

## **Mitsubishi Lossnay Ventilator**

MODEL:

**VL-100U5-E** (pull cord Type)

**VL-100EU5-E** (wall switch Type)

## **Operating Instructions**

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**VL-100EU5-E** (wall switch Type)

## Operating Instructions

Please read these instructions thoroughly to ensure safe and proper use.

Before proceeding with operation, please be sure to read "Safety precautions", as it will tell you how to operate the Lossnay ventilator properly and safely.

Do not install the unit yourself. (The safety and performance of customer-installed units is not guaranteed.)

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified persons in order to avoid a hazard. (VL-100U5-E only)

- Contact your dealer.

## For Customer

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## Safety precautions

Hazards created by mishandling and their severity are indicated by the following markers.

### **Warning:**

This applies to mishandling or misoperation of the product which could lead to a fatal or serious injury.

### **Caution:**

This applies to mishandling or misoperation of the product which will lead to an injury or damage to your home, household effects, etc.

### **Warning**


 Prohibited

- Do not cut, damage or physically alter the power cord\*1 or subject it to unreasonable bending, pulling, twisting or bundling.
  - You could damage the cord, resulting in fire or electric shock.
- Do not turn the Lossnay switch ON or OFF if there is a flammable gas leak.
  - Sparks from electric contacts could cause explosions. Open a window to ventilate the room.

 Do NOT disassemble

**- Do not disassemble the unit in ways that require physical alteration or tools.**

- Fire, electric shock or injury could result.

 Do not expose to water

**- Do not let the unit get wet.**

- Fire or electric shock could result.

 No wet hands

**- Do not insert or remove the power plug\*1 with wet hands.**

- Electric shock could result.

 You must follow the instructions given.

**- Use at the rated voltage.**

- Fire or electric shock could result.

**- Check that there is no dust on the power plug\*1.**

- A dusty plug could cause fire from a short circuit.

**- Insert the plug\*1 completely into the socket, making sure it is not loose.**

- A loose fit could result in electric shock or fire.

**- Always shut off circuit breakers or remove the power plug\*1 from the wall outlet before performing maintenance work.**

- Electric shock and burns could result if power is flowing.

- **Immediately halt use in the event of malfunction or breakdown.**
  - Continued use of the Lossnay could result in smoke, fire, electric shock or injury.
- \* Promptly shut off the circuit breaker or remove the power plug\*<sup>1</sup> from the wall outlet. Then contact the store of purchase for inspection and repair.
  - <Examples of malfunction and breakdown>
  - Blades do not turn when power is turned on.
  - The unit makes strange noises or vibrates while running.
  - Blade rotation is slow or irregular. (Motors require periodic maintenance.)
  - You smell burning.
  - The unit mount is corroded or damaged.
- **Make sure that the outside air intake opening is positioned so that it will not take in combustion gases or other exhaust.**
  - If intake air is not fresh, oxygen could become depleted in the room.

### Caution



Prohibited

- **Do not place combustion equipment in the direct path of the air from the unit.**
  - Incomplete combustion could result in accidents.
- **Do not use the unit in excessively hot areas (40°C or more), near open flames, areas prone to oily smoke, or where it could come in contact with organic solvents.**
  - Fire could result.
- **Never attach the unit to the ceiling.**
  - Injury could result if the unit falls.
- **A fan rotates inside the unit during operation. Never stick anything inside the unit during operation.**
  - Injury could result.
- **Do not use the unit in a bathroom or other highly humid location.**
  - Electric shock or breakdown could result.
- **Install the outdoor weather covers packaged with the unit.**
  - Rainwater entering the unit could result in electric shock, fire or indoor items getting wet.
- **If using a step-ladder for maintenance, be sure to place it on level ground where there is nothing underfoot.**
  - Injury could result from falling over.



Do NOT touch



Do NOT use in bath or shower



You must follow the instructions given.

- **Wear gloves when maintaining the unit.**
  - Failure to wear gloves could result in injury.
- **After maintenance, reattach parts securely.**
  - Injury could result if the unit falls.
- **Never remove the power plug\*<sup>1</sup> by pulling on the cord. Always grasp the plug itself.**
  - Could result in electric shock or shorts, or could cause fires.
- **Always shut off circuit breakers or remove the power plug\*<sup>1</sup> from the wall outlet during long periods of disuse.**
  - Failure to do so could result in electric shock from deteriorated insulation, or fire from a short circuit.
- **If the outside air is cold, winds are strong, snow or rain is falling heavily, or there is mist or fine snow, turn the Lossnay off and close the manual shutter.**
  - Water or snow could infiltrate the Lossnay with the air supply, resulting in weather damage.
- **This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance. (This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.)**

\*<sup>1</sup> Refers only to VL-100U5-E (Lossnay with plug-in power cord).

