

## INFINAIR FANS

IS IT RELIABLE? OF COURSE! WE ARE  
INFINAIR FANS, ARE YOU?



# CUS

## Centrifugal Utility (SISW)



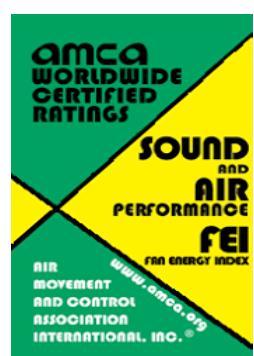
Utility Centrifugal Fans  
Sizes 300 mm - 1000 mm

UL 705:2017 Listed Fans  
High Quality Products  
Aluminum Construction  
Less Sound Quiet  
Operation  
Low Power Consumption



UL Listed Fans  
Standard UL 705:2017

INFINAIR ARABIA COMPANY LTD. certifies that the Centrifugal Utility Fans SISW (CUS) 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. The AMCA certified ratings seal applies to the FEI for all models of CUS



## Management Massages

INFINAIR ARABIA would like to express their thanks to all of you that you have selected INFINAIR products. INFINAIR products have been exported to many countries all over the world. INFINAIR is always looking to satisfy the customers in all levels by providing high quality fans. The fans engineering designs include a lot of solutions that maintain high performance, less power consumption, low noise and high efficiency rate. INFINAIR is very interested in Quality Management ISO 9001 and Health and Safety Management ISO 14001 and ISO 45001. We believe that management is the base to develop our products. INFINAIR has qualified engineers and designers to support customers before and after the orders. We have many training programs for the customers & consultants that enable them to get valuable information about Fans Engineering. INFINAIR has many departments to support their customers: Sales, Application, Engineering, Production, Quality and Service to make sure the products specifications are followed as per customers needs.



## Certifications and Accreditation

INFINAIR ARABIA COMPANY LTD has considered the certifications and accreditation at first priority to make sure that customer will buy a safe product, high quality air performance and finishing. INFINAIR has done many steps toward success for help all kind of customers in Middle East and North Africa (MENA). All INFINAIR products are under warranty for 18 months of delivery date. If customer would join Warranty extended program for 2 years or 5 years that is also possible.

**intertek**  
Total Quality Assured.

**AUTHORIZATION TO MARK**

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listed model(s) identified on the completion page of the Listing Report.

This document is the property of Intertek Testing Services and is not transferable. The certification mark(s) may be applied only at the location of the Party Authorized To Apply Mark.

**Applicant:** Infinair Arabia Company Limited  
**Address:** Mowasagh Free Zone, Amman - Jordan  
**Country:** Jordan  
**Contact:** Hosam Abu Shaeab  
**Phone:** +962785382880  
**FAX:** NA  
**Email:** hosam@infinair-arabia.com  
**Report Issuing Office:** Dallas, TX  
**Control Number:** 5015047  
**Party Authorized To Apply Mark:** Same as Manufacturer  
**Authorized by:**   
**for** Dean Davidson, Certification Manager

**Manufacturer:** Infinair Arabia Company Limited  
**Address:** Mowasagh Free Zone, Amman - Jordan  
**Country:** Jordan  
**Contact:** Nahid Saleem  
**Phone:** +962777967064  
**FAX:** NA  
**Email:** nahid@infinair-arabia.com  
**Report Issuing Office:** Dallas, TX  
**Control Number:** 5015047  
**Authorized by:**   
**for** Dean Davidson, Certification Manager

**Intertek**

This document supersedes all previous Authorizations to Mark for the noted Report Number.  
The Authorization to Mark is valid for the exclusive use of Intertek Client and is granted pursuant to the Certification agreement between Intertek and the Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party other than the Client in accordance with the agreement, for any loss, expense or damage suffered by such party arising from the use of the Intertek mark. Intertek shall not be liable for any claim for damages resulting from the use of the Intertek mark if such claim is based upon any statement or representation made by the Client or any party other than Intertek. Any further use of the Intertek name for the sale or advertisement of the listed material, product or service must be made in accordance with the terms and conditions of the Intertek Client Agreement. Intertek's liability is limited to the amount of the fees paid by the Client to Intertek for the services rendered. Intertek's liability is limited to the amount of the fees paid by the Client to Intertek for the services rendered. Intertek's liability is limited to the amount of the fees paid by the Client to Intertek for the services rendered.

Intertek Testing Services NA Inc.  
545 East Algonquin Road, Arlington Heights, IL 60005  
Telephone 800-345-3551 or 847-439-6667 Fax 312-283-1672

**Standard(s):** Power Ventilators [U] 705:2017 Ed.7 r+08/04/2018]

**Product:** Roof-Mounted Electric Fans

**Brand Name:** Infinair

**Models:** ISO-200, ISO-300, ISO-425, ISO-500, ISO-575, ISO-750, ISO-900, ISO-1000, RTC-200, RTC-225, RUC-200, RUC-300, RUC-425, RUC-500, RUC-575, RUC-750, CUS-200, CUS-300, CUS-425, CUS-500, CUS-575, CUS-750, CUS-900, CUS-1000, RUC-200, RUC-225, RUC-300, RUC-425, RUC-500, RUC-575, RUC-750, RUC-900, RUC-1000

**Air Movement & Control Association International, Inc.**  
The International Authority on Air System Components Since 1917

**amca**  
INTERNATIONAL  
  
**MEMBER**

**INFINAIR ARABIA COMPANY LTD.**

**September 2019**  
Member Since

  
Mark Stover  
Executive Director

## UL listed Certificate

## AMCA Membership



**ISO 14001:2015**

**ISO 45001:2018**

**ISO 9001:2015**

## >> Company Info

INFINAIR ARABIA COMPANY LTD is the first company in Kingdom of Jordan for producing ventilation industries specialized in fans production for HVAC objectives and Industrial purposes. It has been founded by the worldwide INFINAIR CORP that has been established in 2003. INFINAIR is a high technology brand. INFINAIR ARABIA is targeting to keep providing very high technology product, new solutions to the market, high energy saving fans, fast delivery to MENA, customer care, service after sales, new innovation ideas help customers to pay less cost with best solutions

**Factory Address:** Kingdom of Jordan, Amman, Mowaqqar Free Zone

**Sales & Service Office:**

INFINAIR ARABIA CO. LTD Sales offices are covering GCC and Africa:

- Jordan Sales Head Office and Technical Support - Amman
- Saudi Arabia, United Arab Emirates, Bahrain, Oman, Qatar and Iraq



**Company Vision:**

To be the most trusted brand in ventilation industry in the World

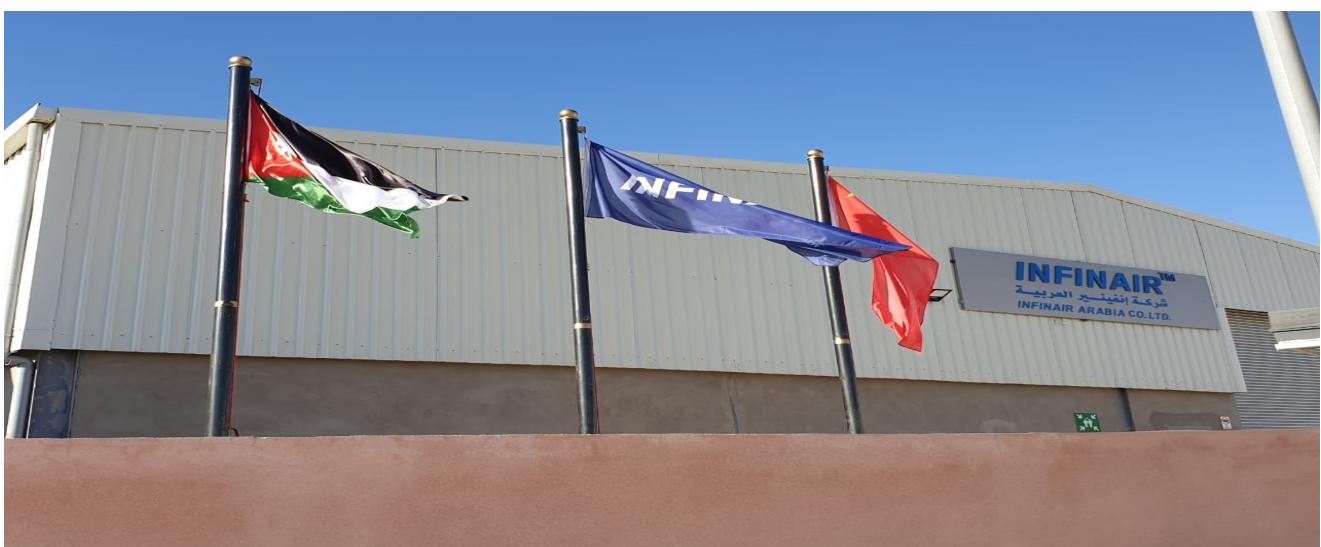
**Company Mission:**

To Provide reliable, convenient air movement controls, operations and services.



**Technological Strength of INFINAIR Brand:**

Control Association (AMCA) accredited laboratory in our Head Quarter in PRC. Most of the INFINAIR products are tested and certified by many international certification bodies. The Strength of INFINAIR ARABIA comes from a strong JV with INFINAIR CORPORATION



### INFINAIR's Intelligent Ventilation Technology

- **Smart Needs Identification:**

It can dynamically adjust the operation target to the changing load and environment.

- **Intelligent Adjustment :**

The use of inverter or EC smart control technology can make the fans achieve best results under the control of the intelligent speed regulation system.

- **Intelligent Real-time Information:**

Individual workstations are linked to the central control system through internet or local area network

- **Intelligent Detection system:**

Reliable sensors can detect early symptoms and notify the user, ensuring stable operation.

### INFINAIR's Bionic Technology

- **INFINAIR's Bionic Energy Conservation**

We develop energy saving products by observing behaviors from the animal kingdom. How can birds fly thousands of miles with extremely low energy consumption?

- **INFINAIR's Bionic Sound Reduction**

Why Owls can fly so silently? Even mice are not being able to detect their approach?

- The research and development of INFINAIR's products are heavily inspired by the animal evolution over the past millenniums. We have learnt how energy and sound are being able to conserve from their amazing changes .

### INFINAIR's After-sales Service

- **Joint Research & Development**

The Joint R&D can provide customer the necessary support and guidance during the initial research progress

- **Customization**

Our products are fully customizable. We are able to satisfy customer requirements on an individual basis

- **Adequate After-sales Service**



### Green Smart Technology

- **CFD Simulation & Analysis**

A computer-aided air movement simulation model which can calculate the efficiency of the fan based on the number of blades, blade angle, width, and sound level.

