

AIR CONDITIONING SYSTEMS

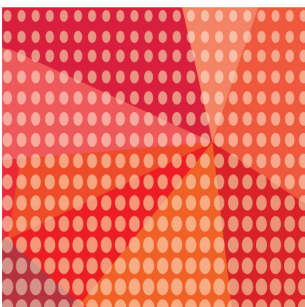
CITY MULTI



DATA BOOK

MODEL

PFFY-P-VKM-E2



PFFY-P-VKM-E2

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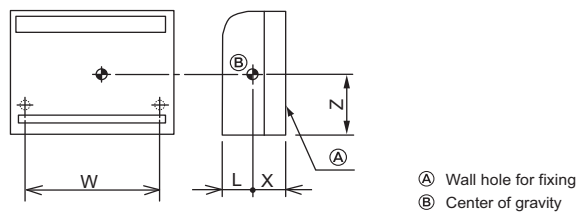
1. SPECIFICATIONS

Floor standing (Exposed 2-way type)

PFFY-P-V/KM-E2

Model			PFFY-P20VKM-E2	PFFY-P25VKM-E2	PFFY-P32VKM-E2	PFFY-P40VKM-E2	
Power source			1-phase 220-230-240V 50Hz, 1-phase 220V 60Hz				
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5	
	*1	BTU / h	7,500	9,600	12,300	15,400	
	*3	Power input	kW	0.025	0.025	0.025	0.028
	*3	Current input	A	0.20	0.20	0.20	0.24
Heating capacity (Nominal)	*2	kW	2.5	3.2	4.0	5.0	
	*2	BTU / h	8,500	10,900	13,600	17,100	
	*3	Power input	kW	0.025	0.025	0.025	0.028
	*3	Current input	A	0.20	0.20	0.20	0.24
External finish			Plastic (Pure White)				
External dimension H x W x D		mm	600 x 700 x 200				
		in.	23-5/8 x 27-9/16 x 7-7/8				
Net weight		kg (lbs)	15 (34)				
Heat exchanger			Cross fin (Aluminium fin and copper tube)				
FAN	Type x Quantity		Line flow fan x 2				
	External static press.	Pa	0				
		mmH ₂ O	0				
	Motor type		DC motor				
	Motor output	kW	0.03 x 2				
	Driving mechanism		Direct-drive				
	Airflow rate (Low-Mid-High -SHigh)	m ³ / min	5.9 - 6.8 - 7.6 - 8.7	6.1 - 7.0 - 8.0 - 9.1	6.1 - 7.0 - 8.0 - 9.1	8.0 - 9.0 - 9.5 - 10.7	
L / s		98 - 113 - 127 - 145	102 - 117 - 133 - 152	102 - 117 - 133 - 152	133 - 150 - 158 - 178		
cfm		208 - 240 - 268 - 307	215 - 247 - 283 - 321	215 - 247 - 283 - 321	283 - 318 - 335 - 378		
Sound pressure level (Low-Mid-High-SHigh) (measured in anechoic room) *3		dB <A>	27 - 31 - 34 - 37	28 - 32 - 35 - 38	28 - 32 - 35 - 38	35 - 38 - 42 - 44	
Insulation material			Polyethylene sheet				
Air filter			PP honeycomb fabric (Catechin air filter)				
Protection device			Fuse				
Refrigerant control device			LEV				
Connectable outdoor unit			R410A CITY MULTI				
Diameter of refrigerant pipe	Liquid (R410A)	mm (in.)	ø6.35 (ø1/4) Flare				
	Gas (R410A)	mm (in.)	ø12.7 (ø1/2) Flare				
Field drain pipe size		mm (in.)	I.D. 16mm (5/8)				
Drawing	External		IU-BK01-B517				
	Wiring		IU-RG79-V367				
	Refrigerant cycle		-				
Standard attachment	Document		Installation Manual, Instruction Book				
	Accessory						
Remark	Optional parts		-				
	Installation		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				
Note :			*1 Nominal cooling conditions			*2 Nominal heating conditions	
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB)			20°CDB (68°FDB)			Unit converter	
Outdoor : 35°CDB (95°FDB)			7°CDB/6°CWB (45°FDB/43°FWB)			BTU/h = kW x 3,412	
Pipe length : 7.5 m (24-9/16 ft)			7.5 m (24-9/16 ft)			cfm = m ³ /min x 35.31	
Level difference : 0 m (0 ft)			0 m (0 ft)			lbs = kg / 0.4536	
* Nominal conditions *1, *2 are subject to JIS B8615-1.						*Above specification data is subject to rounding variation.	
* Due to continuing improvement, above specification may be subject to change without notice.							
*3 The values are measured at the rated external static pressure.							