## When using the unit

- **When running in winter, the Lossnay transfers the heat of indoor air to the cold outdoor air as it brings outside air in.**

This means that when outside air is colder than about  $-10^{\circ}\text{C}$ , condensation or frost may form on the panel or inside the unit.

Since condensation and frost formation varies with subtle changes in conditions (indoor humidity, air flow and the like), switch operating modes or temporarily stop the unit as conditions dictate.

- **Check that the unit is mounted properly before using it.**

- **Is the Lossnay mounted on a wall?**

- This Lossnay is designed to be mounted only on a wall. If mounted on a ceiling, it may drop off.

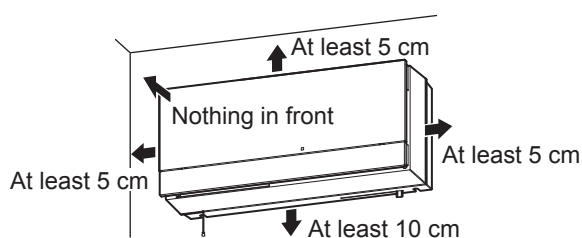
- **Is the special outdoor hood mounted on an exterior wall?**

- Failure to install the hood may allow wind and rain into the unit, damaging it.

- **Obey the following cautions when using the Lossnay**

- **Do not place objects around the unit.**

- Such objects may block air outlets or intake openings or may prevent servicing.
- They may also prevent you from reaching the wall outlet (for plug-in models).



- **When an object (such as a bookshelf or a chest of drawers) is placed directly below the unit, orient the louver horizontally.**

- Failure to do so could result in a short circuit.
- Wind may blow against the object and cause it to become dirty.

- **Do not use aerosol sprays (such as insect sprays, hair sprays or cleaners) directly on the unit.**

- The panel may warp, weaken, or become damaged.

- **Do not obstruct the panel.**

- Proper ventilation may be impeded.

- **Do not pull the cord diagonally (VL-100U5-E only).**

- The unit will not operate correctly.

- **In the following cases, stop the Lossnay and close its shutter.**

- If the outside air is cold, winds are strong, snow or rain is falling heavily, there is heavy fog, or fine snow is falling. (Water or snow may infiltrate the Lossnay with the air supply, resulting in weather damage.)

- During cleaning and inspections

(Stop the Lossnay temporarily, resuming operation later.)

- **Mitsubishi recommends mounting the Lossnay away from the bed.**

If the unit is too close, you may hear operating noise or feel cold air blowing while in bed.

- **Bugs smaller than the grate openings of the outdoor hood may be able to infiltrate the unit.**

- **The motor and the air filter require periodic maintenance (replacement).** Replacement time will vary with frequency of use.

## Features

### The Lossnay ventilator, from Mitsubishi Running the Lossnay

The Lossnay moves dirty indoor air outside (exhausting it) and brings clean air from the outside in (providing air supply).

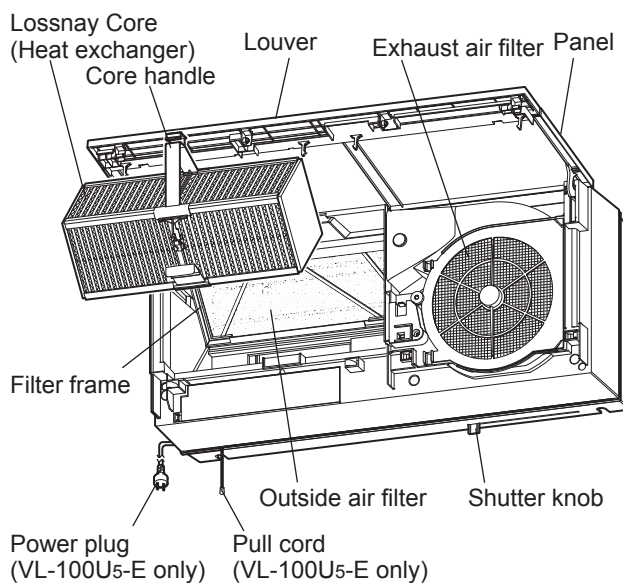
When it supplies air, it brings outside air close to room temperature (functioning as a heat exchanger).

