

Project No.
Wojewódzki Instytut Weterynarii w Bydgoszczy
ZUBADAN

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MITSUBISHI ELECTRIC CORPORATION

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Zestawienie

Ilość	Model	Opis	Cena
8	PAR-30MAA	Sterownik MA	
1	PUHY-HP250YHM-A	R410A Y Seria Agregat	
1	PUHZ-RP250YKA	R410A PU Seria Agregat	
3	PLFY-P20VCM-E	Urządzenie Kasetonowe (4 stronny wypływ) Urządzenie Wewnętrzne	
3	(SLP-2AAW / SLP-2ALW)	Panel	
4	PLFY-P40VBM-E	Urządzenie Kasetonowe (4 stronny wypływ) Urządzenie Wewnętrzne	
4	(PLP-6BA)	Panel	
2	PLFY-P50VBM-E	Urządzenie Kasetonowe (4 stronny wypływ) Urządzenie Wewnętrzne	
2	(PLP-6BA)	Panel	
1	PEA-RP250GA	Urządzenie Kanałowe Urządzenie Wewnętrzne	
2	CMY-Y102LS-G2	Połączenie	
6	CMY-Y102SS-G2	Połączenie	

Konfiguracja systemu sterowania

Kategoria 1		Kategoria 2		Kategoria 3		Kategoria 4		Kategoria 5		Kategoria 6		
Model		Model		Model		Model		Model		J. wew.	Model	M-NET
		-		-		-		-				
M-NET	-	M-NET	-	M-NET	-	M-NET	-	M-NET	-			
adr. IP	-	adr. IP	-	-	-	-	-	-	-			
											PAR-30MAA	
											PAR-30MAA	
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											PAR-30MAA	
											PAR-30MAA	
											PAR-30MAA	
											PAR-30MAA	
											PAR-30MAA	

Centralized Control1

>Konfiguracja systemu

> Jedn. zewn. / Jedn. wewn. / Sterowniki

Układ chłodniczy	Jednostka zewnętrzna				Pom.	Jednostka wewnętrzna			Sterownik		Nazwa grupy
	Ref.	Model				Ref.	Model	adr.	Model	adr.	
		adres									
VRF		PUHY-HP250YHMA			307a / Pom.		PLFY-P20VCM-E	001	PAR-30MAA		1
		051			308 / Pom. Analiz 4		PLFY-P40VBM-E	002	PAR-30MAA		2
					309 / Pom. Analiz 5		PLFY-P40VBM-E	003	PAR-30MAA		3
					310 / Pom. Analiz 6		PLFY-P50VBM-E	004	PAR-30MAA		4
					306 / Pom. Analiz 1		PLFY-P40VBM-E	005	PAR-30MAA		5
					306 / Pom. Analiz 1		PLFY-P40VBM-E	006			
		PUHZ-RP250YKA			311 / Pom. Analiz 7		PLFY-P50VBM-E	007	PAR-30MAA		6
					305 / Pom. Socialne		PLFY-P20VCM-E	008	PAR-30MAA		7
					312 / Pok. Biurowy		PLFY-P20VCM-E	009	PAR-30MAA		8
Agregat C.W.		PUHZ-RP250YKA			Chłodnica freonowa		PEA-RP250GA				9

Centralized Control1

> Informacja o urządzeniach

> Sterownik

Model	Zdjęcie*1	Ilość	Opis
PAR-30MAA		8	Sterownik MA

> Interfejsy PI/AI/DIDO

Model	Zdjęcie*1	Ilość	Opis

> Urządzenia

1. Jednostka zewnętrzna

Sys.	Model	Zdjęcie* ¹	Iloś ć		Capacity(kW)		Pobór mocy (kW)		COP (kW/kW)* ²		
VRF	PUHY- HP250YHM-A		1		Nom.	Skor.	Nom.	Skor.	Nom.	Skor.	
				Chłodz.	28.00	29.52	9.06	8.71	3.09	3.39	
				Grzanie	31.50	26.23	8.94	15.90	3.52	1.65	
					Parametry				Dimension(mm)		Masa netto
					D.B.(deg C)	W.B.(deg C)	Wilg. (%)	Water inlet(deg C)	wys X szer X głęb		(kg)
				Chłodz.	32.0	-	-	-	1,650 x 920 x 760		220
				Grzanie	-20.0	-20.0	99	-			

2. BC controller (tylko seria R2: PURY, PORY)

Sys.	Model	Zdjęcie*1	Ilość	Pobór mocy (kW)	Dimension(mm)	Masa netto
				Nominalnie	wys X szer X głęb	(kg)
				Chłodz.		
				Grzanie		

*1 Pokazane zdjęcie może różnić się od aktualnie dostępnego produktu.

*2 Podana wartość COP dotyczy jedynie jednostki zewnętrznej, nie całego systemu.

Centralized Control1

> Informacja o urządzeniach

3. Jednostki wewnętrzne

Sys.	Model	Zdjęcie*1	Ilość	Capacity(kW)		Sensible capacity(kW)		Pobór mocy (kW)	Pobór prądu (A)	Wyd. pow. (Niski- (m3/min)	Zewn. spręż	
VRF	PLFY-P20VCM-E		3		Nom.	Skor.	Nom.	Skor.	Nom.			
				Chłodz.	2.20	2.17	1.80	1.47	0.05	0.23	8 - 10	*3
				Grzanie	2.50	2.06			0.05	0.23		
					Parametry			Dimension(mm)		Masa		
					D.B.(deg C)	W.B.(deg C)	Wilg. (%)	wys X szer X głęb		(kg)		
				Chłodz.	24.0	19.0	63	208 x 570 x 570		15.5		
				Grzanie	20.0	-	-					

Sys.	Model	Zdjęcie*1	Ilość	Capacity(kW)		Sensible capacity(kW)		Pobór mocy (kW)	Pobór prądu (A)	Wyd. pow. (Niski- (m3/min)	Zewn. spręż	
VRF	PLFY-P40VBM-E		4		Nom.	Skor.	Nom.	Skor.	Nom.			
				Chłodz.	4.50	4.45	3.60	2.85	0.04	0.29	12 - 16	*3
				Grzanie	5.00	4.13			0.03	0.22		
					Parametry			Dimension(mm)		Masa		
					D.B.(deg C)	W.B.(deg C)	Wilg. (%)	wys X szer X głęb		(kg)		
				Chłodz.	24.0	19.0	63	258 x 840 x 840	22			
				Grzanie	20.0	-	-					

Sys.	Model	Zdjęcie ^{*1}	Ilość	Capacity(kW)		Sensible capacity(kW)		Pobór mocy (kW)	Pobór prądu (A)	Wyd. pow. (Niski- (m3/min)	Zewn. spręż	
VRF	PLFY-P50VBM-E		2		Nom.	Skor.	Nom.	Skor.	Nom.			
				Chłodz.	5.60	5.54	4.10	3.32	0.04	0.29	12 - 16	*3
				Grzanie	6.30	5.20			0.03	0.22		
					Parametry			Dimension(mm)		Masa		
					D.B.(deg C)	W.B.(deg C)	Wilg. (%)	wys X szer X głęb		(kg)		
				Chłodz.	24.0	19.0	63	258 x 840 x 840		22		
				Grzanie	20.0	-	-					

4. Trójniki / Rozdzielacze

Sys.	Model	Zdjęcie ^{*1}	Ilość	Opis
VRF	CMY-Y102LS-G2		2	-

*1 Pokazane zdjęcie może różnić się od aktualnie dostępnego produktu.

*3 Zanoznai sie z danymi technicznymi na końcu opracowania.

Centralized Control1

> Informacja o urządzeniach

4. Trójniki / Rozdzielacze

Sys.	Model	Zdjęcie*1	Ilość	Opis
VRF	CMY-Y102SS-G2		6	-

> Urządzenia

1. Jednostka zewnętrzna

Sys.	Model	Zdjęcie*1	Iloś ć		Capacity(kW)		Pobór mocy (kW)		COP (kW/kW)*2			
Agrega t C.W.	PUHZ- RP250YKA		1		Nom.	Skor.	Nom.	Skor.	Nom.	Skor.		
				Chłodz.								
				Grzanie								
					Parametry				Dimension(mm)			Masa netto
					D.B.(deg C)	W.B.(deg C)	Wilg. (%)	Water inlet(deg C)	wys X szer X głęb			(kg)
				Chłodz.	32.0	-	-	-				
				Grzanie	-20.0	-20.0	99	-				

2. BC controller (tylko seria R2: PURY, PORY)

Sys.	Model	Zdjęcie*1	Ilość	Pobór mocy (kW)	Dimension(mm)	Masa netto
				Nominalnie	wys X szer X głęb	(kg)
				Chłodz.		
				Grzanie		

*1 Pokazane zdjęcie może różnić się od aktualnie dostępnego produktu.

*2 Podana wartość COP dotyczy jedynie jednostki zewnętrznej, nie całego systemu.

Centralized Control1

> Informacja o urządzeniach

3. Jednostki wewnętrzne

Sys.	Model	Zdjęcie*1	Ilość		Capacity(kW)		Sensible capacity(kW)		Pobór mocy (kW)	Pobór prądu (A)	Wyd. pow. (Niski- (m3/min)	Zewn. spręż
Agregat C.W.	PEA-RP250GA		1		Nom.	Skor.	Nom.	Skor.	Nom.			
				Chłodz.	22.00	22.40	-	17.02				
				Grzanie	27.00	15.57						*3
					Parametry			Dimension(mm)		Masa		
					D.B.(deg C)	W.B.(deg C)	Wilg. (%)	wys X szer X głęb		(kg)		
				Chłodz.	24.0	19.0	63					
				Grzanie	20.0	-	-					

4. Trójniki / Rozdzielacze

Sys.	Model	Zdjęcie*1	Ilość	Opis
-	-		-	-

>Rekuperatory (Lossnay)

Model	Zdjęcie*1	Ilość	Opis
-		-	-

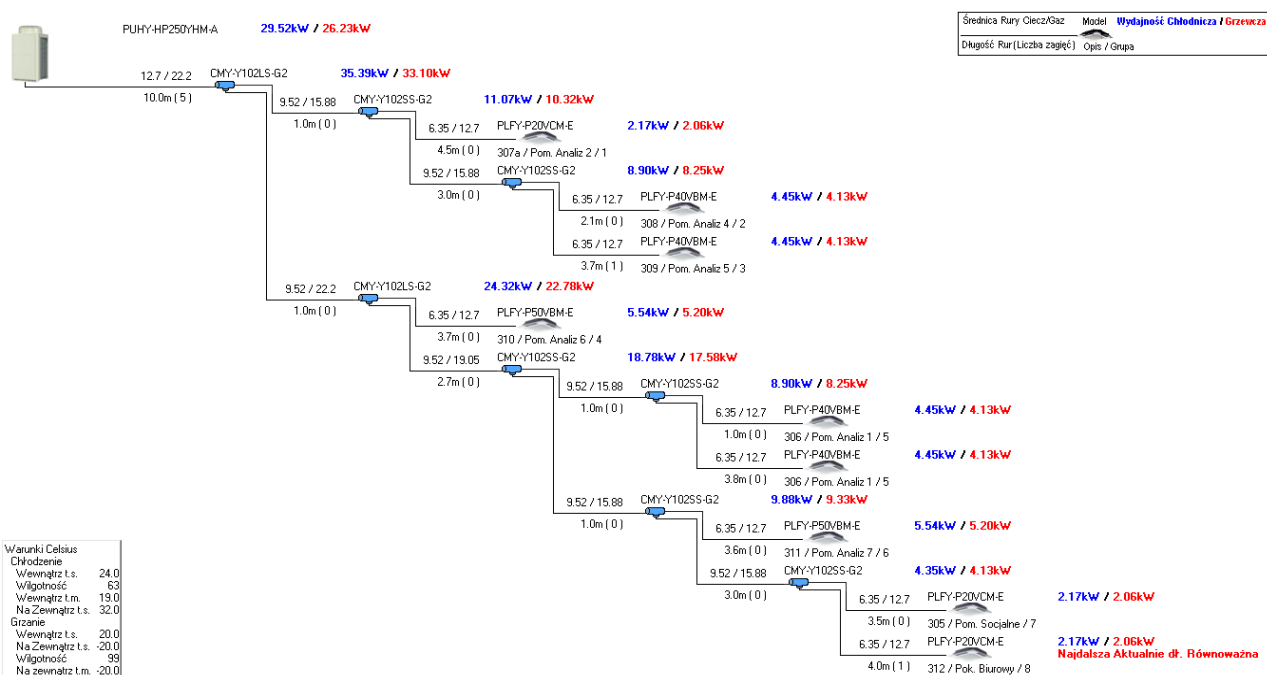
*1 Pokazane zdjęcie może różnić się od aktualnie dostępnego produktu.

*3 Zaznaczyć się z danymi technicznymi na końcu opracowania.

