MITSUBISHI HEAVY INDUSTRIES

MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

Residential Air-Conditioners

SR series

High Performance Air-Conditioning

2019

Elegant Timeless Design

The ZSX and ZS series air-conditioners have been stylishly designed with rounded contours that fit beautifully into any of Europe's diverse interior settings. The design was created by the Italian industrial design studio Tensa srl, based in Milan, to respond to a broad spectrum of local user needs.

ZSX series

All SRK series line up available for R32 refrigerant

R32 is the next generation refrigerant that boasts nearly 70% lower Global Warming Potential Rate than R410A. Due to its superior qualities R32 offers amazing energy efficiency benefits. It has a potential refrigerating effect 1.5 times that of R410A meaning it needs less energy to achieve the desired temperature and requires less refrigerant volume to operate.
Wall-mounted type units are compatible with both R32 and R410A.

Leading energy efficiency and high reliability with Mitsubishi Heavy Industries advanced technology.

What kind of solution Mitsubishi Heavy Industries Air-Conditioner can offer?

- Keep comfort by quick cool-down/warm-up
- Energy saving for sustainable society
- Comfort Interior
- Reliable electrical appliance for long term use

Mitsubishi Heavy Industries advanced technology can provide a variety of solutions.

A'DESIGN AWARD WINNER 2017 SILVER

Design award for Mitsubishi Heavy Industries SRK-ZSX air conditioning unit

Mitsubishi Heavy Industries has been awarded the 2017 Silver A' Design Award in the 'Engineering and Technical Design' category for its SRK-ZSX Diamond Series air conditioning unit. It was created to meet the demanding expectations of the European air conditioning market.

Energy Saving

High energy saving with comfort air conditioning ; provides the user with multiple solutions between comfort and energy savings.
All the models can achieve high energy efficiency by use of Mitsubishi Heavy Industries technology, such as high performance compressor, DC PAM inverter technology.

Quiet and Comfort

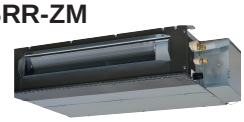
Mitsubishi Heavy Industries Thermal Systems offers a unique modest air conditioner; quiet and comfortable which provides precise air flow and capacity control.

Clean Air

Allergen clear operation cleans air using a control scheme unique to Mitsubishi Heavy Industries Thermal Systems. Furthermore, a wide array of air purification filters and self-cleaning operation helps keep the room air clean.

PRODUCT LINE UP

■ SINGLE-SPLIT

Model		Capacity Range (kW : Rated cooling capacity)									
		2.0kW	2.5kW	3.5kW	4.0kW	4.5kW	5.0kW	6.0kW	6.3kW	7.1kW	8.0kW	10.0kW
WALL MOUNTED TYPE Diamond Series **SRK-ZSX**  *1	-W P20	●	●	●			●	●				
	-S P26	●	●	●			●	●				
WALL MOUNTED TYPE NEW Diamond Series **SRK-ZR**  *1	-W P24								●	●	●	
	-S P27								●	●	●	●
WALL MOUNTED TYPE NEW Premium Series **SRK-ZS**  *1	-W P22	●	●	●			●					
	-S P28	●	●	●			●					
WALL MOUNTED TYPE NEW Standard Series **SRK-ZSP** 	-W P25		●	●		●						
	-S P29		●	●		●						
FROOR STANDING TYPE **SRF-ZMX**  *1	P30		●	●			●					
CEILING CONCEALED TYPE **SRR-ZM**  *1	P31		●	●								
CEILING CASSETTE TYPE **FDTC-VF**  *1	P32		●	●	●		●	●				

ZSX · ZS series colour variations available

Users can choose the model from three different colours allowing more choice depending on the style of the room.

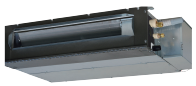
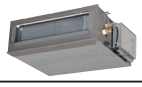
ZSX series


Pure White


Black & White


Titanium

■ MULTI-SPLIT SYSTEM

Model		4.0kW	4.5kW	5.0kW	6.0kW	7.1kW	8.0kW	10.0kW	12.5kW
		40ZS-S	45ZS-S	50ZS-S1	60ZM-S1	71ZM-S1	80ZM-S1	100ZM-S	125ZM-S
Number of connectable indoor units		2	2	2 - 3	2 - 3	2 - 4	2 - 4	4 - 5	4 - 6
OUTDOOR UNIT R410A SCM*2 P34				NEW 				 *3	
WALL MOUNTED TYPE 	SRK20ZSX	●	●	●	●	●	●	●	●
	SRK25ZSX	●	●	●	●	●	●	●	●
	SRK35ZSX	●	●	●	●	●	●	●	●
	SRK50ZSX			●	●	●	●	●	●
	SRK60ZSX				●	●	●	●	●
	SRK71ZR							●	●
	SRK20ZS	●	●	●	●	●	●	●	●
	SRK25ZS	●	●	●	●	●	●	●	●
	SRK35ZS	●	●	●	●	●	●	●	●
	SRK50ZS			●	●	●	●	●	●
	SKM20ZSP	●	●	●					
	SKM25ZSP	●	●	●					
	SKM35ZSP	●	●	●					
FROOR STANDING TYPE 	SRF25ZMX	●	●	●	●	●	●	●	●
	SRF35ZMX	●	●	●	●	●	●	●	●
	SRF50ZMX			●	●	●	●	●	●
CEILING CONCEALED TYPE 	SRR25ZM	●	●	●	●	●	●	●	●
	SRR35ZM	●	●	●	●	●	●	●	●
	SRR50ZM			●	●	●	●	●	●
	SRR60ZM				●	●	●	●	●
CEILING CASSETTE TYPE 	FDTC25VF	●	●	●	●	●	●	●	●
	FDTC35VF	●	●	●	●	●	●	●	●
	FDTC50VF			●	●	●	●	●	●
	FDTC60VF				●	●	●	●	●
DUCT CONNECTED TYPE NEW 	FDUM50VH			●	●	●	●	●	●
CEILING SUSPENDED TYPE NEW 	FDE50VH			●	●	●	●	●	●

