

## NOISE: GENERAL INFORMATION (Ref. EN ISO 3744, EN ISO 3746 and ISO 13347-1-2-3-4:2004)

### Sound power level $L_{wA}$

It is the average value of the sound power level in dB(A) (weighted value according to the scale A) radiated into the environment by the fan through the inlet and outlet ducts. The value refers to air conveyed with a density of  $1,226 \text{ kg/m}^3$ , at the maximum allowable rotation speed of the impeller and during operation at the optimal curve point.

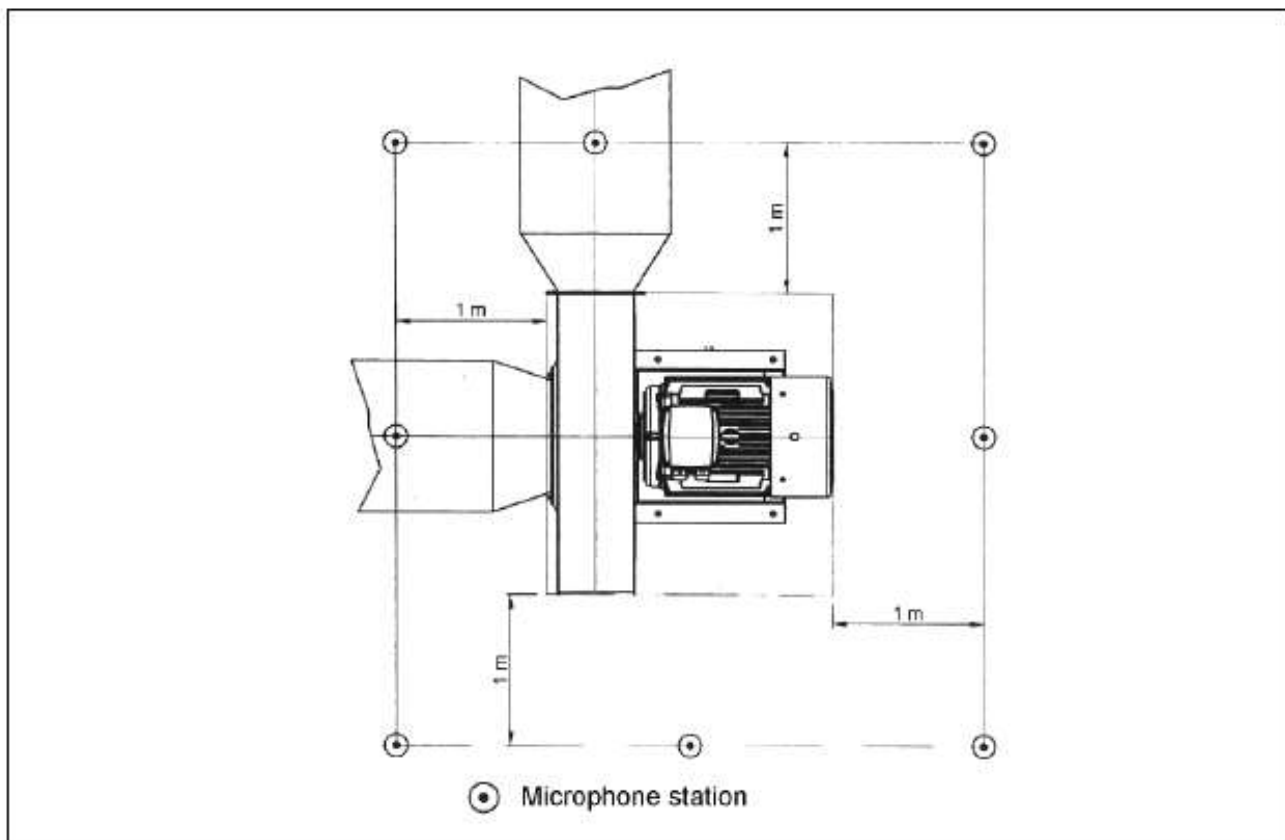
It is assumed that the fan is placed in a free field or, in any case, in an area featuring such dimensions as not to cause appreciable reflections, and leaning on a flat and rigid surface. Moreover, the value of the background noise of the installation environment is deemed neglectable.

