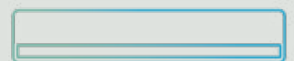


## Ventilation systems range 2023 / 2024









# Panasonic ventilation solutions

Panasonic ventilation solutions for maximum savings and easy integration.

## Air handling unit kit → 4

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Air curtain with DX coil, connected to VRF systems → 18

## High pressure duct and 100% fresh air duct function → 19

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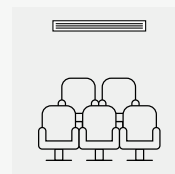
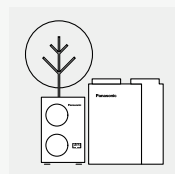
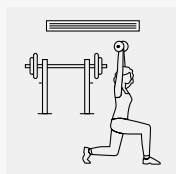
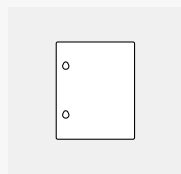
## Ceiling mounted air-e nanoe X Generator → 21

Ceiling mounted air-e nanoe X Generator → 22

## Residential ventilation

Heat recovery ventilation unit → 23

Counter flow ventilation → 25



## Air handling unit kit

AHU connection kits connect outdoor units to air handling systems. Combines air conditioning and fresh air in just one solution.

Application: Hotels, offices, server rooms or all large buildings where air quality control, such as humidity control and fresh air, is needed.



## AHU connection kit for PACi, ECOi and ECO G.

**PACi NX and PACi: 3,6 to 28,0 kW.**

**ECOi and ECO G: 16, 28 and 56 kW.**

- Durable metal casing (IP66) allows external installation
- 0-10 V demand control
- CONEX Bluetooth® control built-in (CZ-RTC6BL)
- Panasonic H&C Control App via Bluetooth®
- Easy integration to BMS

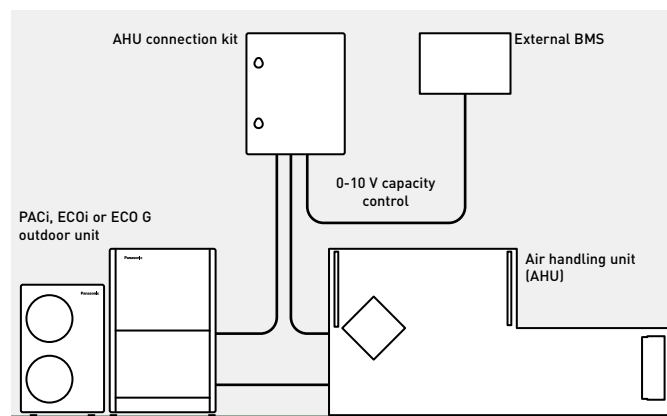
PACi / ECOi EX / ECOi / ECO G



## The Panasonic AHU connection kits offer a wealth of connectivity possibilities, integrating easily into many systems.

Besides the advantages in terms of indoor air quality, air conditioning offers also an energy saving potential. For example, uncontrolled ventilation through open windows leads to large amounts of heat being lost to the outside during the heating season or gained from the outside during the cooling season. Whereas, combining heat recovery with air conditioning can allow for a high level of comfort whilst reducing the overall operating costs of running air conditioning alone. The larger area of the comfort range, the better the energy saving opportunities.

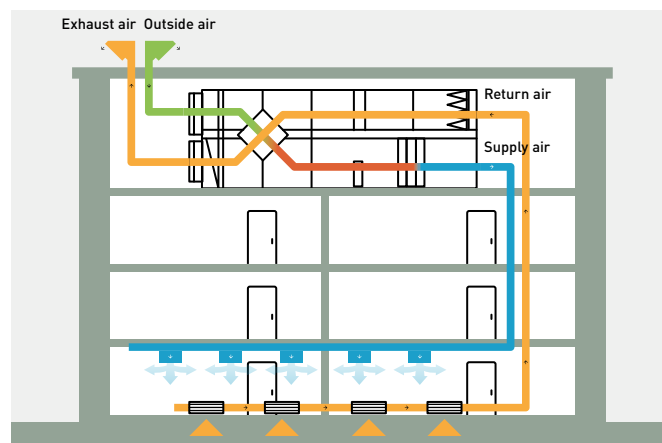
### Panasonic AHU connection kit connected to outdoor unit



Demand control on the outdoor unit managed by external 0-10 V signal.

- AHU connection kit contains: IP66 box with PCBs and terminal connections mounted inside, expansion valve and sensors
- Heat exchanger, fan and fan motor to be mounted in the AHU itself are field supplied

### Main components of mechanical ventilation systems



- Air handling unit (AHU)
- Air ducts
- Air distribution elements

### Optional parts: Following functions are available by using different control accessories:

**Timer remote controller.**  
CZ-RTC5B.



**DC 12 V outlet. Option terminal.**  
PAW-OCT.



**Mini seri-para I/O unit.**  
CZ-CAPBC2  
Advanced version only.



**PCB to connect to T10 connector.**  
CZ-T10 terminal / PAW-T10 PCB





# AHU connection kit 3,6 to 28,0 kW for PACi NX and PACi

Compatible with R32 or R410A outdoor units.



## AHU connection kit

Reference	IP66	0-10 V demand control*
PAW-280PAH3M-1	Yes	Yes

\* With CZ-CAPBC2.

## Control options

### Control option 1.

- The system's control is simple: control of actual suction temperature vs. set point
- Control works in the same way as that of any indoor unit
- Fan signal issued by the PCB (OFF while defrosting, for instance)

### Control option 2.

- System control by a 0-10 V control working from an external BMS that manages the set point for temperature or capacity. Enhances efficiency by adjusting capacity and enhances comfort as well
- All signals as standard

## 0-10 V control

With the 0-10 V demand control the capacity of the outdoor unit can be controlled by 20 steps.

Input voltage* [V]	0	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5
Demand [% of nominal current]	No cut <sup>1)</sup>	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	No limit / Full capacity <sup>2)</sup>
Indoor unit start / stop	Stop <sup>1)</sup>																		Start

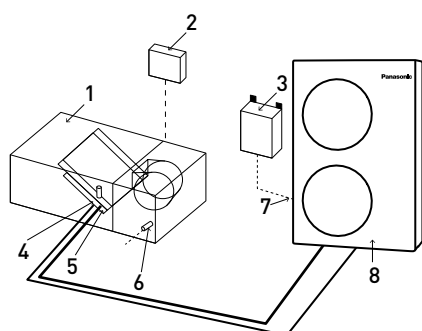
1) No cut / stop: AHU system / indoor unit is completely switched OFF.

2) No limit: No restrictions applied by BMS to AHU system / indoor unit performance (equivalent to "full-load operation" of AHU system / indoor unit).



### AHU connection kit 3,6 to 28,0 kW for PACi NX and PACi

PAW-280PAH3M-1			3,6 kW	5,0 kW	6,0 kW	7,5 kW	10,0 kW	12,5 kW	14,0 kW	20,0 kW	25,0 kW
Cooling capacity	kW		3,6	5,0	6,0	7,1	10,0	12,5	14,0	19,5	23,2
Heating capacity	kW		4,0	5,6	7,0	8,0	11,2	14,0	16,0	22,4	28,0
Air flow	Min / Max	m³/h	540/870	630/990	780/1320	780/1320	900/2160	1140/2280	1200/2400	2160/4320	2280/5040
Dimension	H x W x D	mm	500 x 400 x 150	500 x 400 x 150	500 x 400 x 150	500 x 400 x 150	500 x 400 x 150	500 x 400 x 150	500 x 400 x 150	500 x 400 x 150	500 x 400 x 150
Net weight		kg	11,5	11,5	11,5	11,5	11,5	11,5	11,5	11,5	11,5
Pipe length range	Standard	m	3 ~ 15	3 ~ 20	3 ~ 40	3 ~ 40	5 ~ 50	5 ~ 50	5 ~ 50	—	—
	Elite	m	3 ~ 40	3 ~ 40	3 ~ 40	5 ~ 50	5 ~ 85	5 ~ 85	5 ~ 85	5 ~ 90	5 ~ 60
Elevation difference (in / out)	Max	m	30	30	30	30	30	30	30	30	30
Piping diameter	Liquid	Inch (mm)	1/4 (6,35)	1/4 (6,35)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	1/2 (12,70)
	Gas	Inch (mm)	1/2 (12,70)	1/2 (12,70)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	1 (25,40)	1 (25,40)
Intake temperature of AHU connection kit	Cool Min ~ Max	°C DB	18 ~ 32	18 ~ 32	18 ~ 32	18 ~ 32	18 ~ 32	18 ~ 32	18 ~ 32	18 ~ 32	18 ~ 32
	Cool Min ~ Max	°C WB	14 ~ 25	14 ~ 25	14 ~ 25	14 ~ 25	14 ~ 25	14 ~ 25	14 ~ 25	—	—
	Heat Min ~ Max	°C	16 ~ 30	16 ~ 30	16 ~ 30	16 ~ 30	16 ~ 30	16 ~ 30	16 ~ 30	16 ~ 30	16 ~ 30
Ambient temperature of outdoor unit (Standard)	Cool Min ~ Max	°C	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43
	Heat Min ~ Max	°C	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24
Ambient temperature of outdoor unit (Elite)	Cool Min ~ Max	°C	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46	-20 ~ +48	-20 ~ +48	-20 ~ +48	-20 ~ +48	-20 ~ +48
	Heat Min ~ Max	°C	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24



### System and regulations. System overview.

- 1 | AHU equipment (field supplied)
- 2 | AHU system controller (field supplied)
- 3 | AHU connection kit controller box (with control PCB)
- 4 | Thermistor for gas pipe (E2)
- 5 | Thermistor for liquid pipe (E1)
- 6 | Thermistor for suction air
- 7 | Inter-unit wiring
- 8 | Outdoor unit

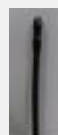
### AHU connection kit.



PCB, power trans,  
terminal block.



