

YFFCDT/YFFCDH/YFBCDH Double Inlet Centrifugal Fan

To provide the most reliable and user-friendly air movement & control and air conditioning service.

Due to continuing research, Shanghai Nautilus reserves the right to change specifications without notice.



Performance range: Volume up to 150,000m³/h, Total Pressure up to 2,800Pa

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Metropolitan Series Product

- The forward inclined DWDI wheel has good ability of low noise and reliable running
- The backward inclined DWDI wheel has good ability of high efficiency and high energy savings
- Pittsburgh method joined, which results 0 air leakage
- Balance level up to G2.5

G2.5



Company Profile

Shanghai Nautilus General Equipment Manufacturing Co., Ltd. is a middle and high-end solution provider of air supply and gas heating and air cleaning equipment that integrates R&D, production and sales. Established in September, 2003, it is located in the Jiading District of Shanghai. The company is the member of the US Green Building Council (USGBC) and Air Movement and Control Association (AMCA) International, the high and new tech enterprise of Shanghai, **INFINAIR®** won the famous trademark in Shanghai.

Vision statement: To become the most trustworthy brand of professional air movement & control and air conditioning.

Mission statement: To provide the most reliable and user-friendly air movement & control and air conditioning service.







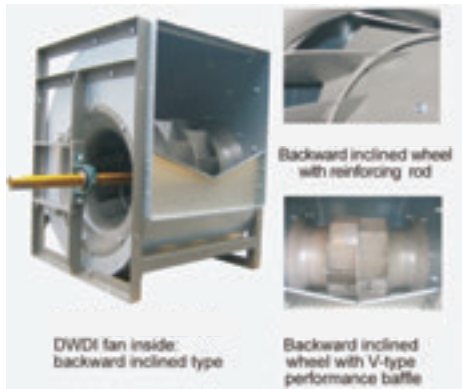
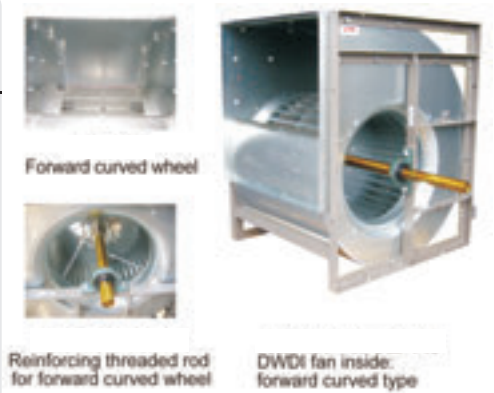
Shanghai Nautilus General Equipment Manufacturing Co., Ltd. certifies that the Model YFFCDT / YFFCDH / YFBCDH shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Feature of the forward/backward inclined DWDI fan

The forward inclined DWDI wheel has good ability of low noise and reliable running

- The forward curved wheel has bigger volume comparing with backward curved wheel in the same speed
- The forward curved wheel has lower speed and lower noise comparing with backward curved wheel in the same working condition
- Spinning precisely matched Venturi inlets and wheel cones assuring smooth, which further results well rectification effect and low noise



The backward inclined DWDI wheel has good ability of high efficiency and high energy savings

- The backward curved wheel has higher efficiency comparing with axial wheel, mixed flow wheel and forward curved wheel
- Accurately sized V-type performance baffle effectively reduced turbulence which results low noise and high efficiency
- The backward curved wheel has repeatedly optimized performance cures results safer running

Advanced technology ensure accuracy

- The fan housing is "Pittsburgh" method joined, which results 0 air leakage
- The two pieces of housing side joint at the same one time procedure to improve the accuracy and reduce the dimension of assembly error
- The blades are made by once punch forming, and dedicated fixture to ensure precise install



More reliable physical design

- The forward curved wheel precisely designed reinforcing threaded rod make sure long time reliable running
- The backward curved wheel reinforcing rod set on exact position to ensure long-term secure operation
- The fan is supported by stable channel steel frame, so that stable running of the fan is ensured

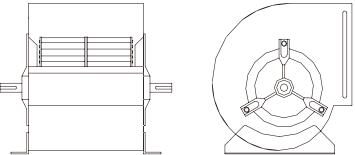
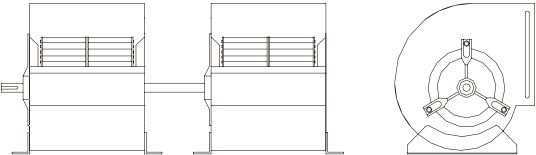
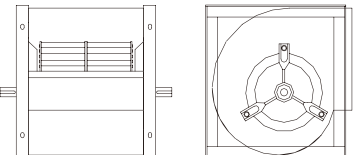
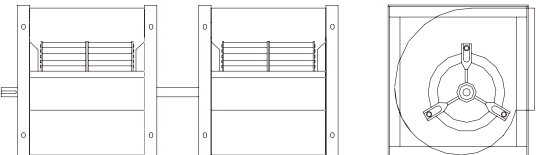
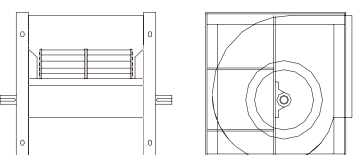
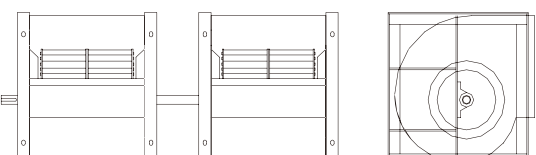
High balancing level

- Balance level up to G2.5 (Typical products are balanced to G6.3 only)
- To reduce the vibration of the fan, to improve reliability
- To reduce the running noise effectively

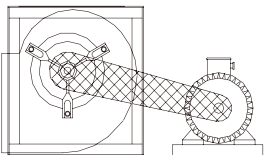
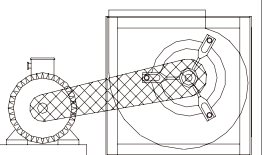
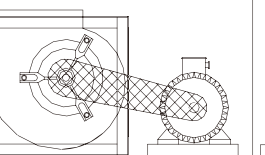
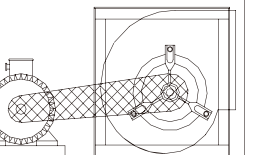
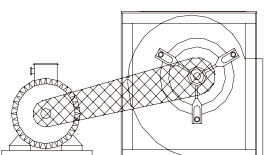
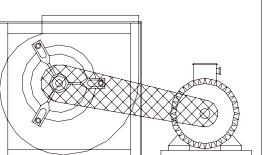
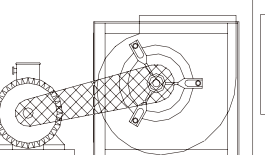
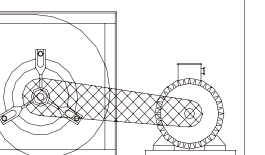
Configurations

1. Configuration

From light to strengthened structure, there are 4 types for YFFCDT/YFFCDH/YFBCDH including L/R/K/G

L mode		L2 mode	
R mode		R2 mode	
K, G mode		K2, G2 mode	

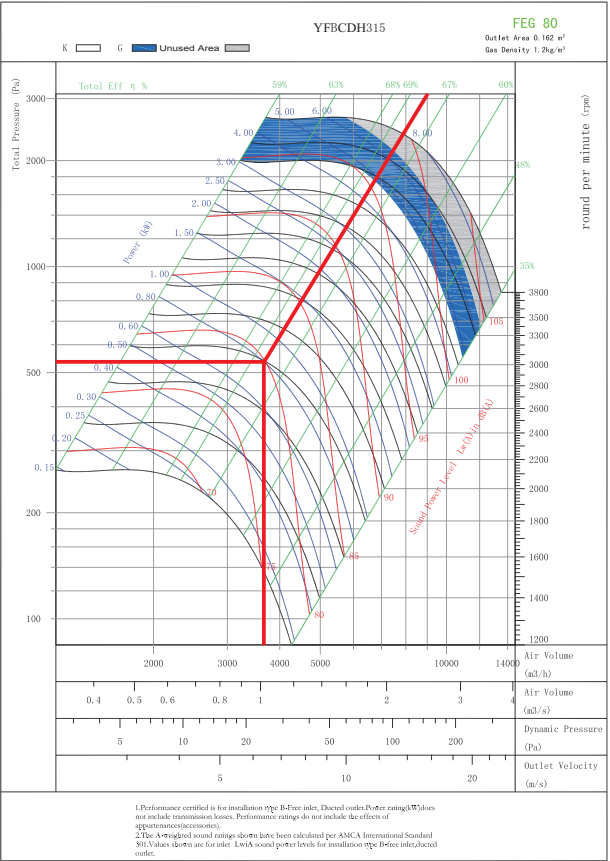
2. Rotation (From view of belt)

	0°	90° (A)	90° (B)	180°
Clockwise/Right				
Counter-clockwise/left				

Application

1. The fan is applied for nonflammable, non-corrosive air with dust & solid particles $<100\text{g/m}^3$, the environmental temperature should be within $-20^{\circ}\text{C}\sim+40^{\circ}\text{C}$.
2. The fan that is applied for high temperature (280°C) can be provided for YFFCDH, YFBCDH series, and also for explosion-proof fan of aluminum and fiber glass.

Performance



1. Fan selection (Illustration)

Air Volume	$Q=3800\text{m}^3/\text{h}$
Total Pressure	$P_t=540\text{Pa}$
Dynamic Pressure	$P_d=25\text{Pa}$
Static Pressure	$P_s=515\text{Pa}$
Rpm	$n=1800\text{r/min}$
Outlet Velocity	$v=6.2\text{m/s}$
Noise Level	$L_w=80\text{dB(A)}$
Power	$P=0.8\text{kW}$
Total Efficiency	$\eta=68\%$
Motor Power	$P_m=P_s \times k=1.1\text{kW}$

Where, K stands for safety coefficient of motor
 $P_m \leq 2.2\text{kW}, k=1.2$
 $P_m \leq 11\text{kW}, k=1.15$
 $P_m > 11\text{kW}, k=1.1$

2. Performance of Twin Fan

Performance of Twin Fan can be calculated according to the following formula based on that of Single Fan

Air Volume	$Q_n=Q \times 2$
Pressure	$P_n=P \times 1$
Rpm	$n_n=n \times 1.05$
Power	$P_n=P \times 2.15$
Noise Level	$L_{wn}=L_w+3$

Performance of twin fans are not licensed by AMCA International.

