LONGWELL®
Turn to Experts - HVAC&R

ADH Series Centrifugal Blower

Professional HVAC Fan &Motors Manufacturer

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

Type Code

ADH 355 - R

- R: Type R L (Basic model); Type K (Enhanced model); Type E (Heavy duty model); Type C (Handing model)
- 355: Diameter of Impeller
- ADH: ADH Series

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

ADH Series Centrifugal Blower

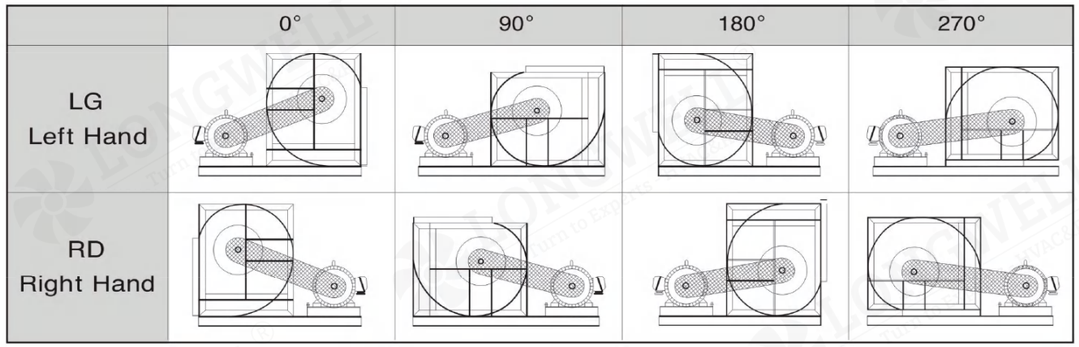
1.Product Features

(1) Rotation

ADH 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 impeller rotates 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

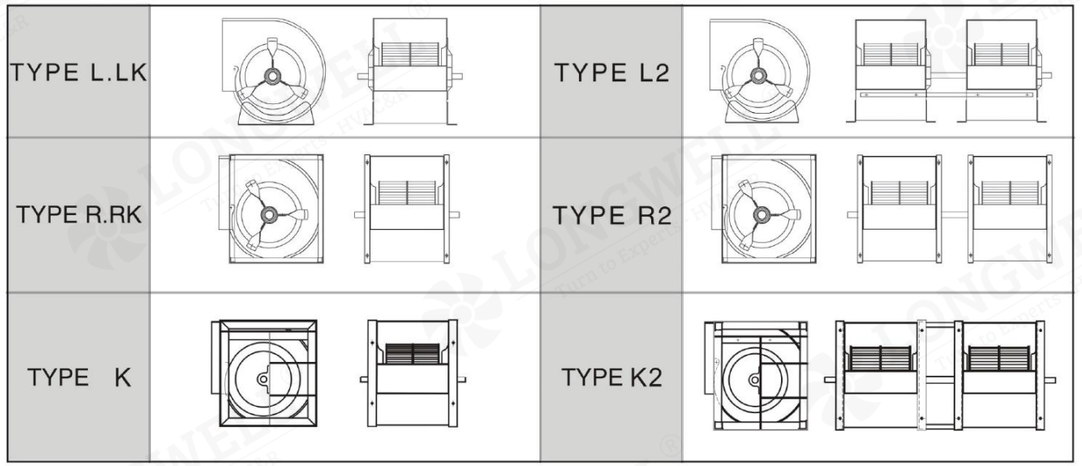
According to Fig 1.ADH Series ventilator can be made in four air-outlet directions:0°,90°,180°,and 270°.



(Fig 1)

(3) Type of Structure

According to Fig 2,ADH series ventilators can be divided into Category L.LK.R.RK Category L2.R2, Category K.K2



(Fig 2)

2.Constructon of Product

ADH Series series ventilators are mainly consisted of scroll,impeller,frame bearing.shaft and outlet flange (generally is not included)

(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".or"seam locking"

(2) Impeller

Forwards curved impeller is made of high grade hot galvanizing steel sheet and is designed to a special configuration accordingd 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 continuous rotation with maximumpower.Backwards curved vadial impellers are made of high gvade cold-rolled sheet The veneev blades which are designeel in three-dimensional theory are welded between middle tray and endmost 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.The cutting 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;The frames for type K ventilators are welded by angle steel and flat steel,and they are finished with polyestes coatings in order to assure sufficient rigidity and intesity.

(4) Bearings

Ball bearings are used in all of the ADH Series ventilators.They are high quality bearings and they are selected to minimize the ventilator noise levels.The bearings are pre-lubricated,sealed,and self-centering.For typel R ventilators,the bearings are mounted using vibration resistant washers. For type K ventilators,self-aligning pillow block ball bearings are used,Type kventilators bearings are supplied with lubrication fittings.The ventilators of type Z use the beaning housing which with heavy load double-row roller bearing.

(5) Shaft

The shafts are made of special 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 corrosiond resistance.

(6) Outlet Flange

The outlet flange is made of galvanized steel.The connections of the flange components to each other and to the scroll are made using a TOX non-welding process.This maintains a good flange appearance while also providing sufficient strength and rigidity.The outlet flange dimensions are provided in Figure 3.

3.Performance of Ventilator

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

Air inlet pressure Pa =101.325KPa Air temperature t = 20°C

Inlet gas density ρ= 1.2Kg/ms

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:

$$\frac{Q_0^*}{Q_0} = \frac{n^*}{n}$$

$$\frac{P_0^*}{P_0} = \frac{n^{*2}}{n^2} \cdot \frac{\rho^*}{\rho} \qquad \frac{P_0^*}{P_0} = \frac{n^{*2}}{n^2} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

$$\frac{Nin_0^*}{Nin_0} = \frac{n^{*3}}{n^3} \cdot \frac{\rho^*}{\rho} \qquad \frac{Nin_0^*}{Nin_0} = \frac{n^{*3}}{n^3} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

where:

- Volume Q_0(m³/h),total pressure P_0(Pa),speed n(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 (Nin_0) on the performance chart the internal power of the ventilator.

- Shaft power of ventilator:$Ns = Nin_0/\eta m$

where:Ns-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	ηm
Electric Motor Directiy Driven	1
Coupling Directiy Driven	0.98
V-belt Driven	0.95

(Table1)

The rated power of the drive motor equals the total required shaft input power multiplied by the safety factor:

N= Ns.K where:N=rated power of drive motor K= required safety factor

The required safety factor is provided in Table 2.

Power of Electric Motor(KW)	Value K
≤2.2KW	1.2
≤7.5KW	1.15
≥11KW	1.1

(Table2)

3.Noise:The noise levels shown on each performance chart,LwiA,refer to the overall sound power "A-Weighted" levels.The computed sound power levels were converted into A-Weighted levels using adjustments to the octave band spectrum as follows:

Center Frequency Hz	63	125	250	500	1000	2000	4000	8000
A-Weighted Adjustment dB(A)	-25.5	-12.5	-8.5	-3	0	+1	+1	-1

(Table3)

The overall sound pressure levels,LpiA,can be computed from the overall sound power levels as follows:

Free Field Conditions: $LpiA = Lwia - (20 \log_{10} d) - 11$

Room Conditions: $LpiA = Lwia - (20 \log_{10} d) - 7$

Where: d = distance from fan in meters

4.Comparing the performance of the twin ventilator of Category L2, Category R2 and Category K2 with the performance of Category L, Category R and K in the chart in the same condition of pressure, the twin ventilators' performance is as the following.

Volume x 2 Speed x 1.05 Inner Power x 2.15 Noise +3

Performance of twin ventilators are not licensed by AMCA International.

4.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(d1+d2)<2(d1+d2);the belt speed of forward fan should be more than 10m/s,but less than 15m/s,(10<v<15m/s);the belt speed of backward fan should be more than 25m/s,but less than 35m/s,(25<v<35m/s).

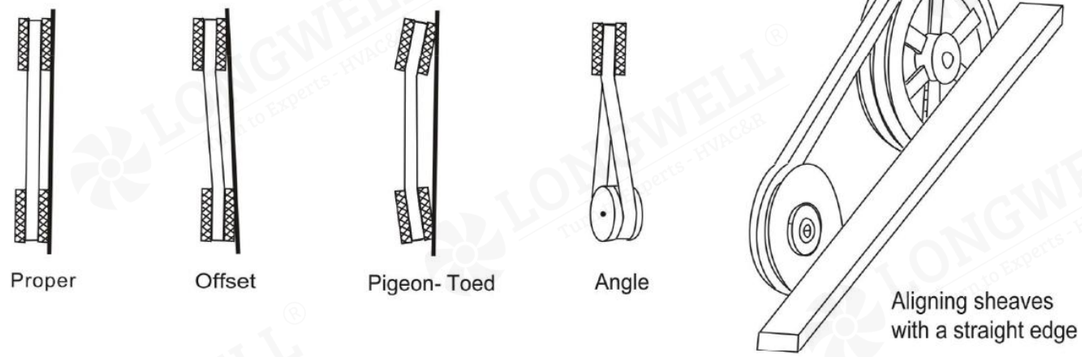
4.Slide sheaves on to the shafts-do not drive the sheaves on to the shafts as this may result in bearing damage.

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

6.Place belts over the sheaves with carefull,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.



5.Belt Tenstion

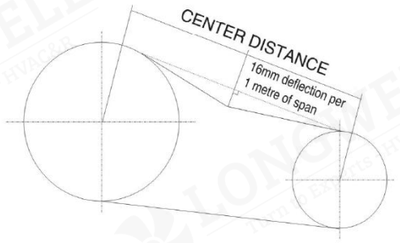
A proper level of belt tension is required in order to obtain a satisfactory belt life. If the belt tension level is too high,then excessive loads will be imposed on the belts and the bearings, and this will reduce the lives of both of these components. If the belt tension level is too low.then the belt will slip.Belt slippage generates a large amount or heat,and this heat 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 normaly supplied with the gauge which indicates the ranges 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. see Fig 4 and Table 3.

If a bet-tensioning gauge is not available,then the belt should be tightened just enough so that the belt does not squeal when the ventlator is started. A very short period of noise during the starting of a ventiator is allowable,but a squeal lasting several seconds or longer ie 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 inital use,so the belt tension level should be checked after a few days of operation.

Belt tension indicator applied to mid centre distance.



(Fig 4)

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

(Table3)

6.Bearing Lubrication

The ventilator bearings are filled with lubricant when they come from the factory, so the bearings do not require any additional grease to be supplled 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,then this indicates that the grease is being oxidized and more frequent lubrications of the bearings are required.

7.Instructions

(1) During ordering it is necessary to state the type of ventilator,speed,air volume,air pressure, direction of air outlet,rotating direction,type of electric motor and its specifications.

(2) Prior to installation,the ventilator should be carefully inspected.Special care should be taken in checking the shaft,impeller and bearings.If there is an indication of any damage,then the damaged parts should be repaired or replaced before the ventilator is installed or operated.

(3) The inside of the scroll and casing need to be checked to make sure that there are no foreign objects contained therein,such as tools or loose parts.

(4) The rotational directions of the motor and impeller should be checked to assure that they are consistent with each other.

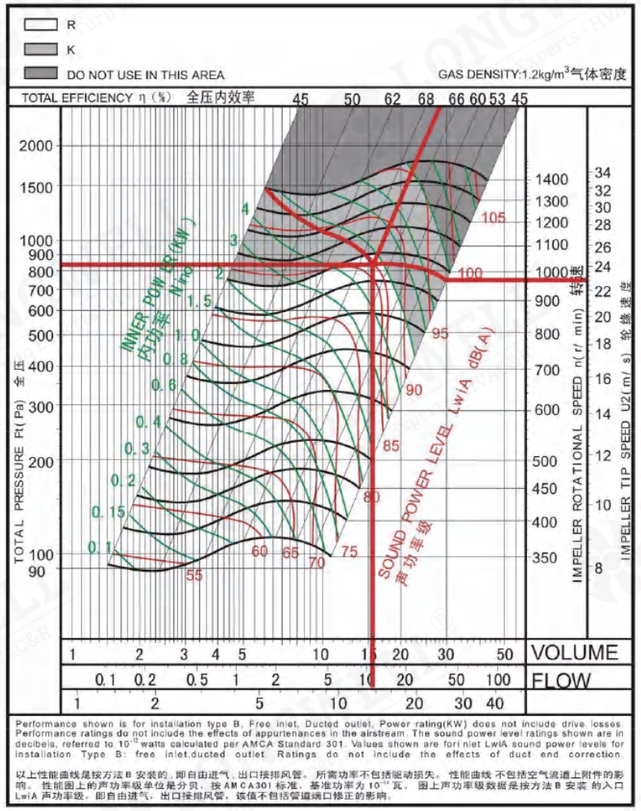
(5) A flexible connector should be used between the ventilator outlet flange and its mating pipe.The bolts used to fasten the outlet flange to the pipe should not be over-tightened.