- \* The Lossnay is not an air-conditioner. It is a ventilating fan that exchanges heat as it ventilates.
- ◆ Since it not only sends indoor air out but also brings fresh air in, it works well in tightly sealed homes.
- ◆ Since it is a heat exchanger, it provides heating and cooling at a lower cost than ventilators that merely exhaust.
- ◆ Built-in filters reduce the amount of dust, pollen and other particles entering the house in outside air.
- ◆ To prevent freezing or damage to the Lossnay Core, stop the unit if the outside temperature falls below  $-10^{\circ}\text{C}$  and the room's humidity rises above 40%. (The other conditions about temperature and humidity are based on Table 1 as a reference.)

Table 1

| Outside temperature ( $^{\circ}\text{C}$ ) |                                    | -10 | -15 | -20 | -25 |
|--|------------------------------------|-----|-----|-----|-----|
| Indoors                                    | Temperature ( $^{\circ}\text{C}$ ) | 20  | 20  | 20  | 15  |
|  | Humidity (%)                       | 40  | 35  | 30  | 30  |

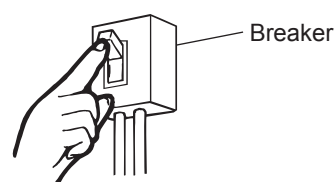
## Names of parts



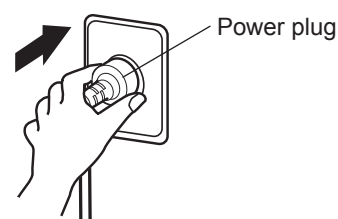
## Before you start the Lossnay

### Preparing to turn the power on

1. Turn the circuit breaker on at the distribution board.



2. Insert the power plug into the wall outlet. (VL-100U5-E only)



# Operation

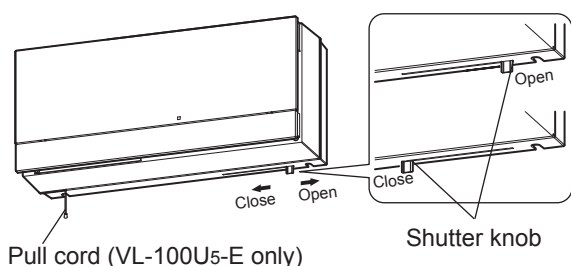
## Note

- In the following cases, stop the Lossnay and manually move the shutter knob to the leftmost position (the closed position) to close the shutter.

- If the outside air is cold, winds are strong, snow or rain is falling heavily, there is heavy fog, or fine snow is falling. (Water or snow may infiltrate the Lossnay with the air supply, resulting in weather damage.)

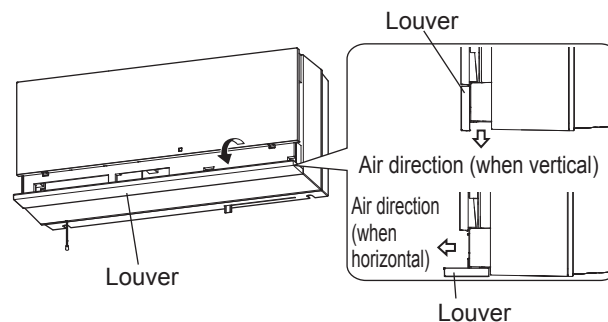
- During cleaning and inspections

1. Slide the shutter knob to the open position.



## If cold air is blowing on you

If cold air is blowing directly on you, flip the louver toward you to change the direction of air flow from vertical to horizontal. (Move manually.)



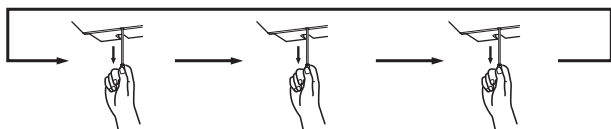
## Note

- Make sure that the shutter knob must be located in the open position, and then operate the unit.

## For VL-100U5-E

2. Switching operating modes (airflow)

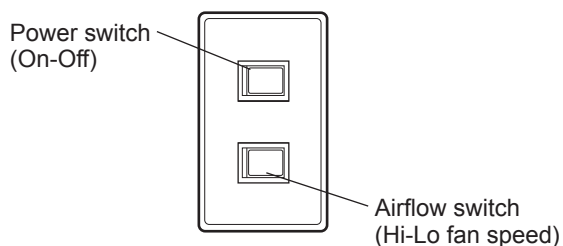
Pull the cord to switch from HI to LO to Off.



