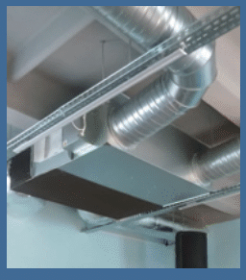
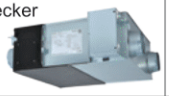
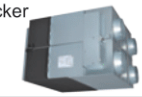
LOSSNAY SYSTEM



SELECTION

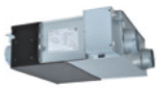
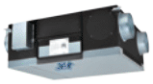
LOSSNAY lineup consists of two types of ventilation: Energy Recovery Ventilation (ERV) and Heat Recovery Ventilation (HRV). Choose the model that best matches your building layout and indoor environment.

LOSSNAY LINEUP

Type	Core	Model \ Airflow		150 CMH	250 CMH	350 CMH	500 CMH	650 CMH	800 CMH	1000 CMH	1600 CMH	2000 CMH	2500 CMH
LOSSNAY	ERV	LGH-RVX3 Series	Single decker 	●	●	●	●	●	●	●			
			Double decker 								●	●	
	ERV	LGH-RVXT3 Series 									●	●	●
	HRV	LGH-RVS Series 					●		●	●			
LOSSNAY with Dx-Coil Unit	ERV	GUF Series 					●			●			

*ERV = Energy recovery ventilator *HRV = Heat recovery ventilator

PRODUCT LINEUP

Commercial		Residential	
Ceiling Concealed Type		Vertical Type	Wall mounted Type
LGH-RVX3 Series ERV A commercially oriented system that can be used to deliver high performance and functions virtually anywhere. 	LGH-RVXT3 Series ERV Thin, large airflow models of the LGH series that deliver high performance and functions. 	VL-CZPVU Series HRV Vertical type for residential use. Centralized ventilation with sensible heat exchange. 	VL-50(E)S2-E ERV VL-50SR2-E Wall mounted models for smaller air volumes. They may be installed both horizontally and vertically. 
LGH-RVS Series HRV Sensible heat models of the LGH series that can also be installed in sanitary areas. 	GUF Series ERV (LOSSNAY with Dx-Coil Unit) Heat recovery units with a heating and cooling system that uses the CITY MULTI outdoor units as a heat source. 		

*ERV: Enegy recovery ventilator *HRV: Heat recovery ventilator

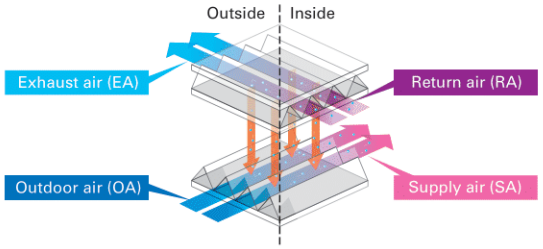
Commercial Use LOSSNAY

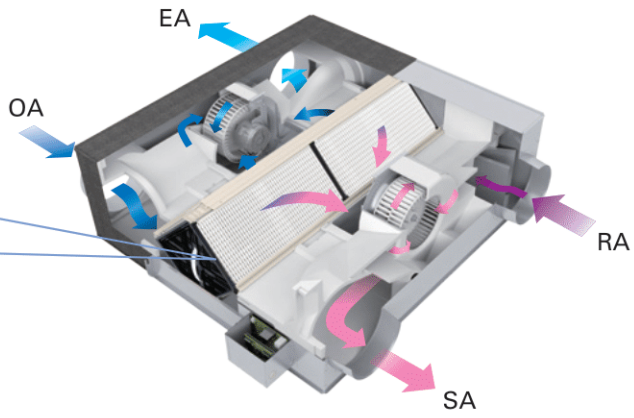
LGH SERIES

Optimized Indoor Air Quality through Temperature and Humidity Exchange by LOSSNAY

LOSSNAY is a total heat exchange ventilation system that uses paper characteristics to perform temperature (sensible heat) and humidity (latent heat) exchange.

● **The concept of sensible heat and latent heat exchange using LOSSNAY core**



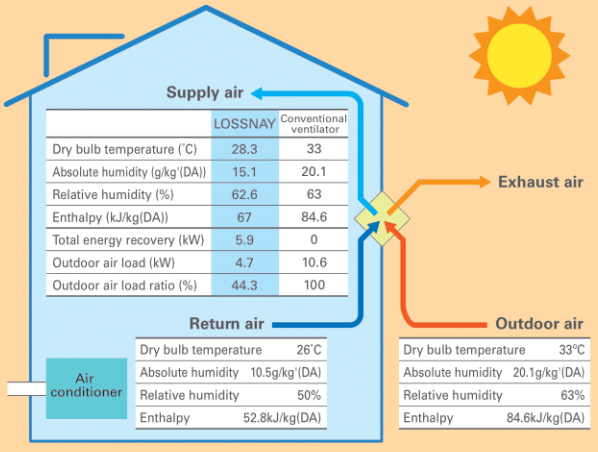


What is Improved by Introducing LOSSNAY?

● **Ventilation with maximized comfort**

In summer

Air that is similar to the conditions of cooled (dehumidified) indoor air is supplied.



	LOSSNAY	Conventional ventilator
Dry bulb temperature (˚C)	28.3	33
Absolute humidity (g/kg'(DA))	15.1	20.1
Relative humidity (%)	62.6	63
Enthalpy (kJ/kg(DA))	67	84.6
Total energy recovery (kW)	5.9	0
Outdoor air load (kW)	4.7	10.6
Outdoor air load ratio (%)	44.3	100

Return air	
Dry bulb temperature	26˚C
Absolute humidity	10.5g/kg'(DA)
Relative humidity	50%
Enthalpy	52.8kJ/kg(DA)

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

Heat recovery calculation

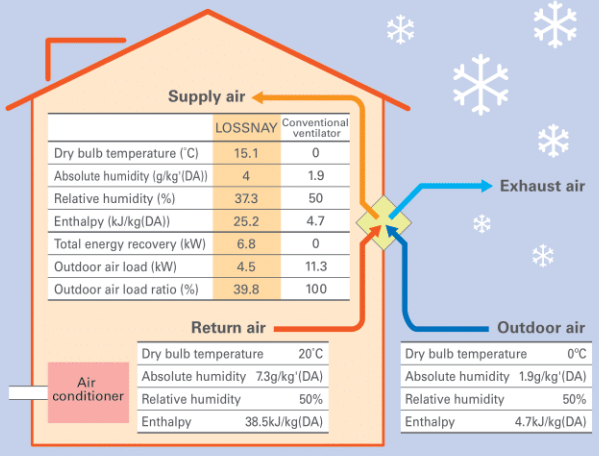
Indoor supply air temperature (°C) = Outdoor temperature (°C) − { Outdoor temperature (°C) − Indoor temperature (°C) } × Temp. recovery efficiency (%)

Calculation example: 28.3˚C = 33˚C - (33˚C - 26˚C) × 67.5%

*The above applies to the case of LGH-100RVX3-E. (1000m³/h)

In winter

Air that is similar to the conditions of heated (humidified) indoor air is supplied.



	LOSSNAY	Conventional ventilator
Dry bulb temperature (˚C)	15.1	0
Absolute humidity (g/kg'(DA))	4	1.9
Relative humidity (%)	37.3	50
Enthalpy (kJ/kg(DA))	25.2	4.7
Total energy recovery (kW)	6.8	0
Outdoor air load (kW)	4.5	11.3
Outdoor air load ratio (%)	39.8	100

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

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

Heat recovery calculation

Indoor supply air temperature (°C) = { Indoor temperature (°C) − Outdoor temperature (°C) } × Temp. recovery efficiency (%) + Outdoor temperature (°C)

Calculation example: 15˚C = (20˚C - 0˚C) × 75.5% + 0˚C

*The above applies to the case of LGH-100RVX3-E. (1000m³/h)

Installation Image

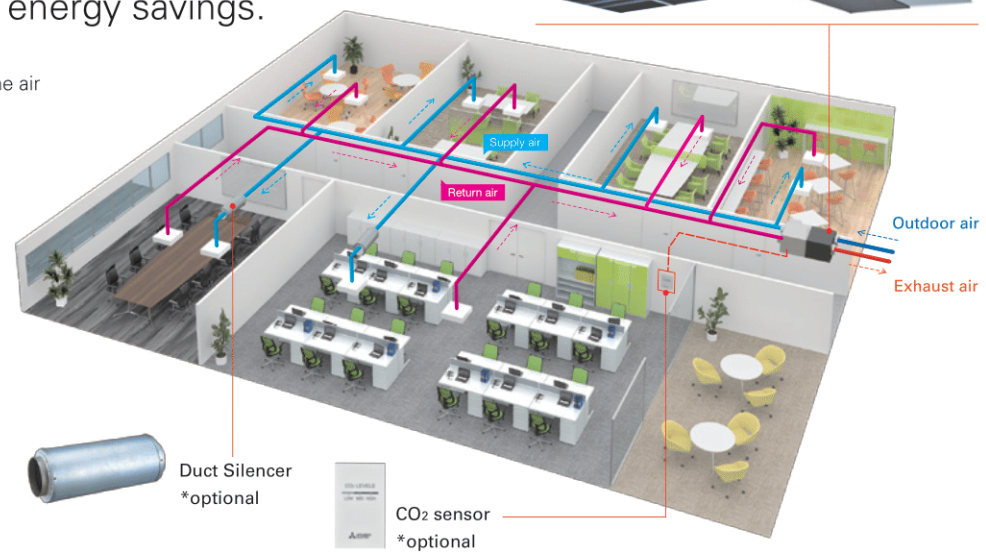
Mitsubishi Electric offers Energy Recovery Ventilation and Heat Recovery Ventilation solutions for optimizing building air quality by using LOSSNAY.

Energy Recovery Ventilation

A total heat exchange ventilation system that uses paper characteristics (LOSSNAY core) to perform temperature (sensible heat) and humidity (latent heat) exchange.

Environment friendly energy recovery and humidity control enables air conditioning systems to simultaneously provide optimum room comfort and energy savings.

- ✓ Total heat exchanger
- ✓ Eliminates excess humidity in the air
- ✓ Wide airflow lineup

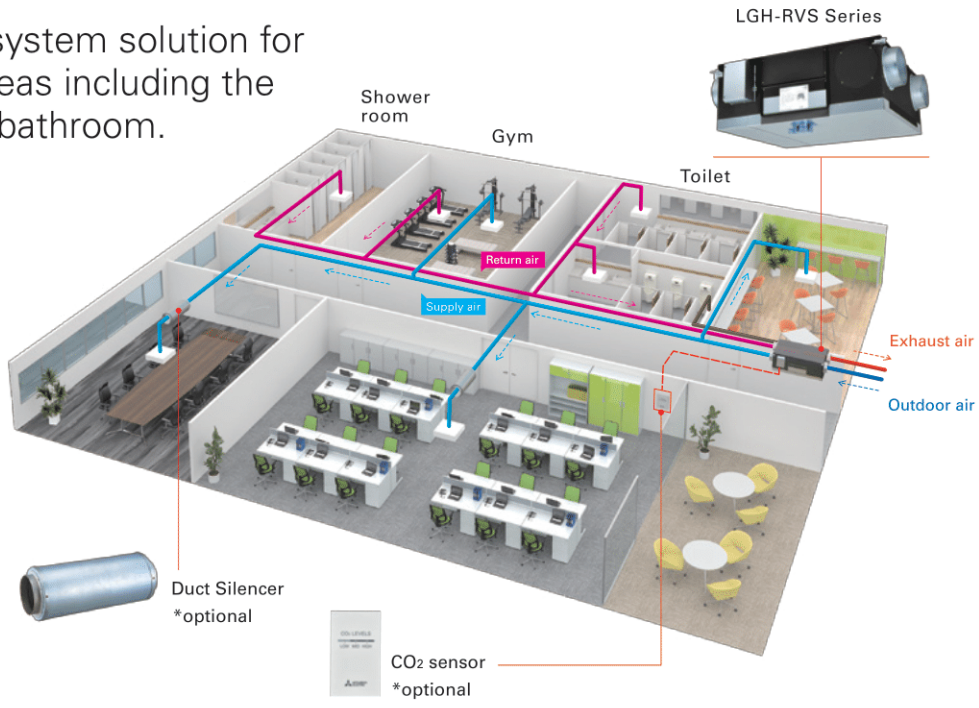


Heat Recovery Ventilation

A heat exchange ventilation system that uses a heat exchanger (LOSSNAY core) to perform temperature (sensible heat) exchange.

Offering the best system solution for ventilation of all areas including the shower room and bathroom.

- ✓ Heat exchanger
- ✓ Installation in sanitary areas
- ✓ CO_2 sensor control

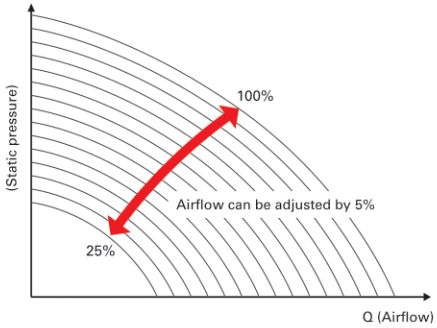


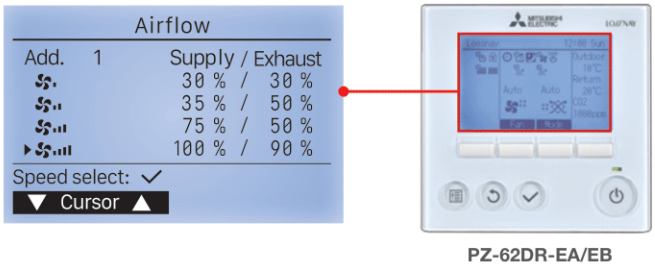
Features of LGH Series

Controllability

Flexible airflow setting

The default fan speed value (Fan speed 1: 25%, Fan speed 2: 50%, Fan speed 3: 75%, and Fan speed 4: 100%) of both supply air and exhaust air can be adjusted flexibly. Within the range between 25% and 100%, airflow can be adjusted by 5% increments to satisfactorily meet the designed airflow rate.

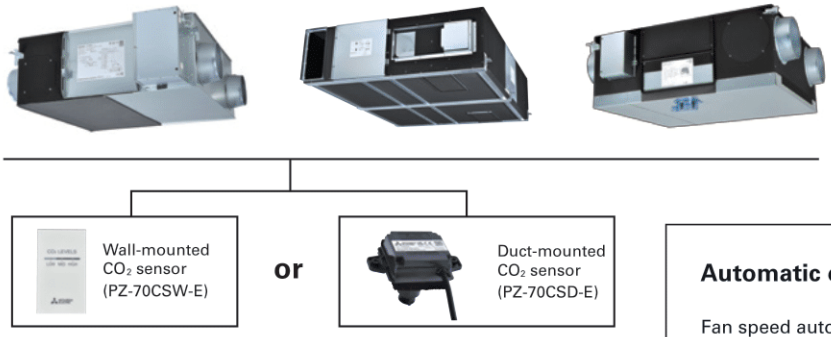




PZ-62DR-EA/EB

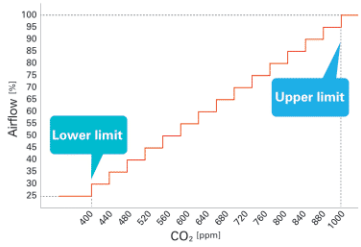
CO_2 sensor

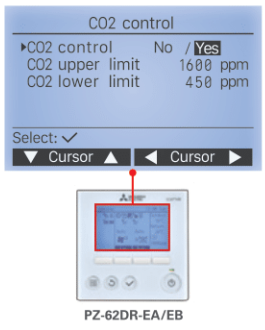
A CO_2 sensor connected directly to a LOSSNAY RVX3 unit optimizes the fan speed according to the detected CO_2 level.
It improves total heat exchange efficiency and contributes to energy savings.



Two types of CO_2 sensors are available: wall-mounted and duct-mounted types.
Power is supplied to the CO_2 sensor from the LOSSNAY board.

Fan speed automatically changes from 25% to 100% (16 steps) depending on the CO_2 concentration level.





