

MSZ-LN18/25/35/50/60VG2

R32
Single / MXZ, PUMY
R410A
PUMY



GOOD DESIGN AWARD 2016
BEST 100

MSZ-LN SERIES

Developed to complement modern interior room décor, the LN Series is available in four colours specially chosen to blend in naturally wherever installed. Not only the sophisticated design, but also the optimum energy efficiency and operational comfort add even more value to this series.



Luminous and Luxurious Design

Natural White, Pearl White, Ruby Red, and Onyx Black. LN Series indoor units are available in four colours to match various lifestyles. The appearance of the indoor unit differs depending on the lighting in the room, attracting the attention of everyone that enters the room.



Master craftsmanship painting technology has resulted in a refined design, giving the finish deep colour and a premium quality feel.



Pearl White blends in with any interior.



Ruby Red gives an accent to the room, affording timeless elegance to sophisticated interiors.



Onyx Black matches darker interiors, creating a comfortable environment.

LED Backlight Remote Controller

Not only the indoor units, but also the wireless remote controllers come in four colours as well. Each remote controller matches the indoor unit. Even the textures are the same.

The setting can be easily checked in the dark thanks to LED backlight.



Pearl White



Ruby Red



Onyx Black

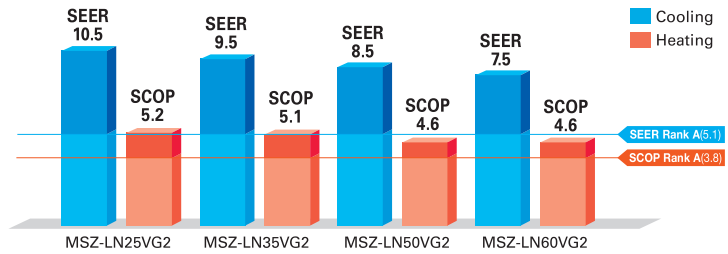


Natural White

High Energy Efficiency

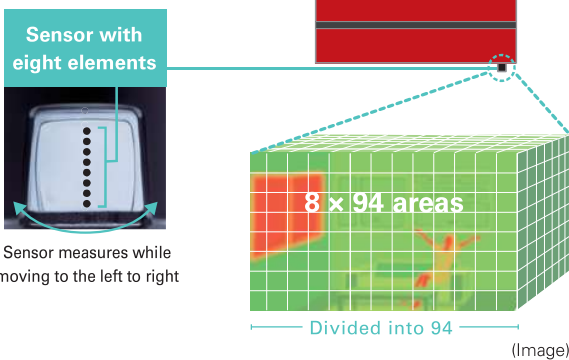


Optimum cooling/heating performance is another feature for the LN series. Models from capacities 25 to 50 have achieved the "Rank A+++" for SEER, and models for capacities 25 and 35 have achieved the "Rank A+++" for SCOP as well.



3D i-see Sensor

The LN Series is equipped with 3D i-see Sensor, an infrared-ray sensor that measures the temperature at distant positions. While moving to the left and right, eight vertically arranged sensor elements analyze the room temperature in three dimensions. This detailed analysis makes it possible to judge where people are in the room, thus allowing creation of features such as "Indirect airflow," to avoid airflow hitting people directly, and "direct airflow" to deliver airflow to where people are.



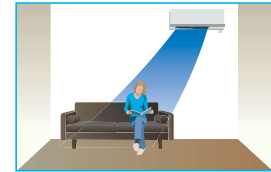
Indirect Airflow

The indirect airflow setting can be used when the flow of air feels too strong or direct. For example, it can be used during cooling to avert airflow and prevent body temperature from becoming excessively cooled.

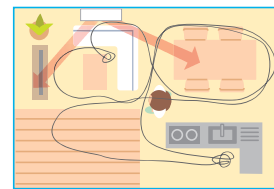


Direct Airflow

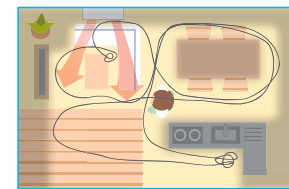
This setting can be used to directly target airflow at people such as for immediate comfort when coming indoors on a hot (cold) day.