3. Standard Air Parameters

The performance shown in this brochure are based on standard air parameters, namely

Air pressure	$P_a=101.325\text{kPa}$
Air temperature	$t=20^{\circ}\text{C}$
Air density	$\rho=1.2\text{kg/m}^3$

4.Similarity Calculation

The expressions to fan performance of practical conditions

Air Volume

$$Q_2 = Q_1 \times \left(\frac{n_2}{n_1}\right)$$

Pressure

$$P_2 = P_1 \times \left(\frac{n_2}{n_1}\right)^2 \times \left(\frac{\rho_2}{\rho_1}\right)$$

Power

$$P_{s2} = P_{s1} \times \left(\frac{n_2}{n_1}\right)^3 \times \left(\frac{\rho_2}{\rho_1}\right)$$

Noise

$$L_{p2} = L_{p1} + 55 \lg\left(\frac{n_2}{n_1}\right)$$

Where, Air Volume Q_1 , Air Pressure P_1 , Shaft Power P_{s1} , RPM n_1 and Noise Level L_{p1} can be got from performance chart, and performance with footnote "2" is for practical conditions.

5.Sound Pressure Level & Sound Power Level

The A-weighted power level can be calculated from the 8 octave bands of the sound power level.
 $L_{wA}=10 \log [10 (L_{wi}+\Delta A1)/10+10 (L_{wi}+\Delta A2)/10+...+10 (L_{wi}+\Delta A8)/10]$
Where:
 L_{wA} — A-weighted power level;
 L_{wi} —octave band sound power level, in dB;
 $A1,A2,...A8$ —A-weighting correction, shown in below sheet.

Center Frequency	63	125	250	500	1000	2000	4000	8000
A-weighting corection	-25.5	-15.5	-8.5	-3	0	+1.0	+1.0	-1.0

2)Conversion Between Sound Pressure & Sound Power
Free field: $L_w=L_p+20(\lg d)+11$
Room conditions: $L_w=L_p+20(\lg d)+7$
Where:
 L_w — Sound power level
 d —The distance from fan in meters

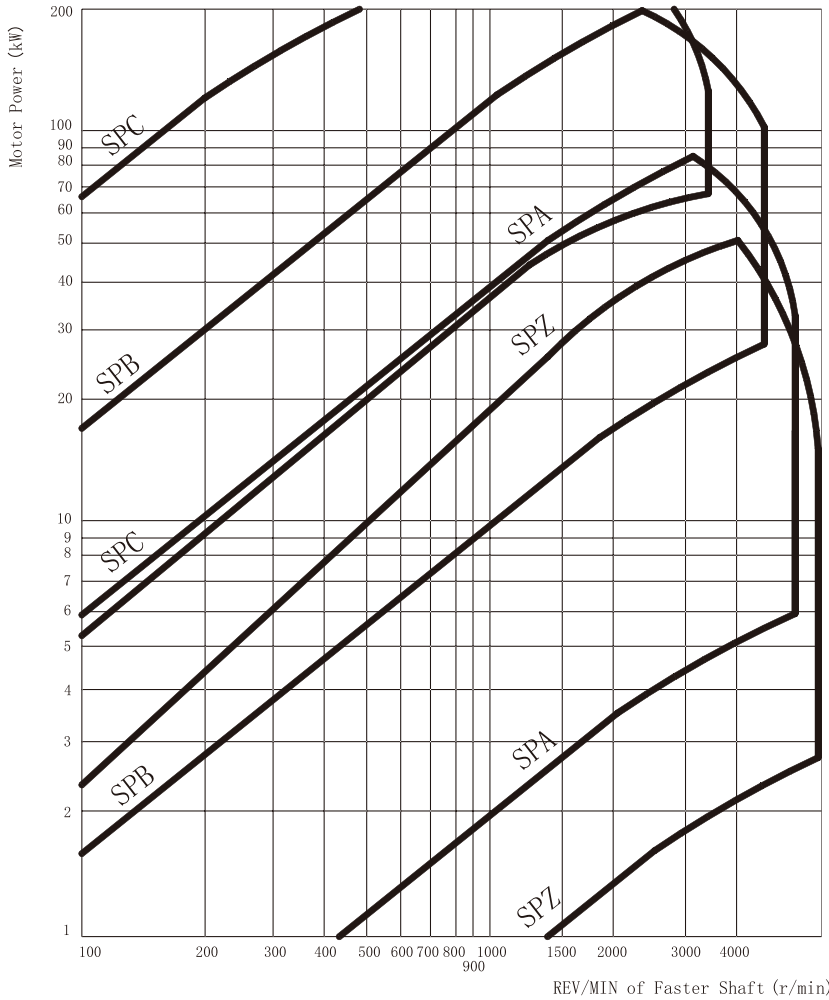
User's Guidance

1. Selection, installation & maintenance for drive system
It is critical to assure normal operating if we have corrent drive system selection, installation and maintenance,
1) K_s coeiffiency, the power transmission of belt should be greater than motor power, thus $P_f=K_s P_m$, where P_m shands for motor power. What Aeolius specified is that K_s should be ≥ 1.5 when $P_m \leq 7.5kW$, while $K_s \geq 1.6$ if $P_m > 7.5kW$. If step-up drive, above K_s should be 1.7 and 1.85 respectively.
2) Center Distance A, here we just specify minimum center distance, normally, $A > 0.55(D1+D2)+h$, where D1, D2 are pitch diameter of the pulley, h is height differentiation of the pulley position. What Aeolius specified here is $A > 0.75(D1+D2)$.

3) Pulley selection (See below sheet)

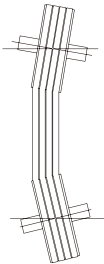
Fast Shaft Rpm	Min Pulley Diameter (mm)														
	Motor Power (kW)														
	≤1	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	
2880	56	60	67	67	80	80	85	90	100	112	125	132	160	170	
1800	56	63	71	75	80	85	95	106	112	125	150	155	170	190	
1400	56	63	75	80	85	85	100	112	125	140	160	165	190	212	
1200	56	71	80	80	95	95	106	118	132	150	160	175	200	236	
960	56	75	80	85	95	100	112	132	150	180	180	190	224	250	
720	56	80	85	100	100	106	132	150	160	190	200	224	250		

(4) Belt type: it will be helpful to improve life length of the driving system if using the right belt, selections should be proceeded according to below chart

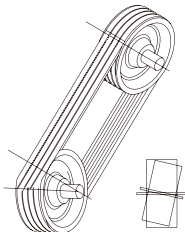


5) Pulley and belt assembly
Belt should be assembled only if the pulley is correctly fixed. To assure smooth assembly, the center distance must be slightly shortened, it is prohibited to pry the belt into the pulley groove at any time. Theoretically, two shaft should be parallel and the lengthwise intersection of the belt should be vertical with the shaft axis. It is difficult and the following pictures shows wrong and right examples. So practically, slight deviation is allowed as follows: allowed deviation $\leq 1.2mm$ if center distance $\leq 350mm$; $\leq 1.5mm$ if center distance between 350mm and 550mm; $\leq 2.5mm$ if center distance between 550mm and 1000m.

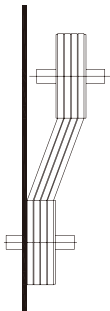
Not parallel shaft



Not parallel shaft (view from another direction)



The belt are not vertical with the shaft axis

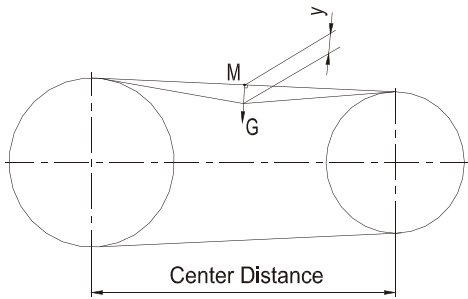


Corrent, shaft be parallel and belt be vertical with the shaft axis.



6) Belt Tension

Belt tension is critical to belt life. We usually use value of flexibility (y) to control the tension. When we apply force to belt at middle of external common tangent of two pulleys, and along with perpendicular of the tangent, there will be displacement, and (y) is displacement per 100mm tangent. Per different line speed and center distance, we can find value of force applied to belt in below sheet, with which there will be specific (y) value, bottom number if action pulley diameter is smaller and top number if larger, for new belt, the force applied can be 1.5 times more.



Belt Type	D (mm) Small Pulley Diameter (mm)	Center distance >1000 mm			Center distance <1000 mm		
		Line speed m/s	Line speed m/s	Line speed m/s	Line speed m/s	Line speed m/s	Line speed m/s
		0~10	10~20	20~30	0~10	10~20	20~30
		Force to belt with 10mm flexibility $f(N)$			Force to belt with 10mm flexibility $f(N)$		
SPZ	63~95	9~13	8~11	7~10	12~17	10~14	9~13
	>95	13~18	11~17	10~15	17~24	17~24	13~20
SPA	90~140	15~21	13~18	11~15	20~28	20~28	14~20
	>140	21~32	18~27	15~23	28~42	28~42	20~30
SPB	140~265	26~37	21~32	19~28	34~49	34~49	25~38
	>265	37~47	33~42	28~38	49~62	49~62	38~50
SPC	224~355	47~67	39~59	33~53	62~89	62~89	45~70
	>355	67~86	59~77	53~71	90~115	90~115	70~95

2. Bearing

1) Bearing Life

According to ISO281-1990, ball bearing life means endurance life with 90% reliability. Besides the design life, items there will be impacts on bearing life include pulley selection, belt tension, lubricating interval, ambient temperature/humidity and fan assembly quality.

2) Lubricating Interval

Here is the suggestion of lubricating interval, please use lithium grease 3# or contact bearing manufacturer for details.

Type	V alue d _n	Environmental Conditions	Operating Temperature	Lubrication interval	
				Operating hous	Time interval
Standard type	40000 or lower	Normal	-15~80	1500~3000	6~12 months
Standard type	70000 or lower	Normal	-15~80	1000~2000	3~6 months
Standard type	70000 or lower	Normal	80~100	500~700	1 months
Heat resistant type	70000 or lower	Normal	100~170	300~700	1 months
Heat resistant type	70000 or lower	Normal	170~200	100	1 week
Heat resistant type	70000 or lower	Normal	-60~80	1000~2000	3~6 months
Standard type	70000 or lower	Dust	-15~100	100~500	1 week~1 months
Standard type	70000 or lower	Humid	-15~100	30~100	1 day~1 week

Notes:

- a. d_n stands for arithmetic product of bearing inner diameter (d) and working speed^(a)
- b. The lubricating interval could be prolonged, or even be cancelled when value d_n is much lower than the specified, or the bearing is light loaded, or ambient temperature is below 60℃

3) Lubricant weight

Excessive lubricant must be avoided, which will lead to bearing overheated and seal components loosen.The lubricant must be put in by several times gradually,slowly rotating the bearing will be better. Please don’ t use the air-powered tools. Below is the suggestion of lubricant weight for different bearing.

