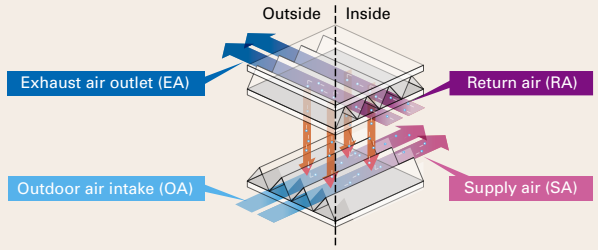
LOSSNAY SYSTEM

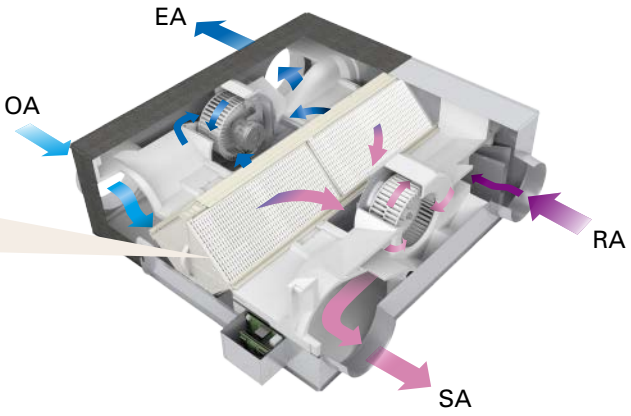
Lossnay ventilation systems are renowned industry-wide for their efficiency. They offer environment-friendly energy recovery and humidity control, and enable air conditioning systems to simultaneously provide optimum room comfort and energy savings.

Indoor Air Quality Inside a Building is Optimised 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



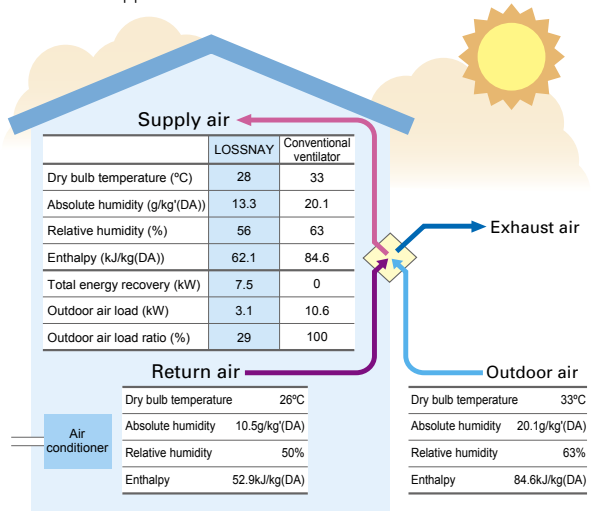


What can be Improved by Introducing Lossnay?

Ventilation with maximised comfort

In summer

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



	LOSSNAY	Conventional ventilator
Dry bulb temperature (°C)	28	33
Absolute humidity (g/kg'(DA))	13.3	20.1
Relative humidity (%)	56	63
Enthalpy (kJ/kg(DA))	62.1	84.6
Total energy recovery (kW)	7.5	0
Outdoor air load (kW)	3.1	10.6
Outdoor air load ratio (%)	29	100

Return air	
Dry bulb temperature	26°C
Absolute humidity	10.5g/kg'(DA)
Relative humidity	50%
Enthalpy	52.9kJ/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

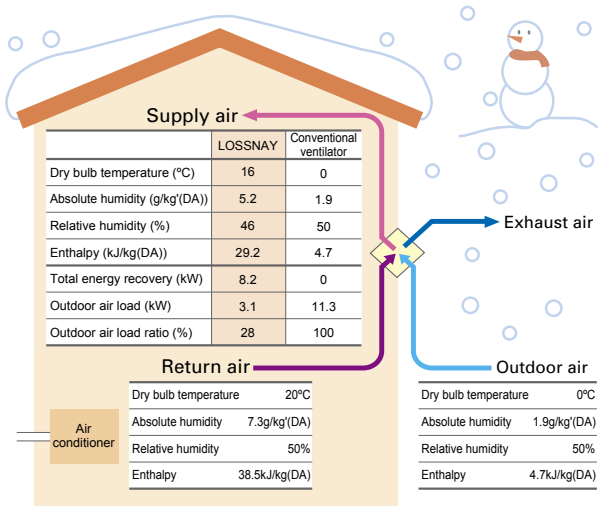
Indoor supply-air temperature (°C) = Outdoor temperature (°C) − (Outdoor temperature (°C) − Indoor temperature (°C)) × Temp recovery efficiency (%)

Calculation example: 28°C = 33°C − (33°C − 26°C) × 72%

*The above applies to the case of LGH-100RVX (fan speed 4).

In winter

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



	LOSSNAY	Conventional ventilator
Dry bulb temperature (°C)	16	0
Absolute humidity (g/kg'(DA))	5.2	1.9
Relative humidity (%)	46	50
Enthalpy (kJ/kg(DA))	29.2	4.7
Total energy recovery (kW)	8.2	0
Outdoor air load (kW)	3.1	11.3
Outdoor air load ratio (%)	28	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: 16°C = (20°C − 0°C) × 80% + 0°C

*The above applies to the case of LGH-100RVX (fan speed 4).

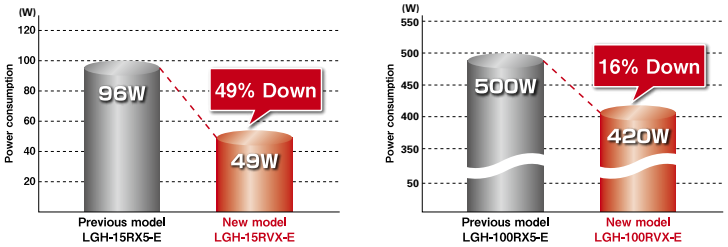
Commercial Use Lossnay

LGH-RVX (Standard model)

Power consumption reduced further with introduction of a DC motor

Realized low power consumption with introduction of a high efficiency brushless DC motor. Compared to models with an AC motor, power consumption is reduced.