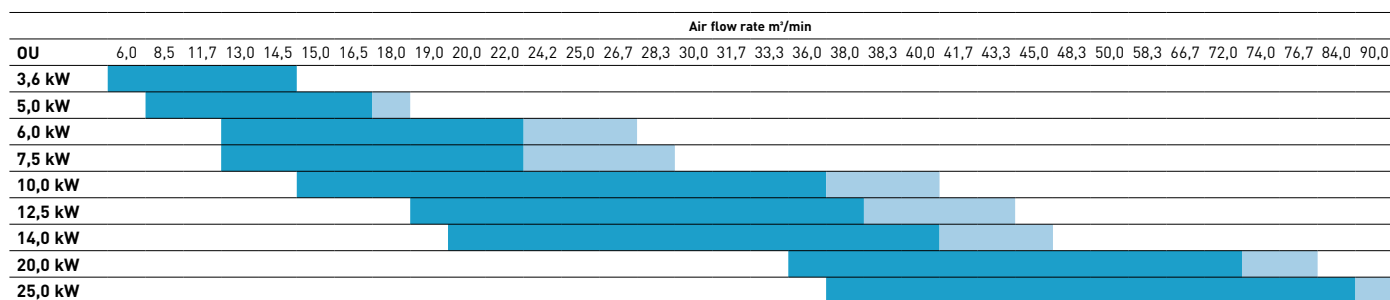
Thermistor x2  
(refrigerant: E1, E2).



Thermistor  
(air: TA; 1 sensor).



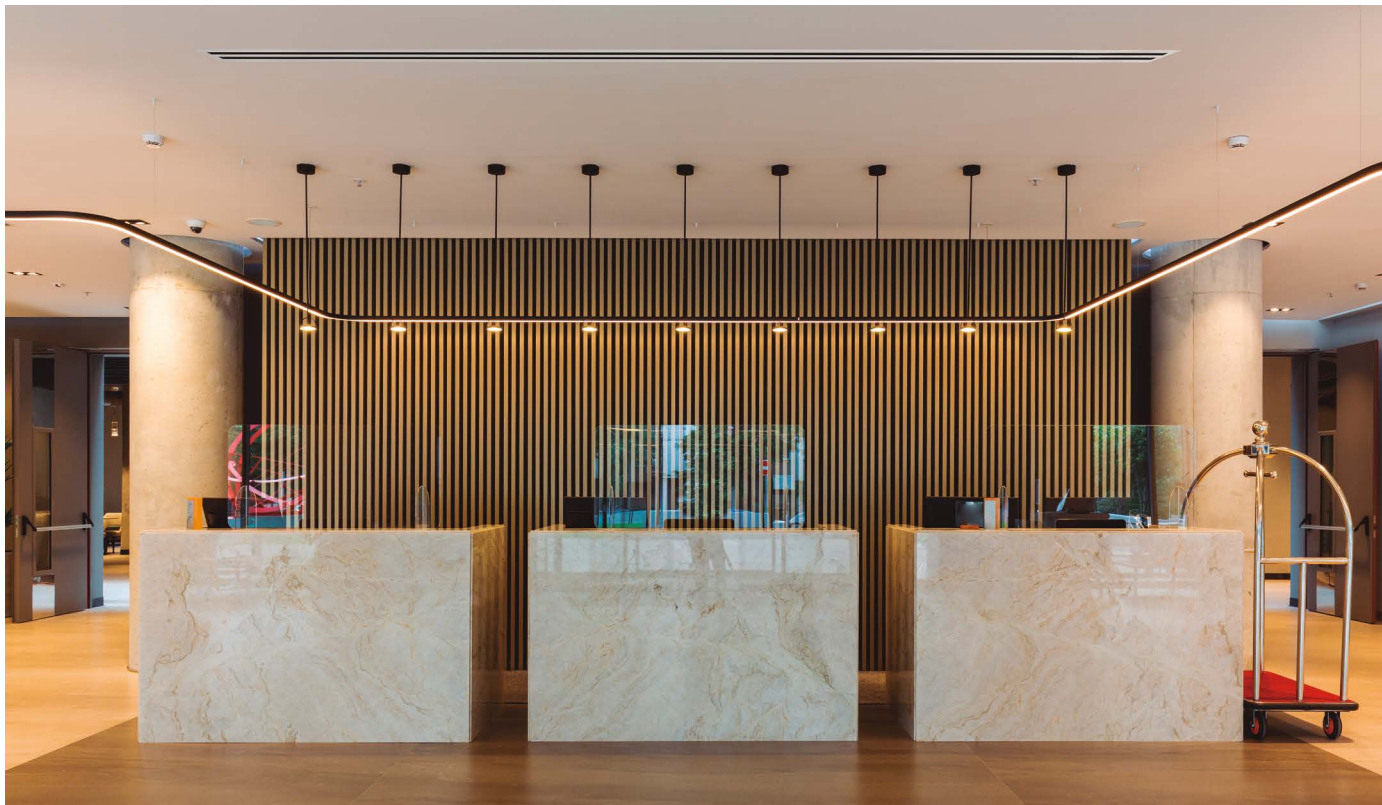
Wired remote  
controller.  
CZ-RTC6BL



Standard range of air flow rate under standard conditions (air intake temperature in cooling mode from 18 to 32 °C DB).

Extended range of air flow rate under special conditions (air intake temperature in cooling mode from 18 to 30 °C DB).

# New AHU connection kit 14,0 to 189,0 kW for ECOi and ECO G



## AHU connection kit

Reference	IP66	0-10 V demand control*
PAW-160MAH3M / PAW-280MAH3M / PAW-560MAH3M	Yes	Yes

\* With CZ-CAPBC2.

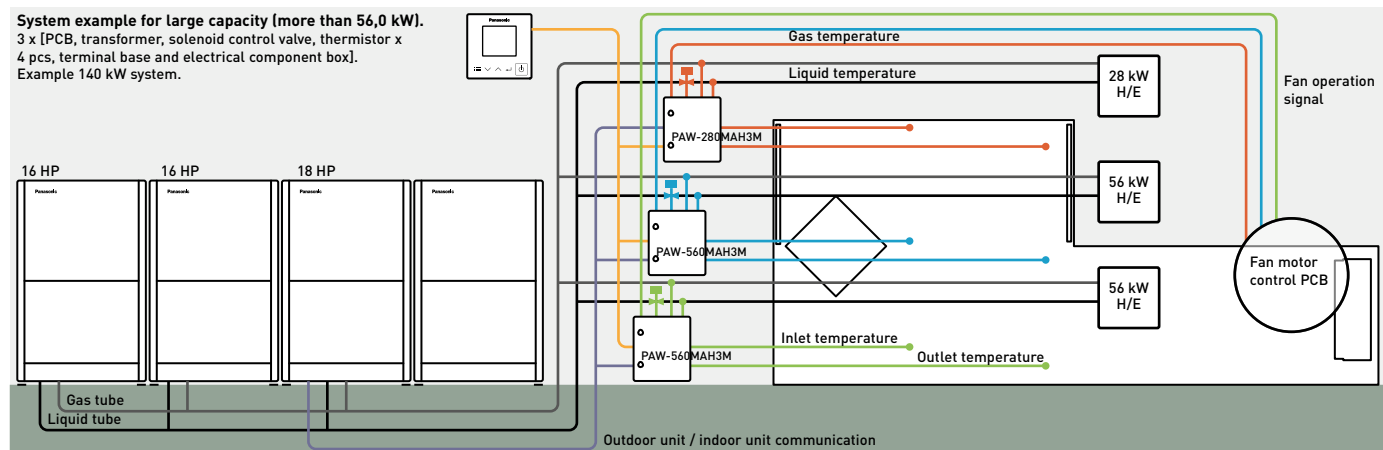
### With ECOi outdoor units

ECOi outdoor units shall be used for AHU connection kit. 3 models for VRF system: 5 HP (PAW-160MAH3M), 10 HP (PAW-280MAH3M) and 20 HP (PAW-560MAH3M).

### With ECO G outdoor units

- One AHU connection kit may be used for one ECO G unit.
- Multiple AHU connection kits cannot be used
- Mixed with standard indoor units is not allowed
- Power specifications are single phase 220 V to 240 V

**System example for large capacity (more than 56,0 kW).**  
3 x [PCB, transformer, solenoid control valve, thermistor x 4 pcs, terminal base and electrical component box].  
Example 140 kW system.







New  
2023

## NEW AHU connection kit 14,0 to 189,0 kW for ECOi and ECO G

			5 HP	10 HP	20 HP	30 HP	40 HP	50 HP	60 HP
Reference		PAW-	160MAH3M	280MAH3M	560MAH3M	280MAH3M 560MAH3M	560MAH3M 560MAH3M	560MAH3M 560MAH3M 280MAH3M	560MAH3M 560MAH3M
Cooling capacity		kW	14,0	28,0	56,0	84,0	112,0	140,0	168,0
Heating capacity		kW	16,0	31,5	63,0	95,0	127,0	155,0	189,0
Air flow	Cool Min/Max	m³/h	2598/1140	4998/3498	10002/7002	15000/10500	19998/13998	24996/17496	30000/21000
Bypass factor recommended			0,9	0,9	0,9	0,9	0,9	0,9	0,9
Dimension	HxWxD	mm	278x278x180	278x278x180	278x278x180	278x278x180	278x278x180	278x278x180	278x278x180
Net weight		kg	3,2	6,3	6,3	6,3	6,3	6,3	6,3
Pipe length range		m	10 ~ 100	10 ~ 100	10 ~ 100	10 ~ 100	10 ~ 100	10 ~ 100	10 ~ 100
Elevation difference (in / out)	Max	m	10	10	10	10	10	10	10
Piping diameter	Liquid	Inch (mm)	3/8(9,52)	3/8(9,52)	5/8(15,88)	3/4(19,05)	3/4(19,05)	3/4(19,05)	3/4(19,05)
	Gas	Inch (mm)	5/8(15,88)	7/8(22,22)	1 1/8(28,58)	1 1/4(31,75)	1 1/2(38,15)	1 1/2(38,15)	1 1/2(38,15)
Intake temperature of AHU connection kit	Cool Min ~ Max	°C DB	+18 ~ +32	+18 ~ +32	+18 ~ +32	+18 ~ +32	+18 ~ +32	+18 ~ +32	+18 ~ +32
	Cool Min ~ Max	°C WB	+13 ~ +23	+13 ~ +23	+13 ~ +23	+13 ~ +23	+13 ~ +23	+13 ~ +23	+13 ~ +23
	Heat Min ~ Max	°C	+16 ~ +30	+16 ~ +30	+16 ~ +30	+16 ~ +30	+16 ~ +30	+16 ~ +30	+16 ~ +30
Ambient temperature of outdoor unit	Cool Min ~ Max	°C	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43	-10 ~ +43
	Heat Min ~ Max	°C	-20 ~ +15	-20 ~ +15	-20 ~ +15	-20 ~ +15	-20 ~ +15	-20 ~ +15	-20 ~ +15

