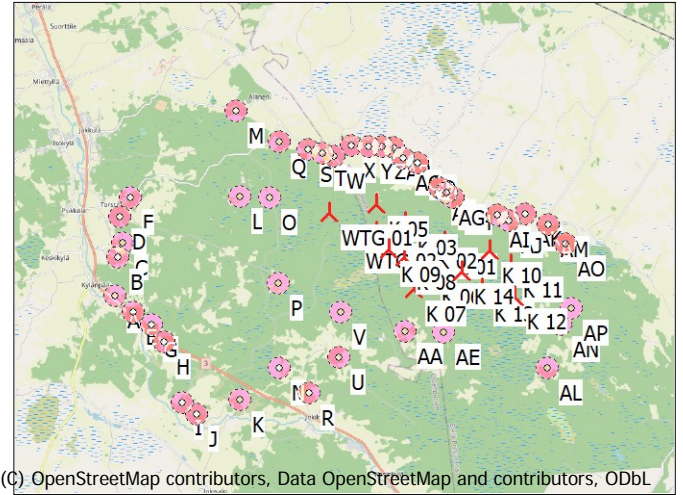


DECIBEL - Main Result

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Calculation is done according to Finnish guideline " Ympäristöhallinnon ohjeita 2 | 2014 " from the Ministry of the Environment of Finland

All coordinates are in
Finish TM ETRS-TM35FIN-ETRS89



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:200 000

New WTG

Noise sensitive area

WTGs

	East	North	Z	Row data/Description	WTG type			Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Noise data		Wind speed [m/s]	LwA,ref [dB(A)]	Uncertainty [dB(A)]
					Valid	Manufact.	Type-generator				Creator	Name			
	[m]														
K 01	258 892,0	6 984 359,0	45,0	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 02	258 361,0	6 984 512,0	52,0	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	149,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 03	257 878,0	6 984 922,0	48,3	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 04	257 087,0	6 984 720,0	50,0	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 05	257 163,0	6 985 462,0	49,2	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 06	258 414,0	6 983 575,0	52,5	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	148,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 07	257 962,0	6 983 145,0	54,9	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	149,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 08	257 766,0	6 984 006,0	52,5	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	149,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 09	257 382,0	6 984 262,0	50,0	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 10	260 052,0	6 984 010,0	50,0	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 11	260 574,0	6 983 589,0	45,0	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 12	260 637,0	6 982 769,0	47,5	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 13	259 773,0	6 983 040,0	51,0	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
K 14	259 278,0	6 983 511,0	52,5	NORDEX N163/6.X-6800 6800 1...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	107,2	2,0
WTG 01	255 892,0	6 985 353,0	50,0	NORDEX N175/6.X-6800 6800 1...	Yes	NORDEX	N175/6.X-6800-6 800	6 800	175,0	171,5	USER	Mode 0 - Third Octaves - 106,9 dB(A) (STE)	8,0	106,9	2,0
WTG 02	256 462,0	6 984 661,0	50,0	NORDEX N175/6.X-6800 6800 1...	Yes	NORDEX	N175/6.X-6800-6 800	6 800	175,0	171,5	USER	Mode 0 - Third Octaves - 106,9 dB(A) (STE)	8,0	106,9	2,0

Calculation Results

Sound level

Noise sensitive area	No.	Name	East	North	Z	Immission height	Demands				Distance to noise demand	Demands fulfilled ?					
							Noise	From WTGs	Uncertainty margin	WTG+Uncertainty margin		Noise	2 dB penalty applied for one or more WTGs				
			[m]														
A		Noise sensitive point: Finnish normal frequency - User defined (131)	250 049,0	6 983 575,0	30,7	4,0	40,0	20,6	2,0	22,6	5 241	Yes	No				
B		Noise sensitive point: Finnish normal frequency - User defined (130)	250 198,0	6 984 576,0	26,7	4,0	40,0	20,9	2,0	22,9	4 899	Yes	No				
C		Noise sensitive point: Finnish normal frequency - User defined (129)	250 341,0	6 984 961,0	25,5	4,0	40,0	21,2	2,0	23,2	4 722	Yes	No				
D		Noise sensitive point: Finnish normal frequency - User defined (128)	250 343,0	6 985 667,0	26,2	4,0	40,0	21,0	2,0	23,0	4 723	Yes	No				
E		Noise sensitive point: Finnish normal frequency - User defined (127)	250 494,0	6 983 108,0	30,4	4,0	40,0	21,2	2,0	23,2	4 964	Yes	No				
F		Noise sensitive point: Finnish normal frequency - User defined (126)	250 645,0	6 986 141,0	27,5	4,0	40,0	21,4	2,0	23,4	4 476	Yes	No				
G		Noise sensitive point: Finnish normal frequency - User defined (125)	250 968,0	6 982 726,0	35,0	4,0	40,0	21,8	2,0	23,8	4 678	Yes	No				
H		Noise sensitive point: Finnish normal frequency - User defined (124)	251 226,0	6 982 266,0	32,5	4,0	40,0	21,9	2,0	23,9	4 662	Yes	No				
I		Noise sensitive point: Finnish normal frequency - User defined (123)	251 592,0	6 980 644,0	35,9	4,0	40,0	21,3	2,0	23,3	5 274	Yes	No				
J		Noise sensitive point: Finnish normal frequency - User defined (122)	251 960,0	6 980 299,0	35,0	4,0	40,0	21,5	2,0	23,5	5 227	Yes	No				
K		Noise sensitive point: Finnish normal frequency - User defined (121)	253 131,0	6 980 587,0	42,5	4,0	40,0	23,4	2,0	25,4	4 202	Yes	No				
L		Noise sensitive point: Finnish normal frequency - User defined (120)	253 546,0	6 985 931,0	45,0	4,0	40,0	28,5	2,0	30,5	1 590	Yes	No				
M		Noise sensitive point: Finnish normal frequency - User defined (119)	253 607,0	6 988 208,0	22,5	4,0	40,0	24,9	2,0	26,9	2 828	Yes	No				
N		Noise sensitive point: Finnish normal frequency - User defined (118)	254 248,0	6 981 332,0	42,5	4,0	40,0	26,3	2,0	28,3	2 908	Yes	No				
O		Noise sensitive point: Finnish normal frequency - User defined (117)	254 339,0	6 985 826,0	55,0	4,0	40,0	32,1	2,0	34,1	799	Yes	No				
P		Noise sensitive point: Finnish normal frequency - User defined (116)	254 373,0	6 983 560,0	45,0	4,0	40,0	30,8	2,0	32,8	1 301	Yes	No				
Q		Noise sensitive point: Finnish normal frequency - User defined (115)	254 693,0	6 987 302,0	28,9	4,0	40,0	29,3	2,0	31,3	1 453	Yes	No				
R		Noise sensitive point: Finnish normal frequency - User defined (114)	255 007,0	6 980 631,0	40,0	4,0	40,0	26,3	2,0	28,3	2 891	Yes	No				
S		Noise sensitive point: Finnish normal frequency - User defined (113)	255 437,0	6 987 054,0	29,5	4,0	40,0	32,0	2,0	34,0	902	Yes	No				
T		Noise sensitive point: Finnish normal frequency - User defined (112)	255 814,0	6 986 908,0	28,4	4,0	40,0	33,5	2,0	35,5	666	Yes	No				
U		Noise sensitive point: Finnish normal frequency - User defined (111)	255 826,0	6 981 493,0	40,8	4,0	40,0	29,8	2,0	31,8	1 703	Yes	No				
V		Noise sensitive point: Finnish normal frequency - User defined (110)	255 991,0	6 982 694,0	43,4	4,0	40,0	34,0	2,0	36,0	743	Yes	No				
W		Noise sensitive point: Finnish normal frequency - User defined (109)	256 145,0	6 986 833,0	25,0	4,0	40,0	34,4	2,0	36,4	549	Yes	No				
X		Noise sensitive point: Finnish normal frequency - User defined (108)	256 601,0	6 987 078,0	25,0	4,0	40,0	33,5	2,0	35,5	727	Yes	No				
Y		Noise sensitive point: Finnish normal frequency - User defined (107)	257 040,0	6 987 001,0	27,5	4,0	40,0	34,1	2,0	36,1	600	Yes	No				
Z		Noise sensitive point: Finnish normal frequency - User defined (106)	257 405,0	6 986 979,0	28,1	4,0	40,0	34,1	2,0	36,1	595	Yes	No				

To be continued on next page...

DECIBEL - Main Result

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

...continued from previous page

Noise sensitive area

No.	Name	East	North	Z	Immission height	Demands			Sound level			Distance to noise demand	Demands fulfilled ?	
						Noise	From WTGs	Uncertainty margin	WTG+Uncertainty margin	Noise	2 dB penalty applied for one or more WTGs			
AA	Noise sensitive point: Finnish normal frequency - User defined (105)	257 676,0	6 982 066,0	49,8	[m]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]	[m]	183	Yes	No	
AB	Noise sensitive point: Finnish normal frequency - User defined (104)	257 698,0	6 986 934,0	27,5	4,0	40,0	36,6	2,0	38,6	607	Yes	No		
AC	Noise sensitive point: Finnish normal frequency - User defined (103)	257 931,0	6 986 612,0	27,5	4,0	40,0	34,1	2,0	36,1	375	Yes	No		
AD	Noise sensitive point: Finnish normal frequency - User defined (102)	258 308,0	6 986 493,0	29,9	4,0	40,0	35,5	2,0	37,5	419	Yes	No		
AE	Noise sensitive point: Finnish normal frequency - User defined (101)	258 674,0	6 981 951,0	52,2	4,0	40,0	35,4	2,0	37,4	232	Yes	No		
AF	Noise sensitive point: Finnish normal frequency - User defined (99)	258 840,0	6 985 771,0	30,0	4,0	40,0	36,6	2,0	38,6	20	Yes	No		
AG	Noise sensitive point: Finnish normal frequency - User defined (100)	259 027,3	6 985 623,4	32,1	4,0	40,0	37,9	2,0	39,9	-18	No	No		
AH	Noise sensitive point: Finnish normal frequency - User defined (98)	259 178,0	6 985 473,0	37,3	4,0	40,0	38,1	2,0	40,1	-74	No	No		
AI	Noise sensitive point: Finnish normal frequency - User defined (97)	260 319,0	6 984 939,0	44,5	4,0	40,0	38,5	2,0	40,5	-34	No	No		
AJ	Noise sensitive point: Finnish normal frequency - User defined (96)	260 630,0	6 984 768,0	35,9	4,0	40,0	38,3	2,0	40,3	-34	No	No		
AK	Noise sensitive point: Finnish normal frequency - User defined (95)	261 049,0	6 984 913,0	35,0	4,0	40,0	35,6	2,0	37,6	329	Yes	No		
AL	Noise sensitive point: Finnish normal frequency - User defined (94)	261 344,0	6 980 808,0	48,3	4,0	40,0	29,9	2,0	31,9	1 268	Yes	No		
AM	Noise sensitive point: Finnish normal frequency - User defined (93)	261 661,0	6 984 584,0	36,9	4,0	40,0	34,1	2,0	36,1	542	Yes	No		
AN	Noise sensitive point: Finnish normal frequency - User defined (92)	261 796,0	6 981 916,0	47,5	4,0	40,0	33,0	2,0	35,0	629	Yes	No		
AO	Noise sensitive point: Finnish normal frequency - User defined (91)	262 098,0	6 984 032,0	39,6	4,0	40,0	33,1	2,0	35,1	682	Yes	No		
AP	Noise sensitive point: Finnish normal frequency - User defined (90)	262 110,0	6 982 324,0	50,0	4,0	40,0	32,6	2,0	34,6	710	Yes	No		

Distances (m)

WTG																
NSA	K 01	K 02	K 03	K 04	K 05	K 06	K 07	K 08	K 09	K 10	K 11	K 12	K 13	K 14	WTG 01	WTG 02
A	8872	8359	7938	7126	7355	8359	7919	7724	7360	10006	10518	10611	9732	9223	6103	6500
B	8691	8158	7682	6886	7016	8271	7889	7584	7186	9863	10416	10587	9691	9136	5743	6260
C	8566	8027	7532	6746	6836	8185	7829	7481	7071	9751	10317	10520	9619	9048	5561	6124
D	8642	8095	7566	6805	6818	8332	8020	7601	7173	9843	10433	10687	9782	9185	5554	6197
E	8485	7986	7598	6782	7067	7928	7463	7322	6979	9594	10085	10142	9273	8787	5842	6162
F	8431	7881	7330	6592	6549	8176	7901	7429	6989	9639	10245	10538	9634	9018	5302	5998
G	8085	7600	7246	6431	6768	7489	7002	6913	6591	9168	9638	9662	8805	8341	5577	5821
H	7941	7475	7158	6350	6738	7301	6788	6763	6467	8990	9435	9418	8576	8142	5591	5754
I	8185	7791	7598	6837	7360	7420	6839	7025	6823	9099	9446	9285	8519	8198	6372	6309
J	8028	7658	7504	6765	7325	7233	6638	6884	6711	8896	9215	9016	8274	7986	6399	6264
K	6881	6535	6424	5717	6322	6065	5463	5756	5615	7716	8020	7811	7076	6802	5504	5259
L	5569	5016	4445	3740	3645	5404	5218	4635	4180	6779	7403	7759	6861	6218	2414	3178
M	6534	6018	5385	4924	4490	6672	6674	5908	5457	7686	8353	8882	8040	7359	3654	4550
N	5540	5195	5102	4417	5052	4728	4130	4416	4287	6388	6712	6544	5779	5478	4341	3995
O	4780	4228	3650	2960	2845	4652	4504	3878	3419	5991	6620	6996	6102	5451	1622	2420
P	4586	4097	3758	2949	3374	4038	3610	3420	3088	5693	6197	6309	5421	4902	2348	2360
Q	5124	4605	3973	3519	3078	5263	5285	4503	4056	6285	6950	7470	6627	5945	2287	3177
R	5381	5126	5159	4584	5287	4500	3877	4356	4336	6068	6300	6018	5337	5148	4801	4282
S	4379	3872	3239	2856	2346	4576	4650	3833	3400	5525	6192	6734	5905	5222	1760	2601
T	3994	3494	2862	2530	1976	4224	4330	3495	3074	5131	5799	6351	5531	4848	1556	2337
U	4194	3939	3993	3462	4185	3319	2698	3173	3174	4915	5187	4974	4237	3996	3858	3229
V	3343	2985	2918	2302	3004	2576	2021	2206	2095	4266	4666	4644	3795	3385	2659	2021
W	3694	3207	2578	2312	1706	3968	4109	3257	2851	4817	5486	6054	5245	4563	1500	2194
X	3553	3109	2504	2406	1710	3942	4159	3283	2920	4614	5284	5900	5131	4457	1864	2419
Y	3224	2816	2240	2280	1543	3689	3962	3080	2758	4242	4909	5550	4809	4143	2007	2409
Z	3011	2644	2109	2280	1535	3548	3872	2993	2715	3975	4637	5304	4593	3939	2220	2501
AA	2594	2538	2861	2717	3432	1679	1116	1941	2214	3068	3272	3041	2311	2156	3737	2863
AB	2836	2509	2019	2295	1565	3432	3796	2927	2689	3751	4408	5094	4409	3768	2399	2586
AC	2448	2142	1690	2070	1382	3073	3465	2609	2412	3355	4013	4697	4016	3379	2395	2441
AD	2211	1980	1628	2151	1540	2918	3364	2544	2414	3032	3681	4389	3748	3134	2670	2599
AE	2416	2578	3074	3189	3820	1644	1389	2245	2646	2476	2507	2125	1546	1672	4392	3496
AF	1412	1346	1282	2043	1704	2235	2767	2065	2097	2136	2785	3496	2884	2301	2975	2623
AG	1271	1295	1345	2139	1870	2137	2696	2050	2134	1910	2554	3275	2687	2126	3145	2738
AH	1149	1261	1411	2221	2014	2045	2625	2035	2165	1703	2343	3070	2503	1963	3286	2833
AI	1539	2003	2439	3237	3197	2341	2960	2716	3012	966	1373	2192	1975	1766	4443	3864
AJ	1784	2282	2754	3541	3533	2515	3121	2962	3285	953	1180	1998	1928	1845	4771	4167
AK	2226	2716	3169	3964	3922	2953	3555	3404	3722	1344	1406	2182	2265	2257	5172	4591
AL	4312	4753	5376	5778	6252	4027	4108	4796	5253	3451	2884	2083	2728	3400	7093	6215
AM	2776	3299	3796	4573	4580	3398	3966	3935	4288	1707	1473	2083	2437	2612	5816	5196
AN	3792	4303	4935	5477	5830	3765	4024	4537	4995	2723	2070	1438	2313	2979	6827	5995
AO	3221	3765	4310	5055	5135	3710	4227	4329	4719	2045	1586	1930	2526	2866	6341	5667
AP	3805	4338	4963	5562	5854	3899	4226	4655	5106	2659	1989	1538	2443	3069	6912	6108

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 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 Noise sensitive point: Finnish normal frequency - User defined (131)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 872	8 873	0	7,06	2,00	9,06	107,2	0,00	89,96	-	-	0,00	0,00	-
K 02	8 359	8 360	0	7,77	2,00	9,77	107,2	0,00	89,44	-	-	0,00	0,00	-
K 03	7 938	7 940	0	8,38	2,00	10,38	107,2	0,00	89,00	-	-	0,00	0,00	-
K 04	7 126	7 127	0	9,65	2,00	11,65	107,2	0,00	88,06	-	-	0,00	0,00	-
K 05	7 355	7 357	0	9,28	2,00	11,28	107,2	0,00	88,33	-	-	0,00	0,00	-
K 06	8 359	8 361	0	7,78	2,00	9,78	107,2	0,00	89,44	-	-	0,00	0,00	-
K 07	7 919	7 921	0	8,41	2,00	10,41	107,2	0,00	88,98	-	-	0,00	0,00	-
K 08	7 724	7 725	0	8,71	2,00	10,71	107,2	0,00	88,76	-	-	0,00	0,00	-
K 09	7 360	7 362	0	9,27	2,00	11,27	107,2	0,00	88,34	-	-	0,00	0,00	-
K 10	10 006	10 007	0	5,62	2,00	7,62	107,2	0,00	91,01	-	-	0,00	0,00	-
K 11	10 518	10 519	0	5,02	2,00	7,02	107,2	0,00	91,44	-	-	0,00	0,00	-
K 12	10 611	10 613	0	4,91	2,00	6,91	107,2	0,00	91,52	-	-	0,00	0,00	-
K 13	9 732	9 733	0	5,95	2,00	7,95	107,2	0,00	90,77	-	-	0,00	0,00	-
K 14	9 223	9 224	0	6,59	2,00	8,59	107,2	0,00	90,30	-	-	0,00	0,00	-
WTG 01	6 103	6 106	0	12,35	2,00	14,35	106,9	0,00	86,72	-	-	0,00	0,00	-
WTG 02	6 500	6 502	0	11,62	2,00	13,62	106,9	0,00	87,26	-	-	0,00	0,00	-
Sum						22,59								

- Data undefined due to calculation with octave data

Noise sensitive area: B Noise sensitive point: Finnish normal frequency - User defined (130)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 691	8 692	0	7,30	2,00	9,30	107,2	0,00	89,78	-	-	0,00	0,00	-
K 02	8 158	8 159	0	8,06	2,00	10,06	107,2	0,00	89,23	-	-	0,00	0,00	-
K 03	7 682	7 684	0	8,76	2,00	10,76	107,2	0,00	88,71	-	-	0,00	0,00	-
K 04	6 886	6 888	0	10,05	2,00	12,05	107,2	0,00	87,76	-	-	0,00	0,00	-
K 05	7 016	7 018	0	9,83	2,00	11,83	107,2	0,00	87,92	-	-	0,00	0,00	-
K 06	8 271	8 273	0	7,91	2,00	9,91	107,2	0,00	89,35	-	-	0,00	0,00	-
K 07	7 889	7 891	0	8,46	2,00	10,46	107,2	0,00	88,94	-	-	0,00	0,00	-
K 08	7 584	7 586	0	8,92	2,00	10,92	107,2	0,00	88,60	-	-	0,00	0,00	-
K 09	7 186	7 188	0	9,55	2,00	11,55	107,2	0,00	88,13	-	-	0,00	0,00	-
K 10	9 863	9 865	0	5,79	2,00	7,79	107,2	0,00	90,88	-	-	0,00	0,00	-
K 11	10 416	10 417	0	5,13	2,00	7,13	107,2	0,00	91,35	-	-	0,00	0,00	-
K 12	10 587	10 588	0	4,94	2,00	6,94	107,2	0,00	91,50	-	-	0,00	0,00	-
K 13	9 691	9 692	0	6,00	2,00	8,00	107,2	0,00	90,73	-	-	0,00	0,00	-
K 14	9 136	9 138	0	6,71	2,00	8,71	107,2	0,00	90,22	-	-	0,00	0,00	-
WTG 01	5 743	5 746	0	13,04	2,00	15,04	106,9	0,00	86,19	-	-	0,00	0,00	-
WTG 02	6 260	6 263	0	12,05	2,00	14,05	106,9	0,00	86,94	-	-	0,00	0,00	-
Sum						22,94								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) Noise calculation model: ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: C Noise sensitive point: Finnish normal frequency - User defined (129)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 566	8 568	0	7,48	2,00	9,48	107,2	0,00	89,66	-	-	0,00	0,00	-
K 02	8 027	8 029	0	8,25	2,00	10,25	107,2	0,00	89,09	-	-	0,00	0,00	-
K 03	7 532	7 534	0	9,00	2,00	11,00	107,2	0,00	88,54	-	-	0,00	0,00	-
K 04	6 746	6 748	0	10,29	2,00	12,29	107,2	0,00	87,58	-	-	0,00	0,00	-
K 05	6 836	6 838	0	10,13	2,00	12,13	107,2	0,00	87,70	-	-	0,00	0,00	-
K 06	8 185	8 187	0	8,03	2,00	10,03	107,2	0,00	89,26	-	-	0,00	0,00	-
K 07	7 829	7 831	0	8,55	2,00	10,55	107,2	0,00	88,88	-	-	0,00	0,00	-
K 08	7 481	7 483	0	9,08	2,00	11,08	107,2	0,00	88,48	-	-	0,00	0,00	-
K 09	7 071	7 073	0	9,74	2,00	11,74	107,2	0,00	87,99	-	-	0,00	0,00	-
K 10	9 751	9 752	0	5,93	2,00	7,93	107,2	0,00	90,78	-	-	0,00	0,00	-
K 11	10 317	10 319	0	5,25	2,00	7,25	107,2	0,00	91,27	-	-	0,00	0,00	-
K 12	10 520	10 521	0	5,01	2,00	7,01	107,2	0,00	91,44	-	-	0,00	0,00	-
K 13	9 619	9 621	0	6,09	2,00	8,09	107,2	0,00	90,66	-	-	0,00	0,00	-
K 14	9 048	9 049	0	6,82	2,00	8,82	107,2	0,00	90,13	-	-	0,00	0,00	-
WTG 01	5 561	5 564	0	13,41	2,00	15,41	106,9	0,00	85,91	-	-	0,00	0,00	-
WTG 02	6 124	6 127	0	12,31	2,00	14,31	106,9	0,00	86,75	-	-	0,00	0,00	-
Sum						23,16								

- Data undefined due to calculation with octave data

Noise sensitive area: D Noise sensitive point: Finnish normal frequency - User defined (128)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 642	8 644	0	7,37	2,00	9,37	107,2	0,00	89,73	-	-	0,00	0,00	-
K 02	8 095	8 097	0	8,15	2,00	10,15	107,2	0,00	89,17	-	-	0,00	0,00	-
K 03	7 566	7 568	0	8,94	2,00	10,94	107,2	0,00	88,58	-	-	0,00	0,00	-
K 04	6 805	6 808	0	10,18	2,00	12,18	107,2	0,00	87,66	-	-	0,00	0,00	-
K 05	6 818	6 820	0	10,16	2,00	12,16	107,2	0,00	87,68	-	-	0,00	0,00	-
K 06	8 332	8 334	0	7,82	2,00	9,82	107,2	0,00	89,42	-	-	0,00	0,00	-
K 07	8 020	8 022	0	8,26	2,00	10,26	107,2	0,00	89,09	-	-	0,00	0,00	-
K 08	7 601	7 603	0	8,90	2,00	10,90	107,2	0,00	88,62	-	-	0,00	0,00	-
K 09	7 173	7 175	0	9,57	2,00	11,57	107,2	0,00	88,12	-	-	0,00	0,00	-
K 10	9 843	9 844	0	5,81	2,00	7,81	107,2	0,00	90,86	-	-	0,00	0,00	-
K 11	10 433	10 434	0	5,11	2,00	7,11	107,2	0,00	91,37	-	-	0,00	0,00	-
K 12	10 687	10 688	0	4,82	2,00	6,82	107,2	0,00	91,58	-	-	0,00	0,00	-
K 13	9 782	9 784	0	5,89	2,00	7,89	107,2	0,00	90,81	-	-	0,00	0,00	-
K 14	9 185	9 187	0	6,64	2,00	8,64	107,2	0,00	90,26	-	-	0,00	0,00	-
WTG 01	5 554	5 557	0	13,42	2,00	15,42	106,9	0,00	85,90	-	-	0,00	0,00	-
WTG 02	6 197	6 200	0	12,17	2,00	14,17	106,9	0,00	86,85	-	-	0,00	0,00	-
Sum						23,05								

- Data undefined due to calculation with octave data

Noise sensitive area: E Noise sensitive point: Finnish normal frequency - User defined (127)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 485	8 486	0	7,59	2,00	9,59	107,2	0,00	89,57	-	-	0,00	0,00	-
K 02	7 986	7 987	0	8,31	2,00	10,31	107,2	0,00	89,05	-	-	0,00	0,00	-
K 03	7 598	7 600	0	8,89	2,00	10,89	107,2	0,00	88,62	-	-	0,00	0,00	-
K 04	6 782	6 784	0	10,22	2,00	12,22	107,2	0,00	87,63	-	-	0,00	0,00	-
K 05	7 067	7 069	0	9,74	2,00	11,74	107,2	0,00	87,99	-	-	0,00	0,00	-
K 06	7 928	7 930	0	8,41	2,00	10,41	107,2	0,00	88,99	-	-	0,00	0,00	-
K 07	7 463	7 465	0	9,11	2,00	11,11	107,2	0,00	88,46	-	-	0,00	0,00	-
K 08	7 322	7 324	0	9,34	2,00	11,34	107,2	0,00	88,30	-	-	0,00	0,00	-
K 09	6 979	6 981	0	9,89	2,00	11,89	107,2	0,00	87,88	-	-	0,00	0,00	-
K 10	9 594	9 595	0	6,12	2,00	8,12	107,2	0,00	90,64	-	-	0,00	0,00	-
K 11	10 085	10 086	0	5,52	2,00	7,52	107,2	0,00	91,07	-	-	0,00	0,00	-
K 12	10 142	10 143	0	5,45	2,00	7,45	107,2	0,00	91,12	-	-	0,00	0,00	-

To be continued on next page...

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	9 273	9 274	0	6,53	2,00	8,53	107,2	0,00	90,35	-	-	0,00	0,00	-
K 14	8 787	8 789	0	7,17	2,00	9,17	107,2	0,00	89,88	-	-	0,00	0,00	-
WTG 01	5 842	5 845	0	12,85	2,00	14,85	106,9	0,00	86,34	-	-	0,00	0,00	-
WTG 02	6 162	6 165	0	12,24	2,00	14,24	106,9	0,00	86,80	-	-	0,00	0,00	-
Sum						23,16								

- Data undefined due to calculation with octave data

Noise sensitive area: F Noise sensitive point: Finnish normal frequency - User defined (126)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 431	8 433	0	7,66	2,00	9,66	107,2	0,00	89,52	-	-	0,00	0,00	-
K 02	7 881	7 882	0	8,47	2,00	10,47	107,2	0,00	88,93	-	-	0,00	0,00	-
K 03	7 330	7 332	0	9,32	2,00	11,32	107,2	0,00	88,30	-	-	0,00	0,00	-
K 04	6 592	6 594	0	10,55	2,00	12,55	107,2	0,00	87,38	-	-	0,00	0,00	-
K 05	6 549	6 551	0	10,63	2,00	12,63	107,2	0,00	87,33	-	-	0,00	0,00	-
K 06	8 176	8 178	0	8,04	2,00	10,04	107,2	0,00	89,25	-	-	0,00	0,00	-
K 07	7 901	7 903	0	8,44	2,00	10,44	107,2	0,00	88,96	-	-	0,00	0,00	-
K 08	7 429	7 431	0	9,17	2,00	11,17	107,2	0,00	88,42	-	-	0,00	0,00	-
K 09	6 989	6 991	0	9,87	2,00	11,87	107,2	0,00	87,89	-	-	0,00	0,00	-
K 10	9 639	9 640	0	6,07	2,00	8,07	107,2	0,00	90,68	-	-	0,00	0,00	-
K 11	10 245	10 246	0	5,33	2,00	7,33	107,2	0,00	91,21	-	-	0,00	0,00	-
K 12	10 538	10 540	0	4,99	2,00	6,99	107,2	0,00	91,46	-	-	0,00	0,00	-
K 13	9 634	9 635	0	6,07	2,00	8,07	107,2	0,00	90,68	-	-	0,00	0,00	-
K 14	9 018	9 020	0	6,86	2,00	8,86	107,2	0,00	90,10	-	-	0,00	0,00	-
WTG 01	5 302	5 306	0	13,95	2,00	15,95	106,9	0,00	85,49	-	-	0,00	0,00	-
WTG 02	5 998	6 001	0	12,55	2,00	14,55	106,9	0,00	86,56	-	-	0,00	0,00	-
Sum						23,40								

- Data undefined due to calculation with octave data

Noise sensitive area: G Noise sensitive point: Finnish normal frequency - User defined (125)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 085	8 086	0	8,16	2,00	10,16	107,2	0,00	89,16	-	-	0,00	0,00	-
K 02	7 600	7 602	0	8,90	2,00	10,90	107,2	0,00	88,62	-	-	0,00	0,00	-
K 03	7 246	7 247	0	9,45	2,00	11,45	107,2	0,00	88,20	-	-	0,00	0,00	-
K 04	6 431	6 433	0	10,84	2,00	12,84	107,2	0,00	87,17	-	-	0,00	0,00	-
K 05	6 768	6 769	0	10,25	2,00	12,25	107,2	0,00	87,61	-	-	0,00	0,00	-
K 06	7 489	7 491	0	9,08	2,00	11,08	107,2	0,00	88,49	-	-	0,00	0,00	-
K 07	7 002	7 004	0	9,86	2,00	11,86	107,2	0,00	87,91	-	-	0,00	0,00	-
K 08	6 913	6 915	0	10,01	2,00	12,01	107,2	0,00	87,80	-	-	0,00	0,00	-
K 09	6 591	6 593	0	10,56	2,00	12,56	107,2	0,00	87,38	-	-	0,00	0,00	-
K 10	9 168	9 169	0	6,67	2,00	8,67	107,2	0,00	90,25	-	-	0,00	0,00	-
K 11	9 638	9 639	0	6,07	2,00	8,07	107,2	0,00	90,68	-	-	0,00	0,00	-
K 12	9 662	9 664	0	6,04	2,00	8,04	107,2	0,00	90,70	-	-	0,00	0,00	-
K 13	8 805	8 806	0	7,15	2,00	9,15	107,2	0,00	89,90	-	-	0,00	0,00	-
K 14	8 341	8 343	0	7,79	2,00	9,79	107,2	0,00	89,43	-	-	0,00	0,00	-
WTG 01	5 577	5 580	0	13,38	2,00	15,38	106,9	0,00	85,93	-	-	0,00	0,00	-
WTG 02	5 821	5 824	0	12,89	2,00	14,89	106,9	0,00	86,30	-	-	0,00	0,00	-
Sum						23,77								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: H Noise sensitive point: Finnish normal frequency - User defined (124)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	7 941	7 943	0	8,37	2,00	10,37	107,2	0,00	89,00	-	-	0,00	0,00	-
K 02	7 475	7 477	0	9,09	2,00	11,09	107,2	0,00	88,47	-	-	0,00	0,00	-
K 03	7 158	7 160	0	9,59	2,00	11,59	107,2	0,00	88,10	-	-	0,00	0,00	-
K 04	6 350	6 352	0	10,99	2,00	12,99	107,2	0,00	87,06	-	-	0,00	0,00	-
K 05	6 738	6 740	0	10,30	2,00	12,30	107,2	0,00	87,57	-	-	0,00	0,00	-
K 06	7 301	7 303	0	9,38	2,00	11,38	107,2	0,00	88,27	-	-	0,00	0,00	-
K 07	6 788	6 790	0	10,22	2,00	12,22	107,2	0,00	87,64	-	-	0,00	0,00	-
K 08	6 763	6 765	0	10,27	2,00	12,27	107,2	0,00	87,61	-	-	0,00	0,00	-
K 09	6 467	6 469	0	10,78	2,00	12,78	107,2	0,00	87,22	-	-	0,00	0,00	-
K 10	8 990	8 992	0	6,90	2,00	8,90	107,2	0,00	90,08	-	-	0,00	0,00	-
K 11	9 435	9 436	0	6,32	2,00	8,32	107,2	0,00	90,50	-	-	0,00	0,00	-
K 12	9 418	9 419	0	6,34	2,00	8,34	107,2	0,00	90,48	-	-	0,00	0,00	-
K 13	8 576	8 578	0	7,46	2,00	9,46	107,2	0,00	89,67	-	-	0,00	0,00	-
K 14	8 142	8 144	0	8,08	2,00	10,08	107,2	0,00	89,22	-	-	0,00	0,00	-
WTG 01	5 591	5 594	0	13,35	2,00	15,35	106,9	0,00	85,95	-	-	0,00	0,00	-
WTG 02	5 754	5 757	0	13,02	2,00	15,02	106,9	0,00	86,20	-	-	0,00	0,00	-
Sum						23,94								

- Data undefined due to calculation with octave data

Noise sensitive area: I Noise sensitive point: Finnish normal frequency - User defined (123)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 185	8 187	0	8,02	2,00	10,02	107,2	0,00	89,26	-	-	0,00	0,00	-
K 02	7 791	7 792	0	8,61	2,00	10,61	107,2	0,00	88,83	-	-	0,00	0,00	-
K 03	7 598	7 600	0	8,89	2,00	10,89	107,2	0,00	88,62	-	-	0,00	0,00	-
K 04	6 837	6 839	0	10,13	2,00	12,13	107,2	0,00	87,70	-	-	0,00	0,00	-
K 05	7 360	7 362	0	9,27	2,00	11,27	107,2	0,00	88,34	-	-	0,00	0,00	-
K 06	7 420	7 422	0	9,19	2,00	11,19	107,2	0,00	88,41	-	-	0,00	0,00	-
K 07	6 839	6 841	0	10,14	2,00	12,14	107,2	0,00	87,70	-	-	0,00	0,00	-
K 08	7 025	7 027	0	9,82	2,00	11,82	107,2	0,00	87,94	-	-	0,00	0,00	-
K 09	6 823	6 825	0	10,15	2,00	12,15	107,2	0,00	87,68	-	-	0,00	0,00	-
K 10	9 099	9 100	0	6,76	2,00	8,76	107,2	0,00	90,18	-	-	0,00	0,00	-
K 11	9 446	9 447	0	6,31	2,00	8,31	107,2	0,00	90,51	-	-	0,00	0,00	-
K 12	9 285	9 286	0	6,51	2,00	8,51	107,2	0,00	90,36	-	-	0,00	0,00	-
K 13	8 519	8 520	0	7,54	2,00	9,54	107,2	0,00	89,61	-	-	0,00	0,00	-
K 14	8 198	8 199	0	8,00	2,00	10,00	107,2	0,00	89,28	-	-	0,00	0,00	-
WTG 01	6 372	6 375	0	11,85	2,00	13,85	106,9	0,00	87,09	-	-	0,00	0,00	-
WTG 02	6 309	6 311	0	11,97	2,00	13,97	106,9	0,00	87,00	-	-	0,00	0,00	-
Sum						23,31								

- Data undefined due to calculation with octave data

Noise sensitive area: J Noise sensitive point: Finnish normal frequency - User defined (122)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	8 028	8 029	0	8,25	2,00	10,25	107,2	0,00	89,09	-	-	0,00	0,00	-
K 02	7 658	7 659	0	8,81	2,00	10,81	107,2	0,00	88,68	-	-	0,00	0,00	-
K 03	7 504	7 506	0	9,04	2,00	11,04	107,2	0,00	88,51	-	-	0,00	0,00	-
K 04	6 765	6 767	0	10,25	2,00	12,25	107,2	0,00	87,61	-	-	0,00	0,00	-
K 05	7 325	7 327	0	9,32	2,00	11,32	107,2	0,00	88,30	-	-	0,00	0,00	-
K 06	7 233	7 235	0	9,49	2,00	11,49	107,2	0,00	88,19	-	-	0,00	0,00	-
K 07	6 638	6 640	0	10,48	2,00	12,48	107,2	0,00	87,44	-	-	0,00	0,00	-
K 08	6 884	6 886	0	10,06	2,00	12,06	107,2	0,00	87,76	-	-	0,00	0,00	-
K 09	6 711	6 713	0	10,35	2,00	12,35	107,2	0,00	87,54	-	-	0,00	0,00	-
K 10	8 896	8 898	0	7,03	2,00	9,03	107,2	0,00	89,99	-	-	0,00	0,00	-
K 11	9 215	9 216	0	6,61	2,00	8,61	107,2	0,00	90,29	-	-	0,00	0,00	-
K 12	9 016	9 017	0	6,87	2,00	8,87	107,2	0,00	90,10	-	-	0,00	0,00	-

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	8 274	8 276	0	7,89	2,00	9,89	107,2	0,00	89,36	-	-	0,00	0,00	-
K 14	7 986	7 988	0	8,31	2,00	10,31	107,2	0,00	89,05	-	-	0,00	0,00	-
WTG 01	6 399	6 402	0	11,80	2,00	13,80	106,9	0,00	87,13	-	-	0,00	0,00	-
WTG 02	6 264	6 267	0	12,05	2,00	14,05	106,9	0,00	86,94	-	-	0,00	0,00	-
Sum						23,49								

- Data undefined due to calculation with octave data

Noise sensitive area: K Noise sensitive point: Finnish normal frequency - User defined (121)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	6 881	6 883	0	10,06	2,00	12,06	107,2	0,00	87,76	-	-	0,00	0,00	-
K 02	6 535	6 536	0	10,67	2,00	12,67	107,2	0,00	87,31	-	-	0,00	0,00	-
K 03	6 424	6 426	0	10,85	2,00	12,85	107,2	0,00	87,16	-	-	0,00	0,00	-
K 04	5 717	5 719	0	12,20	2,00	14,20	107,2	0,00	86,15	-	-	0,00	0,00	-
K 05	6 322	6 324	0	11,04	2,00	13,04	107,2	0,00	87,02	-	-	0,00	0,00	-
K 06	6 065	6 067	0	11,54	2,00	13,54	107,2	0,00	86,66	-	-	0,00	0,00	-
K 07	5 463	5 465	0	12,73	2,00	14,73	107,2	0,00	85,75	-	-	0,00	0,00	-
K 08	5 756	5 758	0	12,13	2,00	14,13	107,2	0,00	86,21	-	-	0,00	0,00	-
K 09	5 615	5 618	0	12,40	2,00	14,40	107,2	0,00	85,99	-	-	0,00	0,00	-
K 10	7 716	7 718	0	8,71	2,00	10,71	107,2	0,00	88,75	-	-	0,00	0,00	-
K 11	8 020	8 022	0	8,26	2,00	10,26	107,2	0,00	89,09	-	-	0,00	0,00	-
K 12	7 811	7 813	0	8,57	2,00	10,57	107,2	0,00	88,86	-	-	0,00	0,00	-
K 13	7 076	7 077	0	9,73	2,00	11,73	107,2	0,00	88,00	-	-	0,00	0,00	-
K 14	6 802	6 804	0	10,19	2,00	12,19	107,2	0,00	87,66	-	-	0,00	0,00	-
WTG 01	5 504	5 507	0	13,53	2,00	15,53	106,9	0,00	85,82	-	-	0,00	0,00	-
WTG 02	5 259	5 262	0	14,04	2,00	16,04	106,9	0,00	85,42	-	-	0,00	0,00	-
Sum						25,40								

- Data undefined due to calculation with octave data

Noise sensitive area: L Noise sensitive point: Finnish normal frequency - User defined (120)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	5 569	5 570	0	12,50	2,00	14,50	107,2	0,00	85,92	-	-	0,00	0,00	-
K 02	5 016	5 019	0	13,69	2,00	15,69	107,2	0,00	85,01	-	-	0,00	0,00	-
K 03	4 445	4 447	0	15,11	2,00	17,11	107,2	0,00	83,96	-	-	0,00	0,00	-
K 04	3 740	3 743	0	17,37	2,00	19,37	107,2	0,00	82,46	-	-	0,00	0,00	-
K 05	3 645	3 648	0	17,70	2,00	19,70	107,2	0,00	82,24	-	-	0,00	0,00	-
K 06	5 404	5 407	0	12,86	2,00	14,86	107,2	0,00	85,66	-	-	0,00	0,00	-
K 07	5 218	5 220	0	13,25	2,00	15,25	107,2	0,00	85,35	-	-	0,00	0,00	-
K 08	4 635	4 638	0	14,58	2,00	16,58	107,2	0,00	84,33	-	-	0,00	0,00	-
K 09	4 180	4 183	0	15,91	2,00	17,91	107,2	0,00	83,43	-	-	0,00	0,00	-
K 10	6 779	6 781	0	10,23	2,00	12,23	107,2	0,00	87,63	-	-	0,00	0,00	-
K 11	7 403	7 404	0	9,20	2,00	11,20	107,2	0,00	88,39	-	-	0,00	0,00	-
K 12	7 759	7 760	0	8,65	2,00	10,65	107,2	0,00	88,80	-	-	0,00	0,00	-
K 13	6 861	6 862	0	10,09	2,00	12,09	107,2	0,00	87,73	-	-	0,00	0,00	-
K 14	6 218	6 220	0	11,23	2,00	13,23	107,2	0,00	86,88	-	-	0,00	0,00	-
WTG 01	2 414	2 421	0	24,06	2,00	26,06	106,9	0,00	78,68	-	-	0,00	0,00	-
WTG 02	3 178	3 183	0	20,61	2,00	22,61	106,9	0,00	81,06	-	-	0,00	0,00	-
Sum						30,54								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: M Noise sensitive point: Finnish normal frequency - User defined (119)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	6 534	6 536	0	10,66	2,00	12,66	107,2	0,00	87,31	-	-	0,00	0,00	-
K 02	6 018	6 020	0	11,62	2,00	13,62	107,2	0,00	86,59	-	-	0,00	0,00	-
K 03	5 385	5 388	0	12,88	2,00	14,88	107,2	0,00	85,63	-	-	0,00	0,00	-
K 04	4 924	4 927	0	13,89	2,00	15,89	107,2	0,00	84,85	-	-	0,00	0,00	-
K 05	4 490	4 493	0	14,98	2,00	16,98	107,2	0,00	84,05	-	-	0,00	0,00	-
K 06	6 672	6 674	0	10,43	2,00	12,43	107,2	0,00	87,49	-	-	0,00	0,00	-
K 07	6 674	6 676	0	10,42	2,00	12,42	107,2	0,00	87,49	-	-	0,00	0,00	-
K 08	5 908	5 911	0	11,83	2,00	13,83	107,2	0,00	86,43	-	-	0,00	0,00	-
K 09	5 457	5 460	0	12,73	2,00	14,73	107,2	0,00	85,74	-	-	0,00	0,00	-
K 10	7 686	7 688	0	8,76	2,00	10,76	107,2	0,00	88,72	-	-	0,00	0,00	-
K 11	8 353	8 355	0	7,77	2,00	9,77	107,2	0,00	89,44	-	-	0,00	0,00	-
K 12	8 882	8 884	0	7,04	2,00	9,04	107,2	0,00	89,97	-	-	0,00	0,00	-
K 13	8 040	8 042	0	8,23	2,00	10,23	107,2	0,00	89,11	-	-	0,00	0,00	-
K 14	7 359	7 361	0	9,27	2,00	11,27	107,2	0,00	88,34	-	-	0,00	0,00	-
WTG 01	3 654	3 659	0	18,81	2,00	20,81	106,9	0,00	82,27	-	-	0,00	0,00	-
WTG 02	4 550	4 554	0	15,95	2,00	17,95	106,9	0,00	84,17	-	-	0,00	0,00	-
Sum						26,87								

- Data undefined due to calculation with octave data

Noise sensitive area: N Noise sensitive point: Finnish normal frequency - User defined (118)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	5 540	5 542	0	12,56	2,00	14,56	107,2	0,00	85,87	-	-	0,00	0,00	-
K 02	5 195	5 198	0	13,30	2,00	15,30	107,2	0,00	85,32	-	-	0,00	0,00	-
K 03	5 102	5 104	0	13,49	2,00	15,49	107,2	0,00	85,16	-	-	0,00	0,00	-
K 04	4 417	4 420	0	15,19	2,00	17,19	107,2	0,00	83,91	-	-	0,00	0,00	-
K 05	5 052	5 054	0	13,60	2,00	15,60	107,2	0,00	85,07	-	-	0,00	0,00	-
K 06	4 728	4 731	0	14,37	2,00	16,37	107,2	0,00	84,50	-	-	0,00	0,00	-
K 07	4 130	4 133	0	16,07	2,00	18,07	107,2	0,00	83,33	-	-	0,00	0,00	-
K 08	4 416	4 419	0	15,20	2,00	17,20	107,2	0,00	83,91	-	-	0,00	0,00	-
K 09	4 287	4 290	0	15,58	2,00	17,58	107,2	0,00	83,65	-	-	0,00	0,00	-
K 10	6 388	6 390	0	10,92	2,00	12,92	107,2	0,00	87,11	-	-	0,00	0,00	-
K 11	6 712	6 714	0	10,35	2,00	12,35	107,2	0,00	87,54	-	-	0,00	0,00	-
K 12	6 544	6 546	0	10,64	2,00	12,64	107,2	0,00	87,32	-	-	0,00	0,00	-
K 13	5 779	5 781	0	12,07	2,00	14,07	107,2	0,00	86,24	-	-	0,00	0,00	-
K 14	5 478	5 480	0	12,68	2,00	14,68	107,2	0,00	85,78	-	-	0,00	0,00	-
WTG 01	4 341	4 345	0	16,57	2,00	18,57	106,9	0,00	83,76	-	-	0,00	0,00	-
WTG 02	3 995	3 999	0	17,65	2,00	19,65	106,9	0,00	83,04	-	-	0,00	0,00	-
Sum						28,31								

- Data undefined due to calculation with octave data

Noise sensitive area: O Noise sensitive point: Finnish normal frequency - User defined (117)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	4 780	4 782	0	14,22	2,00	16,22	107,2	0,00	84,59	-	-	0,00	0,00	-
K 02	4 228	4 231	0	15,77	2,00	17,77	107,2	0,00	83,53	-	-	0,00	0,00	-
K 03	3 650	3 653	0	17,68	2,00	19,68	107,2	0,00	82,25	-	-	0,00	0,00	-
K 04	2 960	2 964	0	20,39	2,00	22,39	107,2	0,00	80,44	-	-	0,00	0,00	-
K 05	2 845	2 849	0	20,90	2,00	22,90	107,2	0,00	80,09	-	-	0,00	0,00	-
K 06	4 652	4 654	0	14,55	2,00	16,55	107,2	0,00	84,36	-	-	0,00	0,00	-
K 07	4 504	4 506	0	14,94	2,00	16,94	107,2	0,00	84,08	-	-	0,00	0,00	-
K 08	3 878	3 880	0	16,90	2,00	18,90	107,2	0,00	82,78	-	-	0,00	0,00	-
K 09	3 419	3 422	0	18,53	2,00	20,53	107,2	0,00	81,69	-	-	0,00	0,00	-
K 10	5 991	5 992	0	11,66	2,00	13,66	107,2	0,00	86,55	-	-	0,00	0,00	-
K 11	6 620	6 621	0	10,51	2,00	12,51	107,2	0,00	87,42	-	-	0,00	0,00	-
K 12	6 996	6 997	0	9,86	2,00	11,86	107,2	0,00	87,90	-	-	0,00	0,00	-

To be continued on next page...

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	6 102	6 104	0	11,45	2,00	13,45	107,2	0,00	86,71	-	-	0,00	0,00	-
K 14	5 451	5 453	0	12,74	2,00	14,74	107,2	0,00	85,73	-	-	0,00	0,00	-
WTG 01	1 622	1 630	0	28,85	2,00	30,85	106,9	0,00	75,25	-	-	0,00	0,00	-
WTG 02	2 420	2 425	0	24,04	2,00	26,04	106,9	0,00	78,70	-	-	0,00	0,00	-
Sum						34,11								

- Data undefined due to calculation with octave data

Noise sensitive area: P Noise sensitive point: Finnish normal frequency - User defined (116)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	4 586	4 588	0	14,70	2,00	16,70	107,2	0,00	84,23	-	-	0,00	0,00	-
K 02	4 097	4 100	0	16,18	2,00	18,18	107,2	0,00	83,26	-	-	0,00	0,00	-
K 03	3 758	3 761	0	17,30	2,00	19,30	107,2	0,00	82,51	-	-	0,00	0,00	-
K 04	2 949	2 953	0	20,44	2,00	22,44	107,2	0,00	80,41	-	-	0,00	0,00	-
K 05	3 374	3 378	0	18,70	2,00	20,70	107,2	0,00	81,57	-	-	0,00	0,00	-
K 06	4 038	4 041	0	16,37	2,00	18,37	107,2	0,00	83,13	-	-	0,00	0,00	-
K 07	3 610	3 614	0	17,82	2,00	19,82	107,2	0,00	82,16	-	-	0,00	0,00	-
K 08	3 420	3 423	0	18,53	2,00	20,53	107,2	0,00	81,69	-	-	0,00	0,00	-
K 09	3 088	3 091	0	19,85	2,00	21,85	107,2	0,00	80,80	-	-	0,00	0,00	-
K 10	5 693	5 695	0	12,25	2,00	14,25	107,2	0,00	86,11	-	-	0,00	0,00	-
K 11	6 197	6 199	0	11,27	2,00	13,27	107,2	0,00	86,85	-	-	0,00	0,00	-
K 12	6 309	6 311	0	11,06	2,00	13,06	107,2	0,00	87,00	-	-	0,00	0,00	-
K 13	5 421	5 423	0	12,80	2,00	14,80	107,2	0,00	85,69	-	-	0,00	0,00	-
K 14	4 902	4 904	0	13,94	2,00	15,94	107,2	0,00	84,81	-	-	0,00	0,00	-
WTG 01	2 348	2 355	0	24,40	2,00	26,40	106,9	0,00	78,44	-	-	0,00	0,00	-
WTG 02	2 360	2 366	0	24,34	2,00	26,34	106,9	0,00	78,48	-	-	0,00	0,00	-
Sum						32,85								

- Data undefined due to calculation with octave data

Noise sensitive area: Q Noise sensitive point: Finnish normal frequency - User defined (115)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	5 124	5 127	0	13,44	2,00	15,44	107,2	0,00	85,20	-	-	0,00	0,00	-
K 02	4 605	4 608	0	14,65	2,00	16,65	107,2	0,00	84,27	-	-	0,00	0,00	-
K 03	3 973	3 977	0	16,58	2,00	18,58	107,2	0,00	82,99	-	-	0,00	0,00	-
K 04	3 519	3 523	0	18,16	2,00	20,16	107,2	0,00	81,94	-	-	0,00	0,00	-
K 05	3 078	3 082	0	19,88	2,00	21,88	107,2	0,00	80,78	-	-	0,00	0,00	-
K 06	5 263	5 266	0	13,16	2,00	15,16	107,2	0,00	85,43	-	-	0,00	0,00	-
K 07	5 285	5 288	0	13,10	2,00	15,10	107,2	0,00	85,47	-	-	0,00	0,00	-
K 08	4 503	4 506	0	14,94	2,00	16,94	107,2	0,00	84,08	-	-	0,00	0,00	-
K 09	4 056	4 059	0	16,31	2,00	18,31	107,2	0,00	83,17	-	-	0,00	0,00	-
K 10	6 285	6 287	0	11,11	2,00	13,11	107,2	0,00	86,97	-	-	0,00	0,00	-
K 11	6 950	6 952	0	9,94	2,00	11,94	107,2	0,00	87,84	-	-	0,00	0,00	-
K 12	7 470	7 472	0	9,09	2,00	11,09	107,2	0,00	88,47	-	-	0,00	0,00	-
K 13	6 627	6 629	0	10,49	2,00	12,49	107,2	0,00	87,43	-	-	0,00	0,00	-
K 14	5 945	5 948	0	11,75	2,00	13,75	107,2	0,00	86,49	-	-	0,00	0,00	-
WTG 01	2 287	2 294	0	24,72	2,00	26,72	106,9	0,00	78,21	-	-	0,00	0,00	-
WTG 02	3 177	3 182	0	20,61	2,00	22,61	106,9	0,00	81,05	-	-	0,00	0,00	-
Sum						31,26								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: R Noise sensitive point: Finnish normal frequency - User defined (114)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	5 381	5 383	0	12,89	2,00	14,89	107,2	0,00	85,62	-	-	0,00	0,00	-
K 02	5 126	5 128	0	13,45	2,00	15,45	107,2	0,00	85,20	-	-	0,00	0,00	-
K 03	5 159	5 162	0	13,36	2,00	15,36	107,2	0,00	85,26	-	-	0,00	0,00	-
K 04	4 584	4 587	0	14,71	2,00	16,71	107,2	0,00	84,23	-	-	0,00	0,00	-
K 05	5 287	5 289	0	13,09	2,00	15,09	107,2	0,00	85,47	-	-	0,00	0,00	-
K 06	4 500	4 502	0	14,95	2,00	16,95	107,2	0,00	84,07	-	-	0,00	0,00	-
K 07	3 877	3 880	0	16,90	2,00	18,90	107,2	0,00	82,78	-	-	0,00	0,00	-
K 08	4 356	4 359	0	15,38	2,00	17,38	107,2	0,00	83,79	-	-	0,00	0,00	-
K 09	4 336	4 339	0	15,44	2,00	17,44	107,2	0,00	83,75	-	-	0,00	0,00	-
K 10	6 068	6 070	0	11,51	2,00	13,51	107,2	0,00	86,66	-	-	0,00	0,00	-
K 11	6 300	6 302	0	11,08	2,00	13,08	107,2	0,00	86,99	-	-	0,00	0,00	-
K 12	6 018	6 020	0	11,61	2,00	13,61	107,2	0,00	86,59	-	-	0,00	0,00	-
K 13	5 337	5 339	0	12,98	2,00	14,98	107,2	0,00	85,55	-	-	0,00	0,00	-
K 14	5 148	5 150	0	13,39	2,00	15,39	107,2	0,00	85,24	-	-	0,00	0,00	-
WTG 01	4 801	4 804	0	15,25	2,00	17,25	106,9	0,00	84,63	-	-	0,00	0,00	-
WTG 02	4 282	4 285	0	16,75	2,00	18,75	106,9	0,00	83,64	-	-	0,00	0,00	-
Sum						28,30								

- Data undefined due to calculation with octave data

Noise sensitive area: S Noise sensitive point: Finnish normal frequency - User defined (113)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	4 379	4 382	0	15,31	2,00	17,31	107,2	0,00	83,83	-	-	0,00	0,00	-
K 02	3 872	3 875	0	16,91	2,00	18,91	107,2	0,00	82,77	-	-	0,00	0,00	-
K 03	3 239	3 243	0	19,23	2,00	21,23	107,2	0,00	81,22	-	-	0,00	0,00	-
K 04	2 856	2 861	0	20,84	2,00	22,84	107,2	0,00	80,13	-	-	0,00	0,00	-
K 05	2 346	2 352	0	23,34	2,00	25,34	107,2	0,00	78,43	-	-	0,00	0,00	-
K 06	4 576	4 579	0	14,73	2,00	16,73	107,2	0,00	84,22	-	-	0,00	0,00	-
K 07	4 650	4 654	0	14,54	2,00	16,54	107,2	0,00	84,36	-	-	0,00	0,00	-
K 08	3 833	3 837	0	17,04	2,00	19,04	107,2	0,00	82,68	-	-	0,00	0,00	-
K 09	3 400	3 404	0	18,60	2,00	20,60	107,2	0,00	81,64	-	-	0,00	0,00	-
K 10	5 525	5 527	0	12,59	2,00	14,59	107,2	0,00	85,85	-	-	0,00	0,00	-
K 11	6 192	6 194	0	11,28	2,00	13,28	107,2	0,00	86,84	-	-	0,00	0,00	-
K 12	6 734	6 736	0	10,31	2,00	12,31	107,2	0,00	87,57	-	-	0,00	0,00	-
K 13	5 905	5 907	0	11,83	2,00	13,83	107,2	0,00	86,43	-	-	0,00	0,00	-
K 14	5 222	5 225	0	13,23	2,00	15,23	107,2	0,00	85,36	-	-	0,00	0,00	-
WTG 01	1 760	1 770	0	27,88	2,00	29,88	106,9	0,00	75,96	-	-	0,00	0,00	-
WTG 02	2 601	2 608	0	23,13	2,00	25,13	106,9	0,00	79,33	-	-	0,00	0,00	-
Sum						33,99								

- Data undefined due to calculation with octave data

Noise sensitive area: T Noise sensitive point: Finnish normal frequency - User defined (112)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 994	3 997	0	16,51	2,00	18,51	107,2	0,00	83,03	-	-	0,00	0,00	-
K 02	3 494	3 499	0	18,24	2,00	20,24	107,2	0,00	81,88	-	-	0,00	0,00	-
K 03	2 862	2 867	0	20,82	2,00	22,82	107,2	0,00	80,15	-	-	0,00	0,00	-
K 04	2 530	2 535	0	22,39	2,00	24,39	107,2	0,00	79,08	-	-	0,00	0,00	-
K 05	1 976	1 983	0	25,48	2,00	27,48	107,2	0,00	76,95	-	-	0,00	0,00	-
K 06	4 224	4 228	0	15,78	2,00	17,78	107,2	0,00	83,52	-	-	0,00	0,00	-
K 07	4 330	4 333	0	15,45	2,00	17,45	107,2	0,00	83,74	-	-	0,00	0,00	-
K 08	3 495	3 499	0	18,24	2,00	20,24	107,2	0,00	81,88	-	-	0,00	0,00	-
K 09	3 074	3 078	0	19,90	2,00	21,90	107,2	0,00	80,77	-	-	0,00	0,00	-
K 10	5 131	5 133	0	13,43	2,00	15,43	107,2	0,00	85,21	-	-	0,00	0,00	-
K 11	5 799	5 801	0	12,03	2,00	14,03	107,2	0,00	86,27	-	-	0,00	0,00	-
K 12	6 351	6 353	0	10,99	2,00	12,99	107,2	0,00	87,06	-	-	0,00	0,00	-

To be continued on next page...

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	5 531	5 534	0	12,57	2,00	14,57	107,2	0,00	85,86	-	-	0,00	0,00	-
K 14	4 848	4 851	0	14,06	2,00	16,06	107,2	0,00	84,72	-	-	0,00	0,00	-
WTG 01	1 556	1 567	0	29,32	2,00	31,32	106,9	0,00	74,90	-	-	0,00	0,00	-
WTG 02	2 337	2 345	0	24,46	2,00	26,46	106,9	0,00	78,40	-	-	0,00	0,00	-
Sum						35,47								

- Data undefined due to calculation with octave data

Noise sensitive area: U Noise sensitive point: Finnish normal frequency - User defined (111)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	4 194	4 197	0	15,87	2,00	17,87	107,2	0,00	83,46	-	-	0,00	0,00	-
K 02	3 939	3 943	0	16,69	2,00	18,69	107,2	0,00	82,92	-	-	0,00	0,00	-
K 03	3 993	3 996	0	16,51	2,00	18,51	107,2	0,00	83,03	-	-	0,00	0,00	-
K 04	3 462	3 466	0	18,37	2,00	20,37	107,2	0,00	81,80	-	-	0,00	0,00	-
K 05	4 185	4 188	0	15,90	2,00	17,90	107,2	0,00	83,44	-	-	0,00	0,00	-
K 06	3 319	3 323	0	18,91	2,00	20,91	107,2	0,00	81,43	-	-	0,00	0,00	-
K 07	2 698	2 703	0	21,57	2,00	23,57	107,2	0,00	79,64	-	-	0,00	0,00	-
K 08	3 173	3 176	0	19,50	2,00	21,50	107,2	0,00	81,04	-	-	0,00	0,00	-
K 09	3 174	3 178	0	19,49	2,00	21,49	107,2	0,00	81,04	-	-	0,00	0,00	-
K 10	4 915	4 918	0	13,91	2,00	15,91	107,2	0,00	84,84	-	-	0,00	0,00	-
K 11	5 187	5 189	0	13,30	2,00	15,30	107,2	0,00	85,30	-	-	0,00	0,00	-
K 12	4 974	4 976	0	13,78	2,00	15,78	107,2	0,00	84,94	-	-	0,00	0,00	-
K 13	4 237	4 239	0	15,74	2,00	17,74	107,2	0,00	83,55	-	-	0,00	0,00	-
K 14	3 996	3 999	0	16,50	2,00	18,50	107,2	0,00	83,04	-	-	0,00	0,00	-
WTG 01	3 858	3 862	0	18,11	2,00	20,11	106,9	0,00	82,74	-	-	0,00	0,00	-
WTG 02	3 229	3 234	0	20,40	2,00	22,40	106,9	0,00	81,19	-	-	0,00	0,00	-
Sum						31,84								

- Data undefined due to calculation with octave data

Noise sensitive area: V Noise sensitive point: Finnish normal frequency - User defined (110)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 343	3 346	0	18,82	2,00	20,82	107,2	0,00	81,49	-	-	0,00	0,00	-
K 02	2 985	2 989	0	20,28	2,00	22,28	107,2	0,00	80,51	-	-	0,00	0,00	-
K 03	2 918	2 922	0	20,57	2,00	22,57	107,2	0,00	80,31	-	-	0,00	0,00	-
K 04	2 302	2 307	0	23,59	2,00	25,59	107,2	0,00	78,26	-	-	0,00	0,00	-
K 05	3 004	3 008	0	20,20	2,00	22,20	107,2	0,00	80,56	-	-	0,00	0,00	-
K 06	2 576	2 581	0	22,16	2,00	24,16	107,2	0,00	79,24	-	-	0,00	0,00	-
K 07	2 021	2 027	0	25,21	2,00	27,21	107,2	0,00	77,14	-	-	0,00	0,00	-
K 08	2 206	2 211	0	24,12	2,00	26,12	107,2	0,00	77,89	-	-	0,00	0,00	-
K 09	2 095	2 100	0	24,77	2,00	26,77	107,2	0,00	77,45	-	-	0,00	0,00	-
K 10	4 266	4 269	0	15,65	2,00	17,65	107,2	0,00	83,61	-	-	0,00	0,00	-
K 11	4 666	4 669	0	14,49	2,00	16,49	107,2	0,00	84,38	-	-	0,00	0,00	-
K 12	4 644	4 646	0	14,54	2,00	16,54	107,2	0,00	84,34	-	-	0,00	0,00	-
K 13	3 795	3 798	0	17,17	2,00	19,17	107,2	0,00	82,59	-	-	0,00	0,00	-
K 14	3 385	3 388	0	18,66	2,00	20,66	107,2	0,00	81,60	-	-	0,00	0,00	-
WTG 01	2 659	2 665	0	22,86	2,00	24,86	106,9	0,00	79,51	-	-	0,00	0,00	-
WTG 02	2 021	2 029	0	26,23	2,00	28,23	106,9	0,00	77,14	-	-	0,00	0,00	-
Sum						36,01								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: W Noise sensitive point: Finnish normal frequency - User defined (109)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 694	3 698	0	17,52	2,00	19,52	107,2	0,00	82,36	-	-	0,00	0,00	-
K 02	3 207	3 211	0	19,35	2,00	21,35	107,2	0,00	81,13	-	-	0,00	0,00	-
K 03	2 578	2 584	0	22,15	2,00	24,15	107,2	0,00	79,24	-	-	0,00	0,00	-
K 04	2 312	2 318	0	23,52	2,00	25,52	107,2	0,00	78,30	-	-	0,00	0,00	-
K 05	1 706	1 715	0	27,28	2,00	29,28	107,2	0,00	75,69	-	-	0,00	0,00	-
K 06	3 968	3 971	0	16,59	2,00	18,59	107,2	0,00	82,98	-	-	0,00	0,00	-
K 07	4 109	4 112	0	16,14	2,00	18,14	107,2	0,00	83,28	-	-	0,00	0,00	-
K 08	3 257	3 261	0	19,16	2,00	21,16	107,2	0,00	81,27	-	-	0,00	0,00	-
K 09	2 851	2 856	0	20,87	2,00	22,87	107,2	0,00	80,12	-	-	0,00	0,00	-
K 10	4 817	4 820	0	14,13	2,00	16,13	107,2	0,00	84,66	-	-	0,00	0,00	-
K 11	5 486	5 489	0	12,67	2,00	14,67	107,2	0,00	85,79	-	-	0,00	0,00	-
K 12	6 054	6 056	0	11,54	2,00	13,54	107,2	0,00	86,64	-	-	0,00	0,00	-
K 13	5 245	5 248	0	13,18	2,00	15,18	107,2	0,00	85,40	-	-	0,00	0,00	-
K 14	4 563	4 567	0	14,77	2,00	16,77	107,2	0,00	84,19	-	-	0,00	0,00	-
WTG 01	1 500	1 513	0	29,73	2,00	31,73	106,9	0,00	74,60	-	-	0,00	0,00	-
WTG 02	2 194	2 202	0	25,23	2,00	27,23	106,9	0,00	77,86	-	-	0,00	0,00	-
Sum						36,38								

- Data undefined due to calculation with octave data

Noise sensitive area: X Noise sensitive point: Finnish normal frequency - User defined (108)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 553	3 557	0	18,03	2,00	20,03	107,2	0,00	82,02	-	-	0,00	0,00	-
K 02	3 109	3 114	0	19,75	2,00	21,75	107,2	0,00	80,87	-	-	0,00	0,00	-
K 03	2 504	2 510	0	22,52	2,00	24,52	107,2	0,00	78,99	-	-	0,00	0,00	-
K 04	2 406	2 412	0	23,02	2,00	25,02	107,2	0,00	78,65	-	-	0,00	0,00	-
K 05	1 710	1 718	0	27,26	2,00	29,26	107,2	0,00	75,70	-	-	0,00	0,00	-
K 06	3 942	3 945	0	16,68	2,00	18,68	107,2	0,00	82,92	-	-	0,00	0,00	-
K 07	4 159	4 163	0	15,98	2,00	17,98	107,2	0,00	83,39	-	-	0,00	0,00	-
K 08	3 283	3 288	0	19,05	2,00	21,05	107,2	0,00	81,34	-	-	0,00	0,00	-
K 09	2 920	2 925	0	20,56	2,00	22,56	107,2	0,00	80,32	-	-	0,00	0,00	-
K 10	4 614	4 618	0	14,62	2,00	16,62	107,2	0,00	84,29	-	-	0,00	0,00	-
K 11	5 284	5 287	0	13,09	2,00	15,09	107,2	0,00	85,46	-	-	0,00	0,00	-
K 12	5 900	5 902	0	11,84	2,00	13,84	107,2	0,00	86,42	-	-	0,00	0,00	-
K 13	5 131	5 134	0	13,42	2,00	15,42	107,2	0,00	85,21	-	-	0,00	0,00	-
K 14	4 457	4 460	0	15,08	2,00	17,08	107,2	0,00	83,99	-	-	0,00	0,00	-
WTG 01	1 864	1 874	0	27,19	2,00	29,19	106,9	0,00	76,45	-	-	0,00	0,00	-
WTG 02	2 419	2 427	0	24,03	2,00	26,03	106,9	0,00	78,70	-	-	0,00	0,00	-
Sum						35,51								

- Data undefined due to calculation with octave data

Noise sensitive area: Y Noise sensitive point: Finnish normal frequency - User defined (107)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 224	3 228	0	19,29	2,00	21,29	107,2	0,00	81,18	-	-	0,00	0,00	-
K 02	2 816	2 821	0	21,02	2,00	23,02	107,2	0,00	80,01	-	-	0,00	0,00	-
K 03	2 240	2 246	0	23,92	2,00	25,92	107,2	0,00	78,03	-	-	0,00	0,00	-
K 04	2 280	2 286	0	23,70	2,00	25,70	107,2	0,00	78,18	-	-	0,00	0,00	-
K 05	1 543	1 552	0	28,50	2,00	30,50	107,2	0,00	74,82	-	-	0,00	0,00	-
K 06	3 689	3 693	0	17,54	2,00	19,54	107,2	0,00	82,35	-	-	0,00	0,00	-
K 07	3 962	3 966	0	16,61	2,00	18,61	107,2	0,00	82,97	-	-	0,00	0,00	-
K 08	3 080	3 084	0	19,88	2,00	21,88	107,2	0,00	80,78	-	-	0,00	0,00	-
K 09	2 758	2 764	0	21,29	2,00	23,29	107,2	0,00	79,83	-	-	0,00	0,00	-
K 10	4 242	4 245	0	15,72	2,00	17,72	107,2	0,00	83,56	-	-	0,00	0,00	-
K 11	4 909	4 912	0	13,92	2,00	15,92	107,2	0,00	84,82	-	-	0,00	0,00	-
K 12	5 550	5 553	0	12,53	2,00	14,53	107,2	0,00	85,89	-	-	0,00	0,00	-

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	4 809	4 812	0	14,15	2,00	16,15	107,2	0,00	84,65	-	-	0,00	0,00	-
K 14	4 143	4 147	0	16,03	2,00	18,03	107,2	0,00	83,35	-	-	0,00	0,00	-
WTG 01	2 007	2 016	0	26,31	2,00	28,31	106,9	0,00	77,09	-	-	0,00	0,00	-
WTG 02	2 409	2 416	0	24,08	2,00	26,08	106,9	0,00	78,66	-	-	0,00	0,00	-
Sum						36,09								

- Data undefined due to calculation with octave data

Noise sensitive area: Z Noise sensitive point: Finnish normal frequency - User defined (106)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 011	3 015	0	20,17	2,00	22,17	107,2	0,00	80,59	-	-	0,00	0,00	-
K 02	2 644	2 649	0	21,83	2,00	23,83	107,2	0,00	79,46	-	-	0,00	0,00	-
K 03	2 109	2 116	0	24,67	2,00	26,67	107,2	0,00	77,51	-	-	0,00	0,00	-
K 04	2 280	2 286	0	23,70	2,00	25,70	107,2	0,00	78,18	-	-	0,00	0,00	-
K 05	1 535	1 544	0	28,56	2,00	30,56	107,2	0,00	74,77	-	-	0,00	0,00	-
K 06	3 548	3 552	0	18,05	2,00	20,05	107,2	0,00	82,01	-	-	0,00	0,00	-
K 07	3 872	3 875	0	16,91	2,00	18,91	107,2	0,00	82,77	-	-	0,00	0,00	-
K 08	2 993	2 998	0	20,24	2,00	22,24	107,2	0,00	80,54	-	-	0,00	0,00	-
K 09	2 715	2 720	0	21,49	2,00	23,49	107,2	0,00	79,69	-	-	0,00	0,00	-
K 10	3 975	3 979	0	16,57	2,00	18,57	107,2	0,00	82,99	-	-	0,00	0,00	-
K 11	4 637	4 640	0	14,56	2,00	16,56	107,2	0,00	84,33	-	-	0,00	0,00	-
K 12	5 304	5 307	0	13,05	2,00	15,05	107,2	0,00	85,50	-	-	0,00	0,00	-
K 13	4 593	4 596	0	14,68	2,00	16,68	107,2	0,00	84,25	-	-	0,00	0,00	-
K 14	3 939	3 943	0	16,69	2,00	18,69	107,2	0,00	82,92	-	-	0,00	0,00	-
WTG 01	2 220	2 228	0	25,09	2,00	27,09	106,9	0,00	77,96	-	-	0,00	0,00	-
WTG 02	2 501	2 508	0	23,62	2,00	25,62	106,9	0,00	78,99	-	-	0,00	0,00	-
Sum						36,13								

- Data undefined due to calculation with octave data

Noise sensitive area: AA Noise sensitive point: Finnish normal frequency - User defined (105)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	margin	margin	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	2 594	2 598	0	22,08	2,00	24,08	107,2	0,00	79,29	-	-	0,00	0,00	-
K 02	2 538	2 543	0	22,35	2,00	24,35	107,2	0,00	79,11	-	-	0,00	0,00	-
K 03	2 861	2 865	0	20,83	2,00	22,83	107,2	0,00	80,14	-	-	0,00	0,00	-
K 04	2 717	2 721	0	21,49	2,00	23,49	107,2	0,00	79,69	-	-	0,00	0,00	-
K 05	3 432	3 435	0	18,48	2,00	20,48	107,2	0,00	81,72	-	-	0,00	0,00	-
K 06	1 679	1 685	0	27,50	2,00	29,50	107,2	0,00	75,53	-	-	0,00	0,00	-
K 07	1 116	1 126	0	32,34	2,00	34,34	107,2	0,00	72,03	-	-	0,00	0,00	-
K 08	1 941	1 946	0	25,72	2,00	27,72	107,2	0,00	76,78	-	-	0,00	0,00	-
K 09	2 214	2 219	0	24,08	2,00	26,08	107,2	0,00	77,92	-	-	0,00	0,00	-
K 10	3 068	3 071	0	19,93	2,00	21,93	107,2	0,00	80,75	-	-	0,00	0,00	-
K 11	3 272	3 275	0	19,10	2,00	21,10	107,2	0,00	81,30	-	-	0,00	0,00	-
K 12	3 041	3 045	0	20,04	2,00	22,04	107,2	0,00	80,67	-	-	0,00	0,00	-
K 13	2 311	2 315	0	23,54	2,00	25,54	107,2	0,00	78,29	-	-	0,00	0,00	-
K 14	2 156	2 161	0	24,41	2,00	26,41	107,2	0,00	77,69	-	-	0,00	0,00	-
WTG 01	3 737	3 741	0	18,52	2,00	20,52	106,9	0,00	82,46	-	-	0,00	0,00	-
WTG 02	2 863	2 868	0	21,93	2,00	23,93	106,9	0,00	80,15	-	-	0,00	0,00	-
Sum						38,61								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: AB Noise sensitive point: Finnish normal frequency - User defined (104)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	2 836	2 841	0	20,93	2,00	22,93	107,2	0,00	80,07	-	-	0,00	0,00	-
K 02	2 509	2 515	0	22,49	2,00	24,49	107,2	0,00	79,01	-	-	0,00	0,00	-
K 03	2 019	2 026	0	25,22	2,00	27,22	107,2	0,00	77,13	-	-	0,00	0,00	-
K 04	2 295	2 301	0	23,62	2,00	25,62	107,2	0,00	78,24	-	-	0,00	0,00	-
K 05	1 565	1 574	0	28,33	2,00	30,33	107,2	0,00	74,94	-	-	0,00	0,00	-
K 06	3 432	3 436	0	18,48	2,00	20,48	107,2	0,00	81,72	-	-	0,00	0,00	-
K 07	3 796	3 800	0	17,17	2,00	19,17	107,2	0,00	82,59	-	-	0,00	0,00	-
K 08	2 927	2 932	0	20,53	2,00	22,53	107,2	0,00	80,34	-	-	0,00	0,00	-
K 09	2 689	2 694	0	21,61	2,00	23,61	107,2	0,00	79,61	-	-	0,00	0,00	-
K 10	3 751	3 755	0	17,32	2,00	19,32	107,2	0,00	82,49	-	-	0,00	0,00	-
K 11	4 408	4 412	0	15,22	2,00	17,22	107,2	0,00	83,89	-	-	0,00	0,00	-
K 12	5 094	5 097	0	13,51	2,00	15,51	107,2	0,00	85,15	-	-	0,00	0,00	-
K 13	4 409	4 413	0	15,22	2,00	17,22	107,2	0,00	83,89	-	-	0,00	0,00	-
K 14	3 768	3 771	0	17,27	2,00	19,27	107,2	0,00	82,53	-	-	0,00	0,00	-
WTG 01	2 399	2 406	0	24,14	2,00	26,14	106,9	0,00	78,63	-	-	0,00	0,00	-
WTG 02	2 586	2 593	0	23,20	2,00	25,20	106,9	0,00	79,27	-	-	0,00	0,00	-
Sum						36,13								

- Data undefined due to calculation with octave data

Noise sensitive area: AC Noise sensitive point: Finnish normal frequency - User defined (103)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	2 448	2 453	0	22,81	2,00	24,81	107,2	0,00	78,79	-	-	0,00	0,00	-
K 02	2 142	2 149	0	24,48	2,00	26,48	107,2	0,00	77,64	-	-	0,00	0,00	-
K 03	1 690	1 698	0	27,41	2,00	29,41	107,2	0,00	75,60	-	-	0,00	0,00	-
K 04	2 070	2 077	0	24,91	2,00	26,91	107,2	0,00	77,35	-	-	0,00	0,00	-
K 05	1 382	1 392	0	29,82	2,00	31,82	107,2	0,00	73,87	-	-	0,00	0,00	-
K 06	3 073	3 078	0	19,90	2,00	21,90	107,2	0,00	80,76	-	-	0,00	0,00	-
K 07	3 465	3 469	0	18,35	2,00	20,35	107,2	0,00	81,80	-	-	0,00	0,00	-
K 08	2 609	2 615	0	21,99	2,00	23,99	107,2	0,00	79,35	-	-	0,00	0,00	-
K 09	2 412	2 418	0	22,99	2,00	24,99	107,2	0,00	78,67	-	-	0,00	0,00	-
K 10	3 355	3 359	0	18,77	2,00	20,77	107,2	0,00	81,52	-	-	0,00	0,00	-
K 11	4 013	4 016	0	16,45	2,00	18,45	107,2	0,00	83,08	-	-	0,00	0,00	-
K 12	4 697	4 700	0	14,42	2,00	16,42	107,2	0,00	84,44	-	-	0,00	0,00	-
K 13	4 016	4 020	0	16,44	2,00	18,44	107,2	0,00	83,08	-	-	0,00	0,00	-
K 14	3 379	3 383	0	18,68	2,00	20,68	107,2	0,00	81,59	-	-	0,00	0,00	-
WTG 01	2 395	2 402	0	24,16	2,00	26,16	106,9	0,00	78,61	-	-	0,00	0,00	-
WTG 02	2 441	2 448	0	23,92	2,00	25,92	106,9	0,00	78,78	-	-	0,00	0,00	-
Sum						37,55								

- Data undefined due to calculation with octave data

Noise sensitive area: AD Noise sensitive point: Finnish normal frequency - User defined (102)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	2 211	2 217	0	24,09	2,00	26,09	107,2	0,00	77,91	-	-	0,00	0,00	-
K 02	1 980	1 987	0	25,46	2,00	27,46	107,2	0,00	76,97	-	-	0,00	0,00	-
K 03	1 628	1 636	0	27,86	2,00	29,86	107,2	0,00	75,28	-	-	0,00	0,00	-
K 04	2 151	2 158	0	24,43	2,00	26,43	107,2	0,00	77,68	-	-	0,00	0,00	-
K 05	1 540	1 549	0	28,53	2,00	30,53	107,2	0,00	74,80	-	-	0,00	0,00	-
K 06	2 918	2 923	0	20,57	2,00	22,57	107,2	0,00	80,32	-	-	0,00	0,00	-
K 07	3 364	3 368	0	18,74	2,00	20,74	107,2	0,00	81,55	-	-	0,00	0,00	-
K 08	2 544	2 549	0	22,32	2,00	24,32	107,2	0,00	79,13	-	-	0,00	0,00	-
K 09	2 414	2 420	0	22,98	2,00	24,98	107,2	0,00	78,68	-	-	0,00	0,00	-
K 10	3 032	3 037	0	20,08	2,00	22,08	107,2	0,00	80,65	-	-	0,00	0,00	-
K 11	3 681	3 685	0	17,57	2,00	19,57	107,2	0,00	82,33	-	-	0,00	0,00	-
K 12	4 389	4 392	0	15,28	2,00	17,28	107,2	0,00	83,85	-	-	0,00	0,00	-

To be continued on next page...

