LOSSNAY SYSTEM

SELECTION

A line-up of three product groups that addresses a wide range of needs.

SELECT LOSSNAY

Select the most appropriate model according to factors such as the shape of the building and ventilation requirements.

LGH SERIES
Ceiling-concealed
Nine models (150–2000m³/h)

LGH-15 to 100RX5-E

LGH-150 and 200RX5-E

- Applications: Offices, Stores, Etc.
- High total heat-exchange efficiency
- Excellent airflow control (Extra High, High, Low and Extra Low)
- Multi-ventilation Mode
- Can be interconnected with other Mitsubishi Electric air conditioners
- Exclusive Lossnay remote-control system
- Mr. Slim remote controller can be used for some systems

LGH SERIES
Ceiling-suspended 400m³/h

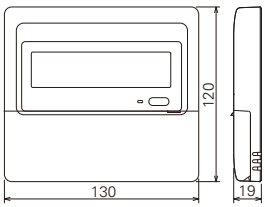
- Applications: Stores, Schools, Etc.
- High/Low airflow control
- Can be controlled using separately sold mechanical switches

VL SERIES
Wall-mounted 100m³/h

- Application: Prefabricated offices (container houses), Residences, Etc.
- High/Low airflow control
- Pull-string switch

SELECT OPTIONS

Remote controller (PZ-60DR-E)



Unit: mm

- 8-Language dot-matrix display
- Weekly timer

Source power requirement	Power received from a LOSSNAY unit, TM4 ①-②
Number of LOSSNAY units controlled by PZ-60DR-E	1–15

High-efficiency filter

Incorporation into the main unit is simple, and filter changes can be performed via the main unit inspection opening.

Model	Number of filters per set	Applicable model	Filter material
PZ-25RFM	2	LGH-15RX5-E, LGH-25RX5-E	Non combustible fiber (Polyester polyolefin) (EU-F7)
PZ-35RFM	2	LGH-35RX5-E	
PZ-50RFM	2	LGH-50RX5-E	
PZ-65RFM	2	LGH-65RX5-E	
PZ-80RFM	2	LGH-80RX5-E, LGH-150RX5-E (2 sets)	
PZ-100RFM	2	LGH-100RX5-E, LGH-200RX5-E (2 sets)	

* Options listed above are exclusively for LGH-_RX5-E models.

LOSSNAY SYSTEM

Lossnay ventilation systems are renowned industry-wide for their efficiency. They offer environment-friendly energy recovery and humidity control, and enable air conditioning systems to simultaneously provide optimum room comfort and energy savings.

One Adult Needs 400 Litres (Equivalent to Two Barrels) of Fresh Air Every Hour

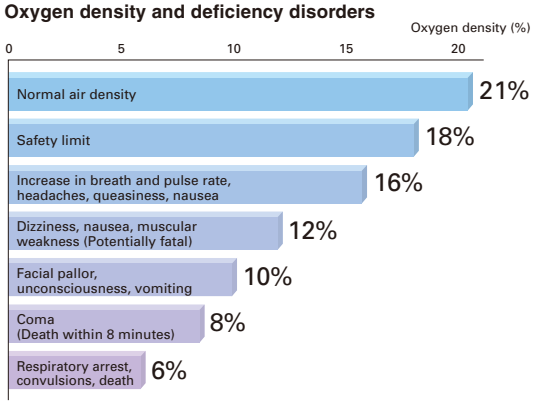
In everyday life, occasionally there are times you might feel out of breath, for example, when you're in a closed room or a crowded train. This is because the air becomes carbon-rich; that is, the carbon dioxide (CO_2) that people exhale accumulates in closed spaces, thereby increasing the carbon gas density. The average person exhales about 20 litres of carbon-rich gas per hour. If there is no ventilation, the carbon gas density increases in the room as the oxygen density decreases, and various problems could occur. To live comfortably, every person needs a surprising 400 litres of fresh air per hour; a volume equivalent to two large barrels.

Main Gaseous Contaminants Found Indoors

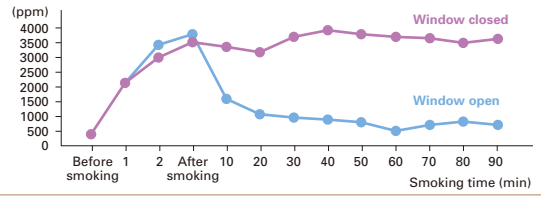
Contaminant Name	Chemical Formula	Harm
Carbon Monoxide	CO	Causes severe damage to the body
Sulfurous Gases (sulfur oxide)	SO_2	Damages the body; causes asthma; reacts with metals, generates rusting
Nitrous Gases Nitric oxide Nitrogen dioxide	NO NO_2	Direct harm to the body is unclear; becomes NO_2 when bound with oxygen, causes indirect harm; irritates the throat and lungs, possibly causing serious damage.
Carbon Dioxide Gas	CO_2	No direct harm unless the gas is very dense
Bad Odours	—	Bad odours found inside residences do not cause serious damage health-wise, but may create discomfort

Source: An Introduction to Home Environment Studies. S. Fuji, Shoukokusha Publications