- **Finite Element Analysis Technology**

To analyze and provide accurate prediction of how material is likely to respond when subjected to structural and/or thermal loads.

### Connectivity

- Matrix Connection
- Central Connection
- Terminal Connection

### INFINAIR's Intelligent Fabrication

- Intelligent fabrication process

- Power test, dynamic balancing test and communication test performed on the production line

- Robotic welding technology

- Lean production

- 6Σ Systems

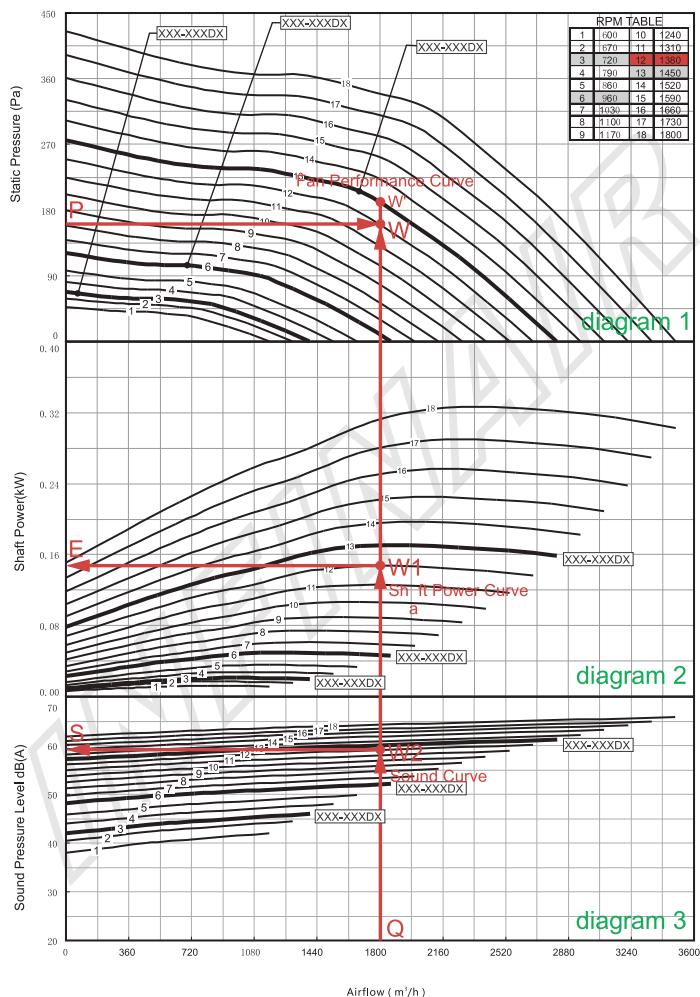
### Certifications and Tests

- **Most of the products are certified by:**  
UL, SMOKE, ATEX, AMCA

- **Performance and Reliability Tests:**

Airflow, Air Pressure, Power, Sound Level, Temperature Durability, Salt Spray and Water Proof Test, etc

# Performance Curves - Technical



**Example:**

Airflow: 1,800 m³/h, Static pressure: 160 Pa

**Step One:** A vertical line is drawn from the given airflow (Point Q: 1,800 m³/h) and a horizontal line from the given static pressure (Point P: 160 Pa). The intersection point (Point W) is the operating point. Then find a performance curve closest to Point W (in this case, it is Static Pressure Curve 12 at RPM 1,380 as shown).

**Step Two:** From the intersection point (Point W1) between the vertical line and Shaft Power Curve is drawn a horizontal line. Its intersection point with the Shaft Power axis (Point E: about 0.15 kW) represents the actual power consumption. So a 0.25 kW motor shall be used.

**Step Three:** From the intersection point (Point W2) between the vertical line and Sound Curve is drawn a horizontal line in Diagram 3. Its intersection point with the Sound Pressure Level axis (Point S: about 59 dB (A)) represents the sound level for the operating point of W.

**Step Four:** From the above steps, the model of the fan is identified as RTC-300-0.25 of belt drive type at 1,380 RPM. If fans of lower power or lower sound are preferred, please refer to larger fans for further comparison. It should be noted that the primary investments for larger fans would increase.

**Step Five:** If a fan of 1,800 m³/h at 180 Pa static pressure is needed, it is easy to know that Point W' is very close to Curve 13 in boldface (representing the fan of direct drive type at 1,450 RPM and 4-pole motor). The arrow leads to model RTC-300D4 equipped with a 0.25 kW motor, which has low price performance ratio.

## Fan Law 1

Airflow delivered by a fan varies in direct proportion to the change in its rotational speed

$$CFM_2 = \frac{RPM_2}{RPM_1} \times CFM_1$$

## Fan Law 2

Static Pressure developed by a fan varies with the square of the change in its rotational speed

$$SP_2 = \left( \frac{RPM_2}{RPM_1} \right)^2 \times SP_1$$

## Fan Law 3

Power required by a fan varies with the cube of the change in its rotational speed

$$BHP_2 = \left( \frac{RPM_2}{RPM_1} \right)^3 \times BHP_1$$



# Electrical Motors

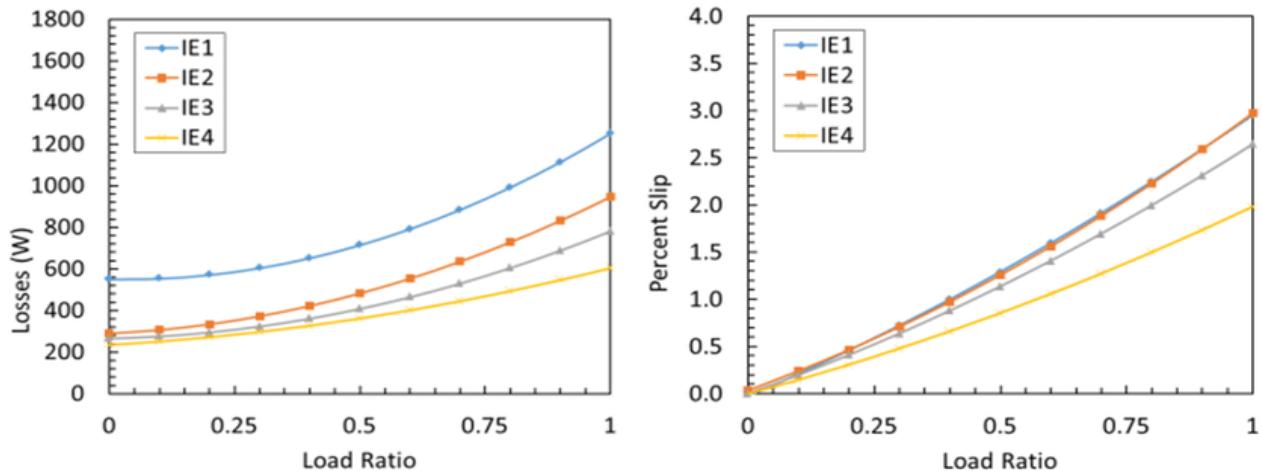
INFINAIR ARABIA fuse High Efficiency motors for all fans. TEFC motor's materials are made from Cast Iron, stainless steel shaft and high quality windings to overcome. The increasing demand for electrical energy to sustain global development requires consistent heavy investments in power supply generation. The best strategy to maintain energy supply in the short term is to avoid wastage and increase energy efficiency. Electric motors play a major role in this strategy, since around 40% of global energy demand is estimated to be related to electric motor applications. Consequently, any initiatives to increase energy efficiency, by using high efficiency electric motors and frequency inverters, are to be welcomed, as they can make a real contribution to reductions in global energy demand

## Motors Features:

- High Ambient withstanding 55 degree C
- Premium Efficiency Rating IE3 is a standard
- Super Premium Efficiency Rating IE4 (Option)
- Cast Iron Body and well designed Terminal Box
- Insulation Class is F and Protection is IP55
- Applicable for VFD operation
- Thermal protection integration
- Smoke applications 300 C / 400 C for 120 min (Option)
- Explosion Proof Motors (Options)
- NEMA 4X application for corrosion protection (Option)



IE3/4 Premium Motors compared with IE2/1



Flange



Flat



Explosion Proof



Smoke Application

## Note:

Please consult the sales office or the agent nearby your area and ask for motor details. For R&D purposes and logistics, the motors brands, color and specifications are subject to change without prior notice.

## Highlights of the 4<sup>th</sup> Generation of Wind-Surfer™ wheel

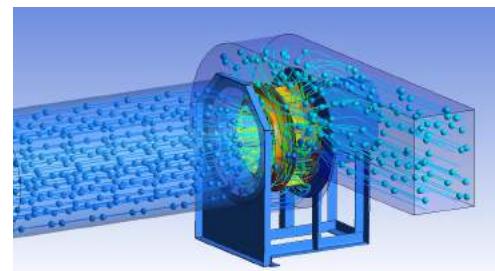
### Highlights of the 4<sup>th</sup> Generation of Wind-Surfer™ wheel

- Excellent sound and air performance
- Wide performance range of high efficiency and non-overload
- The balance quality grade as high as G2.5 (Just G6.3 for general products)



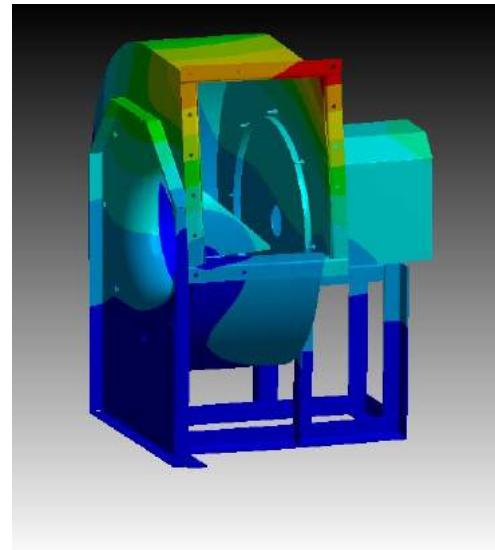
### Air Performance Design

- Optimized design through CFD flow field simulation and repeated tests
- Wheel cone and inlet cone in conformity with flow field characteristics
- Flow passages control: airflow regulated well through precise synergy
- Optimized mounting angle for blades



### Structural Design

- Stress analysis by FEA method for better performance
- Various additional strengthening for different specifications for greater reliability
- Riveting technology used to avoid stress



### Advanced Process

- Wheel cone and inlet cone formed by spinning to ensure good air performance
- Inlet Cone: replacing the inlet bell to ensure smooth airflow
- Blades: formed by punching to ensure quality
- Tooling: dedicated fixtures to ensure the precise mounting position of blades

### Wheel Improved

- Continuous Improvement: upgraded to the 4<sup>th</sup> generation of wheel
- Compared with the 3<sup>rd</sup> generation: overall performance improved by 5-10 %
- Compared with the 3<sup>rd</sup> generation: overall sound level reduced by 2-3 dB(A)

## Product Features

### Wide Performance Range

- Wheel Diameter: 300~ 1,000 mm
- Wide RPM and performance ranges offering more choices in model selection
- The number of turns adjustable, pulley and motor replaceable: performance range regulated for better adaptability

### Compact Structure

- Belt drive: AMCA arrangement 10 (motor right under shaft); direct drive: AMCA arrangement 4
- The compact structural design reducing space
- Belt length reduced and belt life extended
- Low center height of scroll leaving more space for duct installation

### Scroll Turned for Variable Discharge Directions at Jobsite

- The scroll is fixed by 8 equally spaced bolts. Discharge directions can be adjusted at the jobsite within the allowable angle range.