Centralized Control1 VRF

> Schemat orurowania

1. Schemat orurowania



Centralized Control1 VRF

> Schemat orurowania

2. Orurowanie

	Liquid/High (mm)	Gas/Low (mm)	Low/Gas/Bypass/Oi	Total length(m)	Liczba kolan
Pierwsze połączenie do Urządzenia	6.35	12.7		29,9	2
Pierwsze połączenie do Urządzenia	9.52	15.88		9	0
Pierwsze połączenie do Urządzenia	9.52	19.05		2,7	0
Pierwsze połączenie do Urządzenia	9.52	22.2		1	0
Agregat do pierwszego połączenia	12.7	22.2		10	5

3. Podsumowanie

Pipe Size (mm)	Total length(m)	Liczba kolan
9.52	12,7	0
15.88	9	0
6.35	29,9	2
12.7	39,9	7
22.2	11	5
19.05	2,7	0

4. Doładowanie czynnika

Dodatkowa ilość czyi	R410A	X	5,7	kg
Całk. ilość czynnika	R410A	X	14,7	kg

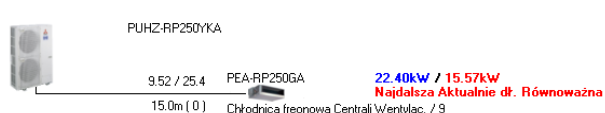
5. Przepływ wody (tylko dla WY oraz WR2: PQHY, PQRY)

Flow rate(m3/h)	Pressure drop(kPa)
-	-

Centralized Control1 Agregat C.W.

> Schemat orurowania

1. Schemat orurowania



Średnica Rury Ciecz/Gaz	Model	Wydajność Chłodnicza / Grzewcza
Długość Rur (Liczba zagięć)	Opis / Grupa	

Warunki Celsius	
Chłodzenie	
Wewnątrz t.s.	24.0
Wilgotność	63
Wewnątrz t.m.	19.0
Na Zewnątrz t.s.	32.0
Grzanie	
Wewnątrz t.s.	20.0
Na Zewnątrz t.s.	-20.0
Wilgotność	99
Na zewnątrz t.m.	-20.0

Centralized Control1 Agregat C.W.

> Schemat orurowania

2. Orurowanie

	Liquid/High (mm)	Gas/Low (mm)	Low/Gas/Bypass/Oi	Total length(m)	Liczba kolan
Agregat do Urządzenia	9.52	25.4		15	0

3. Podsumowanie

Pipe Size (mm)	Total length(m)	Liczba kolan
9.52	15	0
25.4	15	0

4. Doładowanie czynnika

Dodatkowa ilość czyi	R410A	X	0	kg
Całk. ilość czynnika	R410A	X		kg

5. Przepływ wody (tylko dla WY oraz WR2: PQHY, PQRY)

Flow rate(m3/h)	Pressure drop(kPa)
-	-

Centralized Control1

> Schemat okablowania

Sys.	8	x	PAR-30MAA
	Informacja o zasilaniu		
	Zasilanie:	-	
	MCA(A):	-	
	Max.Zabezp.(A):	-	
	Podłączenie:	-	
	Przewód zasilania:	-	
	przekrój	-	
	Linia transmisji danych		
	Podłączenie:	A,B	
	Przewód transmisji:	Sheathed 2-core cable	
	przekrój	0.3mm2	

Sys.	1	x	PUHY-HP250YHM-A
	Informacja o zasilaniu		
	Zasilanie:	3-phase 4-wire 380/400/415V 50Hz	
	MCA(A):	31.5	
	Max.Zabezp.(A):	-	
	Podłączenie:	TB1(L1,L2,L3,N),ground	
	Przewód zasilania:	Metal conduit wire	
	przekrój	6.0mm2 or thicker(main) 6.0mm2 or thicker(ground)	
	Linia transmisji danych		
	Podłączenie:	TB3(M1,M2,S)TB7(M1,M2,S) *2	
	Przewód transmisji:	Shielding wire (2-core) CVVS, CPEVS or MVVS	
	przekrój	1.25mm2 or thicker	

Sys.	3	x	PLFY-P20VCM-E
	Informacja o zasilaniu		
	Zasilanie:	1-phase 220-240V 50Hz	
	MCA(A):	0.29	
	Max.Zabezp.(A):	-	
	Podłączenie:	TB2(L,N),ground	
	Przewód zasilania:	Metal conduit wire	
	przekrój	1.5mm2 or thicker(main) *3 1.5mm2 or thicker(ground) *3	
	Linia transmisji danych		
	Podłączenie:	TB5(M1,M2,S)TB15(1,2) *4	
	Przewód transmisji:	Shielding wire (2-core) CVVS, CPEVS or MVVS	
	przekrój	1.25mm2 or thicker	

Sys.	4	x	PLFY-P40VBM-E
	Informacja o zasilaniu		
	Zasilanie:	1-phase 220-240V 50Hz	
	MCA(A):	0.36	
	Max.Zabezp.(A):	-	
	Podłączenie:	TB2(L,N),ground	
	Przewód zasilania:	Metal conduit wire	
	przekrój	1.5mm2 or thicker(main) *3 1.5mm2 or thicker(ground) *3	
	Linia transmisji danych		
	Podłączenie:	TB5(M1,M2,S)TB15(1,2) *4	
	Przewód transmisji:	Shielding wire (2-core) CVVS, CPEVS or MVVS	
	przekrój	1.25mm2 or thicker	

Sys.	2	x	PLFY-P50VBM-E
	Informacja o zasilaniu		
	Zasilanie:	1-phase 220-240V 50Hz	
	MCA(A):	0.36	
	Max.Zabezp.(A):	-	
	Podłączenie:	TB2(L,N),ground	
	Przewód zasilania:	Metal conduit wire	
	przekrój	1.5mm2 or thicker(main) *3 1.5mm2 or thicker(ground) *3	
	Linia transmisji danych		
	Podłączenie:	TB5(M1,M2,S)TB15(1,2) *4	
	Przewód transmisji:	Shielding wire (2-core) CVVS, CPEVS or MVVS	
	przekrój	1.25mm2 or thicker	

Sys.	1	x	PUHZ-RP250YKA
	Informacja o zasilaniu		
	Zasilanie:	3 400 50Hz	
	MCA(A):	-	
	Max.Zabezp.(A):	-	
	Podłączenie:	-	
	Przewód zasilania:	-	
	przekrój	-	
	Linia transmisji danych		
	Podłączenie:	-	
	Przewód transmisji:	-	
	przekrój	-	

*2 TB7 is used for centralized controller.

*3 The wiring size differs depending on the total operating current of the indoor unit. 1.5mm2 or thicker(16A or less), 2.5mm2 or thicker(25A or less), 4.0mm2 or thicker(32A or less)

*4 TB5 is used for ME remote controller. TB15 is used for MA remote controller.

Centralized Control1

> Schemat okablowania

Svs.	1	x	PEA-RP250GA
Agregat C.W.	Informacja o zasilaniu		
	Zasilanie:	3 400	50Hz
	MCA(A):	-	
	Max.Zabezp.(A):	-	
	Podłączenie:	-	
	Przewód zasilania:	-	
	przekrój	-	
		-	
		-	
		-	
		-	
		-	
		-	
		-	
Linia transmisji danych			
Podłączenie:	-		
Przewód transmisji:	-		
	-		
	-		
przekrój	-		
	-		

Podsumowanie

> Zestawienie urządzeń

1. Sterowniki

Model	Ilość
PAR-30MAA	8

2. Interfejsy PI/AI/DIDO

Model	Ilość
-	-

3. Jednostki zewnętrzne

Model	Ilość
PUHY-HP250YHM-A	1
PUHZ-RP250YKA	1

4. BC controller

Model	Ilość
-	-

5. Jednostki wewnętrzne

Model	Ilość
PLFY-P20VCM-E	3
PLFY-P40VBM-E	4
PLFY-P50VBM-E	2
PEA-RP250GA	1

6. Trójniki / Rozgałęźniki

Model	Ilość
CMY-Y102LS-G2	2
CMY-Y102SS-G2	6

7. Lossnay

Model	Ilość
-	-

8. HUB (spoza oferty Mitsubishi Electric)

Model	Ilość
-	-

MITSUBISHI ELECTRIC CORPORATION

Podsumowanie

> Zestawienie urządzeń

9. Sterownik wydajności pow. (spoza oferty Mitsubishi Electric)

Model	Ilość
-	-

Podsumowanie

> Zestawienie dodatkowych elementów

1. Orurowanie - materiały

Pipe Size(mm)	Total length(m)	Liczba kolan
9.52	27,7	0
15.88	9	0
6.35	29,9	2
12.7	39,9	7
22.2	11	5
19.05	2,7	0
25.4	15	0

2. Doładowanie czynnika

Dodatkowa ilość czynnika	R410A	X	5,7	kg
Całk. ilość czynnika	R410A	X	14,7	kg

3. Okablowanie

Przew. zasilania	Typ kabla	Wykorzystanie
1.5mm ² or thicker *4	Metal conduit wire *1 *2 *3	Indoor unit power supply cable (main and ground wire)
6.0mm ² or thicker	Metal conduit wire *1 *2 *3	Outdoor unit power supply cable (main and ground)
Przew. transmisji danych	Typ kabla	Wykorzystanie
0.3mm ²	Sheathed 2-core cable (unshielded)	MA remote controller transmission cable
1.25mm ² or thicker	Shielding wire (2-core) CVVS, CPEVS or MVVS	Indoor/outdoor transmissin cable

*1 Podano minimalny przekrój kabla. Jeśli mają miejsce zbyt duże spadki napięcia, użyj kabla o 1 stopień większej średnicy.

Upewnij się, że spadki napięcia nie są większe niż 10%.

*2 Konkretnie okablowanie powinno spełniać wymagania podane wyżej, jak również warunki określone przez lokalne przepisy.

*3 Przewody zasilające jednostki zewnętrzne powinny być lżejsze niż elastyczne przewody w osłonie polichloroprenu (wg 245 IEC57). Np. wykorzystaj przewodytyp YZW.

*4 Rozmiar okablowania uzależniony jest od całkowitego prądu pobieranego przez jednostki wewnętrzne.

1.5mm² lub większe do 16A, 2.5mm² lub większe do 25A, 4.0mm² lub większe do 32A

CVVS,MVVS : przewód do sterowania izolowany PVC, w osłonie PVC, ekranowany

CPEVS : przewód do sterowania izolowany PE, w osłonie PVC, ekranowany

CVV : przewód sterowania izolowany PVC, w osłonie PVC

> Model: PAR-30MAA Catalogue

Individual Remote Controller

Wired MA remote controller PAR-30MAA

NEW

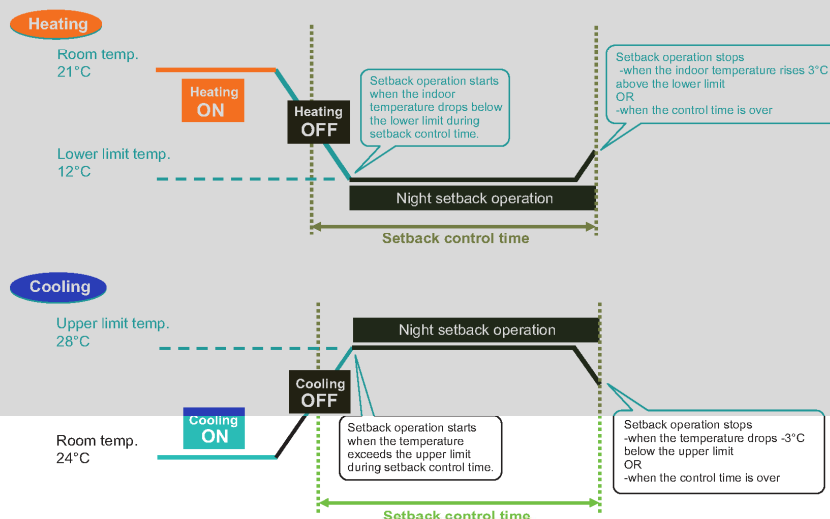
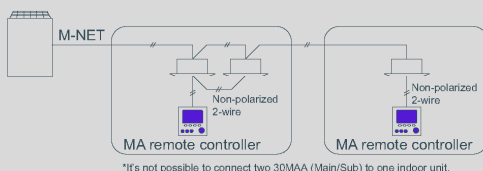


[Advanced Functions]

- Error information
- Timer
- Operation lock
- Temperature range restriction
- Language selection

- Backlit LCD (Liquid Crystal Display)
Large, easy-to-see display
Full-dot LCD display with large characters for easy viewing
Contrast also adjustable
- Auto Return
Function to return the set temperature to the originally preset temperature after certain amount of time
Auto return can be set respectively for cooling operation and for heating operation.
Time can be set to a value from 30 and 120 in 10-minute increments.
- Night Setback
To prevent indoor dew or excessive temperature rise, this control starts heating operation when the control object group is stopped and the room temperature drops below the preset lower limit temperature. Also, this control starts cooling operation when the control object group is stopped and the room temperature rises above the preset upper limit temperature.
- Dimensions: 120(W) x 120(H) x 19(D) mm