### AHU connection kit / system combination

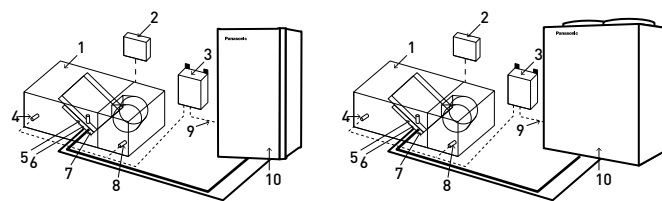
Capacity		ECOi Series			AHU kit			Capacity	ECO G Series		AHU kit
5 HP	16 kW	All ECOi			160MAH3	—	—	5 HP	16 kW	All ECO G	160MAH3
10 HP	28 kW	U-10ME2E8	—	—	280MAH3	—	—	10 HP	28 kW	All ECO G	280MAH3
20 HP	56 kW	U-20ME2E8	—	—	560MAH3	—	—	20 HP	56 kW	U-20GE3E5	560MAH3
30 HP	84 kW	U-16ME2E8	U-14ME2E8	—	560MAH3	280MAH3	—				
40 HP	112 kW	U-20ME2E8	U-20ME2E8	—	560MAH3	560MAH3	—				
50 HP	140 kW	U-18ME2E8	U-16ME2E8	U-16ME2E8	560MAH3	560MAH3	280MAH3				
60 HP	168 kW	U-20ME2E8	U-20ME2E8	U-20ME2E8	560MAH3	560MAH3	560MAH3				

### Technical focus

- Maximum capacity / system: 60 HP (189 kW)
- Maximum piping length: 100 m (120 m equivalent)
- Elevation difference (indoor unit / indoor unit): 4 m
- In / out capacity ratio: 50~100%
- Maximum number of AHU connection kits: 3 units\*
- Outdoor temperature range in heating: -20 ~ +15 °C
- Available temperature range for the suction air at AHU connection kit: cool: +18 ~ +32 °C / heat: +16 ~ +30 °C
- The systems is controlled by the suction air (or room return air) temperature (same as standard indoor unit)
- The discharge air temperature is also controlled to prevent too-low air discharge in cooling or too-high air discharge in heating (in case of VRF)
- Demand control (forcible thermostat-OFF control by operating current)
- Defrost operation signal, Thermo-ON / OFF states output
- Drain pump control (drain-pump and the float switch to be supplied in local)
- External target temperature setting via indoor / outdoor signal interface is available with CZ-CAPBC2 (Ex. 0-10 V)
- Demand control 40% to 120% (5% steps) by 0-10 V input signal

- Connectable with S-Link system. Special care for electrical noise may be necessary depending on the on-site system
- Fan control signal from the PCB can be used to control the air flow (high / mid / low and LL for Th-OFF). Need to change the fan control circuit wiring at field

\* To be simultaneous operation controlled by one remote controller sensor.



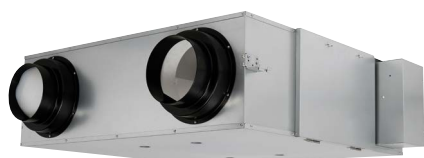
#### System and regulations. System overview.

- 1 | AHU Unit equipment (field supplied)
- 2 | AHU Unit system controller (field supplied)
- 3 | AHU connection kit controller box (with control PCB)
- 4 | Thermistor for discharge air
- 5 | Electronic expansion valve
- 6 | Thermistor for gas pipe [E3]
- 7 | Thermistor for liquid pipe [E1]
- 8 | Thermistor for suction air
- 9 | Inter-unit wiring
- 10 | Outdoor unit



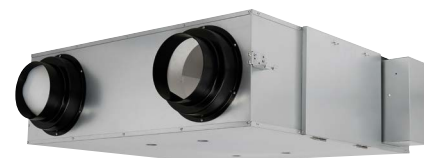
### New advanced ERV ZY Series.

- Extended 9 model line-up including 2000 m<sup>3</sup>/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





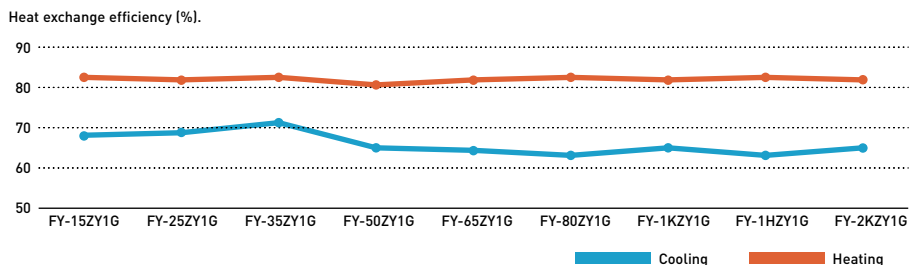
# New advanced energy recovery ventilation ZY Series



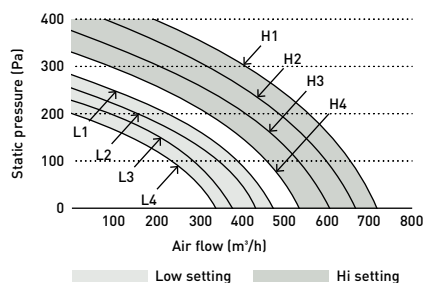
## Recovers up to 83% of the heat in the outgoing air

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

1) Heating operation, H1 speed setting.



Ventilation volume setting PQ curve example.



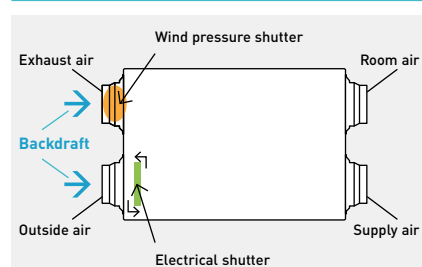
## Easy adjust for air volume balance

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.

Expected cleaning maintenance cycle is once per month, with an average of 4-6 months for replacement in high demand environments.



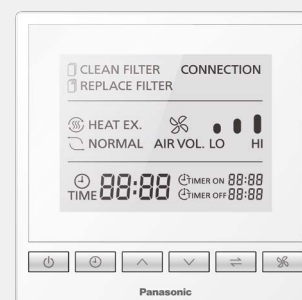
## Backdraft shutters equipped as standard

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 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



Rated flow rate			150 m³/h	250 m³/h	350 m³/h	500 m³/h	650 m³/h	800 m³/h	1000 m³/h	1500 m³/h	2000 m³/h
Indoor unit			FV-15ZY1G	FV-25ZY1G	FV-35ZY1G	FV-50ZY1G	FV-65ZY1G	FV-80ZY1G	FV-1KZY1G	FV-1HZY1G	FV-2KZY1G
Power supply	Voltage	V	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50	50	50	50	50	50
Motor type			DC	DC	DC	DC	DC	DC	DC	DC	DC
<b>ERV</b>											
Air flow	Max	m³/h	150	250	350	500	650	800	1000	1500	2000
External static pressure	Max	Pa	100	120	140	130	150	150	150	130	130
Sound power <sup>2)</sup>	Max	dB(A)	37	38	39	43	45	45	46	49	51
Input power	Max	W	76 ~ 84	106 ~ 117	141 ~ 155,5	180 ~ 198	420 ~ 462	470 ~ 517	550 ~ 605	940 ~ 1034	1100 ~ 1210
<b>Heat exchange efficiency <sup>3)</sup></b>											
Cooling	Max	%	68,0	69,0	71,0	65,0	64,0	63,0	65,0	63,0	65,0
Heating	Max	%	83,0	82,0	83,0	81,0	82,0	83,0	82,0	83,0	82,0
<b>Enthalpy exchange efficiency</b>											
Cooling	Max	%	66,0	66,0	67,0	62,5	62,5	63,5	63,0	63,5	63,0
Heating	Max	%	76,0	74,0	75,0	73,0	72,0	73,0	74,0	73,0	74,0
Adapter diameter		mm	100	150	150	200	200	250	250	250	250
Dimension <sup>3)</sup>	H x W x D	mm	289 x 610 x 860	289 x 735 x 860	331 x 874 x 968	331 x 1016 x 968	404 x 954 x 1008	404 x 1004 x 1224	404 x 1231 x 1224	808 x 1004 x 1224	808 x 1231 x 1224
Net weight		kg	23	27	37	40	48	56	64	116	139

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	
<b>FV-FP15ZY1G</b>	Replacement high efficiency filter for FV-15ZY1G
<b>FV-FP25ZY1G</b>	Replacement high efficiency filter for FV-25ZY1G
<b>FV-FP35ZY1G</b>	Replacement high efficiency filter for FV-35ZY1G
<b>FV-FP50ZY1G</b>	Replacement high efficiency filter for FV-50ZY1G

\* 2 sets of filters required for those models.

Accessories	
<b>FV-FP65ZY1G</b>	Replacement high efficiency filter for FV-65ZY1G
<b>FV-FP80ZY1G</b>	Replacement high efficiency filter for FV-80ZY1G and FV-1HZY1G*
<b>FV-FP1KZY1G</b>	Replacement high efficiency filter for FV-1KZY1G and FV-2KZY1G*



# Heat recovery with DX coil for VRF

Panasonic heat recovery solution for greater energy efficiency.  
Performing well in extreme weather conditions, it can achieve up to 77% efficiency  
(63% in enthalpy efficiency).



The counter-flow heat exchanger reduces the air conditioning load, enabling customers – typically owners of hotels, restaurants and other large commercial buildings – to reduce their energy consumption and save on the cost of maintaining comfortable room temperatures.

## Energy efficiency

These heat recovery devices are an example of Panasonic's continued commitment to developing unbeatable, energy-efficient air conditioning technologies for commercial applications.