Even Airflow *LN Series only



Even airflow mode

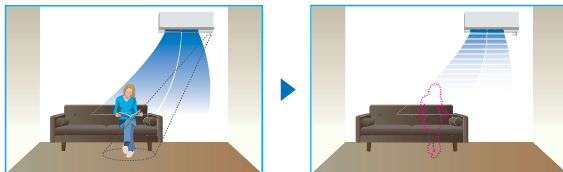


The airflow is distributed equally throughout the room, even to spaces where there is no human movement.

The 3D i-see sensor memorizes human movement and furniture positions, and efficiently distributes airflow.

No occupancy energy-saving mode

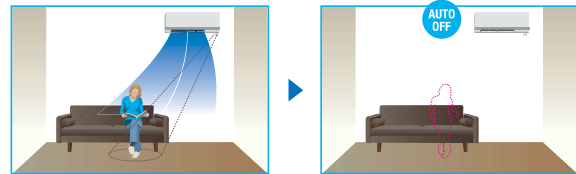
The sensors detect whether there are people in the room. When no-one is in the room, the unit automatically switches to energy-saving mode.



The "3D i-see Sensor" detects people's absence and the power consumption is automatically reduced approximately 10% after 10 minutes and 20% after 60 minutes.

No occupancy Auto-OFF mode *LN Series only

The sensors detect whether or not there are people in the room. When there is no one in the room, the unit turns off automatically.

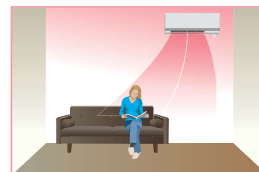


Circulator Operation

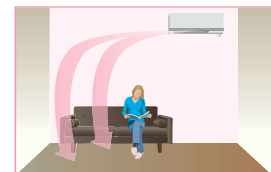
(MSZ-LN18/25/35/50/60VG-SC Scandinavian model)

In case the indoor temperature reaches the setting temperature, the outdoor unit stops and the indoor unit starts FAN operation to circulate the indoor air.

The outdoor unit starts operation automatically when the indoor temperature drops below the setting temperature.



If the heating operation is continued, the warm air is formed around ceiling.

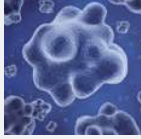


This operation can help to circulate and rene warm air.

Plasma Quad Plus

Plasma Quad Plus is a plasma-based filter system that effectively removes six kinds of air pollutants. Plasma Quad Plus captures mold and allergens more effectively than Plasma Quad. It can also capture PM2.5 and particles smaller than 2.5µm, creating healthy living spaces for all.

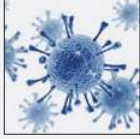
Bacteria



Test results have confirmed that Plasma Quad Plus neutralizes 99% of bacteria in 162 minutes in a 25m³ test space.

<Test No.> KRCS-Bio. Test Report No. 2016-0118


Viruses



Test results have confirmed that Plasma Quad Plus neutralizes 99% of virus particles in 72 minutes in a 25m³ test space.

<Test No.> vrc.center, SMC No. 28-002


Molds



Test results have confirmed that Plasma Quad Plus neutralizes 99% of mold in 135 minutes in a 25m³ test space.

<Test No.> Japan Food Research Laboratories Test Report No. 16069353001-0201


Allergens



In a test, air containing cat fur and pollen was passed through the air cleaning device at the low airflow setting. Before and after measurements confirm that Plasma Quad Plus neutralizes 98% of cat fur and pollen.

<Test No.> ITEA Report No. T1606028


PM2.5



Test results have confirmed that Plasma Quad Plus removes 99% of PM2.5 in 145 minutes in a 28m³ test space.

<In-company investigation>

Dust



Test results have confirmed that Plasma Quad Plus removes 99.7% of dust and mites.

