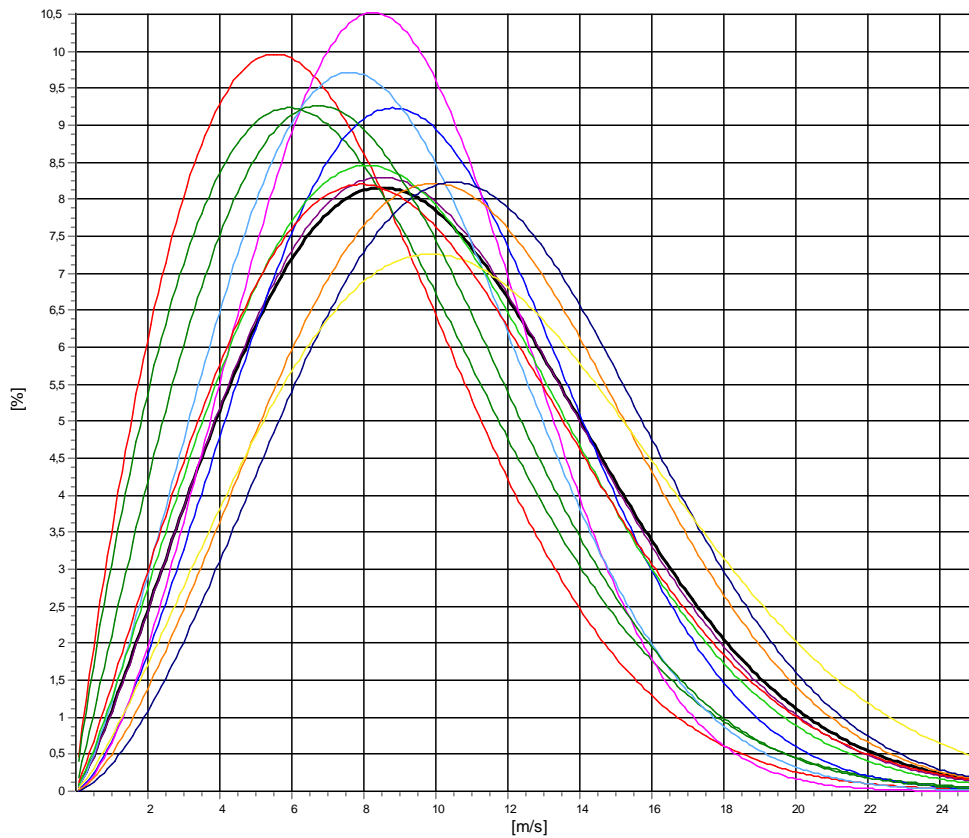
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **150,00m - MCP LT - 2y MCP session (1) - [Matrix]**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	8,28	1,878	3,59	7,35
1-NNE	8,92	1,874	3,81	7,92
2-ENE	11,12	2,221	7,09	9,85
3-E	10,87	2,480	7,70	9,64
4-ESE	9,95	2,614	6,45	8,84
5-SSE	9,77	2,306	6,50	8,65
6-S	10,75	2,177	7,17	9,52
7-SSW	12,23	2,483	9,26	10,85
8-WSW	12,66	2,596	12,97	11,24
9-W	12,82	2,247	18,29	11,36
10-WNW	10,81	2,099	11,77	9,57
11-NNW	9,39	2,041	5,39	8,32
Mean	11,22	2,197	100,00	9,94



— All A: 11,2 m/s k: 2,20 Vm: 9,9 m/s	— N A: 8,3 m/s k: 1,88 Vm: 7,4 m/s	— NNE A: 8,9 m/s k: 1,87 Vm: 7,9 m/s	— ENE A: 11,1 m/s k: 2,22 Vm: 9,8 m/s
— E A: 10,9 m/s k: 2,48 Vm: 9,6 m/s	— ESE A: 10,0 m/s k: 2,61 Vm: 8,8 m/s	— SSE A: 9,8 m/s k: 2,31 Vm: 8,7 m/s	— S A: 10,8 m/s k: 2,18 Vm: 9,5 m/s
— SSW A: 12,2 m/s k: 2,48 Vm: 10,8 m/s	— WSW A: 12,7 m/s k: 2,60 Vm: 11,2 m/s	— W A: 12,8 m/s k: 2,25 Vm: 11,4 m/s	— WNW A: 10,8 m/s k: 2,10 Vm: 9,6 m/s
— NNW A: 9,4 m/s k: 2,04 Vm: 8,3 m/s			