Series	Lubricant Weight
201~205	2g
206~208	3g
209~212	5g
213~218	8g

3. Troubleshootings

If failure happened, please at the first time find the root cause and solutions to avoid further issues. Below sheet is the common issues and solutions:

Items	Root Cause	Solutions
Fan wheel collision w/ fan housing	Wheel deflected to touch air inlet cause axial force during shipment & loading or unloading	Loosen fastener fixed wheel & shaft, adjust gaps between wheel and air inlet, then re-tighten
Vibration	1. Fan wheel collision w/ air inlet 2. Resonance vibration cause not enough frame rigidity 3. Screw loosen between housing and frame, bearing block and frame 4. Loosen between shaft and shaft frame 5. Wheel unbalanced 6. Isolator failure	1. Adjust gaps between wheel and air inlet 2. Strengthen fan frame 3. Re-tighten 4. Exchange parts (shaft or shaft frame) 5. Re-balance 7. Exchange
Bearing – High temp. rising	1. Lubricant quality issue / overweighted, or contains dust etc. 2. Bearing damaged	1. Use qualified lubricant and keep working environment clean 2. Exchange
Motor– Super– current	1. Valve in air inlet duct not100% closed when startup 2. Excessive air volume or leakage on duct 3. Low voltage /3 phase unbalanced power 4. Wrong wire connection 5. normal and reverse rotation in same unit 6. Different running status for parallel fans in same unit	1. Check & Close 2. Valve adjustment / check and fix duct leakage 3. Check voltage, assure balanced power 4. Re-wiring 5. Check and assure no reverse rotation 6. Assure same running status for parallel fans
Control box– Switch tripped	1. Fan wheel seized 2. Bearing rust cause leaving unused for long time 3. Motor wetted 4. Contactor quality issue	1. Check 2. Periodical maintenance for fan bearing 3. Drying motors 4. Exchange
Abnormal noise	1. Fan deformation during shipment, loading & unloading 2. Fastener loosen, which fixes fan wheel 3. Fastener for bearing frame loosen, shaft deflected 4. Bearing damaged 5. Fan wheel vibration	1. Retrofit 2. Re-tighten 3. Adjust shaft position & re-tighten 4. Exchange 5. Re-balance fan wheel
Low or zero air volume	1. Valve closed 2. No return air 3. Reverse rotation	1. Valve should be gradually opened to nominal condition when startup 2. Clean filter to assure return air volume 3. Re-wiring
Belt loosen	1. Pulley and belt is not correctly assembled	1. Adjustment

1. Fan model, air volume, total pressure, installation direction & motor model must be specified on Purchasing Order, and any accessories like flange, driving system & base frame should be marked if required.
2. The fan assembly must be on site inspected before installation to assure there is no any interference between moving parts, especially for fan wheel and motor. Professional adjustment is necessary if any.
- 3.It's prohibited to put any additional weight on fan scroll, such as air duct. And fan shaft must be in horizontal position.
4. Before commissioning, please confirm the compliance of rotation direction and direction label on the fan scroll
- 5.It is prohibited to startup when the outlet head loss is out of specifications.
- 6.Please sure the operation current within nominal value at any time.
- 7.Routine maintenance is a must including belt tension, bearing grease, fasteners etc., adjustment is required immediately if something abnormal.



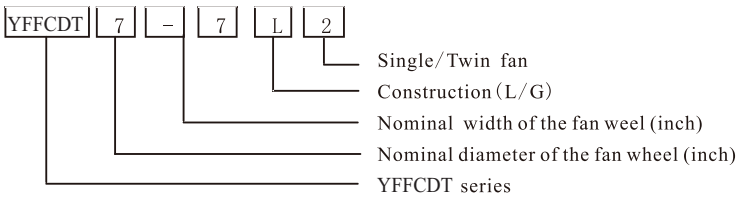
YFFCDT

Double Inlet Centrifugal Fan

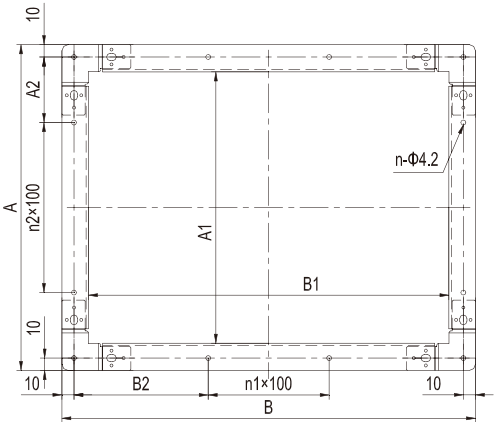
Features

- 1.Super Light Construction. Especially suitable for underceiling packaged unit.
- 2.Low Vibration.Unique reinforced design of bearing block greatly reduce the fan vibration, especially for those twin fans.
- 3.Low Noise Level & High Efficiency.Can replace high cost outer-rotor fan. Optimized scroll profiles and blade outlet angle assure the fan with high efficiency & low noise, and it will be further improved if adopt specially design the based frame and motor bracket.
- 4.High Reliability.Theoretical life span of ball bearing is no less than 20,000 hours if followed installation and operation instruction shown in this catalogue.

Nomenclature

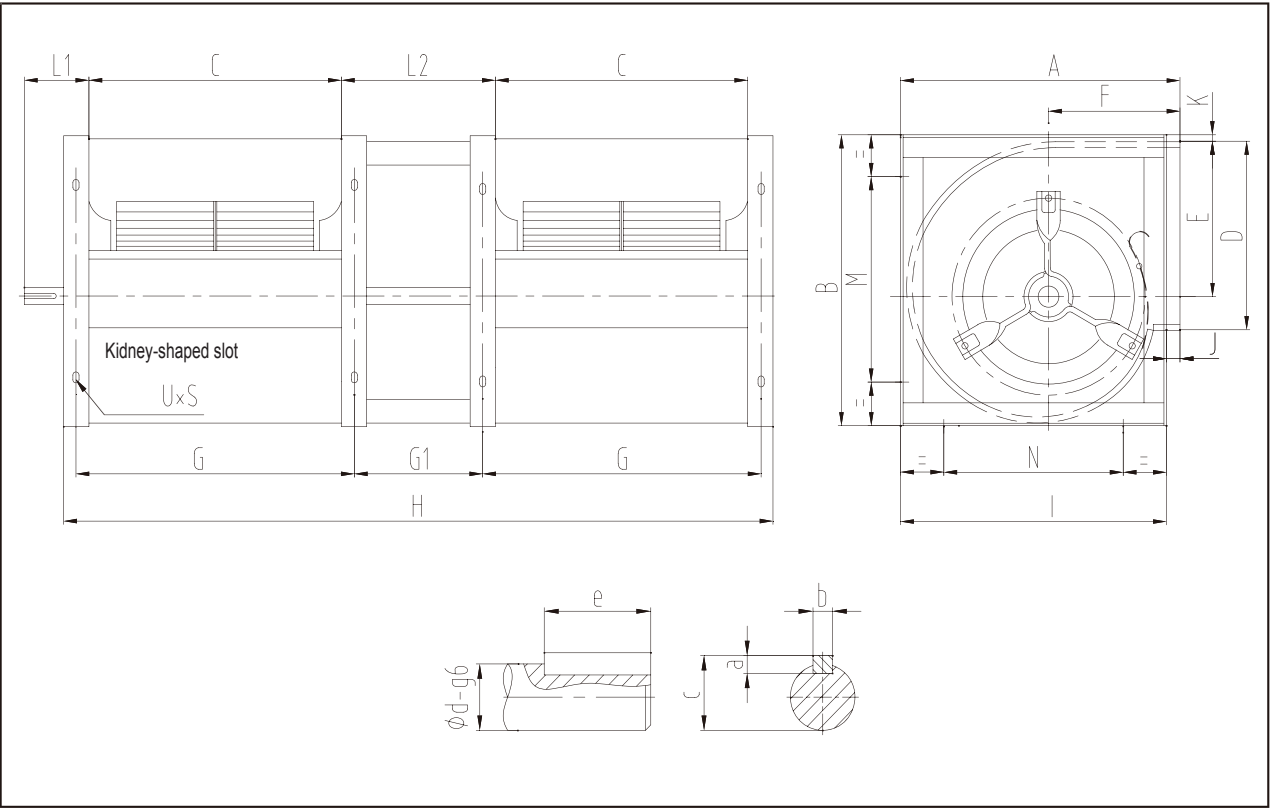


Outlet Flange



NO.	Flange P/N	A	A1	A2	B	B1	B2	n	n1	n2
1	YFFCDT7-7	272	228	76	301.5	257.5	90.75	12	1	1
2	YFFCDT9-9	306	262	93	340.5	296.5	60.25	14	2	1
3	YFFCDT10-10	333	289	56.5	373.5	329.5	76.75	16	2	2
4	YFFCDT12-12	387	343	83.5	437	393	58.5	18	3	2
5	YFFCDT15-15	448	404	64	513	469	96.5	20	3	3
6	YFFCDT18-18	522	478	101	599	555	89.5	22	4	3
7	YFFCDT20-20	634	590	107	682	638	81	26	5	4

YFFCDT-R2



Fan Model	A	B	C	D	E	F	G	G1	H	I	J	K	L1	L2	M	N	a	b	c	d	e	U*S
YFFCDT7-7R2	323	336	259	228	188	155	281	162	742	294	30	4	80	184	180	180	6	6	22.5	20	60	9*12
YFFCDT9-9R2	384	396	298	262	217	185	320	222	880	350	34	4	80	244	324	274	6	6	22.5	20	60	9*12
YFFCDT10-10R2	429	452	331	288	251	203	353	242	966	399	30	4	90	264	383	330	7	8	28	25	60	9*12
YFFCDT12-12R2	497	534	395	343	296	230	425	294	1174	467	30	5	110	324	443	371	7	8	28	25	70	11*16
YFFCDT15-15R2	574	620	471	404	341	264	501	354	1386	539	35	5	130	384	530	449	7	8	33	30	90	11*16
YFFCDT18-18R2	690	751	557	478	413	314	597	418	1652	655	35	5	130	458	641	545	8	10	38	35	90	11*16
YFFCDT20-20R2	796	868	640	590	488	361	680	470	1870	750	46	5	150	510	750	628	8	12	43	40	90	11*16

