

PEA DUCTED INDOOR UNITS

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

1. SPECIFICATIONS

- Ducted indoor unit for residential and light commercial applications
- Ultra thin body: 7-7/8" high
- Rugged housing, tough cabinet finish, strong welds at numerous stress point
- Built-in drain mechanism for condensate removal; lifts to 21-11/16"
- Auto fan speed control
- Auto restart following a power outage
- Self-check function - integrated diagnostics
- 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(-BS)

Model name	Indoor unit / Outdoor Unit		PEA-A12AA4 / PUY-A12NHA4 PUY-A12NHA4-BS	PEA-A18AA4 / PUY-A18NHA4 PUY-A18NHA4-BS	PEA-A18AA4 / PUZ-A18NHA4 PUZ-A18NHA4-BS
Cooling	Max./ Rated Capacity	Btu/h	12,000	18,000	18,000
	Min. Capacity	Btu/h	6,000	8,000	8,000
	Total Input	W	1240	2150	2150
	EER	Btu/h	9.7	8.4	8.4
	SEER	Btu/h	13.8	14.3	14.3
	Moisture Removal	Pints/h	2.47	3.26	3.26
	SHF		0.77	0.80	0.80
Heating	Max. Capacity	Btu/h	-	-	20,000
	Rated Capacity	Btu/h	-	-	19,000
	Min. Capacity	Btu/h	-	-	8,000
	Total Input	W	-	-	1540
	COP	W/W	-	-	3.61
	HSPF(IV/V)	Btu/h/W	-	-	10.0 / 8.0
Heating at low ambient	Rated Capacity	Btu/h	-	-	13,000
	Total Input	W	-	-	1520
	COP	W/W	-	-	2.51
Power supply	Phase,Cycle,Voltage		1phase, 60Hz, 208/230V		
	Breaker size	A	15		
Voltage	Indoor - Outdoor S1-S2		AC208 / 230V		
	Indoor - Outdoor S2-S3		DC24V		
Indoor unit	MCA	A	1	2	
	MOCP	A	15	15	
	Blower Motor (ECM)	F.L.A	0.57	0.74	
	Blower Motor Output	W	96		
	Airflow DRY (Lo-Mid-Hi) WET	CMM	7-9-11	12-15-18	
		CMM	6-8-10	11-14-17	
	Air flow DRY (Lo-Mid-Hi) WET	CFM	247-317-388	423-529-635	
		CFM	222-285-349	381-476-572	
	External pressure	in.WG [Pa]	0.02/0.06/0.14/0.20 [5/15/35/50]		
	Sound level (Lo-Mid-Hi)	dB(A)	23-28-33	30-34-38	
	External finish		Galvanized		
	Dimension	W:mm[inch]	990[39]	[46-7/8]	
		Unit (Panel)	D:mm[inch]	700[27-9/16]	700[27-9/16]
			H:mm[inch]	200[7-7/8]	200[7-7/8]
	Weight	kg	21	27	
	Unit	lbs	48	60	
	Field Drain pipe seize O.D.	mm[inch]	32 [1-9/32]		
Remote Controller			Attached in indoor Unit		
Refrigerant	Type		R410A		
	Charge	kg[lbs,oz]	1.3 [2lbs 14oz]	1.7 [3lbs 12oz]	
	Oil	L[oz]	0.65 (MEL 56) [20]		
Refrigerant pipe size	Gas side O.D.	mm[inch]	12.7 [1/2]		
	Liquid side O.D.	mm[inch]	6.35 [1/4]		
Refrigerant pipe length	Height difference		Max. 30m [Max.100ft]		
	Length		Max. 30m [Max.100ft]		
Connection Method			Flared		

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(-BS)

Model name	Indoor unit / Outdoor Unit		PEA-A12AA4 / PUY-A12NHA4 PUY-A12NHA4-BS	PEA-A18AA4 / PUY-A18NHA4 PUY-A18NHA4-BS	PEA-A18AA4 / PUZ-A18NHA4 PUZ-A18NHA4-BS
Outdoor unit	MCA	A	13		
	MOCP	A	15	20	
	Fan Motor (ECM)	F.L.A.	0.35		
	Fan Motor Output	W	40		
	Compressor		SNB130FPBM1		
			R.L.A.	12	
			L.R.A.	14	
	Airflow	CMM[CFM]	34 [1,200]		
	Refrigerant Control		Linear Expansion Valve		
	Defrost Method		-	-	Reverse Cycle
	Sound level at cooling	dB(A)	46		
	Sound level at heating	dB(A)	-	-	47
	External finish		Ivory Munsell 3Y 7.8/1.1		
	Dimension	W:mm[inch]	800 [31-1/2]		
		D:mm[inch]	330+23 [13+7/8]		
		H:mm[inch]	600 [23-5/8]		
	Weight	kg[lbs]	41[90]	44[97]	45[99]
Refrigerant	Type		R410A		
	Charge	kg[lbs,oz]	1.3 [2lbs 14oz]	1.7 [3lbs 12oz]	
	Oil	L[oz]	0.65 (MEL 56) [20]		
Refrigerant pipe size	Gas side O.D.	mm[inch]	12.7 [1/2]		
	Liquid side O.D.	mm[inch]	6.35 [1/4]		
Refrigerant pipe length	Height difference		Max. 30m [Max.100ft]		
	Length		Max. 30m [Max.100ft]		
Refrigerant Piping			Not Supplied		
Connection Method			Flared		

NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C (80°F), W.B. 19.4°C (67°F)
(heating)-Indoor : D.B. 21.1°C (70°F), W.B. 15.6°C (60°F)

*2.Rating conditions(heating)-Indoor : D.B. 21.1°C (70°F), W.B. 15.6°C (60°F)

Outdoor : D.B. 35°C (95°F), W.B. 23.9°C (75°F)

Outdoor : D.B. 8.3°C (47°F), W.B. 6.1°C (43°F)

Outdoor : D.B. -8.3°C (17°F), W.B. -9.4°C (15°F)

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1. SPECIFICATIONS

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

Model name	Indoor unit		PEA-A18AA×2
	Outdoor unit		PUZ-HA36NHA4
Cooling	Max. Capacity	Btu/h	36,000
	Rated Capacity	Btu/h	34,000
	Min. Capacity	Btu/h	18,000
	Total Input	W	2700
	EER	Btu/h/W	12.5
	SEER	Btu/h/W	16.8
	Moisture Removal	Pints/h	6.7
Heating	*1 SHF		0.78
	Max. Capacity	Btu/h	40,000
	Rated Capacity	Btu/h	38,000
	Min. Capacity	Btu/h	18,000
	Total Input	W	3150
	COP	W/W	3.53
	*1 HSPF(IV/V)	Btu/h/W	10.4/8.2
Heating at 17°F(-8.3°C)	Max. Capacity	Btu/h	38,000
	Total Input	W	5400
	*2 COP	W/W	2.06
Heating at 5°F(-15°C)	Max. Capacity	Btu/h	38,000
	Total Input	W	6100
Power supply	*3 COP	W/W	1.82
	Phase, Cycle, Voltage		1phase, 60Hz, 208/230V
Voltage	Breaker size	A	30
	Indoor - Outdoor S1 - S2		AC208/230V
	Indoor - Outdoor S2 - S3		DC24V
Indoor unit	Indoor - Remote Controller		DC12V
	MCA	A	2
	MOCP	A	15
	Blower Motor (ECM)	F.L.A.	0.74
	Blower Motor Output	W	96
	Airflow DRY (Lo-Mid-Hi)	CMM	12-15-18
	Airflow WET (Lo-Mid-Hi)	CMM	11-14-17
	Airflow DRY (Lo-Mid-Hi)	CFM	423-529-635
	Airflow WET (Lo-Mid-Hi)	CFM	381-476-572
	External pressure	Pa	[5/15/35/50]
	Sound level (Lo-Mid-Hi)	dB(A)	30-34-38
	External finish		Galvanized
	Dimension Unit (Panel)	W : mm[inch]	1190[46-7/8]
		D : mm[inch]	700[27-9/16]
		H : mm[inch]	200[7-7/8]
Remote Controller	Weight Unit	kg	27
		lbs	60
Outdoor unit	Field drain pipe size	mm[inch]	32 [1-1/4]
			Attached in indoor Unit
Refrigerant	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
		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]
Refrigerant pipe size		D : mm[inch]	330+30 [13 + 1-3/16]
		H : mm[inch]	1,350 [53-1/8]
Refrigerant pipe length	Weight	kg[lbs]	120 [265]
	Type		R410A
Refrigerant Piping	Charge	kg[lbs, oz]	5.5 [12 lbs]
	Oil	L[oz]	1.4(FV50S) [45]
Connection Method	Gas side O.D.	mm[inch]	15.88 [5/8] / 12.7[1/2]
	Liquid side O.D.	mm[inch]	9.52 [3/8] / 6.35[1/4]
	Height difference		Max.30m [Max.100ft]
	Length		Max.75m [Max. 245ft]
Refrigerant Piping			Not Supplied
Connection Method			Flared