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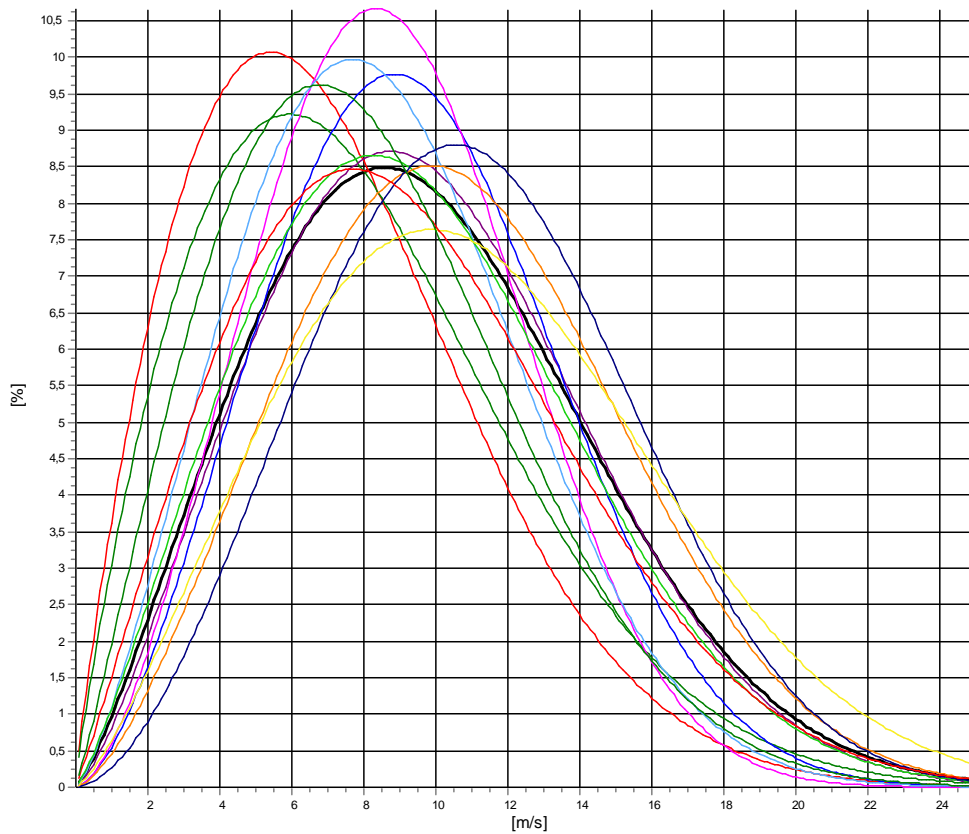
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **120,00m - MCP LT - 2y 120m MCP session (1) - [Matrix]**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	8,16	1,868	3,54	7,25
1-NNE	8,93	1,874	3,78	7,93
2-ENE	11,08	2,358	7,30	9,82
3-E	10,68	2,605	7,81	9,49
4-ESE	9,95	2,659	6,53	8,85
5-SSE	9,70	2,367	6,66	8,59
6-S	10,75	2,249	7,18	9,52
7-SSW	12,03	2,545	9,67	10,68
8-WSW	12,43	2,757	12,76	11,06
9-W	12,54	2,337	18,12	11,11
10-WNW	10,47	2,100	11,47	9,28
11-NNW	9,22	2,104	5,18	8,16
Mean	11,05	2,273	100,00	9,79



All A: 11,1 m/s k: 2,27 Vm: 9,8 m/s	N A: 8,2 m/s k: 1,87 Vm: 7,2 m/s	NNE A: 8,9 m/s k: 1,87 Vm: 7,9 m/s	ENE A: 11,1 m/s k: 2,36 Vm: 9,8 m/s
E A: 10,7 m/s k: 2,60 Vm: 9,5 m/s	ESE A: 10,0 m/s k: 2,66 Vm: 8,8 m/s	SSE A: 9,7 m/s k: 2,37 Vm: 8,6 m/s	S A: 10,8 m/s k: 2,25 Vm: 9,5 m/s
SSW A: 12,0 m/s k: 2,55 Vm: 10,7 m/s	WSW A: 12,4 m/s k: 2,76 Vm: 11,1 m/s	W A: 12,5 m/s k: 2,34 Vm: 11,1 m/s	WNW A: 10,5 m/s k: 2,10 Vm: 9,3 m/s
NNW A: 9,2 m/s k: 2,10 Vm: 8,2 m/s			





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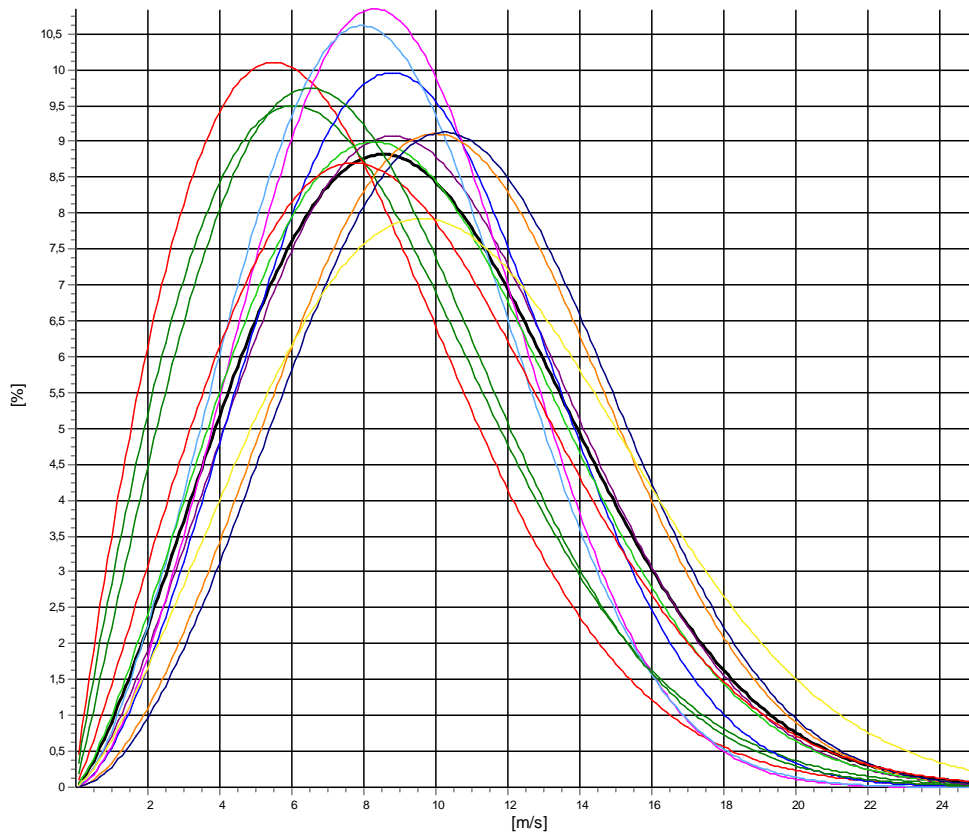
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **100,00m - MCP LT - 2y 100m MCP session (1) - [Matrix]**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	8,20	1,892	3,44	7,28
1-NNE	8,83	1,932	3,98	7,83
2-ENE	10,93	2,442	7,33	9,69
3-E	10,54	2,621	7,77	9,36
4-ESE	9,88	2,690	6,67	8,78
5-SSE	9,68	2,553	6,60	8,59
6-S	10,57	2,314	7,32	9,37
7-SSW	11,83	2,706	9,84	10,52
8-WSW	12,04	2,770	12,70	10,71
9-W	12,16	2,354	18,04	10,77
10-WNW	10,34	2,145	11,17	9,16
11-NNW	8,99	2,062	5,14	7,96
Mean	10,85	2,331	100,00	9,61