		7-7	9-9	10-10	12-12	15-15	18-18	20-20
Max.installed power (kW)	L	1.1	2.2	2.2	3	5.5	7.5	—
	R	1.1	2.2	2.2	4	5.5	11	11
	L2	1.5	3	3	5.5	7.5	11	—
	R2	1.5	3	4	7.5	11	15	18.5
Max.speed (r/min)	L	2400	2000	1600	1400	1100	900	—
	R	2400	2000	1600	1500	1100	1100	900
	L2	2200	1800	1500	1300	1100	900	—
	R2	2200	1800	1600	1400	1200	1000	900
Fan weight (kg)	L	6.5	9	11	17	24	42	—
	R	8.5	10.5	12	20	30	47	62
	L2	15	19	25	37	52	88	—
	R2	20	27	30	48	66	103	145
Air temperature (min-20°C)	L	85	85	85	85	85	85	—
	R	85	85	85	85	85	85	85
	L2	85	85	85	85	85	85	—
	R2	85	85	85	85	85	85	85
Dynamic Load (N)	L	12800	12800	12800	14000	14000	19500	—
	R	12800	12800	12800	14000	14000	19500	25700
	L2	12800	14000	19500	19500	25700	29100	—
	R2	12800	14000	19500	19500	25700	29100	32500
Bearing number	L	FH204	FH204	FH204	FH205	FH205	FH206	—
	R	FH204	FH204	FH204	FH205	FH205	FH206	FH207
	L2	FH204	UK205	UK206	UK206	UK207	UK208	—
	R2	FH204	UK205	UK206	UK206	UK207	UK208	UK209

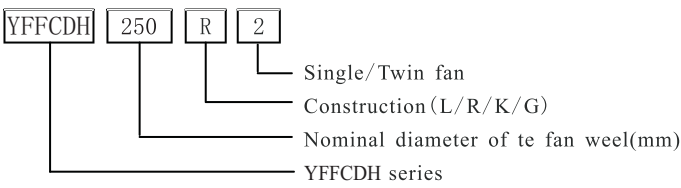


YFFCDH
Double Inlet Centrifugal Fan

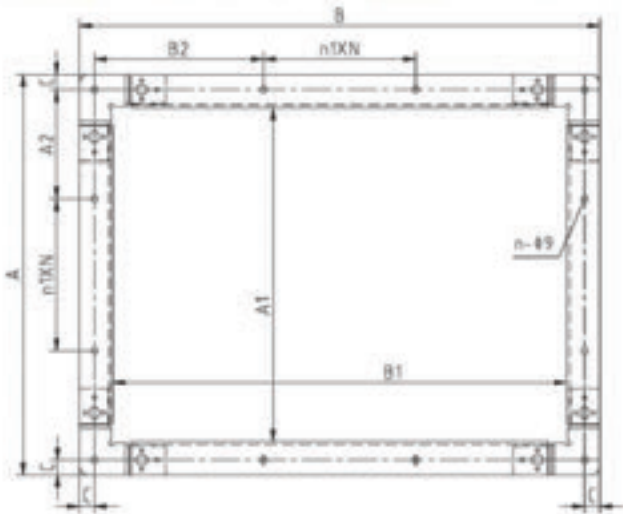
Features

- 1.Double inlet fans,with forward curved impellers.
- 2..11 sizes from 250 up to 800 mm wheel diameter.

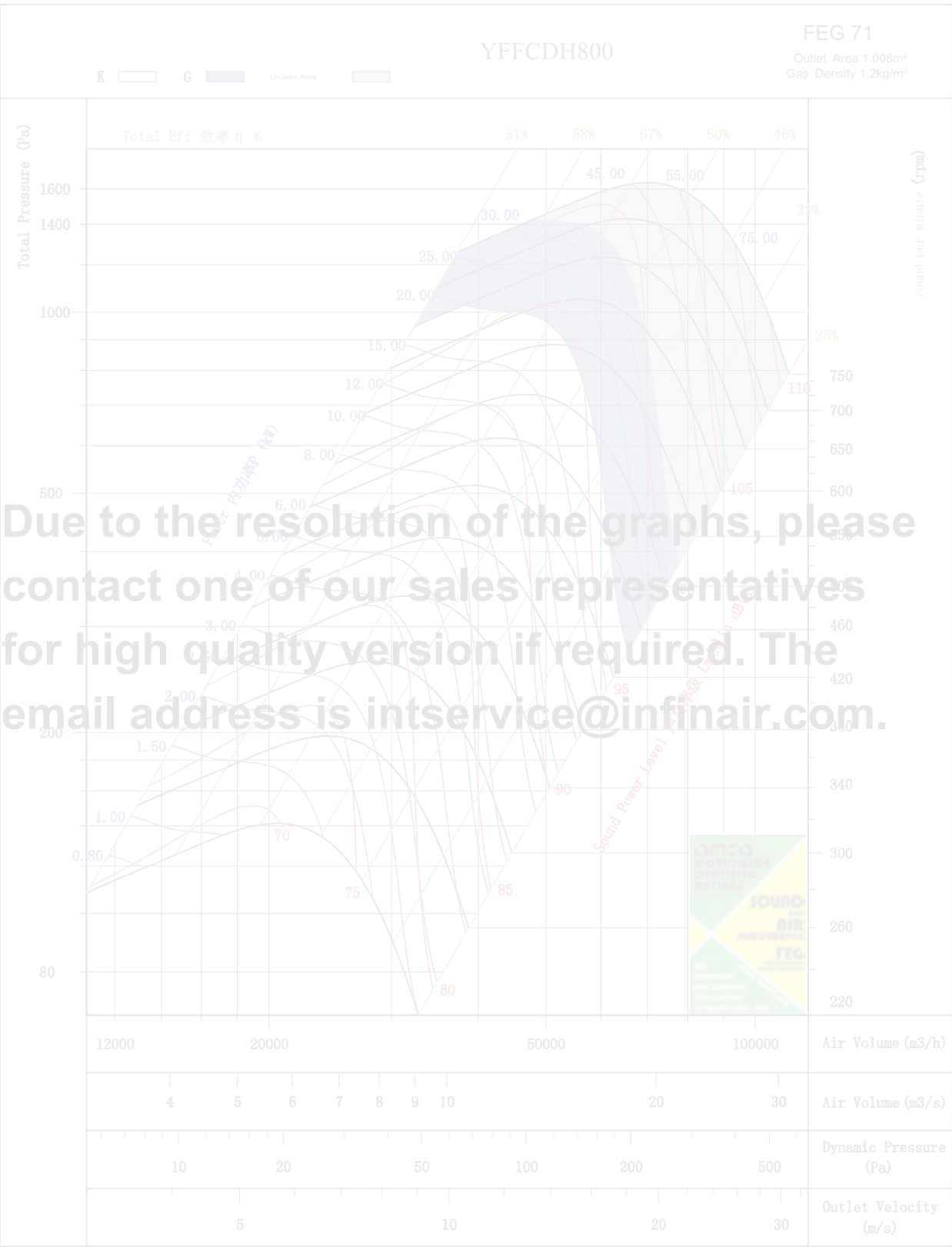
Nomenclature



Outlet Flange



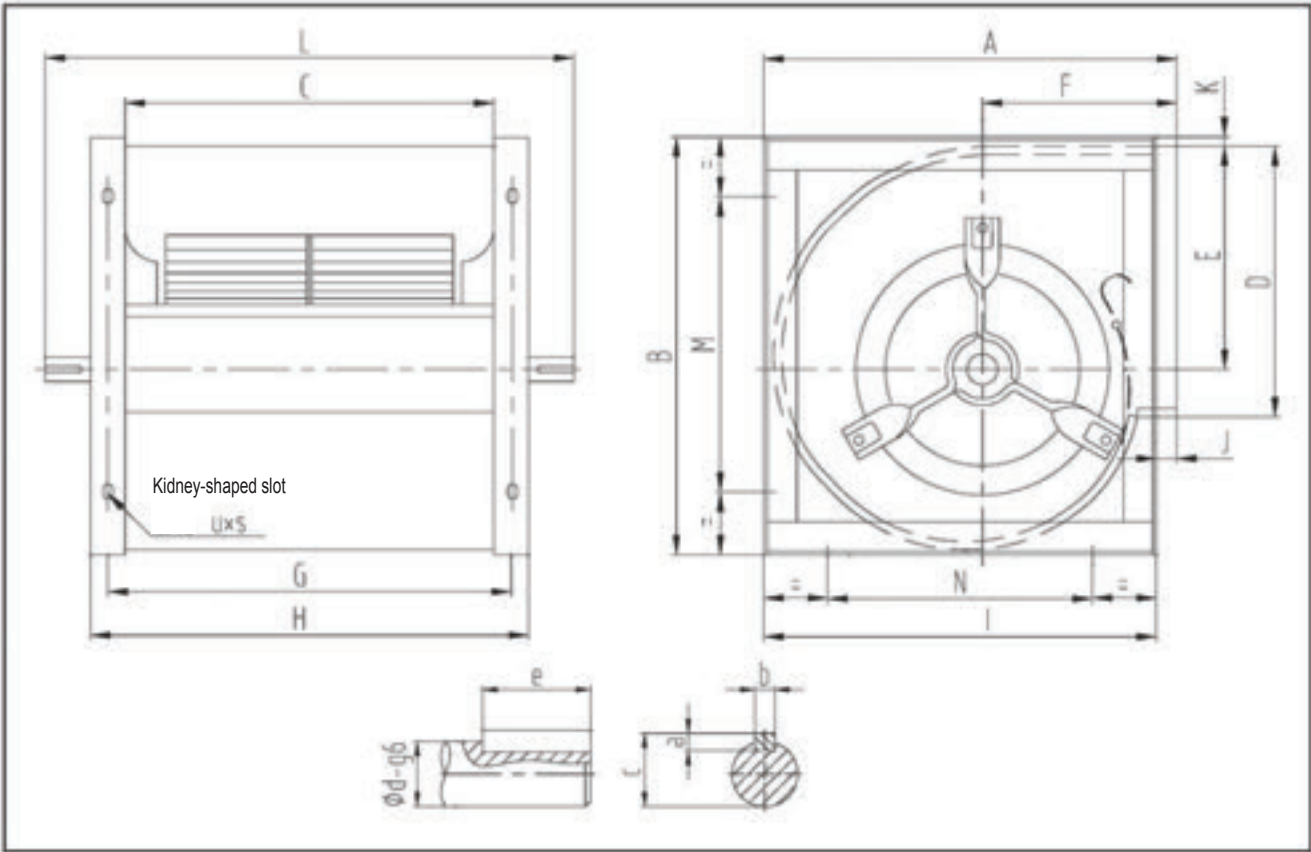
NO.	Flange P/N	A	A1	A2	B	B1	B2	C	N	n	n1
1	YFFCDH250	366	322	98	365	321	97.5	10	150	12	1
2	YFFCDH280	405	361	117.5	404	360	117	10	150	12	1
3	YFFCDH315	448	404	144	447	403	143.5	10	150	12	1
4	YFFCDH355	497	453	93.5	496	452	93	10	150	16	2
5	YFFCDH400	551	507	170.5	550	506	170	10	200	12	1
6	YFFCDH450	613	569	201.5	612	568	201	10	200	12	1
7	YFFCDH500	698	638	136	697	637	135.5	13	200	16	2
8	YFFCDH560	775	715	174.5	773	713	173.5	13	200	16	2
9	YFFCDH630	861	801	167.5	859	799	166.5	13	250	16	2
10	YFFCDH710	958	898	216	956	896	215	13	250	16	2
11	YFFCDH800	1067	1007	145.5	1065	1005	144.5	13	250	20	3



1. 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).

