

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

1. SPECIFICATIONS	1 - 122
2. EXTERNAL DIMENSIONS	1 - 128
3. CENTER OF GRAVITY	1 - 132
4. ELECTRICAL WIRING DIAGRAMS	1 - 134
5. SOUND LEVELS	
5-1. Sound levels	1 - 137
5-2. NC curves	1 - 137
5-3. Fan characteristics curves	1 - 140
6. TEMPERATURE/AIRFLOW DISTRIBUTIONS	
6-1. Temperature distributions	1 - 143
6-2. Airflow distributions	1 - 144

1. SPECIFICATIONS

R410A Data G6

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
	*:4	Power input	kW	0.025	0.025	0.028
	*:4	Current input	A	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
	*:4	Power input	kW	0.025	0.025	0.028
	*:4	Current input	A	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	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
	(Low-Mid-High-SHigh)	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) *:4		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			
	Gas (R410A) (R22, R407C)	mm (in.)	ø6.35 (ø1/4) Flare 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		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 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 = 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. *:4 The values are measured at the rated external static pressure. *Above specification data is subject to rounding variation.						

Ref.: Spec_PFFY-P-VKM-E_1

1. SPECIFICATIONS

R410A Data G6

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	
	*:4	Power input	kW	0.04 / 0.06	0.04 / 0.06	0.06 / 0.07	0.065 / 0.075
*:4	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	
	*:4	Power input	kW	0.04 / 0.06	0.04 / 0.06	0.06 / 0.07	0.065 / 0.075
	*:4	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	
Sound pressure 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)	
	*:4	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 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 *Above specification data is subject to rounding variation.							
* Nominal conditions *:1, *:3 are subject to JIS B8615-1. * Due to continuing improvement, above specification may be subject to change without notice. *:4 The values are measured at the rated external static pressure.							

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

PFFY

1. SPECIFICATIONS

R410A Data G6

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	
	*:4	Power input	kW	0.085 / 0.09	0.1 / 0.11	0.04 / 0.06	0.04 / 0.06
*:4	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	
	*:4	Power input	kW	0.085 / 0.09	0.1 / 0.11	0.04 / 0.06	0.04 / 0.06
	*:4	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	
Sound pressure 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)		
	*:4 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	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 -	IU-W65-3950 IU-W65-3960 -	IU-W65-3951 IU-W65-3960 -	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) 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. *:4 The values are measured at the rated external static pressure. *Above specification data is subject to rounding variation.							

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

1. SPECIFICATIONS

R410A Data G6

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	
	*:4	Power input	kW	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
*:4	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	
	*:4	Power input	kW	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
	*:4	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	
Sound pressure 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)		
	*:4 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				
	Wiring		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 : *: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 = 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. *:4 The values are measured at the rated external static pressure. *Above specification data is subject to rounding variation.							

Ref.: Spec_PFFY-P-VLE(R)M-E_3

PFFY

R410A Data G6

Ref.: Spec PFFY-P-VLRMM-E 1

1. SPECIFICATIONS

R410A Data G6

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			
※4	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			
	※4	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			
Sound pressure level (Low-Mid-High) (measured in anechoic room)	※4	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. ※4 The values are measured at the rated external static pressure. *Above specification data is subject to rounding variation							

Ref.: Spec_PFFY-P-VLRMM-E_2

PFFY

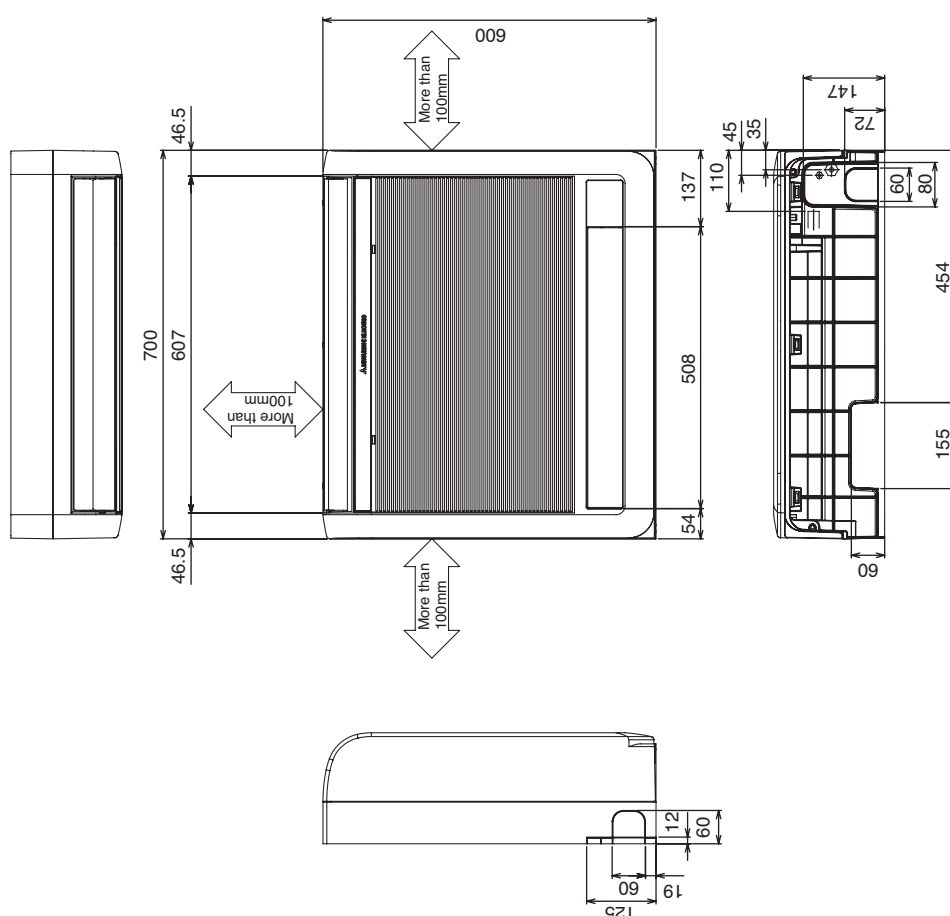
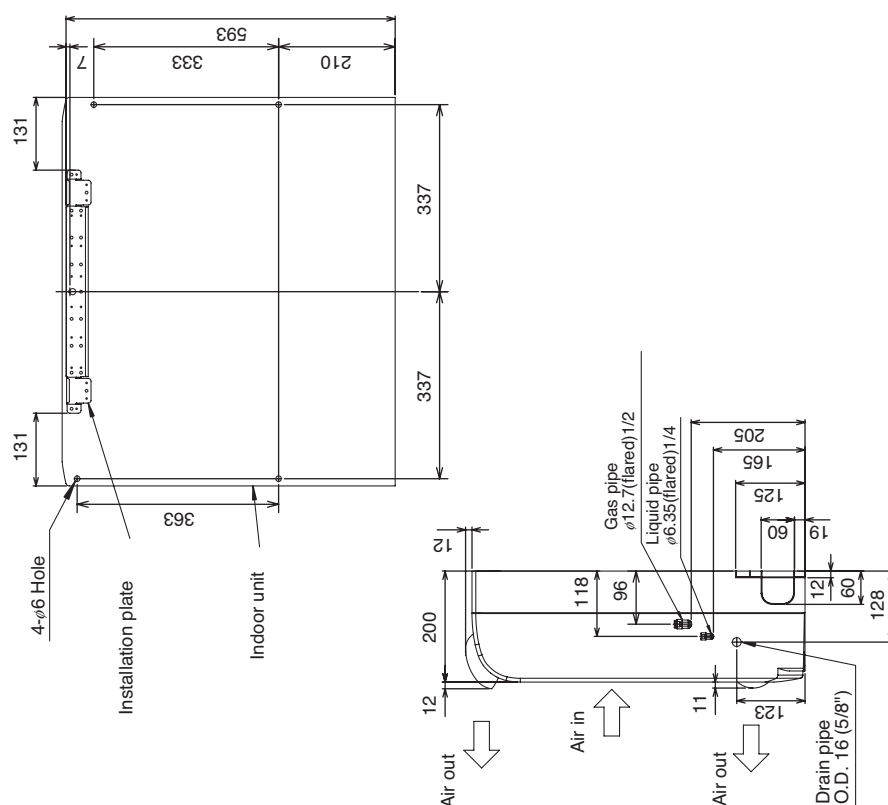
2. EXTERNAL DIMENSIONS