Oxygen density and deficiency disorders

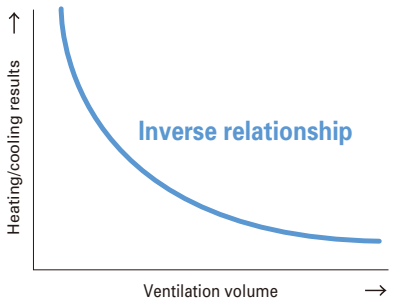


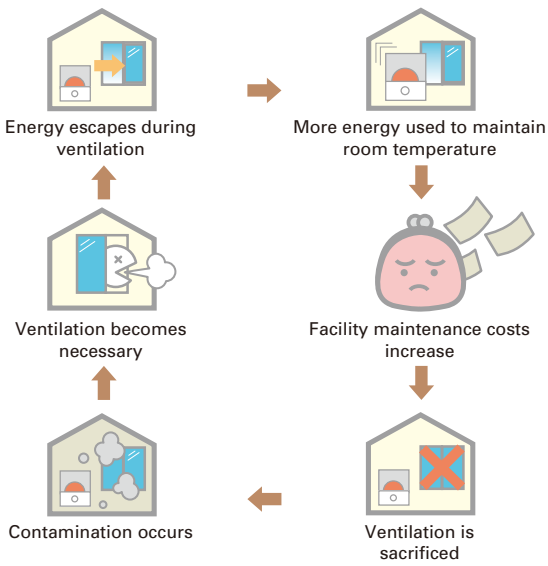
Ventilation and Change in Amount of CO_2 Exhaled



Ventilation Supporting Both Heating and Cooling

When using a ventilating system, indoor air that has been heated or cooled escapes causing the room to become cold in winter or hot in summer. As the heated/cooled air dissipates, the environment becomes uncomfortable, precious energy and money are wasted, and the increasing amount of contaminated indoor air that needs to be ventilated turns into a major problem. The reason for this phenomenon is that heating/cooling and ventilation have an incompatible relationship that is inversely proportional. For air conditioning, Mitsubishi Electric proposes heating and cooling systems that provide effective ventilation at the same time.

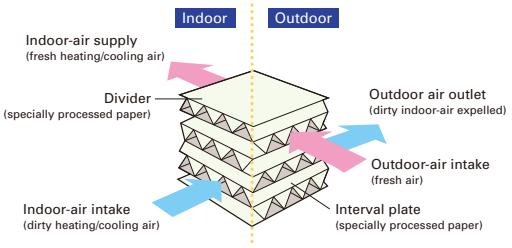




Simple Construction, High Performance – That's Lossnay Air Ventilation

Simple Construction

As shown in the illustration, the Lossnay element design adopts a cross-flow shape and plate-fin construction that enables total heat exchange using specially processed paper dividers and interval plates. Since the dividers separate the intake and exhaust passages, fresh air is always inducted without mixing with exhaust air.



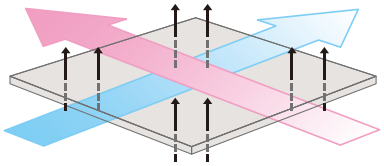
Operating Principle

The Lossnay element skillfully provides total heat exchange—temperature (i.e., sensible heat) and humidity (latent heat)—using specially processed paper dividers and moisture permeability characteristics; enabling dirty indoor-air to be expelled outside and fresh outdoor-air to be inducted inside, passing through the Lossnay without ever mixing.
The principle can be explained by a simple experiment. Roll a sheet of paper into a tube shape and blow through it. The warmth of the air is transferred to your hand, and conversely, if cold air is blown through the tube, the coldness would be transferred to your hand. The same special properties of the paper are used for the Lossnay total heat exchanger.

What are Sensible Heat and Latent Heat?

Sensible heat is the heat resulting from temperature changes (i.e., rise/fall) in a substance, and latent heat is that which is generated or dissipates according to changes in the state of a substance (e.g., evaporation, condensation, etc.).

- Temperature (sensible heat) exchange Thermal conduction and heat transfer through the divider in all temperature ranges.
- Humidity (latent heat) exchange Water vapor transference through the divider in all temperatures ranges based on differences in water vapor pressure.



Comfortable Air Ventilation Regardless of Being Hot or Cold

In summer

Temperature difference between air supply and room: 1.7°C

Supply air

	LOSSNAY	Conventional ventilator
Dry bulb temperature (°C)	27.7	33
Absolute humidity (g/kg'(DA))	13.4	20.1
Relative humidity (%)	58	63
Enthalpy (kJ/kg(DA))	62.1	84.6
Total heat recovered (kW)	7.5	0
Outdoor air load (kW)	3.1	10.6
Outdoor air load ratio (%)	29	100

Exhaust air

Room air

Dry bulb temperature	26°C
Absolute humidity	10.5g/kg'(DA)
Relative humidity	50%
Enthalpy	52.9kJ/kg(DA)

Air conditioner

Outdoor air

Dry bulb temperature	33°C
Absolute humidity	20.1g/kg'(DA)
Relative humidity	63%
Enthalpy	84.6kJ/kg(DA)

Energy-recovery calculating equation

$$\text{Indoor supply-air temperature (°C)} = \text{Outdoor temperature (°C)} - \{\text{Outdoor temperature (°C)} - \text{Indoor temperature (°C)}\} \times \text{Temp recovery efficiency (\%)}$$

Calculation example: 27.7°C=33°C−(33°C−26°C)×76%
*The above applies to the case of LGH-100RX$_5$ (High fan speed).

In winter

About 4kg/h of water vapor is recovered.

Supply air

	LOSSNAY	Conventional ventilator
Dry bulb temperature (°C)	16	0
Absolute humidity (g/kg'(DA))	5.2	1.9
Relative humidity (%)	46	50
Enthalpy (kJ/kg(DA))	29.2	4.7
Total heat recovered (kW)	8.2	0
Outdoor air load (kW)	3.1	11.3
Outdoor air load ratio (%)	27	100

Exhaust air

Room air

Dry bulb temperature	20°C
Absolute humidity	7.3g/kg'(DA)
Relative humidity	50%
Enthalpy	38.5kJ/kg(DA)

Air conditioner

Outdoor air

Dry bulb temperature	0°C
Absolute humidity	1.9g/kg'(DA)
Relative humidity	50%
Enthalpy	4.7kJ/kg(DA)

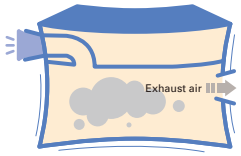
Energy-recovery calculating equation

$$\text{Indoor supply-air temperature (°C)} = \{\text{Indoor temperature (°C)} - \text{Outdoor temperature (°C)}\} \times \text{Temp recovery efficiency (\%)} + \text{Outdoor temperature (°C)}$$

Calculation example: 16°C=(20°C−0°C)×80%+0°C

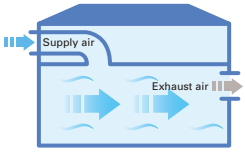
Other Features

Lossnay provides better air ventilation because air is inducted and expelled concurrently, thereby offering more efficient operation than traditional air ventilation (exhaust ventilation only).



