

AIR CONDITIONING SYSTEMS

CITY MULTI

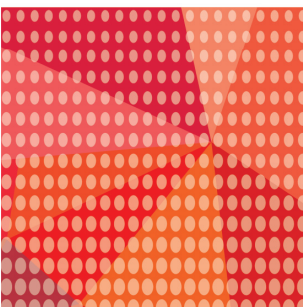


DATA BOOK

MODEL

PEFY-P-VMR-E-L/R

PEFY-P-VMS1(L)-E



PEFY-P-VMR-E-L/R, PEFY-P-VMS1(L)-E

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1. SPECIFICATIONS

Ceiling concealed (Low noise/Low static pressure type)

PEFY-P-VMR-E-L/R, VMS1(L)-E

Model		PEFY-P20VMR-E-L/R	PEFY-P25VMR-E-L/R	PEFY-P32VMR-E-L/R		
Power source		1-phase 220-240V 50Hz / 220-230V 60Hz				
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	
	*1	BTU / h	7,500	9,600	12,300	
	*2	kcal / h	2,000	2,500	3,150	
	*4	Power input	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
*4	Current input	A	0.29 / 0.29 (220V)	0.29 / 0.29 (220V)	0.34 / 0.38 (220V)	
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	
	*3	BTU / h	8,500	10,900	13,600	
	*4	Power input	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
	*4	Current input	A	0.29 / 0.29 (220V)	0.29 / 0.29 (220V)	0.34 / 0.38 (220V)
External finish		Galvanized				
External dimension H x W x D		mm	292 x 640 x 580	292 x 640 x 580	292 x 640 x 580	
		in.	11-1/2 x 25-1/4 x 22-7/8	11-1/2 x 25-1/4 x 22-7/8	11-1/2 x 25-1/4 x 22-7/8	
Net weight		kg (lbs)	18 (40)	18 (40)	18 (40)	
Heat exchanger		Cross fin (Aluminum fin and copper tube)				
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	
	External (220V) static press. (230, 240V)	Pa	5	5	5	
		mmH ₂ O	0.5	0.5	0.5	
		Pa	5	5	5	
		*5 mmH ₂ O	0.5	0.5	0.5	
	Motor type		1-phase induction motor			
	Motor output		kW	0.018	0.018	0.023
	Driving mechanism		Direct-driven by motor			
	Airflow rate (Low-Mid-High)	m ³ / min		4.8 - 5.8 - 7.9	4.8 - 5.8 - 7.9	4.8 - 5.8 - 9.3
		L / s		80 - 97 - 132	80 - 97 - 132	80 - 97 - 155
cfm		170 - 205 - 279	170 - 205 - 279	170 - 205 - 328		
Sound pressure level (Low-Mid-High) (measured in anechoic room)	dB <A>		20 - 25 - 30 * (220V)	20 - 25 - 30 * (220V)	20 - 25 - 33 * (220V)	
	dB <A>		21 - 26 - 32 * (230V)	21 - 26 - 32 * (230V)	21 - 26 - 35 * (230V)	
	*4 dB <A>		22 - 27 - 30 * (240V)	22 - 27 - 30 * (240V)	22 - 27 - 33 * (240V)	
Insulation material		Polystyrene foam, 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	
	Gas (R410A)	mm (in.)	ø12.7 (ø1/2) Brazed	ø12.7 (ø1/2) Brazed	ø12.7 (ø1/2) Brazed	
Field drain pipe size		mm (in.)	O.D. 26mm (1)			
Drawing	External		IU-KB94-C854	IU-KB94-C854	IU-KB94-C854	
	Wiring		IU-KB94-C858	IU-KB94-C858	IU-KB94-C858	
	Refrigerant cycle		-	-	-	
Standard attachment	Document		Installation Manual, Instruction Book			
	Accessory		Drain hose I.D. 26mm (1) (flexible joint)			
Remark		* Above sound pressure level is tested in rear air inlet case. It will be a little higher in bottom air inlet case.				
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)	BTU/h = kW x 3,412	
		Outdoor : 35°CDB (95°FDB)	35°CDB (95°FDB)	7°CDB/6°CWB (45°FDB/43°FWB)	cfm = m ³ /min x 35.31	
		Pipe length : 7.5 m (24-9/16 ft)	5 m (16-3/8 ft)	7.5 m (24-9/16 ft)	lbs = kg / 0.4536	
		Level difference : 0 m (0 ft)	0 m (0 ft)	0 m (0 ft)		
		* Nominal conditions *1, *3 are subject to JIS B8615-2.			*Above specification data is subject to rounding variation.	
		* Due to continuing improvement, above specification may be subject to change without notice.				
		*4 The values are measured at the factory setting of external static pressure.				
		*5 The external static pressure is set to 5 Pa and 0.5 mmH ₂ O.				

1. SPECIFICATIONS

Ceiling concealed (Low noise/Low static pressure type)

PEFY-P-VMR-E/LR, VMS1(L)-E

Model			PEFY-P15VMS1(L)-E	PEFY-P20VMS1(L)-E	PEFY-P25VMS1(L)-E	PEFY-P32VMS1(L)-E	
Power source			220-240V (50/60Hz)				
Cooling capacity (Nominal)	*1	kW	1.7	2.2	2.8	3.6	
	*1	BTU / h	5,800	7,500	9,600	12,300	
	*2	kcal / h	1,500	2,000	2,500	3,150	
	*4	Power input	kW	0.05<0.03>	0.05<0.03>	0.06<0.04>	0.07<0.05>
	*4	Current input	A	0.42<0.31>	0.47<0.36>	0.50<0.39>	0.50<0.39>
Heating capacity (Nominal)	*3	kW	1.9	2.5	3.2	4.0	
	*3	BTU / h	6,500	8,500	10,900	13,600	
	*4	Power input	kW	0.03<0.03>	0.03<0.03>	0.04<0.04>	0.05<0.05>
	*4	Current input	A	0.31<0.31>	0.36<0.36>	0.39<0.39>	0.39<0.39>
External finish			Galvanized				
External dimension H x W x D		mm	200 x 790 x 700	200 x 790 x 700	200 x 790 x 700	200 x 790 x 700	
		in.	7-7/8 x 31-1/8 x 27-9/16	7-7/8 x 31-1/8 x 27-9/16	7-7/8 x 31-1/8 x 27-9/16	7-7/8 x 31-1/8 x 27-9/16	
Net weight		kg (lbs)	19(42)<18(40)>	19(42)<18(40)>	19(42)<18(40)>	20(44)<19(42)>	
Heat exchanger			Cross fin (Aluminum 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 (220V) static press. (230, 240V)	Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	
		mmHzO	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	
		*5	mmHzO	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>
	Motor type		DC motor				
	Motor output		kW	0.096	0.096	0.096	0.096
	Driving mechanism		Direct-driven				
	Airflow rate (Low-Mid-High)	m ³ / min	5 - 6 - 7	5.5 - 6.5 - 8	5.5 - 7 - 9	6 - 8 - 10	
		L / s	83 - 100 - 117	91 - 108 - 133	91 - 117 - 150	100 - 133 - 167	
		cfm	176 - 212 - 247	194 - 229 - 282	194 - 247 - 317	212 - 282 - 353	
Sound pressure level (Low-Mid-High) (measured in anechoic room)		*4	dB <A> 22 - 24 - 28(15Pa,220-240V)	23 - 25 - 29(15Pa,220-240V)	24 - 26 - 30(15Pa,220-240V)	24 - 27 - 32(15Pa,220-240V)	
Insulation material			Polystyrene foam, 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.)	O.D. 32mm (1-1/4)				
Drawing	External		IU-KB94-G728<IU-KB94-G731>	IU-KB94-G728<IU-KB94-G731>	IU-KB94-G728<IU-KB94-G731>	IU-KB94-G728<IU-KB94-G731>	
	Wiring		IU-KB94-G668	IU-KB94-G668	IU-KB94-G668	IU-KB94-G668	
	Refrigerant cycle		-	-	-	-	
Standard attachment	Document		Installation Manual, Instruction Book				
	Accessory		Drain hose (flexible joint)				
Remark	Optional parts						
	Drain pump		<PAC-KE07DM-E>	<PAC-KE07DM-E>	<PAC-KE07DM-E>	<PAC-KE07DM-E>	
	Control Box Replace kit		<PAC-KE70HS-E>	<PAC-KE70HS-E>	<PAC-KE70HS-E>	<PAC-KE70HS-E>	
	Plasma Quad Connect		MAC-100FT-E	MAC-100FT-E	MAC-100FT-E	MAC-100FT-E	
	PQ attachment		PAC-HA11PAR	PAC-HA11PAR	PAC-HA11PAR	PAC-HA11PAR	
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)	BTU/h = kW x 3.412	
Outdoor :			35°CDB (95°FDB)	35°CDB (95°FDB)	7°CDB/6°CWB (45°FDB/43°FWB)	cfm = m ³ /min x 35.31	
Pipe length :			7.5 m (24-9/16 ft)	5 m (16-3/8 ft)	7.5 m (24-9/16 ft)	lbs = kg / 0.4536	
Level difference :			0 m (0 ft)	0 m (0 ft)	0 m (0 ft)		
* Nominal conditions *1, *3 are subject to JIS B8615-2.			* The external static pressure is set to 15 Pa at factory shipment.		*Above specification data is subject to rounding variation.		
* Due to continuing improvement, above specification may be subject to change without notice.			* < > is in case of PEFY-P-VMS1L-E model.				
*4 The values are measured at the factory setting of external static pressure.							
*5 The factory setting of external static pressure is shown without < >.							
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.							

1. SPECIFICATIONS

Ceiling concealed (Low noise/Low static pressure type)

PEFY-P-VMR-E-L/R, VMS1(L)-E

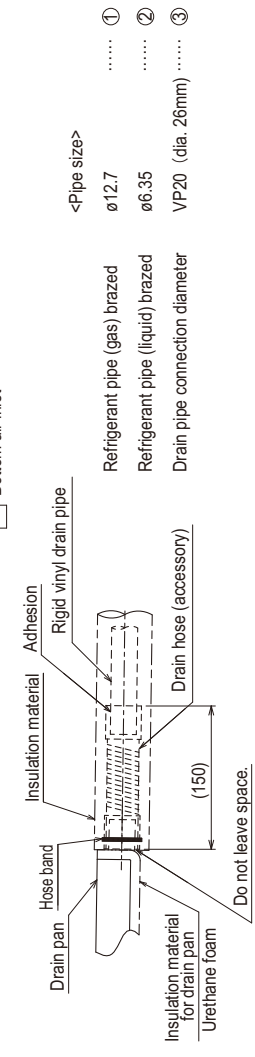
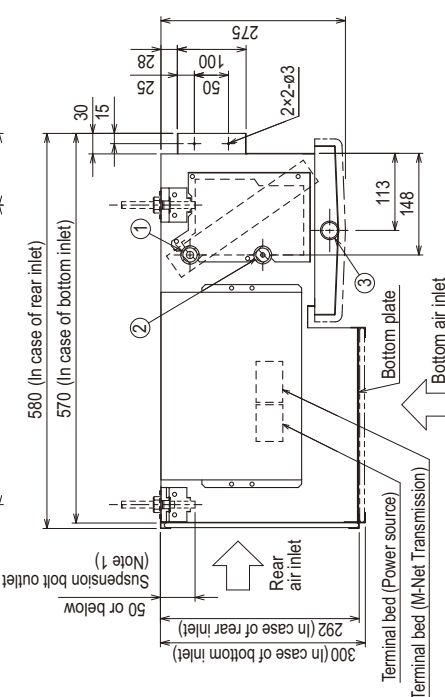
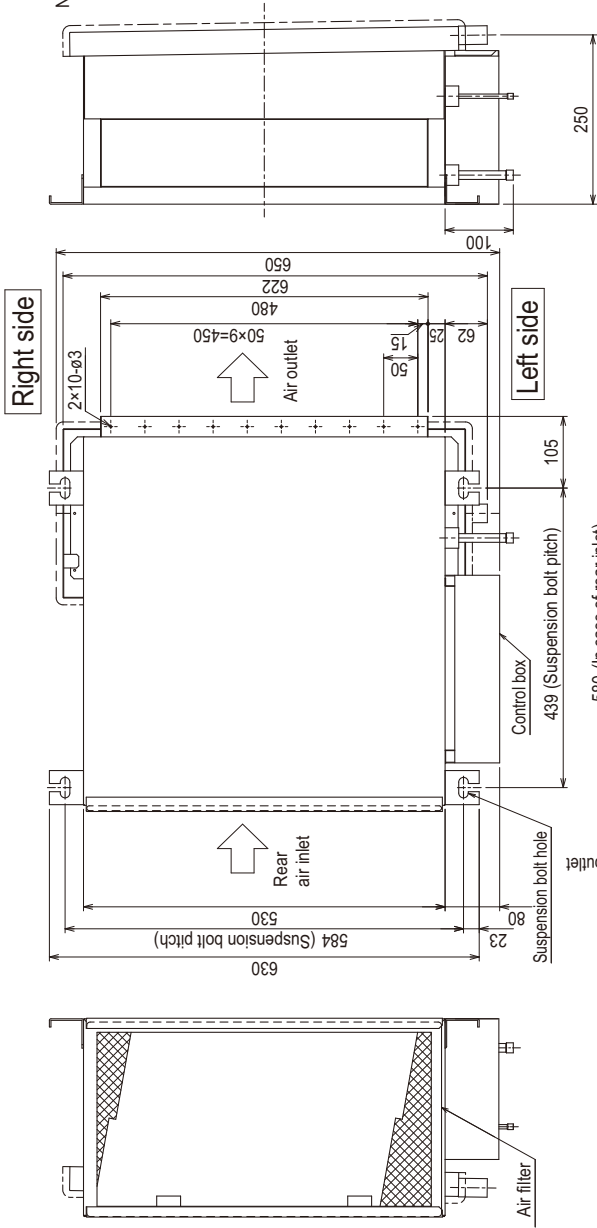
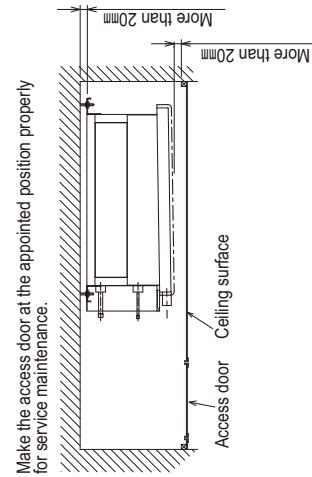
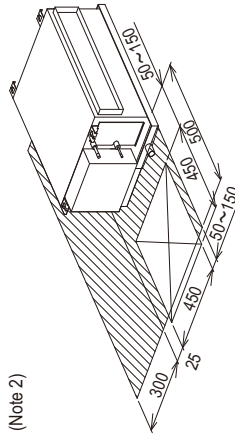
Model		PEFY-P40VMS1(L)-E	PEFY-P50VMS1(L)-E	PEFY-P63VMS1(L)-E		
Power source		220-240V (50/60Hz)				
Cooling capacity (Nominal)	*1	kW	4.5	5.6	7.1	
	*1	BTU / h	15,400	19,100	24,200	
	*2	kcal / h	4,000	5,000	6,300	
	*4	Power input	kW	0.07<0.05>	0.09<0.07>	0.09<0.07>
	*4	Current input	A	0.56<0.45>	0.67<0.56>	0.72<0.61>
Heating capacity (Nominal)	*3	kW	5.0	6.3	8.0	
	*3	BTU / h	17,100	21,500	27,300	
	*4	Power input	kW	0.05<0.05>	0.07<0.07>	0.07<0.07>
	*4	Current input	A	0.45<0.45>	0.56<0.56>	0.61<0.61>
	External finish		Galvanized			
External dimension H x W x D		mm	200 x 990 x 700	200 x 990 x 700	200 x 1190 x 700	
		in.	7-7/8 x 39 x 27-9/16	7-7/8 x 39 x 27-9/16	7-7/8 x 46-7/8 x 27-9/16	
Net weight		kg (lbs)	24(53)<23(51)>	24(53)<23(51)>	28(62)<27(60)>	
Heat exchanger		Cross fin (Aluminum fin and copper tube)				
FAN	Type x Quantity		Sirocco fan x 3	Sirocco fan x 3	Sirocco fan x 4	
	External (220V) static press. (230, 240V)	Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	
			mmHzO	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>
		*5	Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>
			mmHzO	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>
	Motor type		DC motor			
	Motor output		kW	0.096	0.096	0.096
	Driving mechanism		Direct-driven			
	Airflow rate (Low-Mid-High)	m ³ / min		8 - 9.5 - 11	9.5 - 11 - 13	12 - 14 - 16.5
		L / s		133 - 158 - 183	158 - 183 - 217	200 - 233 - 275
cfm		282 - 335 - 388	335 - 388 - 459	424 - 494 - 583		
Sound pressure level (Low-Mid-High) (measured in anechoic room)		*4	dB <A>	28 - 30 - 33 (15Pa,220-240V)	30 - 32 - 35 (15Pa,220-240V)	30 - 33 - 36 (15Pa,220-240V)
Insulation material		Polystyrene foam, 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	ø9.52 (ø3/8) Brazed	
	Gas (R410A)	mm (in.)	ø12.7 (ø1/2) Brazed	ø12.7 (ø1/2) Brazed	ø15.88 (ø5/8) Brazed	
Field drain pipe size		mm (in.)	O.D. 32mm (1-1/4)			
Drawing	External		IU-KB94-G728<IU-KB94-G731>	IU-KB94-G728<IU-KB94-G731>	IU-KB94-G728<IU-KB94-G731>	
	Wiring		IU-KB94-G668	IU-KB94-G668	IU-KB94-G668	
	Refrigerant cycle		-	-	-	
Standard attachment	Document		Installation Manual, Instruction Book			
	Accessory		Drain hose (flexible joint)			
Remark	Optional parts					
	Drain pump		<PAC-KE07DM-E>	<PAC-KE07DM-E>	<PAC-KE07DM-E>	
	Control Box Replace kit		<PAC-KE70HS-E>	<PAC-KE70HS-E>	<PAC-KE70HS-E>	
	Plasma Quad Connect		MAC-100FT-E	MAC-100FT-E	MAC-100FT-E	
	PQ attachment		PAC-HA11PAR	PAC-HA11PAR	PAC-HA11PAR	
	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)	BTU/h = kW x 3.412	
Outdoor :		35°CDB (95°FDB)	35°CDB (95°FDB)	7°CDB/6°CWB (45°FDB/43°FWB)	cfm = m ³ /min x 35.31	
Pipe length :		7.5 m (24-9/16 ft)	5 m (16-3/8 ft)	7.5 m (24-9/16 ft)	lbs = kg / 0.4536	
Level difference :		0 m (0 ft)	0 m (0 ft)	0 m (0 ft)		
* Nominal conditions *1, *3 are subject to JIS B8615-2.		* The external static pressure is set to 15 Pa at factory shipment.		*Above specification data is subject to rounding variation.		
* Due to continuing improvement, above specification may be subject to change without notice.		* < > is in case of PEFY-P-VMS1L-E model.				
*4 The values are measured at the factory setting of external static pressure.						
*5 The factory setting of external static pressure is shown without < >.						
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.						