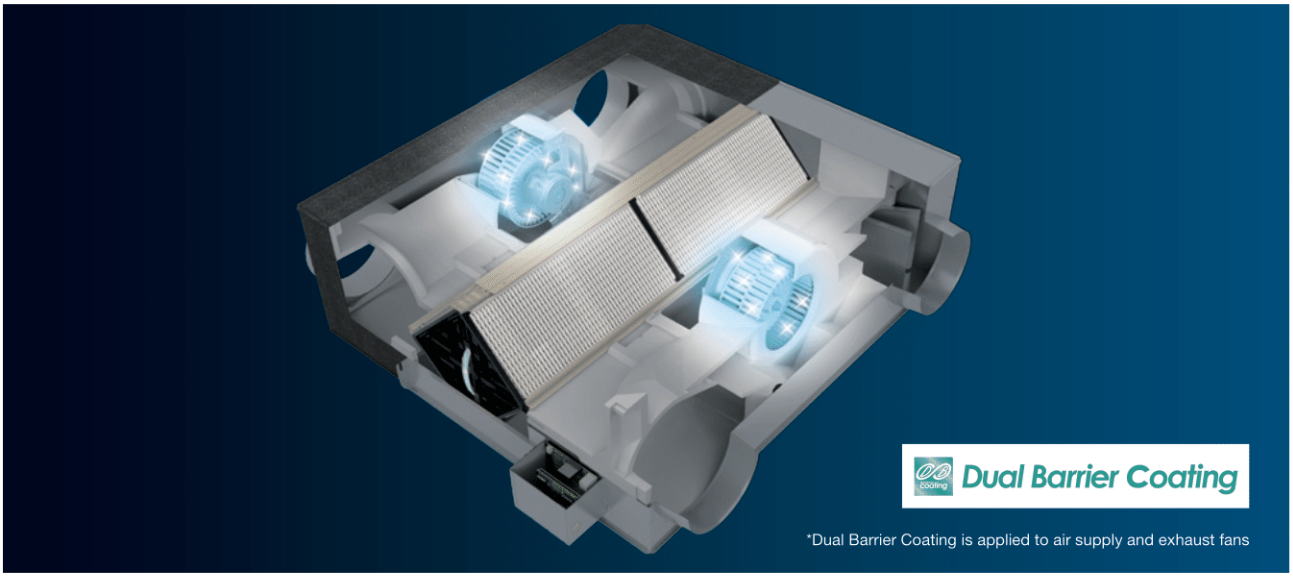
PZ-62DR-EA/EB

Both upper and lower limits can be adjusted.
Upper limit: from 600 to 2000 ppm.
Lower limit: from 300 to (upper limit –300) ppm.
50 ppm increments.

Automatic operation with CO_2 sensor

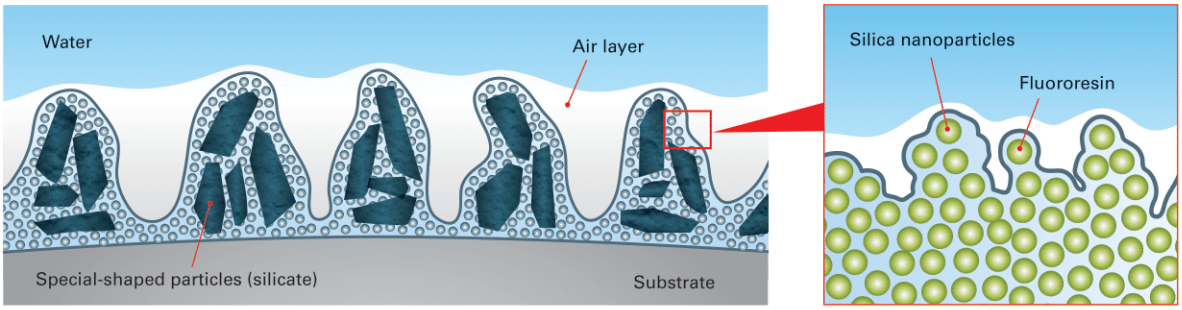
Fan speed automatically changes depending on CO_2 concentration.

Dual Barrier Coating



A water-repellent effect is achieved by a coating film that has nano-sized concave-convex structures formed by silica nanoparticles made of water-repellent fluororesin, in addition to micron-sized concave-convex structures formed by combining micron-sized special-shaped particles (silicate) with the silica nanoparticles. The uneven structure forms an air layer that suppresses the adhesion of dust and sand that contain a lot of humidity, and reduces the amount of dirt that adheres to the substrate.

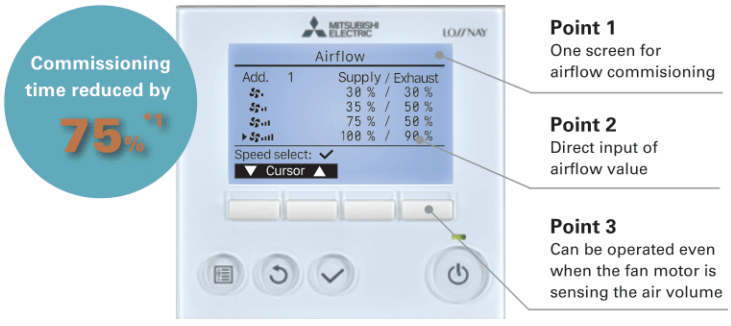
■ Conceptual image of dual barrier coating



Installation Work

Short Commissioning Time with the New Remote Controller

New Remote Controller PZ-62DR-EA/EB, Supply and Exhaust air volume from FS1 to FS4 directly on one screen. It can also be operated while the fan motor is sensing the air volume.
By using PZ-62DR-EA/EB, the commissioning time for LGH-RVX3 is reduced by 75%*1 compared to the previous RVX series.



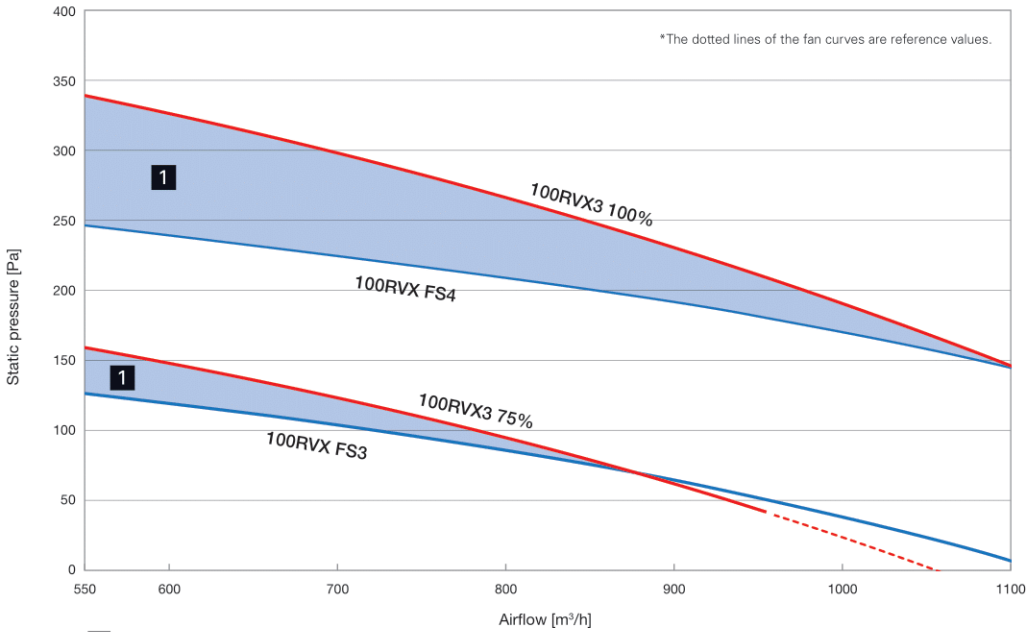
PZ-62DR-EA/EB

*1: The average reduction rate when installing LGH-100RVX-E with PZ-61DR-E and LGH-100RVX3-E with PZ-62DR-EA/EB.
Setting work involves changing the supply/exhaust air volume. The time that can be reduced varies depending on the operator and work conditions.

RVX3 SERIES

High Static Pressure

External static pressure has been improved compared to previous models. Accompanying this increase in external static pressure, the selection range of models and filters has also expanded. Furthermore, flexible duct work has become possible.

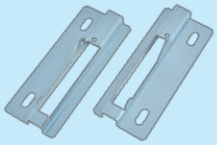


1 Increased static pressure.

Flexible Vertical and Horizonal Installation

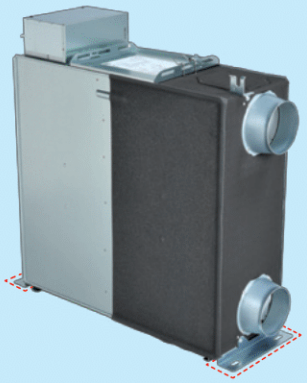
For RVX3 series, vertical installation has become possible for greater flexibility of installation locations. By using optional parts, the unit can be installed in places such as the machine room where only vertical installation is possible.

■Vertical Installation Plates



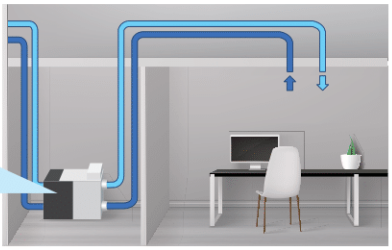
Model name	LOSSNAY
PZ-1VS-E	LGH-15RVX3-E
	LGH-25RVX3-E
	LGH-35RVX3-E
	LGH-50RVX3-E
PZ-2VS-E	LGH-65RVX3-E
	LGH-80RVX3-E
	LGH-100RVX3-E

*Not applicable to LGH-160RVX3-E and LGH-200RVX3-E.
*Please follow the installation manual when you install RVX3 series vertically.



Horizontal installation

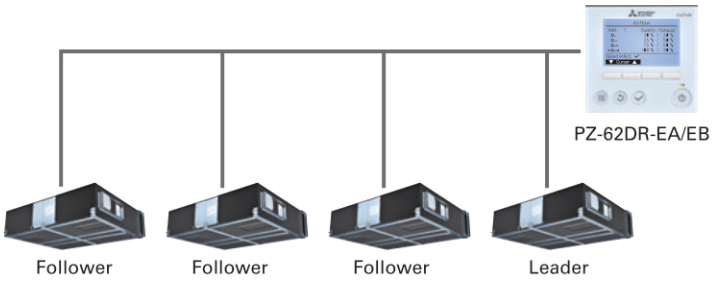
Vertical installation



RVXT3 SERIES

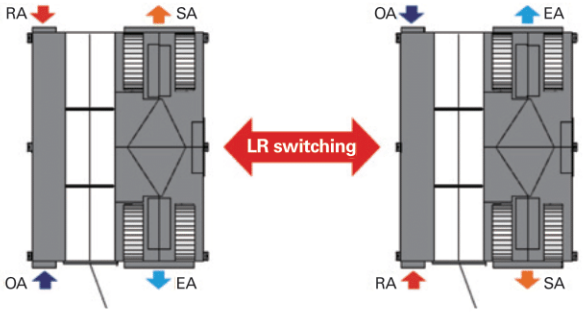
Large Airflow as One Unit: Leader-follower Function

- Multiple LOSSNAY units can be operated in synchronization as a single large airflow unit.
- A maximum of four units can be connected.
  In the case of four LGH-250RVXT3-E units, total air volume is approx. 10,000m³/h.*
  *Actual aiflow depends on system design and site condition.
- Only same model can be in one group.
- PZ-62DR-EA/EB connection is required for this control.
- The maximum number of LOSSNAY units that can be connected in one group is four (one leader unit and three follower units).



Adaptable Installation: LR Switching

- Airflow direction can be changed using DIP switches.
- The indoor (SA/RA) and outdoor (OA/EA) sides can be switched depending on installation space.
- This facilitates ductwork and allows enough space for maintenance.
  *The unit cannot be flipped upside down.

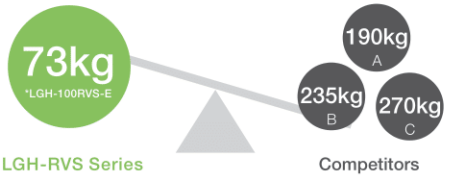


RVS SERIES

Easy Installation

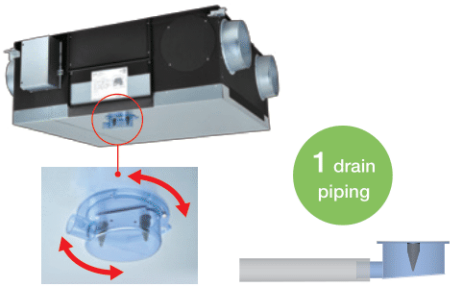
Light frame

Being frame is one of the most important factors for installation. The light frame of the LGH-RVS series provides an advantage in terms of installation cost and safety.



Easy drain piping

- Only one drain piping for both supply air and exhaust air
- 360-degree drain pipe connection
- Trap piping work is NOT required owing to an internal backflow stopper



LOSSNAY with Dx-Coil Unit

GUF SERIES

The GUF Series consists of a heat recovery unit (LOSSANY core) and a DX coil. Along with LOSSANY ventilation, it can be used as a main air conditioner when the load is light, and as a supplemental air conditioner in high load.

These units can be used with R410A.
Outdoor units are available for the GUF-RD series (for details, see Mitsubishi Electric's CITY MULTI catalog).

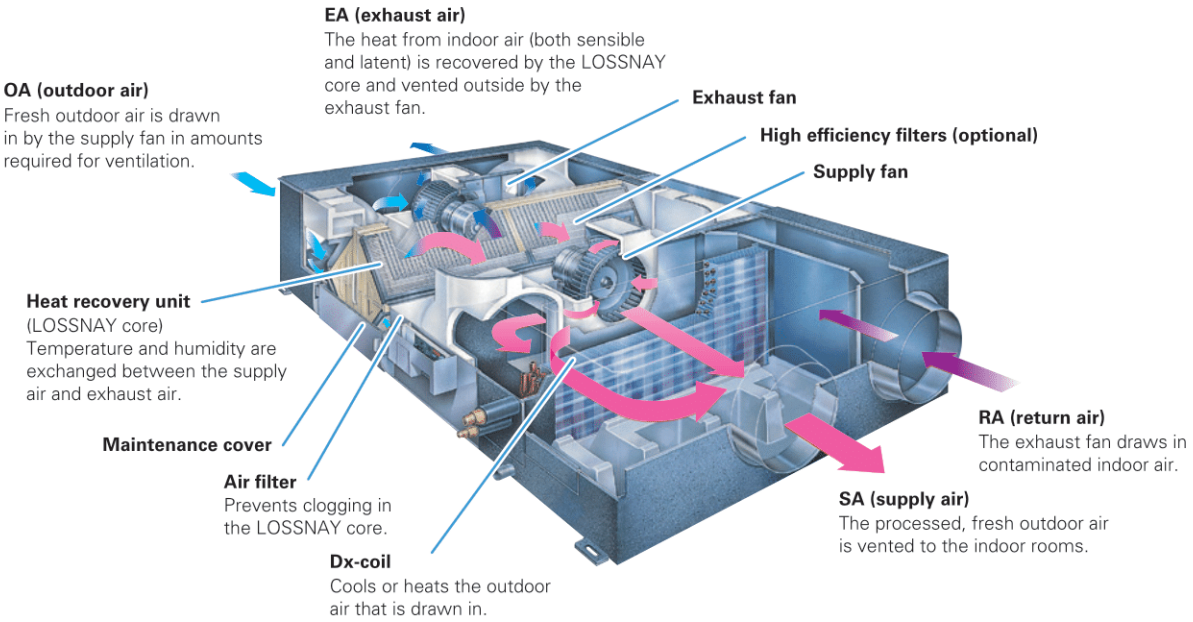
R410A Refrigerant Units

Model Size		P112	P125	P140	P200	P250	P300	P350	P400	P450	P500	P550	P600	P650	P700	P750	P800
Y Series	PUHY-P-YNW-A2				●	●	●	●	●	●	●	●	●	●	●	●	●
R2 Series	PURY-P-YNW-A2				●	●	●	●	●	●	●	●	●	●			
PUMY Series	PUMY-SP	●	●	●													
	PUMY-P	●	●	●	●												

LOSSNAY Ventilation and Air Conditioning

The OA (outdoor air) Processing Unit creates an optimum environment while providing substantial energy savings. It delivers forced air ventilation, heat recovery, heating and cooling, and air purification. This total air conditioning system keeps indoor air fresh and comfortable all year round, and keeps it free of contaminants that could cause ailments such as sick building syndrome. Inside the OA Processing Unit is the LOSSNAY core, a heat exchange unit that transfers heat efficiently, and cuts ventilation load by as much as 70%. A remarkable product found nowhere else, this special combination of functionality and performance contained within a single unit ensures users ample comfort, good health, and energy savings.

