



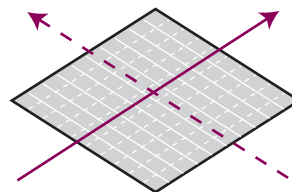
## Energy Recovery Ventilator

Suppresses indoor temperature changes while providing fresh air

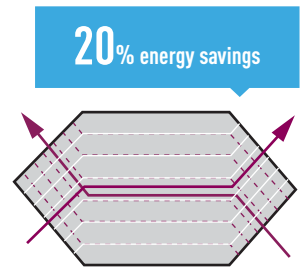
### Energy efficiency and ecology

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.

#### HEAT EXCHANGER CHARACTERISTICS



Former (cross-flow element)



New (counter-flow element)

## Heat exchange ventilation and normal ventilation

### Heat exchange ventilation

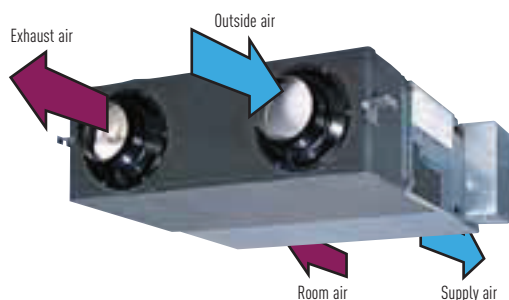
When a room is cooled or heated, the exhausted cooling / heating energy is recovered by heat-exchange ventilation.

### 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.

### ADOPTS A HIGHLY EFFICIENT COUNTER-FLOW HEAT EXCHANGE ELEMENT



### Heat exchanger

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.

## More Comfort

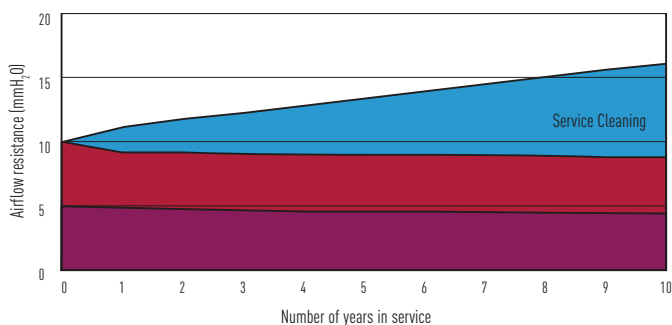
### Quiet operation

Low noise operation results in noticeably quieter units. All models with capacities below 500 m<sup>3</sup>/h run at noise levels below 32 dB (High setting) and even our largest 1,000 m<sup>3</sup>/h-capacity model runs at only 37.5 dB (High setting).

### Long heat-exchange element service life

Cleaning reduced due to the special material heat exchanger. The nylon/polyester fibre filter offers high dust retention capacity.

### CHANGES IN AIRFLOW RESISTANCE BASED ON NUMBER OF YEARS IN SERVICE



■ Former element before cleaning      Former element requires periodic cleaning. The counter-flow type element requires no periodic cleaning because it produces practically no increase in resistance.  
■ Former element after cleaning  
■ New element

## Easy Installation and Maintenance

### Slim shape and easier installation

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

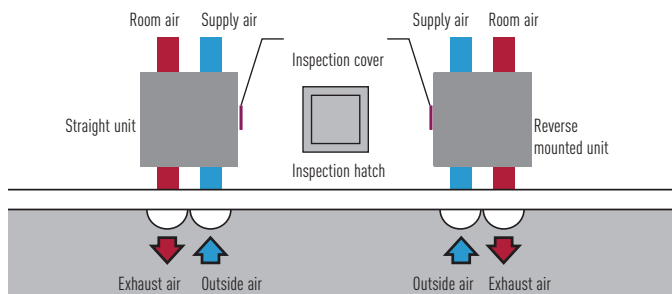
270mm Height: FY-250ZDY8 // FY-350ZDY8 // FY-500ZDY8

388mm Height: FY-650ZDY8 // FY-800ZDY8 // FY-01KZDY8A

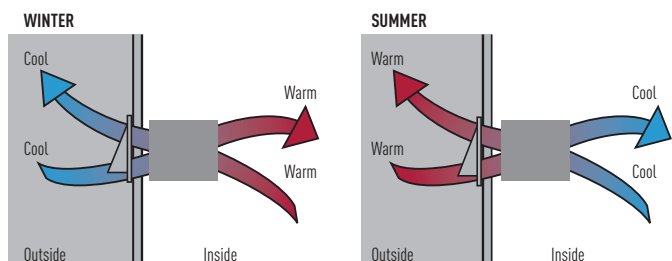
### Reverse mountable direct air supply / exhaust system

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.



