Panasonic

EneKan

ERV Ventilation

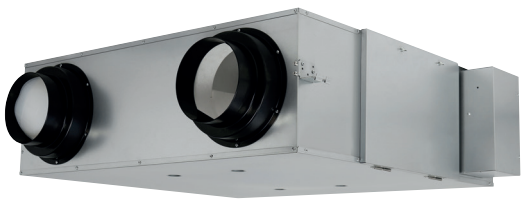
heating & cooling solutions

Energy recovery ventilation

Indoor air quality (IAQ) is a key consideration for anyone looking to create a healthy and comfortable environment. An energy recovery ventilator (ERV) provides balanced, energy-efficient ventilation by transferring heat and moisture between incoming filtered fresh air and outgoing stale air. In the winter, an ERV keeps heat and moisture inside the building. During hot, humid summer months, it maintains cool, dry indoor air.

New advanced ERV ZY Series.

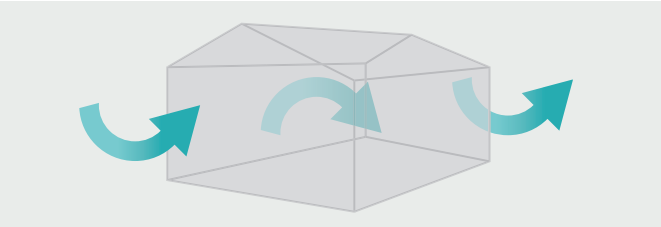
- 5 model line-up including 1000 m³/h model
- DC motors
- ESP up to 150 Pa
- F7 grade filter built-in as a standard
- New intuitive remote controller
- BMS integration with RS485



Home Airtightness

Homes designed and built in recent years are more airtight and energy efficient than in the past. To obtain an airtight design, house wraps, newly designed windows and doors, sealing caulks and other insulating materials are used to create a seal for optimum energy efficiency.

It results in cost savings to both heating and air conditioning at home. Pollutants retained in airtight buildings can be hazardous to our health and can jeopardize structural integrity.

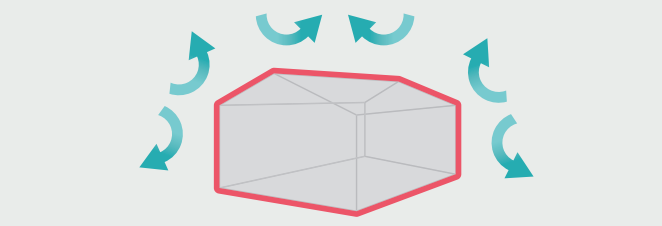


Houses Built in the Past

Natural and wooden building material were adopted that allow air exchange between interior and exterior

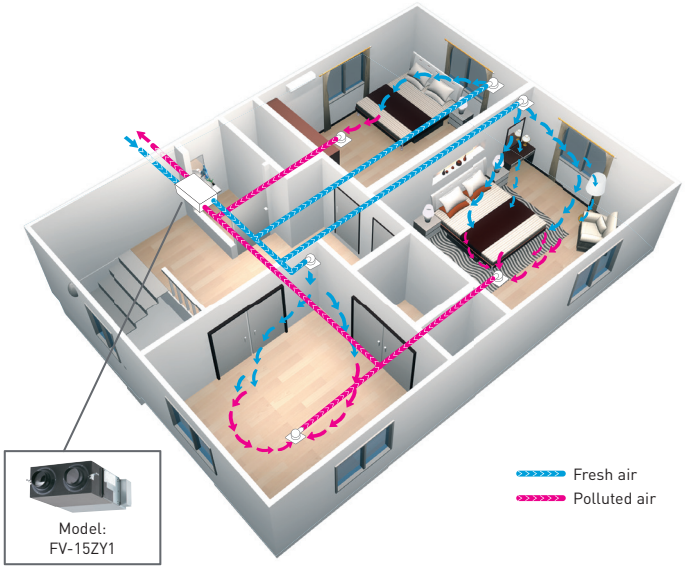
Highly efficient filter for better air supply

Chemical made building material and sashes are employed to ensure high airtightness automatically.

