
VENTILATION SOLUTIONS

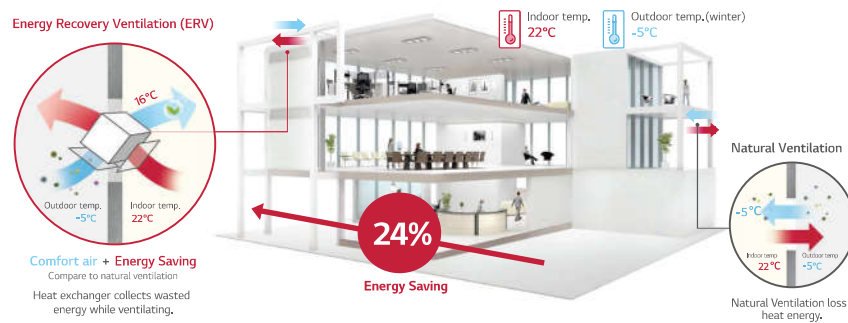
ERV



ENERGY RECOVERY VENTILATION (ERV)



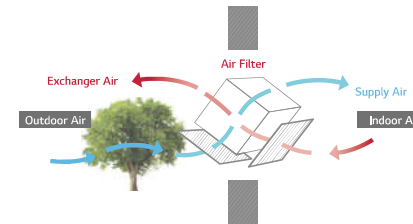
NECESSITY OF ERV



HIGH EFFICIENCY

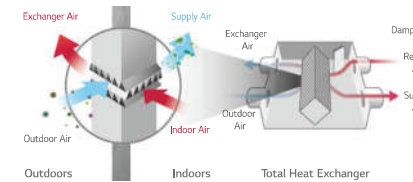
High Efficiency Heat Exchanger

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 the air stream.



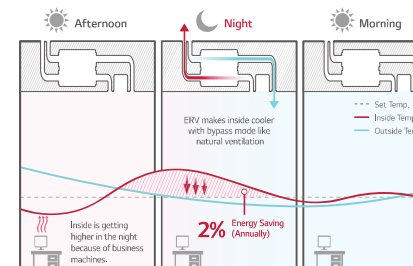
Compulsory Exhaust System

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.



Night Time Free Cooling

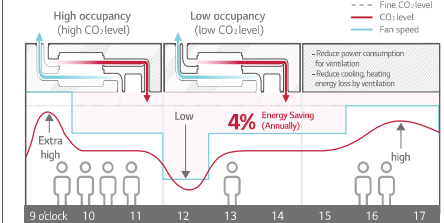
During summer nights, indoor heat can be discharged outdoors and cool outdoor air can be brought indoors for energy savings.



※ This function is operated with 'Night Time Free Cooling' on remote controller (with MULTIV only)
 ※ Energy saving ratio can be differed by weather condition.
 ※ Test Condition - Office (49,000ft²) / Occupancy : 30 / Area : London, UK
 - ERV (1,000 CMH) + MULTIV IV (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

CO₂ Auto Operation

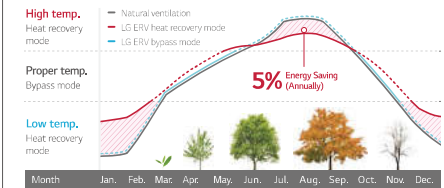
LG ERV reduces energy loss with auto fan speed control following CO₂ level



※ This function is operated with 'Night Time Free Cooling' on remote controls (with MULTIV only)
 ※ Energy saving ratio can be differed by weather condition.
 ※ Test Condition - Office (49,000ft²) / Occupancy : 30 / Area : London, UK
 - ERV (1,000 CMH) + MULTIV IV (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

Seasonal Auto Operation

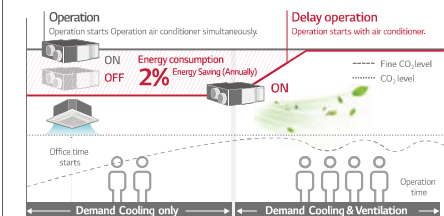
LG ERV senses outdoor temperature and operates automatically following weather condition.



