

VENTILATION SOLUTIONS

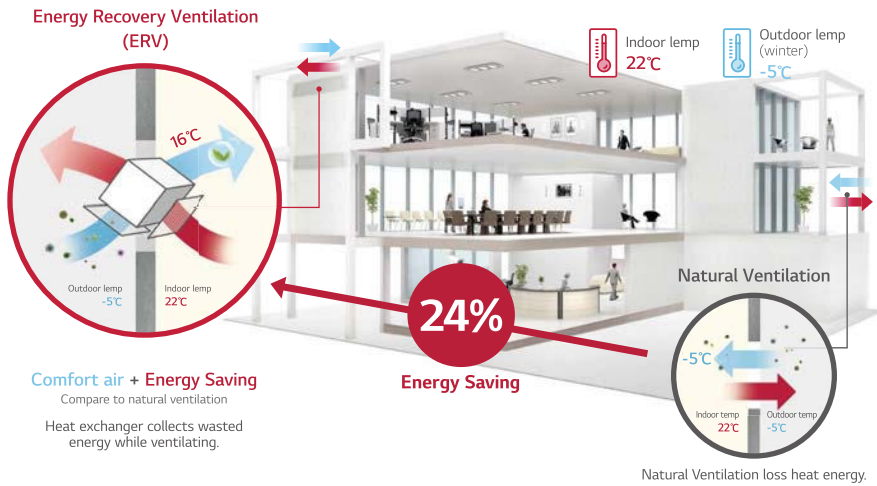
ERV



ERV

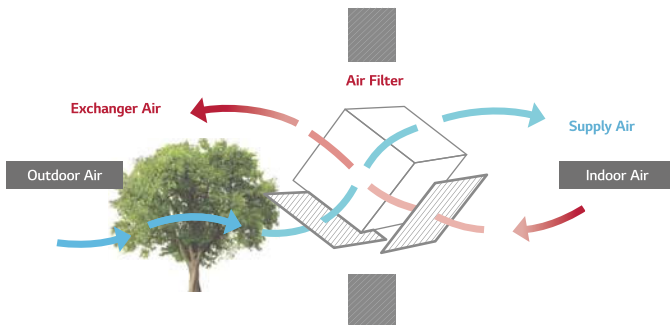
Necessity of ERV

Natural ventilation loss cooling, heating energy when exhausting polluted air inside. Heat exchanger in ERV collects the cooling, heating energy to save energy while supplying fresh air.



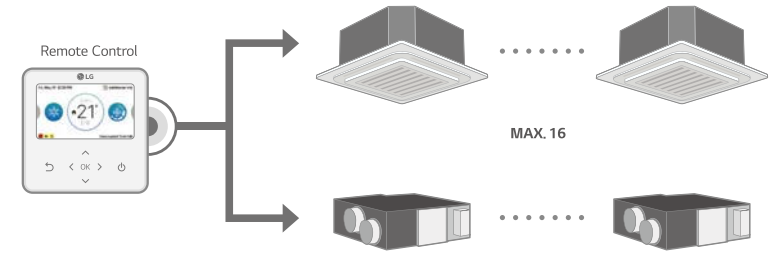
High Efficiency Heat Exchanger

Efficiency and comfort is ensured through the high-efficiency energy recovery central core which recovers energy from the indoor air and transfers it to the fresh incoming air without mixing airstream.



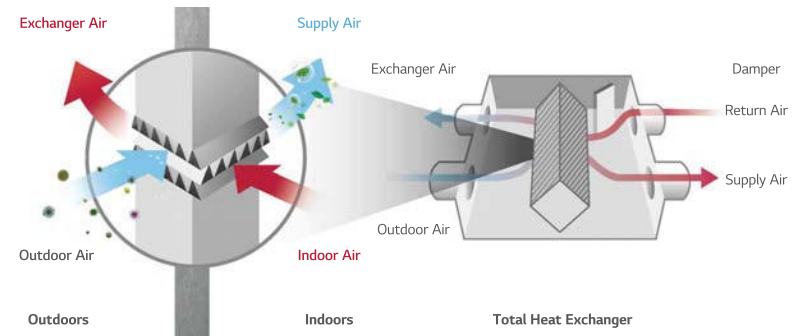
Interlocking with Air Conditioning System

- LG ERV can be interlocked with air conditioners and controlled individually.
- This function can be operated when the system is connected with a remote control



Compulsory Exhausting System

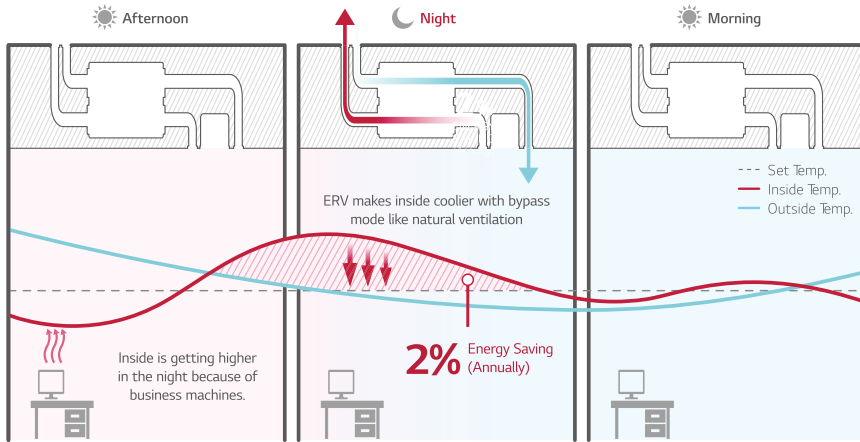
The exhausting system using high static and sirocco fan removes contaminants effectively from indoor air. Supply and exhaust air flows are completely separated in the total heat exchanger, LG ERV can filter out the impurities before supplying outdoor air and make indoor air fresh and healthy.