<Test No.> ITEA Report No. T1606028

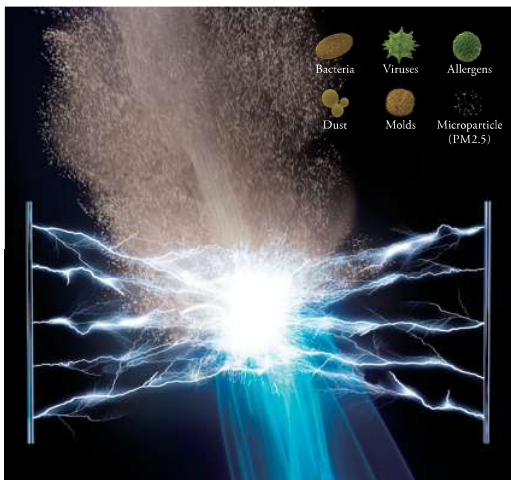
| Model | Name | Method | Bacteria | Viruses | Molds | Allergens | Dust | PM2.5* |
|-----------|------------------|------------------|----------|---------|-------|-----------|------|--------|
| FH Series | Plasma Quad | One-Stage Plasma | A | A | B | B | C | |
| LN Series | Plasma Quad Plus | Two-Stage Plasma | A | A | A | A | A | A |

A: Highly effective
B: Effective
C: Partially effective

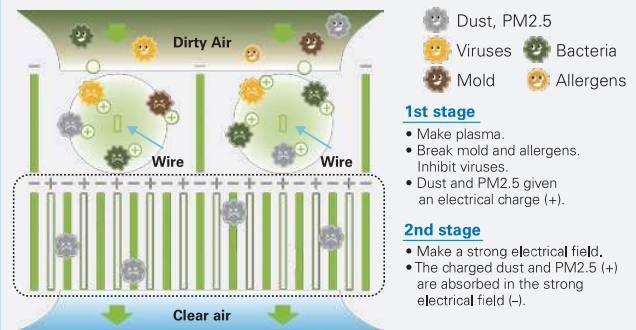
*PM2.5: Particles smaller than 2.5µm



Image of Plasma Quad Plus



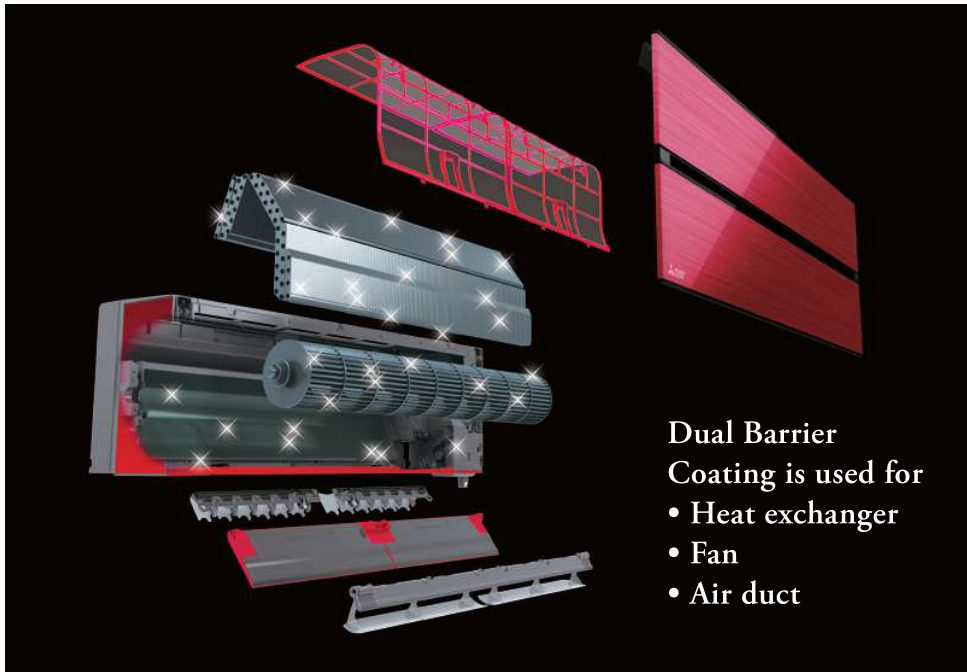
Principle of Plasma Quad Plus





Dual Barrier Coating

A two-barrier coating prevents dust and greasy dirt from getting into the air conditioner.



