

PEFY-P VMHS-E-F

OUTDOOR FRESH AIR INTAKE UNIT (AFA)



Ideal for...

...feeding temperature-controlled fresh outdoor air into building. The ideal solution for offices, large stores and restaurants.

Enables intake of outside air

The indoor purified air delivery unit may be installed anywhere. The purified air delivery unit may be used to feed fresh, purified outdoor air into any building, in any place and at any time.

Controllable outlet air temperature

With new PEFY-P VMHS-E-F is possible to operate **Supply Air** temperature control.

OPERATION MODE	TEMPERATURE RANGE SETTABLE
COOL mode	14°C - 30°C
HEAT mode	17°C - 28°C
AUTO mode (single set point)	17°C - 28°C
FAN	Not settable

* In some cases the temperature of the air introduced into the ambient may be subject to fluctuations due to the conditions of the external air and to the operating conditions of the system.

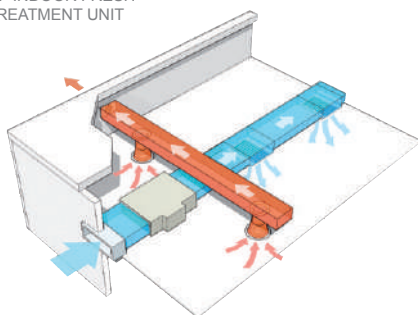
Equipped with new DC fan motor

Fan motor has been changed to higher efficiency DC motor. Power source has been changed from three-phase power supply to **single-phase** power supply for all sizes.

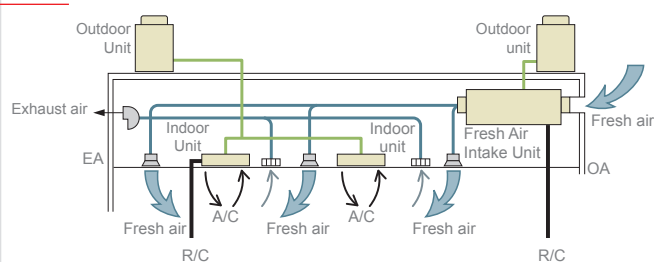
Maximum connectable indoor units capacity to outdoor unit

Max. 110% of outdoor unit capacity (100% in case of heating below -5°C).

INSTALLATION OF INDOOR FRESH
OUTDOOR AIR TREATMENT UNIT



OPERATING SCHEME - EXAMPLE



Flexible air-flow setting

4 levels of external static pressure to choose. External static pressure can be set also by remote controller (PAR-33/40MAA, PAR-U02MEDA and PAR-CT01MA).

MODEL	P125	P200	P250
External Static Pressure (Pa)	<100>-<150>-200-<250>		

* The factory setting of external static pressure is shown without chevrons "< >".

Two types of air-flow modes are available, each of which has three air-flow rates to choose from:

- Normal Airflow rate
- High Airflow rate

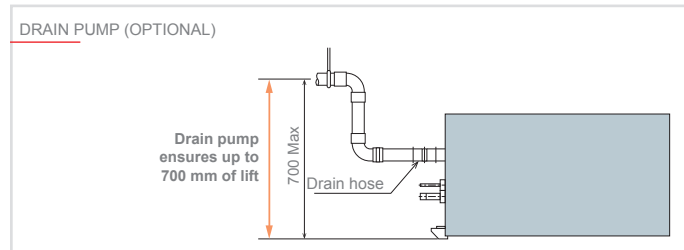
Air-flow rates are accessible from the remote controller (PAR-33/40MAA, PAR-U02MEDA and PAR-CT01MA).

Mode	Normal-airflow rate	High-airflow rate
Air-flow rate	Low-Medium-High	Low-Medium-High

Drain pump (optional)

Greater design flexibility made possible by the increased head height (700 mm max).