Comparison between new and previous power consumption
(New model: Fan speed 4 at 230V 50Hz, Previous model: Extra-High at 220V 50Hz)



Improved Air Volume Range

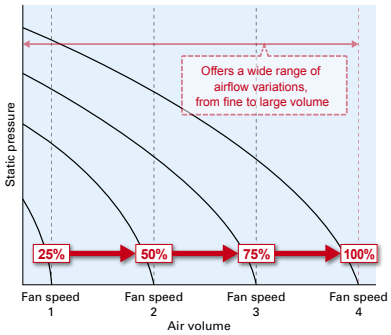
Wide range air volume

Each fan speed has a range setting of 25, 50, 75 and 100%, allowing much finer air volume control. When used in combination with the CO_2 sensor or timer function, the air volume can be controlled according to conditions that realize better performance and reduce power consumption.

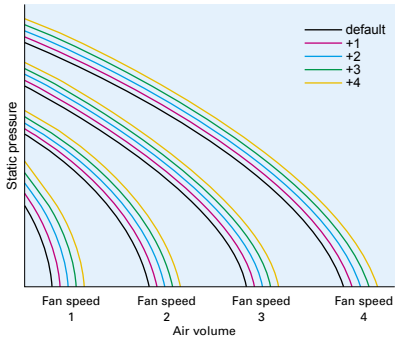
Fan speed adjustment function

The default fan speed value can be adjusted slightly. Use the PZ-61DR-E remote controller to reset the speed.
1) Considering the total hours of Lossnay operation (filter clogging), the fan power can be adjusted automatically after a given period of time.
2) After the unit is installed, when if the air volume is slightly lower than the desired airflow, it is possible to make fine adjustments.

■ **LGH-RVX/RVXT series model characteristic curves**



■ **P-Q curve image**



LGH-RVXT (Thinner body type)

The LGH-RVXT series have a large air volume of 1500 - 2500 CMH, but has a thin body @500mm. Installing the unit behind the ceiling is easy.

■ **LGH-150/200RVX-E**

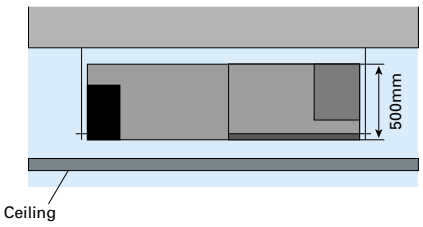
Height: 808mm

■ **LGH-150/200/250RVXT-E**

Height: 500mm

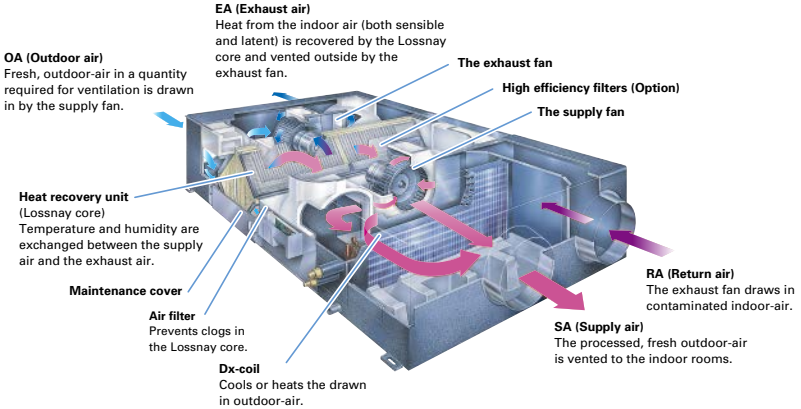
38% Thinner body

■ **LGH-RVXT Installation image**



GUF Series (Lossnay with Dx-coil unit)

Along with Lossnay ventilation, the OA Processing Unit is really two units in one, functioning as the main air conditioner when the load is light and adding supplemental air conditioning when the load is heavy.



Commercial Use Lossnay Specifications

LGH-RVX Series

Model		LGH-15RVX-E								LGH-25RVX-E								LGH-35RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		0.40	0.24	0.15	0.10	0.41	0.25	0.15	0.10	0.48	0.28	0.16	0.10	0.48	0.29	0.16	0.11	0.98	0.54	0.26	0.12	0.98	0.56	0.28	0.13
Input power (W)		49	28	14	7	52	28	14	8	62	33	16	7.5	63	35	17	9	140	70	31	11	145	72	35	13
Air volume	(m^3/h)	150	113	75	38	150	113	75	38	250	188	125	63	250	188	125	63	350	263	175	88	350	263	175	88
	(L/s)	42	31	21	10	42	31	21	10	69	52	35	17	69	52	35	17	97	73	49	24	97	73	49	24
External static pressure (Pa)		95	54	24	6	95	54	24	6	85	48	21	5	85	48	21	5	160	90	40	10	160	90	40	10
Temperature exchange efficiency (%)		80	81	83	84	–	–	–	–	79	80	82	86	–	–	–	–	80	82.5	86	88.5	–	–	–	–
Enthalpy exchange efficiency (%)	Heating	73	75.5	78	79	–	–	–	–	69.5	72	76	83	–	–	–	–	71.5	74	78.5	83.5	–	–	–	–
	Cooling	71	74.5	78	79	–	–	–	–	68	70	74.5	83	–	–	–	–	71	73	78	82	–	–	–	–
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		28	24	19	17	29	24	19	18	27	22	20	17	27.5	23	20	17	32	28	20	17	32.5	28	20	18
Weight (kg)		20								23								30							
Specific energy consumption class		A								A								–							

Model		LGH-50RVX-E								LGH-65RVX-E								LGH-80RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		1.15	0.59	0.26	0.13	1.15	0.59	0.27	0.13	1.65	0.90	0.39	0.15	1.72	0.86	0.38	0.16	1.82	0.83	0.36	0.15	1.97	0.86	0.40	0.15
Input power (W)		165	78	32	12	173	81	35	14	252	131	49	15	262	131	47	17	335	151	60	18	340	151	64	20
Air volume	(m^3/h)	500	375	250	125	500	375	250	125	650	488	325	163	650	488	325	163	800	600	400	200	800	600	400	200
	(L/s)	139	104	69	35	139	104	69	35	181	135	90	45	181	135	90	45	222	167	111	56	222	167	111	56
External static pressure (Pa)		120	68	30	8	120	68	30	8	120	68	30	8	120	68	30	8	150	85	38	10	150	85	38	10
Temperature exchange efficiency (%)		78	81	83.5	87	–	–	–	–	77	81	84	86	–	–	–	–	79	82.5	84	85	–	–	–	–
Enthalpy exchange efficiency (%)	Heating	69	71	75	82.5	–	–	–	–	68.5	71	76	82	–	–	–	–	71	73.5	78	81	–	–	–	–
	Cooling	66.5	68	72.5	82	–	–	–	–	66	69.5	74	81	–	–	–	–	70	72.5	78	81	–	–	–	–
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		34	28	19	18	35	29	20	18	34.5	29	22	18	35.5	29	22	18	34.5	30	23	18	36	30	23	18
Weight (kg)		33								38								48							

