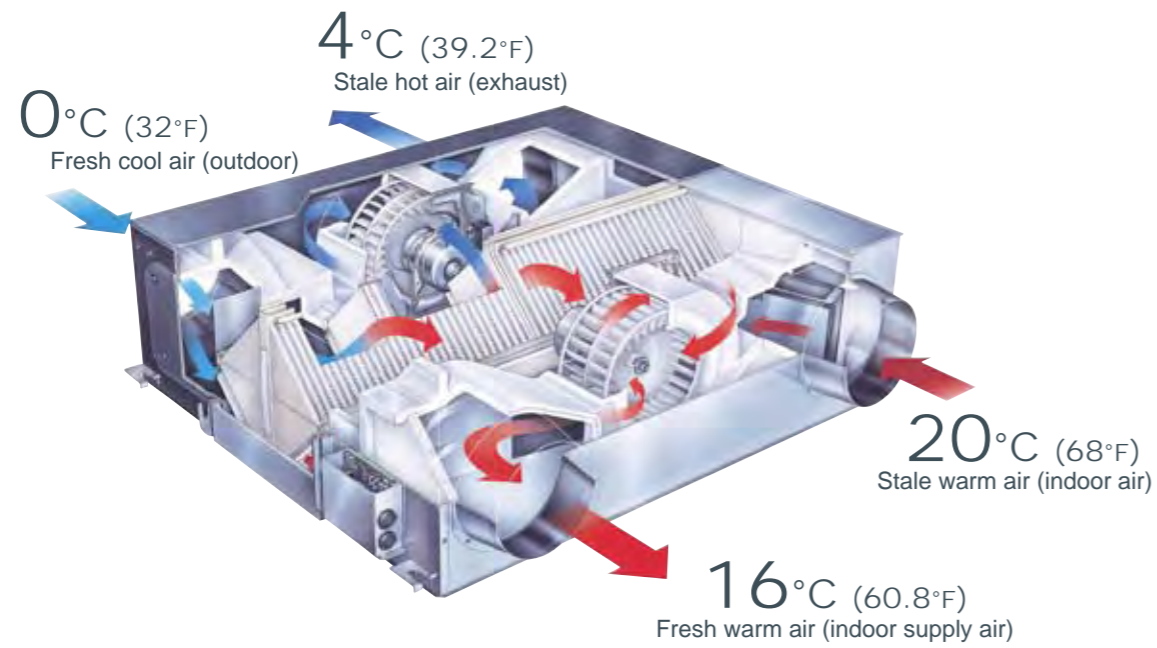


RX5 SERIES



The Ventilation System for Enhanced Air Quality - Lossnay

Combine with Lossnay Ventilation System Enhanced Air Quality.
Unified Control System Allows Greater Design Freedom.



- LGH-15RX5 [150m³/h Single phase 220-240V 50Hz]
- LGH-25RX5 [250m³/h Single phase 220-240V 50Hz]
- LGH-35RX5 [350m³/h Single phase 220-240V 50Hz]
- LGH-50RX5 [500m³/h Single phase 220-240V 50Hz]
- LGH-65RX5 [650m³/h Single phase 220-240V 50Hz]

- LGH-80RX5 [800m³/h Single phase 220-240V 50Hz]
- LGH-100RX5 [1000m³/h Single phase 220-240V 50Hz]
- LGH-150RX5 [1500m³/h Single phase 220-240V 50Hz]
- LGH-200RX5 [2000m³/h Single phase 220-240V 50Hz]

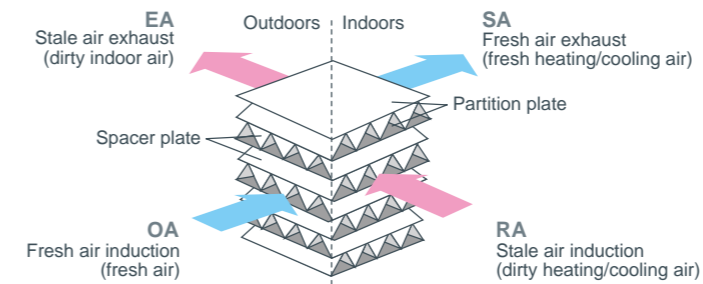
Heat-Exchange Efficiency Obtainable Only with Lossnay.

The secret to the unmatched comfort provided by Lossnay core is the cross-flow, plate-fin structure off the heat-exchange unit. A diaphragm made of a specially processed paper fully separates inducted and exhausted air supplies, ensuring that only fresh air is introduced to the indoor environment. The superior heat-transfer and moisture permeability of the special paper assure highly effective total heat exchange (temperature and humidity) when inducted and exhausted air supplies cross in the Lossnay core.

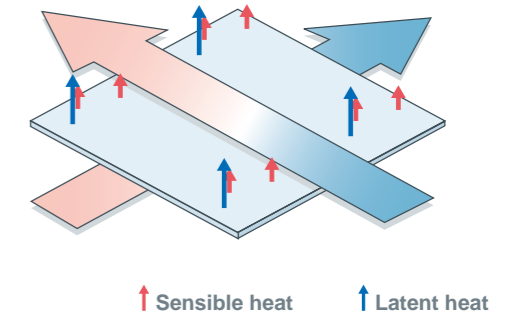
LOSSNAY Technology

- **Two paths ventilation**
LOSSNAY simultaneously intakes Fresh Air and exhausts Dirty Air.
- **Total energy recover**
LOSSNAY returns BOTH sensible heat and latent heat.