### Sound pressure level $L_{pA}$

It is the average of the temporal average values of the sound pressure radiated into the environment by the fan through the inlet and outlet ducts. The pressure values are recorded on the measurement surface enveloping the fan (parallelepiped measurement surface). Experimentally, acoustic pressure measurements are obtained by 8 microphone stations located on the reference surface at a height equal to the fan rotation axis. The pressure value is expressed in dB(A) (weighted value according to the scale A). The value refers to air conveyed with a density of  $1,226 \text{ kg/m}^3$ , at the maximum allowable rotation speed of the impeller and during operation at the optimal curve point.

The given values refer to a measuring distance of one meter. It is assumed that the fan is placed in a free field or, in any case, in an area featuring such dimensions as not to cause appreciable reflections, and leaning on a flat and rigid surface.

The value of the background noise of the installation environment is deemed neglectable.



(Aircraft noise)

Legend:			
✓ =	dB(A) ≤ 80	Lp =	weighted sound pressure level at output A at the places of work
• =	80 < dB(A) ≤ 90	Lw =	weighted sound power level A issued by the machine
X =	dB(A) > 90		

		High pressure, direct drive centrifugal fans - Series:																
Electric motor	Model	APE		APF		APG		APRF		APRG		APRH		APRI		APRL		
		Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	
2 poles	351/2	✓	•															
	401/2	✓	•															
	451/2	✓	•															
	501/2	✓	•	✓	X	•	X			•	X							
	561/2	✓	•	•	X	•	X			•	X	•	X					
	631/2	✓	X	•	X	•	X	•	X	•	X	X	X	X	X	X	X	X
	711/2	✓	X	•	X	•	X	•	X	•	X	X	X	X	X	X	X	X
	801/2	•	X	•	X	X	X	•	X	X	X	X	X	X	X	X	X	X
	901/2	•	X	X	X	X	X	•	X	X	X	X	X	X	X			
	1001/2							X	X	X	X	X	X	X	X			
1121/2							X	X	X	X								
4 poles	631/2											✓	•					
	711/2											✓	•	✓	X			
	801/2							✓	•	✓	X	✓	X	•	X			
	901/2							✓	•	✓	X	✓	X	•	X			
	1001/2							✓	X	•	X	•	X	•	X			
	1121/2							✓	X	•	X							

(Centrifugal fans - models APE, APF, APG, APRF, APRG, APRH, APRI, APRL)

		High pressure, double stage, direct drive centrifugal fans - Series:					
Model	APRED		APRFD		APRGD		
	Lp	Lw	Lp	Lw	Lp	Lw	
631/2	•	X	•	X			
711/2	•	X	•	X			
801/2	•	X	•	X			
901/2	•	X	X	X	X	X	
1001/2	X	X	X	X	X	X	
1121/2	X	X	X	X			

(Centrifugal fans - models APRED, APRFD, APRGD)

High pressure, belt drive centrifugal fans - Series:																
Model	APEc		APFc		APGc		APRFc		APRGc		APRHc		APRIc		APRLc	
	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw
351/2	✓	X														
401/2	•	X														
451/2	•	X														
501/2	•	X	•	X	•	X			•	X						
561/2	•	X	•	X	•	X			X	X	X	X				
631/2	•	X	•	X	X	X	•	X	X	X	X	X	X	X	X	X
711/2	•	X	X	X	X	X	•	X	X	X	X	X	X	X	X	X
801/2	X	X	•	X	X	X	•	X	X	X	X	X	X	X	X	X
901/2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1001/2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1121/2					X	X	X	X	X	X	X	X	X	X	X	X
1251/2							X	X	X	X	X	X	X	X	X	X
1401/2							X	X	X	X	X	X	X	X	X	X
1601/2							X	X	X	X	X	X	X	X	X	X
1801/2							X	X	X	X	X	X	X	X	X	X