If air is not supplied, the air pressure in the room drops and the entire space is not properly ventilated.

If Lossnay is used



By inducting and expelling air concurrently, Lossnay constantly provides sufficient ventilation and maintains a good air environment indoors.

Mr. Slim & Lossnay Interconnected Ventilation Systems

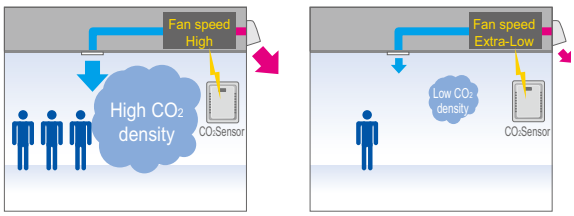
High-quality Air Conditioning Systems Fusing Comfort and Economy

Six Major Merits of Interconnected Ventilation Systems

Problems					
• Indoor-air is contaminated by odour, dust, etc. • Air induction is insufficient, resulting in insufficient ventilation.	• Heating/Cooling airflow doesn't reach foot level	• Conditioned air expelled outside with exhaust air • High running cost	• Separate switches for air conditioner and ventilation systems makes operation troublesome • Detailed zone-by-zone operation not possible	• Air conditioner and ventilation fan operation noise annoying • Outside traffic noise annoying	• Maintenance such as changing the filter is difficult
Merits					
Efficient, fresh-air ventilation	Comfortable airflow	Energy-saving ventilation	Control with a single remote controller	Quiet operation	1-year no-maintenance filter

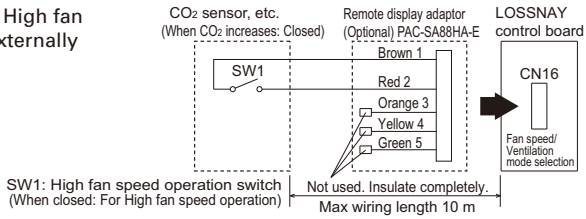
CO_2 Sensor

The system allows you to measure CO_2 density and thereby control the amount of fresh air supplied. By connecting a CO_2 sensor to the connector CN16, which is added to the LOSSNAY main unit, the setting can be switched to High, Low, or Extra Low operation, which is selected when the sensor is turned ON. This system produces additional energy conservation.



Air volume can be set using a pin position.

To force High fan speed externally



When SW1 is "ON", fan speed of the LOSSNAY will be set to "High" (Extra-High) regardless of the remote control setting. Use this in such a way that it ventilates at Low or Extra-Low fan speed normally, and when the external sensor detects contamination of indoor air, it changes to High (Extra High) fan speed operation.

One Remote Controller for All Operations

Control both Mr. Slim and Lossnay units with a single controller, the new "MA Remote Controller." Compared to conventional air conditioning and ventilation systems that require a separate remote controller for each unit, operation is greatly simplified. A variety of features are incorporated, such as a "Ventilation Changeover Switch" for independent operation of the Lossnay when running for long periods of time.

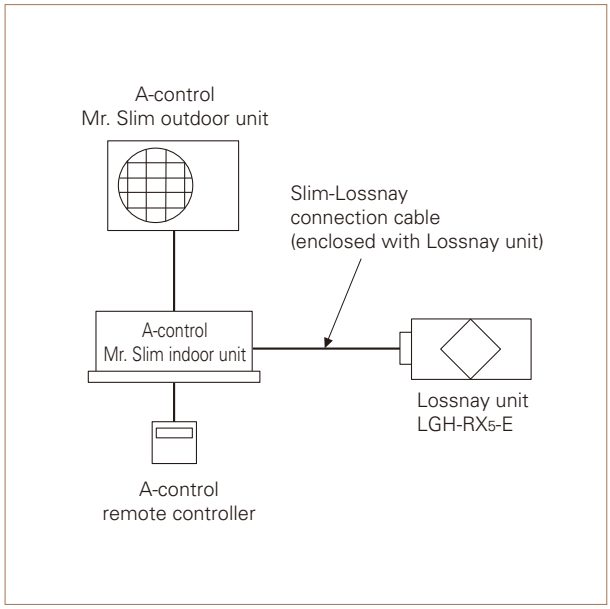
PAR-30MAA

Mr. Slim Air Conditioners Connectable with Lossnay Ventilation Units

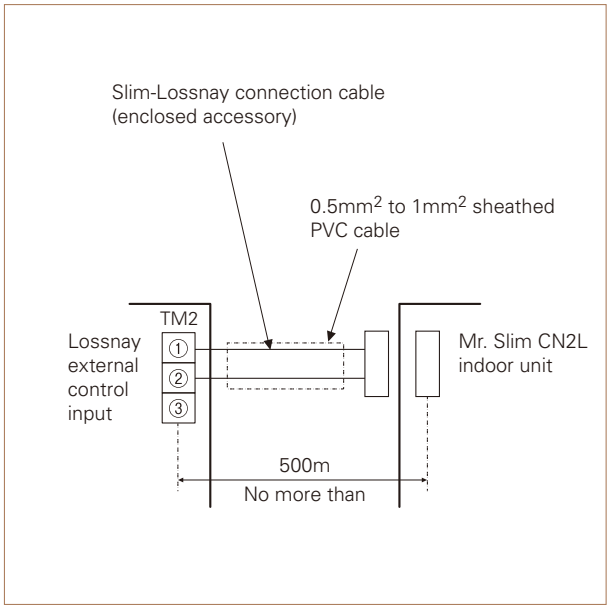
Type	Model Name	Type	Model Name
Ceiling Cassette (4-way)	PLA-BA/SLZ-KA	Ceiling	PCA-KAQ/HAQ
Ceiling-concealed	PEAD-JA/PEA-GAQ	Wall-mounted	PKA-HA/KA
	SEZ-KD	Floor-standing	PSA-GA

* The wired remote controller must be set before it can be used to operate individual Lossnay units.