(6) Following the installation,the impeller should be turned by hand or with the use of a wrench to make sure that it turns freely.Once this is verified,the ventilator can be operated normally.

(7) The rated motor power as calculated herein is not sutticient to drive the ventilator with an unrestricted discharge flow path.Operating the ventilator with an unrestricted discharge flow path will result in flow rates that exceed the ventilator flow rate capabilities, and such operation will quickly burn out the motor.So care must be taken in operating the ventilators to make sure that the maximum rated flows,as provided on the performance charts in this brochure,are not exceeded.

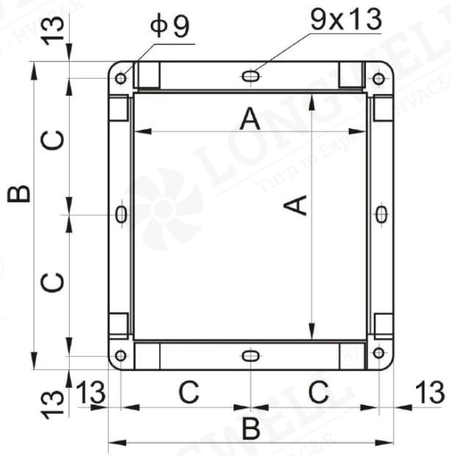
(8) This fan is restricted for use in areas where air substances are noncorrosive and non-toxics non-alkaline or where dust partides<150mg/m³,-20℃<temperature<85℃.If special condition sduring transportation,load and unload,it is strictly prohibted to shock the ventilators.

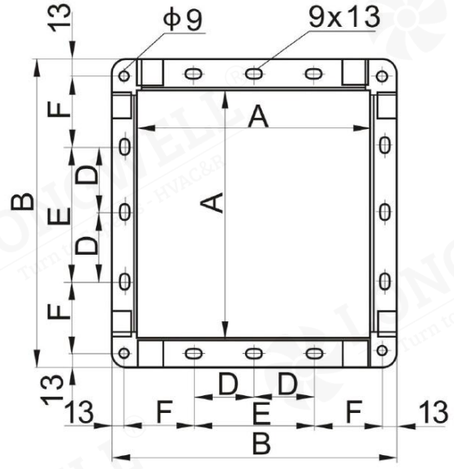
8.Example of Cruve Reading



Volume	V=15700m³/h
Total Pressure	Pt=839Pa
Dynamic Pressure	Pd=109Pa
Outlet Velocity	C=13.5 m/s
Speed	n=980 r/min
Impeller Tip Speed	U_2=23.2 m/s
Inner Power	Nino=5.34 kW
Sound Power Level	Lwi A=86dB(A)
Total Pressure Efficiency	η=68.5%

Outlet Flange

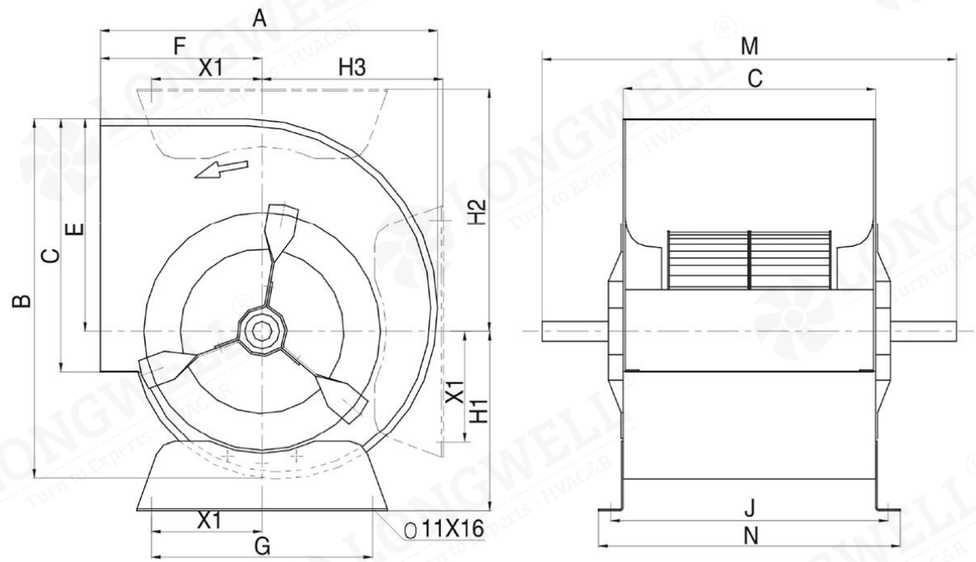


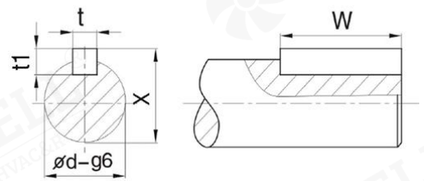


Model	A	B	C	D	E	F
200	256	296	138	/	/	/
225	288	328	154	/	/	/
250	322	362	171	/	/	/
280	361	417	195.5	/	/	/
315	404	460	217	/	/	/
355	453	509	241.5	/	/	/
400	507	563	/	/	200	168.5
450	569	625	/	/	200	199.5
500	638	694	/	/	250	209
560	715	771	/	/	250	247.5
630	801	857	/	/	300	265.5
710	898	954	/	200	400	264
800	1107	1063	/	250	500	268.5
900	1130	1186	/	300	600	280
1000	1267	1323	/	350	700	298.5

Note: the size unitin the form is mm

ADH - L





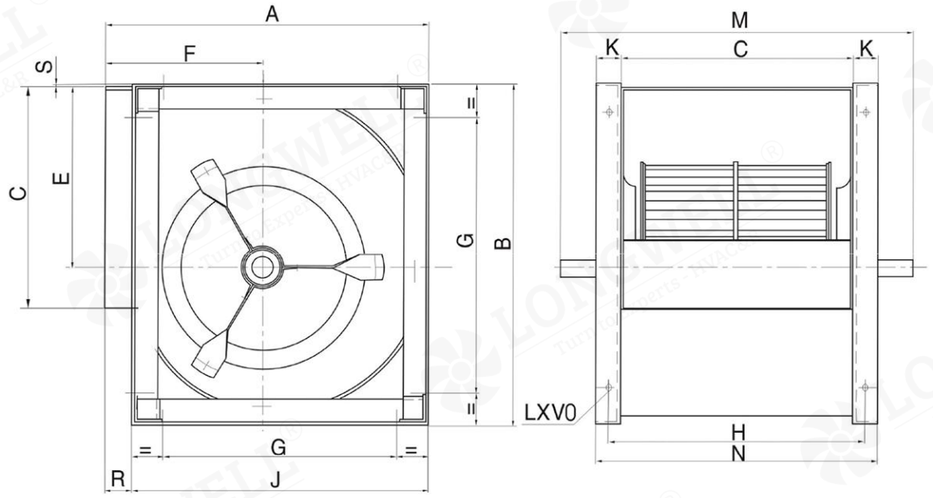
Technical Specifications

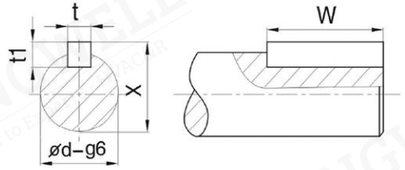
Model	A	B	C	E	F	G	J	M	N	X1	H1	H2	H3	t	t1	X	W	Φd
ADH 200-L	342	364	256	215	164	224	281	420	306	112	181	245	184	6	6	22.5	40	20
ADH 225-L	380	407.8	288	243	180	224	313	460	338	112	197	274	204	6	6	22.5	50	20
ADH 250-L	417	454	322	270	195	224	347	490	372	112	210	299	227	6	6	22.5	50	20

Note: the size unitin the form is mm

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

ADH - R



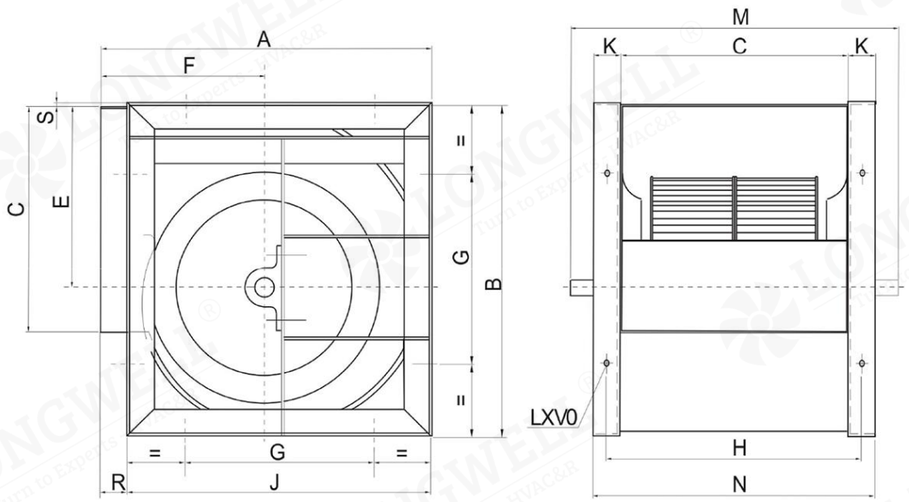


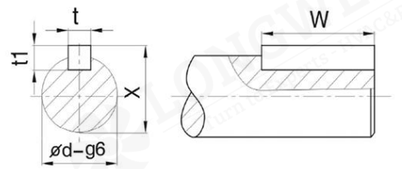
Technical Specifications

Model	A	B	C	E	F	G	H	J	K	M	N	R	S	t	t1	W	X	Φd	L×V
ADH 200-R	343	370	256	215	164	224	281	306	25	420	306	37	4	6	6	40	22.5	20	11×16
ADH 225-R	383	415	288	243	180	224	313	348	25	460	338	35	3	6	6	50	22.5	20	11×16
ADH 250-R	419	461	322	270	195	224	347	384	25	490	372	35	4	6	6	50	22.5	20	11×16
ADH 280-R	466	518	361	302	215	280	391	432	30	555	421	34	5	8	7	40	28	25	13×18
ADH 315-R	518	578	404	340	236	280	434	480	30	600	464	38	3	8	7	40	28	25	13×18
ADH 355-R	578	655	453	383	261	355	493	548	40	675	533	30	6	8	7	65	33	30	13×18
ADH 400-R	651	736	507	431.5	290	355	547	613	40	725	587	38	4.5	8	7	65	33	30	13×18
ADH 450-R	726	827	569	486	322	530	609	681	40	815	649	45	5	10	8	70	38	35	13×18
ADH 500-R	800	914	638	538	352	530	678	750	40	885	718	50	5	10	8	50	38	35	13×18
ADH 560-R	893	1030	715	602	390	530	765	845	50	1000	815	48	8	12	8	70	43	40	13×18
ADH 630-R	999	1157	801	678.5	434	530	851	946	50	1090	901	53	7	14	9	70	48.5	45	13×18
ADH 710-R	1121	1303	898	765	485	630	948	1058	50	1255	998	63	7	14	9	90	53.5	50	17×22