R410A Data G6

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

Drw. : IU-BK01-B517

Unit : mm



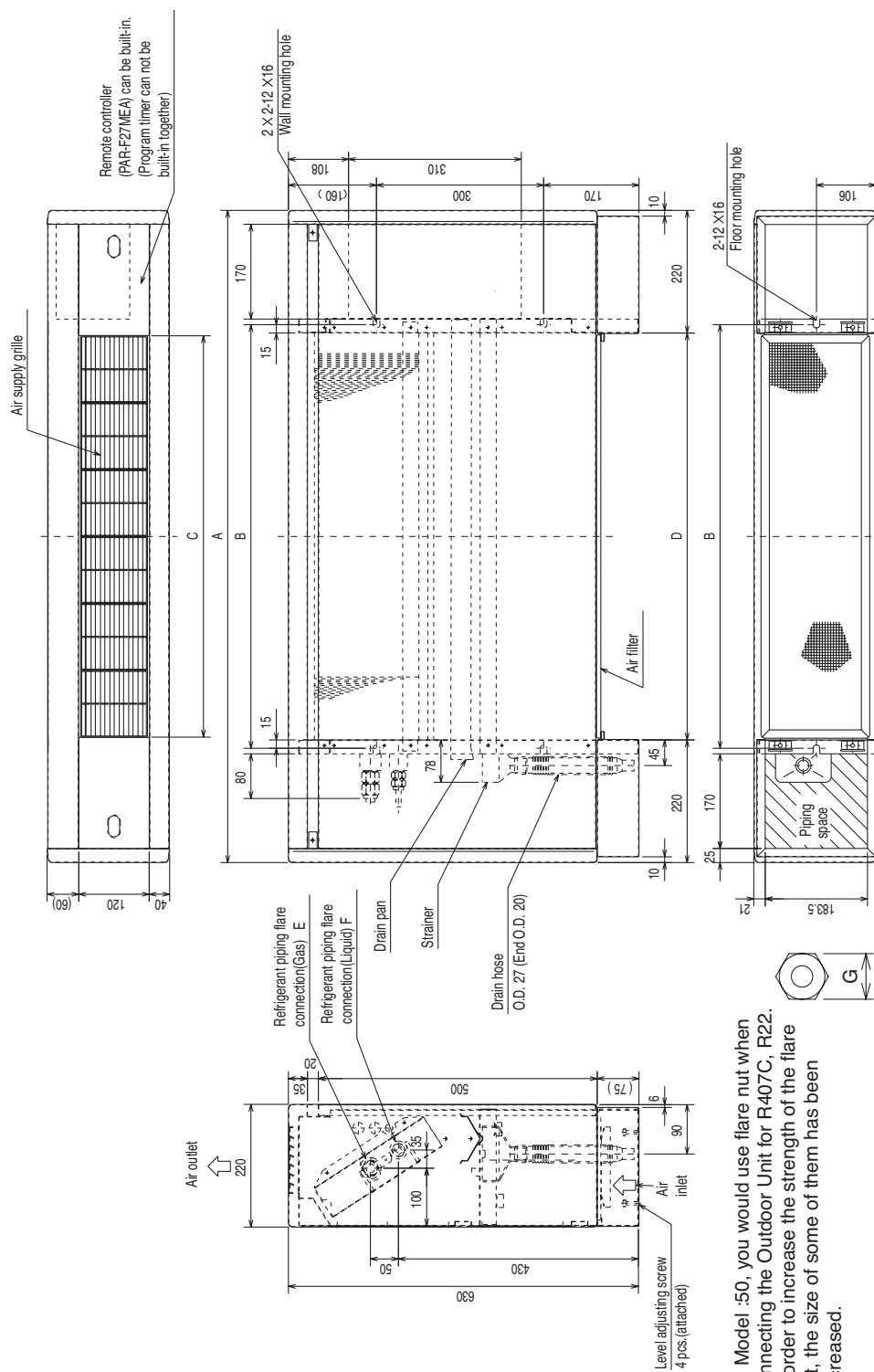
2. EXTERNAL DIMENSIONS

R410A Data G6

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

Drw. : IU-W65-3950

Unit : mm



1. On Model :50, you would use flare nut 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.

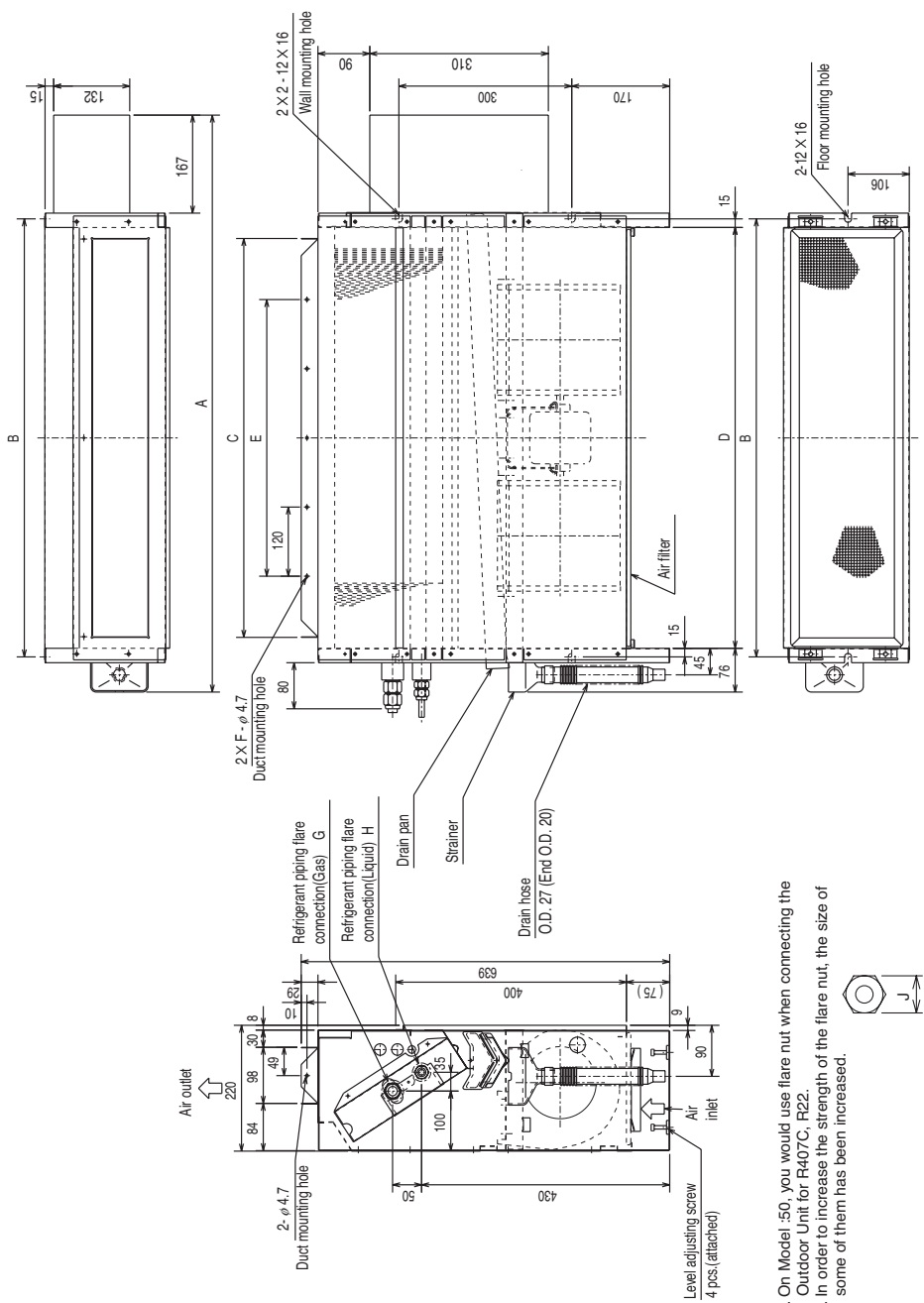
Dimensions

Dimensions	Model	A	B	C	D	E(Gas)	F(Liquid)	G(Liquid)	G(Gas)
		PFFY-P20VLEM-E	1050	640	600	610	ø12.7	ø6.35	17
	PFFY-P25VLEM-E	1050	640	600	610	ø12.7	ø6.35	17	27
	PFFY-P32VLEM-E	1170	760	720	730	ø12.7	ø6.35	17	27
	PFFY-P40VLEM-E	1170	760	720	730	ø12.7	ø6.35	17	27
	PFFY-P50VLEM-E	1410	1000	960	970	ø12.7	*1 ø6.35	*1 22	*1 29
	PFFY-P63VLEM-E	1410	1000	960	970	*2 ø15.88	*2 ø9.52	*2 22	*2 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 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	ϕ 1	ϕ 22
PFFY-P63VLRM-E	1246	1000	932	970	720	7	ϕ 15.88	ϕ 9.52	ϕ 2	ϕ 29