Model		LGH-100RVX-E								LGH-150RVX-E								LGH-200RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		2.50	1.20	0.50	0.17	2.50	1.20	0.51	0.19	3.71	1.75	0.70	0.29	3.85	1.78	0.78	0.30	4.88	2.20	0.88	0.33	4.54	2.06	0.87	0.35
Input power (W)		420	200	75	21	420	200	75	23	670	311	123	38	698	311	124	44	850	400	153	42	853	372	150	49
Air volume	(m^3/h)	1000	750	500	250	1000	750	500	250	1500	1125	750	375	1500	1125	750	375	2000	1500	1000	500	2000	1500	1000	500
	(L/s)	278	208	139	69	278	208	139	69	417	313	208	104	417	313	208	104	556	417	278	139	556	417	278	139
External static pressure (Pa)		170	96	43	11	170	96	43	11	175	98	44	11	175	98	44	11	150	84	38	10	150	84	38	10
Temperature exchange efficiency (%)		80	83	86.5	89.5	–	–	–	–	80	82.5	84	85	–	–	–	–	80	83	86.5	89.5	–	–	–	–
Enthalpy exchange efficiency (%)	Heating	72.5	74	78	87	–	–	–	–	72	73.5	78	81	–	–	–	–	72.5	74	78	87	–	–	–	–
	Cooling	71	73	77	85.5	–	–	–	–	70.5	72.5	78	81	–	–	–	–	71	73	77	85.5	–	–	–	–
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		37	31	23	18	38	32	24	18	39	32	24	18	40.5	33	26	18	40	36	28	18	41	36	27	19
Weight (kg)		54								98								110							

LGH-RVXT Series

Model		LGH-150RVXT-E								LGH-200RVXT-E								LGH-250RVXT-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz								220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode				Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		4.30	2.40	1.10	0.36	3.40	1.80	0.77	0.31	5.40	2.70	1.10	0.39	5.00	2.20	0.85	0.34	7.60	3.60	1.40	0.57	6.90	3.10	1.30	0.49
Input power (W)		792	421	176	48	625	334	134	37	1000	494	197	56	916	407	150	45	1446	687	244	82	1298	587	212	69
Air volume	(m^3/h)	1500	1125	750	375	1500	1125	750	375	2000	1500	1000	500	2000	1500	1000	500	2500	1875	1250	625	2500	1875	1250	625
	(L/s)	417	313	208	104	417	313	208	104	556	417	278	139	556	417	278	139	694	521	347	174	694	521	347	174
External static pressure (Pa)	Supply	175	98	44	11	175	98	44	11	175	98	44	11	175	98	44	11	175	98	44	11	175	98	44	11
	Return	100	56	25	6	100	56	25	6	100	56	25	6	100	56	25	6	100	56	25	6	100	56	25	6
Temperature exchange efficiency (%)		80	80.5	81	81.5	–	–	–	–	80	81	82.5	84	–	–	–	–	77	79	80.5	82.5	–	–	–	–
Enthalpy exchange efficiency (%)	Heating	70	71	73	75	–	–	–	–	72.5	73.5	77	83	–	–	–	–	68	71.5	74	79	–	–	–	–
	Cooling	69	70	72	74	–	–	–	–	70	71	74.5	80.5	–	–	–	–	65.5	69	71.5	76.5	–	–	–	–
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		39.5	35.5	29.5	22	39	33	26.5	20.5	39.5	35.5	28	22	40.5	34.5	27	20.5	43	39	32	24	44	38.5	31	22.5
Weight (kg)		156								159								198							

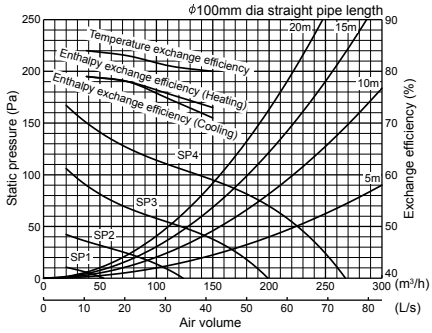
GUF Series

Model		GUF-50RD4				GUF-100RD4				GUF-50RDH4				GUF-100RDH4			
Electrical power supply		220-240V/50Hz				220-240V/50Hz				220-240V/50Hz				220-240V/50Hz			
Ventilation mode		Heat recovery mode		Bypass mode		Heat recovery mode		Bypass mode		Heat recovery mode		Bypass mode		Heat recovery mode		Bypass mode	
Fan speed		High	Low	High	Low	High	Low	High	Low	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	1.15	0.70	1.15	0.70	2.20	1.76	2.25	1.77
Input power (W)		235-265	150-165	235-265	150-165	480-505	370-395	490-515	385-410	235-265	150-165	235-265	150-165	480-505	385-400	490-515	385-410
Air volume	(m^3/h)	500	400	500	400	1000	800	1000	800	500	400	500	400	1000	800	1000	800
	(L/s)	139	111	139	111	278	222	278	222	139	111	139	111	278	222	278	222
External static pressure (Pa)		140	90	140	90	140	90	140	90	125	80	125	80	135	86	135	86
Temperature exchange efficiency (%)		77.5	80	–	–	79.5	81.5	–	–	77.5	80	–	–	79.5	81.5	–	–
Enthalpy exchange efficiency (%)	Heating	68	71	–	–	71	74	–	–	68	71	–	–	71	74	–	–
	Cooling	65	67	–	–	69	71	–	–	65	67	–	–	69	71	–	–
Cooling capacity (kW)		5.57 (1.94)				11.44 (4.12)				5.57 (1.94)				11.44 (4.12)			
Heating capacity (kW)		6.21 (2.04)				12.56 (4.26)				6.21 (2.04)				12.56 (4.26)			
Capacity equivalent to the indoor unit		P32				P63				P32				P63			
Humidifier	Humidifying	–				–				Permeable film humidifier							
	Humidifying capacity(kg/h)	–				–				2.7 (heating)				5.4 (heating)			
	Water supply pressure	–				–				Minimum pressure : 2.0 × 10^4Pa				Maximum pressure : 49.0 × 10^4Pa			
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	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				51 (filled with water 55)				88 (filled with water 96)			

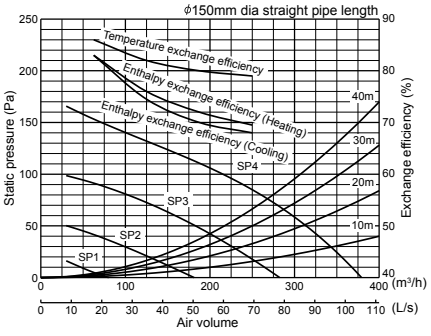
■For LGH-RVX and LGH-RVXT series
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.
*Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.
■For GUF series
*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 recoverying capacity of heat exchange core.
*Figures in the chart are measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.

