



PFFY-P-VKM-E



PFFY-P-VLEM-E

PFFY-P-VKM-E
PFFY-P-VLEM-E
PFFY-P-VLRM-E
PFFY-P-VLRMM-E



PFFY-P-VLRM-E
PFFY-P-VLRMM-E

1. SPECIFICATIONS	IU-H- 2
2. EXTERNAL DIMENSIONS	IU-H- 8
3. ELECTRICAL WIRING DIAGRAMS	IU-H- 12
4. SOUND LEVELS	
4-1. Sound levels	IU-H- 15
4-2. NC curves	IU-H- 15
4-3. Fan characteristics curves	IU-H- 18
5. TEMPERATURE/AIRFLOW DISTRIBUTIONS	
5-1. Temperature distributions	IU-H- 21
5-2. Airflow distributions	IU-H- 22

A
B
C
D
E
F
G
H
V_A
V_B
BC
CT

Floor standing	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
	0.8HP	1.0HP	1.3HP	1.6HP	2.0HP	2.5HP	2.8HP	3.2HP	4.0HP	5.0HP	5.6HP	8.0HP	10.0HP
PFFY-P-VKM-E	●	●	●	●									
PFFY-P-VLEM-E	●	●	●	●	●	●							
PFFY-P-VLRM-E	●	●	●	●	●	●							
PFFY-P-VLRMM-E	●	●	●	●	●	●							

1. SPECIFICATIONS

R410A Data G4

Model			PFFY-P20VKM-E	PFFY-P25VKM-E	PFFY-P32VKM-E	PFFY-P40VKM-E
Power source			1-phase 220-230-240V 50Hz			
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5
	*1	kcal / h	1,900	2,400	3,100	3,900
	*1	Btu / h	7,500	9,600	12,300	15,400
	*2	kcal / h	2,000	2,500	3,200	4,000
	Power input	kW	0.025	0.025	0.025	0.028
	Current input	A	0.20	0.20	0.20	0.24
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	5.0
	*3	kcal / h	2,200	2,800	3,400	4,300
	*3	Btu / h	8,500	10,900	13,600	17,100
	Power input	kW	0.025	0.025	0.025	0.028
	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 (lb)	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		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	
Noise level (Low-Mid-High-SHigh) (measured in anechoic room)		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, R407C, R22 CITY MULTI			
Diameter of refrigerant pipe	Liquid (R410A) (R22, R407C)	mm (in.)	ø6.35 (ø1/4") Flare			
		ø6.35 (ø1/4") Flare				
	Gas (R410A) (R22, R407C)	mm (in.)	ø12.7 (ø1/2") Flare			
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 Accessory		Installation Manual, Instruction Book			
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 cooling conditions *3 Nominal heating conditions Unit converter Indoor : 27°CDB/19°CWB (81°FDB/66°FWB) 27°CDB/19.5°CWB (81°FDB/67°FWB) 20°CDB (68°FDB) kcal/h = kW x 860 Outdoor : 35°CDB (95°FDB) 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) 5 m (16-3/8 ft) 7.5 m (24-9/16 ft) cfm = m³/min x 35.31 Level difference : 0 m (0 ft) 0 m (0 ft) 0 m (0 ft) lb = kg / 0.4536 * Nominal conditions *1, *3 are subject to JIS B8615-1. * Due to continuing improvement, above specification may be subject to change without notice. *Above specification data is subject to rounding variation						

Ref.: Spec_PFFY-P-VKM-E_1

1. SPECIFICATIONS

R410A Data G4

Model			PFFY-P20VLEM-E	PFFY-P25VLEM-E	PFFY-P32VLEM-E	PFFY-P40VLEM-E			
Power source			1-phase 220-240V 50Hz, 1-phase 208-230V 60Hz						
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5			
	*1	kcal / h	1,900	2,400	3,100	3,900			
	*1	Btu / h	7,500	9,600	12,300	15,400			
	*2	kcal / h	2,000	2,500	3,150	4,000			
	Power input	kW	0.04 / 0.06	0.04 / 0.06	0.06 / 0.07	0.065 / 0.075			
	Current input	A	0.19 / 0.25	0.19 / 0.25	0.29/0.30	0.32 / 0.33			
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	5.0			
	*3	kcal / h	2,200	2,800	3,400	4,300			
	*3	Btu / h	8,500	10,900	13,600	17,100			
	Power input	kW	0.04 / 0.06	0.04 / 0.06	0.06 / 0.07	0.065 / 0.075			
	Current input	A	0.19 / 0.25	0.19 / 0.25	0.29 / 0.30	0.32 / 0.33			
External finish			Acrylic painted, MUNSELL (5Y 8/1)						
External dimension H x W x D		mm	630 x 1,050 x 220	630 x 1,050 x 220	630 x 1,170 x 220	630 x 1,170 x 220			
		in.	24-13/16" x 41-3/8" x 8-11/16"	24-13/16" x 41-3/8" x 8-11/16"	24-13/16" x 46-1/8" x 8-11/16"	24-13/16" x 46-1/8" x 8-11/16"			
Net weight		kg (lb)	23 (51)	23 (51)	25 (56)	26 (58)			
Heat exchanger			Cross fin (Aluminium fin and copper tube)						
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2			
	External static press.	Pa	0	0	0	0			
		mmH ₂ O	0	0	0	0			
	Motor type		1-phase induction motor						
	Motor output	kW	0.015	0.015	0.018	0.030			
	Driving mechanism		Direct-driven by motor						
	Airflow rate (Low-High)	m ³ / min	5.5 - 6.5	5.5 - 6.5	7.0 - 9.0	9.0 - 11.0			
		L / s	92 - 108	92 - 108	117 - 150	150 - 183			
		cfm	194 - 230	194 - 230	247 - 318	318 - 388			
Noise level (Low-High) (measured in anechoic room)		dB <A>	32 - 38 (220V, 50Hz)	32 - 38 (220V, 50Hz)	33 - 38 (220V, 50Hz)	36 - 41 (220V, 50Hz)			
		dB <A>	33 - 39 (230V, 50Hz)	33 - 39 (230V, 50Hz)	34 - 39 (230V, 50Hz)	37 - 42 (230V, 50Hz)			
		dB <A>	34 - 40 (240V, 50Hz)	34 - 40 (240V, 50Hz)	35 - 40 (240V, 50Hz)	38 - 43 (240V, 50Hz)			
Insulation material			Polyethylene foam, Urethane foam						
Air filter			PP honeycomb fabric (washable)						
Protection device			Fuse						
Refrigerant control device			LEV						
Connectable outdoor unit			R410A, R407C, R22 CITY MULTI						
Diameter of refrigerant pipe	Liquid (R410A) (R22, R407C)	mm (in.)	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare			
		Gas (R410A) (R22, R407C)	mm (in.)	ø12.7 (ø1/2") Flare ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare ø12.7 (ø1/2") Flare		
	Field drain pipe size		mm (in.)	I.D. 26mm (1")					
Drawing	External		IU-W65-3950 IU-W65-3960 -						
	Wiring								
	Refrigerant cycle								
Standard attachment	Document		Installation Manual, Instruction Book Drain hose (O.D.27mm(1-3/32"), (End O.D.20mm(13/16"))) (flexible joint)						
	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 cooling conditions *3 Nominal heating conditions			Unit converter			
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB) Outdoor : 35°CDB (95°FDB) Pipe length : 7.5 m (24-9/16 ft) Level difference : 0 m (0 ft)			27°CDB/19.5°CWB (81°FDB/67°FWB) 35°CDB (95°FDB) 5 m (16-3/8 ft) 0 m (0 ft)			20°CDB (68°FDB) 7°CDB/6°CWB (45°FDB/43°FWB) 7.5 m (24-9/16 ft) 0 m (0 ft)			kcal/h = kW x 860 Btu/h = kW x 3,412 cfm = m ³ /min x 35.31 lb = kg / 0.4536
* Nominal conditions *1, *3 are subject to JIS B8615-1. * Due to continuing improvement, above specification may be subject to change without notice.						*Above specification data is subject to rounding variation.			

Ref.: Spec_PFFY-P-VLE(R)M-E_1

1. SPECIFICATIONS

R410A Data G4

Model			PFFY-P50VLEM-E	PFFY-P63VLEM-E	PFFY-P20VLRM-E	PFFY-P25VLRM-E
Power source			1-phase 220-240V 50Hz, 1-phase 208-230V 60Hz			
Cooling capacity (Nominal)	*1	kW	5.6	7.1	2.2	2.8
	*1	kcal / h	4,800	6,100	1,900	2,400
	*1	Btu / h	19,100	24,200	7,500	9,600
	*2	kcal / h	5,000	6,300	2,000	2,500
	Power input	kW	0.085 / 0.09	0.1 / 0.11	0.04 / 0.06	0.04 / 0.06
	Current input	A	0.40 / 0.41	0.46 / 0.47	0.19 / 0.25	0.19 / 0.25
Heating capacity (Nominal)	*3	kW	6.3	8.0	2.5	3.2
	*3	kcal / h	5,400	6,900	2,200	2,800
	*3	Btu / h	21,500	27,300	8,500	10,900
	Power input	kW	0.085 / 0.09	0.1 / 0.11	0.04 / 0.06	0.04 / 0.06
	Current input	A	0.40 / 0.41	0.46 / 0.47	0.19 / 0.25	0.19 / 0.25
	External finish			Acrylic painted, MUNSELL (5Y 8/1)		Galvanized
External dimension H x W x D		mm	630 x 1,410 x 220	630 x 1,410 x 220	639 x 886 x 220	639 x 886 x 220
		in.	24-13/16" x 55-9/16" x 8-11/16"	24-13/16" x 55-9/16" x 8-11/16"	25-3/16" x 34-15/16" x 8-11/16"	25-3/16" x 34-15/16" x 8-11/16"
Net weight		kg (lb)	30 (67)	32 (71)	18.5 (41)	18.5 (41)
Heat exchanger			Cross fin (Aluminium fin and copper tube)			
FAN	Type x Quantity		Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 1	Sirocco fan x 1
	External static press.	Pa	0	0	0	0
		mmH ₂ O	0	0	0	0
	Motor type		1-phase induction motor			
	Motor output	kW	0.035	0.050	0.015	0.015
	Driving mechanism		Direct-driven by motor			
	Airflow rate (Low-High)	m ³ / min	12.0 - 14.0	12.0 - 15.5	5.5 - 6.5	5.5 - 6.5
		L / s	200 - 233	200 - 258	92 - 108	92 - 108
		cfm	424 - 494	424 - 547	194 - 230	194 - 230
Noise level (Low-High) (measured in anechoic room)		dB <A>	36 - 41 (220V, 50Hz)	38 - 44 (220V, 50Hz)	32 - 38 (220V, 50Hz)	32 - 38 (220V, 50Hz)
		dB <A>	37 - 42 (230V, 50Hz)	39 - 45 (230V, 50Hz)	33 - 39 (230V, 50Hz)	33 - 39 (230V, 50Hz)
		dB <A>	38 - 43 (240V, 50Hz)	40 - 46 (240V, 50Hz)	34 - 40 (240V, 50Hz)	34 - 40 (240V, 50Hz)
Insulation material			Polyethylene foam, Urethane foam			
Air filter			PP honeycomb fabric (washable)			
Protection device			Fuse			
Refrigerant control device			LEV			
Connectable outdoor unit			R410A, R407C, R22 CITY MULTI			
Diameter of refrigerant pipe	Liquid (R410A) (R22, R407C)	mm (in.)	ø6.35 (ø1/4") Flare ø9.52 (ø3/8") Flare	ø9.52 (ø3/8") Flare ø9.52 (ø3/8") Flare	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare
		Gas (R410A) (R22, R407C)	mm (in.)	ø12.7 (ø1/2") Flare ø15.88 (ø5/8") Flare	ø15.88 (ø5/8") Flare ø15.88 (ø5/8") Flare	ø12.7 (ø1/2") Flare ø12.7 (ø1/2") Flare
	Field drain pipe size		mm (in.)	I.D. 26mm (1")		
Drawing	External		IU-W65-3950	IU-W65-3950	IU-W65-3951	IU-W65-3951
	Wiring		IU-W65-3960	IU-W65-3960	IU-W65-3960	IU-W65-3960
	Refrigerant cycle		-	-	-	-
Standard attachment	Document		Installation Manual, Instruction Book			
	Accessory		Drain hose (O.D.27mm(1-3/32"), (End O.D.20mm(13/16"))) (flexible joint)			
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 :			Unit converter		
*1 Nominal cooling conditions			kcal/h = kW x 860		
*2 Nominal cooling conditions			Btu/h = kW x 3,412		
*3 Nominal heating conditions			cfm = m ³ /min x 35.31		
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB)			lb = kg / 0.4536		
Outdoor : 35°CDB (95°FDB)			*Above specification data is subject to rounding variation.		
Pipe length : 7.5 m (24-9/16 ft)					
Level difference : 0 m (0 ft)					

* Nominal conditions *1, *3 are subject to JIS B8615-1.
* Due to continuing improvement, above specification may be subject to change without notice.