PEFY-P20, 25, 32VMR-E-L(R)

Unit: mm

- Note 1. Use M10 screw for the suspension bolt (field supply).
50mm or below of clearance between the indoor unit top and the end of the suspension bolt will make maintenance of the indoor heat exchanger easier.
2. Access door of 450mmx450mm at the ceiling under the drain pan should be designed for heat exchanger cleaning and maintenance.
3. This drawing shows the left piping specification. The symmetry shows the right piping specification.
Model name: <Left piping> PEFY-P20-25-32VMR-E-L
<Right piping> PEFY-P20-25-32VMR-E-R
4. Period cleaning of drain pan will prevent water overflowing.
Gradient piping design is needed for water draining.
5. The inlet direction can be changed between rear inlet and bottom inlet.
Keep the inlet space between the ceiling and the unit in case of bottom inlet.

Required space for service and maintenance (Note 2)



- <Pipe size>
- ① ø12.7
 - ② ø6.35
 - ③ VP20 (dia. 26mm) ø26
- Refrigerant pipe (gas) brazed
Refrigerant pipe (liquid) brazed
Drain pipe connection diameter

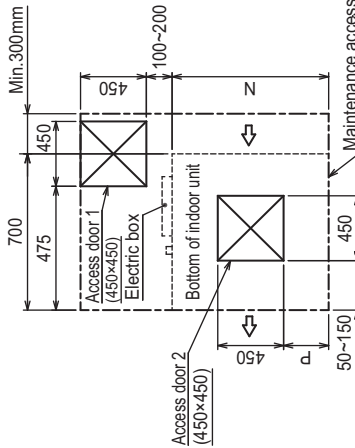
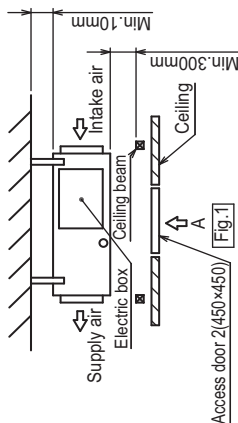
PEFY-P15, 20, 25, 32, 40, 50, 63VMS1-E

Unit: mm

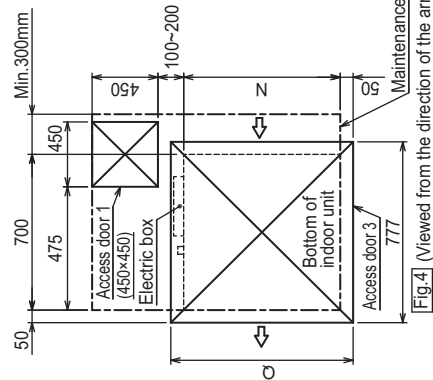
[Maintenance access space]
 Secure enough access space to allow for the maintenance, inspection, and replacement of the motor, fan, drain pump, heat exchanger, and electric box in one of the following ways.
 Select an installation site for the indoor unit so that its maintenance access space will not be obstructed by beams or other objects.

- (1) When a space of 300mm or more is available below the unit between the unit and the ceiling, (Fig. 1)
 - Create access door 1 and 2 (450x450mm each) as shown in Fig. 2.
 (Access door 2 is not required if enough space is available below the unit for a maintenance worker to work in.)

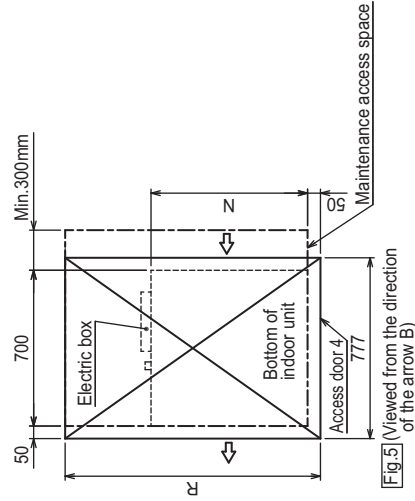
- (2) When a space of less than 300mm is available below the unit between the unit and the ceiling.
 (At least 20mm of space should be left below the unit as shown in Fig. 3.)
 - Create access door 1 diagonally below the electric box and access door 3 below the unit as shown in Fig. 4.
 or
 - Create access door 4 below the electric box and the unit as shown in Fig. 5.



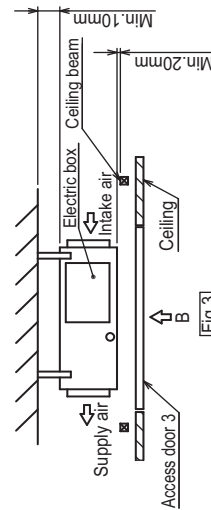
[Fig. 2] (Viewed from the direction of the arrow A)



[Fig. 4] (Viewed from the direction of the arrow B)



[Fig. 5] (Viewed from the direction of the arrow B)



[Fig. 3]

Model	N	P	Q	R
PEFY-P15,20,25,32VMS1-E	700	50~150	800	1300
PEFY-P40VMS1-E	900	150~250	1000	1500
PEFY-P50VMS1-E			1200	1700
PEFY-P63VMS1-E	1100	250~350	1200	1700

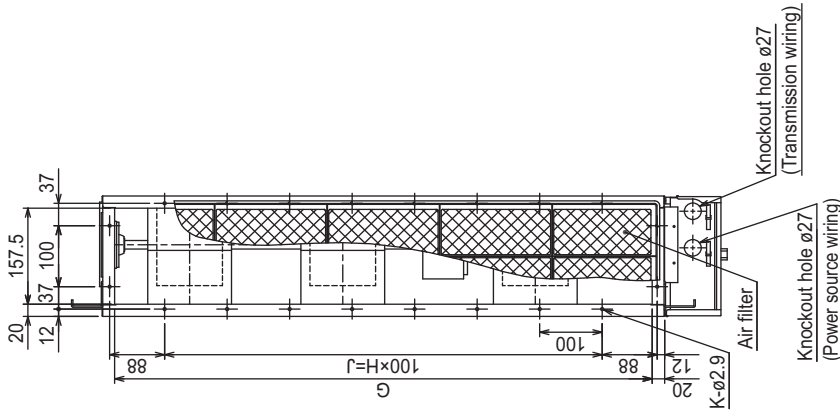
2. EXTERNAL DIMENSIONS

Ceiling concealed (Low noise/Low static pressure type)

PEFY-P-VMIR-E-L/R, VMS1(L)-E

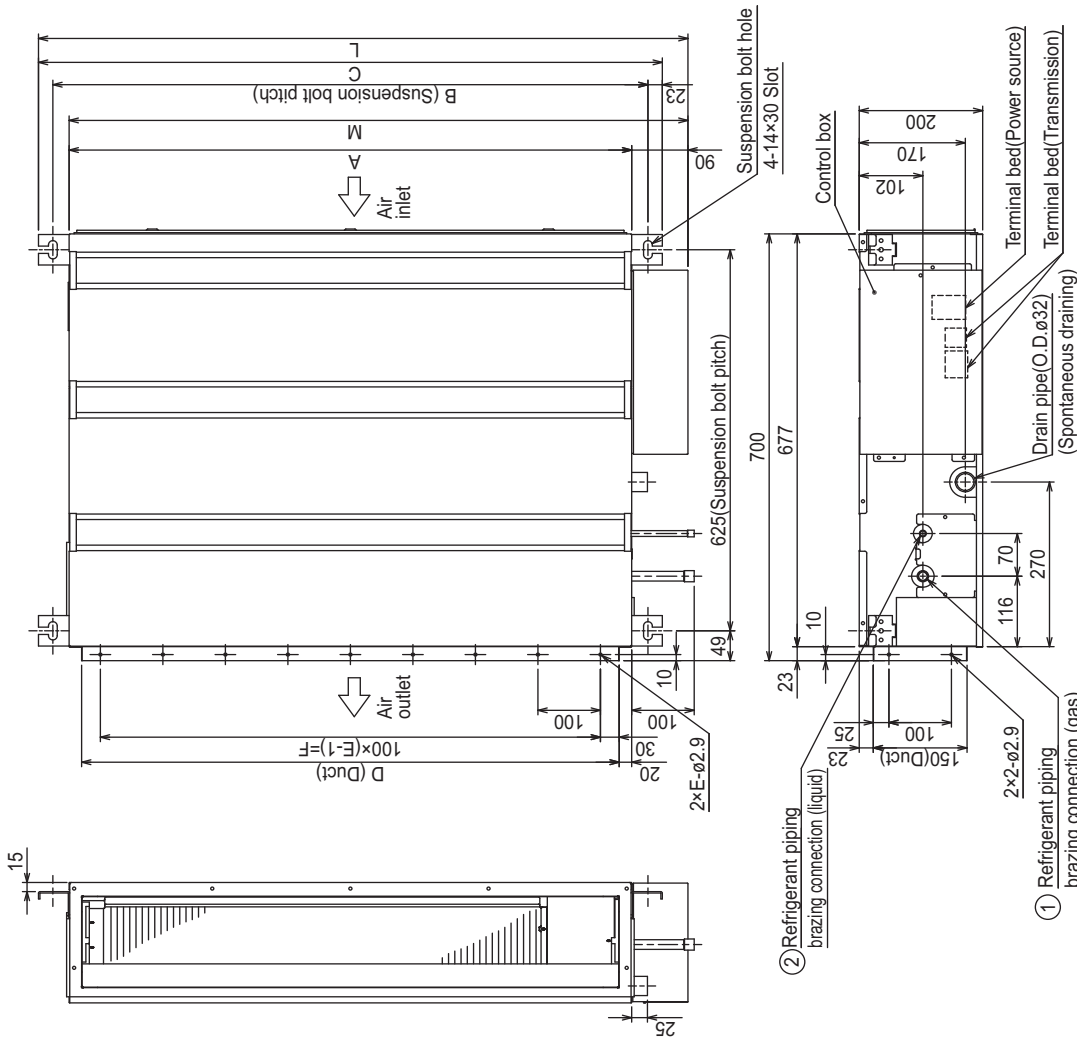
PEFY-P15, 20, 25, 32, 40, 50, 63VMS1L-E

Unit: mm



- Note1 Use M10 screw for the Suspension bolt (field supply).
 2. Keep the service space for the maintenance at the bottom.
 3. This chart indicates for PEFY-P40-50VMS1L-E models, which has 3 fans. PEFY-P15-32VMS1L-E models have 2 fans. PEFY-P63VMS1L-E model have 4 fans.
 4. In case of the inlet duct is used, remove the air filter (supply with the unit), then install the filter (field supply) at suction side.

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



Model	A	B	C	D	E	F	G	H	J	K	L	M	① Gas pipe	② Liquid pipe
PEFY-P15,20,25,32VMS1L-E	700	752	798	660	7	600	660	5	500	16	839	790	ø12.7	ø6.35
PEFY-P40VMS1L-E	900	952	998	860	9	800	860	7	700	20	1039	990	*1	ø12.7
													*2	ø15.88
PEFY-P50VMS1L-E	1100	1152	1198	1060	11	1000	1060	9	900	24	1239	1190	ø15.88	ø9.52
													ø9.52	

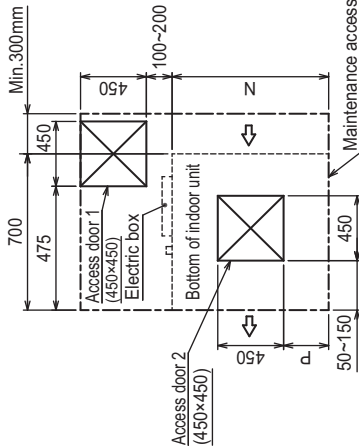
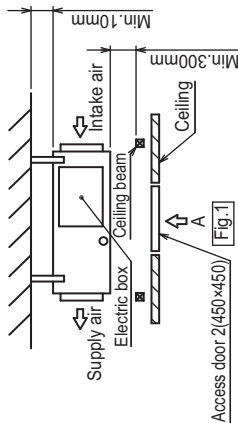
PEFY-P15, 20, 25, 32, 40, 50, 63VMS1L-E

Unit: mm

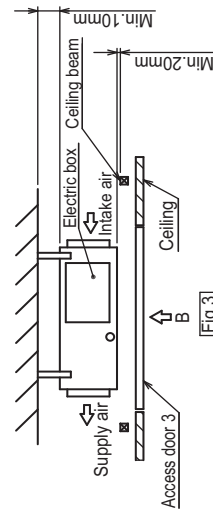
[Maintenance access space]
 Secure enough access space to allow for the maintenance, inspection, and replacement of the motor, fan, drain pump, heat exchanger, and electric box in one of the following ways.
 Select an installation site for the indoor unit so that its maintenance access space will not be obstructed by beams or other objects.

(1) When a space of 300mm or more is available below the unit between the unit and the ceiling, (Fig. 1)
 - Create access door 1 and 2 (450x450mm each) as shown in Fig. 2.
 (Access door 2 is not required if enough space is available below the unit for a maintenance worker to work in.)