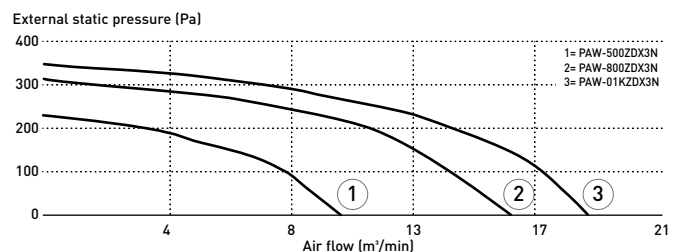
The unit features a DX coil, and is designed to recover up to 77% of the heat from outgoing air, and an air purifying system which helps to improve air quality. In even the most demanding commercial applications, business owners will benefit from the unit's ability to by-pass the heat exchange process when the outside air temperature is cool enough for fresh air to be drawn directly inside (free cooling). This alleviates the load on the air conditioning equipment and consequently reduces energy bills.

## Supply section complete

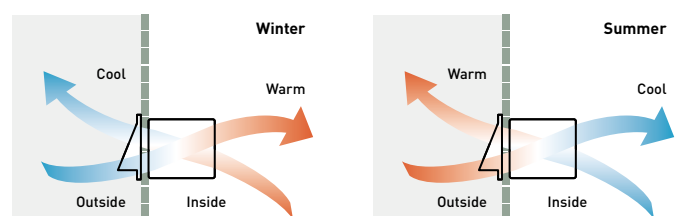
The supply section comes complete with the DX coil (using R410A refrigerant) – fitted with a solenoid control valve, freon filter, contact temperature sensors on the liquid and gas line, and NTC sensors on the upstream and downstream air flows. The built-in electric box is equipped with a PCB to control the internal fan speed and to interconnect the outdoor and indoor units, and the ducts are connected by circular plastic collars.

## Characteristic curves

The following curves show the unit external static pressure at maximum fan speed for each model.



## Balanced ventilation



## Heat recovery with DX coil · R410A

Motorised heat recovery by-pass device automatically controlled to use fresh air free-cooling when convenient.



COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS. FOR DETAILED INFORMATION GO TO THE CONTROL SYSTEMS SECTION

Indoor unit			PAW-500ZDX3N		PAW-800ZDX3N		PAW-01KZDX3N	
Power supply	Voltage	V	230		230		230	
	Phase		Single phase		Single phase		Single phase	
	Frequency	Hz	50		50		50	
Air flow			m <sup>3</sup> /min		13,3		16,7	
External static pressure <sup>1)</sup>			Pa		120		115	
Maximum current			Total full load		A		2,1	
Input power			W		150		390	
Sound pressure <sup>2)</sup>			dB(A)		39		43	
Piping diameter	Liquid	Inch (mm)	1/4 (6,35)		1/4 (6,35)		1/4 (6,35)	
	Gas	Inch (mm)	1/2 (12,70)		1/2 (12,70)		1/2 (12,70)	
Heat recovery			Cooling		Heating		Cooling	
Temperature efficiency			%		76		76	
Enthalpy efficiency			%		63		60	
Saved power summer mode or winter mode*			kW		1,70		8,20 (9,00)	
DX coil			Cooling		Heating		Cooling	
Total / Sensible capacity			kW		3,00/2,10		5,80/4,10	
OFF temperature			°C		15,9		16,2	
OFF relative humidity			%		90		89	

Nominal summer conditions: Outside air: 32 °C DB, RH 50%. Ambient air: 26 °C DB, RH 50%. Nominal winter conditions: Outside air: -5 °C DB, RH 80%. Ambient air: 20 °C DB, RH 50%. Cooling mode air inlet condition: 28,5 °C DB, RH 50%; evaporating temperature 7 °C. Heating mode air inlet condition: 13 °C DB, RH 40% (11 °C DB, RH 45%); condensating temperature 40 °C. DB: Dry Bulb; RH: Relative Humidity. 1) Referred to the nominal air flow after filter and plate heat exchanger. 2) Sound pressure level calculated at 1 m far from: ducted supply exhaust air ducted return - first air intake / service side, at normal condition. \* Tentative data.

## Accessories

<b>CZ-RTC6W</b>	CONEX wired remote controller (non-wireless), white
<b>CZ-RTC6WBL</b>	CONEX wired remote controller with Bluetooth®, white
<b>CZ-RTC6</b>	CONEX wired remote controller (non-wireless), black
<b>CZ-RTC6BL</b>	CONEX wired remote controller with Bluetooth®, black
<b>CZ-RTC5B</b>	Wired remote controller with Econavi function

## Accessories

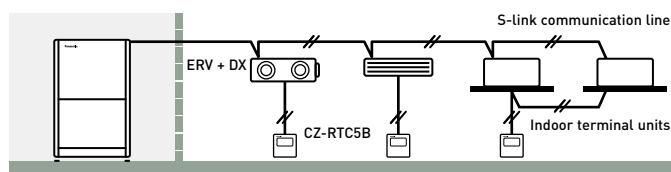
<b>PAW-RE2C4-MOD-WH</b>	Room controller for hotel rooms, white
<b>PAW-RE2C4-MOD-BK</b>	Room controller for hotel rooms, black
<b>PAW-RE2D4-WH</b>	Display control for hotel rooms, white
<b>PAW-RE2D4-BK</b>	Display control for hotel rooms, black

## Technical focus

- Galvanized steel self-supporting panels, internally and externally insulated
- High efficiency static cross-flow heat recovery, made by membrane with high moisture permeability, good air tightness, excellent tear, and aging resistance, structure consisting of flat and corrugated plates. Total heat exchange with temperature efficiency up to 76% and enthalpy efficiency up to 67%, also at high level during summer season
- ISO16890 ePm2,5 95% (F9 EN 779) efficiency class filter with synthetic cleanable media and COARSE 50% (G3 EN 779) pre-filter ON fresh air, COARSE 50% filter on return air intake
- Removable side panel to access filters and heat recovery in the event of scheduled maintenance
- Low consumption, low noise, high efficiency direct driven fans

- Supply section complete with DX coil (R410A) fitted with solenoid control valve, freon filter, contact temperature sensors on liquid and gas line, NTC sensors upstream and downstream of air flow
- Built-in electric box equipped with PCB to control internal fan speed and to interconnect outdoor / indoor units
- Duct connection by circular plastic collars

## Interconnection to outdoor / indoor units



INTERNET CONTROL: Optional.



## Electric air curtains

The Panasonic range of air curtains is designed for smooth operation and efficient performance. Air curtains produce a continuous stream of air blown from the top to the bottom of an open doorway and create a barrier that people and products can flow across, but air cannot.



### Electric air curtain

- 1 Designed to maximize performance**  
High air flow upgraded 145% compared to conventional model (in the case of FY-3009U1).

- 2 Comprehensive product line up**  
1,5 m wide model added in the line up.

- 3 Easier installation and maintenance**  
Simple structure for easy installation and maintenance.



			FY-3009U1	FY-3012U1	FY-3015U1
Width	mm		900	1200	1500
Voltage	V		220	220	220
Air flow	Hi / Lo	m <sup>3</sup> /h	1100/920	1400/1270	2000/1800
Consumption	Hi / Lo	W	76/70	94/85	131/110
Current	Hi / Lo	A	0,35/0,32	0,43/0,40	0,59/0,50
Air speed	Hi / Lo	m/s	10,50/8,50	9,50/8,00	10,50/9,50
Sound pressure		dB(A)	48,5/45,0	48,5/44,5	51,5/48,0
Dimension / Net weight	HxWxD	mm / kg	900x231,5x212/12,0	1200x231,5x212/14,5	1500x231,5x212/18,0

## Electric air curtain with DX coil

Designed to improve energy efficiency, minimise heat loss from a building, and allow retailers to keep doors open to encourage customers, our air curtains are suitable for connection to both VRF and PACi Systems.


**FRICO**

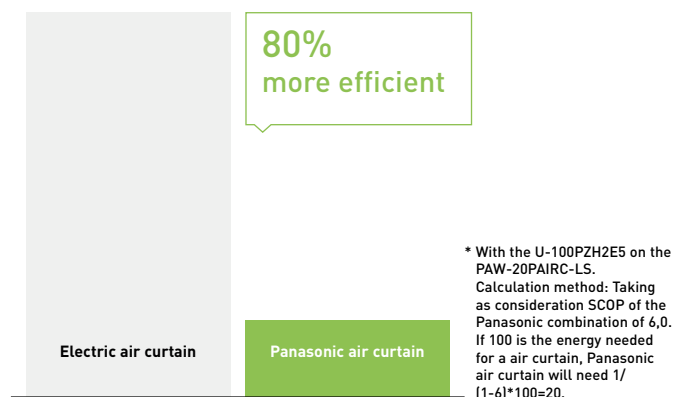
### Highly efficient heating effect

The combined air stream, which has a desirable low air current induction factor (mixing factor), can carry the selected initial temperature effect over long distances, and will reach the floor area while still at room temperature. This is necessary to avoid cooling down the interior spaces.

Available in different lengths to suit requirements between 1 and 2,5 m, both air curtains have outlet grilles that can be adjusted to five different positions. The HS model can be installed up to a height of 3,0 m with the LS model up to 2,7 m. The outlet grilles can be easily adjusted into five positions to suit different installation requirements and the air filter can be accessed without the need for specialist tools.

- High performance with EC fan motor (40% lower running costs compared to a standard AC fan motor)
- Easy Cleaning and Servicing
- Can be connected to either Panasonic VRF or PACi systems
- Drain pump for cooling operation included
- HS and LS models can be controlled via Panasonic's range of remote internet controls

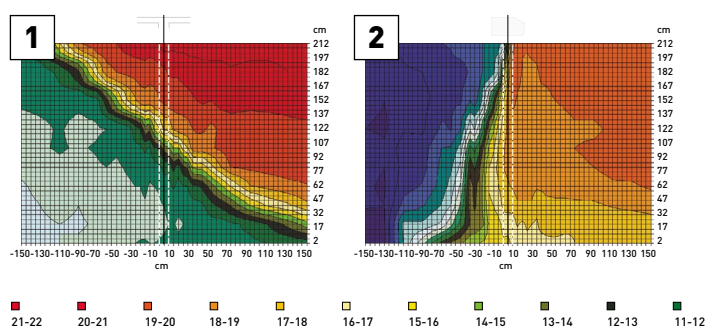
### Heating capacity comparison: Electrical air curtain / Panasonic air curtain.



The HS and LS models are ideal for connection to a ECOi or PACi system. With simple "Plug & Play" installation, both are fitted with an EC fan motor for a smooth operation and efficient performance. This fan guarantees 40% lower running cost than with a standard AC fan motor. Air curtains run approximately 12 hours per day at shops, and efficient performance contributes to energy savings.

