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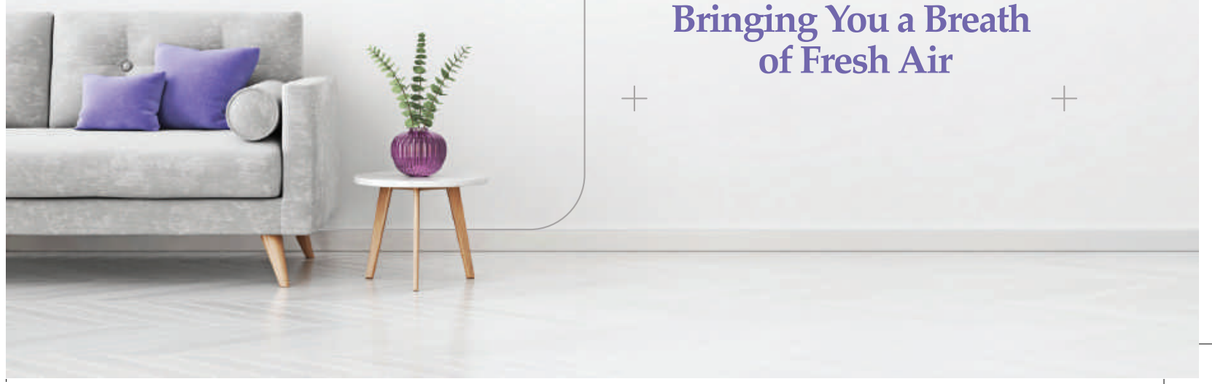
Ventilation Fans & Air Moving Equipment

SINCE 1909
JAPAN

Ventilation Fans & Air Moving Equipment



Bringing You a Breath of Fresh Air

Contents

Ventilation & Indoor Air Quality

Buildings nowadays, especially homes are tightly built with aluminum casing windows and rubber lining door in order to retain energy efficiency. Most homes and commercial buildings have windows and doorways that are sealed to limit heating or cooling loss. These, however, come at the cost of poor indoor air quality (IAQ). That means, staying indoors will not give us clean and fresh air because the concentration of indoor pollutants, such as odors, dust, pet dander and bacteria, can reach up to five times higher than found outsides. These biological pollutants can be hazardous to occupants and structural integrity.

Volatile organic compounds (VOCs) are carbon-based compounds that easily evaporate. These types of gases are released from building materials, carpets and furniture naming "outgassing". Other household items emit VOC include hair sprays, paints, lacquers, finishes, cleaning solvents, pesticides, etc. VOC can ultimately sensitize certain people to react to them.

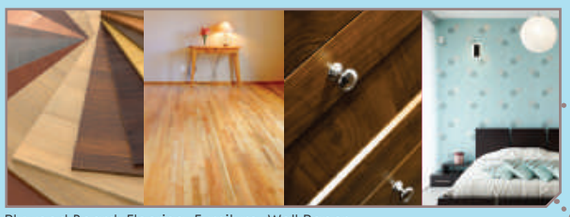
In a word, the absence of ventilation leads to improper airflow and coupled with the presence of pollutants, eventually results in oxygen deficiency which is important and necessary for humans.

Because of the above reasons, people are becoming increasingly aware of the importance of ventilation and indoor air quality. They believe that proper and effective ventilation is essential for removing excessive moisture that promotes pollutants, which can deteriorate building's structure and cause health problems.

Here, KDK Ventilation Fans play an important role; by removing volatile organic compounds (VOCs), to ensure proper indoor air circulation and conduct proper exchange between the air indoors and outdoors.

Hazardous indoor chemicals can be categorized into 3 groups

Chemical Substance



Plywood Board, Flooring, Furniture, Wall Paper

Formaldehyde (HCHO) 1

Non-flammable Vinyl Cloth

Volatile Organic Compounds 2
- Toluene, Xylene, Trimethyl Benzene
- Phosphoric Acid Triester (TCEP)

Pesticides

Organic Phosphoric 3

Indoor Air Problems in Your House

What are the Indoor Air Quality problems existing in your house?

Recently, many reports show that people are in poorer physical condition. It is because of high living density and usage of building or interior material which emit chemical substances in either new-built or reformed house, causing indoor air quality problems.

There are different symptoms, such as eyes/throat sore, nausea, feeling unwell, skin irritation, headache, dizziness, breathing problem and so on. Furthermore, chemical substances like formaldehyde, can lead to the deterioration of allergic illness.

1 *Beware of Curtain, Sofa and Any Other Furnitures you brought in*

Chemical substances are also released from curtain, sofa and any other furniture you brought in.

2 *Wall and Flooring which Occupied the Most Area, are Big Enemy of Clean Air*

Materials like adhesive used on wall and/or flooring, will keep on releasing chemical substances in long period of time.

3 *Fabric Sofa and Stuffed Doll*

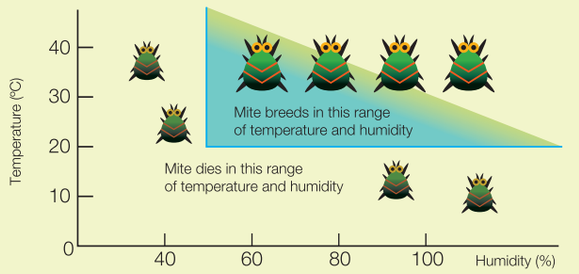
Scurf and dander from human beings (and pets) are the favorites of mites. Thus, it is important to be cautious with fabric sofa and stuffed doll.

Mites

There are around 30 types of mites found in a home normally. In general, most mites live without causing any harm to human beings. However, sting mites like Cheyletidae, blood-sucking mites like House Mite, and Dust Mite group which can cause allergen also exist.

Temperature and Humidity for Mite Breeding

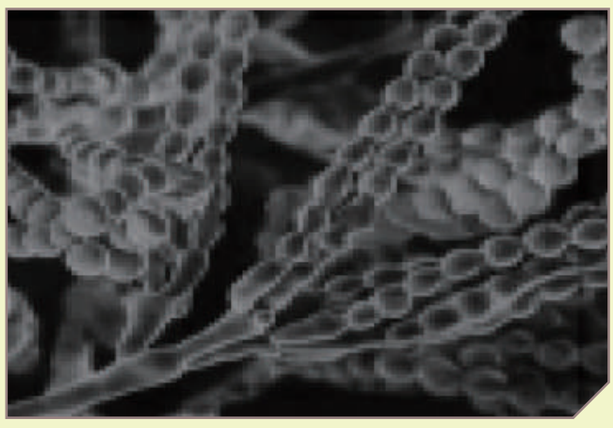
Mite breeds when temperature is over 20 degrees and humidity is over 60%

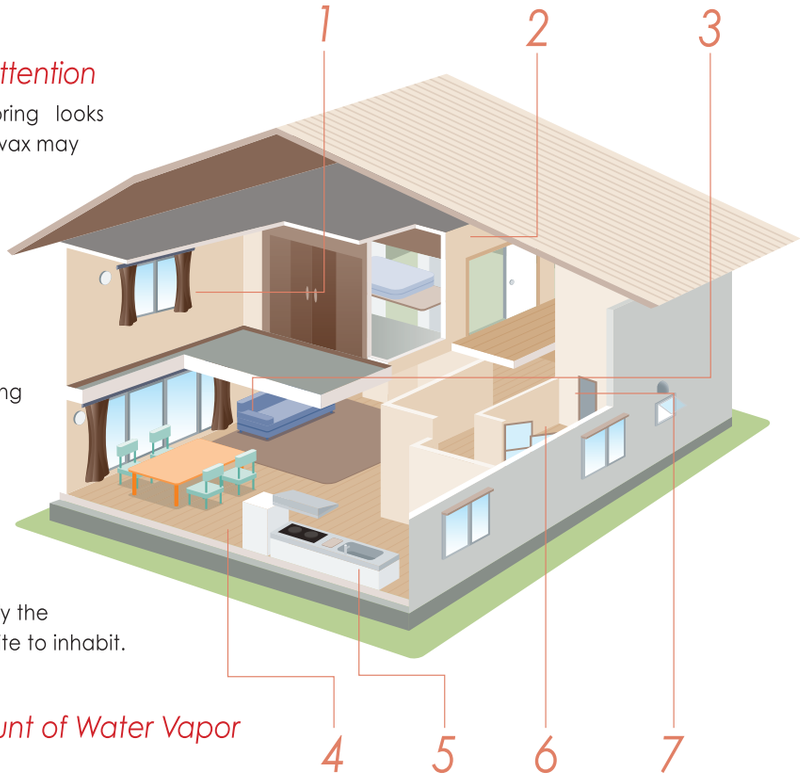


(Source: "Information of Residence and Home";
Environment Hygiene Section, Health and Welfare Department, Osaka Prefecture)

Molds

Mold breeds faster when humidity increases, and nearly everything inside & outside our residence can provide nutrients for it. Not only mold is damaging our home appearance and creating bad smell, it also has bad effects on human body. Furthermore, mold increases during rainy season, and its spores fly around at the end of rainy season.





4 *Even Flooring Need to pay attention*

Though natural-material-made flooring looks safe, chemical substances like gloss wax may still be emitted.

5 *Kitchen with Lots of Water Vapor is the Food Storage for Mold*

Water vapor is created when gas is being burnt. Also, the dirt after cooking provides nutrition for mold.

6 *Floor and Bathroom Sink are good places for Termite to Inhabit*

High humidity of bathroom (especially the floor), provides good places for termite to inhabit.

7 *Bathroom with Heavy Amount of Water Vapor is the Wonderland for Mold*

Heavy amount of water vapor can be produced in a short period of time. Wall, flooring & ceiling of bathroom are made by moisture-proof materials and thus high temperature is maintained. Please clean your bathroom without leaving any soap residue.

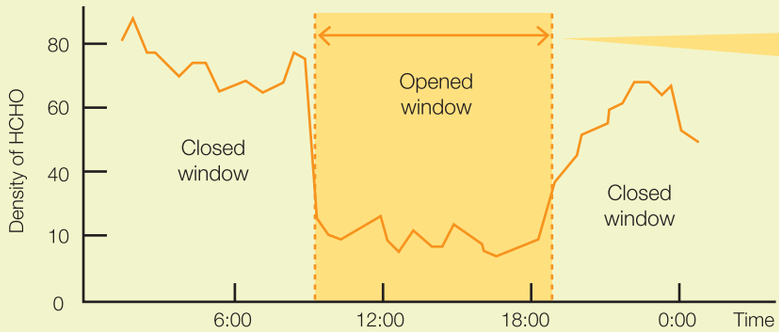
Termite

It is common to find termite damages like wall crack, undulating eaves & roof, and even broken window/ shutter. Comparing to termite which causes damage mainly under floor, home termite causes damage widely to whole house (till ceiling).

Formaldehyde (HCHO)

Volatile organic compounds (VOC) like Formaldehyde which is generated from building material and/or home furniture. It is easy to cause indoor air pollution.

Indoor Formaldehyde concentration was measured



When window is opened, density decreases rapidly. When window is closed, density then starts to increase again.

(Source: "Information of Health and Residence", Environment Hygiene Section, Health and Welfare Department, Osaka Prefecture)

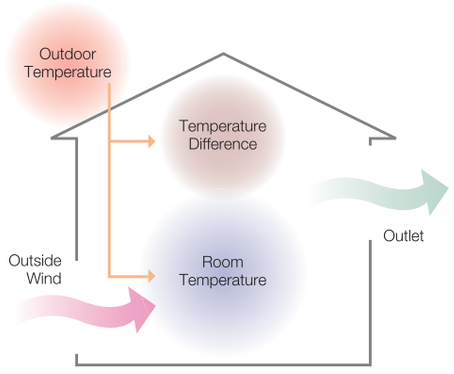
Formaldehyde: It would be the main chemical substance causing the "Sick House Syndrome" - (Main sources: building materials, furniture, heat machines, smoking, etc.)

Improve Indoor Air Quality

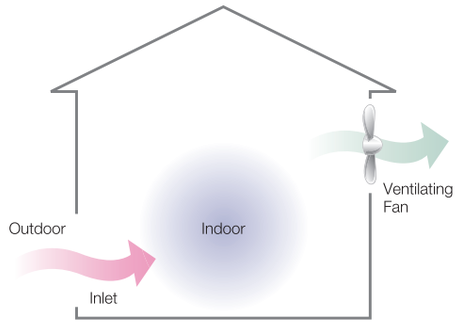
Ways to Improve Indoor Air Quality

The first step to improve indoor air quality should be to reduce or remove the source of the pollutants. Unfortunately, indoor pollutants are virtually impossible to eliminate completely, creating the need for a second step - ventilation. Ventilation is divided into "Natural Ventilation" and "Mechanical Ventilation".

Natural ventilation is neither consistent nor reliable since it relies heavily on wind and weather conditions. Mechanical ventilation removes stale, moist, polluted air and replaces it with fresh outside air by using a fan.



Natural Ventilation
Unstable Ventilation Capacity

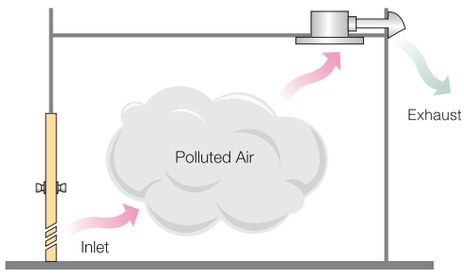


Mechanical Ventilation
Stable Ventilation Capacity

Two widely used methods in today's building industry are continuous and intermittent ventilation.

Continuous Ventilation

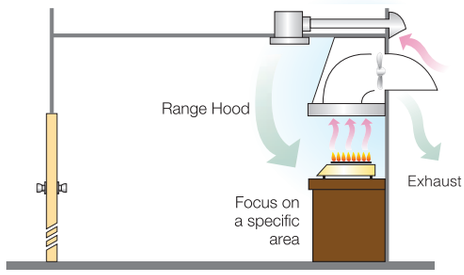
Sometimes referred to as general, central, whole-house or primary ventilation. Continuous ventilation is used to remove stale air and provide fresh air on a slow, continuous basis.



Enhance ventilation in the whole house to replace polluted air with fresh air by ventilation equipment.

Intermittent Ventilation

Sometimes referred to as spot, local or secondary ventilation. Intermittent ventilation is used to capture and remove pollutant quickly at the source. This secondary process exhaust "bad air" from contaminated areas quickly, before it can spread throughout the house.



Enhance ventilation in specific part of a house. (e.g. bathroom, kitchen)

The Number of Ventilation Fans Required

$$\frac{\text{(A) : Room size [m}^3\text{] x (B) : Necessary Frequency of Ventilation per Hour}}{\text{(C) : Air Volume of Ventilation Fan [m}^3\text{/h]}}$$

Note:
Room size (A) is calculated from the following equation:
(A) = Floor area [sq. m. or sq. ft.] x Room height [m or ft.]
If the room height exceeds 4 meters (13 feet), use 4 meters (13 feet) in the calculation regardless of the actual room height.
Values for (B) in the above equation are given in the table on the below. These values were empirically found by the research scientists.
Value for (C) in the above equation are given in our catalogues.

Ventilation Schedule

I: Type of room		II: Necessary frequency of ventilation per hour
	I	II
Hotel	Dance hall	8
	Dining hall	8
	Kitchen	15
	Hallway	5
	Toilet	5
	Lavatory	10
	Boiler room	20
	Laundry	15
Hospital	Waiting room	10
	Clinic	6
	Ward	6
	Bathroom	5
	Office	6
	Restaurant	8
	Kitchen	15
	Gallery	5
	Toilet	10
	Boiler room	10
	Laundry	15
	Operating room	15
	Disinfecting room	12
	Room for the patients receiving medical treatment for the diseases of respiratory organs	10
Public toilet		20
Vessel	Passenger room	6
Home	Kitchen	15
	Parlor	6
	Living room	6
Library	Reading room	6
Photo studio	Darkroom	10
School	Laboratory	6
	Cooking room	15
	Auditorium	6
	Gymnasium	8
	Toilet	12
	Library	6
	Classroom	6
Theatre	Auditorium	6
	Hallway	6
	Smoking room	12
	Toilet	10
	Projection booth	20
	Workroom	6
	Telephone switch board room	6
Factory	Painting room	20
	Dynamo room and substation	20
	Condenser room	15
	Office	6
Restaurant and snack bar	Restaurant	6
	Kitchen	20
Office building	Office	6
	Waiting room	10
	Conference room	12
	Display room	10
	Toilet	10
Rooms where poisonous or inflammable gas is produced		more than 20

Recommended Application

KDK ventilation products can be used in various environment, such as residential house, offices and hotels.

- Low Noise Type Cabinet Fan
- Ceiling Mount Ventilation Fan
- Intake Grille
- Exhaust Grille
- Vent Cap / Pipe Hood
- Exhaust
- Intake

Residence

Ventilation fans installed throughout the home draw indoor pollutants and vent them outside. So, a continuous and balanced ventilation system brings you with fresh air.

- Low Noise Type Cabinet Fan
- Hand Dryer
- Intake Grille
- Exhaust Grille
- Exhaust
- Intake

Office

Office also needs a good ventilation system to maintain constant and fresh airflow. KDK Cabinet Fan provides you with a quiet and comfortable environment.

* Local regulations concerning the installation of ventilation fans should be fulfilled.
* Installation methods please refer to the operation instruction.

Ceiling Mount Type Ventilation Fan

Ceiling Mount Ventilation Fans are installed in the ceiling connected with ductwork, by which indoor air is exhausted either through the roof or the exterior wall. Since they are mainly mounted inside the ceiling, the interior is not damaged.

Various types are available for different needs. DC (Direct Current) Motor Series provides a premium solution for both spot and whole house ventilation; Super Quiet Series offers a quiet and comfortable environment to you while Metal Series features with their metallic structure for extra safety against fire.

General Feature

For DC Motor Series, Super Quiet Series and Standard Series

1 Long Life

- HP (Half Pitch) motor incorporated with well lubricated ball bearings, temperature rise is reduced that prolong motor lifetime and product durability.

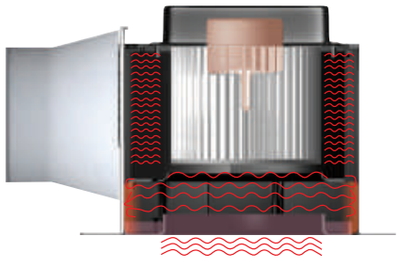
2 Highly Efficient

- Taper blade design effectively controls the turbulence surrounding the blade. Strong and smooth ventilation performance is achieved and noise level is reduced, by whole of the blade.
- Seam-processed frame ensures strength and hermetic sealing of the product.
- Reverse flow prevention shutter results in further improvement of air tightness.

3 Super Low Noise

- Distinctive structure of "Double Orifice" minimizes the transmission of noise from the fan and motor to exterior. This technology further reduces the operation noise to incredibly low level by "Resonance-Noise-Absorption" operation, which creates a tranquillity and silent environment for your life.

* Except Standard Series



4 Easy Installation

- Wiring of power cord to product is pre-installed, just connect the cord to power supply for operation.

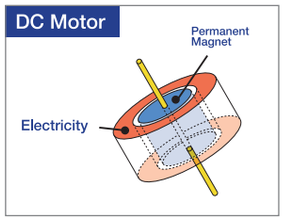
  * Except Standard Series
- Cassette type discharge adaptor facilitating installation of the product, as well as duct connecting work.
- Spring-clip louver allows convenient installation and removal of louver.

Feature of DC Motor Series

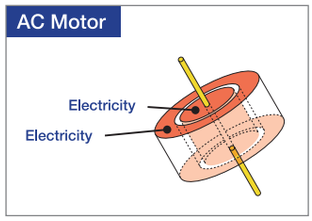
Energy Saving - DC Motor

Consumption Reduction

These fans are adopted with Direct Current (DC) Motor to reduce power consumption in order to save energy. Temperature rise of DC motor is comparatively lower than AC (Alternating Current) motor that lifetime of DC motor is longer than AC motor accordingly.



Stator uses electrical magnet while rotor uses permanent magnet



Both stator & rotor use electrical magnet

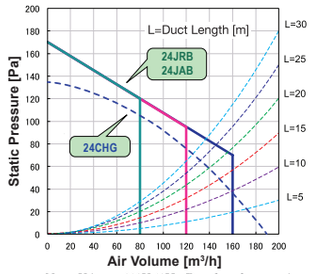
	24JRB	24CHG
Motor Type	**DC**	**AC**
Static Pressure [Pa]	51	51
Air Volume [m³/h]	160	129
Consumption at 51 pa [W]	15 (Save up 32%)	22
Energy Efficiency [m³/h / Watt]	10.6	5.8

Note : Values in table is at 220V 60Hz.

Air Flow - Constant Output

Intelligent Technology

These fans are equipped an intelligent technology, by which the fans perform at a constant airflow regardless of elbows and factors that affect the performance. Basically, when the fan faces static pressure, its speed is automatically increased to ensure the desired air flow and allows the fan to perform as rated.



Note : Values at 220V 60Hz. Data for reference only.

Delay Timer - 15 minutes

Convenience

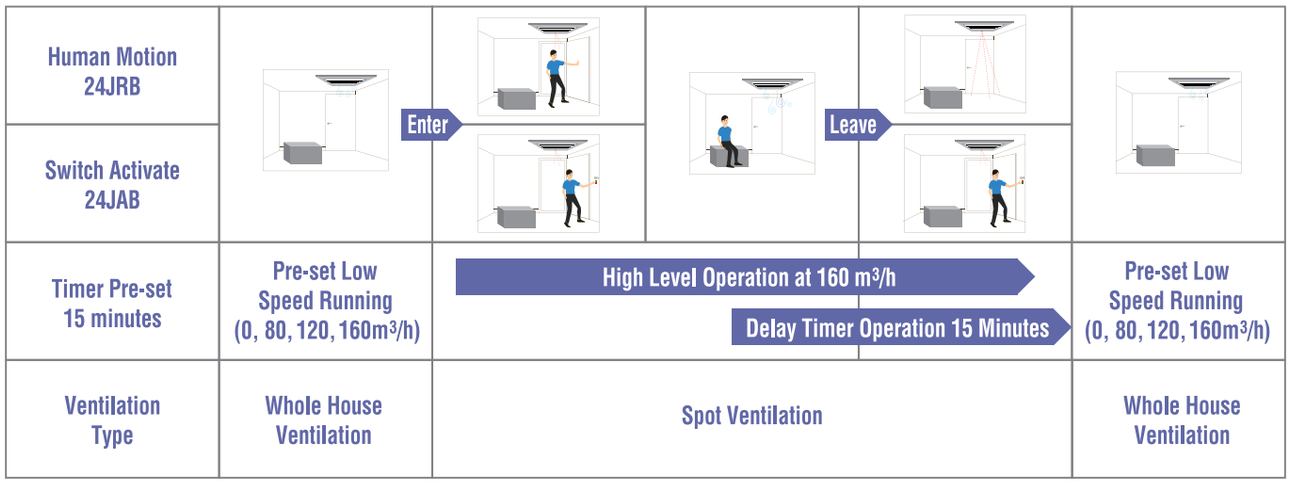
These fans are equipped with an Off-delay Timer which is pre-set at 15 minutes. As the fan is switched off or without any motion detected after the pre-set time, it will return to the pre-set low air volume level.

Air Volume - 4 Variables

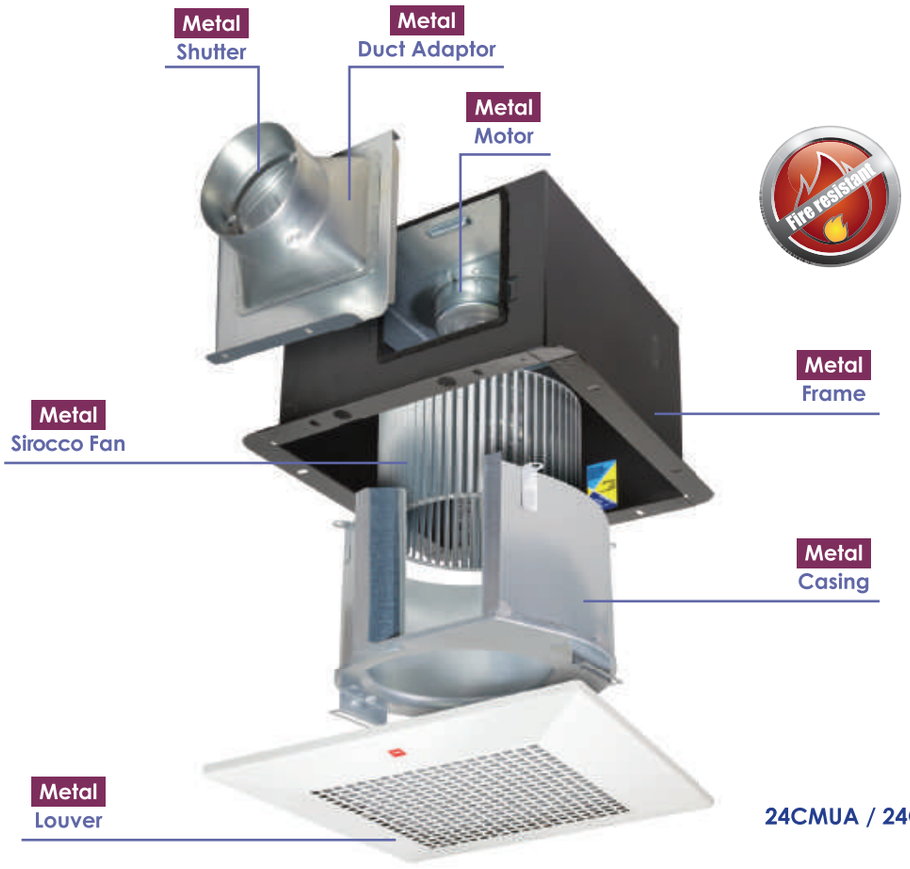
High Flexibility

These fans are equipped with Variable Speed Control that allows the fans to run at a pre-set lower level of 0, 80, 120, 160m³/h, then be elevated to a maximum of 160m³/h when the switch is turned on, or activated via the Motion Sensor.

Note: m³/h = CMH (cubic meter per hour)



Feature of Metal Series



High Performance

- Sirocco fan sustains high static pressure induced by long duct and reduces noise level
- Unique seam-processed casing ensures strength and hermetic sealing
- Reverse flow prevention shutter results in further improvement of air tightness

Safe

- Motor with thermal cut-off fuse prevents fire induced by overheat
- Metallic structure within air stream provides extra safety against fire*

Easy Installation & Maintenance

- Detachable duct adaptor makes installation simply
- Spring-clip louver allows easy removal for cleaning

Durable

- Painted steel frame enhances anti-rust capability
- HP (Half-pitch) motor and ball bearing enables continuous operation for years

* There is the possibility of spreading fire throughout the building or the areas served via the ducts of ventilation systems. Metallic structure can reduce the fire risk spread to other area from the fire affected compartment through the ducting.

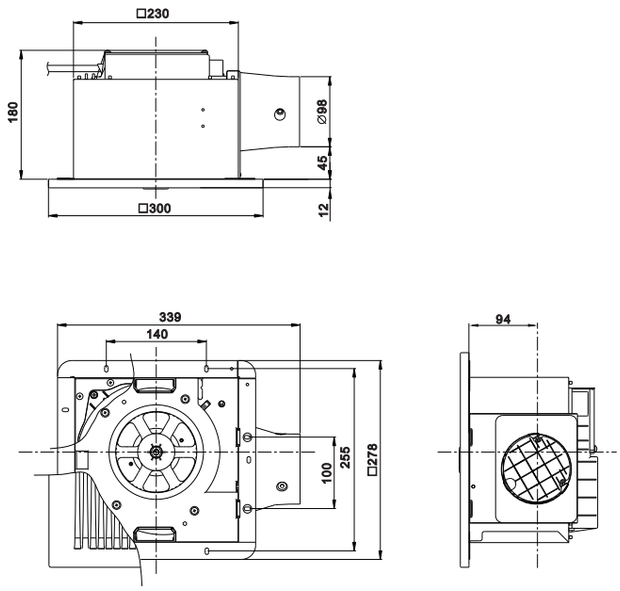
Ceiling Mount Type Ventilation Fan

24JRB

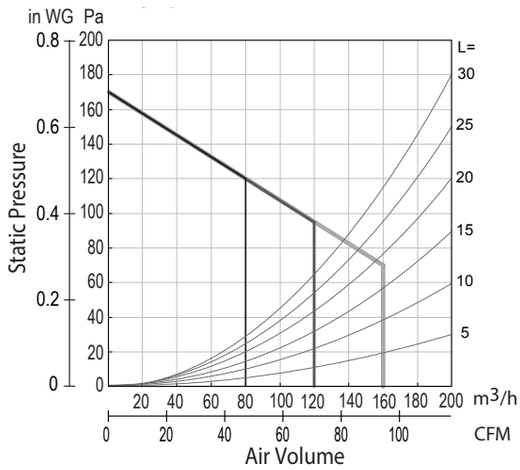
- *DC (Direct Current) motor*
- *Auto operation by motion sensor*
- *Constant airflow (sustainable to static pressure up to 63 Pa)*
- *3 air volume / Stop selectable at low notch*
- *15-minute off-delay timer*
- *Well lubricated bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*

Dimension

Unit : mm



Performance Data



Technical Specification

Model No.	Voltage			Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]		[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
24JRB	220-240	50/60	Hi	160	94	8	742	31	2.9	240 x 240	ø100
			Lo	160	94	8	742	31			
				120	71	5.2	556	26			
				80	47	3.6	441	20			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

DC Motor Series

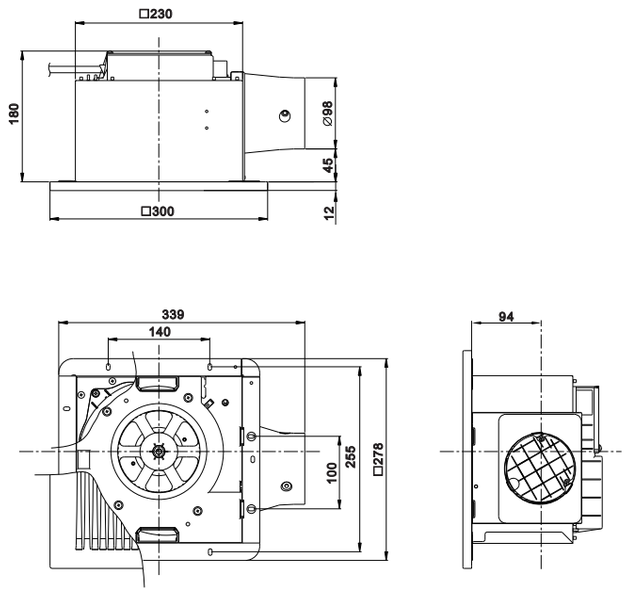
Ceiling Mount Type Ventilation Fan

24JAB

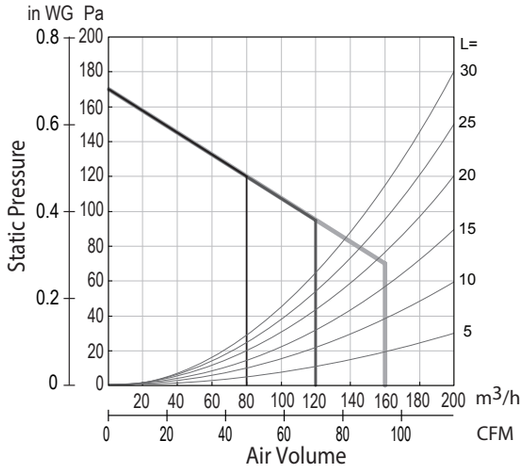
- *DC (Direct Current) motor*
- *Constant airflow (sustainable to static pressure up to 63 Pa)*
- *3 air volume / Stop selectable at low notch*
- *15-minute off-delay timer*
- *Well lubricated bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*

Dimension

Unit : mm



Performance Data



Technical Specification

Model No.	Voltage			Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]		[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
24JAB	220-240	50/60	Hi	160	94	8	742	31	2.9	240 x 240	ø100
			Lo	160	94	8	742	31			
				120	71	5.2	556	26			
				80	47	3.6	441	20			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

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- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

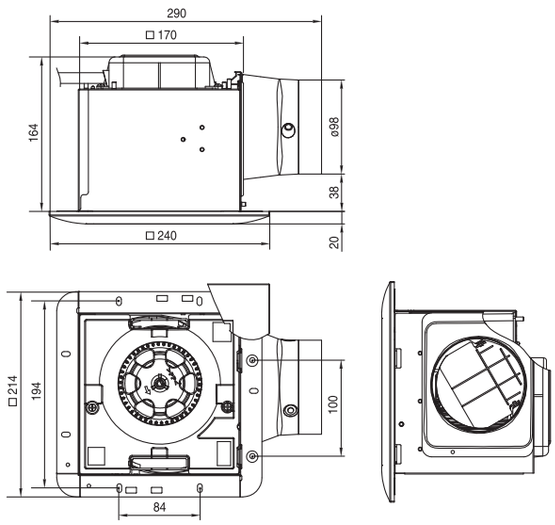
Ceiling Mount Type Ventilation Fan

17CUG
17CUGA

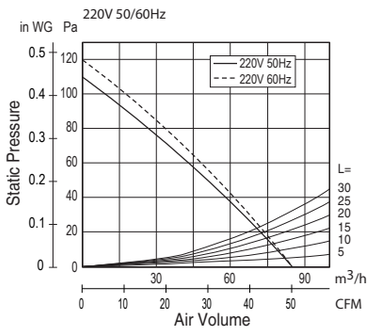
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*

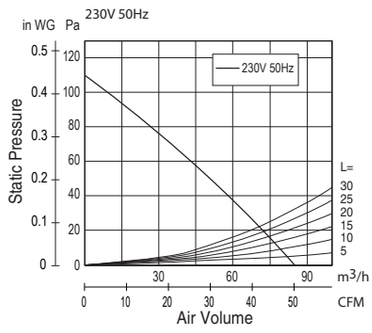
Dimension

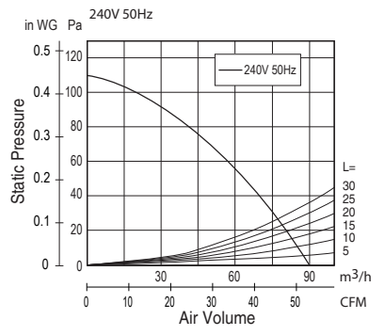
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]	[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
17CUG / 17CUGA	220	50	85	50	8.5	750	23.5	1.9	177 x 177	ø100
		60	85	50	10	770	26			
	230	50	85	50	9.5	775	26			
	240	50	90	53	10.5	800	27			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
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- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Super Quiet Series

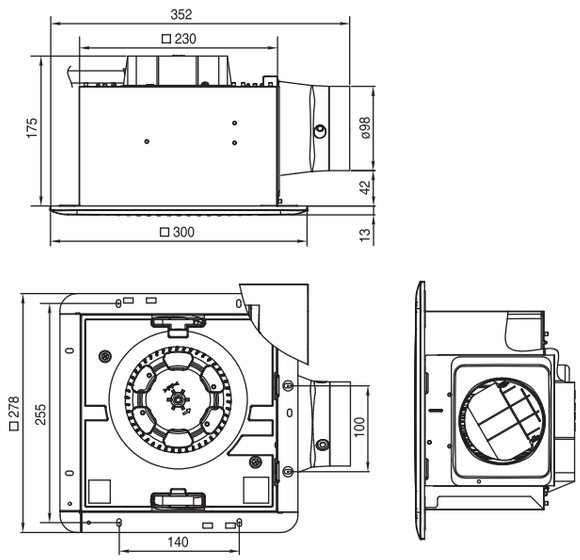
Ceiling Mount Type Ventilation Fan

24CUG

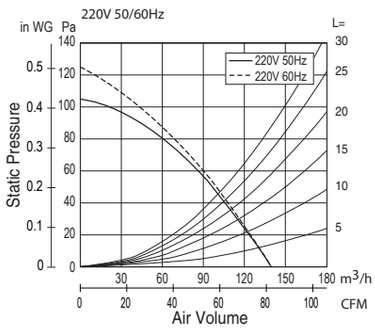
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*

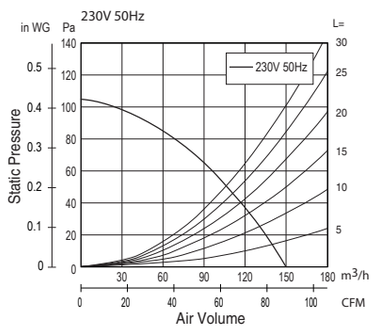
Dimension

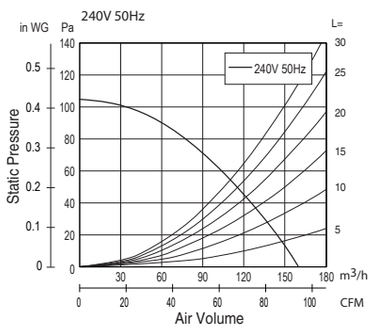
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]	[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
24CUG	220	50	140	82	11	615	26	2.8	240 x 240	ø100
		60	140	82	15.5	615	28			
	230	50	150	88	12.5	615	29			
	240	50	160	94	14	660	30			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

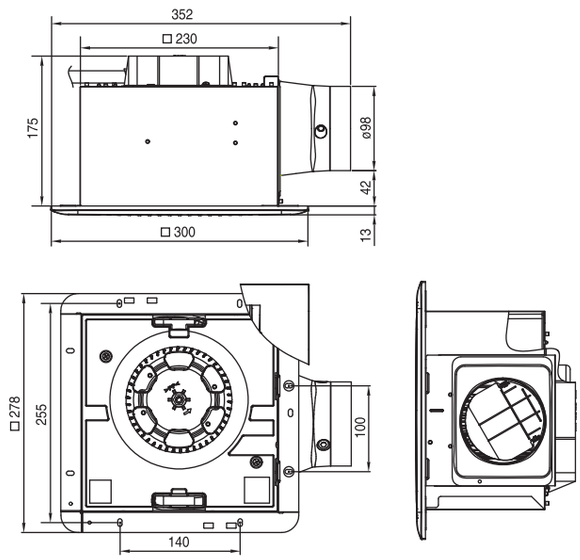
Ceiling Mount Type Ventilation Fan

24CDG

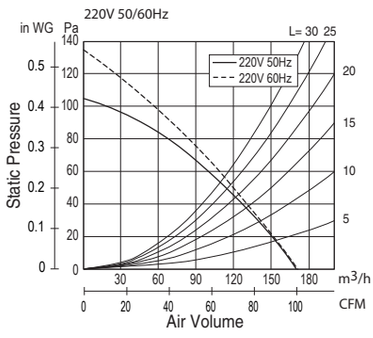
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*

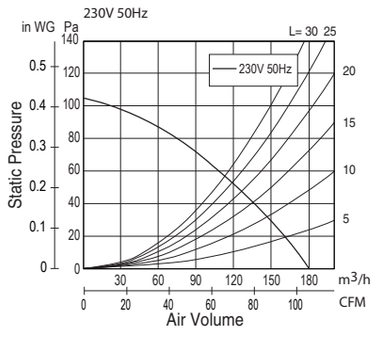
Dimension

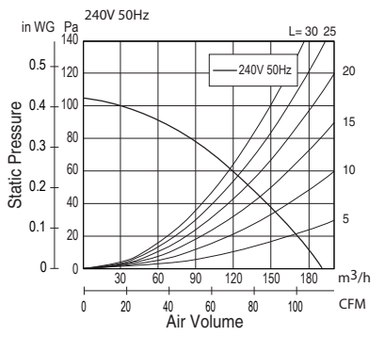
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]	[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
24CDG	220	50	170	100	14.5	700	29.5	2.8	240 x 240	ø100
		60	170	100	16.5	700	31.5			
	230	50	180	106	16	700	32.5			
	240	50	190	112	17.5	740	32.5			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Super Quiet Series

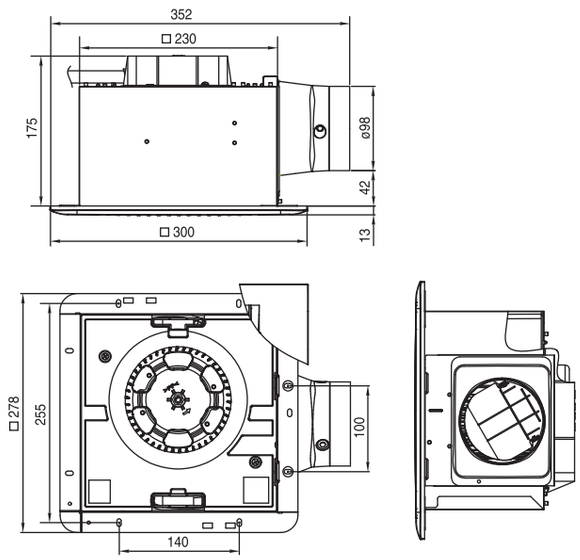
Ceiling Mount Type Ventilation Fan

24CHG

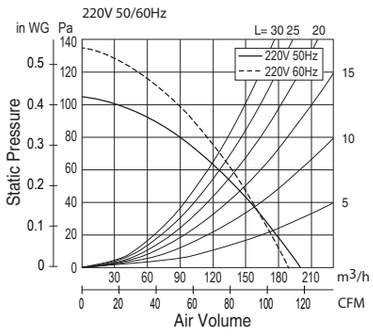
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*