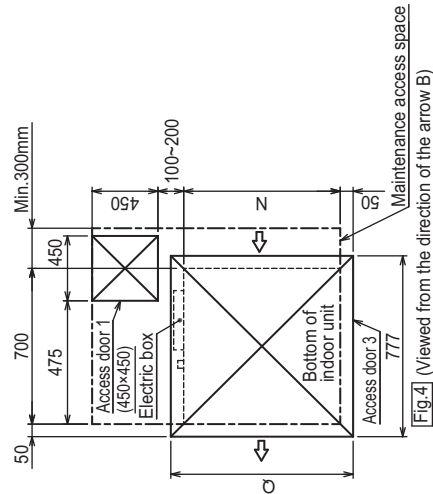
(2) When a space of less than 300mm is available below the unit between the unit and the ceiling.
 (At least 20mm of space should be left below the unit as shown in Fig. 3.)
 - Create access door 1 diagonally below the electric box and access door 3 below the unit as shown in Fig. 4.
 or
 - Create access door 4 below the electric box and the unit as shown in Fig. 5.



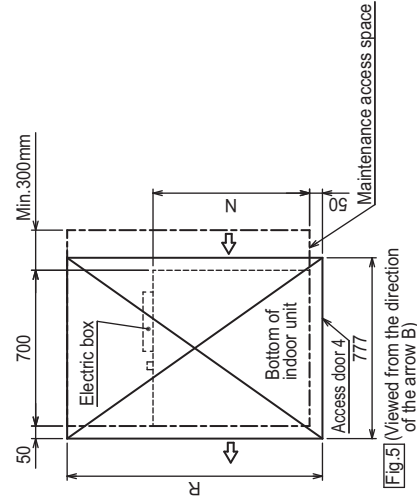
[Fig. 2] (Viewed from the direction of the arrow A)



[Fig. 3]



[Fig. 4] (Viewed from the direction of the arrow B)

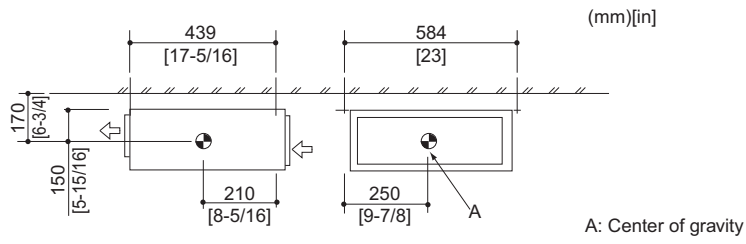


[Fig. 5] (Viewed from the direction of the arrow B)

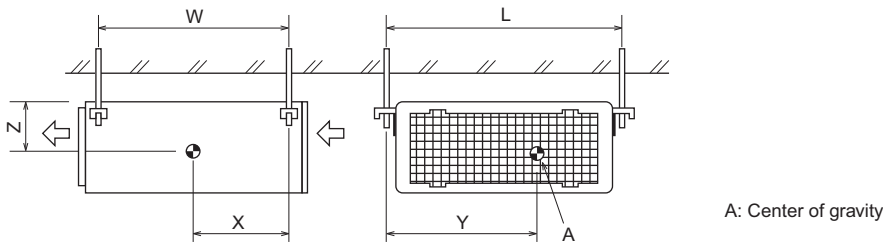
Model	N	P	Q	R
PEFY-P15, 20, 25, 32VMS1L-E	700	50-150	800	1300
PEFY-P40VMS1L-E	900	150-250	1000	1500
PEFY-P50VMS1L-E			1200	1700
PEFY-P63VMS1L-E	1100	250-350	1200	1700

PEFY-P-VMR-E-L/R, VMS1(L)-E

PEFY-P20, 25, 32VMR-E-L/R



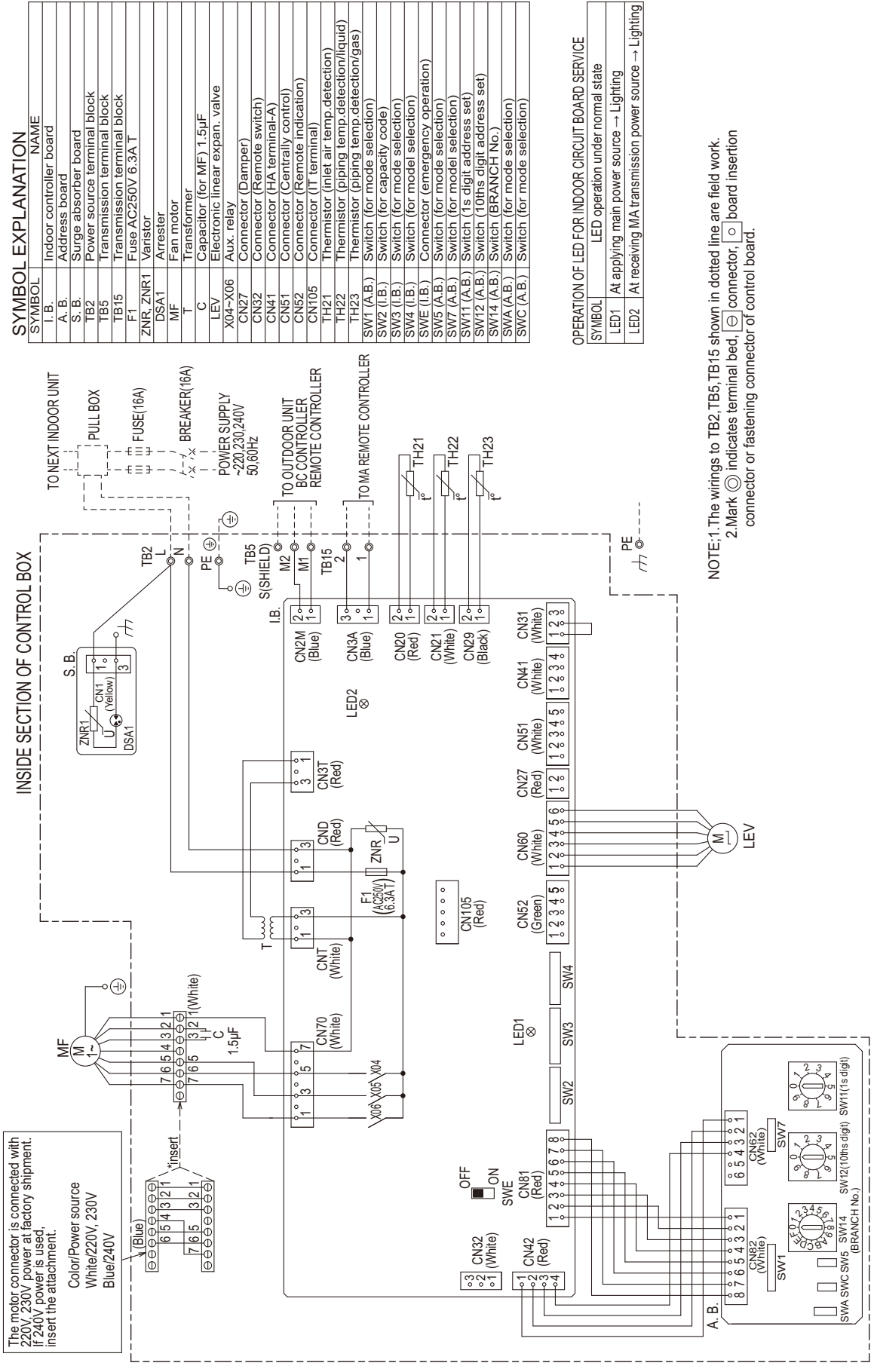
PEFY-P15,20,25,32,40,50,63VMS1(L)-E



(mm)[in]

Model name	W	L	X	Y	Z
PEFY-P15VMS1(L)-E	625 [24-5/8]	752 [29-5/8]	263 [10-3/8]	338 [13-5/16]	105 [4-5/32]
PEFY-P20VMS1(L)-E	625 [24-5/8]	752 [29-5/8]	263 [10-3/8]	338 [13-5/16]	105 [4-5/32]
PEFY-P25VMS1(L)-E	625 [24-5/8]	752 [29-5/8]	263 [10-3/8]	338 [13-5/16]	105 [4-5/32]
PEFY-P32VMS1(L)-E	625 [24-5/8]	752 [29-5/8]	275 [10-27/32]	340 [13-13/32]	104 [4-1/8]
PEFY-P40VMS1(L)-E	625 [24-5/8]	952 [37-1/2]	280 [11-1/32]	422 [16-5/8]	104 [4-1/8]
PEFY-P50VMS1(L)-E	625 [24-5/8]	952 [37-1/2]	280 [11-1/32]	422 [16-5/8]	104 [4-1/8]
PEFY-P63VMS1(L)-E	625 [24-5/8]	1152 [45-3/8]	285 [11-1/4]	511 [20-1/8]	104 [4-1/8]

PEFY-P20, 25, 32VMR-E-L(R)



SYMBOL EXPLANATION

SYMBOL	NAME
I. B.	Indoor controller board
A. B.	Address board
S. B.	Surge absorber board
TB2	Power source terminal block
TB5	Transmission terminal block
F1	Fuse AC250V 6.3A T
ZNR1	Varistor
DSA1	Arrester
M	Fan motor
T	Transformer
C	Capacitor (for MF) 1.5μF
LEV	Electronic linear expans. valve
X04-X06	Aux. relay
CN27	Connector (Dampner)
CN32	Connector (Remote switch)
CN41	Connector (HA terminal-A)
CN52	Connector (Centrally control)
CN105	Connector (Remote indication)
TH21	Thermistor (inlet air temp.detection)
TH22	Thermistor (piping temp.detection/liquid)
TH23	Thermistor (piping temp.detection/gas)
SW1 (A.B.)	Switch (for mode selection)
SW2 (L.B.)	Switch (for capacity code)
SW3 (L.B.)	Switch (for mode selection)
SW4 (L.B.)	Switch (for model selection)
SW5 (A.B.)	Switch (for emergency operation)
SW7 (A.B.)	Switch (for mode selection)
SW11 (A.B.)	Switch (1s digit address set)
SW12 (A.B.)	Switch (10ths digit address set)
SW14 (A.B.)	Switch (BRANCH No.)
SWA (A.B.)	Switch (for mode selection)
SWC (A.B.)	Switch (for mode selection)

OPERATION OF LED FOR INDOOR CIRCUIT BOARD SERVICE

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

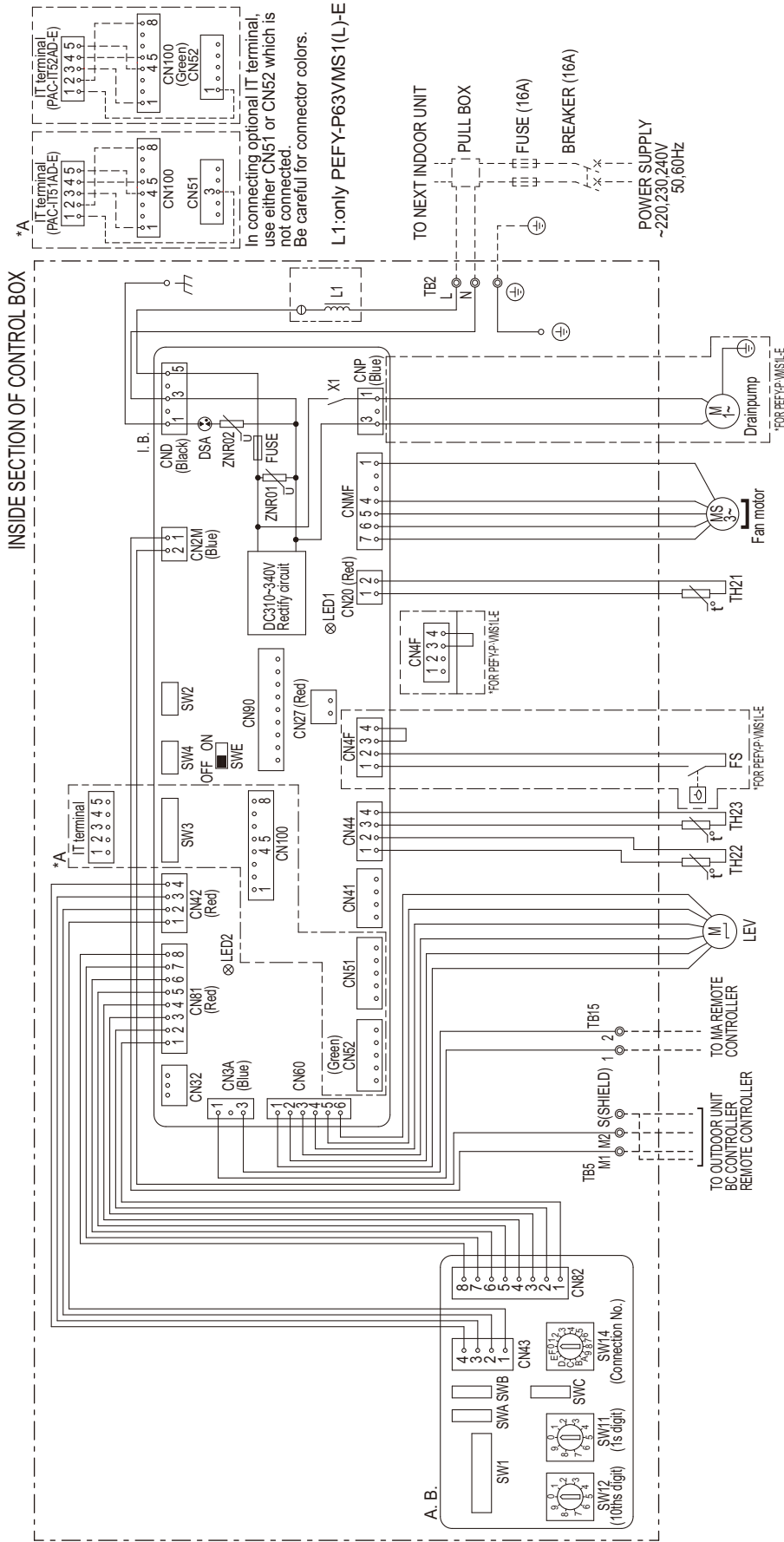
NOTE: 1. The wirings to TB2, TB5, TB15 shown in dotted line are field work.
 2. Mark ⊕ indicates terminal bed, ⊞ connector, ⊚ board insertion connector or fastening connector of control board.

The motor connector is connected with 220V, 230V power at factory shipment. If 240V power is used, insert the attachment.

Color/Power source
 White/220V, 230V
 Blue/240V

PEFY-P-VMR-E-L/R, VMS1(L)-E

PEFY-P15, 20, 25, 32, 40, 50, 63VMS1(L)-E



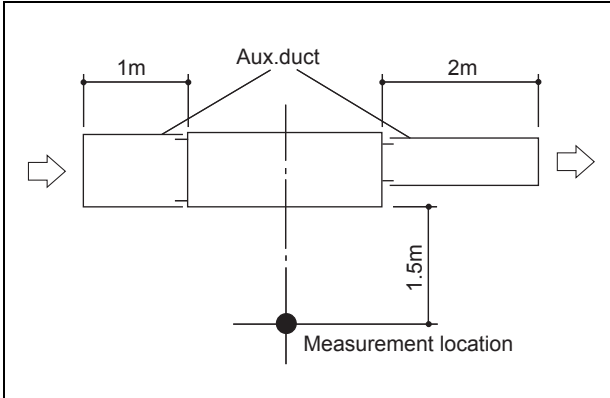
NOTE: Symbols used in wiring diagram above are,
 (HEAVY DOTTED LINE): FIELD WIRING
 (THIN DOTTED LINE): OPTIONAL PARTS
 ○: CONNECTOR
 ⊙: TERMINAL

SYMBOL EXPLANATION

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN32	Indoor controller board	SW3 (I.B.)	Switch (for mode selection)	SW3 (I.B.)	Switch (for mode selection)
I. B.	Indoor controller board	SW4 (I.B.)	Switch (for model selection)	SW4 (I.B.)	Switch (for model selection)
A. B.	Address board	SWE (I.B.)	Connector (emergency operation)	SWE (I.B.)	Connector (emergency operation)
TB2	Power source terminal block	SW1 (A.B.)	Switch (for mode selection)	SW1 (A.B.)	Switch (for mode selection)
TB5	Transmission terminal block	SW11 (A.B.)	Switch (1s digit address set)	SW11 (A.B.)	Switch (1s digit address set)
TB15	Transmission terminal block	SW12 (A.B.)	Switch (10ms digit address set)	SW12 (A.B.)	Switch (10ms digit address set)
FUSE	Fuse AC250V 6.3A	SW14 (A.B.)	Switch (connection No. set)	SW14 (A.B.)	Switch (connection No. set)
ZNR01.02	Varistor	SWA (A.B.)	Switch (for static pressure selection)	SWA (A.B.)	Switch (for static pressure selection)
DSA	Arrester	SWB (A.B.)	Switch (for model selection)	SWB (A.B.)	Switch (for model selection)
X1	Aux. relay	SWC (A.B.)	Switch (for static pressure selection)	SWC (A.B.)	Switch (for static pressure selection)
L1	AC reactor (Power factor improvement)	SW2 (I. B.)	Switch (for capacity code)	SW2 (I. B.)	Switch (for capacity code)
CN27	Connector (Damper)				

5-1. Sound levels

PEFY-P-VMR-E-L/R, VMS1(L)-E



* Measured in anechoic room.