ZS series


Pure White


Black & White


Titanium

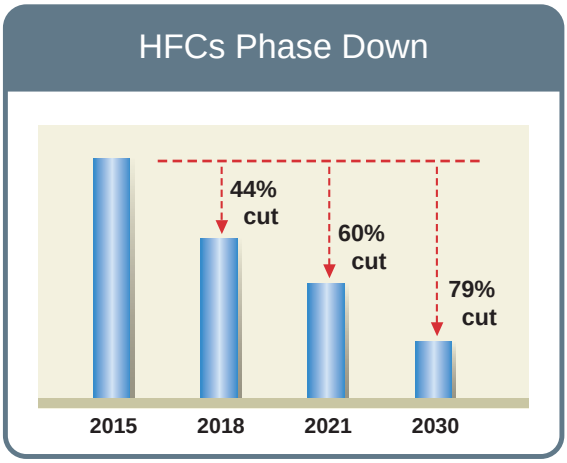
*1 Common use for both Single and Multi.
*2 Energy class depends on connected indoor units.
*3 Energy label applies below cooling capacity 12kW.

NEXT GENERATION REFRIGERANT R32

F-GAS REGULATION (EU) No 517/2014

•Introduced in January 2015 to regulate the use of Fluorinated Greenhouse Gases **(F-Gases)**

•The Hydrofluorocarbons (HFCs) are F-Gases used in the HVACR sector (Heating, Ventilation, Air- Conditioning and Refrigeration)



OBJECTIVE

•To protect the environment by reducing the F-Gases emissions

IMPACT ON HFCs (in EU)

•HFCs Phase Down
•HFCs Ban

SOLUTIONS

•Use lower GWP* refrigerants in new equipment
•Use high-efficiency equipment with less refrigerant charge
•Check refrigerant leaks regularly

* **GWP** is the Global Warming Potential of a refrigerant, representing how much heat an **F-Gas** traps in the atmosphere

LOWER GWP + LESS REFRIGERANT CHARGE = LOWER HFCs EMISSIONS

HFCs Ban

2020

GWP ≥ 150
Portable room air-conditioner

GWP ≥ 2500
Stationary refrigeration*1
(except < -50°C)

GWP ≥ 2500
Commercial hermetically sealed refrigerators, freezers

2022

GWP ≥ 150
Commercial multipack centralised refrigeration

GWP ≥ 150
Commercial hermetically sealed refrigerators, freezers

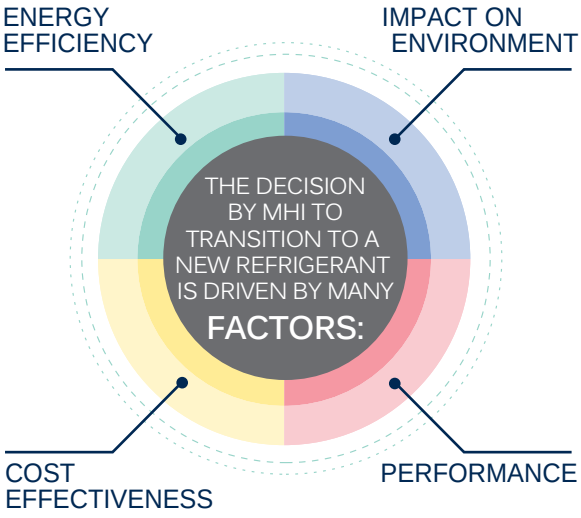
2025

GWP ≥ 750
Single Split Fixed Air-Conditioning < 3kg HFC

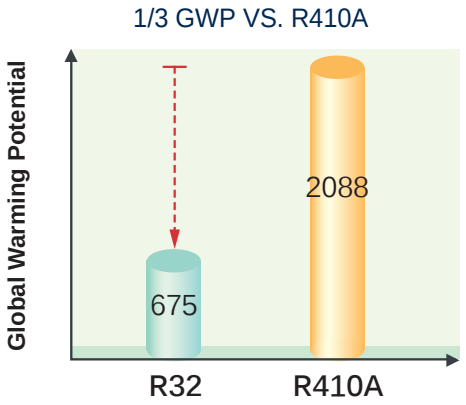
*1 Stationary refrigeration equipment, that contains, or whose functioning relies upon, HFCs with GWP of 2500 or more except equipment intended for application designed to cool products to temperatures below -50°C application

R32 - A Low GWP Refrigerant

- A single component, easy to handle refrigerant
- Known as a component of the blend R410A (50% R32, 50% R125)
- Already used in Air-Conditioning systems worldwide
- Zero Ozone Depletion
- Superior Energy Efficiency vs. R410A
- Reduced refrigerant charge vs. R410A
- Easy to recycle

