

AT Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



Type Code

AT 7 - 7 L

Construction Type
L/LK/R/RK/L2/R2

Width of Impeller

Diameter of Impeller

AT Series

AT Series Centrifugal Blower

1.Outline

AT series centrifugal ari-conditioning ventilators volum ranging from 1000m³/h-40000m³/h,they are characterized by compact construction.high etticiency and low noise.They are the ideal subsidiary equipment for various cabinet central air-conditioning units,tube units and heating, airconditioning,cleansing and ventilating equipments.

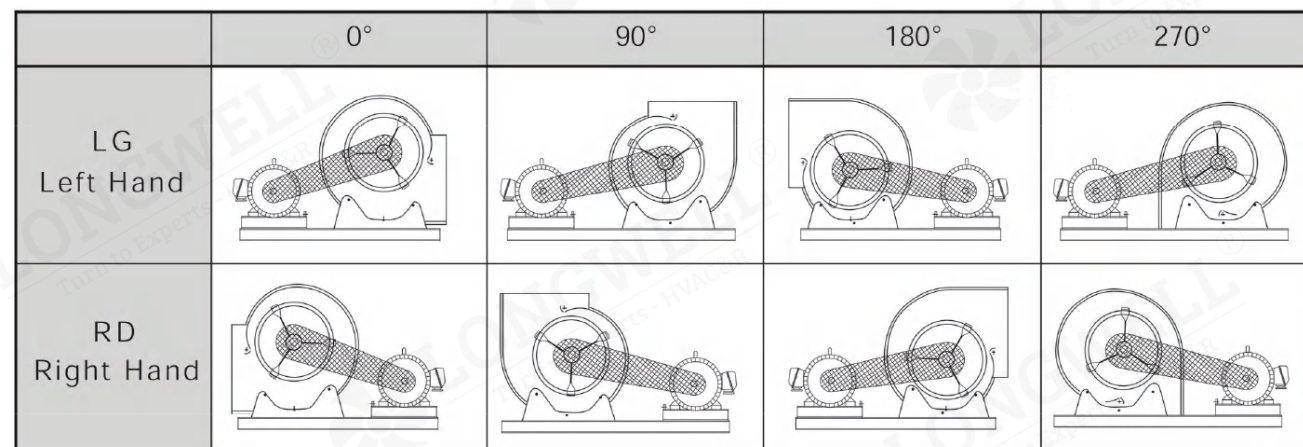
2.Type of Product

(1) Direction of Rotation

AT series ventilator can be devided into two direction of rotations,left-hand rotation (LG) and right hand rotation (RD):Viewing from end of motor outlet line,if the impeller rotates clockwise,it is called right hand ventilator;If the impellerrotates anti-clockwise,it is called left hand ventilator.The pulley can adjust its direction,left or right,therefore there is no limitation in directionality.

(2) Direction of Air Outlet

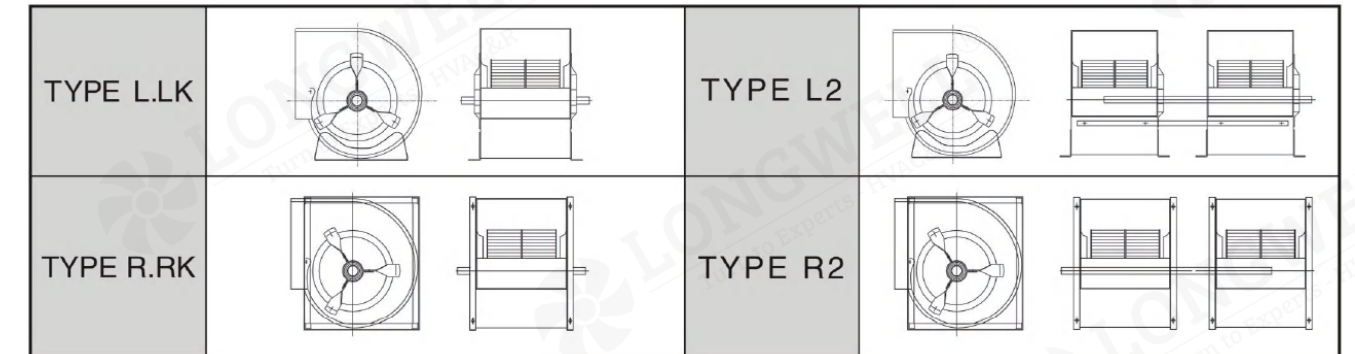
According to Fig 1.AT Series ventilator can be made in four air-outlet directions:0°,90°,180°, and 270°.



(Fig 1)

(3)Type of Structure

According to Fig 2,AT series ventilators can be divided into Category L.LK.R.RK Category L2.R2.



(Fig 2)

3.Construction of Product

AT series ventilators are mainly consisted of scroll,impeller,frame bearing and shaft.

(1) Scroll

The scroll is made of hot galvanizing steel sheet. Its side plate has an outline complying with aerodynamics.The scroll plat fixed to the side plates by means of "electric spot welding". On the side plate of the scroll there are a series of holes drilled in advance for riveting nuts to carry out installation according to air outlet direction needed by the customer.

(2) Impeller

The impeller is made of high grade hot galvanizing steel sheet and is designed to a special configuration according to aerodynamics to make the efficiency highest and the noise lowest. The impeller is fixed on the middle disk plate and on the end ring with riveting grippers.The impeller has enough rigidity during continous rotation with maximum power.Before leaving factory,all impellers have passed all-round dynamic balance test according to the Company Standard which is higher level than National Standard.

(3) Frame

The frames for type R ventilators are made of galvanized steel angle iron bars.Thecutting and bending of the frame parts,as well as the TOX connections,are formed with the use of molds to assure their high accuracy and the rigidity of the frames.

(4) Bearing

AT series ventilators are made of ball bearings of high quality, which are chosen according to the lowest noise produced. These bearings are air-sealed, with preset lubricating oil, and of automatic alignment. The bearings are assembled on the support and vibration-proof rings are also provided.

(5) Shaft

The shafts are made of 40Cr or C45 carbon steel bars. The shafts are rough machined and then stress relieved before final machining. The shaft diameters are machined to very accurate tolerance levels and they are fully checked to assure precision fits; they are coated after assembly in order to provide corrosion resistance.

4. Performance of Ventilator

1. The ventilator performance in this catalogue denotes the performance in standard conditions. It denotes air inlet conditions or ventilator as follows:

Air inlet pressure $P_a = 101.325 \text{ KPa}$ Air temperature $t = 20^\circ \text{C}$ Inlet gas density $\rho = 1.2 \text{ Kg/m}^3$

If the practical air inlet conditions of customer or the speed of the operating ventilator changes, the conversion can be carried out according to the following expression:

$$\frac{Q_o^*}{Q_o} = \frac{n^*}{n}$$

$$\frac{P_o^*}{P_o} = \frac{n^{*2}}{n^2} \cdot \frac{\rho^*}{\rho} \quad \frac{P_o^*}{P_o} = \frac{n^{*2}}{n^2} \cdot \frac{P_a^*}{P_a} \cdot \frac{273+t}{273+t^*}$$

$$\frac{N_{in_o}^*}{N_{in_o}} = \frac{n^{*3}}{n^3} \cdot \frac{\rho^*}{\rho} \quad \frac{N_{in_o}^*}{N_{in_o}} = \frac{n^{*3}}{n^3} \cdot \frac{P_a^*}{P_a} \cdot \frac{273+t}{273+t^*}$$

where:

- Volume $Q_o (\text{m}^3/\text{h})$, total pressure $P_o (\text{Pa})$, speed $n (\text{r/min})$ can be obtained from Performance chart.
- Asterisk (*) on the upper right corner denotes the performance parameter needed by the customers in practical gas inlet conditions.

- The difference in relative humidity is omitted from the abovementioned formulas.

2. The power (N_{in_o}) on the performance chart the internal power of the ventilator.

- Shaft power of ventilator: $N_s = N_{in_o} / \eta_m$

where: N_s - Shaft power of ventilator

η_m - Mechanical efficiency of ventilator

The value of mechanical efficiency of ventilator can be obtained from Table 1.

Way of Ventilator Driving	η_m
Electric Motor Directly Driven	1
Coupling Directly Driven	0.98
V-belt Driven	0.95

(Table1)

- Power of matching electric motor: $N = N_s / K$ here: N - Power of matching electric motor
 K - Safety coefficient of electric motor capacity

The value of safety coefficient of electric motor capacity can be from Table 2.

3. Comparing the performance of the twin ventilator of Category L2 and Category R2 with the performance of Category L and Category R in the chart, in the same condition of pressure, the twin ventilators' performance is as the following.

Volume x2 Speed x1.05 Inner Power x2.15 Noise +3

4. The performance of the sample ventilator is tested in accordance with GB/T1236-2000. Its noise index is measured according to GB/T 2888-2008 at the point 1 metre from the inlet.

Power of Electric Motor (Kw)	Value k
≤ 2.2	1.2
≤ 1.1	1.15
> 11	1.1

(Table2)

5. V-Belt Drive Installation

1. Remove the protective coating from the ends of the fan shaft and assure that the shaft ends are free of nicks and burrs.

