

# Lossnay LGH-RVX3-E

## FRESH AIR ENERGY RECOVERY SYSTEM



### LGH-15RVX3-E

10-42 L/s of air

### LGH-25RVX3-E

17-69 L/s of air

### LGH-35RVX3-E

24-97 L/s of air

### LGH-50RVX3-E

35-139 L/s of air

### LGH-65RVX3-E

45-181 L/s of air

### LGH-80RVX3-E

56-222 L/s of air

### LGH-100RVX3-E

69-278 L/s of air

The Lossnay LGH-RVX3-E Mechanical Ventilation Fresh Air Heat Recovery (MVHR) systems are designed to supply clean, fresh air into any commercial building, whilst simultaneously extracting stale air, ensuring good indoor air quality for occupant wellbeing. These units are also able to recover valuable heat and latent energy from inside the building, maximising energy efficiency and reducing running costs.

## Key Features



### Maximise Heating and Cooling Efficiencies

Through its unique energy recovery core, the Lossnay LGH-RVX3-E range can recover up to 88%\*1 of the thermal exchange efficiency from stale outgoing air, and transfer this to pre-warm (or pre-cool) incoming fresh, filtered air being supplied into commercial buildings. For example, in winter a building that has an inside temperature of 20°C and 4°C air outside, the incoming fresh air can be warmed to over 18°C by transferring through a Lossnay Ventilation System and benefiting from the efficient energy transfer process. The building's air conditioning systems no longer have to work as hard to maintain desired indoor air temperatures.

\*1 LGH-25RVX3-E on lowest fan speed for winter conditions



### Optimise Indoor Air Quality

Lossnay LGH-RVX3-E models are equipped with a treated paper core to recover total energy (sensible and latent heat) from the outgoing stale air to pre-warm (or pre-cool) incoming fresh air. This total energy recovery allows buildings to maximise efficiencies whilst maintaining healthy CO<sub>2</sub> and humidity levels for better indoor air quality.



### Improved Airflow Range

The LGH-RVX3-E range offers upgraded variable air control for finer, more effective ventilation. Default fan speed values of both supply air and exhaust air can be adjusted in 5% increments (between 25% and 100%) in order to match required airflow rates with greater precision.



### LGH-160RVX3-E

111-444 L/s of air

### LGH-200RVX3-E

139-556 L/s of air



### Low Noise Design

Offering whisper quiet operation across all fan speeds (starting from 17dBA\*<sup>2</sup>), the LGH-RVX3-E range is the ideal solution for meeting stringent sound level requirements.

\*<sup>2</sup> LGH-15/25/35/50RVX3-E on lowest fan speed.



### Improved External Static Pressure

External static pressure has been improved by up to 35Pa / 41%\*<sup>3</sup> compared to previous models, increasing both the flexibility of duct work design as well as the number of applications that can be catered for.

\*<sup>3</sup> LGH-25RVX3-E model on highest fan speed.



### Dual Barrier Coating

The patented and world's first Dual Barrier Coating from Mitsubishi Electric prevents dust and dirt from accumulating on the interior of the Lossnay unit; helping to keep it clean for optimal performance all year-round.

Keeping the heat exchanger clean is important for both home comfort and efficiency. Not only can dust and dirt build-up typically create unpleasant odours, it also significantly impairs heat exchanger efficiency.

Dual Barrier Coating prevents dust and dirt build-up occurring, ensuring peace of mind and increased efficiency.



### Vertical Installation

Using optional parts, the Lossnay RVX3 range can be installed vertically\*<sup>4</sup>, expanding the number of installation possibilities.

\*<sup>4</sup> LGH-RVX3160/200 are unable to be installed vertically



### Weekly Timer

Optimise airflow for each application with the new PZ-62DR-E\*<sup>5</sup> remote controller. The operation pattern for each day of the week, ON / OFF functionality, and air volume can be set using the weekly timer function (up to eight separate Start/ Stop patterns per day over a 7 day period). Compared to previous models, much finer control contributes to enhanced energy saving operation. With a wider range of air flow control, the Lossnay LGH-RVX3-e range enables optimised ventilation not just at different times of the day, but for different days of the week, enabling further energy savings.

\*<sup>5</sup> PZ-62DR-E purchased separately.



### Optimised Control with Optional CO<sub>2</sub> Sensor

Through the addition of optional Mitsubishi Electric CO<sub>2</sub> sensors, CO<sub>2</sub> levels can be detected, and airflow intuitively adjusted to ensure optimum air quality, no matter how many people are within the space. The system will continuously adjust the volume of fresh air changes until optimum CO<sub>2</sub> levels are reached, with the system then reverting back to the original fan speed.



