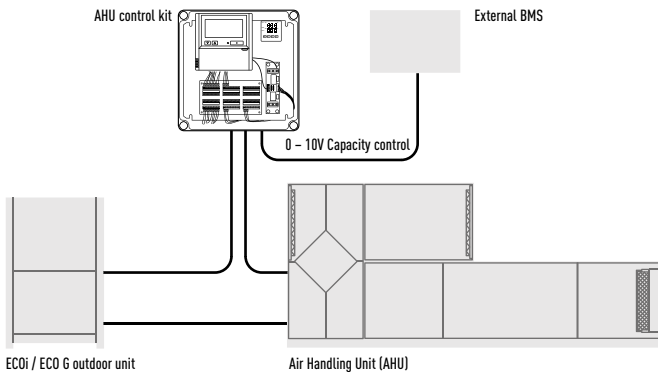


# AHU CONNECTION KIT 16, 28 AND 56kW FOR ECOi AND ECO G



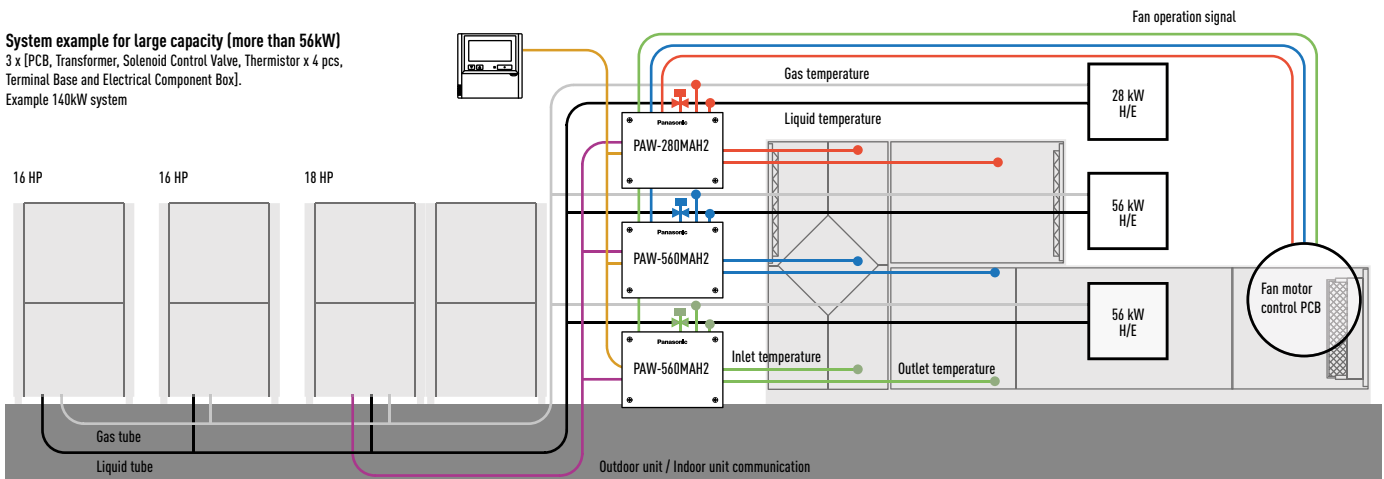
## Panasonic AHU Kit, 16-56kW connected to ECOi or ECO G

PCB, Transformer, Solenoid Control Valve, Thermistor x 4 pcs, Terminal Base and Electrical Component Box.



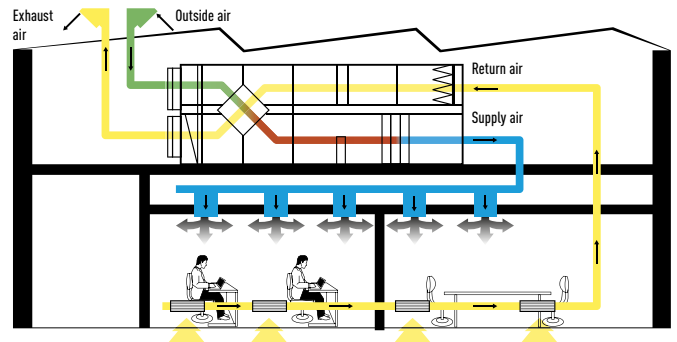
Demand control on the outdoor unit managed by external 0-10 V signal.

**System example for large capacity (more than 56kW)**  
 3 x [PCB, Transformer, Solenoid Control Valve, Thermistor x 4 pcs, Terminal Base and Electrical Component Box].  
 Example 140kW system



## Main components of mechanical ventilation systems

The main components of a mechanical ventilation system are the following: Air Handling Unit (AHU), air ducts and air distribution elements.



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

### CZ-RTC4 Timer remote controller.

- Operation-ON/OFF
- Mode select
- Temperature setting

\* Fan operation signal can be taken from the PCB.