A. Two paths ventilation

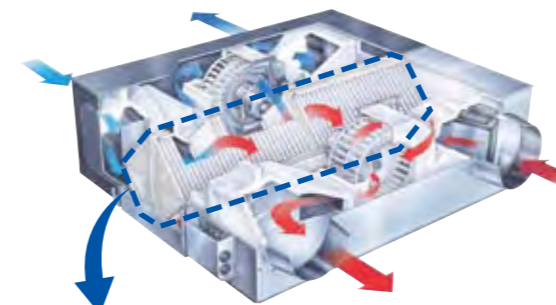


B. Total Energy transfer

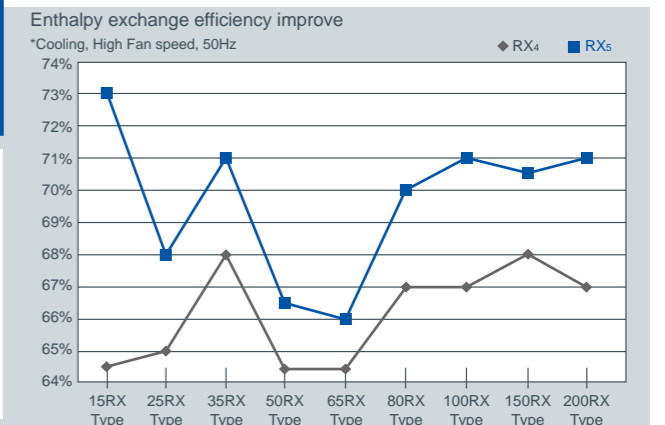
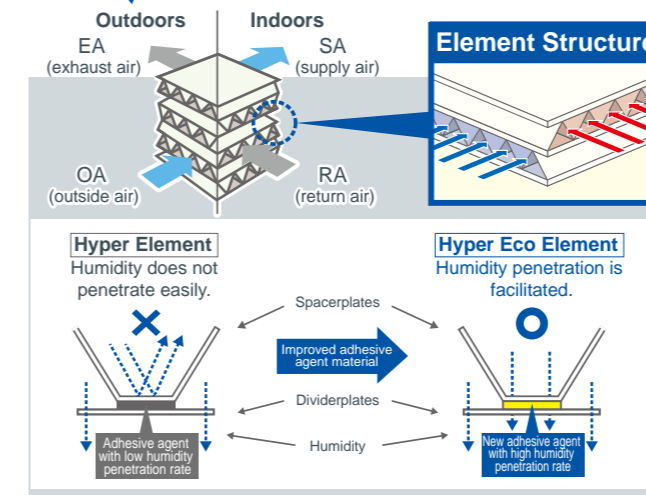


• Hyper Eco Core

Better energy conservation by improved total heat exchange efficiency.

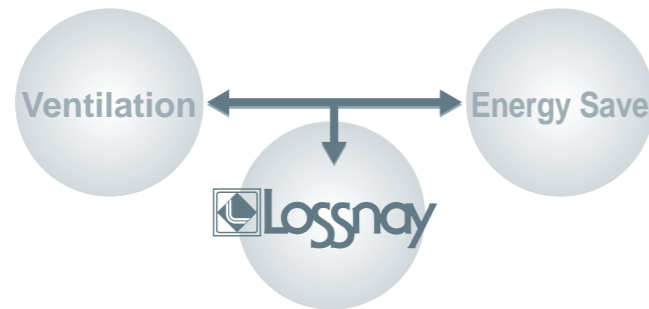


Introducing the new Hyper Eco Element
Mitsubishi's newly developed Hyper Eco Element is on board, offering the industry's best total heat exchange efficiency. Energy conservation performance has been improved not only by reducing the air conditioning load associated with ventilation, but also by facilitating humidity penetration.



Why LOSSNAY is necessary.

- **Without ventilation...**
Lack of Ventilation makes people sick by dirty indoor air including CO₂, Dust, Bacteria.
- **If just opening windows...**
Opening windows eliminates dirty air BUT wastes much air-con energy.
- **So we recommend LOSSNAY**
LOSSNAY is simultaneous pursuit of Ventilation and Energy Saving.

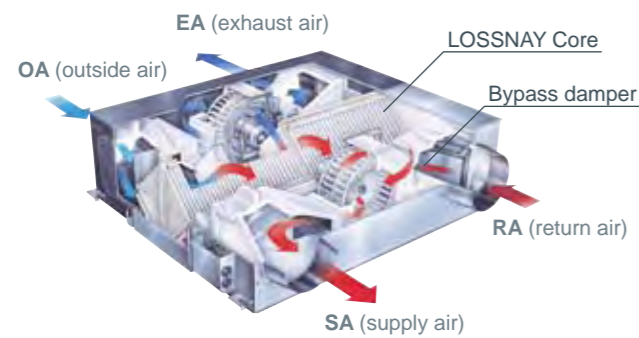


• This is LOSSNAY !