Ref.: Spec_PFFY-P-VLE(R)M-E_2

1. SPECIFICATIONS

R410A Data G4

Model			PFFY-P32VLRM-E	PFFY-P40VLRM-E	PFFY-P50VLRM-E	PFFY-P63VLRM-E			
Power source			1-phase 220-240V 50Hz, 1-phase 208-230V 60Hz						
Cooling capacity (Nominal)	*:1	kW	3.6	4.5	5.6	7.1			
	*:1	kcal / h	3,100	3,900	4,800	6,100			
	*:1	Btu / h	12,300	15,400	19,100	24,200			
	*:2	kcal / h	3,150	4,000	5,000	6,300			
	Power input	kW	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11			
	Current input	A	0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47			
Heating capacity (Nominal)	*:3	kW	4.0	5.0	6.3	8.0			
	*:3	kcal / h	3,400	4,300	5,400	6,900			
	*:3	Btu / h	13,600	17,100	21,500	27,300			
	Power input	kW	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11			
	Current input	A	0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47			
External finish			Galvanized						
External dimension H x W x D		mm	639 x 1,006 x 220	639 x 1,006 x 220	639 x 1,246 x 220	639 x 1,246 x 220			
		in.	25-3/16" x 39-5/8" x 8-11/16"	25-3/16" x 39-5/8" x 8-11/16"	25-3/16" x 49-1/16" x 8-11/16"	25-3/16" x 49-1/16" x 8-11/16"			
Net weight		kg (lb)	20 (45)	21 (47)	25 (56)	27 (60)			
Heat exchanger			Cross fin (Aluminium fin and copper tube)						
FAN	Type x Quantity		Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2			
	External static press.	Pa	0	0	0	0			
		mmH ₂ O	0	0	0	0			
	Motor type		1-phase induction motor						
	Motor output	kW	0.018	0.030	0.035	0.050			
	Driving mechanism		Direct-driven by motor						
	Airflow rate (Low-High)	m ³ / min	7.0 - 9.0	9.0 - 11.0	12.0 - 14.0	12.0 - 15.5			
		L / s	117 - 150	150 - 183	200 - 233	200 - 258			
		cfm	247 - 318	318 - 388	424 - 494	424 - 547			
Noise level (Low-High) (measured in anechoic room)		dB <A>	33 - 38 (220V, 50Hz)	36 - 41 (220V, 50Hz)	36 - 41 (220V, 50Hz)	38 - 44 (220V, 50Hz)			
		dB <A>	34 - 39 (230V, 50Hz)	37 - 42 (230V, 50Hz)	37 - 42 (230V, 50Hz)	39 - 45 (230V, 50Hz)			
		dB <A>	35 - 40 (240V, 50Hz)	38 - 43 (240V, 50Hz)	38 - 43 (240V, 50Hz)	40 - 46 (240V, 50Hz)			
Insulation material			Polyethylene foam, Urethane foam						
Air filter			PP honeycomb fabric (washable)						
Protection device			Fuse						
Refrigerant control device			LEV						
Connectable outdoor unit			R410A, R407C, R22 CITY MULTI						
Diameter of refrigerant pipe	Liquid (R410A) (R22, R407C)	mm (in.)	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare ø9.52 (ø3/8") Flare	ø9.52 (ø3/8") Flare ø9.52 (ø3/8") Flare			
	Gas (R410A) (R22, R407C)	mm (in.)	ø12.7 (ø1/2") Flare ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare ø15.88 (ø5/8") Flare	ø15.88 (ø5/8") Flare ø15.88 (ø5/8") Flare			
Field drain pipe size		mm (in.)	I.D. 26mm (1")						
Drawing	External		IU-W65-3951 IU-W65-3960 -						
	Wiring								
	Refrigerant cycle								
Standard attachment	Document		Installation Manual, Instruction Book Drain hose (O.D.27mm(1-3/32"), (End O.D.20mm(13/16"))) (flexible joint)						
	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 cooling conditions *3 Nominal heating conditions			Unit converter			
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB) Outdoor : 35°CDB (95°FDB) Pipe length : 7.5 m (24-9/16 ft) Level difference : 0 m (0 ft)			27°CDB/19.5°CWB (81°FDB/67°FWB) 35°CDB (95°FDB) 5 m (16-3/8 ft) 0 m (0 ft)			20°CDB (68°FDB) 7°CDB/6°CWB (45°FDB/43°FWB) 7.5 m (24-9/16 ft) 0 m (0 ft)			kcal/h = kW x 860 Btu/h = kW x 3,412 cfm = m ³ /min x 35.31 lb = kg / 0.4536
* Nominal conditions *:1, *:3 are subject to JIS B8615-1. * Due to continuing improvement, above specification may be subject to change without notice.						*Above specification data is subject to rounding variation			
						Ref.: Spec_PFFY-P-VLE(R)M-E_3			

1. SPECIFICATIONS

R410A Data G4

Model			PFFY-P20VLRMM-E	PFFY-P25VLRMM-E	PFFY-P32VLRMM-E	PFFY-P40VLRMM-E
Power source			1-phase 220-240V (50/60Hz)			
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5
	*1	kcal / h	1,900	2,400	3,100	3,900
	*1	Btu / h	7,500	9,600	12,300	15,400
	*2	kcal / h	2,000	2,500	3,150	4,000
	Power input	kW	0.04	0.04	0.04	0.05
	Current input	A	0.34	0.34	0.38	0.43
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	5.0
	*3	kcal / h	2,200	2,800	3,400	4,300
	*3	Btu / h	8,500	10,900	13,600	17,100
	Power input	kW	0.04	0.04	0.04	0.05
	Current input	A	0.34	0.34	0.38	0.43
	External finish			Galvanized steel plate		
External dimension H x W x D		mm	639 x 886 x 220	639 x 886 x 220	639 x 1006 x 220	639 x 1006 x 220
		in.	25-3/16" x 34-15/16" x 8-11/16"	25-3/16" x 34-15/16" x 8-11/16"	25-3/16" x 39-5/8" x 8-11/16"	25-3/16" x 39-5/8" x 8-11/16"
Net weight		kg (lb)	18.5 (41)	18.5 (41)	20 (45)	21(47)
Heat exchanger			Cross fin (Aluminium fin and copper tube)			
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2
	External static press.	Pa	20 - 40 - 60	20 - 40 - 60	20 - 40 - 60	20 - 40 - 60
		mmH ₂ O	2.0 - 4.1 - 6.1	2.0 - 4.1 - 6.1	2.0 - 4.1 - 6.1	2.0 - 4.1 - 6.1
	Motor type		DC blushless motor			
	Motor output	kW	0.096	0.096	0.096	0.096
	Driving mechanism		Direct-driven			
	Airflow rate (Low-Mid-High)	m ³ / min	4.5 - 5.5 - 6.5	4.5 - 5.5 - 6.5	6.5 - 7.5 - 9.0	8.0 - 9.5 - 11.0
		L / s	75 - 92 - 108	75 - 92 - 108	108 - 125 - 150	133 - 158 - 183
		cfm	159 - 194 - 230	159 - 194 - 230	230 - 265 - 318	283 - 335 - 388
Noise level (Low-Mid-High) (measured in anechoic room)		dB <A>	31 - 36 - 40 (20Pa)	31 - 36 - 40 (20Pa)	27 - 32 - 37 (20Pa)	30 - 36 - 40 (20Pa)
		dB <A>	34 - 39 - 42 (40Pa)	34 - 39 - 42 (40Pa)	30 - 35 - 41 (40Pa)	32 - 38 - 42 (40Pa)
		dB <A>	35 - 40 - 43 (60Pa)	35 - 40 - 43 (60Pa)	32 - 37 - 42 (60Pa)	35 - 39 - 44 (60Pa)
Insulation material			Polyethylene foam, Urethane foam			
Air filter			PP honeycomb fabric (washable)			
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") Brazed	ø6.35 (ø1/4") Brazed	ø6.35 (ø1/4") Brazed	ø6.35 (ø1/4") Brazed
	Gas (R410A)	mm (in.)	ø12.7 (ø1/2") Brazed	ø12.7 (ø1/2") Brazed	ø12.7 (ø1/2") Brazed	ø12.7 (ø1/2") Brazed
Field drain pipe size		mm (in.)	I.D. 26mm (1")<Accessory hose O.D.27mm(top end:O.D.20mm)>			
Drawing	External		IU-KB94-L081	IU-KB94-L081	IU-KB94-L081	IU-KB94-L081
	Wiring		IU-KB94-G985	IU-KB94-G985	IU-KB94-G985	IU-KB94-G985
	Refrigerant cycle		-	-	-	-
Standard attachment	Document		Installation Manual, Instruction Book			
	Accessory		Screw plate, Level adjusting screw, Strainer, Drain hose (flexible joint), Hose band			
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 cooling conditions	*3 Nominal heating conditions	Unit converter
Indoor :	27° CDB/19° CWB (81° FDB/66° FWB)	27° CDB/19.5° CWB (81° FDB/67° FWB)	20° CDB (68° FDB)	kcal/h = kW x 860
Outdoor :	35° CDB (95° FDB)	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)	5 m (16-3/8 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)	0 m (0 ft)	lb = kg / 0.4536
* Nominal conditions *1, *3 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.				