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	3 748	3 752	0	17,33	2,00	19,33	107,2	0,00	82,49	-	-	0,00	0,00	-
K 14	3 134	3 138	0	19,65	2,00	21,65	107,2	0,00	80,93	-	-	0,00	0,00	-
WTG 01	2 670	2 676	0	22,81	2,00	24,81	106,9	0,00	79,55	-	-	0,00	0,00	-
WTG 02	2 599	2 606	0	23,14	2,00	25,14	106,9	0,00	79,32	-	-	0,00	0,00	-
Sum						37,44								

- Data undefined due to calculation with octave data

Noise sensitive area: AE Noise sensitive point: Finnish normal frequency - User defined (101)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	2 416	2 420	0	22,98	2,00	24,98	107,2	0,00	78,68	-	-	0,00	0,00	-
K 02	2 578	2 582	0	22,15	2,00	24,15	107,2	0,00	79,24	-	-	0,00	0,00	-
K 03	3 074	3 077	0	19,91	2,00	21,91	107,2	0,00	80,76	-	-	0,00	0,00	-
K 04	3 189	3 193	0	19,43	2,00	21,43	107,2	0,00	81,08	-	-	0,00	0,00	-
K 05	3 820	3 822	0	17,09	2,00	19,09	107,2	0,00	82,65	-	-	0,00	0,00	-
K 06	1 644	1 650	0	27,76	2,00	29,76	107,2	0,00	75,35	-	-	0,00	0,00	-
K 07	1 389	1 397	0	29,78	2,00	31,78	107,2	0,00	73,90	-	-	0,00	0,00	-
K 08	2 245	2 250	0	23,90	2,00	25,90	107,2	0,00	78,04	-	-	0,00	0,00	-
K 09	2 646	2 650	0	21,83	2,00	23,83	107,2	0,00	79,46	-	-	0,00	0,00	-
K 10	2 476	2 480	0	22,67	2,00	24,67	107,2	0,00	78,89	-	-	0,00	0,00	-
K 11	2 507	2 511	0	22,51	2,00	24,51	107,2	0,00	79,00	-	-	0,00	0,00	-
K 12	2 125	2 130	0	24,59	2,00	26,59	107,2	0,00	77,57	-	-	0,00	0,00	-
K 13	1 546	1 553	0	28,50	2,00	30,50	107,2	0,00	74,82	-	-	0,00	0,00	-
K 14	1 672	1 678	0	27,55	2,00	29,55	107,2	0,00	75,50	-	-	0,00	0,00	-
WTG 01	4 392	4 395	0	16,42	2,00	18,42	106,9	0,00	83,86	-	-	0,00	0,00	-
WTG 02	3 496	3 500	0	19,39	2,00	21,39	106,9	0,00	81,88	-	-	0,00	0,00	-
Sum						38,63								

- Data undefined due to calculation with octave data

Noise sensitive area: AF Noise sensitive point: Finnish normal frequency - User defined (99)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	1 412	1 421	0	29,57	2,00	31,57	107,2	0,00	74,05	-	-	0,00	0,00	-
K 02	1 346	1 357	0	30,13	2,00	32,13	107,2	0,00	73,65	-	-	0,00	0,00	-
K 03	1 282	1 293	0	30,71	2,00	32,71	107,2	0,00	73,23	-	-	0,00	0,00	-
K 04	2 043	2 049	0	25,07	2,00	27,07	107,2	0,00	77,23	-	-	0,00	0,00	-
K 05	1 704	1 712	0	27,30	2,00	29,30	107,2	0,00	75,67	-	-	0,00	0,00	-
K 06	2 235	2 242	0	23,95	2,00	25,95	107,2	0,00	78,01	-	-	0,00	0,00	-
K 07	2 767	2 772	0	21,25	2,00	23,25	107,2	0,00	79,86	-	-	0,00	0,00	-
K 08	2 065	2 072	0	24,94	2,00	26,94	107,2	0,00	77,33	-	-	0,00	0,00	-
K 09	2 097	2 103	0	24,75	2,00	26,75	107,2	0,00	77,46	-	-	0,00	0,00	-
K 10	2 136	2 143	0	24,52	2,00	26,52	107,2	0,00	77,62	-	-	0,00	0,00	-
K 11	2 785	2 790	0	21,17	2,00	23,17	107,2	0,00	79,91	-	-	0,00	0,00	-
K 12	3 496	3 500	0	18,24	2,00	20,24	107,2	0,00	81,88	-	-	0,00	0,00	-
K 13	2 884	2 889	0	20,72	2,00	22,72	107,2	0,00	80,21	-	-	0,00	0,00	-
K 14	2 301	2 307	0	23,59	2,00	25,59	107,2	0,00	78,26	-	-	0,00	0,00	-
WTG 01	2 975	2 981	0	21,44	2,00	23,44	106,9	0,00	80,49	-	-	0,00	0,00	-
WTG 02	2 623	2 629	0	23,03	2,00	25,03	106,9	0,00	79,40	-	-	0,00	0,00	-
Sum						39,87								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: AG Noise sensitive point: Finnish normal frequency - User defined (100)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	1 271	1 281	0	30,82	2,00	32,82	107,2	0,00	73,15	-	-	0,00	0,00	-
K 02	1 295	1 305	0	30,59	2,00	32,59	107,2	0,00	73,32	-	-	0,00	0,00	-
K 03	1 345	1 355	0	30,14	2,00	32,14	107,2	0,00	73,64	-	-	0,00	0,00	-
K 04	2 139	2 145	0	24,50	2,00	26,50	107,2	0,00	77,63	-	-	0,00	0,00	-
K 05	1 870	1 877	0	26,17	2,00	28,17	107,2	0,00	76,47	-	-	0,00	0,00	-
K 06	2 137	2 143	0	24,51	2,00	26,51	107,2	0,00	77,62	-	-	0,00	0,00	-
K 07	2 696	2 701	0	21,58	2,00	23,58	107,2	0,00	79,63	-	-	0,00	0,00	-
K 08	2 050	2 056	0	25,03	2,00	27,03	107,2	0,00	77,26	-	-	0,00	0,00	-
K 09	2 134	2 140	0	24,53	2,00	26,53	107,2	0,00	77,61	-	-	0,00	0,00	-
K 10	1 910	1 917	0	25,91	2,00	27,91	107,2	0,00	76,65	-	-	0,00	0,00	-
K 11	2 554	2 559	0	22,27	2,00	24,27	107,2	0,00	79,16	-	-	0,00	0,00	-
K 12	3 275	3 279	0	19,09	2,00	21,09	107,2	0,00	81,31	-	-	0,00	0,00	-
K 13	2 687	2 692	0	21,62	2,00	23,62	107,2	0,00	79,60	-	-	0,00	0,00	-
K 14	2 126	2 132	0	24,58	2,00	26,58	107,2	0,00	77,58	-	-	0,00	0,00	-
WTG 01	3 145	3 150	0	20,74	2,00	22,74	106,9	0,00	80,97	-	-	0,00	0,00	-
WTG 02	2 738	2 744	0	22,49	2,00	24,49	106,9	0,00	79,77	-	-	0,00	0,00	-
Sum						40,11								

- Data undefined due to calculation with octave data

Noise sensitive area: AH Noise sensitive point: Finnish normal frequency - User defined (98)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	1 149	1 160	0	31,99	2,00	33,99	107,2	0,00	72,29	-	-	0,00	0,00	-
K 02	1 261	1 271	0	30,91	2,00	32,91	107,2	0,00	73,08	-	-	0,00	0,00	-
K 03	1 411	1 420	0	29,58	2,00	31,58	107,2	0,00	74,04	-	-	0,00	0,00	-
K 04	2 221	2 227	0	24,03	2,00	26,03	107,2	0,00	77,95	-	-	0,00	0,00	-
K 05	2 014	2 020	0	25,26	2,00	27,26	107,2	0,00	77,11	-	-	0,00	0,00	-
K 06	2 045	2 051	0	25,07	2,00	27,07	107,2	0,00	77,24	-	-	0,00	0,00	-
K 07	2 625	2 630	0	21,92	2,00	23,92	107,2	0,00	79,40	-	-	0,00	0,00	-
K 08	2 035	2 041	0	25,12	2,00	27,12	107,2	0,00	77,20	-	-	0,00	0,00	-
K 09	2 165	2 171	0	24,35	2,00	26,35	107,2	0,00	77,73	-	-	0,00	0,00	-
K 10	1 703	1 710	0	27,32	2,00	29,32	107,2	0,00	75,66	-	-	0,00	0,00	-
K 11	2 343	2 348	0	23,36	2,00	25,36	107,2	0,00	78,42	-	-	0,00	0,00	-
K 12	3 070	3 074	0	19,92	2,00	21,92	107,2	0,00	80,76	-	-	0,00	0,00	-
K 13	2 503	2 508	0	22,53	2,00	24,53	107,2	0,00	78,99	-	-	0,00	0,00	-
K 14	1 963	1 970	0	25,57	2,00	27,57	107,2	0,00	76,89	-	-	0,00	0,00	-
WTG 01	3 286	3 291	0	20,18	2,00	22,18	106,9	0,00	81,35	-	-	0,00	0,00	-
WTG 02	2 833	2 839	0	22,06	2,00	24,06	106,9	0,00	80,06	-	-	0,00	0,00	-
Sum						40,48								

- Data undefined due to calculation with octave data

Noise sensitive area: AI Noise sensitive point: Finnish normal frequency - User defined (97)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	1 539	1 546	0	28,55	2,00	30,55	107,2	0,00	74,79	-	-	0,00	0,00	-
K 02	2 003	2 009	0	25,33	2,00	27,33	107,2	0,00	77,06	-	-	0,00	0,00	-
K 03	2 439	2 444	0	22,86	2,00	24,86	107,2	0,00	78,76	-	-	0,00	0,00	-
K 04	3 237	3 241	0	19,24	2,00	21,24	107,2	0,00	81,21	-	-	0,00	0,00	-
K 05	3 197	3 200	0	19,40	2,00	21,40	107,2	0,00	81,10	-	-	0,00	0,00	-
K 06	2 341	2 346	0	23,37	2,00	25,37	107,2	0,00	78,41	-	-	0,00	0,00	-
K 07	2 960	2 964	0	20,39	2,00	22,39	107,2	0,00	80,44	-	-	0,00	0,00	-
K 08	2 716	2 721	0	21,49	2,00	23,49	107,2	0,00	79,69	-	-	0,00	0,00	-
K 09	3 012	3 016	0	20,17	2,00	22,17	107,2	0,00	80,59	-	-	0,00	0,00	-
K 10	966	978	0	33,98	2,00	35,98	107,2	0,00	70,81	-	-	0,00	0,00	-
K 11	1 373	1 381	0	29,92	2,00	31,92	107,2	0,00	73,80	-	-	0,00	0,00	-
K 12	2 192	2 197	0	24,20	2,00	26,20	107,2	0,00	77,84	-	-	0,00	0,00	-

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	1 975	1 981	0	25,50	2,00	27,50	107,2	0,00	76,94	-	-	0,00	0,00	-
K 14	1 766	1 773	0	26,87	2,00	28,87	107,2	0,00	75,97	-	-	0,00	0,00	-
WTG 01	4 443	4 447	0	16,26	2,00	18,26	106,9	0,00	83,96	-	-	0,00	0,00	-
WTG 02	3 864	3 868	0	18,09	2,00	20,09	106,9	0,00	82,75	-	-	0,00	0,00	-
Sum						40,25								

- Data undefined due to calculation with octave data

Noise sensitive area: AJ Noise sensitive point: Finnish normal frequency - User defined (96)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	1 784	1 791	0	26,75	2,00	28,75	107,2	0,00	76,06	-	-	0,00	0,00	-
K 02	2 282	2 288	0	23,69	2,00	25,69	107,2	0,00	78,19	-	-	0,00	0,00	-
K 03	2 754	2 759	0	21,31	2,00	23,31	107,2	0,00	79,82	-	-	0,00	0,00	-
K 04	3 541	3 545	0	18,08	2,00	20,08	107,2	0,00	81,99	-	-	0,00	0,00	-
K 05	3 533	3 537	0	18,10	2,00	20,10	107,2	0,00	81,97	-	-	0,00	0,00	-
K 06	2 515	2 520	0	22,47	2,00	24,47	107,2	0,00	79,03	-	-	0,00	0,00	-
K 07	3 121	3 125	0	19,71	2,00	21,71	107,2	0,00	80,90	-	-	0,00	0,00	-
K 08	2 962	2 966	0	20,38	2,00	22,38	107,2	0,00	80,44	-	-	0,00	0,00	-
K 09	3 285	3 289	0	19,05	2,00	21,05	107,2	0,00	81,34	-	-	0,00	0,00	-
K 10	953	966	0	34,12	2,00	36,12	107,2	0,00	70,70	-	-	0,00	0,00	-
K 11	1 180	1 190	0	31,69	2,00	33,69	107,2	0,00	72,51	-	-	0,00	0,00	-
K 12	1 998	2 004	0	25,35	2,00	27,35	107,2	0,00	77,04	-	-	0,00	0,00	-
K 13	1 928	1 934	0	25,79	2,00	27,79	107,2	0,00	76,73	-	-	0,00	0,00	-
K 14	1 845	1 852	0	26,33	2,00	28,33	107,2	0,00	76,35	-	-	0,00	0,00	-
WTG 01	4 771	4 774	0	15,33	2,00	17,33	106,9	0,00	84,58	-	-	0,00	0,00	-
WTG 02	4 167	4 171	0	17,11	2,00	19,11	106,9	0,00	83,40	-	-	0,00	0,00	-
Sum						40,28								

- Data undefined due to calculation with octave data

Noise sensitive area: AK Noise sensitive point: Finnish normal frequency - User defined (95)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	2 226	2 231	0	24,01	2,00	26,01	107,2	0,00	77,97	-	-	0,00	0,00	-
K 02	2 716	2 721	0	21,49	2,00	23,49	107,2	0,00	79,69	-	-	0,00	0,00	-
K 03	3 169	3 173	0	19,51	2,00	21,51	107,2	0,00	81,03	-	-	0,00	0,00	-
K 04	3 964	3 967	0	16,61	2,00	18,61	107,2	0,00	82,97	-	-	0,00	0,00	-
K 05	3 922	3 925	0	16,75	2,00	18,75	107,2	0,00	82,88	-	-	0,00	0,00	-
K 06	2 953	2 958	0	20,42	2,00	22,42	107,2	0,00	80,42	-	-	0,00	0,00	-
K 07	3 555	3 559	0	18,02	2,00	20,02	107,2	0,00	82,03	-	-	0,00	0,00	-
K 08	3 404	3 408	0	18,59	2,00	20,59	107,2	0,00	81,65	-	-	0,00	0,00	-
K 09	3 722	3 725	0	17,43	2,00	19,43	107,2	0,00	82,42	-	-	0,00	0,00	-
K 10	1 344	1 354	0	30,15	2,00	32,15	107,2	0,00	73,63	-	-	0,00	0,00	-
K 11	1 406	1 414	0	29,63	2,00	31,63	107,2	0,00	74,01	-	-	0,00	0,00	-
K 12	2 182	2 188	0	24,26	2,00	26,26	107,2	0,00	77,80	-	-	0,00	0,00	-
K 13	2 265	2 271	0	23,79	2,00	25,79	107,2	0,00	78,12	-	-	0,00	0,00	-
K 14	2 257	2 263	0	23,83	2,00	25,83	107,2	0,00	78,09	-	-	0,00	0,00	-
WTG 01	5 172	5 176	0	14,26	2,00	16,26	106,9	0,00	85,28	-	-	0,00	0,00	-
WTG 02	4 591	4 594	0	15,83	2,00	17,83	106,9	0,00	84,24	-	-	0,00	0,00	-
Sum						37,61								

- Data undefined due to calculation with octave data

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) Noise calculation model: ISO 9613-2 Finland 8,0 m/s

Noise sensitive area: AL Noise sensitive point: Finnish normal frequency - User defined (94)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	4 312	4 315	0	15,51	2,00	17,51	107,2	0,00	83,70	-	-	0,00	0,00	-
K 02	4 753	4 755	0	14,30	2,00	16,30	107,2	0,00	84,54	-	-	0,00	0,00	-
K 03	5 376	5 378	0	12,90	2,00	14,90	107,2	0,00	85,61	-	-	0,00	0,00	-
K 04	5 778	5 780	0	12,08	2,00	14,08	107,2	0,00	86,24	-	-	0,00	0,00	-
K 05	6 252	6 254	0	11,17	2,00	13,17	107,2	0,00	86,92	-	-	0,00	0,00	-
K 06	4 027	4 030	0	16,40	2,00	18,40	107,2	0,00	83,11	-	-	0,00	0,00	-
K 07	4 108	4 111	0	16,14	2,00	18,14	107,2	0,00	83,28	-	-	0,00	0,00	-
K 08	4 796	4 798	0	14,20	2,00	16,20	107,2	0,00	84,62	-	-	0,00	0,00	-
K 09	5 253	5 255	0	13,16	2,00	15,16	107,2	0,00	85,41	-	-	0,00	0,00	-
K 10	3 451	3 454	0	18,41	2,00	20,41	107,2	0,00	81,77	-	-	0,00	0,00	-
K 11	2 884	2 887	0	20,73	2,00	22,73	107,2	0,00	80,21	-	-	0,00	0,00	-
K 12	2 083	2 088	0	24,84	2,00	26,84	107,2	0,00	77,40	-	-	0,00	0,00	-
K 13	2 728	2 732	0	21,44	2,00	23,44	107,2	0,00	79,73	-	-	0,00	0,00	-
K 14	3 400	3 403	0	18,60	2,00	20,60	107,2	0,00	81,64	-	-	0,00	0,00	-
WTG 01	7 093	7 095	0	10,60	2,00	12,60	106,9	0,00	88,02	-	-	0,00	0,00	-
WTG 02	6 215	6 217	0	12,14	2,00	14,14	106,9	0,00	86,87	-	-	0,00	0,00	-
Sum						31,89								

- Data undefined due to calculation with octave data

Noise sensitive area: AM Noise sensitive point: Finnish normal frequency - User defined (93)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	2 776	2 781	0	21,21	2,00	23,21	107,2	0,00	79,88	-	-	0,00	0,00	-
K 02	3 299	3 303	0	18,99	2,00	20,99	107,2	0,00	81,38	-	-	0,00	0,00	-
K 03	3 796	3 799	0	17,17	2,00	19,17	107,2	0,00	82,59	-	-	0,00	0,00	-
K 04	4 573	4 576	0	14,74	2,00	16,74	107,2	0,00	84,21	-	-	0,00	0,00	-
K 05	4 580	4 583	0	14,72	2,00	16,72	107,2	0,00	84,22	-	-	0,00	0,00	-
K 06	3 398	3 402	0	18,61	2,00	20,61	107,2	0,00	81,63	-	-	0,00	0,00	-
K 07	3 966	3 970	0	16,60	2,00	18,60	107,2	0,00	82,98	-	-	0,00	0,00	-
K 08	3 935	3 938	0	16,70	2,00	18,70	107,2	0,00	82,91	-	-	0,00	0,00	-
K 09	4 288	4 291	0	15,58	2,00	17,58	107,2	0,00	83,65	-	-	0,00	0,00	-
K 10	1 707	1 715	0	27,29	2,00	29,29	107,2	0,00	75,68	-	-	0,00	0,00	-
K 11	1 473	1 481	0	29,07	2,00	31,07	107,2	0,00	74,41	-	-	0,00	0,00	-
K 12	2 083	2 089	0	24,84	2,00	26,84	107,2	0,00	77,40	-	-	0,00	0,00	-
K 13	2 437	2 443	0	22,86	2,00	24,86	107,2	0,00	78,76	-	-	0,00	0,00	-
K 14	2 612	2 617	0	21,99	2,00	23,99	107,2	0,00	79,36	-	-	0,00	0,00	-
WTG 01	5 816	5 819	0	12,90	2,00	14,90	106,9	0,00	86,30	-	-	0,00	0,00	-
WTG 02	5 196	5 199	0	14,20	2,00	16,20	106,9	0,00	85,32	-	-	0,00	0,00	-
Sum						36,10								

- Data undefined due to calculation with octave data

Noise sensitive area: AN Noise sensitive point: Finnish normal frequency - User defined (92)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 792	3 795	0	17,19	2,00	19,19	107,2	0,00	82,58	-	-	0,00	0,00	-
K 02	4 303	4 305	0	15,54	2,00	17,54	107,2	0,00	83,68	-	-	0,00	0,00	-
K 03	4 935	4 937	0	13,86	2,00	15,86	107,2	0,00	84,87	-	-	0,00	0,00	-
K 04	5 477	5 479	0	12,69	2,00	14,69	107,2	0,00	85,77	-	-	0,00	0,00	-
K 05	5 830	5 832	0	11,97	2,00	13,97	107,2	0,00	86,32	-	-	0,00	0,00	-
K 06	3 765	3 767	0	17,28	2,00	19,28	107,2	0,00	82,52	-	-	0,00	0,00	-
K 07	4 024	4 026	0	16,41	2,00	18,41	107,2	0,00	83,10	-	-	0,00	0,00	-
K 08	4 537	4 539	0	14,85	2,00	16,85	107,2	0,00	84,14	-	-	0,00	0,00	-
K 09	4 995	4 998	0	13,73	2,00	15,73	107,2	0,00	84,98	-	-	0,00	0,00	-
K 10	2 723	2 727	0	21,46	2,00	23,46	107,2	0,00	79,72	-	-	0,00	0,00	-
K 11	2 070	2 075	0	24,92	2,00	26,92	107,2	0,00	77,34	-	-	0,00	0,00	-
K 12	1 438	1 446	0	29,36	2,00	31,36	107,2	0,00	74,20	-	-	0,00	0,00	-

To be continued on next page...

DECIBEL - Detailed results

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** ISO 9613-2 Finland 8,0 m/s

...continued from previous page

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 13	2 313	2 318	0	23,53	2,00	25,53	107,2	0,00	78,30	-	-	0,00	0,00	-
K 14	2 979	2 983	0	20,31	2,00	22,31	107,2	0,00	80,49	-	-	0,00	0,00	-
WTG 01	6 827	6 829	0	11,05	2,00	13,05	106,9	0,00	87,69	-	-	0,00	0,00	-
WTG 02	5 995	5 997	0	12,55	2,00	14,55	106,9	0,00	86,56	-	-	0,00	0,00	-
Sum						34,96								

- Data undefined due to calculation with octave data

Noise sensitive area: AO Noise sensitive point: Finnish normal frequency - User defined (91)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 221	3 224	0	19,30	2,00	21,30	107,2	0,00	81,17	-	-	0,00	0,00	-
K 02	3 765	3 769	0	17,28	2,00	19,28	107,2	0,00	82,52	-	-	0,00	0,00	-
K 03	4 310	4 313	0	15,52	2,00	17,52	107,2	0,00	83,70	-	-	0,00	0,00	-
K 04	5 055	5 057	0	13,59	2,00	15,59	107,2	0,00	85,08	-	-	0,00	0,00	-
K 05	5 135	5 137	0	13,42	2,00	15,42	107,2	0,00	85,21	-	-	0,00	0,00	-
K 06	3 710	3 713	0	17,47	2,00	19,47	107,2	0,00	82,39	-	-	0,00	0,00	-
K 07	4 227	4 230	0	15,77	2,00	17,77	107,2	0,00	83,53	-	-	0,00	0,00	-
K 08	4 329	4 332	0	15,46	2,00	17,46	107,2	0,00	83,73	-	-	0,00	0,00	-
K 09	4 719	4 721	0	14,37	2,00	16,37	107,2	0,00	84,48	-	-	0,00	0,00	-
K 10	2 045	2 051	0	25,07	2,00	27,07	107,2	0,00	77,24	-	-	0,00	0,00	-
K 11	1 586	1 593	0	28,18	2,00	30,18	107,2	0,00	75,05	-	-	0,00	0,00	-
K 12	1 930	1 936	0	25,78	2,00	27,78	107,2	0,00	76,74	-	-	0,00	0,00	-
K 13	2 526	2 531	0	22,41	2,00	24,41	107,2	0,00	79,07	-	-	0,00	0,00	-
K 14	2 866	2 870	0	20,80	2,00	22,80	107,2	0,00	80,16	-	-	0,00	0,00	-
WTG 01	6 341	6 343	0	11,91	2,00	13,91	106,9	0,00	87,05	-	-	0,00	0,00	-
WTG 02	5 667	5 670	0	13,20	2,00	15,20	106,9	0,00	86,07	-	-	0,00	0,00	-
Sum						35,15								

- Data undefined due to calculation with octave data

Noise sensitive area: AP Noise sensitive point: Finnish normal frequency - User defined (90)

Wind speed: 8,0 m/s

WTG

No.	Distance	Sound distance	Penalty	From WTGs	Uncertainty	WTG+Uncertainty	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
	[m]	[m]	[dB]	[dB(A)]	[dB]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
K 01	3 805	3 808	0	17,14	2,00	19,14	107,2	0,00	82,61	-	-	0,00	0,00	-
K 02	4 338	4 340	0	15,43	2,00	17,43	107,2	0,00	83,75	-	-	0,00	0,00	-
K 03	4 963	4 965	0	13,80	2,00	15,80	107,2	0,00	84,92	-	-	0,00	0,00	-
K 04	5 562	5 563	0	12,51	2,00	14,51	107,2	0,00	85,91	-	-	0,00	0,00	-
K 05	5 854	5 856	0	11,93	2,00	13,93	107,2	0,00	86,35	-	-	0,00	0,00	-
K 06	3 899	3 902	0	16,82	2,00	18,82	107,2	0,00	82,83	-	-	0,00	0,00	-
K 07	4 226	4 228	0	15,77	2,00	17,77	107,2	0,00	83,52	-	-	0,00	0,00	-
K 08	4 655	4 658	0	14,53	2,00	16,53	107,2	0,00	84,36	-	-	0,00	0,00	-
K 09	5 106	5 109	0	13,48	2,00	15,48	107,2	0,00	85,17	-	-	0,00	0,00	-
K 10	2 659	2 663	0	21,76	2,00	23,76	107,2	0,00	79,51	-	-	0,00	0,00	-
K 11	1 989	1 994	0	25,42	2,00	27,42	107,2	0,00	76,99	-	-	0,00	0,00	-
K 12	1 538	1 544	0	28,56	2,00	30,56	107,2	0,00	74,78	-	-	0,00	0,00	-
K 13	2 443	2 447	0	22,84	2,00	24,84	107,2	0,00	78,77	-	-	0,00	0,00	-
K 14	3 069	3 072	0	19,93	2,00	21,93	107,2	0,00	80,75	-	-	0,00	0,00	-
WTG 01	6 912	6 914	0	10,90	2,00	12,90	106,9	0,00	87,79	-	-	0,00	0,00	-
WTG 02	6 108	6 111	0	12,34	2,00	14,34	106,9	0,00	86,72	-	-	0,00	0,00	-
Sum						34,59								

- Data undefined due to calculation with octave data

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Noise calculation model:

ISO 9613-2 Finland

Wind speed (at 10 m height):

8,0 m/s

Ground attenuation:

General, Ground factor: 0,4

Meteorological coefficient, CO:

Selected option: Fixed value: 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 tones penalty is added to total noise impact at receptors

Noise sensitive area

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

4,0 m; Don't allow override of model height with height from NSA object

Uncertainty margin:

Uncertainty added to source noise level of the WTGs in the calculation

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

0,0 dB(A)

Octave data required

Frequency dependent 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]
0,10	0,38	1,12	2,36	4,08	8,78	26,60	95,00

All coordinates are in

Finish TM ETRS-TM35FIN-ETRS89

WTG: NORDEX N175/6.X-6800 6800 175.0 !-!

Noise: Mode 0 - Third Octaves - 106,9 dB(A) (STE)

Source	Source/Date	Creator	Edited
F008_278_A19_IN Revision 03	13/10/2023	USER	19/11/2024 16.13

Status	Hub height [m]	Wind speed [m/s]	LwA,ref [dB(A)]	Uncertainty [dB(A)]	Pure tones	Octave data							
						63	125	250	500	1000	2000	4000	8000
From Windcat	171,5	8,0	106,9	2,0	No	89,7	96,5	99,9	100,4	101,3	99,2	89,9	73,4

WTG: NORDEX N163/6.X-6800 6800 163.0 !-!

Noise: Mode 1 - Third Octaves - 107,2 dB(A)* (STE)

Source	Source/Date	Creator	Edited
F008_277_A19_IN, Rev. 0	30/03/2021	USER	29/11/2024 10.23

für Nabenhöhen 138 m, 159 m und 164 m

Mode 1 ist die offene Fahrweise (wie früher Mode 0)

Oktavbanddaten in der 2. Nachkommastelle vor dem Einfügen (aus Excel) angepaßt, um Rundungsfehler zu beheben:

500 Hz: + 0,02
 1000 Hz: + 0,03
 2000 Hz: + 0,03
 4000 Hz: + 0,03
 8000 Hz: + 0,03

Status	Hub height [m]	Wind speed [m/s]	LwA,ref [dB(A)]	Uncertainty [dB(A)]	Pure tones	Octave data							
						63	125	250	500	1000	2000	4000	8000
From Windcat	150,5	8,0	107,2	2,0	No	88,4	96,0	98,1	99,3	101,1	101,8	96,2	81,8
From Windcat	149,5	8,0	107,2	2,0	No	88,4	96,0	98,1	99,3	101,1	101,8	96,2	81,8
From Windcat	148,5	8,0	107,2	2,0	No	88,4	96,0	98,1	99,3	101,1	101,8	96,2	81,8

DECIBEL - Assumptions for noise calculation

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: A Noise sensitive point: Finnish normal frequency - User defined (131)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: B Noise sensitive point: Finnish normal frequency - User defined (130)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: C Noise sensitive point: Finnish normal frequency - User defined (129)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: D Noise sensitive point: Finnish normal frequency - User defined (128)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: E Noise sensitive point: Finnish normal frequency - User defined (127)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: F Noise sensitive point: Finnish normal frequency - User defined (126)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: G Noise sensitive point: Finnish normal frequency - User defined (125)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: H Noise sensitive point: Finnish normal frequency - User defined (124)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

DECIBEL - Assumptions for noise calculation

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: I Noise sensitive point: Finnish normal frequency - User defined (123)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: J Noise sensitive point: Finnish normal frequency - User defined (122)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: K Noise sensitive point: Finnish normal frequency - User defined (121)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: L Noise sensitive point: Finnish normal frequency - User defined (120)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: M Noise sensitive point: Finnish normal frequency - User defined (119)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: N Noise sensitive point: Finnish normal frequency - User defined (118)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: O Noise sensitive point: Finnish normal frequency - User defined (117)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

DECIBEL - Assumptions for noise calculation

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: P Noise sensitive point: Finnish normal frequency - User defined (116)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: Q Noise sensitive point: Finnish normal frequency - User defined (115)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: R Noise sensitive point: Finnish normal frequency - User defined (114)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: S Noise sensitive point: Finnish normal frequency - User defined (113)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: T Noise sensitive point: Finnish normal frequency - User defined (112)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: U Noise sensitive point: Finnish normal frequency - User defined (111)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: V Noise sensitive point: Finnish normal frequency - User defined (110)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: W Noise sensitive point: Finnish normal frequency - User defined (109)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

DECIBEL - Assumptions for noise calculation

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: X Noise sensitive point: Finnish normal frequency - User defined (108)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: Y Noise sensitive point: Finnish normal frequency - User defined (107)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: Z Noise sensitive point: Finnish normal frequency - User defined (106)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AA Noise sensitive point: Finnish normal frequency - User defined (105)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AB Noise sensitive point: Finnish normal frequency - User defined (104)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AC Noise sensitive point: Finnish normal frequency - User defined (103)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AD Noise sensitive point: Finnish normal frequency - User defined (102)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

DECIBEL - Assumptions for noise calculation

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: AE Noise sensitive point: Finnish normal frequency - User defined (101)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AF Noise sensitive point: Finnish normal frequency - User defined (99)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AG Noise sensitive point: Finnish normal frequency - User defined (100)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AH Noise sensitive point: Finnish normal frequency - User defined (98)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AI Noise sensitive point: Finnish normal frequency - User defined (97)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AJ Noise sensitive point: Finnish normal frequency - User defined (96)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AK Noise sensitive point: Finnish normal frequency - User defined (95)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AL Noise sensitive point: Finnish normal frequency - User defined (94)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AM Noise sensitive point: Finnish normal frequency - User defined (93)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AN Noise sensitive point: Finnish normal frequency - User defined (92)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AO Noise sensitive point: Finnish normal frequency - User defined (91)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

Noise sensitive area: AP Noise sensitive point: Finnish normal frequency - User defined (90)

Predefined calculation standard:

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

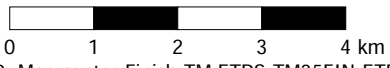
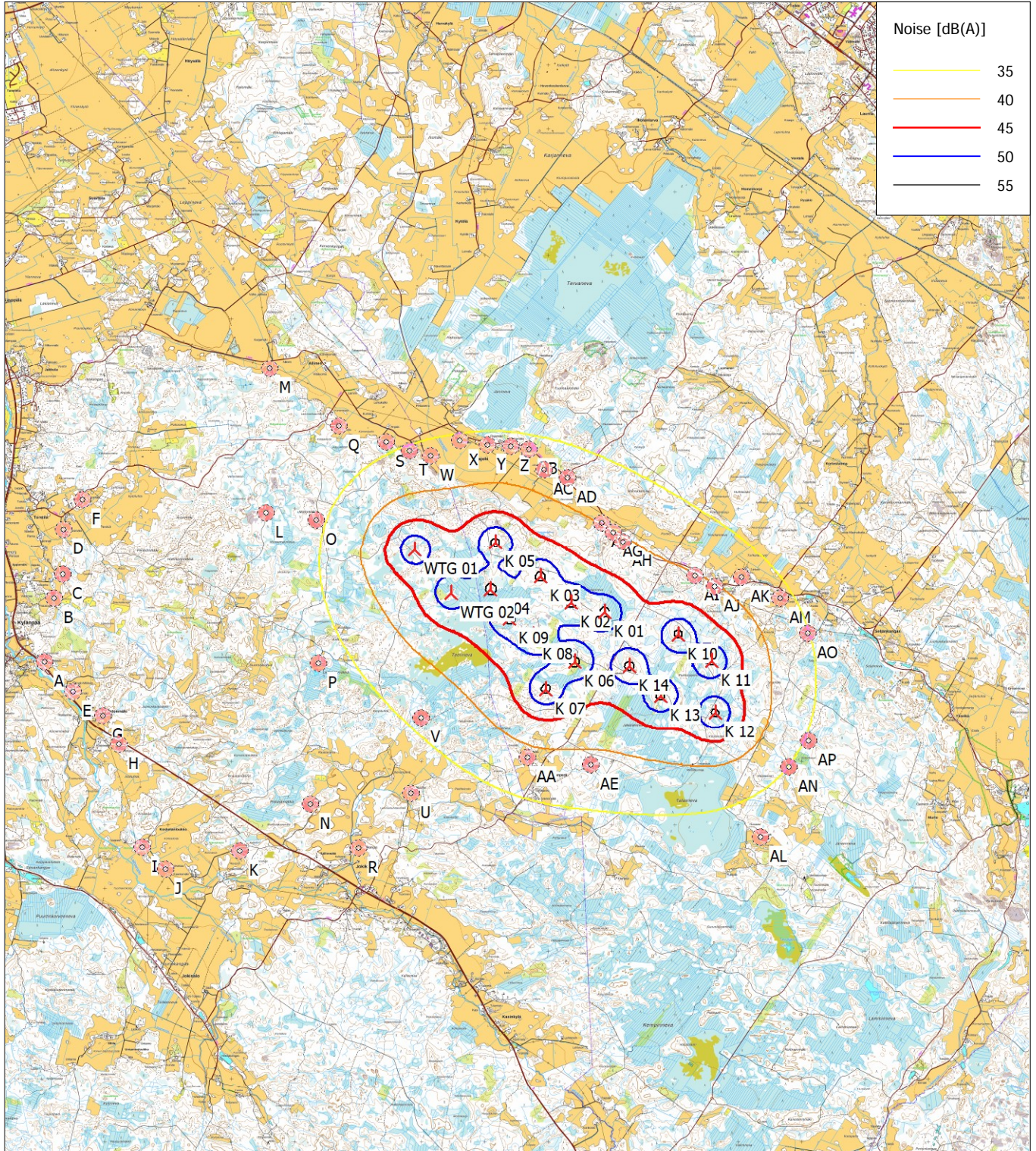
Noise demand: 40,0 dB(A)

No distance demand

Pure tone penalty: 0 dB

DECIBEL - Map 8,0 m/s

Calculation: 16 x WTG : 2 x N175 (106,9dB + 2dB) rev07 + 14 x N163 (107,2dB + 2dB)



Map: Peruskartta 5/2023 , Print scale 1:90 000, Map center Finish TM ETRS-TM35FIN-ETRS89 East: 256 593,0 North: 6 984 238,5

New WTG Noise sensitive area

Noise calculation model: ISO 9613-2 Finland. Wind speed: 8,0 m/s
 Height above sea level from active line object

DECIBEL - Main Result

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise calculation model:

Finland Low frequency

Wind speed (at 10 m height):

8,0 m/s

Spectral distribution:

From 20,0 Hz to 200,0 Hz

Meteorological coefficient, CO:

Selected option: Fixed value: 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 tone penalty is subtracted from demand

Model: 5,0 dB(A)

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

4,0 m; Don't allow override of model height with height from NSA object

Uncertainty margin:

0,0 dB; Uncertainty margin in NSA has priority

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

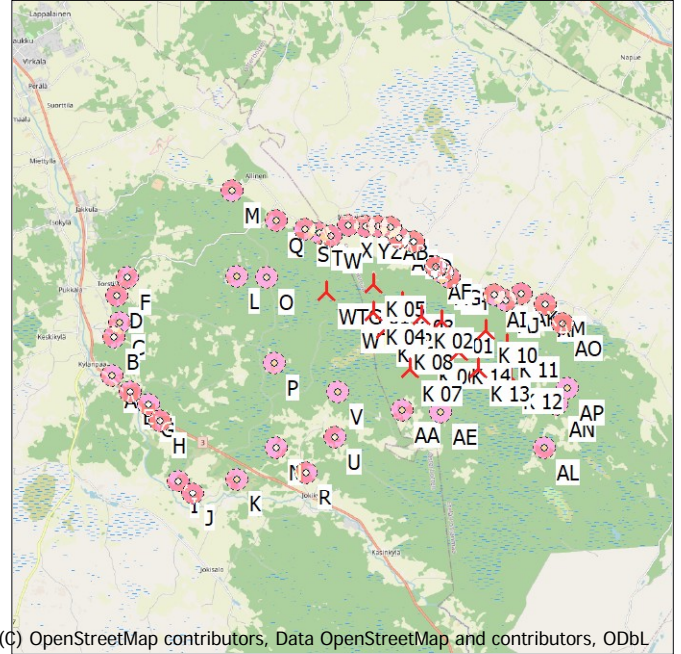
0,0 dB(A)

All coordinates are in

Finish TM ETRS-TM35FIN-ETRS89

All coordinates are in

Finish TM ETRS-TM35FIN-ETRS89



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:200 000

▲ New WTG

● Noise sensitive area

WTGs

	East	North	Z	Row data/Description	WTG type			Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Noise data		Wind speed [m/s]	LwA,ref [dB(A)]
					Valid	Manufact.	Type-generator				Creator	Name		
	[m]													
K 01	258 892,0	6 984 359,0	45,0	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 02	258 361,0	6 984 512,0	52,0	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	149,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 03	257 878,0	6 984 922,0	48,3	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 04	257 087,0	6 984 720,0	50,0	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 05	257 163,0	6 985 462,0	49,2	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 06	258 414,0	6 983 575,0	52,5	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	148,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 07	257 962,0	6 983 145,0	54,9	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	149,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 08	257 766,0	6 984 006,0	52,5	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	149,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 09	257 382,0	6 984 262,0	50,0	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 10	260 052,0	6 984 010,0	50,0	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 11	260 574,0	6 983 589,0	45,0	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 12	260 637,0	6 982 769,0	47,5	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 13	259 773,0	6 983 040,0	51,0	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
K 14	259 278,0	6 983 511,0	52,5	NORDEX N163/6.X-6800 6800 ...	Yes	NORDEX	N163/6.X-6800-6 800	6 800	163,0	150,5	USER	Mode 1 - Third Octaves - 107,2 dB(A)* (STE)	8,0	98,3 f
WTG 01	255 892,0	6 985 353,0	50,0	NORDEX N175/6.X-6800 6800 ...	Yes	NORDEX	N175/6.X-6800-6 800	6 800	175,0	171,5	USER	Mode 0 - Third Octaves - 106,9 dB(A) (STE)	8,0	99,2
WTG 02	256 462,0	6 984 661,0	50,0	NORDEX N175/6.X-6800 6800 ...	Yes	NORDEX	N175/6.X-6800-6 800	6 800	175,0	171,5	USER	Mode 0 - Third Octaves - 106,9 dB(A) (STE)	8,0	99,2

f) From other hub height

Calculation Results

Sound level

No.	Name	East	North	Z	Immission height [m]	Most critical demand			Demands fulfilled?
						Frequency [Hz]	Noise [dB]	WTG noise [dB]	
A	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (173)	250 049,0	6 983 575,0	30,7	4,0	50,0	44,0	25,8	Yes
B	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (172)	250 198,0	6 984 576,0	26,7	4,0	50,0	44,0	26,1	Yes
C	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (171)	250 341,0	6 984 961,0	25,5	4,0	50,0	44,0	26,3	Yes
D	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (170)	250 343,0	6 985 667,0	26,2	4,0	50,0	44,0	26,2	Yes
E	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (169)	250 494,0	6 983 108,0	30,4	4,0	50,0	44,0	26,3	Yes
F	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (168)	250 645,0	6 986 141,0	27,5	4,0	50,0	44,0	26,4	Yes
G	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (167)	250 968,0	6 982 726,0	35,0	4,0	50,0	44,0	26,8	Yes
H	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (166)	251 226,0	6 982 266,0	32,5	4,0	50,0	44,0	26,9	Yes
I	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (165)	251 592,0	6 980 644,0	35,9	4,0	50,0	44,0	26,5	Yes
J	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (164)	251 960,0	6 980 299,0	35,0	4,0	50,0	44,0	26,6	Yes
K	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (163)	253 131,0	6 980 587,0	42,5	4,0	50,0	44,0	28,1	Yes
L	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (162)	253 546,0	6 985 931,0	45,0	4,0	50,0	44,0	31,3	Yes
M	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (161)	253 607,0	6 988 208,0	22,5	4,0	50,0	44,0	28,9	Yes
N	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (160)	254 248,0	6 981 332,0	42,5	4,0	50,0	44,0	30,3	Yes
O	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (159)	254 339,0	6 985 826,0	55,0	4,0	50,0	44,0	33,6	Yes
P	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (158)	254 373,0	6 983 560,0	45,0	4,0	50,0	44,0	33,1	Yes
Q	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (157)	254 693,0	6 987 302,0	28,9	4,0	50,0	44,0	31,9	Yes
R	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (156)	255 007,0	6 980 631,0	40,0	4,0	50,0	44,0	30,3	Yes
S	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (155)	255 437,0	6 987 054,0	29,5	4,0	50,0	44,0	33,7	Yes
T	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (154)	255 814,0	6 986 908,0	28,4	4,0	50,0	44,0	34,7	Yes
U	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (153)	255 826,0	6 981 493,0	40,8	4,0	50,0	44,0	32,8	Yes

To be continued on next page...

DECIBEL - Main Result

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

...continued from previous page

Noise sensitive area

No.	Name	East	North	Z	Immission height [m]	Most critical demand			Predicted sound level [dB]	Demands fulfilled ?
						Frequency [Hz]	Noise [dB]	WTG noise [dB]		
V	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (152)	255 991,0	6 982 694,0	43,4	4,0	50,0	44,0	35,6	Yes	
W	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (151)	256 145,0	6 986 833,0	25,0	4,0	50,0	44,0	35,4	Yes	
X	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (150)	256 601,0	6 987 078,0	25,0	4,0	50,0	44,0	34,9	Yes	
Y	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (149)	257 040,0	6 987 001,0	27,5	4,0	50,0	44,0	35,4	Yes	
Z	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (148)	257 405,0	6 986 979,0	28,1	4,0	50,0	44,0	35,5	Yes	
AA	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (147)	257 676,0	6 982 066,0	49,8	4,0	50,0	44,0	37,3	Yes	
AB	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (146)	257 698,0	6 986 934,0	27,5	4,0	50,0	44,0	36,5	Yes	
AC	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (145)	257 931,0	6 986 612,0	27,5	4,0	50,0	44,0	36,5	Yes	
AD	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (144)	258 308,0	6 986 493,0	29,9	4,0	50,0	44,0	36,6	Yes	
AE	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (143)	258 674,0	6 981 951,0	52,2	4,0	50,0	44,0	37,4	Yes	
AF	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (141)	258 840,0	6 985 771,0	30,0	4,0	50,0	44,0	38,3	Yes	
AG	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (142)	259 027,3	6 985 623,4	32,1	4,0	50,0	44,0	38,5	Yes	
AH	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (140)	259 178,0	6 985 473,0	37,3	4,0	50,0	44,0	38,7	Yes	
AI	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (139)	260 319,0	6 984 939,0	44,5	4,0	50,0	44,0	38,3	Yes	
AJ	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (138)	260 630,0	6 984 768,0	35,9	4,0	50,0	44,0	38,2	Yes	
AK	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (137)	261 049,0	6 984 913,0	35,0	4,0	50,0	44,0	36,5	Yes	
AL	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (136)	261 344,0	6 980 808,0	48,3	4,0	50,0	44,0	32,5	Yes	
AM	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (135)	261 661,0	6 984 584,0	36,9	4,0	50,0	44,0	35,4	Yes	
AN	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (134)	261 796,0	6 981 916,0	47,5	4,0	50,0	44,0	34,4	Yes	
AO	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (133)	262 098,0	6 984 032,0	39,6	4,0	50,0	44,0	34,7	Yes	
AP	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (132)	262 110,0	6 982 324,0	50,0	4,0	50,0	44,0	34,1	Yes	

*)Spectral distribution, please see details in report "Detailed results"

Distances (m)

WTG

NSA	K 01	K 02	K 03	K 04	K 05	K 06	K 07	K 08	K 09	K 10	K 11	K 12	K 13	K 14	WTG 01	WTG 02
A	8872	8359	7938	7126	7355	8359	7919	7724	7360	10006	10518	10611	9732	9223	6103	6500
B	8691	8158	7682	6886	7016	8271	7889	7584	7186	9863	10416	10587	9691	9136	5743	6260
C	8566	8027	7532	6746	6836	8185	7829	7481	7071	9751	10317	10520	9619	9048	5561	6124
D	8642	8095	7566	6805	6818	8332	8020	7601	7173	9843	10433	10687	9782	9185	5554	6197
E	8485	7986	7598	6782	7067	7928	7463	7322	6979	9594	10085	10142	9273	8787	5842	6162
F	8431	7881	7330	6592	6549	8176	7901	7429	6989	9639	10245	10538	9634	9018	5302	5998
G	8085	7600	7246	6431	6768	7489	7002	6913	6591	9168	9638	9662	8805	8341	5577	5821
H	7941	7475	7158	6350	6738	7301	6788	6763	6467	8990	9435	9418	8576	8142	5591	5754
I	8185	7791	7598	6837	7360	7420	6839	7025	6823	9099	9446	9285	8519	8198	6372	6309
J	8028	7658	7504	6765	7325	7233	6638	6884	6711	8896	9215	9016	8274	7986	6399	6264
K	6881	6535	6424	5717	6322	6065	5463	5756	5615	7716	8020	7811	7076	6802	5504	5259
L	5569	5016	4445	3740	3645	5404	5218	4635	4180	6779	7403	7759	6861	6218	2414	3178
M	6534	6018	5385	4924	4490	6672	6674	5908	5457	7686	8353	8882	8040	7359	3654	4550
N	5540	5195	5102	4417	5052	4728	4130	4416	4287	6388	6712	6544	5779	5478	4341	3995
O	4780	4228	3650	2960	2845	4652	4504	3878	3419	5991	6620	6996	6102	5451	1622	2420
P	4586	4097	3758	2949	3374	4038	3610	3420	3088	5693	6197	6309	5421	4902	2348	2360
Q	5124	4605	3973	3519	3078	5263	5285	4503	4056	6285	6950	7470	6627	5945	2287	3177
R	5381	5126	5159	4584	5287	4500	3877	4356	4336	6068	6300	6018	5337	5148	4801	4282
S	4379	3872	3239	2856	2346	4576	4650	3833	3400	5525	6192	6734	5905	5222	1760	2601
T	3994	3494	2862	2530	1976	4224	4330	3495	3074	5131	5799	6351	5531	4848	1556	2337
U	4194	3939	3993	3462	4185	3319	2698	3173	3174	4915	5187	4974	4237	3996	3858	3229
V	3343	2985	2918	2302	3004	2576	2021	2206	2095	4266	4666	4644	3795	3385	2659	2021
W	3694	3207	2578	2312	1706	3968	4109	3257	2851	4817	5486	6054	5245	4563	1500	2194
X	3553	3109	2504	2406	1710	3942	4159	3283	2920	4614	5284	5900	5131	4457	1864	2419
Y	3224	2816	2240	2280	1543	3689	3962	3080	2758	4242	4909	5550	4809	4143	2007	2409
Z	3011	2644	2109	2280	1535	3548	3872	2993	2715	3975	4637	5304	4593	3939	2220	2501
AA	2594	2538	2861	2717	3432	1679	1116	1941	2214	3068	3272	3041	2311	2156	3737	2863
AB	2836	2509	2019	2295	1565	3432	3796	2927	2689	3751	4408	5094	4409	3768	2399	2586
AC	2448	2142	1690	2070	1382	3073	3465	2609	2412	3355	4013	4697	4016	3379	2395	2441
AD	2211	1980	1628	2151	1540	2918	3364	2544	2414	3032	3681	4389	3748	3134	2670	2599
AE	2416	2578	3074	3189	3820	1644	1389	2245	2646	2476	2507	2125	1546	1672	4392	3496
AF	1412	1346	1282	2043	1704	2235	2767	2065	2097	2136	2785	3496	2884	2301	2975	2623
AG	1271	1295	1345	2139	1870	2137	2696	2050	2134	1910	2554	3275	2687	2126	3145	2738
AH	1149	1261	1411	2221	2014	2045	2625	2035	2165	1703	2343	3070	2503	1963	3286	2833
AI	1539	2003	2439	3237	3197	2341	2960	2716	3012	966	1373	2192	1975	1766	4443	3864
AJ	1784	2282	2754	3541	3533	2515	3121	2962	3285	953	1180	1998	1928	1845	4771	4167
AK	2226	2716	3169	3964	3922	2953	3555	3404	3722	1344	1406	2182	2265	2257	5172	4591
AL	4312	4753	5376	5778	6252	4027	4108	4796	5253	3451	2884	2083	2728	3400	7093	6215
AM	2776	3299	3796	4573	4580	3398	3966	3935	4288	1707	1473	2083	2437	2612	5816	5196
AN	3792	4303	4935	5477	5830	3765	4024	4537	4995	2723	2070	1438	2313	2979	6827	5995
AO	3221	3765	4310	5055	5135	3710	4227	4329	4719	2045	1586	1930	2526	2866	6341	5667
AP	3805	4338	4963	5562	5854	3899	4226	4655	5106	2659	1989	1538	2443	3069	6912	6108

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

Assumptions

Cmet: Meteorological correction

Calculation Results

Noise sensitive area: A Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (173)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]		
K 01	8 872	8 873	20	28,84	70,3	0,00	5,60	7,60		
K 01			25	25,36	73,7	0,18	5,40	8,30		
K 01			32	21,17	76,0	0,27	5,20	9,20		
K 01			40	16,89	78,0	0,44	5,00	10,30		
K 01			50	12,82	80,0	0,62	4,70	11,50		
K 01			63	9,56	83,0	0,98	4,30	13,00		
K 01			80	6,02	86,0	1,42	3,70	14,80		
K 01			100	2,12	89,0	2,22	3,00	16,80		
K 01			125	-2,23	92,0	3,37	1,80	18,80		
K 01			160	-10,72	92,0	5,06	0,00	21,10		
K 01			200	-16,14	93,0	7,28	0,00	22,80		
K 02			8 359	8 360	20	29,36	70,3	0,00	5,60	7,60
K 02					25	25,89	73,7	0,17	5,40	8,30
K 02	32	21,70			76,0	0,25	5,20	9,20		
K 02	40	17,44			78,0	0,42	5,00	10,30		
K 02	50	13,37			80,0	0,59	4,70	11,50		
K 02	63	10,14			83,0	0,92	4,30	13,00		
K 02	80	6,62			86,0	1,34	3,70	14,80		
K 02	100	2,77			89,0	2,09	3,00	16,80		
K 02	125	-1,52			92,0	3,18	1,80	18,80		
K 02	160	-9,91			92,0	4,77	0,00	21,10		
K 02	200	-15,20			93,0	6,86	0,00	22,80		
K 03	7 938	7 940			20	29,80	70,3	0,00	5,60	7,60
K 03					25	26,34	73,7	0,16	5,40	8,30
K 03			32	22,17	76,0	0,24	5,20	9,20		
K 03			40	17,91	78,0	0,40	5,00	10,30		
K 03			50	13,85	80,0	0,56	4,70	11,50		
K 03			63	10,63	83,0	0,87	4,30	13,00		
K 03			80	7,13	86,0	1,27	3,70	14,80		
K 03			100	3,32	89,0	1,99	3,00	16,80		
K 03			125	-0,91	92,0	3,02	1,80	18,80		
K 03			160	-9,22	92,0	4,53	0,00	21,10		
K 03			200	-14,41	93,0	6,51	0,00	22,80		
K 04			7 126	7 127	20	30,74	70,3	0,00	5,60	7,60
K 04					25	27,30	73,7	0,14	5,40	8,30
K 04	32	23,13			76,0	0,21	5,20	9,20		
K 04	40	18,88			78,0	0,36	5,00	10,30		
K 04	50	14,84			80,0	0,50	4,70	11,50		
K 04	63	11,66			83,0	0,78	4,30	13,00		
K 04	80	8,20			86,0	1,14	3,70	14,80		
K 04	100	4,46			89,0	1,78	3,00	16,80		
K 04	125	0,33			92,0	2,71	1,80	18,80		
K 04	160	-7,82			92,0	4,06	0,00	21,10		
K 04	200	-12,80			93,0	5,84	0,00	22,80		
K 05	7 355	7 357			20	30,47	70,3	0,00	5,60	7,60
K 05					25	27,02	73,7	0,15	5,40	8,30
K 05			32	22,85	76,0	0,22	5,20	9,20		
K 05			40	18,60	78,0	0,37	5,00	10,30		
K 05			50	14,55	80,0	0,51	4,70	11,50		
K 05			63	11,36	83,0	0,81	4,30	13,00		
K 05			80	7,89	86,0	1,18	3,70	14,80		
K 05			100	4,13	89,0	1,84	3,00	16,80		

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 05			125	-0,03	92,0	2,80	1,80	18,80
K 05			160	-8,23	92,0	4,19	0,00	21,10
K 05			200	-13,27	93,0	6,03	0,00	22,80
K 06	8 359	8 361						
K 06			20	29,36	70,3	0,00	5,60	7,60
K 06			25	25,89	73,7	0,17	5,40	8,30
K 06			32	21,70	76,0	0,25	5,20	9,20
K 06			40	17,44	78,0	0,42	5,00	10,30
K 06			50	13,37	80,0	0,59	4,70	11,50
K 06			63	10,14	83,0	0,92	4,30	13,00
K 06			80	6,62	86,0	1,34	3,70	14,80
K 06			100	2,76	89,0	2,09	3,00	16,80
K 06			125	-1,52	92,0	3,18	1,80	18,80
K 06			160	-9,91	92,0	4,77	0,00	21,10
K 06			200	-15,20	93,0	6,86	0,00	22,80
K 07	7 919	7 921						
K 07			20	29,82	70,3	0,00	5,60	7,60
K 07			25	26,37	73,7	0,16	5,40	8,30
K 07			32	22,19	76,0	0,24	5,20	9,20
K 07			40	17,93	78,0	0,40	5,00	10,30
K 07			50	13,87	80,0	0,55	4,70	11,50
K 07			63	10,65	83,0	0,87	4,30	13,00
K 07			80	7,16	86,0	1,27	3,70	14,80
K 07			100	3,34	89,0	1,98	3,00	16,80
K 07			125	-0,89	92,0	3,01	1,80	18,80
K 07			160	-9,19	92,0	4,51	0,00	21,10
K 07			200	-14,37	93,0	6,50	0,00	22,80
K 08	7 724	7 725						
K 08			20	30,04	70,3	0,00	5,60	7,60
K 08			25	26,59	73,7	0,15	5,40	8,30
K 08			32	22,41	76,0	0,23	5,20	9,20
K 08			40	18,16	78,0	0,39	5,00	10,30
K 08			50	14,10	80,0	0,54	4,70	11,50
K 08			63	10,89	83,0	0,85	4,30	13,00
K 08			80	7,41	86,0	1,24	3,70	14,80
K 08			100	3,61	89,0	1,93	3,00	16,80
K 08			125	-0,59	92,0	2,94	1,80	18,80
K 08			160	-8,86	92,0	4,40	0,00	21,10
K 08			200	-13,99	93,0	6,33	0,00	22,80
K 09	7 360	7 362						
K 09			20	30,46	70,3	0,00	5,60	7,60
K 09			25	27,01	73,7	0,15	5,40	8,30
K 09			32	22,84	76,0	0,22	5,20	9,20
K 09			40	18,59	78,0	0,37	5,00	10,30
K 09			50	14,54	80,0	0,52	4,70	11,50
K 09			63	11,35	83,0	0,81	4,30	13,00
K 09			80	7,88	86,0	1,18	3,70	14,80
K 09			100	4,12	89,0	1,84	3,00	16,80
K 09			125	-0,04	92,0	2,80	1,80	18,80
K 09			160	-8,24	92,0	4,20	0,00	21,10
K 09			200	-13,28	93,0	6,04	0,00	22,80
K 10	10 006	10 007						
K 10			20	27,79	70,3	0,00	5,60	7,60
K 10			25	24,29	73,7	0,20	5,40	8,30
K 10			32	20,09	76,0	0,30	5,20	9,20
K 10			40	15,79	78,0	0,50	5,00	10,30
K 10			50	11,69	80,0	0,70	4,70	11,50
K 10			63	8,39	83,0	1,10	4,30	13,00
K 10			80	4,79	86,0	1,60	3,70	14,80
K 10			100	0,79	89,0	2,50	3,00	16,80
K 10			125	-3,71	92,0	3,80	1,80	18,80
K 10			160	-12,41	92,0	5,70	0,00	21,10
K 10			200	-18,11	93,0	8,21	0,00	22,80
K 11	10 518	10 519						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 11			20	27,36	70,3	0,00	5,60	7,60
K 11			25	23,85	73,7	0,21	5,40	8,30
K 11			32	19,64	76,0	0,32	5,20	9,20
K 11			40	15,33	78,0	0,53	5,00	10,30
K 11			50	11,22	80,0	0,74	4,70	11,50
K 11			63	7,90	83,0	1,16	4,30	13,00
K 11			80	4,28	86,0	1,68	3,70	14,80
K 11			100	0,23	89,0	2,63	3,00	16,80
K 11			125	-4,34	92,0	4,00	1,80	18,80
K 11			160	-13,14	92,0	6,00	0,00	21,10
K 11			200	-18,97	93,0	8,63	0,00	22,80
K 12	10 611	10 613	20	27,28	70,3	0,00	5,60	7,60
K 12			25	23,77	73,7	0,21	5,40	8,30
K 12			32	19,57	76,0	0,32	5,20	9,20
K 12			40	15,25	78,0	0,53	5,00	10,30
K 12			50	11,14	80,0	0,74	4,70	11,50
K 12			63	7,82	83,0	1,17	4,30	13,00
K 12			80	4,19	86,0	1,70	3,70	14,80
K 12			100	0,13	89,0	2,65	3,00	16,80
K 12			125	-4,45	92,0	4,03	1,80	18,80
K 12			160	-13,27	92,0	6,05	0,00	21,10
K 12			200	-19,12	93,0	8,70	0,00	22,80
K 13	9 732	9 733	20	28,03	70,3	0,00	5,60	7,60
K 13			25	24,54	73,7	0,19	5,40	8,30
K 13			32	20,34	76,0	0,29	5,20	9,20
K 13			40	16,05	78,0	0,49	5,00	10,30
K 13			50	11,95	80,0	0,68	4,70	11,50
K 13			63	8,66	83,0	1,07	4,30	13,00
K 13			80	5,08	86,0	1,56	3,70	14,80
K 13			100	1,10	89,0	2,43	3,00	16,80
K 13			125	-3,36	92,0	3,70	1,80	18,80
K 13			160	-12,01	92,0	5,55	0,00	21,10
K 13			200	-17,65	93,0	7,98	0,00	22,80
K 14	9 223	9 224	20	28,50	70,3	0,00	5,60	7,60
K 14			25	25,02	73,7	0,18	5,40	8,30
K 14			32	20,82	76,0	0,28	5,20	9,20
K 14			40	16,54	78,0	0,46	5,00	10,30
K 14			50	12,46	80,0	0,65	4,70	11,50
K 14			63	9,19	83,0	1,01	4,30	13,00
K 14			80	5,63	86,0	1,48	3,70	14,80
K 14			100	1,70	89,0	2,31	3,00	16,80
K 14			125	-2,70	92,0	3,51	1,80	18,80
K 14			160	-11,26	92,0	5,26	0,00	21,10
K 14			200	-16,76	93,0	7,56	0,00	22,80
WTG 01	6 103	6 106	20	33,58	71,8	0,00	5,60	7,60
WTG 01			25	30,16	75,2	0,12	5,40	8,30
WTG 01			32	25,60	77,1	0,18	5,20	9,20
WTG 01			40	20,58	78,3	0,31	5,00	10,30
WTG 01			50	16,56	80,3	0,43	4,70	11,50
WTG 01			63	14,71	84,6	0,67	4,30	13,00
WTG 01			80	11,01	87,3	0,98	3,70	14,80
WTG 01			100	5,96	88,9	1,53	3,00	16,80
WTG 01			125	1,56	91,5	2,32	1,80	18,80
WTG 01			160	-4,40	93,5	3,48	0,00	21,10
WTG 01			200	-9,12	94,5	5,01	0,00	22,80
WTG 02	6 500	6 502	20	33,04	71,8	0,00	5,60	7,60
WTG 02			25	29,61	75,2	0,13	5,40	8,30
WTG 02			32	25,04	77,1	0,20	5,20	9,20
WTG 02			40	20,01	78,3	0,33	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			50	15,98	80,3	0,46	4,70	11,50
WTG 02			63	14,12	84,6	0,72	4,30	13,00
WTG 02			80	10,40	87,3	1,04	3,70	14,80
WTG 02			100	5,31	88,9	1,63	3,00	16,80
WTG 02			125	0,87	91,5	2,47	1,80	18,80
WTG 02			160	-5,17	93,5	3,71	0,00	21,10
WTG 02			200	-9,99	94,5	5,33	0,00	22,80
Sum			20	42,08				
Sum			25	38,62				
Sum			32	34,34				
Sum			40	29,90				
Sum			50	25,84				
Sum			63	22,95				
Sum			80	19,38				
Sum			100	15,23				
Sum			125	10,93				
Sum			160	3,19				
Sum			200	-1,90				

Noise sensitive area: B Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (172)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 691	8 692	20	29,02	70,3	0,00	5,60	7,60
K 01			25	25,54	73,7	0,17	5,40	8,30
K 01			32	21,36	76,0	0,26	5,20	9,20
K 01			40	17,08	78,0	0,43	5,00	10,30
K 01			50	13,01	80,0	0,61	4,70	11,50
K 01			63	9,76	83,0	0,96	4,30	13,00
K 01			80	6,23	86,0	1,39	3,70	14,80
K 01			100	2,34	89,0	2,17	3,00	16,80
K 01			125	-1,99	92,0	3,30	1,80	18,80
K 01			160	-10,44	92,0	4,95	0,00	21,10
K 01			200	-15,81	93,0	7,13	0,00	22,80
K 02	8 158	8 159	20	29,57	70,3	0,00	5,60	7,60
K 02			25	26,10	73,7	0,16	5,40	8,30
K 02			32	21,92	76,0	0,24	5,20	9,20
K 02			40	17,66	78,0	0,41	5,00	10,30
K 02			50	13,60	80,0	0,57	4,70	11,50
K 02			63	10,37	83,0	0,90	4,30	13,00
K 02			80	6,86	86,0	1,31	3,70	14,80
K 02			100	3,03	89,0	2,04	3,00	16,80
K 02			125	-1,23	92,0	3,10	1,80	18,80
K 02			160	-9,58	92,0	4,65	0,00	21,10
K 02			200	-14,82	93,0	6,69	0,00	22,80
K 03	7 682	7 684	20	30,09	70,3	0,00	5,60	7,60
K 03			25	26,63	73,7	0,15	5,40	8,30
K 03			32	22,46	76,0	0,23	5,20	9,20
K 03			40	18,20	78,0	0,38	5,00	10,30
K 03			50	14,15	80,0	0,54	4,70	11,50
K 03			63	10,94	83,0	0,85	4,30	13,00
K 03			80	7,46	86,0	1,23	3,70	14,80
K 03			100	3,67	89,0	1,92	3,00	16,80
K 03			125	-0,53	92,0	2,92	1,80	18,80
K 03			160	-8,79	92,0	4,38	0,00	21,10
K 03			200	-13,91	93,0	6,30	0,00	22,80
K 04	6 886	6 888	20	31,04	70,3	0,00	5,60	7,60
K 04			25	27,60	73,7	0,14	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			32	23,43	76,0	0,21	5,20	9,20
K 04			40	19,19	78,0	0,34	5,00	10,30
K 04			50	15,16	80,0	0,48	4,70	11,50
K 04			63	11,98	83,0	0,76	4,30	13,00
K 04			80	8,54	86,0	1,10	3,70	14,80
K 04			100	4,82	89,0	1,72	3,00	16,80
K 04			125	0,72	92,0	2,62	1,80	18,80
K 04			160	-7,39	92,0	3,93	0,00	21,10
K 04			200	-12,31	93,0	5,65	0,00	22,80
K 05	7 016	7 018						
K 05			20	30,88	70,3	0,00	5,60	7,60
K 05			25	27,44	73,7	0,14	5,40	8,30
K 05			32	23,26	76,0	0,21	5,20	9,20
K 05			40	19,02	78,0	0,35	5,00	10,30
K 05			50	14,98	80,0	0,49	4,70	11,50
K 05			63	11,80	83,0	0,77	4,30	13,00
K 05			80	8,35	86,0	1,12	3,70	14,80
K 05			100	4,62	89,0	1,75	3,00	16,80
K 05			125	0,51	92,0	2,67	1,80	18,80
K 05			160	-7,62	92,0	4,00	0,00	21,10
K 05			200	-12,58	93,0	5,75	0,00	22,80
K 06	8 271	8 273						
K 06			20	29,45	70,3	0,00	5,60	7,60
K 06			25	25,98	73,7	0,17	5,40	8,30
K 06			32	21,80	76,0	0,25	5,20	9,20
K 06			40	17,53	78,0	0,41	5,00	10,30
K 06			50	13,47	80,0	0,58	4,70	11,50
K 06			63	10,24	83,0	0,91	4,30	13,00
K 06			80	6,72	86,0	1,32	3,70	14,80
K 06			100	2,88	89,0	2,07	3,00	16,80
K 06			125	-1,40	92,0	3,14	1,80	18,80
K 06			160	-9,77	92,0	4,72	0,00	21,10
K 06			200	-15,04	93,0	6,78	0,00	22,80
K 07	7 889	7 891						
K 07			20	29,86	70,3	0,00	5,60	7,60
K 07			25	26,40	73,7	0,16	5,40	8,30
K 07			32	22,22	76,0	0,24	5,20	9,20
K 07			40	17,96	78,0	0,39	5,00	10,30
K 07			50	13,90	80,0	0,55	4,70	11,50
K 07			63	10,69	83,0	0,87	4,30	13,00
K 07			80	7,19	86,0	1,26	3,70	14,80
K 07			100	3,38	89,0	1,97	3,00	16,80
K 07			125	-0,84	92,0	3,00	1,80	18,80
K 07			160	-9,14	92,0	4,50	0,00	21,10
K 07			200	-14,31	93,0	6,47	0,00	22,80
K 08	7 584	7 586						
K 08			20	30,20	70,3	0,00	5,60	7,60
K 08			25	26,75	73,7	0,15	5,40	8,30
K 08			32	22,57	76,0	0,23	5,20	9,20
K 08			40	18,32	78,0	0,38	5,00	10,30
K 08			50	14,27	80,0	0,53	4,70	11,50
K 08			63	11,07	83,0	0,83	4,30	13,00
K 08			80	7,59	86,0	1,21	3,70	14,80
K 08			100	3,80	89,0	1,90	3,00	16,80
K 08			125	-0,38	92,0	2,88	1,80	18,80
K 08			160	-8,62	92,0	4,32	0,00	21,10
K 08			200	-13,72	93,0	6,22	0,00	22,80
K 09	7 186	7 188						
K 09			20	30,67	70,3	0,00	5,60	7,60
K 09			25	27,22	73,7	0,14	5,40	8,30
K 09			32	23,05	76,0	0,22	5,20	9,20
K 09			40	18,81	78,0	0,36	5,00	10,30
K 09			50	14,76	80,0	0,50	4,70	11,50
K 09			63	11,58	83,0	0,79	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 09			80	8,12	86,0	1,15	3,70	14,80
K 09			100	4,37	89,0	1,80	3,00	16,80
K 09			125	0,24	92,0	2,73	1,80	18,80
K 09			160	-7,93	92,0	4,10	0,00	21,10
K 09			200	-12,93	93,0	5,89	0,00	22,80
K 10	9 863	9 865						
K 10			20	27,92	70,3	0,00	5,60	7,60
K 10			25	24,42	73,7	0,20	5,40	8,30
K 10			32	20,22	76,0	0,30	5,20	9,20
K 10			40	15,92	78,0	0,49	5,00	10,30
K 10			50	11,83	80,0	0,69	4,70	11,50
K 10			63	8,53	83,0	1,09	4,30	13,00
K 10			80	4,94	86,0	1,58	3,70	14,80
K 10			100	0,95	89,0	2,47	3,00	16,80
K 10			125	-3,53	92,0	3,75	1,80	18,80
K 10			160	-12,20	92,0	5,62	0,00	21,10
K 10			200	-17,87	93,0	8,09	0,00	22,80
K 11	10 416	10 417						
K 11			20	27,45	70,3	0,00	5,60	7,60
K 11			25	23,94	73,7	0,21	5,40	8,30
K 11			32	19,73	76,0	0,31	5,20	9,20
K 11			40	15,42	78,0	0,52	5,00	10,30
K 11			50	11,32	80,0	0,73	4,70	11,50
K 11			63	8,00	83,0	1,15	4,30	13,00
K 11			80	4,38	86,0	1,67	3,70	14,80
K 11			100	0,34	89,0	2,60	3,00	16,80
K 11			125	-4,21	92,0	3,96	1,80	18,80
K 11			160	-12,99	92,0	5,94	0,00	21,10
K 11			200	-18,80	93,0	8,54	0,00	22,80
K 12	10 587	10 588						
K 12			20	27,30	70,3	0,00	5,60	7,60
K 12			25	23,79	73,7	0,21	5,40	8,30
K 12			32	19,59	76,0	0,32	5,20	9,20
K 12			40	15,27	78,0	0,53	5,00	10,30
K 12			50	11,16	80,0	0,74	4,70	11,50
K 12			63	7,84	83,0	1,16	4,30	13,00
K 12			80	4,21	86,0	1,69	3,70	14,80
K 12			100	0,16	89,0	2,65	3,00	16,80
K 12			125	-4,42	92,0	4,02	1,80	18,80
K 12			160	-13,23	92,0	6,04	0,00	21,10
K 12			200	-19,08	93,0	8,68	0,00	22,80
K 13	9 691	9 692						
K 13			20	28,07	70,3	0,00	5,60	7,60
K 13			25	24,58	73,7	0,19	5,40	8,30
K 13			32	20,38	76,0	0,29	5,20	9,20
K 13			40	16,09	78,0	0,48	5,00	10,30
K 13			50	11,99	80,0	0,68	4,70	11,50
K 13			63	8,71	83,0	1,07	4,30	13,00
K 13			80	5,12	86,0	1,55	3,70	14,80
K 13			100	1,15	89,0	2,42	3,00	16,80
K 13			125	-3,31	92,0	3,68	1,80	18,80
K 13			160	-11,95	92,0	5,52	0,00	21,10
K 13			200	-17,58	93,0	7,95	0,00	22,80
K 14	9 136	9 138						
K 14			20	28,58	70,3	0,00	5,60	7,60
K 14			25	25,10	73,7	0,18	5,40	8,30
K 14			32	20,91	76,0	0,27	5,20	9,20
K 14			40	16,63	78,0	0,46	5,00	10,30
K 14			50	12,54	80,0	0,64	4,70	11,50
K 14			63	9,28	83,0	1,01	4,30	13,00
K 14			80	5,72	86,0	1,46	3,70	14,80
K 14			100	1,80	89,0	2,28	3,00	16,80
K 14			125	-2,59	92,0	3,47	1,80	18,80
K 14			160	-11,12	92,0	5,21	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 14			200	-16,61	93,0	7,49	0,00	22,80
WTG 01	5 743	5 746						
WTG 01			20	34,11	71,8	0,00	5,60	7,60
WTG 01			25	30,70	75,2	0,11	5,40	8,30
WTG 01			32	26,14	77,1	0,17	5,20	9,20
WTG 01			40	21,13	78,3	0,29	5,00	10,30
WTG 01			50	17,11	80,3	0,40	4,70	11,50
WTG 01			63	15,28	84,6	0,63	4,30	13,00
WTG 01			80	11,59	87,3	0,92	3,70	14,80
WTG 01			100	6,58	88,9	1,44	3,00	16,80
WTG 01			125	2,23	91,5	2,18	1,80	18,80
WTG 01			160	-3,66	93,5	3,28	0,00	21,10
WTG 01			200	-8,30	94,5	4,71	0,00	22,80
WTG 02	6 260	6 263						
WTG 02			20	33,36	71,8	0,00	5,60	7,60
WTG 02			25	29,94	75,2	0,13	5,40	8,30
WTG 02			32	25,38	77,1	0,19	5,20	9,20
WTG 02			40	20,35	78,3	0,31	5,00	10,30
WTG 02			50	16,33	80,3	0,44	4,70	11,50
WTG 02			63	14,48	84,6	0,69	4,30	13,00
WTG 02			80	10,76	87,3	1,00	3,70	14,80
WTG 02			100	5,70	88,9	1,57	3,00	16,80
WTG 02			125	1,28	91,5	2,38	1,80	18,80
WTG 02			160	-4,71	93,5	3,57	0,00	21,10
WTG 02			200	-9,47	94,5	5,14	0,00	22,80
Sum								
Sum			20	42,33				
Sum			25	38,88				
Sum			32	34,59				
Sum			40	30,14				
Sum			50	26,09				
Sum			63	23,23				
Sum			80	19,67				
Sum			100	15,52				
Sum			125	11,24				
Sum			160	3,58				
Sum			200	-1,44				

Noise sensitive area: C Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (171)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 566	8 568						
K 01			20	29,14	70,3	0,00	5,60	7,60
K 01			25	25,67	73,7	0,17	5,40	8,30
K 01			32	21,49	76,0	0,26	5,20	9,20
K 01			40	17,21	78,0	0,43	5,00	10,30
K 01			50	13,14	80,0	0,60	4,70	11,50
K 01			63	9,90	83,0	0,94	4,30	13,00
K 01			80	6,37	86,0	1,37	3,70	14,80
K 01			100	2,50	89,0	2,14	3,00	16,80
K 01			125	-1,81	92,0	3,26	1,80	18,80
K 01			160	-10,24	92,0	4,88	0,00	21,10
K 01			200	-15,58	93,0	7,03	0,00	22,80
K 02	8 027	8 029						
K 02			20	29,71	70,3	0,00	5,60	7,60
K 02			25	26,25	73,7	0,16	5,40	8,30
K 02			32	22,07	76,0	0,24	5,20	9,20
K 02			40	17,81	78,0	0,40	5,00	10,30
K 02			50	13,74	80,0	0,56	4,70	11,50
K 02			63	10,52	83,0	0,88	4,30	13,00
K 02			80	7,02	86,0	1,28	3,70	14,80
K 02			100	3,20	89,0	2,01	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 02			125	-1,04	92,0	3,05	1,80	18,80
K 02			160	-9,37	92,0	4,58	0,00	21,10
K 02			200	-14,58	93,0	6,58	0,00	22,80
K 03	7 532	7 534						
K 03			20	30,26	70,3	0,00	5,60	7,60
K 03			25	26,81	73,7	0,15	5,40	8,30
K 03			32	22,63	76,0	0,23	5,20	9,20
K 03			40	18,38	78,0	0,38	5,00	10,30
K 03			50	14,33	80,0	0,53	4,70	11,50
K 03			63	11,13	83,0	0,83	4,30	13,00
K 03			80	7,65	86,0	1,21	3,70	14,80
K 03			100	3,88	89,0	1,88	3,00	16,80
K 03			125	-0,30	92,0	2,86	1,80	18,80
K 03			160	-8,53	92,0	4,29	0,00	21,10
K 03			200	-13,62	93,0	6,18	0,00	22,80
K 04	6 746	6 748						
K 04			20	31,22	70,3	0,00	5,60	7,60
K 04			25	27,78	73,7	0,13	5,40	8,30
K 04			32	23,61	76,0	0,20	5,20	9,20
K 04			40	19,38	78,0	0,34	5,00	10,30
K 04			50	15,34	80,0	0,47	4,70	11,50
K 04			63	12,17	83,0	0,74	4,30	13,00
K 04			80	8,74	86,0	1,08	3,70	14,80
K 04			100	5,03	89,0	1,69	3,00	16,80
K 04			125	0,95	92,0	2,56	1,80	18,80
K 04			160	-7,13	92,0	3,85	0,00	21,10
K 04			200	-12,02	93,0	5,53	0,00	22,80
K 05	6 836	6 838						
K 05			20	31,10	70,3	0,00	5,60	7,60
K 05			25	27,67	73,7	0,14	5,40	8,30
K 05			32	23,50	76,0	0,21	5,20	9,20
K 05			40	19,26	78,0	0,34	5,00	10,30
K 05			50	15,22	80,0	0,48	4,70	11,50
K 05			63	12,05	83,0	0,75	4,30	13,00
K 05			80	8,61	86,0	1,09	3,70	14,80
K 05			100	4,89	89,0	1,71	3,00	16,80
K 05			125	0,80	92,0	2,60	1,80	18,80
K 05			160	-7,30	92,0	3,90	0,00	21,10
K 05			200	-12,21	93,0	5,61	0,00	22,80
K 06	8 185	8 187						
K 06			20	29,54	70,3	0,00	5,60	7,60
K 06			25	26,07	73,7	0,16	5,40	8,30
K 06			32	21,89	76,0	0,25	5,20	9,20
K 06			40	17,63	78,0	0,41	5,00	10,30
K 06			50	13,56	80,0	0,57	4,70	11,50
K 06			63	10,34	83,0	0,90	4,30	13,00
K 06			80	6,83	86,0	1,31	3,70	14,80
K 06			100	2,99	89,0	2,05	3,00	16,80
K 06			125	-1,27	92,0	3,11	1,80	18,80
K 06			160	-9,63	92,0	4,67	0,00	21,10
K 06			200	-14,88	93,0	6,71	0,00	22,80
K 07	7 829	7 831						
K 07			20	29,92	70,3	0,00	5,60	7,60
K 07			25	26,47	73,7	0,16	5,40	8,30
K 07			32	22,29	76,0	0,23	5,20	9,20
K 07			40	18,03	78,0	0,39	5,00	10,30
K 07			50	13,98	80,0	0,55	4,70	11,50
K 07			63	10,76	83,0	0,86	4,30	13,00
K 07			80	7,27	86,0	1,25	3,70	14,80
K 07			100	3,47	89,0	1,96	3,00	16,80
K 07			125	-0,75	92,0	2,98	1,80	18,80
K 07			160	-9,04	92,0	4,46	0,00	21,10
K 07			200	-14,20	93,0	6,42	0,00	22,80
K 08	7 481	7 483						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 08			20	30,32	70,3	0,00	5,60	7,60
K 08			25	26,87	73,7	0,15	5,40	8,30
K 08			32	22,69	76,0	0,22	5,20	9,20
K 08			40	18,44	78,0	0,37	5,00	10,30
K 08			50	14,39	80,0	0,52	4,70	11,50
K 08			63	11,20	83,0	0,82	4,30	13,00
K 08			80	7,72	86,0	1,20	3,70	14,80
K 08			100	3,95	89,0	1,87	3,00	16,80
K 08			125	-0,22	92,0	2,84	1,80	18,80
K 08			160	-8,45	92,0	4,27	0,00	21,10
K 08			200	-13,52	93,0	6,14	0,00	22,80
K 09	7 071	7 073						
K 09			20	30,81	70,3	0,00	5,60	7,60
K 09			25	27,37	73,7	0,14	5,40	8,30
K 09			32	23,20	76,0	0,21	5,20	9,20
K 09			40	18,95	78,0	0,35	5,00	10,30
K 09			50	14,91	80,0	0,50	4,70	11,50
K 09			63	11,73	83,0	0,78	4,30	13,00
K 09			80	8,28	86,0	1,13	3,70	14,80
K 09			100	4,54	89,0	1,77	3,00	16,80
K 09			125	0,42	92,0	2,69	1,80	18,80
K 09			160	-7,72	92,0	4,03	0,00	21,10
K 09			200	-12,69	93,0	5,80	0,00	22,80
K 10	9 751	9 752						
K 10			20	28,02	70,3	0,00	5,60	7,60
K 10			25	24,52	73,7	0,20	5,40	8,30
K 10			32	20,33	76,0	0,29	5,20	9,20
K 10			40	16,03	78,0	0,49	5,00	10,30
K 10			50	11,94	80,0	0,68	4,70	11,50
K 10			63	8,65	83,0	1,07	4,30	13,00
K 10			80	5,06	86,0	1,56	3,70	14,80
K 10			100	1,08	89,0	2,44	3,00	16,80
K 10			125	-3,39	92,0	3,71	1,80	18,80
K 10			160	-12,04	92,0	5,56	0,00	21,10
K 10			200	-17,68	93,0	8,00	0,00	22,80
K 11	10 317	10 319						
K 11			20	27,53	70,3	0,00	5,60	7,60
K 11			25	24,02	73,7	0,21	5,40	8,30
K 11			32	19,82	76,0	0,31	5,20	9,20
K 11			40	15,51	78,0	0,52	5,00	10,30
K 11			50	11,41	80,0	0,72	4,70	11,50
K 11			63	8,09	83,0	1,14	4,30	13,00
K 11			80	4,48	86,0	1,65	3,70	14,80
K 11			100	0,45	89,0	2,58	3,00	16,80
K 11			125	-4,09	92,0	3,92	1,80	18,80
K 11			160	-12,85	92,0	5,88	0,00	21,10
K 11			200	-18,63	93,0	8,46	0,00	22,80
K 12	10 520	10 521						
K 12			20	27,36	70,3	0,00	5,60	7,60
K 12			25	23,85	73,7	0,21	5,40	8,30
K 12			32	19,64	76,0	0,32	5,20	9,20
K 12			40	15,33	78,0	0,53	5,00	10,30
K 12			50	11,22	80,0	0,74	4,70	11,50
K 12			63	7,90	83,0	1,16	4,30	13,00
K 12			80	4,28	86,0	1,68	3,70	14,80
K 12			100	0,23	89,0	2,63	3,00	16,80
K 12			125	-4,34	92,0	4,00	1,80	18,80
K 12			160	-13,14	92,0	6,00	0,00	21,10
K 12			200	-18,97	93,0	8,63	0,00	22,80
K 13	9 619	9 621						
K 13			20	28,14	70,3	0,00	5,60	7,60
K 13			25	24,64	73,7	0,19	5,40	8,30
K 13			32	20,45	76,0	0,29	5,20	9,20
K 13			40	16,15	78,0	0,48	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			50	12,06	80,0	0,67	4,70	11,50
K 13			63	8,78	83,0	1,06	4,30	13,00
K 13			80	5,20	86,0	1,54	3,70	14,80
K 13			100	1,23	89,0	2,41	3,00	16,80
K 13			125	-3,22	92,0	3,66	1,80	18,80
K 13			160	-11,85	92,0	5,48	0,00	21,10
K 13			200	-17,45	93,0	7,89	0,00	22,80
K 14	9 048	9 049						
K 14			20	28,67	70,3	0,00	5,60	7,60
K 14			25	25,19	73,7	0,18	5,40	8,30
K 14			32	21,00	76,0	0,27	5,20	9,20
K 14			40	16,72	78,0	0,45	5,00	10,30
K 14			50	12,63	80,0	0,63	4,70	11,50
K 14			63	9,37	83,0	1,00	4,30	13,00
K 14			80	5,82	86,0	1,45	3,70	14,80
K 14			100	1,91	89,0	2,26	3,00	16,80
K 14			125	-2,47	92,0	3,44	1,80	18,80
K 14			160	-10,99	92,0	5,16	0,00	21,10
K 14			200	-16,45	93,0	7,42	0,00	22,80
WTG 01	5 561	5 564						
WTG 01			20	34,39	71,8	0,00	5,60	7,60
WTG 01			25	30,98	75,2	0,11	5,40	8,30
WTG 01			32	26,43	77,1	0,17	5,20	9,20
WTG 01			40	21,41	78,3	0,28	5,00	10,30
WTG 01			50	17,40	80,3	0,39	4,70	11,50
WTG 01			63	15,58	84,6	0,61	4,30	13,00
WTG 01			80	11,90	87,3	0,89	3,70	14,80
WTG 01			100	6,90	88,9	1,39	3,00	16,80
WTG 01			125	2,58	91,5	2,11	1,80	18,80
WTG 01			160	-3,28	93,5	3,17	0,00	21,10
WTG 01			200	-7,87	94,5	4,56	0,00	22,80
WTG 02	6 124	6 127						
WTG 02			20	33,55	71,8	0,00	5,60	7,60
WTG 02			25	30,13	75,2	0,12	5,40	8,30
WTG 02			32	25,57	77,1	0,18	5,20	9,20
WTG 02			40	20,55	78,3	0,31	5,00	10,30
WTG 02			50	16,53	80,3	0,43	4,70	11,50
WTG 02			63	14,68	84,6	0,67	4,30	13,00
WTG 02			80	10,97	87,3	0,98	3,70	14,80
WTG 02			100	5,92	88,9	1,53	3,00	16,80
WTG 02			125	1,53	91,5	2,33	1,80	18,80
WTG 02			160	-4,44	93,5	3,49	0,00	21,10
WTG 02			200	-9,17	94,5	5,02	0,00	22,80
Sum								
Sum			20	42,49				
Sum			25	39,04				
Sum			32	34,76				
Sum			40	30,31				
Sum			50	26,25				
Sum			63	23,40				
Sum			80	19,85				
Sum			100	15,71				
Sum			125	11,45				
Sum			160	3,83				
Sum			200	-1,16				

Noise sensitive area: D Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (170)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 642	8 644						
K 01			20	29,07	70,3	0,00	5,60	7,60
K 01			25	25,59	73,7	0,17	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01			32	21,41	76,0	0,26	5,20	9,20
K 01			40	17,13	78,0	0,43	5,00	10,30
K 01			50	13,06	80,0	0,61	4,70	11,50
K 01			63	9,81	83,0	0,95	4,30	13,00
K 01			80	6,28	86,0	1,38	3,70	14,80
K 01			100	2,40	89,0	2,16	3,00	16,80
K 01			125	-1,92	92,0	3,28	1,80	18,80
K 01			160	-10,36	92,0	4,93	0,00	21,10
K 01			200	-15,72	93,0	7,09	0,00	22,80
K 02	8 095	8 097						
K 02			20	29,63	70,3	0,00	5,60	7,60
K 02			25	26,17	73,7	0,16	5,40	8,30
K 02			32	21,99	76,0	0,24	5,20	9,20
K 02			40	17,73	78,0	0,40	5,00	10,30
K 02			50	13,67	80,0	0,57	4,70	11,50
K 02			63	10,44	83,0	0,89	4,30	13,00
K 02			80	6,94	86,0	1,30	3,70	14,80
K 02			100	3,11	89,0	2,02	3,00	16,80
K 02			125	-1,14	92,0	3,08	1,80	18,80
K 02			160	-9,48	92,0	4,62	0,00	21,10
K 02			200	-14,71	93,0	6,64	0,00	22,80
K 03	7 566	7 568						
K 03			20	30,22	70,3	0,00	5,60	7,60
K 03			25	26,77	73,7	0,15	5,40	8,30
K 03			32	22,59	76,0	0,23	5,20	9,20
K 03			40	18,34	78,0	0,38	5,00	10,30
K 03			50	14,29	80,0	0,53	4,70	11,50
K 03			63	11,09	83,0	0,83	4,30	13,00
K 03			80	7,61	86,0	1,21	3,70	14,80
K 03			100	3,83	89,0	1,89	3,00	16,80
K 03			125	-0,36	92,0	2,88	1,80	18,80
K 03			160	-8,59	92,0	4,31	0,00	21,10
K 03			200	-13,69	93,0	6,21	0,00	22,80
K 04	6 805	6 808						
K 04			20	31,14	70,3	0,00	5,60	7,60
K 04			25	27,70	73,7	0,14	5,40	8,30
K 04			32	23,54	76,0	0,20	5,20	9,20
K 04			40	19,30	78,0	0,34	5,00	10,30
K 04			50	15,26	80,0	0,48	4,70	11,50
K 04			63	12,09	83,0	0,75	4,30	13,00
K 04			80	8,65	86,0	1,09	3,70	14,80
K 04			100	4,94	89,0	1,70	3,00	16,80
K 04			125	0,85	92,0	2,59	1,80	18,80
K 04			160	-7,24	92,0	3,88	0,00	21,10
K 04			200	-12,14	93,0	5,58	0,00	22,80
K 05	6 818	6 820						
K 05			20	31,12	70,3	0,00	5,60	7,60
K 05			25	27,69	73,7	0,14	5,40	8,30
K 05			32	23,52	76,0	0,20	5,20	9,20
K 05			40	19,28	78,0	0,34	5,00	10,30
K 05			50	15,25	80,0	0,48	4,70	11,50
K 05			63	12,07	83,0	0,75	4,30	13,00
K 05			80	8,63	86,0	1,09	3,70	14,80
K 05			100	4,92	89,0	1,71	3,00	16,80
K 05			125	0,83	92,0	2,59	1,80	18,80
K 05			160	-7,26	92,0	3,89	0,00	21,10
K 05			200	-12,17	93,0	5,59	0,00	22,80
K 06	8 332	8 334						
K 06			20	29,38	70,3	0,00	5,60	7,60
K 06			25	25,92	73,7	0,17	5,40	8,30
K 06			32	21,73	76,0	0,25	5,20	9,20
K 06			40	17,47	78,0	0,42	5,00	10,30
K 06			50	13,40	80,0	0,58	4,70	11,50
K 06			63	10,17	83,0	0,92	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 06			80	6,65	86,0	1,33	3,70	14,80
K 06			100	2,80	89,0	2,08	3,00	16,80
K 06			125	-1,48	92,0	3,17	1,80	18,80
K 06			160	-9,87	92,0	4,75	0,00	21,10
K 06			200	-15,15	93,0	6,83	0,00	22,80
K 07	8 020	8 022						
K 07			20	29,71	70,3	0,00	5,60	7,60
K 07			25	26,25	73,7	0,16	5,40	8,30
K 07			32	22,07	76,0	0,24	5,20	9,20
K 07			40	17,81	78,0	0,40	5,00	10,30
K 07			50	13,75	80,0	0,56	4,70	11,50
K 07			63	10,53	83,0	0,88	4,30	13,00
K 07			80	7,03	86,0	1,28	3,70	14,80
K 07			100	3,21	89,0	2,01	3,00	16,80
K 07			125	-1,03	92,0	3,05	1,80	18,80
K 07			160	-9,36	92,0	4,57	0,00	21,10
K 07			200	-14,56	93,0	6,58	0,00	22,80
K 08	7 601	7 603						
K 08			20	30,18	70,3	0,00	5,60	7,60
K 08			25	26,73	73,7	0,15	5,40	8,30
K 08			32	22,55	76,0	0,23	5,20	9,20
K 08			40	18,30	78,0	0,38	5,00	10,30
K 08			50	14,25	80,0	0,53	4,70	11,50
K 08			63	11,04	83,0	0,84	4,30	13,00
K 08			80	7,56	86,0	1,22	3,70	14,80
K 08			100	3,78	89,0	1,90	3,00	16,80
K 08			125	-0,41	92,0	2,89	1,80	18,80
K 08			160	-8,65	92,0	4,33	0,00	21,10
K 08			200	-13,75	93,0	6,23	0,00	22,80
K 09	7 173	7 175						
K 09			20	30,68	70,3	0,00	5,60	7,60
K 09			25	27,24	73,7	0,14	5,40	8,30
K 09			32	23,07	76,0	0,22	5,20	9,20
K 09			40	18,82	78,0	0,36	5,00	10,30
K 09			50	14,78	80,0	0,50	4,70	11,50
K 09			63	11,59	83,0	0,79	4,30	13,00
K 09			80	8,14	86,0	1,15	3,70	14,80
K 09			100	4,39	89,0	1,79	3,00	16,80
K 09			125	0,26	92,0	2,73	1,80	18,80
K 09			160	-7,91	92,0	4,09	0,00	21,10
K 09			200	-12,90	93,0	5,88	0,00	22,80
K 10	9 843	9 844						
K 10			20	27,94	70,3	0,00	5,60	7,60
K 10			25	24,44	73,7	0,20	5,40	8,30
K 10			32	20,24	76,0	0,30	5,20	9,20
K 10			40	15,94	78,0	0,49	5,00	10,30
K 10			50	11,85	80,0	0,69	4,70	11,50
K 10			63	8,55	83,0	1,08	4,30	13,00
K 10			80	4,96	86,0	1,58	3,70	14,80
K 10			100	0,98	89,0	2,46	3,00	16,80
K 10			125	-3,50	92,0	3,74	1,80	18,80
K 10			160	-12,17	92,0	5,61	0,00	21,10
K 10			200	-17,84	93,0	8,07	0,00	22,80
K 11	10 433	10 434						
K 11			20	27,43	70,3	0,00	5,60	7,60
K 11			25	23,92	73,7	0,21	5,40	8,30
K 11			32	19,72	76,0	0,31	5,20	9,20
K 11			40	15,41	78,0	0,52	5,00	10,30
K 11			50	11,30	80,0	0,73	4,70	11,50
K 11			63	7,98	83,0	1,15	4,30	13,00
K 11			80	4,36	86,0	1,67	3,70	14,80
K 11			100	0,32	89,0	2,61	3,00	16,80
K 11			125	-4,23	92,0	3,96	1,80	18,80
K 11			160	-13,02	92,0	5,95	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 11			200	-18,82	93,0	8,56	0,00	22,80
K 12	10 687	10 688						
K 12			20	27,22	70,3	0,00	5,60	7,60
K 12			25	23,71	73,7	0,21	5,40	8,30
K 12			32	19,50	76,0	0,32	5,20	9,20
K 12			40	15,19	78,0	0,53	5,00	10,30
K 12			50	11,07	80,0	0,75	4,70	11,50
K 12			63	7,75	83,0	1,18	4,30	13,00
K 12			80	4,11	86,0	1,71	3,70	14,80
K 12			100	0,05	89,0	2,67	3,00	16,80
K 12			125	-4,54	92,0	4,06	1,80	18,80
K 12			160	-13,37	92,0	6,09	0,00	21,10
K 12			200	-19,24	93,0	8,76	0,00	22,80
K 13	9 782	9 784						
K 13			20	27,99	70,3	0,00	5,60	7,60
K 13			25	24,49	73,7	0,20	5,40	8,30
K 13			32	20,30	76,0	0,29	5,20	9,20
K 13			40	16,00	78,0	0,49	5,00	10,30
K 13			50	11,90	80,0	0,68	4,70	11,50
K 13			63	8,61	83,0	1,08	4,30	13,00
K 13			80	5,02	86,0	1,57	3,70	14,80
K 13			100	1,04	89,0	2,45	3,00	16,80
K 13			125	-3,43	92,0	3,72	1,80	18,80
K 13			160	-12,09	92,0	5,58	0,00	21,10
K 13			200	-17,73	93,0	8,02	0,00	22,80
K 14	9 185	9 187						
K 14			20	28,54	70,3	0,00	5,60	7,60
K 14			25	25,05	73,7	0,18	5,40	8,30
K 14			32	20,86	76,0	0,28	5,20	9,20
K 14			40	16,58	78,0	0,46	5,00	10,30
K 14			50	12,49	80,0	0,64	4,70	11,50
K 14			63	9,23	83,0	1,01	4,30	13,00
K 14			80	5,67	86,0	1,47	3,70	14,80
K 14			100	1,74	89,0	2,30	3,00	16,80
K 14			125	-2,65	92,0	3,49	1,80	18,80
K 14			160	-11,20	92,0	5,24	0,00	21,10
K 14			200	-16,70	93,0	7,53	0,00	22,80
WTG 01	5 554	5 557						
WTG 01			20	34,40	71,8	0,00	5,60	7,60
WTG 01			25	30,99	75,2	0,11	5,40	8,30
WTG 01			32	26,44	77,1	0,17	5,20	9,20
WTG 01			40	21,42	78,3	0,28	5,00	10,30
WTG 01			50	17,41	80,3	0,39	4,70	11,50
WTG 01			63	15,59	84,6	0,61	4,30	13,00
WTG 01			80	11,91	87,3	0,89	3,70	14,80
WTG 01			100	6,91	88,9	1,39	3,00	16,80
WTG 01			125	2,59	91,5	2,11	1,80	18,80
WTG 01			160	-3,26	93,5	3,17	0,00	21,10
WTG 01			200	-7,85	94,5	4,56	0,00	22,80
WTG 02	6 197	6 200						
WTG 02			20	33,45	71,8	0,00	5,60	7,60
WTG 02			25	30,03	75,2	0,12	5,40	8,30
WTG 02			32	25,47	77,1	0,19	5,20	9,20
WTG 02			40	20,44	78,3	0,31	5,00	10,30
WTG 02			50	16,42	80,3	0,43	4,70	11,50
WTG 02			63	14,57	84,6	0,68	4,30	13,00
WTG 02			80	10,86	87,3	0,99	3,70	14,80
WTG 02			100	5,80	88,9	1,55	3,00	16,80
WTG 02			125	1,40	91,5	2,36	1,80	18,80
WTG 02			160	-4,58	93,5	3,53	0,00	21,10
WTG 02			200	-9,33	94,5	5,08	0,00	22,80
Sum								
Sum			20	42,41				
Sum			25	38,96				

