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| **Bestimmung der Schallleistungspegel aus mehreren Einzelmessungen**  **Seite 1 von 5** |

Auf der Basis von mindestens drei Messungen nach der „Technischen Richtlinie für Windenergieanlagen“ /1/ besteht die Möglichkeit, die Schallemissionswerte eines Anlagentyps statistisch anzugeben, um die schalltechnische Planungssicherheit zu erhöhen.

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| **Anlagendaten** | | | | | | | |
| **Hersteller** | xxxxxxxxxxxxxxxxx | | Anlagenbezeichnung | | | xxxxxxxxxxxxxxxx | |
|  | xxxxxxxxxxxxxxxxx | | Nennleistung in kW | | | xxxx | |
|  |  | | Max. Sollw. Rotordrehzahl in min-1 | | | xxxx | |
|  | xxxxxxxxxxxxxxxxx | | Rotordurchmesser in m | | | xxx | |
| **Angaben zur Einzelmessung** | **Messung-Nr.** | | | | | | |
| **1** | **2** | | **3** | **4** | | **… n** |
| Seriennummer | xxx | xxx | | xxx | xxx | | xxx |
| Standort | xxx | xxx | | xxx | xxx | | xxx |
| Vermessene Nabenhöhe | xxx | xxx | | xxx | xxx | | xxx |
| Messinstitut | xxxx | xxxx | | xxxx | xxxx | | xxxx |
| Prüfbericht | xxxx | xxxx | | xxxx | xxxx | | xxxx |
| Berichtsdatum | xx.xx.xx | xx.xx.xx | | xx.xx.xx | xx.xx.xx | | xx.xx.xx |
| Messnorm, Messrichtlinie | xxxx | xxxx | | xxxx | xxxx | | xxxx |
| Getriebetyp | xxxxx | xxxxx | | xxxxx | xxxxx | | xxxxx |
| Generatortyp | xxxxx | xxxxx | | xxxxx | xxxxx | | xxxxx |
| Rotorblattyp | xxxxx | xxxxx | | xxxxx | xxxxx | | xxxxx |

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| **Schallemissionsparameter: Messwerte (Prüfbericht Leistungskurve: xxxxx)** | | | | | | | | | |
| **Schallleistungspegel LWA,P:** | | | | | | | | | |
| **Messung** | **Windgeschwindigkeit auf Nabenhöhe** | | | | | | | | |
| **8,5 m/s** | **9,0 m/s** | **9,5 m/s** | **10,0 m/s** | **10,5 m/s** | **11,0 m/s** | **11,5 m/s** | **12,0 m/s** | **12,5 m/s** |
| 1 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| 2 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| 3 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| 4 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| ... |  |  |  |  |  |  |  |  |  |
| n | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| Mittelwert | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| Standard-abweichung s | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| K nach /2/  = x dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |

*/1/ Technische Richtlinien für Windenergieanlagen, Teil 1: Bestimmung der Schallemissionswerte, Revision 19, Herausgeber: Fördergesellschaft Windenergie e.V., Oranienburger Straße 45, 10117 Berlin*

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| **Bestimmung der Schallleistungspegel aus mehreren Einzelmessungen**  **Seite 2 von 5** |

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| **Schallemissionsparameter: Zuschläge** | | | | | | | | | |
| **Tonzuschlag bei vermessener Nabenhöhe KTN:** | | | | | | | | | |
| **Messung** | **Windgeschwindigkeit auf Nabenhöhe** | | | | | | | | |
| **8,5 m/s** | **9,0 m/s** | **9,5 m/s** | **10,0 m/s** | **10,5 m/s** | **11,0 m/s** | **11,5 m/s** | **12,0 m/s** | **12,5 m/s** |
| 1 | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz |
| 2 | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz |
| 3 | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz |
| 4 | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz |
| ... |  |  |  |  |  |  |  |  |  |
| n | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz | xx dB  xxx Hz |

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| **Impulszuschlag KIN:** | | | | | | | | | |
| **Messung** | **Windgeschwindigkeit auf Nabenhöhe** | | | | | | | | |
| **8,5 m/s** | **9,0 m/s** | **9,5 m/s** | **10,0 m/s** | **10,5 m/s** | **11,0 m/s** | **11,5 m/s** | **12,0 m/s** | **12,5 m/s** |
| 1 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| 2 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| 3 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| 4 | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |
| ... |  |  |  |  |  |  |  |  |  |
| n | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB | xx dB |

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| **Bestimmung der Schallleistungspegel aus mehreren Einzelmessungen**  **Seite 3 von 5** |

