

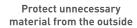
IMPORTANCE OF INDOOR AIR QUALITY (IAQ)



IAQ Solution

We propose to improve IAQ by optimized "supply", "circulation" and "exhaust" products from the residential house to commercial building.







Distribution of air within an enclosed space (antibacterial, deodorization & etc)



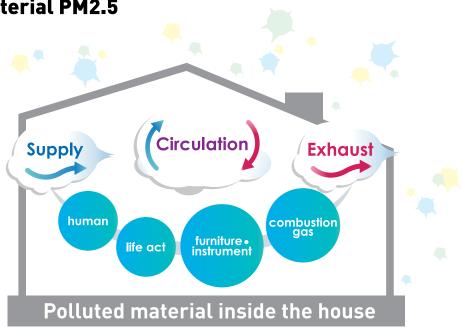
Exhaust unnecessary material to the outside

Air pollution material PM2.5

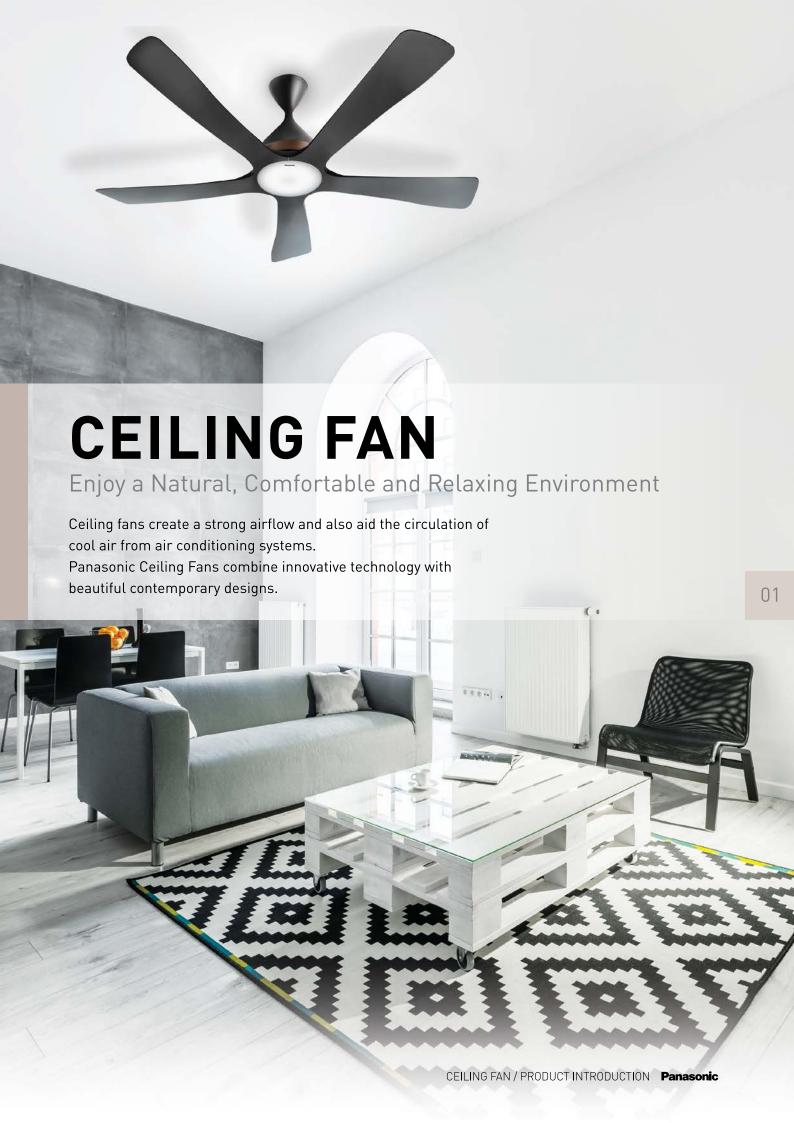
exhaust gas NOX SOX SPM

animals
plant
pollen Bacteria
[mold, virus]
insects

natural
phenomena
sand dust,
particle dust
moisture,
dry heat



Panasonic CEILING FAN / IAQ



Safety Features

To pursue a higher quality of life, ceiling fans are expected to have more functions and value added features. However, it is also crucial to consider the safety and reliability features of the fan when you select a ceiling fan.

Prevention of body falling off

- Safety Wire
- Cut-off Safety Switch

Prevention of blade falling off
• Safety Blade Hook

Safety Policy by Panasonic

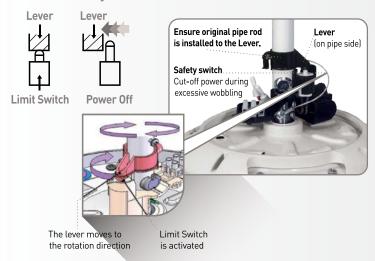
Preventive Measures for Safety

Panasonic aims to minimize and reduce accidents to occur. Thus, Panasonic practices safety policy to prevent any dangerous mishaps.

3 Prevent motor from overheating

Safety Fuse

Cut-off Safety Switch



Problem

If there is any damage at either the shaft or the bolt due to improper installation, abnormal wobbling from fan will occur when it operates. The damage will cause the shaft or the bolt to break if the fan continues to operate.

Preventive Measures

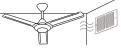
When there is excessive wobbling, the safety cut-off switch will be triggered and power supply will be cut off. The cut-off switch works by detaching the lever from the switch and the fan will stop.

If Motor stops

Stop using immediately and seek contact for qualified installers or authorized Panasonic service dealers for assistance

Safety Blade Hook





Do not install near other strong mechanical fans which will blow the ceiling fan.



Do not install at area where strong natural wind will blow the fan.

Problem

The fan blade may detach from the fan motor should there be improper installation coupled with the fan blade wearing off, deformed blade shape or stronger wind blowing to the fan.

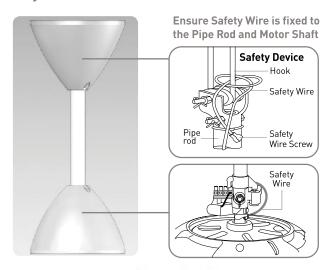
Preventive Measures

The broken blade will be visibly hanging with the aid of safety blade hook when the fan is functioning (as shown in the picture) as an indication.

If Blade breaks

Stop using immediately and seek contact for qualified installers or authorized Panasonic service dealers for assistance.

Safety Wire



Problem

Due to improper installation or should malfunction occur, the fan motor may detached from the pipe rod due to factors such as wearing of shaft bolt, etc.

Preventive Measures

The safety wire helps to secure the fan motor with the ceiling hook to prevent the motor from falling when the fan motor detaches from the pipe rod.

If need shorter/longer pipe

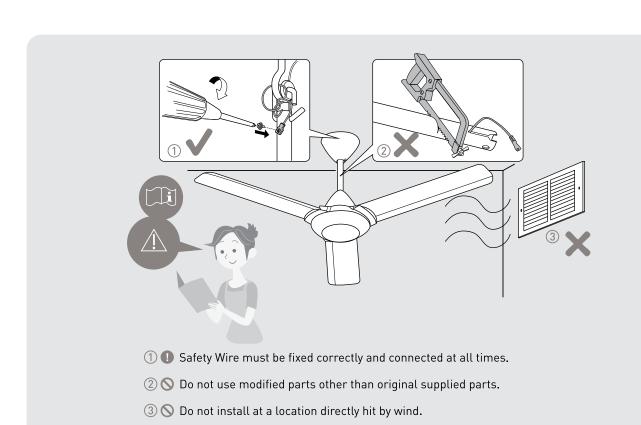
Contact qualified installers or authorized Panasonic service dealers for assistance.





Use the original pipe rod

Original pipe rod comes with the safety wire and safety cut-off switch in line with Panasonic safety policy. Also, do ensure the pipe rod is fully tightened to the motor shaft. (Bolt tightening torque is 800 – 1200 N.com)



Can cause injury if the Ceiling Fan / Blade drops.

Compact. Quiet. Saves.



DC Motor How it works?

• AC motor VS DC motor

AC (Alternative Current) motor connects directly to a power source where it creates the moment of force required to rotate the motor's rotor.

As for DC (Direct Current) motor, the AC power source will be converted to DC when the electrical current is passed through the coils that are arranged in an array of magnets. The coils will be energized electronically by using a system of magnets of opposing polarity which enables the rotor to rotate.

This process helps in providing more stable current for an even air flow and requires less electrical energy for more energy efficiency.

DC Motor is more compact & half the size of AC motor



AC motor



Advantages of a DC motor:

- 1. Uses less energy compared AC motor
- 2. Quiet operation
- 3. More compact and lighter motor

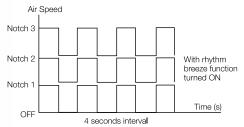
DC motor

1/f Yuragi (Natural Breeze Function)

Comfortable - 1/f Yuragi* (Natural Breeze)

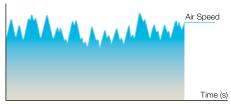
(Applicable for F-M20LY, F-M18LY, F-M15GCVBKSH, F-M15ECVBKSH, F-M12GCVBKH, F-M12ECVBKH, F-M15ME, F-M15GW, F-M12GX, F-M15H5, F-M14HWVBSQH, F-M15EX, F-M15E2VBHH & F-M14E2VBHH)

These fans are equipped with 1/f Yuragi function which is a fluctuating pattern to generate a gentle breeze. By this sophisticated formula, in varying air velocity and controlling wind force, these new ceiling fans gives you a peaceful and comfortable feeling.



Current function : rhythm breezeSpeed notch toggles by 4 seconds regularly

This regular pattern decreases the body temperature after a period of time. Thereafter, you may feel anxious and uncomfortable when the wind velocity changes.



Pattern period is 128 sec

New function: 1/f Yuragi

Speed notch toggles based on Yuragi pattern

Incorporated with this human-concerned technology, this kind of rhythm maintains your external body temperature by giving you a feeling of natural wind when there is a change of wind velocity.

Comment after 20 MINUTES usage



15% COLD 27% 36% COMFORT 27%

Heat released at exposed body parts

MORE

1/f Yuragi Wind Flow

LESS

While enjoying the comfortable cooling effect, it prevents body temperature from dropping.

