



## ENERGY RECOVERY VENTILATOR

SUPPRESSES INDOOR TEMPERATURE CHANGES WHILE PROVIDING FRESH AIR

### 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.

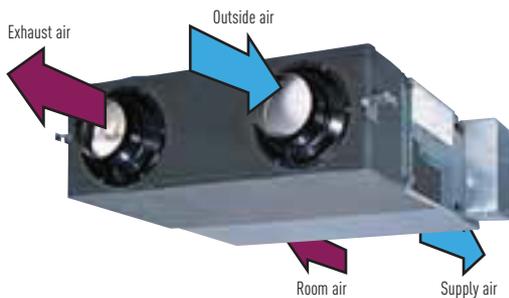
The heat exchanger is made up of a membrane manufactured from a special material covered in resin for optimal heat transmission. The nylon/polyester fibre filter offers high dust retention capacity. We have also redesigned the air ducts to obtain a long-lasting heat exchange system which does not need periodic cleaning.

### Energy efficiency and ecology

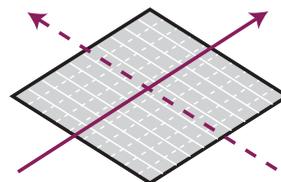
Energy consumption is dramatically reduced by using a counter-flow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings.



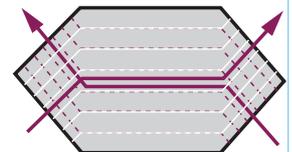
#### ADOPTS A HIGHLY EFFICIENT COUNTER-FLOW HEAT EXCHANGE ELEMENT



#### HEAT EXCHANGER CHARACTERISTICS



Former (cross-flow element)



New (counter-flow 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.

### Characteristics common to all models

- Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.
- All maintenance can be performed through a single inspection hole.
- Straight air supply / exhaust system used for easier installation.
- Each unit can be mounted in reverse position.
- Equipped with an Extra-High setting.
- Can incorporate a medium performance filter (optional, installed on site).

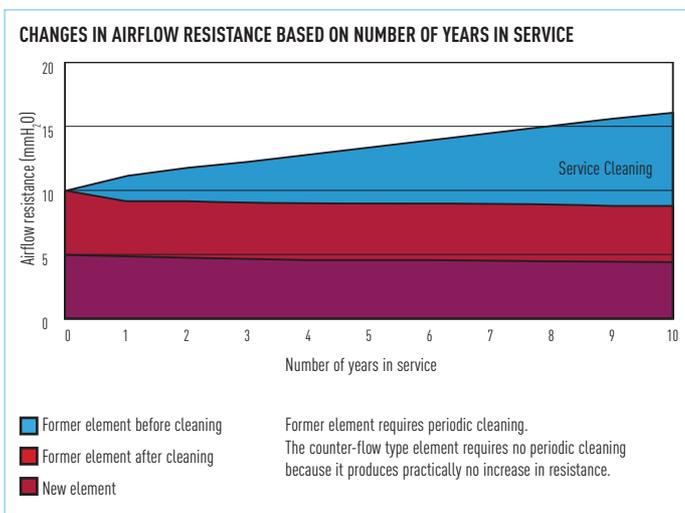
### More Comfort

#### 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

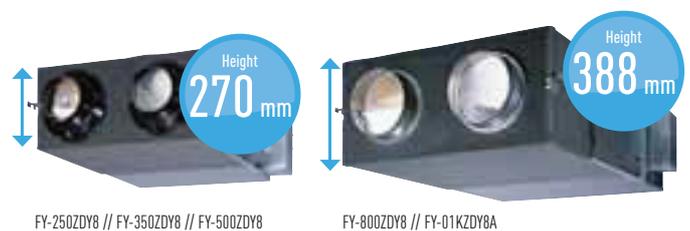
Cleaning reduced due to the special material heat exchanger. The nylon/polyester fibre filter offers high dust retention capacity.