Ref.: Spec_PFFY-P-VLRMM-E_1

1. SPECIFICATIONS

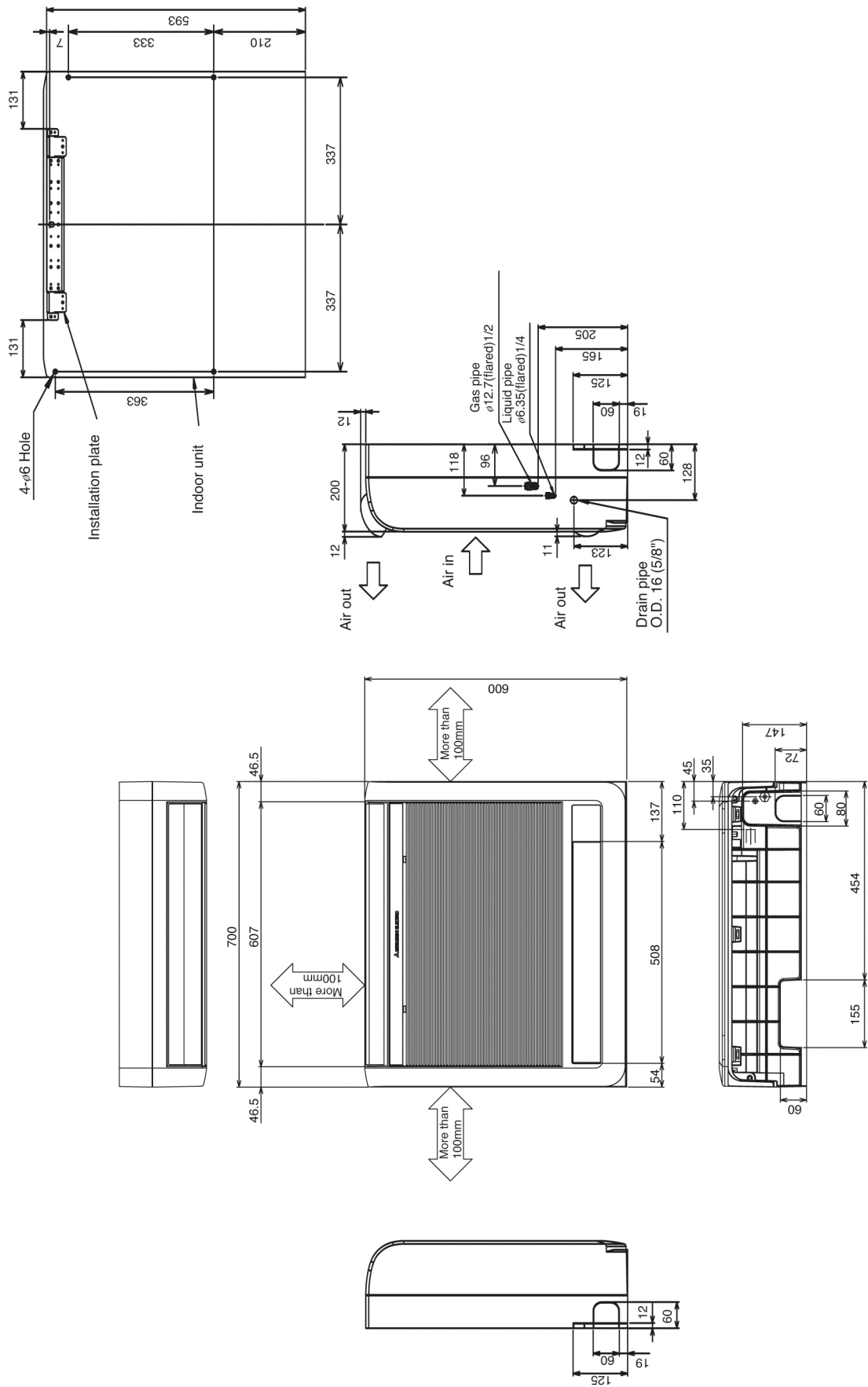
R410A Data G4

Model			PFFY-P50VLRMM-E	PFFY-P63VLRMM-E			
Power source			1-phase 220-240V (50/60Hz)				
Cooling capacity (Nominal)	※1	kW	5.6	7.1			
		kcal / h	4,800	6,100			
		Btu / h	19,100	24,200			
	※2	kcal / h	5,000	6,300			
		Power input	kW	0.05	0.07		
		Current input	A	0.48	0.59		
Heating capacity (Nominal)	※3	kW	6.3	8.0			
		kcal / h	5,400	6,900			
		Btu / h	21,500	27,300			
		Power input	kW	0.05	0.07		
		Current input	A	0.48	0.59		
External finish			Galvanized steel plate				
External dimension H x W x D		mm	639 x 1246 x 220	639 x 1246 x 220			
		in.	25-3/16" x 49-1/16" x 8-11/16"	25-3/16" x 49-1/16" x 8-11/16"			
Net weight		kg (lb)	25 (56)	27 (60)			
Heat exchanger			Cross fin (Aluminium fin and copper tube)				
FAN	Type x Quantity		Sirocco fan x 2	Sirocco fan x 2			
	External static press.	Pa	20 - 40 - 60	20 - 40 - 60			
		mmH ₂ O	2.0 - 4.1 - 6.1	2.0 - 4.1 - 6.1			
	Motor type		DC blushless motor				
	Motor output	kW	0.096	0.096			
	Driving mechanism		Direct-driven				
	Airflow rate (Low-Mid-High)	m ³ / min	10.0 - 12.0 - 14.0	11.0 - 13.0-15.5			
		L / s	167 - 200 - 233	183 - 217 - 258			
cfm		353 - 424 - 494	388 - 459 - 547				
Noise level (Low-Mid-High) (measured in anechoic room)		dB <A>	32 - 37 - 41 (20Pa)	35 - 40 - 44 (20Pa)			
		dB <A>	35 - 40 - 44 (40Pa)	36 - 42 - 47 (40Pa)			
		dB <A>	36 - 41 - 45 (60Pa)	38 - 43 - 48 (60Pa)			
Insulation material			Polyethylene foam, Urethane foam				
Air filter			PP honeycomb fabric (washable)				
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") Brazed	ø9.52 (ø3/8") Brazed			
	Gas (R410A)	mm (in.)	ø12.7 (ø1/2") Brazed	ø15.88 (ø5/8") Brazed			
Field drain pipe size		mm (in.)	I.D. 26mm (1")<Accessory hose O.D.27mm(top end:O.D.20mm)>				
Drawing	External		IU-KB94-L081	IU-KB94-L081			
	Wiring		IU-KB94-G985	IU-KB94-G985			
	Refrigerant cycle		-	-			
Standard attachment	Document		Installation Manual, Instruction Book				
	Accessory		Screw plate, Level adjusting screw, Strainer, Drain hose (flexible joint), Hose band				
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 Indoor : 27° CDB/19° CWB (81° FDB/66° FWB) Outdoor : 35° CDB (95° FDB) Pipe length : 7.5 m (24-9/16 ft) Level difference : 0 m (0 ft) ※2 Nominal cooling conditions 27° CDB/19.5° CWB (81° FDB/67° FWB) 35° CDB (95° FDB) 5 m (16-3/8 ft) 0 m (0 ft) ※3 Nominal heating conditions 20° CDB (68° FDB) 7° CDB/6° CWB (45° FDB/43° FWB) 7.5 m (24-9/16 ft) 0 m (0 ft) Unit converter kcal/h = kW x 860 Btu/h = kW x 3,412 cfm = m³/min x 35.31 lb = kg / 0.4536 * Nominal conditions ※1, ※3 are subject to JIS B8615-1. * Due to continuing improvement, above specification may be subject to change without notice. *Above specification data is subject to rounding variation							