Japan Society of Physiological Anthropology Report

Continuous Wind

Body will get tired if exposed to constant air velocity for a long time.

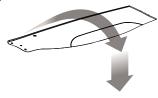
Panasonic CEILING FAN / PRODUCT BENEFITS

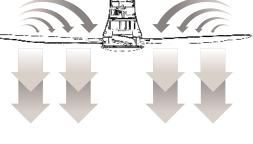
Other Features

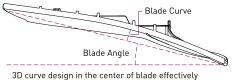
Excellent - 3D Blade (Powerful Airflow)

(Applicable for F-M20LY, F-M18LY, F-M15GCVBKSH, F-M15ECVBKSH, F-M12GCVBKH, F-M12ECVBKH, F-M15GW, F-M12GX, F-M15H5. F-M14HWVBSQH, F-M15EX, F-M15E2VBHH & F-M14E2VBHH)

With the exclusive and unique 3D blade design, it provides a smooth and strong air flow while maintaining operating noise in low level.







circulates the air.

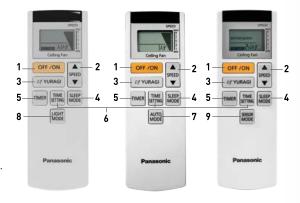
Convenient - LCD Remote Controller

(Applicable for F-M20LY, F-M18LY, F-M15ME, F-M15GW, F-M12GX, **F-M15H5, F-M14HWVBSQH & F-M15EX)**

All functions can be operated by simply using the LCD remote controller. With clear speed selection, timer indication and mode selection displayed at the LCD panel, it provides great convenience and ease for you to operate.

- 1 On/Off Button Press On/Off Button to activate or deactivate the ceiling fan
- 2 Speed Button From slow speed to cooling environment in 9 speed
- 3 Yuraqi Button One touch button for natural breeze
- 4 Sleep Mode Button Gradually reduce fan speed according to the time setting and also to be used for nanoe $^{\text{TM}}$ X LED indicator dimmer and off function

- 6 Time Set Button Press to set time
- 7 Auto Mode Button Press to set or release auto mode (F-M15H5 & F-M14HWVBSQH)
- 8 Light Mode Button Press to on and off light (F-M15GW & F-M12GX)
- 9 Sensor Mode Button Press to activate "motion sensor function (F-M20LY & F-M18LY)



5 Timer Select Button

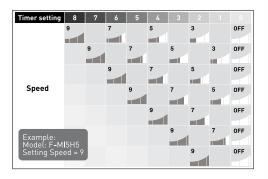
Press to select timer. On timer→Off timer→Release

Caring - Sleep Mode

(Applicable for F-M20LY, F-M18LY, F-M15GCVBKSH, F-M15ECVBKSH, F-M12GCVBKH, F-M12ECVBKH, F-M15ME, F-M15GW, F-M12GX, F-M15H5, F-M14HWVBSQH, F-M15EX, F-M15E2VBHH, F-M14E2VBHH, F-M14DZ, F-M14CZ, F-M12D2VBHH, F-M12DEVBWH & F-M14C2VBHH)

These fans are equipped with Sleep Mode, by which fan speed and timer will gradually reduce until the fan is off. This function not only creates an optimal sleeping environment but also enhances energy saving as well.

- Sleep mode function is disabled at speed 1 and 1 hour setting
- Operation pattern will be different subject to different model and setting, please refer to the operation instruction for details.



ON TIMER

(Applicable for F-M20LY, F-M18LY, F-M15GCVBKSH, F-M15ECVBKSH, F-M12GCVBKH, F-M12ECVBKH, F-M15ME, F-M15GW, F-M12GX, F-M15H5, F-M14HWVBSQH, F-M15EX, F-M15E2VBHH & F-M14E2VBHH)

With the 'ON TIMER', the ceiling fan can now be set to switch on automatically after the selected hours. It is best used to compliment with your air conditioner when you sleep at night. You can now set your fan to automatically ON to cool your room before you get home on a hot day!



Features

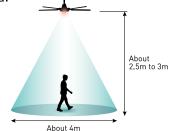


Motion Sensor

Motion sensor detects human movement and activity within its detection range. The sensor will respond according to intensity of activity by changing the fan speed. (Applicable for F-M18LY & F-M20LY)

Motion Sensor coverage

- Recommended fan installation height is 2.5m to 3m at detection range of 4m
- Motion sensor coverage may be affected by different fan installation height and room temperature



Example of SENSOR MODE Operation

Human Activity	Low Activity	High Activity	No Activity		
Fan Setting			Stage 1	Stage 2	Stage 3
Speed 5	Speed Maintain	+2 Speed	Return to Setting Speed	-3 Speed	Minimum Fan Speed
Speed 5	Speed 5	Speed 7	Speed 5	Speed 2	Speed 1 or OFF

Low Activity:

- Little movement such as reading, eating, talking, etc.
- Fan speed maintains as the user's set speed.

High Activity:

- Continuous or vigorous movement such as running on treadmill, mopping floor, etc.
- Fan will increase by two speed from the user's set speed after 5 minutes of detection (one time only).

No Activity:

- No movement.
- Fan will reduce three speed from user's setting speed after 5 minutes. If no movement occurs in next approximate twenty minutes, fan will reduce to user's minimum fan speed setting.

How Motion Sensor works

Human Activity	Low Activity	High Activity	No Activity		
Fan Setting	LOW ACTIVITY	Ingliactivity	Stage 1	Stage 2	Stage 3
Speed 9	9	9*	9	6	
Speed 8	8	9*	8	5	
Speed 7	7	9	7	4	
Speed 6	6	8	6	3	
Speed 5	5	7	5	2	1 or OFF
Speed 4	4	6	4	1	
Speed 3	3	5	3		1
Speed 2	2	4	2	1*	
Speed 1	1	3	1		

^{*} Indicates the maximum speed and minimum speed after changing speed during High Activity and No Activity. Maximum fan speed is Speed 9. The speed will not increase more than Speed 9 during High Activity. Minimum fan speed is Speed 1 or OFF. The speed will not decrease lower than Speed 1 or OFF during No Activity.

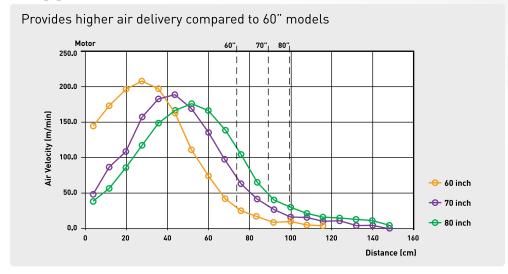
- This fan is equipped with Memory Function to restore user's last setting whenever fan is switched on.
- Whenever fan starts operating (by wall switch), motion sensor needs approximate one minute to initialize.
- Performance and accuracy may vary depending on actual condition use where heat source is: 1) other than human being detected such as small animals, strong illuminating objects (e.g. sunlight, fluorescent light, etc.), or temperature change (e.g air conditioner, heating unit, etc.). 2) difficult to be detected when there is no movement.



New Twin DC Motor Technology

New twin DC motor with higher motor power which reduces power consumption up to 50% compared to AC motor. [Applicable for F-M18LY & F-M20LY]

Bigger Blade Size



Hanging Structure: Ball Joint

Benefit of Ball Joint vs Hook

For Safety:

- Support heavier weight
- Enhance mounting stability
- Embedded safety switch

Easier fan installation

Installer can easily secure the pipe to the ball joint using both hands

No hook required

Hanger plate will be provided





For hook: Installer need to carry fan with one hand, while the other hand secure bolt into the hole before letting go.

Hook pre-installed in houses by developer varies in sizes and length, thus we CANNOT ensure safety of fan hanging condition.



Hanger plate included

Recommended Area



Residential (Indoor/Outdoor)

- Wide/High Ceiling Area
- Living Rooms/Dining Rooms
- Verandah/Balcony
- Garages



Commercial Area (Indoor/Outdoor)

- Cafes
- Restaurants
- Hotesl/Resorts/Villas
- Garages



Public Amenities (Indoor/Outdoor)

- R&R Stops
- Mosques
- Train Stations
- Amenities Halls

F-M20LYVBKRH

(Canopy Type)

F-M20LYVBKSH



Installation Space (unit:mm) F-M20LYVBKRH (Canopy Type) 300 2000 F-M20LYVBKSH (Pipe Type) 702 238 2000

Features

- 8-blade Design
- Motion Sensor
- New Twin DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Durable PPG Blade with Aluminum Blade Extension
- Greater Air Delivery
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hour Off Timer
- 1-8 Hour On Timer
- 2-8 Hour Sleep Timer

Dimension

Width: Ø2000mm (80") Height: Canopy Type: 446mm Pipe Type: 702mm

Colour

Black

F-M18LYVBKRH

(Canopy Type)

F-M18LYVBKSH

(Pipe Type)



Features

- 6-blade Design
- Motion Sensor
- New Twin DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Durable PPG Blade with Aluminum Blade Extension
- Greater Air Delivery
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hour Off Timer
- 1-8 Hour On Timer
- 2-8 Hour Sleep Timer

Dimension

Width: Ø1800mm (70") Height: Canopy Type: 446mm Pipe Type: 702mm

Colour

Black

F-M18LYVBKRH (Canopy Type) F-M18LYVBKSH (Pipe Type)



Experience a new level of smart living with the latest innovative Panasonic ceiling fan that can be controlled remotely via mobile app. Add a touch of convenience, flexibility and security to your schedule throughout the day for the best in comfortable living the smarter way.

Mobile Application Control

App-enabled* ceiling fan that connects to your Wi-Fi network and allows user to control their fans using mobile devices.

*Requires Android 6 and above or iOS 12 and above for the app to work.

New Generation DC Motor
Built in PCB and higher motor power output.

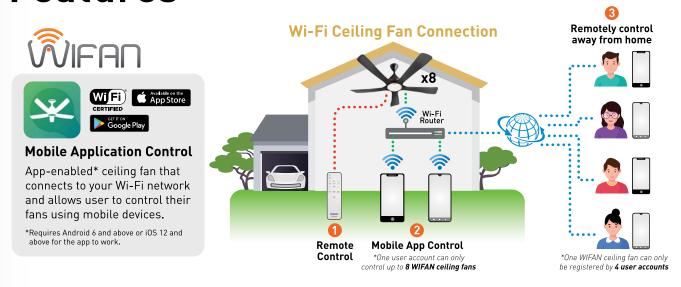
State-of-the-art 1/f Yuragi Feature

Providing you with a natural breeze from the comfort of your own home. Literally.