Example of system configuration



Remote Controller

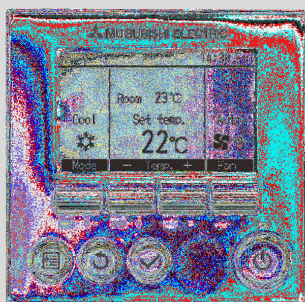
> Model: PAR-30MAA Specifications

2. Local remote controller

DATA G9

2-1. MA remote controller [PAR-30MAA]

Controller



■ Functions

1. Operation/Display

○ Each group X: Not available

Item	Description	Setting	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches among Cool/Dry/Fan/Auto/Heat.	○	○
Room temp. setting	The temperature can be set within the following range. Cool/Dry : 19°C - 30°C / 67°F - 87°F Heat : 17°C - 28°C / 63°F - 83°F Auto : 19°C - 28°C / 67°F - 83°F * Set temperature range varies depending on the model.	○	○
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Louver setting	Switches between lower ON/OFF.	○	○
Ventilation equipment control	Interlocked setting and interlocked operation setting with the City Multi LOSSNAY units can be made. The Stop/Low/High settings of the ventilation equipment can be controlled.	○	○
Auto descending panel ¹⁾	Raises and lowers the automatic elevating panel.	○	○
backlight	Pressing any button turns the backlight on and it will stay lit for a certain period of time depending on the screen.	X	○
Main display mode setting	The Main display can be displayed in two different modes: "Full" and "Basic."	○	○
Clock ²⁾	Date (year/month/day) and time (hour/minute) can be set. The set time as well as the day of the week will be displayed on the Main display. It is also possible to set not to display the time on the Main display.	○	○
Clock display	The clock can be displayed in 12-hour format (AM/PM before or after the time) and 24-hour format.	○	○
Room temp. display	Displays the room temperature on the Main display in the "Full" mode during operation.	—	○
Error information	When an error occurs, an error code and the unit address appear. Air conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The information above needs to be entered in advance.) * An error code may not appear depending on the error.	—	○
Filter information	A filter sign will appear when it is time to clean the filter.	—	○

2. Schedule and timer setting

○ Each group X: Not available

Item	Description	Setting	Display
Timer	ON/OFF timer Turns ON and OFF daily at a set time. * Time can be set in 5-minute increments. * It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. * Operation time can be set to a value from 30 to 240 in 10-minute increments.	○	○
Weekly timer	Weekly ON/OFF times and set temperatures can be set. * Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week. * Not valid when the ON/OFF timer is set.	○	○
Night setback	The temperature range and the start/stop times can be set.	○	○

3. Restriction settings

○ Each group X: Not available

Item	Description	Setting	Display
Allows/disallows local operation	The following operation can be prohibited by making certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, and filter sign reset. * While an operation is prohibited, the operation icon lights up (only on the Main display in the "Full" mode).	X	○
Operation lock	The following operation can be prohibited respectively: ON/OFF, operation mode setting, temperature setting, and airflow direction setting.	○	○
Temperature range restriction	The room temperature range for each operation mode can be restricted.	○	○
Auto return	The units operate at the preset temperature after a designated period. (Time can be set to a value from 30 to 120 in 10-minute increments.) * Not valid when the temperature setting range is restricted.	○	X
password	Administrator password (required for schedule setting etc.) and Maintenance password (required for test run and function setting etc.) can be set.	○	X

4. Miscellaneous items

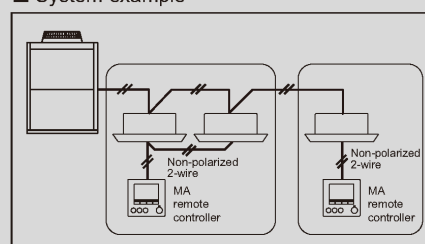
○ Each group X: Not available

Item	Description	Setting	Display
Language Selection	Select the display language from the following 8 languages: English, French, German, Spanish, Italian, Portuguese, Swedish, and Russian.	○	○
Contrast	Adjusts LCD contrast.	○	○
Manual vane Angle ¹⁾	Fixes the vane position for each air outlet.	○	X
Service ¹⁾	Contains Test run, Function setting, Refrigerant volume check, Refrigerant leak check, Smooth maintenance, Request code, and Error history.	○	○

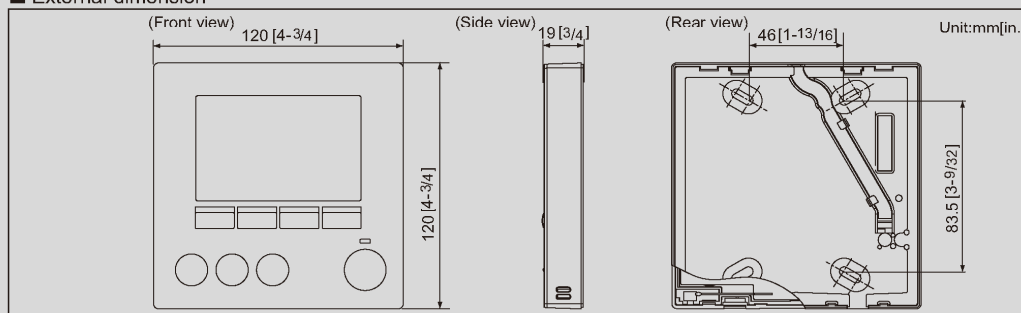
¹⁾ This function is active only for the units that support the function.

²⁾ The clock is accurate within 50 seconds per month (at the temperature of 25°C (77°F)). The clock is backed up for 7 days.

■ System example



■ External dimension



> Model: PUHY-HP250YHM-A Catalogue

ZUBADAN ZUBADAN

Cooling or Heating

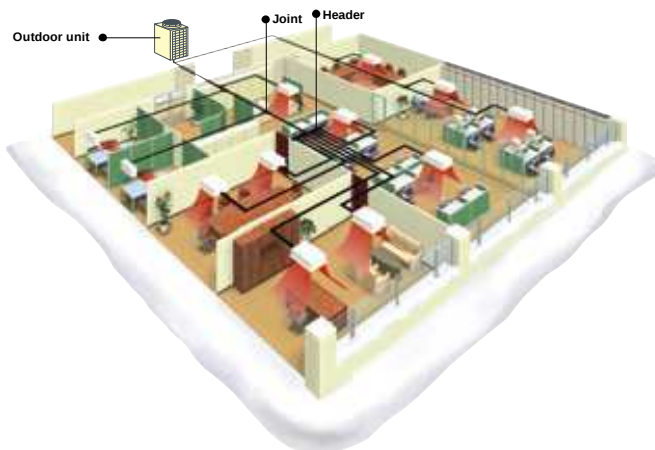
ZUBADAN series — [PUHY-HP YHM-A(-BS)
PUHY-HP YSHM-A(-BS)

Bringing a year round comfort solutions to extreme climates

CITY MULTI ZUBADAN series combines the ultimate in application flexibility and powerful cooling and heating capabilities to deliver precise comfort even in the coldest days of the year down to -25°C .

The technology behind this is a Flash Injection circuit which provides optimum amount of refrigerant to the system via a compressor through a specially designed injection port to ensure a particularly stable operation. With this, ZUBADAN can provide a full heating performance even at -15°C and continuous heating for up to 250 minutes in one continuous cycle, ensuring a phenomenal heating performance at low temperatures.

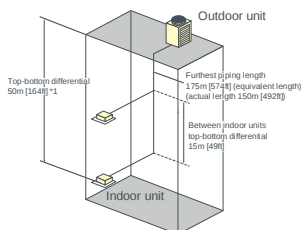
Installation image



System Pipe Lengths

[8-10HP]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	300 [984]
Maximum allowable length	150 (175equivalent)
	[492 (574)]
Farthest indoor from first branch	40 [131]
Vertical differentials between units	
	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/indoor	15 [49]



*1 When the outdoor unit is installed below the indoor unit, top-bottom differential is 40m [131 ft].



> Model: PUHY-HP250YHM-A
Specifications

1. SPECIFICATIONS

DATA G5

HP

Model			PUHY-HP200YHM-A(-BS)		PUHY-HP250YHM-A(-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60Hz		3-phase 4-wire 380-400-415V 50/60Hz	
Cooling capacity (Nominal)		*1 kW	22.4		28.0	
		*1 kcal / h	19,300		24,100	
		*1 BTU / h	76,400		95,500	
	Power input	kW	6.40		9.06	
	Current input	A	10.8-10.2-9.8		15.2-14.5-14.0	
	COP	kW / kW	3.50		3.09	
Temp. range of cooling	Indoor	W.B.	15 to 24degC(59 to 75degF)		15 to 24degC(59 to 75degF)	
	Outdoor	D.B.	-5 to 43degC(23 to 109degF)		-5 to 43degC(23 to 109degF)	
Heating capacity (Nominal)		*2 kW	25.0		31.5	
		*2 kcal / h	21,500		27,100	
		*2 BTU / h	85,300		107,500	
	Power input	kW	6.52		8.94	
	Current input	A	11.0-10.4-10.0		15.0-14.3-13.8	
	COP	kW / kW	3.83		3.52	
Temp. range of heating	Indoor	D.B.	15 to 27degC(59 to 81degF)		15 to 27degC(59 to 81degF)	
	Outdoor	W.B.	-25 to 15.5degC(-13 to 60degF)		-25 to 15.5degC(-13 to 60degF)	
Indoor unit connectable	Total capacity	50 to 130 % of outdoor unit capacity		50 to 130 % of outdoor unit capacity		
	Model / Quantity	P15 to P250 / 1 to 17		P15 to P250 / 1 to 21		
Sound pressure level (measured in anechoic room)		dB <A>	56		57	
Refrigerant piping diameter	Liquid pipe	mm(in.)	12.7(1/2") Brazed		12.7(1/2") Brazed	
	Gas pipe	mm(in.)	19.05(3/4") Brazed		22.2(7/8") Brazed	
FAN	Type x Quantity		Propeller fan x 1		Propeller fan x 1	
	Air flow rate	m³ / min	225		225	
		L/s	3,750		3,750	
		cfm	7,945		7,945	
	Control, Driving mechanism		Inverter-control,Direct-driven by motor		Inverter-control,Direct-driven by motor	
	*3 Motor output	kW	0.92 x 1		0.92 x 1	
	External static press.		0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	5.3		6.7	
	Case heater	kW	0.045		0.045	
	Lubricant		MEL32		MEL32	
	External finish		Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,650 x 920 x 760		1,650 x 920 x 760	
		in.	65" x 36-1/4" x 29-15/16"		65" x 36-1/4" x 29-15/16"	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)	
	Inverter circuit (COMP. / FAN)		Over-heat protection,Over-current protection		Over-heat protection,Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
	Fan motor		Thermal switch		Thermal switch	
Refrigerant	Type x original charge		R410A x 9.0kg (20lbs)		R410A x 9.0kg (20lbs)	
	Control		LEV and HIC circuit		LEV and HIC circuit	
Net weight		kg(lbs)	220(486)		220(486)	
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe,tube-in-tube structure		Copper pipe,tube-in-tube structure	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)		Auto-defrost mode (Reversed refrigerant circle)	
Drawing	External	WKB94R110		WKB94R110		
	Wiring	WKE79B230		WKE79B230		
Standard attachment	Document	Installation Manual		Installation Manual		
	Accessory	Refrigerant conn. pipe		Refrigerant conn. pipe		
Optional parts			Joint: CMY-Y102S-G2 Header: CMY-Y104/108/1010-G		Joint: CMY-Y102S-G2 Header: CMY-Y104/108/1010-G	
Remark			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.	