PFFY-P20, 25, 32, 40VKM-E2



(mm)[in]

Model name	W	L	X	Z
PFFY-P20VKM-E2	674 [26-9/16]	85 [3-3/8]	115 [4-9/16]	330 [13]
PFFY-P25VKM-E2	674 [26-9/16]	85 [3-3/8]	115 [4-9/16]	330 [13]
PFFY-P32VKM-E2	674 [26-9/16]	85 [3-3/8]	115 [4-9/16]	330 [13]
PFFY-P40VKM-E2	674 [26-9/16]	85 [3-3/8]	115 [4-9/16]	330 [13]

PFFY-P20, 25, 32, 40VKM-E2

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	
I. B	INDOOR CONTROLLER BOARD	MF1	FAN MOTOR (UPPER)	TH23	PIPE TEMP. DETECTION/GAS (0°C/15kΩ, 25°C/5.4kΩ)	
CN32	CONNECTOR	MF2	FAN MOTOR (LOWER)	A. B		ADDRESS BOARD
CN51	CENTRALLY CONTROL	MV1	VANE MOTOR 1	SW1	SWITCH	MODE SELECTION
CN52		MV2	VANE MOTOR 2	SW11	ADDRESS SETTING 1s DIGIT	
CN105		IT TERMINAL	LS	LIMIT SWITCH (CLOSE)	SW12	ADDRESS SETTING 10ths DIGIT
SW2	SWITCH	LEV	LINEAR EXPANSION VALVE	SW14	BRANCH NO.	
SW3	MODE SELECTION	TB2	TERMINAL BLOCK	SWC	OPTION SELECTOR	
SW4		MODEL SELECTOR	TB5	POWER SUPPLY TRANSMISSION		
FUSE	FUSE (T6.3AL250V)	TH21	THERMISTOR			
LED1	POWER SUPPLY (I.B)					
LED2	POWER SUPPLY (I.B)	TH22				

NOTES:

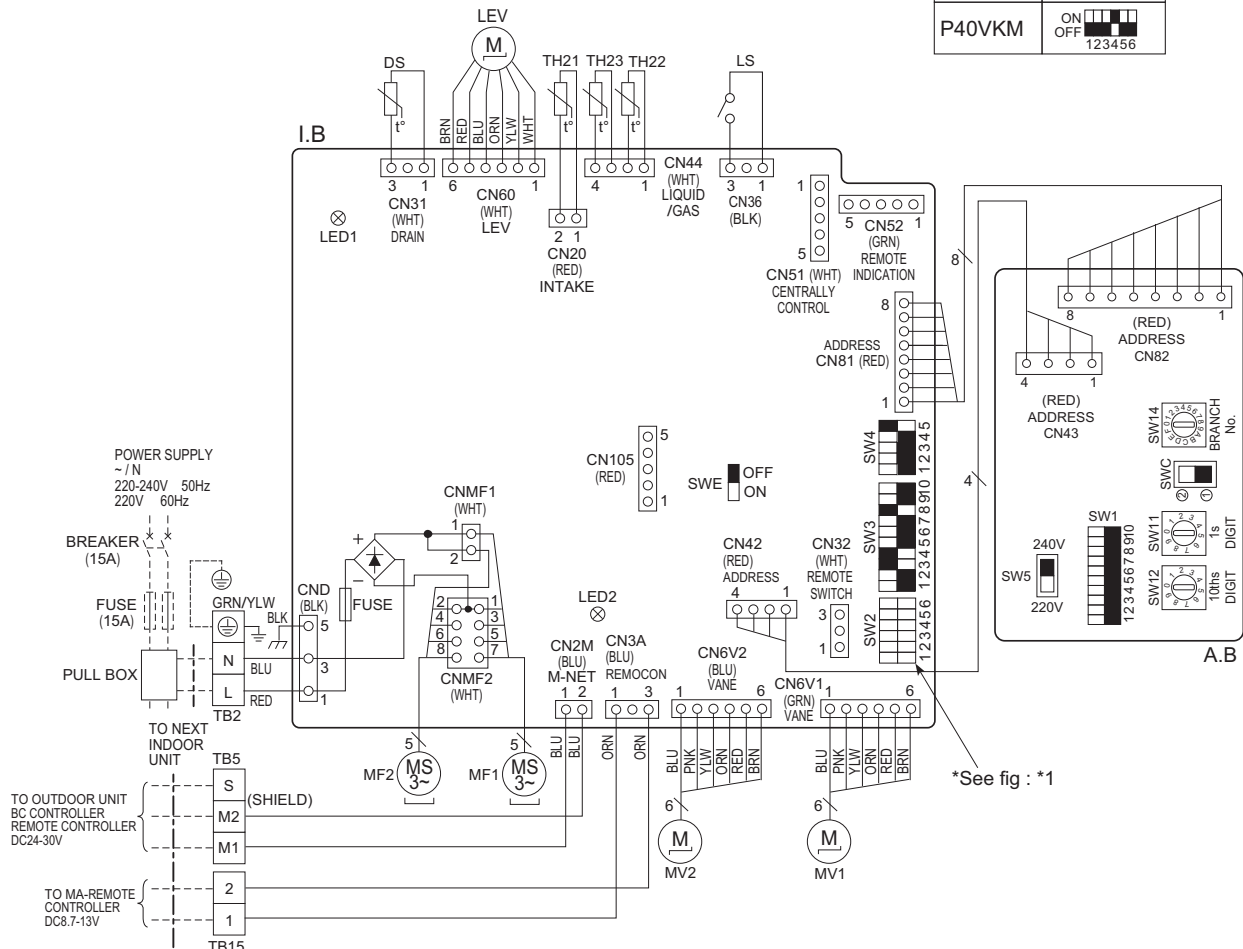
- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- In case of using MA-Remote controller, please connect to TB15.
(Remote controller wire is non-polar.)
- In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- Symbol [S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram below are, : terminal block, : connector.
- The setting of the SW2 dip switches differs in the capacity. For the detail, refer to the table below.
- Please set the switch SW5 according to the power supply voltage.
Set SW5 to 240V side when the power supply is 230 and 240 volts.
When the power supply is 220 volts, set SW5 to 220V side.

The black square (■) indicates a switch position. <*1>

LED on indoor board for service

MARK	MEANING	FUNCTION
LED1	Main power supply	Main power supply (Indoor unit: 220-240V) power on → lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-remote controller on → lamp is lit

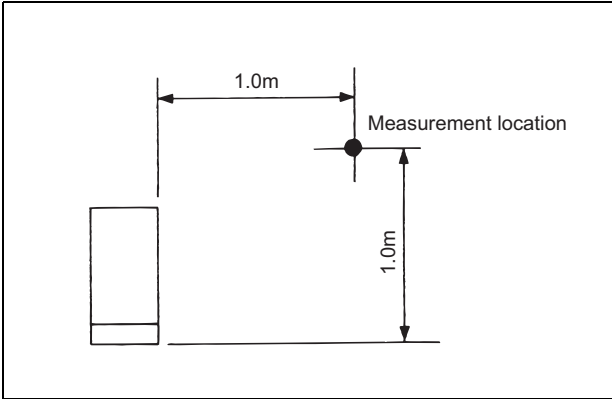
MODELS	SW2
P20VKM	ON OFF 123456
P25VKM	ON OFF 123456
P32VKM	ON OFF 123456
P40VKM	ON OFF 123456