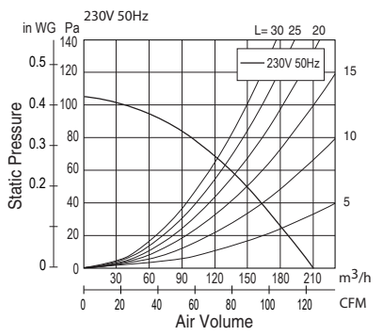
Dimension

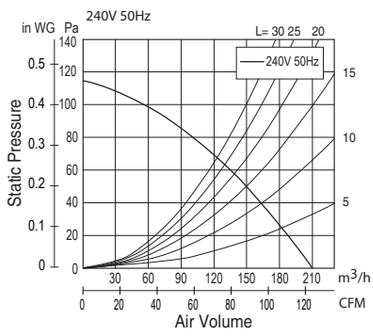
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]	[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
24CHG	220	50	200	118	18	760	33.5	2.8	240 x 240	ø100
		60	190	112	22	730	33.5			
	230	50	210	124	20	800	35			
	240	50	210	124	22	850	36			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

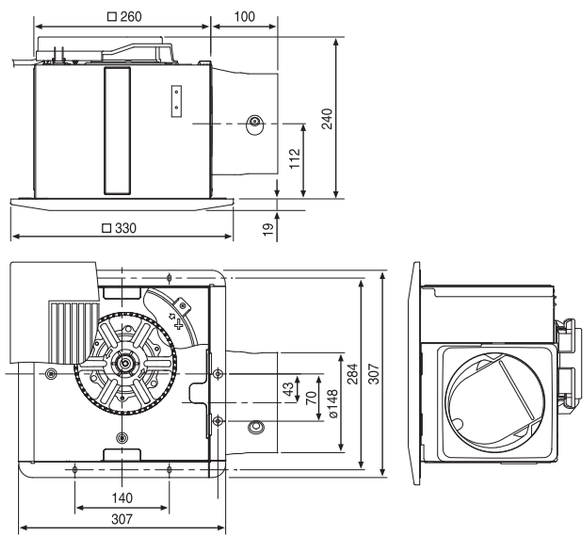
Ceiling Mount Type Ventilation Fan

27CHH

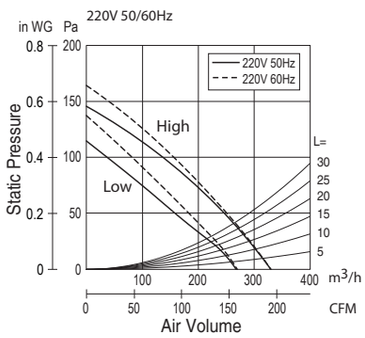
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*
- *2 speed selectable*

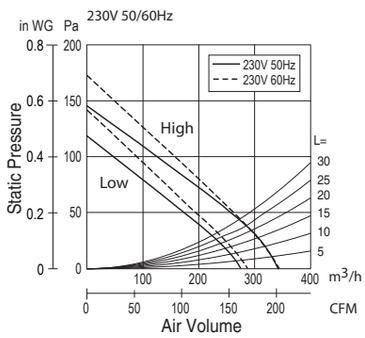
Dimension

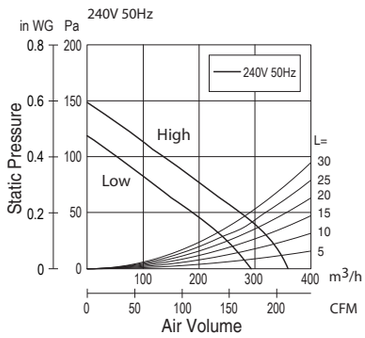
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Duct Size [mm]
27CHH	220	50	Hi	330	194	28	570	34	4.4	270 x 270	ø150
			Lo	260	153	23	480	30			
		60	Hi	330	194	33	570	34			
			Lo	270	159	26	490	31			
	230	50	Hi	340	200	31.5	-	35			
			Lo	275	162	25.5	-	31.5			
	240	50	Hi	360	212	34	610	36.5			
			Lo	290	171	27.5	520	32			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Super Quiet Series

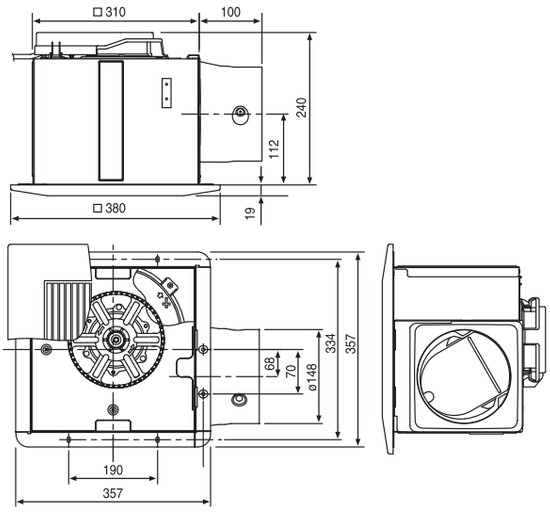
Ceiling Mount Type Ventilation Fan

32CDH

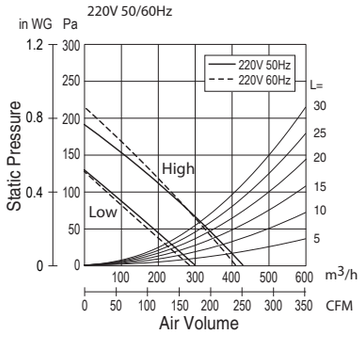
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*
- *2 speed selectable*

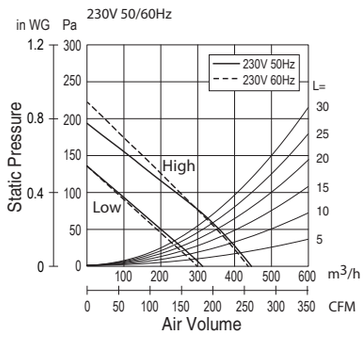
Dimension

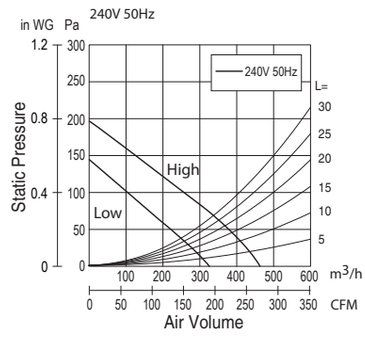
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Duct Size [mm]
32CDH	220	50	Hi	430	253	42	590	36	5.2	320 x 320	ø150
			Lo	300	177	32	460	28			
		60	Hi	410	241	48	580	35.5			
			Lo	285	168	33	450	27.5			
	230	50	Hi	440	259	46	-	37.5			
			Lo	315	185	34	-	29			
	240	50	Hi	470	277	50	650	38.5			
			Lo	330	194	38	490	30			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

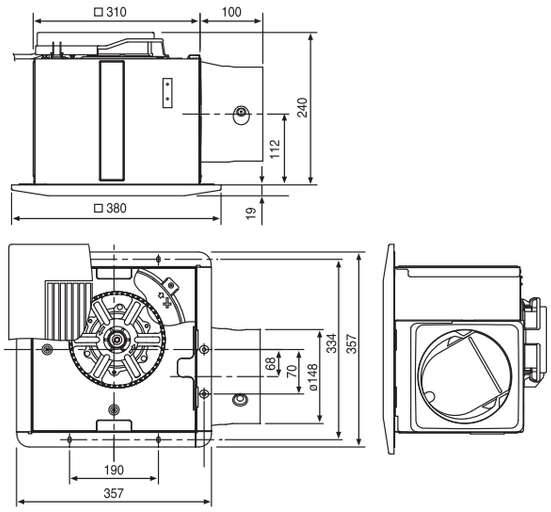
Ceiling Mount Type Ventilation Fan

32CHH

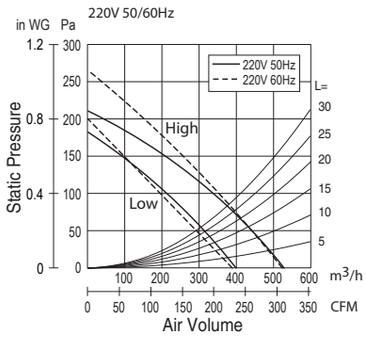
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Resonance-noise-absorption structure for super low noise*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *Pre-installed power cord*
- *2 speed selectable*

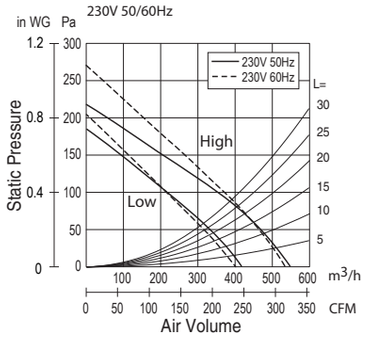
Dimension

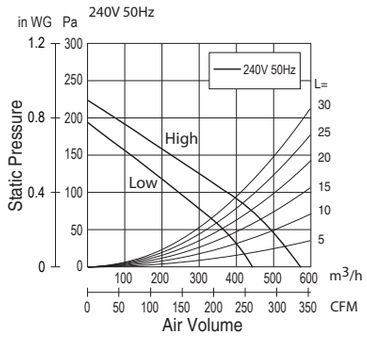
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage [V]	Voltage [Hz]		Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Duct Size [mm]
32CHH	220	50	Hi	530	312	55	710	41	5.6	320 x 320	ø150
			Lo	400	235	45	570	34			
		60	Hi	525	309	61	695	40.5			
			Lo	390	230	47	540	33			
	230	50	Hi	555	327	59	-	42			
			Lo	430	253	49	-	35.5			
	240	50	Hi	580	341	64	770	43			
			Lo	450	265	53	615	37			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Standard Series

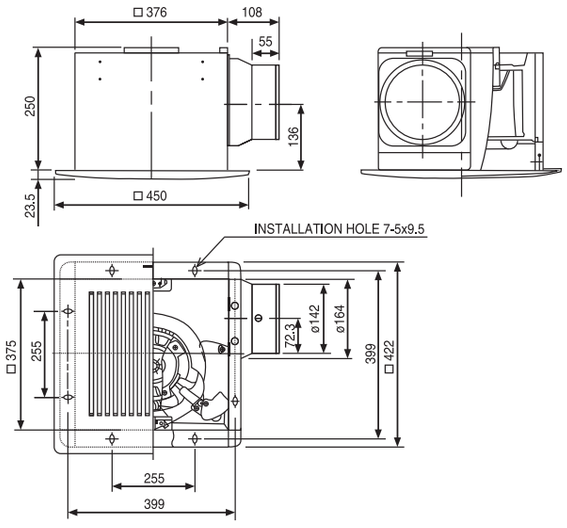
Ceiling Mount Type Ventilation Fan

38CDG

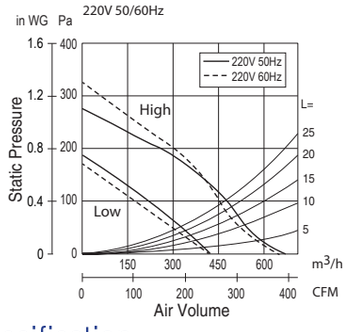
- *Condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *2 speed selectable*

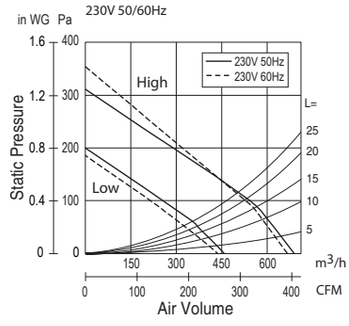
Dimension

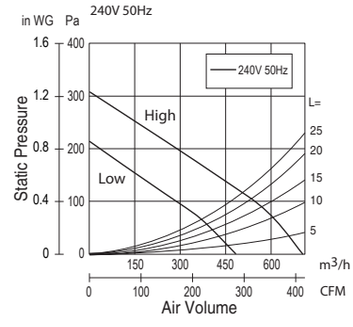
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage [V]	Voltage [Hz]		Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Duct Size [mm]
38CDG	220	50	Hi	640	377	90	645	44	9.7	385 x 385	ø150
			Lo	430	253	66	456	35			
		60	Hi	630	371	98	628	43.5			
			Lo	410	241	66.4	439	34.5			
	230	50	Hi	675	397	96	670	46			
			Lo	440	259	72	480	36			
	240	50	Hi	700	412	104	699	47			
			Lo	470	277	78	495	37			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

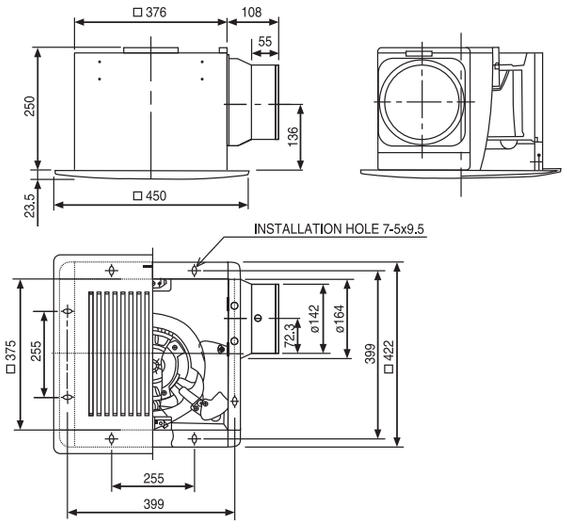
Ceiling Mount Type Ventilation Fan

38CHG

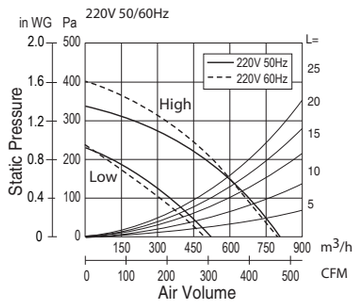
- *Condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Sirocco fan with taper blade controls air turbulence effectively*
- *Reverse flow prevention shutter*
- *2 speed selectable*

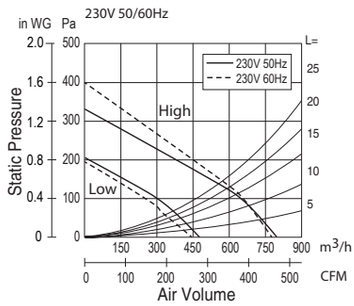
Dimension

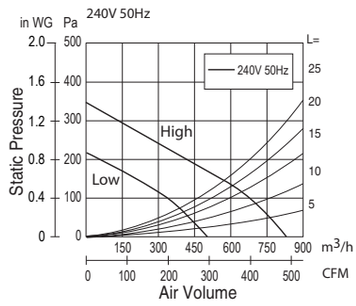
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Duct Size [mm]
38CHG	220	50	Hi	800	471	122	790	49.5	10.4	385 x 385	ø150
			Lo	525	309	89	540	39.5			
		60	Hi	790	465	138	760	49			
			Lo	500	294	90	509	39			
	230	50	Hi	800	471	122	775	49			
			Lo	470	277	84	485	37			
	240	50	Hi	835	491	132	807	50			
			Lo	490	288	90	504	38			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Metal Series

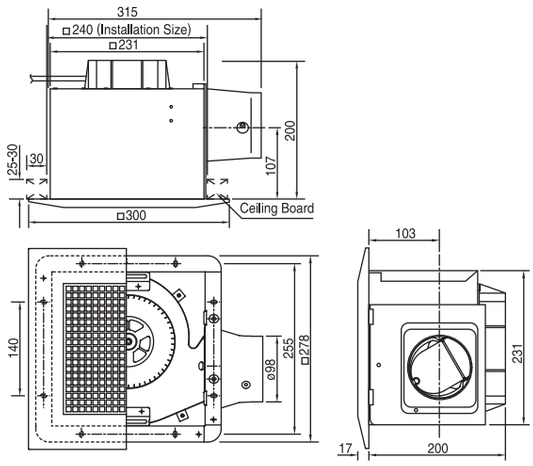
Ceiling Mount Type Ventilation Fan

24CMUA

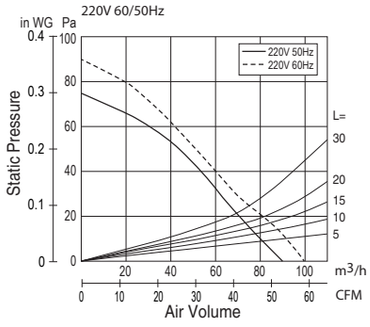
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Metallic structure for extra safey against fire*
- *High performance steel-made sirocco fan*
- *Reverse flow prevention shutter*
- *Steel louver with paint coating*

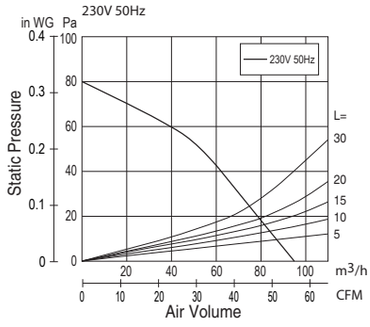
Dimension

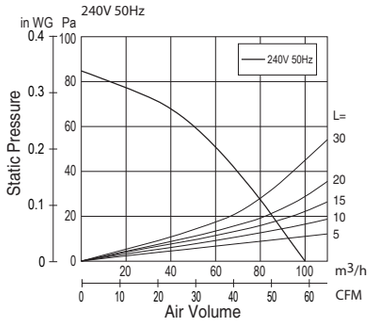
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]	[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
24CMUA	220	50	90	53	11	460	25	3.9	240 x 240	ø100
		60	100	59	12	495	26			
	230	50	95	56	12	495	25.5			
	240	50	100	59	13	480	26			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

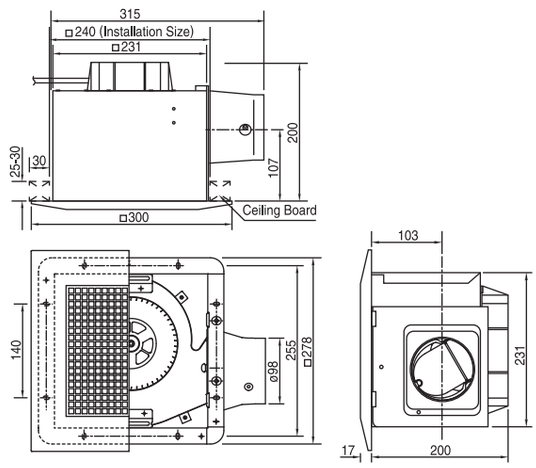
Ceiling Mount Type Ventilation Fan

24CMHA

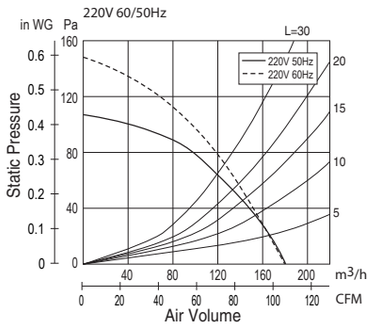
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Metallic structure for extra safey against fire*
- *High performance steel-made sirocco fan*
- *Reverse flow prevention shutter*
- *Steel louver with paint coating*

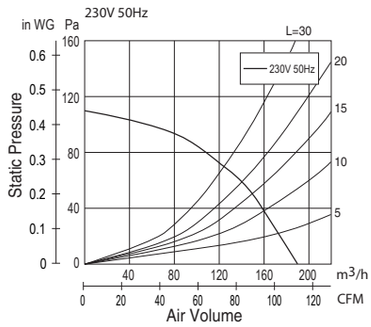
Dimension

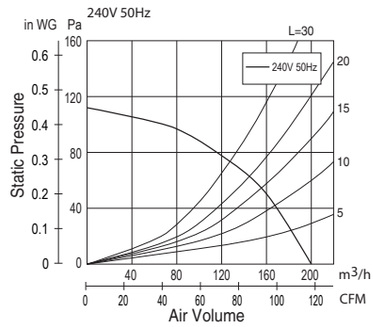
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]	[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
24CMHA	220	50	180	106	20	700	37	3.9	240 x 240	ø100
		60	180	106	23	700	37			
	230	50	190	112	22	730	37.5			
	240	50	200	118	25	760	38			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

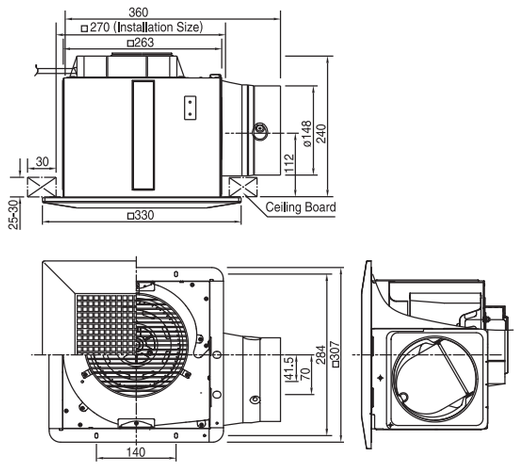
Ceiling Mount Type Ventilation Fan

27CMHA

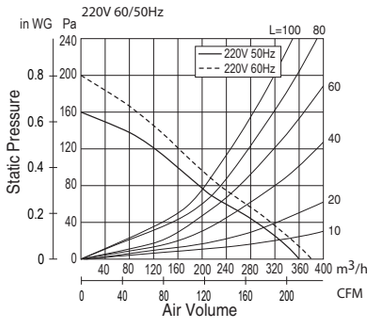
- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Metallic structure for extra safey against fire*
- *High performance steel-made sirocco fan*
- *Reverse flow prevention shutter*
- *Steel louver with paint coating*

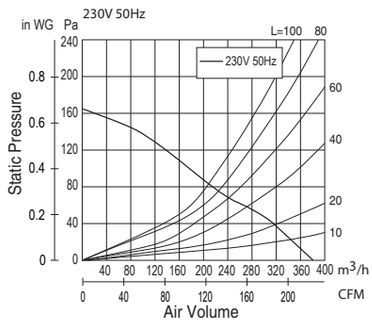
Dimension

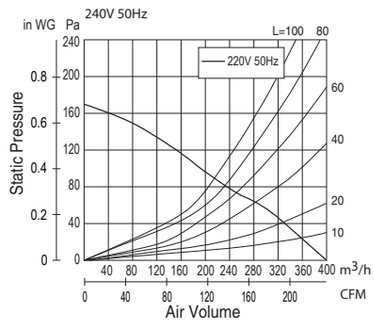
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption	RPM	Noise	Weight	Installation Space	Duct Size
	[V]	[Hz]	[m³/h]	[CFM]	[W]	[min⁻¹]	[dB(A)]	[kg]	[mm]	[mm]
27CMHA	220	50	360	212	35	590	37	5.9	270 x 270	ø150
		60	380	224	43	610	37.5			
	230	50	380	224	38	610	37.5			
	240	50	400	235	43	630	38			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

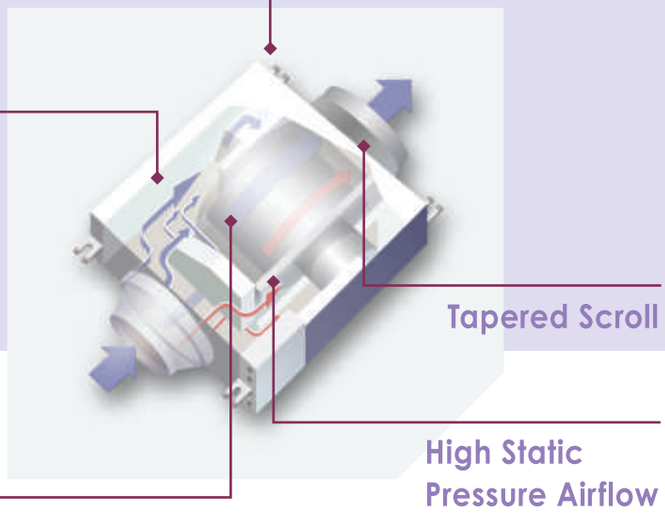
Low Noise Type Cabinet Fan (Inline Fan)

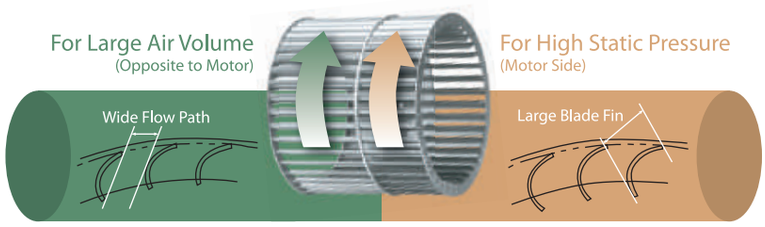
Cabinet Fans are ducted ventilation fans with both intake and outlet opening to the interior and exterior of the house respectively. They can be used as single port or multi-port to exhaust air from several areas with one unit. Since only a small ventilation opening is required, the appearance of the interior is not spoiled.

All models are manufactured from galvanized steel enhancing high durability. The unique suction fan design and acoustic noise absorbing material realize low noise operation. The high performance induction motor offers low consumption, long life and high reliability.

The slim, compact and light-weight structure allows easy installation in narrow ceiling space. The installation direction of the fans can be chosen to facilitate easy access to the terminal and inspection opening. Specially designed U-grooved mounting brackets prevent mounting bolts from loosening, thus reinforcing installation safety.

Feature of Cabinet Fan





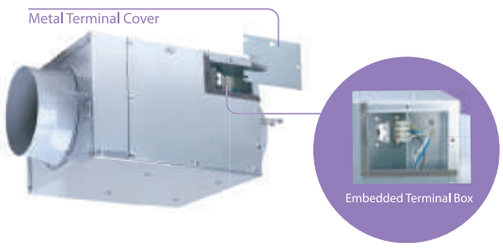
Twin Flow Fan

The newly developed twin flow fan achieves a better airflow inside the fan casing. It is divided into two portions which can generate large air volume and high static pressure respectively.

Internal Wind Velocity Distribution – Airflow Analysis

Tapered Scroll

Wind velocity varies according to the shape of fan casing. The tapered scroll at the fan casing can minimize the turbulence induced by uneven wind velocity inside the casing.



Embedded Terminal Box

Terminal boxes of new models are embedded into the product frame. Wiring to power supply are covered with metal enclosure that enhances the durability and safety concern.

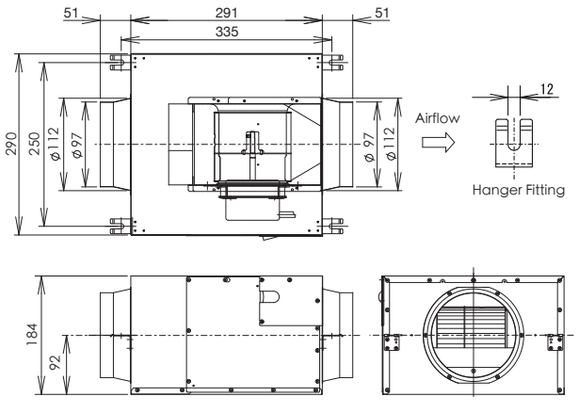
Low Noise Type Cabinet Fan (Inline Fan)

12NSB

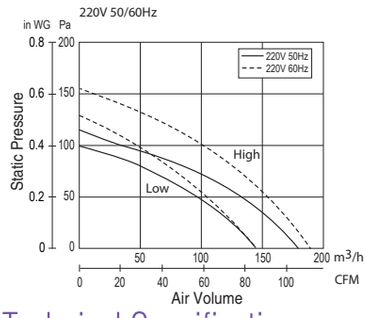
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

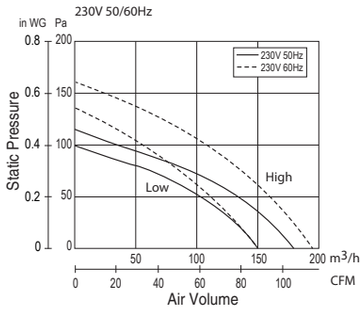
Dimension

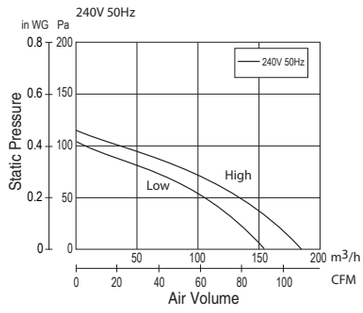
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m³/h]	[CFM]						
12NSB	220	50	Hi	180	106	18	1,265	21	5.5	ø 100	128
			Lo	145	85	17	1,020	17			
		60	Hi	190	112	23	1,370	22			
			Lo	145	85	19	1000	18			
	230	50	Hi	180	106	20	-	21			
			Lo	150	88	18	-	18			
	240	50	Hi	185	109	22	-	22			
			Lo	155	91	19	-	20			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Single Phase Series

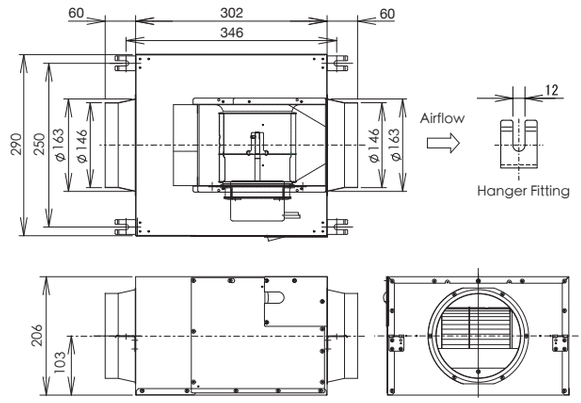
Low Noise Type Cabinet Fan (Inline Fan)

15NSB

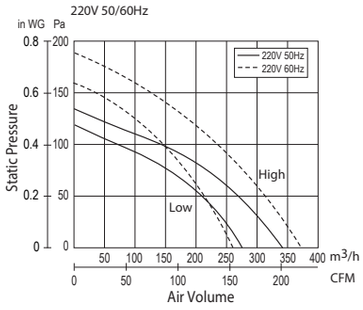
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

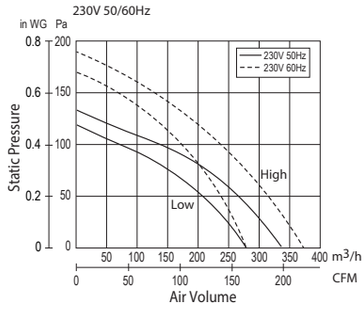
Dimension

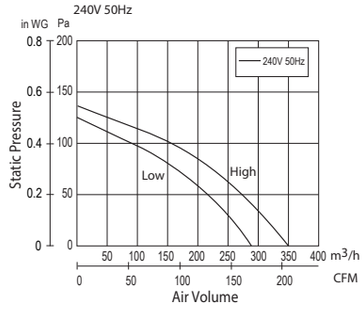
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m3/h]	[CFM]						
15NSB	220	50	Hi	340	200	33	1,270	25	6.5	ø 150	128
			Lo	275	162	29.5	1,100	22			
		60	Hi	370	218	42	1,385	27			
			Lo	260	153	33	1,040	22			
	230	50	Hi	340	200	35	-	25			
			Lo	280	165	31	-	22			
	240	50	Hi	350	206	37	-	26			
			Lo	290	171	33	-	24			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

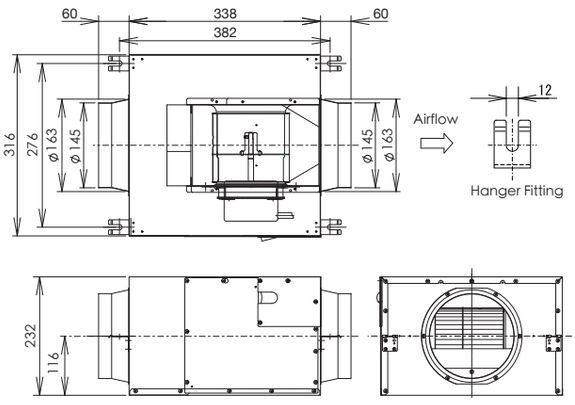
Low Noise Type Cabinet Fan (Inline Fan)

18NSB

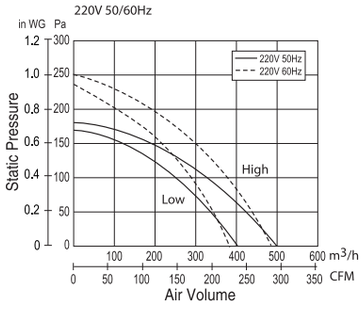
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

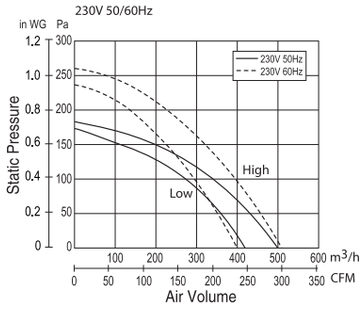
Dimension

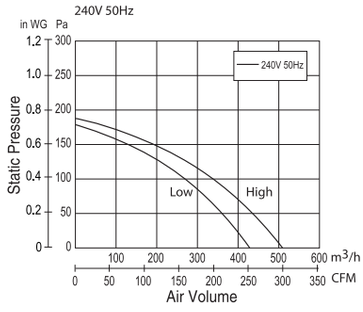
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m³/h]	[CFM]						
18NSB	220	50	Hi	500	294	60	1,250	29	8.5	ø 150	158
			Lo	405	238	55	1,100	27			
		60	Hi	490	288	73	1,260	30			
			Lo	385	227	62.5	990	26			
	230	50	Hi	500	294	65	-	30			
			Lo	420	247	58.5	-	28			
	240	50	Hi	510	300	68	-	31			
			Lo	430	253	62.5	-	28			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Single Phase Series

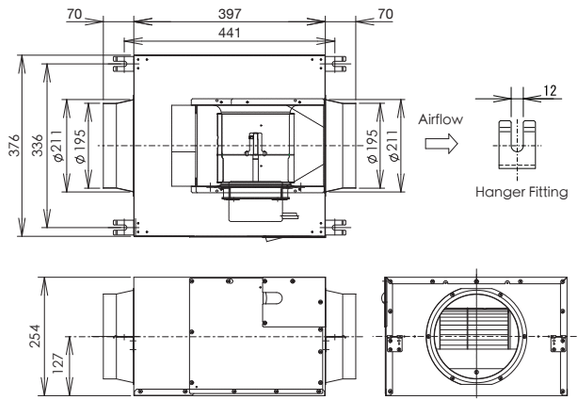
Low Noise Type Cabinet Fan (Inline Fan)

18NFB

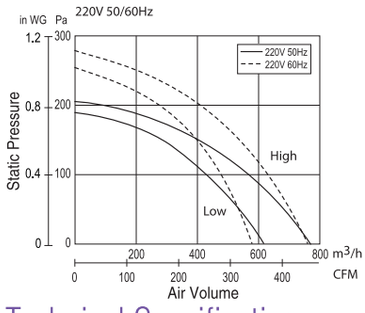
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

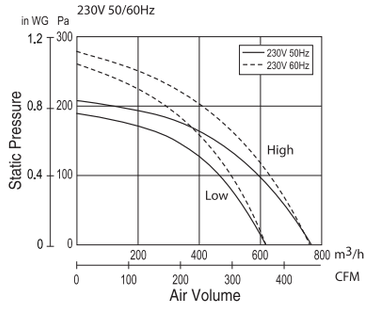
Dimension

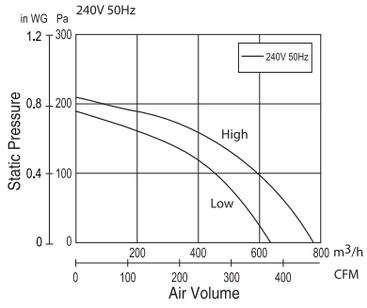
Unit : mm



Performance Data







Technical Specification

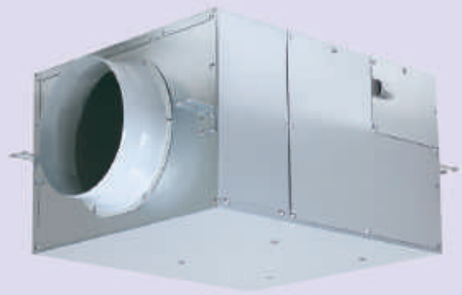
Model No.	Voltage			Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m³/h]	[CFM]						
18NFB	220	50	Hi	770	453	91	1,190	31	10.0	ø 200	158
			Lo	620	365	80	1,000	29			
		60	Hi	760	447	119	1,245	32			
			Lo	580	341	87	990	28			
	230	50	Hi	770	453	96	-	32			
			Lo	620	365	82	-	29			
	240	50	Hi	780	459	104	-	33			
			Lo	640	377	86	-	29			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Low Noise Type Cabinet Fan (Inline Fan)

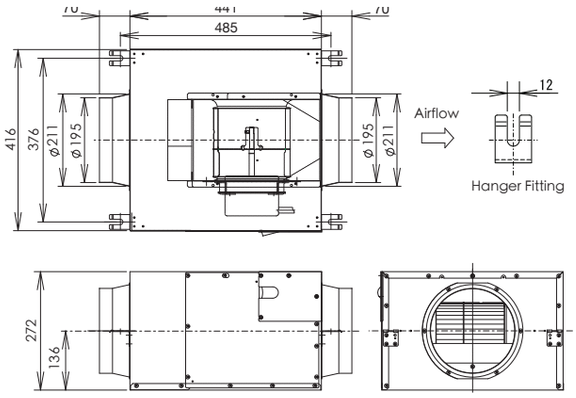


20NSB

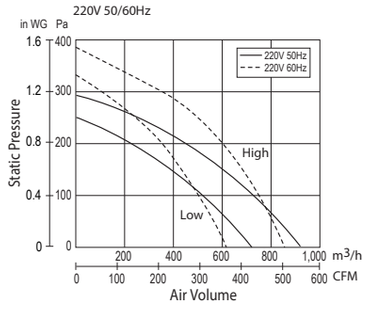
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

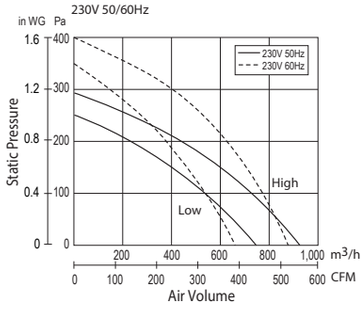
Dimension

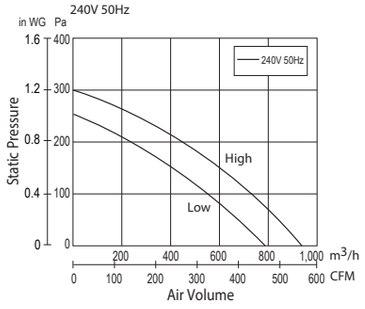
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m³/h]	[CFM]						
20NSB	220	50	Hi	920	541	120	1,195	32	14.0	ø 200	178
			Lo	720	424	113	1,000	29			
		60	Hi	860	506	159	1,165	32			
			Lo	620	365	128	875	26			
	230	50	Hi	930	547	125	-	33			
			Lo	750	441	120	-	30			
	240	50	Hi	940	553	135	-	34			
			Lo	790	465	125	-	31			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Single Phase Series

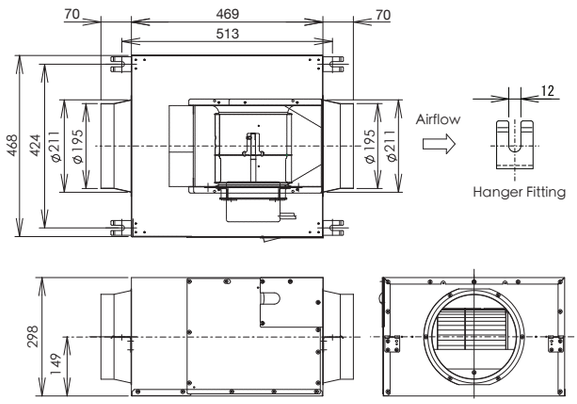
Low Noise Type Cabinet Fan (Inline Fan)

23NLB

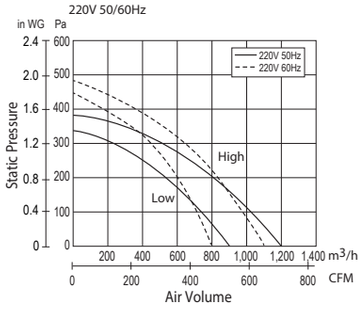
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