UNIT MODEL	DRAIN PUMP MODEL
PEFY-P125 VMHS-E-F	PAC-DRP10DP-E2
PEFY-P200 VMHS-E-F	PAC-KE06DM-F
PEFY-P250 VMHS-E-F	PAC-KE06DM-F



Specifications

MODEL			PEFY-P125VMHS-E-F	PEFY-P200VMHS-E-F	PEFY-P250VMHS-E-F			
Power source	V/phase/Hz		1 phase, 220-230-240V 50/60 Hz					
Cooling capacity ^{*1}		kW	14.0	22.4	28.0			
		Btu/h	47,800	76,400	95,500			
Heating capacity ^{*2}		kW	8.9	13.9	17.4			
		Btu/h	30,400	47,400	59,400			
Temperature range	Cooling		17°C D.B./15.5°C W.B. + 43°C D.B./35°C W.B. Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 17°C D.B.					
	Heating		-10°C D.B. + 20°C D.B. Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 20°C D.B.					
Power input ^{*3}	Cooling	kW	0.220	0.260	0.350			
	Heating	kW	0.230	0.270	0.360			
Current input ^{*3}	Cooling	A	1.43	1.66	2.16			
	Heating	A	1.52	1.85	2.38			
External finish			Galvanized					
External dimension HxWxD		mm	380x1195x900	470x1250x1120	470x1250x1120			
Net weight		kg	49	78	81			
Heat exchanger			Cross fin (aluminum fin and copper tube)					
Motor	Type		DC Motor					
	Output	kW	0.244	0.375	0.375			
Refrigerant piping diameter	Gas (brazed)	mm	15.88	19.05	22.22			
	Liquid (brazed)	mm	9.52	9.52	9.52			
Field drain pipe size		mm	O.D. 32	O.D. 32	O.D. 32			
Fan	Type x Quantity		Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2			
	External static press. ^{*4}	Pa	<100> - <150> - 200 - <250>					
	Air flow rate ^{*5}		Normal Airflow rate mode	High Airflow	Normal Airflow	High Airflow		
		m³/min	14.0 - 15.5 - 18.0	15.5 - 18.0 - 20.0	22.5 - 25.0 - 28.0	25.0 - 28.0 - 32.0	28.0 - 31.0 - 35.0	31.0 - 35.0 - 40.0
		L/s	233 - 258 - 300	258 - 300 - 333	375 - 417 - 467	417 - 467 - 533	467 - 517 - 583	517 - 583 - 667
cfm		494 - 547 - 636	547 - 636 - 706	794 - 883 - 898	883 - 989 - 1,130	989 - 1,095 - 1,236	1,095 - 1,236 - 1,412	
Sound pressure level ^{*2} (Low-Mid-High)			Normal Airflow	High Airflow	Normal Airflow	High Airflow		
		dB(A)	34-37-41	36-40-42	35-38-41	36-39-42	38-40-44	38-41-45

¹⁾ Cooling capacity indicates the maximum value at operation under the following condition. Cooling:

Indoor 33°CDB/28°CWB, Outdoor 33°CDB. The set temperature of the remote controller is 18°C.

²⁾ Heating capacity indicates the maximum value at operation under the following condition. Heating: Indoor 0°CDB/-2.9°CWB, Outdoor 0°CDB/-2.9°CWB. The set temperature of the remote controller is 25°C.

³⁾ The value are measured at the factory setting of airflow mode and external static pressure.

⁴⁾ The factory setting of airflow mode and external static pressure mode is shown without < >. Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.

⁵⁾ If the airflow rate is over the usable range, dew drop can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface can be caused.

The combination of fresh air intake type indoor units with other types of indoor units to handle internal thermal load which may cause the conflict of operation mode. It is not recommended when fresh air intake type indoor unit is connected to the Y or VVY series.

Depending on the air conditioning load, outside temperature, and due to the activation of protection functions, the desired preset temperature may not always be achieved and the discharge temperature may swing. Note that untreated outside air may be delivered directly into the room upon the activation of protection functions.

Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.

The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below -5°C).

When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake type indoor units needs to be 30% or less of the connected outdoor unit capacity.

The AUTO mode on the local remote controller is available only when fresh air intake type indoor unit is connected to the R2 or WR2 series of outdoor unit.

The system changeover function is available only when all the connected indoor units are fresh air intake type indoor units.

The fan temporary stops during defrost.

The cooling and heating capacities are the maximum capacities that were obtained by operating in the above air conditions and with a refrigerant pipe of about 7.5 m and a level difference of 0 m.

The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical information in DATA BOOK for the details.

Thermo off (Fan) operation automatically starts either when temperature is lower than 17°CDB in cooling mode or when the temperature exceeds 20°CDB in heating mode.

Dry mode is not available.

When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.

Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air outlet grilles, ie take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.

Air filter must be installed in the air intake side. The filter should be attached where easy maintenance is possible in case of usage of field supply filters.