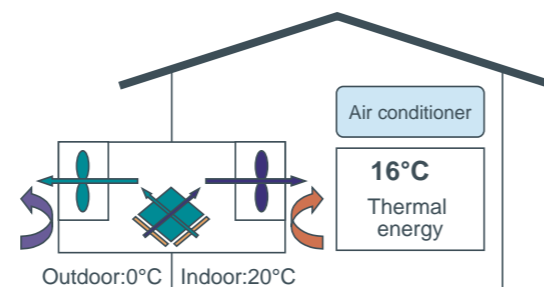
ADVANTAGES

- Clean air supply, dirty air exhaust** by Two air paths (OA → SA and RA → EA)
- Energy recovery** by LOSSNAY Core
- Free cooling** by bypass damper
- MULTI VENTILATION MODE** for multi ventilation request (Power supply, Power supply/exhaust, Power exhaust)

UNIT STRUCTURE



Energy Recovery Image

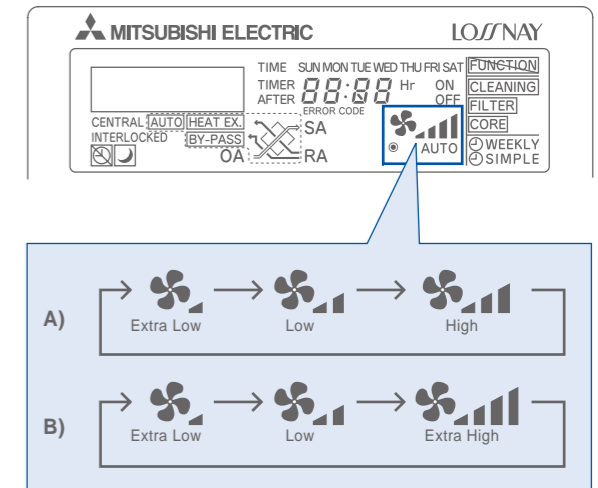


How much recovery?
OA temp. : 0°C → SA temp. : 16°C (Indoor 20°C)

Extra Low Mode

- Additional energy conservation by using a four-level air volume system that allows more precise control.

In addition to the conventional Extra High, High, and Low modes, an Extra Low mode is added to provide a more dynamic range of air volume settings and versatility in a variety of installation environments, yielding much better energy conservation. Using a simplified timer function, it switches to Extra Low operation when the operation stop button is activated and it is accordingly possible to implement 24-hour energy conservation ventilation.



- * The Extra High and High ventilation modes are selectable by the initial setting.
- * Extra-Low not equipped LGH-150RXs and 200RXs.
- * The ventilation mode is actually selected in three levels, and the remote controller also displays these three levels.

Energy Saving by WEEKLY timer

Air volume level can be set hourly (max 8 times) and weekly. You can pre-set air volume according to the predictable requirement so that LOSSNAY can automatically operate at only necessary air-speed at the specified time period, which saves power consumption while maintaining the indoor air quality. Besides, once the weekly timer has been set, no switching on-off is required.

Example A (Hourly)

current RX₄ series with PZ-41SLB controller



new RX₅ series with PZ-60DR-E



Total power consumption in one day : LGH-100RX₄-E : 6,600W (14 hours)
LGH-100RX₅-E : 5,390W (14 hours) → **1,210W (18%) less**

Example B (Weekly)



New function: "By-pass" Ventilation External Control Setting

In addition to the automatic damper open/close function, open/close control via external devices is now possible, delivering a "By-pass" ventilation system that is suitable to the installed environment.

Establish the wire connection by inserting the optional remote display adaptor (PAC-SA88HA-E) in the connector CN16 (Ventilation mode selector).

With SW1 is "ON", the ventilation mode of LOSSNAY is changed to the By-pass ventilation regardless of the setting on the remote controller.

•Automatic ventilation setting

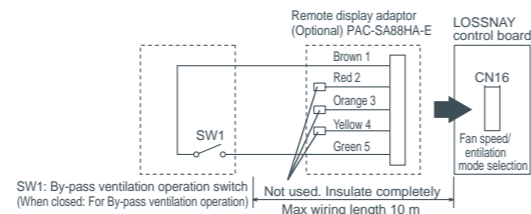
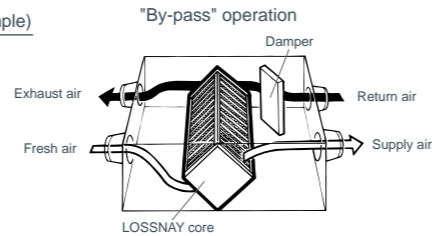
The automatic damper mode automatically provides the correct ventilation for the conditions in the room. The following shows the effect "By-pass" ventilation will have under various conditions.

1. Reduces cooling load

If the air outside is cooler than the air inside the building during the cooling season (such as early morning or at night), "By-pass" ventilation will draw in the cooler outside air and reduce the cooling load on the system.

Control devices (example)

- Temperature sensor
- Humidity sensor
- Timers



2. Night purge

"By-pass" ventilation can be used to release hot air from inside the building that has accumulated in buildings a business district during the hot summer season.