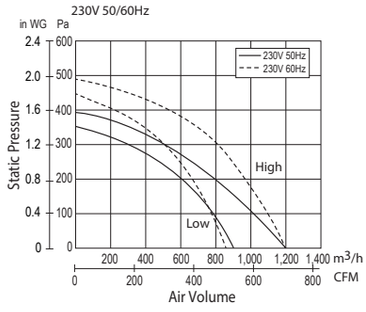
Dimension

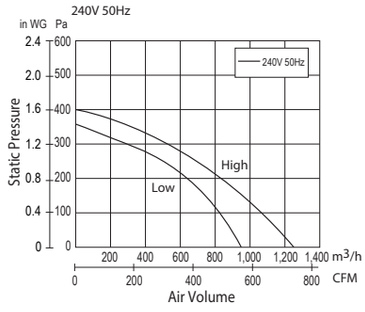
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m³/h]	[CFM]						
23NLB	220	50	Hi	1,200	706	230	1,245	40	18.0	ø 200	220
			Lo	900	530	170	985	34			
		60	Hi	1,100	647	310	1,210	40			
			Lo	800	471	190	890	32			
	230	50	Hi	1,200	706	250	-	40			
			Lo	900	530	180	-	35			
	240	50	Hi	1,250	736	260	-	41			
			Lo	950	559	190	-	37			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

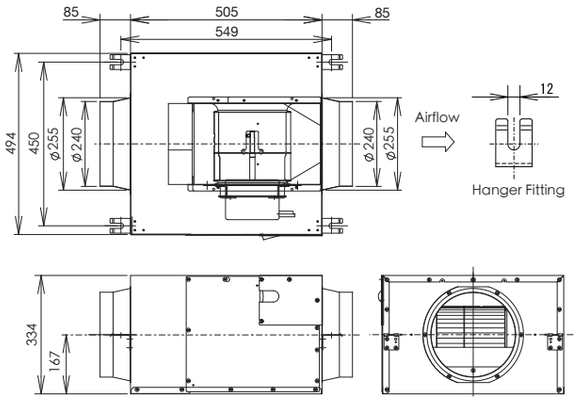
Low Noise Type Cabinet Fan (Inline Fan)

25NSB

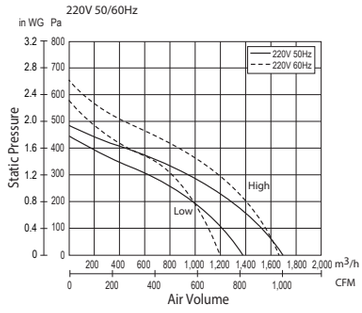
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

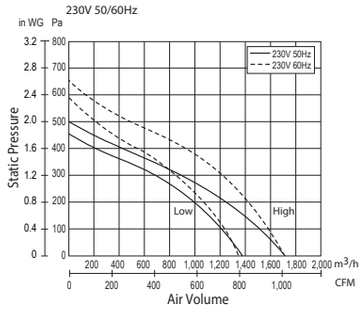
Dimension

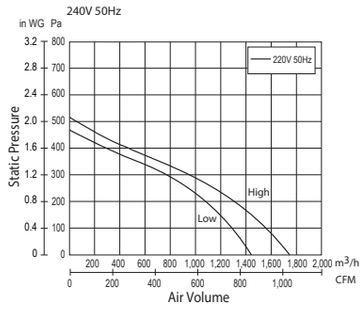
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m³/h]	[CFM]						
25NSB	220	50	Hi	1,700	1,001	345	1,125	41	24.0	ø 250	220
			Lo	1,380	812	265	950	38			
		60	Hi	1,650	971	425	1,100	41			
			Lo	1,200	706	300	890	39			
	230	50	Hi	1,720	1,012	350	-	42			
			Lo	1,380	812	270	-	39			
	240	50	Hi	1,750	1,030	370	-	44			
			Lo	1,450	853	290	-	40			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Single Phase Series

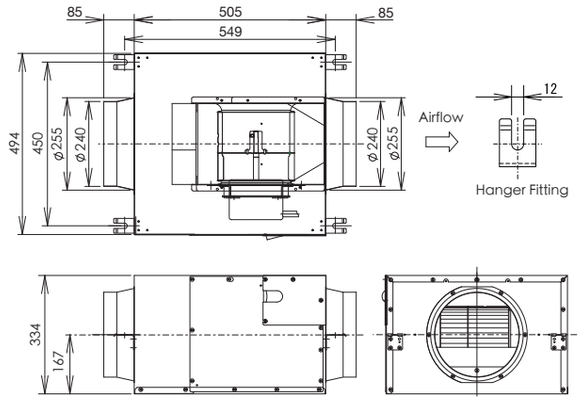
Low Noise Type Cabinet Fan (Inline Fan)

25NFB

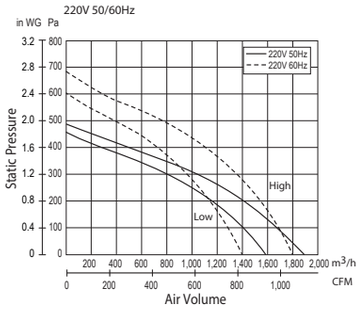
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*
- *2 speed selectable*

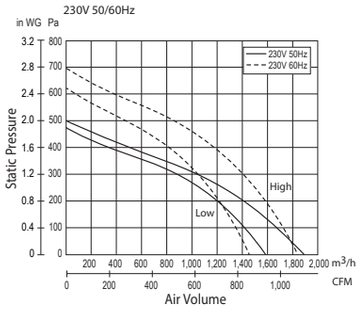
Dimension

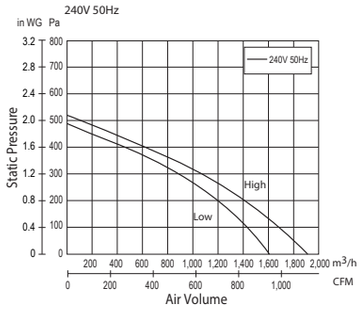
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
	[V]	[Hz]		[m³/h]	[CFM]						
25NFB	220	50	Hi	1,900	1,118	390	1,225	43	24.0	ø 250	220
			Lo	1,600	942	325	1,070	40			
		60	Hi	1,810	1,065	520	1,245	42			
			Lo	1,400	824	380	1,000	41			
	230	50	Hi	1,910	1,124	410	-	45			
			Lo	1,600	942	335	-	41			
	240	50	Hi	1,920	1,130	430	-	46			
			Lo	1,620	953	360	-	42			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

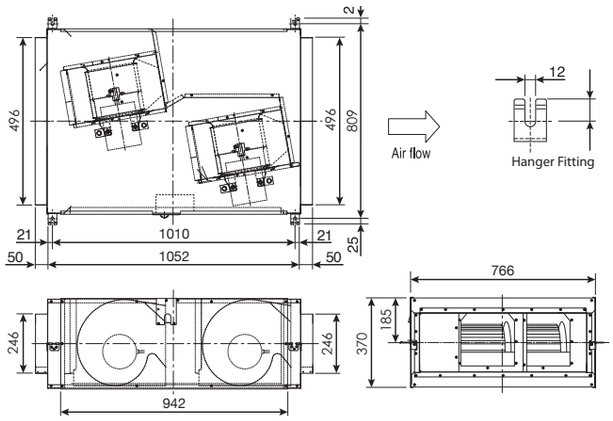
Low Noise Type Cabinet Fan (Inline Fan)

25SWC

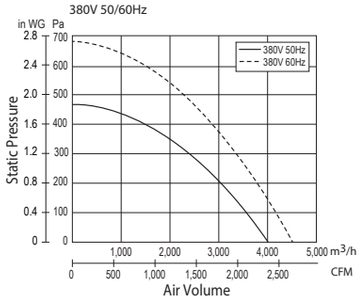
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*

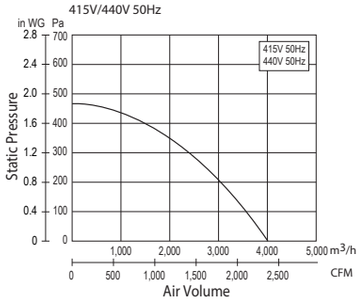
Dimension

Unit : mm



Performance Data





Technical Specification

Model No.	Phase	Voltage [V]	Voltage [Hz]	Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
25SWC	3	380	50	4,000	2,354	940	1,375	43	60.0	250 x 500	250
			60	4,500	2,649	1,450	1,530	45			
	3	415	50	4,000	2,354	1,000	1,390	43			
	3	440	50	4,000	2,354	1,000	-	43			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Three Phase Series

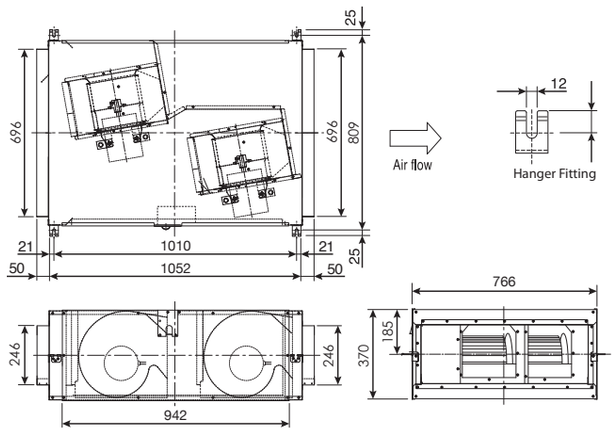
Low Noise Type Cabinet Fan (Inline Fan)

25SMC

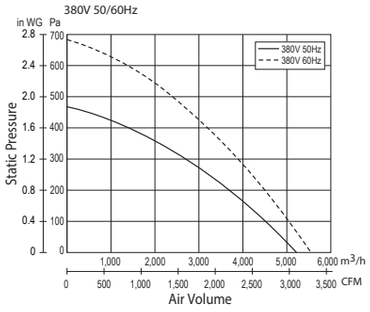
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*

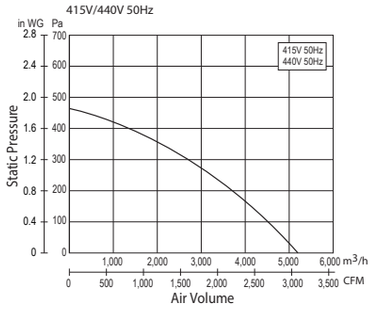
Dimension

Unit : mm



Performance Data





Technical Specification

Model No.	Phase	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
		[V]	[Hz]	[m3/h]	[CFM]						
25SMC	3	380	50	5,200	3,061	1,180	1,375	45	60.0	250 x 700	250
			60	5,500	3,237	1,750	1,470	46			
	3	415	50	5,200	3,061	1,260	1,365	45			
	3	440	50	5,200	3,061	1,260	-	45			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

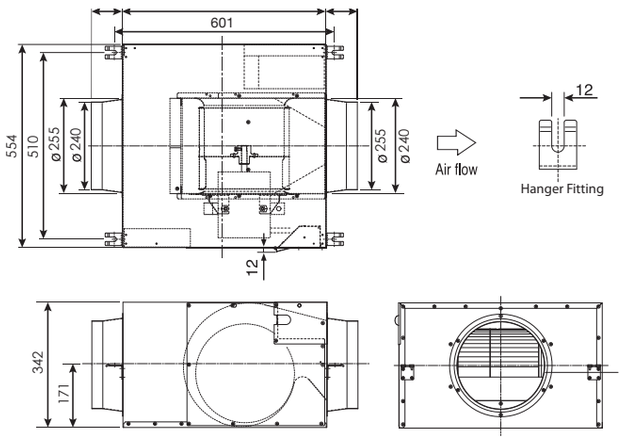
Low Noise Type Cabinet Fan (Inline Fan)

28NXC

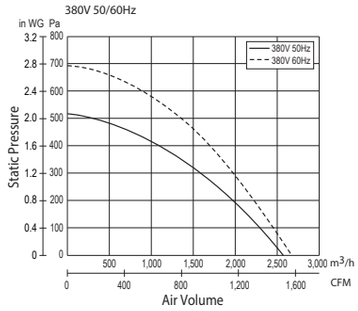
- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Twin flow fan (sirocco fan) adopted*
- *Fan casing with tapered scroll for smooth airflow*
- *Noise level reduction by noise absorption material*
- *Compact size with embedded terminal box*

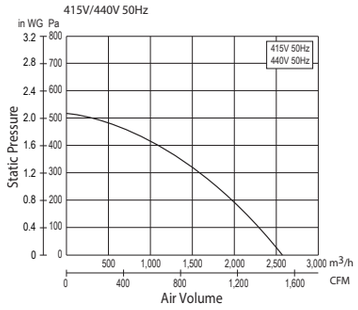
Dimension

Unit : mm



Performance Data





Technical Specification

Model No.	Phase	Voltage		Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
		[V]	[Hz]	[m³/h]	[CFM]						
28NXC	3	380	50	2,600	1,530	600	1,295	44	28.0	ø 250	280
			60	2,650	1,560	840	1,380	45			
	3	415	50	2,600	1,530	650	1,315	44			
	3	440	50	2,600	1,530	650	-	44			

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1.5 m apart from the side of fan body when ducts are connected on both inlet and outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Industrial Type Ventilation Fan

Industrial Type Ventilation fans can be used in factories, warehouses, shops, commercial kitchens and other places where large air change is necessary. Particular models are applicable for the places being ventilated by duct pipe through which static pressure is relatively high.

Feature of High Pressure Series

High Static Pressure, Low Power Consumption

The newly developed fan and original bell mouth construction enable operation with high static pressure and low power consumption.

Low-Noise Design

The fan blade's distinctive wave shape, developed using hydrodynamic analysis, delivers a smooth, turbulence-free airflow. The result is more air with less noise.

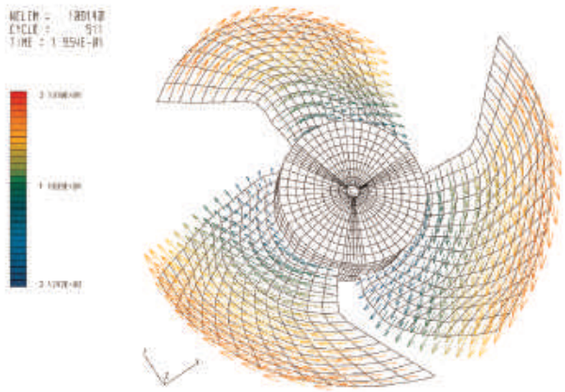
Fan with 3-dimensional S-shaped Cross-section Blade

High Durability

Pressure is distributed more uniformly over the surface of the fan blade, making the blade more durable.

A special polyester resin and powder coating give a beautiful color and a highly rust-resistant finish.

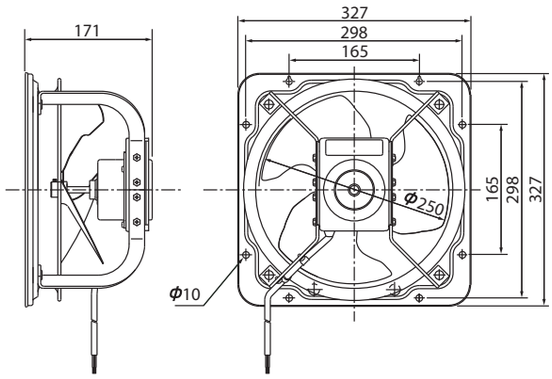
Surface Velocity Vector Diagram



Industrial Type Ventilation Fan

Dimension

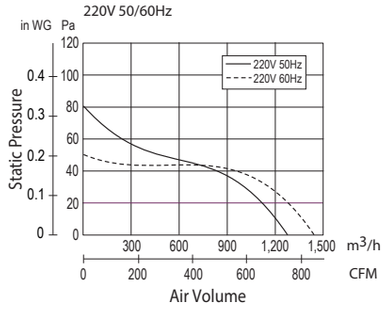
Unit : mm

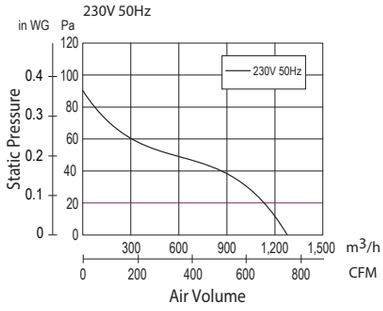


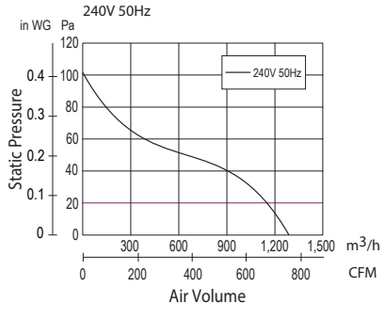
25GSE

- *Single phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +40°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m3/h]	[CFM]				
25GSE	220	50	1,280	753	41	1,400	44	4.4
		60	1,440	848	57	1,595	46	
	230	50	1,280	753	43	1,410	44	
	240	50	1,280	753	44	1,420	44	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

High Pressure Series

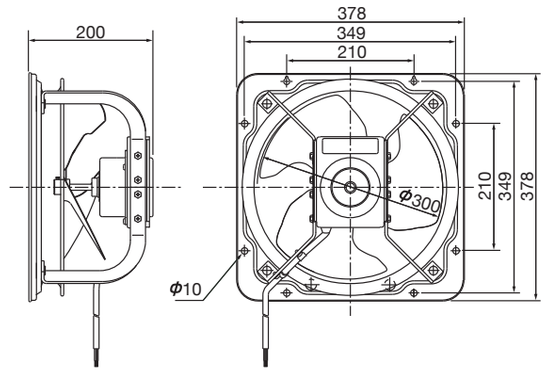
Industrial Type Ventilation Fan

30GSE

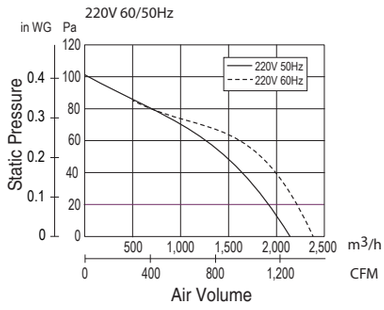
- *Single phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +40°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

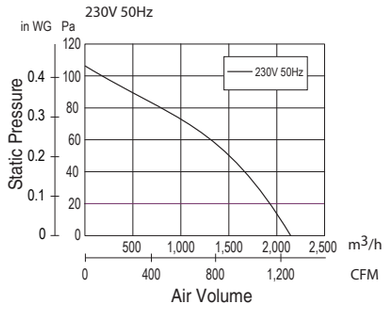
Dimension

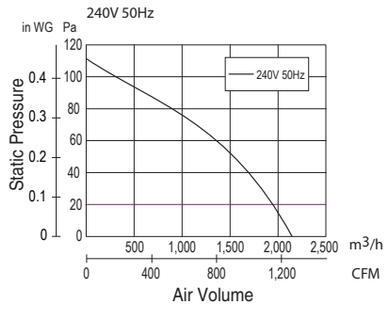
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m3/h]	[CFM]				
30GSE	220	50	2,150	1,265	87	1,330	49	6.1
		60	2,390	1,407	119	1,510	51	
	230	50	2,150	1,265	92	1,350	49	
	240	50	2,150	1,265	98	1,360	50	

Note : RPM data is for reference only, values may vary subject to different conditions

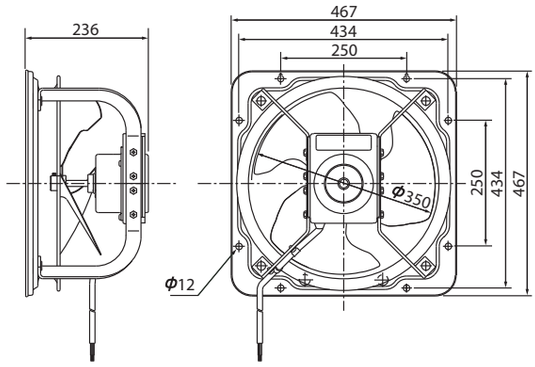
Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Industrial Type Ventilation Fan

Dimension

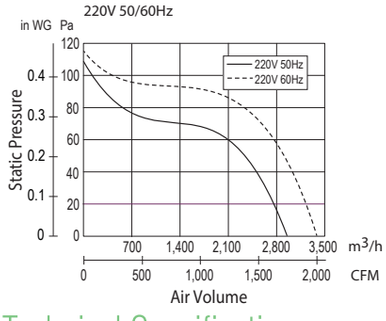
Unit : mm

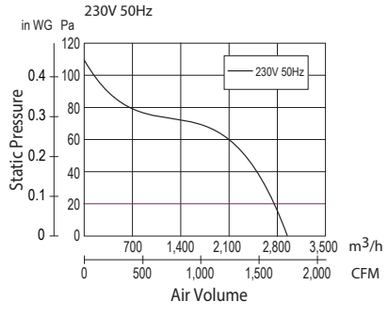


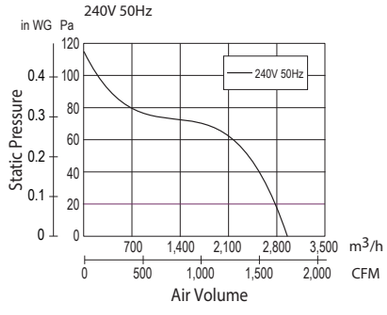
35GSE

- *Single phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +40°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m3/h]	[CFM]				
35GSE	220	50	2,950	1,736	113	1,430	51	10.5
		60	3,380	1,989	161	1,665	54	
	230	50	2,950	1,736	118	1,435	51	
	240	50	2,950	1,736	122	1,440	51	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

High Pressure Series

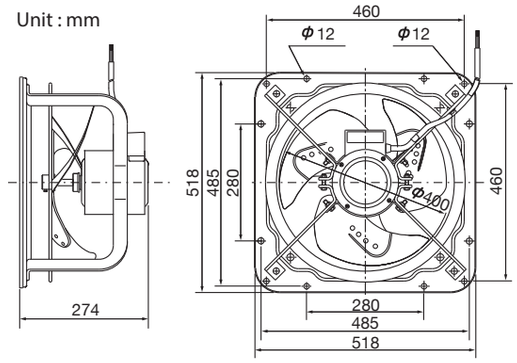
Industrial Type Ventilation Fan

40GSE

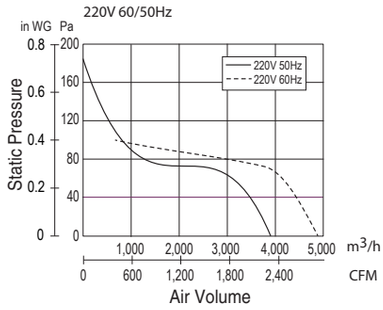
- *Single phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +40°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

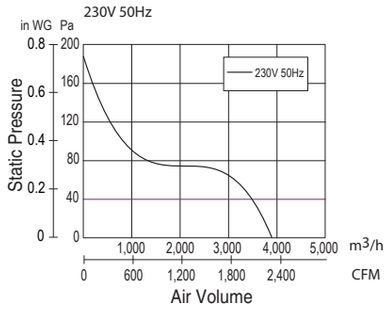
Dimension

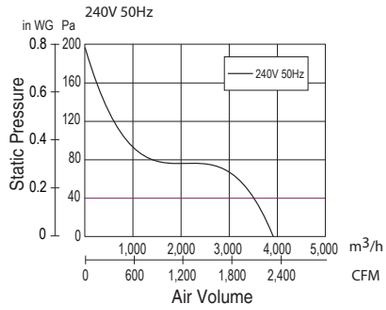
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m3/h]	[CFM]				
40GSE	220	50	3,900	2,295	141	1,430	54	19.0
		60	4,890	2,878	270	1,590	58	
	230	50	3,900	2,295	146	1,435	54	
	240	50	3,900	2,295	151	1,440	54	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

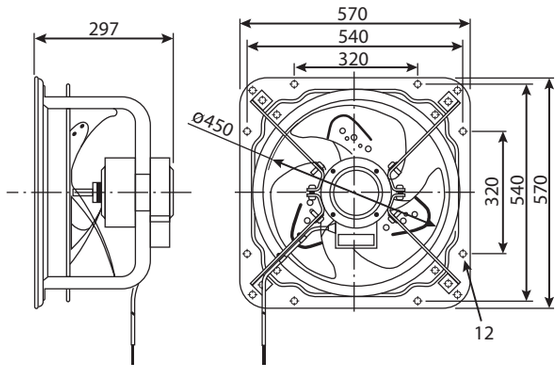
Industrial Type Ventilation Fan

45GSC

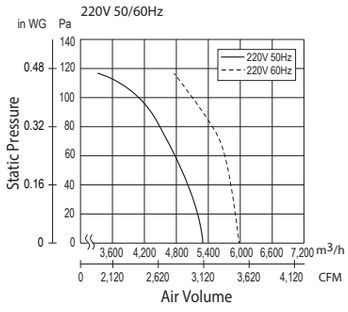
- *Single phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +50°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

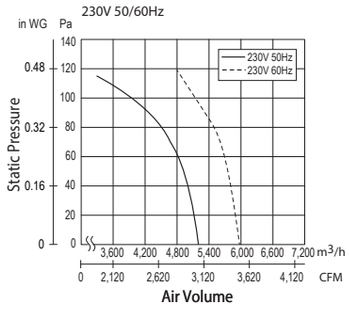
Dimension

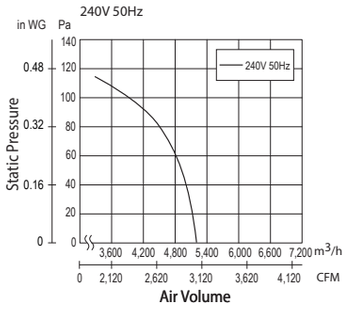
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m³/h]	[CFM]				
45GSC	220	50	5,200	3,061	227	1,410	51	19.0
		60	5,970	3,514	325	1,630	54	
	230	50	5,430	3,196	235	1,420	51	
	240	50	5,460	3,214	241	1,430	51	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

High Pressure Series

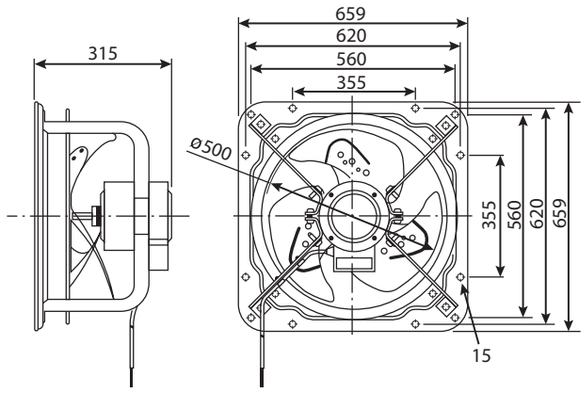
Industrial Type Ventilation Fan

50GSC

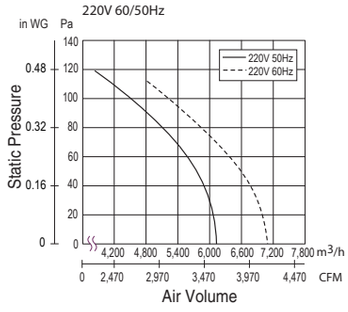
- *Single phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +50°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

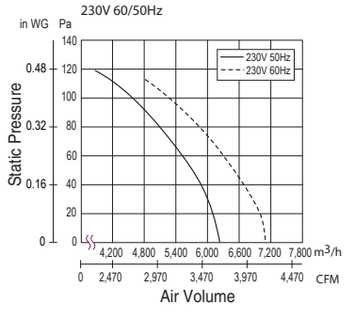
Dimension

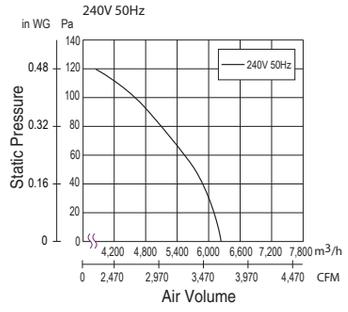
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m3/h]	[CFM]				
50GSC	220	50	6,130	3,608	249	960	47	22.5
		60	7,100	4,179	326	1,130	51	
	230	50	6,420	3,779	258	960	47	
	240	50	6,480	3,814	271	970	47	

Note : RPM data is for reference only, values may vary subject to different conditions

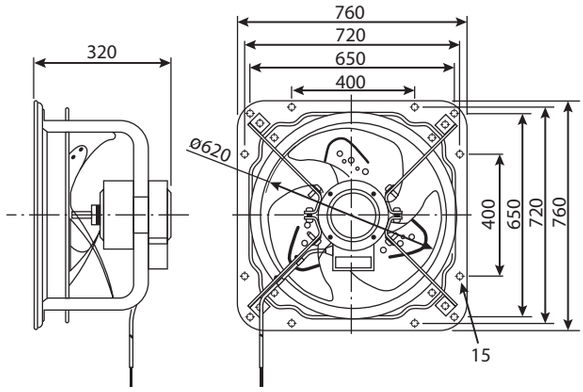
Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Industrial Type Ventilation Fan

Dimension

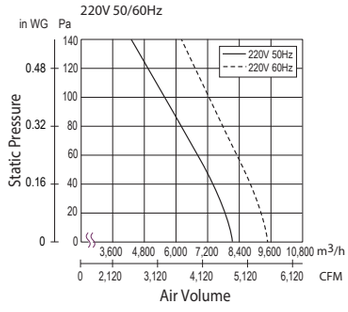
Unit : mm

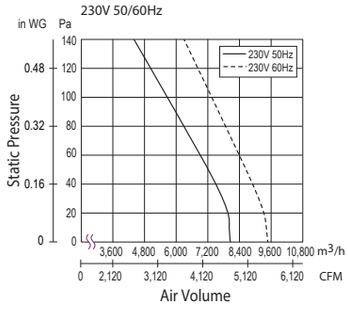


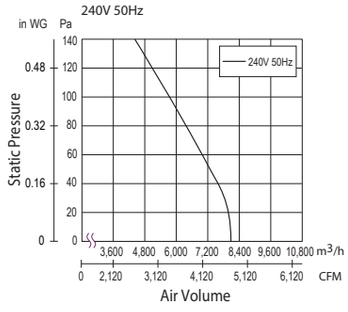
60GSC

- *Single phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +50°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m³/h]	[CFM]				
60GSC	220	50	8,040	4,732	245	970	50	34.0
		60	9,410	5,539	361	1,150	54	
	230	50	8,460	4,979	258	970	50	
	240	50	8,490	4,997	263	980	50	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

High Pressure Series

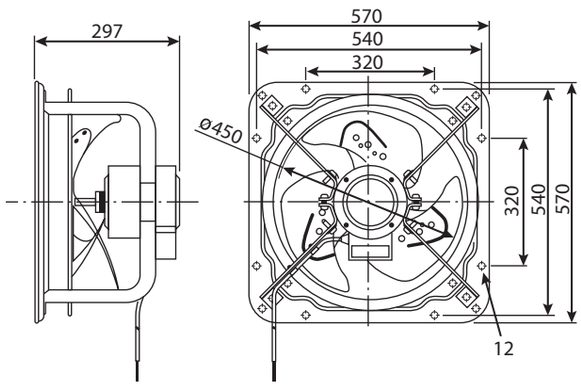
Industrial Type Ventilation Fan

45GTC

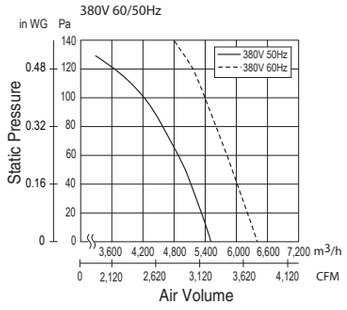
- *Three phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +50°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

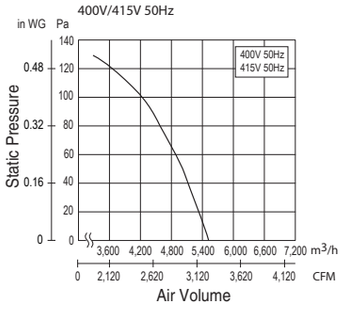
Dimension

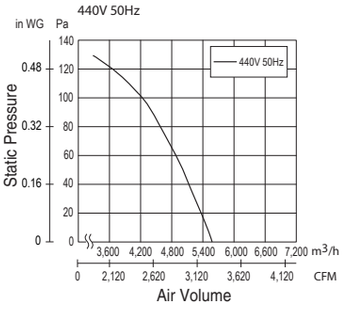
Unit : mm



Performance Data







Technical Specification

Model No.	Phase	Voltage		Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]
		[V]	[Hz]	[m³/h]	[CFM]				
45GTC	3	380	50	5,520	3,249	220	1,450	52	18.5
			60	6,420	3,779	330	1,690	56	
	3	415	50	5,550	3,267	230	1,460	52	
	3	440	50	5,580	3,284	235	1,460	52	

Note : RPM data is for reference only, values may vary subject to different conditions

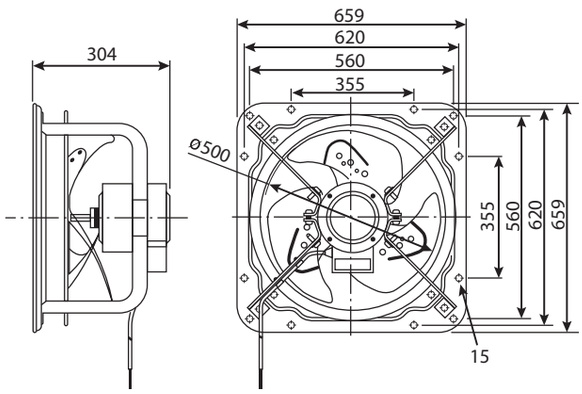
Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Industrial Type Ventilation Fan

Dimension

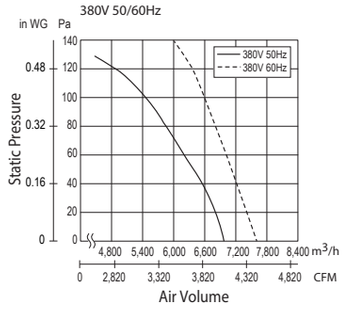
Unit : mm

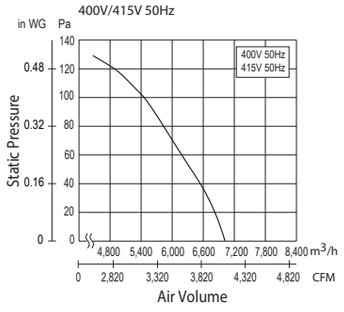


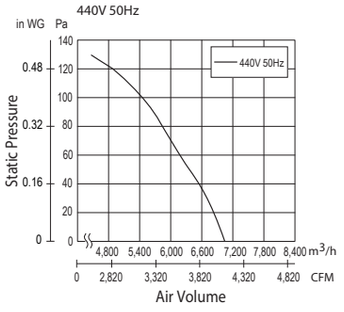
50GTC

- *Three phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +50°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

Performance Data







Technical Specification

Model No.	Phase	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
		[V]	[Hz]	[m3/h]	[CFM]				
50GTC	3	380	50	6,960	4,097	320	1,400	54	28.5
			60	8,010	4,715	475	1,590	58	
	3	415	50	7,020	4,132	330	1,410	54	
	3	440	50	7,050	4,149	340	1,420	54	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

High Pressure Series

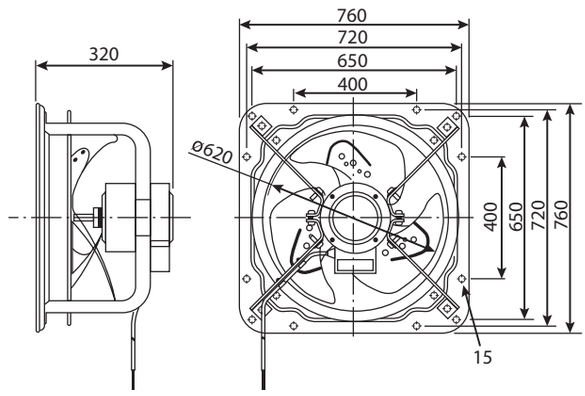
Industrial Type Ventilation Fan

60GTC

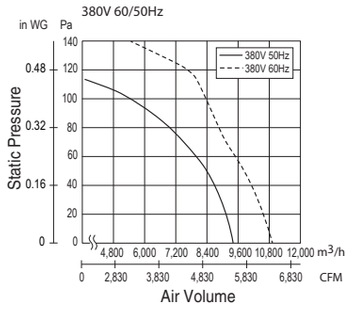
- *Three phase*
- *Bell mouth construction with wave-shaped blade*
- *Durable powder coating*
- *High performance motor with thermal cutoff*
- *Reversible by adjusting wiring and blade*
- *Ambient temperature from -10°C to +50°C*
- *Possible to install horizontally or vertically*
- *Optional shutter available*

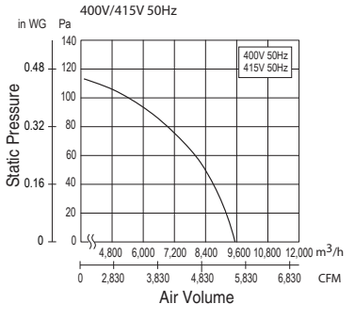
Dimension

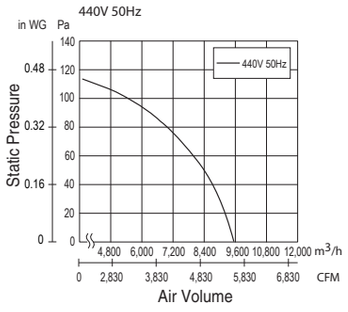
Unit : mm



Performance Data







Technical Specification

Model No.	Phase	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
		[V]	[Hz]	[m3/h]	[CFM]				
60GTC	3	380	50	9,420	5,544	310	940	49	34.0
			60	10,920	6,427	450	1,070	53	
	3	415	50	9,540	5,615	325	950	49	
	3	440	50	9,540	5,615	335	950	49	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

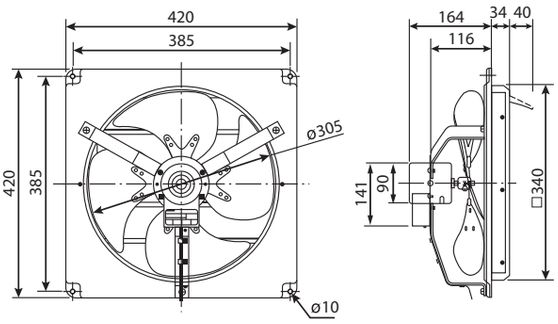
Industrial Type Ventilation Fan

30KQT

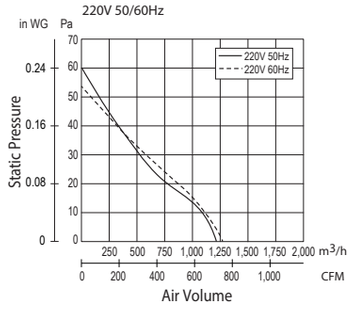
- *High efficient condenser motor with thermal cutoff*
- *Large metal blade assembly for abundant air volume*
- *Automatic shutter equipped*
- *Durable paint coating*
- *Ambient temperature from -10°C to +50°C*
- *Suitable for factories, warehouses, etc.*

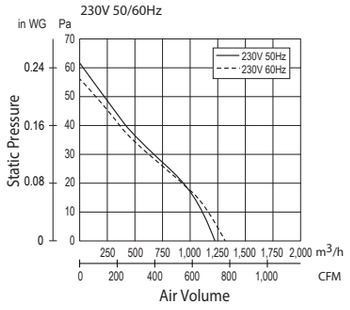
Dimension

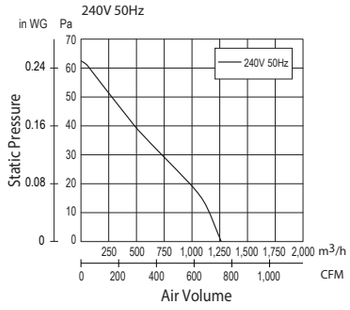
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m³/h]	[CFM]				
30KQT	220	50	1,220	718	42	1,185	45.5	4.9
		60	1,270	747	51	1,255	46.5	
	230	50	1,230	724	44	1,210	46	
	240	50	1,260	742	47	1,240	46.5	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Shutter Series

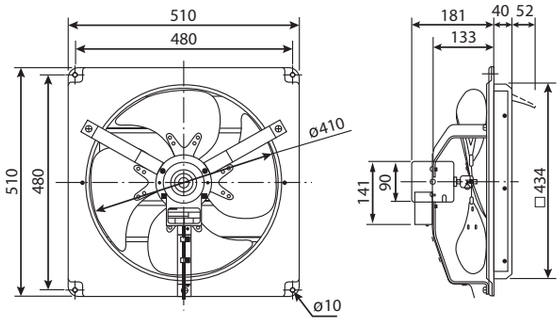
Industrial Type Ventilation Fan

40KQT

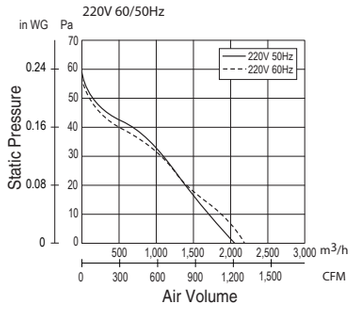
- *High efficient condenser motor with thermal cutoff*
- *Large metal blade assembly for abundant air volume*
- *Automatic shutter equipped*
- *Durable paint coating*
- *Ambient temperature from -10°C to +50°C*
- *Suitable for factories, warehouses, etc.*

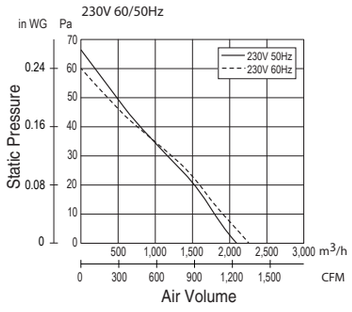
Dimension

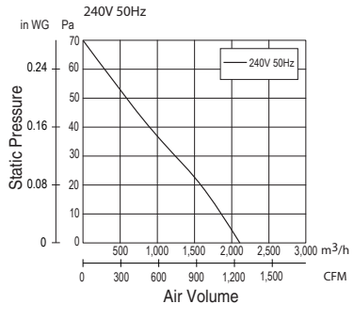
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m³/h]	[CFM]				
40KQT	220	50	2,060	1,212	61	1,175	49	6.4
		60	2,190	1,289	76	1,260	51	
	230	50	2,100	1,236	64	1,200	50	
	240	50	2,110	1,242	68	1,220	50.5	

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

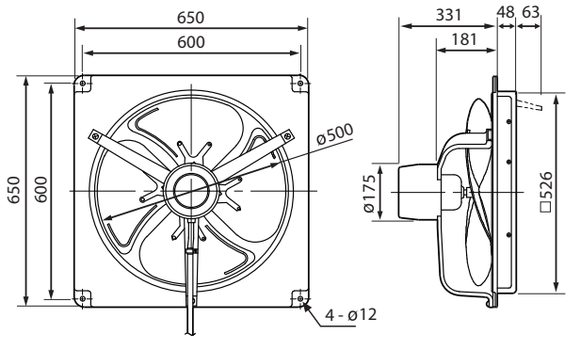
Industrial Type Ventilation Fan

50AEQ2

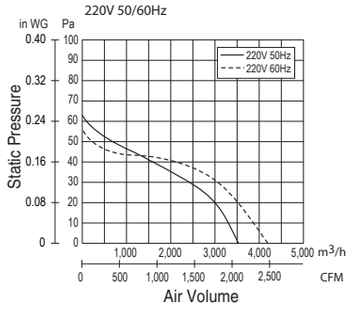
- *High efficient condenser motor with thermal cutoff*
- *Large metal blade assembly for abundant air volume*
- *Automatic shutter equipped*
- *Durable paint coating*
- *Ambient temperature from -10°C to +40°C*
- *Suitable for factories, warehouses, etc.*

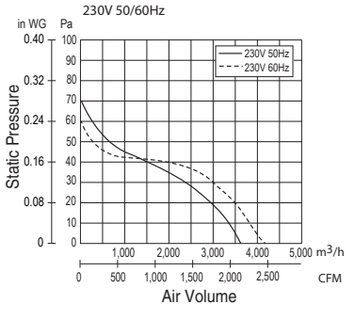
Dimension

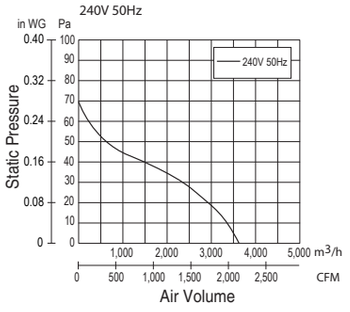
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]
	[V]	[Hz]	[m3/h]	[CFM]				
50AEQ2	220	50	3,630	2,137	108	920	54	11.5
		60	4,200	2,472	130	1,050	58	
	240	50	3,480	2,048	110	930	55	

Note : RPM data is for reference only, values may vary subject to different conditions

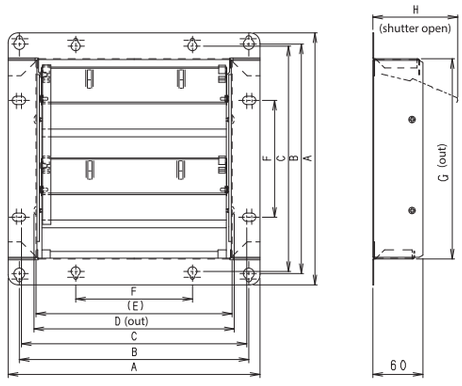
Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Optional Accessories

Dimension

Unit : mm



25GASC
30GASC
35GASC
40GASC
45GASC
50GASC
60GASC

Auto shutter for High Pressure Series

Steel material

Durable powder coating

Available for wall mounting

Model No.	Size	A	B	C	D	E	F	G	H	Nos of Shutter	Applicable For
25GASC	25cm/10”	330	303	298	268	263	165	268	137	2	25GSE
30GASC	30cm/12”	381	354	349	319	314	210	319	122	3	30GSE
35GASC	35cm/14”	468	433	434	389	384	250	389	137	3	35GSE
40GASC	40cm/16”	519	484	485	440	435	280	440	122	4	40GSE
45GASC	45cm/18”	574	539	540	492	487	320	492	137	5	45GSC, 45GTC
50GASC	50cm/20”	660	625	620	545	540	355	545	122	5	50GSC, 50GTC
60GASC	60cm/24”	760	725	720	662	657	440	662	122	6	60GSC, 60GTC

Wall Mount Type Ventilation Fan

Wall Mount Ventilation Fans shall be installed in and exhaust air through a wall. They are equipped with outside shutters which will open when the fan is on and vice versa. There is a wide range of products, either blade size or functions, that can fit to various requirements.