— All A: 10,8 m/s k: 2,33 Vm: 9,6 m/s	— N A: 8,2 m/s k: 1,89 Vm: 7,3 m/s	— NNE A: 8,8 m/s k: 1,93 Vm: 7,8 m/s	— ENE A: 10,9 m/s k: 2,44 Vm: 9,7 m/s
— E A: 10,5 m/s k: 2,62 Vm: 9,4 m/s	— ESE A: 9,9 m/s k: 2,69 Vm: 8,8 m/s	— SSE A: 9,7 m/s k: 2,55 Vm: 8,6 m/s	— S A: 10,6 m/s k: 2,31 Vm: 9,4 m/s
— SSW A: 11,8 m/s k: 2,71 Vm: 10,5 m/s	— WSW A: 12,0 m/s k: 2,77 Vm: 10,7 m/s	— W A: 12,2 m/s k: 2,35 Vm: 10,8 m/s	— WNW A: 10,3 m/s k: 2,15 Vm: 9,2 m/s
— NNW A: 9,0 m/s k: 2,06 Vm: 8,0 m/s			



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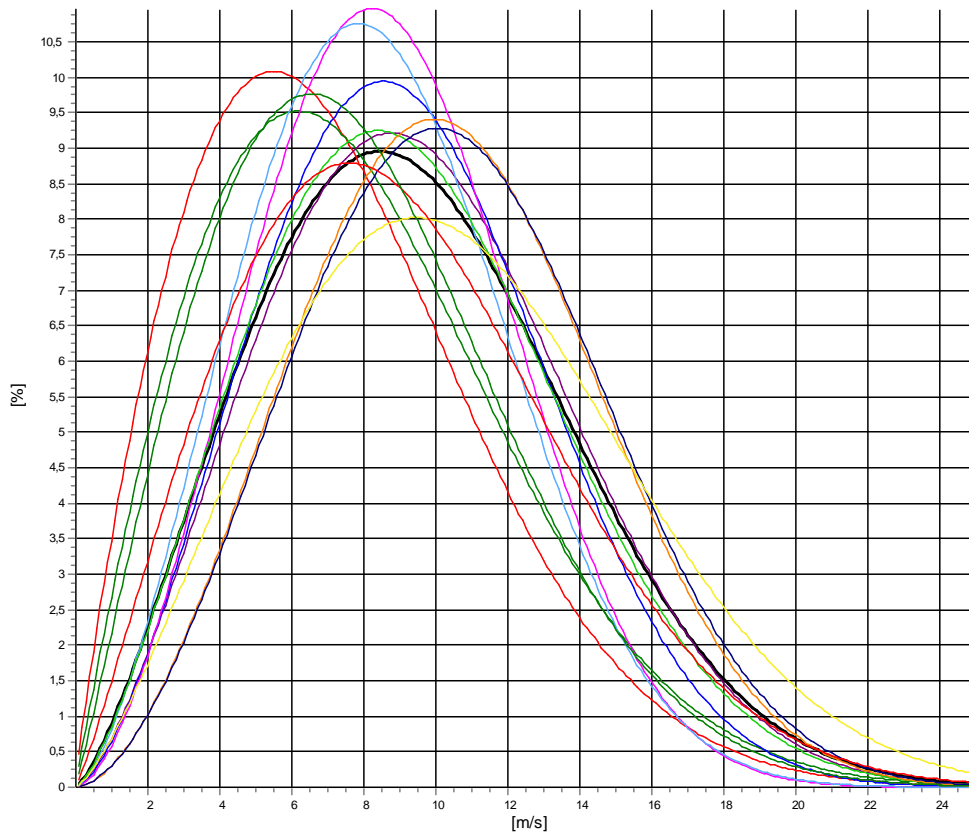
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **90,00m - MCP LT - 2y 90m MCP session (1) - [Matrix]**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	8,21	1,889	3,47	7,29
1-NNE	8,90	1,961	3,92	7,89
2-ENE	10,85	2,469	7,46	9,62
3-E	10,36	2,563	7,81	9,20
4-ESE	9,78	2,693	6,74	8,70
5-SSE	9,54	2,554	6,50	8,47
6-S	10,54	2,391	7,44	9,35
7-SSW	11,70	2,779	9,85	10,42
8-WSW	11,82	2,767	12,72	10,52
9-W	11,99	2,350	18,04	10,63
10-WNW	10,22	2,139	10,96	9,05
11-NNW	9,00	2,074	5,09	7,97
Mean	10,73	2,346	100,00	9,51