GUF-RD type



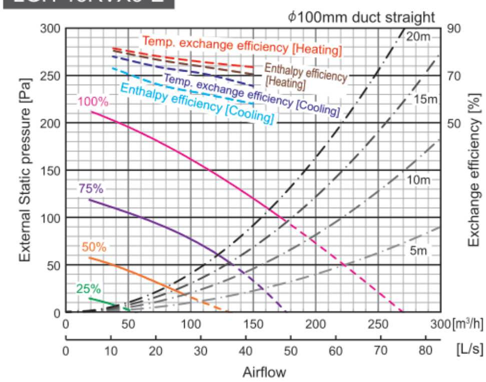
Specifications
RVX3 SERIES

Model		LGH-15RVX3-E				LGH-25RVX3-E				LGH-35RVX3-E			
Electrical power supply		220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz			
Fan speed		4	3	2	1	4	3	2	1	4	3	2	1
Default Airflow setting		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%
Input power (W)*1		55	30	15	10	75	42	21	11	120	61	29	15
Airflow*1	(m^3/h)	150	113	75	38	250	188	125	63	350	263	175	88
	(L/s)	42	31	21	10	69	52	35	17	97	73	49	24
Specific fan power [W/(L/s)]*1		1.32	0.96	0.72	0.96	1.08	0.81	0.60	0.63	1.23	0.84	0.60	0.62
External static pressure (Pa)*1		120	68	30	8	120	68	30	8	160	90	40	10
Temperature exchange efficiency (%)*1	Heating	73.5	75.5	78.0	81.5	75.5	78.5	81.0	88.0	75.0	77.0	79.0	82.0
	Cooling	65.5	70.5	73.5	78.0	70.5	76.5	79.0	85.0	66.5	71.0	74.0	79.0
Enthalpy exchange efficiency (%)*1	Heating	70.5	73.5	76.5	80.5	69.0	72.0	75.5	84.0	72.0	74.5	77.5	80.0
	Cooling	58.0	62.0	66.0	73.0	59.0	63.5	68.0	75.0	60.0	64.5	68.5	74.5
Noise (dB)*2		27.0	22.0	18.0	17.0	30.5	25.0	19.5	17.0	30.5	24.5	19.0	17.0
Exhaust air transfer ratio (%)*3		5				5				5			
Weight (kg)		20				22				30			
Maximum input power (W)		74				119				196			

*Input power, efficiency, and noise are based on rated air volume, 230V/50Hz and horizontal installation. *1 : Measured according to ISO 16494-1: 2022
*2 : A-weighted sound pressure level measured at 1.5m under the center of the unit in an anechoic chamber. *3 : Measured according to EN308: 2022 / FS3

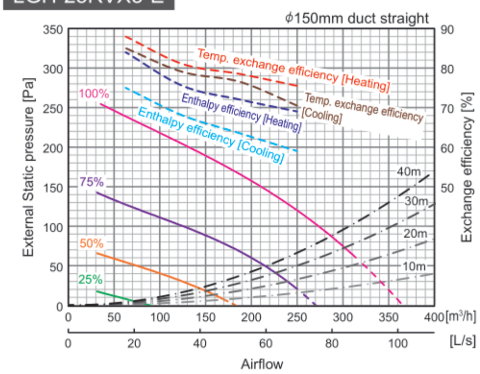
Characteristic curve

LGH-15RVX3-E



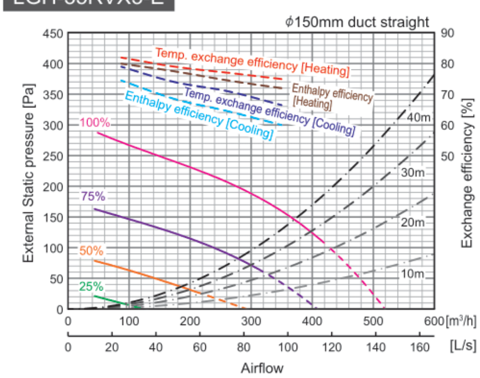
*The dotted lines of the fan curves are reference values.

LGH-25RVX3-E



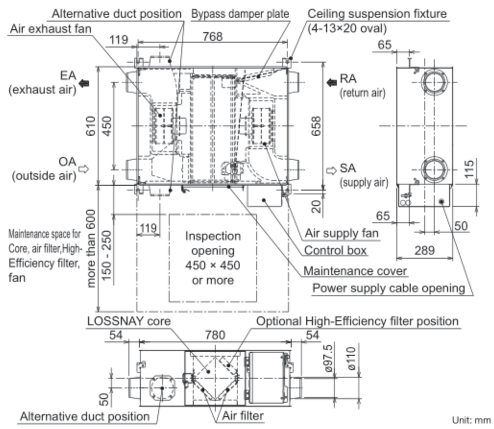
*The dotted lines of the fan curves are reference values.

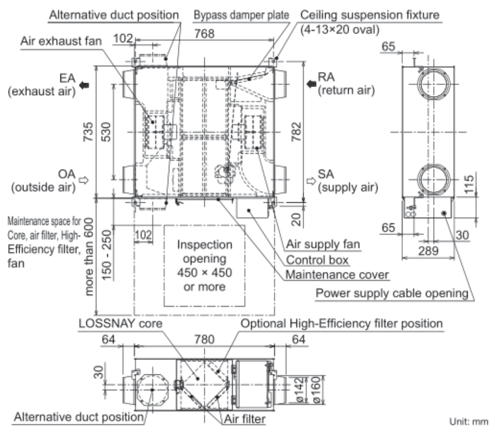
LGH-35RVX3-E

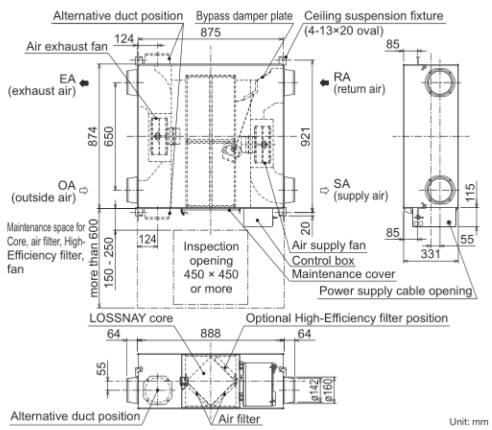


*The dotted lines of the fan curves are reference values.

Outline drawings







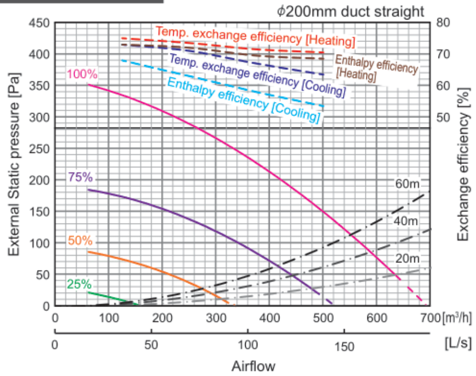
*Specifications may be subject to change without notice.

Model		LGH-50RVX3-E				LGH-65RVX3-E				LGH-80RVX3-E			
Electrical power supply		220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz			
Fan speed		4	3	2	1	4	3	2	1	4	3	2	1
Default Airflow setting		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%
Input power (W)*1		185	81	34	15	245	120	51	20	343	160	64	23
Airflow*1	(m^3/h)	500	375	250	125	650	488	325	163	800	600	400	200
	(L/s)	139	104	69	35	181	135	90	45	222	167	111	56
Specific fan power [W/(L/s)]*1		1.33	0.78	0.49	0.43	1.36	0.89	0.56	0.44	1.54	0.96	0.58	0.41
External static pressure (Pa)*1		150	85	38	10	150	85	38	10	170	96	43	11
Temperature exchange efficiency (%)*2	Heating	70.5	71.5	73.5	75.0	72.5	75.0	78.5	82.0	75.0	76.5	78.0	80.0
	Cooling	63.5	67.0	71.0	73.0	65.0	70.0	74.5	80.0	65.0	70.0	75.5	78.0
Enthalpy exchange efficiency (%)*2	Heating	68.5	69.5	72.0	73.0	69.5	72.0	76.5	80.0	62.0	65.0	70.5	73.5
	Cooling	53.5	58.0	63.0	68.0	55.5	60.0	66.5	74.0	54.5	58.5	65.0	70.5
Noise (dB)*3		35.0	27.0	21.0	17.0	37.5	31.5	24.0	17.5	39.0	33.5	25.0	18.0
Exhaust air transfer ratio (%)*4		5				5				5			
Weight (kg)		33				41				47			
Maximum input power (W)		277				360				503			

*Input power, efficiency, and noise are based on rated air volume, 230V/50Hz and horizontal installation.
*1 : Measured according to (LGH-50RVX3-E) ISO 16494-1: 2022, (LGH-65/80RVX3-E) EN13053: 2019
*2 : Measured according to (LGH-50RVX3-E) ISO 16494-1: 2022, (LGH-65/80RVX3-E) EN308: 2022
*3 : A-weighted sound pressure level measured at 1.5m under the center of the unit in an anechoic chamber. *4 : Measured according to EN308: 2022 / FS3

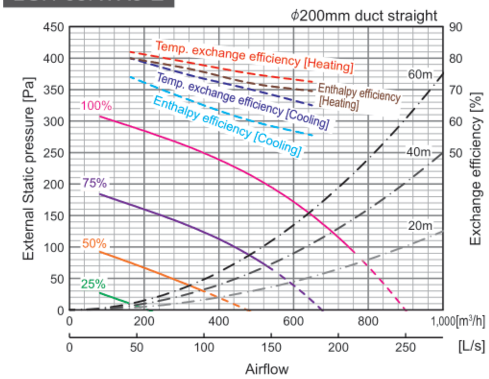
Characteristic curve

LGH-50RVX3-E



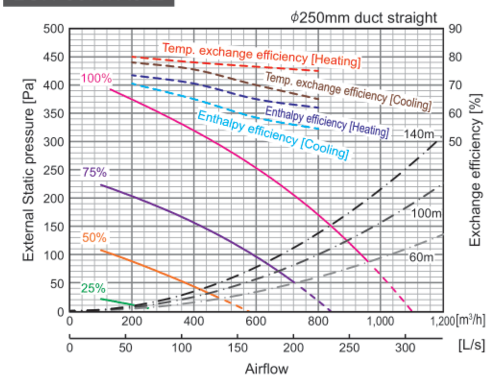
*The dotted lines of the fan curves are reference values.

LGH-65RVX3-E



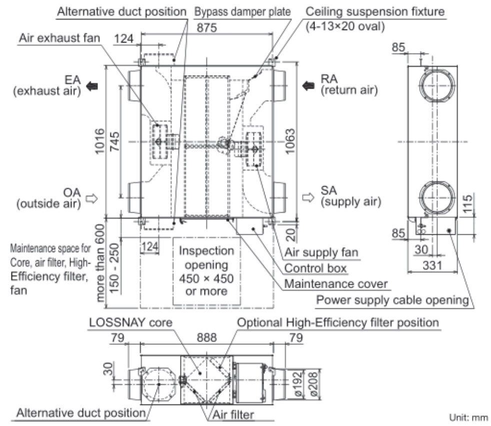
*The dotted lines of the fan curves are reference values.

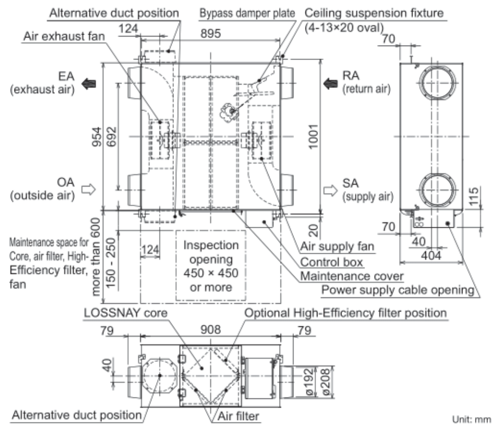
LGH-80RVX3-E

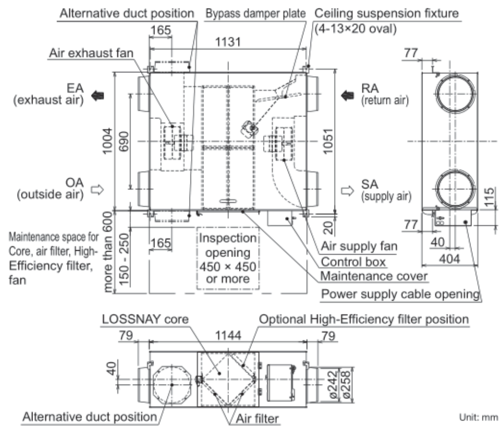


*The dotted lines of the fan curves are reference values.

Outline drawings







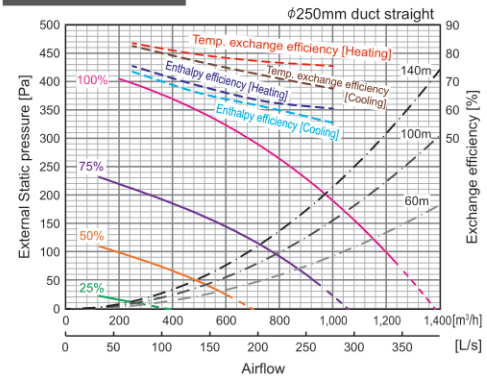
*Specifications may be subject to change without notice.

Model		LGH-100RVX3-E				LGH-160RVX3-E				LGH-200RVX3-E			
Electrical power supply		220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz			
Fan speed		4	3	2	1	4	3	2	1	4	3	2	1
Default Airflow setting		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%
Input power (W)*1		438	210	83	27	687	324	128	45	855	416	163	57
Airflow*1	(m^3/h)	1000	750	500	250	1600	1200	800	400	2000	1500	1000	500
	(L/s)	278	208	139	69	444	333	222	111	556	417	278	139
Specific fan power [W/(L/s)]*1		1.58	1.01	0.60	0.39	1.55	0.97	0.58	0.41	1.54	1.00	0.59	0.41
External static pressure (Pa)*1		190	107	48	12	170	96	43	11	170	96	43	11
Temperature exchange efficiency (%)*2	Heating	75.5	77.0	79.5	83.5	75.0	76.5	78.0	80.0	76.5	77.5	79.5	83.5
	Cooling	67.5	72.0	77.0	82.5	65.0	70.0	75.5	78.0	66.5	71.5	76.0	82.5
Enthalpy exchange efficiency (%)*2	Heating	60.5	63.0	68.5	75.5	62.0	65.0	70.5	73.5	60.5	64.0	67.5	76.0
	Cooling	55.5	61.0	66.0	73.5	54.5	58.5	65.0	70.5	57.0	60.0	65.0	71.0
Noise (dB)*3		40.0	35.0	27.0	18.5	41.0	35.0	26.0	18.0	41.5	36.0	27.5	18.0
Exhaust air transfer ratio (%)*4		5				5				5			
Weight (kg)		53				96				108			
Maximum input power (W)		646				798				915			

*Input power, efficiency, and noise are based on rated air volume, 230V/50Hz and horizontal installation.
*1 : Measured according to EN13053: 2019 *2 : Measured according to EN308: 2022
*3 : A-weighted sound pressure level measured at 1.5m under the center of the unit in an anechoic chamber. *4 : Measured according to EN308: 2022 / FS3

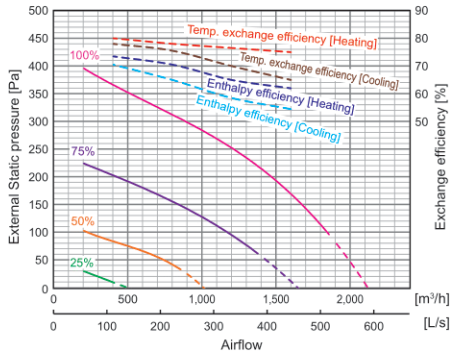
Characteristic curve

LGH-100RVX3-E



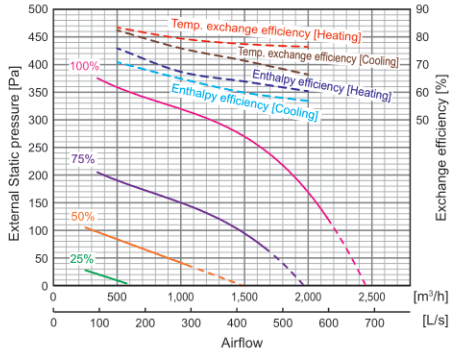
*The dotted lines of the fan curves are reference values.

LGH-160RVX3-E



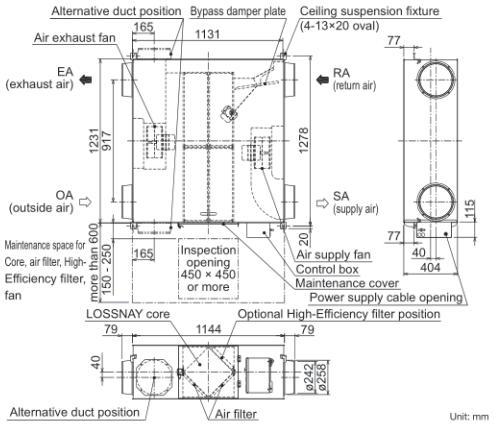
*The dotted lines of the fan curves are reference values.

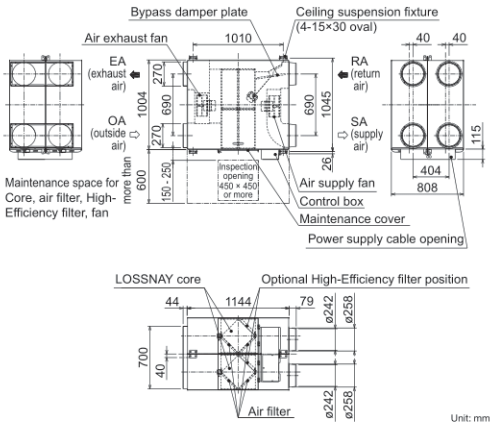
LGH-200RVX3-E

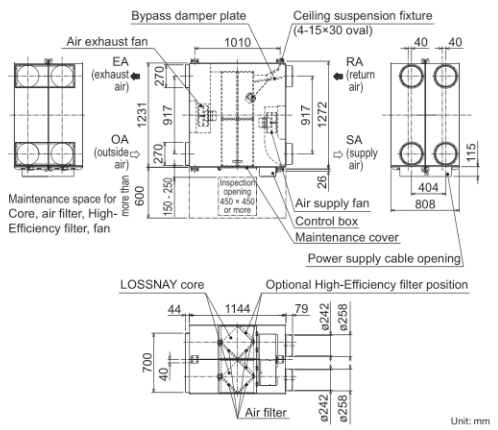


*The dotted lines of the fan curves are reference values.

Outline drawings







*Specifications may be subject to change without notice.