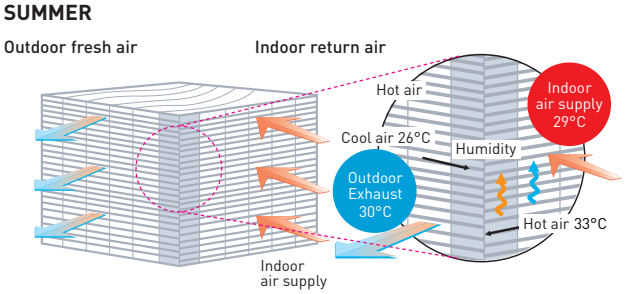


Enjoy Double Comfort with Interlocking Air Conditioning

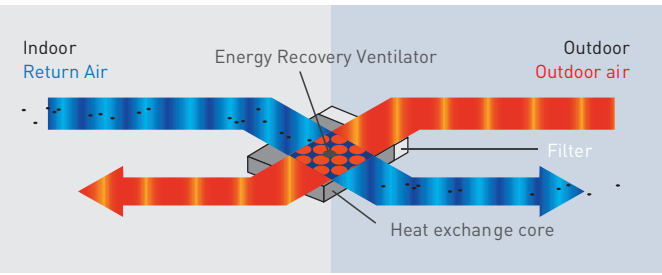
The newly developed energy recovery ventilator can interlock air conditioning. It allows you to enjoy both fresh air and a comfortable temperature.



Inside of Heat Exchange Core (diagram)

