

MSZ-L SERIES

MSZ-LN25/35/50/60VGR

R32



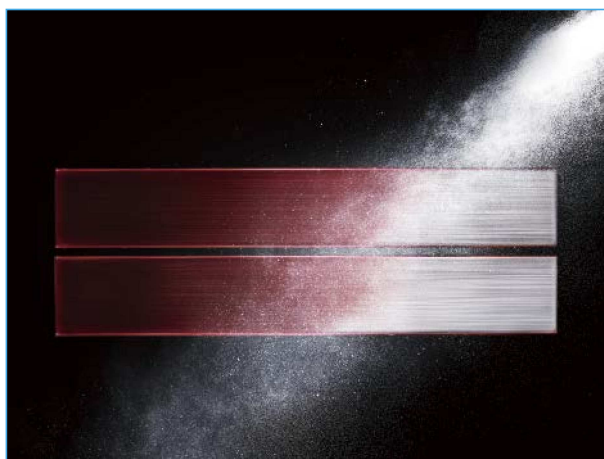
GOOD DESIGN AWARD 2016
BEST 100

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.

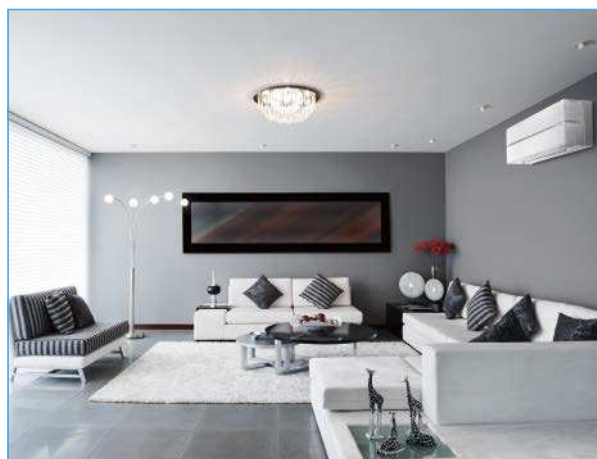


Luminous and Luxurious Design

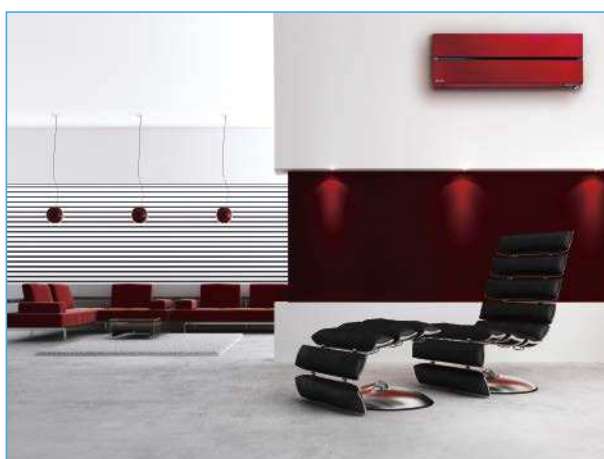
Natural White, Pearl White, Ruby Red, and Onyx Black. LN Series indoor units are available in four colours to match various lifestyles. The appearance of the indoor unit differs depending on the lighting in the room, attracting the attention of everyone that enters the room.



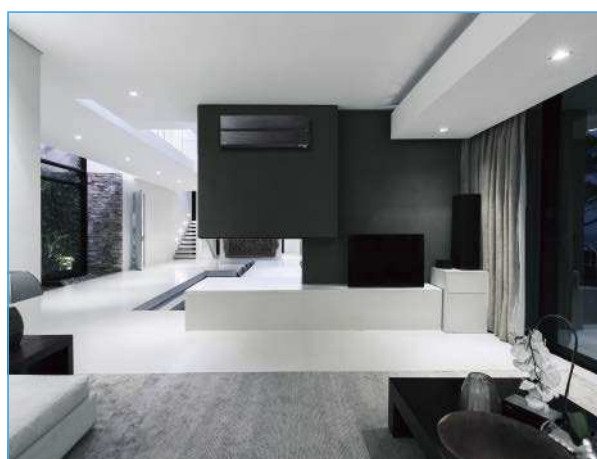
Master craftsmanship painting technology has resulted in a refined design, giving the finish deep colour and a premium quality feel.



