PLA CEILING RECESSED INDOOR UNITS

Due to continuing improvement, above specification may be subject to change without notice.

1. SPECIFICATIONS

- Compact side-discharge outdoor unit
- Quiet operation
- Built-in drain lift mechanism for condensate removal; lifts to 33-7/16”
- Wide air flow pattern for better air distribution
- Auto wave airflow in heating mode—unit independently cycles through horizontal and vertical positions for more even heat distribution
- Independent vane adjustment
- Automatic fan speed control
- Limited warranty: five years parts and seven years compressors

Due to continuing improvement, above specification may be subject to change without notice.

1. SPECIFICATIONS

1-1. FOR THE COMBINATION OF OUTDOOR UNIT PUY-A·NHA4/5(-BS)

Model name	Indoor unit		PLA-A12BA4	PLA-A18BA4	PLA-A24BA4	PLA-A30BA4	PLA-A36BA4	PLA-A42BA4
	Outdoor unit		PUY-A12NHA4 PUY-A12NHA4-BS	PUY-A18NHA4 PUY-A18NHA4-BS	PUY-A24NHA4 PUY-A24NHA4-BS	PUY-A30NHA4 PUY-A30NHA4-BS	PUY-A36NHA4 PUY-A36NHA4-BS	PUY-A42NHA5 PUY-A42NHA5-BS
Cooling	Max. Capacity	Btu/h	12,000	18,000	24,000	30,000	35,000	42,000
	Rated Capacity	Btu/h	12,000	18,000	24,000	30,000	35,000	42,000
	Min. Capacity	Btu/h	6,000	8,000	12,000	12,000	12,000	18,000
	Total Input	W	1260	1940	2500	4100	4500	4600
	EER	Btu/h/W	9.5	9.3	9.6	7.3	7.8	9.1
	SEER	Btu/h/W	13.5	14.2	13.6	13.6	14.2	14.4
	Moisture Removal	Pints/h	1.7	3.0	5.1	7.2	8.1	10.9
*1	SHF		0.84	0.81	0.76	0.73	0.74	0.71
Heating	Max. Capacity	Btu/h	-	-	-	-	-	-
	Rated Capacity	Btu/h	-	-	-	-	-	-
	Min. Capacity	Btu/h	-	-	-	-	-	-
	Total Input	W	-	-	-	-	-	-
	COP	W/W	-	-	-	-	-	-
*1	HSPF (4/5)	Btu/h/W	-	-	-	-	-	-
Heating at low ambient	Rated Capacity	Btu/h	-	-	-	-	-	-
	Total Input	W	-	-	-	-	-	-
*2	COP	W/W	-	-	-	-	-	-
Power supply	Phase, Cycle, Voltage		1phase, 60Hz, 208/230V					
	Breaker size	A	15		25	30		
Voltage	Indoor - Outdoor S1-S2		AC 208 / 230V					
	Indoor - Outdoor S2-S3		DC24V					
	Indoor - Remote Controller		DC12V					
Indoor unit	MCA	A	1				2	
	MOCP	A	15					
	Fan Motor (ECM)	F.L.A.	0.51				1.00	
	Fan Motor Output	W	50				120	
	Airflow DRY	CMM	11-12-13-15	12-14-16-18		14-16-18-21	20-23-26-30	22-25-28-31
	(Lo-M2-M1-Hi) WET	CMM	10-11-12-14	11-13-15-17		13-15-17-20	19-22-25-29	21-24-27-30
	Airflow DRY	CFM	390-420-460-530	420-490-570-640		490-570-640-740	710-810-920-1060	780-880-990-1090
	(Lo-M2-M1-Hi) WET	CFM	350-390-420-490	390-460-530-600		460-530-600-710	670-770-880-1030	740-850-950-1060
	External pressure	Pa	0					
	Sound level (Lo-M2-M1-Hi)	dB(A)	27-28-29-31	28-29-31-32		28-30-32-34	32-34-37-40	34-36-39-41
	External finish (Panel)		White Munsell 6.4Y 8.9 / 0.4					
	Dimension Unit (Panel)	W : mm [inch]	840 (950) [33-1/16 (37-3/8)]					
		D : mm [inch]	840 (950) [33-1/16 (37-3/8)]					
		H : mm [inch]	258 (35) [10-3/16 (1-3/8)]				298 (35) [11-3/4 (1-3/8)]	
	Weight	kg	22 (6)		23 (6)		25 (6)	
	Unit (Panel)	lbs	49 (13)		51 (13)		55 (13)	
	Field drain pipe size O.D.	mm [inch]	32 [1-1/4]					
Remote Controller			Attached in Grille					
Outdoor unit	MCA	A	13		18	25		26
	MOCP	A	15	20	30	40		
	Fan Motor (ECM)	F.L.A.	0.35		0.75			0.4 + 0.4
	Fan Motor Output	W	40		75			86 + 86
	Compressor		SNB130FPBM1		TNB220FLHM			ANV33FDPMT
		R.L.A	12					20
		L.R.A.	14			17.5		27.5
	Airflow	CMM [CFM]	34 [1,200]		55 [1,940]			100 [3,530]
	Refrigerant Control		Linear Expansion Valve					
	Defrost Method		-					
	Sound level at cooling	dB(A)	46		48			51
	Sound level at heating	dB(A)	-		-			-
	External finish		Ivory Munsell 3Y 7.8/1.1					
	Dimension	W : mm [inch]	800 [31-1/2]		950 [37-3/8]			
		D : mm [inch]	330+23 [13 + 7/8]		330+30 [13 + 1-3/16]			
		H : mm [inch]	600 [23-5/8]		943 [37-1/8]			1350 [53-1/8]
	Weight	kg [lbs]	41 [90]	44 [97]	74 [163]			117 [258]
Refrigerant	Type		R410A					
	Charge	kg [lbs, oz]	1.3 [2 lbs 14 oz]	1.7 [3 lbs 12 oz]	3.0 [6 lbs 10 oz]			4.5 [10 lbs]
	Oil	L [oz]	0.65 (MEL56) [20]		0.87 (FV50S) [28]			1.4 (FV50S) [45]
Refrigerant pipe size	Gas side O.D.	mm [inch]	12.7 [1/2]		15.88 [5/8]			
	Liquid side O.D.	mm [inch]	6.35 [1/4]		9.52 [3/8]			
Refrigerant pipe length	Height difference		Max. 30m [Max.100ft]					
	Length		Max. 30m [Max.100ft]		Max. 50 [Max.165ft]			
Refrigerant Piping			Not Supplied					
Connection Method			Flared					

NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7℃(80°F), W.B. 19.4℃(67°F) Outdoor : D.B. 35℃(95°F), W.B. 23.9℃(75°F)
(heating)-Indoor : D.B. 21.1℃(70°F), W.B. 15.6℃(60°F) Outdoor : D.B. 8.3℃(47°F), W.B. 6.1℃(43°F)
*2.Rating conditions(heating)-Indoor : D.B. 21.1℃(70°F), W.B. 15.6℃(60°F) Outdoor : D.B. -8.3℃(17°F), W.B. -9.4℃(15°F)

Due to continuing improvement, above specification may be subject to change without notice.

1. SPECIFICATIONS

1-2. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-A·NHA4/5(-BS)

Model name	Indoor unit / Outdoor unit		PLA-A18BA4 / PUZ-A18NHA4 / PUZ-A18NHA4-BS	PLA-A24BA4 / PUZ-A24NHA4 / PUZ-A24NHA4-BS	PLA-A30BA4 / PUZ-A30NHA4 / PUZ-A30NHA4-BS	PLA-A36BA4 / PUZ-A36NHA4 / PUZ-A36NHA4-BS	PLA-A42BA4 / PUZ-A42NHA5 / PUZ-A42NHA5-BS
Cooling	Max. Capacity	Btu/h	18,000	24,000	30,000	35,000	42,000
	Rated Capacity	Btu/h	18,000	24,000	30,000	35,000	42,000
	Min. Capacity	Btu/h	8,000	12,000	12,000	12,000	18,000
	Total Input	W	1940	2500	4100	4500	4600
	EER	Btu/h/W	9.3	9.6	7.3	7.8	9.1
	SEER	Btu/h/W	14.2	13.6	13.6	14.2	14.4
	Moisture Removal	Pints/h	3.0	5.1	7.2	8.1	10.9
*1	SHF		0.81	0.76	0.73	0.74	0.71
Heating	Max. Capacity	Btu/h	20,000	28,000	34,000	38,000	48,000
	Rated Capacity	Btu/h	19,000	26,000	32,000	37,000	45,000
	Min. Capacity	Btu/h	8,000	12,000	12,000	12,000	18,000
	Total Input	W	1900	2570	3370	3300	4450
	COP	W/W	2.93	2.96	2.78	3.28	2.96
*1	HSPF (4/5)	Btu/h/W	9.8 / 7.5	8.5 / 6.8	8.7 / 6.9	9.3 / 7.3	9.3 / 7.2
Heating at low ambient	Rated Capacity	Btu/h	13,000	16,000	23,000	25,000	30,000
	Total Input	W	1590	2200	3050	3070	4300
*2	COP	W/W	2.40	2.14	2.20	2.37	2.05
Power supply	Phase, Cycle, Voltage		1phase, 60Hz, 208/230V				
	Breaker size	A	15	25	30		
Voltage	Indoor - Outdoor S1-S2		AC 208 / 230V				
	Indoor - Outdoor S2-S3		DC24V				
	Indoor - Remote Controller		DC12V				
Indoor unit	MCA	A	1			2	
	MOCP	A	15				
	Fan Motor (ECM)	F.L.A.	0.51			1.00	
	Fan Motor Output	W	50			120	
	Airflow DRY	CMM	12-14-16-18		14-16-18-21	20-23-26-30	22-25-28-31
	(Lo-M2-M1-Hi) WET	CMM	11-13-15-17		13-15-17-20	19-22-25-29	21-24-27-30
	Airflow DRY	CFM	420-490-570-640		490-570-640-740	710-810-920-1060	780-880-990-1090
	(Lo-M2-M1-Hi) WET	CFM	390-460-530-600		460-530-600-710	670-770-880-1030	740-850-950-1060
	External pressure	Pa	0				
	Sound level (Lo-M2-M1-Hi)	dB(A)	28-29-31-32		28-30-32-34	32-34-37-40	34-36-39-41
	External finish (Panel)		White Munsell 6.4Y 8.9 / 0.4				
	Dimension Unit (Panel)	W : mm [inch]	840 (950) [33-1/16 (37-3/8)]				
		D : mm [inch]	840 (950) [33-1/16 (37-3/8)]				
		H : mm [inch]	258 (35) [10-3/16 (1-3/8)]			298 (35) [11-3/4 (1-3/8)]	
	Weight Unit (Panel)	kg	22 (6)	23 (6)		25 (6)	
		lbs	49 (13)	51 (13)		55 (13)	
	Field drain pipe size O.D.	mm [inch]	32 [1-1/4]				
Remote Controller			Attached in Grille				
Outdoor unit	MCA	A	13	18	25		26
	MOCP	A	15	30	40		
	Fan Motor (ECM)	F.L.A.	0.35	0.75			0.4 + 0.4
	Fan Motor Output	W	40	75			86 + 86
	Compressor		SNB130FPBM1	TNB220FLHM			ANV33FDPMT
		R.L.A	12				20
		L.R.A.	14		17.5		27.5
	Airflow	CMM [CFM]	34 [1,200]	55 [1,940]			100 [3,530]
	Refrigerant Control		Linear Expansion Valve				
	Defrost Method		Reverse Cycle				
	Sound level at cooling	dB(A)	46	48			51
	Sound level at heating	dB(A)	47	50			55
	External finish		Ivory Munsell 3Y 7.8/1.1				
	Dimension	W : mm [inch]	800 [31-1/2]	950 [37-3/8]			
		D : mm [inch]	330+23 [13 + 7/8]	330+30 [13 + 1-3/16]			
		H : mm [inch]	600 [23-5/8]	943 [37-1/8]			1350 [53-1/8]
	Weight	kg [lbs]	45 [99]	75 [165]			118 [260]
Refrigerant	Type		R410A				
	Charge	kg [lbs, oz]	1.7 [3 lbs 12 oz]	3.0 [6 lbs 10 oz]			4.5 [10 lbs]
	Oil	L [oz]	0.65 (MEL56) [20]	0.87 (FV50S) [28]			1.4 (FV50S) [45]
Refrigerant pipe size	Gas side O.D.	mm [inch]	12.7 [1/2]	15.88 [5/8]			
	Liquid side O.D.	mm [inch]	6.35 [1/4]	9.52 [3/8]			
Refrigerant pipe length	Height difference		Max. 30m [Max.100ft]				
	Length		Max. 30m [Max.100ft]	Max. 50 [Max.165ft]			
Refrigerant Piping			Not Supplied				
Connection Method			Flared				

NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7℃(80°F), W.B. 19.4℃(67°F) Outdoor : D.B. 35℃(95°F), W.B. 23.9℃(75°F)
(heating)-Indoor : D.B. 21.1℃(70°F), W.B. 15.6℃(60°F) Outdoor : D.B. 8.3℃(47°F), W.B. 6.1℃(43°F)
*2.Rating conditions(heating)-Indoor : D.B. 21.1℃(70°F), W.B. 15.6℃(60°F) Outdoor : D.B. -8.3℃(17°F), W.B. -9.4℃(15°F)

Due to continuing improvement, above specification may be subject to change without notice.

1-3. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-HA·NHA4(-BS)

Model name	Indoor unit		PLA-A30BA4	PLA-A36BA4
	Outdoor unit		PUZ-HA30NHA4	PUZ-HA36NHA4
Cooling	Max. Capacity	Btu/h	30,000	36,000
	Rated Capacity	Btu/h	30,000	34,000
	Min. Capacity	Btu/h	18,000	18,000
	Total Input	W	2,450	2,690
	EER	Btu/h/W	12.2	12.6
	SEER	Btu/h/W	15.6	17.0
	Moisture Removal	Pints/h	7.2	7.1
*1	SHF		0.73	0.71
Heating	Max. Capacity	Btu/h	34,000	40,000
	Rated Capacity	Btu/h	32,000	38,000
	Min. Capacity	Btu/h	18,000	18,000
	Total Input	W	3,440	3,230
	COP	W/W	2.73	3.45
*1	HSPF(IV/V)	Btu/h/W	9.4 / 7.1	10.0 / 8.0
Heating at 17°F(-8.3°C)	Max.Capacity	Btu/h	32,000	38,000
	Total Input	W	5,720	5,300
*2	COP	W/W	1.64	2.10
Heating at 5°F(-15°C)	Max. Capacity	Btu/h	32,000	38,000
	Total Input	W	6,630	5,860
*3	COP	W/W	1.41	1.90
Power supply	Phase, Cycle, Voltage		1phase, 60Hz, 208/230V	
	Breaker size	A	30	
Voltage	Indoor - Outdoor S1 - S2		AC208/230V	
	Indoor - Outdoor S2 - S3		DC24V	
	Indoor - Remote Controller		DC12V	
Indoor unit	MCA	A	1	2
	MOCP	A	15	
	Blower Motor (ECM)	F.L.A.	0.51	1.00
	Blower Motor Output	W	50	120
	Airflow DRY	CMM	14-16-18-21	20-23-26-30
	Airflow WET	CMM	13-15-17-20	19-22-25-29
	Airflow DRY	CFM	490-570-640-740	710-810-920-1060
	Airflow WET	CFM	460-530-600-710	670-770-880-1030
	External pressure	Pa	0	
	Sound level	dB(A)	28-30-32-34	32-34-37-40
	External finish (Grille)		White Munsell 6.4Y 8.9/0.4	
	Dimension Unit (Grille)	W : mm[inch]	840(950) [33-1/16(37-3/8)]	
		D : mm[inch]	840(950) [33-1/16(37-3/8)]	
		H : mm[inch]	258(35) [10-3/16(1-3/8)]	298(35) [11-3/4(1-3/8)]
	Weight Unit(Grille)	kg	23(6)	25(6)
	Weight Unit(Grille)	lbs	51(13)	55(13)
	Field drain pipe size	mm[inch]	O.D. 32 [1-1/4]	
Remote Controller			Attached in Grille	
Outdoor unit	MCA	A	28	
	MOCP	A	40	
	Fan Motor (ECM)	F.L.A.	0.4 + 0.4	
	Fan Motor Output	W	60 + 60	
	Compressor	Type	ANB33FJEMT	ANB33FJEMT
		R.L.A.	18	
		L.R.A.	27.5	
	Airflow	CMM[CFM]	100[3,530]	
	Refrigerant Control		Electronic Expansion Valve	
	Defrost Method		Reverse Cycle	
	Sound level at cooling	dB(A)	52	
	Sound level at heating	dB(A)	53	
	External finish		Ivory Munsell 3Y 7.8/1.1	
	Dimension	W : mm[inch]	950 [37-3/8]	
		D : mm[inch]	330 + 30 [13 + 1-3/16]	
		H : mm[inch]	1,350 [53-1/8]	
	Weight	kg[lbs]	120 [265]	
Refrigerant	Type		R410A	
	Charge	kg[lbs, oz]	5.5 [12 lbs]	
	Oil	L[oz]	1.4(FV50S) [45]	
Refrigerant pipe size	Gas side O.D.	mm[inch]	15.88 [5/8]	
	Liquid side O.D.	mm[inch]	9.52 [3/8]	
Refrigerant pipe length	Height difference		Max.30m [Max.100ft]	
	Length		Max.75m [Max.245ft]	
Refrigerant Piping Connection Method			Not Supplied Flared	

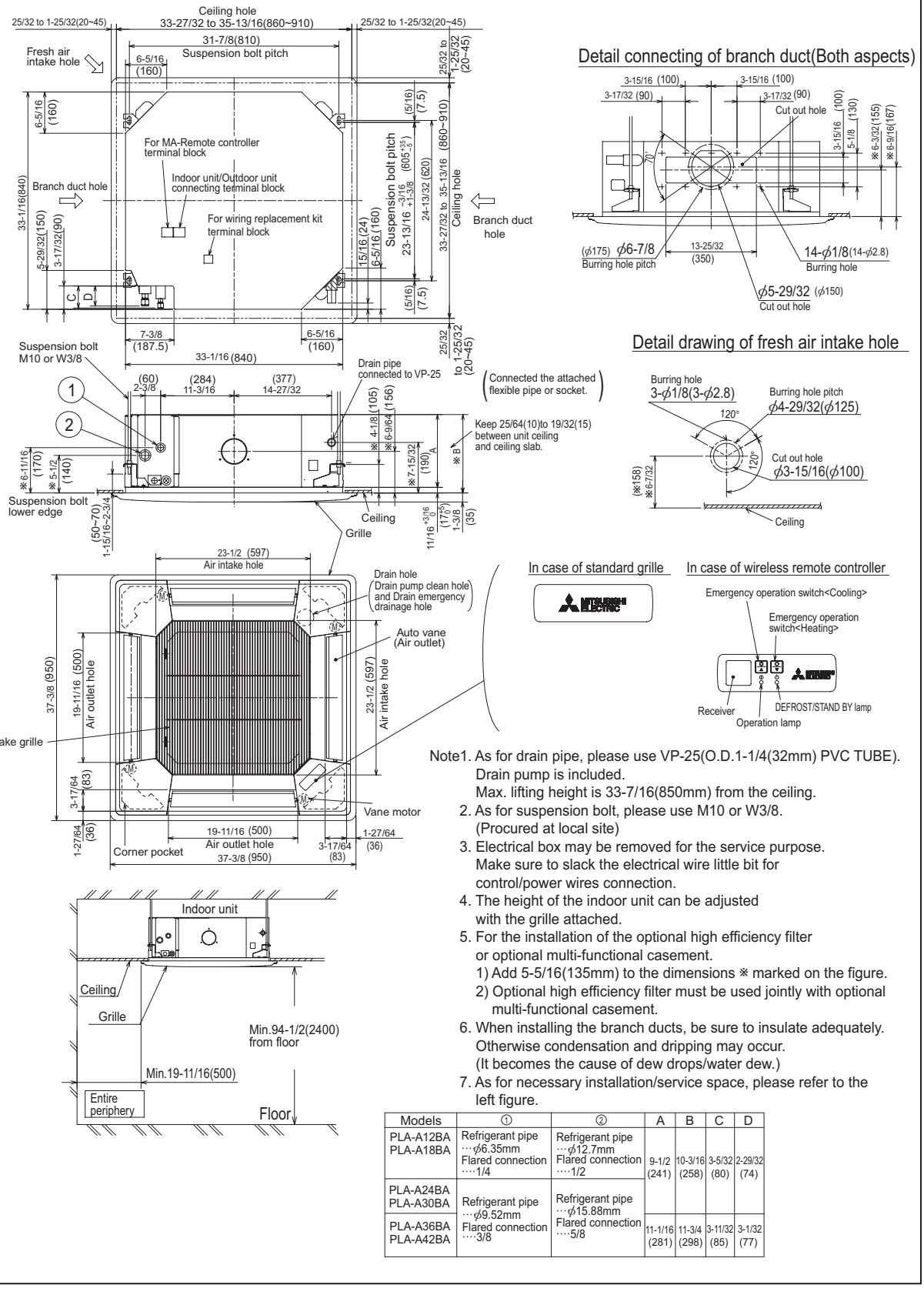
NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)
(heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. 8.3°C(47°F), W.B. 6.1°C(43°F)
*2.Conditions (heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. -8.3°C(17°F), W.B. -9.4°C(15°F)
*3.Conditions (heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. -15°C(5°F), W.B. -15°C(5°F)

Due to continuing improvement, above specification may be subject to change without notice.