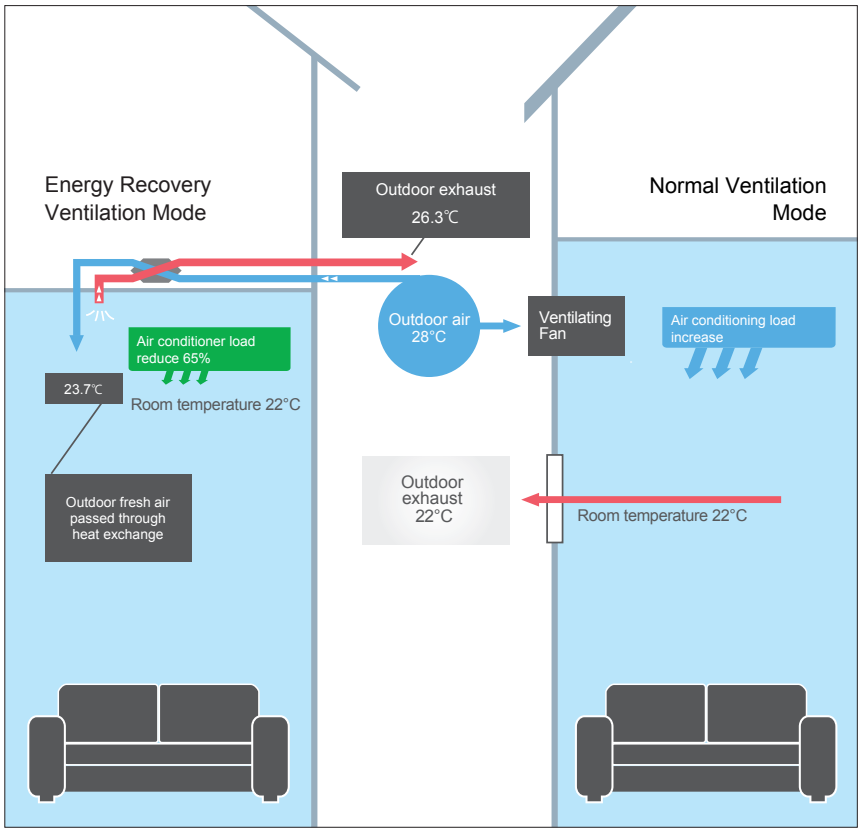


Principle of Heat Exchange



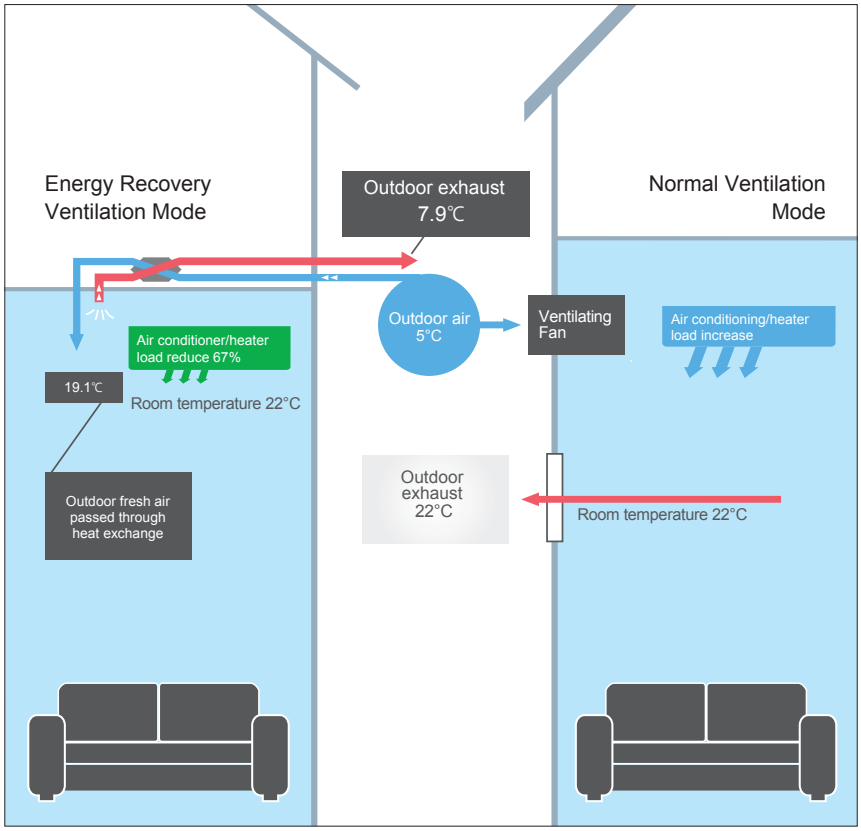
Merit of Energy Recovery Ventilation

Highly efficient energy recovery reduces energy loss during ventilation, thus achieves energy saving (Example: FY-35ZY1)



Summer

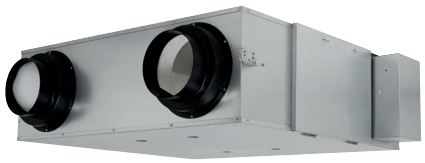
Utilise cold stale indoor air to cool down incoming warm fresh outdoor air via the heat exchanger.



Winter

Utilise warm stale indoor air to temper incoming cold fresh outdoor air via the heat exchanger.

New advanced energy recovery ventilation ZY Series

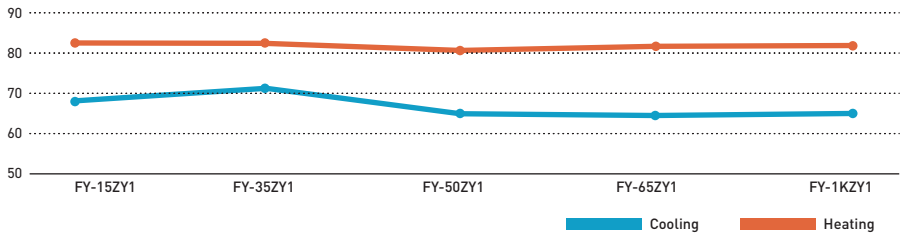


Recovers up to 83% of the heat in the outgoing air

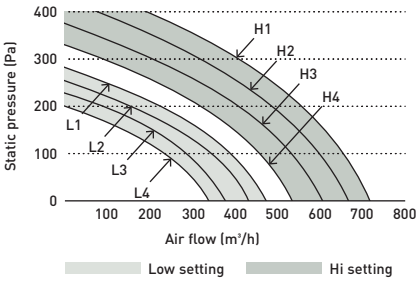
ZY Series achieves more than 80% of heat exchange efficiency in all the line-up [1]. The high recovery rate optimizes operation cost and can be considered as a sustainable solution.