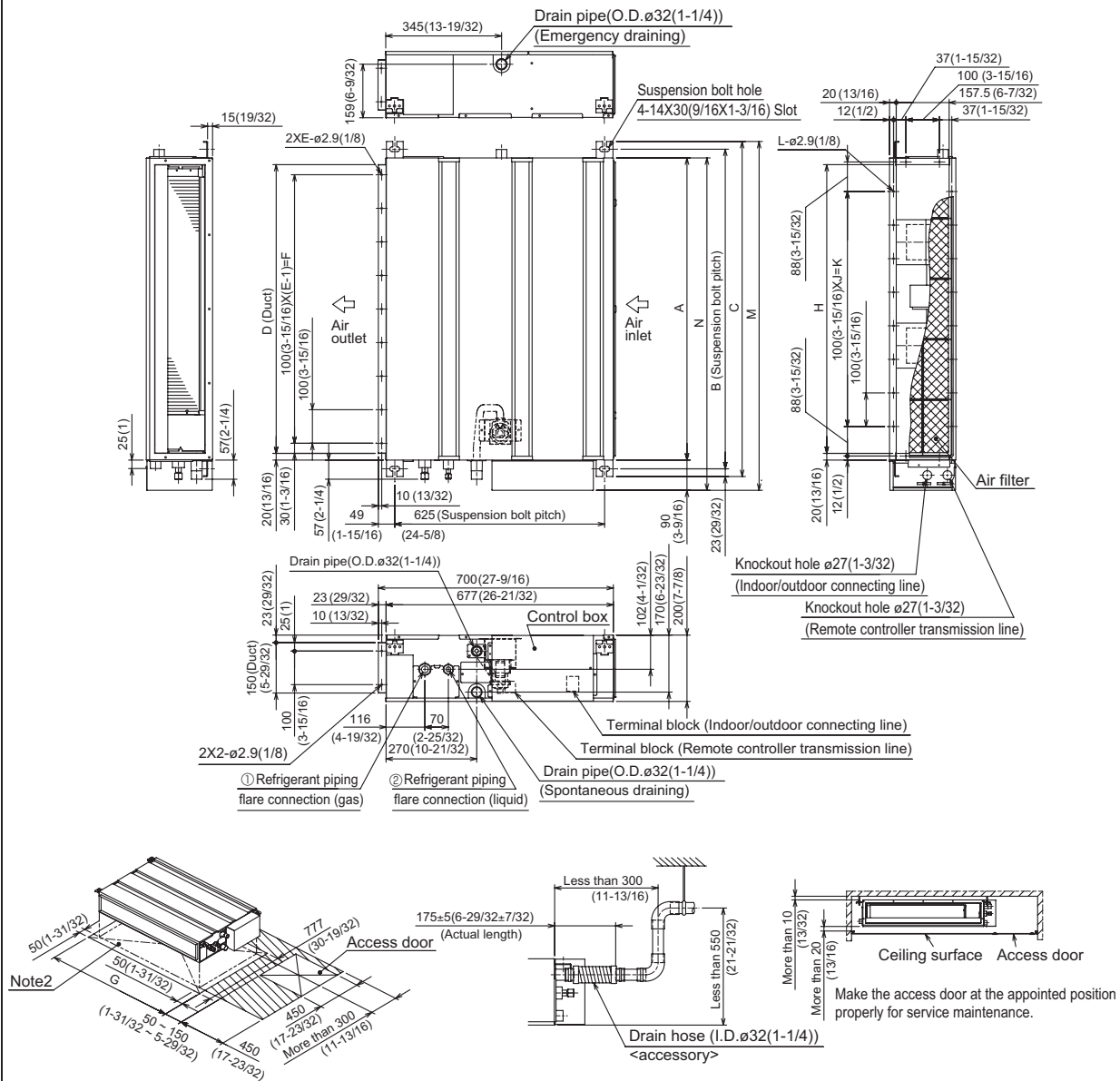
NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)
 (heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. 8.3°C(47°F), W.B. 6.1°C(43°F)
 *2.Conditions (heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F)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

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2. EXTERNAL DIMENSIONS

PEA-A12AA4 PEA-A18AA4

Unit: mm (inch)



Required space for service and maintenance

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	① Gas pipe	② Liquid pipe
PEA-A12AA	900 (35-7/16)	952 (37-1/2)	998 (39-5/16)	860 (33-7/8)	9	800 (31-1/2)	1000 (39-3/8)	860 (33-7/8)	7	700 (27-9/16)	20	1039 (40-29/32)	990 (39)	ø12.7(1/2)	ø6.35(1/4)
PEA-A18AA	1100 (43-5/16)	1152 (45-3/8)	1198 (47-3/16)	1060 (41-3/4)	11	1000 (39-3/8)	1200 (47-1/4)	1060 (41-3/4)	9	900 (35-7/16)	24	1239 (48-25/32)	1190 (46-7/8)		

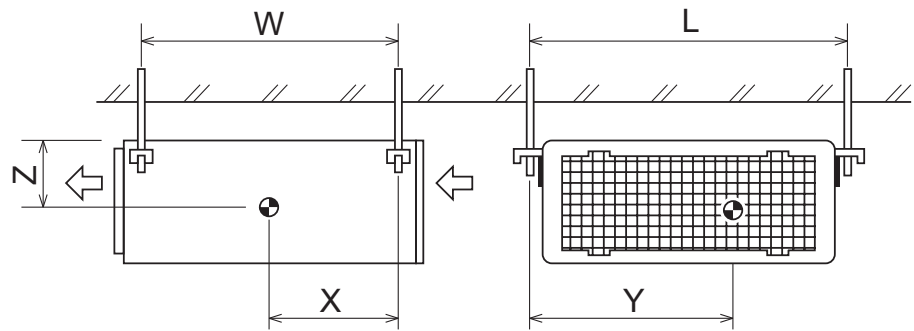
- Note1. Use M10 screw for the suspension bolt (field supply).
 2. Keep the service space for the maintenance at the bottom.
 3. This chart indicates for PEA-A12AA model, which has 2 fans.
 PEA-A18AA models have 4 fans.
 4. In case an inlet duct is used, remove the air filter (supply with the unit), then install the filter (field supply) at suction side.

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3. CENTER OF GRAVITY

PEA-A12AA4 PEA-A18AA4

Unit: mm (inch)



