Axial fan LPMA

Model

Axial fan LPMA

The LMPA fan is suitable for comfort ventilation, industrial installations and ventilation in stables.

There are fans for wall-mounting and for duct connection.

The fan motors are placed directly in the air flow. For this reason, the temperature of the transported air is limited to 40°C. The air must not contain aggressive or dangerously explosive components.

LPMA-1

Facts

Flow range: 0.13–7 m^3/s

Pressure range: 0–600 Pa

Max. gas temp.: 40°C

Type of impeller: Axial

Design

LPMA An1 Wall-mounting

Like other parts of the design, the frame is streamlined and made of Aluzinc sheet metal. A touch guard is included as standard and is mounted between the motor and impeller.

LPMA-6

LPMA An6 Duct connection

The casing is manufactured from Aluzinc sheet metal and both ends are equipped with lacquered connection flanges. The casing features an inspection cover and a cable inlet as standard.

Axial fan impeller

The wings of the axial fan impeller are made of plastic and its hub is of silumin. The standard impeller can work within the temperature range –40°C to +80°C.

Optional accessories

No.	Designation	Item No.	Comment
1	Protective guard	GOCA1aaa	Only LPMA An6 Duct connection
2	Sleeve coupling L = 100 flange	POAA1aaa	Only LPMA An6 Duct connection
3	Flange inlet, painted	FODA1aaa1	Only LPMA An6 Duct connection
4	Frame tripod LPMA	LPMZ1aaa14	Only LPMA An6 Duct connection

Painting

No.	Designation	Item No.	Comment
1	Set-up cost painting LPM M2 (C2)	LPMZ1811	
2	Set-up cost painting LPM M3/Epoxy C4	LPMZ1812	
3	Radial fan painting Customer spec. Colour	LPMZ1aaa913	RAL colour code when ordering.

Axial fan LPMA – Specifications

Prod. No./Fan code =	LPMA	-	A	-	BBB	-	C	-	D
Design									
Wall-assembly			1						
Duct connection			6						
Size									
031					031				
035					035				
040					040				
045					045				
050					050				
056					056				
060					060				
063					063				
071					071				
Rotation speed [rpm]									
750							8		
1,000							6		
1,500							4		
3,000							2		
Voltage									
3 × 230/400 V									1
3 × 400/660 V									2
3 × 500 V									3
3 × 230/400 V Thermo-contact									8
3 × 400/660 V Thermo-contact									9

Motor data LPMA with 3-phase motors

8-pole/750 rpm

LPMA	IEC	Power [kW]	Nominal current [A] at 400 V
031	71	0.09	0.55
035	71	0.09	0.55
040	71	0.09	0.55
045	71	0.09	0.55
050	71	0.09	0.55
056	80	0.18	0.77
060	80	0.18	0.77
063	90S	0.37	1.44
071	90L	0.55	1.83

6-pole/1,000 rpm

LPMA	IEC	Power [kW]	Nominal current [A] at 400 V
031	71	0.18	0.77
035	71	0.18	0.77
040	71	0.18	0.77
045	71	0.18	0.77
050	71	0.18	0.77
056	71	0.18	0.77
060	80	0.37	1.11
063	90S	0.75	1.95
071	90L	1.1	2.9

4-pole/1,500 rpm

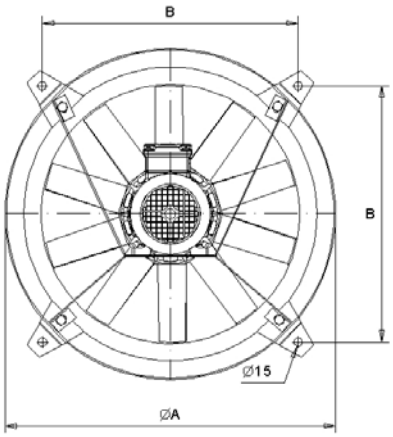
LPMA	IEC	Power [kW]	Nominal current [A] at 400 V
031	71	0.25	0.78
035	71	0.25	0.78
040	71	0.25	0.78
045	71	0.25	0.78
050	71	0.37	1.06
056	80	0.75	1.77
060	90L	1.5	3.26
063	100L	2.2	4.74
071	112M	4	8.15