### Optimised air flow velocity

- 1 | Energy losses, no air curtain installed
- 2 | Too low velocity air curtain – air curtain not efficient



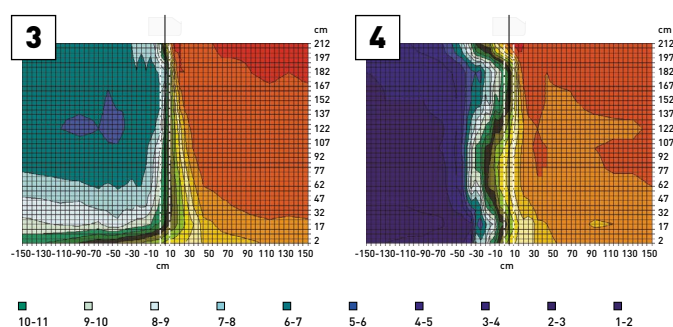
#### Opening without air curtain.

In an unprotected opening the cold air flows out and the cold storage room becomes much too warm.

#### Opening with air curtain, wrong angle.

If the angle is too small the hot air is blown into the cold storage room.

- 3 | Too high velocity air curtain – considerable turbulence, energy lost to the outside, air curtain not efficient
- 4 | Optimum results with the Frico air curtain connected to Panasonic VRF



#### Opening with air curtain, too high speed.

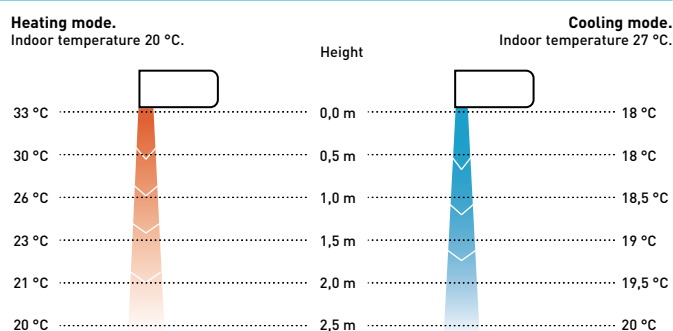
Excessive speed creates turbulence, which causes energy loss and increases the cold storage temperature.

#### Opening with correctly adjusted air curtain.

With a correctly set air curtain unit there is a sharp separation between the different temperature zones.

### Intelligent operation

Our air curtains combine air flow and heating / cooling technology to ensure optimum comfort and energy efficiency whilst also creating an effective barrier between indoor and outdoor environments. Design and installation is key to achieving the correct height / temperature settings to achieve optimum performance. Our air curtains are designed to answer the demands of the retail, commercial and industrial markets.



## Air curtain with DX coil, connected to PACi NX and PACi

**Comfort:** Easy redirection of air flow by means of manual deflector.

**Ease of use:** Speed selector (high and low) on the unit itself.

**Easy installation and maintenance:** Easy installation / Compact dimensions improve installation and positioning / Easy cleaning of grid without opening of the unit.



Outdoor unit capacity			7,1 kW	10,0 kW	14,0 kW	20,0 kW
Air outlet height 2,7 m			PAW-10PAIRC-LS-1	PAW-15PAIRC-LS-1	PAW-20PAIRC-LS-1	PAW-25PAIRC-LS-1
Cooling capacity <sup>1)</sup>	Max	kW	6,1	9,7	13,0	17,0
Heating capacity <sup>2)</sup>	Max	kW	7,9	12,0	15,0	19,0
Air flow	High	m <sup>3</sup> /h	1800	2700	3600	4500
Heat Exchanger	Volume	L	1,67	2,85	3,94	5,03
Electric consumption fan	230 V / 50 Hz	kW	0,30	0,50	0,60	0,80
Current	230 V / 50 Hz	A	2,10	3,10	4,10	5,10
Sound pressure <sup>3)</sup>	Max	dB(A)	65	66	67	69
Air outlet height 3,0 m			PAW-10PAIRC-HS-1	PAW-15PAIRC-HS-1	PAW-20PAIRC-HS-1	PAW-25PAIRC-HS-1
Cooling capacity <sup>1)</sup>	Max	kW	9,1	13,0	19,5	23,7
Heating capacity <sup>2)</sup>	Max	kW	11,8	15,8	23,6	27,6
Air flow	High	m <sup>3</sup> /h	2700	3600	5400	6300
Heat Exchanger	Volume	L	1,67	2,85	3,94	5,12
Electric consumption fan	230 V / 50 Hz	kW	0,75	1,00	1,50	1,75
Current	230 V / 50 Hz	A	4,10	5,50	8,20	9,60
Sound pressure <sup>3)</sup>	Max	dB(A)	66	67	68	68
Common data						
Dimension <sup>4)</sup>	H x W x D	mm	260 (+140) x 1000 x 460	260 (+140) x 1500 x 460	260 (+140) x 2000 x 460	260 (+140) x 2500 x 460
Net weight	Air outlet height 2,7 m	kg	50	65	80	95
	Air outlet height 3,0 m	kg	55	65	85	110
Fan type			EC	EC	EC	EC
Piping diameter	Liquid / Gas	Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 3/4 (19,05)	3/8 (9,52) / 7/8 (22,22)	3/8 (9,52) / 7/8 (22,22)
Door width		m	1,0	1,5	2,0	2,5
Refrigerant			R32	R32	R32	R32

LS / PACi outdoor combination*	PACi Elite			PACi Standard		
Operation until	40 °C	35 °C	30 °C	40 °C	35 °C	30 °C
PAW-10PAIRC-LS-1	U-100	U-100	U-50	U-100	U-100	U-60
PAW-15PAIRC-LS-1	U-200	U-100	U-100	—	U-100	U-100
PAW-20PAIRC-LS-1	U-200	U-140	U-100	—	—	U-100
PAW-25PAIRC-LS-1	U-250	U-200	U-125	—	—	U-125

HS / PACi outdoor combination*	PACi Elite			PACi Standard		
Operation until	40 °C	35 °C	30 °C	40 °C	35 °C	30 °C
PAW-10PAIRC-HS-1	U-200	U-100	U-100	—	U-100	U-100
PAW-15PAIRC-HS-1	U-200	U-200	U-100	—	U-200	U-100
PAW-20PAIRC-HS-1	—	U-250	U-200	—	U-250	—
PAW-25PAIRC-HS-1	—	U-250	U-200	—	U-250	—

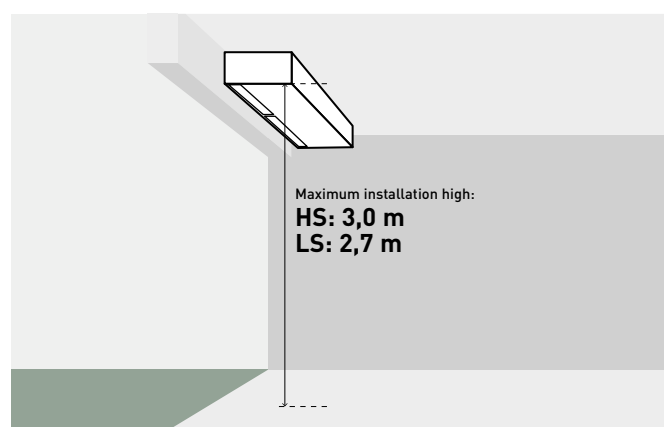
1) Cooling capacity DX coil, air temperature in / out +27 / +18 °C, R32 and R410. 2) Heating capacity condenser, air temperature in / out +20 / +33 °C, R32 and R410. In the case of lower outdoor temperatures, an outdoor model with higher capacity may be necessary. 3) Measured in distance up to 5,0 m, direction factor 2, absorbing surfaces 200 m<sup>2</sup>, Min / Max air flow. 4) 140 mm is the height of an electrical box if it is installed on the top. \* Available with PZH2 and PZ2. PZH3 and PZ3 will be compatible from Autumn 2023.

## Technical focus

- Now compatible with PACi NX Series
- Save up to 40% energy costs by use of the integrated EC fan technology (higher efficiency than conventional AC fan, soft start and longer motor duration)
- 4 length of air curtain LS and HS are available 1,0, 1,5, 2,0 and 2,5 m
- Installation height up to 3,0 m
- Outlet grilles can be adjusted in five positions, to suite different indoor and installation requirements
- Control with Panasonic remote control systems (optional)
- Direct integration to BMS via optional Panasonic interfaces
- Drip tray included in all DX air curtains
- Drain pump included

## How does it work?

Stale air from the room is taken in and ejected near the door. This creates a 'roll of air' that shields the door area, mixing with the colder incoming air. It then turns away from the door, back into the room and toward the intake screen, where it is partly drawn in again. This flow of air helps to create a barrier for heat loss yet at the same time refreshes room air





## Air curtain with DX coil, connected to VRF systems

**Comfort:** Easy redirection of air flow by means of manual deflector.

**Ease of use:** Speed selector (high and low) on the unit itself.

**Easy installation and maintenance:** Easy installation / Compact dimensions improve installation and positioning / Easy cleaning of grid without opening of the unit.