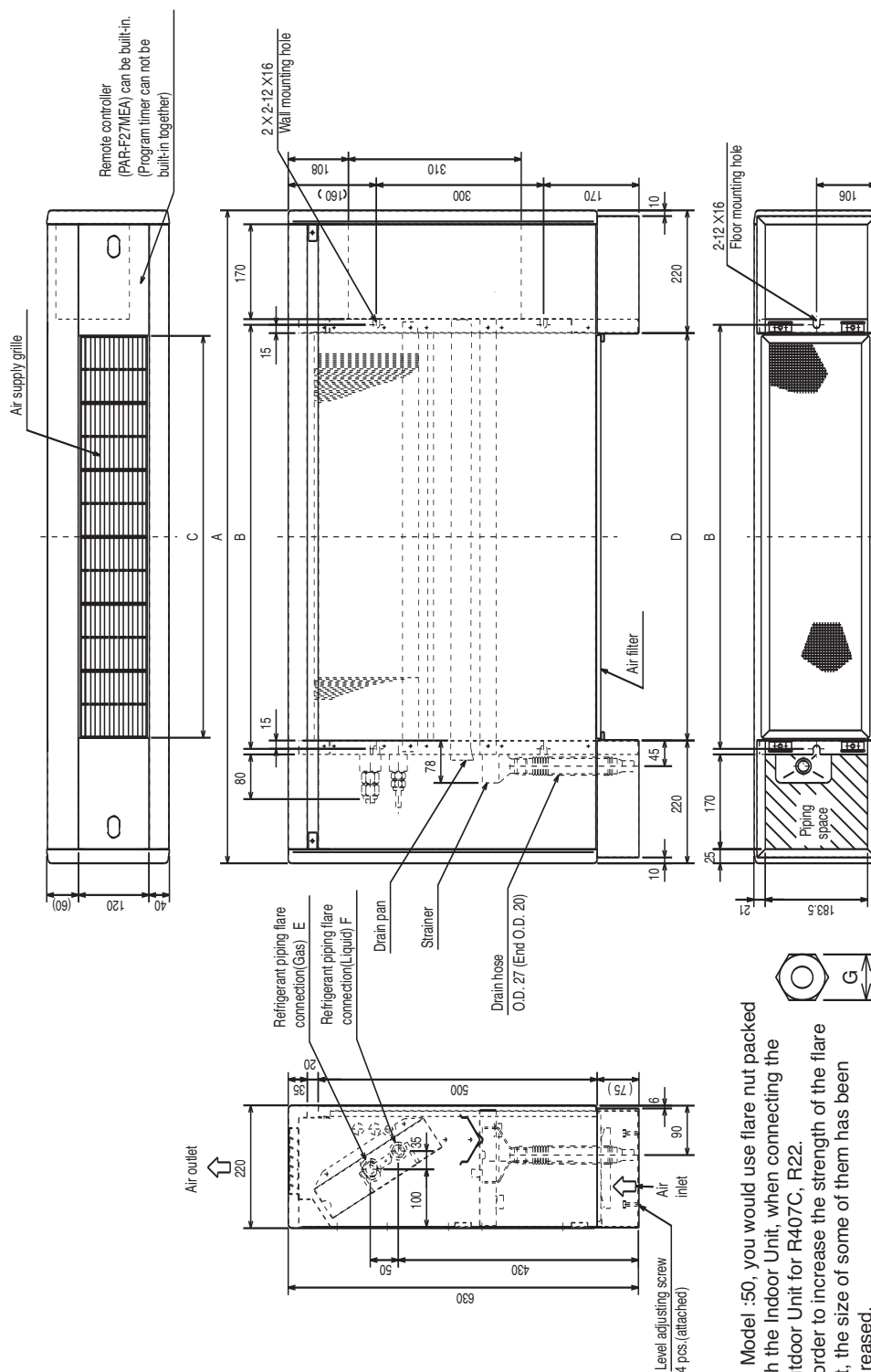
Ref.: Spec_PFFY-P-VLRMM-E_2

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

Drw. : IU-BK01-B517
Unit : mm



PFFY-P20,25,32,40,50,63VLEM-E

 Drw. : IU-W65-3950
 Unit : mm


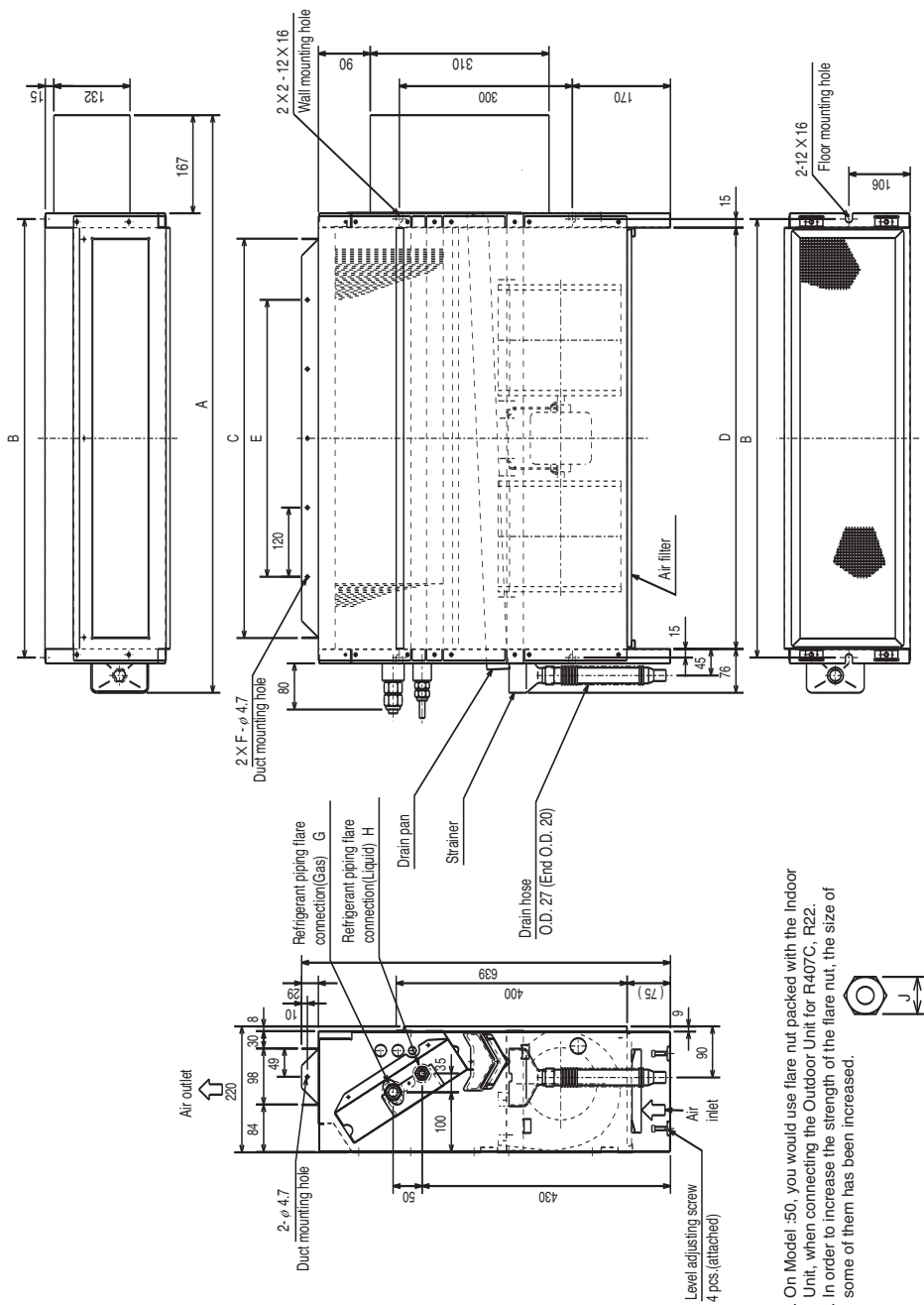
Dimensions

Model	A	B	C	D	E(Gas)	F(Liquid)	G(Liquid)	G(Gas)
PFFY-P20VLEM-E	1050	640	600	610	φ12.7	φ6.35	17	27
PFFY-P25VLEM-E	1050	640	600	610	φ12.7	φ6.35	17	27
PFFY-P32VLEM-E	1170	760	720	730	φ12.7	φ6.35	17	27
PFFY-P40VLEM-E	1170	760	720	730	φ12.7	φ6.35	17	27
PFFY-P50VLEM-E	1410	1000	960	970	*1 φ12.7 *2 φ15.88	*1 φ6.35 *2 φ9.52	*1 22 *2 22	*1 29 *2 29
PFFY-P63VLEM-E	1410	1000	960	970	φ15.88	φ9.52	22	29

 *1: R410A outdoor unit
 *2: R407C, R22 outdoor unit

PFFY-P20,25,32,40,50,63VLRM-E

Drw. : IU-W65-3951
Unit : mm



Note: 1. On Model :50, you would use flare nut packed with the Indoor Unit, when connecting the Outdoor Unit for R407C, R22.
2. In order to increase the strength of the flare nut, the size of some of them has been increased.



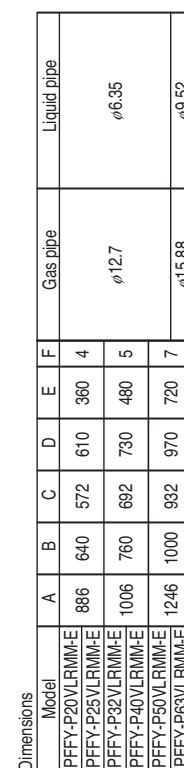
Dimensions

Model	A	B	C	D	E	F	G (Gas)	H (Liquid)	J (Liquid)	J (Gas)
PFFY-P20VLRM-E	886	640	572	610	360	4	ϕ 12.7	ϕ 6.35	17	27
PFFY-P25VLRM-E	886	640	572	610	360	4	ϕ 12.7	ϕ 6.35	17	27
PFFY-P32VLRM-E	1006	760	692	730	480	5	ϕ 12.7	ϕ 6.35	17	27
PFFY-P40VLRM-E	1006	760	692	730	480	5	ϕ 12.7	ϕ 6.35	17	27
PFFY-P50VLRM-E	1246	1000	932	970	720	7	ϕ 12.7	ϕ 6.35	22	29
PFFY-P63VLRM-E	1246	1000	932	970	720	7	ϕ 15.88	ϕ 9.52	22	29

*1: R410A outdoor unit
*2: R407C, R22 outdoor unit

R410A Data G4

Unit : mm



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

Drw. : IU-RG79-V367

[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		MV1	VANE MOTOR	SW1	SWITCH
CN52		MV2	DAMPER MOTOR	SW11	MODE SELECTION
SW2	SWITCH	LS	DAMPER LIMIT SWITCH (CLOSE)	SW12	ADDRESS SETTING 1ST DIGIT
SW3		LEV	LINEAR EXPANSION VALVE	SW14	ADDRESS SETTING 2ND DIGIT
SW4		TB5	TERMINAL BLOCK	SWC	CONNECTION NO.
ZNR	VARIATOR		POWER SUPPLY		AIR OUTLET SELECTION
FUSE	FUSE (T6.3AL250V)	TH21	THERMISTOR		
LED1	POWER SUPPLY (I.B)		ROOM TEMP. DETECTION (0°C/15kΩ, 25°C/5.4kΩ)		
LED2	POWER SUPPLY (I.B)	TH22	PIPE TEMP. DETECTION/LIQUID (0°C/15kΩ, 25°C/5.4kΩ)		

NOTES

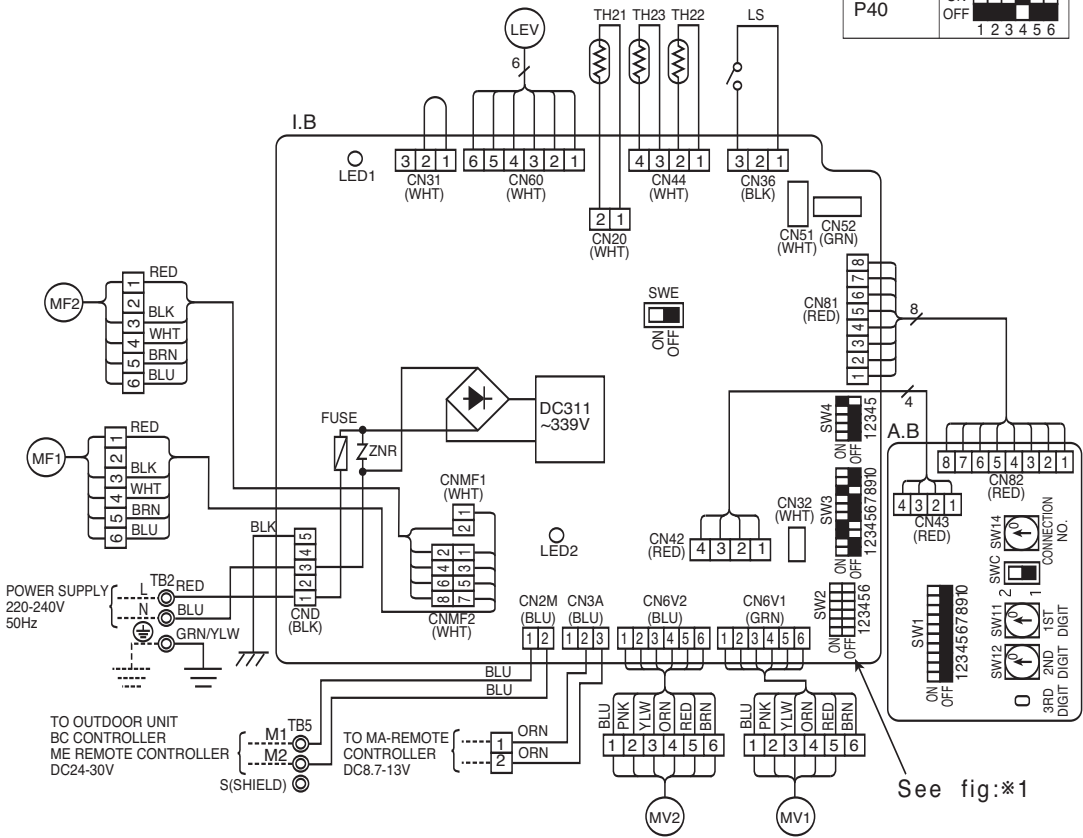
- 1.At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- 2.In case of connecting MA-Remote controller, please connect MA remote controller cable in an accessory to the connector [1][2]. (Remote controller wire is non-polar.)
- 3.In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- 4.Symbol [S] of TB5 is the shield wire connection.
- 5.Symbols used in wiring diagram above are, ⊙: terminal block, □□□: connector.
- 6.The setting of the SW2 dip switches differs in the capacity for the detail, refer to the fig.*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