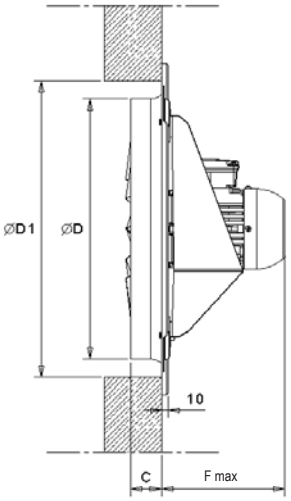
2-pole/3,000 rpm

LPMA	IEC	Power [kW]	Nominal current [A] at 400 V
031	71	0.37	0.89
035	71	0.55	1.18
040	80	1.1	2.36
045	90L	2.2	4.56
050	112M	4	7.55
056			
060			
063			
071			

Dimensions LPMA-1

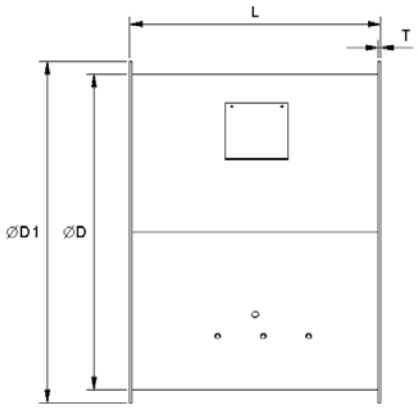
LPMA 1	A	B	C	D	D1	F	Weight [kg]
031	425	340	50	315	355	240	14
035	470	368	50	350	390	240	15
040	525	406	50	400	440	240	15
045	575	443	55	450	490	300	26
050	630	482	55	500	540	355	50
056	710	538	55	560	600	240	26
060	745	563	55	600	640	300	35
063	780	586	55	630	670	330	50
071	865	647	55	710	750	355	65

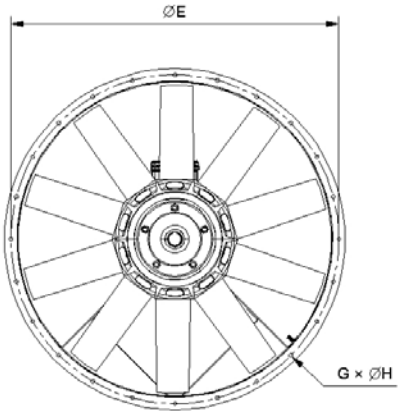




Dimensions LPMA-6

LPMA 6	D1	D	E	G	H	L	T	Weight [kg]
031	380	315	352	12	10	325	5	20
035	415	350	385	12	10	350	5	22
040	465	400	435	12	10	350	5	25
045	515	450	485	12	10	450	5	37
050	565	500	535	16	10	485	5	61
056	625	560	595	16	10	485	5	37
060	685	600	645	16	12	485	6	53
063	720	630	677	16	12	485	6	73
071	800	710	755	16	12	550	6	86