ERV

Night Time Free Cooling

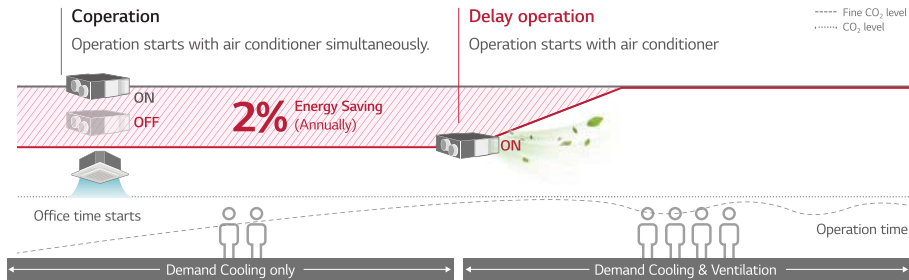
Discharge the indoor heat in the summer night and supply cool outdoor air to indoors, so it can save energy.



* This function is operated with 'Night Time Free Cooling' on remote controller. (with MULTI V only)
 ** Energy saving ratio can be differed by weather condition.
 ※ Test Condition
 - Office (49,000ft²) / Occupancy : 30 / Area : London, UK
 - ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

Delay Operation

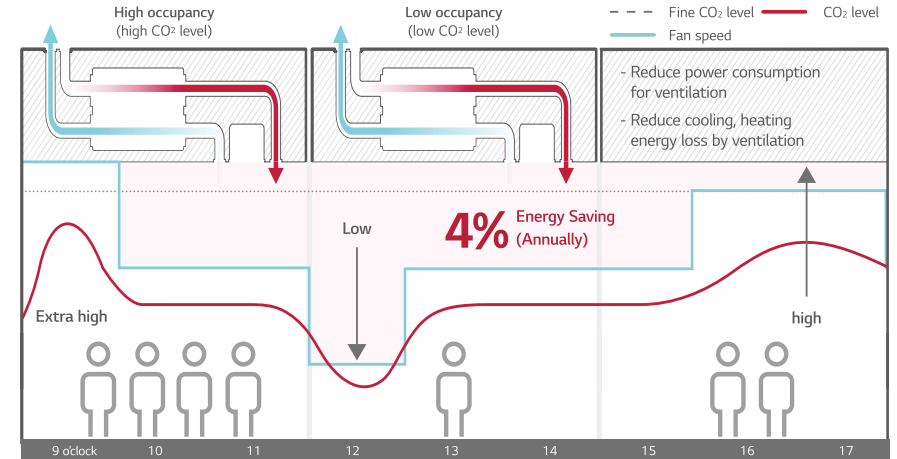
When you turn on the air conditioner and ERV At the same time, Delay Operation can reduce unnecessary heating and cooling energy loss slows down automatically ERV operation.



* This function is operated with 'Night Time Free Cooling' on remote controller. (with MULTI V only)
 ** Energy saving ratio can be differed by weather condition.
 ※ Test Condition
 - Office (49,000ft²) / Occupancy : 30 / Area : London, UK
 - ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

CO₂ Auto Operation

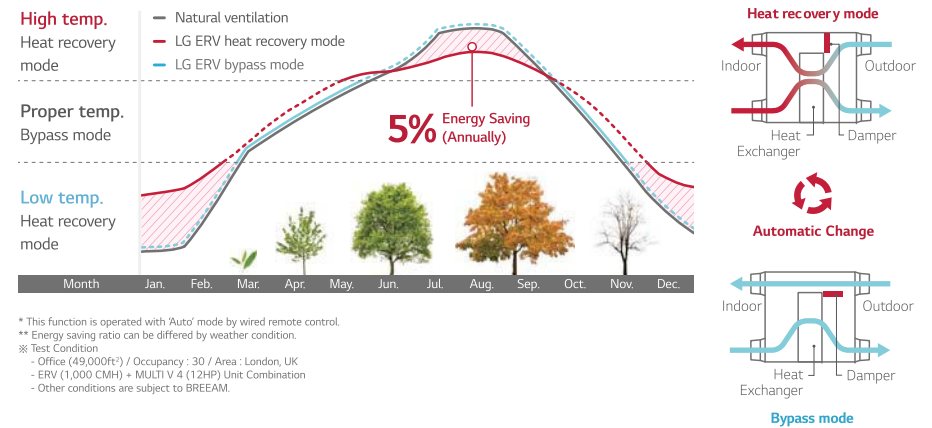
LG ERV reduces energy loss with auto fan speed control following CO₂ level



* This function is operated with 'Night Time Free Cooling' on remote controller. (with MULTI V only)
 ** Energy saving ratio can be differed by weather condition.
 ※ Test Condition
 - Office (49,000ft²) / Occupancy : 30 / Area : London, UK
 - ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

Seasonal Auto Operation

LG ERV senses outdoor temperature and operates automatically following weather condition.