Sound level at anechoic room: Low-Mid-High

		Sound level dB (A)
PEFY-P20VMR-E-L/R	220V	20 - 25 - 30
	230V	21 - 26 - 32
	240V	22 - 27 - 30
PEFY-P25VMR-E-L/R	220V	20 - 25 - 30
	230V	21 - 26 - 32
	240V	22 - 27 - 30
PEFY-P32VMR-E-L/R	220V	20 - 25 - 33
	230V	21 - 26 - 35
	240V	22 - 27 - 33

Sound level at anechoic room: Low-Mid-High

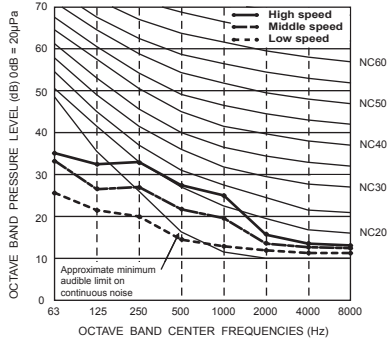
		Sound level dB (A)			
		5Pa	15Pa	35Pa	50Pa
PEFY-P15VMS1(L)-E	220-240V	22 - 24 - 26	22 - 24 - 28	23 - 26 - 29	23 - 27 - 30
PEFY-P20VMS1(L)-E	220-240V	22 - 25 - 28	23 - 25 - 29	24 - 27 - 30	25 - 28 - 32
PEFY-P25VMS1(L)-E	220-240V	22 - 25 - 29	23 - 26 - 30	24 - 28 - 31	25 - 29 - 33
PEFY-P32VMS1(L)-E	220-240V	23 - 27 - 30	23 - 27 - 32	24 - 28 - 33	25 - 29 - 34
PEFY-P40VMS1(L)-E	220-240V	26 - 28 - 30	28 - 30 - 33	30 - 32 - 35	31 - 33 - 36
PEFY-P50VMS1(L)-E	220-240V	29 - 31 - 34	30 - 32 - 35	31 - 34 - 37	32 - 34 - 38
PEFY-P63VMS1(L)-E	220-240V	29 - 32 - 35	30 - 33 - 36	31 - 35 - 39	32 - 36 - 40

5-2. NC curves

PEFY-P-VMR-E-L/R, VMS1(L)-E

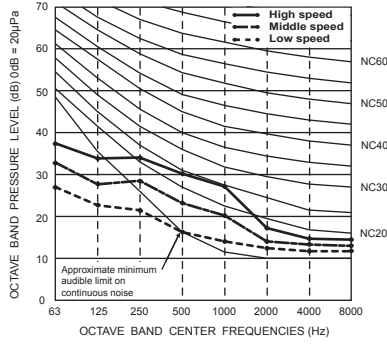
PEFY-P20,25VMR-E-L/R

External static pressure : 5Pa
Power source : 220V, 50/60Hz



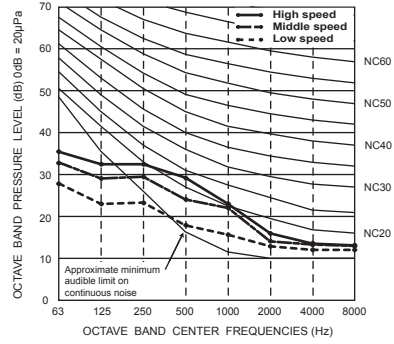
PEFY-P20,25VMR-E-L/R

External static pressure : 5Pa
Power source : 230V, 50/60Hz



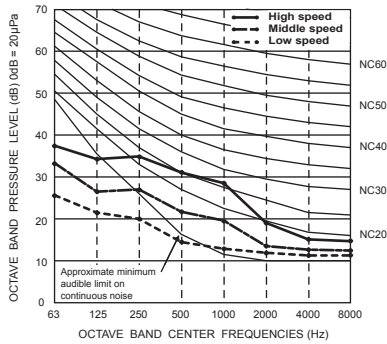
PEFY-P20,25VMR-E-L/R

External static pressure : 5Pa
Power source : 240V, 50Hz



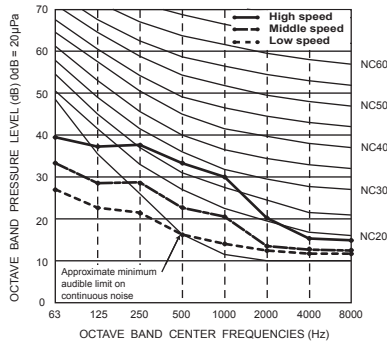
PEFY-P32VMR-E-L/R

External static pressure : 5Pa
Power source : 220V, 50/60Hz



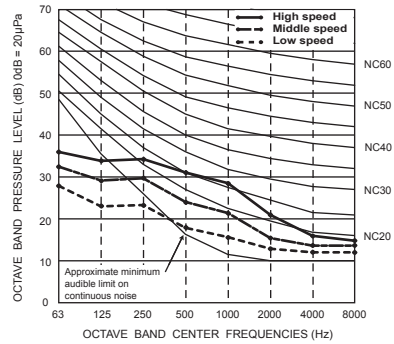
PEFY-P32VMR-E-L/R

External static pressure : 5Pa
Power source : 230V, 50/60Hz

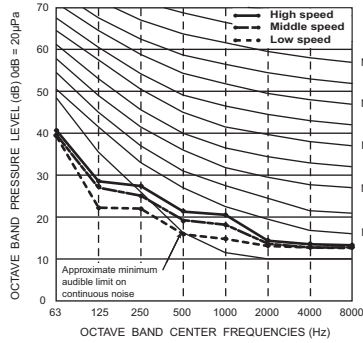


PEFY-P32VMR-E-L/R

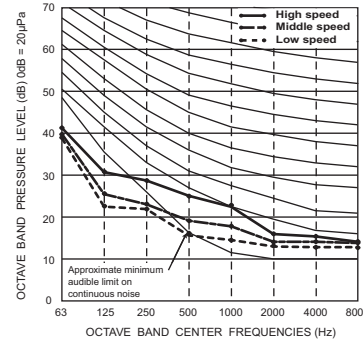
External static pressure : 5Pa
Power source : 240V, 50Hz



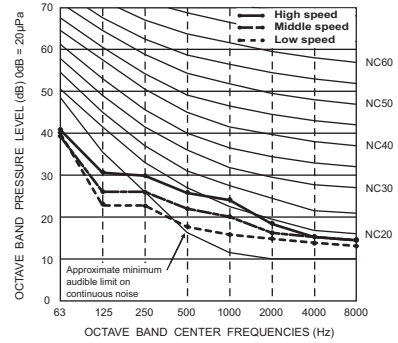
PEFY-P15VMS1(L)-E
 External static pressure : 5Pa
 Power source : 220,230,240V, 50/60Hz



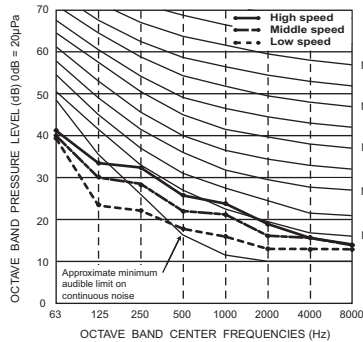
PEFY-P15VMS1(L)-E
 External static pressure : 15Pa
 Power source : 220,230,240V, 50/60Hz



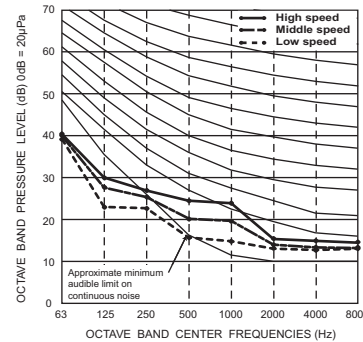
PEFY-P15VMS1(L)-E
 External static pressure : 35Pa
 Power source : 220,230,240V, 50/60Hz



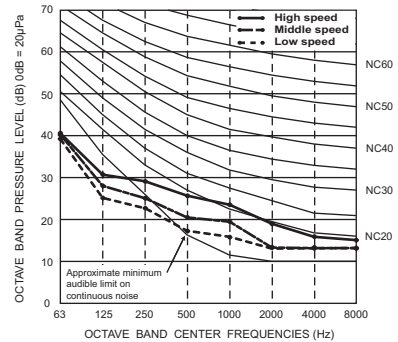
PEFY-P15VMS1(L)-E
 External static pressure : 50Pa
 Power source : 220,230,240V, 50/60Hz



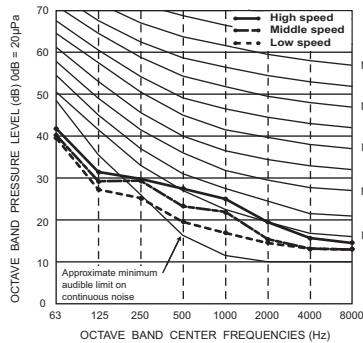
PEFY-P20VMS1(L)-E
 External static pressure : 5Pa
 Power source : 220,230,240V, 50/60Hz



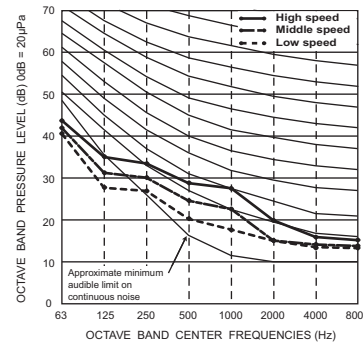
PEFY-P20VMS1(L)-E
 External static pressure : 15Pa
 Power source : 220,230,240V, 50/60Hz



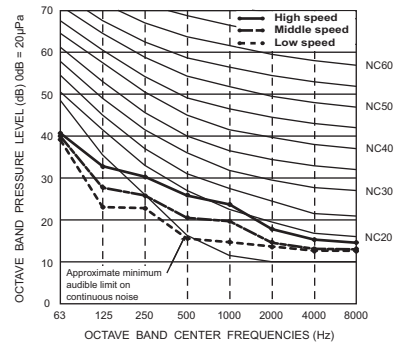
PEFY-P20VMS1(L)-E
 External static pressure : 35Pa
 Power source : 220,230,240V, 50/60Hz



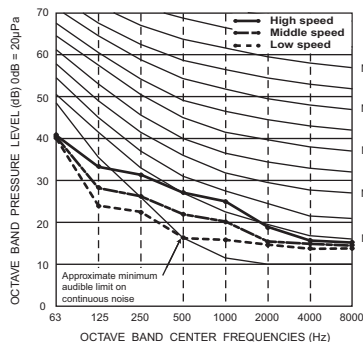
PEFY-P20VMS1(L)-E
 External static pressure : 50Pa
 Power source : 220,230,240V, 50/60Hz



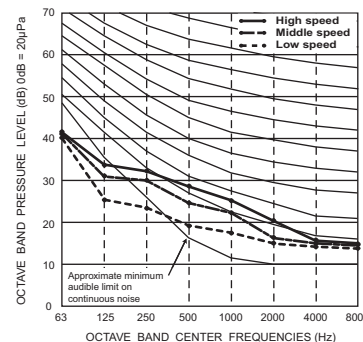
PEFY-P25VMS1(L)-E
 External static pressure : 5Pa
 Power source : 220,230,240V, 50/60Hz



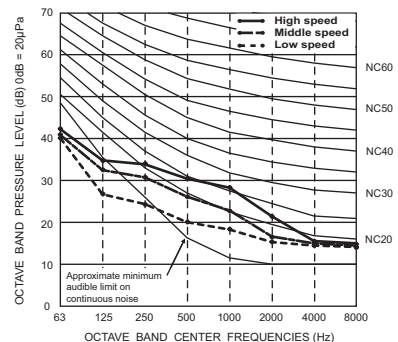
PEFY-P25VMS1(L)-E
 External static pressure : 15Pa
 Power source : 220,230,240V, 50/60Hz