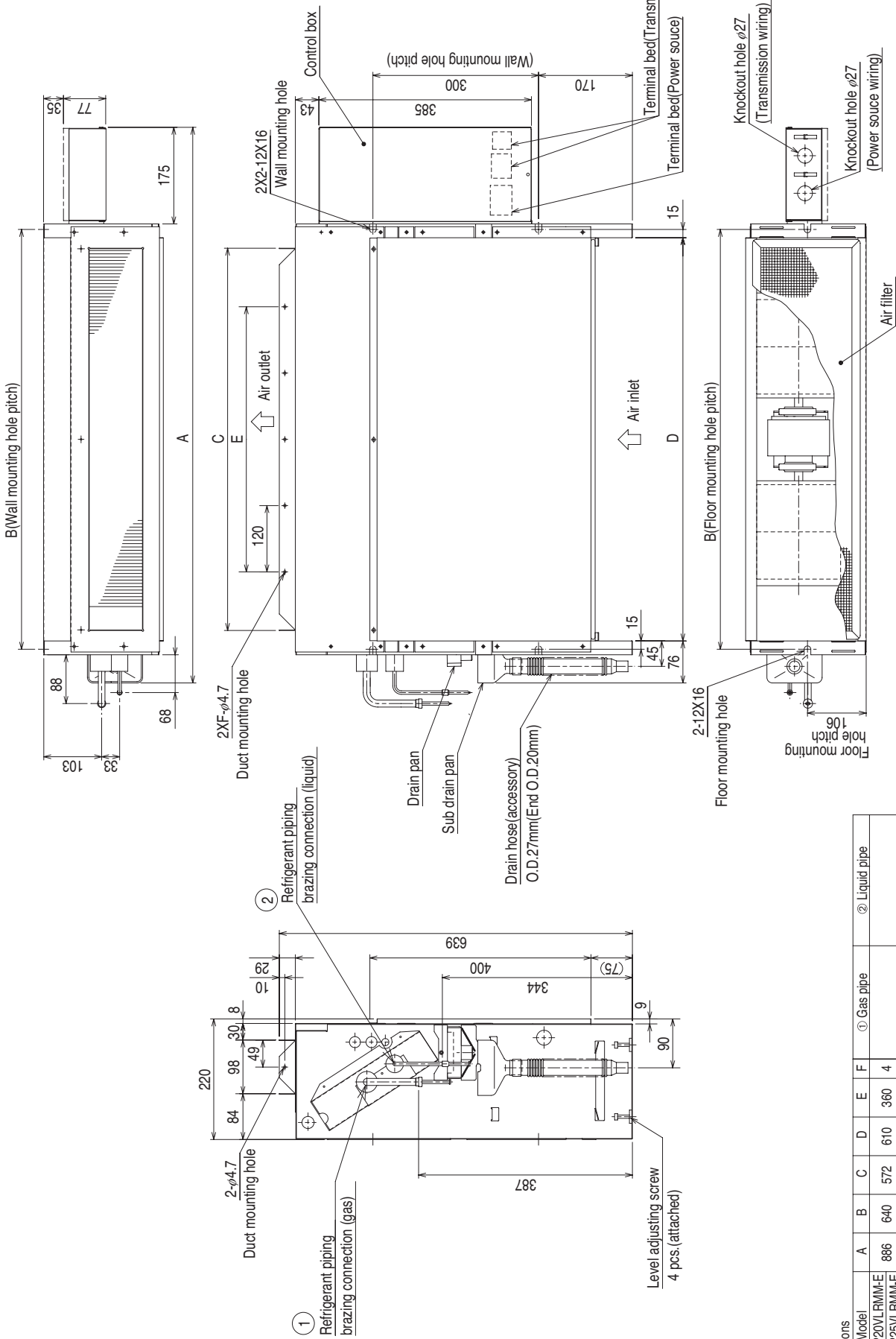
*1:R410A outdoor unit
*2:R407C,R22 outdoor unit

2. EXTERNAL DIMENSIONS

R410A Data G6

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

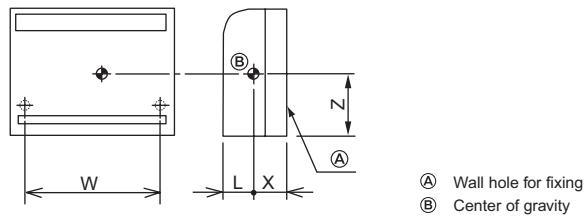
Drw. : IU-KB94-L081
Unit : mm



Dimensions	Model	A	B	C	D	E	F	① Gas pipe	② Liquid pipe
PFFY-P20VLRMM-E		886	640	572	610	360	4		
PFFY-P25VLRMM-E		1006	760	692	730	480	5	φ12.7	φ6.35
PFFY-P32VLRMM-E		1246	1000	932	970	720	7	φ15.88	φ9.52

PFFY

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

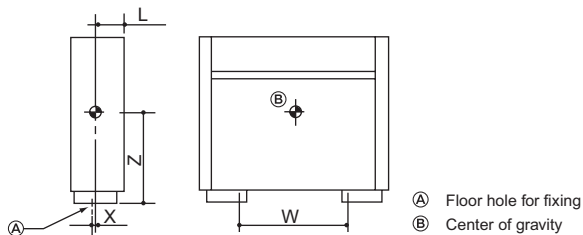


- (A) Wall hole for fixing
(B) Center of gravity

(mm)[in]

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

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

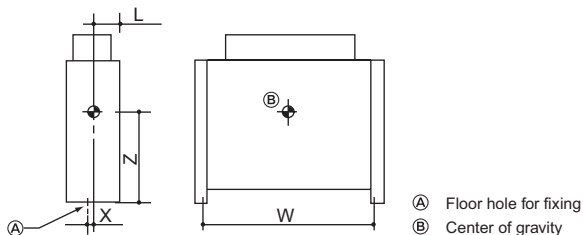


- (A) Floor hole for fixing
(B) Center of gravity

(mm)[in]

Model name	W	L	X	Z
PFFY-P20VLEM-E	640 [25-1/4]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P25VLEM-E	640 [25-1/4]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P32VLEM-E	760 [29-15/16]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P40VLEM-E	760 [29-15/16]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P50VLEM-E	1000 [39-3/8]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P63VLEM-E	1000 [39-3/8]	100 [3-15/16]	17 [11/16]	335 [13-1/4]

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

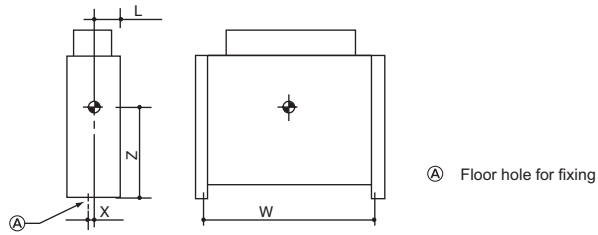


- (A) Floor hole for fixing
(B) Center of gravity

(mm)[in]

Model name	W	L	X	Z
PFFY-P20VLRM-E	640 [25-1/4]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P25VLRM-E	640 [25-1/4]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P32VLRM-E	760 [29-15/16]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P40VLRM-E	760 [29-15/16]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P50VLRM-E	1000 [39-3/8]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P63VLRM-E	1000 [39-3/8]	100 [3-15/16]	17 [11/16]	335 [13-1/4]

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



(mm)[in]

Model name	W	L	X	Z
PFFY-P20VLRMM-E	640 [25-1/4]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P25VLRMM-E	640 [25-1/4]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P32VLRMM-E	760 [29-15/16]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P40VLRMM-E	760 [29-15/16]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P50VLRMM-E	1000 [39-3/8]	100 [3-15/16]	17 [11/16]	335 [13-1/4]
PFFY-P63VLRMM-E	1000 [39-3/8]	100 [3-15/16]	17 [11/16]	335 [13-1/4]

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	CENTRALLY CONTROL	MV1	VANE MOTOR	SW1	SWITCH
CN52	REMOTE INDICATION	MV2	DAMPER MOTOR	SW11	MODE SELECTION
SW2	SWITCH	LS	DAMPER LIMIT SWITCH (CLOSE)	SW12	ADDRESS SETTING 1ST DIGIT
SW3	CAPACITY CODE	LEV	LINEAR EXPANSION VALVE	SW14	ADDRESS SETTING 2ND DIGIT
SW4	MODE SELECTION	TB2	TERMINAL BLOCK	SWC	CONNECTION NO.
ZNR	VARISTOR	TB5	POWER SUPPLY		AIR OUTLET SELECTION
FUSE	FUSE (T6.3AL250V)		TRANSMISSION		
LED1	POWER SUPPLY (I.B)	TH21	THERMISTOR		
LED2	POWER SUPPLY (I.B)	TH22	ROOM TEMP. DETECTION (0°C/15kΩ, 25°C/5.4kΩ)		
			PIPE TEMP. DETECTION/LIQUID (0°C/15kΩ, 25°C/5.4kΩ)		