HI operation (Operation indicator lights.)      LO operation (Operation indicator lights.)      Off (Operation indicator goes out.)

## For VL-100EU5-E

2. Using the control switches.



\* The switches shown above are only an example. Operations and indicators may vary depending on the switches installed.

# Maintenance

To maximize the life of the Lossnay, clean off any accumulated dirt and dust on the exhaust air filter and outside air filter **at least once every six months**.

## ⚠ Warning:

- Always shut off circuit breakers or, for the VL-100U5-E, remove the power plug from the wall outlet before performing maintenance work.
- Electric shock and burns could result if power is flowing.

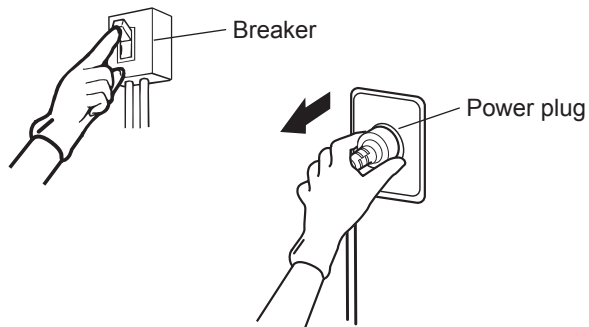
## ⚠ Caution:

- Wear gloves when maintaining the unit.
- Failure to wear gloves could result in injury.
- If using a step-ladder, be sure to place it on level ground where there is nothing underfoot.
- Injury could result from falling over.

## Removing and cleaning filters and the Lossnay Core

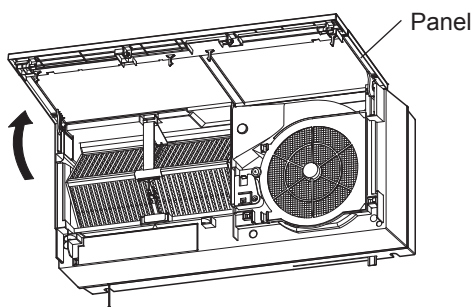
### 1. Turn the power off

- 1) Turn the Lossnay off.
- 2) Always shut off circuit breakers or, for the VL-100U5-E, remove the power plug from the wall outlet.



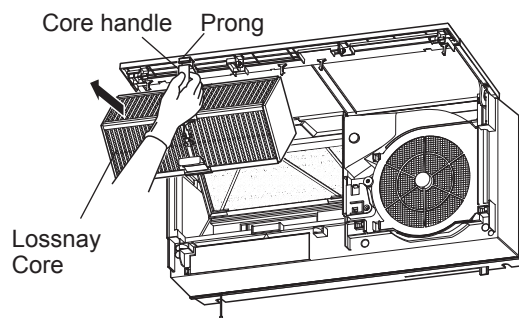
### 2. Open the panel.

Firmly open it all the way.



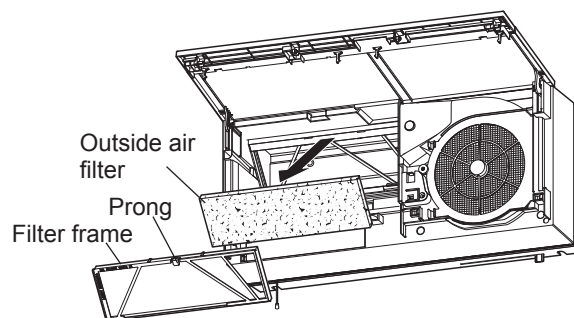
### 3. Remove the Lossnay Core.

Press the prong of the Lossnay Core's handle and pull the handle toward you to remove the core.



### 4. Remove the outside air filter.

- 1) Pressing on the filter frame prong, pull the filter toward you to remove the filter frame from the main unit.
- 2) Remove the outside air filter from its filter frame.



## 5. Cleaning

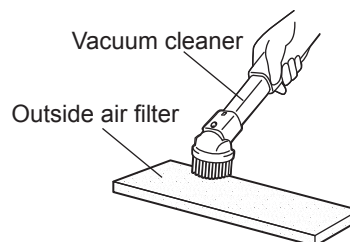
### Cleaning the outside air filter

Cleaning:

Vacuum the dust from the filter, and then handwash it in water with a neutral detergent or in lukewarm water (up to 40°C). Then dry it thoroughly to remove moisture.