Features







Features Available in the App

LED Lighting (Applicable for F-M15GCVBKSH & F-M12GCVBKH)

Adjustable Color Temperature



Preset Lighting Scene Setting

(Applicable for F-M15GCVBKSH & F-M12GCVBKH)

Preset with 4 light setting for 4 common daily activities. The preset scene can also be overwritten by adjusting the light setting according to your preferred comfort level and save the setting for easy 1-Touch access.



Reverse Function

The reverse function rotates the ceiling fan in a clockwise mode and draws cool air upwards and circulates the air around the room for an even air flow and comfortable temperature. The reverse function complements with the functions of an air conditioner and helps to maximize the effectiveness of the air conditioner.

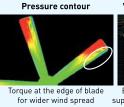


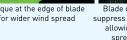














suppress central vortex allowing wind to spread easily



blade

More Silent And Low Noise Blade shapes like an owl's wings for soft and silent air flow.



3D Curve blade Blade tip moves in advance to the rotational direction and does not cut air at same timing

Blade turn gradually causing small pressure change to create smooth and quiet air







Silent air flow with less noise disturbance for a relaxing and peaceful sleep

Simple and Contemporary Remote Control

- **Off/On Button:** Press to activate or stop ceiling fan
- 2 "+" Speed Button: Increases the fan speed
- 3 "-" Speed Button: Decreases the fan speed
- 4 Reverse Button: Changes the direction of fan rotation (clockwise, anticlockwise)
- **5 Wi-Fi Button:** Press to activate or turn off the ceiling fan wireless network
- 6 Night Light Button: Press to select LED NIGHT LIGHT mode
- Warm Mode Button: Press to adjust WARM colored LED Light
- **8** White Mode Button: Press to adjust WHITE colored LED Light
- 9 "+" Light Button: Increases the light brightness gradually
- "-" Light Button: Decreases light brightness gradually
- 1 Light Off/On Button: Turns Off or turns On the Light

S 0 Ceiling Fan Ceiling Fan F-M15GCVBKSH & F-M15ECVBKSH & F-M12GCVBKH F-M12ECVBKH

F-M15GCVBKSH







Features

- 5-Blade Design
- Wider Air Delivery
- LED Lighting
 Adjustable Colour Temperature & Brightness
- Adjustable Brightness for Night Light Mode
 Preset 4-Scene Setting*
- Mobile App Control
 Simple and Contemporary Remote Control
 New Generation DC Motor
- Yuragi (Natural Breeze Function)*
- Reverse FunctionScheduling Function*
- Grouping Function*
- Sleep Mode*ON/OFF Timer*
- Enhanced Safety FeaturesDurable ABS-GF Blades
- *Only available in the Mobile App

Dimension

Width: Ø1500mm (60") Height: 423mm

Colour

Black

Installation Space (unit:mm) 423 Ø 1500

F-M15ECVBKSH







Features

- 5-Blade Design

- Wider Air Delivery
 Mobile App Control
 Simple and Contemporary Remote Control
 New Generation DC Motor
- Yuragi (Natural Breeze Function)*
- Reverse FunctionScheduling Function*
- Grouping Function*
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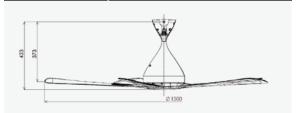
Dimension

Width: Ø1500mm (60") Height: 423mm

Colour

Black

Installation Space (unit:mm)



Panasonic CEILING FAN / WIFAN

Features

- 3-Blade Design
- Gentle & Silent Air Flow
- LED Lighting
- Adjustable Colour Temperature & Brightness
- Adjustable Brightness for Night Light Mode

- Preset 4-Scene Setting*
 Mobile App Control
 Simple and Contemporary Remote Control
 New Generation DC Motor
- Yuragi (Natural Breeze Function)*
- Reverse Function
 Scheduling Function*
- Grouping Function*
- Sleep Mode*
- ON/OFF Timer*
- Enhanced Safety FeaturesDurable ABS-GF Blades

*Only available in the Mobile App

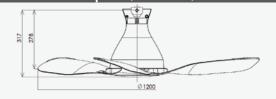
Dimension

Width: Ø1200mm (48") Height: 317mm

Colour

Black

Installation Space (unit:mm)



F-M12GCVBKH WIFAN















Features

- 3-Blade Design

- Gentle & Silent Air Flow
 Mobile App Control
 Simple and Contemporary Remote Control
 New Generation DC Motor
- Yuragi (Natural Breeze Function)*
- Reverse Function
- Scheduling Function*
- Grouping Function*
- Sleep Mode*
- ON/OFF Timer*
- Enhanced Safety FeaturesDurable ABS-GF Blades

*Only available in the Mobile App

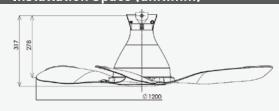
Dimension

Width: Ø1200mm (48") Height: 317mm

Colour

Black

Installation Space (unit:mm)



F-M12ECVBKH



















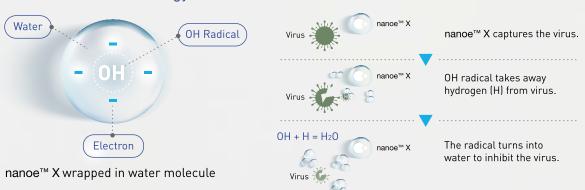


Panasonic Unique nanoe™ X Technology

A nanoe™ X is a fine (5 to 20nm) and weak acidic water particle with a reactive substance and an electric charge. A nanoe™ X device releases radicals in water molecules which effectively inhibits viruses, bacteria, odors and allergens. The effectiveness of virus and bacteria inhibition*1 depends on the number of OH radical.*2 A nanoe™ X device generates at a high rate of 4.8 trillion per second.

nanoe = **nano**-technology + **e**lectric

How Does nanoe™ X Work?



How nanoe™X inhibit pollutants?



The characteristics and 7 effects of nanoe™X

nanoe™ X are nano-sized electrostatic atomized water particles with 4.8 trillion of OH radicals.



nanoe™ X Characteristics

Longer Life

Coated in water, nanoe™ X has six times longer life spans than ordinary air ion technology.





Microscope Scale

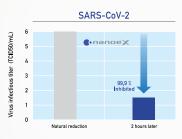
One-billionth the volume of a steam particle.

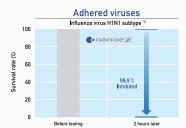


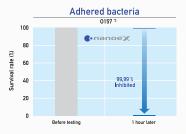


nanoe™ X Main Features









Novel Coronavirus (COVID-19)

Testing Organization : TEXCELL (France)
Testing Method : Exposed to a nanoe™ device
at 15cm distance in 45L

enclosed box for 2 hours novel coronavirus (SARS-CoV-2) Test Substance : Test Results: Over 99.99% of activity is inhibited

Influenza Virus H1N1 Subtype

Testing Organization: Kitasato Research Center for Environmental Science

Testing Method: Measured the number of viruses adhered to a cloth in an approximately

1m3 airtight test room Inhibition Method: nanoe™ released

Test Substance : Adhered virus Inhibited by at least 99.9% in 2 hours Test Results :

(21_0084_1)

E. Coli (0157)

Testing Organization: Japan Food Research Laboratories Testing Method: Measured the number of bacteria

adhered to a cloth in an approximately 45L airtight test room : nanoe™ released

Inhibition Method Test Substance Adhered bacteria

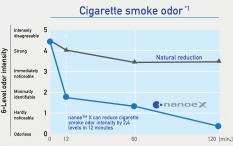
Test Results : Inhibited by at least 99.9% in 1 hour

(208120880 001)



Deodorization

Reduces strong cigarette smoke odor to hardly noticeable in only 1 hour



Deeply penetrates into cloth fabrics for inhibiting odor

Cigarette Smoke Odor

[Testing organization] Panasonic Product Analysis Center [Testing method] Verified using the six-level odor intensity scale method in

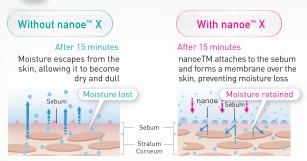
an approximately 23m³ test room

[Deodorization method] nanoe $^{\text{TM}}$ released

[Test substance] Surface-attached cigarette smoke odor [Test results] Odor intensity reduced by 2.4 levels in 12 mins.

(4AA33-160615-N04)









- 1. [Testing organization] Panasonic Product Analysis Center [Testing method] Rest period: 90 minutes, nanoe™ exposure time: 60 minutes, retention: 60 minutes. 8 women aged 30-49 with dry to normal skin [Test results] Change in skin moisture content equivalent to a 20% point increase from 30% to 50% in environmental
- 2. [Testing organization] FCG Research Institute, Inc. [Testing method and test results] Of 20 women 40 ± 2 years old, 10 women used a nanoe™ generating device at home for 28 days, while the other 10 women used a device with no nanoe™ generating device for 28 days at home (19104)

- 1. Please note that products incorporating nanoe™ X and nanoe™ technology are not to be used for medical treatment.
 2. nanoe™ X and nanoe™ are not intended to prevent infectious diseases. The technology has been found to be effective in suppressing a variety of harmful airborne and adhering substances, including viruses (e.g., H1N1), bacteria (e.g., E. coli), mold fungi, and allergens. However, nanoe M 2 and nanoe M onot create an aseptic environment, nor do they
- guarantee prevention of infection.

 3. Data regarding the effectiveness of nanoe™ X and nanoe™ have been obtained through experiments under special conditions using devices that generate electrostatic atomized water, and have not been tested on commercial products with the devices incorporated in them.
 4. The deodorization effect varies according to the environment (e.g., temperature and humidity), operation time, odor, and fabric type. It does not eliminate the toxic substances in
- cigarettes (e.g., carbon monoxide). Odors that are continuously generated (e.g., building material and pet odors) are not completely eliminated. Results may vary based on usage and seasonal/environmental variables (e.g., temperature and humidity). nanoe™ X and nanoe™ inhibit activity or growth of viruses, but do not prevent infection. 5. The actual effects may vary depending upon the specific condition of the room, etc.