3. Office equipment room cooling

During cold season, fresh air can be drawn in and used as is to cool rooms where the temperature has risen due to the use of office equipment.

* When the outdoor air temperature drops lower than 8°C it changes to the heat exchange ventilation. (Display of the remote controller does not change.)

* In the case of "By-pass" ventilation, the supply air temperature slightly rises more than the outside air temperature because of the heat effect around the ducts or the unit motors.

New Remote Controller PZ-60DR-E

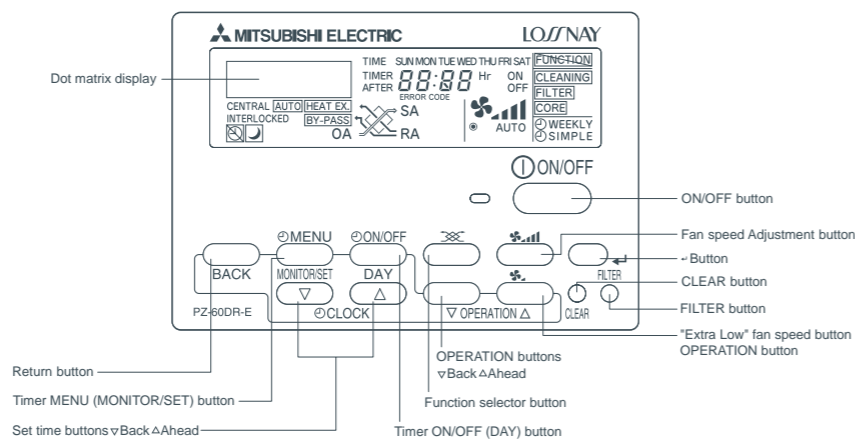
A new remote controller for the RX5 series is now available. In addition to boosting the energy conservation performance of the main unit, the remote controller features a variety of new functions which also pursue additional energy conservation.

The appearance of the remote controller conforms to Mitsubishi air conditioner interface design standards.

Functions that were set using Dip-Switch on the LOSSNAY main unit can now be configured as needed using the new remote controller.

This eliminates the need to crawl under the eaves to change operation settings.

Also, a newly adopted dot matrix display provides much more information, making it easy to check maintenance indications, operation status display, and explanations required when configuring settings.



LGH-15-100RX5-E

Model line up

■ Specification

LGH-15RX5-E

Model		LGH-15RX5-E								
Frequency / Power source		50Hz / Single phase 220-240V								
Ventilation mode		LOSSNAY ventilation				By-pass ventilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low	
Current (A)		0.44-0.46	0.37-0.38	0.25-0.25	0.14-0.15	0.45-0.46	0.37-0.38	0.25-0.26	0.14-0.15	
Power consumption (W)		96-110	80-90	53-59	30-35	97-110	81-91	54-61	30-35	
Air volume		(m ³ /h)	150	150	110	70	150	150	110	70
		(L/s)	42	42	31	19	42	42	31	19
External static pressure		(mmHzO)	10.2-10.7	6.6-7.1	3.6-4.1	1.4	10.2-10.7	6.6-7.1	3.6-4.1	1.4
		(Pa)	100-105	65-70	35-40	14	100-105	65-70	35-40	14
Temperature exchange efficiency (%)		82.0				85.5				
Enthalpy exchange efficiency (%)		Heating		75.0		75.0		77.5		
		Cooling		73.0		73.0		76.5		
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		27.5-28	26.5-27	22-23.5	18	28.5-29	27-28	23-24	18-19	
Weight (kg)		20								
Starting current		Under 0.8 A Less								

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 6 dB greater than the indicated value. (at High Fan speed)

LGH-25RX5-E

Model		LGH-25RX5-E								
Frequency / Power source		50Hz / Single phase 220-240V								
Ventilation mode		LOSSNAY ventilation				By-pass ventilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low	
Current (A)		0.52-0.55	0.47-0.48	0.26-0.27	0.17-0.18	0.53-0.55	0.47-0.48	0.26-0.27	0.17-0.18	
Power consumption (W)		113-129	102-114	56-62	36-42	115-131	103-115	56-63	36-42	
Air volume		(m ³ /h)	250	250	155	105	250	250	155	105
		(L/s)	69	69	43	29	69	69	43	29
External static pressure		(mmHzO)	8.2-8.7	5.1-6.1	2-2.5	0.9	8.2-8.7	5.1-6.1	2-2.5	0.9
		(Pa)	80-85	50-60	20-25	9	80-85	50-60	20-25	9
Temperature exchange efficiency (%)		79.0				83.5				
Enthalpy exchange efficiency (%)		Heating		69.5		69.5		74.0		
		Cooling		68.0		68.0		72.5		
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		26-27	25-26	20-21.5	18-19	26.5-27.5	25.5-26.5	20.5-22	18-19	
Weight (kg)		20								
Starting current		Under 0.9 A Less								

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)

