

# LG

**Inverter Single Wall Mounted**

Europe

50Hz / R410A

5RMI0-01A

# TOTAL HVAC SOLUTION PROVIDER

**ENGINEERING PRODUCT DATA BOOK**

# Inverter Single

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# Inverter Single

## Test Condition of International Standard

CLASSIFICATION			KSC 9306	ISO 5151		AHRI 210/240	AHAM (Window AC)	AS/NZS 3823.1	SASO 2681	
				T1	T3				T1	T3
Cooling Capacity	Indoor	DB°C(°F)	27.0	27.0	29.0	26.7 (80)	26.7 (80)	27.0	27.0	29.0
		WB°C(°F)	19.0	19.0	19.0	19.4 (67)	19.4 (67)	19.0	19.0	19.0
	Outdoor	DB°C(°F)	35.0	35.0	46.0	35.0 (95)	35.0 (95)	35.0	35.0	46.0
		WB°C(°F)	24.0	24.0	24.0	23.9 (75)	23.9 (75)	24.0	24.0	24.0
Heating Capacity	Indoor	DB°C(°F)	20.0	20.0	20.0	21.1 (70)	21.1 (70)	20.0	20.0	20.0
		WB°C(°F)	15.0	15.0	15.0	15.6 (60)	15.6 (60)	15.0	15.0	15.0
	Outdoor	DB°C(°F)	7.0	7.0	7.0	8.3 (47)	8.3 (47)	7.0	7.0	7.0
		WB°C(°F)	6.0	6.0	6.0	6.1 (43)	6.1 (43)	6.0	6.0	6.0
Maximum Cooling Operating	Indoor	DB°C(°F)	32.0	32.0	32.0	26.7 (80)	32.2 (90)	32.0	32.0	32.0
		WB°C(°F)	23.0	23.0	13.0	19.4 (67)	22.8 (73)	23.0	23.0	13.0
	Outdoor	DB°C(°F)	43.0	43.0	52.0	46.11 (115)	43.3 (110)	43.0	43.0	52.0
		WB°C(°F)	26.0	26.0	31.0	23.9 (75)	25.6 (78)	26.0	26.0	31.0
Maximum Heating Operating	Indoor	DB°C(°F)	27.0	27.0	27.0	26.7 (80)	26.7 (80)	27.0	27.0	27.0
		WB°C(°F)	15.0	-	-	-	22.8 (73)	-	-	-
	Outdoor	DB°C(°F)	21.0	24.0	24.0	23.9 (75)	23.9 (75)	24.0	24.0	24.0
		WB°C(°F)	15.0	18.0	18.0	18.3 (65)	18.3 (65)	18.0	18.0	18.0
Enclosure Sweat / Condensate Disposal	Indoor	DB°C(°F)	27.0	27.0	27.0	26.7 (80)	26.7 (80)	27.0	27.0	27.0
		WB°C(°F)	24.0	24.0	24.0	23.9 (75)	23.9 (75)	24.0	24.0	24.0
	Outdoor	DB°C(°F)	27.0	27.0	27.0	26.7 (80)	26.7 (80)	27.0	27.0	27.0
		WB°C(°F)	24.0	24.0	24.0	23.9 (75)	23.9 (75)	24.0	24.0	24.0
Freeze-up / Low Temperature	Indoor	DB°C(°F)	21.0	21.0	21.0	19.4 (67)	21.1 (70)	21.0	21.0	21.0
		WB°C(°F)	15.0	15.0	15.0	13.9 (57)	15.6 (60)	15.0	15.0	15.0
	Outdoor	DB°C(°F)	21.0	21.0	21.0	19.4 (67)	21.1 (70)	21.0	21.0	21.0
		WB°C(°F)	15.0	-	-	13.9 (57)	15.6 (60)	-	-	-

KS : Korea Standard

ISO : International Standard Organization

AHRI : Air-Conditioning, Heating, and Refrigeration Institute

AHAM : Association of Home Appliance Manufacturers

AS/NZS : Australia and New Zealand Standard

SASO : Saudi Arabian Standards Organization

## Inverter Single Description

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Split type of Air conditioners are known by the category name of Wall Mounted Type of units. These units can be easily installed in a small space and have exceptional cooling capacity. Designed for Low-noise operation, it ensures a pleasant air conditioned environment.

LG offers various types of units to its customers to suit for the best application and requirement. The following are the important categories offered by LG :

- 1) Wall Mounted Type Units : Units with Simplicity in design.
- 2) Art Cool Units : A new concept of cooling introduced by LG in the field of Air Conditioning.
- 3) Inverter Units : These units are capable of minimizing the power consumption with the unique inverter technology.

Some of the important features of these units are listed below :

- 1) Long Term Money Saving : By providing features such as Gold Fin, Auto Clean etc. to maintain the same performance for the years.
- 2) Comfort : With features such as Sleep Mode, Timer, Auto Restart, Comfort Air etc.

The Units are available with many standard and optional features which gives our customers the free choice to select the unit of their own desire. For details refer to the detailed specification followed after this description.

This product contains Fluorinated Greenhouse Gases.



**LG Electronics Inc.**

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# Inverter Single

## 1. Models Line Up

### 1.1 Indoor Unit

Category	Picture	Chassis	Model Name			
			Nominal Capacity [kW (kBtu/h)]			
			2.50 (9)	3.50 (12)	5.00 (18)	6.60 (24)
New Deluxe		SJ / SK	D09RN.NSJ (ASNW096J1R1)	D12RN.NSJ (ASNW126J1R1)	D18RN.NSK (ASNW186K1R1)	D24RN.NSK (ASNW246K1R1)
Standard Plus		SJ / SK	P09EN.NSJ (USNW096J3A0)	P12EN.NSJ (USNW126J3A0)	P18EN.NSK (USNW186K3A0)	P24EN.NSK (USNW246K3A0)

# Inverter Single

## 1. Models Line Up

### 1.2 Outdoor Unit

Power Supply	Picture	Chassis	Model Name			
			Nominal Capacity [kW (kBtu/h)]			
			2.50 (9)	3.50 (12)	5.00 (18)	6.60 (24)
1 Ø, 220-240 V, 50 Hz		UA3	P09EN.UA3 (USUW096J3A0)	P12EN.UA3 (USUW126J3A0)		
		UL2	D09RN.UL2 (ASUW096J1R1)	D12RN.UL2 (ASUW126J1R1)	D18RN.UL2 (ASUW186K1R1) P18EN.UL2 (USUW186K3A0)	
		UE				D24RN.UUE (ASUW246K1R1) P24EN.UUE (USUW246K3A0)

## 2. Nomenclature

A	S	-	W	0	9	6	J	1	R	0
1	2	3	4	5	6	7	8	9	10	11

11. Serial Number

10. Function

- A : Non Plasma + 2 Way
- B : Non Plasma + 4 Way
- D : Ionizer + 2 Way
- R : Ionizer + 4 Way
- S : Ionizer + 4 Way + 3M Filter
- V : Non Plasma + 4 Way + 3M Filter
- W : Non Plasma + 2 Way + 3M Filter

9. Look/Color

8. Chassis

Chassis	Look	Classification
SJ	1	White Panel (Transparent)
	2	White Panel (Silver Decor)
	3	White Panel
SK	1	White Panel (Transparent)
	2	White Panel (Silver Decor)
	3	White Panel

7. Electric Ratings

- 1 : 1 Ø, 115 V, 60 Hz
- 2 : 1 Ø, 220 V, 60 Hz
- 3 : 1 Ø, 208/230 V, 60 Hz
- 6 : 1 Ø, 220-240 V, 50 Hz

5-6. Capacity

Ex) '09' : 9,000 Btu/h Class

4. Model Type

- C : Cooling Only
- H : Heat Pump
- Q : DC Inverter C/O
- W : DC Inverter H/P

3. Supply Type

- : SET
- N : Indoor Unit
- U : Outdoor Unit

2. Product type

- S : Split

1. Refrigerant type & Code

- A : R410A, Made in Korea
- B : R410A, Made in Thailand
- D : R410A, Made in Saudi Arabia
- E : R410A, Made in Turkey
- U : R410A, Made in China
- W : R32, Made in Korea

# Inverter Single

## 3. Specifications

Buyer Model Factory Model	Set (Indoor / Outdoor)		Unit	D09RN.SSJ (D09RN.NSJ / D09RN.UL2)			D12RN.SSJ (D12RN.NSJ / D12RN.UL2)		
				AS-W096J1R1 (ASNW096J1R1 / ASUW096J1R1)			AS-W126J1R1 (ASNW126J1R1 / ASUW126J1R1)		
Capacity	Cooling	Min ~ Rated ~ Max	kW	0.89	2.50	3.70	0.89	3.50	4.04
			Btu/h	3,039	8,531	12,633	3,039	11,940	13,794
	Heating	Min ~ Rated ~ Max	kW	0.89	3.20	5.00	0.89	4.00	6.00
	Heating -7 °C	Rated	Btu/h	3,039	10,919	17,072	3,039	13,640	20,487
Power Input	Cooling	Min ~ Rated ~ Max	W	-	556	1,400	-	898	1,400
			W	-	712	1,600	-	975	1,600
Running Current	Cooling	Min ~ Rated ~ Max	A	-	2.5	6.0	-	4.0	6.0
			A	-	3.2	7.0	-	4.3	7.0
EER			W/W	-	4.50	-	-	3.90	-
			Btu/hW	-	15.34	-	-	13.30	-
SEER				-	7.7	-	-	7.6	-
			W/W	-	4.49	-	-	4.10	-
COP			Btu/hW	-	15.34	-	-	13.99	-
				-	4.6	-	-	4.6	-
Energy Label Grade	Cooling / Heating			A++ / A++			A++ / A++		
Annual Energy Consumption	Cooling / Heating		kWh/year	114 / 853			162 / 883		
Power Supply			Ø, V, Hz	1, 220-240, 50			1, 220-240, 50		
Available Voltage Range			V	187 ~ 276			187 ~ 276		
Power Factor	Cooling / Heating		%	96 / 96			96 / 96		
Moisture Removal			l/h	1.1			1.3		
Indoor	Air Flow Rate	Cooling, Max / H / M / L	m <sup>3</sup> / min	13.0 / 11.0 / 9.0 / 5.5			13.0 / 11.0 / 9.0 / 5.5		
		Heating, Max / H / M / L	m <sup>3</sup> / min	- / 11.0 / 9.0 / 6.5			- / 11.0 / 9.0 / 6.5		
	Sound Pressure Level	Cooling, Max / H / M / L / SL	dB(A)	- / 40 / 35 / 24 / 19			- / 40 / 35 / 24 / 19		
		Heating, Max / H / M / L	dB(A)	- / 40 / 35 / 24			- / 40 / 35 / 24		
	Sound Power Level		dB(A)	59			59		
					837 x 302 x 189			837 x 302 x 189	
	Dimensions (W x H x D)	Net	mm	837 x 302 x 189			837 x 302 x 189		
		Shipping	mm	892 x 376 x 249			892 x 376 x 249		
	Weight	Net	kg	8.5			8.5		
		Shipping	kg	10.5			10.5		
Exterior Color Code			Munsell 7.5BG 10/2 (RAL 9016)			Munsell 7.5BG 10/2 (RAL 9016)			
Outdoor	Air Flow Rate	Max	m <sup>3</sup> / min	35			35		
				47			47		
	Sound Pressure Level	Cooling, Rated	dB(A)	47			47		
		Heating, Rated	dB(A)	48			48		
	Sound Power Level		dB(A)	65			65		
					770 x 545 x 288			770 x 545 x 288	
	Dimensions (W x H x D)	Net	mm	770 x 545 x 288			770 x 545 x 288		
		Shipping	mm	905 x 573 x 378			905 x 573 x 378		
	Weight	Net	kg	31.0			31.0		
		Shipping	kg	35.8			35.8		
Max. Fuse Size		A	15			15			
Exterior Color Code			Munsell 9.54Y 8.34/1.31 (RAL 9001)			Munsell 9.54Y 8.34/1.31 (RAL 9001)			
Operation Range	Cooling	°C DB	-15 ~ 48			-15 ~ 48			
	Heating	°C WB	-15 ~ 18			-15 ~ 18			
Compressor	Type		Single Rotary			Single Rotary			
	Model		GA102MKA			GA102MKA			
	Motor Type		BLDC			BLDC			
	Oil Type / Maker		POE (RB68A) / Sun Oil or Jx Nippon, PVE (FVC68D) / IDEMITSU			POE (RB68A) / Sun Oil or Jx Nippon, PVE (FVC68D) / IDEMITSU			
	Oil Charge	cc	320			320			
	O.L.P. Name		-			-			
Manufacturer / Country of Origin		LG Electronics / China			LG Electronics / China				
Fan(Indoor)	Type		Cross Flow Fan			Cross Flow Fan			
	Motor Output	W	30			30			
Fan(Outdoor)	Type		Propeller Fan			Propeller Fan			
	Motor Type		BLDC			BLDC			
	Motor Output	W	43			43			
	Motor Insulation		Class E			Class E			
	Motor Enclosure / Ingress Protection		TEAO / IPX4			TEAO / IPX4			
Heat Exchanger	Evaporator	Material, Tube / Fin		Cu / Al			Cu / Al		
		Fin Spacing	FPI	22			22		
		Corrosion Protection		PCM			PCM		
	Condenser	Material, Tube / Fin		Cu / Al			Cu / Al		
		Fin Spacing	FPI	20			20		
		Corrosion Protection		Gold			Gold		
Circuit Breaker		A	15			15			
Power Supply Cable		No. x mm <sup>2</sup>	3 x 1.0			3 x 1.0			
Power Supply to Unit			Outdoor			Outdoor			
Power and Transmission Cable		No. x mm <sup>2</sup>	4 x 1.0			4 x 1.0			
Piping	Size	Liquid	mm	Ø 6.35			Ø 6.35		
		Gas	mm	Ø 9.52			Ø 9.52		
Connections Method		Indoor / Outdoor		Flared / Flared			Flared / Flared		
				21.5, 16.0			21.5, 16.0		
Drain Hose Size	O.D, I.D	mm	21.5, 16.0			21.5, 16.0			
Between Indoor & Outdoor	Piping Length	Min / Standard / Max	m	3 / 7.5 / 20			3 / 7.5 / 20		
		No Charge	m	7.5			7.5		
	Max. Elevation Difference	m	10			10			
Refrigerant	Type		R410A			R410A			
	Pre Charge	g	1000			1000			
	Additional Charge	g/m	20			20			
	Control		Electronic Expansion Valve			Electronic Expansion Valve			
Defrost Method			Reverse Cycle			Reverse Cycle			
Tool Code (Chassis)	Indoor / Outdoor		SJ / UL2			SJ / UL2			

### Note

- : No Relation
- For Circuit Breaker Rating, please conform to local standards whenever necessary.

- Exterior color code is approximate value.
- It is difficult to measure air flow rate of sleep because of small values.
- Maximum heating capacity is for heating operation without any frost.
- Due to our policy of innovation some specifications may be changed without notifications.



# Inverter Single

## 3. Specifications

Buyer Model Factory Model	Set (Indoor / Outdoor)		Unit	D18RN.SSK (D18RN.NSK / D18RN.UL2) AS-W186K1R1 (ASNW186K1R1 / ASUW186K1R1)			D24RN.SSK (D24RN.NSK / D24RN.UUE) AS-W246K1R1 (ASNW246K1R1 / ASUW246K1R1)		
Capacity	Cooling	Min ~ Rated ~ Max	kW	0.90	5.00	5.53	0.90	6.60	7.42
			Btu/h	3,073	17,072	18,882	3,073	22,520	25,335
	Heating	Min ~ Rated ~ Max	kW	0.90	5.80	6.44	0.90	7.50	8.64
	Heating -7 °C	Rated	Btu/h	3,073	19,804	21,989	3,073	25,591	29,501
Power Input	Cooling	Min ~ Rated ~ Max	W	-	1,562	1,800	-	2,275	2,500
		Heating	W	-	1,611	2,000	-	2,238	2,750
Running Current	Cooling	Min ~ Rated ~ Max	A	-	6.9	9.0	-	10.1	14.0
		Heating	A	-	7.1	9.5	-	10.4	14.0
EER			W/W		3.20			2.90	
SEER			Btu/hW		10.93			9.90	
COP					7.0			6.5	
SCOP			W/W		3.60			3.35	
Energy Label Grade	Cooling / Heating				12.29			11.43	
Annual Energy Consumption	Cooling / Heating				4.2			4.0	
Power Supply			kWh/year		250 / 1367			356 / 1770	
Available Voltage Range			Ø, V, Hz		1, 220-240, 50			1, 220-240, 50	
Power Factor	Cooling / Heating		V		187 ~ 276			187 ~ 276	
Moisture Removal			%		97 / 97			97 / 97	
Indoor	Air Flow Rate	Cooling, Max / H / M / L	m³ / min	18.0 / 14.5 / 13.0 / 10.5			20.0 / 16.1 / 13.1 / 10.5		
		Heating, Max / H / M / L	m³ / min	- / 16.0 / 13.5 / 11.0			- / 18.5 / 15.0 / 11.0		
	Sound Pressure Level	Cooling, Max / H / M / L / SL	dB(A)	- / 44 / 39 / 34 / 31			- / 47 / 42 / 34 / 31		
		Heating, Max / H / M / L	dB(A)	- / 44 / 39 / 34			- / 47 / 42 / 34		
	Sound Power Level		dB(A)	60			65		
					998 x 330 x 210			998 x 330 x 210	
	Dimensions (W x H x D)	Net	mm	998 x 330 x 210			998 x 330 x 210		
		Shipping	mm	1145 x 395 x 300			1145 x 395 x 300		
	Weight	Net	kg	12.5			12.5		
Shipping		kg	14.6			14.6			
Exterior Color Code			Munsell 7.5BG 10/2 (RAL 9016)			Munsell 7.5BG 10/2 (RAL 9016)			
Outdoor	Air Flow Rate	Max	m³ / min	35			50		
		Cooling, Rated	dB(A)	53			56		
	Sound Pressure Level	Heating, Rated	dB(A)	55			57		
			dB(A)	65			70		
	Dimensions (W x H x D)	Net	mm	770 x 545 x 288			870 x 655 x 320		
		Shipping	mm	905 x 573 x 378			1002 x 696 x 422		
	Weight	Net	kg	35.5			46.1		
		Shipping	kg	37.0			50.6		
	Max. Fuse Size		A	20			25		
Exterior Color Code			Munsell 9.54Y 8.34/1.31 (RAL 9001)			Munsell 9.54Y 8.34/1.31 (RAL 9001)			
Operation Range	Cooling	°C DB	-15 ~ 48			-15 ~ 48			
	Heating	°C WB	-10 ~ 18			-10 ~ 18			
Compressor	Type			Twin Rotary			Twin Rotary		
	Model			GKT141MBA			GKT176MFA		
	Motor Type			BLDC			BLDC		
	Oil Type / Maker			PVE (FVC68D) / IDEMITSU			PVE (FVC68D) / IDEMITSU		
	Oil Charge	cc		470			470		
	O.L.P. Name			-			-		
Manufacturer / Country of Origin			LG Electronics / Korea			LG Electronics / Korea			
Fan(Indoor)	Type			Cross Flow Fan			Cross Flow Fan		
	Motor Output	W		60			60		
Fan(Outdoor)	Type			Propeller Fan			Propeller Fan		
	Motor Type			BLDC			BLDC		
	Motor Output	W		43			85		
	Motor Insulation			Class E			Class E		
Motor Enclosure / Ingress Protection			TEAO / IPX4			TEAO / IPX4			
Heat Exchanger	Evaporator	Material, Tube / Fin		Cu / Al			Cu / Al		
		Fin Spacing	FPI	22			22		
		Corrosion Protection		PCM			PCM		
	Condenser	Material, Tube / Fin		Cu / Al			Cu / Al		
		Fin Spacing	FPI	20			20		
		Corrosion Protection		Gold			Gold		
Circuit Breaker		A	20			25			
Power Supply Cable		No. x mm²	3 x 1.5			3 x 2.5			
Power Supply to Unit			Outdoor			Outdoor			
Power and Transmission Cable		No. x mm²	4 x 1.0			4 x 1.0			
Piping	Size	Liquid	mm	Ø 6.35			Ø 6.35		
		Gas	mm	Ø 12.7			Ø 15.88		
Connections Method	Indoor / Outdoor			Flared / Flared			Flared / Flared		
	Drain Hose Size	O.D, I.D	mm	21.5, 16.0			21.5, 16.0		
Between Indoor & Outdoor	Piping Length	Min / Standard / Max	m	3 / 7.5 / 20			3 / 7.5 / 30		
		No Charge	m	7.5			7.5		
	Max. Elevation Difference	m	10			15			
Refrigerant	Type			R410A			R410A		
	Pre Charge	g		1250			1350		
	Additional Charge	g/m		20			30		
	Control			Electronic Expansion Valve			Electronic Expansion Valve		
Defrost Method			Reverse Cycle			Reverse Cycle			
Tool Code (Chassis)	Indoor / Outdoor			SK / UL2			SK / UE		

### Note

- : No Relation
- For Circuit Breaker Rating, please conform to local standards whenever necessary.

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- It is difficult to measure air flow rate of sleep because of small values.
- Maximum heating capacity is for heating operation without any frost.
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# Inverter Single

## 3. Specifications

Buyer Model Factory Model	Set (Indoor / Outdoor)		Unit	P09EN.SSK (P09EN.NSJ / P09EN.UA3)			P12EN.SSK (P12EN.NSJ / P12EN.UA3)		
				US-W096J3A0	(USNW096J3A0 / USUW096J3A0)		US-W126J3A0	(USNW126J3A0 / USUW126J3A0)	
Capacity	Cooling	Min ~ Rated ~ Max	kW	0.89	2.50	3.70	0.89	3.50	4.04
			Btu/h	3,037	8,531	12,625	3,037	12,000	13,785
	Heating	Min ~ Rated ~ Max	kW	0.89	3.20	4.10	0.89	3.80	5.10
	Heating -7 °C	Rated	Btu/h	3,037	10,919	13,990	3,037	13,000	17,402
Power Input	Cooling	Min ~ Rated ~ Max	W	-	670	-	-	1,080	-
		Heating	W	-	840	-	-	1,000	-
Running Current	Cooling	Min ~ Rated ~ Max	A	-	3.00	6.00	-	4.70	6.00
		Heating	A	-	3.70	7.00	-	4.50	7.00
EER			W/W		3.73			3.24	
SEER			Btu/hW		12.73			11.11	
COP					6.5			6.4	
SCOP			W/W		3.81			3.80	
Energy Label Grade		Cooling / Heating			13.00			13.00	
Annual Energy Consumption		Cooling / Heating			4.0			4.0	
Power Supply			kWh/year		134 / 840			191 / 875	
Available Voltage Range			Ø, V, Hz		1, 220-240, 50			1, 220-240, 50	
Power Factor		Cooling / Heating	V		198 ~ 264			198 ~ 264	
Moisture Removal			%		94.0 / 96.0			97.5 / 97.5	
			l/h		1.1			1.3	
Indoor	Air Flow Rate	Cooling, Max / H / M / L	m³ / min	11.5 / 10.0 / 7.5 / 4.2			12.5 / 10.0 / 7.5 / 4.2		
		Heating, Max / H / M / L	m³ / min	- / 10.0 / 7.2 / 5.6			- / 10.0 / 7.2 / 5.6		
	Sound Pressure Level	Cooling, Max / H / M / L / SL	dB(A)	- / 41 / 35 / 27 / 19			- / 41 / 35 / 27 / 19		
		Heating, Max / H / M / L	dB(A)	- / 41 / 35 / 27			- / 41 / 35 / 27		
	Sound Power Level		dB(A)	59			59		
					837 x 302 x 189			837 x 302 x 189	
	Dimensions (W x H x D)	Net	mm	837 x 302 x 189			837 x 302 x 189		
		Shipping	mm	909 x 378 x 256			909 x 378 x 256		
	Weight	Net	kg	8.5			8.5		
		Shipping	kg	11			11		
Exterior Color Code			Munsell 7.5BG 10/2 (RAL 9016)			Munsell 7.5BG 10/2 (RAL 9016)			
Outdoor	Air Flow Rate	Max	m³ / min	27			27		
	Sound Pressure Level	Cooling, Rated	dB(A)	49			49		
		Heating, Rated	dB(A)	50			50		
	Sound Power Level		dB(A)	65			65		
					717 x 483 x 230			717 x 483 x 230	
	Dimensions (W x H x D)	Net	mm	717 x 483 x 230			717 x 483 x 230		
		Shipping	mm	837 x 327 x 530.5			837 x 327 x 530.5		
	Weight	Net	kg	29.0			29.0		
		Shipping	kg	30.5			30.5		
	Max. Fuse Size		A	15			15		
Exterior Color Code			Munsell 9.54Y 8.34/1.31 (RAL 9001)			Munsell 9.54Y 8.34/1.31 (RAL 9001)			
Operation Range	Cooling	°C DB	-10 ~ 48			-10 ~ 48			
	Heating	°C WB	-10 ~ 18			-10 ~ 18			
Compressor	Type		Single Rotary			Single Rotary			
	Model		GA102MKA			GA102MKA			
	Motor Type		BLDC			BLDC			
	Oil Type / Maker		PVE (FVC68D) / IDEMITSU			PVE (FVC68D) / IDEMITSU			
	Oil Charge	cc	320			320			
	O.L.P. Name		-			-			
Manufacturer / Country of Origin		LG Electronics / China			LG Electronics / China				
Fan(Indoor)	Type		Cross Flow Fan			Cross Flow Fan			
	Motor Output	W	30			30			
Fan(Outdoor)	Type		Propeller Fan			Propeller Fan			
	Motor Type		BLDC			BLDC			
	Motor Output	W	43			43			
	Motor Insulation		Class E			Class E			
Motor Enclosure / Ingress Protection		- / -			- / -				
Heat Exchanger	Evaporator	Material, Tube / Fin		Cu / Al			Cu / Al		
		Fin Spacing	FPI	21			21		
		Corrosion Protection		PCM			PCM		
	Condenser	Material, Tube / Fin		Cu / Al			Cu / Al		
		Fin Spacing	FPI	18			18		
		Corrosion Protection		Gold			Gold		
Circuit Breaker		A	15			15			
Power Supply Cable		No. x mm²	3 x 1.0			3 x 1.0			
Power Supply to Unit			Outdoor			Outdoor			
Power and Transmission Cable		No. x mm²	4 x 1.0			4 x 1.0			
Piping	Size	Liquid	mm	Ø 6.35			Ø 6.35		
		Gas	mm	Ø 9.52			Ø 9.52		
Connections Method	Indoor / Outdoor		Flared / Flared			Flared / Flared			
	Drain Hose Size	O.D, I.D	mm	21.5, 16.0			21.5, 16.0		
Between Indoor & Outdoor	Piping Length	Min / Standard / Max	m	3 / 7.5 / 15			3 / 7.5 / 15		
		No Charge	m	7.5			7.5		
	Max. Elevation Difference	m	7			7			
Refrigerant	Type		R410A			R410A			
	Pre Charge	g	950			950			
	Additional Charge	g/m	20			20			
	Control		Electronic Expansion Valve			Electronic Expansion Valve			
Defrost Method			Reverse Cycle			Reverse Cycle			
Tool Code (Chassis)	Indoor / Outdoor		SJ / UA3			SJ / UA3			

### Note

- : No Relation
- For Circuit Breaker Rating, please conform to local standards whenever necessary.

- Exterior color code is approximate value.
- It is difficult to measure air flow rate of sleep because of small values.
- Maximum heating capacity is for heating operation without any frost.
- Due to our policy of innovation some specifications may be changed without notifications.

# Inverter Single

## 3. Specifications

Buyer Model Factory Model	Set (Indoor / Outdoor)		Unit	P18EN.SSK (P18EN.NSK / P18EN.UL2)			P24EN.SSK (P24EN.NSK / P24EN.UUE)			
				US-W186K3A0	(USNW186K3A0 / USUW186K3A0)		US-W246K3A0	(USNW246K3A0 / USUW246K3A0)		
Capacity	Cooling	Min ~ Rated ~ Max	kW	0.90	5.00	5.52	0.90	6.60	7.42	
			Btu/h	3,071	17,072	18,852	3,071	22,520	25,318	
	Heating	Min ~ Rated ~ Max	kW	0.90	5.80	6.44	0.90	7.50	8.64	
	Heating -7 °C	Rated	Btu/h	3,071	19,804	21,967	3,071	25,591	29,481	
Power Input	Cooling	Min ~ Rated ~ Max	W	-	1,587	-	-	2,275	-	
		Heating	W	-	1,611	-	-	2,308	-	
Running Current	Cooling	Min ~ Rated ~ Max	A	-	6.90	9.00	-	10.10	14.00	
		Heating	A	-	7.10	9.50	-	10.40	14.00	
EER			W/W		3.15			2.90		
SEER			Btu/hW		10.76			9.90		
COP					6.5			6.2		
SCOP			W/W		3.60			3.25		
Energy Label Grade	Cooling / Heating				12.29			11.09		
Annual Energy Consumption	Cooling / Heating				4.0			3.9		
Power Supply			kWh/year		269 / 1365			372 / 1794		
Available Voltage Range			Ø, V, Hz		1, 220-240, 50			1, 220-240, 50		
Power Factor	Cooling / Heating		V		198 ~ 264			198 ~ 264		
Moisture Removal			%		93.5 / 93.5			98.5 / 98.5		
Indoor	Air Flow Rate	Cooling, Max / H / M / L	m³ / min	18.0 / 14.5 / 13.0 / 10.5			20.0 / 16.1 / 13.1 / 10.5			
		Heating, Max / H / M / L	m³ / min	- / 16.0 / 13.5 / 11.0			- / 18.5 / 15.0 / 11.0			
	Sound Pressure Level	Cooling, Max / H / M / L / SL	dB(A)	- / 44 / 39 / 34 / 31			- / 47 / 42 / 34 / 31			
		Heating, Max / H / M / L	dB(A)	- / 44 / 39 / 34			- / 47 / 42 / 34			
	Sound Power Level		dB(A)	60			65			
					998 x 330 x 210			998 x 330 x 210		
	Dimensions (W x H x D)	Net	mm	998 x 330 x 210			998 x 330 x 210			
		Shipping	mm	1080 x 410 x 281			1080 x 410 x 281			
	Weight	Net	kg	11.6			12.5			
		Shipping	kg	14.6			15.5			
Exterior Color Code			Munsell 7.5BG 10/2 (RAL 9016)			Munsell 7.5BG 10/2 (RAL 9016)				
Outdoor	Air Flow Rate	Max	m³ / min	35			50			
		Cooling, Rated	dB(A)	53			56			
	Sound Pressure Level	Heating, Rated	dB(A)	55			57			
			dB(A)	65			70			
	Dimensions (W x H x D)	Net	mm	770 x 545 x 288			870 x 655 x 320			
		Shipping	mm	920 x 388 x 585			1022 x 437 x 716			
	Weight	Net	kg	36.7			46.0			
		Shipping	kg	39.5			49.0			
	Max. Fuse Size		A	15			20			
	Exterior Color Code			Munsell 9.54Y 8.34/1.31 (RAL 9001)			Munsell 9.54Y 8.34/1.31 (RAL 9001)			
Operation Range	Cooling	°C DB	-15 ~ 48			-15 ~ 48				
	Heating	°C WB	-10 ~ 18			-10 ~ 18				
Compressor	Type			Twin Rotary			Twin Rotary			
	Model			GKT141MBA			GKT176MFA			
	Motor Type			BLDC			BLDC			
	Oil Type / Maker			PVE (FVC68D) / IDEMITSU			PVE (FVC68D) / IDEMITSU			
	Oil Charge	cc		470			470			
	O.L.P. Name			-			-			
Fan(Indoor)	Type			Cross Flow Fan			Cross Flow Fan			
	Motor Output	W		30			60			
Fan(Outdoor)	Type			Propeller Fan			Propeller Fan			
	Motor Type			BLDC			BLDC			
	Motor Output	W		43			85			
	Motor Insulation			Class E			Class E			
Heat Exchanger	Evaporator	Material, Tube / Fin		Cu / Al			Cu / Al			
		Fin Spacing	FPI	22 (Φ 5) / 20 (Φ 7)			22 (Φ 5) / 20 (Φ 7)			
		Corrosion Protection		PCM			PCM			
	Condenser	Material, Tube / Fin			Cu / Al			Cu / Al		
		Fin Spacing	FPI		18			18		
		Corrosion Protection			Gold			Gold		
Circuit Breaker		A	20			25				
Power Supply Cable		No. x mm²	3 x 1.5			3 x 2.5				
Power Supply to Unit			Outdoor			Outdoor				
Power and Transmission Cable		No. x mm²	4 x 1.0			4 x 1.0				
Piping	Size	Liquid	mm	Ø 6.35			Ø 6.35			
		Gas	mm	Ø 12.7			Ø 15.88			
Drain Hose Size	Connections Method	Indoor / Outdoor		Flared / Flared			Flared / Flared			
		O.D, I.D	mm	21.5, 16.0			21.5, 16.0			
Between Indoor & Outdoor	Piping Length	Min / Standard / Max	m	3 / 7.5 / 20			3 / 7.5 / 30			
		No Charge	m	7.5			7.5			
Refrigerant	Max. Elevation Difference		m	10			15			
		Type		R410A			R410A			
		Pre Charge	g	1200			1350			
		Additional Charge	g/m	20			30			
Defrost Method				Electronic Expansion Valve			Electronic Expansion Valve			
Tool Code (Chassis)	Indoor / Outdoor			Reverse Cycle			Reverse Cycle			
				SK / UL2			SK / UE			

### Note

- : No Relation
- For Circuit Breaker Rating, please conform to local standards whenever necessary.

- Exterior color code is approximate value.
- It is difficult to measure air flow rate of sleep because of small values.
- Maximum heating capacity is for heating operation without any frost.
- Due to our policy of innovation some specifications may be changed without notifications.

# Inverter Single

## 4. Function List

Category	Function	Description
Air Flow	Air Supply Outlet	The number of air outlet from the indoor unit
	Airflow Direction Control (Left & Right)	Controlling a left-right direction of the indoor air flow
	Airflow Direction Control (Up & Down)	Controlling a up-down direction of the indoor air flow
	Auto Swing (Left & Right)	Auto swing air flow right and left for quick-cooling& Heating
	Auto Swing (Up & Down)	Auto swing air flow up and down for quick-cooling& Heating
	Fan Speed Steps (Fan / Cool / Heat)	Step adjustable wind strength at each mode
	Natural Wind (Auto Wind)	Wind strength changes at regular intervals automatically
	Jet Cool / Jet Heat (Power Wind)	Wind strength is set to the maximum for 30 minutes
	<b>Comfort Air</b>	<b>Set the vane to a preset position in order to make an indirect wind</b>
Air Purifying	Prefilter (Washable / Anti-Bacteria)	Capture dust particles over 10µm in size and finer bacteria
	Deodorizing Filter (Triple)	Deodorizing filter of the three techniques
	3M Micro Dust Filter	Captures dust particles over 0.3µm in size
	3M Multi Protection Filter	Captures micro-dust, viruses and allergens
	Plasma Air Purifier	Reduces harmful microscopic particles and odor
Installation	Drain Pump	Water drain pump for indoor unit
Reliability	Hot Start	In the heating mode, the hot wind from the beginning
	Self Diagnosis	Self-diagnostic for product protection
	De-ice Control (Defrost)	In the heating mode, de-icing of the outdoor heat exchanger automatically
	Dry (Dehumidification) Operation	Prevents the growth of mold by removing excess moisture from an area with high humidity
Convenience	Auto Changeover	Changes the operation mode(cooling & heating) automatically to maintain the set temperature
	Auto Operation (Artificial Intelligence)	The fan and setting temperature adjust automatically, base on room temperature
	Auto Cleaning (Coil Dry)	Prevents the formation of bacteria and mold on the heat exchanger
	Auto Restart Operation	If power is resupplied after blackout, product restart automatically
	Child Lock <sup>1</sup>	Only for wired-remote controller. Lock the buttons to prevent children control
	Forced Operation	Use the forced switch of the indoor unit to operate the air conditioner when the remote control is unavailable
	Group Control <sup>1</sup>	Only for wired-remote controller. Control multiple indoor units at the same time
	Sleep Mode	Set the off timer and fan speed is decreasing to make quiet environment for comfort sleep
	Timer 24hr (On/Off)	Set the on/off timer
	Timer (Weekly) <sup>1</sup>	Only for wired-remote controller. Set the on/off timer
	Two Thermistor Control <sup>1</sup>	If there is a temperature difference between room temperature and desired temperature, you can use this function in other to prevent insufficient cooling and insufficient heating
	Low Ambient Operation	The cooling operation is possible even in conditions of extreme cold
	Overheating Protection	If there is a temperature difference between room temperature and desired temperature, you can use this function in other to prevent over-heating
	Low Heating	Using less energy helps keep the room warm when going out
	Voice Control	Customer can control the aircon by voice without wireless remote controller
	Smart Scan (PIR)	Adjusts more energy saving and greater comfort air for detecting the human movement by sensor
	LG AC Tag On (NFC)	Check the your AC's operational information for quick-service and self-diagnosis by using NFC
	Outdoor Silent Mode	The overall sound level of the outdoor unit drops by up to 3dB
	Mosquito Away	An ultrasonic sound that mosquitoes detest is emitted to drives away mosquitoes
		<b>Smart Diagnosis</b>
	Indoor Unit Display Type	-
	Indoor Unit Display Light	-
	Energy Display	Show the power consumption
Energy Saving	Energy Saving	Control the optimal desired temperature to save energy
	Active Energy Control (Watt Option)	The customer can control the power consumption directly to save energy
Individual Control	Wired Remote Controller <sup>2</sup>	-
	Handheld Wireless Controller	-
CAC Network Function	General Central Controller (Non LGAP)	-
	Network Solution (LGAP)	-
	Dry Contact <sup>2</sup>	-
	PDI (Power Distribution Indicator) <sup>2</sup>	-
	Outdoor Unit PI 485 <sup>2</sup>	-
Special Function Kit	Wi-Fi <sup>2</sup>	-
	Water Level Sensor Connection <sup>2</sup>	-
	Wind Baffle Kit <sup>2</sup>	-
	Sump Heater	Prevent the accumulation of freezing on the outdoor-heat-exchanger during winter (Flexible Type)
	Sheath Heater	Prevent the accumulation of freezing on the outdoor-heat-exchanger during winter (Hard Type)
	Crank Case Heater	Pre-heating the compressor during winter
		<b>Smart Inverter Monitoring System (SIMs) <sup>2</sup></b>
Others	Mode Lock	Sets up the unit available to use only cooling or heating mode in heat pump model
	Temperature Control	Basic cycle control method
	DRED (Demand Response Enabling Device)	-

### Note

- These functions must be applied according to the model. Please refer to the following function list for each model.
- <sup>1</sup> : This function can be operated only when the wired remote controller is connected.
- <sup>2</sup> : Optional accessories must be purchased separately.