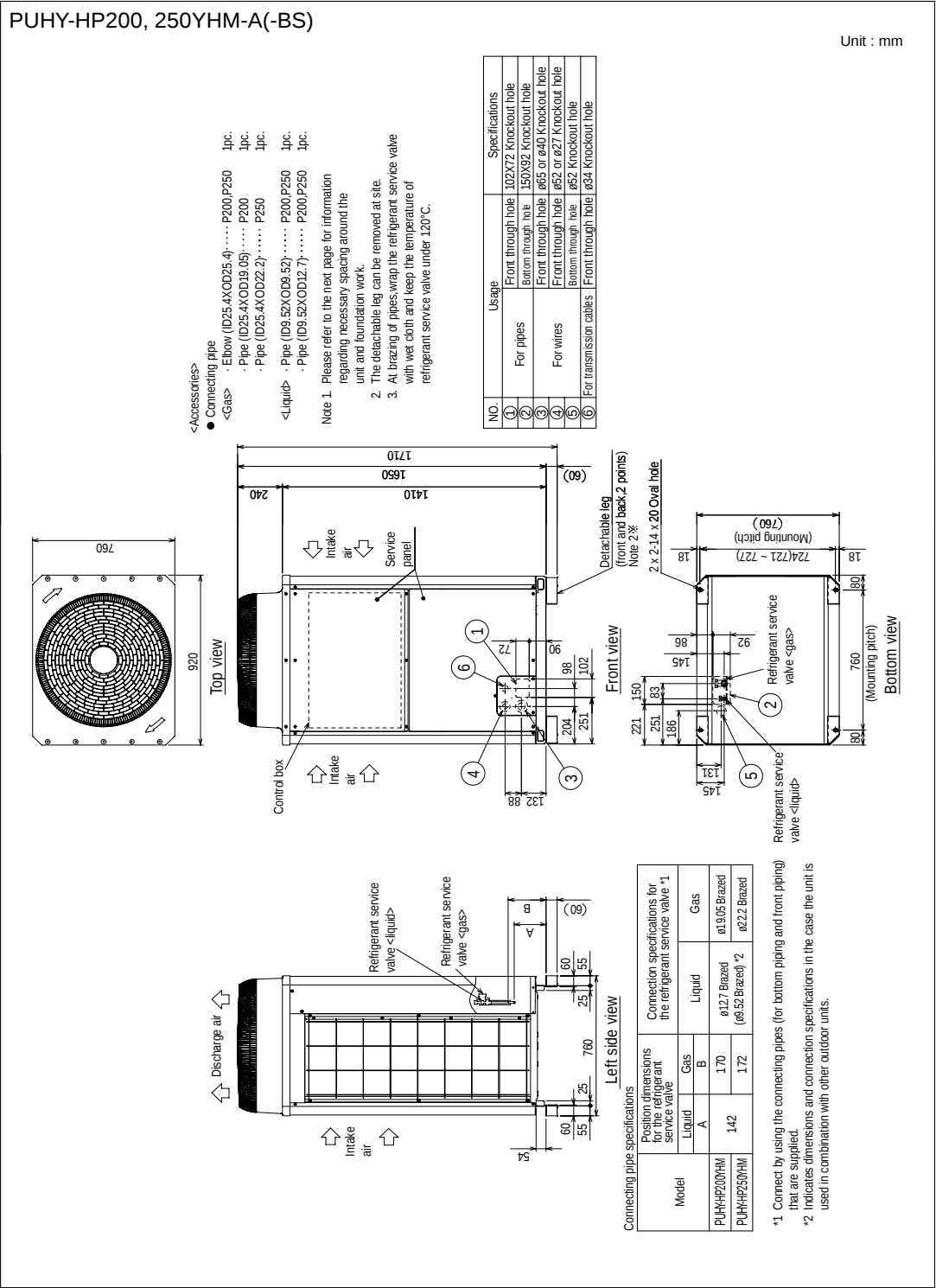
Note :	*1 Nominal cooling conditions (subject to JIS B8615-1)	*2 Nominal heating conditions (subject to JIS B8615-1)	Unit converter
Indoor :	27degCDB/19degCWB (81degFDB/66degFWB)	20degCDB (68degFDB)	kcal =kW x 860
Outdoor :	35degCDB (95degFDB)	7degCDB/6degCWB (45degFDB/43degFWB)	BTU/h =kW x 3,412
Pipe length :	7.5m(24-9/16ft.)	7.5m(24-9/16ft.)	cfm =m ³ /min x 35.31
Level difference :	0m(0ft.)	0m(0ft.)	lbs =kg / 0.4536
*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH ₂ O, 6.1mmH ₂ O).			*The specification data is subject to rounding variation.

> Model: PUHY-HP250YHM-A

External dimension

2. EXTERNAL DIMENSIONS

DATA G5



> Model: PUHY-HP250YHM-A
External dimension

2. EXTERNAL DIMENSIONS

DATA G5

HP

PUHY-HP200, 250YHM-A(-BS)

Unit : mm

● In case of collective installation

- ① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
- ② At least two sides must be left open.
- ③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.

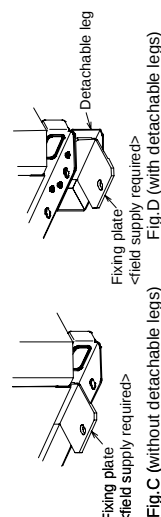
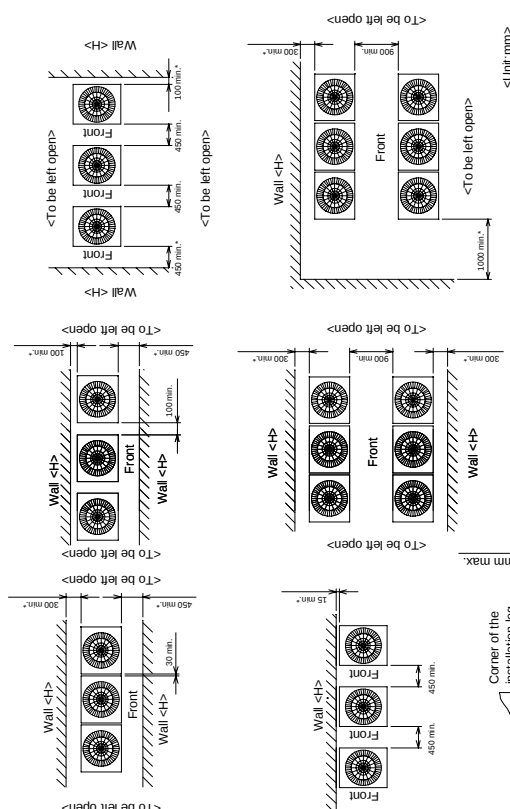


Fig.D (with detachable legs)

Fig.C (without detachable legs)

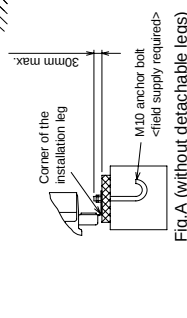


Fig.A (without detachable legs)

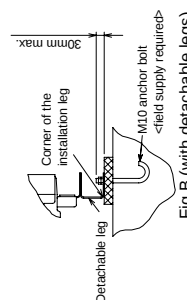
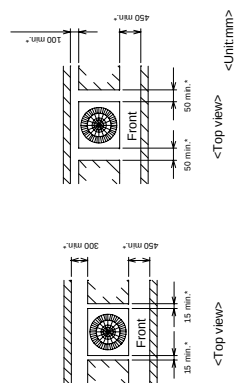


Fig. B (with detachable legs)

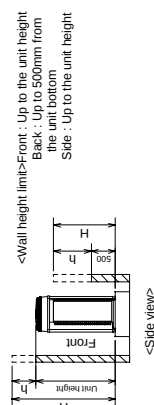
1.Required space around the unit

- In case of single installation

- Secure enough space around the unit as shown in the figure below.
- With a space of at least 300mm to the wall on the back of the unit
- With a space of at least 100mm to the wall on the back of the unit



- ② When the height of the walls on the front, back or on the sides <H> exceeds the wall height limit as defined below add the height that exceeds the height limit <H> to the figures that are marked with an asterisk.



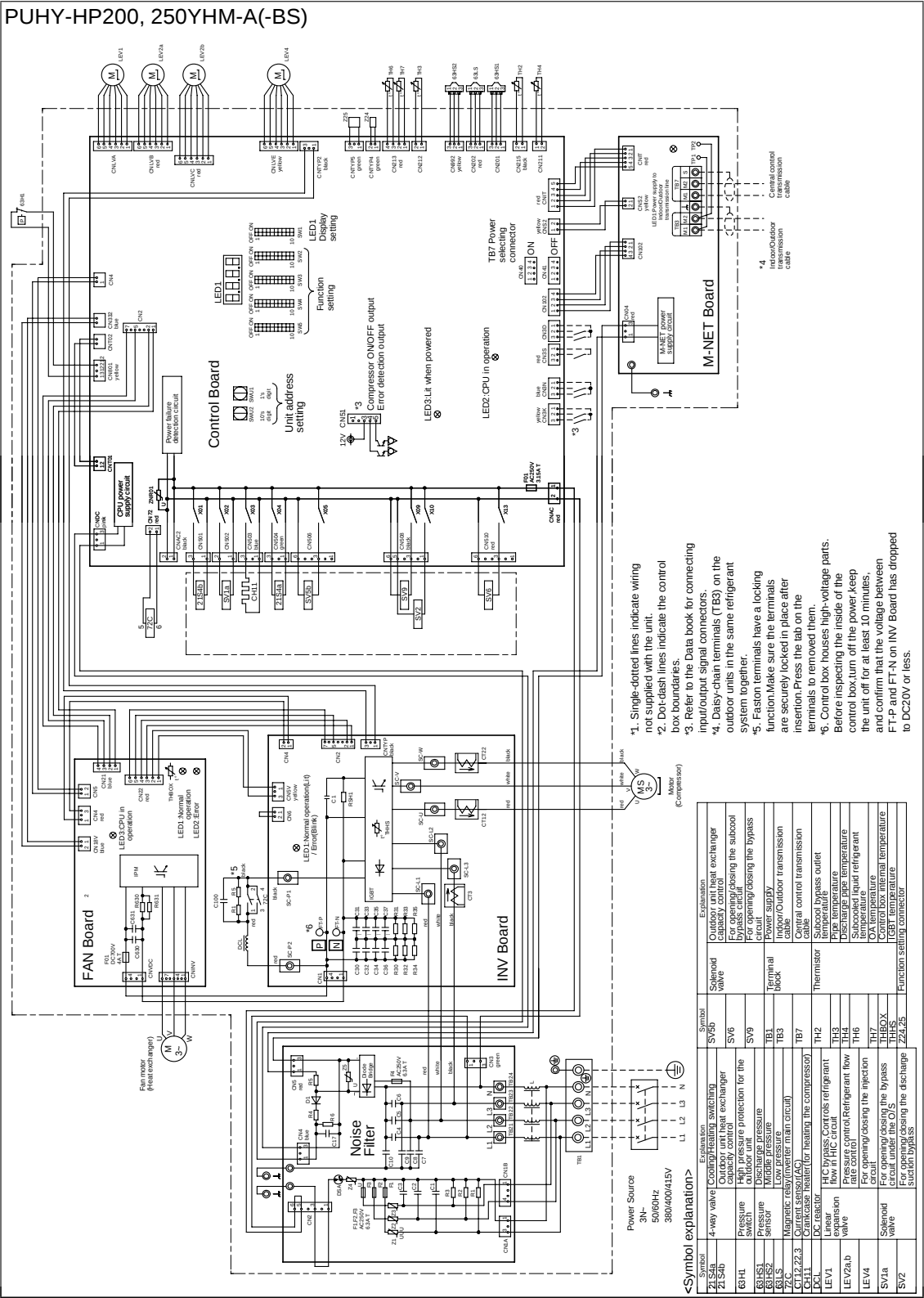
2. Foundation work

- ① Take into consideration the surface strength, water drainage route, piping route and wiring route when preparing the installation site.
> Note that the drain water comes out of the unit during operation.>
- ② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A-B)
When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.
- ③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A-B)
- ④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C-D)
- ⑤ To prevent small animals and water from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.
- ⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.
- ⑦ Refer to the Installation Manual when installing units on an installation base.

> Model: PUHY-HP250YHM-A
Electrical wiring diagram

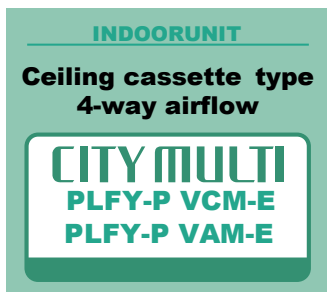
4. ELECTRICAL WIRING DIAGRAMS

DATA G5



PH

> Model: PLFY-P20VCM-E Catalogue

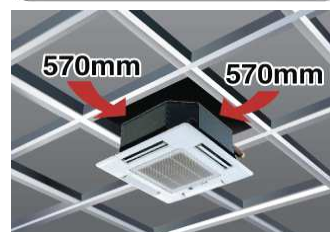


PLFY-P VCM-E/VAM-E

The new compact cassette VCM is suitable for 2x2 ceiling!



compact body to match with
2feets (600mm) x 2feets (600mm)
ceiling design (VCM)



Easy Installation

Only two panel sizes—perfectly suited to
various installation configurations

Only two panel sizes are available, 650mm (25-5/8in.) for the compact VCM and 950mm (37-7/16in.) for the power cassette VAM. The VCM is lightweight min. 15kg (34lbs) (P20/P25)

PLFY-VCM Type



650mm
(25-5/8in.)

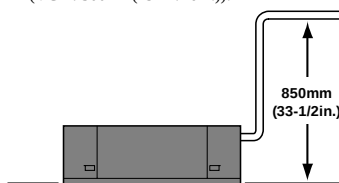
PLFY-VAM Type



950mm
(37-7/16in.)

Drain water pipe lifted to 850mm (33-1/2in.)
(power cassette VAM)

The drain piping of the VAM can be positioned anywhere up to 850mm (33-1/2in.) from the ceiling's surface, allowing greater freedom with long cross-piping and more versatility with piping layouts (VCM: 500mm (19-11/16in.)).