1) Heating operation, H1 speed setting.

Heat exchange efficiency (%).



Ventilation volume setting PQ curve example.

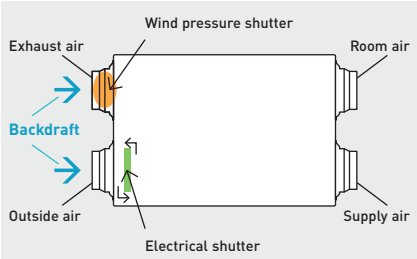


Easily adjustable for air volume balance

DC motors are equipped with independent control settings for air supply and exhaust. Air volume balance can be easily adjusted with 4 speeds settings for each Hi / Low operation.

Highly efficient filter for better air supply

An effective **EN F7 grade filter** is built-in as a standard.
The F7 filter captures 99.97% of 0.3 micro particles and is capable of filtering pollen, fine dust, dust mites and bacteria.
Expected cleaning maintenance cycle is once per month, with an average of 4-6 months for replacement in high demand environments.



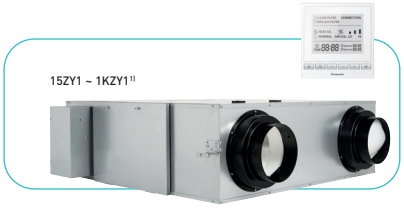
Backdraft shutters equipped as standard

A backdraft shutter prevents air flowing in the wrong direction when the ERV system is not in operation.
The shutter at OA (outside air intake) side is inter-locked with ON / OFF switch.
The shutter at EA (exhaust air outlet) side opens with the pressure generated by air stream then closes automatically.

New intuitive remote controller with RS485 MODBUS connection

- Simple and clean screen with white back light panel
- RS485 terminal equipped to integrate with Building Management Systems
- Metal switch box is included in the package

NEW advanced energy recovery ventilation



Indoor unit			FV-15ZY1	FV-35ZY1	FV-50ZY1	FV-65ZY1	FV-1KZY1
Rated flow rate			**150 m³/h**	**350 m³/h**	**500 m³/h**	**650 m³/h**	**1000 m³/h**
l/s			**41**	**97**	**138**	**180**	**277**
Power supply	Voltage	V	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50	50
Motor type			DC	DC	DC	DC	DC
ERV							
Air flow	Max	m³/h	150	350	500	650	1000
External static pressure	Max	Pa	100	140	130	150	150
Sound power 2)	Max	dB(A)	37	39	43	45	46
Input power	Max	W	76 ~ 84	141 ~ 155,5	180 ~ 198	420 ~ 462	550 ~ 605
Heat exchange efficiency 3)							
Cooling	Max	%	68,0	71,0	65,0	64,0	65,0
Heating	Max	%	83,0	83,0	81,0	82,0	82,0
Enthalpy exchange efficiency							
Cooling	Max	%	66,0	67,0	62,5	62,5	63,0
Heating	Max	%	76,0	75,0	73,0	72,0	74,0
Adapter diameter		mm	100	150	200	200	250
Dimension	H x W x D	mm	289 x 610 x 860	331 x 874 x 968	331 x 1016 x 968	404 x 954 x 1008	404 x 1231 x 1224
Net weight		kg	23	37	40	48	64

1) Different dimensions depending on models. 2) Measurement of noise 1,5 m below the center of the main unit (anechoic chamber). 3) Heat exchange efficiency measurement standard JIS B 8628 (2003).
* JIS B 8628 (2017) is used in the measurement environment. ** Available in Autumn 2023. *** Remote controller image is tentative.