2. Check fan and motor shafts for parallel and angular alignment.

3. The center distance must be controlled as $0.7(d_1 + d_2) < 2(d_1 + d_2)$; the belt speed of fan should be more than 10m/s, but less than 15m/s, ($10 < v < 15 \text{ m/s}$).

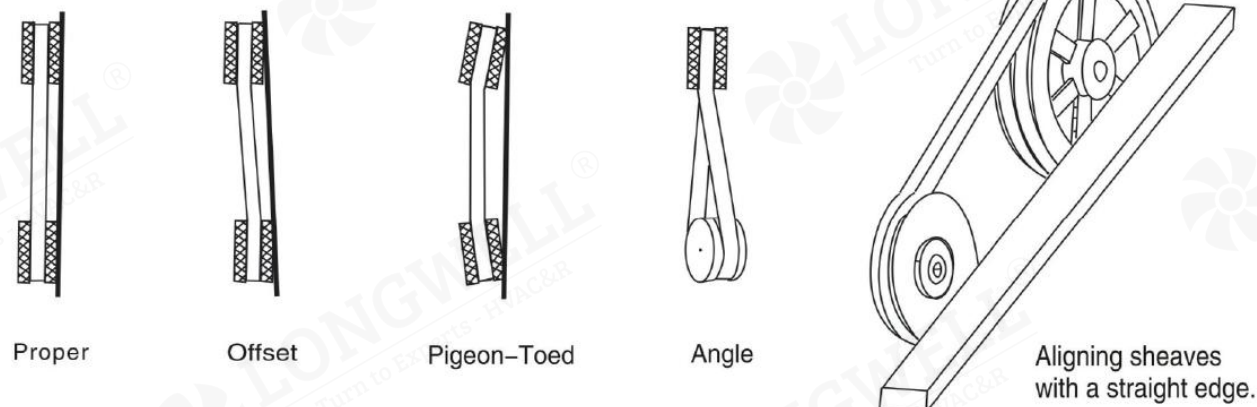
4. Slide sheaves on to the shafts - do not drive the sheaves on to the shafts as this may result in bearing damage.

5. Align fan and motor sheaves with a straight-edge or string, and tighten.

6. Place belts over the sheaves with care, otherwise the belts will be damaged.

7. Adjust the belt tension until the belts appear snug. Run the unit for a few minutes and allow the belts to set properly.

8. Switch off the fan, adjust the belt tension by moving the motor base. When in operation, the tight side of the belts should be in a straight line from sheave to sheave and there should be a slight bow on the slack side.

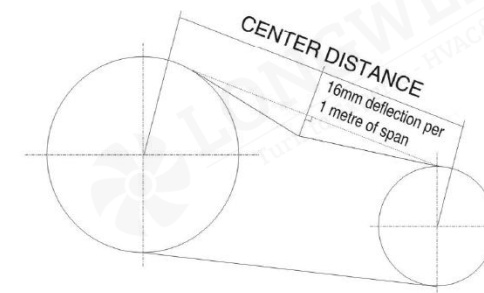


6.Belt Tenstion

A proper level of belt tension is required in order to obtain a satisfactory belt life.If the belt tension levelis too high,then excessive loads will be imposed on the bearings,and this will reduce the lives of both of these components.If the belt tension level is too low,then the belt will slip.Belt slippage generates a large amount of heat, and this beat will drastically reduce the life of a belt. Belt-tensioning gauges can be used to determine whether the belts are tensioned properly.A chart is normally supplied with the gauge which indicates the rangees of forces required to deflect the belts by a given amount to obtain the proper belt tension level.The required forces are based upon the center distance of the sheaves and the belt cross-section.the belts are properly tensioned when the forces required to deflect the belt are within the specified range.if a beltensioning gauge is not available,then the belt should be tightened just enough so that the belt does not squeal when the ventilator is started.A very short period of noise during the starting of a ventilator is allowable,but a squeal lasting several seconds or longer is not acceptable.After tensioning the belts and before starting the ventilator,check to make sure that the sheaves are properly aligned.Realign the sheaves if necessary.Note that new belts may stretch a little during initial use,so the belt tension level should be checked after a few days of operation.

Note:The belt should be released if the ventilator do not run in a long time,and until the fan is to be used over again,the bell tension level must to be just again.The rotor should be turned 180 degree at regular intervals when the ventilar don't use in a long time to avoid the static static state distortion of the shaft.

Belt tension indicator applied to mid centre distance.



Belt Section	Force required to deflect belt 16mm per metre of span		
	Smiall Pulle/Diamter(mm)	Newton(N)	Kilogram Force (Kgf)
SPZ	56-95	13-20	1.3-2.0
	100-140	20-25	2.0-2.5
SPA	80-132	25-35	2.5-3.6
	140-200	35-45	3.6-4.6
SPB	112-224	45-65	4.6-6.6
	236-315	65-85	6.6-8.7
SPC	224-335	85-115	8.7-11.7
	375-560	115-150	11.7-15.3
A	80-140	10-15	1.1-1.5
B	125-200	20-30	2.0-3.1

7.Bearing Lubrication

The ventilator bearings are filled with lubricant they come from the factory,so the bearings do not require any additional grease to be supplied before starting the ventilator.The ventilator that are equipped with pillow block bearings are provided with lubrication fittings,and these fittings allow for additional lubrication to be supplied to the bearings at regular intervals.The allowable period of time between lubrication of these bearings depends upon the operating speeds and temperatures of the bearing as well as on the type of grease used.The best way to determine the required frequency of lubrication is to inspect the condition of the grease that is discharged from the seals when new grease is added.If the discharged grease looks similar to the new grease, then a longer period of time between lubrications is possible.If the discharged grease is much darker than the new grease,the this indicates that the grease is being oxidized and more frequent lubrications of the bearings are required.

8.Instructions

- 1.Prior to installation, all parts of the ventilator should be inspected.Greatand careful attention should be taken to shaft,bearings and main parts for checking.If there is some damage,recovery should be made,then to install again for use.
- 2.Check the internal space of the scroll and other casings,tools and other extra matters should not be left inside.
- 3.After installation,turm its impeller by hand or by means of lever to check for tightness or shock. Make sure that there is no such phenomenon over there,trial operation can be carried out.
- 4.Matching electric motor power of ventilator denotes internal power plus mechanical loss during driving and safety coefficient of electric motor capacity in special operating condition,it does not

9. This fan is restricted for use in areas where air substances are noncorrosive and non-toxic, non-alkaline or where dust particles $< 150 \text{ mg/m}^3$, $-20^\circ\text{C} < \text{temperature} < 85^\circ\text{C}$. If special conditions during transportation, load and unload, it is strictly prohibited to shock the ventilators.

L-R
 DO NOT USE IN THIS AREA
 非使用区域

GAS DENSITY: 1.2 kg/m³ 气体密度

TOTAL EFFICIENCY η (%) 全压内效率

SHAFT POWER 1.5
 轴功率 (kW)

SOUND POWER LEVEL L_{WA} dB(A)
 声功率级 L_{WA} dB(A)

TOTAL PRESSURE P_t (Pa) 全压

IMPELLER ROTATIONAL SPEED n (r/min) 速度
 IMPELLER TIP SPEED U2 叶轮速度

VOLUME FLOW RATE
 风量 Q (1000m³/h)

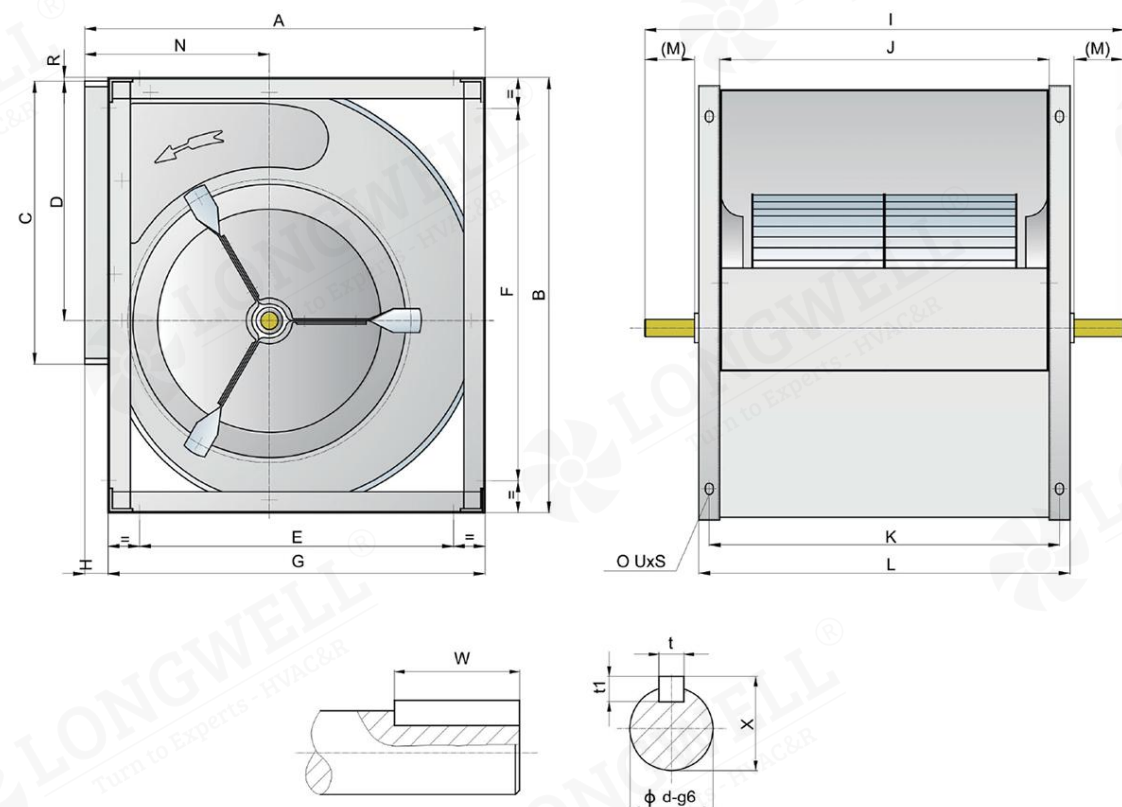
DYNAMIC PRESSURE
 动压 P_d (10Pa)