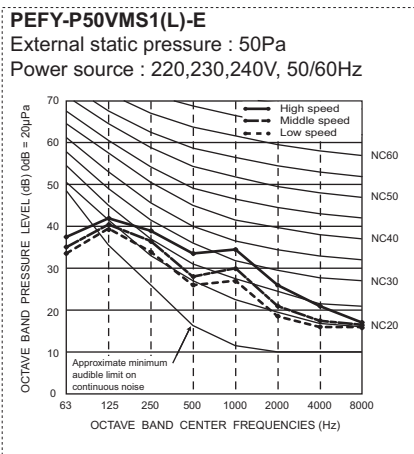
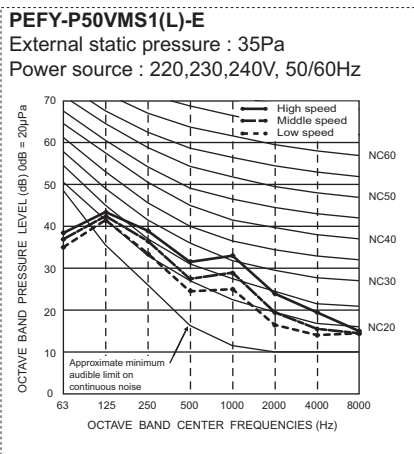
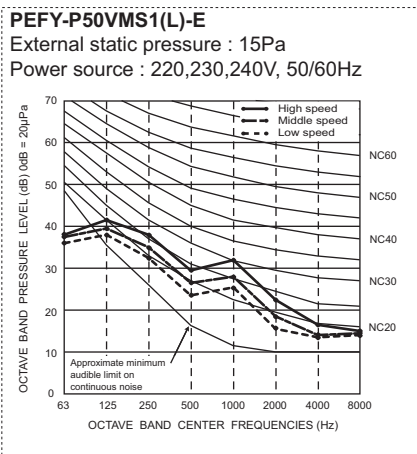
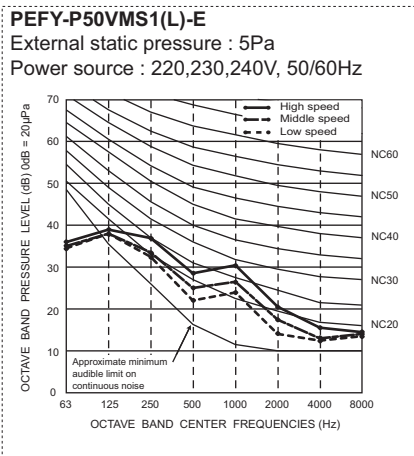
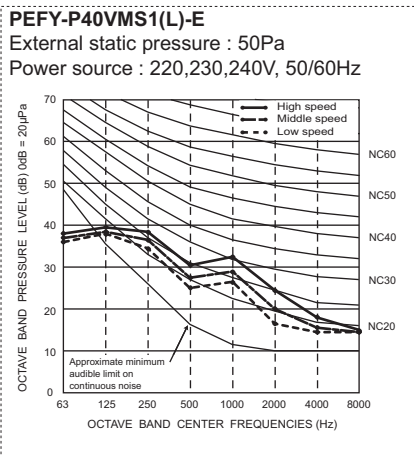
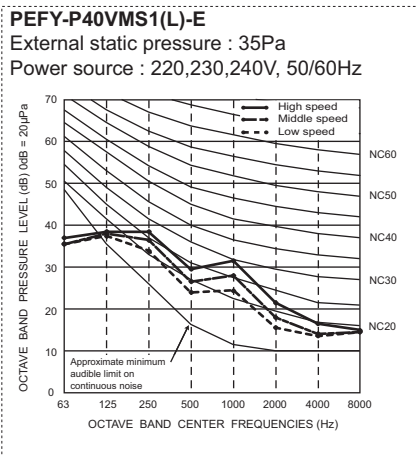
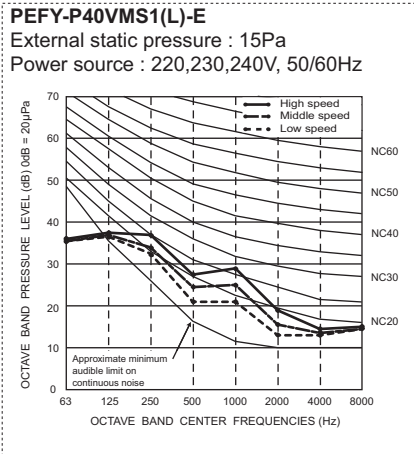
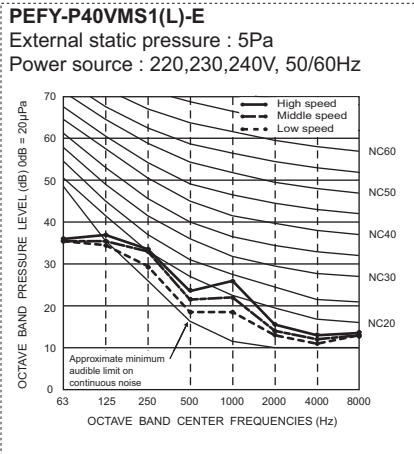
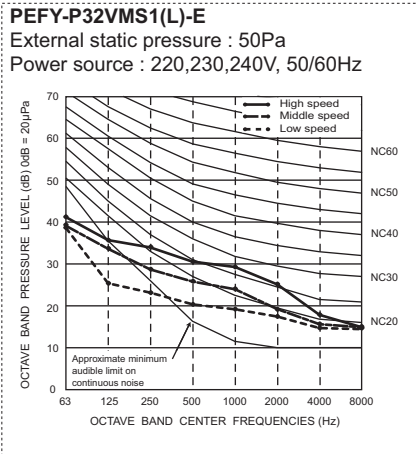
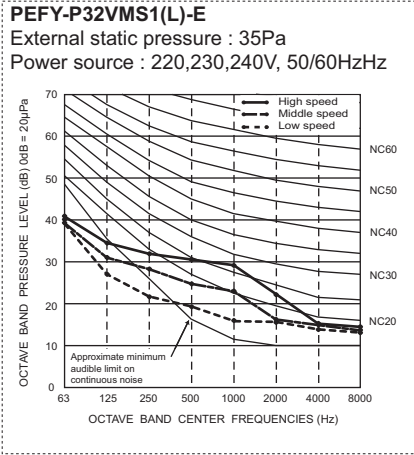
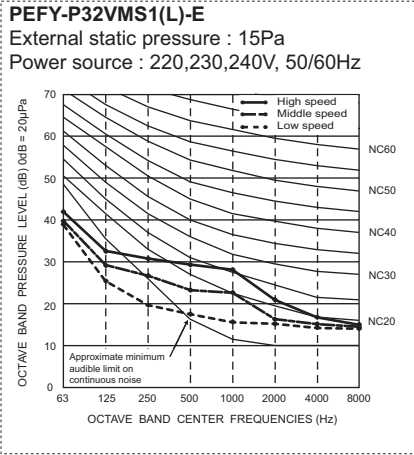
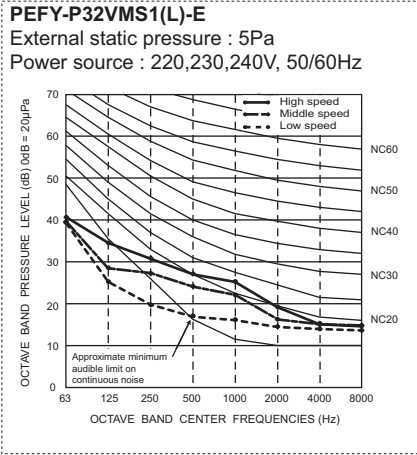
PEFY-P25VMS1(L)-E
 External static pressure : 35Pa
 Power source : 220,230,240V, 50/60Hz

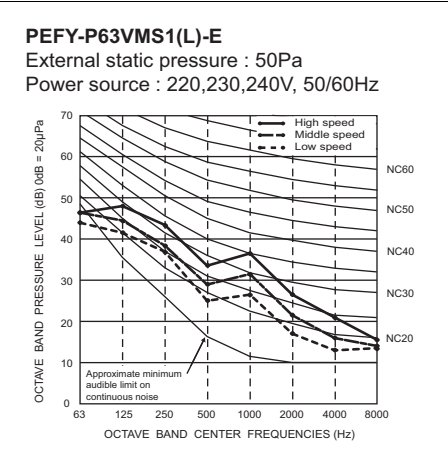
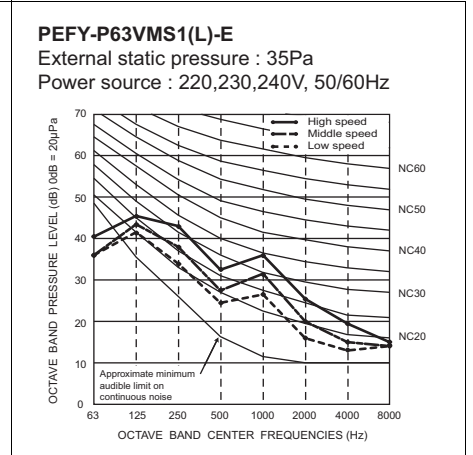
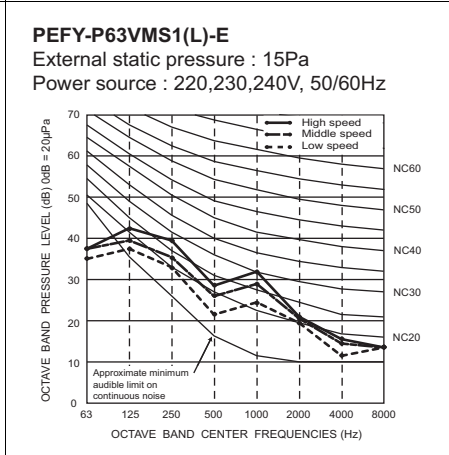
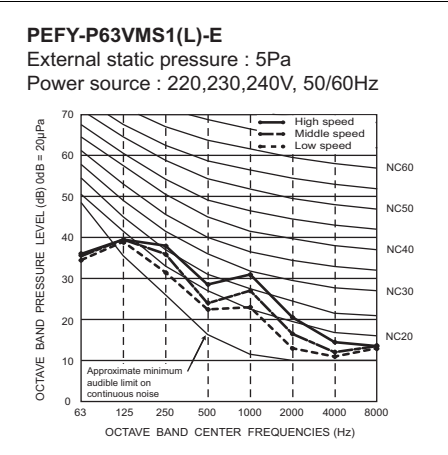


PEFY-P25VMS1(L)-E
 External static pressure : 50Pa
 Power source : 220,230,240V, 50/60Hz



PEFY-P-VMR-E-L/R, VMS1(L)-E





PEFY-P-VMR-E/L/R, VMS1(L)-E

6. FAN CHARACTERISTICS CURVES

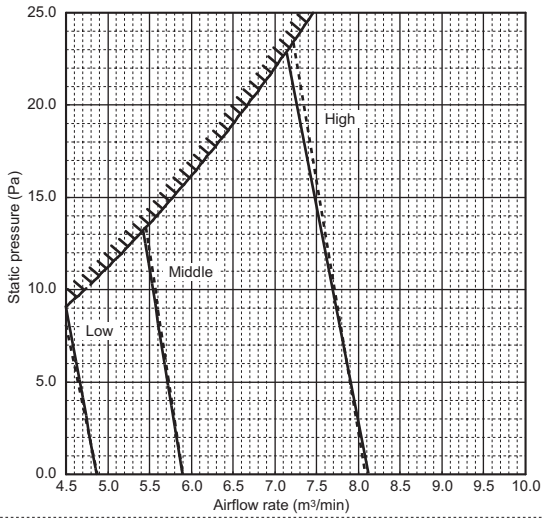
Ceiling concealed (Low noise/Low static pressure type)

PEFY-P-VMR-E-L/R, VMS1(L)-E

PEFY-P20,25VMR-E-L/R

External static pressure : 5Pa
Power source : 220,230,240V

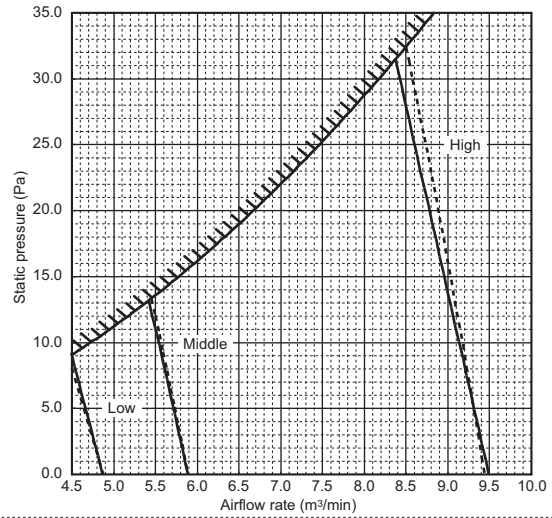
Suction : Back inlet
— 50Hz
- - - 60Hz



PEFY-P32VMR-E-L/R

External static pressure : 5Pa
Power source : 220,230,240V

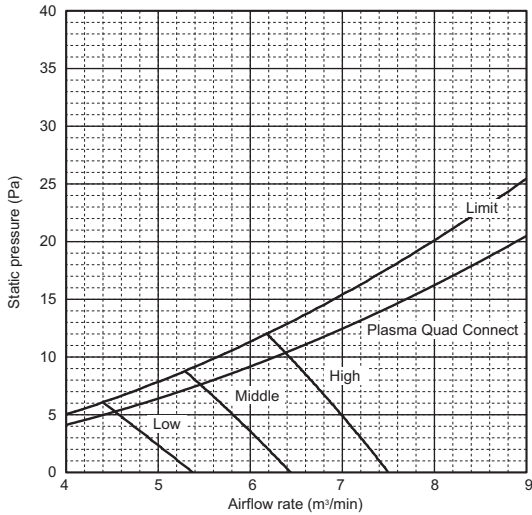
Suction : Back inlet
— 50Hz
- - - 60Hz



PEFY-P15VMS1(L)-E

External static pressure : 5Pa
Power source : 220,230,240V, 50/60Hz

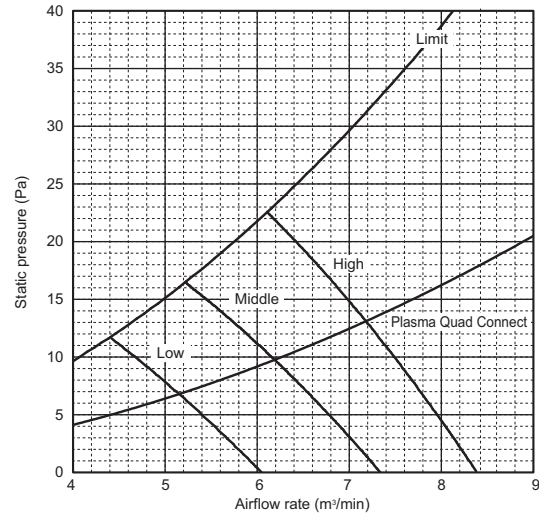
Suction : Back inlet

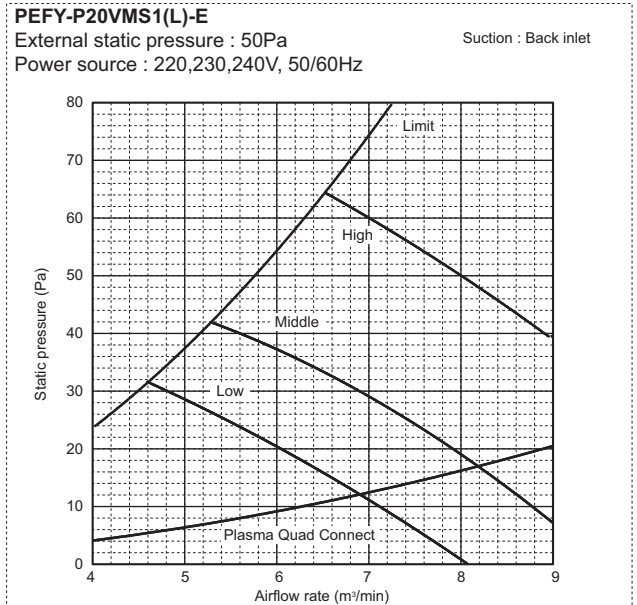
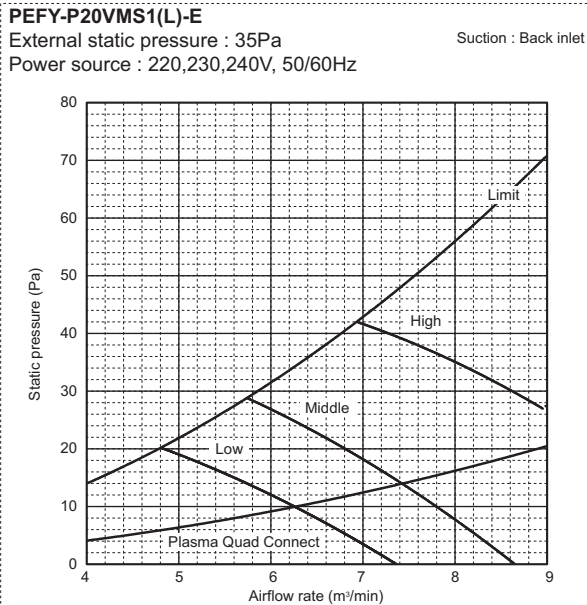
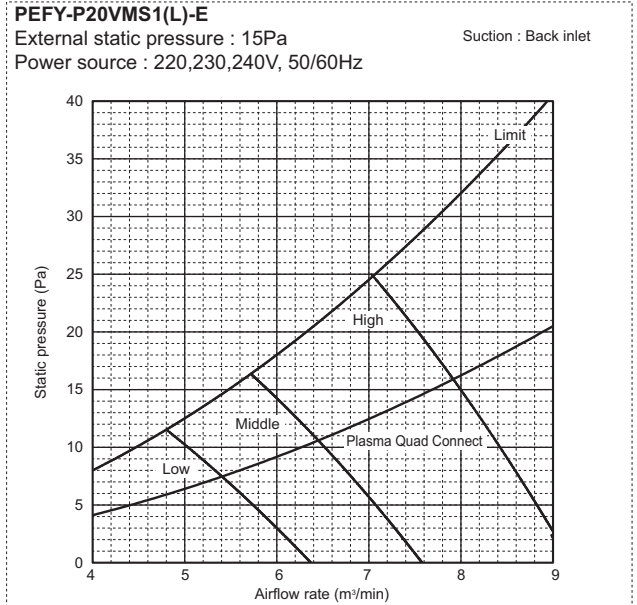
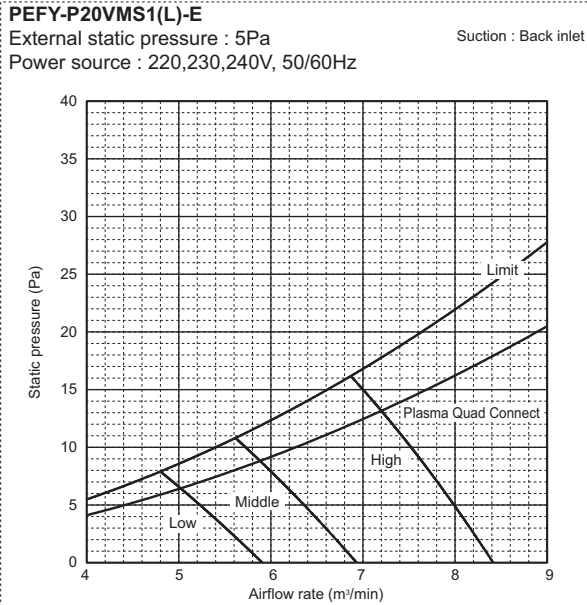
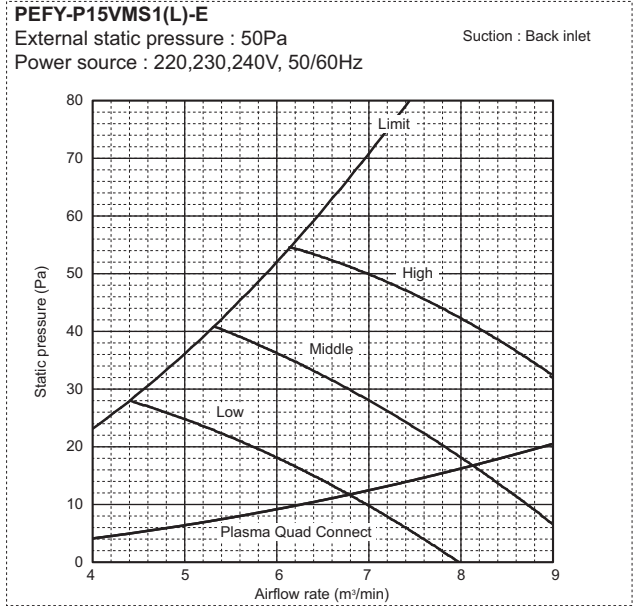
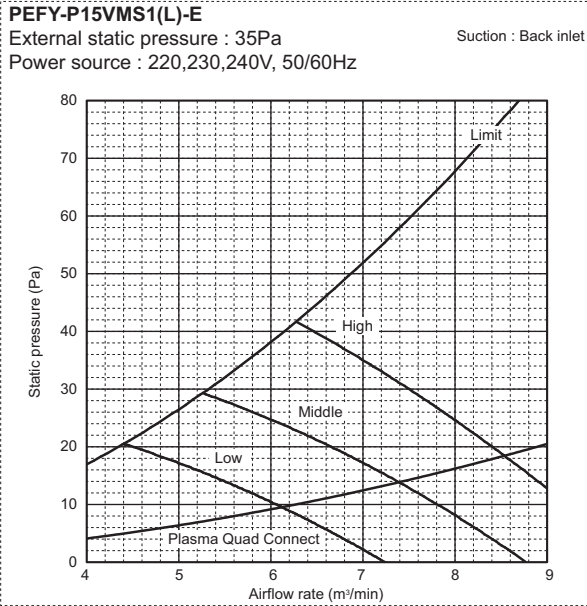