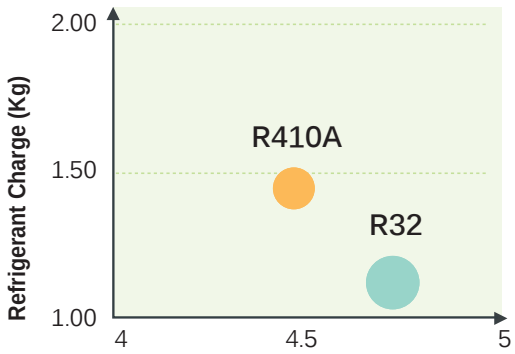


Low Global Warming Potential



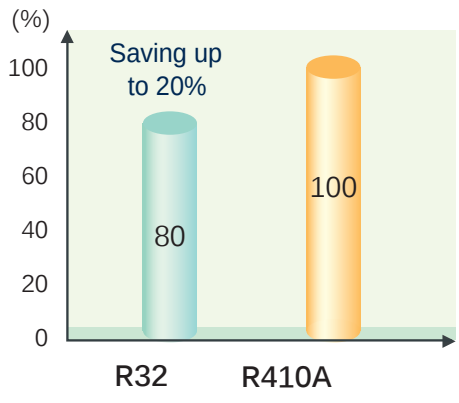
GWP Values based on IPCC 4th Assessment Report

Superior Energy Efficiency



Energy Efficiency Ratio
Based on 3.5 kW wall mounted unit

Reduced Refrigerant Charge



HIGH EFFICIENCY & HIGH TECHNOLOGIES

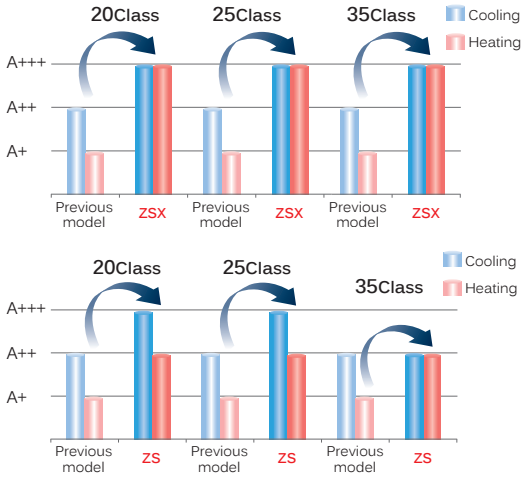
Consideration for the Environment

Several radical design changes and engineering developments have brought about a vast improvement in energy efficiency and environmental protection.

High efficient Performance: up to Class A +++

Mitsubishi Heavy Industries Thermal Systems classes its entire range with seasonal domestic energy factors that display energy ratings from A + to A +++.
Important energy savings in both cooling mode and heating are acheived thanks to its DC PAM Inverter technology and DC twin rotary compressor. (ZSX series)

Higher Energy class (SEER/SCOP)

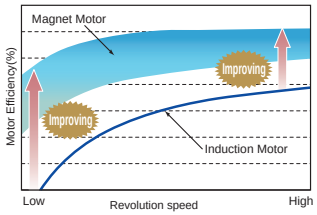


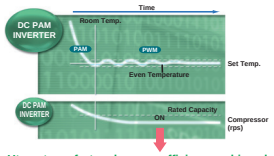
QUICK & HIGH EFFICIENCY Control

DC PAM inverter

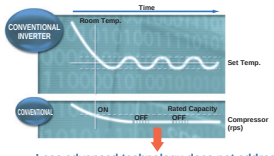
An inverter driven system has a number of performance advantages over a constant speed system. For example, its variable compressor outputs can ensure quick heating after a startup and attain a set temperature more quickly.
The air conditioner can then slow down its compressor speed to save energy, keeping comfortable conditions. Moreover, the compressor is DC driven, so it provides higher performance.

DC compressor motor





Utmost comfort and energy efficiency achieved with large output power and control optimization



Less advanced technology does not address the ON/OFF cycles issue.

Vector Inverter Control

The inverter control, with the advanced vector control technology, functions at high efficiency.

- Smooth operation from low speed to high speed
- Smooth Sine Voltage Wave form are attained
- Energy efficiency is further improved in low speed range

HIGH EFFICIENCY

DC Twin Rotary Compressor

The newly developed DC twin rotary compressor performs highly efficient operation under the wide range conditions from low speed to high speed.
Besides low vibration, low sound level and high efficiency can be also achieved by the optimization of mechanical parts dimension and by the application of high power Neodymium motor.

Featured on all models of ZSX series

Our Latest Technologies (ZSX series)

[Outdoor unit]

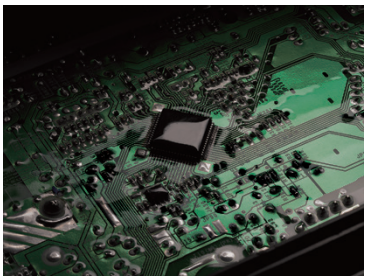
Propeller fan

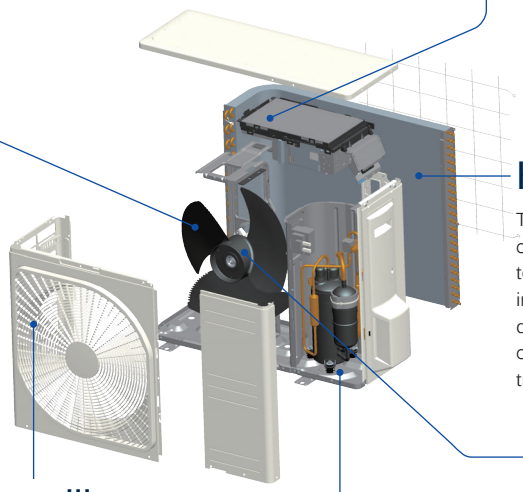
Matching a propeller fan with a fan motor has been optimized in order to keep the same capacity as that of previous models with less electrical consumption. Synergy effect with leaf grill has increased efficiency by 5% and quietened the sound.