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
Sum			32	34,67				
Sum			40	30,22				
Sum			50	26,17				
Sum			63	23,32				
Sum			80	19,75				
Sum			100	15,61				
Sum			125	11,33				
Sum			160	3,71				
Sum			200	-1,28				

Noise sensitive area: E Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (169)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 485	8 486						
K 01			20	29,23	70,3	0,00	5,60	7,60
K 01			25	25,76	73,7	0,17	5,40	8,30
K 01			32	21,57	76,0	0,25	5,20	9,20
K 01			40	17,30	78,0	0,42	5,00	10,30
K 01			50	13,23	80,0	0,59	4,70	11,50
K 01			63	9,99	83,0	0,93	4,30	13,00
K 01			80	6,47	86,0	1,36	3,70	14,80
K 01			100	2,60	89,0	2,12	3,00	16,80
K 01			125	-1,70	92,0	3,22	1,80	18,80
K 01			160	-10,11	92,0	4,84	0,00	21,10
K 01			200	-15,43	93,0	6,96	0,00	22,80
K 02	7 986	7 987						
K 02			20	29,75	70,3	0,00	5,60	7,60
K 02			25	26,29	73,7	0,16	5,40	8,30
K 02			32	22,11	76,0	0,24	5,20	9,20
K 02			40	17,85	78,0	0,40	5,00	10,30
K 02			50	13,79	80,0	0,56	4,70	11,50
K 02			63	10,57	83,0	0,88	4,30	13,00
K 02			80	7,07	86,0	1,28	3,70	14,80
K 02			100	3,25	89,0	2,00	3,00	16,80
K 02			125	-0,98	92,0	3,04	1,80	18,80
K 02			160	-9,30	92,0	4,55	0,00	21,10
K 02			200	-14,50	93,0	6,55	0,00	22,80
K 03	7 598	7 600						
K 03			20	30,18	70,3	0,00	5,60	7,60
K 03			25	26,73	73,7	0,15	5,40	8,30
K 03			32	22,56	76,0	0,23	5,20	9,20
K 03			40	18,30	78,0	0,38	5,00	10,30
K 03			50	14,25	80,0	0,53	4,70	11,50
K 03			63	11,05	83,0	0,84	4,30	13,00
K 03			80	7,57	86,0	1,22	3,70	14,80
K 03			100	3,78	89,0	1,90	3,00	16,80
K 03			125	-0,40	92,0	2,89	1,80	18,80
K 03			160	-8,65	92,0	4,33	0,00	21,10
K 03			200	-13,75	93,0	6,23	0,00	22,80
K 04	6 782	6 784						
K 04			20	31,17	70,3	0,00	5,60	7,60
K 04			25	27,73	73,7	0,14	5,40	8,30
K 04			32	23,57	76,0	0,20	5,20	9,20
K 04			40	19,33	78,0	0,34	5,00	10,30
K 04			50	15,29	80,0	0,47	4,70	11,50
K 04			63	12,12	83,0	0,75	4,30	13,00
K 04			80	8,68	86,0	1,09	3,70	14,80
K 04			100	4,97	89,0	1,70	3,00	16,80
K 04			125	0,89	92,0	2,58	1,80	18,80
K 04			160	-7,20	92,0	3,87	0,00	21,10
K 04			200	-12,09	93,0	5,56	0,00	22,80
K 05	7 067	7 069						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 05			20	30,81	70,3	0,00	5,60	7,60
K 05			25	27,37	73,7	0,14	5,40	8,30
K 05			32	23,20	76,0	0,21	5,20	9,20
K 05			40	18,96	78,0	0,35	5,00	10,30
K 05			50	14,92	80,0	0,49	4,70	11,50
K 05			63	11,73	83,0	0,78	4,30	13,00
K 05			80	8,28	86,0	1,13	3,70	14,80
K 05			100	4,55	89,0	1,77	3,00	16,80
K 05			125	0,43	92,0	2,69	1,80	18,80
K 05			160	-7,72	92,0	4,03	0,00	21,10
K 05			200	-12,68	93,0	5,80	0,00	22,80
K 06	7 928	7 930	20	29,81	70,3	0,00	5,60	7,60
K 06			25	26,36	73,7	0,16	5,40	8,30
K 06			32	22,18	76,0	0,24	5,20	9,20
K 06			40	17,92	78,0	0,40	5,00	10,30
K 06			50	13,86	80,0	0,56	4,70	11,50
K 06			63	10,64	83,0	0,87	4,30	13,00
K 06			80	7,15	86,0	1,27	3,70	14,80
K 06			100	3,33	89,0	1,98	3,00	16,80
K 06			125	-0,90	92,0	3,01	1,80	18,80
K 06			160	-9,21	92,0	4,52	0,00	21,10
K 06			200	-14,39	93,0	6,50	0,00	22,80
K 07	7 463	7 465	20	30,34	70,3	0,00	5,60	7,60
K 07			25	26,89	73,7	0,15	5,40	8,30
K 07			32	22,72	76,0	0,22	5,20	9,20
K 07			40	18,47	78,0	0,37	5,00	10,30
K 07			50	14,42	80,0	0,52	4,70	11,50
K 07			63	11,22	83,0	0,82	4,30	13,00
K 07			80	7,75	86,0	1,19	3,70	14,80
K 07			100	3,97	89,0	1,87	3,00	16,80
K 07			125	-0,20	92,0	2,84	1,80	18,80
K 07			160	-8,42	92,0	4,25	0,00	21,10
K 07			200	-13,48	93,0	6,12	0,00	22,80
K 08	7 322	7 324	20	30,50	70,3	0,00	5,60	7,60
K 08			25	27,06	73,7	0,15	5,40	8,30
K 08			32	22,89	76,0	0,22	5,20	9,20
K 08			40	18,64	78,0	0,37	5,00	10,30
K 08			50	14,59	80,0	0,51	4,70	11,50
K 08			63	11,40	83,0	0,81	4,30	13,00
K 08			80	7,93	86,0	1,17	3,70	14,80
K 08			100	4,17	89,0	1,83	3,00	16,80
K 08			125	0,02	92,0	2,78	1,80	18,80
K 08			160	-8,17	92,0	4,17	0,00	21,10
K 08			200	-13,20	93,0	6,01	0,00	22,80
K 09	6 979	6 981	20	30,92	70,3	0,00	5,60	7,60
K 09			25	27,48	73,7	0,14	5,40	8,30
K 09			32	23,31	76,0	0,21	5,20	9,20
K 09			40	19,07	78,0	0,35	5,00	10,30
K 09			50	15,03	80,0	0,49	4,70	11,50
K 09			63	11,85	83,0	0,77	4,30	13,00
K 09			80	8,40	86,0	1,12	3,70	14,80
K 09			100	4,68	89,0	1,75	3,00	16,80
K 09			125	0,57	92,0	2,65	1,80	18,80
K 09			160	-7,56	92,0	3,98	0,00	21,10
K 09			200	-12,50	93,0	5,72	0,00	22,80
K 10	9 594	9 595	20	28,16	70,3	0,00	5,60	7,60
K 10			25	24,67	73,7	0,19	5,40	8,30
K 10			32	20,47	76,0	0,29	5,20	9,20
K 10			40	16,18	78,0	0,48	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG								
No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			50	12,09	80,0	0,67	4,70	11,50
K 10			63	8,80	83,0	1,06	4,30	13,00
K 10			80	5,22	86,0	1,54	3,70	14,80
K 10			100	1,26	89,0	2,40	3,00	16,80
K 10			125	-3,19	92,0	3,65	1,80	18,80
K 10			160	-11,81	92,0	5,47	0,00	21,10
K 10			200	-17,41	93,0	7,87	0,00	22,80
K 11	10 085	10 086						
K 11			20	27,73	70,3	0,00	5,60	7,60
K 11			25	24,22	73,7	0,20	5,40	8,30
K 11			32	20,02	76,0	0,30	5,20	9,20
K 11			40	15,72	78,0	0,50	5,00	10,30
K 11			50	11,62	80,0	0,71	4,70	11,50
K 11			63	8,32	83,0	1,11	4,30	13,00
K 11			80	4,71	86,0	1,61	3,70	14,80
K 11			100	0,70	89,0	2,52	3,00	16,80
K 11			125	-3,81	92,0	3,83	1,80	18,80
K 11			160	-12,52	92,0	5,75	0,00	21,10
K 11			200	-18,24	93,0	8,27	0,00	22,80
K 12	10 142	10 143						
K 12			20	27,68	70,3	0,00	5,60	7,60
K 12			25	24,17	73,7	0,20	5,40	8,30
K 12			32	19,97	76,0	0,30	5,20	9,20
K 12			40	15,67	78,0	0,51	5,00	10,30
K 12			50	11,57	80,0	0,71	4,70	11,50
K 12			63	8,26	83,0	1,12	4,30	13,00
K 12			80	4,65	86,0	1,62	3,70	14,80
K 12			100	0,64	89,0	2,54	3,00	16,80
K 12			125	-3,88	92,0	3,85	1,80	18,80
K 12			160	-12,60	92,0	5,78	0,00	21,10
K 12			200	-18,34	93,0	8,32	0,00	22,80
K 13	9 273	9 274						
K 13			20	28,45	70,3	0,00	5,60	7,60
K 13			25	24,97	73,7	0,19	5,40	8,30
K 13			32	20,78	76,0	0,28	5,20	9,20
K 13			40	16,49	78,0	0,46	5,00	10,30
K 13			50	12,41	80,0	0,65	4,70	11,50
K 13			63	9,13	83,0	1,02	4,30	13,00
K 13			80	5,57	86,0	1,48	3,70	14,80
K 13			100	1,64	89,0	2,32	3,00	16,80
K 13			125	-2,77	92,0	3,52	1,80	18,80
K 13			160	-11,33	92,0	5,29	0,00	21,10
K 13			200	-16,85	93,0	7,60	0,00	22,80
K 14	8 787	8 789						
K 14			20	28,92	70,3	0,00	5,60	7,60
K 14			25	25,45	73,7	0,18	5,40	8,30
K 14			32	21,26	76,0	0,26	5,20	9,20
K 14			40	16,98	78,0	0,44	5,00	10,30
K 14			50	12,91	80,0	0,62	4,70	11,50
K 14			63	9,65	83,0	0,97	4,30	13,00
K 14			80	6,12	86,0	1,41	3,70	14,80
K 14			100	2,22	89,0	2,20	3,00	16,80
K 14			125	-2,12	92,0	3,34	1,80	18,80
K 14			160	-10,59	92,0	5,01	0,00	21,10
K 14			200	-15,99	93,0	7,21	0,00	22,80
WTG 01	5 842	5 845						
WTG 01			20	33,96	71,8	0,00	5,60	7,60
WTG 01			25	30,55	75,2	0,12	5,40	8,30
WTG 01			32	25,99	77,1	0,18	5,20	9,20
WTG 01			40	20,97	78,3	0,29	5,00	10,30
WTG 01			50	16,95	80,3	0,41	4,70	11,50
WTG 01			63	15,12	84,6	0,64	4,30	13,00
WTG 01			80	11,43	87,3	0,94	3,70	14,80
WTG 01			100	6,40	88,9	1,46	3,00	16,80

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 01			125	2,04	91,5	2,22	1,80	18,80
WTG 01			160	-3,87	93,5	3,33	0,00	21,10
WTG 01			200	-8,53	94,5	4,79	0,00	22,80
WTG 02	6 162	6 165						
WTG 02			20	33,50	71,8	0,00	5,60	7,60
WTG 02			25	30,08	75,2	0,12	5,40	8,30
WTG 02			32	25,52	77,1	0,18	5,20	9,20
WTG 02			40	20,49	78,3	0,31	5,00	10,30
WTG 02			50	16,47	80,3	0,43	4,70	11,50
WTG 02			63	14,62	84,6	0,68	4,30	13,00
WTG 02			80	10,91	87,3	0,99	3,70	14,80
WTG 02			100	5,86	88,9	1,54	3,00	16,80
WTG 02			125	1,46	91,5	2,34	1,80	18,80
WTG 02			160	-4,51	93,5	3,51	0,00	21,10
WTG 02			200	-9,25	94,5	5,06	0,00	22,80
Sum								
Sum			20	42,50				
Sum			25	39,05				
Sum			32	34,77				
Sum			40	30,33				
Sum			50	26,28				
Sum			63	23,41				
Sum			80	19,86				
Sum			100	15,74				
Sum			125	11,49				
Sum			160	3,81				
Sum			200	-1,19				

Noise sensitive area: F Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (168)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 431	8 433						
K 01			20	29,28	70,3	0,00	5,60	7,60
K 01			25	25,81	73,7	0,17	5,40	8,30
K 01			32	21,63	76,0	0,25	5,20	9,20
K 01			40	17,36	78,0	0,42	5,00	10,30
K 01			50	13,29	80,0	0,59	4,70	11,50
K 01			63	10,05	83,0	0,93	4,30	13,00
K 01			80	6,53	86,0	1,35	3,70	14,80
K 01			100	2,67	89,0	2,11	3,00	16,80
K 01			125	-1,62	92,0	3,20	1,80	18,80
K 01			160	-10,03	92,0	4,81	0,00	21,10
K 01			200	-15,33	93,0	6,92	0,00	22,80
K 02	7 881	7 882						
K 02			20	29,87	70,3	0,00	5,60	7,60
K 02			25	26,41	73,7	0,16	5,40	8,30
K 02			32	22,23	76,0	0,24	5,20	9,20
K 02			40	17,97	78,0	0,39	5,00	10,30
K 02			50	13,92	80,0	0,55	4,70	11,50
K 02			63	10,70	83,0	0,87	4,30	13,00
K 02			80	7,21	86,0	1,26	3,70	14,80
K 02			100	3,40	89,0	1,97	3,00	16,80
K 02			125	-0,83	92,0	3,00	1,80	18,80
K 02			160	-9,13	92,0	4,49	0,00	21,10
K 02			200	-14,30	93,0	6,46	0,00	22,80
K 03	7 330	7 332						
K 03			20	30,50	70,3	0,00	5,60	7,60
K 03			25	27,05	73,7	0,15	5,40	8,30
K 03			32	22,88	76,0	0,22	5,20	9,20
K 03			40	18,63	78,0	0,37	5,00	10,30
K 03			50	14,58	80,0	0,51	4,70	11,50
K 03			63	11,39	83,0	0,81	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 03			80	7,92	86,0	1,17	3,70	14,80
K 03			100	4,16	89,0	1,83	3,00	16,80
K 03			125	0,01	92,0	2,79	1,80	18,80
K 03			160	-8,18	92,0	4,18	0,00	21,10
K 03			200	-13,22	93,0	6,01	0,00	22,80
K 04	6 592	6 594						
K 04			20	31,42	70,3	0,00	5,60	7,60
K 04			25	27,98	73,7	0,13	5,40	8,30
K 04			32	23,82	76,0	0,20	5,20	9,20
K 04			40	19,59	78,0	0,33	5,00	10,30
K 04			50	15,55	80,0	0,46	4,70	11,50
K 04			63	12,39	83,0	0,73	4,30	13,00
K 04			80	8,96	86,0	1,06	3,70	14,80
K 04			100	5,27	89,0	1,65	3,00	16,80
K 04			125	1,21	92,0	2,51	1,80	18,80
K 04			160	-6,84	92,0	3,76	0,00	21,10
K 04			200	-11,69	93,0	5,41	0,00	22,80
K 05	6 549	6 551						
K 05			20	31,47	70,3	0,00	5,60	7,60
K 05			25	28,04	73,7	0,13	5,40	8,30
K 05			32	23,88	76,0	0,20	5,20	9,20
K 05			40	19,65	78,0	0,33	5,00	10,30
K 05			50	15,62	80,0	0,46	4,70	11,50
K 05			63	12,45	83,0	0,72	4,30	13,00
K 05			80	9,03	86,0	1,05	3,70	14,80
K 05			100	5,34	89,0	1,64	3,00	16,80
K 05			125	1,28	92,0	2,49	1,80	18,80
K 05			160	-6,76	92,0	3,73	0,00	21,10
K 05			200	-11,60	93,0	5,37	0,00	22,80
K 06	8 176	8 178						
K 06			20	29,55	70,3	0,00	5,60	7,60
K 06			25	26,08	73,7	0,16	5,40	8,30
K 06			32	21,90	76,0	0,25	5,20	9,20
K 06			40	17,64	78,0	0,41	5,00	10,30
K 06			50	13,57	80,0	0,57	4,70	11,50
K 06			63	10,35	83,0	0,90	4,30	13,00
K 06			80	6,84	86,0	1,31	3,70	14,80
K 06			100	3,00	89,0	2,04	3,00	16,80
K 06			125	-1,26	92,0	3,11	1,80	18,80
K 06			160	-9,61	92,0	4,66	0,00	21,10
K 06			200	-14,86	93,0	6,71	0,00	22,80
K 07	7 901	7 903						
K 07			20	29,84	70,3	0,00	5,60	7,60
K 07			25	26,39	73,7	0,16	5,40	8,30
K 07			32	22,21	76,0	0,24	5,20	9,20
K 07			40	17,95	78,0	0,40	5,00	10,30
K 07			50	13,89	80,0	0,55	4,70	11,50
K 07			63	10,67	83,0	0,87	4,30	13,00
K 07			80	7,18	86,0	1,26	3,70	14,80
K 07			100	3,37	89,0	1,98	3,00	16,80
K 07			125	-0,86	92,0	3,00	1,80	18,80
K 07			160	-9,16	92,0	4,50	0,00	21,10
K 07			200	-14,34	93,0	6,48	0,00	22,80
K 08	7 429	7 431						
K 08			20	30,38	70,3	0,00	5,60	7,60
K 08			25	26,93	73,7	0,15	5,40	8,30
K 08			32	22,76	76,0	0,22	5,20	9,20
K 08			40	18,51	78,0	0,37	5,00	10,30
K 08			50	14,46	80,0	0,52	4,70	11,50
K 08			63	11,26	83,0	0,82	4,30	13,00
K 08			80	7,79	86,0	1,19	3,70	14,80
K 08			100	4,02	89,0	1,86	3,00	16,80
K 08			125	-0,14	92,0	2,82	1,80	18,80
K 08			160	-8,36	92,0	4,24	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 08			200	-13,41	93,0	6,09	0,00	22,80
K 09	6 989	6 991						
K 09			20	30,91	70,3	0,00	5,60	7,60
K 09			25	27,47	73,7	0,14	5,40	8,30
K 09			32	23,30	76,0	0,21	5,20	9,20
K 09			40	19,06	78,0	0,35	5,00	10,30
K 09			50	15,02	80,0	0,49	4,70	11,50
K 09			63	11,84	83,0	0,77	4,30	13,00
K 09			80	8,39	86,0	1,12	3,70	14,80
K 09			100	4,66	89,0	1,75	3,00	16,80
K 09			125	0,55	92,0	2,66	1,80	18,80
K 09			160	-7,58	92,0	3,99	0,00	21,10
K 09			200	-12,52	93,0	5,73	0,00	22,80
K 10	9 639	9 640						
K 10			20	28,12	70,3	0,00	5,60	7,60
K 10			25	24,63	73,7	0,19	5,40	8,30
K 10			32	20,43	76,0	0,29	5,20	9,20
K 10			40	16,14	78,0	0,48	5,00	10,30
K 10			50	12,04	80,0	0,67	4,70	11,50
K 10			63	8,76	83,0	1,06	4,30	13,00
K 10			80	5,18	86,0	1,54	3,70	14,80
K 10			100	1,21	89,0	2,41	3,00	16,80
K 10			125	-3,24	92,0	3,66	1,80	18,80
K 10			160	-11,88	92,0	5,49	0,00	21,10
K 10			200	-17,49	93,0	7,90	0,00	22,80
K 11	10 245	10 246						
K 11			20	27,59	70,3	0,00	5,60	7,60
K 11			25	24,08	73,7	0,20	5,40	8,30
K 11			32	19,88	76,0	0,31	5,20	9,20
K 11			40	15,58	78,0	0,51	5,00	10,30
K 11			50	11,47	80,0	0,72	4,70	11,50
K 11			63	8,16	83,0	1,13	4,30	13,00
K 11			80	4,55	86,0	1,64	3,70	14,80
K 11			100	0,53	89,0	2,56	3,00	16,80
K 11			125	-4,00	92,0	3,89	1,80	18,80
K 11			160	-12,75	92,0	5,84	0,00	21,10
K 11			200	-18,51	93,0	8,40	0,00	22,80
K 12	10 538	10 540						
K 12			20	27,34	70,3	0,00	5,60	7,60
K 12			25	23,83	73,7	0,21	5,40	8,30
K 12			32	19,63	76,0	0,32	5,20	9,20
K 12			40	15,32	78,0	0,53	5,00	10,30
K 12			50	11,21	80,0	0,74	4,70	11,50
K 12			63	7,88	83,0	1,16	4,30	13,00
K 12			80	4,26	86,0	1,69	3,70	14,80
K 12			100	0,21	89,0	2,63	3,00	16,80
K 12			125	-4,36	92,0	4,01	1,80	18,80
K 12			160	-13,16	92,0	6,01	0,00	21,10
K 12			200	-19,00	93,0	8,64	0,00	22,80
K 13	9 634	9 635						
K 13			20	28,12	70,3	0,00	5,60	7,60
K 13			25	24,63	73,7	0,19	5,40	8,30
K 13			32	20,43	76,0	0,29	5,20	9,20
K 13			40	16,14	78,0	0,48	5,00	10,30
K 13			50	12,05	80,0	0,67	4,70	11,50
K 13			63	8,76	83,0	1,06	4,30	13,00
K 13			80	5,18	86,0	1,54	3,70	14,80
K 13			100	1,21	89,0	2,41	3,00	16,80
K 13			125	-3,24	92,0	3,66	1,80	18,80
K 13			160	-11,87	92,0	5,49	0,00	21,10
K 13			200	-17,48	93,0	7,90	0,00	22,80
K 14	9 018	9 020						
K 14			20	28,70	70,3	0,00	5,60	7,60
K 14			25	25,22	73,7	0,18	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 14			32	21,03	76,0	0,27	5,20	9,20
K 14			40	16,74	78,0	0,45	5,00	10,30
K 14			50	12,66	80,0	0,63	4,70	11,50
K 14			63	9,40	83,0	0,99	4,30	13,00
K 14			80	5,85	86,0	1,44	3,70	14,80
K 14			100	1,94	89,0	2,26	3,00	16,80
K 14			125	-2,43	92,0	3,43	1,80	18,80
K 14			160	-10,95	92,0	5,14	0,00	21,10
K 14			200	-16,40	93,0	7,40	0,00	22,80
WTG 01	5 302	5 306						
WTG 01			20	34,81	71,8	0,00	5,60	7,60
WTG 01			25	31,40	75,2	0,11	5,40	8,30
WTG 01			32	26,85	77,1	0,16	5,20	9,20
WTG 01			40	21,84	78,3	0,27	5,00	10,30
WTG 01			50	17,83	80,3	0,37	4,70	11,50
WTG 01			63	16,02	84,6	0,58	4,30	13,00
WTG 01			80	12,36	87,3	0,85	3,70	14,80
WTG 01			100	7,38	88,9	1,33	3,00	16,80
WTG 01			125	3,09	91,5	2,02	1,80	18,80
WTG 01			160	-2,72	93,5	3,02	0,00	21,10
WTG 01			200	-7,25	94,5	4,35	0,00	22,80
WTG 02	5 998	6 001						
WTG 02			20	33,74	71,8	0,00	5,60	7,60
WTG 02			25	30,32	75,2	0,12	5,40	8,30
WTG 02			32	25,76	77,1	0,18	5,20	9,20
WTG 02			40	20,74	78,3	0,30	5,00	10,30
WTG 02			50	16,72	80,3	0,42	4,70	11,50
WTG 02			63	14,88	84,6	0,66	4,30	13,00
WTG 02			80	11,18	87,3	0,96	3,70	14,80
WTG 02			100	6,14	88,9	1,50	3,00	16,80
WTG 02			125	1,75	91,5	2,28	1,80	18,80
WTG 02			160	-4,19	93,5	3,42	0,00	21,10
WTG 02			200	-8,89	94,5	4,92	0,00	22,80
Sum								
Sum			20	42,66				
Sum			25	39,22				
Sum			32	34,93				
Sum			40	30,48				
Sum			50	26,43				
Sum			63	23,60				
Sum			80	20,05				
Sum			100	15,91				
Sum			125	11,66				
Sum			160	4,10				
Sum			200	-0,83				

Noise sensitive area: G Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (167)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 085	8 086						
K 01			20	29,64	70,3	0,00	5,60	7,60
K 01			25	26,18	73,7	0,16	5,40	8,30
K 01			32	22,00	76,0	0,24	5,20	9,20
K 01			40	17,74	78,0	0,40	5,00	10,30
K 01			50	13,68	80,0	0,57	4,70	11,50
K 01			63	10,46	83,0	0,89	4,30	13,00
K 01			80	6,95	86,0	1,29	3,70	14,80
K 01			100	3,12	89,0	2,02	3,00	16,80
K 01			125	-1,13	92,0	3,07	1,80	18,80
K 01			160	-9,46	92,0	4,61	0,00	21,10
K 01			200	-14,69	93,0	6,63	0,00	22,80
K 02	7 600	7 602						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 02			20	30,18	70,3	0,00	5,60	7,60
K 02			25	26,73	73,7	0,15	5,40	8,30
K 02			32	22,55	76,0	0,23	5,20	9,20
K 02			40	18,30	78,0	0,38	5,00	10,30
K 02			50	14,25	80,0	0,53	4,70	11,50
K 02			63	11,05	83,0	0,84	4,30	13,00
K 02			80	7,56	86,0	1,22	3,70	14,80
K 02			100	3,78	89,0	1,90	3,00	16,80
K 02			125	-0,41	92,0	2,89	1,80	18,80
K 02			160	-8,65	92,0	4,33	0,00	21,10
K 02			200	-13,75	93,0	6,23	0,00	22,80
K 03	7 246	7 247	20	30,60	70,3	0,00	5,60	7,60
K 03			25	27,15	73,7	0,14	5,40	8,30
K 03			32	22,98	76,0	0,22	5,20	9,20
K 03			40	18,73	78,0	0,36	5,00	10,30
K 03			50	14,69	80,0	0,51	4,70	11,50
K 03			63	11,50	83,0	0,80	4,30	13,00
K 03			80	8,04	86,0	1,16	3,70	14,80
K 03			100	4,28	89,0	1,81	3,00	16,80
K 03			125	0,14	92,0	2,75	1,80	18,80
K 03			160	-8,03	92,0	4,13	0,00	21,10
K 03			200	-13,05	93,0	5,94	0,00	22,80
K 04	6 431	6 433	20	31,63	70,3	0,00	5,60	7,60
K 04			25	28,20	73,7	0,13	5,40	8,30
K 04			32	24,04	76,0	0,19	5,20	9,20
K 04			40	19,81	78,0	0,32	5,00	10,30
K 04			50	15,78	80,0	0,45	4,70	11,50
K 04			63	12,62	83,0	0,71	4,30	13,00
K 04			80	9,20	86,0	1,03	3,70	14,80
K 04			100	5,52	89,0	1,61	3,00	16,80
K 04			125	1,49	92,0	2,44	1,80	18,80
K 04			160	-6,54	92,0	3,67	0,00	21,10
K 04			200	-11,34	93,0	5,28	0,00	22,80
K 05	6 768	6 769	20	31,19	70,3	0,00	5,60	7,60
K 05			25	27,75	73,7	0,14	5,40	8,30
K 05			32	23,59	76,0	0,20	5,20	9,20
K 05			40	19,35	78,0	0,34	5,00	10,30
K 05			50	15,32	80,0	0,47	4,70	11,50
K 05			63	12,14	83,0	0,74	4,30	13,00
K 05			80	8,71	86,0	1,08	3,70	14,80
K 05			100	5,00	89,0	1,69	3,00	16,80
K 05			125	0,92	92,0	2,57	1,80	18,80
K 05			160	-7,17	92,0	3,86	0,00	21,10
K 05			200	-12,06	93,0	5,55	0,00	22,80
K 06	7 489	7 491	20	30,31	70,3	0,00	5,60	7,60
K 06			25	26,86	73,7	0,15	5,40	8,30
K 06			32	22,68	76,0	0,22	5,20	9,20
K 06			40	18,43	78,0	0,37	5,00	10,30
K 06			50	14,39	80,0	0,52	4,70	11,50
K 06			63	11,19	83,0	0,82	4,30	13,00
K 06			80	7,71	86,0	1,20	3,70	14,80
K 06			100	3,94	89,0	1,87	3,00	16,80
K 06			125	-0,24	92,0	2,85	1,80	18,80
K 06			160	-8,46	92,0	4,27	0,00	21,10
K 06			200	-13,53	93,0	6,14	0,00	22,80
K 07	7 002	7 004	20	30,89	70,3	0,00	5,60	7,60
K 07			25	27,45	73,7	0,14	5,40	8,30
K 07			32	23,28	76,0	0,21	5,20	9,20
K 07			40	19,04	78,0	0,35	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			50	15,00	80,0	0,49	4,70	11,50
K 07			63	11,82	83,0	0,77	4,30	13,00
K 07			80	8,37	86,0	1,12	3,70	14,80
K 07			100	4,64	89,0	1,75	3,00	16,80
K 07			125	0,53	92,0	2,66	1,80	18,80
K 07			160	-7,60	92,0	3,99	0,00	21,10
K 07			200	-12,55	93,0	5,74	0,00	22,80
K 08	6 913	6 915						
K 08			20	31,00	70,3	0,00	5,60	7,60
K 08			25	27,57	73,7	0,14	5,40	8,30
K 08			32	23,40	76,0	0,21	5,20	9,20
K 08			40	19,16	78,0	0,35	5,00	10,30
K 08			50	15,12	80,0	0,48	4,70	11,50
K 08			63	11,94	83,0	0,76	4,30	13,00
K 08			80	8,50	86,0	1,11	3,70	14,80
K 08			100	4,78	89,0	1,73	3,00	16,80
K 08			125	0,68	92,0	2,63	1,80	18,80
K 08			160	-7,44	92,0	3,94	0,00	21,10
K 08			200	-12,37	93,0	5,67	0,00	22,80
K 09	6 591	6 593						
K 09			20	31,42	70,3	0,00	5,60	7,60
K 09			25	27,99	73,7	0,13	5,40	8,30
K 09			32	23,82	76,0	0,20	5,20	9,20
K 09			40	19,59	78,0	0,33	5,00	10,30
K 09			50	15,56	80,0	0,46	4,70	11,50
K 09			63	12,39	83,0	0,73	4,30	13,00
K 09			80	8,96	86,0	1,05	3,70	14,80
K 09			100	5,27	89,0	1,65	3,00	16,80
K 09			125	1,21	92,0	2,51	1,80	18,80
K 09			160	-6,84	92,0	3,76	0,00	21,10
K 09			200	-11,69	93,0	5,41	0,00	22,80
K 10	9 168	9 169						
K 10			20	28,55	70,3	0,00	5,60	7,60
K 10			25	25,07	73,7	0,18	5,40	8,30
K 10			32	20,88	76,0	0,28	5,20	9,20
K 10			40	16,59	78,0	0,46	5,00	10,30
K 10			50	12,51	80,0	0,64	4,70	11,50
K 10			63	9,24	83,0	1,01	4,30	13,00
K 10			80	5,69	86,0	1,47	3,70	14,80
K 10			100	1,76	89,0	2,29	3,00	16,80
K 10			125	-2,63	92,0	3,48	1,80	18,80
K 10			160	-11,17	92,0	5,23	0,00	21,10
K 10			200	-16,67	93,0	7,52	0,00	22,80
K 11	9 638	9 639						
K 11			20	28,12	70,3	0,00	5,60	7,60
K 11			25	24,63	73,7	0,19	5,40	8,30
K 11			32	20,43	76,0	0,29	5,20	9,20
K 11			40	16,14	78,0	0,48	5,00	10,30
K 11			50	12,04	80,0	0,67	4,70	11,50
K 11			63	8,76	83,0	1,06	4,30	13,00
K 11			80	5,18	86,0	1,54	3,70	14,80
K 11			100	1,21	89,0	2,41	3,00	16,80
K 11			125	-3,24	92,0	3,66	1,80	18,80
K 11			160	-11,88	92,0	5,49	0,00	21,10
K 11			200	-17,49	93,0	7,90	0,00	22,80
K 12	9 662	9 664						
K 12			20	28,10	70,3	0,00	5,60	7,60
K 12			25	24,60	73,7	0,19	5,40	8,30
K 12			32	20,41	76,0	0,29	5,20	9,20
K 12			40	16,11	78,0	0,48	5,00	10,30
K 12			50	12,02	80,0	0,68	4,70	11,50
K 12			63	8,73	83,0	1,06	4,30	13,00
K 12			80	5,15	86,0	1,55	3,70	14,80
K 12			100	1,18	89,0	2,42	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 12			125	-3,28	92,0	3,67	1,80	18,80
K 12			160	-11,91	92,0	5,51	0,00	21,10
K 12			200	-17,53	93,0	7,92	0,00	22,80
K 13	8 805	8 806						
K 13			20	28,90	70,3	0,00	5,60	7,60
K 13			25	25,43	73,7	0,18	5,40	8,30
K 13			32	21,24	76,0	0,26	5,20	9,20
K 13			40	16,96	78,0	0,44	5,00	10,30
K 13			50	12,89	80,0	0,62	4,70	11,50
K 13			63	9,64	83,0	0,97	4,30	13,00
K 13			80	6,10	86,0	1,41	3,70	14,80
K 13			100	2,20	89,0	2,20	3,00	16,80
K 13			125	-2,14	92,0	3,35	1,80	18,80
K 13			160	-10,62	92,0	5,02	0,00	21,10
K 13			200	-16,02	93,0	7,22	0,00	22,80
K 14	8 341	8 343						
K 14			20	29,37	70,3	0,00	5,60	7,60
K 14			25	25,91	73,7	0,17	5,40	8,30
K 14			32	21,72	76,0	0,25	5,20	9,20
K 14			40	17,46	78,0	0,42	5,00	10,30
K 14			50	13,39	80,0	0,58	4,70	11,50
K 14			63	10,16	83,0	0,92	4,30	13,00
K 14			80	6,64	86,0	1,33	3,70	14,80
K 14			100	2,79	89,0	2,09	3,00	16,80
K 14			125	-1,50	92,0	3,17	1,80	18,80
K 14			160	-9,88	92,0	4,76	0,00	21,10
K 14			200	-15,17	93,0	6,84	0,00	22,80
WTG 01	5 577	5 580						
WTG 01			20	34,37	71,8	0,00	5,60	7,60
WTG 01			25	30,96	75,2	0,11	5,40	8,30
WTG 01			32	26,40	77,1	0,17	5,20	9,20
WTG 01			40	21,39	78,3	0,28	5,00	10,30
WTG 01			50	17,38	80,3	0,39	4,70	11,50
WTG 01			63	15,55	84,6	0,61	4,30	13,00
WTG 01			80	11,87	87,3	0,89	3,70	14,80
WTG 01			100	6,87	88,9	1,40	3,00	16,80
WTG 01			125	2,55	91,5	2,12	1,80	18,80
WTG 01			160	-3,31	93,5	3,18	0,00	21,10
WTG 01			200	-7,91	94,5	4,58	0,00	22,80
WTG 02	5 821	5 824						
WTG 02			20	34,00	71,8	0,00	5,60	7,60
WTG 02			25	30,58	75,2	0,12	5,40	8,30
WTG 02			32	26,02	77,1	0,17	5,20	9,20
WTG 02			40	21,01	78,3	0,29	5,00	10,30
WTG 02			50	16,99	80,3	0,41	4,70	11,50
WTG 02			63	15,16	84,6	0,64	4,30	13,00
WTG 02			80	11,46	87,3	0,93	3,70	14,80
WTG 02			100	6,44	88,9	1,46	3,00	16,80
WTG 02			125	2,08	91,5	2,21	1,80	18,80
WTG 02			160	-3,82	93,5	3,32	0,00	21,10
WTG 02			200	-8,48	94,5	4,78	0,00	22,80
Sum								
Sum			20	42,95				
Sum			25	39,51				
Sum			32	35,24				
Sum			40	30,80				
Sum			50	26,76				
Sum			63	23,90				
Sum			80	20,37				
Sum			100	16,29				
Sum			125	12,08				
Sum			160	4,47				
Sum			200	-0,44				

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

Noise sensitive area: H Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (166)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	7 941	7 943						
K 01			20	29,80	70,3	0,00	5,60	7,60
K 01			25	26,34	73,7	0,16	5,40	8,30
K 01			32	22,16	76,0	0,24	5,20	9,20
K 01			40	17,90	78,0	0,40	5,00	10,30
K 01			50	13,84	80,0	0,56	4,70	11,50
K 01			63	10,63	83,0	0,87	4,30	13,00
K 01			80	7,13	86,0	1,27	3,70	14,80
K 01			100	3,31	89,0	1,99	3,00	16,80
K 01			125	-0,92	92,0	3,02	1,80	18,80
K 01			160	-9,23	92,0	4,53	0,00	21,10
K 01			200	-14,41	93,0	6,51	0,00	22,80
K 02	7 475	7 477						
K 02			20	30,33	70,3	0,00	5,60	7,60
K 02			25	26,88	73,7	0,15	5,40	8,30
K 02			32	22,70	76,0	0,22	5,20	9,20
K 02			40	18,45	78,0	0,37	5,00	10,30
K 02			50	14,40	80,0	0,52	4,70	11,50
K 02			63	11,20	83,0	0,82	4,30	13,00
K 02			80	7,73	86,0	1,20	3,70	14,80
K 02			100	3,96	89,0	1,87	3,00	16,80
K 02			125	-0,22	92,0	2,84	1,80	18,80
K 02			160	-8,44	92,0	4,26	0,00	21,10
K 02			200	-13,51	93,0	6,13	0,00	22,80
K 03	7 158	7 160						
K 03			20	30,70	70,3	0,00	5,60	7,60
K 03			25	27,26	73,7	0,14	5,40	8,30
K 03			32	23,09	76,0	0,21	5,20	9,20
K 03			40	18,84	78,0	0,36	5,00	10,30
K 03			50	14,80	80,0	0,50	4,70	11,50
K 03			63	11,61	83,0	0,79	4,30	13,00
K 03			80	8,16	86,0	1,15	3,70	14,80
K 03			100	4,41	89,0	1,79	3,00	16,80
K 03			125	0,28	92,0	2,72	1,80	18,80
K 03			160	-7,88	92,0	4,08	0,00	21,10
K 03			200	-12,87	93,0	5,87	0,00	22,80
K 04	6 350	6 352						
K 04			20	31,74	70,3	0,00	5,60	7,60
K 04			25	28,32	73,7	0,13	5,40	8,30
K 04			32	24,15	76,0	0,19	5,20	9,20
K 04			40	19,92	78,0	0,32	5,00	10,30
K 04			50	15,90	80,0	0,44	4,70	11,50
K 04			63	12,74	83,0	0,70	4,30	13,00
K 04			80	9,33	86,0	1,02	3,70	14,80
K 04			100	5,65	89,0	1,59	3,00	16,80
K 04			125	1,63	92,0	2,41	1,80	18,80
K 04			160	-6,38	92,0	3,62	0,00	21,10
K 04			200	-11,17	93,0	5,21	0,00	22,80
K 05	6 738	6 740						
K 05			20	31,23	70,3	0,00	5,60	7,60
K 05			25	27,79	73,7	0,13	5,40	8,30
K 05			32	23,62	76,0	0,20	5,20	9,20
K 05			40	19,39	78,0	0,34	5,00	10,30
K 05			50	15,36	80,0	0,47	4,70	11,50
K 05			63	12,19	83,0	0,74	4,30	13,00
K 05			80	8,75	86,0	1,08	3,70	14,80
K 05			100	5,04	89,0	1,68	3,00	16,80
K 05			125	0,97	92,0	2,56	1,80	18,80
K 05			160	-7,11	92,0	3,84	0,00	21,10
K 05			200	-12,00	93,0	5,53	0,00	22,80
K 06	7 301	7 303						
K 06			20	30,53	70,3	0,00	5,60	7,60
K 06			25	27,08	73,7	0,15	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 06			32	22,91	76,0	0,22	5,20	9,20
K 06			40	18,66	78,0	0,37	5,00	10,30
K 06			50	14,62	80,0	0,51	4,70	11,50
K 06			63	11,43	83,0	0,80	4,30	13,00
K 06			80	7,96	86,0	1,17	3,70	14,80
K 06			100	4,20	89,0	1,83	3,00	16,80
K 06			125	0,05	92,0	2,78	1,80	18,80
K 06			160	-8,13	92,0	4,16	0,00	21,10
K 06			200	-13,16	93,0	5,99	0,00	22,80
K 07	6 788	6 790						
K 07			20	31,16	70,3	0,00	5,60	7,60
K 07			25	27,73	73,7	0,14	5,40	8,30
K 07			32	23,56	76,0	0,20	5,20	9,20
K 07			40	19,32	78,0	0,34	5,00	10,30
K 07			50	15,29	80,0	0,48	4,70	11,50
K 07			63	12,12	83,0	0,75	4,30	13,00
K 07			80	8,68	86,0	1,09	3,70	14,80
K 07			100	4,96	89,0	1,70	3,00	16,80
K 07			125	0,88	92,0	2,58	1,80	18,80
K 07			160	-7,21	92,0	3,87	0,00	21,10
K 07			200	-12,11	93,0	5,57	0,00	22,80
K 08	6 763	6 765						
K 08			20	31,19	70,3	0,00	5,60	7,60
K 08			25	27,76	73,7	0,14	5,40	8,30
K 08			32	23,59	76,0	0,20	5,20	9,20
K 08			40	19,36	78,0	0,34	5,00	10,30
K 08			50	15,32	80,0	0,47	4,70	11,50
K 08			63	12,15	83,0	0,74	4,30	13,00
K 08			80	8,71	86,0	1,08	3,70	14,80
K 08			100	5,00	89,0	1,69	3,00	16,80
K 08			125	0,92	92,0	2,57	1,80	18,80
K 08			160	-7,16	92,0	3,86	0,00	21,10
K 08			200	-12,05	93,0	5,55	0,00	22,80
K 09	6 467	6 469						
K 09			20	31,58	70,3	0,00	5,60	7,60
K 09			25	28,15	73,7	0,13	5,40	8,30
K 09			32	23,99	76,0	0,19	5,20	9,20
K 09			40	19,76	78,0	0,32	5,00	10,30
K 09			50	15,73	80,0	0,45	4,70	11,50
K 09			63	12,57	83,0	0,71	4,30	13,00
K 09			80	9,15	86,0	1,04	3,70	14,80
K 09			100	5,47	89,0	1,62	3,00	16,80
K 09			125	1,42	92,0	2,46	1,80	18,80
K 09			160	-6,60	92,0	3,69	0,00	21,10
K 09			200	-11,42	93,0	5,30	0,00	22,80
K 10	8 990	8 992						
K 10			20	28,72	70,3	0,00	5,60	7,60
K 10			25	25,24	73,7	0,18	5,40	8,30
K 10			32	21,05	76,0	0,27	5,20	9,20
K 10			40	16,77	78,0	0,45	5,00	10,30
K 10			50	12,69	80,0	0,63	4,70	11,50
K 10			63	9,43	83,0	0,99	4,30	13,00
K 10			80	5,88	86,0	1,44	3,70	14,80
K 10			100	1,97	89,0	2,25	3,00	16,80
K 10			125	-2,39	92,0	3,42	1,80	18,80
K 10			160	-10,90	92,0	5,13	0,00	21,10
K 10			200	-16,35	93,0	7,37	0,00	22,80
K 11	9 435	9 436						
K 11			20	28,30	70,3	0,00	5,60	7,60
K 11			25	24,82	73,7	0,19	5,40	8,30
K 11			32	20,62	76,0	0,28	5,20	9,20
K 11			40	16,33	78,0	0,47	5,00	10,30
K 11			50	12,24	80,0	0,66	4,70	11,50
K 11			63	8,97	83,0	1,04	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 11			80	5,39	86,0	1,51	3,70	14,80
K 11			100	1,45	89,0	2,36	3,00	16,80
K 11			125	-2,98	92,0	3,59	1,80	18,80
K 11			160	-11,57	92,0	5,38	0,00	21,10
K 11			200	-17,13	93,0	7,74	0,00	22,80
K 12	9 418	9 419						
K 12			20	28,32	70,3	0,00	5,60	7,60
K 12			25	24,83	73,7	0,19	5,40	8,30
K 12			32	20,64	76,0	0,28	5,20	9,20
K 12			40	16,35	78,0	0,47	5,00	10,30
K 12			50	12,26	80,0	0,66	4,70	11,50
K 12			63	8,98	83,0	1,04	4,30	13,00
K 12			80	5,41	86,0	1,51	3,70	14,80
K 12			100	1,46	89,0	2,35	3,00	16,80
K 12			125	-2,96	92,0	3,58	1,80	18,80
K 12			160	-11,55	92,0	5,37	0,00	21,10
K 12			200	-17,10	93,0	7,72	0,00	22,80
K 13	8 576	8 578						
K 13			20	29,13	70,3	0,00	5,60	7,60
K 13			25	25,66	73,7	0,17	5,40	8,30
K 13			32	21,48	76,0	0,26	5,20	9,20
K 13			40	17,20	78,0	0,43	5,00	10,30
K 13			50	13,13	80,0	0,60	4,70	11,50
K 13			63	9,89	83,0	0,94	4,30	13,00
K 13			80	6,36	86,0	1,37	3,70	14,80
K 13			100	2,49	89,0	2,14	3,00	16,80
K 13			125	-1,83	92,0	3,26	1,80	18,80
K 13			160	-10,26	92,0	4,89	0,00	21,10
K 13			200	-15,60	93,0	7,03	0,00	22,80
K 14	8 142	8 144						
K 14			20	29,58	70,3	0,00	5,60	7,60
K 14			25	26,12	73,7	0,16	5,40	8,30
K 14			32	21,94	76,0	0,24	5,20	9,20
K 14			40	17,68	78,0	0,41	5,00	10,30
K 14			50	13,61	80,0	0,57	4,70	11,50
K 14			63	10,39	83,0	0,90	4,30	13,00
K 14			80	6,88	86,0	1,30	3,70	14,80
K 14			100	3,05	89,0	2,04	3,00	16,80
K 14			125	-1,21	92,0	3,09	1,80	18,80
K 14			160	-9,56	92,0	4,64	0,00	21,10
K 14			200	-14,79	93,0	6,68	0,00	22,80
WTG 01	5 591	5 594						
WTG 01			20	34,35	71,8	0,00	5,60	7,60
WTG 01			25	30,93	75,2	0,11	5,40	8,30
WTG 01			32	26,38	77,1	0,17	5,20	9,20
WTG 01			40	21,37	78,3	0,28	5,00	10,30
WTG 01			50	17,35	80,3	0,39	4,70	11,50
WTG 01			63	15,53	84,6	0,62	4,30	13,00
WTG 01			80	11,85	87,3	0,90	3,70	14,80
WTG 01			100	6,85	88,9	1,40	3,00	16,80
WTG 01			125	2,52	91,5	2,13	1,80	18,80
WTG 01			160	-3,34	93,5	3,19	0,00	21,10
WTG 01			200	-7,94	94,5	4,59	0,00	22,80
WTG 02	5 754	5 757						
WTG 02			20	34,10	71,8	0,00	5,60	7,60
WTG 02			25	30,68	75,2	0,12	5,40	8,30
WTG 02			32	26,12	77,1	0,17	5,20	9,20
WTG 02			40	21,11	78,3	0,29	5,00	10,30
WTG 02			50	17,09	80,3	0,40	4,70	11,50
WTG 02			63	15,26	84,6	0,63	4,30	13,00
WTG 02			80	11,58	87,3	0,92	3,70	14,80
WTG 02			100	6,56	88,9	1,44	3,00	16,80
WTG 02			125	2,21	91,5	2,19	1,80	18,80
WTG 02			160	-3,68	93,5	3,28	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			200	-8,32	94,5	4,72	0,00	22,80
Sum			20	43,08				
Sum			25	39,64				
Sum			32	35,37				
Sum			40	30,95				
Sum			50	26,91				
Sum			63	24,05				
Sum			80	20,52				
Sum			100	16,46				
Sum			125	12,26				
Sum			160	4,66				
Sum			200	-0,24				

Noise sensitive area: I Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (165)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 185	8 187	20	29,54	70,3	0,00	5,60	7,60
K 01			25	26,07	73,7	0,16	5,40	8,30
K 01			32	21,89	76,0	0,25	5,20	9,20
K 01			40	17,63	78,0	0,41	5,00	10,30
K 01			50	13,56	80,0	0,57	4,70	11,50
K 01			63	10,34	83,0	0,90	4,30	13,00
K 01			80	6,83	86,0	1,31	3,70	14,80
K 01			100	2,99	89,0	2,05	3,00	16,80
K 01			125	-1,27	92,0	3,11	1,80	18,80
K 01			160	-9,63	92,0	4,67	0,00	21,10
K 01			200	-14,88	93,0	6,71	0,00	22,80
K 02	7 791	7 792	20	29,97	70,3	0,00	5,60	7,60
K 02			25	26,51	73,7	0,16	5,40	8,30
K 02			32	22,33	76,0	0,23	5,20	9,20
K 02			40	18,08	78,0	0,39	5,00	10,30
K 02			50	14,02	80,0	0,55	4,70	11,50
K 02			63	10,81	83,0	0,86	4,30	13,00
K 02			80	7,32	86,0	1,25	3,70	14,80
K 02			100	3,52	89,0	1,95	3,00	16,80
K 02			125	-0,69	92,0	2,96	1,80	18,80
K 02			160	-8,98	92,0	4,44	0,00	21,10
K 02			200	-14,12	93,0	6,39	0,00	22,80
K 03	7 598	7 600	20	30,18	70,3	0,00	5,60	7,60
K 03			25	26,73	73,7	0,15	5,40	8,30
K 03			32	22,56	76,0	0,23	5,20	9,20
K 03			40	18,30	78,0	0,38	5,00	10,30
K 03			50	14,25	80,0	0,53	4,70	11,50
K 03			63	11,05	83,0	0,84	4,30	13,00
K 03			80	7,57	86,0	1,22	3,70	14,80
K 03			100	3,78	89,0	1,90	3,00	16,80
K 03			125	-0,40	92,0	2,89	1,80	18,80
K 03			160	-8,65	92,0	4,33	0,00	21,10
K 03			200	-13,75	93,0	6,23	0,00	22,80
K 04	6 837	6 839	20	31,10	70,3	0,00	5,60	7,60
K 04			25	27,66	73,7	0,14	5,40	8,30
K 04			32	23,50	76,0	0,21	5,20	9,20
K 04			40	19,26	78,0	0,34	5,00	10,30
K 04			50	15,22	80,0	0,48	4,70	11,50
K 04			63	12,05	83,0	0,75	4,30	13,00
K 04			80	8,61	86,0	1,09	3,70	14,80
K 04			100	4,89	89,0	1,71	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			125	0,80	92,0	2,60	1,80	18,80
K 04			160	-7,30	92,0	3,90	0,00	21,10
K 04			200	-12,21	93,0	5,61	0,00	22,80
K 05	7 360	7 362						
K 05			20	30,46	70,3	0,00	5,60	7,60
K 05			25	27,01	73,7	0,15	5,40	8,30
K 05			32	22,84	76,0	0,22	5,20	9,20
K 05			40	18,59	78,0	0,37	5,00	10,30
K 05			50	14,54	80,0	0,52	4,70	11,50
K 05			63	11,35	83,0	0,81	4,30	13,00
K 05			80	7,88	86,0	1,18	3,70	14,80
K 05			100	4,12	89,0	1,84	3,00	16,80
K 05			125	-0,04	92,0	2,80	1,80	18,80
K 05			160	-8,24	92,0	4,20	0,00	21,10
K 05			200	-13,28	93,0	6,04	0,00	22,80
K 06	7 420	7 422						
K 06			20	30,39	70,3	0,00	5,60	7,60
K 06			25	26,94	73,7	0,15	5,40	8,30
K 06			32	22,77	76,0	0,22	5,20	9,20
K 06			40	18,52	78,0	0,37	5,00	10,30
K 06			50	14,47	80,0	0,52	4,70	11,50
K 06			63	11,27	83,0	0,82	4,30	13,00
K 06			80	7,80	86,0	1,19	3,70	14,80
K 06			100	4,03	89,0	1,86	3,00	16,80
K 06			125	-0,13	92,0	2,82	1,80	18,80
K 06			160	-8,34	92,0	4,23	0,00	21,10
K 06			200	-13,40	93,0	6,09	0,00	22,80
K 07	6 839	6 841						
K 07			20	31,10	70,3	0,00	5,60	7,60
K 07			25	27,66	73,7	0,14	5,40	8,30
K 07			32	23,49	76,0	0,21	5,20	9,20
K 07			40	19,26	78,0	0,34	5,00	10,30
K 07			50	15,22	80,0	0,48	4,70	11,50
K 07			63	12,05	83,0	0,75	4,30	13,00
K 07			80	8,60	86,0	1,09	3,70	14,80
K 07			100	4,89	89,0	1,71	3,00	16,80
K 07			125	0,80	92,0	2,60	1,80	18,80
K 07			160	-7,30	92,0	3,90	0,00	21,10
K 07			200	-12,21	93,0	5,61	0,00	22,80
K 08	7 025	7 027						
K 08			20	30,86	70,3	0,00	5,60	7,60
K 08			25	27,42	73,7	0,14	5,40	8,30
K 08			32	23,25	76,0	0,21	5,20	9,20
K 08			40	19,01	78,0	0,35	5,00	10,30
K 08			50	14,97	80,0	0,49	4,70	11,50
K 08			63	11,79	83,0	0,77	4,30	13,00
K 08			80	8,34	86,0	1,12	3,70	14,80
K 08			100	4,61	89,0	1,76	3,00	16,80
K 08			125	0,49	92,0	2,67	1,80	18,80
K 08			160	-7,64	92,0	4,01	0,00	21,10
K 08			200	-12,60	93,0	5,76	0,00	22,80
K 09	6 823	6 825						
K 09			20	31,12	70,3	0,00	5,60	7,60
K 09			25	27,68	73,7	0,14	5,40	8,30
K 09			32	23,51	76,0	0,20	5,20	9,20
K 09			40	19,28	78,0	0,34	5,00	10,30
K 09			50	15,24	80,0	0,48	4,70	11,50
K 09			63	12,07	83,0	0,75	4,30	13,00
K 09			80	8,63	86,0	1,09	3,70	14,80
K 09			100	4,91	89,0	1,71	3,00	16,80
K 09			125	0,83	92,0	2,59	1,80	18,80
K 09			160	-7,27	92,0	3,89	0,00	21,10
K 09			200	-12,18	93,0	5,60	0,00	22,80
K 10	9 099	9 100						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			20	28,62	70,3	0,00	5,60	7,60
K 10			25	25,14	73,7	0,18	5,40	8,30
K 10			32	20,95	76,0	0,27	5,20	9,20
K 10			40	16,66	78,0	0,46	5,00	10,30
K 10			50	12,58	80,0	0,64	4,70	11,50
K 10			63	9,32	83,0	1,00	4,30	13,00
K 10			80	5,76	86,0	1,46	3,70	14,80
K 10			100	1,84	89,0	2,28	3,00	16,80
K 10			125	-2,54	92,0	3,46	1,80	18,80
K 10			160	-11,07	92,0	5,19	0,00	21,10
K 10			200	-16,54	93,0	7,46	0,00	22,80
K 11	9 446	9 447	20	28,29	70,3	0,00	5,60	7,60
K 11			25	24,80	73,7	0,19	5,40	8,30
K 11			32	20,61	76,0	0,28	5,20	9,20
K 11			40	16,32	78,0	0,47	5,00	10,30
K 11			50	12,23	80,0	0,66	4,70	11,50
K 11			63	8,95	83,0	1,04	4,30	13,00
K 11			80	5,38	86,0	1,51	3,70	14,80
K 11			100	1,43	89,0	2,36	3,00	16,80
K 11			125	-3,00	92,0	3,59	1,80	18,80
K 11			160	-11,59	92,0	5,38	0,00	21,10
K 11			200	-17,15	93,0	7,75	0,00	22,80
K 12	9 285	9 286	20	28,44	70,3	0,00	5,60	7,60
K 12			25	24,96	73,7	0,19	5,40	8,30
K 12			32	20,76	76,0	0,28	5,20	9,20
K 12			40	16,48	78,0	0,46	5,00	10,30
K 12			50	12,39	80,0	0,65	4,70	11,50
K 12			63	9,12	83,0	1,02	4,30	13,00
K 12			80	5,56	86,0	1,49	3,70	14,80
K 12			100	1,62	89,0	2,32	3,00	16,80
K 12			125	-2,79	92,0	3,53	1,80	18,80
K 12			160	-11,35	92,0	5,29	0,00	21,10
K 12			200	-16,87	93,0	7,61	0,00	22,80
K 13	8 519	8 520	20	29,19	70,3	0,00	5,60	7,60
K 13			25	25,72	73,7	0,17	5,40	8,30
K 13			32	21,54	76,0	0,26	5,20	9,20
K 13			40	17,26	78,0	0,43	5,00	10,30
K 13			50	13,19	80,0	0,60	4,70	11,50
K 13			63	9,95	83,0	0,94	4,30	13,00
K 13			80	6,43	86,0	1,36	3,70	14,80
K 13			100	2,56	89,0	2,13	3,00	16,80
K 13			125	-1,75	92,0	3,24	1,80	18,80
K 13			160	-10,17	92,0	4,86	0,00	21,10
K 13			200	-15,50	93,0	6,99	0,00	22,80
K 14	8 198	8 199	20	29,52	70,3	0,00	5,60	7,60
K 14			25	26,06	73,7	0,16	5,40	8,30
K 14			32	21,88	76,0	0,25	5,20	9,20
K 14			40	17,61	78,0	0,41	5,00	10,30
K 14			50	13,55	80,0	0,57	4,70	11,50
K 14			63	10,32	83,0	0,90	4,30	13,00
K 14			80	6,81	86,0	1,31	3,70	14,80
K 14			100	2,97	89,0	2,05	3,00	16,80
K 14			125	-1,29	92,0	3,12	1,80	18,80
K 14			160	-9,65	92,0	4,67	0,00	21,10
K 14			200	-14,90	93,0	6,72	0,00	22,80
WTG 01	6 372	6 375	20	33,21	71,8	0,00	5,60	7,60
WTG 01			25	29,78	75,2	0,13	5,40	8,30
WTG 01			32	25,22	77,1	0,19	5,20	9,20
WTG 01			40	20,19	78,3	0,32	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 01			50	16,16	80,3	0,45	4,70	11,50
WTG 01			63	14,31	84,6	0,70	4,30	13,00
WTG 01			80	10,59	87,3	1,02	3,70	14,80
WTG 01			100	5,52	88,9	1,59	3,00	16,80
WTG 01			125	1,09	91,5	2,42	1,80	18,80
WTG 01			160	-4,92	93,5	3,63	0,00	21,10
WTG 01			200	-9,72	94,5	5,23	0,00	22,80
WTG 02	6 309	6 311						
WTG 02			20	33,30	71,8	0,00	5,60	7,60
WTG 02			25	29,87	75,2	0,13	5,40	8,30
WTG 02			32	25,31	77,1	0,19	5,20	9,20
WTG 02			40	20,28	78,3	0,32	5,00	10,30
WTG 02			50	16,26	80,3	0,44	4,70	11,50
WTG 02			63	14,40	84,6	0,69	4,30	13,00
WTG 02			80	10,69	87,3	1,01	3,70	14,80
WTG 02			100	5,62	88,9	1,58	3,00	16,80
WTG 02			125	1,20	91,5	2,40	1,80	18,80
WTG 02			160	-4,80	93,5	3,60	0,00	21,10
WTG 02			200	-9,58	94,5	5,18	0,00	22,80
Sum								
Sum			20	42,62				
Sum			25	39,17				
Sum			32	34,91				
Sum			40	30,50				
Sum			50	26,45				
Sum			63	23,53				
Sum			80	20,00				
Sum			100	15,94				
Sum			125	11,70				
Sum			160	3,94				
Sum			200	-1,07				

Noise sensitive area: J Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (164)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	8 028	8 029						
K 01			20	29,71	70,3	0,00	5,60	7,60
K 01			25	26,25	73,7	0,16	5,40	8,30
K 01			32	22,07	76,0	0,24	5,20	9,20
K 01			40	17,80	78,0	0,40	5,00	10,30
K 01			50	13,74	80,0	0,56	4,70	11,50
K 01			63	10,52	83,0	0,88	4,30	13,00
K 01			80	7,02	86,0	1,28	3,70	14,80
K 01			100	3,20	89,0	2,01	3,00	16,80
K 01			125	-1,04	92,0	3,05	1,80	18,80
K 01			160	-9,37	92,0	4,58	0,00	21,10
K 01			200	-14,58	93,0	6,58	0,00	22,80
K 02	7 658	7 659						
K 02			20	30,12	70,3	0,00	5,60	7,60
K 02			25	26,66	73,7	0,15	5,40	8,30
K 02			32	22,49	76,0	0,23	5,20	9,20
K 02			40	18,23	78,0	0,38	5,00	10,30
K 02			50	14,18	80,0	0,54	4,70	11,50
K 02			63	10,97	83,0	0,84	4,30	13,00
K 02			80	7,49	86,0	1,23	3,70	14,80
K 02			100	3,70	89,0	1,91	3,00	16,80
K 02			125	-0,49	92,0	2,91	1,80	18,80
K 02			160	-8,75	92,0	4,37	0,00	21,10
K 02			200	-13,86	93,0	6,28	0,00	22,80
K 03	7 504	7 506						
K 03			20	30,29	70,3	0,00	5,60	7,60
K 03			25	26,84	73,7	0,15	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 03			32	22,67	76,0	0,23	5,20	9,20
K 03			40	18,42	78,0	0,38	5,00	10,30
K 03			50	14,37	80,0	0,53	4,70	11,50
K 03			63	11,17	83,0	0,83	4,30	13,00
K 03			80	7,69	86,0	1,20	3,70	14,80
K 03			100	3,92	89,0	1,88	3,00	16,80
K 03			125	-0,26	92,0	2,85	1,80	18,80
K 03			160	-8,49	92,0	4,28	0,00	21,10
K 03			200	-13,56	93,0	6,16	0,00	22,80
K 04	6 765	6 767						
K 04			20	31,19	70,3	0,00	5,60	7,60
K 04			25	27,76	73,7	0,14	5,40	8,30
K 04			32	23,59	76,0	0,20	5,20	9,20
K 04			40	19,35	78,0	0,34	5,00	10,30
K 04			50	15,32	80,0	0,47	4,70	11,50
K 04			63	12,15	83,0	0,74	4,30	13,00
K 04			80	8,71	86,0	1,08	3,70	14,80
K 04			100	5,00	89,0	1,69	3,00	16,80
K 04			125	0,92	92,0	2,57	1,80	18,80
K 04			160	-7,17	92,0	3,86	0,00	21,10
K 04			200	-12,06	93,0	5,55	0,00	22,80
K 05	7 325	7 327						
K 05			20	30,50	70,3	0,00	5,60	7,60
K 05			25	27,06	73,7	0,15	5,40	8,30
K 05			32	22,88	76,0	0,22	5,20	9,20
K 05			40	18,64	78,0	0,37	5,00	10,30
K 05			50	14,59	80,0	0,51	4,70	11,50
K 05			63	11,40	83,0	0,81	4,30	13,00
K 05			80	7,93	86,0	1,17	3,70	14,80
K 05			100	4,17	89,0	1,83	3,00	16,80
K 05			125	0,02	92,0	2,78	1,80	18,80
K 05			160	-8,17	92,0	4,18	0,00	21,10
K 05			200	-13,21	93,0	6,01	0,00	22,80
K 06	7 233	7 235						
K 06			20	30,61	70,3	0,00	5,60	7,60
K 06			25	27,17	73,7	0,14	5,40	8,30
K 06			32	22,99	76,0	0,22	5,20	9,20
K 06			40	18,75	78,0	0,36	5,00	10,30
K 06			50	14,71	80,0	0,51	4,70	11,50
K 06			63	11,52	83,0	0,80	4,30	13,00
K 06			80	8,05	86,0	1,16	3,70	14,80
K 06			100	4,30	89,0	1,81	3,00	16,80
K 06			125	0,16	92,0	2,75	1,80	18,80
K 06			160	-8,01	92,0	4,12	0,00	21,10
K 06			200	-13,02	93,0	5,93	0,00	22,80
K 07	6 638	6 640						
K 07			20	31,36	70,3	0,00	5,60	7,60
K 07			25	27,92	73,7	0,13	5,40	8,30
K 07			32	23,76	76,0	0,20	5,20	9,20
K 07			40	19,52	78,0	0,33	5,00	10,30
K 07			50	15,49	80,0	0,46	4,70	11,50
K 07			63	12,33	83,0	0,73	4,30	13,00
K 07			80	8,89	86,0	1,06	3,70	14,80
K 07			100	5,20	89,0	1,66	3,00	16,80
K 07			125	1,13	92,0	2,52	1,80	18,80
K 07			160	-6,93	92,0	3,78	0,00	21,10
K 07			200	-11,79	93,0	5,44	0,00	22,80
K 08	6 884	6 886						
K 08			20	31,04	70,3	0,00	5,60	7,60
K 08			25	27,60	73,7	0,14	5,40	8,30
K 08			32	23,43	76,0	0,21	5,20	9,20
K 08			40	19,20	78,0	0,34	5,00	10,30
K 08			50	15,16	80,0	0,48	4,70	11,50
K 08			63	11,98	83,0	0,76	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 08			80	8,54	86,0	1,10	3,70	14,80
K 08			100	4,82	89,0	1,72	3,00	16,80
K 08			125	0,72	92,0	2,62	1,80	18,80
K 08			160	-7,38	92,0	3,92	0,00	21,10
K 08			200	-12,31	93,0	5,65	0,00	22,80
K 09	6 711	6 713						
K 09			20	31,26	70,3	0,00	5,60	7,60
K 09			25	27,83	73,7	0,13	5,40	8,30
K 09			32	23,66	76,0	0,20	5,20	9,20
K 09			40	19,43	78,0	0,34	5,00	10,30
K 09			50	15,39	80,0	0,47	4,70	11,50
K 09			63	12,22	83,0	0,74	4,30	13,00
K 09			80	8,79	86,0	1,07	3,70	14,80
K 09			100	5,08	89,0	1,68	3,00	16,80
K 09			125	1,01	92,0	2,55	1,80	18,80
K 09			160	-7,07	92,0	3,83	0,00	21,10
K 09			200	-11,94	93,0	5,50	0,00	22,80
K 10	8 896	8 898						
K 10			20	28,81	70,3	0,00	5,60	7,60
K 10			25	25,34	73,7	0,18	5,40	8,30
K 10			32	21,15	76,0	0,27	5,20	9,20
K 10			40	16,87	78,0	0,44	5,00	10,30
K 10			50	12,79	80,0	0,62	4,70	11,50
K 10			63	9,54	83,0	0,98	4,30	13,00
K 10			80	5,99	86,0	1,42	3,70	14,80
K 10			100	2,09	89,0	2,22	3,00	16,80
K 10			125	-2,27	92,0	3,38	1,80	18,80
K 10			160	-10,76	92,0	5,07	0,00	21,10
K 10			200	-16,18	93,0	7,30	0,00	22,80
K 11	9 215	9 216						
K 11			20	28,51	70,3	0,00	5,60	7,60
K 11			25	25,02	73,7	0,18	5,40	8,30
K 11			32	20,83	76,0	0,28	5,20	9,20
K 11			40	16,55	78,0	0,46	5,00	10,30
K 11			50	12,46	80,0	0,65	4,70	11,50
K 11			63	9,20	83,0	1,01	4,30	13,00
K 11			80	5,63	86,0	1,47	3,70	14,80
K 11			100	1,71	89,0	2,30	3,00	16,80
K 11			125	-2,69	92,0	3,50	1,80	18,80
K 11			160	-11,24	92,0	5,25	0,00	21,10
K 11			200	-16,75	93,0	7,56	0,00	22,80
K 12	9 016	9 017						
K 12			20	28,70	70,3	0,00	5,60	7,60
K 12			25	25,22	73,7	0,18	5,40	8,30
K 12			32	21,03	76,0	0,27	5,20	9,20
K 12			40	16,75	78,0	0,45	5,00	10,30
K 12			50	12,67	80,0	0,63	4,70	11,50
K 12			63	9,41	83,0	0,99	4,30	13,00
K 12			80	5,86	86,0	1,44	3,70	14,80
K 12			100	1,94	89,0	2,25	3,00	16,80
K 12			125	-2,43	92,0	3,43	1,80	18,80
K 12			160	-10,94	92,0	5,14	0,00	21,10
K 12			200	-16,40	93,0	7,39	0,00	22,80
K 13	8 274	8 276						
K 13			20	29,44	70,3	0,00	5,60	7,60
K 13			25	25,98	73,7	0,17	5,40	8,30
K 13			32	21,80	76,0	0,25	5,20	9,20
K 13			40	17,53	78,0	0,41	5,00	10,30
K 13			50	13,46	80,0	0,58	4,70	11,50
K 13			63	10,23	83,0	0,91	4,30	13,00
K 13			80	6,72	86,0	1,32	3,70	14,80
K 13			100	2,87	89,0	2,07	3,00	16,80
K 13			125	-1,40	92,0	3,14	1,80	18,80
K 13			160	-9,77	92,0	4,72	0,00	21,10

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			200	-15,04	93,0	6,79	0,00	22,80
K 14	7 986	7 988						
K 14			20	29,75	70,3	0,00	5,60	7,60
K 14			25	26,29	73,7	0,16	5,40	8,30
K 14			32	22,11	76,0	0,24	5,20	9,20
K 14			40	17,85	78,0	0,40	5,00	10,30
K 14			50	13,79	80,0	0,56	4,70	11,50
K 14			63	10,57	83,0	0,88	4,30	13,00
K 14			80	7,07	86,0	1,28	3,70	14,80
K 14			100	3,25	89,0	2,00	3,00	16,80
K 14			125	-0,98	92,0	3,04	1,80	18,80
K 14			160	-9,30	92,0	4,55	0,00	21,10
K 14			200	-14,50	93,0	6,55	0,00	22,80
WTG 01	6 399	6 402						
WTG 01			20	33,17	71,8	0,00	5,60	7,60
WTG 01			25	29,75	75,2	0,13	5,40	8,30
WTG 01			32	25,18	77,1	0,19	5,20	9,20
WTG 01			40	20,15	78,3	0,32	5,00	10,30
WTG 01			50	16,13	80,3	0,45	4,70	11,50
WTG 01			63	14,27	84,6	0,70	4,30	13,00
WTG 01			80	10,55	87,3	1,02	3,70	14,80
WTG 01			100	5,47	88,9	1,60	3,00	16,80
WTG 01			125	1,04	91,5	2,43	1,80	18,80
WTG 01			160	-4,97	93,5	3,65	0,00	21,10
WTG 01			200	-9,77	94,5	5,25	0,00	22,80
WTG 02	6 264	6 267						
WTG 02			20	33,36	71,8	0,00	5,60	7,60
WTG 02			25	29,93	75,2	0,13	5,40	8,30
WTG 02			32	25,37	77,1	0,19	5,20	9,20
WTG 02			40	20,35	78,3	0,31	5,00	10,30
WTG 02			50	16,32	80,3	0,44	4,70	11,50
WTG 02			63	14,47	84,6	0,69	4,30	13,00
WTG 02			80	10,76	87,3	1,00	3,70	14,80
WTG 02			100	5,69	88,9	1,57	3,00	16,80
WTG 02			125	1,28	91,5	2,38	1,80	18,80
WTG 02			160	-4,71	93,5	3,57	0,00	21,10
WTG 02			200	-9,48	94,5	5,14	0,00	22,80
Sum								
Sum			20	42,76				
Sum			25	39,31				
Sum			32	35,05				
Sum			40	30,65				
Sum			50	26,60				
Sum			63	23,68				
Sum			80	20,15				
Sum			100	16,12				
Sum			125	11,90				
Sum			160	4,14				
Sum			200	-0,85				

Noise sensitive area: K Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (163)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	6 881	6 883						
K 01			20	31,04	70,3	0,00	5,60	7,60
K 01			25	27,61	73,7	0,14	5,40	8,30
K 01			32	23,44	76,0	0,21	5,20	9,20
K 01			40	19,20	78,0	0,34	5,00	10,30
K 01			50	15,16	80,0	0,48	4,70	11,50
K 01			63	11,99	83,0	0,76	4,30	13,00
K 01			80	8,54	86,0	1,10	3,70	14,80
K 01			100	4,82	89,0	1,72	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01			125	0,73	92,0	2,62	1,80	18,80
K 01			160	-7,38	92,0	3,92	0,00	21,10
K 01			200	-12,30	93,0	5,64	0,00	22,80
K 02	6 535	6 536						
K 02			20	31,49	70,3	0,00	5,60	7,60
K 02			25	28,06	73,7	0,13	5,40	8,30
K 02			32	23,90	76,0	0,20	5,20	9,20
K 02			40	19,67	78,0	0,33	5,00	10,30
K 02			50	15,64	80,0	0,46	4,70	11,50
K 02			63	12,47	83,0	0,72	4,30	13,00
K 02			80	9,05	86,0	1,05	3,70	14,80
K 02			100	5,36	89,0	1,63	3,00	16,80
K 02			125	1,31	92,0	2,48	1,80	18,80
K 02			160	-6,73	92,0	3,73	0,00	21,10
K 02			200	-11,57	93,0	5,36	0,00	22,80
K 03	6 424	6 426						
K 03			20	31,64	70,3	0,00	5,60	7,60
K 03			25	28,21	73,7	0,13	5,40	8,30
K 03			32	24,05	76,0	0,19	5,20	9,20
K 03			40	19,82	78,0	0,32	5,00	10,30
K 03			50	15,79	80,0	0,45	4,70	11,50
K 03			63	12,63	83,0	0,71	4,30	13,00
K 03			80	9,21	86,0	1,03	3,70	14,80
K 03			100	5,53	89,0	1,61	3,00	16,80
K 03			125	1,50	92,0	2,44	1,80	18,80
K 03			160	-6,52	92,0	3,66	0,00	21,10
K 03			200	-11,33	93,0	5,27	0,00	22,80
K 04	5 717	5 719						
K 04			20	32,65	70,3	0,00	5,60	7,60
K 04			25	29,24	73,7	0,11	5,40	8,30
K 04			32	25,08	76,0	0,17	5,20	9,20
K 04			40	20,87	78,0	0,29	5,00	10,30
K 04			50	16,85	80,0	0,40	4,70	11,50
K 04			63	13,72	83,0	0,63	4,30	13,00
K 04			80	10,34	86,0	0,92	3,70	14,80
K 04			100	6,72	89,0	1,43	3,00	16,80
K 04			125	2,78	92,0	2,17	1,80	18,80
K 04			160	-5,11	92,0	3,26	0,00	21,10
K 04			200	-9,74	93,0	4,69	0,00	22,80
K 05	6 322	6 324						
K 05			20	31,78	70,3	0,00	5,60	7,60
K 05			25	28,35	73,7	0,13	5,40	8,30
K 05			32	24,19	76,0	0,19	5,20	9,20
K 05			40	19,96	78,0	0,32	5,00	10,30
K 05			50	15,94	80,0	0,44	4,70	11,50
K 05			63	12,78	83,0	0,70	4,30	13,00
K 05			80	9,37	86,0	1,01	3,70	14,80
K 05			100	5,70	89,0	1,58	3,00	16,80
K 05			125	1,68	92,0	2,40	1,80	18,80
K 05			160	-6,32	92,0	3,60	0,00	21,10
K 05			200	-11,11	93,0	5,19	0,00	22,80
K 06	6 065	6 067						
K 06			20	32,14	70,3	0,00	5,60	7,60
K 06			25	28,72	73,7	0,12	5,40	8,30
K 06			32	24,56	76,0	0,18	5,20	9,20
K 06			40	20,34	78,0	0,30	5,00	10,30
K 06			50	16,32	80,0	0,42	4,70	11,50
K 06			63	13,17	83,0	0,67	4,30	13,00
K 06			80	9,77	86,0	0,97	3,70	14,80
K 06			100	6,12	89,0	1,52	3,00	16,80
K 06			125	2,13	92,0	2,31	1,80	18,80
K 06			160	-5,82	92,0	3,46	0,00	21,10
K 06			200	-10,54	93,0	4,98	0,00	22,80
K 07	5 463	5 465						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			20	33,05	70,3	0,00	5,60	7,60
K 07			25	29,64	73,7	0,11	5,40	8,30
K 07			32	25,48	76,0	0,16	5,20	9,20
K 07			40	21,28	78,0	0,27	5,00	10,30
K 07			50	17,27	80,0	0,38	4,70	11,50
K 07			63	14,15	83,0	0,60	4,30	13,00
K 07			80	10,77	86,0	0,87	3,70	14,80
K 07			100	7,18	89,0	1,37	3,00	16,80
K 07			125	3,27	92,0	2,08	1,80	18,80
K 07			160	-4,57	92,0	3,12	0,00	21,10
K 07			200	-9,13	93,0	4,48	0,00	22,80
K 08	5 756	5 758	20	32,59	70,3	0,00	5,60	7,60
K 08			25	29,18	73,7	0,12	5,40	8,30
K 08			32	25,02	76,0	0,17	5,20	9,20
K 08			40	20,81	78,0	0,29	5,00	10,30
K 08			50	16,79	80,0	0,40	4,70	11,50
K 08			63	13,66	83,0	0,63	4,30	13,00
K 08			80	10,27	86,0	0,92	3,70	14,80
K 08			100	6,66	89,0	1,44	3,00	16,80
K 08			125	2,71	92,0	2,19	1,80	18,80
K 08			160	-5,19	92,0	3,28	0,00	21,10
K 08			200	-9,83	93,0	4,72	0,00	22,80
K 09	5 615	5 618	20	32,81	70,3	0,00	5,60	7,60
K 09			25	29,40	73,7	0,11	5,40	8,30
K 09			32	25,24	76,0	0,17	5,20	9,20
K 09			40	21,03	78,0	0,28	5,00	10,30
K 09			50	17,02	80,0	0,39	4,70	11,50
K 09			63	13,89	83,0	0,62	4,30	13,00
K 09			80	10,51	86,0	0,90	3,70	14,80
K 09			100	6,90	89,0	1,40	3,00	16,80
K 09			125	2,97	92,0	2,13	1,80	18,80
K 09			160	-4,89	92,0	3,20	0,00	21,10
K 09			200	-9,50	93,0	4,61	0,00	22,80
K 10	7 716	7 718	20	30,05	70,3	0,00	5,60	7,60
K 10			25	26,60	73,7	0,15	5,40	8,30
K 10			32	22,42	76,0	0,23	5,20	9,20
K 10			40	18,16	78,0	0,39	5,00	10,30
K 10			50	14,11	80,0	0,54	4,70	11,50
K 10			63	10,90	83,0	0,85	4,30	13,00
K 10			80	7,42	86,0	1,23	3,70	14,80
K 10			100	3,62	89,0	1,93	3,00	16,80
K 10			125	-0,58	92,0	2,93	1,80	18,80
K 10			160	-8,85	92,0	4,40	0,00	21,10
K 10			200	-13,98	93,0	6,33	0,00	22,80
K 11	8 020	8 022	20	29,71	70,3	0,00	5,60	7,60
K 11			25	26,25	73,7	0,16	5,40	8,30
K 11			32	22,07	76,0	0,24	5,20	9,20
K 11			40	17,81	78,0	0,40	5,00	10,30
K 11			50	13,75	80,0	0,56	4,70	11,50
K 11			63	10,53	83,0	0,88	4,30	13,00
K 11			80	7,03	86,0	1,28	3,70	14,80
K 11			100	3,21	89,0	2,01	3,00	16,80
K 11			125	-1,03	92,0	3,05	1,80	18,80
K 11			160	-9,36	92,0	4,57	0,00	21,10
K 11			200	-14,56	93,0	6,58	0,00	22,80
K 12	7 811	7 813	20	29,94	70,3	0,00	5,60	7,60
K 12			25	26,49	73,7	0,16	5,40	8,30
K 12			32	22,31	76,0	0,23	5,20	9,20
K 12			40	18,05	78,0	0,39	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 12			50	14,00	80,0	0,55	4,70	11,50
K 12			63	10,78	83,0	0,86	4,30	13,00
K 12			80	7,29	86,0	1,25	3,70	14,80
K 12			100	3,49	89,0	1,95	3,00	16,80
K 12			125	-0,73	92,0	2,97	1,80	18,80
K 12			160	-9,01	92,0	4,45	0,00	21,10
K 12			200	-14,16	93,0	6,41	0,00	22,80
K 13	7 076	7 077						
K 13			20	30,80	70,3	0,00	5,60	7,60
K 13			25	27,36	73,7	0,14	5,40	8,30
K 13			32	23,19	76,0	0,21	5,20	9,20
K 13			40	18,95	78,0	0,35	5,00	10,30
K 13			50	14,91	80,0	0,50	4,70	11,50
K 13			63	11,72	83,0	0,78	4,30	13,00
K 13			80	8,27	86,0	1,13	3,70	14,80
K 13			100	4,53	89,0	1,77	3,00	16,80
K 13			125	0,41	92,0	2,69	1,80	18,80
K 13			160	-7,73	92,0	4,03	0,00	21,10
K 13			200	-12,70	93,0	5,80	0,00	22,80
K 14	6 802	6 804						
K 14			20	31,14	70,3	0,00	5,60	7,60
K 14			25	27,71	73,7	0,14	5,40	8,30
K 14			32	23,54	76,0	0,20	5,20	9,20
K 14			40	19,30	78,0	0,34	5,00	10,30
K 14			50	15,27	80,0	0,48	4,70	11,50
K 14			63	12,10	83,0	0,75	4,30	13,00
K 14			80	8,66	86,0	1,09	3,70	14,80
K 14			100	4,94	89,0	1,70	3,00	16,80
K 14			125	0,86	92,0	2,59	1,80	18,80
K 14			160	-7,23	92,0	3,88	0,00	21,10
K 14			200	-12,13	93,0	5,58	0,00	22,80
WTG 01	5 504	5 507						
WTG 01			20	34,48	71,8	0,00	5,60	7,60
WTG 01			25	31,07	75,2	0,11	5,40	8,30
WTG 01			32	26,52	77,1	0,17	5,20	9,20
WTG 01			40	21,51	78,3	0,28	5,00	10,30
WTG 01			50	17,50	80,3	0,39	4,70	11,50
WTG 01			63	15,68	84,6	0,61	4,30	13,00
WTG 01			80	12,00	87,3	0,88	3,70	14,80
WTG 01			100	7,01	88,9	1,38	3,00	16,80
WTG 01			125	2,69	91,5	2,09	1,80	18,80
WTG 01			160	-3,16	93,5	3,14	0,00	21,10
WTG 01			200	-7,73	94,5	4,52	0,00	22,80
WTG 02	5 259	5 262						
WTG 02			20	34,88	71,8	0,00	5,60	7,60
WTG 02			25	31,47	75,2	0,11	5,40	8,30
WTG 02			32	26,92	77,1	0,16	5,20	9,20
WTG 02			40	21,91	78,3	0,26	5,00	10,30
WTG 02			50	17,91	80,3	0,37	4,70	11,50
WTG 02			63	16,10	84,6	0,58	4,30	13,00
WTG 02			80	12,44	87,3	0,84	3,70	14,80
WTG 02			100	7,46	88,9	1,32	3,00	16,80
WTG 02			125	3,18	91,5	2,00	1,80	18,80
WTG 02			160	-2,62	93,5	3,00	0,00	21,10
WTG 02			200	-7,14	94,5	4,31	0,00	22,80
Sum								
Sum			20	44,18				
Sum			25	40,76				
Sum			32	36,51				
Sum			40	32,13				
Sum			50	28,11				
Sum			63	25,23				
Sum			80	21,75				
Sum			100	17,82				

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
Sum			125	13,74				
Sum			160	6,19				
Sum			200	1,47				