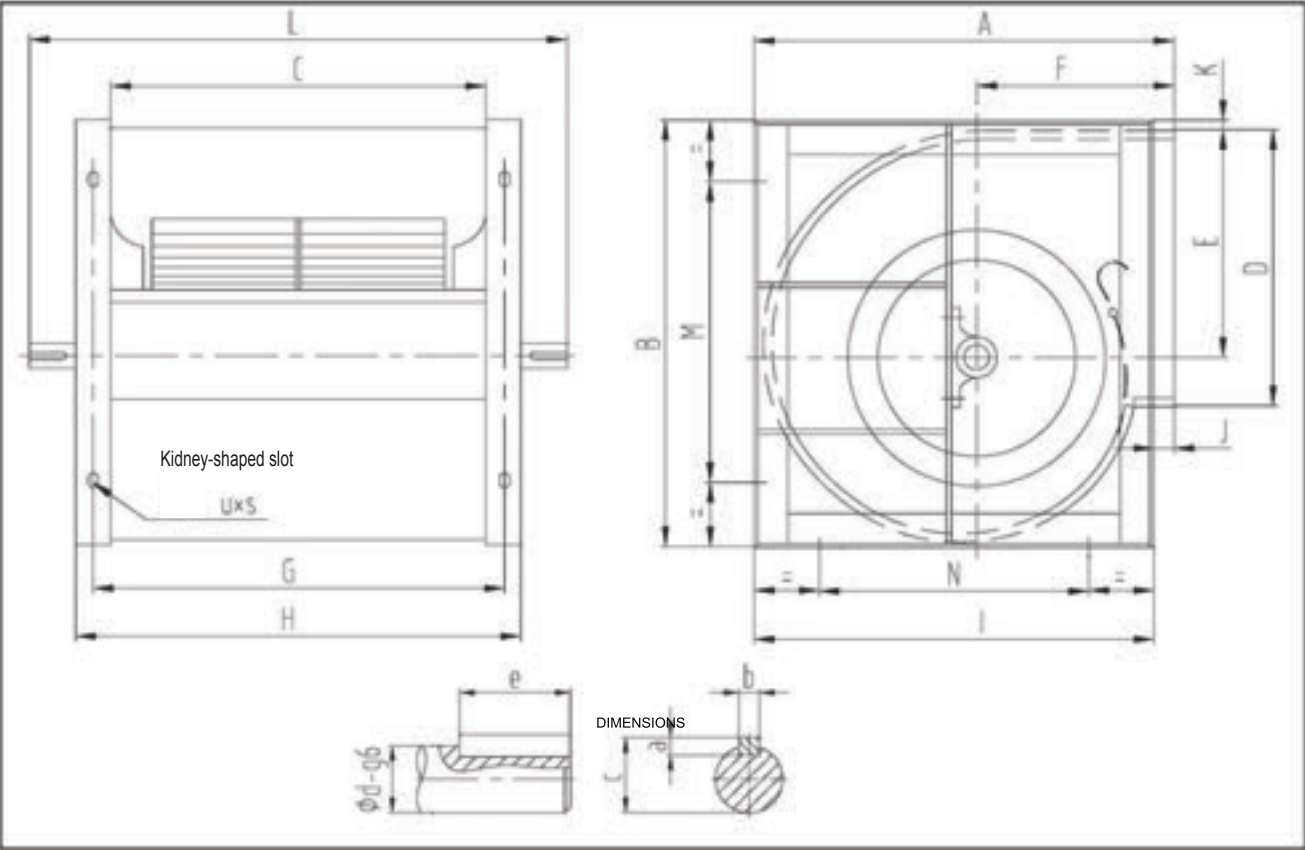
2. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet L_{WA} sound power levels for installation type B-free inlet, ducted outlet.

YFFCDH-R



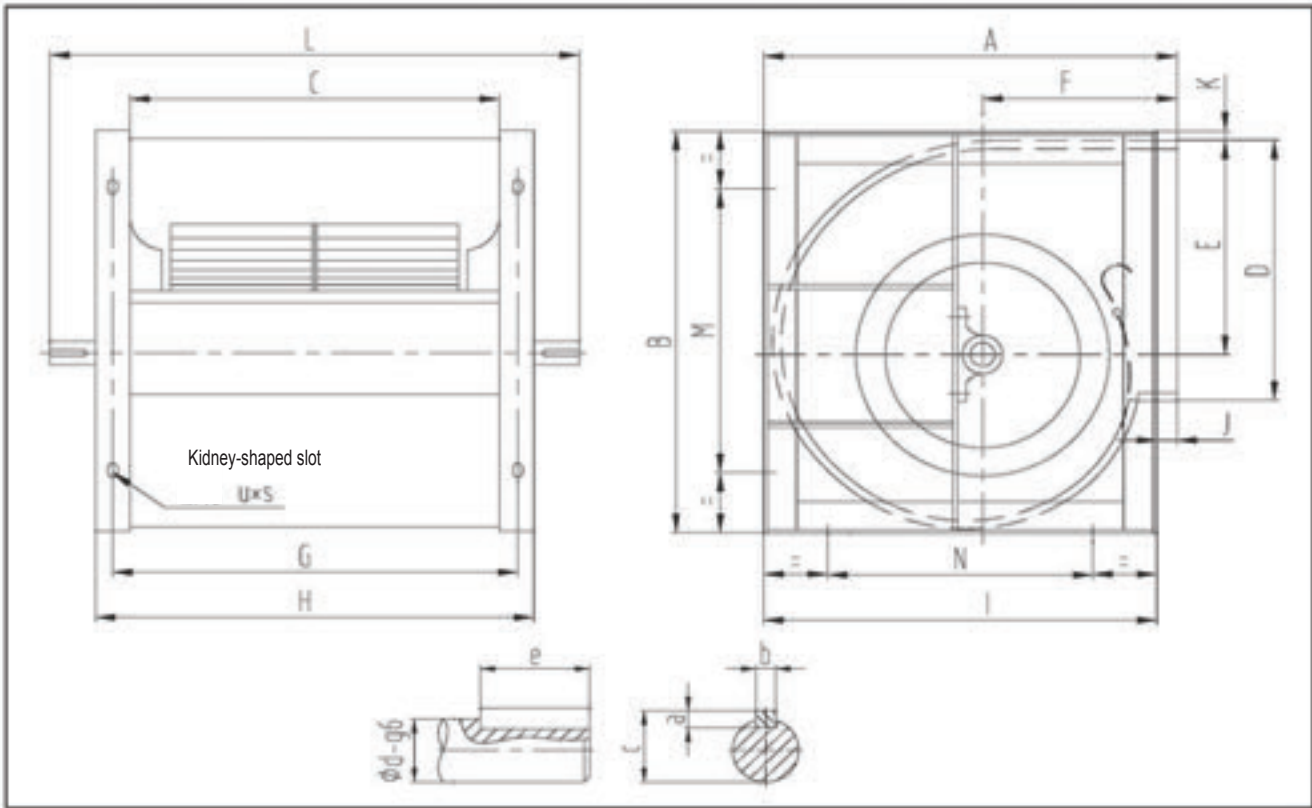
Fan Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	a	b	c	d	e	U*S
YFFCDH250R	427.5	475	322	322	264	193	350	372	391.5	36	10.5	520	224	224	6	6	22.5	20	45	11*16
YFFCDH280R	476.5	530	361	361	296	213	391	421	440.5	36	11.5	560	280	280	7	8	28	25	50	11*16
YFFCDH315R	530	595	404	404	336	234	434	464	492	38	11.5	605	280	280	7	8	28	25	50	11*16
YFFCDH355R	587.5	663	453	453	375.5	260	489	513	550.5	37	12	680	355	355	7	8	33	30	65	11*16
YFFCDH400R	656	742	507	507	421.5	292	547	587	620	36	12	730	355	355	7	8	33	30	65	11*16
YFFCDH450R	739	841	569	569	482	325	609	649	699	40	12	815	530	530	8	10	38	35	75	11*16
YFFCDH500R	810	929	638	638	530	352	678	718	762	48	12	885	530	530	8	10	38	35	75	13*18
YFFCDH560R	890	1022	715	715	599	390	765	805	841	49	5	1000	530	530	8	12	43	40	75	13*18
YFFCDH630R	998	1156	801	801	670	438	851	901	946	52	8	1090	530	530	8	12	43	40	90	13*18