Outdoor unit capacity			4 HP	4 HP	5 HP	8 HP
Air outlet height 2,7 m			PAW-10EAIRC-LS	PAW-15EAIRC-LS	PAW-20EAIRC-LS	PAW-25EAIRC-LS
Cooling capacity <sup>1)</sup>	Max	kW	6,1	9,7	13,0	17,0
Heating capacity <sup>2)</sup>	Max	kW	7,9	12,0	15,0	19,0
Air flow	High	m³/h	1800	2700	3600	4500
Heat Exchanger	Volume	L	1,67	2,85	3,94	5,03
Electric consumption fan	230 V / 50 Hz	kW	0,30	0,50	0,60	0,80
Current	230 V / 50 Hz	A	2,10	3,10	4,10	5,10
Sound pressure <sup>3)</sup>	Max	dB(A)	65	66	67	69
Air outlet height 3,0 m			PAW-10EAIRC-HS	PAW-15EAIRC-HS	PAW-20EAIRC-HS	PAW-25EAIRC-HS
Cooling capacity <sup>1)</sup>	Max	kW	9,1	13,0	19,5	23,7
Heating capacity <sup>2)</sup>	Max	kW	11,8	15,8	23,6	27,6
Air flow	High	m³/h	2700	3600	5400	6300
Heat Exchanger	Volume	L	1,67	2,85	3,94	5,12
Electric consumption fan	230 V / 50 Hz	kW	0,75	1,00	1,50	1,75
Current	230 V / 50 Hz	A	4,10	5,50	8,20	9,60
Sound pressure <sup>3)</sup>	Max	dB(A)	66	67	68	68
Common data						
Dimension <sup>4)</sup>	H x W x D	mm	260 (+140) x 1000 x 460	260 (+140) x 1500 x 460	260 (+140) x 2000 x 460	260 (+140) x 2500 x 460
Net weight	Air outlet height 2,7 m	kg	50	65	80	95
	Air outlet height 3,0 m	kg	55	65	85	110
Fan type			EC	EC	EC	EC
Piping diameter	Liquid / Gas	Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 3/4 (19,05)	3/8 (9,52) / 7/8 (22,22)	3/8 (9,52) / 7/8 (22,22)
Door width		m	1,0	1,5	2,0	2,5
Refrigerant			R32 / R410A	R32 / R410A	R32 / R410A	R32 / R410A

LS / VRF outdoor combination			
Operation until	40 °C	35 °C	30 °C
PAW-1EAIRC-LS	U-4	U-4	U-4
PAW-15EAIRC-LS	U-6	U-5	U-4
PAW-20EAIRC-LS	U-8	U-6	U-4
PAW-25EAIRC-LS	U-8	U-8	U-5

HS / VRF outdoor combination			
Operation until	40 °C	35 °C	30 °C
PAW-10EAIRC-HS	U-6	U-5	U-4
PAW-15EAIRC-HS	U-8	U-6	U-4
PAW-20EAIRC-HS	U-8	U-8	U-8
PAW-25EAIRC-HS	U-12	U-10	U-8

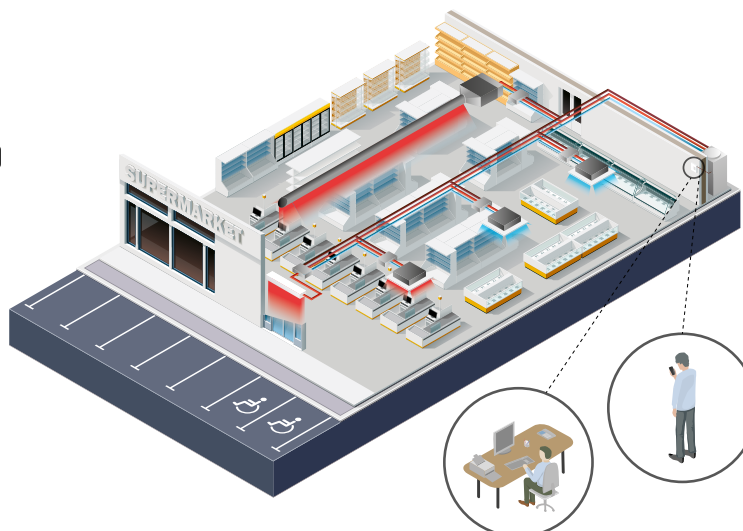
1) Cooling capacity DX coil, air temperature in / out +27 / +18 °C, R32 and R410. 2) Heating capacity condenser, air temperature in / out +20 / +33 °C, R32 and R410. In the case of lower outdoor temperatures, an outdoor model with higher capacity may be necessary. 3) Measured in distance up to 5,0 m, direction factor 2, absorbing surfaces 200 m², Min / Max air flow. 4) 140 mm is the height of an electrical box if it is installed on the top. \* Also compatible with ECO G Series (GE3 and GF3) and Hybrid Series.

## Technical focus

- Compatible with R32 and R410A refrigerant
- Save up to 40% energy costs by use of the integrated EC fan technology (higher efficiency than conventional AC fan, soft start and longer motor duration)
- 4 length of air curtain LS and HS are available 1,0, 1,5, 2,0 and 2,5 m
- Installation height up to 3,0 m
- Outlet grilles can be adjusted in five positions, to suite different indoor and installation requirements
- Control with Panasonic remote control systems (optional)
- Direct integration to BMS via optional Panasonic interfaces
- Drip tray included in all DX air curtains
- Drain pump included

## Internet control

An app added to your tablet or smartphone or via the Internet allows you to control and manage the system remotely. There is also the option to integrate into existing BMS systems by using other Panasonic interfaces.



## High pressure duct and 100% fresh air duct function for all ECOi and ECO G systems

The E2 range of ducted units offers improved design flexibility for extended duct layouts as a result of their increased external static pressures whilst reducing energy consumption, while providing fresh air to larger spaces.





## E2 type high static pressure hide-away · R410A

### High pressure duct and 100% fresh air duct function.



COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS. FOR DETAILED INFORMATION GO TO THE CONTROL SYSTEMS SECTION

Type		100% Fresh air duct function (by using Kit for 100% fresh air)				High pressure duct			
Indoor unit		S-224ME2E5		S-280ME2E5		S-224ME2E5		S-280ME2E5	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	22,4	21,2	28,0	26,5	22,4	25,0	28,0	31,5
Input power	W	290,00	290,00	350,00	350,00	440,00	440,00	715,00	715,00
Current	A	1,85	1,85	2,20	2,20	2,45	2,45	3,95	3,95
Air flow	Hi/Med/Lo	m³/min		m³/min		m³/min		m³/min	
		28,3/-/-		35,0/-/-		56,0/51,0/44,0		72,0/63,0/53,0	
External static pressure	Pa	200		200		140 [60 - 270] <sup>1)</sup>		140 [72 - 270] <sup>1)</sup>	
Sound pressure <sup>2)</sup>	Hi/Med/Lo	dB(A)		dB(A)		dB(A)		dB(A)	
		43/-/-		44/-/-		45/43/41		49/47/43	
Sound power	Hi/Med/Lo	dB(A)		dB(A)		dB(A)		dB(A)	
		75/-/-		76/-/-		77/75/73		81/79/75	
Dimension	H x W x D	mm		mm		mm		mm	
		479 x 1453 x 1205		479 x 1453 x 1205		479 x 1453 x 1205		479 x 1453 x 1205	
Net weight	kg	102		106		102		106	
Piping diameter	Liquid	Inch (mm)	3/8 [9,52]	Inch (mm)	3/8 [9,52]	Inch (mm)	3/8 [9,52]	Inch (mm)	3/8 [9,52]
	Gas	Inch (mm)	3/4 [19,05]	Inch (mm)	7/8 [22,22]	Inch (mm)	3/4 [19,05]	Inch (mm)	7/8 [22,22]

Rating Conditions for 100% Fresh air duct function: Cooling Outdoor 33 °C DB / 28 °C WB. Heating Outdoor 0 °C DB / -2,9 °C WB.

1) Available to select the setting by initial setup. 2) Values with 140 Pa setting. \* No filter included. \*\* No compatible with 3-Pipe ECO G GF3.

Accessories	
<b>CZ-RTC6W</b>	CONEX wired remote controller (non-wireless), white
<b>CZ-RTC6WBL</b>	CONEX wired remote controller with Bluetooth®, white
<b>CZ-RTC6</b>	CONEX wired remote controller (non-wireless), black
<b>CZ-RTC6BL</b>	CONEX wired remote controller with Bluetooth®, black
<b>CZ-RTC5B</b>	Wired remote controller with Econavi function
<b>CZ-RWS3 + CZ-RWRC3</b>	Infrared remote controller and receiver

Accessories	
<b>PAW-RE2C4-MOD-WH</b>	Room controller for hotel rooms, white
<b>PAW-RE2C4-MOD-BK</b>	Room controller for hotel rooms, black
<b>PAW-RE2D4-WH</b>	Display control for hotel rooms, white
<b>PAW-RE2D4-BK</b>	Display control for hotel rooms, black
<b>CZ-CENSC1</b>	Econavi energy saving sensor

### Technical focus

- No need of rap valves for standard operation
- 100% fresh air duct function\*
- DC fan motor for more savings
- Complete flexibility for ductwork design
- Can be located within a weatherproof housing for external installation
- Air OFF sensor avoids cold air dumping
- Configurable air temperature control

\* Rap valves required, see 100% fresh air duct function below.

### 100% fresh air duct function

The E2 duct with 100% fresh air duct function have exceptional discharge temperature.

	Discharge Range		
	Min	Max	Default
Cooling	15 °C	24 °C	18 °C
Heating	17 °C	45 °C	40 °C

### System example

An inspection port (450 x 450 mm or more) is required at the lower side of the indoor unit body (field supply).



### Plenums

Air outlet plenum (suitable for rigid + flexible duct)		
	Number of exits with diameters	Model
S-224ME2E5	1 x 500 mm	CZ-TREMIESPW705
S-280ME2E5	1 x 500 mm	CZ-TREMIESPW706

### Kit for 100% fresh air function

Kit for 2 way systems		Kit for 3 way systems	
<b>2x CZ-P160RVK2</b>	Rap valve kit	<b>2x CZ-P160HR3</b>	3 way valve kit
<b>2x CZ-CAPE2</b>	3 way control PCB	<b>2x CZ-CAPE2</b>	3 way control PCB
<b>CZ-P680BK2BM</b>	Distribution joint kit	<b>CZ-P680BH2BM</b>	Distribution joint kit
	1x remote controller		1x remote controller



ECONAVI and INTERNET CONTROL: Optional.



# Ceiling mounted air-e nanoe X Generator

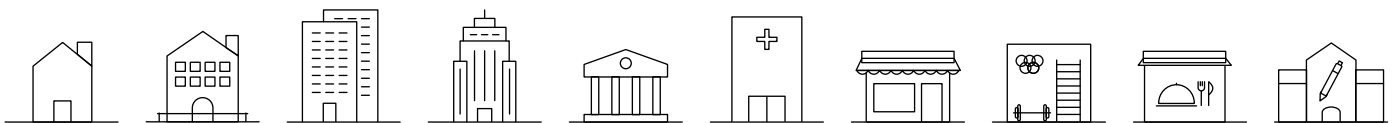


Bringing nature's balance indoors with Panasonic's unique nanoe™ X technology built into the air-e.

Deodorises and inhibits certain bacteria, viruses, mould, pollens and allergens for better indoor air quality.



The air-e is a stand alone device which is an easy and simple choice to improve indoor air quality. It can be easily installed to various commercial projects including refurbishments.