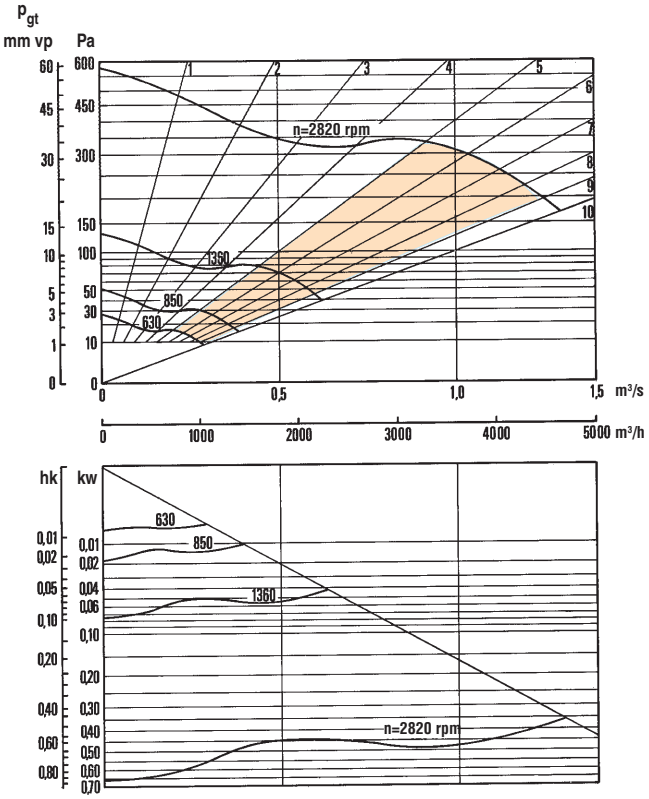


Capacity

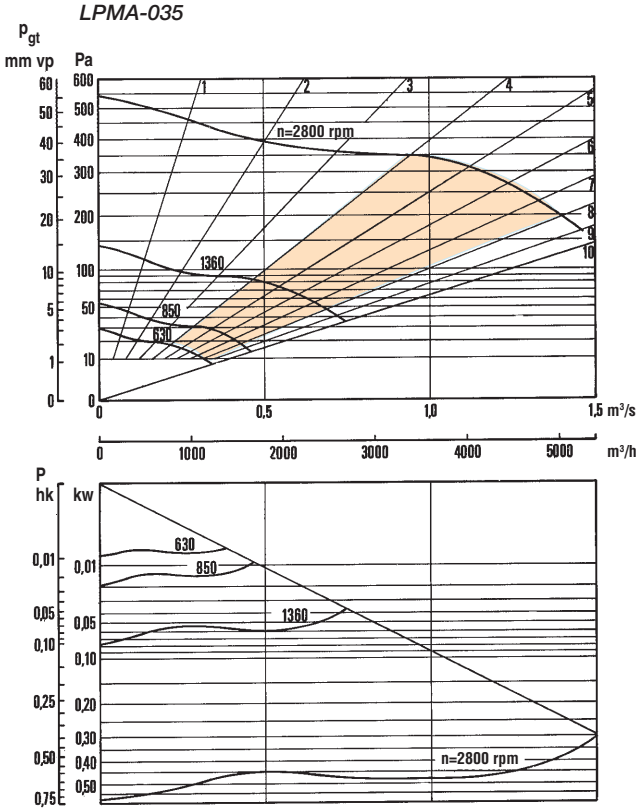
The diagrams apply for air with a density of 1.2 kg/m³.

The diagrams apply for an axial fan without a touch guard.