Serration fan

Coated PCB

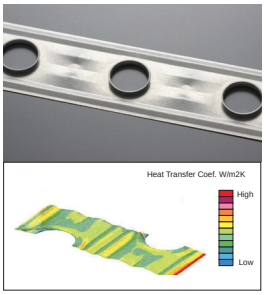
The printed wiring board of the outdoor unit is coated. It lasts long having a tolerance for humidity.





Heat exchanger

Thanks to changing fin configuration from flat sheet to M shape fin, efficiency has increased by 10%. This high dimensional structure provides optimum balance of heat transfer and airflow.



DC Motor

DC fan motor produces high efficiency & high power

Leaf shape grill

The radial shape grill has been developed in order to send airflow efficiently out unit along the grill. Decreasing the load for motor and propeller fan leads to greater energy efficiency and contributes to quieter sound.

Three Sensors

Control of room temperature and humidity is very important for people to live a comfortable life.
Use of three sensors to control indoor temperature, indoor humidity and outdoor temperature
enable unit to obtain optimum air-conditioning.

Sensor for indoor temperature and humidity

Sensor for outdoor temperature

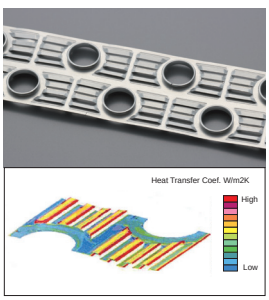
Superior corrosion resistance hot dipping steel sheet

Superior corrosion resistance hot dipping steel sheet is applied at the base of outdoor units.
It has superior corrosion resistance and scratch resistance properties compared to conventional materials.

[Indoor unit]

Heat exchanger

Our optimal combination of fin configuration and copper tube has maximized airflow volume without expanding indoor unit's size in width.The heat exchanger efficiency rate has been drastically improved by 33% compared with that of previous models. Fin can maximize airflow volume and save energy simultaneously.



Movable air inlet panel

Applying a movable air inlet panel, minimization of air resistance and advanced design are realized.

* This page is mainly described ZSX series.

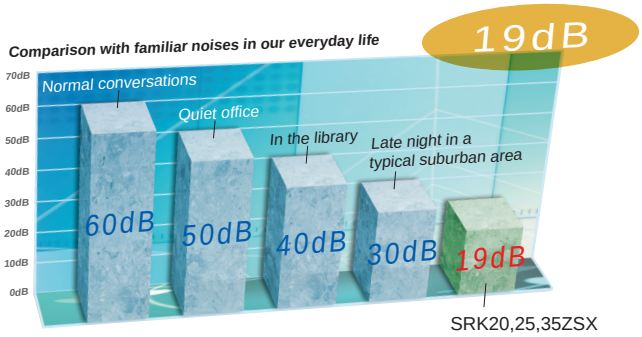
AIR FLOW

Jet Air Technology Quiet Air Flow & Long Reach

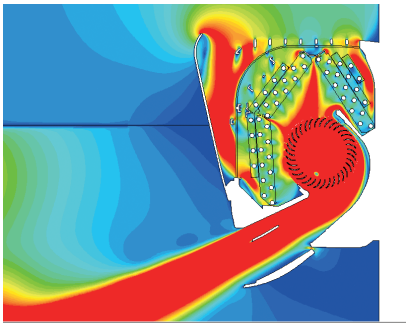
We used the same aerodynamic analysis technology as used in developing jet engines.

CFD (computational fluid dynamics), used in blade shape design of jet engines, has been applied to the design of air channels in air conditioners to develop the ideal air channel system (air circulation). The jet air stream generated by this air channel system can bring large volume air without consuming much power.
While at the same time, it delivers a uniform gentle breeze to every corner of the room.

(C)Mitsubishi Aircraft Corporation



SRK20,25,35ZSX
SRK20,25,35ZS
(In case of ULo mode)



Fast ⟷ Slow
Colors in the figure show the air speed.

Long Reach Air Flow

Long reach air flow is realized by Jet technology. Good for large living rooms and shops, which increases comfort.

Double Flap Large and Small

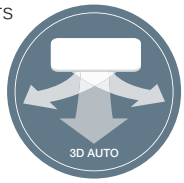
Double flaps can control optimized air flow, horizontal and long reach air flow in cooling, strong and downward air flow in heating, which can produce comfort room temperature condition.

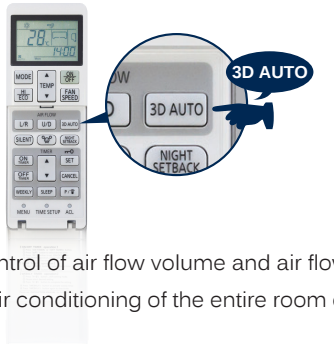
Programmed air distribution

3D AUTO Vertical + Horizontal

Multi motors make 3 independent controls

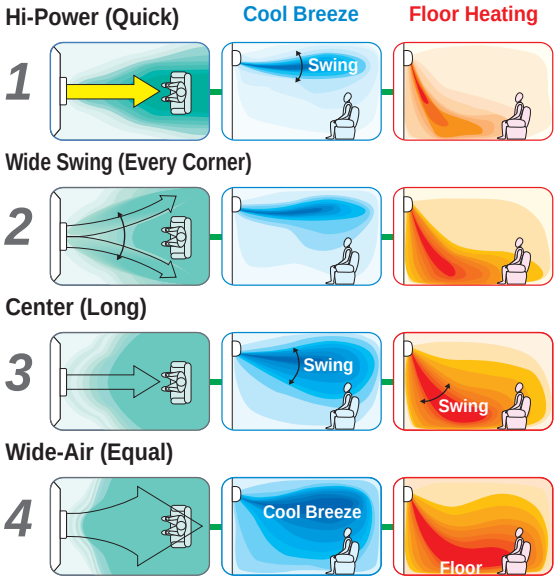
3D AUTO is one touch programmed and multi motors make three independent air flow controls.
The uniform and quiet airflow can be delivered to every corner of the room, achieving economical operation and minimizing energy loss.