Note: the size unitin the form is mm

ADH - K





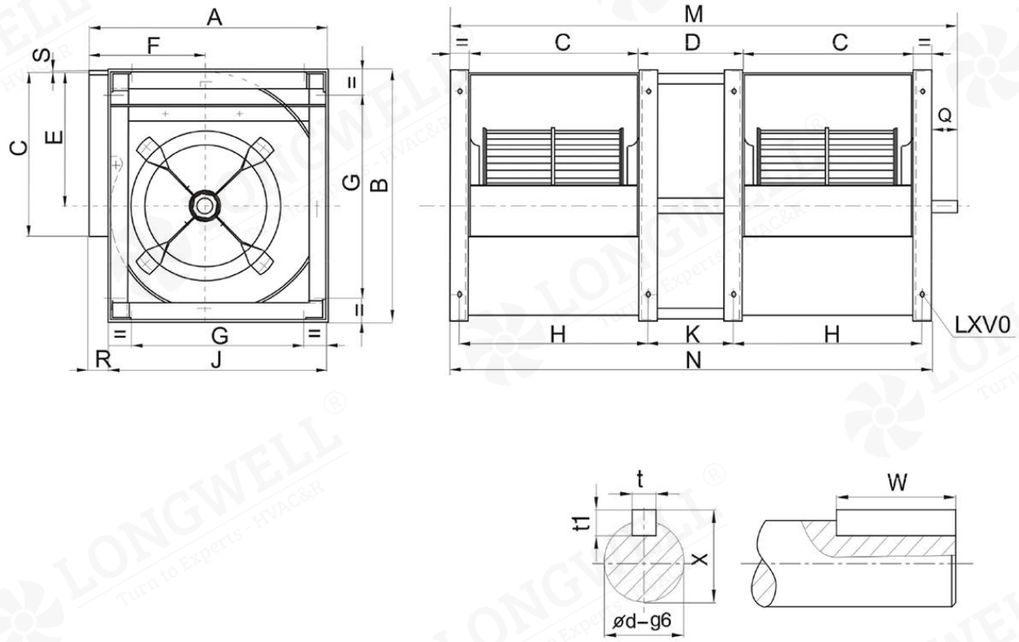
Technical Specifications

Model	A	B	C	E	F	G	H	J	K	M	N	R	S	t	t1	W	X	Φd	L×V
ADH 280-K	466	518	361	302	215	280	391	432	30	580	421	34	5	8	7	40	33	30	13×18
ADH 315-K	518	578	404	340	236	280	434	480	30	625	464	38	3	8	7	40	33	30	13×18
ADH 355-K	578	655	453	383	261	355	493	548	40	685	533	30	6	10	8	50	38	35	13×18
ADH 400-K	651	736	507	431.5	290	355	547	613	40	790	587	38	4.5	8	8	70	38	35	13×18
ADH 450-K	726	827	569	486	322	530	609	681	40	850	649	45	5	12	8	70	43	40	13×18
ADH 500-K	800	918	638	538	352	530	678	750	40	920	718	50	5	12	8	70	43	40	13×18
ADH 560-K	893	1030	715	602	390	530	765	845	50	1070	815	48	8	14	9	90	53.5	50	13×18
ADH 630-K	999	1157	801	678.5	434	530	851	946	50	1155	901	53	7	14	9	90	53.5	50	13×18
ADH 710-K	1121	1303	898	765	485	630	948	1058	50	1290	998	63	7	18	11	90	64	60	17×22
ADH 800-K	1250	1468	1007	862	535	710	1057	1181	50	1450	1107	69	7	18	11	90	64	60	17×22
ADH 900-K	1408	1648	1130	971	604	800	1180	1319	60	1570	1250	89	9	18	11	100	64	60	17×22
ADH 1000-K	1541	1810	1267	1066	657	900	1317	1462	60	1700	1387	79	9	18	11	100	64	60	17×22

Note: the size unitin the form is mm

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

ADH - R2

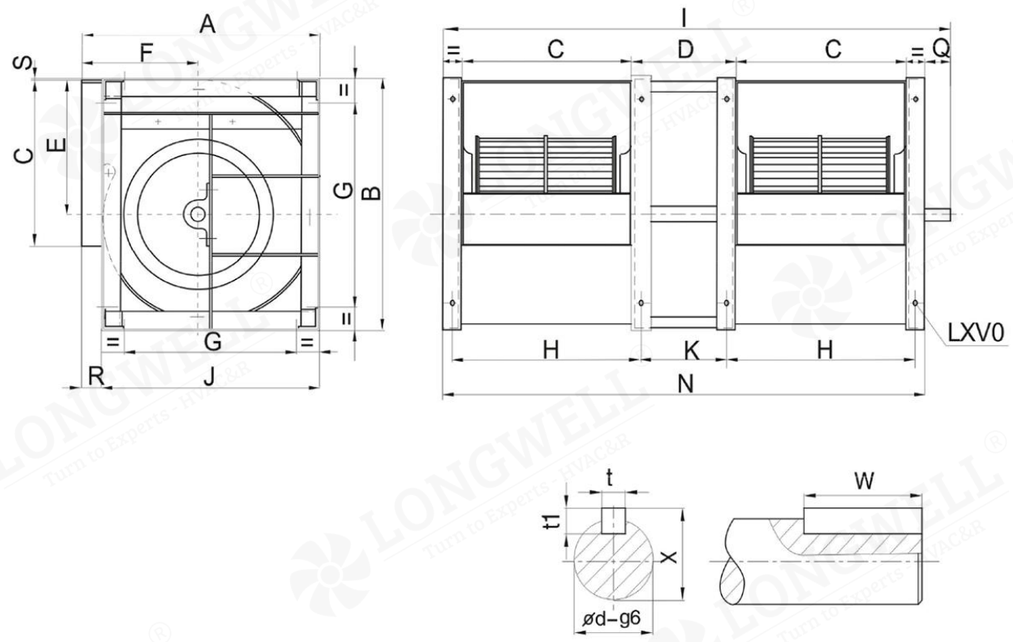


Technical Specifications

Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	t	t1	W	X	Φd	L×V
ADH 280-R2	466	518	361	280	302	215	280	391	432	250	1140	1062	78	34	5	8	7	60	33	30	13×18
ADH 315-R2	518	578	404	315	340	236	280	434	480	285	1263	1183	80	38	3	8	7	60	33	30	13×18
ADH 355-R2	578	655	453	355	383	261	355	493	548	315	1341	1341	90	30	6	10	8	50	38	35	13×18
ADH 400-R2	650	736	507	400	432	290	355	547	612	360	1582	1494	98	38	4	10	8	50	38	35	13×18
ADH 450-R2	726	827	569	450	486	322	530	609	681	410	1768	1668	100	45	5	12	8	70	43	40	13×18
ADH 500-R2	800	918	638	500	538	352	530	678	750	460	1956	1856	100	50	5	12	8	70	43	40	13×18

Note: the size unitin the form is mm

ADH - K2



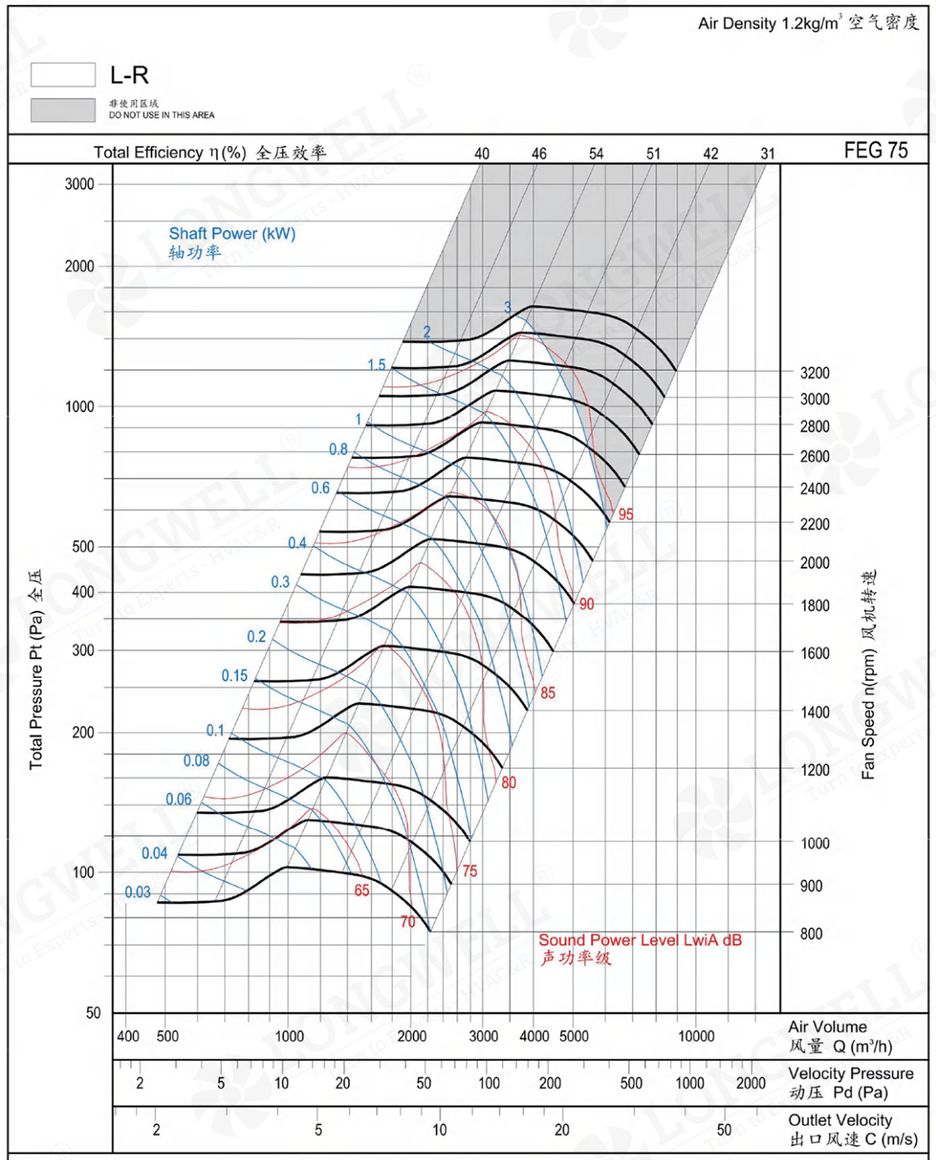
Technical Specifications

Model	A	B	C	D	E	F	G	H	I	J	K	N	Q	R	S	t	t1	Φd	W	X	L×V
ADH 355-K2	578	655	453	355	383	261	355	493	1451	548	315	1341	110	30	6	12	8	40	70	43	13×18
ADH 400-K2	651	736	507	400	431.5	290	355	547	1604	613	360	1494	110	38	4.5	12	8	40	70	43	13×18
ADH 450-K2	726	827	569	450	486	322	530	609	1803	681	410	1668	135	45	5	14	9	45	90	48.5	13×18
ADH 500-K2	800	918	638	500	538	352	530	678	1991	750	460	1856	135	50	5	14	9	50	90	53.5	13×18

