Sound Power Level of the ENERCON E-101 Reduced Modes (Data Sheet)

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Glossary

WEC	means an ENERCON wind energy converter.
WECs	means more than one ENERCON wind energy converter.

Sound Power Levels for the E-101 with reduced rated power

Sound Power Levels for the E-101 with reduced rated power						
	$P_{N,red}$=2500 kW $n_{N,red}$=	$P_{N,red}$=2000 kW $n_{N,red}$=	$P_{N,red}$=1500 kW $n_{N,red}$=	$P_{N,red}$=1000 kW $n_{N,red}$=	$P_{N,red}$=800 kW $n_{N,red}$=	$P_{N,red}$=600 kW $n_{N,red}$=
95% rated power	105.6 dB(A)	104.0 dB(A)	102.0 dB(A)	100.0 dB(A)	99.0 dB(A)	95.0 dB(A)

1. The respective SPL is given for 95% $P_{N,red}$ and is therefore valid for all hub heights.
2. A tonal audibility of $\Delta L_{a,k}$ < 2 dB can be expected over the whole operational range (valid in the near vicinity of the turbine according to IEC 61 400 -11 ed. 2).
3. The sound power level values given in the table are valid for the respective reduced Modes (defined via the reduced rated power $P_{N,red}$ and the reduced rated rotational speed $n_{N,red}$).
4. The power curves for the respective reduced modes are given in a separate document which can be made available upon request.
5. Due to the typical measurement uncertainties, if the sound power level is measured according to one of the accepted methods the measured values can differ from the values shown in this document in the range of +/- 1 dB.

   Accepted measurement methods are:

   a) IEC 61400-11 ed. 2 („Wind turbine generator systems – Part 11: Acoustic noise measurement techniques; Second edition“), and

   b) the FGW-Guidelines („Technische Richtlinie für Windenergieanlagen – Teil 1: Bestimmung der Schallemissionswerte“, published by the association “Fördergesellschaft für Windenergie e.V.”, 18th revision).

   If the difference between total noise and background noise during a measurement is less than 6 dB a higher uncertainty must be considered.
6. Sound Power values for further reduced modes can be provided upon request.
7. The sound power level of a wind turbine depends on several factors such as but not limited to regular maintenance and day-to-day operation in compliance with the manufacturer’s operating instructions. Therefore, this data sheet can not, and is not intended to, constitute an express or implied warranty towards the customer that the E-101 WEC will meet the exact sound power level values as shown in this document at any project specific site.