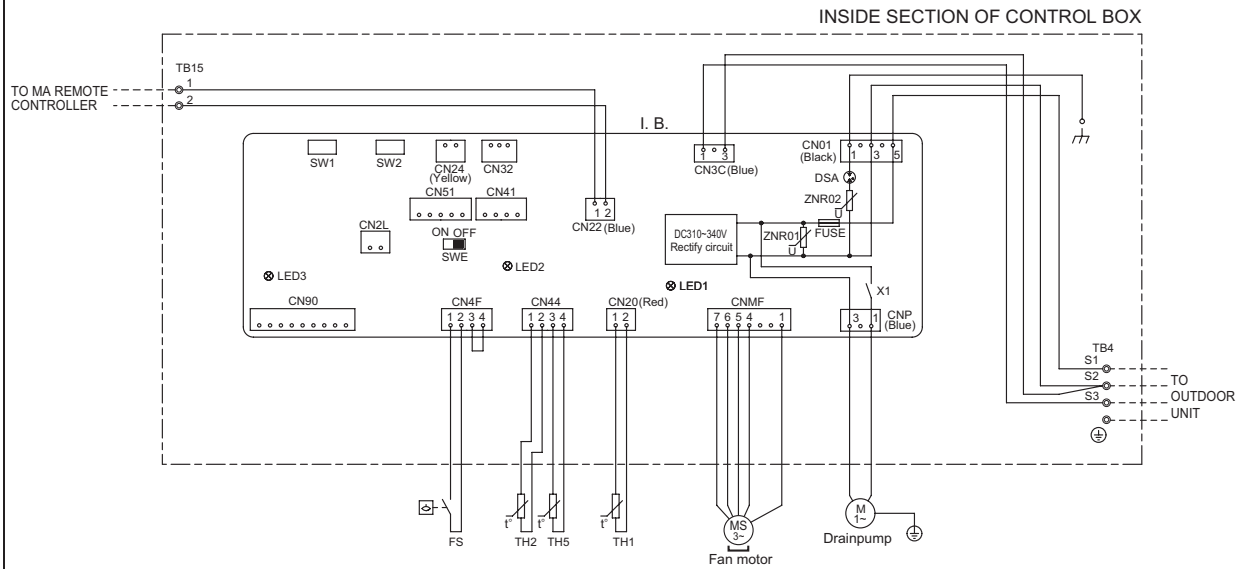
Unit: inch (mm)

Model name	W	L	X	Y	Z
PEA-A12AA4	24-10/16 (625)	37-8/16 (952)	11-5/16 (286)	17-11/16 (448)	4-2/16 (104)
PEA-A18AA4	24-10/16 (625)	45-6/16 (1152)	11-4/16 (285)	20-12/16 (527)	4-2/16 (104)

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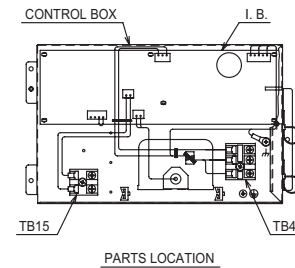
4. ELECTRICAL WIRING DIAGRAMS

PEA-A12AA4 PEA-A18AA4



SYMBOL EXPLANATION

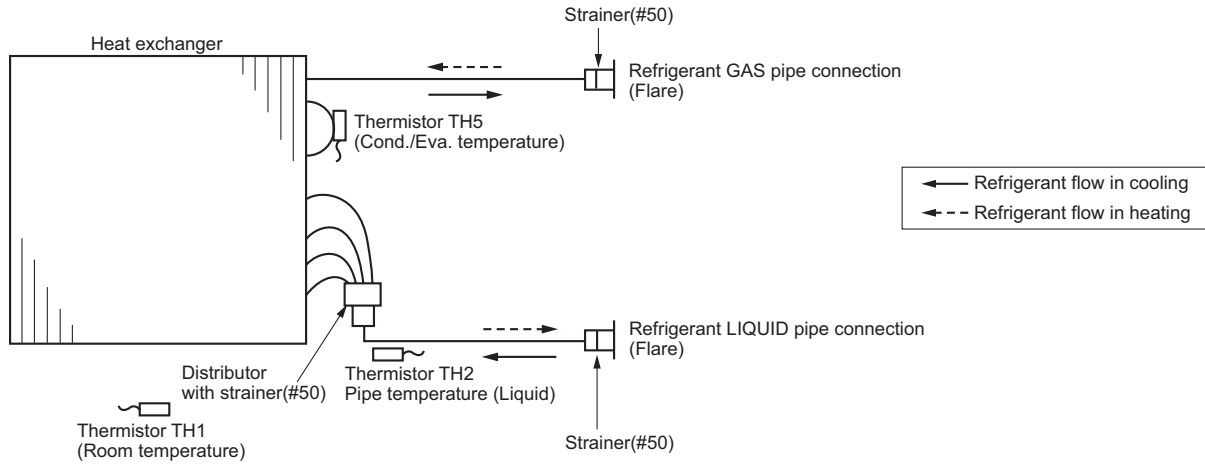
SYMBOL	NAME	SYMBOL	NAME
I. B.	INDOOR CONTROLLER BOARD	LED2	POWER SUPPLY(I.B.)
FUSE	FUSE AC250V 6.3A	LED3	TRANSMISSION(INDOOR-OUTDOOR)
ZNR01,02	VARISTOR	SW1	SWITCH (FOR MODE SELECTION)
DSA	ARRESTER	SW2	SWITCH (FOR CAPACITY CODE)
X1	AUX. RELAY	SWE	CONNECTOR (EMERGENCY OPERATION)
CN2L	CONNECTOR (LOSSNAY)	TH1	INTAKE AIR TEMP. THERMISTOR
CN24	CONNECTOR (BACK-UP HEATING)	TH2	PIPE TEMP. THERMISTOR/LIQUID
CN32	CONNECTOR (REMOTE SWITCH)	TH5	COND./EVA. TEMP. THERMISTOR
CN41	CONNECTOR (HA TERMINAL-A)	FS	FLOAT SWITCH
CN51	CONNECTOR (CENTRALLY CONTROL)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)
CN90	CONNECTOR (WIRELESS)	TB15	TERMINAL BLOCK (REMOTE CONTROLLER TRANSMISSION LINE)
LED1	POWER SUPPLY(I.B.)		



- Note1. Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
2. Indoor and outdoor connecting wires have polarities, make sure to match terminal numbers (S1, S2, S3) for correct wirings.
3. Symbols used in wiring diagram above are, ⊖: Connector, ⊙: Terminal.
4. Use copper supply wire.