LGH-35RX5-E

Model		LGH-35RX5-E								
Frequency / Power source		50Hz / Single phase 220-240V								
Ventilation mode		LOSSNAY ventilation				By-pass ventilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low	
Current (A)		0.92-0.92	0.74-0.74	0.5-0.51	0.28-0.3	0.93-0.94	0.77-0.77	0.51-0.52	0.28-0.3	
Power consumption (W)		195-212	160-169	105-116	58-69	197-217	164-173	105-116	58-69	
Air volume		(m ³ /h)	350	350	210	115	350	350	210	115
		(L/s)	97	97	58	32	97	97	58	32
External static pressure		(mmHzO)	15.8-16.3	7.6-8.2	2.5-3.1	0.9	15.8-16.3	7.6-8.2	2.5-3.1	0.9
		(Pa)	155-160	75-80	25-30	9	155-160	75-80	25-30	9
Temperature exchange efficiency (%)		80.0				88.0				
Enthalpy exchange efficiency (%)		Heating		71.5		71.5		76.5		
		Cooling		71.0		71.0		75.5		
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		32-32	28.5-29.5	21.5-23	18	32.5-32.5	29.5-30.5	21.5-24	18	
Weight (kg)		29								
Starting current		Under 2.4 A Less								

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)



LGH-15~100RX5-E



LGH-15~100RX5-E



LGH-150/200RX5-E

LGH-50RX5-E

Model		LGH-50RX5-E								
Frequency / Power source		50Hz / Single phase 220-240V								
Ventilation mode		LOSSNAY ventilation				By-pass ventilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low	
Current (A)		1.2-1.25	1.0-1.0	0.85-0.85	0.4-0.4	1.25-1.25	1.0-1.0	0.85-0.85	0.4-0.4	
Power consumption (W)		255-286	207-228	175-190	80-95	260-290	210-230	180-195	80-95	
Air volume		(m³/h)	500	500	390	180	500	500	390	180
		(L/s)	139	139	108	50	139	139	108	50
External static pressure		(mmH ₂ O)	15.3-15.8	6.6-9.2	4.1-6.1	1.0	15.3-15.8	6.6-9.2	4.1-6.1	1.0
		(Pa)	150-155	65-90	40-60	10	150-155	65-90	40-60	10
Temperature exchange efficiency (%)		78.0	78.0	81.0	86.0	—	—	—	—	
Enthalpy exchange efficiency (%)		Heating	69.0	69.0	71.0	78.0	—	—	—	—
		Cooling	66.5	66.5	68.0	77.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		33-34	30.5-32	26.5-28	19	34-35	31-32.5	27-29	19	
Weight (kg)		32								
Starting current		Under 3.0 A Less								

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 16 dB greater than the indicated value. (at High Fan speed)

LGH-65RX5-E

Model		LGH-65RX5-E								
Frequency / Power source		50Hz / Single phase 220-240V								
Ventilation mode		LOSSNAY ventilation				By-pass ventilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low	
Current (A)		1.7-1.8	1.5-1.5	1.2-1.2	0.6-0.6	1.7-1.8	1.5-1.5	1.2-1.2	0.6-0.6	
Power consumption (W)		350-380	308-322	248-265	120-140	350-385	310-335	250-265	120-140	
Air volume		(m³/h)	650	650	520	265	650	650	520	265
		(L/s)	181	181	144	74	181	181	144	74
External static pressure		(mmH ₂ O)	11.2-12.2	6.1-8.2	4.1-5.1	0.8	11.2-12.2	6.1-8.2	4.1-5.1	0.8
		(Pa)	110-120	60-80	40-50	8	110-120	60-80	40-50	8
Temperature exchange efficiency (%)		77.0	77.0	80.0	86.0	—	—	—	—	
Enthalpy exchange efficiency (%)		Heating	68.5	68.5	70.5	78.0	—	—	—	—
		Cooling	66.0	66.0	68.5	77.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		34-34.5	32-33	28.5-31.5	22	34.5-35	32.5-33.5	28.5-30.5	22-22.5	
Weight (kg)		40								
Starting current		Under 4.4 A Less								

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)

LGH-80RX5-E

Model		LGH-80RX5-E								
Frequency / Power source		50Hz / Single phase 220-240V								
Ventilation mode		LOSSNAY ventilation				By-pass ventilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low	
Current (A)		1.75-1.75	1.6-1.6	1.45-1.45	0.60-0.65	1.75-1.75	1.6-1.6	1.45-1.45	0.60-0.65	
Power consumption (W)		380-415	345-370	315-340	125-145	380-415	345-370	315-340	120-145	
Air volume		(m³/h)	800	800	700	355	800	800	700	355
		(L/s)	222	222	194	99	222	222	194	99
External static pressure		(mmH ₂ O)	14.8-15.3	10.7-12.2	8.2-9.7	2	14.8-15.3	10.7-12.2	8.2-9.7	2
		(Pa)	145-150	105-120	80-95	20	145-150	105-120	80-95	20
Temperature exchange efficiency (%)		79.0	79.0	80.5	87.5	—	—	—	—	
Enthalpy exchange efficiency (%)		Heating	71.0	71.0	72.5	79.5	—	—	—	—
		Cooling	70.0	70.0	71.5	79.5	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		33.5-34.5	32-33	30-31	22	34.5-35.5	33-34	31-32	22	
Weight (kg)		53								
Starting current		Under 3.8 A Less								