NOTES

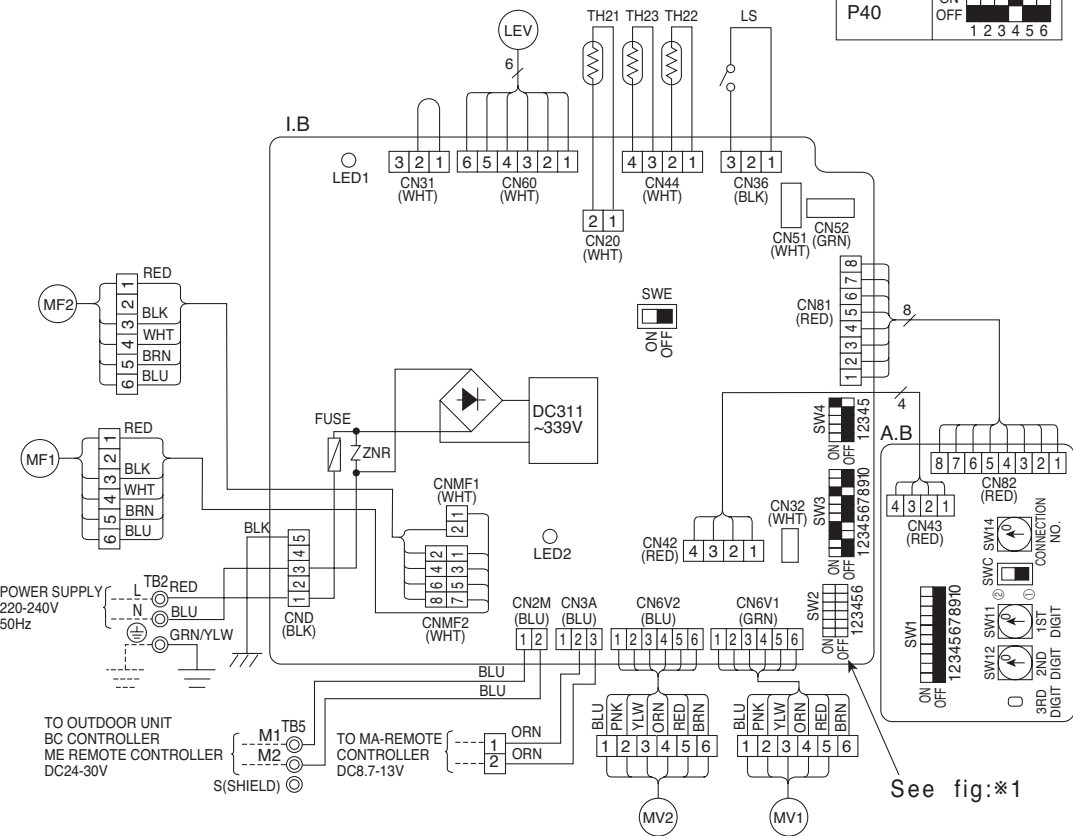
- 1.At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- 2.In case of connecting MA-Remote controller, please connect MA remote controller cable in an accessory to the connector [1][2]. (Remote controller wire is non-polar.)
- 3.In case of using M-NET, please connect to 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



See fig:※ 1

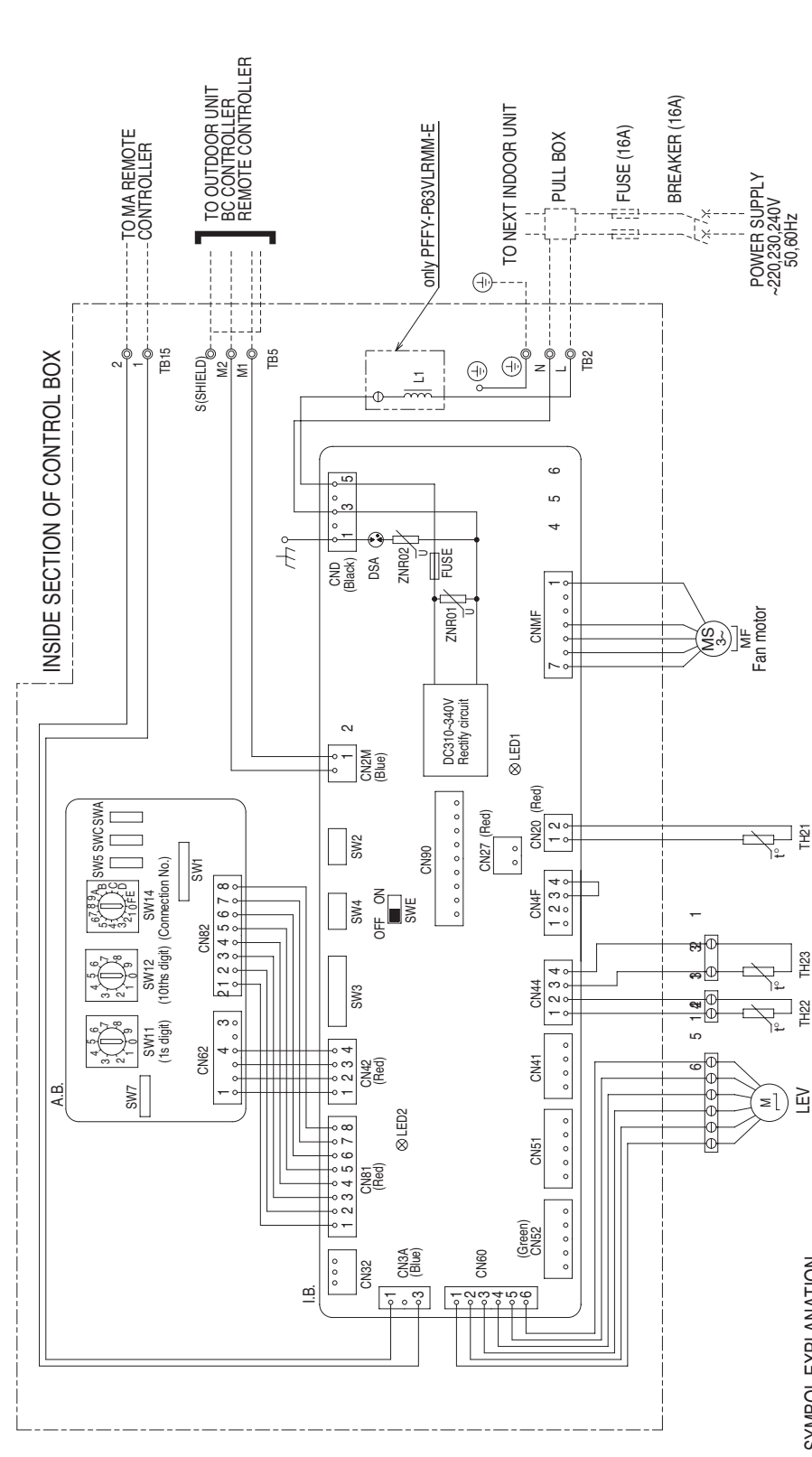
Drw. : IU-W65-3960



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 (1s digit address set)
A . B	Address board	S W 1 2 (A . B)	Switch (10ths 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)
LE V	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)		

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 ⊙ indicates terminal bed, ⊖ 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 EXPLANATION

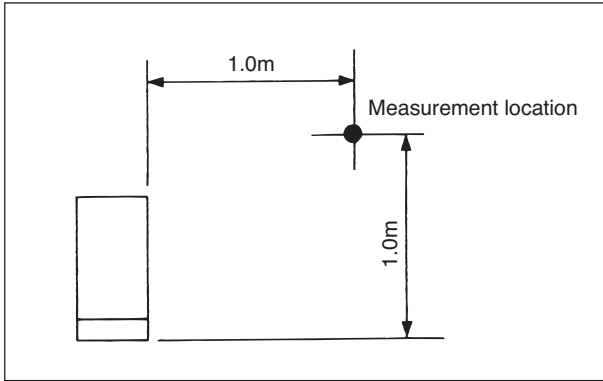
SYMBOL	NAME	SYMBOL	NAME
I.B.	Indoor controller board	A.B.	Address board
FUSE	Fuse <AC250V 6.3A>	SW1	Switch (for mode selection)
ZNR01,02	Varistor	SW5	Switch (for mode selection)
DSA	Arrester	SW7	Switch (for mode selection)
CN27	Connector (Damp)	SW11	Switch (1s digit address set)
CN32	Connector (Remote switch)	SW12	Switch (10ths 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

5. SOUND LEVELS

R410A Data G6

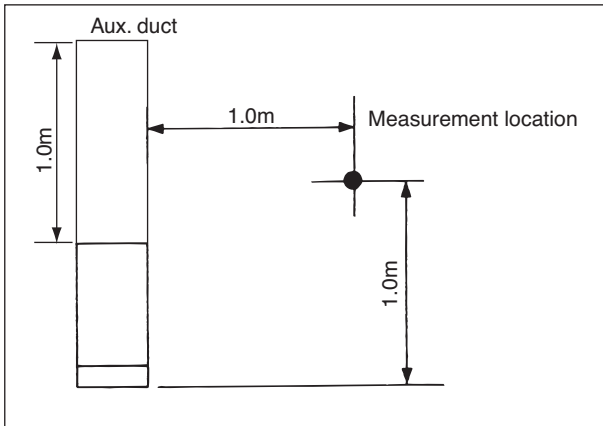
5-1. Sound levels

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

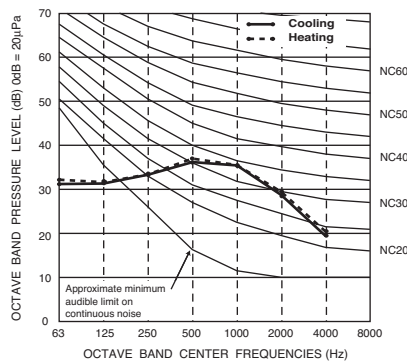
	Sound level dB (A)		
	20Pa	40Pa	60Pa
PFFY-P20VLRMM-E	31-36-40	34-39-42	35-40-43
PFFY-P25VLRMM-E	31-36-40	34-39-42	35-40-43
PFFY-P32VLRMM-E	27-32-37	30-35-41	32-37-42
PFFY-P40VLRMM-E	30-36-40	32-38-42	35-39-44
PFFY-P50VLRMM-E	32-37-41	35-40-44	36-41-45
PFFY-P63VLRMM-E	35-40-44	36-42-47	38-43-48