<fig.*1>

MODELS	SW2
P20	ON OFF 1 2 3 4 5 6
P25	ON OFF 1 2 3 4 5 6
P32	ON OFF 1 2 3 4 5 6
P40	ON OFF 1 2 3 4 5 6

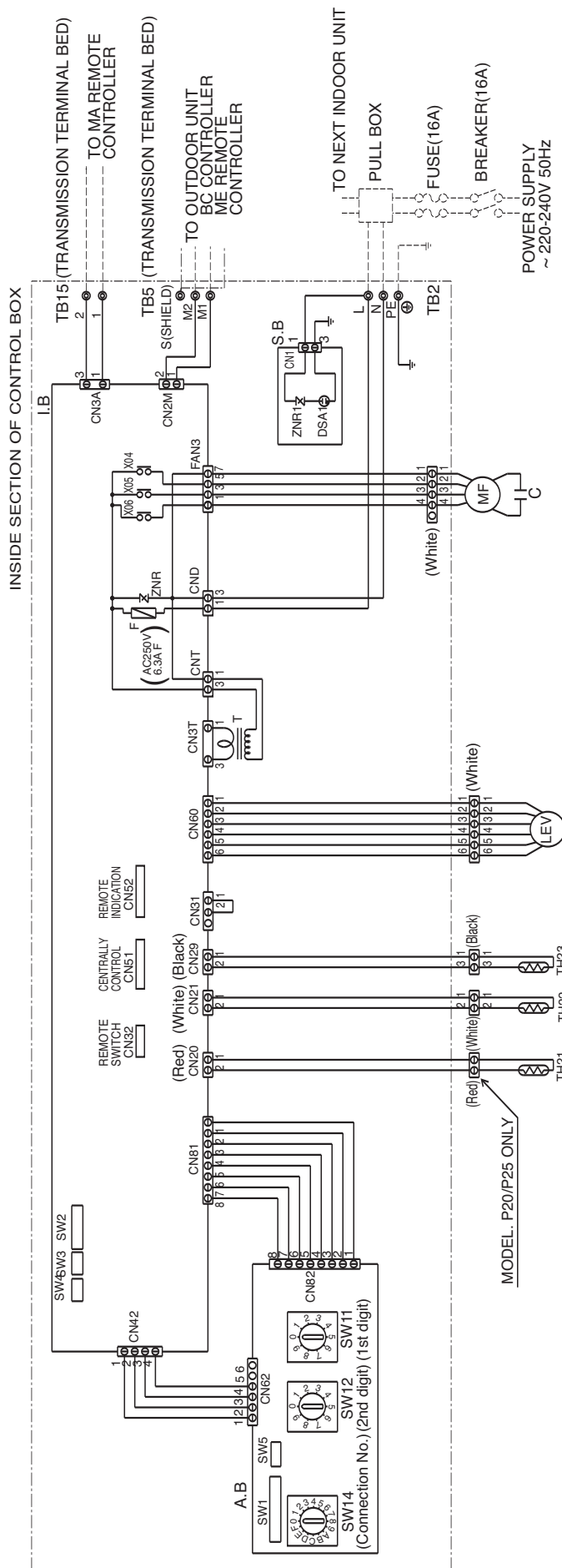


3. ELECTRICAL WIRING DIAGRAMS

R410A Data G4

PFFY-P20,25,32,40,50,63VLEM-E,VLRM-E

Drw. : IU-W65-3960



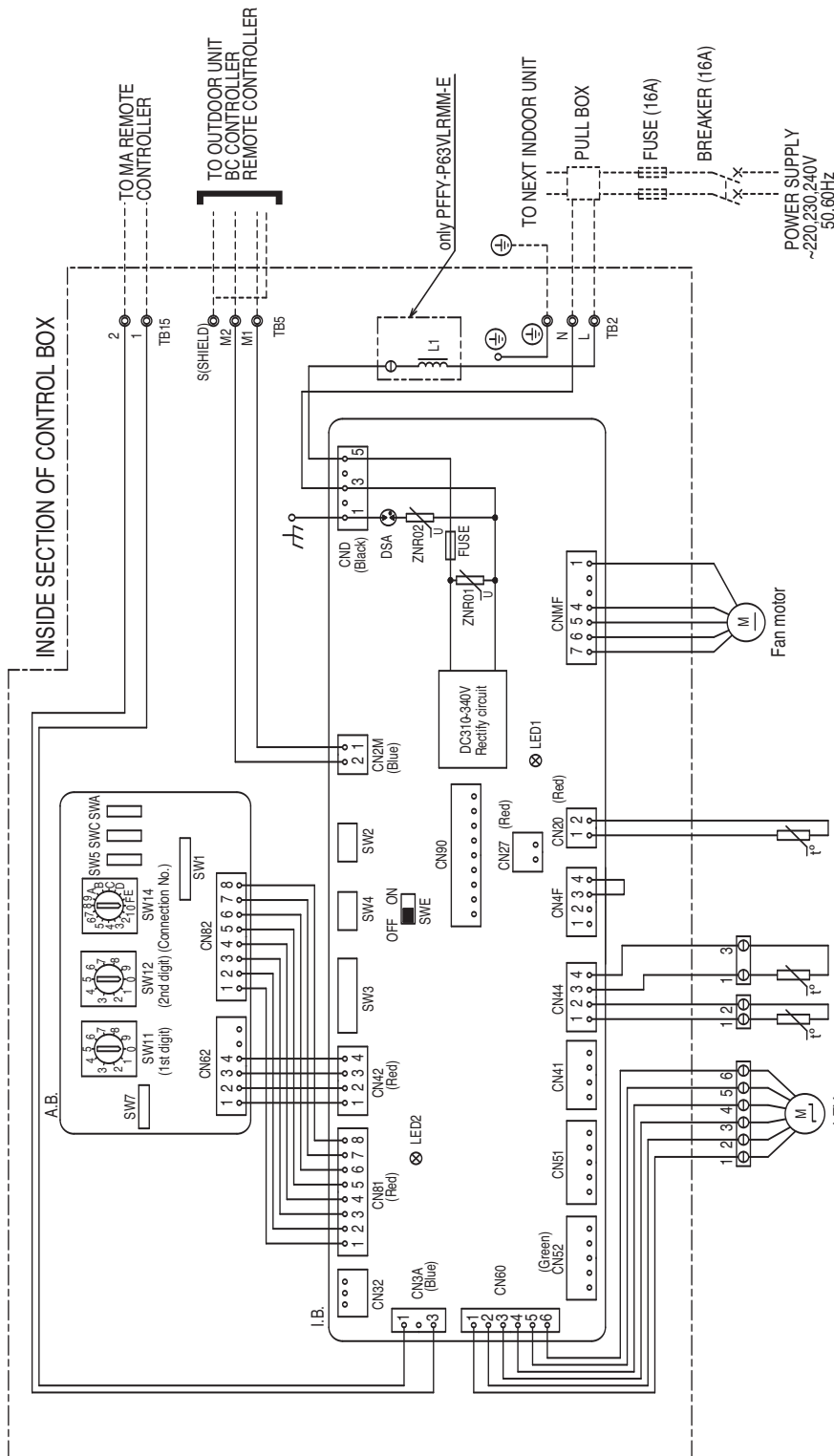
*Capacitor		
MODELS	20/25/32/40	1.5 F
MODEL	50	2.0 F
MODEL	63	2.5 F

SYMBOL EXPLANATION			
SYMBOL	NAME	SYMBOL	NAME
M F	Fan motor	T H 2 2	Thermistor (piping temp.detection/liquid)
C	*Capacitor (for MF)	T H 2 3	Thermistor (piping temp.detection/gas)
I . B	Indoor controller board	S W 1 1 (A . B)	Switch (1st digit address set)
A . B	Address board	S W 1 2 (A . B)	Switch (2nd digit address set)
T B 2	Power source terminal bed	S W 1 4 (A . B)	Switch (connection No.set)
T B 5	Transmission terminal bed	S W 1 (A . B)	Switch(for mode selection)
T B 1 5	Transmission terminal bed	S W 2 (I . B)	Switch(for capacity code)
F	Fuse AC250V 6.3A F	S W 3 (I . B)	Switch(for mode selection)
T	Transformer	S W 4 (I . B)	Switch(for model selection)
LEV	Electronic linear expan. valve	S W 5 (A . B)	Switch(for voltage selection)
S . B	Surge absorber board	X O 4 ~ 0 6	Aux.relay
T H 2 1	Thermistor (inlet temp. detection)		

A
B
C
D
E
F
G
H
V_A
V_B
BC
CT

PFFY-P20,25,32,40,50,63VLRMM-E

Drw. : IU-KB94-G985



NOTE:1. The wirings to TB2, TB5, TB15 shown in dotted line are field work.
2. Mark $\odot$ indicates terminal bed, $\ominus$ connector.

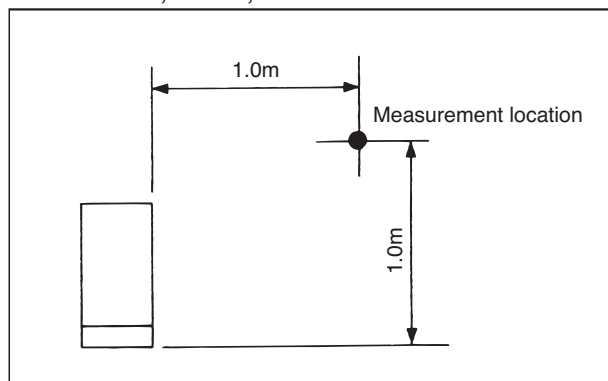
OPERATION OF LED FOR INDOOR CIRCUIT BOARD SERVICE

SYMBOL	LED operation under normal state
LED1	At applying main power source → Lighting
LED2	At receiving MA transmission power source → Lighting

SYMBOL	NAME	SYMBOL	NAME
I.B.	Indoor controller board	A.B.	Address board
FUSE	Fuse <AC250V 6.3A>	SW1	Switch (for mode selection)
ZNR01.02	Varistor	SW5	Switch (for mode selection)
DSA	Arrester	SW7	Switch (for mode selection)
CN27	Connector (Damper)	SW11	Switch (1st digit address set)
CN32	Connector (Remote switch)	SW12	Switch (2nd digit address set)
CN41	Connector (HA terminal-A)	SW14	Switch (connection No.set)
CN51	Connector (Centrally control)	SWA	Switch (for static pressure selection)
CN52	Connector (Remote indication)	SWC	Switch (for static pressure selection)
CN90	Connector (Wireless)	TB2	Power source terminal bed
SW2	Switch (for capacity code)	TB5	Transmission terminal bed
SW3	Switch (for mode selection)	TB15	Transmission terminal bed
SW4	Switch (for model selection)	TH21	Thermistor (inlet air temp.detection)
SWE	Connector (emergency operation)	TH22	Thermistor (piping temp.detection/liquid)
L1	AC reactor(Power factor improvement)	TH23	Thermistor (piping temp.detection/gas)
		LEV	Electronic linear expan valve

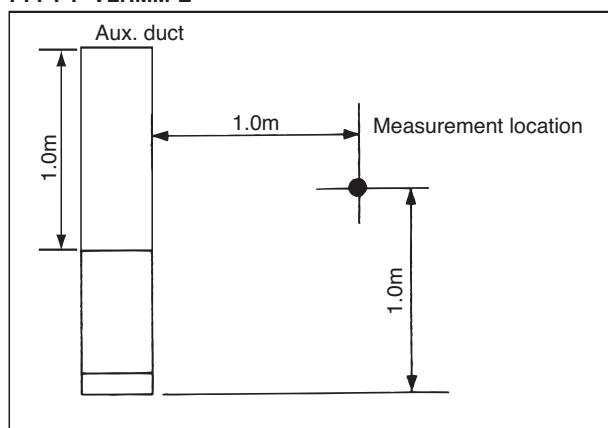
4-1. Sound levels

PFFY-P-VKM-E, VLEM-E, VLRM-E



* Measured in anechoic room.

PFFY-P-VLRMM-E



* Measured in anechoic room.

Sound level at anechoic room : Low-High

	Sound level dB (A)
PFFY-P20VKM-E	27-31-34-37
PFFY-P25VKM-E	28-32-35-38
PFFY-P32VKM-E	28-32-35-38
PFFY-P40VKM-E	35-38-42-44
PFFY-P20VLEM-E	34-40
PFFY-P20VLRM-E	
PFFY-P25VLEM-E	
PFFY-P25VLRM-E	
PFFY-P32VLEM-E	35-40
PFFY-P32VLRM-E	
PFFY-P40VLEM-E	38-43
PFFY-P40VLRM-E	
PFFY-P50VLEM-E	
PFFY-P50VLRM-E	
PFFY-P63VLEM-E	40-46
PFFY-P63VLRM-E	

Sound level at anechoic room : Low-middle-High

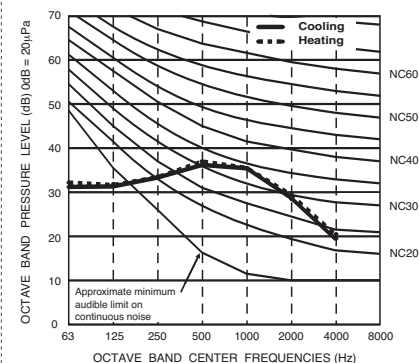
	Sound level dB (A)		
	20Pa	40Pa	60Pa
PFFY-P20VLRMM-E	31-36-40	34-39-42	35-40-43
PFFY-P25VLRMM-E	31-36-40	34-39-42	35-40-43
PFFY-P32VLRMM-E	27-32-37	30-35-41	32-37-42
PFFY-P40VLRMM-E	30-36-40	32-38-42	35-39-44
PFFY-P50VLRMM-E	32-37-41	35-40-44	36-41-45
PFFY-P63VLRMM-E	35-40-44	36-42-47	38-43-48

4-2. NC curves

PFFY-P20VKM-E

External static pressure : 0Pa

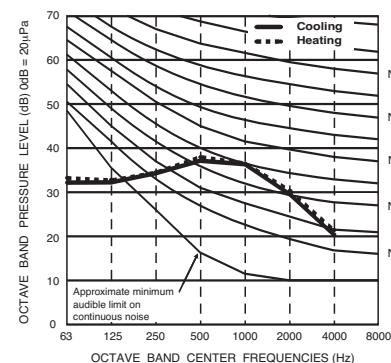
Power source : 220,230,240V, 50Hz



PFFY-P25,32VKM-E

External static pressure : 0Pa

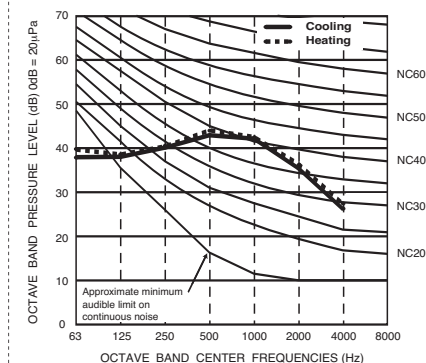
Power source : 220,230,240V, 50Hz



PFFY-P40VKM-E

External static pressure : 0Pa

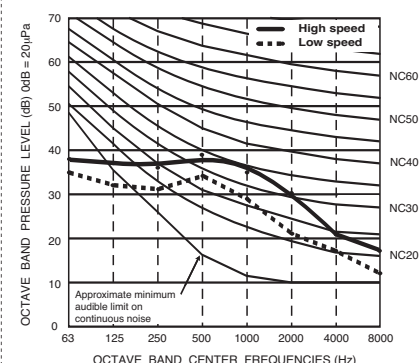
Power source : 220,230,240V, 50Hz



PFFY-P20,25VLEM-E, VLRM-E

External static pressure : 0Pa

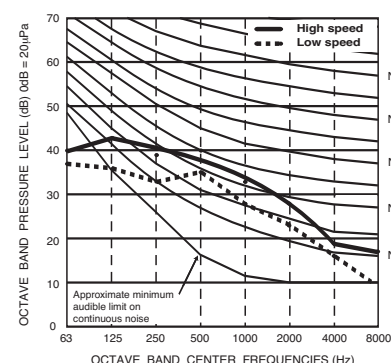
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P32VLEM-E, VLRM-E