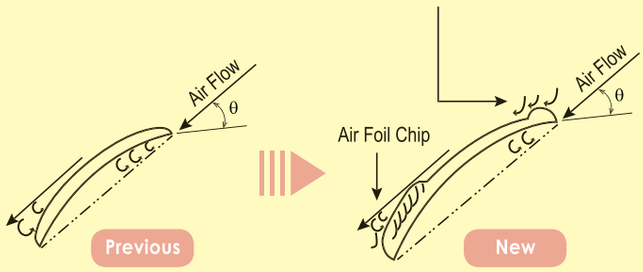
Filter Series collects oil effectively that is ideal for the use in kitchen. Louver Series provides additional safety protection from finger reach while Reversible Series extends the flexibility of utilization by selection of exhaust or intake. Metallic Series is suitable for the place in where resin ventilation fan cannot be used.

General Feature

Advanced Blade Design

(Except Bathroom Series, Metallic Series and Plastic Series)
New blade design applies advanced aerodynamic principle that minimizes any obstacles against the airflow.

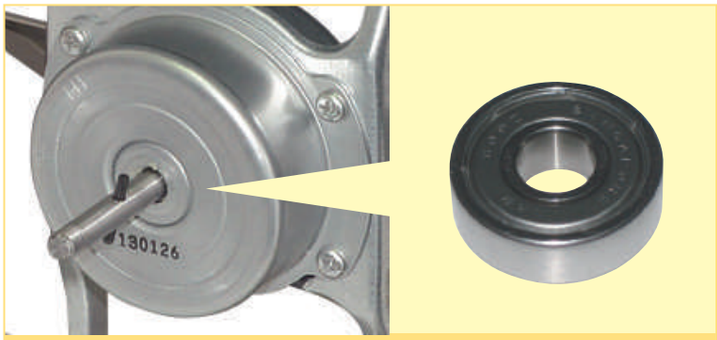
Leading Edge forms no obstacle to airflow that streamlines airflow from every direction



Air Foil Chip is to reduce turbulence at rear edge, and curvature of front edge is improved for smooth airflow that minimizes fan noise as well

HP (Half-Pitch) Motor & Bearing

Compared with previous models, new models adopt HP (Half-Pitch) condenser motor and long life bearing that prolong the product durability, from average 30,000 hours lifetime to 60,000 hours. They also enable energy saving by reducing power consumption down to average 13%.(*)

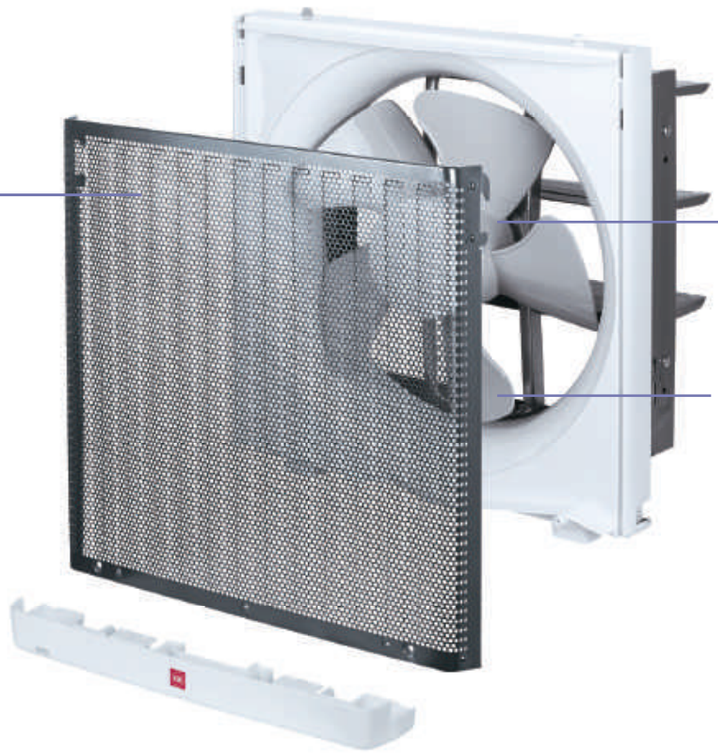


"HP motor" and "Bearing" are used

Bearing

(*) For Automatic Shutter Series, Automatic Shutter Louver Series, Reversible Series and Reversible Louver Series

Feature of 25AUFA



1 Perforated Aluminum Filter - Durable

The filter adopts aluminum material to assure excellent durability, and it is easy detachable for cleaning and maintenance.

2 Oil Collecting – Environmental Friendly

The perforated filter is competent in collecting oil. It allows the air exhausted to outdoor is less polluted that improves the air quality of surrounding.

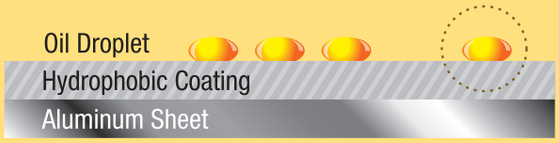
3 Easy Clean Coating - Convenient

The perforated aluminum filter is processed with an easy-clean coating name "Hydrophobic Coating". It is basically a paint composed of fluorine compound particles that have small affinity with water or oil. This material has low surface tension allowing oil droplets falling on without adhering to the material.

ORDINARY COATING

Oil spreads out and sticks firmly on the surface of the ordinary coating.

HYDROPHOBIC COATING



Oil droplets form spherical shape when falling on the material that can prevent adhering to the surface.

Note: this is image pictures and for easy understanding only

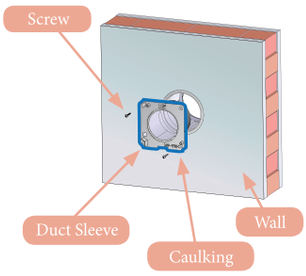
Feature of Bathroom Series

1 Easy Installation

The Exhauster is well-designed to facilitate the installation of product. With the supplied accessories, only few steps are required to complete the setup of fan.

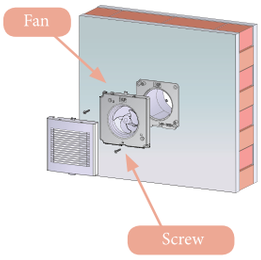
Pipe Hood Series

Step 1



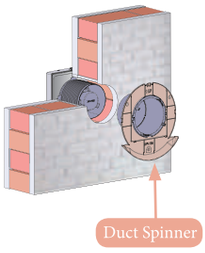
Insert and fix from inside wall, then caulk.

Step 2



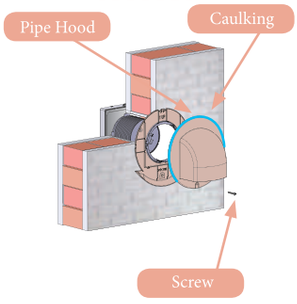
Connect power wires and fix fan.

Step 3



Screw and fix from outside wall.

Step 4

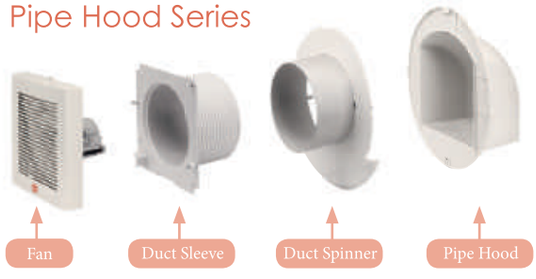


Hang and fix pipe hood, then caulk.

2 All Accessories Included

The Moisture & Smell Exhauster includes all required accessories in the packaging. It provides you the most convenience for product purchase, and also saves your time for seeking available accessories in the market.

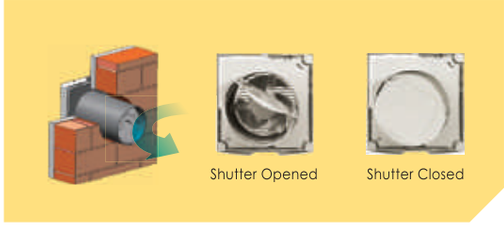
Pipe Hood Series



3 Backdraft Shutter

Shutter Series (For Vertical Shaft) only

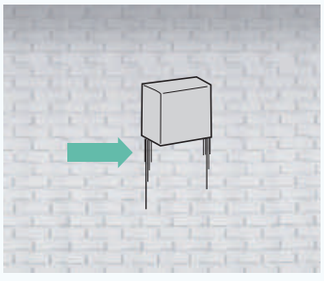
Outside wind may flow inside the house through the duct when the fan is not operating. The backdraft shuter covers the duct hole as the fan is not in use that blocks the ingress of wind and water.



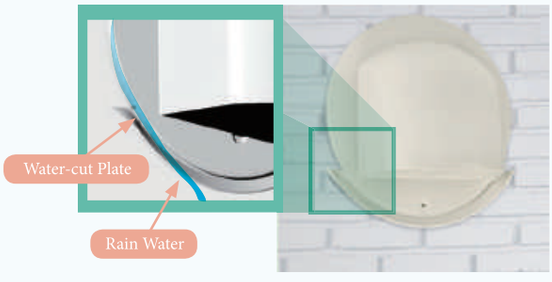
4 Trace Prevention

Pipe Hood Series only

When it rains, rainwater flowing along pipe hood may cause trace marks on the wall. The exclusively designed duct ring leads the water flow to get rid of traces on the wall.



With a standard pipe hood, rainwater may cause trace mark on the wall.



The water-cut plate of duct ring leads water flow over the wall to avoid forming of trace mark on the wall.

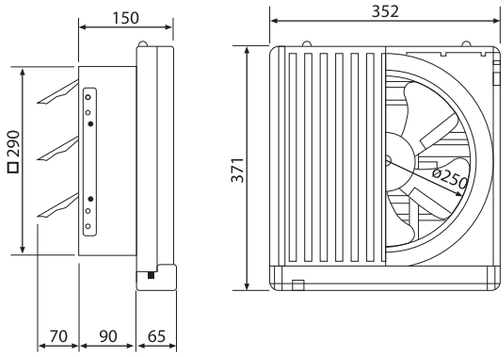
Wall Mount Type Ventilation Fan

25AUFA

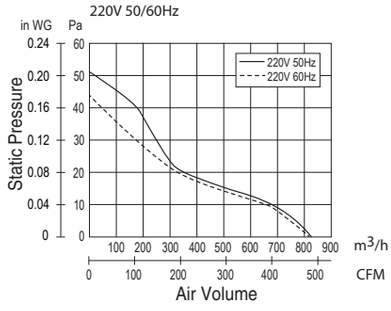
- *Perforated aluminum filter for oil capture*
- *Filter with hydrophobic coating allows easy clean*
- *Large capacity oil cup with oil level indicator*
- *Condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Automatic shutter*
- *Powerful exhaust under actual usage condition (20 Pa)*

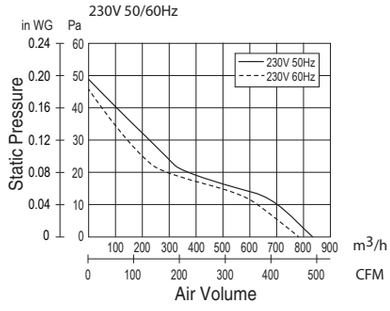
Dimension

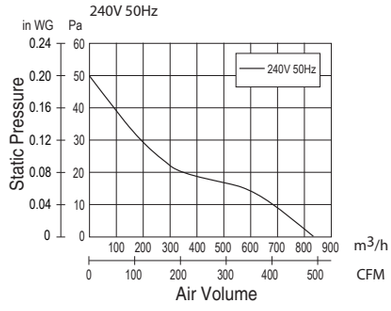
Unit : mm



Performance Data







Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m³/h]	[CFM]					
25AUFA	220	50	835	491	34	1,100	42	2.8	300 x 300
		60	820	483	34	1,060	42		
	230	50	790	465	31	1,050	41		
	240	50	835	491	34	1,100	42		

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Bathroom Series

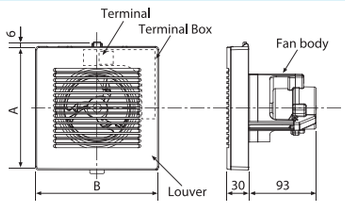
Wall Mount Type Ventilation Fan

10EGKA
15EGKA

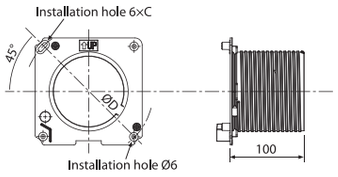
- *Pipe hood series*
- *Powerful exhaust of excess moisture and smell*
- *Prevent rain water trace by water-cut plate at duct ring*
- *All accessories included for most convenience*
- *Condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Easy installation with only few steps*

Dimension

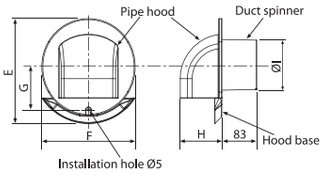
Unit : mm



Fan



Duct sleeve



Duct spinner, Hood base, Pipe hood

Model No.	A	B	C	D	E	F	G	H	I
10EGKA	170	170	9.3	177	250	220	107	99	120
15EGKA	220	220	11.5	221	310	270	142	138	165

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Wall Thickness [mm]
	[V]	[Hz]	[m³/h]	[CFM]						
10EGKA	220	50	75	44	5.5	2,706	33	1.2	ø135±5	100-150
		60	80	47	4.4	2,888	34			
	230	50	76	45	5.9	2,720	33			
	240	50	76	45	6.4	2,732	33			
15EGKA	220	50	160	94	6.2	2,329	34	1.5	ø180±5	100-150
		60	180	106	8.5	2,647	38			
	230	50	163	96	6.6	2,369	35			
	240	50	163	96	6.9	2,405	35			

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

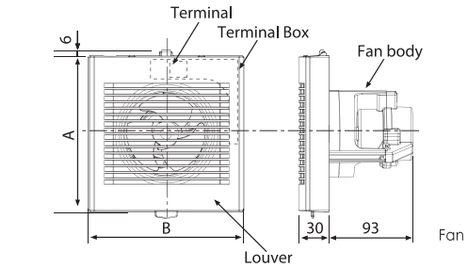
Wall Mount Type Ventilation Fan

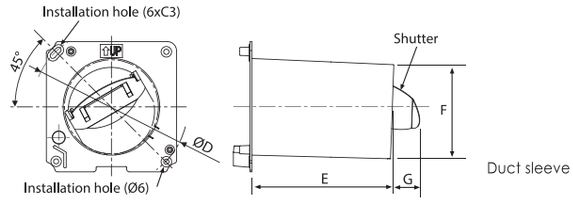
10EGSA
15EGSA

- *Shutter series (for vertical shaft)*
- *Powerful exhaust of excess moisture and smell*
- *Back draft shutter equipped*
- *All accessories included for most convenience*
- *Condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Easy installation with only few steps*

Dimension

Unit : mm





Model No.	A	B	C	D	E	F	G
10EGSA	170	170	9.3	177	160	115	40
15EGSA	220	220	11.5	221	160	160	80

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
10EGSA	220	50	75	44	5.5	2,706	35	0.9	ø120 - ø125
		60	80	47	4.4	2,888	36		
	230	50	75	44	5.9	2,720	35		
	240	50	75	44	6.4	2,732	35		
15EGSA	220	50	150	88	6.2	2,329	36	1.1	ø165 - ø170
		60	175	103	8.5	2,647	40		
	230	50	155	91	6.6	2,369	37		
	240	50	155	91	6.9	2,405	37		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Automatic Shutter Series

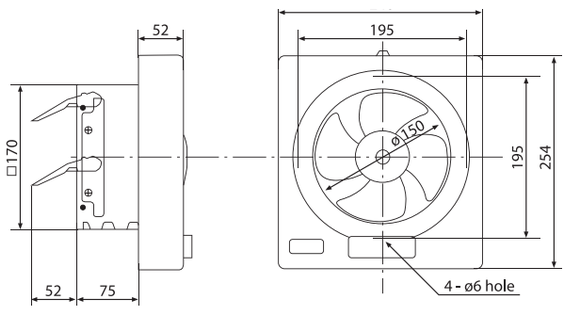
Wall Mount Type Ventilation Fan

15AAQ1

- *Condenser motor with thermal cutoff*
- *Lubricated sintered bush for long life operation*
- *High performance propeller fan adopted*
- *Automatic shutter with plastic cushions*
- *Orifice equipped with oil cup*

Dimension

Unit : mm



Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
15AAQ1	220	50	288	170	15	1,480	31	1.4	175 x 175
		60	306	180	19	1,560	34		
	230	50	294	173	17	1,512	33		
	240	50	307	180	19	1,560	33		

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

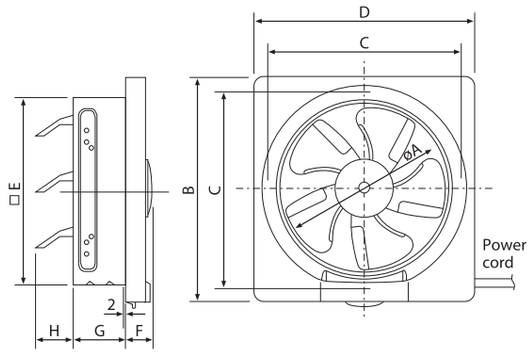
Wall Mount Type Ventilation Fan

20AUH
25AUH
30AUH

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30AUH)*
- *Automatic shutter*
- *Orifice equipped with oil cup*

Dimension

Unit : mm



Model No.	A	B	C	D	E	F	G	H
20AUH	200	306	260	302	240	52	90	80
25AUH	250	356	310	352	290	38	90	63
30AUH	300	406	360	402	340	38	90	78

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
20AUH	220	50	580	341	22	1,245	38	2.0	250 x 250
		60	650	383	29	1,400	42		
25AUH	220	50	920	541	29	1,125	39	2.4	300 x 300
		60	940	553	33	1,125	39		
30AUH	220	50	1,200	706	29	1,030	39	2.7	350 x 350
		60	1,140	671	33	950	38		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Automatic Shutter Series

Wall Mount Type Ventilation Fan

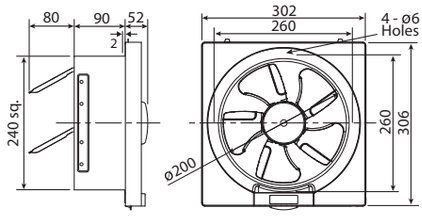
20AUHT
25AUHT
30AUHT

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30AUHT)*
- *Automatic shutter*
- *Orifice equipped with oil cup*

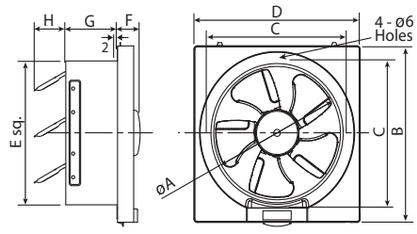
Dimension

Unit : mm

20AUHT



25AUHT / 30AUHT



Model	A	B	C	D	E	F	G	H
25AUHT	250	356	310	352	290	38	90	63
30AUHT	300	406	360	402	340	38	90	78

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
20AUHT	220	50	580	341	20	1,250	37.5	2.0	250 x 250
		60	650	383	24	1,400	41.5		
	230	50	610	359	21	1,270	38		
	240	50	620	365	23	1,290	38		
25AUHT	220	50	920	541	27	1,070	39	2.4	300 x 300
		60	940	553	31	1,125	39		
	230	50	940	553	29	1,100	42		
	240	50	960	565	32	1,170	42		
30AUHT	220	50	1,200	706	31	1,000	39	2.7	350 x 350
		60	1,140	671	38	1,000	38		
	230	50	1,206	710	35	980	40		
	240	50	1,250	736	39	1,010	42		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Automatic Shutter Louver Series

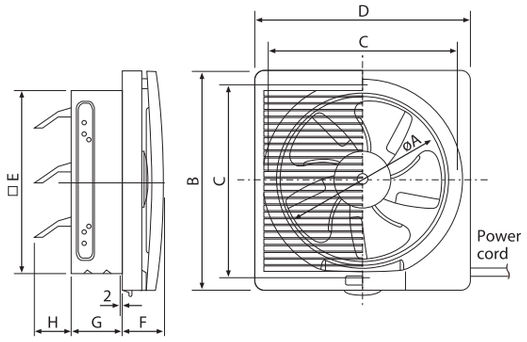
Wall Mount Type Ventilation Fan

20ALH
25ALH
30ALF

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30ALF)*
- *Automatic shutter*
- *Orifice equipped with oil cup*
- *Blind shutter louver enhances privacy and safety*

Dimension

Unit : mm



Model No.	A	B	C	D	E	F	G	H
20ALH	200	306	260	302	240	68	90	80
25ALH	250	356	310	352	290	63	90	63
30ALF	300	400	360	400	340	63	90	78

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
20ALH	220	50	546	321	22	1,210	40	2.2	250 x 250
		60	600	353	29	1,340	44		
25ALH	220	50	835	491	29	1,055	43	2.7	300 x 300
		60	846	498	33	1,050	43		
30ALF	220	50	935	550	29	905	43	3.1	350 x 350
		60	915	539	33	835	43		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Automatic Shutter Louver Series

Wall Mount Type Ventilation Fan

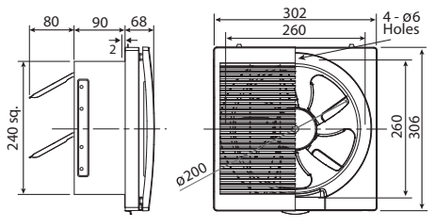
20ALHT
25ALHT
30ALFT

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30ALFT)*
- *Automatic shutter*
- *Orifice equipped with oil cup*
- *Blind shutter louver enhances privacy and safety*

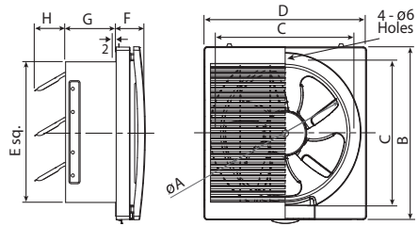
Dimension

Unit : mm

20ALHT



25ALHT / 30ALFT



Model	A	B	C	D	E	F	G	H
25ALHT	250	356	310	352	290	63	90	63
30ALFT	300	406	360	402	340	63	90	78

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
20ALHT	220	50	546	321	20	1,190	40	2.2	250 x 250
		60	600	353	24	1,340	44		
	230	50	540	318	22	1,210	42		
	240	50	550	324	23	1,240	43		
25ALHT	220	50	835	491	27	1,060	43	2.7	300 x 300
		60	846	498	36	1,110	43		
	230	50	840	494	30	1,105	43		
	240	50	852	501	32	1,135	44		
30ALFT	220	50	935	550	31	880	43	3.1	350 x 350
		60	915	539	38	880	43		
	230	50	930	547	35	900	43		
	240	50	1,050	618	40	930	48		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

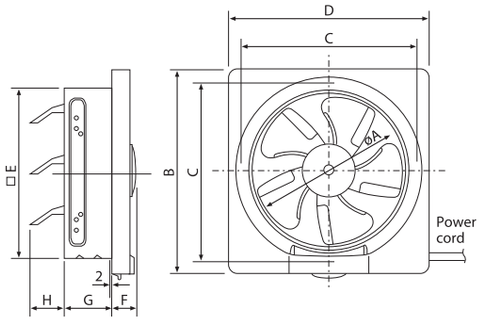
Wall Mount Type Ventilation Fan

20RGF
25RGF
30RGF

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30RGF)*
- *On-off and reverse changeover by pull cord switch*
- *Orifice equipped with oil cup*
- *Open / Close of shutter operated by pull cord*

Dimension

Unit : mm



Model No.	A	B	C	D	E	F	G	H
20RGF	200	306	260	302	240	52	90	80
25RGF	250	356	310	352	290	38	90	63
30RGF	300	406	360	402	340	38	90	78

Technical Specification

Model No.	Voltage [V]	Voltage [Hz]		Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
20RGF	220	50	Exhaust	580	341	20	1,290	36	2.2	250 x 250
			Intake	405	238	16	1,100	46		
		60	Exhaust	650	383	25	1,440	39		
			Intake	355	209	17	1,070	48		
25RGF	220	50	Exhaust	945	556	29	1,120	38	2.4	300 x 300
			Intake	640	377	20	990	45		
		60	Exhaust	950	559	34	1,145	39		
			Intake	645	380	24	995	44		
30RGF	220	50	Exhaust	1,165	686	31	990	39	2.8	350 x 350
			Intake	800	471	24	905	43		
		60	Exhaust	1,150	677	33	995	38		
			Intake	745	438	24	810	42		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Reversible Series

Wall Mount Type Ventilation Fan

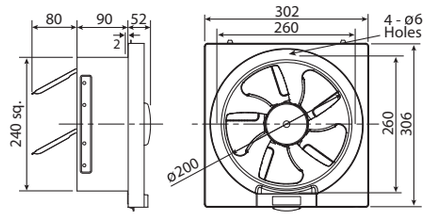
20RGFT
25RGFT
30RGFT

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30RGFT)*
- *On-off and reverse changeover by pull cord switch*
- *Orifice equipped with oil cup*
- *Open / Close of shutter operated by pull cord*

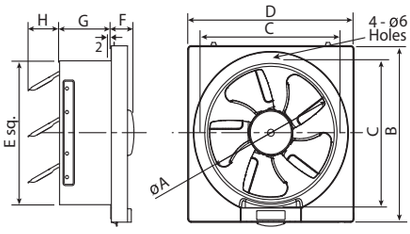
Dimension

Unit : mm

20RGFT



25RGFT / 30RGFT



Model No.	A	B	C	D	E	F	G	H
25RGFT	250	356	310	352	290	38	90	63
30RGFT	300	406	360	402	340	38	90	78

Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]		[m^3/h]	[CFM]					
20RGFT	220	50	Exhaust	580	341	20	1,260	36	2.2	250 x 250
			Intake	405	238	15	1,150	46		
		60	Exhaust	630	371	24	1,410	39		
			Intake	355	209	17	1,140	46		
	230	50	Exhaust	600	353	21	1,270	38		
			Intake	410	241	16	1,190	46		
	240	50	Exhaust	600	353	23	1,290	38		
			Intake	420	247	17	1,220	46		
25RGFT	220	50	Exhaust	945	556	27	1,090	38	2.4	300 x 300
			Intake	600	353	21	1,010	45		
		60	Exhaust	950	559	31	1,110	39		
			Intake	560	330	23	970	44		
	230	50	Exhaust	950	559	29	1,120	42		
			Intake	610	359	23	1,060	46		
	240	50	Exhaust	978	576	32	1,160	42		
			Intake	640	377	25	1,110	47		
30RGFT	220	50	Exhaust	1,165	686	31	885	39	2.8	350 x 350
			Intake	700	412	24	840	43		
		60	Exhaust	1,000	589	38	800	38		
			Intake	680	400	26	810	42		
	230	50	Exhaust	1,050	618	35	930	42		
			Intake	700	412	28	840	45		
	240	50	Exhaust	1,170	689	40	990	42		
			Intake	800	471	30	915	46		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
'- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Reversible Louver Series

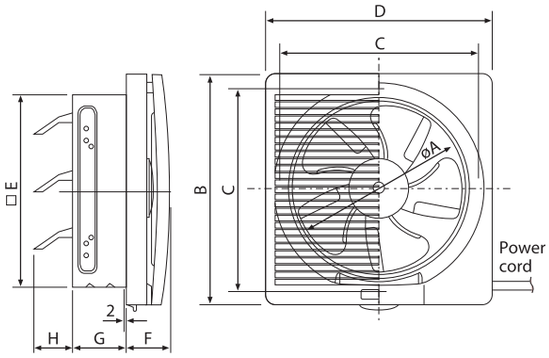
Wall Mount Type Ventilation Fan

20RLF
25RLF
30RLE

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30RLE)*
- *On-off and reverse changeover by pull cord switch*
- *Orifice equipped with oil cup*
- *Open / Close of shutter operated by pull cord*
- *Blind shutter louver enhances privacy and safety*

Dimension

Unit : mm



Model No.	A	B	C	D	E	F	G	H
20RLF	200	306	260	302	240	68	90	80
25RLF	250	356	310	352	290	63	90	63
30RLE	300	400	360	400	340	63	90	78

Technical Specification

Model No.	Voltage			Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]		[m^3/h]	[CFM]					
20RLF	220	50	Exhaust	546	321	20	1,275	39	2.4	250 x 250
			Intake	385	227	17	1,225	46		
		60	Exhaust	600	353	25	1,290	43		
			Intake	340	200	17	1,145	49		
25RLF	220	50	Exhaust	876	516	29	1,060	41	2.7	300 x 300
			Intake	570	335	20	1,020	45		
		60	Exhaust	835	491	34	1,060	41		
			Intake	575	338	24	970	43		
30RLE	220	50	Exhaust	990	583	31	876	44	3.1	350 x 350
			Intake	730	430	24	850	43		
		60	Exhaust	945	556	33	835	43		
			Intake	690	406	24	776	44		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Reversible Louver Series

Wall Mount Type Ventilation Fan

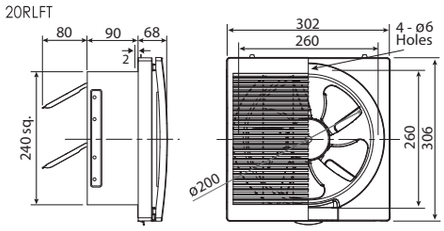
20RLFT
25RLFT
30RLET

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design (except 30RLET)*
- *On-off and reverse changeover by pull cord switch*
- *Orifice equipped with oil cup*
- *Open / Close of shutter operated by pull cord*
- *Blind shutter louver enhances privacy and safety*

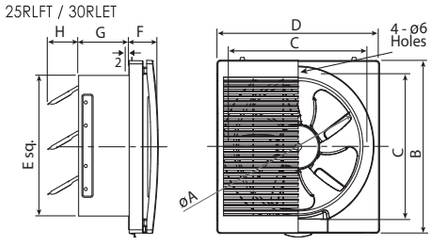
Dimension

Unit : mm

20RLFT



25RLFT / 30RLET



Model No.	A	B	C	D	E	F	G	H
25RLFT	250	356	310	352	290	63	90	63
30RLET	300	406	360	402	340	63	90	78

Technical Specification

Model No.	Voltage [V]	Voltage [Hz]		Air Volume [m3/h]	Air Volume [CFM]	Consumption [W]	RPM [min-1]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
20RLFT	220	50	Exhaust	546	321	20	1,240	39	2.4	250 x 250
			Intake	370	218	15	1,190	46		
		60	Exhaust	570	335	24	1,290	43		
			Intake	340	200	17	1,180	46		
	230	50	Exhaust	550	324	22	1,260	42		
			Intake	380	224	16	1,220	46		
	240	50	Exhaust	550	324	23	1,280	43		
			Intake	390	230	17	1,250	46		
25RLFT	220	50	Exhaust	840	494	29	1,100	43	2.7	300 x 300
			Intake	580	341	21	1,035	45		
		60	Exhaust	835	491	33	1,100	43		
			Intake	560	330	23.5	1,035	44.5		
	230	50	Exhaust	840	494	32	1,097	43.5		
			Intake	600	353	23	1,070	47		
	240	50	Exhaust	858	505	34	1,150	44		
			Intake	620	365	25	1,110	47		
30RLET	220	50	Exhaust	990	583	31	890	44	3.1	350 x 350
			Intake	730	430	25	770	43		
		60	Exhaust	945	556	38	880	43		
			Intake	600	353	26	770	44		
	230	50	Exhaust	950	559	35	910	44		
			Intake	750	441	28	910	45		
	240	50	Exhaust	1,065	627	40	950	46		
			Intake	810	477	30	980	46		

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

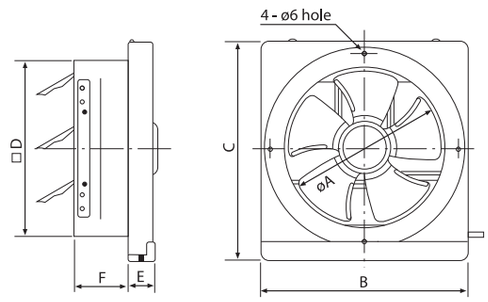
Wall Mount Type Ventilation Fan

20ASB
25ASB
30ASB

- *High performance condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Highly efficent propeller fan adopted*
- *Metallic structure with powder coating for fire safety and anti-rust*
- *Detachable metal oil cup for convenient cleaning*
- *Automatic shutter*

Dimension

Unit : mm



Model No.	A	B	C	D	E	F
20ASB	200	300	312	240	50	90
25ASB	250	350	362	290	45	90
30ASB	300	400	412	340	45	90

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
20ASB	220	50	516	304	17	1,220	37.5	3.3	250 x 250
		60	612	360	21.5	1,390	40.6		
	230	50	528	311	18.1	1,235	38.1		
	240	50	540	318	19.5	1,250	38.4		
25ASB	220	50	858	505	25	1,200	39.1	3.8	300 x 300
		60	954	562	30.5	1,212	40.6		
	230	50	864	509	27.3	1,225	39.3		
	240	50	888	523	29.5	1,240	39.7		
30ASB	220	50	1,182	696	29.5	1,046	39.2	4.4	350 x 350
		60	1,164	685	34.5	1,091	39		
	230	50	1,248	735	31.7	1,100	40.6		
	240	50	1,290	759	34	1,130	41.3		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Plastic Series

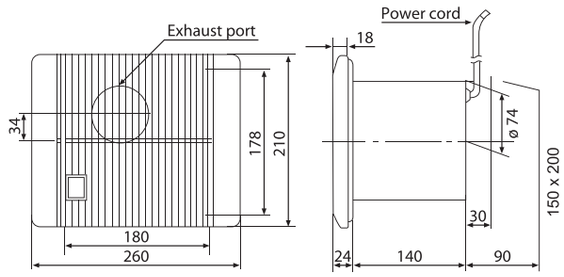
Wall Mount Type Ventilation Fan

10BAQ1

- *Condenser motor with thermal cutoff*
- *Lubricated sintered bush for long life operation*
- *Highly efficient sirocco fan*
- *Blind shutter louver enhances privacy and safety*
- *Plastic frame, blade and louver*

Dimension

Unit : mm



Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
10BAQ1	220	50	76.3	45	15	1,250	40.1	1.7	155 x 205
		60	72.9	43	17	1,200	39.8		
	230	50	80.3	47	16	1,300	41.2		
	240	50	84.9	50	17.5	1,385	42		

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Window Mount Type Ventilation Fan

Window Mount Ventilation fans shall be mounted in and exhaust air through a glass plate. One person can do installation from interior of the room. This saves both the cost of installation and making a wall opening.

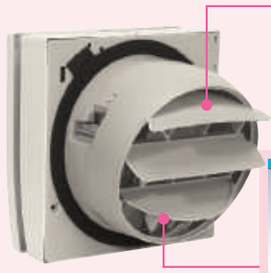
Various series are available for different usages. Cord Operated Shutter Series can be easily installed in any glass windowpane. Electric Shutter Series and Automatic Shutter Series maintain airtightness as the fan is turned off.