Unit height of only 208mm*! great for
low-ceiling space situations
(compact cassette VCM)

The new compact cassette VCM has a unit height of only 208mm*1, to realize neat installation in low-ceiling situations with very limited space.
*: 8-1/4in



Handy corner-pocket design simplifies maintenance
and installation (power cassette VAM)

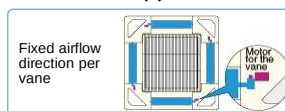
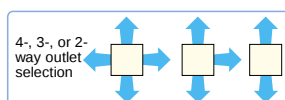
By using the handy corner pockets equipped on four corners of the grille, maintenance work such as drain pan cleaning and height adjustment can be accomplished without removing the grille. It is also easier to adjust the ceiling height of the indoor unit during installation.



Superb Features

First in the industry to offer 72 airflow
patterns (power cassette VAM)

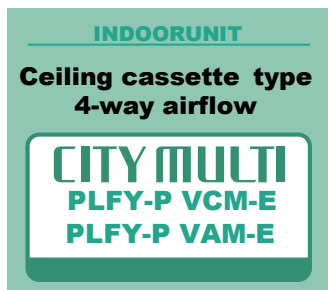
The 72 different airflow patterns provide the best solution for varying room layouts and air-conditioning requirements. For extra versatility, you can also select from two-, three- or four-way outlets. What's more, the addition of separate motors to the individual vanes enables manual control that—together with remote control vane settings—make possible highly customized and flexible airflow patterns.



72 airflow patterns

*Optional air outlet shutter plate is necessary for two- or three-way airflow settings. The noise level may increase during two- or three-way airflow setup.
*For VCM model, 2 or 3 way airflow is not available.

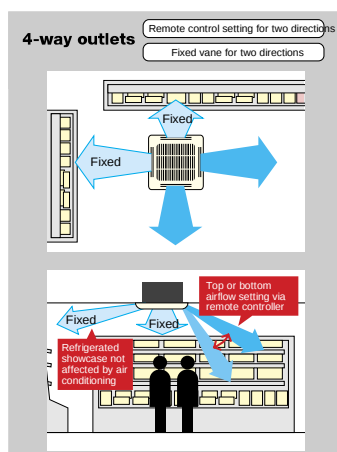
> Model: PLFY-P20VCM-E Catalogue



Superb Features

For Retail Outlets (Power cassette VAM)

These units are ideal for maintaining constant temperatures in environments that have equipment such as refrigerate showcases. Individual vane angle adjustment enables precise airflow control to specific areas of the store to reduce unnecessary air conditioning of areas such as refrigerated showcases.



Compatible with both round and square ducts (power cassette VAM)

For easy connection to branch ducts, knockout holes are designed to fit both round and square ducts. Matching the shape of the duct fringe provides more flexibility during installation.

Connecting to round ducts



150mm(5-15/16 in.) diameter cutout

Connecting to rectangular ducts



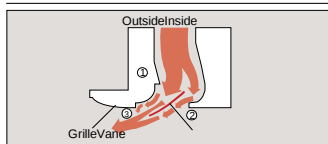
350mm(13-13/16 in.)-100mm(3-15/16 in.) cutout

Smudge-free airflow prevents soiling of the ceiling surface (power cassette VAM)

Mitsubishi Electric has developed a new airflow control mechanism where a projection inside the air passage distributes air evenly over the vane's upper and lower surface while two additional projections at the air outlet's exit adjust the angle of the airflow. This helps to prevent indoor air from rising, stopping it from hitting the surface of the ceiling to reduce the likelihood of soiling from smudging and condensation.

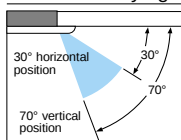


Smudging and the new airflow control mechanism



- ① A projection is created on the outside, where the airflow is fastest. This diverts the airflow and distributes it evenly over the upper and lower surfaces of the Vane.
- ②③ The air outlet exit also has projections to prevent air from rising within the room and stopping it from hitting the ceiling.

Wider airflow setting reduces annoying drafts



Smudging:
When cooled air is expelled horizontally, it tends to cling to the surface of the ceiling. This cools the surface down and causes condensation, which attracts dust from the room's interior to soil the ceiling's surface.

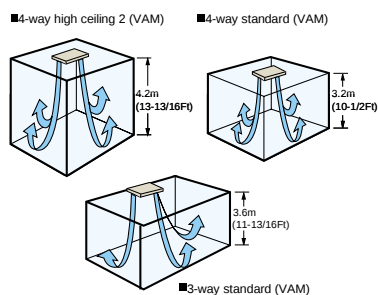
Bristle-free vane can be cleaned simply (power cassette VAM)

The unique suction mechanism prevents indoor air from rising to eliminate condensation on the vane and make bristles unnecessary.

Outstanding Specifications

Wide-flow air outlet delivers a comforting breeze (VAM)

The airflow of the VAM power cassette is powerful enough to warm atrium-type ceilings up to 4.2 meter(13-13/16ft) in height.



Specifications according to ceiling height and number of vents

	Power Cassette VAM		
	Standard	High ceiling 1	High ceiling 2
4-way	3.2	3.6	4.2
3-way	3.6	4.0	4.2
2-way	4.0	4.2	---

*VCM:2.7m(standard/4way only)

Functional and appealing vane shutter (power cassette VAM)

When the air conditioner is not operating, the vane shutter closes automatically to conceal the air outlet and create an aesthetically appealing flat surface.*

*This feature will not activate when the vane is set at fixed position.



During operation When turned off

Direct intake of fresh exterior air (power cassette VAM & compact cassette VCM)

Indoor air quality is significantly enhanced by the direct intake of fresh exterior air. An optional multi-function casement is also available (only for VAM) for the intake of a larger volume of air.

> Model: PLFY-P20VCM-E Specifications

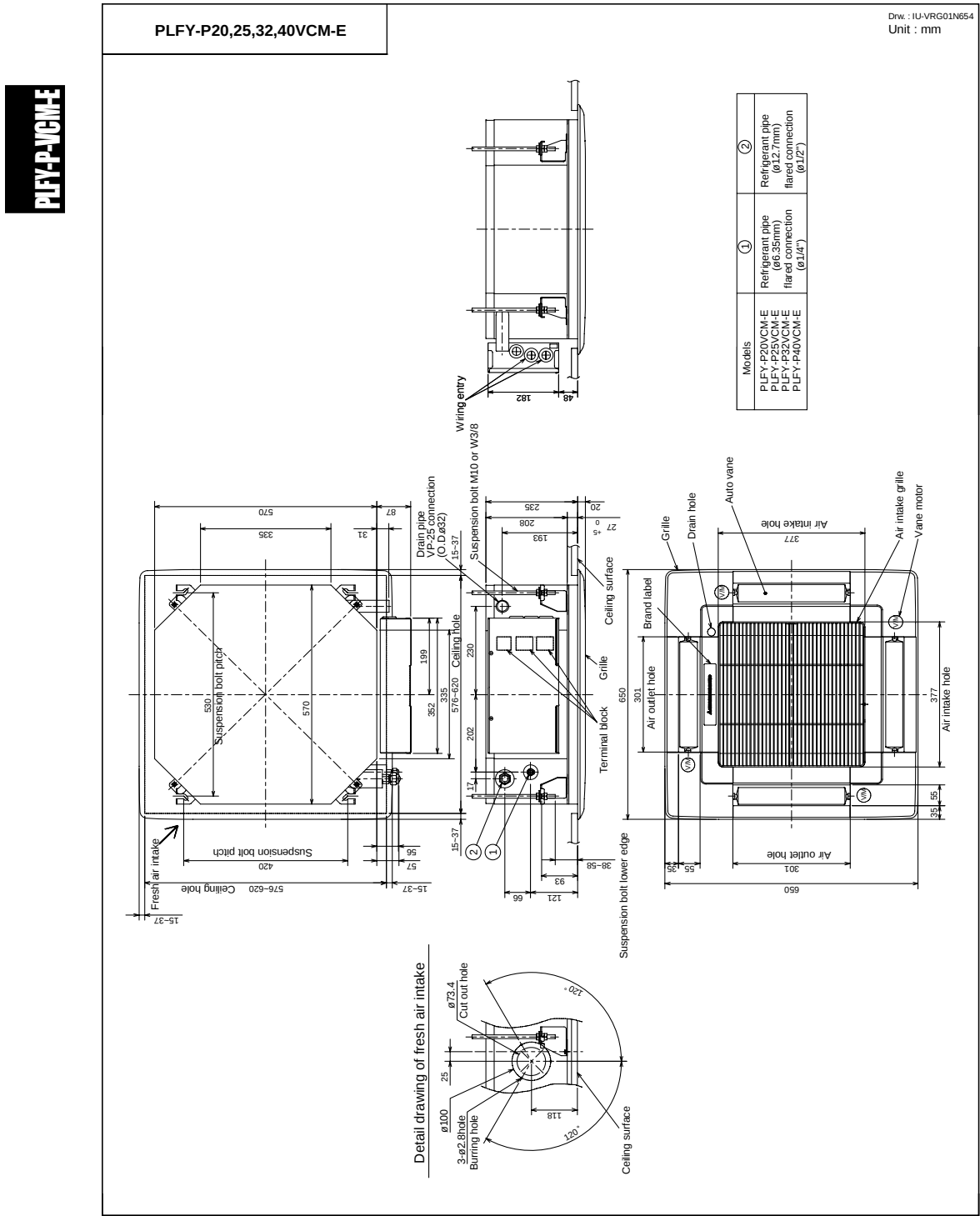
1. Specifications

PLFY-P-VCM-E

Model			PLFY-P20VCM-E	PLFY-P25VCM-E	PLFY-P32VCM-E	PLFY-P40VCM-E	
Power source			1-phase 220-240V 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	7,510	9,550	12,280	15,350	
	*2	kcal / h	2,000	2,500	3,150	4,000	
	Power input	kW	0.05	0.05	0.06	0.06	
	Current input	A	0.23	0.23	0.28	0.28	
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	5.0	
	*3	kcal / h	2,200	2,800	3,400	4,300	
	*3	Btu / h	8,500	10,900	13,600	17,100	
	Power input	kW	0.05	0.05	0.06	0.06	
	Current input	A	0.23	0.23	0.28	0.28	
	External finish			Galvanized steel sheet, withgrey heat insulation			
External dimension H x W x D		mm	208 x 570 x 570	208 x 570 x 570	208 x 570 x 570	208 x 570 x 570	
		in.	8-1/4" x 22-1/2" x 22-1/2"	8-1/4" x 22-1/2" x 22-1/2"	8-1/4" x 22-1/2" x 22-1/2"	8-1/4" x 22-1/2" x 22-1/2"	
Net weight		kg (lb)	15.5 (35)	15.5 (35)	17 (38)	17 (38)	
Decoration panel	Model		SLP-2AA	SLP-2AA	SLP-2AA	SLP-2AA	
	External finish		White Munsell(0.7Y 8.59/0.97)				
	Dimension	mm	20 x 650 x 650	20 x 650 x 650	20 x 650 x 650	20 x 650 x 650	
	H x W x D	in.	13/16" x 25-5/8" x 25-5/8"	13/16" x 25-5/8" x 25-5/8"	13/16" x 25-5/8" x 25-5/8"	13/16" x 25-5/8" x 25-5/8"	
	Net Weight	kg (lb)	3 (7)	3 (7)	3 (7)	3 (7)	
	Coad heater	kW	0.015	0.015	0.015	0.015	
	Heat exchanger			Cross fin & copper tube			
FAN	Type x Quantity		Turbo fan x 1				
	External static press.		0Pa (0mmH ₂ O)	0Pa (0mmH ₂ O)	0Pa (0mmH ₂ O)	0Pa (0mmH ₂ O)	
	Motor type		Single phase induction motor				
	Motor output		kW	0.011	0.015	0.02	0.02
	Driving mechanism		Direct-driven by motor				
	Airflow rate	m ³ / min	10-9-8	10-9-8	11-9-8	11-9-8	
		L / s	167-150-133	167-150-133	183-150-133	183-150-133	
		cfm	353-318-283	353-318-283	388-318-283	388-318-283	
Noise level (Low-Mid-High) (measured in anechoic room)		dB <A>	35-31-28 (230V)	37-31-28 (230V)	38-33-29 (230V)	39-34-30 (230V)	
Insulation material			Polyethylene foam (soften FR)				
Air filter			PP honeycomb fabric (long life type)				
Protection device			Fuse				
Refrigerant control device			LEV				
Connectable outdoor unit			R410A, R407C, R22 CITY MULTI				
Diameter of refrigerant pipe	Liquid	mm (in.)	ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare	ø6.35 (ø1/4") Flare	
	Gas	mm (in.)	ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare	ø12.7 (ø1/2") Flare	
Diameter of drain pipe		mm (in.)	O.D. 32 (1-1/4")	O.D. 32 (1-1/4")	O.D. 32 (1-1/4")	O.D. 32 (1-1/4")	
Drawing	External		IU-VRG01N654				
	Wiring		IU-VRG79N625				
	Refrigerant circle		-				
Standard attachment	Document		Installation manual, Instruction book				
	Accessory		Drain hose VP-25 (flexible joint)				
Remark	Optional pats		OA duct flange: PAC-KH11OF Decoration panel: SLP-2AA *PLFY-P-VCM-E should use together with SLP-2AA.				
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 condition			*2 Nominal cooling condition		*3 Nominal heating condition		
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB)			27°CDB/19.5°CWB (81°FDB/67°FWB)		20°CDB (68°FDB)		
Outdoor : 35°CDB (95°FDB)			35°CDB (95°FDB)		7°CDB/6°CWB (45°FDB/43°FWB)		
Pipe length : 7.5 m (24-9/16 ft)			5 m (16-3/8 ft)		7.5 m (24-9/16 ft)		
Level difference : 0 m (0 ft)			0 m (0 ft)		0 m (0 ft)		

