

Project:

Analiza akustyczna

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Licensed user:

ENVO

ul.Sikorskiego 25/20

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Calculated:

2014-05-18 20:48/2.9.207

DECIBEL - Detailed results**Calculation:** Analiza akustyczna wariant proponowany **Noise calculation model:** ISO 9613-2 General 6,0 m/s**Assumptions**

Calculated L(DW) = LWA,ref + K + Dc - (Adiv + Aatm + Agr + Abar + Amisc) - Cmet
 (when calculated with ground attenuation, then Dc = Domega)

LWA,ref: Sound pressure level at WTG
 K: Pure tone
 Dc: Directivity correction
 Adiv: the attenuation due to geometrical divergence
 Aatm: the attenuation due to atmospheric absorption
 Agr: the attenuation due to ground effect
 Abar: the attenuation due to a barrier
 Amisc: the attenuation due to miscellaneous other effects
 Cmet: Meteorological correction

Calculation Results**Noise sensitive area: A RN1****WTG****Wind speed: 6,0 m/s**

No.	Distance [m]	Sound distance [m]	Calculated [dB(A)]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]	Cmet [dB]
1	550	555	32,33	97,0	0,00	65,88	-	-	0,00	0,00	-	0,00

Sum 32,33

- Data undefined due to calculation with octave data

Noise sensitive area: B RN2**WTG****Wind speed: 6,0 m/s**

No.	Distance [m]	Sound distance [m]	Calculated [dB(A)]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]	Cmet [dB]
1	556	560	32,22	97,0	0,00	65,97	-	-	0,00	0,00	-	0,00

Sum 32,22

- Data undefined due to calculation with octave data

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DECIBEL - Assumptions for noise calculation**Calculation:** Analiza akustyczna wariant proponowany **Noise calculation model:** ISO 9613-2 General 6,0 m/s**Noise calculation model:**

ISO 9613-2 General

Wind speed:

6,0 m/s

Ground attenuation:

General, Ground factor: 0,0

Meteorological coefficient, C0:

0,0 dB

Type of demand in calculation:

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

Noise values in calculation:

All noise values are mean values (Lwa) (Normal)

Pure tones:

Pure and Impulse tone penalty are added to WTG source noise

Height above ground level, when no value in NSA object:

4,0 m Allow override of model height with height from NSA object

Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:

0,0 dB(A)

Octave data required

Air absorption

63	125	250	500	1 000	2 000	4 000	8 000
[db/km]	[db/km]	[db/km]	[db/km]	[db/km]	[db/km]	[db/km]	[db/km]
0,1	0,4	1,0	1,9	3,7	9,7	32,8	117,0

WTG: ENERCON E-40/5.40 500 40.3 !O!**Noise:** 10m/s Man. guaranteed all Hub heights 12/98

Source Source/Date Creator Edited

Manufacturer 1998-12-01 USER 2003-08-13 16:41

Refers to measuring report KÖTTER 23554-2.002 from 03.03.1998

For older turbines, there may be a tonality due to a different generator type. If in doubt, please ask Enercon.

Status	Hub height [m]	Wind speed [m/s]	LwA,ref [dB(A)]	Pure tones		Octave data							
						63	125	250	500	1000	2000	4000	8000
From slope	80,0	6,0	97,0	No	Generic data	78,6	85,6	89,0	91,6	91,4	88,5	83,7	74,2

NSA: RN1-A**Predefined calculation standard:****Imission height(a.g.l.):** Use standard value from calculation model**Noise demand:** 45,0 dB(A)**Distance demand:****NSA:** RN2-B**Predefined calculation standard:****Imission height(a.g.l.):** Use standard value from calculation model**Noise demand:** 45,0 dB(A)**Distance demand:**