System Example



Connection Method



Lossnay Function Table (Interlocked settings)

Item	Details
Number of indoor units that can be set to interlocked operation with 1 Lossnay unit in each group	1 unit
Number of Lossnay units that can be set to interlocked operation with 1 indoor unit	1 unit
Operation of Lossnay unit only (When indoor unit is stopped)	Possible
Independent Lossnay unit start and stop (When indoor unit is operating)	Not possible
Delayed operation (Optional setting)	30 minute delayed operation when indoor unit cooling/heating is started
Fan speed switching	High/Low*
Ventilation mode	Automatic
Filter indicator	None
Error indicator	None
Restrictions and precautions	The Lossnay remote controller cannot be used for systems interlocked with Mr. Slim.

* Cannot select extra-low fan speed when using the MA Remote Controller.

Controller Function Table for Lossnay Units

Switched and display ○: Group only (or function available) ×: Not available

Model		Local remote		
		MA Remote Controller		Lossnay Remote Controller
		PAR-21MAA	PAR-30MAA	PZ-60DR-E
Operation	Start/Stop	○	○	Cannot be used with interlocked Lossnays
	Fan speed switching (High/Low)*	○	○	
	Ventilation mode switching	× (Automatic)	× (Automatic)	
	Priority instructions Local permitted/prohibited	×	×	
Monitoring	Status (Operation/Stop)	○	○	
	Fan speed switching (High/Low)	○	○	
	Ventilation mode	×	×	
	Error indicator	×	×	
	Error content	×	×	
	Filter sign	×	×	
	Local permitted/prohibited	×	×	

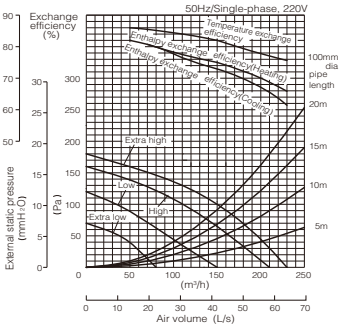
* Cannot select extra-low fan speed when using the MA Remote Controller.

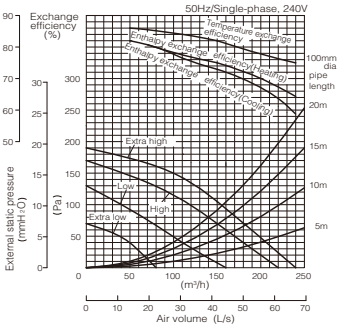
Specifications / Dimensions

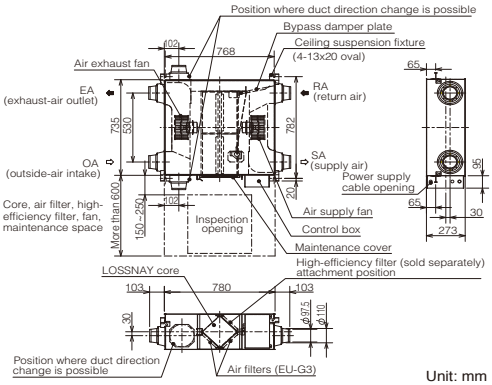
LGH-15RX5-E

Model		LGH-15RX5-E							
Power Supply (V/Phase/Hz)		220-240 / Single / 50							
Ventilation Mode		LOSSNAY ventilation				Bypass ventilation			
Fan Speed		Extra-Hi	Hi	Lo	Extra-Lo	Extra-Hi	Hi	Lo	Extra-Lo
Operating 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	(mmH_2O)	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	82.0	84.0	85.5	—	—	—	—
Enthalpy Exchange Efficiency (%)	Heating	75.0	75.0	77.5	81.0	—	—	—	—
	Cooling	73.0	73.0	76.5	81.0	—	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		0.8A							

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 10dB higher than the indicated value at high fan speed.





