

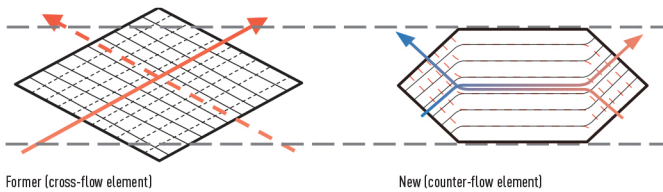
Energy Recovery Ventilation

Energy efficiency and ecology

Energy consumption is dramatically reduced by using a counter-flow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings.

Comparison of former and current elements

With the cross-flow element, air moves in a straight line across the element; with the counter-flow element, air flows through the element for a longer time (longer distance), so the heat-exchange effect remains unchanged even if the element is made thinner.



Heat exchange ventilation and normal ventilation

Energy-saving ventilation can be achieved through the proper use of heat-exchange ventilation and normal ventilation.

Heat exchange ventilation.

When a room is cooled or heated, the exhausted cooling / heating energy is recovered by heat-exchange ventilation.

Normal ventilation.

This is used in the spring and autumn, when rooms are not cooled or heated, that is, when there is little difference between the indoor and outdoor air conditions. In addition, at night during the hot season, when the outside air temperature drops the outside air is drawn inside without heat exchange, alleviating the load on the air conditioning equipment. The heat exchanger is made up of a membrane manufactured from a special material covered in resin for optimal heat transmission. The nylon/polyester fibre filter offers high dust retention capacity. We have also redesigned the air ducts to obtain a long-lasting heat exchange system which does not need periodic cleaning.

Heat exchanger

With the cross-flow element, air moves in a straight line across the element. With the counter-flow element, airflows through the element for a longer time (longer distance), so the heat-exchange effect remains unchanged even if the element is made thinner.



More comfort

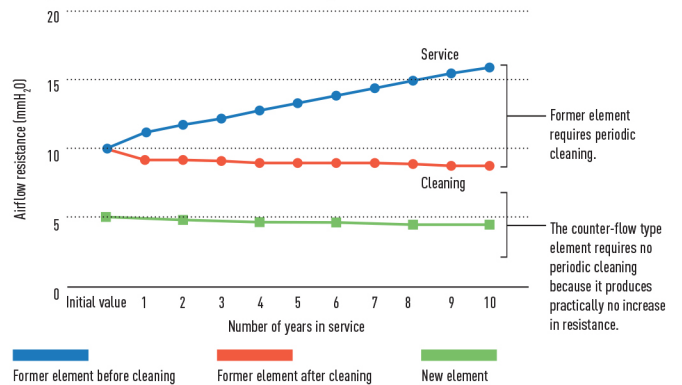
Quiet operation

Low noise operation results in noticeably quieter units. All models with capacities below 500m³/h run at noise levels below 32dB (High setting) and even our largest 1.000m³/h-capacity model runs at only 37,5dB (High setting).

Long service life of heat-exchange element

We used a nonwoven cloth filter with a high dust collection efficiency and redesigned the air flow passages to achieve a durable heat-exchange element that requires no periodic cleaning.

Changes in airflow resistance based on number of years in service.



Easy installation and maintenance

Slim shape and easier installation.

Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.

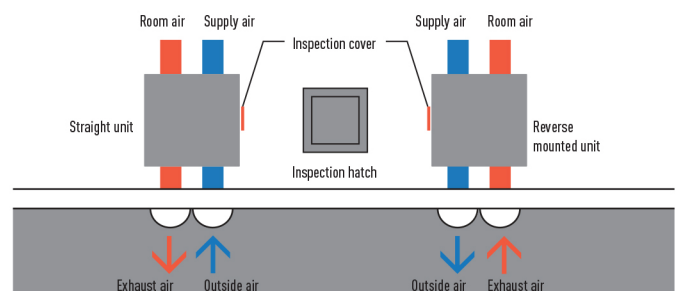
270mm Height: FY-250ZDY8R // FY-350ZDY8R // FY-500ZDY8R

388mm Height: FY-800ZDY8R // FY-01KZDY8R

Reverse mountable direct air supply / exhaust system.

Adoption of straight air supply / exhaust system: Duct design is simplified because the air supply / exhaust ducts are straight.

Since each unit can be mounted in reverse position, only one inspection hole is needed for two units: Two units can share one inspection hole so duct work is easier and more flexible.