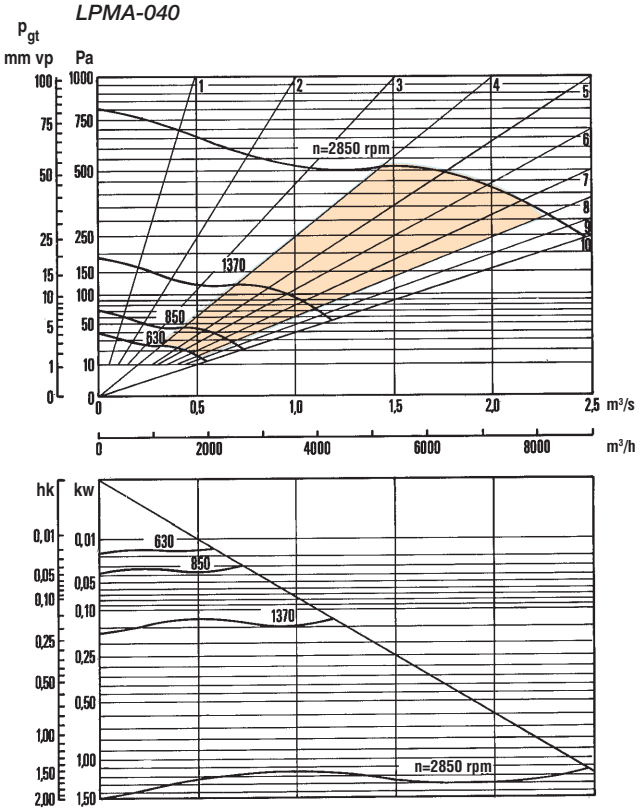
LPMA-031



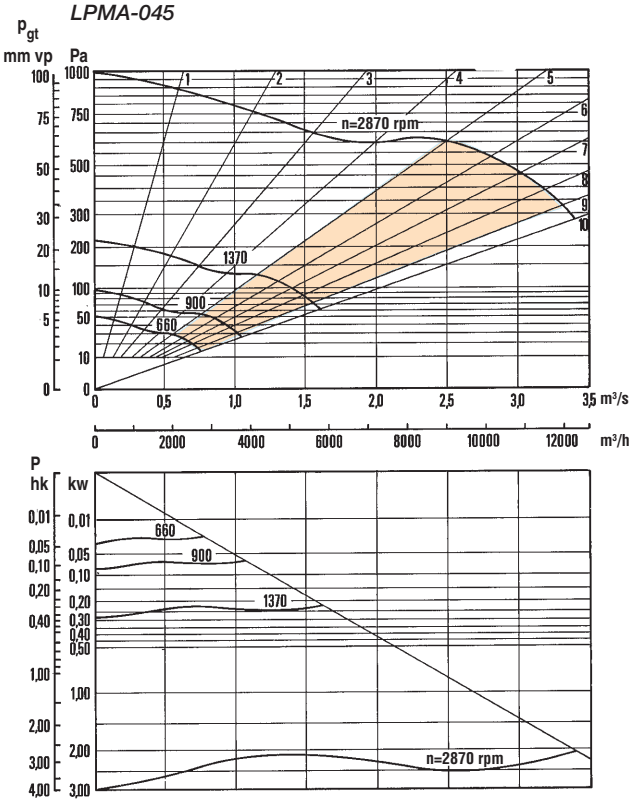
LPMA-035



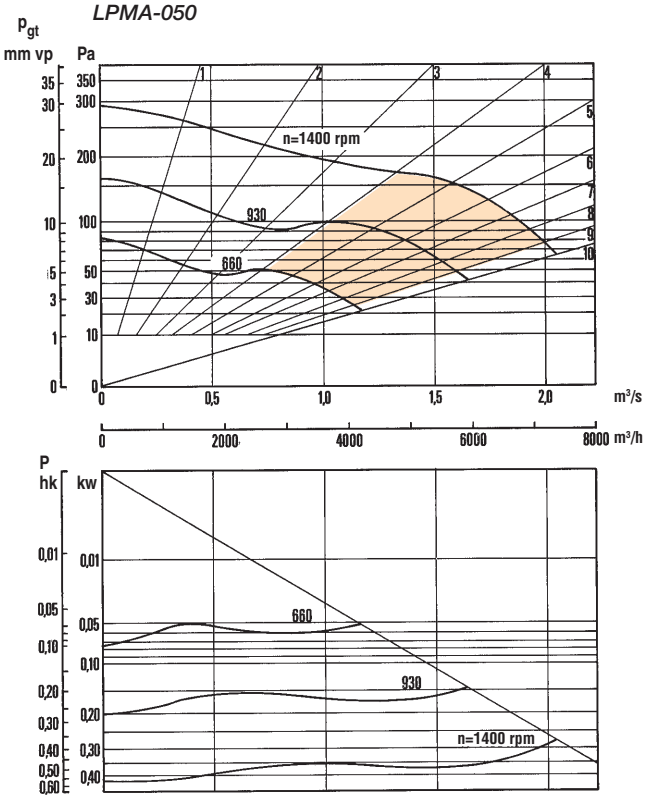
LPMA-040



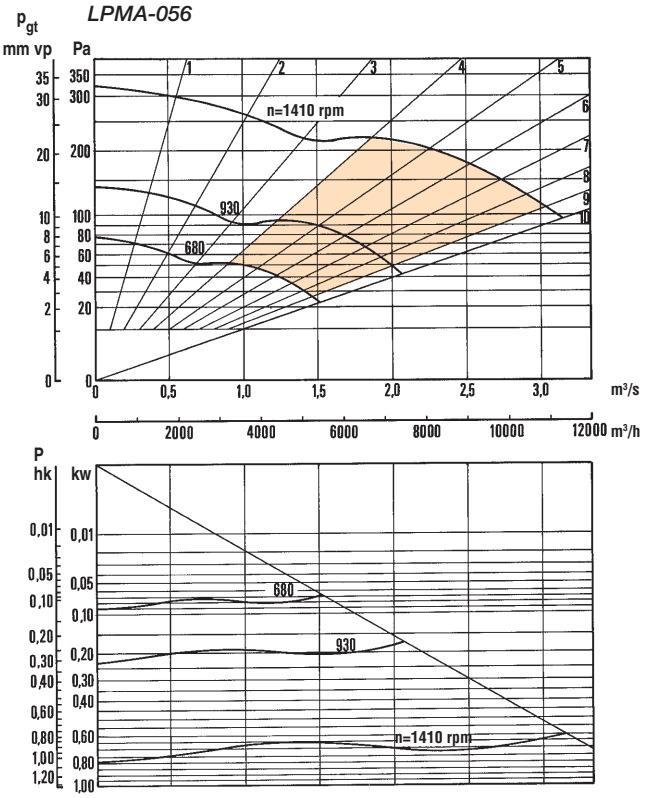
LPMA-045



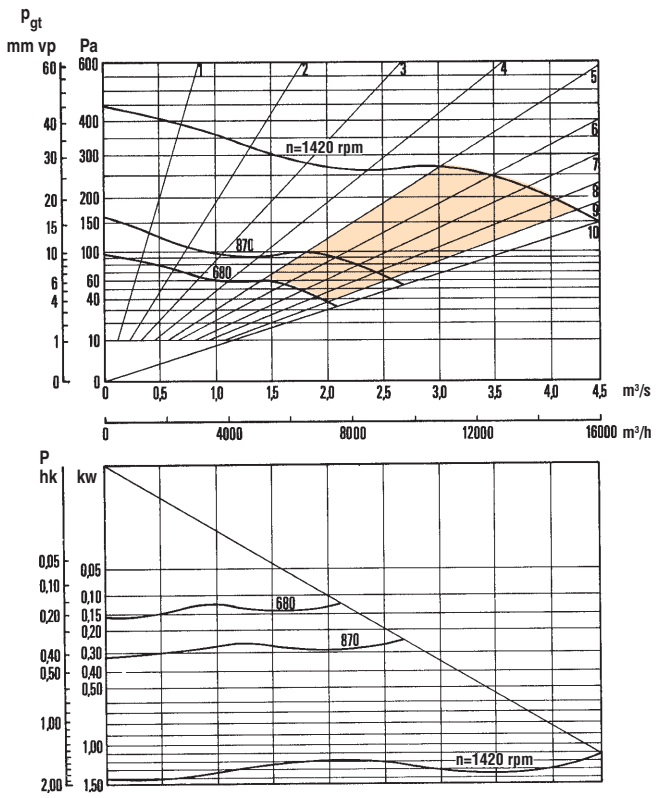
LPMA-050



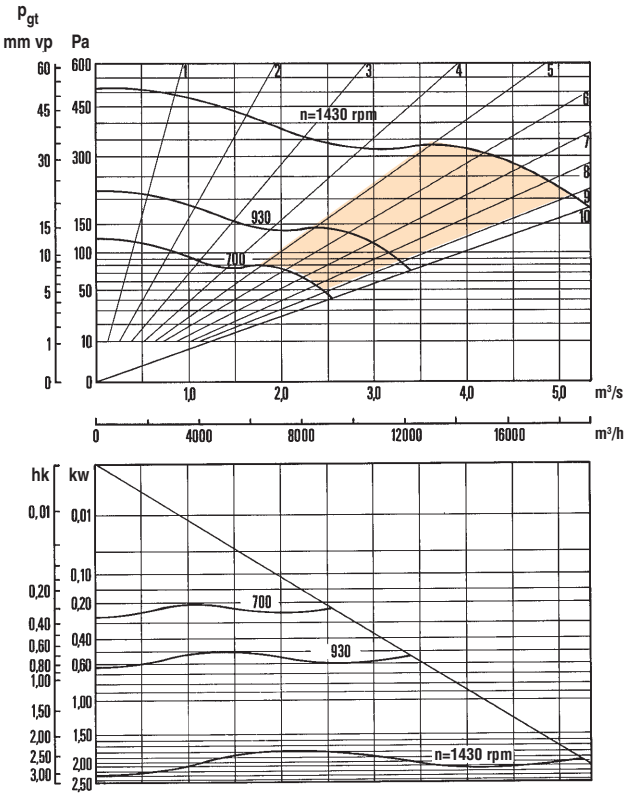
LPMA-056



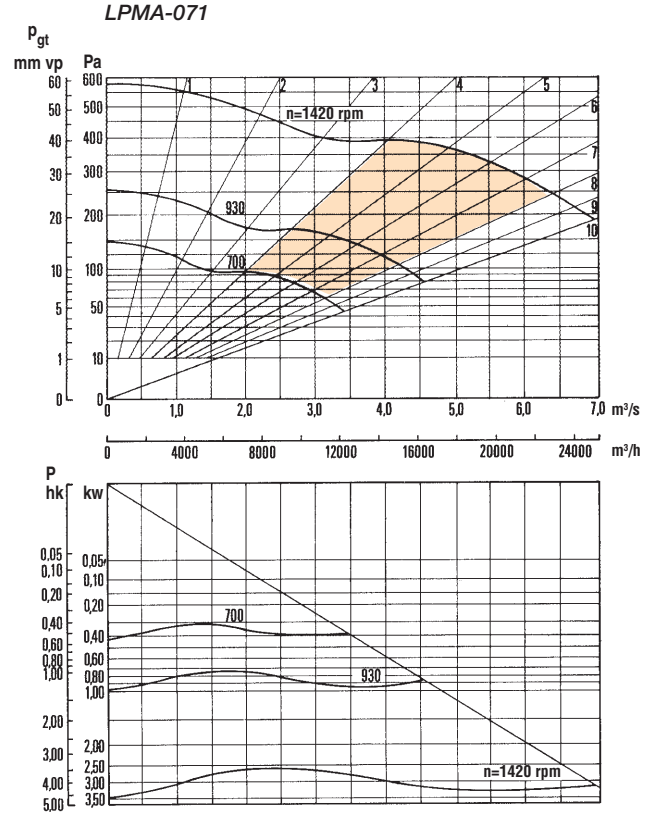
LPMA-060



LPMA-063

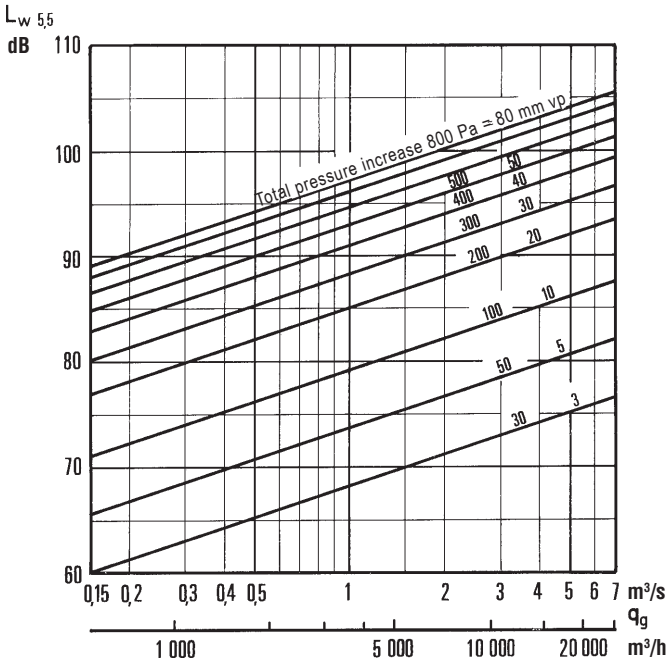


LPMA-071

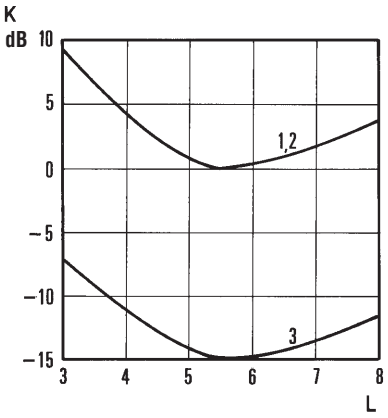


Audio data

Acoustic power level $L_{W\,5.5}$ to inlet or outlet duct



Correction K for different work lines and audio paths