NEW F-M15MEVBKQH

(short pipe)

F-M15MEVBKRH

(long pipe)





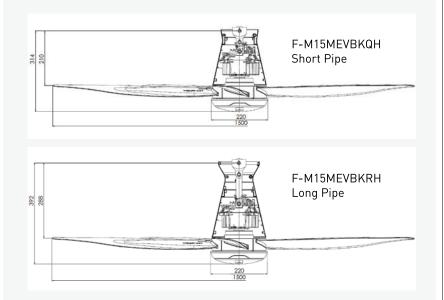








Installation Space (unit:mm)



<u>Features</u>

- nanoe™ X Technology
- ECONAVI Feature
- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hour Off Timer
- 1-8 Hour On Timer
- 2-8 Hour Sleep Timer

Dimension

Width: Ø1500mm (60") Height: Short pipe: 314mm Long pipe: 392mm

Colour

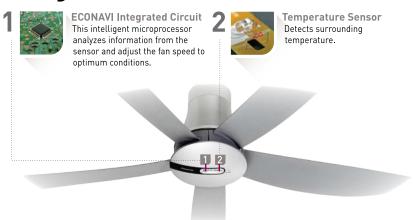
Black

Senses. Self-Adjust. Saves.

ECONAVI

What is ECONAVI?

ECONAVI Intelligent Sensor detects unconscious waste of energy using the temperature sensor. It is able to monitor surrounding temperature and adjust the fan speed automatically to give the most comfortable air to human body. While adjusting the the fan speed, it saves energy efficiently with uninterrupted comfort and convenience.



How it works.

Senses

ECONAVI features Intelligent surrounding temperature detection that senses every 3 minutes.



Zone 1 31°c SUNNY



Zone 2



Zone 3



Zone 4
Below 24°c CLOUDY / NIGHT



Self-Adjusts

ECONAVI feature will adjust speed automatically to give the most comfortable air to human body according to the surrounding temperature and room conditions.



Zone 1 31°c SUNNY SPEED Increase



Zone 2 30°c SUNNY SPEEL Reduce



Zone 3 24°c - 29°c SUNNY SPEED Reduce



Below 24°c CLOUDY / NIGHT

ECONAVI-Temperature Sensor

64% energy saving when in ECONAVI mode Activated 10 minutes after START.

Temperature detection every 3 minutes. ECONAVI (9 Speed) Room Temp Zone (simulation) Room Temp Change 1°C / 2 speed ≥30°C Zone 1 (Day Time) 2 speed 1°C ∕ 2 speed ≥29°C Zone 2 1°C 🔪 1 speed 1°C ∕ 1 speed 24-29°C Zone 3 1°C 🔪 1 speed 1°C ≠ No change <24°C Zone 4 1°C 🔪 1 speed (Night Time, Air conditioner usage)

Saves

ECONAVI with smart eco sensor now has the abilities to detect and reduce energy waste. You can now enjoy more saving of up to 64%*



Energy-saving effect with ECONAVI Description Comparison (Base on continuous 1-hour of usage) Responded to the continuous of the continu

(Simulation condition: • Room temperature decrease 4°C/20 minutes) • DC motor starts from Speed 8

F-M15H5 (Without ECONAVI)
F-M15H5 (With ECONAVI)
F-M14HW (Without ECONAVI)
F-M14HW (With ECONAVI)
ECONAVI F-M15H5
vs
non-ECONAVI F-M15H5
64% Saving
ECONAVI F-M14HW

vs non-ECONAVI F-M14HW 63% Saving

Panasonic CEILING FAN / ECONAVI

Benefits of Econavi

If Ceiling Fan with Econavi operation is used

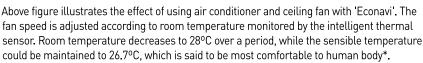
Almost the same sensible temperature is maintained by changing of wind velocity according to variations in temperature.

If Air Conditioner and Ceiling Fan with Econavi operation are used

- Maintain amenity before the air conditioning reaches the preset temperature.
- Even air conditioning pauses when the desired temperature is reached, cool feeling is retained.
- Energy saving is realized as power consumption is reduced while optimum performances of both ceiling fan and air conditioner are achieved.

Air conditioner and ceiling fan is used with **ECONAVI**





^{*} By ASHRAE (American Society of Heating, Refrigerating and Air-conditioning Engineers) report at Year 1971.

Air conditioner and ceiling fan is used without **ECONA**



This figure illustrates the effect of using both air conditioner and ceiling fan without 'Econavi Mode'. The fan operates at high speed continuously. Room temperature decreases to 28°C over a period, while the sensible temperature decreases to 25.5°C, possible resulting the human body to feel cold.



Only air conditioner is used



This figure illustrates the effect of using air conditioner only. The air conditioner operates without a ceiling fan. Room temperature decreases to 28°C over a period, while the sensible temperature is kept at 29.4°C that unable to achieve the optimum efficiency.



Benefits of Econavi

Thermal Sensor detects room temperature

1m from floor

Motor speed is adjusted changing of wind velocity according to measured data

Actual data is monitored
Temperature difference around the ceiling fan is corrected by actual measured data.

What is Sensible Temperature?

Sensible Temperature is the temperature felt by human being. It is not the same as the thermometer reading. Surrounding air circulation is one of the important factors reflecting the effect of the temperature. We lose heat when we expose to cold air. The greater the wind speed, the faster we lose heat.

For instance, compared with the one under light breeze, you may feel much colder if you are exposed to strong wind, even if the room temperature is the same.

Sensible Temperature



F-M15H5VBSQH

(short pipe)

F-M15H5VBSRH

(long pipe)

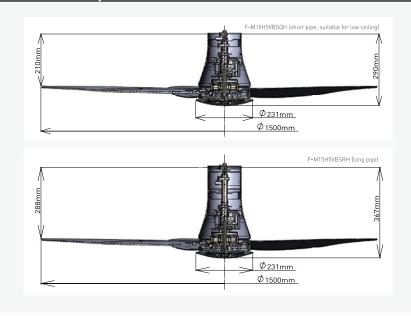








Installation Space (unit:mm)



Features

- ECONAVI Feature
- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1 8 Hour Off Timer
- 1 8 Hour On Timer
- 2 8 Hour Sleep Timer

Dimension

Width: Ø1500mm (60") Height: Short pipe: 290mm Long pipe: 367mm

Colour

Platinum Silver

F-M14HWVBSQH

INTELLIGENT ECO SENSORS **ECONAVI**











Features

- ECONAVI Feature
- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1 8 Hour Off Timer
- 1 8 Hour On Timer
- 2 8 Hour Sleep Timer

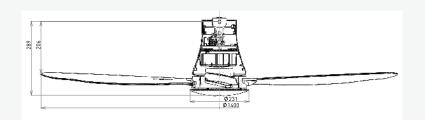
Dimension

Width: Ø1400mm (56") Height: 289mm

Colour

Platinum Silver

Installation Space (unit:mm)





Brightness

Brightness = Up to 200 lx*

Power Consumption

Up to 22W*

22W LED light = Incandescent lamp 4 x 60W

Coverage*

- < HIGH > 200lx
- i) 4m coverage strong lighting
- ii) 6m coverage moderate lighting
- iii) 8m coverage weak lighting

Colour

	Model	Brightness	Light color	
High	F-M15GW	200 (lx)	White	
	F-M12GX	150 (lx)	Cool Day Light	
Medium	E M4ECW	450(1)	Cool Day Light	
	F-M15GW	150 (lx)	Warm	
	F-M12GX	75 (lx)	Cool Day Light	
Low	F-M15GW	3 (lx)	Warm	
	F-M12GX	3 (lx)	Cool Day Light	

Light Evenness

LED Cover has diffusion material that produce even light distribution

Image of Room General Lighting







LED Lighting Coverage*







^{*} Subject to selected models

F-M15GWVBSQH

(short pipe)

F-M15GWVBSRH

(long pipe)











Features

- LED Lighting 4 mode selection
- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hour Off Timer
- 1-8 Hour On Timer
- 2-8 Hour Sleep Timer

Dimension

Width: Ø1500mm (60") Height: Short pipe: 327mm Long pipe: 405mm

Colour

Platinum Silver

F-M15GWVBSQH Short Pipe F-M15GWVBSRH Long Pipe

F-M12GXVBHQH/ F-M12GXVBRQH



Installation Space (unit:mm) 327

Features

- LED lighting 3 mode Selection
- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Durable Blades (PPG Material)
- LCD Remote Control with 9-Sequential Speed Selection
- 1-8 Hour Off Timer
- 1-8 Hour On Timer
- 2-8 Hour Sleep Timer

Dimension

Width: Ø1200mm (48") Height: 327mm

Colour

Dark Grey Red



F-M15EXVBKQH

(short pipe)

F-M15EXVBKRH

(long pipe)

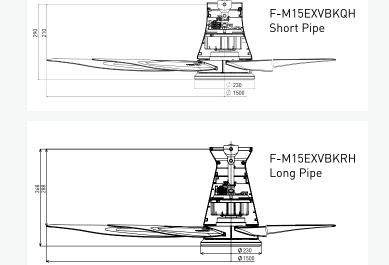








Installation Space (unit:mm)



Features

- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Durable Blades (PPG Material)
- LCD Remote Control with 9-Sequential Speed Selection
- 1-8 Hour Off Timer
- 1-8 Hour On Timer
- 2-8 Hour Sleep Timer

Dimension

Width: Ø1500mm (60") Height: Short pipe: 290mm Long pipe: 368mm

Colour

Black



Features

- 5-blade design
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Remote Control With 5-preset Speed
- Greater Air Delivery
- 1,3,6-Hour Off And Sleep Timer
- Durable Blades (PPG material)

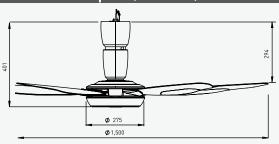
Dimension

Width: Ø1500mm (60") Height: 401mm

Colour

Silver

Installation Space (unit:mm)



F-M15E2VBHH



Features

- 4-blade design
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Remote Control With 5-preset Speed
- Greater Air Delivery
- 1, 3, 6-Hour Off And Sleep Timer
- Durable Blades (PPG material)
- Most Suitable For Low Ceiling

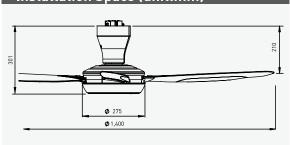
Dimension

Width: Ø1200mm (48") Height: 255mm

Colour

Silver Grey

Installation Space (unit:mm)



F-M14E2VBHH











New Blade Design

Innovative blade design optimizes air delivery while ensuring quiet, smooth operation. Suitable for any décor.