Characteristic Curves

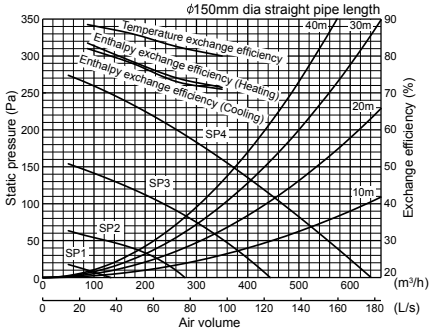
LGH-15RVX-E



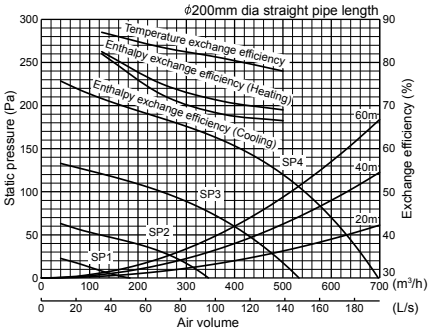
LGH-25RVX-E



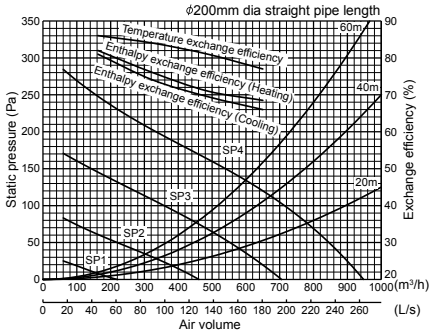
LGH-35RVX-E



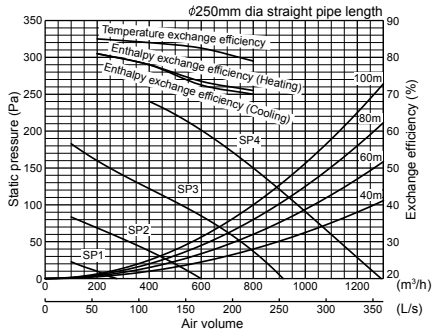
LGH-50RVX-E



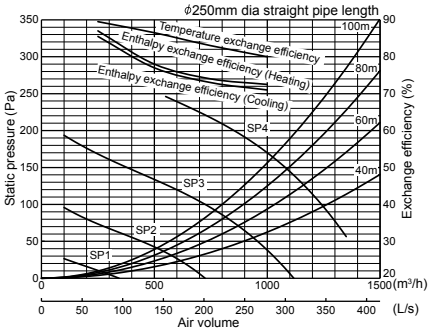
LGH-65RVX-E



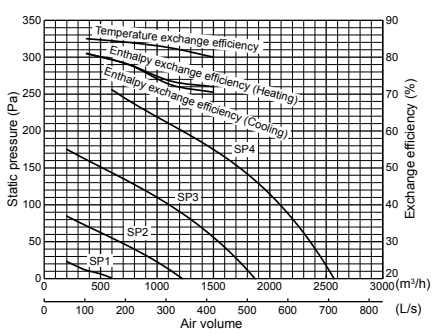
LGH-80RVX-E



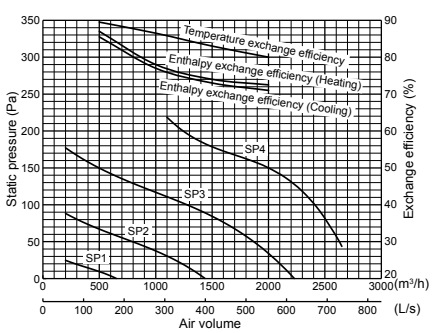
LGH-100RVX-E



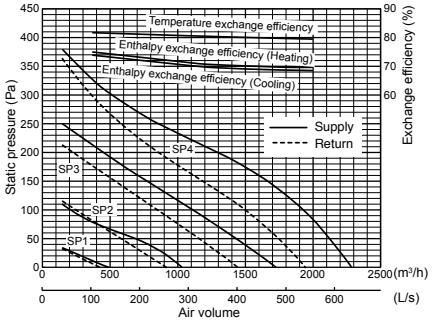
LGH-150RVX-E



LGH-200RVX-E



LGH-150RVXT-E



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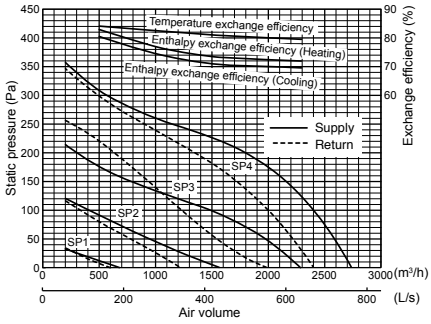

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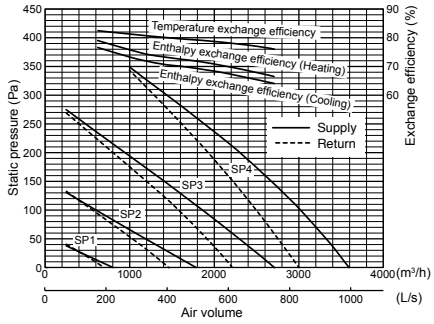
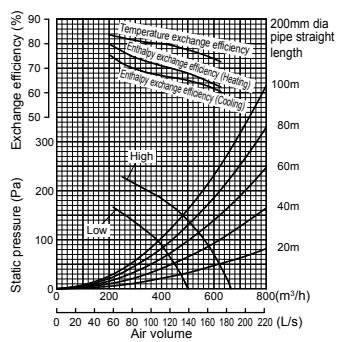
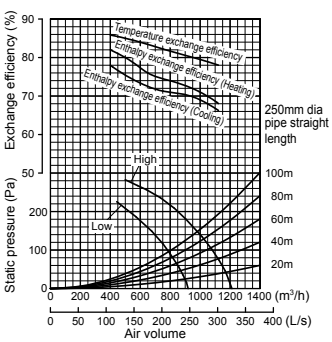