5. REFRIGERANT SYSTEM DIAGRAMS

PEA-A12AA4 PEA-A18AA4

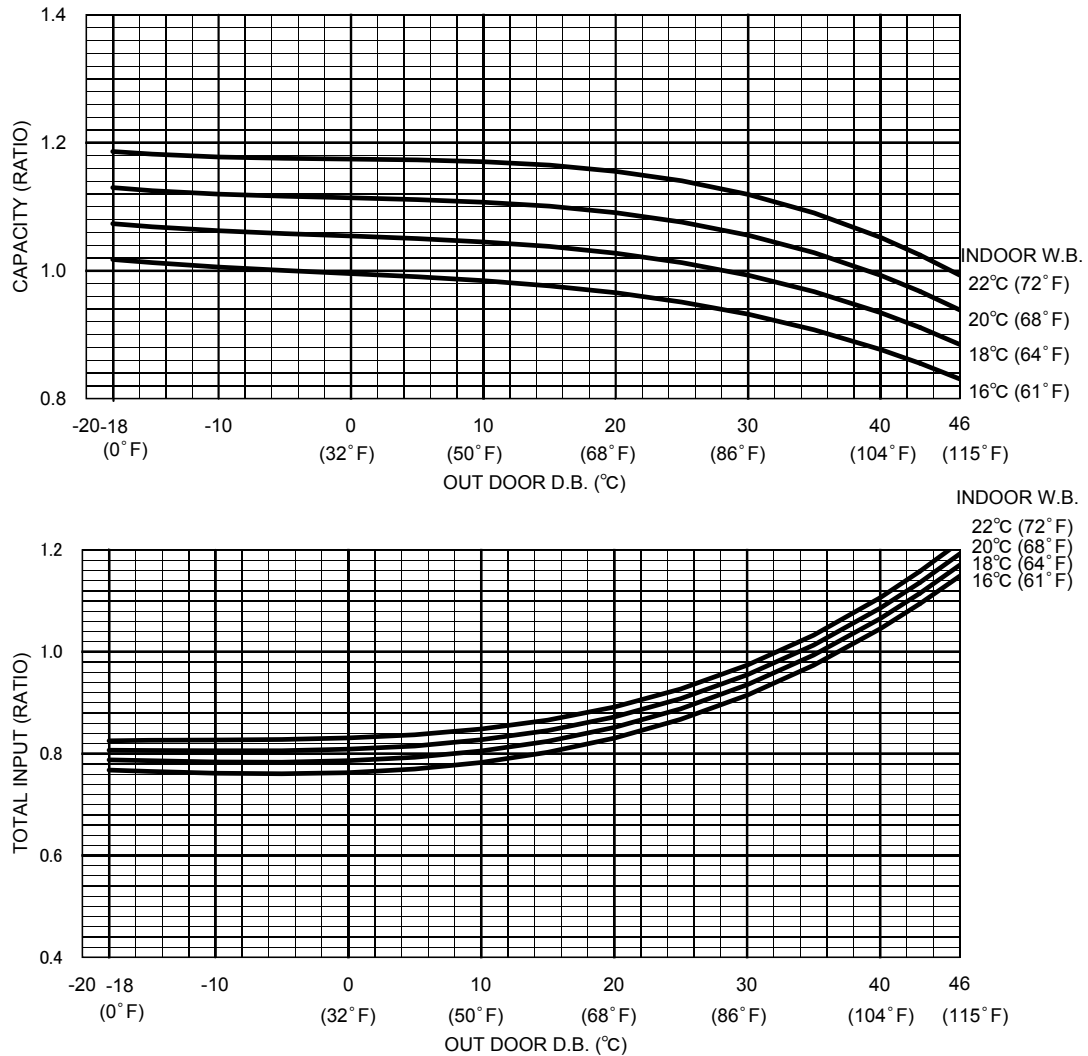


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6. CAPACITY CORRECTION CURVE BY TEMPERATURE

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

Cooling performance curve

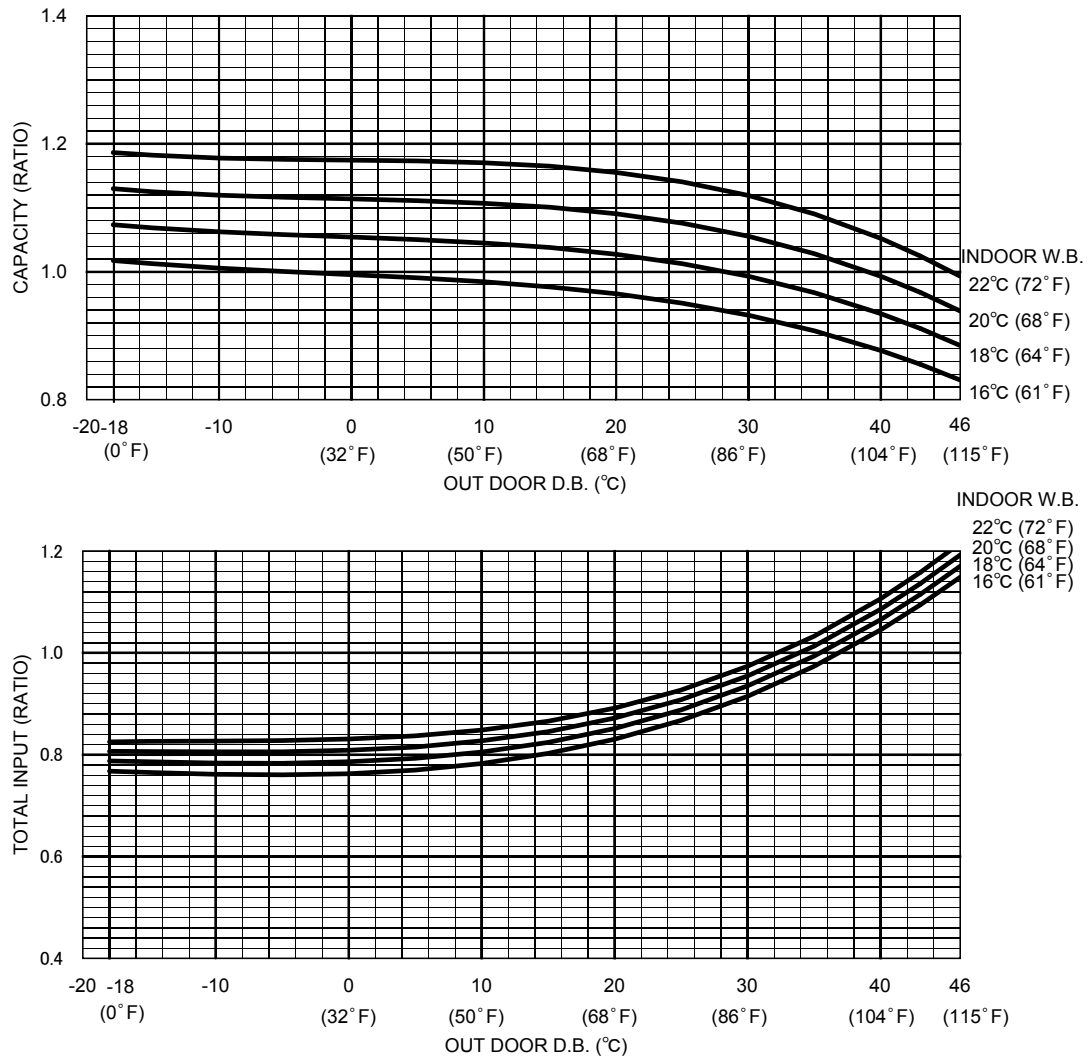


Note: This diagram shows the case where the operation frequency of a compressor is fixed.

