PFAV Series

- Standard Model
- Fresh Air Intake Model

PFAV series

PFAV series is a large capacity floor standing indoor unit with high air flow operation especially designed for various types of large spaced application. The unit is an one-to-one connection unit meaning one indoor is connected to one outdoor unit. The lineup consists of two models; standard model and fresh air intake model, selectable depending on usage .

Adaptable to various applications

With wide range of airflow and static pressure, and piping length up to 165m, PFAV series can provide flexibility in design by adapting to various applications from shops, schools, and to factories.

	Air flow rate	External static pressure
	m³/min	Pa
PFAV-P250VM-E	90	30/90
PFAV-P500VM-E	180	30/130
PFAV-P750VM-E	260	100/310
PFAV-P300VM-E-F	45	80
PFAV-P600VM-E-F	90	110/170
PFAV-P900VM-E-F	120	210/330

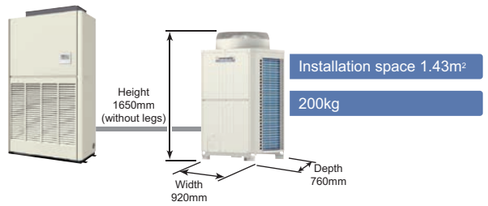
Large capacity indoor unit

PFAV is a floor standing large capacity indoor unit, which reduces the piping and installation burdens, moreover makes maintenance easy.

OUTDOOR UNIT

Compact outdoor unit

PFAV series can only be connected to PUHY-YJM outdoor units. YJM series offers small footprint and lightweight inversely to high heating capacity, which allows easy transportation and saves installation space.



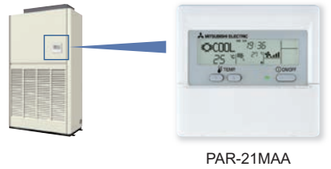
High Reliability

Outdoor heat exchangers have been treated with an anti-corrosion coating ensuring higher resistance against salt damage or air pollution.

*Standard:Anti-corrosion Blue Fin treatment & copper tube.
BS type (optional):salt-resistant cross fin & copper tube.

CONTROL

With the usage of MA controller (PAR-21MAA), which is embedded at the PFAV series, following energy saving functions can be provided.



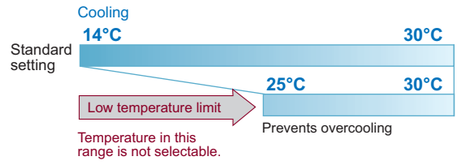
PAR-21MAA

Auto-OFF timer

Automatically switches off based on presetting time. (Preset time can be 30min-4hours, per 30min)

Limiting set temperature range

By limiting lowest / highest temperature, it is possible to save energy when air conditioners are frequently used.



Locking function

To sustain optimal temperature, and prevent operational errors, buttons can be locked to only ON/OFF control.

Standard model

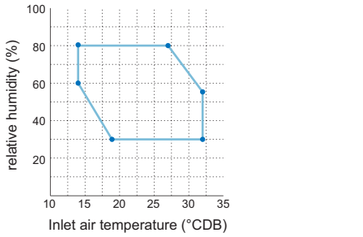
Features

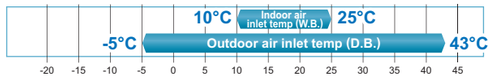
Highly energy efficient with easy installation and maintenance, the standard PFAV model is suitable for working places where large capacity air conditioning is required.

Line up

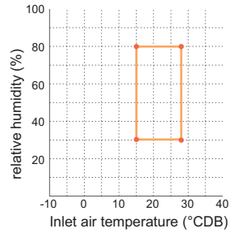
Wide temperature range

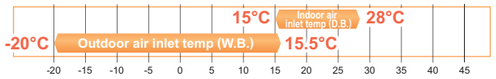
Cooling





Heating





By controlling the air volume of the outdoor unit fan, operation is available even when the outdoor temperature is -5°C for cooling and -20°C for heating.

