

Panasonic

Where Innovation
Meets the Breeze



FAN —————
Ceiling Electric Ventilation

DC Motor
ENERGY SAVING

WiFi
CERTIFIED

nanoe™X

ECONAVI

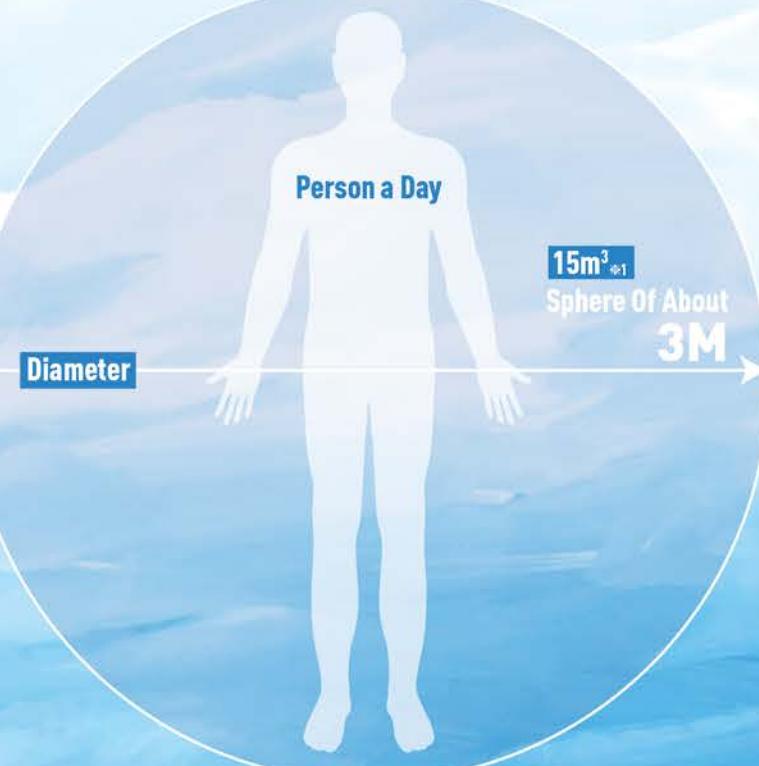
LED

Importance of

“INDOOR AIR QUALITY”

It's the **AIR** that human consume the most in a day

IAQ
INDOOR AIR QUALITY



AIR

18kg

WATER

1.2kg (1.2L*2)

FOOD

1.3kg (1.3L*3)

*1 内山巌雄 (国立公衆衛生院) 「空気とヒト—生理的立場から—」1999

*2 環境省 熱中症環境保健マニュアル (2009)

*3 農水省 農林水産基本データ 食料自給率に関する統計

*1 Mineo Uchikawa (The Institute of Public Health) [Air & Human -From the Perspective of Physiological-] 1999

*2 Ministry of Environment Environmental Health Manual for Heat-related Illness

*3 Ministry of Agriculture, Forestry & Fisheries Basic Data of Agriculture, Forestry & Fisheries Food Self-sufficiency Ratio Related Statistics

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



AIR POLLUTION MATERIAL PM2.5



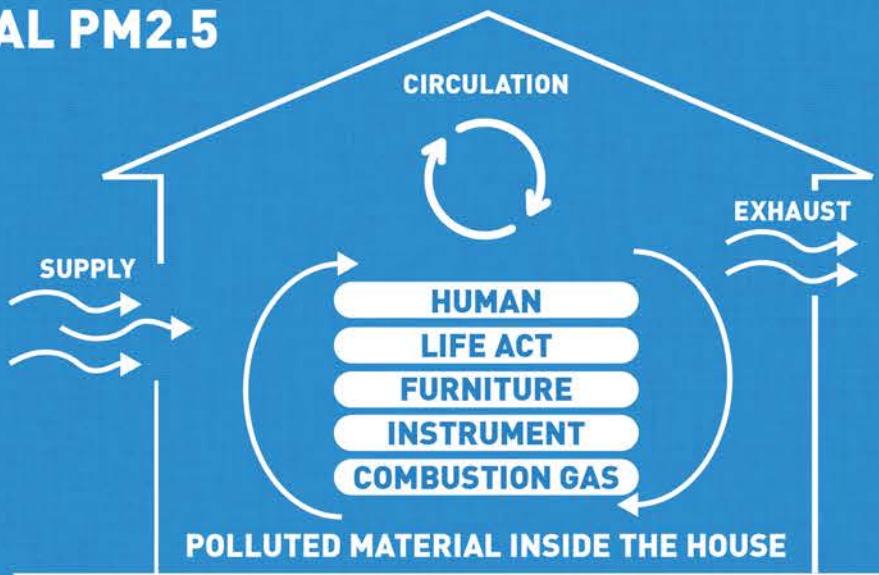
EXHAUST GAS
NO_x SO_x SPM



ANIMALS PLANT
Pollen Bacteria [mold, virus], insects



NATURAL PHENOMENA
Sand Dust, Particle Dust, Moisture, Dry Heat





CEILING FAN

Enjoy a Natural, Comfortable and Relaxing Environment

Ceiling fans create a strong airflow and also aid the circulation of cool air from air conditioning systems. Panasonic Ceiling Fans combine innovative technology with beautiful contemporary designs.

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.

A Prevention of body falling off

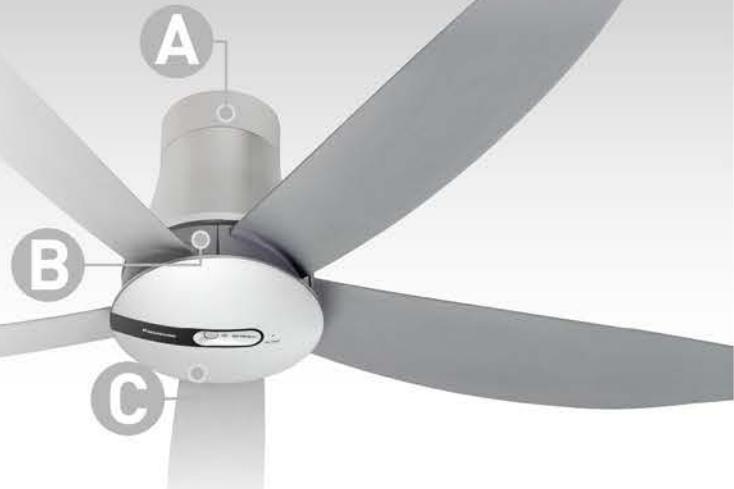
- Safety Wire
- Cut-off Safety Switch

B Prevention of blade falling off

- Blade Safety Plate

C Prevent motor from overheating

- Safety Fuse



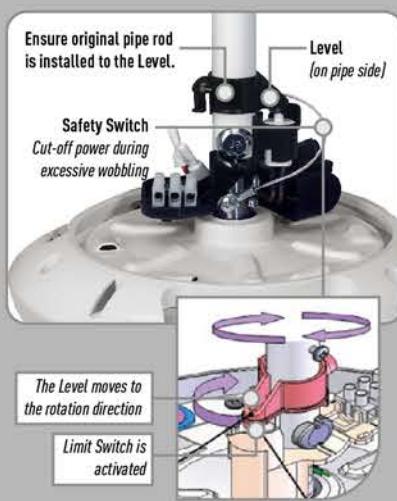
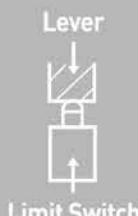
Safety Policy by Panasonic

Preventive Measures for Safety

Panasonic aims to minimize and reduce accidents to occur.

Thus, Panasonic practices safety policy to prevent any dangerous mishaps.

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.

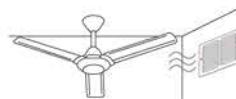
Preventive Measures

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 level 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.

Blade Safety Plate



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.

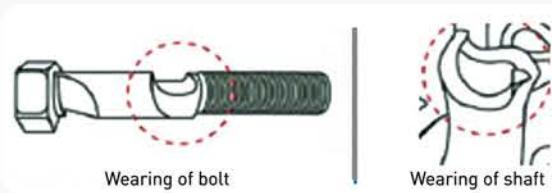
Preventive Measures

The broken blade will be visibly hanging with the aid of blade safety plate 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

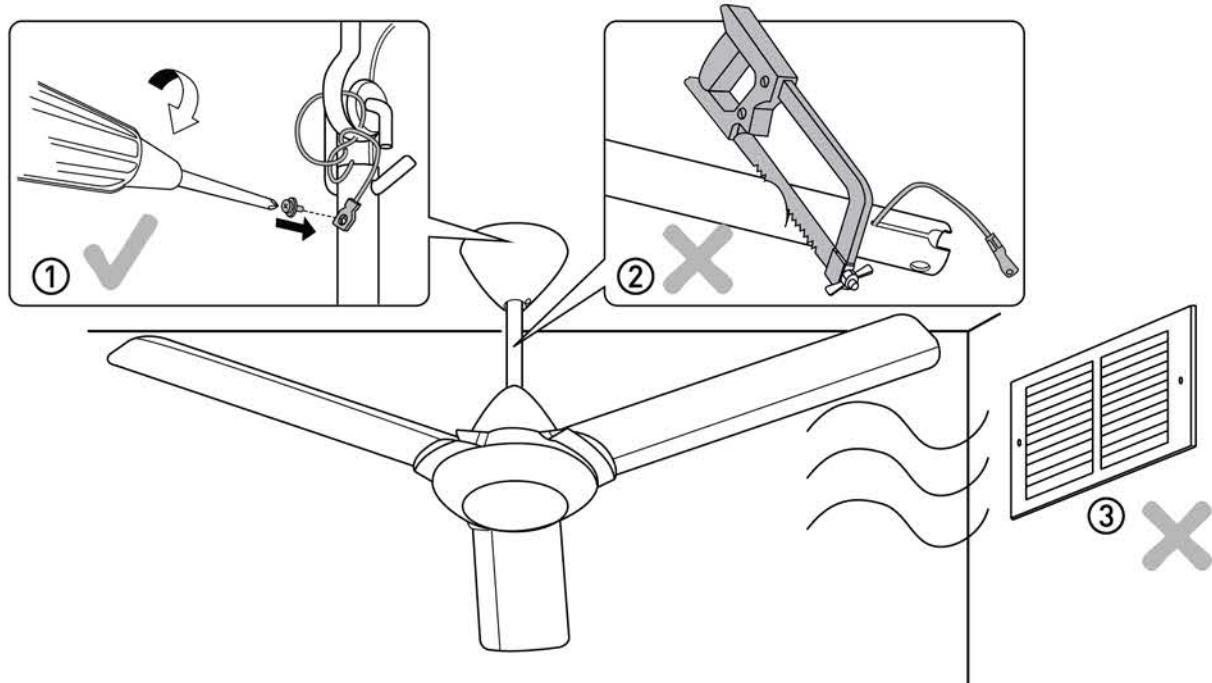
The safety wire helps to secure the fan motor with the ceiling hook to prevent the motor from falling when the fan motor detaches from the pipe rod.

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)



1

Safety Wire must be fixed correctly and connected at all times.

2

Do not use modified parts other than original supplied parts.

3

Do not install at a location directly hit by wind.

! CAUTION !

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 when 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 any 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 energy efficiency.

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

Advantages of a DC motor:

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



AC motor

DC motor

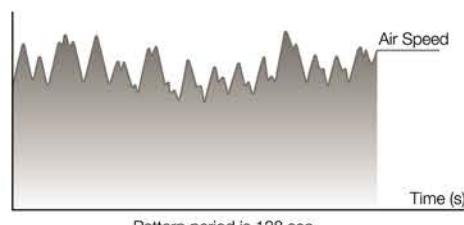
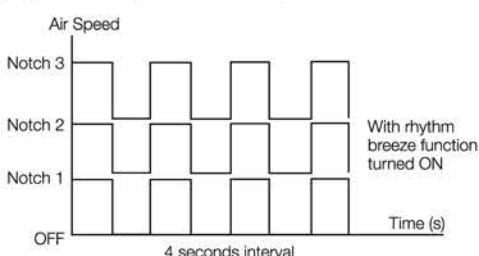
1/f Yuragi (Natural Breeze Function)

Comfortable - 1/f Yuragi* (Natural Breeze)

(Applicable for F-M20LY, F-M18LY, F-M15GC, F-M15EC, F-M12GC, F-M12EC, F-M15ME, F-M14ME

F-M15GW, F-M12GX, F-M15H5, F-M14HW, F-M15EX, F-M14FE, F-M15E2 & F-M14E2)

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 breeze

Speed 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.

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%

Less heat released
at exposed body part

1/f Yuragi Wind Flow

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

More heat released
at exposed body part

Continuous Wind

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

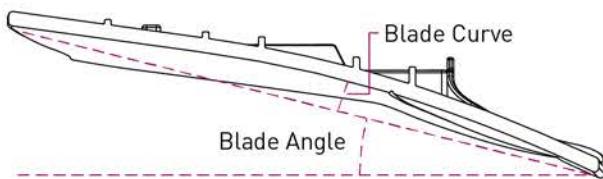
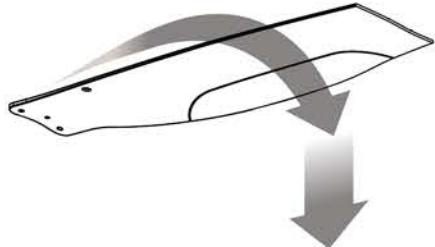
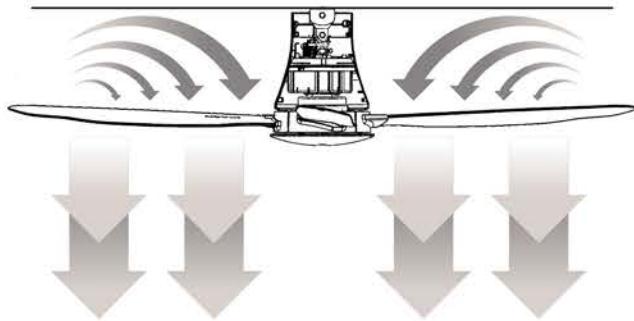
Japan Society of Physiological Anthropology Report

Other Features

Excellent - 3D Blade (Powerful Airflow)

(Applicable for F-M20LY, F-M18LY, F-M15GC, F-M15EC, F-M12GC, F-M12EC, F-M15ME, F-M14ME, F-M15GW, F-M12GX, F-M15H5, F-M14HW, F-M15EX, F-M14JH, F-M14SH, F-M15E2 & F-M14E2)

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



3D curve design in the center of blade effectively circulated the air.