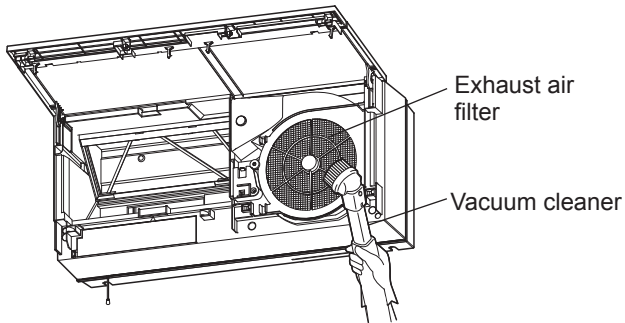
Replacement:

Replace the filter with separately sold parts (P-100F5-E) when it has been washed five or six times



## Cleaning the exhaust air filter

Use a vacuum cleaner to remove dust.



### Note

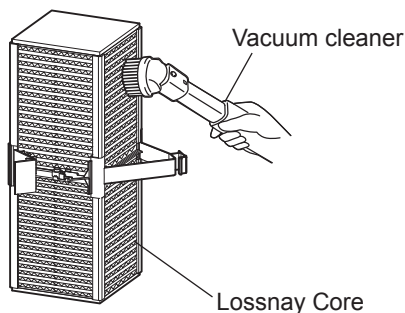
- Do not press wires, screwdrivers or hard vacuum cleaner nozzles into the surface of the exhaust air filter. (Doing so may damage the filter.)

## Cleaning the Lossnay Core

Clean the Lossnay Core at least once a year.

Use a vacuum cleaner to remove surface dust.

- Vacuum the surface gently with the vacuum cleaner nozzle.



### Note

- Do not expose the Lossnay Core to water, chemicals, or volatile solutions.
- Do not expose the Lossnay Core close to open flames.
- Do not press wires, screwdrivers or hard vacuum cleaner nozzles into the surface.

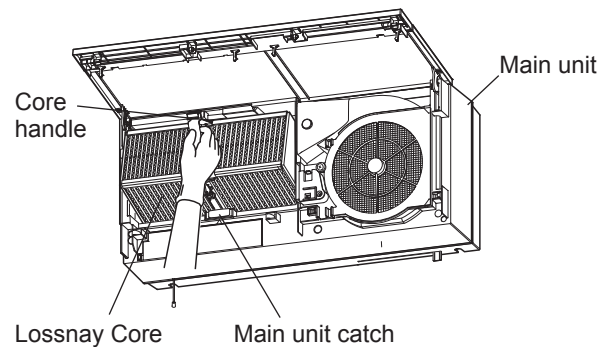
## 6. Reassembly and checking after maintenance

Mount the filter and Lossnay Core by the opposite of the removal procedure.

### ⚠ Caution

- After maintenance, reattach parts securely.
- Injury could result if the unit falls.

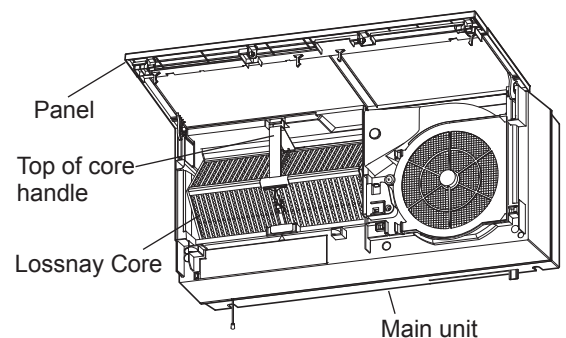
1. Mount the outside air filter. (See page 5.)
  - Place the outside air filter into the filter frame and mount it in the main unit. (Do not confuse the top and bottom.)
2. Mount the Lossnay Core.
  - (1) Hang the center of the lower part of the Lossnay Core onto the catch on the main unit.



- (2) Press the top of the core handle into the main unit until you hear a click.

### Note

- Make sure that the center catches on the top and bottom of the handle and the two ends of the core are inserted all the way in.



3. Close the panel.
  - Swing the panel closed until you hear a click.
4. Turn on the circuit breaker or, for the VL-100U5-E, plug the power plug into the wall outlet.
5. Turn the power on.