Note: the size unitin the form is mm

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

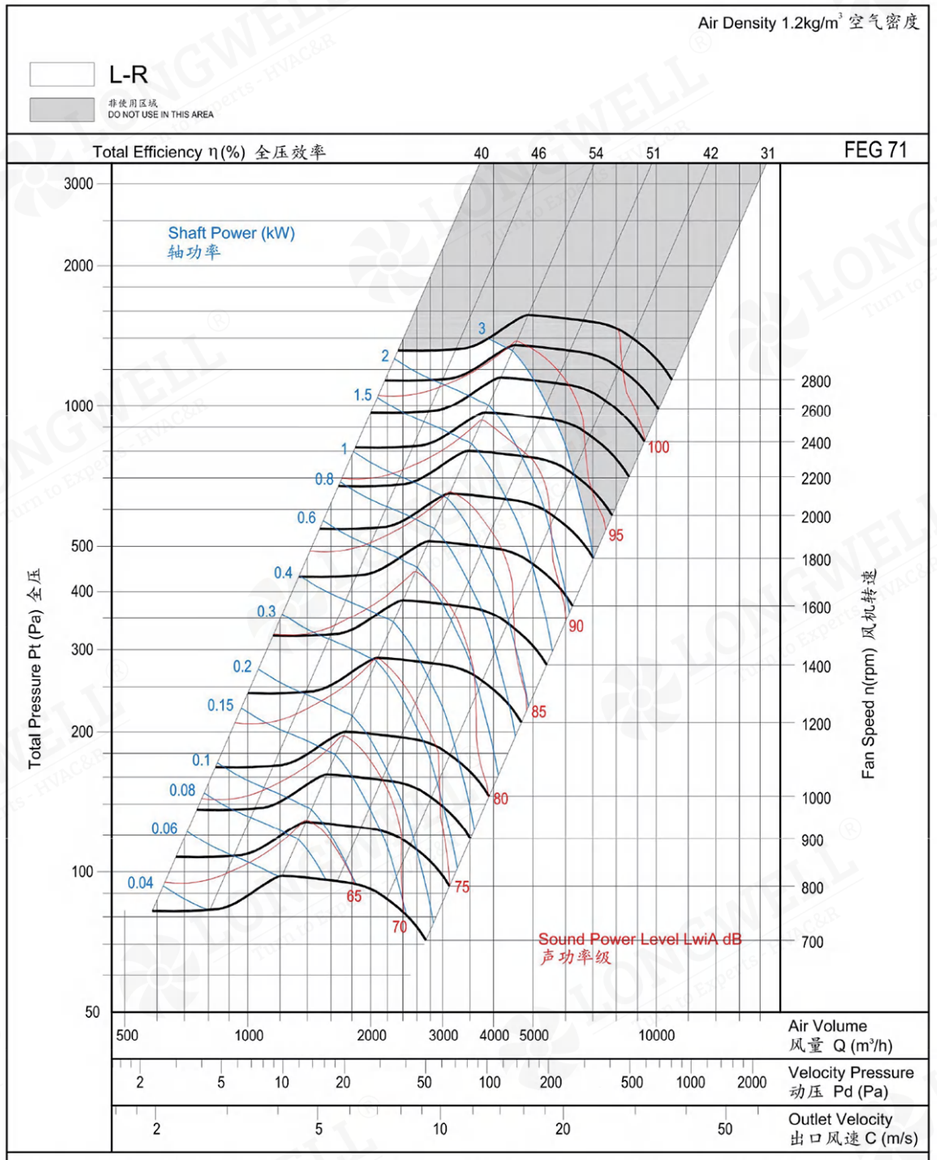
ADH-200



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)。

ADH-225

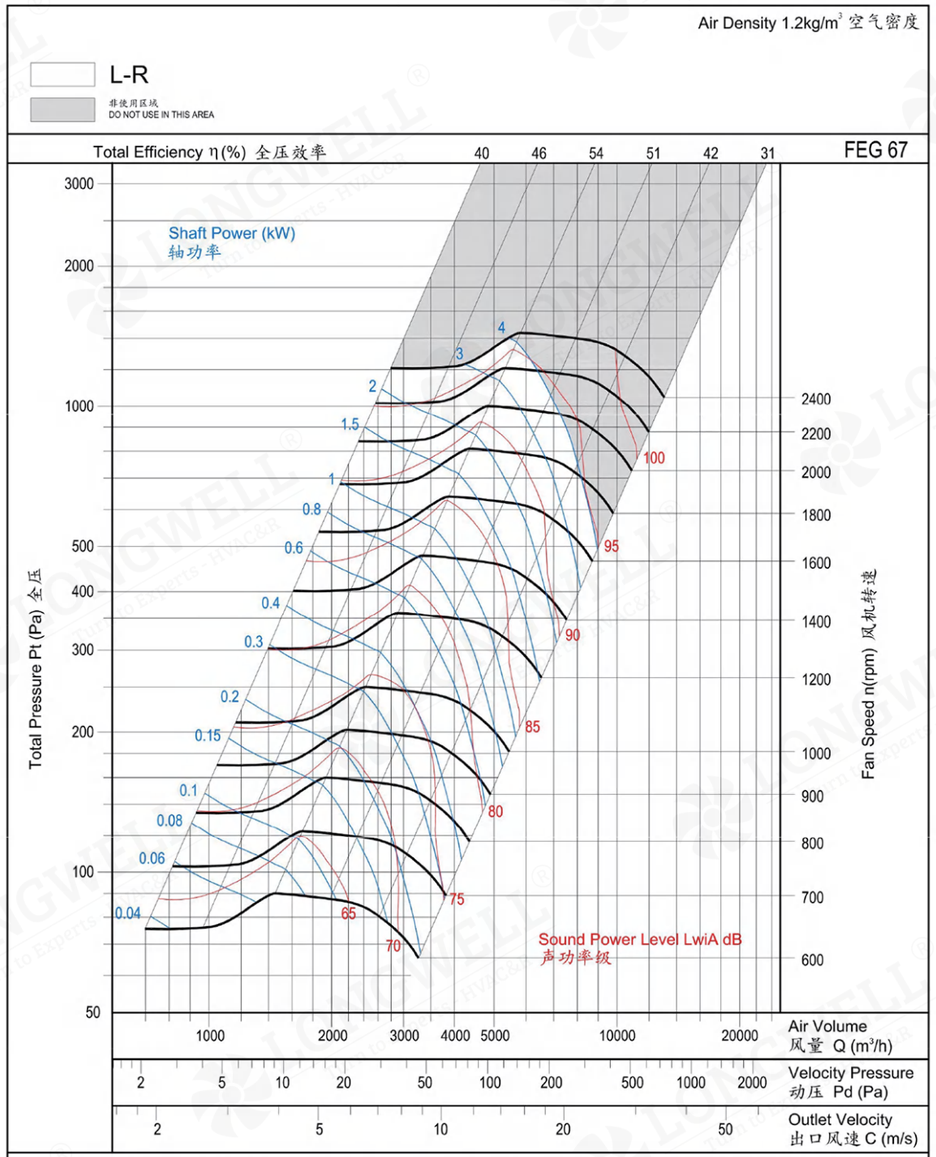


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 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)。

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

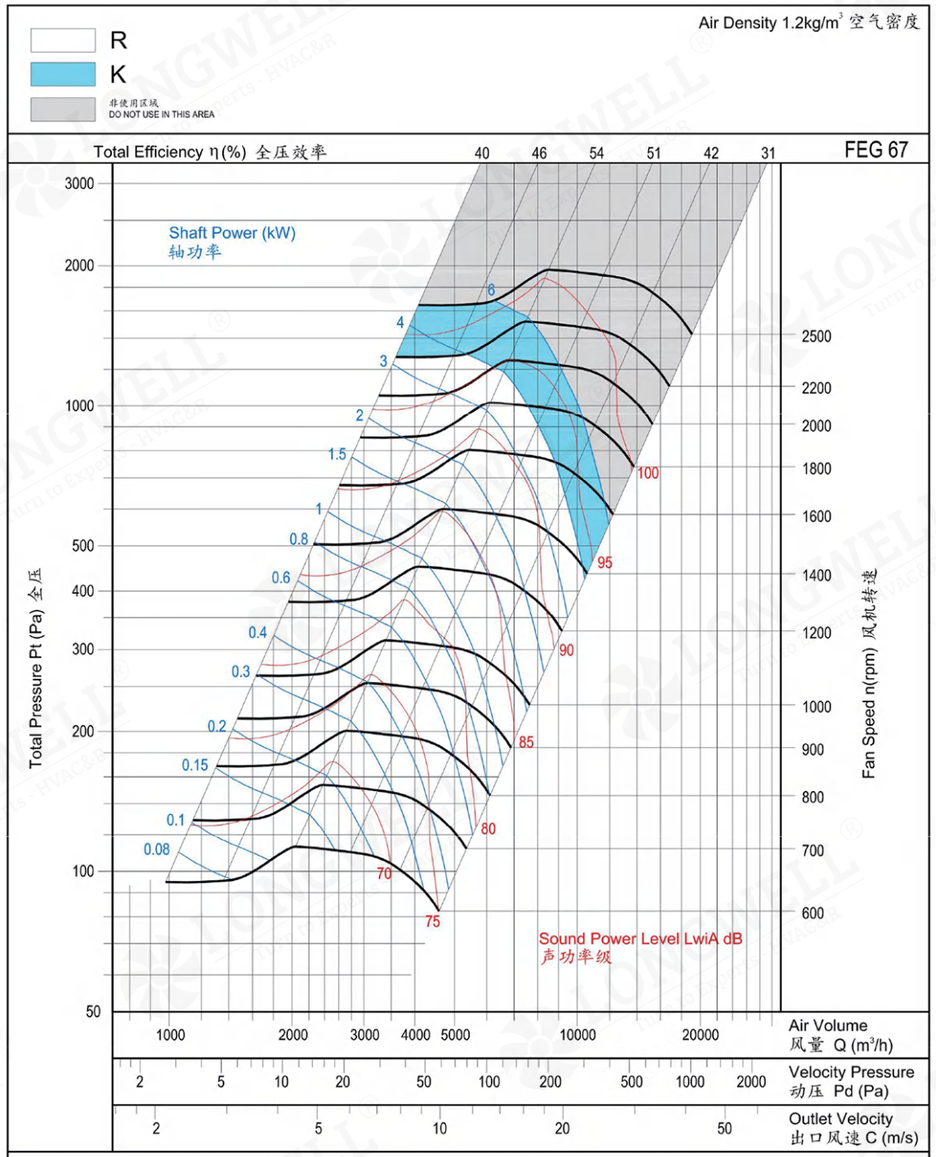
ADH-250



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)。

ADH-280

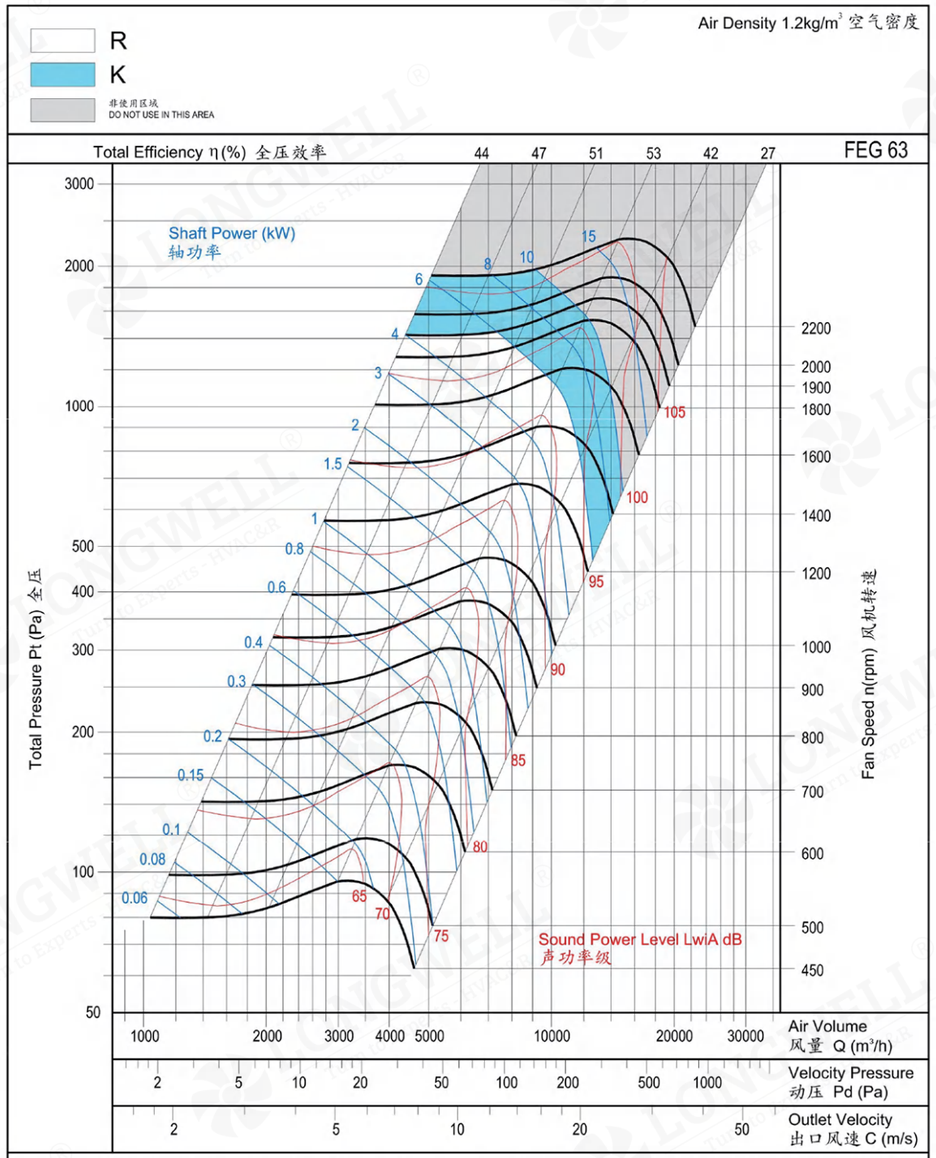


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 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)。