## Make Heat Recovery Ventilation Visible – with Optional Lossnay Wi-Fi Control



Elevating air quality and maximising energy efficiencies within your commercial building has never been easier, because now the power is in your hands.

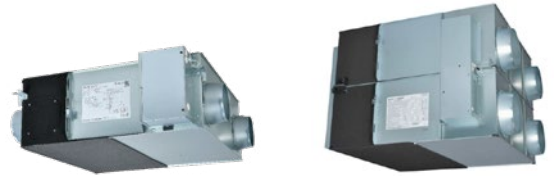
Lossnay Wi-Fi Control allows you to see by how many degrees Lossnay is pre-warming or cooling your space in real time, helping you save on your power bill because less additional heating is required to get a room up to temperature. And in summer, monitor by how many degrees Lossnay reduces the average temperature in your space, using Automatic Free Cooling\*<sup>6</sup> Mode.

The app will also proactively remind you when it is time to clean your filters to maximise both cost efficient operation and health benefits. Lossnay Wi-Fi Control truly is the smart evolution in fresh air ventilation. And with the option of an additional CO<sub>2</sub> sensor, when connected with the optional Wi-Fi Control Interface, CO<sub>2</sub> levels can be viewed in real-time making it ideal for schools, medical facilities and offices.



\*<sup>6</sup> In comparison to using a dedicated cooling device. The unit will continue to use a small amount of power to bring colder fresh air from outside.