Feature of Electric Shutter Series

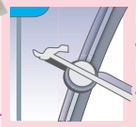
1 Rain proof and wind resistible

Hood structure for prevention of rainwater ingression

High static pressure blade can prevent ingression of rain & wind during operation

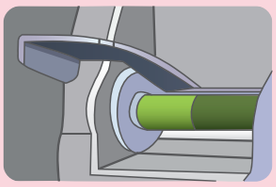


Newly designed of shutter can keep out entry of rainwater effectively



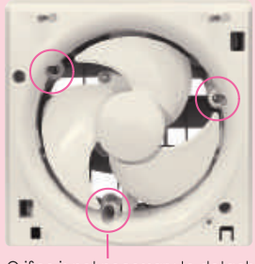
Bent End Structure of the shutter can block the backflow of outside wind

2 Easy Installation

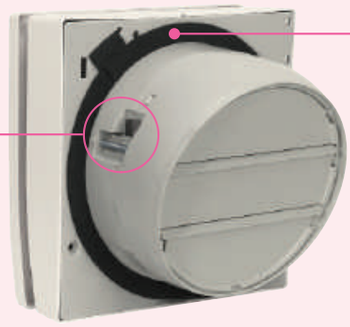


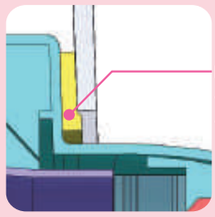
Mounting Bracket
Unique design of mounting bracket can fix the fan on glass plate with simple process

Example: 15WHCT



Orifice is not necessary to detach for installation. Simply fix the fan on glass plate by screws at front

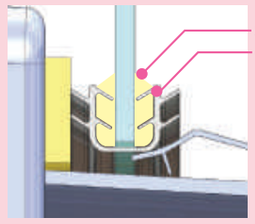




Packing
-No Gasket
-No Silicon Seal

Attached packing tightly closes to the glass plate that gets rid of water leakage to indoor

Previous Setting Method

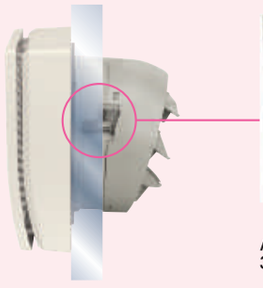


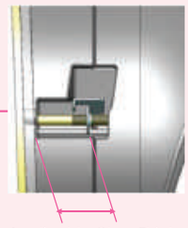
Silicon Seal
Gasket

Both gasket & silicon seal are not required for 15WHCT / 20WHCT

3 High Adaptability

New mounting design allows the fan to be fixed on glass plate of thickness from 3mm up to 25mm with ease





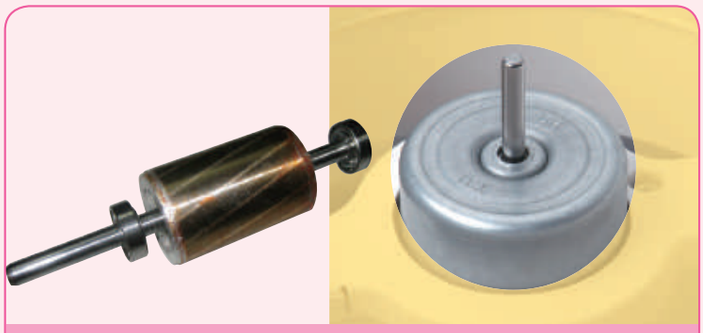
Applicable Glass Thickness
3mm ~ 25mm

Double glass
Often called insulated glass, this kind of glass is constructed of two panes of glass set apart to allow airspace in between. This airspace acts as a buffer which obstructs the transfer of heat from one side of the glass to the other.

Feature of Cord-operated Series

1 High performance condenser motor with long life bearing

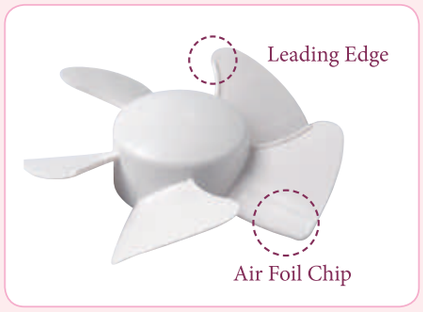
- Low power consumption (50% down VS previous model)
- Low noise level (6% down VS previous model)
- Long life up to 40,000 hours (1.5 times VS previous model)
- Comply with IPX4 (outside)



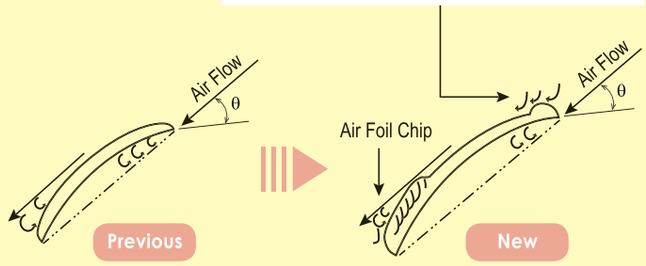
"HP motor" and "Bearing" are used

2 Advanced Blade Design

- High air volume
- Low noise level
  (6% down VS previous model)



Leading Edge forms no obstacle to airflow that streamlines airflow from every direction



Air Foil Chip is to reduce turbulence at rear edge, and curvature of front edge is improved for smooth airflow that minimizes fan noise as well.

3 Strengthened Shutter Structure

- Durable
- Sustainable to strong wind

Metallic shutter axis is used as the supporter for movement of shutter that provides a better endurance.

Electric Shutter Series

Window Mount Type Ventilation Fan

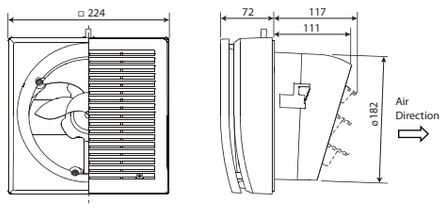
15WHCT
20WHCT

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design*
- *Hood and bent end shutter enable rain proof and wind resistible*
- *Unique mounting brackets and easy installation design*
- *Installation without silicon seal and gasket*
- *Able to fix on glass plate with 3mm to 25mm thickness*
- *Blind shutter louver enhances privacy and safety*

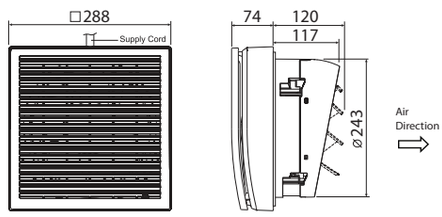
Dimension

Unit : mm

15WHCT



20WHCT



Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
15WHCT	220	50	230	135	13	2,290	43	1.4	ø186-ø188
		60	230	135	13	2,375	44		
	230	50	230	135	14	2,305	43		
	240	50	230	135	15	2,315	43		
20WHCT	220	50	445	262	20	1,370	42	2.6	ø247-ø250
		60	480	283	22	1,470	45		
	230	50	445	262	21	1,375	42		
	240	50	445	262	22	1,380	42		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Window Mount Type Ventilation Fan

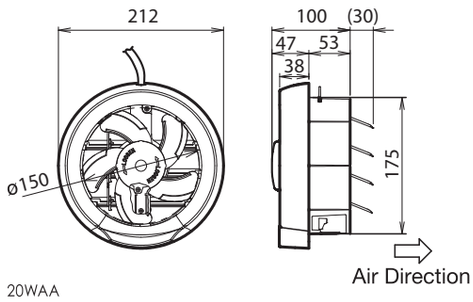
15WAA
20WAA

- *HP(Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated bearing for long life operation*
- *Propeller fan incorporated with advanced blade design*
- *Automatic shutter*
- *Metallic shutter axis enhances durability*
- *Able to fix on glass plate with 3mm to 7mm thickness*

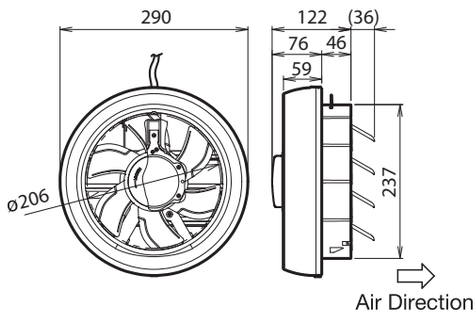
Dimension

Unit : mm

15WAA



20WAA



Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
15WAA	220	50	210	124	14	1,900	43	0.9	ø186-ø188
		60	222	131	18	1,950	44		
	230	50	222	131	15	1,950	44		
	240	50	228	134	16	1,980	44		
20WAA	220	50	380	224	15	1,320	42	1.4	ø247-ø250
		60	380	224	17	1,365	42		
	230	50	390	230	16	1,335	43		
	240	50	402	237	17.5	1,345	43		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Cord-operated Shutter Series

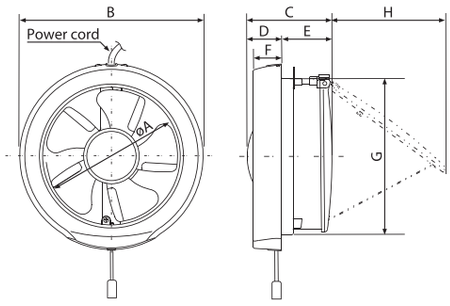
Window Mount Type Ventilation Fan

15WUD
20WUD

- *HP (Half Pitch) condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *Propeller fan with advanced blade design*
- *Shutter operated by pull cord*
- *Metallic shutter axis enhances durability*
- *Able to fix on glass plate with 3mm to 7mm thickness*

Dimension

Unit : mm



Applicable Glass Thickness = 3mm-7mm

Model No.	A	B	C	D	E	F	G	H
15WUD	150	210	97	43	54	37.4	177	(149)
20WUD	200	271	98	36	62	36	237	(201)

Technical Specification

Model No.	Voltage		Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]	Weight [kg]	Installation Space [mm]
	[V]	[Hz]	[m^3/h]	[CFM]					
15WUD	220	50	210	124	8.1	1,463	35	0.9	ø186-ø188
		60	200	118	8.9	1,393	34		
	230	50	220	129	8.8	1,566	36		
	240	50	230	135	9.5	1,657	37		
20WUD	220	50	360	212	16.4	1,042	32	1.3	ø247-ø250
		60	360	212	19	1,024	31		
	230	50	380	224	17.9	1,122	34		
	240	50	400	235	19.5	1,189	36		

Note : RPM data is for reference only, values may vary subject to different conditions
Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Energy Recovery Ventilator

Energy Recovery Ventilator (ERV) is a ventilation system which delivers fresh air in and exhausts stale air from the room simultaneously, providing controlled and balanced ventilation to the space. In addition, the heat exchange core in the equipment allows the heat and moisture transfer from one air stream to another without any mixing of the air streams. This transfer process can reduce the loading of air conditioning, as a result, energy consumption is minimized significantly.

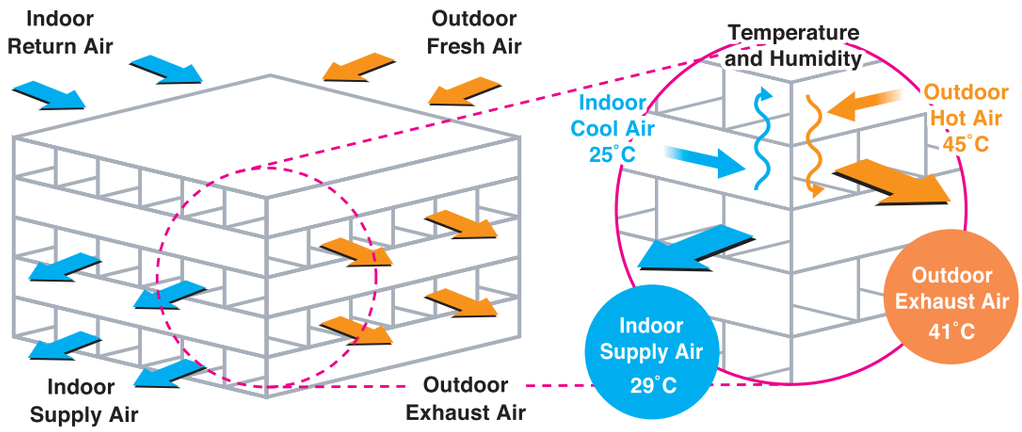
Nowadays, insulation and airtightness of building are strengthened to improve energy efficiency. However, airtight house may cause insufficient ventilation, thus, resulting in indoor air quality (IAQ) problems such as air pollution, condensation, foul smell, etc. Energy recovery ventilator is based on whole house ventilation plan, it not only solves the indoor air problems, it also achieves energy saving effect. In general, ERV can recover up to 50~70% of energy that yearly expenditure in air conditioning can be reduced.

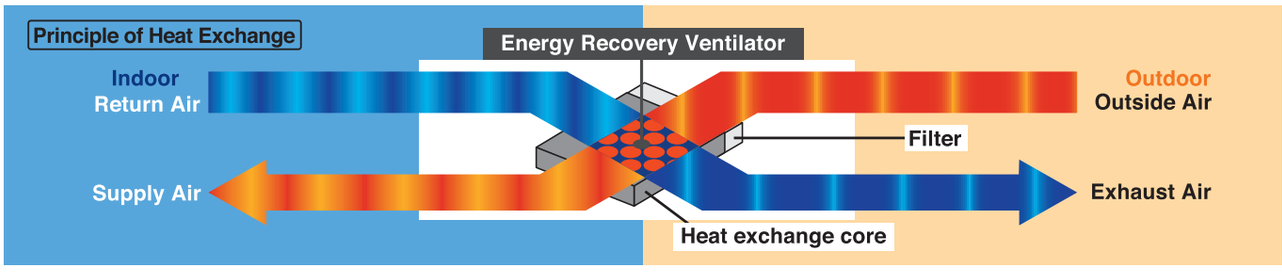
Feature of Energy Recovery Ventilator

KDK Energy Recovery Ventilator is equipped with a heat-exchanging element. When outdoor fresh air and indoor foul air pass through the energy recovery element, the temperature is exchanged through air flow and heat conduction of different temperatures at both ends of the heat transfer sheets. Meanwhile, humidity exchange occurs from high humidity to low humidity as moisture is transferred through difference in pressure of water vapor.

Energy Saving

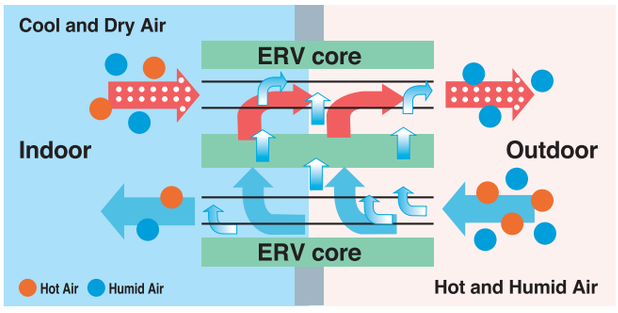
Inside of Heat Exchange Core (diagram)





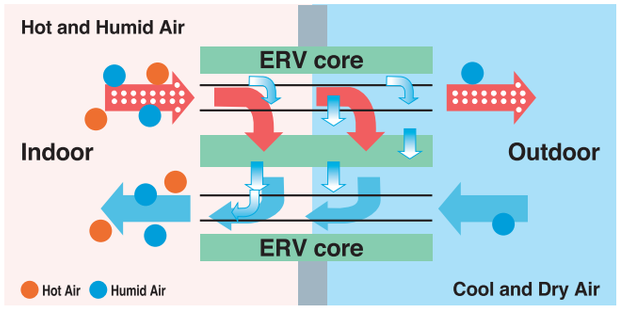
Summer

In summer, the indoor cool air discharged can be used to precool outdoor warm air before it gets delivered indoor and so reduces the loss of cool air.



Winter

Whereas in winter, indoor warm air discharged can be used to preheat outdoor cool air before it is released indoor and so reduces the loss of warm air.



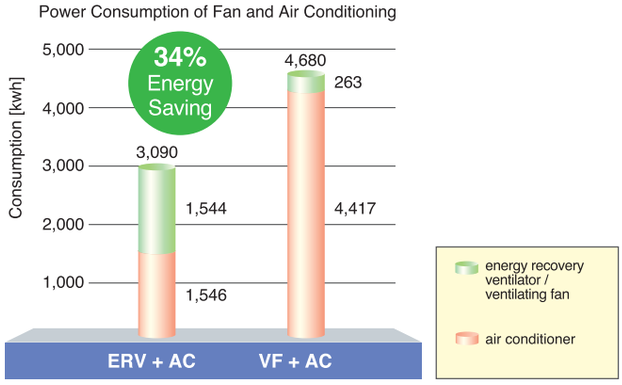
Feature of Energy Recovery Ventilator

Cost Efficient

Highly efficient energy recovery reduces energy loss during ventilation, that achieve energy saving Example: FY-E15DZ1

Long Term Energy Comparison

Long term Energy comparsion for KDK ventilation fan and energy recovery ventilator

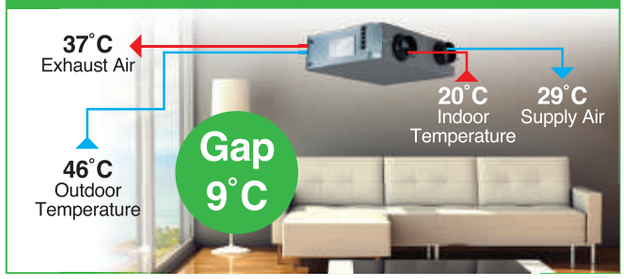


Based on the following condition

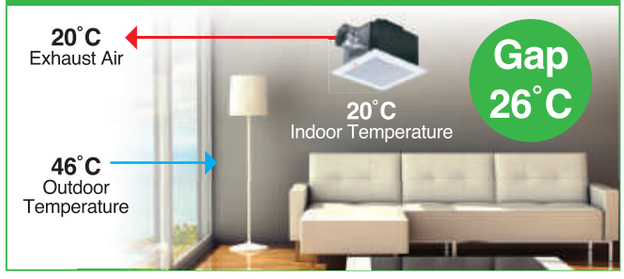
Simulation place: Aug Riyadh Saudi Arabia
Room Area = 210 m2
Room Height = 3 m
Required Air Volume = 315CMH
A/C system running time：2700h =15h/day*180day (May~Oct)
ERV : E35DUZA (2unit) 282W*2 = 564W
V-Fan : General (6unit)　48W*6 = 288W

Summer Utilizes energy of indoor return cool air to cool down outdoor air before intake to indoor, indoor cool loss is reduced

Energy Recovery Ventilation + Air Condition



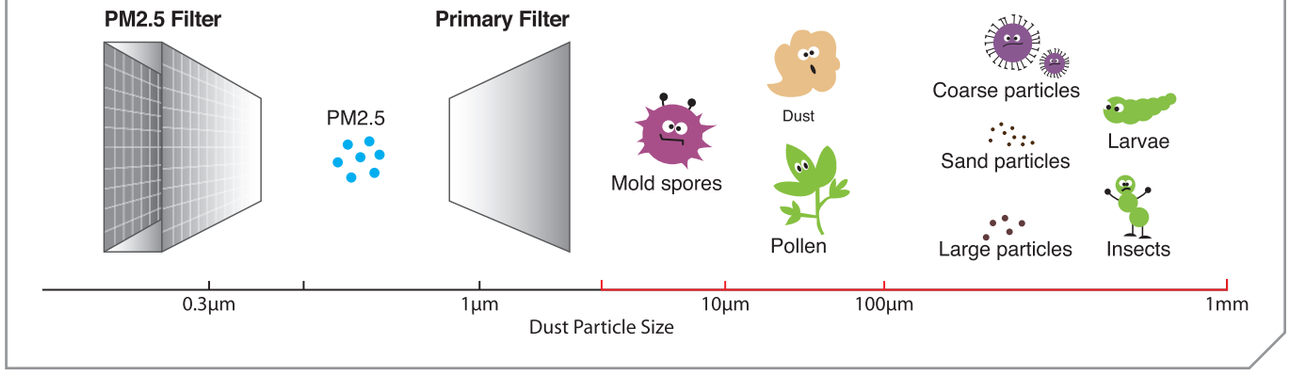
Normal Ventilation + Air Condition



Powerful Filtration

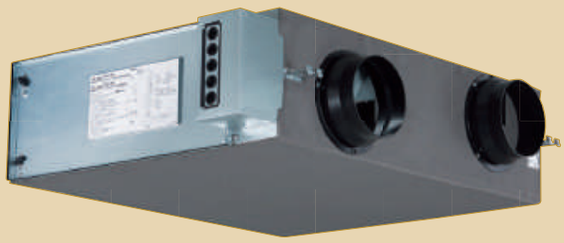
KDK filter box is part of the ERV which designed to make the indoor spaces insect free, dustproof and pollen free. Equipped with filter box, fresh air can circulate and refresh the household.
There are two filters - Primary and PM2.5 filter. First, primary filter will filter big particles such as sand, insect. The tiny and invisible particles can be trapped by PM2.5 filter. With two layers of filters, ERV can bring clean, fresh and comfortable air to your house.

Filter - It can filter PM2.5 and PM10



Standard Series

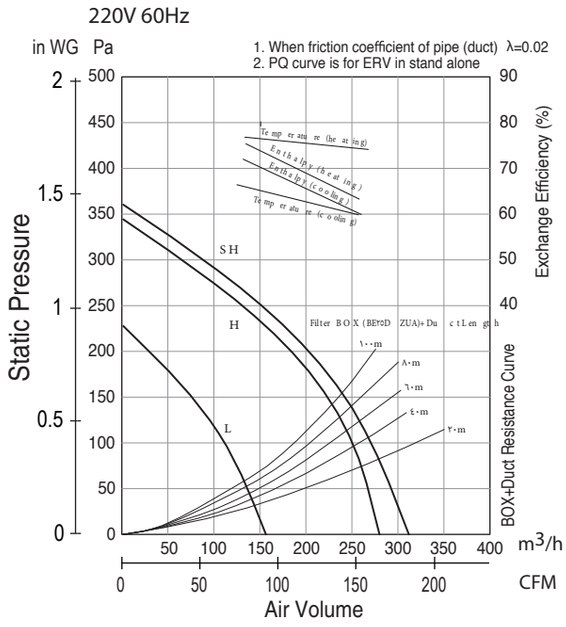
Energy Recovery Ventilator



E25DZUA

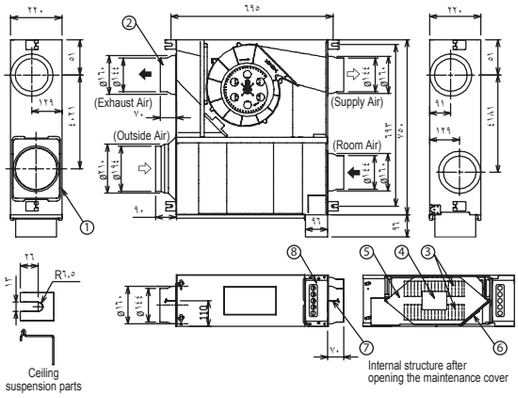
- *Counter-flow heat-exchange element adopted for compact size*
- *All maintenance can be performed through a single inspection hole*
- *Equipped with Extra- High setting*
- *Bypass ventilation available for speedy exhaust*
- *Interlock with air conditioning available*

Performance Data



Dimension

Unit : mm



■ Maintenance Dimension

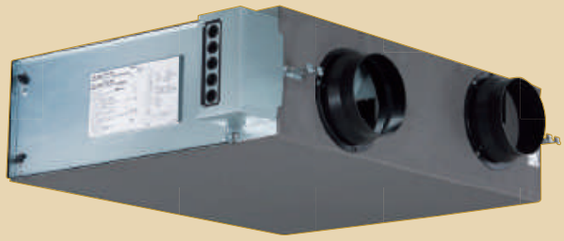
It must be set the maintenance door, and clean the filter and heat exchange core as specified in instruction.

Technical Specification

Model No.	Voltage [V]	Voltage [Hz]	Notch	Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	External Static Pressure [Pa]	Temperature Exchange Efficiency [%] Cooling	Temperature Exchange Efficiency [%] Heating	Enthalpy Exchange Efficiency [%] Cooling	Enthalpy Exchange Efficiency [%] Heating	Noise [dB(A)]	Weight [kg]
E25DZUA	220	60	SH	250	147	157	90	60	75	61	67	33	30.0
			H	250	147	148	40	60	75	61	67	33	
			L	150	88	82	0	65	77	70	74	26	

Note : The above parameters are measured under the operation of assembly of ERV and Filter Box Unit
- The input power, current and exchange efficiency are measured at the standard air volume
- The input power indicated in name plate is the maximum value at the static pressure of 0 Pa
- The noise is measured 1.5m away from the bottom face of the unit. The noise value measured at the total acoustic room is more than the indicated value in actual operation
- The above parameters are measured according to standard JIS B 8628

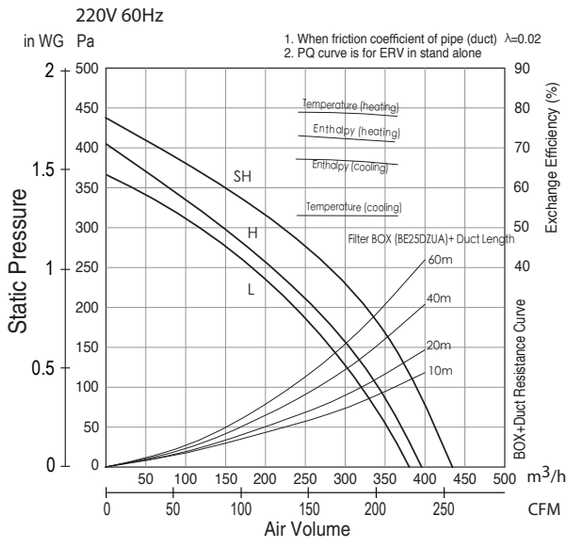
Energy Recovery Ventilator



E35DZUA

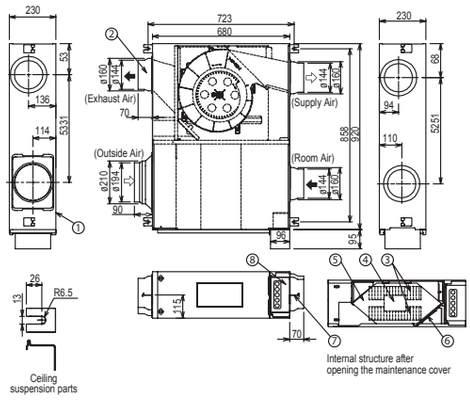
- *Counter-flow heat-exchange element adopted for compact size*
- *All maintenance can be performed through a single inspection hole*
- *Equipped with Extra- High setting*
- *Bypass ventilation available for speedy exhaust*
- *Interlock with air conditioning available*

Performance Data



Dimension

Unit : mm



■ Maintenance Dimension

It must be set the maintenance door, and clean the filter and heat exchange core as specified in instruction.

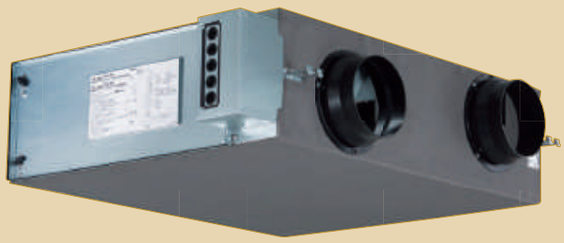
Technical Specification

Model No.	Voltage [V]	Voltage [Hz]	Notch	Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	External Static Pressure [Pa]	Temperature Exchange Efficiency [%] Cooling	Temperature Exchange Efficiency [%] Heating	Enthalpy Exchange Efficiency [%] Cooling	Enthalpy Exchange Efficiency [%] Heating	Noise [dB(A)]	Weight [kg]
E35DZUA	220	60	SH	350	206	282	100	53	78	66	71.5	37	39.0
			H	350	206	253	18	53	78	66	71.5	36.5	
			L	255	150	172	0	53	75	63	70	30.5	

Note : The above parameters are measured under the operation of assembly of ERV and Filter Box Unit
- The input power, current and exchange efficiency are measured at the standard air volume
- The input power indicated in name plate is the maximum value at the static pressure of 0 Pa
- The noise is measured 1.5m away from the bottom face of the unit. The noise value measured at the total acoustic room is more than the indicated value in actual operation
- The above parameters are measured according to standard JIS B 8628

Standard Series

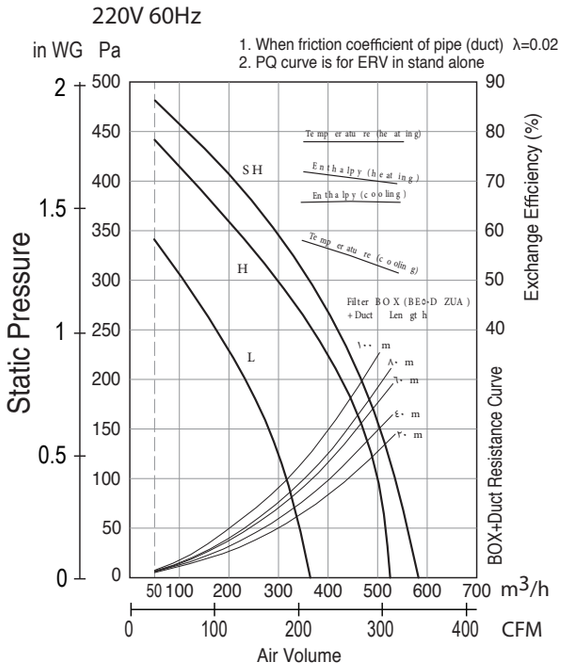
Energy Recovery Ventilator



E50DZUA

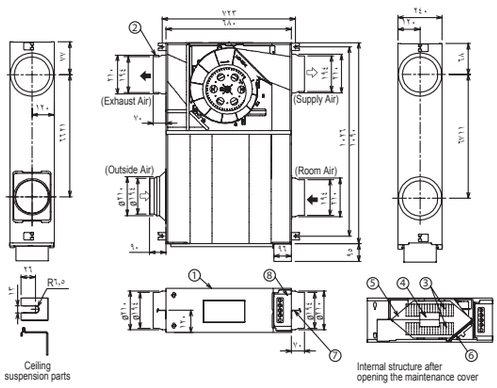
- *Counter-flow heat-exchange element adopted for compact size*
- *All maintenance can be performed through a single inspection hole*
- *Equipped with Extra- High setting*
- *Bypass ventilation available for speedy exhaust*
- *Interlock with air conditioning available*

Performance Data



Dimension

Unit : mm



■ Maintenance Dimension

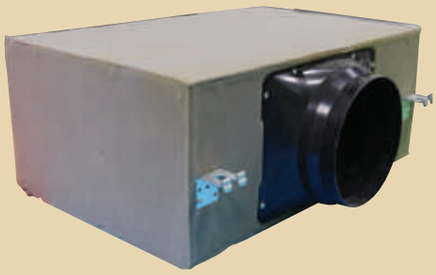
It must be set the maintenance door, and clean the filter and heat exchange core as specified in instruction.

Technical Specification

Model No.	Voltage [V]	Voltage [Hz]	Notch	Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	External Static Pressure [Pa]	Temperature Exchange Efficiency [%] Cooling	Temperature Exchange Efficiency [%] Heating	Enthalpy Exchange Efficiency [%] Cooling	Enthalpy Exchange Efficiency [%] Heating	Noise [dB(A)]	Weight [kg]
E50DZUA	220	60	SH	500	294	376	60	53	78	66	70	38	45.0
			H	500	294	349	0	53	78	66	70	37.5	
			L	350	206	215	0	58	78	66	69	32	

Note : The above parameters are measured under the operation of assembly of ERV and Filter Box Unit
- The input power, current and exchange efficiency are measured at the standard air volume
- The input power indicated in name plate is the maximum value at the static pressure of 0 Pa
- The noise is measured 1.5m away from the bottom face of the unit. The noise value measured at the total acoustic room is more than the indicated value in actual operation
- The above parameters are measured according to standard JIS B 8628

Filter Box Unit



BE25DZUA
BE50DZUA

To be installed with energy recovery ventilator

Primary filter blocks sand and large particles

PM2.5 filter captures tiny PM2.5 particles effectively

BE25DZUA - for E25DZUA and E35DZUA

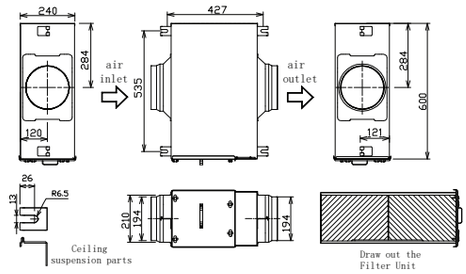
BE50DZUA - for E50DZUA

Model	Filter included	Replacement Filter
BE25DZUA	2	FP25DZUA
BE50DZUA	2	FP50DZUA

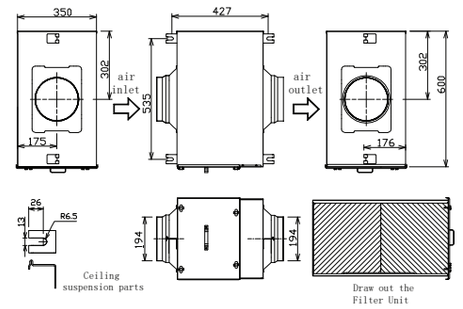
Dimension

Unit : mm

BE25DZUA



BE50DZUA



Control Panel

EB90SA

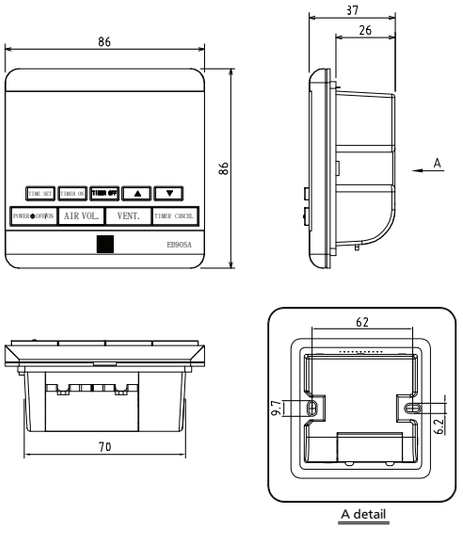
Applicable to DZUA series

Rated Voltage : 220V / 60Hz

Power : 3.6W

Dimension

Unit : mm



Thermo Ventilator / Range Hood

Thermo Ventilator is a multi-functional electrical appliance which combines functions of ventilation, air circulation, heating and clothes drying in one unit. This integrated product would be mounted at the ceiling, that can save living space at home from storing individual products of different functions.

Range Hoods are enclosed casings equipped with blowers to capture odors and oil fumes from cooking areas. Most range hoods are installed over the cooking surface in order to maximize exhaust effectiveness.

Feature of Thermo Ventilator

Multi-functional

Ventilation - Exhaust foul smell and excessive moisture
Circulation - Provide circulation of air to avoid uncomfortable feeling due to stagnant air
Heating - Let you enjoy warm and better comfort level during bath
Clothes Drying - Able to dry large size cloths, such as bedclothes, in the bathroom


Ventilation

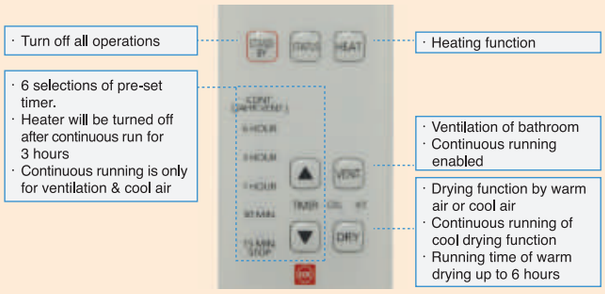

Circulation


Heating


Clothes Drying

Remote Control

All functions can be operated through wireless remote control.

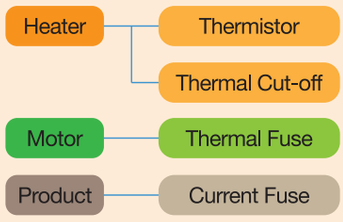


Filter Equipped

Equipped with dust filter that provides clean environment for you.

Safety Protection

Multi-level safety structure protects you and your property from any accidents.



Easy Installation

- Specially designed compact size allows easy installation with most integrated residential ceiling board.
- Structure is improved for easy wiring as compared with previous model.

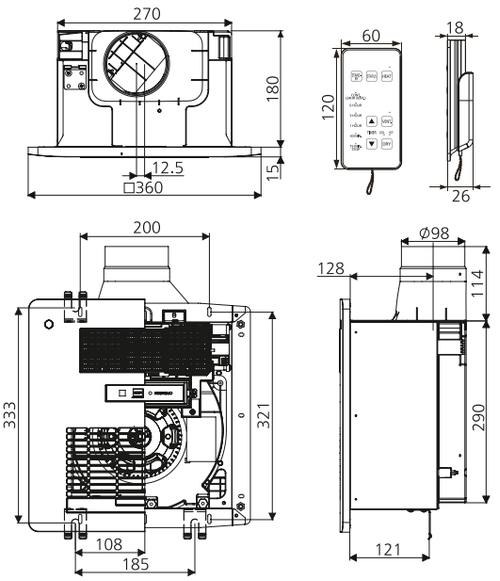
Thermo Ventilator

30BUC

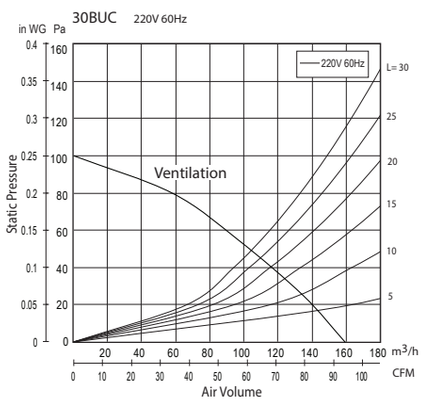
- *Multi-function : Ventilation, Circulation, Heating, Clothes Drying*
- *PTC heating element for effective heating*
- *Wireless remote control*
- *Multi-level safety protection*
- *5-step off timer*
- *Compact design*

Dimension

Unit : mm



Performance Data



Technical Specification

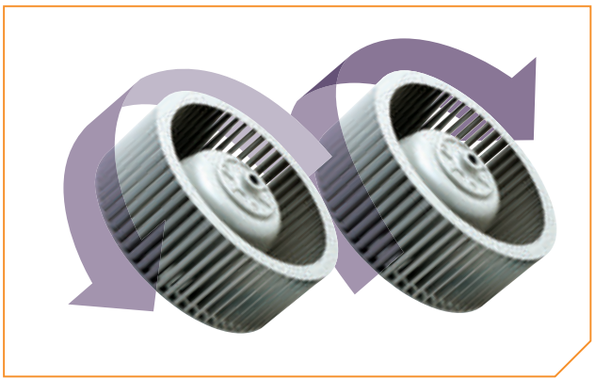
Model No.	Voltage		Air Volume		Consumption [W]				Noise [dB(A)]				Weight [kg]	Installation space [mm]
	[V]	[Hz]	[m³/h]	[CFM]	Heat	Vent	Dry Cool	Dry Hot	Heat	Vent	Dry Cool	Dry Hot		
30BUC	220	60	160	94	1,650	24	33	1,550	46	39	46	46	5.0	300 x 300

Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Feature of Range Hood

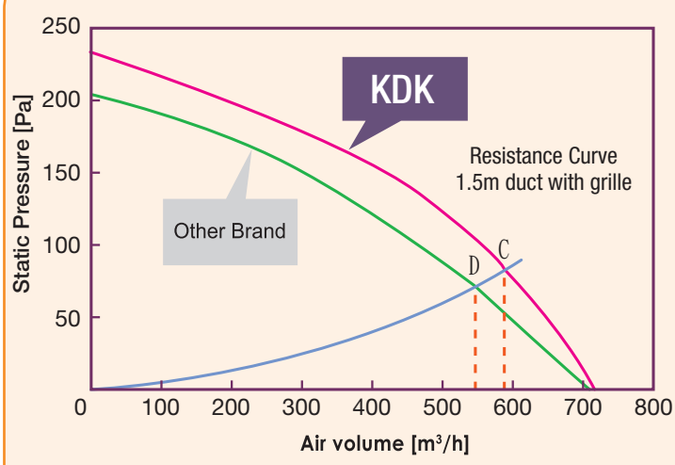
Sirocco Fan

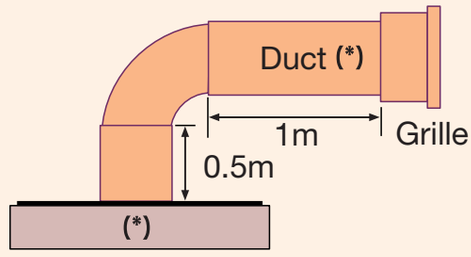
Sirocco Fans are adopted that maintain better performance than turbo fan and keep a low noise level.



A range hood must overcome resistance when pushing air from the inlet, through the duct, to the outside of the building. This resistance is known as static pressure. The amount of static pressure depends on the duct length, type of duct and bending. Longer duct and more bending generate higher static pressure, that result decrease in air volume.

Many installations require long duct and at least one bending. As shown in the figure, duct of 1.5m length and grille are installed (*), static pressure increases to 80Pa. Under this condition (*), air volume of KDK rangehood can maintain up to 580 m^3/h (Point C) while other brand is decreased to 530 m^3/h (Point D).





(*)Installation of Rangehood with 1.5m duct and grille.