1, 3, 6-hour Off Timer

Preset your fan to shut off after selected time range, regardless of selected speed.

3, 6-hour Sleep TimerGradually decreases fan speed till it powers off while you sleep.

Speed ControlControl fan functions with a simple touch.

Enhanced Safety Features

Blade hooks prevent any mishaps should blade screws give away.

Thermal safety fuse protects fan from electrical surges.

Safety limit switch shuts off fan if any malfunctions occur.



F-M14DZ





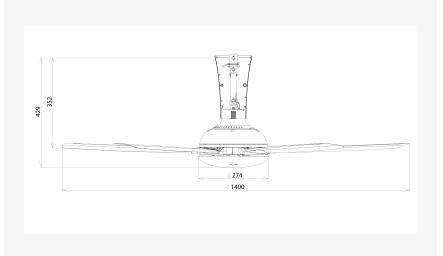
F-M14DZVBKH (Black)







Installation Space (unit:mm)



Features

- 5-blade design for Better Air Delivery
- Enhanced Safety Features
- Remote Control with 3-Preset Speed
- 1, 3, 6-Hour Off Timer
- 3, 6-Hour Sleep Timer

Dimension

Width: Ø1400mm (56") Height: 429mm

Colour

Black White

F-M14CZ

BAYU









Features

- 4-blade Design
- Enhanced Safety Features
- Remote Control with 3-Preset Speed
- 1, 3, 6-Hour Off Timer
- 3, 6-Hour Sleep Timer

Dimension

Width: Ø1400mm (56") Height: 385mm

Colour

Black White

Installation Space (unit:mm)

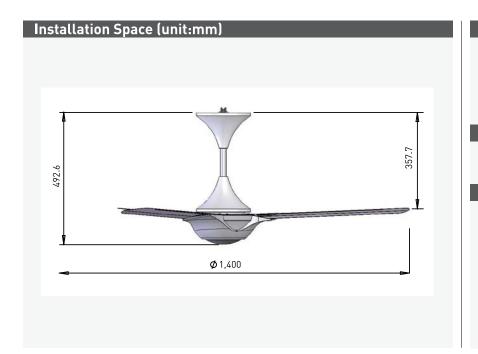
F-M14C2VBHH











Features

- New 3-blade Design
- Enhanced Safety Features
- Remote Control with 3-Preset Speed
- 1, 3, 6-Hour Off Timer
- 3, 6-Hour Sleep Timer

Dimension

Width: Ø1400mm (56") Height: 492.6mm

Colour

Grey

F-M12DEVBWH NEW

$BAYU^{\mathit{JR}}$







Features

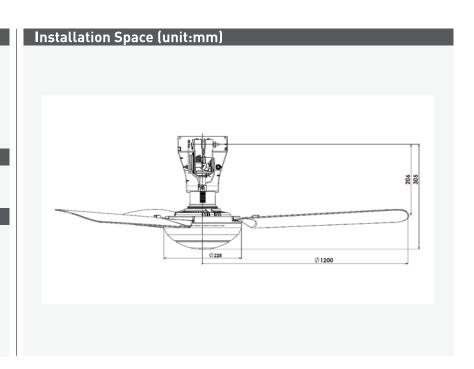
- New 3-blade Design
- PPG Material
- Enhanced Safety Features
- Remote Control with 3-Preset Speed
- 1,3,6-Hour Off Timer
- 3,6-Hour Sleep Timer

Dimension

Width: Ø1200mm (48") Height: 305mm

Colour

White



F-M12D2VBHH

 $BAYU^{\mathit{JR}}$







Installation Space (unit:mm)

140 255 **Ø** 170.3 **Ø** 1,200

Features

- New 3-blade Design
- Enhanced Safety Features
- Remote Control with 3-Preset Speed
- 1, 3, 6-Hour Off Timer
- 3, 6-Hour Sleep Timer
- No hook required
- Hanger plate included

Dimension

Width: Ø1200mm (48") Height: 255mm

Colour

Silver



Regulator Ceiling Fan

5-speed Electronic Regulator

Provides you a variation of speed – from soothing breeze to the strong breeze selection to suit your needs

Enhanced Safety Features

Safety limit switch cuts the power supply should any malfunctions occur

Blade safety plate prevent any mishaps should blade screws give way.

Safety wire keeps the fan intact to prevent mishaps Thermal safety fuse protects fan from electrical surges

Technologically Advance Motor

Durable motor that provides you maximum breeze with minimal noise

F-M15A0

Regulator Fan



F-M15A0VBWH (White)





Installation Space (unit:mm) 390 (STATOR CENTER) 348 (BLADE) Ø1,500 (60")

Features

- 5-speed Electronic Regulator
- Low Noise
- Wider Sweeping Blades
- Enhanced Safety Features
- Durable, Technologically Advanced Motor

Dimension

Width: Ø1500mm (60") Height: 439mm

Colour

White Dark Grey

F-M15B0VBNH

Regulator Fan



Features

- 5-speed Electronic Regulator
- Low Noise
- Wider Sweeping Blades
- Enhanced Safety Features
- Durable, Technologically Advanced Motor

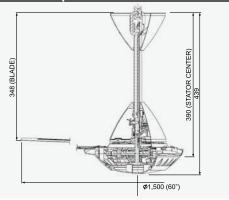
Dimension

Width: Ø1500mm (60") Height: 439mm

Colour

Mild Gold

Installation Space (unit:mm)







F-M12A0VBWH Regulator Fan







Features

- 5-speed Electronic Regulator
- Low Noise
- Wider Sweeping Blades
- Enhanced Safety Features
- Ideal For Small Rooms and Spaces

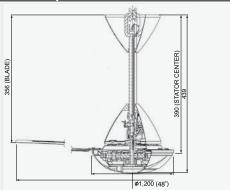
Dimension

Width: Ø1200mm (48") Height: 255mm

Colour

Silver

Installation Space (unit:mm)





Stand Fan F-MT405-BN

Features

- Thermal safety fuse
- Fully automatic oscillation
- Condenser motor
- 1-6 Hour timer

Dimension

Width: 40cm (16")

Colour

Gris fonce brown



Stand Fan F-MX405

Features

- Thermal safety fuse
- Fully automatic oscillation
- Condenser motor

Dimension

Width: 40cm (16")

Colour

Gris fonce brown Champagne

Purplish Blue



Table Fan F-MN404

Features **S**

- 3-Speed on/off switch
- Transparent plastic blades
- New condenser motor
- Thermal Safety fuse

Dimension

Width: 40cm (16")



Aqua blue

Meadow green

Grape purple





Table Fan F-MN304

Features

- 3-Speed on/off switch
- Transparent plastic blades
- New condenser motor
- Thermal Safety fuse

Dimension

Width: 30cm (12")

Colour

Aqua blue

Meadow green

Grape purple





Wall Fan F-MU50YVBKH

Features

- Turbo Fin Guard to Focus Airflow to Reach Further Distance
- Aluminium Blade For Stronger Airflow
- 3-blade design for Better Air Quality
- 3-speed On/Off Pull Switch
- Oscilation Control by Pull Switch
- Durable Condensor Motor with Permanently Lubricated Ball-bearing Assembly
- Thermal Safety Fuse

Blade Size

Width: 50cm (20")

Colour

Black





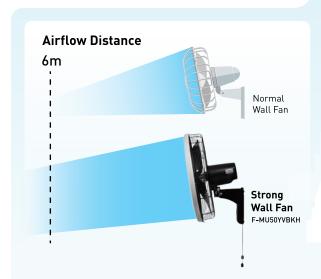
New Blade Design

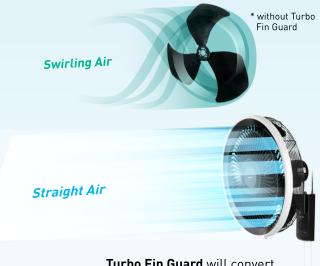
New aluminium blade to spin at maximum speed to generate higher air velocity (300m/min)



Turbo Fin Guard Design

Front Turbo Fin Guard is shaped like stator blade to minimize pressure loss and generate maximum airflow.





Turbo Fin Guard will convert the swirling air to straight air, which focuses airflow to reach further distance

Wall Fan F-MU44R-GY

Features

- Full Multi-functional Remote Control With On/Off Function, 3-speed Control, Timer Setting And Oscillation Control
- 1,3,6-Hour Timer
- Ball-bearing Motor
- Thermal Safety Fuse

Blade Size

Width: 40cm (16")

Colour

White







F-MU453VBHH

Features

- 3-speed On/Off Pull Switch
- Oscillation Control By Pull Switch
- Durable Condenser Motor With Permanently Lubricated Ball-bearing Assembly
- Transparent Plastic Blades
- Thermal Safety Fuse

Blade Size

Width: 45cm (18")

Colour

Dark Grey





F-MU408-WT / F-MU308-WT

Features

- 3-blade design for Better Air Delivery
- 3-speed On/Off Pull Switch
- Oscillation Control By Pull Switch
- Durable Condenser Motor With Permanently Lubricated Ball-bearing Assembly
- Transparent Plastic Blades
- Thermal Safety Fuse

Blade Size

40cm (16") - F-MU408-WT 30cm (12") -F-MU308-WT

Colour

White



F-MU408-WT



F-MU308-WT





Wall Fan F-MU405VBHH

Features

- 5-blade design for Better Air Delivery
- 3-speed On/Off Pull Switch
- Oscillation Control By Pull Switch
- Durable Condenser Motor With Permanently Lubricated Ball-bearing Assembly
- Transparent Plastic Blades
- Thermal Safety Fuse

Blade Size

Width: 40cm (16")



Dark Grey







New 5 Blade **Design Technology** for a wider airflow performance





Silent Operation





F-MU405VBHH

Features

- Thermal Safety Fuse
- Regulator 5-speed Selection
- Transparent Plastic Blades
- 360° Oscillation Circle
- Durable Condenser Motor
- Adjustment Angle 15°, 30° And 50°

Blade Size

Width: 40cm (16")

Colour

White / Dark Grey





F-MQ409-GY



VENTILATION FAN

Healthy Air Exchange for a Healthy Living Environment

Panasonic Ventilation Fans ensure you and everyone in your home can enjoy a healthy, fresh environment.



