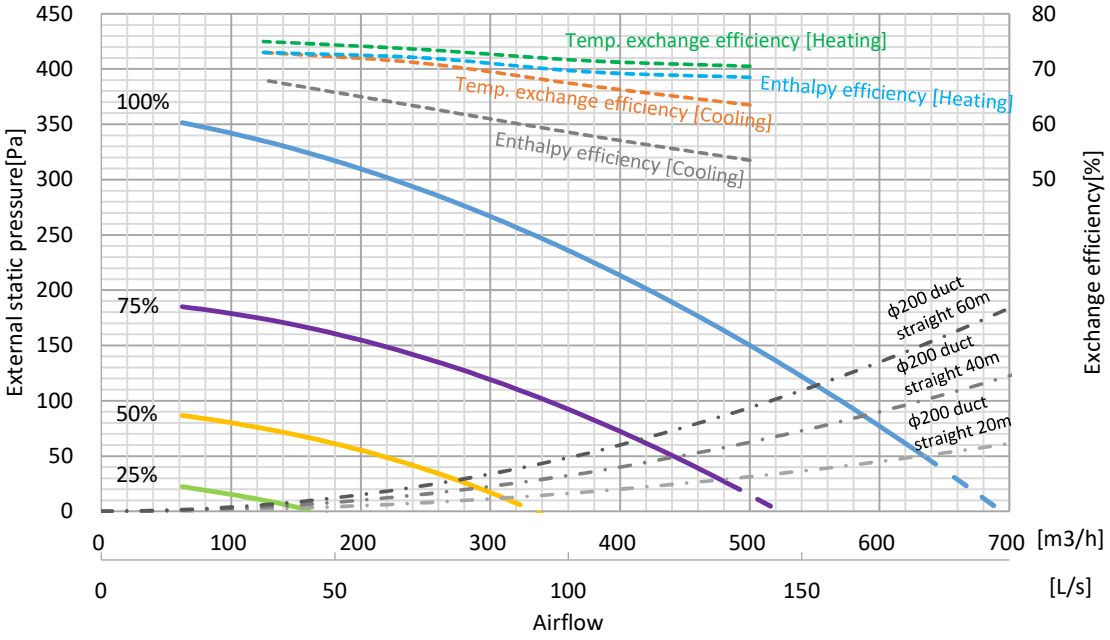
MODEL	LGH-50RVX3-E	SIGN	

Heat exchange system		Energy recovery ventilating system				
Heat exchanger (Lossnay core)		Special treated paper plate heat exchanger				
Cladding		Galvanized steel sheet				
Motor		EC motor				
Filter		Non-woven fabrics filter (ISO 16890 Coarse 60%)				
Surrounding air condition		0°C to 40 °C, 80%RH or less				
Suction air condition		Lower than 40°C, 80%RH.				
Supply fan operation under low outdoor temperature		-10°C to -15°C : Intermittent operation 60 min ON, 10 min OFF -15°C or less : Sensing operation 55 min OFF, 5 min ON				
Weight		33kg				
Electrical power supply		220-240V/50Hz, 220V/60Hz				
Fan speed		4	3	2	1	Test condition
Default Airflow setting		100%	75%	50%	25%	
Input power	[W]	185	81	34	15	
Airflow	[m^3/h]	500	375	250	125	ISO 16494-1: 2022
	[L/s]	139	104	69	35	
Specific fan power	[W/(L/s)]	1.33	0.78	0.49	0.43	
External static pressure	[Pa]	150	85	38	10	
Temp. exchange efficiency [%]	Heating	70.5	71.5	73.5	75.0	
	Cooling	63.5	67.0	71.0	73.0	
Enthalpy exchange efficiency [%]	Heating	68.5	69.5	72.0	73.0	
	Cooling	53.5	58.0	63.0	68.0	
Noise	[dB]	35.0	27.0	21.0	17.0	A-weighted sound pressure level
Exhaust Air Transfer Ratio [%]		5.0				EN308: 2022 / FS3
External leakage [%]		5.0				EN13141-7: 2021 / reference flow rate
Specific energy consumption class		A				
Insulation resistance		10MΩ or more				
Dielectric strength		AC 1000V 1 minute				
Maximum current	[A]	1.86				

■Characteristic curve

Dotted lines of fan curve means unmeasurable area with ISO16494-1:2022.