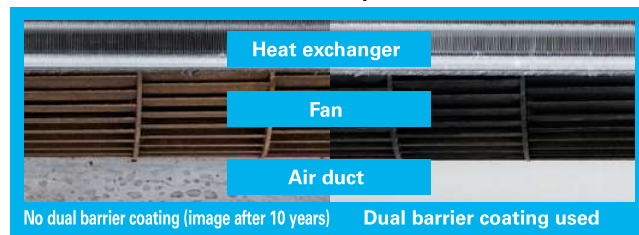
SIAA ^{※1}
Anti Fungus
 JP0512075X0001C
 (Fan, Air duct)

State-of-the-art coating technology

Dirt is generally classified into two groups: hydrophilic dirt such as fiber dust and sand dust, and hydrophobic dirt such as oil and cigarette smoke. Mitsubishi Electric's dual barrier coating works as a two-barrier coating that prevent hydrophilic dirt penetration and "hydrophilic particles" that prevent hydrophobic dirt from getting into the air conditioner. This dual coating on the inner surface keeps the air conditioner clean year-round.



Comparison of dirt on heat exchanger, fan and air duct (in-house comparison)



The inside of the indoor unit gets dirty after many years of usage.

| Heat exchanger | | Fan | | Consequences when the inside of the indoor unit is left dirty |
|----------------|------------------------|-----|------------------------|---|
| New | 10 years later (image) | New | 10 years later (image) | |
| | | | | |

※1 Verified by SIAA test method (JIS Z 2911) with No. JP0501014A00020 on SIAA antifungal agent positive list. Antifungal effect depends on the working environment. Fungicides comply with the SIAA safety criteria.
 What is SIAA? https://www.kohkin.net/en_index/en_siaa.html

Double Flap

The vanes create various airflows to make each person in the room comfortable. Not only the horizontal vanes, but also the vertical vanes move independently, eliminating hot spots or cold spots throughout the room.

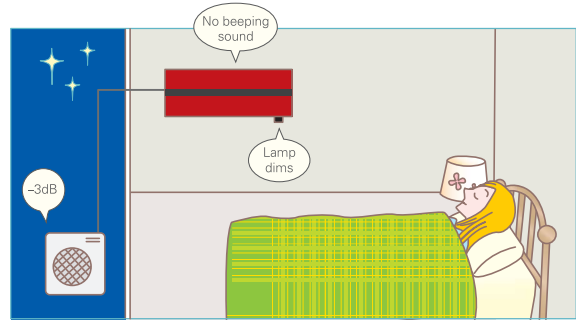


Night Mode

When Night Mode is activated using the wireless remote controller, air conditioner operation will switch to the following settings.

- The brightness of the operation indicator lamp will become dimmer.
- The beeping sound will be disabled.
- The outdoor operating noise will drop to 3dB lower than the rated operating noise specification.

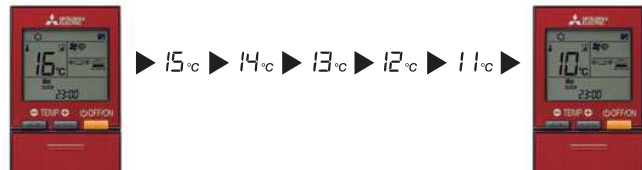
*The cooling/heating capacity may drop.



10°C Heating

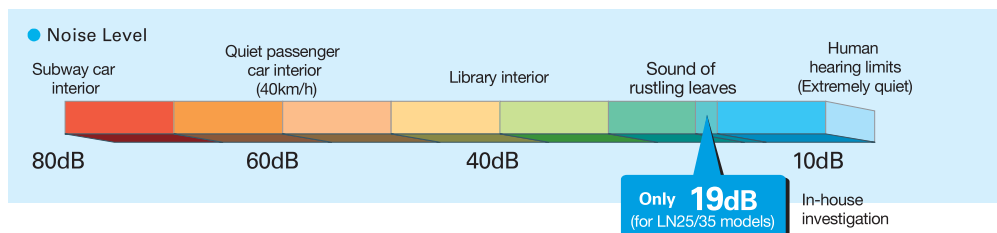
During heating operation, the temperature can be set in 1°C increments down to 10°C.

This function can also be used with the Weekly Timer setting.