Convenient - LCD Remote Controller

(Applicable for F-M20LY, F-M18LY, F-M15ME, F-M14ME, F-M15GW, F-M12GX, F-M15H5, F-M14HW & 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 active deactivate the ceiling fan

2. Speed Button

From slow speed to cooling environment in 9 speed

3. Yuragi 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™ X LED indicator dimmer and off function

5. Timer Select Button

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

6. Time Set Button

Press to set time

7. Auto Mode Button

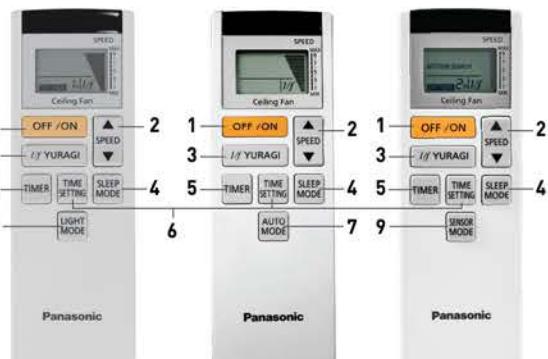
Press to set or release auto mode (F-M15ME, F-M15H5, F-M14HW & F-M14ME)

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)

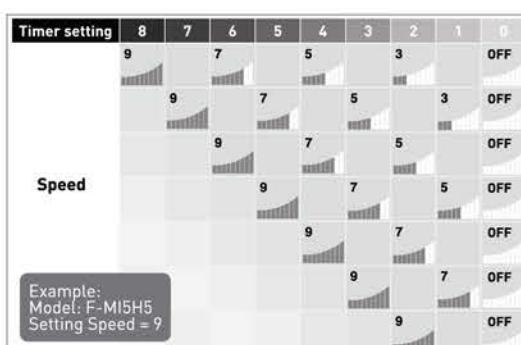


Caring - Sleep Mode

(Applicable for all ceiling fan models with remote control)

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-M15GC, F-M15EC, F-M12GC, F-M12EC, F-M15ME, F-M14ME, F-M15GW, F-M12GX, F-M15H5, F-M14HW, F-M14FE, F-M15EX, F-M15E2 & F-M14E2)

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!

MID-SIZE CEILING FAN



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

New Twin DC Motor Technology

Twin DC motor with higher motor power and reduce power consumption up to 50% compared to AC motor

Bigger Blade Size

For higher air delivery

Ball Joint Hanging Structure

The new ball joint structure replaced the conventional hook for safety and easier installation purpose

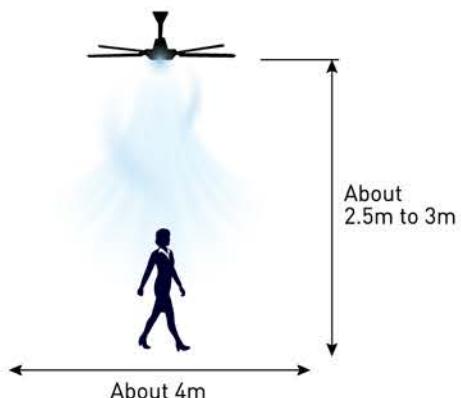
Features



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

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 :

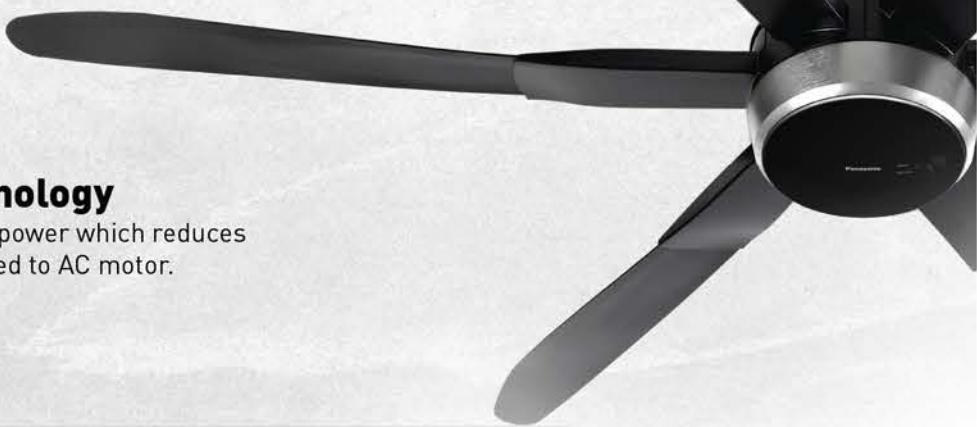
- No movement.
- Fan will reduce three speed from user's setting speed after 5 minutes. If no movement occurs in next approximate twenty minutes, fan will reduce to user's minimum fan speed setting.

How Motion Sensor works

Human Activity Fan Setting	Low Activity	High Activity	No Activity		
			Stage 1	Stage 2	Stage 3
Speed 9	9	9*	9	6	
Speed 8	8		8	5	
Speed 7	7	9	7	4	
Speed 6	6	8	6	3	
Speed 5	5	7	5	2	
Speed 4	4	6	4	1	
Speed 3	3	5	3		
Speed 2	2	4	2		
Speed 1	1	3	1		
			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.



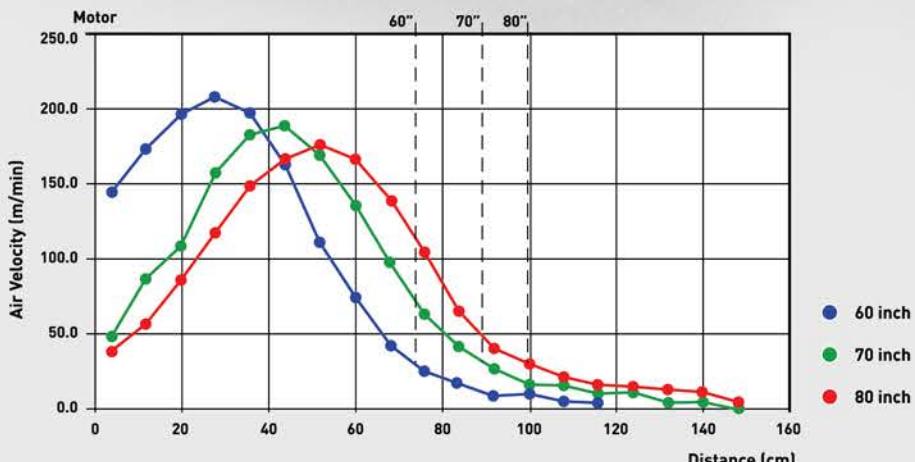
New Twin DC Motor Technology

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

Provides higher air delivery compared to 60" models



Hanging Structure: Ball Joint

Benefit of Ball Joint vs Hook

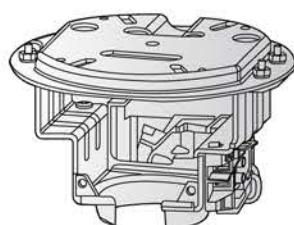
For Safety:

- 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



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
- Hotels/Resorts/Villas
- Garages



Public Amenities (Indoor/Outdoor)

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

F-M20LY

Mondo



F-M20LYVBKRH
(Canopy Type)

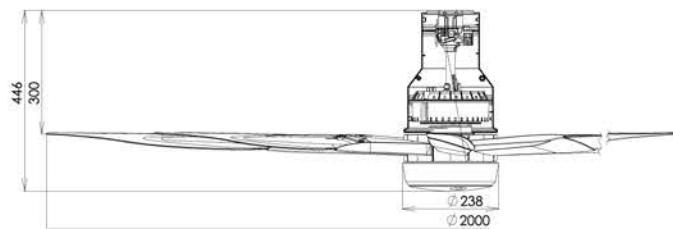


F-M20LYVBKSH
(Pipe Type)

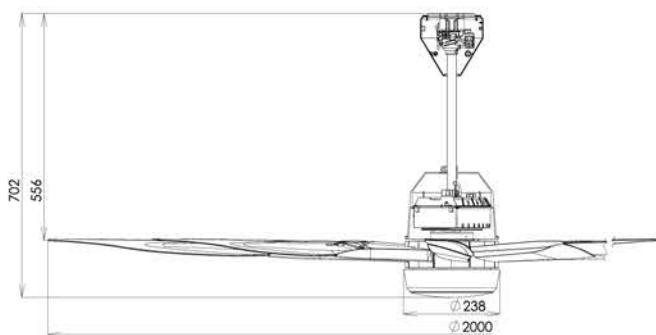


DC Motor

Installation Space (unit:mm)



F-M20LYVBKRH
(Canopy Type)



F-M20LYVBKRH
(Pipe Type)

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

Optional Pipe

- F-PZ30PB (30")
- F-PZ36PB (36")
- F-PZ48PB (48")
- F-PZ60PB (60")
- F-PZ79PB (79")

*Only applicable for:
(FM20LYVBKSH)*

Dimension

Width: Ø2000mm [80"]
Height:
Canopy Type: 446mm
Pipe Type: 702mm

Colour

Black

F-M18LY

Mondo



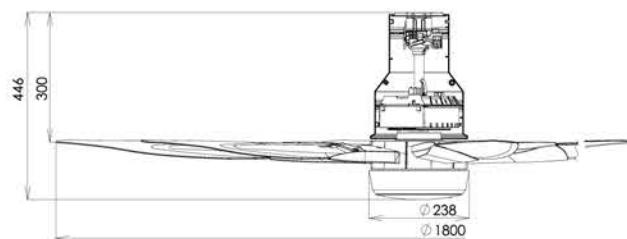
F-M18LYVBKRH
(Canopy Type)



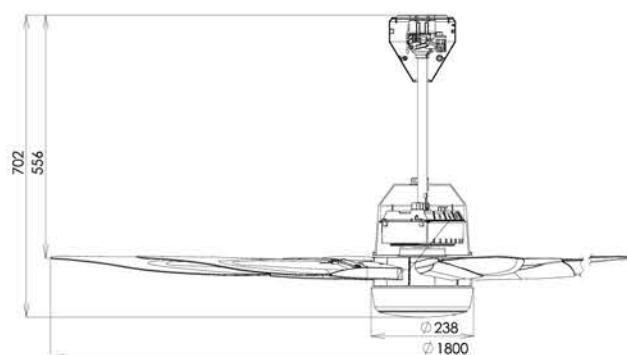
F-M18LYVBKSH
(Pipe Type)



Installation Space (unit:mm)



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

Optional Pipe

- F-PZ30PB (30")
- F-PZ36PB (36")
- F-PZ48PB (48")
- F-PZ60PB (60")
- F-PZ79PB (79")

*Only applicable for:
(F-M18LYVBKSH)*

Dimension

Width: Ø2000mm [80"]
Height:
Canopy Type: 446mm
Pipe Type: 702mm

Colour

Black



Scan me for
AR Demo
Required to access with
Instagram app



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

1/f Yuragi Feature

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

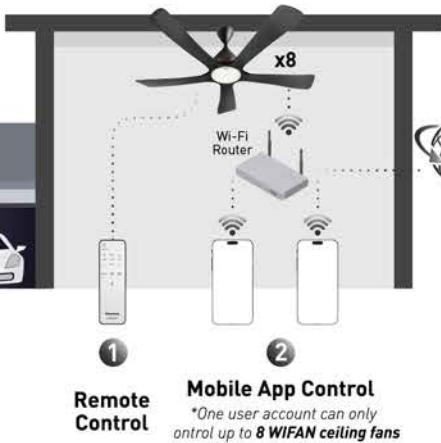
Features



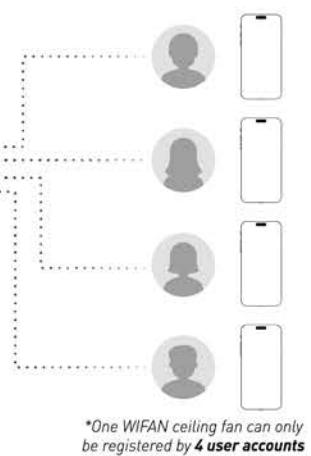
Mobile Application Control
App-enabled* ceiling fan that connects to your Wi-Fi network and allows user to control their fans using mobile devices.

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

Wi-Fi Ceiling Fan Connection



3 Remotely control away from home



Advantages of Mobile App Control

Comfort

Remotely turns on the ceiling fan using the Mobile App before arriving home to enjoy the comfortable air.

Convenient

Control and manage your ceiling fans from anywhere and anytime using your mobile devices.

Customization

Preset your ceiling fan's and light setting according to your preferences to suit your daily activities.

Energy Efficient

Eliminate the wastage of energy consumption from the unattended ceiling fans which are left behind by enable to turn them off even when you're away from home.



Hassle Free

Control your ceiling fan using your mobile devices without having to search for the remote control.

Security

Operate the ceiling fan at preset schedule (day and time) when away from home or on long vacation as a method for crime prevention

Timely

Make use of the "Scheduling Function", "Sleep Mode" and On/Off Timer to suits your daily activities.

Time Saving

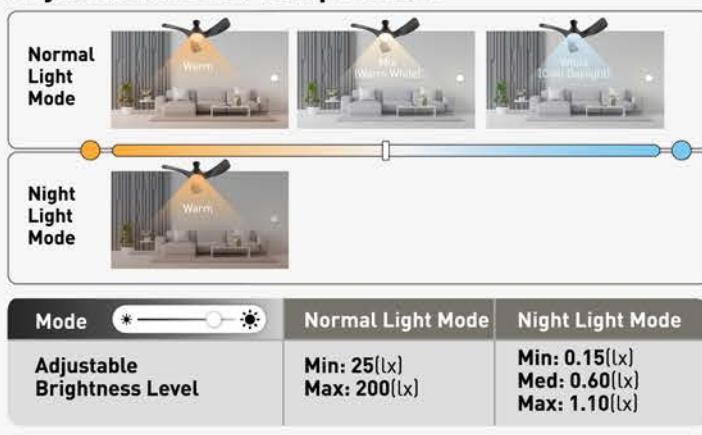
Controls multiple ceiling fans simultaneously.