Example

Comparison of Suction Power	Air Volume [m^3/h]								
	without duct	5m duct		10m duct		15m duct		*1.5m duct grille	
KDK	720	650	89%	610	84%	560	77%	580 (C)	79%
Other Brand	720	610	85%	540	75%	480	67%	530 (D)	74%

Range Hood

Dark Gray

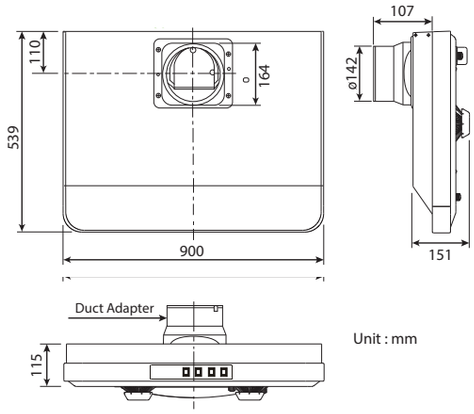
Silver

90HQUA

- *2 motors and 2 sirocco fans adopted*
- *Individual control of motors with 2-speed selection*
- *Rocker switch*
- *Easy detachable for cleaning*
- *Slim designed main body with only 115 mm thickness*
- *Lamp equipped with separate switch control*
- *Color option: silver or dark gray*

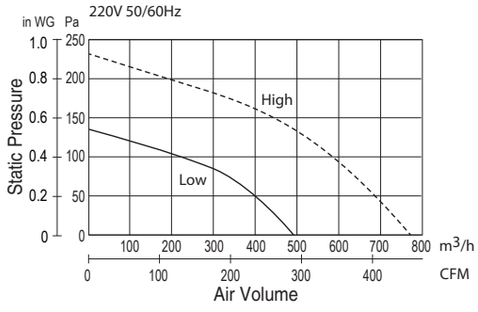
Dimension

Unit : mm



Rocker Switch

Performance Data



Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	RPM [min⁻¹]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]
90HQUA	220	50	Hi	785	462	152	993	52	18.0	ø150
			Lo	484	285	75	570	38		
		60	Hi	779	459	127	905	53		
			Lo	464	273	69	594	41		
	240	50	Hi	775	456	136	911	52		
			Lo	523	308	80	-	-		

Note : RPM data is for reference only, values may vary subject to different conditions

Test Condition

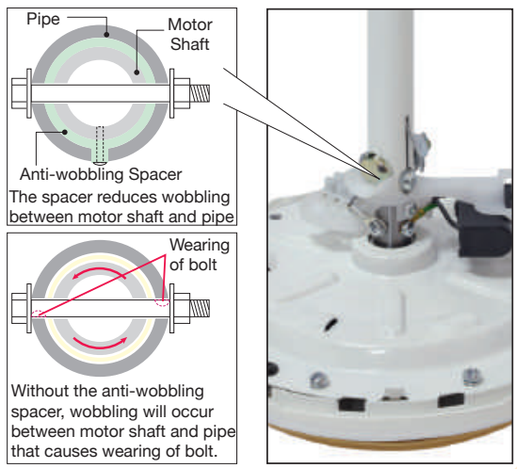
- The values of noise level is A weighted average sound pressure level, the mean value are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Ceiling Fan / Electric Fan

Safety Feature of Ceiling Fan

By the pursuit of higher quality of life, ceiling fans are expected with more functions and value-added features. When you select a ceiling fan, safety and reliability would be ones of the major concerns.

Wobbling Reduction Mechanism



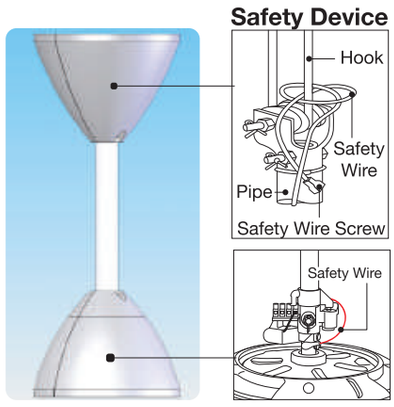
Problem

Improper wobbling cause striking between bolt, motor shaft and pipe that wearing will be formed. Fracture may be happened when the wears of those parts are enlarged.

Our solution

The newly developed anti-wobbling structure can reduce wobbling between bolt, motor shaft and pipe. It can minimize wearing of motor shaft and bolt to prevent falling of fan.

Safety Wire



Problem

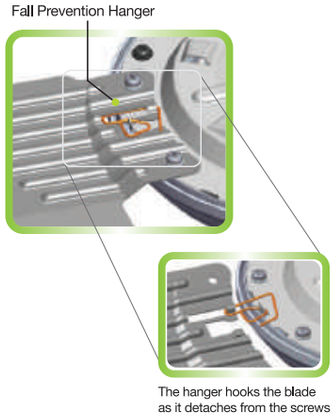
Fan motor may fall from the pipe rod accidently whatever any factors, such as wearing of shaft bolt, etc.

Our solution

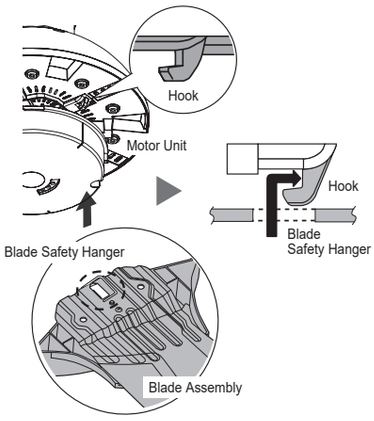
Safety wire is adopted to secure the fan motor with the ceiling hook that prevents falling of the motor when detaching of the fan motor from the pipe rod occurs.

Safety Hanger

For Regulator Control Series



For U56PR



Problem

Blade fins may fall off from the fan motor in case fatigue of material occurs.

Our solution

An exclusively designed fall prevention hanger is equipped. This mechanism secures against falling of blades caused by damaging wear.

Wireless Remote Control Series

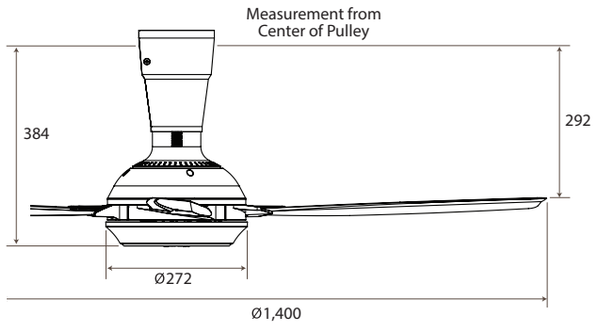
Ceiling Fan

U56PR

- *3-speed selection*
- *Wireless remote control*
- *Off Timer with LED indicatior (1, 3, 6 hours)*
- *Sleep mode*
- *Thermal cutoff prevent overheating*
- *Current fuse secure against power surge*
- *Wobbling reduction mechanism and safety wire prevent fan falling*
- *Fall prevention of blade adopted*
- *Permanently lubricated ball bearing equipped*
- *Painted steel blades*
- *Color : white with golden ring*

Dimension

Unit : mm



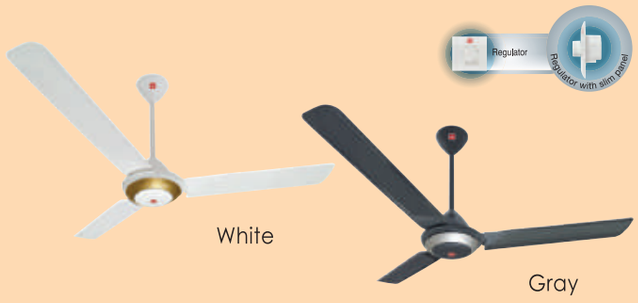
Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
U56PR	220	50	Hi	62	175	137	449	181	6,392	6.7
			Lo	20	87	-	-	-	-	
		60	Hi	74	182	146	479	194	6,851	
			Lo	21	89	-	-	-	-	
	230	50	Hi	66	182	146	479	194	6,851	
			Lo	19	89	-	-	-	-	
	240	50	Hi	73	188	153	502	204	7,204	
			Lo	20	94	-	-	-	-	

* Hi - Notch 3 / Lo - Notch 1

Regulator Control Series

Ceiling Fan

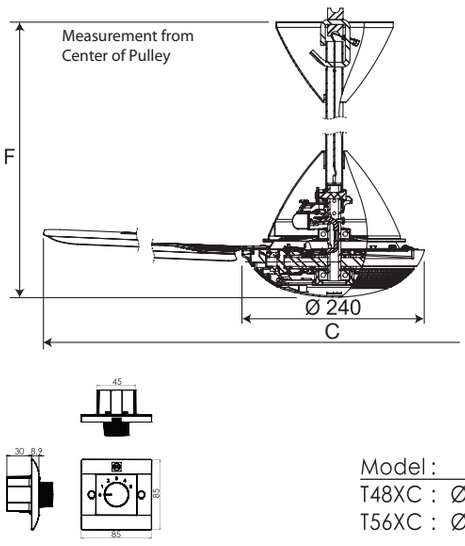


T48XC
T56XC

- *Slim panel regulator with 5-speed selection*
- *Thermal cutoff prevent overheating*
- *Safety wire provided*
- *Wobbling reduction mechanism prevent fan falling*
- *Fall prevention of blade adopted*
- *Permanently lubricated ball bearing equipped*
- *Glossy diamond-patterned fan ring*
- *Painted steel blades*
- *Color option: Gray with silver ring*
  White with golden ring

Dimension

Unit : mm



Model : C
T48XC : Ø1,200
T56XC : Ø1,400

Pipe Type	9 inch	12 inch	16 inch	18 inch	22 inch
Pipe Length	229	305	406	457	559
F	437	513	614	665	764

Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
T48XC	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
T56XC	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	

* Hi - Notch 5 / Lo - Notch 1

Regulator Control Series

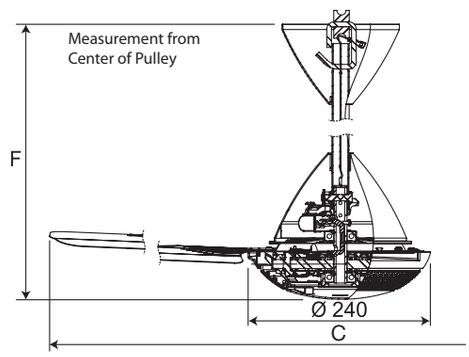
Ceiling Fan

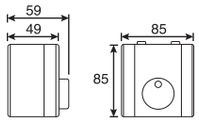
T48XG
T56XG

- *Compact size regulator with 5-speed selection*
- *Thermal cutoff prevent overheating*
- *Safety wire provided*
- *Wobbling reduction mechanism prevent fan falling*
- *Fall prevention of blade adopted*
- *Permanently lubricated ball bearing equipped*
- *Glossy diamond-patterned fan ring*
- *Painted steel blades*
- *Color option: Gray with silver ring*
  White with golden ring

Dimension

Unit : mm





Model : C
T48XG : Ø1,200
T56XG : Ø1,400

Pipe Type	9 inch	12 inch	16 inch	18 inch	22 inch
Pipe Length	229	305	406	457	559
F	437	513	614	665	764

Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
T48XG	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
T56XG	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	

* Hi - Notch 5 / Lo - Notch 1

Regulator Control Series

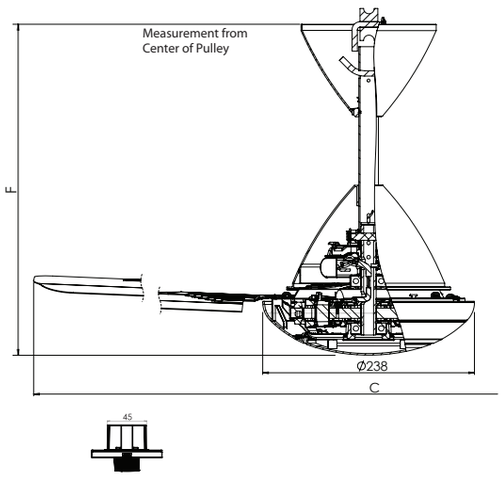
Ceiling Fan

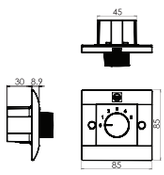
X48XC
X56XC

- *Slim panel regulator with 5-speed selection*
- *Thermal cutoff prevent overheating*
- *Safety wire provided*
- *Wobbling reduction mechanism prevent fan falling*
- *Fall prevention of blade adopted*
- *Permanently lubricated ball bearing equipped*
- *Painted steel blades*
- *Color option: White with silver ring*

Dimension

Unit : mm





Model : C
X48XC : Ø1,200
X56XC : Ø1,400

Pipe Type	9 inch	12 inch	16 inch	18 inch	22 inch
Pipe Length	229	305	406	457	559
F	437	513	614	665	764

Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
X48XC	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
X56XC	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	

* Hi - Notch 5 / Lo - Notch 1

Regulator Control Series

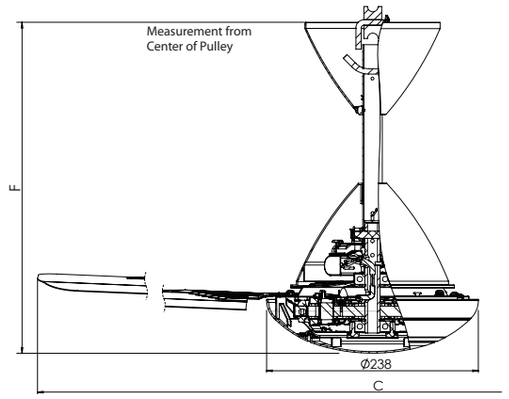
Ceiling Fan

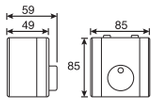
X48XG
X56XG

- *Compact size regulator with 5-speed selection*
- *Thermal cutoff prevent overheating*
- *Safety wire provided*
- *Wobbling reduction mechanism prevent fan falling*
- *Fall prevention of blade adopted*
- *Permanently lubricated ball bearing equipped*
- *Painted steel blades*
- *Color option: White with silver ring*

Dimension

Unit : mm





Model : C
X48XC : Ø1,200
X56XC : Ø1,400

Pipe Type	9 inch	12 inch	16 inch	18 inch	22 inch
Pipe Length	229	305	406	457	559
F	437	513	614	665	764

Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
X48XG	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
X56XG	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	

* Hi - Notch 5 / Lo - Notch 1

Orbital Fan

M40R

- *5-speed selection*
- *Oscillation over 360°*
- *Speed and on/off controlled by wired regulator*
- *Easy adjustment for circulating angle (15°, 30°, 50°)*
- *Thermal cutoff prevent overheating*
- *Safety wire provided*
- *Permanently lubricated ball bearing equipped*
- *Painted metal blades*
- *Color option: blue or gray*

Adjustment of Circulating Angle

The oscillation angle can be adjusted to 15, 30 or 50 degrees.

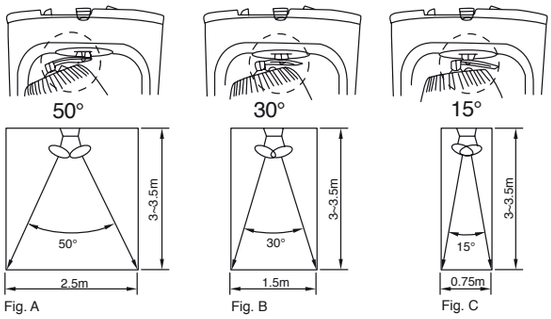


Fig. A Fig. B Fig. C

Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
M40R	220	50	Hi	46.8 - 57.2	1,080 - 1,320	256	840	79	2,790	4.3
			Lo	22.5 - 27.5	690 - 850	-	-	-	-	
		60	Hi	57.7 - 70.5	1,160 - 1,410	277	909	86	3,037	
			Lo	26.6 - 32.5	710 - 860	-	-	-	-	

* Hi - Notch 5 / Lo - Notch 1

Wall Fan-Cord Operated Series

Electric Fan

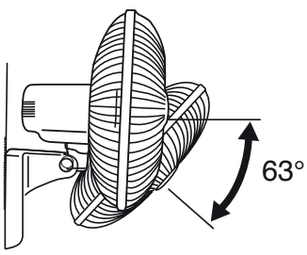
Blue

Gold

M30C
M40C

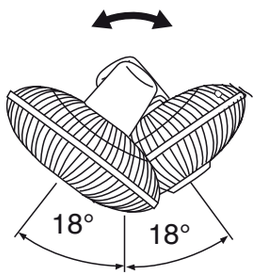
- *3-speed selection*
- *Speed and on/off controlled by pull switch*
- *Oscillation control by pull cord*
- *Easy adjustment for tilt angle and oscillation angle*
- *Thermal cutoff prevent overheating*
- *Permanently lubricated ball bearing equipped*
- *Safety screw protection for fall prevention*
- *Blade : M30C - opaque plastic material*
  M40C -metal material with paint
- *Color option: M30C - blue or gray*
  M40C - blue, gray or gold

Adjustment of Tilt Angle and Oscillation Angle



"One-touch" adjustment of tilt

The air flow can be adjusted upward or downward by simply moving the guard up or down as shown in the figure. Adjust the angle of the fan only after first confirming that it has stopped rotating.



Double oscillation

To change the direction of the air flow, push the edge of the guard to the desired position.

Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
M30C	220	50	Hi	34.0 - 41.6	1,124 - 1,374	215	705	45	1,589	3.4
			Lo	26.3 - 32.1	779 - 952	-	-	-	-	
		60	Hi	39.5 - 48.3	1,244 - 1,520	237	778	50	1,766	
			Lo	27.3 - 33.3	714 - 872	-	-	-	-	
M40C	220	50	Hi	42.5 - 51.9	1,097 - 1,341	226	741	63	2,225	4.4
			Lo	33.5 - 40.9	744 - 910	-	-	-	-	
		60	Hi	52.8 - 64.6	1,166 - 1,425	241	791	67	2,366	
			Lo	34.7 - 42.5	676 - 826	-	-	-	-	

* Hi - Notch 3 / Lo - Notch 1

Wall Fan-Remote Control Series

Electric Fan

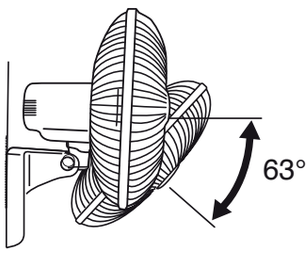
Black

Gray

M40M

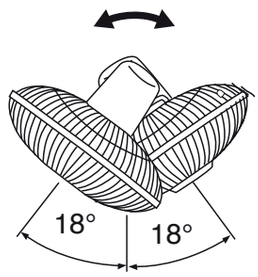
- *3-speed selection*
- *Wireless remote control for speed, oscillation and off timer*
- *Soft touch switch panel with LED indicator*
- *Off timer (1, 3, 6 hours)*
- *Easy adjustment for tilt angle and oscillation angle*
- *Thermal cutoff prevent overheating*
- *Permanently lubricated ball bearing equipped*
- *Safety screw protection for fall prevention*
- *Transparent plastic blade*
- *Color option: gray or black*

Adjustment of Tilt Angle and Oscillation Angle



"One-touch" adjustment of tilt

The air flow can be adjusted upward or downward by simply moving the guard up or down as shown in the figure. Adjust the angle of the fan only after first confirming that it has stopped rotating.



Double oscillation

To change the direction of the air flow, push the edge of the guard to the desired position.

Technical Specification

Model No.	Voltage		*	Consumption [W]	RPM [min^{-1}]	Air Velocity		Air Delivery		Weight [kg]
	[V]	[Hz]				[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	
M40M	220	50	Hi	46.8 - 57.2	1,055 - 1,289	228	748	63	2,225	4.4
			Lo	37.9 - 46.3	688 - 840	-	-	-	-	
		60	Hi	56.1 - 68.5	1,094 - 1,337	237	778	65	2,295	
			Lo	37.9 - 46.3	625 - 763	-	-	-	-	

* Hi - Notch 3 / Lo - Notch 1

Hand Dryer / Air Curtain

- Hand Dryers provide a comfortable and speedy hand drying experience by removing moistures on hands with warm and high velocity airflow. In addition, environment protection and cost saving are achieved by comparing with using paper towel.

- Doors of a shop need to be opened frequently to let people pass through. However, open door allows air leaks to outside that increases energy consumption of air conditioners. By using air curtain, an invisible air screen will be built up to minimize air exchange between the air at outside and indoor.

Feature of Hand Dryer

Super Alleru-buster Filter

The filter is equipped to ensure the air blow to your hand is clean

Anti-bacteria Material as it is installed

The product body is adopted with anti-bacteria material to prevent the growth of bacteria and germs in the warm and humid environment of washroom

Safe Operation

- Eco Dry will stop after 60 seconds of continuous operation
- "Check" indicator will light up when the unit detects overheated

Quick Response Sensor

Automatic sensor operation, no physical contact is required to activate the unit

Heater ON/OFF Switch

Heater can be switched off for energy saving in hot season

Quick Drying with 3-way Airflow

Wide Nozzle

Blow off water droplets on the whole palm with wide airflow

Spot Nozzle

Dry fine water droplets by rubbing hands with spot airflow

2 kinds of nozzle, wide nozzle and spot nozzle, are equipped at front and rear of drying chamber respectively for efficient drying. The structure realizes quick drying in only 4~9 seconds

(T09AC only) Drain Pan

- Drain pan can reduce water dripping on the floor to avoid slippery

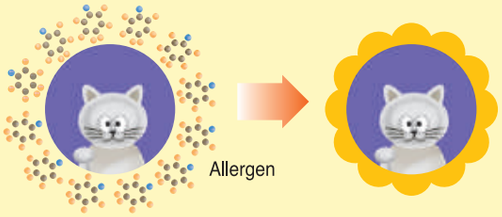
Full Tank Indicator

- Remind you for cleaning up the water tank when it is full

What is Super alleru-buster?

Super alleru-buster can inhibit up to several types of allergen

Phenolic Polymer • Polyphenol



Testing Organization: The Osaka Municipal Technical Research Institute.
Testing Method: To measure the level of reduction in cat's dandruff by Enzyme-linked Immuno Sorbent Assay.

Hand Dryer

T09AC

T09BC

T09AC
T09BC

Powerful air velocity enables drying time in few seconds

Automatic operation by infra-red motion sensor

Super alleru-buster filter equipped

Anti-bacteria material for product body

ON / OFF switch for heater

Safety check indicator

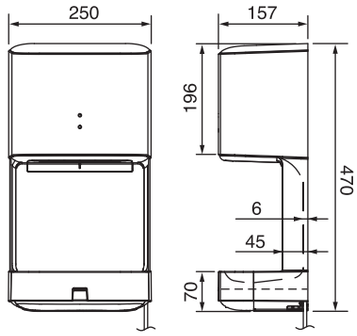
Auto stop after 60 seconds of continuous operation

T09AC only: Drain pan and water tank equipped
Full tank indicator

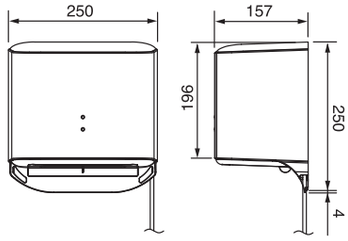
Dimension

Unit : mm

T09AC



T09BC



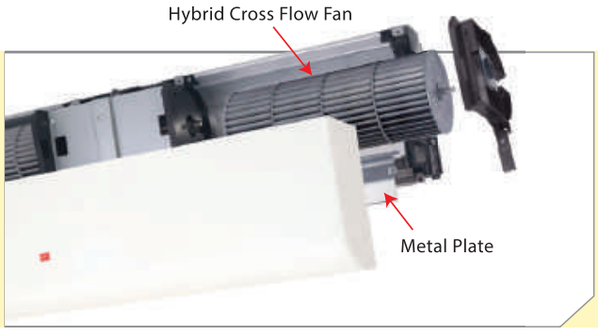
Technical Specification

Model No.	Voltage		Consumption [W]		Air Velocity	Noise	Weight [kg]
	[V]	[Hz]	Heater ON	Heater OFF	[m/s]	[dB(A)]	
T09AC	220	50/60	1,020	650	90-110	62	4
	230	50/60	1,070	700	90-110	62	
T09BC	220	50/60	1,020	650	90-110	62	3.5
	230	50/60	1,070	700	90-110	62	

Feature of Cross Flow Type Air Curtain

1. Efficient Barrier Effect

- Cross Flow Fan is adopted that airflow distribution is wide and uniform within the air stream while the air volume output can be maintained with low noise level.
- Unique Auxiliary Air Inlet allows more air intake at lower front that enhances airflow output.

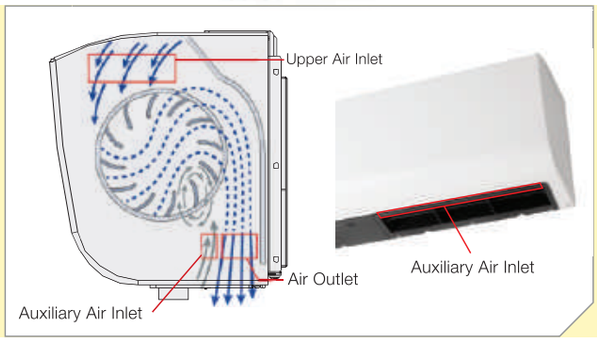


2. Highly Durable

- Resin with glass fiber material is used in the Hybrid Cross Flow Fan.
- Incorporated with the metal bush, the durability is prolonged significantly.

3. Easy Maintenance

- The Cross Flow Fan can generate air current between the fan and front cover forming movement of dust that reduces accumulation of dust on the fan blade.
- Simple structure allows convenient cleaning of the fan – just detach the front cover and metal plate to clean product interior.



4. Contemporary Design

- Modern and streamline outlook fits the décor of interior perfectly. Also, the main air inlet locates at top of the product allowing a neat and clean image.

5. Convenient Control

- For remote controlled series, Stand-by and Hi/Lo speed can be simply switched by handheld remote control.
- Operation of sensor series can be activated when door is opened. It will stop automatically at 10 seconds delay after the door is closed.

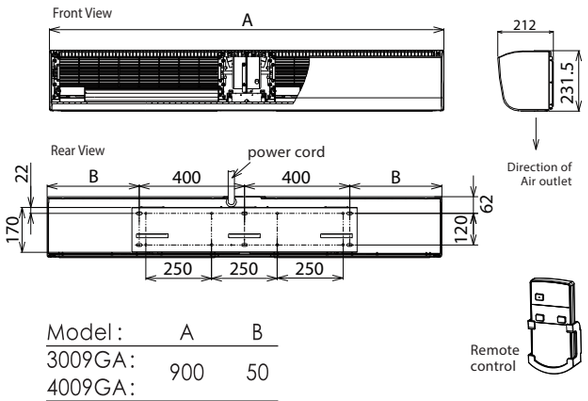
Cross Flow Type Air Curtain

3009GA
4009GA
3012GA
4012GA
3015GA
4015GA

- *Cross flow fan for wide and uniform airflow*
- *Unique auxiliary air inlet enhances airflow output*
- *Thick air stream provides high airflow momentum*
- *Resin with glass fiber adopted for fan blade*
- *Metal blade bush for high durability*
- *Simple structure allows easy maintenance*
- *Permanently lubricated ball bearing equipped*
- *Air deflection plate for airflow direction adjustment*
- *Main air inlet at top allows neat image*
- *Handheld remote control*
- *Soft touch switch panel with 2-speed selection*

Dimension

Unit : mm



Model :	A	B
3009GA : 4009GA :	900	50
3012GA : 4012GA :	1,200	200
3015GA : 4015GA :	1,500	350

Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	Current [A]	Outlet Velocity [m/s]	Noise [dB(A)]	Weight [kg]
3009GA	220	50	Hi	1,100	647	76	0.35	10.5	48.5	12.5
			Lo	920	541	70	0.32	8.5	45.0	
		60	Hi	1,100	647	92	0.42	10.5	49.5	
			Lo	900	530	78	0.36	8.5	45.0	
	240	50	Hi	1,150	677	86	0.37	10.5	50.5	
			Lo	960	565	80	0.35	9.0	47.5	
4009GA	220	50	Hi	1,340	789	110	0.50	12.0	54.5	13.5
			Lo	1,190	700	94	0.43	10.0	51.0	
		60	Hi	1,340	789	141	0.64	12.0	55.5	
			Lo	1,100	647	111	0.51	10.0	51.0	
	240	50	Hi	1,360	800	122	0.51	12.5	56.5	
			Lo	1,200	706	100	0.43	11.0	53.5	
3012GA	220	50	Hi	1,400	824	94	0.43	9.5	48.5	15.0
			Lo	1,270	747	85	0.40	8.0	45.0	
		60	Hi	1,400	824	109	0.51	9.5	48.5	
			Lo	1,250	736	94	0.46	8.0	45.0	
	240	50	Hi	1,500	883	107	0.46	10.0	50.5	
			Lo	1,320	777	95	0.43	9.0	47.0	
4012GA	220	50	Hi	1,700	1,001	126	0.59	12.0	52.5	16.0
			Lo	1,530	901	105	0.49	10.0	49.0	
		60	Hi	1,700	1,001	153	0.70	12.0	52.5	
			Lo	1,450	853	118	0.55	10.0	49.0	
	240	50	Hi	1,800	1,059	139	0.60	12.5	54.5	
			Lo	1,580	930	110	0.49	11.0	51.0	
3015GA	220	50	Hi	2,000	1,177	131	0.59	10.5	51.5	18.5
			Lo	1,800	1,059	110	0.50	9.5	48.0	
		60	Hi	2,000	1,177	150	0.68	10.5	51.5	
			Lo	1,750	1,030	118	0.54	9.5	48.0	
	240	50	Hi	2,100	1,236	145	0.60	11.0	53.5	
			Lo	1,850	1,089	115	0.50	10.0	50.5	
4015GA	220	50	Hi	2,450	1,442	177	0.81	13.0	56.0	18.5
			Lo	2,000	1,177	147	0.68	10.0	52.0	
		60	Hi	2,300	1,354	220	1.01	13.0	56.0	
			Lo	1,780	1,048	160	0.74	9.5	52.0	
	240	50	Hi	2,500	1,471	200	0.86	13.5	58.0	
			Lo	2,050	1,207	160	0.68	11.0	54.5	

Note : The parameters shown above are measured at ambient temperature of 20°C
- The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value
- The velocity is measured in test laboratory, it may vary depends on different environment in actual usage

Sensor Series

Cross Flow Type Air Curtain

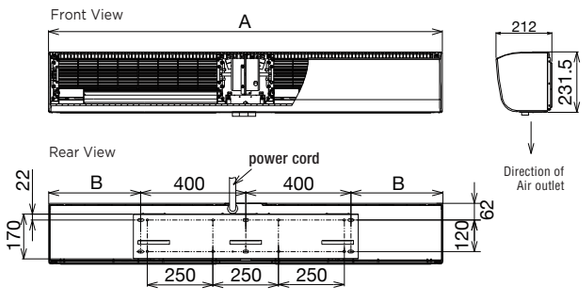
Door Contact Sensor

3009DA
4009DA
3012DA
4012DA
3015DA
4015DA

- *Cross flow fan for wide and uniform airflow*
- *Unique auxiliary air inlet enhances airflow output*
- *Thick air stream provides high airflow momentum*
- *Resin with glass fiber adopted for fan blade*
- *Metal blade bush for high durability*
- *Simple structure allows easy maintenance*
- *Permanently lubricated ball bearing equipped*
- *Air deflection plate for airflow direction adjustment*
- *Main air inlet at top allows neat image*
- *Auto operation by door contact sensor*
- *Push button switch with 2-speed selection*

Dimension

Unit : mm



Model :	A	B
3009DA : 4009DA :	900	50
3012DA : 4012DA :	1,200	200
3015DA : 4015DA :	1,500	350

Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	Current [A]	Outlet Velocity [m/s]	Noise [dB(A)]	Weight [kg]
3009DA	220	50	Hi	1,100	647	76	0.35	10.5	48.5	12.5
			Lo	920	541	70	0.32	8.5	45.0	
		60	Hi	1,100	647	92	0.42	10.5	49.5	
			Lo	900	530	78	0.36	8.5	45.0	
	240	50	Hi	1,150	677	86	0.37	10.5	50.5	
			Lo	960	565	80	0.35	9.0	47.5	
4009DA	220	50	Hi	1,340	789	110	0.50	12.0	54.5	13.5
			Lo	1,190	700	94	0.43	10.0	51.0	
		60	Hi	1,340	789	141	0.64	12.0	55.5	
			Lo	1,100	647	111	0.51	10.0	51.0	
	240	50	Hi	1,360	800	122	0.51	12.5	56.5	
			Lo	1,200	706	100	0.43	11.0	53.5	
3012DA	220	50	Hi	1,400	824	94	0.43	9.5	48.5	15.0
			Lo	1,270	747	85	0.40	8.0	45.0	
		60	Hi	1,400	824	109	0.51	9.5	48.5	
			Lo	1,250	736	94	0.46	8.0	45.0	
	240	50	Hi	1,500	883	107	0.46	10.0	50.5	
			Lo	1,320	777	95	0.43	9.0	47.0	
4012DA	220	50	Hi	1,700	1,001	126	0.59	12.0	52.5	16.0
			Lo	1,530	901	105	0.49	10.0	49.0	
		60	Hi	1,700	1,001	153	0.70	12.0	52.5	
			Lo	1,450	853	118	0.55	10.0	49.0	
	240	50	Hi	1,800	1,059	139	0.60	12.5	54.5	
			Lo	1,580	930	110	0.49	11.0	51.0	
3015DA	220	50	Hi	2,000	1,177	131	0.59	10.5	51.5	18.5
			Lo	1,800	1,059	110	0.50	9.5	48.0	
		60	Hi	2,000	1,177	150	0.68	10.5	51.5	
			Lo	1,750	1,030	118	0.54	9.5	48.0	
	240	50	Hi	2,100	1,236	145	0.60	11.0	53.5	
			Lo	1,850	1,089	115	0.50	10.0	50.5	
4015DA	220	50	Hi	2,450	1,442	177	0.81	13.0	56.0	18.5
			Lo	2,000	1,177	147	0.68	10.0	52.0	
		60	Hi	2,300	1,354	220	1.01	13.0	56.0	
			Lo	1,780	1,048	160	0.74	9.5	52.0	
	240	50	Hi	2,500	1,471	200	0.86	13.5	58.0	
			Lo	2,050	1,207	160	0.68	11.0	54.5	

Note : The parameters shown above are measured at ambient temperature of 20°C
- The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value
- The velocity is measured in test laboratory, it may vary depends on different environment in actual usage

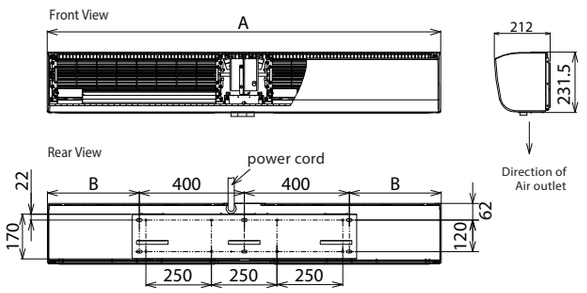
Cross Flow Type Air Curtain

3009UA
4009UA
3012UA
4012UA
3015UA
4015UA

- *Cross flow fan for wide and uniform airflow*
- *Unique auxiliary air inlet enhances airflow output*
- *Thick air stream provides high airflow momentum*
- *Resin with glass fiber adopted for fan blade*
- *Metal blade bush for high durability*
- *Simple structure allows easy maintenance*
- *Permanently lubricated ball bearing equipped*
- *Air deflection plate for airflow direction adjustment*
- *Main air inlet at top allows neat image*
- *Push button switch with 2-speed selection*

Dimension

Unit : mm



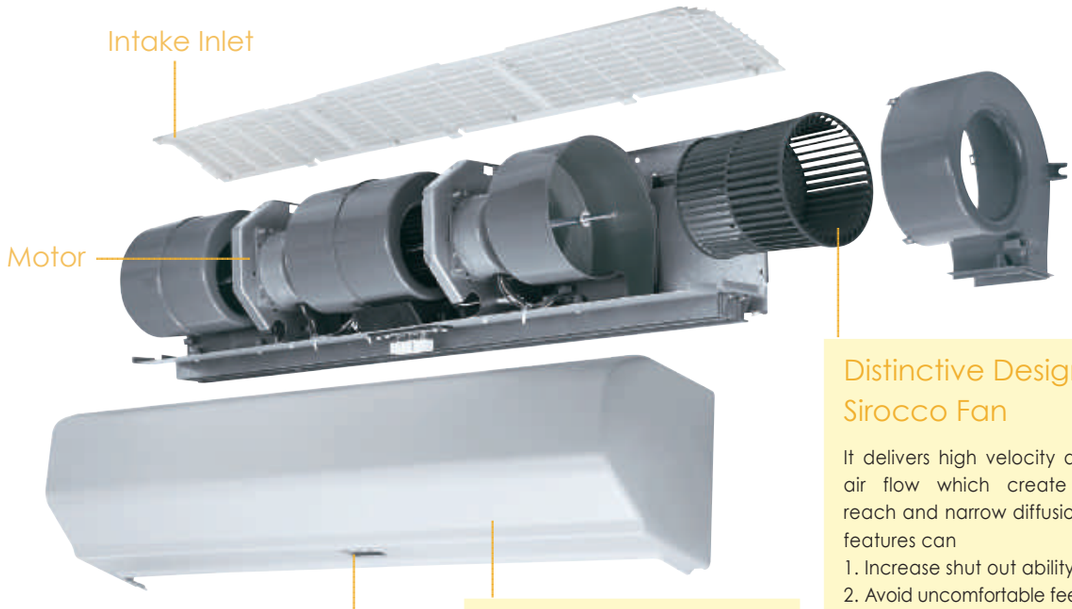
Model :	A	B
3009UA : 4009UA :	900	50
3012UA : 4012UA :	1,200	200
3015UA : 4015UA :	1,500	350

Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	Current [A]	Outlet Velocity [m/s]	Noise [dB(A)]	Weight [kg]
3009UA	220	50	Hi	1,100	647	76	0.35	10.5	48.5	12.5
			Lo	920	541	70	0.32	8.5	45.0	
		60	Hi	1,100	647	92	0.42	10.5	49.5	
			Lo	900	530	78	0.36	8.5	45.0	
	240	50	Hi	1,150	677	86	0.37	10.5	50.5	
			Lo	960	565	80	0.35	9.0	47.5	
4009UA	220	50	Hi	1,340	789	110	0.50	12.0	54.5	13.5
			Lo	1,190	700	94	0.43	10.0	51.0	
		60	Hi	1,340	789	141	0.64	12.0	55.5	
			Lo	1,100	647	111	0.51	10.0	51.0	
	240	50	Hi	1,360	800	122	0.51	12.5	56.5	
			Lo	1,200	706	100	0.43	11.0	53.5	
3012UA	220	50	Hi	1,400	824	94	0.43	9.5	48.5	15.0
			Lo	1,270	747	85	0.40	8.0	45.0	
		60	Hi	1,400	824	109	0.51	9.5	48.5	
			Lo	1,250	736	94	0.46	8.0	45.0	
	240	50	Hi	1,500	883	107	0.46	10.0	50.5	
			Lo	1,320	777	95	0.43	9.0	47.0	
4012UA	220	50	Hi	1,700	1,001	126	0.59	12.0	52.5	16.0
			Lo	1,530	901	105	0.49	10.0	49.0	
		60	Hi	1,700	1,001	153	0.70	12.0	52.5	
			Lo	1,450	853	118	0.55	10.0	49.0	
	240	50	Hi	1,800	1,059	139	0.60	12.5	54.5	
			Lo	1,580	930	110	0.49	11.0	51.0	
3015UA	220	50	Hi	2,000	1,177	131	0.59	10.5	51.5	18.5
			Lo	1,800	1,059	110	0.50	9.5	48.0	
		60	Hi	2,000	1,177	150	0.68	10.5	51.5	
			Lo	1,750	1,030	118	0.54	9.5	48.0	
	240	50	Hi	2,100	1,236	145	0.60	11.0	53.5	
			Lo	1,850	1,089	115	0.50	10.0	50.5	
4015UA	220	50	Hi	2,450	1,442	177	0.81	13.0	56.0	18.5
			Lo	2,000	1,177	147	0.68	10.0	52.0	
		60	Hi	2,300	1,354	220	1.01	13.0	56.0	
			Lo	1,780	1,048	160	0.74	9.5	52.0	
	240	50	Hi	2,500	1,471	200	0.86	13.5	58.0	
			Lo	2,050	1,207	160	0.68	11.0	54.5	

Note : The parameters shown above are measured at ambient temperature of 20°C
- The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value
- The velocity is measured in test laboratory, it may vary depends on different environment in actual usage

Feature of Sirocco Type Air Curtain



Distinctive Design of Sirocco Fan

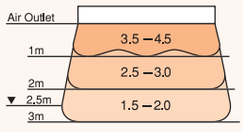
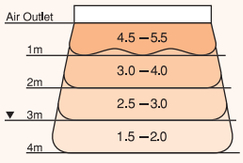
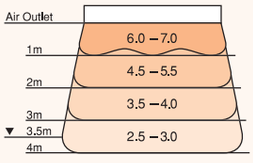
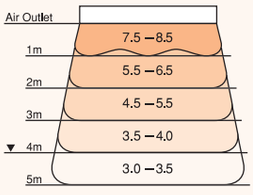
It delivers high velocity and thin air flow which create longer reach and narrow diffusion. Such features can

1. Increase shut out ability
2. Avoid uncomfortable feelings when you pass through

ABS Resin Casing

ABS is a material which are highly resistance to rust and with high bending flexibility which make the outlook more streamline. It provides a simple design that suits for all interiors.