6. CAPACITY CORRECTION CURVE BY TEMPERATURE

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

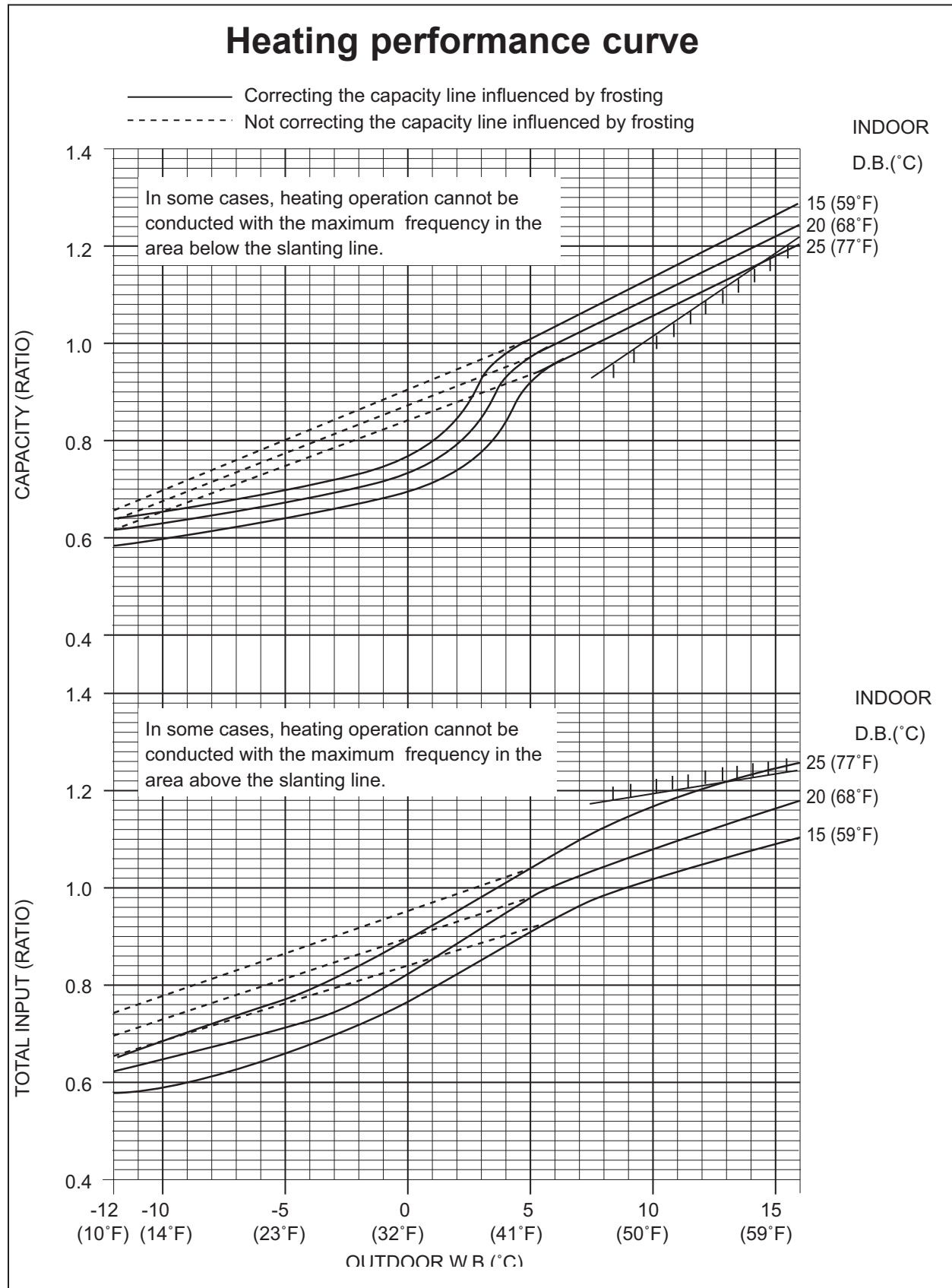
Cooling performance curve



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

6. CAPACITY CORRECTION CURVE BY TEMPERATURE

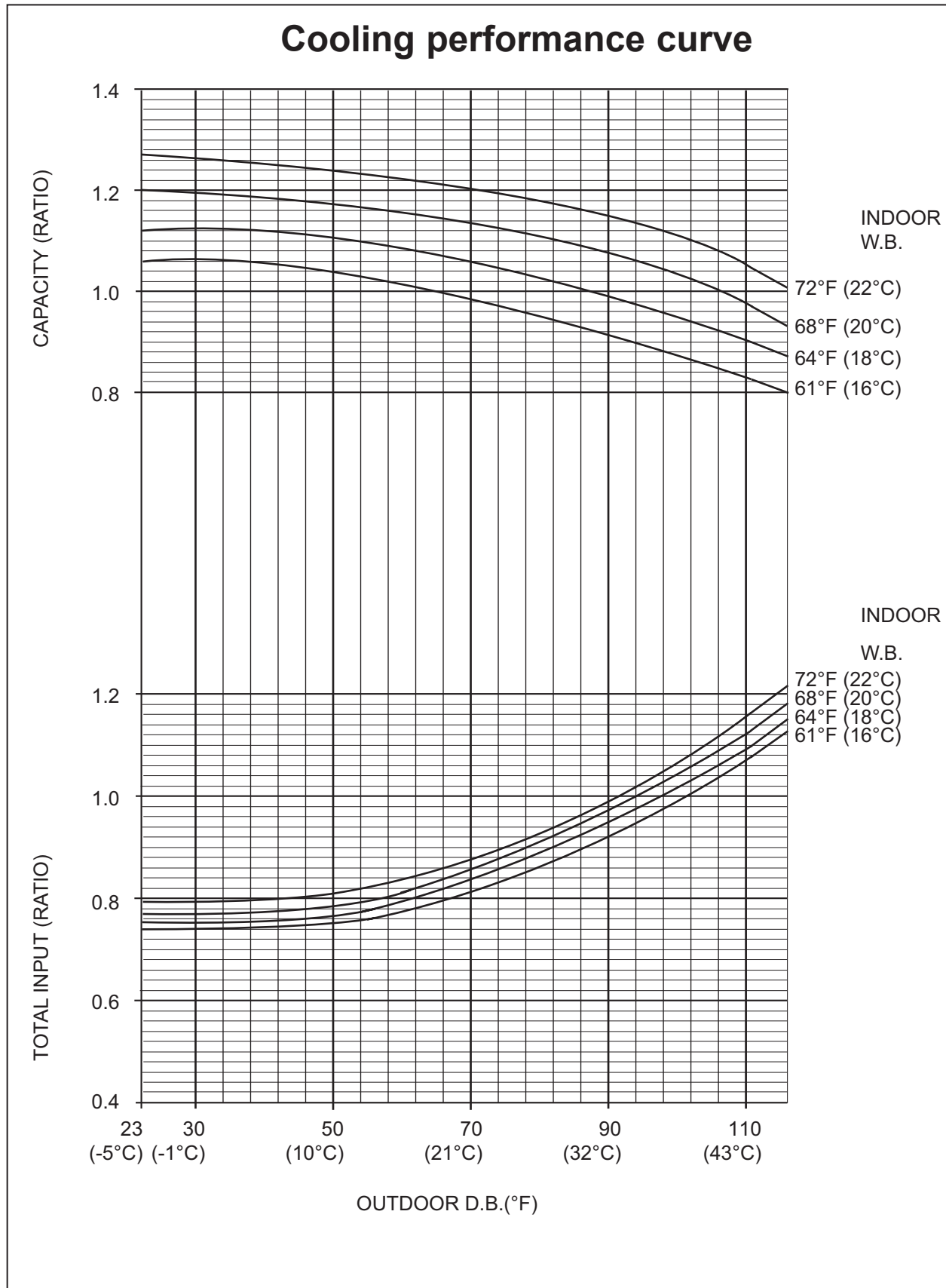
6-2. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-A-NHA4(-BS) (cont.)



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

6. CAPACITY CORRECTION CURVE BY TEMPERATURE

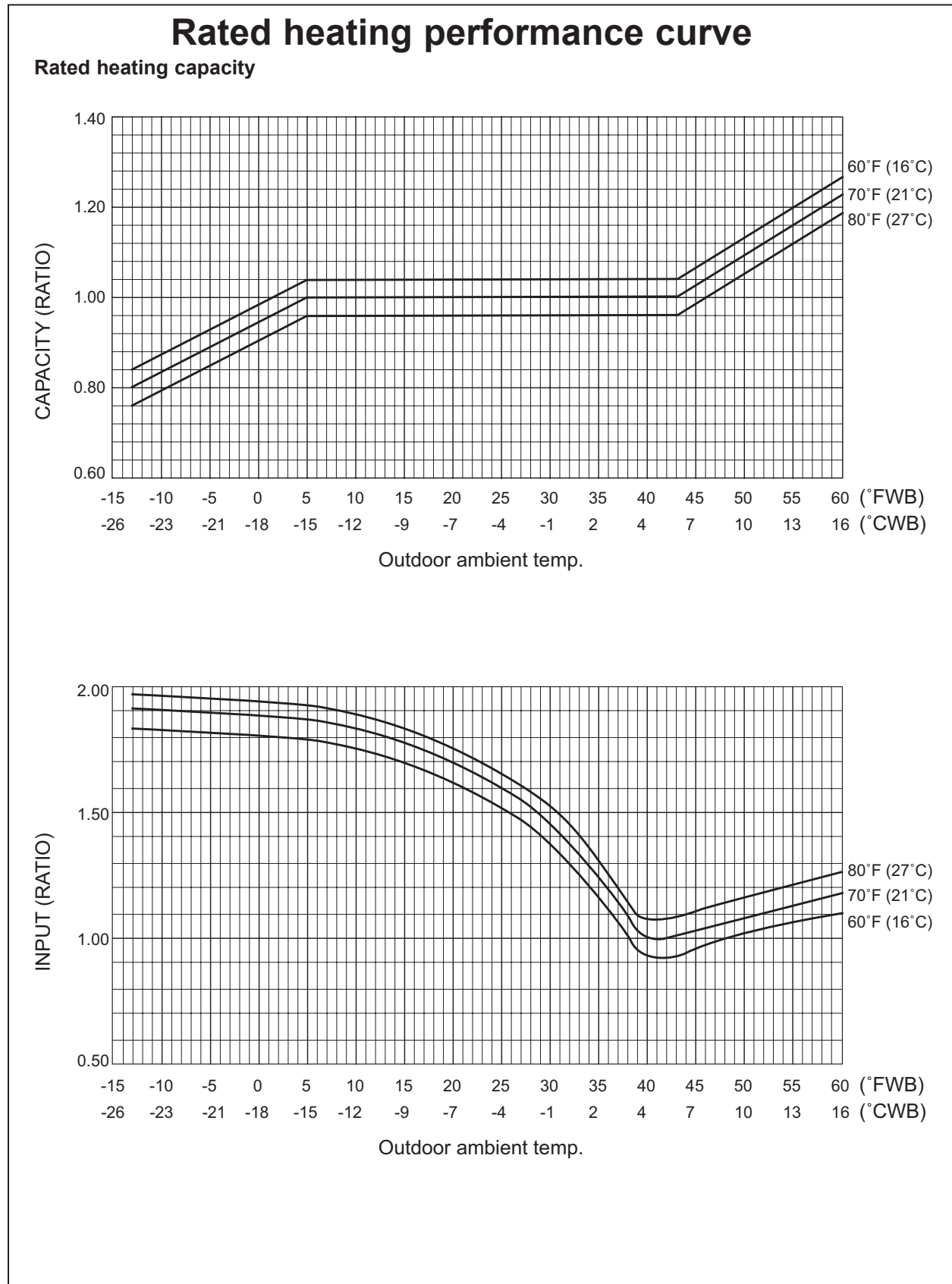
6-3. FOR THE COMBINATION OF OUTDOOR UNIT PUZ-HA·NHA4(-BS)