(Centrifugal fans - models APEc, APFc, APGc, APRFc, APRGc, APRHc, APRIc, APRLc)

High pressure centrifugal fans, with direct coupling by joint (N8) - Series:												
Electric motor	Model	APRF		APRG		APRH		APRI		APRL		
		Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	
4 poles	1001/2										•	X
	1121/2	✓	X	✓	X	•	X	•	X	•	X	
	1251/2	✓	X	•	X	•	X	•	X	•	X	
	1401/2	•	X	•	X	•	X	X	X	X	X	
	1601/2	•	X	X	X	X	X	X	X	X	X	
	1801/2	•	X	X	X	X	X	X	X	X		
6 poles	1401/2										•	X
	1601/2										•	X
	1801/2										X	X

(Centrifugal fans - models APRF/N8, APRG/N8, APRH/N8, APRI/N8, APRL/N8)

		Medium pressure, direct drive centrifugal fans - Series:																	
Electric motor	Model	EU		EUM		MPR		TR		TPA		TQ		TF		TG		TH	
		Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw
2 poles	221/2	✓	✓							✓	•								
	251/2	✓	✓							✓	•								
	281/2	✓	•							✓	•								
	311/2	✓	•	✓	•					✓	X								
	351/2	✓	•	✓	•	✓	•			✓	X								
	401/2	✓	X	✓	X	✓	•	✓	•	•	X					✓	•	•	X
	451/2	•	X	✓	X	✓	•	✓	•	•	X					•	X	•	X
	501/2	•	X	•	X	✓	X	✓	•					•	X	•	X	•	X
	561/2	•	X	•	X	•	X	✓	X					•	X	•	X	•	X
	631/2			•	X			•	X					•	X	X	X	X	X
	711/2													X	X	X	X		
801/2													X	X	X	X			
4 poles	631/2	✓	•	✓	•			✓	•			✓	•					✓	X
	711/2	✓	•	✓	•			✓	•			✓	X					✓	X
	801/2	✓	X	✓	X			✓	•			✓	X	✓	X	•	X	•	X
	901/2	•	X	✓	X			✓	X			•	X	•	X	•	X	•	X
	1001/2	•	X	•	X			•	X					•	X	•	X	•	X
	1121/2	•	X	•	X			•	X							X	X	X	X
	1251/2			•	X			•	X										
	1401/2							X	X										
6 poles	1401/2			•	X														

(Centrifugal fans - models EU, EUM, MPR, TR, TPA, TQ, TF, TG, TH)

Medium pressure, belt drive centrifugal fans - Series:																
Model	EUc		EUMc		TRc		TTRc		TFc		TGc		THc		MPRc	
	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw
221/2	✓	•														
251/2	✓	•														
281/2	✓	X														
311/2	•	X	✓	X												
351/2	•	X	✓	X											✓	X
401/2	•	X	•	X	•	X					•	X	•	X	•	X
451/2	•	X	•	X	•	X					•	X	•	X	•	X
501/2	•	X	•	X	•	X			•	X	•	X	•	X	•	X
561/2	•	X	•	X	•	X	•	X	•	X	X	X	•	X	•	X
631/2	•	X	•	X	•	X	•	X	•	X	•	X	•	X		
711/2	•	X	•	X	•	X	X	X	•	X	•	X	X	X		
801/2	•	X	•	X	•	X	X	X	•	X	•	X	X	X		
901/2	•	X	•	X	•	X	X	X	•	X	X	X	X	X		
1001/2	•	X	•	X	•	X	X	X	X	X	X	X	X	X		
1121/2	•	X	X	X	•	X	X	X			X	X	X	X		
1251/2	•	X	X	X	X	X	X	X								
1401/2	•	X	X	X	X	X	X	X								
1601/2	•	X	X	X	X	X	X	X								
1801/2	X	X	X	X	X	X										
2001/2	X	X	X	X	X	X										

(Centrifugal fans - models EUc, EUMc, TRc, TTRc, TFc, TGc, THc, MPRc)