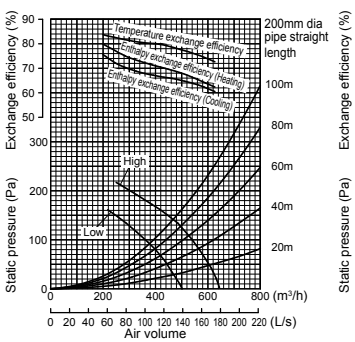
GUF-50RD4



GUF-100RD4



GUF-50RDH4



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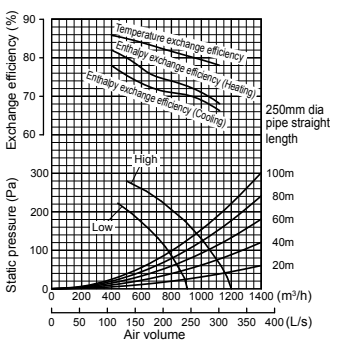
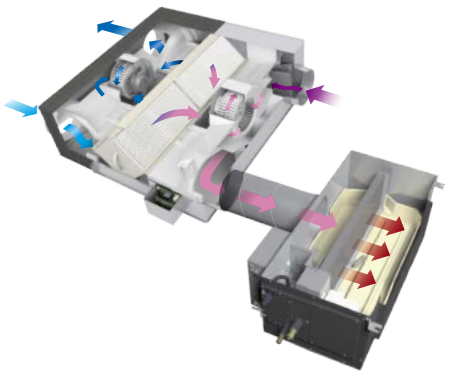


Optional Dx-coil Unit for Lossnay

Supply Comfortable Control

Product Features

- Lossnay return air and supply air temperature control are possible with Dx-coil unit which is connectable with Mr. Slim (Power inveter series)
- Expand the product line-up of Lossnay with temperature control (500-2,500CMH) by the connection of Dx-coil unit.
  Suitable for various applications such as offices, shops and schools etc.

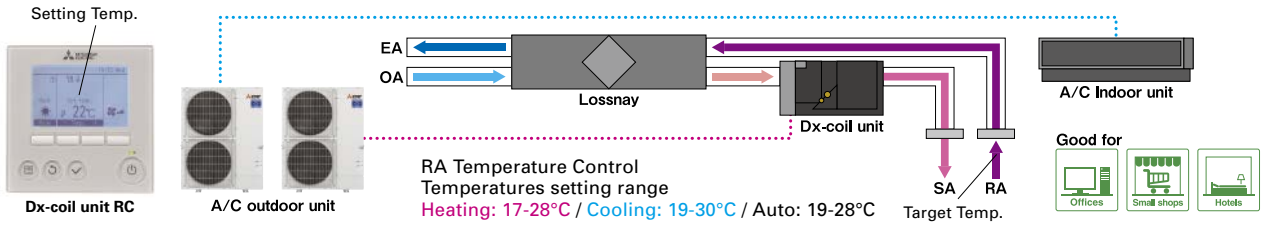


■ Target Application

Application Examples

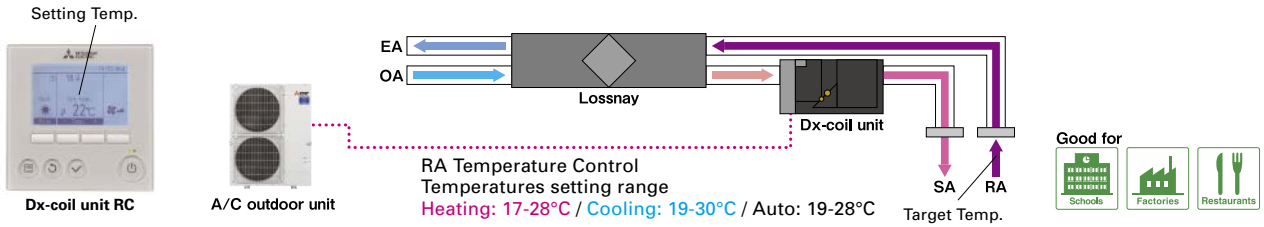
Supplemental Air-conditioning System (Return Air Temperature Control)

There may be the possibility of reducing 1 air-conditioning system by using return air temperature control as air-conditioning system.



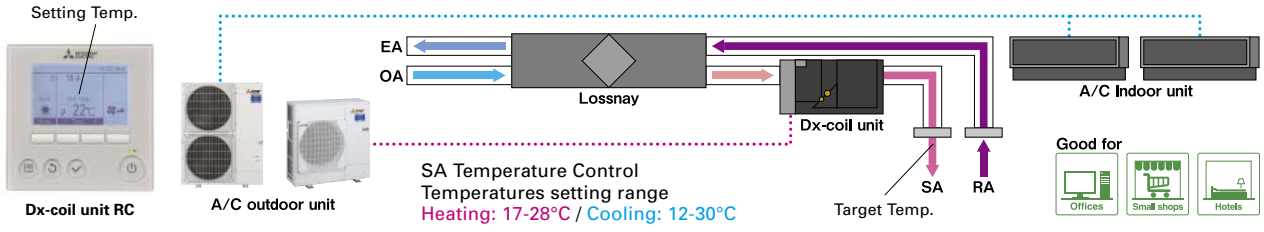
Main Air-conditioning System (Return Air Temperature Control)

Possible to use Lossnay + Dx-coil unit as main air-conditioning and ventilation system for lower air-conditioning load application.



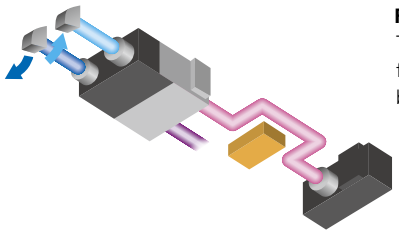
Outdoor Air Treatment System (Supply Air Temperature Control)

Controlling the temperature of outdoor air simplifies air-conditioning design and control.



*Example images of using LGH-RVXT series for reference only.