## 4. Function List

Category	Function	D09RN.SSJ	D12RN.SSJ	D18RN.SSK	D24RN.SSK	
		AS-W096J1R1	AS-W126J1R1	AS-W186K1R1	AS-W246K1R1	
Air Flow	Air Supply Outlet	1	1	1	1	
	Airflow Direction Control (Left & Right)	5 Steps	5 Steps	5 Steps	5 Steps	
	Airflow Direction Control (Up & Down)	6 Steps	6 Steps	6 Steps	6 Steps	
	Auto Swing (Left & Right)	o	o	o	o	
	Auto Swing (Up & Down)	o	o	o	o	
	Fan Speed Steps (Fan / Cool / Heat)	6 / 6 / 6	6 / 6 / 6	6 / 6 / 6	6 / 6 / 6	
	Natural Wind (Auto Wind)	o	o	o	o	
	Jet Cool / Jet Heat (Power Wind)	o/o	o/o	o/o	o/o	
Air Purifying	Comfort Air	o	o	o	o	
	Prefilter (Washable / Anti-Bacteria)	o	o	o	o	
	Deodorizing Filter (Triple)	X	X	X	X	
	3M Micro Dust Filter	X	X	X	X	
	3M Multi Protection Filter	X	X	X	X	
	Plasma Air Purifier	o	o	o	o	
Installation	Drain Pump	X	X	X	X	
	Hot Start	o	o	o	o	
Reliability	Self Diagnosis	o	o	o	o	
	De-ice Control (Defrost)	o	o	o	o	
	Dry Operation	o	o	o	o	
	Auto Changeover	o	o	o	o	
Convenience	Auto Operation (Artificial Intelligence)	X	X	X	X	
	Auto Cleaning (Coil Dry)	o	o	o	o	
	Auto Restart Operation	o	o	o	o	
	Child Lock <sup>1</sup>	o	o	o	o	
	Forced Operation	o	o	o	o	
	Group Control <sup>1</sup>	X	X	X	X	
	Sleep Mode	7hr	7hr	7hr	7hr	
	Timer 24hr (On/Off)	o	o	o	o	
	Timer (Weekly) <sup>1</sup>	o	o	o	o	
	Two Thermistor Control <sup>1</sup>	o	o	o	o	
	Low Ambient Operation	o	o	o	o	
	Overheating Protection	o	o	o	o	
	Low Heating	X	X	X	X	
	Voice Control	X	X	X	X	
	Smart Scan (PIR)	X	X	X	X	
	LG AC Tag On (NFC)	X	X	X	X	
	Outdoor Silent Mode	o	o	o	o	
	Mosquito Away	X	X	X	X	
	Smart Diagnosis	o	o	o	o	
	Indoor Unit Display Type	Number Display	Number Display	Number Display	Number Display	
	Indoor Unit Display Light	On/Off	On/Off	On/Off	On/Off	
	Energy Display	o	o	o	o	
	Energy Saving	Energy Saving	X	X	X	X
Active Energy Control (Watt Option)		o	o	o	o	
Individual Control	Wired Remote Controller (Premium) <sup>2</sup>	X	X	X	X	
	Wired Remote Controller (Standard) <sup>2</sup>	PQRCVSL0(QW)	PQRCVSL0(QW)	PQRCVSL0(QW)	PQRCVSL0(QW)	
	Wired Remote Controller (Simple with Mode Selection) <sup>2</sup>	X	X	X	X	
	Wired Remote Controller (Simple without Mode Selection) <sup>2</sup>	X	X	X	X	
	Handheld Wireless Controller	(See Remote Controller Section)	AKB74835305	AKB74835305	AKB74835305	AKB74835305
		Setting Temperature Range (Cooling)	18~30 °C	18~30 °C	18~30 °C	18~30 °C
	Setting Temperature Range (Heating)	16~30 °C	16~30 °C	16~30 °C	16~30 °C	
CAC Network Function	General Central Controller (Non LGAP)	X	X	X	X	
	Network Solution (LGAP)	o	o	o	o	
	Dry Contact <sup>2</sup>	PDRYCB000,	PDRYCB000,	PDRYCB000,	PDRYCB000,	
		PDRYCB100,	PDRYCB100,	PDRYCB100,	PDRYCB100,	
PDRYCB400		PDRYCB400	PDRYCB400	PDRYCB400		
PDI (Power Distribution Indicator) <sup>2</sup>	X	X	X	X		
Outdoor Unit PI 485 <sup>2</sup>	PMNFP14A1	PMNFP14A1	PMNFP14A1	PMNFP14A1		
Special Function Kit	Wi-Fi <sup>2</sup>	LG-IR-WF-1	LG-IR-WF-1	LG-IR-WF-1	LG-IR-WF-1	
	Water Level Sensor Connection <sup>2</sup>	X	X	X	X	
	Wind Baffle Kit <sup>2</sup>	X	X	X	X	
	Sump Heater	X	X	X	X	
	Sheath Heater	X	X	X	X	
	Crank Case Heater	X	X	X	X	
	Smart Invert Monitoring System (SIMS) <sup>2</sup>	PSWMOZ3	PSWMOZ3	PSWMOZ3	PSWMOZ3	
Others	Mode Lock	Heating Only	Heating Only	Heating Only	Heating Only	
	Temperature Control	Thermistor	Thermistor	Thermistor	Thermistor	
	DRED (Demand Response Enabling Device)	X	X	X	X	

### Note

O : Applied, X : Not available

• Filters are optional in some specific areas.

• <sup>1</sup> : This function can be operated only when the wired remote controller is connected. The applicability of each function depends on the above table.

• <sup>2</sup> : Optional accessories must be purchased separately.

• Due to our policy of innovation some specifications may be changed without notifications.

# Inverter Single

## 4. Function List

Category	Function	P09EN.SSK	P12EN.SSK	P18EN.SSK	P24EN.SSK	
		US-W096J3A0	US-W126J3A0	US-W186K3A0	US-W246K3A0	
Air Flow	Air Supply Outlet	1	1	1	1	
	Airflow Direction Control (Left & Right)	Manual	Manual	Manual	Manual	
	Airflow Direction Control (Up & Down)	6 Steps	6 Steps	6 Steps	6 Steps	
	Auto Swing (Left & Right)	X	X	X	X	
	Auto Swing (Up & Down)	o	o	o	o	
	Fan Speed Steps (Fan / Cool / Heat)	6 / 6 / 6	6 / 6 / 6	6 / 6 / 6	6 / 6 / 6	
	Natural Wind (Auto Wind)	o	o	o	o	
	Jet Cool / Jet Heat (Power Wind)	o / o	o / o	o / o	o / o	
Air Purifying	Comfort Air	o	o	o	o	
	Prefilter (Washable / Anti-Bacteria)	o	o	o	o	
	Deodorizing Filter (Triple)	X	X	X	X	
	3M Micro Dust Filter	X	X	X	X	
	3M Multi Protection Filter	X	X	X	X	
	Plasma Air Purifier	X	X	X	X	
Installation	Drain Pump	X	X	X	X	
	Hot Start	o	o	o	o	
Reliability	Self Diagnosis	o	o	o	o	
	De-ice Control (Defrost)	o	o	o	o	
	Dry Operation	o	o	o	o	
	Auto Changeover	o	o	o	o	
Convenience	Auto Operation (Artificial Intelligence)	X	X	X	X	
	Auto Cleaning (Coil Dry)	o	o	o	o	
	Auto Restart Operation	o	o	o	o	
	Child Lock <sup>1</sup>	X	X	X	X	
	Forced Operation	o	o	o	o	
	Group Control <sup>1</sup>	X	X	X	X	
	Sleep Mode	7hr	7hr	7hr	7hr	
	Timer 24hr (On/Off)	o	o	o	o	
	Timer (Weekly) <sup>1</sup>	X	X	X	X	
	Two Thermistor Control <sup>1</sup>	X	X	X	X	
	Low Ambient Operation	o	o	o	o	
	Overheating Protection	o	o	o	o	
	Low Heating	X	X	X	X	
	Voice Control	X	X	X	X	
	Smart Scan (PIR)	X	X	X	X	
	LG AC Tag On (NFC)	X	X	X	X	
	Outdoor Silent Mode	o	o	o	o	
	Mosquito Away	X	X	X	X	
	Smart Diagnosis	o	o	o	o	
	Indoor Unit Display Type	Number Display	Number Display	Number Display	Number Display	
	Indoor Unit Display Light	On/Off	On/Off	On/Off	On/Off	
	Energy Display	o	o	o	o	
	Energy Saving	Energy Saving	X	X	X	X
Active Energy Control (Watt Option)		o	o	o	o	
Wired Remote Controller (Premium) <sup>2</sup>		X	X	X	X	
Individual Control	Wired Remote Controller (Standard) <sup>2</sup>	X	X	X	X	
	Wired Remote Controller (Simple with Mode Selection) <sup>2</sup>	X	X	X	X	
	Wired Remote Controller (Simple without Mode Selection) <sup>2</sup>	X	X	X	X	
	Handheld Wireless Controller	(See Remote Controller Section)	AKB74835303	AKB74835303	AKB74835303	AKB74835303
		Setting Temperature Range (Cooling)	18~30 °C	18~30 °C	18~30 °C	18~30 °C
		Setting Temperature Range (Heating)	16~30 °C	16~30 °C	16~30 °C	16~30 °C
CAC Network Function	General Central Controller (Non LGAP)	X	X	X	X	
	Network Solution (LGAP)	X	X	X	X	
	Dry Contact <sup>2</sup>	X	X	X	X	
	PDI (Power Distribution Indicator) <sup>2</sup>	X	X	X	X	
	Outdoor Unit PI 485 <sup>2</sup>	X	X	X	X	
Special Function Kit	Wi-Fi <sup>2</sup>	LG-IR-WF-1	LG-IR-WF-1	LG-IR-WF-1	LG-IR-WF-1	
	Water Level Sensor Connection <sup>2</sup>	X	X	X	X	
	Wind Baffle Kit <sup>2</sup>	X	X	X	X	
	Sump Heater	X	X	X	X	
	Sheath Heater	X	X	X	X	
	Crank Case Heater	X	X	X	X	
	Smart Invert Monitoring System (SIMs) <sup>2</sup>	PSWMOZ3	PSWMOZ3	PSWMOZ3	PSWMOZ3	
Others	Mode Lock	Heating Only	Heating Only	Heating Only	Heating Only	
	Temperature Control	Thermistor	Thermistor	Thermistor	Thermistor	
	DRED (Demand Response Enabling Device)	X	X	X	X	

**Note**

O : Applied, X : Not available

• Filters are optional in some specific areas.

• <sup>1</sup> : This function can be operated only when the wired remote controller is connected. The applicability of each function depends on the above table.

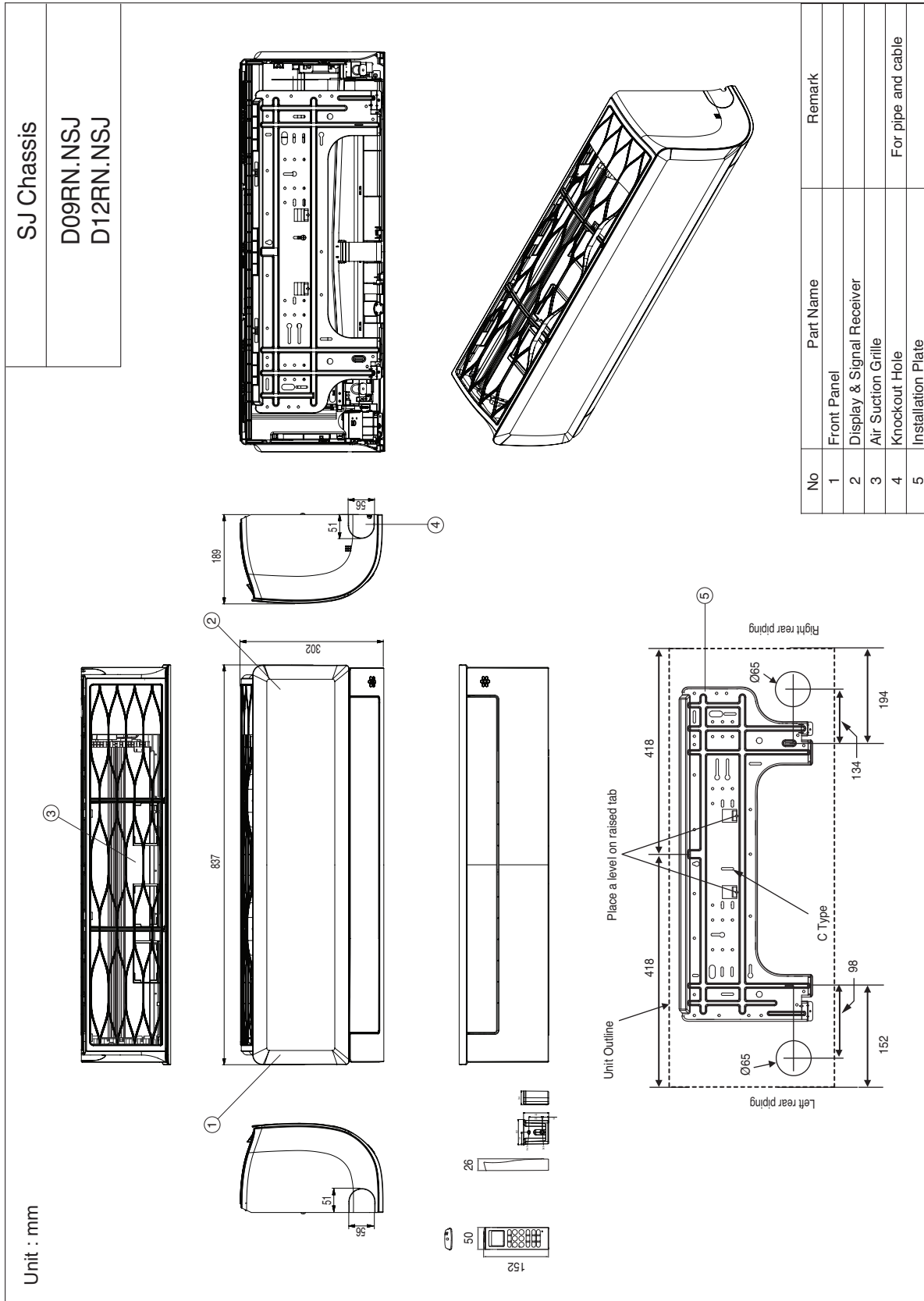
• <sup>2</sup> : Optional accessories must be purchased separately.

• Due to our policy of innovation some specifications may be changed without notifications.

# Inverter Single

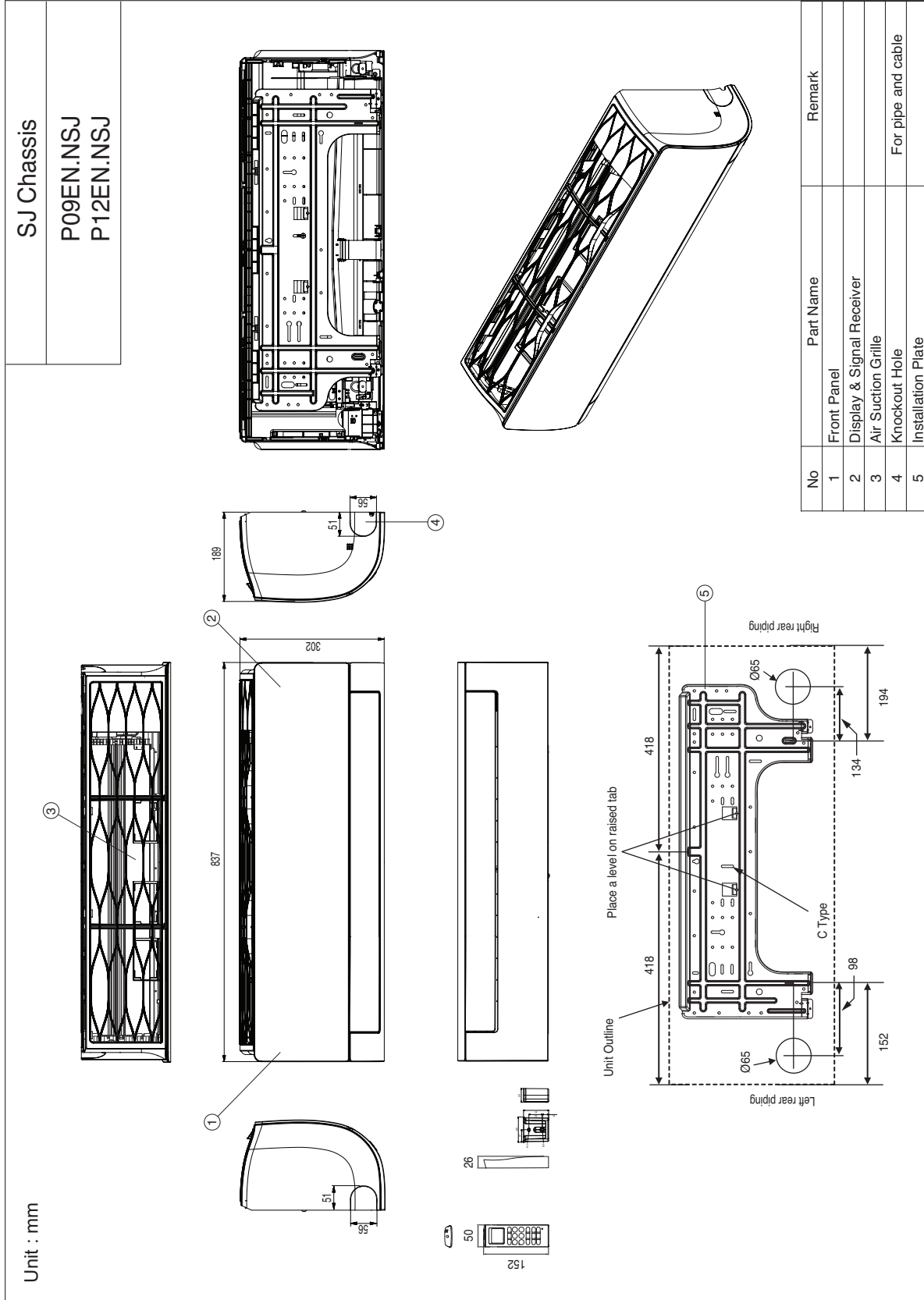
## 5. Dimensional Drawings

### 5.1 Indoor Unit



# Inverter Single

## 5. Dimensional Drawings





# Inverter Single

## 5. Dimensional Drawings

Unit : mm

SK Chassis  
D18RN.NSK  
D24RN.NSK

No	Part Name	Remark
1	Front Panel	
2	Display & Signal Receiver	
3	Air Suction Grille	
4	Knockout Hole	For pipe and cable
5	Installation Plate	

# Inverter Single

## 5. Dimensional Drawings

Unit : mm

SK Chassis	P18EN.NSK	P24EN.NSK	
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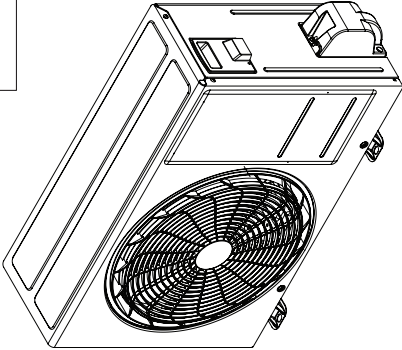
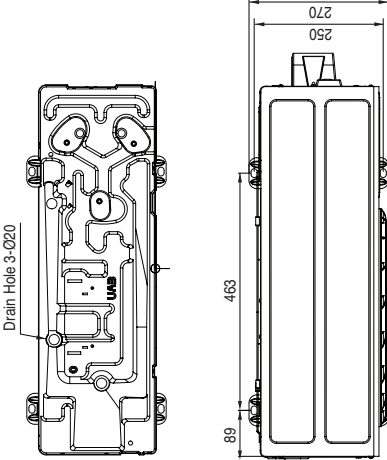
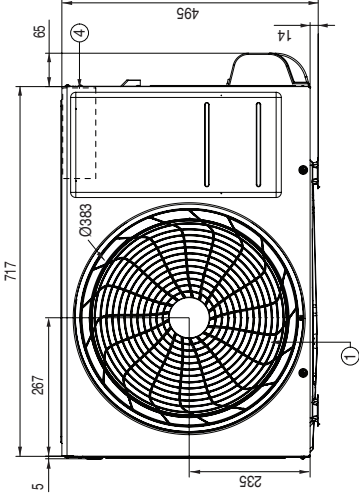
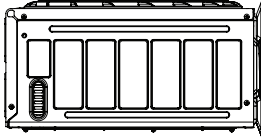
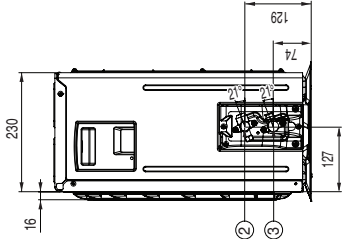
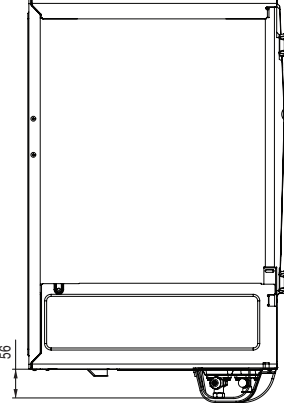
No	Part Name	Remark
1	Front Panel	
2	Display & Signal Receiver	
3	Air Suction Grille	
4	Knockout Hole	For pipe and cable
5	Installation Plate	

# Inverter Single

## 5. Dimensional Drawings

### 5.2 Outdoor Unit

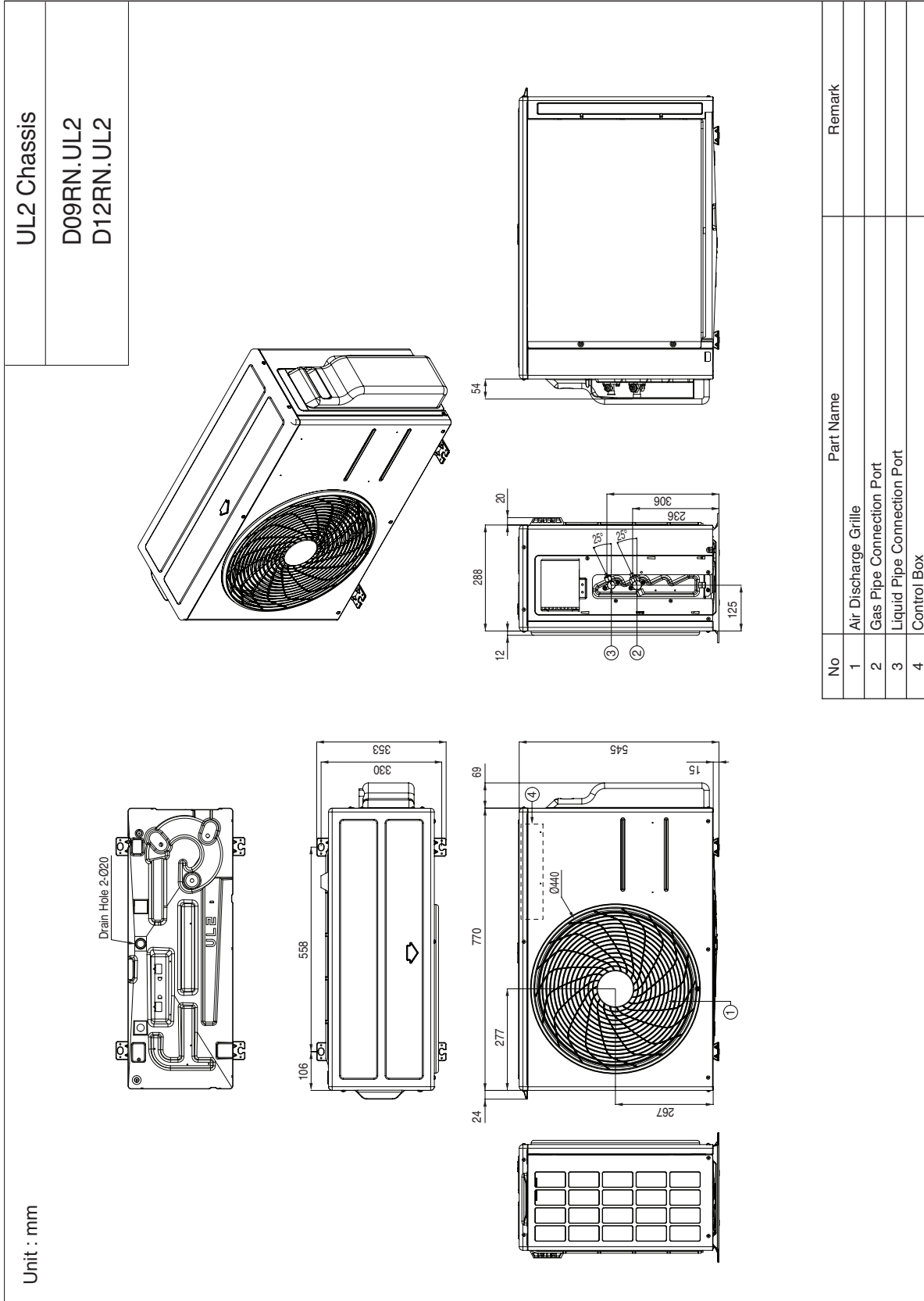
Unit : mm

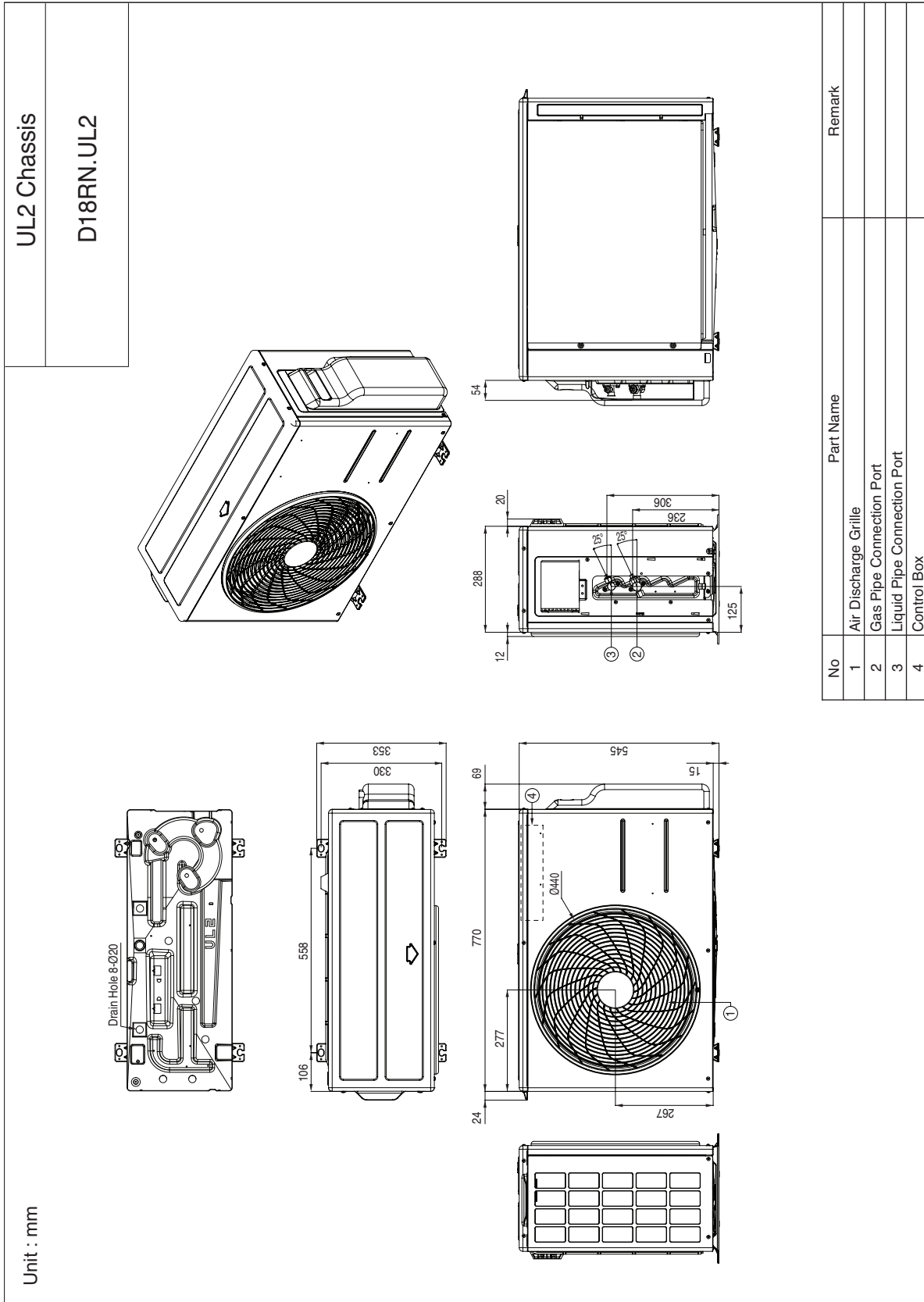
	UA3 Chassis	Remark
	P09EN.UA3	
	P12EN.UA3	
No	Part Name	Remark
1	Air Discharge Grille	
2	Gas Pipe Connection Port	
3	Liquid Pipe Connection Port	
4	Control Box	

# Inverter Single

## 5. Dimensional Drawings

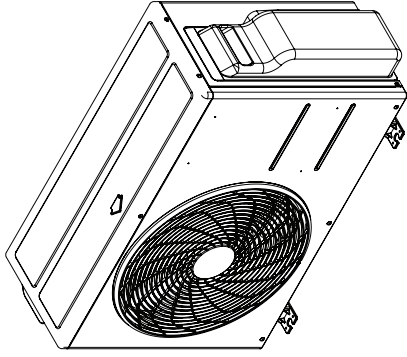
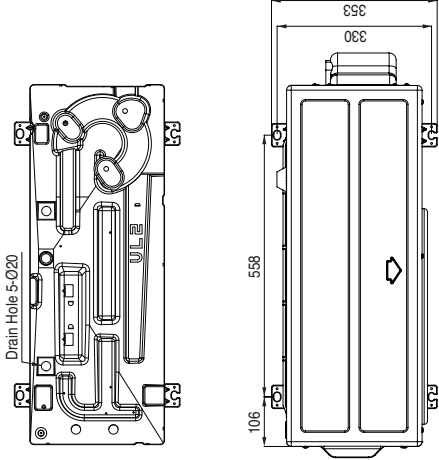
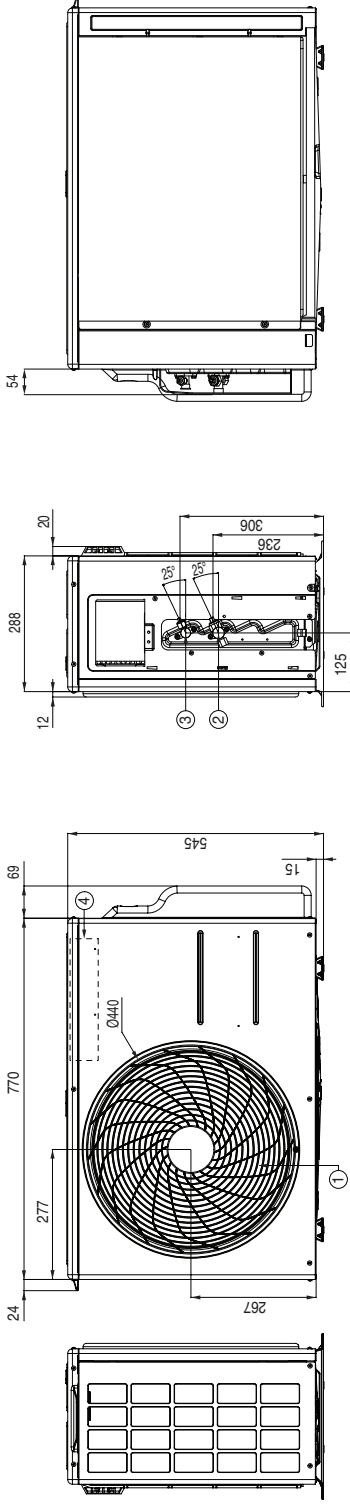


## 5. Dimensional Drawings



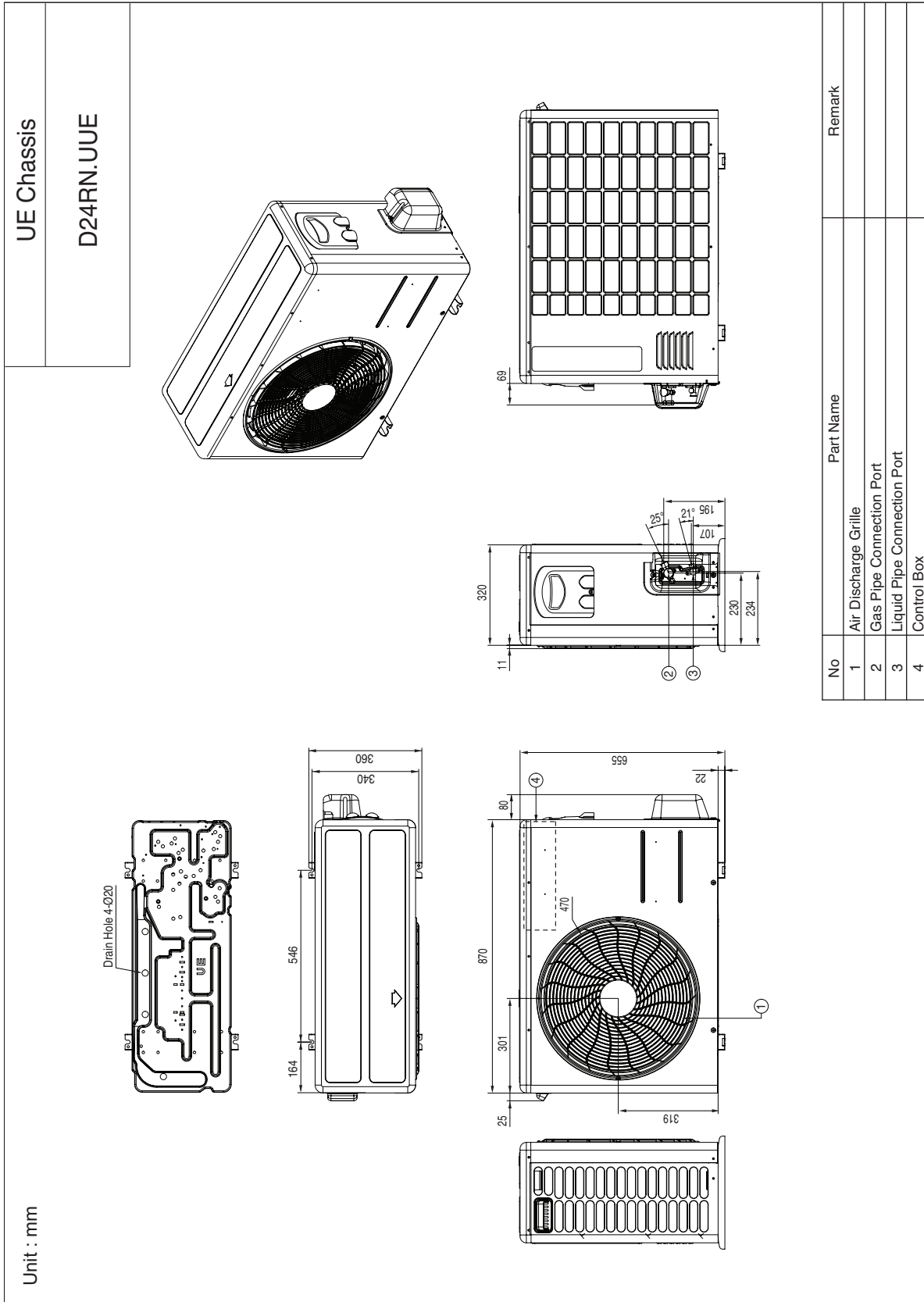
# Inverter Single

## 5. Dimensional Drawings

	UL2 Chassis																	
	P18EN.UL2																	
Unit : mm			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">No</th> <th style="width: 75%;">Part Name</th> <th style="width: 20%;">Remark</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Air Discharge Grille</td> <td></td> </tr> <tr> <td style="text-align: center;">2</td> <td>Gas Pipe Connection Port</td> <td></td> </tr> <tr> <td style="text-align: center;">3</td> <td>Liquid Pipe Connection Port</td> <td></td> </tr> <tr> <td style="text-align: center;">4</td> <td>Control Box</td> <td></td> </tr> </tbody> </table>	No	Part Name	Remark	1	Air Discharge Grille		2	Gas Pipe Connection Port		3	Liquid Pipe Connection Port		4	Control Box	
No	Part Name	Remark																
1	Air Discharge Grille																	
2	Gas Pipe Connection Port																	
3	Liquid Pipe Connection Port																	
4	Control Box																	