PEFY-P15VMS1(L)-E

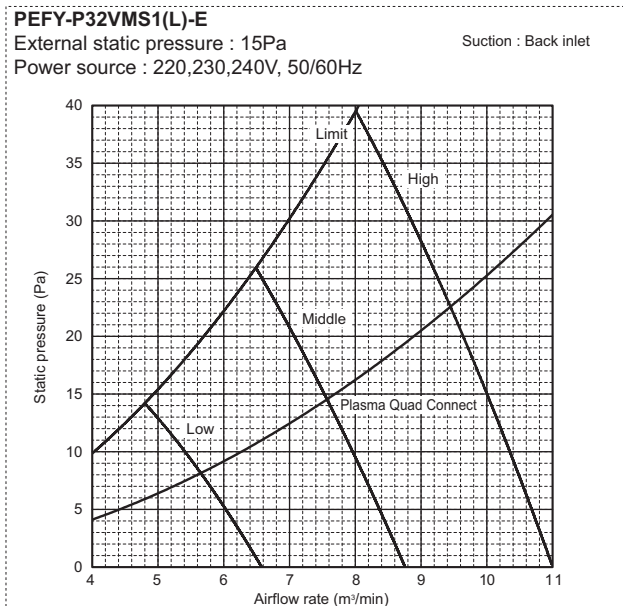
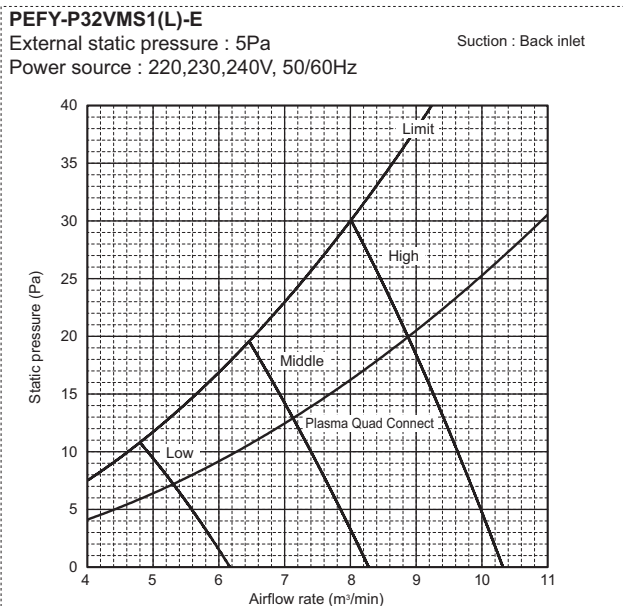
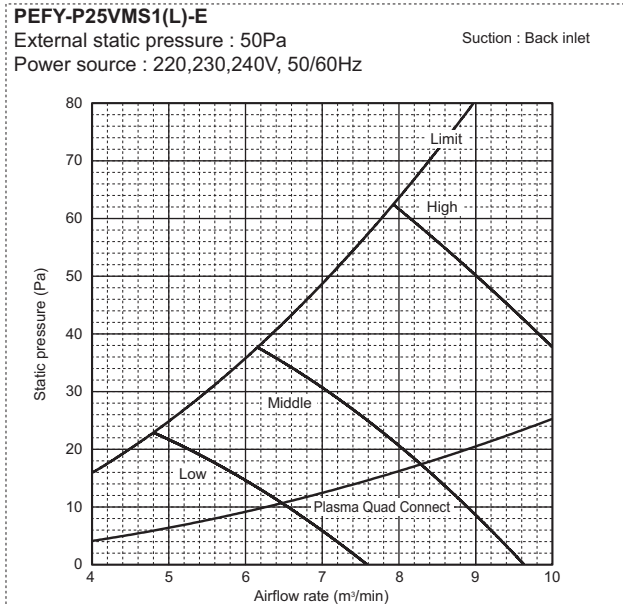
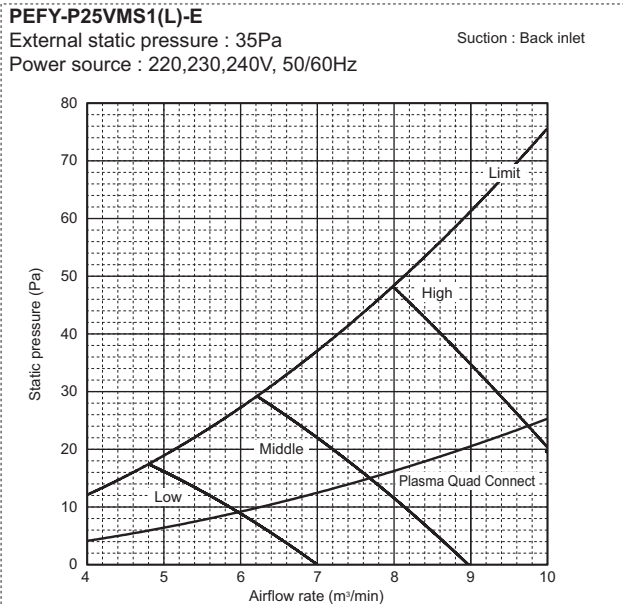
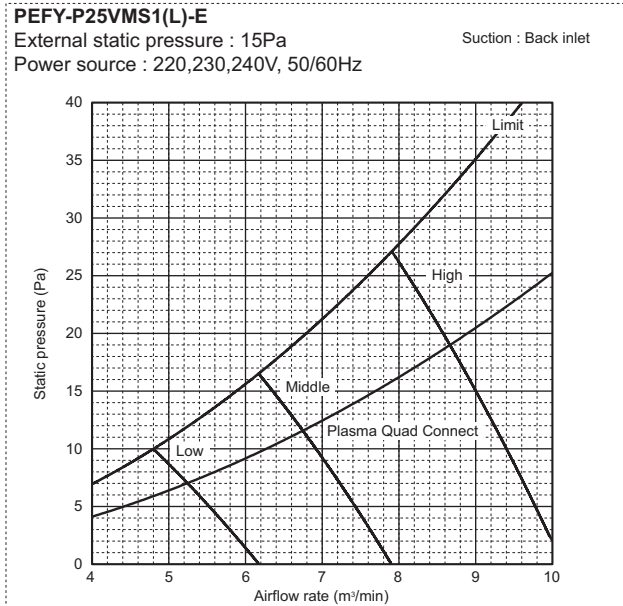
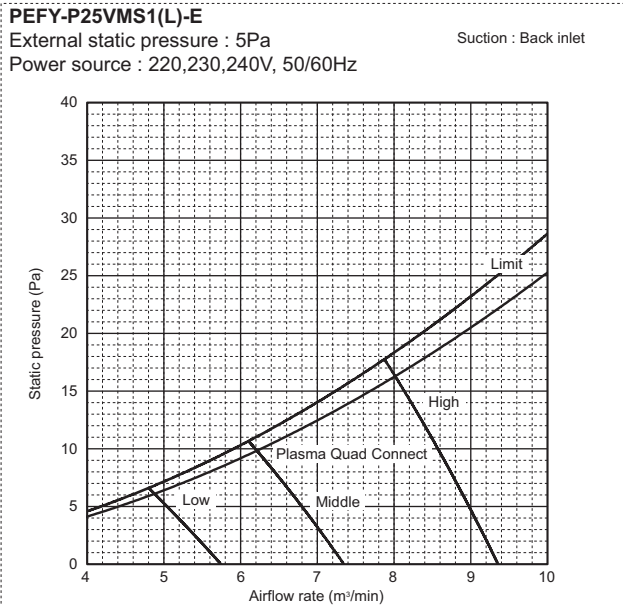
External static pressure : 15Pa
Power source : 220,230,240V, 50/60Hz

Suction : Back inlet





PEFY-P-VMR-E-L/R, VMS1(L)-E

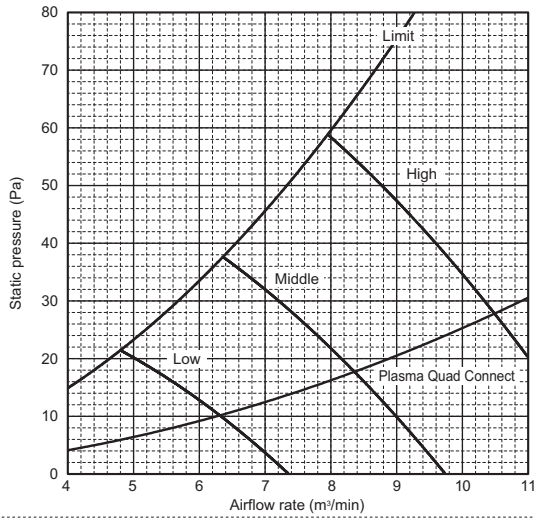


6. FAN CHARACTERISTICS CURVES

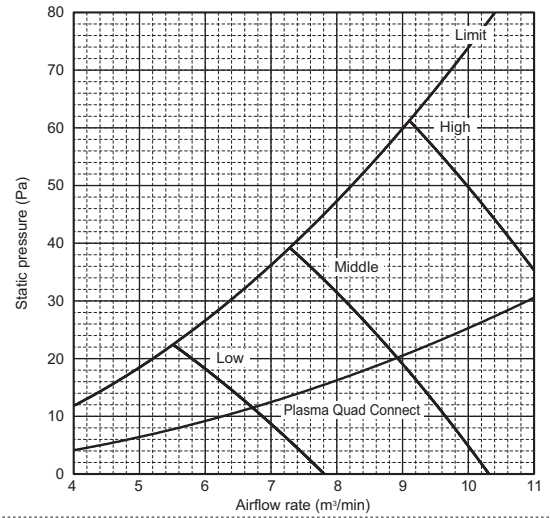
Ceiling concealed (Low noise/Low static pressure type)

PEFY-P-VMR-E-L/R, VMS1(L)-E

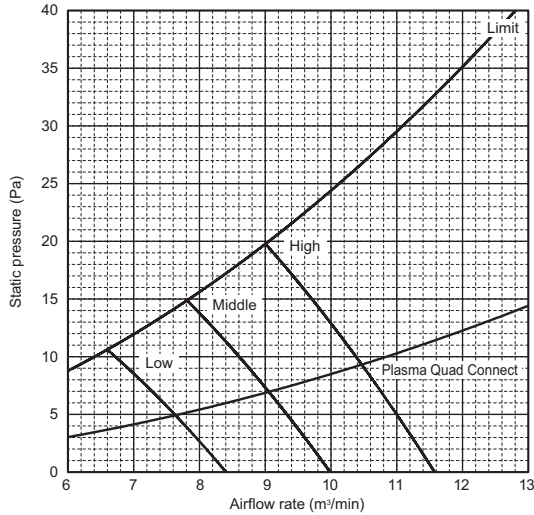
PEFY-P32VMS1(L)-E
 External static pressure : 35Pa
 Power source : 220,230,240V, 50/60Hz
 Suction : Back inlet



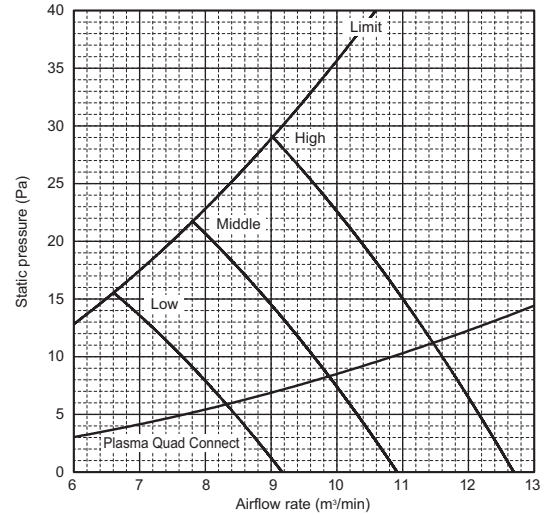
PEFY-P32VMS1(L)-E
 External static pressure : 50Pa
 Power source : 220,230,240V, 50/60Hz
 Suction : Back inlet



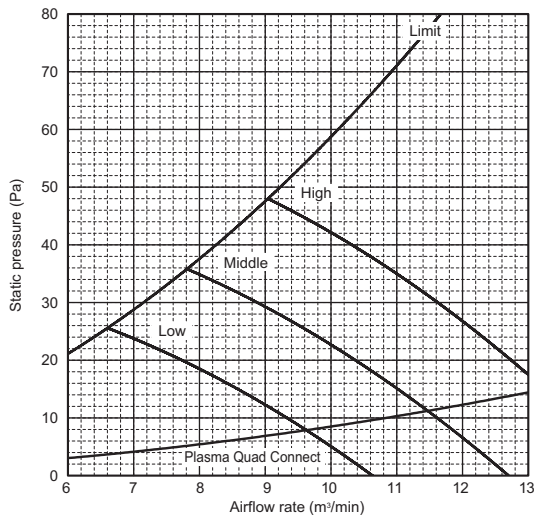
PEFY-P40VMS1(L)-E
 External static pressure : 5Pa
 Power source : 220,230,240V, 50/60Hz
 Suction : Back inlet