*See fig : *1

5-1. Sound levels

PFFY-P-VKM-E2



Sound level at anechoic room: Low-Mid-High-SHigh)

	Sound level dB (A)
PFFY-P20VKM-E2	27-31-34-37
PFFY-P25VKM-E2	28-32-35-38
PFFY-P32VKM-E2	28-32-35-38
PFFY-P40VKM-E2	35-38-42-44

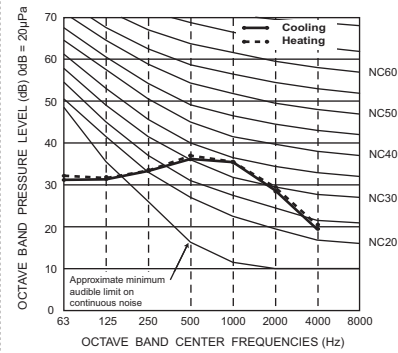
* Measured in anechoic room

5-2. NC curves

PFFY-P20VKM-E2

External static pressure: 0Pa

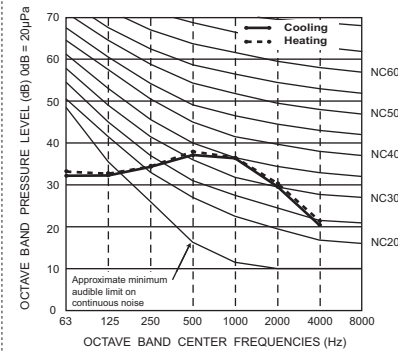
Power source: 220, 230, 240V, 50Hz/220V, 60Hz



PFFY-P25, 32VKM-E2

External static pressure: 0Pa

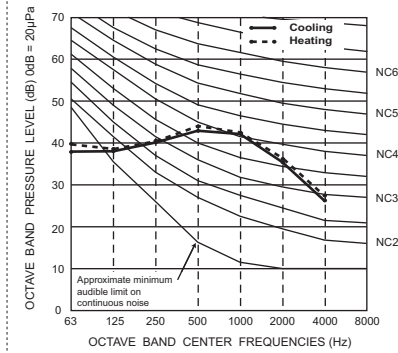
Power source: 220, 230, 240V, 50Hz/220V, 60Hz



PFFY-P40VKM-E2

External static pressure: 0Pa

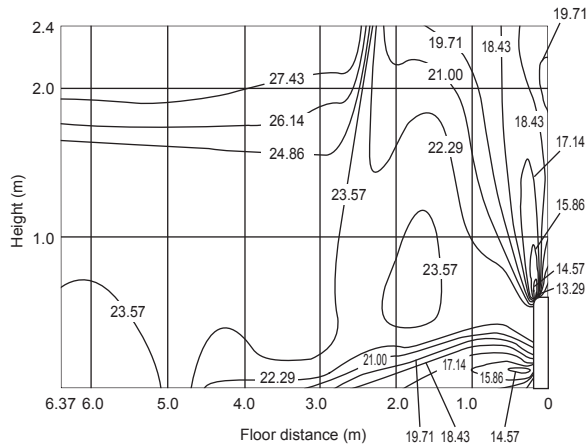
Power source: 220, 230, 240V, 50Hz/220V, 60Hz



