

A ducted recovery (ventilation) system Lossnay LGH-RVX

The ducted recovery system LGH-RVX with a patented Lossnay plate heat exchanger efficiently ventilates preserving up to 90 per cent of energy and adjusting humidity level in the premises. Fresh air reaches each desired room through installed ducts, while the operation of a ventilation appliance can be easily programmed according to your life schedule.



Excellent air quality - ideal heat exchange!

Insufficient ventilation of premises can cause quite a number of problems inside the building. It is the main cause of the Sick Building Syndrome (in particular, in new or renovated residential buildings). Stifling air, in combination with a too-high or too-low level of humidity, provides excellent conditions for the spread of various bacteria, mildew or rot, reduces people's capacity for work and causes various ailments as well as damages the building.

Today, ventilation of premises ensuring appropriate supply of fresh air without increasing heating and cooling costs becomes the necessity both in residential and commercial buildings. Therefore, builders, designers and owners of buildings face a real challenge when choosing efficient and energy-saving recovery systems.



The newest MITSUBISHI ELECTRIC Lossnay LGH-RVX series ducted ventilators with the installed new-generation high-performance fan engine and other technological innovations are in compliance with the highest requirements for recovery systems. Thanks to a patented Lossnay plate heat exchanger made of special paper, not only is efficient simultaneous supply of fresh air and removal of stifling air ensured, but the heating/cooling energy is recovered to the premises and humidity level is adjusted.

In buildings with the newest Lossnay LGH-RVX ventilation system installed, maximum comfort is ensured with the lowest energy input.

Ventilation of premises using the newest Lossnay LGH-RVX recovery system ensures:

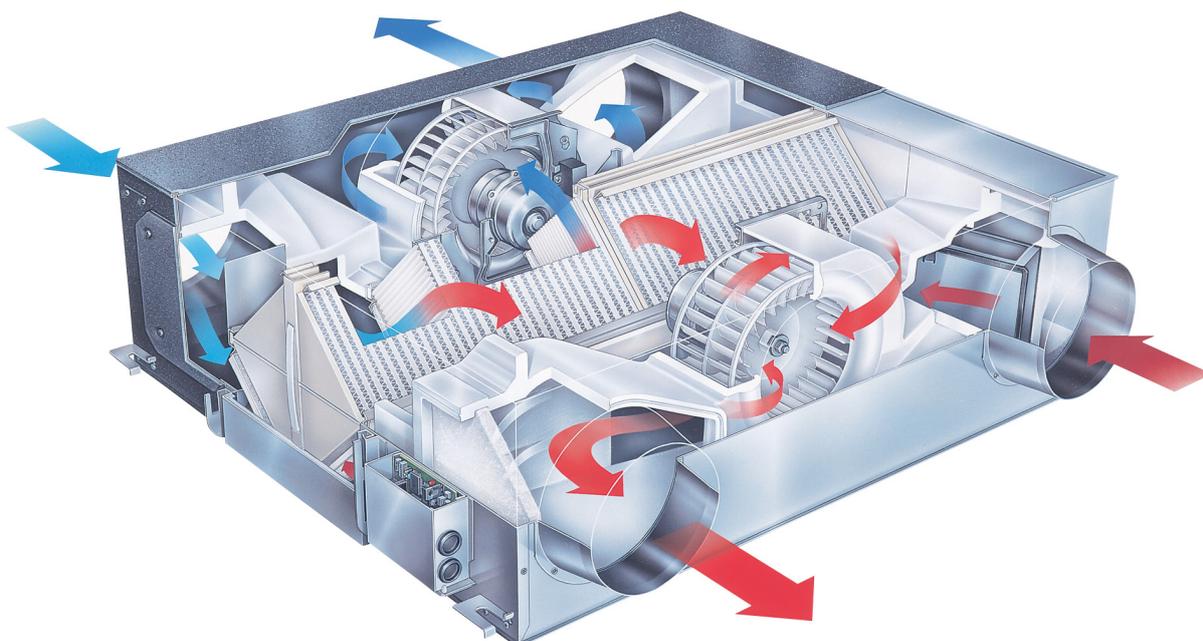
- **Fresh air.** During ventilation, impure air is extracted and fresh air - which is vital to people - is supplied. In this manner hygienic and comfortable working and living conditions are ensured.
- **Absorption of odours.** During ventilation, unpleasant odours are eliminated. This is important not only in a bathroom or kitchen, but also in all the other premises.
- **Adjustment of humidity level.** Modern buildings are especially airtight, which increases a likelihood of the multiplication of mildew and various bacteria. Lossnay recovery ventilators adjust humidity level and prevent the spread of mildew, mites, bacteria, etc.
- **Elimination of dust.** Ventilation reduces the amount of dust and other microscopic particles in the rooms and work premises, which creates a hygienic environment.
- **Energy savings.** Ventilation extracts heat (in winter) or coolness (in summer) from the premises. However, differently from ventilation by opening windows or doors, the use of

modern Lossnay recovery systems enables you to save the major part of energy (up to 90 per cent!). This not only ensures supply of fresh air, but also does not increase heating or cooling costs, besides, there is no need for the installation of more powerful heating/cooling equipment.