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.

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



Pearl White



Ruby Red



Onyx Black

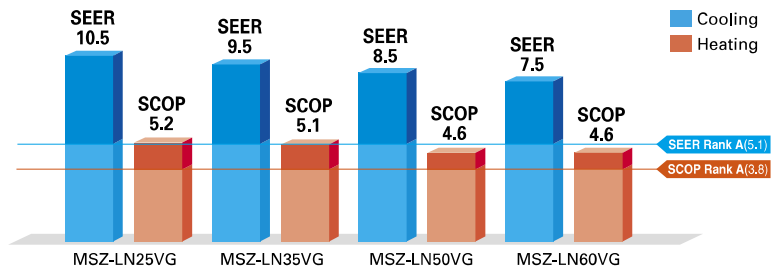


Natural White

High Energy Efficiency

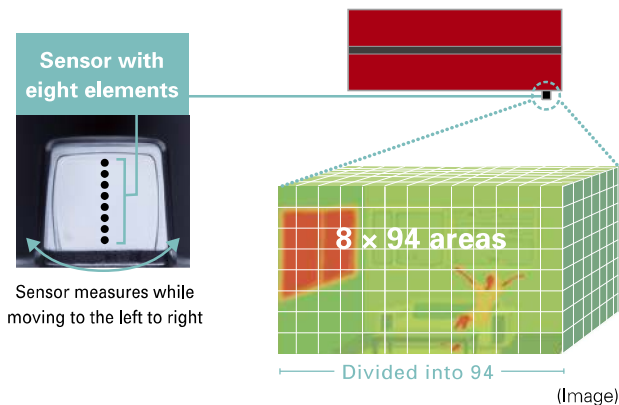


Optimum cooling/heating performance is another feature for the LN series. Models from capacities 25 to 50 have achieved the "Rank A+++" for SEER, and models for capacities 25 and 35 have achieved the "Rank A+++" for SCOP as well.



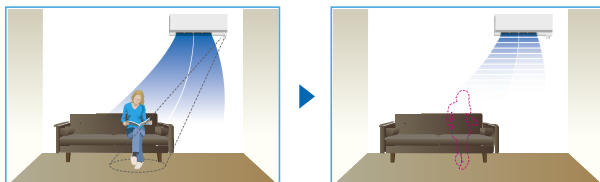
3D i-see Sensor

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.



No occupancy energy-saving mode

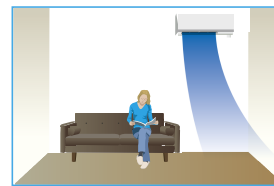
The sensors detect whether there are people in the room. When no-one is in the room, the unit automatically switches to energy-saving mode.



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.

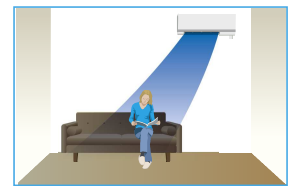
Indirect Airflow

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.