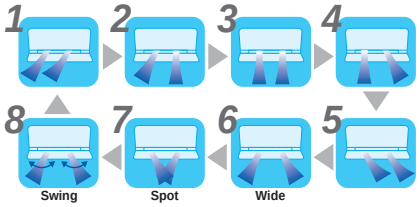


Thanks to automatic control of air flow volume and air flow direction, comfortable air conditioning of the entire room can be done effectively.
The cooled air flows directly to the ceiling in cooling operation mode, not directly at the occupants of the room. Comfort cooled air flow comes via the ceiling like a cool breeze.
In the heating mode, warm air flow can be sent down to the floor directly. The warm air then spreads along the floor achieving optimum comfort.

Programmed 3D AUTO



Horizontal swings in 8 directions



The airflow direction from the right and left louvers can be controlled individually. Eight different air flow patterns can be selected.

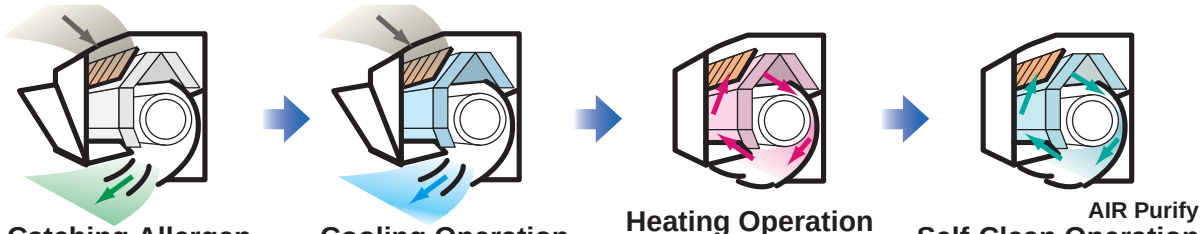
* This page is mainly described ZSX series.

CLEAN AIR

This is the original and only technology to control the temperature and humidity for inactivating allergens

Allergen Clear Operation

This can be activated by pressing the “allergen” button on the remote control and lasts 90 minutes before stopping automatically. It neutralizes all the bacteria collected on the surface of the anti-allergenic filter thanks to its sophisticated interaction between temperature and humidity controls.



Catching Allergen on the Filter

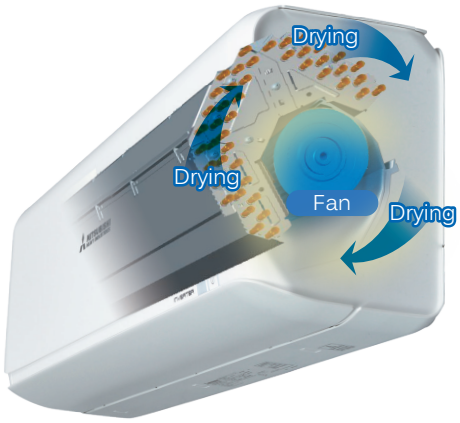
Cooling Operation
To make condensing water.

Heating Operation
To give moisture to the Filter to inactivate allergen

AIR Purify Self-Clean Operation
To dry up the indoor unit

Self Clean Operation

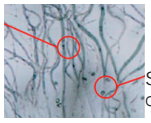
Self clean operation is operated for 2 hours after the unit has stopped its normal operation.
The indoor unit is dried up and the growth of mold is restrained.
Users can select whether this mode is utilized or not.



Situation of mold after one week

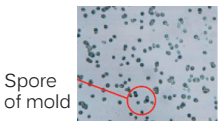
When you don’t execute “Self Clean Operation”

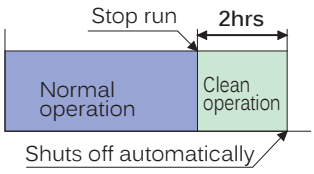
Fungal mycelia expand.



When you execute “Self Clean Operation”

The spore of mold doesn’t germinate.





Allergen Clear Filter

Enzyme + Urea deactivates allergens and bacteria.

The allergen clear filter breaks down the pollen[*1], lice[*1], and allergens that live on cat skins, etc. and deactivates them. The secret of deactivation is the Enzyme-urea compound. It deactivates not only allergens but also all kinds of bacteria[*2], molds and viruses[*3]. Even if allergens and bacteria, etc. fly of the filter, they are deactivated, so the air in your room is kept fresh.