2. EXTERNAL DIMENSIONS

PLA-A12BA4 PLA-A18BA4 PLA-A24BA4
PLA-A30BA4 PLA-A36BA4 PLA-A42BA4

Unit: inch (mm)



Note1. As for drain pipe, please use VP-25(O.D.1-1/4(32mm) PVC TUBE). Drain pump is included.
Max. lifting height is 33-7/16(850mm) from the ceiling.
2. As for suspension bolt, please use M10 or W3/8. (Procured at local site)
3. Electrical box may be removed for the service purpose. Make sure to slack the electrical wire little bit for control/power wires connection.
4. The height of the indoor unit can be adjusted with the grille attached.
5. For the installation of the optional high efficiency filter or optional multi-functional casement.
1) Add 5-5/16(135mm) to the dimensions ※ marked on the figure.
2) Optional high efficiency filter must be used jointly with optional multi-functional casement.
6. When installing the branch ducts, be sure to insulate adequately. Otherwise condensation and dripping may occur. (It becomes the cause of dew drops/water dew.)
7. As for necessary installation/service space, please refer to the left figure.

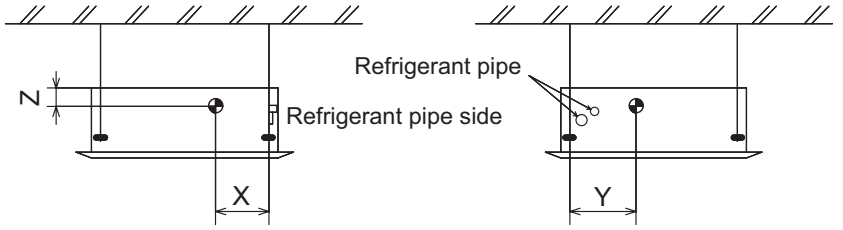
Models	①	②	A	B	C	D
PLA-A12BA PLA-A18BA	Refrigerant pipe …φ6.35mm Flared connection ….1/4	Refrigerant pipe …φ12.7mm Flared connection ….1/2	9-1/2 (241)	10-3/16 (258)	3-5/32 (80)	2-29/32 (74)
PLA-A24BA PLA-A30BA	Refrigerant pipe …φ9.52mm Flared connection ….3/8	Refrigerant pipe …φ15.88mm Flared connection ….5/8				
PLA-A36BA PLA-A42BA			11-1/16 (281)	11-3/4 (298)	3-11/32 (85)	3-1/32 (77)

Due to continuing improvement, above specification may be subject to change without notice.

3. CENTER OF GRAVITY

PLA-A12BA4 PLA-A18BA4 PLA-A24BA4
PLA-A30BA4 PLA-A36BA4 PLA-A42BA4

Unit: inch (mm)



Unit: inch (mm)

Model name	X	Y	Z
PLA-A12BA4	11-1/32 (280)	15-3/4 (400)	4-5/32 (105)
PLA-A18BA4	11-1/32 (280)	15-3/4 (400)	4-5/32 (105)
PLA-A24BA4	11-1/32 (280)	15-3/4 (400)	4-5/32 (105)
PLA-A30BA4	11-1/32 (280)	15-3/4 (400)	4-5/32 (105)
PLA-A36BA4	11-1/32 (280)	15-3/4 (400)	4-15/16 (125)
PLA-A42BA4	11-1/32 (280)	15-3/4 (400)	4-15/16 (125)

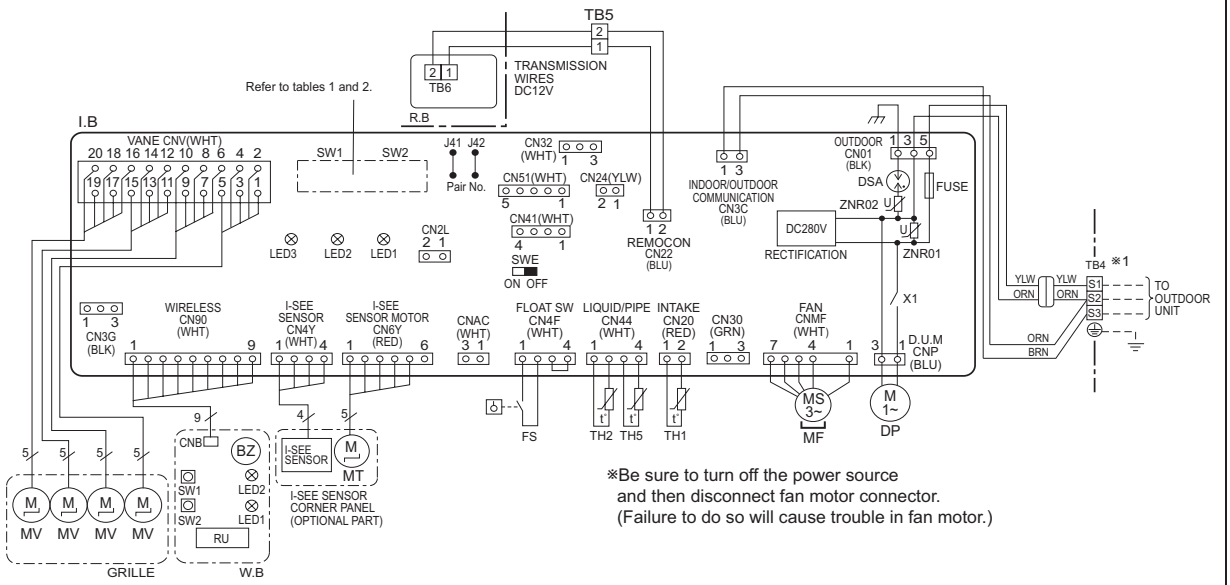
Due to continuing improvement, above specification may be subject to change without notice.

4. ELECTRICAL WIRING DIAGRAMS

PLA-A12BA4 PLA-A18BA4 PLA-A24BA4
PLA-A30BA4 PLA-A36BA4 PLA-A42BA4

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	MF	FAN MOTOR
CN2L	CONNECTOR (LOSSNAY)	MV	VANE MOTOR
CN24	CONNECTOR<BACK-UP HEATING>	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)
CN30	CONNECTOR<LLC>	TB5,TB6	TERMINAL BLOCK (REMOTE CONTROLLER TRANSMISSION LINE)
CN32	CONNECTOR (REMOTE SWITCH)		
CN41	CONNECTOR (HA TERMINAL-A)	TH1	ROOM TEMP. THERMISTOR (32˚F/ 15kΩ, 77˚F / 5.4kΩ DETECT)
CN51	CONNECTOR (CENTRALLY CONTROL)		
DSA	SURGE ABSORBER	TH2	PIPE TEMP. THERMISTOR/LIQUID (32˚F/ 15kΩ, 77˚F/ 5.4kΩ DETECT)
FUSE	FUSE (T6.3AL250V)	TH5	COND. / EVA. TEMP. THERMISTOR (32˚F/ 15kΩ, 77˚F/ 5.4kΩ DETECT)
LED1	POWER SUPPLY (I.B)		
LED2	POWER SUPPLY (R.B)	OPTION PART	
LED3	TRANSMISSION (INDOOR-OUTDOOR)	W.B	PCB FOR WIRELESS REMOTE CONTROLLER
SW1	SWITCH (MODEL SELECTION) ※See table 1.	BZ	BUZZER
SW2	SWITCH (CAPACITY CODE) ※See table 2.	LED1	LED (OPERATION INDICATION : GREEN)
SWE	CONNECTOR (EMERGENCY OPERATION)	LED2	LED (PREPARATION FOR HEATING : ORANGE)
X1	RELAY (DRAIN PUMP)	RU	RECEIVING UNIT
ZNR01,02	VARISTOR	SW1	EMERGENCY OPERATION (HEAT / DOWN)
DP	DRAIN-UP MACHINE	SW2	EMERGENCY OPERATION (COOL / UP)
FS	DRAIN FLOAT SWITCH		



※Be sure to turn off the power source and then disconnect fan motor connector. (Failure to do so will cause trouble in fan motor.)