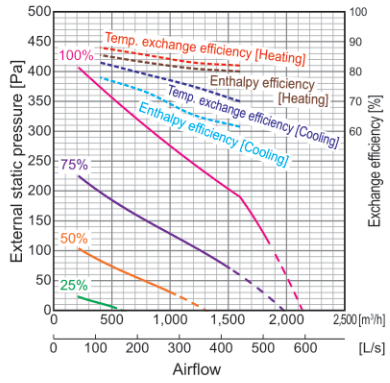
RVXT3 SERIES

Model		LGH-160RVXT3-E				LGH-200RVXT3-E				LGH-250RVXT3-E			
Electrical power supply		380-415V/3N~ 50Hz, 380V/3N~ 60Hz				380-415V/3N~ 50Hz, 380V/3N~ 60Hz				380-415V/3N~ 50Hz, 380V/3N~ 60Hz			
Fan speed		4	3	2	1	4	3	2	1	4	3	2	1
Default airflow setting		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%
Input power (W)*1	L1-N	0	0	0	0	0	0	0	0	0	0	0	0
	L2-N	354	184	72	23	522	249	96	28	724	348	142	43
	L3-N	354	184	72	23	522	249	96	28	724	348	142	43
	Total	708	368	144	46	1044	498	192	56	1448	696	284	86
Airflow*1	(m^3/h)	1600	1200	800	400	2000	1500	1000	500	2500	1875	1250	625
	(L/s)	444	333	222	111	556	417	278	139	694	521	347	174
Specific fan power (W/(L/s))*1		1.59	1.10	0.65	0.41	1.88	1.20	0.69	0.40	2.09	1.34	0.82	0.50
External static pressure (Pa)*1		190	107	48	12	190	107	48	12	190	107	48	12
Temperature exchange efficiency (%)*2	Heating	82.0	83.0	85.5	88.0	80.0	81.0	83.0	86.0	77.0	78.0	80.0	84.0
	Cooling	70.0	75.0	79.0	83.0	67.5	73.0	78.0	82.0	65.0	70.5	76.5	81.0
Enthalpy exchange efficiency (%)*2	Heating	80.0	81.0	83.0	85.5	78.5	79.5	81.5	84.5	75.0	76.0	78.0	81.5
	Cooling	61.5	65.5	73.0	78.0	56.5	61.0	67.5	75.0	54.0	59.0	66.0	73.0
Noise (dB)*3		38.0	33.0	26.0	19.5	40.0	35.0	28.0	21.0	44.0	38.0	31.5	23.0
Exhaust air transfer ratio (%)*4		5.0				5.0				5.0			
Weight (kg)		172				172				172			
Maximum input power (W) (380-415V 3N~ 50Hz/380V 3N~ 60Hz)	Total	740-720/740				1060-1040/1060				1480-1460/1500			

* Input power, efficiency, and noise are based on rated airflow, 400V/50Hz. ** In bypass mode, the maximum airflow is 70% of heat recovery mode. The same applies to the Night-purge function.
*1 : Measured according to EN13053: 2019 *2 : Measured according to EN308: 2022
*3 : A-weighted sound pressure level measured at 1.5m under the center of the unit in an anechoic chamber. *4 : Measured according to EN308: 2022 / 75% fan speed

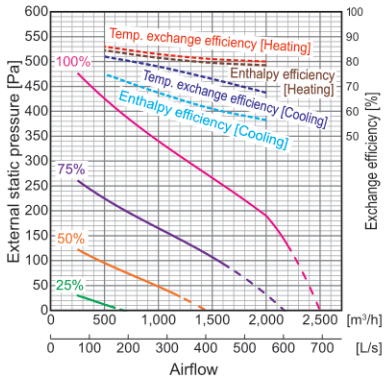
Characteristic curve

LGH-160RVXT3-E



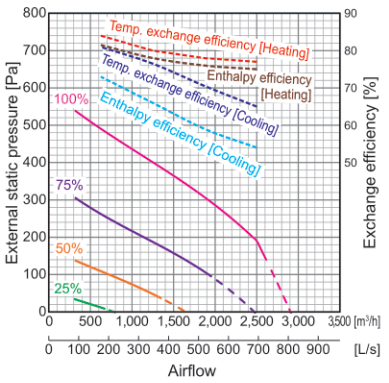
*The dotted lines of the fan curves are reference values.

LGH-200RVXT3-E



*The dotted lines of the fan curves are reference values.
*Leader-follower function is not available when external static pressure is more than 460Pa.

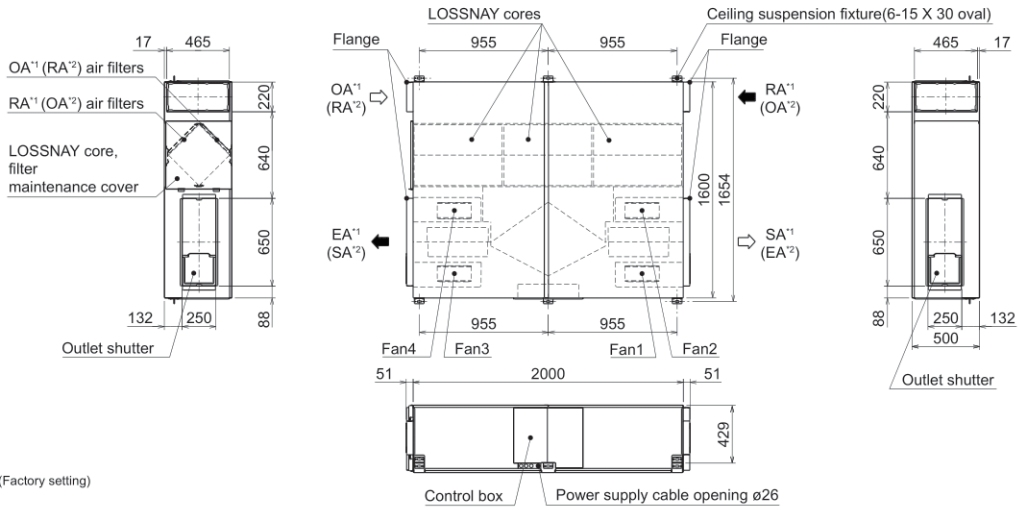
LGH-250RVXT3-E



*The dotted lines of the fan curves are reference values.
*Leader-follower function is not available when external static pressure is more than 460Pa.

Outline drawings

LGH-160RVXT3-E LGH-200RVXT3-E LGH-250RVXT3-E



SA [supply air]
EA [exhaust air outlet]
RA [return air]
OA [outside air intake]
*1 : LR switching is OFF (Factory setting)
*2 : LR switching is ON

Unit (mm)

*Specifications may be subject to change without notice.

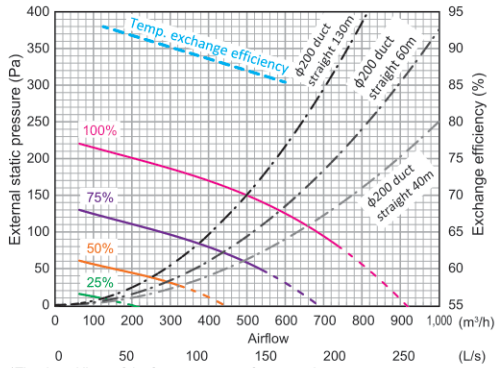
RVS SERIES

Model		LGH-50RVS-E				LGH-80RVS-E				LGH-100RVS-E			
Electrical power supply		220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz				220-240V/50Hz, 220V/60Hz			
Fan speed		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%
Input power (W)		190	110	60	25	325	175	85	32	445	225	100	35
Airflow	(m^3/h)	500	375	250	125	800	600	400	200	1000	750	500	250
	(L/s)	139	104	69	35	222	167	111	56	278	208	139	69
Specific fan power (W/(L/s))		1.37	1.06	0.86	0.72	1.46	1.05	0.77	0.58	1.60	1.08	0.72	0.50
External static pressure (Pa)		150	84	38	9	170	96	43	11	190	107	48	12
Temp. exchange efficiency (%)		87.0	89.0	91.0	93.0	82.0	84.0	86.0	90.0	82.0	84.0	86.0	90.0
Noise (dB)		33.0	27.0	22.0	18.0	36.0	30.0	25.0	18.0	37.0	32.0	24.0	18.0
Exhaust air transfer ratio (%)		5				5				5			
Weight		55kg (67kg with maximum drain water)				63kg (77kg with maximum drain water)				73kg (89kg with maximum drain water)			
Maximum input power (W) (220-240V 50Hz/220V 60Hz)	Total	361-360/359				622-621/619				691-782/679			

* The input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz. Temperature exchange efficiency (%) is measured at indoor DB 20ºC/ WB 15ºC and outdoor DB 5ºC/ WB 3ºC. It is measured according to ISO16494.
When the indoor humidity is low and condensation in the heat exchanger does not occur, the exchange efficiency may be decreased in winter.
* The absolute humidity of RA shall be lower than 0.0139kg/kg(DA) in winter and the relative humidity of RA shall be lower than 90%RH through the year.
Examples of the absolute humidity 0.0139kg/kg(DA) are 20.7ºC 90%RH, 25ºC 70%, 30ºC 50% etc.

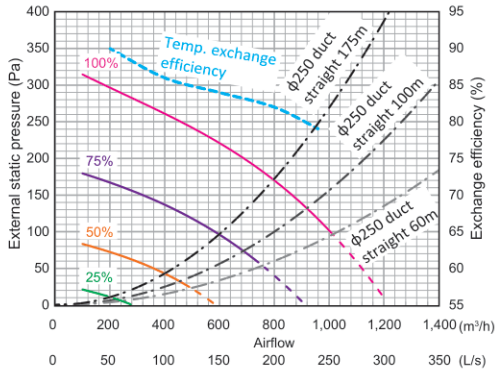
Characteristic curve

LGH-50RVS-E



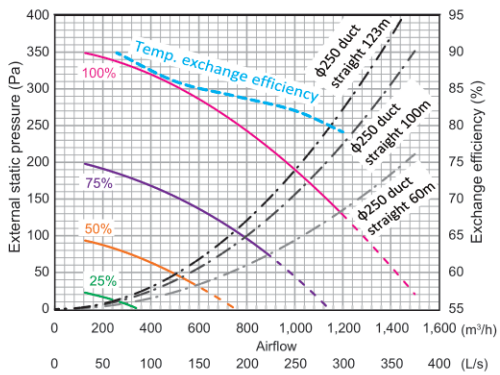
*The dotted lines of the fan curves are reference values.

LGH-80RVS-E



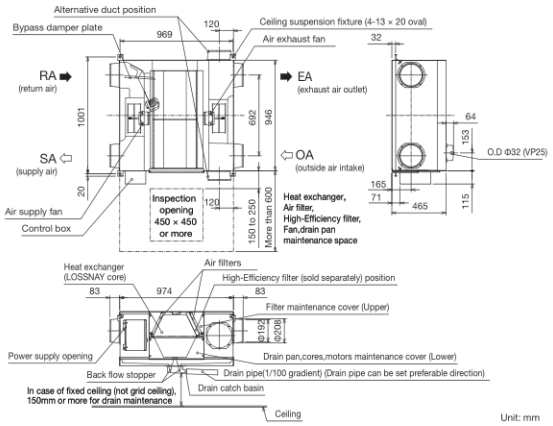
*The dotted lines of the fan curves are reference values.

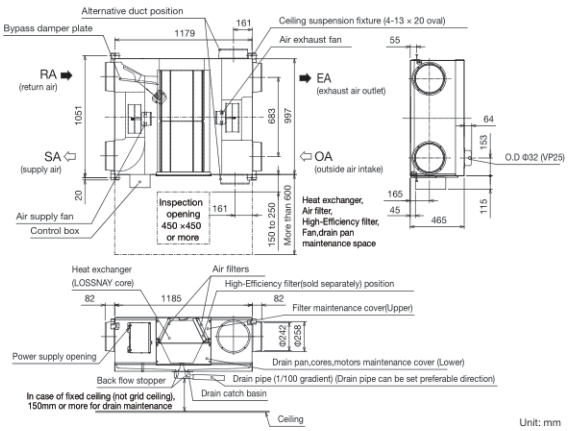
LGH-100RVS-E

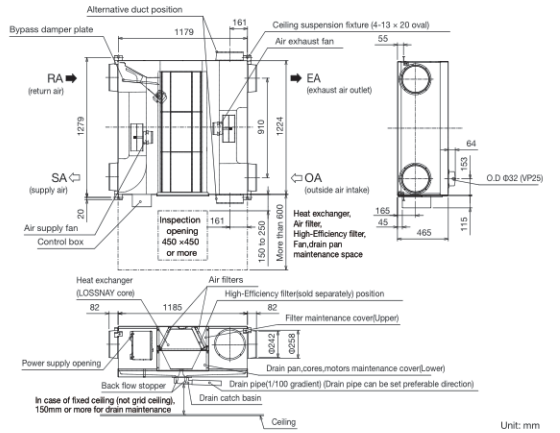


*The dotted lines of the fan curves are reference values.

Outline drawings







*Specifications may be subject to change without notice.

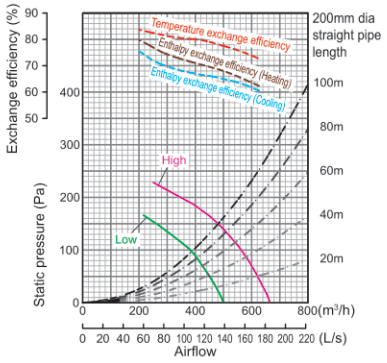
GUF SERIES

Model		GUF-50RD4				GUF-100RD4			
Electrical power supply		220-240V/50Hz				220-240V/50Hz			
Ventilation mode		Heat recovery mode		Bypass mode		Heat recovery mode		Bypass mode	
Fan speed		High	Low	High	Low	High	Low	High	Low
Running current (A)		1.15	0.70	1.15	0.70	2.20	1.73	2.25	1.77
Input power (W)		235-265	150-165	235-265	150-165	480-505	370-395	490-515	385-410
Airflow	(m^3/h)	500	400	500	400	1000	800	1000	800
	(L/s)	139	111	139	111	278	222	278	222
External static pressure (Pa)		140	90	140	90	140	90	140	90
Temperature exchange efficiency (%)		77.5	80	–	–	79.5	81.5	–	–
Enthalpy exchange efficiency (%)	Heating	68	71	–	–	71	74	–	–
	Cooling	65	67	–	–	69	71	–	–
Cooling capacity (kW)		5.57 (1.94)				11.44 (4.12)			
Heating capacity (kW)		6.21 (2.04)				12.56 (4.26)			
Capacity equivalent to the indoor unit		P32				P63			
Humidifier	Humidifying	–				–			
	Humidifying capacity (kg/h)	–				–			
	Water supply pressure	–				–			
Noise (dB) (Measured at 1.5m under the center of the unit)		33.5-34.5	29.5-30.5	35-36	29.5-30.5	38-39	34-35	38-39	35-36
Weight (kg)		48				82			

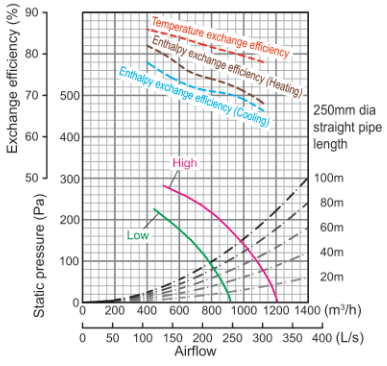
*Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor: 27°C DB/19°C WB Outdoor: 35°C DB/24°C WB
Heating: Indoor: 20°C DB/13.8°C WB Outdoor: 7°C DB/6°C WB
*The figures in ( ) indicates heat recovering capacity of heat exchange core.
*Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.
*When the total capacity of indoor units connected to 1 outdoor unit (PUHY or PURY) exceeds the capacity of the outdoor unit, the total capacity of GUF needs to be 30% and less of the connected outdoor unit capacity.

Characteristic curve

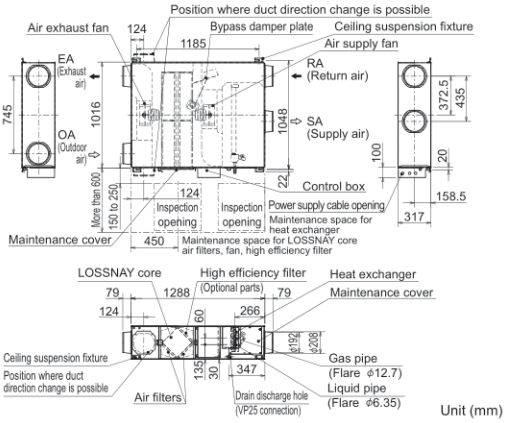
GUF-50RD4

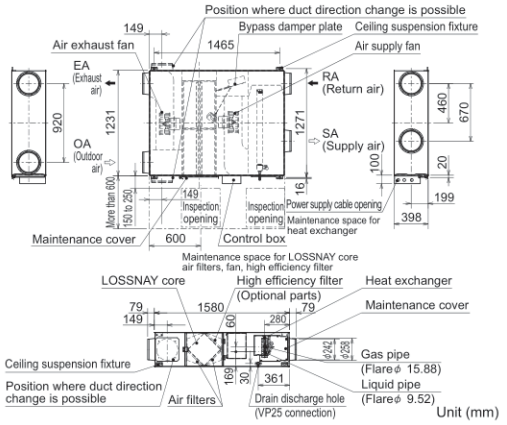


GUF-100RD4



Outline drawings

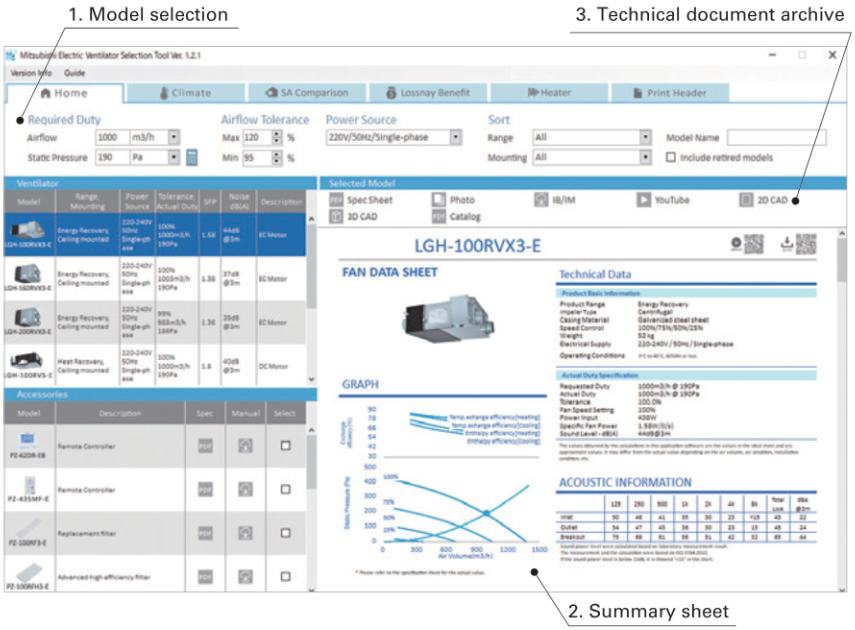




*Specifications may be subject to change without notice.