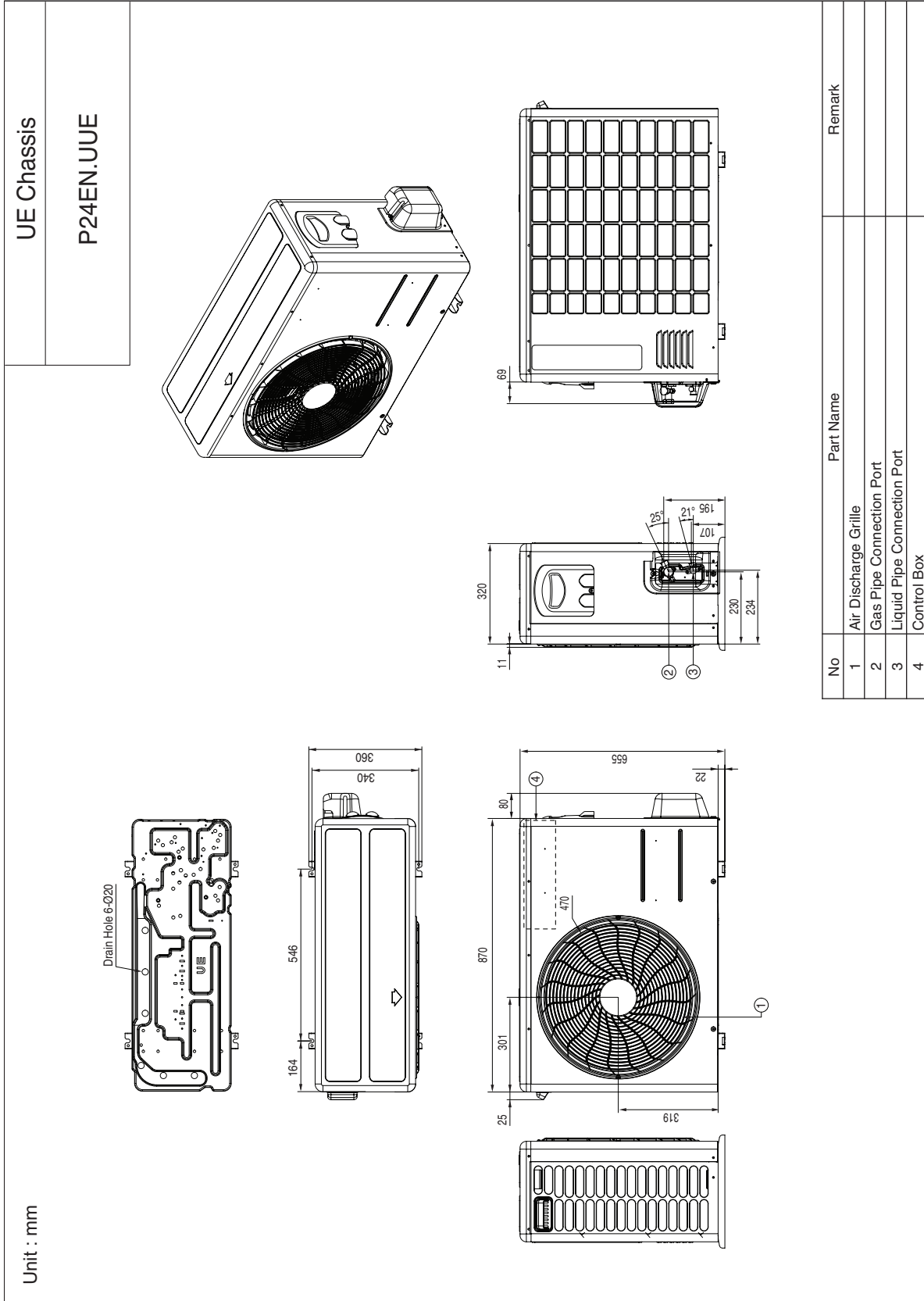
# Inverter Single

## 5. Dimensional Drawings



# Inverter Single

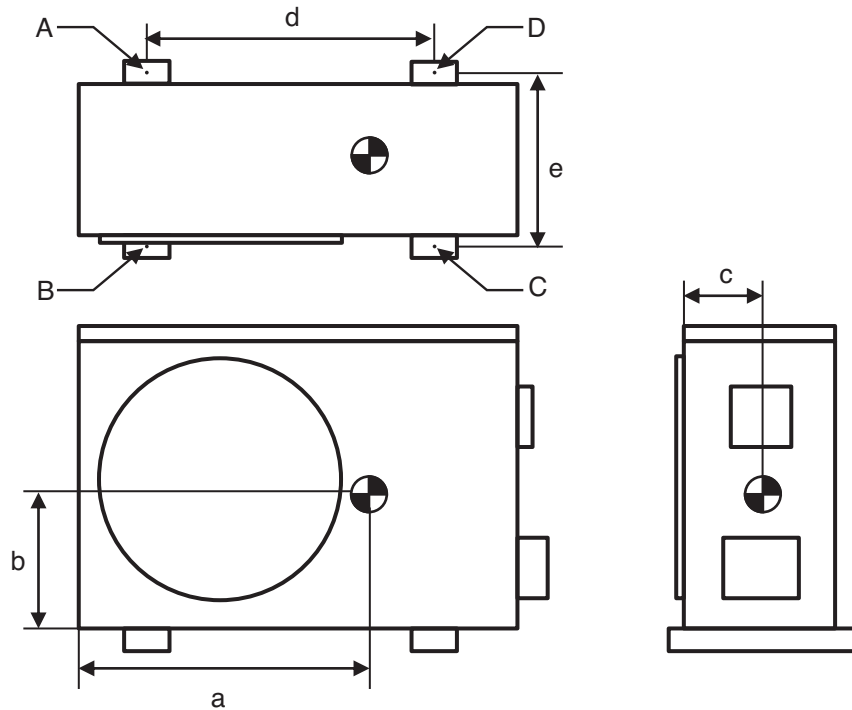
## 5. Dimensional Drawings





## 5. Dimensional Drawings

### 5.3 Corner Weight and Center of Gravity Dimension for Outdoor Unit



Model	Tool	Weight (kg)		Center of Gravity (mm)			Leg (mm)		Corner Weight (kg)			
		Shipping	Net	a	b	c	d	e	A	B	C	D
P09EN, P12EN	UA3	30.5	29.0	475	219	113	463	256	2.5	2.3	12.7	11.4
D09RN, D12RN	UL2	35.8	31.0	507	237	143	558	330	4.3	4.4	11.3	11.0
D18RN	UL2	37.0	35.5	507	237	143	558	330	4.9	5.1	12.9	12.6
P18EN	UL2	39.5	36.7	507	237	143	558	330	5.1	5.2	13.3	13.0
D24RN	UE	50.6	46.1	535	265	175	546	340	8.6	6.2	14.8	16.5
P24EN	UE	49.0	46.0	535	265	175	546	340	8.5	6.2	14.8	16.5

**Note**

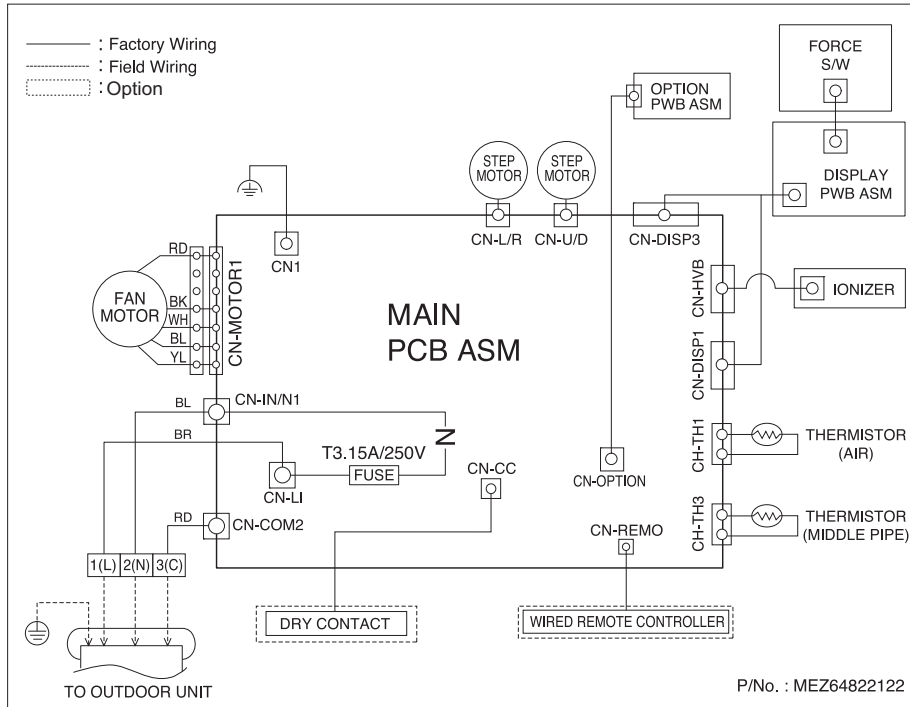
• Exterior design features of indoor and outdoor unit in section 5 may be changed without notifications due to our policy of innovation.

# Inverter Single

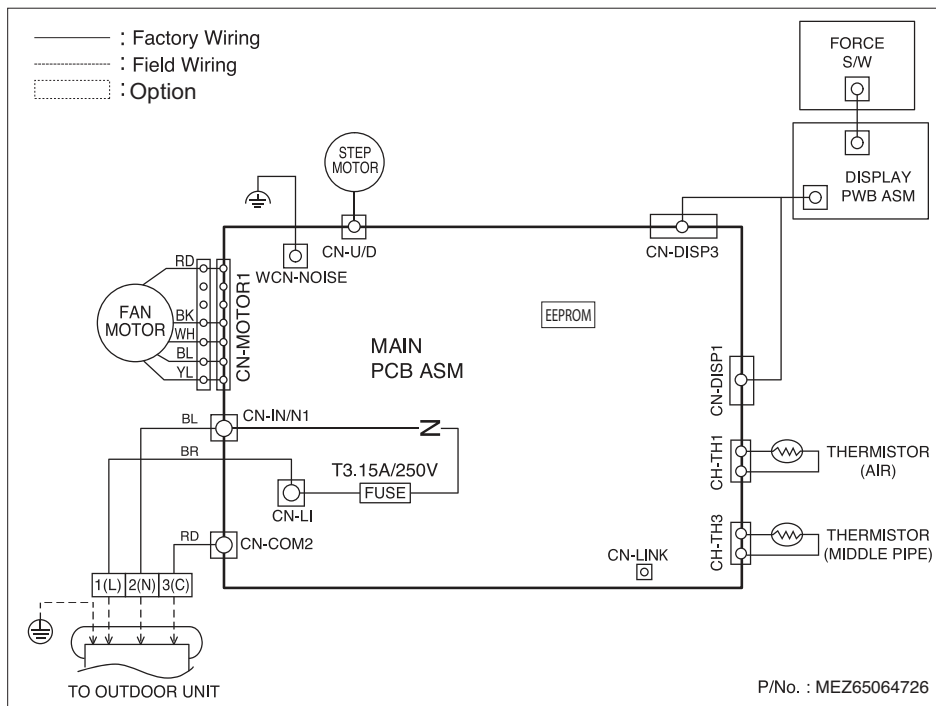
## 6. Wiring Diagrams

### 6.1 Indoor Unit

**Model : D09RN (ASNW096J1R1), D12RN (ASNW126J1R1), D18RN (ASNW186K1R1), D24RN (ASNW246K1R1)**



**Model : P09EN (USNW096J3A0), P12EN (USNW126J3A0), P18EN (USNW186K3A0), P24EN (USNW246K3A0)**

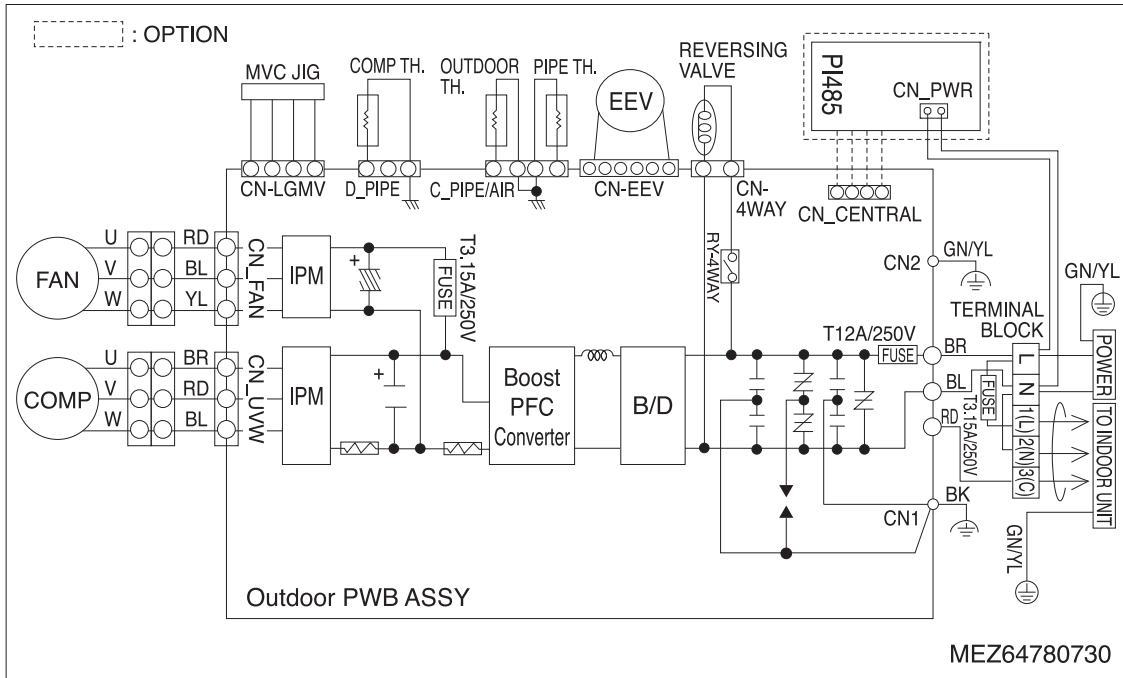


# Inverter Single

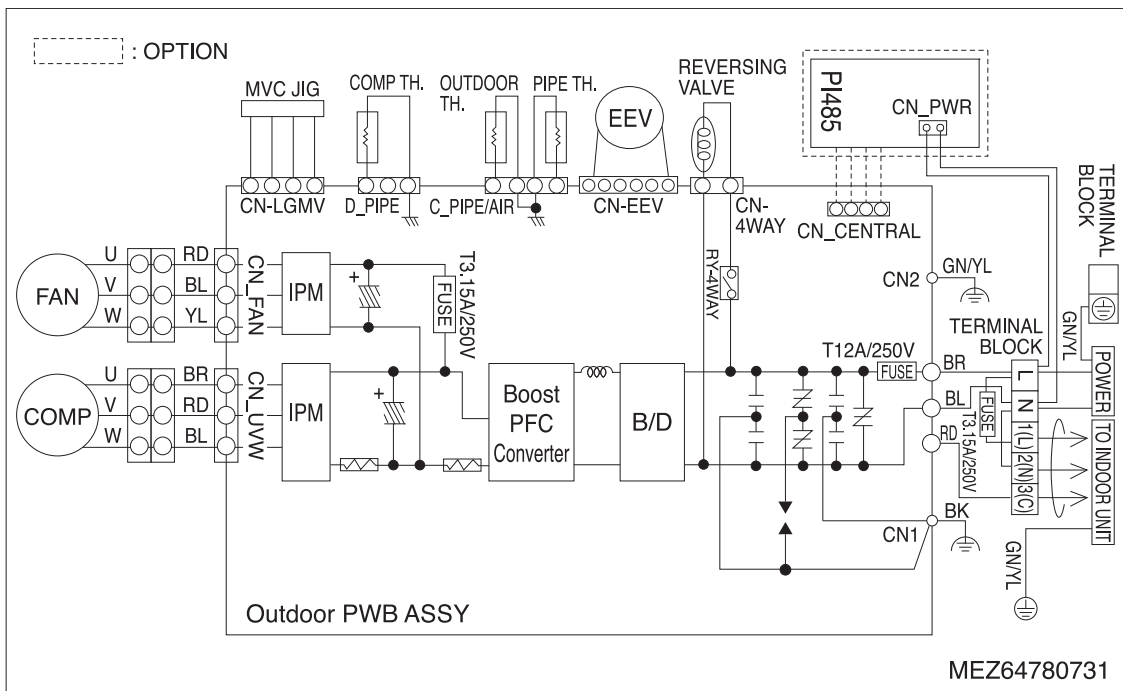
## 6. Wiring Diagrams

### 6.2 Outdoor unit

Model : D09RN (ASUW096J1R1), D12RN (ASUW126J1R1)



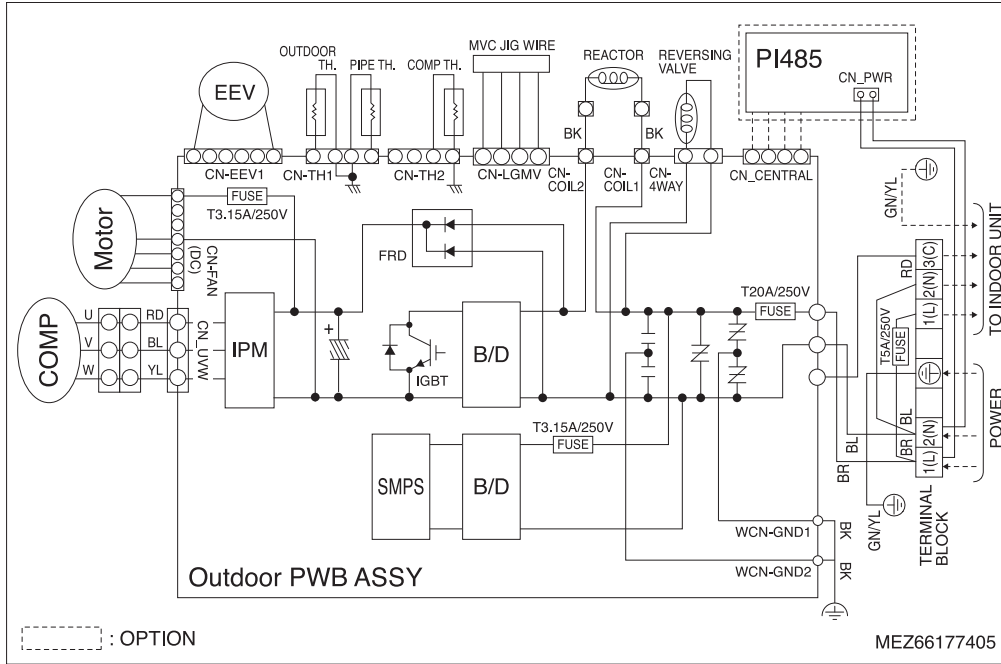
Model : D18RN (ASUW186K1R1)



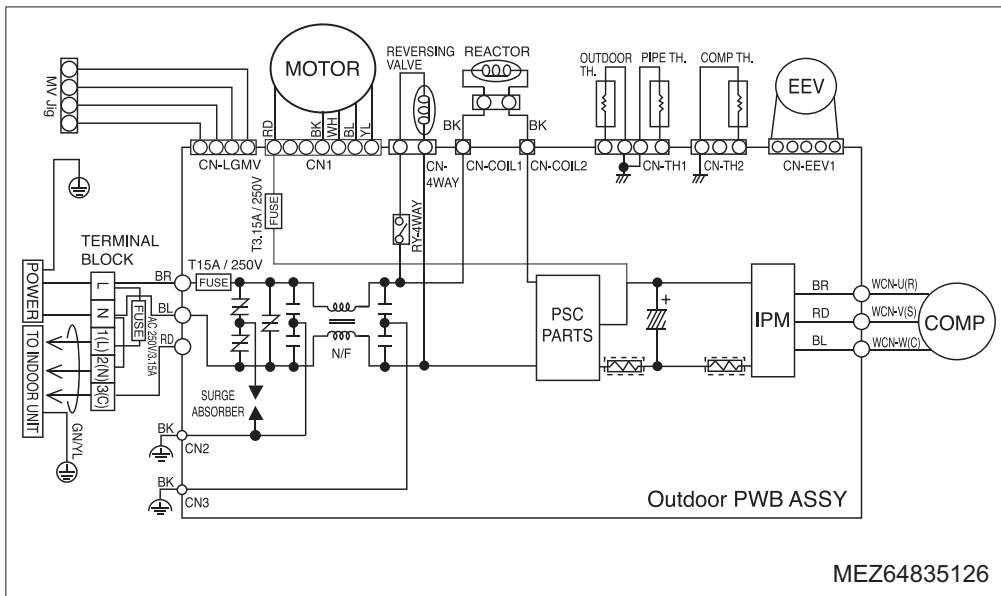
# Inverter Single

## 6. Wiring Diagrams

Model : D24RN (ASUW246K1R1)



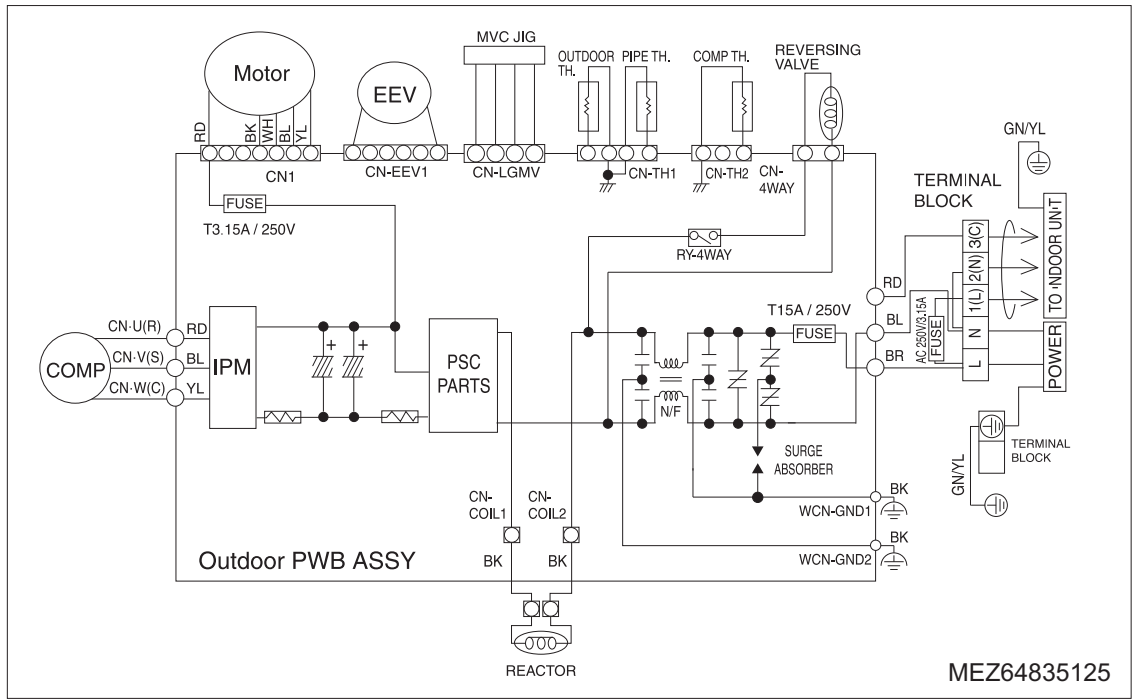
Model : P09EN (USUW096J3A0), P12EN (USUW126J3A0)



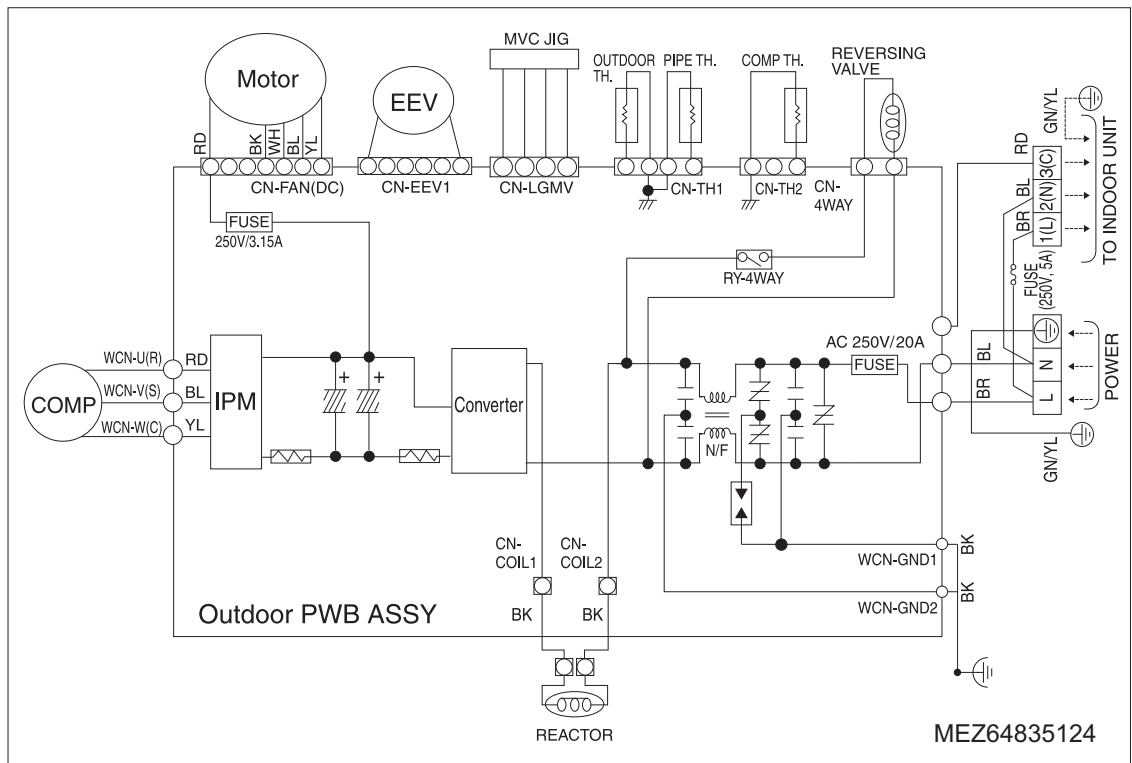
# Inverter Single

## 6. Wiring Diagrams

Model : P18EN (USUW186K3A0)



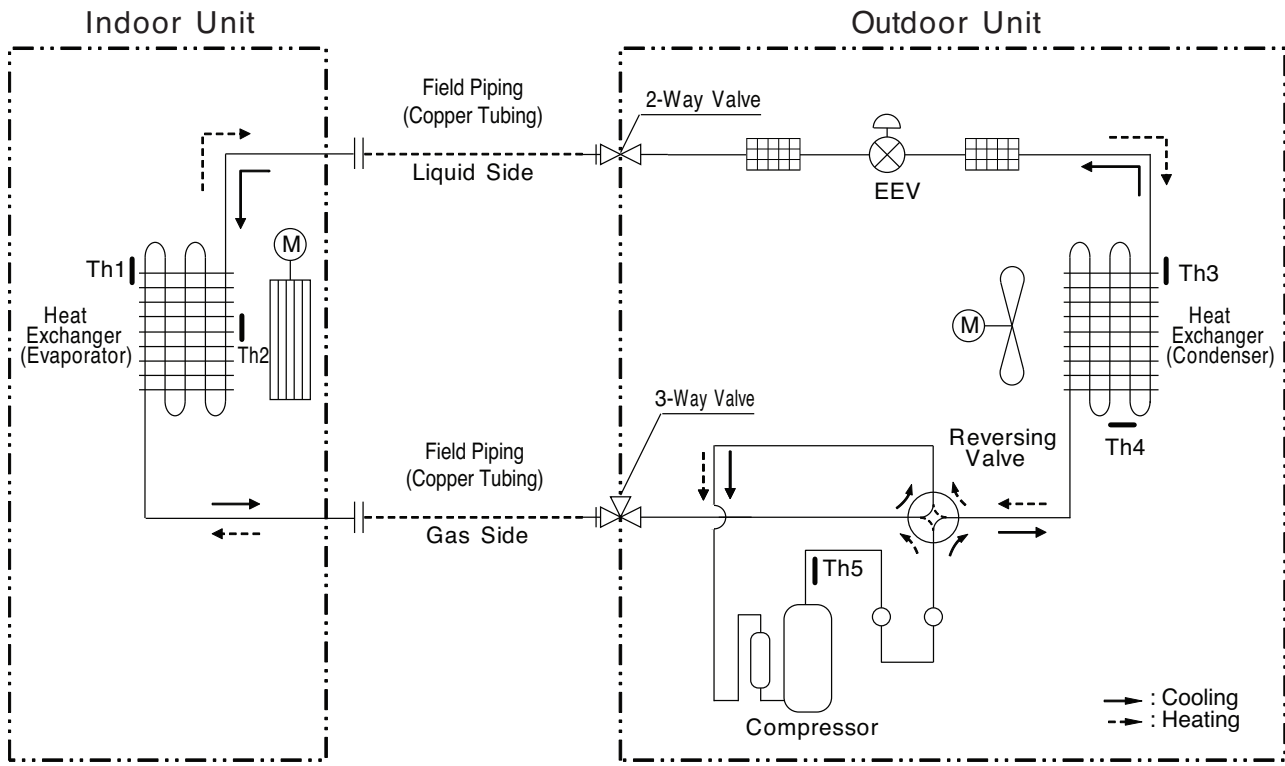
Model : P24EN (USUW246K3A0)



# Inverter Single

## 7. Refrigerant Cycle Diagrams

Model : D09RN (AS-W096J1R1), D12RN (AS-W126J1R1)



LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th3	Thermistor for outdoor air temperature	C_PIPE/AIR (Outdoor)
Th4	Thermistor for condensing temperature	
Th5	Thermistor for discharge pipe temperature	D_PIPE (Outdoor)

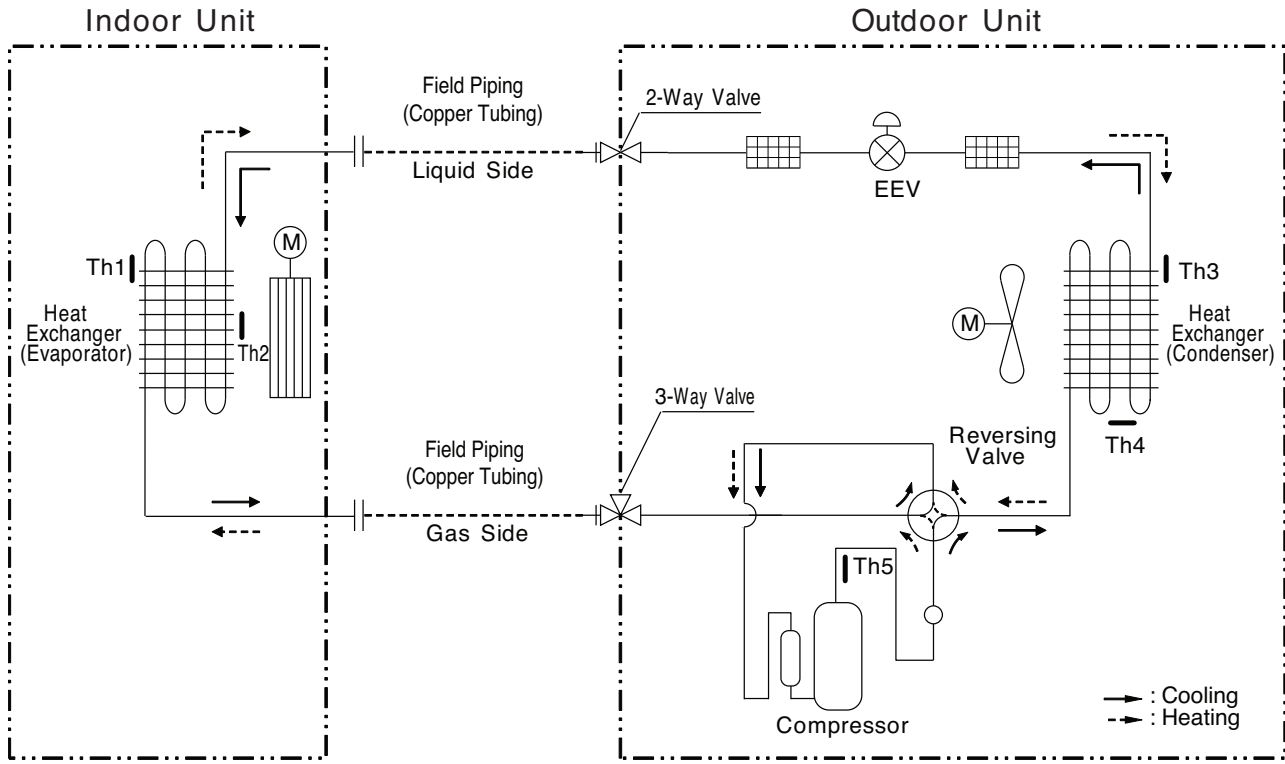
### Refrigerant Pipe Connection Port Diameters

Model	Gas		Liquid	
	mm	inch	mm	inch
D09RN, D12RN	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4

Appendix	Heat Exchanger	Propeller Fan	Cross Flow Fan	Compressor	Accumulator	4 Way Valve
	EEV (Electronic Expansion Valve)	Capillary Tube	2-Way Valve 3-Way Valve	Temperature Sensor	Pressure Sensor	Pressure Switch
	Check Valve	Flare Joint	Muffler	Strainer		

## 7. Refrigerant Cycle Diagrams

Model : D18RN (AS-W186K1R1)



LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th3	Thermistor for outdoor air temperature	C_PIPE/AIR (Outdoor)
Th4	Thermistor for condensing temperature	
Th5	Thermistor for discharge pipe temperature	D_PIPE (Outdoor)

### Refrigerant Pipe Connection Port Diameters

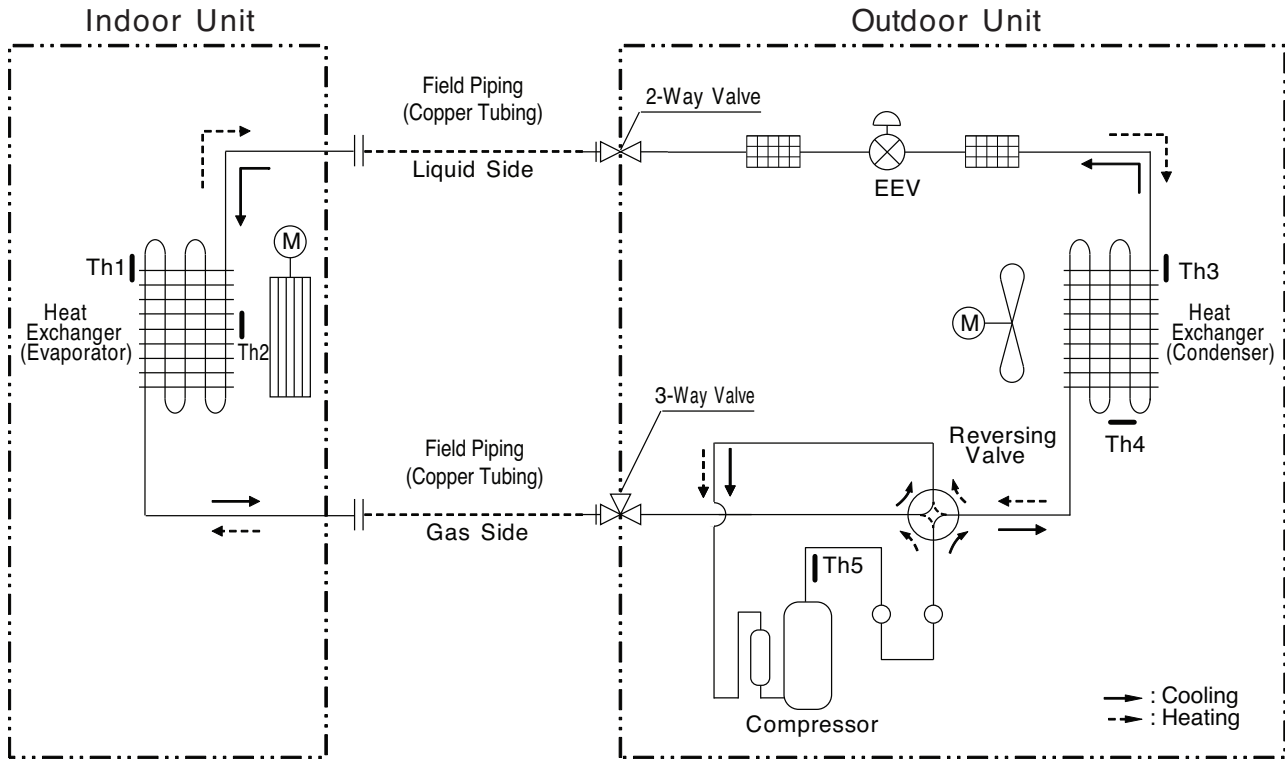
Model	Gas		Liquid	
	mm	inch	mm	inch
D18RN	Ø 12.7	Ø 1/2	Ø 6.35	Ø 1/4

Appendix	Heat Exchanger	Propeller Fan	Cross Flow Fan	Compressor	Accumulator	4 Way Valve
	EEV (Electronic Expansion Valve)	Capillary Tube	2-Way Valve 3-Way Valve	Temperature Sensor	Pressure Sensor	Pressure Switch
	Check Valve	Flare Joint	Muffler	Strainer		

# Inverter Single

## 7. Refrigerant Cycle Diagrams

Model : D24RN (AS-W246K1R1), P09EN (US-W096J3A0), P12EN (US-W126J3A0), P24EN (US-W246K3A0)



LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th3	Thermistor for outdoor air temperature	CN-TH1 (Outdoor)
Th4	Thermistor for condensing temperature	
Th5	Thermistor for discharge pipe temperature	CN-TH2 (Outdoor)