*1 Test method:
ELISA colorimetric method Laboratory:
Independent administrative agency
national hospital mechanism
Sagamihara Hospital, No.1536

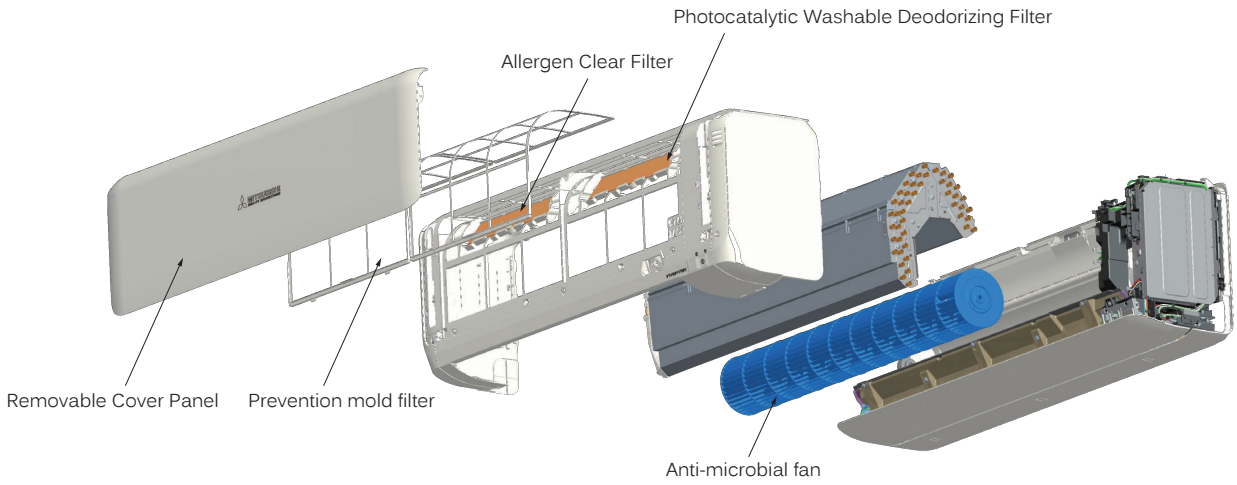
*2 Test method:
ELISA colorimetric method / ELISA
fluorescent method Laboratory:
Independent administrative agency
national hospital mechanism
Sagamihara Hospital, No.1536

*3 Test method:
TCID (Infection value 50%) Laboratory:
Foundation of Kitazato Environmental
Science Center, No.15-0145

Structure of Preventing Dirt

Always keeping the indoor unit clean

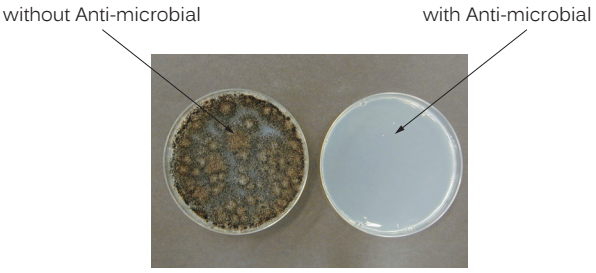
The fan has undergone anti-microbial treatment to resist mold and germs, making the system clean and safe. Foul odours and molds, etc. which can occur when an air conditioning system is not in operation are prevented.



● **Aspergilus niger IFO6341**

Testing Authority:Japan Food Analysis Center

Test Report No.: 104034022-002
Tests were conducted with reference to the antimicrobial strength tests in JIS Z 2801 "Antimicrobial Products-Antimicrobial Test Method" –5.2 Antimicrobial Effects: Test Methods for Plastic Products, etc.

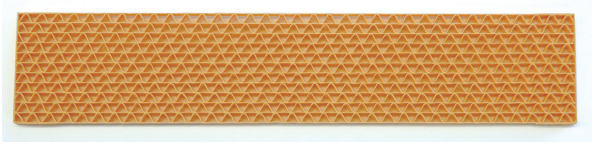


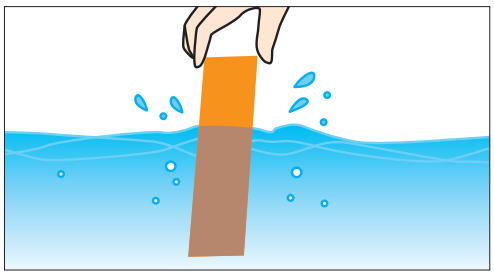
Comparison of growth of bacteria and mold on fan surfaces (microscopic image)

In tests conducted at the Mitsubishi Heavy Industries Nagoya Research Lab, 24 hours after contact with bacteria, cultured on agar media.

Photocatalytic Washable Deodorizing Filter

It will keep the air fresh by deodorizing the molecules causing odour. Its deodorizing power can be restored by washing with water and drying under the sun, as such it is a Recycling deodorizing filter capable of repeat use.





Used in models

Filter \ Indoor Unit	SRK-ZSX	SRK-ZR	SRK-ZS
Allergen Clear Filter	1pc	1pc	1pc
Photocatalytic Washable Deodorizing Filter	1pc	1pc	1pc

* This page is mainly described ZSX series.

ENERGY SAVING

Eco Operation

Automatic energy saving control is done by detecting human acitivity.
Human activity is detected by motion sensor which is installed in the unit. Air conditioner adjust its cooling/heating capacity according to low/high demand.
Economy Cooling operation, Air conditioner controls its capacity lower and goes into energy saving control when low activity is detected.
Economy Heating operation, Air conditioner controls its capacity lower and goes into energy saving control when high activity is detected.
When the sensor detects that no people are present in the room, the unit will automatically reduce the power used to a moderate level after approximately 15 minutes and return to normal operation once people return to the room.

In a cooling operation

It is set to moderate operation when there is little movement in the room.

In a heating operation

It is set to moderate operation when there is a lot of movement in the room.