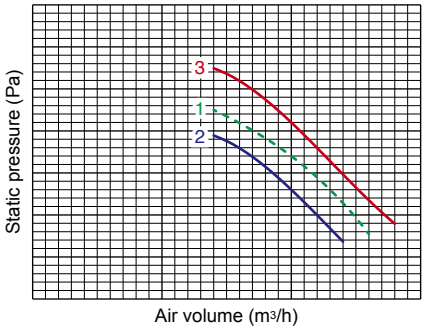
Flexible Installation



Flexible Connection to Lossnay

The length of the connection cable (accessory) between the Lossnay and Dx-coil unit is about 6m, so flexible installation is possible (two units can be installed close together or far apart with straight or bent ducting).

To Keep High Static Pressure

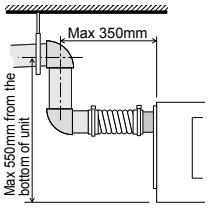


P-Q curve image
1. Lossnay unit
2. Lossnay unit + Dx-coil unit
3. Lossnay unit (fan power up +4) + Dx-coil unit

Dx-coil unit static pressure loss is kept to minimum, making it possible to maintain high static pressure using the fan power up function of the Lossnay. The fan power up function is only available when used with the PZ-61DR-E Lossnay remote controller.

Drain Pump Equipment

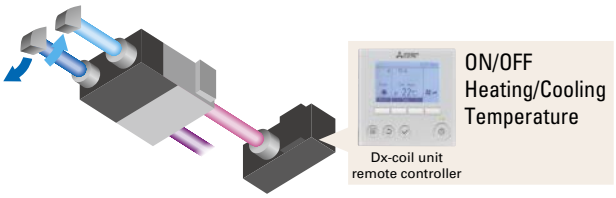
A built-in drain pump makes, attaching the drain hose in the ceiling cavity easy, resulting in simple and fast installation.



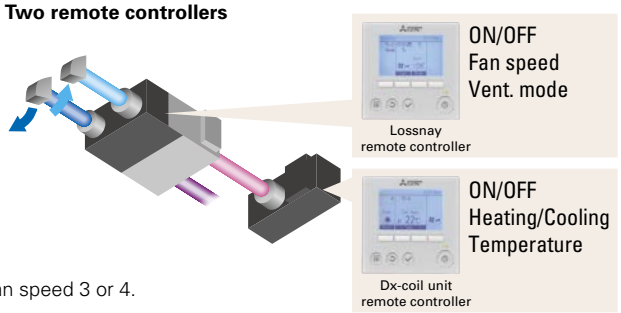
User-friendly System Control

Flexible Remote Controller Selection

(A) One remote controller



(B) Two remote controllers



When using only one remote controller, the Lossnay fan speed is fixed at fan speed 3 or 4.
When using two remote controllers, all of Lossnay function is available.
*1: Both of Lossnay unit and Dx-coil unit will synchronously switch to ON and OFF.
*2: When one of the two remote controllers is turned ON, the other remote controller turns ON synchronously.

Priority Mode Selection

Temperature priority mode (factory setting) or Fan speed priority mode are selectable when Lossnay unit fan speed is controlled by a CO_2-sensor or a BMS (analogue input (0-10VDC) or a volt-free input).

*During fan speed 1 or 2, the Dx-coil unit is always thermo-OFF

Operation mode	Fan speed order from external input	Actual fan speed	
		Temp. priority	Fan speed priority
Heating or Cooling	FS4	FS4	FS4
	FS3	FS3	FS3
	FS2	FS3	FS2
	FS1	FS3	FS1
Fan	FS4	FS4	FS4
	FS3	FS3	FS3
	FS2	FS2	FS2
	FS1	FS1	FS1

Specifications

GUG Series

GUG-01SL-E

GUG-02SL-E

GUG-03SL-E

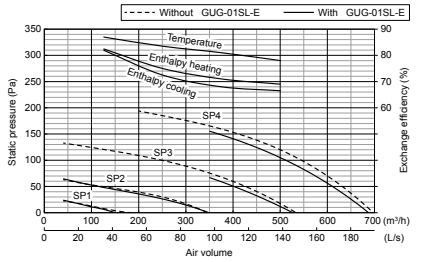
Model		GUG-01SL-E (Connection to LGH-50RVX-E or LGH-65RVX-E)				GUG-02SL-E (Connection to LGH-80RVX-E or LGH-100RVX-E)			
Refrigerant		R410A				R410A			
Electrical power supply		220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)				220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)			
Input power		Heating / Fan: 2.5W, Cooling: 12.4W				Heating / Fan: 2.5W, Cooling: 12.4W			
Running current		Less than 0.1A				Less than 0.1A			
Weight		21kg *Accessories: Approx. 1kg				26kg *Accessories: Approx. 1kg			
Function		Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control				Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control			
		RA (Return Air) temperature control				RA (Return Air) temperature control / SA (Supply Air) temperature control [Must be set at initial setting and not possible to change from remote controller]			
RA (Return Air) temperature control									
Connectable Lossnay unit		LGH-50RVX-E				LGH-65RVX-E			
Capacity [kW]	Heating	6.5 (2.4 + 4.1)				7.7 (3.2 + 4.5)			
	Cooling	5.6 (2.0 + 3.6)				6.6 (2.6 + 4.0)			
SHF		0.66				0.69			
Performance index	Heating	4.09				4.72			
	Cooling	4.69				5.03			
Air flow range at SP3 and SP4		350 - 695 m^3/h				350 - 900 m^3/h			
Connectable outdoor unit		PUHZ-ZRP35				PUHZ-ZRP35			
Ext. piping		Diameter Liquid / Gas: 6.35 / 12.7				Diameter Liquid / Gas: 6.35 / 12.7			
		Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m			
Required optional parts		–				–			
SA (Supply Air) temperature control									
Connectable Lossnay unit		–				–			
Capacity [kW]	Heating	–				–			
	Cooling	–				–			
SHF		–				–			
Performance index	Heating	–				–			
	Cooling	–				–			
Air flow range at SP3 and SP4		–				–			
Connectable outdoor unit		–				–			
Ext. piping		–				–			
		–				–			
Required optional parts		–				–			
Ventilation specifications									
Connectable Lossnay unit		LGH-50RVX-E				LGH-65RVX-E			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Air Volume	[m^3/h]	500	375	250	125	650	488	325	163
	[L/s]	139	104	69	35	181	135	90	45
External static pressure [Pa]		105	59	26	7	95	53	24	6