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

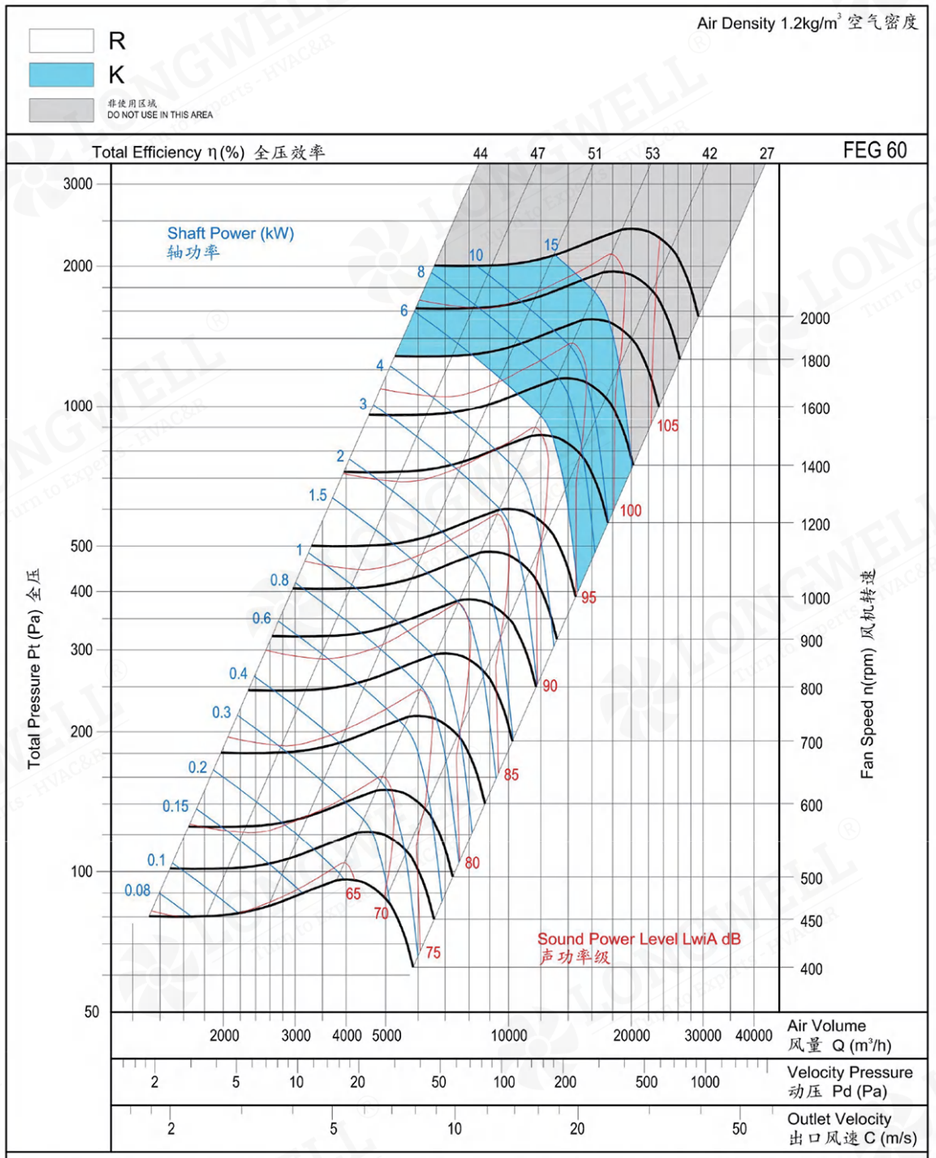
ADH-315



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)。

ADH-355

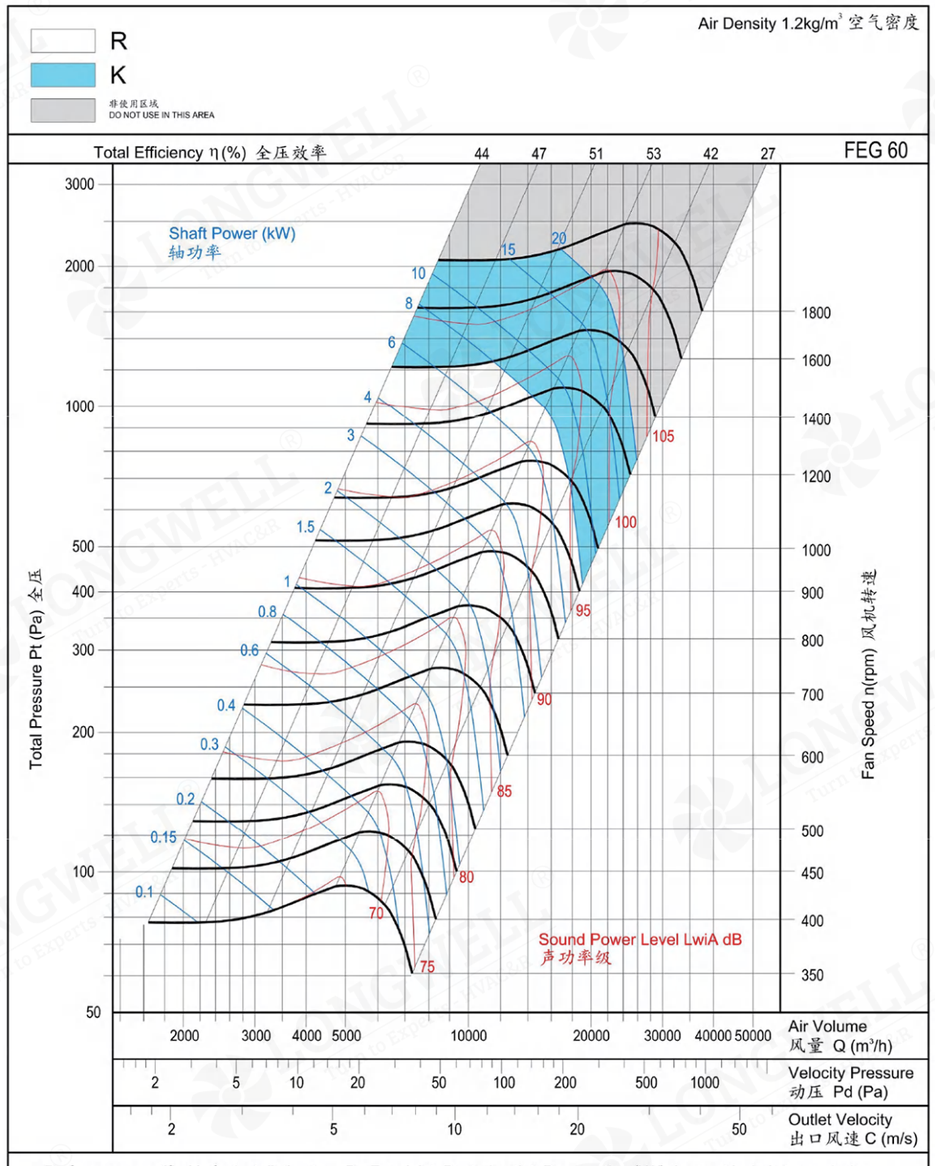


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 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)。