All A: 10,7 m/s k: 2,35 Vm: 9,5 m/s	N A: 8,2 m/s k: 1,89 Vm: 7,3 m/s	NNE A: 8,9 m/s k: 1,96 Vm: 7,9 m/s	ENE A: 10,8 m/s k: 2,47 Vm: 9,6 m/s
E A: 10,4 m/s k: 2,56 Vm: 9,2 m/s	ESE A: 9,8 m/s k: 2,69 Vm: 8,7 m/s	SSE A: 9,5 m/s k: 2,55 Vm: 8,5 m/s	S A: 10,5 m/s k: 2,39 Vm: 9,3 m/s
SSW A: 11,7 m/s k: 2,78 Vm: 10,4 m/s	WSW A: 11,8 m/s k: 2,77 Vm: 10,5 m/s	W A: 12,0 m/s k: 2,35 Vm: 10,6 m/s	WNW A: 10,2 m/s k: 2,14 Vm: 9,0 m/s
NNW A: 9,0 m/s k: 2,07 Vm: 8,0 m/s			



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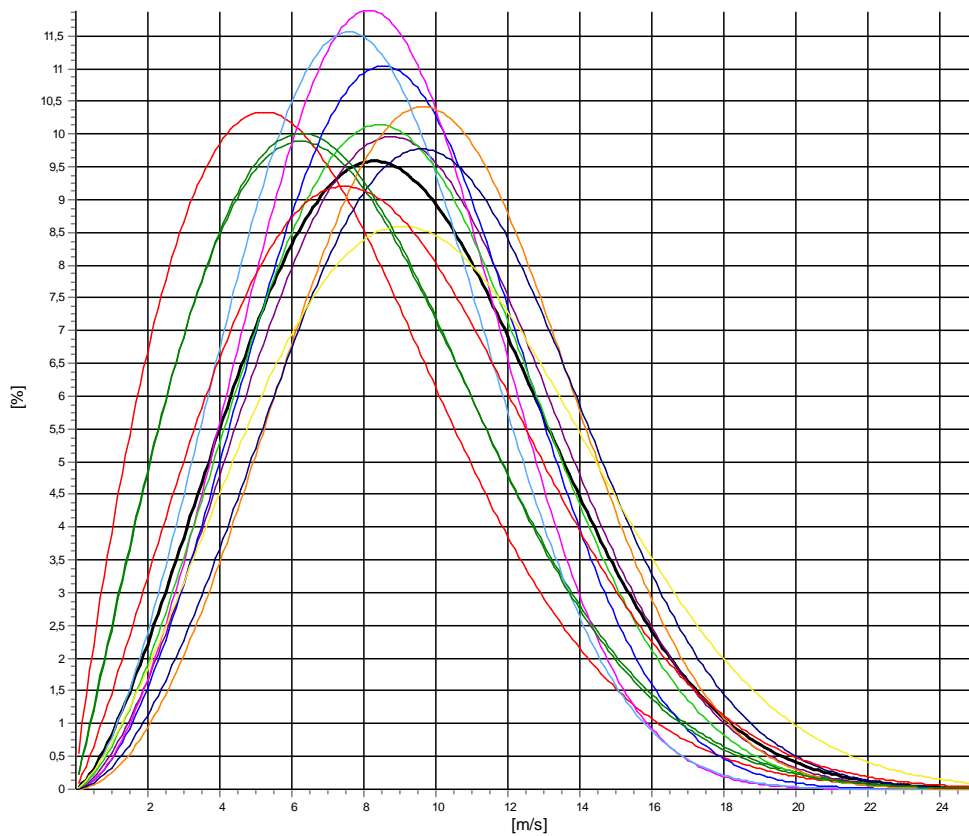
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **60,00m - MCP LT - 2y 60m MCP session (1) - [Matrix]**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,92	1,857	3,41	7,04
1-NNE	8,75	2,025	3,94	7,75
2-ENE	10,54	2,622	7,77	9,36
3-E	10,01	2,793	7,77	8,92
4-ESE	9,48	2,854	6,90	8,45
5-SSE	9,11	2,635	6,51	8,09
6-S	10,20	2,576	7,63	9,06
7-SSW	11,12	2,947	9,88	9,92
8-WSW	11,29	2,783	12,76	10,05
9-W	11,38	2,399	17,91	10,09
10-WNW	9,90	2,183	10,59	8,77
11-NNW	8,70	2,047	4,95	7,71
Mean	10,31	2,434	100,00	9,14