5-2. NC curves

PFFY-P20VKM-E

External static pressure : 0Pa

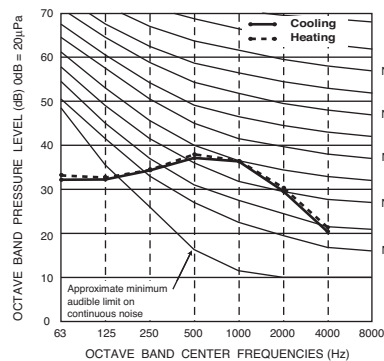
Power source : 220,230,240V, 50Hz



PFFY-P25,32VKM-E

External static pressure : 0Pa

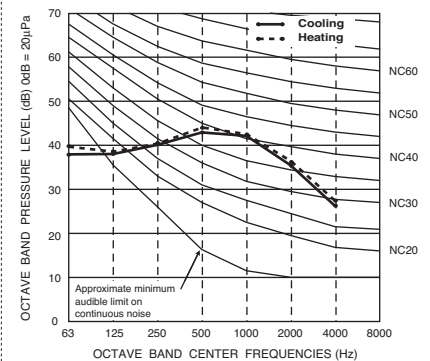
Power source : 220,230,240V, 50Hz



PFFY-P40VKM-E

External static pressure : 0Pa

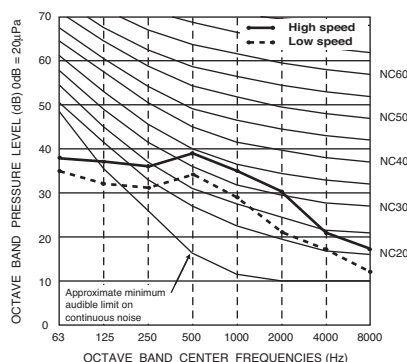
Power source : 220,230,240V, 50Hz



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

External static pressure : 0Pa

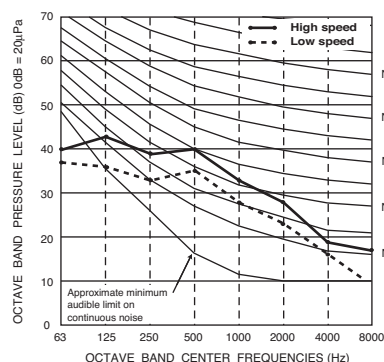
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P32VLEM-E,VLRM-E

External static pressure : 0Pa

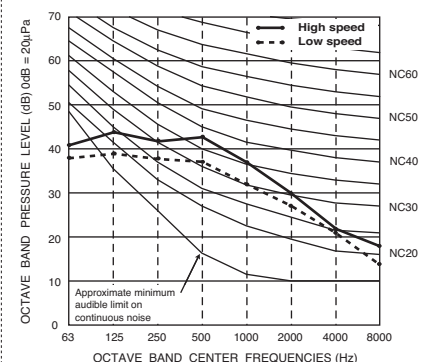
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P40VLEM-E,VLRM-E

External static pressure : 0Pa

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



PFFY

5. SOUND LEVELS

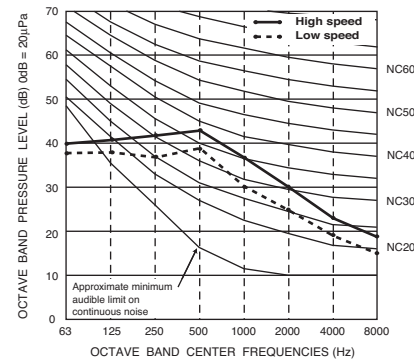
R410A Data G6

5-2. NC curves

PFFY-P50VLEM-E, VLRM-E

External static pressure : 0Pa

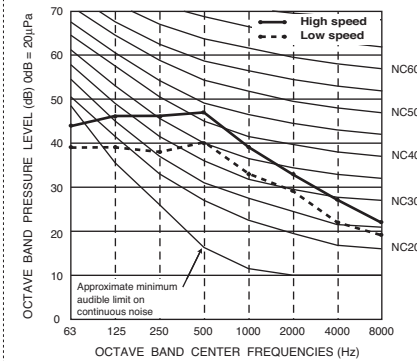
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P63VLEM-E, VLRM-E

External static pressure : 0Pa

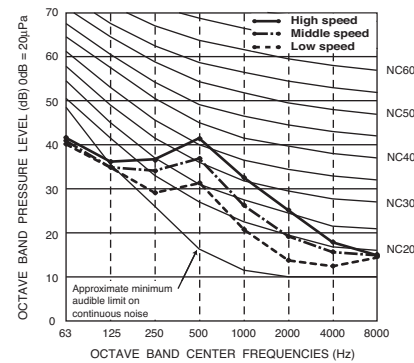
Power source : 220,230,240V, 50Hz / 208,220,230V, 60Hz



PFFY-P20,25VLRMM-E

External static pressure : 20Pa

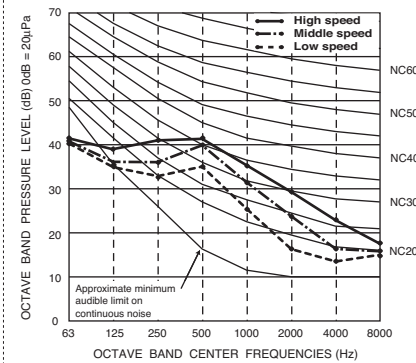
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 40Pa

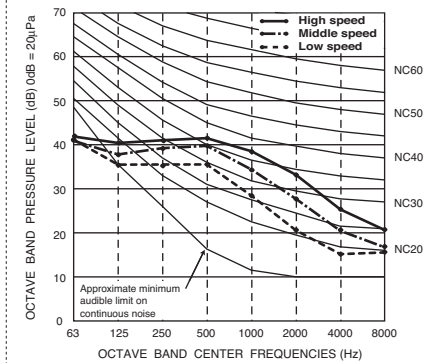
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 60Pa

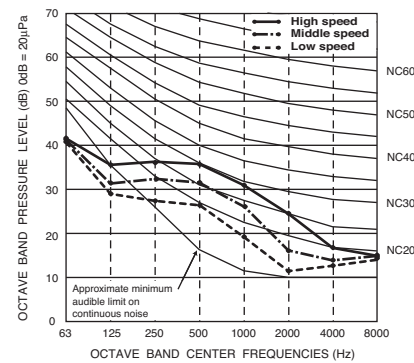
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 20Pa

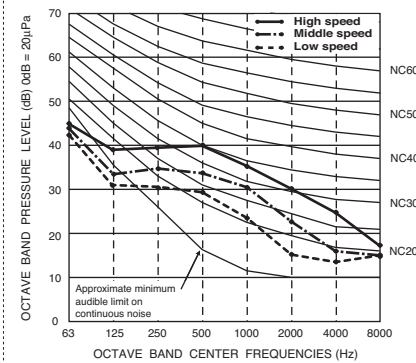
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 40Pa

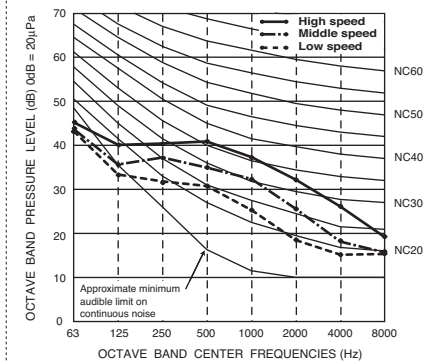
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 60Pa

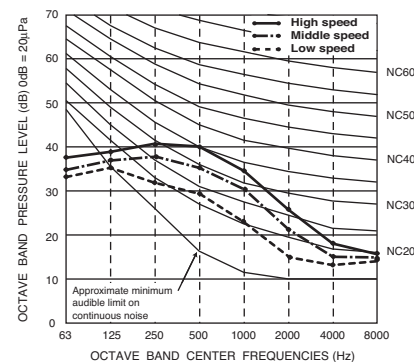
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 20Pa

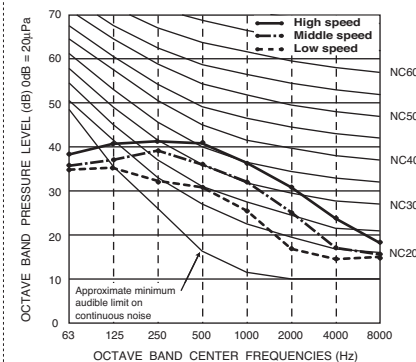
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 40Pa

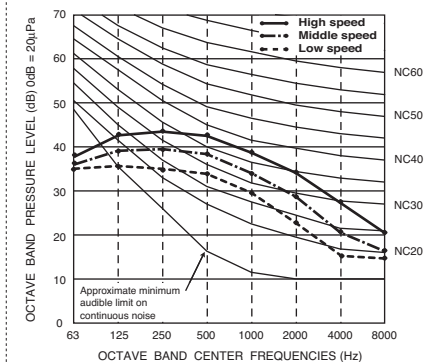
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 60Pa

