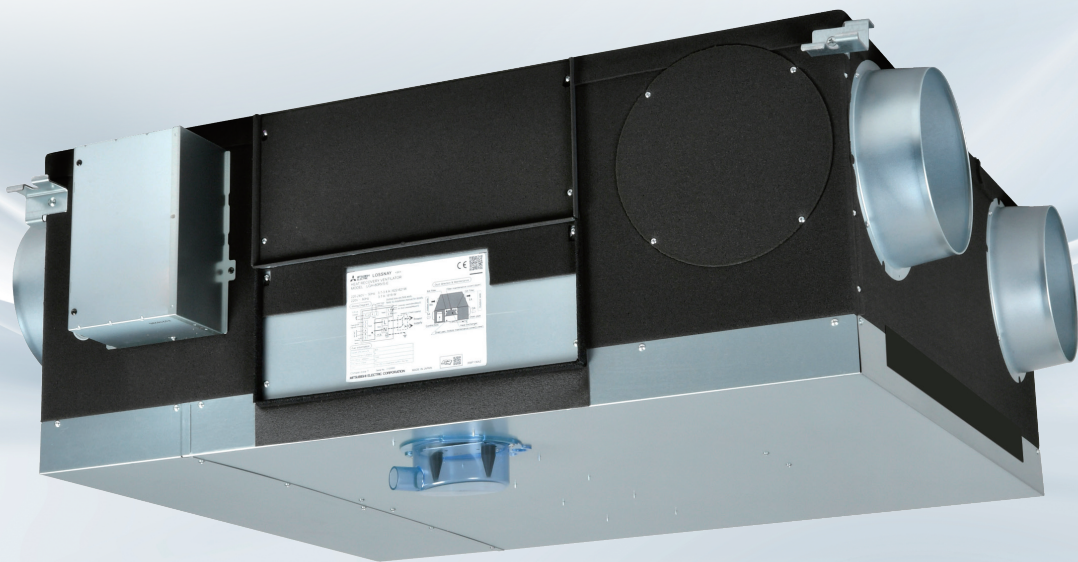




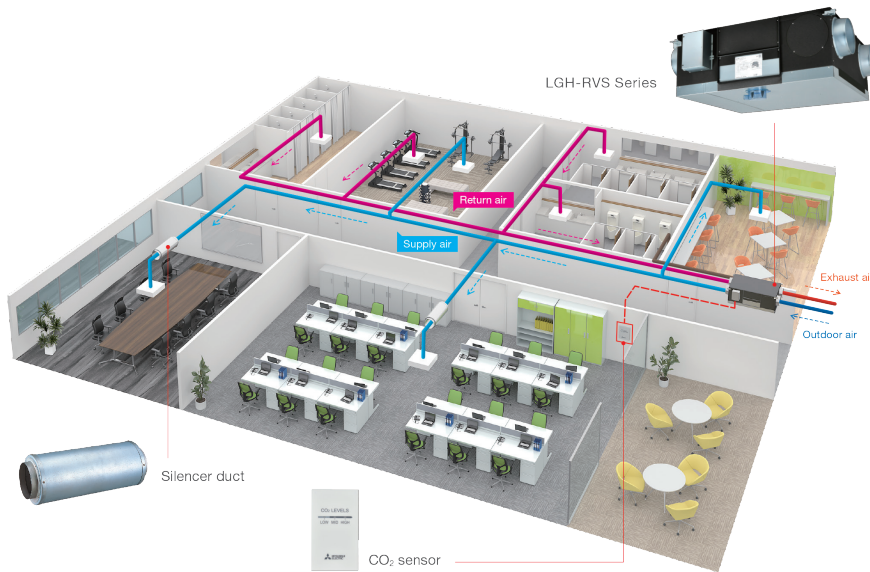
# Sensible Core Lossnay

LGH-RVS Series



# LGH-RVS Series

## System Solution for All Area Ventilation



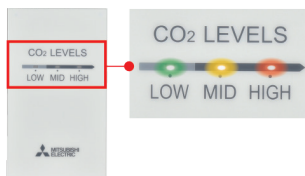
The Sensible Core Lossnay, LGH-RVS Series is designed to simultaneously extract stale air from a building and supply filtered outside air. While doing so it recovers heat energy for increased building efficiency. The unit comes with a plastic heat exchanger rather than paper which makes it suitable for humid locations like bathrooms and wet areas. A diverse range of ventilation applications is possible now with Sensible Core Lossnay!