The structure and principle of operation of a Lossnay LGH-RVX ducted recovery ventilator

The essence of a Lossnay LGH-RVX recovery system is a patented plate heat exchanger consisting of separate cross-airflow faceted plates made of specially-processed very thin paper. Incoming fresh ambient air is completely separated from outgoing impure air of premises. As airflows run through a Lossnay recovery ventilator, the throughput of high-quality special paper heat transmission and humidity ensures high total efficiency of heat and humidity transfer.

Even up to 90 per cent of energy is recovered into the premises!



Innovations and advantages of the Lossnay LGH-RVX series:

- **An improved fan!** Thanks to the installed high-performance new DC fan engine and other technological innovations, LGH-RVX series ducted recovery ventilators are distinguished by many advantages compared with ventilation appliances of the previous LGH-RX5 series.
- **A considerably lower electric power input.**
- **4 speed modes of a fan** (appliances of the previous, LGH-RX5, series had 3 modes). Besides, the airflow settings can be additionally expanded with the help of a remote control.
- **A new design of the remote control, more programming options.** The new remote

control has an illuminated LCD screen, and is more convenient and easy to use. More flexible programming enables more appropriate operation of a ventilation system with a lower electric power input.

Previous control panel



PZ-60DR-E

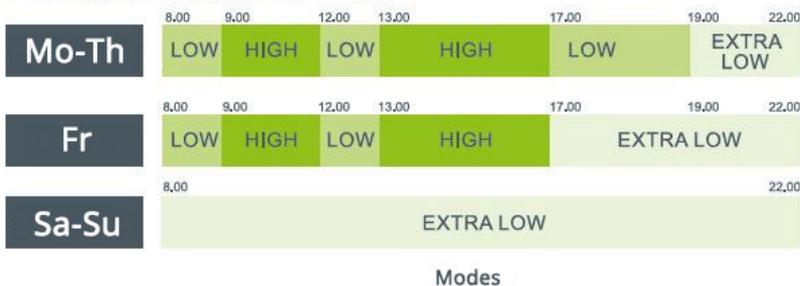
New control panel



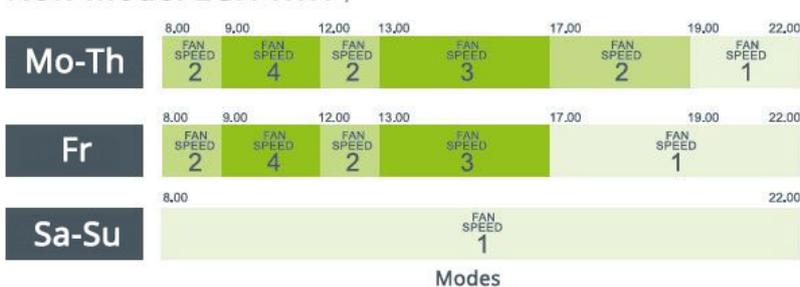
PZ-61DR-E

- **A weekly timer's function.** It is possible to choose different fan speeds (modes) at certain hours on various days of the week. This enables optimization of energy input and operation of the appliance taking into account the ventilation need at a certain time.