6. After reassembly, check the following.
- Are the filters and the panel attached securely?
  - Is the unit making no strange noises?
  - Is the unit blowing air? (Be sure to check the unit while it is running. Make sure that the shutter is open.)

### Cleaning the panel/main unit

If the panel or main unit becomes dirty, wipe it with a well-wrung cloth soaked in a solution of neutral detergent and lukewarm water (40°C or less), then wipe it with a clean cloth to remove any traces of detergent.

### Note

- **Use of any of the following solvents in maintenance may warp, weaken or discolor Lossnay components.**
  - Paint thinner, alcohol, benzene, gasoline, kerosene, aerosol sprays, alkaline cleaners, chemical wipes, or abrasive-containing detergents, such as cleansers
- **Clean any dust off of the plug. (VL-100U5-E only)**

## Troubleshooting

Inspect the unit if any of the following problems occurs. If the problem is not listed below, or the problem persists after inspection, shut off the circuit breaker on the distribution board or, for VL-100U5-E, remove the power plug from the wall outlet, and then contact your dealer.

| Model                     | Problem  | Cause  | Check the following  | Page |
|---------------------------|--|--|--|------|
| VL-100U5-E<br>VL-100EU5-E | Unit does not operate.   | No power to main unit.   | Check the power plug. (VL-100U5-E only)<br>Check whether a breaker has tripped.<br>Check whether a power failure has occurred. | 4    |
|                           | The unit is louder.<br>The unit is noisy.  | The panel or outside air filter is not attached securely.  | Reattach the panel or filter.  | 7    |
|                           |  | The outside air filter or exhaust air filter is clogged.   | Clean the filter.  | 6    |
|                           | It is cold and the shutter will not move.  | The outside air temperature, indoor air temperature and humidity may have caused the shutter to freeze in place.           | Shut the Lossnay off until outside temperatures rise, and then resume operation.   | —    |
|                           | Less air than normal is coming from the unit.  | The outside air filter or exhaust air filter is clogged.   | Clean the filter.  | 6    |
|                           | The incoming air feels cold.   | The outside air temperature has dropped.   | Turn the unit off temporarily and close the shutter, as dictated by the situation. Alternatively, change the louver direction. | 5    |
|                           | No air is coming from the unit.<br>Not much air is coming from the unit.   | The Lossnay is a heat-exchanging ventilator, so the volume of air will be lower than with an ordinary fan. This is normal. |  | —    |
|                           |  | The shutter is closed.   | Open the shutter.  | 5    |
|                           | The unit is loud.  | The shutter is closed.   | Open the shutter.  | 5    |
| The panel will not close. | The Lossnay Core or outside air filter is not mounted correctly. (A component is out of position or inserted backwards.) | Mounted the component correctly.   | 7  |      |
| VL-100EU5-E               | The operation does not match the wall switch.  | The wiring is incorrect.   | Contact your dealer.   | —    |

## Specifications

| Model                    | Supply voltage (V) | Frequency (Hz) | Notch | Power consumption (W) | Air volume (m <sup>3</sup> /hr) | Temperature exchange efficiency (%) | Noise (dB) | Weight (kg) |
|--------------------------|--------------------|----------------|-------|-----------------------|---------------------------------|-------------------------------------|------------|-------------|
| VL-100U <sub>5</sub> -E  | 220                | 50             | HI    | 30                    | 100                             | 73                                  | 36.5       | 7.5         |
|                          |                    |                | LO    | 13                    | 55                              | 80                                  | 24         |             |
|                          | 230                | 50             | HI    | 31                    | 105                             | 73                                  | 37         |             |
|                          |                    |                | LO    | 15                    | 60                              | 80                                  | 25         |             |
| VL-100EU <sub>5</sub> -E | 240                | 50             | HI    | 34                    | 106                             | 72                                  | 38         |             |
|                          |                    |                | LO    | 17                    | 61                              | 79                                  | 27         |             |
|                          | 220                | 60             | HI    | 34                    | 103                             | 73                                  | 38         |             |
|                          |                    |                | LO    | 17                    | 57                              | 80                                  | 25         |             |

\* Noise values may be higher than those listed depending on the structure of the room.

## After-sales servicing

Consult with your dealer about the after-sales services provided for this Lossnay product.

- If you hear strange sounds, if no air is blown out or if some other trouble occurs, switch off the power and contact your dealer. Consult with your dealer concerning the cost of inspection or repair work.