<Table 1>SW1(MODEL SELECTION)

SW1
Service
1 2 3 4 5 ON OFF

<Table 2>SW2(CAPACITY CODE)

SW2			
MODELS	Service	MODELS	Service
PLA-A12BA	1 2 3 4 5 ON OFF	PLA-A30BA	1 2 3 4 5 ON OFF
PLA-A18BA	1 2 3 4 5 ON OFF	PLA-A36BA	1 2 3 4 5 ON OFF
PLA-A24BA	1 2 3 4 5 ON OFF	PLA-A42BA	1 2 3 4 5 ON OFF

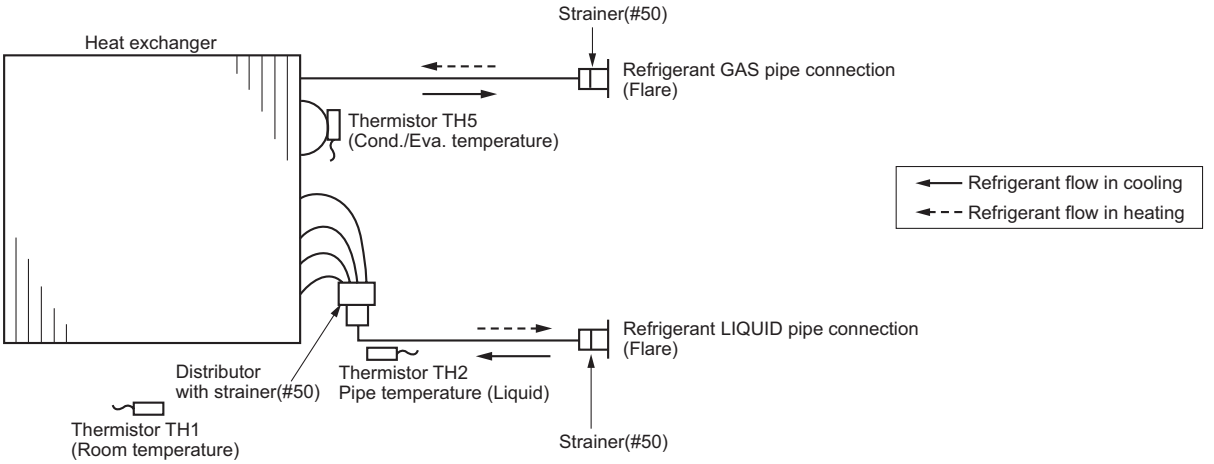
Notes: 1. Symbols used in wiring diagram above are, ○○○ : Connector, □□□ : Terminal block.
2. Indoor and outdoor connecting wires have polarities, make sure to match terminal numbers (S1, S2, S3) for correct wiring.
3. Since the outdoor side electric wiring may change, be sure to check the outdoor unit electric wiring for servicing.

※1.Use copper supply wires.

[Self-diagnosis]
1.For details on how to operate self-diagnosis with the wireless remote control, refer to the technical manuals etc.
2.For the wired remote control:When you quickly press twice the CHECK switch on the remote control, the unit begins self-diagnosis, and Check Codes generated in the past appear on the display.

Due to continuing improvement, above specification may be subject to change without notice.

PLA-A12BA4 PLA-A18BA4 PLA-A24BA4
PLA-A30BA4 PLA-A36BA4 PLA-A42BA4

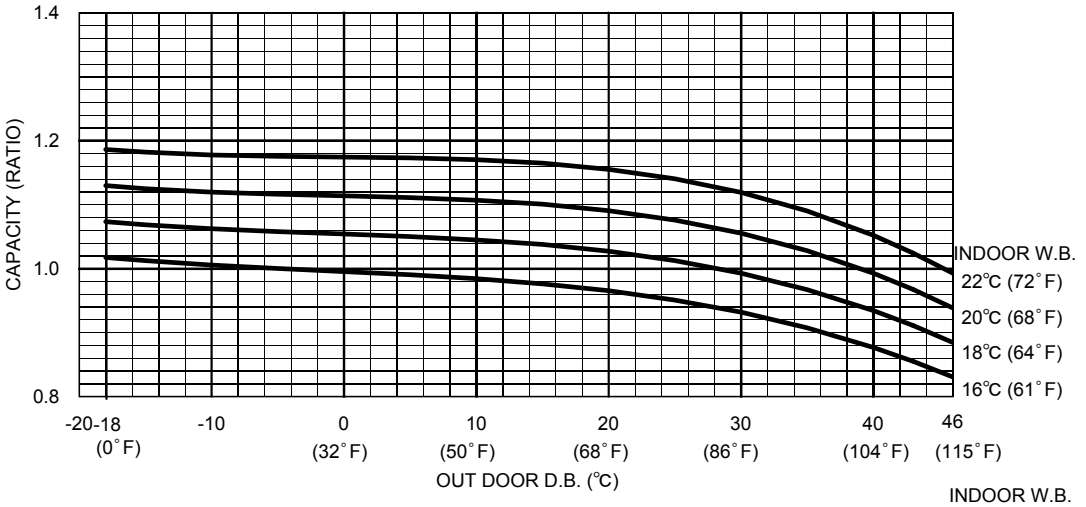


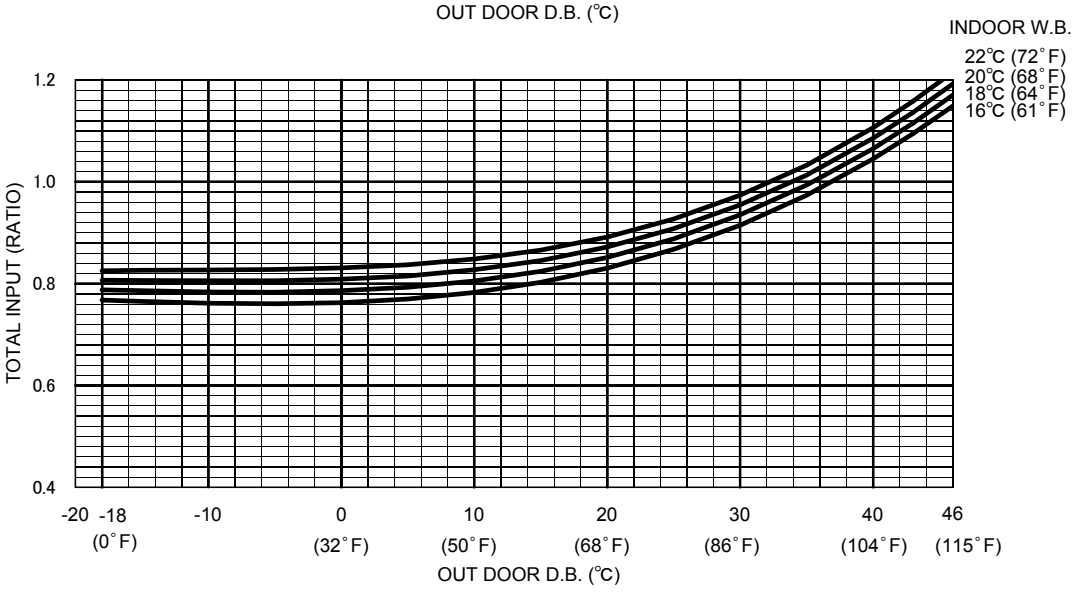
Due to continuing improvement, above specification may be subject to change without notice.

6. CAPACITY CORRECTION CURVE BY TEMPERATURE

6-1. FOR THE COMBINATION OF OUTDOOR UNIT PUY-A·NHA4(-BS)

Cooling performance curve



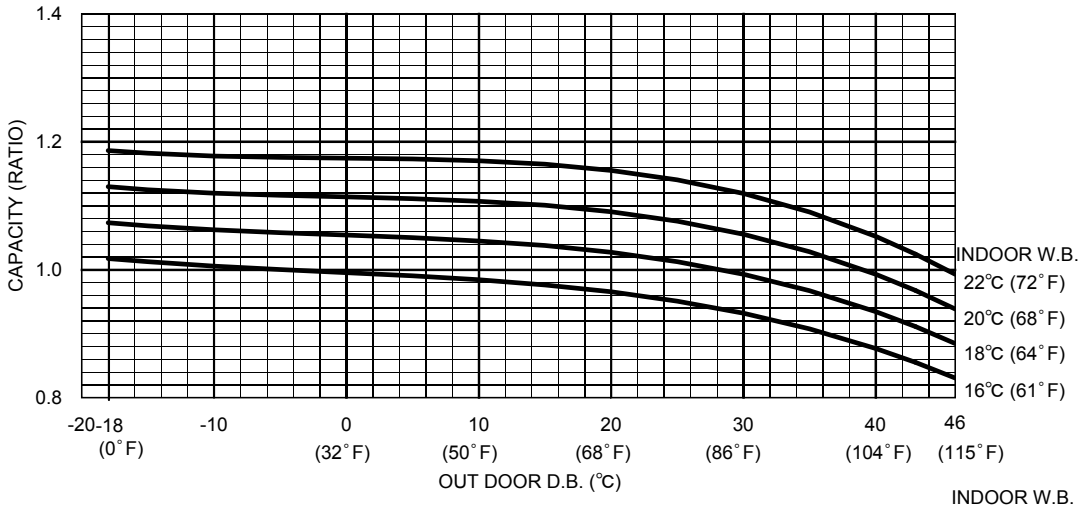


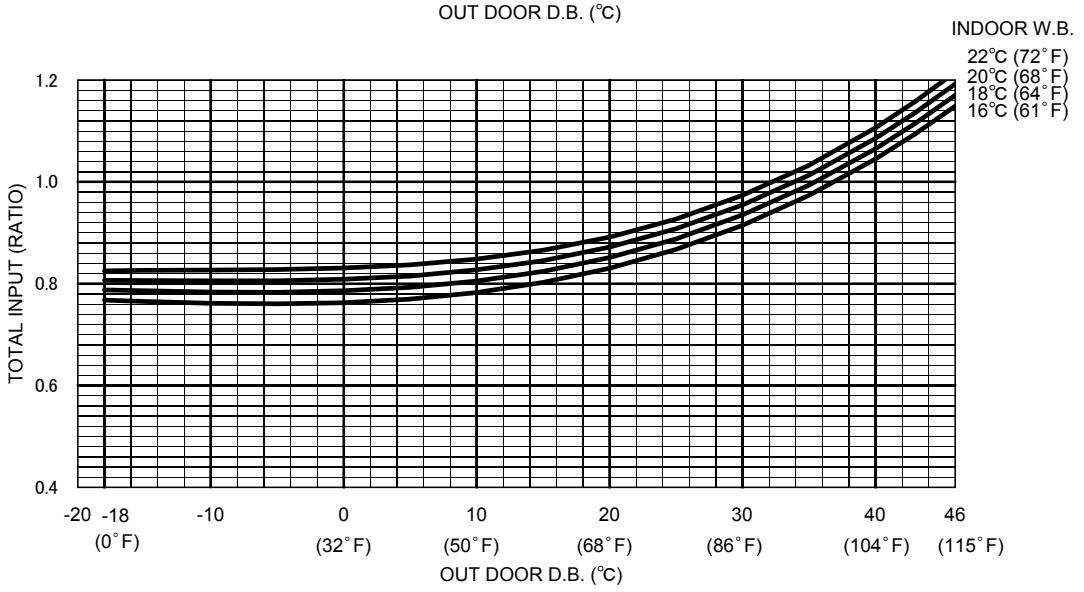
Note:This diagram shows the case where the operation frequency of a compressor is fixed.