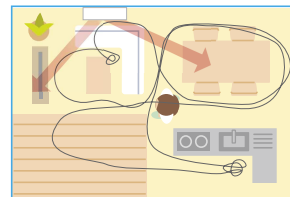
Direct Airflow

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



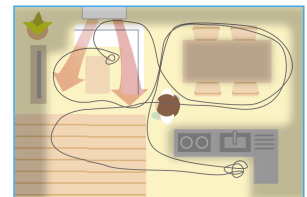
Even Airflow *LN Series only

Normal swing mode



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

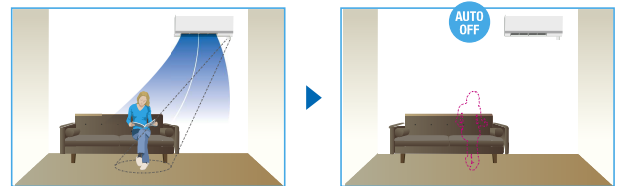
Even airflow mode



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

No occupancy Auto-OFF mode *LN Series only

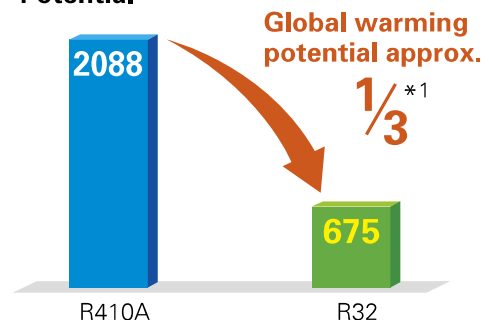
The sensors detect whether or not there are people in the room. When there is no one in the room, the unit turns off automatically.



R32 Refrigerant

The new R32 refrigerant has a global warming potential approximately 1/3*1 that of our current refrigerant, R410A; thereby dramatically reducing the negative impact more than ever. Actively introducing the new R32 refrigerant to suppress global warming, Mitsubishi Electric continues to promote manufacturing while considering the environment.

Comparison of Global Warming Potential



*1: Source: IPCC 4th Assessment Report, global warming potential (GWP) 100-year value. Comparison of 2088 (R410A) and 675 (R32).

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.

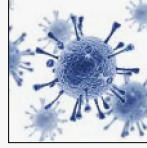
Bacteria



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

<Test No.> KRCEB-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

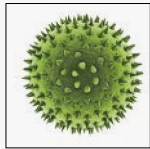
Molds



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

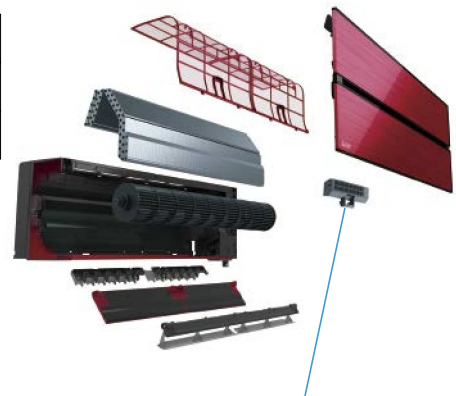
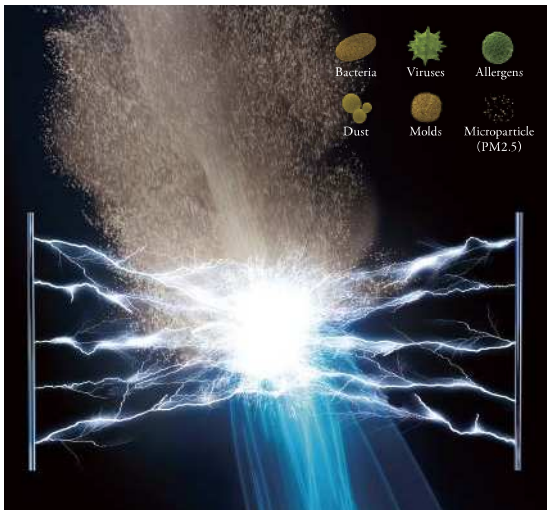
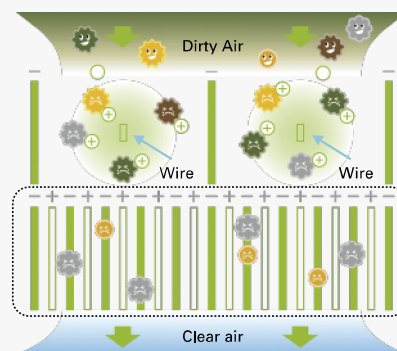


Image of Plasma Quad Plus



Principle of Plasma Quad Plus



Dust, PM2.5
Viruses Bacteria
Mold Allergens

1st stage

- Make plasma.
- Break mold and allergens.
- Inhibit viruses.
- Dust and PM2.5 given an electrical charge (+).