### Refrigerant Pipe Connection Port Diameters

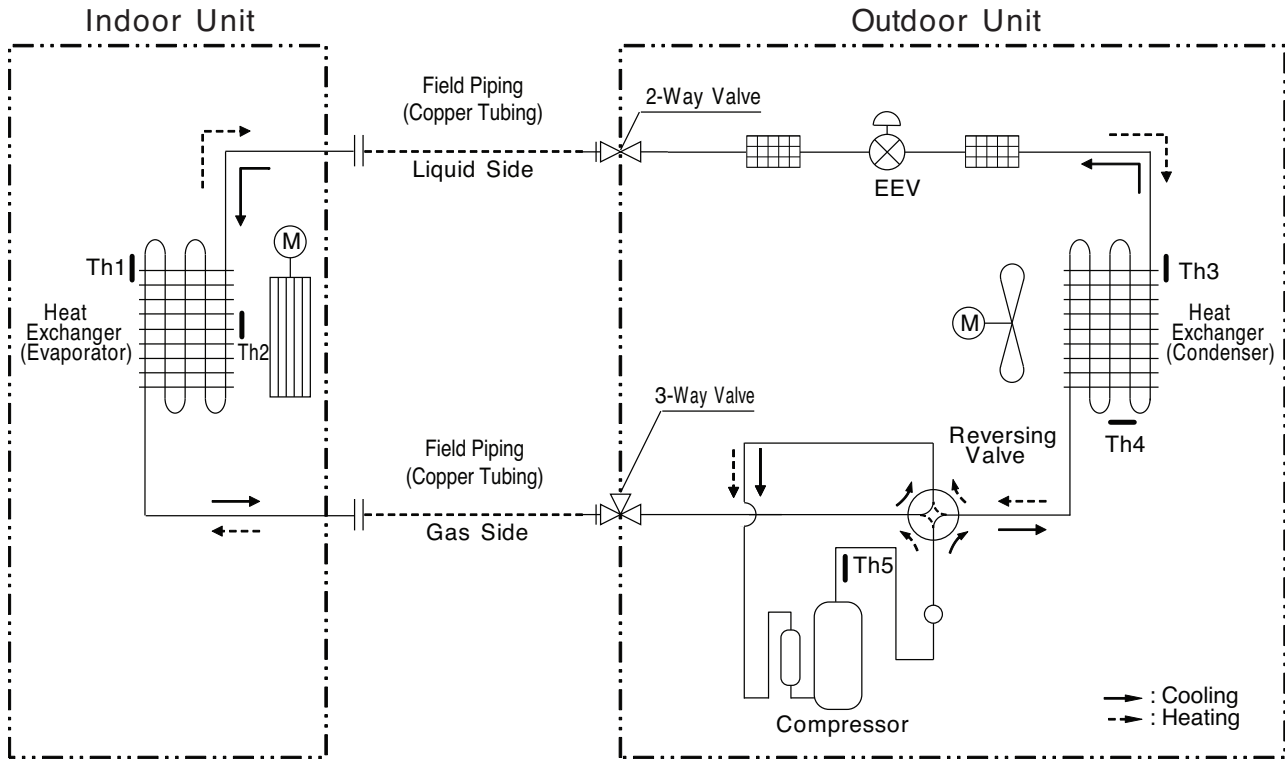
Model	Gas		Liquid	
	mm	inch	mm	inch
D24RN, P24EN	Ø 15.88	Ø 5/8	Ø 6.35	Ø 1/4
P09EN, P12EN	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4

Appendix	Heat Exchanger	Propeller Fan	Cross Flow Fan	Compressor	Accumulator	4 Way Valve
	EEV (Electronic Expansion Valve)	Capillary Tube	2-Way Valve 3-Way Valve	Temperature Sensor	Pressure Sensor	Pressure Switch
	Check Valve	Flare Joint	Muffler	Strainer		



## 7. Refrigerant Cycle Diagrams

Model : P18EN (US-W186K3A0)



LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th3	Thermistor for outdoor air temperature	CN-TH1 (Outdoor)
Th4	Thermistor for condensing temperature	
Th5	Thermistor for discharge pipe temperature	CN-TH2 (Outdoor)

### Refrigerant Pipe Connection Port Diameters

Model	Gas		Liquid	
	mm	inch	mm	inch
P18EN	Ø 12.7	Ø 1/2	Ø 6.35	Ø 1/4

Appendix	Heat Exchanger	Propeller Fan	Cross Flow Fan	Compressor	Accumulator	4 Way Valve
	EEV (Electronic Expansion Valve)	Capillary Tube	 2-Way Valve 3-Way Valve	Temperature Sensor	Pressure Sensor	Pressure Switch
	Check Valve	Flare Joint	Muffler	Strainer		

# Inverter Single

## 8. Capacity Tables

### 8.1 Rated Cooling Capacity

#### Model : D09RN (AS-W096J1R1)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-15	1.48	1.33	0.23	1.86	1.42	0.27	2.23	1.50	0.31	2.69	1.61	0.36	2.97	1.67	0.39	3.12	2.16	0.41	3.32	2.82	0.43
-10	1.53	1.39	0.24	1.91	1.47	0.28	2.30	1.56	0.33	2.78	1.68	0.38	3.06	1.74	0.41	3.21	2.25	0.43	3.42	2.94	0.45
-5	1.64	1.49	0.24	1.98	1.58	0.28	2.31	1.68	0.33	2.73	1.80	0.40	2.98	1.87	0.43	3.14	2.29	0.45	3.37	2.88	0.48
-1	1.73	1.57	0.26	2.04	1.66	0.30	2.35	1.74	0.35	2.74	1.85	0.40	2.97	1.91	0.44	3.13	2.30	0.46	3.36	2.84	0.49
4	1.86	1.69	0.30	2.14	1.76	0.33	2.41	1.83	0.37	2.75	1.92	0.42	2.95	1.97	0.44	3.12	2.32	0.46	3.34	2.79	0.49
10	1.99	1.80	0.33	2.23	1.86	0.36	2.47	1.92	0.39	2.76	1.99	0.43	2.94	2.04	0.45	3.10	2.33	0.47	3.32	2.74	0.50
16	2.12	1.92	0.37	2.32	1.96	0.39	2.52	2.01	0.41	2.77	2.06	0.44	2.93	2.10	0.46	3.08	2.34	0.48	3.31	2.68	0.51
20	2.09	1.89	0.40	2.27	1.95	0.42	2.46	2.01	0.44	2.69	2.08	0.47	2.83	2.13	0.48	2.99	2.35	0.50	3.21	2.67	0.53
25	2.05	1.86	0.43	2.22	1.94	0.45	2.39	2.01	0.47	2.59	2.11	0.49	2.72	2.16	0.51	2.88	2.37	0.53	3.10	2.65	0.55
30	2.02	1.83	0.46	2.17	1.92	0.48	2.31	2.02	0.50	2.50	2.13	0.52	2.61	2.20	0.53	2.77	2.38	0.55	2.99	2.63	0.58
35	1.99	1.80	0.50	2.11	1.91	0.51	2.24	2.02	0.53	2.40	2.16	0.55	2.50	2.24	0.56	2.66	2.39	0.58	2.88	2.61	0.60
41	1.88	1.70	0.51	2.02	1.82	0.53	2.15	1.94	0.54	2.32	2.09	0.56	2.42	2.18	0.58	2.57	2.32	0.59	2.77	2.51	0.62
46	1.77	1.60	0.52	1.90	1.72	0.54	2.04	1.85	0.56	2.21	2.00	0.58	2.31	2.09	0.59	2.45	2.22	0.61	2.64	2.39	0.63
48	1.73	1.56	0.53	1.86	1.68	0.54	1.99	1.80	0.56	2.15	1.95	0.58	2.25	2.04	0.60	2.39	2.16	0.61	2.58	2.33	0.64

#### Model : D12RN (AS-W126J1R1)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-15	2.08	1.74	0.37	2.60	1.85	0.43	3.12	1.96	0.50	3.77	2.10	0.58	4.16	2.19	0.63	4.36	2.82	0.66	4.64	3.69	0.69
-10	2.14	1.81	0.38	2.68	1.93	0.45	3.22	2.04	0.52	3.89	2.19	0.61	4.29	2.28	0.66	4.50	2.93	0.69	4.79	3.84	0.73
-5	2.30	1.94	0.38	2.77	2.07	0.46	3.23	2.19	0.54	3.82	2.35	0.64	4.17	2.45	0.70	4.40	3.00	0.73	4.71	3.76	0.77
-1	2.43	2.05	0.42	2.86	2.16	0.49	3.29	2.27	0.56	3.83	2.42	0.65	4.15	2.50	0.70	4.38	3.01	0.74	4.70	3.71	0.78
4	2.61	2.20	0.47	2.99	2.30	0.53	3.37	2.39	0.59	3.85	2.51	0.67	4.13	2.58	0.71	4.36	3.03	0.75	4.67	3.64	0.79
10	2.79	2.35	0.53	3.12	2.43	0.58	3.45	2.51	0.63	3.87	2.60	0.69	4.11	2.66	0.73	4.34	3.04	0.76	4.65	3.57	0.80
16	2.97	2.51	0.59	3.25	2.56	0.63	3.53	2.62	0.66	3.88	2.69	0.71	4.10	2.74	0.74	4.32	3.06	0.77	4.63	3.50	0.81
20	2.93	2.47	0.64	3.18	2.55	0.67	3.44	2.63	0.70	3.77	2.72	0.75	3.96	2.78	0.77	4.18	3.07	0.81	4.49	3.48	0.85
25	2.88	2.43	0.69	3.11	2.53	0.72	3.34	2.63	0.75	3.63	2.75	0.79	3.81	2.83	0.82	4.03	3.09	0.85	4.34	3.46	0.89
30	2.83	2.39	0.74	3.03	2.51	0.77	3.24	2.63	0.80	3.50	2.78	0.84	3.65	2.87	0.86	3.88	3.11	0.89	4.18	3.43	0.93
35	2.78	2.35	0.80	2.96	2.49	0.82	3.14	2.64	0.85	3.36	2.81	0.88	3.50	2.92	0.90	3.72	3.12	0.93	4.03	3.40	0.97
41	2.63	2.22	0.82	2.82	2.38	0.85	3.01	2.54	0.87	3.25	2.73	0.91	3.39	2.85	0.93	3.60	3.03	0.96	3.88	3.28	0.99
46	2.48	2.09	0.84	2.67	2.25	0.87	2.85	2.41	0.90	3.09	2.61	0.93	3.23	2.73	0.95	3.42	2.89	0.98	3.69	3.12	1.02
48	2.42	2.04	0.85	2.60	2.20	0.88	2.78	2.35	0.90	3.01	2.55	0.94	3.15	2.67	0.96	3.34	2.82	0.99	3.61	3.04	1.03

#### Symbol

DB : Dry Bulb Temperature	[°C]
WB : Wet Bulb Temperature	[°C]
TC : Total Capacity	[kW]
SHC : Sensible Heating Capacity	[kW]
PI : Power Input	[kW]
(Comp.+ Indoor Fan Motor + Outdoor Fan Motor)	

#### Note

1. All capacities are net, evaporator fan motor heat is deducted.
2. Direct interpolation is permissible. Do not extrapolate.
3. Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.

## 8. Capacity Tables

### Model : D18RN (AS-W186K1R1)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-15	2.97	2.45	0.63	3.71	2.60	0.75	4.46	2.76	0.87	5.39	2.96	1.01	5.94	3.08	1.10	6.23	3.97	1.14	6.63	5.19	1.20
-10	3.06	2.55	0.66	3.83	2.71	0.79	4.59	2.88	0.91	5.55	3.08	1.06	6.13	3.21	1.15	6.43	4.13	1.20	6.84	5.41	1.26
-5	3.29	2.74	0.66	3.95	2.91	0.79	4.62	3.09	0.93	5.45	3.31	1.10	5.95	3.44	1.21	6.28	4.22	1.26	6.73	5.29	1.34
-1	3.47	2.89	0.72	4.08	3.04	0.85	4.70	3.20	0.97	5.47	3.40	1.13	5.93	3.52	1.22	6.26	4.24	1.27	6.71	5.22	1.35
4	3.72	3.10	0.82	4.27	3.23	0.93	4.82	3.37	1.03	5.50	3.53	1.16	5.91	3.63	1.24	6.23	4.26	1.29	6.68	5.13	1.37
10	3.98	3.32	0.92	4.46	3.42	1.01	4.93	3.53	1.09	5.52	3.66	1.19	5.88	3.74	1.26	6.20	4.28	1.31	6.64	5.03	1.39
16	4.24	3.53	1.02	4.64	3.61	1.08	5.05	3.69	1.15	5.55	3.79	1.23	5.85	3.85	1.28	6.17	4.31	1.33	6.61	4.94	1.41
20	4.18	3.48	1.10	4.55	3.59	1.16	4.92	3.70	1.22	5.38	3.83	1.30	5.66	3.91	1.34	5.98	4.33	1.40	6.42	4.90	1.47
25	4.11	3.42	1.20	4.44	3.56	1.25	4.77	3.70	1.30	5.19	3.88	1.37	5.44	3.98	1.41	5.76	4.35	1.47	6.20	4.87	1.54
30	4.04	3.36	1.29	4.33	3.53	1.34	4.63	3.71	1.39	5.00	3.92	1.45	5.22	4.05	1.49	5.54	4.38	1.54	5.98	4.83	1.61
35	3.97	3.31	1.38	4.23	3.51	1.43	4.49	3.71	1.47	4.81	3.96	1.53	5.00	4.12	1.56	5.32	4.40	1.61	5.76	4.79	1.68
41	3.76	3.13	1.42	4.03	3.35	1.47	4.30	3.57	1.52	4.64	3.85	1.57	4.84	4.02	1.61	5.14	4.27	1.66	5.55	4.62	1.72
46	3.54	2.95	1.46	3.81	3.17	1.51	4.08	3.40	1.55	4.41	3.68	1.61	4.61	3.84	1.65	4.89	4.07	1.70	5.28	4.39	1.77
48	3.45	2.87	1.47	3.71	3.09	1.52	3.98	3.31	1.56	4.30	3.59	1.62	4.50	3.75	1.66	4.77	3.98	1.71	5.15	4.29	1.78

### Model : D24RN (AS-W246K1R1)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-15	3.92	2.95	0.93	4.90	3.14	1.10	5.88	3.33	1.27	7.11	3.57	1.48	7.85	3.71	1.61	8.23	4.78	1.67	8.75	6.25	1.75
-10	4.04	3.07	0.97	5.05	3.27	1.15	6.06	3.47	1.33	7.33	3.71	1.55	8.09	3.86	1.68	8.48	4.98	1.75	9.02	6.51	1.84
-5	4.34	3.29	0.96	5.22	3.51	1.16	6.10	3.72	1.36	7.20	3.99	1.61	7.86	4.15	1.76	8.29	5.08	1.84	8.89	6.37	1.96
-1	4.58	3.48	1.06	5.39	3.67	1.24	6.21	3.86	1.42	7.22	4.10	1.65	7.83	4.24	1.78	8.26	5.10	1.86	8.86	6.29	1.98
4	4.92	3.73	1.20	5.64	3.89	1.35	6.36	4.05	1.51	7.26	4.25	1.70	7.80	4.37	1.81	8.22	5.13	1.89	8.81	6.18	2.00
10	5.26	3.99	1.35	5.88	4.12	1.47	6.51	4.25	1.59	7.29	4.41	1.75	7.76	4.51	1.84	8.18	5.16	1.92	8.77	6.06	2.03
16	5.60	4.25	1.49	6.13	4.35	1.58	6.66	4.45	1.68	7.32	4.57	1.80	7.72	4.64	1.87	8.14	5.19	1.95	8.73	5.94	2.06
20	5.52	4.19	1.61	6.00	4.32	1.70	6.49	4.45	1.79	7.10	4.62	1.89	7.47	4.71	1.96	7.89	5.21	2.04	8.47	5.91	2.15
25	5.42	4.12	1.75	5.86	4.29	1.83	6.30	4.46	1.91	6.85	4.67	2.01	7.18	4.80	2.07	7.60	5.24	2.14	8.18	5.86	2.25
30	5.33	4.05	1.88	5.72	4.26	1.96	6.11	4.46	2.03	6.60	4.72	2.12	6.89	4.88	2.17	7.31	5.27	2.25	7.89	5.82	2.35
35	5.24	3.98	2.02	5.58	4.23	2.09	5.92	4.47	2.15	6.35	4.77	2.23	6.60	4.96	2.28	7.02	5.30	2.35	7.60	5.77	2.45
41	4.97	3.77	2.08	5.32	4.04	2.15	5.68	4.31	2.22	6.13	4.64	2.30	6.39	4.84	2.35	6.78	5.14	2.42	7.32	5.56	2.52
46	4.67	3.55	2.13	5.03	3.82	2.20	5.38	4.09	2.27	5.82	4.43	2.35	6.09	4.63	2.41	6.46	4.91	2.48	6.96	5.29	2.58
48	4.55	3.46	2.15	4.90	3.72	2.22	5.25	3.99	2.29	5.68	4.32	2.37	5.94	4.52	2.42	6.30	4.79	2.50	6.80	5.16	2.60

#### Symbol

DB : Dry Bulb Temperature	[°C]
WB : Wet Bulb Temperature	[°C]
TC : Total Capacity	[kW]
SHC : Sensible Heating Capacity	[kW]
PI : Power Input	[kW]
(Comp.+ Indoor Fan Motor + Outdoor Fan Motor)	

#### Note

1. All capacities are net, evaporator fan motor heat is deducted.
2. Direct interpolation is permissible. Do not extrapolate.
3. Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.

# Inverter Single

## 8. Capacity Tables

Inverter Single

### Model : P09EN (US-W096J3A0)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-10	1.53	1.39	0.29	1.91	1.47	0.34	2.30	1.56	0.39	2.78	1.68	0.46	3.06	1.74	0.49	3.21	2.25	0.51	3.42	2.94	0.54
-5	1.64	1.49	0.28	1.98	1.58	0.34	2.31	1.68	0.40	2.73	1.80	0.47	2.98	1.87	0.52	3.14	2.29	0.54	3.37	2.88	0.57
-1	1.73	1.57	0.31	2.04	1.66	0.36	2.35	1.74	0.42	2.74	1.85	0.48	2.97	1.91	0.52	3.13	2.30	0.55	3.36	2.84	0.58
4	1.86	1.69	0.35	2.14	1.76	0.40	2.41	1.83	0.44	2.75	1.92	0.50	2.95	1.97	0.53	3.12	2.32	0.56	3.34	2.79	0.59
10	1.99	1.80	0.40	2.23	1.86	0.43	2.47	1.92	0.47	2.76	1.99	0.51	2.94	2.04	0.54	3.10	2.33	0.56	3.32	2.74	0.60
16	2.12	1.92	0.44	2.32	1.96	0.47	2.52	2.01	0.49	2.77	2.06	0.53	2.93	2.10	0.55	3.08	2.34	0.57	3.31	2.68	0.61
20	2.09	1.89	0.47	2.27	1.95	0.50	2.46	2.01	0.52	2.69	2.08	0.56	2.83	2.13	0.58	2.99	2.35	0.60	3.21	2.67	0.63
25	2.05	1.86	0.51	2.22	1.94	0.54	2.39	2.01	0.56	2.59	2.11	0.59	2.72	2.16	0.61	2.88	2.37	0.63	3.10	2.65	0.66
30	2.02	1.83	0.55	2.17	1.92	0.57	2.31	2.02	0.60	2.50	2.13	0.62	2.61	2.20	0.64	2.77	2.38	0.66	2.99	2.63	0.69
35	1.99	1.80	0.59	2.11	1.91	0.61	2.24	2.02	0.63	2.40	2.16	0.66	2.50	2.24	0.67	2.66	2.39	0.69	2.88	2.61	0.72
41	1.88	1.70	0.61	2.02	1.82	0.63	2.15	1.94	0.65	2.32	2.09	0.68	2.42	2.18	0.69	2.57	2.32	0.71	2.77	2.51	0.74
46	1.77	1.60	0.63	1.90	1.72	0.65	2.04	1.85	0.67	2.21	2.00	0.69	2.31	2.09	0.71	2.45	2.22	0.73	2.64	2.39	0.76
48	1.73	1.56	0.63	1.86	1.68	0.65	1.99	1.80	0.67	2.15	1.95	0.70	2.25	2.04	0.71	2.39	2.16	0.73	2.58	2.33	0.77

### Model : P12EN (US-W126J3A0)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-10	2.14	1.80	0.46	2.68	1.91	0.54	3.22	2.03	0.63	3.89	2.18	0.73	4.29	2.26	0.80	4.50	2.92	0.83	4.79	3.82	0.87
-5	2.30	1.93	0.45	2.77	2.06	0.55	3.23	2.18	0.64	3.82	2.34	0.76	4.17	2.43	0.83	4.40	2.98	0.87	4.71	3.74	0.93
-1	2.43	2.04	0.50	2.86	2.15	0.59	3.29	2.26	0.67	3.83	2.40	0.78	4.15	2.49	0.84	4.38	2.99	0.88	4.70	3.69	0.94
4	2.61	2.19	0.57	2.99	2.28	0.64	3.37	2.38	0.71	3.85	2.49	0.80	4.13	2.56	0.86	4.36	3.01	0.90	4.67	3.62	0.95
10	2.79	2.34	0.64	3.12	2.42	0.70	3.45	2.49	0.75	3.87	2.59	0.83	4.11	2.64	0.87	4.34	3.02	0.91	4.65	3.55	0.96
16	2.97	2.49	0.71	3.25	2.55	0.75	3.53	2.61	0.79	3.88	2.68	0.85	4.10	2.72	0.88	4.32	3.04	0.92	4.63	3.48	0.98
20	2.93	2.46	0.76	3.18	2.53	0.80	3.44	2.61	0.85	3.77	2.71	0.90	3.96	2.76	0.93	4.18	3.06	0.97	4.49	3.46	1.02
25	2.88	2.42	0.83	3.11	2.51	0.87	3.34	2.61	0.90	3.63	2.74	0.95	3.81	2.81	0.98	4.03	3.07	1.02	4.34	3.43	1.07
30	2.83	2.37	0.89	3.03	2.50	0.93	3.24	2.62	0.96	3.50	2.77	1.00	3.65	2.86	1.03	3.88	3.09	1.06	4.18	3.41	1.11
35	2.78	2.33	0.96	2.96	2.48	0.99	3.14	2.62	1.02	3.36	2.80	1.06	3.50	2.91	1.08	3.72	3.11	1.11	4.03	3.38	1.16
41	2.63	2.21	0.99	2.82	2.37	1.02	3.01	2.52	1.05	3.25	2.72	1.09	3.39	2.84	1.11	3.60	3.01	1.15	3.88	3.26	1.19
46	2.48	2.08	1.01	2.67	2.24	1.04	2.85	2.40	1.08	3.09	2.60	1.12	3.23	2.71	1.14	3.42	2.88	1.17	3.69	3.10	1.22
48	2.42	2.03	1.02	2.60	2.18	1.05	2.78	2.34	1.08	3.01	2.53	1.12	3.15	2.65	1.15	3.34	2.81	1.18	3.61	3.03	1.23

**Symbol**

DB : Dry Bulb Temperature [°C]  
 WB : Wet Bulb Temperature [°C]  
 TC : Total Capacity [kW]  
 SHC : Sensible Heating Capacity [kW]  
 PI : Power Input [kW]  
 (Comp.+ Indoor Fan Motor + Outdoor Fan Motor)

**Note**

1. All capacities are net, evaporator fan motor heat is deducted.
2. Direct interpolation is permissible. Do not extrapolate.
3. Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.

## 8. Capacity Tables

### Model : P18EN (US-W186K3A0)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-15	2.97	2.44	0.65	3.71	2.60	0.76	4.46	2.75	0.88	5.39	2.95	1.03	5.94	3.07	1.12	6.23	3.95	1.16	6.63	5.17	1.22
-10	3.06	2.54	0.68	3.83	2.70	0.80	4.59	2.87	0.93	5.55	3.07	1.08	6.13	3.20	1.17	6.43	4.12	1.22	6.84	5.39	1.28
-5	3.29	2.73	0.67	3.95	2.90	0.81	4.62	3.08	0.95	5.45	3.30	1.12	5.95	3.43	1.23	6.28	4.20	1.29	6.73	5.27	1.36
-1	3.47	2.88	0.74	4.08	3.03	0.86	4.70	3.19	0.99	5.47	3.39	1.15	5.93	3.51	1.24	6.26	4.22	1.30	6.71	5.21	1.38
4	3.72	3.09	0.84	4.27	3.22	0.94	4.82	3.35	1.05	5.50	3.52	1.18	5.91	3.62	1.26	6.23	4.24	1.32	6.68	5.11	1.40
10	3.98	3.30	0.94	4.46	3.41	1.02	4.93	3.52	1.11	5.52	3.65	1.22	5.88	3.73	1.28	6.20	4.27	1.34	6.64	5.01	1.42
16	4.24	3.52	1.04	4.64	3.60	1.10	5.05	3.68	1.17	5.55	3.78	1.25	5.85	3.84	1.30	6.17	4.29	1.36	6.61	4.92	1.44
20	4.18	3.47	1.12	4.55	3.57	1.18	4.92	3.68	1.25	5.38	3.82	1.32	5.66	3.90	1.37	5.98	4.31	1.42	6.42	4.88	1.50
25	4.11	3.41	1.22	4.44	3.55	1.27	4.77	3.69	1.33	5.19	3.86	1.40	5.44	3.97	1.44	5.76	4.34	1.49	6.20	4.85	1.57
30	4.04	3.35	1.31	4.33	3.52	1.36	4.63	3.69	1.41	5.00	3.91	1.48	5.22	4.03	1.52	5.54	4.36	1.57	5.98	4.81	1.64
35	3.97	3.29	1.41	4.23	3.50	1.45	4.49	3.70	1.50	4.81	3.95	1.56	5.00	4.10	1.59	5.32	4.38	1.64	5.76	4.77	1.71
41	3.76	3.12	1.45	4.03	3.34	1.50	4.30	3.56	1.54	4.64	3.84	1.60	4.84	4.00	1.64	5.14	4.25	1.69	5.55	4.60	1.76
46	3.54	2.94	1.49	3.81	3.16	1.54	4.08	3.38	1.58	4.41	3.66	1.64	4.61	3.83	1.68	4.89	4.06	1.73	5.28	4.38	1.80
48	3.45	2.86	1.50	3.71	3.08	1.55	3.98	3.30	1.59	4.30	3.57	1.65	4.50	3.74	1.69	4.77	3.96	1.74	5.15	4.27	1.82

### Model : P24EN (US-W246K3A0)

Outdoor Air Temperature	Indoor Air Temperature : °C DB / °C WB																				
	18 / 12			20 / 14			22 / 16			25 / 18			27 / 19			29 / 19			32 / 23		
°C DB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
-15	3.92	2.94	0.93	4.90	3.13	1.10	5.88	3.32	1.27	7.11	3.56	1.48	7.85	3.71	1.61	8.23	4.77	1.67	8.75	6.25	1.75
-10	4.04	3.06	0.97	5.05	3.26	1.15	6.06	3.46	1.33	7.33	3.71	1.55	8.09	3.86	1.68	8.48	4.97	1.75	9.02	6.50	1.84
-5	4.34	3.29	0.96	5.22	3.50	1.16	6.10	3.72	1.36	7.20	3.98	1.61	7.86	4.14	1.76	8.29	5.08	1.84	8.89	6.37	1.96
-1	4.58	3.47	1.06	5.39	3.66	1.24	6.21	3.85	1.42	7.22	4.09	1.65	7.83	4.24	1.78	8.26	5.10	1.86	8.86	6.29	1.98
4	4.92	3.73	1.20	5.64	3.89	1.35	6.36	4.05	1.51	7.26	4.25	1.70	7.80	4.37	1.81	8.22	5.12	1.89	8.81	6.17	2.00
10	5.26	3.99	1.35	5.88	4.12	1.47	6.51	4.25	1.59	7.29	4.41	1.75	7.76	4.50	1.84	8.18	5.15	1.92	8.77	6.05	2.03
16	5.60	4.25	1.49	6.13	4.34	1.58	6.66	4.44	1.68	7.32	4.56	1.80	7.72	4.64	1.87	8.14	5.18	1.95	8.73	5.94	2.06
20	5.52	4.18	1.61	6.00	4.32	1.70	6.49	4.45	1.79	7.10	4.61	1.89	7.47	4.71	1.96	7.89	5.21	2.04	8.47	5.90	2.15
25	5.42	4.12	1.75	5.86	4.28	1.83	6.30	4.45	1.91	6.85	4.66	2.01	7.18	4.79	2.07	7.60	5.24	2.14	8.18	5.85	2.25
30	5.33	4.05	1.88	5.72	4.25	1.96	6.11	4.46	2.03	6.60	4.72	2.12	6.89	4.87	2.17	7.31	5.26	2.25	7.89	5.81	2.35
35	5.24	3.98	2.02	5.58	4.22	2.09	5.92	4.46	2.15	6.35	4.77	2.23	6.60	4.95	2.28	7.02	5.29	2.35	7.60	5.76	2.45
41	4.97	3.77	2.08	5.32	4.03	2.15	5.68	4.30	2.22	6.13	4.63	2.30	6.39	4.83	2.35	6.78	5.14	2.42	7.32	5.55	2.52
46	4.67	3.54	2.13	5.03	3.81	2.20	5.38	4.08	2.27	5.82	4.42	2.35	6.09	4.62	2.41	6.46	4.90	2.48	6.96	5.28	2.58
48	4.55	3.45	2.15	4.90	3.72	2.22	5.25	3.98	2.29	5.68	4.32	2.37	5.94	4.51	2.42	6.30	4.78	2.50	6.80	5.16	2.60

#### Symbol

DB : Dry Bulb Temperature	[°C]
WB : Wet Bulb Temperature	[°C]
TC : Total Capacity	[kW]
SHC : Sensible Heating Capacity	[kW]
PI : Power Input	[kW]
(Comp.+ Indoor Fan Motor + Outdoor Fan Motor)	

#### Note

1. All capacities are net, evaporator fan motor heat is deducted.
2. Direct interpolation is permissible. Do not extrapolate.
3. Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.

# Inverter Single

## 8. Capacity Tables

### 8.2 Rated Heating Capacity

Model : D09RN (AS-W096J1R1)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-14	-15	1.91	0.55	1.85	0.54	1.84	0.54	1.82	0.54	1.80	0.54	1.77	0.53	1.73	0.53
-9	-10	2.06	0.57	2.00	0.56	1.98	0.56	1.96	0.56	1.94	0.56	1.90	0.55	1.86	0.55
-4	-5	2.31	0.61	2.24	0.60	2.21	0.60	2.19	0.60	2.17	0.60	2.13	0.59	2.08	0.59
2	1	2.93	0.68	2.84	0.67	2.81	0.67	2.78	0.66	2.76	0.66	2.70	0.66	2.64	0.66
7	6	3.33	0.72	3.23	0.71	3.20	0.71	3.17	0.70	3.14	0.70	3.08	0.70	3.01	0.70
12	10	3.46	0.74	3.35	0.73	3.32	0.73	3.29	0.72	3.26	0.72	3.20	0.71	3.12	0.71
18	14	3.61	0.76	3.50	0.75	3.47	0.75	3.43	0.74	3.41	0.74	3.34	0.74	3.26	0.74
24	18	3.73	0.78	3.62	0.77	3.58	0.77	3.55	0.76	3.52	0.76	3.45	0.76	3.37	0.76

Model : D12RN (AS-W126J1R1)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-14	-15	2.39	0.75	2.32	0.75	2.30	0.75	2.27	0.74	2.25	0.74	2.21	0.73	2.16	0.73
-9	-10	2.58	0.79	2.50	0.78	2.47	0.78	2.45	0.77	2.43	0.77	2.38	0.76	2.32	0.76
-4	-5	2.88	0.84	2.79	0.83	2.77	0.83	2.74	0.82	2.72	0.82	2.66	0.81	2.60	0.81
2	1	3.66	0.93	3.55	0.92	3.51	0.92	3.48	0.91	3.45	0.91	3.38	0.90	3.30	0.90
7	6	4.17	0.99	4.04	0.98	4.00	0.98	3.96	0.97	3.93	0.97	3.85	0.96	3.76	0.96
12	10	4.32	1.01	4.19	1.00	4.15	1.00	4.11	0.99	4.08	0.99	4.00	0.98	3.90	0.98
18	14	4.52	1.04	4.38	1.03	4.34	1.03	4.29	1.02	4.26	1.02	4.17	1.01	4.08	1.01
24	18	4.67	1.07	4.53	1.06	4.48	1.06	4.44	1.05	4.40	1.05	4.31	1.04	4.21	1.04

#### Symbol

DB : Dry Bulb Temperature [°C]  
 WB : Wet Bulb Temperature [°C]  
 TC : Total Capacity [kW]  
 PI : Power Input [kW]  
 (Comp.+ Indoor Fan Motor + Outdoor Fan Motor)

#### Note

- All capacities are net, evaporator fan motor heat is deducted.
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.

### Model : D18RN (AS-W186K1R1)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-9	-10	3.73	1.29	3.62	1.28	3.58	1.28	3.55	1.26	3.52	1.26	3.45	1.25	3.37	1.25
-4	-5	4.18	1.38	4.05	1.37	4.01	1.37	3.97	1.35	3.94	1.35	3.86	1.34	3.77	1.34
2	1	5.30	1.53	5.14	1.51	5.09	1.51	5.04	1.50	5.00	1.50	4.90	1.48	4.79	1.48
7	6	6.04	1.63	5.86	1.61	5.80	1.61	5.74	1.59	5.70	1.59	5.58	1.58	5.45	1.58
12	10	6.27	1.66	6.08	1.65	6.02	1.65	5.96	1.63	5.91	1.63	5.80	1.62	5.66	1.62
18	14	6.55	1.71	6.35	1.70	6.29	1.70	6.22	1.68	6.18	1.68	6.05	1.66	5.91	1.66
24	18	6.77	1.76	6.56	1.75	6.50	1.75	6.43	1.73	6.38	1.73	6.25	1.71	6.11	1.71

### Model : D24RN (AS-W246K1R1)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-9	-10	4.83	1.79	4.68	1.78	4.63	1.78	4.59	1.76	4.55	1.76	4.46	1.74	4.36	1.74
-4	-5	5.40	1.92	5.24	1.90	5.19	1.90	5.14	1.88	5.10	1.88	4.99	1.86	4.88	1.86
2	1	6.86	2.13	6.65	2.11	6.58	2.11	6.52	2.08	6.47	2.08	6.34	2.06	6.19	2.06
7	6	7.81	2.26	7.58	2.24	7.50	2.24	7.43	2.22	7.37	2.22	7.22	2.20	7.05	2.20
12	10	8.11	2.32	7.86	2.29	7.78	2.29	7.71	2.27	7.65	2.27	7.49	2.25	7.32	2.25
18	14	8.47	2.38	8.21	2.36	8.13	2.36	8.05	2.34	7.99	2.34	7.83	2.31	7.64	2.31
24	18	8.75	2.45	8.49	2.43	8.40	2.43	8.32	2.41	8.25	2.41	8.09	2.38	7.89	2.38

#### Symbol

DB : Dry Bulb Temperature [°C]  
 WB : Wet Bulb Temperature [°C]  
 TC : Total Capacity [kW]  
 PI : Power Input [kW]  
 (Comp.+ Indoor Fan Motor + Outdoor Fan Motor)

#### Note

1. All capacities are net, evaporator fan motor heat is deducted.
2. Direct interpolation is permissible. Do not extrapolate.
3. Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.

# Inverter Single

## 8. Capacity Tables

### Model : P09EN (US-W096J3A0)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-9	-10	2.06	0.67	2.00	0.67	1.98	0.67	1.96	0.66	1.94	0.66	1.90	0.65	1.86	0.65
-4	-5	2.31	0.72	2.24	0.71	2.21	0.71	2.19	0.71	2.17	0.71	2.13	0.70	2.08	0.70
2	1	2.93	0.80	2.84	0.79	2.81	0.79	2.78	0.78	2.76	0.78	2.70	0.77	2.64	0.77
7	6	3.33	0.85	3.23	0.84	3.20	0.84	3.17	0.83	3.14	0.83	3.08	0.82	3.01	0.82
12	10	3.46	0.87	3.35	0.86	3.32	0.86	3.29	0.85	3.26	0.85	3.20	0.84	3.12	0.84
18	14	3.61	0.89	3.50	0.89	3.47	0.89	3.43	0.88	3.41	0.88	3.34	0.87	3.26	0.87
24	18	3.73	0.92	3.62	0.91	3.58	0.91	3.55	0.90	3.52	0.90	3.45	0.89	3.37	0.89

### Model : P12EN (US-W126J3A0)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-9	-10	2.45	0.80	2.37	0.79	2.35	0.79	2.32	0.79	2.31	0.79	2.26	0.78	2.21	0.78
-4	-5	2.74	0.86	2.65	0.85	2.63	0.85	2.60	0.84	2.58	0.84	2.53	0.83	2.47	0.83
2	1	3.48	0.95	3.37	0.94	3.34	0.94	3.30	0.93	3.28	0.93	3.21	0.92	3.14	0.92
7	6	3.96	1.01	3.84	1.00	3.80	1.00	3.76	0.99	3.73	0.99	3.66	0.98	3.57	0.98
12	10	4.11	1.03	3.98	1.02	3.94	1.02	3.90	1.01	3.87	1.01	3.80	1.00	3.71	1.00
18	14	4.29	1.06	4.16	1.05	4.12	1.05	4.08	1.04	4.05	1.04	3.97	1.03	3.87	1.03
24	18	4.43	1.10	4.30	1.08	4.26	1.08	4.21	1.07	4.18	1.07	4.10	1.06	4.00	1.06

**Symbol**

DB : Dry Bulb Temperature [°C]  
 WB : Wet Bulb Temperature [°C]  
 TC : Total Capacity [kW]  
 PI : Power Input [kW]  
 (Comp.+ Indoor Fan Motor + Outdoor Fan Motor)

**Note**

1. All capacities are net, evaporator fan motor heat is deducted.
2. Direct interpolation is permissible. Do not extrapolate.
3. Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.