### AMCA Seal: for Sound and Air Performance

- CUS fans certified by AMCA for Sound and Air Performance
- AMCA Seal for Sound and Air Performance tagged on CUS fans

### Suitable for Outdoor Installation

- Rain cover available to protect the whole drive unit
- Total protection from sunlight, rain and snow affecting rotating parts
- Fewer impacts from climate factors on the durability and safety of fans



### AMCA Spark Resistant Construction Option

- Supply Spark A and Spark B construction option according to AMCA99-10
- Spark A: Housing is aluminum, wheel and inlet cone are aluminum
- Spark B: Wheel and inlet cone are aluminum

### Continuously Welded Housing

- The continuously welded housing has sufficient structural rigidity
- It is more suitable for ventilation of moist air compared with scroll manufactured with lock seam
- The accumulated dropping liquid inside the scroll will not result in leakage
- It is suitable for exhausting air containing condensed water and kitchen fumes

### Easy Maintenance

- Access doors are available on both sides of the motor
- With one screw driver, the electrical components can be checked and repaired
- Scroll access door is provided as a standard accessory

## Optional Accessories

### Inlet/Outlet Safety Guard

- Safety guard of high strength is mounted at the inlet/ outlet to prevent any foreign objects from entering the fan and ducts. Its mesh is dense enough to avoid injuries. The safety guard can be selected and ordered based on actual needs.

### Rain Cover

- Standard belt drive CUS fans that include a shaft/bearing guard and belt guard are for indoor installation. For outdoor installation, the rain cover shall be used to shelter motor, pulley, bearing and other rotating parts from sunlight, rain and snow. There shall also be a motor cover for CUS fans of direct drive type when used outdoors.

### Drain

- It is located at the bottom of the scroll to help discharge the liquid waste, such as condensed water and grease.

### Vibration Isolators

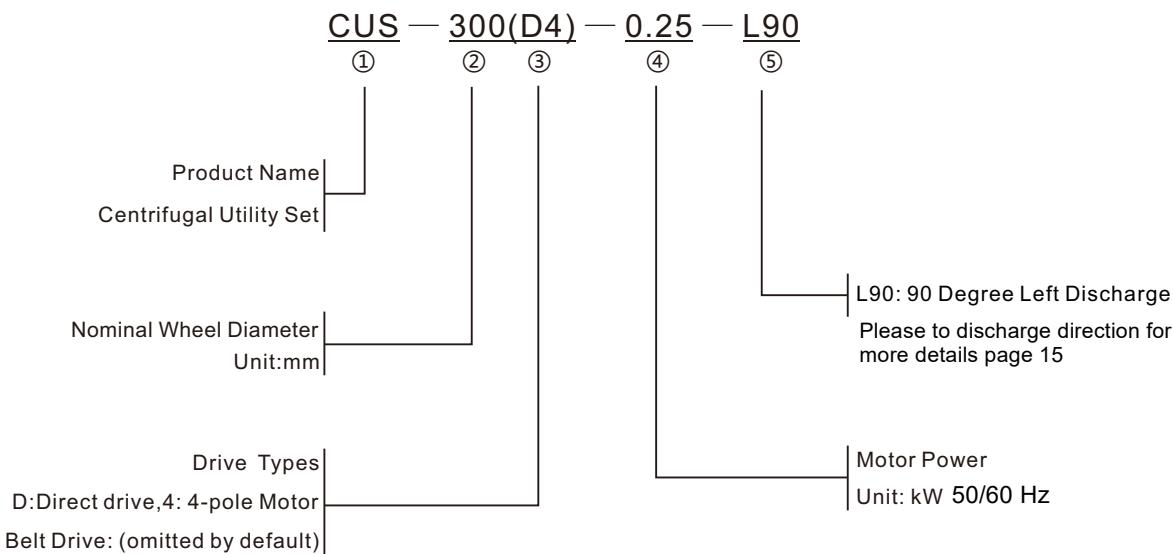
- Neoprene and spring isolators can be chosen based on needs. Vibration isolators provided by INFINAIR have been rigorously tested to effectively reduce vibrations.

### Inlet and Outlet Companion Flanges

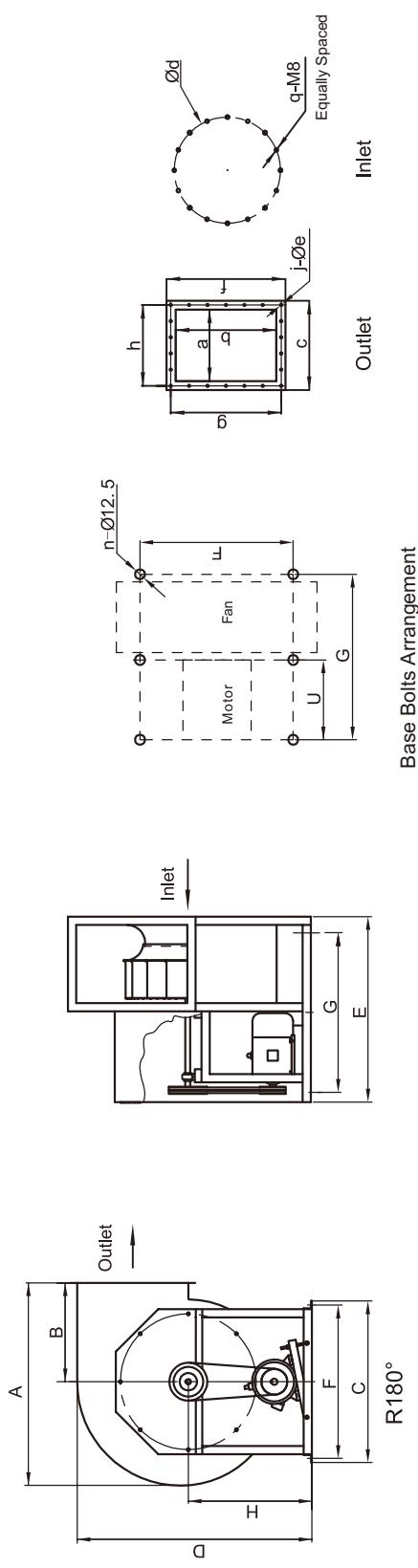
- They are for flexible connection between fans and ducts of different diameters and center heights. Also, the flanges help avoid vibrations affecting the whole system.

### Extended Grease Tube (for belt drive type only)

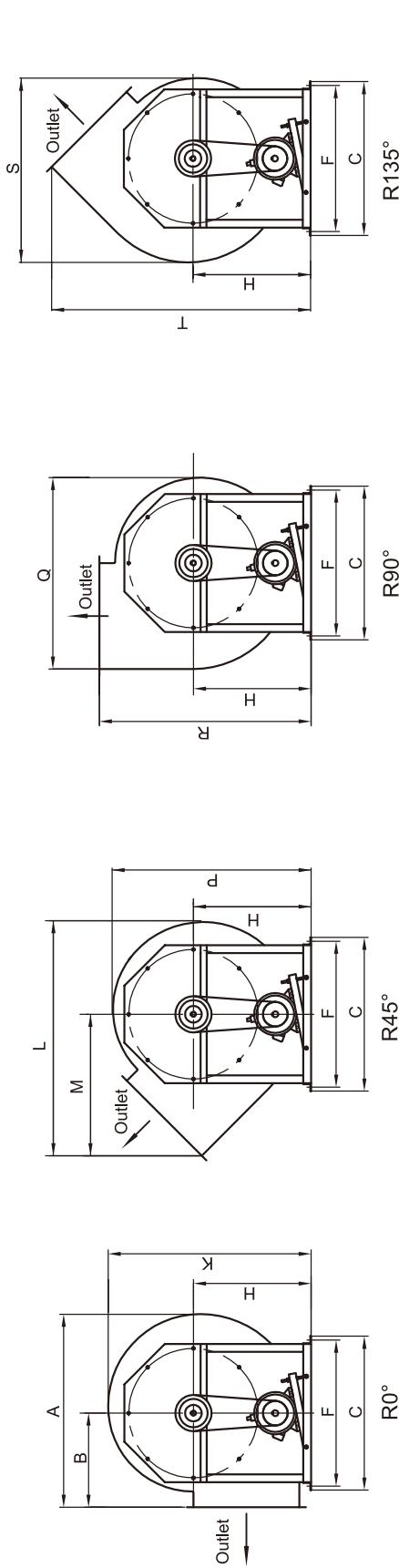
- The grease tube is extended to the exterior part of the fan so that maintenance workload gets reduced as the bearing guard does not need to be removed for grease filling.