* This function is operated with 'Auto' mode by wired remote control.
 ** Energy saving ratio can be differed by weather condition.
 ※ Test Condition
 - Office (49,000ft²) / Occupancy : 30 / Area : London, UK
 - ERV (1,000 CMH) + MULTI V 4 (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

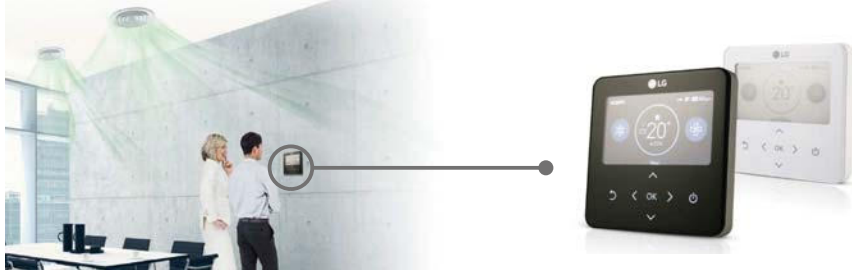
ERV

CO₂ Level Monitoring

CO₂ sensor senses CO₂ level in the room. Users can monitor CO₂ level on new wired remote controller, and ERV controls the fan speed automatically following the level.

CO₂ Level Visualization

CO₂ sensor senses indoor CO₂ level and displays it on new wired remote controller.

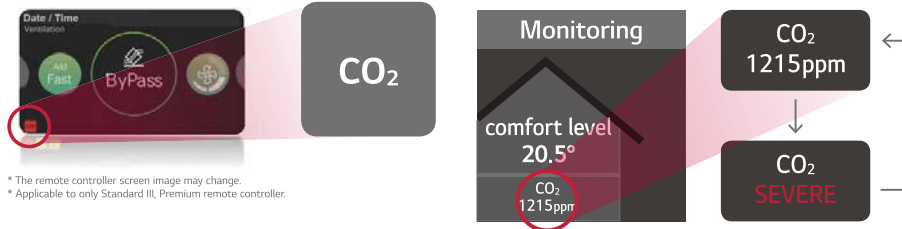


Main display

If the CO₂ level is above 900ppm in the room, the red mark is on.

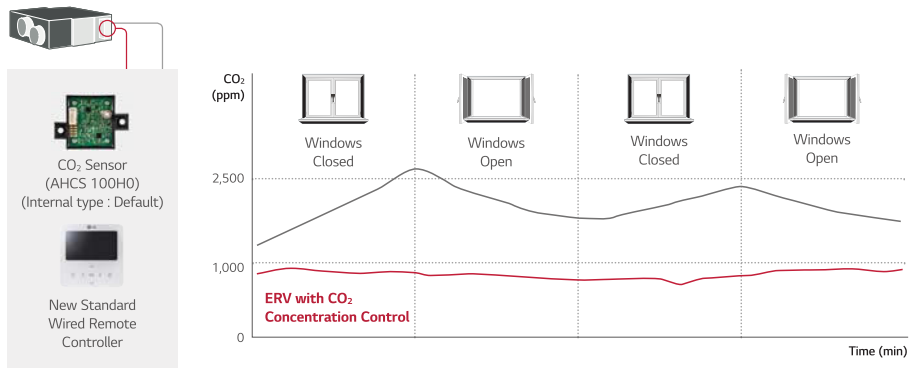
Further information

CO₂ level and room condition are displayed continuously.



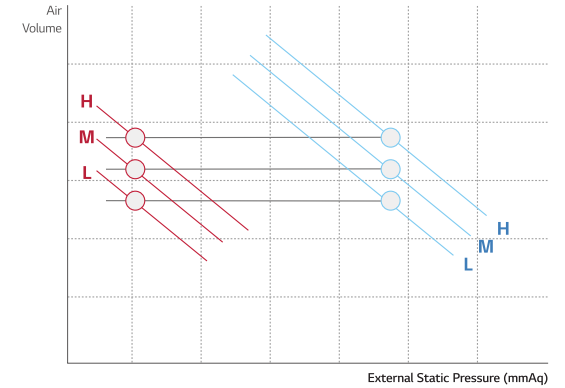
CO₂ Concentration Control

Using CO₂ sensor, LG ERV controls exhaust air flow automatically to keep indoor air fresh under settled CO₂ concentration.



External Static Pressure Control

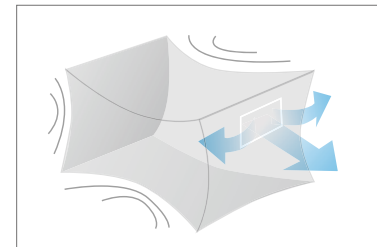
The high static pressure fan can control the air volume depending on the length of the duct. It is also easy to control the pressure level by using the remote controller for a more flexible duct installation and easier testing.