Mitsubishi Electric Ventilator Selection Tool

Mitsubishi Electric Ventilator Selection Tool is software for selecting optimal ventilation fans. In addition to supporting the selection of a sufficient model, it also provides necessary technical documents.



1. Model selection

An appropriate model can be selected simply by inputing the necessary air volume and static pressure. Optional parts that go with the selected model will also be listed.

2. Summary sheet

Data of the selected model can be downloaded by PDF file. SFP at duty, acoustic information, and energy saving calculation can be also download (varies by model).

3. Technical document archive

Other technical data needed for ventilation system design are also available.

Spec sheet　2D CAD　3D CAD

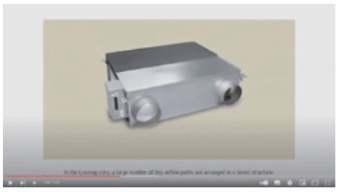
...and more!

*This image is for illustration purpose and actual data may vary.
*Ratings and specifications may change due to product improvements or modifications.

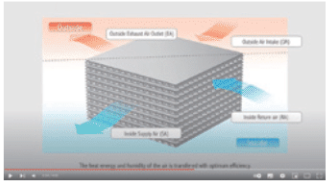
LOSSNAY YouTube Channel

LOSSNAY YouTube channel provides you videos on LOSSNAY features, structures, and more!
Please check the 2D code below for more details.

■RVX3 Series features



■LOSSNAY structure

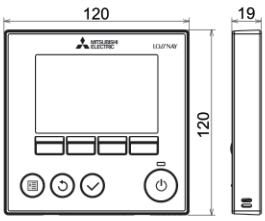
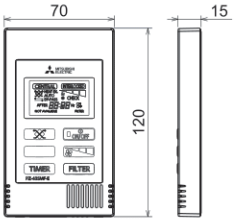


■How to select a model

Scan Me

CONTROL TECHNOLOGIES

Compatibility Table

Model	PZ-62DR-EA/EB	PZ-43SMF-E
Image		
Dimension	 Unit (mm)	 Unit (mm)
Remote Controller Compatibility Table		
Model name	PZ-62DR-EA/EB	PZ-43SMF-E
Compatible series	LGH-RVX3/RVXT3/RVS	LGH-RVX3/RVXT3/RVS
Fan speed selection	4 fan speeds and Auto (Auto is available when using a CO_2 sensor)	2 of 4 fan speeds
Control with a CO_2 sensor (Mitsubishi Electric and field supply)	Yes (Fan speed automatically changes from 25% to 100% depending on the CO_2 concentration*)	No
Ventilation mode selection	Energy recovery/Bypass/Auto	Energy recovery/Bypass/Auto
Night purge	Yes	No
Function setting with remote controller	Yes	No
Bypass temp. free setting	Yes	No
Flexible airflow setting	Yes (Both supply and exhaust fan speeds can be set separately from 25% to 100% in 5% pitches)	No
ON/OFF timer	Yes	Yes
Auto-off timer	Yes	No
Weekly timer	Yes	No
Fan speed timer	Yes	No
Operation restrictions (ON/OFF, ventilation mode, fan speed)	Yes	No
Operation restrictions (fan speed skip setting)	Yes	No
Screen contrast adjustment	Yes	No
Language selection	Yes (17 languages)	No (English only)
CO_2 concentration indication (Mitsubishi Electric and field supply)	Yes	No
Filter cleaning sign	Yes (Maintenance interval can be changed)	Yes
LOSSNAY core cleaning sign	Yes/No (RVS Series)	No
Error indication	Yes (Displays model name, serial number, contact information)	Yes
Error history	Yes	No
OA/RA/SA temp. display	Yes	No

*When using a CO_2 sensor. Upper and lower limits may differ.

Remote Control Language Table

Language	English	German	Spanish	French	Italian	Russian	Portuguese	Swedish	Dutch	Turkish	Polish	Greek	Czech	Hungarian	Slovenian	Bulgarian	Danish
-EA	●	●	●	●		●			●	●	●		●	●		●	
-EB	●	●	●	●	●		●	●				●			●		●

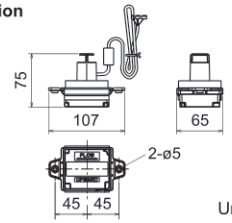
CO_2 Sensors

Connecting a CO_2 sensor directly to the LOSSNAY unit will optimize fan speed according to the level of CO_2 detected.

PZ-70CSD-E (Duct-mounted type)

Mounted in the duct with all the wiring hidden in the ceiling.

Dimension

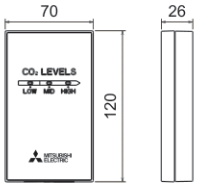


Unit (mm)

PZ-70CSW-E (Wall-mounted type)

Mounted on the wall. CO_2 is monitored in 3 levels.

Dimension



*A 10m cable is included as a connection accessory. Unit (mm)

Vertical Installation Plates

PZ-1VS-E, PZ-2VS-E

EA side plate RA side plate

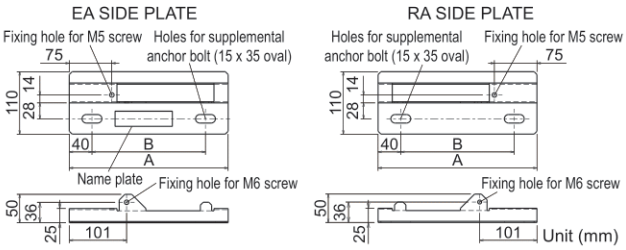
Parts used to install RVX3 vertically.

Change dimension table (Unit: mm)

Model	A	B	Weight (kg)	Applicable model
PZ-1VS-E	280	200	1.2	LGH-15 to 50RVX3-E
PZ-2VS-E	380	300	1.6	LGH-65 to 100RVX3-E

*Not applicable to LGH-160/200RVX3-E

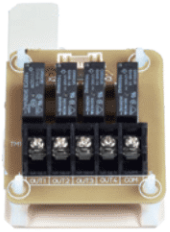
Dimension



Unit (mm)

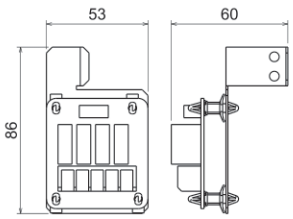
Signal Output Terminal

PZ-4GS-E



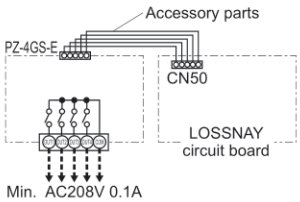
The PCBs of RVX3, RVXT3, RVS have only one output terminal. By using PZ-4GS-E, four more output terminals can be added to the units.

Dimension



Unit (mm)

Wiring diagram



Min. AC208V 0.1A
DC5V 0.1A
Max. AC240V 1A
DC24V 1A
(Up to 1.5A for common terminals)

*Wiring work must be performed by a qualified professional

Duct Silencer

The duct silencer connects to the LOSSNAY unit to reduce airflow noise.

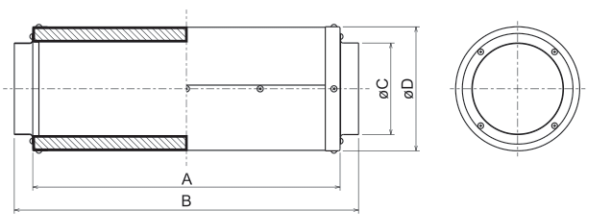
Specifications

Model	Airflow (m^3/h)	Attenuation of sound power level [dB] at center frequency (discharge)							
		62.5Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
PZ-100SS-E	50	0	3	5	7	6	6	6	8
	150	0	3	6	7	7	7	7	9
PZ-150SS-E	250	0	1	5	8	15	21	20	14
	350	0	1	4	8	14	21	21	16
PZ-200SS-E	500	0	1	4	7	13	18	16	9
	650	0	1	3	8	12	17	14	6
PZ-250SS-E	800	0	2	4	12	22	21	14	13
	1000	0	1	4	12	22	20	14	13

1. Figures in the chart above are based on a comparison with a general steel duct of the same length.
2. The silencer is placed just before the outlet during the measurement.
3. When the airflow rate differs, attenuation will also differ from the chart above.
4. Figures in the chart above are flat (not-weighted) values.

● Some ratings and specifications may change due to product improvements or modifications.

Dimension



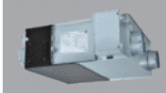
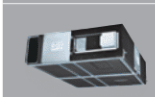
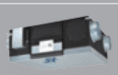
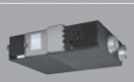
Unit (mm)

Change dimension table (Unit: mm)

Model	A	B	C	D	Connectable Duct	Weight (kg)
PZ-100SS-E	400	450	99	152	ø100	1.9
PZ-150SS-E	500	560	149	202	ø150	3.5
PZ-200SS-E	600	660	199	252	ø200	5.3
PZ-250SS-E	600	660	249	332	ø250	8.9

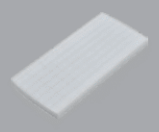
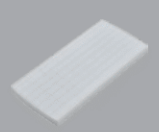
Filters

Lineup and Classification

LOSSNAY			Filter				
Model	Filter		Name	Model	Material	Classification	
	Standard Setting	Optional Setting				ISO 16890: 2016	EN779: 2012
 LGH-RVX3 Series	●		Replacement filter (Coarse 60% filter)	PZ-**RF3-E	Non-woven fabric	Coarse 60%	–
		●	Advanced high-efficiency filter (ePM1 75% filter)	PZ-**RFP3-E	Synthetic fiber	ePM1 75%, ePM2.5 80%, ePM10 95%	–
		●*1	High-efficiency filter (M6 filter)	PZ-**RFM3-E	Synthetic fiber	–	M6
		●*1	Advanced high-efficiency filter (F8 filter)	PZ-**RFH3-E	Synthetic fiber	–	F8
 LGH-RVXT3 Series	●		Replacement filter (Coarse 60% filter)	PZ-250TRF-E	Non-woven fabric	Coarse 60%	-
		●	Advanced high-efficiency filter (ePM1 75%)	PZ-250TPF-E	Synthetic fiber	ePM1 75%, ePM2.5 80%, ePM10 95%	-
		●*1	High-efficiency filter (M6 filter)	PZ-250TMFR-E	Synthetic fiber	-	M6
		●*1	Advanced high-efficiency filter (F8 filter)	PZ-250THFR-E	Synthetic fiber	-	F8
 LGH-RVS Series	●		Replacement filter (Coarse 50% filter)	PZ-S**RF-E	Non-woven fabric	Coarse 50%	G3
		●	High-efficiency filter (ePM10 80% filter)	PZ-S**RFM-E	Synthetic fiber	ePM10 80%	M6
		●	Advanced high-efficiency filter (ePM1 65% filter)	PZ-S**RFH-E	Synthetic fiber	ePM1 65%, ePM2.5 75%, ePM10 90%	F8
 GUF Series	●		Replacement filter (Coarse 35% filter)	PZ-**RF8-E	Non-woven fabric	Coarse 35%	G3
		●	High-efficiency filter (ePM10 75%)	PZ-**RFM-E	Noncombustible fiber	ePM10 75%	–
		●	Advanced high-efficiency filter (ePM1 75%)	PZ-**RFP2-E	Synthetic fiber	ePM1 75%, ePM2.5 80%, ePM10 95%	–

*1: Designed for the Spanish market to comply with RITE (Regulation of Thermal Installations of Buildings)

For LGH-RVX3 SERIES

Filter							Package number for replacement	Installation location			
Image	Model		Dimension (mm)			Pieces per package		Numbers of filters			
		Applicable model	L	W	H				OA	RA	SA
Replacement filter (Coarse 60% filter) 	PZ-15RF3-E	LGH-15RVX3-E	549	125	20	2	1	2	1	1	–
	PZ-25RF3-E	LGH-25RVX3-E	654	151	15	2	1	2	1	1	–
	PZ-35RF3-E	LGH-35RVX3-E	784	178	15	2	1	2	1	1	–
	PZ-50RF3-E	LGH-50RVX3-E	926	178	15	2	1	2	1	1	–
	PZ-65RF3-E	LGH-65RVX3-E	852	213	15	2	1	2	1	1	–
	PZ-80RF3-E	LGH-80RVX3-E	890	238	15	2	1	2	1	1	–
		LGH-160RVX3-E					2	4	2	2	–
	PZ-100RF3-E	LGH-100RVX3-E	1117	238	15	2	1	2	1	1	–
		LGH-200RVX3-E					2	4	2	2	–
Advanced high-efficiency filter (ePM1 75% filter) 	PZ-15RFP3-E	LGH-15RVX3-E	542	104.5	25	1	1	1	–	–	1
	PZ-25RFP3-E	LGH-25RVX3-E	322	128.5	25	2	1	2	–	–	2
	PZ-35RFP3-E	LGH-35RVX3-E	390	158.5	25	2	1	2	–	–	2
	PZ-50RFP3-E	LGH-50RVX3-E	461	158.5	25	2	1	2	–	–	2
	PZ-65RFP3-E	LGH-65RVX3-E	423	197.5	25	2	1	2	–	–	2
	PZ-80RFP3-E	LGH-80RVX3-E	442	215.5	25	2	1	2	–	–	2
		LGH-160RVX3-E					2	4	–	–	4
	PZ-100RFP3-E	LGH-100RVX3-E	554	215.5	25	2	1	2	–	–	2
		LGH-200RVX3-E					2	4	–	–	4
High-efficiency filter*2 (M6 filter) 	PZ-15RFM3-E	LGH-15RVX3-E	542	125	13	1	1	1	1	–	–
	PZ-25RFM3-E	LGH-25RVX3-E	322	151	13	2	1	2	2	–	–
	PZ-35RFM3-E	LGH-35RVX3-E	390	178	13	2	1	2	2	–	–
	PZ-50RFM3-E	LGH-50RVX3-E	461	178	13	2	1	2	2	–	–
	PZ-65RFM3-E	LGH-65RVX3-E	423	213	13	2	1	2	2	–	–
	PZ-80RFM3-E	LGH-80RVX3-E	442	238	13	2	1	2	2	–	–
		LGH-160RVX3-E					2	4	4	–	–
	PZ-100RFM3-E	LGH-100RVX3-E	554	238	13	2	1	2	2	–	–
		LGH-200RVX3-E					2	4	4	–	–
Advanced high-efficiency filter*2 (F8 filter) 	PZ-15RFH3-E	LGH-15RVX3-E	542	104.5	25	1	1	1	–	–	1
	PZ-25RFH3-E	LGH-25RVX3-E	322	128.5	25	2	1	2	–	–	2
	PZ-35RFH3-E	LGH-35RVX3-E	390	158.5	25	2	1	2	–	–	2
	PZ-50RFH3-E	LGH-50RVX3-E	461	158.5	25	2	1	2	–	–	2
	PZ-65RFH3-E	LGH-65RVX3-E	423	197.5	25	2	1	2	–	–	2
	PZ-80RFH3-E	LGH-80RVX3-E	442	215.5	25	2	1	2	–	–	2
		LGH-160RVX3-E					2	4	–	–	4
	PZ-100RFH3-E	LGH-100RVX3-E	554	215.5	25	2	1	2	–	–	2
		LGH-200RVX3-E					2	4	–	–	4

*2: Designed for the Spanish market to comply with RITE (Regulation of Thermal Installations of Buildings)

For LGH-RVXT3 SERIES

Filter										Package number for replacement	Installation location				
Image	Model	Applicable model	Dimension (mm)						Pieces per package		Numbers of filters				
			Short			Long						OA	RA	SA	
			L	W	H	L	W	H				Long	Long	Short	Long
Replacement filter (Coarse 60% filter)	PZ-250TRF-E	LGH-160RVXT3-E LGH-200RVXT3-E LGH-250RVXT3-E	-	-	-	995	285	15	Long : 4	1	4	2	2	-	-
Advanced high-efficiency filter (ePM1 75% filter)	PZ-250TPF-E		663	286	25	1327	286	25	Short : 1 Long : 1	1	2	-	-	1	1
High-efficiency filter (M6 filter)*3	PZ-250TMFR-E		-	-	-	1003	283	13	Long : 2	1	2	2	-	-	-
Advanced high-efficiency filter (F8 filter)*3	PZ-250THFR-E		663	286	25	1327	286	25	Short : 1 Long : 1	1	2	-	-	1	1