Audio path 1: To connected input and output duct

Audio path 2: To fan room for a free-standing fan

Audio path 3: To fan room for a closed assembly

$$L_W = L_{W\,5.5} + K$$

$$L_{W\,ok} = L_W + K_{ok}$$

Approximate deviation K_{ok} from L_W for octave band 2–8 according to ISO-60 within work range L = 3–8

	Rotation speed range [rpm]							
Octave band, No.		2	3	4	5	6	7	8
Mean frequency, [Hz]		125	250	500	1,000	2,000	4,000	8,000
Curve 1	500-1,000	-3	-6	-9	-11	-14	-21	-30
	1,001-2,000	-5	-6	-7	-10	-13	-18	-27
	2,001-4,000	-10	-9	-6	-7	-8	-12	-20
Curve 2	500-1,000	-8	-7	-6	-5	-9	-12	-15
	1,001-2,000	-20	-8	-7	-6	-5	-8	-15
	2,001-4,000	-21	-19	-8	-7	-6	-5	-8
Curve 3	500-1,000	-3	-6	-9	-10	-13	-22	-34
	1,001-2,000	-7	-7	-7	-7	-10	-10	-27
	2,001-4,000	-9	-3	-6	-7	-8	-13	-21

Designations

L = Work line

$L_{W\,OK}$ = L_W divided up into respective octave band ..... dB (ref 10^{-12}W)

$L_{W\,5.5}$ = total acoustic power level at work line providing the lowest acoustic power level ..... dB

L_W = total acoustic power level ..... dB

K = correction for work line ..... dB

K_{ok} = approximate deviation from L_W for each octave band ..... dB