### CO<sub>2</sub> Sensor

A CO<sub>2</sub> sensor connected directly to a Lossnay RVS unit assists in optimising the fan speed according to the level of CO<sub>2</sub> detected. It improves total heat exchange efficiency and contributes to energy saving.

#### PZ-70CSW-E (Wall Mounted Type)

CO<sub>2</sub> levels are indicated by LED lights.



#### PZ-70CSB-E (Built-In Type)



**Automatic Operation with CO<sub>2</sub> Sensor and PZ-62DR-E**  
Fan speed automatically changes depending on CO<sub>2</sub> concentration.

# Key Features

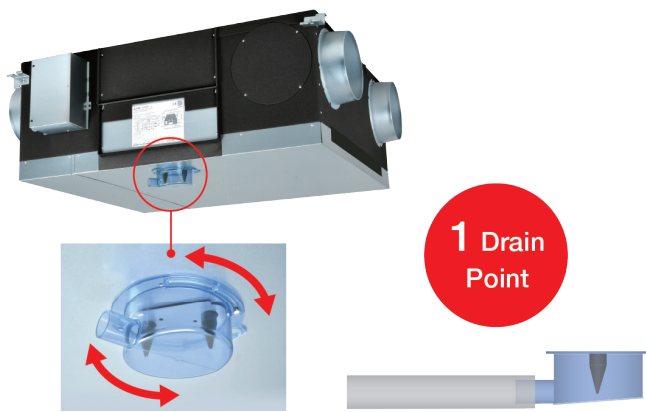
## Easy Installation

### Light Chassis

Being light in weight is one of the most important factors for installation. The light chassis of the LGH-RVS Series can prove advantageous to installers for both time and cost of installation.

### Easy Drain Piping

- Only one drain point for both supply and return air
- 360° drain pipe connection
- Trap piping not required as the unit is equipped with back-flow stopping mechanism



## Low Noise Operation and Energy Efficiency

The LGH-RVS Series operates with low noise thanks to a specialised sirocco fan produced by Mitsubishi Electric. The fan balances airflow and static pressure to minimise the noise level. The series also incorporates high-efficiency motors to reduce energy consumption. Thus high-efficiency with low noise are achieved with the LGH-RVS Series.



## Various Optional Parts

The LGH-RVS Series can connect with various optional parts. A CO<sub>2</sub> sensor is one of the solutions for optimised air volume control. The unit operates while optimising air volume in accordance with the level of CO<sub>2</sub> condensation in the room. Optimised ventilation can reduce the energy consumption of the air conditioner. A high-efficiency filter can be optionally installed in the unit as an easy solution for even better indoor air quality.