Noise sensitive area: L Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (162)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	5 569	5 570						
K 01			20	32,88	70,3	0,00	5,60	7,60
K 01			25	29,47	73,7	0,11	5,40	8,30
K 01			32	25,32	76,0	0,17	5,20	9,20
K 01			40	21,10	78,0	0,28	5,00	10,30
K 01			50	17,09	80,0	0,39	4,70	11,50
K 01			63	13,97	83,0	0,61	4,30	13,00
K 01			80	10,59	86,0	0,89	3,70	14,80
K 01			100	6,99	89,0	1,39	3,00	16,80
K 01			125	3,07	92,0	2,12	1,80	18,80
K 01			160	-4,79	92,0	3,18	0,00	21,10
K 01			200	-9,39	93,0	4,57	0,00	22,80
K 02	5 016	5 019						
K 02			20	33,79	70,3	0,00	5,60	7,60
K 02			25	30,39	73,7	0,10	5,40	8,30
K 02			32	26,24	76,0	0,15	5,20	9,20
K 02			40	22,04	78,0	0,25	5,00	10,30
K 02			50	18,04	80,0	0,35	4,70	11,50
K 02			63	14,94	83,0	0,55	4,30	13,00
K 02			80	11,59	86,0	0,80	3,70	14,80
K 02			100	8,03	89,0	1,25	3,00	16,80
K 02			125	4,18	92,0	1,91	1,80	18,80
K 02			160	-3,57	92,0	2,86	0,00	21,10
K 02			200	-8,03	93,0	4,12	0,00	22,80
K 03	4 445	4 447						
K 03			20	34,84	70,3	0,00	5,60	7,60
K 03			25	31,45	73,7	0,09	5,40	8,30
K 03			32	27,30	76,0	0,13	5,20	9,20
K 03			40	23,12	78,0	0,22	5,00	10,30
K 03			50	19,13	80,0	0,31	4,70	11,50
K 03			63	16,05	83,0	0,49	4,30	13,00
K 03			80	12,73	86,0	0,71	3,70	14,80
K 03			100	9,23	89,0	1,11	3,00	16,80
K 03			125	5,45	92,0	1,69	1,80	18,80
K 03			160	-2,20	92,0	2,54	0,00	21,10
K 03			200	-6,51	93,0	3,65	0,00	22,80
K 04	3 740	3 743						
K 04			20	36,34	70,3	0,00	5,60	7,60
K 04			25	32,96	73,7	0,07	5,40	8,30
K 04			32	28,82	76,0	0,11	5,20	9,20
K 04			40	24,65	78,0	0,19	5,00	10,30
K 04			50	20,67	80,0	0,26	4,70	11,50
K 04			63	17,62	83,0	0,41	4,30	13,00
K 04			80	14,34	86,0	0,60	3,70	14,80
K 04			100	10,90	89,0	0,94	3,00	16,80
K 04			125	7,21	92,0	1,42	1,80	18,80
K 04			160	-0,30	92,0	2,13	0,00	21,10
K 04			200	-4,43	93,0	3,07	0,00	22,80
K 05	3 645	3 648						
K 05			20	36,56	70,3	0,00	5,60	7,60
K 05			25	33,19	73,7	0,07	5,40	8,30
K 05			32	29,05	76,0	0,11	5,20	9,20
K 05			40	24,88	78,0	0,18	5,00	10,30
K 05			50	20,90	80,0	0,26	4,70	11,50
K 05			63	17,86	83,0	0,40	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 05			80	14,58	86,0	0,58	3,70	14,80
K 05			100	11,15	89,0	0,91	3,00	16,80
K 05			125	7,47	92,0	1,39	1,80	18,80
K 05			160	-0,02	92,0	2,08	0,00	21,10
K 05			200	-4,13	93,0	2,99	0,00	22,80
K 06	5 404	5 407						
K 06			20	33,14	70,3	0,00	5,60	7,60
K 06			25	29,73	73,7	0,11	5,40	8,30
K 06			32	25,58	76,0	0,16	5,20	9,20
K 06			40	21,37	78,0	0,27	5,00	10,30
K 06			50	17,36	80,0	0,38	4,70	11,50
K 06			63	14,25	83,0	0,59	4,30	13,00
K 06			80	10,88	86,0	0,87	3,70	14,80
K 06			100	7,29	89,0	1,35	3,00	16,80
K 06			125	3,39	92,0	2,05	1,80	18,80
K 06			160	-4,44	92,0	3,08	0,00	21,10
K 06			200	-8,99	93,0	4,43	0,00	22,80
K 07	5 218	5 220						
K 07			20	33,45	70,3	0,00	5,60	7,60
K 07			25	30,04	73,7	0,10	5,40	8,30
K 07			32	25,89	76,0	0,16	5,20	9,20
K 07			40	21,69	78,0	0,26	5,00	10,30
K 07			50	17,68	80,0	0,37	4,70	11,50
K 07			63	14,57	83,0	0,57	4,30	13,00
K 07			80	11,21	86,0	0,84	3,70	14,80
K 07			100	7,64	89,0	1,31	3,00	16,80
K 07			125	3,76	92,0	1,98	1,80	18,80
K 07			160	-4,03	92,0	2,98	0,00	21,10
K 07			200	-8,53	93,0	4,28	0,00	22,80
K 08	4 635	4 638						
K 08			20	34,47	70,3	0,00	5,60	7,60
K 08			25	31,08	73,7	0,09	5,40	8,30
K 08			32	26,93	76,0	0,14	5,20	9,20
K 08			40	22,74	78,0	0,23	5,00	10,30
K 08			50	18,75	80,0	0,32	4,70	11,50
K 08			63	15,66	83,0	0,51	4,30	13,00
K 08			80	12,33	86,0	0,74	3,70	14,80
K 08			100	8,81	89,0	1,16	3,00	16,80
K 08			125	5,01	92,0	1,76	1,80	18,80
K 08			160	-2,67	92,0	2,64	0,00	21,10
K 08			200	-7,03	93,0	3,80	0,00	22,80
K 09	4 180	4 183						
K 09			20	35,37	70,3	0,00	5,60	7,60
K 09			25	31,99	73,7	0,08	5,40	8,30
K 09			32	27,84	76,0	0,13	5,20	9,20
K 09			40	23,66	78,0	0,21	5,00	10,30
K 09			50	19,68	80,0	0,29	4,70	11,50
K 09			63	16,61	83,0	0,46	4,30	13,00
K 09			80	13,30	86,0	0,67	3,70	14,80
K 09			100	9,82	89,0	1,05	3,00	16,80
K 09			125	6,08	92,0	1,59	1,80	18,80
K 09			160	-1,51	92,0	2,38	0,00	21,10
K 09			200	-5,76	93,0	3,43	0,00	22,80
K 10	6 779	6 781						
K 10			20	31,17	70,3	0,00	5,60	7,60
K 10			25	27,74	73,7	0,14	5,40	8,30
K 10			32	23,57	76,0	0,20	5,20	9,20
K 10			40	19,34	78,0	0,34	5,00	10,30
K 10			50	15,30	80,0	0,47	4,70	11,50
K 10			63	12,13	83,0	0,75	4,30	13,00
K 10			80	8,69	86,0	1,08	3,70	14,80
K 10			100	4,98	89,0	1,70	3,00	16,80
K 10			125	0,90	92,0	2,58	1,80	18,80
K 10			160	-7,19	92,0	3,87	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			200	-12,09	93,0	5,56	0,00	22,80
K 11	7 403	7 404						
K 11			20	30,41	70,3	0,00	5,60	7,60
K 11			25	26,96	73,7	0,15	5,40	8,30
K 11			32	22,79	76,0	0,22	5,20	9,20
K 11			40	18,54	78,0	0,37	5,00	10,30
K 11			50	14,49	80,0	0,52	4,70	11,50
K 11			63	11,30	83,0	0,81	4,30	13,00
K 11			80	7,83	86,0	1,18	3,70	14,80
K 11			100	4,06	89,0	1,85	3,00	16,80
K 11			125	-0,10	92,0	2,81	1,80	18,80
K 11			160	-8,31	92,0	4,22	0,00	21,10
K 11			200	-13,36	93,0	6,07	0,00	22,80
K 12	7 759	7 760						
K 12			20	30,00	70,3	0,00	5,60	7,60
K 12			25	26,55	73,7	0,16	5,40	8,30
K 12			32	22,37	76,0	0,23	5,20	9,20
K 12			40	18,11	78,0	0,39	5,00	10,30
K 12			50	14,06	80,0	0,54	4,70	11,50
K 12			63	10,85	83,0	0,85	4,30	13,00
K 12			80	7,36	86,0	1,24	3,70	14,80
K 12			100	3,56	89,0	1,94	3,00	16,80
K 12			125	-0,65	92,0	2,95	1,80	18,80
K 12			160	-8,92	92,0	4,42	0,00	21,10
K 12			200	-14,06	93,0	6,36	0,00	22,80
K 13	6 861	6 862						
K 13			20	31,07	70,3	0,00	5,60	7,60
K 13			25	27,63	73,7	0,14	5,40	8,30
K 13			32	23,46	76,0	0,21	5,20	9,20
K 13			40	19,23	78,0	0,34	5,00	10,30
K 13			50	15,19	80,0	0,48	4,70	11,50
K 13			63	12,02	83,0	0,75	4,30	13,00
K 13			80	8,57	86,0	1,10	3,70	14,80
K 13			100	4,85	89,0	1,72	3,00	16,80
K 13			125	0,76	92,0	2,61	1,80	18,80
K 13			160	-7,34	92,0	3,91	0,00	21,10
K 13			200	-12,26	93,0	5,63	0,00	22,80
K 14	6 218	6 220						
K 14			20	31,92	70,3	0,00	5,60	7,60
K 14			25	28,50	73,7	0,12	5,40	8,30
K 14			32	24,34	76,0	0,19	5,20	9,20
K 14			40	20,11	78,0	0,31	5,00	10,30
K 14			50	16,09	80,0	0,44	4,70	11,50
K 14			63	12,94	83,0	0,68	4,30	13,00
K 14			80	9,53	86,0	1,00	3,70	14,80
K 14			100	5,87	89,0	1,55	3,00	16,80
K 14			125	1,86	92,0	2,36	1,80	18,80
K 14			160	-6,12	92,0	3,55	0,00	21,10
K 14			200	-10,88	93,0	5,10	0,00	22,80
WTG 01	2 414	2 421						
WTG 01			20	41,62	71,8	0,00	5,60	7,60
WTG 01			25	38,27	75,2	0,05	5,40	8,30
WTG 01			32	33,75	77,1	0,07	5,20	9,20
WTG 01			40	28,80	78,3	0,12	5,00	10,30
WTG 01			50	24,85	80,3	0,17	4,70	11,50
WTG 01			63	23,16	84,6	0,27	4,30	13,00
WTG 01			80	19,63	87,3	0,39	3,70	14,80
WTG 01			100	14,92	88,9	0,61	3,00	16,80
WTG 01			125	11,00	91,5	0,92	1,80	18,80
WTG 01			160	5,74	93,5	1,38	0,00	21,10
WTG 01			200	1,94	94,5	1,98	0,00	22,80
WTG 02	3 178	3 183						
WTG 02			20	39,24	71,8	0,00	5,60	7,60
WTG 02			25	35,88	75,2	0,06	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			32	31,35	77,1	0,10	5,20	9,20
WTG 02			40	26,38	78,3	0,16	5,00	10,30
WTG 02			50	22,42	80,3	0,22	4,70	11,50
WTG 02			63	20,69	84,6	0,35	4,30	13,00
WTG 02			80	17,13	87,3	0,51	3,70	14,80
WTG 02			100	12,35	88,9	0,80	3,00	16,80
WTG 02			125	8,33	91,5	1,21	1,80	18,80
WTG 02			160	2,93	93,5	1,81	0,00	21,10
WTG 02			200	-1,07	94,5	2,61	0,00	22,80
Sum								
Sum			20	47,47				
Sum			25	44,09				
Sum			32	39,79				
Sum			40	35,31				
Sum			50	31,33				
Sum			63	28,78				
Sum			80	25,35				
Sum			100	21,35				
Sum			125	17,48				
Sum			160	10,76				
Sum			200	6,63				

Noise sensitive area: M Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (161)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	6 534	6 536						
K 01			20	31,49	70,3	0,00	5,60	7,60
K 01			25	28,06	73,7	0,13	5,40	8,30
K 01			32	23,90	76,0	0,20	5,20	9,20
K 01			40	19,67	78,0	0,33	5,00	10,30
K 01			50	15,64	80,0	0,46	4,70	11,50
K 01			63	12,48	83,0	0,72	4,30	13,00
K 01			80	9,05	86,0	1,05	3,70	14,80
K 01			100	5,36	89,0	1,63	3,00	16,80
K 01			125	1,31	92,0	2,48	1,80	18,80
K 01			160	-6,73	92,0	3,73	0,00	21,10
K 01			200	-11,57	93,0	5,36	0,00	22,80
K 02	6 018	6 020						
K 02			20	32,21	70,3	0,00	5,60	7,60
K 02			25	28,79	73,7	0,12	5,40	8,30
K 02			32	24,63	76,0	0,18	5,20	9,20
K 02			40	20,41	78,0	0,30	5,00	10,30
K 02			50	16,39	80,0	0,42	4,70	11,50
K 02			63	13,25	83,0	0,66	4,30	13,00
K 02			80	9,84	86,0	0,96	3,70	14,80
K 02			100	6,20	89,0	1,51	3,00	16,80
K 02			125	2,22	92,0	2,29	1,80	18,80
K 02			160	-5,72	92,0	3,43	0,00	21,10
K 02			200	-10,43	93,0	4,94	0,00	22,80
K 03	5 385	5 388						
K 03			20	33,17	70,3	0,00	5,60	7,60
K 03			25	29,76	73,7	0,11	5,40	8,30
K 03			32	25,61	76,0	0,16	5,20	9,20
K 03			40	21,40	78,0	0,27	5,00	10,30
K 03			50	17,39	80,0	0,38	4,70	11,50
K 03			63	14,28	83,0	0,59	4,30	13,00
K 03			80	10,91	86,0	0,86	3,70	14,80
K 03			100	7,32	89,0	1,35	3,00	16,80
K 03			125	3,42	92,0	2,05	1,80	18,80
K 03			160	-4,40	92,0	3,07	0,00	21,10
K 03			200	-8,95	93,0	4,42	0,00	22,80
K 04	4 924	4 927						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			20	33,95	70,3	0,00	5,60	7,60
K 04			25	30,55	73,7	0,10	5,40	8,30
K 04			32	26,40	76,0	0,15	5,20	9,20
K 04			40	22,20	78,0	0,25	5,00	10,30
K 04			50	18,20	80,0	0,34	4,70	11,50
K 04			63	15,11	83,0	0,54	4,30	13,00
K 04			80	11,76	86,0	0,79	3,70	14,80
K 04			100	8,22	89,0	1,23	3,00	16,80
K 04			125	4,38	92,0	1,87	1,80	18,80
K 04			160	-3,36	92,0	2,81	0,00	21,10
K 04			200	-7,79	93,0	4,04	0,00	22,80
K 05	4 490	4 493	20	34,75	70,3	0,00	5,60	7,60
K 05			25	31,36	73,7	0,09	5,40	8,30
K 05			32	27,21	76,0	0,13	5,20	9,20
K 05			40	23,02	78,0	0,22	5,00	10,30
K 05			50	19,03	80,0	0,31	4,70	11,50
K 05			63	15,95	83,0	0,49	4,30	13,00
K 05			80	12,63	86,0	0,72	3,70	14,80
K 05			100	9,13	89,0	1,12	3,00	16,80
K 05			125	5,34	92,0	1,71	1,80	18,80
K 05			160	-2,31	92,0	2,56	0,00	21,10
K 05			200	-6,64	93,0	3,68	0,00	22,80
K 06	6 672	6 674	20	31,31	70,3	0,00	5,60	7,60
K 06			25	27,88	73,7	0,13	5,40	8,30
K 06			32	23,71	76,0	0,20	5,20	9,20
K 06			40	19,48	78,0	0,33	5,00	10,30
K 06			50	15,45	80,0	0,47	4,70	11,50
K 06			63	12,28	83,0	0,73	4,30	13,00
K 06			80	8,84	86,0	1,07	3,70	14,80
K 06			100	5,14	89,0	1,67	3,00	16,80
K 06			125	1,08	92,0	2,54	1,80	18,80
K 06			160	-6,99	92,0	3,80	0,00	21,10
K 06			200	-11,86	93,0	5,47	0,00	22,80
K 07	6 674	6 676	20	31,31	70,3	0,00	5,60	7,60
K 07			25	27,88	73,7	0,13	5,40	8,30
K 07			32	23,71	76,0	0,20	5,20	9,20
K 07			40	19,48	78,0	0,33	5,00	10,30
K 07			50	15,44	80,0	0,47	4,70	11,50
K 07			63	12,28	83,0	0,73	4,30	13,00
K 07			80	8,84	86,0	1,07	3,70	14,80
K 07			100	5,14	89,0	1,67	3,00	16,80
K 07			125	1,07	92,0	2,54	1,80	18,80
K 07			160	-7,00	92,0	3,81	0,00	21,10
K 07			200	-11,86	93,0	5,47	0,00	22,80
K 08	5 908	5 911	20	32,37	70,3	0,00	5,60	7,60
K 08			25	28,95	73,7	0,12	5,40	8,30
K 08			32	24,79	76,0	0,18	5,20	9,20
K 08			40	20,57	78,0	0,30	5,00	10,30
K 08			50	16,55	80,0	0,41	4,70	11,50
K 08			63	13,42	83,0	0,65	4,30	13,00
K 08			80	10,02	86,0	0,95	3,70	14,80
K 08			100	6,39	89,0	1,48	3,00	16,80
K 08			125	2,42	92,0	2,25	1,80	18,80
K 08			160	-5,50	92,0	3,37	0,00	21,10
K 08			200	-10,18	93,0	4,85	0,00	22,80
K 09	5 457	5 460	20	33,06	70,3	0,00	5,60	7,60
K 09			25	29,65	73,7	0,11	5,40	8,30
K 09			32	25,49	76,0	0,16	5,20	9,20
K 09			40	21,28	78,0	0,27	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 09			50	17,27	80,0	0,38	4,70	11,50
K 09			63	14,16	83,0	0,60	4,30	13,00
K 09			80	10,78	86,0	0,87	3,70	14,80
K 09			100	7,19	89,0	1,36	3,00	16,80
K 09			125	3,28	92,0	2,07	1,80	18,80
K 09			160	-4,56	92,0	3,11	0,00	21,10
K 09			200	-9,12	93,0	4,48	0,00	22,80
K 10	7 686	7 688						
K 10			20	30,08	70,3	0,00	5,60	7,60
K 10			25	26,63	73,7	0,15	5,40	8,30
K 10			32	22,45	76,0	0,23	5,20	9,20
K 10			40	18,20	78,0	0,38	5,00	10,30
K 10			50	14,15	80,0	0,54	4,70	11,50
K 10			63	10,94	83,0	0,85	4,30	13,00
K 10			80	7,45	86,0	1,23	3,70	14,80
K 10			100	3,66	89,0	1,92	3,00	16,80
K 10			125	-0,54	92,0	2,92	1,80	18,80
K 10			160	-8,80	92,0	4,38	0,00	21,10
K 10			200	-13,92	93,0	6,30	0,00	22,80
K 11	8 353	8 355						
K 11			20	29,36	70,3	0,00	5,60	7,60
K 11			25	25,89	73,7	0,17	5,40	8,30
K 11			32	21,71	76,0	0,25	5,20	9,20
K 11			40	17,44	78,0	0,42	5,00	10,30
K 11			50	13,38	80,0	0,58	4,70	11,50
K 11			63	10,14	83,0	0,92	4,30	13,00
K 11			80	6,62	86,0	1,34	3,70	14,80
K 11			100	2,77	89,0	2,09	3,00	16,80
K 11			125	-1,51	92,0	3,17	1,80	18,80
K 11			160	-9,90	92,0	4,76	0,00	21,10
K 11			200	-15,19	93,0	6,85	0,00	22,80
K 12	8 882	8 884						
K 12			20	28,83	70,3	0,00	5,60	7,60
K 12			25	25,35	73,7	0,18	5,40	8,30
K 12			32	21,16	76,0	0,27	5,20	9,20
K 12			40	16,88	78,0	0,44	5,00	10,30
K 12			50	12,81	80,0	0,62	4,70	11,50
K 12			63	9,55	83,0	0,98	4,30	13,00
K 12			80	6,01	86,0	1,42	3,70	14,80
K 12			100	2,11	89,0	2,22	3,00	16,80
K 12			125	-2,25	92,0	3,38	1,80	18,80
K 12			160	-10,74	92,0	5,06	0,00	21,10
K 12			200	-16,16	93,0	7,28	0,00	22,80
K 13	8 040	8 042						
K 13			20	29,69	70,3	0,00	5,60	7,60
K 13			25	26,23	73,7	0,16	5,40	8,30
K 13			32	22,05	76,0	0,24	5,20	9,20
K 13			40	17,79	78,0	0,40	5,00	10,30
K 13			50	13,73	80,0	0,56	4,70	11,50
K 13			63	10,51	83,0	0,88	4,30	13,00
K 13			80	7,01	86,0	1,29	3,70	14,80
K 13			100	3,18	89,0	2,01	3,00	16,80
K 13			125	-1,06	92,0	3,06	1,80	18,80
K 13			160	-9,39	92,0	4,58	0,00	21,10
K 13			200	-14,60	93,0	6,59	0,00	22,80
K 14	7 359	7 361						
K 14			20	30,46	70,3	0,00	5,60	7,60
K 14			25	27,01	73,7	0,15	5,40	8,30
K 14			32	22,84	76,0	0,22	5,20	9,20
K 14			40	18,59	78,0	0,37	5,00	10,30
K 14			50	14,55	80,0	0,52	4,70	11,50
K 14			63	11,35	83,0	0,81	4,30	13,00
K 14			80	7,88	86,0	1,18	3,70	14,80
K 14			100	4,12	89,0	1,84	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 14			125	-0,04	92,0	2,80	1,80	18,80
K 14			160	-8,23	92,0	4,20	0,00	21,10
K 14			200	-13,27	93,0	6,04	0,00	22,80
WTG 01	3 654	3 659						
WTG 01			20	38,03	71,8	0,00	5,60	7,60
WTG 01			25	34,66	75,2	0,07	5,40	8,30
WTG 01			32	30,12	77,1	0,11	5,20	9,20
WTG 01			40	25,15	78,3	0,18	5,00	10,30
WTG 01			50	21,18	80,3	0,26	4,70	11,50
WTG 01			63	19,43	84,6	0,40	4,30	13,00
WTG 01			80	15,85	87,3	0,59	3,70	14,80
WTG 01			100	11,02	88,9	0,91	3,00	16,80
WTG 01			125	6,94	91,5	1,39	1,80	18,80
WTG 01			160	1,45	93,5	2,09	0,00	21,10
WTG 01			200	-2,67	94,5	3,00	0,00	22,80
WTG 02	4 550	4 554						
WTG 02			20	36,13	71,8	0,00	5,60	7,60
WTG 02			25	32,74	75,2	0,09	5,40	8,30
WTG 02			32	28,19	77,1	0,14	5,20	9,20
WTG 02			40	23,20	78,3	0,23	5,00	10,30
WTG 02			50	19,21	80,3	0,32	4,70	11,50
WTG 02			63	17,43	84,6	0,50	4,30	13,00
WTG 02			80	13,80	87,3	0,73	3,70	14,80
WTG 02			100	8,89	88,9	1,14	3,00	16,80
WTG 02			125	4,70	91,5	1,73	1,80	18,80
WTG 02			160	-0,96	93,5	2,60	0,00	21,10
WTG 02			200	-5,30	94,5	3,73	0,00	22,80
Sum								
Sum			20	45,08				
Sum			25	41,67				
Sum			32	37,39				
Sum			40	32,95				
Sum			50	28,94				
Sum			63	26,22				
Sum			80	22,75				
Sum			100	18,74				
Sum			125	14,72				
Sum			160	7,56				
Sum			200	3,08				

Noise sensitive area: N Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (160)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	5 540	5 542						
K 01			20	32,93	70,3	0,00	5,60	7,60
K 01			25	29,52	73,7	0,11	5,40	8,30
K 01			32	25,36	76,0	0,17	5,20	9,20
K 01			40	21,15	78,0	0,28	5,00	10,30
K 01			50	17,14	80,0	0,39	4,70	11,50
K 01			63	14,02	83,0	0,61	4,30	13,00
K 01			80	10,64	86,0	0,89	3,70	14,80
K 01			100	7,04	89,0	1,39	3,00	16,80
K 01			125	3,12	92,0	2,11	1,80	18,80
K 01			160	-4,73	92,0	3,16	0,00	21,10
K 01			200	-9,32	93,0	4,54	0,00	22,80
K 02	5 195	5 198						
K 02			20	33,48	70,3	0,00	5,60	7,60
K 02			25	30,08	73,7	0,10	5,40	8,30
K 02			32	25,93	76,0	0,16	5,20	9,20
K 02			40	21,72	78,0	0,26	5,00	10,30
K 02			50	17,72	80,0	0,36	4,70	11,50
K 02			63	14,61	83,0	0,57	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 02			80	11,25	86,0	0,83	3,70	14,80
K 02			100	7,68	89,0	1,30	3,00	16,80
K 02			125	3,81	92,0	1,98	1,80	18,80
K 02			160	-3,98	92,0	2,96	0,00	21,10
K 02			200	-8,48	93,0	4,26	0,00	22,80
K 03	5 102	5 104						
K 03			20	33,64	70,3	0,00	5,60	7,60
K 03			25	30,24	73,7	0,10	5,40	8,30
K 03			32	26,09	76,0	0,15	5,20	9,20
K 03			40	21,89	78,0	0,26	5,00	10,30
K 03			50	17,88	80,0	0,36	4,70	11,50
K 03			63	14,78	83,0	0,56	4,30	13,00
K 03			80	11,42	86,0	0,82	3,70	14,80
K 03			100	7,87	89,0	1,28	3,00	16,80
K 03			125	4,00	92,0	1,94	1,80	18,80
K 03			160	-3,77	92,0	2,91	0,00	21,10
K 03			200	-8,24	93,0	4,19	0,00	22,80
K 04	4 417	4 420						
K 04			20	34,89	70,3	0,00	5,60	7,60
K 04			25	31,50	73,7	0,09	5,40	8,30
K 04			32	27,36	76,0	0,13	5,20	9,20
K 04			40	23,17	78,0	0,22	5,00	10,30
K 04			50	19,18	80,0	0,31	4,70	11,50
K 04			63	16,11	83,0	0,49	4,30	13,00
K 04			80	12,78	86,0	0,71	3,70	14,80
K 04			100	9,29	89,0	1,10	3,00	16,80
K 04			125	5,51	92,0	1,68	1,80	18,80
K 04			160	-2,13	92,0	2,52	0,00	21,10
K 04			200	-6,43	93,0	3,62	0,00	22,80
K 05	5 052	5 054						
K 05			20	33,73	70,3	0,00	5,60	7,60
K 05			25	30,33	73,7	0,10	5,40	8,30
K 05			32	26,18	76,0	0,15	5,20	9,20
K 05			40	21,97	78,0	0,25	5,00	10,30
K 05			50	17,97	80,0	0,35	4,70	11,50
K 05			63	14,87	83,0	0,56	4,30	13,00
K 05			80	11,52	86,0	0,81	3,70	14,80
K 05			100	7,96	89,0	1,26	3,00	16,80
K 05			125	4,11	92,0	1,92	1,80	18,80
K 05			160	-3,65	92,0	2,88	0,00	21,10
K 05			200	-8,12	93,0	4,14	0,00	22,80
K 06	4 728	4 731						
K 06			20	34,30	70,3	0,00	5,60	7,60
K 06			25	30,91	73,7	0,09	5,40	8,30
K 06			32	26,76	76,0	0,14	5,20	9,20
K 06			40	22,56	78,0	0,24	5,00	10,30
K 06			50	18,57	80,0	0,33	4,70	11,50
K 06			63	15,48	83,0	0,52	4,30	13,00
K 06			80	12,14	86,0	0,76	3,70	14,80
K 06			100	8,62	89,0	1,18	3,00	16,80
K 06			125	4,80	92,0	1,80	1,80	18,80
K 06			160	-2,90	92,0	2,70	0,00	21,10
K 06			200	-7,28	93,0	3,88	0,00	22,80
K 07	4 130	4 133						
K 07			20	35,47	70,3	0,00	5,60	7,60
K 07			25	32,09	73,7	0,08	5,40	8,30
K 07			32	27,95	76,0	0,12	5,20	9,20
K 07			40	23,77	78,0	0,21	5,00	10,30
K 07			50	19,79	80,0	0,29	4,70	11,50
K 07			63	16,72	83,0	0,45	4,30	13,00
K 07			80	13,41	86,0	0,66	3,70	14,80
K 07			100	9,94	89,0	1,03	3,00	16,80
K 07			125	6,20	92,0	1,57	1,80	18,80
K 07			160	-1,38	92,0	2,36	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			200	-5,61	93,0	3,39	0,00	22,80
K 08	4 416	4 419						
K 08			20	34,89	70,3	0,00	5,60	7,60
K 08			25	31,51	73,7	0,09	5,40	8,30
K 08			32	27,36	76,0	0,13	5,20	9,20
K 08			40	23,17	78,0	0,22	5,00	10,30
K 08			50	19,18	80,0	0,31	4,70	11,50
K 08			63	16,11	83,0	0,49	4,30	13,00
K 08			80	12,79	86,0	0,71	3,70	14,80
K 08			100	9,29	89,0	1,10	3,00	16,80
K 08			125	5,52	92,0	1,68	1,80	18,80
K 08			160	-2,12	92,0	2,52	0,00	21,10
K 08			200	-6,43	93,0	3,62	0,00	22,80
K 09	4 287	4 290						
K 09			20	35,15	70,3	0,00	5,60	7,60
K 09			25	31,76	73,7	0,09	5,40	8,30
K 09			32	27,62	76,0	0,13	5,20	9,20
K 09			40	23,44	78,0	0,21	5,00	10,30
K 09			50	19,45	80,0	0,30	4,70	11,50
K 09			63	16,38	83,0	0,47	4,30	13,00
K 09			80	13,06	86,0	0,69	3,70	14,80
K 09			100	9,58	89,0	1,07	3,00	16,80
K 09			125	5,82	92,0	1,63	1,80	18,80
K 09			160	-1,79	92,0	2,45	0,00	21,10
K 09			200	-6,07	93,0	3,52	0,00	22,80
K 10	6 388	6 390						
K 10			20	31,69	70,3	0,00	5,60	7,60
K 10			25	28,26	73,7	0,13	5,40	8,30
K 10			32	24,10	76,0	0,19	5,20	9,20
K 10			40	19,87	78,0	0,32	5,00	10,30
K 10			50	15,84	80,0	0,45	4,70	11,50
K 10			63	12,69	83,0	0,70	4,30	13,00
K 10			80	9,27	86,0	1,02	3,70	14,80
K 10			100	5,59	89,0	1,60	3,00	16,80
K 10			125	1,56	92,0	2,43	1,80	18,80
K 10			160	-6,45	92,0	3,64	0,00	21,10
K 10			200	-11,25	93,0	5,24	0,00	22,80
K 11	6 712	6 714						
K 11			20	31,26	70,3	0,00	5,60	7,60
K 11			25	27,83	73,7	0,13	5,40	8,30
K 11			32	23,66	76,0	0,20	5,20	9,20
K 11			40	19,43	78,0	0,34	5,00	10,30
K 11			50	15,39	80,0	0,47	4,70	11,50
K 11			63	12,22	83,0	0,74	4,30	13,00
K 11			80	8,79	86,0	1,07	3,70	14,80
K 11			100	5,08	89,0	1,68	3,00	16,80
K 11			125	1,01	92,0	2,55	1,80	18,80
K 11			160	-7,07	92,0	3,83	0,00	21,10
K 11			200	-11,94	93,0	5,51	0,00	22,80
K 12	6 544	6 546						
K 12			20	31,48	70,3	0,00	5,60	7,60
K 12			25	28,05	73,7	0,13	5,40	8,30
K 12			32	23,88	76,0	0,20	5,20	9,20
K 12			40	19,65	78,0	0,33	5,00	10,30
K 12			50	15,62	80,0	0,46	4,70	11,50
K 12			63	12,46	83,0	0,72	4,30	13,00
K 12			80	9,03	86,0	1,05	3,70	14,80
K 12			100	5,34	89,0	1,64	3,00	16,80
K 12			125	1,29	92,0	2,49	1,80	18,80
K 12			160	-6,75	92,0	3,73	0,00	21,10
K 12			200	-11,59	93,0	5,37	0,00	22,80
K 13	5 779	5 781						
K 13			20	32,56	70,3	0,00	5,60	7,60
K 13			25	29,14	73,7	0,12	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG								
No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			32	24,99	76,0	0,17	5,20	9,20
K 13			40	20,77	78,0	0,29	5,00	10,30
K 13			50	16,76	80,0	0,40	4,70	11,50
K 13			63	13,62	83,0	0,64	4,30	13,00
K 13			80	10,23	86,0	0,92	3,70	14,80
K 13			100	6,61	89,0	1,45	3,00	16,80
K 13			125	2,66	92,0	2,20	1,80	18,80
K 13			160	-5,24	92,0	3,30	0,00	21,10
K 13			200	-9,88	93,0	4,74	0,00	22,80
K 14	5 478	5 480						
K 14			20	33,02	70,3	0,00	5,60	7,60
K 14			25	29,61	73,7	0,11	5,40	8,30
K 14			32	25,46	76,0	0,16	5,20	9,20
K 14			40	21,25	78,0	0,27	5,00	10,30
K 14			50	17,24	80,0	0,38	4,70	11,50
K 14			63	14,12	83,0	0,60	4,30	13,00
K 14			80	10,75	86,0	0,88	3,70	14,80
K 14			100	7,15	89,0	1,37	3,00	16,80
K 14			125	3,24	92,0	2,08	1,80	18,80
K 14			160	-4,60	92,0	3,12	0,00	21,10
K 14			200	-9,17	93,0	4,49	0,00	22,80
WTG 01	4 341	4 345						
WTG 01			20	36,54	71,8	0,00	5,60	7,60
WTG 01			25	33,15	75,2	0,09	5,40	8,30
WTG 01			32	28,61	77,1	0,13	5,20	9,20
WTG 01			40	23,62	78,3	0,22	5,00	10,30
WTG 01			50	19,64	80,3	0,30	4,70	11,50
WTG 01			63	17,86	84,6	0,48	4,30	13,00
WTG 01			80	14,25	87,3	0,70	3,70	14,80
WTG 01			100	9,35	88,9	1,09	3,00	16,80
WTG 01			125	5,19	91,5	1,65	1,80	18,80
WTG 01			160	-0,44	93,5	2,48	0,00	21,10
WTG 01			200	-4,72	94,5	3,56	0,00	22,80
WTG 02	3 995	3 999						
WTG 02			20	37,26	71,8	0,00	5,60	7,60
WTG 02			25	33,88	75,2	0,08	5,40	8,30
WTG 02			32	29,34	77,1	0,12	5,20	9,20
WTG 02			40	24,36	78,3	0,20	5,00	10,30
WTG 02			50	20,38	80,3	0,28	4,70	11,50
WTG 02			63	18,62	84,6	0,44	4,30	13,00
WTG 02			80	15,02	87,3	0,64	3,70	14,80
WTG 02			100	10,16	88,9	1,00	3,00	16,80
WTG 02			125	6,04	91,5	1,52	1,80	18,80
WTG 02			160	0,48	93,5	2,28	0,00	21,10
WTG 02			200	-3,72	94,5	3,28	0,00	22,80
Sum								
Sum			20	46,27				
Sum			25	42,88				
Sum			32	38,64				
Sum			40	34,28				
Sum			50	30,28				
Sum			63	27,47				
Sum			80	24,05				
Sum			100	20,23				
Sum			125	16,33				
Sum			160	9,04				
Sum			200	4,66				

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

Noise sensitive area: O Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (159)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	4 780	4 782						
K 01			20	34,21	70,3	0,00	5,60	7,60
K 01			25	30,81	73,7	0,10	5,40	8,30
K 01			32	26,66	76,0	0,14	5,20	9,20
K 01			40	22,47	78,0	0,24	5,00	10,30
K 01			50	18,47	80,0	0,33	4,70	11,50
K 01			63	15,38	83,0	0,53	4,30	13,00
K 01			80	12,04	86,0	0,77	3,70	14,80
K 01			100	8,51	89,0	1,20	3,00	16,80
K 01			125	4,69	92,0	1,82	1,80	18,80
K 01			160	-3,02	92,0	2,73	0,00	21,10
K 01			200	-7,41	93,0	3,92	0,00	22,80
K 02	4 228	4 231						
K 02			20	35,27	70,3	0,00	5,60	7,60
K 02			25	31,89	73,7	0,08	5,40	8,30
K 02			32	27,74	76,0	0,13	5,20	9,20
K 02			40	23,56	78,0	0,21	5,00	10,30
K 02			50	19,58	80,0	0,30	4,70	11,50
K 02			63	16,51	83,0	0,47	4,30	13,00
K 02			80	13,19	86,0	0,68	3,70	14,80
K 02			100	9,71	89,0	1,06	3,00	16,80
K 02			125	5,96	92,0	1,61	1,80	18,80
K 02			160	-1,64	92,0	2,41	0,00	21,10
K 02			200	-5,90	93,0	3,47	0,00	22,80
K 03	3 650	3 653						
K 03			20	36,55	70,3	0,00	5,60	7,60
K 03			25	33,17	73,7	0,07	5,40	8,30
K 03			32	29,04	76,0	0,11	5,20	9,20
K 03			40	24,86	78,0	0,18	5,00	10,30
K 03			50	20,89	80,0	0,26	4,70	11,50
K 03			63	17,85	83,0	0,40	4,30	13,00
K 03			80	14,56	86,0	0,58	3,70	14,80
K 03			100	11,13	89,0	0,91	3,00	16,80
K 03			125	7,46	92,0	1,39	1,80	18,80
K 03			160	-0,03	92,0	2,08	0,00	21,10
K 03			200	-4,15	93,0	3,00	0,00	22,80
K 04	2 960	2 964						
K 04			20	38,36	70,3	0,00	5,60	7,60
K 04			25	35,00	73,7	0,06	5,40	8,30
K 04			32	30,87	76,0	0,09	5,20	9,20
K 04			40	26,72	78,0	0,15	5,00	10,30
K 04			50	22,76	80,0	0,21	4,70	11,50
K 04			63	19,74	83,0	0,33	4,30	13,00
K 04			80	16,49	86,0	0,47	3,70	14,80
K 04			100	13,12	89,0	0,74	3,00	16,80
K 04			125	9,54	92,0	1,13	1,80	18,80
K 04			160	2,17	92,0	1,69	0,00	21,10
K 04			200	-1,77	93,0	2,43	0,00	22,80
K 05	2 845	2 849						
K 05			20	38,71	70,3	0,00	5,60	7,60
K 05			25	35,35	73,7	0,06	5,40	8,30
K 05			32	31,22	76,0	0,09	5,20	9,20
K 05			40	27,06	78,0	0,14	5,00	10,30
K 05			50	23,11	80,0	0,20	4,70	11,50
K 05			63	20,09	83,0	0,31	4,30	13,00
K 05			80	16,85	86,0	0,46	3,70	14,80
K 05			100	13,49	89,0	0,71	3,00	16,80
K 05			125	9,92	92,0	1,08	1,80	18,80
K 05			160	2,58	92,0	1,62	0,00	21,10
K 05			200	-1,33	93,0	2,34	0,00	22,80
K 06	4 652	4 654						
K 06			20	34,44	70,3	0,00	5,60	7,60
K 06			25	31,05	73,7	0,09	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 06			32	26,90	76,0	0,14	5,20	9,20
K 06			40	22,71	78,0	0,23	5,00	10,30
K 06			50	18,72	80,0	0,33	4,70	11,50
K 06			63	15,63	83,0	0,51	4,30	13,00
K 06			80	12,30	86,0	0,74	3,70	14,80
K 06			100	8,78	89,0	1,16	3,00	16,80
K 06			125	4,97	92,0	1,77	1,80	18,80
K 06			160	-2,71	92,0	2,65	0,00	21,10
K 06			200	-7,07	93,0	3,82	0,00	22,80
K 07	4 504	4 506						
K 07			20	34,72	70,3	0,00	5,60	7,60
K 07			25	31,33	73,7	0,09	5,40	8,30
K 07			32	27,19	76,0	0,14	5,20	9,20
K 07			40	23,00	78,0	0,23	5,00	10,30
K 07			50	19,01	80,0	0,32	4,70	11,50
K 07			63	15,93	83,0	0,50	4,30	13,00
K 07			80	12,60	86,0	0,72	3,70	14,80
K 07			100	9,10	89,0	1,13	3,00	16,80
K 07			125	5,31	92,0	1,71	1,80	18,80
K 07			160	-2,35	92,0	2,57	0,00	21,10
K 07			200	-6,67	93,0	3,70	0,00	22,80
K 08	3 878	3 880						
K 08			20	36,02	70,3	0,00	5,60	7,60
K 08			25	32,65	73,7	0,08	5,40	8,30
K 08			32	28,51	76,0	0,12	5,20	9,20
K 08			40	24,33	78,0	0,19	5,00	10,30
K 08			50	20,35	80,0	0,27	4,70	11,50
K 08			63	17,30	83,0	0,43	4,30	13,00
K 08			80	14,00	86,0	0,62	3,70	14,80
K 08			100	10,55	89,0	0,97	3,00	16,80
K 08			125	6,85	92,0	1,47	1,80	18,80
K 08			160	-0,69	92,0	2,21	0,00	21,10
K 08			200	-4,86	93,0	3,18	0,00	22,80
K 09	3 419	3 422						
K 09			20	37,11	70,3	0,00	5,60	7,60
K 09			25	33,75	73,7	0,07	5,40	8,30
K 09			32	29,61	76,0	0,10	5,20	9,20
K 09			40	25,44	78,0	0,17	5,00	10,30
K 09			50	21,47	80,0	0,24	4,70	11,50
K 09			63	18,44	83,0	0,38	4,30	13,00
K 09			80	15,17	86,0	0,55	3,70	14,80
K 09			100	11,76	89,0	0,86	3,00	16,80
K 09			125	8,11	92,0	1,30	1,80	18,80
K 09			160	0,66	92,0	1,95	0,00	21,10
K 09			200	-3,39	93,0	2,81	0,00	22,80
K 10	5 991	5 992						
K 10			20	32,25	70,3	0,00	5,60	7,60
K 10			25	28,83	73,7	0,12	5,40	8,30
K 10			32	24,67	76,0	0,18	5,20	9,20
K 10			40	20,45	78,0	0,30	5,00	10,30
K 10			50	16,43	80,0	0,42	4,70	11,50
K 10			63	13,29	83,0	0,66	4,30	13,00
K 10			80	9,89	86,0	0,96	3,70	14,80
K 10			100	6,25	89,0	1,50	3,00	16,80
K 10			125	2,27	92,0	2,28	1,80	18,80
K 10			160	-5,67	92,0	3,42	0,00	21,10
K 10			200	-10,37	93,0	4,91	0,00	22,80
K 11	6 620	6 621						
K 11			20	31,38	70,3	0,00	5,60	7,60
K 11			25	27,95	73,7	0,13	5,40	8,30
K 11			32	23,78	76,0	0,20	5,20	9,20
K 11			40	19,55	78,0	0,33	5,00	10,30
K 11			50	15,52	80,0	0,46	4,70	11,50
K 11			63	12,35	83,0	0,73	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG	No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
	K 11			80	8,92	86,0	1,06	3,70	14,80
	K 11			100	5,23	89,0	1,66	3,00	16,80
	K 11			125	1,17	92,0	2,52	1,80	18,80
	K 11			160	-6,89	92,0	3,77	0,00	21,10
	K 11			200	-11,75	93,0	5,43	0,00	22,80
	K 12	6 996	6 997						
	K 12			20	30,90	70,3	0,00	5,60	7,60
	K 12			25	27,46	73,7	0,14	5,40	8,30
	K 12			32	23,29	76,0	0,21	5,20	9,20
	K 12			40	19,05	78,0	0,35	5,00	10,30
	K 12			50	15,01	80,0	0,49	4,70	11,50
	K 12			63	11,83	83,0	0,77	4,30	13,00
	K 12			80	8,38	86,0	1,12	3,70	14,80
	K 12			100	4,65	89,0	1,75	3,00	16,80
	K 12			125	0,54	92,0	2,66	1,80	18,80
	K 12			160	-7,59	92,0	3,99	0,00	21,10
	K 12			200	-12,54	93,0	5,74	0,00	22,80
	K 13	6 102	6 104						
	K 13			20	32,09	70,3	0,00	5,60	7,60
	K 13			25	28,67	73,7	0,12	5,40	8,30
	K 13			32	24,50	76,0	0,18	5,20	9,20
	K 13			40	20,28	78,0	0,31	5,00	10,30
	K 13			50	16,26	80,0	0,43	4,70	11,50
	K 13			63	13,12	83,0	0,67	4,30	13,00
	K 13			80	9,71	86,0	0,98	3,70	14,80
	K 13			100	6,06	89,0	1,53	3,00	16,80
	K 13			125	2,07	92,0	2,32	1,80	18,80
	K 13			160	-5,89	92,0	3,48	0,00	21,10
	K 13			200	-10,62	93,0	5,01	0,00	22,80
	K 14	5 451	5 453						
	K 14			20	33,07	70,3	0,00	5,60	7,60
	K 14			25	29,66	73,7	0,11	5,40	8,30
	K 14			32	25,50	76,0	0,16	5,20	9,20
	K 14			40	21,29	78,0	0,27	5,00	10,30
	K 14			50	17,29	80,0	0,38	4,70	11,50
	K 14			63	14,17	83,0	0,60	4,30	13,00
	K 14			80	10,80	86,0	0,87	3,70	14,80
	K 14			100	7,20	89,0	1,36	3,00	16,80
	K 14			125	3,30	92,0	2,07	1,80	18,80
	K 14			160	-4,54	92,0	3,11	0,00	21,10
	K 14			200	-9,10	93,0	4,47	0,00	22,80
	WTG 01	1 622	1 630						
	WTG 01			20	45,05	71,8	0,00	5,60	7,60
	WTG 01			25	41,72	75,2	0,03	5,40	8,30
	WTG 01			32	37,21	77,1	0,05	5,20	9,20
	WTG 01			40	32,27	78,3	0,08	5,00	10,30
	WTG 01			50	28,34	80,3	0,11	4,70	11,50
	WTG 01			63	26,67	84,6	0,18	4,30	13,00
	WTG 01			80	23,19	87,3	0,26	3,70	14,80
	WTG 01			100	18,55	88,9	0,41	3,00	16,80
	WTG 01			125	14,73	91,5	0,62	1,80	18,80
	WTG 01			160	9,62	93,5	0,93	0,00	21,10
	WTG 01			200	6,02	94,5	1,34	0,00	22,80
	WTG 02	2 420	2 425						
	WTG 02			20	41,60	71,8	0,00	5,60	7,60
	WTG 02			25	38,26	75,2	0,05	5,40	8,30
	WTG 02			32	33,73	77,1	0,07	5,20	9,20
	WTG 02			40	28,78	78,3	0,12	5,00	10,30
	WTG 02			50	24,83	80,3	0,17	4,70	11,50
	WTG 02			63	23,14	84,6	0,27	4,30	13,00
	WTG 02			80	19,62	87,3	0,39	3,70	14,80
	WTG 02			100	14,90	88,9	0,61	3,00	16,80
	WTG 02			125	10,98	91,5	0,92	1,80	18,80
	WTG 02			160	5,72	93,5	1,38	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			200	1,92	94,5	1,99	0,00	22,80
Sum			20	49,74				
Sum			25	46,38				
Sum			32	42,05				
Sum			40	37,53				
Sum			50	33,57				
Sum			63	31,16				
Sum			80	27,76				
Sum			100	23,74				
Sum			125	19,97				
Sum			160	13,61				
Sum			200	9,73				

Noise sensitive area: P Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (158)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	4 586	4 588	20	34,57	70,3	0,00	5,60	7,60
K 01			25	31,18	73,7	0,09	5,40	8,30
K 01			32	27,03	76,0	0,14	5,20	9,20
K 01			40	22,84	78,0	0,23	5,00	10,30
K 01			50	18,85	80,0	0,32	4,70	11,50
K 01			63	15,76	83,0	0,50	4,30	13,00
K 01			80	12,43	86,0	0,73	3,70	14,80
K 01			100	8,92	89,0	1,15	3,00	16,80
K 01			125	5,12	92,0	1,74	1,80	18,80
K 01			160	-2,55	92,0	2,62	0,00	21,10
K 01			200	-6,90	93,0	3,76	0,00	22,80
K 02	4 097	4 100	20	35,54	70,3	0,00	5,60	7,60
K 02			25	32,16	73,7	0,08	5,40	8,30
K 02			32	28,02	76,0	0,12	5,20	9,20
K 02			40	23,84	78,0	0,21	5,00	10,30
K 02			50	19,86	80,0	0,29	4,70	11,50
K 02			63	16,79	83,0	0,45	4,30	13,00
K 02			80	13,49	86,0	0,66	3,70	14,80
K 02			100	10,02	89,0	1,03	3,00	16,80
K 02			125	6,29	92,0	1,56	1,80	18,80
K 02			160	-1,29	92,0	2,34	0,00	21,10
K 02			200	-5,52	93,0	3,36	0,00	22,80
K 03	3 758	3 761	20	36,29	70,3	0,00	5,60	7,60
K 03			25	32,92	73,7	0,08	5,40	8,30
K 03			32	28,78	76,0	0,11	5,20	9,20
K 03			40	24,61	78,0	0,19	5,00	10,30
K 03			50	20,63	80,0	0,26	4,70	11,50
K 03			63	17,58	83,0	0,41	4,30	13,00
K 03			80	14,29	86,0	0,60	3,70	14,80
K 03			100	10,85	89,0	0,94	3,00	16,80
K 03			125	7,17	92,0	1,43	1,80	18,80
K 03			160	-0,35	92,0	2,14	0,00	21,10
K 03			200	-4,49	93,0	3,08	0,00	22,80
K 04	2 949	2 953	20	38,39	70,3	0,00	5,60	7,60
K 04			25	35,03	73,7	0,06	5,40	8,30
K 04			32	30,91	76,0	0,09	5,20	9,20
K 04			40	26,75	78,0	0,15	5,00	10,30
K 04			50	22,79	80,0	0,21	4,70	11,50
K 04			63	19,77	83,0	0,32	4,30	13,00
K 04			80	16,52	86,0	0,47	3,70	14,80
K 04			100	13,16	89,0	0,74	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			125	9,57	92,0	1,12	1,80	18,80
K 04			160	2,21	92,0	1,68	0,00	21,10
K 04			200	-1,73	93,0	2,42	0,00	22,80
K 05	3 374	3 378						
K 05			20	37,23	70,3	0,00	5,60	7,60
K 05			25	33,86	73,7	0,07	5,40	8,30
K 05			32	29,73	76,0	0,10	5,20	9,20
K 05			40	25,56	78,0	0,17	5,00	10,30
K 05			50	21,59	80,0	0,24	4,70	11,50
K 05			63	18,56	83,0	0,37	4,30	13,00
K 05			80	15,29	86,0	0,54	3,70	14,80
K 05			100	11,88	89,0	0,84	3,00	16,80
K 05			125	8,24	92,0	1,28	1,80	18,80
K 05			160	0,80	92,0	1,93	0,00	21,10
K 05			200	-3,24	93,0	2,77	0,00	22,80
K 06	4 038	4 041						
K 06			20	35,67	70,3	0,00	5,60	7,60
K 06			25	32,29	73,7	0,08	5,40	8,30
K 06			32	28,15	76,0	0,12	5,20	9,20
K 06			40	23,97	78,0	0,20	5,00	10,30
K 06			50	19,99	80,0	0,28	4,70	11,50
K 06			63	16,93	83,0	0,44	4,30	13,00
K 06			80	13,62	86,0	0,65	3,70	14,80
K 06			100	10,16	89,0	1,01	3,00	16,80
K 06			125	6,43	92,0	1,54	1,80	18,80
K 06			160	-1,13	92,0	2,30	0,00	21,10
K 06			200	-5,34	93,0	3,31	0,00	22,80
K 07	3 610	3 614						
K 07			20	36,64	70,3	0,00	5,60	7,60
K 07			25	33,27	73,7	0,07	5,40	8,30
K 07			32	29,13	76,0	0,11	5,20	9,20
K 07			40	24,96	78,0	0,18	5,00	10,30
K 07			50	20,99	80,0	0,25	4,70	11,50
K 07			63	17,94	83,0	0,40	4,30	13,00
K 07			80	14,66	86,0	0,58	3,70	14,80
K 07			100	11,24	89,0	0,90	3,00	16,80
K 07			125	7,57	92,0	1,37	1,80	18,80
K 07			160	0,08	92,0	2,06	0,00	21,10
K 07			200	-4,02	93,0	2,96	0,00	22,80
K 08	3 420	3 423						
K 08			20	37,11	70,3	0,00	5,60	7,60
K 08			25	33,74	73,7	0,07	5,40	8,30
K 08			32	29,61	76,0	0,10	5,20	9,20
K 08			40	25,44	78,0	0,17	5,00	10,30
K 08			50	21,47	80,0	0,24	4,70	11,50
K 08			63	18,43	83,0	0,38	4,30	13,00
K 08			80	15,16	86,0	0,55	3,70	14,80
K 08			100	11,76	89,0	0,86	3,00	16,80
K 08			125	8,11	92,0	1,30	1,80	18,80
K 08			160	0,66	92,0	1,95	0,00	21,10
K 08			200	-3,40	93,0	2,81	0,00	22,80
K 09	3 088	3 091						
K 09			20	38,00	70,3	0,00	5,60	7,60
K 09			25	34,64	73,7	0,06	5,40	8,30
K 09			32	30,50	76,0	0,09	5,20	9,20
K 09			40	26,34	78,0	0,15	5,00	10,30
K 09			50	22,38	80,0	0,22	4,70	11,50
K 09			63	19,36	83,0	0,34	4,30	13,00
K 09			80	16,10	86,0	0,49	3,70	14,80
K 09			100	12,72	89,0	0,77	3,00	16,80
K 09			125	9,12	92,0	1,17	1,80	18,80
K 09			160	1,73	92,0	1,76	0,00	21,10
K 09			200	-2,24	93,0	2,53	0,00	22,80
K 10	5 693	5 695						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG								
No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			20	32,69	70,3	0,00	5,60	7,60
K 10			25	29,28	73,7	0,11	5,40	8,30
K 10			32	25,12	76,0	0,17	5,20	9,20
K 10			40	20,91	78,0	0,28	5,00	10,30
K 10			50	16,89	80,0	0,40	4,70	11,50
K 10			63	13,76	83,0	0,63	4,30	13,00
K 10			80	10,38	86,0	0,91	3,70	14,80
K 10			100	6,77	89,0	1,42	3,00	16,80
K 10			125	2,83	92,0	2,16	1,80	18,80
K 10			160	-5,06	92,0	3,25	0,00	21,10
K 10			200	-9,68	93,0	4,67	0,00	22,80
K 11	6 197	6 199	20	31,95	70,3	0,00	5,60	7,60
K 11			25	28,53	73,7	0,12	5,40	8,30
K 11			32	24,37	76,0	0,19	5,20	9,20
K 11			40	20,14	78,0	0,31	5,00	10,30
K 11			50	16,12	80,0	0,43	4,70	11,50
K 11			63	12,97	83,0	0,68	4,30	13,00
K 11			80	9,56	86,0	0,99	3,70	14,80
K 11			100	5,90	89,0	1,55	3,00	16,80
K 11			125	1,90	92,0	2,36	1,80	18,80
K 11			160	-6,08	92,0	3,53	0,00	21,10
K 11			200	-10,83	93,0	5,08	0,00	22,80
K 12	6 309	6 311	20	31,80	70,3	0,00	5,60	7,60
K 12			25	28,37	73,7	0,13	5,40	8,30
K 12			32	24,21	76,0	0,19	5,20	9,20
K 12			40	19,98	78,0	0,32	5,00	10,30
K 12			50	15,96	80,0	0,44	4,70	11,50
K 12			63	12,80	83,0	0,69	4,30	13,00
K 12			80	9,39	86,0	1,01	3,70	14,80
K 12			100	5,72	89,0	1,58	3,00	16,80
K 12			125	1,70	92,0	2,40	1,80	18,80
K 12			160	-6,30	92,0	3,60	0,00	21,10
K 12			200	-11,08	93,0	5,18	0,00	22,80
K 13	5 421	5 423	20	33,11	70,3	0,00	5,60	7,60
K 13			25	29,71	73,7	0,11	5,40	8,30
K 13			32	25,55	76,0	0,16	5,20	9,20
K 13			40	21,34	78,0	0,27	5,00	10,30
K 13			50	17,33	80,0	0,38	4,70	11,50
K 13			63	14,22	83,0	0,60	4,30	13,00
K 13			80	10,85	86,0	0,87	3,70	14,80
K 13			100	7,26	89,0	1,36	3,00	16,80
K 13			125	3,35	92,0	2,06	1,80	18,80
K 13			160	-4,48	92,0	3,09	0,00	21,10
K 13			200	-9,03	93,0	4,45	0,00	22,80
K 14	4 902	4 904	20	33,99	70,3	0,00	5,60	7,60
K 14			25	30,59	73,7	0,10	5,40	8,30
K 14			32	26,44	76,0	0,15	5,20	9,20
K 14			40	22,24	78,0	0,25	5,00	10,30
K 14			50	18,25	80,0	0,34	4,70	11,50
K 14			63	15,15	83,0	0,54	4,30	13,00
K 14			80	11,80	86,0	0,78	3,70	14,80
K 14			100	8,26	89,0	1,23	3,00	16,80
K 14			125	4,42	92,0	1,86	1,80	18,80
K 14			160	-3,31	92,0	2,80	0,00	21,10
K 14			200	-7,73	93,0	4,02	0,00	22,80
WTG 01	2 348	2 355	20	41,86	71,8	0,00	5,60	7,60
WTG 01			25	38,51	75,2	0,05	5,40	8,30
WTG 01			32	33,99	77,1	0,07	5,20	9,20
WTG 01			40	29,04	78,3	0,12	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 01			50	25,10	80,3	0,16	4,70	11,50
WTG 01			63	23,40	84,6	0,26	4,30	13,00
WTG 01			80	19,88	87,3	0,38	3,70	14,80
WTG 01			100	15,17	88,9	0,59	3,00	16,80
WTG 01			125	11,27	91,5	0,89	1,80	18,80
WTG 01			160	6,02	93,5	1,34	0,00	21,10
WTG 01			200	2,23	94,5	1,93	0,00	22,80
WTG 02	2 360	2 366						
WTG 02			20	41,82	71,8	0,00	5,60	7,60
WTG 02			25	38,47	75,2	0,05	5,40	8,30
WTG 02			32	33,95	77,1	0,07	5,20	9,20
WTG 02			40	29,00	78,3	0,12	5,00	10,30
WTG 02			50	25,05	80,3	0,17	4,70	11,50
WTG 02			63	23,36	84,6	0,26	4,30	13,00
WTG 02			80	19,84	87,3	0,38	3,70	14,80
WTG 02			100	15,13	88,9	0,59	3,00	16,80
WTG 02			125	11,22	91,5	0,90	1,80	18,80
WTG 02			160	5,97	93,5	1,35	0,00	21,10
WTG 02			200	2,18	94,5	1,94	0,00	22,80
Sum								
Sum			20	49,17				
Sum			25	45,81				
Sum			32	41,53				
Sum			40	37,10				
Sum			50	33,13				
Sum			63	30,55				
Sum			80	27,17				
Sum			100	23,29				
Sum			125	19,53				
Sum			160	12,81				
Sum			200	8,82				

Noise sensitive area: Q Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (157)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	5 124	5 127						
K 01			20	33,60	70,3	0,00	5,60	7,60
K 01			25	30,20	73,7	0,10	5,40	8,30
K 01			32	26,05	76,0	0,15	5,20	9,20
K 01			40	21,85	78,0	0,26	5,00	10,30
K 01			50	17,84	80,0	0,36	4,70	11,50
K 01			63	14,74	83,0	0,56	4,30	13,00
K 01			80	11,38	86,0	0,82	3,70	14,80
K 01			100	7,82	89,0	1,28	3,00	16,80
K 01			125	3,95	92,0	1,95	1,80	18,80
K 01			160	-3,82	92,0	2,92	0,00	21,10
K 01			200	-8,30	93,0	4,20	0,00	22,80
K 02	4 605	4 608						
K 02			20	34,53	70,3	0,00	5,60	7,60
K 02			25	31,14	73,7	0,09	5,40	8,30
K 02			32	26,99	76,0	0,14	5,20	9,20
K 02			40	22,80	78,0	0,23	5,00	10,30
K 02			50	18,81	80,0	0,32	4,70	11,50
K 02			63	15,72	83,0	0,51	4,30	13,00
K 02			80	12,39	86,0	0,74	3,70	14,80
K 02			100	8,88	89,0	1,15	3,00	16,80
K 02			125	5,08	92,0	1,75	1,80	18,80
K 02			160	-2,60	92,0	2,63	0,00	21,10
K 02			200	-6,95	93,0	3,78	0,00	22,80
K 03	3 973	3 977						
K 03			20	35,81	70,3	0,00	5,60	7,60
K 03			25	32,43	73,7	0,08	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 03			32	28,29	76,0	0,12	5,20	9,20
K 03			40	24,11	78,0	0,20	5,00	10,30
K 03			50	20,13	80,0	0,28	4,70	11,50
K 03			63	17,07	83,0	0,44	4,30	13,00
K 03			80	13,77	86,0	0,64	3,70	14,80
K 03			100	10,32	89,0	0,99	3,00	16,80
K 03			125	6,60	92,0	1,51	1,80	18,80
K 03			160	-0,96	92,0	2,27	0,00	21,10
K 03			200	-5,15	93,0	3,26	0,00	22,80
K 04	3 519	3 523						
K 04			20	36,86	70,3	0,00	5,60	7,60
K 04			25	33,49	73,7	0,07	5,40	8,30
K 04			32	29,36	76,0	0,11	5,20	9,20
K 04			40	25,19	78,0	0,18	5,00	10,30
K 04			50	21,22	80,0	0,25	4,70	11,50
K 04			63	18,18	83,0	0,39	4,30	13,00
K 04			80	14,90	86,0	0,56	3,70	14,80
K 04			100	11,48	89,0	0,88	3,00	16,80
K 04			125	7,82	92,0	1,34	1,80	18,80
K 04			160	0,35	92,0	2,01	0,00	21,10
K 04			200	-3,73	93,0	2,89	0,00	22,80
K 05	3 078	3 082						
K 05			20	38,02	70,3	0,00	5,60	7,60
K 05			25	34,66	73,7	0,06	5,40	8,30
K 05			32	30,53	76,0	0,09	5,20	9,20
K 05			40	26,37	78,0	0,15	5,00	10,30
K 05			50	22,41	80,0	0,22	4,70	11,50
K 05			63	19,38	83,0	0,34	4,30	13,00
K 05			80	16,13	86,0	0,49	3,70	14,80
K 05			100	12,75	89,0	0,77	3,00	16,80
K 05			125	9,15	92,0	1,17	1,80	18,80
K 05			160	1,77	92,0	1,76	0,00	21,10
K 05			200	-2,21	93,0	2,53	0,00	22,80
K 06	5 263	5 266						
K 06			20	33,37	70,3	0,00	5,60	7,60
K 06			25	29,97	73,7	0,11	5,40	8,30
K 06			32	25,81	76,0	0,16	5,20	9,20
K 06			40	21,61	78,0	0,26	5,00	10,30
K 06			50	17,60	80,0	0,37	4,70	11,50
K 06			63	14,49	83,0	0,58	4,30	13,00
K 06			80	11,13	86,0	0,84	3,70	14,80
K 06			100	7,55	89,0	1,32	3,00	16,80
K 06			125	3,67	92,0	2,00	1,80	18,80
K 06			160	-4,13	92,0	3,00	0,00	21,10
K 06			200	-8,65	93,0	4,32	0,00	22,80
K 07	5 285	5 288						
K 07			20	33,33	70,3	0,00	5,60	7,60
K 07			25	29,93	73,7	0,11	5,40	8,30
K 07			32	25,78	76,0	0,16	5,20	9,20
K 07			40	21,57	78,0	0,26	5,00	10,30
K 07			50	17,56	80,0	0,37	4,70	11,50
K 07			63	14,45	83,0	0,58	4,30	13,00
K 07			80	11,09	86,0	0,85	3,70	14,80
K 07			100	7,51	89,0	1,32	3,00	16,80
K 07			125	3,63	92,0	2,01	1,80	18,80
K 07			160	-4,18	92,0	3,01	0,00	21,10
K 07			200	-8,70	93,0	4,34	0,00	22,80
K 08	4 503	4 506						
K 08			20	34,72	70,3	0,00	5,60	7,60
K 08			25	31,33	73,7	0,09	5,40	8,30
K 08			32	27,19	76,0	0,14	5,20	9,20
K 08			40	23,00	78,0	0,23	5,00	10,30
K 08			50	19,01	80,0	0,32	4,70	11,50
K 08			63	15,93	83,0	0,50	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 08			80	12,60	86,0	0,72	3,70	14,80
K 08			100	9,10	89,0	1,13	3,00	16,80
K 08			125	5,31	92,0	1,71	1,80	18,80
K 08			160	-2,35	92,0	2,57	0,00	21,10
K 08			200	-6,67	93,0	3,70	0,00	22,80
K 09	4 056	4 059						
K 09			20	35,63	70,3	0,00	5,60	7,60
K 09			25	32,25	73,7	0,08	5,40	8,30
K 09			32	28,11	76,0	0,12	5,20	9,20
K 09			40	23,93	78,0	0,20	5,00	10,30
K 09			50	19,95	80,0	0,28	4,70	11,50
K 09			63	16,88	83,0	0,45	4,30	13,00
K 09			80	13,58	86,0	0,65	3,70	14,80
K 09			100	10,12	89,0	1,01	3,00	16,80
K 09			125	6,39	92,0	1,54	1,80	18,80
K 09			160	-1,18	92,0	2,31	0,00	21,10
K 09			200	-5,40	93,0	3,33	0,00	22,80
K 10	6 285	6 287						
K 10			20	31,83	70,3	0,00	5,60	7,60
K 10			25	28,40	73,7	0,13	5,40	8,30
K 10			32	24,24	76,0	0,19	5,20	9,20
K 10			40	20,02	78,0	0,31	5,00	10,30
K 10			50	15,99	80,0	0,44	4,70	11,50
K 10			63	12,84	83,0	0,69	4,30	13,00
K 10			80	9,42	86,0	1,01	3,70	14,80
K 10			100	5,76	89,0	1,57	3,00	16,80
K 10			125	1,74	92,0	2,39	1,80	18,80
K 10			160	-6,25	92,0	3,58	0,00	21,10
K 10			200	-11,03	93,0	5,16	0,00	22,80
K 11	6 950	6 952						
K 11			20	30,96	70,3	0,00	5,60	7,60
K 11			25	27,52	73,7	0,14	5,40	8,30
K 11			32	23,35	76,0	0,21	5,20	9,20
K 11			40	19,11	78,0	0,35	5,00	10,30
K 11			50	15,07	80,0	0,49	4,70	11,50
K 11			63	11,89	83,0	0,76	4,30	13,00
K 11			80	8,45	86,0	1,11	3,70	14,80
K 11			100	4,72	89,0	1,74	3,00	16,80
K 11			125	0,62	92,0	2,64	1,80	18,80
K 11			160	-7,51	92,0	3,96	0,00	21,10
K 11			200	-12,44	93,0	5,70	0,00	22,80
K 12	7 470	7 472						
K 12			20	30,33	70,3	0,00	5,60	7,60
K 12			25	26,88	73,7	0,15	5,40	8,30
K 12			32	22,71	76,0	0,22	5,20	9,20
K 12			40	18,46	78,0	0,37	5,00	10,30
K 12			50	14,41	80,0	0,52	4,70	11,50
K 12			63	11,21	83,0	0,82	4,30	13,00
K 12			80	7,74	86,0	1,20	3,70	14,80
K 12			100	3,96	89,0	1,87	3,00	16,80
K 12			125	-0,21	92,0	2,84	1,80	18,80
K 12			160	-8,43	92,0	4,26	0,00	21,10
K 12			200	-13,50	93,0	6,13	0,00	22,80
K 13	6 627	6 629						
K 13			20	31,37	70,3	0,00	5,60	7,60
K 13			25	27,94	73,7	0,13	5,40	8,30
K 13			32	23,77	76,0	0,20	5,20	9,20
K 13			40	19,54	78,0	0,33	5,00	10,30
K 13			50	15,51	80,0	0,46	4,70	11,50
K 13			63	12,34	83,0	0,73	4,30	13,00
K 13			80	8,91	86,0	1,06	3,70	14,80
K 13			100	5,21	89,0	1,66	3,00	16,80
K 13			125	1,15	92,0	2,52	1,80	18,80
K 13			160	-6,91	92,0	3,78	0,00	21,10

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			200	-11,76	93,0	5,44	0,00	22,80
K 14	5 945	5 948						
K 14			20	32,31	70,3	0,00	5,60	7,60
K 14			25	28,89	73,7	0,12	5,40	8,30
K 14			32	24,73	76,0	0,18	5,20	9,20
K 14			40	20,52	78,0	0,30	5,00	10,30
K 14			50	16,50	80,0	0,42	4,70	11,50
K 14			63	13,36	83,0	0,65	4,30	13,00
K 14			80	9,96	86,0	0,95	3,70	14,80
K 14			100	6,33	89,0	1,49	3,00	16,80
K 14			125	2,35	92,0	2,26	1,80	18,80
K 14			160	-5,58	92,0	3,39	0,00	21,10
K 14			200	-10,26	93,0	4,88	0,00	22,80
WTG 01	2 287	2 294						
WTG 01			20	42,09	71,8	0,00	5,60	7,60
WTG 01			25	38,74	75,2	0,05	5,40	8,30
WTG 01			32	34,22	77,1	0,07	5,20	9,20
WTG 01			40	29,27	78,3	0,11	5,00	10,30
WTG 01			50	25,33	80,3	0,16	4,70	11,50
WTG 01			63	23,63	84,6	0,25	4,30	13,00
WTG 01			80	20,12	87,3	0,37	3,70	14,80
WTG 01			100	15,41	88,9	0,57	3,00	16,80
WTG 01			125	11,51	91,5	0,87	1,80	18,80
WTG 01			160	6,28	93,5	1,31	0,00	21,10
WTG 01			200	2,50	94,5	1,88	0,00	22,80
WTG 02	3 177	3 182						
WTG 02			20	39,25	71,8	0,00	5,60	7,60
WTG 02			25	35,88	75,2	0,06	5,40	8,30
WTG 02			32	31,35	77,1	0,10	5,20	9,20
WTG 02			40	26,39	78,3	0,16	5,00	10,30
WTG 02			50	22,42	80,3	0,22	4,70	11,50
WTG 02			63	20,70	84,6	0,35	4,30	13,00
WTG 02			80	17,14	87,3	0,51	3,70	14,80
WTG 02			100	12,35	88,9	0,80	3,00	16,80
WTG 02			125	8,34	91,5	1,21	1,80	18,80
WTG 02			160	2,93	93,5	1,81	0,00	21,10
WTG 02			200	-1,06	94,5	2,61	0,00	22,80
Sum								
Sum			20	47,96				
Sum			25	44,59				
Sum			32	40,30				
Sum			40	35,84				
Sum			50	31,86				
Sum			63	29,29				
Sum			80	25,88				
Sum			100	21,93				
Sum			125	18,10				
Sum			160	11,37				
Sum			200	7,29				

Noise sensitive area: R Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (156)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	5 381	5 383						
K 01			20	33,18	70,3	0,00	5,60	7,60
K 01			25	29,77	73,7	0,11	5,40	8,30
K 01			32	25,62	76,0	0,16	5,20	9,20
K 01			40	21,41	78,0	0,27	5,00	10,30
K 01			50	17,40	80,0	0,38	4,70	11,50
K 01			63	14,29	83,0	0,59	4,30	13,00
K 01			80	10,92	86,0	0,86	3,70	14,80
K 01			100	7,33	89,0	1,35	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01			125	3,43	92,0	2,05	1,80	18,80
K 01			160	-4,39	92,0	3,07	0,00	21,10
K 01			200	-8,93	93,0	4,41	0,00	22,80
K 02	5 126	5 128						
K 02			20	33,60	70,3	0,00	5,60	7,60
K 02			25	30,20	73,7	0,10	5,40	8,30
K 02			32	26,05	76,0	0,15	5,20	9,20
K 02			40	21,84	78,0	0,26	5,00	10,30
K 02			50	17,84	80,0	0,36	4,70	11,50
K 02			63	14,74	83,0	0,56	4,30	13,00
K 02			80	11,38	86,0	0,82	3,70	14,80
K 02			100	7,82	89,0	1,28	3,00	16,80
K 02			125	3,95	92,0	1,95	1,80	18,80
K 02			160	-3,82	92,0	2,92	0,00	21,10
K 02			200	-8,30	93,0	4,21	0,00	22,80
K 03	5 159	5 162						
K 03			20	33,54	70,3	0,00	5,60	7,60
K 03			25	30,14	73,7	0,10	5,40	8,30
K 03			32	25,99	76,0	0,15	5,20	9,20
K 03			40	21,79	78,0	0,26	5,00	10,30
K 03			50	17,78	80,0	0,36	4,70	11,50
K 03			63	14,68	83,0	0,57	4,30	13,00
K 03			80	11,32	86,0	0,83	3,70	14,80
K 03			100	7,75	89,0	1,29	3,00	16,80
K 03			125	3,88	92,0	1,96	1,80	18,80
K 03			160	-3,90	92,0	2,94	0,00	21,10
K 03			200	-8,39	93,0	4,23	0,00	22,80
K 04	4 584	4 587						
K 04			20	34,57	70,3	0,00	5,60	7,60
K 04			25	31,18	73,7	0,09	5,40	8,30
K 04			32	27,03	76,0	0,14	5,20	9,20
K 04			40	22,84	78,0	0,23	5,00	10,30
K 04			50	18,85	80,0	0,32	4,70	11,50
K 04			63	15,76	83,0	0,50	4,30	13,00
K 04			80	12,44	86,0	0,73	3,70	14,80
K 04			100	8,92	89,0	1,15	3,00	16,80
K 04			125	5,13	92,0	1,74	1,80	18,80
K 04			160	-2,55	92,0	2,61	0,00	21,10
K 04			200	-6,89	93,0	3,76	0,00	22,80
K 05	5 287	5 289						
K 05			20	33,33	70,3	0,00	5,60	7,60
K 05			25	29,93	73,7	0,11	5,40	8,30
K 05			32	25,77	76,0	0,16	5,20	9,20
K 05			40	21,57	78,0	0,26	5,00	10,30
K 05			50	17,56	80,0	0,37	4,70	11,50
K 05			63	14,45	83,0	0,58	4,30	13,00
K 05			80	11,09	86,0	0,85	3,70	14,80
K 05			100	7,51	89,0	1,32	3,00	16,80
K 05			125	3,62	92,0	2,01	1,80	18,80
K 05			160	-4,18	92,0	3,01	0,00	21,10
K 05			200	-8,70	93,0	4,34	0,00	22,80
K 06	4 500	4 502						
K 06			20	34,73	70,3	0,00	5,60	7,60
K 06			25	31,34	73,7	0,09	5,40	8,30
K 06			32	27,20	76,0	0,14	5,20	9,20
K 06			40	23,01	78,0	0,23	5,00	10,30
K 06			50	19,02	80,0	0,32	4,70	11,50
K 06			63	15,94	83,0	0,50	4,30	13,00
K 06			80	12,61	86,0	0,72	3,70	14,80
K 06			100	9,11	89,0	1,13	3,00	16,80
K 06			125	5,32	92,0	1,71	1,80	18,80
K 06			160	-2,34	92,0	2,57	0,00	21,10
K 06			200	-6,66	93,0	3,69	0,00	22,80
K 07	3 877	3 880						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			20	36,02	70,3	0,00	5,60	7,60
K 07			25	32,64	73,7	0,08	5,40	8,30
K 07			32	28,51	76,0	0,12	5,20	9,20
K 07			40	24,33	78,0	0,19	5,00	10,30
K 07			50	20,35	80,0	0,27	4,70	11,50
K 07			63	17,30	83,0	0,43	4,30	13,00
K 07			80	14,00	86,0	0,62	3,70	14,80
K 07			100	10,55	89,0	0,97	3,00	16,80
K 07			125	6,85	92,0	1,47	1,80	18,80
K 07			160	-0,69	92,0	2,21	0,00	21,10
K 07			200	-4,86	93,0	3,18	0,00	22,80
K 08	4 356	4 359	20	35,01	70,3	0,00	5,60	7,60
K 08			25	31,62	73,7	0,09	5,40	8,30
K 08			32	27,48	76,0	0,13	5,20	9,20
K 08			40	23,29	78,0	0,22	5,00	10,30
K 08			50	19,31	80,0	0,31	4,70	11,50
K 08			63	16,23	83,0	0,48	4,30	13,00
K 08			80	12,91	86,0	0,70	3,70	14,80
K 08			100	9,42	89,0	1,09	3,00	16,80
K 08			125	5,66	92,0	1,66	1,80	18,80
K 08			160	-1,97	92,0	2,48	0,00	21,10
K 08			200	-6,26	93,0	3,57	0,00	22,80
K 09	4 336	4 339	20	35,05	70,3	0,00	5,60	7,60
K 09			25	31,67	73,7	0,09	5,40	8,30
K 09			32	27,52	76,0	0,13	5,20	9,20
K 09			40	23,34	78,0	0,22	5,00	10,30
K 09			50	19,35	80,0	0,30	4,70	11,50
K 09			63	16,28	83,0	0,48	4,30	13,00
K 09			80	12,96	86,0	0,69	3,70	14,80
K 09			100	9,47	89,0	1,08	3,00	16,80
K 09			125	5,70	92,0	1,65	1,80	18,80
K 09			160	-1,92	92,0	2,47	0,00	21,10
K 09			200	-6,20	93,0	3,56	0,00	22,80
K 10	6 068	6 070	20	32,14	70,3	0,00	5,60	7,60
K 10			25	28,71	73,7	0,12	5,40	8,30
K 10			32	24,55	76,0	0,18	5,20	9,20
K 10			40	20,33	78,0	0,30	5,00	10,30
K 10			50	16,31	80,0	0,42	4,70	11,50
K 10			63	13,17	83,0	0,67	4,30	13,00
K 10			80	9,77	86,0	0,97	3,70	14,80
K 10			100	6,12	89,0	1,52	3,00	16,80
K 10			125	2,13	92,0	2,31	1,80	18,80
K 10			160	-5,82	92,0	3,46	0,00	21,10
K 10			200	-10,54	93,0	4,98	0,00	22,80
K 11	6 300	6 302	20	31,81	70,3	0,00	5,60	7,60
K 11			25	28,38	73,7	0,13	5,40	8,30
K 11			32	24,22	76,0	0,19	5,20	9,20
K 11			40	20,00	78,0	0,32	5,00	10,30
K 11			50	15,97	80,0	0,44	4,70	11,50
K 11			63	12,82	83,0	0,69	4,30	13,00
K 11			80	9,40	86,0	1,01	3,70	14,80
K 11			100	5,74	89,0	1,58	3,00	16,80
K 11			125	1,72	92,0	2,39	1,80	18,80
K 11			160	-6,28	92,0	3,59	0,00	21,10
K 11			200	-11,06	93,0	5,17	0,00	22,80
K 12	6 018	6 020	20	32,21	70,3	0,00	5,60	7,60
K 12			25	28,79	73,7	0,12	5,40	8,30
K 12			32	24,63	76,0	0,18	5,20	9,20
K 12			40	20,41	78,0	0,30	5,00	10,30

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 12			50	16,39	80,0	0,42	4,70	11,50
K 12			63	13,25	83,0	0,66	4,30	13,00
K 12			80	9,84	86,0	0,96	3,70	14,80
K 12			100	6,20	89,0	1,51	3,00	16,80
K 12			125	2,22	92,0	2,29	1,80	18,80
K 12			160	-5,72	92,0	3,43	0,00	21,10
K 12			200	-10,43	93,0	4,94	0,00	22,80
K 13	5 337	5 339						
K 13			20	33,25	70,3	0,00	5,60	7,60
K 13			25	29,84	73,7	0,11	5,40	8,30
K 13			32	25,69	76,0	0,16	5,20	9,20
K 13			40	21,48	78,0	0,27	5,00	10,30
K 13			50	17,48	80,0	0,37	4,70	11,50
K 13			63	14,36	83,0	0,59	4,30	13,00
K 13			80	11,00	86,0	0,85	3,70	14,80
K 13			100	7,42	89,0	1,33	3,00	16,80
K 13			125	3,52	92,0	2,03	1,80	18,80
K 13			160	-4,29	92,0	3,04	0,00	21,10
K 13			200	-8,83	93,0	4,38	0,00	22,80
K 14	5 148	5 150						
K 14			20	33,56	70,3	0,00	5,60	7,60
K 14			25	30,16	73,7	0,10	5,40	8,30
K 14			32	26,01	76,0	0,15	5,20	9,20
K 14			40	21,81	78,0	0,26	5,00	10,30
K 14			50	17,80	80,0	0,36	4,70	11,50
K 14			63	14,70	83,0	0,57	4,30	13,00
K 14			80	11,34	86,0	0,82	3,70	14,80
K 14			100	7,78	89,0	1,29	3,00	16,80
K 14			125	3,91	92,0	1,96	1,80	18,80
K 14			160	-3,87	92,0	2,94	0,00	21,10
K 14			200	-8,36	93,0	4,22	0,00	22,80
WTG 01	4 801	4 804						
WTG 01			20	35,67	71,8	0,00	5,60	7,60
WTG 01			25	32,27	75,2	0,10	5,40	8,30
WTG 01			32	27,72	77,1	0,14	5,20	9,20
WTG 01			40	22,73	78,3	0,24	5,00	10,30
WTG 01			50	18,73	80,3	0,34	4,70	11,50
WTG 01			63	16,94	84,6	0,53	4,30	13,00
WTG 01			80	13,30	87,3	0,77	3,70	14,80
WTG 01			100	8,37	88,9	1,20	3,00	16,80
WTG 01			125	4,14	91,5	1,83	1,80	18,80
WTG 01			160	-1,57	93,5	2,74	0,00	21,10
WTG 01			200	-5,97	94,5	3,94	0,00	22,80
WTG 02	4 282	4 285						
WTG 02			20	36,66	71,8	0,00	5,60	7,60
WTG 02			25	33,27	75,2	0,09	5,40	8,30
WTG 02			32	28,73	77,1	0,13	5,20	9,20
WTG 02			40	23,75	78,3	0,21	5,00	10,30
WTG 02			50	19,76	80,3	0,30	4,70	11,50
WTG 02			63	17,99	84,6	0,47	4,30	13,00
WTG 02			80	14,37	87,3	0,69	3,70	14,80
WTG 02			100	9,49	88,9	1,07	3,00	16,80
WTG 02			125	5,33	91,5	1,63	1,80	18,80
WTG 02			160	-0,28	93,5	2,44	0,00	21,10
WTG 02			200	-4,55	94,5	3,51	0,00	22,80
Sum								
Sum			20	46,29				
Sum			25	42,89				
Sum			32	38,67				
Sum			40	34,33				
Sum			50	30,34				
Sum			63	27,47				
Sum			80	24,07				
Sum			100	20,30				

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
Sum			125	16,42				
Sum			160	9,04				
Sum			200	4,65				