YFFCDH-K



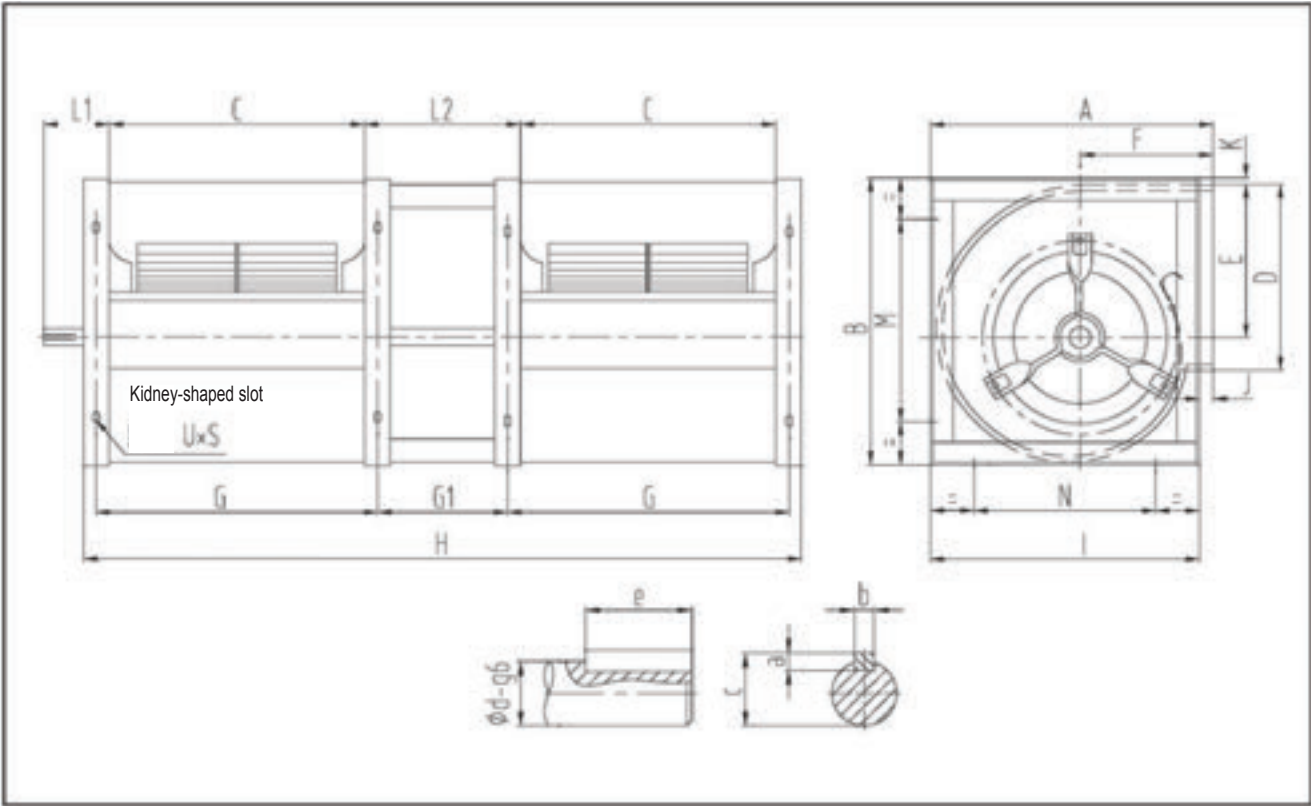
Fan Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	a	b	c	d	e	U*S
YFFCDH250K	427.5	475	322	322	264	193	350	372	391.5	36	10.5	520	224	224	7	8	28	25	45	11*16
YFFCDH280K	476.5	530	361	361	296	213	391	421	440.5	36	11.5	580	281	281	7	8	33	30	50	11*16
YFFCDH315K	530	595	404	404	336	234	434	464	492	38	11.5	625	280	280	7	8	33	30	50	11*16
YFFCDH355K	587.5	663	453	453	376	260	489	513	550.5	37	12	680	355	355	8	10	38	35	65	11*16
YFFCDH400K	656	742	507	507	421.5	292	547	587	620	36	12	760	355	355	8	10	38	35	65	11*16
YFFCDH450K	739	841	569	569	482	325	609	649	699	40	12	845	530	530	8	12	43	40	75	11*16
YFFCDH500K	810	929	638	638	530	352	678	718	762	48	12	920	530	530	8	12	43	40	75	13*18
YFFCDH560K	890	1022	715	715	599	390	765	805	841	49	5	1060	530	530	8	12	43	40	90	13*18
YFFCDH630K	998	1156	801	801	670	438	851	901	946	52	8	1160	530	530	8	12	43	40	90	13*18
YFFCDH710K	1122	1298	898	898	761.5	482	948	998	1062	60	6.5	1300	630	630	9	14	53.8	50	110	17*22
YFFCDH800K	1254	1466	1007	1007	855.5	538	1057	1107	1188	66	6.5	1450	710	710	9	14	53.8	50	110	17*22

YFFCDH-G



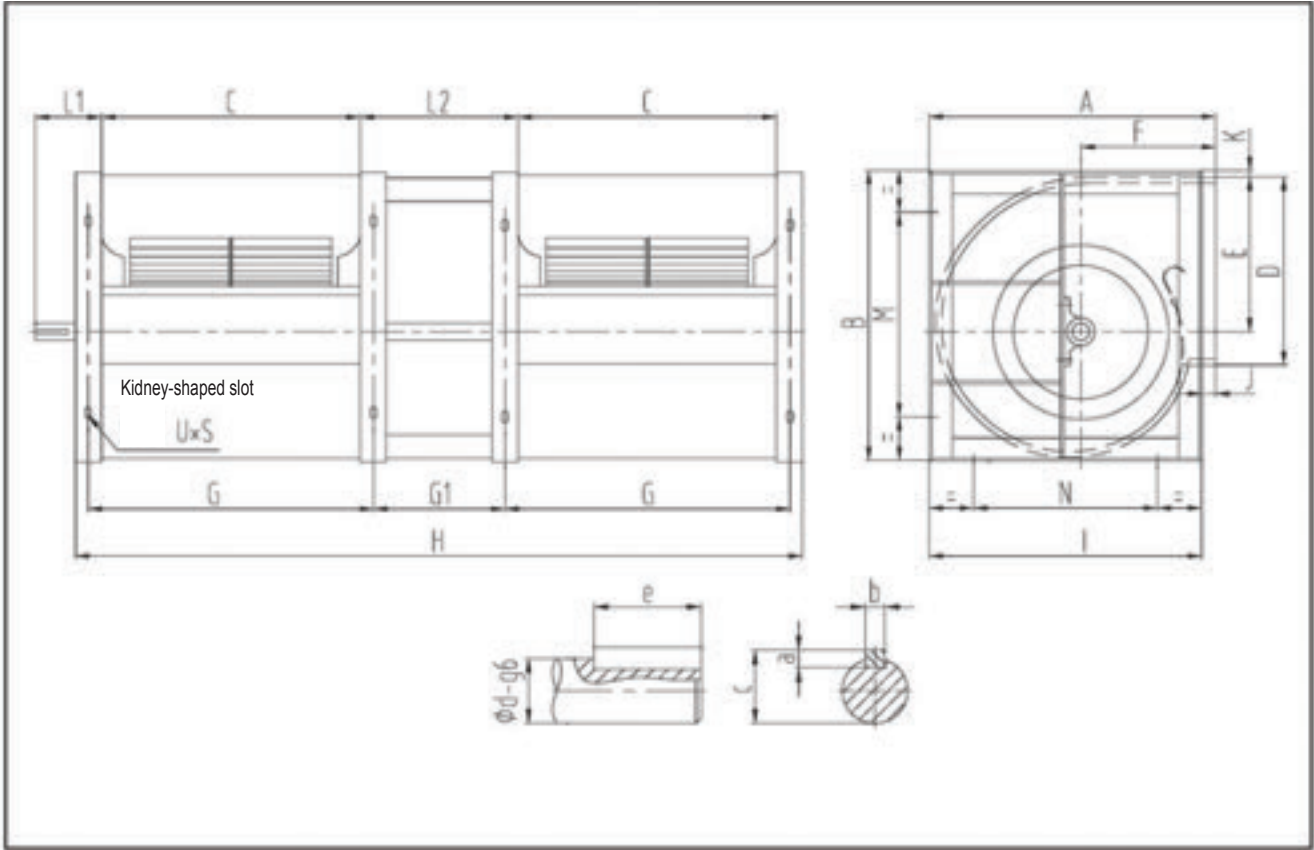
Fan Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	a	b	c	d	e	U*S
YFFCDH560G	890	1022	715	715	599	390	765	805	841	49	5	1060	530	530	9	14	53.8	50	90	13*18
YFFCDH630G	998	1156	801	801	670	438	851	901	946	52	8	1160	530	530	9	14	53.8	50	90	13*18
YFFCDH710G	1122	1298	898	898	761.5	482	948	998	1062	60	6.5	1300	630	630	11	18	64.4	60	110	17*22
YFFCDH800G	1254	1466	1007	1007	855.5	538	1057	1107	1188	66	6.5	1450	710	710	11	18	64.4	60	110	17*22

YFFCDH-R2



Fan Model	A	B	C	D	E	F	G	G1	H	I	J	K	L1	L2	M	N	a	b	c	d	e	U*S
YFFCDH250R2	427.5	475	322	322	264	193	350	220	942	391.5	36	10.5	110	248	224	224	7	8	28	25	75	11*16
YFFCDH280R2	476.5	530	361	361	296	213	391	248	1060	440.5	36	11.5	120	278	280	280	7	8	28	25	75	11*16
YFFCDH315R2	530	595	404	404	336	234	434	283	1181	492	38	11.5	130	313	280	280	7	8	28	25	75	11*16
YFFCDH355R2	587.5	663	453	453	376	260	489	317	1319	550.5	37	12	130	353	355	355	7	8	33	30	75	11*16
YFFCDH400R2	656	742	507	507	421.5	292	547	358	1492	620	36	12	140	398	355	355	7	8	33	30	75	11*16
YFFCDH450R2	739	841	569	569	482	325	609	408	1666	699	40	12	145	448	530	530	8	10	38	35	90	11*16
YFFCDH500R2	810	929	638	638	530	352	678	458	1854	762	48	12	150	498	530	530	8	12	43	40	90	13*18

YFFCDH-K2



Fan Model	A	B	C	D	E	F	G	G1	H	I	J	K	L1	L2	M	N	a	b	c	d	e	U*S
YFFCDH250K2	427.5	475	322	322	264	193	350	220	942	391.5	36	10.5	110	248	224	224	7	8	33	30	75	11*16
YFFCDH280K2	476.5	530	361	361	296	213	391	248	1060	440.5	36	11.5	120	278	280	280	7	8	33	30	75	11*16
YFFCDH315K2	530	595	404	404	336	234	434	283	1181	492	38	11.5	130	313	280	280	7	8	33	30	75	11*16
YFFCDH355K2	587.5	663	453	453	376	260	489	317	1319	550.5	37	12	130	353	355	355	8	10	38	35	75	11*16
YFFCDH400K2	656	742	507	507	421.5	292	547	358	1492	620	36	12	140	398	355	355	8	12	43	40	75	11*16
YFFCDH450K2	739	841	569	569	482	325	609	408	1666	699	40	12	145	448	530	530	8	12	43	40	90	11*16
YFFCDH500K2	810	929	638	638	530	352	678	458	1854	762	48	12	150	498	530	530	8	12	43	40	90	13*18