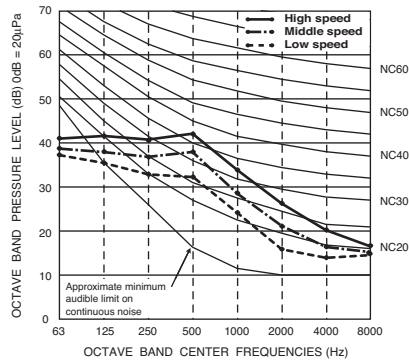
Power source : 220,230,240V, 50/60Hz



5-2. NC curves

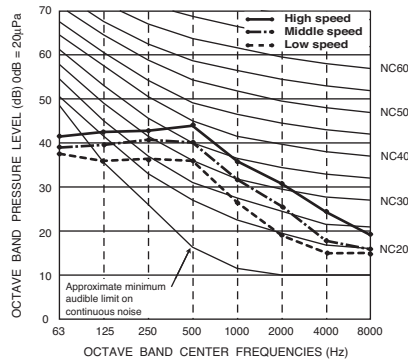
PFFY-P50VLRMM-E

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



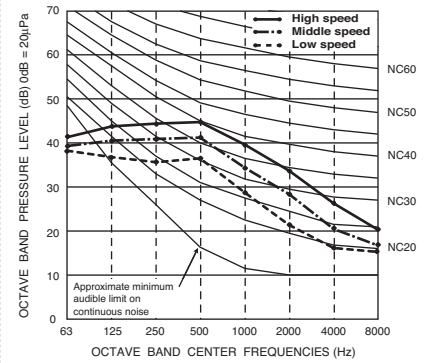
PFFY-P50VLRMM-E

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



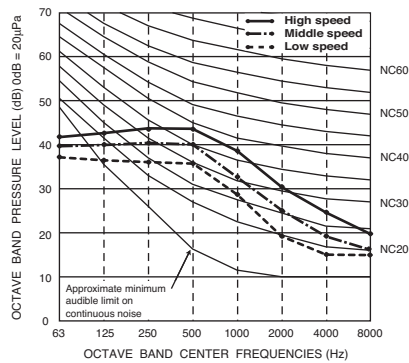
PFFY-P50VLRMM-E

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



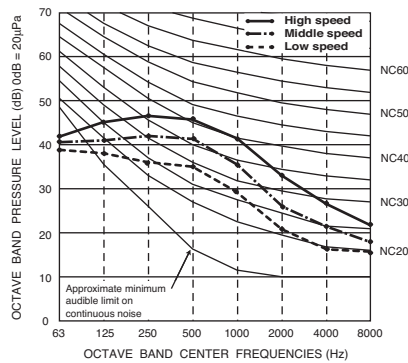
PFFY-P63VLRMM-E

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



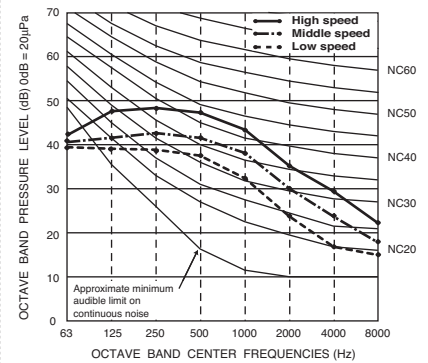
PFFY-P63VLRMM-E

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



5. SOUND LEVELS

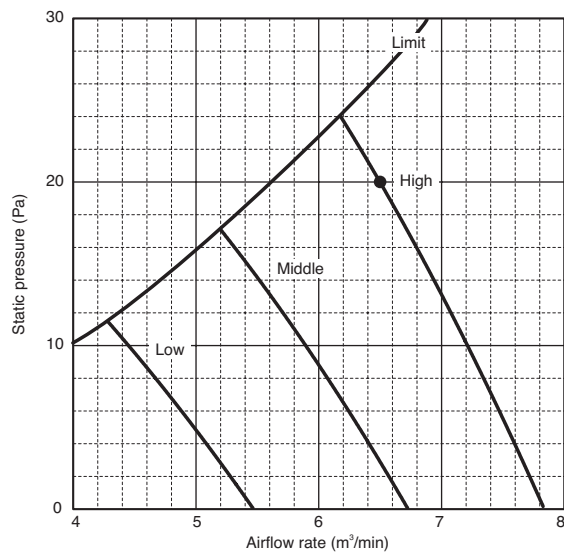
R410A Data G6

5-3. Fan characteristics curves

PFFY-P20,25VLRMM-E

External static pressure : 20Pa

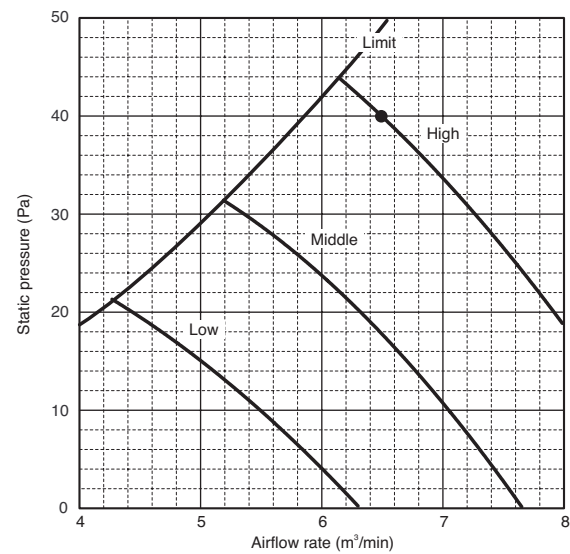
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 40Pa

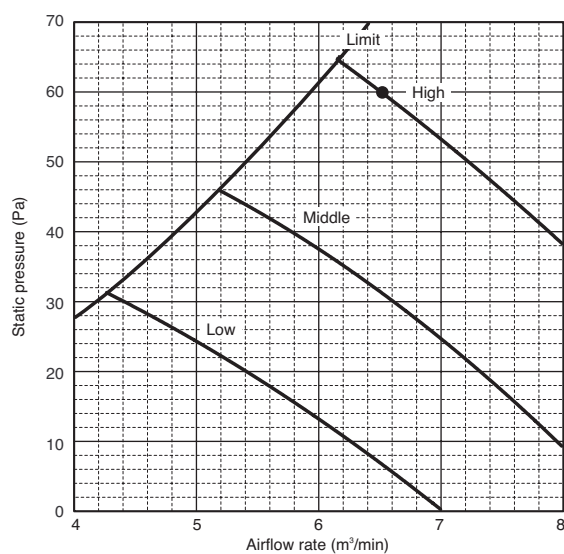
Power source : 220,230,240V, 50/60Hz



PFFY-P20,25VLRMM-E

External static pressure : 60Pa

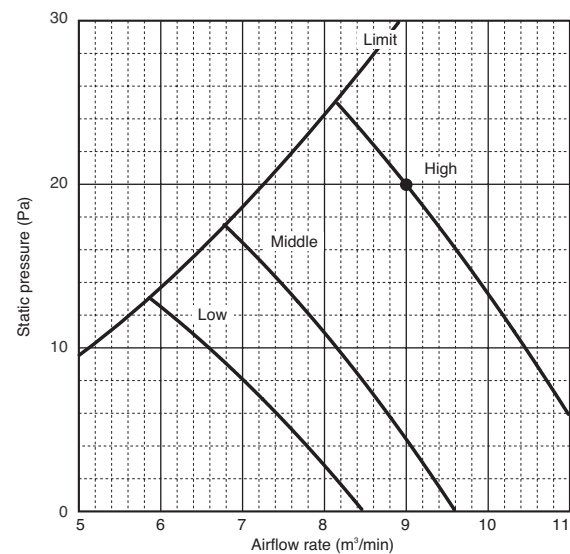
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 20Pa

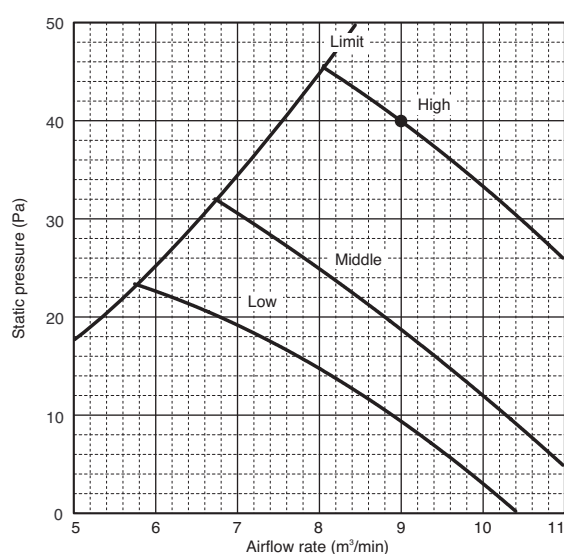
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 40Pa