Model		GUG-01SL-E (Connection to LGH-80RVX-E or LGH-100RVX-E)				GUG-02SL-E (Connection to LGH-80RVX-E or LGH-100RVX-E)			
Refrigerant		R410A				R410A			
Electrical power supply		220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)				220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)			
Input power		Heating / Fan: 2.5W, Cooling: 12.4W				Heating / Fan: 2.5W, Cooling: 12.4W			
Running current		Less than 0.1A				Less than 0.1A			
Weight		26kg *Accessories: Approx. 1kg				26kg *Accessories: Approx. 1kg			
Function		Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control				Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control			
		RA (Return Air) temperature control / SA (Supply Air) temperature control [Must be set at initial setting and not possible to change from remote controller]				RA (Return Air) temperature control / SA (Supply Air) temperature control [Must be set at initial setting and not possible to change from remote controller]			
RA (Return Air) temperature control									
Connectable Lossnay unit		LGH-80RVX-E				LGH-100RVX-E			
Capacity [kW]	Heating	10.0 (4.0 + 6.0)				13.2 (5.1 + 8.1)			
	Cooling	8.3 (3.3 + 5.0)				11.3 (4.2 + 7.1)			
SHF		0.69				0.66			
Performance index	Heating	4.62				4.42			
	Cooling	4.76				4.98			
Air flow range at SP3 and SP4		560 - 1200 m^3/h				700 - 1200 m^3/h			
Connectable outdoor unit		PUHZ-ZRP50				PUHZ-ZRP71			
Ext. piping		Diameter Liquid / Gas: 6.35 / 12.7				Diameter Liquid / Gas: 9.52 / 15.88			
		Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m			
Required optional parts		PAC-SH30RJ-E and PAC-SH50RJ-E				–			
SA (Supply Air) temperature control									
Connectable Lossnay unit		LGH-80RVX-E				LGH-100RVX-E			
Capacity [kW]	Heating	10.0 (4.0 + 6.0)				11.4 (5.1 + 6.3)			
	Cooling	8.3 (3.3 + 5.0)				9.5 (4.2 + 5.3)			
SHF		0.69				0.73			
Performance index	Heating	4.62				5.09			
	Cooling	4.76				5.43			
Air flow range at SP3 and SP4		560 - 1200 m^3/h				700 - 1200 m^3/h			
Connectable outdoor unit		PUHZ-ZRP50				PUHZ-ZRP50			
Ext. piping		Diameter Liquid / Gas: 6.35 / 12.7				Diameter Liquid / Gas: 6.35 / 12.7			
		Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m			
Required optional parts		PAC-SH30RJ-E and PAC-SH50RJ-E				PAC-SH30RJ-E and PAC-SH50RJ-E			
Ventilation specifications									
Connectable Lossnay unit		LGH-80RVX-E				LGH-100RVX-E			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Air Volume	[m^3/h]	800	600	400	200	1,000	750	500	250
	[L/s]	222	167	111	56	278	208	139	69
External static pressure [Pa]		130	73	33	8	130	73	33	8

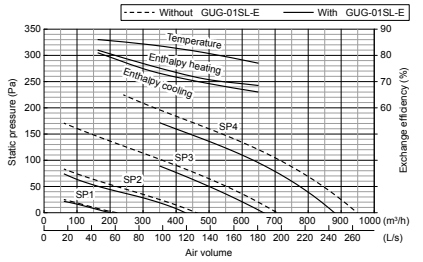
Model		GUG-03SL-E (Connection to LGH-150RVX-E or LGH-200RVX-E)								GUG-03SL-E (Connection to LGH-150RVXT-E, LGH-200RVXT-E or LGH-250RVXT-E)											
Refrigerant		R410A																			
Electrical power supply		220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)																			
Input power		Heating / Fan: 2.5W, Cooling: 12.4W																			
Running current		Less than 0.1A																			
Weight		28kg *Accessories: Approx. 1kg																			
Function		Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control																			
		RA (Return Air) temperature control / SA (Supply Air) temperature control [Must be set at initial setting and not possible to change from remote controller]																			
RA (Return Air) temperature control																					
Connectable Lossnay unit		LGH-150RVX-E				LGH-200RVX-E				LGH-150RVXT-E				LGH-200RVXT-E				LGH-250RVXT-E			
Capacity [kW]	Heating	20.7 (7.7 + 13.0)				23.8 (10.3 + 13.5)				20.4 (7.4 + 13.0)				23.8 (10.3 + 13.5)				26.1 (12.1 + 14.0)			
	Cooling	15.8 (6.3 + 9.5)				18.4 (8.4 + 10.0)				15.7 (6.2 + 9.5)				18.4 (8.4 + 10.0)				22.3 (9.8 + 12.5)			
SHF		0.68				0.76				0.68				0.76				0.87			
Performance index	Heating	4.24				5.02				4.07				4.86				4.75			
	Cooling	5.27				5.86				5.03				5.59				4.59			
Air flow range at SP3 and SP4		1050 - 2250 m^3/h				1050 - 2600 m^3/h				1050 - 2250 m^3/h				1050 - 2600 m^3/h				1750 - 2880 m^3/h			
Connectable outdoor unit		PUHZ-ZRP100				PUHZ-ZRP100				PUHZ-ZRP100				PUHZ-ZRP100				PUHZ-ZRP125			
Ext. piping		Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88			
		Maximum length: 75m, Maximum height: 30m				Maximum length: 75m, Maximum height: 30m				Maximum length: 75m, Maximum height: 30m				Maximum length: 75m, Maximum height: 30m				Maximum length: 75m, Maximum height: 30m			
SA (Supply Air) temperature control																					
Connectable Lossnay unit		LGH-150RVX-E				LGH-200RVX-E				LGH-150RVXT-E				LGH-200RVXT-E				LGH-250RVXT-E			
Capacity [kW]	Heating	16.6 (7.7 + 8.9)				19.5 (10.3 + 9.2)				16.3 (7.4 + 8.9)				19.5 (10.3 + 9.2)				21.6 (12.1 + 9.5)			
	Cooling	13.4 (6.3 + 7.1)				15.9 (8.5 + 7.4)				13.3 (6.2 + 7.1)				15.9 (8.5 + 7.4)				17.6 (9.8 + 7.8)			
SHF		0.85				0.90				0.86				0.90				0.95			
Performance index	Heating	5.46				6.30				5.16				6.01				5.97			
	Cooling	5.32				5.85				5.03				5.54				5.31			
Air flow range at SP3 and SP4		1050 - 2250 m^3/h				1050 - 2600 m^3/h				1050 - 2250 m^3/h				1050 - 2600 m^3/h				1000 - 2600 m^3/h			
Connectable outdoor unit		PUHZ-ZRP71				PUHZ-ZRP71				PUHZ-ZRP71				PUHZ-ZRP71				PUHZ-ZRP71			
Ext. piping		Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88			
		Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m			
Ventilation specifications																					
Connectable Lossnay unit		LGH-150RVX-E				LGH-200RVX-E				LGH-150RVXT-E				LGH-200RVXT-E				LGH-250RVXT-E			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Air Volume	[m^3/h]	1,500	1,125	750	375	2,000	1,500	1,000	500	1,500	1,125	750	375	2,000	1,500	1,000	500	2,500	1,875	1,250	625
	[L/s]	417	313	208	104	556	417	278	139	417	313	208	104	556	417	278	139	694	521	347	174
External static pressure [Pa]		150	84	38	9	105	59	26	7	150	84	38	9	145	82	36	9	140	79	35	9