*3: Designed for the Spanish market to comply with RITE (Regulation of Thermal Installations of Buildings)

For LGH-RVS SERIES

Filter							Package number for replacement	Installation location			
Image	Model	Applicable model	Dimension (mm)			Pieces per package		Numbers of filters			
			L	W	H				OA	RA	SA
Replacement filter (Coarse 50% filter)	PZ-S50RF-E	LGH-50RVS-E	845	195	15	2	1	2	1	1	–
	PZ-S80RF-E	LGH-80RVS-E	885	195	15	2	1	2	1	1	–
	PZ-S100RF-E	LGH-100RVS-E	1112	195	15	2	1	2	1	1	–
High-efficiency filter (ePM10 80% filter)	PZ-S50RFM-E	LGH-50RVS-E	422	195	15	2	1	2	2	–	–
	PZ-S80RFM-E	LGH-80RVS-E	442	195	15	2	1	2	2	–	–
	PZ-S100RFM-E	LGH-100RVS-E	556	195	15	2	1	2	2	–	–
Advanced high-efficiency filter (ePM1 65% filter)	PZ-S50RFH-E	LGH-50RVS-E	412	203	25	2	1	2	2	–	–
	PZ-S80RFH-E	LGH-80RVS-E	432	203	25	2	1	2	2	–	–
	PZ-S100RFH-E	LGH-100RVS-E	546	203	25	2	1	2	2	–	–

For GUF SERIES

Filter							Package number for replacement	Installation location			
Image	Model	Applicable model	Dimension (mm)			Pieces per package		Numbers of filters			
			L	W	H				OA	RA	SA
Replacement filter (Coarse 35% filter)	PZ-50RF8-E	GUF-50RD4	470	183	15	4	1	4	2	2	-
	PZ-100RF8-E	GUF-100RD4	565	243	15	4	1	4	2	2	-
High-efficiency filter (ePM10 75% filter)	PZ-50RFM-E	GUF-50RD4	464	175	25	2	1	2	-	-	2
	PZ-100RFM-E	GUF-100RD4	559	236	25	2	1	2	-	-	2
Advanced high-efficiency filter (ePM1 75% filter)	PZ-50RFP2-E	GUF-50RD4	464	175	25	2	1	2	-	-	2
	PZ-100RFP2-E	GUF-100RD4	559	236	25	2	1	2	-	-	2

*Specifications may be subject to change without notice.

Residential Use LOSSNAY

VL-CZPVU SERIES

Vertical-type centralized ventilation with sensible heat exchange for residential use.

Key Features

Quiet Operation

Noise is one of the most common concerns for residential ventilation. Ultra quiet operation is achieved with the sirocco fan designed by Mitsubishi Electric. The balance between airflow and static pressure is optimized and the fan rotation is minimized, leading to low noise levels.

Air Purification

An optional filter removes NOx and PM2.5 and improves indoor air quality. They can be incorporated inside the unit without any filter box, which saves space.

*NOx: Nitrogen oxide, which includes nitric oxide (NO) and nitrogen dioxide (NO_2).
*PM2.5: Airborne particulates that are 2.5μm or smaller in size.

Wi-Fi Control

MELCloud is a Cloud-based solution for controlling LOSSNAY units either locally or remotely by computer, tablet or smartphone via the Internet. It allows LOSSNAY operations to be checked and controlled via MELCloud from virtually anywhere and Internet connection is available. With MELCloud, the LOSSNAY system can be used much more easily and conveniently.

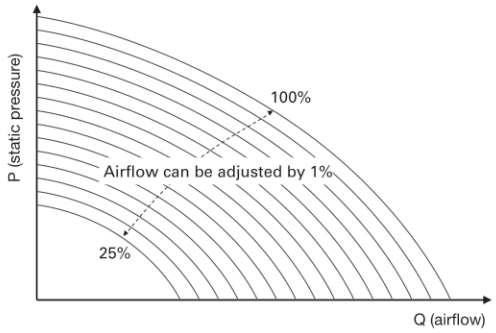
Energy Saving

Under regulation (EU) No. 1254/2014, the VL-CZPVU series has the highest energy-saving performance in its class (ErP A^+). It saves heating and cooling costs by minimizing the energy loss that occurs during ventilation.

ErP A^+ A^+

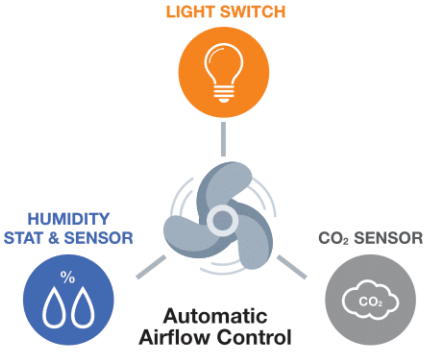
Variable Airflow Control

The default fan speed value (Fan speed 1: 30%, Fan speed 2: 50%, Fan speed 3: 70%, and Fan speed 4: 100%) of both supply air and exhaust air can be adjusted flexibly. Within the range between 25% and 100%, airflow can be adjusted by 1% increments to satisfactorily meet the designed airflow rate.



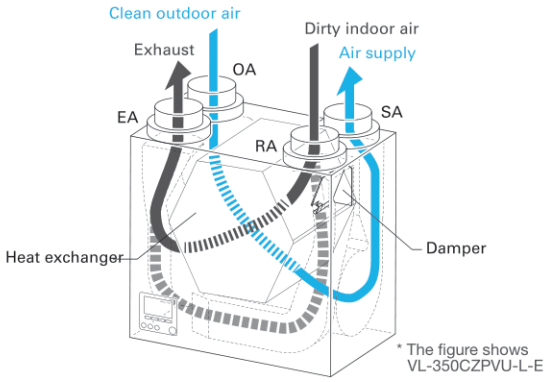
External Airflow Control

The airflow from the LOSSNAY unit can be altered using 0-10V signals from the controllers, such as the humidity stat and CO_2 sensor (field supply). The LOSSNAY unit is also connected to the light switch which can boost operation mode (input 220-240V). These devices are connected directly to the LOSSNAY unit, allowing automatic fan speed control according to bathroom occupation, CO_2 level, and humidity level.



Automatic Bypass Mode

It is possible to switch between "LOSSNAY ventilation (with heat exchange)" and "Bypass ventilation (without heat exchange)" either manually or automatically. When outside air is cooler than indoor air in summer, the unit directly draws in outside air, bypassing the heat exchanger.



Wide Operating Temperature

The VL-CZPVU series can operate at temperatures down to –15°C. With a pre-heater, it can operate at temperatures down to –25°C.

* In areas where outdoor air falls below –20°C, an electric shutter (locally supplied) is required in the OA duct in addition to the pre-heater.
* The OA temperature must be higher than –15°C to use the pre-heater.

MELCloud for LOSSNAY

MELCloud enables fast, easy remote control and monitoring of LOSSNAY units. Wireless computer connectivity and an Internet-connected mobile or fixed terminal are all that are needed. MELCloud can also be used to control room air conditioners and Ecodan heat pumps simultaneously.

Key control and monitoring features

1. Turn system on/off
2. Switching airflow & operating mode (Heat recovery / Bypass)
3. Confirming the status of the filter/core (Maintenance notification)

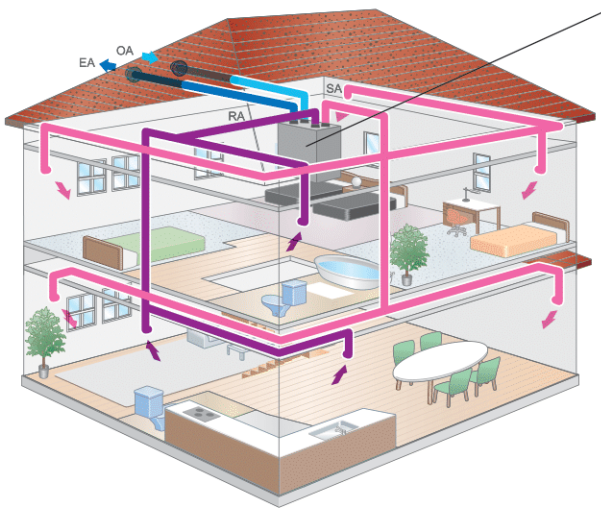
Isntallation Image

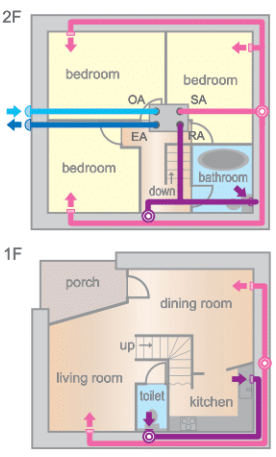
Centralized Ventilation

One LOSSNAY unit provides 24-hour ventilation for the entire house, from living room and bedrooms to the bathroom. The heat recovery system provides fresh air at a comfortable air temperature. A sensible heat exchanger effectively reduces excess humidity in the winter.

- ✓ Heat Exchanger
- ✓ Whole-house Solution
- ✓ Air Purification
- ✓ Quiet Operation
- ✓ MELCloud Control

VL-250/350/500CZPVU-R-E
VL-250/350/500CZPVU-L-E





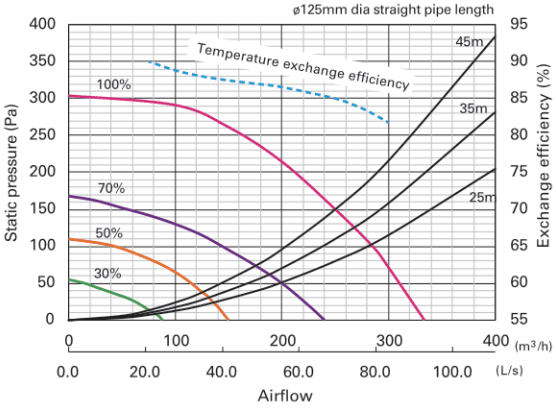
Specifications
VL-CZPVU SERIES

Model		VL-250CZPVU-R/L-E			
Electrical power supply		220-240V/50Hz, 220V-/60Hz			
Ventilation mode		Heat recovery mode			
Fan speed		FS4 (100%)	FS3 (70%)	FS2 (50%)	FS1 (30%)
Running current (A)		0.76	0.35	0.20	0.12
Input power (W)		106	44	23	11
Airflow	(m^3/h)	250	175	125	75
	(L/s)	69	49	35	21
External static pressure (Pa)		150	74	38	14
Temperature exchange efficiency (%)		85	87	88	90
Noise level (dB)		31	22	16	15>
Energy efficiency class		A+			
Weight (kg)		26			
Dimensions (mm)		(H) 565 x (W) 595 x (D) 356			

■ Attention

1. Above values are at factory default.
2. Running current, the input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz.
3. Sound pressure level at 3m is spherical.
4. Temperature exchange efficiency (%) is based on winter condition.
5. Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.
6. Specifications may be subject to change without notice.

Characteristic Curves

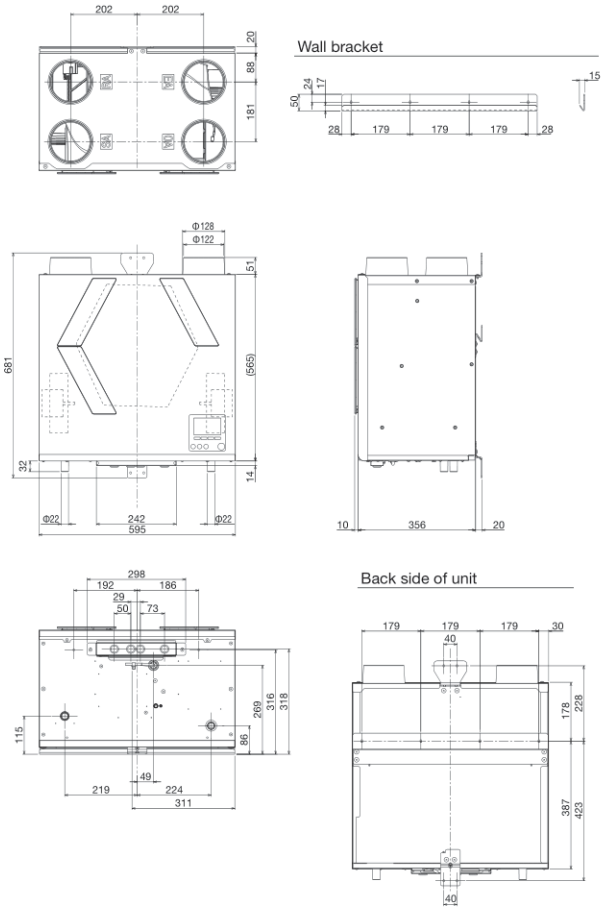


■ Attention

Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

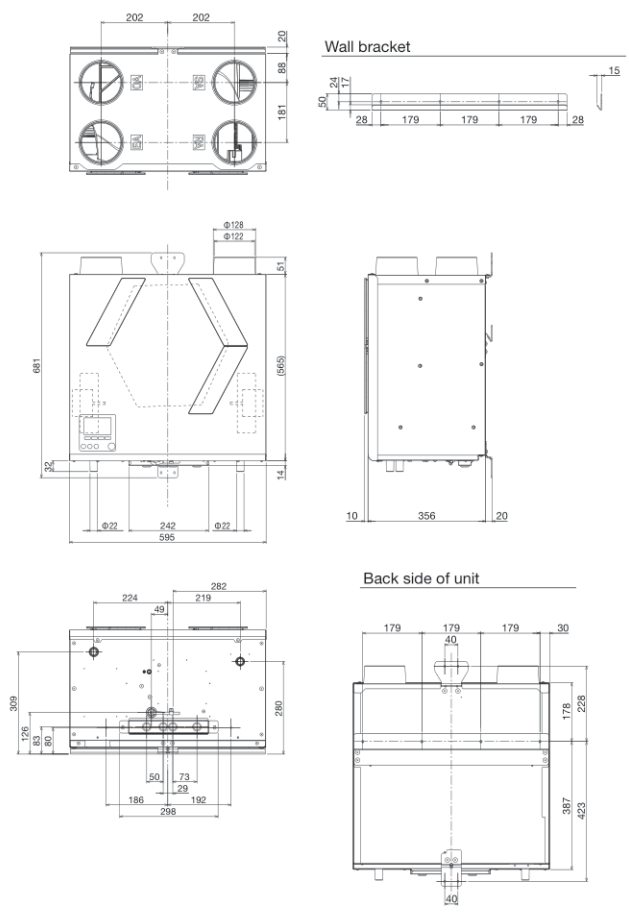
Dimensions

VL-250CZPVU-R-E



Unit: mm

VL-250CZPVU-L-E



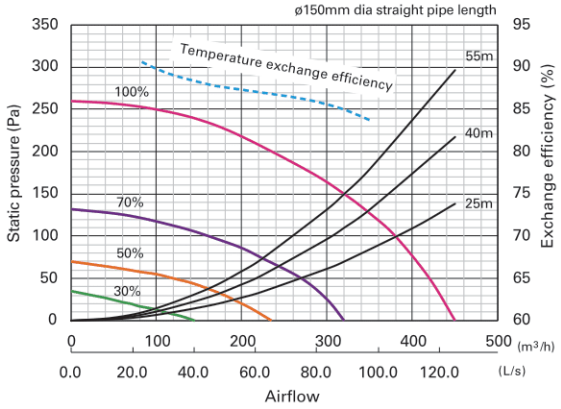
Unit: mm

Model		VL-350CZPVU-R/L-E			
Electrical power supply		220-240V/50Hz, 220V-/60Hz			
Ventilation mode		Heat recovery mode			
Fan speed		FS4 (100%)	FS3 (70%)	FS2 (50%)	FS1 (30%)
Running current (A)		1.08	0.52	0.31	0.18
Input power (W)		155	71	37	19
Airflow	(m^3/h)	320	224	160	96
	(L/s)	89	62	44	27
External static pressure (Pa)		150	74	38	14
Temperature exchange efficiency (%)		85	87	88	90
Noise level (dB)		35	26	19	15>
Energy efficiency class		A+			
Weight (kg)		32			
Dimensions (mm)		(H) 623 x (W) 658 x (D) 432			

■ Attention

1. Above values are at factory default.
2. Running current, the input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz.
3. Sound pressure level at 3m is spherical.
4. Temperature exchange efficiency (%) is based on winter condition.
5. Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.
6. Specifications may be subject to change without notice.