### Easy Installation and Maintenance

#### Slim shape and easier installation

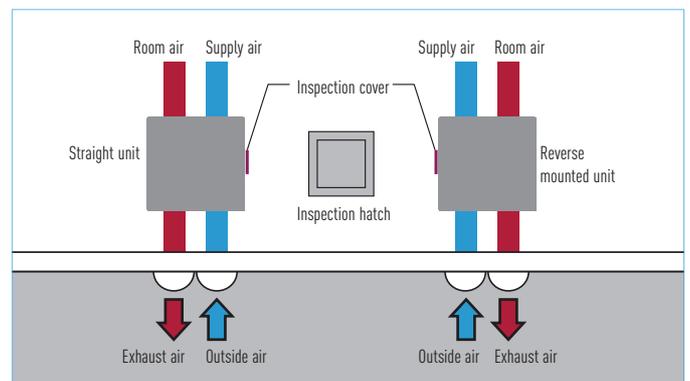
Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.



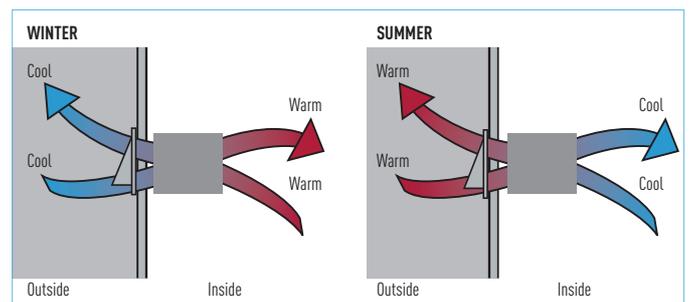
#### Reverse mountable direct air supply / exhaust system

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.



FY-250ZDY8



FY-350ZDY8



FY-500ZDY8



FY-800ZDY8

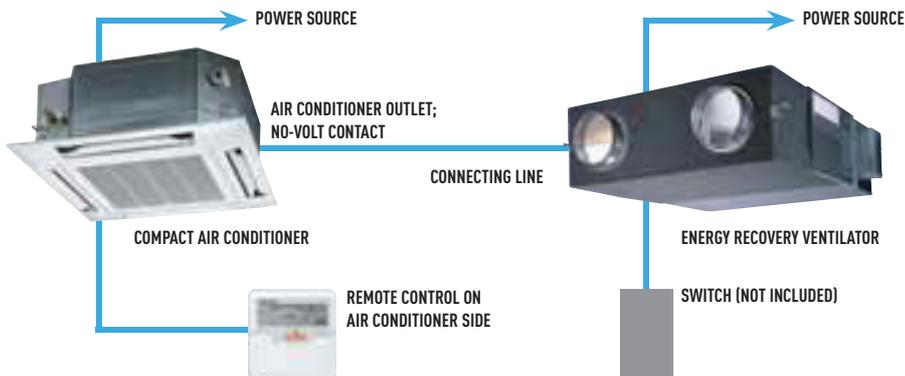


FY-01KZDY8A

RATED FLOW RATE	150 m³/h			250 m³/h			350 m³/h			500 m³/h			650 m³/h			800 m³/h			1000 m³/h			
MODELS	FY-150ZDY8			FY-250ZDY8			FY-350ZDY8			FY-500ZDY8			FY-650ZDY8			FY-800ZDY8			FY-01KZDY8A			
Power Source	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	E-High	High	Low	
Input	W	97-114	92-107	69-77	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	150	150	120	250	250	190	350	350	240	500	500	440	650	650	460	800	800	630	1000	1000	700
External Static Pressure	Pa	80	70	25	105	95	45	140	60	45	120	60	35	65	40	40	140	110	55	105	80	75
Noise	dB	28.5-29.0	28.0-29.0	19.5-21.5	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	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	E-High	High	Low	
Input	W	97-114	92-107	69-77	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	150	150	120	250	250	190	350	350	240	500	500	440	650	650	460	800	800	630	1000	1000	700
External Static Pressure	Pa	80	70	25	105	95	45	140	60	45	120	60	35	65	40	40	140	110	55	105	80	75
Noise	dB	28.5-29.0	28.0-29.0	19.5-21.5	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	970 x 467 x 270			882 x 599 x 270			1050 x 804 x 317			1090 x 904 x 317			1204 x 884 x 388			1322 x 884 x 388			1322 x 1134 x 388		
Weight	kg	25			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