> Model: PLFY-P20VCM-E
External dimension

4. External Dimensions

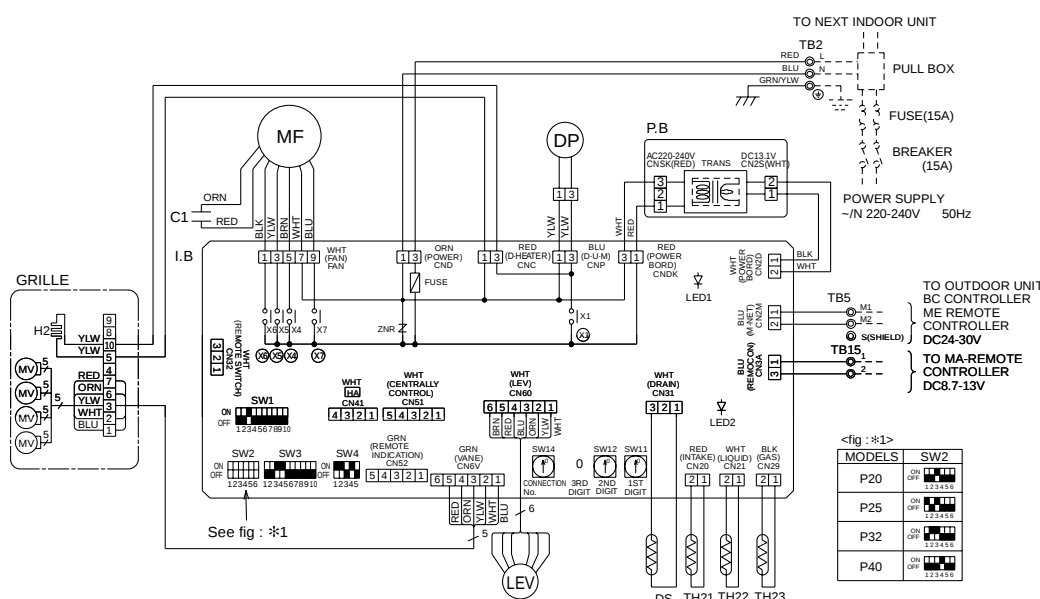


> Model: PLFY-P20VCM-E
Electrical wiring diagram

5. Electrical Wiring Diagrams

● PLFY-P20,25,32,40VCM-E

Dwg.: IU-VRG79N625



[LEGEND]

SYMBOL	NAME	SYMBOL	NAME
I.B.	INDOOR CONTROLLER BOARD	C1	CAPACITOR (FAN MOTOR)
CN32	CONNECTOR	DP	DRAIN WATER LIFTING-UP MACHINE
CN41	REMOTE SWITCH	DS	DRAIN SENSOR
CN51	HA TERMINAL-A	H2	DEW PREVENTION HEATER
CN52	CENTRALLY CONTROL	LEV	LINEAR EXPANSION VALVE
FUSE	FUSE (6.3A/250V)	MF	FAN MOTOR (WITH THERMAL FUSE)
SW1	SWITCH	MV	VANE MOTOR
SW2	MODE SELECTION	TB2	TERMINAL BLOCK
SW3	CAPACITY CODE	TB5	TRANSMISSION
SW4	MODE SELECTION	TB15	MA-REMOTE CONTROLLER
SW11	MODE SELECTION	TH21	ROOM TEMP. DETECTION (0°C/15kΩ, 25°C/5.4kΩ)
SW12	ADDRESS SETTING 1ST DIGIT	TH22	PIPE TEMP. DETECTION/LIQUID (0°C/15kΩ, 25°C/5.4kΩ)
SW14	ADDRESS SETTING 2ND DIGIT	TH23	PIPE TEMP. DETECTION/GAS (0°C/15kΩ, 25°C/5.4kΩ)
X1	AUX. RELAY	P.B.	INDOOR POWER BOARD
X4	FAN MOTOR (LL)		
X5	FAN MOTOR (Lo)		
X6	FAN MOTOR (Hi)		
X7	FAN MOTOR (Me)		
ZNR	VARIATOR		

Notes:

1. At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
2. In case of using MA-Remote controller, please connect to TB15. (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

> Model: PLFY-P40VBM-E Catalogue

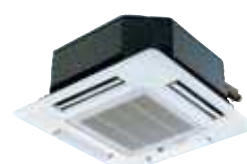
INDOOR UNIT Ceiling cassette type 4-way airflow

PLFY-P VBM-E
PLFY-P VCM-E

i-see Sensor



PLFY-P VBM

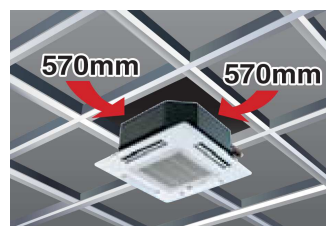


PLFY-P VCM

The new 4-way cassette VBM offers 72 different airflow patterns, making it ideal for applications with ceilings up to 4.2 m (13-13/16ft) in height.



Compact body to match with 2 feet (600mm) x 2 feet (600mm) ceiling design (VCM)



Automatic Air Speed Adjustment

Auto-fan-speed mode enables speedy and comfortable heating during heating startup.

The Auto-fan-speed mode is added to the usual four steps "Low, Mid1, Mid2, High." The Auto-fan-speed mode enables speedy and comfortable air conditioning because the air flow speeds up when starting, and air flow slows down when the air conditioning becomes stable. (PLFY-P VBM-E ONLY)

Controls the four fan speed modes automatically

Low → Mid1 → Mid2 → High → Auto

*When using a wireless remote controller, initial settings are required.

Draft-less Air Distribution

The horizontal blow mode* newly employed supplies airflow horizontally not bringing cooled/warmed air directly to occupants thus preventing discomfort sensation due to excessive cooling or direct exposing of occupants to the air blow. (PLFY-P VBM-E ONLY)

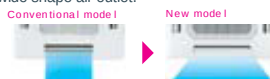


*Default
*The ceiling may be smudged at a spot where the supplied airflow is seriously disturbed.

Wide Air Flow

Cooling softly with Wide Air Flow

Discharge air reaches wider area and the fan speed is decreased by 20% thanks to the new wide shape air outlet.



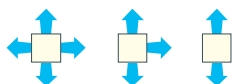
72 patterns of airflow to accommodate any room layout are available.

*First in the industry
*On the commercial air conditioners (According to the survey by Mitsubishi Electric)

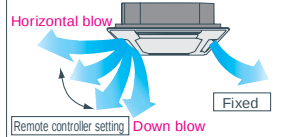
The number of outlet can be set to 4, 3, or 2. Flexible airflow is available by fixing the up-down airflow direction of the outlet with a wired remote controller (or manually).

72 airflow patterns

4-, 3-, or 2- way outlet selection



Setting the air direction for each outlet with wired remote controller

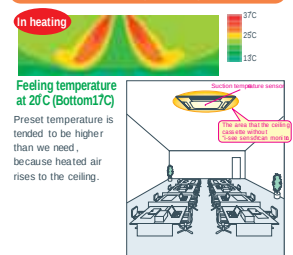


"i-see sensor" can be used with ceiling cassette type 4-way airflow unit. (Option PAC-SA1ME-E, PLFY-VBM only)

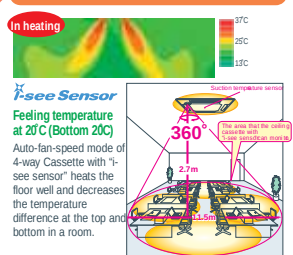
New 4-way Cassette PLFY-VBM controls the temperature difference at the top and bottom in a room by checking the floor temperature with "i-see sensor". Comfortable air conditioning can be realized smoothly with "sensible temperature control." (Option PAC-SA1ME-E, PLFY-VBM only)