Due to continuing improvement, above specification may be subject to change without notice.

6-2. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-A·NHA4(-BS)

Cooling performance curve



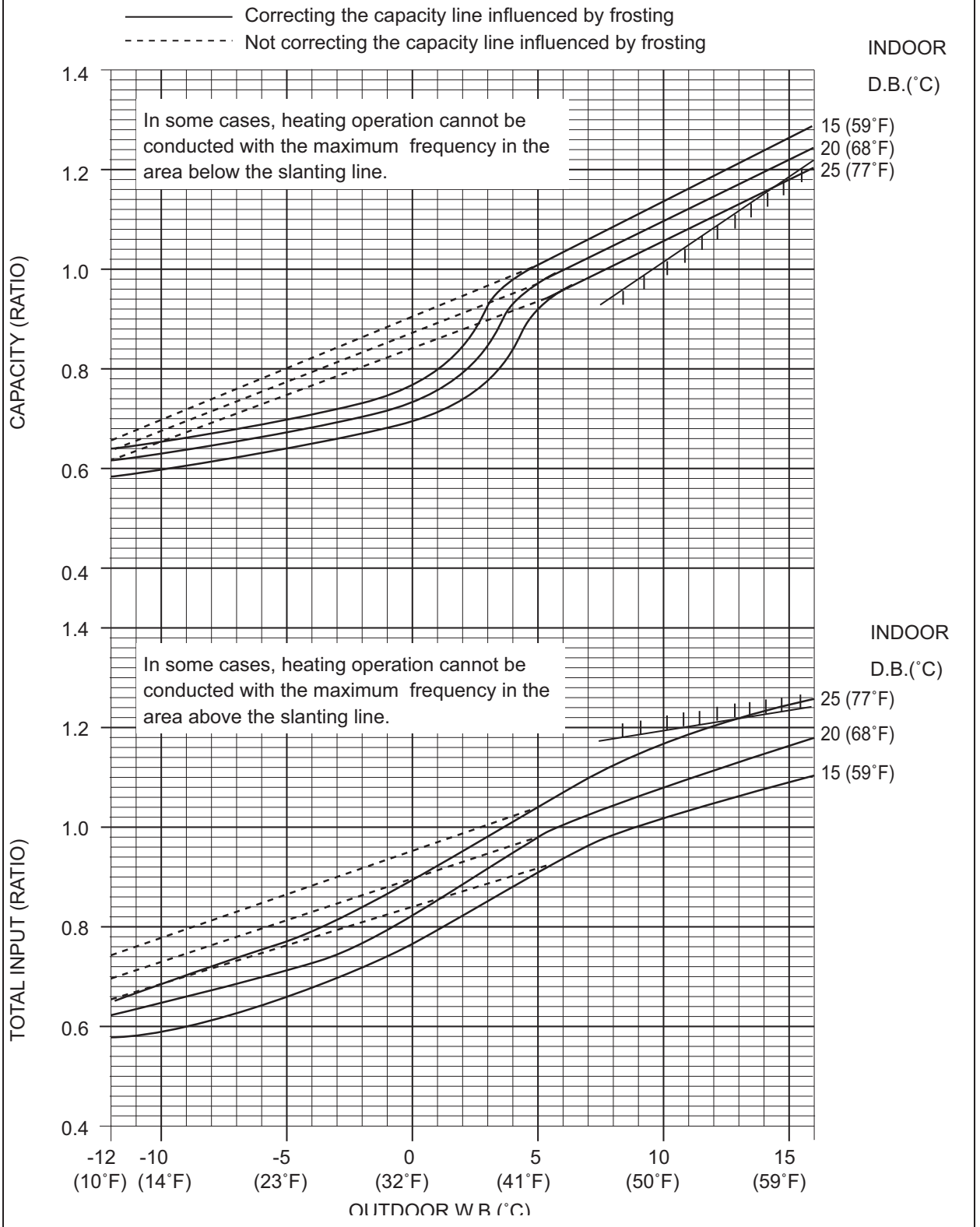


Note:This diagram shows the case where the operation frequency of a compressor is fixed.

Due to continuing improvement, above specification may be subject to change without notice.

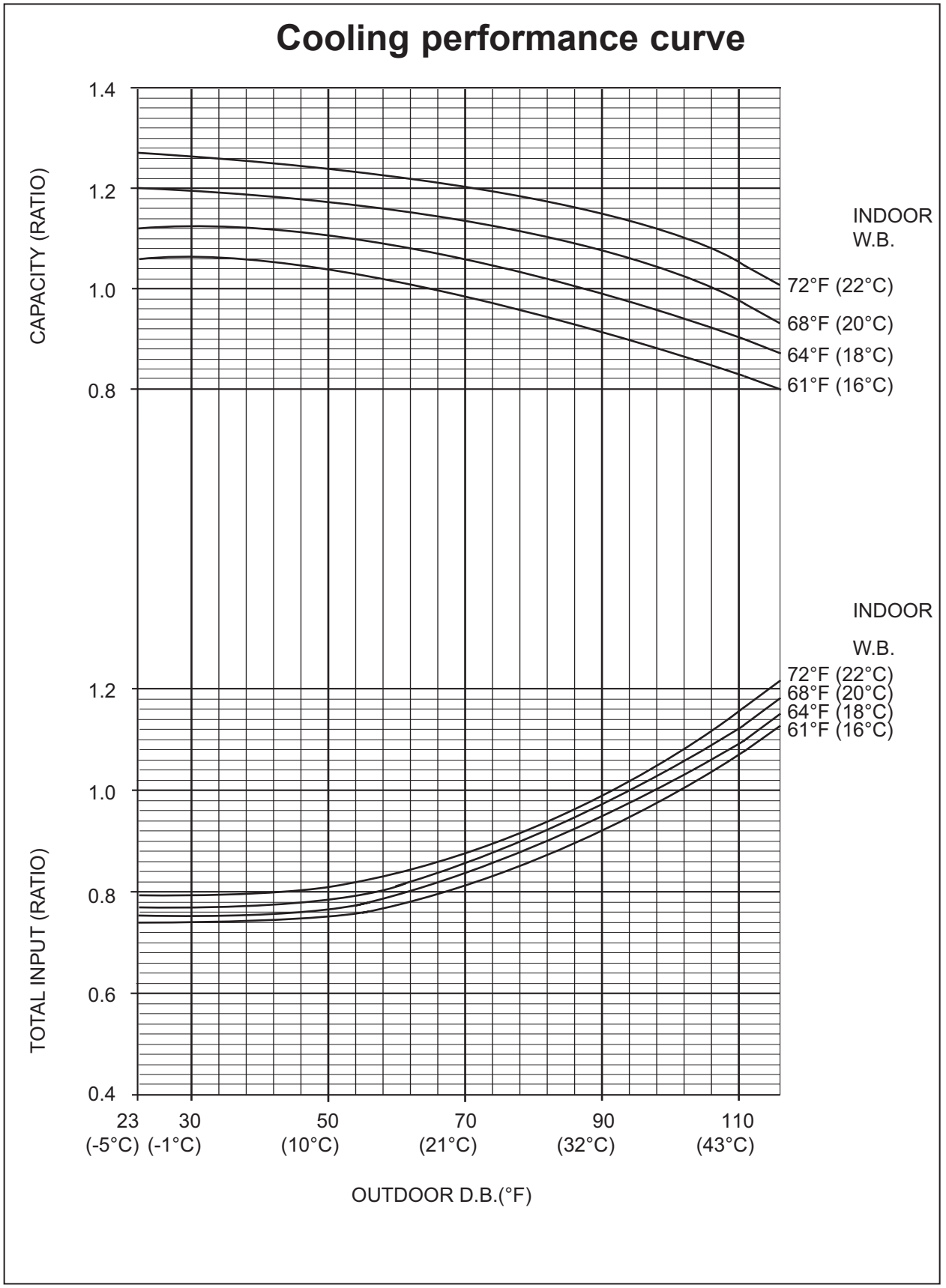
6-2. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-A·NHA4(-BS) (cont.)

Heating performance curve



Due to continuing improvement, above specification may be subject to change without notice.

6-3. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-HA·NHA4(-BS)