Features Available in the App

LED Lighting

(Applicable for F-M15GCVBKSH & F-M12GCVBKH)

Adjustable Color Temperature

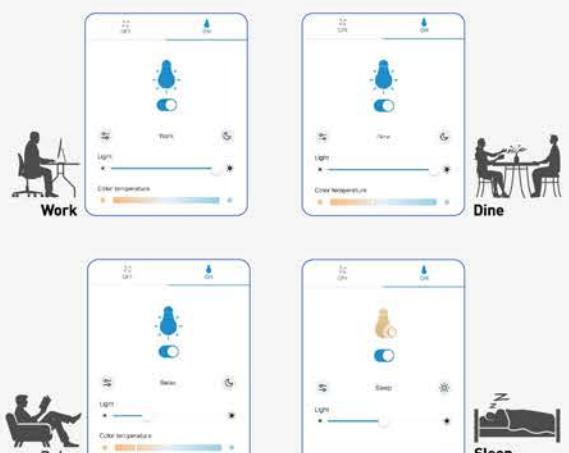


Mode	Normal Light Mode	Night Light Mode
Adjustable Brightness Level	Min: 25(lx) Max: 200(lx)	Min: 0.15(lx) Med: 0.60(lx) Max: 1.10(lx)

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.



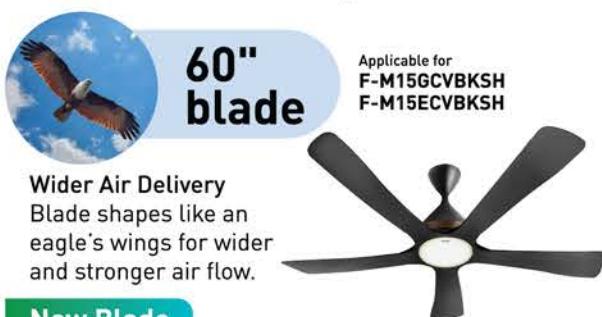
Scene	Work	Dine	Relax	Sleep
Light	25 lx	25 lx	25 lx	25 lx
Color Temperature	Warm	Warm	Warm	Warm

Reverse Function

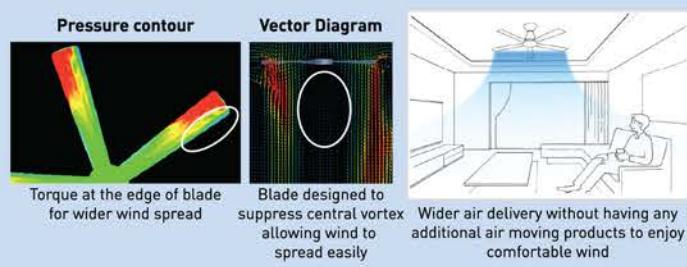
The reverse function rotates the ceiling fan in a clockwise mode and draws cool air upwards and circulates the air around the room for an even air flow and comfortable temperature. The reverse function complements with the functions of an air conditioner and helps to maximize the effectiveness of the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



Innovative Blade Design



New Blade



New Blade

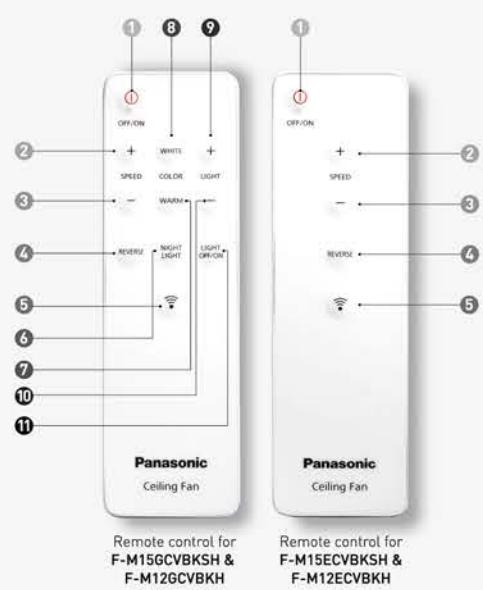
- 1 3D Curve blade**
Blade tip moves in advance to the rotational direction and does not cut air at same timing
- 2** Blade turn gradually causing small pressure change to create smooth and quiet air



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

Simple and Contemporary Remote Control

- ① 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
- ⑦ 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
- ⑩ "-" Light Button:** Decreases light brightness gradually
- ⑪ Light Off/On Button:** Turns Off or turns On the Light



F-M15GC



F-M15GCVBKSH



Features

- 5-Blade Design
- Wider Air Delivery
- 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 Features
- Durable ABS-GF Blades

*Only available in the Mobile App

Dimension

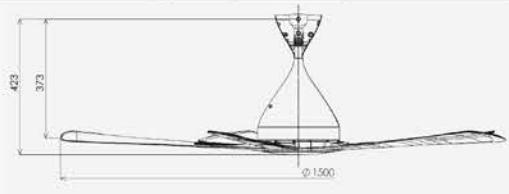
Width: Ø1500mm [60"]

Height: 423mm

Colour

Black

Installation Space (unit:mm)



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 Function
- Scheduling Function*
- Grouping Function*
- Sleep Mode*
- ON/OFF Timer*
- Enhanced Safety Features
- Durable ABS-GF Blades

*Only available in the Mobile App

Dimension

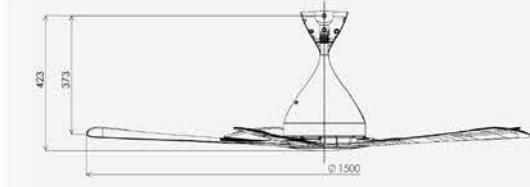
Width: Ø1500mm [60"]

Height: 423mm

Colour

Black

Installation Space (unit:mm)



F-M15EC



F-M15ECVBKSH



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 Features
- Durable ABS-GF Blades

*Only available in the Mobile App

Dimension

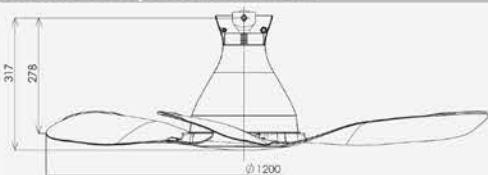
Width: Ø1200mm [48"]

Height: 317mm

Colour

Black

Installation Space (unit:mm)



F-M12GC



F-M12GCVBKH



F-M12EC



F-M12ECVBKH



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 Features
- Durable ABS-GF Blades

*Only available in the Mobile App

Dimension

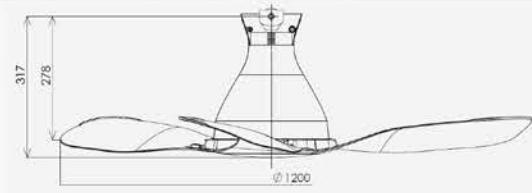
Width: Ø1200mm [48"]

Height: 317mm

Colour

Black

Installation Space (unit:mm)



 **nanoe™ X**



More info on
nanoe™ X



Scan me for
AR Demo
Required to access with
Instagram app



Purifying your living space, keeping you safe indoors.

nanoe™ X Technology

Enjoy quality air at home and in other interior environments.

ECONAVI Technology

Senses, Self Adjust, Saves. Intelligent sensor that helps to saves energy by detecting unconscious waste of energy and adjusts fan speed automatically.

DC Motor Technology

Saves up to 55% energy compared to AC motor.

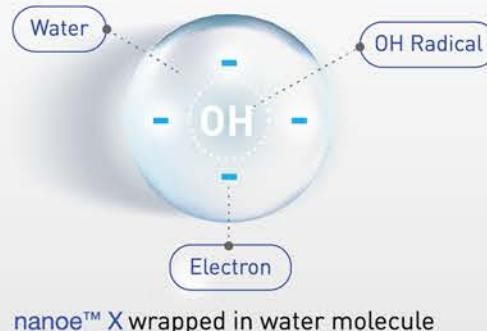


Panasonic Unique nanoe™ X Technology

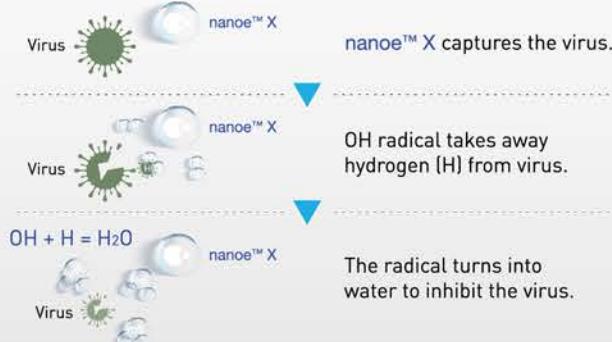
A nanoe™ X is a fine (5 to 20nm) and weak acidic water particle with a reactive substance and an electric charge. A nanoe™ X device releases radicals in water molecules which effectively inhibits viruses, bacteria, odors and allergens.

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 + electric



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.

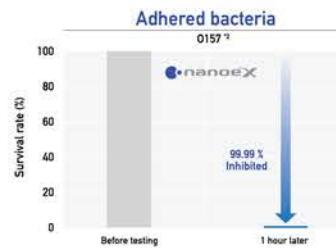
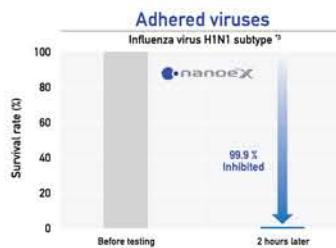
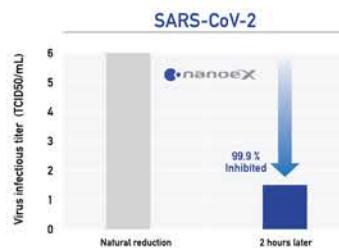
nanoe™
Approx. 5-20nm



•nanoe™ Main Features

Anti-Virus/Bacteria

Inhibits viruses (99.9%) and bacteria (99.99%)



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
Test Substance: novel coronavirus (SARS-CoV-2)
Test Results: Over 99.99% of activity is inhibited (1140-01 A1)

Influenza Virus H1N1 Subtype

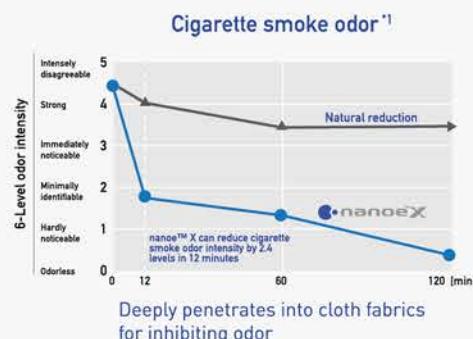
Testing Organization: Kitasato Research Center for Environmental Science
Testing Method: Measured the number of viruses adhered to a cloth in an approximately 1m³ airtight test room
Inhibition Method: nanoe™ released
Test Substance: Adhered virus
Test Results: Inhibited by at least 99.9% in 2 hours (21_0084_1)

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
Inhibition Method: nanoe™ released
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



Cigarette Smoke Odor

[Testing organization]
[Testing method]
[Deodorization method]
[Test substance]
[Test results]

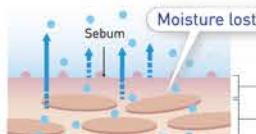
: Panasonic Product Analysis Center
: Verified using the six-level odor intensity scale method in an approximately 23m³ test room
: nanoe™ released
: Surface-attached cigarette smoke odor
: Odor intensity reduced by levels in 12 mins.
(4AA33-160615-N04)

Skin and Hair Hydration

Helps keep the moisture back to the skin

Without nanoe™ X

After 15 minutes
Moisture escapes from the skin, allowing it to become dry and dull



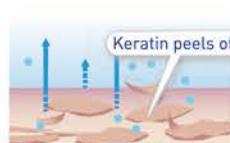
With nanoe™ X

After 15 minutes
nanoe™ X attaches to the sebum and forms a membrane over the skin, preventing moisture loss



Without nanoe™ X

After 28 days
Cracks occur in the skin and keratin peels off



With nanoe

After 28 days
Skin is hydrated, keeping it fresh and moisturized



Disclaimer

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™ X and nanoe™ do not guarantee prevention of infection.
3. Data regarding the effectiveness of nanoe™ X and nanoe™ have been obtained through experiments under special condition using devices that generate electrostatic atomized water, and have not been tested on commercial products with 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 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.

F-M15ME



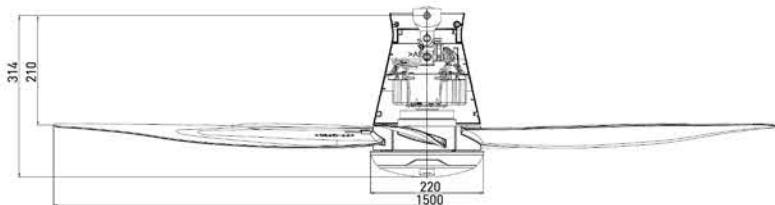
F-M15MEVBKRH
(Long Type)



F-M15MEVBKQH
(Short Pipe)



Installation Space (unit:mm)



F-M15MEVBKQH
(Short Pipe)



F-M15MEVBKRH
(Long Pipe)

Features

- 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

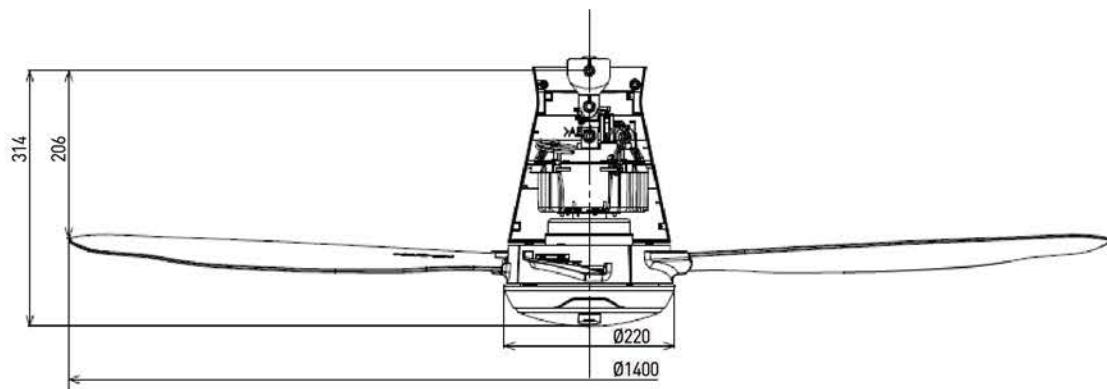
Black



F-M14MEVBKH



Installation Space (unit:mm)



Features

- 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: Ø1400mm [56"]
Height: 314mm

Colour

Black

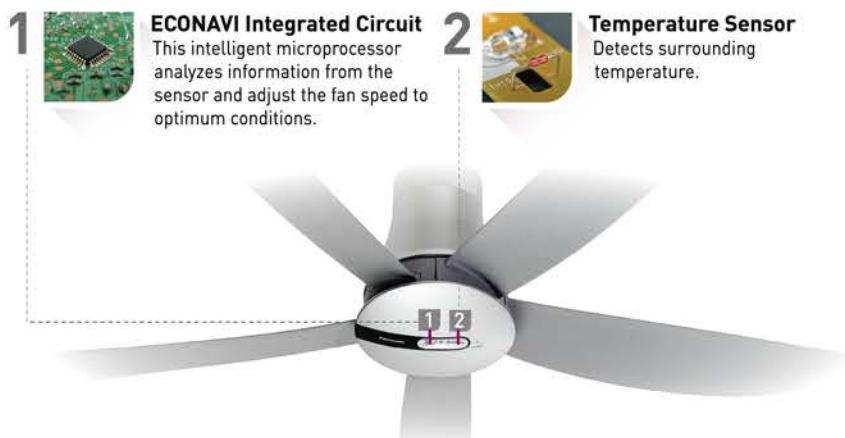
Senses. Self-Adjust. Saves.