Fast Ventilation Mode

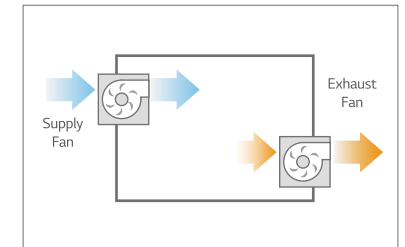
Fast ventilation mode prevents the spread of contaminants under negative indoor pressure, and makes indoor air fresh and comfortable quickly.

Only Exhausting



Exhausting operation causes negative indoor air pressure, and cannot fully ventilate.

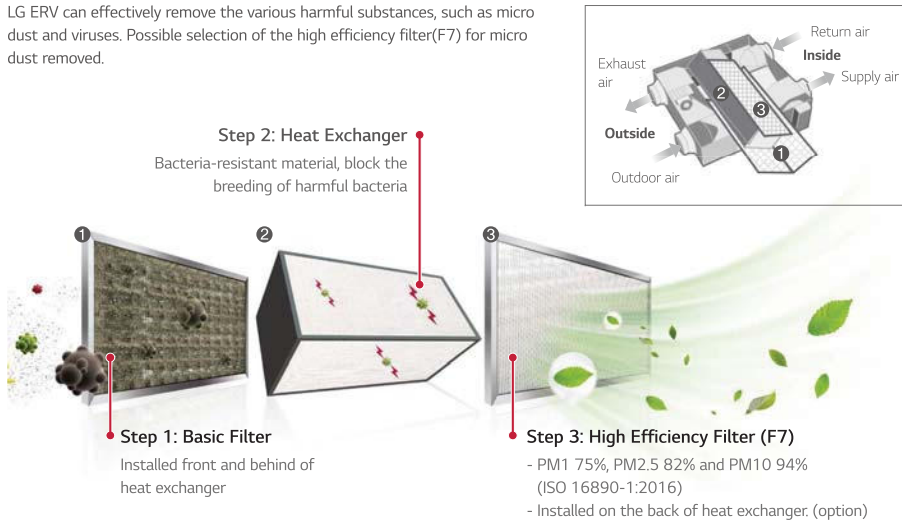
Fast Ventilation Mode



ERV

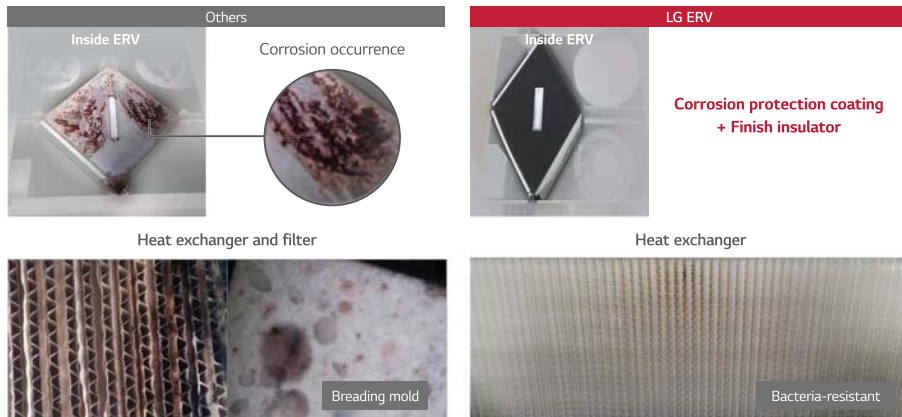
Air Purifying System (3 Steps)

LG ERV can effectively remove the various harmful substances, such as micro dust and viruses. Possible selection of the high efficiency filter(F7) for micro dust removed.



High Durability

LG ERV durability is increased through bacteria-resistant material of heat exchanger and Corrosion protection coating. It prevents shortening product life due to corrosion and mold and supplies high quality air to inside by minimizing the bacteria.



New Easy Controller

New wired remote controller is easy for usage.



Easy

- Navigation buttons, easy to use.
- Easy installation setting



Visible

- Indoor CO₂ level
- Alarm for filter change / Remained time to change filters

Convenient

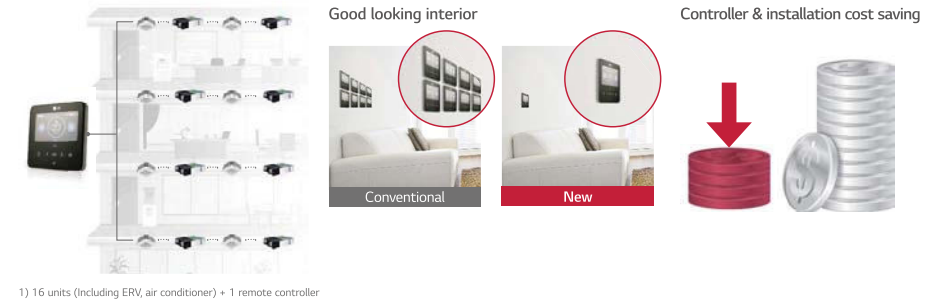
- Flexible display
- Dual display with air conditioner.
- Zoom selected directory to increase legibility.