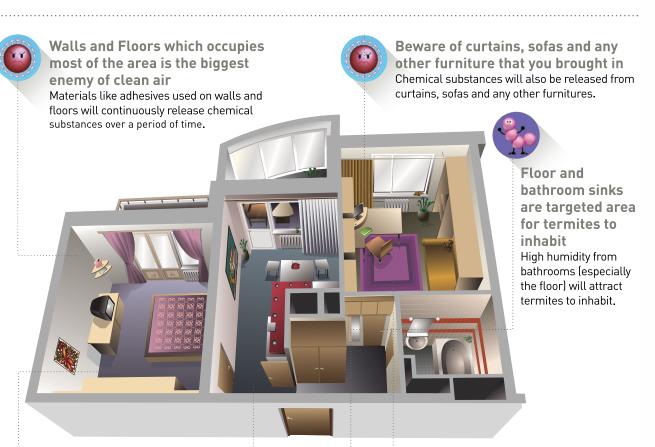
Benefits

What are the existing indoor air quality problems in your house?

Recently, there are reports showing that people having poor physical conditions. It is due to chemical substance emission from new-built or reformed houses which causes indoor air quality problem.

The symptoms due to poor indoor quality include eyes/throat nausea, feeling unwell, skin irritation, headache, dizziness, breathing problem and so on. Furthermore, chemical substances like formaldehyde, can lead to deterioration of allergic illness.

Hazardous indoor chemica can be categorized into	
Chemicals Substance	Origin
Formaldehyde (HCHO)	Plywood Board, Flooring,
Volatile Organic Compounds	Furniture, Wall Paper
• Toluene, Xylene, Trimethyl Benzen	Water aper
• Phosphoric Acid Triester (TCEP)	Non-Flammable Vinyl Cloth
Organnic Phocphoric	Pesticides





Water vapor created from cooking attracts molds to grow Water vapor is created from burning fuels. Also, the dirt from the burning fuels speed up the growth of molds.



Chemical substances from the floor Although natural flooring material looks safe, gloss wax from the floor (for example) may emit chemical substances.



Fabric sofa and stuffed toys Scurf and dander from human and pets attract mites. Thus, it is important to be cautious with fabric sofa and stuffed toys in your homes.

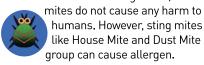


Bathroom with high humidity inhabits mold

Bathrooms which are known as area with high humidity can cause the formation of mold. You are advised to clean the bathroom without leaving any soap residue.

Mites

There are around 30 types of mites which can be found in homes. In general, most



Termites

Termites are terror to the house as they will cause damages to furniture, floor, wall, roofs and



Formaldehyde (HCHO)

Volatile Organic Compounds (VOC) like Formaldehyde generated from building materials and/or home furniture can indoor air

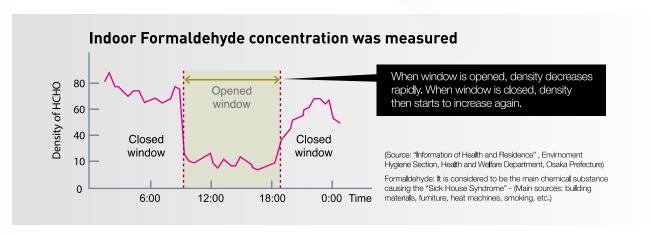
Temperature and Humidity for Mite Breeding Mite breeds when temperature is over 20 degrees and humidity is over 60% 40 Temperature (°C) 30 20 Mite dies in this range of temperature and humidity 10 0 40 60 80 100 Humidity (%) (Source: "Information of Residence and Home"; Environment Hygiene Section, Health and Welfare Department, Osaka Prefecture)

Mold



Mold breeds faster only damages our odors and it is bad for when humidity increases. Mold not home appearance, it also emits bad health. The growth of mold increases pres will disperse around at the end of

during rainy season and its spores will disperse around at the end of the raining season.

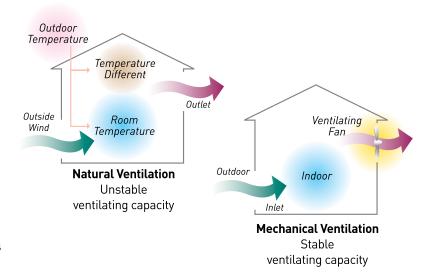


Ways to Improve Indoor Air Quality

The first step to improve indoor air quality is to reduce or remove the source of pollutants. Unfortunately, indoor air pollutants are virtually impossible to eliminate completely.

The alternative towards improving indoor air quality is via ventilation. Ventilation is divided into two types: Natural Ventilation and Mechanical Ventilation.

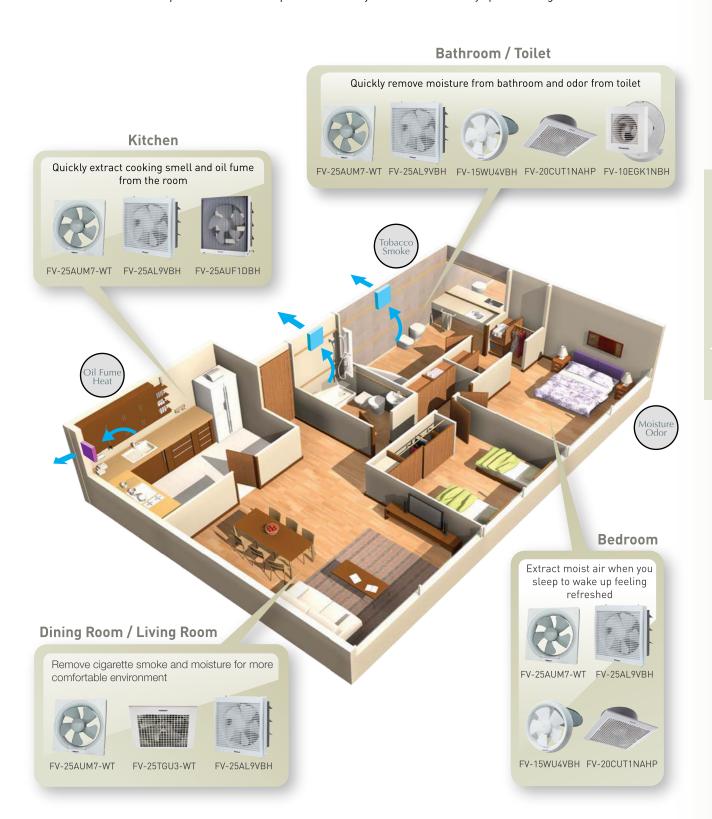
Natural Ventilation is neither consistent nor reliable since it heavily relies on wind and weather conditions. Mechanical ventilation removes stale, moist, polluted air and replaces it with fresh air by using a ventilating fan.



Benefits

Our Recommendation For Indoor Air Quality

Bathroom, toilet and kitchen are the places with high concentration of contaminants. When these places are being used, ventilation fans should be operated to extract the pollutants directly to outside before they spread throughout the rooms.





The Number of Ventilation Fans Required

(A): Room size (M^3) x (B): Necessary frequency of Ventilation per hour

(C): Air Volume of Ventilation Fan (M³)

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 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 catalogs.

Ventilation Schedule

	l: Type of room	II: Ne	cessary frequen	cy of ventilation per hour	
	I	Ш		1	II
Hotel	Dance Hall	8	Photo Studio	Dark Room	10
	Dining Hall	8	School	Laboratory	6
	Kitchen	15		Cooking Room	15
	Hallway	5		Auditorium	6
	Toilet	5		Gymnasium	8
	Lavatory	10		Toilet	12
	Boiler Room	20		Library	6
	Laundry	15		Classroom	6
Hospital	Waiting Room	10	Theatre	Auditorium	6
	Clinic	6		Hallway	6
	Ward	6		Smoking Room	12
	Bathroom	5		Toilet	10
	Office	6		Projection Booth	20
	Restaurant	8		Workroom	6
	Kitchen	15		Telephone Switch Board Room	6
	Gallery	5	Factory	Painting Room	20
	Toilet	10		Dynamo Room and Substation	20
	Boiler Room	10		Condenser Room	15
	Laundry	15		Office	6
	Operating Room	15	Restaurant &	Restaurant	6
	Disinfecting Room	12	snack bar	Kitchen	20
	Room for the Patients Receiving		Office	Office	6
	Medical Treatment for	10	Building	Waiting Room	10
	The Diseases of Respiratory Organs			Conference Room	12
Public Toilet		20		Display Room	10
Vessel	Passenger Room	6		Toilet	10
Home	Kitchen	15			
	Parlor	6	Rooms where po	isonous or Inflammable gas is produced	More
	Living Room	6			than 20
Library	Reading Room	6			

Benefits

Wall Mount Ventilation Fan

These 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 type collects oil effectively that is ideal for the use in kitchen. Louver Type provides additional safety protection from finger reach while the Bathroom Series has a powerful exhaust capacity to remove moisture and smell in bathroom and toilet.

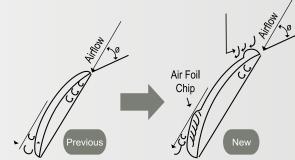


Advanced Blade Design

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.

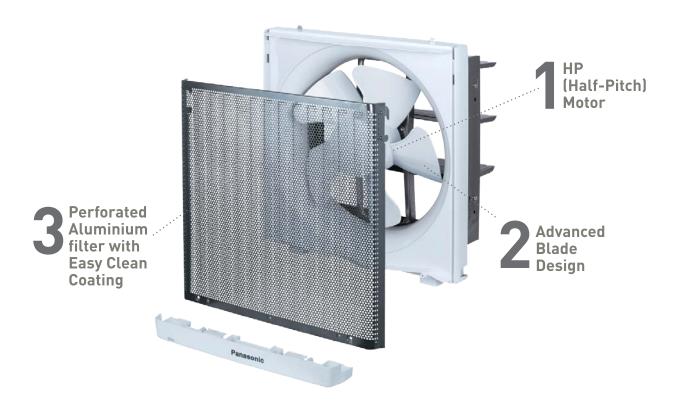
New HP Motor & Bearing

Compared with previous models, new models adopt high performance condenser motor and long life bearing that prolong the product durability, from average 30,000 hours life time to 60,000 hours. It enables saving by reducing power consumption down to average 13%.



