

# LGH-RVXT3-E

**Commercial Series** 

The Commercial Lossnay (LGH) Mechanical Ventilation Heat Recovery (MVHR) systems are designed to supply clean, fresh air into commercial buildings, whilst simultaneously extracting stale air.

The **RVXT3** units offer a significantly reduced height whilst maintaining a large airflow, allowing easy installation in ceiling voids.



## **Key Features & Benefits:**

- Mitsubishi Electric pioneered heat exchanger enables maximised latent heat exchange, resulting in cost and carbon savings
- Low unit height (500mm) and lightweight structure, ideal for ceiling installation
- Four commissionable fan speeds, settable between 25-100%, with independent supply and return fan control offering low running costs and easier compliance to Part L
- Optional Mitsubishi Electric energy saving CO<sub>2</sub> sensors allow automatic incremental fan control for a healthy indoor environment; sensors powered by Lossnay unit
- No condensate drain required allowing for easy design and installation
- Dual-barrier coated fans, prevents dust and grease accumulation, ensuring long-term efficient fan operation
- Constant pressure control available with 0-10V pressure transducer (field supplied), for variable airflow requirements across multiple zones
- Compatible with Mr Slim and City Multi air conditioning systems for a complete and highly effective system operation
- Duct handing selectable via dipswitch, for easy and flexible installation
- Optional high efficiency filters available







| MODEL             |   |  | LGH-160RVXT3-E                                  | LGH-200RVXT3-E         | LGH-250RVXT3-E |
|-------------------|---|--|---|------------------------|----------------|
| 25%               | Air Volume                                | m³/h   | 400   | 500                    | 625            |
| (Default speed 1) |   | l/s  | 111   | 139                    | 174            |
|                   | External Static Pressure                  | Pa   | 12  | 12                     | 12             |
|                   | Temperature Exchange Efficiency           | Heating %  | 88.0  | 86.0                   | 84.0           |
|                   |   | Cooling %  | 83.0  | 82.0                   | 81.0           |
|                   | Enthalpy Exchange Efficiency              | Heating %  | 85.5  | 84.5                   | 81.5           |
|                   |   | Cooling %  | 78.0  | 75.0                   | 73.0           |
|                   | Specific Fan Power                        | W/(I/s)  | 0.41  | 0.40                   | 0.50           |
|                   | Input Power                               | W  | 46  | 56                     | 86             |
|                   | Sound Pressure Level                      | dB(A)  | 19.5  | 21.0                   | 23.0           |
| 50%               | Air Volume                                | m³/h   | 800   | 1000                   | 1250           |
| (Default speed 2) |   | l/s  | 222   | 278                    | 347            |
|                   | External Static Pressure                  | Pa   | 48  | 48                     | 48             |
|                   | Temperature Exchange Efficiency           | Heating %  | 85.5  | 83.0                   | 80.0           |
|                   |   | Cooling %  | 79.0  | 78.0                   | 76.5           |
|                   | Enthalpy Exchange Efficiency              | Heating %  | 83.0  | 81.5                   | 78.0           |
|                   |   | Cooling %  | 73.0  | 67.5                   | 66.0           |
|                   | Specific Fan Power                        | W/(I/s)  | 0.65  | 0.69                   | 0.82           |
|                   | Input Power                               | W  | 144   | 192                    | 284            |
|                   | Sound Pressure Level                      | dB(A)  | 26.0  | 28.0                   | 31.5           |
| 75%               | Air Volume                                | m³/h   | 1200  | 1500                   | 1875           |
| (Default speed 3) |   | l/s  | 333   | 417                    | 521            |
|                   | External Static Pressure                  | Pa   | 107   | 107                    | 107            |
|                   | Temperature Exchange Efficiency           | Heating %  | 83.0  | 81.0                   | 78.0           |
|                   |   | Cooling %  | 75.0  | 73.0                   | 70.5           |
|                   | Enthalpy Exchange Efficiency              | Heating %  | 81.0  | 79.5                   | 76.0           |
|                   |   | Cooling %  | 65.5  | 61.0                   | 59.0           |
|                   | Specific Fan Power                        | W/(I/s)  | 1.10  | 1.20                   | 1.34           |
|                   | Input Power                               | W  | 368   | 498                    | 696            |
|                   | Sound Pressure Level                      | dB(A)  | 33.0  | 35.0                   | 38.0           |
| 100%              | Air Volume                                | m³/h   | 1600  | 2000                   | 2500           |
| (Default speed 4) |   | l/s  | 444   | 556                    | 694            |
|                   | External Static Pressure                  | Pa   | 190   | 190                    | 190            |
|                   | Temperature Exchange Efficiency           | Heating %  | 82.0  | 80.0                   | 77.0           |
|                   |   | Cooling %  | 70.0  | 67.5                   | 65.0           |
|                   | Enthalpy Exchange Efficiency              | Heating %  | 80.0  | 78.5                   | 75.0           |
|                   |   | Cooling %  | 61.5  | 56.5                   | 54.0           |
|                   | Specific Fan Power                        | W/(I/s)  | 1.59  | 1.88                   | 2.09           |
|                   | Input Power                               | W  | 708   | 1044                   | 1448           |
|                   | Sound Pressure Level                      | dB(A)  | 38.0  | 40.0                   | 44.0           |
| DUCT SIZE mm      |   | Outlets (SA/EA): 250 x 650 / Inlets (RA/OA): 465 x 220 |   |                        |                |
| WEIGHT kg         |   | kg   | 172 172 172                                     |                        |                |
| DIMENSIONS        | Width x Depth x Height                    | mm   | 2100 x 500                                      |                        |                |
|                   | PLY 3-bhase. 380-415V. 50Hz <sup>*2</sup> |  |   |                        |                |
|                   | · • •                                     | A  | 3.0   | 3.9                    | 5.0            |
| HEAT EXCHANGER    |   |  | Paper with Specially Treated Cellulose Membrane |                        |                |
| STANDARD FILTER   |   |  |   | ISO 16890 Coarse 60%*1 |                |
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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.