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

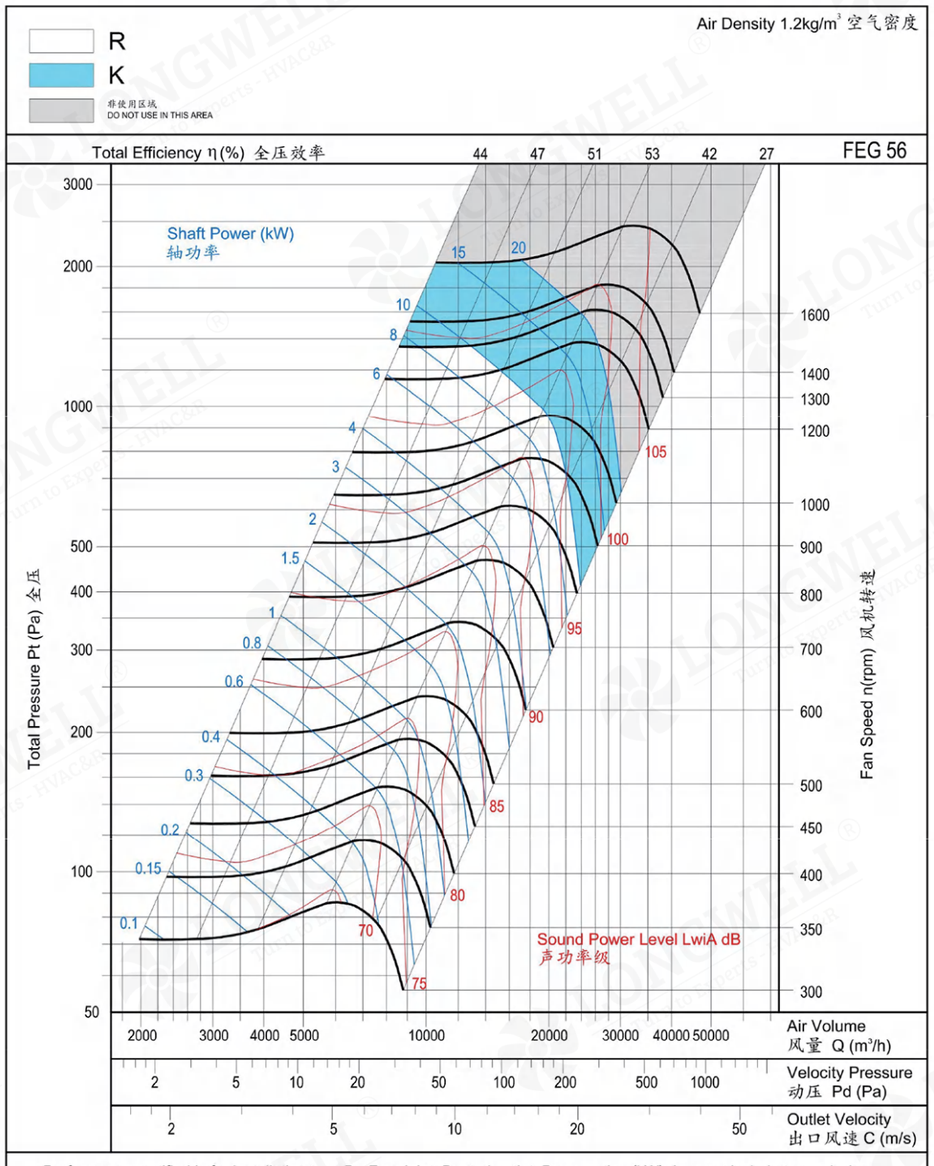
ADH-400



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)。

ADH-450

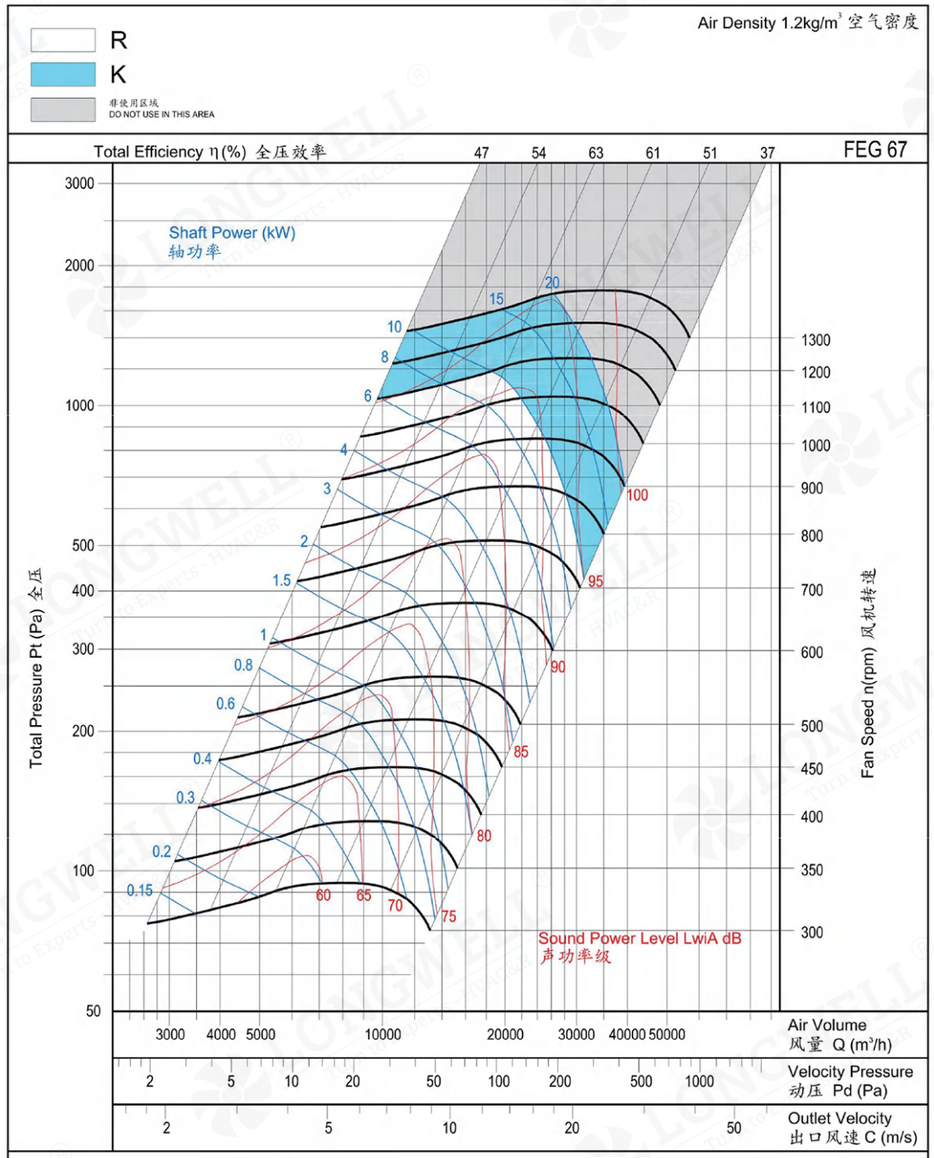


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 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)。

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

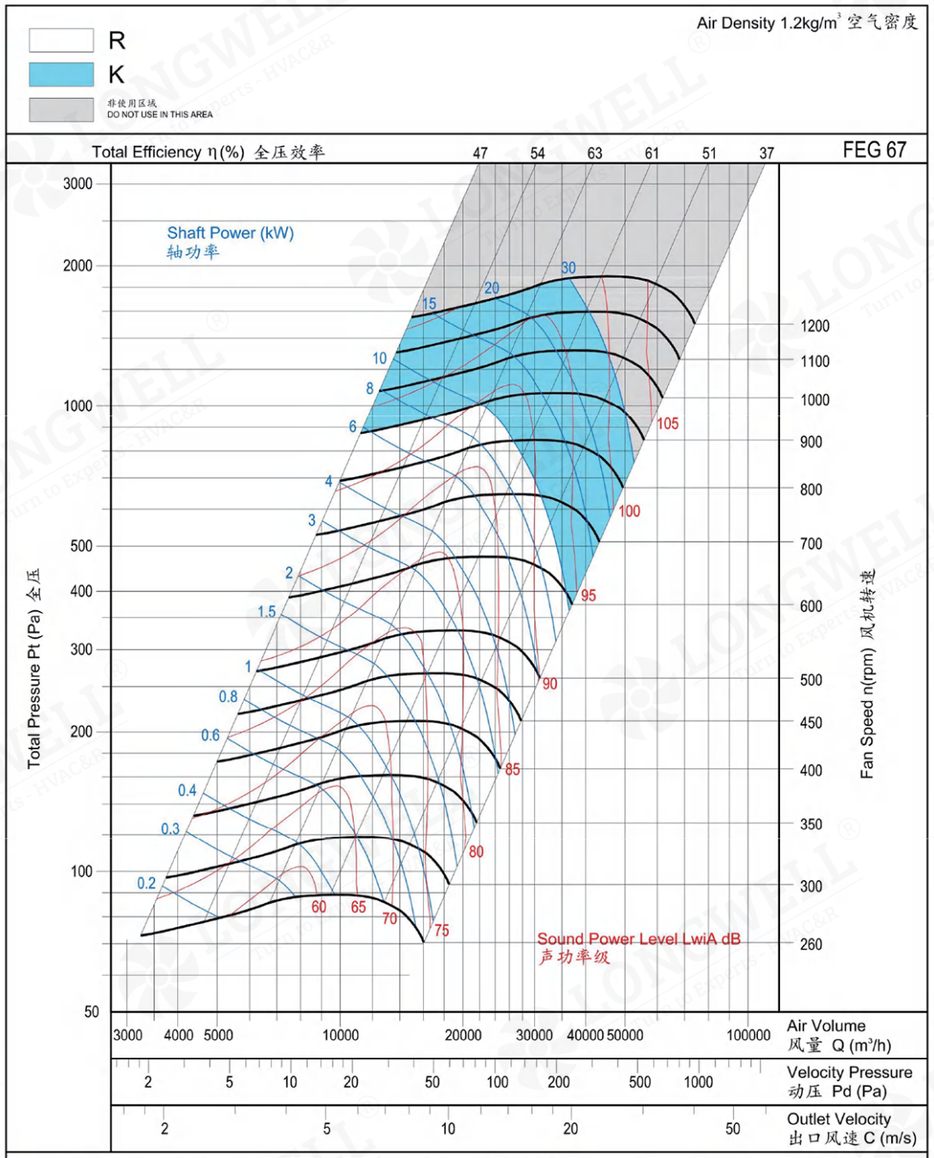
ADH-500



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)。

ADH-560

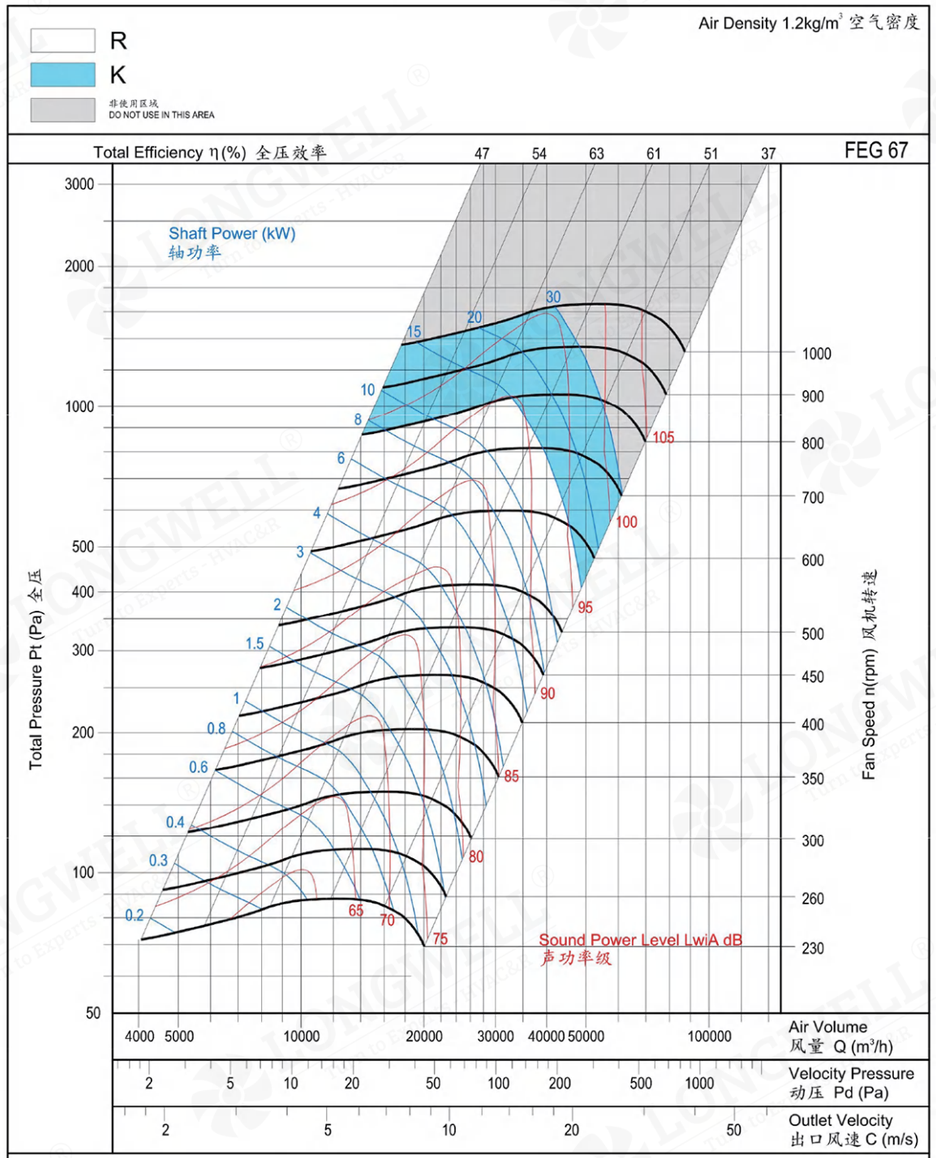


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 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)。