*In heating operation, operation capacity may fall below the rated capacity in low outdoor temp. / indoor inlet temp. conditions.

Fresh Air Intake model

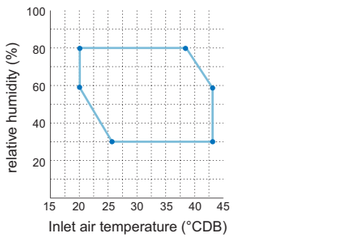
Features

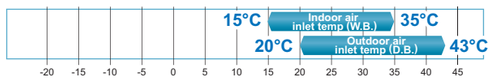
Fresh air intake model takes in fresh air from the outdoor suitable for application such as factories and laboratories where intake of indoor air is not favored.

Line up

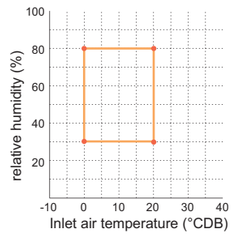
Wide temperature range

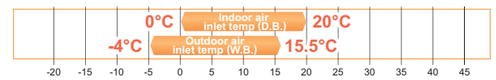
Cooling





Heating





Heating operation is available at -4°C Outdoor temperature making it adaptable for places with frequent heating requirements.

PFAV Series STANDARD Model PFAV-P VM-E

Specifications

Model Name	Indoor	PFAV-P250VM-E		PFAV-P500VM-E		PFAV-P750VM-E	
	Outdoor	PUHY-P250YJM-A(-BS)		PUHY-P500YSJM-A(-BS) (PUHY-P250YJM-A(-BS) × 2,CMY-Y100VBK2)		PUHY-P750YSJM-A (-BS) (PUHY-P350YJM-A(-BS) +PUHY-P400YJM-A(-BS),CMY-Y200VBK2)	
Operation		Cooling	Heating	Cooling	Heating	Cooling	Heating
System capacity	kW	25.0 (Maximum 28.0)	28.0 (Maximum 31.5)	50.0 (Maximum 56.0)	56.0 (Maximum 63.0)	71.0 (Maximum 80.0)	80.0 (Maximum 90.0)
System Power input	kW	7.46 / 7.53	8.27 / 8.34	17.85 / 18.84	17.00 / 17.99	26.33 / 27.40	23.93 / 25.00
System current	A	14.5-13.8-13.3 / 13.4-12.8-12.3	15.8-15.0-14.4 / 14.7-14.0-13.4	32.3-30.7-29.6 / 32.6-31.0-29.9	30.8-29.3-28.2 / 31.1-29.6-28.5	48.1-45.7-44.1 / 47.5-45.1-43.5	43.4-41.2-39.8 / 42.8-40.6-39.2
Power source		3-phase 4-wire 380-400-415V (50Hz / 60Hz)		3-phase 4-wire 380-400-415V (50Hz / 60Hz)		3-phase 4-wire 380-400-415V (50Hz / 60Hz)	
Power input	kW	0.82 / 0.89		2.37 / 3.36		4.30 / 5.37	
Current	A	3.4-3.2-3.1 / 2.3-2.2-2.1		6.2-5.9-5.7 / 6.5-6.2-6.0		10.9-10.4-10.0 / 10.3-9.8-9.4	
Fan Type × Quantity		Sirocco fan × 2		Sirocco fan × 1		Sirocco fan × 1	
Fan Airflow rate	m^3 / min	90		180		260	
Fan External static pressure	Pa	30 / 90		30 / 130		100 / 310	
Fan Motor output	kW	2.2		5.5		7.5	
Refrigerant		R410A		R410A		R410A	
External finish		Galvanized steel plate (with polyester coating) <MUNSEL 5Y 8/1 or similar>		Galvanized steel plate (with polyester coating) <MUNSEL 5Y 8 / 1 or similar>		Galvanized steel plate (with polyester coating) <MUNSEL 5Y 8 / 1 or similar>	
External dimension H × W × D	mm	1,748 × 1,200 × 485		1,899 × 1,420 × 635		1,860 × 1,750 × 1,064	
Protection devices	Fan motor	Thermal switch		Thermal switch		Thermal switch	
Refrigerant piping diameter Liquid pipe		9.52 Brazed (12.7 for over 90m)		15.88 Brazed		19.05 Brazed	
Refrigerant piping diameter Gas pipe		22.2 Brazed		28.58 Brazed		34.93 Brazed	
Refrigerant piping allowable length	m	165		165		165	
Sound pressure level	dB(A)	55		59 / 62		65	
Heat exchanger		Cross fin (Aluminum plate fin and copper tube)		Cross fin (Aluminum plate fin and copper tube)		Cross fin (Aluminum plate fin and copper tube)	
Air filter		Synthetic fiber unwoven cloth filter		Synthetic fiber unwoven cloth filter		PP Honeycomb fabric filter	
Net weight	kg	156		265		459	
Operating temperature range		Cooling	Heating	Cooling	Heating	Cooling	Heating
		Indoor:10°CWB~25°CWB (Outdoor:-5°CDB~43°CDB)	Indoor:15°CDB~28°CDB (Outdoor:-20°CWB~15.5°CWB)	Indoor:10°CWB~25°CWB (Outdoor:-5°CDB~43°CDB)	Indoor:15°CDB~28°CDB (Outdoor:-20°CWB~15.5°CWB)	Indoor:10°CWB~25°CWB (Outdoor:-5°CDB~43°CDB)	Indoor:15°CDB~28°CDB (Outdoor:-20°CWB~15.5°CWB)