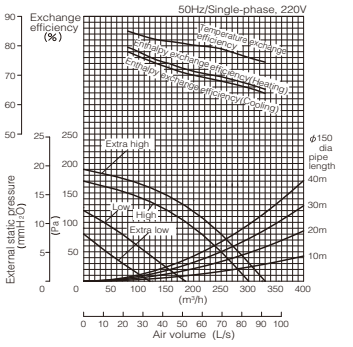


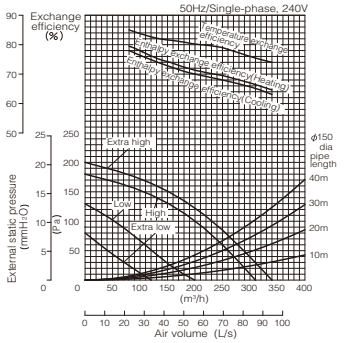
Unit: mm

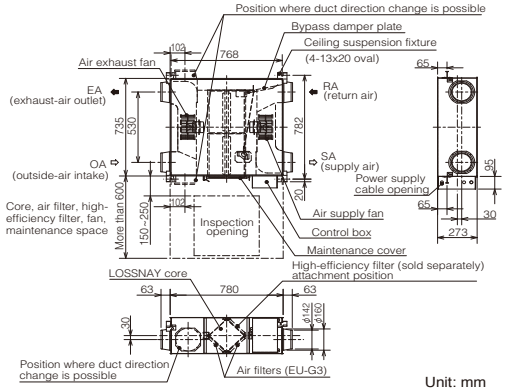
LGH-25RX5-E

Model		LGH-25RX5-E							
Power Supply (V/Phase/Hz)		220-240 / Single / 50							
Ventilation Mode		LOSSNAY ventilation				Bypass ventilation			
Fan Speed		Extra-Hi	Hi	Lo	Extra-Lo	Extra-Hi	Hi	Lo	Extra-Lo
Operating 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	(mmH_2O)	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	79.0	81.5	83.5	—	—	—	—
Enthalpy Exchange Efficiency (%)	Heating	69.5	69.5	74.0	77.5	—	—	—	—
	Cooling	68.0	68.0	72.5	76.0	—	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel in an anechoeic 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		0.9A							

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 10dB higher than the indicated value at high fan speed.





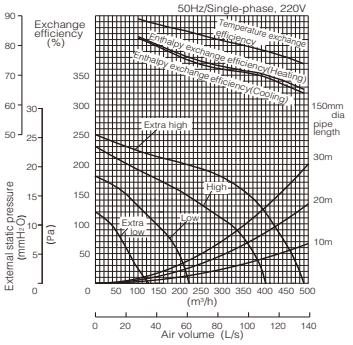


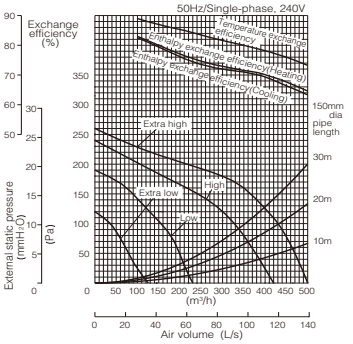
Unit: mm

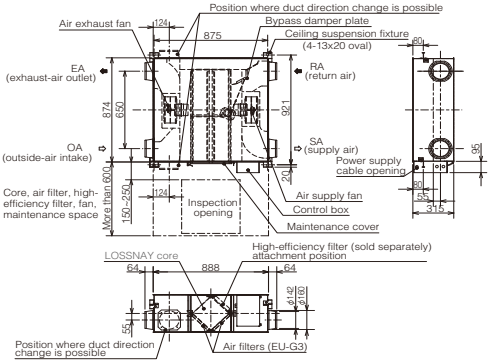
LGH-35RX5-E

Model		LGH-35RX5-E							
Power Supply (V/Phase/Hz)		220-240 / Single / 50							
Ventilation Mode		LOSSNAY ventilation				Bypass ventilation			
Fan Speed		Extra-Hi	Hi	Lo	Extra-Lo	Extra-Hi	Hi	Lo	Extra-Lo
Operating 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	(mmH_2O)	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	80.0	85.0	88.0	—	—	—	—
Enthalpy Exchange Efficiency (%)	Heating	71.5	71.5	76.5	81.5	—	—	—	—
	Cooling	71.0	71.0	75.5	81.0	—	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		2.4A							

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 10dB higher than the indicated value at high fan speed.





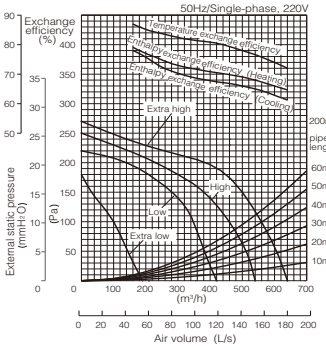


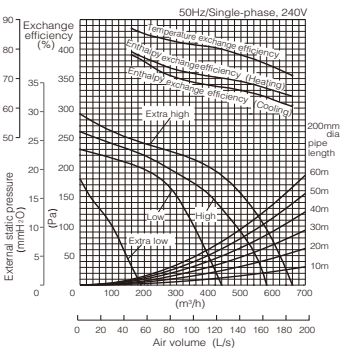
Unit: mm

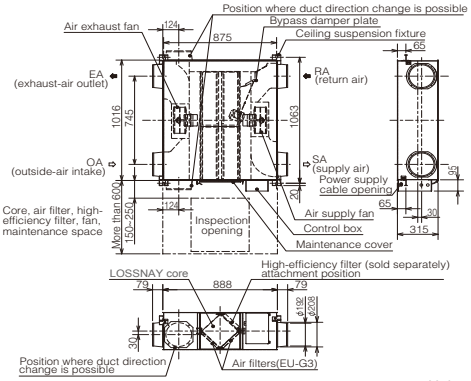
LGH-50RX5-E

Model		LGH-50RX5-E							
Power Supply (V/Phase/Hz)		220-240 / Single / 50							
Ventilation Mode		LOSSNAY ventilation				Bypass ventilation			
Fan Speed		Extra-Hi	Hi	Lo	Extra-Lo	Extra-Hi	Hi	Lo	Extra-Lo
Operating 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	(m^3/h)	500	500	390	180	500	500	390	180
	(L/s)	139	139	108	50	139	139	108	50
External Static Pressure	(mmH_2O)	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	—	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		3.0A							

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 16dB higher than the indicated value at high fan speed.