# Inverter Single

## 8. Capacity Tables

### Model : P18EN (US-W186K3A0)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-9	-10	3.73	1.29	3.62	1.28	3.58	1.28	3.55	1.26	3.52	1.26	3.45	1.25	3.37	1.25
-4	-5	4.18	1.38	4.05	1.37	4.01	1.37	3.97	1.35	3.94	1.35	3.86	1.34	3.77	1.34
2	1	5.30	1.53	5.14	1.51	5.09	1.51	5.04	1.50	5.00	1.50	4.90	1.48	4.79	1.48
7	6	6.04	1.63	5.86	1.61	5.80	1.61	5.74	1.59	5.70	1.59	5.58	1.58	5.45	1.58
12	10	6.27	1.66	6.08	1.65	6.02	1.65	5.96	1.63	5.91	1.63	5.80	1.62	5.66	1.62
18	14	6.55	1.71	6.35	1.70	6.29	1.70	6.22	1.68	6.18	1.68	6.05	1.66	5.91	1.66
24	18	6.77	1.76	6.56	1.75	6.50	1.75	6.43	1.73	6.38	1.73	6.25	1.71	6.11	1.71

### Model : P24EN (US-W246K3A0)

Outdoor Air Temperature		Indoor Air Temperature : °C DB													
		16		18		20		21		22		24		30	
°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-9	-10	4.83	1.85	4.68	1.83	4.63	1.83	4.59	1.81	4.55	1.81	4.46	1.80	4.36	1.80
-4	-5	5.40	1.98	5.24	1.96	5.19	1.96	5.14	1.94	5.10	1.94	4.99	1.92	4.88	1.92
2	1	6.86	2.19	6.65	2.17	6.58	2.17	6.52	2.15	6.47	2.15	6.34	2.13	6.19	2.13
7	6	7.81	2.33	7.58	2.31	7.50	2.31	7.43	2.29	7.37	2.29	7.22	2.26	7.05	2.26
12	10	8.11	2.39	7.86	2.36	7.78	2.36	7.71	2.34	7.65	2.34	7.49	2.32	7.32	2.32
18	14	8.47	2.46	8.21	2.43	8.13	2.43	8.05	2.41	7.99	2.41	7.83	2.39	7.64	2.39
24	18	8.75	2.53	8.49	2.51	8.40	2.51	8.32	2.48	8.25	2.48	8.09	2.46	7.89	2.46

#### Symbol

DB : Dry Bulb Temperature [°C]  
 WB : Wet Bulb Temperature [°C]  
 TC : Total Capacity [kW]  
 PI : Power Input [kW]  
 (Comp.+ Indoor Fan Motor + Outdoor Fan Motor)

#### Note

- All capacities are net, evaporator fan motor heat is deducted.
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions :
  - Interconnecting Piping Length 7.5 m
  - Level Difference of Zero.

# Inverter Single

## 9. Capacity Coefficient Factor

### 9.1 Capacity Change Rate (%)

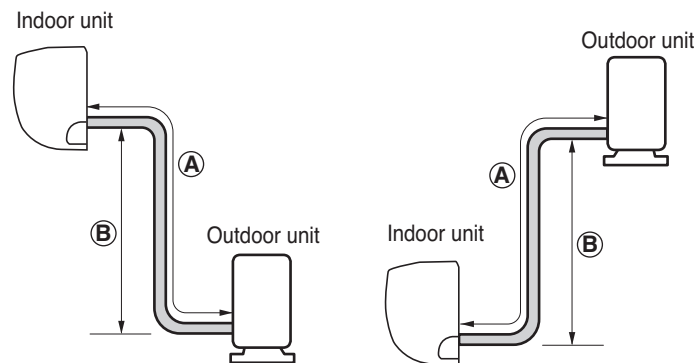
Model		Main Pipe Length										
Indoor Unit	Outdoor Unit	m	7.5	10	15	20	25	30	35	40	45	50
		ft.	24.6	32.8	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0
D09RN.NSJ (ASNW096J1R1)	D09RN.UL2 (ASUW096J1R1)	Cooling	100	99.0	96.9	94.8	-	-	-	-	-	-
		Heating	100	99.0	97.0	95.0	-	-	-	-	-	-
D12RN.NSJ (ASNW126J1R1)	D12RN.UL2 (ASUW126J1R1)	Cooling	100	99.0	96.9	94.8	-	-	-	-	-	-
		Heating	100	99.0	97.0	95.0	-	-	-	-	-	-
D18RN.NSK (ASNW186K1R1)	D18RN.UL2 (ASUW186K1R1)	Cooling	100	98.8	96.4	94.0	-	-	-	-	-	-
		Heating	100	99.2	97.6	96.0	-	-	-	-	-	-
D24RN.NSK (ASNW246K1R1)	D24RN.UUE (ASUW246K1R1)	Cooling	100	99.3	98.0	96.7	95.3	94.0	-	-	-	-
		Heating	100	99.6	98.7	97.8	96.9	96.0	-	-	-	-
P09EN.NSJ (USNW096J3A0)	P09EN.UA3 (USUW096J3A0)	Cooling	100	98.3	94.8	-	-	-	-	-	-	-
		Heating	100	98.3	95.0	-	-	-	-	-	-	-
P12EN.NSJ (USNW126J3A0)	P12EN.UA3 (USUW126J3A0)	Cooling	100	98.3	94.8	-	-	-	-	-	-	-
		Heating	100	98.3	95.0	-	-	-	-	-	-	-
P18EN.NSK (USNW186K3A0)	P18EN.UL2 (USUW186K3A0)	Cooling	100	98.8	96.4	94.0	-	-	-	-	-	-
		Heating	100	99.2	97.6	96.0	-	-	-	-	-	-
P24EN.NSK (USNW246K3A0)	P24EN.UUE (USUW246K3A0)	Cooling	100	99.3	98.0	96.7	95.3	94.0	-	-	-	-
		Heating	100	99.6	98.7	97.8	96.9	96.0	-	-	-	-

# Inverter Single

## 9. Capacity Coefficient Factor

### 9.2 Pipe Size, Length and Elevation

Model		Pipe Size				Standard Length (m)	Max. Pipe Length (A) (m)	Max. Elevation (B) (m)	Additional Refrigerant (g/m)	No Charge Pipe Length (m)
Indoor Unit	Outdoor Unit	GAS		LIQUID						
		mm	inch	mm	inch					
D09RN.NSJ (ASNW096J1R1)	D09RN.UL2 (ASUW096J1R1)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	7.5	20	10	20	7.5
D12RN.NSJ (ASNW126J1R1)	D12RN.UL2 (ASUW126J1R1)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	7.5	20	10	20	7.5
D18RN.NSK (ASNW186K1R1)	D18RN.UL2 (ASUW186K1R1)	Ø 12.7	Ø 1/2	Ø 6.35	Ø 1/4	7.5	20	10	20	7.5
D24RN.NSK (ASNW246K1R1)	D24RN.UUE (ASUW246K1R1)	Ø 15.88	Ø 5/8	Ø 6.35	Ø 1/4	7.5	30	15	30	7.5
P09EN.NSJ (USNW096J3A0)	P09EN.UA3 (USUW096J3A0)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	7.5	15	7	20	7.5
P12EN.NSJ (USNW126J3A0)	P12EN.UA3 (USUW126J3A0)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	7.5	15	7	20	7.5
P18EN.NSK (USNW186K3A0)	P18EN.UL2 (USUW186K3A0)	Ø 12.7	Ø 1/2	Ø 6.35	Ø 1/4	7.5	20	10	20	7.5
P24EN.NSK (USNW246K3A0)	P24EN.UUE (USUW246K3A0)	Ø 15.88	Ø 5/8	Ø 6.35	Ø 1/4	7.5	30	15	30	7.5



# Inverter Single

## 9. Capacity Coefficient Factor

### 9.3 Additional Refrigerant Charge

Model		Refrigerant Pipe Length											
Indoor Unit	Outdoor Unit	m	7.5	10	12.5	15	20	25	30	35	40	45	50
		ft.	24.6	32.8	41.0	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0
D09RN.NSJ (ASNW096J1R1)	D09RN.UL2 (ASUW096J1R1)	Additional Charge (g)	0	50	100	150	250	-	-	-	-	-	-
D12RN.NSJ (ASNW126J1R1)	D12RN.UL2 (ASUW126J1R1)		0	50	100	150	250	-	-	-	-	-	-
D18RN.NSK (ASNW186K1R1)	D18RN.UL2 (ASUW186K1R1)		0	50	100	150	250	-	-	-	-	-	-
D24RN.NSK (ASNW246K1R1)	D24RN.UUE (ASUW246K1R1)		0	75	150	225	375	525	675	-	-	-	-
P09EN.NSJ (USNW096J3A0)	P09EN.UA3 (USUW096J3A0)		0	50	100	150	-	-	-	-	-	-	-
P12EN.NSJ (USNW126J3A0)	P12EN.UA3 (USUW126J3A0)		0	50	100	150	-	-	-	-	-	-	-
P18EN.NSK (USNW186K3A0)	P18EN.UL2 (USUW186K3A0)		0	50	100	150	250	-	-	-	-	-	-
P24EN.NSK (USNW246K3A0)	P24EN.UUE (USUW246K3A0)		0	75	150	225	375	525	675	-	-	-	-

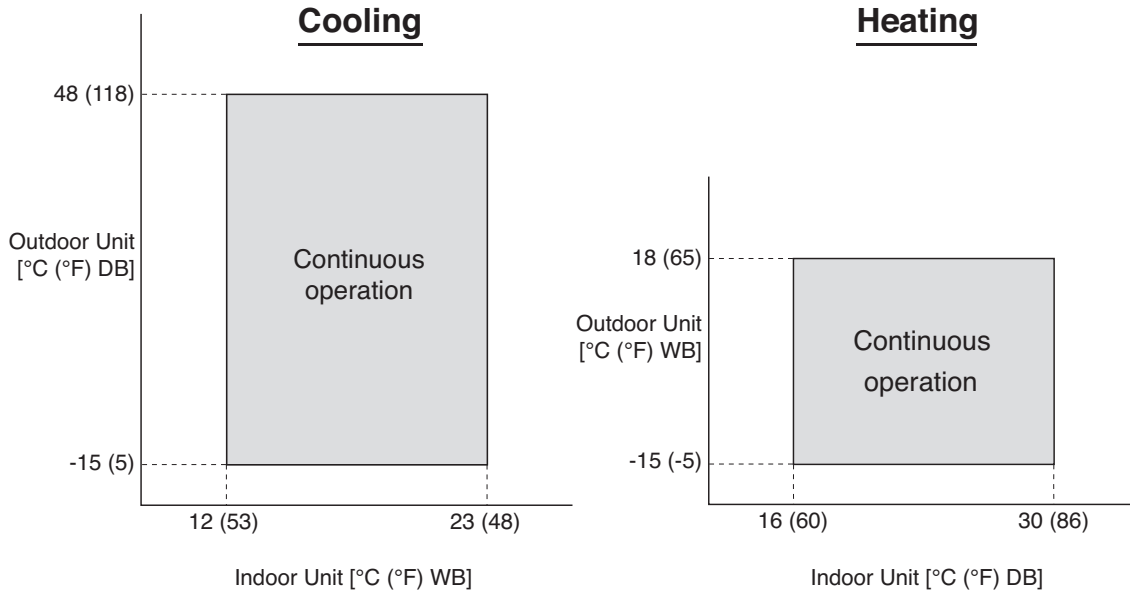
**Note**

- Capacity is based on standard length and maximum allowance length is on the basis of reliability.
- Equivalent pipe length = actual pipe length + number of bends x 0.3
- Calculation :  $X \text{ g} = [ (\text{Refrigerant Pipe Length}) - (\text{No Charge Pipe Length}) ] \times (\text{Additional Refrigerant})$
- There is no need to charge till no charge length based on reliability.

# Inverter Single

## 10. Operation Range

Model : D09RN (AS-W096J1R1), D12RN (AS-W126J1R1)

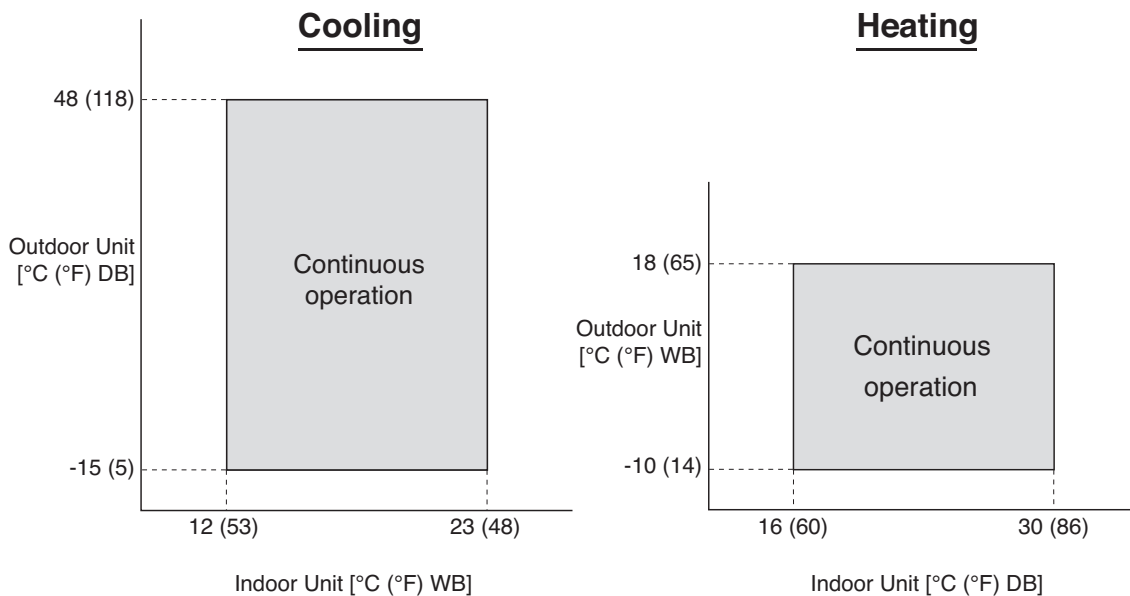


### Note

The figures are based on the following conditions :

- Equivalent Piping Length : 7.5 m (24.6 ft.)
- Level Difference : 0 m (0 ft.)

Model : D18RN (AS-W186K1R1), D24RN (AS-W246K1R1), P18EN (US-W186K3A0), P24EN (US-W246K3A0)



### Note

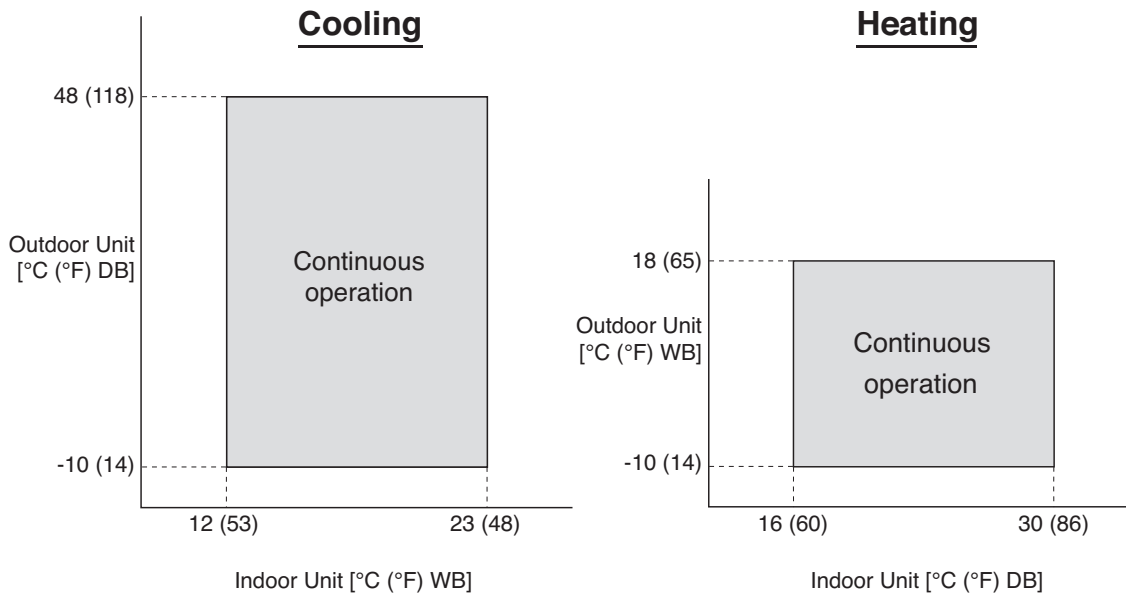
The figures are based on the following conditions :

- Equivalent Piping Length : 7.5 m (24.6 ft.)
- Level Difference : 0 m (0 ft.)

# Inverter Single

## 10. Operation Range

Model : P09EN (US-W096J3A0), P12EN (US-W126J3A0)



**Note**

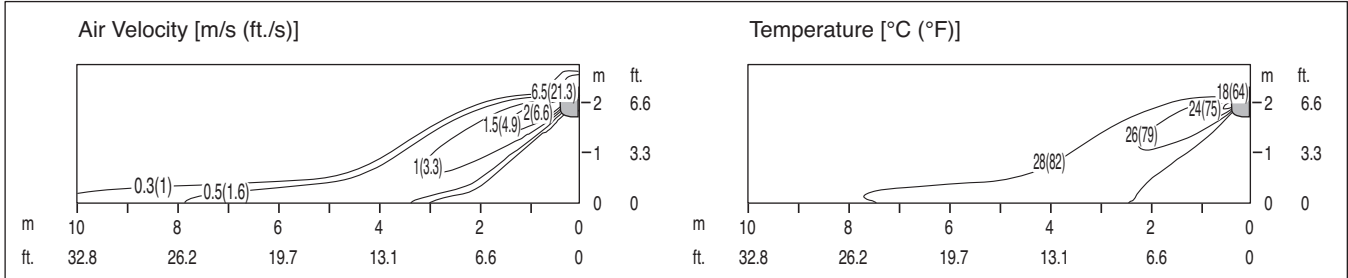
- The figures are based on the following conditions :
- Equivalent Piping Length : 7.5 m (24.6 ft.)
  - Level Difference : 0 m (0 ft.)

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : D09RN (AS-W096J1R1)

### Cooling

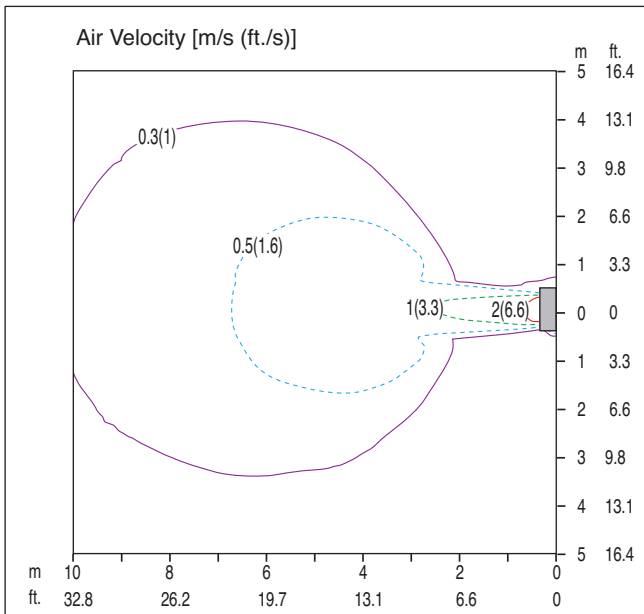


### Side View

Discharge Angle : 35° (From the floor ▾ )

Vertical Louver : Center

Fan Speed : Power



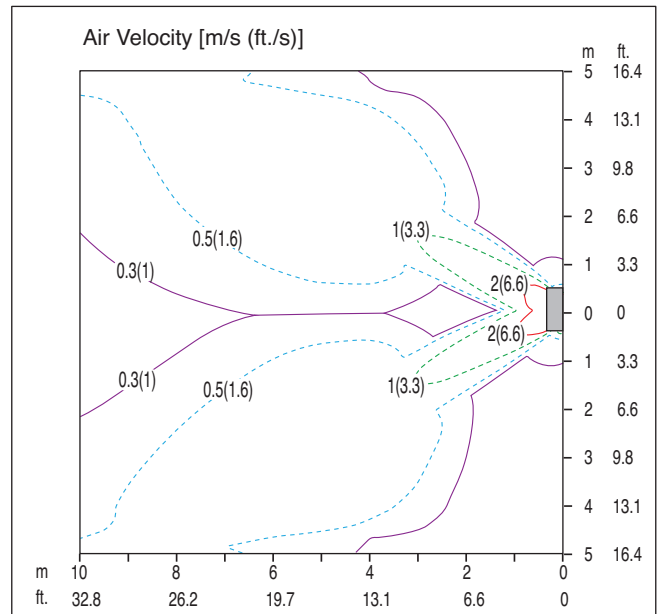
### Top View

Discharge Angle : 35° (From the wall ▾ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 10.4 m (34.1 ft.)



### Top View

Discharge Angle : 35° (From the wall ▾ )

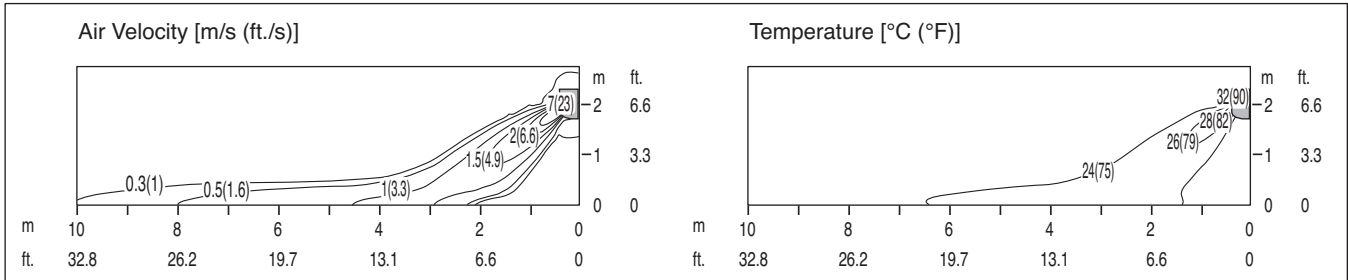
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

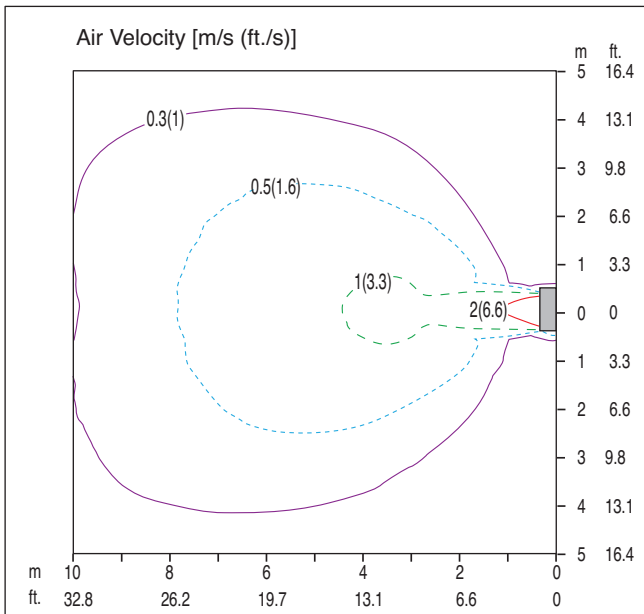
## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating



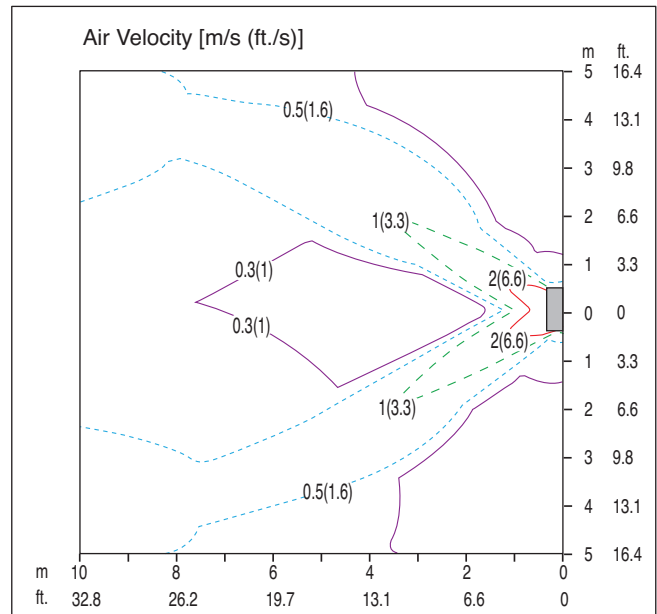
#### Side View

Discharge Angle : 55° (From the floor ▾ )  
 Vertical Louver : Center  
 Fan Speed : Power



#### Top View

Discharge Angle : 55° (From the wall ▾ )  
 Vertical Louver : Center  
 Fan Speed : Power  
 Air speed 0.3 m/s (1 ft./s) Range : 10.2 m (33.5 ft.)



#### Top View

Discharge Angle : 55° (From the wall ▾ )  
 Vertical Louver : Left & Right  
 Fan Speed : Power

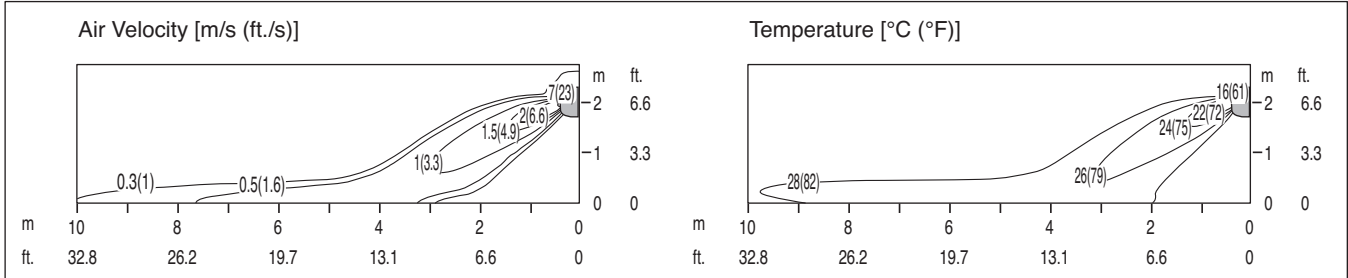


# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : D12RN (AS-W126J1R1)

### Cooling

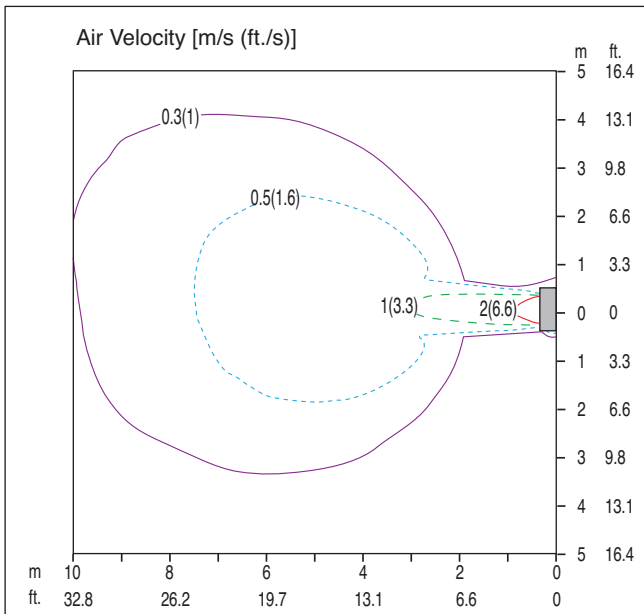


### Side View

Discharge Angle : 35° (From the floor ▾ )

Vertical Louver : Center

Fan Speed : Power



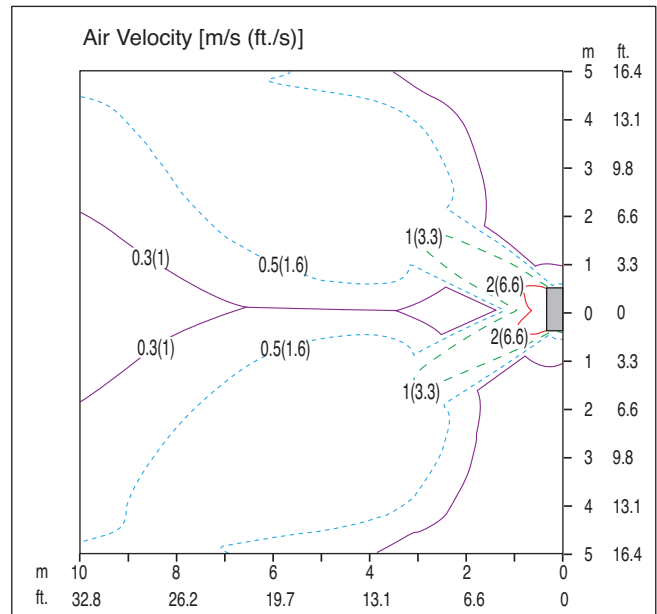
### Top View

Discharge Angle : 35° (From the wall ▾ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 10.2 m (33.5 ft.)



### Top View

Discharge Angle : 35° (From the wall ▾ )

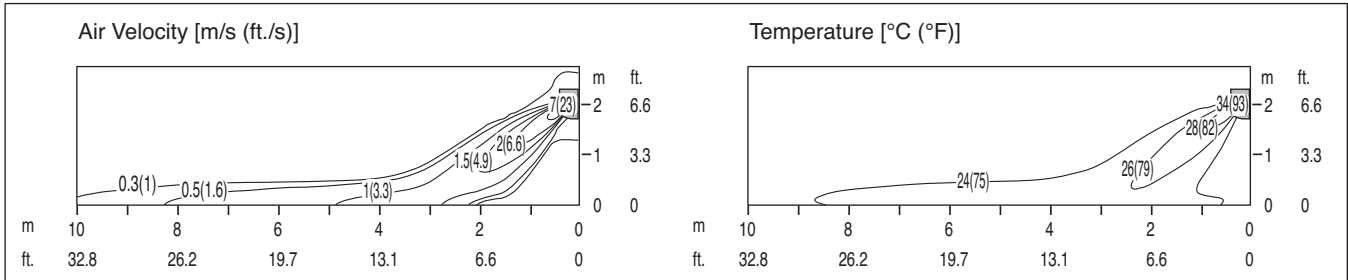
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating

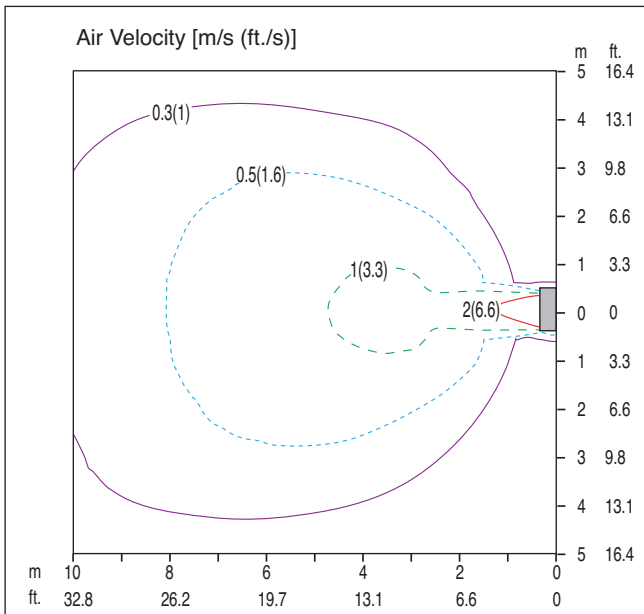


### Side View

Discharge Angle : 55° (From the floor ▼ )

Vertical Louver : Center

Fan Speed : Power



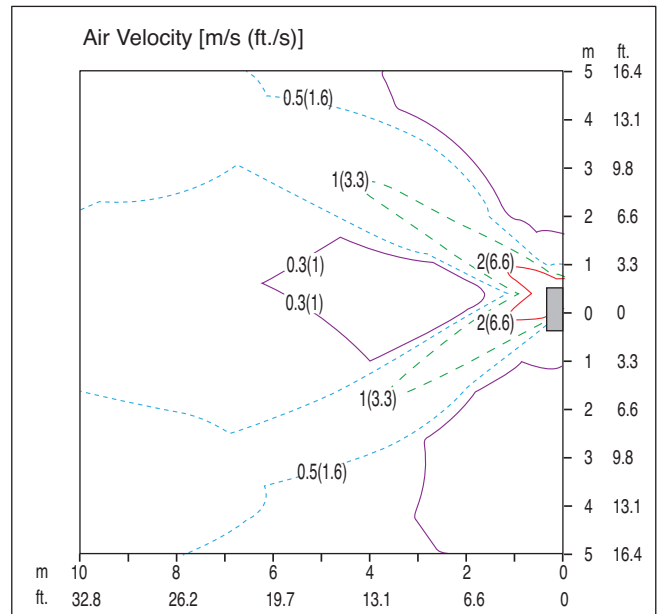
### Top View

Discharge Angle : 55° (From the wall ▼ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 10.5 m (34.4 ft.)



### Top View

Discharge Angle : 55° (From the wall ▼ )

Vertical Louver : Left & Right

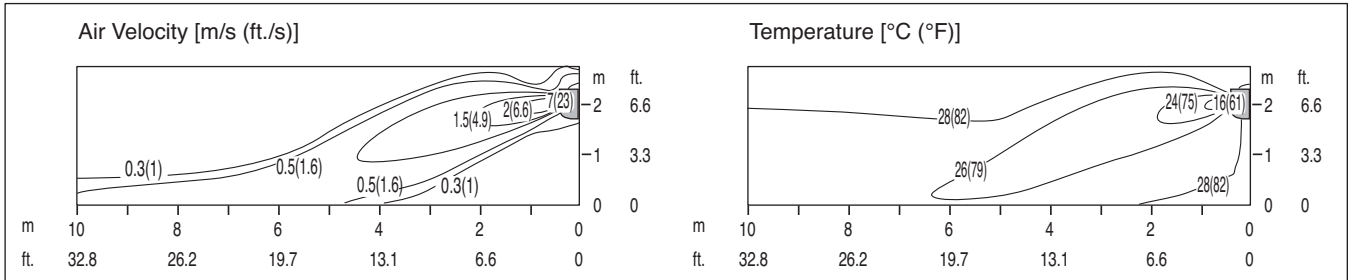
Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : D18RN (AS-W186K1R1)

### Cooling

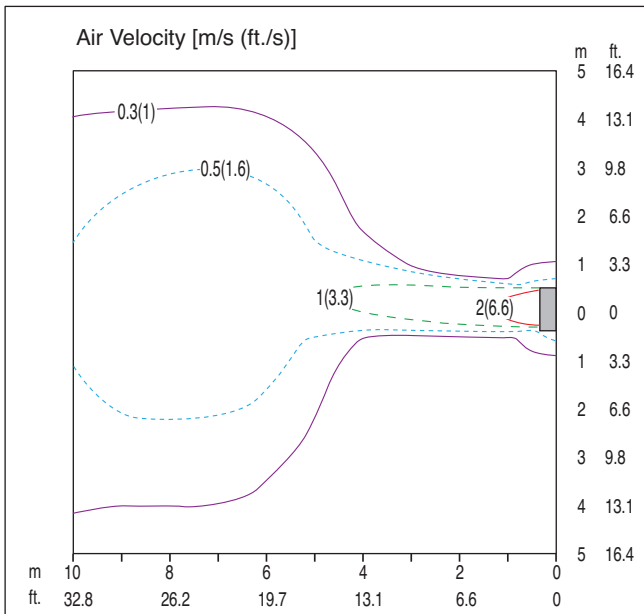


### Side View

Discharge Angle : 25° (From the floor ▼ )

Vertical Louver : Center

Fan Speed : Power



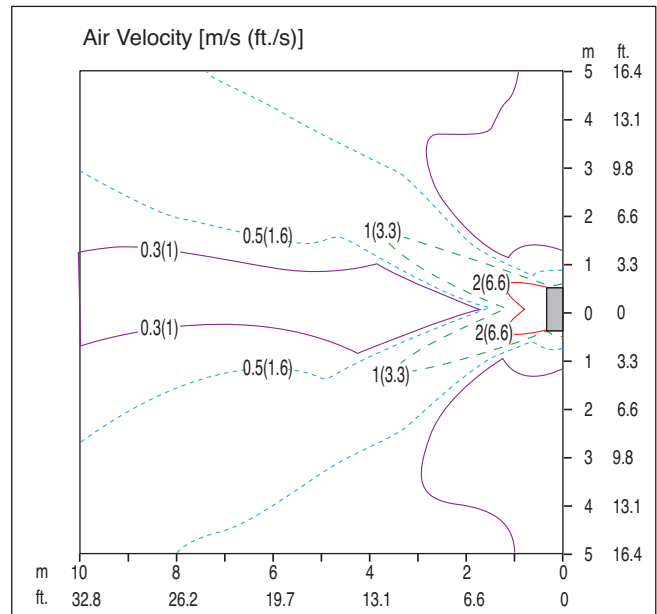
### Top View

Discharge Angle : 25° (From the wall ▼ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 13.6 m (44.6 ft.)



### Top View

Discharge Angle : 25° (From the wall ▼ )

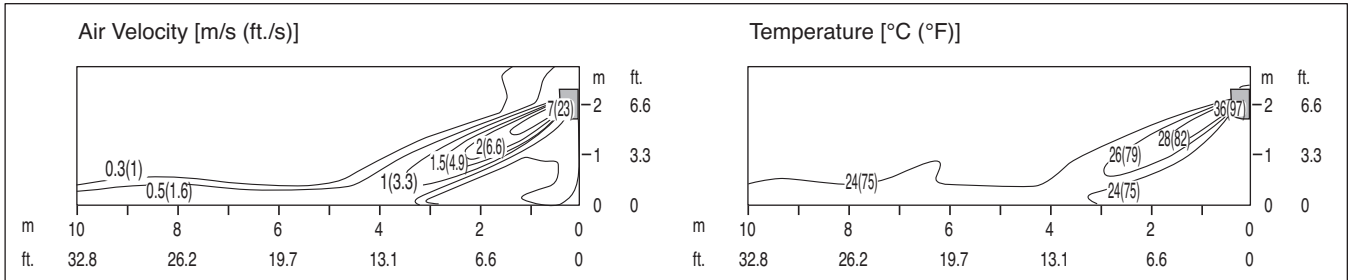
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating

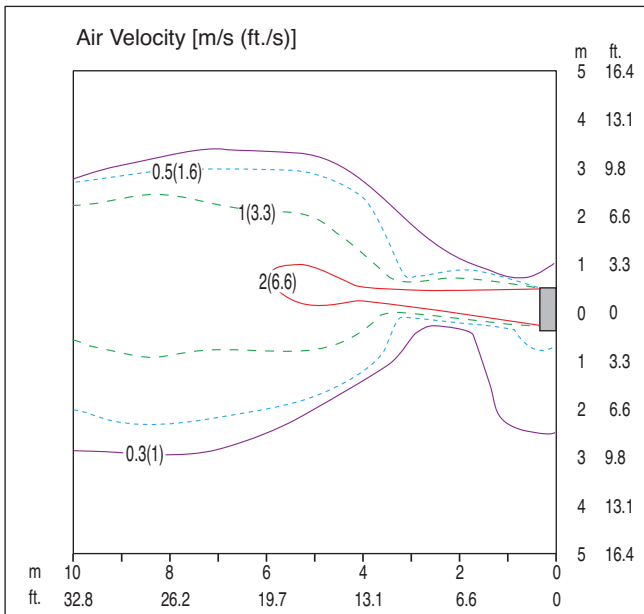


### Side View

Discharge Angle : 45° (From the floor ▼)

Vertical Louver : Center

Fan Speed : Power



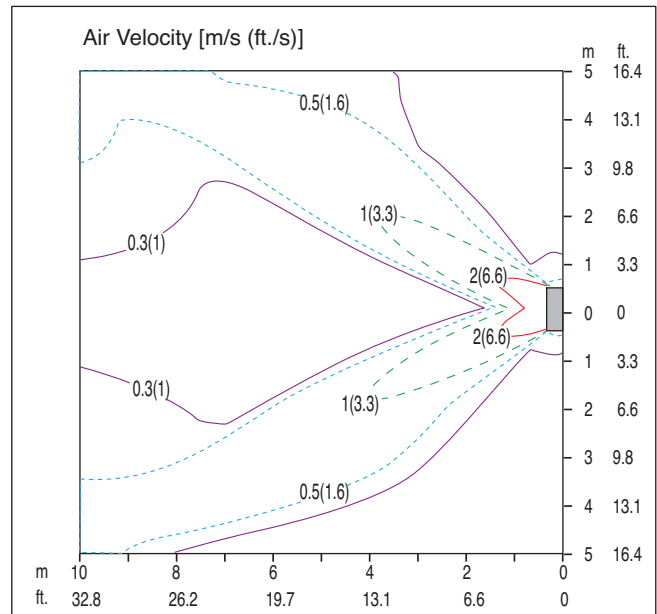
### Top View

Discharge Angle : 45° (From the wall ▼)

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 20.0 m (65.6 ft.)