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

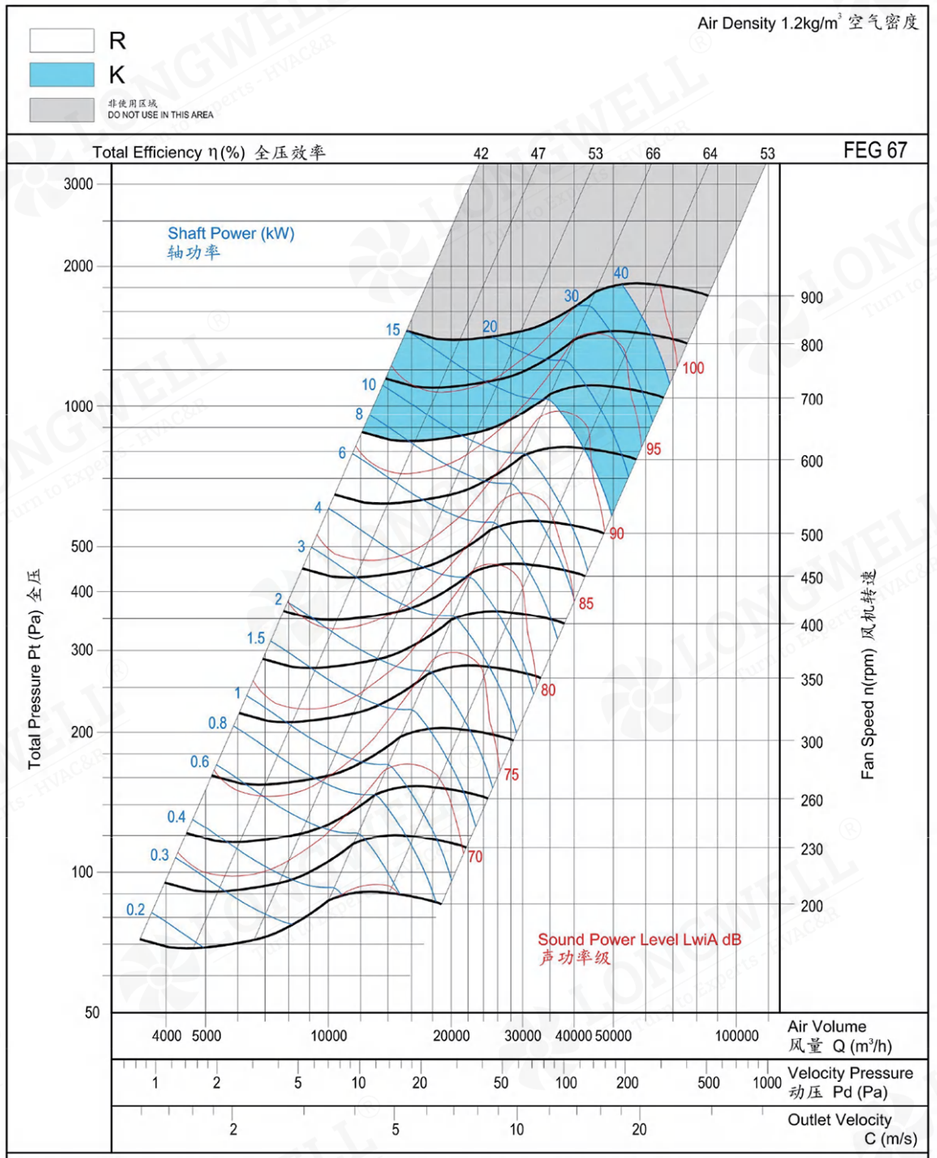
ADH-630



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)。

ADH-710

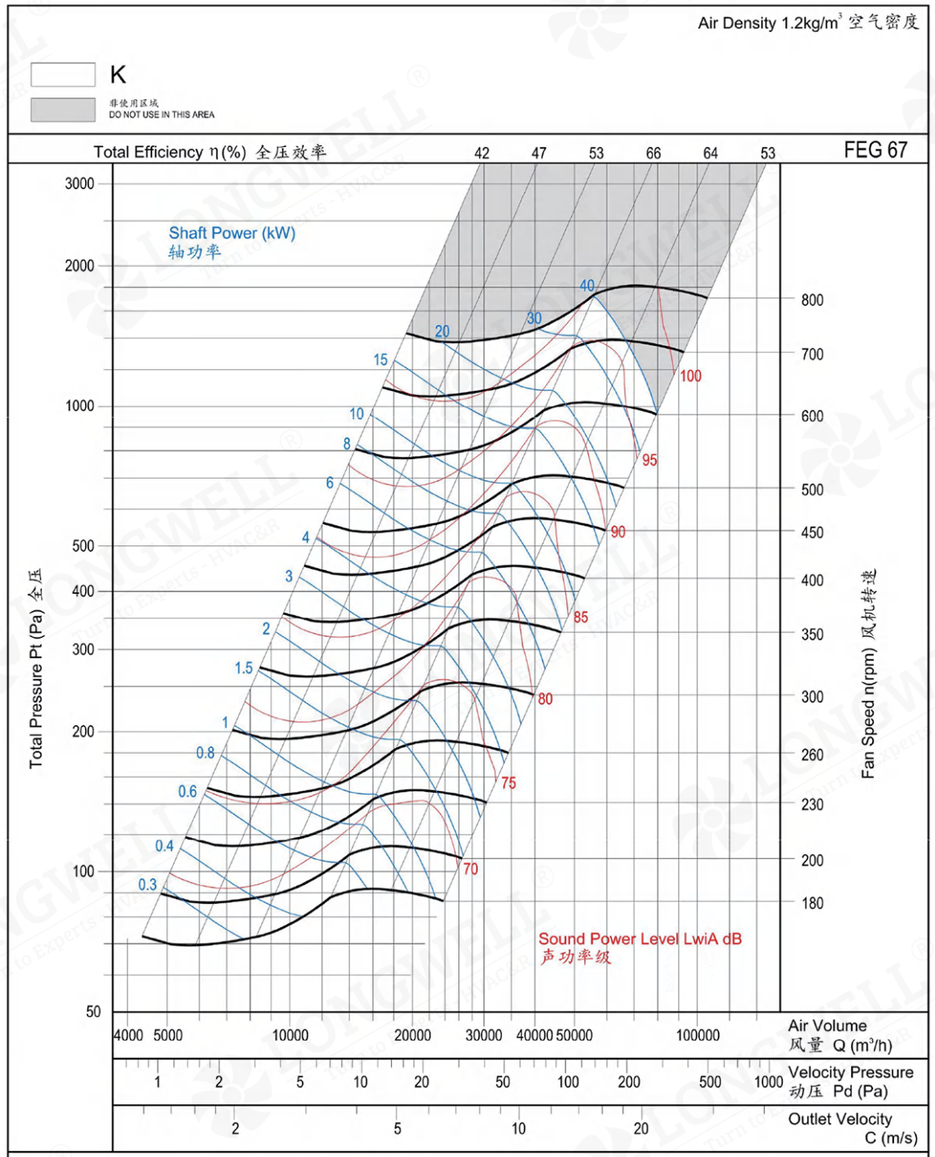


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 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)。

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

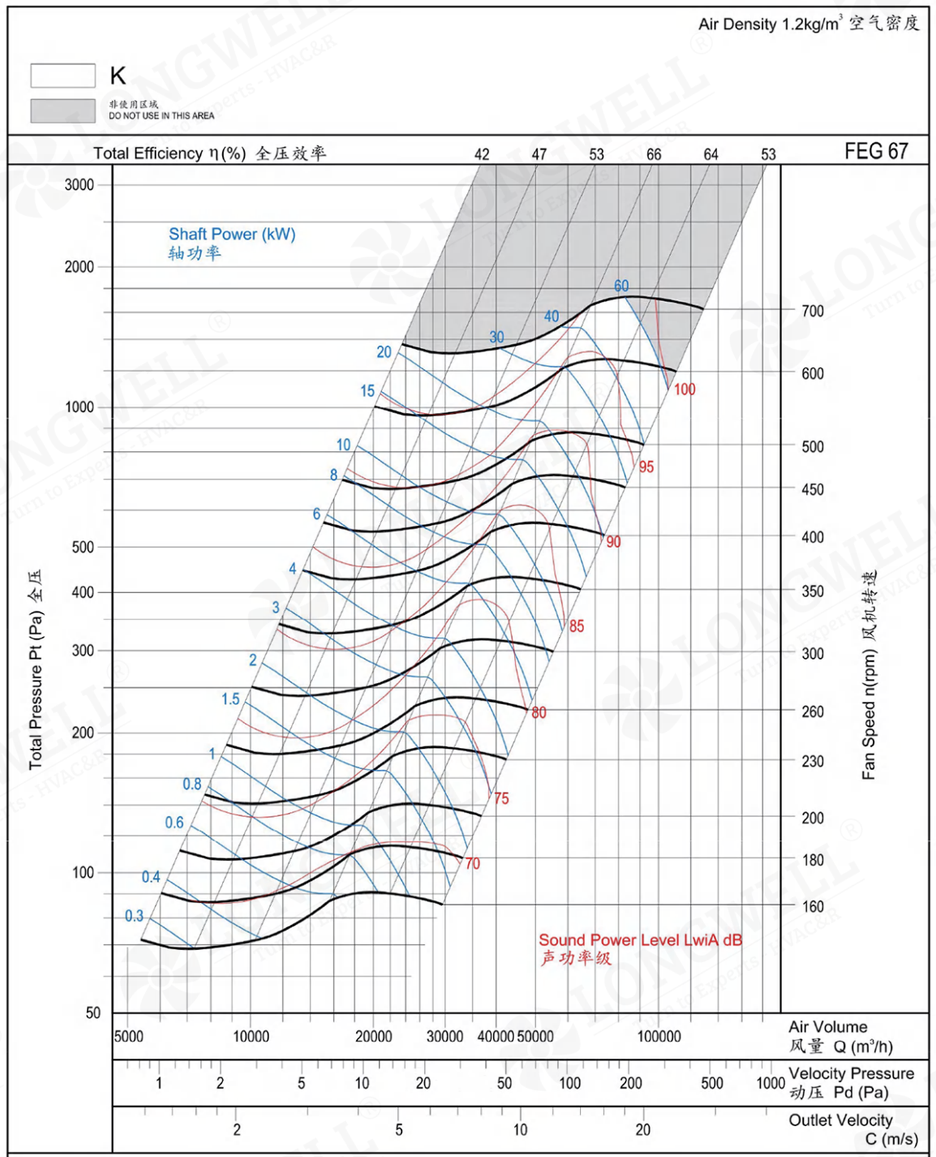
ADH-800



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)。

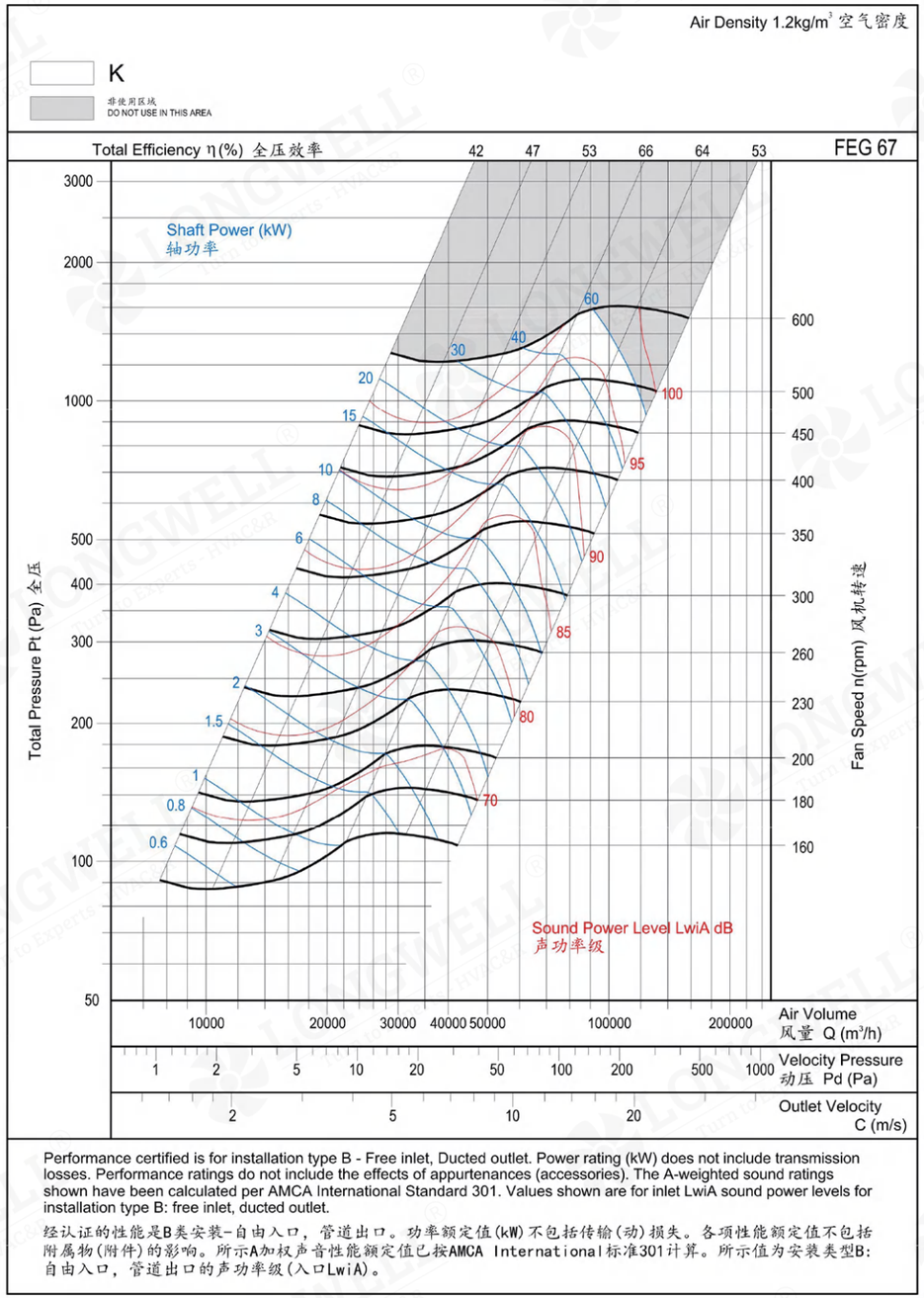
ADH-900



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)。

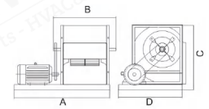
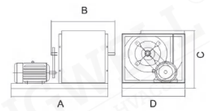
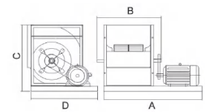
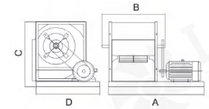
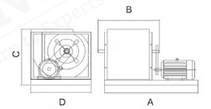
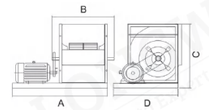
ADH-1000