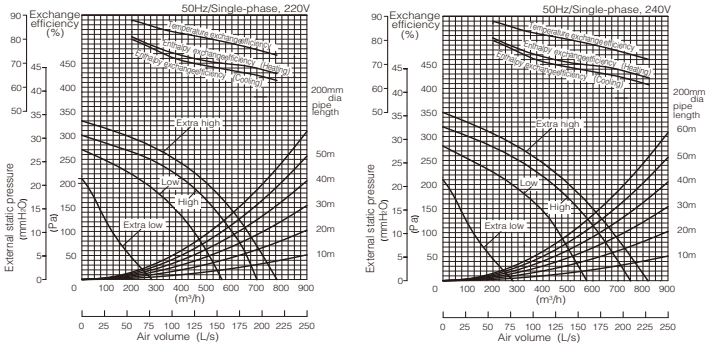


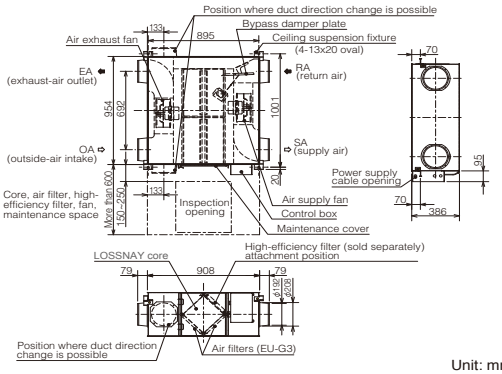
Unit: mm

LGH-65RX5-E

Model		LGH-65RX5-E							
Power Supply (V/Phase/Hz)		220-240 / Single / 50							
Ventilation Mode		LOSSNAY ventilation				Bypass ventilation			
Fan Speed		Extra-Hi	Hi	Lo	Extra-Lo	Extra-Hi	Hi	Lo	Extra-Lo
Operating 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	(mmH₂O)	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	—	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		4.4A							

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 10dB higher than the indicated value at high fan speed.



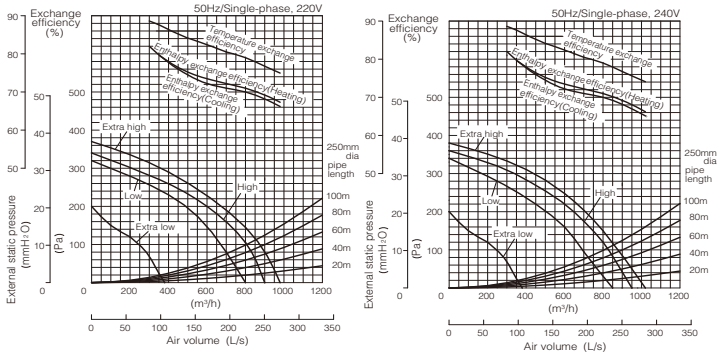


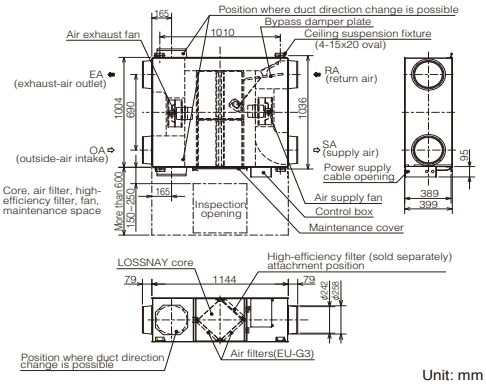
Unit: mm

LGH-80RX5-E

Model		LGH-80RX5-E							
Power Supply (V/Phase/Hz)		220-240 / Single / 50							
Ventilation Mode		LOSSNAY ventilation				Bypass ventilation			
Fan Speed		Extra-Hi	Hi	Lo	Extra-Lo	Extra-Hi	Hi	Lo	Extra-Lo
Operating 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	(mmH₂O)	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	—	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		3.8A							

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 16dB higher than the indicated value at high fan speed.



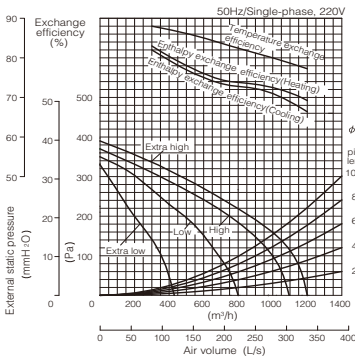


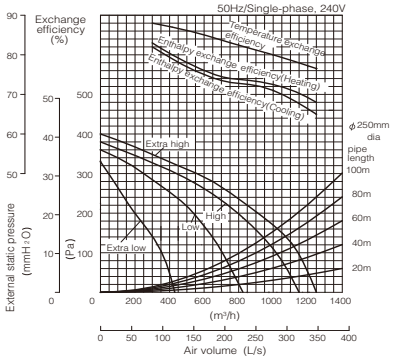
Unit: mm

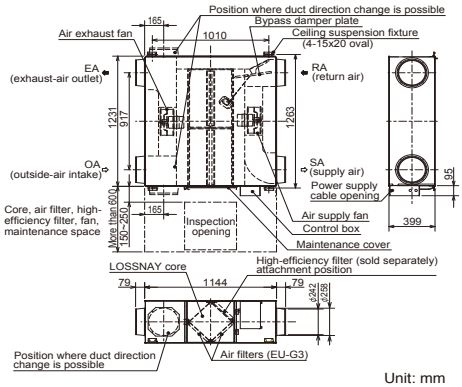
LGH-100RX5-E

Model		LGH-100RX5-E							
Power Supply (V/Phase/Hz)		220-240 / Single / 50							
Ventilation Mode		LOSSNAY ventilation				Bypass ventilation			
Fan Speed		Extra-Hi	High	Lo	Extra-Lo	Extra-Hi	Hi	Lo	Extra-Lo
Operating 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	(m^3/h)	1000	1000	755	415	1000	1000	755	415
	(L/s)	278	278	210	115	278	278	210	115
External Static Pressure	(mmH_2O)	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	—	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		4.6A							

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 17dB higher than the indicated value at high fan speed.