Quiet Operation

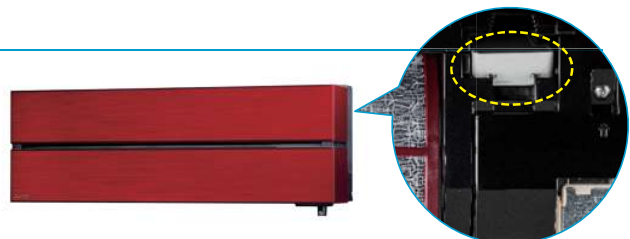
The indoor unit noise level is as low as 19dB for LN25/35 models, offering a peaceful inside environment.



Built-in Wi-Fi Interface

The indoor unit is equipped with a Wi-Fi Interface inside an exclusive pocket in the unit.

This eliminates the need to install a Wi-Fi interface, and also contributes to the beautiful appearance since the interface is hidden.



LN VGHZ SERIES

R32 R410A
Single / MXZ, PUMY PUMY

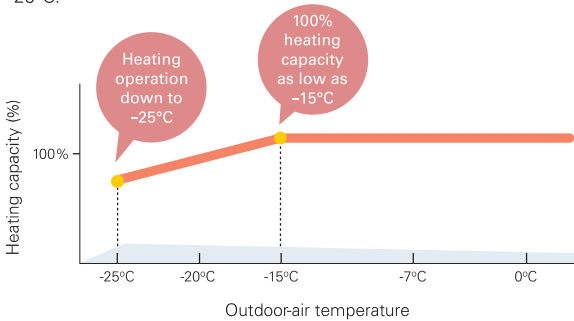
Unlike conventional air conditioning systems, the LN Series don't lose heating capacity when it's cold outside. Original technologies ensure excellent heating performance under extremely low outdoor temperatures and an impressive guaranteed operating range.



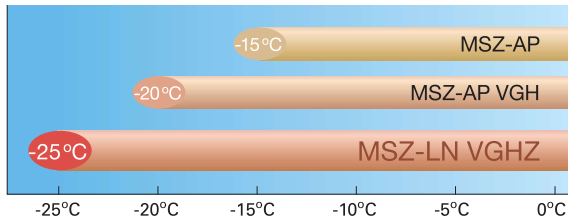
MSZ-LN25/35/50VG2(W)(V)(R)(B)

Unparalleled Heating Performance

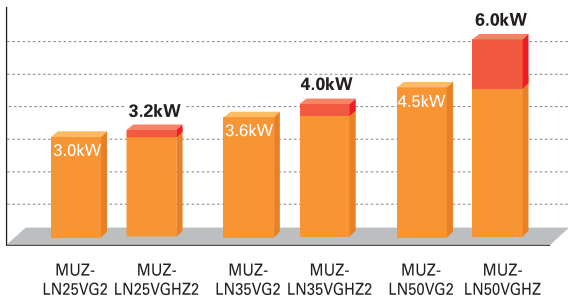
LN Series outdoor units are equipped with a high-output compressor that provides enhanced heating performance under low outdoor temperatures. The heating operation range is extended down to -25°C.



Operating Range



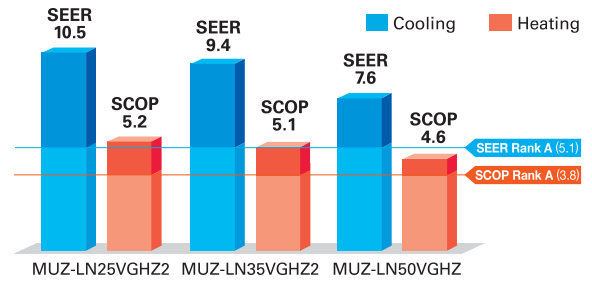
Declared Capacity (at reference design temperature)



High Energy Efficiency – Energy Rank of A+ or higher for All Models



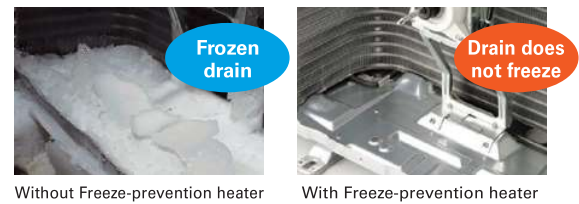
With indoor units that combine functionality, design and capacity and outdoor units equipped with a high-efficiency compressor, the MUZ-LN VGHZ simultaneously achieves high heating capacity and energy-saving performance.