		250	280	315	355	400	450	500	560	630	710	800
Max. installed power (kW)	L-R	3	4	5.5	7.5	7.5	11	11	11	15	—	—
	K	5.5	7.5	7.5	11	15	15	18.5	18.5	18.5	22	22
	G	—	—	—	—	—	—	—	22	30	37	37
	L2-R2	4	5.5	7.5	11	11	15	15	—	—	—	—
Max. speed (r/min)	K2	7.5	7.5	11	15	15	22	22	—	—	—	—
	L-R	1900	1700	1500	1350	1200	1050	950	800	700	—	—
	K	2200	2000	1800	1600	1400	1200	1100	900	750	700	650
	G	—	—	—	—	—	—	—	1050	850	850	750
Fan weight (kg)	L2-R2	1500	1400	1250	1250	1050	950	800	—	—	—	—
	K2	2000	1600	1400	1400	1200	1050	900	—	—	—	—
	L-R	13	18.5	25	34	43	57.5	70.5	127	160	—	—
	K	15	21.5	30	39	52	70	85	152	186	230	290
(最低-20℃) Air temperature (min- 20℃)	G	—	—	—	—	—	—	—	158	194	238	299
	L2-R2	26	37	50	68	86	115	141	—	—	—	—
	K2	30	43	60	78	104	140	170	—	—	—	—
	L-R	85	85	85	85	85	85	85	85	85	—	—
Bearing Dynamic Load (N)	K	85	85	85	85	85	85	85	85	85	85	85
	G	—	—	—	—	—	—	—	85	85	85	85
	L2-R2	85	85	85	85	85	85	85	—	—	—	—
	K2	85	85	85	85	85	85	85	—	—	—	—
Bearing number	L-R	12800	14000	14000	19500	19500	25700	25700	29100	32500	—	—
	K	14000	19500	19500	25700	25700	29100	29100	29100	29100	35000	35000
	G	—	—	—	—	—	—	—	32500	32500	52500	52500
	L2-R2	19500	19500	19500	25700	25700	29100	32500	—	—	—	—
	K2	19500	19500	19500	25700	29100	29100	32500	—	—	—	—
	L-R	FH204	FH205	FH205	FH206	FH206	FH207	FH207	FH208	UK209	—	—
	K	UCP205	UCP206	UCP206	UCP207	UCP207	UCP208	UCP208	UCP208	UCP210	UCP210 U	UCP210 U
	G	—	—	—	—	—	—	—	UCP210	UCP210	UCP212	UCP212 U
	L2-R2	UK206	UK206	UK206	UK207	UK207	UK208	UK209	—	—	—	—
	K2	UCP206	UCP206	UCP206	UCP207	UCP208	UCP208	UKP209	—	—	—	—

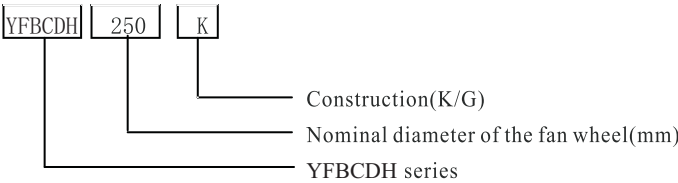


YFBCDH
Double Inlet Centrifugal Fan

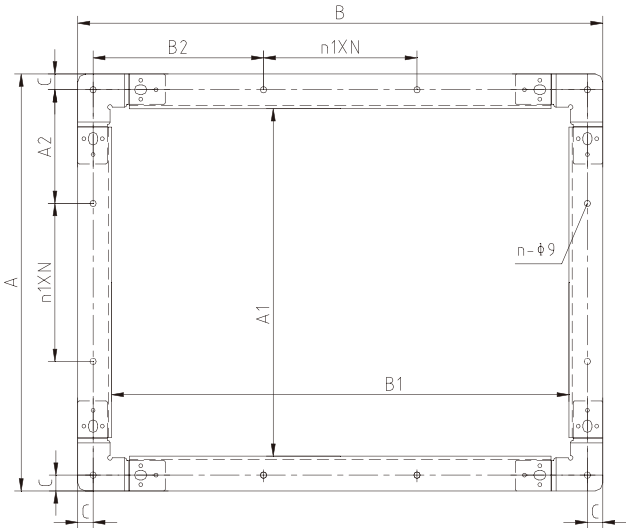
Features

- 1.Double inlet fans,with backward curved impellers.
- 2.Volume between 1000m³/h and 120000m³/h,with total pressure up to 3000Pa.
- 3.13 sizes from 250 up to 1000mm wheel diameter.