INTELLIGENT ECO SENSORS

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 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.



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.



ECONAVI-Temperature Sensor

64% energy saving when in ECONAVI mode

Activated 10 minutes after START.

Room Temp Zone (simulation)		
≥30°C	Zone 1	☀ (Day Time)
≥29°C	Zone 2	☀ (Day Time)
24-29°C	Zone 3	☀ (Day Time, Air conditioner usage)
<24°C	Zone 4	🌙 (Night Time, Air conditioner usage)

INTELLIGENT ECO SENSORS

ECONAVI

Temperature detection every 3 minutes.

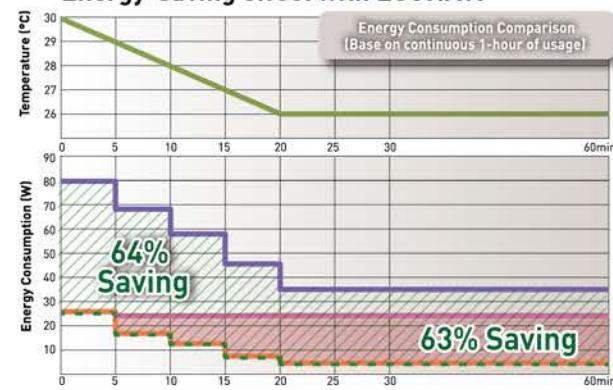
Room Temp Change	ECONAVI (9 Speed)
1°C ↑	2 speed
1°C ↓	2 speed
1°C ↑	2 speed
1°C ↓	1 speed
1°C ↑	1 speed
1°C ↓	1 speed
1°C ↑	No change
1°C ↓	1 speed

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



[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

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



Above figure illustrates the effect of using air conditioner and ceiling fan with 'Econavi'. The fan speed is adjusted according to room temperature monitored by the intelligent thermal sensor. Room temperature decreases to 28°C over a period, while the sensible temperature could be maintained to 26.7°C, which is said to be most comfortable to human body*.

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

INTELLIGENT ECO SENSORS



Air conditioner and ceiling fan is used without

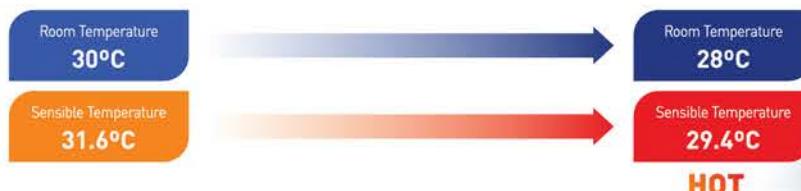


This figure illustrates the effect of using both air conditioner and ceiling fan without 'Econavi Mode'. The fan operates at high speed continuously. Room temperature decreases to 28°C over a period, while the sensible temperature decreases to 25.5°C, possible resulting the human body to feel cold.

INTELLIGENT ECO SENSORS



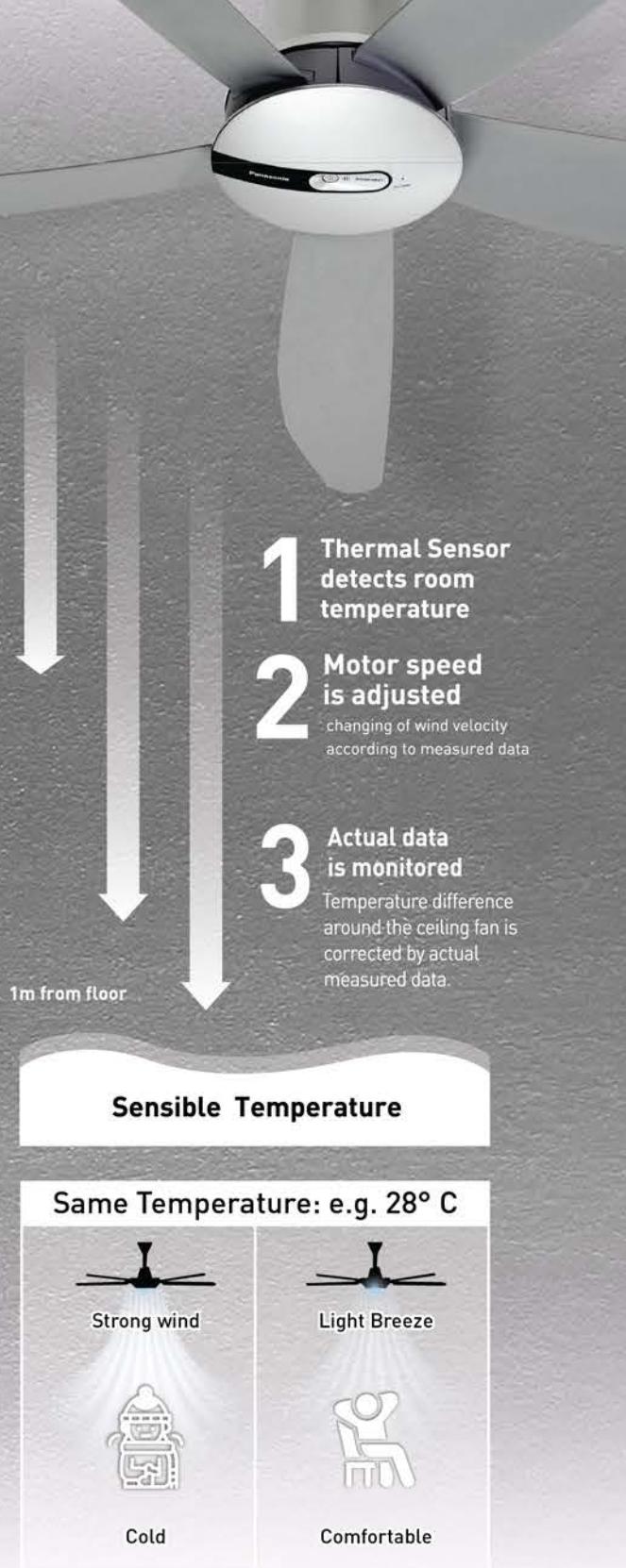
Only air conditioner is used



Benefits of Econavi

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.



F-M15H5

INTELLIGENT ECO SENSORS

ECONAVI



F-M15H5VBSRH
(Long Pipe)

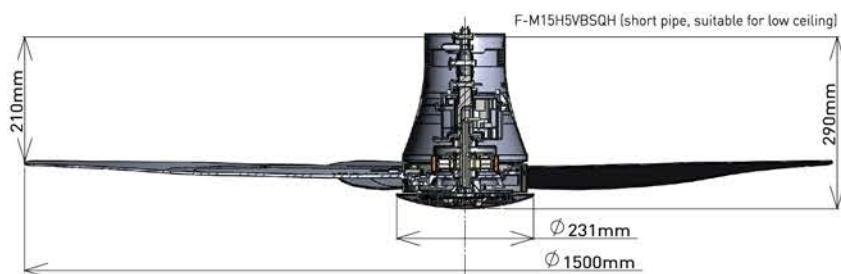


F-M15H5VBSQH
(Short Pipe)

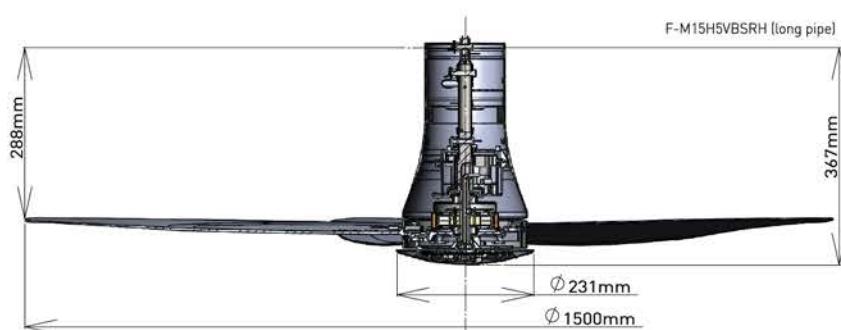


Installation Space (unit:mm)

F-M15H5VBSQH
(Short Pipe)



F-M15H5VBSRH
(Long Pipe)



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-M14HW

INTELLIGENT ECO SENSORS

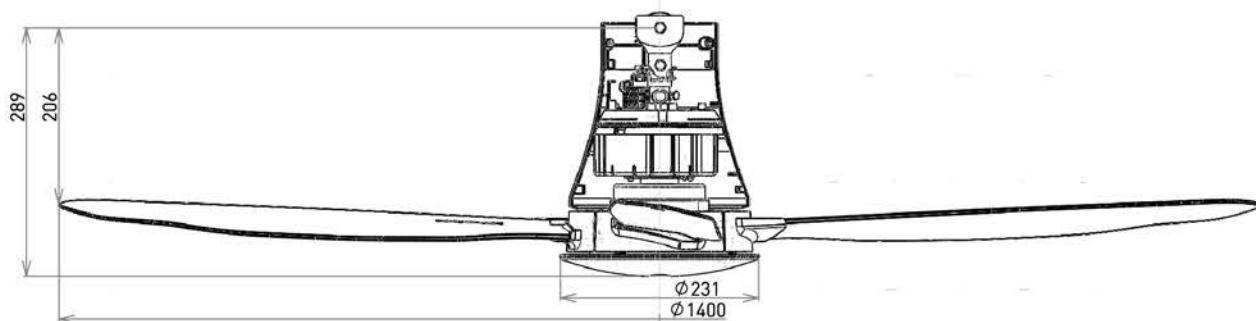
ECONAVI



F-M14HWVBSQH



Installation Space (unit:mm)



Features

- ECONAVI Feature
- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Durable Blades (PPG Material)

Dimension

Width: Ø1400mm (56")
Height: 289mm

Colour

Platinum Silver

LED Ceiling Fan

(Applicable for F-M15GW, F-M12GX)

LED ceiling fan provides you greater space with the lighting incorporated into the fan. LED is used due to its long lifespan and also simply because it is energy saving.

85%
Energy Saving*

* LED Light compared to incandescent bulb.

Hassle-free - No Bulb Replacement Needed

* With the long lifespan of LED light, there is no need to constantly change your light bulb and reduce garbage waste.

**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	F-M15GW	150(lx)	Cool Day Light
	F-M12GX	75(lx)	Warm
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

* Subject to selected models

Image of Room General Lighting

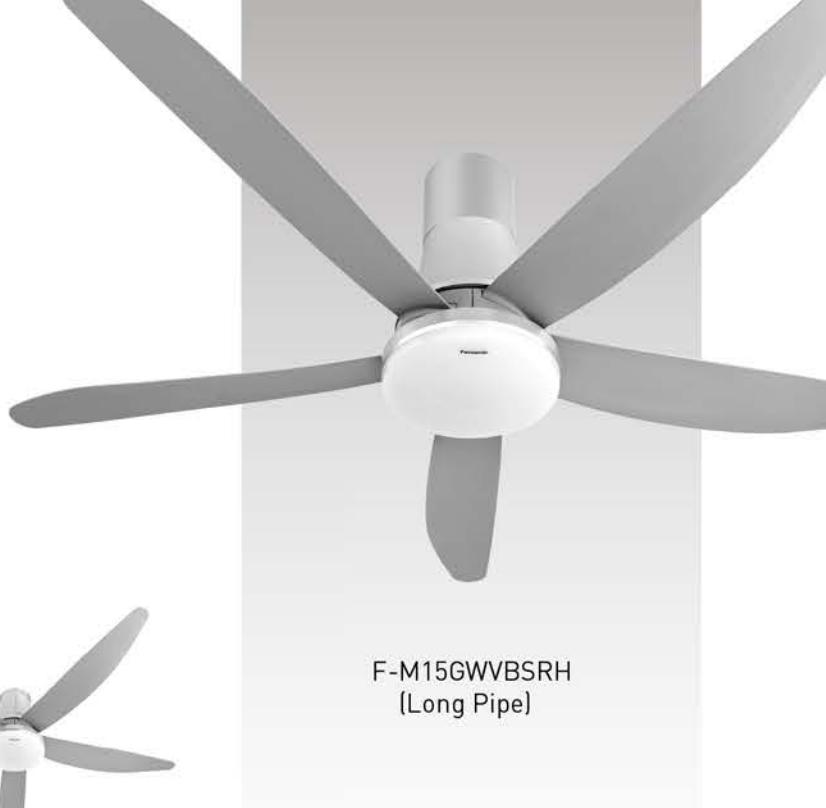


LED Lighting Coverage*



F-M15GW

LED



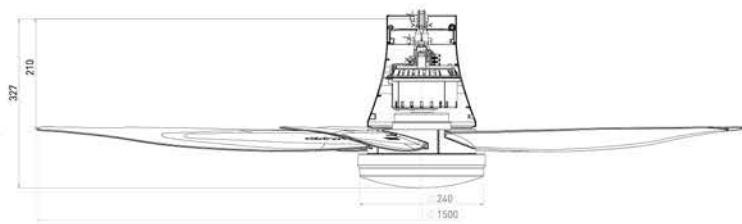
F-M15GWVBSRH
(Long Pipe)