Noise sensitive area: S Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (155)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	4 379	4 382						
K 01			20	34,97	70,3	0,00	5,60	7,60
K 01			25	31,58	73,7	0,09	5,40	8,30
K 01			32	27,44	76,0	0,13	5,20	9,20
K 01			40	23,25	78,0	0,22	5,00	10,30
K 01			50	19,26	80,0	0,31	4,70	11,50
K 01			63	16,18	83,0	0,48	4,30	13,00
K 01			80	12,87	86,0	0,70	3,70	14,80
K 01			100	9,37	89,0	1,10	3,00	16,80
K 01			125	5,60	92,0	1,67	1,80	18,80
K 01			160	-2,03	92,0	2,50	0,00	21,10
K 01			200	-6,33	93,0	3,59	0,00	22,80
K 02	3 872	3 875						
K 02			20	36,03	70,3	0,00	5,60	7,60
K 02			25	32,66	73,7	0,08	5,40	8,30
K 02			32	28,52	76,0	0,12	5,20	9,20
K 02			40	24,34	78,0	0,19	5,00	10,30
K 02			50	20,36	80,0	0,27	4,70	11,50
K 02			63	17,31	83,0	0,43	4,30	13,00
K 02			80	14,01	86,0	0,62	3,70	14,80
K 02			100	10,56	89,0	0,97	3,00	16,80
K 02			125	6,86	92,0	1,47	1,80	18,80
K 02			160	-0,68	92,0	2,21	0,00	21,10
K 02			200	-4,84	93,0	3,18	0,00	22,80
K 03	3 239	3 243						
K 03			20	37,58	70,3	0,00	5,60	7,60
K 03			25	34,22	73,7	0,06	5,40	8,30
K 03			32	30,08	76,0	0,10	5,20	9,20
K 03			40	25,92	78,0	0,16	5,00	10,30
K 03			50	21,95	80,0	0,23	4,70	11,50
K 03			63	18,92	83,0	0,36	4,30	13,00
K 03			80	15,66	86,0	0,52	3,70	14,80
K 03			100	12,27	89,0	0,81	3,00	16,80
K 03			125	8,65	92,0	1,23	1,80	18,80
K 03			160	1,23	92,0	1,85	0,00	21,10
K 03			200	-2,78	93,0	2,66	0,00	22,80
K 04	2 856	2 861						
K 04			20	38,67	70,3	0,00	5,60	7,60
K 04			25	35,31	73,7	0,06	5,40	8,30
K 04			32	31,18	76,0	0,09	5,20	9,20
K 04			40	27,03	78,0	0,14	5,00	10,30
K 04			50	23,07	80,0	0,20	4,70	11,50
K 04			63	20,05	83,0	0,31	4,30	13,00
K 04			80	16,81	86,0	0,46	3,70	14,80
K 04			100	13,45	89,0	0,72	3,00	16,80
K 04			125	9,88	92,0	1,09	1,80	18,80
K 04			160	2,54	92,0	1,63	0,00	21,10
K 04			200	-1,38	93,0	2,35	0,00	22,80
K 05	2 346	2 352						
K 05			20	40,37	70,3	0,00	5,60	7,60
K 05			25	37,02	73,7	0,05	5,40	8,30
K 05			32	32,90	76,0	0,07	5,20	9,20
K 05			40	28,75	78,0	0,12	5,00	10,30
K 05			50	24,81	80,0	0,16	4,70	11,50
K 05			63	21,81	83,0	0,26	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 05			80	18,59	86,0	0,38	3,70	14,80
K 05			100	15,28	89,0	0,59	3,00	16,80
K 05			125	11,78	92,0	0,89	1,80	18,80
K 05			160	4,53	92,0	1,34	0,00	21,10
K 05			200	0,74	93,0	1,93	0,00	22,80
K 06	4 576	4 579						
K 06			20	34,58	70,3	0,00	5,60	7,60
K 06			25	31,19	73,7	0,09	5,40	8,30
K 06			32	27,05	76,0	0,14	5,20	9,20
K 06			40	22,86	78,0	0,23	5,00	10,30
K 06			50	18,86	80,0	0,32	4,70	11,50
K 06			63	15,78	83,0	0,50	4,30	13,00
K 06			80	12,45	86,0	0,73	3,70	14,80
K 06			100	8,94	89,0	1,14	3,00	16,80
K 06			125	5,14	92,0	1,74	1,80	18,80
K 06			160	-2,53	92,0	2,61	0,00	21,10
K 06			200	-6,87	93,0	3,75	0,00	22,80
K 07	4 650	4 654						
K 07			20	34,44	70,3	0,00	5,60	7,60
K 07			25	31,05	73,7	0,09	5,40	8,30
K 07			32	26,90	76,0	0,14	5,20	9,20
K 07			40	22,71	78,0	0,23	5,00	10,30
K 07			50	18,72	80,0	0,33	4,70	11,50
K 07			63	15,63	83,0	0,51	4,30	13,00
K 07			80	12,30	86,0	0,74	3,70	14,80
K 07			100	8,78	89,0	1,16	3,00	16,80
K 07			125	4,98	92,0	1,77	1,80	18,80
K 07			160	-2,71	92,0	2,65	0,00	21,10
K 07			200	-7,07	93,0	3,82	0,00	22,80
K 08	3 833	3 837						
K 08			20	36,12	70,3	0,00	5,60	7,60
K 08			25	32,74	73,7	0,08	5,40	8,30
K 08			32	28,60	76,0	0,12	5,20	9,20
K 08			40	24,43	78,0	0,19	5,00	10,30
K 08			50	20,45	80,0	0,27	4,70	11,50
K 08			63	17,40	83,0	0,42	4,30	13,00
K 08			80	14,11	86,0	0,61	3,70	14,80
K 08			100	10,66	89,0	0,96	3,00	16,80
K 08			125	6,96	92,0	1,46	1,80	18,80
K 08			160	-0,57	92,0	2,19	0,00	21,10
K 08			200	-4,73	93,0	3,15	0,00	22,80
K 09	3 400	3 404						
K 09			20	37,16	70,3	0,00	5,60	7,60
K 09			25	33,79	73,7	0,07	5,40	8,30
K 09			32	29,66	76,0	0,10	5,20	9,20
K 09			40	25,49	78,0	0,17	5,00	10,30
K 09			50	21,52	80,0	0,24	4,70	11,50
K 09			63	18,48	83,0	0,37	4,30	13,00
K 09			80	15,21	86,0	0,54	3,70	14,80
K 09			100	11,81	89,0	0,85	3,00	16,80
K 09			125	8,17	92,0	1,29	1,80	18,80
K 09			160	0,72	92,0	1,94	0,00	21,10
K 09			200	-3,33	93,0	2,79	0,00	22,80
K 10	5 525	5 527						
K 10			20	32,95	70,3	0,00	5,60	7,60
K 10			25	29,54	73,7	0,11	5,40	8,30
K 10			32	25,38	76,0	0,17	5,20	9,20
K 10			40	21,17	78,0	0,28	5,00	10,30
K 10			50	17,16	80,0	0,39	4,70	11,50
K 10			63	14,04	83,0	0,61	4,30	13,00
K 10			80	10,67	86,0	0,88	3,70	14,80
K 10			100	7,07	89,0	1,38	3,00	16,80
K 10			125	3,15	92,0	2,10	1,80	18,80
K 10			160	-4,70	92,0	3,15	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			200	-9,28	93,0	4,53	0,00	22,80
K 11	6 192	6 194						
K 11			20	31,96	70,3	0,00	5,60	7,60
K 11			25	28,54	73,7	0,12	5,40	8,30
K 11			32	24,37	76,0	0,19	5,20	9,20
K 11			40	20,15	78,0	0,31	5,00	10,30
K 11			50	16,13	80,0	0,43	4,70	11,50
K 11			63	12,98	83,0	0,68	4,30	13,00
K 11			80	9,57	86,0	0,99	3,70	14,80
K 11			100	5,91	89,0	1,55	3,00	16,80
K 11			125	1,91	92,0	2,35	1,80	18,80
K 11			160	-6,07	92,0	3,53	0,00	21,10
K 11			200	-10,82	93,0	5,08	0,00	22,80
K 12	6 734	6 736						
K 12			20	31,23	70,3	0,00	5,60	7,60
K 12			25	27,80	73,7	0,13	5,40	8,30
K 12			32	23,63	76,0	0,20	5,20	9,20
K 12			40	19,40	78,0	0,34	5,00	10,30
K 12			50	15,36	80,0	0,47	4,70	11,50
K 12			63	12,19	83,0	0,74	4,30	13,00
K 12			80	8,75	86,0	1,08	3,70	14,80
K 12			100	5,05	89,0	1,68	3,00	16,80
K 12			125	0,97	92,0	2,56	1,80	18,80
K 12			160	-7,11	92,0	3,84	0,00	21,10
K 12			200	-11,99	93,0	5,52	0,00	22,80
K 13	5 905	5 907						
K 13			20	32,37	70,3	0,00	5,60	7,60
K 13			25	28,95	73,7	0,12	5,40	8,30
K 13			32	24,80	76,0	0,18	5,20	9,20
K 13			40	20,58	78,0	0,30	5,00	10,30
K 13			50	16,56	80,0	0,41	4,70	11,50
K 13			63	13,42	83,0	0,65	4,30	13,00
K 13			80	10,03	86,0	0,95	3,70	14,80
K 13			100	6,40	89,0	1,48	3,00	16,80
K 13			125	2,43	92,0	2,24	1,80	18,80
K 13			160	-5,49	92,0	3,37	0,00	21,10
K 13			200	-10,17	93,0	4,84	0,00	22,80
K 14	5 222	5 225						
K 14			20	33,44	70,3	0,00	5,60	7,60
K 14			25	30,03	73,7	0,10	5,40	8,30
K 14			32	25,88	76,0	0,16	5,20	9,20
K 14			40	21,68	78,0	0,26	5,00	10,30
K 14			50	17,67	80,0	0,37	4,70	11,50
K 14			63	14,56	83,0	0,57	4,30	13,00
K 14			80	11,20	86,0	0,84	3,70	14,80
K 14			100	7,63	89,0	1,31	3,00	16,80
K 14			125	3,75	92,0	1,99	1,80	18,80
K 14			160	-4,04	92,0	2,98	0,00	21,10
K 14			200	-8,55	93,0	4,28	0,00	22,80
WTG 01	1 760	1 770						
WTG 01			20	44,34	71,8	0,00	5,60	7,60
WTG 01			25	41,01	75,2	0,04	5,40	8,30
WTG 01			32	36,49	77,1	0,05	5,20	9,20
WTG 01			40	31,55	78,3	0,09	5,00	10,30
WTG 01			50	27,62	80,3	0,12	4,70	11,50
WTG 01			63	25,95	84,6	0,19	4,30	13,00
WTG 01			80	22,46	87,3	0,28	3,70	14,80
WTG 01			100	17,80	88,9	0,44	3,00	16,80
WTG 01			125	13,97	91,5	0,67	1,80	18,80
WTG 01			160	8,83	93,5	1,01	0,00	21,10
WTG 01			200	5,19	94,5	1,45	0,00	22,80
WTG 02	2 601	2 608						
WTG 02			20	40,97	71,8	0,00	5,60	7,60
WTG 02			25	37,62	75,2	0,05	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			32	33,09	77,1	0,08	5,20	9,20
WTG 02			40	28,14	78,3	0,13	5,00	10,30
WTG 02			50	24,19	80,3	0,18	4,70	11,50
WTG 02			63	22,49	84,6	0,29	4,30	13,00
WTG 02			80	18,96	87,3	0,42	3,70	14,80
WTG 02			100	14,22	88,9	0,65	3,00	16,80
WTG 02			125	10,28	91,5	0,99	1,80	18,80
WTG 02			160	4,99	93,5	1,49	0,00	21,10
WTG 02			200	1,13	94,5	2,14	0,00	22,80
Sum								
Sum			20	49,76				
Sum			25	46,40				
Sum			32	42,10				
Sum			40	37,64				
Sum			50	33,68				
Sum			63	31,17				
Sum			80	27,79				
Sum			100	23,87				
Sum			125	20,13				
Sum			160	13,59				
Sum			200	9,69				

Noise sensitive area: T Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (154)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 994	3 997						
K 01			20	35,77	70,3	0,00	5,60	7,60
K 01			25	32,39	73,7	0,08	5,40	8,30
K 01			32	28,25	76,0	0,12	5,20	9,20
K 01			40	24,07	78,0	0,20	5,00	10,30
K 01			50	20,09	80,0	0,28	4,70	11,50
K 01			63	17,03	83,0	0,44	4,30	13,00
K 01			80	13,73	86,0	0,64	3,70	14,80
K 01			100	10,27	89,0	1,00	3,00	16,80
K 01			125	6,55	92,0	1,52	1,80	18,80
K 01			160	-1,01	92,0	2,28	0,00	21,10
K 01			200	-5,21	93,0	3,28	0,00	22,80
K 02	3 494	3 499						
K 02			20	36,92	70,3	0,00	5,60	7,60
K 02			25	33,55	73,7	0,07	5,40	8,30
K 02			32	29,42	76,0	0,10	5,20	9,20
K 02			40	25,25	78,0	0,17	5,00	10,30
K 02			50	21,28	80,0	0,24	4,70	11,50
K 02			63	18,24	83,0	0,38	4,30	13,00
K 02			80	14,96	86,0	0,56	3,70	14,80
K 02			100	11,55	89,0	0,87	3,00	16,80
K 02			125	7,89	92,0	1,33	1,80	18,80
K 02			160	0,43	92,0	1,99	0,00	21,10
K 02			200	-3,65	93,0	2,87	0,00	22,80
K 03	2 862	2 867						
K 03			20	38,65	70,3	0,00	5,60	7,60
K 03			25	35,29	73,7	0,06	5,40	8,30
K 03			32	31,16	76,0	0,09	5,20	9,20
K 03			40	27,01	78,0	0,14	5,00	10,30
K 03			50	23,05	80,0	0,20	4,70	11,50
K 03			63	20,04	83,0	0,32	4,30	13,00
K 03			80	16,79	86,0	0,46	3,70	14,80
K 03			100	13,43	89,0	0,72	3,00	16,80
K 03			125	9,86	92,0	1,09	1,80	18,80
K 03			160	2,52	92,0	1,63	0,00	21,10
K 03			200	-1,40	93,0	2,35	0,00	22,80
K 04	2 530	2 535						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			20	39,72	70,3	0,00	5,60	7,60
K 04			25	36,37	73,7	0,05	5,40	8,30
K 04			32	32,24	76,0	0,08	5,20	9,20
K 04			40	28,09	78,0	0,13	5,00	10,30
K 04			50	24,14	80,0	0,18	4,70	11,50
K 04			63	21,14	83,0	0,28	4,30	13,00
K 04			80	17,91	86,0	0,41	3,70	14,80
K 04			100	14,59	89,0	0,63	3,00	16,80
K 04			125	11,06	92,0	0,96	1,80	18,80
K 04			160	3,77	92,0	1,45	0,00	21,10
K 04			200	-0,06	93,0	2,08	0,00	22,80
K 05	1 976	1 983	20	41,85	70,3	0,00	5,60	7,60
K 05			25	38,51	73,7	0,04	5,40	8,30
K 05			32	34,39	76,0	0,06	5,20	9,20
K 05			40	30,25	78,0	0,10	5,00	10,30
K 05			50	26,31	80,0	0,14	4,70	11,50
K 05			63	23,33	83,0	0,22	4,30	13,00
K 05			80	20,14	86,0	0,32	3,70	14,80
K 05			100	16,86	89,0	0,50	3,00	16,80
K 05			125	13,40	92,0	0,75	1,80	18,80
K 05			160	6,22	92,0	1,13	0,00	21,10
K 05			200	2,53	93,0	1,63	0,00	22,80
K 06	4 224	4 228	20	35,28	70,3	0,00	5,60	7,60
K 06			25	31,89	73,7	0,08	5,40	8,30
K 06			32	27,75	76,0	0,13	5,20	9,20
K 06			40	23,57	78,0	0,21	5,00	10,30
K 06			50	19,58	80,0	0,30	4,70	11,50
K 06			63	16,51	83,0	0,47	4,30	13,00
K 06			80	13,20	86,0	0,68	3,70	14,80
K 06			100	9,72	89,0	1,06	3,00	16,80
K 06			125	5,97	92,0	1,61	1,80	18,80
K 06			160	-1,63	92,0	2,41	0,00	21,10
K 06			200	-5,89	93,0	3,47	0,00	22,80
K 07	4 330	4 333	20	35,06	70,3	0,00	5,60	7,60
K 07			25	31,68	73,7	0,09	5,40	8,30
K 07			32	27,53	76,0	0,13	5,20	9,20
K 07			40	23,35	78,0	0,22	5,00	10,30
K 07			50	19,36	80,0	0,30	4,70	11,50
K 07			63	16,29	83,0	0,48	4,30	13,00
K 07			80	12,97	86,0	0,69	3,70	14,80
K 07			100	9,48	89,0	1,08	3,00	16,80
K 07			125	5,72	92,0	1,65	1,80	18,80
K 07			160	-1,91	92,0	2,47	0,00	21,10
K 07			200	-6,19	93,0	3,55	0,00	22,80
K 08	3 495	3 499	20	36,92	70,3	0,00	5,60	7,60
K 08			25	33,55	73,7	0,07	5,40	8,30
K 08			32	29,42	76,0	0,10	5,20	9,20
K 08			40	25,25	78,0	0,17	5,00	10,30
K 08			50	21,28	80,0	0,24	4,70	11,50
K 08			63	18,24	83,0	0,38	4,30	13,00
K 08			80	14,96	86,0	0,56	3,70	14,80
K 08			100	11,55	89,0	0,87	3,00	16,80
K 08			125	7,89	92,0	1,33	1,80	18,80
K 08			160	0,43	92,0	1,99	0,00	21,10
K 08			200	-3,65	93,0	2,87	0,00	22,80
K 09	3 074	3 078	20	38,03	70,3	0,00	5,60	7,60
K 09			25	34,67	73,7	0,06	5,40	8,30
K 09			32	30,54	76,0	0,09	5,20	9,20
K 09			40	26,38	78,0	0,15	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 09			50	22,42	80,0	0,22	4,70	11,50
K 09			63	19,40	83,0	0,34	4,30	13,00
K 09			80	16,14	86,0	0,49	3,70	14,80
K 09			100	12,76	89,0	0,77	3,00	16,80
K 09			125	9,16	92,0	1,17	1,80	18,80
K 09			160	1,78	92,0	1,75	0,00	21,10
K 09			200	-2,19	93,0	2,52	0,00	22,80
K 10	5 131	5 133						
K 10			20	33,59	70,3	0,00	5,60	7,60
K 10			25	30,19	73,7	0,10	5,40	8,30
K 10			32	26,04	76,0	0,15	5,20	9,20
K 10			40	21,84	78,0	0,26	5,00	10,30
K 10			50	17,83	80,0	0,36	4,70	11,50
K 10			63	14,73	83,0	0,56	4,30	13,00
K 10			80	11,37	86,0	0,82	3,70	14,80
K 10			100	7,81	89,0	1,28	3,00	16,80
K 10			125	3,94	92,0	1,95	1,80	18,80
K 10			160	-3,83	92,0	2,93	0,00	21,10
K 10			200	-8,32	93,0	4,21	0,00	22,80
K 11	5 799	5 801						
K 11			20	32,53	70,3	0,00	5,60	7,60
K 11			25	29,11	73,7	0,12	5,40	8,30
K 11			32	24,96	76,0	0,17	5,20	9,20
K 11			40	20,74	78,0	0,29	5,00	10,30
K 11			50	16,72	80,0	0,41	4,70	11,50
K 11			63	13,59	83,0	0,64	4,30	13,00
K 11			80	10,20	86,0	0,93	3,70	14,80
K 11			100	6,58	89,0	1,45	3,00	16,80
K 11			125	2,63	92,0	2,20	1,80	18,80
K 11			160	-5,28	92,0	3,31	0,00	21,10
K 11			200	-9,93	93,0	4,76	0,00	22,80
K 12	6 351	6 353						
K 12			20	31,74	70,3	0,00	5,60	7,60
K 12			25	28,31	73,7	0,13	5,40	8,30
K 12			32	24,15	76,0	0,19	5,20	9,20
K 12			40	19,92	78,0	0,32	5,00	10,30
K 12			50	15,90	80,0	0,44	4,70	11,50
K 12			63	12,74	83,0	0,70	4,30	13,00
K 12			80	9,32	86,0	1,02	3,70	14,80
K 12			100	5,65	89,0	1,59	3,00	16,80
K 12			125	1,63	92,0	2,41	1,80	18,80
K 12			160	-6,38	92,0	3,62	0,00	21,10
K 12			200	-11,17	93,0	5,21	0,00	22,80
K 13	5 531	5 534						
K 13			20	32,94	70,3	0,00	5,60	7,60
K 13			25	29,53	73,7	0,11	5,40	8,30
K 13			32	25,37	76,0	0,17	5,20	9,20
K 13			40	21,16	78,0	0,28	5,00	10,30
K 13			50	17,15	80,0	0,39	4,70	11,50
K 13			63	14,03	83,0	0,61	4,30	13,00
K 13			80	10,65	86,0	0,89	3,70	14,80
K 13			100	7,06	89,0	1,38	3,00	16,80
K 13			125	3,14	92,0	2,10	1,80	18,80
K 13			160	-4,71	92,0	3,15	0,00	21,10
K 13			200	-9,30	93,0	4,54	0,00	22,80
K 14	4 848	4 851						
K 14			20	34,08	70,3	0,00	5,60	7,60
K 14			25	30,69	73,7	0,10	5,40	8,30
K 14			32	26,54	76,0	0,15	5,20	9,20
K 14			40	22,34	78,0	0,24	5,00	10,30
K 14			50	18,34	80,0	0,34	4,70	11,50
K 14			63	15,25	83,0	0,53	4,30	13,00
K 14			80	11,91	86,0	0,78	3,70	14,80
K 14			100	8,37	89,0	1,21	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 14			125	4,54	92,0	1,84	1,80	18,80
K 14			160	-3,18	92,0	2,77	0,00	21,10
K 14			200	-7,60	93,0	3,98	0,00	22,80
WTG 01	1 556	1 567						
WTG 01			20	45,40	71,8	0,00	5,60	7,60
WTG 01			25	42,07	75,2	0,03	5,40	8,30
WTG 01			32	37,55	77,1	0,05	5,20	9,20
WTG 01			40	32,62	78,3	0,08	5,00	10,30
WTG 01			50	28,69	80,3	0,11	4,70	11,50
WTG 01			63	27,02	84,6	0,17	4,30	13,00
WTG 01			80	23,55	87,3	0,25	3,70	14,80
WTG 01			100	18,90	88,9	0,39	3,00	16,80
WTG 01			125	15,10	91,5	0,60	1,80	18,80
WTG 01			160	10,00	93,5	0,89	0,00	21,10
WTG 01			200	6,41	94,5	1,29	0,00	22,80
WTG 02	2 337	2 345						
WTG 02			20	41,90	71,8	0,00	5,60	7,60
WTG 02			25	38,55	75,2	0,05	5,40	8,30
WTG 02			32	34,03	77,1	0,07	5,20	9,20
WTG 02			40	29,08	78,3	0,12	5,00	10,30
WTG 02			50	25,13	80,3	0,16	4,70	11,50
WTG 02			63	23,44	84,6	0,26	4,30	13,00
WTG 02			80	19,92	87,3	0,38	3,70	14,80
WTG 02			100	15,21	88,9	0,59	3,00	16,80
WTG 02			125	11,31	91,5	0,89	1,80	18,80
WTG 02			160	6,06	93,5	1,34	0,00	21,10
WTG 02			200	2,28	94,5	1,92	0,00	22,80
Sum								
Sum			20	50,75				
Sum			25	47,39				
Sum			32	43,10				
Sum			40	38,64				
Sum			50	34,69				
Sum			63	32,20				
Sum			80	28,84				
Sum			100	24,95				
Sum			125	21,26				
Sum			160	14,77				
Sum			200	10,95				

Noise sensitive area: U Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (153)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	4 194	4 197						
K 01			20	35,34	70,3	0,00	5,60	7,60
K 01			25	31,96	73,7	0,08	5,40	8,30
K 01			32	27,82	76,0	0,13	5,20	9,20
K 01			40	23,63	78,0	0,21	5,00	10,30
K 01			50	19,65	80,0	0,29	4,70	11,50
K 01			63	16,58	83,0	0,46	4,30	13,00
K 01			80	13,27	86,0	0,67	3,70	14,80
K 01			100	9,79	89,0	1,05	3,00	16,80
K 01			125	6,05	92,0	1,59	1,80	18,80
K 01			160	-1,55	92,0	2,39	0,00	21,10
K 01			200	-5,80	93,0	3,44	0,00	22,80
K 02	3 939	3 943						
K 02			20	35,88	70,3	0,00	5,60	7,60
K 02			25	32,51	73,7	0,08	5,40	8,30
K 02			32	28,37	76,0	0,12	5,20	9,20
K 02			40	24,19	78,0	0,20	5,00	10,30
K 02			50	20,21	80,0	0,28	4,70	11,50
K 02			63	17,15	83,0	0,43	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 02			80	13,85	86,0	0,63	3,70	14,80
K 02			100	10,40	89,0	0,99	3,00	16,80
K 02			125	6,69	92,0	1,50	1,80	18,80
K 02			160	-0,86	92,0	2,25	0,00	21,10
K 02			200	-5,05	93,0	3,23	0,00	22,80
K 03	3 993	3 996						
K 03			20	35,77	70,3	0,00	5,60	7,60
K 03			25	32,39	73,7	0,08	5,40	8,30
K 03			32	28,25	76,0	0,12	5,20	9,20
K 03			40	24,07	78,0	0,20	5,00	10,30
K 03			50	20,09	80,0	0,28	4,70	11,50
K 03			63	17,03	83,0	0,44	4,30	13,00
K 03			80	13,73	86,0	0,64	3,70	14,80
K 03			100	10,27	89,0	1,00	3,00	16,80
K 03			125	6,55	92,0	1,52	1,80	18,80
K 03			160	-1,01	92,0	2,28	0,00	21,10
K 03			200	-5,21	93,0	3,28	0,00	22,80
K 04	3 462	3 466						
K 04			20	37,00	70,3	0,00	5,60	7,60
K 04			25	33,63	73,7	0,07	5,40	8,30
K 04			32	29,50	76,0	0,10	5,20	9,20
K 04			40	25,33	78,0	0,17	5,00	10,30
K 04			50	21,36	80,0	0,24	4,70	11,50
K 04			63	18,32	83,0	0,38	4,30	13,00
K 04			80	15,05	86,0	0,55	3,70	14,80
K 04			100	11,64	89,0	0,87	3,00	16,80
K 04			125	7,99	92,0	1,32	1,80	18,80
K 04			160	0,53	92,0	1,98	0,00	21,10
K 04			200	-3,54	93,0	2,84	0,00	22,80
K 05	4 185	4 188						
K 05			20	35,36	70,3	0,00	5,60	7,60
K 05			25	31,98	73,7	0,08	5,40	8,30
K 05			32	27,83	76,0	0,13	5,20	9,20
K 05			40	23,65	78,0	0,21	5,00	10,30
K 05			50	19,67	80,0	0,29	4,70	11,50
K 05			63	16,60	83,0	0,46	4,30	13,00
K 05			80	13,29	86,0	0,67	3,70	14,80
K 05			100	9,81	89,0	1,05	3,00	16,80
K 05			125	6,07	92,0	1,59	1,80	18,80
K 05			160	-1,53	92,0	2,39	0,00	21,10
K 05			200	-5,77	93,0	3,43	0,00	22,80
K 06	3 319	3 323						
K 06			20	37,37	70,3	0,00	5,60	7,60
K 06			25	34,00	73,7	0,07	5,40	8,30
K 06			32	29,87	76,0	0,10	5,20	9,20
K 06			40	25,70	78,0	0,17	5,00	10,30
K 06			50	21,74	80,0	0,23	4,70	11,50
K 06			63	18,70	83,0	0,37	4,30	13,00
K 06			80	15,44	86,0	0,53	3,70	14,80
K 06			100	12,04	89,0	0,83	3,00	16,80
K 06			125	8,41	92,0	1,26	1,80	18,80
K 06			160	0,98	92,0	1,89	0,00	21,10
K 06			200	-3,06	93,0	2,72	0,00	22,80
K 07	2 698	2 703						
K 07			20	39,16	70,3	0,00	5,60	7,60
K 07			25	35,81	73,7	0,05	5,40	8,30
K 07			32	31,68	76,0	0,08	5,20	9,20
K 07			40	27,53	78,0	0,14	5,00	10,30
K 07			50	23,57	80,0	0,19	4,70	11,50
K 07			63	20,57	83,0	0,30	4,30	13,00
K 07			80	17,33	86,0	0,43	3,70	14,80
K 07			100	13,99	89,0	0,68	3,00	16,80
K 07			125	10,44	92,0	1,03	1,80	18,80
K 07			160	3,12	92,0	1,54	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			200	-0,75	93,0	2,22	0,00	22,80
K 08	3 173	3 176						
K 08			20	37,76	70,3	0,00	5,60	7,60
K 08			25	34,40	73,7	0,06	5,40	8,30
K 08			32	30,27	76,0	0,10	5,20	9,20
K 08			40	26,10	78,0	0,16	5,00	10,30
K 08			50	22,14	80,0	0,22	4,70	11,50
K 08			63	19,11	83,0	0,35	4,30	13,00
K 08			80	15,85	86,0	0,51	3,70	14,80
K 08			100	12,47	89,0	0,79	3,00	16,80
K 08			125	8,85	92,0	1,21	1,80	18,80
K 08			160	1,45	92,0	1,81	0,00	21,10
K 08			200	-2,54	93,0	2,60	0,00	22,80
K 09	3 174	3 178						
K 09			20	37,76	70,3	0,00	5,60	7,60
K 09			25	34,39	73,7	0,06	5,40	8,30
K 09			32	30,26	76,0	0,10	5,20	9,20
K 09			40	26,10	78,0	0,16	5,00	10,30
K 09			50	22,13	80,0	0,22	4,70	11,50
K 09			63	19,11	83,0	0,35	4,30	13,00
K 09			80	15,85	86,0	0,51	3,70	14,80
K 09			100	12,46	89,0	0,79	3,00	16,80
K 09			125	8,85	92,0	1,21	1,80	18,80
K 09			160	1,45	92,0	1,81	0,00	21,10
K 09			200	-2,55	93,0	2,61	0,00	22,80
K 10	4 915	4 918						
K 10			20	33,96	70,3	0,00	5,60	7,60
K 10			25	30,57	73,7	0,10	5,40	8,30
K 10			32	26,42	76,0	0,15	5,20	9,20
K 10			40	22,22	78,0	0,25	5,00	10,30
K 10			50	18,22	80,0	0,34	4,70	11,50
K 10			63	15,12	83,0	0,54	4,30	13,00
K 10			80	11,78	86,0	0,79	3,70	14,80
K 10			100	8,23	89,0	1,23	3,00	16,80
K 10			125	4,40	92,0	1,87	1,80	18,80
K 10			160	-3,34	92,0	2,80	0,00	21,10
K 10			200	-7,77	93,0	4,03	0,00	22,80
K 11	5 187	5 189						
K 11			20	33,50	70,3	0,00	5,60	7,60
K 11			25	30,09	73,7	0,10	5,40	8,30
K 11			32	25,94	76,0	0,16	5,20	9,20
K 11			40	21,74	78,0	0,26	5,00	10,30
K 11			50	17,74	80,0	0,36	4,70	11,50
K 11			63	14,63	83,0	0,57	4,30	13,00
K 11			80	11,27	86,0	0,83	3,70	14,80
K 11			100	7,70	89,0	1,30	3,00	16,80
K 11			125	3,83	92,0	1,97	1,80	18,80
K 11			160	-3,96	92,0	2,96	0,00	21,10
K 11			200	-8,46	93,0	4,25	0,00	22,80
K 12	4 974	4 976						
K 12			20	33,86	70,3	0,00	5,60	7,60
K 12			25	30,46	73,7	0,10	5,40	8,30
K 12			32	26,31	76,0	0,15	5,20	9,20
K 12			40	22,11	78,0	0,25	5,00	10,30
K 12			50	18,11	80,0	0,35	4,70	11,50
K 12			63	15,01	83,0	0,55	4,30	13,00
K 12			80	11,67	86,0	0,80	3,70	14,80
K 12			100	8,12	89,0	1,24	3,00	16,80
K 12			125	4,27	92,0	1,89	1,80	18,80
K 12			160	-3,47	92,0	2,84	0,00	21,10
K 12			200	-7,92	93,0	4,08	0,00	22,80
K 13	4 237	4 239						
K 13			20	35,25	70,3	0,00	5,60	7,60
K 13			25	31,87	73,7	0,08	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			32	27,73	76,0	0,13	5,20	9,20
K 13			40	23,54	78,0	0,21	5,00	10,30
K 13			50	19,56	80,0	0,30	4,70	11,50
K 13			63	16,49	83,0	0,47	4,30	13,00
K 13			80	13,18	86,0	0,68	3,70	14,80
K 13			100	9,69	89,0	1,06	3,00	16,80
K 13			125	5,94	92,0	1,61	1,80	18,80
K 13			160	-1,66	92,0	2,42	0,00	21,10
K 13			200	-5,92	93,0	3,48	0,00	22,80
K 14	3 996	3 999						
K 14			20	35,76	70,3	0,00	5,60	7,60
K 14			25	32,38	73,7	0,08	5,40	8,30
K 14			32	28,24	76,0	0,12	5,20	9,20
K 14			40	24,06	78,0	0,20	5,00	10,30
K 14			50	20,08	80,0	0,28	4,70	11,50
K 14			63	17,02	83,0	0,44	4,30	13,00
K 14			80	13,72	86,0	0,64	3,70	14,80
K 14			100	10,26	89,0	1,00	3,00	16,80
K 14			125	6,54	92,0	1,52	1,80	18,80
K 14			160	-1,02	92,0	2,28	0,00	21,10
K 14			200	-5,22	93,0	3,28	0,00	22,80
WTG 01	3 858	3 862						
WTG 01			20	37,56	71,8	0,00	5,60	7,60
WTG 01			25	34,19	75,2	0,08	5,40	8,30
WTG 01			32	29,65	77,1	0,12	5,20	9,20
WTG 01			40	24,67	78,3	0,19	5,00	10,30
WTG 01			50	20,69	80,3	0,27	4,70	11,50
WTG 01			63	18,94	84,6	0,42	4,30	13,00
WTG 01			80	15,35	87,3	0,62	3,70	14,80
WTG 01			100	10,50	88,9	0,97	3,00	16,80
WTG 01			125	6,40	91,5	1,47	1,80	18,80
WTG 01			160	0,86	93,5	2,20	0,00	21,10
WTG 01			200	-3,30	94,5	3,17	0,00	22,80
WTG 02	3 229	3 234						
WTG 02			20	39,11	71,8	0,00	5,60	7,60
WTG 02			25	35,74	75,2	0,06	5,40	8,30
WTG 02			32	31,21	77,1	0,10	5,20	9,20
WTG 02			40	26,24	78,3	0,16	5,00	10,30
WTG 02			50	22,28	80,3	0,23	4,70	11,50
WTG 02			63	20,55	84,6	0,36	4,30	13,00
WTG 02			80	16,99	87,3	0,52	3,70	14,80
WTG 02			100	12,20	88,9	0,81	3,00	16,80
WTG 02			125	8,18	91,5	1,23	1,80	18,80
WTG 02			160	2,76	93,5	1,84	0,00	21,10
WTG 02			200	-1,25	94,5	2,65	0,00	22,80
Sum								
Sum			20	48,65				
Sum			25	45,28				
Sum			32	41,07				
Sum			40	36,76				
Sum			50	32,79				
Sum			63	29,97				
Sum			80	26,63				
Sum			100	22,97				
Sum			125	19,25				
Sum			160	12,08				
Sum			200	7,98				

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

Noise sensitive area: V Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (152)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 343	3 346						
K 01			20	37,31	70,3	0,00	5,60	7,60
K 01			25	33,94	73,7	0,07	5,40	8,30
K 01			32	29,81	76,0	0,10	5,20	9,20
K 01			40	25,64	78,0	0,17	5,00	10,30
K 01			50	21,68	80,0	0,23	4,70	11,50
K 01			63	18,64	83,0	0,37	4,30	13,00
K 01			80	15,37	86,0	0,54	3,70	14,80
K 01			100	11,97	89,0	0,84	3,00	16,80
K 01			125	8,34	92,0	1,27	1,80	18,80
K 01			160	0,90	92,0	1,91	0,00	21,10
K 01			200	-3,13	93,0	2,74	0,00	22,80
K 02	2 985	2 989						
K 02			20	38,29	70,3	0,00	5,60	7,60
K 02			25	34,93	73,7	0,06	5,40	8,30
K 02			32	30,80	76,0	0,09	5,20	9,20
K 02			40	26,64	78,0	0,15	5,00	10,30
K 02			50	22,68	80,0	0,21	4,70	11,50
K 02			63	19,66	83,0	0,33	4,30	13,00
K 02			80	16,41	86,0	0,48	3,70	14,80
K 02			100	13,04	89,0	0,75	3,00	16,80
K 02			125	9,45	92,0	1,14	1,80	18,80
K 02			160	2,09	92,0	1,70	0,00	21,10
K 02			200	-1,86	93,0	2,45	0,00	22,80
K 03	2 918	2 922						
K 03			20	38,49	70,3	0,00	5,60	7,60
K 03			25	35,13	73,7	0,06	5,40	8,30
K 03			32	31,00	76,0	0,09	5,20	9,20
K 03			40	26,84	78,0	0,15	5,00	10,30
K 03			50	22,88	80,0	0,20	4,70	11,50
K 03			63	19,87	83,0	0,32	4,30	13,00
K 03			80	16,62	86,0	0,47	3,70	14,80
K 03			100	13,26	89,0	0,73	3,00	16,80
K 03			125	9,68	92,0	1,11	1,80	18,80
K 03			160	2,32	92,0	1,67	0,00	21,10
K 03			200	-1,61	93,0	2,40	0,00	22,80
K 04	2 302	2 307						
K 04			20	40,54	70,3	0,00	5,60	7,60
K 04			25	37,19	73,7	0,05	5,40	8,30
K 04			32	33,07	76,0	0,07	5,20	9,20
K 04			40	28,92	78,0	0,12	5,00	10,30
K 04			50	24,98	80,0	0,16	4,70	11,50
K 04			63	21,99	83,0	0,25	4,30	13,00
K 04			80	18,77	86,0	0,37	3,70	14,80
K 04			100	15,46	89,0	0,58	3,00	16,80
K 04			125	11,96	92,0	0,88	1,80	18,80
K 04			160	4,72	92,0	1,31	0,00	21,10
K 04			200	0,95	93,0	1,89	0,00	22,80
K 05	3 004	3 008						
K 05			20	38,24	70,3	0,00	5,60	7,60
K 05			25	34,88	73,7	0,06	5,40	8,30
K 05			32	30,75	76,0	0,09	5,20	9,20
K 05			40	26,58	78,0	0,15	5,00	10,30
K 05			50	22,62	80,0	0,21	4,70	11,50
K 05			63	19,60	83,0	0,33	4,30	13,00
K 05			80	16,35	86,0	0,48	3,70	14,80
K 05			100	12,98	89,0	0,75	3,00	16,80
K 05			125	9,39	92,0	1,14	1,80	18,80
K 05			160	2,02	92,0	1,71	0,00	21,10
K 05			200	-1,93	93,0	2,47	0,00	22,80
K 06	2 576	2 581						
K 06			20	39,56	70,3	0,00	5,60	7,60
K 06			25	36,21	73,7	0,05	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 06			32	32,09	76,0	0,08	5,20	9,20
K 06			40	27,94	78,0	0,13	5,00	10,30
K 06			50	23,98	80,0	0,18	4,70	11,50
K 06			63	20,98	83,0	0,28	4,30	13,00
K 06			80	17,75	86,0	0,41	3,70	14,80
K 06			100	14,42	89,0	0,65	3,00	16,80
K 06			125	10,88	92,0	0,98	1,80	18,80
K 06			160	3,59	92,0	1,47	0,00	21,10
K 06			200	-0,25	93,0	2,12	0,00	22,80
K 07	2 021	2 027						
K 07			20	41,66	70,3	0,00	5,60	7,60
K 07			25	38,32	73,7	0,04	5,40	8,30
K 07			32	34,20	76,0	0,06	5,20	9,20
K 07			40	30,06	78,0	0,10	5,00	10,30
K 07			50	26,12	80,0	0,14	4,70	11,50
K 07			63	23,14	83,0	0,22	4,30	13,00
K 07			80	19,94	86,0	0,32	3,70	14,80
K 07			100	16,66	89,0	0,51	3,00	16,80
K 07			125	13,19	92,0	0,77	1,80	18,80
K 07			160	6,01	92,0	1,16	0,00	21,10
K 07			200	2,30	93,0	1,66	0,00	22,80
K 08	2 206	2 211						
K 08			20	40,91	70,3	0,00	5,60	7,60
K 08			25	37,56	73,7	0,04	5,40	8,30
K 08			32	33,44	76,0	0,07	5,20	9,20
K 08			40	29,30	78,0	0,11	5,00	10,30
K 08			50	25,35	80,0	0,15	4,70	11,50
K 08			63	22,36	83,0	0,24	4,30	13,00
K 08			80	19,15	86,0	0,35	3,70	14,80
K 08			100	15,85	89,0	0,55	3,00	16,80
K 08			125	12,37	92,0	0,84	1,80	18,80
K 08			160	5,15	92,0	1,26	0,00	21,10
K 08			200	1,39	93,0	1,81	0,00	22,80
K 09	2 095	2 100						
K 09			20	41,35	70,3	0,00	5,60	7,60
K 09			25	38,01	73,7	0,04	5,40	8,30
K 09			32	33,89	76,0	0,06	5,20	9,20
K 09			40	29,75	78,0	0,11	5,00	10,30
K 09			50	25,81	80,0	0,15	4,70	11,50
K 09			63	22,82	83,0	0,23	4,30	13,00
K 09			80	19,62	86,0	0,34	3,70	14,80
K 09			100	16,33	89,0	0,53	3,00	16,80
K 09			125	12,86	92,0	0,80	1,80	18,80
K 09			160	5,66	92,0	1,20	0,00	21,10
K 09			200	1,93	93,0	1,72	0,00	22,80
K 10	4 266	4 269						
K 10			20	35,19	70,3	0,00	5,60	7,60
K 10			25	31,81	73,7	0,09	5,40	8,30
K 10			32	27,67	76,0	0,13	5,20	9,20
K 10			40	23,48	78,0	0,21	5,00	10,30
K 10			50	19,50	80,0	0,30	4,70	11,50
K 10			63	16,42	83,0	0,47	4,30	13,00
K 10			80	13,11	86,0	0,68	3,70	14,80
K 10			100	9,63	89,0	1,07	3,00	16,80
K 10			125	5,87	92,0	1,62	1,80	18,80
K 10			160	-1,74	92,0	2,43	0,00	21,10
K 10			200	-6,01	93,0	3,50	0,00	22,80
K 11	4 666	4 669						
K 11			20	34,42	70,3	0,00	5,60	7,60
K 11			25	31,02	73,7	0,09	5,40	8,30
K 11			32	26,88	76,0	0,14	5,20	9,20
K 11			40	22,68	78,0	0,23	5,00	10,30
K 11			50	18,69	80,0	0,33	4,70	11,50
K 11			63	15,60	83,0	0,51	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 11			80	12,27	86,0	0,75	3,70	14,80
K 11			100	8,75	89,0	1,17	3,00	16,80
K 11			125	4,94	92,0	1,77	1,80	18,80
K 11			160	-2,75	92,0	2,66	0,00	21,10
K 11			200	-7,11	93,0	3,83	0,00	22,80
K 12	4 644	4 646						
K 12			20	34,46	70,3	0,00	5,60	7,60
K 12			25	31,07	73,7	0,09	5,40	8,30
K 12			32	26,92	76,0	0,14	5,20	9,20
K 12			40	22,73	78,0	0,23	5,00	10,30
K 12			50	18,73	80,0	0,33	4,70	11,50
K 12			63	15,65	83,0	0,51	4,30	13,00
K 12			80	12,32	86,0	0,74	3,70	14,80
K 12			100	8,80	89,0	1,16	3,00	16,80
K 12			125	4,99	92,0	1,77	1,80	18,80
K 12			160	-2,69	92,0	2,65	0,00	21,10
K 12			200	-7,05	93,0	3,81	0,00	22,80
K 13	3 795	3 798						
K 13			20	36,21	70,3	0,00	5,60	7,60
K 13			25	32,83	73,7	0,08	5,40	8,30
K 13			32	28,69	76,0	0,11	5,20	9,20
K 13			40	24,52	78,0	0,19	5,00	10,30
K 13			50	20,54	80,0	0,27	4,70	11,50
K 13			63	17,49	83,0	0,42	4,30	13,00
K 13			80	14,20	86,0	0,61	3,70	14,80
K 13			100	10,76	89,0	0,95	3,00	16,80
K 13			125	7,06	92,0	1,44	1,80	18,80
K 13			160	-0,46	92,0	2,17	0,00	21,10
K 13			200	-4,61	93,0	3,11	0,00	22,80
K 14	3 385	3 388						
K 14			20	37,20	70,3	0,00	5,60	7,60
K 14			25	33,83	73,7	0,07	5,40	8,30
K 14			32	29,70	76,0	0,10	5,20	9,20
K 14			40	25,53	78,0	0,17	5,00	10,30
K 14			50	21,56	80,0	0,24	4,70	11,50
K 14			63	18,53	83,0	0,37	4,30	13,00
K 14			80	15,26	86,0	0,54	3,70	14,80
K 14			100	11,85	89,0	0,85	3,00	16,80
K 14			125	8,21	92,0	1,29	1,80	18,80
K 14			160	0,77	92,0	1,93	0,00	21,10
K 14			200	-3,28	93,0	2,78	0,00	22,80
WTG 01	2 659	2 665						
WTG 01			20	40,79	71,8	0,00	5,60	7,60
WTG 01			25	37,43	75,2	0,05	5,40	8,30
WTG 01			32	32,91	77,1	0,08	5,20	9,20
WTG 01			40	27,95	78,3	0,13	5,00	10,30
WTG 01			50	24,00	80,3	0,19	4,70	11,50
WTG 01			63	22,29	84,6	0,29	4,30	13,00
WTG 01			80	18,76	87,3	0,43	3,70	14,80
WTG 01			100	14,02	88,9	0,67	3,00	16,80
WTG 01			125	10,07	91,5	1,01	1,80	18,80
WTG 01			160	4,77	93,5	1,52	0,00	21,10
WTG 01			200	0,90	94,5	2,19	0,00	22,80
WTG 02	2 021	2 029						
WTG 02			20	43,16	71,8	0,00	5,60	7,60
WTG 02			25	39,82	75,2	0,04	5,40	8,30
WTG 02			32	35,29	77,1	0,06	5,20	9,20
WTG 02			40	30,35	78,3	0,10	5,00	10,30
WTG 02			50	26,41	80,3	0,14	4,70	11,50
WTG 02			63	24,73	84,6	0,22	4,30	13,00
WTG 02			80	21,23	87,3	0,32	3,70	14,80
WTG 02			100	16,55	88,9	0,51	3,00	16,80
WTG 02			125	12,68	91,5	0,77	1,80	18,80
WTG 02			160	7,50	93,5	1,16	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			200	3,79	94,5	1,66	0,00	22,80
Sum								
Sum			20	51,39				
Sum			25	48,04				
Sum			32	43,82				
Sum			40	39,51				
Sum			50	35,55				
Sum			63	32,83				
Sum			80	29,53				
Sum			100	25,90				
Sum			125	22,29				
Sum			160	15,42				
Sum			200	11,58				

Noise sensitive area: W Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (151)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 694	3 698						
K 01			20	36,44	70,3	0,00	5,60	7,60
K 01			25	33,07	73,7	0,07	5,40	8,30
K 01			32	28,93	76,0	0,11	5,20	9,20
K 01			40	24,76	78,0	0,18	5,00	10,30
K 01			50	20,78	80,0	0,26	4,70	11,50
K 01			63	17,73	83,0	0,41	4,30	13,00
K 01			80	14,45	86,0	0,59	3,70	14,80
K 01			100	11,02	89,0	0,92	3,00	16,80
K 01			125	7,34	92,0	1,41	1,80	18,80
K 01			160	-0,17	92,0	2,11	0,00	21,10
K 01			200	-4,29	93,0	3,03	0,00	22,80
K 02	3 207	3 211						
K 02			20	37,67	70,3	0,00	5,60	7,60
K 02			25	34,30	73,7	0,06	5,40	8,30
K 02			32	30,17	76,0	0,10	5,20	9,20
K 02			40	26,01	78,0	0,16	5,00	10,30
K 02			50	22,04	80,0	0,22	4,70	11,50
K 02			63	19,01	83,0	0,35	4,30	13,00
K 02			80	15,75	86,0	0,51	3,70	14,80
K 02			100	12,36	89,0	0,80	3,00	16,80
K 02			125	8,75	92,0	1,22	1,80	18,80
K 02			160	1,34	92,0	1,83	0,00	21,10
K 02			200	-2,67	93,0	2,63	0,00	22,80
K 03	2 578	2 584						
K 03			20	39,56	70,3	0,00	5,60	7,60
K 03			25	36,20	73,7	0,05	5,40	8,30
K 03			32	32,08	76,0	0,08	5,20	9,20
K 03			40	27,93	78,0	0,13	5,00	10,30
K 03			50	23,97	80,0	0,18	4,70	11,50
K 03			63	20,97	83,0	0,28	4,30	13,00
K 03			80	17,74	86,0	0,41	3,70	14,80
K 03			100	14,41	89,0	0,65	3,00	16,80
K 03			125	10,87	92,0	0,98	1,80	18,80
K 03			160	3,58	92,0	1,47	0,00	21,10
K 03			200	-0,26	93,0	2,12	0,00	22,80
K 04	2 312	2 318						
K 04			20	40,50	70,3	0,00	5,60	7,60
K 04			25	37,15	73,7	0,05	5,40	8,30
K 04			32	33,03	76,0	0,07	5,20	9,20
K 04			40	28,88	78,0	0,12	5,00	10,30
K 04			50	24,93	80,0	0,16	4,70	11,50
K 04			63	21,94	83,0	0,26	4,30	13,00
K 04			80	18,73	86,0	0,37	3,70	14,80
K 04			100	15,42	89,0	0,58	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			125	11,92	92,0	0,88	1,80	18,80
K 04			160	4,68	92,0	1,32	0,00	21,10
K 04			200	0,90	93,0	1,90	0,00	22,80
K 05	1 706	1 715						
K 05			20	43,11	70,3	0,00	5,60	7,60
K 05			25	39,78	73,7	0,03	5,40	8,30
K 05			32	35,66	76,0	0,05	5,20	9,20
K 05			40	31,53	78,0	0,09	5,00	10,30
K 05			50	27,59	80,0	0,12	4,70	11,50
K 05			63	24,63	83,0	0,19	4,30	13,00
K 05			80	21,44	86,0	0,27	3,70	14,80
K 05			100	18,19	89,0	0,43	3,00	16,80
K 05			125	14,76	92,0	0,65	1,80	18,80
K 05			160	7,64	92,0	0,98	0,00	21,10
K 05			200	4,01	93,0	1,41	0,00	22,80
K 06	3 968	3 971						
K 06			20	35,82	70,3	0,00	5,60	7,60
K 06			25	32,44	73,7	0,08	5,40	8,30
K 06			32	28,30	76,0	0,12	5,20	9,20
K 06			40	24,12	78,0	0,20	5,00	10,30
K 06			50	20,14	80,0	0,28	4,70	11,50
K 06			63	17,08	83,0	0,44	4,30	13,00
K 06			80	13,79	86,0	0,64	3,70	14,80
K 06			100	10,33	89,0	0,99	3,00	16,80
K 06			125	6,61	92,0	1,51	1,80	18,80
K 06			160	-0,94	92,0	2,26	0,00	21,10
K 06			200	-5,14	93,0	3,26	0,00	22,80
K 07	4 109	4 112						
K 07			20	35,52	70,3	0,00	5,60	7,60
K 07			25	32,14	73,7	0,08	5,40	8,30
K 07			32	28,00	76,0	0,12	5,20	9,20
K 07			40	23,81	78,0	0,21	5,00	10,30
K 07			50	19,83	80,0	0,29	4,70	11,50
K 07			63	16,77	83,0	0,45	4,30	13,00
K 07			80	13,46	86,0	0,66	3,70	14,80
K 07			100	9,99	89,0	1,03	3,00	16,80
K 07			125	6,26	92,0	1,56	1,80	18,80
K 07			160	-1,33	92,0	2,34	0,00	21,10
K 07			200	-5,55	93,0	3,37	0,00	22,80
K 08	3 257	3 261						
K 08			20	37,53	70,3	0,00	5,60	7,60
K 08			25	34,17	73,7	0,07	5,40	8,30
K 08			32	30,03	76,0	0,10	5,20	9,20
K 08			40	25,87	78,0	0,16	5,00	10,30
K 08			50	21,90	80,0	0,23	4,70	11,50
K 08			63	18,87	83,0	0,36	4,30	13,00
K 08			80	15,61	86,0	0,52	3,70	14,80
K 08			100	12,22	89,0	0,82	3,00	16,80
K 08			125	8,59	92,0	1,24	1,80	18,80
K 08			160	1,17	92,0	1,86	0,00	21,10
K 08			200	-2,84	93,0	2,67	0,00	22,80
K 09	2 851	2 856						
K 09			20	38,68	70,3	0,00	5,60	7,60
K 09			25	35,33	73,7	0,06	5,40	8,30
K 09			32	31,20	76,0	0,09	5,20	9,20
K 09			40	27,04	78,0	0,14	5,00	10,30
K 09			50	23,08	80,0	0,20	4,70	11,50
K 09			63	20,07	83,0	0,31	4,30	13,00
K 09			80	16,83	86,0	0,46	3,70	14,80
K 09			100	13,47	89,0	0,71	3,00	16,80
K 09			125	9,90	92,0	1,09	1,80	18,80
K 09			160	2,56	92,0	1,63	0,00	21,10
K 09			200	-1,36	93,0	2,34	0,00	22,80
K 10	4 817	4 820						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			20	34,14	70,3	0,00	5,60	7,60
K 10			25	30,74	73,7	0,10	5,40	8,30
K 10			32	26,59	76,0	0,14	5,20	9,20
K 10			40	22,40	78,0	0,24	5,00	10,30
K 10			50	18,40	80,0	0,34	4,70	11,50
K 10			63	15,31	83,0	0,53	4,30	13,00
K 10			80	11,97	86,0	0,77	3,70	14,80
K 10			100	8,43	89,0	1,20	3,00	16,80
K 10			125	4,61	92,0	1,83	1,80	18,80
K 10			160	-3,11	92,0	2,75	0,00	21,10
K 10			200	-7,51	93,0	3,95	0,00	22,80
K 11	5 486	5 489	20	33,01	70,3	0,00	5,60	7,60
K 11			25	29,60	73,7	0,11	5,40	8,30
K 11			32	25,45	76,0	0,16	5,20	9,20
K 11			40	21,24	78,0	0,27	5,00	10,30
K 11			50	17,23	80,0	0,38	4,70	11,50
K 11			63	14,11	83,0	0,60	4,30	13,00
K 11			80	10,73	86,0	0,88	3,70	14,80
K 11			100	7,14	89,0	1,37	3,00	16,80
K 11			125	3,22	92,0	2,09	1,80	18,80
K 11			160	-4,62	92,0	3,13	0,00	21,10
K 11			200	-9,19	93,0	4,50	0,00	22,80
K 12	6 054	6 056	20	32,16	70,3	0,00	5,60	7,60
K 12			25	28,74	73,7	0,12	5,40	8,30
K 12			32	24,57	76,0	0,18	5,20	9,20
K 12			40	20,35	78,0	0,30	5,00	10,30
K 12			50	16,33	80,0	0,42	4,70	11,50
K 12			63	13,19	83,0	0,67	4,30	13,00
K 12			80	9,79	86,0	0,97	3,70	14,80
K 12			100	6,14	89,0	1,51	3,00	16,80
K 12			125	2,16	92,0	2,30	1,80	18,80
K 12			160	-5,80	92,0	3,45	0,00	21,10
K 12			200	-10,51	93,0	4,97	0,00	22,80
K 13	5 245	5 248	20	33,40	70,3	0,00	5,60	7,60
K 13			25	30,00	73,7	0,10	5,40	8,30
K 13			32	25,84	76,0	0,16	5,20	9,20
K 13			40	21,64	78,0	0,26	5,00	10,30
K 13			50	17,63	80,0	0,37	4,70	11,50
K 13			63	14,52	83,0	0,58	4,30	13,00
K 13			80	11,16	86,0	0,84	3,70	14,80
K 13			100	7,59	89,0	1,31	3,00	16,80
K 13			125	3,71	92,0	1,99	1,80	18,80
K 13			160	-4,09	92,0	2,99	0,00	21,10
K 13			200	-8,60	93,0	4,30	0,00	22,80
K 14	4 563	4 567	20	34,61	70,3	0,00	5,60	7,60
K 14			25	31,22	73,7	0,09	5,40	8,30
K 14			32	27,07	76,0	0,14	5,20	9,20
K 14			40	22,88	78,0	0,23	5,00	10,30
K 14			50	18,89	80,0	0,32	4,70	11,50
K 14			63	15,81	83,0	0,50	4,30	13,00
K 14			80	12,48	86,0	0,73	3,70	14,80
K 14			100	8,97	89,0	1,14	3,00	16,80
K 14			125	5,17	92,0	1,74	1,80	18,80
K 14			160	-2,49	92,0	2,60	0,00	21,10
K 14			200	-6,84	93,0	3,74	0,00	22,80
WTG 01	1 500	1 513	20	45,70	71,8	0,00	5,60	7,60
WTG 01			25	42,37	75,2	0,03	5,40	8,30
WTG 01			32	37,86	77,1	0,05	5,20	9,20
WTG 01			40	32,93	78,3	0,08	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 01			50	29,00	80,3	0,11	4,70	11,50
WTG 01			63	27,34	84,6	0,17	4,30	13,00
WTG 01			80	23,86	87,3	0,24	3,70	14,80
WTG 01			100	19,23	88,9	0,38	3,00	16,80
WTG 01			125	15,43	91,5	0,57	1,80	18,80
WTG 01			160	10,34	93,5	0,86	0,00	21,10
WTG 01			200	6,76	94,5	1,24	0,00	22,80
WTG 02	2 194	2 202						
WTG 02			20	42,44	71,8	0,00	5,60	7,60
WTG 02			25	39,10	75,2	0,04	5,40	8,30
WTG 02			32	34,58	77,1	0,07	5,20	9,20
WTG 02			40	29,63	78,3	0,11	5,00	10,30
WTG 02			50	25,69	80,3	0,15	4,70	11,50
WTG 02			63	24,00	84,6	0,24	4,30	13,00
WTG 02			80	20,49	87,3	0,35	3,70	14,80
WTG 02			100	15,79	88,9	0,55	3,00	16,80
WTG 02			125	11,91	91,5	0,84	1,80	18,80
WTG 02			160	6,69	93,5	1,26	0,00	21,10
WTG 02			200	2,94	94,5	1,81	0,00	22,80
Sum								
Sum			20	51,38				
Sum			25	48,03				
Sum			32	43,75				
Sum			40	39,32				
Sum			50	35,36				
Sum			63	32,85				
Sum			80	29,51				
Sum			100	25,67				
Sum			125	22,02				
Sum			160	15,51				
Sum			200	11,73				

Noise sensitive area: X Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (150)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 553	3 557						
K 01			20	36,78	70,3	0,00	5,60	7,60
K 01			25	33,41	73,7	0,07	5,40	8,30
K 01			32	29,27	76,0	0,11	5,20	9,20
K 01			40	25,10	78,0	0,18	5,00	10,30
K 01			50	21,13	80,0	0,25	4,70	11,50
K 01			63	18,09	83,0	0,39	4,30	13,00
K 01			80	14,81	86,0	0,57	3,70	14,80
K 01			100	11,39	89,0	0,89	3,00	16,80
K 01			125	7,73	92,0	1,35	1,80	18,80
K 01			160	0,25	92,0	2,03	0,00	21,10
K 01			200	-3,84	93,0	2,92	0,00	22,80
K 02	3 109	3 114						
K 02			20	37,93	70,3	0,00	5,60	7,60
K 02			25	34,57	73,7	0,06	5,40	8,30
K 02			32	30,44	76,0	0,09	5,20	9,20
K 02			40	26,28	78,0	0,16	5,00	10,30
K 02			50	22,31	80,0	0,22	4,70	11,50
K 02			63	19,29	83,0	0,34	4,30	13,00
K 02			80	16,03	86,0	0,50	3,70	14,80
K 02			100	12,65	89,0	0,78	3,00	16,80
K 02			125	9,05	92,0	1,18	1,80	18,80
K 02			160	1,66	92,0	1,78	0,00	21,10
K 02			200	-2,32	93,0	2,55	0,00	22,80
K 03	2 504	2 510						
K 03			20	39,81	70,3	0,00	5,60	7,60
K 03			25	36,46	73,7	0,05	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 03			32	32,33	76,0	0,08	5,20	9,20
K 03			40	28,18	78,0	0,13	5,00	10,30
K 03			50	24,23	80,0	0,18	4,70	11,50
K 03			63	21,23	83,0	0,28	4,30	13,00
K 03			80	18,01	86,0	0,40	3,70	14,80
K 03			100	14,68	89,0	0,63	3,00	16,80
K 03			125	11,15	92,0	0,95	1,80	18,80
K 03			160	3,88	92,0	1,43	0,00	21,10
K 03			200	0,05	93,0	2,06	0,00	22,80
K 04	2 406	2 412						
K 04			20	40,15	70,3	0,00	5,60	7,60
K 04			25	36,80	73,7	0,05	5,40	8,30
K 04			32	32,68	76,0	0,07	5,20	9,20
K 04			40	28,53	78,0	0,12	5,00	10,30
K 04			50	24,58	80,0	0,17	4,70	11,50
K 04			63	21,59	83,0	0,27	4,30	13,00
K 04			80	18,37	86,0	0,39	3,70	14,80
K 04			100	15,05	89,0	0,60	3,00	16,80
K 04			125	11,54	92,0	0,92	1,80	18,80
K 04			160	4,28	92,0	1,37	0,00	21,10
K 04			200	0,47	93,0	1,98	0,00	22,80
K 05	1 710	1 718						
K 05			20	43,10	70,3	0,00	5,60	7,60
K 05			25	39,76	73,7	0,03	5,40	8,30
K 05			32	35,65	76,0	0,05	5,20	9,20
K 05			40	31,51	78,0	0,09	5,00	10,30
K 05			50	27,58	80,0	0,12	4,70	11,50
K 05			63	24,61	83,0	0,19	4,30	13,00
K 05			80	21,42	86,0	0,27	3,70	14,80
K 05			100	18,17	89,0	0,43	3,00	16,80
K 05			125	14,75	92,0	0,65	1,80	18,80
K 05			160	7,62	92,0	0,98	0,00	21,10
K 05			200	3,99	93,0	1,41	0,00	22,80
K 06	3 942	3 945						
K 06			20	35,88	70,3	0,00	5,60	7,60
K 06			25	32,50	73,7	0,08	5,40	8,30
K 06			32	28,36	76,0	0,12	5,20	9,20
K 06			40	24,18	78,0	0,20	5,00	10,30
K 06			50	20,20	80,0	0,28	4,70	11,50
K 06			63	17,14	83,0	0,43	4,30	13,00
K 06			80	13,85	86,0	0,63	3,70	14,80
K 06			100	10,39	89,0	0,99	3,00	16,80
K 06			125	6,68	92,0	1,50	1,80	18,80
K 06			160	-0,87	92,0	2,25	0,00	21,10
K 06			200	-5,06	93,0	3,24	0,00	22,80
K 07	4 159	4 163						
K 07			20	35,41	70,3	0,00	5,60	7,60
K 07			25	32,03	73,7	0,08	5,40	8,30
K 07			32	27,89	76,0	0,12	5,20	9,20
K 07			40	23,70	78,0	0,21	5,00	10,30
K 07			50	19,72	80,0	0,29	4,70	11,50
K 07			63	16,65	83,0	0,46	4,30	13,00
K 07			80	13,35	86,0	0,67	3,70	14,80
K 07			100	9,87	89,0	1,04	3,00	16,80
K 07			125	6,13	92,0	1,58	1,80	18,80
K 07			160	-1,46	92,0	2,37	0,00	21,10
K 07			200	-5,70	93,0	3,41	0,00	22,80
K 08	3 283	3 288						
K 08			20	37,46	70,3	0,00	5,60	7,60
K 08			25	34,10	73,7	0,07	5,40	8,30
K 08			32	29,96	76,0	0,10	5,20	9,20
K 08			40	25,80	78,0	0,16	5,00	10,30
K 08			50	21,83	80,0	0,23	4,70	11,50
K 08			63	18,80	83,0	0,36	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 08			80	15,54	86,0	0,53	3,70	14,80
K 08			100	12,14	89,0	0,82	3,00	16,80
K 08			125	8,51	92,0	1,25	1,80	18,80
K 08			160	1,09	92,0	1,87	0,00	21,10
K 08			200	-2,93	93,0	2,70	0,00	22,80
K 09	2 920	2 925						
K 09			20	38,48	70,3	0,00	5,60	7,60
K 09			25	35,12	73,7	0,06	5,40	8,30
K 09			32	30,99	76,0	0,09	5,20	9,20
K 09			40	26,83	78,0	0,15	5,00	10,30
K 09			50	22,87	80,0	0,20	4,70	11,50
K 09			63	19,85	83,0	0,32	4,30	13,00
K 09			80	16,61	86,0	0,47	3,70	14,80
K 09			100	13,25	89,0	0,73	3,00	16,80
K 09			125	9,66	92,0	1,11	1,80	18,80
K 09			160	2,31	92,0	1,67	0,00	21,10
K 09			200	-1,62	93,0	2,40	0,00	22,80
K 10	4 614	4 618						
K 10			20	34,51	70,3	0,00	5,60	7,60
K 10			25	31,12	73,7	0,09	5,40	8,30
K 10			32	26,97	76,0	0,14	5,20	9,20
K 10			40	22,78	78,0	0,23	5,00	10,30
K 10			50	18,79	80,0	0,32	4,70	11,50
K 10			63	15,70	83,0	0,51	4,30	13,00
K 10			80	12,37	86,0	0,74	3,70	14,80
K 10			100	8,86	89,0	1,15	3,00	16,80
K 10			125	5,06	92,0	1,75	1,80	18,80
K 10			160	-2,62	92,0	2,63	0,00	21,10
K 10			200	-6,97	93,0	3,79	0,00	22,80
K 11	5 284	5 287						
K 11			20	33,34	70,3	0,00	5,60	7,60
K 11			25	29,93	73,7	0,11	5,40	8,30
K 11			32	25,78	76,0	0,16	5,20	9,20
K 11			40	21,57	78,0	0,26	5,00	10,30
K 11			50	17,57	80,0	0,37	4,70	11,50
K 11			63	14,45	83,0	0,58	4,30	13,00
K 11			80	11,09	86,0	0,85	3,70	14,80
K 11			100	7,51	89,0	1,32	3,00	16,80
K 11			125	3,63	92,0	2,01	1,80	18,80
K 11			160	-4,18	92,0	3,01	0,00	21,10
K 11			200	-8,70	93,0	4,34	0,00	22,80
K 12	5 900	5 902						
K 12			20	32,38	70,3	0,00	5,60	7,60
K 12			25	28,96	73,7	0,12	5,40	8,30
K 12			32	24,80	76,0	0,18	5,20	9,20
K 12			40	20,58	78,0	0,30	5,00	10,30
K 12			50	16,57	80,0	0,41	4,70	11,50
K 12			63	13,43	83,0	0,65	4,30	13,00
K 12			80	10,03	86,0	0,94	3,70	14,80
K 12			100	6,40	89,0	1,48	3,00	16,80
K 12			125	2,44	92,0	2,24	1,80	18,80
K 12			160	-5,49	92,0	3,36	0,00	21,10
K 12			200	-10,16	93,0	4,84	0,00	22,80
K 13	5 131	5 134						
K 13			20	33,59	70,3	0,00	5,60	7,60
K 13			25	30,19	73,7	0,10	5,40	8,30
K 13			32	26,04	76,0	0,15	5,20	9,20
K 13			40	21,83	78,0	0,26	5,00	10,30
K 13			50	17,83	80,0	0,36	4,70	11,50
K 13			63	14,73	83,0	0,56	4,30	13,00
K 13			80	11,37	86,0	0,82	3,70	14,80
K 13			100	7,81	89,0	1,28	3,00	16,80
K 13			125	3,94	92,0	1,95	1,80	18,80
K 13			160	-3,84	92,0	2,93	0,00	21,10

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			200	-8,32	93,0	4,21	0,00	22,80
K 14	4 457	4 460						
K 14			20	34,81	70,3	0,00	5,60	7,60
K 14			25	31,42	73,7	0,09	5,40	8,30
K 14			32	27,28	76,0	0,13	5,20	9,20
K 14			40	23,09	78,0	0,22	5,00	10,30
K 14			50	19,10	80,0	0,31	4,70	11,50
K 14			63	16,02	83,0	0,49	4,30	13,00
K 14			80	12,70	86,0	0,71	3,70	14,80
K 14			100	9,20	89,0	1,12	3,00	16,80
K 14			125	5,42	92,0	1,69	1,80	18,80
K 14			160	-2,23	92,0	2,54	0,00	21,10
K 14			200	-6,54	93,0	3,66	0,00	22,80
WTG 01	1 864	1 874						
WTG 01			20	43,85	71,8	0,00	5,60	7,60
WTG 01			25	40,51	75,2	0,04	5,40	8,30
WTG 01			32	35,99	77,1	0,06	5,20	9,20
WTG 01			40	31,05	78,3	0,09	5,00	10,30
WTG 01			50	27,12	80,3	0,13	4,70	11,50
WTG 01			63	25,44	84,6	0,21	4,30	13,00
WTG 01			80	21,95	87,3	0,30	3,70	14,80
WTG 01			100	17,28	88,9	0,47	3,00	16,80
WTG 01			125	13,43	91,5	0,71	1,80	18,80
WTG 01			160	8,28	93,5	1,07	0,00	21,10
WTG 01			200	4,61	94,5	1,54	0,00	22,80
WTG 02	2 419	2 427						
WTG 02			20	41,60	71,8	0,00	5,60	7,60
WTG 02			25	38,25	75,2	0,05	5,40	8,30
WTG 02			32	33,73	77,1	0,07	5,20	9,20
WTG 02			40	28,78	78,3	0,12	5,00	10,30
WTG 02			50	24,83	80,3	0,17	4,70	11,50
WTG 02			63	23,13	84,6	0,27	4,30	13,00
WTG 02			80	19,61	87,3	0,39	3,70	14,80
WTG 02			100	14,89	88,9	0,61	3,00	16,80
WTG 02			125	10,98	91,5	0,92	1,80	18,80
WTG 02			160	5,72	93,5	1,38	0,00	21,10
WTG 02			200	1,91	94,5	1,99	0,00	22,80
Sum								
Sum			20	50,86				
Sum			25	47,51				
Sum			32	43,26				
Sum			40	38,88				
Sum			50	34,93				
Sum			63	32,30				
Sum			80	28,97				
Sum			100	25,23				
Sum			125	21,58				
Sum			160	14,86				
Sum			200	11,02				

Noise sensitive area: Y Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (149)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 224	3 228						
K 01			20	37,62	70,3	0,00	5,60	7,60
K 01			25	34,26	73,7	0,06	5,40	8,30
K 01			32	30,12	76,0	0,10	5,20	9,20
K 01			40	25,96	78,0	0,16	5,00	10,30
K 01			50	21,99	80,0	0,23	4,70	11,50
K 01			63	18,96	83,0	0,36	4,30	13,00
K 01			80	15,70	86,0	0,52	3,70	14,80
K 01			100	12,31	89,0	0,81	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01			125	8,69	92,0	1,23	1,80	18,80
K 01			160	1,28	92,0	1,84	0,00	21,10
K 01			200	-2,73	93,0	2,65	0,00	22,80
K 02	2 816	2 821						
K 02			20	38,79	70,3	0,00	5,60	7,60
K 02			25	35,44	73,7	0,06	5,40	8,30
K 02			32	31,31	76,0	0,08	5,20	9,20
K 02			40	27,15	78,0	0,14	5,00	10,30
K 02			50	23,19	80,0	0,20	4,70	11,50
K 02			63	20,18	83,0	0,31	4,30	13,00
K 02			80	16,94	86,0	0,45	3,70	14,80
K 02			100	13,59	89,0	0,71	3,00	16,80
K 02			125	10,02	92,0	1,07	1,80	18,80
K 02			160	2,68	92,0	1,61	0,00	21,10
K 02			200	-1,22	93,0	2,31	0,00	22,80
K 03	2 240	2 246						
K 03			20	40,77	70,3	0,00	5,60	7,60
K 03			25	37,43	73,7	0,04	5,40	8,30
K 03			32	33,30	76,0	0,07	5,20	9,20
K 03			40	29,16	78,0	0,11	5,00	10,30
K 03			50	25,21	80,0	0,16	4,70	11,50
K 03			63	22,22	83,0	0,25	4,30	13,00
K 03			80	19,01	86,0	0,36	3,70	14,80
K 03			100	15,71	89,0	0,56	3,00	16,80
K 03			125	12,22	92,0	0,85	1,80	18,80
K 03			160	4,99	92,0	1,28	0,00	21,10
K 03			200	1,23	93,0	1,84	0,00	22,80
K 04	2 280	2 286						
K 04			20	40,62	70,3	0,00	5,60	7,60
K 04			25	37,27	73,7	0,05	5,40	8,30
K 04			32	33,15	76,0	0,07	5,20	9,20
K 04			40	29,00	78,0	0,11	5,00	10,30
K 04			50	25,06	80,0	0,16	4,70	11,50
K 04			63	22,07	83,0	0,25	4,30	13,00
K 04			80	18,85	86,0	0,37	3,70	14,80
K 04			100	15,55	89,0	0,57	3,00	16,80
K 04			125	12,05	92,0	0,87	1,80	18,80
K 04			160	4,81	92,0	1,30	0,00	21,10
K 04			200	1,04	93,0	1,87	0,00	22,80
K 05	1 543	1 552						
K 05			20	43,98	70,3	0,00	5,60	7,60
K 05			25	40,65	73,7	0,03	5,40	8,30
K 05			32	36,54	76,0	0,05	5,20	9,20
K 05			40	32,40	78,0	0,08	5,00	10,30
K 05			50	28,47	80,0	0,11	4,70	11,50
K 05			63	25,51	83,0	0,17	4,30	13,00
K 05			80	22,33	86,0	0,25	3,70	14,80
K 05			100	19,09	89,0	0,39	3,00	16,80
K 05			125	15,69	92,0	0,59	1,80	18,80
K 05			160	8,60	92,0	0,88	0,00	21,10
K 05			200	5,01	93,0	1,27	0,00	22,80
K 06	3 689	3 693						
K 06			20	36,45	70,3	0,00	5,60	7,60
K 06			25	33,08	73,7	0,07	5,40	8,30
K 06			32	28,94	76,0	0,11	5,20	9,20
K 06			40	24,77	78,0	0,18	5,00	10,30
K 06			50	20,79	80,0	0,26	4,70	11,50
K 06			63	17,75	83,0	0,41	4,30	13,00
K 06			80	14,46	86,0	0,59	3,70	14,80
K 06			100	11,03	89,0	0,92	3,00	16,80
K 06			125	7,35	92,0	1,40	1,80	18,80
K 06			160	-0,15	92,0	2,10	0,00	21,10
K 06			200	-4,27	93,0	3,03	0,00	22,80
K 07	3 962	3 966						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			20	35,83	70,3	0,00	5,60	7,60
K 07			25	32,45	73,7	0,08	5,40	8,30
K 07			32	28,31	76,0	0,12	5,20	9,20
K 07			40	24,14	78,0	0,20	5,00	10,30
K 07			50	20,16	80,0	0,28	4,70	11,50
K 07			63	17,10	83,0	0,44	4,30	13,00
K 07			80	13,80	86,0	0,63	3,70	14,80
K 07			100	10,34	89,0	0,99	3,00	16,80
K 07			125	6,63	92,0	1,51	1,80	18,80
K 07			160	-0,93	92,0	2,26	0,00	21,10
K 07			200	-5,12	93,0	3,25	0,00	22,80
K 08	3 080	3 084	20	38,02	70,3	0,00	5,60	7,60
K 08			25	34,65	73,7	0,06	5,40	8,30
K 08			32	30,52	76,0	0,09	5,20	9,20
K 08			40	26,36	78,0	0,15	5,00	10,30
K 08			50	22,40	80,0	0,22	4,70	11,50
K 08			63	19,38	83,0	0,34	4,30	13,00
K 08			80	16,12	86,0	0,49	3,70	14,80
K 08			100	12,75	89,0	0,77	3,00	16,80
K 08			125	9,14	92,0	1,17	1,80	18,80
K 08			160	1,76	92,0	1,76	0,00	21,10
K 08			200	-2,21	93,0	2,53	0,00	22,80
K 09	2 758	2 764	20	38,97	70,3	0,00	5,60	7,60
K 09			25	35,62	73,7	0,06	5,40	8,30
K 09			32	31,49	76,0	0,08	5,20	9,20
K 09			40	27,33	78,0	0,14	5,00	10,30
K 09			50	23,38	80,0	0,19	4,70	11,50
K 09			63	20,37	83,0	0,30	4,30	13,00
K 09			80	17,13	86,0	0,44	3,70	14,80
K 09			100	13,78	89,0	0,69	3,00	16,80
K 09			125	10,22	92,0	1,05	1,80	18,80
K 09			160	2,90	92,0	1,58	0,00	21,10
K 09			200	-1,00	93,0	2,27	0,00	22,80
K 10	4 242	4 245	20	35,24	70,3	0,00	5,60	7,60
K 10			25	31,86	73,7	0,08	5,40	8,30
K 10			32	27,71	76,0	0,13	5,20	9,20
K 10			40	23,53	78,0	0,21	5,00	10,30
K 10			50	19,54	80,0	0,30	4,70	11,50
K 10			63	16,47	83,0	0,47	4,30	13,00
K 10			80	13,16	86,0	0,68	3,70	14,80
K 10			100	9,68	89,0	1,06	3,00	16,80
K 10			125	5,93	92,0	1,61	1,80	18,80
K 10			160	-1,68	92,0	2,42	0,00	21,10
K 10			200	-5,94	93,0	3,48	0,00	22,80
K 11	4 909	4 912	20	33,98	70,3	0,00	5,60	7,60
K 11			25	30,58	73,7	0,10	5,40	8,30
K 11			32	26,43	76,0	0,15	5,20	9,20
K 11			40	22,23	78,0	0,25	5,00	10,30
K 11			50	18,23	80,0	0,34	4,70	11,50
K 11			63	15,13	83,0	0,54	4,30	13,00
K 11			80	11,79	86,0	0,79	3,70	14,80
K 11			100	8,25	89,0	1,23	3,00	16,80
K 11			125	4,41	92,0	1,87	1,80	18,80
K 11			160	-3,32	92,0	2,80	0,00	21,10
K 11			200	-7,75	93,0	4,03	0,00	22,80
K 12	5 550	5 553	20	32,91	70,3	0,00	5,60	7,60
K 12			25	29,50	73,7	0,11	5,40	8,30
K 12			32	25,34	76,0	0,17	5,20	9,20
K 12			40	21,13	78,0	0,28	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 12			50	17,12	80,0	0,39	4,70	11,50
K 12			63	14,00	83,0	0,61	4,30	13,00
K 12			80	10,62	86,0	0,89	3,70	14,80
K 12			100	7,02	89,0	1,39	3,00	16,80
K 12			125	3,10	92,0	2,11	1,80	18,80
K 12			160	-4,76	92,0	3,17	0,00	21,10
K 12			200	-9,34	93,0	4,55	0,00	22,80
K 13	4 809	4 812						
K 13			20	34,15	70,3	0,00	5,60	7,60
K 13			25	30,76	73,7	0,10	5,40	8,30
K 13			32	26,61	76,0	0,14	5,20	9,20
K 13			40	22,41	78,0	0,24	5,00	10,30
K 13			50	18,42	80,0	0,34	4,70	11,50
K 13			63	15,32	83,0	0,53	4,30	13,00
K 13			80	11,98	86,0	0,77	3,70	14,80
K 13			100	8,45	89,0	1,20	3,00	16,80
K 13			125	4,62	92,0	1,83	1,80	18,80
K 13			160	-3,09	92,0	2,74	0,00	21,10
K 13			200	-7,49	93,0	3,95	0,00	22,80
K 14	4 143	4 147						
K 14			20	35,45	70,3	0,00	5,60	7,60
K 14			25	32,06	73,7	0,08	5,40	8,30
K 14			32	27,92	76,0	0,12	5,20	9,20
K 14			40	23,74	78,0	0,21	5,00	10,30
K 14			50	19,76	80,0	0,29	4,70	11,50
K 14			63	16,69	83,0	0,46	4,30	13,00
K 14			80	13,38	86,0	0,66	3,70	14,80
K 14			100	9,91	89,0	1,04	3,00	16,80
K 14			125	6,17	92,0	1,58	1,80	18,80
K 14			160	-1,42	92,0	2,36	0,00	21,10
K 14			200	-5,65	93,0	3,40	0,00	22,80
WTG 01	2 007	2 016						
WTG 01			20	43,21	71,8	0,00	5,60	7,60
WTG 01			25	39,87	75,2	0,04	5,40	8,30
WTG 01			32	35,35	77,1	0,06	5,20	9,20
WTG 01			40	30,41	78,3	0,10	5,00	10,30
WTG 01			50	26,47	80,3	0,14	4,70	11,50
WTG 01			63	24,79	84,6	0,22	4,30	13,00
WTG 01			80	21,29	87,3	0,32	3,70	14,80
WTG 01			100	16,61	88,9	0,50	3,00	16,80
WTG 01			125	12,74	91,5	0,77	1,80	18,80
WTG 01			160	7,56	93,5	1,15	0,00	21,10
WTG 01			200	3,86	94,5	1,65	0,00	22,80
WTG 02	2 409	2 416						
WTG 02			20	41,64	71,8	0,00	5,60	7,60
WTG 02			25	38,29	75,2	0,05	5,40	8,30
WTG 02			32	33,76	77,1	0,07	5,20	9,20
WTG 02			40	28,82	78,3	0,12	5,00	10,30
WTG 02			50	24,87	80,3	0,17	4,70	11,50
WTG 02			63	23,17	84,6	0,27	4,30	13,00
WTG 02			80	19,65	87,3	0,39	3,70	14,80
WTG 02			100	14,93	88,9	0,60	3,00	16,80
WTG 02			125	11,02	91,5	0,92	1,80	18,80
WTG 02			160	5,76	93,5	1,38	0,00	21,10
WTG 02			200	1,96	94,5	1,98	0,00	22,80
Sum								
Sum			20	51,26				
Sum			25	47,91				
Sum			32	43,68				
Sum			40	39,34				
Sum			50	35,39				
Sum			63	32,71				
Sum			80	29,40				
Sum			100	25,74				

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
Sum			125	22,13				
Sum			160	15,32				
Sum			200	11,50				

Noise sensitive area: Z Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (148)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 011	3 015						
K 01			20	38,21	70,3	0,00	5,60	7,60
K 01			25	34,85	73,7	0,06	5,40	8,30
K 01			32	30,72	76,0	0,09	5,20	9,20
K 01			40	26,56	78,0	0,15	5,00	10,30
K 01			50	22,60	80,0	0,21	4,70	11,50
K 01			63	19,58	83,0	0,33	4,30	13,00
K 01			80	16,33	86,0	0,48	3,70	14,80
K 01			100	12,96	89,0	0,75	3,00	16,80
K 01			125	9,37	92,0	1,15	1,80	18,80
K 01			160	2,00	92,0	1,72	0,00	21,10
K 01			200	-1,96	93,0	2,47	0,00	22,80
K 02	2 644	2 649						
K 02			20	39,34	70,3	0,00	5,60	7,60
K 02			25	35,98	73,7	0,05	5,40	8,30
K 02			32	31,86	76,0	0,08	5,20	9,20
K 02			40	27,70	78,0	0,13	5,00	10,30
K 02			50	23,75	80,0	0,19	4,70	11,50
K 02			63	20,75	83,0	0,29	4,30	13,00
K 02			80	17,51	86,0	0,42	3,70	14,80
K 02			100	14,17	89,0	0,66	3,00	16,80
K 02			125	10,63	92,0	1,01	1,80	18,80
K 02			160	3,33	92,0	1,51	0,00	21,10
K 02			200	-0,54	93,0	2,17	0,00	22,80
K 03	2 109	2 116						
K 03			20	41,29	70,3	0,00	5,60	7,60
K 03			25	37,95	73,7	0,04	5,40	8,30
K 03			32	33,83	76,0	0,06	5,20	9,20
K 03			40	29,68	78,0	0,11	5,00	10,30
K 03			50	25,74	80,0	0,15	4,70	11,50
K 03			63	22,76	83,0	0,23	4,30	13,00
K 03			80	19,55	86,0	0,34	3,70	14,80
K 03			100	16,26	89,0	0,53	3,00	16,80
K 03			125	12,79	92,0	0,80	1,80	18,80
K 03			160	5,58	92,0	1,21	0,00	21,10
K 03			200	1,86	93,0	1,73	0,00	22,80
K 04	2 280	2 286						
K 04			20	40,62	70,3	0,00	5,60	7,60
K 04			25	37,27	73,7	0,05	5,40	8,30
K 04			32	33,15	76,0	0,07	5,20	9,20
K 04			40	29,00	78,0	0,11	5,00	10,30
K 04			50	25,06	80,0	0,16	4,70	11,50
K 04			63	22,07	83,0	0,25	4,30	13,00
K 04			80	18,85	86,0	0,37	3,70	14,80
K 04			100	15,55	89,0	0,57	3,00	16,80
K 04			125	12,05	92,0	0,87	1,80	18,80
K 04			160	4,82	92,0	1,30	0,00	21,10
K 04			200	1,04	93,0	1,87	0,00	22,80
K 05	1 535	1 544						
K 05			20	44,03	70,3	0,00	5,60	7,60
K 05			25	40,69	73,7	0,03	5,40	8,30
K 05			32	36,58	76,0	0,05	5,20	9,20
K 05			40	32,45	78,0	0,08	5,00	10,30
K 05			50	28,52	80,0	0,11	4,70	11,50
K 05			63	25,56	83,0	0,17	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 05			80	22,38	86,0	0,25	3,70	14,80
K 05			100	19,14	89,0	0,39	3,00	16,80
K 05			125	15,74	92,0	0,59	1,80	18,80
K 05			160	8,65	92,0	0,88	0,00	21,10
K 05			200	5,06	93,0	1,27	0,00	22,80
K 06	3 548	3 552						
K 06			20	36,79	70,3	0,00	5,60	7,60
K 06			25	33,42	73,7	0,07	5,40	8,30
K 06			32	29,28	76,0	0,11	5,20	9,20
K 06			40	25,11	78,0	0,18	5,00	10,30
K 06			50	21,14	80,0	0,25	4,70	11,50
K 06			63	18,10	83,0	0,39	4,30	13,00
K 06			80	14,82	86,0	0,57	3,70	14,80
K 06			100	11,40	89,0	0,89	3,00	16,80
K 06			125	7,74	92,0	1,35	1,80	18,80
K 06			160	0,27	92,0	2,02	0,00	21,10
K 06			200	-3,82	93,0	2,91	0,00	22,80
K 07	3 872	3 875						
K 07			20	36,03	70,3	0,00	5,60	7,60
K 07			25	32,66	73,7	0,08	5,40	8,30
K 07			32	28,52	76,0	0,12	5,20	9,20
K 07			40	24,34	78,0	0,19	5,00	10,30
K 07			50	20,36	80,0	0,27	4,70	11,50
K 07			63	17,31	83,0	0,43	4,30	13,00
K 07			80	14,01	86,0	0,62	3,70	14,80
K 07			100	10,56	89,0	0,97	3,00	16,80
K 07			125	6,86	92,0	1,47	1,80	18,80
K 07			160	-0,68	92,0	2,21	0,00	21,10
K 07			200	-4,84	93,0	3,18	0,00	22,80
K 08	2 993	2 998						
K 08			20	38,26	70,3	0,00	5,60	7,60
K 08			25	34,90	73,7	0,06	5,40	8,30
K 08			32	30,77	76,0	0,09	5,20	9,20
K 08			40	26,61	78,0	0,15	5,00	10,30
K 08			50	22,65	80,0	0,21	4,70	11,50
K 08			63	19,63	83,0	0,33	4,30	13,00
K 08			80	16,38	86,0	0,48	3,70	14,80
K 08			100	13,01	89,0	0,75	3,00	16,80
K 08			125	9,43	92,0	1,14	1,80	18,80
K 08			160	2,06	92,0	1,71	0,00	21,10
K 08			200	-1,89	93,0	2,46	0,00	22,80
K 09	2 715	2 720						
K 09			20	39,11	70,3	0,00	5,60	7,60
K 09			25	35,75	73,7	0,05	5,40	8,30
K 09			32	31,63	76,0	0,08	5,20	9,20
K 09			40	27,47	78,0	0,14	5,00	10,30
K 09			50	23,52	80,0	0,19	4,70	11,50
K 09			63	20,51	83,0	0,30	4,30	13,00
K 09			80	17,27	86,0	0,44	3,70	14,80
K 09			100	13,93	89,0	0,68	3,00	16,80
K 09			125	10,37	92,0	1,03	1,80	18,80
K 09			160	3,06	92,0	1,55	0,00	21,10
K 09			200	-0,82	93,0	2,23	0,00	22,80
K 10	3 975	3 979						
K 10			20	35,81	70,3	0,00	5,60	7,60
K 10			25	32,43	73,7	0,08	5,40	8,30
K 10			32	28,29	76,0	0,12	5,20	9,20
K 10			40	24,11	78,0	0,20	5,00	10,30
K 10			50	20,13	80,0	0,28	4,70	11,50
K 10			63	17,07	83,0	0,44	4,30	13,00
K 10			80	13,77	86,0	0,64	3,70	14,80
K 10			100	10,31	89,0	0,99	3,00	16,80
K 10			125	6,59	92,0	1,51	1,80	18,80
K 10			160	-0,96	92,0	2,27	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			200	-5,16	93,0	3,26	0,00	22,80
K 11	4 637	4 640						
K 11			20	34,47	70,3	0,00	5,60	7,60
K 11			25	31,08	73,7	0,09	5,40	8,30
K 11			32	26,93	76,0	0,14	5,20	9,20
K 11			40	22,74	78,0	0,23	5,00	10,30
K 11			50	18,74	80,0	0,32	4,70	11,50
K 11			63	15,66	83,0	0,51	4,30	13,00
K 11			80	12,33	86,0	0,74	3,70	14,80
K 11			100	8,81	89,0	1,16	3,00	16,80
K 11			125	5,01	92,0	1,76	1,80	18,80
K 11			160	-2,68	92,0	2,65	0,00	21,10
K 11			200	-7,04	93,0	3,81	0,00	22,80
K 12	5 304	5 307						
K 12			20	33,30	70,3	0,00	5,60	7,60
K 12			25	29,90	73,7	0,11	5,40	8,30
K 12			32	25,74	76,0	0,16	5,20	9,20
K 12			40	21,54	78,0	0,27	5,00	10,30
K 12			50	17,53	80,0	0,37	4,70	11,50
K 12			63	14,42	83,0	0,58	4,30	13,00
K 12			80	11,05	86,0	0,85	3,70	14,80
K 12			100	7,48	89,0	1,33	3,00	16,80
K 12			125	3,59	92,0	2,02	1,80	18,80
K 12			160	-4,22	92,0	3,02	0,00	21,10
K 12			200	-8,75	93,0	4,35	0,00	22,80
K 13	4 593	4 596						
K 13			20	34,55	70,3	0,00	5,60	7,60
K 13			25	31,16	73,7	0,09	5,40	8,30
K 13			32	27,01	76,0	0,14	5,20	9,20
K 13			40	22,82	78,0	0,23	5,00	10,30
K 13			50	18,83	80,0	0,32	4,70	11,50
K 13			63	15,75	83,0	0,51	4,30	13,00
K 13			80	12,42	86,0	0,74	3,70	14,80
K 13			100	8,90	89,0	1,15	3,00	16,80
K 13			125	5,11	92,0	1,75	1,80	18,80
K 13			160	-2,57	92,0	2,62	0,00	21,10
K 13			200	-6,92	93,0	3,77	0,00	22,80
K 14	3 939	3 943						
K 14			20	35,88	70,3	0,00	5,60	7,60
K 14			25	32,51	73,7	0,08	5,40	8,30
K 14			32	28,37	76,0	0,12	5,20	9,20
K 14			40	24,19	78,0	0,20	5,00	10,30
K 14			50	20,21	80,0	0,28	4,70	11,50
K 14			63	17,15	83,0	0,43	4,30	13,00
K 14			80	13,85	86,0	0,63	3,70	14,80
K 14			100	10,40	89,0	0,99	3,00	16,80
K 14			125	6,69	92,0	1,50	1,80	18,80
K 14			160	-0,86	92,0	2,25	0,00	21,10
K 14			200	-5,05	93,0	3,23	0,00	22,80
WTG 01	2 220	2 228						
WTG 01			20	42,34	71,8	0,00	5,60	7,60
WTG 01			25	39,00	75,2	0,04	5,40	8,30
WTG 01			32	34,48	77,1	0,07	5,20	9,20
WTG 01			40	29,53	78,3	0,11	5,00	10,30
WTG 01			50	25,59	80,3	0,16	4,70	11,50
WTG 01			63	23,90	84,6	0,25	4,30	13,00
WTG 01			80	20,39	87,3	0,36	3,70	14,80
WTG 01			100	15,69	88,9	0,56	3,00	16,80
WTG 01			125	11,80	91,5	0,85	1,80	18,80
WTG 01			160	6,57	93,5	1,27	0,00	21,10
WTG 01			200	2,82	94,5	1,83	0,00	22,80
WTG 02	2 501	2 508						
WTG 02			20	41,31	71,8	0,00	5,60	7,60
WTG 02			25	37,96	75,2	0,05	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			32	33,44	77,1	0,08	5,20	9,20
WTG 02			40	28,49	78,3	0,13	5,00	10,30
WTG 02			50	24,54	80,3	0,18	4,70	11,50
WTG 02			63	22,84	84,6	0,28	4,30	13,00
WTG 02			80	19,31	87,3	0,40	3,70	14,80
WTG 02			100	14,59	88,9	0,63	3,00	16,80
WTG 02			125	10,66	91,5	0,95	1,80	18,80
WTG 02			160	5,38	93,5	1,43	0,00	21,10
WTG 02			200	1,56	94,5	2,06	0,00	22,80
Sum								
Sum			20	51,31				
Sum			25	47,96				
Sum			32	43,75				
Sum			40	39,44				
Sum			50	35,48				
Sum			63	32,75				
Sum			80	29,45				
Sum			100	25,85				
Sum			125	22,25				
Sum			160	15,36				
Sum			200	11,54				