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 16 dB greater than the indicated value. (at High Fan speed)

LGH-100RX5-E

Model		LGH-100RX5-E								
Frequency / Power source		50Hz / Single phase 220-240V								
Ventilation mode		LOSSNAY ventilation				By-pass ventilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low	
Current (A)		2.3-2.4	2.1-2.1	1.7-1.7	0.9-0.9	2.3-2.4	2.1-2.1	1.7-1.7	0.9-0.9	
Power consumption (W)		500-535	445-475	350-380	175-200	510-550	460-485	365-395	175-200	
Air volume		(m³/h)	1000	1000	755	415	1000	1000	755	415
		(L/s)	278	278	210	115	278	278	210	115
External static pressure		(mmH ₂ O)	16.3-17.3	10.2-11.2	5.6-6.1	1.8	16.3-17.3	10.2-11.2	5.6-6.1	1.8
		(Pa)	160-170	100-110	55-60	18	160-170	100-110	55-60	18
Temperature exchange efficiency (%)		80.0	80.0	83.0	87.0	—	—	—	—	
Enthalpy exchange efficiency (%)		Heating	72.5	72.5	74.0	80.0	—	—	—	—
		Cooling	71.0	71.0	73.0	79.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		36-37	34-35	31-32.5	21-22	37-38	35-36	32-33	21-22	
Weight (kg)		59								
Starting current		Under 4.6 A Less								

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 17 dB greater than the indicated value. (at High Fan speed)

LGH-150RX5-E

Model		LGH-150RX5-E					
Frequency / Power source		50Hz / Single phase 220-240V					
Ventilation mode		LOSSNAY ventilation			By-pass ventilation		
Fan speed		Extra High	High	Low	Extra High	High	Low
Current (A)		3.5-3.5	3.2-3.2	2.9-2.9	3.5-3.5	3.2-3.2	2.9-2.9
Power consumption (W)		760-830	690-740	630-680	765-835	695-745	635-685
Air volume		(m³/h)	1500	1500	1300	1500	1500
		(L/s)	417	417	361	417	417
External static pressure		(mmH ₂ O)	16.3-17.8	13.3-13.8	9.7-10.2	16.3-17.8	13.3-13.8
		(Pa)	160-175	130-135	95-100	160-175	130-135
Temperature exchange efficiency (%)		80.0	80.0	81.0	—	—	—
Enthalpy exchange efficiency (%)		Heating	72.0	72.0	72.5	—	—
		Cooling	70.5	70.5	71.5	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		38-39	36-37.5	33.5-35	39-40.5	37.5-39	35.5-37
Weight (kg)		105					
Starting current		Under 7.3 A Less					

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 19 dB greater than the indicated value. (at High Fan speed)

LGH-200RX5-E

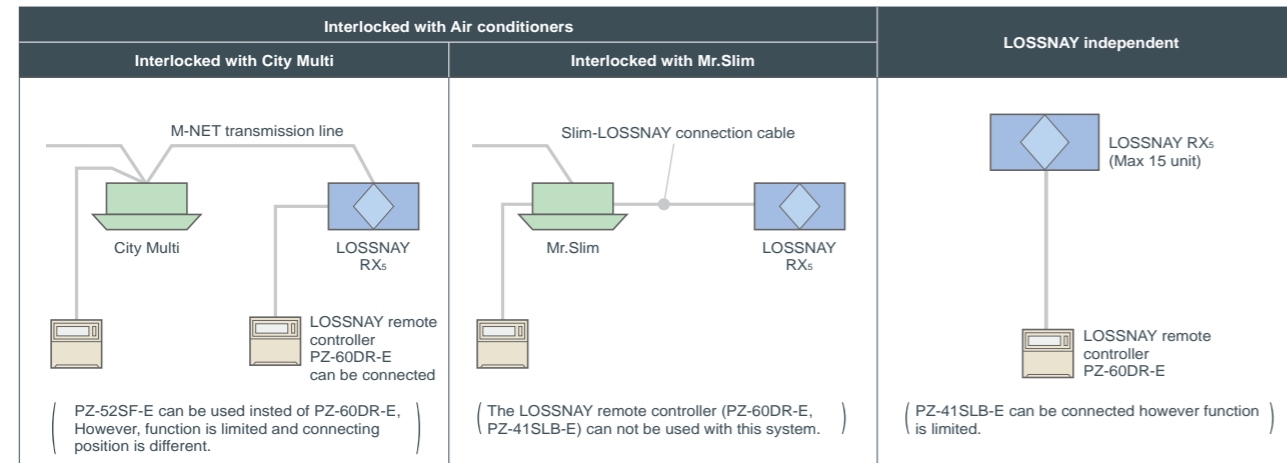
Model		LGH-200RX5-E					
Frequency / Power source		50Hz / Single phase 220-240V					
Ventilation mode		LOSSNAY ventilation			By-pass ventilation		
Fan speed		Extra High	High	Low	Extra High	High	Low
Current (A)		4.8-4.8	4.2-4.2	3.4-3.4	4.8-4.8	4.2-4.2	3.4-3.4
Power consumption (W)		1035-1100	910-980	715-785	1040-1110	915-980	720-785
Air volume		(m³/h)	2000	2000	1580	2000	2000
		(L/s)	556	556	439	556	556
External static pressure		(mmH ₂ O)	16.3-16.8	10.2-10.7	6.1-6.6	16.3-16.8	10.2-10.7
		(Pa)	160-165	100-105	60-65	160-165	100-105
Temperature exchange efficiency (%)		80.0	80.0	83.0	—	—	—
Enthalpy exchange efficiency (%)		Heating	72.5	72.5	73.5	—	—
		Cooling	71.0	71.0	72.0	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		39.5-40	37-38	32.5-34	40.5-41	38-39	33.5-35
Weight (kg)		118					
Starting current		Under 11.9A Less					

