

Appendix 10.4: Turbine manufacturer's noise emission data

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Third octave noise emission  
EnVentus™  
V162-6.8MW 50/60 Hz

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Original instruction: T05 0111-1246 VER 02



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### 3. Results

#### 3.1 Results V162 PO6800

Frequency	Hub height wind speeds [m/s]													
	3 m/s	4 m/s	5 m/s	6 m/s	7 m/s	8 m/s	9 m/s	10 m/s	11 m/s	12 m/s	13 m/s	14 m/s	15 m/s	
6.3 Hz	19.8	21.6	21.2	21.0	24.2	27.1	28.4	27.6	28.5	30.2	30.2	29.4	28.4	
8 Hz	26.3	27.9	27.6	27.5	30.8	33.7	35.0	34.3	35.2	36.7	36.7	36.0	35.1	
10 Hz	32.4	33.9	33.6	33.7	37.0	39.9	41.3	40.7	41.4	42.8	42.9	42.3	41.4	
12.5 Hz	38.2	39.6	39.3	39.5	42.8	45.8	47.2	46.7	47.4	48.6	48.7	48.2	47.4	
16 Hz	44.1	45.3	45.1	45.0	48.3	51.3	52.8	52.3	52.9	54.1	54.1	53.7	53.1	
20 Hz	49.6	50.7	50.5	50.5	53.9	56.5	58.0	57.6	58.1	59.2	59.3	58.9	58.4	
25 Hz	55.1	56.0	55.9	55.7	59.0	61.7	63.2	62.9	63.4	64.3	64.4	64.1	63.7	
31.5 Hz	60.1	61.0	60.9	60.8	64.2	66.5	68.1	67.8	68.2	69.1	69.2	69.0	68.6	
40 Hz	64.7	65.4	65.4	65.5	68.9	71.3	73.0	72.7	73.1	73.8	74.0	73.8	73.5	
50 Hz	68.7	69.3	69.3	69.7	73.1	75.7	77.4	77.2	77.5	78.2	78.3	78.2	78.0	
63 Hz	72.2	72.7	72.8	73.4	76.8	79.5	81.2	81.1	81.4	82.0	82.1	82.1	81.9	
80 Hz	75.1	75.6	75.6	76.5	79.9	82.8	84.6	84.5	84.7	85.3	85.4	85.4	85.3	
100 Hz	77.5	77.9	78.0	79.1	82.4	85.6	87.4	87.3	87.5	88.0	88.2	88.2	88.2	
125 Hz	79.4	79.7	79.8	81.1	84.5	87.8	89.6	89.6	89.7	90.2	90.4	90.5	90.5	
160 Hz	80.8	81.0	81.1	82.6	86.0	89.5	91.3	91.3	91.4	91.8	92.0	92.1	92.2	
200 Hz	81.8	81.9	82.0	83.6	86.9	90.6	92.4	92.4	92.5	92.9	93.2	93.3	93.4	
250 Hz	82.7	82.8	82.8	84.1	87.5	91.2	93.1	93.1	93.2	93.5	93.8	94.0	94.1	
315 Hz	83.3	83.3	83.4	84.6	88.0	91.4	93.2	93.2	93.3	93.7	94.0	94.2	94.3	
400 Hz	83.9	83.9	83.9	84.8	88.2	91.5	93.4	93.4	93.5	93.8	94.1	94.3	94.6	
500 Hz	84.2	84.1	84.2	85.0	88.4	91.3	93.2	93.2	93.3	93.6	93.9	94.2	94.4	
630 Hz	84.1	84.1	84.1	84.9	88.2	91.2	93.0	93.0	93.1	93.4	93.8	94.0	94.3	
800 Hz	83.7	83.6	83.6	84.4	87.7	90.6	92.4	92.5	92.5	92.9	93.2	93.5	93.8	
1 kHz	83.0	82.9	82.8	83.6	86.8	89.8	91.5	91.5	91.6	92.0	92.4	92.7	92.9	
1.25 kHz	81.9	81.7	81.7	82.4	85.6	88.5	90.3	90.3	90.4	90.8	91.2	91.4	91.7	
1.6 kHz	80.5	80.3	80.2	80.9	84.1	86.9	88.6	88.6	88.7	89.2	89.6	89.9	90.2	
2 kHz	78.7	78.5	78.4	79.0	82.1	85.0	86.7	86.6	86.8	87.3	87.7	88.0	88.2	
2.5 kHz	76.5	76.4	76.2	76.8	79.9	82.7	84.3	84.2	84.4	85.0	85.4	85.7	86.0	
3.15 kHz	74.1	73.9	73.7	74.2	77.2	80.0	81.6	81.5	81.7	82.3	82.8	83.1	83.3	
4 kHz	71.2	71.1	70.8	71.3	74.3	77.0	78.5	78.4	78.6	79.3	79.8	80.1	80.3	
5 kHz	68.1	68.0	67.6	68.0	70.9	73.6	75.1	75.0	75.2	76.0	76.5	76.7	76.9	
6.3 kHz	64.6	64.5	64.1	64.3	67.2	69.9	71.3	71.1	71.4	72.3	72.8	73.0	73.2	
8 kHz	60.7	60.7	60.2	60.4	63.2	65.8	67.2	66.9	67.3	68.3	68.8	69.0	69.1	
10 kHz	56.5	56.6	56.0	56.0	58.8	61.4	62.7	62.4	62.8	63.9	64.4	64.6	64.7	
12.5 kHz	52.0	52.1	51.4	51.3	54.1	56.6	57.8	57.5	57.9	59.1	59.6	59.8	59.9	
16 kHz	47.1	47.2	46.5	46.3	49.0	51.4	52.6	52.2	52.7	54.0	54.6	54.7	54.7	
A-wgtf	94.0	94.0	94.0	95.0	98.3	101.5	103.3	103.3	103.4	103.8	104.1	104.3	104.5	

Table 1: V162 PO6800, expected 1/3 octave band performance  
 (Blades with serrated trailing edges)

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