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

6. CAPACITY CORRECTION CURVE BY TEMPERATURE

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



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

7. CAPACITY CORRECTION TABLE BY TEMPERATURE

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

CAPACITY (RATIO)

Outdoor D.B.[°C]	-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°C (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°C (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°C (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°C (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.[°C]	-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°C (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°C (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°C (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°C (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(-BS)

CAPACITY (RATIO)

Outdoor D.B.[°C]	-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°C (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°C (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°C (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°C (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.[°C]	-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°C (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°C (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°C (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°C (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

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

7. CAPACITY CORRECTION TABLE BY TEMPERATURE

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

7-3-1. 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

7-3-2. 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

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

7. CAPACITY CORRECTION TABLE BY TEMPERATURE

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. CAPACITY CORRECTION CURVE BY REFRIGERANT PIPING LENGTH

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(-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. CAPACITY CORRECTION TABLE BY REFRIGERANT PIPING LENGTH

9-2. HYPHER HEAT

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

9-2-1-2. 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)
	1	0.997	0.991	0.985	0.979	0.973	0.97	0.967	0.961	0.955
PUZ-HA30NHA4										
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.

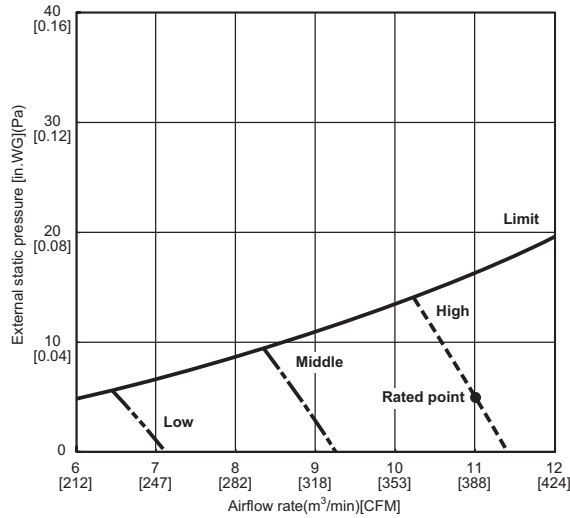
Model	Max. pipe length	Max. height difference	Additional refrigerant charging amount (kg/oz)										
			20 m 70 ft	25 m 80 ft	27 m 90 ft	30 m 100 ft	33.5 m 110 ft	36.6 m 120 ft	40 m 130 ft	43 m 140 ft	45.5 m 150 ft	48.8 m 160 ft	50 m 165 ft
A12, A18	30 m, 100 ft	30 m, 100 ft	0	0.06 kg 2 oz	0.11 kg 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.

11. FAN PERFORMANCE AND AIRFLOW RATES

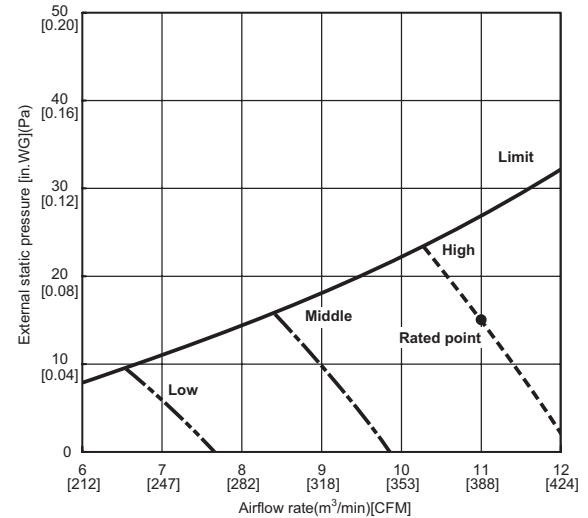
PEA-A12AA4

(External static pressure 0.020[in.WG](5Pa) 208/230V 60Hz)



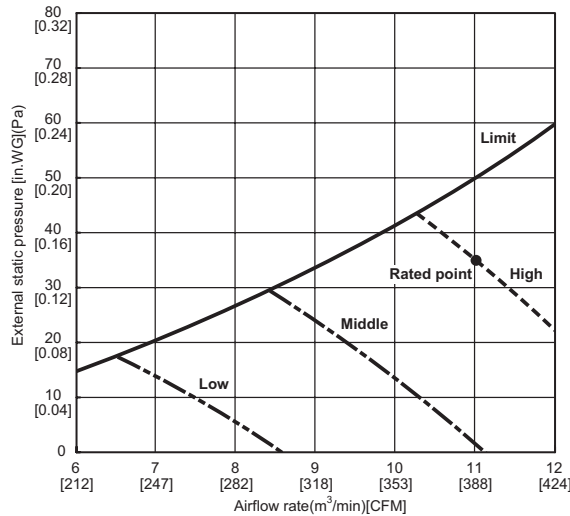
PEA-A12AA4

(External static pressure 0.060[in.WG](15Pa) 208/230V 60Hz)



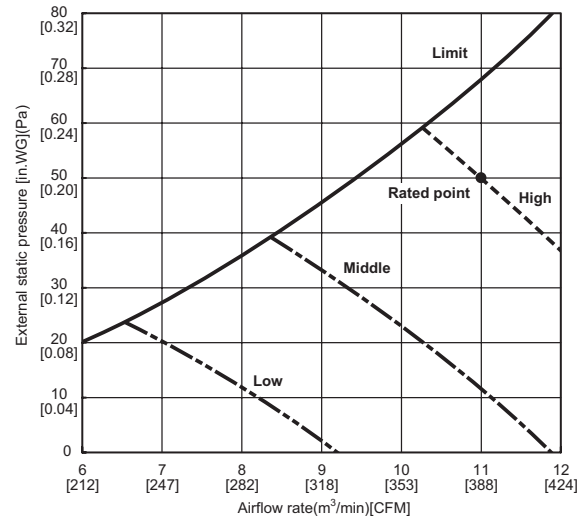
PEA-A12AA4

(External static pressure 0.140[in.WG](35Pa) 208/230V 60Hz)



PEA-A12AA4

(External static pressure 0.200[in.WG](50Pa) 208/230V 60Hz)

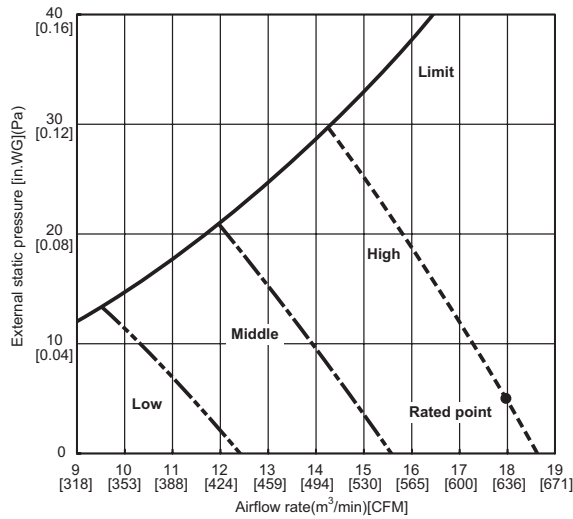


Due to continuing improvement, above specification may be subject to change without notice.