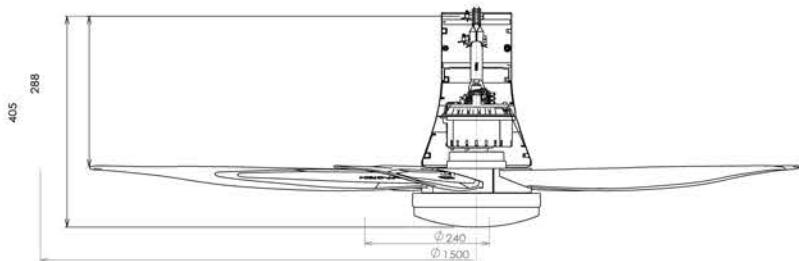
F-M15GWVBSQH
(Short Pipe)



Installation Space (unit:mm)



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-M12GX

LED



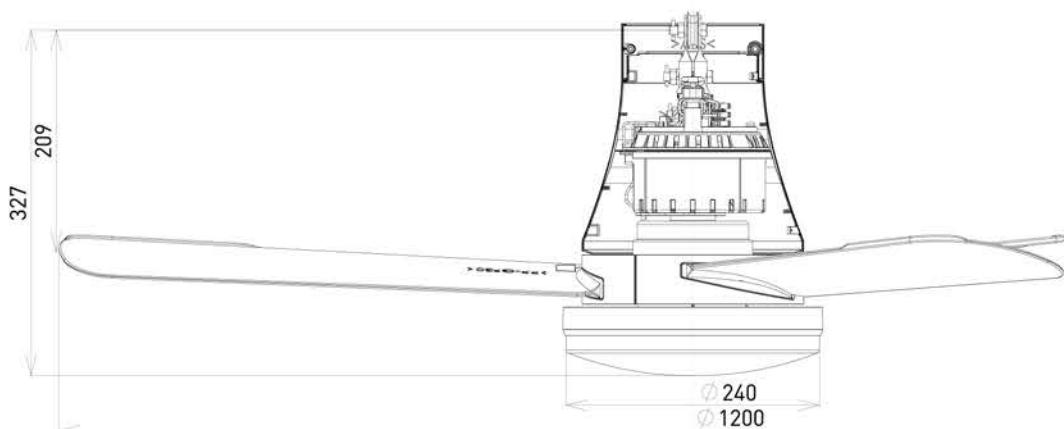
F-M12GXVBHQH



SAVE
UP TO
55%
ELECTRICITY



Installation Space (unit:mm)



Features

- LED lightning - 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



AURA



DC Motor Technology

Saves up to 55% energy compared to AC motor.

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

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

Stylish 3D Blade Design

Tough yet durable, light and rust proof blades generate maximum air delivery with minimal noise.

Enhanced Safety Features

Safety wires & blade hook ensure zero mishaps should blade screws come loose. Fan rod is connected to a safety switch that cuts power supply should any malfunction occur.

F-M15EX



F-M15EXVBKRH
(Long Pipe)



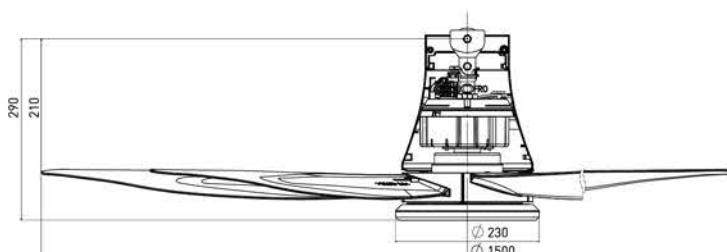
F-M15EXVBKQH
(Short Pipe)



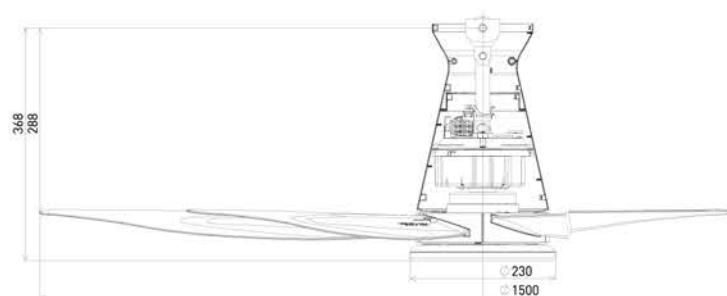
SAVE
UP TO
55%
ELECTRICITY



Installation Space (unit:mm)



F-M15EXVBKQH
(Short Pipe)



F-M15EXVBKRH
(Long Pipe)

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

F-M14FE

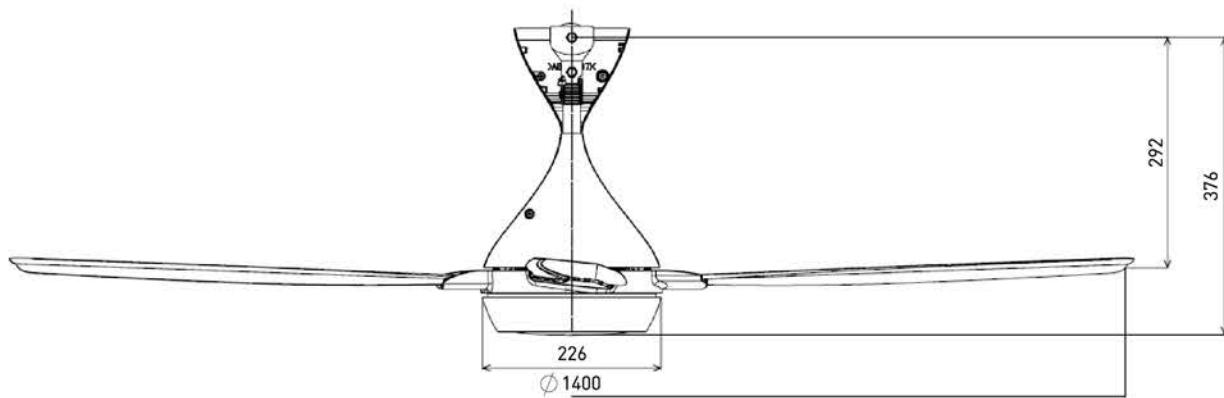
AURA2



F-M14FEVBKH



Installation Space (unit:mm)



Features

- DC Motor Technology
- Yuragi (Natural Breeze) Function
- Enhanced Safety Features
- Greater Air Delivery
- Simple and Contemporary
- Remote Control

Optional Pipe

- F-PZ30PEMK (30")
- F-PZ60PEMK (60")

Dimension

Width: Ø1400mm [56"]
Height: 376mm

Colour

Black



BAYU DC

DC Motor Technology

Uses less energy compared to AC motor.

1, 3, 6-hour Off Timer

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

3, 6-hour Sleep Timer

Gradually decreases fan speed till it powers off while you sleep.

Speed Control

Control fan functions with a simple touch.

Enhanced Safety Features

Safety blade plate 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-M14JH

BAYU DC 5



F-M14JHVBKH
(Black)



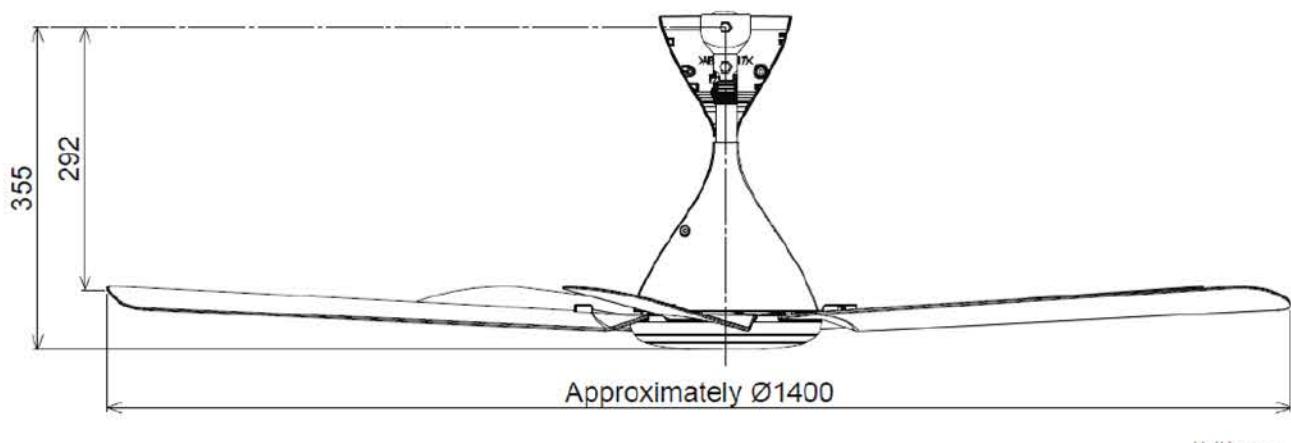
F-M14JHVBWH
(White)



DC Motor



Installation Space (unit:mm)



Features

- DC Motor Technology
- 5-blade Design for Better Air Delivery
- Enhanced Safety Features
- RF Remote Control with 5-Preset Speed

- 1, 3, 6-Hour Off Timer
- 3, 6-Hour Sleep Timer

Optional Pipe

F-PZ30PEMK (30")
F-PZ60PEMK (60")

Dimension

Width: Ø1400mm [56"]
Height: 355mm

Colour

Black
White

F-M14SH

BAYU DC



F-M14SHVBKH
(Black)



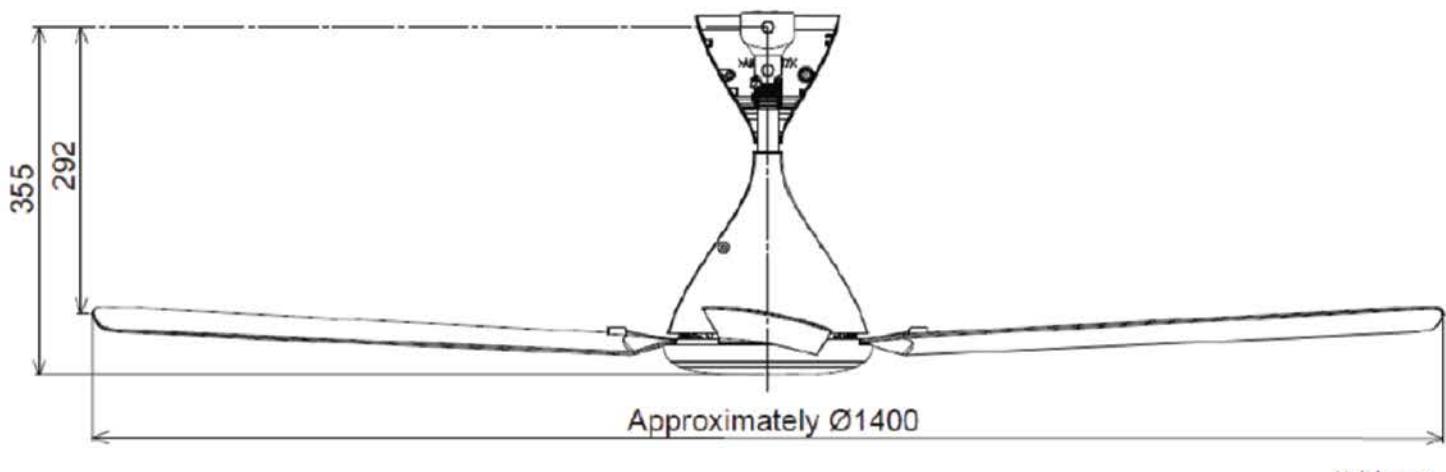
F-M14SHVBWH
(White)



DC Motor ENERGY SAVING



Installation Space (unit:mm)



Unit In mm

Features

- DC Motor Technology
- 4-blade Design
- Enhanced Safety Features
- RF Remote Control with 5-Preset Speed

- 1, 3, 6-Hour Off Timer
- 3, 6-Hour Sleep Timer

Optional Pipe

F-PZ30PEMK (30")
F-PZ60PEMK (60")

Dimension

Width: Ø1400mm (56")
Height: 355mm

Colour

Black
White

1/f Yuragi Feature

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

Enhanced Safety Features

Safety wires & blade hook ensure zero mishaps should blade screws come loose. Fan rod is connected to a safety switch that cuts power supply should any malfunction occur.

Stylish 3D Blade Design

Tough yet durable, light and rust proof blades generate maximum air delivery with minimal noise.

Speed Control

5-preset speed selection with sleep and off timer, with a press of a button from the remote control.

F-M15E2

NAMI
series



F-M15E2VBHH



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 Timer
- Durable Blades (PPG Material)

Dimension

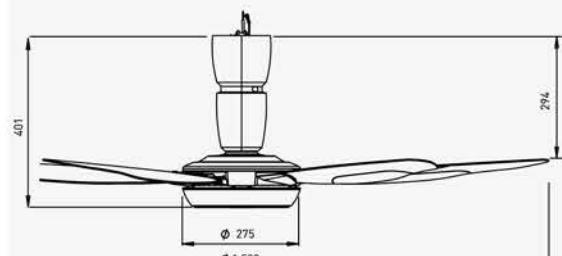
Width: Ø1500mm [60"]

Height: 401mm

Colour

Silver

Installation Space (unit:mm)



Features

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

Dimension

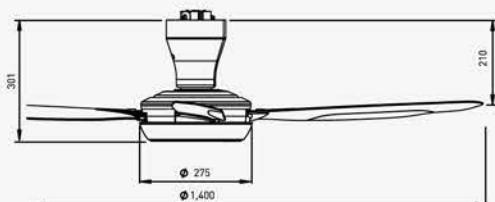
Width: Ø1400mm [56"]

Height: 301mm

Colour

Silver Grey

Installation Space (unit:mm)



F-M14E2

NAMI
series



F-M14E2VBHH



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.

1, 3, 6-hour Off Timer

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

Speed Control

Control fan functions with a simple touch.

3, 6-hour Sleep Timer

Gradually decreases fan speed till it powers off while you sleep.