Group Control

One wired remote control up to sixteen ERV (including air conditioning) You can reduce the remote installation costs and enjoy good looking interior wall effect.

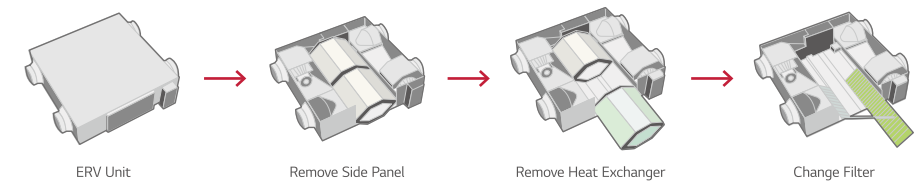
Several units combination

16 units group control is available with 1 remote controller.



Easy Cleaning and Filter Change

It is easy and convenient to change and clean the filter.



ERV

LZ-H025GBA4 / LZ-H035GBA4 / LZ-H050GBA4



Model		LZ-H025GBA4	LZ-H035GBA4	LZ-H050GBA4
Nominal Capacity	CMH (CFM)	250 (147)	350 (206)	500 (294)
Power Supply	Ø / V / Hz	1 / 220-240 / 50, 60		
ERV Mode	Step	SUPER-HIGH / HIGH / LOW		
	Current	SH / H / L	1.10 / 0.95 / 0.60	1.92 / 1.58 / 0.79
	Power Input	SH / H / L	97 / 78 / 52	180 / 163 / 88
	Air Flow	SH / H / L	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)
	External Static Pressure	SH / H / L	100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 130 / 100 (0.60 / 0.52 / 0.40)
	Temperature Exchange Efficiency	SH / H / L	80 / 80 / 83	75 / 75 / 77
	Enthalpy Exchange Efficiency	Heating (SH / H / L) %	70 / 70 / 72	68 / 68 / 70
		Cooling (SH / H / L) %	66 / 66 / 68	63 / 63 / 65
	Noise Level (Sound Level, 1.5m)	SH / H / L	29 / 28 / 24	32 / 30 / 27
			SUPER-HIGH / HIGH / LOW	
Bypass Mode	Step	SUPER-HIGH / HIGH / LOW		
	Current	SH / H / L	1.10 / 0.95 / 0.60	1.92 / 1.58 / 0.79
	Power Input	SH / H / L	97 / 78 / 52	180 / 163 / 88
	Air Flow	SH / H / L	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)
	External Static Pressure	SH / H / L	100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 130 / 100 (0.60 / 0.52 / 0.40)
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	Enthalpy Exchange Efficiency	Heating (SH / H / L) %	70 / 70 / 72	68 / 68 / 70
		Cooling (SH / H / L) %	66 / 66 / 68	63 / 63 / 65
	Noise Level (Sound Level, 1.5m)	SH / H / L	29 / 29 / 25	32 / 30 / 27
			SUPER-HIGH / HIGH / LOW	
Heat Exchanger	Type	Air to air cross flow heat exchange		
Net Weight	kg	44	44	44
Dimension	W x H x D	988 x 273 x 1,014		
Duct work*	Qty	4		
	Size (Ø)	Ø200		
Supply Air Fan	Qty	1		
	Type	Direct-Drive (Sirocco Fan)		
Exhaust Air Fan	Qty	1		
	Type	Direct-Drive (Sirocco Fan)		
Filters (Default)	Qty	2		
	Type	Cleanable fibrous fleeces		
	Size (W x H x D)	855 x 10 x 160		
Filters (Optional)	Model	AHFT035SH0		
	Qty	2		
	Type	F7		
Dry Contact	Size (W x H x D)	423.5 x 132 x 25		
		PDRYCB000		

- Note: 1. ERV mode: Total Heat Recovery Ventilation mode
 2. *: Refer to dimensional drawings.
 3. Noise level: - The operating conditions are assumed to be standard
 - Sound measured at 1.5m below the center of the body.
 - Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
 - The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
 4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature: 26.5°C DB, 64.5% RH, Outdoor Temperature: 34.5°C DB, 75% RH
 5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature: 20.5°C DB, 59.5% RH, Outdoor Temperature: 5°C DB, 65% RH
 6. Temperature Exchange efficiency is tested at heating condition.
 7. F7 Filter is 2 pieces in 1 filter package

Premium	Standard III	Standard II	CO ₂ Sensor
PREMTA000 PREMTA000A PREMTA000B	PREMTB100	PREMTBB10	PREMTBB01
			AHCS100H0 (Internal Type)