— All A: 10,3 m/s k: 2,43 Vm: 9,1 m/s	— N A: 7,9 m/s k: 1,86 Vm: 7,0 m/s	— NNE A: 8,7 m/s k: 2,02 Vm: 7,8 m/s	— ENE A: 10,5 m/s k: 2,62 Vm: 9,4 m/s
— E A: 10,0 m/s k: 2,79 Vm: 8,9 m/s	— ESE A: 9,5 m/s k: 2,85 Vm: 8,4 m/s	— SSE A: 9,1 m/s k: 2,63 Vm: 8,1 m/s	— S A: 10,2 m/s k: 2,58 Vm: 9,1 m/s
— SSW A: 11,1 m/s k: 2,95 Vm: 9,9 m/s	— WSW A: 11,3 m/s k: 2,78 Vm: 10,0 m/s	— W A: 11,4 m/s k: 2,40 Vm: 10,1 m/s	— WNW A: 9,9 m/s k: 2,18 Vm: 8,8 m/s
— NNW A: 8,7 m/s k: 2,05 Vm: 7,7 m/s			



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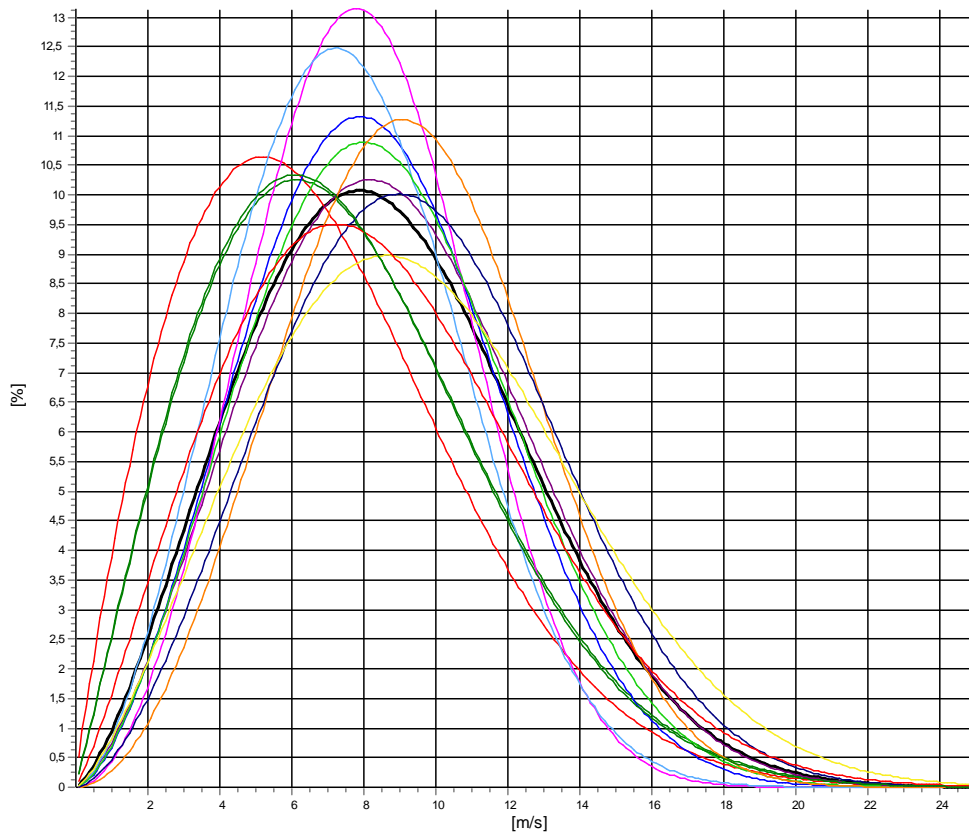
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y; 20 year Period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: 40,00m - MCP LT - 2y 40m MCP session (1) - [Matrix]

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,77	1,884	3,36	6,89
1-NNE	8,51	2,051	3,97	7,54
2-ENE	9,96	2,535	8,04	8,84
3-E	9,42	2,672	7,80	8,37
4-ESE	8,93	2,994	7,07	7,97
5-SSE	8,59	2,692	6,41	7,64
6-S	9,63	2,619	7,70	8,56
7-SSW	10,41	2,992	9,98	9,29
8-WSW	10,68	2,684	12,69	9,50
9-W	10,83	2,383	17,89	9,60
10-WNW	9,59	2,185	10,27	8,49
11-NNW	8,44	2,053	4,81	7,48
Mean	9,80	2,428	100,00	8,69



All A: 9,8 m/s k: 2,43 Vm: 8,7 m/s	N A: 7,8 m/s k: 1,88 Vm: 6,9 m/s	NNE A: 8,5 m/s k: 2,05 Vm: 7,5 m/s	ENE A: 10,0 m/s k: 2,54 Vm: 8,8 m/s
E A: 9,4 m/s k: 2,67 Vm: 8,4 m/s	ESE A: 8,9 m/s k: 2,99 Vm: 8,0 m/s	SSE A: 8,6 m/s k: 2,69 Vm: 7,6 m/s	S A: 9,6 m/s k: 2,62 Vm: 8,6 m/s
SSW A: 10,4 m/s k: 2,99 Vm: 9,3 m/s	WSW A: 10,7 m/s k: 2,68 Vm: 9,5 m/s	W A: 10,8 m/s k: 2,38 Vm: 9,6 m/s	WNW A: 9,6 m/s k: 2,19 Vm: 8,5 m/s
NNW A: 8,4 m/s k: 2,05 Vm: 7,5 m/s			