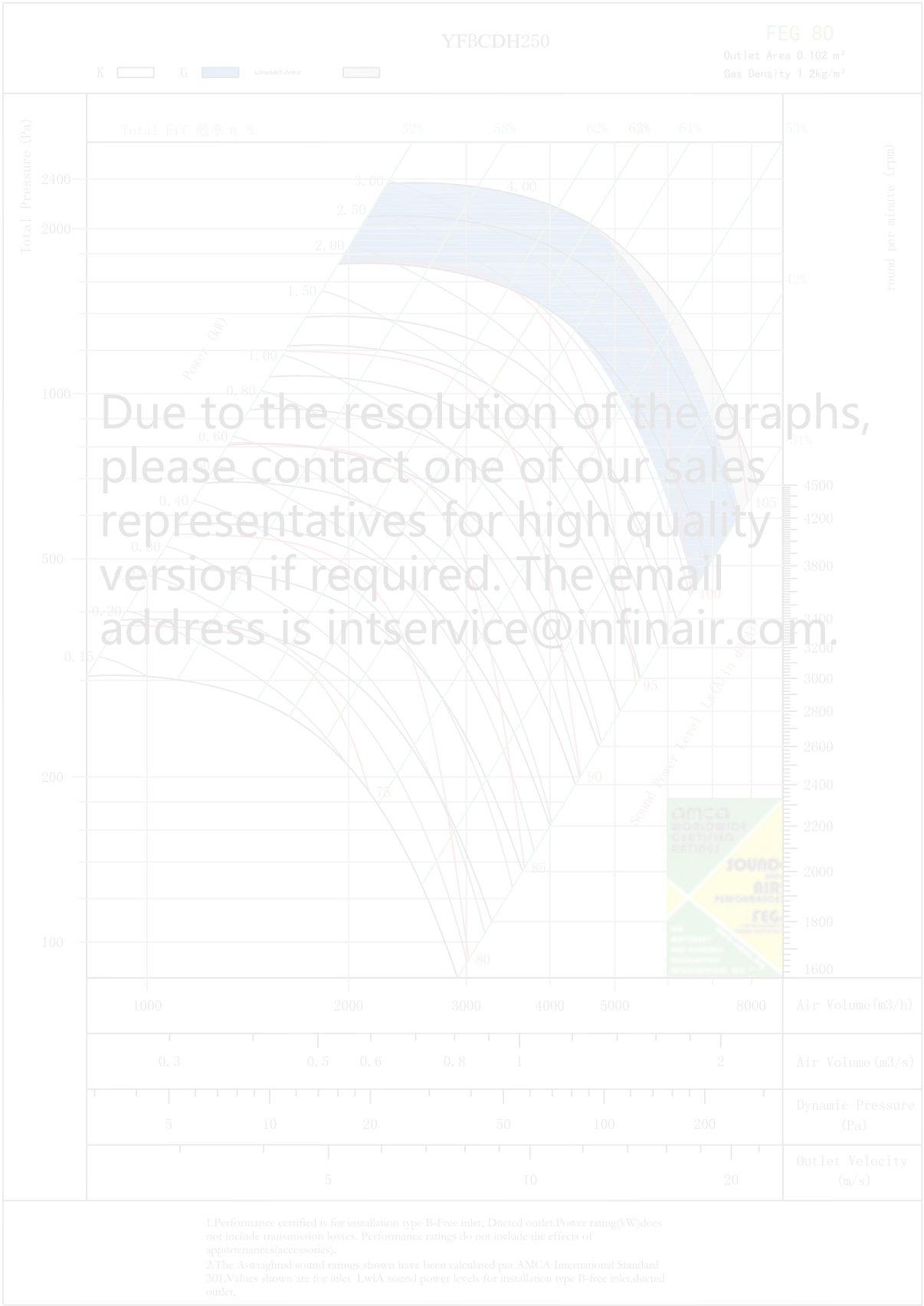
Nomenclature



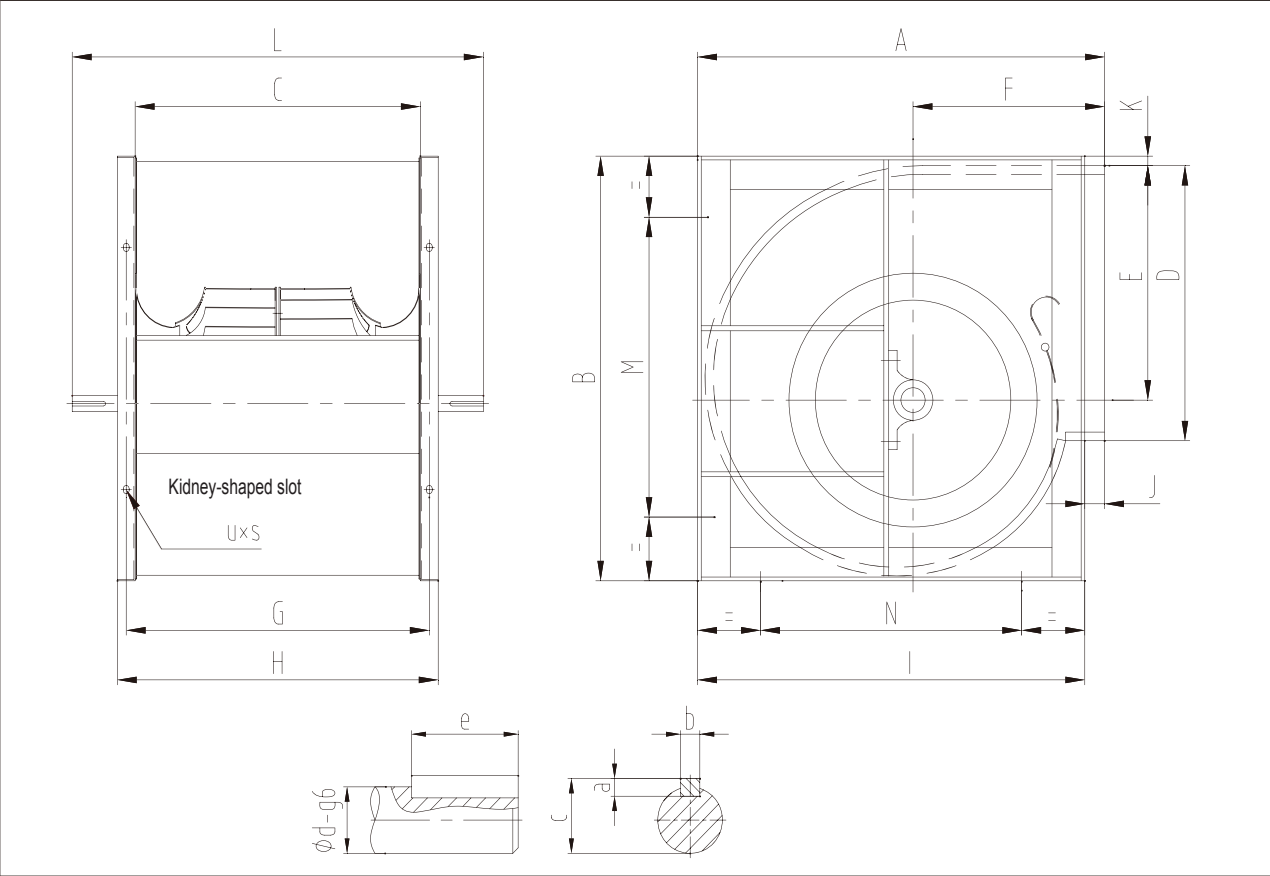
Outlet Flange



NO.	Flange P/N	A	A1	A2	B	B1	B2	C	N	n	
1	YFBCDH250	366	322	98	365	321	97.5	10	150	12	1
2	YFBCDH280	405	361	117.5	404	360	117	10	150	12	1
3	YFBCDH315	448	404	144	447	403	143.5	10	150	12	1
4	YFBCDH355	497	453	93.5	496	452	93	10	150	16	2
5	YFBCDH400	551	507	170.5	550	506	170	10	200	12	1
6	YFBCDH450	613	569	201.5	612	568	201	10	200	12	1
7	YFBCDH500	698	638	136	697	637	135.5	13	200	16	2
8	YFBCDH560	775	715	174.5	773	713	173.5	13	200	16	2
9	YFBCDH630	861	801	167.5	859	799	166.5	13	250	16	2
10	YFBCDH710	958	898	216	956	896	215	13	250	16	2
11	YFBCDH800	1067	1007	145.5	1065	1005	144.5	13	250	20	3
12	YFBCDH900	1190	1130	207	1188	1128	206	13	250	20	3
13	YFBCDH1000	1327	1267	150.5	1325	1265	149.5	13	250	24	4

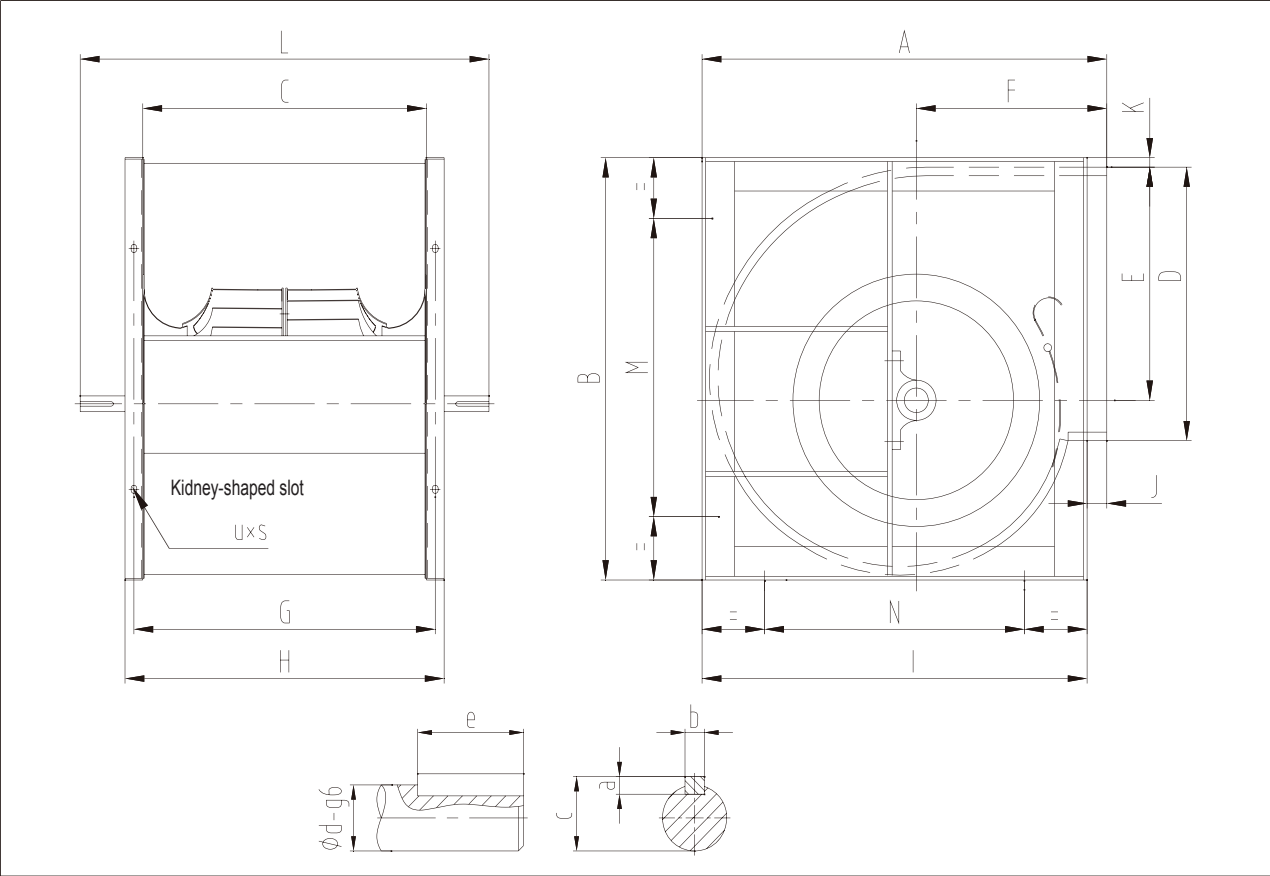


YFBCDH-K



Fan Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	a	b	c	d	e	U×S
YFBCDH250K	427.5	475	322	322	264	193	350	372	391.5	36	10.5	520	224	224	6	6	22.5	20	45	11×16
YFBCDH280K	476.5	530	361	361	296	213	391	421	440.5	36	11.5	580	280	280	7	8	28	25	50	11×16
YFBCDH315K	530	595	404	404	336	234	434	464	492	38	11.5	625	280	280	7	8	28	25	50	11×16
YFBCDH355K	587.5	663	453	453	376	260	489	513	550.5	37	12	680	355	355	7	8	33	30	65	11×16
YFBCDH400K	656	742	507	507	421.5	292	547	587	620	36	12	760	355	355	7	8	33	30	65	11×16
YFBCDH450K	739	841	569	569	482	325	609	649	699	40	12	845	530	530	8	10	38	35	75	11×16
YFBCDH500K	810	929	638	638	530	352	678	718	762	48	12	920	530	530	8	10	38	35	75	13×18
YFBCDH560K	890	1022	715	715	599	390	765	805	841	49	5	1060	530	530	8	12	43	40	75	13×18
YFBCDH630K	998	1156	801	801	670	438	851	901	946	52	8	1160	530	530	8	12	43	40	90	13×18
YFBCDH710K	1122	1298	898	898	761.5	482	948	998	1062	60	6.5	1300	630	630	9	14	53.8	50	110	17×22
YFBCDH800K	1254	1466	1007	1007	855.5	538	1057	1107	1188	66	6.5	1450	710	710	9	14	53.8	50	110	17×22
YFBCDH900K	1406	1641	1130	1130	962.5	600	1180	1230	1328	78	6.5	1580	800	800	11	18	64.4	60	110	17×22
YFBCDH1000K	1538	1798	1267	1267	1052	655	1317	1367	1454	84	8	1700	900	900	11	18	64.4	60	110	17×22

YFBCDH-G



Fan Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	a	b	c	d	e	U×S
YFBCDH250G	427.5	475	322	322	264	193	350	372	391.5	36	10.5	520	224	224	7	8	28	25	45	11×16
YFBCDH280G	476.5	530	361	361	296	213	391	421	440.5	36	11.5	580	280	280	7	8	33	30	50	11×16
YFBCDH315G	530	595	404	404	336	234	434	464	492	38	11.5	625	280	280	7	8	33	30	50	11×16
YFBCDH355G	587.5	663	453	453	376	260	489	513	550.5	37	12	680	355	355	8	10	38	35	65	11×16
YFBCDH400G	656	742	507	507	421.5	292	547	587	620	36	12	760	355	355	8	10	38	35	65	11×16
YFBCDH450G	739	841	569	569	482	325	609	649	699	40	12	845	530	530	8	12	43	40	75	11×16
YFBCDH500G	810	929	638	638	530	352	678	718	762	48	12	920	530	530	8	12	43	40	75	13×18
YFBCDH560G	890	1022	715	715	599	390	765	805	841	49	5	1060	530	530	9	14	53.8	50	90	13×18
YFBCDH630G	998	1156	801	801	670	438	851	901	946	52	8	1160	530	530	9	14	53.8	50	90	13×18
YFBCDH710G	1122	1298	898	898	761.5	482	948	998	1062	60	6.5	1300	630	630	11	18	64.4	60	110	17×22
YFBCDH800G	1254	1466	1007	1007	855.5	538	1057	1107	1188	66	6.5	1450	710	710	11	18	64.4	60	110	17×22
YFBCDH900G	1406	1641	1130	1130	962.5	600	1180	1230	1328	78	6.5	1580	800	800	12	20	69.5	65	110	17×22
YFBCDH1000G	1538	1798	1267	1267	1052	655	1317	1367	1454	84	8	1700	900	900	12	20	69.5	65	110	17×22

		250	280	315	355	400	450	500	560	630	710	800	900	1000
Max.installed power (kW)	K	3	4	5.5	7.5	7.5	7.5	11	18.5	22	30	30	45	45
	G	5.5	7.5	7.5	11	15	18.5	22	30	37	55	55	75	75
Max.speed (r/min)	K	3800	3400	3300	2800	2400	2200	1900	1800	1500	1400	1100	1100	1000
	G	4500	4200	3800	3400	3100	2800	2400	2200	1900	1700	1500	1400	1200
Fan weight (kg)	K	16	22	30	40	55	74	89	162	196	260	325	410	530
	G	16.5	22.5	31	42	57	76	92	168	204	268	334	420	540
Air temperature (min-20°C)	K	85	85	85	85	85	85	85	85	85	85	85	85	85
	G	85	85	85	85	85	85	85	85	85	85	85	85	85
Bearing Dynamic Load (N)	K	12800	14000	14000	19500	19500	25700	29100	32500	43500	43500	43500	57500	57500
	G	14000	19500	19500	25700	25700	29100	32500	43500	43500	57500	57500	66000	66000
Bearing number	K	UCP204	UCP205	UCP205	UCP206	UCP206	UCP206	UCP208	UKP209	UKP209	UKP211	UKP213	UKP213	UKP213
	G	UCP205	UCP206	UCP206	UCP207	UCP207	UCP208	UKP209	UKP211	UKP211	UKP213	UKP213	UKP215	UKP215

Eagle Service