11. FAN PERFORMANCE AND AIRFLOW RATES

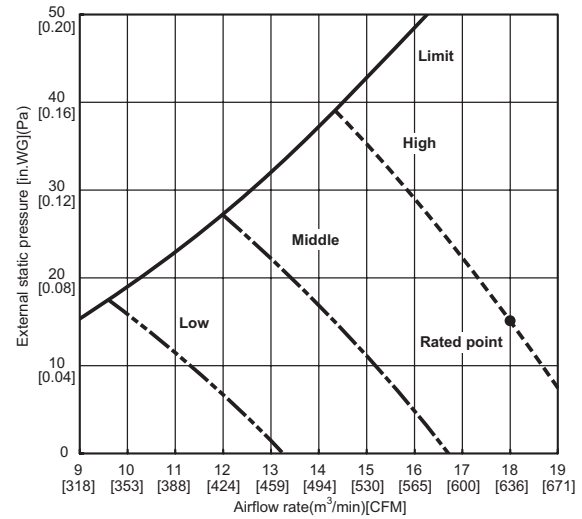
PEA-A18AA4

(External static pressure 0.020[in.WG](5Pa) 208/230V 60Hz)



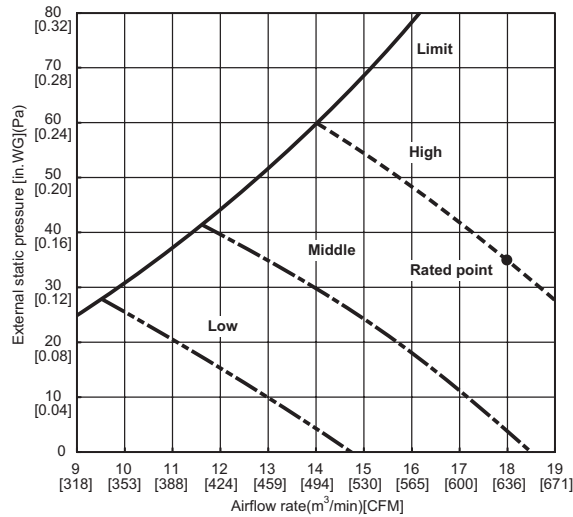
PEA-A18AA4

(External static pressure 0.060[in.WG](15Pa) 208/230V 60Hz)



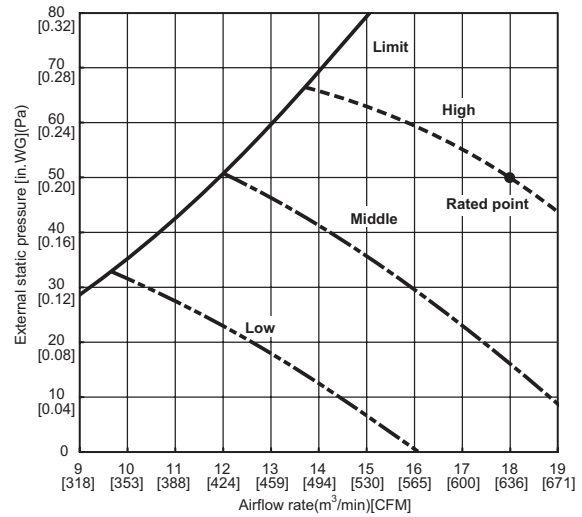
PEA-A18AA4

(External static pressure 0.140[in.WG](35Pa) 208/230V 60Hz)



PEA-A18AA4

(External static pressure 0.200[in.WG](50Pa) 208/230V 60Hz)



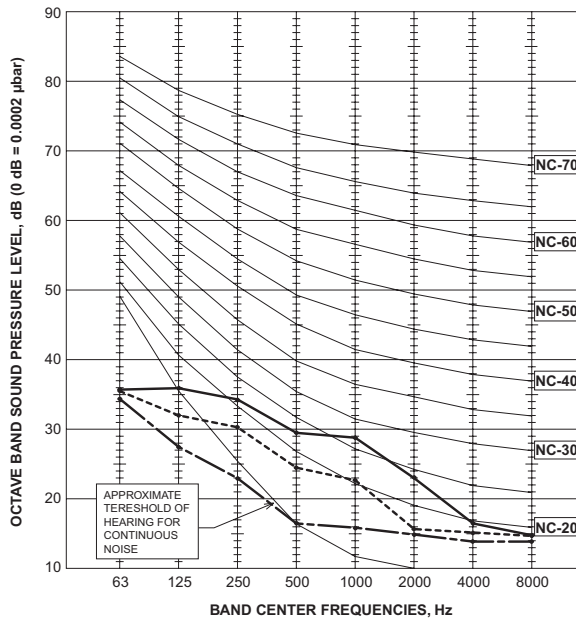
Due to continuing improvement, above specification may be subject to change without notice.

12. SOUND PRESSURE LEVELS

PEA-A12AA4

External static pressure :
0.020[in.WG](5Pa)

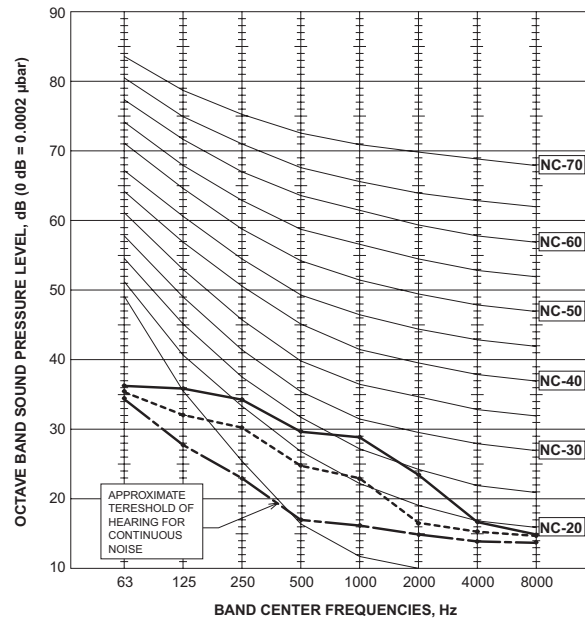
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NOTCH	SPL(dB)	LINE
High	33	—
Middle	28	----
Low	23	----



PEA-A12AA4

External static pressure :
0.060[in.WG](15Pa)

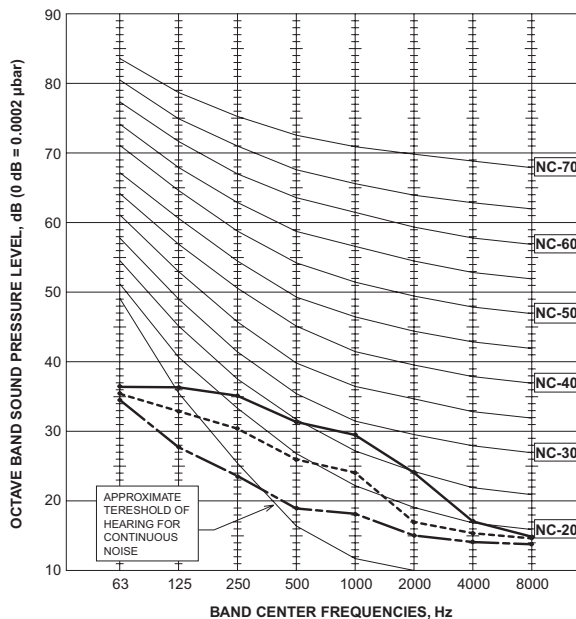
<60Hz>		
NOTCH	SPL(dB)	LINE
High	33	—
Middle	28	----
Low	23	----



PEA-A12AA4

External static pressure :
0.140[in.WG](35Pa)

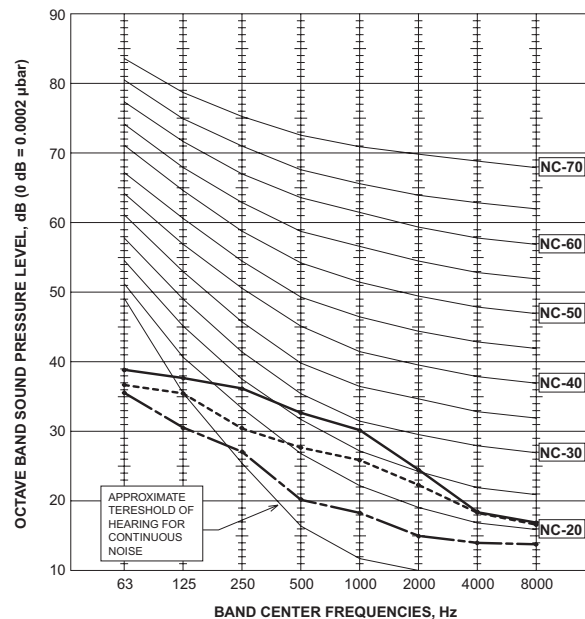
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NOTCH	SPL(dB)	LINE
High	34	—
Middle	29	----
Low	24	----



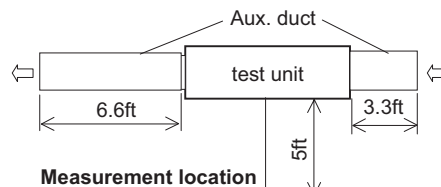
PEA-A12AA4

External static pressure :
0.200[in.WG](50Pa)

<60Hz>		
NOTCH	SPL(dB)	LINE
High	35	—
Middle	31	----
Low	25	----



NOTE: The sound level is measured in an anechoic room where echoes are few, when compressor stops. The sound may be bigger than displayed level under actual installation condition by surrounding echoes. The sound level can be higher by about 2 dB than the displayed level during cooling and heating operation.