## Belt Drive



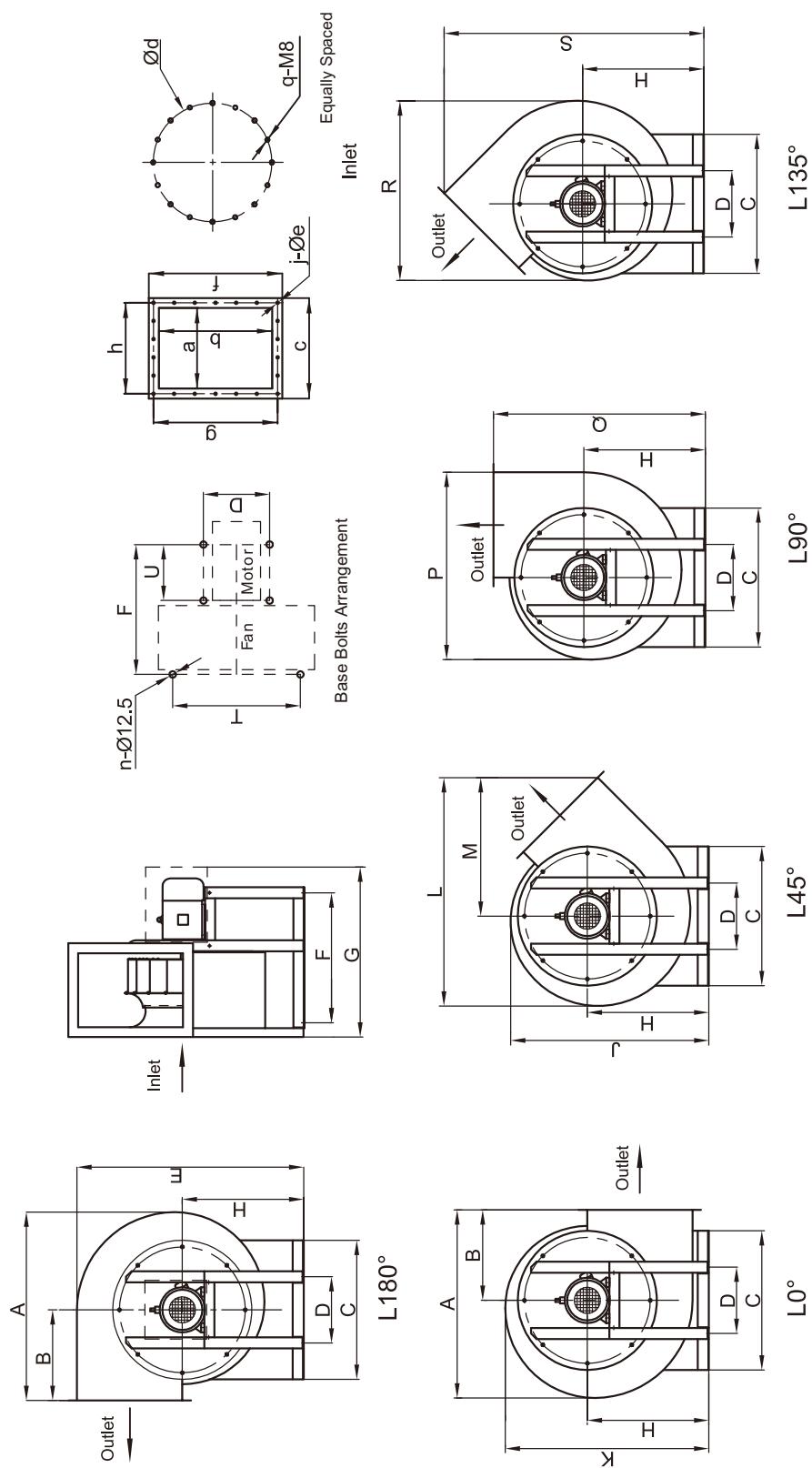
Base Bolts Arrangement



Model	A	B	C	D	E	F	G	H	K	L	M	P	Q	R	S	T	U	a	b	c	d	e	f	g	h	i	j	n	q	Weight (Kg)
CUS-300	528	250	490	688	625	440	500	380	608	650	398	587	536	630	507	778	0	215	305	295	350	9	385	3x115	3x85	12	4	8	49	
CUS-425	730	335	650	938	740	600	575	510	830	900	540	812	748	845	718	1050	0	300	428	380	495	9	505	4x117.5	3x115	14	4	8	76	
CUS-500	850	410	730	1028	845	690	710	550	920	1035	628	898	848	960	815	1178	355	335	475	425	570	11	565	5x105	3x128.5	16	6	8	98	
CUS-575	965	460	800	1158	900	750	725	615	1040	1168	708	1015	968	1075	930	1323	363	380	540	480	645	11	640	5x119	3x145	16	6	8	150	
CUS-675	1102	525	910	1308	1010	860	825	690	1185	1344	808	1155	1113	1215	1070	1498	413	430	615	530	750	11	715	5x134	4x121.5	18	6	16	215	
CUS-750	1235	600	980	1430	1135	930	950	750	1296	1490	905	1266	1225	1350	1182	1655	475	475	675	575	825	11	775	5x145	5x105	20	6	16	315	
CUS-900	1435	700	1130	1628	1208	1080	1000	850	1498	1737	1046	1468	1426	1550	1384	1896	500	545	775	645	975	11	875	6x137.5	5x119	22	6	16	440	
CUS-1000	1573	765	1230	1780	1368	1180	1125	925	1640	1905	1145	1608	1570	1690	1525	2070	563	595	850	695	1075	11	950	6x150	5x129	22	6	16	550	

Note: The motor weight is not included in the above table. Right rotations are in symmetry with left rotations and the dimensions are the same.

## Direct Drive



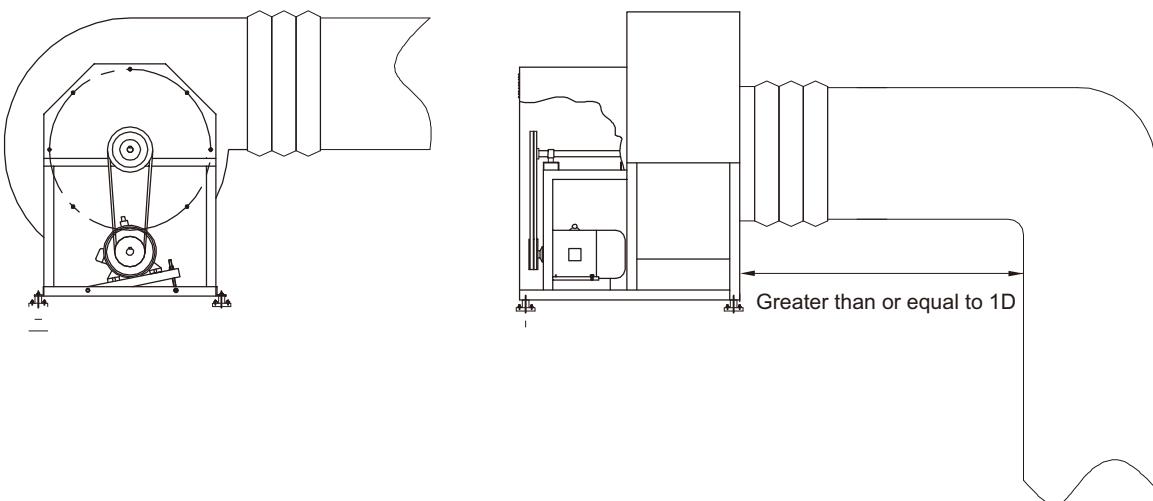
Model	A	B	C	D	F		E		G		H		J		K		L		M		P		Q		R		S		T		U		6P		8P	
					2P	4P	6P	8P	G	H	J	K	L	M	P	Q	R	S	T	6P	8P	a	b	c	d	e	f	g	h	i	j	n	q	Kg		
CUS-300D	528	250	490	280	230	230	230	230	688	390	390	390	587	608	650	398	536	630	507	778	340	/	215	305	295	350	9	385	3x115	3x85	12	4	8	46		
CUS-425D	730	335	650	270	250	250	250	250	938	460	460	460	510	812	830	900	540	748	845	718	1050	500	/	300	428	380	495	9	505	4x17.5	3x115	14	4	8	72	
CUS-500D	850	410	730	300	270	250	250	250	1028	580	500	500	750	550	898	920	1035	628	848	960	815	1178	580	/	335	475	425	570	11	565	5x105	3x128.5	16	6	8	93
CUS-575D	965	460	800	300	270	1158	570	570	800	615	1015	1040	1168	708	968	1075	930	1323	650	/	380	540	480	645	11	640	5x119	3x145	16	6	8	140				
CUS-675D	1102	525	910	380	380	1308	730	680	920	690	1155	1185	1344	808	1113	1215	1070	1498	750	270	220	430	615	530	750	11	715	5x134	4x121.5	18	6	16	205			
CUS-750D	1235	600	980	420	420	1430	800	760	1000	750	1266	1296	1490	905	1225	1350	1182	1655	800	300	260	475	675	575	825	11	775	5x145	5x105	20	6	16	300			
CUS-900D	1435	700	1130	490	1628	/	950	1150	850	1468	1498	1737	1046	1426	1550	1384	1896	975	/	370	545	775	645	975	11	875	6x137.5	5x119	22	6	16	418				
CUS-1000D	1573	765	1230	520	1780	/	1075	1300	925	1608	1640	1905	1145	1570	1690	1525	2070	1075	/	450	595	850	695	1075	11	950	5x150	5x129	22	6	16	525				

Note: The motor weight is not included in the above table. Right rotations are in symmetry with left rotations and the dimensions are the same.

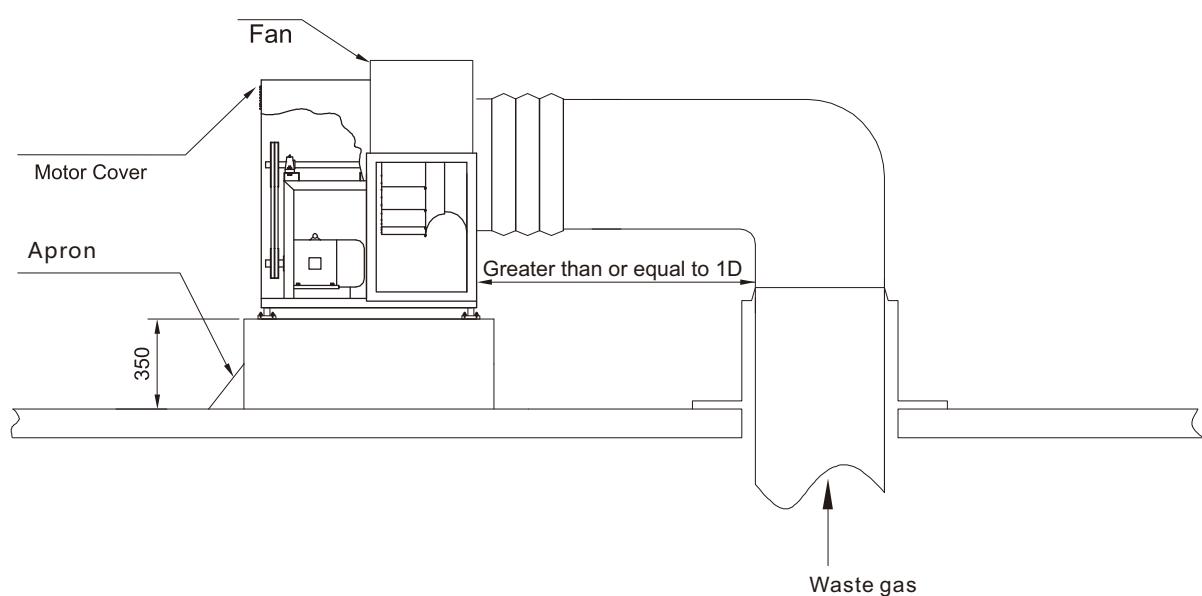
## Installation Guide

INFINIAR CUS fans are suitable for exhaust, supply and return-air applications. Facts show that INFINAIR fans can still run reliably even in a harsh environment. CUS fans can be used in treating both clean air and dirty contaminated air.