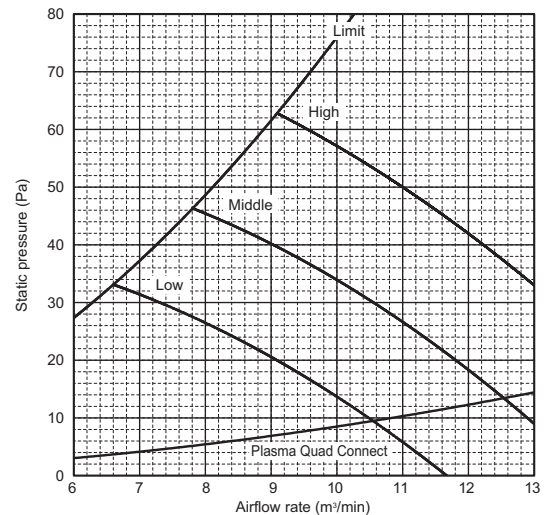
PEFY-P40VMS1(L)-E
 External static pressure : 15Pa
 Power source : 220,230,240V, 50/60Hz
 Suction : Back inlet



PEFY-P40VMS1(L)-E
 External static pressure : 35Pa
 Power source : 220,230,240V, 50/60Hz
 Suction : Back inlet



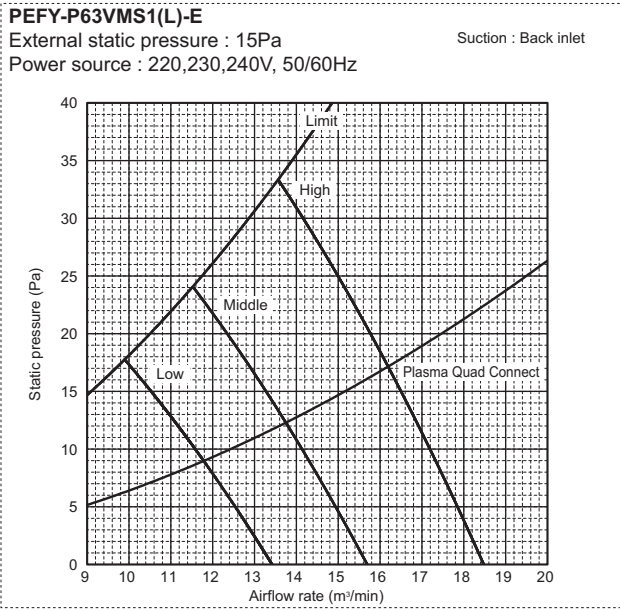
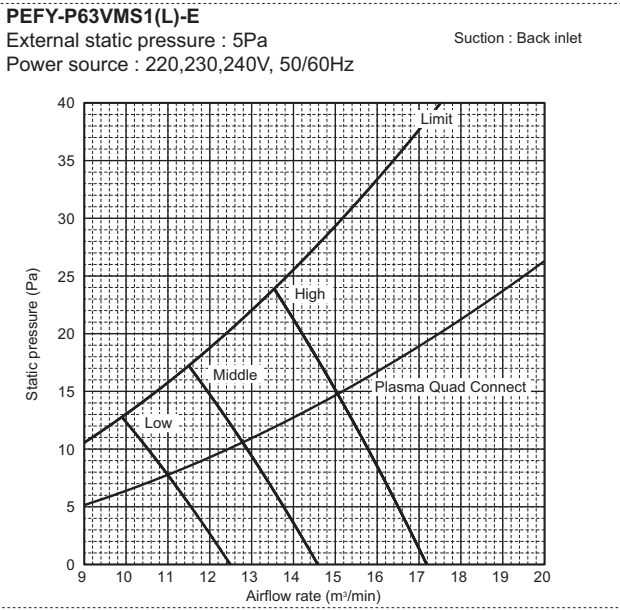
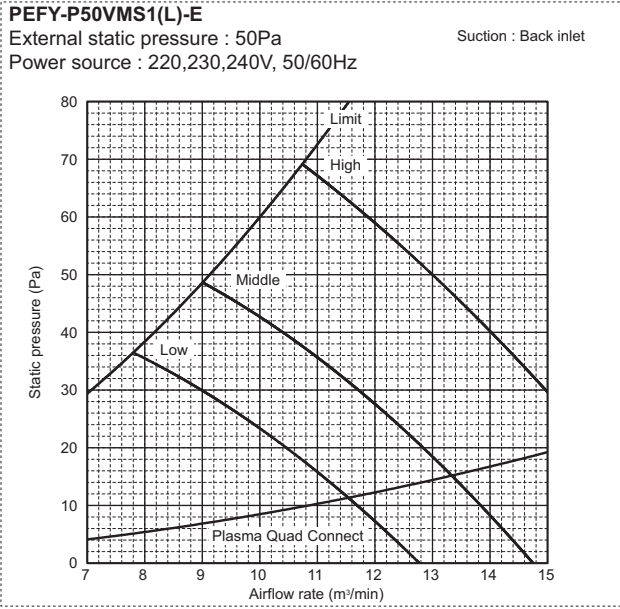
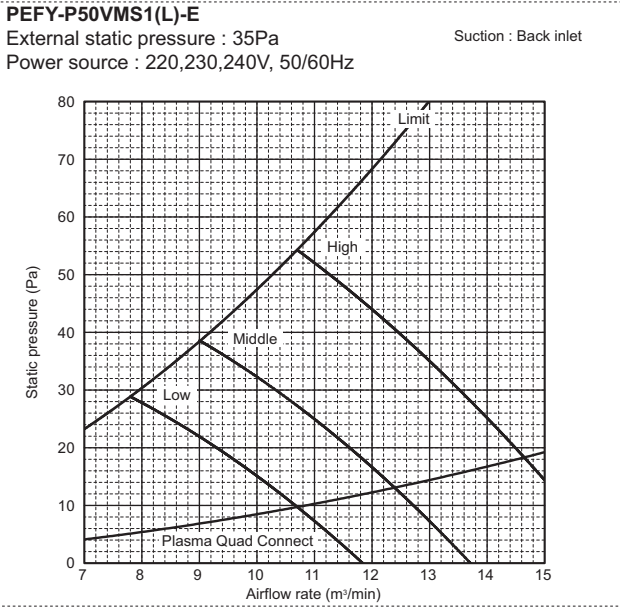
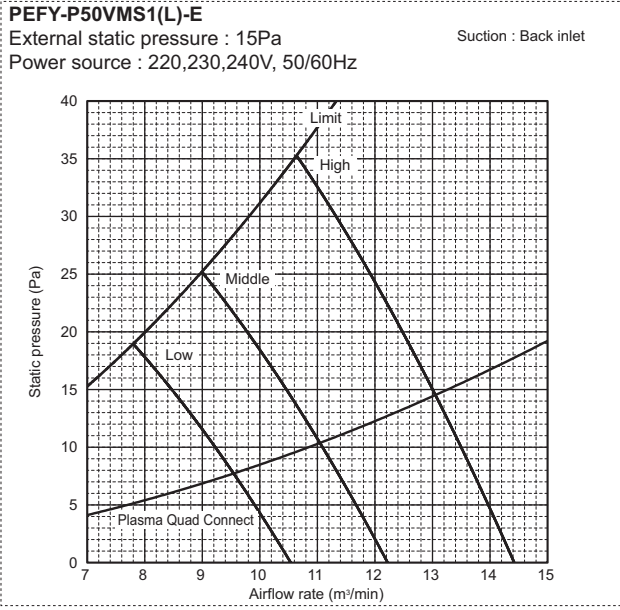
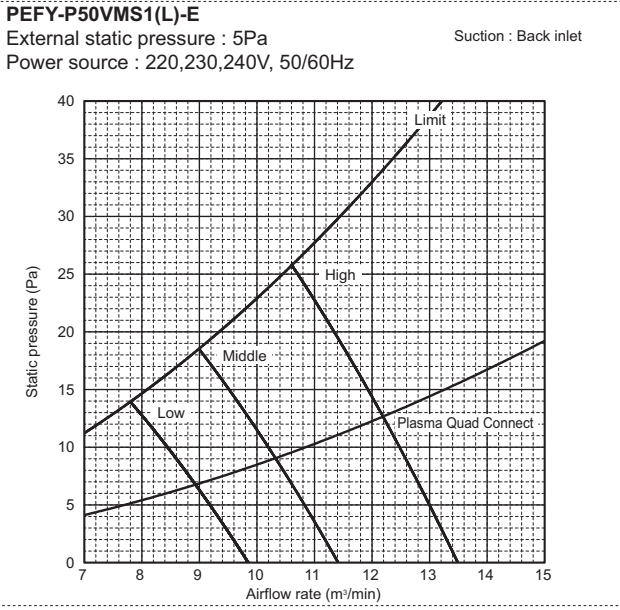
PEFY-P40VMS1(L)-E
 External static pressure : 50Pa
 Power source : 220,230,240V, 50/60Hz
 Suction : Back inlet



6. FAN CHARACTERISTICS CURVES

Ceiling concealed (Low noise/Low static pressure type)

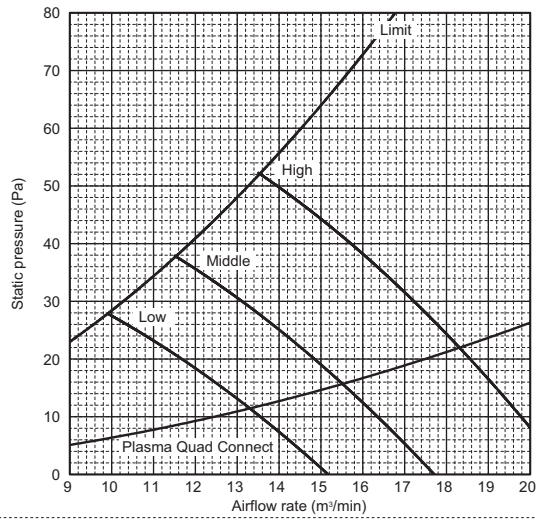
PEFY-P-VMR-E-L/R, VMS1(L)-E



PEFY-P63VMS1(L)-E

External static pressure : 35Pa
 Power source : 220,230,240V, 50/60Hz

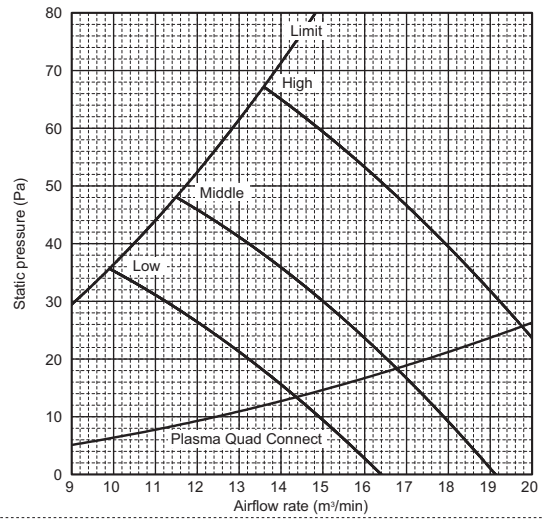
Suction: Back inlet



PEFY-P63VMS1(L)-E

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

Suction: Back inlet



PEFY-P-VMR-E-L/R, VMS1(L)-E

7. ELECTRICAL CHARACTERISTICS

Ceiling concealed (Low noise/Low static pressure type)

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

PEFY-P-VMR-E-L/R	Power supply			IFM	
	Volts/Hz	Range +-10%	MCA(A) (50/60Hz)	Output (kW)	FLA(A) (50/60Hz)
PEFY-P20VMR-E-L/R	220-240V/50Hz 220-230V/60Hz	Max.: 264V Min.: 198V	0.37/0.37	0.018	0.29/0.29
PEFY-P25VMR-E-L/R			0.37/0.37	0.018	0.29/0.29
PEFY-P32VMR-E-L/R			0.43/0.48	0.023	0.34/0.38

PEFY-P-VMS1-E	Power supply			IFM	
	Volts/Hz	Range +-10%	MCA(A) (50/60Hz)	Output (kW)	FLA(A) (50/60Hz)
PEFY-P15VMS1-E	220-240V/50Hz 220-240V/60Hz	Max.: 264V Min.: 198V	0.63/0.63	0.096	0.50/0.50
PEFY-P20VMS1-E			0.70/0.70	0.096	0.56/0.56
PEFY-P25VMS1-E			0.75/0.75	0.096	0.60/0.60
PEFY-P32VMS1-E			0.75/0.75	0.096	0.60/0.60
PEFY-P40VMS1-E			0.83/0.82	0.096	0.66/0.65
PEFY-P50VMS1-E			1.02/1.00	0.096	0.81/0.80
PEFY-P63VMS1-E			1.08/1.07	0.096	0.86/0.85

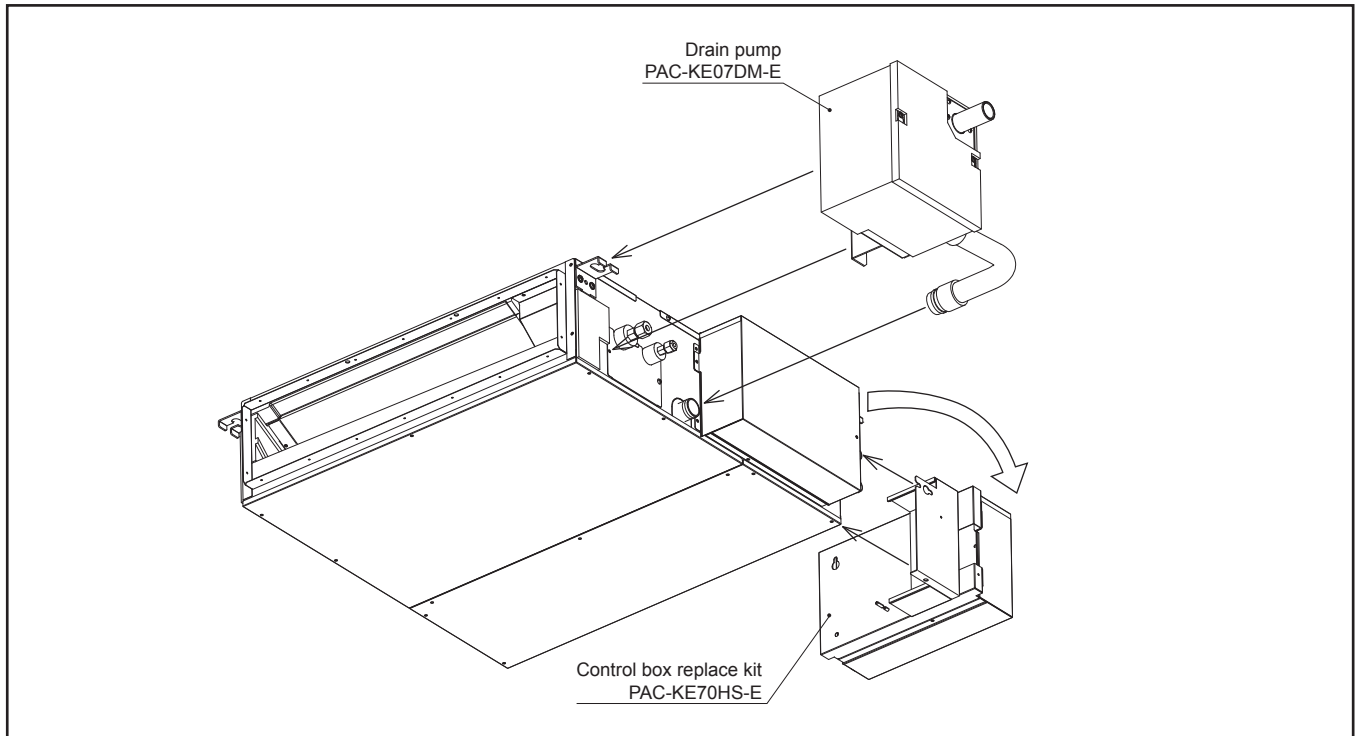
PEFY-P-VMS1L-E	Power supply			IFM	
	Volts/Hz	Range +-10%	MCA(A) (50/60Hz)	Output (kW)	FLA(A) (50/60Hz)
PEFY-P15VMS1L-E	220-240V/50Hz 220-240V/60Hz	Max.: 264V Min.: 198V	0.46/0.46	0.096	0.37/0.37
PEFY-P20VMS1L-E			0.54/0.54	0.096	0.43/0.43
PEFY-P25VMS1L-E			0.59/0.59	0.096	0.47/0.47
PEFY-P32VMS1L-E			0.59/0.59	0.096	0.47/0.47
PEFY-P40VMS1L-E			0.68/0.68	0.096	0.54/0.54
PEFY-P50VMS1L-E			0.84/0.84	0.096	0.67/0.67
PEFY-P63VMS1L-E			0.91/0.91	0.096	0.73/0.73