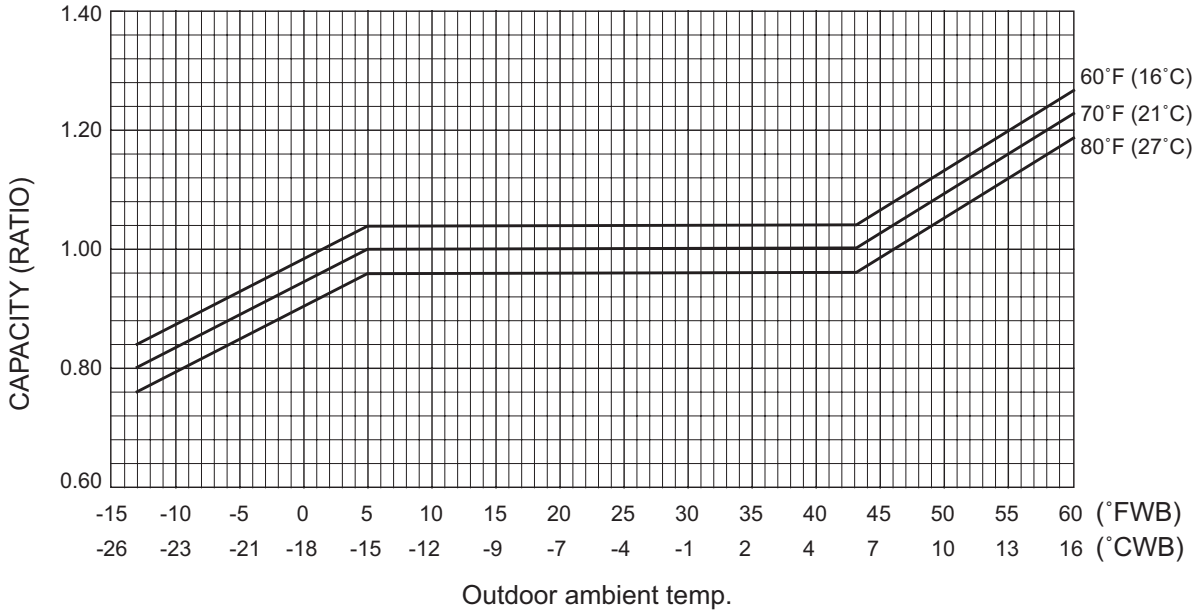


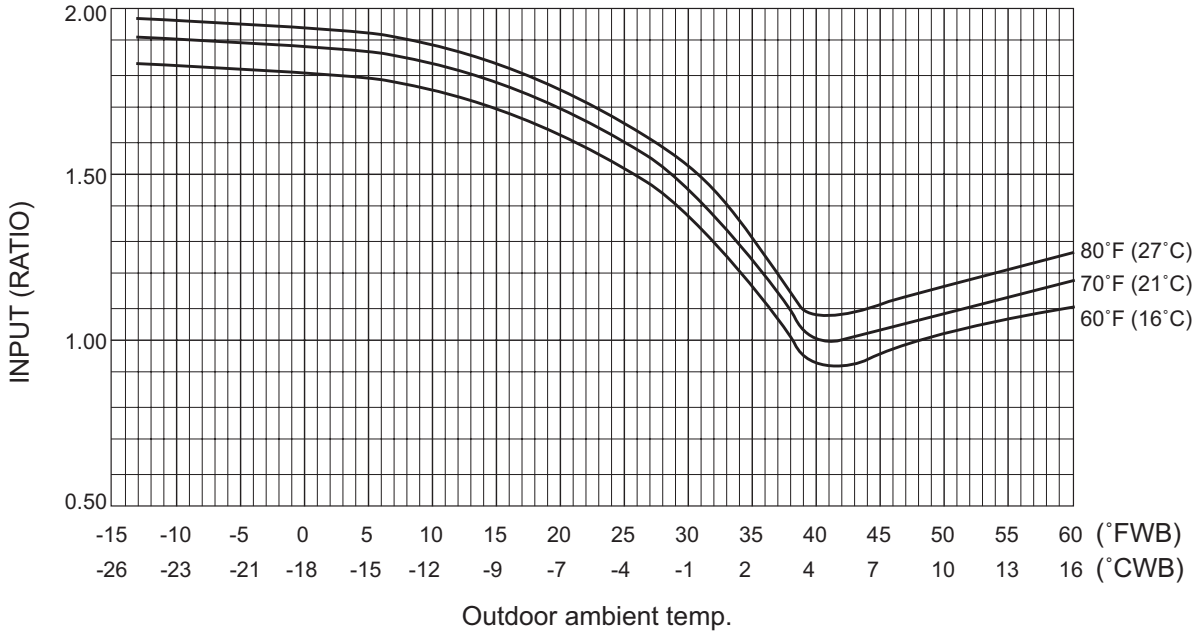
Due to continuing improvement, above specification may be subject to change without notice.

6-3. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-HA·NHA4(-BS) (cont.)

Rated heating performance curve

Rated heating capacity





Due to continuing improvement, above specification may be subject to change without notice.

7-1. FOR THE COMBINATION OF OUTDOOR UNIT PUY-A·NHA4/5(-BS)

CAPACITY (RATIO)

Outdoor D.B.[℃]	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B.[˚F]	0	–	–	23	32	–	50	–	68	–	86	–	104	–	115
Indoor W.B. 22℃ (72˚F)	1.186	1.182	1.178	1.175	1.174	1.173	1.170	1.165	1.155	1.141	1.119	1.090	1.052	1.024	0.993
Indoor W.B. 20℃ (68˚F)	1.130	1.125	1.120	1.116	1.114	1.111	1.107	1.101	1.091	1.076	1.056	1.028	0.993	0.968	0.939
Indoor W.B. 18℃ (64˚F)	1.073	1.068	1.062	1.058	1.054	1.050	1.045	1.038	1.027	1.013	0.993	0.967	0.934	0.911	0.885
Indoor W.B. 16℃ (61˚F)	1.018	1.012	1.006	1.000	0.995	0.990	0.984	0.976	0.965	0.951	0.932	0.908	0.877	0.855	0.831

TOTAL INPUT (RATIO)

Outdoor D.B.[℃]	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B.[˚F]	0	–	–	23	–	–	50	–	68	–	86	–	104	–	115
Indoor W.B. 22℃ (72˚F)	0.825	0.826	0.827	0.828	0.831	0.837	0.848	0.866	0.892	0.927	0.973	1.033	1.106	1.158	1.216
Indoor W.B. 20℃ (68˚F)	0.807	0.806	0.805	0.806	0.809	0.815	0.827	0.845	0.872	0.908	0.954	1.013	1.086	1.136	1.192
Indoor W.B. 18℃ (64˚F)	0.788	0.786	0.784	0.783	0.786	0.793	0.805	0.824	0.852	0.888	0.935	0.994	1.065	1.115	1.170
Indoor W.B. 16℃ (61˚F)	0.768	0.765	0.761	0.760	0.763	0.770	0.783	0.802	0.830	0.867	0.915	0.974	1.045	1.094	1.149

7-2. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-A·NHA4/5(-BS)

CAPACITY (RATIO)

Outdoor D.B.[℃]	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B.[˚F]	0	–	–	23	32	–	50	–	68	–	86	–	104	–	115
Indoor W.B. 22℃ (72˚F)	1.186	1.182	1.178	1.175	1.174	1.173	1.170	1.165	1.155	1.141	1.119	1.090	1.052	1.024	0.993
Indoor W.B. 20℃ (68˚F)	1.130	1.125	1.120	1.116	1.114	1.111	1.107	1.101	1.091	1.076	1.056	1.028	0.993	0.968	0.939
Indoor W.B. 18℃ (64˚F)	1.073	1.068	1.062	1.058	1.054	1.050	1.045	1.038	1.027	1.013	0.993	0.967	0.934	0.911	0.885
Indoor W.B. 16℃ (61˚F)	1.018	1.012	1.006	1.000	0.995	0.990	0.984	0.976	0.965	0.951	0.932	0.908	0.877	0.855	0.831

TOTAL INPUT (RATIO)

Outdoor D.B.[℃]	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B.[˚F]	0	–	–	23	–	–	50	–	68	–	86	–	104	–	115
Indoor W.B. 22℃ (72˚F)	0.825	0.826	0.827	0.828	0.831	0.837	0.848	0.866	0.892	0.927	0.973	1.033	1.106	1.158	1.216
Indoor W.B. 20℃ (68˚F)	0.807	0.806	0.805	0.806	0.809	0.815	0.827	0.845	0.872	0.908	0.954	1.013	1.086	1.136	1.192
Indoor W.B. 18℃ (64˚F)	0.788	0.786	0.784	0.783	0.786	0.793	0.805	0.824	0.852	0.888	0.935	0.994	1.065	1.115	1.170
Indoor W.B. 16℃ (61˚F)	0.768	0.765	0.761	0.760	0.763	0.770	0.783	0.802	0.830	0.867	0.915	0.974	1.045	1.094	1.149

7. CAPACITY CORRECTION TABLE BY TEMPERATURE

7-3. FOR THE COMBINATION OF OUTDOOR UNIT PUY(Z)-A·NHA4(-BS)

7-3-1. P-SERIES COOLING CORRECTION

	68	77	86	95	104	115
61	0.99	0.96	0.93	0.89	0.85	0.8
64	1.06	1.03	1	0.97	0.93	0.87
68	1.14	1.12	1.09	1.05	1.01	0.93
72	1.21	1.19	1.16	1.13	1.09	1.01

7-3-2. P-SERIES HEATING CORRECTION

Indoor D.B [° F]	Outdoor intake air W.B. ° C (° F)					
	-10 (14)	-5 (23)	0 (32)	5 (41)	10 (50)	15 (59)
59	0.65	0.7	0.77	1.01	1.14	1.26
68	0.63	0.67	0.73	0.97	1.1	1.22
77	0.6	0.64	0.7	0.92	1.06	1.18

7-3-3. P-SERIES DEFROST CORRECTION

Outdoor intake temperature W.B. [° F]	43	39	36	32	28	25	21	18	14
Outdoor intake temperature W.B. [° C]	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1	0.8	0.82	0.84	0.87	0.9	0.93	0.96	1

7-4. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-HA·NHA4(-BS)

7-4-1. P-SERIES HYPER HEATING CORRECTION

Indoor D.B [° F]	Outdoor intake air W.B. ° C (° F)								
	-25 (-13)	-20 (-4)	-15 (5)	-10 (14)	-5 (23)	0 (32)	5 (41)	10 (50)	15 (59)
60	0.84	0.94	1.04	1.04	1.04	1.04	1.04	1.14	1.26
70	0.80	0.90	1.00	1.00	1.00	1.00	1.00	1.10	1.22
80	0.76	0.86	0.96	0.96	0.96	0.96	0.96	1.06	1.18

Due to continuing improvement, above specification may be subject to change without notice.

8. CAPACITY CORRECTION CURVE BY REFRIGERANT PIPING LENGTH

8-1. FOR THE COMBINATION OF OUTDOOR UNIT PUY(Z)-A·NHA4(-BS)

DUE TO CONTINUING RESEARCH AND PRODUCT IMPROVEMENT, SPECIFICATIONS AND DATA ARE STILL UNDER REVIEW

8-2. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-HA·NHA4(-BS)

DUE TO CONTINUING RESEARCH AND PRODUCT IMPROVEMENT, SPECIFICATIONS AND DATA ARE STILL UNDER REVIEW

Due to continuing improvement, above specification may be subject to change without notice.

9. CAPACITY CORRECTION TABLE BY REFRIGERANT PIPING LENGTH

9-1. FOR THE COMBINATION OF OUTDOOR UNIT PUY(Z)-A·NHA4/5(-BS)

9-1-1. P-SERIES PIPING CORRECTION COOLING

Outdoor unit	Refrigerant piping length (one way)					
	5m(16ft)	10m (33ft)	20m (70ft)	30m (100ft)	40m (130ft)	50m (165ft)
PUY-A12/18 PUZ-A18	1	0.985	0.957	0.931	-	-
PUY-A24/30/36 PUZ-A24/30/36	1	0.988	0.966	0.946	0.929	0.913
PUY-A42 PUZ-A42	1	0.985	0.957	0.931	0.908	0.886

9-1-2. P-SERIES PIPING CORRECTION HEATING

Refrigerant piping length(one way)					
5m (16ft)	10m (33ft)	20m(70ft)	30m (100ft)	40m (130ft)	50m (165ft)
1	0.997	0.991	0.985	0.979	0.973

Due to continuing improvement, above specification may be subject to change without notice.