Notes:

1. Cooling/Heating capacity indicates the maximum value at operation under the following conditions.

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°CDB/19°CWB (81°FDB/66°FWB)	35°CDB (95°FDB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CDB(68°FDB)	7°CDB/6°CWB (45°FDB/43°FWB)	7.5m (24-9/16ft.)	0m (0ft.)

2. The sound pressure level is measured in an anechoic room.
3. Long period operation in a high temperature and humidity atmosphere(dew point of 23˚C or more) may cause condensation.
4. Works not included: Installation / foundation work, electric connection work, duct work, insulation work. The power source switch and other items are not specified in the specifications.

Optional parts	Description	Model	Applicable capacity
Indoor unit	Plenum chamber	PAC-CC83PL-E	PFAV-P250VM-E
		PAC-CC85PL-E	PFAV-P500VM-E
		PAC-CC87PL-E	PFAV-P750VM-E
Outdoor unit	Twinning kit	CMY-Y100VBK2	PUHY-P500YSJM-A
		CMY-Y200VBK2	PUHY-P750YSJM-A

PFAV Series
FRESH AIR INTAKE Model
PFAV-P VM-E-F

▸ Specifications

Model Name	Indoor		PFAV-P300VM-E-F		PFAV-P600VM-E-F		PFAV-P900VM-E-F	
	Outdoor		PUHY-P250YJM-A(-BS)		PUHY-P500YSJM-A(-BS) (PUHY-P250YJM-A(-BS) × 2,CMY-Y100VBK2)		PUHY-P750YSJM-A(-BS) (PUHY-P350YJM-A(-BS) +PUHY-P400YJM-A(-BS),CMY-Y200VBK2)	
Operation			Cooling	Heating	Cooling	Heating	Cooling	Heating
System capacity		kW	28.0 (Maximum 33.5)	26.5 (Maximum 28.0)	56.0 (Maximum 67.0)	50.0 (Maximum 56.0)	80.0 (Maximum 100.0)	71.0 (Maximum 80.0)
System Power input		kW	6.73 / 6.72	7.57 / 7.56	14.69 / 15.05	15.43 / 15.79	22.54 / 22.74	21.43 / 21.63
System current		A	12.6-11.9-11.5 / 12.2-11.5-11.1	14.0-13.3-12.8 / 13.6-12.9-12.4	26.1-24.9-24.0 / 26.2-25.0-24.0	27.4-26.1-25.1 / 27.5-26.2-25.1	40.5-38.5-37.1 / 39.6-37.6-36.2	38.7-36.8-35.5 / 37.8-35.9-34.6
Power source			3-phase 4-wire 380-400-415V (50Hz / 60Hz)		3-phase 4-wire 380-400-415V (50Hz / 60Hz)		3-phase 4-wire 380-400-415V (50Hz / 60Hz)	
Power input		kW	0.37 / 0.36		0.90 / 1.26		1.77 / 1.97	
Current		A	1.9-1.8-1.7 / 1.5-1.4-1.3		2.9-2.8-2.8 / 3.0-2.9-2.8		5.6-5.3-5.1 / 4.7-4.4-4.2	
Fan	Type × Quantity		Sirocco fan × 2		Sirocco fan × 1		Sirocco fan × 1	
	Airflow rate	m^3 / min	45		90		120	
	External static pressure	Pa	80		110 / 170		210 / 330	
	Motor output	kW	1.5		2.2		3.7	
Refrigerant			R410A		R410A		R410A	