Low pressure, belt drive axial fans - Series:		
Model	EVc	
	Lp	Lw
400	✓	X
500	•	X
630	✓	X
710	•	X
800	•	X
900	•	X
1000	•	X
1120	•	X
1250	•	X
1400	•	X

(Axial fans models EVc)

		Low pressure, direct drive axial fans - Series:					
Electric motor	Model	EVP-EVF-EVL (HZ 50)		EVP-EVF-EVL (HZ 60)		EVT	
		Lp	Lw	Lp	Lw	Lp	Lw
2 poles	315	✓	•	•	X		
	355	✓	•	•	X		
	400	✓	X	•	X		
	450	•	X				
	500	•	X				
	560	•	X				
	630	X	X				
4 poles	315	✓	✓	✓	✓		
	355	✓	✓	✓	•		
	400	✓	✓	✓	•		
	450	✓	•	✓	•		
	500	✓	•	✓	•		
	560	✓	•	✓	X	✓	•
	630	✓	•	✓	X	✓	•
	710	✓	•	•	X	✓	•
	800	✓	X	•	X	✓	X
	900	•	X	•	X		
	1000	•	X				
	1120	•	X				
6 poles	630	✓	•	✓	•	✓	•
	710	✓	•	✓	•	✓	•
	800	✓	•	✓	X	✓	•
	900	✓	•	✓	X	✓	•
	1000	✓	•	•	X	✓	•
	1120	✓	X	•	X		
	1250	•	X				
	1400	•	X				
8 poles	1120	✓	•	•	X		
	1250	✓	X	•	X		
	1400	✓	X	•	X		

(Axial fans models EVP, EVF, EVL, EVT)

		Low pressure, direct drive centrifugal fans - Series:					
Electric motor	Model	BP		BPR		BT	
		Lp	Lw	Lp	Lw	Lp	Lw
2 poles	161	✓	✓				
	201	✓	•				
	221	✓	X				
	251	•	X				
	281						
	311						
	351			✓	X		
	401			✓	X		
	451			•	X		
	501			•	X		
4 poles	161	✓	✓				
	201	✓	✓				
	221	✓	✓				
	251	✓	✓				
	281	✓	✓				
	311	✓	•				
	351	✓	•	✓	✓	✓	✓
	401	✓	X	✓	•	✓	•
	451	•	X	✓	•	✓	•
	501	•	X	✓	•	✓	•
	561			✓	•	✓	X
	631			✓	X	✓	•
	711			✓	X		
	801			•	X		
	901			•	X		
1001			•	X			

(Centrifugal fans - models BP, BPR, BT)

		Low pressure, direct drive centrifugal fans - Series:					
Electric motor	Model	BP		BPR		BT	
		Lp	Lw	Lp	Lw	Lp	Lw
6 poles	311	✓	✓				
	351	✓	✓				
	401	✓	•				
	451	✓	X				
	501	✓	•	✓	✓	✓	✓
	561			✓	✓	✓	•
	632			✓	•	✓	•
	711			✓	•		
	801			✓	X		
	901			✓	X		
	1001			✓	X		
	1121			•	X		
	1251			•	X		
1401			•	X			
8 poles	631					✓	✓

(Centrifugal fans - models BP, BPR, BT)

Low pressure, belt drive centrifugal fans - Series:						
Model	BPRc		BPc		BPRDc	
	Lp	Lw	Lp	Lw	Lp	Lw
251/2			✓			
281/2			✓			
311/2			✓	•		
351/2			✓	•		
401/2	•	X	✓	•		
451/2	•	X	✓	•		
501/2	•	X	•	•	•	X
561/2	•	X	✓	•	•	X
631/2	•	X	•	X	•	X
711/2	•	X	•	X	•	X
801/2	•	X	•	X	•	X
901/2	•	X	•	X	•	X
1001/2	•	X	•	X	•	X
1121/2	•	X			•	X
1251/2	X	X			•	X
1401/2	X	X			•	X
1601/2	X	X				
1801/2	•	X				
2001/2	•	X				

(Centrifugal fans - models BPc, BPRc, BPRDc)