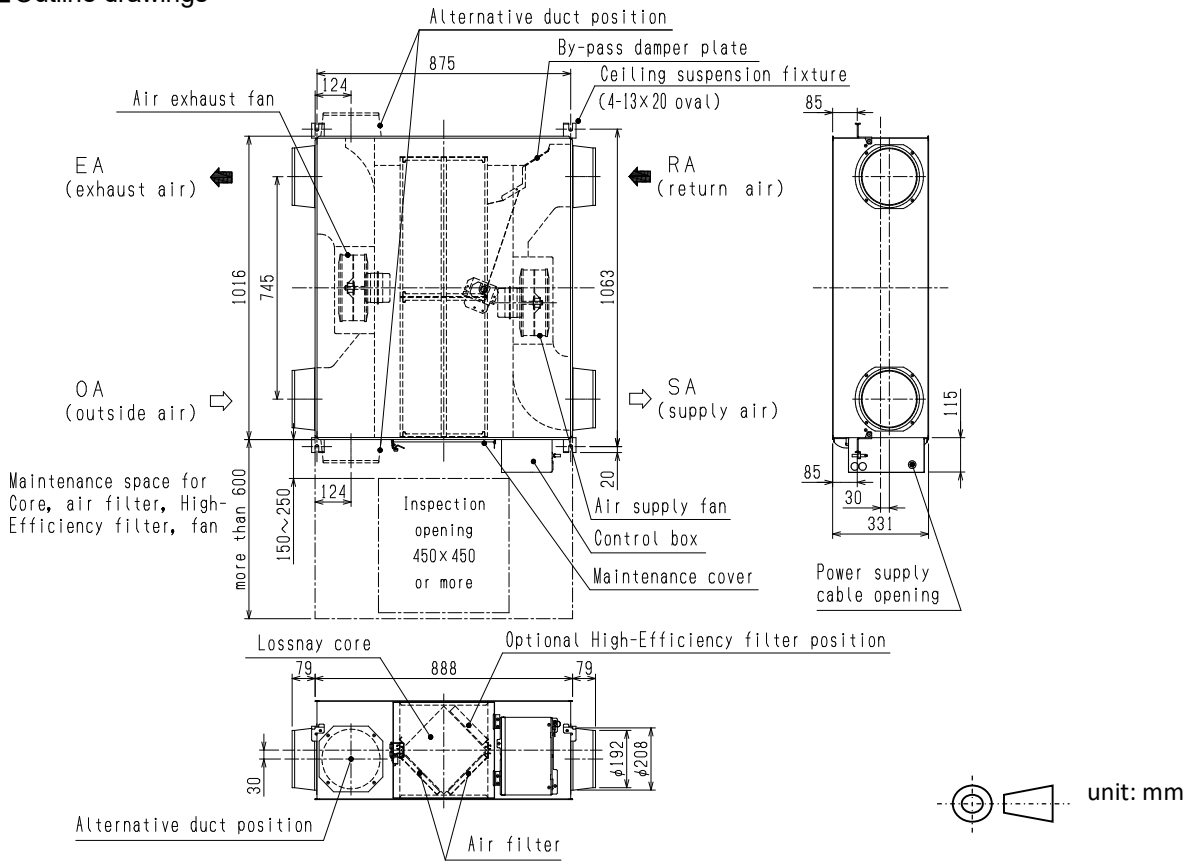


■Attention

1. The input power, the efficiency and the noise are based on the rating air volume, 230V/50Hz and horizontal installation. Noise (A-weighted sound pressure level) is measured 1.5m off from the center of the unit in an anechoic chamber.
2. Heat recovery ventilation mode starts automatically while detecting OA temperature lower than 8℃, even Bypass mode is selected. Remote controller continues to display "Bypass ventilation" in this case.
3. Do not use the booster fan to exceed airflow rate/pressure shown in Q-H diagram of the unit.
4. It is prohibited to use the unit where salt, sulphur or hot spring steam damage is expected.
5. Do not use with acid, alkalis, organic solvent, oil mist, paint, or harmful gas as pesticide, corrosive gas, etc.
6. In cold area or strong wind area, outdoor air may enter the unit because of the pressure difference or external wind even when the unit stops. It is recommended to install an electrically damper to block outdoor air in such cases.
7. Avoid to install air inlets and outlets where insects are likely to gather like a place near interior or exterior lights. In that case, select hoods or louvers which have repellent net.

※Specifications may be subject to change without notice.