※ 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) + MULTIV IV (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

Delay Operation

When the air conditioner and ERV are switched on simultaneously, delay operation can reduce unnecessary heating and cooling energy loss by slowing down automatic ERV operation.



※ This function is operated with 'Night Time Free Cooling' on remote controls (with MULTIV only)
 ※ Energy saving ratio can be differed by weather condition.
 ※ Test Condition - Office (49,000ft²) / Occupancy : 30 / Area : London, UK
 - ERV (1,000 CMH) + MULTIV IV (12HP) Unit Combination
 - Other conditions are subject to BREEAM.

COMFORT & RELIABILITY

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.

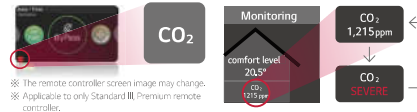
CO₂ Level Visualization

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



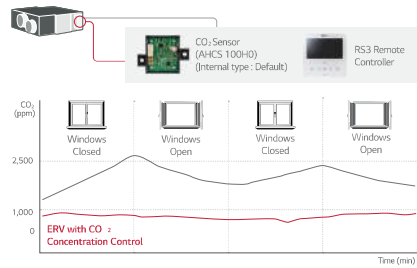
Main display
If the CO₂ level is above 900ppm in the room, the red mark is on.

Further information
CO₂ level and room condition are displayed continuously.



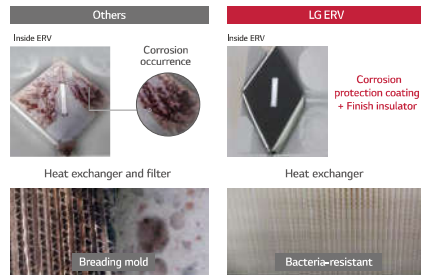
CO₂ Concentration Control

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



High Durability

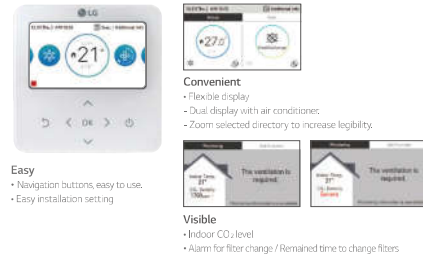
LG ERV durability is increased through bacteria-resistant material of heat exchanger and corrosion protection coating. It prevents shortening product life due to corrosion and mold and supplies high quality air to inside by minimizing the bacteria.



CONVENIENCE

Easy Control

Wired remote controller is easy for usage.

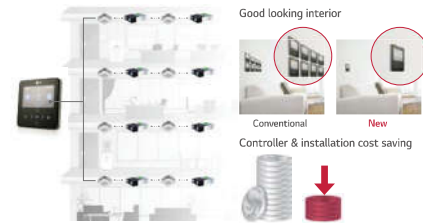


Group Control

1 wired remote controller up to 16 ERV (Including air conditioner). It is convenient for large common space such as lobby.

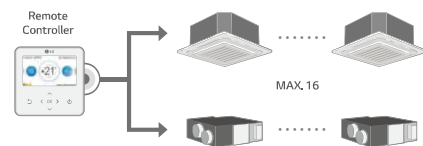
Several units combination

16 units group control is available with 1 remote controller.



Interlocking with Air Conditioning System

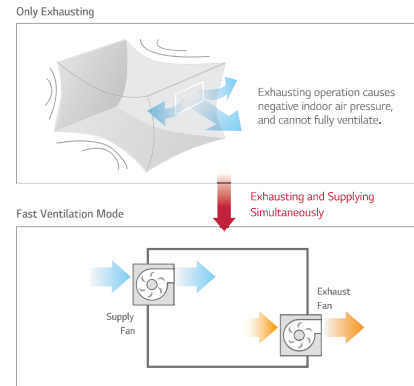
- LG ERV can be interlocked with air conditioners and controlled individually.
- This function can be operated when the system is connected with 1 remote controller.