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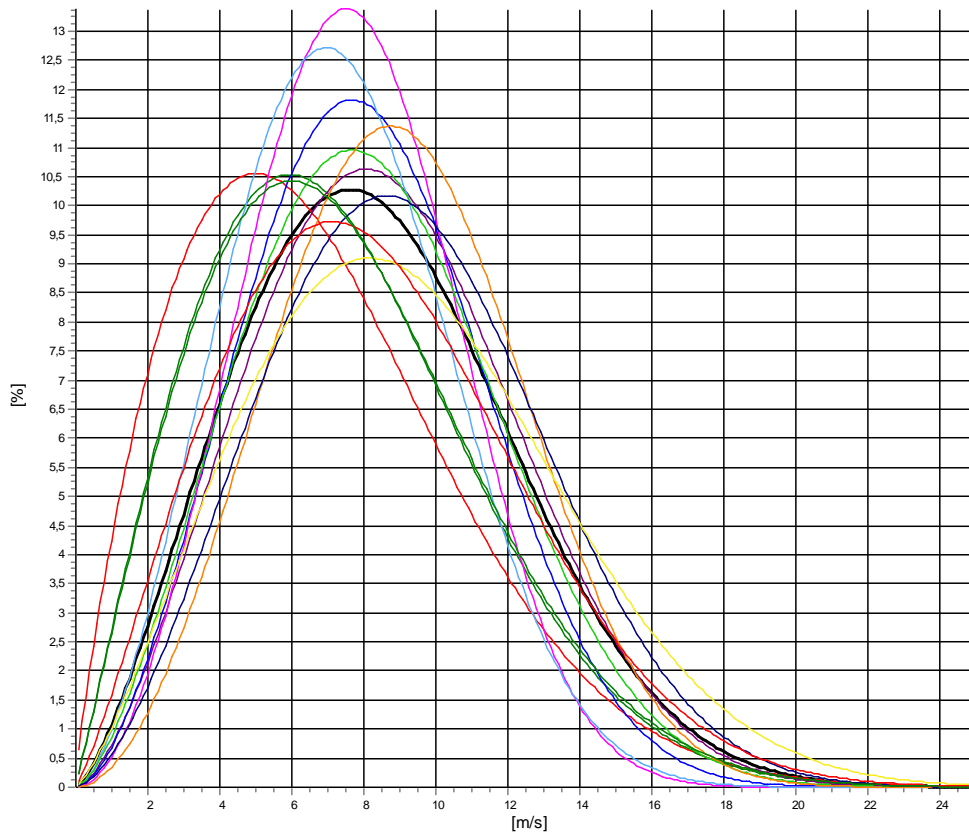
Meteo data report - Weibull data overview

Mast: Lot 4 LT 2y ; 20 year Period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **30,00m - MCP LT - 2y 30m MCP session (1) - [Matrix]**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	7,70	1,834	3,38	6,85
1-NNE	8,27	2,046	3,95	7,32
2-ENE	9,75	2,582	8,08	8,66
3-E	9,11	2,707	7,84	8,11
4-ESE	8,65	2,950	7,15	7,72
5-SSE	8,32	2,647	6,37	7,39
6-S	9,35	2,546	7,63	8,30
7-SSW	10,11	2,922	10,13	9,01
8-WSW	10,36	2,635	12,92	9,20
9-W	10,45	2,314	17,80	9,26
10-WNW	9,41	2,198	9,94	8,33
11-NNW	8,35	2,045	4,81	7,40
Mean	9,53	2,404	100,00	8,45



— All A: 9,5 m/s k: 2,40 Vm: 8,4 m/s	— N A: 7,7 m/s k: 1,83 Vm: 6,8 m/s	— NNE A: 8,3 m/s k: 2,05 Vm: 7,3 m/s	— ENE A: 9,8 m/s k: 2,58 Vm: 8,7 m/s
— E A: 9,1 m/s k: 2,71 Vm: 8,1 m/s	— ESE A: 8,7 m/s k: 2,95 Vm: 7,7 m/s	— SSE A: 8,3 m/s k: 2,65 Vm: 7,4 m/s	— S A: 9,4 m/s k: 2,55 Vm: 8,3 m/s
— SSW A: 10,1 m/s k: 2,92 Vm: 9,0 m/s	— WSW A: 10,4 m/s k: 2,63 Vm: 9,2 m/s	— W A: 10,4 m/s k: 2,31 Vm: 9,3 m/s	— WNW A: 9,4 m/s k: 2,20 Vm: 8,3 m/s
— NNW A: 8,4 m/s k: 2,04 Vm: 7,4 m/s			



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Meteo data report - Frequency distribution (TAB file data)

Mast: Position 3; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. Rows include Mean and frequency counts for various wind directions and speeds.