■Outline drawings

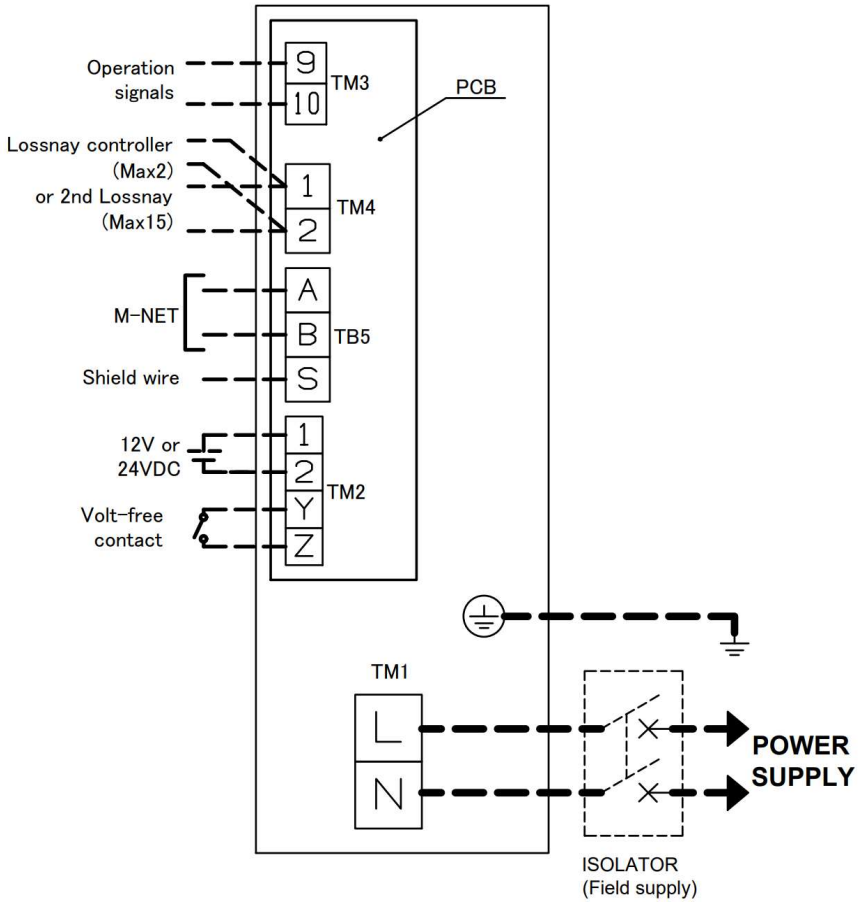


■Caution for installation

1. Do not modify the unit as it may cause malfunction.
2. Install the anchor bolts to ensure the product's weight or earthquake load. Correctly rated wire/chain may also be used.
3. Leave sufficient space and make inspection opening (450×450mm or more) for the filter and Lossnay core removal side for maintenance purpose.
4. The unit shall be installed horizontally or vertically (except 160 and 200RVX3). In each case, the tolerance is ±1°.
5. When unit is installed vertically, follow below instructions. For items not described in this section, follow the instruction and installation manual.
   ①Make sure to install the unit where users cannot touch it easily, for example in the machine room, otherwise there is a risk of burns and injuries. Make a protection to the edges and areas that may be touched during maintenance.
   ②LGH-15~100RVX3-E are allowed to be installed vertically, only in the direction the maintenance cover faces up.
   ③Use optional parts PZ-1/2VS-E for vertical floor installation, otherwise installer shall ensure the safety during the life time of the unit.
   ④Always make the fall prevention by using upper ceiling suspension fixture of the unit. In case of using anchor bolts embedded to the wall, choose the anchor bolts of M10 or M12. Install the anchor to the enough strong wall.
   ⑤ When using the product where it is exposed to low temperatures or high humidity, additional heat insulation on the unit are necessary which is a closed-cell foam with a thickness of 3 mm or more. The additional heat insulation should be applied to all surface of the top and bottom when viewing the unit as horizontal, and pay attention to additional insulation is necessary even on the existing insulation on the unit.
6. Take care in locating air inlet to prevent intake of dirty air or disgusting smell from exhaust gas of factory, air from rubbish disposal, etc.
7. Take care as below to prevent from condensation.
   ①The outdoor side (OA, EA) and SA ducts must be heat-insulated in order to prevent from condensation.
   ②If the ambient temperature around the Lossnay unit is close to outdoor condition, it is recommended to insulate RA and SA ducts and additional insulation foam on the unit surface.
   ③Condensation and freezing may occur on the Lossnay unit surface, because of the outdoor air condition or humidity condition above the ceiling. A supplemental insulation foam for the unit surface is necessary in that case.
   ④When the supply air is set twice as much as the exhaust air or more by airflow function, the Lossnay body indoor side and SA duct must be put additional insulation. Without additional insulation, it could cause condensation and water drop from the unit.
8. Do not install this product in a place where it is exposed to ultraviolet light. UV may be damage covering insulation.
9. Outdoor air may enter the Lossnay owing to the pressure difference between indoor and outdoor or external winds even when the product is not operated. It is recommended to install an electrically operated damper to block the outdoor air.
10. Install louvers or covers for OA inlet & EA outlet to prevent rainwater from entering the Lossnay unit. The outdoor side duct (OA and EA) shall decline by 1/30 or more downward to outdoor.
11. When RA duct is not installed and RA is suctioned directly from the unit surrounding space, a repellent net is necessary for the RA inlet to prevent large size dust or something from intruding into the unit.
12. Take precautions when using the product in a quiet location.
13. Do not use under high temperature and humidity condition. Condensation will occur and water will gather inside the Lossnay cores under high temperature and humidity condition, such as warm swimming pool, bathroom, greenhouse or foggy place.