Characteristic Curves

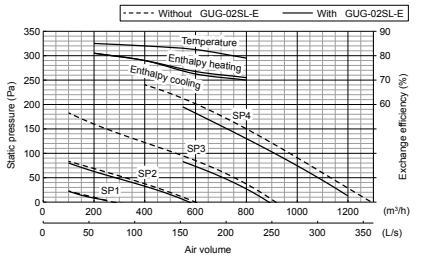
LGH-50RVX-E



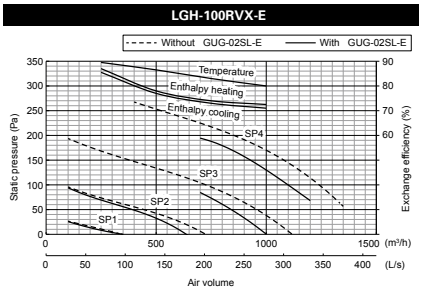
LGH-65RVX-E



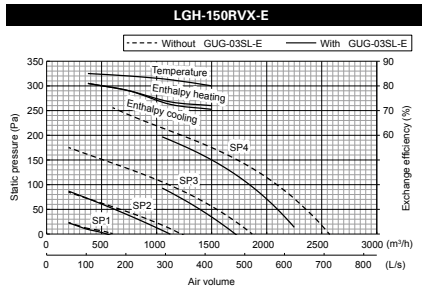
LGH-80RVX-E



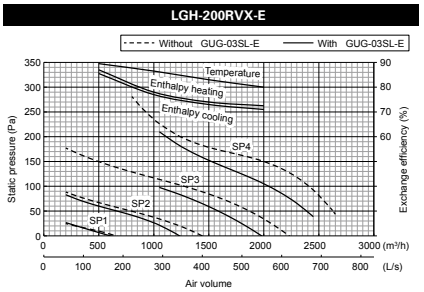
LGH-100RVX-E



LGH-150RVX-E

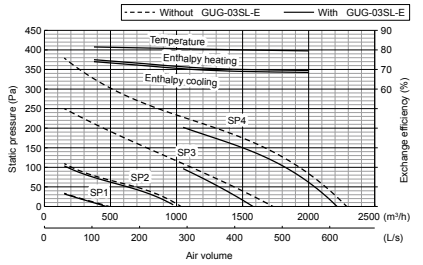


LGH-200RVX-E

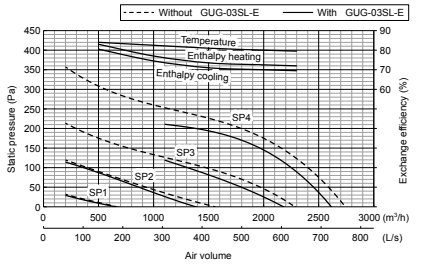


***Note The graphs below show the supply air only.**

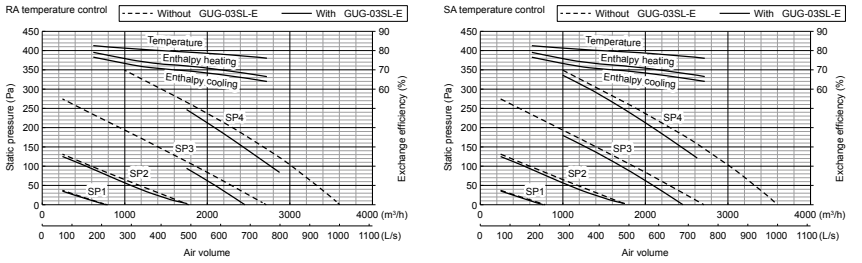
LGH-150RVXT-E



LGH-200RVXT-E



LGH-250RVXT-E



Attention

1. The running current and input power are based on 230V/50Hz.
2. The cooling and heating capacities are based on the air conditions listed below and the rated airflow of fan speed 4.
   Cooling Indoor: 27°CDB/19°CWB Outdoor: 35°CDB/24°CWB
   Heating Indoor: 20°CDB/15°CWB Outdoor: 7°CDB/6°CWB
3. The first figure in ( ) of the capacity specification is the heat recovery energy of the Lossnay unit. The second figure is the capacity specification for the Dx-coil connected to the outdoor unit.
4. "Performance index" is the calculated value at the temperature conditions above and is reference purpose only.
   Performance index = Total capacity ÷ total power consumption of outdoor unit and Lossnay unit
5. The external static pressure listed in the tables includes the static pressure loss of the Dx-coil unit when using a 50cm straight duct between the Lossnay and Dx-coil units. When the duct work between the Lossnay and Dx-coil units is longer and/or bent, the pressure loss of the duct work should be included in the pressure loss calculation.
6. The designed airflow of the system (Lossnay, Dx-coil and duct work) at fan speed 3 and 4 should be kept within "Airflow range at SP3 and SP4" listed in the tables. This range is shown as the solid line in graphs of the characteristics curve. If the Lossnay airflow is out of this range, the compressor of the outdoor unit may stop for self-protection purposes.
7. By installing the Dx-coil unit with a Lossnay unit, the air blow noise level is quieter at fan speed 4.
   Please refer to the "Direct Expansion coil unit for Lossnay" catalogue.
8. Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere.
   This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.