# Specifications



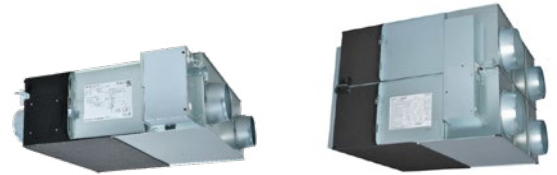
MODEL			LGH-15RVX3-E	LGH-25RVX3-E	LGH-35RVX3-E	LGH-50RVX3-E	LGH-65RVX3-E	LGH-80RVX3-E	LGH-100RVX3-E	LGH-160RVX3-E	LGH-200RVX3-E	
25% (Default speed 1)	Air Volume	m³/h	38	63	88	125	163	200	250	400	500	
		l/s	10	17	24	35	45	56	69	111	139	
	External Static Pressure	Pa	8	8	10	10	10	11	12	11	11	
	Temperature Exchange Efficiency	Heating %		81.5	88.0	82.0	75.0	82.0	80.0	83.5	80.0	83.5
		Cooling %		78.0	85.0	79.0	73.0	80.0	78.0	82.5	78.0	82.5
	Enthalpy Exchange Efficiency	Heating %		80.5	84.0	80.0	73.0	80.0	73.5	75.5	73.5	76.0
		Cooling %		68.0	73.0	69.5	65.0	69.0	68.0	71.5	68.0	70.0
	Specific Fan Power	W/(l/s)		0.96	0.63	0.62	0.43	0.44	0.41	0.39	0.41	0.41
	Input Power	W		10	11	15	15	20	23	27	45	57
	Sound Pressure Level	dB(A)		17.0	17.0	17.0	17.0	17.5	18.0	18.5	18.0	18.0
	50% (Default speed 2)	Air Volume	m³/h	75	125	175	250	325	400	500	800	1000
			l/s	21	35	49	69	90	111	139	222	278
		External Static Pressure	Pa	30	30	40	38	38	43	48	43	43
		Temperature Exchange Efficiency	Heating %		78.0	81.0	79.0	73.5	78.5	78.0	79.5	78.0
Cooling %				73.5	79.0	74.0	71.0	74.5	75.5	77.0	75.5	76.0
Enthalpy Exchange Efficiency		Heating %		76.5	75.5	77.5	72.0	76.5	70.5	68.5	70.5	67.5
		Cooling %		61.0	65.0	63.5	60.0	61.5	62.5	64.0	62.5	64.5
Specific Fan Power		W/(l/s)		0.72	0.60	0.60	0.49	0.56	0.58	0.60	0.58	0.59
Input Power		W		15	21	29	34	51	64	83	128	163
Sound Pressure Level		dB(A)		18.0	19.5	19.0	21.0	24.0	25.0	27.0	26.0	27.5
75% (Default speed 3)		Air Volume	m³/h	113	188	263	375	488	600	750	1200	1500
			l/s	31	52	73	104	135	167	208	333	417
		External Static Pressure	Pa	68	68	90	85	85	96	107	96	96
		Temperature Exchange Efficiency	Heating %		75.5	78.5	77.0	71.5	75.0	76.5	77.0	76.5
	Cooling %			70.5	76.5	71.0	67.0	70.0	70.0	72.0	70.0	71.5
	Enthalpy Exchange Efficiency	Heating %		73.5	72.0	74.5	69.5	72.0	65.0	63.0	65.0	64.0
		Cooling %		57.0	60.5	59.5	55.0	55.0	56.0	59.0	56.0	59.5
	Specific Fan Power	W/(l/s)		0.96	0.81	0.84	0.78	0.89	0.96	1.01	0.97	1.00
	Input Power	W		30	42	61	81	120	160	210	324	416
	Sound Pressure Level	dB(A)		22.0	25.0	24.5	27.0	31.5	33.5	35.0	35.0	36.0
	100% (Default speed 4)	Air Volume	m³/h	150	250	350	500	650	800	1000	1600	2000
			l/s	42	69	97	139	181	222	278	444	556
		External Static Pressure	Pa	120	120	160	150	150	170	190	170	170
		Temperature Exchange Efficiency	Heating %		73.5	75.5	75.0	70.5	72.5	75.0	75.5	75.0
Cooling %				65.5	70.5	66.5	63.5	65.0	65.0	67.5	65.0	66.5
Enthalpy Exchange Efficiency		Heating %		70.5	69.0	72.0	68.5	69.5	62.0	60.5	62.0	60.5
		Cooling %		52.5	56.0	55.0	51.5	50.5	52.0	53.5	52.0	57.0
Specific Fan Power		W/(l/s)		1.32	1.08	1.23	1.33	1.36	1.54	1.58	1.55	1.54
Input Power		W		55	75	120	185	245	343	438	687	855
Sound Pressure Level		dB(A)		27.0	30.5	30.5	35.0	37.5	39.0	40.0	41.0	41.5
DUCT SIZE		mm		100	150	150	200	200	250	250	(SAR)250 (DAEA)270 x 700 (SAR)250 (DAEA)270 x 700	
WEIGHT		kg		20	22	30	33	41	47	53	96	108
DIMENSIONS		Width x Depth x Height	mm	780 x 610 x 289	780 x 735 x 289	888 x 874 x 331	888 x 1016 x 331	908 x 954 x 404	1144 x 1004 x 404	1144 x 1231 x 404	1144 x 1004 x 808	1144 x 1231 x 808
ELECTRICAL POWER SUPPLY			220-240V, 50Hz									
Maximum Current	A		0.57	0.88	1.37	1.86	2.37	3.23	3.77	4.74	5.40	
FUSE RATING (BS88) - HRC (A)	A		6	6	6	6	6	6	6	10	10	
HEAT EXCHANGER			Paper with specially treated Cellulose Membrane									
STANDARD FILTER			ISO 16890 Coarse 60% <sup>1</sup>									

**Notes:** Running current, power consumption, recovery efficiency, and sound levels are based on the above default airflow rates at 25%, 50%, 75%, and 100%. Specific duty point data is available upon request. Supply and exhaust fan speeds can be individually commissioned between 25% and 100% in 5% increments. Sound Pressure Level measured at 1.5m under the centre of the bottom panel. Air flow rates, external static pressure and specific fan powers tested to BS EN13053: 2019. Energy recovery efficiencies tested to BS EN308: 2022.

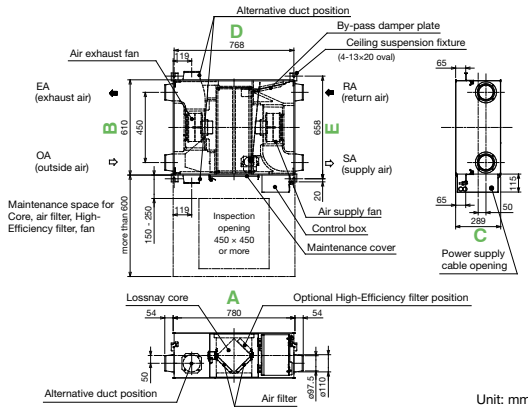
<sup>1</sup>: EN 779 G4 equivalent according to 'REHVA Filter Class Conversion between EN 779 and EN ISO 16890-1'.