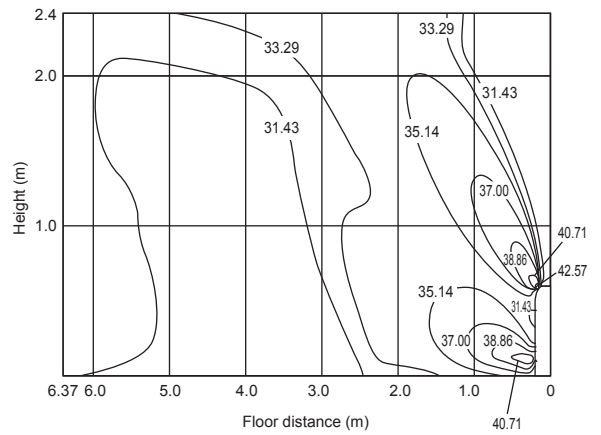
6-1. Temperature distributions

PFFY-P20-40VKM-E2

<Cooling mode>



<Heating mode>

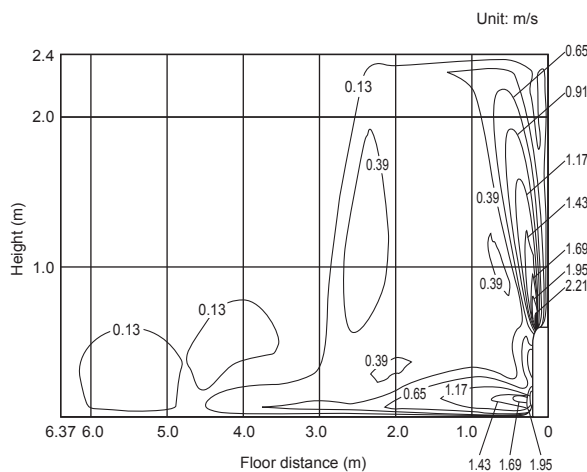


Note : These figures show typical temperature distributions in the conditions above. In the actual installation, the actual temperature distribution may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

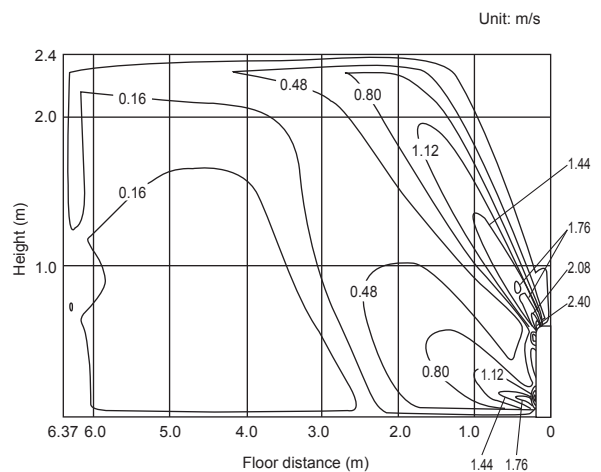
6-2. Airflow distributions

PFFY-P20-40VKM-E2

<Cooling mode>



<Heating mode>



Note : These figures show typical airflow distributions in the conditions above. In the actual installation, the actual airflow distribution may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

7. ELECTRICAL CHARACTERISTICS

Floor standing (Exposed 2-way type)

Symbols: MCA (Max.Circuit Amps =1.25xFLA), FLA (Full Load Amps)
IFM (Indoor Fan Motor), Output (Fan motor rated output)

PFFY-P-VKM-E2	Power supply			IFM	
	Volts/Hz	Range +-10%	MCA(A)	Output (kW)	FLA(A)
PFFY-P20VKM-E2	220-240V/50Hz 220V/60Hz	Max.: 264V Min.: 198V	0.25	0.03x2	0.20
PFFY-P25VKM-E2			0.25	0.03x2	0.20
PFFY-P32VKM-E2			0.25	0.03x2	0.20
PFFY-P40VKM-E2			0.30	0.03x2	0.24

PFFY-P-VKM-E2

⚠ Warning

- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
 - Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, repair, or at the time of disposal of the unit.
 - It may also be in violation of applicable laws.
 - MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.
- Our air conditioning equipment and heat pumps contain a fluorinated greenhouse gas, R410A.

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