## Balanced Ventilation



# ENERGY RECOVERY VENTILATION SYSTEM

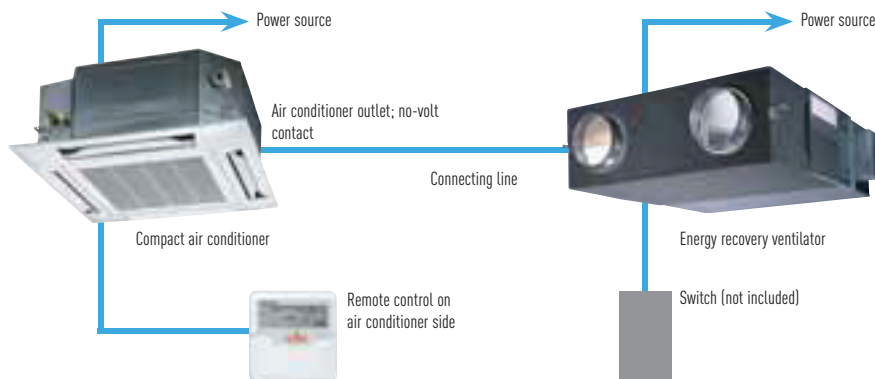
Recovers up to 77% of the heat in the outgoing air, for an ecological and energy efficient building.



Rated flow rate	250 m³/h			350 m³/h			500 m³/h			650 m³/h			800 m³/h			1000 m³/h			
Models	FY-250ZDY8			FY-350ZDY8			FY-500ZDY8			FY-650ZDY8			FY-800ZDY8			FY-01KZDY8A			
Power Source	220-240 V - 50 Hz			220-240 V - 50 Hz			220-240 V - 50 Hz			220-240 V - 50 Hz			220-240 V - 50 Hz			220-240 V - 50 Hz			
Heat Exchange Ventilation	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	E-High	High	Low	
Input	W	112-128	108-123	87-96	182-190	178-185	175-168	263-289	204-225	165-185	326-347	269-295	200-210	387-418	360-378	293-295	437-464	416-432	301-311
Air Volume	m³/h	250	250	190	350	350	240	500	500	440	650	650	460	800	800	630	1,000	1,000	700
External Static Pressure	Pa	105	95	45	140	60	45	120	60	35	65	40	40	140	110	55	105	80	75
Noise	dB	30,0-31,5	29,5-30,5	23,5-26,5	32,5-33,0	30,5-31,0	22,5-25,5	36,5-37,5	34,5-35,5	31,0-32,5	36,5-37,5	34,5-35,5	30,0-32,0	37,0-37,5	36,5-37,0	33,5-34,5	37,5-38,5	37,0-37,5	33,5-34,5
Temp. Exchange Efficiency	%	75	75	77	75	75	78	75	75	76	75	75	79	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	E-High	High	Low	
Input	W	112-128	108-123	87-96	182-190	178-185	175-168	263-289	204-225	165-185	326-347	269-295	200-210	387-418	360-378	293-295	437-464	416-432	301-311
Air Volume	m³/h	250	250	190	350	350	240	500	500	440	650	650	460	800	800	630	1000	1000	700
External Static Pressure	Pa	105	95	45	140	60	45	120	60	35	65	40	40	140	110	55	105	80	75
Noise	dB	30,0-31,5	29,5-30,5	23,5-26,5	32,5-33,0	30,5-31,0	22,5-25,5	37,5-38,5	37,0-38,0	31,0-32,5	36,5-37,5	35,0-35,5	30,0-32,0	37,0-37,5	36,5-37,0	33,5-34,5	39,5-40,5	39,0-39,5	35,5-36,5
Temp. Exchange Efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimensions (W x D x H)	mm	882 x 599 x 270			1,050 x 804 x 317			1,090 x 904 x 317			1,204 x 884 x 388			1,322 x 884 x 388			1,322 x 1134 x 388		
Weight	kg	29			49			57			68			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.