### Base mounted

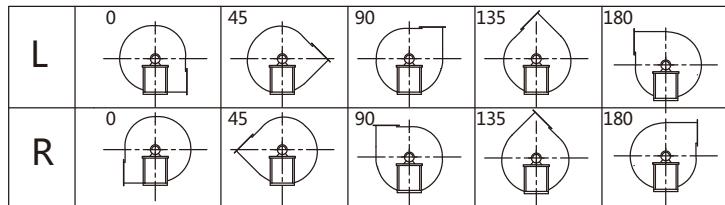


### Rooftop mounted



CUS fans are suitable for exhausting kitchen fumes in hotels. Before installation, the fans must be checked and cleaned to ensure the free rotation of the wheel. The fans shall not interfere with each other and can be well maintained. There shall be enough space left for removing the wheel and bearing. Rain cover shall be chosen for outdoor installation to protect the electrical components.

## Optional Discharge Directions

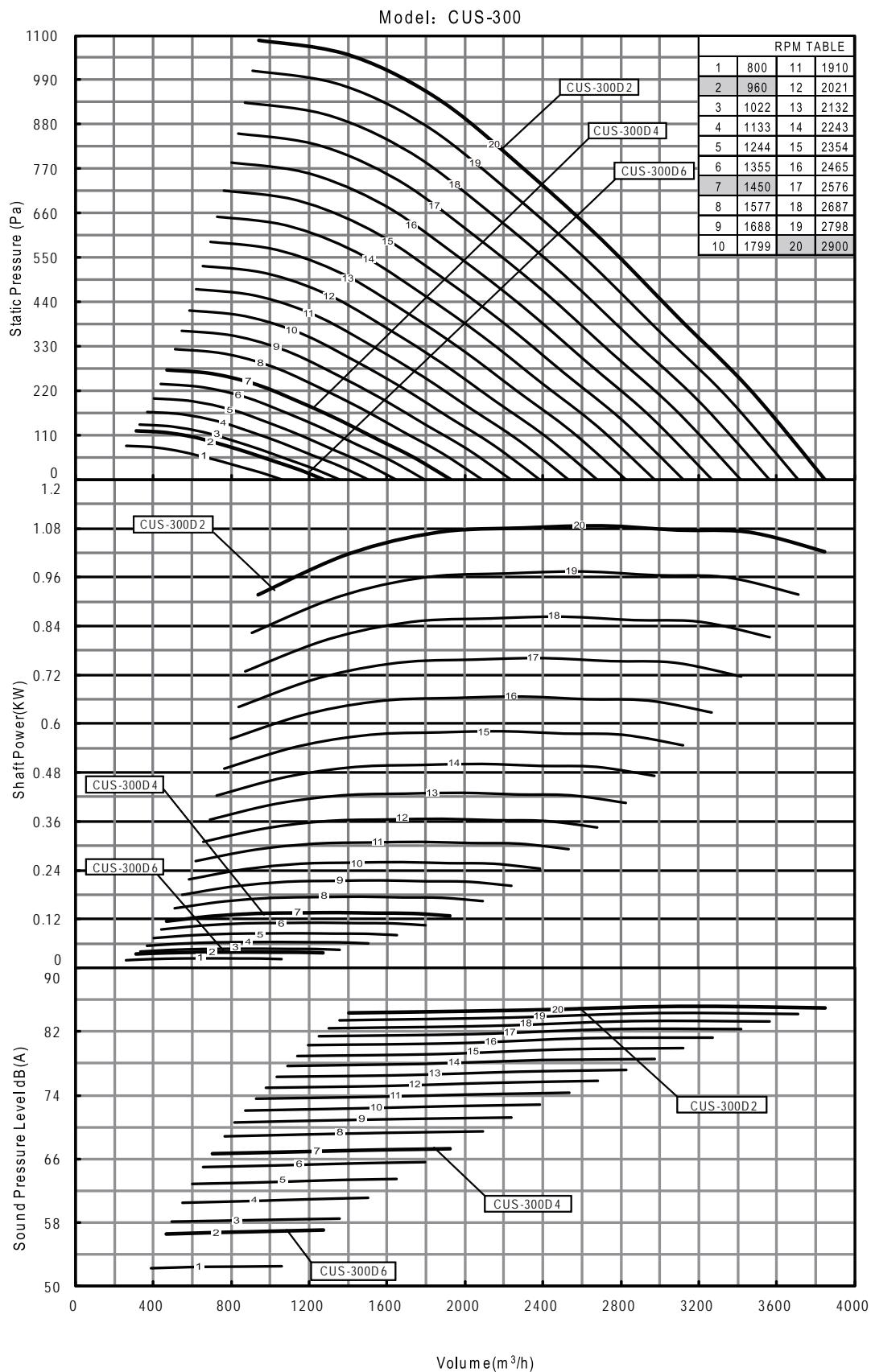


The rotation is identified from the view of the motor side. The rotation must be specified before placing orders; otherwise, the undesired rotation may cause installation problems.

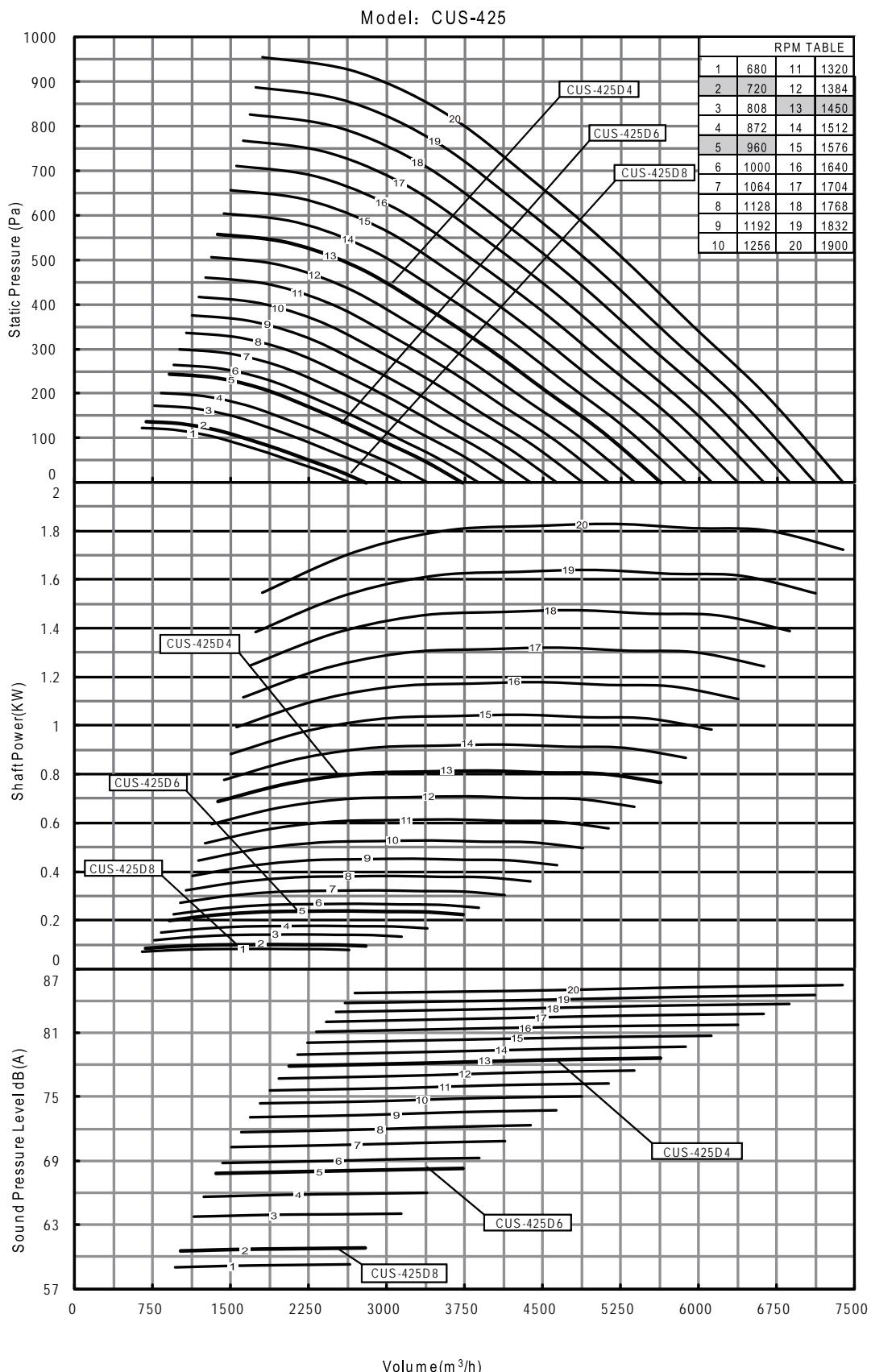
## Motor Weight 50/60 Hz

Power (kW)	Motor Weight(kg)			
	2P	4P	6P	8P
0.18	14	13.5	14	16
0.25	14.5	14	14.5	17
0.37	15	14.5	16	24
0.55	15.5	15	17	28
0.75	15	16	22	30
1.1	16	21	24	32
1.5	21	23	32	40
2.2	24	33	41	64
3	33	35	63	78
4	41	41	72	105
5.5	63	65	81	115
7.5	70	76	118	145
11	110	118	145	160