Two-Speed Function

Length of unit	900mm (3 feet) **08ESK**	1200mm (4 feet) **08ELK**	900mm (3 feet) **10ESK**	1200mm (4 feet) **10ELK**	900mm (3 feet) **12ESK**	1200mm (4 feet) **12ELK**	900mm (3 feet) **14ESK**	1200mm (4 feet) **14ELK**
Air velocity chart (m/s) Maximum value at HI speed 50Hz								
Efficient distance	2.5m (8 feet)		3.0m (10 feet)		3.5m (12 feet)		4.0m (14 feet)	

Sirocco Type Air Curtain

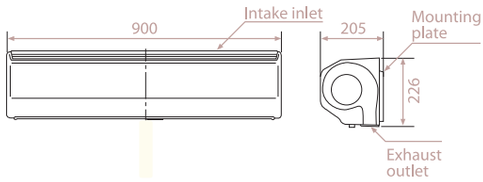
08ESK
10ESK
12ESK
14ESK

- *Sirocco fan adopted for long reach and narrow diffusion airflow*
- *ABS resin casing provides better weather resistance*
- *Permanently lubricated ball bearing equipped*
- *Air deflection plate for airflow direction adjustment*
- *Air inlet at top allows neat image*
- *Push button switch*
- *2-speed selection*
- *Product length = 900 mm*

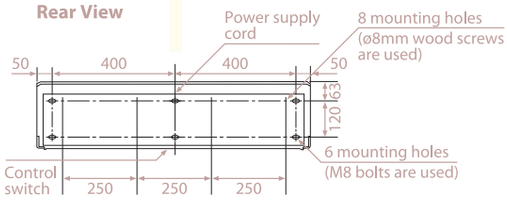
Dimension

Unit : mm

Front View



Rear View



Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	Current [A]	Outlet Velocity [m/s]	Noise [dB(A)]	Weight [kg]
08ESK	220	50	Hi	650	383	46	0.23	11.5	42	12.0
			Lo	580	341	42	0.21	10.3	39	
		60	Hi	690	406	57	0.28	12.1	43	
			Lo	560	330	49	0.25	9.9	38	
	240	50	Hi	680	400	51	0.24	11.9	43	
			Lo	620	365	47	0.23	10.9	41	
10ESK	220	50	Hi	750	441	72	0.40	13.0	46	12.0
			Lo	630	371	62	0.29	11.1	42	
		60	Hi	860	506	88	0.42	14.9	50	
			Lo	600	353	72	0.33	10.9	40	
	240	50	Hi	750	441	84	0.46	13.2	46	
			Lo	630	371	66	0.30	11.7	43	
12ESK	220	50	Hi	1,050	618	176	0.82	16.9	55	13.0
			Lo	960	565	155	0.69	15.8	50	
		60	Hi	990	583	202	0.94	16.1	54	
			Lo	940	553	170	0.75	15.3	49	
	240	50	Hi	1,120	659	200	0.86	17.9	57	
			Lo	1,040	612	169	0.75	16.8	54	
14ESK	220	50	Hi	1,340	789	257	1.14	21.9	62	13.0
			Lo	1,168	687	218	0.99	19.1	59	
		60	Hi	1,303	767	312	1.43	21.3	61	
			Lo	1,083	637	255	1.16	17.7	57	
	240	50	Hi	1,395	821	281	1.18	22.8	63	
			Lo	1,272	749	238	1.00	20.8	60	

Note : The parameters shown above are measured at ambient temperature of 20°C
- The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value
- The velocity is measured in test laboratory, it may vary depends on different environment in actual usage

1200 Series

Sirocco Type Air Curtain

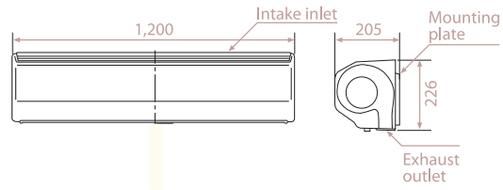
08ELK
10ELK
12ELK
14ELK

- *Sirocco fan adopted for long reach and narrow*
- *ABS resin casing provides better weather resistance*
- *Permanently lubricated ball bearing equipped*
- *Air deflection plate for airflow direction adjustment*
- *Air inlet at top allows neat image*
- *Push button switch*
- *2-speed selection*
- *Product length = 1200 mm*

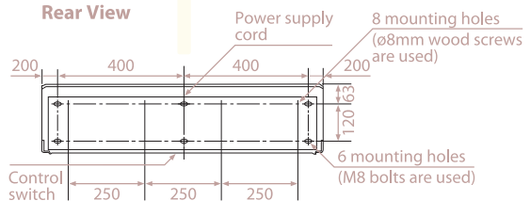
Dimension

Unit : mm

Front View



Rear View



Technical Specification

Model No.	Voltage [V]	[Hz]		Air Volume [m³/h]	[CFM]	Consumption [W]	Current [A]	Outlet Velocity [m/s]	Noise [dB(A)]	Weight [kg]
08ELK	220	50	Hi	880	518	57	0.28	11.6	43	14.0
			Lo	800	471	53	0.27	10.6	41	
		60	Hi	940	553	74	0.36	12.4	45	
			Lo	790	465	62	0.32	10.5	40	
	240	50	Hi	920	541	65	0.29	12.1	44	
			Lo	850	500	59	0.28	11.2	42	
10ELK	220	50	Hi	1,000	589	96	0.54	13.1	46	14.0
			Lo	830	489	74	0.35	11.0	42	
		60	Hi	1,150	677	116	0.56	15.1	50	
			Lo	790	465	85	0.41	10.5	41	
	240	50	Hi	1,010	594	116	0.66	13.2	47	
			Lo	880	518	86	0.38	11.6	43	
12ELK	220	50	Hi	1,420	836	224	1.04	17.0	56	15.0
			Lo	1,320	777	200	0.90	15.8	51	
		60	Hi	1,340	789	258	1.21	16.2	55	
			Lo	1,290	759	220	1.04	15.4	50	
	240	50	Hi	1,510	889	252	1.10	17.9	58	
			Lo	1,410	830	218	0.98	16.7	56	
14ELK	220	50	Hi	1,867	1,099	333	1.52	22.5	63	15.0
			Lo	1,668	982	290	1.32	20.1	61	
		60	Hi	1,826	1,075	423	1.93	22.0	63	
			Lo	1,552	913	339	1.55	18.7	59	
	240	50	Hi	1,942	1,143	364	1.53	23.4	64	
			Lo	1,818	1,070	320	1.33	21.9	62	

Note : The parameters shown above are measured at ambient temperature of 20°C
- The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value
- The velocity is measured in test laboratory, it may vary depends on different environment in actual usage

Air Moving Equipment / Accessories

To cope with the growing concern about indoor air quality, a wide range of inline ventilation equipment and developed for commercial and industrial building. Those fans can be utilized as ventilation system for large area in buildings, warehouses or plants by combination use with ducts.

The unique impeller designs realize powerful airflow capacity with low operation noise. Highly efficient capacitor type induction motors ensure low power consumption, long life and high reliability. The compact design and exclusive mounting parts provide easy installation in narrow space.

Complete lines of fan are provided to meet various requirement, either single/ three phase, or single/two speed. To further address our concern to your need of high quality indoor air, we also provide the accessories for your choice that facilitates the installation as a whole.

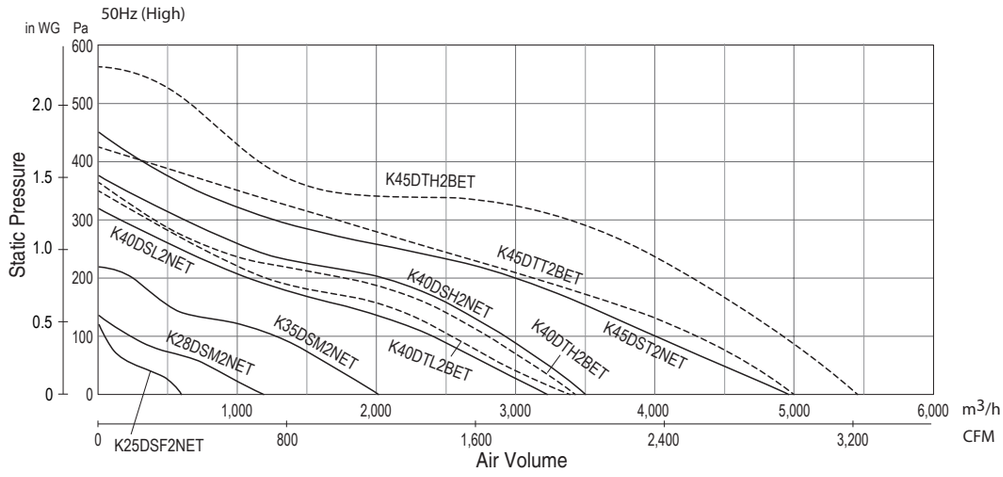
Compact Axial Flow Fan

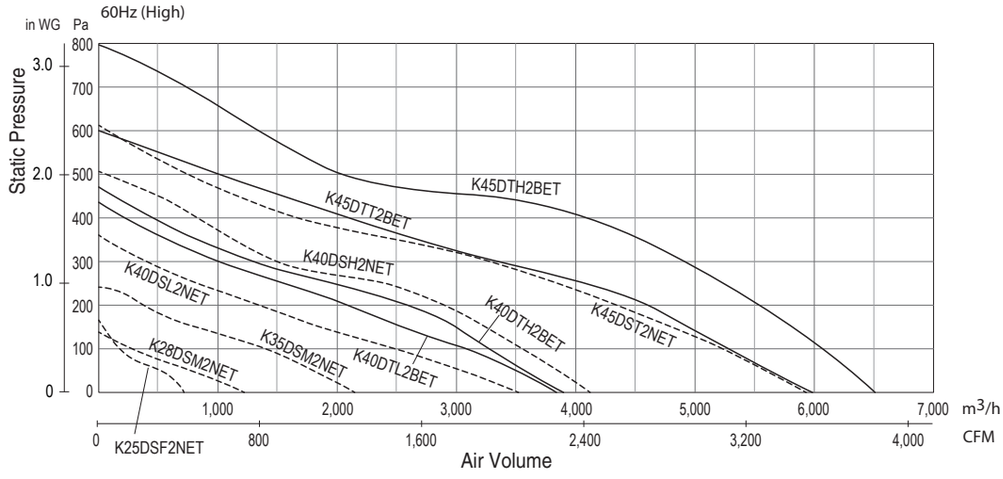
Single Phase
K25DSF2NET
K28DSM2NET
K35DSM2NET
K40DSL2NET
K40DSH2NET
K45DST2NET

Three Phase
K40DTL2BET
K40DTH2BET
K45DTT2BET
K45DTH2BET

- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *T-shape grooved hanging brackets allow easy intallation*
- *Painted steel casing enhances durability*
- *2-speed selection*

Performance Data





Technical Specification *(50Hz)*

	Model No.	Voltage [V]	Voltage [Hz]		Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	Current [A]	Noise Level [dB(A)] Casing Side	Noise Level [dB(A)] Suction Side	Noise Level [dB(A)] Discharge Side	Weight [kg]	Wheel Diameter [cm]	Dust Size [kg]
Single Phase	K25DSF2NET	230	50	Hi	600	353	34	0.19	41.0	51.0	50.5	4.7	25	ø 200
				Lo	550	324	27	0.14	39.5	49.0	48.5			
	K28DSM2NET	230	50	Hi	1,194	703	51	0.25	44.5	54.5	54.0	8.5	28	ø 250
				Lo	1,050	618	55	0.24	42.0	52.0	51.5			
	K35DSM2NET	230	50	Hi	2,016	1,187	95	0.42	45.5	56.5	56.0	13.0	35	ø 300
				Lo	1,782	1,049	87	0.38	43.0	54.0	53.5			
	K40DSL2NET	230	50	Hi	3,228	1,900	204	0.94	56.0	68.0	67.5	20.0	40	ø 350
				Lo	3,084	1,815	194	0.86	54.0	66.0	65.5			
	K40DSH2NET	230	50	Hi	3,504	2,062	256	1.10	55.5	67.5	67.0	22.0	40	ø 350
				Lo	3,444	2,027	233	1.00	53.5	65.5	65.0			
	K45DST2NET	230	50	Hi	4,968	2,924	428	1.90	59.5	69.5	69.5	37.0	45	ø 400
				Lo	4,206	2,476	398	1.70	58.0	68.0	68.0			
Three Phase	K40DTL2BET	380	50	Hi	3,396	1,999	241	0.48	56.0	68.0	67.5	18.0	40	ø 350
				Lo	3,330	1,960	237	0.42	54.0	66.0	65.5			
	K40DTH2BET	380	50	Hi	3,426	2,016	250	0.57	56.0	68.0	67.5	19.0	40	ø 350
				Lo	3,264	1,921	220	0.45	55.0	67.0	66.5			
	K45DTT2BET	380	50	Hi	5,004	2,945	421	1.10	61.0	71.0	71.0	36.0	45	ø 400
				Lo	4,860	2,860	397	0.93	60.5	70.5	70.5			
	K45DTH2BET	380	50	Hi	5,454	3,210	511	1.20	59.0	68.5	68.5	37.0	45	ø 400
				Lo	5,250	3,090	482	1.10	58.5	68.0	68.0			

Technical Specification *(60Hz)*

	Model No.	Voltage [V]	Voltage [Hz]		Air Volume [m³/h]	Air Volume [CFM]	Consumption [W]	Current [A]	Noise Level [dB(A)] Casing Side	Noise Level [dB(A)] Suction Side	Noise Level [dB(A)] Discharge Side	Weight [kg]	Wheel Diameter [cm]	Dust Size [kg]
Single Phase	K25DSF2NET	230	60	Hi	720	424	38	0.17	42.0	54.0	53.5	4.7	25	ø 200
				Lo	650	383	29	0.12	41.5	52.0	51.5			
	K28DSM2NET	230	60	Hi	1,224	720	62	0.28	45.5	55.5	55.0	8.5	28	ø 250
				Lo	1,062	625	61	0.26	43.0	53.0	52.5			
	K35DSM2NET	230	60	Hi	2,154	1,268	131	0.57	46.5	57.5	57.0	13.0	35	ø 300
				Lo	1,830	1,077	113	0.50	44.0	55.0	54.5			
	K40DSL2NET	230	60	Hi	3,528	2,077	281	1.30	56.5	68.5	68.0	20.0	40	ø 350
				Lo	3,186	1,875	245	1.10	54.5	66.5	66.0			
	K40DSH2NET	230	60	Hi	4,128	2,430	401	1.80	56.5	68.5	68.0	22.0	40	ø 350
				Lo	3,822	2,250	348	1.60	54.5	66.5	66.0			
	K45DST2NET	230	60	Hi	5,940	3,496	643	2.80	61.0	71.0	71.0	37.0	45	ø 400
				Lo	5,790	3,408	615	2.70	60.5	70.5	70.5			
Three Phase	K40DTL2BET	380	60	Hi	3,840	2,260	381	0.65	56.0	68.0	67.5	18.0	40	ø 350
				Lo	3,660	2,154	334	0.59	54.0	66.0	65.5			
	K40DTH2BET	380	60	Hi	3,912	2,303	372	0.66	57.0	69.0	68.5	19.0	40	ø 350
				Lo	3,666	2,158	331	0.58	56.0	68.0	67.5			
	K45DTT2BET	380	60	Hi	6,000	3,531	638	1.20	63.0	73.0	73.0	36.0	45	ø 400
				Lo	5,886	3,464	614	1.10	62.5	72.5	72.5			
	K45DTH2BET	380	60	Hi	6,522	3,839	758	1.40	65.0	72.5	72.5	37.0	45	ø 400
				Lo	5,789	3,407	730	1.30	64.5	72.0	72.0			

Note:
1. The values of air volume are measured at 0 static pressure (Pa) by the chamber method.
2. The values of Current and Input are in the free load condition.
3. The values of noise level are measured at 0 static pressure (Pa) and at the following positions (When ducts are connected on both inlet and outlet side.)
   Side of fan body : 1.5m apart from the fan body (excluding the noise of outlet side)
   inlet side : 1.5m apart from the inlet of the fan (excluding the noise of outlet side)
   Outlet side : 1.5m angle 45˚ apart from outlet side (excluding the noise of inlet side)
   Add 2dB to the values above for the noise levels apart from 1.0m.
4. Specifications above indicate the values under the condition of normal temperature (20°C).

Use condition:
- Use in the following conditions
  Handing air and Ambient air: -10 to +40 deg C, relative humidity 85% or less
- Do not use the product in the places such as outdoor (where rain water splashes), where water splashes, steam is always generated, corrosive gas may be generated, or chemicals may be used.
- Do not use the product in the places such as pools or hot springs where the chemicals such as chlorine are used. It has high possibility to cause corrosion in a short term.

Mini Sirocco Fan

Single Phase

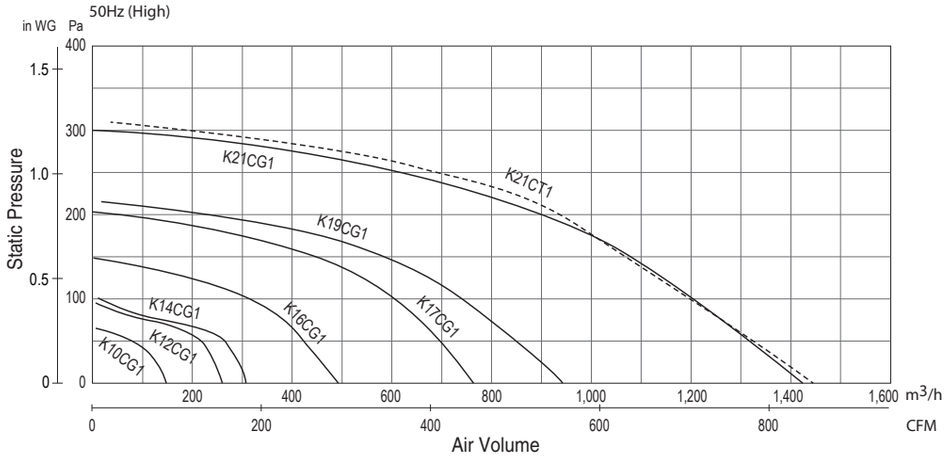
K10CG1 K16CG1 K19CG1
K12CG1 K17CG1 K21CG1
K14CG1

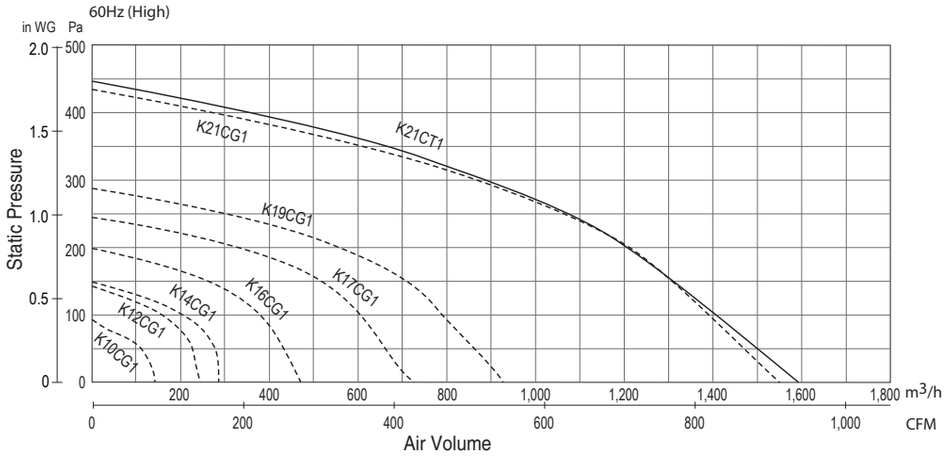
Three Phase

K21CT1

- *Long life condenser motor with thermal cutoff*
- *Well lubricated ball bearing for long life operation*
- *High efficient sirocco fan employed for powerful airflow*
- *Outlet direction adjustable to vertical or horizontal position*
- *Compact size for narrow space installation*
- *2-speed selection (except K10CG1, K12CG1 and K14CG1)*

Performance Data





Technical Specification *(50Hz)*

	Model No.	Voltage			Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]			Weight [kg]	Impeller Diameter [cm]	Duct Size [kg]
		[V]	[Hz]		[CMH]	[CFM]			Casing Side	Suction Side	Discharge Side			
Single Phase	K10CG1	230	50		144	85	11	980	32.0	38.0	38.0	3.1	10	ø 100
	K12CG1	230	50		258	152	21	760	34.0	39.0	39.0	3.6	12	ø 150
	K14CG1	230	50		308	181	30	930	39.0	44.5	44.5	3.8	12	ø 150
	K16CG1	230	50	Hi	495	291	49	1,080	43.5	50.0	50.0	5.3	15	ø 150
				Lo	365	215	41	875	38.0	44.5	44.5			
	K17CG1	230	50	Hi	763	449	87	920	46.0	51.0	51.0	8.8	18	ø 200
				Lo	640	377	74	815	42.5	47.0	47.0			
	K19CG1	230	50	Hi	947	557	117	1,110	50.5	55.5	55.5	9.4	18	ø 200
				Lo	821	483	109	1,030	49.0	54.0	54.0			
	K21CG1	230	50	Hi	1,420	836	240	1,325	57.0	61.0	61.0	15.0	20	ø 200
				Lo	1,260	742	220	1,230	56.0	59.5	59.5			
Three Phase	K21CT1	380	50	Hi	1,450	853	253	1,355	57.5	61.5	61.5	14.5	20	ø 200
				Lo	1,090	642	177	1,070	51.5	55.5	55.5			

Technical Specification *(60Hz)*

	Model No.	Voltage			Air Volume		Consumption [W]	RPM [min^{-1}]	Noise [dB(A)]			Weight [kg]	Impeller Diameter [cm]	Duct Size [kg]
		[V]	[Hz]		[CMH]	[CFM]			Casing Side	Suction Side	Discharge Side			
Single Phase	K10CG1	230	60		143	84	13	970	32.0	38.0	38.0	3.1	10	ø 100
	K12CG1	230	60		242	142	22	725	32.0	38.0	38.0	3.6	12	ø 150
	K14CG1	230	60		284	167	40	870	36.0	41.5	41.5	3.8	12	ø 150
	K16CG1	230	60	Hi	470	277	59	1,060	42.5	49.0	49.0	5.3	15	ø 150
				Lo	335	197	40	805	36.0	42.5	42.5			
	K17CG1	230	60	Hi	722	425	95	850	44.5	49.0	49.0	8.8	18	ø 200
				Lo	593	349	79	730	40.0	45.0	45.0			
	K19CG1	230	60	Hi	931	548	143	1,100	50.0	55.0	55.0	9.4	18	ø 200
				Lo	791	466	127	985	48.0	53.0	53.0			
	K21CG1	230	60	Hi	1,540	906	340	1,430	59.0	63.0	63.0	15.0	20	ø 200
				Lo	1,230	724	300	1,180	54.0	58.5	58.5			
Three Phase	K21CT1	380	60	Hi	1,590	936	370	1,485	59.5	63.5	63.5	14.5	20	ø 200
				Lo	1,020	600	228	1,030	50.0	54.0	54.0			

Note:
1. Power consumption is expressed as open value.
2. Air volume is measured using the Chamber method (JIS B 8330 or JIS C 9603) at 0 Pa static pressure.
3. Noise
   Suction side - noise at 1.5 m of suction side
   Casing side - noise at 1.5 m on the side of a machine body
   Discharge side - noise at 1.5 m orthogonally at discharge side

Use condition:
- Don't use it for ventilation at a site generating heat, oily smoke and/or moisture. (Environmental condition : -10 deg C to +40 degC, relative humidity below 85%)
- Install a door 600x600mm or more for maintenance purpose.
- Install a leak breaker or a motor breaker on the source site. A control panel such as a contact switch relay is required for three phase power source.
- In cold air supply to indoor during winter and at any other occasion susceptible to dew drop, heat insulation is required.
- It is recommended to use a commercially available filter at the suction side to avoid dust and/or waste attachment on a blade.
- Install it on a horizontal direction.
- Do not perform parallel operation of more than one unit on a switch, for it may result in motor failure.

Pipe Hood

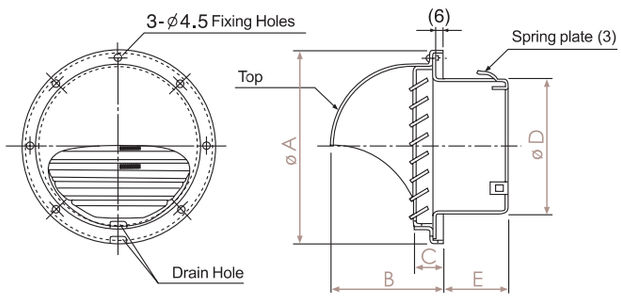
Accessories

With Net (MGX)

Without Net (MCX)

Dimension

Unit : mm



Model No.	A	B	C	D	E
MGX100K	141	79	20	97	48
MGX150K	190	106	23	147	53
MCX100K	141	79	20	97	48
MCX150K	190	106	23	147	53

MGX100K/
MGX150K/
MCX100K/
MCX150K/

High strength - adopt 0.5mm thickness SUS 304 Stainless steel.

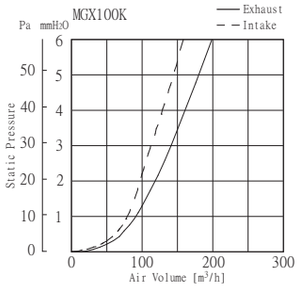
Excellent anti-rust capability - hood part coated with metallic silver paint prevent oxidation of material.

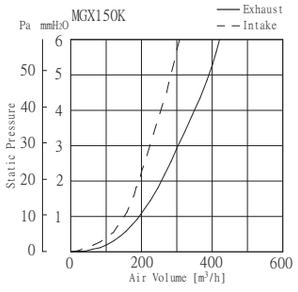
Easy installation - 3pcs of spring clip facilitate duct/pipe connection.

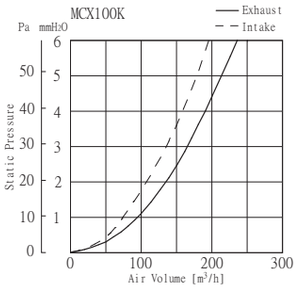
2.5x2.5mm net keep out ingress of small particles and insects from outside (MGX100K & MGX150K).

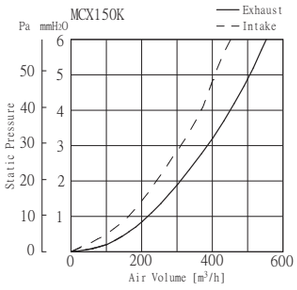
It is recommended to use pipe hood with net at intake terminal while without net at exhaust.

Performance Data









Technical Specification

Model No.	Diameter of Applicable Pipe [mm]	Material	Dimension of Net [mm]
MGX100K	100	Stainless Steel	2.5 x 2.5
MGX150K	150	Stainless Steel	2.5 x 2.5
MCX100K	100	Stainless Steel	-
MCX150K	150	Stainless Steel	-

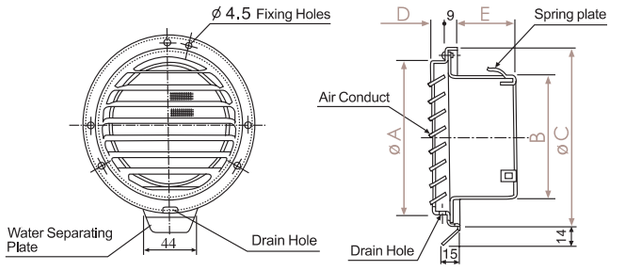
Accessories

With Net (VGX)

Without Net (VCX)

Dimension

Unit : mm



VGX100K/
VGX150K/
VCX100K/
VCX150K/

High strength and excellent anti-rust capability - adopt 0.5mm thickness SUS 304 Stainless steel.

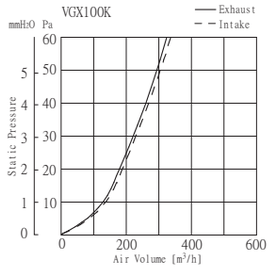
Easy installation - 3pcs of spring clip facilitate duct/pipe connection.

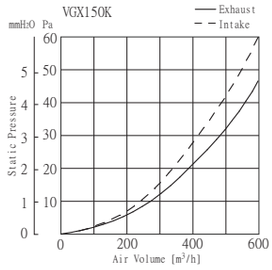
2.5x2.5mm net keep out ingress of small particles and insects from outside (VGX100K & VGX150K).

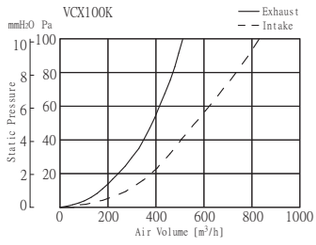
It is recommended to use vent cap with net at intake terminal while without net at exhaust.

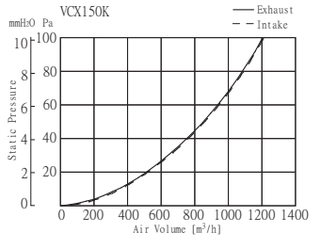
Model No.	A	B	C	D	E
VGX100K	120	97	145	13	47
VGX150K	169	149	195	18	52
VCX100K	120	97	145	13	47
VCX150K	169	147	195	18	52

Performance Data









Technical Specification

Model No.	Diameter of Applicable Pipe [mm]	Material	Dimension of Net [mm]
VGX100K	100	Stainless Steel	2.5 x 2.5
VGX150K	150	Stainless Steel	2.5 x 2.5
VCX100K	100	Stainless Steel	-
VCX150K	150	Stainless Steel	-

Ventilation Product Technical Specification

Specification in 220V

	Model No.	Phase		Air Volume 50Hz [m³/h]	Air Volume 50Hz [CFM]	Air Volume 60Hz [m³/h]	Air Volume 60Hz [CFM]	Consumption [W] 50Hz	Consumption [W] 60Hz	RPM [min⁻¹] 50Hz	RPM [min⁻¹] 60Hz	Noise [dB(A)] 50Hz	Noise [dB(A)] 60Hz	Weight [kg]	Duct Size [mm]
Ceiling Mount Type Ventilating Fan	24JRB	1	Hi	160	94	160	94	8	8	742	742	31	31	2.9	ø 100
	24JAB	1	Hi	160	94	160	94	8	8	742	742	31	31	2.9	ø 100
	17CUG	1		85	50	85	50	8.5	10	750	770	23.5	26	1.9	ø 100
	17CUGA	1		85	50	85	50	8.5	10	750	770	23.5	26	1.9	ø 100
	24CUG	1		140	82	140	82	11	15.5	615	615	26	28	2.8	ø 100
	24CDG	1		170	100	170	100	14.5	16.5	700	700	29.5	31.5	2.8	ø 100
	24CHG	1		200	118	190	112	18	22	760	730	33.5	33.5	2.8	ø 100
	27CHH	1	Hi	330	194	330	194	28	33	570	570	34	34	4.4	ø 150
			Lo	260	153	270	159	23	26	480	490	30	31		
	32CDH	1	Hi	430	253	410	241	42	48	590	580	36	35.5	5.2	ø 150
			Lo	300	177	285	168	32	33	460	450	28	27.5		
	32CHH	1	Hi	530	312	525	309	55	61	710	695	41	40.5	5.6	ø 150
			Lo	400	235	390	230	45	47	570	540	34	33		
	38CDG	1	Hi	640	377	630	371	90	98	645	628	44	43.5	9.7	ø 150
			Lo	430	253	410	241	66	66.4	456	439	35	34.5		
	38CHG	1	Hi	800	471	790	465	122	138	790	760	49.5	49	10.4	ø 150
			Lo	525	309	500	294	89	90	540	509	39.5	39		
	24CMUA	1		90	53	100	59	11	12	460	495	25	26	3.9	ø 100
	24CMHA	1		180	106	180	106	20	23	700	700	37	37	3.9	ø 100
	27CMHA	1		360	212	380	224	35	43	590	610	37	37.5	5.9	ø 150
Low Noise Type Cabinet Fan (In-line Fan)	12NSB	1	Hi	180	106	190	112	18	23	1,265	1,370	21	22	5.5	ø 100
			Lo	145	85	145	85	17	19	1,020	1,000	17	18		
	15NSB	1	Hi	340	200	370	218	33	42	1,270	1,385	25	27	6.5	ø 150
			Lo	275	162	260	153	29.5	33	1,100	1,040	22	22		
	18NSB	1	Hi	500	294	490	288	60	73	1,250	1,260	29	30	8.5	ø 150
			Lo	405	238	385	227	55	62.5	1,100	990	27	26		
	18NFB	1	Hi	770	453	760	447	91	119	1,190	1,245	31	32	10	ø 200
			Lo	620	365	580	341	80	87	1,000	990	29	28		
	20NSB	1	Hi	920	541	860	506	120	159	1,195	1,165	32	32	14	ø 200
			Lo	720	424	620	365	113	128	1,000	875	29	26		
	23NLB	1	Hi	1,200	706	1,100	647	230	310	1,245	1,210	40	40	18	ø 200
			Lo	900	530	800	471	170	190	985	890	34	32		
	25NSB	1	Hi	1,700	1,001	1,650	971	345	425	1,125	1,100	41	41	24	ø 250
			Lo	1,380	812	1,200	706	265	300	950	890	38	39		
	25NFB	1	Hi	1,900	1,118	1,810	1,065	390	520	1,225	1,245	43	42	24	ø 250
			Lo	1,600	942	1,400	824	325	380	1,070	1,000	40	41		
	25SWC (*)	3		4,000	2,354	4,500	2,649	940	1,450	1,375	1,530	43	45	60	250 x 500
	25SMC (*)	3		5,200	3,061	5,500	3,237	1,180	1,750	1,345	1,470	45	46	60	250 x 700
	28NXC (*)	3		2,600	1,530	2,650	1,560	600	840	1,295	1,380	44	45	28	ø 250
Industrial Type Ventilating Fan	25GSE	1		1,280	753	1,440	848	41	57	-	-	44	46	4.4	
	30GSE	1		2,150	1,265	2,390	1,407	87	119	-	-	49	51	6.1	
	35GSE	1		2,950	1,736	3,380	1,989	113	161	-	-	51	54	10.5	
	40GSE	1		3,900	2,295	4,890	2,878	141	270	-	-	54	58	19	
	45GSC	1		5,200	3,061	5,970	3,514	227	325	1,410	1,630	51	54	19	
	50GSC	1		6,130	3,608	7,100	4,179	249	326	960	1,130	47	51	22.5	
	60GSC	1		8,040	4,732	9,410	5,539	245	361	970	1,150	50	54	34	
	45GTC (*)	3		5,520	3,249	6,420	3,779	220	330	1,450	1,690	52	56	18.5	
	50GTC (*)	3		6,960	4,097	8,010	4,715	320	475	1,400	1,590	54	58	28.5	
	60GTC (*)	3		9,420	5,544	10,920	6,427	310	450	940	1,070	49	53	34	
	30KQT	1		1,220	718	1,270	747	42	51	1,185	1,255	45.5	46.5	4.9	
	40KQT	1		2,060	1,212	2,190	1,289	61	76	1,175	1,260	49	51	6.4	
	50AEQ2	1		3,630	2,137	4,200	2,472	108	130	920	1,050	54	58	11.5	

(*) Specification in 380V

Ventilation Product Technical Specification

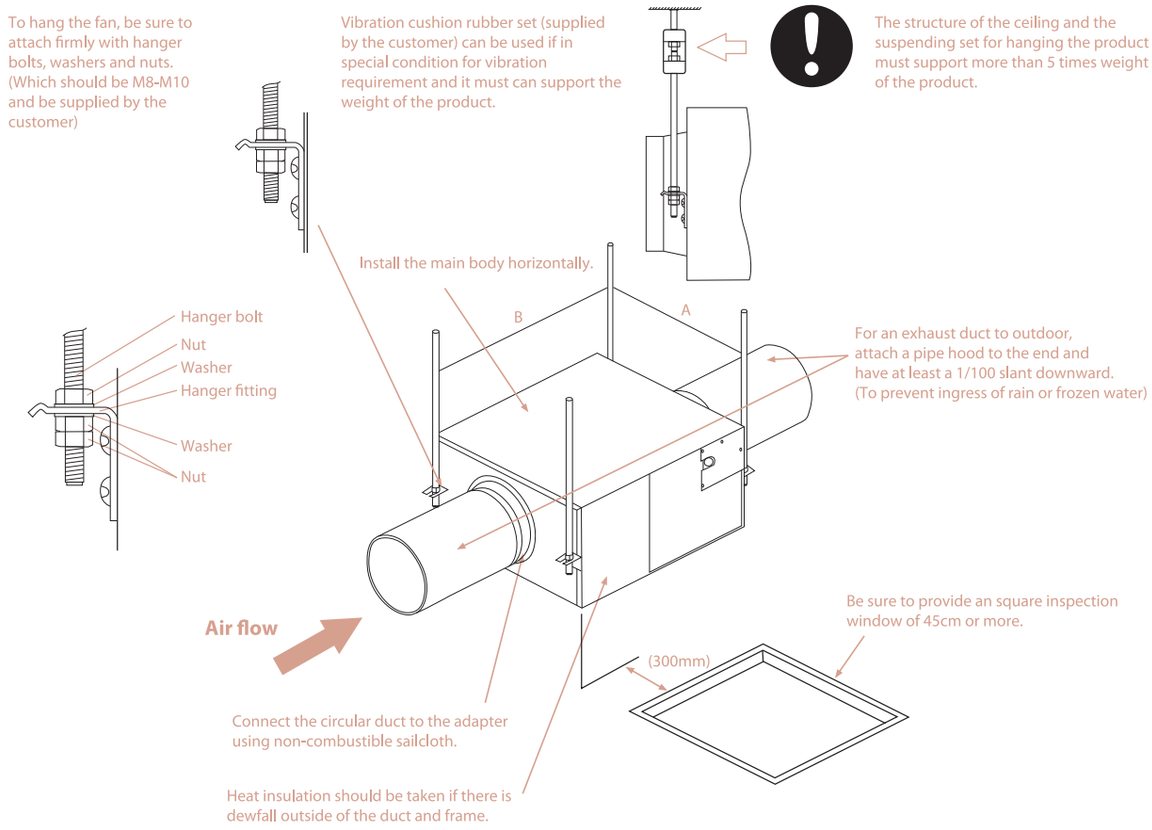
Specification in 220V

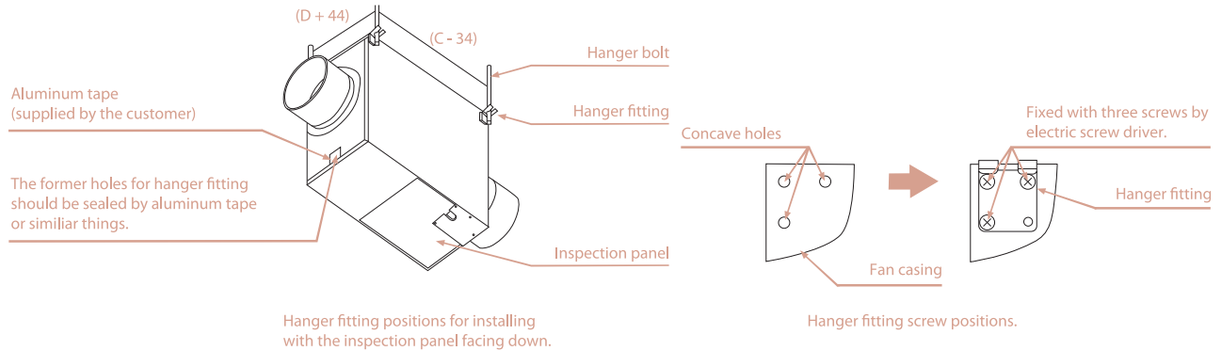
	Model No.	Phase		Air Volume 50Hz [m³/h]	Air Volume 50Hz [CFM]	Air Volume 60Hz [m³/h]	Air Volume 60Hz [CFM]	Consumption [W] 50Hz	Consumption [W] 60Hz	RPM [min⁻¹] 50Hz	RPM [min⁻¹] 60Hz	Noise [dB(A)] 50Hz	Noise [dB(A)] 60Hz	Weight [kg]	Duct Size [mm]
Wall Mount Type Ventilating Fan	10EGKA	1		75	44	80	47	5.5	4.4	2,706	2,888	33	34	1.2	
	15EGKA	1		160	94	180	106	6.2	8.5	2,329	2,647	34	38	1.5	
	10EGSA	1		75	44	80	47	5.5	4.4	2,706	2,888	35	36	0.9	
	15EGSA	1		150	88	175	103	6.2	8.5	2,329	2,647	36	40	1.1	
	25AUFA	1		835	491	820	483	34	34	1,100	1,060	42	42	2.8	
	15AAQ1	1		288	170	306	180	15	19	1,480	1,560	31	34	1.4	
	20AUH	1		580	341	650	383	22	29	1,245	1,400	38	42	2	
	20AUHT	1		580	341	650	383	20	24	1,250	1,400	37.5	41.5	2	
	25AUH	1		920	541	940	553	29	33	1,125	1,125	39	39	2.4	
	25AUHT	1		920	541	940	553	27	31	1,070	1,125	39	39	2.4	
	30AUH	1		1,200	706	1,140	671	29	33	1,030	950	39	38	2.7	
	30AUHT	1		1,200	706	1,140	671	31	38	1,000	1,000	39	38	2.7	
	20ALH	1		546	321	600	353	22	29	1,210	1,340	40	44	2.2	
	20ALHT	1		546	321	600	353	20	24	1,190	1,340	40	44	2.2	
	25ALH	1		835	491	846	498	29	33	1,055	1,050	43	43	2.7	
	25ALHT	1		835	491	846	498	27	36	1,060	1,110	43	43	2.7	
	30ALF	1		935	550	915	539	29	33	905	835	43	43	3.1	
	30ALFT	1		935	550	915	539	31	38	880	880	43	43	3.1	
	20RGF	1	Exhaust	580	341	650	383	20	25	1,290	1,440	36	39	2.2	
			Intake	405	238	355	209	16	17	1,100	1,070	46	48		
	20RGFT	1	Exhaust	580	341	630	371	20	24	1,260	1,410	36	39	2.2	
			Intake	405	238	355	209	15	17	1,150	1,140	46	46		
	25RGF	1	Exhaust	945	556	950	559	29	34	1,120	1,145	38	39	2.4	
			Intake	640	377	645	380	20	24	990	995	45	44		
	25RGFT	1	Exhaust	945	556	950	559	27	31	1,090	1,110	38	39	2.4	
			Intake	600	353	560	330	21	23	1,010	970	45	44		
	30RGF	1	Exhaust	1,165	686	1,150	677	31	33	990	995	39	38	2.8	
			Intake	800	471	745	438	24	24	905	810	43	42		
	30RGFT	1	Exhaust	1,165	686	1,000	589	31	38	885	800	39	38	2.8	
			Intake	700	412	680	400	24	26	840	810	43	42		
	20RLF	1	Exhaust	546	321	600	353	20	25	1,275	1,290	39	43	2.4	
			Intake	385	227	340	200	17	17	1,225	1,145	46	49		
	20RLFT	1	Exhaust	546	321	570	335	20	24	1,240	1,290	39	43	2.4	
			Intake	370	218	340	200	15	17	1,190	1,180	46	46		
	25RLF	1	Exhaust	876	516	835	491	29	34	1,060	1,060	41	41	2.7	
			Intake	570	335	575	338	20	24	1,020	970	45	43		
	25RLFT	1	Exhaust	840	494	835	491	29	33	1,100	1,100	43	43	2.7	
			Intake	580	341	560	330	21	23.5	1,035	1,035	45	44.5		
	30RLE	1	Exhaust	990	583	945	556	31	33	876	835	44	43	3.1	
			Intake	730	430	690	406	24	24	850	776	43	44		
	30RLET	1	Exhaust	990	583	945	556	31	38	890	880	44	43	3.1	
			Intake	730	430	600	353	25	26	770	770	43	44		
	20ASB	1		516	304	612	360	17	21.5	1,220	1,390	37.5	40.6	2.9	
	25ASB	1		858	505	954	562	25	30.5	1,200	1,212	39.1	40.6	3.5	
	30ASB	1		1,182	696	1,164	685	29.5	34.5	1,046	1,091	39.2	39	3.9	
	10BAQ1	1		76.3	45	72.9	43	15	17	1,250	1,200	40.1	39.8	1.7	
Window Mount Type Ventilating Fan	15WHCT	1		230	135	230	135	13	13	2,290	2,375	43	44	1.4	
	20WHCT	1		445	262	480	283	20	22	1,370	1,470	42	45	2.6	
	15WAA	1		210	124	222	131	14	18	1,900	1,950	43	44	0.9	
	20WAA	1		380	224	380	224	15	17	1,320	1365	42	42	1.4	
	15WUD	1		210	124	200	118	8.1	8.9	1,463	1,393	35	34	0.9	
	20WUD	1		360	212	360	212	16.4	19	1,042	1,024	32	31	1.3	