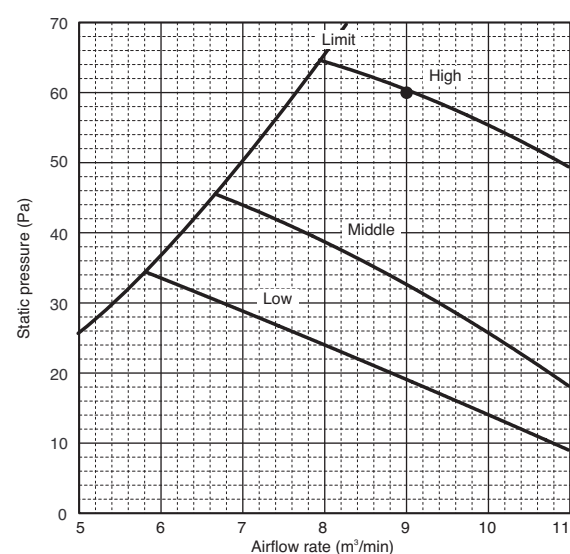
Power source : 220,230,240V, 50/60Hz



PFFY-P32VLRMM-E

External static pressure : 60Pa

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



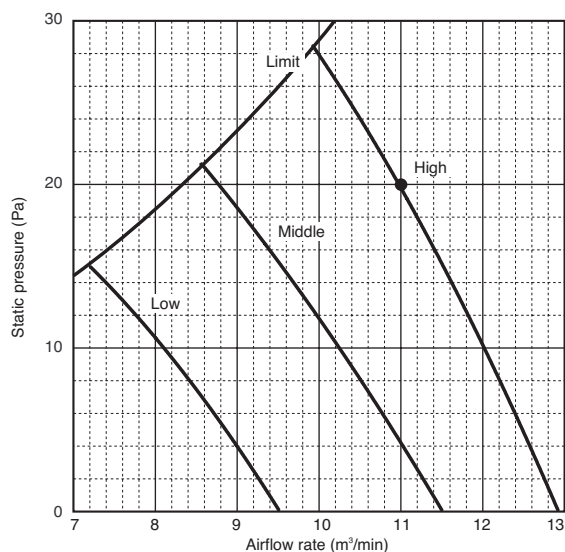
PFFY

5-3. Fan characteristics curves

PFFY-P40VLRMM-E

External static pressure : 20Pa

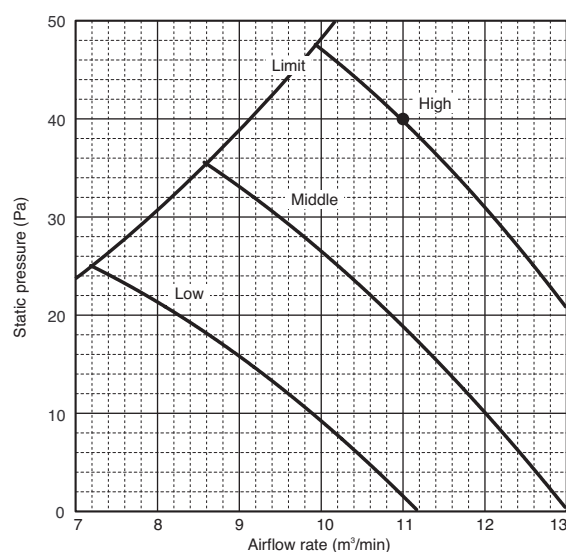
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 40Pa