LZ-H080GBA4 / LZ-H100GBA4
LZ-H150GBA4 / LZ-H200GBA4



Model		LZ-H080GBA4	LZ-H100GBA4	LZ-H150GBA4	LZ-H200GBA4	
Nominal Capacity	CMH (CFM)	800 (471)	1,000 (589)	1,500 (883)	2,000 (1,177)	
Power Supply	Ø / V / Hz	1 / 220-240 / 50, 60				
ERV Mode	Step	SUPER-HIGH / HIGH / LOW				
	Current	SH / H / L	2.77 / 2.16 / 1.44	3.41 / 2.90 / 1.76	5.60 / 5.40 / 2.90	6.80 / 5.90 / 3.60
	Power Input	SH / H / L	390 / 280 / 187	480 / 385 / 210	780 / 540 / 377	960 / 770 / 420
	Air Flow	SH / H / L	800 / 800 / 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)	1,500 / 1,500 / 1,200 (883 / 883 / 705)	2,000 / 2,000 / 1,600 (1,177 / 1,177 / 942)
	External Static Pressure	SH / H / L	200 / 110 / 60 (0.80 / 0.44 / 0.24)	160 / 90 / 50 (0.64 / 0.36 / 0.20)	200 / 110 / 60 (0.80 / 0.44 / 0.24)	160 / 90 / 50 (0.64 / 0.36 / 0.20)
	Temperature Exchange Efficiency	SH / H / L	79 / 79 / 82	77 / 77 / 78	79 / 79 / 82	77 / 77 / 78
	Enthalpy Exchange Efficiency	Heating (SH / H / L) %	72 / 72 / 74	70 / 70 / 72	72 / 72 / 74	70 / 70 / 72
		Cooling (SH / H / L) %	63 / 63 / 66	59 / 59 / 63	63 / 63 / 66	59 / 59 / 63
	Noise Level (Sound Level, 1.5m)	SH / H / L	40 / 37 / 31	41 / 38 / 32	43 / 40 / 34	44 / 41 / 35
			SUPER-HIGH / HIGH / LOW			
Bypass Mode	Step	SUPER-HIGH / HIGH / LOW				
	Current	SH / H / L	2.77 / 2.16 / 1.44	3.41 / 2.90 / 1.76	5.60 / 5.40 / 2.90	6.80 / 5.90 / 3.60
	Power Input	SH / H / L	390 / 280 / 187	480 / 385 / 210	780 / 540 / 377	960 / 770 / 420
	Air Flow	SH / H / L	800 / 800 / 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)	1,500 / 1,500 / 1,200 (883 / 883 / 705)	2,000 / 2,000 / 1,600 (1,177 / 1,177 / 942)
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	Temperature Exchange Efficiency	SH / H / L	79 / 79 / 82	77 / 77 / 78	79 / 79 / 82	77 / 77 / 78
	Enthalpy Exchange Efficiency	Heating (SH / H / L) %	72 / 72 / 74	70 / 70 / 72	72 / 72 / 74	70 / 70 / 72
		Cooling (SH / H / L) %	63 / 63 / 66	59 / 59 / 63	63 / 63 / 66	59 / 59 / 63
	Noise Level (Sound Level, 1.5m)	SH / H / L	41 / 38 / 32	41 / 39 / 33	44 / 41 / 35	44 / 42 / 36
			SUPER-HIGH / HIGH / LOW			
Heat Exchanger	Type	Air to air cross flow heat exchange				
Net Weight	kg	62	140	140	140	
Dimension	W x H x D	1,062 x 365 x 1,140				
Duct work*	Qty	4				
	Size (Ø)	Ø250				
Supply Air Fan	Qty	1				
	Type	Direct-Drive (Sirocco Fan)				
Exhaust Air Fan	Qty	1				
	Type	Direct-Drive (Sirocco Fan)				
Filters (Default)	Qty	2				
	Type	Cleanable fibrous fleeces				
	Size (W x H x D)	1,056 x 6 x 212.5				
Filters (Optional)	Model	AHFT100H0				
	Qty	2				
	Type	F7				
Dry Contact	Size (W x H x D)	520 x 192 x 25				
		PDRYCB000				

- Note: 1. ERV mode: Total Heat Recovery Ventilation mode
 2. *: Refer to dimensional drawings.
 3. Noise level: - The operating conditions are assumed to be standard
 - Sound measured at 1.5m below the center of the body.
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 6. Temperature Exchange efficiency is tested at heating condition.
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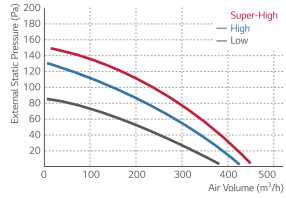
Premium	Standard III	Standard II	CO ₂ Sensor
PREMTA000 PREMTA000A PREMTA000B	PREMTB100	PREMTBB10	PREMTBB01
			AHCS100H0 (Internal Type: Default)