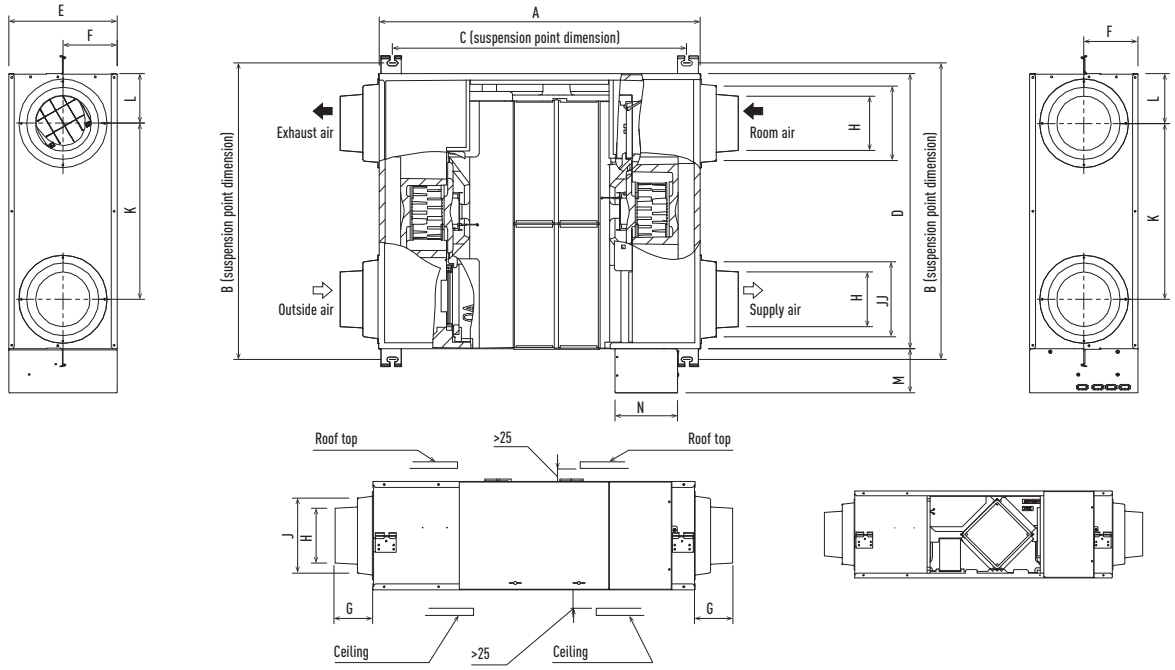
Accessories	
FV-FP15ZY1	Replacement high efficiency filter for FV-15ZY1
FV-FP35ZY1	Replacement high efficiency filter for FV-35ZY1
FV-FP50ZY1	Replacement high efficiency filter for FV-50ZY1

Accessories	
FV-FP65ZY1	Replacement high efficiency filter for FV-65ZY1
FV-FP1KZY1	Replacement high efficiency filter for FV-1KZY1

Advanced energy recovery ventilation.

FV-15ZY1 / FV-35ZY1 / FV-50ZY1 / FV-65ZY1 / FV-1KZY1

	A	B	C	D	E	F	G	H	J	K	L	M	N	Duct diameter
FV-15ZY1	860	666	786	610	289	144,5	102	Ø97,6	Ø150	395	107,5	116	168	Ø100
FV-35ZY1	968	930	895	874	331	165,5	102	Ø145	Ø200	609	132,5	115	168	Ø150
FV-50ZY1	968	1072	895	1016	331	165,5	114	Ø195	Ø250	665	175,5	115	168	Ø200
FV-65ZY1	1008	1010	934	954	404	202	114	Ø195	Ø250	638	158	121	168	Ø200
FV-1KZY1	1224	1287	1148	1231	404	202	122	Ø245	Ø300	860	185,5	121	168	Ø250



Unit: mm

Notes

Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for the damage and deterioration in safety due to usage of the other refrigerant.
The outdoor units in this catalogue contains fluorinated greenhouse gases with a GWP higher than 150.

Panasonic

To find out more,
check out www.panasonic.com/nz

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