※Specifications may be subject to change without notice.

■Wiring diagrams



■Caution for electrical work

1. Make sure to ground and install an all-pole electrical leakage isolator securely.
2. Select proper circuit breaker according to the electrical current on the 1st page.
   Always use a current leakage breaker that is compatible with higher harmonics as this unit is equipped with an inverter.
   The use of an inadequate breaker can cause the incorrect operation of inverter.
3. Perform electrical installation to meet appropriate regulations and standards.
4. Always use double insulated cable for the transmission cables.
5. Wiring work must be performed by qualified professionals.
6. All supply circuits must be disconnected before obtaining access to the terminal devices.
7. When only Lossnay units are used in M-NET, power supply unit is required to connect to centralized controller.
   Number of power supply units or the transmission boosters should correspond with the connected Lossnay units.
8. In the case of installing a duct heater interlocked with Lossnay, be sure to observe the following:
   ①Choose a OA pre-heater which can control the heater outlet air temperature even both the air flow is maximum and minimum. Otherwise it could fall the supply fan into intermittent operation.
   ② Select a duct heater in compliance with local and national laws, ordinances, and standards.
   Select a duct heater that is tested by a certification body.
   ③ Always select a heater that is equipped with a non-self-resetting safety device.
   ④ Do not directly supply power from the Lossnay unit to the duct heater. Doing so could cause fire.
   ⑤ Install a circuit breaker for the duct heater in compliance with all applicable laws, ordinances, and standards.
   ⑥ Install the duct heater separated from the product by a distance of 2 m or more.
   ⑦ Ensure that the duct heater and Lossnay are wired and that the Lossnay function settings have been configured, and then always check operation by trial operation.
9. With this product, the wiring installation method will vary according to the design of the system.
   Refer to the installation manual for more detail.

■Maintenance and lifetime

Remove all dust and dirt on air filters and Lossnay cores at regular intervals to prevent from a deterioration in the Lossnay function.
Refer to each model's operation instructions for the suggested maintenance period and methods.
General indication of lifetime of the main parts is as below. Time below is unrelated to guaranteed period for service.
And parts exchange period varies with usage condition.

Lossnay cores	: Around 10 years with maintenance at stated periods.
Air Filters	: Around 5 years with maintenance at stated periods
High efficiency filters	: 3,000 hours
Motor	: 30,000 hours
Circuit board	: 25,000 hours
Thermistor	: Around 5 years

■Other notes

Refer to each model's operation instructions for the suggested maintenance period and methods. General indication of lifetime of the main parts is as below. Time below is unrelated to guaranteed period for service. And parts exchange period varies with usage condition.

Measurements by pitot tube on site could be as much 20% difference from JIS test room conditions. If the measuring point is close to sources of turbulence like bends, contractions and dampers etc., it is difficult to measure air volume correctly.
A straight duct length more than 10D (D=duct diameter) from the source of turbulence is recommended for correct measurement. On-site measurement should therefore be measured in accordance with BSRIA guideline (Commissioning Air Systems. Application procedures for buildings AG3/89.3(2001)).