OUTLET VELOCITY
 出口速度 C (m/s)

[illegible]

Model	A	B	C	D	E	I	J	K	L	M	N	X	t	t1	W	d	H1	H2	H3	X1	X2	X3
AT7-7L	312	327.5	228	192	160	360	259	289	319	35.5	152	22.5	6	6	30	20	215	185	155	80	80	80
AT8-8L	345	364	256	216	190	400	287	317	347	41.5	164	22.5	6	6	30	20	239	204	175	95	80	95
AT9-7L	380	387	262	215	260	360	232	262	292	49	185	22.5	8	6	30	20	236	195	173	127.5	100	90
AT9-9L	380	387	262	215	260	430	298	328	358	51	185	22.5	8	6	30	20	236	195	173	127.5	100	90
AT10-8L	425	444	289	249	300	400	265	295	325	52.5	203	28	8	7	40	25	273	225	198	143	150	100
AT10-10L	425	444	289	249	300	480	331	361	391	59.5	203	28	8	7	40	25	273	225	198	143	150	100
AT12-9L	491.5	521.5	341	294	370	470	309	339	369	57	230	28	8	7	50	25	314.5	275	241	190	150.5	163
AT12-12L	491.5	521.5	341	294	370	550	395	425	455	54	230	28	8	7	54	25	314.5	275	241	190	150.5	163
AT15-11L	569	622	404	342	430	540	373	403	433	64	264	28	8	7	50	25	363	324	280	214	182	204
AT15-11LK	569	622	404	342	430	540	373	403	433	72	264	33	8	7	40	30	363	324	280	214	182	204
AT15-15L	569	622	404	342	430	640	471	501	531	65	264	28	8	7	50	25	363	324	280	214	182	204
AT15-15LK	659	622	404	342	430	640	471	501	531	65	264	33	8	7	65	30	363	324	280	214	182	204
AT18-13L	683	739	478	415	540	600	430	460	490	61.5	314	28	8	7	55	25	440	385	340	270	270	270
AT18-13LK	683	739	478	415	540	600	430	460	490	61	314	38	10	8	60	35	440	385	340	270	270	270
AT18-18L	683	739	478	415	540	720	557	587	617	58	314	28	8	7	55	25	440	385	340	270	270	270
AT18-18LK	683	739	478	415	540	720	557	587	617	87	314	38	10	8	70	35	440	385	340	270	270	270

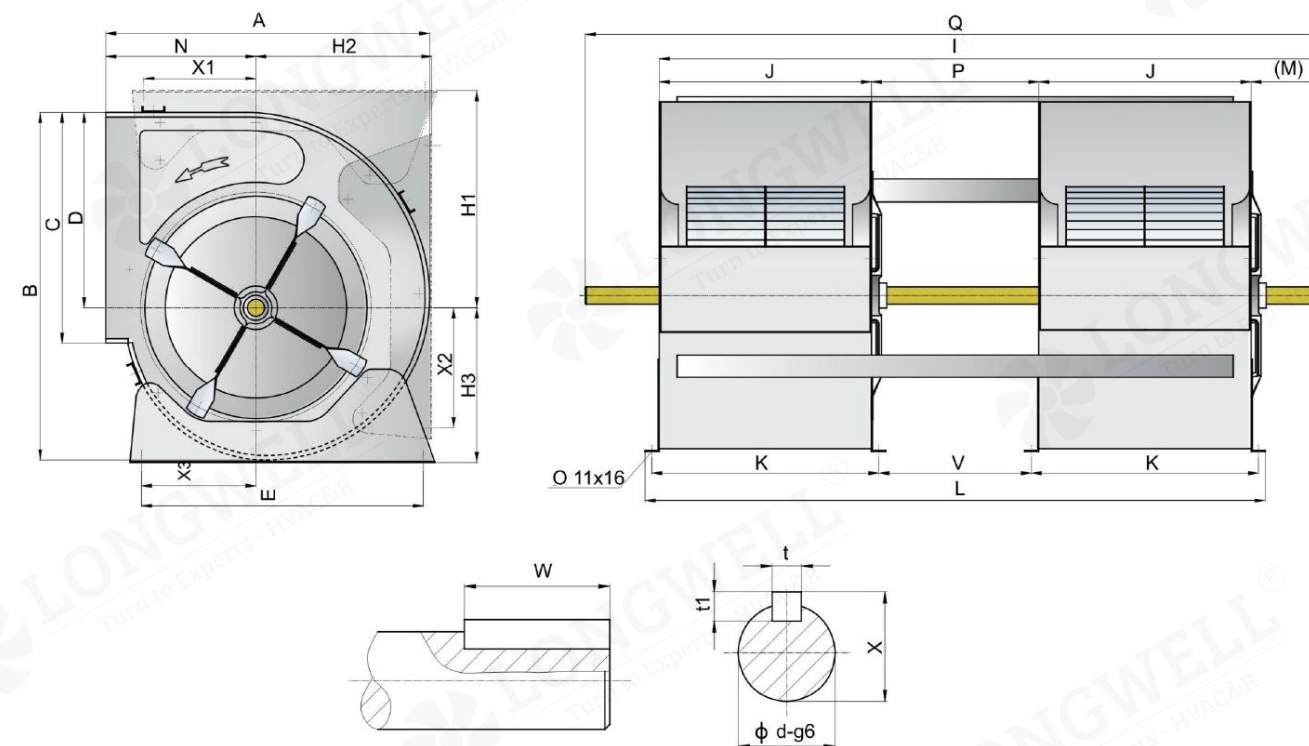
AT - R(RK)



Technical Specifications

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	t	t1	W	X	d	U×S
AT7-7R	323	336	228	192	180	180	294	29	400	259	281	299	50	152	6	6	6	40	22.5	20	9×12
AT8-8R	348	370	256	216	224	224	314	34	450	287	312	337	55	164	3	6	6	40	22.5	20	9×12
AT9-7R	385	399	262	215	274	324	349	36	390	232	254	272	58	185	6	6	6	40	22.5	20	9×12
AT9-9R	385	399	262	215	274	324	349	36	460	298	320	338	60	185	6	6	6	40	22.5	20	9×12
AT10-8R	431	455	289	249	330	390	395	36	425	265	287	305	59	203	6	8	7	40	28	25	11×16
AT10-10R	431	455	289	249	371	390	395	36	490	331	353	371	58	203	6	8	7	40	28	25	11×16
AT12-9R	494	527	341	294	371	443	458	36	490	309	339	369	59	230	3	8	7	50	28	25	11×16
AT12-12R	494	619	341	294	371	443	458	36	580	395	425	455	61	230	3	8	7	40	28	25	11×16
AT15-11R	575	619	402	294	449	531	539	36	590	373	403	433	77	266.7	4	8	7	50	28	25	11×16
AT15-11RK	575	619	402	343	449	531	539	36	625	373	403	433	99	266.7	4	8	7	65	33	30	11×16
AT15-15R	575	619	402	343	449	531	539	36	680	471	501	531	73	266.7	4	8	7	50	28	25	11×16
AT15-15RK	575	619	402	343	449	531	539	36	725	471	501	531	100	266.7	4	8	7	65	33	30	11×16
AT18-13R	690	751	478	415	544	641	654	36	660	430	470	510	74	314	6	8	7	55	28	25	11×16
AT18-13RK	690	751	478	415	544	641	654	36	660	430	470	510	89	314	6	10	8	55	38	35	11×16
AT18-18R	690	751	478	415	544	641	654	36	780	557	597	637	70	314	6	8	7	55	28	25	11×16
AT18-18RK	690	751	478	415	544	641	654	36	780	557	597	637	89	314	6	10	8	70	38	35	11×16