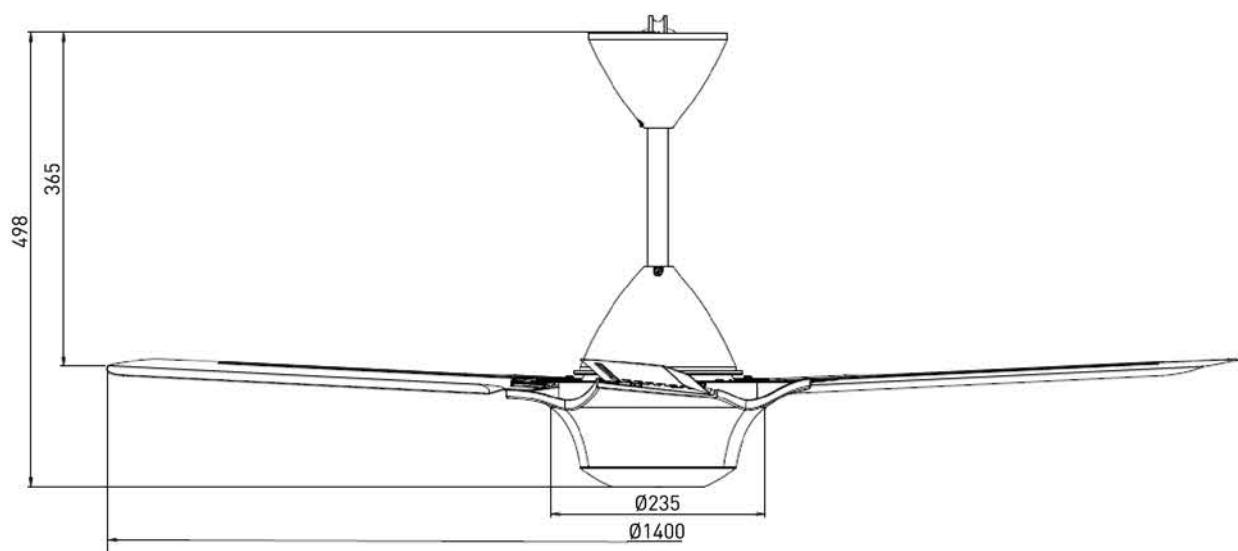
F-M14CF



F-M14CFVBHH



Installation Space (unit:mm)



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

Optional Pipe

- F-PZ24PFMH (24")
- F-PZ36PFMH (36")
- F-PZ48PFMH (48")
- F-PZ60PFMH (60")

Dimension

Width: Ø1400mm (56")
Height: 498mm

Colour

Grey

F-M12DE

BAYU^{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

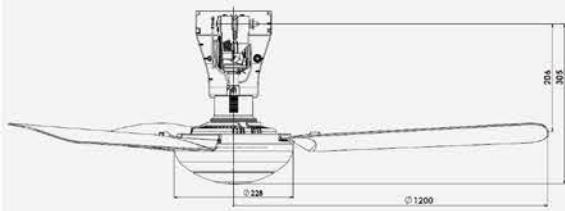
Width: Ø1200mm (48")

Height: 305mm

Colour

White

Installation Space (unit:mm)



F-M12DEVWH



F-M12D2

BAYU^{JR}



F-M12D2VBHH



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

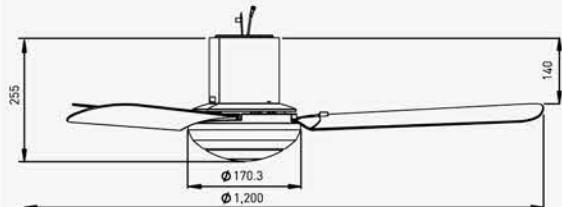
Width: Ø1200mm (48")

Height: 255mm

Colour

Silver

Installation Space (unit:mm)





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

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.

Technologically Advance Motor

Durable motor that provides you maximum breeze with minimal noise.

60" Regulator Fan

F-M15AO

F-M15AC



F-M15AOVBHH
(Dark Grey)



F-M15AOVBWH
(White)

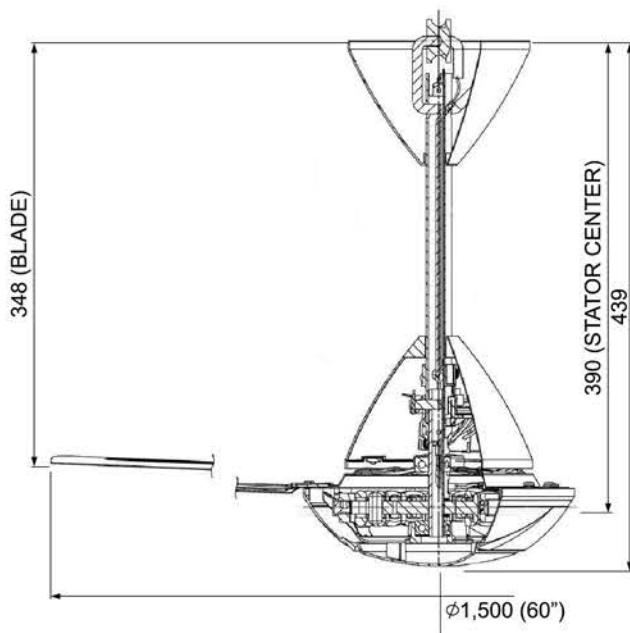


F-M15ACVBWH
(White)

**Inquire within*



Installation Space (unit:mm)



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

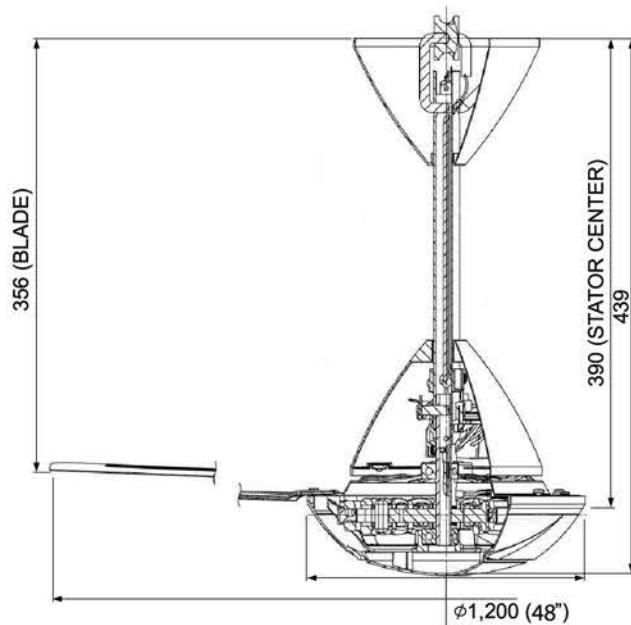
F-M12A0

Regulator Fan

F-M12A0VWH



Installation Space (unit:mm)



Features

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

Dimension

Width: Ø1200mm [48"]
Height: 439mm

Colour

White



Feel a Greater Breeze Experience

Panasonic Electric Fan keep you in mind right out of the box.

With easy assembly and maintenance, durable motors and one-touch oscillation angles.

Stand Fan F-MX405



Features

- Thermal safety fuse
- Fully automatic oscillation
- Condenser motor

Dimension

Width: 40cm (16")

Colour

Gris fonce brown

Champagne

Purplish Blue

Features

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

Dimension

Width: 40cm (16")

Colour

Aqua blue

Meadow green

Grape purple

Table Fan

F-MN404



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

Grape purple

Wall Fan

F-MU50Y

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
- Oscillation Control by Pull Switch
- Durable Condensor Motor with Permanently Lubricated Ball-bearing Assembly
- Thermal Safety Fuse

Blade Size

Width: 50cm (20")

Colour

Black



F-MU50YVBKH



50cm

New Blade Design

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

Airflow Distance



Turbo Fin Guard Design

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



Swirling Air
* without Turbo Fin Guard



Straight Air

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



Wall Fan **F-MU44R**

F-MU44R-WT



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

Dimension

Width: 40cm (16")

Colour

White

Wall Fan

F-MU453

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

Dimension

Width: 45cm (18")

Colour

Dark Grey

Wall Fan **F-MU408 / F-MU308**

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

Dimension

40cm (16")- F-MU408-WT

30cm (12")- F-MU308-WT

Colour

White

Wall Fan F-MU405

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

Dimension

Width: 40cm (16")

Colour

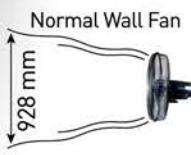
Dark Grey

New Design - Slim & Sleek
with slimmer guard depth of
130mm that is space saving

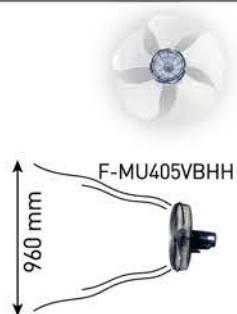


Slim design

New 5 Blade Design Technology
for a wider airflow performance



Airflow surrounding for normal
wall fan and F-MU405VBHH



Silent Operation
low noise with 52dB



Oscillation Fan F-MQ409

Features

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

Dimension

Width: 40cm (16")

Colour

Dark Grey / White

F-MQ409-DG
(Dark Grey)



F-MQ409-GY
(White)





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 chemical substances can be categorized into **3 groups**

Chemicals Substance	Origin
Formaldehyde (HCHO)	
Volatile Organic Compounds	Plywood Board, Flooring, Furniture, Wall Paper
• <i>Toluene, Xylene, Trimethyl Benzen</i>	
• <i>Phosphoric Acid Triester (TCEP)</i>	Non-Flammable Vinyl Cloth
Organic Phosphorus	Pesticides



Beware of curtains, sofas and any other furniture that you brought in

Chemical substances will also be released from curtains, sofas and any other furnitures.



Walls and Floors which occupies most of the area is the biggest enemy of clean air

Materials like adhesives used on walls and floors will continuously release chemical substances over a period of time.



Floor and bathroom sinks are targeted area for termites to inhabit

High humidity from bathrooms (especially the floor) will attract termites to inhabit.



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

Surf 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.



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.

Mites

There are around 30 types of mites which can be found in homes. In general, most mites do not cause any harm to humans. However, sting mites like House Mite and Dust Mite group can cause allergen.

Termites

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

Formaldehyde (HCHO)

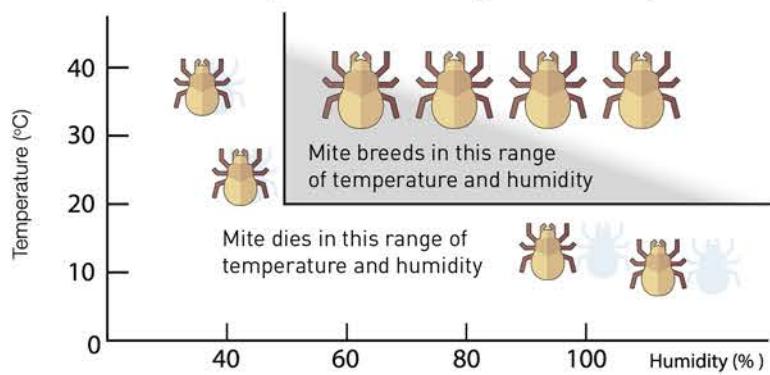
Volatile Organic Compounds (VOC) like Formaldehyde generated from building materials and/or home furniture can easily cause indoor air pollution.

Mold

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

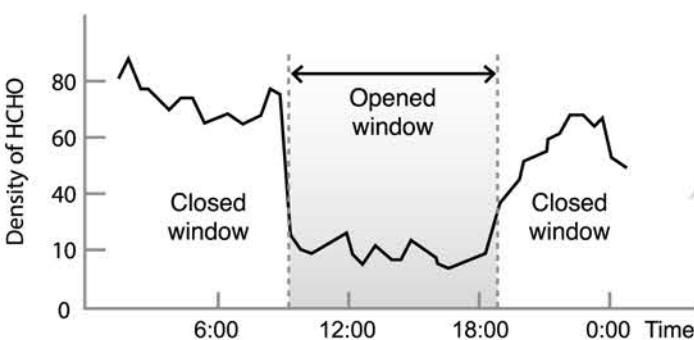
Temperature and Humidity for Mite Breeding

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)

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 is considered to be the main chemical substance causing the "Sick House Syndrome" - (Main sources: building materials, furniture, heat machine, smoking, etc.)

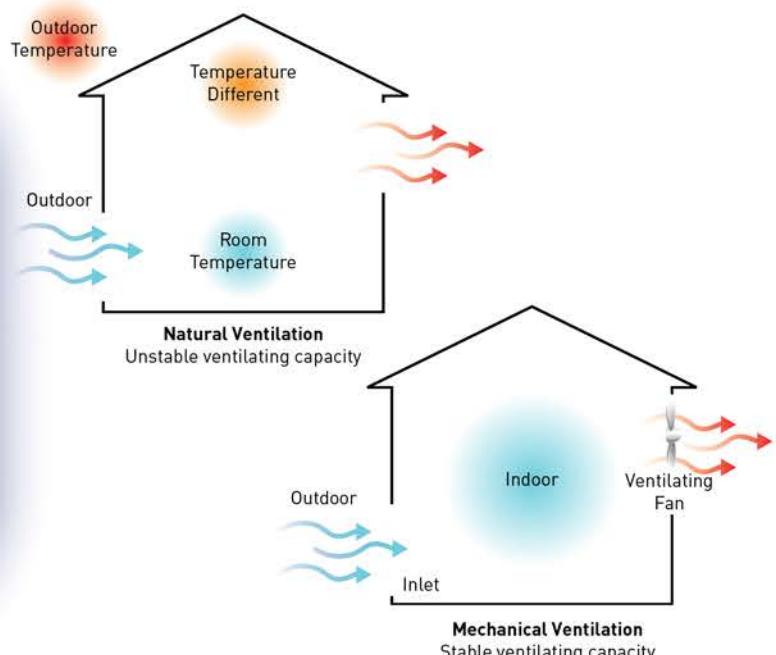
Ways to Improve Indoor Air Quality

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.