Characteristic Curves

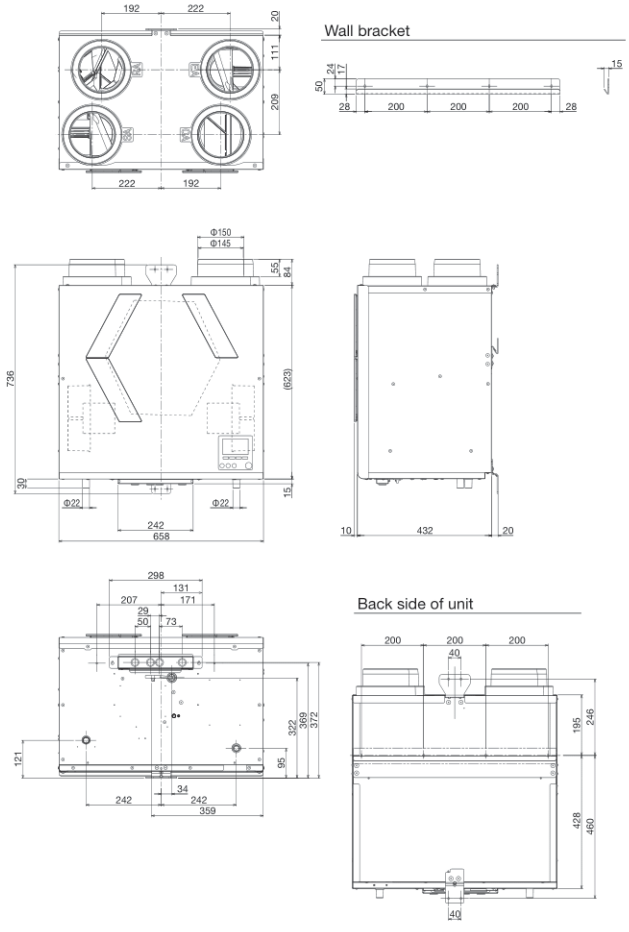


■ Attention

Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

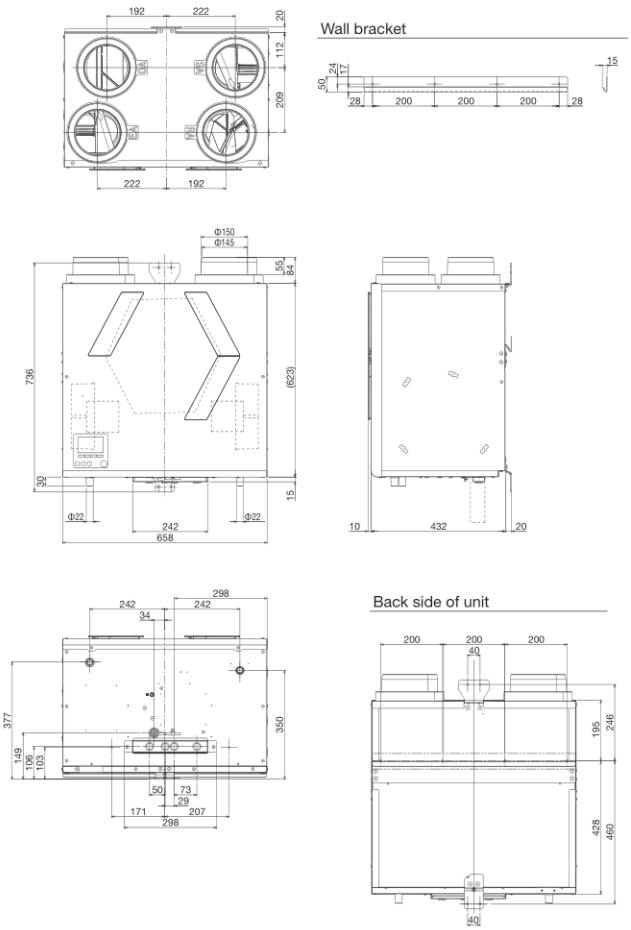
Dimensions

VL-350CZPVU-R-E



Unit: mm

VL-350CZPVU-L-E



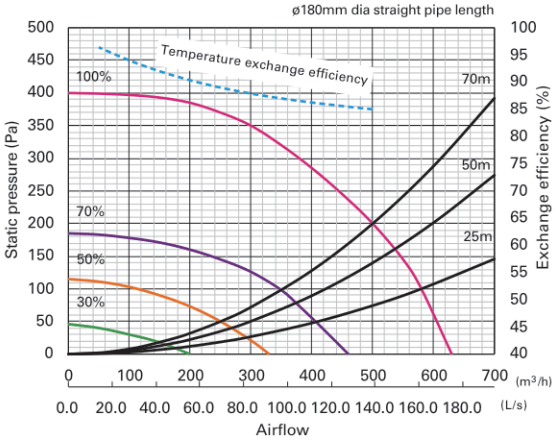
Unit: mm

Model		VL-500CZPVU-R/L-E			
Electrical power supply		220-240V/50Hz, 220V-/60Hz			
Ventilation mode		Heat recovery mode			
Fan speed		FS4 (100%)	FS3 (70%)	FS2 (50%)	FS1 (30%)
Running current (A)		1.73	0.77	0.40	0.19
Input power (W)		275	104	49	21
Airflow	(m^3/h)	500	350	250	150
	(L/s)	139	97	69	42
External static pressure (Pa)		200	98	50	18
Temperature exchange efficiency (%)		85	87	89	92
Noise level (dB)		37	29	22	15>
Energy efficiency class		A+			
Weight (kg)		39			
Dimensions (mm)		(H) 632 x (W) 725 x (D) 556			

■ Attention

1. Above values are at factory default.
2. Running current, the input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz.
3. Sound pressure level at 3m is spherical.
4. Temperature exchange efficiency (%) is based on winter condition.
5. Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.
6. Specifications may be subject to change without notice.

Characteristic Curves

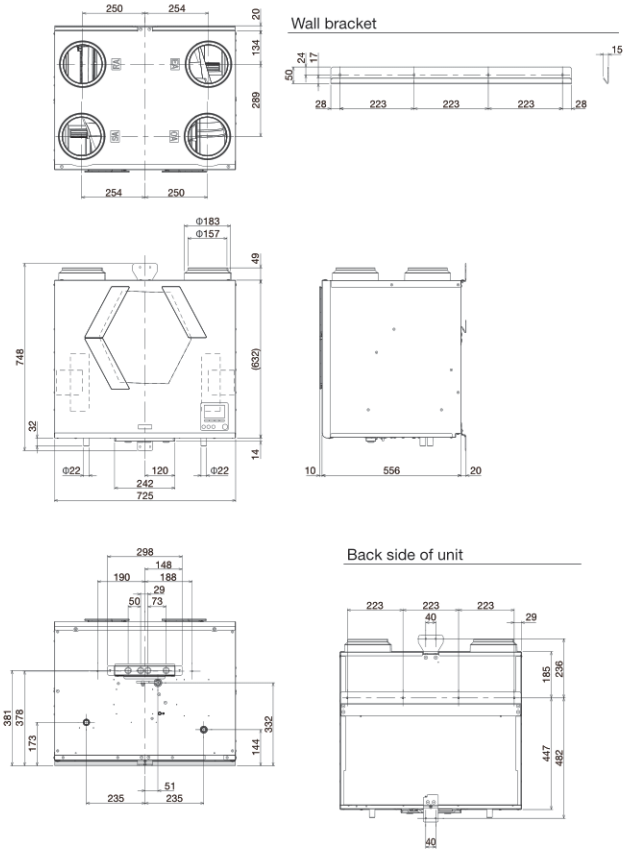


■ Attention

Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

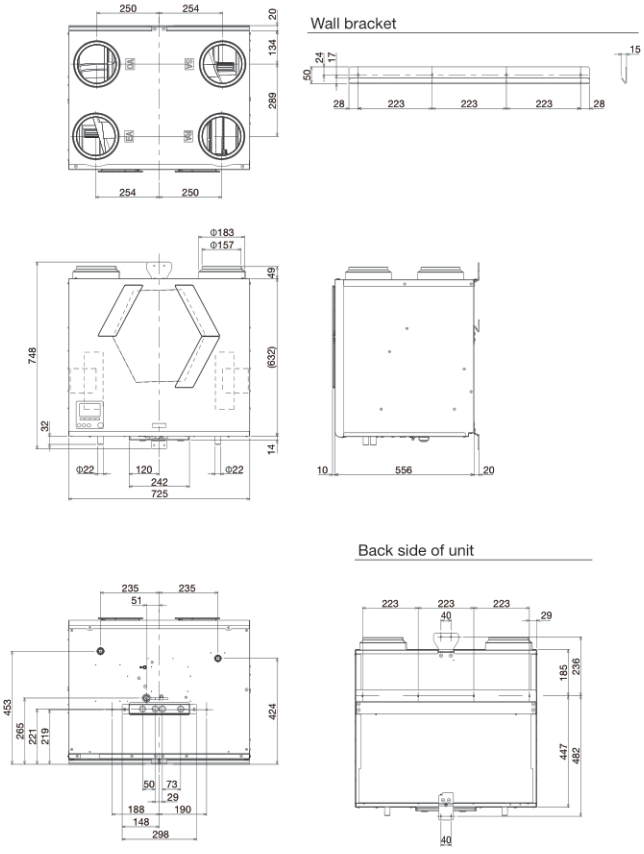
Dimensions

VL-500CZPVU-R-E



Unit: mm

VL-500CZPVU-L-E



Unit: mm

Silencer Box

Noise level can be further decreased by using a silencer box.

Installation Image

P-250SB-E

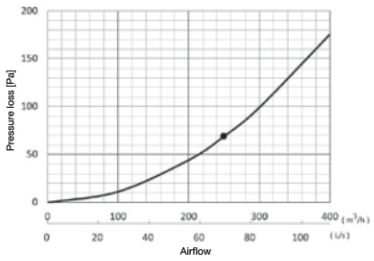
■ Attenuation of sound power level for center frequency

Airflow (m^3/h)	Static pressure (Pa)	Point	Attenuation of sound power level for center frequency Hz (dB)							
			63	125	250	500	1000	2000	4000	8000
175	74	Outlet (SA/EA)	9	7	11	19	29	28	21	13

1. Figures in the chart above are measured by Mitsubishi Electric.
2. The silencer box is placed just after the outlet of the LOSSNAY unit as specified in the Installation Manual.
3. When airflow differs, attenuation may also differ from the chart above.

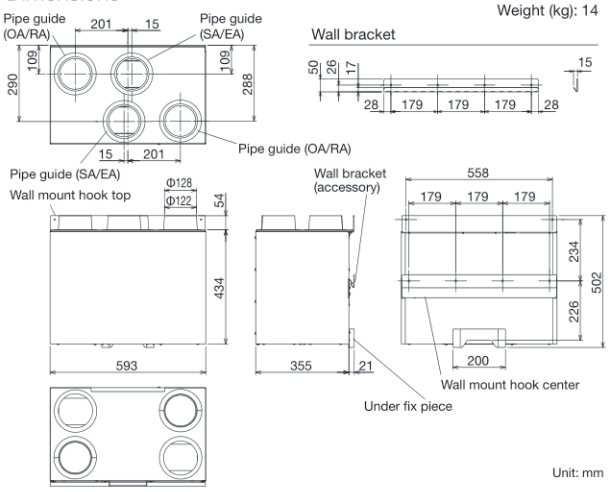
■ Pressure loss curve

The curve on the right shows the total pressure drop of the OA and SA or RA and EA ducts in the silencer box.



■ Dimensions

Weight (kg): 14



Unit: mm

P-350SB-E

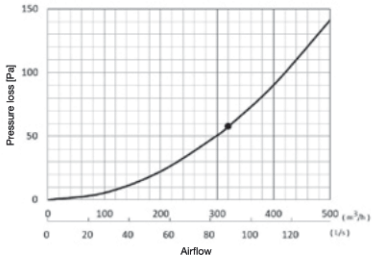
■ Attenuation of sound power level for center frequency

Airflow (m^3/h)	Static pressure (Pa)	Point	Attenuation of sound power level for center frequency Hz (dB)							
			63	125	250	500	1000	2000	4000	8000
224	74	Outlet (SA/EA)	12	8	11	21	32	29	19	12

1. Figures in the chart above are measured by Mitsubishi Electric.
2. The silencer box is placed just after the outlet of the LOSSNAY unit as specified in the Installation Manual.
3. When airflow differs, attenuation may also differ from the chart above.

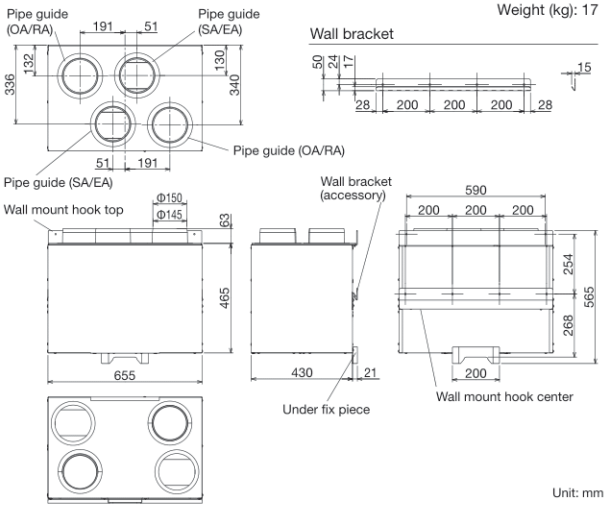
■ Pressure loss curve

The curve on the right shows the total pressure drop of the OA and SA or RA and EA ducts in the silencer box.



■ Dimensions

Weight (kg): 17



Unit: mm

P-500SB-E

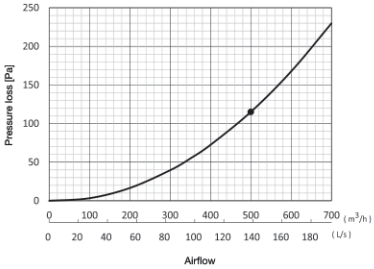
■ Attenuation of sound power level for center frequency

Airflow (m^3/h)	Static pressure (Pa)	Point	Attenuation of sound power level for center frequency Hz (dB)							
			63	125	250	500	1000	2000	4000	8000
350	98	Outlet (SA/EA)	10.5	9.5	13.0	21.0	27.0	29.0	26.0	14.0

1. Figures on the chart above are measured by Mitsubishi Electric.
2. The silencer box is placed on the just after the outlet of the LOSSNAY unit as specified in the Installation Manual.
3. When the airflow differs, the attenuation may be also different from the chart above.

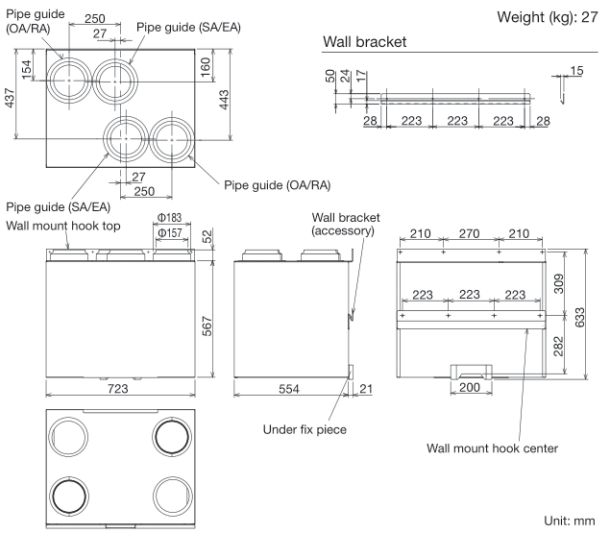
■ Pressure loss curve

The curve on the right shows the total pressure drop of the OA and SA or RA and EA ducts in the silencer box.



■ Dimensions

Weight (kg): 27

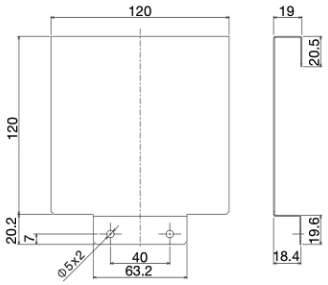


Unit: mm

Remote Controller Cover

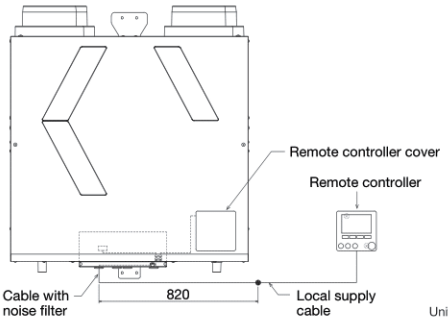
By attaching a Remote Controller Cover, the remote controller can be installed at a distance from the unit.

■ Dimensions



Unit: mm

■ Configuration

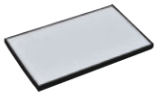
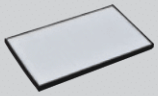
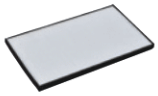
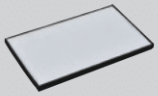


Unit: mm

Remote controller cover

Cable with noise filter
(Cable length outside the product: Approximately 820 mm)

Filters

Type		Replacement filter	Standard filter	Medium efficiency filter	Advanced efficiency filter	Advanced high efficiency filter	NOx Filter
							
Model		P-250F-E P-350F-E P-500F-E	P-250SF-E P-350SF-E P-500SF-E	P-250MF-E P-350MF-E P-500MF-E	P-250PF-E P-350PF-E P-500PF-E	P-250PFH-E P-350PFH-E P-500PFH-E	P-250NF-E P-350NF-E P-500NF-E
Classification	EN779 (2012)	G3	G4	M6	M6	ePM1 55%	NO_2 90%
	ISO 16890 (2016)	Coarse 55%	Coarse 90%	ePM_{10} 80%	$ePM_{2.5}$ 50%		

VL-50

Wall-mounted models particularly suited for houses and small offices.