ERV

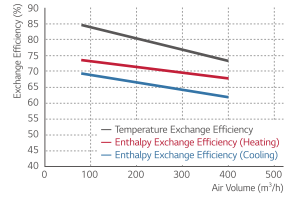
LZ-H025GBA4



Ventilation



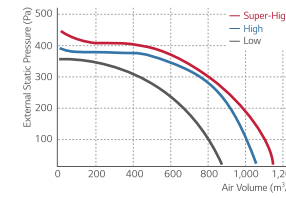
Efficiency



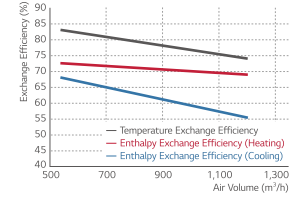
LZ-H100GBA5



Ventilation



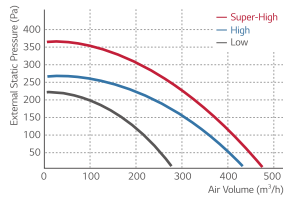
Efficiency



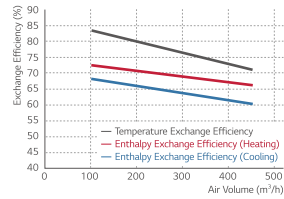
LZ-H035GBA5



Ventilation



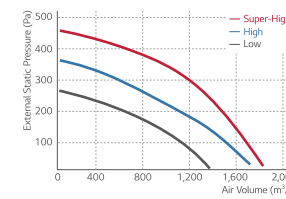
Efficiency



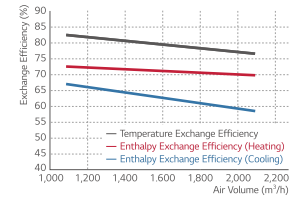
LZ-H150GBA5



Ventilation



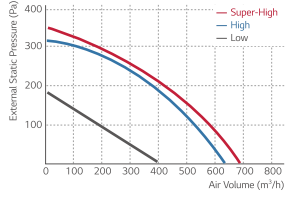
Efficiency



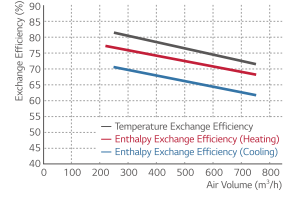
LZ-H050GBA5



Ventilation



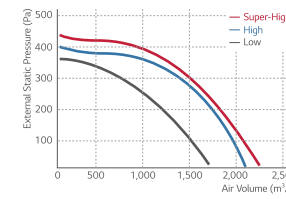
Efficiency



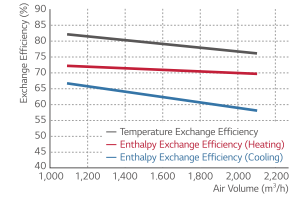
LZ-H200GBA5



Ventilation



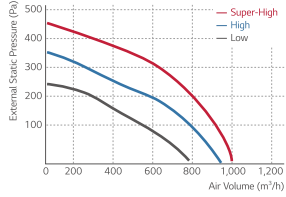
Efficiency



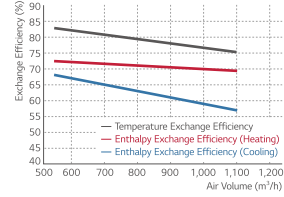
LZ-H080GBA5



Ventilation



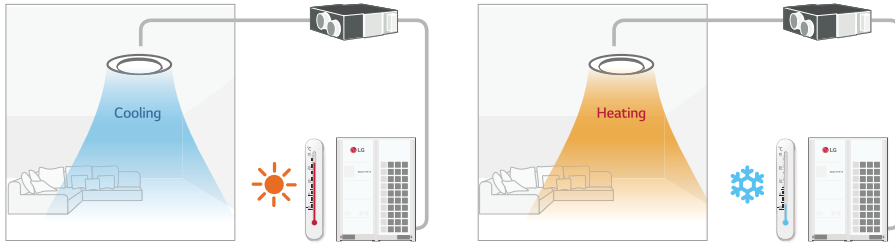
Efficiency



ERV WITH DX COIL

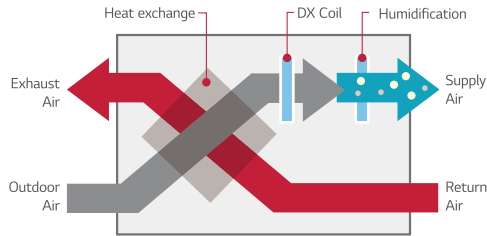
Providing Cool & Warm Fresh Air

During the summer, ERV DX can transform outdoor warm air into cool air for indoors, and it can prevent cold drafts during the winter by supplying warm air.



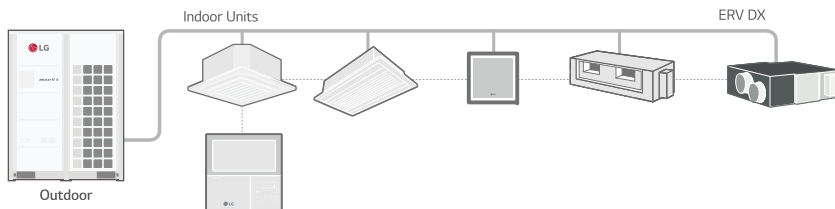
Total Air Conditioning Solution

LG ERV DX can be used as a Total Air Conditioning Solution. It can control condition of incoming air with the DX coil and humidifier for making comfortable indoor air. In the summer, LG ERV DX controls the air indoors by cooling and dehumidifying incoming air. In winter, it can provide warm air by heating and humidifying the incoming air.