### Top View

Discharge Angle : 45° (From the wall ▼)

Vertical Louver : Left & Right

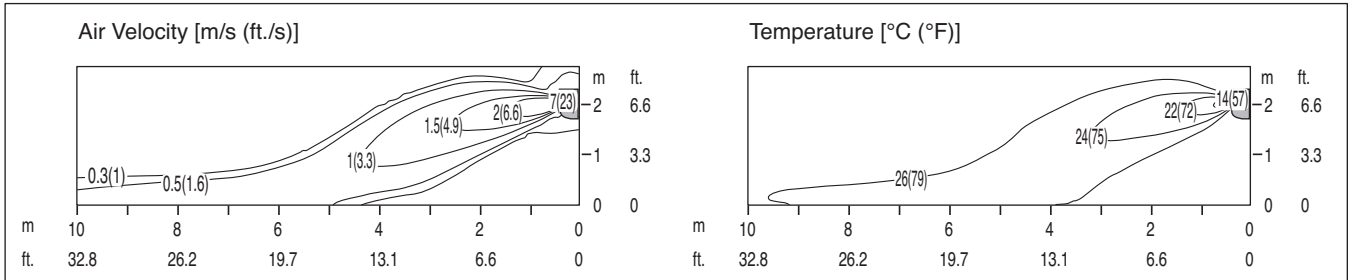
Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : D24RN (AS-W246K1R1)

### Cooling

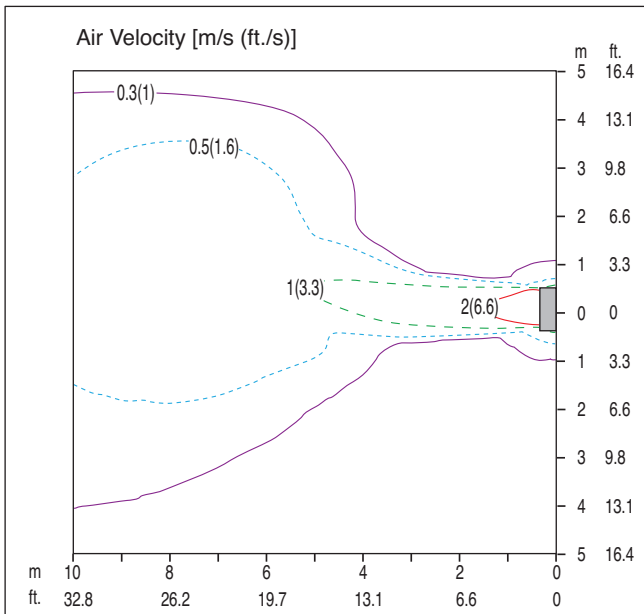


### Side View

Discharge Angle : 25° (From the floor ▾ )

Vertical Louver : Center

Fan Speed : Power



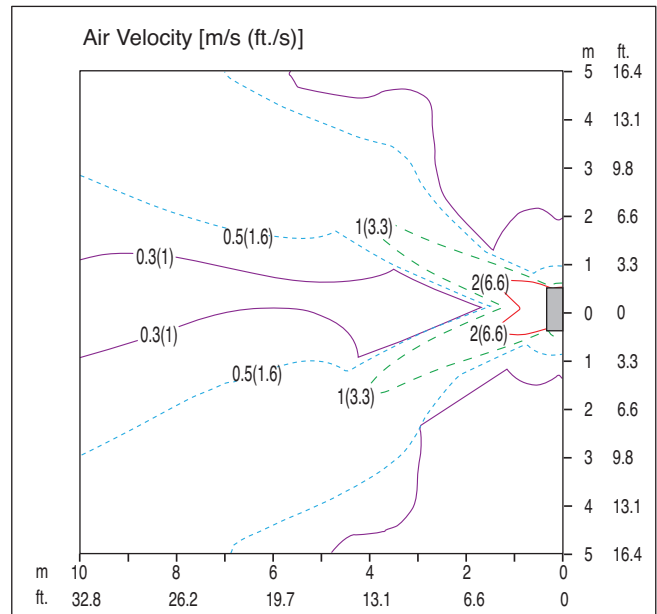
### Top View

Discharge Angle : 25° (From the wall ▾ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 14.6 m (47.9 ft.)



### Top View

Discharge Angle : 25° (From the wall ▾ )

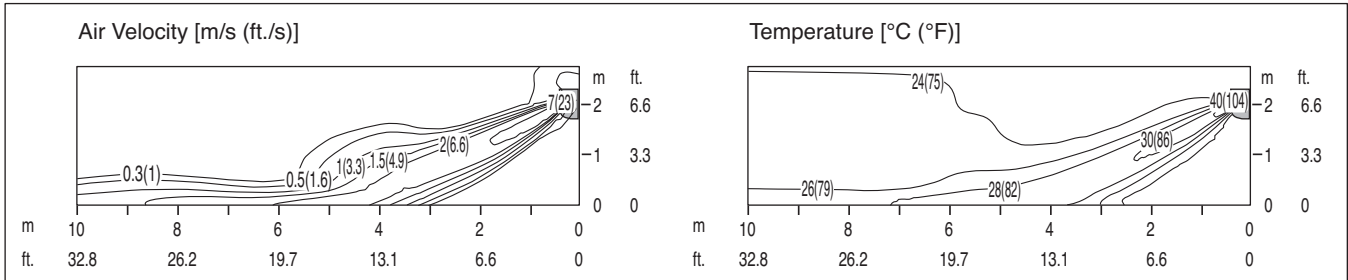
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating

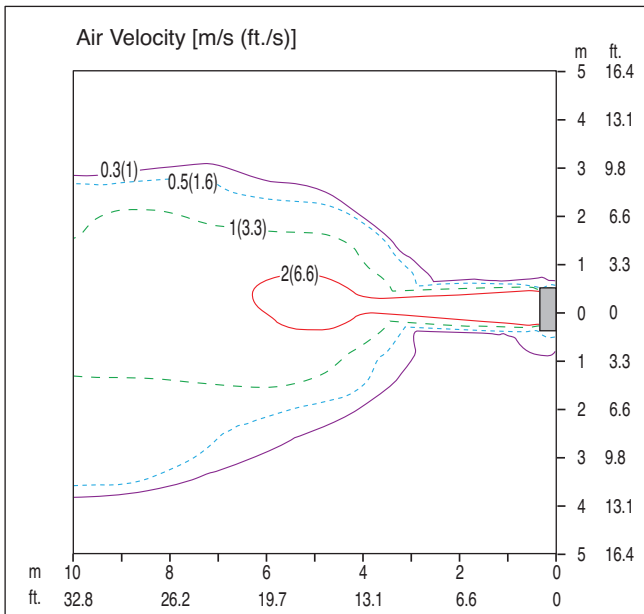


### Side View

Discharge Angle : 45° (From the floor ▼)

Vertical Louver : Center

Fan Speed : Power



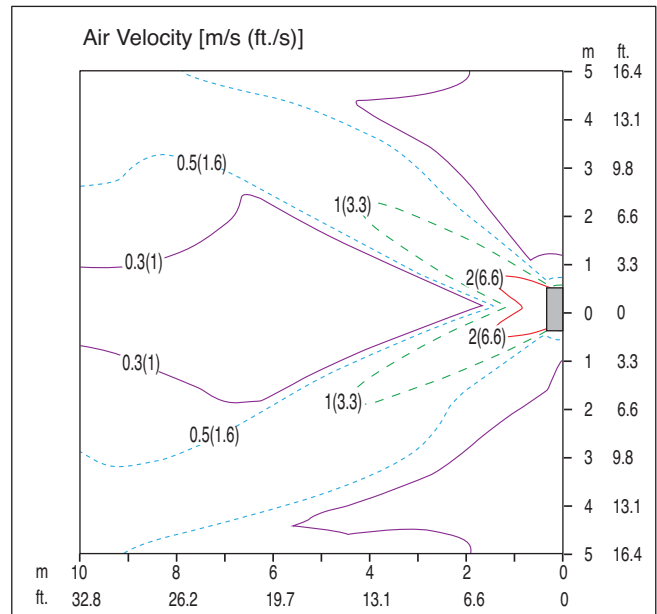
### Top View

Discharge Angle : 45° (From the wall ▼)

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 20.0 m (65.6 ft.)



### Top View

Discharge Angle : 45° (From the wall ▼)

Vertical Louver : Left & Right

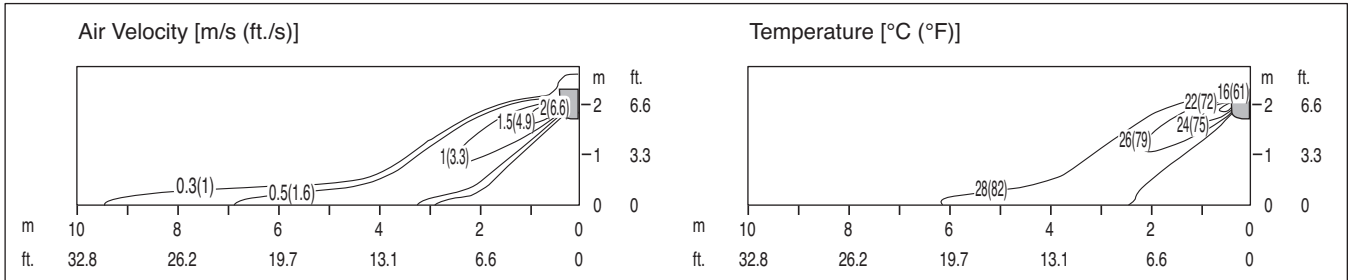
Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : P09EN (US-W096J3A0)

### Cooling

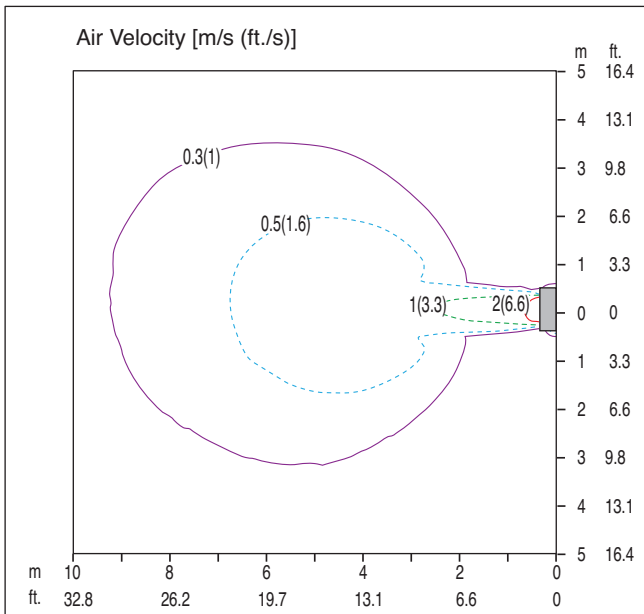


### Side View

Discharge Angle : 35° (From the floor ▼ )

Vertical Louver : Center

Fan Speed : Power



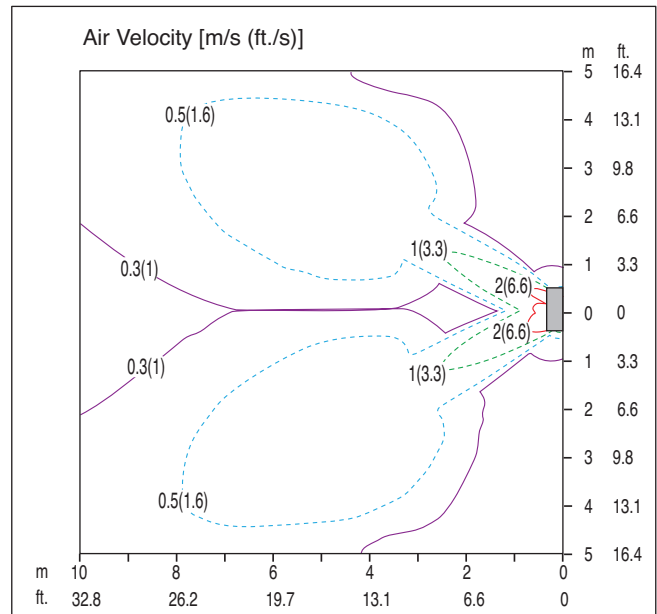
### Top View

Discharge Angle : 35° (From the wall ▼ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 9.3 m (30.5 ft.)



### Top View

Discharge Angle : 35° (From the wall ▼ )

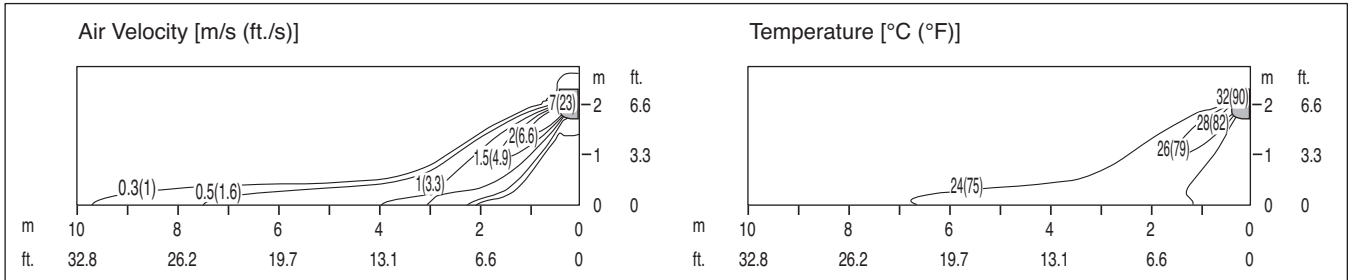
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating

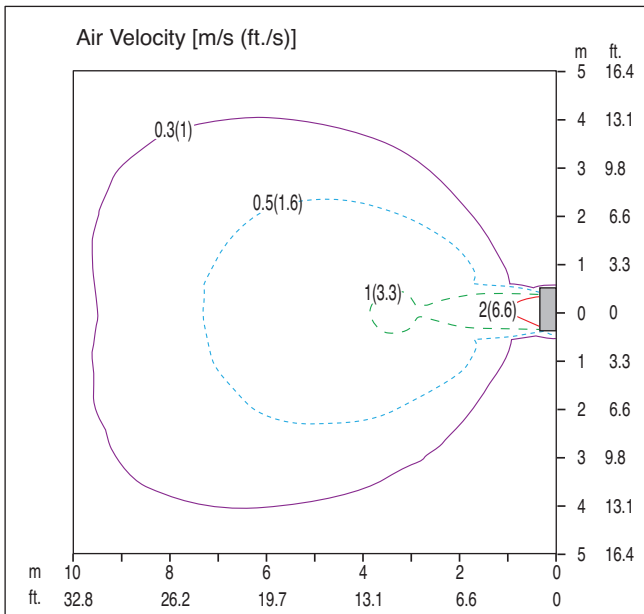


### Side View

Discharge Angle : 55° (From the floor ▼)

Vertical Louver : Center

Fan Speed : Power



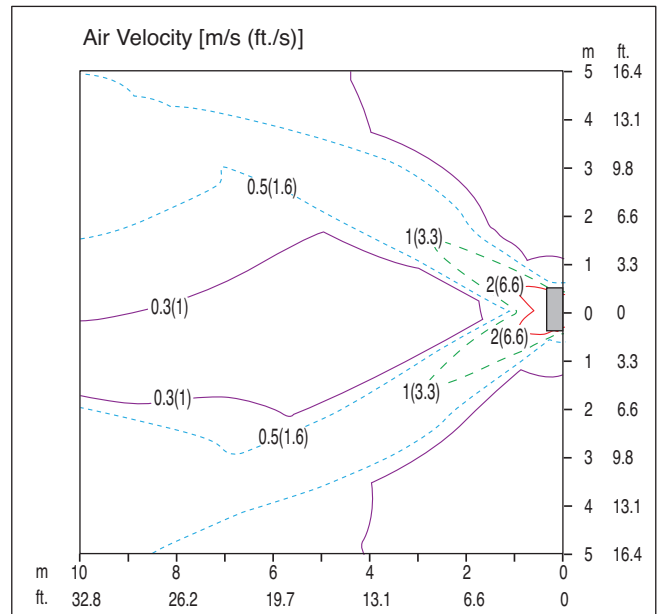
### Top View

Discharge Angle : 55° (From the wall ▼)

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 9.6 m (31.5 ft.)



### Top View

Discharge Angle : 55° (From the wall ▼)

Vertical Louver : Left & Right

Fan Speed : Power

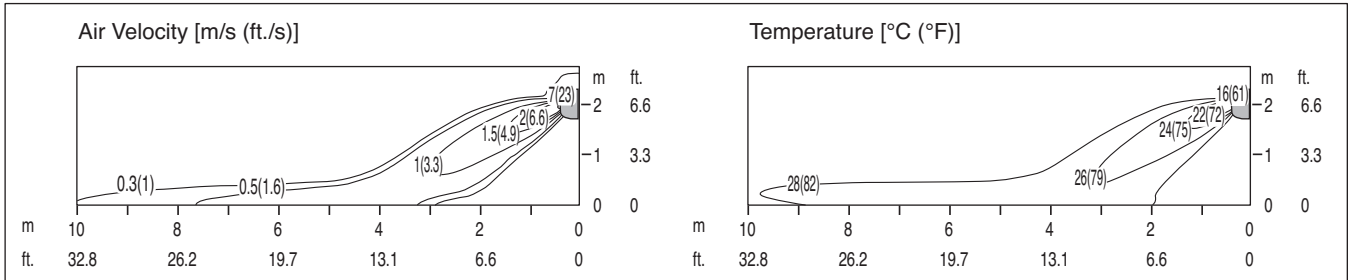


# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : P12EN (US-W126J3A0)

### Cooling

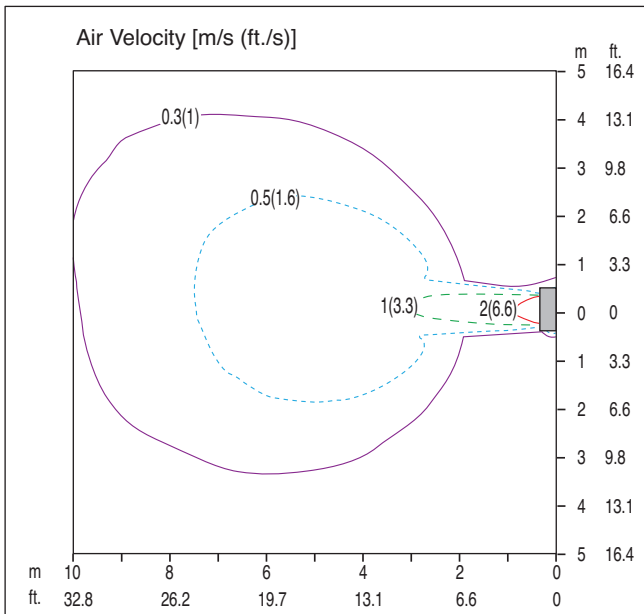


### Side View

Discharge Angle : 35° (From the floor ▾ )

Vertical Louver : Center

Fan Speed : Power



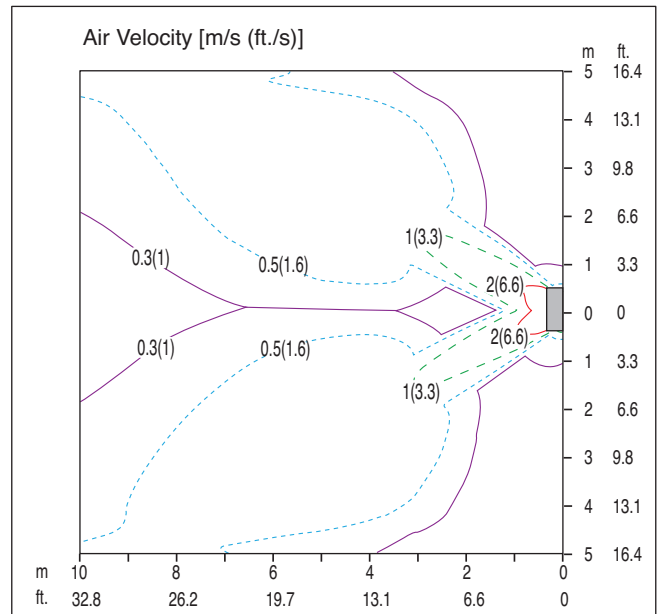
### Top View

Discharge Angle : 35° (From the wall ▾ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 10.2 m (33.5 ft.)



### Top View

Discharge Angle : 35° (From the wall ▾ )

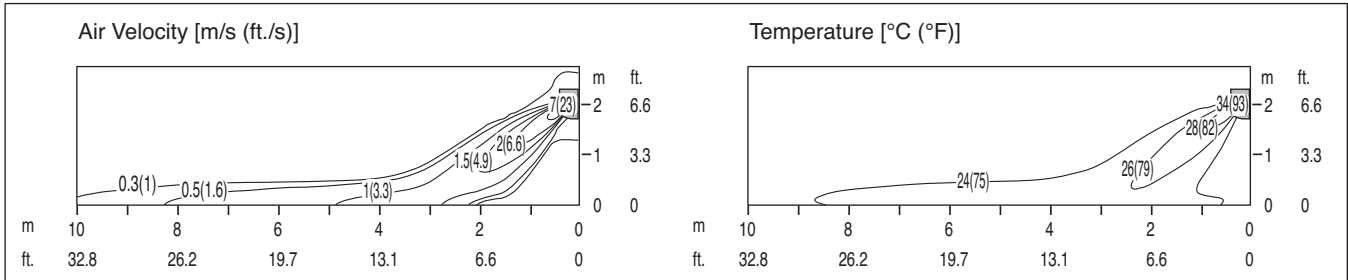
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

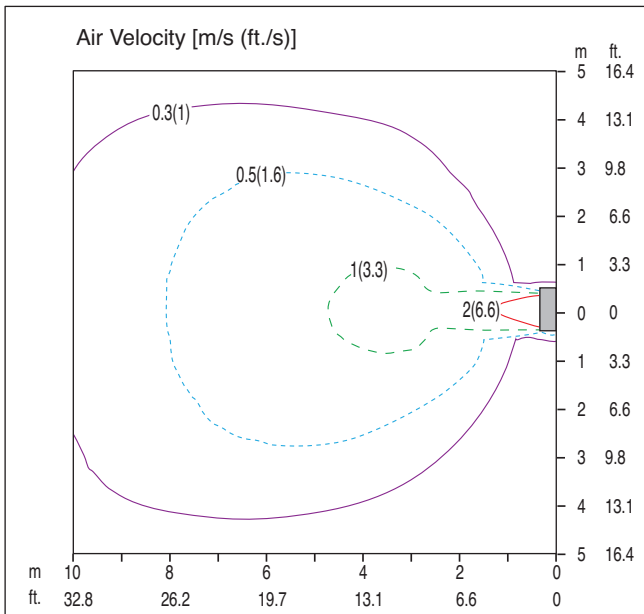
## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating



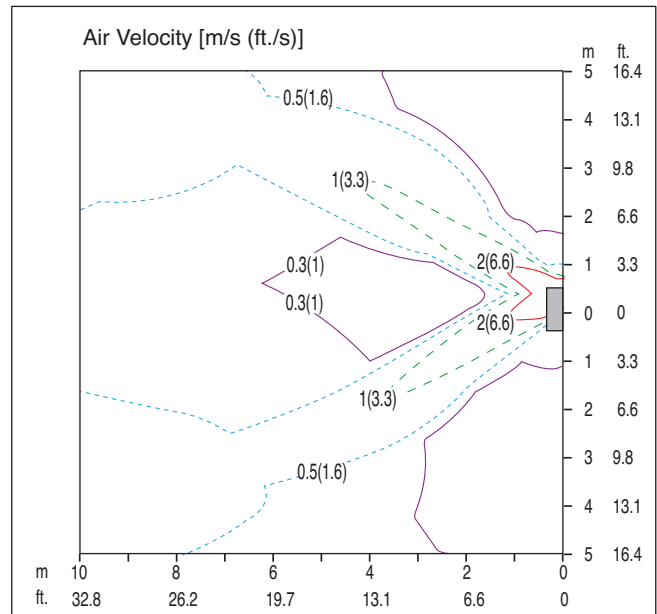
### Side View

Discharge Angle : 55° (From the floor ▼ )  
 Vertical Louver : Center  
 Fan Speed : Power



### Top View

Discharge Angle : 55° (From the wall ▼ )  
 Vertical Louver : Center  
 Fan Speed : Power  
 Air speed 0.3 m/s (1 ft./s) Range : 10.5 m (34.4 ft.)



### Top View

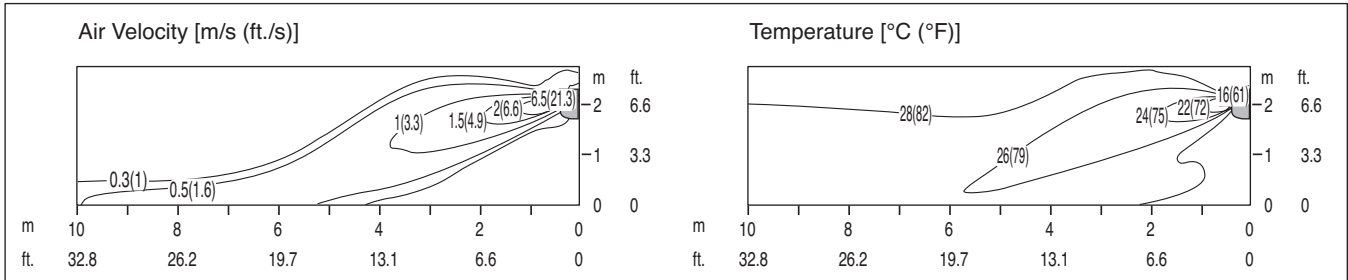
Discharge Angle : 55° (From the wall ▼ )  
 Vertical Louver : Left & Right  
 Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : P18EN (US-W186K3A0)

### Cooling

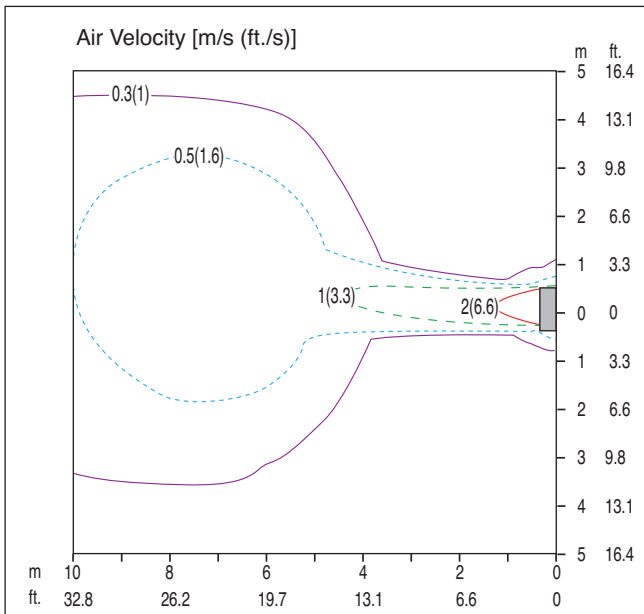


### Side View

Discharge Angle : 25° (From the floor)

Vertical Louver : Center

Fan Speed : Power



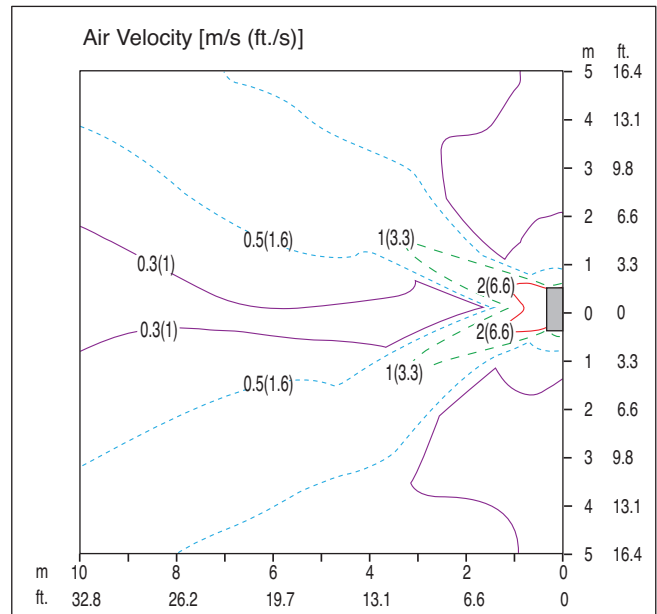
### Top View

Discharge Angle : 25° (From the wall)

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 12.6 m (41.3 ft.)



### Top View

Discharge Angle : 25° (From the wall)

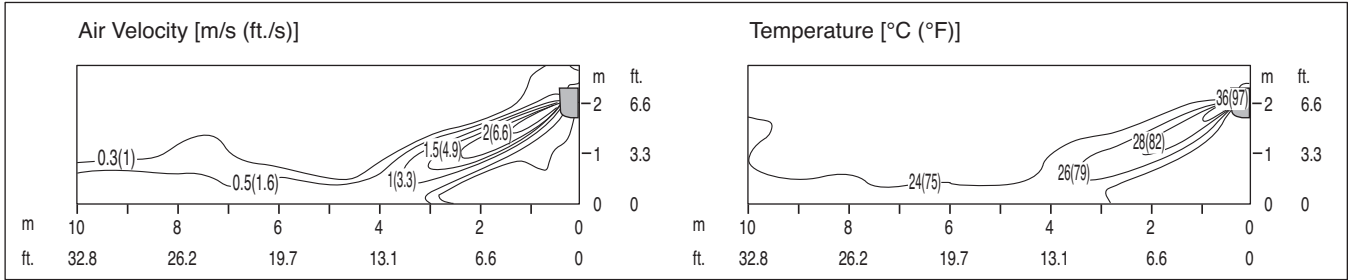
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating

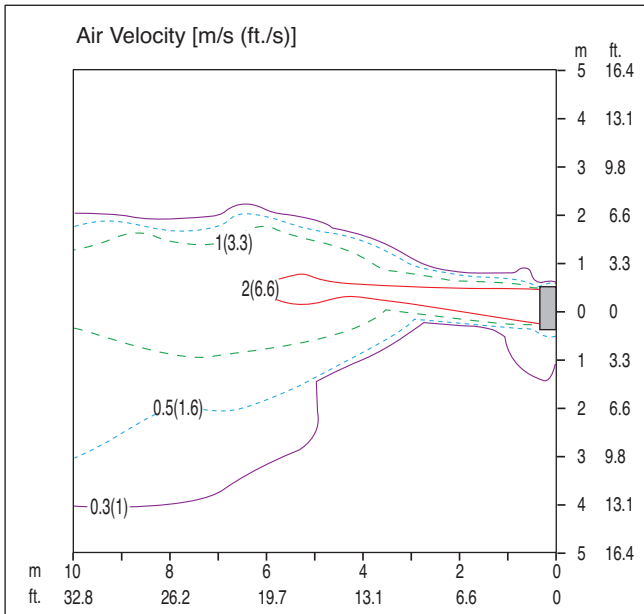


### Side View

Discharge Angle : 45° (From the floor ▾ )

Vertical Louver : Center

Fan Speed : Power



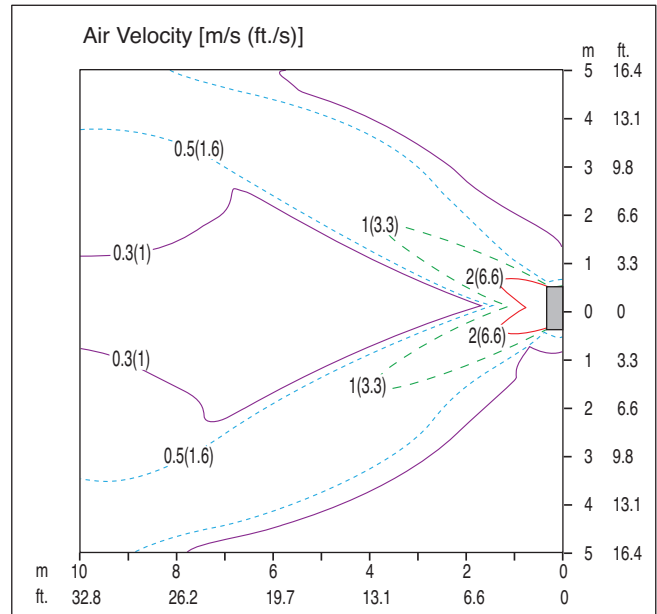
### Top View

Discharge Angle : 45° (From the wall ▾ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 20.0 m (65.6 ft.)



### Top View

Discharge Angle : 45° (From the wall ▾ )

Vertical Louver : Left & Right

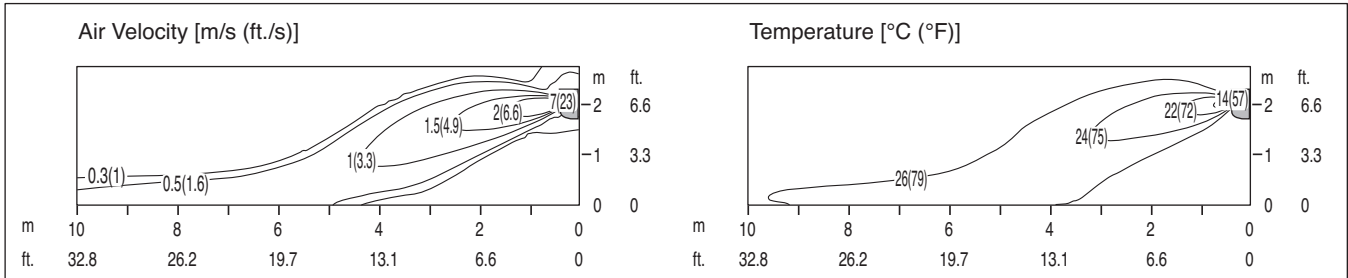
Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

Model : P24EN (US-W246K3A0)

### Cooling

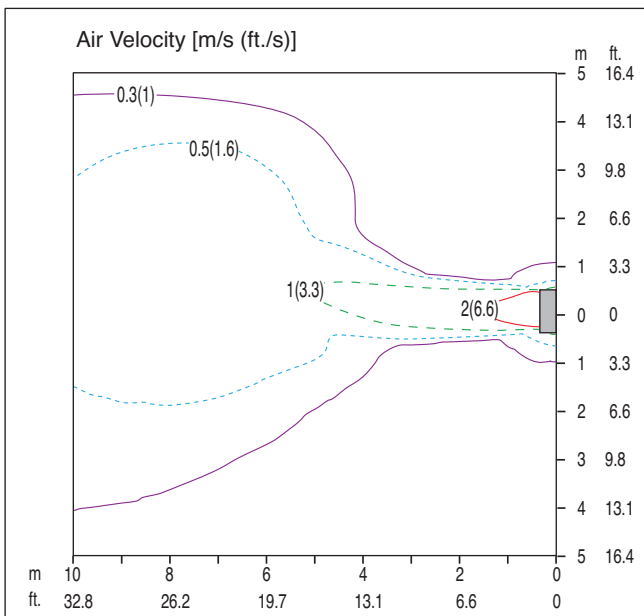


### Side View

Discharge Angle : 25° (From the floor ▾ )

Vertical Louver : Center

Fan Speed : Power



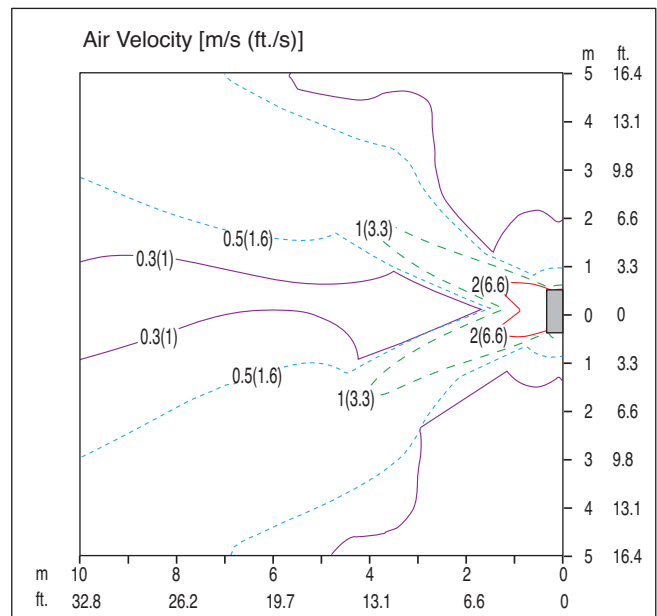
### Top View

Discharge Angle : 25° (From the wall ▾ )

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 14.6 m (47.9 ft.)