\*1: EN 779 G4 equivalent according to 'REHVA Filter Class Conversion between EN 779 and EN ISO 16890-1'

\*2: 3 phase 4 wire power must be connected. The unit only uses loads L2 and L3, meaning L1 does not draw load

| ACCESSORIES             |   | LGH-160RVXT3-E  | LGH-200RVXT3-E | LGH-250RVXT3-E |  |
|-------------------------|---|---|----------------|----------------|--|
| Remote Controller       |   | PZ-62DR-EB  |                |                |  |
| Filters                 | Standard Replacement Filter (Coarse 60%)  | PZ-250TRF-E   |                |                |  |
|                         | ISO 16890 ePM1 75%, ePM2.5 80%, ePM10 95% | PZ-250TPF-E   |                |                |  |
| CO <sub>2</sub> Sensors |   | PZ-70CSW-E (Wall mounted) / PZ-70CSD-E (Duct mounted) |                |                |  |
| External signal relay   |   | PZ-4GS-E  |                |                |  |

#### **LGH-RVXT3-E** Commercial Series



#### LGH-160RVXT3-E SOUND POWER OCTAVE LEVELS



#### LGH-200RVXT3-E SOUND POWER OCTAVE LEVELS

Case Radiated Breakout



#### In-Duct Outlet (Supply Air & Exhaust Air)



In-Duct Outlet (Return Air & Outside Air)



#### LGH-250RVXT3-E SOUND POWER OCTAVE LEVELS







### In-Duct Outlet (Return Air & Outside Air)



#### Notes

Sound power octave band test based on ISO 3744:2010 at standard operating conditions. For duty point specific data contact Mitsubishi Electric. Measurements below 15dB are shown as <15 in the table and omitted from the graph.





#### LGH-160/200/250RVXT3-E DIMENSIONS





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Note: The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas. R410A (GWP:2088), R290 (GWP:3), R32 (GWP:675), R407C (GWP:1774), R134 (GWP:1403), R5134 (GWP:445B (GWP:466), R454C (GWP:14284F (GWP:14284F (GWP:41), "These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IP CC 3rd edition, these are as follows. R410A (GWP:155), R407C (GWP:1650) or R134a (GWP:1300).

Effective as of September 2024