Noise sensitive area: AA Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (147)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	2 594	2 598						
K 01			20	39,51	70,3	0,00	5,60	7,60
K 01			25	36,16	73,7	0,05	5,40	8,30
K 01			32	32,03	76,0	0,08	5,20	9,20
K 01			40	27,88	78,0	0,13	5,00	10,30
K 01			50	23,93	80,0	0,18	4,70	11,50
K 01			63	20,92	83,0	0,29	4,30	13,00
K 01			80	17,69	86,0	0,42	3,70	14,80
K 01			100	14,36	89,0	0,65	3,00	16,80
K 01			125	10,82	92,0	0,99	1,80	18,80
K 01			160	3,53	92,0	1,48	0,00	21,10
K 01			200	-0,32	93,0	2,13	0,00	22,80
K 02	2 538	2 543						
K 02			20	39,69	70,3	0,00	5,60	7,60
K 02			25	36,34	73,7	0,05	5,40	8,30
K 02			32	32,22	76,0	0,08	5,20	9,20
K 02			40	28,07	78,0	0,13	5,00	10,30
K 02			50	24,12	80,0	0,18	4,70	11,50
K 02			63	21,11	83,0	0,28	4,30	13,00
K 02			80	17,89	86,0	0,41	3,70	14,80
K 02			100	14,56	89,0	0,64	3,00	16,80
K 02			125	11,03	92,0	0,97	1,80	18,80
K 02			160	3,74	92,0	1,45	0,00	21,10
K 02			200	-0,09	93,0	2,09	0,00	22,80
K 03	2 861	2 865						
K 03			20	38,66	70,3	0,00	5,60	7,60
K 03			25	35,30	73,7	0,06	5,40	8,30
K 03			32	31,17	76,0	0,09	5,20	9,20
K 03			40	27,01	78,0	0,14	5,00	10,30
K 03			50	23,06	80,0	0,20	4,70	11,50
K 03			63	20,04	83,0	0,32	4,30	13,00
K 03			80	16,80	86,0	0,46	3,70	14,80
K 03			100	13,44	89,0	0,72	3,00	16,80
K 03			125	9,87	92,0	1,09	1,80	18,80
K 03			160	2,52	92,0	1,63	0,00	21,10
K 03			200	-1,39	93,0	2,35	0,00	22,80
K 04	2 717	2 721						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			20	39,11	70,3	0,00	5,60	7,60
K 04			25	35,75	73,7	0,05	5,40	8,30
K 04			32	31,62	76,0	0,08	5,20	9,20
K 04			40	27,47	78,0	0,14	5,00	10,30
K 04			50	23,52	80,0	0,19	4,70	11,50
K 04			63	20,51	83,0	0,30	4,30	13,00
K 04			80	17,27	86,0	0,44	3,70	14,80
K 04			100	13,93	89,0	0,68	3,00	16,80
K 04			125	10,37	92,0	1,03	1,80	18,80
K 04			160	3,06	92,0	1,55	0,00	21,10
K 04			200	-0,82	93,0	2,23	0,00	22,80
K 05	3 432	3 435	20	37,08	70,3	0,00	5,60	7,60
K 05			25	33,71	73,7	0,07	5,40	8,30
K 05			32	29,58	76,0	0,10	5,20	9,20
K 05			40	25,41	78,0	0,17	5,00	10,30
K 05			50	21,44	80,0	0,24	4,70	11,50
K 05			63	18,40	83,0	0,38	4,30	13,00
K 05			80	15,13	86,0	0,55	3,70	14,80
K 05			100	11,72	89,0	0,86	3,00	16,80
K 05			125	8,08	92,0	1,31	1,80	18,80
K 05			160	0,62	92,0	1,96	0,00	21,10
K 05			200	-3,44	93,0	2,82	0,00	22,80
K 06	1 679	1 685	20	43,27	70,3	0,00	5,60	7,60
K 06			25	39,93	73,7	0,03	5,40	8,30
K 06			32	35,82	76,0	0,05	5,20	9,20
K 06			40	31,68	78,0	0,08	5,00	10,30
K 06			50	27,75	80,0	0,12	4,70	11,50
K 06			63	24,78	83,0	0,19	4,30	13,00
K 06			80	21,60	86,0	0,27	3,70	14,80
K 06			100	18,35	89,0	0,42	3,00	16,80
K 06			125	14,93	92,0	0,64	1,80	18,80
K 06			160	7,81	92,0	0,96	0,00	21,10
K 06			200	4,19	93,0	1,38	0,00	22,80
K 07	1 116	1 126	20	46,77	70,3	0,00	5,60	7,60
K 07			25	43,45	73,7	0,02	5,40	8,30
K 07			32	39,34	76,0	0,03	5,20	9,20
K 07			40	35,22	78,0	0,06	5,00	10,30
K 07			50	31,29	80,0	0,08	4,70	11,50
K 07			63	28,35	83,0	0,12	4,30	13,00
K 07			80	25,19	86,0	0,18	3,70	14,80
K 07			100	21,99	89,0	0,28	3,00	16,80
K 07			125	18,64	92,0	0,43	1,80	18,80
K 07			160	11,63	92,0	0,64	0,00	21,10
K 07			200	8,15	93,0	0,92	0,00	22,80
K 08	1 941	1 946	20	42,02	70,3	0,00	5,60	7,60
K 08			25	38,68	73,7	0,04	5,40	8,30
K 08			32	34,56	76,0	0,06	5,20	9,20
K 08			40	30,42	78,0	0,10	5,00	10,30
K 08			50	26,48	80,0	0,14	4,70	11,50
K 08			63	23,50	83,0	0,21	4,30	13,00
K 08			80	20,30	86,0	0,31	3,70	14,80
K 08			100	17,03	89,0	0,49	3,00	16,80
K 08			125	13,58	92,0	0,74	1,80	18,80
K 08			160	6,41	92,0	1,11	0,00	21,10
K 08			200	2,72	93,0	1,60	0,00	22,80
K 09	2 214	2 219	20	40,88	70,3	0,00	5,60	7,60
K 09			25	37,53	73,7	0,04	5,40	8,30
K 09			32	33,41	76,0	0,07	5,20	9,20
K 09			40	29,27	78,0	0,11	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 09			50	25,32	80,0	0,16	4,70	11,50
K 09			63	22,33	83,0	0,24	4,30	13,00
K 09			80	19,12	86,0	0,36	3,70	14,80
K 09			100	15,82	89,0	0,55	3,00	16,80
K 09			125	12,33	92,0	0,84	1,80	18,80
K 09			160	5,11	92,0	1,26	0,00	21,10
K 09			200	1,36	93,0	1,82	0,00	22,80
K 10	3 068	3 071						
K 10			20	38,05	70,3	0,00	5,60	7,60
K 10			25	34,69	73,7	0,06	5,40	8,30
K 10			32	30,56	76,0	0,09	5,20	9,20
K 10			40	26,40	78,0	0,15	5,00	10,30
K 10			50	22,44	80,0	0,21	4,70	11,50
K 10			63	19,42	83,0	0,34	4,30	13,00
K 10			80	16,16	86,0	0,49	3,70	14,80
K 10			100	12,79	89,0	0,77	3,00	16,80
K 10			125	9,19	92,0	1,17	1,80	18,80
K 10			160	1,80	92,0	1,75	0,00	21,10
K 10			200	-2,17	93,0	2,52	0,00	22,80
K 11	3 272	3 275						
K 11			20	37,50	70,3	0,00	5,60	7,60
K 11			25	34,13	73,7	0,07	5,40	8,30
K 11			32	30,00	76,0	0,10	5,20	9,20
K 11			40	25,83	78,0	0,16	5,00	10,30
K 11			50	21,87	80,0	0,23	4,70	11,50
K 11			63	18,84	83,0	0,36	4,30	13,00
K 11			80	15,57	86,0	0,52	3,70	14,80
K 11			100	12,18	89,0	0,82	3,00	16,80
K 11			125	8,55	92,0	1,24	1,80	18,80
K 11			160	1,13	92,0	1,87	0,00	21,10
K 11			200	-2,89	93,0	2,69	0,00	22,80
K 12	3 041	3 045						
K 12			20	38,13	70,3	0,00	5,60	7,60
K 12			25	34,77	73,7	0,06	5,40	8,30
K 12			32	30,64	76,0	0,09	5,20	9,20
K 12			40	26,48	78,0	0,15	5,00	10,30
K 12			50	22,52	80,0	0,21	4,70	11,50
K 12			63	19,49	83,0	0,33	4,30	13,00
K 12			80	16,24	86,0	0,49	3,70	14,80
K 12			100	12,87	89,0	0,76	3,00	16,80
K 12			125	9,27	92,0	1,16	1,80	18,80
K 12			160	1,89	92,0	1,74	0,00	21,10
K 12			200	-2,07	93,0	2,50	0,00	22,80
K 13	2 311	2 315						
K 13			20	40,51	70,3	0,00	5,60	7,60
K 13			25	37,16	73,7	0,05	5,40	8,30
K 13			32	33,04	76,0	0,07	5,20	9,20
K 13			40	28,89	78,0	0,12	5,00	10,30
K 13			50	24,95	80,0	0,16	4,70	11,50
K 13			63	21,95	83,0	0,25	4,30	13,00
K 13			80	18,74	86,0	0,37	3,70	14,80
K 13			100	15,43	89,0	0,58	3,00	16,80
K 13			125	11,93	92,0	0,88	1,80	18,80
K 13			160	4,69	92,0	1,32	0,00	21,10
K 13			200	0,91	93,0	1,90	0,00	22,80
K 14	2 156	2 161						
K 14			20	41,11	70,3	0,00	5,60	7,60
K 14			25	37,76	73,7	0,04	5,40	8,30
K 14			32	33,64	76,0	0,06	5,20	9,20
K 14			40	29,50	78,0	0,11	5,00	10,30
K 14			50	25,56	80,0	0,15	4,70	11,50
K 14			63	22,57	83,0	0,24	4,30	13,00
K 14			80	19,36	86,0	0,35	3,70	14,80
K 14			100	16,07	89,0	0,54	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 14			125	12,59	92,0	0,82	1,80	18,80
K 14			160	5,37	92,0	1,23	0,00	21,10
K 14			200	1,63	93,0	1,77	0,00	22,80
WTG 01	3 737	3 741						
WTG 01			20	37,84	71,8	0,00	5,60	7,60
WTG 01			25	34,47	75,2	0,07	5,40	8,30
WTG 01			32	29,93	77,1	0,11	5,20	9,20
WTG 01			40	24,95	78,3	0,19	5,00	10,30
WTG 01			50	20,98	80,3	0,26	4,70	11,50
WTG 01			63	19,23	84,6	0,41	4,30	13,00
WTG 01			80	15,64	87,3	0,60	3,70	14,80
WTG 01			100	10,80	88,9	0,94	3,00	16,80
WTG 01			125	6,72	91,5	1,42	1,80	18,80
WTG 01			160	1,21	93,5	2,13	0,00	21,10
WTG 01			200	-2,93	94,5	3,07	0,00	22,80
WTG 02	2 863	2 868						
WTG 02			20	40,15	71,8	0,00	5,60	7,60
WTG 02			25	36,79	75,2	0,06	5,40	8,30
WTG 02			32	32,26	77,1	0,09	5,20	9,20
WTG 02			40	27,31	78,3	0,14	5,00	10,30
WTG 02			50	23,35	80,3	0,20	4,70	11,50
WTG 02			63	21,63	84,6	0,32	4,30	13,00
WTG 02			80	18,09	87,3	0,46	3,70	14,80
WTG 02			100	13,33	88,9	0,72	3,00	16,80
WTG 02			125	9,36	91,5	1,09	1,80	18,80
WTG 02			160	4,01	93,5	1,63	0,00	21,10
WTG 02			200	0,10	94,5	2,35	0,00	22,80
Sum								
Sum			20	52,90				
Sum			25	49,55				
Sum			32	45,40				
Sum			40	41,20				
Sum			50	37,26				
Sum			63	34,37				
Sum			80	31,14				
Sum			100	27,76				
Sum			125	24,26				
Sum			160	17,19				
Sum			200	13,48				

Noise sensitive area: AB Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (146)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	2 836	2 841						
K 01			20	38,73	70,3	0,00	5,60	7,60
K 01			25	35,37	73,7	0,06	5,40	8,30
K 01			32	31,24	76,0	0,09	5,20	9,20
K 01			40	27,09	78,0	0,14	5,00	10,30
K 01			50	23,13	80,0	0,20	4,70	11,50
K 01			63	20,12	83,0	0,31	4,30	13,00
K 01			80	16,88	86,0	0,45	3,70	14,80
K 01			100	13,52	89,0	0,71	3,00	16,80
K 01			125	9,95	92,0	1,08	1,80	18,80
K 01			160	2,61	92,0	1,62	0,00	21,10
K 01			200	-1,30	93,0	2,33	0,00	22,80
K 02	2 509	2 515						
K 02			20	39,79	70,3	0,00	5,60	7,60
K 02			25	36,44	73,7	0,05	5,40	8,30
K 02			32	32,31	76,0	0,08	5,20	9,20
K 02			40	28,16	78,0	0,13	5,00	10,30
K 02			50	24,21	80,0	0,18	4,70	11,50
K 02			63	21,21	83,0	0,28	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 02			80	17,99	86,0	0,40	3,70	14,80
K 02			100	14,66	89,0	0,63	3,00	16,80
K 02			125	11,13	92,0	0,96	1,80	18,80
K 02			160	3,85	92,0	1,43	0,00	21,10
K 02			200	0,03	93,0	2,06	0,00	22,80
K 03	2 019	2 026						
K 03			20	41,67	70,3	0,00	5,60	7,60
K 03			25	38,33	73,7	0,04	5,40	8,30
K 03			32	34,21	76,0	0,06	5,20	9,20
K 03			40	30,07	78,0	0,10	5,00	10,30
K 03			50	26,13	80,0	0,14	4,70	11,50
K 03			63	23,15	83,0	0,22	4,30	13,00
K 03			80	19,94	86,0	0,32	3,70	14,80
K 03			100	16,66	89,0	0,51	3,00	16,80
K 03			125	13,20	92,0	0,77	1,80	18,80
K 03			160	6,01	92,0	1,15	0,00	21,10
K 03			200	2,31	93,0	1,66	0,00	22,80
K 04	2 295	2 301						
K 04			20	40,56	70,3	0,00	5,60	7,60
K 04			25	37,21	73,7	0,05	5,40	8,30
K 04			32	33,09	76,0	0,07	5,20	9,20
K 04			40	28,94	78,0	0,12	5,00	10,30
K 04			50	25,00	80,0	0,16	4,70	11,50
K 04			63	22,01	83,0	0,25	4,30	13,00
K 04			80	18,79	86,0	0,37	3,70	14,80
K 04			100	15,48	89,0	0,58	3,00	16,80
K 04			125	11,99	92,0	0,87	1,80	18,80
K 04			160	4,75	92,0	1,31	0,00	21,10
K 04			200	0,97	93,0	1,89	0,00	22,80
K 05	1 565	1 574						
K 05			20	43,86	70,3	0,00	5,60	7,60
K 05			25	40,53	73,7	0,03	5,40	8,30
K 05			32	36,41	76,0	0,05	5,20	9,20
K 05			40	32,28	78,0	0,08	5,00	10,30
K 05			50	28,35	80,0	0,11	4,70	11,50
K 05			63	25,39	83,0	0,17	4,30	13,00
K 05			80	22,21	86,0	0,25	3,70	14,80
K 05			100	18,97	89,0	0,39	3,00	16,80
K 05			125	15,56	92,0	0,60	1,80	18,80
K 05			160	8,46	92,0	0,90	0,00	21,10
K 05			200	4,87	93,0	1,29	0,00	22,80
K 06	3 432	3 436						
K 06			20	37,08	70,3	0,00	5,60	7,60
K 06			25	33,71	73,7	0,07	5,40	8,30
K 06			32	29,57	76,0	0,10	5,20	9,20
K 06			40	25,41	78,0	0,17	5,00	10,30
K 06			50	21,44	80,0	0,24	4,70	11,50
K 06			63	18,40	83,0	0,38	4,30	13,00
K 06			80	15,13	86,0	0,55	3,70	14,80
K 06			100	11,72	89,0	0,86	3,00	16,80
K 06			125	8,07	92,0	1,31	1,80	18,80
K 06			160	0,62	92,0	1,96	0,00	21,10
K 06			200	-3,44	93,0	2,82	0,00	22,80
K 07	3 796	3 800						
K 07			20	36,21	70,3	0,00	5,60	7,60
K 07			25	32,83	73,7	0,08	5,40	8,30
K 07			32	28,69	76,0	0,11	5,20	9,20
K 07			40	24,52	78,0	0,19	5,00	10,30
K 07			50	20,54	80,0	0,27	4,70	11,50
K 07			63	17,49	83,0	0,42	4,30	13,00
K 07			80	14,20	86,0	0,61	3,70	14,80
K 07			100	10,76	89,0	0,95	3,00	16,80
K 07			125	7,06	92,0	1,44	1,80	18,80
K 07			160	-0,46	92,0	2,17	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			200	-4,61	93,0	3,12	0,00	22,80
K 08	2 927	2 932						
K 08			20	38,46	70,3	0,00	5,60	7,60
K 08			25	35,10	73,7	0,06	5,40	8,30
K 08			32	30,97	76,0	0,09	5,20	9,20
K 08			40	26,81	78,0	0,15	5,00	10,30
K 08			50	22,85	80,0	0,21	4,70	11,50
K 08			63	19,83	83,0	0,32	4,30	13,00
K 08			80	16,59	86,0	0,47	3,70	14,80
K 08			100	13,22	89,0	0,73	3,00	16,80
K 08			125	9,64	92,0	1,11	1,80	18,80
K 08			160	2,29	92,0	1,67	0,00	21,10
K 08			200	-1,65	93,0	2,40	0,00	22,80
K 09	2 689	2 694						
K 09			20	39,19	70,3	0,00	5,60	7,60
K 09			25	35,84	73,7	0,05	5,40	8,30
K 09			32	31,71	76,0	0,08	5,20	9,20
K 09			40	27,56	78,0	0,13	5,00	10,30
K 09			50	23,60	80,0	0,19	4,70	11,50
K 09			63	20,60	83,0	0,30	4,30	13,00
K 09			80	17,36	86,0	0,43	3,70	14,80
K 09			100	14,02	89,0	0,67	3,00	16,80
K 09			125	10,47	92,0	1,02	1,80	18,80
K 09			160	3,16	92,0	1,54	0,00	21,10
K 09			200	-0,72	93,0	2,21	0,00	22,80
K 10	3 751	3 755						
K 10			20	36,31	70,3	0,00	5,60	7,60
K 10			25	32,93	73,7	0,08	5,40	8,30
K 10			32	28,79	76,0	0,11	5,20	9,20
K 10			40	24,62	78,0	0,19	5,00	10,30
K 10			50	20,64	80,0	0,26	4,70	11,50
K 10			63	17,59	83,0	0,41	4,30	13,00
K 10			80	14,31	86,0	0,60	3,70	14,80
K 10			100	10,87	89,0	0,94	3,00	16,80
K 10			125	7,18	92,0	1,43	1,80	18,80
K 10			160	-0,33	92,0	2,14	0,00	21,10
K 10			200	-4,47	93,0	3,08	0,00	22,80
K 11	4 408	4 412						
K 11			20	34,91	70,3	0,00	5,60	7,60
K 11			25	31,52	73,7	0,09	5,40	8,30
K 11			32	27,38	76,0	0,13	5,20	9,20
K 11			40	23,19	78,0	0,22	5,00	10,30
K 11			50	19,20	80,0	0,31	4,70	11,50
K 11			63	16,12	83,0	0,49	4,30	13,00
K 11			80	12,80	86,0	0,71	3,70	14,80
K 11			100	9,31	89,0	1,10	3,00	16,80
K 11			125	5,53	92,0	1,68	1,80	18,80
K 11			160	-2,11	92,0	2,51	0,00	21,10
K 11			200	-6,41	93,0	3,62	0,00	22,80
K 12	5 094	5 097						
K 12			20	33,65	70,3	0,00	5,60	7,60
K 12			25	30,25	73,7	0,10	5,40	8,30
K 12			32	26,10	76,0	0,15	5,20	9,20
K 12			40	21,90	78,0	0,25	5,00	10,30
K 12			50	17,90	80,0	0,36	4,70	11,50
K 12			63	14,79	83,0	0,56	4,30	13,00
K 12			80	11,44	86,0	0,82	3,70	14,80
K 12			100	7,88	89,0	1,27	3,00	16,80
K 12			125	4,02	92,0	1,94	1,80	18,80
K 12			160	-3,75	92,0	2,91	0,00	21,10
K 12			200	-8,23	93,0	4,18	0,00	22,80
K 13	4 409	4 413						
K 13			20	34,91	70,3	0,00	5,60	7,60
K 13			25	31,52	73,7	0,09	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			32	27,37	76,0	0,13	5,20	9,20
K 13			40	23,19	78,0	0,22	5,00	10,30
K 13			50	19,20	80,0	0,31	4,70	11,50
K 13			63	16,12	83,0	0,49	4,30	13,00
K 13			80	12,80	86,0	0,71	3,70	14,80
K 13			100	9,30	89,0	1,10	3,00	16,80
K 13			125	5,53	92,0	1,68	1,80	18,80
K 13			160	-2,11	92,0	2,52	0,00	21,10
K 13			200	-6,41	93,0	3,62	0,00	22,80
K 14	3 768	3 771						
K 14			20	36,27	70,3	0,00	5,60	7,60
K 14			25	32,89	73,7	0,08	5,40	8,30
K 14			32	28,76	76,0	0,11	5,20	9,20
K 14			40	24,58	78,0	0,19	5,00	10,30
K 14			50	20,61	80,0	0,26	4,70	11,50
K 14			63	17,55	83,0	0,41	4,30	13,00
K 14			80	14,27	86,0	0,60	3,70	14,80
K 14			100	10,83	89,0	0,94	3,00	16,80
K 14			125	7,14	92,0	1,43	1,80	18,80
K 14			160	-0,38	92,0	2,15	0,00	21,10
K 14			200	-4,52	93,0	3,09	0,00	22,80
WTG 01	2 399	2 406						
WTG 01			20	41,67	71,8	0,00	5,60	7,60
WTG 01			25	38,33	75,2	0,05	5,40	8,30
WTG 01			32	33,80	77,1	0,07	5,20	9,20
WTG 01			40	28,85	78,3	0,12	5,00	10,30
WTG 01			50	24,91	80,3	0,17	4,70	11,50
WTG 01			63	23,21	84,6	0,26	4,30	13,00
WTG 01			80	19,69	87,3	0,38	3,70	14,80
WTG 01			100	14,97	88,9	0,60	3,00	16,80
WTG 01			125	11,06	91,5	0,91	1,80	18,80
WTG 01			160	5,80	93,5	1,37	0,00	21,10
WTG 01			200	2,00	94,5	1,97	0,00	22,80
WTG 02	2 586	2 593						
WTG 02			20	41,03	71,8	0,00	5,60	7,60
WTG 02			25	37,67	75,2	0,05	5,40	8,30
WTG 02			32	33,15	77,1	0,08	5,20	9,20
WTG 02			40	28,20	78,3	0,13	5,00	10,30
WTG 02			50	24,24	80,3	0,18	4,70	11,50
WTG 02			63	22,54	84,6	0,29	4,30	13,00
WTG 02			80	19,01	87,3	0,41	3,70	14,80
WTG 02			100	14,28	88,9	0,65	3,00	16,80
WTG 02			125	10,34	91,5	0,99	1,80	18,80
WTG 02			160	5,05	93,5	1,48	0,00	21,10
WTG 02			200	1,20	94,5	2,13	0,00	22,80
Sum								
Sum			20	51,35				
Sum			25	47,99				
Sum			32	43,79				
Sum			40	39,50				
Sum			50	35,55				
Sum			63	32,78				
Sum			80	29,49				
Sum			100	25,92				
Sum			125	22,33				
Sum			160	15,39				
Sum			200	11,56				

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

Noise sensitive area: AC Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (145)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	2 448	2 453						
K 01			20	40,01	70,3	0,00	5,60	7,60
K 01			25	36,66	73,7	0,05	5,40	8,30
K 01			32	32,53	76,0	0,07	5,20	9,20
K 01			40	28,38	78,0	0,12	5,00	10,30
K 01			50	24,43	80,0	0,17	4,70	11,50
K 01			63	21,44	83,0	0,27	4,30	13,00
K 01			80	18,21	86,0	0,39	3,70	14,80
K 01			100	14,89	89,0	0,61	3,00	16,80
K 01			125	11,37	92,0	0,93	1,80	18,80
K 01			160	4,11	92,0	1,40	0,00	21,10
K 01			200	0,29	93,0	2,01	0,00	22,80
K 02	2 142	2 149						
K 02			20	41,16	70,3	0,00	5,60	7,60
K 02			25	37,81	73,7	0,04	5,40	8,30
K 02			32	33,69	76,0	0,06	5,20	9,20
K 02			40	29,55	78,0	0,11	5,00	10,30
K 02			50	25,61	80,0	0,15	4,70	11,50
K 02			63	22,62	83,0	0,24	4,30	13,00
K 02			80	19,41	86,0	0,34	3,70	14,80
K 02			100	16,12	89,0	0,54	3,00	16,80
K 02			125	12,64	92,0	0,82	1,80	18,80
K 02			160	5,43	92,0	1,22	0,00	21,10
K 02			200	1,69	93,0	1,76	0,00	22,80
K 03	1 690	1 698						
K 03			20	43,20	70,3	0,00	5,60	7,60
K 03			25	39,87	73,7	0,03	5,40	8,30
K 03			32	35,75	76,0	0,05	5,20	9,20
K 03			40	31,62	78,0	0,08	5,00	10,30
K 03			50	27,68	80,0	0,12	4,70	11,50
K 03			63	24,71	83,0	0,19	4,30	13,00
K 03			80	21,53	86,0	0,27	3,70	14,80
K 03			100	18,28	89,0	0,42	3,00	16,80
K 03			125	14,86	92,0	0,65	1,80	18,80
K 03			160	7,73	92,0	0,97	0,00	21,10
K 03			200	4,11	93,0	1,39	0,00	22,80
K 04	2 070	2 077						
K 04			20	41,45	70,3	0,00	5,60	7,60
K 04			25	38,11	73,7	0,04	5,40	8,30
K 04			32	33,99	76,0	0,06	5,20	9,20
K 04			40	29,85	78,0	0,10	5,00	10,30
K 04			50	25,91	80,0	0,15	4,70	11,50
K 04			63	22,92	83,0	0,23	4,30	13,00
K 04			80	19,72	86,0	0,33	3,70	14,80
K 04			100	16,43	89,0	0,52	3,00	16,80
K 04			125	12,96	92,0	0,79	1,80	18,80
K 04			160	5,77	92,0	1,18	0,00	21,10
K 04			200	2,05	93,0	1,70	0,00	22,80
K 05	1 382	1 392						
K 05			20	44,93	70,3	0,00	5,60	7,60
K 05			25	41,60	73,7	0,03	5,40	8,30
K 05			32	37,48	76,0	0,04	5,20	9,20
K 05			40	33,36	78,0	0,07	5,00	10,30
K 05			50	29,43	80,0	0,10	4,70	11,50
K 05			63	26,47	83,0	0,15	4,30	13,00
K 05			80	23,30	86,0	0,22	3,70	14,80
K 05			100	20,08	89,0	0,35	3,00	16,80
K 05			125	16,70	92,0	0,53	1,80	18,80
K 05			160	9,63	92,0	0,79	0,00	21,10
K 05			200	6,08	93,0	1,14	0,00	22,80
K 06	3 073	3 078						
K 06			20	38,04	70,3	0,00	5,60	7,60
K 06			25	34,67	73,7	0,06	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 06			32	30,54	76,0	0,09	5,20	9,20
K 06			40	26,38	78,0	0,15	5,00	10,30
K 06			50	22,42	80,0	0,22	4,70	11,50
K 06			63	19,40	83,0	0,34	4,30	13,00
K 06			80	16,14	86,0	0,49	3,70	14,80
K 06			100	12,77	89,0	0,77	3,00	16,80
K 06			125	9,17	92,0	1,17	1,80	18,80
K 06			160	1,78	92,0	1,75	0,00	21,10
K 06			200	-2,19	93,0	2,52	0,00	22,80
K 07	3 465	3 469						
K 07			20	37,00	70,3	0,00	5,60	7,60
K 07			25	33,63	73,7	0,07	5,40	8,30
K 07			32	29,49	76,0	0,10	5,20	9,20
K 07			40	25,32	78,0	0,17	5,00	10,30
K 07			50	21,35	80,0	0,24	4,70	11,50
K 07			63	18,31	83,0	0,38	4,30	13,00
K 07			80	15,04	86,0	0,56	3,70	14,80
K 07			100	11,63	89,0	0,87	3,00	16,80
K 07			125	7,98	92,0	1,32	1,80	18,80
K 07			160	0,52	92,0	1,98	0,00	21,10
K 07			200	-3,55	93,0	2,84	0,00	22,80
K 08	2 609	2 615						
K 08			20	39,45	70,3	0,00	5,60	7,60
K 08			25	36,10	73,7	0,05	5,40	8,30
K 08			32	31,97	76,0	0,08	5,20	9,20
K 08			40	27,82	78,0	0,13	5,00	10,30
K 08			50	23,87	80,0	0,18	4,70	11,50
K 08			63	20,86	83,0	0,29	4,30	13,00
K 08			80	17,63	86,0	0,42	3,70	14,80
K 08			100	14,30	89,0	0,65	3,00	16,80
K 08			125	10,76	92,0	0,99	1,80	18,80
K 08			160	3,46	92,0	1,49	0,00	21,10
K 08			200	-0,39	93,0	2,14	0,00	22,80
K 09	2 412	2 418						
K 09			20	40,13	70,3	0,00	5,60	7,60
K 09			25	36,78	73,7	0,05	5,40	8,30
K 09			32	32,66	76,0	0,07	5,20	9,20
K 09			40	28,51	78,0	0,12	5,00	10,30
K 09			50	24,56	80,0	0,17	4,70	11,50
K 09			63	21,57	83,0	0,27	4,30	13,00
K 09			80	18,35	86,0	0,39	3,70	14,80
K 09			100	15,03	89,0	0,60	3,00	16,80
K 09			125	11,51	92,0	0,92	1,80	18,80
K 09			160	4,25	92,0	1,38	0,00	21,10
K 09			200	0,45	93,0	1,98	0,00	22,80
K 10	3 355	3 359						
K 10			20	37,28	70,3	0,00	5,60	7,60
K 10			25	33,91	73,7	0,07	5,40	8,30
K 10			32	29,78	76,0	0,10	5,20	9,20
K 10			40	25,61	78,0	0,17	5,00	10,30
K 10			50	21,64	80,0	0,24	4,70	11,50
K 10			63	18,61	83,0	0,37	4,30	13,00
K 10			80	15,34	86,0	0,54	3,70	14,80
K 10			100	11,94	89,0	0,84	3,00	16,80
K 10			125	8,30	92,0	1,28	1,80	18,80
K 10			160	0,86	92,0	1,91	0,00	21,10
K 10			200	-3,18	93,0	2,75	0,00	22,80
K 11	4 013	4 016						
K 11			20	35,72	70,3	0,00	5,60	7,60
K 11			25	32,34	73,7	0,08	5,40	8,30
K 11			32	28,20	76,0	0,12	5,20	9,20
K 11			40	24,02	78,0	0,20	5,00	10,30
K 11			50	20,04	80,0	0,28	4,70	11,50
K 11			63	16,98	83,0	0,44	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 11			80	13,68	86,0	0,64	3,70	14,80
K 11			100	10,22	89,0	1,00	3,00	16,80
K 11			125	6,50	92,0	1,53	1,80	18,80
K 11			160	-1,07	92,0	2,29	0,00	21,10
K 11			200	-5,27	93,0	3,29	0,00	22,80
K 12	4 697	4 700						
K 12			20	34,36	70,3	0,00	5,60	7,60
K 12			25	30,96	73,7	0,09	5,40	8,30
K 12			32	26,82	76,0	0,14	5,20	9,20
K 12			40	22,62	78,0	0,23	5,00	10,30
K 12			50	18,63	80,0	0,33	4,70	11,50
K 12			63	15,54	83,0	0,52	4,30	13,00
K 12			80	12,21	86,0	0,75	3,70	14,80
K 12			100	8,68	89,0	1,17	3,00	16,80
K 12			125	4,87	92,0	1,79	1,80	18,80
K 12			160	-2,82	92,0	2,68	0,00	21,10
K 12			200	-7,20	93,0	3,85	0,00	22,80
K 13	4 016	4 020						
K 13			20	35,72	70,3	0,00	5,60	7,60
K 13			25	32,34	73,7	0,08	5,40	8,30
K 13			32	28,20	76,0	0,12	5,20	9,20
K 13			40	24,01	78,0	0,20	5,00	10,30
K 13			50	20,03	80,0	0,28	4,70	11,50
K 13			63	16,97	83,0	0,44	4,30	13,00
K 13			80	13,67	86,0	0,64	3,70	14,80
K 13			100	10,21	89,0	1,00	3,00	16,80
K 13			125	6,49	92,0	1,53	1,80	18,80
K 13			160	-1,08	92,0	2,29	0,00	21,10
K 13			200	-5,28	93,0	3,30	0,00	22,80
K 14	3 379	3 383						
K 14			20	37,21	70,3	0,00	5,60	7,60
K 14			25	33,85	73,7	0,07	5,40	8,30
K 14			32	29,71	76,0	0,10	5,20	9,20
K 14			40	25,54	78,0	0,17	5,00	10,30
K 14			50	21,58	80,0	0,24	4,70	11,50
K 14			63	18,54	83,0	0,37	4,30	13,00
K 14			80	15,27	86,0	0,54	3,70	14,80
K 14			100	11,87	89,0	0,85	3,00	16,80
K 14			125	8,23	92,0	1,29	1,80	18,80
K 14			160	0,79	92,0	1,93	0,00	21,10
K 14			200	-3,26	93,0	2,77	0,00	22,80
WTG 01	2 395	2 402						
WTG 01			20	41,69	71,8	0,00	5,60	7,60
WTG 01			25	38,34	75,2	0,05	5,40	8,30
WTG 01			32	33,82	77,1	0,07	5,20	9,20
WTG 01			40	28,87	78,3	0,12	5,00	10,30
WTG 01			50	24,92	80,3	0,17	4,70	11,50
WTG 01			63	23,22	84,6	0,26	4,30	13,00
WTG 01			80	19,70	87,3	0,38	3,70	14,80
WTG 01			100	14,99	88,9	0,60	3,00	16,80
WTG 01			125	11,07	91,5	0,91	1,80	18,80
WTG 01			160	5,82	93,5	1,37	0,00	21,10
WTG 01			200	2,02	94,5	1,97	0,00	22,80
WTG 02	2 441	2 448						
WTG 02			20	41,52	71,8	0,00	5,60	7,60
WTG 02			25	38,18	75,2	0,05	5,40	8,30
WTG 02			32	33,65	77,1	0,07	5,20	9,20
WTG 02			40	28,70	78,3	0,12	5,00	10,30
WTG 02			50	24,75	80,3	0,17	4,70	11,50
WTG 02			63	23,05	84,6	0,27	4,30	13,00
WTG 02			80	19,53	87,3	0,39	3,70	14,80
WTG 02			100	14,81	88,9	0,61	3,00	16,80
WTG 02			125	10,89	91,5	0,93	1,80	18,80
WTG 02			160	5,63	93,5	1,40	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			200	1,82	94,5	2,01	0,00	22,80
Sum			20	52,29				
Sum			25	48,94				
Sum			32	44,75				
Sum			40	40,49				
Sum			50	36,54				
Sum			63	33,75				
Sum			80	30,48				
Sum			100	26,97				
Sum			125	23,43				
Sum			160	16,48				
Sum			200	12,72				

Noise sensitive area: AD Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (144)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	2 211	2 217	20	40,89	70,3	0,00	5,60	7,60
K 01			25	37,54	73,7	0,04	5,40	8,30
K 01			32	33,42	76,0	0,07	5,20	9,20
K 01			40	29,27	78,0	0,11	5,00	10,30
K 01			50	25,33	80,0	0,16	4,70	11,50
K 01			63	22,34	83,0	0,24	4,30	13,00
K 01			80	19,13	86,0	0,35	3,70	14,80
K 01			100	15,83	89,0	0,55	3,00	16,80
K 01			125	12,34	92,0	0,84	1,80	18,80
K 01			160	5,12	92,0	1,26	0,00	21,10
K 01			200	1,37	93,0	1,82	0,00	22,80
K 02	1 980	1 987	20	41,83	70,3	0,00	5,60	7,60
K 02			25	38,49	73,7	0,04	5,40	8,30
K 02			32	34,37	76,0	0,06	5,20	9,20
K 02			40	30,23	78,0	0,10	5,00	10,30
K 02			50	26,29	80,0	0,14	4,70	11,50
K 02			63	23,32	83,0	0,22	4,30	13,00
K 02			80	20,12	86,0	0,32	3,70	14,80
K 02			100	16,84	89,0	0,50	3,00	16,80
K 02			125	13,38	92,0	0,76	1,80	18,80
K 02			160	6,20	92,0	1,13	0,00	21,10
K 02			200	2,50	93,0	1,63	0,00	22,80
K 03	1 628	1 636	20	43,52	70,3	0,00	5,60	7,60
K 03			25	40,19	73,7	0,03	5,40	8,30
K 03			32	36,08	76,0	0,05	5,20	9,20
K 03			40	31,94	78,0	0,08	5,00	10,30
K 03			50	28,01	80,0	0,11	4,70	11,50
K 03			63	25,04	83,0	0,18	4,30	13,00
K 03			80	21,86	86,0	0,26	3,70	14,80
K 03			100	18,62	89,0	0,41	3,00	16,80
K 03			125	15,20	92,0	0,62	1,80	18,80
K 03			160	8,09	92,0	0,93	0,00	21,10
K 03			200	4,48	93,0	1,34	0,00	22,80
K 04	2 151	2 158	20	41,12	70,3	0,00	5,60	7,60
K 04			25	37,78	73,7	0,04	5,40	8,30
K 04			32	33,66	76,0	0,06	5,20	9,20
K 04			40	29,51	78,0	0,11	5,00	10,30
K 04			50	25,57	80,0	0,15	4,70	11,50
K 04			63	22,58	83,0	0,24	4,30	13,00
K 04			80	19,37	86,0	0,35	3,70	14,80
K 04			100	16,08	89,0	0,54	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			125	12,60	92,0	0,82	1,80	18,80
K 04			160	5,39	92,0	1,23	0,00	21,10
K 04			200	1,65	93,0	1,77	0,00	22,80
K 05	1 540	1 549						
K 05			20	44,00	70,3	0,00	5,60	7,60
K 05			25	40,67	73,7	0,03	5,40	8,30
K 05			32	36,55	76,0	0,05	5,20	9,20
K 05			40	32,42	78,0	0,08	5,00	10,30
K 05			50	28,49	80,0	0,11	4,70	11,50
K 05			63	25,53	83,0	0,17	4,30	13,00
K 05			80	22,35	86,0	0,25	3,70	14,80
K 05			100	19,11	89,0	0,39	3,00	16,80
K 05			125	15,71	92,0	0,59	1,80	18,80
K 05			160	8,62	92,0	0,88	0,00	21,10
K 05			200	5,03	93,0	1,27	0,00	22,80
K 06	2 918	2 923						
K 06			20	38,48	70,3	0,00	5,60	7,60
K 06			25	35,13	73,7	0,06	5,40	8,30
K 06			32	31,00	76,0	0,09	5,20	9,20
K 06			40	26,84	78,0	0,15	5,00	10,30
K 06			50	22,88	80,0	0,20	4,70	11,50
K 06			63	19,86	83,0	0,32	4,30	13,00
K 06			80	16,62	86,0	0,47	3,70	14,80
K 06			100	13,25	89,0	0,73	3,00	16,80
K 06			125	9,67	92,0	1,11	1,80	18,80
K 06			160	2,32	92,0	1,67	0,00	21,10
K 06			200	-1,61	93,0	2,40	0,00	22,80
K 07	3 364	3 368						
K 07			20	37,25	70,3	0,00	5,60	7,60
K 07			25	33,89	73,7	0,07	5,40	8,30
K 07			32	29,75	76,0	0,10	5,20	9,20
K 07			40	25,58	78,0	0,17	5,00	10,30
K 07			50	21,62	80,0	0,24	4,70	11,50
K 07			63	18,58	83,0	0,37	4,30	13,00
K 07			80	15,31	86,0	0,54	3,70	14,80
K 07			100	11,91	89,0	0,84	3,00	16,80
K 07			125	8,27	92,0	1,28	1,80	18,80
K 07			160	0,83	92,0	1,92	0,00	21,10
K 07			200	-3,21	93,0	2,76	0,00	22,80
K 08	2 544	2 549						
K 08			20	39,67	70,3	0,00	5,60	7,60
K 08			25	36,32	73,7	0,05	5,40	8,30
K 08			32	32,20	76,0	0,08	5,20	9,20
K 08			40	28,04	78,0	0,13	5,00	10,30
K 08			50	24,09	80,0	0,18	4,70	11,50
K 08			63	21,09	83,0	0,28	4,30	13,00
K 08			80	17,86	86,0	0,41	3,70	14,80
K 08			100	14,53	89,0	0,64	3,00	16,80
K 08			125	11,00	92,0	0,97	1,80	18,80
K 08			160	3,72	92,0	1,45	0,00	21,10
K 08			200	-0,12	93,0	2,09	0,00	22,80
K 09	2 414	2 420						
K 09			20	40,12	70,3	0,00	5,60	7,60
K 09			25	36,78	73,7	0,05	5,40	8,30
K 09			32	32,65	76,0	0,07	5,20	9,20
K 09			40	28,50	78,0	0,12	5,00	10,30
K 09			50	24,56	80,0	0,17	4,70	11,50
K 09			63	21,56	83,0	0,27	4,30	13,00
K 09			80	18,34	86,0	0,39	3,70	14,80
K 09			100	15,02	89,0	0,60	3,00	16,80
K 09			125	11,51	92,0	0,92	1,80	18,80
K 09			160	4,25	92,0	1,38	0,00	21,10
K 09			200	0,44	93,0	1,98	0,00	22,80
K 10	3 032	3 037						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			20	38,15	70,3	0,00	5,60	7,60
K 10			25	34,79	73,7	0,06	5,40	8,30
K 10			32	30,66	76,0	0,09	5,20	9,20
K 10			40	26,50	78,0	0,15	5,00	10,30
K 10			50	22,54	80,0	0,21	4,70	11,50
K 10			63	19,52	83,0	0,33	4,30	13,00
K 10			80	16,27	86,0	0,49	3,70	14,80
K 10			100	12,89	89,0	0,76	3,00	16,80
K 10			125	9,30	92,0	1,15	1,80	18,80
K 10			160	1,92	92,0	1,73	0,00	21,10
K 10			200	-2,04	93,0	2,49	0,00	22,80
K 11	3 681	3 685	20	36,47	70,3	0,00	5,60	7,60
K 11			25	33,10	73,7	0,07	5,40	8,30
K 11			32	28,96	76,0	0,11	5,20	9,20
K 11			40	24,79	78,0	0,18	5,00	10,30
K 11			50	20,81	80,0	0,26	4,70	11,50
K 11			63	17,77	83,0	0,41	4,30	13,00
K 11			80	14,48	86,0	0,59	3,70	14,80
K 11			100	11,05	89,0	0,92	3,00	16,80
K 11			125	7,37	92,0	1,40	1,80	18,80
K 11			160	-0,13	92,0	2,10	0,00	21,10
K 11			200	-4,25	93,0	3,02	0,00	22,80
K 12	4 389	4 392	20	34,95	70,3	0,00	5,60	7,60
K 12			25	31,56	73,7	0,09	5,40	8,30
K 12			32	27,41	76,0	0,13	5,20	9,20
K 12			40	23,23	78,0	0,22	5,00	10,30
K 12			50	19,24	80,0	0,31	4,70	11,50
K 12			63	16,16	83,0	0,48	4,30	13,00
K 12			80	12,84	86,0	0,70	3,70	14,80
K 12			100	9,35	89,0	1,10	3,00	16,80
K 12			125	5,58	92,0	1,67	1,80	18,80
K 12			160	-2,06	92,0	2,50	0,00	21,10
K 12			200	-6,36	93,0	3,60	0,00	22,80
K 13	3 748	3 752	20	36,31	70,3	0,00	5,60	7,60
K 13			25	32,94	73,7	0,08	5,40	8,30
K 13			32	28,80	76,0	0,11	5,20	9,20
K 13			40	24,63	78,0	0,19	5,00	10,30
K 13			50	20,65	80,0	0,26	4,70	11,50
K 13			63	17,60	83,0	0,41	4,30	13,00
K 13			80	14,31	86,0	0,60	3,70	14,80
K 13			100	10,88	89,0	0,94	3,00	16,80
K 13			125	7,19	92,0	1,43	1,80	18,80
K 13			160	-0,32	92,0	2,14	0,00	21,10
K 13			200	-4,46	93,0	3,08	0,00	22,80
K 14	3 134	3 138	20	37,87	70,3	0,00	5,60	7,60
K 14			25	34,50	73,7	0,06	5,40	8,30
K 14			32	30,37	76,0	0,09	5,20	9,20
K 14			40	26,21	78,0	0,16	5,00	10,30
K 14			50	22,25	80,0	0,22	4,70	11,50
K 14			63	19,22	83,0	0,35	4,30	13,00
K 14			80	15,96	86,0	0,50	3,70	14,80
K 14			100	12,58	89,0	0,78	3,00	16,80
K 14			125	8,97	92,0	1,19	1,80	18,80
K 14			160	1,58	92,0	1,79	0,00	21,10
K 14			200	-2,41	93,0	2,57	0,00	22,80
WTG 01	2 670	2 676	20	40,75	71,8	0,00	5,60	7,60
WTG 01			25	37,40	75,2	0,05	5,40	8,30
WTG 01			32	32,87	77,1	0,08	5,20	9,20
WTG 01			40	27,92	78,3	0,13	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 01			50	23,96	80,3	0,19	4,70	11,50
WTG 01			63	22,26	84,6	0,29	4,30	13,00
WTG 01			80	18,72	87,3	0,43	3,70	14,80
WTG 01			100	13,98	88,9	0,67	3,00	16,80
WTG 01			125	10,03	91,5	1,02	1,80	18,80
WTG 01			160	4,72	93,5	1,53	0,00	21,10
WTG 01			200	0,86	94,5	2,19	0,00	22,80
WTG 02	2 599	2 606						
WTG 02			20	40,98	71,8	0,00	5,60	7,60
WTG 02			25	37,63	75,2	0,05	5,40	8,30
WTG 02			32	33,10	77,1	0,08	5,20	9,20
WTG 02			40	28,15	78,3	0,13	5,00	10,30
WTG 02			50	24,20	80,3	0,18	4,70	11,50
WTG 02			63	22,49	84,6	0,29	4,30	13,00
WTG 02			80	18,96	87,3	0,42	3,70	14,80
WTG 02			100	14,23	88,9	0,65	3,00	16,80
WTG 02			125	10,29	91,5	0,99	1,80	18,80
WTG 02			160	5,00	93,5	1,49	0,00	21,10
WTG 02			200	1,14	94,5	2,14	0,00	22,80
Sum								
Sum			20	52,28				
Sum			25	48,93				
Sum			32	44,75				
Sum			40	40,51				
Sum			50	36,56				
Sum			63	33,73				
Sum			80	30,47				
Sum			100	27,00				
Sum			125	23,46				
Sum			160	16,45				
Sum			200	12,68				

Noise sensitive area: AE Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (143)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	2 416	2 420						
K 01			20	40,12	70,3	0,00	5,60	7,60
K 01			25	36,77	73,7	0,05	5,40	8,30
K 01			32	32,65	76,0	0,07	5,20	9,20
K 01			40	28,50	78,0	0,12	5,00	10,30
K 01			50	24,55	80,0	0,17	4,70	11,50
K 01			63	21,56	83,0	0,27	4,30	13,00
K 01			80	18,34	86,0	0,39	3,70	14,80
K 01			100	15,02	89,0	0,61	3,00	16,80
K 01			125	11,50	92,0	0,92	1,80	18,80
K 01			160	4,24	92,0	1,38	0,00	21,10
K 01			200	0,44	93,0	1,98	0,00	22,80
K 02	2 578	2 582						
K 02			20	39,56	70,3	0,00	5,60	7,60
K 02			25	36,21	73,7	0,05	5,40	8,30
K 02			32	32,08	76,0	0,08	5,20	9,20
K 02			40	27,93	78,0	0,13	5,00	10,30
K 02			50	23,98	80,0	0,18	4,70	11,50
K 02			63	20,98	83,0	0,28	4,30	13,00
K 02			80	17,75	86,0	0,41	3,70	14,80
K 02			100	14,41	89,0	0,65	3,00	16,80
K 02			125	10,88	92,0	0,98	1,80	18,80
K 02			160	3,59	92,0	1,47	0,00	21,10
K 02			200	-0,26	93,0	2,12	0,00	22,80
K 03	3 074	3 077						
K 03			20	38,04	70,3	0,00	5,60	7,60
K 03			25	34,68	73,7	0,06	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 03			32	30,55	76,0	0,09	5,20	9,20
K 03			40	26,38	78,0	0,15	5,00	10,30
K 03			50	22,42	80,0	0,22	4,70	11,50
K 03			63	19,40	83,0	0,34	4,30	13,00
K 03			80	16,15	86,0	0,49	3,70	14,80
K 03			100	12,77	89,0	0,77	3,00	16,80
K 03			125	9,17	92,0	1,17	1,80	18,80
K 03			160	1,78	92,0	1,75	0,00	21,10
K 03			200	-2,19	93,0	2,52	0,00	22,80
K 04	3 189	3 193						
K 04			20	37,72	70,3	0,00	5,60	7,60
K 04			25	34,35	73,7	0,06	5,40	8,30
K 04			32	30,22	76,0	0,10	5,20	9,20
K 04			40	26,06	78,0	0,16	5,00	10,30
K 04			50	22,09	80,0	0,22	4,70	11,50
K 04			63	19,07	83,0	0,35	4,30	13,00
K 04			80	15,81	86,0	0,51	3,70	14,80
K 04			100	12,42	89,0	0,80	3,00	16,80
K 04			125	8,80	92,0	1,21	1,80	18,80
K 04			160	1,40	92,0	1,82	0,00	21,10
K 04			200	-2,60	93,0	2,62	0,00	22,80
K 05	3 820	3 822						
K 05			20	36,15	70,3	0,00	5,60	7,60
K 05			25	32,78	73,7	0,08	5,40	8,30
K 05			32	28,64	76,0	0,11	5,20	9,20
K 05			40	24,46	78,0	0,19	5,00	10,30
K 05			50	20,49	80,0	0,27	4,70	11,50
K 05			63	17,43	83,0	0,42	4,30	13,00
K 05			80	14,14	86,0	0,61	3,70	14,80
K 05			100	10,70	89,0	0,96	3,00	16,80
K 05			125	7,00	92,0	1,45	1,80	18,80
K 05			160	-0,53	92,0	2,18	0,00	21,10
K 05			200	-4,68	93,0	3,13	0,00	22,80
K 06	1 644	1 650						
K 06			20	43,45	70,3	0,00	5,60	7,60
K 06			25	40,12	73,7	0,03	5,40	8,30
K 06			32	36,00	76,0	0,05	5,20	9,20
K 06			40	31,87	78,0	0,08	5,00	10,30
K 06			50	27,94	80,0	0,12	4,70	11,50
K 06			63	24,97	83,0	0,18	4,30	13,00
K 06			80	21,79	86,0	0,26	3,70	14,80
K 06			100	18,54	89,0	0,41	3,00	16,80
K 06			125	15,12	92,0	0,63	1,80	18,80
K 06			160	8,01	92,0	0,94	0,00	21,10
K 06			200	4,40	93,0	1,35	0,00	22,80
K 07	1 389	1 397						
K 07			20	44,90	70,3	0,00	5,60	7,60
K 07			25	41,57	73,7	0,03	5,40	8,30
K 07			32	37,45	76,0	0,04	5,20	9,20
K 07			40	33,33	78,0	0,07	5,00	10,30
K 07			50	29,40	80,0	0,10	4,70	11,50
K 07			63	26,44	83,0	0,15	4,30	13,00
K 07			80	23,27	86,0	0,22	3,70	14,80
K 07			100	20,05	89,0	0,35	3,00	16,80
K 07			125	16,66	92,0	0,53	1,80	18,80
K 07			160	9,60	92,0	0,80	0,00	21,10
K 07			200	6,05	93,0	1,15	0,00	22,80
K 08	2 245	2 250						
K 08			20	40,76	70,3	0,00	5,60	7,60
K 08			25	37,41	73,7	0,04	5,40	8,30
K 08			32	33,29	76,0	0,07	5,20	9,20
K 08			40	29,14	78,0	0,11	5,00	10,30
K 08			50	25,20	80,0	0,16	4,70	11,50
K 08			63	22,21	83,0	0,25	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 08			80	19,00	86,0	0,36	3,70	14,80
K 08			100	15,69	89,0	0,56	3,00	16,80
K 08			125	12,20	92,0	0,85	1,80	18,80
K 08			160	4,97	92,0	1,28	0,00	21,10
K 08			200	1,21	93,0	1,84	0,00	22,80
K 09	2 646	2 650						
K 09			20	39,34	70,3	0,00	5,60	7,60
K 09			25	35,98	73,7	0,05	5,40	8,30
K 09			32	31,86	76,0	0,08	5,20	9,20
K 09			40	27,70	78,0	0,13	5,00	10,30
K 09			50	23,75	80,0	0,19	4,70	11,50
K 09			63	20,74	83,0	0,29	4,30	13,00
K 09			80	17,51	86,0	0,42	3,70	14,80
K 09			100	14,17	89,0	0,66	3,00	16,80
K 09			125	10,63	92,0	1,01	1,80	18,80
K 09			160	3,33	92,0	1,51	0,00	21,10
K 09			200	-0,54	93,0	2,17	0,00	22,80
K 10	2 476	2 480						
K 10			20	39,91	70,3	0,00	5,60	7,60
K 10			25	36,56	73,7	0,05	5,40	8,30
K 10			32	32,44	76,0	0,07	5,20	9,20
K 10			40	28,29	78,0	0,12	5,00	10,30
K 10			50	24,34	80,0	0,17	4,70	11,50
K 10			63	21,34	83,0	0,27	4,30	13,00
K 10			80	18,11	86,0	0,40	3,70	14,80
K 10			100	14,79	89,0	0,62	3,00	16,80
K 10			125	11,27	92,0	0,94	1,80	18,80
K 10			160	4,00	92,0	1,41	0,00	21,10
K 10			200	0,18	93,0	2,03	0,00	22,80
K 11	2 507	2 511						
K 11			20	39,80	70,3	0,00	5,60	7,60
K 11			25	36,45	73,7	0,05	5,40	8,30
K 11			32	32,33	76,0	0,08	5,20	9,20
K 11			40	28,18	78,0	0,13	5,00	10,30
K 11			50	24,23	80,0	0,18	4,70	11,50
K 11			63	21,23	83,0	0,28	4,30	13,00
K 11			80	18,00	86,0	0,40	3,70	14,80
K 11			100	14,68	89,0	0,63	3,00	16,80
K 11			125	11,15	92,0	0,95	1,80	18,80
K 11			160	3,87	92,0	1,43	0,00	21,10
K 11			200	0,04	93,0	2,06	0,00	22,80
K 12	2 125	2 130						
K 12			20	41,23	70,3	0,00	5,60	7,60
K 12			25	37,89	73,7	0,04	5,40	8,30
K 12			32	33,77	76,0	0,06	5,20	9,20
K 12			40	29,63	78,0	0,11	5,00	10,30
K 12			50	25,68	80,0	0,15	4,70	11,50
K 12			63	22,70	83,0	0,23	4,30	13,00
K 12			80	19,49	86,0	0,34	3,70	14,80
K 12			100	16,20	89,0	0,53	3,00	16,80
K 12			125	12,72	92,0	0,81	1,80	18,80
K 12			160	5,52	92,0	1,21	0,00	21,10
K 12			200	1,79	93,0	1,75	0,00	22,80
K 13	1 546	1 553						
K 13			20	43,98	70,3	0,00	5,60	7,60
K 13			25	40,65	73,7	0,03	5,40	8,30
K 13			32	36,53	76,0	0,05	5,20	9,20
K 13			40	32,40	78,0	0,08	5,00	10,30
K 13			50	28,47	80,0	0,11	4,70	11,50
K 13			63	25,51	83,0	0,17	4,30	13,00
K 13			80	22,33	86,0	0,25	3,70	14,80
K 13			100	19,09	89,0	0,39	3,00	16,80
K 13			125	15,69	92,0	0,59	1,80	18,80
K 13			160	8,59	92,0	0,89	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			200	5,00	93,0	1,27	0,00	22,80
K 14	1 672	1 678						
K 14			20	43,30	70,3	0,00	5,60	7,60
K 14			25	39,97	73,7	0,03	5,40	8,30
K 14			32	35,85	76,0	0,05	5,20	9,20
K 14			40	31,72	78,0	0,08	5,00	10,30
K 14			50	27,79	80,0	0,12	4,70	11,50
K 14			63	24,82	83,0	0,18	4,30	13,00
K 14			80	21,63	86,0	0,27	3,70	14,80
K 14			100	18,38	89,0	0,42	3,00	16,80
K 14			125	14,97	92,0	0,64	1,80	18,80
K 14			160	7,85	92,0	0,96	0,00	21,10
K 14			200	4,23	93,0	1,38	0,00	22,80
WTG 01	4 392	4 395						
WTG 01			20	36,44	71,8	0,00	5,60	7,60
WTG 01			25	33,05	75,2	0,09	5,40	8,30
WTG 01			32	28,51	77,1	0,13	5,20	9,20
WTG 01			40	23,52	78,3	0,22	5,00	10,30
WTG 01			50	19,53	80,3	0,31	4,70	11,50
WTG 01			63	17,76	84,6	0,48	4,30	13,00
WTG 01			80	14,14	87,3	0,70	3,70	14,80
WTG 01			100	9,24	88,9	1,10	3,00	16,80
WTG 01			125	5,07	91,5	1,67	1,80	18,80
WTG 01			160	-0,56	93,5	2,51	0,00	21,10
WTG 01			200	-4,86	94,5	3,60	0,00	22,80
WTG 02	3 496	3 500						
WTG 02			20	38,42	71,8	0,00	5,60	7,60
WTG 02			25	35,05	75,2	0,07	5,40	8,30
WTG 02			32	30,51	77,1	0,10	5,20	9,20
WTG 02			40	25,54	78,3	0,17	5,00	10,30
WTG 02			50	21,57	80,3	0,24	4,70	11,50
WTG 02			63	19,83	84,6	0,38	4,30	13,00
WTG 02			80	16,26	87,3	0,56	3,70	14,80
WTG 02			100	11,44	88,9	0,87	3,00	16,80
WTG 02			125	7,39	91,5	1,33	1,80	18,80
WTG 02			160	1,92	93,5	1,99	0,00	21,10
WTG 02			200	-2,15	94,5	2,87	0,00	22,80
Sum								
Sum			20	53,00				
Sum			25	49,66				
Sum			32	45,52				
Sum			40	41,34				
Sum			50	37,39				
Sum			63	34,47				
Sum			80	31,25				
Sum			100	27,90				
Sum			125	24,42				
Sum			160	17,30				
Sum			200	13,59				

Noise sensitive area: AF Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (141)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	1 412	1 421						
K 01			20	44,75	70,3	0,00	5,60	7,60
K 01			25	41,42	73,7	0,03	5,40	8,30
K 01			32	37,30	76,0	0,04	5,20	9,20
K 01			40	33,18	78,0	0,07	5,00	10,30
K 01			50	29,25	80,0	0,10	4,70	11,50
K 01			63	26,29	83,0	0,16	4,30	13,00
K 01			80	23,12	86,0	0,23	3,70	14,80
K 01			100	19,89	89,0	0,36	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01			125	16,51	92,0	0,54	1,80	18,80
K 01			160	9,44	92,0	0,81	0,00	21,10
K 01			200	5,88	93,0	1,17	0,00	22,80
K 02	1 346	1 357						
K 02			20	45,15	70,3	0,00	5,60	7,60
K 02			25	41,82	73,7	0,03	5,40	8,30
K 02			32	37,71	76,0	0,04	5,20	9,20
K 02			40	33,58	78,0	0,07	5,00	10,30
K 02			50	29,66	80,0	0,09	4,70	11,50
K 02			63	26,70	83,0	0,15	4,30	13,00
K 02			80	23,53	86,0	0,22	3,70	14,80
K 02			100	20,31	89,0	0,34	3,00	16,80
K 02			125	16,94	92,0	0,52	1,80	18,80
K 02			160	9,88	92,0	0,77	0,00	21,10
K 02			200	6,34	93,0	1,11	0,00	22,80
K 03	1 282	1 293						
K 03			20	45,57	70,3	0,00	5,60	7,60
K 03			25	42,24	73,7	0,03	5,40	8,30
K 03			32	38,13	76,0	0,04	5,20	9,20
K 03			40	34,01	78,0	0,06	5,00	10,30
K 03			50	30,08	80,0	0,09	4,70	11,50
K 03			63	27,13	83,0	0,14	4,30	13,00
K 03			80	23,96	86,0	0,21	3,70	14,80
K 03			100	20,75	89,0	0,32	3,00	16,80
K 03			125	17,38	92,0	0,49	1,80	18,80
K 03			160	10,33	92,0	0,74	0,00	21,10
K 03			200	6,81	93,0	1,06	0,00	22,80
K 04	2 043	2 049						
K 04			20	41,57	70,3	0,00	5,60	7,60
K 04			25	38,23	73,7	0,04	5,40	8,30
K 04			32	34,11	76,0	0,06	5,20	9,20
K 04			40	29,97	78,0	0,10	5,00	10,30
K 04			50	26,02	80,0	0,14	4,70	11,50
K 04			63	23,04	83,0	0,23	4,30	13,00
K 04			80	19,84	86,0	0,33	3,70	14,80
K 04			100	16,56	89,0	0,51	3,00	16,80
K 04			125	13,09	92,0	0,78	1,80	18,80
K 04			160	5,90	92,0	1,17	0,00	21,10
K 04			200	2,19	93,0	1,68	0,00	22,80
K 05	1 704	1 712						
K 05			20	43,13	70,3	0,00	5,60	7,60
K 05			25	39,80	73,7	0,03	5,40	8,30
K 05			32	35,68	76,0	0,05	5,20	9,20
K 05			40	31,54	78,0	0,09	5,00	10,30
K 05			50	27,61	80,0	0,12	4,70	11,50
K 05			63	24,64	83,0	0,19	4,30	13,00
K 05			80	21,46	86,0	0,27	3,70	14,80
K 05			100	18,20	89,0	0,43	3,00	16,80
K 05			125	14,78	92,0	0,65	1,80	18,80
K 05			160	7,65	92,0	0,98	0,00	21,10
K 05			200	4,03	93,0	1,40	0,00	22,80
K 06	2 235	2 242						
K 06			20	40,79	70,3	0,00	5,60	7,60
K 06			25	37,44	73,7	0,04	5,40	8,30
K 06			32	33,32	76,0	0,07	5,20	9,20
K 06			40	29,18	78,0	0,11	5,00	10,30
K 06			50	25,23	80,0	0,16	4,70	11,50
K 06			63	22,24	83,0	0,25	4,30	13,00
K 06			80	19,03	86,0	0,36	3,70	14,80
K 06			100	15,73	89,0	0,56	3,00	16,80
K 06			125	12,24	92,0	0,85	1,80	18,80
K 06			160	5,01	92,0	1,28	0,00	21,10
K 06			200	1,25	93,0	1,84	0,00	22,80
K 07	2 767	2 772						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			20	38,94	70,3	0,00	5,60	7,60
K 07			25	35,59	73,7	0,06	5,40	8,30
K 07			32	31,46	76,0	0,08	5,20	9,20
K 07			40	27,30	78,0	0,14	5,00	10,30
K 07			50	23,35	80,0	0,19	4,70	11,50
K 07			63	20,34	83,0	0,30	4,30	13,00
K 07			80	17,10	86,0	0,44	3,70	14,80
K 07			100	13,75	89,0	0,69	3,00	16,80
K 07			125	10,19	92,0	1,05	1,80	18,80
K 07			160	2,86	92,0	1,58	0,00	21,10
K 07			200	-1,03	93,0	2,27	0,00	22,80
K 08	2 065	2 072	20	41,47	70,3	0,00	5,60	7,60
K 08			25	38,13	73,7	0,04	5,40	8,30
K 08			32	34,01	76,0	0,06	5,20	9,20
K 08			40	29,87	78,0	0,10	5,00	10,30
K 08			50	25,93	80,0	0,15	4,70	11,50
K 08			63	22,95	83,0	0,23	4,30	13,00
K 08			80	19,74	86,0	0,33	3,70	14,80
K 08			100	16,46	89,0	0,52	3,00	16,80
K 08			125	12,99	92,0	0,79	1,80	18,80
K 08			160	5,79	92,0	1,18	0,00	21,10
K 08			200	2,08	93,0	1,70	0,00	22,80
K 09	2 097	2 103	20	41,34	70,3	0,00	5,60	7,60
K 09			25	38,00	73,7	0,04	5,40	8,30
K 09			32	33,88	76,0	0,06	5,20	9,20
K 09			40	29,74	78,0	0,11	5,00	10,30
K 09			50	25,79	80,0	0,15	4,70	11,50
K 09			63	22,81	83,0	0,23	4,30	13,00
K 09			80	19,60	86,0	0,34	3,70	14,80
K 09			100	16,32	89,0	0,53	3,00	16,80
K 09			125	12,84	92,0	0,80	1,80	18,80
K 09			160	5,64	92,0	1,20	0,00	21,10
K 09			200	1,92	93,0	1,72	0,00	22,80
K 10	2 136	2 143	20	41,18	70,3	0,00	5,60	7,60
K 10			25	37,84	73,7	0,04	5,40	8,30
K 10			32	33,72	76,0	0,06	5,20	9,20
K 10			40	29,57	78,0	0,11	5,00	10,30
K 10			50	25,63	80,0	0,15	4,70	11,50
K 10			63	22,64	83,0	0,24	4,30	13,00
K 10			80	19,44	86,0	0,34	3,70	14,80
K 10			100	16,14	89,0	0,54	3,00	16,80
K 10			125	12,67	92,0	0,81	1,80	18,80
K 10			160	5,46	92,0	1,22	0,00	21,10
K 10			200	1,72	93,0	1,76	0,00	22,80
K 11	2 785	2 790	20	38,89	70,3	0,00	5,60	7,60
K 11			25	35,53	73,7	0,06	5,40	8,30
K 11			32	31,40	76,0	0,08	5,20	9,20
K 11			40	27,25	78,0	0,14	5,00	10,30
K 11			50	23,29	80,0	0,20	4,70	11,50
K 11			63	20,28	83,0	0,31	4,30	13,00
K 11			80	17,04	86,0	0,45	3,70	14,80
K 11			100	13,69	89,0	0,70	3,00	16,80
K 11			125	10,13	92,0	1,06	1,80	18,80
K 11			160	2,80	92,0	1,59	0,00	21,10
K 11			200	-1,10	93,0	2,29	0,00	22,80
K 12	3 496	3 500	20	36,92	70,3	0,00	5,60	7,60
K 12			25	33,55	73,7	0,07	5,40	8,30
K 12			32	29,41	76,0	0,11	5,20	9,20
K 12			40	25,24	78,0	0,18	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 12			50	21,27	80,0	0,25	4,70	11,50
K 12			63	18,23	83,0	0,39	4,30	13,00
K 12			80	14,96	86,0	0,56	3,70	14,80
K 12			100	11,54	89,0	0,88	3,00	16,80
K 12			125	7,89	92,0	1,33	1,80	18,80
K 12			160	0,42	92,0	2,00	0,00	21,10
K 12			200	-3,65	93,0	2,87	0,00	22,80
K 13	2 884	2 889						
K 13			20	38,59	70,3	0,00	5,60	7,60
K 13			25	35,23	73,7	0,06	5,40	8,30
K 13			32	31,10	76,0	0,09	5,20	9,20
K 13			40	26,94	78,0	0,14	5,00	10,30
K 13			50	22,98	80,0	0,20	4,70	11,50
K 13			63	19,97	83,0	0,32	4,30	13,00
K 13			80	16,72	86,0	0,46	3,70	14,80
K 13			100	13,36	89,0	0,72	3,00	16,80
K 13			125	9,79	92,0	1,10	1,80	18,80
K 13			160	2,44	92,0	1,65	0,00	21,10
K 13			200	-1,48	93,0	2,37	0,00	22,80
K 14	2 301	2 307						
K 14			20	40,54	70,3	0,00	5,60	7,60
K 14			25	37,19	73,7	0,05	5,40	8,30
K 14			32	33,07	76,0	0,07	5,20	9,20
K 14			40	28,92	78,0	0,12	5,00	10,30
K 14			50	24,98	80,0	0,16	4,70	11,50
K 14			63	21,99	83,0	0,25	4,30	13,00
K 14			80	18,77	86,0	0,37	3,70	14,80
K 14			100	15,46	89,0	0,58	3,00	16,80
K 14			125	11,96	92,0	0,88	1,80	18,80
K 14			160	4,73	92,0	1,31	0,00	21,10
K 14			200	0,95	93,0	1,89	0,00	22,80
WTG 01	2 975	2 981						
WTG 01			20	39,81	71,8	0,00	5,60	7,60
WTG 01			25	36,45	75,2	0,06	5,40	8,30
WTG 01			32	31,92	77,1	0,09	5,20	9,20
WTG 01			40	26,96	78,3	0,15	5,00	10,30
WTG 01			50	23,00	80,3	0,21	4,70	11,50
WTG 01			63	21,28	84,6	0,33	4,30	13,00
WTG 01			80	17,73	87,3	0,48	3,70	14,80
WTG 01			100	12,97	88,9	0,75	3,00	16,80
WTG 01			125	8,98	91,5	1,13	1,80	18,80
WTG 01			160	3,61	93,5	1,70	0,00	21,10
WTG 01			200	-0,33	94,5	2,44	0,00	22,80
WTG 02	2 623	2 629						
WTG 02			20	40,90	71,8	0,00	5,60	7,60
WTG 02			25	37,55	75,2	0,05	5,40	8,30
WTG 02			32	33,02	77,1	0,08	5,20	9,20
WTG 02			40	28,07	78,3	0,13	5,00	10,30
WTG 02			50	24,12	80,3	0,18	4,70	11,50
WTG 02			63	22,41	84,6	0,29	4,30	13,00
WTG 02			80	18,88	87,3	0,42	3,70	14,80
WTG 02			100	14,15	88,9	0,66	3,00	16,80
WTG 02			125	10,20	91,5	1,00	1,80	18,80
WTG 02			160	4,90	93,5	1,50	0,00	21,10
WTG 02			200	1,05	94,5	2,16	0,00	22,80
Sum								
Sum			20	53,93				
Sum			25	50,59				
Sum			32	46,44				
Sum			40	42,24				
Sum			50	38,30				
Sum			63	35,43				
Sum			80	32,21				
Sum			100	28,83				

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
Sum			125	25,37				
Sum			160	18,34				
Sum			200	14,67				

Noise sensitive area: AG Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (142)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	1 271	1 281						
K 01			20	45,65	70,3	0,00	5,60	7,60
K 01			25	42,33	73,7	0,03	5,40	8,30
K 01			32	38,21	76,0	0,04	5,20	9,20
K 01			40	34,09	78,0	0,06	5,00	10,30
K 01			50	30,16	80,0	0,09	4,70	11,50
K 01			63	27,21	83,0	0,14	4,30	13,00
K 01			80	24,05	86,0	0,20	3,70	14,80
K 01			100	20,83	89,0	0,32	3,00	16,80
K 01			125	17,46	92,0	0,49	1,80	18,80
K 01			160	10,42	92,0	0,73	0,00	21,10
K 01			200	6,90	93,0	1,05	0,00	22,80
K 02	1 295	1 305						
K 02			20	45,48	70,3	0,00	5,60	7,60
K 02			25	42,16	73,7	0,03	5,40	8,30
K 02			32	38,05	76,0	0,04	5,20	9,20
K 02			40	33,92	78,0	0,07	5,00	10,30
K 02			50	29,99	80,0	0,09	4,70	11,50
K 02			63	27,04	83,0	0,14	4,30	13,00
K 02			80	23,88	86,0	0,21	3,70	14,80
K 02			100	20,66	89,0	0,33	3,00	16,80
K 02			125	17,29	92,0	0,50	1,80	18,80
K 02			160	10,24	92,0	0,74	0,00	21,10
K 02			200	6,71	93,0	1,07	0,00	22,80
K 03	1 345	1 355						
K 03			20	45,16	70,3	0,00	5,60	7,60
K 03			25	41,83	73,7	0,03	5,40	8,30
K 03			32	37,72	76,0	0,04	5,20	9,20
K 03			40	33,59	78,0	0,07	5,00	10,30
K 03			50	29,66	80,0	0,09	4,70	11,50
K 03			63	26,71	83,0	0,15	4,30	13,00
K 03			80	23,54	86,0	0,22	3,70	14,80
K 03			100	20,32	89,0	0,34	3,00	16,80
K 03			125	16,94	92,0	0,52	1,80	18,80
K 03			160	9,89	92,0	0,77	0,00	21,10
K 03			200	6,35	93,0	1,11	0,00	22,80
K 04	2 139	2 145						
K 04			20	41,17	70,3	0,00	5,60	7,60
K 04			25	37,83	73,7	0,04	5,40	8,30
K 04			32	33,71	76,0	0,06	5,20	9,20
K 04			40	29,56	78,0	0,11	5,00	10,30
K 04			50	25,62	80,0	0,15	4,70	11,50
K 04			63	22,63	83,0	0,24	4,30	13,00
K 04			80	19,43	86,0	0,34	3,70	14,80
K 04			100	16,13	89,0	0,54	3,00	16,80
K 04			125	12,66	92,0	0,82	1,80	18,80
K 04			160	5,45	92,0	1,22	0,00	21,10
K 04			200	1,71	93,0	1,76	0,00	22,80
K 05	1 870	1 877						
K 05			20	42,33	70,3	0,00	5,60	7,60
K 05			25	38,99	73,7	0,04	5,40	8,30
K 05			32	34,87	76,0	0,06	5,20	9,20
K 05			40	30,74	78,0	0,09	5,00	10,30
K 05			50	26,80	80,0	0,13	4,70	11,50
K 05			63	23,82	83,0	0,21	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 05			80	20,63	86,0	0,30	3,70	14,80
K 05			100	17,36	89,0	0,47	3,00	16,80
K 05			125	13,92	92,0	0,71	1,80	18,80
K 05			160	6,76	92,0	1,07	0,00	21,10
K 05			200	3,09	93,0	1,54	0,00	22,80
K 06	2 137	2 143						
K 06			20	41,18	70,3	0,00	5,60	7,60
K 06			25	37,84	73,7	0,04	5,40	8,30
K 06			32	33,71	76,0	0,06	5,20	9,20
K 06			40	29,57	78,0	0,11	5,00	10,30
K 06			50	25,63	80,0	0,15	4,70	11,50
K 06			63	22,64	83,0	0,24	4,30	13,00
K 06			80	19,44	86,0	0,34	3,70	14,80
K 06			100	16,14	89,0	0,54	3,00	16,80
K 06			125	12,66	92,0	0,81	1,80	18,80
K 06			160	5,46	92,0	1,22	0,00	21,10
K 06			200	1,72	93,0	1,76	0,00	22,80
K 07	2 696	2 701						
K 07			20	39,17	70,3	0,00	5,60	7,60
K 07			25	35,82	73,7	0,05	5,40	8,30
K 07			32	31,69	76,0	0,08	5,20	9,20
K 07			40	27,53	78,0	0,14	5,00	10,30
K 07			50	23,58	80,0	0,19	4,70	11,50
K 07			63	20,57	83,0	0,30	4,30	13,00
K 07			80	17,34	86,0	0,43	3,70	14,80
K 07			100	13,99	89,0	0,68	3,00	16,80
K 07			125	10,44	92,0	1,03	1,80	18,80
K 07			160	3,13	92,0	1,54	0,00	21,10
K 07			200	-0,75	93,0	2,21	0,00	22,80
K 08	2 050	2 056						
K 08			20	41,54	70,3	0,00	5,60	7,60
K 08			25	38,20	73,7	0,04	5,40	8,30
K 08			32	34,08	76,0	0,06	5,20	9,20
K 08			40	29,94	78,0	0,10	5,00	10,30
K 08			50	25,99	80,0	0,14	4,70	11,50
K 08			63	23,01	83,0	0,23	4,30	13,00
K 08			80	19,81	86,0	0,33	3,70	14,80
K 08			100	16,52	89,0	0,51	3,00	16,80
K 08			125	13,06	92,0	0,78	1,80	18,80
K 08			160	5,87	92,0	1,17	0,00	21,10
K 08			200	2,15	93,0	1,69	0,00	22,80
K 09	2 134	2 140						
K 09			20	41,19	70,3	0,00	5,60	7,60
K 09			25	37,85	73,7	0,04	5,40	8,30
K 09			32	33,73	76,0	0,06	5,20	9,20
K 09			40	29,58	78,0	0,11	5,00	10,30
K 09			50	25,64	80,0	0,15	4,70	11,50
K 09			63	22,65	83,0	0,24	4,30	13,00
K 09			80	19,45	86,0	0,34	3,70	14,80
K 09			100	16,16	89,0	0,54	3,00	16,80
K 09			125	12,68	92,0	0,81	1,80	18,80
K 09			160	5,47	92,0	1,22	0,00	21,10
K 09			200	1,74	93,0	1,76	0,00	22,80
K 10	1 910	1 917						
K 10			20	42,15	70,3	0,00	5,60	7,60
K 10			25	38,81	73,7	0,04	5,40	8,30
K 10			32	34,69	76,0	0,06	5,20	9,20
K 10			40	30,55	78,0	0,10	5,00	10,30
K 10			50	26,61	80,0	0,13	4,70	11,50
K 10			63	23,64	83,0	0,21	4,30	13,00
K 10			80	20,44	86,0	0,31	3,70	14,80
K 10			100	17,17	89,0	0,48	3,00	16,80
K 10			125	13,72	92,0	0,73	1,80	18,80
K 10			160	6,55	92,0	1,09	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			200	2,88	93,0	1,57	0,00	22,80
K 11	2 554	2 559						
K 11			20	39,64	70,3	0,00	5,60	7,60
K 11			25	36,29	73,7	0,05	5,40	8,30
K 11			32	32,16	76,0	0,08	5,20	9,20
K 11			40	28,01	78,0	0,13	5,00	10,30
K 11			50	24,06	80,0	0,18	4,70	11,50
K 11			63	21,06	83,0	0,28	4,30	13,00
K 11			80	17,83	86,0	0,41	3,70	14,80
K 11			100	14,50	89,0	0,64	3,00	16,80
K 11			125	10,97	92,0	0,97	1,80	18,80
K 11			160	3,68	92,0	1,46	0,00	21,10
K 11			200	-0,16	93,0	2,10	0,00	22,80
K 12	3 275	3 279						
K 12			20	37,49	70,3	0,00	5,60	7,60
K 12			25	34,12	73,7	0,07	5,40	8,30
K 12			32	29,99	76,0	0,10	5,20	9,20
K 12			40	25,82	78,0	0,16	5,00	10,30
K 12			50	21,86	80,0	0,23	4,70	11,50
K 12			63	18,82	83,0	0,36	4,30	13,00
K 12			80	15,56	86,0	0,52	3,70	14,80
K 12			100	12,17	89,0	0,82	3,00	16,80
K 12			125	8,54	92,0	1,25	1,80	18,80
K 12			160	1,12	92,0	1,87	0,00	21,10
K 12			200	-2,90	93,0	2,69	0,00	22,80
K 13	2 687	2 692						
K 13			20	39,20	70,3	0,00	5,60	7,60
K 13			25	35,84	73,7	0,05	5,40	8,30
K 13			32	31,72	76,0	0,08	5,20	9,20
K 13			40	27,56	78,0	0,13	5,00	10,30
K 13			50	23,61	80,0	0,19	4,70	11,50
K 13			63	20,60	83,0	0,30	4,30	13,00
K 13			80	17,37	86,0	0,43	3,70	14,80
K 13			100	14,02	89,0	0,67	3,00	16,80
K 13			125	10,47	92,0	1,02	1,80	18,80
K 13			160	3,16	92,0	1,53	0,00	21,10
K 13			200	-0,71	93,0	2,21	0,00	22,80
K 14	2 126	2 132						
K 14			20	41,22	70,3	0,00	5,60	7,60
K 14			25	37,88	73,7	0,04	5,40	8,30
K 14			32	33,76	76,0	0,06	5,20	9,20
K 14			40	29,62	78,0	0,11	5,00	10,30
K 14			50	25,67	80,0	0,15	4,70	11,50
K 14			63	22,69	83,0	0,23	4,30	13,00
K 14			80	19,48	86,0	0,34	3,70	14,80
K 14			100	16,19	89,0	0,53	3,00	16,80
K 14			125	12,71	92,0	0,81	1,80	18,80
K 14			160	5,51	92,0	1,22	0,00	21,10
K 14			200	1,77	93,0	1,75	0,00	22,80
WTG 01	3 145	3 150						
WTG 01			20	39,33	71,8	0,00	5,60	7,60
WTG 01			25	35,97	75,2	0,06	5,40	8,30
WTG 01			32	31,44	77,1	0,09	5,20	9,20
WTG 01			40	26,48	78,3	0,16	5,00	10,30
WTG 01			50	22,51	80,3	0,22	4,70	11,50
WTG 01			63	20,79	84,6	0,35	4,30	13,00
WTG 01			80	17,23	87,3	0,50	3,70	14,80
WTG 01			100	12,45	88,9	0,79	3,00	16,80
WTG 01			125	8,44	91,5	1,20	1,80	18,80
WTG 01			160	3,04	93,5	1,80	0,00	21,10
WTG 01			200	-0,95	94,5	2,58	0,00	22,80
WTG 02	2 738	2 744						
WTG 02			20	40,53	71,8	0,00	5,60	7,60
WTG 02			25	37,18	75,2	0,05	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			32	32,65	77,1	0,08	5,20	9,20
WTG 02			40	27,69	78,3	0,14	5,00	10,30
WTG 02			50	23,74	80,3	0,19	4,70	11,50
WTG 02			63	22,03	84,6	0,30	4,30	13,00
WTG 02			80	18,49	87,3	0,44	3,70	14,80
WTG 02			100	13,75	88,9	0,69	3,00	16,80
WTG 02			125	9,79	91,5	1,04	1,80	18,80
WTG 02			160	4,47	93,5	1,56	0,00	21,10
WTG 02			200	0,58	94,5	2,25	0,00	22,80
Sum								
Sum			20	54,09				
Sum			25	50,75				
Sum			32	46,60				
Sum			40	42,42				
Sum			50	38,48				
Sum			63	35,59				
Sum			80	32,37				
Sum			100	29,02				
Sum			125	25,56				
Sum			160	18,52				
Sum			200	14,86				