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 20 dB greater than the indicated value. (at High Fan speed)

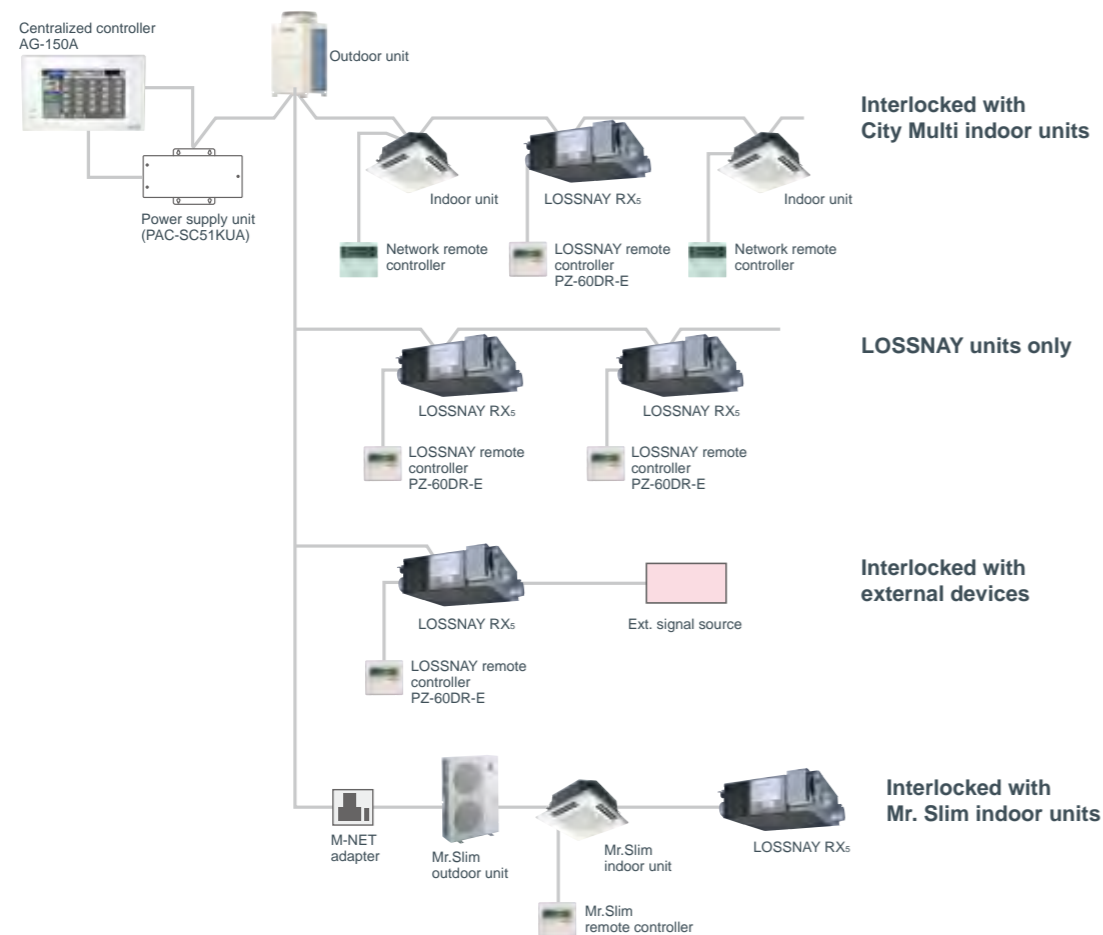


Control

■ The New Remote Controller PZ-60DR-E enable simple control setting

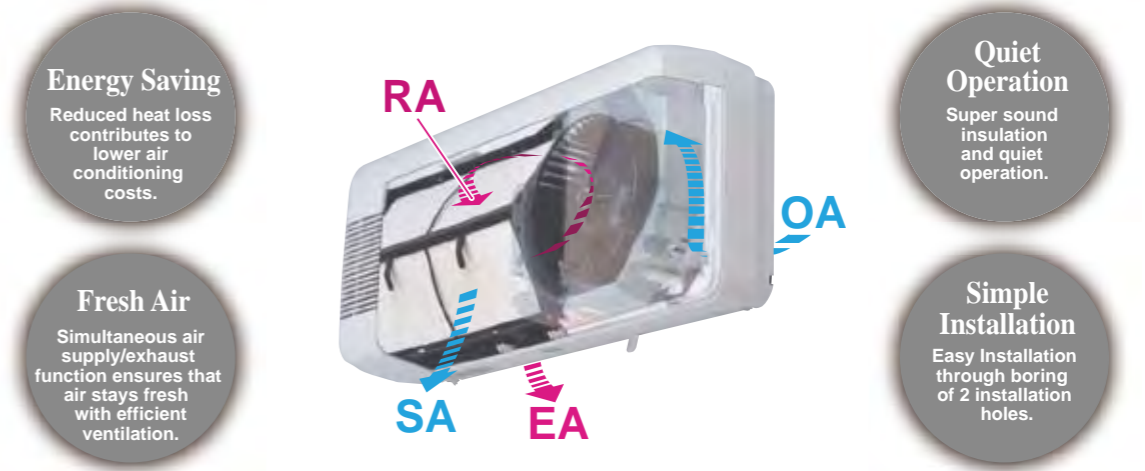


■ Centralized Controller System

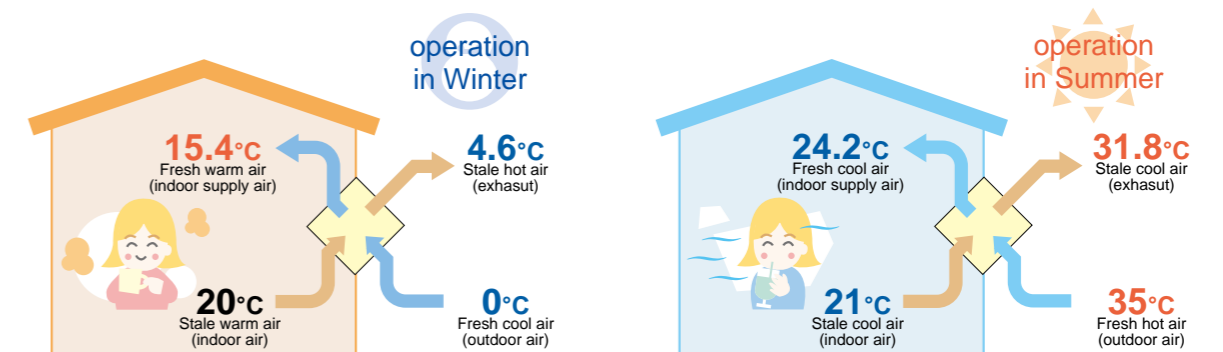


Heat Recovery Ventilators for Residential Use

Time Spent in Comfort with a Breath of Fresh Air



Total-Heat-Exchange Concept



Heat-exchange calculating equation

$$\text{Indoor supply-air temperature} (^{\circ}\text{C}) = \left\{ \text{Indoor temperature} (^{\circ}\text{C}) - \text{Outdoor temperature} (^{\circ}\text{C}) \right\} \times \text{Temp exchange efficiency} (\%) + \text{Outdoor temperature} (^{\circ}\text{C})$$

Calculation example : $15.4^{\circ}\text{C} = (20^{\circ}\text{C} - 0^{\circ}\text{C}) \times 77\% + 0^{\circ}\text{C}$ (Low notch)

Heat-exchange calculating equation