AT - L2

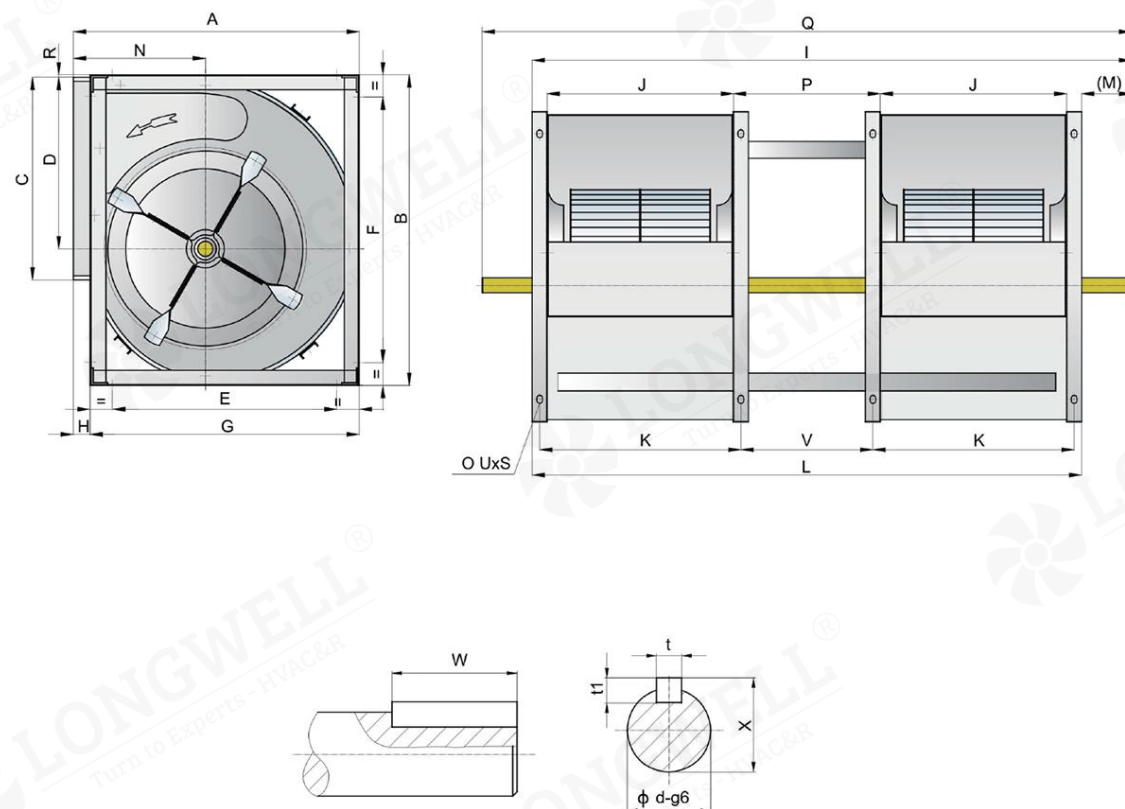


Technical Specifications

Model	A	B	C	D	E	I	J	K	L	M	N	X	t	t1	W	d	H1	H2	H3	X1	X2	X3	P	Q	V
AT7-7L2	312	327.5	228	192	160	/	259	289	762	80	152	22.5	6	6	50	20	215	185	155	80	80	80	184	860	154
AT8-8L2	345	364	256	216	190	/	287	317	848	96	164	22.5	6	6	50	20	239	204	175	95	80	95	214	980	184
AT9-7L2	380	387	262	215	260	/	232	262	708	91	185	22.5	8	6	60	20	236	195	173	127.5	100	90	184	830	154
AT9-9L2	380	387	262	215	260	/	298	328	900	90	185	28	8	7	60	25	236	195	173	127.5	100	90	244	1020	214
AT10-8L2	425	444	289	249	300	/	265	295	804	90.5	203	28	8	7	60	25	273	222	198	143	110	100	214	925	184
AT10-10L2	425	444	289	249	300	/	331	361	986	89.5	203	28	8	7	60	25	273	225	198	143	110	100	264	1105	234
AT12-9L2	491.5	521.5	341	294	370	/	309	339	922	109	230	28	8	7	60	25	314.5	275	241	190	150.5	163	244	1080	214
AT12-12L2	491.5	521.5	341	294	370	1224	395	425	1174	110	230	33	8	7	80	30	314.5	275	241	190	150.5	163	324	/	294
AT15-11L2	569	622	404	342	430	1170	373	403	1100	130	264	33	8	7	90	30	362.5	324	280	214	182	204	294	/	264
AT15-15L2	569	622	404	342	430	1456	471	501	1386	130	264	33	8	7	90	30	362.5	324	280	214	182	204	384	/	354
AT18-13L2	683	739	478	415	540	1343	430	460	1263	140	314	28	10	8	90	35	440	385	340	270	270	270	343	/	313
AT18-18L2	683	739	478	415	540	1702	557	587	1632	130	314	38	10	8	90	35	440	385	340	270	270	270	458	/	428

Note: AT7-7 to AT12-9 series fans are double-shaft extension
AT12-12 to AT18-18 series fans are single-shaft extension

AT - R2



Technical Specifications

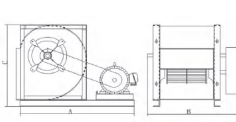
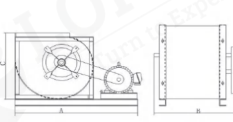
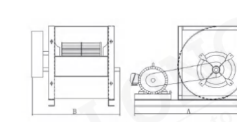
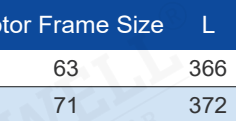
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	t	t1	W	X	d	U×S	P	Q	V
AT7-7R2	323	336	228	192	180	180	294	29	/	259	281	742	50	152	6	6	6	60	22.5	20	9×12	184	880	162
AT8-8R2	348	370	256	216	224	224	314	34	/	287	312	838	55	164	3	6	6	60	22.5	20	9×12	214	980	189
AT9-7R2	385	399	262	215	274	324	349	36	/	232	254	688	58	185	6	6	6	60	22.5	20	9×12	184	830	162
AT9-9R2	385	399	262	215	274	324	349	36	/	298	320	880	60	185	6	6	6	60	22.5	20	9×12	244	1020	222
AT10-8R2	431	455	289	249	330	390	395	36	/	265	287	784	59	203	6	8	7	60	28	25	11×16	214	925	192
AT10-10R2	431	455	289	249	330	390	395	36	/	331	353	966	58	203	6	8	7	60	28	25	11×16	264	1105	242
AT12-9R2	494	527	341	294	371	443	458	36	/	309	339	918	59	230	3	8	7	60	28	25	11×16	244	1080	214
AT12-12R2	494	527	341	294	371	443	458	36	1274	395	425	1174	61	230	3	8	7	90	33	25	11×16	324	/	294
AT15-11R2	575	619	402	294	449	531	539	36	1200	373	403	1100	77	266.7	4	8	7	90	33	25	11×16	294	/	264
AT15-15R2	575	619	402	343	449	531	539	36	1486	471	501	1386	73	266.7	4	8	7	90	33	25	11×16	384	/	354
AT18-13R2	690	751	478	415	544	641	654	36	1383	430	470	1283	74	314	6	8	7	90	38	25	11×16	343	/	303
AT18-18R2	690	751	478	415	544	531	654	36	1752	557	597	1652	70	314	6	8	7	90	38	25	11×16	458	/	418

AT - L(LK)

		0°				90°				180°			
LG													
RD													
Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
7-7	63	374	600	390	409	339	620	390	335	359	600	390	405
	71	379	620	390	409	365	660	390	335	365	620	390	405
	80	402	660	390	409	390	700	390	335	390	660	390	405
	90	463	740	390	409	414	740	390	335	454	740	390	405
8-8	63	388	620	430	449	355	660	430	358	370	620	430	448
	71	412	660	430	449	342	660	430	358	396	660	430	448
	80	434	700	430	449	367	700	430	358	420	700	430	448
	90	456	740	430	449	430	780	430	358	444	740	430	448
9-7	71	432	700	390	481	388	700	390	428	414	700	390	438
	80	455	740	390	481	412	740	390	428	439	740	390	438
	90	476	780	390	481	435	780	390	428	462	780	390	438
	100	498	820	390	481	458	820	390	428	486	820	390	438
9-9	112	517	860	390	481	538	920	390	428	508	860	390	438
	71	432	700	460	481	388	700	460	428	414	700	460	438
	80	455	740	460	481	412	740	460	428	439	740	460	438
	90	476	780	460	481	435	780	460	428	462	780	460	438
10-8	100	498	820	460	481	458	820	460	428	486	820	460	438
	112	517	860	460	481	538	920	460	460	508	860	460	438
	71	465	740	430	535	440	780	430	472	439	740	430	438
	80	487	780	430	535	464	820	430	472	464	780	430	487
10-10	90	507	820	430	535	486	860	430	472	487	820	430	487
	100	528	860	430	535	469	860	430	472	510	860	430	487
	112	565	920	430	535	548	960	430	472	551	920	430	487
	80	487	780	510	535	464	820	510	472	464	780	510	487
10-10	90	507	820	510	535	486	860	510	472	487	820	510	487
	100	528	860	510	535	469	860	510	472	510	860	510	487
	112	565	920	510	535	548	960	510	472	551	920	510	487