### Top View

Discharge Angle : 25° (From the wall ▾ )

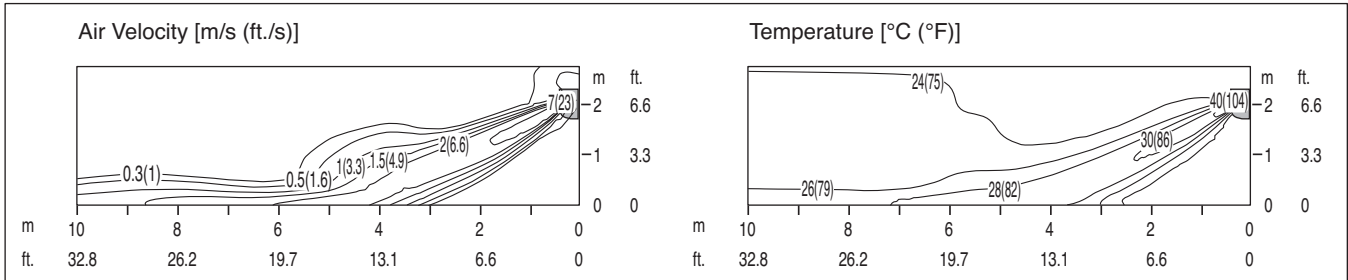
Vertical Louver : Left & Right

Fan Speed : Power

# Inverter Single

## 11. Air Flow and Temperature Distributions (Reference Data)

### Heating

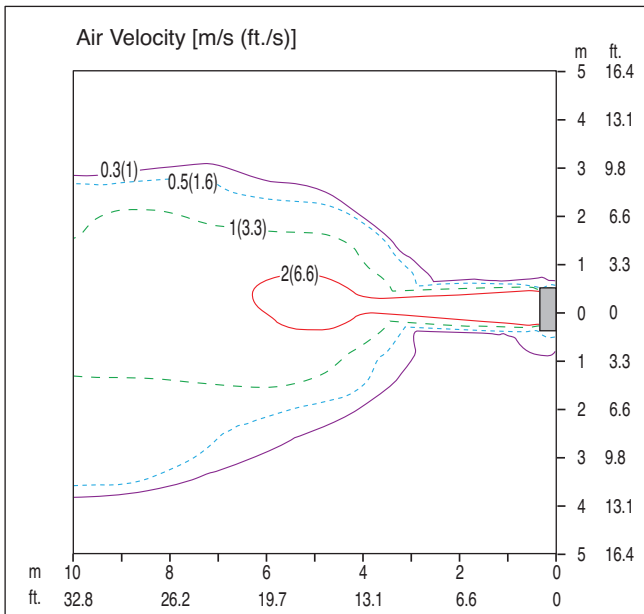


### Side View

Discharge Angle : 45° (From the floor ▼)

Vertical Louver : Center

Fan Speed : Power



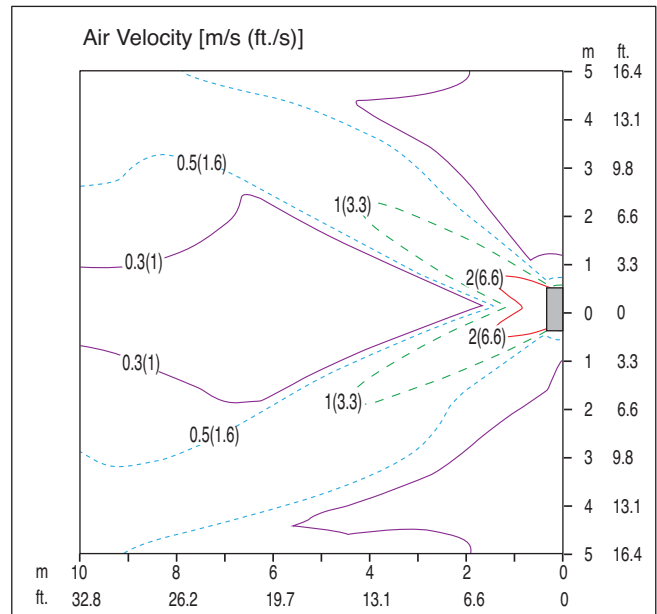
### Top View

Discharge Angle : 45° (From the wall ▼)

Vertical Louver : Center

Fan Speed : Power

Air speed 0.3 m/s (1 ft./s) Range : 20.0 m (65.6 ft.)



### Top View

Discharge Angle : 45° (From the wall ▼)

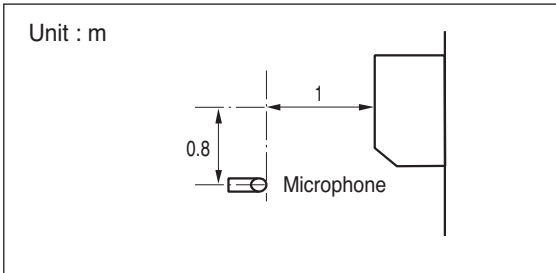
Vertical Louver : Left & Right

Fan Speed : Power

## 12. Sound Levels (Reference Data)

### 12.1 Sound Pressure Level (Indoor Unit)

#### Overall



#### Note

- Sound measured at 1 m away from the unit.
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- Reference acoustic pressure 0dB=20μPa.
- Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment is installed.
- The operating conditions are assumed to be standard.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
- Sound level is measured in an anechoic room and may be different according to the test condition or equipment.

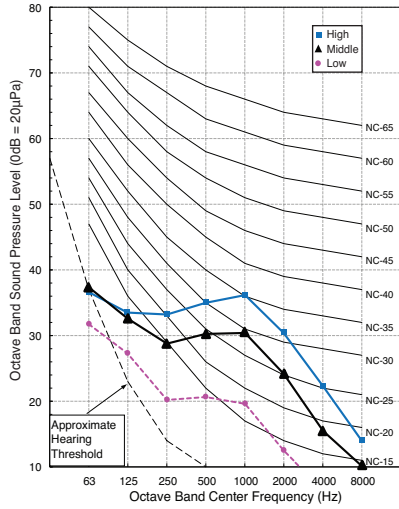
Model	Sound Levels [dB(A)]					
	Cooling			Heating		
	H	M	L	H	M	L
D09RN.NSJ (ASNW096J1R1)	40	35	24	40	35	24
D12RN.NSJ (ASNW126J1R1)	40	35	24	40	35	24
D18RN.NSK (ASNW186K1R1)	44	39	34	44	39	34
D24RN.NSK (ASNW246K1R1)	47	42	34	47	42	34
P09EN.NSJ (USNW096J3A0)	41	35	27	41	35	27
P12EN.NSJ (USNW126J3A0)	41	35	27	41	35	27
P18EN.NSK (USNW186K3A0)	44	39	34	44	39	34
P24EN.NSK (USNW246K3A0)	47	42	34	47	42	34

# Inverter Single

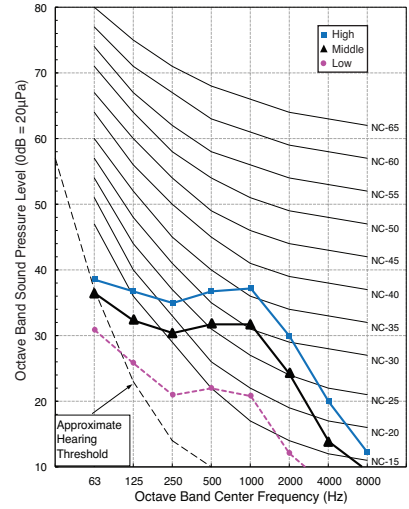
## 12. Sound Levels (Reference Data)

D09RN.NSJ (ASNW096J1R1)

Cooling

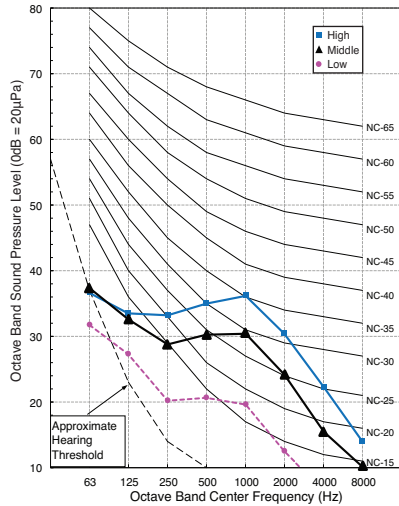


Heating

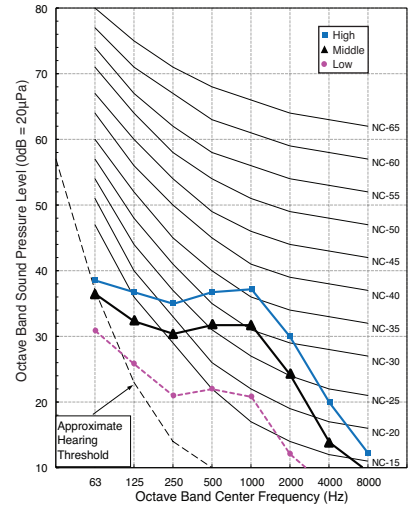


D12RN.NSJ (ASNW126J1R1)

Cooling

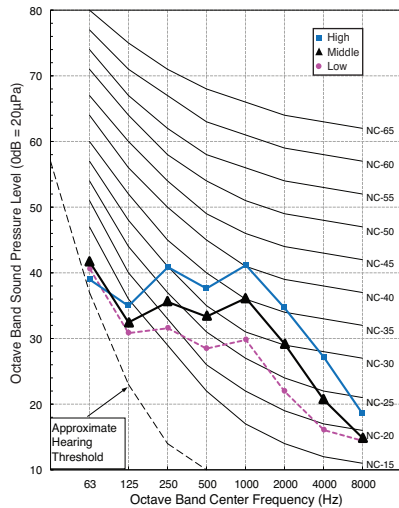


Heating

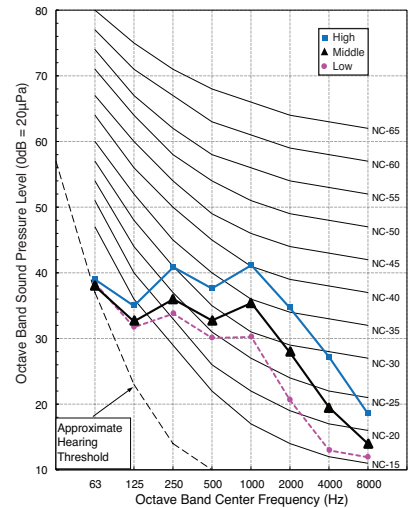


D18RN.NSK (ASNW186K1R1)

Cooling



Heating

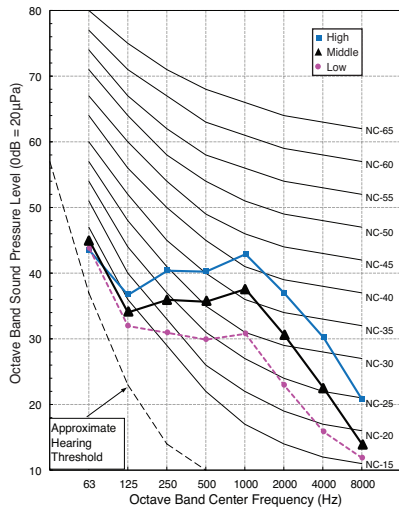




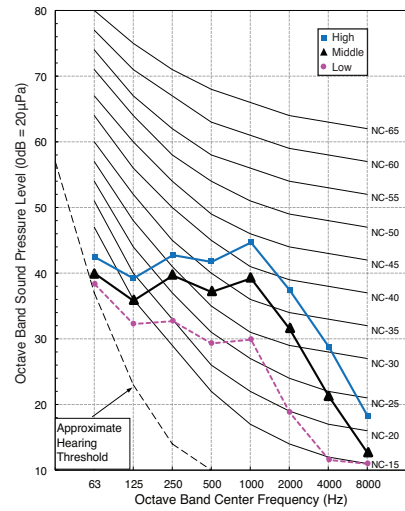
## 12. Sound Levels (Reference Data)

**D24RN.NSK (ASNW246K1R1)**

**Cooling**

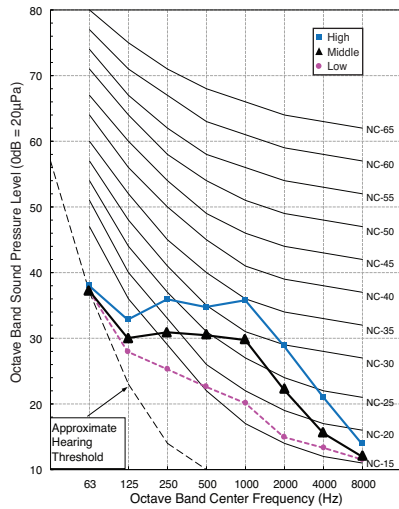


**Heating**

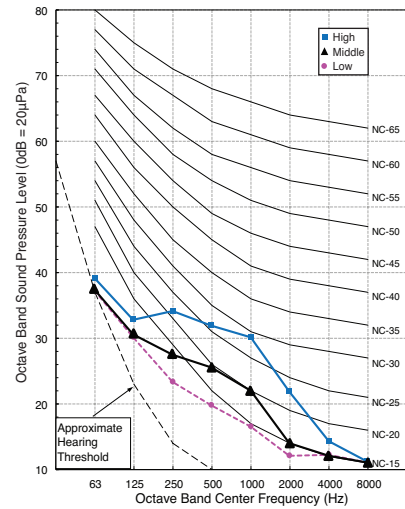


**P09EN.NSJ (USNW096J3A0)**

**Cooling**

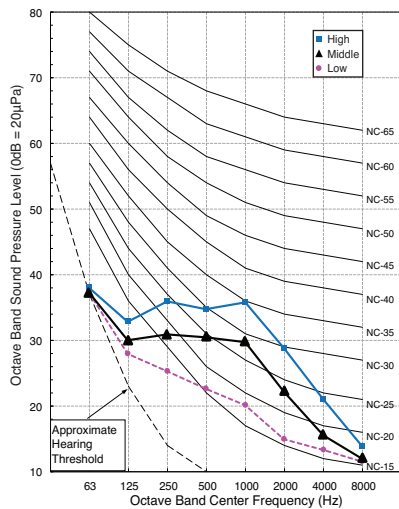


**Heating**

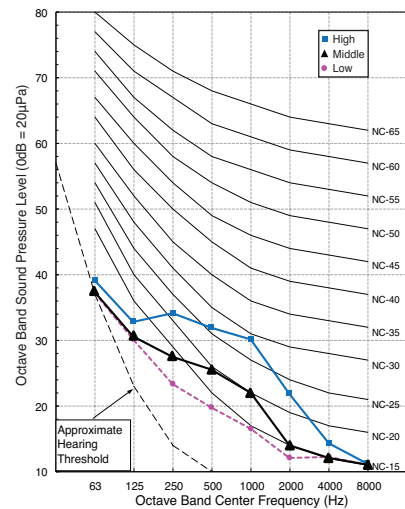


**P12EN.NSJ (USNW126J3A0)**

**Cooling**



**Heating**

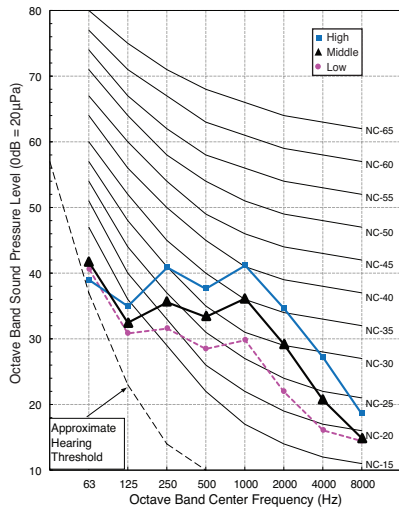


# Inverter Single

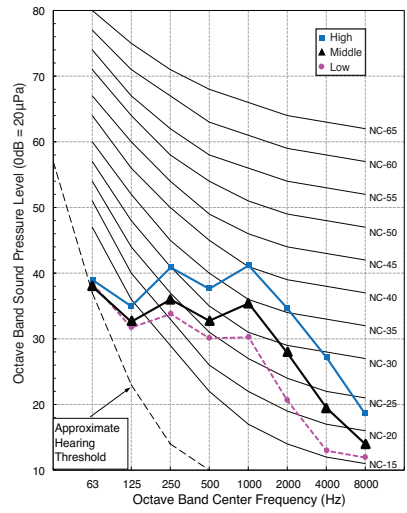
## 12. Sound Levels (Reference Data)

P18EN.NSK (USNW186K3A0)

Cooling

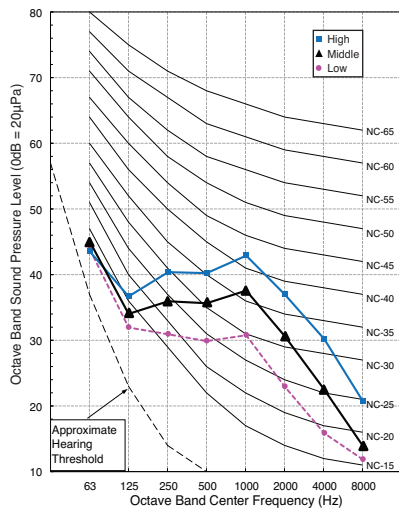


Heating

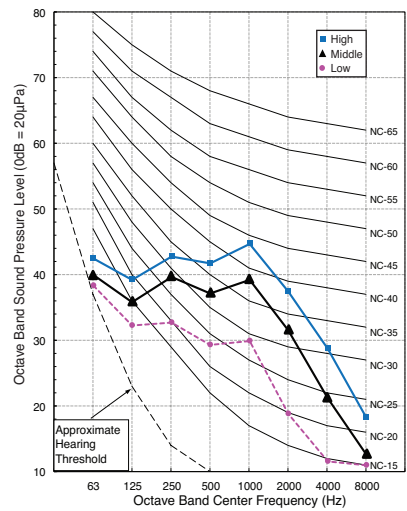


P24EN.NSK (USNW246K3A0)

Cooling



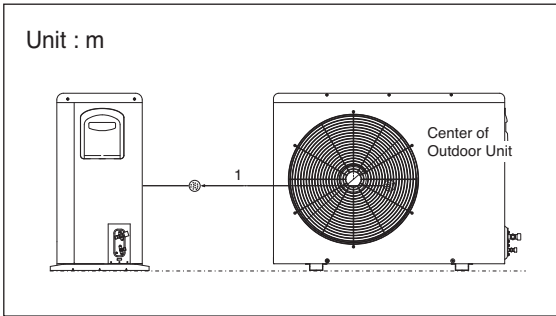
Heating



## 12. Sound Levels (Reference Data)

### 12.2 Sound Pressure Level (Outdoor Unit)

#### Overall



#### Note

- Sound measured at 1 m away from the unit.
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- Reference acoustic pressure  $0\text{dB}=20\mu\text{Pa}$ .
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
- The operating conditions are assumed to be standard.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
- Sound level is measured in an anechoic room and may be different according to the test condition or equipment.

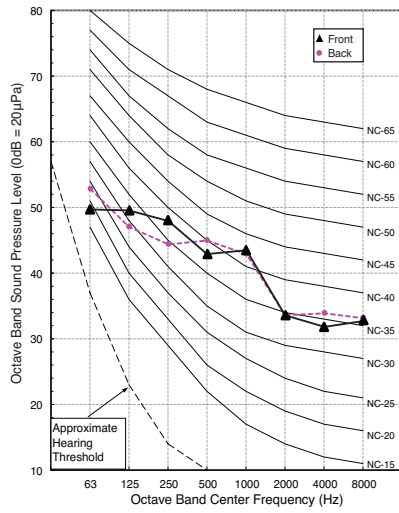
Model	Sound Levels [dB(A)]	
	Cooling	Heating
	H	H
D09RN.UL2 (ASUW096J1R1)	47	48
D12RN.UL2 (ASUW126J1R1)	47	48
D18RN.UL2 (ASUW186K1R1)	53	55
D24RN.UUE (ASUW246K1R1)	56	57
P09EN.UA3 (USUW096J3A0)	49	50
P12EN.UA3 (USUW126J3A0)	49	50
P18EN.UL2 (USUW186K3A0)	53	55
P24EN.UUE (USUW246K3A0)	56	57

# Inverter Single

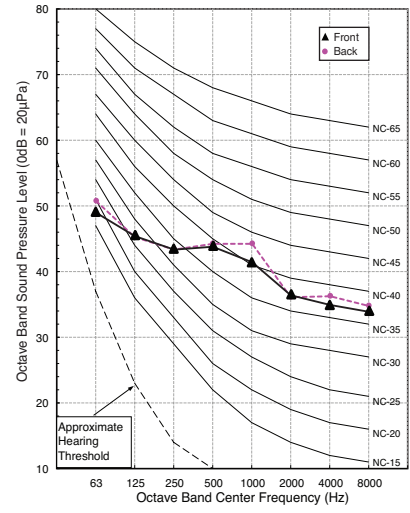
## 12. Sound Levels (Reference Data)

D09RN.UL2 (ASUW096J1R1)

Cooling

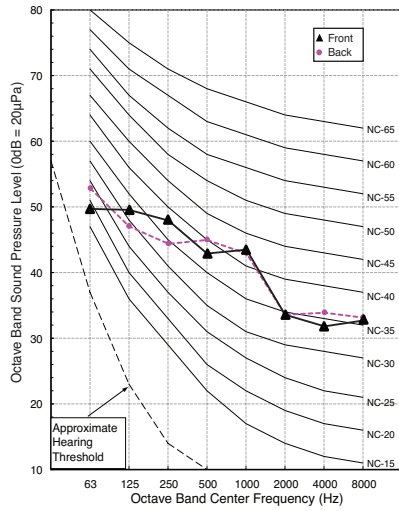


Heating

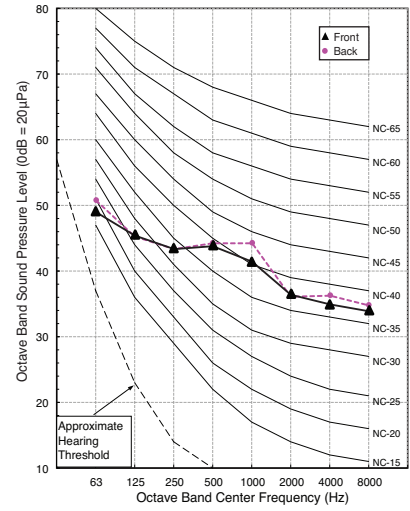


D12RN.UL2 (ASUW126J1R1)

Cooling

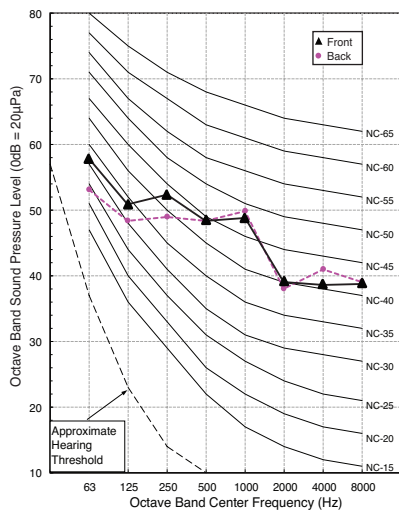


Heating

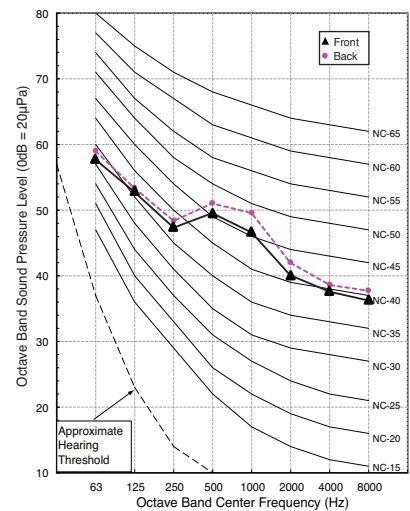


D18RN.UL2 (ASUW186K1R1)

Cooling



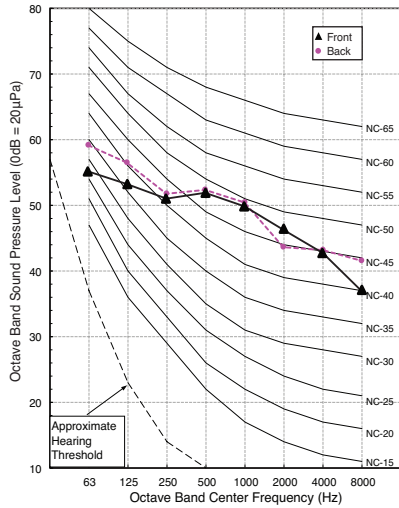
Heating



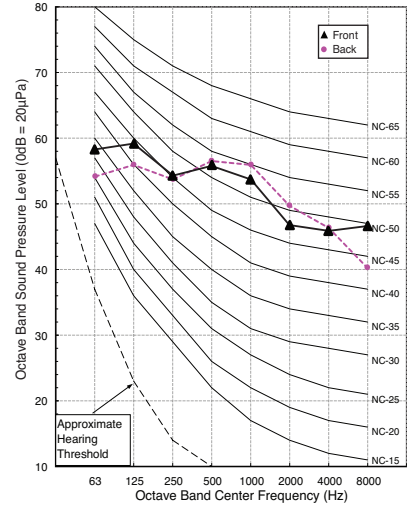
## 12. Sound Levels (Reference Data)

### D24RN.UUE (ASUW246K1R1)

Cooling

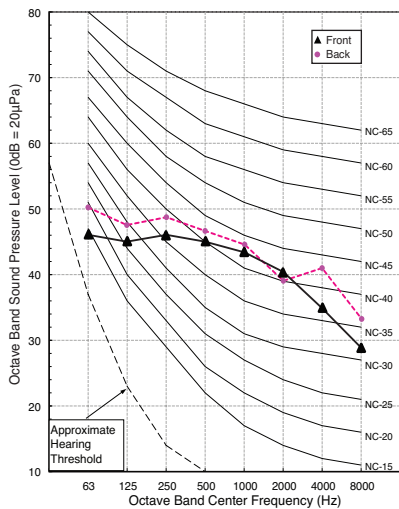


Heating

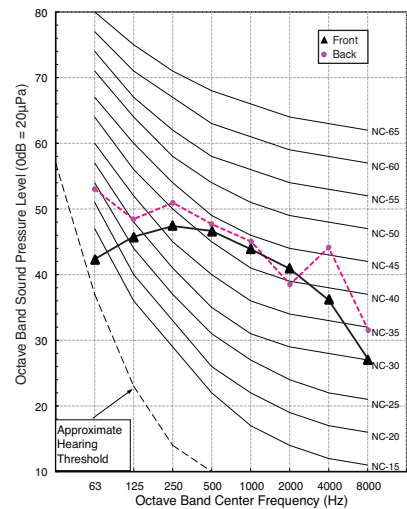


### P09EN.UA3 (USUW096J3A0)

Cooling

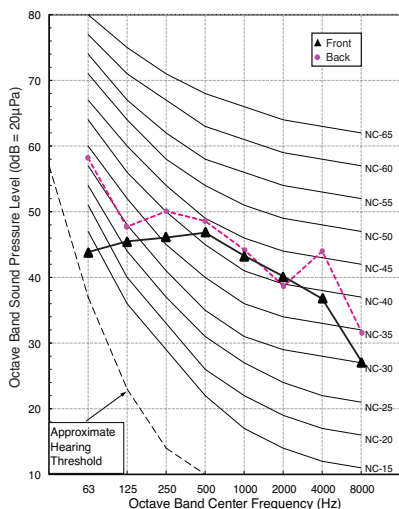


Heating

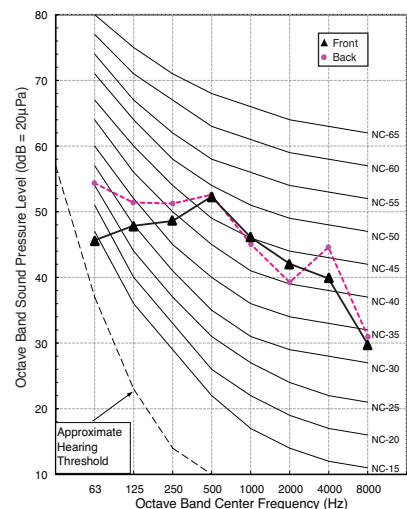


### P12EN.UA3 (USUW126J3A0)

Cooling



Heating

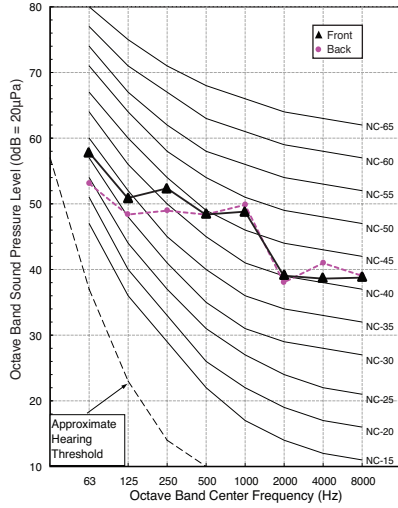


# Inverter Single

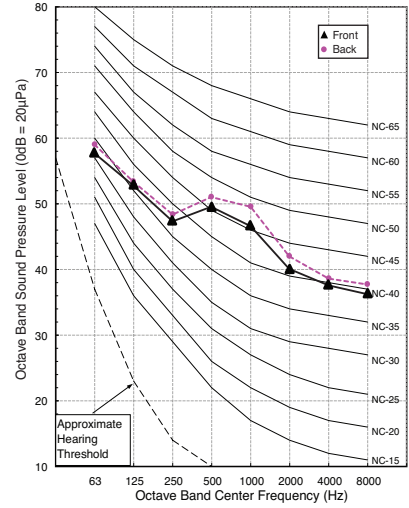
## 12. Sound Levels (Reference Data)

P18EN.UL2 (USUW186K3A0)

Cooling

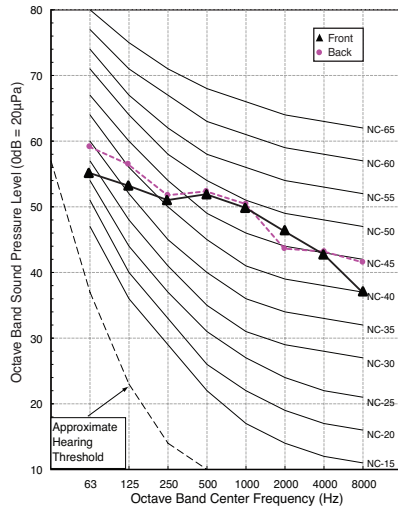


Heating

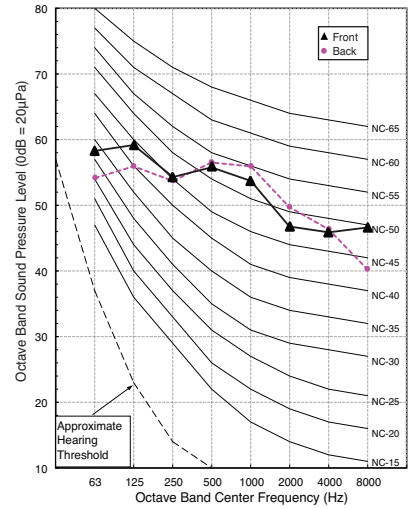


P24EN.UUE (USUW246K3A0)

Cooling



Heating



## 12. Sound Levels (Reference Data)

### 12.3 Sound Power Level (Indoor Unit)

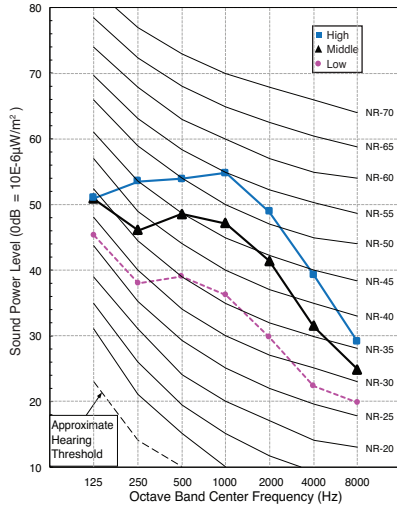
Model	Sound Levels [dB(A)]
D09RN.NSJ (ASNW096J1R1)	59
D12RN.NSJ (ASNW126J1R1)	59
D18RN.NSK (ASNW186K1R1)	60
D24RN.NSK (ASNW246K1R1)	65
P09EN.NSJ (USNW096J3A0)	59
P12EN.NSJ (USNW126J3A0)	59
P18EN.NSK (USNW186K3A0)	60
P24EN.NSK (USNW246K3A0)	65

**Note**

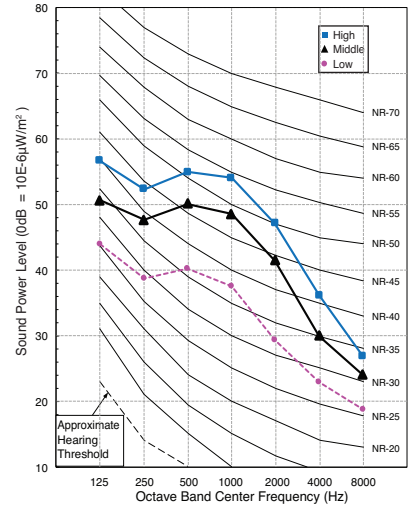
- Data is valid at diffuse field condition.
- Data is valid at nominal operating condition.
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
- Reference acoustic intensity 0dB = 10E-6μW/m<sup>2</sup>

#### D09RN.NSJ (ASNW096J1R1)

##### Cooling

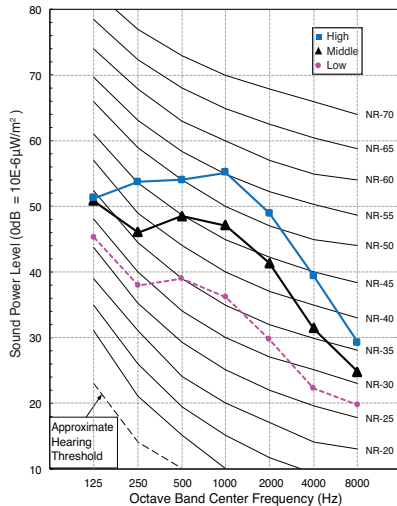


##### Heating

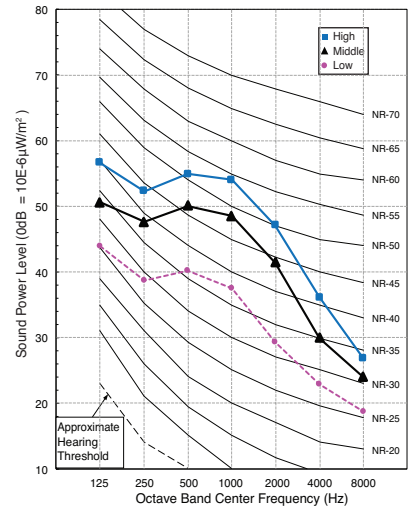


#### D12RN.NSJ (ASNW126J1R1)

##### Cooling



##### Heating

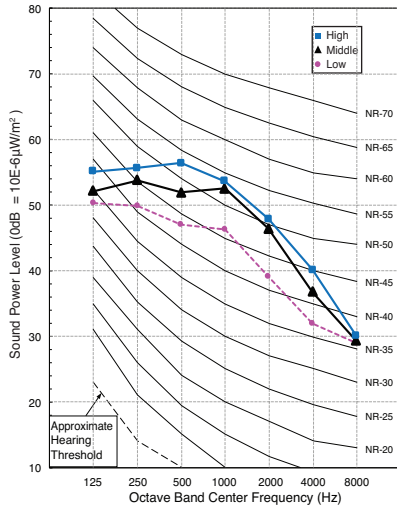


# Inverter Single

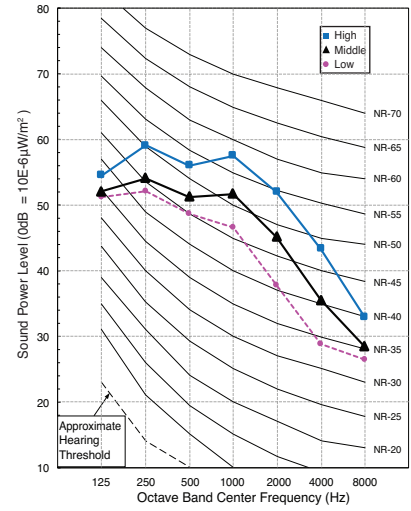
## 12. Sound Levels (Reference Data)