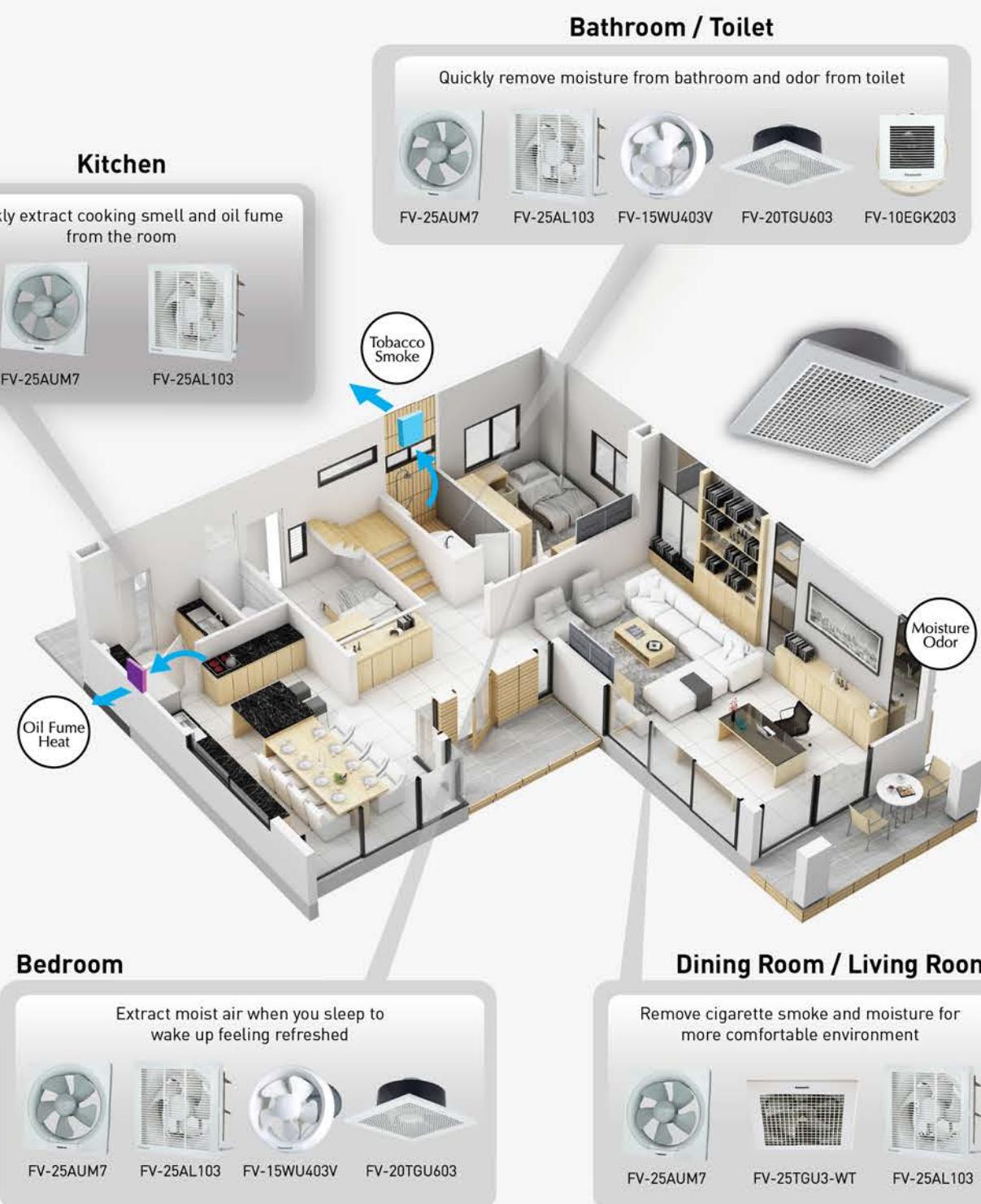
Mechanical ventilation removes stale, moist, polluted air and replaces it with fresh air by using a ventilating fan.



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.



Ventilation Schedule

The Number of Ventilation Fans Required

(A): Room size (M³) × (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

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

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.

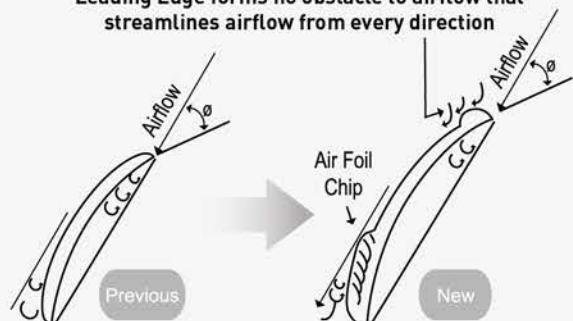


Advanced Blade Design

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%.





WALL MOUNT

Easy Maintenance

Our design is easy to dismantle and reassemble for cleaning.

Thermal Safety Fuse

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

Unique Q-blades For Low Noise

Unique designed blades ensure minimal noise disruption during operation.

Features

(Applicable for FV-10EGK203 / FV-15EGK203)



Compact and Stylish

Compact size with powerful exhaust capacity can fit most bathrooms up to 7.5m³ and 15m³ 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.



Speedy Odour Exhaustion



Foul smell creates unpleasant odour without proper ventilation. By using ventilation fans, it can help to exhaust these unpleasant odour to create a fresher and more comfortable room.

Excess Moisture Removal



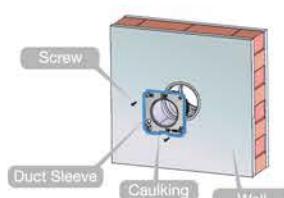
Excess moisture in a room will create conditions for molds to grow. This may damage the interior and causes potential threats to health. By using ventilation fans, it can help to remove excess moisture to prevent these potential risks.

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.

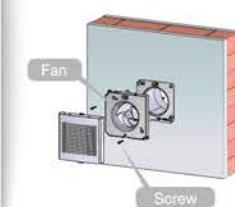
Step 1

Insert and fix from inside wall, then caulk



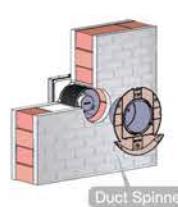
Step 2

Connect power wires and fix fan



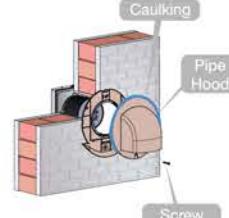
Step 3

Screw and fix from outside wall



Step 4

Hang and fix pipe hood, then caulk



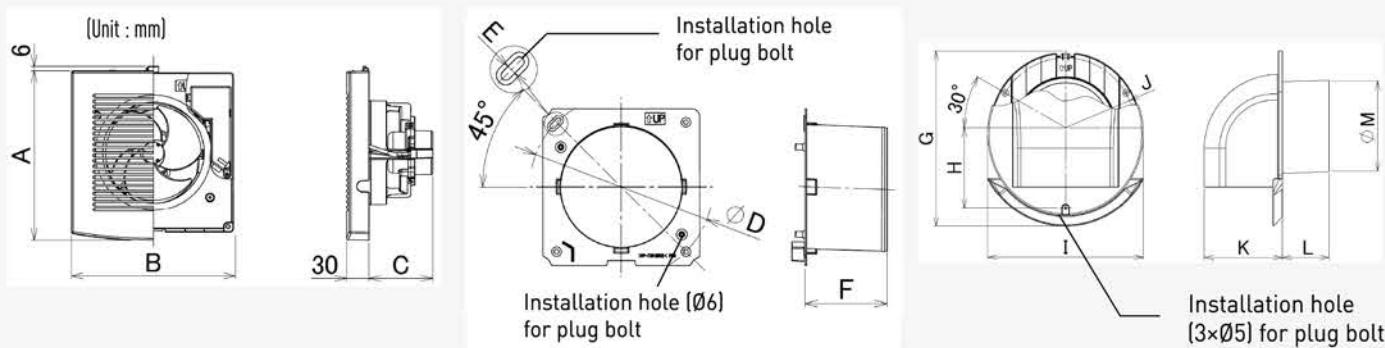
FV-10EGK203

FV-15EGK203



Features

- Low Noise Level
- Low Energy Consumption
- Pipe Hood Equipped
- Protection From Rain Penetration
- Safety / Thermal Fuse
- Easy Installation
- Suitable For Bathrooms

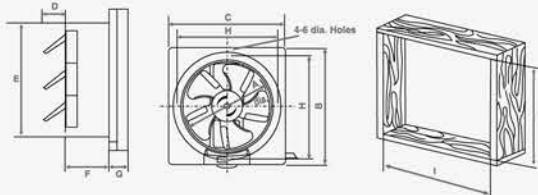


Model	Installation Hole Dia. mm	Wall Thickness mm	mm												
			A	B	C	D	E	F	G	H	I	J	K	L	M
FV-10EGK203	Ø130-140	100-150	176	170	83	177	6	100	250	107	220	99	99	82	118
FV-15EGK203	Ø175-185		230	220	86	231	6	100	310	142	270	123	138	82	161

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

Features

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



FV-20AUM8
FV-25AUM7
FV-30AUM8

Model	Size		mm								
	cm	inch	A	B	C	D	E	F	G	H	I'
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

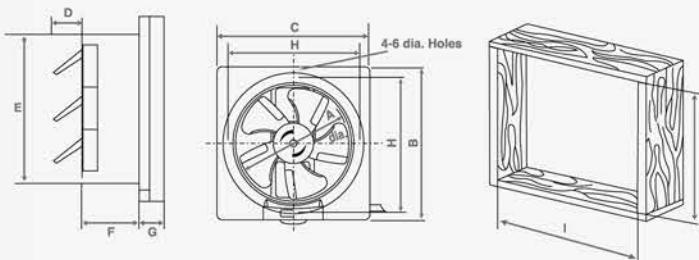
*Opening Hole Size

FV-20AL103 / FV-25AL103



Features

- 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



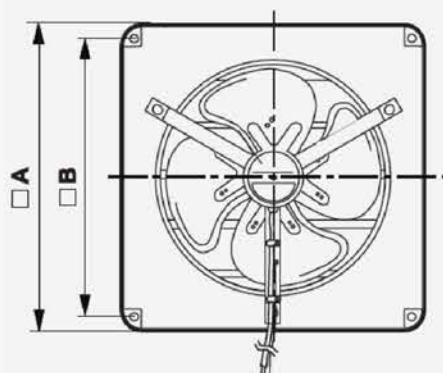
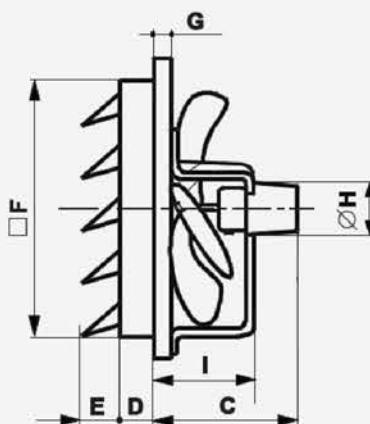
Model	Size		mm								
	cm	inch	A	B	C	D	E	F	G	H	I'
FV-20AL103	20	8	200	306	260	302	240	88	90	80	250
FV-25AL103	25	10	250	356	310	352	290	68	90	63	300

*Opening Hole Size

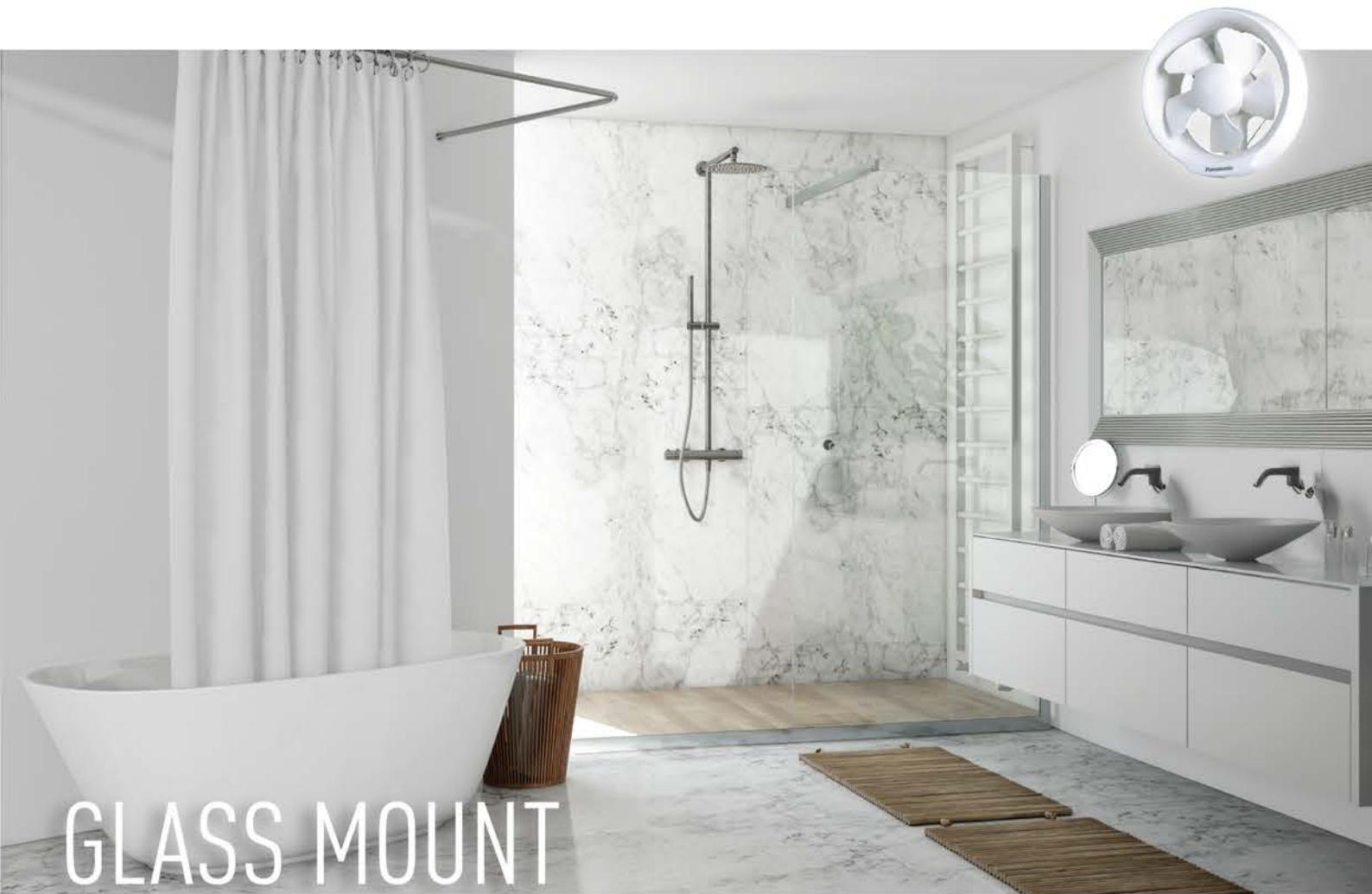


Features

- 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	Size		mm									Installation Hole
	cm	inch	A	B	C	D	E	F	G	H	I	
FV-40KAU103	40	16	510	480	215	40	55	434	10	126	130	Ø444



GLASS MOUNT

Easy Maintenance

Our design is easy to dismantle and reassemble for cleaning.