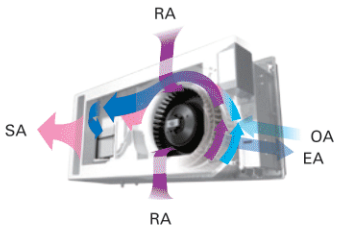
VL-50(E)S2-E
VL-50SR2-E

Decentralized Ventilation: VL-50(E)S2-E and VL-50SR2-E

Product advantages

Air is supplied and exhausted simultaneously

Air is supplied and exhausted simultaneously while transferring the heat.

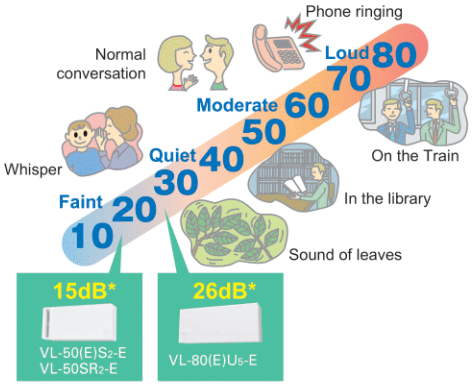


Energy efficient

- Total heat exchange minimizes heat loss.
- Achieve over 80%* temperature efficiency.

*VL-50(E)S2-E at low fan speed at 230V 50Hz

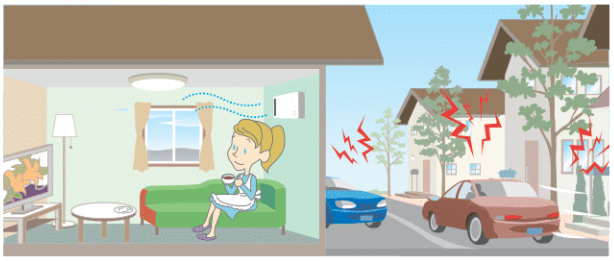
Low noise levels are ideal for bedrooms and children's rooms.



*Condition: 230V, 50Hz, low fan speed

Sound insulation

A sound insulation effect reduces the level of noise generated outside.

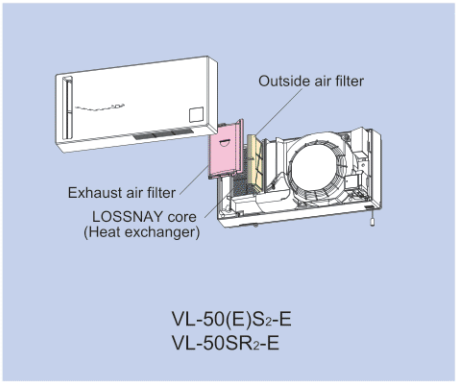


Sound insulation effect	Sound Source Side Average sound pressure dB	Sound Receiving Side Average sound pressure dB	Difference
	103.4	63.2	40.2

*Tested using VL-08S2-AE
*Measured by average sound pressure level of more than 30dB in 500Hz according to JIS A1416.
VL-08S2-AE is a Japanese dedicated model equivalent to VL-50(E)S2-E

Easy maintenance

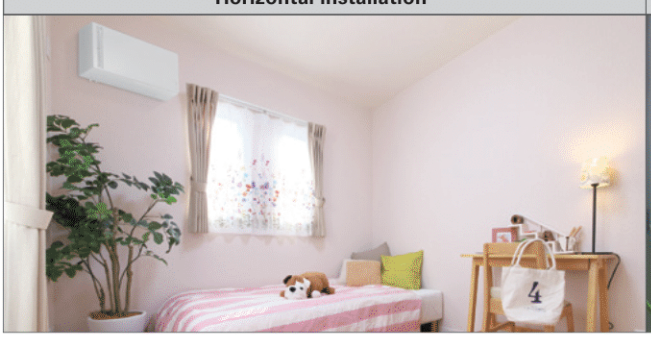
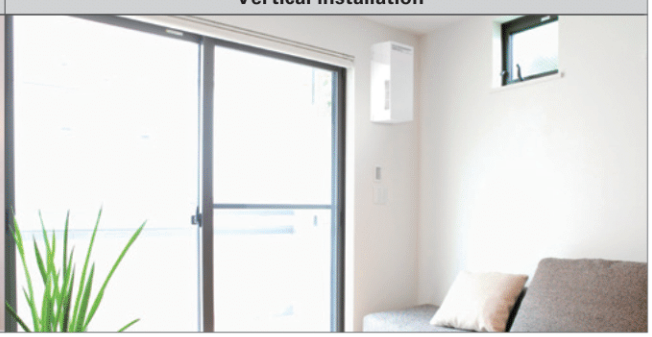
The only maintenance required is cleaning the outside air filter and exhaust air. Filters are easily accessible, making quick and thorough cleaning possible.



VL-50(E)S2-E
VL-50SR2-E

Flexible Installation for Only VL-50(E)S2-E and VL-50SR2-E

VL-50(E)S2-E and VL-50SR2-E may be installed either horizontally or vertically to fit in various types of rooms.

Horizontal installation	Vertical installation
	

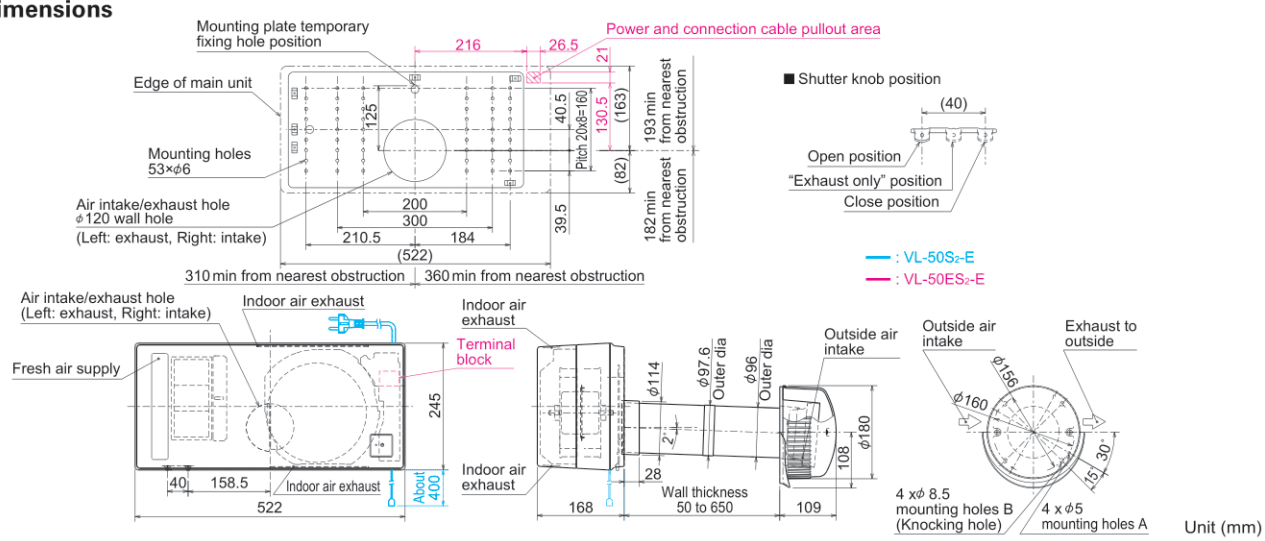
Specifications

VL-50(E)S$_2$-E (VL-50S$_2$-E/Pull-Switch Model, VL-50ES$_2$-E/Wall-Switch Model)

Model	VL-50(E)S$_2$-E							
Electrical power supply	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Fan speed	High	Low	High	Low	High	Low	High	Low
Airflow (m^3/h)	51	15	52.5	16	54	17	54	17
Power consumption (W)	19	4	20	4.5	21	5	21	5.5
Temperature exchange efficiency (%)	70	86	69	85	68	84	68	84
Noise level (dB)	36.5	14	37	15	37.5	15.5	37.5	15.5
Weight (kg)	6.2							
Specific energy consumption class	C							

*Figures in the chart were measured according to Japan Industrial Standard (JIS B 8628) with the shutter knob in open position.
*Specifications may be subject to change without notice.

Dimensions

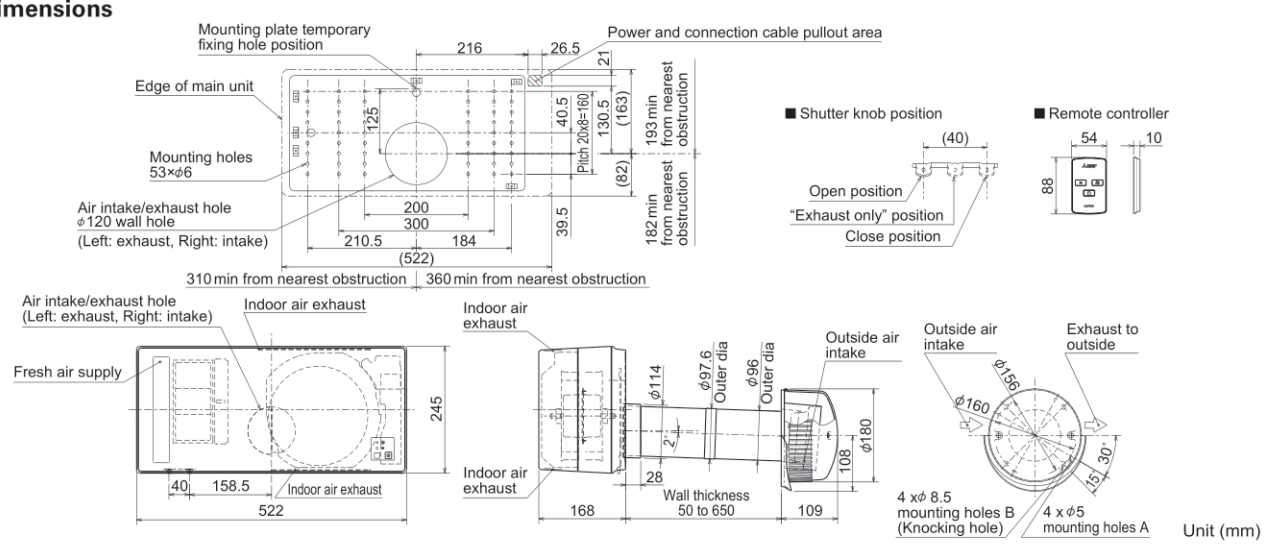


VL-50SR$_2$-E (Remote Controller Model)

Model	VL-50SR$_2$-E							
Electrical power supply	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Fan speed	High	Low	High	Low	High	Low	High	Low
Airflow (m^3/h)	51	15	52.5	16	54	17	54	17
Power consumption (W)	19	4.5	20	5	21	5.5	21	6
Temperature exchange efficiency (%)	70	86	69	85	68	84	68	84
Noise level (dB)	36.5	14	37	15	37.5	15.5	37.5	15.5
Weight (kg)	6.2							
Specific energy consumption class	C							

*Figures in the chart were measured according to Japan Industrial Standard (JIS B 8628) with the shutter knob in open position.
*Specifications may be subject to change without notice.

Dimensions



Optional Parts

Optional Parts for VL-50(E)S$_2$-E and VL-50SR$_2$-E

Filter, Extension Pipe and Stainless Hood

Type	Replacement Filter	High Efficiency Filter	Extension Pipe	Joint	Stainless Hood
Design					
Model	**P-50F$_2$-E**	**P-50HF$_2$-E**	**P-50P-E**	**P-50PJ-E**	**P-50VSQ$_5$-E**
Feature	–	–	Total length when connected to the joint is 350mm.	Joint for extension pipe	Stylish stainless hood
Classification (EN779:2012)	G3	–	–	–	–
Classification (ISO16890)	Coarse 35%	ePM10 75%	–	–	–

Compatible table

Commercial

Optional Parts List

Optional parts		Model		LGH-15RVX3-E	LGH-25RVX3-E	LGH-35RVX3-E	LGH-50RVX3-E	LGH-65RVX3-E	LGH-80RVX3-E	LGH-100RVX3-E	LGH-160RVX3-E	LGH-200RVX3-E	LGH-160RVXT3-E	LGH-200RVXT3-E	LGH-250RVXT3-E	LGH-50RVS-E	LGH-80RVS-E	LGH-100RVS-E	GUF-50RD4	GUF-100RD4
LOSSNAY remote controller		PZ-62DR-EA/EB		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		PZ-43SMF-E		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Filter	Replacement filter	PZ-**RF3-E (Coarse 60% filter)	PZ-15RF3-E	●																
			PZ-25RF3-E		●															
			PZ-35RF3-E			●														
			PZ-50RF3-E				●													
			PZ-65RF3-E					●												
			PZ-80RF3-E						●		●									
			PZ-100RF3-E							●		●								
		PZ-250TRF-E (Coarse 60% filter)	PZ-250TRF-E										●	●	●					
		PZ-S**RF-E (Coarse 50% filter)	PZ-S50RF-E													●				
			PZ-S80RF-E														●			
			PZ-S100RF-E															●		
		PZ-**RF8-E (Coarse 35% filter)	PZ-50RF8-E																●	
			PZ-100RF8-E																	●
	High-efficiency filter	PZ-**RFM3-E*1 (M6 filter)	PZ-15RFM3-E	●																
			PZ-25RFM3-E		●															
			PZ-35RFM3-E			●														
			PZ-50RFM3-E				●													
			PZ-65RFM3-E					●												
			PZ-80RFM3-E						●		●									
			PZ-100RFM3-E							●		●								
		PZ-250TMFR-E (M6 filter)	PZ-250TMFR-E										●	●	●					
		PZ-S**RFM-E (ePM10 80% filter)	PZ-S50RFM-E													●				
			PZ-S80RFM-E														●			
			PZ-S100RFM-E															●		
		PZ-**RFM-E (ePM10 75% filter)	PZ-50RFM-E																●	
			PZ-100RFM-E																	●
	Advanced high-efficiency filter	PZ-**RFP3-E (ePM1 75% filter)	PZ-15RFP3-E	●																
			PZ-25RFP3-E		●															
			PZ-35RFP3-E			●														
			PZ-50RFP3-E				●													
			PZ-65RFP3-E					●												
			PZ-80RFP3-E						●		●									
			PZ-100RFP3-E							●		●								
		PZ-**RFH3-E*1 (F8 filter)	PZ-15RFH3-E	●																
			PZ-25RFH3-E		●															
			PZ-35RFH3-E			●														
			PZ-50RFH3-E				●													
			PZ-65RFH3-E					●												
			PZ-80RFH3-E						●		●									
			PZ-100RFH3-E							●		●								
		PZ-250TPF-E (ePM1 75% filter)	PZ-250TPF-E										●	●	●					
		PZ-250THFR-E*1 (F8 filter)	PZ-250THFR-E										●	●	●					
		PZ-S**RFH-E (ePM1 65% filter)	PZ-S50RFH-E													●				
			PZ-S80RFH-E														●			
			PZ-S100RFH-E															●		
		PZ-**RFP2-E (ePM1 75% filter)	PZ-50RFP2-E																●	
			PZ-100RFP2-E																	●
CO_2 sensor		PZ-70CSD-E		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		PZ-70CSW-E		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Vertical installation plates		PZ-1VS-E		●	●	●	●													
		PZ-2VS-E						●	●	●										
Signal output terminal		PZ-4GS-E		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Duct silencer		PZ-100SS-E		●																
		PZ-150SS-E			●	●														
		PZ-200SS-E					●	●								●			●	
		PZ-250SS-E							●	●	●	●					●	●		●

*1: Designed for the Spanish market to comply with RITE (Regulation of Thermal Installations of Buildings)

Note: Please refer to each product page for required number of pieces/sets.

Residential

Optional Parts for VL-CZPVU Series

Optional parts		Model		VL-250CZPVU-R/L-E	VL-350CZPVU-R/L-E	VL-500CZPVU-R/L-E
Filter	Replacement filter (Coarse 55% filter)	P-**F-E	P-250F-E	●		
			P-350F-E		●	
			P-500F-E			●
	Standard filter (Coarse 90% filter)	P-**SF-E	P-250SF-E	●		
			P-350SF-E		●	
			P-500SF-E			●
	Medium-efficiency filter (ePM10 80% filter)	P-**MF-E	P-250MF-E	●		
			P-350MF-E		●	
			P-500MF-E			●
	PM2.5 filter (ePM2.5 50% filter)	P-**PF-E	P-250PF-E	●		
			P-350PF-E		●	
			P-500PF-E			●
	PM1 filter (ePM1 55% filter)	P-**PFH-E	P-250PFH-E	●		
			P-350PFH-E		●	
			P-500PFH-E			●
	NOx filter	P-**NF-E	P-250NF-E	●		
			P-350NF-E		●	
			P-500NF-E			●
Silencer box		P-**SB-E	P-250SB-E	●		
			P-350SB-E		●	
			P-500SB-E			●
RC cover (remote controller cover)		P-RCC-E		●	●	●

*These optional parts are only compatible with models that have a serial number of 25010001 or later.

Optional Parts for VL-50

Optional parts		Model	VL-50S$_2$-E	VL-50ES$_2$-E	VL-50RS$_2$-E
Filter	Replacement filter	P-50F2-E (G3 Filter)	●	●	●
	High efficiency rilter	P-50HF2-E (ePM10 75% Filter)	●	●	●
Extension pipe		P-50P-E	●	●	●
Pipe extension joint		P-50PJ-E	●	●	●
Stainless hood		P-50VSQ5-E	●	●	●