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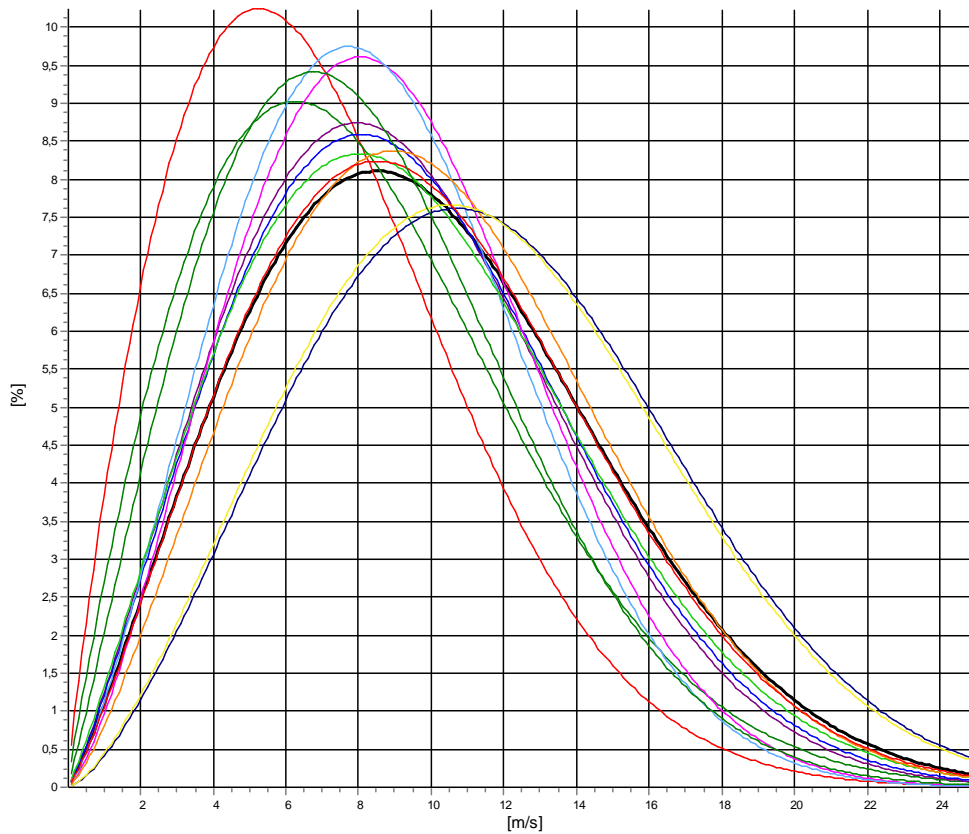
Meteo data report - Weibull data overview

Mast: Position 3; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **150,00m - MCP LT - 150m - [Matrix] Scaled res map cal**

Weibull data

Sector	A [m/s]	k	f	Mean wind speed [m/s]
0-N	7,99	1,856	3,58	7,10
1-NNE	9,23	1,911	4,51	8,19
2-ENE	10,48	2,201	5,96	9,28
3-E	10,65	2,196	7,29	9,43
4-ESE	10,11	2,381	7,35	8,97
5-SSE	9,82	2,335	6,37	8,71
6-S	10,77	2,138	7,22	9,54
7-SSW	11,41	2,327	8,67	10,11
8-WSW	13,18	2,480	13,50	11,69
9-W	13,02	2,461	18,89	11,54
10-WNW	11,17	2,213	11,45	9,89
11-NNW	9,32	2,068	5,21	8,25
Mean	11,25	2,187	100,00	9,96



All A: 11,3 m/s k: 2,19 Vm: 10,0 m/s	N A: 8,0 m/s k: 1,86 Vm: 7,1 m/s	NNE A: 9,2 m/s k: 1,91 Vm: 8,2 m/s	ENE A: 10,5 m/s k: 2,20 Vm: 9,3 m/s
E A: 10,7 m/s k: 2,20 Vm: 9,4 m/s	ESE A: 10,1 m/s k: 2,38 Vm: 9,0 m/s	SSE A: 9,8 m/s k: 2,33 Vm: 8,7 m/s	S A: 10,8 m/s k: 2,14 Vm: 9,5 m/s
SSW A: 11,4 m/s k: 2,33 Vm: 10,1 m/s	WSW A: 13,2 m/s k: 2,48 Vm: 11,7 m/s	W A: 13,0 m/s k: 2,46 Vm: 11,5 m/s	WNW A: 11,2 m/s k: 2,21 Vm: 9,9 m/s
NNW A: 9,3 m/s k: 2,07 Vm: 8,3 m/s			



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Meteo data report - Frequency distribution (TAB file data)

Mast: Position 4 2y; 20 year period Period: Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Frequency distribution (TAB file data)

Table with columns: Bin, Start, End, Sum, 0-N, 1-NNE, 2-ENE, 3-E, 4-ESE, 5-SSE, 6-S, 7-SSW, 8-WSW, 9-W, 10-WNW, 11-NNW. It contains frequency data for various wind directions and speeds.





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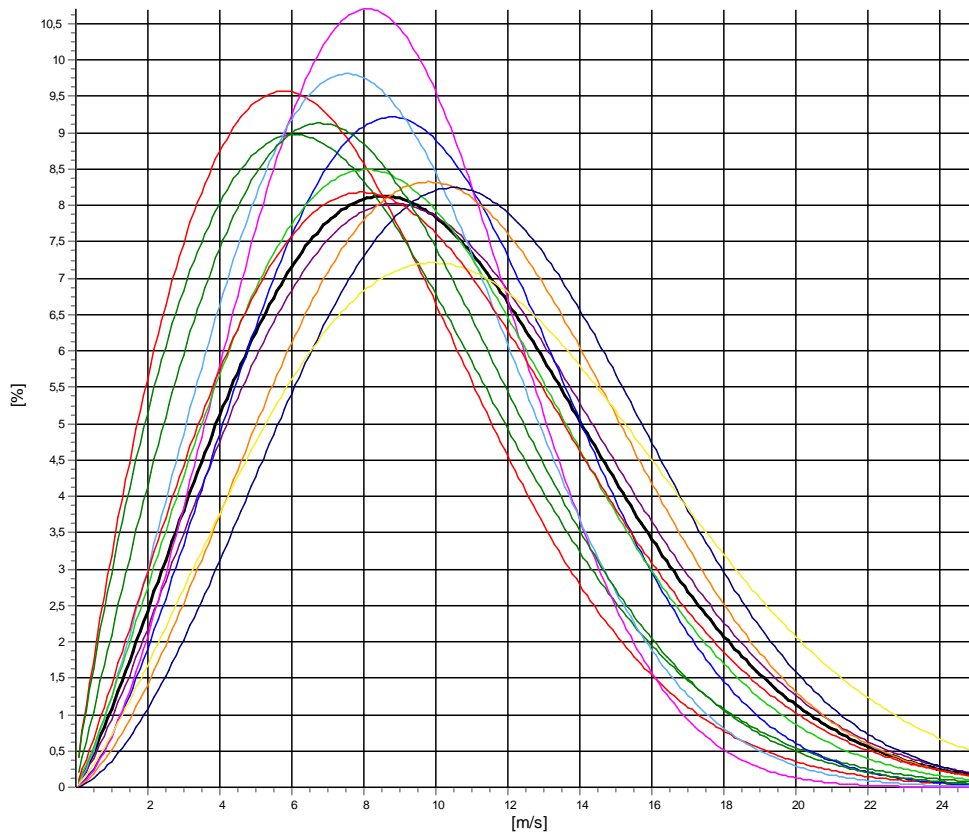
Meteo data report - Weibull data overview