### CO<sub>2</sub> Sensor



PZ-70CWS-E

PZ-70CSB-E

### Filter



PZ-S50RF-E  
PZ-S80RF-E  
PZ-S100RF-E

PZ-S50RFM-E  
PZ-S80RFM-E  
PZ-S100RFM-E

PZ-S50RFH-E  
PZ-S80RFH-E  
PZ-S100RFH-E

### Silencer Duct

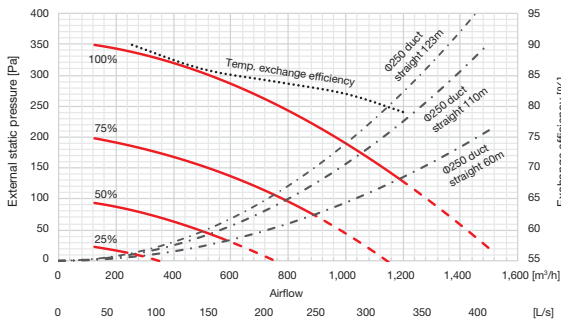


PZ-200SS-E  
PZ-250SS-E

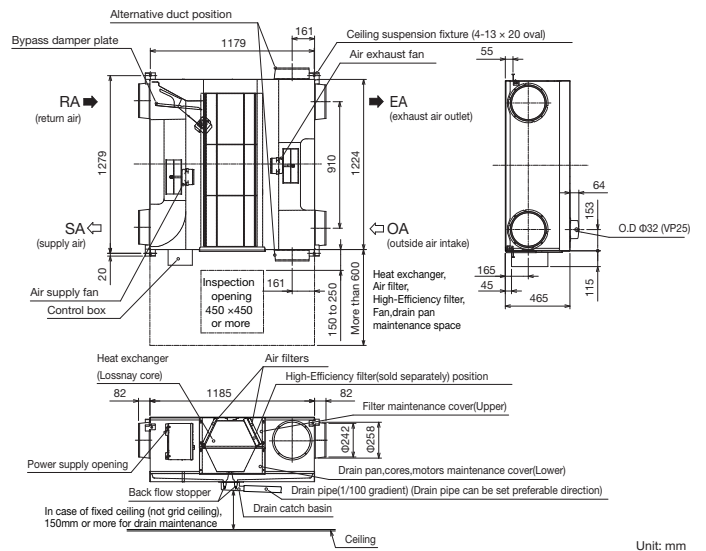
# Product Specifications

LGH-100RVS-E							
Weight		73kg (89kg with maximum drain water)					
Electrical Power Supply		220 - 240V/50Hz, 220V/60Hz					
Fan Speed		100%	75%	50%	25%	Test condition  ISO 16494 Temperature exchange efficiency is winter condition	
Input Power		445	225	100	35		
Airflow		m <sup>3</sup> /h	1000	750	500		250
		L/S	278	208	139		69
Specific Fan Power		W/(L/S)	1.60	1.08	0.72		0.50
External Static Pressure		Pa	190	107	48		12
Temperature Exchange Efficiency		%	82.0	84.0	86.0	90.0	
Noise		dB	37.0	32.0	24.0	18.0	A-weighted sound pressure level @1.5m off from the center of the unit in an anechoic chamber Tracer gas method @100% airflow (prEN308)
Exhaust Air Transfer Ratio		%	5				
Insulation Resistance		10MΩ or more					
Dielectric Strength		AC 1000V 1 minute					
Maximum Current		A	4.20				
Inrush Current		A	6.1A @10ms, 3.6A @100ms				

## Characteristic Curves



## Dimensions



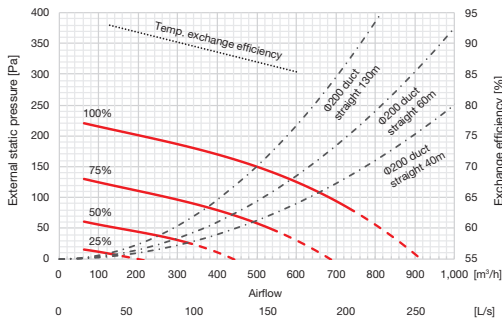
Unit: mm



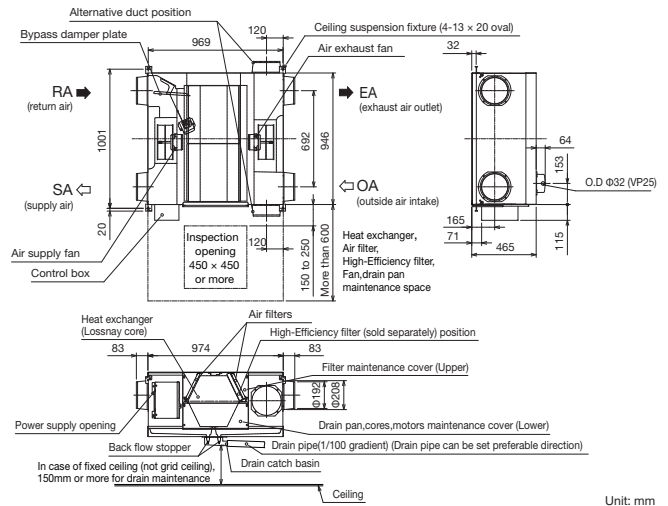
# Product Specifications

LGH-50RVS-E						
Weight		55kg (67kg with maximum drain water)				
Electrical Power Supply		220 - 240V/50Hz, 220V/60Hz				
Fan Speed		100%	75%	50%	25%	Test condition  ISO 16494 Temperature exchange efficiency is winter condition
Input Power	W	190	110	60	25	
	m <sup>3</sup> /h	500	375	250	125	
Airflow	L/S	139	104	69	35	
	W/(L/S)	1.37	1.06	0.86	0.72	
External Static Pressure	Pa	150	84	38	9	
Temperature Exchange Efficiency	%	87.0	89.0	91.0	93.0	
Noise	dB	32.0	27.0	22.0	18.0	A-weighted sound pressure level @1.5m off from the center of the unit in an anechoic chamber
Exhaust Air Transfer Ratio	%	5			Tracer gas method @100% airflow (prEN308)	
Insulation Resistance	10MΩ or more					
Dielectric Strength	AC 1000V 1 minute					
Maximum Current	A	2.20				
Inrush Current	A	6.1A @10ms, 3.6A @100ms				