## The tested effects of nanoe™ X

### Bacteria and viruses.

SARS-CoV-2: 99,9% % inhibited <sup>1)</sup>

Influenza virus H1N1 subtype: 99,9 % inhibited <sup>2)</sup>

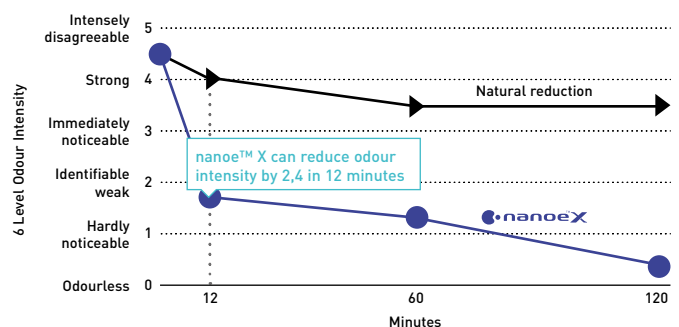
### Odour.

nanoe X Generator can reduce cigarette smoke odour intensity by 2,4 levels in 12 minutes.

- 1) Novel coronavirus [SARS-CoV-2] > [Test organization] Texcell (France) [Test subject] Adhered novel coronavirus [SARS-CoV-2] [Test volume] 45 L enclosed box [Test result] Inhibited 99,9% in 2 hours [Test report] 1140-01 A1.
- 2) Adhered virus (Influenza virus H1N1 subtype) > [Test organization] Kitasato Research Center for Environmental Science [Test subject] Influenza virus [H1N1 subtype] [Test volume] 1000 L enclosed box [Test result] Inhibited 99,9% in 2 hours [Test report] 21\_0084\_1.
- 3) Deodorisation effect for adhering odour (cigarette smoke) > [Test organization] Panasonic Product Analysis Center [Test subject] Adhered cigarette smoke odour [Test volume] Approx. 24 m<sup>3</sup> laboratory [Test result] Odour intensity reduced 2,4 levels in 0,2 hours [Test report] 4AA33-160615-N04.

Performance of nanoe™ X might differ in real life environment and is only expected in the same room as where the unit is placed. The nanoe™ X performance varies depending on the room size, environment and usage and it may take several hours to reach the full effect. nanoe™ X is not a medical device.

Deodorisation effect for adhering odour (cigarette smoke) <sup>3)</sup>.



For further details and validation data, please refer to the following website.



Ceiling mounted air-e nanoe X Generator

- nanoe™ X technology  
(Generator Mark 1= 4,8 trillion hydroxyl radicals/sec)
- Silent operation. Whisper quiet at 25,5 dB(A)\*
- Low power consumption 4 W
- Easy Installation
- Compact and modern design

\* 230 V.

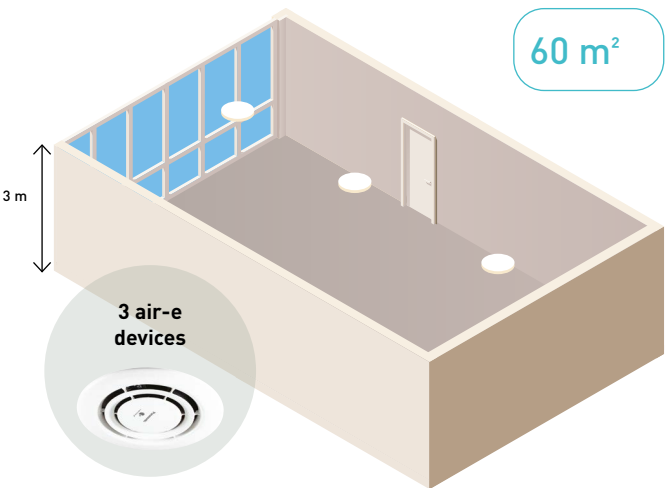


Model		FV-15CSD16			
Power supply	Voltage	V	220	230	240
	Frequency	Hz	50	50	50
Air flow		m³/h	15	16	17
		CFM	8,8	9,4	10,0
Consumption		W	4	4	4
Sound pressure		dB(A)	23,5	25,5	27,0
Net weight		kg		1,1	

\* The value of air volume, power consumption and noise are specified at static pressure 0 Pa. The value of air volume is the mean value and a tolerance of +-10% is allowed. The value of noise level is a weighted average sound pressure level, the mean value is measured by Panasonic. A tolerance of +3 dB/-7 dB is allowed. The noise is measure at 1 m apart from the left, the front and below of the tested product. Conditions of generating nanoe™ X: room temperature: about 5 °C ~ 40 °C (dew point temperature more than 2 °C), relative humidity: about 30% ~ 85%. nanoe™ X is generated using the air in the room, and its amount is subject to the temperature and humidity in the air.

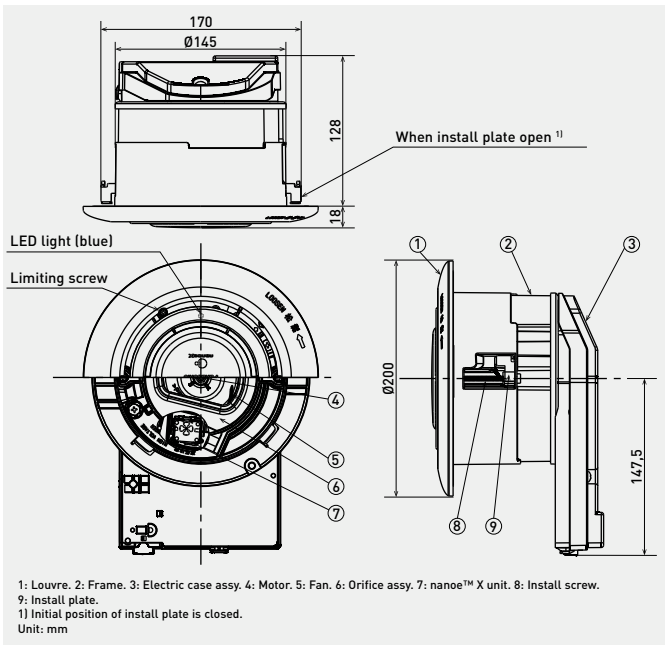
One device is suitable for around 20 m² (with a ceiling height 3 m)

Ex. 3 air-e devices are required for the room size 60 m².



Concentration simulator is ready

See how nanoe™ X fills space.



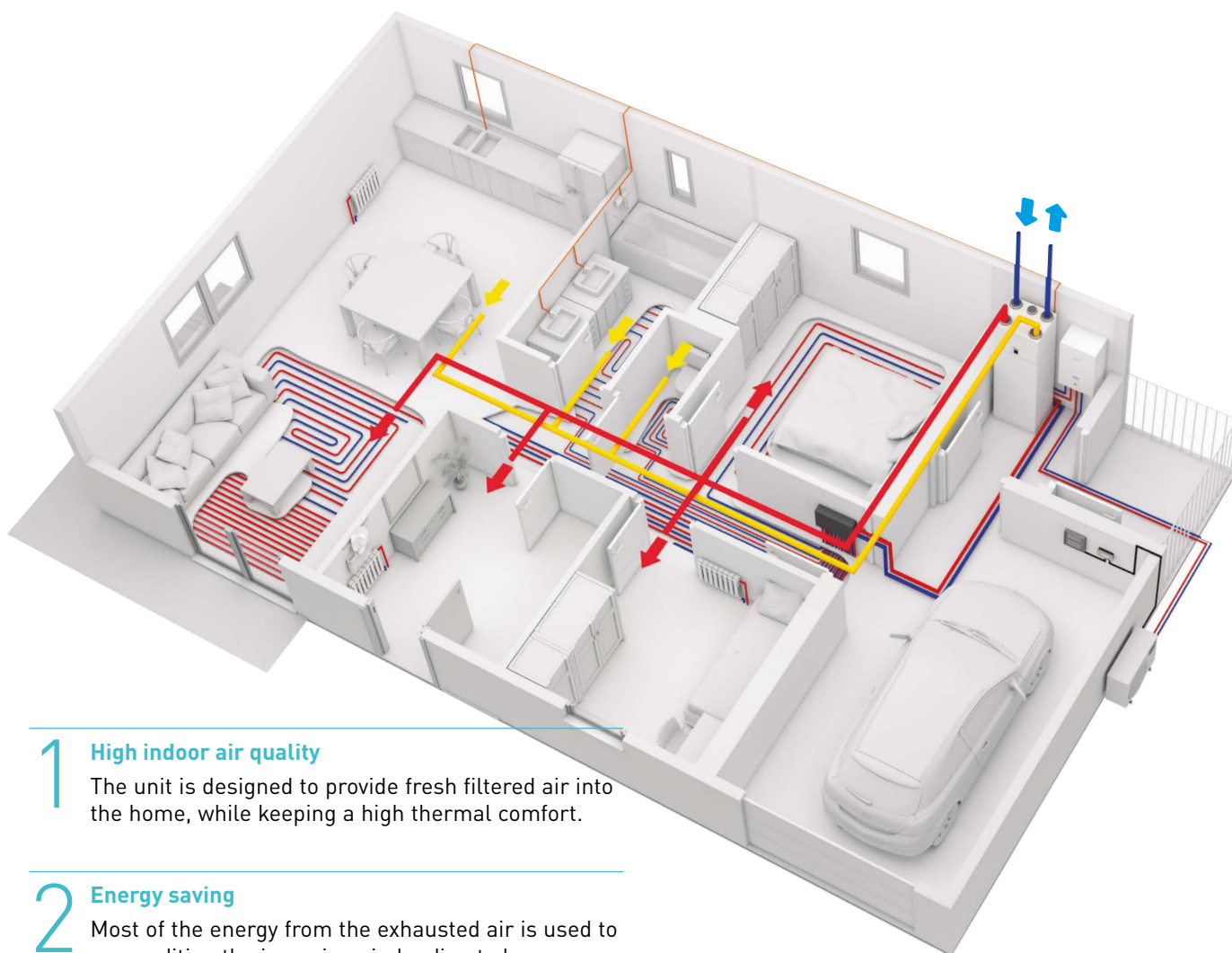
**Projects with nanoe™ X.**

**Cabinet Dental. France.**  
The request by a customer to manage the indoor air quality in order to ensure irreproachable hygiene and odour control.