9-2. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-HA·NHA4(-BS)

9-2-1. P-SERIES PIPING CORRECTION HYPER HEATING

9-2-2-1. COOLING CAPACITY CORRECTION FACTORS

Outdoor unit	Refrigerant piping length (one way)									
	5m(16ft)	10m (33ft)	20m (70ft)	30m (100ft)	40m (130ft)	50m (165ft)	65m (180ft)	60m (195ft)	70m (230ft)	80m (260ft)
PUZ-HA30NHA4	1	0.985	0.957	0.931	0.908	0.866	0.876	0.865	0.846	0.829
PUZ-HA36NHA4										

9-2-2. P-SERIES DEFROST CORRECTION

Outdoor unit	Refrigerant piping length (one way)									
	5m(16ft)	10m (33ft)	20m (70ft)	30m (100ft)	40m (130ft)	50m (165ft)	65m (180ft)	60m (195ft)	70m (230ft)	80m (260ft)
PUZ-HA30NHA4	1	0.997	0.991	0.985	0.979	0.973	0.97	0.967	0.961	0.955
PUZ-HA36NHA4										

Due to continuing improvement, above specification may be subject to change without notice.

10. CHARGE CALCULATIONS

10-1. ADDITION OF REFRIGERANT

10-1-1. PUY(Z)-A·NHA4/5(-BS)

- Additional charging is not necessary if the pipe length does not exceed 20 m(70 ft) for A12-A36 or 30 m(100 ft) for A42.
- If the pipe length exceeds the specified length above, charge the unit with additional R410A refrigerant according to the permitted pipe lengths in the chart below.
  * When the unit is stopped, charge the unit with the additional refrigerant through the liquid stop valve after the pipe extensions and indoor unit have been vacuumized.
  * When the unit is operating, add refrigerant to the gas check valve using a safety charger. Do not add liquid refrigerant directly to the check valve.
  * After charging the unit with refrigerant, note the added refrigerant amount on the service label (attached to the unit).
- Be careful when installing multiple units. Connecting to an incorrect indoor unit can lead to abnormally high pressure and have a serious effect on operation performance.

Model	Max. pipe length	Max. height difference	Additional refrigerant charging amount (kg/oz)										
			20 m 70 ft	25 m 80 ft	27 m 90 ft	30 m 100 ft	33.5 m 110 ft	36.6 m 120 ft	40 m 130 ft	43 m 140 ft	45.5 m 150 ft	48.8 m 160 ft	50 m 165 ft
A12, A18	30 m, 100 ft	30 m, 100 ft	0	0.06 kg 2 oz	0.11 kg 4 oz	0.17 kg 6 oz	–	–	–	–	–	–	–
A24, A30, A36	50 m, 165 ft	30 m, 100 ft	0	0.17 kg 6 oz	0.34 kg 12 oz	0.51 kg 18 oz	0.68 kg 24 oz	0.85 kg 30 oz	1.02 kg 36 oz	1.19 kg 42 oz	1.36 kg 48 oz	1.53 kg 54 oz	1.70 kg 60 oz
A42	50 m, 16 5 ft	30 m, 100 ft	0	0	0	0	0.17 kg 6 oz	0.34 kg 12 oz	0.51 kg 18 oz	0.68 kg 24 oz	0.85 kg 30 oz	1.02 kg 36 oz	1.19 kg 42 oz

10-1-2. PUZ-HA·NHA4(-BS)

- Additional charging is not necessary if the pipe length does not exceed 20 m(70 ft) for A12-A36 or 30 m(100 ft) for A42.
- If the pipe length exceeds the specified length above, charge the unit with additional R410A refrigerant according to the permitted pipe lengths in the chart below.
  * When the unit is stopped, charge the unit with the additional refrigerant through the liquid stop valve after the pipe extensions and indoor unit have been vacuumized.
  * When the unit is operating, add refrigerant to the gas check valve using a safety charger. Do not add liquid refrigerant directly to the check valve.
  * After charging the unit with refrigerant, note the added refrigerant amount on the service label (attached to the unit).
- Be careful when installing multiple units. Connecting to an incorrect indoor unit can lead to abnormally high pressure and have a serious effect on operation performance.

Model	Max. pipe length	Max. height difference	Additional refrigerant charging amount (kg/oz)										
			20 m 70 ft	25 m 80 ft	27 m 90 ft	30 m 100 ft	33.5 m 110 ft	36.6 m 120 ft	40 m 130 ft	43 m 140 ft	45.5 m 150 ft	48.8 m 160 ft	50 m 165 ft
A12, A18	30 m, 100 ft	30 m, 100 ft	0	0.06 kg 2 oz	0.11 kg 4 oz	0.17 kg 6 oz	–	–	–	–	–	–	–
A24, A30, A36	50 m, 165 ft	30 m, 100 ft	0	0.17 kg 6 oz	0.34 kg 12 oz	0.51 kg 18 oz	0.68 kg 24 oz	0.85 kg 30 oz	1.02 kg 36 oz	1.19 kg 42 oz	1.36 kg 48 oz	1.53 kg 54 oz	1.70 kg 60 oz
A42	50 m, 16 5 ft	30 m, 100 ft	0	0	0	0	0.17 kg 6 oz	0.34 kg 12 oz	0.51 kg 18 oz	0.68 kg 24 oz	0.85 kg 30 oz	1.02 kg 36 oz	1.19 kg 42 oz

Due to continuing improvement, above specification may be subject to change without notice.

OUTLET AIR SPEED AND COVERAGE RANGE

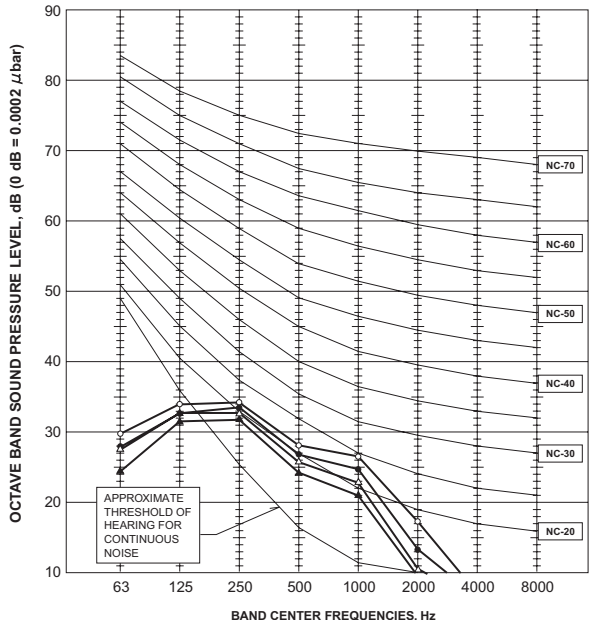
	PLA-A12BA4	PLA-A18BA4	PLA-A24BA4	PLA-A30BA4	PLA-A36BA4	PLA-A42BA4
Airflow CFM	530	640	640	740	1060	1090
Air speed ft/sec.(m/sec.)	8.5(2.6)	10.5(3.2)	10.5(3.2)	12.1(3.7)	17.4(5.3)	17.7(5.4)
Coverage range ft(m)	13(4.1)	15(4.8)	15(4.8)	18(5.6)	26(8.0)	26(8.2)

The air coverage range is the distance to which the 0.8 ft/sec. air can reach, when air is blown out horizontally from the unit at the High notch position.
The coverage range should be used only as a general guideline since it varies according to the size of the room and the furniture inside the room.