Auto Off

Air conditioner stop operation and goes to “stand-by” mode after 1-hour absence. It turns ON again when human activity is detected within 12-hour,or turned OFF after 12-hour absence. *Can also be set to turn OFF after two hours.

Absent

It suppresses the power when there is nobody present in the room.

After 1-hour

You do not need to worry, even if you forget to turn off the power. Air-conditioner keeps stop until human activity is detected.

Come back to room

Automatically operates in the preset mode if you return to the room in twelve hours.

Fuzzy Auto Mode

The temperature and humidity sensors check room conditions.
The unit automatically controls the operation mode and the setting temperature to operate efficiently.
Operation mode and cooling/heating capacity is controlled automatically according to one setting tempertature.
Fuzzy auto mode offers automatic comfort temperature control even if weather condition changes quickly.

COMFORT & CONVENIENCE

High Power Operation

In a cooling operation

This operation mode delivers powerful cool air to cool the room quickly.
It blows powerful cool air when you want to be cooled down after bathing or returning home on a hot summer day so that you can enjoy a cool sensation immediately.
The air conditioner automatically returns to the previous operation mode in 15 minutes to prevent the room from being cooled excessively.

In a heating operation

This operation mode warms the whole room from the vicinity of the air conditioner to your feet.
It warms up the room promptly when you want to be warmed such as getting out of bed or returning home during the winter seasons. The air conditioner automatically returns to the previous operation mode in 15 minutes to prevent the room from being warmed excessively.

Silent Operation

When Silent operation is set, the maximum pressure level of the outdoor unit will be 3dB(A) lower than standard nominal level (45dB(A) or less).
The compressor speed is set at a lower range than that of nominal operation, operating at 60% of nominal capacity.
Maximum fan speed of outdoor unit is set lower than nominal operation.

Night Setback

During cold seasons, room temperatures can be maintained at a comfortable level even while the room is unattended.
The air conditioner keeps the temperature at 10°C.

* This page is mainly described ZSX series.

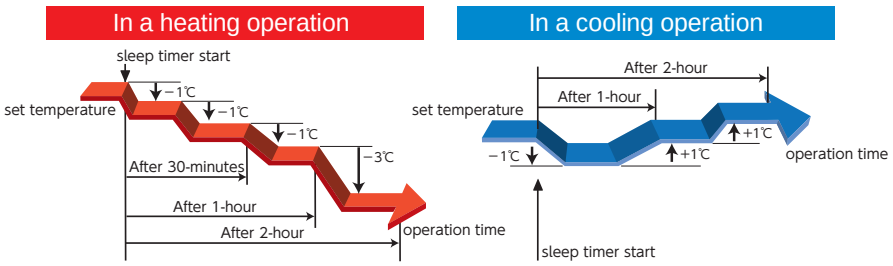
COMFORT & CONVENIENCE

Weekly Timer

Up to 4 programs with timer operation (ON-TIMER / OFF-TIMER) are available for each day of the week.
Maximum 28 programs per week can be set.
Once set, the timer operation will repeat the same program every week unless otherwise canceled.

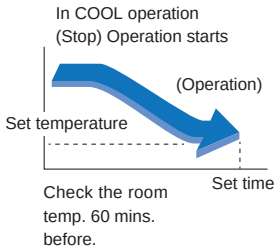
Sleep Timer

Too much cooling/heating is not necessary when people go to sleep. This function achieves moderate cooling/heating by adjusting its capacity and more energy saving as well.



Comfort start-up

Air conditioner controls room temperature to achieve confort at the “set time” by 60-minutes pre-operation. This is convenient when you wake up and return home at a predetermined time. In ON-TIMER operation, the unit starts the operation a little earlier, so that the room can approach optimum temperature at ON time.



Preset Operation

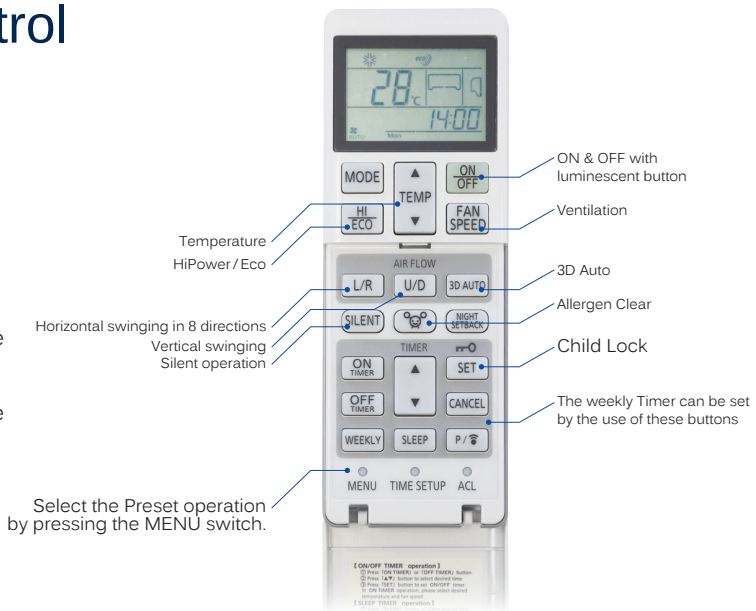
The Preset Operation features allows customised temperature and airflow settings, which will deliver ultimate comfort with one simple touch of the button. (Applied for ZSX & ZS series)

LED Brightness Adjustment

Brightness of the LED display can be adjusted to suit. (Applied for ZSX & ZS series)