Previous model LGH-RX5



New model LGH-RVX

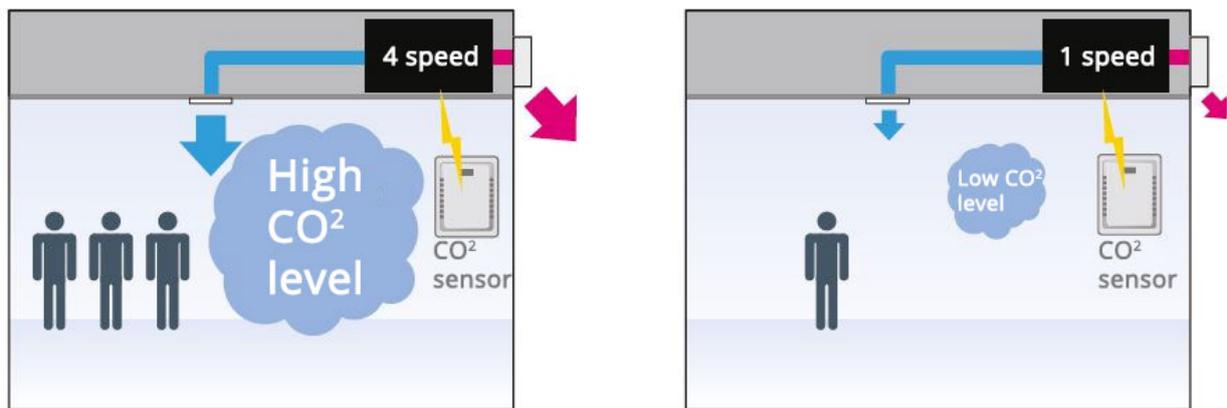


Electricity consumption per week



- **The night-mode** function enables supply of clean cool air into the premises on cool summer nights by using a by-pass option (i.e. by by-passing a heat exchanger). In the morning, the premises will be pleasantly cool, and the air conditioner will need less energy to maintain the set temperature of the premises. In the new RVX series appliances, it is possible to flexibly control the settings of the night-mode - switch-on conditions, airflow amount and duration of operation, taking into consideration the special features of every building and the ventilation need.
- **The settings of the automatic mode**, when the operation of a recovery ventilator is automatically switched from ventilation through a heat exchanger to the by-pass mode depending on indoor and ambient conditions, have also become even easier to programme in RVX series appliances.

There is an option of direct connection of a **CO₂ sensor** to Lossnay LGH-RVX series recovery systems. This would automatically change the operation of an appliance considering concrete indoor conditions and save energy.



Other innovations and advantages. RVX series recovery systems, compared to the previous LGH-RX5 series, are characterized by a lower noise level, an improved external static pressure, an option of adjusting airflow settings in case of a common (combined) air-conditioning/ventilation system, options of more flexible control through the common building system and centralized control (a new centralized controller AE-200E).

A combined ventilation and heating/cooling system

Ducts of a recovery (ventilation) system can be used for heating and cooling of premises with a ducted air-to-air heat pump (MITSUBISHI ELECTRIC offers **SEZ-K-VA** and **PEAD-RP-JA** ducted heat pump models). This is an especially comfortable system enabling efficient heating, cooling and ventilation of all desired premises.

The operation of such a combined heating/cooling and ventilation system may be seen [here](#).

The strength of MITSUBISHI ELECTRIC lies in the fact that all research and product development is conducted in its own laboratories and that all the main components

are manufactured in its own plants. This makes it possible to guarantee high quality of all products of the MITSUBISHI ELECTRIC brand.

Specifications

Model	LGH-15RVX	LGH-25RVX	LGH-35RVX	LGH-50RVX
Airflow (m ³ /h)	38-75-113-150	63-125-188-250	88-175-263-350	125-250-375-500
Level of noise* (dB(A))	17-19-24-28	17-20-22-27	17-20-28-32	18-19-28-34
The temperature exchange efficiency (%)	84-83-81-80	86-82-80-79	88,5-86-82,5-80	87-83,5-81-78
Electricity consumption (W)	7-14-28-49	8-16-33-62	11-31-70-140	12-32-78-165
Weight (Kg)	20	23	30	33
Dimensions (mm)				
Length	780	780	888	888
Width	610	735	874	1016
Height	289	289	331	331
Power supply voltage (V/phase/Hz)	240V /1/50Hz	240V /1/50Hz	240V /1/50Hz	240V /1/50Hz
Maximum load (A):				
Min.	0,10	0,10	0,12	0,13
Max.	0,40	0,48	0,98	1,15
Pipe bores (mm)	100	150	150	200
Electric heater (Tenas) **:				
Model	CV-12-06-1M	CV-16-09-1M	CV-16-15-1M	CV-20-21-1M
Power	0,600 kW	0,900 kW	1,500 kW	2,100 kW

*Noise level is measured 1 m from an appliance and at a 1.5 m elevation from the floor

**An electric heater is not a required, but recommended accessory to ensure that negative-temperature air is not supplied into an appliance (which is relevant when ventilation is uninterrupted, usually in commercial facilities).

Indoor units of air-to-air heat pumps which can be connected to Lossnay LGH-RVX series recovery ventilators:

PLA-BA, SLZ-KA, PEAD-JA, PEA-GA, SEZ-KD, PCA-KA/HA, PKA-HA/KA, PSA-GA

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