Panasonic VENTILATION FAN / PRODUCT FEATURES

Features



Perforated Aluminium Filter - Durable

(Applicable for FV-25AUF1DBH)

The filter is made out of aluminium material to ensure excellent durabilitiy and is easily detachable for cleaning and maintainance.

Oil Collecting - Environment Friendly

(Applicable for FV-25AUF1DBH)

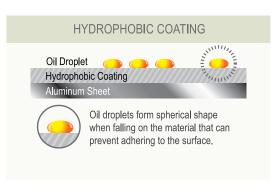
The perforated filter is capable to collect oil. It allows the air exhausted from outdoor is be less polluted and improves the air quality of surrounding.

Easy Clean Coating - Convenient

(Applicable for FV-25AUF1DBH)

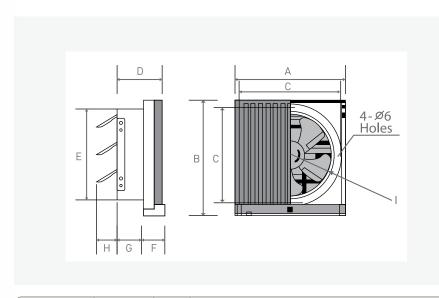
The perforated aluminum filter is processed with an easy-clean coating name "Hydrophobic Coating". It is basically a paint composed of fluorine compund particles that have small affinity with water or oil. This material has low surface tension allowing oil droplets falling on without adhering to the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





FV-25AUF1DBH





- Large Oil Collector/Cup
- Durable Perforated Aluminium Coated Filter For Easy Cleaning
- Excellent Exhaust Performance
- Advanced Blade Design
- HP (Half-Pitch) Motor
- Thermal Safety Fuse
- Suitable For Kitchens

Model	Si	ze			mm								
Wodel	cm	inch	Α	В	C*	D	Е	F	G	Н	1		
FV-25AUF1DBH	25	10	352	371	300	155	290	65	90	70	250		

^{*} Opening Hole Size

Features (Applicable for FV-10EGK1NBH / FV15EGK1NBH)

Compact and Stylish

Compact size with powerful exhaust capacity can fit most bathrooms up to 7.5m3 and 15 m3 respectively. Moreover, the slim and elegant design of front louver match any modern decor perfectly.

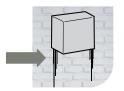
All Accessories Included

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



Trace-Prevention

When it rains, rain water 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.



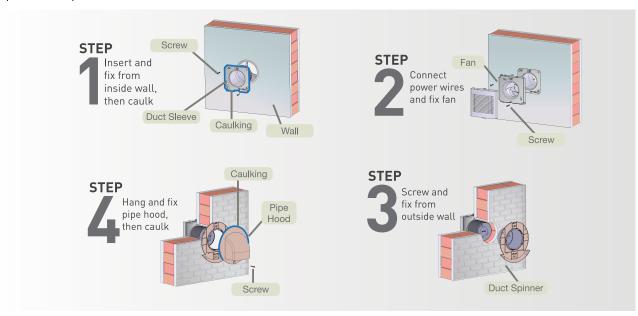
With a standard pipe hood, rain water may cause trace mark on the wall



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

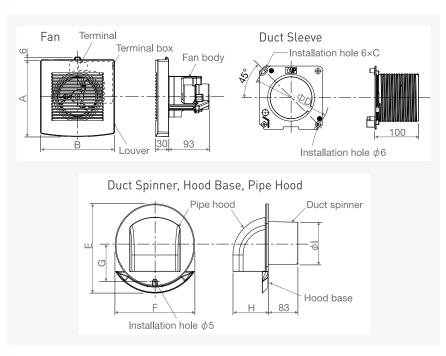
Easy Installation

The ventilation is well-designed to facilitate the installation of product. With the supplied accessories, only 4 steps are required to complete the installation.



FV-10EGK1NBH / FV-15EGK1NBH





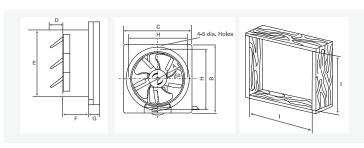
- Easy Installation
- All Accessories Provided
- (Including External Duct Cap)
- Thermal Safety Fuse
- Suitable For Bathrooms

Model	Installation Hole Dia.	Wall Thickness				m	m				
Model	mm	mm	Α	В	С	D	Е	F	G	Н	
FV-10EGK1NBH	ø135 <u>±</u> 5	100-150	176	170	9.3	177	250	220	107	99	120
FV-15EGK1NBH	ø180 <u>±</u> 5	100-150	230	220	11.5	221	310	270	142	138	165

FV-20AUM8 / FV-25AUM7-WT / FV-30AUM8

Features

- Unique Q-blades For Low Noise
- Energy-saving, High Performance Motor
- Ball-Bearing Motor For Smoother And **Durable Operation**
- Automatic Shutters
- Buit-in Oil Receptor
- Simple And Easy Installation (Non-duct)
- Thermal Safety Fuse
- Suitable For Kitchens



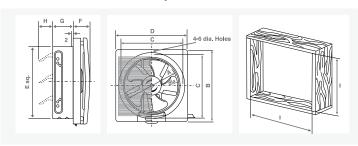


Model	Si	ze					mm				
iviodei	cm	inch	Α	В	С	D	E	F	G	Н	*
FV-20AUM8	20	8	200	300	300	83	240	90	45	260	250
FV-25AUM7-WT	25	10	250	350	350	70	290	90	40	310	300
FV-30AUM8	30	12	300	400	400	81	340	90	40	360	350

^{*} Opening Hole Size

FV-20AL9VBH / FV-25AL9VBH

- New Front Louver Design For Neater Outlook And Better Safety
- New Blade Design To Improve Efficiency
- Ball-Bearing Motor For Smoother And **Durable Operation**
- Automatic Shutter
- Thermal Safety Fuse
- Suitable For Kitchens And Living Rooms





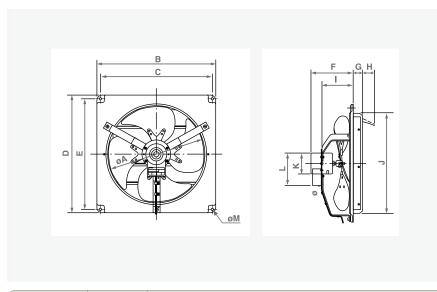
Model	Si	ze					mm				
Wodel	cm	inch	Α	В	С	D	Е	F	G	Н	*
FV-20AL9VBH	20	8	200	306	260	302	240	88	90	80	250
FV-25AL9VBH	25	10	250	356	310	352	290	68	90	63	300

^{*} Opening Hole Size

FV-40KUTNAHP

(Industrial)





- Large Metal Blade Assembly For Abundant Air Volume
- Possible To Install Horizontally
- Built-in Safety Thermal Fuse
- Powerful, Efficient And Durable Condenser Motor
- Ideal For Workshops, Bakeries & Warehouses

Model	Si	ze							mm						`
	cm	inch	Α	В	С	D	E	F	G	Н	1	J*	K	L	M
FV-40KUTNAHP	40	16	410	510	480	510	480	181	40	52	133	434	90	141	10

^{*} Opening Hole Size

Glass Mount



Our design is easy to dismantle and reassemble for cleaning.

Unique Q-blades For Low Noise Uniquely designed blades to ensure minimal noise disruption during operation.

Thermal Safety Fuse

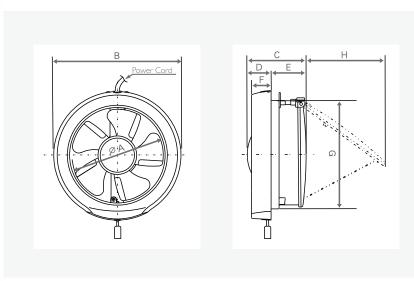
Safety fuse ensures that no accidents occur, even when there is a spike in current.

VENTILATION FAN

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FV-15WU403V/ FV-20WU403V





- Thermal Safety Fuse
- Installed Directly Into The Glass Window, Window Panel Thickness (From 3mm - 7mm)
- Easy To Remove And Disassemble For Cleaning
- Cord Operated Shutter For Easy Operation
- Suitable For Bathrooms And Toilets

1	Model	Si	ze				m	m			
	Model	cm	inch	Α	В	С	D	E	F	G*	Н
	FV-15WU4VBH	15	6	150	210	97	43	54	37.4	177	149
ļ	FV-20WU4VBH	20	8	200	271	98	36	62	36	237	201

^{*} Opening Hole Size



Ceiling Mount

Easy Maintenance

Our design is easy to dismantle and reassemble for cleaning.

Unique Q-blades For Low Noise

Uniquely designed blades to ensure minimal noise disruption during operation.

Thermal Safety Fuse

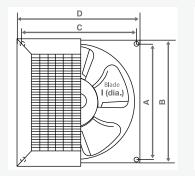
Safety fuse ensures that no accidents occur, even when there is a spike in current.