Noise sensitive area: AH Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (140)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	1 149	1 160						
K 01			20	46,51	70,3	0,00	5,60	7,60
K 01			25	43,19	73,7	0,02	5,40	8,30
K 01			32	39,08	76,0	0,03	5,20	9,20
K 01			40	34,96	78,0	0,06	5,00	10,30
K 01			50	31,03	80,0	0,08	4,70	11,50
K 01			63	28,09	83,0	0,13	4,30	13,00
K 01			80	24,93	86,0	0,19	3,70	14,80
K 01			100	21,72	89,0	0,29	3,00	16,80
K 01			125	18,37	92,0	0,44	1,80	18,80
K 01			160	11,35	92,0	0,66	0,00	21,10
K 01			200	7,86	93,0	0,95	0,00	22,80
K 02	1 261	1 271						
K 02			20	45,72	70,3	0,00	5,60	7,60
K 02			25	42,39	73,7	0,03	5,40	8,30
K 02			32	38,28	76,0	0,04	5,20	9,20
K 02			40	34,16	78,0	0,06	5,00	10,30
K 02			50	30,23	80,0	0,09	4,70	11,50
K 02			63	27,28	83,0	0,14	4,30	13,00
K 02			80	24,12	86,0	0,20	3,70	14,80
K 02			100	20,90	89,0	0,32	3,00	16,80
K 02			125	17,54	92,0	0,48	1,80	18,80
K 02			160	10,50	92,0	0,72	0,00	21,10
K 02			200	6,98	93,0	1,04	0,00	22,80
K 03	1 411	1 420						
K 03			20	44,76	70,3	0,00	5,60	7,60
K 03			25	41,43	73,7	0,03	5,40	8,30
K 03			32	37,31	76,0	0,04	5,20	9,20
K 03			40	33,18	78,0	0,07	5,00	10,30
K 03			50	29,26	80,0	0,10	4,70	11,50
K 03			63	26,30	83,0	0,16	4,30	13,00
K 03			80	23,13	86,0	0,23	3,70	14,80
K 03			100	19,90	89,0	0,35	3,00	16,80
K 03			125	16,52	92,0	0,54	1,80	18,80
K 03			160	9,45	92,0	0,81	0,00	21,10
K 03			200	5,89	93,0	1,16	0,00	22,80
K 04	2 221	2 227						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			20	40,85	70,3	0,00	5,60	7,60
K 04			25	37,50	73,7	0,04	5,40	8,30
K 04			32	33,38	76,0	0,07	5,20	9,20
K 04			40	29,24	78,0	0,11	5,00	10,30
K 04			50	25,29	80,0	0,16	4,70	11,50
K 04			63	22,30	83,0	0,24	4,30	13,00
K 04			80	19,09	86,0	0,36	3,70	14,80
K 04			100	15,79	89,0	0,56	3,00	16,80
K 04			125	12,30	92,0	0,85	1,80	18,80
K 04			160	5,08	92,0	1,27	0,00	21,10
K 04			200	1,32	93,0	1,83	0,00	22,80
K 05	2 014	2 020	20	41,69	70,3	0,00	5,60	7,60
K 05			25	38,35	73,7	0,04	5,40	8,30
K 05			32	34,23	76,0	0,06	5,20	9,20
K 05			40	30,09	78,0	0,10	5,00	10,30
K 05			50	26,15	80,0	0,14	4,70	11,50
K 05			63	23,17	83,0	0,22	4,30	13,00
K 05			80	19,97	86,0	0,32	3,70	14,80
K 05			100	16,69	89,0	0,50	3,00	16,80
K 05			125	13,23	92,0	0,77	1,80	18,80
K 05			160	6,04	92,0	1,15	0,00	21,10
K 05			200	2,34	93,0	1,66	0,00	22,80
K 06	2 045	2 051	20	41,56	70,3	0,00	5,60	7,60
K 06			25	38,22	73,7	0,04	5,40	8,30
K 06			32	34,10	76,0	0,06	5,20	9,20
K 06			40	29,96	78,0	0,10	5,00	10,30
K 06			50	26,02	80,0	0,14	4,70	11,50
K 06			63	23,04	83,0	0,23	4,30	13,00
K 06			80	19,83	86,0	0,33	3,70	14,80
K 06			100	16,55	89,0	0,51	3,00	16,80
K 06			125	13,08	92,0	0,78	1,80	18,80
K 06			160	5,89	92,0	1,17	0,00	21,10
K 06			200	2,18	93,0	1,68	0,00	22,80
K 07	2 625	2 630	20	39,40	70,3	0,00	5,60	7,60
K 07			25	36,05	73,7	0,05	5,40	8,30
K 07			32	31,92	76,0	0,08	5,20	9,20
K 07			40	27,77	78,0	0,13	5,00	10,30
K 07			50	23,82	80,0	0,18	4,70	11,50
K 07			63	20,81	83,0	0,29	4,30	13,00
K 07			80	17,58	86,0	0,42	3,70	14,80
K 07			100	14,24	89,0	0,66	3,00	16,80
K 07			125	10,70	92,0	1,00	1,80	18,80
K 07			160	3,40	92,0	1,50	0,00	21,10
K 07			200	-0,45	93,0	2,16	0,00	22,80
K 08	2 035	2 041	20	41,60	70,3	0,00	5,60	7,60
K 08			25	38,26	73,7	0,04	5,40	8,30
K 08			32	34,14	76,0	0,06	5,20	9,20
K 08			40	30,00	78,0	0,10	5,00	10,30
K 08			50	26,06	80,0	0,14	4,70	11,50
K 08			63	23,08	83,0	0,22	4,30	13,00
K 08			80	19,88	86,0	0,33	3,70	14,80
K 08			100	16,59	89,0	0,51	3,00	16,80
K 08			125	13,13	92,0	0,78	1,80	18,80
K 08			160	5,94	92,0	1,16	0,00	21,10
K 08			200	2,23	93,0	1,67	0,00	22,80
K 09	2 165	2 171	20	41,07	70,3	0,00	5,60	7,60
K 09			25	37,73	73,7	0,04	5,40	8,30
K 09			32	33,60	76,0	0,07	5,20	9,20
K 09			40	29,46	78,0	0,11	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 09			50	25,52	80,0	0,15	4,70	11,50
K 09			63	22,53	83,0	0,24	4,30	13,00
K 09			80	19,32	86,0	0,35	3,70	14,80
K 09			100	16,03	89,0	0,54	3,00	16,80
K 09			125	12,54	92,0	0,82	1,80	18,80
K 09			160	5,33	92,0	1,24	0,00	21,10
K 09			200	1,59	93,0	1,78	0,00	22,80
K 10	1 703	1 710						
K 10			20	43,14	70,3	0,00	5,60	7,60
K 10			25	39,80	73,7	0,03	5,40	8,30
K 10			32	35,69	76,0	0,05	5,20	9,20
K 10			40	31,55	78,0	0,09	5,00	10,30
K 10			50	27,62	80,0	0,12	4,70	11,50
K 10			63	24,65	83,0	0,19	4,30	13,00
K 10			80	21,46	86,0	0,27	3,70	14,80
K 10			100	18,21	89,0	0,43	3,00	16,80
K 10			125	14,79	92,0	0,65	1,80	18,80
K 10			160	7,66	92,0	0,97	0,00	21,10
K 10			200	4,03	93,0	1,40	0,00	22,80
K 11	2 343	2 348						
K 11			20	40,38	70,3	0,00	5,60	7,60
K 11			25	37,04	73,7	0,05	5,40	8,30
K 11			32	32,91	76,0	0,07	5,20	9,20
K 11			40	28,77	78,0	0,12	5,00	10,30
K 11			50	24,82	80,0	0,16	4,70	11,50
K 11			63	21,83	83,0	0,26	4,30	13,00
K 11			80	18,61	86,0	0,38	3,70	14,80
K 11			100	15,30	89,0	0,59	3,00	16,80
K 11			125	11,79	92,0	0,89	1,80	18,80
K 11			160	4,55	92,0	1,34	0,00	21,10
K 11			200	0,76	93,0	1,93	0,00	22,80
K 12	3 070	3 074						
K 12			20	38,04	70,3	0,00	5,60	7,60
K 12			25	34,68	73,7	0,06	5,40	8,30
K 12			32	30,55	76,0	0,09	5,20	9,20
K 12			40	26,39	78,0	0,15	5,00	10,30
K 12			50	22,43	80,0	0,22	4,70	11,50
K 12			63	19,41	83,0	0,34	4,30	13,00
K 12			80	16,15	86,0	0,49	3,70	14,80
K 12			100	12,78	89,0	0,77	3,00	16,80
K 12			125	9,18	92,0	1,17	1,80	18,80
K 12			160	1,79	92,0	1,75	0,00	21,10
K 12			200	-2,18	93,0	2,52	0,00	22,80
K 13	2 503	2 508						
K 13			20	39,81	70,3	0,00	5,60	7,60
K 13			25	36,46	73,7	0,05	5,40	8,30
K 13			32	32,34	76,0	0,08	5,20	9,20
K 13			40	28,19	78,0	0,13	5,00	10,30
K 13			50	24,24	80,0	0,18	4,70	11,50
K 13			63	21,24	83,0	0,28	4,30	13,00
K 13			80	18,01	86,0	0,40	3,70	14,80
K 13			100	14,69	89,0	0,63	3,00	16,80
K 13			125	11,16	92,0	0,95	1,80	18,80
K 13			160	3,88	92,0	1,43	0,00	21,10
K 13			200	0,06	93,0	2,06	0,00	22,80
K 14	1 963	1 970						
K 14			20	41,91	70,3	0,00	5,60	7,60
K 14			25	38,57	73,7	0,04	5,40	8,30
K 14			32	34,45	76,0	0,06	5,20	9,20
K 14			40	30,31	78,0	0,10	5,00	10,30
K 14			50	26,37	80,0	0,14	4,70	11,50
K 14			63	23,39	83,0	0,22	4,30	13,00
K 14			80	20,20	86,0	0,32	3,70	14,80
K 14			100	16,92	89,0	0,49	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 14			125	13,46	92,0	0,75	1,80	18,80
K 14			160	6,29	92,0	1,12	0,00	21,10
K 14			200	2,60	93,0	1,62	0,00	22,80
WTG 01	3 286	3 291						
WTG 01			20	38,95	71,8	0,00	5,60	7,60
WTG 01			25	35,59	75,2	0,07	5,40	8,30
WTG 01			32	31,05	77,1	0,10	5,20	9,20
WTG 01			40	26,09	78,3	0,16	5,00	10,30
WTG 01			50	22,12	80,3	0,23	4,70	11,50
WTG 01			63	20,39	84,6	0,36	4,30	13,00
WTG 01			80	16,83	87,3	0,53	3,70	14,80
WTG 01			100	12,03	88,9	0,82	3,00	16,80
WTG 01			125	8,00	91,5	1,25	1,80	18,80
WTG 01			160	2,58	93,5	1,88	0,00	21,10
WTG 01			200	-1,44	94,5	2,70	0,00	22,80
WTG 02	2 833	2 839						
WTG 02			20	40,24	71,8	0,00	5,60	7,60
WTG 02			25	36,88	75,2	0,06	5,40	8,30
WTG 02			32	32,35	77,1	0,09	5,20	9,20
WTG 02			40	27,40	78,3	0,14	5,00	10,30
WTG 02			50	23,44	80,3	0,20	4,70	11,50
WTG 02			63	21,73	84,6	0,31	4,30	13,00
WTG 02			80	18,18	87,3	0,45	3,70	14,80
WTG 02			100	13,43	88,9	0,71	3,00	16,80
WTG 02			125	9,46	91,5	1,08	1,80	18,80
WTG 02			160	4,12	93,5	1,62	0,00	21,10
WTG 02			200	0,21	94,5	2,33	0,00	22,80
Sum								
Sum			20	54,32				
Sum			25	50,99				
Sum			32	46,84				
Sum			40	42,66				
Sum			50	38,72				
Sum			63	35,83				
Sum			80	32,62				
Sum			100	29,28				
Sum			125	25,83				
Sum			160	18,79				
Sum			200	15,14				

Noise sensitive area: AI Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (139)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	1 539	1 546						
K 01			20	44,01	70,3	0,00	5,60	7,60
K 01			25	40,68	73,7	0,03	5,40	8,30
K 01			32	36,57	76,0	0,05	5,20	9,20
K 01			40	32,44	78,0	0,08	5,00	10,30
K 01			50	28,51	80,0	0,11	4,70	11,50
K 01			63	25,54	83,0	0,17	4,30	13,00
K 01			80	22,37	86,0	0,25	3,70	14,80
K 01			100	19,13	89,0	0,39	3,00	16,80
K 01			125	15,73	92,0	0,59	1,80	18,80
K 01			160	8,63	92,0	0,88	0,00	21,10
K 01			200	5,05	93,0	1,27	0,00	22,80
K 02	2 003	2 009						
K 02			20	41,74	70,3	0,00	5,60	7,60
K 02			25	38,40	73,7	0,04	5,40	8,30
K 02			32	34,28	76,0	0,06	5,20	9,20
K 02			40	30,14	78,0	0,10	5,00	10,30
K 02			50	26,20	80,0	0,14	4,70	11,50
K 02			63	23,22	83,0	0,22	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG								
No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 02			80	20,02	86,0	0,32	3,70	14,80
K 02			100	16,74	89,0	0,50	3,00	16,80
K 02			125	13,28	92,0	0,76	1,80	18,80
K 02			160	6,10	92,0	1,14	0,00	21,10
K 02			200	2,40	93,0	1,65	0,00	22,80
K 03	2 439	2 444						
K 03			20	40,04	70,3	0,00	5,60	7,60
K 03			25	36,69	73,7	0,05	5,40	8,30
K 03			32	32,56	76,0	0,07	5,20	9,20
K 03			40	28,42	78,0	0,12	5,00	10,30
K 03			50	24,47	80,0	0,17	4,70	11,50
K 03			63	21,47	83,0	0,27	4,30	13,00
K 03			80	18,25	86,0	0,39	3,70	14,80
K 03			100	14,93	89,0	0,61	3,00	16,80
K 03			125	11,41	92,0	0,93	1,80	18,80
K 03			160	4,14	92,0	1,39	0,00	21,10
K 03			200	0,33	93,0	2,00	0,00	22,80
K 04	3 237	3 241						
K 04			20	37,59	70,3	0,00	5,60	7,60
K 04			25	34,22	73,7	0,06	5,40	8,30
K 04			32	30,09	76,0	0,10	5,20	9,20
K 04			40	25,92	78,0	0,16	5,00	10,30
K 04			50	21,96	80,0	0,23	4,70	11,50
K 04			63	18,93	83,0	0,36	4,30	13,00
K 04			80	15,67	86,0	0,52	3,70	14,80
K 04			100	12,28	89,0	0,81	3,00	16,80
K 04			125	8,66	92,0	1,23	1,80	18,80
K 04			160	1,24	92,0	1,85	0,00	21,10
K 04			200	-2,77	93,0	2,66	0,00	22,80
K 05	3 197	3 200						
K 05			20	37,70	70,3	0,00	5,60	7,60
K 05			25	34,33	73,7	0,06	5,40	8,30
K 05			32	30,20	76,0	0,10	5,20	9,20
K 05			40	26,04	78,0	0,16	5,00	10,30
K 05			50	22,07	80,0	0,22	4,70	11,50
K 05			63	19,04	83,0	0,35	4,30	13,00
K 05			80	15,78	86,0	0,51	3,70	14,80
K 05			100	12,40	89,0	0,80	3,00	16,80
K 05			125	8,78	92,0	1,22	1,80	18,80
K 05			160	1,37	92,0	1,82	0,00	21,10
K 05			200	-2,63	93,0	2,62	0,00	22,80
K 06	2 341	2 346						
K 06			20	40,39	70,3	0,00	5,60	7,60
K 06			25	37,05	73,7	0,05	5,40	8,30
K 06			32	32,92	76,0	0,07	5,20	9,20
K 06			40	28,77	78,0	0,12	5,00	10,30
K 06			50	24,83	80,0	0,16	4,70	11,50
K 06			63	21,83	83,0	0,26	4,30	13,00
K 06			80	18,62	86,0	0,38	3,70	14,80
K 06			100	15,31	89,0	0,59	3,00	16,80
K 06			125	11,80	92,0	0,89	1,80	18,80
K 06			160	4,55	92,0	1,34	0,00	21,10
K 06			200	0,77	93,0	1,92	0,00	22,80
K 07	2 960	2 964						
K 07			20	38,36	70,3	0,00	5,60	7,60
K 07			25	35,00	73,7	0,06	5,40	8,30
K 07			32	30,87	76,0	0,09	5,20	9,20
K 07			40	26,71	78,0	0,15	5,00	10,30
K 07			50	22,75	80,0	0,21	4,70	11,50
K 07			63	19,74	83,0	0,33	4,30	13,00
K 07			80	16,49	86,0	0,47	3,70	14,80
K 07			100	13,12	89,0	0,74	3,00	16,80
K 07			125	9,54	92,0	1,13	1,80	18,80
K 07			160	2,17	92,0	1,69	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			200	-1,77	93,0	2,43	0,00	22,80
K 08	2 716	2 721						
K 08			20	39,11	70,3	0,00	5,60	7,60
K 08			25	35,75	73,7	0,05	5,40	8,30
K 08			32	31,62	76,0	0,08	5,20	9,20
K 08			40	27,47	78,0	0,14	5,00	10,30
K 08			50	23,52	80,0	0,19	4,70	11,50
K 08			63	20,51	83,0	0,30	4,30	13,00
K 08			80	17,27	86,0	0,44	3,70	14,80
K 08			100	13,93	89,0	0,68	3,00	16,80
K 08			125	10,37	92,0	1,03	1,80	18,80
K 08			160	3,06	92,0	1,55	0,00	21,10
K 08			200	-0,82	93,0	2,23	0,00	22,80
K 09	3 012	3 016						
K 09			20	38,21	70,3	0,00	5,60	7,60
K 09			25	34,85	73,7	0,06	5,40	8,30
K 09			32	30,72	76,0	0,09	5,20	9,20
K 09			40	26,56	78,0	0,15	5,00	10,30
K 09			50	22,60	80,0	0,21	4,70	11,50
K 09			63	19,58	83,0	0,33	4,30	13,00
K 09			80	16,33	86,0	0,48	3,70	14,80
K 09			100	12,96	89,0	0,75	3,00	16,80
K 09			125	9,37	92,0	1,15	1,80	18,80
K 09			160	1,99	92,0	1,72	0,00	21,10
K 09			200	-1,96	93,0	2,47	0,00	22,80
K 10	966	978						
K 10			20	47,99	70,3	0,00	5,60	7,60
K 10			25	44,67	73,7	0,02	5,40	8,30
K 10			32	40,57	76,0	0,03	5,20	9,20
K 10			40	36,45	78,0	0,05	5,00	10,30
K 10			50	32,53	80,0	0,07	4,70	11,50
K 10			63	29,59	83,0	0,11	4,30	13,00
K 10			80	26,44	86,0	0,16	3,70	14,80
K 10			100	23,25	89,0	0,24	3,00	16,80
K 10			125	19,92	92,0	0,37	1,80	18,80
K 10			160	12,94	92,0	0,56	0,00	21,10
K 10			200	9,49	93,0	0,80	0,00	22,80
K 11	1 373	1 381						
K 11			20	45,00	70,3	0,00	5,60	7,60
K 11			25	41,67	73,7	0,03	5,40	8,30
K 11			32	37,56	76,0	0,04	5,20	9,20
K 11			40	33,43	78,0	0,07	5,00	10,30
K 11			50	29,50	80,0	0,10	4,70	11,50
K 11			63	26,55	83,0	0,15	4,30	13,00
K 11			80	23,38	86,0	0,22	3,70	14,80
K 11			100	20,15	89,0	0,35	3,00	16,80
K 11			125	16,77	92,0	0,52	1,80	18,80
K 11			160	9,71	92,0	0,79	0,00	21,10
K 11			200	6,16	93,0	1,13	0,00	22,80
K 12	2 192	2 197						
K 12			20	40,96	70,3	0,00	5,60	7,60
K 12			25	37,62	73,7	0,04	5,40	8,30
K 12			32	33,50	76,0	0,07	5,20	9,20
K 12			40	29,35	78,0	0,11	5,00	10,30
K 12			50	25,41	80,0	0,15	4,70	11,50
K 12			63	22,42	83,0	0,24	4,30	13,00
K 12			80	19,21	86,0	0,35	3,70	14,80
K 12			100	15,91	89,0	0,55	3,00	16,80
K 12			125	12,43	92,0	0,83	1,80	18,80
K 12			160	5,21	92,0	1,25	0,00	21,10
K 12			200	1,46	93,0	1,80	0,00	22,80
K 13	1 975	1 981						
K 13			20	41,86	70,3	0,00	5,60	7,60
K 13			25	38,52	73,7	0,04	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG	No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
	K 13			32	34,40	76,0	0,06	5,20	9,20
	K 13			40	30,27	78,0	0,10	5,00	10,30
	K 13			50	26,33	80,0	0,14	4,70	11,50
	K 13			63	23,35	83,0	0,22	4,30	13,00
	K 13			80	20,15	86,0	0,32	3,70	14,80
	K 13			100	16,87	89,0	0,50	3,00	16,80
	K 13			125	13,41	92,0	0,75	1,80	18,80
	K 13			160	6,24	92,0	1,13	0,00	21,10
	K 13			200	2,54	93,0	1,62	0,00	22,80
	K 14	1 766	1 773						
	K 14			20	42,83	70,3	0,00	5,60	7,60
	K 14			25	39,49	73,7	0,04	5,40	8,30
	K 14			32	35,37	76,0	0,05	5,20	9,20
	K 14			40	31,24	78,0	0,09	5,00	10,30
	K 14			50	27,30	80,0	0,12	4,70	11,50
	K 14			63	24,33	83,0	0,20	4,30	13,00
	K 14			80	21,14	86,0	0,28	3,70	14,80
	K 14			100	17,88	89,0	0,44	3,00	16,80
	K 14			125	14,45	92,0	0,67	1,80	18,80
	K 14			160	7,32	92,0	1,01	0,00	21,10
	K 14			200	3,67	93,0	1,45	0,00	22,80
	WTG 01	4 443	4 447						
	WTG 01			20	36,34	71,8	0,00	5,60	7,60
	WTG 01			25	32,95	75,2	0,09	5,40	8,30
	WTG 01			32	28,41	77,1	0,13	5,20	9,20
	WTG 01			40	23,42	78,3	0,22	5,00	10,30
	WTG 01			50	19,43	80,3	0,31	4,70	11,50
	WTG 01			63	17,65	84,6	0,49	4,30	13,00
	WTG 01			80	14,03	87,3	0,71	3,70	14,80
	WTG 01			100	9,13	88,9	1,11	3,00	16,80
	WTG 01			125	4,95	91,5	1,69	1,80	18,80
	WTG 01			160	-0,70	93,5	2,53	0,00	21,10
	WTG 01			200	-5,01	94,5	3,65	0,00	22,80
	WTG 02	3 864	3 868						
	WTG 02			20	37,55	71,8	0,00	5,60	7,60
	WTG 02			25	34,17	75,2	0,08	5,40	8,30
	WTG 02			32	29,63	77,1	0,12	5,20	9,20
	WTG 02			40	24,66	78,3	0,19	5,00	10,30
	WTG 02			50	20,68	80,3	0,27	4,70	11,50
	WTG 02			63	18,92	84,6	0,43	4,30	13,00
	WTG 02			80	15,33	87,3	0,62	3,70	14,80
	WTG 02			100	10,48	88,9	0,97	3,00	16,80
	WTG 02			125	6,38	91,5	1,47	1,80	18,80
	WTG 02			160	0,84	93,5	2,20	0,00	21,10
	WTG 02			200	-3,32	94,5	3,17	0,00	22,80
	Sum								
	Sum			20	53,91				
	Sum			25	50,57				
	Sum			32	46,44				
	Sum			40	42,28				
	Sum			50	38,34				
	Sum			63	35,41				
	Sum			80	32,21				
	Sum			100	28,90				
	Sum			125	25,46				
	Sum			160	18,37				
	Sum			200	14,73				

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

Noise sensitive area: AJ **Noise sensitive point:** Finnish low frequency - Residential health guide 2003, indoor - night (138)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	1 784	1 791						
K 01			20	42,74	70,3	0,00	5,60	7,60
K 01			25	39,40	73,7	0,04	5,40	8,30
K 01			32	35,28	76,0	0,05	5,20	9,20
K 01			40	31,15	78,0	0,09	5,00	10,30
K 01			50	27,21	80,0	0,13	4,70	11,50
K 01			63	24,24	83,0	0,20	4,30	13,00
K 01			80	21,05	86,0	0,29	3,70	14,80
K 01			100	17,79	89,0	0,45	3,00	16,80
K 01			125	14,36	92,0	0,68	1,80	18,80
K 01			160	7,22	92,0	1,02	0,00	21,10
K 01			200	3,57	93,0	1,47	0,00	22,80
K 02	2 282	2 288						
K 02			20	40,61	70,3	0,00	5,60	7,60
K 02			25	37,27	73,7	0,05	5,40	8,30
K 02			32	33,14	76,0	0,07	5,20	9,20
K 02			40	29,00	78,0	0,11	5,00	10,30
K 02			50	25,05	80,0	0,16	4,70	11,50
K 02			63	22,06	83,0	0,25	4,30	13,00
K 02			80	18,85	86,0	0,37	3,70	14,80
K 02			100	15,54	89,0	0,57	3,00	16,80
K 02			125	12,04	92,0	0,87	1,80	18,80
K 02			160	4,81	92,0	1,30	0,00	21,10
K 02			200	1,04	93,0	1,88	0,00	22,80
K 03	2 754	2 759						
K 03			20	38,98	70,3	0,00	5,60	7,60
K 03			25	35,63	73,7	0,06	5,40	8,30
K 03			32	31,50	76,0	0,08	5,20	9,20
K 03			40	27,35	78,0	0,14	5,00	10,30
K 03			50	23,39	80,0	0,19	4,70	11,50
K 03			63	20,38	83,0	0,30	4,30	13,00
K 03			80	17,14	86,0	0,44	3,70	14,80
K 03			100	13,79	89,0	0,69	3,00	16,80
K 03			125	10,24	92,0	1,05	1,80	18,80
K 03			160	2,91	92,0	1,57	0,00	21,10
K 03			200	-0,98	93,0	2,26	0,00	22,80
K 04	3 541	3 545						
K 04			20	36,81	70,3	0,00	5,60	7,60
K 04			25	33,44	73,7	0,07	5,40	8,30
K 04			32	29,30	76,0	0,11	5,20	9,20
K 04			40	25,13	78,0	0,18	5,00	10,30
K 04			50	21,16	80,0	0,25	4,70	11,50
K 04			63	18,12	83,0	0,39	4,30	13,00
K 04			80	14,84	86,0	0,57	3,70	14,80
K 04			100	11,42	89,0	0,89	3,00	16,80
K 04			125	7,76	92,0	1,35	1,80	18,80
K 04			160	0,29	92,0	2,02	0,00	21,10
K 04			200	-3,80	93,0	2,91	0,00	22,80
K 05	3 533	3 537						
K 05			20	36,83	70,3	0,00	5,60	7,60
K 05			25	33,46	73,7	0,07	5,40	8,30
K 05			32	29,32	76,0	0,11	5,20	9,20
K 05			40	25,15	78,0	0,18	5,00	10,30
K 05			50	21,18	80,0	0,25	4,70	11,50
K 05			63	18,14	83,0	0,39	4,30	13,00
K 05			80	14,86	86,0	0,57	3,70	14,80
K 05			100	11,44	89,0	0,88	3,00	16,80
K 05			125	7,78	92,0	1,34	1,80	18,80
K 05			160	0,31	92,0	2,02	0,00	21,10
K 05			200	-3,77	93,0	2,90	0,00	22,80
K 06	2 515	2 520						
K 06			20	39,77	70,3	0,00	5,60	7,60
K 06			25	36,42	73,7	0,05	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 06			32	32,30	76,0	0,08	5,20	9,20
K 06			40	28,15	78,0	0,13	5,00	10,30
K 06			50	24,19	80,0	0,18	4,70	11,50
K 06			63	21,19	83,0	0,28	4,30	13,00
K 06			80	17,97	86,0	0,40	3,70	14,80
K 06			100	14,64	89,0	0,63	3,00	16,80
K 06			125	11,11	92,0	0,96	1,80	18,80
K 06			160	3,83	92,0	1,44	0,00	21,10
K 06			200	0,00	93,0	2,07	0,00	22,80
K 07	3 121	3 125						
K 07			20	37,90	70,3	0,00	5,60	7,60
K 07			25	34,54	73,7	0,06	5,40	8,30
K 07			32	30,41	76,0	0,09	5,20	9,20
K 07			40	26,25	78,0	0,16	5,00	10,30
K 07			50	22,28	80,0	0,22	4,70	11,50
K 07			63	19,26	83,0	0,34	4,30	13,00
K 07			80	16,00	86,0	0,50	3,70	14,80
K 07			100	12,62	89,0	0,78	3,00	16,80
K 07			125	9,02	92,0	1,19	1,80	18,80
K 07			160	1,62	92,0	1,78	0,00	21,10
K 07			200	-2,36	93,0	2,56	0,00	22,80
K 08	2 962	2 966						
K 08			20	38,36	70,3	0,00	5,60	7,60
K 08			25	35,00	73,7	0,06	5,40	8,30
K 08			32	30,87	76,0	0,09	5,20	9,20
K 08			40	26,71	78,0	0,15	5,00	10,30
K 08			50	22,75	80,0	0,21	4,70	11,50
K 08			63	19,73	83,0	0,33	4,30	13,00
K 08			80	16,48	86,0	0,47	3,70	14,80
K 08			100	13,11	89,0	0,74	3,00	16,80
K 08			125	9,53	92,0	1,13	1,80	18,80
K 08			160	2,17	92,0	1,69	0,00	21,10
K 08			200	-1,78	93,0	2,43	0,00	22,80
K 09	3 285	3 289						
K 09			20	37,46	70,3	0,00	5,60	7,60
K 09			25	34,09	73,7	0,07	5,40	8,30
K 09			32	29,96	76,0	0,10	5,20	9,20
K 09			40	25,79	78,0	0,16	5,00	10,30
K 09			50	21,83	80,0	0,23	4,70	11,50
K 09			63	18,80	83,0	0,36	4,30	13,00
K 09			80	15,53	86,0	0,53	3,70	14,80
K 09			100	12,14	89,0	0,82	3,00	16,80
K 09			125	8,51	92,0	1,25	1,80	18,80
K 09			160	1,08	92,0	1,87	0,00	21,10
K 09			200	-2,94	93,0	2,70	0,00	22,80
K 10	953	966						
K 10			20	48,10	70,3	0,00	5,60	7,60
K 10			25	44,78	73,7	0,02	5,40	8,30
K 10			32	40,67	76,0	0,03	5,20	9,20
K 10			40	36,55	78,0	0,05	5,00	10,30
K 10			50	32,63	80,0	0,07	4,70	11,50
K 10			63	29,69	83,0	0,11	4,30	13,00
K 10			80	26,55	86,0	0,15	3,70	14,80
K 10			100	23,36	89,0	0,24	3,00	16,80
K 10			125	20,03	92,0	0,37	1,80	18,80
K 10			160	13,05	92,0	0,55	0,00	21,10
K 10			200	9,61	93,0	0,79	0,00	22,80
K 11	1 180	1 190						
K 11			20	46,29	70,3	0,00	5,60	7,60
K 11			25	42,97	73,7	0,02	5,40	8,30
K 11			32	38,85	76,0	0,04	5,20	9,20
K 11			40	34,73	78,0	0,06	5,00	10,30
K 11			50	30,81	80,0	0,08	4,70	11,50
K 11			63	27,86	83,0	0,13	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 11			80	24,70	86,0	0,19	3,70	14,80
K 11			100	21,49	89,0	0,30	3,00	16,80
K 11			125	18,14	92,0	0,45	1,80	18,80
K 11			160	11,11	92,0	0,68	0,00	21,10
K 11			200	7,62	93,0	0,98	0,00	22,80
K 12	1 998	2 004						
K 12			20	41,76	70,3	0,00	5,60	7,60
K 12			25	38,42	73,7	0,04	5,40	8,30
K 12			32	34,30	76,0	0,06	5,20	9,20
K 12			40	30,16	78,0	0,10	5,00	10,30
K 12			50	26,22	80,0	0,14	4,70	11,50
K 12			63	23,24	83,0	0,22	4,30	13,00
K 12			80	20,04	86,0	0,32	3,70	14,80
K 12			100	16,76	89,0	0,50	3,00	16,80
K 12			125	13,30	92,0	0,76	1,80	18,80
K 12			160	6,12	92,0	1,14	0,00	21,10
K 12			200	2,42	93,0	1,64	0,00	22,80
K 13	1 928	1 934						
K 13			20	42,07	70,3	0,00	5,60	7,60
K 13			25	38,73	73,7	0,04	5,40	8,30
K 13			32	34,61	76,0	0,06	5,20	9,20
K 13			40	30,47	78,0	0,10	5,00	10,30
K 13			50	26,53	80,0	0,14	4,70	11,50
K 13			63	23,56	83,0	0,21	4,30	13,00
K 13			80	20,36	86,0	0,31	3,70	14,80
K 13			100	17,09	89,0	0,48	3,00	16,80
K 13			125	13,63	92,0	0,74	1,80	18,80
K 13			160	6,47	92,0	1,10	0,00	21,10
K 13			200	2,78	93,0	1,59	0,00	22,80
K 14	1 845	1 852						
K 14			20	42,45	70,3	0,00	5,60	7,60
K 14			25	39,11	73,7	0,04	5,40	8,30
K 14			32	34,99	76,0	0,06	5,20	9,20
K 14			40	30,85	78,0	0,09	5,00	10,30
K 14			50	26,92	80,0	0,13	4,70	11,50
K 14			63	23,94	83,0	0,20	4,30	13,00
K 14			80	20,75	86,0	0,30	3,70	14,80
K 14			100	17,48	89,0	0,46	3,00	16,80
K 14			125	14,04	92,0	0,70	1,80	18,80
K 14			160	6,89	92,0	1,06	0,00	21,10
K 14			200	3,23	93,0	1,52	0,00	22,80
WTG 01	4 771	4 774						
WTG 01			20	35,72	71,8	0,00	5,60	7,60
WTG 01			25	32,33	75,2	0,10	5,40	8,30
WTG 01			32	27,78	77,1	0,14	5,20	9,20
WTG 01			40	22,78	78,3	0,24	5,00	10,30
WTG 01			50	18,79	80,3	0,33	4,70	11,50
WTG 01			63	17,00	84,6	0,53	4,30	13,00
WTG 01			80	13,36	87,3	0,76	3,70	14,80
WTG 01			100	8,43	88,9	1,19	3,00	16,80
WTG 01			125	4,21	91,5	1,81	1,80	18,80
WTG 01			160	-1,50	93,5	2,72	0,00	21,10
WTG 01			200	-5,89	94,5	3,91	0,00	22,80
WTG 02	4 167	4 171						
WTG 02			20	36,90	71,8	0,00	5,60	7,60
WTG 02			25	33,51	75,2	0,08	5,40	8,30
WTG 02			32	28,97	77,1	0,13	5,20	9,20
WTG 02			40	23,99	78,3	0,21	5,00	10,30
WTG 02			50	20,00	80,3	0,29	4,70	11,50
WTG 02			63	18,24	84,6	0,46	4,30	13,00
WTG 02			80	14,63	87,3	0,67	3,70	14,80
WTG 02			100	9,75	88,9	1,04	3,00	16,80
WTG 02			125	5,61	91,5	1,58	1,80	18,80
WTG 02			160	0,02	93,5	2,38	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			200	-4,22	94,5	3,42	0,00	22,80
Sum			20	53,81				
Sum			25	50,47				
Sum			32	46,34				
Sum			40	42,18				
Sum			50	38,24				
Sum			63	35,31				
Sum			80	32,11				
Sum			100	28,81				
Sum			125	25,38				
Sum			160	18,29				
Sum			200	14,66				

Noise sensitive area: AK Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (137)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	2 226	2 231	20	40,83	70,3	0,00	5,60	7,60
K 01			25	37,49	73,7	0,04	5,40	8,30
K 01			32	33,36	76,0	0,07	5,20	9,20
K 01			40	29,22	78,0	0,11	5,00	10,30
K 01			50	25,27	80,0	0,16	4,70	11,50
K 01			63	22,28	83,0	0,25	4,30	13,00
K 01			80	19,07	86,0	0,36	3,70	14,80
K 01			100	15,77	89,0	0,56	3,00	16,80
K 01			125	12,28	92,0	0,85	1,80	18,80
K 01			160	5,06	92,0	1,27	0,00	21,10
K 01			200	1,30	93,0	1,83	0,00	22,80
K 02	2 716	2 721	20	39,11	70,3	0,00	5,60	7,60
K 02			25	35,75	73,7	0,05	5,40	8,30
K 02			32	31,62	76,0	0,08	5,20	9,20
K 02			40	27,47	78,0	0,14	5,00	10,30
K 02			50	23,52	80,0	0,19	4,70	11,50
K 02			63	20,51	83,0	0,30	4,30	13,00
K 02			80	17,27	86,0	0,44	3,70	14,80
K 02			100	13,93	89,0	0,68	3,00	16,80
K 02			125	10,37	92,0	1,03	1,80	18,80
K 02			160	3,06	92,0	1,55	0,00	21,10
K 02			200	-0,83	93,0	2,23	0,00	22,80
K 03	3 169	3 173	20	37,77	70,3	0,00	5,60	7,60
K 03			25	34,41	73,7	0,06	5,40	8,30
K 03			32	30,28	76,0	0,10	5,20	9,20
K 03			40	26,11	78,0	0,16	5,00	10,30
K 03			50	22,15	80,0	0,22	4,70	11,50
K 03			63	19,12	83,0	0,35	4,30	13,00
K 03			80	15,86	86,0	0,51	3,70	14,80
K 03			100	12,48	89,0	0,79	3,00	16,80
K 03			125	8,87	92,0	1,21	1,80	18,80
K 03			160	1,46	92,0	1,81	0,00	21,10
K 03			200	-2,53	93,0	2,60	0,00	22,80
K 04	3 964	3 967	20	35,83	70,3	0,00	5,60	7,60
K 04			25	32,45	73,7	0,08	5,40	8,30
K 04			32	28,31	76,0	0,12	5,20	9,20
K 04			40	24,13	78,0	0,20	5,00	10,30
K 04			50	20,15	80,0	0,28	4,70	11,50
K 04			63	17,09	83,0	0,44	4,30	13,00
K 04			80	13,80	86,0	0,63	3,70	14,80
K 04			100	10,34	89,0	0,99	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			125	6,62	92,0	1,51	1,80	18,80
K 04			160	-0,93	92,0	2,26	0,00	21,10
K 04			200	-5,12	93,0	3,25	0,00	22,80
K 05	3 922	3 925						
K 05			20	35,92	70,3	0,00	5,60	7,60
K 05			25	32,54	73,7	0,08	5,40	8,30
K 05			32	28,40	76,0	0,12	5,20	9,20
K 05			40	24,23	78,0	0,20	5,00	10,30
K 05			50	20,25	80,0	0,27	4,70	11,50
K 05			63	17,19	83,0	0,43	4,30	13,00
K 05			80	13,89	86,0	0,63	3,70	14,80
K 05			100	10,44	89,0	0,98	3,00	16,80
K 05			125	6,73	92,0	1,49	1,80	18,80
K 05			160	-0,81	92,0	2,24	0,00	21,10
K 05			200	-5,00	93,0	3,22	0,00	22,80
K 06	2 953	2 958						
K 06			20	38,38	70,3	0,00	5,60	7,60
K 06			25	35,02	73,7	0,06	5,40	8,30
K 06			32	30,89	76,0	0,09	5,20	9,20
K 06			40	26,73	78,0	0,15	5,00	10,30
K 06			50	22,77	80,0	0,21	4,70	11,50
K 06			63	19,76	83,0	0,33	4,30	13,00
K 06			80	16,51	86,0	0,47	3,70	14,80
K 06			100	13,14	89,0	0,74	3,00	16,80
K 06			125	9,56	92,0	1,12	1,80	18,80
K 06			160	2,19	92,0	1,69	0,00	21,10
K 06			200	-1,74	93,0	2,43	0,00	22,80
K 07	3 555	3 559						
K 07			20	36,77	70,3	0,00	5,60	7,60
K 07			25	33,40	73,7	0,07	5,40	8,30
K 07			32	29,27	76,0	0,11	5,20	9,20
K 07			40	25,10	78,0	0,18	5,00	10,30
K 07			50	21,12	80,0	0,25	4,70	11,50
K 07			63	18,08	83,0	0,39	4,30	13,00
K 07			80	14,80	86,0	0,57	3,70	14,80
K 07			100	11,38	89,0	0,89	3,00	16,80
K 07			125	7,72	92,0	1,35	1,80	18,80
K 07			160	0,24	92,0	2,03	0,00	21,10
K 07			200	-3,84	93,0	2,92	0,00	22,80
K 08	3 404	3 408						
K 08			20	37,15	70,3	0,00	5,60	7,60
K 08			25	33,78	73,7	0,07	5,40	8,30
K 08			32	29,65	76,0	0,10	5,20	9,20
K 08			40	25,48	78,0	0,17	5,00	10,30
K 08			50	21,51	80,0	0,24	4,70	11,50
K 08			63	18,48	83,0	0,37	4,30	13,00
K 08			80	15,21	86,0	0,55	3,70	14,80
K 08			100	11,80	89,0	0,85	3,00	16,80
K 08			125	8,16	92,0	1,29	1,80	18,80
K 08			160	0,71	92,0	1,94	0,00	21,10
K 08			200	-3,34	93,0	2,79	0,00	22,80
K 09	3 722	3 725						
K 09			20	36,38	70,3	0,00	5,60	7,60
K 09			25	33,00	73,7	0,07	5,40	8,30
K 09			32	28,86	76,0	0,11	5,20	9,20
K 09			40	24,69	78,0	0,19	5,00	10,30
K 09			50	20,72	80,0	0,26	4,70	11,50
K 09			63	17,67	83,0	0,41	4,30	13,00
K 09			80	14,38	86,0	0,60	3,70	14,80
K 09			100	10,95	89,0	0,93	3,00	16,80
K 09			125	7,26	92,0	1,42	1,80	18,80
K 09			160	-0,25	92,0	2,12	0,00	21,10
K 09			200	-4,38	93,0	3,05	0,00	22,80
K 10	1 344	1 354						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			20	45,17	70,3	0,00	5,60	7,60
K 10			25	41,84	73,7	0,03	5,40	8,30
K 10			32	37,73	76,0	0,04	5,20	9,20
K 10			40	33,60	78,0	0,07	5,00	10,30
K 10			50	29,67	80,0	0,09	4,70	11,50
K 10			63	26,72	83,0	0,15	4,30	13,00
K 10			80	23,55	86,0	0,22	3,70	14,80
K 10			100	20,33	89,0	0,34	3,00	16,80
K 10			125	16,95	92,0	0,51	1,80	18,80
K 10			160	9,90	92,0	0,77	0,00	21,10
K 10			200	6,36	93,0	1,11	0,00	22,80
K 11	1 406	1 414	20	44,79	70,3	0,00	5,60	7,60
K 11			25	41,46	73,7	0,03	5,40	8,30
K 11			32	37,35	76,0	0,04	5,20	9,20
K 11			40	33,22	78,0	0,07	5,00	10,30
K 11			50	29,29	80,0	0,10	4,70	11,50
K 11			63	26,33	83,0	0,16	4,30	13,00
K 11			80	23,16	86,0	0,23	3,70	14,80
K 11			100	19,93	89,0	0,35	3,00	16,80
K 11			125	16,55	92,0	0,54	1,80	18,80
K 11			160	9,48	92,0	0,81	0,00	21,10
K 11			200	5,93	93,0	1,16	0,00	22,80
K 12	2 182	2 188	20	41,00	70,3	0,00	5,60	7,60
K 12			25	37,66	73,7	0,04	5,40	8,30
K 12			32	33,54	76,0	0,07	5,20	9,20
K 12			40	29,39	78,0	0,11	5,00	10,30
K 12			50	25,45	80,0	0,15	4,70	11,50
K 12			63	22,46	83,0	0,24	4,30	13,00
K 12			80	19,25	86,0	0,35	3,70	14,80
K 12			100	15,95	89,0	0,55	3,00	16,80
K 12			125	12,47	92,0	0,83	1,80	18,80
K 12			160	5,25	92,0	1,25	0,00	21,10
K 12			200	1,51	93,0	1,79	0,00	22,80
K 13	2 265	2 271	20	40,68	70,3	0,00	5,60	7,60
K 13			25	37,33	73,7	0,05	5,40	8,30
K 13			32	33,21	76,0	0,07	5,20	9,20
K 13			40	29,06	78,0	0,11	5,00	10,30
K 13			50	25,12	80,0	0,16	4,70	11,50
K 13			63	22,13	83,0	0,25	4,30	13,00
K 13			80	18,91	86,0	0,36	3,70	14,80
K 13			100	15,61	89,0	0,57	3,00	16,80
K 13			125	12,11	92,0	0,86	1,80	18,80
K 13			160	4,88	92,0	1,29	0,00	21,10
K 13			200	1,11	93,0	1,86	0,00	22,80
K 14	2 257	2 263	20	40,71	70,3	0,00	5,60	7,60
K 14			25	37,36	73,7	0,05	5,40	8,30
K 14			32	33,24	76,0	0,07	5,20	9,20
K 14			40	29,09	78,0	0,11	5,00	10,30
K 14			50	25,15	80,0	0,16	4,70	11,50
K 14			63	22,16	83,0	0,25	4,30	13,00
K 14			80	18,94	86,0	0,36	3,70	14,80
K 14			100	15,64	89,0	0,57	3,00	16,80
K 14			125	12,15	92,0	0,86	1,80	18,80
K 14			160	4,92	92,0	1,29	0,00	21,10
K 14			200	1,15	93,0	1,86	0,00	22,80
WTG 01	5 172	5 176	20	35,02	71,8	0,00	5,60	7,60
WTG 01			25	31,62	75,2	0,10	5,40	8,30
WTG 01			32	27,07	77,1	0,16	5,20	9,20
WTG 01			40	22,06	78,3	0,26	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 01			50	18,06	80,3	0,36	4,70	11,50
WTG 01			63	16,25	84,6	0,57	4,30	13,00
WTG 01			80	12,59	87,3	0,83	3,70	14,80
WTG 01			100	7,63	88,9	1,29	3,00	16,80
WTG 01			125	3,35	91,5	1,97	1,80	18,80
WTG 01			160	-2,43	93,5	2,95	0,00	21,10
WTG 01			200	-6,92	94,5	4,24	0,00	22,80
WTG 02	4 591	4 594						
WTG 02			20	36,06	71,8	0,00	5,60	7,60
WTG 02			25	32,66	75,2	0,09	5,40	8,30
WTG 02			32	28,12	77,1	0,14	5,20	9,20
WTG 02			40	23,13	78,3	0,23	5,00	10,30
WTG 02			50	19,13	80,3	0,32	4,70	11,50
WTG 02			63	17,35	84,6	0,51	4,30	13,00
WTG 02			80	13,72	87,3	0,74	3,70	14,80
WTG 02			100	8,81	88,9	1,15	3,00	16,80
WTG 02			125	4,61	91,5	1,75	1,80	18,80
WTG 02			160	-1,06	93,5	2,62	0,00	21,10
WTG 02			200	-5,41	94,5	3,77	0,00	22,80
Sum								
Sum			20	52,08				
Sum			25	48,73				
Sum			32	44,59				
Sum			40	40,42				
Sum			50	36,47				
Sum			63	33,53				
Sum			80	30,30				
Sum			100	26,96				
Sum			125	23,46				
Sum			160	16,30				
Sum			200	12,55				

Noise sensitive area: AL Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (136)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	4 312	4 315						
K 01			20	35,10	70,3	0,00	5,60	7,60
K 01			25	31,71	73,7	0,09	5,40	8,30
K 01			32	27,57	76,0	0,13	5,20	9,20
K 01			40	23,38	78,0	0,22	5,00	10,30
K 01			50	19,40	80,0	0,30	4,70	11,50
K 01			63	16,33	83,0	0,47	4,30	13,00
K 01			80	13,01	86,0	0,69	3,70	14,80
K 01			100	9,52	89,0	1,08	3,00	16,80
K 01			125	5,76	92,0	1,64	1,80	18,80
K 01			160	-1,86	92,0	2,46	0,00	21,10
K 01			200	-6,14	93,0	3,54	0,00	22,80
K 02	4 753	4 755						
K 02			20	34,26	70,3	0,00	5,60	7,60
K 02			25	30,86	73,7	0,10	5,40	8,30
K 02			32	26,71	76,0	0,14	5,20	9,20
K 02			40	22,52	78,0	0,24	5,00	10,30
K 02			50	18,52	80,0	0,33	4,70	11,50
K 02			63	15,43	83,0	0,52	4,30	13,00
K 02			80	12,10	86,0	0,76	3,70	14,80
K 02			100	8,57	89,0	1,19	3,00	16,80
K 02			125	4,75	92,0	1,81	1,80	18,80
K 02			160	-2,95	92,0	2,71	0,00	21,10
K 02			200	-7,34	93,0	3,90	0,00	22,80
K 03	5 376	5 378						
K 03			20	33,19	70,3	0,00	5,60	7,60
K 03			25	29,78	73,7	0,11	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 03			32	25,63	76,0	0,16	5,20	9,20
K 03			40	21,42	78,0	0,27	5,00	10,30
K 03			50	17,41	80,0	0,38	4,70	11,50
K 03			63	14,30	83,0	0,59	4,30	13,00
K 03			80	10,93	86,0	0,86	3,70	14,80
K 03			100	7,34	89,0	1,34	3,00	16,80
K 03			125	3,44	92,0	2,04	1,80	18,80
K 03			160	-4,38	92,0	3,07	0,00	21,10
K 03			200	-8,92	93,0	4,41	0,00	22,80
K 04	5 778	5 780						
K 04			20	32,56	70,3	0,00	5,60	7,60
K 04			25	29,15	73,7	0,12	5,40	8,30
K 04			32	24,99	76,0	0,17	5,20	9,20
K 04			40	20,77	78,0	0,29	5,00	10,30
K 04			50	16,76	80,0	0,40	4,70	11,50
K 04			63	13,63	83,0	0,64	4,30	13,00
K 04			80	10,24	86,0	0,92	3,70	14,80
K 04			100	6,62	89,0	1,44	3,00	16,80
K 04			125	2,67	92,0	2,20	1,80	18,80
K 04			160	-5,23	92,0	3,29	0,00	21,10
K 04			200	-9,88	93,0	4,74	0,00	22,80
K 05	6 252	6 254						
K 05			20	31,88	70,3	0,00	5,60	7,60
K 05			25	28,45	73,7	0,13	5,40	8,30
K 05			32	24,29	76,0	0,19	5,20	9,20
K 05			40	20,06	78,0	0,31	5,00	10,30
K 05			50	16,04	80,0	0,44	4,70	11,50
K 05			63	12,89	83,0	0,69	4,30	13,00
K 05			80	9,48	86,0	1,00	3,70	14,80
K 05			100	5,81	89,0	1,56	3,00	16,80
K 05			125	1,80	92,0	2,38	1,80	18,80
K 05			160	-6,19	92,0	3,56	0,00	21,10
K 05			200	-10,95	93,0	5,13	0,00	22,80
K 06	4 027	4 030						
K 06			20	35,69	70,3	0,00	5,60	7,60
K 06			25	32,31	73,7	0,08	5,40	8,30
K 06			32	28,17	76,0	0,12	5,20	9,20
K 06			40	23,99	78,0	0,20	5,00	10,30
K 06			50	20,01	80,0	0,28	4,70	11,50
K 06			63	16,95	83,0	0,44	4,30	13,00
K 06			80	13,65	86,0	0,64	3,70	14,80
K 06			100	10,19	89,0	1,01	3,00	16,80
K 06			125	6,46	92,0	1,53	1,80	18,80
K 06			160	-1,10	92,0	2,30	0,00	21,10
K 06			200	-5,31	93,0	3,30	0,00	22,80
K 07	4 108	4 111						
K 07			20	35,52	70,3	0,00	5,60	7,60
K 07			25	32,14	73,7	0,08	5,40	8,30
K 07			32	28,00	76,0	0,12	5,20	9,20
K 07			40	23,82	78,0	0,21	5,00	10,30
K 07			50	19,83	80,0	0,29	4,70	11,50
K 07			63	16,77	83,0	0,45	4,30	13,00
K 07			80	13,46	86,0	0,66	3,70	14,80
K 07			100	9,99	89,0	1,03	3,00	16,80
K 07			125	6,26	92,0	1,56	1,80	18,80
K 07			160	-1,32	92,0	2,34	0,00	21,10
K 07			200	-5,55	93,0	3,37	0,00	22,80
K 08	4 796	4 798						
K 08			20	34,18	70,3	0,00	5,60	7,60
K 08			25	30,78	73,7	0,10	5,40	8,30
K 08			32	26,63	76,0	0,14	5,20	9,20
K 08			40	22,44	78,0	0,24	5,00	10,30
K 08			50	18,44	80,0	0,34	4,70	11,50
K 08			63	15,35	83,0	0,53	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 08			80	12,01	86,0	0,77	3,70	14,80
K 08			100	8,48	89,0	1,20	3,00	16,80
K 08			125	4,66	92,0	1,82	1,80	18,80
K 08			160	-3,06	92,0	2,73	0,00	21,10
K 08			200	-7,46	93,0	3,93	0,00	22,80
K 09	5 253	5 255						
K 09			20	33,39	70,3	0,00	5,60	7,60
K 09			25	29,98	73,7	0,11	5,40	8,30
K 09			32	25,83	76,0	0,16	5,20	9,20
K 09			40	21,63	78,0	0,26	5,00	10,30
K 09			50	17,62	80,0	0,37	4,70	11,50
K 09			63	14,51	83,0	0,58	4,30	13,00
K 09			80	11,15	86,0	0,84	3,70	14,80
K 09			100	7,58	89,0	1,31	3,00	16,80
K 09			125	3,69	92,0	2,00	1,80	18,80
K 09			160	-4,11	92,0	3,00	0,00	21,10
K 09			200	-8,62	93,0	4,31	0,00	22,80
K 10	3 451	3 454						
K 10			20	37,03	70,3	0,00	5,60	7,60
K 10			25	33,67	73,7	0,07	5,40	8,30
K 10			32	29,53	76,0	0,10	5,20	9,20
K 10			40	25,36	78,0	0,17	5,00	10,30
K 10			50	21,39	80,0	0,24	4,70	11,50
K 10			63	18,35	83,0	0,38	4,30	13,00
K 10			80	15,08	86,0	0,55	3,70	14,80
K 10			100	11,67	89,0	0,86	3,00	16,80
K 10			125	8,02	92,0	1,31	1,80	18,80
K 10			160	0,57	92,0	1,97	0,00	21,10
K 10			200	-3,50	93,0	2,83	0,00	22,80
K 11	2 884	2 887						
K 11			20	38,59	70,3	0,00	5,60	7,60
K 11			25	35,23	73,7	0,06	5,40	8,30
K 11			32	31,10	76,0	0,09	5,20	9,20
K 11			40	26,95	78,0	0,14	5,00	10,30
K 11			50	22,99	80,0	0,20	4,70	11,50
K 11			63	19,97	83,0	0,32	4,30	13,00
K 11			80	16,73	86,0	0,46	3,70	14,80
K 11			100	13,37	89,0	0,72	3,00	16,80
K 11			125	9,79	92,0	1,10	1,80	18,80
K 11			160	2,44	92,0	1,65	0,00	21,10
K 11			200	-1,48	93,0	2,37	0,00	22,80
K 12	2 083	2 088						
K 12			20	41,40	70,3	0,00	5,60	7,60
K 12			25	38,06	73,7	0,04	5,40	8,30
K 12			32	33,94	76,0	0,06	5,20	9,20
K 12			40	29,80	78,0	0,10	5,00	10,30
K 12			50	25,86	80,0	0,15	4,70	11,50
K 12			63	22,87	83,0	0,23	4,30	13,00
K 12			80	19,67	86,0	0,33	3,70	14,80
K 12			100	16,38	89,0	0,52	3,00	16,80
K 12			125	12,91	92,0	0,79	1,80	18,80
K 12			160	5,71	92,0	1,19	0,00	21,10
K 12			200	1,99	93,0	1,71	0,00	22,80
K 13	2 728	2 732						
K 13			20	39,07	70,3	0,00	5,60	7,60
K 13			25	35,72	73,7	0,05	5,40	8,30
K 13			32	31,59	76,0	0,08	5,20	9,20
K 13			40	27,43	78,0	0,14	5,00	10,30
K 13			50	23,48	80,0	0,19	4,70	11,50
K 13			63	20,47	83,0	0,30	4,30	13,00
K 13			80	17,23	86,0	0,44	3,70	14,80
K 13			100	13,89	89,0	0,68	3,00	16,80
K 13			125	10,33	92,0	1,04	1,80	18,80
K 13			160	3,01	92,0	1,56	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			200	-0,87	93,0	2,24	0,00	22,80
K 14	3 400	3 403						
K 14			20	37,16	70,3	0,00	5,60	7,60
K 14			25	33,79	73,7	0,07	5,40	8,30
K 14			32	29,66	76,0	0,10	5,20	9,20
K 14			40	25,49	78,0	0,17	5,00	10,30
K 14			50	21,52	80,0	0,24	4,70	11,50
K 14			63	18,49	83,0	0,37	4,30	13,00
K 14			80	15,22	86,0	0,54	3,70	14,80
K 14			100	11,81	89,0	0,85	3,00	16,80
K 14			125	8,17	92,0	1,29	1,80	18,80
K 14			160	0,72	92,0	1,94	0,00	21,10
K 14			200	-3,33	93,0	2,79	0,00	22,80
WTG 01	7 093	7 095						
WTG 01			20	32,28	71,8	0,00	5,60	7,60
WTG 01			25	28,84	75,2	0,14	5,40	8,30
WTG 01			32	24,27	77,1	0,21	5,20	9,20
WTG 01			40	19,23	78,3	0,35	5,00	10,30
WTG 01			50	15,18	80,3	0,50	4,70	11,50
WTG 01			63	13,30	84,6	0,78	4,30	13,00
WTG 01			80	9,55	87,3	1,14	3,70	14,80
WTG 01			100	4,41	88,9	1,77	3,00	16,80
WTG 01			125	-0,12	91,5	2,70	1,80	18,80
WTG 01			160	-6,26	93,5	4,04	0,00	21,10
WTG 01			200	-11,24	94,5	5,82	0,00	22,80
WTG 02	6 215	6 217						
WTG 02			20	33,43	71,8	0,00	5,60	7,60
WTG 02			25	30,00	75,2	0,12	5,40	8,30
WTG 02			32	25,44	77,1	0,19	5,20	9,20
WTG 02			40	20,42	78,3	0,31	5,00	10,30
WTG 02			50	16,39	80,3	0,44	4,70	11,50
WTG 02			63	14,54	84,6	0,68	4,30	13,00
WTG 02			80	10,83	87,3	0,99	3,70	14,80
WTG 02			100	5,77	88,9	1,55	3,00	16,80
WTG 02			125	1,37	91,5	2,36	1,80	18,80
WTG 02			160	-4,62	93,5	3,54	0,00	21,10
WTG 02			200	-9,37	94,5	5,10	0,00	22,80
Sum								
Sum			20	48,24				
Sum			25	44,87				
Sum			32	40,71				
Sum			40	36,50				
Sum			50	32,53				
Sum			63	29,54				
Sum			80	26,25				
Sum			100	22,77				
Sum			125	19,10				
Sum			160	11,72				
Sum			200	7,67				

Noise sensitive area: AM Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (135)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	2 776	2 781						
K 01			20	38,92	70,3	0,00	5,60	7,60
K 01			25	35,56	73,7	0,06	5,40	8,30
K 01			32	31,43	76,0	0,08	5,20	9,20
K 01			40	27,28	78,0	0,14	5,00	10,30
K 01			50	23,32	80,0	0,19	4,70	11,50
K 01			63	20,31	83,0	0,31	4,30	13,00
K 01			80	17,07	86,0	0,44	3,70	14,80
K 01			100	13,72	89,0	0,70	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01			125	10,16	92,0	1,06	1,80	18,80
K 01			160	2,83	92,0	1,58	0,00	21,10
K 01			200	-1,06	93,0	2,28	0,00	22,80
K 02	3 299	3 303						
K 02			20	37,42	70,3	0,00	5,60	7,60
K 02			25	34,06	73,7	0,07	5,40	8,30
K 02			32	29,92	76,0	0,10	5,20	9,20
K 02			40	25,76	78,0	0,17	5,00	10,30
K 02			50	21,79	80,0	0,23	4,70	11,50
K 02			63	18,76	83,0	0,36	4,30	13,00
K 02			80	15,49	86,0	0,53	3,70	14,80
K 02			100	12,10	89,0	0,83	3,00	16,80
K 02			125	8,47	92,0	1,25	1,80	18,80
K 02			160	1,04	92,0	1,88	0,00	21,10
K 02			200	-2,99	93,0	2,71	0,00	22,80
K 03	3 796	3 799						
K 03			20	36,21	70,3	0,00	5,60	7,60
K 03			25	32,83	73,7	0,08	5,40	8,30
K 03			32	28,69	76,0	0,11	5,20	9,20
K 03			40	24,52	78,0	0,19	5,00	10,30
K 03			50	20,54	80,0	0,27	4,70	11,50
K 03			63	17,49	83,0	0,42	4,30	13,00
K 03			80	14,20	86,0	0,61	3,70	14,80
K 03			100	10,76	89,0	0,95	3,00	16,80
K 03			125	7,06	92,0	1,44	1,80	18,80
K 03			160	-0,46	92,0	2,17	0,00	21,10
K 03			200	-4,61	93,0	3,12	0,00	22,80
K 04	4 573	4 576						
K 04			20	34,59	70,3	0,00	5,60	7,60
K 04			25	31,20	73,7	0,09	5,40	8,30
K 04			32	27,05	76,0	0,14	5,20	9,20
K 04			40	22,86	78,0	0,23	5,00	10,30
K 04			50	18,87	80,0	0,32	4,70	11,50
K 04			63	15,79	83,0	0,50	4,30	13,00
K 04			80	12,46	86,0	0,73	3,70	14,80
K 04			100	8,95	89,0	1,14	3,00	16,80
K 04			125	5,15	92,0	1,74	1,80	18,80
K 04			160	-2,52	92,0	2,61	0,00	21,10
K 04			200	-6,86	93,0	3,75	0,00	22,80
K 05	4 580	4 583						
K 05			20	34,58	70,3	0,00	5,60	7,60
K 05			25	31,19	73,7	0,09	5,40	8,30
K 05			32	27,04	76,0	0,14	5,20	9,20
K 05			40	22,85	78,0	0,23	5,00	10,30
K 05			50	18,86	80,0	0,32	4,70	11,50
K 05			63	15,77	83,0	0,50	4,30	13,00
K 05			80	12,44	86,0	0,73	3,70	14,80
K 05			100	8,93	89,0	1,15	3,00	16,80
K 05			125	5,14	92,0	1,74	1,80	18,80
K 05			160	-2,53	92,0	2,61	0,00	21,10
K 05			200	-6,88	93,0	3,76	0,00	22,80
K 06	3 398	3 402						
K 06			20	37,17	70,3	0,00	5,60	7,60
K 06			25	33,80	73,7	0,07	5,40	8,30
K 06			32	29,66	76,0	0,10	5,20	9,20
K 06			40	25,50	78,0	0,17	5,00	10,30
K 06			50	21,53	80,0	0,24	4,70	11,50
K 06			63	18,49	83,0	0,37	4,30	13,00
K 06			80	15,22	86,0	0,54	3,70	14,80
K 06			100	11,82	89,0	0,85	3,00	16,80
K 06			125	8,17	92,0	1,29	1,80	18,80
K 06			160	0,73	92,0	1,94	0,00	21,10
K 06			200	-3,32	93,0	2,79	0,00	22,80
K 07	3 966	3 970						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			20	35,82	70,3	0,00	5,60	7,60
K 07			25	32,45	73,7	0,08	5,40	8,30
K 07			32	28,31	76,0	0,12	5,20	9,20
K 07			40	24,13	78,0	0,20	5,00	10,30
K 07			50	20,15	80,0	0,28	4,70	11,50
K 07			63	17,09	83,0	0,44	4,30	13,00
K 07			80	13,79	86,0	0,64	3,70	14,80
K 07			100	10,33	89,0	0,99	3,00	16,80
K 07			125	6,62	92,0	1,51	1,80	18,80
K 07			160	-0,94	92,0	2,26	0,00	21,10
K 07			200	-5,13	93,0	3,26	0,00	22,80
K 08	3 935	3 938	20	35,89	70,3	0,00	5,60	7,60
K 08			25	32,51	73,7	0,08	5,40	8,30
K 08			32	28,38	76,0	0,12	5,20	9,20
K 08			40	24,20	78,0	0,20	5,00	10,30
K 08			50	20,22	80,0	0,28	4,70	11,50
K 08			63	17,16	83,0	0,43	4,30	13,00
K 08			80	13,86	86,0	0,63	3,70	14,80
K 08			100	10,41	89,0	0,98	3,00	16,80
K 08			125	6,70	92,0	1,50	1,80	18,80
K 08			160	-0,85	92,0	2,24	0,00	21,10
K 08			200	-5,04	93,0	3,23	0,00	22,80
K 09	4 288	4 291	20	35,15	70,3	0,00	5,60	7,60
K 09			25	31,76	73,7	0,09	5,40	8,30
K 09			32	27,62	76,0	0,13	5,20	9,20
K 09			40	23,43	78,0	0,21	5,00	10,30
K 09			50	19,45	80,0	0,30	4,70	11,50
K 09			63	16,38	83,0	0,47	4,30	13,00
K 09			80	13,06	86,0	0,69	3,70	14,80
K 09			100	9,58	89,0	1,07	3,00	16,80
K 09			125	5,82	92,0	1,63	1,80	18,80
K 09			160	-1,80	92,0	2,45	0,00	21,10
K 09			200	-6,07	93,0	3,52	0,00	22,80
K 10	1 707	1 715	20	43,12	70,3	0,00	5,60	7,60
K 10			25	39,78	73,7	0,03	5,40	8,30
K 10			32	35,67	76,0	0,05	5,20	9,20
K 10			40	31,53	78,0	0,09	5,00	10,30
K 10			50	27,60	80,0	0,12	4,70	11,50
K 10			63	24,63	83,0	0,19	4,30	13,00
K 10			80	21,44	86,0	0,27	3,70	14,80
K 10			100	18,19	89,0	0,43	3,00	16,80
K 10			125	14,76	92,0	0,65	1,80	18,80
K 10			160	7,64	92,0	0,98	0,00	21,10
K 10			200	4,01	93,0	1,41	0,00	22,80
K 11	1 473	1 481	20	44,39	70,3	0,00	5,60	7,60
K 11			25	41,06	73,7	0,03	5,40	8,30
K 11			32	36,95	76,0	0,04	5,20	9,20
K 11			40	32,82	78,0	0,07	5,00	10,30
K 11			50	28,89	80,0	0,10	4,70	11,50
K 11			63	25,93	83,0	0,16	4,30	13,00
K 11			80	22,75	86,0	0,24	3,70	14,80
K 11			100	19,52	89,0	0,37	3,00	16,80
K 11			125	16,13	92,0	0,56	1,80	18,80
K 11			160	9,05	92,0	0,84	0,00	21,10
K 11			200	5,48	93,0	1,21	0,00	22,80
K 12	2 083	2 089	20	41,40	70,3	0,00	5,60	7,60
K 12			25	38,06	73,7	0,04	5,40	8,30
K 12			32	33,94	76,0	0,06	5,20	9,20
K 12			40	29,80	78,0	0,10	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 12			50	25,86	80,0	0,15	4,70	11,50
K 12			63	22,87	83,0	0,23	4,30	13,00
K 12			80	19,67	86,0	0,33	3,70	14,80
K 12			100	16,38	89,0	0,52	3,00	16,80
K 12			125	12,91	92,0	0,79	1,80	18,80
K 12			160	5,71	92,0	1,19	0,00	21,10
K 12			200	1,99	93,0	1,71	0,00	22,80
K 13	2 437	2 443						
K 13			20	40,04	70,3	0,00	5,60	7,60
K 13			25	36,69	73,7	0,05	5,40	8,30
K 13			32	32,57	76,0	0,07	5,20	9,20
K 13			40	28,42	78,0	0,12	5,00	10,30
K 13			50	24,47	80,0	0,17	4,70	11,50
K 13			63	21,47	83,0	0,27	4,30	13,00
K 13			80	18,25	86,0	0,39	3,70	14,80
K 13			100	14,93	89,0	0,61	3,00	16,80
K 13			125	11,41	92,0	0,93	1,80	18,80
K 13			160	4,15	92,0	1,39	0,00	21,10
K 13			200	0,34	93,0	2,00	0,00	22,80
K 14	2 612	2 617						
K 14			20	39,44	70,3	0,00	5,60	7,60
K 14			25	36,09	73,7	0,05	5,40	8,30
K 14			32	31,97	76,0	0,08	5,20	9,20
K 14			40	27,81	78,0	0,13	5,00	10,30
K 14			50	23,86	80,0	0,18	4,70	11,50
K 14			63	20,86	83,0	0,29	4,30	13,00
K 14			80	17,63	86,0	0,42	3,70	14,80
K 14			100	14,29	89,0	0,65	3,00	16,80
K 14			125	10,75	92,0	0,99	1,80	18,80
K 14			160	3,45	92,0	1,49	0,00	21,10
K 14			200	-0,40	93,0	2,15	0,00	22,80
WTG 01	5 816	5 819						
WTG 01			20	34,00	71,8	0,00	5,60	7,60
WTG 01			25	30,59	75,2	0,12	5,40	8,30
WTG 01			32	26,03	77,1	0,17	5,20	9,20
WTG 01			40	21,01	78,3	0,29	5,00	10,30
WTG 01			50	17,00	80,3	0,41	4,70	11,50
WTG 01			63	15,16	84,6	0,64	4,30	13,00
WTG 01			80	11,47	87,3	0,93	3,70	14,80
WTG 01			100	6,45	88,9	1,45	3,00	16,80
WTG 01			125	2,09	91,5	2,21	1,80	18,80
WTG 01			160	-3,81	93,5	3,32	0,00	21,10
WTG 01			200	-8,47	94,5	4,77	0,00	22,80
WTG 02	5 196	5 199						
WTG 02			20	34,98	71,8	0,00	5,60	7,60
WTG 02			25	31,58	75,2	0,10	5,40	8,30
WTG 02			32	27,03	77,1	0,16	5,20	9,20
WTG 02			40	22,02	78,3	0,26	5,00	10,30
WTG 02			50	18,02	80,3	0,36	4,70	11,50
WTG 02			63	16,21	84,6	0,57	4,30	13,00
WTG 02			80	12,55	87,3	0,83	3,70	14,80
WTG 02			100	7,58	88,9	1,30	3,00	16,80
WTG 02			125	3,31	91,5	1,98	1,80	18,80
WTG 02			160	-2,48	93,5	2,96	0,00	21,10
WTG 02			200	-6,98	94,5	4,26	0,00	22,80
Sum								
Sum			20	51,00				
Sum			25	47,64				
Sum			32	43,50				
Sum			40	39,32				
Sum			50	35,37				
Sum			63	32,42				
Sum			80	29,17				
Sum			100	25,80				

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
Sum			125	22,27				
Sum			160	15,06				
Sum			200	11,25				

Noise sensitive area: AN Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (134)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 792	3 795						
K 01			20	36,22	70,3	0,00	5,60	7,60
K 01			25	32,84	73,7	0,08	5,40	8,30
K 01			32	28,70	76,0	0,11	5,20	9,20
K 01			40	24,53	78,0	0,19	5,00	10,30
K 01			50	20,55	80,0	0,27	4,70	11,50
K 01			63	17,50	83,0	0,42	4,30	13,00
K 01			80	14,21	86,0	0,61	3,70	14,80
K 01			100	10,77	89,0	0,95	3,00	16,80
K 01			125	7,07	92,0	1,44	1,80	18,80
K 01			160	-0,45	92,0	2,16	0,00	21,10
K 01			200	-4,60	93,0	3,11	0,00	22,80
K 02	4 303	4 305						
K 02			20	35,12	70,3	0,00	5,60	7,60
K 02			25	31,73	73,7	0,09	5,40	8,30
K 02			32	27,59	76,0	0,13	5,20	9,20
K 02			40	23,40	78,0	0,22	5,00	10,30
K 02			50	19,42	80,0	0,30	4,70	11,50
K 02			63	16,35	83,0	0,47	4,30	13,00
K 02			80	13,03	86,0	0,69	3,70	14,80
K 02			100	9,54	89,0	1,08	3,00	16,80
K 02			125	5,78	92,0	1,64	1,80	18,80
K 02			160	-1,83	92,0	2,45	0,00	21,10
K 02			200	-6,11	93,0	3,53	0,00	22,80
K 03	4 935	4 937						
K 03			20	33,93	70,3	0,00	5,60	7,60
K 03			25	30,53	73,7	0,10	5,40	8,30
K 03			32	26,38	76,0	0,15	5,20	9,20
K 03			40	22,18	78,0	0,25	5,00	10,30
K 03			50	18,18	80,0	0,35	4,70	11,50
K 03			63	15,09	83,0	0,54	4,30	13,00
K 03			80	11,74	86,0	0,79	3,70	14,80
K 03			100	8,20	89,0	1,23	3,00	16,80
K 03			125	4,35	92,0	1,88	1,80	18,80
K 03			160	-3,38	92,0	2,81	0,00	21,10
K 03			200	-7,82	93,0	4,05	0,00	22,80
K 04	5 477	5 479						
K 04			20	33,03	70,3	0,00	5,60	7,60
K 04			25	29,62	73,7	0,11	5,40	8,30
K 04			32	25,46	76,0	0,16	5,20	9,20
K 04			40	21,25	78,0	0,27	5,00	10,30
K 04			50	17,24	80,0	0,38	4,70	11,50
K 04			63	14,12	83,0	0,60	4,30	13,00
K 04			80	10,75	86,0	0,88	3,70	14,80
K 04			100	7,16	89,0	1,37	3,00	16,80
K 04			125	3,24	92,0	2,08	1,80	18,80
K 04			160	-4,60	92,0	3,12	0,00	21,10
K 04			200	-9,17	93,0	4,49	0,00	22,80
K 05	5 830	5 832						
K 05			20	32,48	70,3	0,00	5,60	7,60
K 05			25	29,07	73,7	0,12	5,40	8,30
K 05			32	24,91	76,0	0,17	5,20	9,20
K 05			40	20,69	78,0	0,29	5,00	10,30
K 05			50	16,67	80,0	0,41	4,70	11,50
K 05			63	13,54	83,0	0,64	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 05			80	10,15	86,0	0,93	3,70	14,80
K 05			100	6,53	89,0	1,46	3,00	16,80
K 05			125	2,57	92,0	2,22	1,80	18,80
K 05			160	-5,34	92,0	3,32	0,00	21,10
K 05			200	-10,00	93,0	4,78	0,00	22,80
K 06	3 765	3 767						
K 06			20	36,28	70,3	0,00	5,60	7,60
K 06			25	32,90	73,7	0,08	5,40	8,30
K 06			32	28,77	76,0	0,11	5,20	9,20
K 06			40	24,59	78,0	0,19	5,00	10,30
K 06			50	20,62	80,0	0,26	4,70	11,50
K 06			63	17,56	83,0	0,41	4,30	13,00
K 06			80	14,28	86,0	0,60	3,70	14,80
K 06			100	10,84	89,0	0,94	3,00	16,80
K 06			125	7,15	92,0	1,43	1,80	18,80
K 06			160	-0,37	92,0	2,15	0,00	21,10
K 06			200	-4,51	93,0	3,09	0,00	22,80
K 07	4 024	4 026						
K 07			20	35,70	70,3	0,00	5,60	7,60
K 07			25	32,32	73,7	0,08	5,40	8,30
K 07			32	28,18	76,0	0,12	5,20	9,20
K 07			40	24,00	78,0	0,20	5,00	10,30
K 07			50	20,02	80,0	0,28	4,70	11,50
K 07			63	16,96	83,0	0,44	4,30	13,00
K 07			80	13,66	86,0	0,64	3,70	14,80
K 07			100	10,19	89,0	1,01	3,00	16,80
K 07			125	6,47	92,0	1,53	1,80	18,80
K 07			160	-1,09	92,0	2,30	0,00	21,10
K 07			200	-5,30	93,0	3,30	0,00	22,80
K 08	4 537	4 539						
K 08			20	34,66	70,3	0,00	5,60	7,60
K 08			25	31,27	73,7	0,09	5,40	8,30
K 08			32	27,12	76,0	0,14	5,20	9,20
K 08			40	22,93	78,0	0,23	5,00	10,30
K 08			50	18,94	80,0	0,32	4,70	11,50
K 08			63	15,86	83,0	0,50	4,30	13,00
K 08			80	12,53	86,0	0,73	3,70	14,80
K 08			100	9,03	89,0	1,13	3,00	16,80
K 08			125	5,24	92,0	1,72	1,80	18,80
K 08			160	-2,43	92,0	2,59	0,00	21,10
K 08			200	-6,76	93,0	3,72	0,00	22,80
K 09	4 995	4 998						
K 09			20	33,82	70,3	0,00	5,60	7,60
K 09			25	30,42	73,7	0,10	5,40	8,30
K 09			32	26,27	76,0	0,15	5,20	9,20
K 09			40	22,07	78,0	0,25	5,00	10,30
K 09			50	18,07	80,0	0,35	4,70	11,50
K 09			63	14,97	83,0	0,55	4,30	13,00
K 09			80	11,63	86,0	0,80	3,70	14,80
K 09			100	8,08	89,0	1,25	3,00	16,80
K 09			125	4,23	92,0	1,90	1,80	18,80
K 09			160	-3,52	92,0	2,85	0,00	21,10
K 09			200	-7,97	93,0	4,10	0,00	22,80
K 10	2 723	2 727						
K 10			20	39,08	70,3	0,00	5,60	7,60
K 10			25	35,73	73,7	0,05	5,40	8,30
K 10			32	31,60	76,0	0,08	5,20	9,20
K 10			40	27,45	78,0	0,14	5,00	10,30
K 10			50	23,49	80,0	0,19	4,70	11,50
K 10			63	20,48	83,0	0,30	4,30	13,00
K 10			80	17,25	86,0	0,44	3,70	14,80
K 10			100	13,90	89,0	0,68	3,00	16,80
K 10			125	10,35	92,0	1,04	1,80	18,80
K 10			160	3,03	92,0	1,55	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 10			200	-0,85	93,0	2,24	0,00	22,80
K 11	2 070	2 075						
K 11			20	41,46	70,3	0,00	5,60	7,60
K 11			25	38,12	73,7	0,04	5,40	8,30
K 11			32	34,00	76,0	0,06	5,20	9,20
K 11			40	29,85	78,0	0,10	5,00	10,30
K 11			50	25,91	80,0	0,15	4,70	11,50
K 11			63	22,93	83,0	0,23	4,30	13,00
K 11			80	19,73	86,0	0,33	3,70	14,80
K 11			100	16,44	89,0	0,52	3,00	16,80
K 11			125	12,97	92,0	0,79	1,80	18,80
K 11			160	5,77	92,0	1,18	0,00	21,10
K 11			200	2,06	93,0	1,70	0,00	22,80
K 12	1 438	1 446						
K 12			20	44,60	70,3	0,00	5,60	7,60
K 12			25	41,27	73,7	0,03	5,40	8,30
K 12			32	37,16	76,0	0,04	5,20	9,20
K 12			40	33,03	78,0	0,07	5,00	10,30
K 12			50	29,10	80,0	0,10	4,70	11,50
K 12			63	26,14	83,0	0,16	4,30	13,00
K 12			80	22,97	86,0	0,23	3,70	14,80
K 12			100	19,74	89,0	0,36	3,00	16,80
K 12			125	16,35	92,0	0,55	1,80	18,80
K 12			160	9,28	92,0	0,82	0,00	21,10
K 12			200	5,71	93,0	1,19	0,00	22,80
K 13	2 313	2 318						
K 13			20	40,50	70,3	0,00	5,60	7,60
K 13			25	37,15	73,7	0,05	5,40	8,30
K 13			32	33,03	76,0	0,07	5,20	9,20
K 13			40	28,88	78,0	0,12	5,00	10,30
K 13			50	24,94	80,0	0,16	4,70	11,50
K 13			63	21,94	83,0	0,25	4,30	13,00
K 13			80	18,73	86,0	0,37	3,70	14,80
K 13			100	15,42	89,0	0,58	3,00	16,80
K 13			125	11,92	92,0	0,88	1,80	18,80
K 13			160	4,68	92,0	1,32	0,00	21,10
K 13			200	0,90	93,0	1,90	0,00	22,80
K 14	2 979	2 983						
K 14			20	38,31	70,3	0,00	5,60	7,60
K 14			25	34,95	73,7	0,06	5,40	8,30
K 14			32	30,82	76,0	0,09	5,20	9,20
K 14			40	26,66	78,0	0,15	5,00	10,30
K 14			50	22,70	80,0	0,21	4,70	11,50
K 14			63	19,68	83,0	0,33	4,30	13,00
K 14			80	16,43	86,0	0,48	3,70	14,80
K 14			100	13,06	89,0	0,75	3,00	16,80
K 14			125	9,47	92,0	1,13	1,80	18,80
K 14			160	2,11	92,0	1,70	0,00	21,10
K 14			200	-1,84	93,0	2,45	0,00	22,80
WTG 01	6 827	6 829						
WTG 01			20	32,61	71,8	0,00	5,60	7,60
WTG 01			25	29,18	75,2	0,14	5,40	8,30
WTG 01			32	24,61	77,1	0,20	5,20	9,20
WTG 01			40	19,57	78,3	0,34	5,00	10,30
WTG 01			50	15,53	80,3	0,48	4,70	11,50
WTG 01			63	13,66	84,6	0,75	4,30	13,00
WTG 01			80	9,92	87,3	1,09	3,70	14,80
WTG 01			100	4,81	88,9	1,71	3,00	16,80
WTG 01			125	0,32	91,5	2,60	1,80	18,80
WTG 01			160	-5,78	93,5	3,89	0,00	21,10
WTG 01			200	-10,69	94,5	5,60	0,00	22,80
WTG 02	5 995	5 997						
WTG 02			20	33,74	71,8	0,00	5,60	7,60
WTG 02			25	30,32	75,2	0,12	5,40	8,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
WTG 02			32	25,76	77,1	0,18	5,20	9,20
WTG 02			40	20,74	78,3	0,30	5,00	10,30
WTG 02			50	16,72	80,3	0,42	4,70	11,50
WTG 02			63	14,88	84,6	0,66	4,30	13,00
WTG 02			80	11,18	87,3	0,96	3,70	14,80
WTG 02			100	6,14	88,9	1,50	3,00	16,80
WTG 02			125	1,76	91,5	2,28	1,80	18,80
WTG 02			160	-4,18	93,5	3,42	0,00	21,10
WTG 02			200	-8,88	94,5	4,92	0,00	22,80
Sum								
Sum			20	50,00				
Sum			25	46,65				
Sum			32	42,50				
Sum			40	38,32				
Sum			50	34,36				
Sum			63	31,40				
Sum			80	28,15				
Sum			100	24,76				
Sum			125	21,20				
Sum			160	13,95				
Sum			200	10,11				

Noise sensitive area: AO Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (133)

Wind speed: 8,0 m/s

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 221	3 224						
K 01			20	37,63	70,3	0,00	5,60	7,60
K 01			25	34,27	73,7	0,06	5,40	8,30
K 01			32	30,14	76,0	0,10	5,20	9,20
K 01			40	25,97	78,0	0,16	5,00	10,30
K 01			50	22,01	80,0	0,23	4,70	11,50
K 01			63	18,98	83,0	0,35	4,30	13,00
K 01			80	15,72	86,0	0,52	3,70	14,80
K 01			100	12,33	89,0	0,81	3,00	16,80
K 01			125	8,71	92,0	1,23	1,80	18,80
K 01			160	1,29	92,0	1,84	0,00	21,10
K 01			200	-2,71	93,0	2,64	0,00	22,80
K 02	3 765	3 769						
K 02			20	36,28	70,3	0,00	5,60	7,60
K 02			25	32,90	73,7	0,08	5,40	8,30
K 02			32	28,76	76,0	0,11	5,20	9,20
K 02			40	24,59	78,0	0,19	5,00	10,30
K 02			50	20,61	80,0	0,26	4,70	11,50
K 02			63	17,56	83,0	0,41	4,30	13,00
K 02			80	14,27	86,0	0,60	3,70	14,80
K 02			100	10,83	89,0	0,94	3,00	16,80
K 02			125	7,14	92,0	1,43	1,80	18,80
K 02			160	-0,37	92,0	2,15	0,00	21,10
K 02			200	-4,51	93,0	3,09	0,00	22,80
K 03	4 310	4 313						
K 03			20	35,10	70,3	0,00	5,60	7,60
K 03			25	31,72	73,7	0,09	5,40	8,30
K 03			32	27,58	76,0	0,13	5,20	9,20
K 03			40	23,39	78,0	0,22	5,00	10,30
K 03			50	19,40	80,0	0,30	4,70	11,50
K 03			63	16,33	83,0	0,47	4,30	13,00
K 03			80	13,01	86,0	0,69	3,70	14,80
K 03			100	9,53	89,0	1,08	3,00	16,80
K 03			125	5,77	92,0	1,64	1,80	18,80
K 03			160	-1,85	92,0	2,46	0,00	21,10
K 03			200	-6,13	93,0	3,54	0,00	22,80
K 04	5 055	5 057						

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 04			20	33,72	70,3	0,00	5,60	7,60
K 04			25	30,32	73,7	0,10	5,40	8,30
K 04			32	26,17	76,0	0,15	5,20	9,20
K 04			40	21,97	78,0	0,25	5,00	10,30
K 04			50	17,97	80,0	0,35	4,70	11,50
K 04			63	14,87	83,0	0,56	4,30	13,00
K 04			80	11,51	86,0	0,81	3,70	14,80
K 04			100	7,96	89,0	1,26	3,00	16,80
K 04			125	4,10	92,0	1,92	1,80	18,80
K 04			160	-3,66	92,0	2,88	0,00	21,10
K 04			200	-8,12	93,0	4,15	0,00	22,80
K 05	5 135	5 137	20	33,59	70,3	0,00	5,60	7,60
K 05			25	30,18	73,7	0,10	5,40	8,30
K 05			32	26,03	76,0	0,15	5,20	9,20
K 05			40	21,83	78,0	0,26	5,00	10,30
K 05			50	17,83	80,0	0,36	4,70	11,50
K 05			63	14,72	83,0	0,57	4,30	13,00
K 05			80	11,36	86,0	0,82	3,70	14,80
K 05			100	7,80	89,0	1,28	3,00	16,80
K 05			125	3,93	92,0	1,95	1,80	18,80
K 05			160	-3,84	92,0	2,93	0,00	21,10
K 05			200	-8,33	93,0	4,21	0,00	22,80
K 06	3 710	3 713	20	36,41	70,3	0,00	5,60	7,60
K 06			25	33,03	73,7	0,07	5,40	8,30
K 06			32	28,89	76,0	0,11	5,20	9,20
K 06			40	24,72	78,0	0,19	5,00	10,30
K 06			50	20,75	80,0	0,26	4,70	11,50
K 06			63	17,70	83,0	0,41	4,30	13,00
K 06			80	14,41	86,0	0,59	3,70	14,80
K 06			100	10,98	89,0	0,93	3,00	16,80
K 06			125	7,29	92,0	1,41	1,80	18,80
K 06			160	-0,21	92,0	2,12	0,00	21,10
K 06			200	-4,34	93,0	3,04	0,00	22,80
K 07	4 227	4 230	20	35,27	70,3	0,00	5,60	7,60
K 07			25	31,89	73,7	0,08	5,40	8,30
K 07			32	27,75	76,0	0,13	5,20	9,20
K 07			40	23,56	78,0	0,21	5,00	10,30
K 07			50	19,58	80,0	0,30	4,70	11,50
K 07			63	16,51	83,0	0,47	4,30	13,00
K 07			80	13,20	86,0	0,68	3,70	14,80
K 07			100	9,71	89,0	1,06	3,00	16,80
K 07			125	5,96	92,0	1,61	1,80	18,80
K 07			160	-1,64	92,0	2,41	0,00	21,10
K 07			200	-5,90	93,0	3,47	0,00	22,80
K 08	4 329	4 332	20	35,07	70,3	0,00	5,60	7,60
K 08			25	31,68	73,7	0,09	5,40	8,30
K 08			32	27,54	76,0	0,13	5,20	9,20
K 08			40	23,35	78,0	0,22	5,00	10,30
K 08			50	19,36	80,0	0,30	4,70	11,50
K 08			63	16,29	83,0	0,48	4,30	13,00
K 08			80	12,97	86,0	0,69	3,70	14,80
K 08			100	9,48	89,0	1,08	3,00	16,80
K 08			125	5,72	92,0	1,65	1,80	18,80
K 08			160	-1,90	92,0	2,47	0,00	21,10
K 08			200	-6,19	93,0	3,55	0,00	22,80
K 09	4 719	4 721	20	34,32	70,3	0,00	5,60	7,60
K 09			25	30,92	73,7	0,09	5,40	8,30
K 09			32	26,78	76,0	0,14	5,20	9,20
K 09			40	22,58	78,0	0,24	5,00	10,30

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 09			50	18,59	80,0	0,33	4,70	11,50
K 09			63	15,50	83,0	0,52	4,30	13,00
K 09			80	12,16	86,0	0,76	3,70	14,80
K 09			100	8,64	89,0	1,18	3,00	16,80
K 09			125	4,83	92,0	1,79	1,80	18,80
K 09			160	-2,87	92,0	2,69	0,00	21,10
K 09			200	-7,25	93,0	3,87	0,00	22,80
K 10	2 045	2 051						
K 10			20	41,56	70,3	0,00	5,60	7,60
K 10			25	38,22	73,7	0,04	5,40	8,30
K 10			32	34,10	76,0	0,06	5,20	9,20
K 10			40	29,96	78,0	0,10	5,00	10,30
K 10			50	26,02	80,0	0,14	4,70	11,50
K 10			63	23,04	83,0	0,23	4,30	13,00
K 10			80	19,83	86,0	0,33	3,70	14,80
K 10			100	16,55	89,0	0,51	3,00	16,80
K 10			125	13,08	92,0	0,78	1,80	18,80
K 10			160	5,89	92,0	1,17	0,00	21,10
K 10			200	2,18	93,0	1,68	0,00	22,80
K 11	1 586	1 593						
K 11			20	43,75	70,3	0,00	5,60	7,60
K 11			25	40,42	73,7	0,03	5,40	8,30
K 11			32	36,31	76,0	0,05	5,20	9,20
K 11			40	32,17	78,0	0,08	5,00	10,30
K 11			50	28,24	80,0	0,11	4,70	11,50
K 11			63	25,28	83,0	0,18	4,30	13,00
K 11			80	22,10	86,0	0,25	3,70	14,80
K 11			100	18,86	89,0	0,40	3,00	16,80
K 11			125	15,45	92,0	0,61	1,80	18,80
K 11			160	8,35	92,0	0,91	0,00	21,10
K 11			200	4,75	93,0	1,31	0,00	22,80
K 12	1 930	1 936						
K 12			20	42,06	70,3	0,00	5,60	7,60
K 12			25	38,72	73,7	0,04	5,40	8,30
K 12			32	34,60	76,0	0,06	5,20	9,20
K 12			40	30,46	78,0	0,10	5,00	10,30
K 12			50	26,53	80,0	0,14	4,70	11,50
K 12			63	23,55	83,0	0,21	4,30	13,00
K 12			80	20,35	86,0	0,31	3,70	14,80
K 12			100	17,08	89,0	0,48	3,00	16,80
K 12			125	13,63	92,0	0,74	1,80	18,80
K 12			160	6,46	92,0	1,10	0,00	21,10
K 12			200	2,77	93,0	1,59	0,00	22,80
K 13	2 526	2 531						
K 13			20	39,73	70,3	0,00	5,60	7,60
K 13			25	36,38	73,7	0,05	5,40	8,30
K 13			32	32,26	76,0	0,08	5,20	9,20
K 13			40	28,11	78,0	0,13	5,00	10,30
K 13			50	24,16	80,0	0,18	4,70	11,50
K 13			63	21,16	83,0	0,28	4,30	13,00
K 13			80	17,93	86,0	0,40	3,70	14,80
K 13			100	14,60	89,0	0,63	3,00	16,80
K 13			125	11,07	92,0	0,96	1,80	18,80
K 13			160	3,79	92,0	1,44	0,00	21,10
K 13			200	-0,04	93,0	2,08	0,00	22,80
K 14	2 866	2 870						
K 14			20	38,64	70,3	0,00	5,60	7,60
K 14			25	35,28	73,7	0,06	5,40	8,30
K 14			32	31,16	76,0	0,09	5,20	9,20
K 14			40	27,00	78,0	0,14	5,00	10,30
K 14			50	23,04	80,0	0,20	4,70	11,50
K 14			63	20,03	83,0	0,32	4,30	13,00
K 14			80	16,78	86,0	0,46	3,70	14,80
K 14			100	13,42	89,0	0,72	3,00	16,80

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG								
No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 14			125	9,85	92,0	1,09	1,80	18,80
K 14			160	2,51	92,0	1,64	0,00	21,10
K 14			200	-1,41	93,0	2,35	0,00	22,80
WTG 01	6 341	6 343						
WTG 01			20	33,25	71,8	0,00	5,60	7,60
WTG 01			25	29,83	75,2	0,13	5,40	8,30
WTG 01			32	25,26	77,1	0,19	5,20	9,20
WTG 01			40	20,24	78,3	0,32	5,00	10,30
WTG 01			50	16,21	80,3	0,44	4,70	11,50
WTG 01			63	14,36	84,6	0,70	4,30	13,00
WTG 01			80	10,64	87,3	1,01	3,70	14,80
WTG 01			100	5,57	88,9	1,59	3,00	16,80
WTG 01			125	1,14	91,5	2,41	1,80	18,80
WTG 01			160	-4,86	93,5	3,62	0,00	21,10
WTG 01			200	-9,65	94,5	5,20	0,00	22,80
WTG 02	5 667	5 670						
WTG 02			20	34,23	71,8	0,00	5,60	7,60
WTG 02			25	30,81	75,2	0,11	5,40	8,30
WTG 02			32	26,26	77,1	0,17	5,20	9,20
WTG 02			40	21,24	78,3	0,28	5,00	10,30
WTG 02			50	17,23	80,3	0,40	4,70	11,50
WTG 02			63	15,40	84,6	0,62	4,30	13,00
WTG 02			80	11,72	87,3	0,91	3,70	14,80
WTG 02			100	6,71	88,9	1,42	3,00	16,80
WTG 02			125	2,37	91,5	2,15	1,80	18,80
WTG 02			160	-3,50	93,5	3,23	0,00	21,10
WTG 02			200	-8,12	94,5	4,65	0,00	22,80
Sum								
Sum			20	50,30				
Sum			25	46,95				
Sum			32	42,80				
Sum			40	38,62				
Sum			50	34,66				
Sum			63	31,70				
Sum			80	28,45				
Sum			100	25,06				
Sum			125	21,51				
Sum			160	14,26				
Sum			200	10,41				

Noise sensitive area: AP Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (132)

Wind speed: 8,0 m/s

WTG								
No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 01	3 805	3 808						
K 01			20	36,19	70,3	0,00	5,60	7,60
K 01			25	32,81	73,7	0,08	5,40	8,30
K 01			32	28,67	76,0	0,11	5,20	9,20
K 01			40	24,50	78,0	0,19	5,00	10,30
K 01			50	20,52	80,0	0,27	4,70	11,50
K 01			63	17,47	83,0	0,42	4,30	13,00
K 01			80	14,18	86,0	0,61	3,70	14,80
K 01			100	10,74	89,0	0,95	3,00	16,80
K 01			125	7,04	92,0	1,45	1,80	18,80
K 01			160	-0,48	92,0	2,17	0,00	21,10
K 01			200	-4,64	93,0	3,12	0,00	22,80
K 02	4 338	4 340						
K 02			20	35,05	70,3	0,00	5,60	7,60
K 02			25	31,66	73,7	0,09	5,40	8,30
K 02			32	27,52	76,0	0,13	5,20	9,20
K 02			40	23,33	78,0	0,22	5,00	10,30
K 02			50	19,35	80,0	0,30	4,70	11,50
K 02			63	16,27	83,0	0,48	4,30	13,00

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 02			80	12,95	86,0	0,69	3,70	14,80
K 02			100	9,46	89,0	1,09	3,00	16,80
K 02			125	5,70	92,0	1,65	1,80	18,80
K 02			160	-1,92	92,0	2,47	0,00	21,10
K 02			200	-6,21	93,0	3,56	0,00	22,80
K 03	4 963	4 965						
K 03			20	33,88	70,3	0,00	5,60	7,60
K 03			25	30,48	73,7	0,10	5,40	8,30
K 03			32	26,33	76,0	0,15	5,20	9,20
K 03			40	22,13	78,0	0,25	5,00	10,30
K 03			50	18,13	80,0	0,35	4,70	11,50
K 03			63	15,04	83,0	0,55	4,30	13,00
K 03			80	11,69	86,0	0,79	3,70	14,80
K 03			100	8,14	89,0	1,24	3,00	16,80
K 03			125	4,30	92,0	1,89	1,80	18,80
K 03			160	-3,45	92,0	2,83	0,00	21,10
K 03			200	-7,89	93,0	4,07	0,00	22,80
K 04	5 562	5 563						
K 04			20	32,89	70,3	0,00	5,60	7,60
K 04			25	29,48	73,7	0,11	5,40	8,30
K 04			32	25,33	76,0	0,17	5,20	9,20
K 04			40	21,11	78,0	0,28	5,00	10,30
K 04			50	17,10	80,0	0,39	4,70	11,50
K 04			63	13,98	83,0	0,61	4,30	13,00
K 04			80	10,60	86,0	0,89	3,70	14,80
K 04			100	7,00	89,0	1,39	3,00	16,80
K 04			125	3,08	92,0	2,11	1,80	18,80
K 04			160	-4,78	92,0	3,17	0,00	21,10
K 04			200	-9,37	93,0	4,56	0,00	22,80
K 05	5 854	5 856						
K 05			20	32,45	70,3	0,00	5,60	7,60
K 05			25	29,03	73,7	0,12	5,40	8,30
K 05			32	24,87	76,0	0,18	5,20	9,20
K 05			40	20,65	78,0	0,29	5,00	10,30
K 05			50	16,64	80,0	0,41	4,70	11,50
K 05			63	13,50	83,0	0,64	4,30	13,00
K 05			80	10,11	86,0	0,94	3,70	14,80
K 05			100	6,48	89,0	1,46	3,00	16,80
K 05			125	2,52	92,0	2,23	1,80	18,80
K 05			160	-5,39	92,0	3,34	0,00	21,10
K 05			200	-10,05	93,0	4,80	0,00	22,80
K 06	3 899	3 902						
K 06			20	35,97	70,3	0,00	5,60	7,60
K 06			25	32,60	73,7	0,08	5,40	8,30
K 06			32	28,46	76,0	0,12	5,20	9,20
K 06			40	24,28	78,0	0,20	5,00	10,30
K 06			50	20,30	80,0	0,27	4,70	11,50
K 06			63	17,24	83,0	0,43	4,30	13,00
K 06			80	13,95	86,0	0,62	3,70	14,80
K 06			100	10,50	89,0	0,98	3,00	16,80
K 06			125	6,79	92,0	1,48	1,80	18,80
K 06			160	-0,75	92,0	2,22	0,00	21,10
K 06			200	-4,93	93,0	3,20	0,00	22,80
K 07	4 226	4 228						
K 07			20	35,28	70,3	0,00	5,60	7,60
K 07			25	31,89	73,7	0,08	5,40	8,30
K 07			32	27,75	76,0	0,13	5,20	9,20
K 07			40	23,57	78,0	0,21	5,00	10,30
K 07			50	19,58	80,0	0,30	4,70	11,50
K 07			63	16,51	83,0	0,47	4,30	13,00
K 07			80	13,20	86,0	0,68	3,70	14,80
K 07			100	9,72	89,0	1,06	3,00	16,80
K 07			125	5,97	92,0	1,61	1,80	18,80
K 07			160	-1,63	92,0	2,41	0,00	21,10

To be continued on next page...