External static pressure : 0Pa

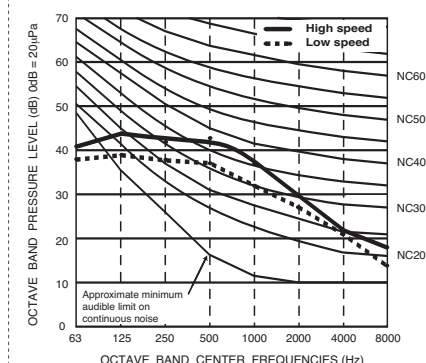
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P40VLEM-E, VLRM-E

External static pressure : 0Pa

Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



4. SOUND LEVELS

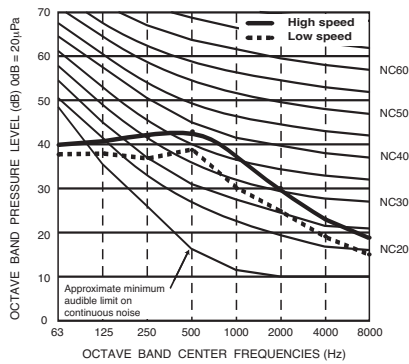
R410A Data G4

4-2. NC curves

PFFY-P50VLEM-E, VLRM-E

External static pressure : 0Pa

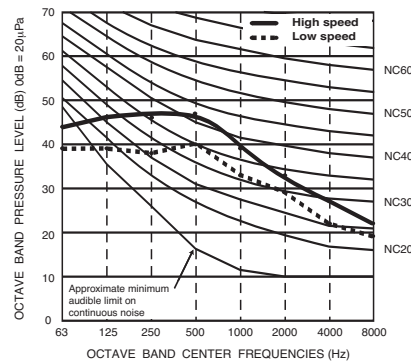
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P63VLEM-E, VLRM-E

External static pressure : 0Pa

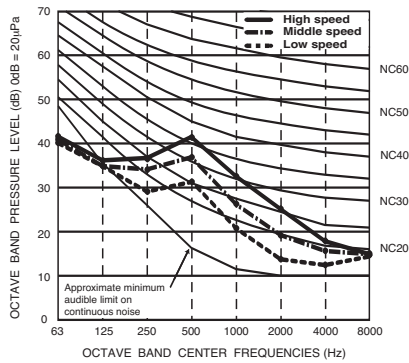
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P20,25VLRMM-E

External static pressure : 20Pa

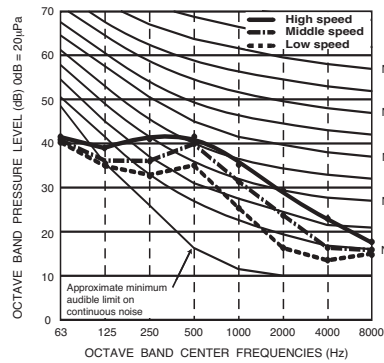
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 40Pa

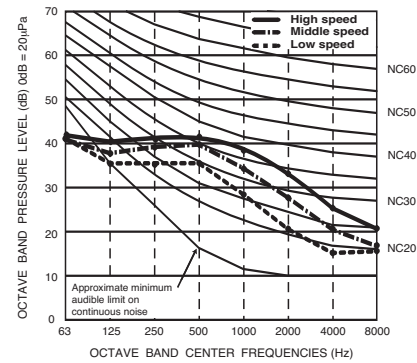
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 60Pa

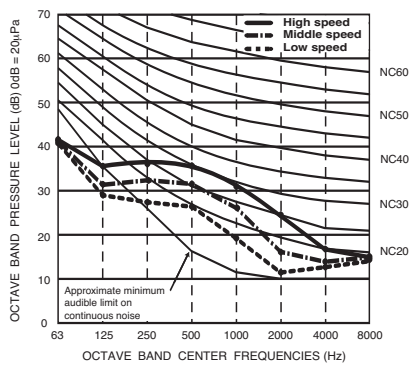
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 20Pa

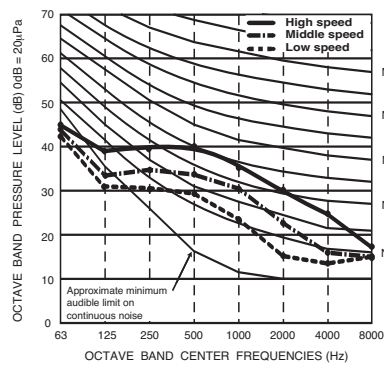
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 40Pa

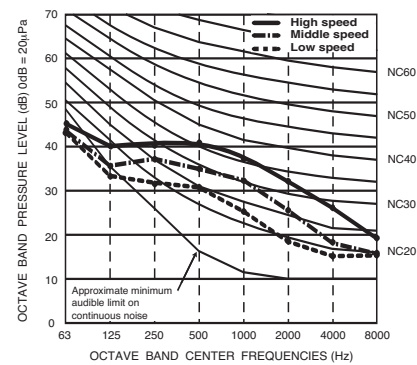
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 60Pa

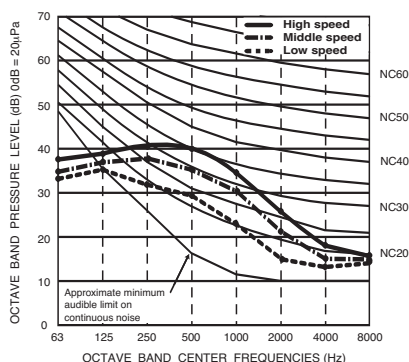
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 20Pa

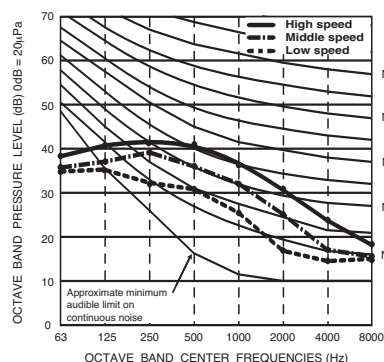
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 40Pa

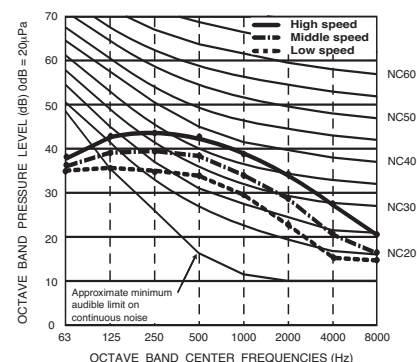
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 60Pa

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

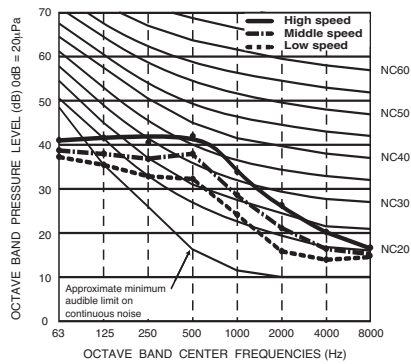


4-2. NC curves

PFFY-P50VLRMM-E

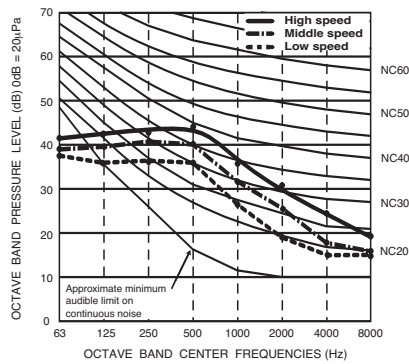
External static pressure : 20Pa

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

**PFFY-P50VLRMM-E**

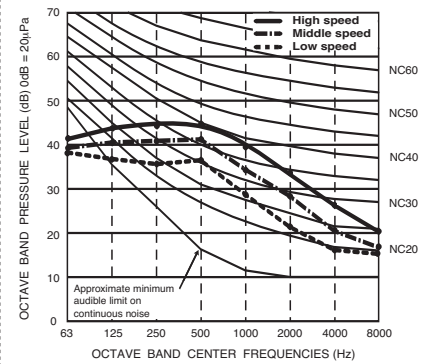
External static pressure : 40Pa

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

**PFFY-P50VLRMM-E**

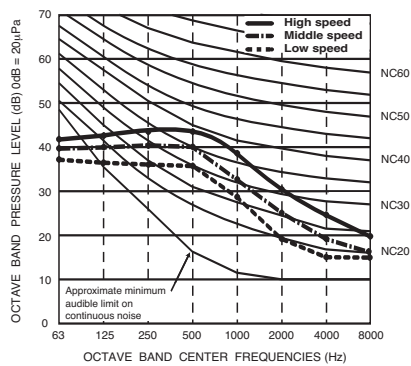
External static pressure : 60Pa

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

**PFFY-P63VLRMM-E**

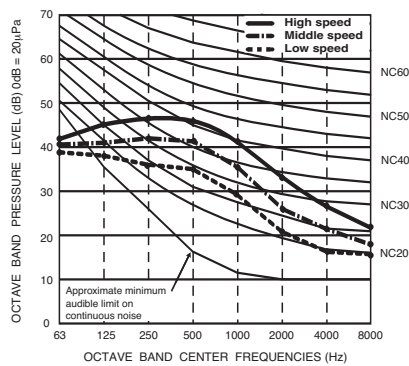
External static pressure : 20Pa

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

**PFFY-P63VLRMM-E**

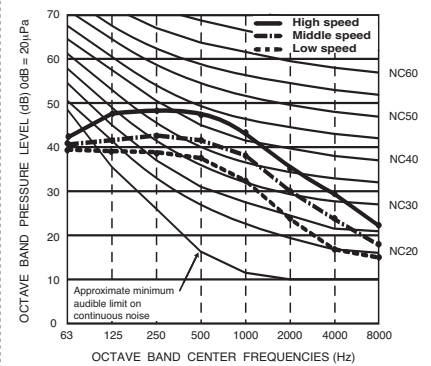
External static pressure : 40Pa

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

**PFFY-P63VLRMM-E**

External static pressure : 60Pa

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



4. SOUND LEVELS

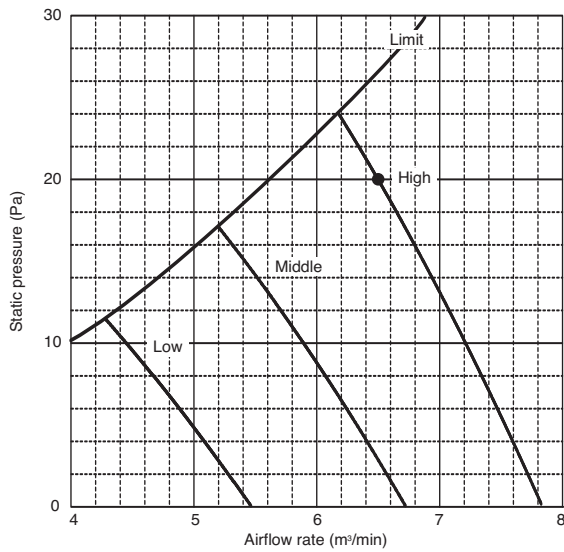
R410A Data G4

4-3. Fan characteristics curves

PFFY-P20,25VLRMM-E

External static pressure : 20Pa

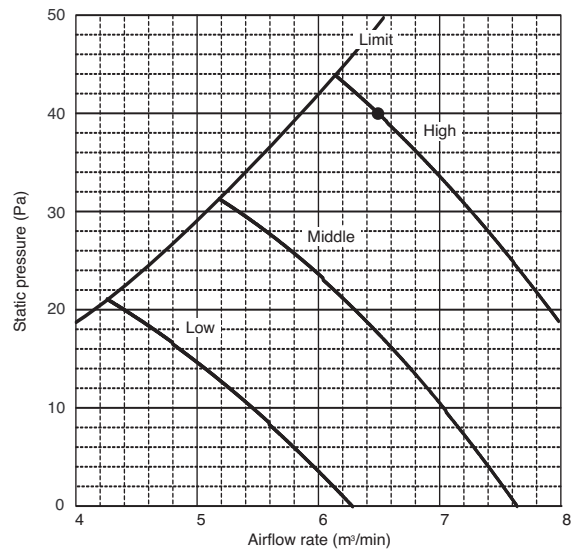
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 40Pa