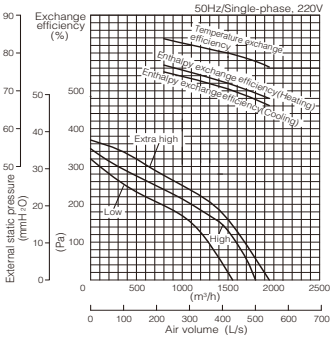


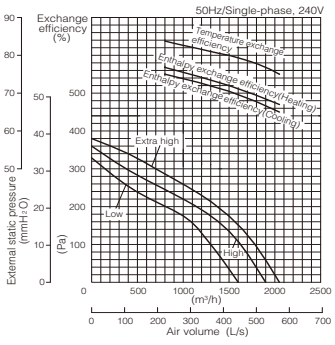
Unit: mm

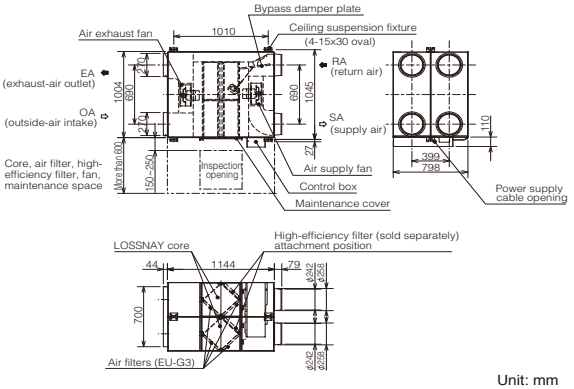
LGH-150RX5-E

Model		LGH-150RX5-E					
Power Supply (V/Phase/Hz)		220-240 / Single / 50					
Ventilation Mode		LOSSNAY ventilation			Bypass ventilation		
Fan Speed		Extra-Hi	Hi	Lo	Extra-Hi	Hi	Lo
Operating 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	(m^3/h)	1500	1500	1300	1500	1500	1300
	(L/s)	417	417	361	417	417	361
External Static Pressure	(mmH_2O)	16.3-17.8	13.3-13.8	9.7-10.2	16.3-17.8	13.3-13.8	9.7-10.2
	(Pa)	160-175	130-135	95-100	160-175	130-135	95-100
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	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		7.3A					

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 19dB higher than the indicated value at high fan speed.





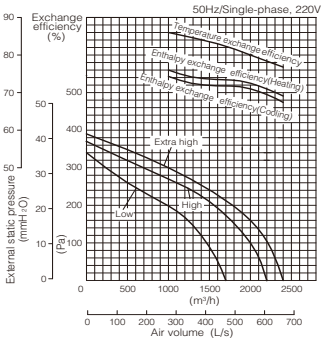


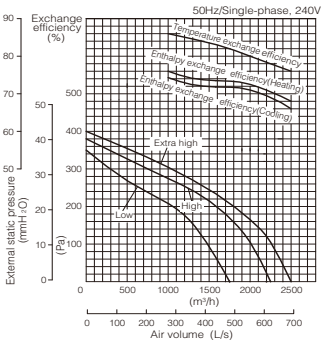
Unit: mm

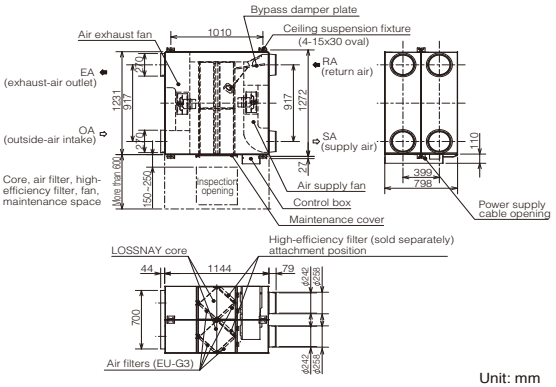
LGH-200RX5-E

Model		LGH-200RX5-E					
Power Supply (V/Phase/Hz)		220-240 / Single / 50					
Ventilation Mode		LOSSNAY ventilation			Bypass ventilation		
Fan Speed		Extra-Hi	Hi	Lo	Extra-Hi	Hi	Lo
Operating 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	(m^3/h)	2000	2000	1580	2000	2000	1580
	(L/s)	556	556	439	556	556	439
External Static Pressure	(mmH_2O)	16.3-16.8	10.2-10.7	6.1-6.6	16.3-16.8	10.2-10.7	6.1-6.6
	(Pa)	160-165	100-105	60-65	160-165	100-105	60-65
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	—	—	—
SPL (dB) (measured at 1.5m under the center of apanel 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		11.9A					

*The air outlet noise (45° angle,1.5 meters in front of the unit) is about 20dB higher than the indicated value at high fan speed.





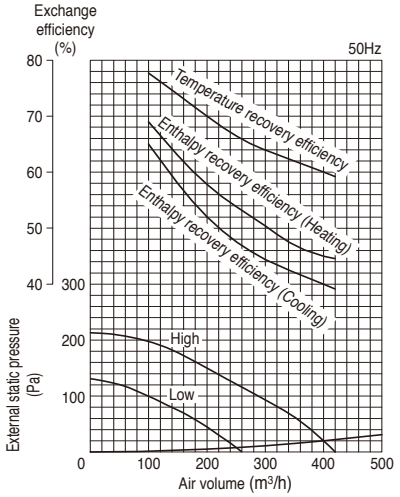


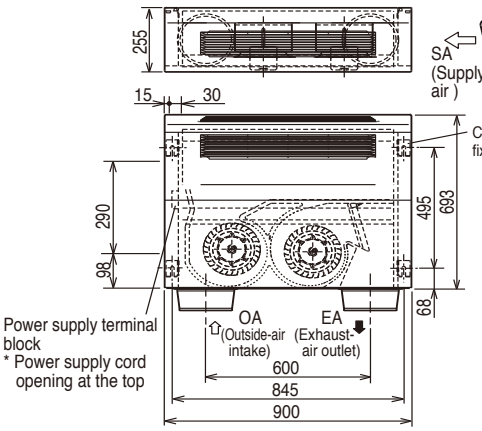
Unit: mm

LGH-40ES-E

Supply Voltage (V)	Power Supply Frequency (Hz)	Fan Speed	Power Consumption (W)	Air Volume		Temperature Recovery Efficiency (%)	Enthalpy Recovery Efficiency (%)		Noise (dB(A))	Weight (kg)
				(m^3/h)	(L/s)		Heating	Cooling		
1-phase 220~240	50	Hi	132-146	400	111	60	45	40	41-43	25
		Lo	82-95	250	69	66	54	48	32-34	