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)。

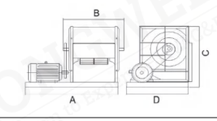
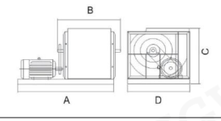
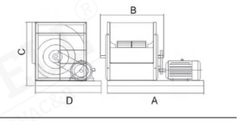
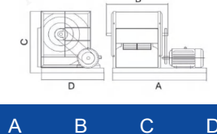
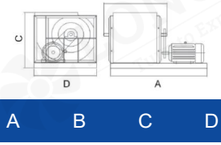
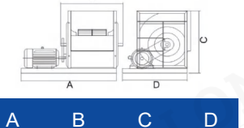
ADH - R

	0°	90°	180°
LG			
RD			

Model	Motor Frame Size	0° A	0° B	0° C	0° D	90° A	90° B	90° C	90° D	180° A	180° B	180° C	180° D
630	90	1340	1090	1220	1157	1340	1090	1062	1157	1340	1090	1220	1157
	100	1380	1090	1220	1157	1380	1090	1062	1157	1380	1090	1220	1157
	112	1400	1090	1220	1157	1400	1090	1062	1157	1400	1090	1220	1157
	132	1480	1090	1220	1157	1480	1090	1062	1157	1480	1090	1220	1157
	160	1620	1090	1220	1157	1620	1090	1062	1157	1620	1090	1220	1157
710	100	1480	1225	1383	1303	1480	1255	1508	1303	1480	1255	1383	1303
	112	1500	1225	1383	1303	1500	1255	1508	1303	1500	1255	1383	1303
	132	1600	1225	1383	1303	1600	1255	1508	1303	1600	1255	1383	1303
	160	1730	1225	1383	1303	1730	1255	1508	1303	1730	1255	1383	1303
	180	1800	1225	1383	1303	1800	1255	1508	1303	1800	1255	1383	1303

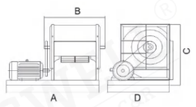
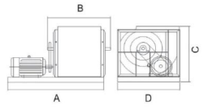
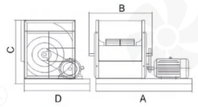
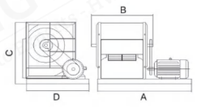
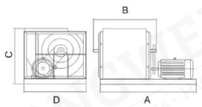
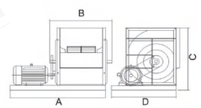
Note: the size unitin the form is mm

ADH - K

	0°	90°	180°
LG			
RD			

Model	Motor Frame Size	0° A	0° B	0° C	0° D	90° A	90° B	90° C	90° D	180° A	180° B	180° C	180° D
280	100	870	600	568	612	870	600	516	612	870	600	568	612
	112	890	600	568	612	890	600	516	612	890	600	568	612
	132	990	600	568	612	990	600	516	612	990	600	568	612
315	100	910	665	628	617	910	665	568	617	910	665	628	617
	112	930	665	628	617	930	665	568	617	930	665	628	617
	132	1030	665	628	617	1030	665	568	617	1030	665	628	617
	160	1190	665	628	617	1070	665	568	617	1070	665	628	617

ADH - K

	0°	90°	180°
LG			
RD			

Model	Motor Frame Size	A	B	C	D	A	B	C	D	A	B	C	D
355	100	970	725	705	655	970	725	628	655	970	725	705	655
	112	990	725	705	655	990	725	628	655	990	725	705	655
	132	1090	725	705	655	1090	725	628	655	1090	725	705	655
	160	1250	725	705	655	1130	725	628	655	1130	725	705	655
400	112	1070	790	786	736	1070	790	613	736	1070	790	786	736
	132	1170	790	786	736	1170	790	613	736	1170	790	786	736
	160	1300	790	786	736	1300	790	613	736	1300	790	786	736
450	112	1120	850	877	827	1120	850	776	827	1120	850	877	827
	160	1300	850	877	827	1300	850	776	827	1300	850	877	827
	180	1380	850	877	827	1380	850	776	827	1380	850	877	827
500	112	1190	920	981	918	1190	920	863	918	1190	920	981	918
	132	1290	920	981	918	1290	920	863	918	1290	920	981	918
	160	1430	920	981	918	1430	920	863	918	1430	920	981	918
	180	1500	920	981	918	1500	920	863	918	1500	920	981	918
560	132	1400	1070	981	1030	1400	1070	956	1030	1400	1070	1093	1030
	160	1550	1070	1093	1030	1550	1070	956	1030	1550	1070	1093	1030
	180	1600	1070	1093	1030	1600	1070	956	1030	1600	1070	1093	1030
	200	1660	1070	1093	1030	1660	1070	956	1030	1660	1070	1093	1030
630	132	1480	1155	1220	1157	1480	1155	1062	1157	1480	1155	1220	1157
	160	1620	1155	1220	1157	1620	1155	1062	1157	1620	1155	1220	1157
	180	1680	1155	1220	1157	1680	1155	1062	1157	1680	1155	1220	1157
	200	1740	1155	1220	1157	1740	1155	1062	1157	1740	1155	1220	1157
710	132	1600	1290	1383	1303	1600	1290	1508	1303	1600	1290	1383	1303
	160	1730	1290	1383	1303	1730	1290	1508	1303	1730	1290	1383	1303
	180	1800	1290	1383	1303	1800	1290	1508	1303	1800	1290	1383	1303
	200	1850	1290	1383	1303	1850	1290	1508	1303	1850	1290	1383	1303
	225	1920	1290	1383	1303	1920	1290	1508	1303	1920	1290	1383	1303
800	132	1720	1450	1548	1468	1720	1450	1330	1468	1720	1450	1548	1468
	160	1880	1450	1548	1468	1880	1450	1330	1468	1880	1450	1548	1468
	180	1950	1450	1548	1468	1950	1450	1330	1468	1950	1450	1548	1468
	200	2000	1450	1548	1468	2000	1450	1330	1468	2000	1450	1548	1468
	225	2050	1450	1548	1468	2050	1450	1330	1468	2050	1450	1548	1468
900	160	1980	1570	1748	1648	1980	1570	1748	1648	1980	1570	1748	1648
	180	2030	1570	1748	1648	2030	1570	1748	1648	2030	1570	1748	1648
	200	2100	1570	1748	1648	2100	1570	1748	1648	2100	1570	1748	1648
	225	2170	1570	1748	1648	2170	1570	1748	1648	2170	1570	1748	1648
1000	160	2110	1700	1910	1810	2110	1700	1641	1810	2110	1700	1910	1810
	180	2160	1700	1910	1810	2160	1700	1641	1810	2160	1700	1910	1810
	200	2230	1700	1910	1810	2230	1700	1641	1810	2230	1700	1910	1810
	225	2300	1700	1910	1810	2300	1700	1641	1810	2300	1700	1910	1810
	250	2390	1700	1910	1810	2390	1700	1641	1810	2390	1700	1910	1810

Note: the size unitin the form is mm

ADH Series Ventilator Operational Limits

			200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000
Max.absorbed Power	L	KW	3	3	4	/	/	/	/	/	/	/	/	/	/	/	/
	R	KW	3	3	4	4	6	6	8	10	10	10	15	15	/	/	/
	K	KW	/	/	/	6	10	15	20	20	20	30	30	40	40	60	60
	R2	KW	/	/	/	9	13	13	18	22	22	/	/	/	/	/	/
	K2	KW	/	/	/	/	/	33	45	45	45	65	/	/	/	/	/
Max.R P.M	L	rpm	3200	2800	2400	/	/	/	/	/	/	/	/	/	/	/	/
	R	rpm	3200	2800	2400	2200	1900	1600	1400	1300	1100	900	800	700	/	/	/
	K	rpm	/	/	/	2500	2200	2000	1800	1600	1300	1200	1000	900	800	700	600
	R2	rpm	/	/	/	1800	1400	1400	1200	1000	900	/	/	/	/	/	/
	K2	rpm	/	/	/	/	/	1600	1400	1200	1000	900	/	/	/	/	/
Air Temperature Limits (Min-20℃)	L	Max.℃	85	85	85	/	/	/	/	/	/	/	/	/	/	/	/
	R	Max.℃	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
	K	Max.℃	/	/	/	85	85	85	85	85	85	85	85	85	85	85	85
	R2	Max.℃	/	/	/	85	85	85	85	85	/	/	/	/	/	/	/
	K2	Max.℃	/	/	/	/	/	85	85	85	/	/	/	/	/	/	/
Fan Weight	L	Kg	7.4	9.2	11	/	/	/	/	/	/	/	/	/	/	/	/
	R	Kg	9.4	10.8	13	19	25	36	44	57	71.5	131	156	192	/	/	/
	K	Kg	/	/	/	29	35	42	57	72	92	160	185	240	290	365	480
	R2	Kg	/	/	/	38	50	71	87	113	142	/	/	/	/	/	/
	K2	Kg	/	/	/	/	/	85	107	136	175	328	/	/	/	/	/

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

Fan Selection Criteria

1.the selection of high efficiency,the smaller the smaller,the larger the scope of the wind turbine,to meet the system can accept the performance,efficiency and quality requirements.The fan operating point,should be selected in the vicinity of high efficiency fan,to ensure stable operation,avoid the work of the fan in the surge zone.To reduce the noise,we must reduce the speed of the wind turbine, the choice of a large fan.AV system fan,air pressure should be selected according to the operating time of a longer part of the load conditions.

2.the choice of a strong wind turbine,often make the wind turbine running in the small wind area. the pressure difference between the inlet and outlet of the wind turbine,will cause the operation of instability and noise pulse.higher noise.After selection of wind machine,will raise the rotation speed of the fan,air leaving the blades have higher speed,also can produce high noise.The average speed of the air blower is M/S 10-15.

3.before to the multi blade fan:has the advantages of low speed,light structure,low noise,good speed regulation performance and cheap price,when the design flow and the pressure of small or large volume low pressure should give high priority to the use of wind turbine.After the wind machine, which has the advantages of high efficiency,low noise,high pressure and structure characteristics of strong,when the design pressure of fan is large should givel high priority to the use of wind turbine. No shell fan: when the pipe network needs a flexible export position,need to reduce the pipeline outlet noise,or pipe network in the future may change the occasion should be preferred.

4.total pressure curve is flat,small steepness,static pressure has a great influence on the wind power,performance and wider range of fan for air volume system,the static pressure sensitive,need air conditioning VAV air conditioning units.Full pressure curve is steep,steep,static pressure of air power influence small windl machine,suitable for fixed volume of air conditioner,before the wind turbine motor is not overloaded.The belt drive fan to pole motor with 4/6.