**Mercat d'autors shop. Spain.**  
The nanoe™ X was chosen to ensure a cleaner air supply at a food market.

# Heat recovery ventilation unit

The heat recovery ventilation unit is design not only to provide a good indoor air quality, but it is also designed to recover heat that would otherwise be lost throughout ventilation. These heat recovery ventilation systems are used to assist in the retention of heat.



## 1 High indoor air quality

The unit is designed to provide fresh filtered air into the home, while keeping a high thermal comfort.

## 2 Energy saving

Most of the energy from the exhausted air is used to precondition the incoming air, leading to lower heating requirements in the building.

## 3 Space saving

The compact ventilation unit can be installed over the DHW square tank or the Aquarea All in One Compact indoor unit for an space-saving solution.

## 4 Better user interface

The Residential ventilation unit and the Aquarea Heat Pump can be controlled with one single user-friendly controller.

## AQUAREA

Combine the Residential ventilation unit with Panasonic Aquarea for an space saving and highly efficient solution for heating, cooling, ventilation and DHW.



Heat Recovery Ventilation + Aquarea All in One Compact



Heat Recovery Ventilation + DHW Square Tank + Aquarea Mono-bloc



Heat Recovery Ventilation + DHW Square Tank + Aquarea Bi-bloc

\* The unit can be mounted on a PAW-TA20C1E5C, on a WH-ADC0309J3E5C or installed on the wall (PAW-VEN-WBRK is needed).





PAW-A2W-VENTA-R



PAW-A2W-VENTA-L



Heat recovery ventilation unit	PAW-A2W-VENTA-R	PAW-A2W-VENTA-L
Nominal air flow rate	m <sup>3</sup> /h	204 @ 50 Pa
Maximum air flow rate	m <sup>3</sup> /h	292 @ 100 Pa
SPF		1,24 @ 204 m <sup>3</sup> /h
Heat exchanger rotor drive type		Variable speed
Exchanger type		Rotating
Heat recovery efficiency		84%
Power supply	V / Hz	230 / 50 / 1 phase
Power consumption	W	176
<b>Energy class, basic unit</b>		<b>A</b>
<b>Energy class, unit with local control on demand</b>		<b>A</b>
Noise level	dB(A)	40
Dimension (H x W x D)	mm	450 x 598 x 500
Weight	kg	46
Mounting position		Vertical
Supply side	Right	Left
Duct connections	mm	DN125
Filter class, supply air		F7/ePM1 60%
Filter class, extract air		M5/ePM10 50%
Minimum outdoor temperature	°C	-20

\* Heat recovery efficiency according to EN 13141-7. \*\* Heat recovery ventilation unit is produced by Systemair.

Accessories	
<b>PAW-VEN-FLTKit</b>	Supply and extract filters kit
<b>PAW-VEN-ACCPCB</b>	Optional PCB for additional functions
<b>PAW-VEN-DPL</b>	HRV touch control panel. White frame (cable must be ordered separately)
<b>PAW-VEN-CBLEXT12</b>	Cable with plug for electrical connection between unit and control panel, type CE and CD (12 m)
<b>PAW-VEN-DIVPLG</b>	Twin plugs for installation of several control panels type CD or CE for one unit

Accessories	
<b>PAW-VEN-DPLBOX</b>	HRV touch control panel wall-mounted kit
<b>PAW-VEN-S-C02RH-W</b>	CO <sub>2</sub> RH wall-mounted sensor
<b>PAW-VEN-S-C02-W</b>	CO <sub>2</sub> wall-mounted sensor
<b>PAW-VEN-S-C02-D</b>	CO <sub>2</sub> duct sensor
<b>PAW-VEN-WBRK</b>	Wall bracket kit for stand-alone installation on the wall
<b>PAW-VEN-HTR06</b>	Electrical duct heater 0,6 kW (includes relay)
<b>PAW-VEN-HTR12</b>	Electrical duct heater 1,2 kW (includes relay)

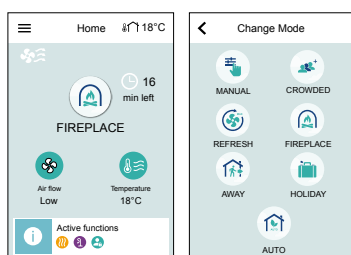
### Main features of the residential ventilation unit

- Designed for areas up to approximately 140 m<sup>2</sup>
- High energy-efficiency rotary heat exchanger with EC - technology fans
- Moisture transfer function to minimize condensation in supply air during wintertime
- The built in humidity sensor in extract air can be used for demand control
- Control via touch display and Startup Wizard for easy commissioning
- Modbus communication via RS-485
- Option to control an Aquarea H Generation onwards heat pump from PAW-A2W-VENTA control panel (PAW-AW-MBS-H and PAW-VEN-ACCPCB required)

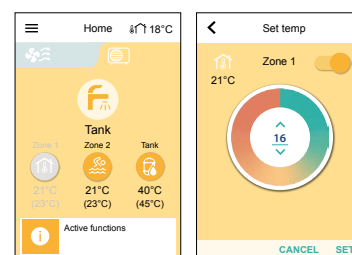
### Control user-friendly interface

All settings and features accessible via a control panel, integrated into the front cover. The option for connecting one or more external control panels is available.

- Color touch screen with a user-friendly interface
- MANUAL and AUTO mode or choose preferred settings from the pre-configured user modes



- If Aquarea H and J Generations heat pumps are connected with PAW-A2W-VENTA, the heat pump control options appear on the home screen in a separate tab



## New counter flow ventilation

Controlled mechanical ventilation ensures the supply of fresh air inside a building in order to guarantee a good indoor air quality.



### Universal mounting compact unit (Z).

- Suitable for small and medium size apartments, with nominal air flow up to 200 m³/h
- Universal mounting (horizontal or vertical)



### Horizontal mounting unit (H).

- Suitable for single family houses, with nominal air flow rates up to 350 m³/h
- Horizontal mounting
- Easily accessible lower panel for maintenance and inspection



### Vertical mounting unit (V).

- Suitable for single family houses, with nominal air flow rates up to 350 m³/h
- Vertical mounting
- Easily accessible front panel for maintenance and inspection





Counter flow ventilation		PAW-	VENTX10Z	VENTX15Z	VENTX20H	VENTX20V	VENTX30H	VENTX30V	VENTX40H	VENTX40V
Air flow	Nominal / Max	m³/h	91/130	147/210	109/155	112/170	210/300	210/300	238/340	266/380
Static pressure	Nominal / Max	Pa	50/100	50/100	50/100	50/100	50/100	50/100	50/100	50/100
Type of HEX			Counter flow HRV	Counter flow HRV	Counter flow HRV	Counter flow HRV	Counter flow HRV	Counter flow HRV	Counter flow HRV	Counter flow HRV
Recovery efficiency	%		87	85	86	86	85	86	89	87
Energy class			A	A	A	A	A	A	A	A
Power supply	Voltage	V	230	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50	50	50	50	50
Power consumption	Nominal	W	80	140	110	110	180	180	350	350
Sound Power LWA		dB(A)	48	51	49	48	50	50	52	51
Dimensions	H x W x D	mm	255 x 580 x 580	255 x 580 x 580	260 x 480 x 800	510 x 430 x 625	295 x 600 x 795	590 x 575 x 785	290 x 650 x 1150	590 x 735 x 785
Weight		kg	19	19	25	32	30	38	38	42
Mounting position			Horizontal / Vertical	Horizontal / Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
Filter class			ePM1 80%	ePM1 80%	ePM1 80%	ePM1 80%	ePM1 70%	ePM1 70%	ePM1 70%	ePM1 70%
Duct connection		mm	160	160	160	160	160	160	160	160

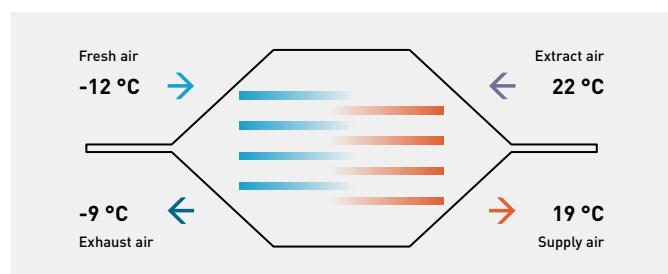
\* Produced by Sinergia.

Accessories	
<b>PAW-VEN-CTRLB</b>	Digital remote control (black). Integrated air quality, temperature and humidity sensors
<b>PAW-VEN-CTRLW</b>	Digital remote control (white). Integrated air quality, temperature and humidity sensors
<b>PAW-VEN-HTR05</b>	Electrical duct heater 0,5 kW, DN125 mm
<b>PAW-VEN-HTR10</b>	Electrical duct heater 1,0 kW, DN160 mm
<b>PAW-VEN-FLT1</b>	Spare F7 filter kit (2 pcs) for models 10Z, 15Z, 20H and 20V
<b>PAW-VEN-FLT2</b>	Spare F7 filter kit (2 pcs) for models 30H and 30V

Accessories	
<b>PAW-VEN-FLT3</b>	Spare F7 filter kit (2 pcs) for models 40H
<b>PAW-VEN-FLT4</b>	Spare F7 filter kit (2 pcs) for models 40V
<b>PAW-VEN-ACFLT1</b>	Activated carbon filter (1 pc) for models 10Z, 15Z, 20H and 20V
<b>PAW-VEN-ACFLT2</b>	Activated carbon filter (1 pc) for models 30H and 30V
<b>PAW-VEN-ACFLT3</b>	Activated carbon filter (1 pc) for models 40H
<b>PAW-VEN-ACFLT4</b>	Activated carbon filter (1 pc) for models 40V

Counter flow ventilation units are equipped with two fans to supply and extract air. A cross-flow heat exchanger recovers the energy contained in the extracted air and transfers it to the supplied air. This significantly reduces the building's energy consumption, while at the same time keeping a good quality of the indoor air.

### Balanced ventilation



- Suitable for single family houses or apartments with low energy requirements
- High-efficiency sensible heat recovery, thanks to polypropylene counter-flow heat exchanger with large exchange surface and low pressure drop
- High comfort and quiet operation, by using brushless fans with electronic motor and modulating control
- Highly efficient air renewal and filtration, with 80% ePM1 filters
- 3 unit types: compact universal mounting (Z), horizontal mounting (H) and vertical mounting (V)
- Compact dimensions for simplified installation and panel easily accessible for maintenance and inspection



# Panasonic®

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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.