Mast: Position 4 2y; 20 year period **Period:** Full period: 01/01/2003 - 01/01/2023 (240,0 months)

Height: **150,00m - MCP LT - 2y MCP session (1) - [Matrix] Scaled res map cal**

Weibull data

Sector	A	k	f	Mean wind speed
	[m/s]			[m/s]
0-N	8,64	1,886	3,59	7,66
1-NNE	9,16	1,868	3,81	8,13
2-ENE	11,55	2,236	7,09	10,23
3-E	10,83	2,464	7,70	9,61
4-ESE	9,75	2,606	6,45	8,66
5-SSE	9,66	2,304	6,50	8,56
6-S	10,71	2,179	7,17	9,49
7-SSW	12,07	2,485	9,26	10,71
8-WSW	12,64	2,599	12,97	11,22
9-W	12,90	2,248	18,29	11,43
10-WNW	10,83	2,099	11,77	9,59
11-NNW	9,48	2,029	5,39	8,40
Mean	11,25	2,197	100,00	9,97



All A: 11,3 m/s k: 2,20 Vm: 10,0 m/s	N A: 8,6 m/s k: 1,89 Vm: 7,7 m/s	NNE A: 9,2 m/s k: 1,87 Vm: 8,1 m/s	ENE A: 11,6 m/s k: 2,24 Vm: 10,2 m/s
E A: 10,8 m/s k: 2,46 Vm: 9,6 m/s	ESE A: 9,8 m/s k: 2,61 Vm: 8,7 m/s	SSE A: 9,7 m/s k: 2,30 Vm: 8,6 m/s	S A: 10,7 m/s k: 2,18 Vm: 9,5 m/s
SSW A: 12,1 m/s k: 2,49 Vm: 10,7 m/s	WSW A: 12,6 m/s k: 2,60 Vm: 11,2 m/s	W A: 12,9 m/s k: 2,25 Vm: 11,4 m/s	WNW A: 10,8 m/s k: 2,10 Vm: 9,6 m/s
NNW A: 9,5 m/s k: 2,03 Vm: 8,4 m/s			





Appendix D. Normal Turbulence Model (150 m)



Wind speed [m/s]	Turbulence intensity mean value (TI_{μ}) [%]	Turbulence intensity standard deviation (TI_{σ}) [%]	Turbulence intensity 90% quantile [%]
3	11.5	7.2	20.8
4	8.5	5.6	15.6
5	6.8	4.6	12.7
6	5.8	4.0	10.8
7	5.1	3.5	9.6
8	4.7	3.2	8.7
9	4.4	2.9	8.1
10	4.3	2.7	7.7
11	4.2	2.5	7.4
12	4.2	2.4	7.2
13	4.2	2.2	7.0
14	4.2	2.1	6.9
15	4.3	2.0	6.9
16	4.4	2.0	6.9
17	4.5	1.9	6.9
18	4.6	1.8	7.0
19	4.8	1.8	7.0
20	4.9	1.7	7.1
21	5.0	1.7	7.2
22	5.2	1.6	7.3
23	5.3	1.6	7.4
24	5.5	1.6	7.6
25	5.7	1.5	7.7



Wind speed [m/s]	TURBULENCE MEAN VALUE (σ_{μ}) [M/S]	TURBULENCE STANDARD DEVIATION (σ_{σ}) [M/S]	Turbulence 90% QUANTILE [m/s]
3	0.35	0.22	0.62
4	0.34	0.22	0.63
5	0.34	0.23	0.63
6	0.35	0.24	0.65
7	0.36	0.24	0.67
8	0.38	0.25	0.70
9	0.40	0.26	0.73
10	0.43	0.27	0.77
11	0.46	0.27	0.81
12	0.50	0.28	0.86
13	0.54	0.29	0.91
14	0.59	0.30	0.97
15	0.65	0.31	1.04
16	0.70	0.31	1.10
17	0.77	0.32	1.18
18	0.83	0.33	1.25
19	0.90	0.34	1.34
20	0.98	0.34	1.42
21	1.06	0.35	1.51
22	1.14	0.36	1.60
23	1.23	0.37	1.70
24	1.33	0.38	1.81
25	1.44	0.38	1.93