Easy to Remote control

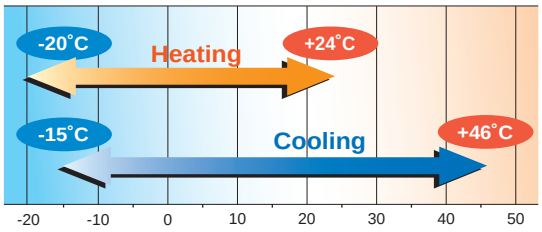
The wall mounted unit comes with a wireless infra-red remote controller which is used to control the unit’s settings such as temperature, fan speed, heating or cooling mode.
The controller has a user-friendly design with large buttons. There are many key benefits such as eco-mode settings, which allow energy to be saved. There is also a weekly timer which can be set to your own parameters and when required for your convenience. There is also a silent mode option, which can be selected when going to sleep so there are minimal noise levels.



Wide Range of Operation

Our new advanced technology has expanded the heating and cooling operation range.

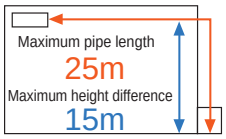
This permits installation of the units considering a heating and cooling operation under a low temperature condition down to –20°C. (ZSX series)



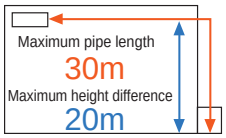
✻For the capacities under low temperature conditions, refer to technical manual.

Long Piping Length

ZSX series supports a piping length of up to 30m to give design flexibility.



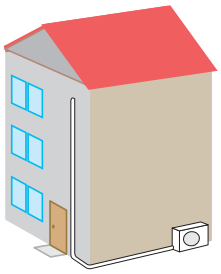
20~35ZSX



50·60ZSX

Installation of air-conditioners for a three-story house is available with long piping length

Suitable installation space can be found easily for outdoor units with long piping length.
As one outdoor unit is necessary for a three-story house the space required for installation is relatively small so the unit can be obscured in place.
Indoor units can be installed far apart such as on the first floor and as well as the third floor.



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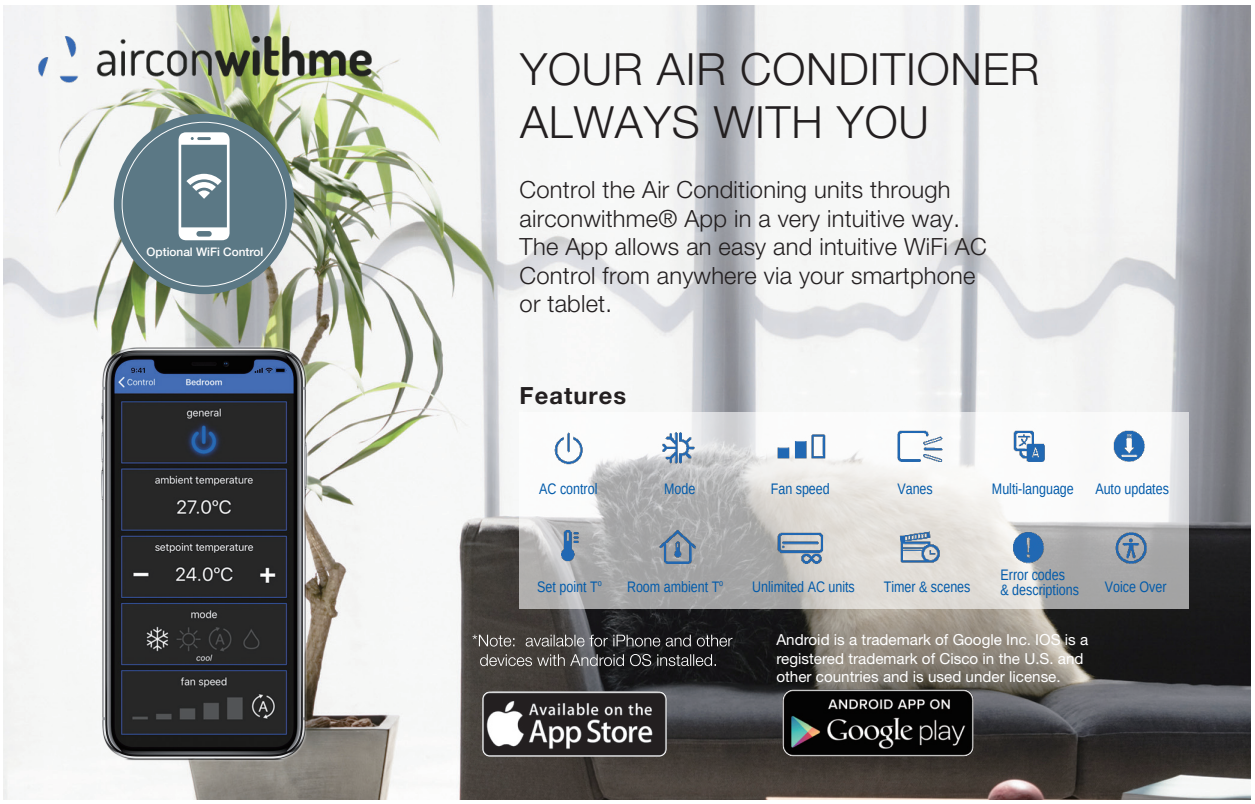

airconwithme Wifi Adaptors

Model : AM-MHI-01

Please access the followings for details.

URL http://www.airconwithme.com
email info@ airconwithme.com

* These are developed by Intesis.

* This page is mainly described ZSX series.