### CZ-T10 terminal.

- Input signal= Operation ON/OFF
- Remote controller prohibition
- Output signal= Operating-ON status
- Alarm output (by DC12V)

### PAW-OCT, DC12 V outlet. OPTION terminal.

- Output signal= Cooling/Heating/Fan status
- Defrost
- Thermostat-ON

### CZ-CAPBC2 Mini seri-para I/O unit.

- Demand control 40% to 120% (5% steps) by 0-10V input signal
- Temperature setting by 0-10V or 0-140 Ω input signal
- Room (inlet air) temp outlet by 4-20mA
- Mode select or/and ON/OFF control
- Fan operation control
- Operation status output/ Alarm output
- Thermostat ON/OFF control

### PAW-T10 PCB to connect to T10 connector.

- A Dry contact PCB has been developed to easily control the unit
- Input signal operation ON/OFF
- Remote control prohibition
- Output signal Operation ON status maximum 230V 5A (NO/NC)
- Output signal alarm status max. 230 V 5 A (NO/NC)
- Additional available contacts:
  - External humidifier control (ON/OFF) 230 VAC 3A
  - External fan control (ON/OFF) 12V DC
  - External filter status signal potential free
  - External float switch signal potential free
  - External leakage detection sensor or TH. OFF contact potential free (possible usage for external blow out temperature control)

ECOi and ECO G Systems Ventilation units

ECOi 2-Pipe 6N Series outdoor unit shall be used for AHU Connection Kit. 3 models for VRF system: 5HP (PAW-160MAH2/M/L), 10HP (PAW-280MAH2/M/L) and 20HP (PAW-560MAH2/M/L).

**With ECO G outdoor units**

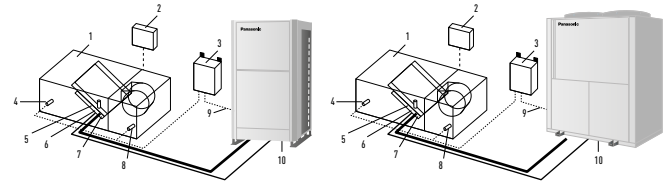
- One AHU kit may be used for one ECO G unit (2-Pipe, 56kW). Multiple AHU kits cannot be used
- Mixed with standard indoor units is not allowed
- Power specifications are Single Phase 220V to 240V

**Technical focus**

- Maximum capacity/system: 60HP (168kW)
- Maximum piping length: 100m (120m equivalent)
- Elevation difference (indoor unit / indoor unit): 4m
- In/Out capacity ratio: 50~100%
- Maximum indoor unit number: 3 units\*
- Outdoor temperature range in heating: -20 ~ +15°C
- Available temperature range for the suction air at AHU Kit: cool: +18 ~ +32°C / heat: +16 ~ +30°C

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

- The systems is controlled by the suction air (or room return air) temperature (same as standard indoor unit). (Selectable mode: Automatic / Cooling / Heating / Fan / Dry (but same as Cool))
- 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 – 10V)
- Demand control 40% to 120% (5% steps) by 0-10V input signal
- Connectable with P-Link system. Special care for electrical noise may be necessary depending on the on-side system
- Fan control signal from the PCB can be used for control the air volume (high/mid/low and LL for Th-OFF). Need to change the fan control circuit wiring at field



System & regulations. System overview.

1. AHU Unit equipment (field supplied)
2. AHU Unit system controller field supplied)
3. AHU 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

HP		5HP	10HP	20HP	30HP	40HP	50HP	60HP
		PAW-160MAH2/M/L	PAW-280MAH2/M/L	PAW-560MAH2/M/L	PAW-280MAH2/M/L	PAW-560MAH2/M/L	PAW-560MAH2/M/L	PAW-560MAH2/M/L
					PAW-560MAH2/M/L	PAW-560MAH2/M/L	PAW-560MAH2/M/L	PAW-560MAH2/M/L
							PAW-280MAH2/M/L	PAW-560MAH2/M/L
Nominal cooling capacity @ 50Hz	kW	14,00	28,0	56,0	84,0	112,0	140,0	168,0
Nominal heating @ 50Hz	kW	16,00	31,5	63,0	95,0	127,0	155,0	189,0
Cooling airflow	Hi / Lo m³/min	2600/1140	5000/3500	10000/7000	15000/10500	20000/14000	25000/17500	30000/21000
Bypass factor		0,9 (recommended)	0,9 (recommended)	0,9 (recommended)	0,9 (recommended)	0,9 (recommended)	0,9 (recommended)	0,9 (recommended)
Dimensions	H x W x D mm	303 x 232 x 110	404 x 425 x 78	404 x 425 x 78	404 x 425 x 78	404 x 425 x 78	404 x 425 x 78	404 x 425 x 78
Weight	kg	3,2	6,3	6,3	6,3	6,3	6,3	6,3
Piping length	Min / Max 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 connections	Liquid pipe 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 pipe 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 Kit	Cool Min ~ Max °C	+18 ~ +32 (+13 ~ +23)	+18 ~ +32 (+13 ~ +23)	+18 ~ +32 (+13 ~ +23)	+18 ~ +32 (+13 ~ +23)	+18 ~ +32 (+13 ~ +23)	+18 ~ +32 (+13 ~ +23)	+18 ~ +32 (+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 (HP)	Outdoor unit combination	AHU kit combination
28kW (10HP)	U-10ME2E81	PAW-280MAH2
56kW (20HP)	U-20ME2E81	PAW-560MAH2
84kW (30HP)	U-16ME2E81 U-14ME2E81	PAW-560MAH2 PAW-280MAH2
112kW (40HP)	U-20ME2E81 U-20ME2E81	PAW-560MAH2 PAW-560MAH2
140kW (50HP)	U-18ME2E81 U-16ME2E81 U-16ME2E81	PAW-560MAH2 PAW-560MAH2 PAW-280MAH2
168kW (60HP)	U-20ME2E81 U-20ME2E81 U-20ME2E81	PAW-560MAH2 PAW-560MAH2 PAW-560MAH2
56kW (20HP)	U-20GE3E5	PAW-560MAH2