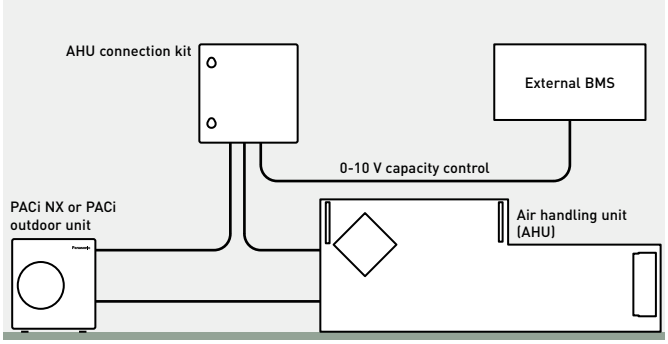
AHU connection kit PAH3M for PACi NX and PACi

Compatible with R32 or R410A outdoor units.
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.

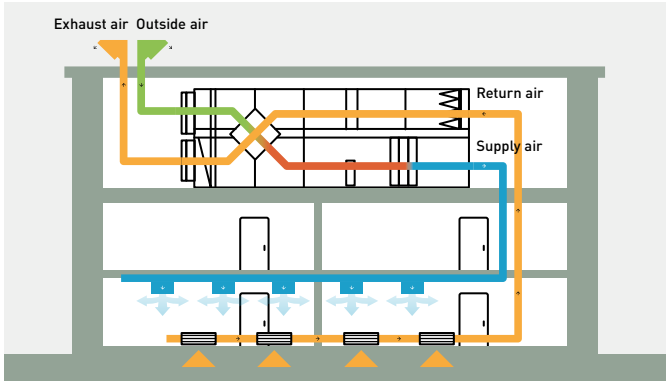
System example with AHU connection kit PAH3M and PACi NX or PACi outdoor unit



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

- AHU connection kit contains: IP 65 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

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 [1]	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	No limit / Full capacity [2]
Indoor unit start / stop	Stop [1]	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.

PCB, power trans, terminal block.

Thermistor x2 (refrigerant: E1, E2).

Thermistor (air: TA; 1 sensor).

Wired remote controller.
CZ-RTC6BL.

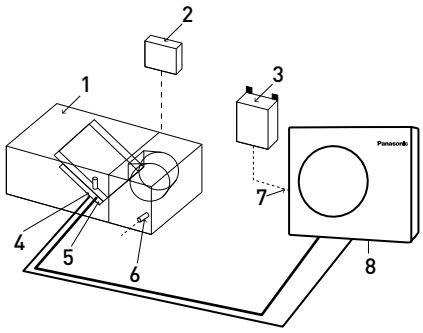
Optional controller.

Timer remote controller.
CZ-RTC5B.

AHU connection kit PAH3M for PACi NX and PACi

CONEX Bluetooth® control built-in.
CZ-RTC6BL

PAW-280PAH3M-1			2,5 kW	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
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	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	11,5
Piping diameter	Liquid	Inch (mm)	1/4 (6,35)	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)	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	18 ~ 32
	Cool Min ~ Max	°C WB	14 ~ 25	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	16 ~ 30
With PACi NX Elite												
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
Pipe length range		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
Ambient temperature of outdoor unit	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
With PACi NX Standard												
Cooling capacity		kW	2,5	3,6	5,0	6,0	7,1	10,0	12,5	14,0	—	—
Heating capacity		kW	3,2	4,0	5,0	6,0	7,1	10,0	12,5	14,0	—	—
Air flow	Min / Max	m³/h	360 / 570	540/870	630/990	780/1320	780/1320	900/2160	1140/2280	1200/2400	—	—
Pipe length range		m	3 ~ 15	3 ~ 15	3 ~ 20	3 ~ 40	3 ~ 40	5 ~ 50	5 ~ 50	5 ~ 50	—	—
Elevation difference (in / out)	Max	m	30	30	30	30	30	30	30	30	—	—
Ambient temperature of outdoor unit	Cool Min ~ Max	°C	-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	—	—



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

Outdoor unit	Air flow volume m³/min																																		
	360	510	540	570	630	720	780	870	900	960	990	1.080	1.170	1.200	1.320	1.450	1.500	1.600	1.740	1.800	1.900	2.000	2.160	2.280	2.300	2.400	2.520	2.610	2.640	2.800	2.970	3.000	3.480	3.600
PACi NX Elite																																			
U-36PZH3E5	■	■	■	■	■	■	■	■	■																										
U-50PZH3E5		■	■	■	■	■	■	■	■	■	■	■																							
U-60PZH3E5							■	■	■	■	■	■	■	■	■	■	■	■																		
U-71PZH4E5/8						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■															
U-100PZH4E5/8							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
U-125PZH4E5/8										■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
U-140PZH4E5/8													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PACi NX Standard																																			
U-25PZ3E5	■	■	■	■	■	■	■	■																											
U-36PZ3E5			■	■	■	■	■	■																											
U-50PZ3E5				■	■	■	■	■	■	■	■																								
U-60PZ3E5						■	■	■	■	■	■	■	■	■	■	■																			
U-71PZ3E5						■	■	■	■	■	■	■	■	■	■	■	■	■																	
U100-PZ3E5/8									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■											
U125-PZ3E5/8													■	■	■	■	■	■	■	■	■	■	■	■	■	■									
U140-PZ3E8														■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■						

■ Maximum allowed air volume flow under "Standard conditions".

■ Higher maximum allowed air volume flow under "Special conditions" [1]: Maximum allowed air intake temperature at AHU DX coil heat exchanger in cooling mode is restricted to 30 °C DB.

1) Using an AHU unit with a higher maximum allowed air volume flow is subject to a restriction of the "Air intake temperature" to 30 °C DB (instead of 32 °C WB under standard conditions).