Freeze-prevention Heater Equipped as Standard

The Freeze-prevention heater restricts lowered capacity and operation shutdowns caused by the drain water freezing. This supports stable operation in low-temperature environments.

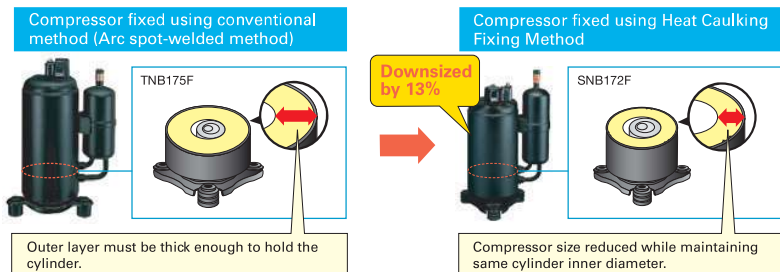
Can operate at outside-air temperature of -25°C



*Image is for illustration purposes. The actual performance depends on outdoor temperature.

Compact, Powerful Compressor

A special manufacturing technology, "Heat Caulking Fixing Method," has been introduced to reduce compressor size while maintaining a high compressor output. This technology enables the installation of a powerful compressor in compact MUZ outdoor units. As a result, excellent heating performance is achieved when operating in cold outdoor environments.