$$\text{Indoor supply-air temperature} (^{\circ}\text{C}) = \text{Outdoor temperature} (^{\circ}\text{C}) + \left\{ \text{Indoor temperature} (^{\circ}\text{C}) - \text{Outdoor temperature} (^{\circ}\text{C}) \right\} \times \text{Temp exchange efficiency} (\%)$$

Calculation example : $35^{\circ}\text{C} = (35^{\circ}\text{C} - 21^{\circ}\text{C}) \times 77\%$ (Low notch)

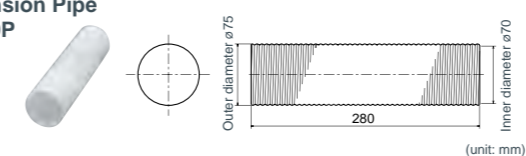
Specification

- Simple installation through boring of 2 installation holes.
- Low-noise(Less than 30dB at low notch).
- 1-motor 2-fan system. •Air-volume:low/high 2-notch.
- Air-supply/exhaust pipes and plastic weather cover are supplied as accessories.
- Equipped with an outdoor-air shutter. •Pull-string switch

Supply Voltage (V)	Power line frequency (Hz)	Notch	Air volume (m ³ /h)	Power Consumption (W)	Temp.exchange efficiency (%)	Noise (dB)	Weight (kg)
220-240	50	HI	105	26	70	39	6.5
		LO	65	23	77	29.5	
220	60	HI	90	26	73	37	
		LO	50	21	80	26	

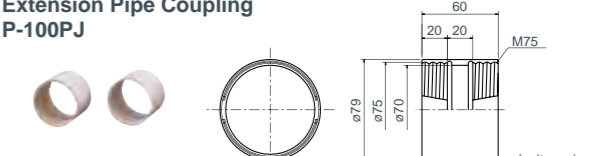
Optional parts

Extension Pipe P-100P



•Total length when connected to the pipe extension coupling is 300mm.

Extension Pipe Coupling P-100PJ



•Screw-in method

LOSSNAY