CONVENIENCE

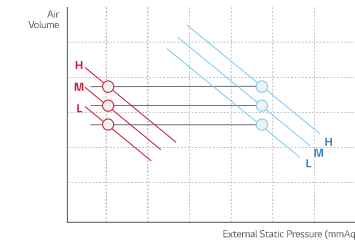
Fast Ventilation Mode

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



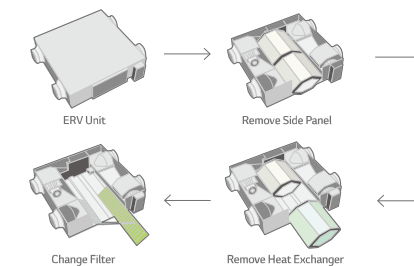
External Static Pressure Control

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.



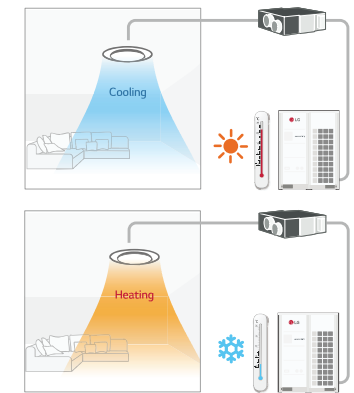
Easy Cleaning and Filter Change

Filter can be conveniently changed and cleaned.



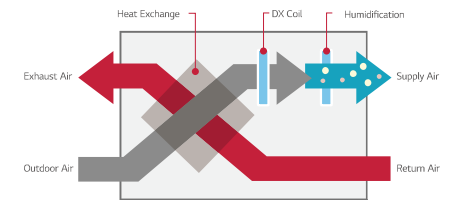
Providing Cool & Warm Fresh Air

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.



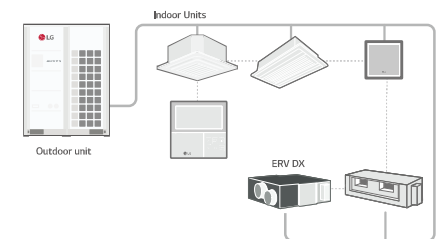
Total Air Conditioning Solution

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.



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	Amps	0.70 / 0.60 / 0.42	1.10 / 0.95 / 0.60	1.92 / 1.58 / 0.79
	Power Input	SH / H / L	W	97 / 78 / 52	180 / 163 / 88	240 / 220 / 90
	Air Flow	SH / H / L	CMH (CFM)	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)	500 / 500 / 320 (294 / 294 / 124)
	External Static Pressure	SH / H / L	Pa (inWTR)	100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 130 / 100 (0.60 / 0.52 / 0.40)	150 / 100 / 50 (0.60 / 0.40 / 0.20)
	Temperature Exchange Efficiency	SH / H / L	%	80 / 80 / 83	75 / 75 / 77	78 / 78 / 79
	Enthalpy Exchange Efficiency	Heating (SH / H / L)	%	70 / 70 / 72	68 / 68 / 70	73 / 73 / 75
		Cooling (SH / H / L)	%	66 / 66 / 68	63 / 63 / 65	66 / 66 / 69
	Noise Level (Sound Level, 1.5m)	SH / H / L	dB(A)	29 / 28 / 24	32 / 30 / 27	34 / 32 / 25
	Step	-	SUPER-HIGH / HIGH / LOW			
Bypass Mode	Current	SH / H / L	Amps	0.70 / 0.60 / 0.42	1.10 / 0.95 / 0.60	1.92 / 1.58 / 0.79
	Power Input	SH / H / L	W	97 / 78 / 52	180 / 163 / 88	240 / 220 / 90
	Air Flow	SH / H / L	CMH (CFM)	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)	500 / 500 / 320 (294 / 294 / 124)
	External Static Pressure	SH / H / L	Pa (inWTR)	100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 130 / 100 (0.60 / 0.52 / 0.40)	150 / 100 / 50 (0.60 / 0.40 / 0.20)
	Noise Level (Sound Level, 1.5m)	SH / H / L	dB(A)	29 / 29 / 25	32 / 30 / 27	35 / 33 / 25
Heat Exchanger	Type	-	Air to air cross flow heat exchange			
Net Weight		kg	44	44	44	
Dimension	W x H x D	mm	988 x 273 x 1,014	988 x 273 x 1,014	988 x 273 x 1,014	
Duct Work	Qty	EA	4			
	Size (Ø)	mm	Ø200			
Supply Air Fan	Qty	EA	1			
	Type	-	Direct-Drive (Sirocco Fan)			
Exhaust Air Fan	Qty	EA	1			
	Type	-	Direct-Drive (Sirocco Fan)			
Filters (Default)	Qty	EA	2			
	Type	-	Cleanable fibrous fleeces			
Filters (Optional)	Size (W x H x D)	mm	855 x 10 x 160		855 x 6 x 230	
	Model	-	AHFT035H0		AHFT050H0	
	Qty	EA	2		2	
	Type	-	F7		F7	
	Size (W x H x D)	mm	423.5 x 132 x 25		425 x 194 x 25	
Dry Contact			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 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.