12. SOUND PRESSURE LEVELS

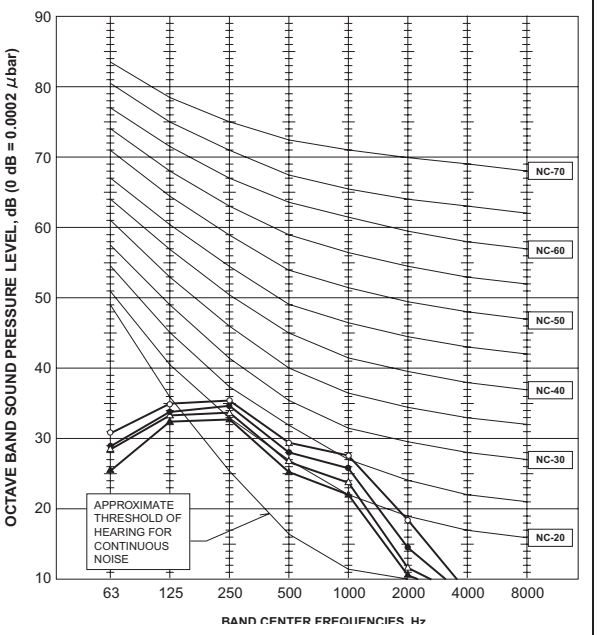
PLA-A12BA4

NOTCH	SPL(dB)	LINE
High	31	
Medium1	29	
Medium2	28	
Low	27	



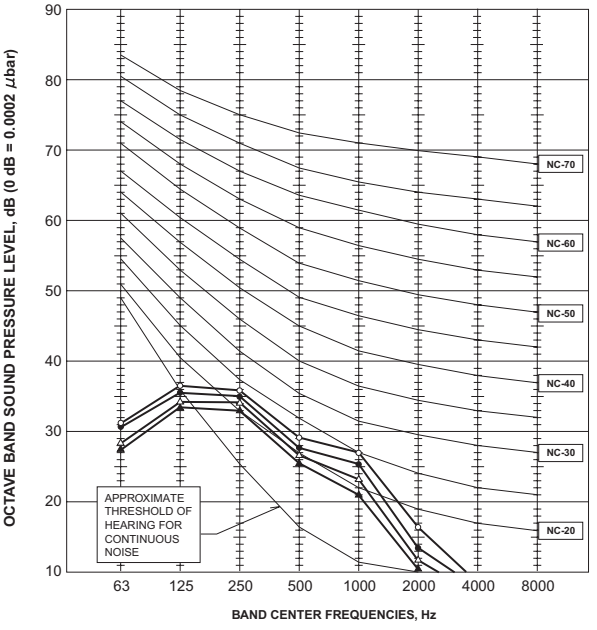
PLA-A18BA4

NOTCH	SPL(dB)	LINE
High	32	
Medium1	31	
Medium2	29	
Low	28	



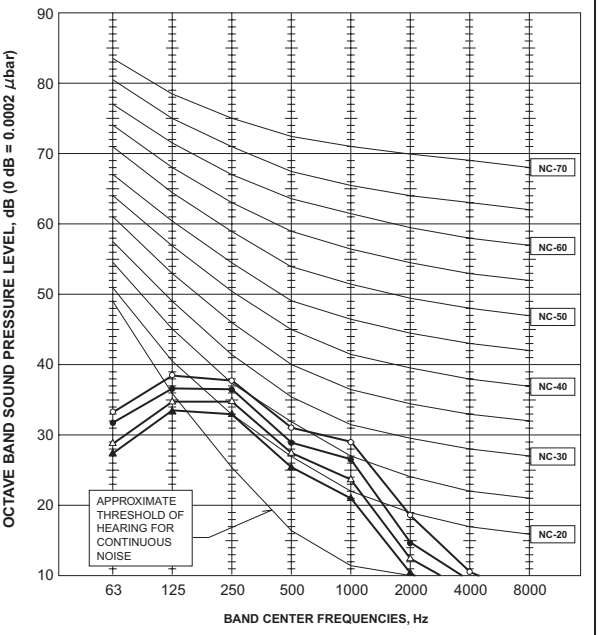
PLA-A24BA4

NOTCH	SPL(dB)	LINE
High	32	
Medium1	31	
Medium2	29	
Low	28	



PLA-A30BA4

NOTCH	SPL(dB)	LINE
High	34	
Medium1	32	
Medium2	30	
Low	28	

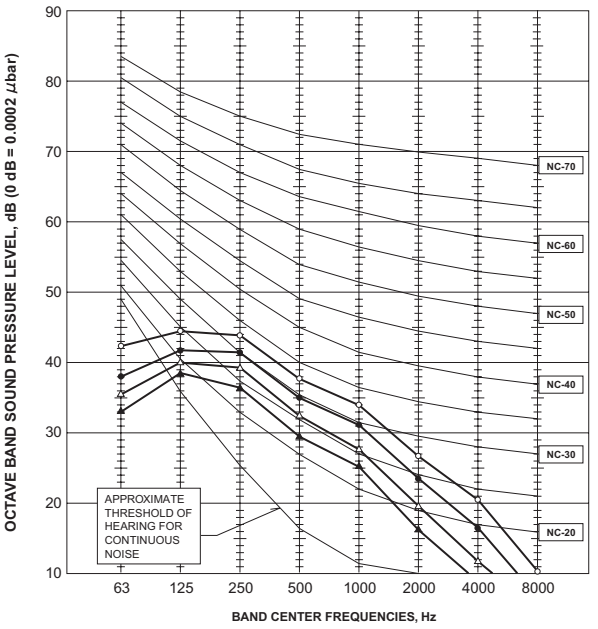


Due to continuing improvement, above specification may be subject to change without notice.

12. SOUND PRESSURE LEVELS

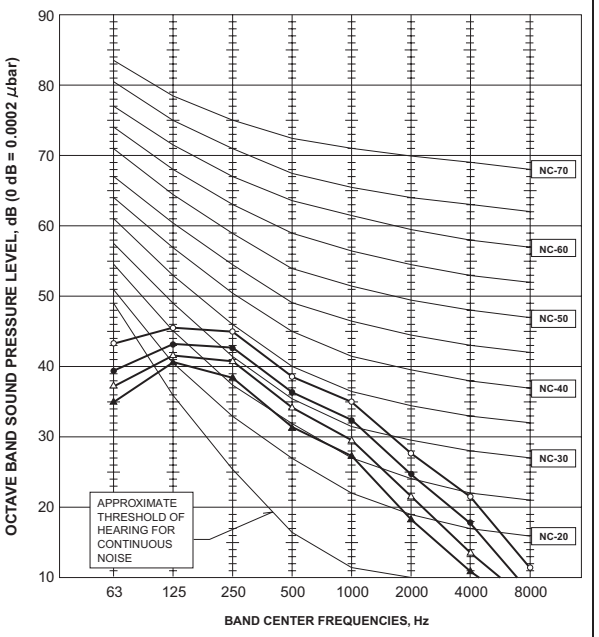
PLA-A36BA4

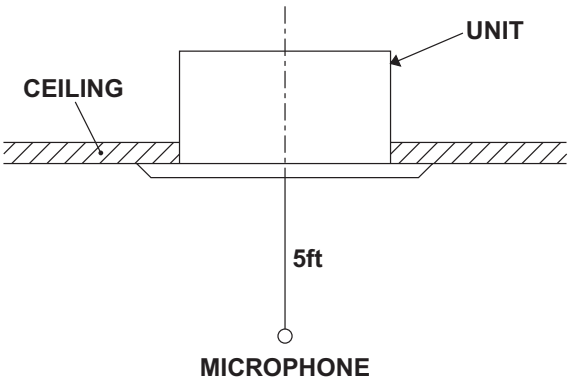
NOTCH	SPL(dB)	LINE
High	40	
Medium1	37	
Medium2	34	
Low	32	



PLA-A42BA4

NOTCH	SPL(dB)	LINE
High	41	
Medium1	39	
Medium2	36	
Low	34	





Due to continuing improvement, above specification may be subject to change without notice.

13. STANDARD OPERATION RANGE

13.1 FOR THE COMBINATION OF OUTDOOR UNIT PUY(Z)-A·NHA4(-BS)

		Indoor intake air temperature	Outdoor intake air temperature
Cooling	Maximum	D.B. 35℃(95°F), W.B. 21.7℃(71°F)	D.B. 46℃(115°F)
	Minimum	D.B. 19.4℃(67°F), W.B. 13.9℃(57°F)	D.B. -18℃(0°F)*
Heating	Maximum	D.B. 26.7℃(80°F), W.B. 19.4℃(67°F)	D.B. 21.1℃(70°F), W.B. 15℃(59°F)
	Minimum	D.B. 21.1℃(70°F), W.B. 15.6℃(60°F)	D.B. -11.1℃(12°F), W.B. -12.2℃(10°F)

* In case that the wind baffle is installed. (In case that the wind baffle is not installed, the minimum temperature will be -5℃(23°F)DB.)

13.2 FOR THE COMBINATION OF OUTDOOR UNIT PUY(Z)-HA·NHA4(-BS)

		Indoor intake air temperature	Outdoor intake air temperature
Cooling	Maximum	D.B. 32°C(90°F), W.B. 23°C(73°F)	D.B. 46°C(115°F)
	Minimum	D.B. 19°C(66°F), W.B. 15°C(59°F)	D.B. -18°C(0°F)*
Heating	Maximum	D.B. 28°C(83°F)	D.B. 21.1°C(70°F), W.B. 15°C(59°F)
	Minimum	D.B. 17°C(63°F)	D.B. -25°C(-13°F), W.B. -25°C(-13°F)

* In case that the wind baffle is installed. (In case that the wind baffle is not installed, the minimum temperature will be -5°C(23°F)DB.)

Due to continuing improvement, above specification may be subject to change without notice.

14. ACCESSORIES

Part Number	Descriptions	Applicable model
C13-103	Blue Diamond Sensor Extension Cable - 15 Ft.	
CN24RELAY-KIT-CM3	Relay Kit for external heater adapter connects to CN24 on indoor control board	PLA Series
DPLS1	Drain Pan Level Sensor/Control for indoor unit shut off to prevent Drain Pan Overflow	
DSD-400N	Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	
MCCH1	Portable Central Controller (PCC) - controls up to 16 RedLINK Zones - requires an MHK1 on each indoor unit	
MHK1	Wireless wall-mounted remote controller (MRCH1) with a signal receiver (MIFH1) and cable (MRC1) all in one kit	
MOS1	Outdoor Air Sensor - reads both outside temperature and humidity displayed on MRCH1 and MCCH1 if installed	
PAC-715AD	Wire for Remote on/off with CN32 connector	
PAC-725AD	Connector and wire for Operation status/error, booster fan control for fresh air using CN51	
PAC-SE41TS-E	Remote temperature sensor for indoor units	
PAC-SF40RM-E	Remote Operation Adapter with wire terminals for remote on/off and operation status/error	
PAC-YT53CRAU	Simple MA Remote Controller	
PAR-21MAAU	Multi-functional hard wired controller (used specifically for twinning, lead/lag, and 7 day programmable applications) Requires MAC-333IF-E Adaptor	
PAR-FA32MA	Wireless Signal Receiver used with PAR-FL32MA	
PAR-FL32MA	Wireless Remote Controller used with PAR-FA32MA	
RCMKP1CB	Lockdown Bracket for wireless, hand-held, remote controllers	
TAZ-MS303	3-Pole Disconnect Switch 30 Amps 600 volts rated for turning power supply off at indoor unit - fits 2" X 4" utility box	
MSDD-50TR-E	P-SERIES Twinning Distribution Pipe Kit	P-Series IDU's supported on A24, A36, and HA36 outdoor units only

Due to continuing improvement, above specification may be subject to change without notice.

14. ACCESSORIES

Part Number	Descriptions		Applicable model
MLS141212T-15	Diamondback Linesets	1/4 x 1/2 x 15' / 1/2" Twin-Tube Insulation	A12,18
MLS141212T-30		1/4 x 1/2 x 30' / 1/2" Twin-Tube Insulation	
MLS141212T-50		1/4 x 1/2 x 50' / 1/2" Twin-Tube Insulation	
MLS141212T-65		1/4 x 1/2 x 65' / 1/2" Twin-Tube Insulation	
MLS141212T-100		1/4 x 1/2 x 100' / 1/2" Twin-Tube Insulation	
MPLS385812T-10		3/8 x 5/8 x 10' / 1/2" Twin-Tube Insulation	A24,30,36
MPLS385812T-15		3/8 x 5/8 x 15' / 1/2" Twin-Tube Insulation	
MPLS385812T-30		3/8 x 5/8 x 30' / 1/2" Twin-Tube Insulation	
MPLS385812T-50		3/8 x 5/8 x 50' / 1/2" Twin-Tube Insulation	
MPLS385812T-65		3/8 x 5/8 x 65' / 1/2" Twin-Tube Insulation	
MPLS385812T-100		3/8 x 5/8 x 100' / 1/2" Twin-Tube Insulation	

Due to continuing improvement, above specification may be subject to change without notice.