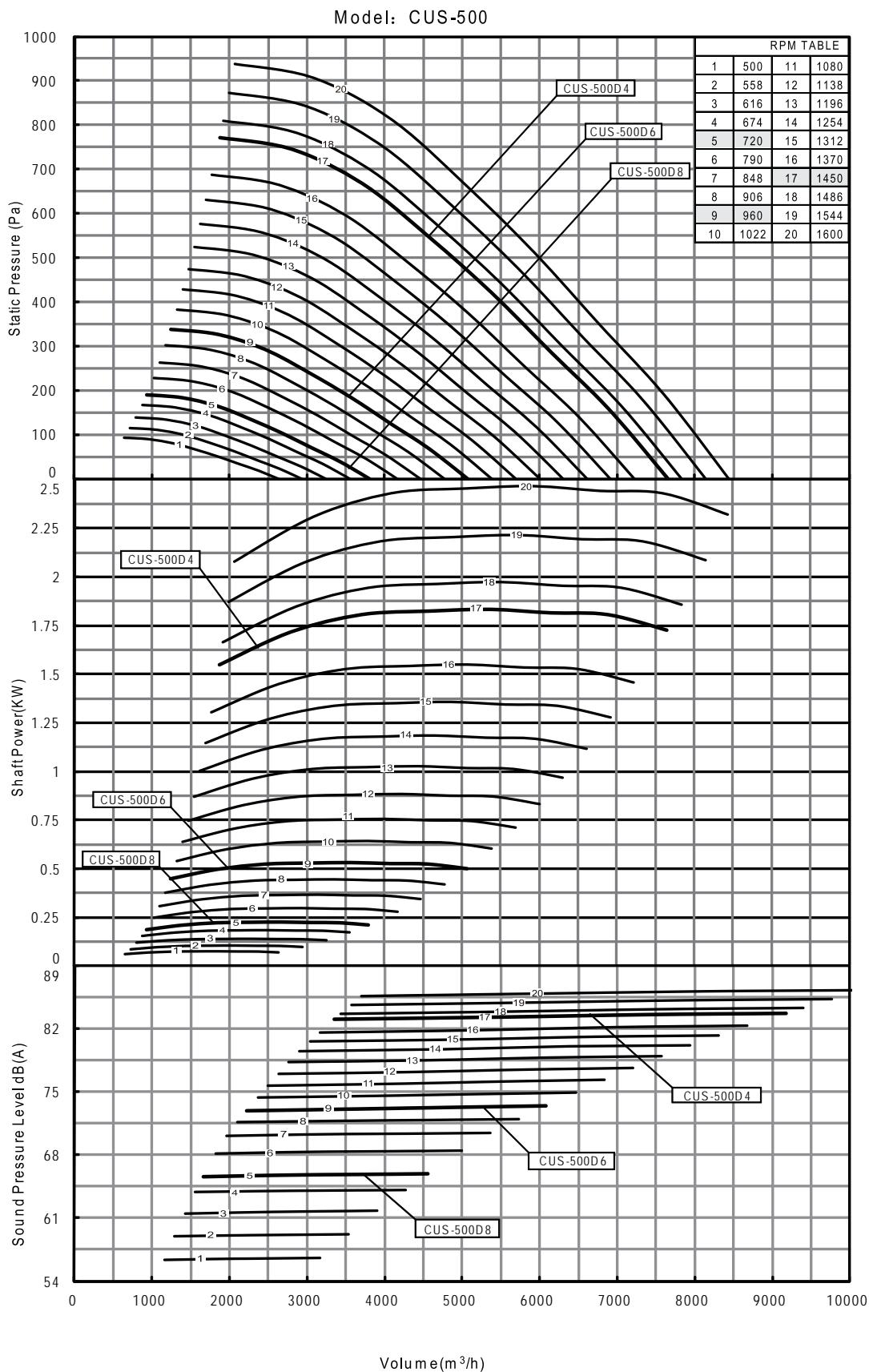
Note: All dimensions, motor or fans weights and motor frame sizes are subjected to change from project to project, please call INFINAIR staff to support your request and information needed about your project



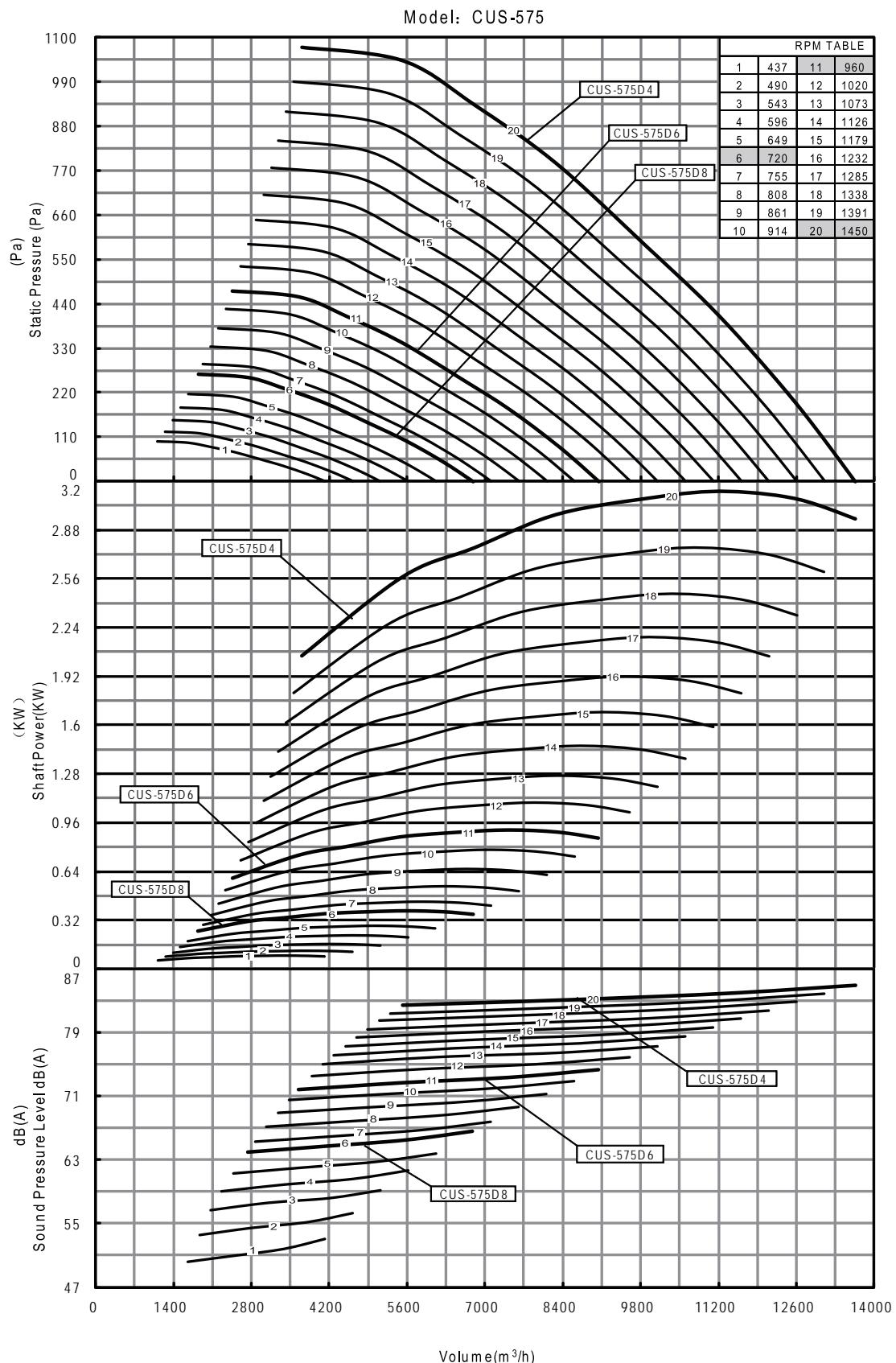
Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). Values shown are for inlet LwiA sound power levels for Installation Type B: Free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as  $10^{-12}$  watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A)levels are not licensed by AMCA International.