PEFY-P-VMR-E-L/R, VMS1(L)-E

8-1. Optional parts line up for the Indoor unit

	Drain pump	Control box replace kit	Plasma Quad Connect	PQ attachment
PEFY-P15,20,25,32,40,50,63VMS1-E	-	-	MAC-100FT-E	PAC-HA11PAR
PEFY-P15,20,25,32,40,50,63VMS1L-E	PAC-KE07DM-E	PAC-KE70HS-E	MAC-100FT-E	PAC-HA11PAR

PEFY-P-VMS1(L)-E



8-2. Drain pump

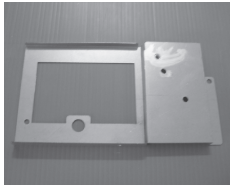
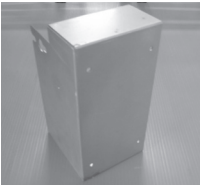
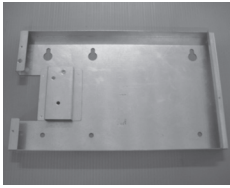
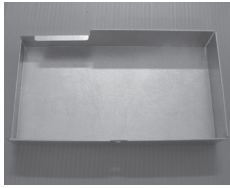
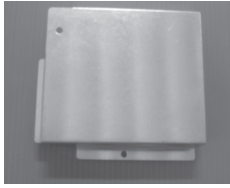


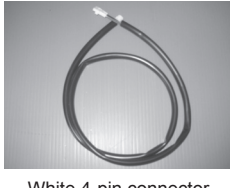







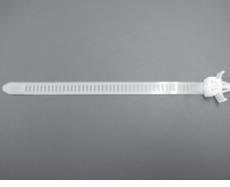




Drain pump is an optional part for VMS1L, and a standard for VMS1. When using drain pump, PAC-KE07DM-E (mounting type) is required.

PAC-KE07DM-E

Item	Drain pump	Attachment	Drain hose 1	Pipe cover 1	Pipe cover 2
Quantity	1	1	1	1	1
Shape			(385mm) 	(255mm) 	(200mm)
Item	Hose band	Screw	Clamp	Ferrite clamp	Band 1
Quantity	1	3	3	1	2
Shape					(100mm)
Item	Drain hose 2	Pipe cover 3	Band 2		
Quantity	1	1	6		
Shape	(175mm) 		(380mm) 		

8-3. Control box replace kit

PAC-KE70HS-E

Parts	PLATE A	PLATE B	PLATE C	COVER A
Q'ty	1	1	1	1
Shape				
Parts	COVER B	LEAD WIRE MOTOR	LEAD WIRE LEV	LEAD WIRE THM A
Q'ty	1	1	1	1
Shape		 White 7-pin connector	 White 6-pin connector	 White 4-pin connector
Parts	LEAD WIRE THM B	LEAD WIRE EARTH	LEAD WIRE PUMP	LEAD WIRE FS
Q'ty	1	1	1	1
Shape	 Red 2-pin connector	 Ring terminal on both ends	 Blue 3-pin connector	 White 4-pin connector
Parts	INSULATOR	Connecting terminals	BAND	CLAMP
Q'ty	3	4	6	4
Shape				
Parts	SCREW 1	SCREW 2	SCREW 3	FERRITE CORE
Q'ty	2	4	5	1
Shape	 4X10	 4X10 with a washer	 5X10 with a washer	

When installing the control box replace kit on the air inlet on the unit, LEAD WIRE FS is not used.

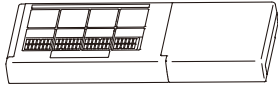


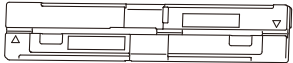

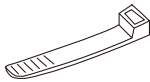

PEFY-P-VMR-E-L/R, VMS1(L)-E

8-4. Plasma Quad Connect

Static pressure loss is referred to 6 "FAN CHARACTERISTICS CURVES". Plasma Quad Connect (MAC-100FT-E) should be used together with PQ attachment (PAC-HA11PAR).

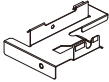
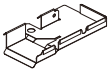

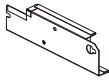


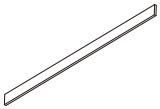
* Attaching the Plasma Quad Connect increases the pressure loss. In a certain capacity range where the airflow may not reach the rated airflow level with the factory default external static pressure setting, adjust the external static pressure setting as necessary. For the adjustment procedure, see the Installation Manual for the indoor unit.

Plasma Quad Connect (MAC-100FT-E)

Item	Plasma Quad Connect (with connecting cable)	Installation plate	Fixing screw for Plasma Quad Connect and Installation plate 4 × 25 mm
Quantity	1	1	5
Shape			
Item	Spacer Note: The spacer is used as packaging material.	Mounting cord clamp	Cable tie
Quantity	1	1	1
Shape			
Item	Screw for Mounting cord clamp 4 × 16 (Use when joining room air conditioner parts)		
Quantity	1		
Shape			

Detailed installation information should be referred to its Installation Manual.

PQ attachment (PAC-HA11PAR)

Item	PLATE 1	PLATE 2	PLATE 3	PLATE 4	Screw (4 × 10)	Screw (5 × 10)	RUBBER PLATE
Quantity	1	1	1	1	3	2	2
Shape							

Detailed installation information should be referred to its Installation Manual.

8. OPTIONAL PARTS

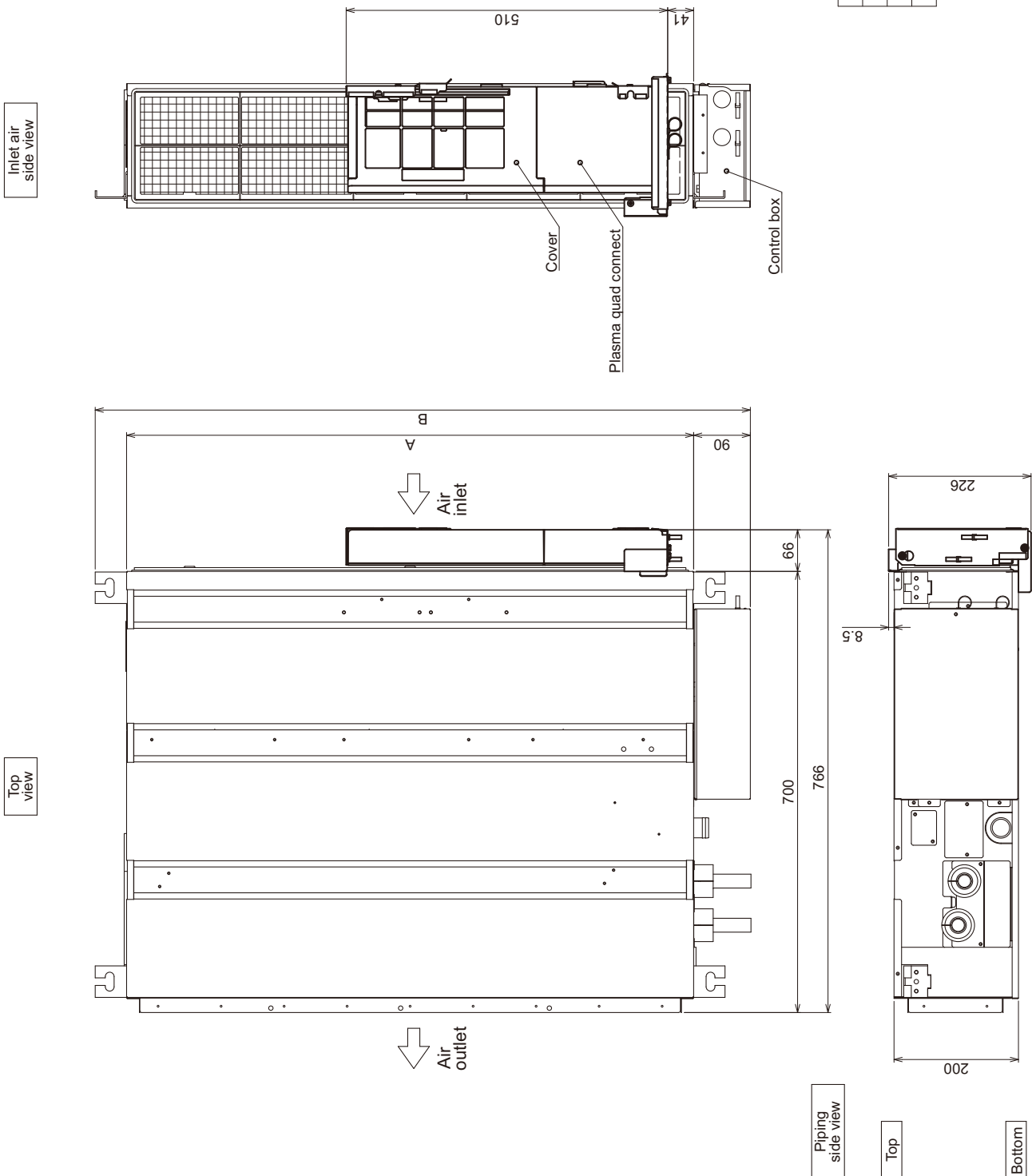
Ceiling concealed (Low noise/Low static pressure type)

PEFY-P15, 20, 25, 32, 40, 50, 63VMS1(L)-E
with PQ attachment and Plasma Quad Connect

Unit: mm

PEFY-P-VMR-E-L/R, VMS1(L)-E

WIDE A	B
700	839
900	1039
1100	1239



Model	WIDE A	B
PEFY-P15,20,25,32VMS1(L)-E	700	839
PEFY-P40VMS1(L)-E	900	1039
PEFY-P50VMS1(L)-E		
PEFY-P63VMS1(L)-E	1100	1239

The drawing above is a sample image of the optional parts being installed on a unit.

PEFY-P15, 20, 25, 32, 40, 50, 63VMS1(L)-E
with PQ attachment and Plasma Quad Connect

Unit: mm

[Maintenance access space]
Secure enough access space to allow for the maintenance, inspection, and replacement of the motor, fan, heat exchanger, and control box in one of the following ways.
Select an installation site for the indoor unit so that its maintenance access space will not be obstructed by beams or other objects. (Fig.1)

- (1) When a space of 300mm or more is available below the unit between the unit and the ceiling. (Fig.1)
- Create access door 1 and 2 (450x450mm each) as shown in Fig.2.

(2) When a space of less than 300mm is available below the unit between the unit and the ceiling.
(At least 20mm of space should be left below the unit as shown in Fig.3.)

- Create access door 1 diagonally below the control box and access door 3 below the unit as shown in Fig.4.

or

- Create access door 4 below the control box and the unit as shown in Fig.5.

(3) For maintenance if there is more than 170mm from the top surface, the cover can be pulled out without removing the PQ attachment. (Fig.1, Fig.3)

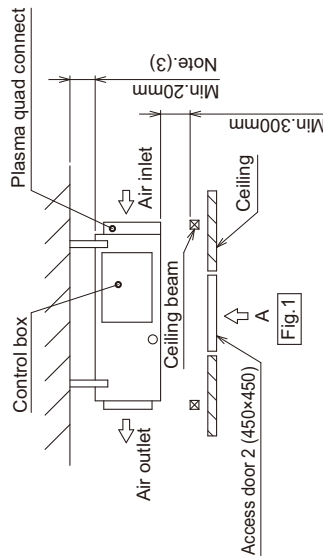


Fig.1

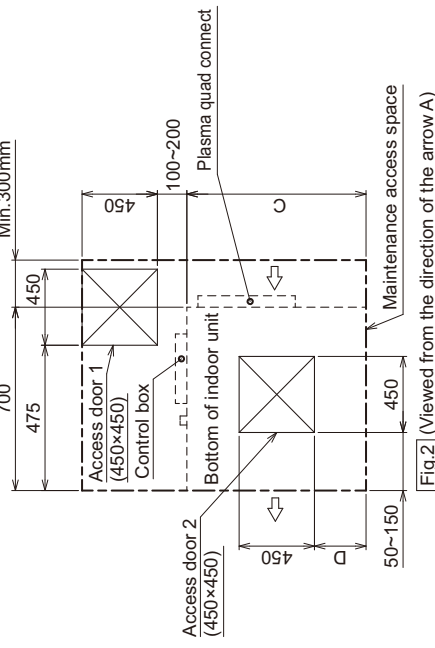


Fig.2 (Viewed from the direction of the arrow A)

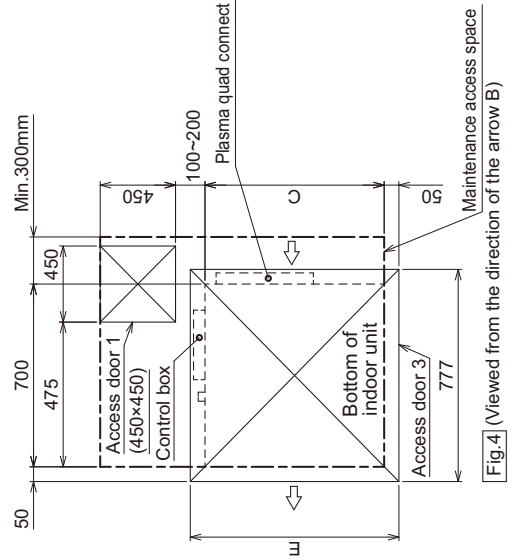


Fig.4 (Viewed from the direction of the arrow B)

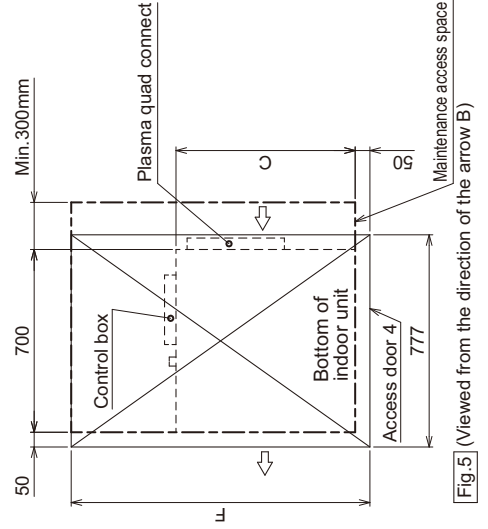


Fig.5 (Viewed from the direction of the arrow B)

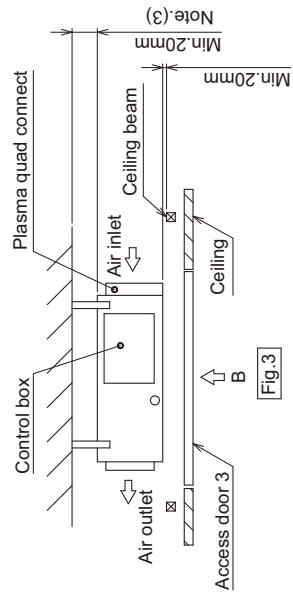


Fig.3

WIDE C	D	E	F
700	50~150	800	1300
900	150~250	1000	1500
1100	250~350	1200	1700

Model	WIDE C	D	E	F
PEFY-P15,20,25,32VMS1(L)-E	700	50~150	800	1300
PEFY-P40VMS1(L)-E	900	150~250	1000	1500
PEFY-P50VMS1(L)-E				
PEFY-P63VMS1(L)-E	1100	250~350	1200	1700

The drawing above is a sample image of the optional parts being installed on a unit.

⚠ 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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