MSZ-LN SERIES



Indoor Unit / Remote Controller



<Pearl White>



MSZ-LN18/25/35/50/60VG2V



<Ruby Red>



MSZ-LN18/25/35/50/60VG2R



<Natural White>



MSZ-LN18/25/35/50/60VG2W



<Onyx Black>



MSZ-LN18/25/35/50/60VG2B



Outdoor Unit



MUZ-LN25/35VG2



MUZ-LN50VG2



MUZ-LN60VG2



| Type | | | Inverter Heat Pump | | | | | | |
|---|---|---------------------------------|---|-------------------------------|-------------------------|-------------------------------|---------------------|-------------------------------|--|
| Indoor Unit | | | MSZ-LN18VG2 | MSZ-LN25VG2 | MSZ-LN35VG2 | MSZ-LN50VG2 | MSZ-LN60VG2 | | |
| Outdoor Unit | | | for MXZ connection | MUZ-LN25VG2 | MUZ-LN35VG2 | MUZ-LN50VG2 | MUZ-LN60VG2 | | |
| Refrigerant | | | Single: R32 ⁽¹⁾ / Multi: R410A or R32 ⁽¹⁾ | | | | | | |
| Power Supply | Source | | Outdoor Power Supply | | | | | | |
| | Outdoor (V / Phase / Hz) | | 230 / Single / 50 | | | | | | |
| Cooling | Design load | kW | — | 2.5 | 3.5 | 5.0 | 6.1 | | |
| | Annual electricity consumption ⁽²⁾ | kWh/a | — | 83 | 129 | 205 | 285 | | |
| | SEER ⁽³⁾ | | — | 10.5 | 9.5 | 8.5 | 7.5 | | |
| | Capacity | Energy efficiency class | | — | A+++ | A+++ | A+++ | A++ | |
| | | Rated | kW | — | 2.5 | 3.5 | 5.0 | 6.1 | |
| Total Input | Min-Max | kW | — | 1.0 - 3.5 | 0.8 - 4.0 | 1.0 - 6.0 | 1.4 - 6.9 | | |
| | Rated | kW | — | 0.485 | 0.820 | 1.380 | 1.790 | | |
| Heating (Average Season) ⁽³⁾ | Design load | kW | — | 3.0 (-10°C) | 3.6 (-10°C) | 4.5 (-10°C) | 6.0 (-10°C) | | |
| | Declared Capacity | at reference design temperature | kW | — | 3.0 (-10°C) | 3.6 (-10°C) | 4.5 (-10°C) | 6.0 (-10°C) | |
| | | at bivalent temperature | kW | — | 3.0 (-10°C) | 3.6 (-10°C) | 4.5 (-10°C) | 6.0 (-10°C) | |
| | | at operation limit temperature | kW | — | 2.5 (-15°C) | 3.2 (-15°C) | 4.2 (-15°C) | 6.0 (-15°C) | |
| | Back up heating capacity | kW | — | 0.0 (-10°C) | 0.0 (-10°C) | 0.0 (-10°C) | 0.0 (-10°C) | | |
| | Annual electricity consumption ⁽²⁾ | kWh/a | — | 807 | 987 | 1369 | 1816 | | |
| | SCOP ⁽³⁾ | | — | 5.2 | 5.1 | 4.6 | 4.6 | | |
| | Capacity | Energy efficiency class | | — | A+++ | A+++ | A++ | A++ | |
| | | Rated | kW | — | 3.2 | 4.0 | 6.0 | 6.8 | |
| | Total Input | Min-Max | kW | — | 0.7 - 5.4 | 0.9 - 6.3 | 1.0 - 9.2 | 1.8 - 9.3 | |
| Rated | | kW | — | 0.600 | 0.820 | 1.480 | 1.810 | | |
| Operating Current (Max) | Rated | A | — | 7.1 | 9.9 | 13.9 | 15.2 | | |
| | Input | kW | 0.027 | 0.027 | 0.027 | 0.034 | 0.040 | | |
| Indoor Unit | Operating Current(Max) | | A | | 0.3 | | 0.4 | | |
| | Dimensions | | H*W*D | | mm | | 307-890-233 | | |
| | Weight | | kg | | 14.5 (W) 15.5 (V, R, B) | | 15 (W) 16 (V, R, B) | | |
| | Air Volume (SLo-Lo-Mid-Hi-SHi ⁽³⁾) | Cooling | m ³ /min | 4.7 - 5.9 - 7.1 - 9.2 - 12.4 | | 4.7 - 5.9 - 7.1 - 9.2 - 12.4 | | 4.7 - 5.9 - 7.1 - 9.2 - 13.0 | |
| | | Heating | m ³ /min | 4.5 - 6.6 - 7.5 - 11.0 - 13.9 | | 4.5 - 6.6 - 7.5 - 11.0 - 13.9 | | 5.4 - 6.4 - 8.5 - 10.7 - 15.7 | |
| | Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi ⁽³⁾) | Cooling | dB(A) | 19 - 23 - 29 - 36 - 42 | | 19 - 23 - 29 - 36 - 42 | | 19 - 24 - 29 - 36 - 43 | |
| | | Heating | dB(A) | 19 - 24 - 29 - 38 - 45 | | 19 - 24 - 29 - 38 - 45 | | 19 - 24 - 29 - 38 - 45 | |
| | Sound Level (PWL) | Cooling | dB(A) | 58 | | 58 | | 59 | |
| | | Heating | dB(A) | 58 | | 58 | | 60 | |
| | Dimensions | | H*W*D | | mm | | 550-800-285 | | |
| Weight | | kg | | 33 | | 34 | | | |
| Air Volume | Cooling | m ³ /min | — | | 34.3 | | 40.0 | | |
| | Heating | m ³ /min | — | | 32.7 | | 40.5 | | |
| Sound Level (SPL) | Cooling | dB(A) | — | | 46 | | 51 | | |
| | Heating | dB(A) | — | | 49 | | 54 | | |
| Sound Level (PWL) | Cooling | dB(A) | — | | 60 | | 64 | | |
| | Heating | dB(A) | — | | 68 | | 73.5 | | |
| Operating Current (Max) | | A | | 6.8 | | 9.6 | | | |
| Breaker Size | | A | | 10 | | 16 | | | |
| Ext. Piping | Diameter | Liquid/Gas | mm | | 6.35/9.52 | | 6.35/9.52 | | |
| | Max.Length | Out-In | m | | 20 | | 30 | | |
| | Max.Height | Out-In | m | | 12 | | 15 | | |
| Guaranteed Operating Range (Outdoor) | Cooling | °C | -10 ~ +46 | | -10 ~ +46 | | -10 ~ +46 | | |
| | Heating | °C | -15 ~ +24 | | -15 ~ +24 | | -15 ~ +24 | | |

(1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 550. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 550 times higher than 1 kg of CO₂ over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(2) The GWP of R32 is 675 in the IPCC 4th Assessment Report. Actual energy consumption will depend on how the appliance is used and where it is located.

(3) SHi: Super High

(4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

(5) Please see page 53-54 for heating (warmer season) specifications.