## TYPICAL SYSTEM LINKED TO A CASSETTE TYPE AIR CONDITIONER



### Use conditions

#### Outdoor air conditions

Temperature range: -10°C – 40°C  
Relative humidity: 85% or less

#### Indoor air conditions

Temperature range: -10°C – 40°C  
Relative humidity: 85% or less

#### Requirements for installation

Use is to be avoided in refrigerated chambers or other places where the temperature may undergo significant fluctuations, even when the temperature range is acceptable.



## FY-250ZDY8 // FY-350ZDY8 // FY-500ZDY8 // FY-650ZDY8 // FY-800ZDY8 // FY-01KZDY8A

### 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
- Super quiet units

### Features

#### HEALTHY AIR

- The filter guarantees healthier air

#### ENERGY EFFICIENCY AND ECOLOGY

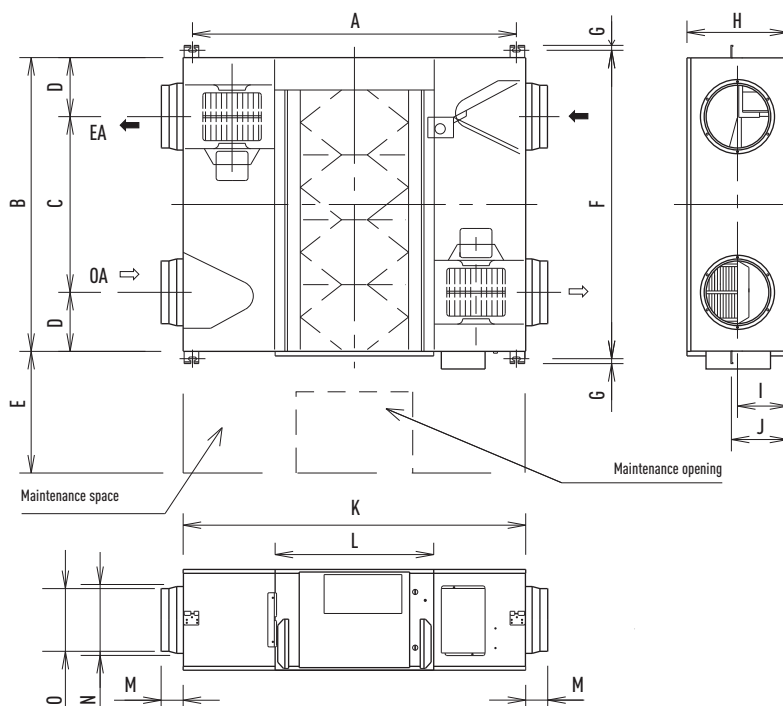
- Up to 20% energy saving in the installation
- Recovers up to 77% of the heat in the outgoing air

#### COMFORT

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

#### EASY INSTALLATION AND MAINTENANCE

- 6 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 - 240 V
- High static pressure for easier installation



	FY-250ZDY8	FY-350ZDY8	FY-500ZDY8	FY-650ZDY8	FY-800ZDY8	FY-01KZDY8A
A	810	810	890	1,132	1,250	1,250
B	599	804	904	884	884	1,134
C	315	480	500	620	428	678
D	142	162	202	132	228	228
E	600	600	600	600	600	600
F	655	860	960	940	940	1,190
G	19	19	19	19	19	19
H	270	317	317	388	288	388
I	135	145	145	194	194	194
J	159	159	159	218	218	218
K	882	882	962	1,204	1,322	1,322
L	414	414	414	560	612	612
M	95	95	107	70	85	85
N	219	219	246	210	258	258
O	144	144	194	194	242	242