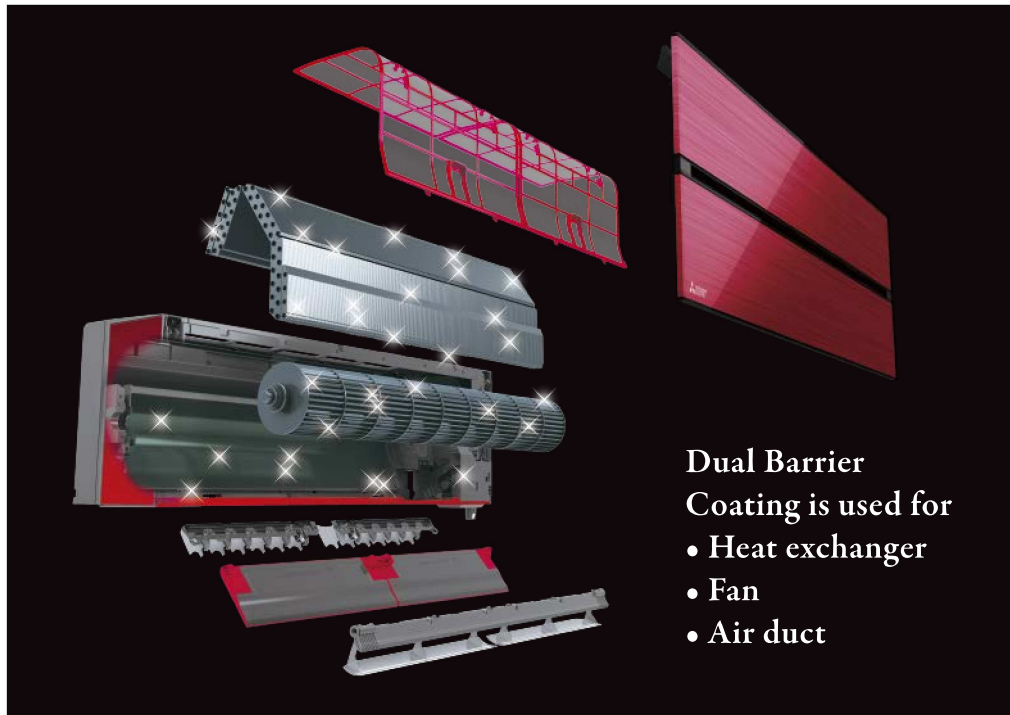
2nd stage

- Make a strong electrical field.
- The charged dust and PM2.5 (+) are absorbed in the strong electrical field (-).



Dual Barrier Coating

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

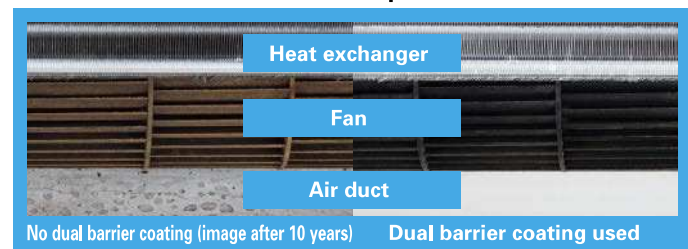


State-of-the-art coating technology

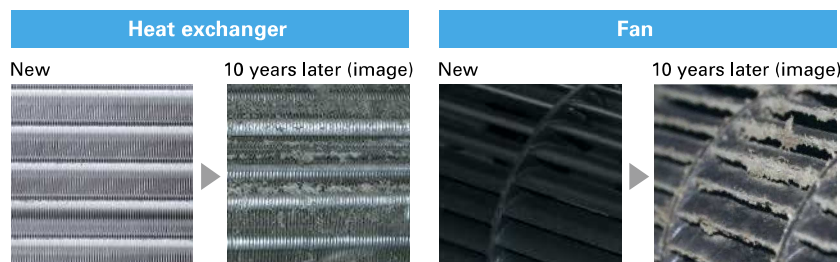
Dirt is generally classified into two groups: hydrophilic dirt such as fiber dust and sand dust, and hydrophobic dirt such as oil and cigarette smoke. Mitsubishi Electric's dual barrier coating works as a two-barrier coating with blended "fluorine particles" that prevent hydrophilic dirt penetration and "hydrophobic 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.