L=Center distance between fan and motor pulley
the size unit the form is mm

AT - R(RK)

		0°				90°				180°			
													
													
Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
7-7	63	366	600	398	376	334	620	398	363	355	600	398	376
	71	372	620	398	376	361	660	398	363	402	660	398	376
	80	396	660	398	376	385	700	398	363	428	700	398	376
	90	458	740	398	376	409	740	398	363	453	740	398	376
8-8	63	381	620	484	410	352	660	484	383	364	620	484	410
	71	405	660	484	410	378	700	484	383	391	660	484	410
	80	428	700	484	410	402	740	484	383	417	700	484	410
	90	450	740	484	410	426	780	484	483	441	740	484	410
9-7	71	423	700	418	439	382	700	418	425	414	700	418	410
	80	447	740	418	439	406	740	418	425	439	740	418	439
	90	469	780	418	439	429	780	418	425	462	780	418	439
	100	492	820	418	439	452	820	418	425	486	820	418	439
9-9	112	512	860	418	439	532	920	418	425	508	860	418	439
	71	423	700	490	439	382	700	490	425	414	700	490	439
	80	447	740	490	439	406	740	490	425	439	740	490	439
	90	469	780	490	439	429	780	490	425	462	780	490	439
	100	492	820	490	439	452	820	490	425	486	820	490	439
	112	512	860	490	439	532	920	490	425	508	860	490	439
10-8	71	454	740	455	495	435	780	455	471	440	740	455	495
	80	477	780	455	495	458	820	455	471	464	780	455	495
	90	498	820	455	495	480	860	455	471	487	820	455	495
	100	520	860	455	495	522	920	455	471	511	860	455	495
	112	559	920	455	495	542	960	455	471	551	920	455	495
10-10	80	477	780	520	495	458	820	520	471	464	780	520	495
	90	498	820	520	495	480	860	520	471	487	820	520	495
	100	520	860	520	495	522	920	520	471	511	860	520	495
	112	559	920	520	495	542	960	520	471	551	920	520	495

L=Center distance between fan and motor pulley
the size unit the form is mm

15 | Turn to Experts - HVAC

AT7-7

RD

L-R
 非使用区域
 DO NOT USE IN THIS AREA

GAS DENSITY: 1.2kg/m³ 气体密度

TOTAL EFFICIENCY η (%) 全压内效率

TOTAL PRESSURE Pt (Pa) 全压

SHAFT POWER 轴功率 (kW)

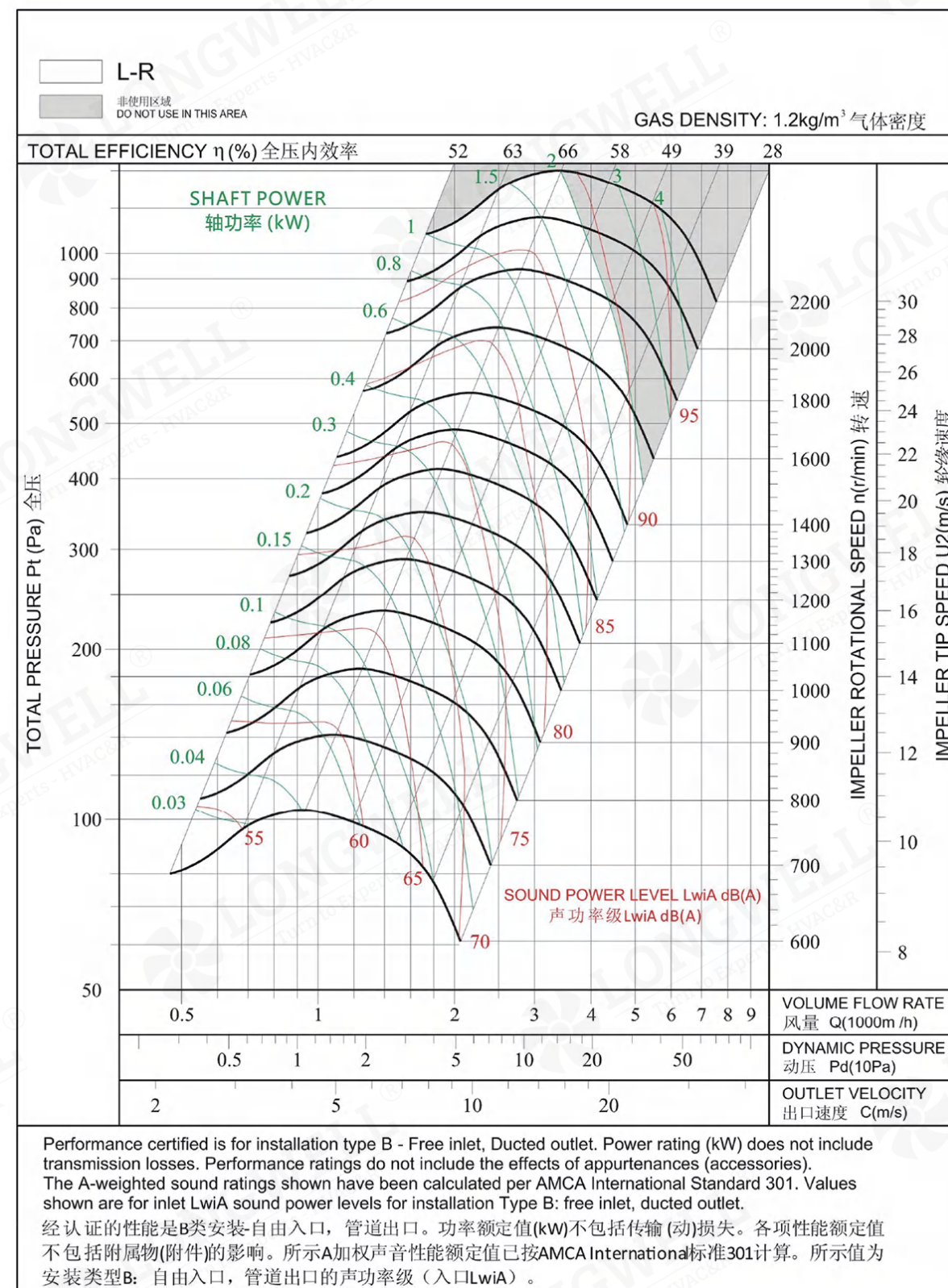
SOUND POWER LEVEL LwiA dB(A)
 声功率级 LwiA dB(A)

IMPELLER ROTATIONAL SPEED n (r/min) 转速
 IMPELLER TIP SPEED U2 (m/s) 叶轮速度

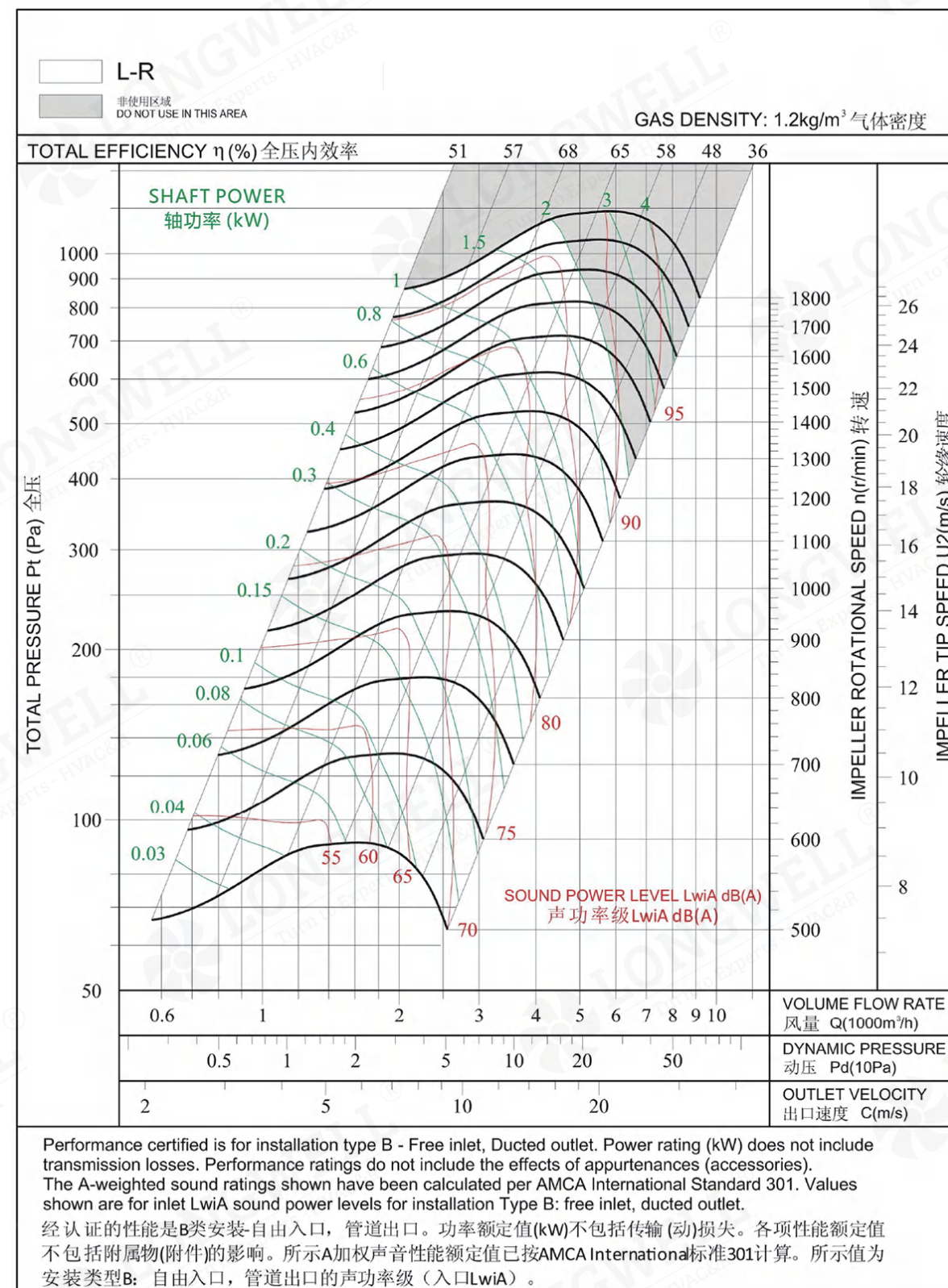
VOLUME FLOW RATE 风量 Q(1000m³/h)
 DYNAMIC PRESSURE 动压 Pd(10Pa)
 OUTLET VELOCITY 出口速度 C(m/s)

Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type B: free inlet, ducted outlet.
 经认证的性能是B类安装-自由入口，管道出口。功率额定值(kW)不包括传输(动)损失。各项性能额定值不包括附属物(附件)的影响。所示A加权声音性能额定值已按AMCA International标准301计算。所示值为安装类型B：自由入口，管道出口的声功率级（入口LwiA）。

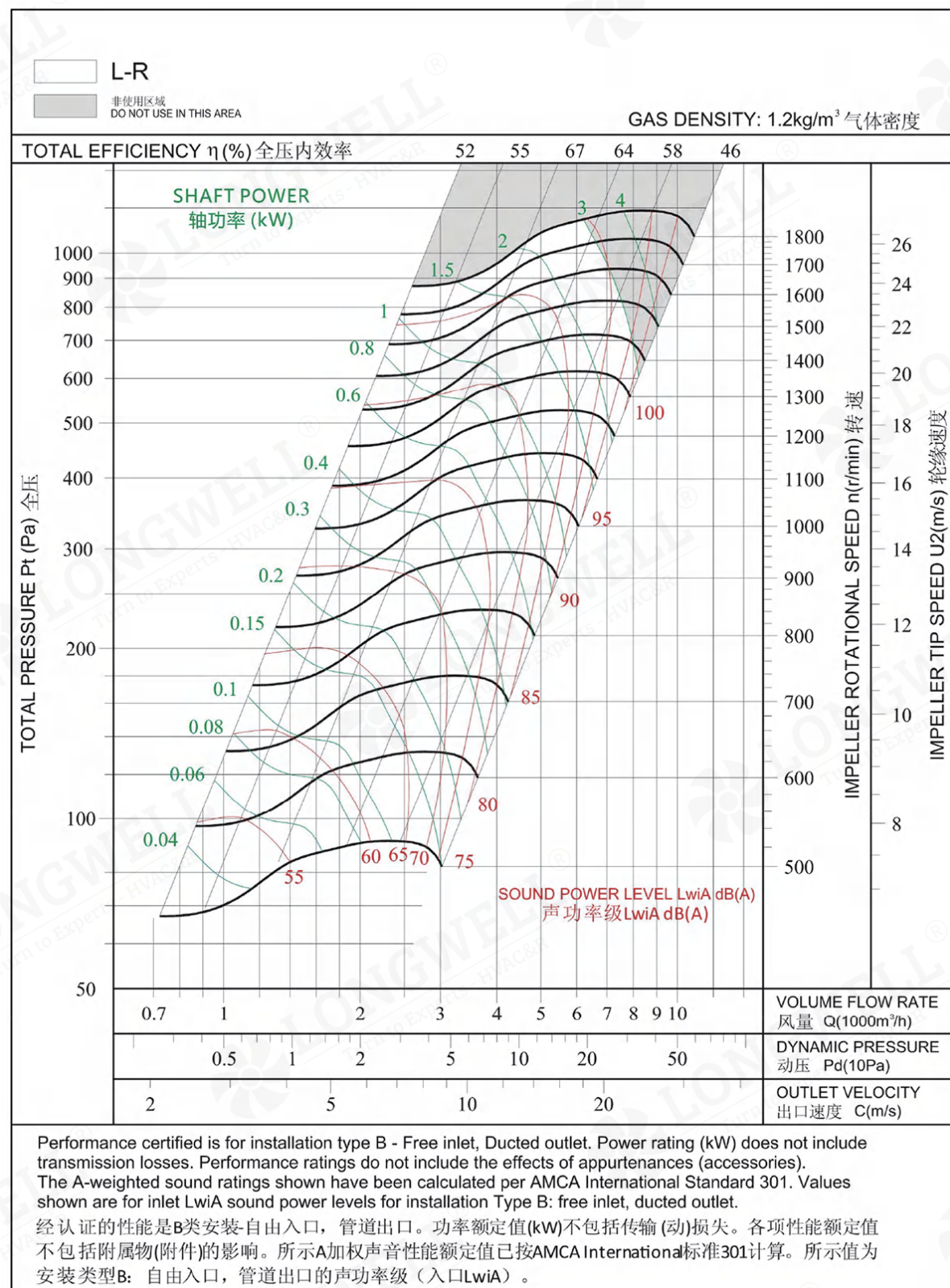
AT9-7



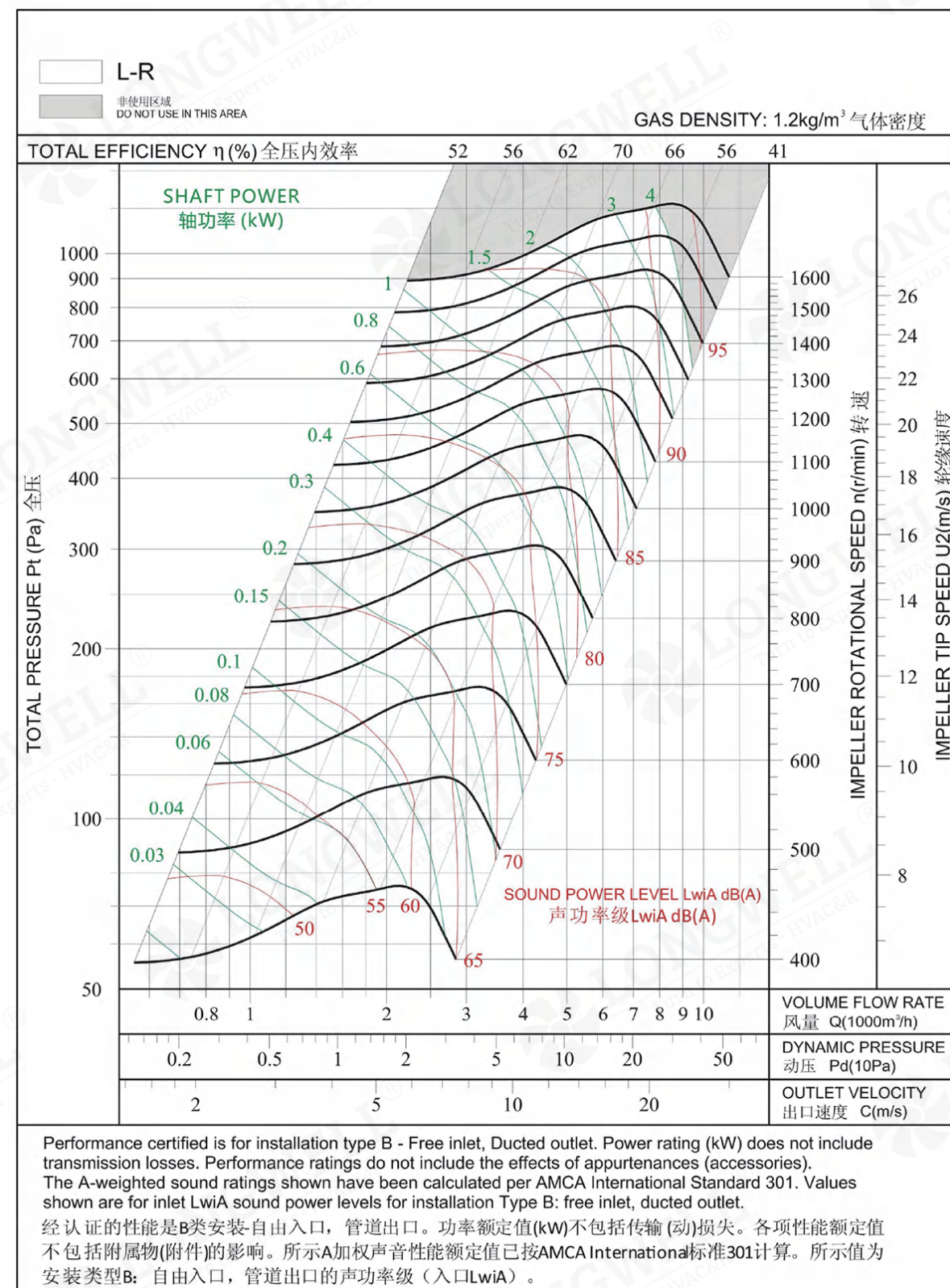
AT10-8



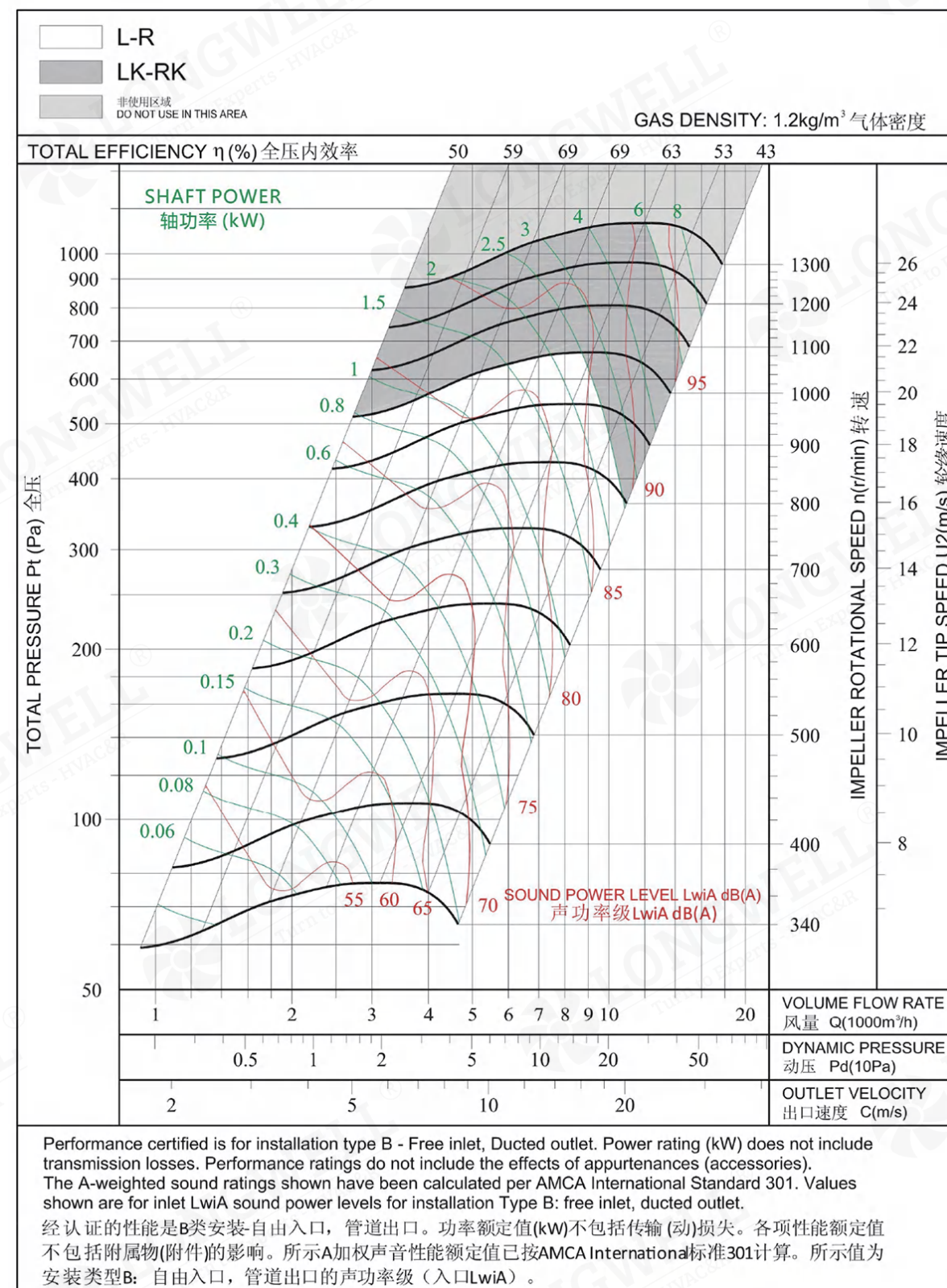
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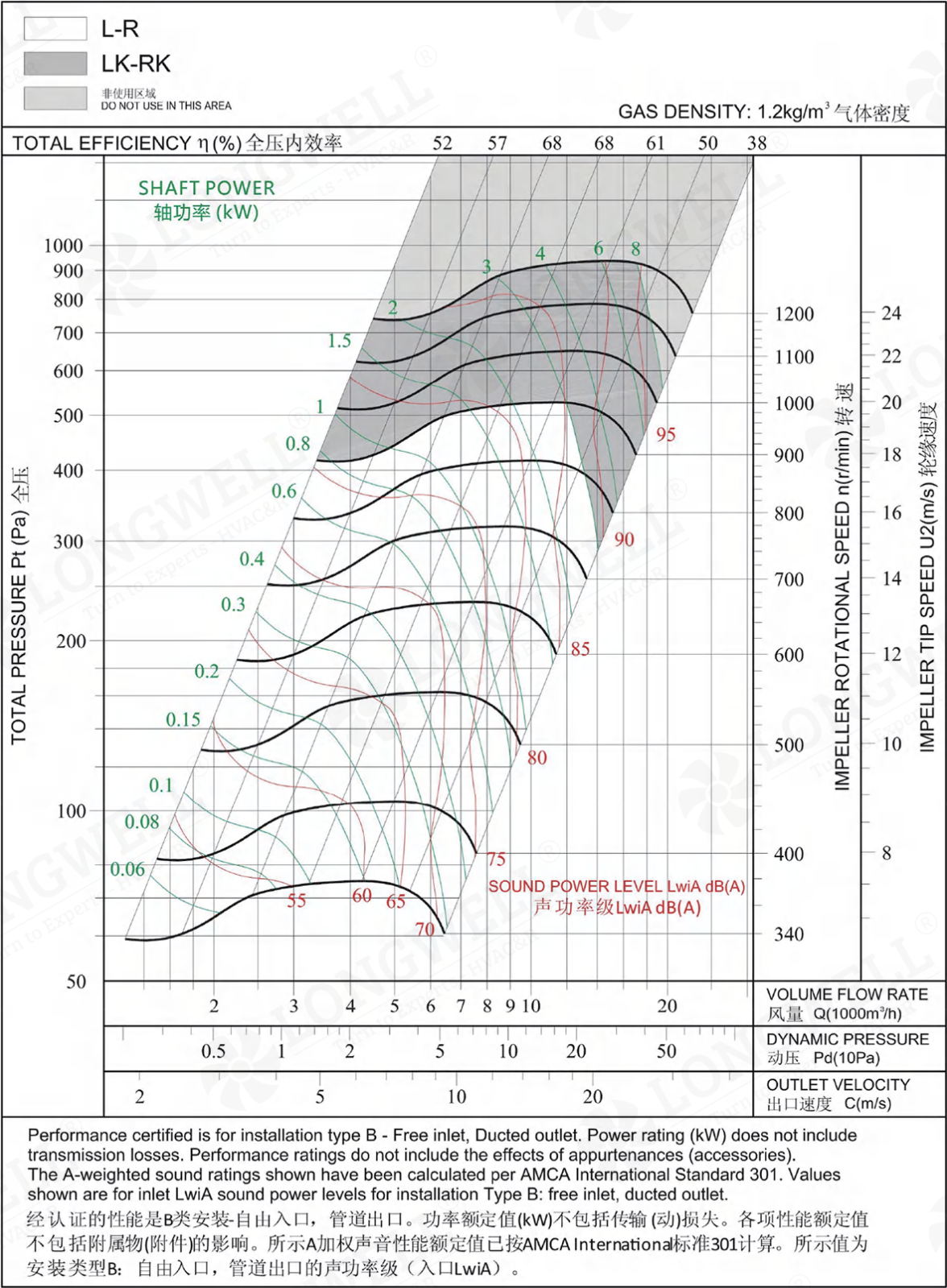
AT12-9