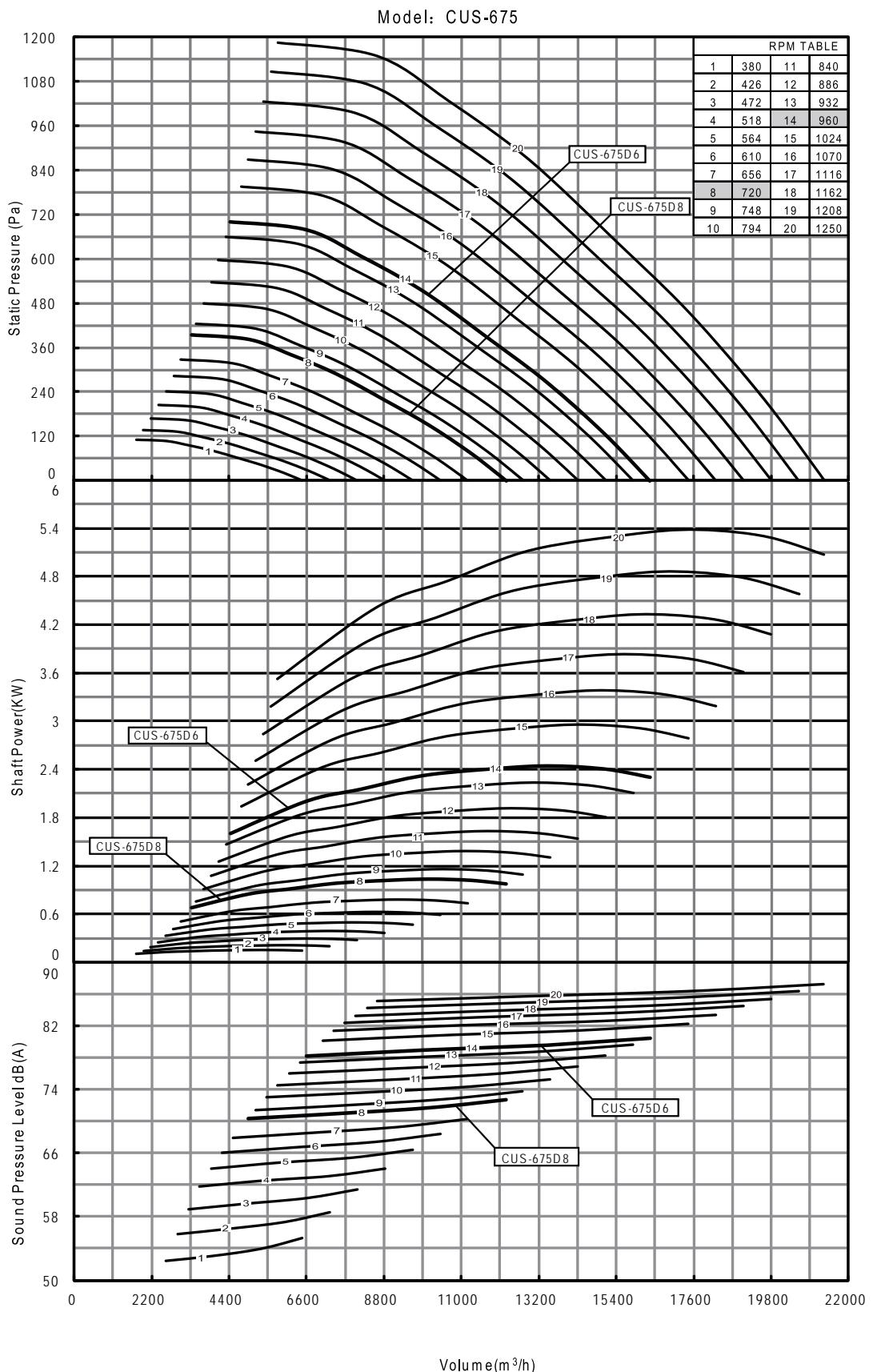
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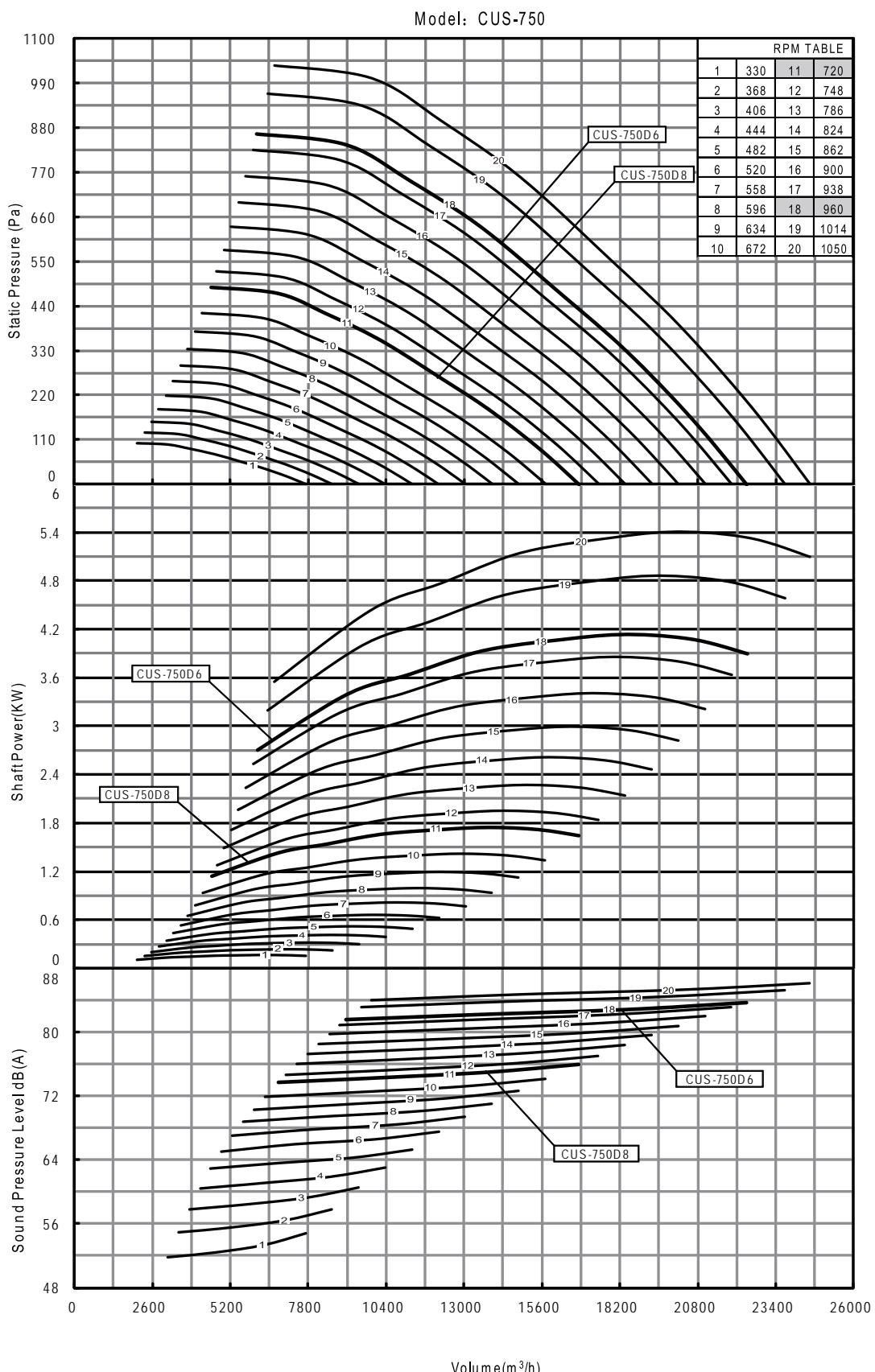
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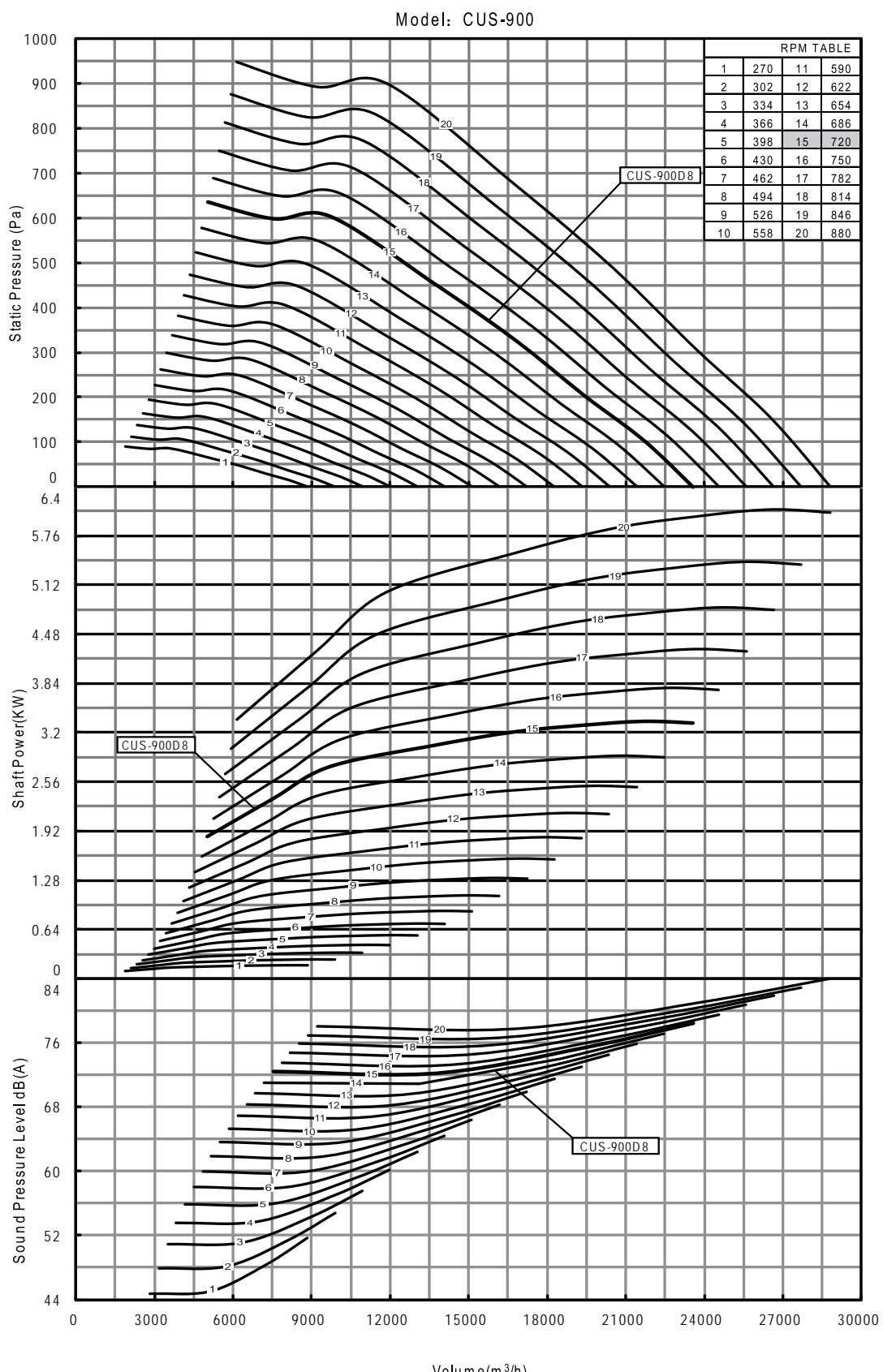
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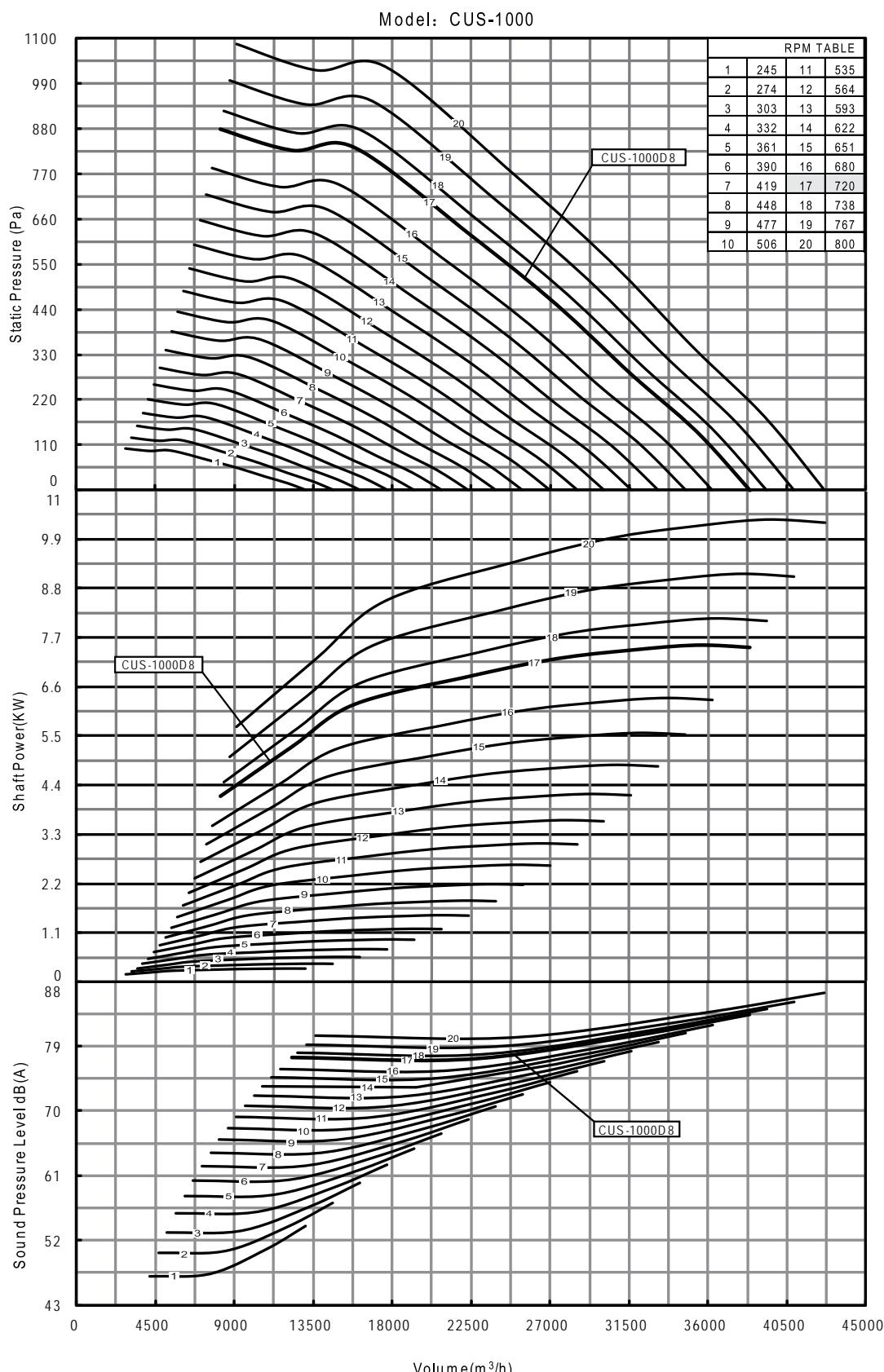
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## Fans Energy Index Tables - CUS