Thermal Safety Fuse

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

Unique Q-blades For Low Noise

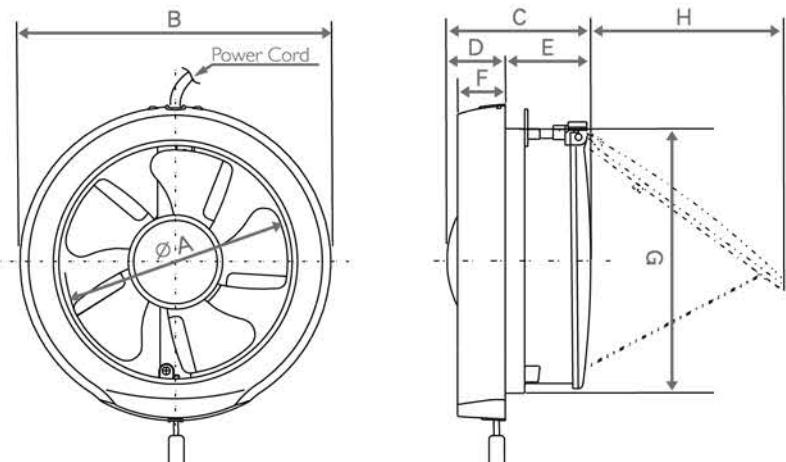
Unique designed blades ensure minimal noise disruption during operation.

FV-15WU403V/ FV-20WU403V



Features

- 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



Model	Size		mm							
	cm	inch	A	B	C	D	E	F	G*	H
FV-15WU403V	15	6	150	210	97	43	54	37.4	177	149
FV-20WU403V	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.

Thermal Safety Fuse

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

Unique Q-blades For Low Noise

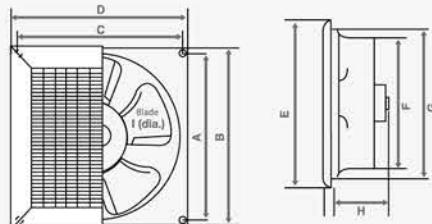
Unique designed blades ensure minimal noise disruption during operation.

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

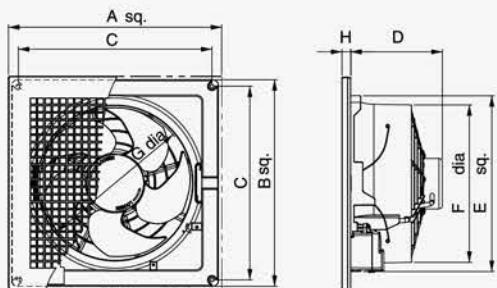


Model	Size		mm								
	cm	inch	A	B	C	D	E	F	G*	H	I
FV-15TGUZ-WT	16	6.4	230	244	230	244	253	174	214	108	160
FV-25TGU3-WT	25	10	336	355	336	355	365	272	310	117.5	250

*Opening Hole Size

Features

- 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



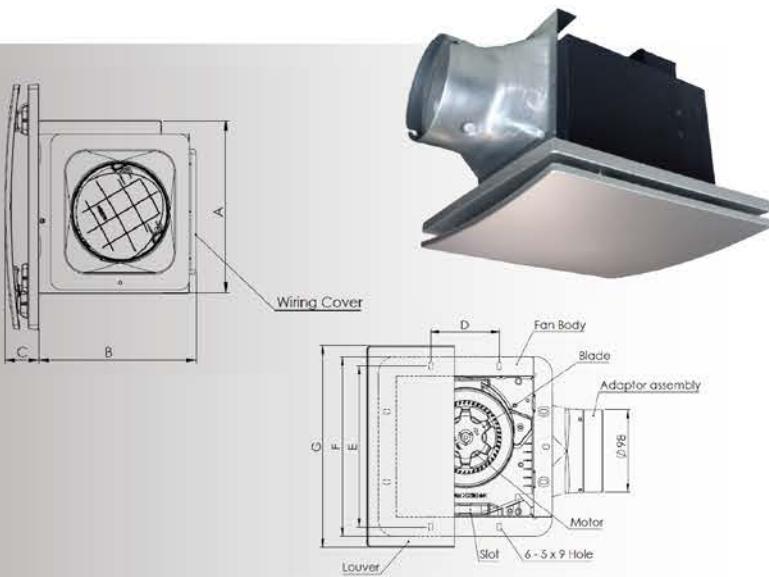
FV-20TGU603



Model	Size		mm							
	cm	inch	A	B	C	D	E*	F	G	H
FV-20TGU603	20	8	315	305	286	130	260	232	223	13

*Opening Hole Size

CEILING MOUNT SIROCCO FV-17CU2MVBSH



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

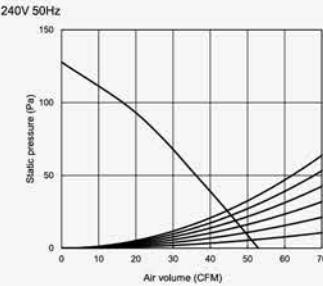
Friction Factors

- 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



Model	mm							Duct Size
	A	B	C	D	E	F	G	
FV-17CU2MVBSH	170	164	34	84	194	214	240	Ø100

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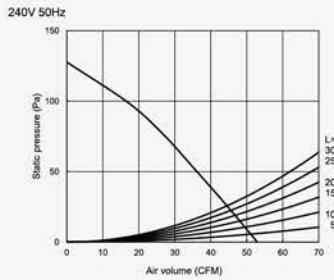
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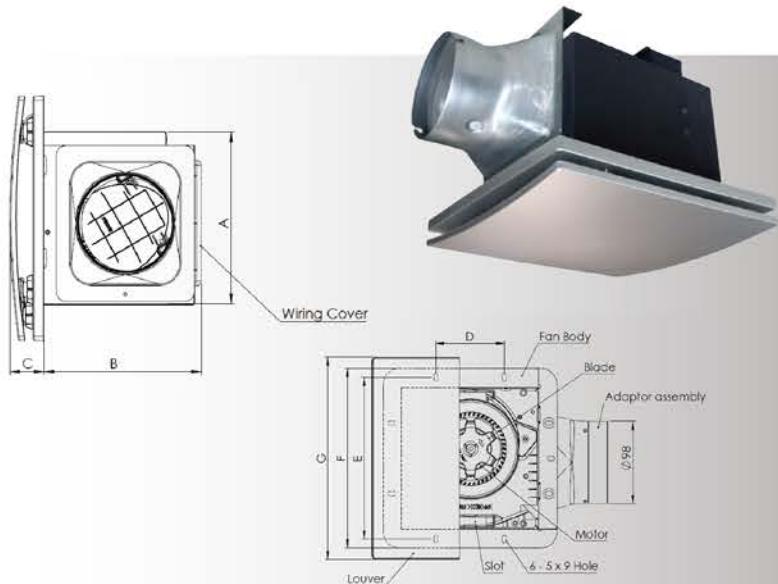
Colour

- Silver

Static Pressure Performance Data



CEILING MOUNT SIROCCO FV-24CG2MVBSH



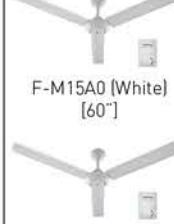
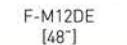
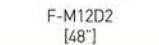
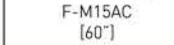
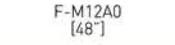
Model	mm							Duct Size
	A	B	C	D	E	F	G	
FV-24CG2MVBSH	223	175	38	140	255	278	300	Ø100

*Opening Hole Size

Product Line-Up

Ceiling Fan

SERIES	MONDO	WIFAN	nanoe™ X	ECONAVI	LED
8 Blades	 F-M20LY [80"]				
6 Blades	 F-M18LY [70"]				
5 Blades		 F-M15GC [60"]  F-M15EC [60"]	 F-M15ME [60"]	 F-M15H5 [60"]	 F-M15GW [60"]
4 Blades			 F-M14ME [56"]	 F-M14HW [56"]	
3 Blades		 F-M12GC [48"]  F-M12EC [48"]			 F-M12GX [48"]
FEATURES					
- DC Motor Technology	• (Twin)	• DC Motor (New Generation)	•	•	•
- 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

AURA	AURA 2	BAYU DC	NAMI	BAYU	REGULATOR
					
					
					 
•	•	•		 	 
			•		
•	•				
•	•	•	•	•	
•	•	•	•	•	•
PPG	Metal	ABS-GF (Glass Fiber)	PPG	Metal/PPG (F-M12DE, F-M12D2)	Metal

Product Line-Up

Electric Fan

Series	Table Fan	Stand Fan	Oscillation Fan	
Electric Fan	 F-MN404 F-MN304	 F-MX405	 F-MU50Y	
Features				
Size	40cm (16")	30cm (12")	40cm (16")	50cm (20")

Ventilation Fan

Series	Wall Mount	Wall Mount (Industrial)	High Pressure	
Ventilation Fan	 FV-10EGK203/ FV-15EGK203 FV-20AUM8/ FV-25AUM7/ FV-30AUM8 FV-20AL103 FV-25AL103		 FV-40KAU103	
Features				
Size	10cm (4") / 15cm (6")	20cm (8") / 25cm (10") / 30cm (12")	20cm (8") / 25cm (10")	40cm (16")

WALL FAN



F-MQ409



F-MU44R



F-MU453



F-MU405



F-MU308

40cm (16")

40cm (16")

45cm (18")

40cm (16")

40cm (16") 30cm (12")

GLASS MOUNT



FV-15WU403V /
FV-20WU403V

CEILING MOUNT



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



FV-20TGU603

CEILING MOUNT SIROCCO



FV-17CU2MVBSH



FV-24CG2MVBSH

15cm (6") / 20cm (8")

25cm (10") /
16cm (6.4")

20cm (8")

17cm (6.8")

24cm (9.6")

Specification

Ceiling Fan

SERIES			MONDO		WIFAN		nanoe™ X		ECONAVI		LED	
MODEL	50Hz		F-M18LY	F-M20LY	F-M15GC/F-M15EC	F-M12GC/F-M12EC	F-M15ME	F-M14ME	F-M15H5	F-M14H	F-M15GW	F-M12GX
Power Consumption	Low	W	6	3	4	3	4	4	3	2.5	25	21
	High	W	55	60	54	31	43	43	41	41	63	46
Fan Speed	Low	RPM	80	50	80	55	80	81	80	81	80	80
	High	RPM	185	150	245	170	235	239	235	239	235	236
Reverse Fan Speed	Low	RPM	n/a	n/a	80	55	n/a	n/a	n/a	n/a	n/a	n/a
	High	RPM	n/a	n/a	255	170	n/a	n/a	n/a	n/a	n/a	n/a
Air Velocity	m/min		190	170	160	185	210	185	210	185	210	185
Air Delivery	m³/min		325	360	300	200	245	225	245	225	245	187
Wi-Fi Frequency Range					2.4 GHz	2.4 GHz						
Mobile App OS					iOS / Android	iOS / Android						

Electric Fan

SERIES					STAND FAN		TABLE FAN			OSCILLATION FAN	
MODEL			50Hz		F-MX405		F-MN404		F-MN304		F-MQ409
Power Consumption			Low	W	45		45		28		20
			High	W	58		58		39		52
Fan Speed			Low	RPM	850		850		976		631
			High	RPM	1,210		1,210		1,248		1,178
Air Velocity			m/min		250		250		214		278
Air Delivery			m³/min		84.6		84.6		43		85

Ventilation Fan

SERIES			WALL MOUNT											
MODEL		50Hz	FV-10EGK203		FV-15EGK203		FV-20AUM8		FV-25AUM7		FV-30AUM8		FV-20AL103	
Air Volume	cfm	cmh	45	77	96	165	318	540	530	900	727	1,235	322	545
Motor	W		5		6.5		17		29		33		22	
Fan Speed	RPM		2,690		2,390		1,205		1,110		980		1,210	
Weight	kg		1.0		1.3		2.3		2.6		3.0		2.2	
Low Noise Level	dB(A)		33		37		37		39		45		40	
Low Electricity Consumption 24 Hours	RM		0.03		0.04		0.09		0.15		0.17		0.12	

AURA	AURA 2	BAYU DC 5	BAYU DC	NAMI		BAYU 3	BAYU JR	REGULATOR		
F-M15EX	F-M14FE	F-M14JH	F-M14SH	F-M15E2	F-M14E2	F-M14CF	F-M12DE / F-M12D2	F-M15A0	F-M15AC	F-M12A0
3	4	4	4	21	20	20	22	17	17	18
41	29	38	38	85	85	65	65	72	72	51
80	80	100	100	84	102	136	118	103	103	154
235	200	200	210	195	215	268	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
210	165	164	165	195	180	159	185	165	165	169
245	220	220	220	225	225	210	187	230	230	162

	WALL FAN (WITH REMOTE CONTROL)		WALL FAN											
	F-MU44R			F-MU50Y		F-MU453		F-MU408		F-MU308		F-MU405		
	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)		GLASS MOUNT		CEILING MOUNT				CEILING MOUNT SIROCCO					
	FV-25AL103	FV-40KAU103	FV-15WU403V	FV-20WU403V	FV-15TGUZ-WT	FV-20TGU603	FV-25TGU3-WT	FV-17CU2MVBSH			FV-24CG2MVBSH			
493	835	1,243	2,115	124	210	221	375	142	240	312	530	367	625	
29	59		10		20		12		20		24		9.5	
1,055	1,410		1,463		1,042		1,330		1,250		1,010		800	
2.7	6.4		0.9		1.1		1.2		1.8		1.9		1.9	
43	51		37		36		35		41		45		24	
0.15	0.36		0.05		0.10		0.06		0.14		0.13		0.05	
													0.06	

Panasonic

Please visit Panasonic Fan Microsite for more details:
fan.my.panasonic.com

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