Installation Index

Low Noise Type Cabinet Fan (In-line Fan)

Applicable Model: 12NSB/15NSB/18NSB/18NFB/20NSB/23NLB/25NSB/25NFB





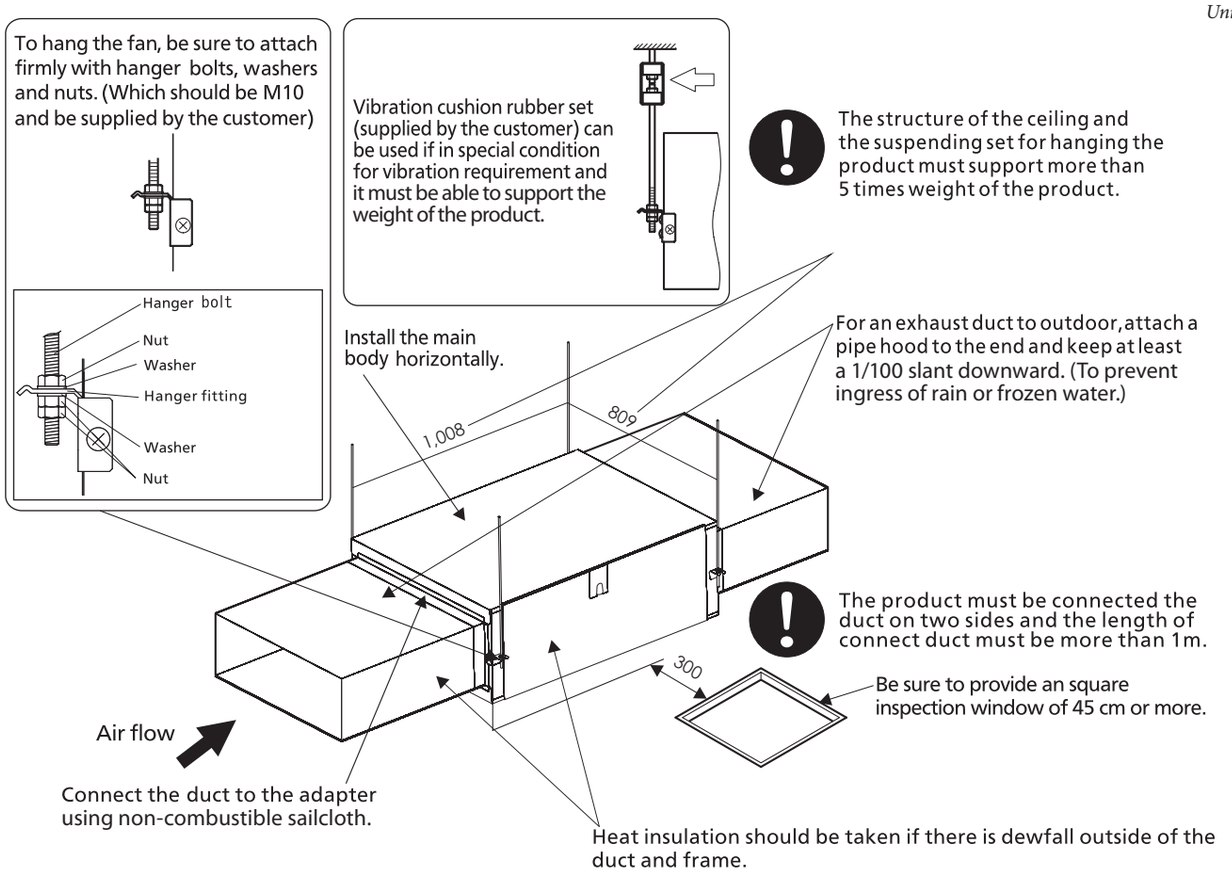
Note: To install the fan with the inspection panel facing down, remove the attached four hanger fittings and re-attach them in the holes on the top and bottom surfaces (Use the screws you just removed). The former holes for installing the hanger fitting need be sealed.

Model No.	A	B	C	D
12NSB	250	335	291	184
15NSB	250	346	302	206
18NSB	276	382	338	232
18NFB	336	441	397	254
20NSB	376	485	441	272
23NLB	424	513	469	298
25NSB	450	549	505	334
25NFB	450	549	505	334

Unit : mm

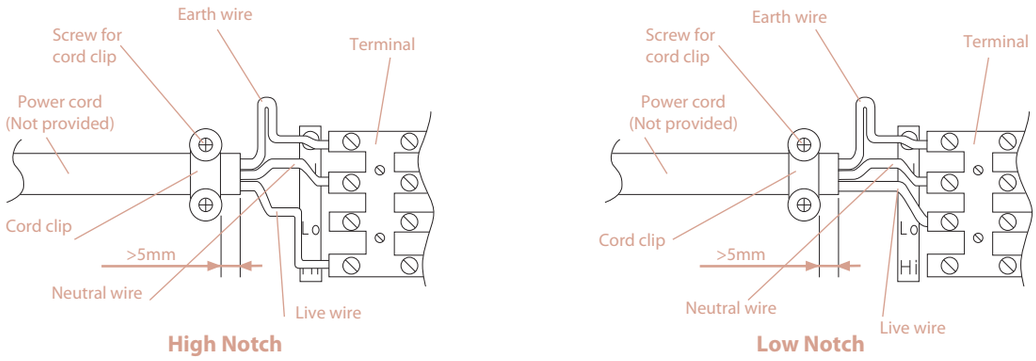
Applicable Model: 25SWC/25SMC

Unit : mm

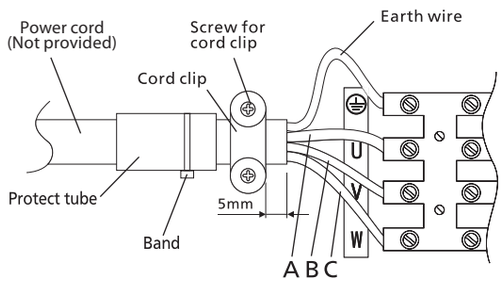


Wiring Connection

For 12NSB/15NSB/18NSB/18NFB/20NSB/23NLB/25NSB/25NFB



For 25SWC / 25SMC



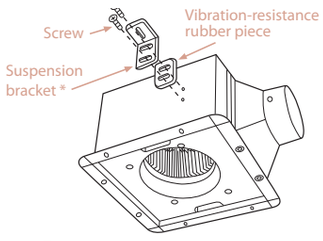
(A,B,C means the three phases wires of power cord)

Ceiling Mount Type Ventilation Fan

Applicable Model: 17CUG/17CUGA/24CUG/24CDG/24CHG/27CHH/32CDH/32CHH

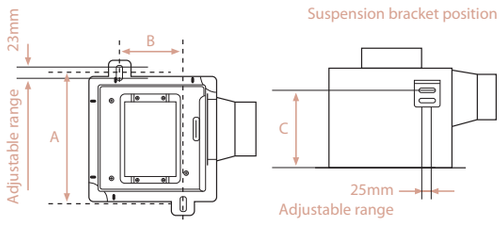
1A Installation with anchor bolts

1. Secure 1 set of suspension bracket (optional accessory) with screws.



The screw length should not exceed 8mm.

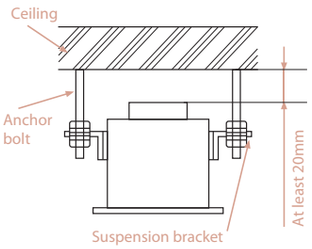
*2 sets of accessories are required for 32CDH and 32CHH



Model No.	A	B	C
17CUG/17CUGA	206	89	103
24CUG/24CDG/24CHG	266	131	112
27CHH	296	160	158.5
32CDH/32CHH	346	200	158.5

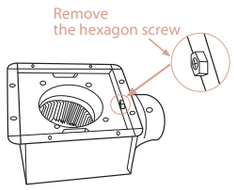
Unit : mm

2. Mount the fan body enclosure on the anchor bolts (M8-M10, not supplied).

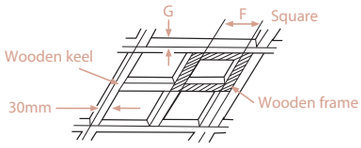


1B Installation with wooden joist

1. First remove the hexagon screw attaching the adapter assembly to the fan body.



2. Build a wooden frame horizontally from the keel. Note that the distance between the top of the fan body and the ceiling should be at least 20mm.

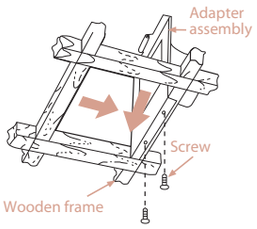


*Ceiling joist must be subjected to static load more than 5 times of the product weight.

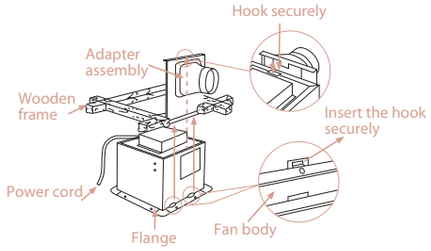
Model No.	F	G
17CUG/17CUGA	177	25-30
24CUG/24CDG/24CHG	240	25-30
27CHH	270	25-30
32CDH/32CHH	320	25-30

Unit : mm

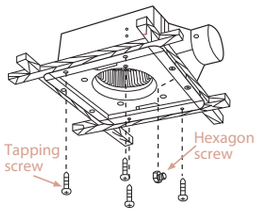
3. Attach the adapter assembly to the wooden frame as shown in the figure.



4. Insert the fan body in the wooden frame and connect it to the adapter assembly.



5. Firmly secure the fan body with four tapping screws and a hexagon screw.

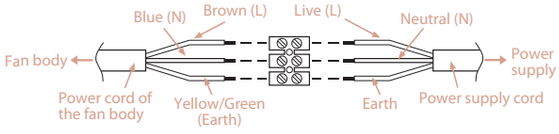


2 Power Cord Connection

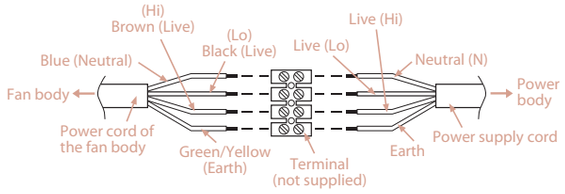
1. Connect the power cord to the power supply line according to the wiring diagram and the local electrical wiring rules of fixed wiring.

   Make sure all connections are fastened firmly after wiring is finished.

For 17CUG/17CUGA/24CUG/24CDG/24CHG

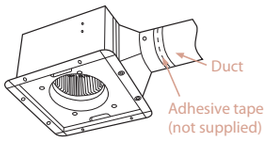


For 27CHH/32CDH/32CHH

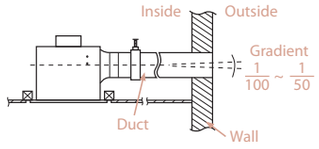


3 Duct Connection and Ceiling Plate Installation

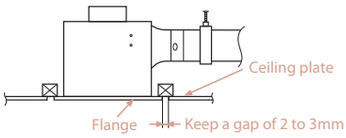
1. Insert the duct into the adapter assembly, and tighten it with adhesive tape (not supplied). (Suspend the duct from the ceiling to prevent any external force onto the fan body.)



Slope the duct downward and guide it through the wall to the outside. Be sure to prevent rainwater from falling in the duct from its outlet. (The minimum size of the hole opening on the wall is: Ø116mm for 17/24 model, Ø168mm for 27/32 model)



2. Install the ceiling plate. Note that the gap between the flange and the ceiling plate should be 2 to 3 mm.

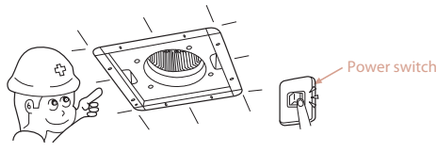


3. Install the pipe hood or vent cap (optional accessories) on the outer wall.

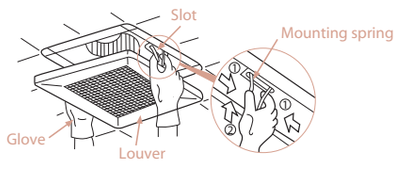
Model No.	Pipe Hood	Vent Cap
17CUG/17CUGA/24CUG/24CDG/24CHG	MCX100K	VCX100K
27CHH/32CDH/32CHH	MCX150K	VCX150K

4 Test Run and Louver Installation

1. When the power is turned on, check for malfunctions as follow:
   - Does the fan rotate correctly?
   - Does the fan rotate anti-clockwise?
   - Is there any abnormal sound or vibration?

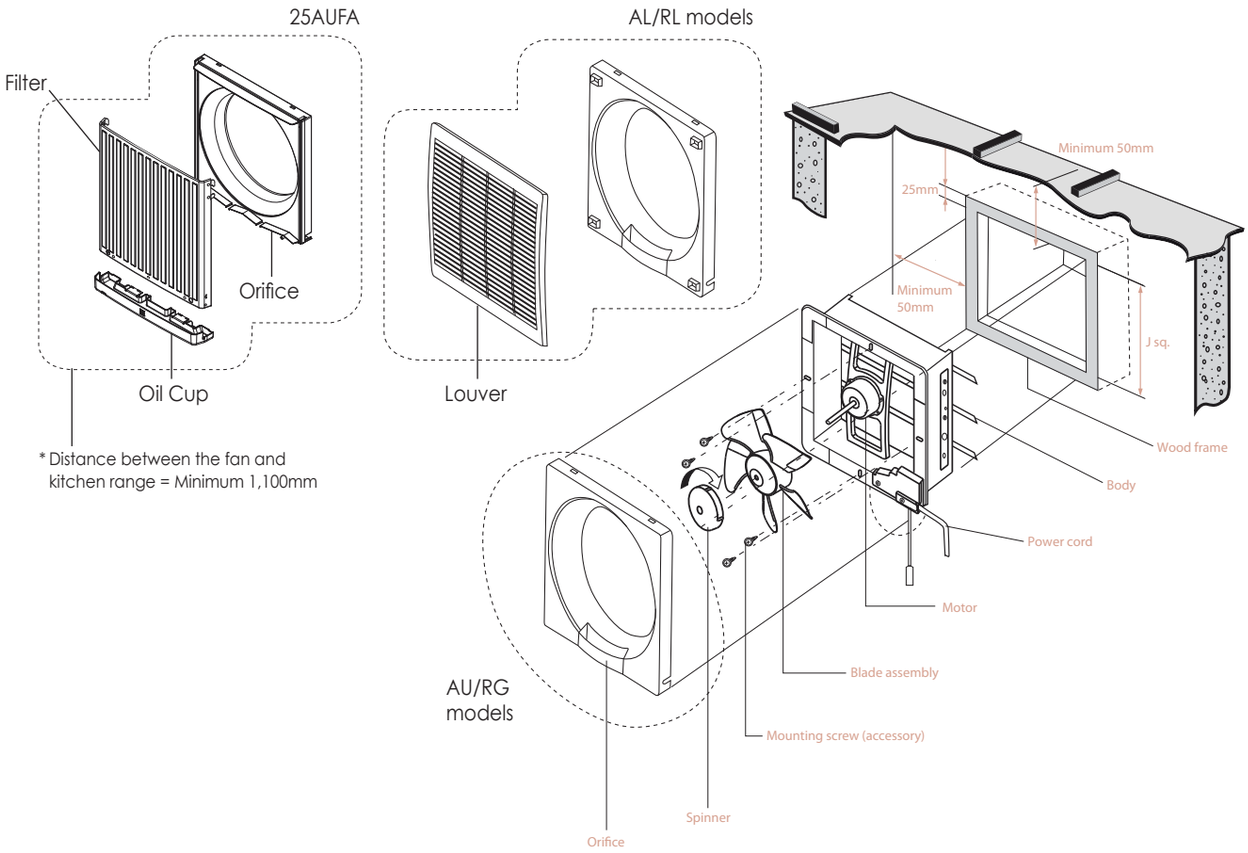


2. Insert the mounting spring into the slots and mount the louver to the fan body. (Please wear gloves during installation.)



Wall Mount Type Ventilation Fan

Applicable Model: 25AUFA/AU model/AL model/RG model/RL model

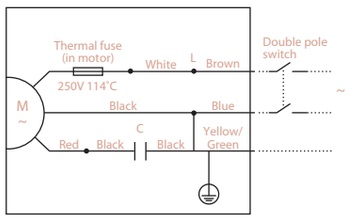


Wiring Diagram

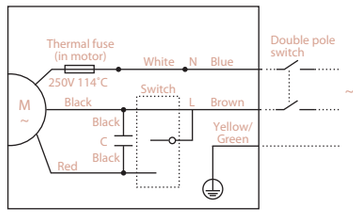
Connect the power cord to the power supply line according to the wiring diagram and the local electrical wiring rules.

- Make sure all connections are fastend firmly after wiring is finished
- It is required to use terminal (not included) that complies IEC60998

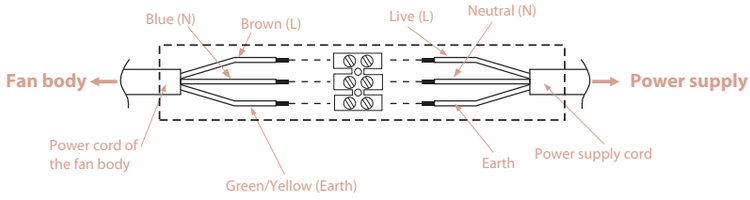
20AUH / 25AUH / 30AUH / 20ALH / 25ALH / 30ALF



20RGF / 25RGF / 30RGF / 20RLF / 25RLF / 30RLE

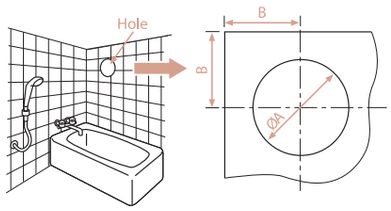


25AUFA



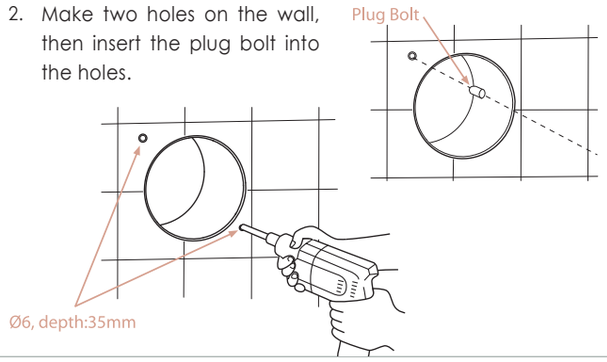
Applicable Model: 10EGKA/15EGKA

1. Make a installation hole on the wall.

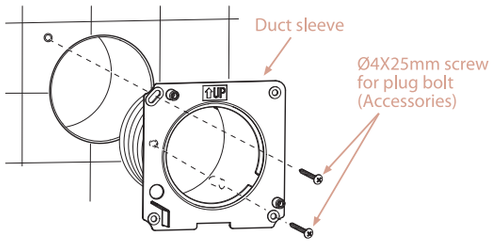


Model No.	ØA	B	Wall thickness
10EGKA	ø135±5mm	more than 125mm	100~150mm
15EGKA	ø180±5mm	more than 150mm	

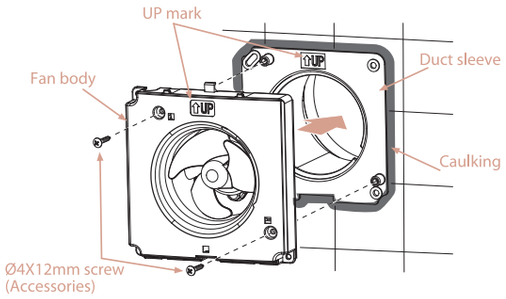
2. Make two holes on the wall, then insert the plug bolt into the holes.



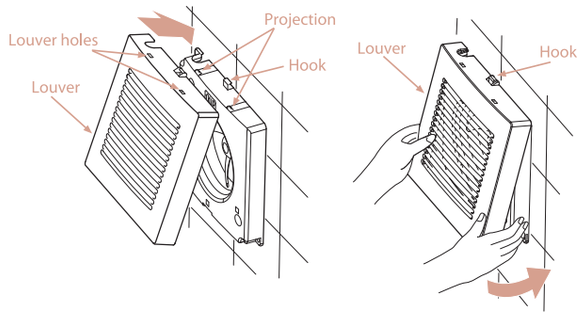
3. Insert the duct sleeve into the installation hole and fix with two screws.



4. Caulk around the duct sleeve. Insert the fan body and fix it with two screws.

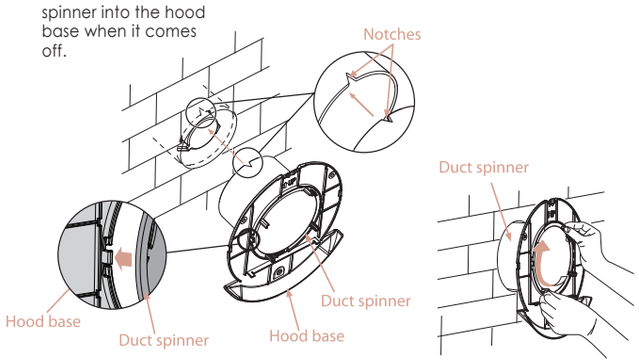


5. Install the louver

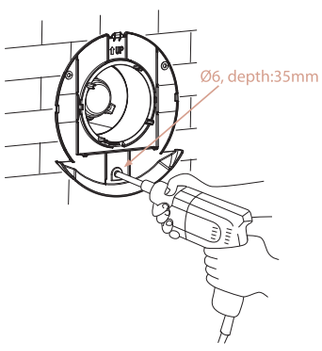


6. Screw the duct spinner and fix from outside wall.

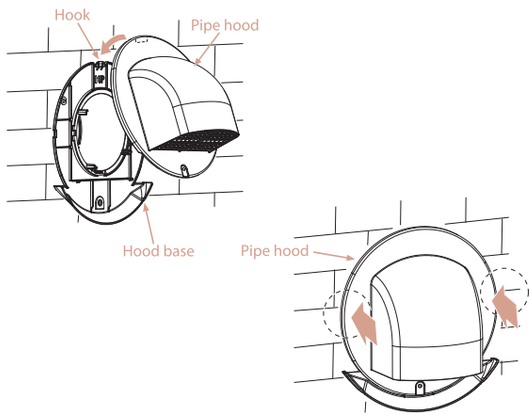
Note: Fit the duct spinner into the hood base when it comes off.



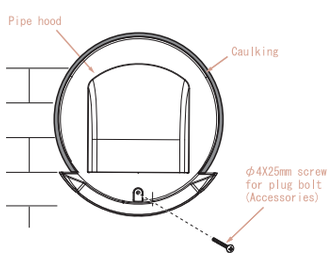
7. Make a hole on the wall and insert the plug bolt to fix the hood base with screws.



8. Hang and fix pipe hood.



9. Screw pipe hood to the wall and seal with caulking around pipe hood.



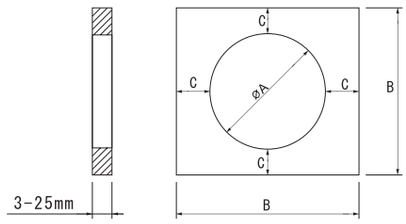
Window Mount Type Ventilation Fan

Applicable Model: 15WHCT/20WHCT

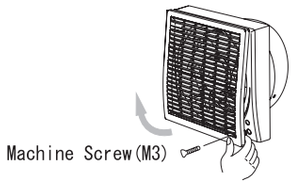
1. Make an installation hole on the window glass according to the dimensions shown in the table.
(Applicable to single-glass or double-glass, and the single block thickness of double-glass must be not less than 3mm.)

Model No.	A	B	C
15WHCT	186~188	390 Min.	100 Min.
20WHCT	247~250	450 Min.	100 Min.

Unit : mm

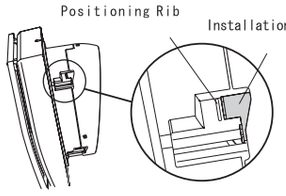


2. Remove the screw of louver and retain it, then pull the louver out of the lower-right corner.



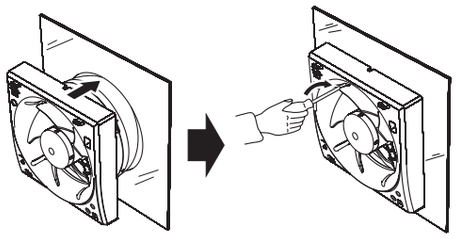
Louver can be pulled out only from the lower-right corner or it may be damaged.

3. Before installation, please ensure every installation plate is at the position as shown below.

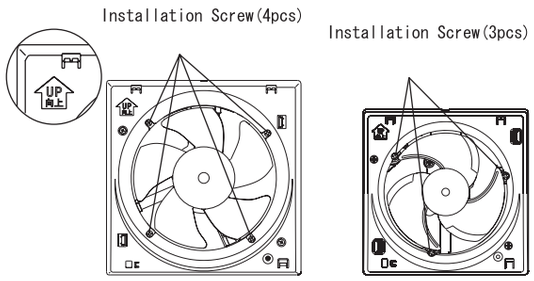


As shown in the diagram, the installation plates must be positioned in the slot between the frame and the hood. Its front edge should not exceed the positioning rib, or installation may fail.

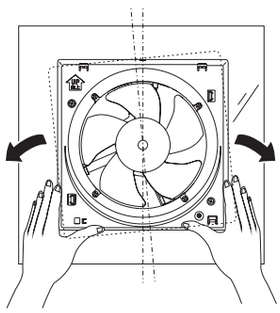
4. Keep the "UP" mark on the orifice on the top position. Insert the ventilating fan body into the installation hole completely. Be sure to keep the back of the body closed to the glass evenly, then twist each installation screw clockwise until the installation plates slightly compress the glass.



Please do not use the electric screwdriver which may damage the glass.

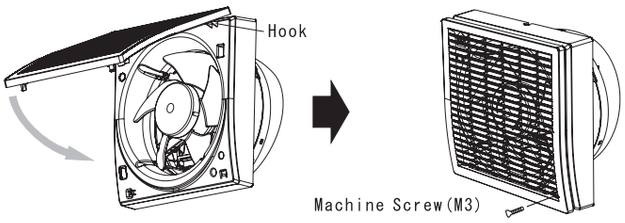


5. Rotate the body to adjust its horizontal and vertical direction. Then tighten each installation screw completely.



To ensure the installation strength, please make sure the tighten torque must be in the range of 90cN-m to 180cN-m. If the tighten torque is not large enough, it may result in rain water ingression through the gap; If the tighten torque is too large, it may damage the glass.

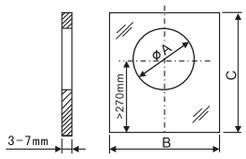
6. Hang the louver on the hook of orifice, rotate downward and insert it into the orifice. Fix the louver with the screw which was removed at installation step 2.



Must use the above specified screw to fix.
Otherwise it may damage the product or lead to installation failure.

Applicable Model: 15WUD/20WUD

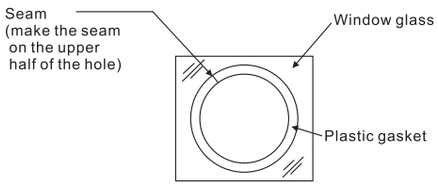
1. Make an installation hole on the window glass.



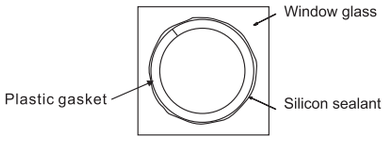
Model No.	A	B	C
15WUD	186~188	≥250	≥400
20WUD	247~250	≥300	≥420

Unit : mm

2. Set the plastic gasket on the hole that the seam is at upper half (either left or right side).

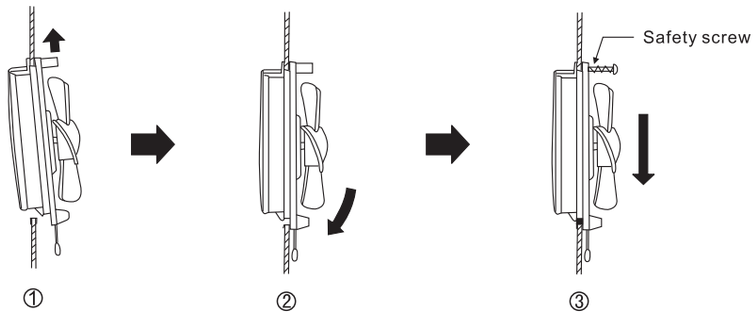


3. Seal the gap between the glass and gasket with silicon sealant to ensure airtightness.

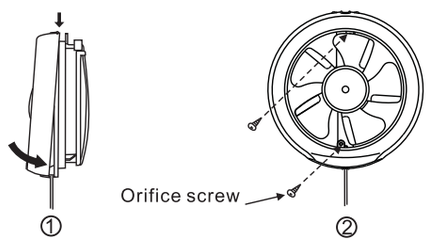


4. Loose the orifice screws (2 pcs) and remove the orifice.

5. While installing the fan, align the fan to top of the hole of window glass and push the buttom of the fan into the hole. Then push the fan downward and tighten the safety screw afterward.



6. Set the orifice and fix with the orifice screws (2 pcs)

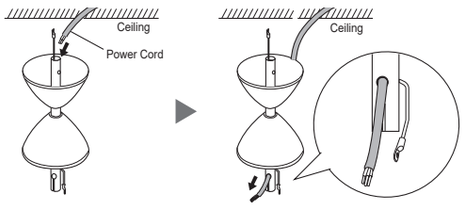


Ceiling Fan

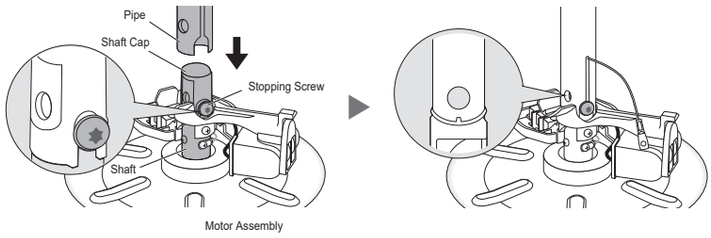
Applicable Model: Regulator Control Series

(1) Assemble Pipe to Motor Assembly

1. Pull power cord (from power supply) and insert into the Pipe hole.

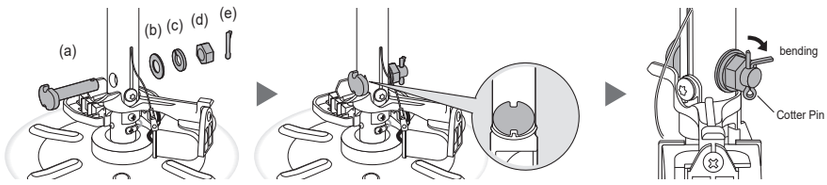


2. Ensure the Shaft Cap is set on the Motor Shaft and tighten with the Stopping Screw. Fit the Pipe to the Shaft Cap that the Pipe hole and the Motor Shaft hole are aligned.

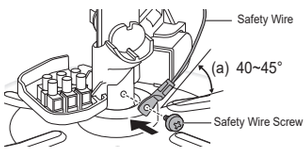


3. Fix the Pipe and Motor Assembly with a) Ellipse Bolt, b) P-R Washer, c) Spring Washer, d) Hexa Nut and e) Cotter Pin.

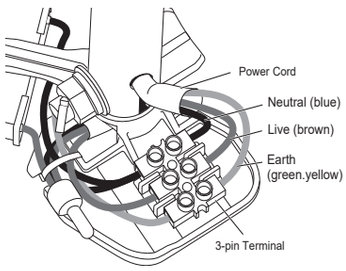
4. Bend the Cotter Pin.



5. Fix Safety Wire to the Motor Shaft with Safety Wire Screw.



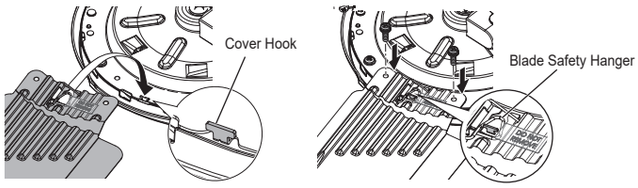
6. Connect the power cord to 3-pin Terminal.



(2) Install Blade Assembly

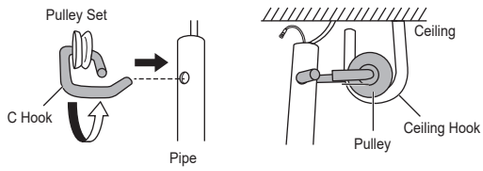
1. Remove Blade Screws from Motor Assembly. Set the Blade towards the Cover Hook and ensure the Blade Safety Hanger is in proper position.

2. Tighten the Blade Screw firmly (2 screws per blade)

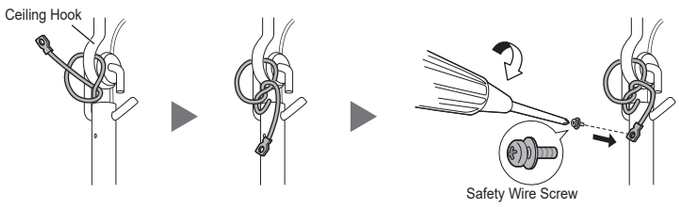


(3) Install to the ceiling

1. Cross the C Hook of the Pulley Set to the Pipe and Place the Pulley on Ceiling Hook

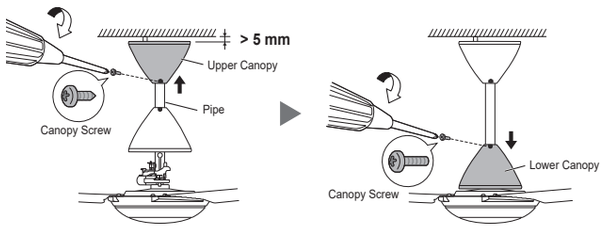


2. Loop the Safety Wire to the ceiling hook and fix to the Pipe with the Safety Wire Screw



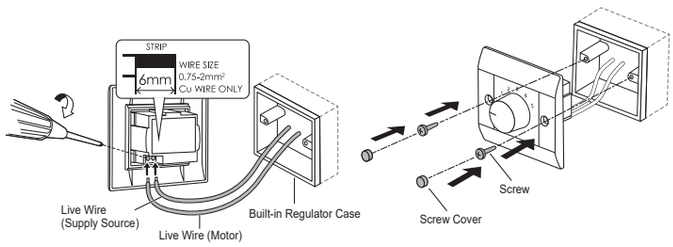
(4) Fix the Canopy

1. Adjust Upper Canopy position and fix to the Pipe with screw.
2. Pull down the Lower Canopy until it stop and fix to the Pipe with screw.



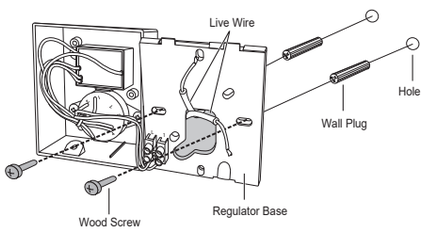
(5a) Install Speed Regulator (Slim Panel Regulator)

1. Insert the Live Wires (from supply source and Motor) into the 2 pin terminal of the regulator and tighten the terminal screw.
2. Set the Regulator to the wall regulator casing and fix with screws.

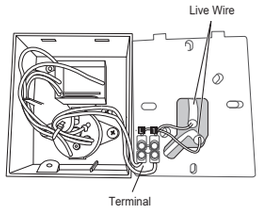


(5b) Install Speed Regulator (Box Regulator)

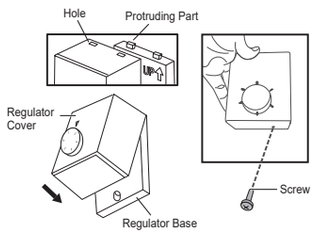
1. Insert the Live Wires through the hole of Regulator Base and fix the base with the screws.



2. Insert the Live Wire (from supply source and Motor) into the 2 pin terminal of the regulator and tighten the terminal screw



3. Set the Regulator cover by inserting the protruding parts of the Regulator Base into the holes of Regulator Cover and fix with the screw



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MGX100K	Accessories	Pipe Hood - With Net	P. 119
VCX100K	Accessories	Vent Cap - Without Net	P. 120
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15EGKA	Wall Mount Type Ventilation Fan	Bathroom Series	P. 61
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15WHCT	Window Mount Type Ventilation Fan	Electric Shutter Series	P. 77
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30ALFT	Wall Mount Type Ventilation Fan	Automatic Shutter Louver Series	P. 67
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