ACCESSORIES		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
Remote Controller		PZ-62DR-EB								
Filters	Standard Replacement Filter (Coarse 60%)	PZ-15RF3-E	PZ-25RF3-E	PZ-35RF3-E	PZ-50RF3-E	PZ-65RF3-E	PZ-80RF3-E	PZ-100RF3-E	PZ-80RF3-E (2 sets)	PZ-100RF3-E (2 sets)
	ePM <sub>1</sub> 75%	PZ-15RFP3-E	PZ-25RFP3-E	PZ-35RFP3-E	PZ-50RFP3-E	PZ-65RFP3-E	PZ-80RFP3-E	PZ-100RFP3-E	PZ-80RFP3-E (2 sets)	PZ-100RFP3-E (2 sets)
CO <sub>2</sub> Sensors		PZ-70CSW-E (Wall mounted) / PZ-70CSD-E (Duct mounted)								
Vertical Mounting Brackets		PZ-1VS-E	PZ-1VS-E	PZ-1VS-E	PZ-1VS-E	PZ-2VS-E	PZ-2VS-E	PZ-2VS-E	-	-

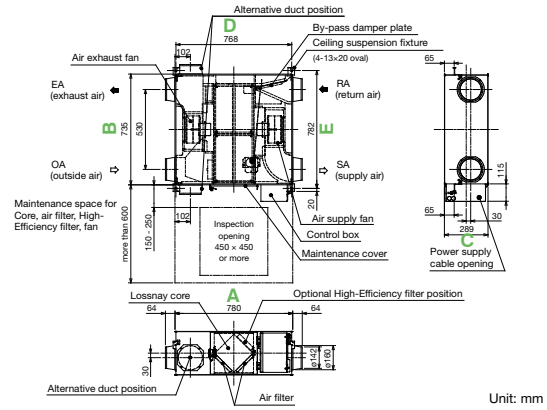
# Specifications



## LGH-15RVX3-E DIMENSIONS

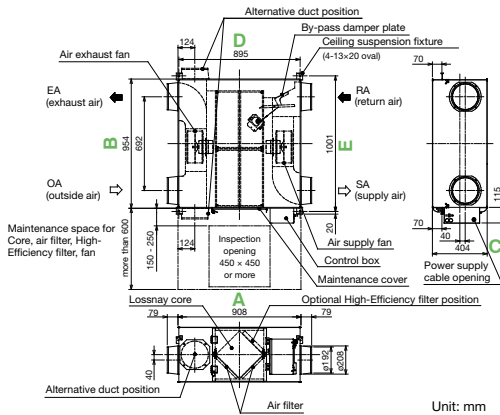


## LGH-25RVX3-E - LGH-100RVX3-E DIMENSIONS

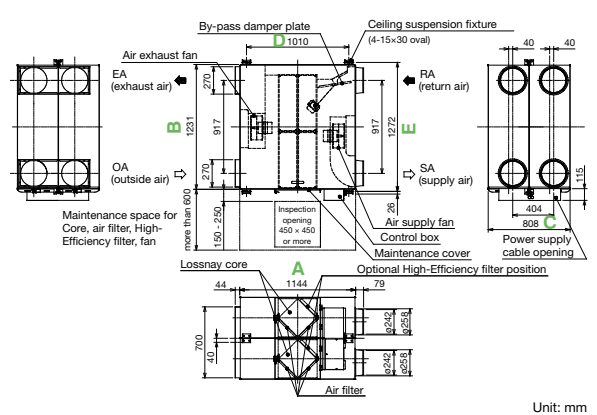


MODEL	DIMENSIONS			CEILING SUSPENSION FIXTURE PITCH		NOMINAL DUCT DIAMETER
	A	B	C	D	E	
LGH-15RVX3-E	780	610	289	768	658	150
LGH-25RVX3-E	780	735	289	768	782	150
LGH-35RVX3-E	888	874	331	875	921	150
LGH-50RVX3-E	888	1016	331	875	1063	200
LGH-65RVX3-E	908	954	404	895	1001	200
LGH-80RVX3-E	1144	1004	404	1131	1051	250
LGH-100RVX3-E	1144	1231	404	1131	1278	250

## LGH-160RVX3-E DIMENSIONS



## LGH-200RVX3-E - LGH-100RVX3-E DIMENSIONS



MODEL	DIMENSIONS			CEILING SUSPENSION FIXTURE PITCH		NOMINAL DUCT DIAMETER
	A	B	C	D	E	
LGH-160RVX3-E	908	954	404	895	1001	250 (SA, RA) 270x700 (OA, EA)
LGH-200RVX3-E	1144	1231	808	1010	1272	250 (SA, RA) 270x700 (OA, EA)

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PRINTED MAY 2024

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