Consequences when the inside of the indoor unit is left dirty.

- Deterioration in energy efficiency.
- Musty smell from the unit.

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.

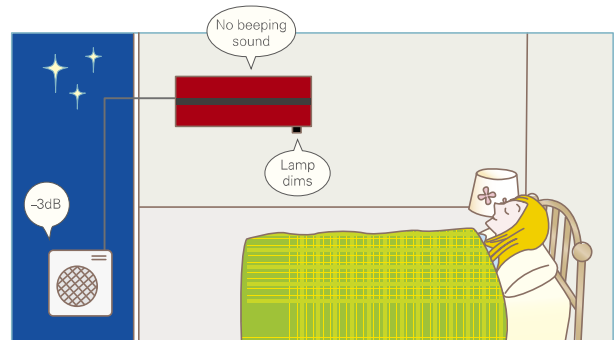


Night Mode

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.

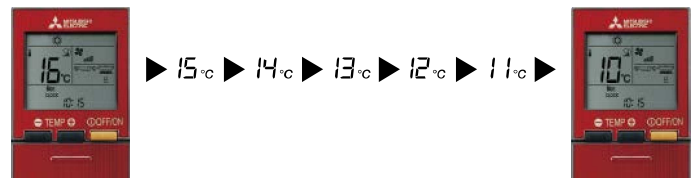
*The cooling/heating capacity may drop.



10°C Heating

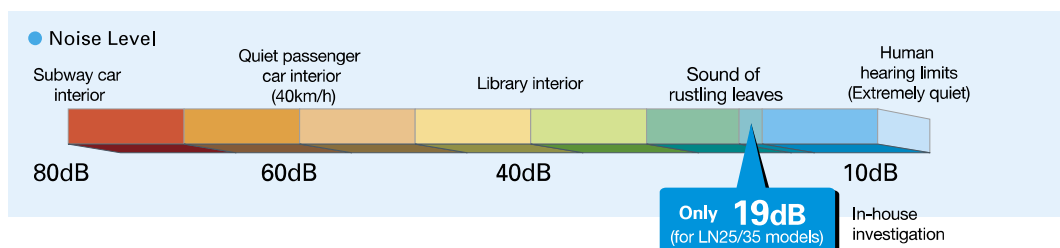
During heating operation, the temperature can be set in 1°C increments down to 10°C.

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



Quiet Operation

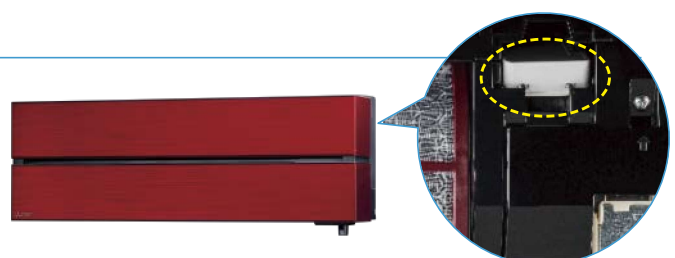
The indoor unit noise level is as low as 19dB for LN25/35 models, offering a peaceful inside environment.



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.