ERV

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				
Step			-	SUPER-HIGH / HIGH / LOW				
Current			SH / H / L	Amps	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	W	390 / 280 / 187	480 / 385 / 210	780 / 540 / 377	960 / 770 / 420
Air Flow			SH / H / L	CMH (CFM)	800 / 800 / 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)	1,500 / 1,500 / 1,200 (883 / 883 / 706)	2,000 / 2,000 / 1,600 (1,177 / 1,177 / 942)
External Static Pressure			SH / H / L	Pa (inWTR)	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	dB(A)	40 / 37 / 31	41 / 38 / 32	43 / 40 / 34	44 / 41 / 35
Step			-	SUPER-HIGH / HIGH / LOW				
Current			SH / H / L	Amps	2.77 / 2.16 / 1.44	3.41 / 2.90 / 1.76	5.60 / 5.40 / 2.90	6.80 / 5.90 / 3.6
Power Input			SH / H / L	W	390 / 280 / 187	480 / 385 / 21	780 / 540 / 377	960 / 770 / 420
Air Flow			SH / H / L	CMH (CFM)	800 / 800 / 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)	1,500 / 1,500 / 1,200 (883 / 883 / 706)	2,000 / 2,000 / 1,600 (1,177 / 1,177 / 942)
External Static Pressure			SH / H / L	Pa (inWTR)	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)
Noise Level (Sound Level, 1.5m)			SH / H / L	dB(A)	41 / 38 / 32	41 / 39 / 33	44 / 41 / 35	44 / 42 / 36
Heat Exchanger			Type	-	Air to air cross flow heat exchange			
Net Weight				kg	62		140	
Dimension			W x H x D	mm	1,062 x 365 x 1,140		1,313 x 738 x 1,140	
Duct Work			Qty	EA	4		4 + 2	
			Size (Ø)	mm	Ø250		Ø250 + Ø350	
Supply Air Fan			Qty	EA	1		2	
			Type	-	Direct-Drive (Sirocco Fan)			
Exhaust Air Fan			Qty	EA	1		2	
			Type	-	Direct-Drive (Sirocco Fan)			
Filters (Default)			Qty	EA	2		4	
			Type	-	Cleanable fibrous fleeces			
			Size (W x H x D)	mm	1,056 x 6 x 212.5			
			Model	-	AHFT100H0			
Filters (Optional)			Qty	EA	2		4	
			Type	-	F7			
			Size (W x H x D)	mm	520 x 192 x 25			
Dry Contact					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 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.