External finish			Galvanized steel plate (with polyester coating) <MUNSEL 5Y 8 / 1 or similar>		Galvanized steel plate (with polyester coating) <MUNSEL 5Y 8 / 1 or similar>		Galvanized steel plate (with polyester coating) <MUNSEL 5Y 8 / 1 or similar>	
External dimension H × W × D		mm	1,748 × 1,200 × 485		1,899 × 1,420 × 635		1,860 × 1,750 × 1,064	
Protection devices		Fan motor	Thermal switch		Thermal switch		Thermal switch	
Refrigerant piping diameter	Liquid pipe		9.52 Brazed (12.7 for over 90m)		15.88 Brazed		19.05 Brazed	
	Gas pipe		22.2 Brazed		28.58 Brazed		34.93 Brazed	
Refrigerant piping allowable length		m	165		165		165	
Sound pressure level		dB(A)	48.5		50 / 53		57	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)		Cross fin (Aluminum plate fin and copper tube)		Cross fin (Aluminum plate fin and copper tube)	
Air filter			Synthetic fiber unwoven cloth filter		Synthetic fiber unwoven cloth filter		PP Honeycomb fabric filter	
Net weight		kg	151		248		437	
Operating temperature range			Cooling	Heating	Cooling	Heating	Cooling	Heating
			Indoor:15°CWB~35°CWB (Outdoor:20°CDB~43°CDB)	Indoor:0°CDB~20°CDB (Outdoor:-4°CWB~15.5°CWB)	Indoor:15°CWB~35°CWB (Outdoor:20°CDB~43°CDB)	Indoor:0°CDB~20°CDB (Outdoor:-4°CWB~15.5°CWB)	Indoor:15°CWB~35°CWB (Outdoor:20°CDB~43°CDB)	Indoor:0°CDB~20°CDB (Outdoor:-4°CWB~15.5°CWB)

Notes:

1. Cooling/Heating capacity indicates the maximum value at operation under the following conditions.

	Indoor	Outdoor	Pipe length	Level difference
Cooling	33°CDB/28°CWB (91°FDB/82°FWB)	33°CDB/28°CWB (91°FDB/82°FWB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	7°CDB/3°CWB (45°FDB/37°FWB)	7°CDB/3°CWB (45°FDB/37°FWB)	7.5m (24-9/16ft.)	0m (0ft.)

2. The sound pressure level is measured in an anechoic room.
3. The indoor intake air temperature should be kept more than 0°C.
4. At factory setting, the fan temporary stops in defrosting. Change DIP SW for fan to operate in defrosting.
5. Indoor temperature and humidity cannnot be controlled with Fresh air intake type.
6. Works not included: Installation / foundation work, electric connection work, duct work, insulation work. The power source switch and other items are not specified in the specifications.

Optional parts	Description	Model	Applicable capacity
Outdoor unit	Twinning kit	CMY-Y100VBK2	PUHY-P500YSJM-A
		CMY-Y200VBK2	PUHY-P750YSJM-A