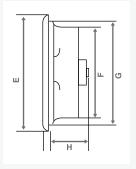
FV-15TGUZ-WT / FV-25TGU3-WT

Features

- Q-blades For Low Noise Operation
- Automatic Oil Circulation For Smoother And Durable Operation
- Easy To Install
- Built-in Safety Thermal Fuse
- Suitable For Offices And Bedrooms





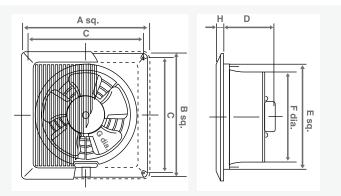


Model	Si	ze					mm				
Model	cm	inch	Α	В	С	D	E	F	G*	Н	
FV-15TGUZ-WT	16	6.4	230	244	230	244	253	174	214	108	160
FV-25TGU3-WT	25	10	336	355	336	355	365	272	310	117.5	250

^{*} Opening Hole Size

FV-20CUT1NAHP

- Unique Q-blades For Low Noise
- Energy-saving, High Performance Motor
- Ball Bearing Motor For Smoother And Durable Operation
- Easy To Disassemble For Cleaning And Maintenance
- Easy To Install
- Built-in Safety Thermal Fuse
- Suitable For Offices And Bedrooms



1	Model	Si	ze				m	m)
ı	Model	cm	inch	Α	В	С	D	E*	F	G	Н
	FV-20CUT1NAHP	20	8	315	305	286	128	260	223	200	18

^{*} Opening Hole Size

Features

- Energy Saving
- Quiet Operation
- Compact and Stylish
- Powerful, Efficient and Durable Ball Bearing Motor
- Easy Installation
- Easy Maintenance
- Suitable for Bedrooms, Bathrooms, Living Rooms & Offices
- Built-in Safety Thermal Fuse

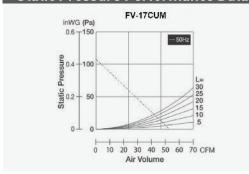
Friction Factor

- Aluminium flexible duct 0.03~0.04
- PVC pipe 0.01~0.02
- Galvanized steel pipe 0.016~0.025

Colour

Silver

Static Pressure Performance Data



Features

- Energy Saving
- Quiet Operation
- Compact and Stylish
- Powerful, Efficient and Durable Ball Bearing Motor
- Easy Installation
- Easy Maintenance
- Suitable for Bedrooms, Bathrooms, Living Rooms & Offices
- Built-in Safety Thermal Fuse

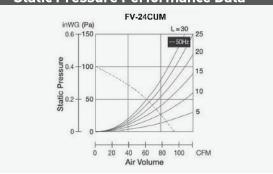
Friction Factor

- Aluminium flexible duct 0.03~0.04
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Colour

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Static Pressure Performance Data

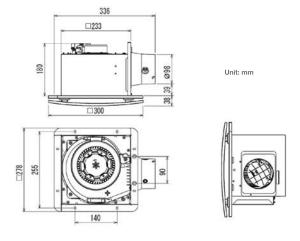


CEILING MOUNT SIROCCO FV-17CUMVBSH



CEILING MOUNT SIROCCO FV-24CUMVBSH





Product Line-Up

Ceiling Fan

Celuly Fal	•				
SERIES	MONDO	WIFAN	nanoe™ X	ECONAVI	LED
8 Blades	F-M20LY [80°]				
6 Blades	F-M18LY [70"]				
5 Blades		F-M15GCVBKSH F-M15ECVBI	KSH F-M15ME	F-M15H5 [60"]	F-M15GW [60"]
4 Blades				F-M14HWVBSQH [56"]	
3 Blades		F-M12GCVBKH F-M12ECVE	вкн		F-M12GXVBHQH [48"] F-M12GXVBRQH [48"]
FEATURES					
- DC Motor Technology	• (Twin)	DC Motor (New Generat	ion) •	•	•
- Mobile App Control		• •			
- nanoe™ X			•		
- LED Lighting		•			•
- Temperature Sensor			•	•	
- Motion Sensor	•				
- Yuragi	•	•	•	•	•
- Reverse Function		•			
- Remote Control	•	•	•	•	•
- Enhance Safety Features	•	• •	•	•	•
- Blade Type	PPG & Metal	ABS-GF (Glass Fiber)	PPG	PPG	PPG

Panasonic PRODUCT LINE-UP

AURA	NAMI	ВА	YU	REGUI	LATOR
\./	\./	\/	\/		
F-M15EX [60"]	F-M15E2VBHH [60"]	F-M14DZVBKH [56"]	F-M14DZVBWH [56"]		
	X,	×			
	F-M14E2VBHH [56"]	F-M14CZVBKH [56"]	F-M14CZVBWH [56"]		
		F-M14C2YBHH [56"]		F-M15A0VBWH [60"]	F-M15A0VBHH [60"]
		F-M12DEVBWH [48*]	F-M12D2VBHH [48"]	F-M15B0VBNH [60"]	F-M12A0VBWH [48"]
•					
•	•				
•	•	•	•		
•	•	•	•	•	•
PPG	PPG	Metal/PPG (F-M12DE)	VBWH, F-M12D2VBHH)	Me	etal

Products Line-Up

SERIES	TABLE	FAN	STAN	D FAN	OSCILLATION FAN
General Fan	F-MN404	F-MN304	F-MT405-BN	F-MX405	F-MQ409-GY/F-MQ409-DG
FEATURES					
Size	40cm (16")	30cm (12")	40cm (16")	40cm (16")	40cm (16")

SERIES		WALL MO	UNT	WALL MOUNT (INDUSTRIAL)					
Ventilation Fan	FV-25AUF1DBH	FV-10EGK1NBH/	FV-20AUM8 / FV-25AUM7-WT /	FV-20AL9VBH /	HIGH PRESSURE FV-40KUTNAHP				
FEATURES		FV-15EGK1NBH	FV-30AUM8	FV-25AL9VBH					
Size	25cm (10")	10cm (4") / 15cm (6")	20cm (8") / 25cm (10") / 30cm (12")	20cm (8") / 25cm (10")	40cm (16")				

Panasonic PRODUCT LINE-UP

WALL FAN F-MU50YVBKH F-MU44R-GY F-MU453VBHH F-MU405VBHH F-MU408-WT F-MU308-WT 50cm (20") 40cm (16") 45cm (18") 40cm (16") 40cm (16") 30cm (12")



Specification

Ceiling Fan

									
SERIES			М	ONDO	WIF	AN	nanoe™ X	ECO	NAVI
MODEL			F-M18LYVBKRH / VBKSH	F-M20LYVBKRH/ VBKSH	F-M15GCVBKSH/ F-M15ECVBKSH	F-M12GCVBKH/ F-M12ECVBKH	F-M15ME	F-M15H5	F-M14HWVBSQH
D 0 1	Low	W	6	3	4	3	4	3	2.5
Power Consumption	High	W	55	60	54	31	43	41	41
For Cross	Low	RPM	80	50	80	55	80	80	81
Fan Speed	High	RPM	185	150	245	170	235	235	239
Reverse Fan Speed	Low	RPM	n/a	n/a	80	55	n/a	n/a	n/a
Neverse i all Speed	High	RPM	n/a	n/a	255	170	n/a	n/a	n/a
Air Velocity	m/ı	min	190	170	160	185	210	210	185
Air Delivery	m³/min		325	360	300	200	245	245	225
Wi-Fi Frequency Range					2.4 GHz	2.4 GHz			
Mobile App OS					iOS / Android	iOS / Android			

General Fan

SERIES			STAND FAN (WITH TIMER)	STAND FAN	TABLI	E FAN	OSCILLATION FAN		
MODEL 50Hz						F-MN304			
Power Consumption	Low	W	45	45	45	28	20	20	
Tower Consumption	High	W	58	58	58	39	52	52	
Fan Chaad	Low RPM 850 High RPM 1,210		850	850	850	976	631	631	
Fan Speed			1,210	1,210	1,210	1,248	1,178	1,178	
Air Velocity	m/r	min	250	250	250	214	278	278	
Air Delivery	m³/	min	84.6	84.6	84.6	43	85	85	

Ventilation Fan

SERIES	SERIES				WALL MOUNT												
MODEL	50Hz		FV-25Al	UF1DBH	FV-10E	GK1NBH	FV-15E	EGK1NBH	FV-20/	AUM8	FV-25AL	JM7-WT	FV-30/	AUM8	FV-20 <i>A</i>	AL9VBH	
Air Volume	cfm	cmh	491	835	45	75	96	165	318	540	530	900	727	1,235	322	545	
Motor	V	W	3	34		6		7		17		29		33		22	
Fan Speed	RF	РМ	1,1	1,100		2,732		2,405		205	1,110		980		1,210		
Weight	k	кg	2.8 1.2		.2	1.5 2.3		.3	2.6		3	3.0		2.2			
Low Noise Level	d	lВ	4	42	3	33	3	35		37	39		4	45	40		
Low Electricity Consumption 24 Hours	R	RM	0.	.18	0.	.03	0.	0.04		0.09		0.15		0.17		0.12	

L	ED	AURA	N/	AMI	BAYU 5	BAYU 4	BAYU 3	BAY	J JR	RI	REGULATOR			
F-M15GW	F-M12GX	F-M15EX	F-M15E2VBHH	F-M14E2VBHH	F-M14DZVBKH / F-M14DZVBWH	F-M14CZVBKH/ F-M14CZVBWH	F-M14C2VBHH	F-M12DEVBWH	F-M12D2VBHH	F-M15A0VBWH/ VBHH	F-M15B0VBNH	F-M12A0VBWH		
25	21	3	21	20	21	20	34	22	22	17	17	18		
63	46	41	85	85	69	68	65	65	65	72	72	51		
80	80	80	84	102	95	102	113	118	118	103	103	154		
235	236	235	195	215	183	196	257	223	223	240	240	303		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
210	185	210	195	180	155	155	159	185	185	165	165	169		
245	187	245	225	225	215	215	210	187	187	230	230	162		

WALL FAN (WITH REMOTE CONTROL)	WALL FAN								
				F-MU308-WT					
45	60	46	45	28	43				
59	70	60	54	38	54				
891	940	850	891	945	966				
1,175	1,280	1,085	1,175	1,228	1,210				
251	300	237	258	214	192				
85	110	95	85	43	80				

(INDUSTRIAL)			TRIAL)	GLASS MOUNT			CEILING MOUNT						CEILING MOUNT SIROCCO					
	FV-25AL9VBH		FV-40KUTNAHP		F-M15WU403V		F-M20WU403V		FV-15TGUZ-WT		FV-20CUT1NAHP		FV-25TGU3-WT		FV-17CUMVBSH		FV-24CUMVBSH	
	493	835	1,243	2,115	124	210	221	375	142	240	265	450	367	625	53	90	94	160
	2	29 68		1	0	20		12		26		24		9.5		12		
	1,055 1,2		220	1,463		1,0	1,042 1,330		30	1,207		1,0	10	790		660		
	2.	.7	6.	.4	0.	.9	1.1		1.2		1.8		1.9		1.9		2.9	
	4	43 51		3	7	36		35		4	41		5	24		26		
	0.15		0.36		0.0	05	0.10		0.06		0.1	14 0.13		13	0.05		0.	06

Panasonic

Please visit Panasonic Fan Microsite for more details:

fan.my.panasonic.com

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