MSZ-L SERIES



Indoor Unit / Remote Controller



<Pearl White>



MSZ-LN25/35/50/60VGW

<Ruby Red>



MSZ-LN25/35/50/60VGR

<Natural White>



MSZ-LN25/35/50/60VGW

<Onyx Black>



MSZ-LN25/35/50/60VGB

Outdoor Unit



MUZ-LN25/35VG



MUZ-LN50VG



MUZ-LN60VG



Type	Inverter Heat Pump			
Indoor Unit	MSZ-LN25VG (W) (V) (R) (B)	MSZ-LN35VG (W) (V) (R) (B)	MSZ-LN50VG (W) (V) (R) (B)	MSZ-LN60VG (W) (V) (R) (B)
Outdoor Unit	MUZ-LN25VG	MUZ-LN35VG	MUZ-LN50VG	MUZ-LN60VG
Refrigerant	R32 ^(*)			
Power Supply	Outdoor Power Supply			
Source	230 / Single / 50			
Design load	kW	2,5	3,5	5,0
Annual electricity consumption ^(**)	kWh/a	83	128	205
SEER ^(**)		10,5	9,5	8,5
Energy efficiency class		A+++	A+++	A+++
Capacity				
Rated	kW	2,5	3,5	5,0
Min-Max	kW	1,0 - 3,5	0,8 - 4,0	1,0 - 6,0
Total Input	Rated	kW	0,485	0,820
Design load	kW	3,0(-10°C)	3,6(-10°C)	4,5(-10°C)
Declared Capacity				
at reference design temperature	kW	3,0(-10°C)	3,6(-10°C)	4,5(-10°C)
at valient temperature	kW	3,0(-10°C)	3,6(-10°C)	4,5(-10°C)
at operation limit temperature	kW	2,5(-15°C)	3,2(-15°C)	4,2(-15°C)
Back up heating capacity	kW	0,0(-10°C)	0,0(-10°C)	0,0(-10°C)
Annual electricity consumption ^(**)	kWh/a	794	974	1369
SCOP ^(**)		5,2	5,1	4,6
Energy efficiency class		A+++	A+++	A++
Capacity				
Rated	kW	3,2	4,0	6,0
Min-Max	kW	0,8 - 5,4	1,0 - 6,3	1,0 - 8,2
Total Input	Rated	kW	0,580	0,800
Operating Current (Max)				
Input	Rated	A	7,1	9,9
Operating Current(Max)				
Rated	A	0,029	0,029	0,034
Dimensions	H*W*D	mm	307-890-233	307-890-233
Weight	kg	15,5	15,5	15,5
Air Volume (SLo-La-Mid-Hi-SH ^(**) Dry/Wet)				
Cooling	m³/min	4,3 - 5,8 - 7,1 - 8,8 - 11,9	4,3 - 5,8 - 7,1 - 8,8 - 12,8	5,7 - 7,6 - 8,8 - 10,6 - 13,9
Heating	m³/min	4,0 - 5,7 - 7,1 - 8,5 - 14,4	4,3 - 5,7 - 7,1 - 8,5 - 13,7	5,4 - 6,4 - 8,5 - 10,7 - 15,7
Sound Level (SPL)				
Cooling	dB(A)	19 - 23 - 29 - 36 - 42	19 - 24 - 29 - 36 - 43	27 - 31 - 35 - 39 - 46
Heating	dB(A)	19 - 24 - 29 - 36 - 45	19 - 24 - 29 - 36 - 45	25 - 29 - 34 - 39 - 47
Sound Level (PWL)				
Cooling	dB(A)	58	58	60
Heating	dB(A)	58	58	60
Dimensions	H*W*D	mm	550-800-285	550-800-285
Weight	kg	35	35	40
Air Volume				
Cooling	m³/min	31,4	31,4	40,0
Heating	m³/min	26,6	29,8	40,5
Sound Level (SPL)				
Cooling	dB(A)	46	49	51
Heating	dB(A)	49	50	54
Sound Level (PWL)				
Cooling	dB(A)	60	61	64
Heating	dB(A)	60	61	64
Operating Current (Max)				
Rated	A	6,8	9,6	13,5
Breaker Size	A	10	10	16
Diameter	Liquid/Gas	mm	6,35/9,52	6,35/9,52
Max.Length	Out-In	m	20	20
Max.Height	Out-In	m	12	12
Guaranteed Operating Range (Outdoor)				
Cooling	°C	-10 ~ +46	-10 ~ +46	-10 ~ +46
Heating	°C	-15 ~ +24	-15 ~ +24	-15 ~ +24

(*) 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.

The GWP of R32 is 675 in the IPCC 4th Assessment Report.

(**) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(*) SH: Super High

(*) 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".

(*) Please see page 63 for heating (warmer season) specifications.