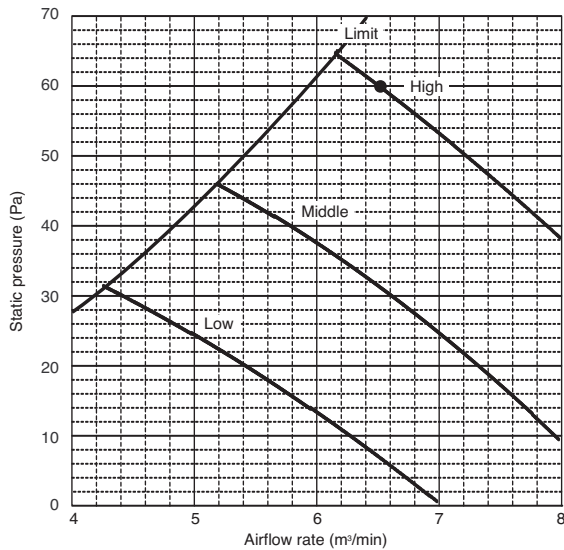
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 60Pa

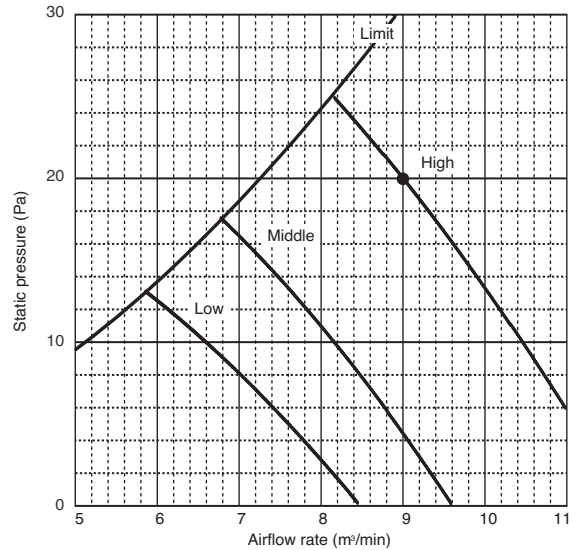
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 20Pa

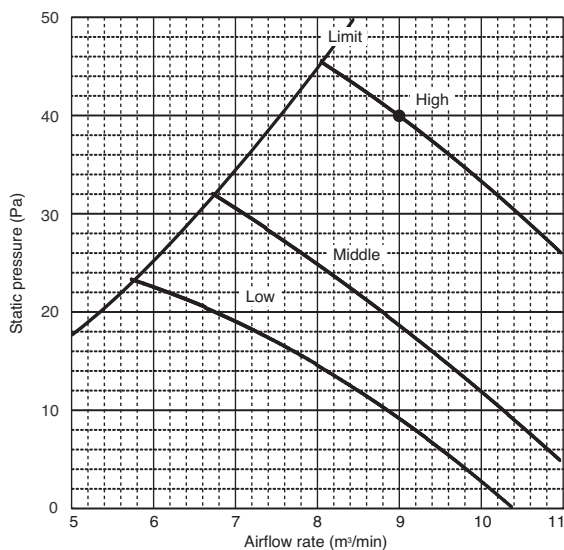
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 40Pa

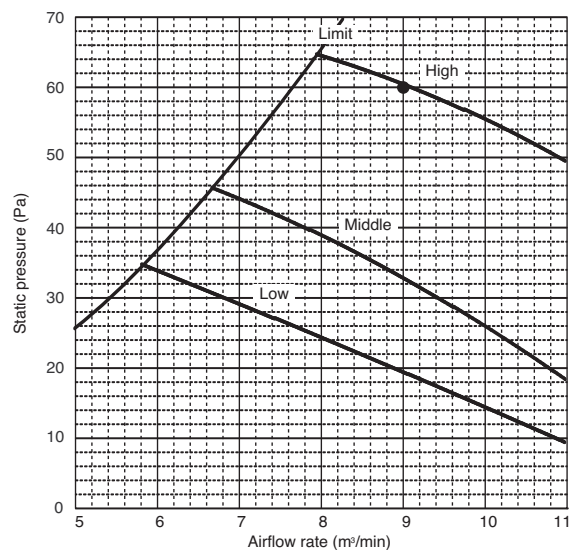
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 60Pa

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



4. SOUND LEVELS

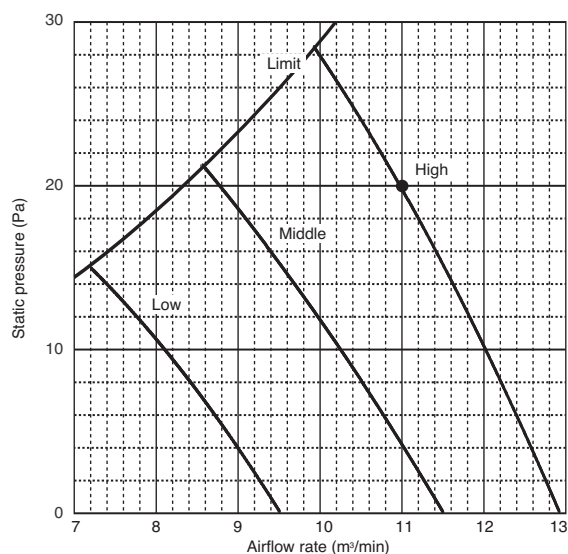
R410A Data G4

4-3. Fan characteristics curves

PFFY-P40VLRMM-E

External static pressure : 20Pa

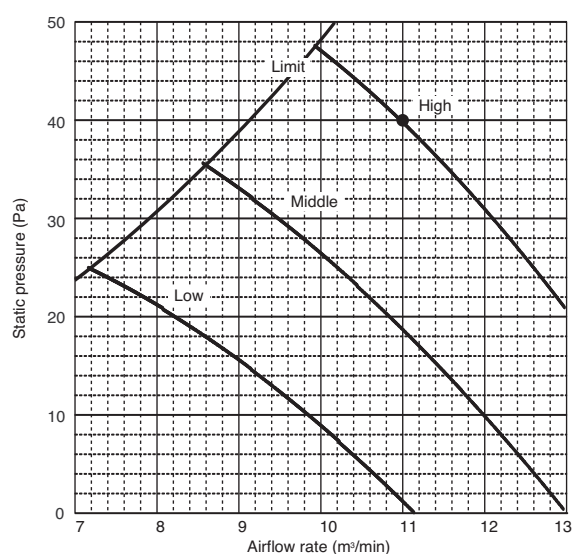
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 40Pa

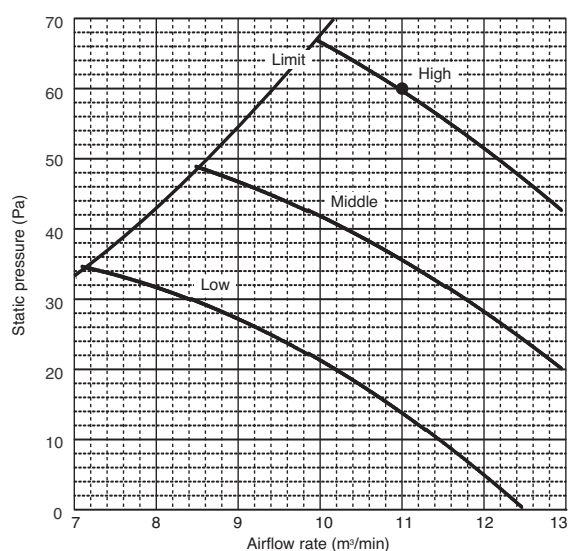
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 60Pa