Prevents overcooling/overheating, and improves comfort/energy-efficiency

Without i-see sensor: preset temperature at 23°C



With i-see sensor+Auto fan speed: preset temperature at 20°C



> Model: PLFY-P40VBM-E

1. SPECIFICATIONS

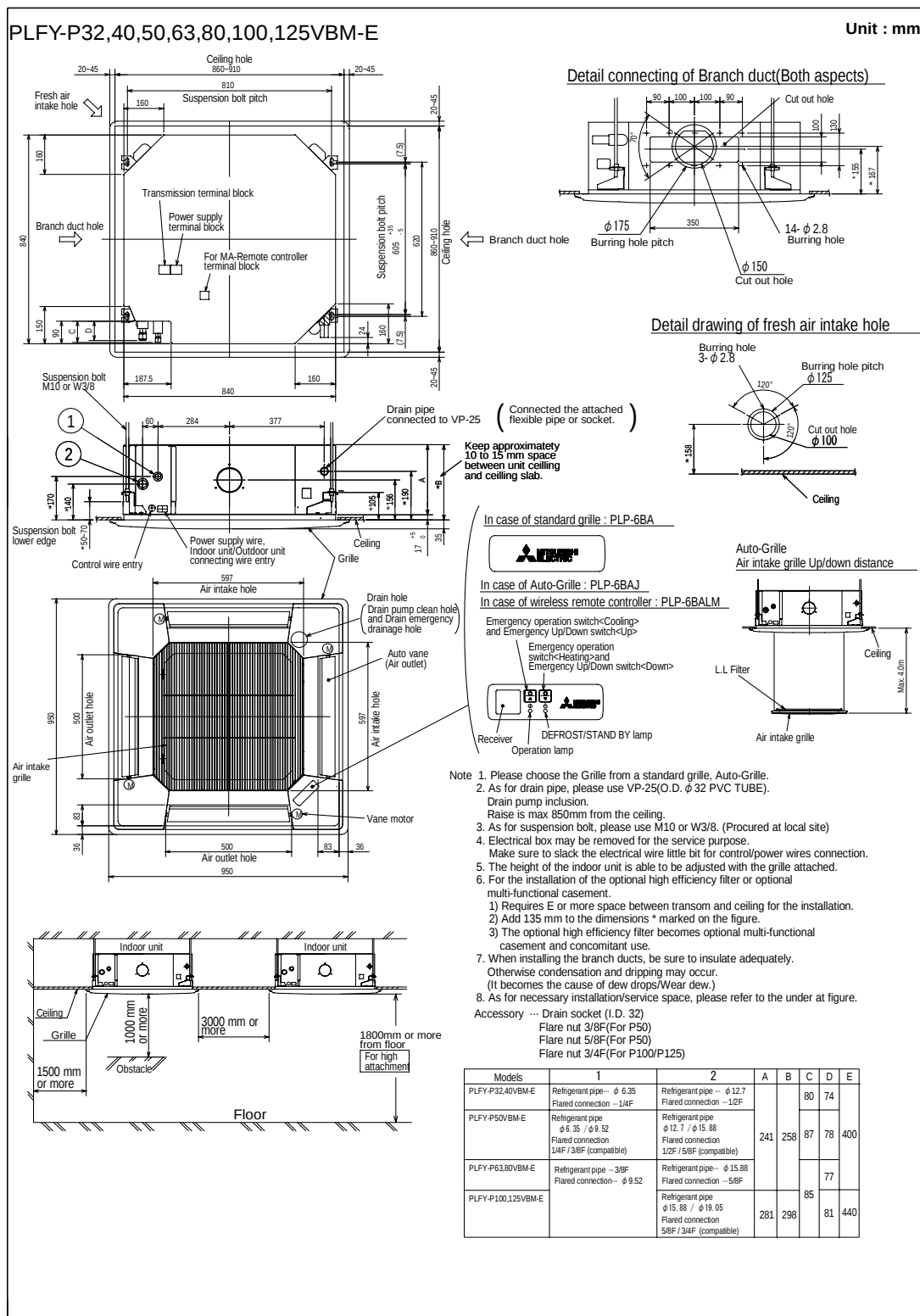
R410A Data G4

Model			PLFY-P32VBM-E		PLFY-P40VBM-E		PLFY-P50VBM-E		PLFY-P63VBM-E		
Power source			1-phase 220-240V 50Hz, 1-phase 220V 60Hz								
Cooling capacity (Nominal)	* 1	kW	3.6		4.5		5.6		7.1		
	* 1	kcal / h	3,100		3,900		4,800		6,100		
	* 1	Btu / h	12,300		15,400		19,100		24,200		
	* 2	kcal / h	3,150		4,000		5,000		6,300		
		Power input	kW	0.03		0.04		0.04		0.05	
	Current input	A	0.22		0.29		0.29		0.36		
Heating capacity (Nominal)	* 3	kW	4.0		5.0		6.3		8.0		
	* 3	kcal / h	3,400		4,300		5,400		6,900		
	* 3	Btu / h	13,600		17,100		21,500		27,300		
		Power input	kW	0.02		0.03		0.03		0.04	
		Current input	A	0.14		0.22		0.22		0.29	
External finish			Galvanized steel sheet								
External dimension H x W x D		mm	258 x 840 x 840								
		in.	10-3/16" x 33-1/8" x 33-1/8"								
Net weight		kg (lb)	22 (49)		22 (49)		22 (49)		23 (51)		
Decoration panel	Model		PLP-6BA		PLP-6BA		PLP-6BA		PLP-6BA		
	External finish		MUNSELL (6.4Y 8.9/0.4)								
	Dimension	mm	35 x 950 x 950								
	H x W x D	in.	1-3/8" x 37-7/16" x 37-7/16"								
	Net weight	kg (lb)	6 (13)								
Heat exchanger			Cross fin (Aluminum fin and copper tube)								
FAN	Type x Quantity		Turbo fan x 1		Turbo fan x 1		Turbo fan x 1		Turbo fan x 1		
	External static press.	Pa	0		0		0		0		
		mmH ₂ O	0		0		0		0		
	Motor type		DC motor								
	Motor output		kW	0.050		0.050		0.050		0.050	
	Driving mechanism		Direct-drive								
	Airflow rate (Low-Mid2- Mid1-High)	m ³ / min	11 - 12 - 13 - 14		12 - 13 - 14 - 16		12 - 13 - 14 - 16		14 - 15 - 16 - 18		
		L / s	183 - 200 - 217 - 233		200 - 217 - 233 - 267		200 - 217 - 233 - 267		233 - 250 - 267 - 300		
		cfm	388 - 424 - 459 - 494		424 - 459 - 494 - 565		424 - 459 - 494 - 565		494 - 530 - 565 - 636		
	Noise level (Low-Mid2-Mid1-High) (measured in anechoic room)		dB <A>	27 - 28 - 29 - 31		27 - 28 - 30 - 31		27 - 28 - 30 - 31		28 - 29 - 30 - 32	
Insulation material			PS								
Air filter			PP honeycomb								
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.)	[6.35 (1/4")	Flare	[6.35 (1/4")	Flare	[6.35 (1/4")	Flare	[9.52 (3/8")	Flare	
			[6.35 (1/4")	Flare	[6.35 (1/4")	Flare	[9.52 (3/8")	Flare	[9.52 (3/8")	Flare	
	Gas (R410A) (R22, R407C)	mm (in.)	[12.7 (1/2")	Flare	[12.7 (1/2")	Flare	[12.7 (1/2")	Flare	[15.88 (5/8")	Flare	
			[12.7 (1/2")	Flare	[12.7 (1/2")	Flare	[15.88 (5/8")	Flare	[15.88 (5/8")	Flare	
Field drain pipe size		mm (in.)	O.D. [32 (VP-25)								
Standard attachment	Document	Installation Manual, Instruction Book									
	Accessory										
Remark	Optional parts										
	Decoration panel **1		PLP-6BA		PLP-6BA		PLP-6BA		PLP-6BA		
	Air outlet shutter plate		PAC-SH51SP-E		PAC-SH51SP-E		PAC-SH51SP-E		PAC-SH51SP-E		
	High efficiency filter element **2		PAC-SH59KF-E		PAC-SH59KF-E		PAC-SH59KF-E		PAC-SH59KF-E		
	Multi-function casement		PAC-SH53TM-E		PAC-SH53TM-E		PAC-SH53TM-E		PAC-SH53TM-E		
			**1. PLFY-P-VBM-E should use together with PLP-6BA. **2. PAC-SH53TM-E is necessary to use with filter PAC-SH59KF-E.								
	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: DB/19: WB (81°FDB/66°FWB)		27: DB/19.5: WB (81°FDB/67°FWB)		20: DB (68°FDB)		kcal/h = kW x 860			
Outdoor :		35: DB (95°FDB)		35: DB (95°FDB)		7: DB/6: WB (45°FDB/43°FWB)		Btu/h = kW x 3,412			
Pipe length :		7.5 m (24-9/16 ft)		5 m (16-3/8 ft)		7.5 m (24-9/16 ft)		cfm = m ³ /min x 35.31			
Level difference :		0 m (0 ft)		0 m (0 ft)		0 m (0 ft)		lb = kg / 0.4536			
* Nominal conditions 1, 3 are subject to JIS B8615-1.											*Above specification data is subject to rounding variation
* Due to continuuimprovement, above specification may be subject to change without notice.											

> Model: PLFY-P40VBM-E External dimension

2. EXTERNAL DIMENSIONS

R410A Data G4



> Model: PLFY-P40VBM-E Electrical wiring diagram

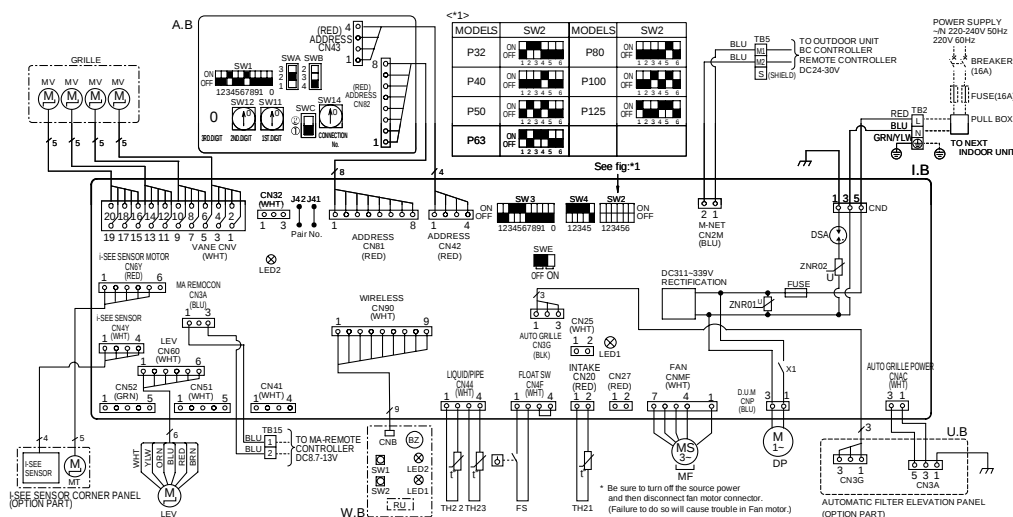
3. ELECTRICAL WIRING DIAGRAMS

R410A Data G4

PLFY-P32,40,50,63,80,100,125VBM-E

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I. B	INDOOR CONTROLLER BOARD	TB2	TERMINAL BLOCK	OPTION PART	
CN27	CONNECTOR	TB5	TRANSMISSION	W.B	PCB FOR WIRELESS REMOTE CONTROLLER
CN32	REMOTE SWITCH	TB15	MA-REMOTE CONTROLLER	BZ	BUZZER
CN51	CENTRALLY CONTROL	TH21	ROOM TEMP. DETECTION (0: / 15kΩ, 25: / 5.4kΩ)	LED1	LED (OPERATION INDICATION: GREEN)
CN52	REMOTE INDICATION	TH22	PIPE TEMP. DETECTION / LIQUID (0: / 15kΩ, 25: / 5.4kΩ)	LED2	LED (PREPARATION FOR HEATING: ORANGE)
DSA	SURGE ABSORBER	TH23	PIPE TEMP. DETECTION / GAS (0: / 15kΩ, 25: / 5.4kΩ)	RU	RECEIVING UNIT
FUSE	FUSE (T6.3A/250V)			SW1	EMERGENCY OPERATION (HEAT / DOWN)
LED1	POWER SUPPLY (I. B)			SW2	EMERGENCY OPERATION (COOL / UP)
LED2	POWER SUPPLY (I. B)				
SW2	SWITCH	A. B	ADDRESS BOARD		
SW3	CAPACITY CODE	SWA	SWITCH		
SW4	MODE SELECTION	SWB	CEILING HEIGHT SELECTOR		
SWE	MODEL SELECTION		DISCHARGE OUTLET NUMBER SELECTOR		
X1	DRAIN-UP MACHINE (TEST MODE)	SWC	OPTION SELECTOR		
X1	AUX. RELAY	SW1	MODE SELECTION		
ZNR01.02	VARISTOR	SW11	ADDRESS SETTING 1ST DIGIT		
DP	DRAIN-UP MACHINE	SW12	ADDRESS SETTING 2ND DIGIT		
FS	DRAIN FLOAT SWITCH	SW14	CONNECTION NO.		
LEV	LINEAR EXPANSION VALVE				
MF	FAN MOTOR				
MV	VANE MOTOR				



NOTES:

- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- In case of using MA-Remote controller, please connect to TB15.
(Remote controller wire is non-polar.)
- In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- Symbol [S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram above are, [] : terminal block, [] : connector.
- The setting of the SW2 dip switches differs in the capacity. For the detail, refer to 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

> Model: PLFY-P50VBM-E Catalogue

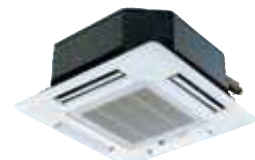
INDOOR UNIT Ceiling cassette type 4-way airflow

PLFY-P VBM-E
PLFY-P VCM-E

i-see Sensor



PLFY-P VBM

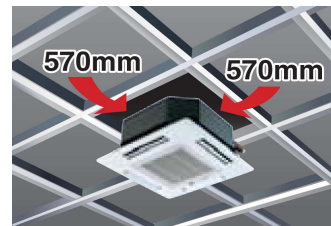


PLFY-P VCM

The new 4-way cassette VBM offers 72 different airflow patterns, making it ideal for applications with ceilings up to 4.2 m (13-13/16ft) in height.



Compact body to match with 2 feet (600mm) x 2 feet (600mm) ceiling design (VCM)



Automatic Air Speed Adjustment

Auto-fan-speed mode enables speedy and comfortable heating during heating startup.

The Auto-fan-speed mode is added to the usual four steps "Low, Mid1, Mid2, High." The Auto-fan-speed mode enables speedy and comfortable air conditioning because the air flow speeds up when starting, and air flow slows down when the air conditioning becomes stable. (PLFY-P VBM-E ONLY)

Controls the four fan speed modes automatically

Low → Mid1 → Mid2 → High → Auto

*When using a wireless remote controller, initial settings are required.

Draft-less Air Distribution

The horizontal blow mode* newly employed supplies airflow horizontally not bringing cooled/warmed air directly to occupants thus preventing discomfort sensation due to excessive cooling or direct exposing of occupants to the air blow. (PLFY-P VBM-E ONLY)

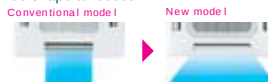


*Default
*The ceiling may be smudged at a spot where the supplied airflow is seriously disturbed.

Wide Air Flow

Cooling softly with Wide Air Flow

Discharge air reaches wider area and the fan speed is decreased by 20% thanks to the new wide shape air outlet.

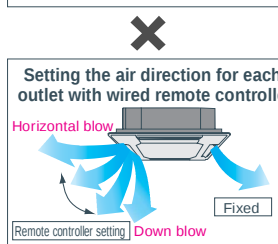
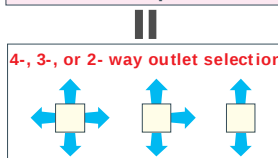


72 patterns of airflow to accommodate any room layout are available.

*First in the industry
*On the commercial air conditioners (According to the survey by Mitsubishi Electric)

The number of outlet can be set to 4, 3, or 2. Flexible airflow is available by fixing the up-down airflow direction of the outlet with a wired remote controller (or manually).