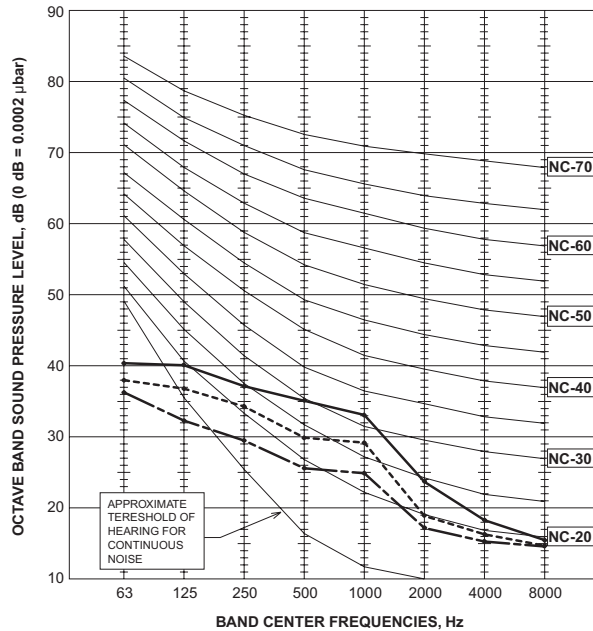
Due to continuing improvement, above specification may be subject to change without notice.

12. SOUND PRESSURE LEVELS

PEA-A18AA4

External static pressure :
0.020[in.WG](5Pa)

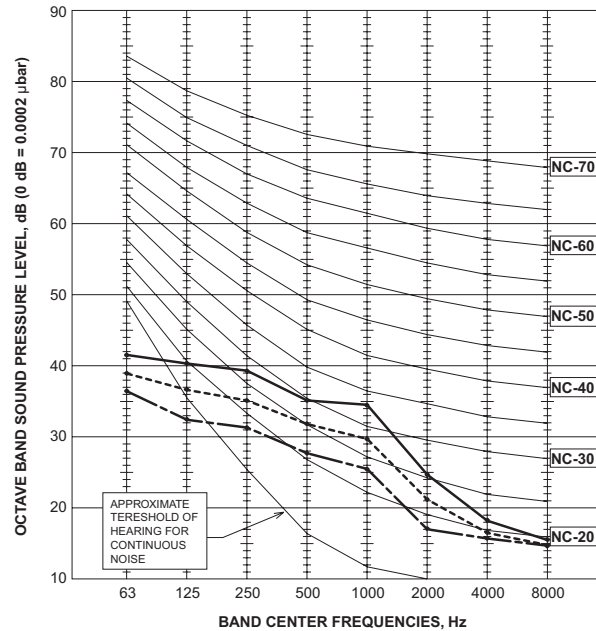
<60Hz>		
NOTCH	SPL(dB)	LINE
High	37	—
Middle	33	- - - -
Low	29	- - - -



PEA-A18AA4

External static pressure :
0.060[in.WG](15Pa)

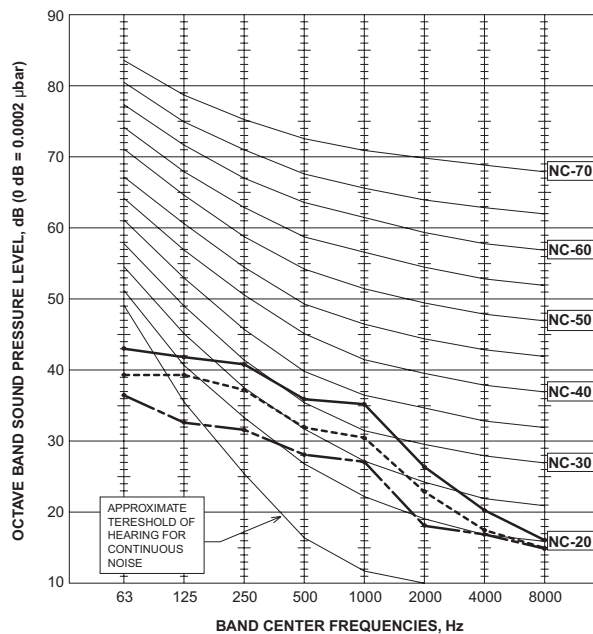
<60Hz>		
NOTCH	SPL(dB)	LINE
High	38	—
Middle	34	- - - -
Low	30	- - - -



PEA-A18AA4

External static pressure :
0.140[in.WG](35Pa)

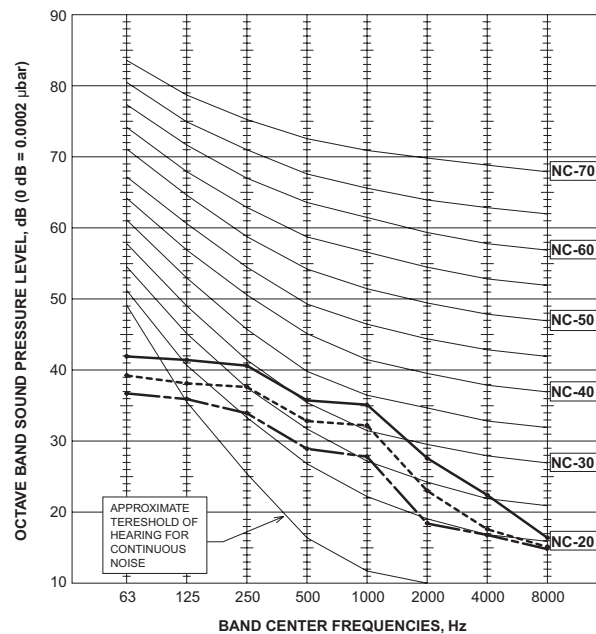
<60Hz>		
NOTCH	SPL(dB)	LINE
High	39	—
Middle	35	- - - -
Low	31	- - - -



PEA-A18AA4

External static pressure :
0.200[in.WG](50Pa)

<60Hz>		
NOTCH	SPL(dB)	LINE
High	39	—
Middle	36	- - - -
Low	32	- - - -



NOTE: The sound level is measured in an anechoic room where echoes are few, when compressor stops. The sound may be bigger than displayed level under actual installation condition by surrounding echoes. The sound level can be higher by about 2 dB than the displayed level during cooling and heating operation.

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°C (95°F), W.B. 21.7°C (71°F)	D.B. 46°C (115°F)
	Minimum	D.B. 19.4°C (67°F), W.B. 13.9°C (57°F)	D.B. -18°C (0°F)*
Heating	Maximum	D.B. 26.7°C (80°F), W.B. 19.4°C (67°F)	D.B. 21.1°C (70°F), W.B. 15°C (59°F)
	Minimum	D.B. 21.1°C (70°F), W.B. 15.6°C (60°F)	D.B. -11.1°C (12°F), W.B. -12.2°C (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°C (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.)

14. ACCESSORIES

Part Number	Descriptions	Applicable model
C13-103	Blue Diamond Sensor Extension Cable - 15 Ft.	PEA Series
CN24RELAY-KIT-CM3	Relay Kit for external heater adapter connects to CN24 on indoor control board	
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-SF40RM-E	Remote Operation Adapter with wire terminals for remote on/off and operation status/error	
PAC-SE41TS-E	Remote temperature sensor for indoor units	
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
BRP-2	Bottom Return Plate (Converts low profile ducted indoor unit from rear return to bottom return)		A12
BRP-3	Bottom Return Plate (Converts low profile ducted indoor unit from rear return to bottom return)		A18
FBL 1-2	FB SERIES Filter Box with MERV 8 Filters		A12
FBL 1-3	FB SERIES Filter Box with MERV 8 Filters		A18
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	

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

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