Interlocking with MULTI V

LG ERV DX can be interlocked with MULTI V. It can be controlled individually by a wired remote controller connected to MULTI V indoor units.



LZ-H050GXH4 / LZ-H080GXH4 / LZ-H100GXH4
LZ-H050GXN4 / LZ-H080GXN4 / LZ-H100GXN4



Model		LZ-H050GXH4	LZ-H080GXH4	LZ-H100GXH4	LZ-H050GXN4	LZ-H080GXN4	LZ-H100GXN4
Fresh Air	Cooling	4.93	7.46	9.12	4.93	7.46	9.12
Conditioning Load	Heating	6.73	9.80	11.72	6.73	9.80	11.72
Temperature	SH / H / L	%	86 / 86 / 87	80 / 80 / 81	76 / 76 / 78	86 / 86 / 87	80 / 80 / 81
Exchange Efficiency	Cooling (SH / H / L)	%	61 / 61 / 63	50 / 50 / 53	45 / 45 / 50	61 / 61 / 63	50 / 50 / 53
Enthalpy Exchange Efficiency	Heating (SH / H / L)	%	76 / 76 / 77	67 / 67 / 69	64 / 64 / 66	76 / 76 / 77	67 / 67 / 69
Operation Range	Outdoor air Temperature	°C	-15 - 45	-15 - 45	-15 - 45	-15 - 45	-15 - 45
Air Flow Rate	Heat Exchange Mode (SH / H / L)	CMH	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640
Fan	Bypass Mode (SH / H / L)	CMH	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640
	External Static Pressure (SH / H / L)	Pa	160 / 120 / 100	140 / 90 / 70	110 / 70 / 60	180 / 150 / 110	170 / 120 / 80
Humidifier	System		Natural Evaporating Type				
	Amount	kg/h	2.70	4.00	5.40	-	
	Pressure Feed Water	Mpa	0.02 - 0.49				
Sound Pressure	Heat Exchange Mode (SH / H / L)	dB (A)	38 / 36 / 33	39 / 37 / 34	40 / 38 / 35	39 / 37 / 35	41 / 38 / 36
	Bypass Mode (SH / H / L)	dB (A)	39 / 37 / 34	40 / 38 / 35	40 / 38 / 35	39 / 37 / 35	41 / 38 / 36
Refrigerant			R410A				
Power Supply		Ø / V / Hz	1 / 220-240 / 50, 60				
Power Input (Nominal)	Heat Exchange Mode (SH / H / L)	kW	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25	0.48 / 0.42 / 0.27	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25
	Bypass Mode (SH / H / L)	kW	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25	0.48 / 0.42 / 0.27	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25
Nominal Running Current (RLA)	Heat Exchange Mode (SH / H / L)	A	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5
	Bypass Mode (SH / H / L)	A	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5
Heat exchange system			Air to air cross flow total heat (sensible + latent heat) exchange			Air to air cross flow total heat (sensible + latent heat) exchange	
Heat exchange element			Specially processed non-flammable paper			Specially processed non-flammable paper	
Air Filter			Multidirectional fibrous fleeces			Multidirectional fibrous fleeces	
Dimensions	W x H x D	mm	1,667 x 365 x 1,140			1,667 x 365 x 1,140	
Net Weight		kg	105			98	
	Liquid	mm	Ø6.35			Ø6.35	
	Gas	mm	Ø12.7			Ø12.7	
Piping Connection	Water	mm	Ø6.35			-	
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)			Ø25 (1)	
Connection Duct Diameter		mm	Ø250			Ø250	

Note : 1. Cooling Capacity Test condition - Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB
2. Heating Capacity Test condition - Indoor temperature : 20°C DB / Outdoor temperature : 7°C DB, 6°C WB
3. Humidifying capacity is based on the following conditions - Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB
4. Cooling and heating capacities are based on the following conditions : Fan is based on High and Super-high.
5. The operating sound measured at the point 1.5 m below the center of the unit is converted to that measured at an anechoic chamber.
6. The specifications, designs and information here are subject to change without notice.

Accessories

Chassis	LZ-H050GXH4	LZ-H080GXH4	LZ-H100GXH4	LZ-H050GXN4	LZ-H080GXN4	LZ-H100GXN4
Drain Pump	-	-	-	-	-	-
Cassette Cover	-	-	-	-	-	-
Refrigerant Leakage Detector	-	-	PRLDNV50	-	-	-
EEV Kit	-	-	-	-	-	-
Independent Power Module	-	-	-	-	-	-
Robot Cleaner	-	-	-	-	-	-
Pre Filter (washable / anti-fungus)	-	-	-	-	-	-
Ion Generator	-	-	-	-	-	-
CO ₂ Sensor	-	-	AHCS100H0	-	-	-
Ventilation Kit	-	-	-	-	-	-
IR Receiver	-	-	-	-	-	-
Zone Controller	-	-	-	-	-	-
Dry Contact (with additional accessory)	-	-	PDRYCB000 (1 point contact) PDRYCBS000 (Modbus)	-	-	-
External Input (1 point)	-	-	-	○	-	-
Wi-Fi	-	-	-	-	-	-

※ ○ : Applied, - : Not applied
Option : Refer to model name in table