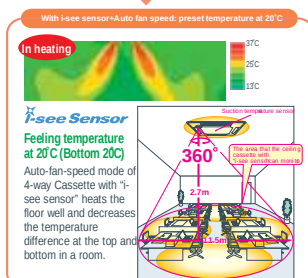
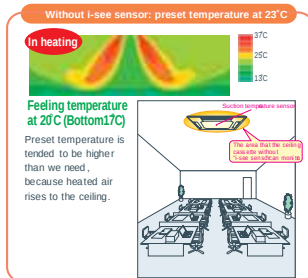
72 airflow patterns



"i-see sensor" can be used with ceiling cassette type 4-way airflow unit. (Option PAC-SA1ME-E, PLFY-VBM only)

New 4-way Cassette PLFY-VBM controls the temperature difference at the top and bottom in a room by checking the floor temperature with "i-see sensor". Comfortable air conditioning can be realized smoothly with "sensible temperature control." (Option PAC-SA1ME-E, PLFY-VBM only)

Prevents overcooling/overheating, and improves comfort/energy-efficiency



> Model: PLFY-P50VBM-E
Specifications

1. SPECIFICATIONS

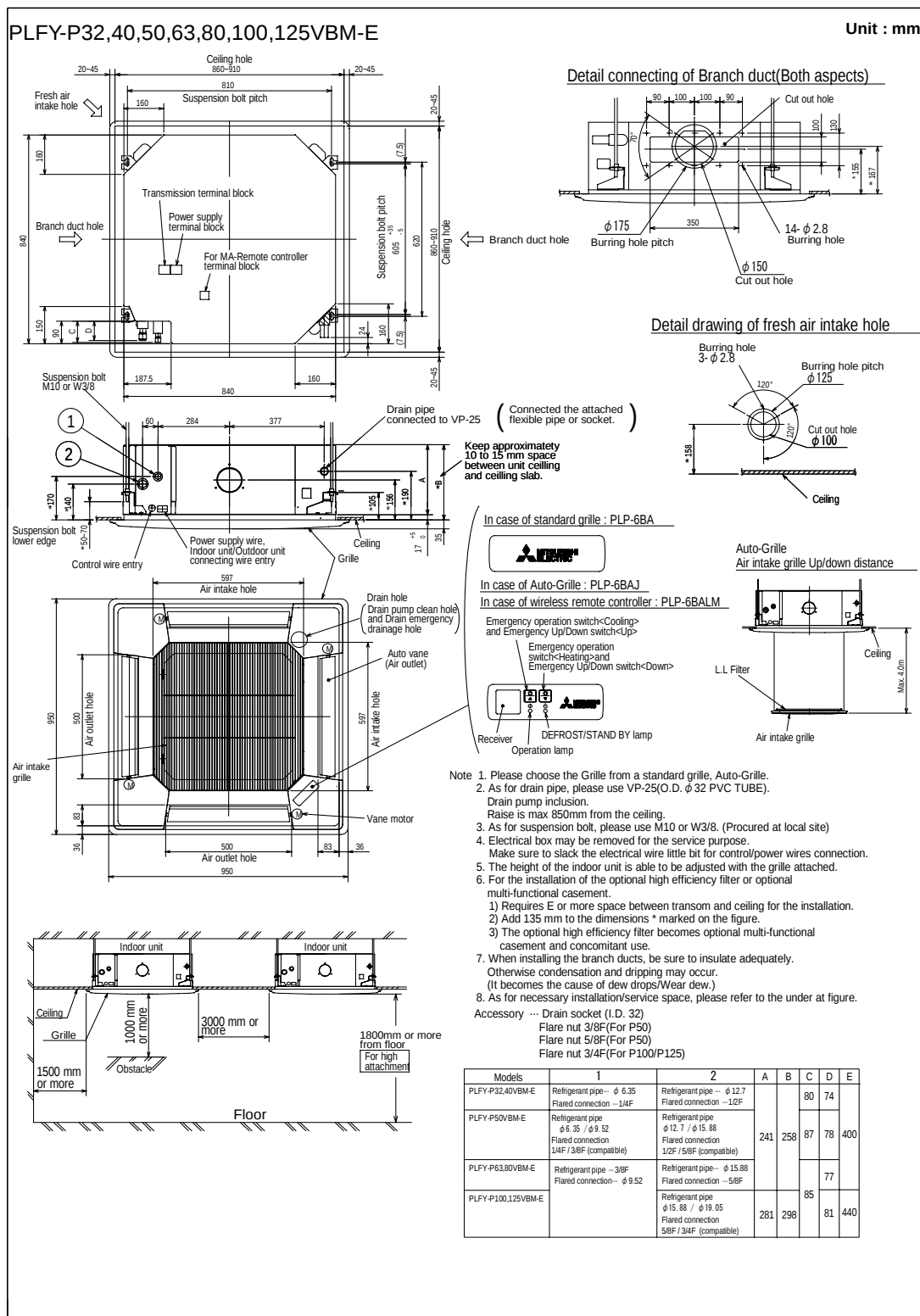
R410A Data G4

Model			PLFY-P32VBM-E		PLFY-P40VBM-E		PLFY-P50VBM-E		PLFY-P63VBM-E		
Power source			1-phase 220-240V 50Hz, 1-phase 220V 60Hz								
Cooling capacity (Nominal)	* 1	kW	3.6		4.5		5.6		7.1		
	* 1	kcal / h	3,100		3,900		4,800		6,100		
	* 1	Btu / h	12,300		15,400		19,100		24,200		
	* 2	kcal / h	3,150		4,000		5,000		6,300		
	Power input	kW	0.03		0.04		0.04		0.05		
	Current input	A	0.22		0.29		0.29		0.36		
Heating capacity (Nominal)	* 3	kW	4.0		5.0		6.3		8.0		
	* 3	kcal / h	3,400		4,300		5,400		6,900		
	* 3	Btu / h	13,600		17,100		21,500		27,300		
	Power input	kW	0.02		0.03		0.03		0.04		
	Current input	A	0.14		0.22		0.22		0.29		
External finish			Galvanized steel sheet								
External dimension H x W x D		mm	258 x 840 x 840								
		in.	10-3/16" x 33-1/8" x 33-1/8"								
Net weight		kg (lb)	22 (49)		22 (49)		22 (49)		23 (51)		
Decoration panel	Model		PLP-6BA		PLP-6BA		PLP-6BA		PLP-6BA		
	External finish		MUNSELL (6.4Y 8.9/0.4)								
	Dimension	mm	35 x 950 x 950								
	H x W x D		1-3/8" x 37-7/16" x 37-7/16"								
	Net weight	kg (lb)	6 (13)								
Heat exchanger			Cross fin (Aluminum fin and copper tube)								
FAN	Type x Quantity		Turbo fan x 1		Turbo fan x 1		Turbo fan x 1		Turbo fan x 1		
	External static press.	Pa	0		0		0		0		
		mmH ₂ O	0		0		0		0		
	Motor type		DC motor								
	Motor output		kW	0.050		0.050		0.050		0.050	
	Driving mechanism		Direct-drive								
	Airflow rate (Low-Mid2-Mid1-High)	m ³ / min	11 - 12 - 13 - 14		12 - 13 - 14 - 16		12 - 13 - 14 - 16		14 - 15 - 16 - 18		
		L / s	183 - 200 - 217 - 233		200 - 217 - 233 - 267		200 - 217 - 233 - 267		233 - 250 - 267 - 300		
cfm		388 - 424 - 459 - 494		424 - 459 - 494 - 565		424 - 459 - 494 - 565		494 - 530 - 565 - 636			
Noise level (Low-Mid2-Mid1-High) (measured in anechoic room)		dB <A>	27 - 28 - 29 - 31		27 - 28 - 30 - 31		27 - 28 - 30 - 31		28 - 29 - 30 - 32		
Insulation material			PS								
Air filter			PP honeycomb								
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.)	[6.35 (1/4") Flare	[6.35 (1/4") Flare	[6.35 (1/4") Flare	[6.35 (1/4") Flare	[9.52 (3/8") Flare	[9.52 (3/8") Flare	[9.52 (3/8") Flare	[9.52 (3/8") Flare	
			[6.35 (1/4") Flare	[6.35 (1/4") Flare	[6.35 (1/4") Flare	[9.52 (3/8") Flare	[9.52 (3/8") Flare	[9.52 (3/8") Flare	[9.52 (3/8") Flare		
	Gas (R410A) (R22, R407C)	mm (in.)	[12.7 (1/2") Flare	[12.7 (1/2") Flare	[12.7 (1/2") Flare	[12.7 (1/2") Flare	[15.88 (5/8") Flare	[15.88 (5/8") Flare	[15.88 (5/8") Flare	[15.88 (5/8") Flare	
Field drain pipe size		mm (in.)	O.D. [32 (VP-25)								
Standard attachment	Document	Installation Manual, Instruction Book									
	Accessory										
Remark	Optional parts										
	Decoration panel **1		PLP-6BA		PLP-6BA		PLP-6BA		PLP-6BA		
	Air outlet shutter plate		PAC-SH51SP-E		PAC-SH51SP-E		PAC-SH51SP-E		PAC-SH51SP-E		
	High efficiency filter element **2		PAC-SH59KF-E		PAC-SH59KF-E		PAC-SH59KF-E		PAC-SH59KF-E		
	Multi-function casement		PAC-SH53TM-E		PAC-SH53TM-E		PAC-SH53TM-E		PAC-SH53TM-E		
			**1.PLFY-P-VBM-E should use together with PLP-6BA. **2.PAC-SH53TM-E is necessary to use with filter PAC-SH59KF-E.								
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: DB/19.5: WB (81°FDB/66°FWB)		27: DB/19.5: WB (81°FDB/67°FWB)		20: DB (68°FDB)		kcal/h = kW x 860		
Outdoor :			35: DB (95°FDB)		35: DB (95°FDB)		7: DB/6: WB (45°FDB/43°FWB)		Btu/h = kW x 3,412		
Pipe length :			7.5 m (24-9/16 ft)		5 m (16-3/8 ft)		7.5 m (24-9/16 ft)		cfm = m ³ /min x 35.31		
Level difference :			0 m (0 ft)		0 m (0 ft)		0 m (0 ft)		lb = kg / 0.4536		

> Model: PLFY-P50VBM-E External dimension

2. EXTERNAL DIMENSIONS

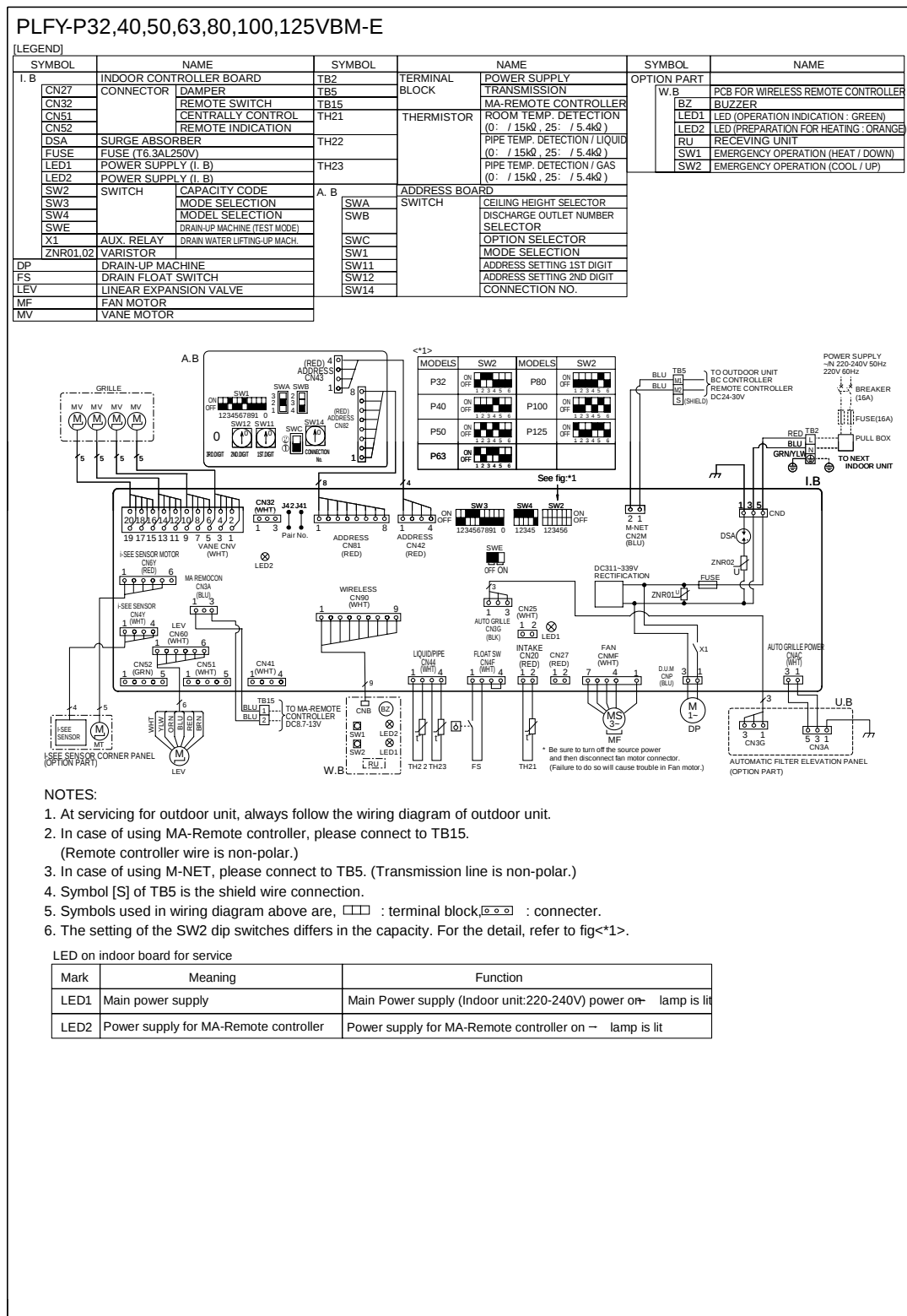
R410A Data G4



> Model: PLFY-P50VBM-E Electrical wiring diagram

3. ELECTRICAL WIRING DIAGRAMS

R410A Data G4



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