Suppresses indoor temperature changes while providing fresh air. Recovers up to 77% of the heat in the outgoing air, for an ecological and energy efficient building.

Features

Energy efficiency and ecology.

- Up to 20% energy saving in the installation
- Recovers up to 77% of the heat in the outgoing air

Comfort.

- Cleaning reduced due to the revolutionary structure (every 6 months)
- Ideal for indoor spaces without windows

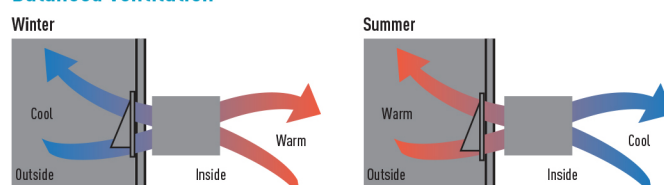
Easy installation and maintenance.

- 5 models for easier selection
- Reduced system height (270mm and 388mm)
- Side opening for cleaning (inspection of filter, motor and other parts)
- Installation can be reversed to share an inspection opening between 2 machines
- Easy connection to the air conditioning unit (without additional elements)
- Installation in false ceilings
- Units operate at 220 - 240V
- High static pressure for easier installation

Technical focus

- High energy saving, up to 20%
- Counter Cross Flow technology for better efficiency
- Long life element core
- Easy installation and 20% less thickness
- Easy connection to air conditioning units
- Silent units

Balanced ventilation



A new intuitive & stylish control

- Included as a standard control
- Compact and flat panel
- Filter cleaning support
 - Signal alert for clearing
 - Filter usage condition by 1/2/3/4 months
- Size (W x H x D) 116 x 120 x 40mm



Rated flow rate	250m³/h			350m³/h			500m³/h			800m³/h			1000m³/h			
Models	FY-250ZDY8R			FY-350ZDY8R			FY-500ZDY8R			FY-800ZDY8R			FY-01KZDY8R			
	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	
Power source	220V / 240V / 50Hz			220V / 240V / 50Hz			220V / 240V / 50Hz			220V / 240V / 50Hz			220V / 240V / 50Hz			
Heat exchange ventilation	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	
Input power	112,00/128,00	108,00/123,00	87,00/96,00	182,00/190,00	178,00/185,00	175,00/168,00	263,00/289,00	204,00/225,00	165,00/185,00	387,00/418,00	360,00/378,00	293,00/295,00	437,00/464,00	416,00/432,00	301,00/311,00	
Air volume	250	250	190	350	350	240	500	500	440	800	800	630	1000	1000	700	
External static pressure	105	95	45	140	60	45	120	60	35	140	110	55	105	80	75	
Sound power	30,00/31,50	29,50/30,50	23,50/26,50	32,50/33,00	30,50/31,00	22,50/25,50	36,50/37,50	34,50/35,50	31,00/32,50	37,00/37,50	36,50/37,00	33,50/34,50	39,50/40,50	39,00/39,50	35,50/36,50	
Temperature exchange efficiency	75	75	77	75	75	78	75	75	76	75	75	76	75	75	79	
Normal ventilation	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	
Input power	112,00/128,00	108,00/123,00	87,00/96,00	182,00/190,00	178,00/185,00	175,00/168,00	263,00/289,00	204,00/225,00	165,00/185,00	387,00/418,00	360,00/378,00	293,00/295,00	437,00/464,00	416,00/432,00	301,00/311,00	
Air volume	250	250	190	350	350	240	500	500	440	800	800	630	1000	1000	700	
External static pressure	105	95	45	140	60	45	120	60	35	140	110	55	105	80	75	
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Temperature exchange efficiency	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Dimension	HxWxD	mm 270x882x599			317x1050x804			317x1090x904			388x1322x884			388x1322x1134		
Net weight	kg	29			49			57			71			83		

This noise of the product is the value which was measured at the acoustic room. Actually, in the established condition, that undergo influence by the echoing of the room and so that become bigger than the display numerical value. The input, the current and the exchange efficiency are values at the time of the mentioned air volume. The noise level shall be measured 1,5m below the centre of the unit. The temperature exchange efficiency averages that of when cooling and when heating.

Rating Conditions: Cooling Indoor 27°C DB / 19°C WB. Cooling Outdoor 35°C DB / 24°C WB. Heating Indoor 20°C DB. Heating Outdoor 7°C DB / 4°C WB. (DB: Dry Bulb; WB: Wet Bulb). Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aicon.panasonic.eu or www.ptc.panasonic.eu.