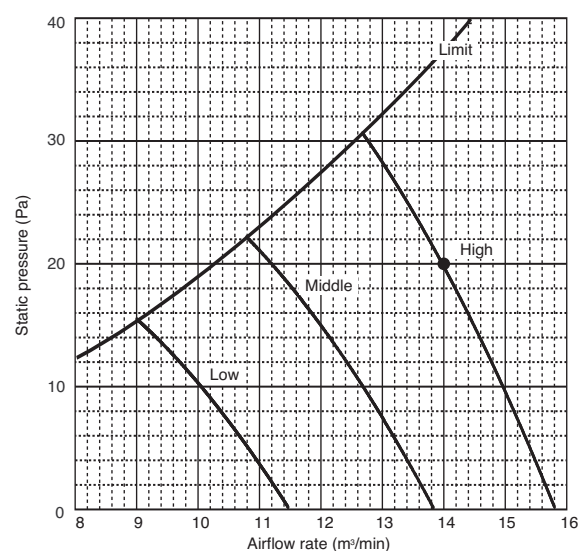
Power source : 220,230,240V, 50/60Hz



PFFY-P50VLRMM-E

External static pressure : 20Pa

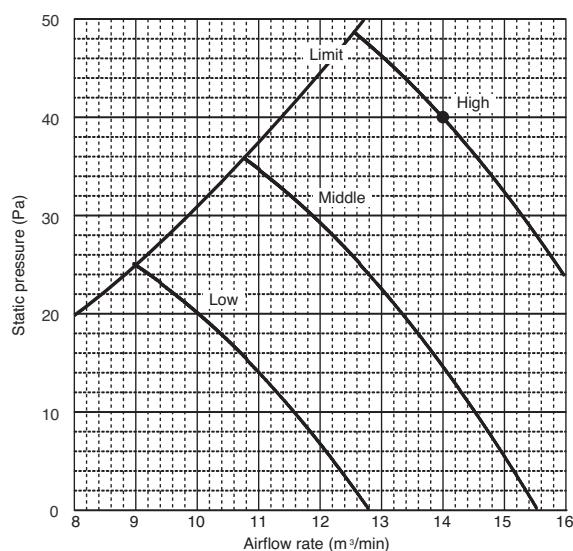
Power source : 220,230,240V, 50/60Hz



PFFY-P50VLRMM-E

External static pressure : 40Pa

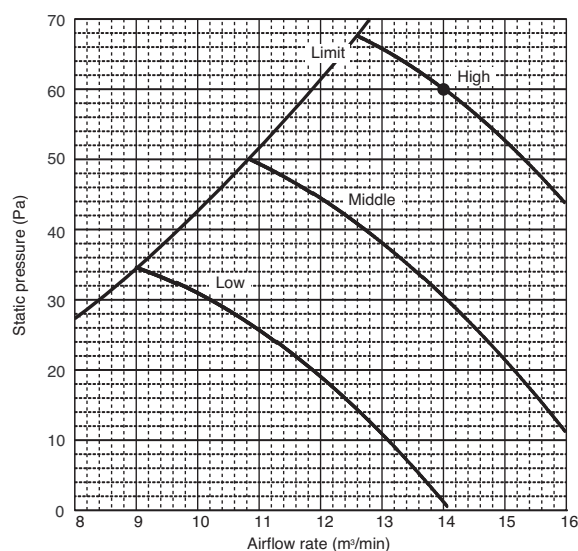
Power source : 220,230,240V, 50/60Hz



PFFY-P50VLRMM-E

External static pressure : 60Pa

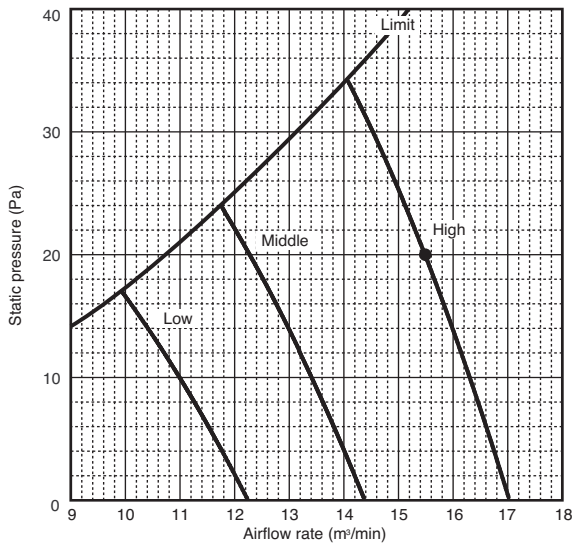
Power source : 220,230,240V, 50/60Hz



4-3. Fan characteristics curves

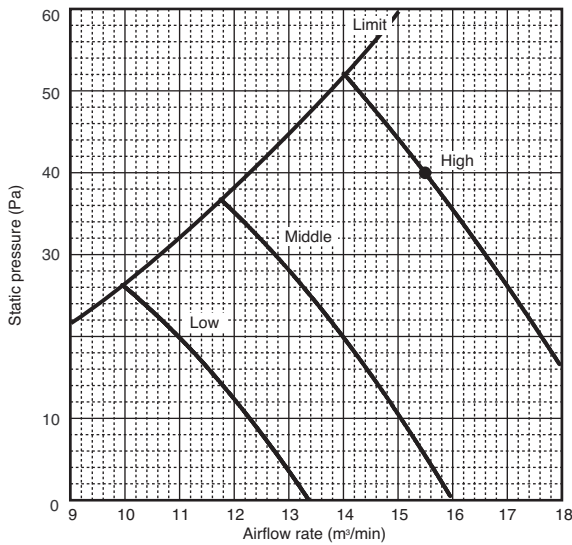
PFFY-P63VLRMM-E

External static pressure : 20Pa
Power source : 220,230,240V, 50/60Hz



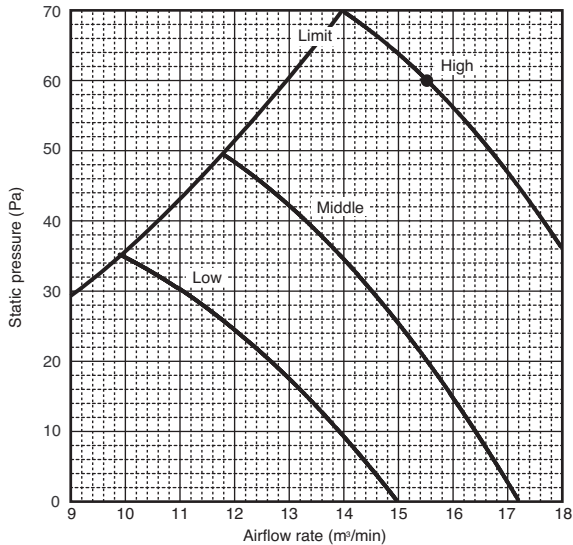
PFFY-P63VLRMM-E

External static pressure : 40Pa
Power source : 220,230,240V, 50/60Hz



PFFY-P63VLRMM-E

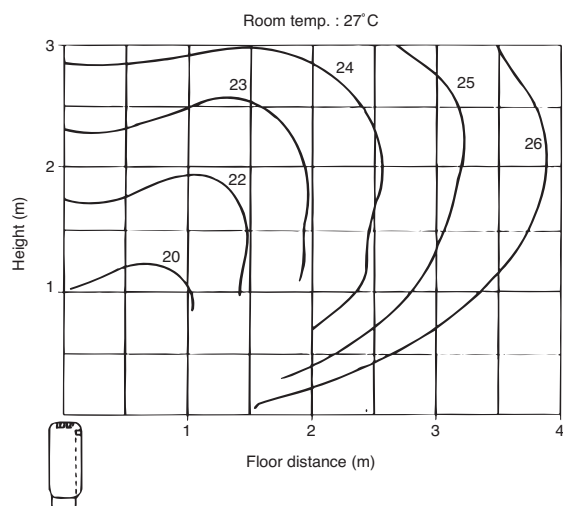
External static pressure : 60Pa
Power source : 220,230,240V, 50/60Hz



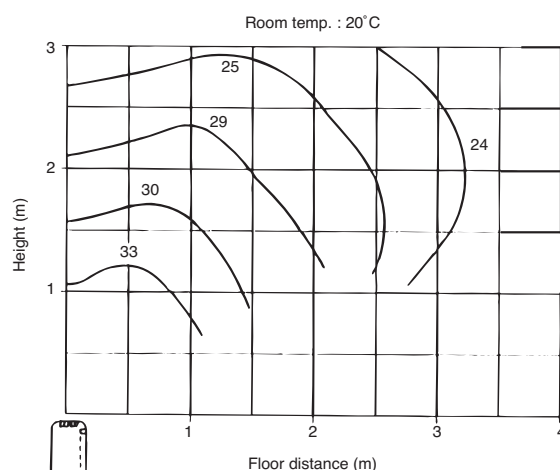
5-1. Temperature distributions

PFFY-P-VLEM-E,VLRM-E

<Cooling mode>

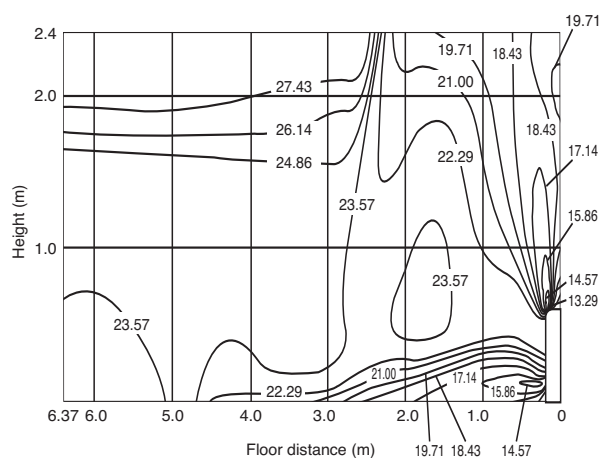


<Heating mode>

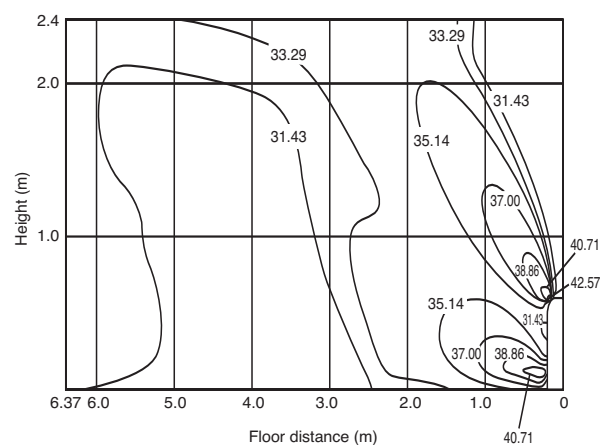


PFFY-P-VKM-E

<Cooling mode>



<Heating mode>

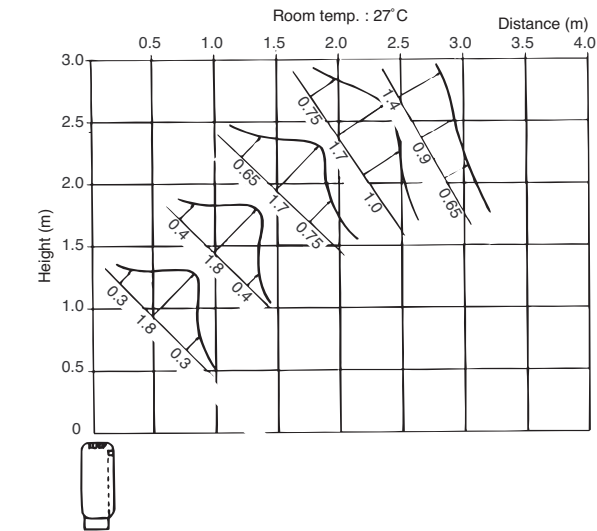


Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

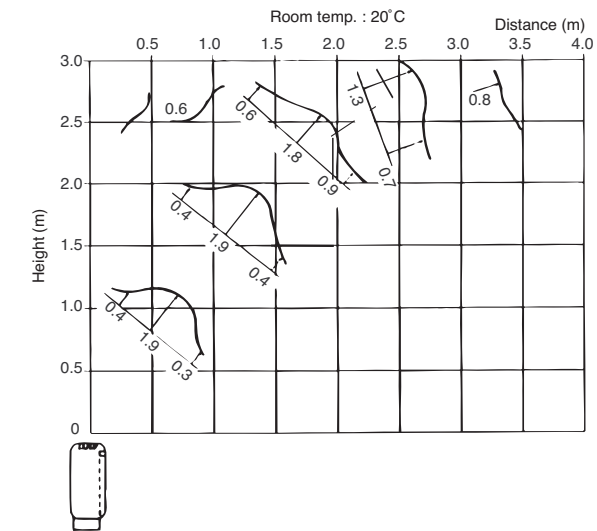
5-2. Airflow distributions

PFFY-P-VLEM-E,VLRM-E

<Cooling mode>

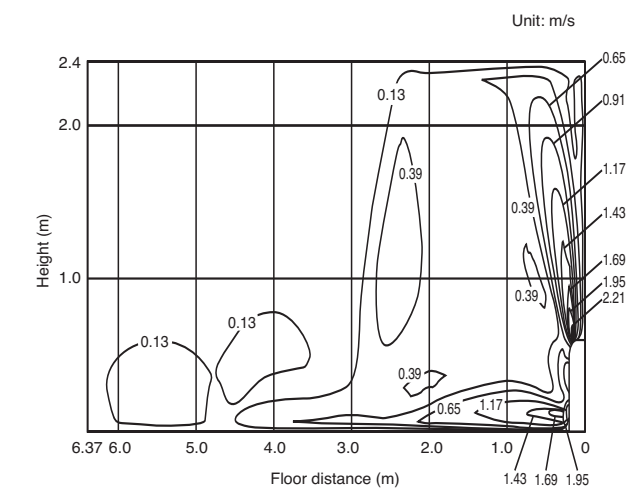


<Heating mode>

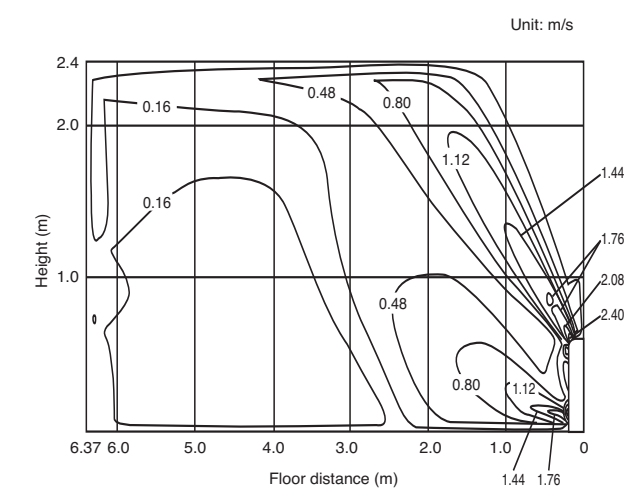


PFFY-P-VKM-E

<Cooling mode>



<Heating mode>



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