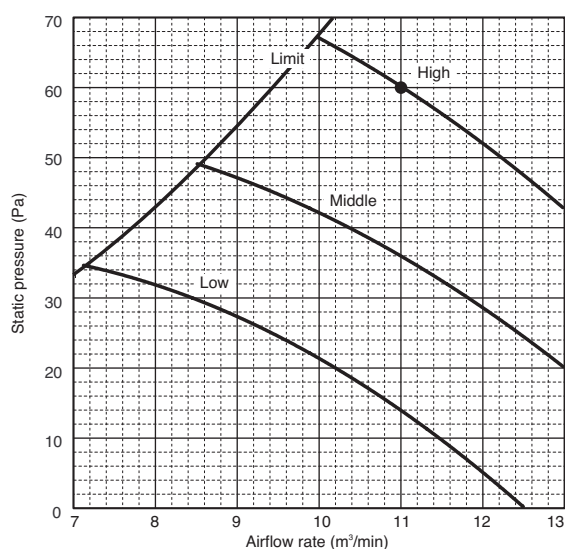
Power source : 220,230,240V, 50/60Hz



PFFY-P40VLRMM-E

External static pressure : 60Pa

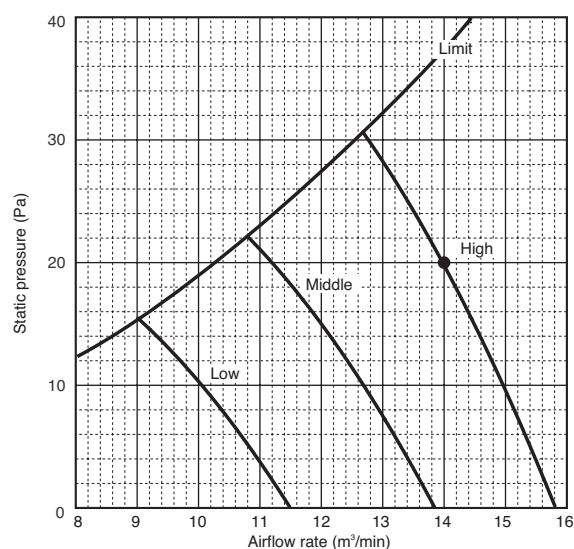
Power source : 220,230,240V, 50/60Hz



PFFY-P50VLRMM-E

External static pressure : 20Pa

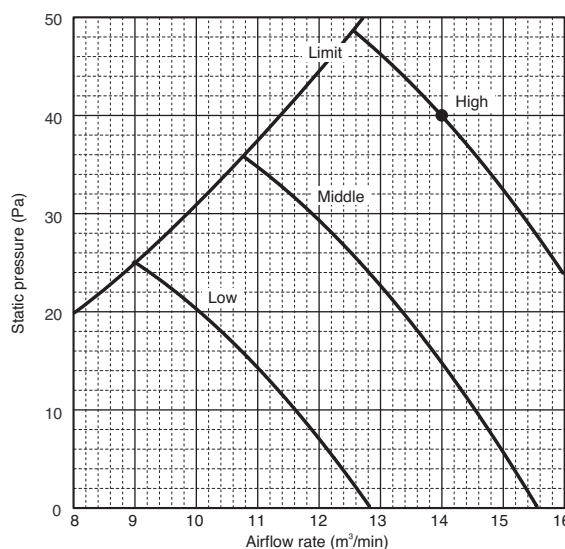
Power source : 220,230,240V, 50/60Hz



PFFY-P50VLRMM-E

External static pressure : 40Pa

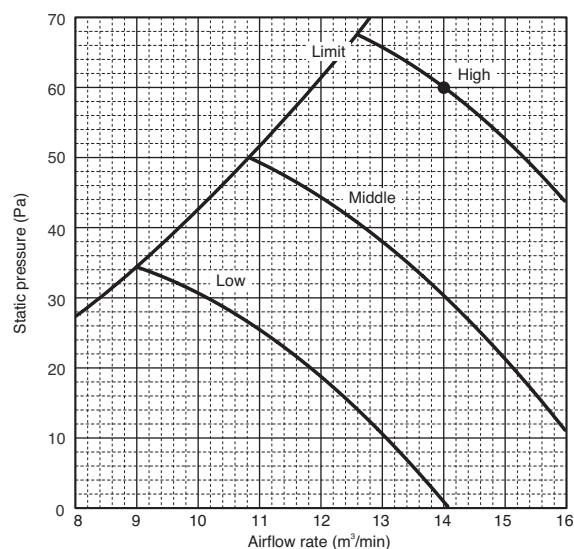
Power source : 220,230,240V, 50/60Hz



PFFY-P50VLRMM-E

External static pressure : 60Pa

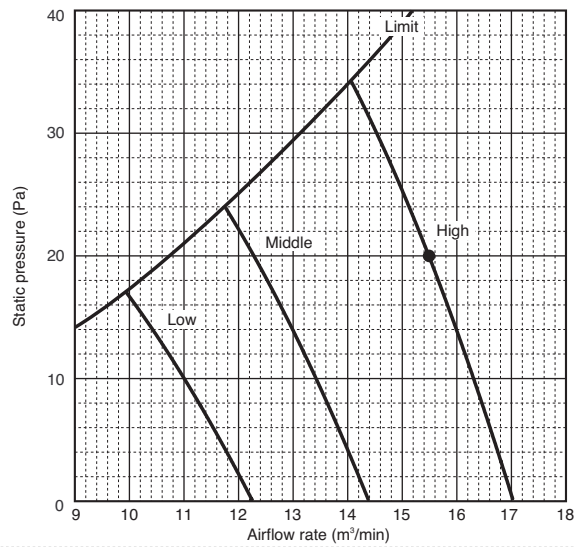
Power source : 220,230,240V, 50/60Hz



5-3. Fan characteristics curves

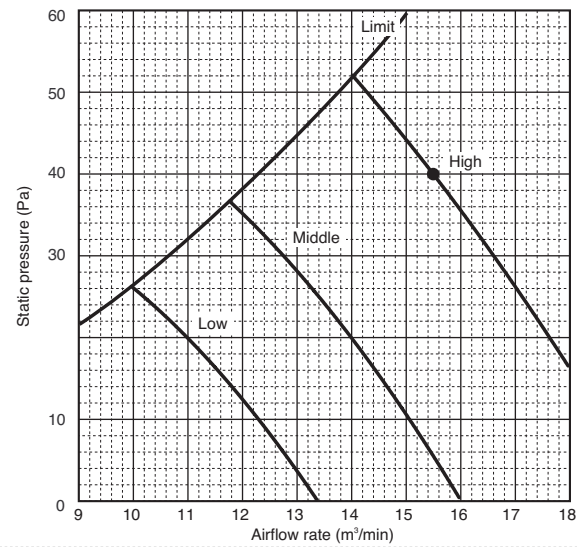
PFFY-P63VLRMM-E

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



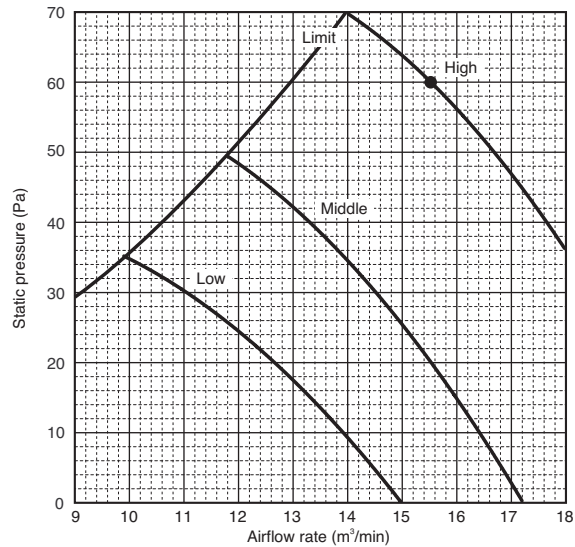
PFFY-P63VLRMM-E

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



PFFY-P63VLRMM-E

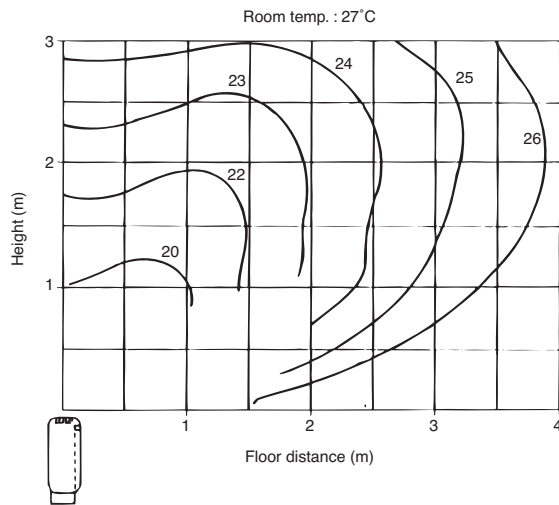
External static pressure : 60Pa
Power source : 220,230,240V, 50/60Hz



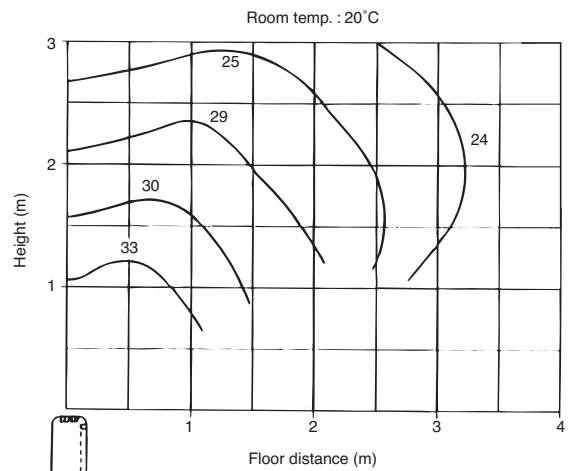
6-1. Temperature distributions

PFFY-P-VLEM-E, VLRM-E

<Cooling mode>

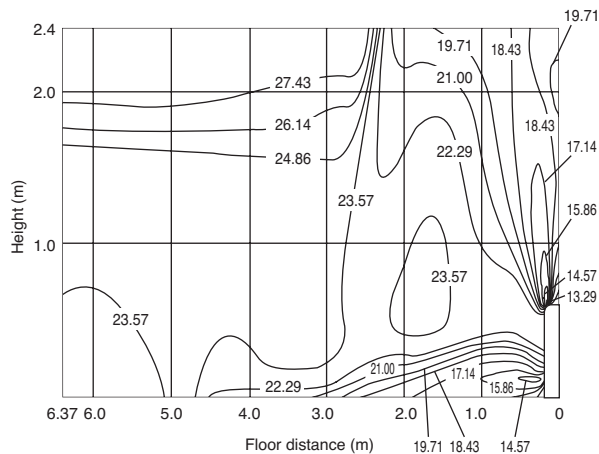


<Heating mode>

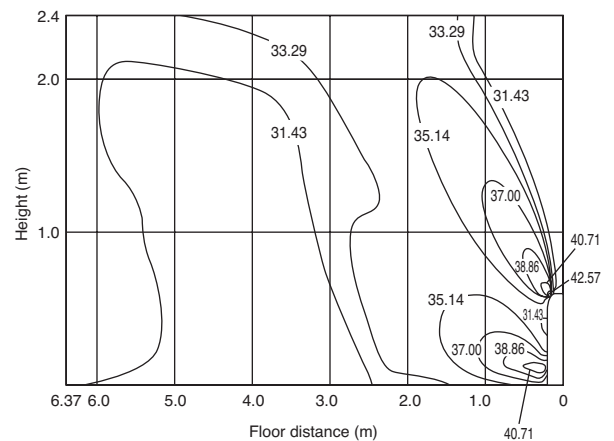


PFFY-P-VKM-E

<Cooling mode>



<Heating mode>

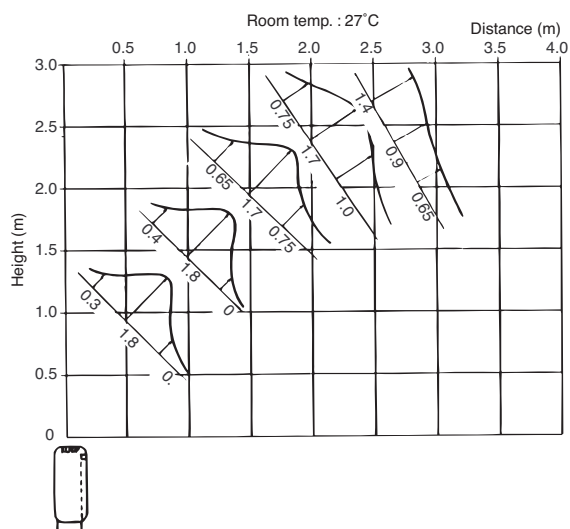


Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

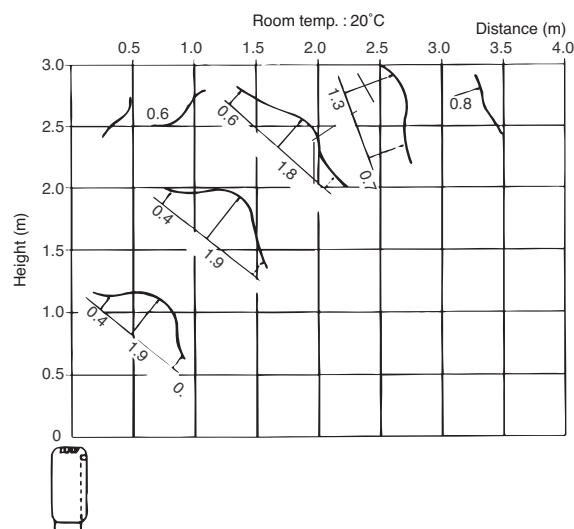
6-2. Airflow distributions

PFFY-P-VLEM-E,VLRM-E

<Cooling mode>

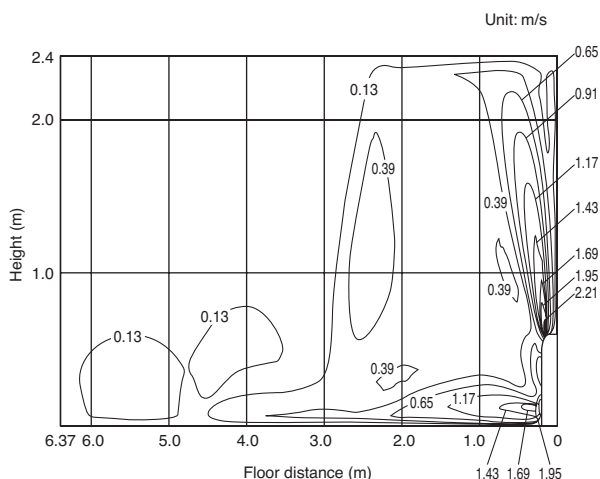


<Heating mode>

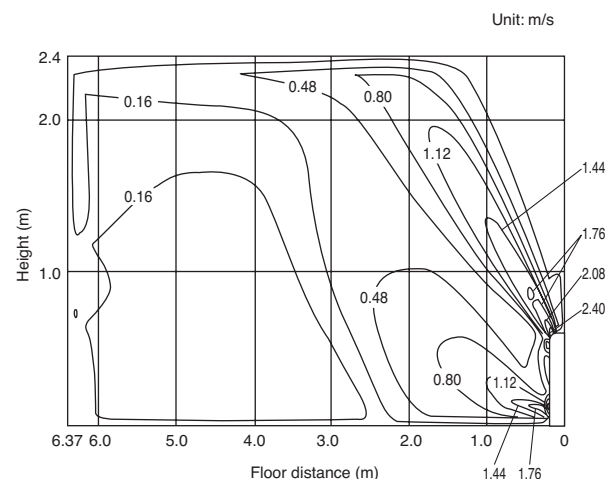


PFFY-P-VKM-E

<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.