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

...continued from previous page

WTG

No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 07			200	-5,89	93,0	3,47	0,00	22,80
K 08	4 655	4 658						
K 08			20	34,44	70,3	0,00	5,60	7,60
K 08			25	31,04	73,7	0,09	5,40	8,30
K 08			32	26,90	76,0	0,14	5,20	9,20
K 08			40	22,70	78,0	0,23	5,00	10,30
K 08			50	18,71	80,0	0,33	4,70	11,50
K 08			63	15,62	83,0	0,51	4,30	13,00
K 08			80	12,29	86,0	0,75	3,70	14,80
K 08			100	8,77	89,0	1,16	3,00	16,80
K 08			125	4,97	92,0	1,77	1,80	18,80
K 08			160	-2,72	92,0	2,65	0,00	21,10
K 08			200	-7,08	93,0	3,82	0,00	22,80
K 09	5 106	5 109						
K 09			20	33,63	70,3	0,00	5,60	7,60
K 09			25	30,23	73,7	0,10	5,40	8,30
K 09			32	26,08	76,0	0,15	5,20	9,20
K 09			40	21,88	78,0	0,26	5,00	10,30
K 09			50	17,88	80,0	0,36	4,70	11,50
K 09			63	14,77	83,0	0,56	4,30	13,00
K 09			80	11,42	86,0	0,82	3,70	14,80
K 09			100	7,86	89,0	1,28	3,00	16,80
K 09			125	3,99	92,0	1,94	1,80	18,80
K 09			160	-3,78	92,0	2,91	0,00	21,10
K 09			200	-8,25	93,0	4,19	0,00	22,80
K 10	2 659	2 663						
K 10			20	39,29	70,3	0,00	5,60	7,60
K 10			25	35,94	73,7	0,05	5,40	8,30
K 10			32	31,81	76,0	0,08	5,20	9,20
K 10			40	27,66	78,0	0,13	5,00	10,30
K 10			50	23,71	80,0	0,19	4,70	11,50
K 10			63	20,70	83,0	0,29	4,30	13,00
K 10			80	17,47	86,0	0,43	3,70	14,80
K 10			100	14,13	89,0	0,67	3,00	16,80
K 10			125	10,58	92,0	1,01	1,80	18,80
K 10			160	3,28	92,0	1,52	0,00	21,10
K 10			200	-0,59	93,0	2,18	0,00	22,80
K 11	1 989	1 994						
K 11			20	41,81	70,3	0,00	5,60	7,60
K 11			25	38,47	73,7	0,04	5,40	8,30
K 11			32	34,35	76,0	0,06	5,20	9,20
K 11			40	30,21	78,0	0,10	5,00	10,30
K 11			50	26,27	80,0	0,14	4,70	11,50
K 11			63	23,29	83,0	0,22	4,30	13,00
K 11			80	20,09	86,0	0,32	3,70	14,80
K 11			100	16,81	89,0	0,50	3,00	16,80
K 11			125	13,35	92,0	0,76	1,80	18,80
K 11			160	6,17	92,0	1,14	0,00	21,10
K 11			200	2,47	93,0	1,63	0,00	22,80
K 12	1 538	1 544						
K 12			20	44,02	70,3	0,00	5,60	7,60
K 12			25	40,69	73,7	0,03	5,40	8,30
K 12			32	36,58	76,0	0,05	5,20	9,20
K 12			40	32,45	78,0	0,08	5,00	10,30
K 12			50	28,52	80,0	0,11	4,70	11,50
K 12			63	25,55	83,0	0,17	4,30	13,00
K 12			80	22,38	86,0	0,25	3,70	14,80
K 12			100	19,14	89,0	0,39	3,00	16,80
K 12			125	15,74	92,0	0,59	1,80	18,80
K 12			160	8,64	92,0	0,88	0,00	21,10
K 12			200	5,06	93,0	1,27	0,00	22,80
K 13	2 443	2 447						
K 13			20	40,03	70,3	0,00	5,60	7,60
K 13			25	36,68	73,7	0,05	5,40	8,30

To be continued on next page...

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Detailed results

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

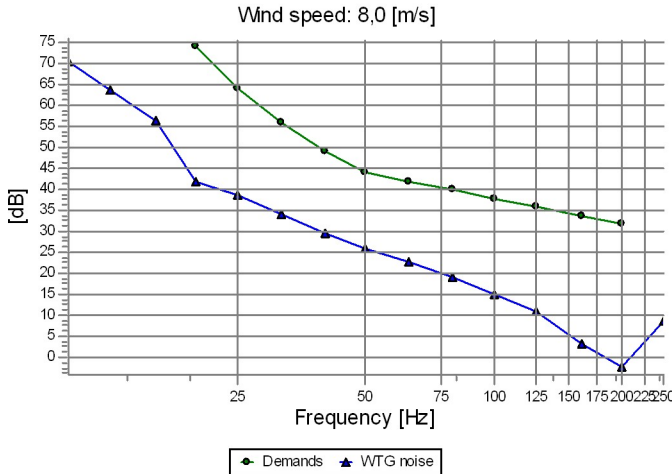
...continued from previous page

WTG								
No.	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB]	LwA,ref [dB(A)]	Aatm [dB]	Agr [dB]	Lsigma [dB]
K 13			32	32,55	76,0	0,07	5,20	9,20
K 13			40	28,40	78,0	0,12	5,00	10,30
K 13			50	24,46	80,0	0,17	4,70	11,50
K 13			63	21,46	83,0	0,27	4,30	13,00
K 13			80	18,24	86,0	0,39	3,70	14,80
K 13			100	14,92	89,0	0,61	3,00	16,80
K 13			125	11,40	92,0	0,93	1,80	18,80
K 13			160	4,13	92,0	1,39	0,00	21,10
K 13			200	0,32	93,0	2,01	0,00	22,80
K 14	3 069	3 072						
K 14			20	38,05	70,3	0,00	5,60	7,60
K 14			25	34,69	73,7	0,06	5,40	8,30
K 14			32	30,56	76,0	0,09	5,20	9,20
K 14			40	26,40	78,0	0,15	5,00	10,30
K 14			50	22,44	80,0	0,22	4,70	11,50
K 14			63	19,41	83,0	0,34	4,30	13,00
K 14			80	16,16	86,0	0,49	3,70	14,80
K 14			100	12,78	89,0	0,77	3,00	16,80
K 14			125	9,18	92,0	1,17	1,80	18,80
K 14			160	1,80	92,0	1,75	0,00	21,10
K 14			200	-2,17	93,0	2,52	0,00	22,80
WTG 01	6 912	6 914						
WTG 01			20	32,51	71,8	0,00	5,60	7,60
WTG 01			25	29,07	75,2	0,14	5,40	8,30
WTG 01			32	24,50	77,1	0,21	5,20	9,20
WTG 01			40	19,46	78,3	0,35	5,00	10,30
WTG 01			50	15,42	80,3	0,48	4,70	11,50
WTG 01			63	13,54	84,6	0,76	4,30	13,00
WTG 01			80	9,80	87,3	1,11	3,70	14,80
WTG 01			100	4,68	88,9	1,73	3,00	16,80
WTG 01			125	0,18	91,5	2,63	1,80	18,80
WTG 01			160	-5,94	93,5	3,94	0,00	21,10
WTG 01			200	-10,86	94,5	5,67	0,00	22,80
WTG 02	6 108	6 111						
WTG 02			20	33,58	71,8	0,00	5,60	7,60
WTG 02			25	30,16	75,2	0,12	5,40	8,30
WTG 02			32	25,59	77,1	0,18	5,20	9,20
WTG 02			40	20,57	78,3	0,31	5,00	10,30
WTG 02			50	16,55	80,3	0,43	4,70	11,50
WTG 02			63	14,71	84,6	0,67	4,30	13,00
WTG 02			80	11,00	87,3	0,98	3,70	14,80
WTG 02			100	5,95	88,9	1,53	3,00	16,80
WTG 02			125	1,56	91,5	2,32	1,80	18,80
WTG 02			160	-4,40	93,5	3,48	0,00	21,10
WTG 02			200	-9,13	94,5	5,01	0,00	22,80
Sum								
Sum			20	49,79				
Sum			25	46,43				
Sum			32	42,29				
Sum			40	38,10				
Sum			50	34,15				
Sum			63	31,18				
Sum			80	27,92				
Sum			100	24,53				
Sum			125	20,96				
Sum			160	13,69				
Sum			200	9,83				

DECIBEL - Detailed results, graphic

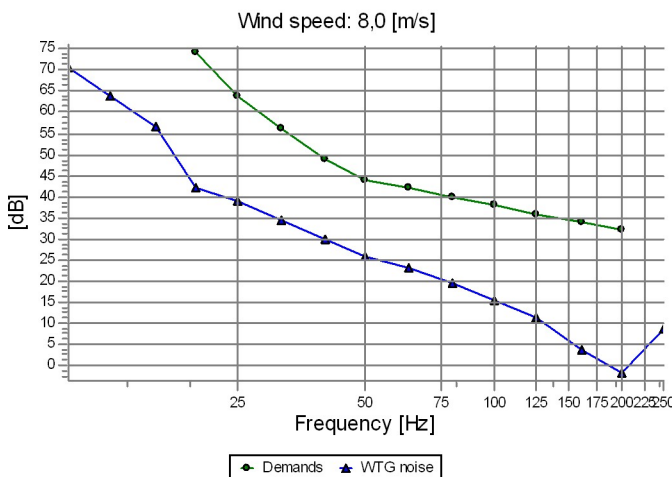
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) Noise calculation model: Finland Low frequency 8,0 m/s

A Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (173)



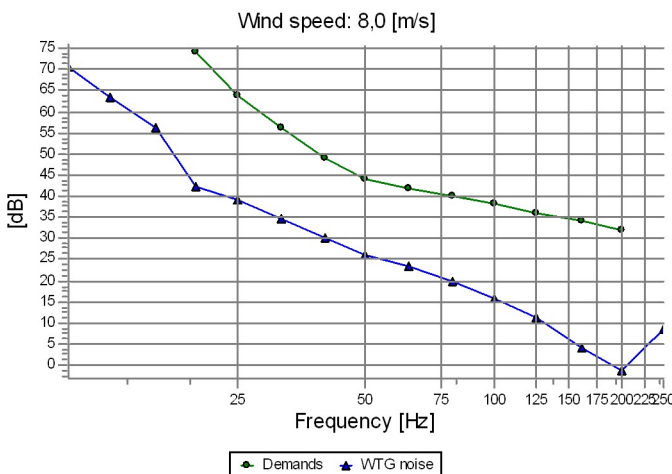
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,1	Yes
25,0	64,0	38,6	Yes
31,5	56,0	34,3	Yes
40,0	49,0	29,9	Yes
50,0	44,0	25,8	Yes
63,0	42,0	23,0	Yes
80,0	40,0	19,4	Yes
100,0	38,0	15,2	Yes
125,0	36,0	10,9	Yes
160,0	34,0	3,2	Yes
200,0	32,0	-1,9	Yes
250,0	-	8,6	No

B Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (172)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,3	Yes
25,0	64,0	38,9	Yes
31,5	56,0	34,6	Yes
40,0	49,0	30,1	Yes
50,0	44,0	26,1	Yes
63,0	42,0	23,2	Yes
80,0	40,0	19,7	Yes
100,0	38,0	15,5	Yes
125,0	36,0	11,2	Yes
160,0	34,0	3,6	Yes
200,0	32,0	-1,4	Yes
250,0	-	8,6	No

C Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (171)

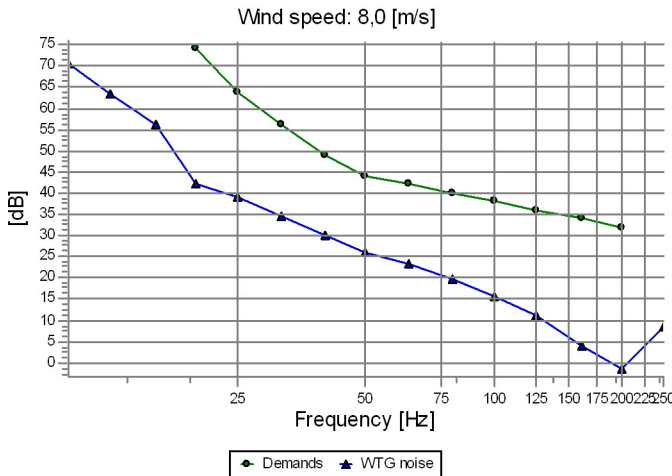


Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,5	Yes
25,0	64,0	39,0	Yes
31,5	56,0	34,8	Yes
40,0	49,0	30,3	Yes
50,0	44,0	26,3	Yes
63,0	42,0	23,4	Yes
80,0	40,0	19,8	Yes
100,0	38,0	15,7	Yes
125,0	36,0	11,4	Yes
160,0	34,0	3,8	Yes
200,0	32,0	-1,2	Yes
250,0	-	8,6	No

DECIBEL - Detailed results, graphic

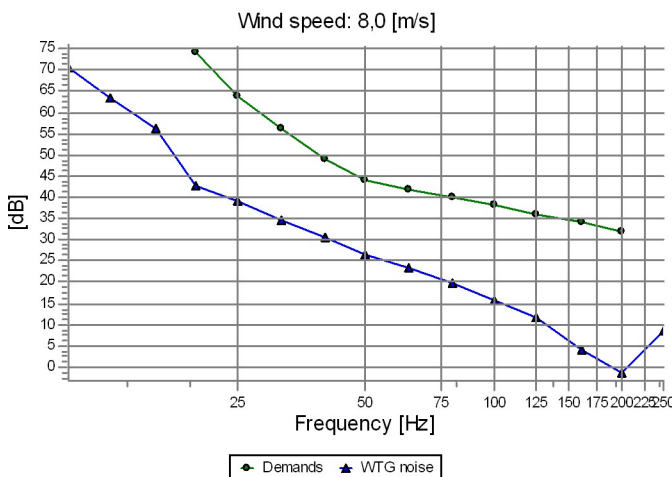
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) Noise calculation model: Finland Low frequency 8,0 m/s

D Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (170)



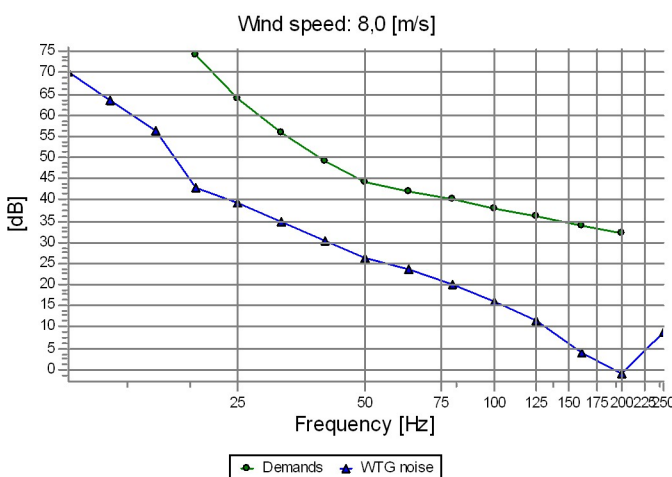
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,4	Yes
25,0	64,0	39,0	Yes
31,5	56,0	34,7	Yes
40,0	49,0	30,2	Yes
50,0	44,0	26,2	Yes
63,0	42,0	23,3	Yes
80,0	40,0	19,8	Yes
100,0	38,0	15,6	Yes
125,0	36,0	11,3	Yes
160,0	34,0	3,7	Yes
200,0	32,0	-1,3	Yes
250,0	-	8,6	No

E Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (169)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,5	Yes
25,0	64,0	39,1	Yes
31,5	56,0	34,8	Yes
40,0	49,0	30,3	Yes
50,0	44,0	26,3	Yes
63,0	42,0	23,4	Yes
80,0	40,0	19,9	Yes
100,0	38,0	15,7	Yes
125,0	36,0	11,5	Yes
160,0	34,0	3,8	Yes
200,0	32,0	-1,2	Yes
250,0	-	8,6	No

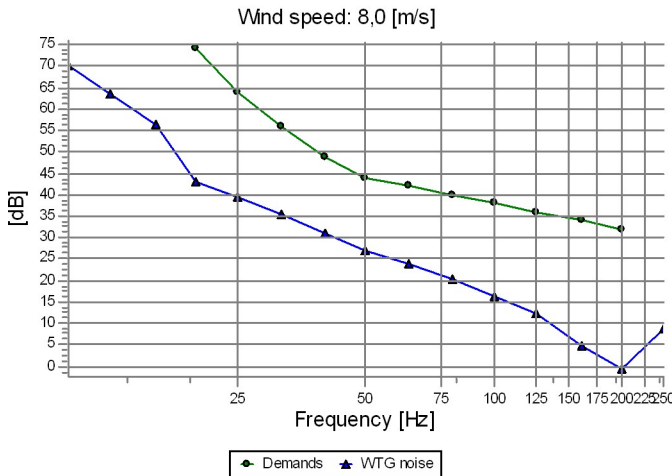
F Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (168)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,7	Yes
25,0	64,0	39,2	Yes
31,5	56,0	34,9	Yes
40,0	49,0	30,5	Yes
50,0	44,0	26,4	Yes
63,0	42,0	23,6	Yes
80,0	40,0	20,0	Yes
100,0	38,0	15,9	Yes
125,0	36,0	11,7	Yes
160,0	34,0	4,1	Yes
200,0	32,0	-0,8	Yes
250,0	-	8,6	No

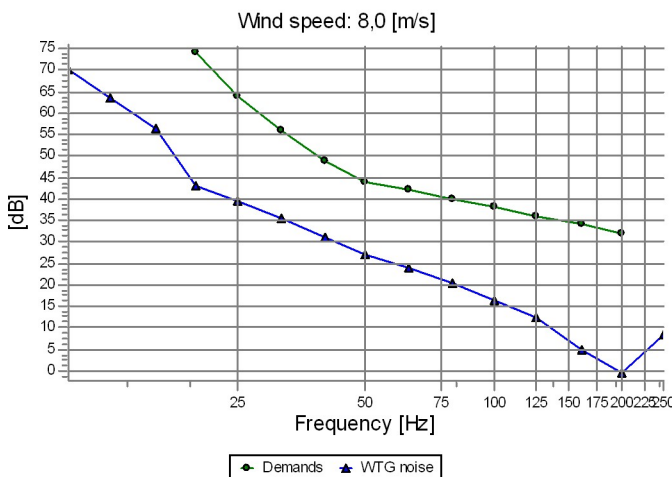
DECIBEL - Detailed results, graphic

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s
G Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (167)



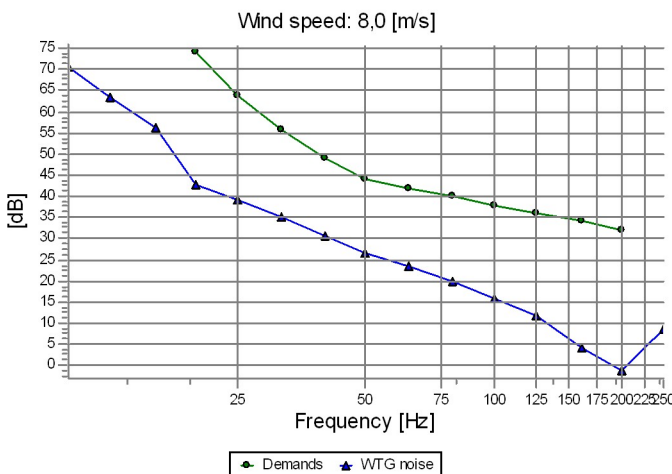
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	43,0	Yes
25,0	64,0	39,5	Yes
31,5	56,0	35,2	Yes
40,0	49,0	30,8	Yes
50,0	44,0	26,8	Yes
63,0	42,0	23,9	Yes
80,0	40,0	20,4	Yes
100,0	38,0	16,3	Yes
125,0	36,0	12,1	Yes
160,0	34,0	4,5	Yes
200,0	32,0	-0,4	Yes
250,0	-	8,6	No

H Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (166)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	43,1	Yes
25,0	64,0	39,6	Yes
31,5	56,0	35,4	Yes
40,0	49,0	30,9	Yes
50,0	44,0	26,9	Yes
63,0	42,0	24,0	Yes
80,0	40,0	20,5	Yes
100,0	38,0	16,5	Yes
125,0	36,0	12,3	Yes
160,0	34,0	4,7	Yes
200,0	32,0	-0,2	Yes
250,0	-	8,6	No

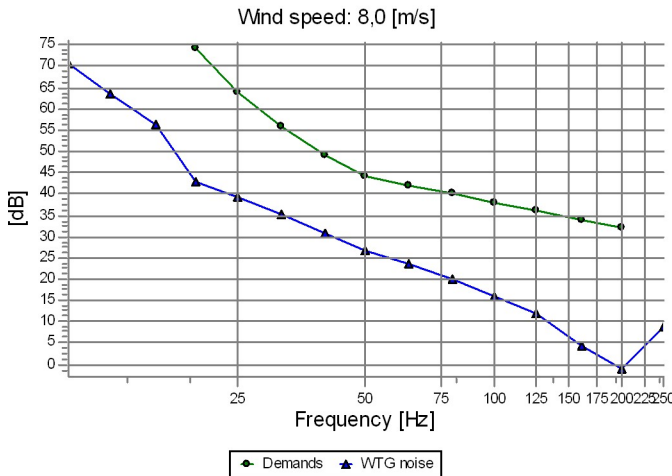
I Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (165)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,6	Yes
25,0	64,0	39,2	Yes
31,5	56,0	34,9	Yes
40,0	49,0	30,5	Yes
50,0	44,0	26,5	Yes
63,0	42,0	23,5	Yes
80,0	40,0	20,0	Yes
100,0	38,0	15,9	Yes
125,0	36,0	11,7	Yes
160,0	34,0	3,9	Yes
200,0	32,0	-1,1	Yes
250,0	-	8,6	No

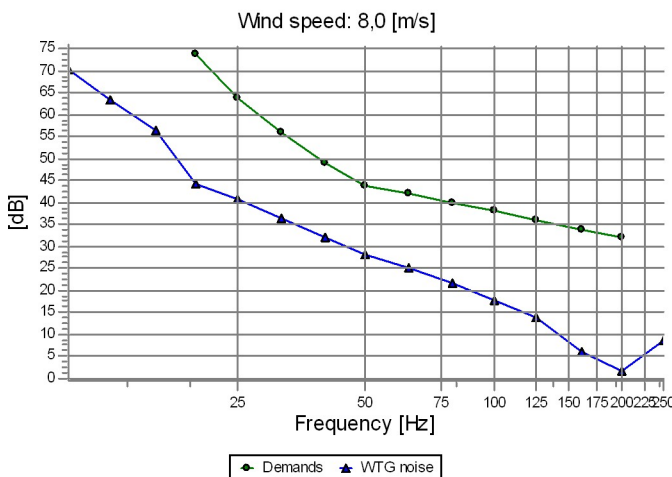
DECIBEL - Detailed results, graphic

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s
J Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (164)



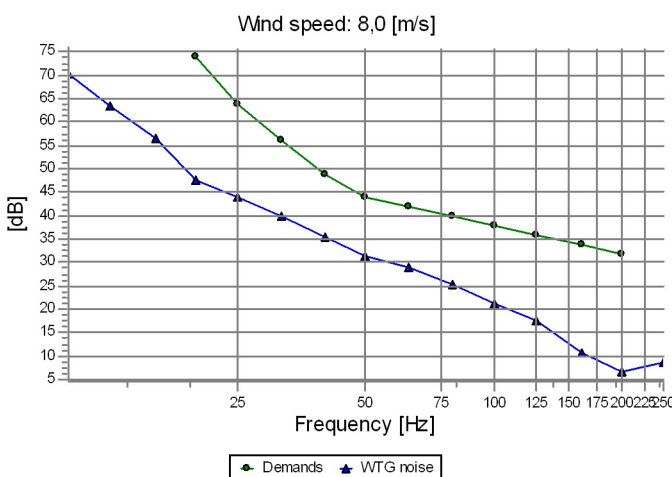
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	42,8	Yes
25,0	64,0	39,3	Yes
31,5	56,0	35,1	Yes
40,0	49,0	30,7	Yes
50,0	44,0	26,6	Yes
63,0	42,0	23,7	Yes
80,0	40,0	20,2	Yes
100,0	38,0	16,1	Yes
125,0	36,0	11,9	Yes
160,0	34,0	4,1	Yes
200,0	32,0	-0,9	Yes
250,0	-	8,6	No

K Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (163)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	44,2	Yes
25,0	64,0	40,8	Yes
31,5	56,0	36,5	Yes
40,0	49,0	32,1	Yes
50,0	44,0	28,1	Yes
63,0	42,0	25,2	Yes
80,0	40,0	21,8	Yes
100,0	38,0	17,8	Yes
125,0	36,0	13,7	Yes
160,0	34,0	6,2	Yes
200,0	32,0	1,5	Yes
250,0	-	8,6	No

L Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (162)

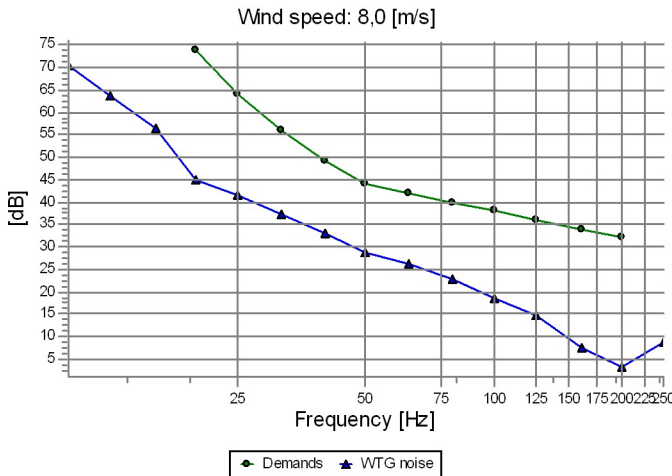


Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	47,5	Yes
25,0	64,0	44,1	Yes
31,5	56,0	39,8	Yes
40,0	49,0	35,3	Yes
50,0	44,0	31,3	Yes
63,0	42,0	28,8	Yes
80,0	40,0	25,4	Yes
100,0	38,0	21,4	Yes
125,0	36,0	17,5	Yes
160,0	34,0	10,8	Yes
200,0	32,0	6,6	Yes
250,0	-	8,6	No

DECIBEL - Detailed results, graphic

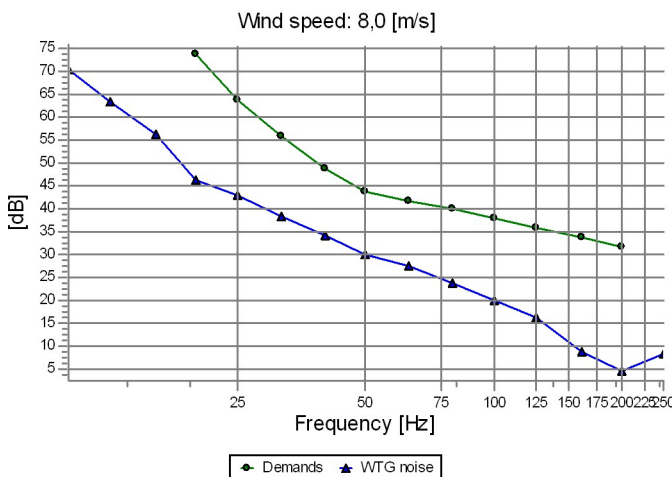
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) Noise calculation model: Finland Low frequency 8,0 m/s

M Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (161)



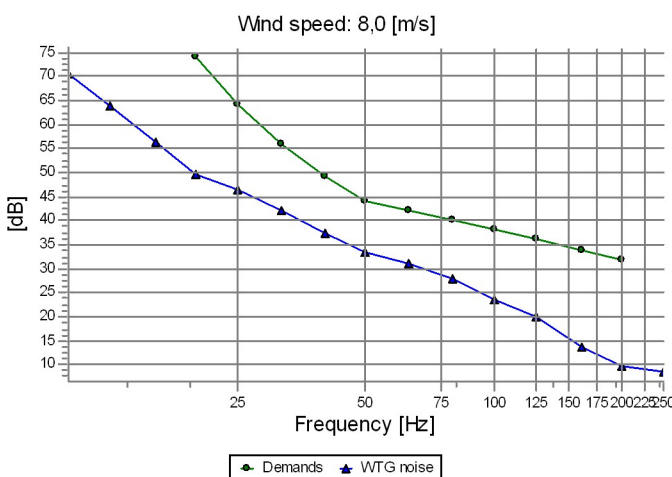
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	45,1	Yes
25,0	64,0	41,7	Yes
31,5	56,0	37,4	Yes
40,0	49,0	32,9	Yes
50,0	44,0	28,9	Yes
63,0	42,0	26,2	Yes
80,0	40,0	22,8	Yes
100,0	38,0	18,7	Yes
125,0	36,0	14,7	Yes
160,0	34,0	7,6	Yes
200,0	32,0	3,1	Yes
250,0	-	8,6	No

N Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (160)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	46,3	Yes
25,0	64,0	42,9	Yes
31,5	56,0	38,6	Yes
40,0	49,0	34,3	Yes
50,0	44,0	30,3	Yes
63,0	42,0	27,5	Yes
80,0	40,0	24,1	Yes
100,0	38,0	20,2	Yes
125,0	36,0	16,3	Yes
160,0	34,0	9,0	Yes
200,0	32,0	4,7	Yes
250,0	-	8,6	No

O Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (159)

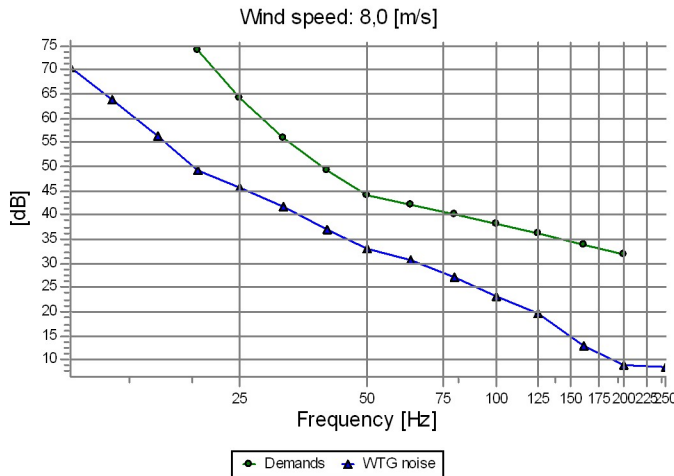


Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	49,7	Yes
25,0	64,0	46,4	Yes
31,5	56,0	42,1	Yes
40,0	49,0	37,5	Yes
50,0	44,0	33,6	Yes
63,0	42,0	31,2	Yes
80,0	40,0	27,8	Yes
100,0	38,0	23,7	Yes
125,0	36,0	20,0	Yes
160,0	34,0	13,6	Yes
200,0	32,0	9,7	Yes
250,0	-	8,6	No

DECIBEL - Detailed results, graphic

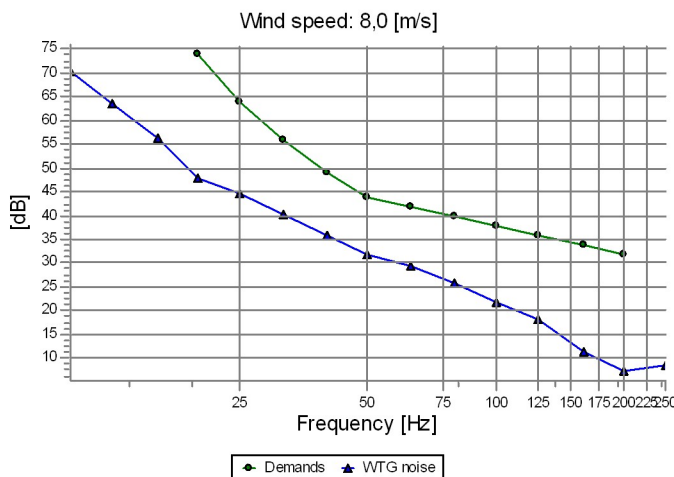
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s

P Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (158)



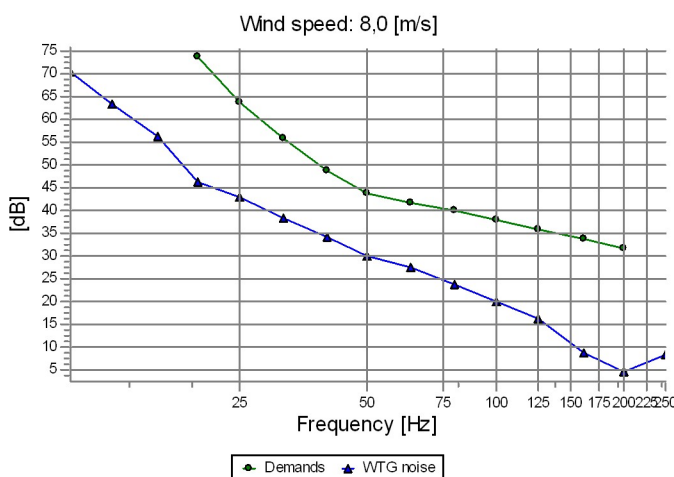
Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	49,2	Yes
25,0	64,0	45,8	Yes
31,5	56,0	41,5	Yes
40,0	49,0	37,1	Yes
50,0	44,0	33,1	Yes
63,0	42,0	30,5	Yes
80,0	40,0	27,2	Yes
100,0	38,0	23,3	Yes
125,0	36,0	19,5	Yes
160,0	34,0	12,8	Yes
200,0	32,0	8,8	Yes
250,0	-	8,6	No

Q Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (157)



Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	48,0	Yes
25,0	64,0	44,6	Yes
31,5	56,0	40,3	Yes
40,0	49,0	35,8	Yes
50,0	44,0	31,9	Yes
63,0	42,0	29,3	Yes
80,0	40,0	25,9	Yes
100,0	38,0	21,9	Yes
125,0	36,0	18,1	Yes
160,0	34,0	11,4	Yes
200,0	32,0	7,3	Yes
250,0	-	8,6	No

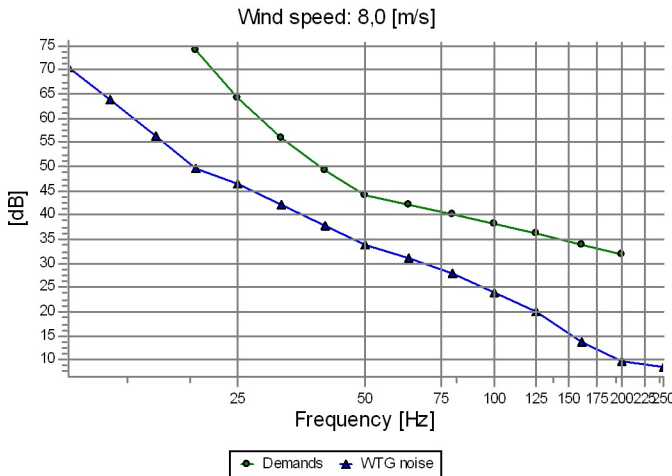
R Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (156)



Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	46,3	Yes
25,0	64,0	42,9	Yes
31,5	56,0	38,7	Yes
40,0	49,0	34,3	Yes
50,0	44,0	30,3	Yes
63,0	42,0	27,5	Yes
80,0	40,0	24,1	Yes
100,0	38,0	20,3	Yes
125,0	36,0	16,4	Yes
160,0	34,0	9,0	Yes
200,0	32,0	4,6	Yes
250,0	-	8,6	No

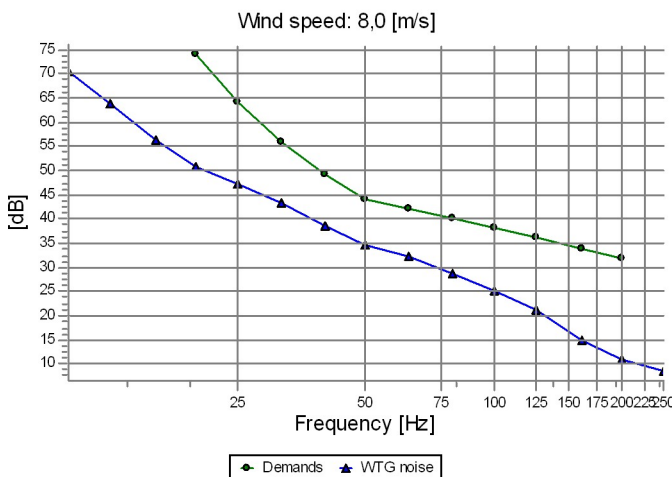
DECIBEL - Detailed results, graphic

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s
S Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (155)



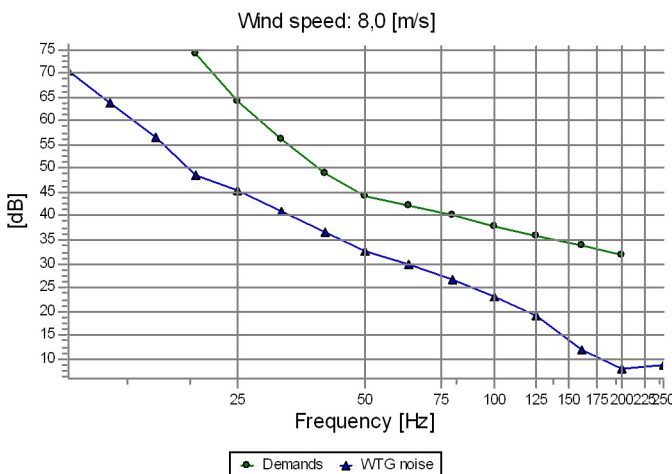
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	49,8	Yes
25,0	64,0	46,4	Yes
31,5	56,0	42,1	Yes
40,0	49,0	37,6	Yes
50,0	44,0	33,7	Yes
63,0	42,0	31,2	Yes
80,0	40,0	27,8	Yes
100,0	38,0	23,9	Yes
125,0	36,0	20,1	Yes
160,0	34,0	13,6	Yes
200,0	32,0	9,7	Yes
250,0	-	8,6	No

T Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (154)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	50,7	Yes
25,0	64,0	47,4	Yes
31,5	56,0	43,1	Yes
40,0	49,0	38,6	Yes
50,0	44,0	34,7	Yes
63,0	42,0	32,2	Yes
80,0	40,0	28,8	Yes
100,0	38,0	25,0	Yes
125,0	36,0	21,3	Yes
160,0	34,0	14,8	Yes
200,0	32,0	11,0	Yes
250,0	-	8,6	No

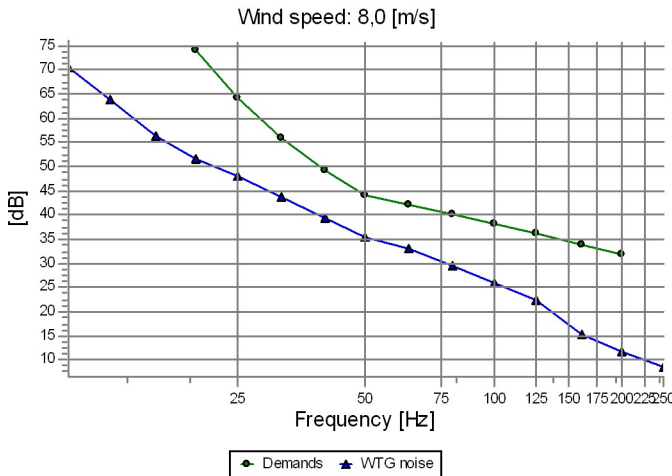
U Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (153)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	48,7	Yes
25,0	64,0	45,3	Yes
31,5	56,0	41,1	Yes
40,0	49,0	36,8	Yes
50,0	44,0	32,8	Yes
63,0	42,0	30,0	Yes
80,0	40,0	26,6	Yes
100,0	38,0	23,0	Yes
125,0	36,0	19,2	Yes
160,0	34,0	12,1	Yes
200,0	32,0	8,0	Yes
250,0	-	8,6	No

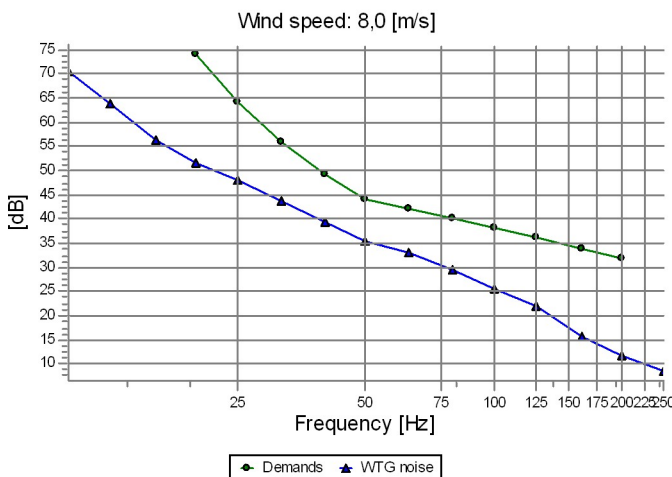
DECIBEL - Detailed results, graphic

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s
V Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (152)



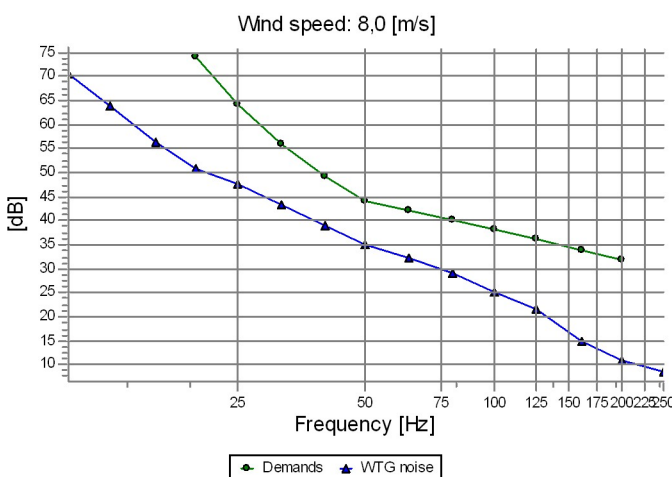
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	51,4	Yes
25,0	64,0	48,0	Yes
31,5	56,0	43,8	Yes
40,0	49,0	39,5	Yes
50,0	44,0	35,6	Yes
63,0	42,0	32,8	Yes
80,0	40,0	29,5	Yes
100,0	38,0	25,9	Yes
125,0	36,0	22,3	Yes
160,0	34,0	15,4	Yes
200,0	32,0	11,6	Yes
250,0	-	8,6	No

W Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (151)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	51,4	Yes
25,0	64,0	48,0	Yes
31,5	56,0	43,8	Yes
40,0	49,0	39,3	Yes
50,0	44,0	35,4	Yes
63,0	42,0	32,9	Yes
80,0	40,0	29,5	Yes
100,0	38,0	25,7	Yes
125,0	36,0	22,0	Yes
160,0	34,0	15,5	Yes
200,0	32,0	11,7	Yes
250,0	-	8,6	No

X Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (150)

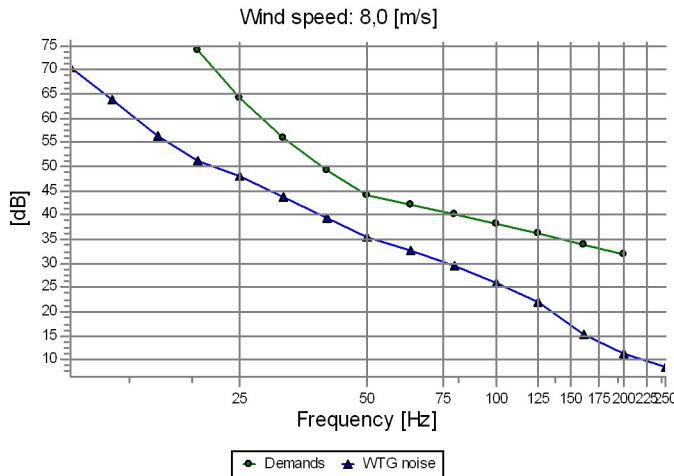


Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	50,9	Yes
25,0	64,0	47,5	Yes
31,5	56,0	43,3	Yes
40,0	49,0	38,9	Yes
50,0	44,0	34,9	Yes
63,0	42,0	32,3	Yes
80,0	40,0	29,0	Yes
100,0	38,0	25,2	Yes
125,0	36,0	21,6	Yes
160,0	34,0	14,9	Yes
200,0	32,0	11,0	Yes
250,0	-	8,6	No

DECIBEL - Detailed results, graphic

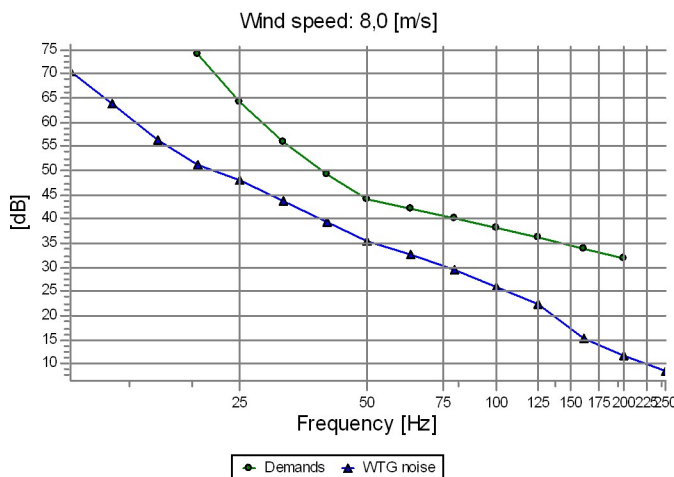
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) Noise calculation model: Finland Low frequency 8,0 m/s

Y Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (149)



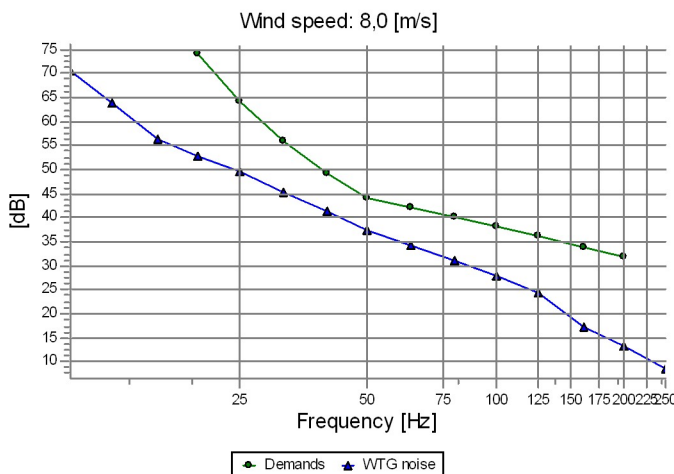
Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	51,3	Yes
25,0	64,0	47,9	Yes
31,5	56,0	43,7	Yes
40,0	49,0	39,3	Yes
50,0	44,0	35,4	Yes
63,0	42,0	32,7	Yes
80,0	40,0	29,4	Yes
100,0	38,0	25,7	Yes
125,0	36,0	22,1	Yes
160,0	34,0	15,3	Yes
200,0	32,0	11,5	Yes
250,0	-	8,6	No

Z Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (148)



Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	51,3	Yes
25,0	64,0	48,0	Yes
31,5	56,0	43,7	Yes
40,0	49,0	39,4	Yes
50,0	44,0	35,5	Yes
63,0	42,0	32,8	Yes
80,0	40,0	29,5	Yes
100,0	38,0	25,8	Yes
125,0	36,0	22,2	Yes
160,0	34,0	15,4	Yes
200,0	32,0	11,5	Yes
250,0	-	8,6	No

AA Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (147)

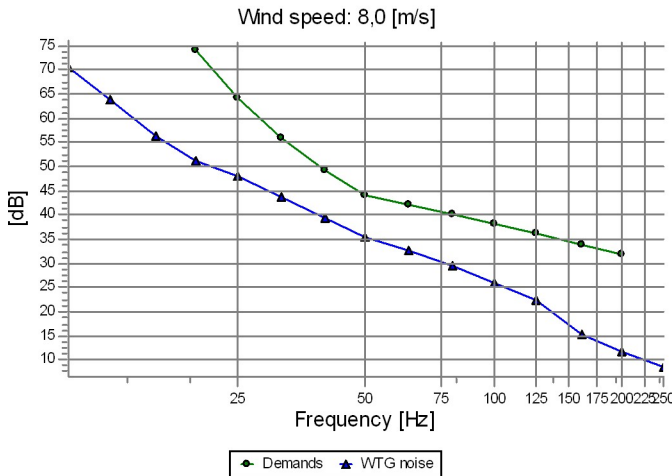


Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	52,9	Yes
25,0	64,0	49,6	Yes
31,5	56,0	45,4	Yes
40,0	49,0	41,2	Yes
50,0	44,0	37,3	Yes
63,0	42,0	34,4	Yes
80,0	40,0	31,1	Yes
100,0	38,0	27,8	Yes
125,0	36,0	24,3	Yes
160,0	34,0	17,2	Yes
200,0	32,0	13,5	Yes
250,0	-	8,6	No

DECIBEL - Detailed results, graphic

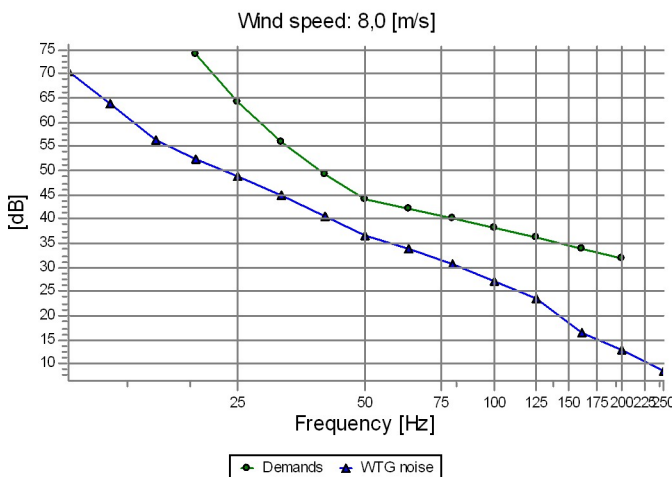
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) Noise calculation model: Finland Low frequency 8,0 m/s

AB Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (146)



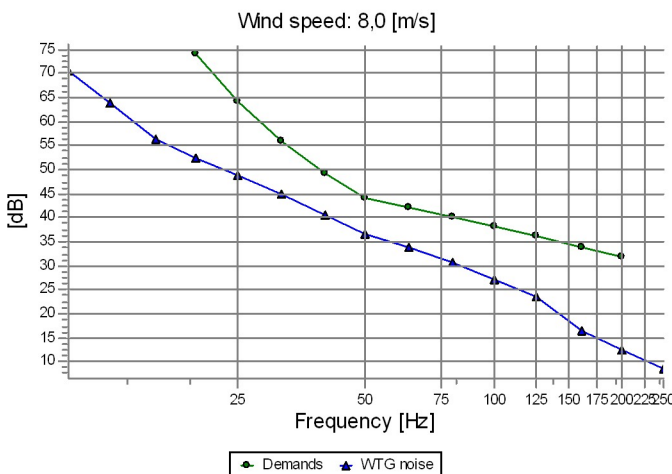
Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	51,3	Yes
25,0	64,0	48,0	Yes
31,5	56,0	43,8	Yes
40,0	49,0	39,5	Yes
50,0	44,0	35,5	Yes
63,0	42,0	32,8	Yes
80,0	40,0	29,5	Yes
100,0	38,0	25,9	Yes
125,0	36,0	22,3	Yes
160,0	34,0	15,4	Yes
200,0	32,0	11,6	Yes
250,0	-	8,6	No

AC Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (145)



Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	52,3	Yes
25,0	64,0	48,9	Yes
31,5	56,0	44,7	Yes
40,0	49,0	40,5	Yes
50,0	44,0	36,5	Yes
63,0	42,0	33,7	Yes
80,0	40,0	30,5	Yes
100,0	38,0	27,0	Yes
125,0	36,0	23,4	Yes
160,0	34,0	16,5	Yes
200,0	32,0	12,7	Yes
250,0	-	8,6	No

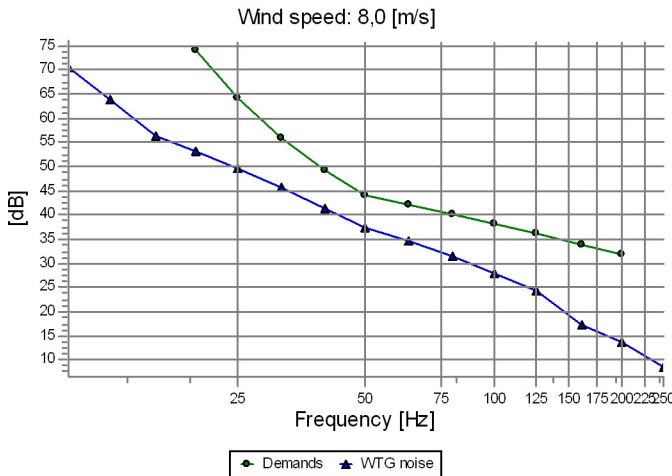
AD Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (144)



Sound level			
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	52,3	Yes
25,0	64,0	48,9	Yes
31,5	56,0	44,8	Yes
40,0	49,0	40,5	Yes
50,0	44,0	36,6	Yes
63,0	42,0	33,7	Yes
80,0	40,0	30,5	Yes
100,0	38,0	27,0	Yes
125,0	36,0	23,5	Yes
160,0	34,0	16,5	Yes
200,0	32,0	12,7	Yes
250,0	-	8,6	No

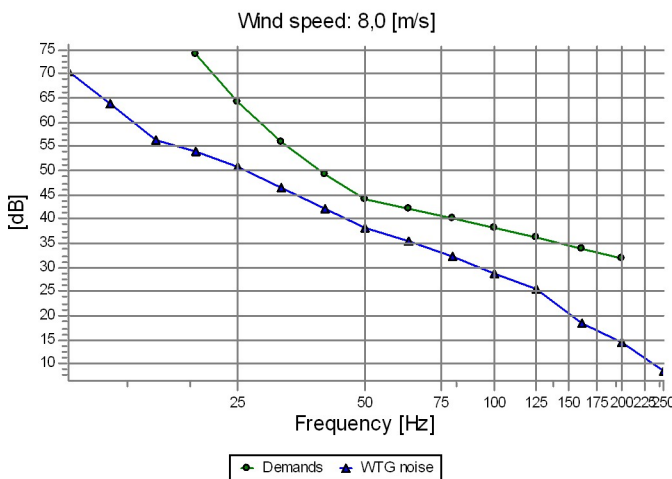
DECIBEL - Detailed results, graphic

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s
AE Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (143)



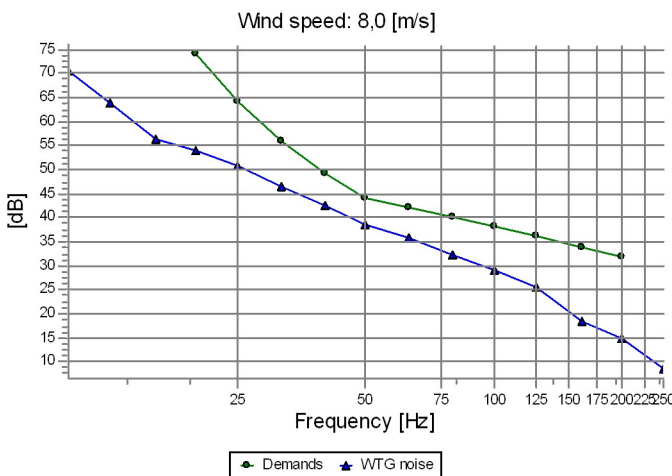
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	53,0	Yes
25,0	64,0	49,7	Yes
31,5	56,0	45,5	Yes
40,0	49,0	41,3	Yes
50,0	44,0	37,4	Yes
63,0	42,0	34,5	Yes
80,0	40,0	31,3	Yes
100,0	38,0	27,9	Yes
125,0	36,0	24,4	Yes
160,0	34,0	17,3	Yes
200,0	32,0	13,6	Yes
250,0	-	8,6	No

AF Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (141)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	53,9	Yes
25,0	64,0	50,6	Yes
31,5	56,0	46,4	Yes
40,0	49,0	42,2	Yes
50,0	44,0	38,3	Yes
63,0	42,0	35,4	Yes
80,0	40,0	32,2	Yes
100,0	38,0	28,8	Yes
125,0	36,0	25,4	Yes
160,0	34,0	18,3	Yes
200,0	32,0	14,7	Yes
250,0	-	8,6	No

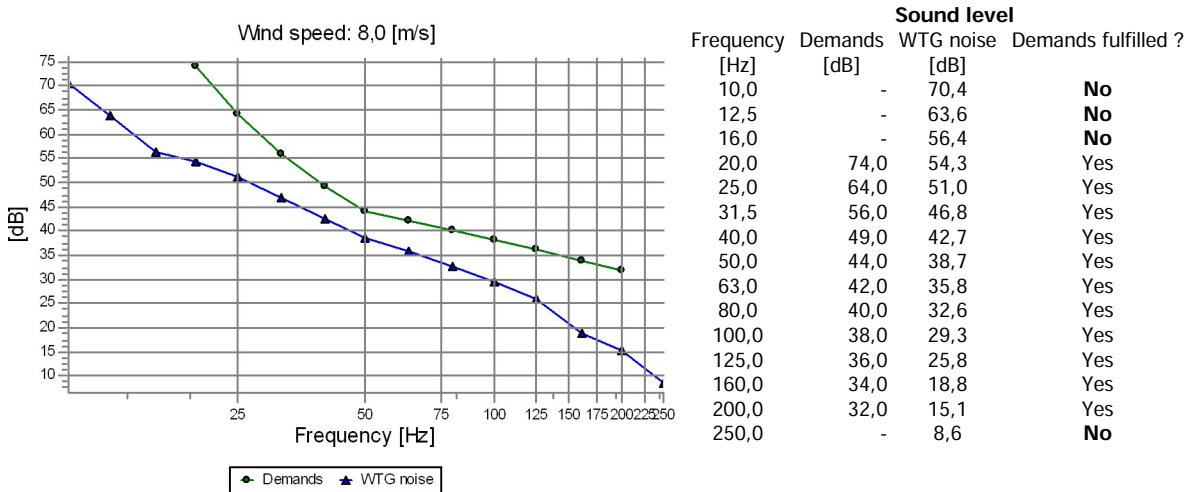
AG Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (142)



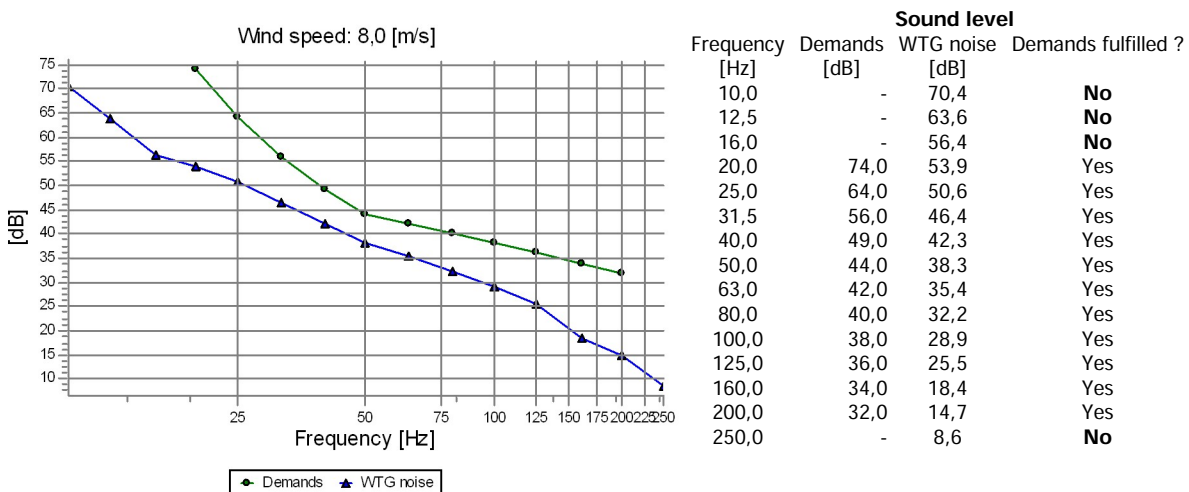
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	54,1	Yes
25,0	64,0	50,8	Yes
31,5	56,0	46,6	Yes
40,0	49,0	42,4	Yes
50,0	44,0	38,5	Yes
63,0	42,0	35,6	Yes
80,0	40,0	32,4	Yes
100,0	38,0	29,0	Yes
125,0	36,0	25,6	Yes
160,0	34,0	18,5	Yes
200,0	32,0	14,9	Yes
250,0	-	8,6	No

DECIBEL - Detailed results, graphic

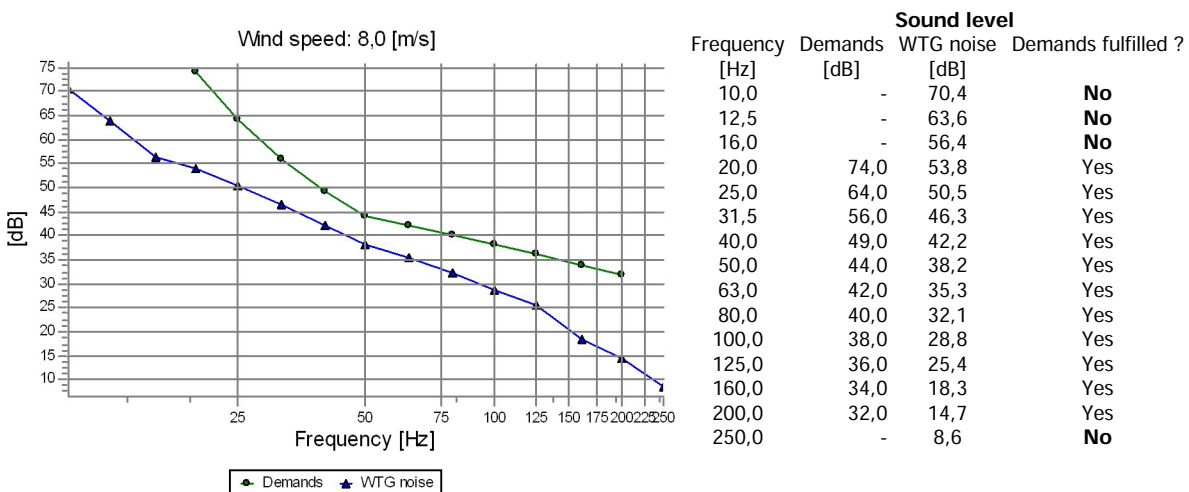
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s
AH Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (140)



AI Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (139)

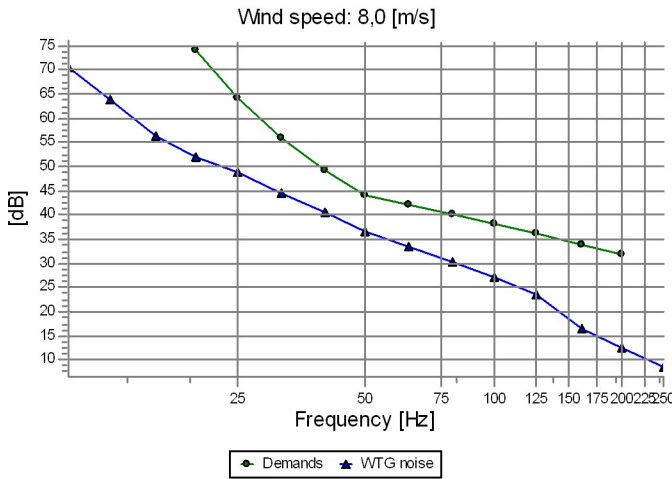


AJ Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (138)



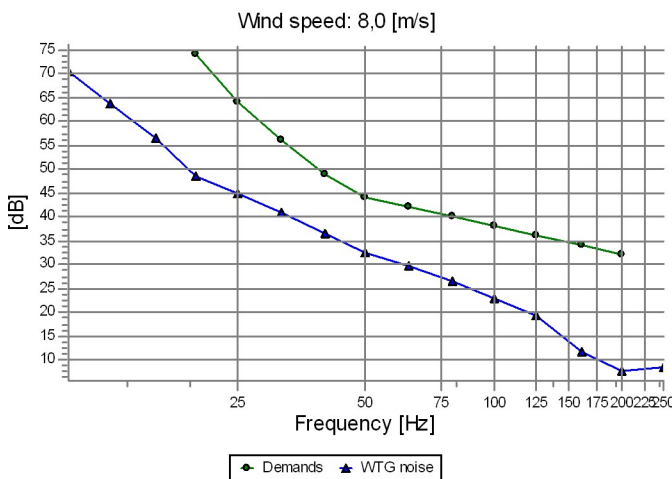
DECIBEL - Detailed results, graphic

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) **Noise calculation model:** Finland Low frequency 8,0 m/s
AK Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (137)



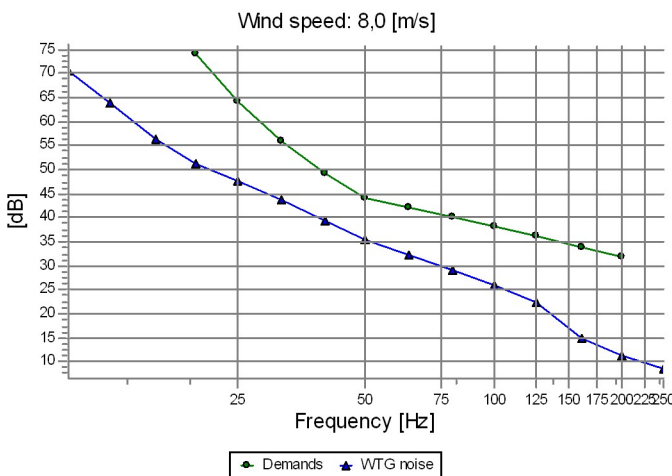
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	52,1	Yes
25,0	64,0	48,7	Yes
31,5	56,0	44,6	Yes
40,0	49,0	40,4	Yes
50,0	44,0	36,5	Yes
63,0	42,0	33,5	Yes
80,0	40,0	30,3	Yes
100,0	38,0	27,0	Yes
125,0	36,0	23,5	Yes
160,0	34,0	16,3	Yes
200,0	32,0	12,6	Yes
250,0	-	8,6	No

AL Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (136)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	48,2	Yes
25,0	64,0	44,9	Yes
31,5	56,0	40,7	Yes
40,0	49,0	36,5	Yes
50,0	44,0	32,5	Yes
63,0	42,0	29,5	Yes
80,0	40,0	26,2	Yes
100,0	38,0	22,8	Yes
125,0	36,0	19,1	Yes
160,0	34,0	11,7	Yes
200,0	32,0	7,7	Yes
250,0	-	8,6	No

AM Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (135)

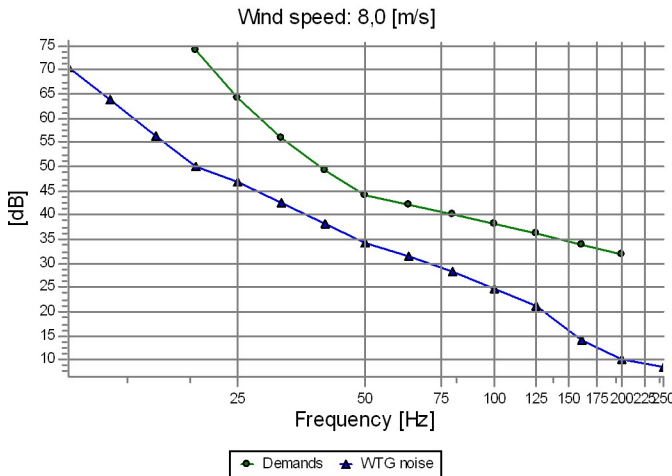


Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	51,0	Yes
25,0	64,0	47,6	Yes
31,5	56,0	43,5	Yes
40,0	49,0	39,3	Yes
50,0	44,0	35,4	Yes
63,0	42,0	32,4	Yes
80,0	40,0	29,2	Yes
100,0	38,0	25,8	Yes
125,0	36,0	22,3	Yes
160,0	34,0	15,1	Yes
200,0	32,0	11,3	Yes
250,0	-	8,6	No

DECIBEL - Detailed results, graphic

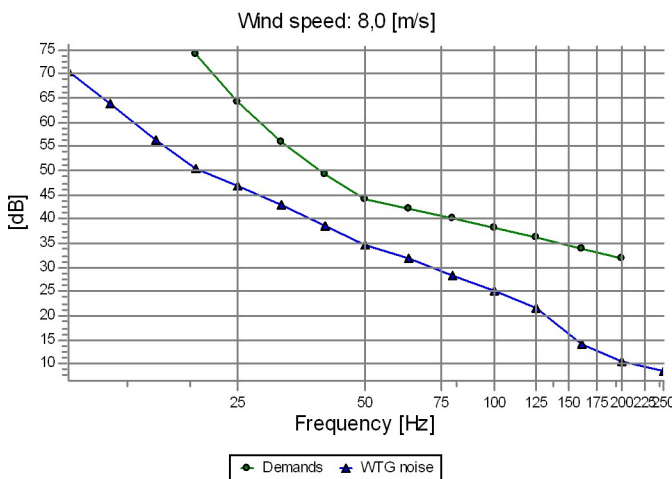
Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB) Noise calculation model: Finland Low frequency 8,0 m/s

AN Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (134)



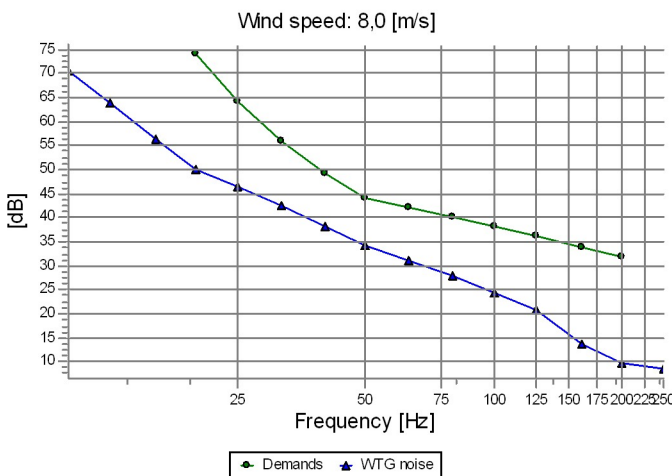
Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	50,0	Yes
25,0	64,0	46,6	Yes
31,5	56,0	42,5	Yes
40,0	49,0	38,3	Yes
50,0	44,0	34,4	Yes
63,0	42,0	31,4	Yes
80,0	40,0	28,1	Yes
100,0	38,0	24,8	Yes
125,0	36,0	21,2	Yes
160,0	34,0	13,9	Yes
200,0	32,0	10,1	Yes
250,0	-	8,6	No

AO Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (133)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	50,3	Yes
25,0	64,0	46,9	Yes
31,5	56,0	42,8	Yes
40,0	49,0	38,6	Yes
50,0	44,0	34,7	Yes
63,0	42,0	31,7	Yes
80,0	40,0	28,4	Yes
100,0	38,0	25,1	Yes
125,0	36,0	21,5	Yes
160,0	34,0	14,3	Yes
200,0	32,0	10,4	Yes
250,0	-	8,6	No

AP Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (132)



Frequency [Hz]	Demands [dB]	WTG noise [dB]	Demands fulfilled ?
10,0	-	70,4	No
12,5	-	63,6	No
16,0	-	56,4	No
20,0	74,0	49,8	Yes
25,0	64,0	46,4	Yes
31,5	56,0	42,3	Yes
40,0	49,0	38,1	Yes
50,0	44,0	34,1	Yes
63,0	42,0	31,2	Yes
80,0	40,0	27,9	Yes
100,0	38,0	24,5	Yes
125,0	36,0	21,0	Yes
160,0	34,0	13,7	Yes
200,0	32,0	9,8	Yes
250,0	-	8,6	No

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise calculation model:

Finland Low frequency

Wind speed (at 10 m height):

8,0 m/s

Spectral distribution:

From 20,0 Hz to 200,0 Hz

Meteorological coefficient, CO:

Selected option: Fixed value: 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 tone penalty is subtracted from demand

Model: 5,0 dB(A)

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

4,0 m; Don't allow override of model height with height from NSA object

Uncertainty margin:

0,0 dB; Uncertainty margin in NSA has priority

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

0,0 dB(A)

Low frequency calculation

dLsigma

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
7,6	8,3	9,2	10,3	11,5	13,0	14,8	16,8	18,8	21,1	22,8

All coordinates are in

Finish TM ETRS-TM35FIN-ETRS89

WTG: NORDEX N175/6.X-6800 6800 175.0 !-!

Noise: Mode 0 - Third Octaves - 106,9 dB(A) (STE)

Source	Source/Date	Creator	Edited
F008_278_A19_IN Revision 03	13/10/2023	USER	19/11/2024 16.13

Status	Hub height	Wind speed	LwA.ref	20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
	[m]	[m/s]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
From Windcat	171,5	8,0	99,2	71,8	75,2	77,1	78,3	80,3	84,6	87,3	88,9	91,5	93,5	94,5

WTG: NORDEX N163/6.X-6800 6800 163.0 !-!

Noise: Mode 1 - Third Octaves - 107,2 dB(A)* (STE)

Source	Source/Date	Creator	Edited
F008_277_A19_IN, Rev. 0	30/03/2021	USER	19/11/2024 16.03

für Nabenhöhen 138 m, 159 m und 164 m

Mode 1 ist die offene Fahrweise (wie früher Mode 0)

Oktavbanddaten in der 2. Nachkommastelle vor dem Einfügen (aus Excel) angepaßt, um Rundungsfehler zu beheben:

500 Hz: + 0,02

1000 Hz: + 0,03

2000 Hz: + 0,03

4000 Hz: + 0,03

8000 Hz: + 0,03

Status	Hub height	Wind speed	LwA.ref	20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
	[m]	[m/s]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
From other hub height	149,5	8,0	98,3	70,3	73,7	76,0	78,0	80,0	83,0	86,0	89,0	92,0	92,0	93,0
From other hub height	150,5	8,0	98,3	70,3	73,7	76,0	78,0	80,0	83,0	86,0	89,0	92,0	92,0	93,0
From Windcat	148,5	8,0	98,3	70,3	73,7	76,0	78,0	80,0	83,0	86,0	89,0	92,0	92,0	93,0

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: A Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: B Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: C Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: D Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: E Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: F Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: G Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: H Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: I Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: J Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: K Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: L Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: M Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: N Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: O Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: P Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: Q Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: R Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: S Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: T Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: U Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: V Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: W Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: X Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: Y Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: Z Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AA Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AB Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AC Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AD Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: AE Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AF Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AG Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AH Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AI Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AJ Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Project:

20220502 Kattiharju extension

Licensed user:

PROKON Regenerative Energien eG

Kirchhoffstraße 3

DE-25524 Itzehoe

+49 4821 6855 100

Benjamin Stjernberg / b.stjernberg@prokon.net

Calculated:

29/11/2024 10.24/4.0.552

DECIBEL - Assumptions for noise calculation

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)

Noise sensitive area: AK Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AL Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AM Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AN Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AO Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: AP Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

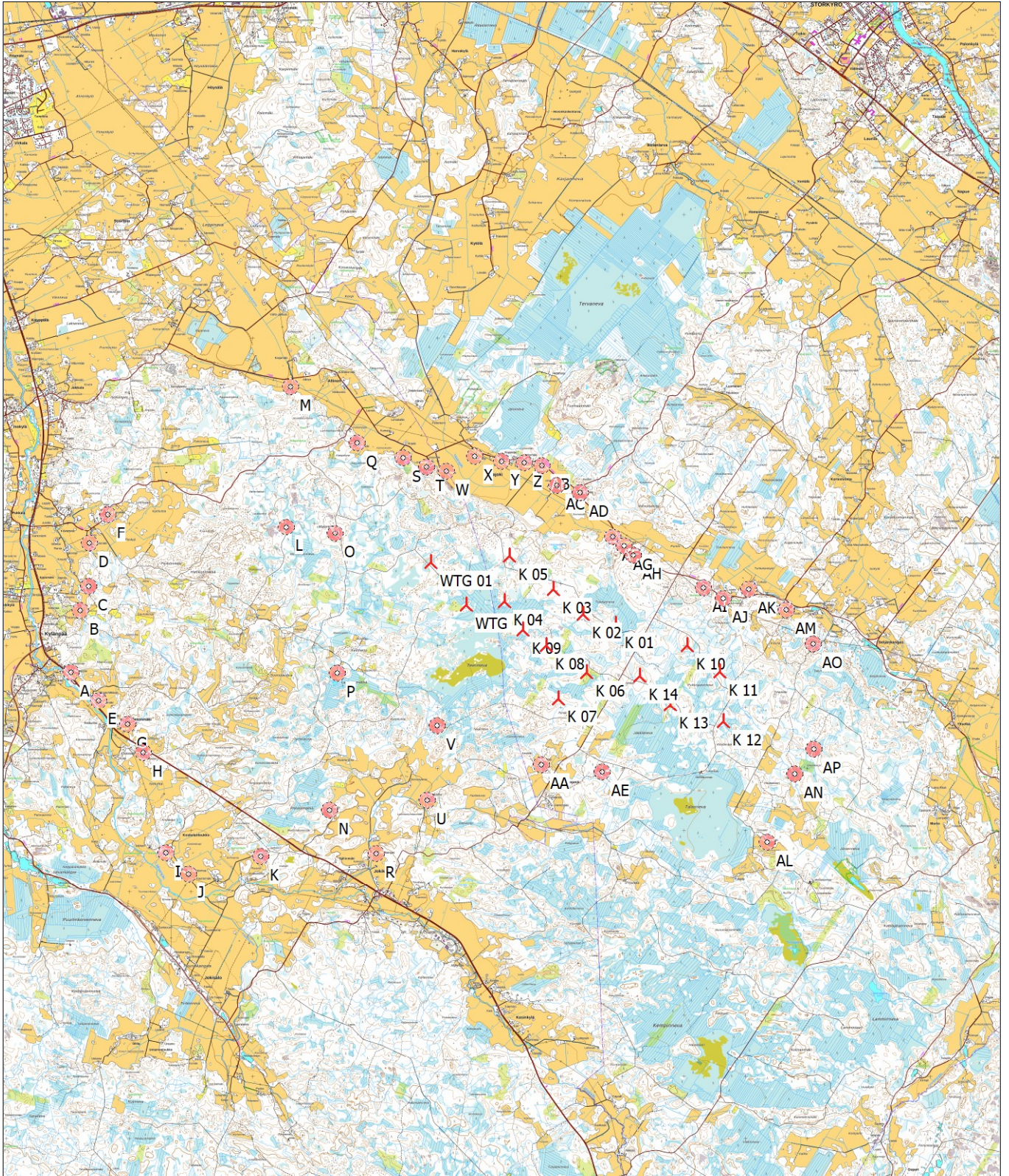
Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

DECIBEL - Map

Calculation: Low Frequency 16 WTG: 2 x N175 (106,9dB + 2dB) + 14 x N163 (107,2dB + 2dB)



0 1 2 3 4 km

Map: Peruskartta 5/2023 , Print scale 1:90 000, Map center Finish TM ETRS-TM35FIN-ETRS89 East: 256 079,5 North: 6 984 253,5
New WTG Noise sensitive area