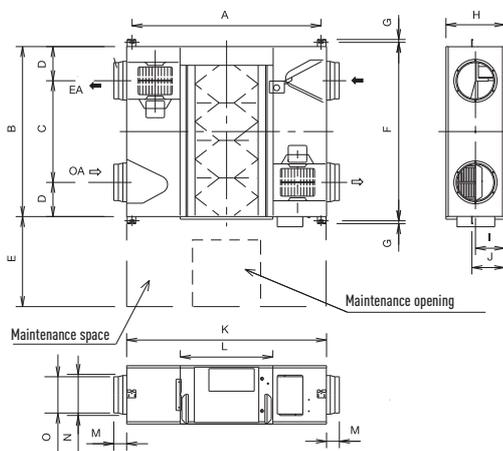
### REQUIREMENTS FOR INSTALLATION

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.



## TECHNICAL ZOOM

- 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



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

### 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

- Quiet units (21,5 dB for the FY-250ZDY8)
- Cleaning reduced due to the revolutionary structure of the exchanger (recommended every 6 months)
- Ideal for indoor spaces without windows

### EASY INSTALLATION AND MAINTENANCE

- Five models for easier selection
- Reduced system height (270 mm and 388 mm)
- 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-800ZDY8	FY-01KZDY8A
A	810	810	890	1,250	1,250
B	599	804	904	884	1,134
C	315	480	500	428	678
D	142	162	202	228	228
E	600	600	600	600	600
F	655	860	960	940	1,190
G	19	19	19	19	19
H	270	270	270	288	388
I	135	145	145	194	194
J	159	159	159	218	218
K	882	882	962	1,322	1,322
L	414	414	414	612	612
M	95	95	107	85	85
N	219	219	246	258	258
O	144	144	194	242	242



OPERATION SYSTEM	INDIVIDUAL CONTROL SYSTEMS			TIMER OPERATION
Requirements	Normal operation	Operation from each seat	Quick and easy operation	Daily and weekly program
External appearance				
Type, model name	Timer Remote Controller (Wired) CZ-RTC2	Wireless Remote Controller CZ-RWSU2 CZ-RWSY2 CZ-RWSL2 CZ-RWSC2 CZ-RWST2 CZ-RWSK2	Simplified Remote Controller CZ-RE2C2 Backlight remote controller CZ-RELC2	Schedule Timer CZ-ESWC2
Built-in Thermostat	✗	✗	✗	
N. of I/O which can be controlled	1 group, 8 units	1 group, 8 units	1 group, 8 units	64 groups, max. 64 units
Use limitations	· Up to 2 controllers can be connected per group.	· Up to 2 controllers can be connected per group.	· Up to 2 controllers can be connected per group.	· Required power supply from the system controller · When there is no system controller, connection is possible to the T10 terminal of an indoor unit.
Function ON/OFF	✗	✗	✗	—
Mode setting	✗	✗	✗	—
Fan speed setting	✗	✗	✗	—
Temperature setting	✗	✗	✗	—
Air flow direction	✗	✗ <sup>1</sup>	✗ <sup>1</sup>	—
Permit/Prohibit switching	—	—	—	—
Weekly program	✗	—	—	✗

1. Setting is not possible when a remote control unit is present. (Use the remote control for setting.)  
All specifications subject to change without notice.