CUS 300		FEI
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Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
300D6	0.18	110		1.94
300D6	0.24	75		2.01
300D6	0.30	50		2.11
300D4	0.24	250	1.17	1.52
300D4	0.30	215	1.20	1.54
300D4	0.36	170	1.23	1.57
300D4	0.42	140	1.30	1.65
300D4	0.48	95	1.29	1.65
300-2P	0.48	600	1.16	1.17
300-2P	0.54	527	1.18	1.19
300-2P	0.60	455	1.19	1.20
300-2P	0.66	385	1.19	1.21
300-2P	0.72	305	1.17	1.18
300-2P	0.78	220	1.12	1.13
300-2P	0.84	150	1.10	1.11

CUS 425		FEI
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Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
425D8	0.45	110	1.14	1.93
425D8	0.68	50	1.27	2.14
425D6	0.45	235	1.11	1.37
425D6	0.68	167	1.29	1.60
425D6	0.9	90	1.33	1.63
425D4	0.9	450	1.28	1.27
425D4	1.13	345	1.37	1.35
425D4	1.35	210	1.33	1.32
425D4	1.58	80	1.26	1.25

CUS 500		FEI
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Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
500D6	0.6	320	1.11	1.10
500D6	0.75	290	1.12	1.14
500D6	0.9	250	1.16	1.24
500D6	1.05	190	1.17	1.25
500D6	1.2	140	1.21	1.29
500D6	1.35	75	1.16	1.25



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## Fans Energy Index Tables - CUS

CUS 575		FEI		
Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
575D8	0.84	260	1.50	1.80
575D8	1.05	220	1.60	1.90
575D8	1.26	190	1.71	2.01
575D8	1.47	145	1.75	2.05
575D8	1.68	95	1.78	2.08
575D6	1.05	450	1.47	1.52
575D6	1.26	435	1.60	1.64
575D6	1.47	385	1.63	1.66
575D6	1.68	330	1.63	1.66
575D6	1.89	275	1.66	1.69
575D6	2.1	220	1.68	1.70
575D6	2.31	160	1.70	1.72
575D4	1.89	990	1.42	1.40
575D4	2.1	920	1.46	1.44
575D4	2.31	840	1.47	1.45
575D4	2.52	770	1.48	1.47
575D4	2.73	670	1.47	1.46
575D4	2.94	600	1.51	1.50
575D4	3.15	495	1.50	1.49
575D4	3.36	405	1.51	1.50
575D4	3.57	290	1.46	1.45

CUS 675		FEI		
Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
675D8	1.65	365	1.53	1.62
675D8	1.98	320	1.62	1.71
675D8	2.31	275	1.70	1.79
675D8	2.64	220	1.42	1.49
675D8	2.97	155	1.36	1.43
675D8	3.3	90	1.50	1.58
675D6	1.98	685	1.34	1.39
675D6	2.31	630	1.44	1.51
675D6	2.64	575	1.50	1.58
675D6	2.97	520	1.61	1.62
675D6	3.3	430	1.60	1.61
675D6	3.63	360	1.65	1.66
675D6	3.96	290	1.73	1.74
675D6	4.29	180	1.70	1.71



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## Fans Energy Index Tables - CUS

CUS 750		FEI
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Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
750D8	1.95	480	1.43	1.50
750D8	2.34	440	1.51	1.59
750D8	2.73	395	1.55	1.64
750D8	3.12	355	1.59	1.69
750D8	3.51	280	1.56	1.67
750D8	3.9	220	1.64	1.75
750D8	4.29	160	1.71	1.83
750-6P	2.34	680	1.26	1.27
750-6P	2.73	640	1.37	1.38
750-6P	3.12	590	1.42	1.43
750-6P	3.51	535	1.46	1.47
750-6P	3.9	480	1.54	1.56
750-6P	4.29	390	1.52	1.54
750-6P	4.68	330	1.60	1.63
750-6P	5.07	240	1.62	1.64

CUS - 900		FEI
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Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
900D8	3.6	525	1.40	1.46
900D8	4.05	455	1.40	1.47
900D8	4.5	400	1.40	1.46
900D8	4.95	345	1.45	1.52
900D8	5.4	265	1.41	1.48
900D8	5.85	200	1.43	1.50
900D8	6.3	135	1.44	1.52

CUS - 1000		FEI
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Model	Flow rate (m³/s)	SP (Pa)	Regulated	Unregulated
1000D8	4.73	825.00	1.27	1.30
1000D8	5.40	770.00	1.33	1.36
1000D8	6.08	695.00	1.40	1.43
1000D8	6.75	610.00	1.44	1.47
1000D8	7.34	545.00	1.48	1.52
1000D8	8.10	465.00	1.55	1.59
1000D8	8.78	385.00	1.57	1.61
1000D8	9.45	280.00	1.58	1.63
1000D8	10.13	200.00	1.63	1.68
1000D8	10.80	115.00	1.68	1.73



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## Product Specification

### **Section 1: Quality Standards**

The SWSI centrifugal fans shall be tested and certified in accordance with AMCA Standard 210 & 300. AMCA Seal for Sound and Air Performance shall be tagged on each fan before leaving the factory. The manufacturer shall be certified by ISO 9001:2000.

### Section 2: Fan Type

The fan shall be direct or belt drive type, with an aluminum backward inclined centrifugal wheel. The inlet cone shall have a curved section to ensure smooth air movement. Each wheel shall be statically and dynamically balanced up to grade G 2.5 as per ISO 1940.

### **Section 3: Housing Material**

The fan housing shall be constructed of steel. It shall be thick and strong enough to support the drive mechanism and motor. The scroll shall be continuously welded. The fan surface shall go through the processes of alkaline wash and Parkerizing and be finished with electrostatic epoxy coatings in black or other colors specified by customers.

### **Section 4: Drive Mechanism (For belt drive type only)**

**Shaft:** The shaft shall be heat treated through homogenizing furnace to the hardness level of HB370, and hard film shall be applied on the surface to avoid corrosion. It shall also be dynamically tested together with the wheel. The design speed of the shaft shall be at least 25% more than the maximum running speed of the fan.

**Pulleys:** Fan pulleys shall be sized for a minimum of 150% of the driving power. Pulleys shall be cast iron, keyed and securely attached to the wheel and motor shaft. Pulleys shall also be adjustable on the jobsite. Conical type bushings shall be equipped for easy removal of the pulleys.

**Bearings:** Two bearings shall be used to support the fan shaft to avoid vibrations directly coming onto the motor. The bearing L10 rating life shall be 50, 000 hours at the maximum operating speed specified in the catalog. The bearing shall be of permanently sealed type and metal pillow block ball bearing that can be lubricated.

**Drive Support:** Drive mechanism shall be supported by heavy gauge steel sheet finished with powder coatings to avoid corrosion. The belt tension can be adjusted through the adjusting bolt at the motor base. The design shall make sure the fan shaft and motor shaft is always parallel.

**Protections:** Standard belt drive CUS fans that include a shaft/bearing guard and belt guard are for indoor installation. For outdoor installation, there shall be a rain cover that offers total protection for the motor and other driving parts.

### **Section 5: Motor**

The motor shall be carefully matched to the fan load. It shall be IP55 rated with Class F Insulation. The motor bearing shall be of ball type that can be lubricated. Out of the air stream shall the motor and drive mechanism be located to avoid grease or dirt accumulation.

**Section 6: Structure**

The fan shall include AMCA Type B spark resistant construction. Both the wheel and inlet shall be constructed of aluminum. Access door: An access door must be provided for the scroll to remove possible foreign bodies inside of the fan. The platform on which the fan is placed shall be a stable and level one and vibration isolators shall be used for connection. The pre-embedded fixing method shall not be required.

**Section 7: Nameplate**

A permanently fixed aluminum nameplate shall clearly display the fan number, product model and serial number (a unique ID for each fan) so that the parts used can be traceable by customers.

**Section8: Qualified Suppliers**

INFINAIR or similar products supplied are designed based on Model CUS of INFINAIR.



High Pressure Axial Fan



Roof Exhaust Fan



Mix Flow Fan



SISW Centrifugal Fan



Axial Wall Fan



DIDW Fan



Heavy Industrial Fan



Medium Duty Ind. Fan



Jet Fan

**INFINAIR™**

## INFINAIR ARABIA CO. LTD

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**INFINAIR FANS ARE YOUR BEST CHOICE  
HIGH QUALITY PRODUCTS**



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