## Characteristic Curves



## Dimensions



Unit: mm

# Controllers

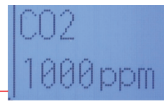
Function	PZ-62DR-E	PZ-43SMF-E
Fan Speed Selection	4 fan speeds and auto (Auto is available when using a CO <sub>2</sub> sensor)	2 of 4 fan speeds
Control with a CO <sub>2</sub> Sensor	Yes (Fan speed automatically changes from 25% to 100% depending on the CO <sub>2</sub> concentration)	No
Ventilation Mode Selection	Energy recovery/bypass/auto	Energy recovery/bypass/auto
Night-Purge	Yes	No
Function Setting from Remote Control	Yes	No
Bypass Temperature Free Setting	Yes	No
Multi-Stage Airflow Control	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	No (English only)
CO <sub>2</sub> Concentration Indication	Yes (Available when using a CO <sub>2</sub> sensor)	No
Filter Cleaning Sign	Yes (Maintenance interval can be changed)	Yes
Error Indication	Yes (Displays model name, serial number, contact information if they are input)	Yes
Error History	Yes	No
OA/RA/SA Temperature Display	Yes	No

## Notes:

\*When using a CO<sub>2</sub> sensor. Upper and lower limits may be changed.



PZ-62DR-E



CO<sub>2</sub> indication

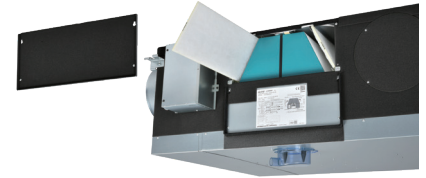


PZ-43SMF-E

# Accessories

## Filters

A lineup of three types of filters offers excellent indoor air quality solutions! All filters are ISO and EN779:2012 certified and can be easily installed in the units. Maintenance and exchanges can also be performed easily, simply by opening the maintenance panel.



Standard Filter						
Filter					Lossnay	
Model	Filter Material	Classification		Included Piece/Set	Applicable Model	Required Set/Unit
		ISO 16890 (2016)	EN779 (2012)			
PZ-S50RF-E	Non-woven fabrics	Coarse 50%	G3	2	LGH-50RVS-E	1
PZ-S80RF-E					LGH-80RVS-E	
PZ-S100RF-E					LGH-100RVS-E	



Medium-Efficiency Filter						
Filter					Lossnay	
Model	Filter Material	Classification		Included Piece/Set	Applicable Model	Required Set/Unit
		ISO 16890 (2016)	EN779 (2012)			
PZ-S50RFM-E	Pleated filter	ePM <sub>10</sub> 80%	M6	2	LGH-50RVS-E	1
PZ-S80RFM-E					LGH-80RVS-E	
PZ-S100RFM-E					LGH-100RVS-E	



High-Efficiency Filter						
Filter					Lossnay	
Model	Filter Material	Classification		Included Piece/Set	Applicable Model	Required Set/Unit
		ISO 16890 (2016)	EN779 (2012)			
PZ-S50RFH-E	Pleated filter	ePM <sub>10</sub> 90%	F8	2	LGH-50RVS-E	1
PZ-S80RFH-E		ePM <sub>2.5</sub> 75%			LGH-80RVS-E	
PZ-S100RFH-E		ePM <sub>1</sub> 65%			LGH-100RVS-E	



## Silencer Ducts

In facilities and applications requiring quiet operations, the silencer duct that reduces noise levels is an ideal solution. It contains glass wool and attenuates sound power by absorbing the noise from the airflow or operation of the unit.

Silencer Ducts										
Model	Direction	Airflow	Attenuation of Sound Power Level [dB] for Center Frequency							
			62.5Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
PZ-200SS-E	Discharge	500 m³/h	0	1	4	7	13	18	16	9
		650 m³/h			3	8	12	17	14	6
	Suction	500 m³/h		4	11	11	8			
		650 m³/h		0	3	7	10	11	12	5
PZ-250SS-E	Discharge	800 m³/h	0	2	4	12	22	21	14	13
		1000 m³/h		1				20		
	Suction	800 m³/h		3	5		18	14	11	4
		1000 m³/h		2	4		17	16	13	8



### Notes:

- Figures on the chart above are based on the comparison with a general steel duct of the same length.
- The silencer is placed on just before the outlet during the measurement.
- When the airflow rate differs, the insertion loss is also different from the chart above.
- Figures on the chart above are flat (no-weighted) values.



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