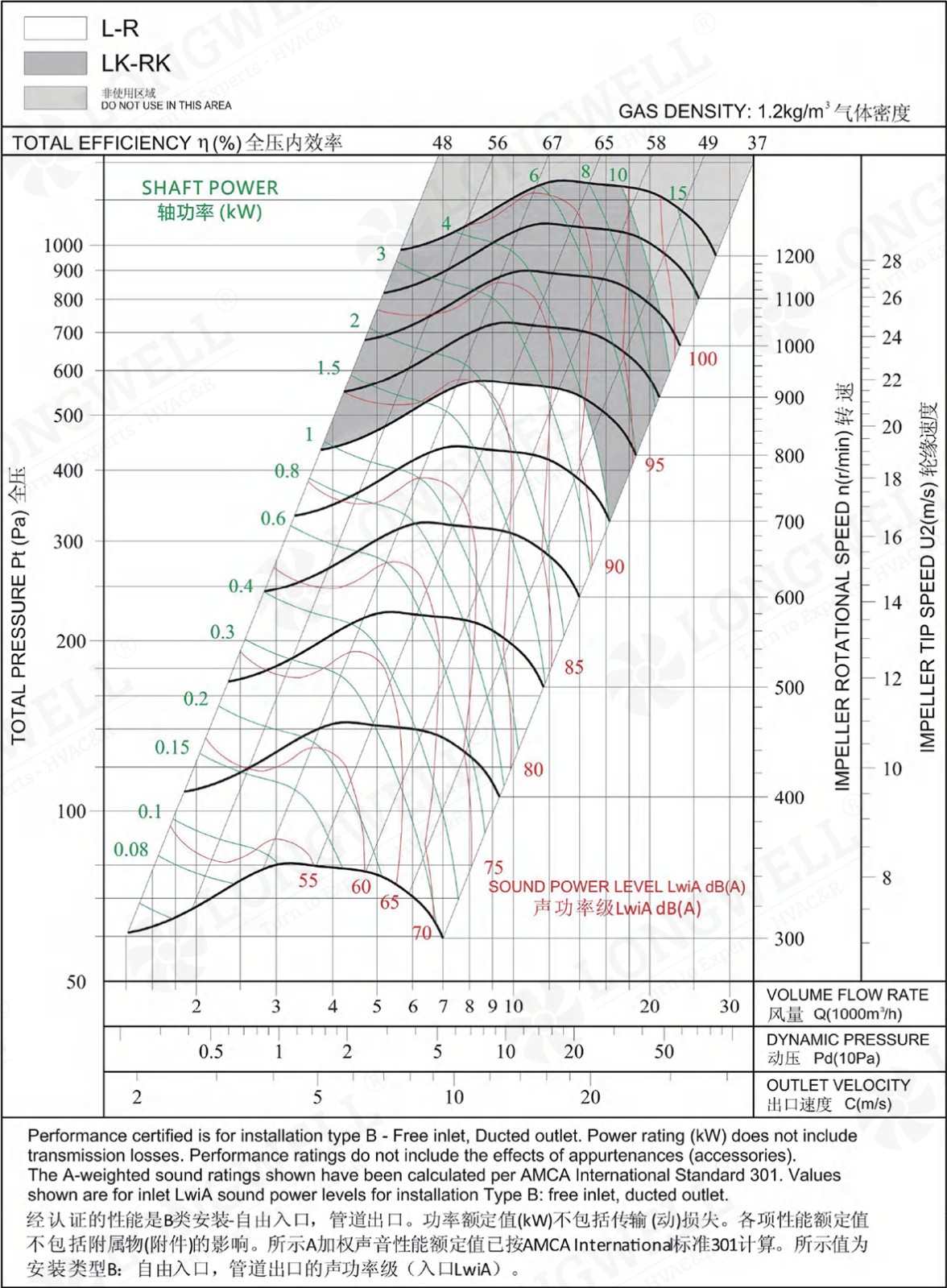
AT15-11



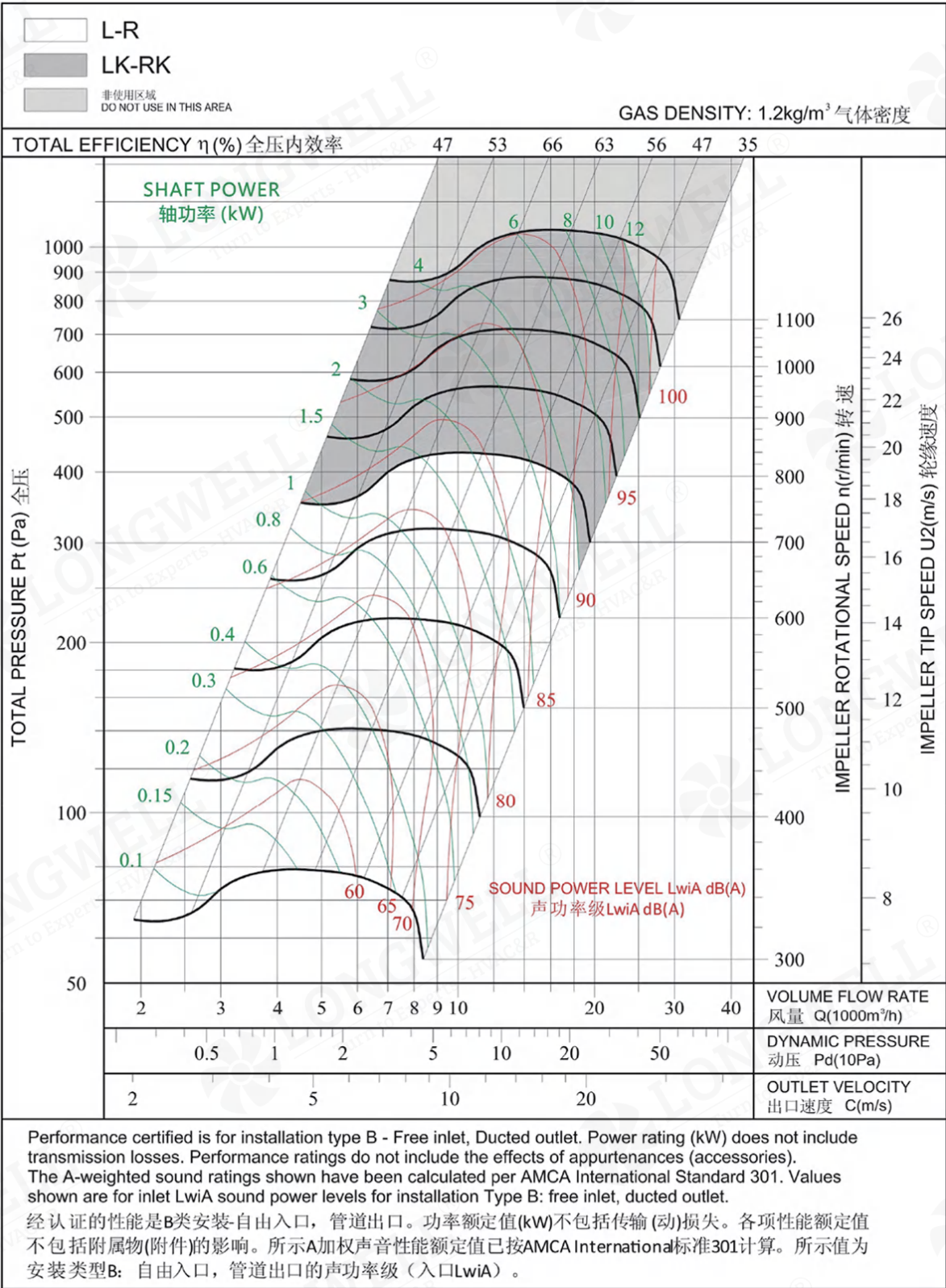
AT15-15



AT18-13



AT18-18



AT Series Ventilator Operational Limits

Model		7-7	8-8	9-7	9-9	10-8	10-10	12-9	12-12	15-11	15-15	18-13	18-18
Max.absorbed Power	L-R KW	1	1.5	2	2	2	3	4	4	2.5	3	4	4
	LK-RK KW	/	/	/	/	/	/	/	/	6	8	10	12
	L2-R2 KW	2	3	4	4	4	6	8	8	12	16	20	24
Max.R.P.M	L-R rpm	2200	2200	2200	1800	1800	1800	1600	1500	1000	900	800	700
	LK-RK rpm	/	/	/	/	/	/	/	/	1300	1200	1200	1100
	L2-R2 rpm	2200	2200	2200	1800	1800	1800	1600	1500	1300	1200	1200	1100
Air Temperature Limits(Min-20°C)	L-R Max.°C	85	85	85	85	85	85	85	85	85	85	85	85
	L2-R2 Max.°C	85	85	85	85	85	85	85	85	85	85	85	85
Bearing Dynamic Load	L-R N	12800	12800	12800	12800	14000	14000	14000	14000	14000	14000	14000	14000
	LK-RK N	/	/	/	/	/	/	/	/	19500	19500	25700	25700
	L2-R2 N	12800	12800	12800	12800	14000	14000	14000	19500	19500	19500	25700	25700
Fan Weight	L kg	6	7	8	9.5	10	11	15.2	18.2	21.2	24.7	32.4	39.6
	R kg	8.5	9.5	10.2	11.4	12.3	13.2	19.1	22	25.1	29.4	39.6	45.5
	LK kg	/	/	/	/	/	/	/	/	24.5	28.2	38.6	45.8
	RK kg	/	/	/	/	/	/	/	/	28.5	32.8	45.8	51.7
	L2 kg	14	15.6	17.9	21.7	22.2	25.3	33.9	40.6	47.6	54.3	69.3	84.6
	R2 kg	20	24	25.8	29.7	29.7	34.1	50	56	63	74.8	100.1	116.3