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| **Schallleistungspegel (Terzen und Oktaven) BIN xx m/s** | | | | | | | | | | | | |
| **Frequenz**  **[Hz]** | Messung – Nr.: | | | | | | | | Mittelwerte | | | |
| 1 | | 2 | | 3 | | n | | Terz | | | Oktave |
| **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **sj,k**  [dB] | **σj,k**  [dB] | **LWA,j,k**  [dB] |
| ***50*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***63*** | x | x | x | x | x | x | x | x | x | x | x |
| ***80*** | x | x | x | x | x | x | x | x | x | x | x |
| ***100*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***125*** | x | x | x | x | x | x | x | x | x | x | x |
| ***160*** | x | x | x | x | x | x | x | x | x | x | x |
| ***200*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***250*** | x | x | x | x | x | x | x | x | x | x | x |
| ***315*** | x | x | x | x | x | x | x | x | x | x | x |
| ***400*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***500*** | x | x | x | x | x | x | x | x | x | x | x |
| ***630*** | x | x | x | x | x | x | x | x | x | x | x |
| ***800*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***1000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***1250*** | x | x | x | x | x | x | x | x | x | x | x |
| ***1600*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***2000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***2500*** | x | x | x | x | x | x | x | x | x | x | x |
| ***3150*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***4000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***5000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***6300*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***8000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***10000*** | x | x | x | x | x | x | x | x | x | x | x |

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| **Bestimmung der Schallleistungspegel aus mehreren Einzelmessungen**  **Seite 4 von 5** |

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| **Schallleistungspegel (Terzen und Oktaven) BIN xx m/s** | | | | | | | | | | | | |
| **Frequenz**  **[Hz]** | Messung – Nr.: | | | | | | | | Mittelwerte | | | |
| 1 | | 2 | | 3 | | n | | Terz | | | Oktave |
| **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **sj,k**  [dB] | **σj,k**  [dB] | **LWA,j,k**  [dB] |
| ***50*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***63*** | x | x | x | x | x | x | x | x | x | x | x |
| ***80*** | x | x | x | x | x | x | x | x | x | x | x |
| ***100*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***125*** | x | x | x | x | x | x | x | x | x | x | x |
| ***160*** | x | x | x | x | x | x | x | x | x | x | x |
| ***200*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***250*** | x | x | x | x | x | x | x | x | x | x | x |
| ***315*** | x | x | x | x | x | x | x | x | x | x | x |
| ***400*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***500*** | x | x | x | x | x | x | x | x | x | x | x |
| ***630*** | x | x | x | x | x | x | x | x | x | x | x |
| ***800*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***1000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***1250*** | x | x | x | x | x | x | x | x | x | x | x |
| ***1600*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***2000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***2500*** | x | x | x | x | x | x | x | x | x | x | x |
| ***3150*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***4000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***5000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***6300*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***8000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***10000*** | x | x | x | x | x | x | x | x | x | x | x |

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| **Bestimmung der Schallleistungspegel aus mehreren Einzelmessungen**  **Seite 5 von 5** |

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| **Schallleistungspegel (Terzen und Oktaven) BIN xx m/s** | | | | | | | | | | | | |
| **Frequenz**  **[Hz]** | Messung – Nr.: | | | | | | | | Mittelwerte | | | |
| 1 | | 2 | | 3 | | n | | Terz | | | Oktave |
| **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **uc,j,k**  [dB] | **LWA,j,k**  [dB] | **sj,k**  [dB] | **σj,k**  [dB] | **LWA,j,k**  [dB] |
| ***50*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***63*** | x | x | x | x | x | x | x | x | x | x | x |
| ***80*** | x | x | x | x | x | x | x | x | x | x | x |
| ***100*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***125*** | x | x | x | x | x | x | x | x | x | x | x |
| ***160*** | x | x | x | x | x | x | x | x | x | x | x |
| ***200*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***250*** | x | x | x | x | x | x | x | x | x | x | x |
| ***315*** | x | x | x | x | x | x | x | x | x | x | x |
| ***400*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***500*** | x | x | x | x | x | x | x | x | x | x | x |
| ***630*** | x | x | x | x | x | x | x | x | x | x | x |
| ***800*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***1000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***1250*** | x | x | x | x | x | x | x | x | x | x | x |
| ***1600*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***2000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***2500*** | x | x | x | x | x | x | x | x | x | x | x |
| ***3150*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***4000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***5000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***6300*** | x | x | x | x | x | x | x | x | x | x | x | x |
| ***8000*** | x | x | x | x | x | x | x | x | x | x | x |
| ***10000*** | x | x | x | x | x | x | x | x | x | x | x |

Die Angaben ersetzen nicht die o. g. Prüfberichte.

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| **Bemerkungen:** | |  |  | |  | | |  | | |
| Ausgestellt durch: | | xxxxxxxxxxx  xxxxxxxxxxx  Xxxxxxxxxxx | Stempel | |  | | FGW-Konformitätsstempel | | |
|  | |  |  | |  | |  | | |
| Datum: | xx.xx.xxxx | |  |  | | | | |
|  | |  |  | | |  |  | | |
|  | |  | Unterschrift | | |  | Unterschrift | | |
|  | |  |  | | |  |  | | |

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