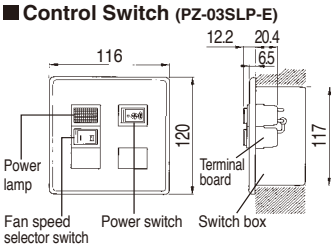
*The value of noise was measured at an anechoic chamber. it may vary depending on the room structure, building materials or the way the main was installed.





*Power supply cord opening

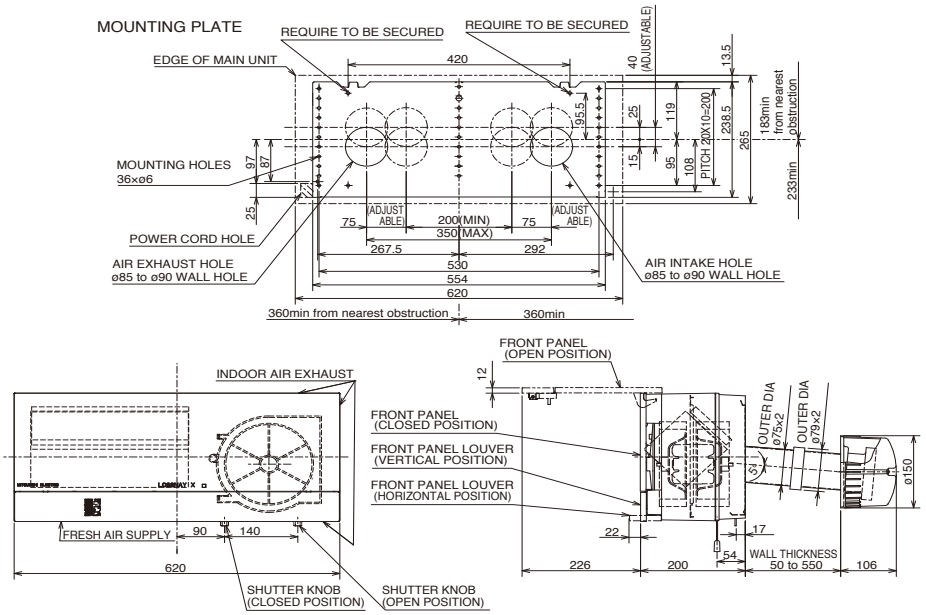
■Control Switch (PZ-03SLP-E)



Unit: mm

VL-100EU$_5$-E

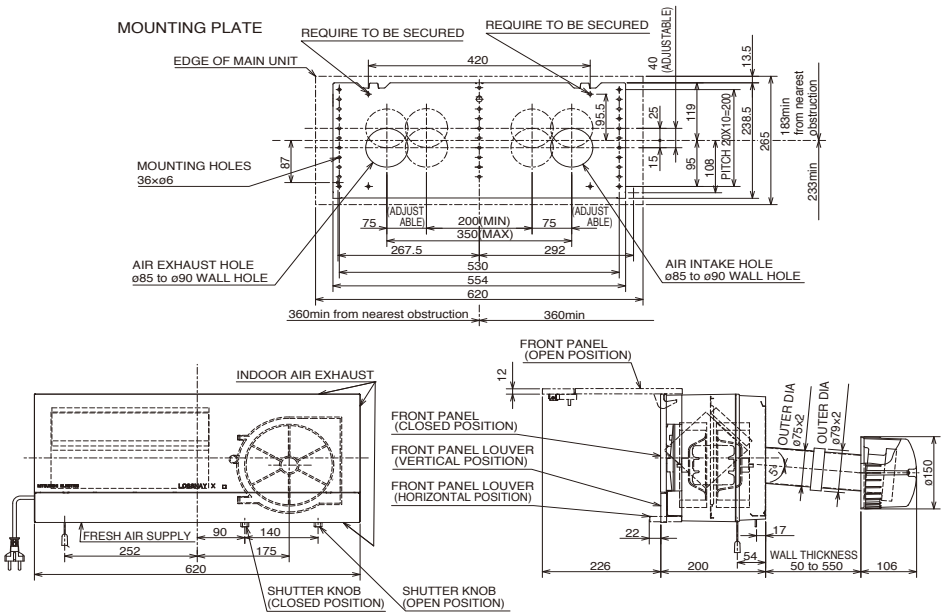
Supply voltage (V)	Power line frequency (Hz)	Fan speed	Air volume (m^3/h)	Power consumption (W)	Temp.exchange efficiency (%)	Noise (dB)	Weight (kg)
220	50	HI	100	30	73	36.5	7.5
		LO	55	13	80	24	
230	50	HI	105	31	73	37	
		LO	60	15	80	25	
240	50	HI	106	34	72	38	
		LO	61	17	79	27	
220	60	HI	103	34	73	38	
		LO	57	17	80	25	



Unit: mm

VL-100U$_5$-E

Supply voltage (V)	Power line frequency (Hz)	Fan speed	Air volume (m^3/h)	Power consumption (W)	Temp.exchange efficiency (%)	Noise (dB)	Weight (kg)
220	50	HI	100	30	73	36.5	7.5
		LO	55	13	80	24	
230	50	HI	105	31	73	37	
		LO	60	15	80	25	
240	50	HI	106	34	72	38	
		LO	61	17	79	27	
220	60	HI	103	34	73	38	
		LO	57	17	80	25	



Unit: mm