**D18RN.NSK (ASNW186K1R1)**

Cooling

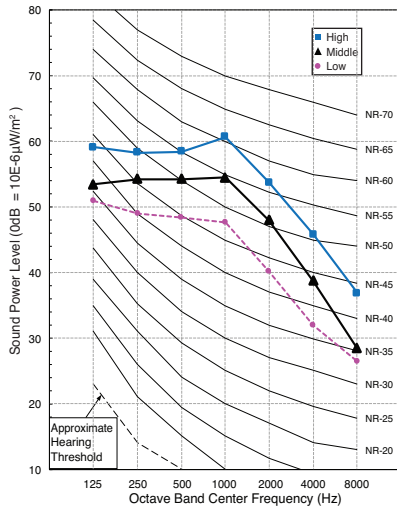


Heating

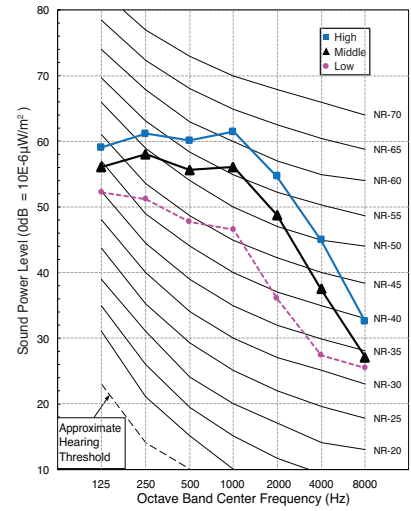


**D24RN.NSK (ASNW246K1R1)**

Cooling

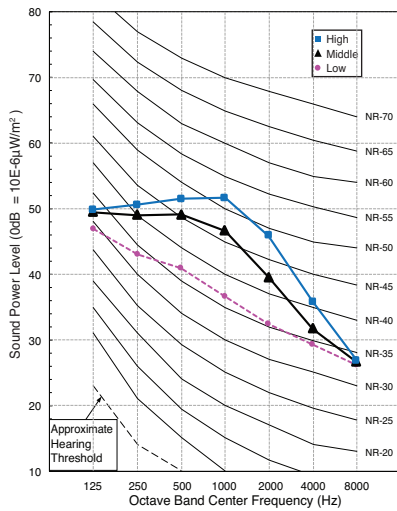


Heating

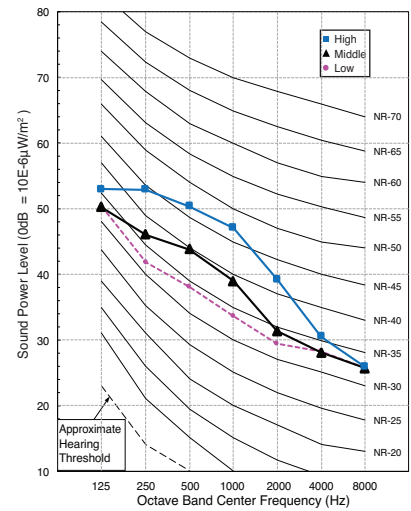


**P09EN.NSJ (USNW096J3A0)**

Cooling



Heating

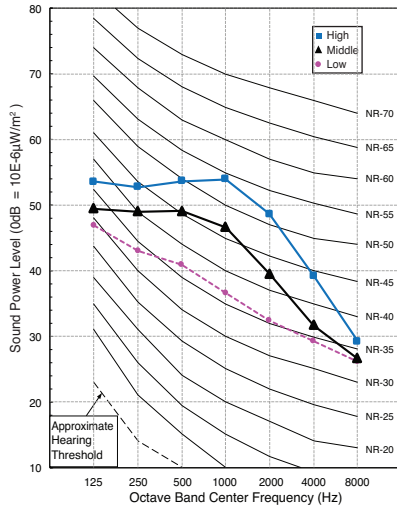




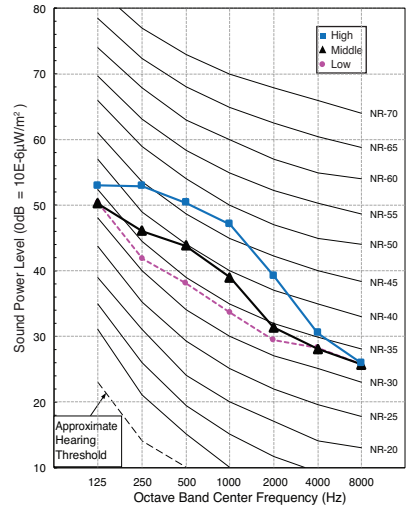
## 12. Sound Levels (Reference Data)

P12EN.NSJ (USNW126J3A0)

Cooling

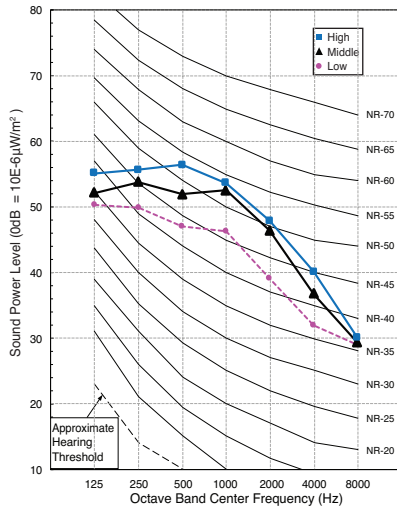


Heating

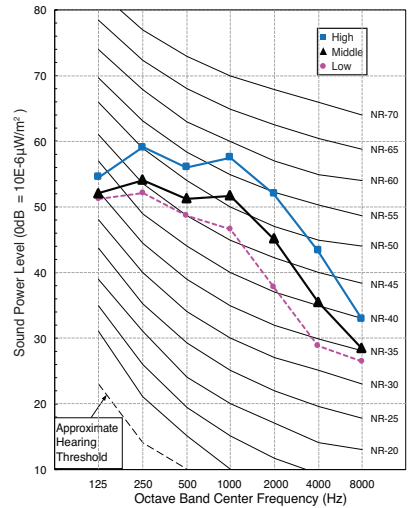


P18EN.NSK (USNW186K3A0)

Cooling

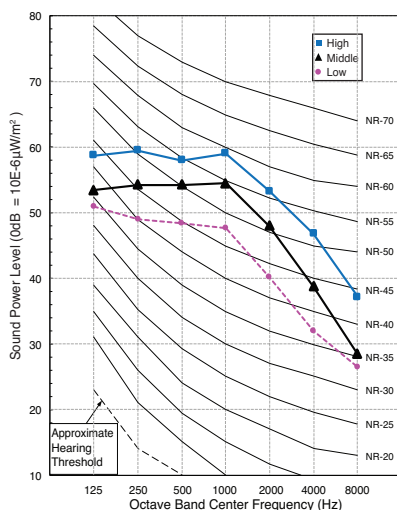


Heating

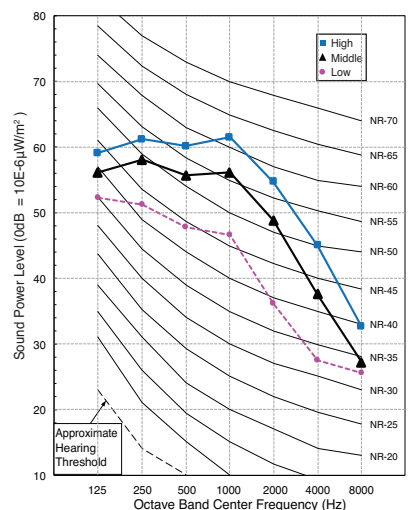


P24EN.NSK (USNW246K3A0)

Cooling



Heating



# Inverter Single

## 12. Sound Levels (Reference Data)

### 12.4 Sound Power Level (Outdoor Unit)

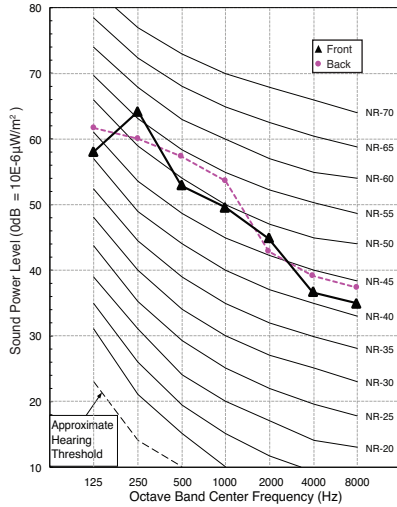
Model	Sound Levels [dB(A)]
D09RN.UL2 (ASUW096J1R1)	65
D12RN.UL2 (ASUW126J1R1)	65
D18RN.UL2 (ASUW186K1R1)	65
D24RN.UUE (ASUW246K1R1)	70
P09EN.UA3 (USUW096J3A0)	65
P12EN.UA3 (USUW126J3A0)	65
P18EN.UL2 (USUW186K3A0)	65
P24EN.UUE (USUW246K3A0)	70

**Note**

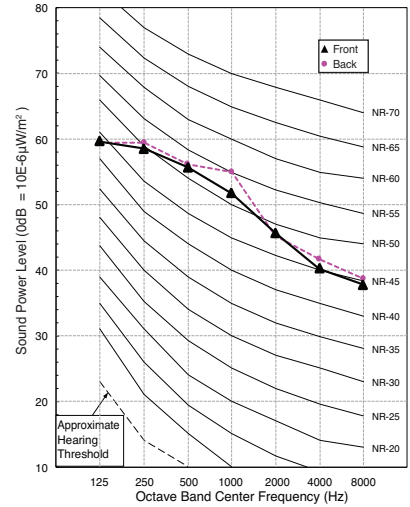
- Data is valid at diffuse field condition.
- Data is valid at nominal operating condition.
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
- Reference acoustic intensity 0dB = 10E-6μW/m<sup>2</sup>

#### D09RN.UL2 (ASUW096J1R1)

##### Cooling

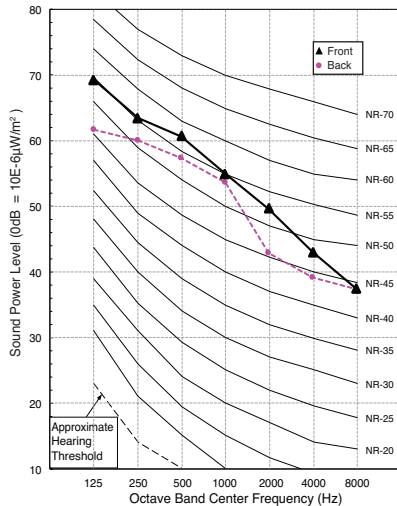


##### Heating

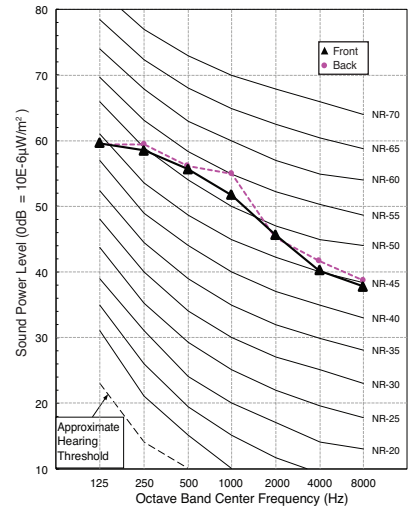


#### D12RN.UL2 (ASUW126J1R1)

##### Cooling



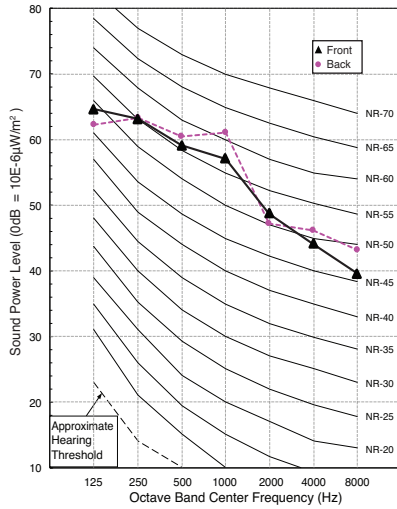
##### Heating



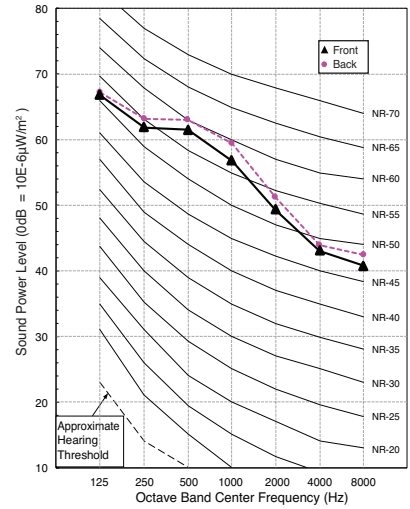
## 12. Sound Levels (Reference Data)

D18RN.UL2 (ASUW186K1R1)

Cooling

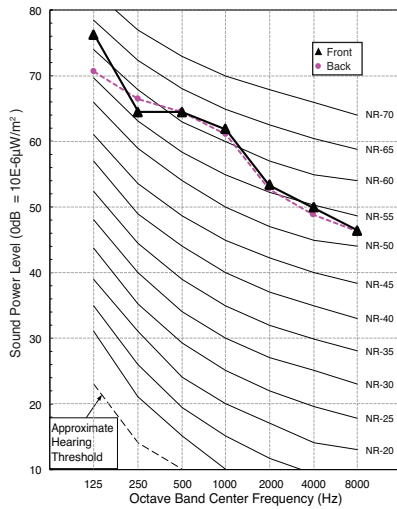


Heating

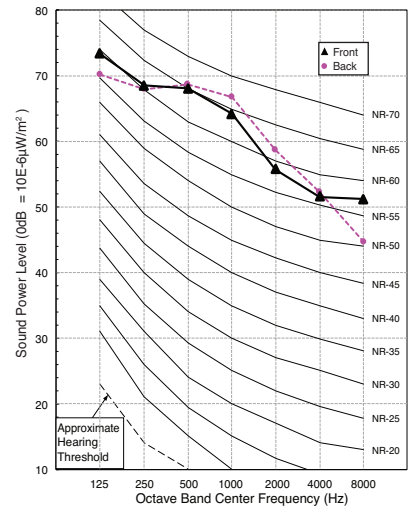


D24RN.UUE (ASUW246K1R1)

Cooling

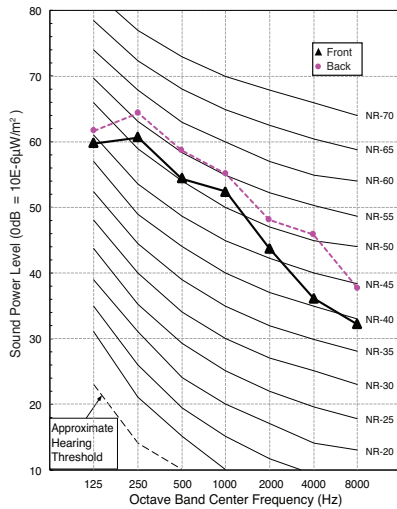


Heating

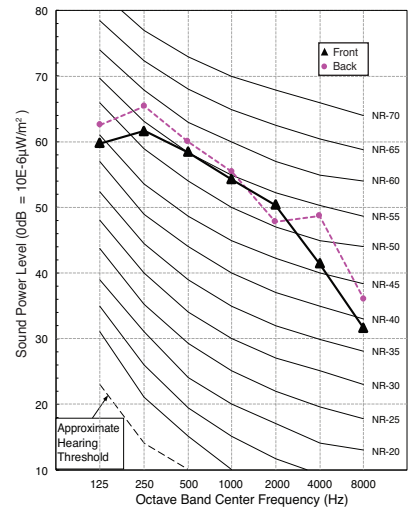


P09EN.UA3 (USUW096J3A0)

Cooling



Heating

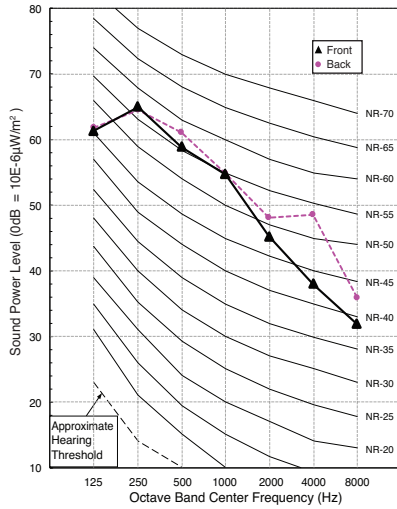


# Inverter Single

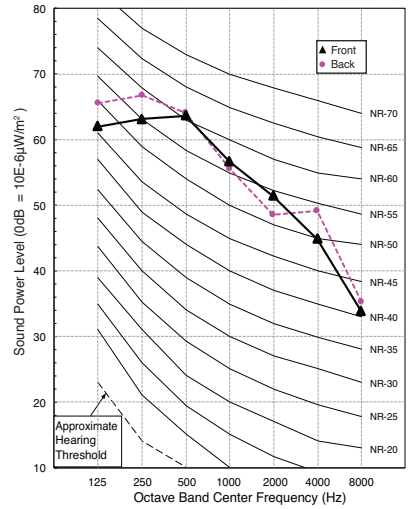
## 12. Sound Levels (Reference Data)

**P12EN.UA3 (USUW126J3A0)**

Cooling

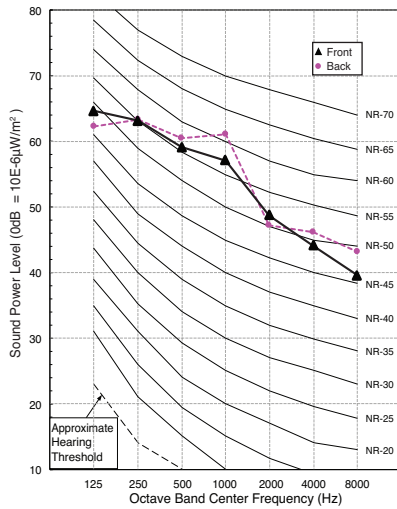


Heating

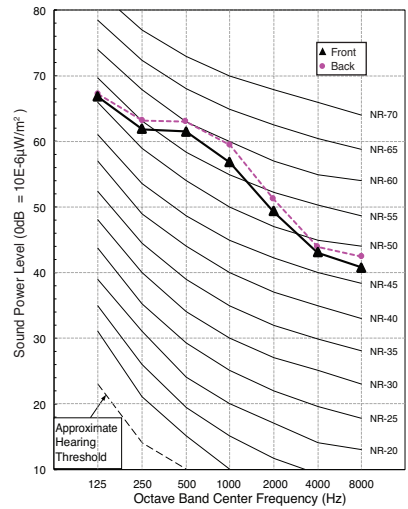


**P18EN.UL2 (USUW186K3A0)**

Cooling

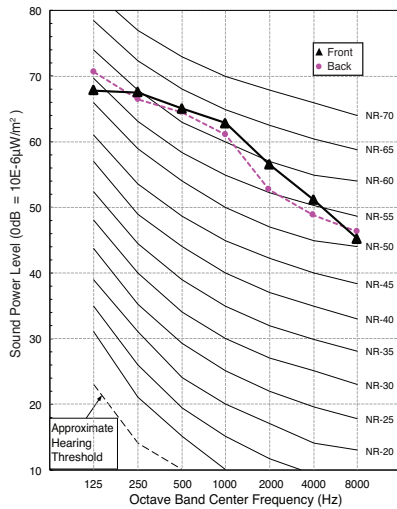


Heating

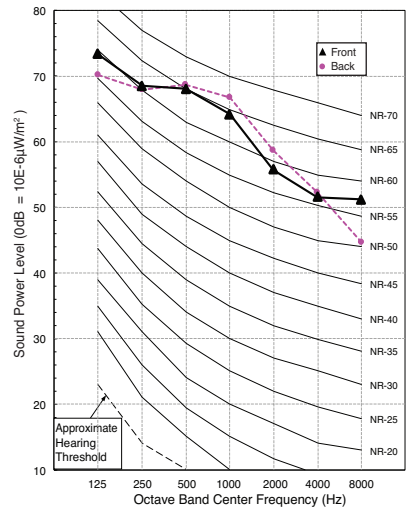


**P24EN.UUE (USUW246K3A0)**

Cooling

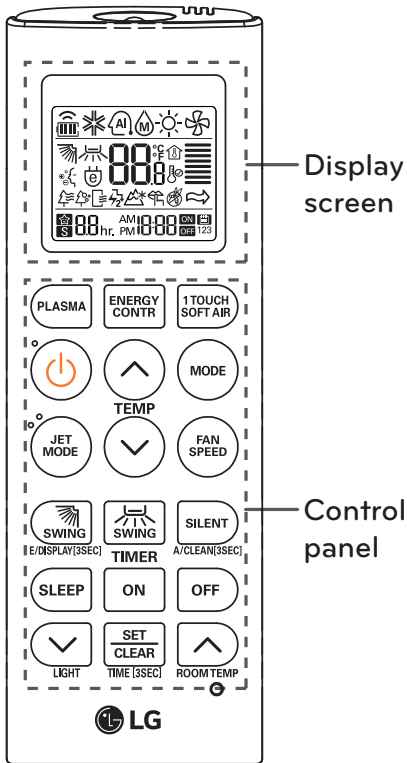


Heating



## 13. Remote Controller

### Wireless Remote Controller



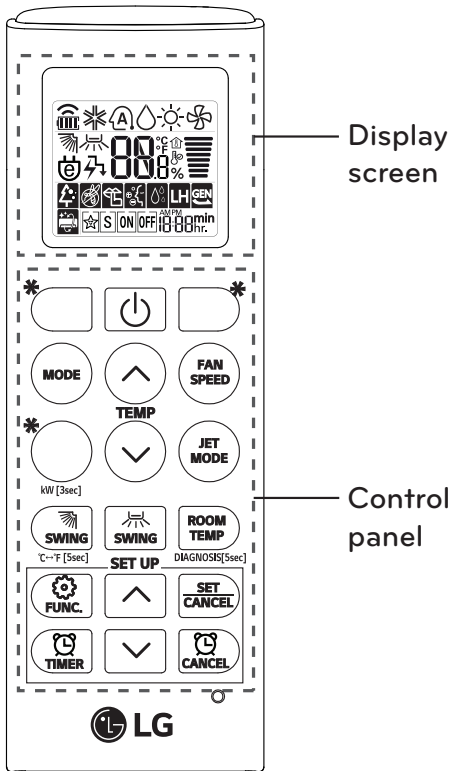
P/No	Applied Model
AKB74835305	D09RN, D12RN, D18RN

Control panel	Display screen	Description
		<b>PLASMA button*</b> : Ionizer sterilize the aerial bacteria and other harmful substances.
		<b>1 Touch soft air button</b> : Easily adjust the air flow to deflect direct wind away.
		<b>Sleep mode auto button*</b> : Sets the sleep mode auto operation.
		<b>Temperature adjustment buttons</b> : Adjusts the room temperature when cooling and heating.
	-	<b>On/Off button</b> : Turns the power on/off.
		<b>Indoor fan speed button</b> : Adjusts the fan speed.
		<b>Operation mode selection button*</b> : Selects the operation mode. Cooling operation (❄️) / Auto operation or auto changeover (Ⓐ) / Dehumidifying operation (💧) / Heating operation (🔥) / Air circulation (🌀)
		<b>Jet cooling/heating button*</b> : Warms up or cools down the indoor temperature within a short period of time.
		<b>Air flow direction button</b> : Adjusts the air flow direction vertically or horizontally. Display information regarding energy if hold for 3 seconds.
		<b>Timer button</b> : Sets the start / end time.
		<b>Navigation and functions button*</b> : Adjusts the time and sets the special functions. 🏠 Operates SILENT mode / 🔄 Operates E/Control mode / 🧹 Auto clean / 🌙 Silent mode and E/Control are not available at the same time.
		<b>Temperature display button</b> : Displays the room temperature.
	-	Adjusts the brightness of the indoor unit display
	-	<b>Set/clear button</b> : Set or cancel functions. Also set the current time if held for 3 seconds.
	-	<b>Reset button</b> : Resets the remote control setting.

• Features may change according to the type of model.

# Inverter Single

## 13. Remote Controller



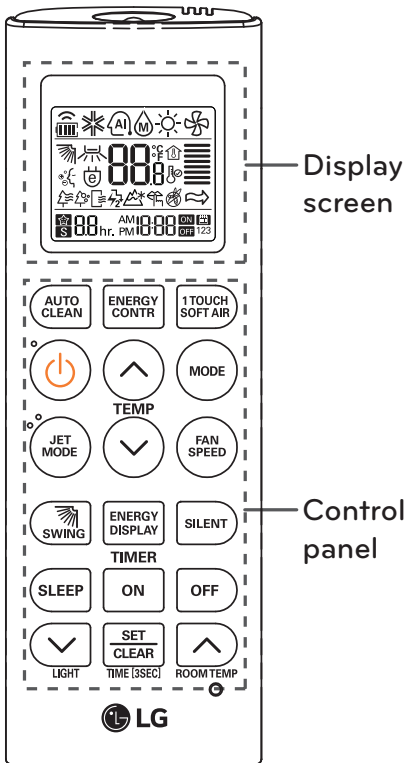
P/No	Applied Model
AKB74955603	D24RN

Control panel	Display screen	Description
		To purify the air by removing particles that enters the indoor unit.
		To reduce noise from outdoor units.
		To keep your skin moisturized by generating ion clusters.
		To lower indoor humidity quickly.
		To maintain a minimum indoor temperature and prevent indoor objects from freezing.
		To operate air conditioner under the previously set power consumption.
		To remove moisture generated inside the indoor unit.
		To make the comfortable sleep environment.
<b>RESET</b>	-	To Initialize the remote control settings.

Control panel	Display screen	Description
	-	To turn on/off the air conditioner.
	88 °C	To adjust the desired room temperature in cooling, heating or auto changeover mode.
<b>MODE</b>		To select the cooling mode.
		To select the heating mode.
		To select the dehumidification mode.
		To select the fan mode.
		To select the auto changeover/auto operation mode.
<b>JET MODE</b>	Po	To change room temperature quickly.
<b>FAN SPEED</b>		To adjust the fan speed.
		To adjust the air flow direction vertically or horizontally.
		To turn on/off air conditioner automatically at desired time.
<b>SET/ CANCEL</b>	-	To set/cancel the special functions and timer.
	-	To cancel the timer settings.
	-	To adjust time.
<b>*LIGHT OFF</b>	-	To set the brightness of the display on the indoor unit.
<b>ROOM TEMP</b>		To display the room temperature.
<b>°C ↔ °F [5sec]</b>	°C °F	To change unit between °C and °F.
<b>*ENERGY SAVING</b>		To minimize power consumption.
<b>*COMFORT AIR</b>		To adjust the air flow to deflect wind.
<b>kW[3sec]</b>	-	To set whether or not to display information regarding energy.
<b>*ENERGY CTRL</b>	7.88 %	To bring the effect of the power saving.
<b>*COMFORT SLEEP</b>		To make the comfortable sleep environment.
<b>DIAGNOSIS [5sec]</b>	-	To conveniently check maintenance information of a product.
		To fan away a mosquito.

\* buttons may be changed according to the type of model.

## 13. Remote Controller



P/No	Applied Model
AKB74835303	P09EN, P12EN, P18EN, P24EN

Control panel	Display screen	Description
		<b>Auto Clean button:</b> Set the special function.
		<b>1 Touch soft air button :</b> Easily adjust the air flow to deflect direct wind away.
		<b>Sleep mode auto button*:</b> Sets the sleep mode auto operation.
		<b>Temperature adjustment buttons:</b> Adjusts the room temperature when cooling and heating.
	-	<b>On/Off button:</b> Turns the power on/off.
		<b>Indoor fan speed button:</b> Adjusts the fan speed.
		<b>Operation mode selection button*:</b> Selects the operation mode. Cooling operation (❄️) / Auto operation or auto changeover (AI) / Dehumidifying operation (💧) / Heating operation (🔥) / Air circulation (🌀)
		<b>Jet cooling/heating button*:</b> Warms up or cools down the indoor temperature within a short period of time.
		<b>Air flow direction button:</b> Adjusts the air flow direction horizontally.
		<b>Timer button:</b> Sets the start / end time.
		<b>Navigation and functions button*:</b> Adjusts the time and sets the special functions. 🌀 Operates SILENT mode / 🌀 Operates E/Control mode
	-	Adjusts the brightness of the indoor unit display
	-	<b>Energy Display button :</b> Set whether or not to display information regarding Energy.
	-	<b>Set/clear button:</b> Set or cancel functions. Also set the current time if held for 3 seconds.
	-	<b>Reset button:</b> Resets the remote control setting.

• Features may change according to the type of model.

### Important Safety Instructions

#### READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

Always comply with the following precautions to avoid dangerous situations and ensure peak performance of your product.

#### **WARNING**

It can result in serious injury or death when the directions are ignored.

#### **CAUTION**

It can result in minor injury or product damage when the directions are ignored.

#### **WARNING**

- Installation or repairs made by unqualified persons can result in hazards to you and others.
- Air conditioner Shall be installed in accordance with national wiring regulations.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similiary qualified persons in order to avoid a hazard.
- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.

#### Installation

- Always perform grounding.
  - Otherwise, it may cause electrical shock.
- Don't use a power cord, a plug or a loose socket which is damaged.
  - Otherwise, it may cause a fire or electrical shock.
- For installation of the product, always contact the service center or a professional installation agency.
  - Otherwise, it may cause a fire, electrical shock, explosion or injury.
- Securely attach the electrical part cover to the indoor unit and the service panel to the outdoor unit.
  - If the electrical part cover of the indoor unit and the service panel of the outdoor unit are not attached securely, it could result in a fire or electric shock due to dust, water, etc.
- Always install an circuit breaker and a dedicated disconnect switch.
  - No installation may cause a fire and electrical shock.
- Do not keep or use flammable gases or combustibles near the air conditioner.
  - Otherwise, it may cause a fire or the failure of product.
- Ensure that an installation frame of the outdoor unit is not damaged due to use for a long time.
  - It may cause injury or an accident.
- Do not disassemble or repair the product randomly.
  - It will cause a fire or electrical shock.
- Do not install the product at a place that there is concern of falling down.
  - Otherwise, it may result in personal injury.
- Use caution when unpacking and installing.
  - Sharp edges may cause injury.
- Thickness of copper pipes used are as shown in the "Flaring work" Table.
  - Never use copper pipes thinner than that in the table even when it is available on the market
- Do not use copper pipes that have collapsed.
  - Otherwise, the expansion valve or capillary tube may become blocked with contaminants.
- For R410A model, use piping, flare nut and tools which are specified for R410A refrigerant.
  - Use of (R22) piping, flare nut and tools may cause abnormally high pressure in the refrigerant cycle (piping), and possibly result in explosion and injury.
- It is recommended that the amount of residual oil is less than 40mg / 10m (0.04627oz/ft).
- Do not turn on the breaker or power under condition that front panel, cabinet, top cover, and control box cover are removed or opened.
  - Otherwise, it may cause fire, electric shock, explosion or death.
- If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit when the refrigerant leaks.
  - Consult the dealer regarding the appropriate measures to prevent the safety limit from being exceeded. Should the refrigerant leak and cause the safety limit to be exceeded, hazards due to lack of oxygen in the room could result.



## 14. Installation

- Use a vacuum pump or inert (nitrogen) gas when doing leakage test or air purge. Do not compress air or oxygen and do not use flammable gases.
  - Otherwise, it may cause fire or explosion. There is the risk of death, injury, fire or explosion.

### Operation

- Do not share the outlet with other appliances.
  - It will cause an electric shock or a fire due to heat generation.
- Do not use a damaged power cord.
  - Otherwise, it may cause a fire or electrical shock.
- Do not modify or extend the power cord.
  - Otherwise, it may cause a fire or electrical shock.
- Take care so that the power cord is pulled during operation.
  - Otherwise, it may cause a fire or electrical shock.
- Unplug the unit if strange sounds, smell, or smoke comes from it.
  - Otherwise, it may cause electrical shock or a fire.
- Keep flames away.
  - Otherwise, it may cause a fire.
- Take the power plug out if necessary, holding the head of the plug and do not touch it with wet hands.
  - Otherwise, it may cause a fire or electrical shock.
- Do not use the power cord near the heating tools.
  - Otherwise, it may cause a fire and electrical shock.
- Do not open the suction inlet of the indoor/outdoor unit during operation.
  - Otherwise, it may electrical shock and failure.
- Do not allow water to run into electrical parts.
  - Otherwise, it may cause the failure of machine or electrical shock.
- Hold the plug by the head when taking it out.
  - It may cause electric shock and damage.
- Never touch the metal parts of the unit when removing the filter.
  - They are sharp and may cause injury.
- Do not step on the indoor/outdoor unit and do not put anything on it.
  - It may cause an injury through dropping of the unit or falling down.
- Do not place a heavy object on the power cord.
  - Otherwise, it may cause a fire or electrical shock.
- When the product is submerged into water, always contact the service center.
  - Otherwise, it may cause a fire or electrical shock.
- Take care so that children do not step on the outdoor unit.
  - Otherwise, children may be seriously injured due to falling down.

### CAUTION

#### Installation

- Install the drain hose to ensure that drain can easily occur.
  - Otherwise, it may cause water leakage.
- Install the product so that the noise or discharge air from the outdoor unit do not cause any damage to the neighbors.
  - Otherwise, it may cause dispute with the neighbors.
- Always inspect gas leakage after the installation and repair of product.
  - Otherwise, it may cause the failure of product.
- Keep level parallel in installing the product.
  - Otherwise, it may cause vibration or water leakage.

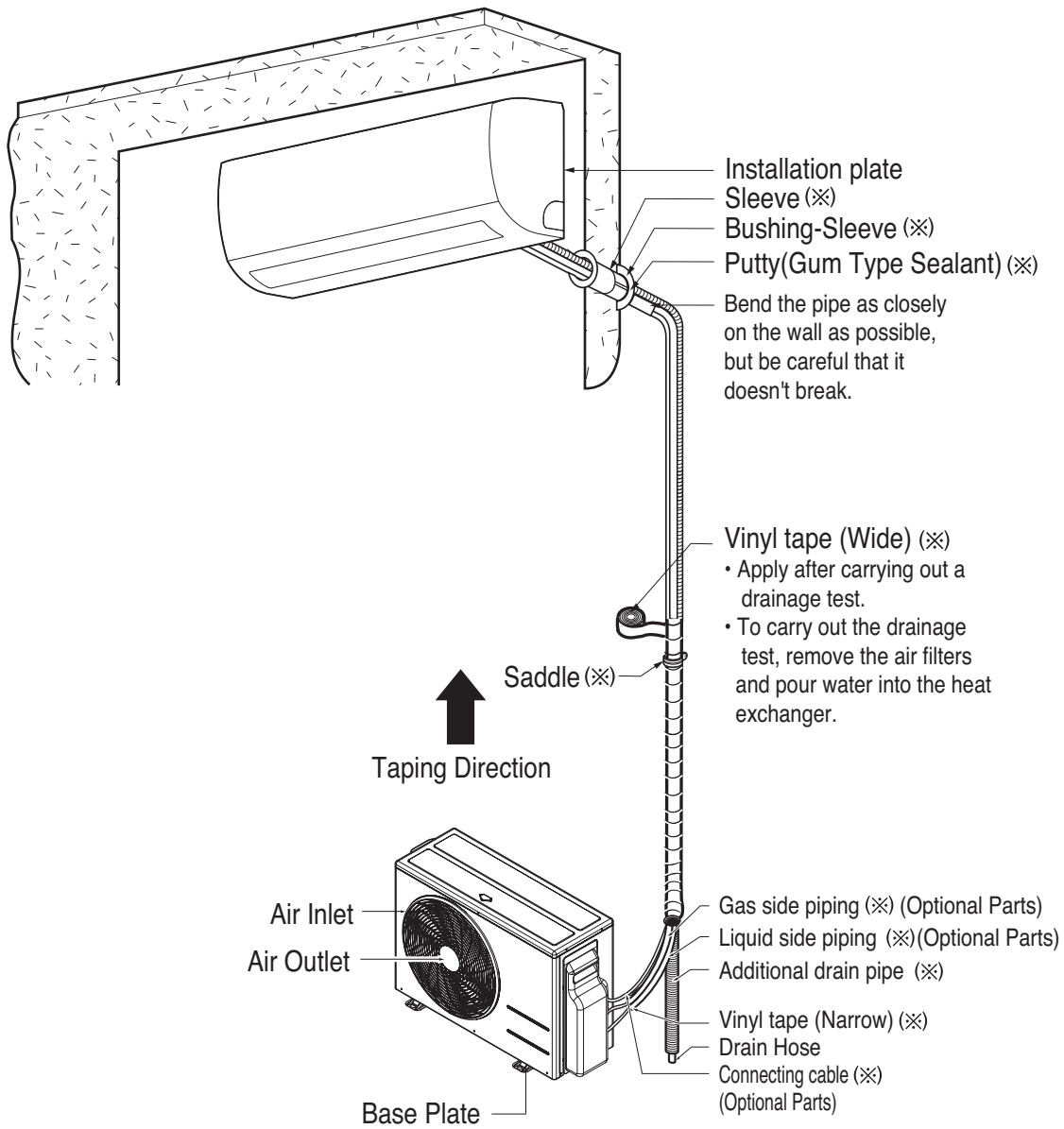
#### Operation

- Avoid excessive cooling ; account for and consider ventilation.
    - Otherwise, it may do harm to your health.
  - Use a soft cloth to clean. Do not use wax, thinner, or a strong detergent.
    - The appearance of the air conditioner may deteriorate, change color, or develop surface flaws.
  - Do not use the appliance for special purposes such as preserving animals vegetables, precision machine, or art articles.
    - Otherwise, it may damage your properties.
  - Do not place obstacles around the air flow inlet or outlet.
    - Otherwise, it may cause the failure of appliance or an accident.
- \* Safety instructions associated with the power cord only applies to products with the power cord included.

# Inverter Single

## 14. Installation

### Installation Map




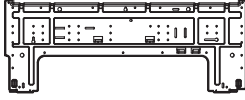








**Note**

- ※ : You should purchase the installation parts.

# Inverter Single

## 14. Installation

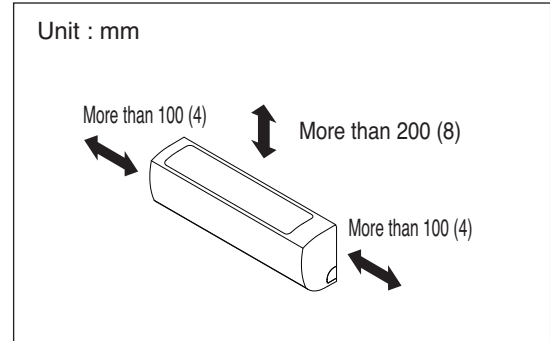
### Installation Parts

Model Name	D09RN / D12RN / P09EN / P12EN		D18RN / D24RN / P18EN / P24EN	
Part Name	Shape	Qty.	Shape	Qty.
Installation Plate		1		1
Type "A" Screw (Fix installation plate)		5		5
Type "B" Screw (Fix remote controller holder)		2		2
Type "C" Screw (Fix chassis and installation plate)		2		2
Remote Controller Holder		1		1

### Select the Best Location

#### Indoor unit

1. Keep unit away from any indoor steam or excessive heat.
2. No obstacles should be placed around unit.
3. Condensation drain (leakage piping) should be routed away from the unit.
4. Do not install near doorway.
5. Use a metal detector to locate studs in the walls. Anchor unit following stud location, to prevent damage to the wall.
6. Clearance gap between any wall or enclosure and the left or right side of the unit must be greater than 100 mm (4 inches).
7. Minimum clearance of indoor unit from the top of the unit to the ceiling must be 200 mm (8 inches).
8. Unit should be at least 2 m (6.5 feet) from the floor for adequate clearance.



#### Outdoor unit

1. When placing the outdoor unit under an overhang, awning, sunroof or other “roof-like structure”, ensures that heat radiation from the condenser is not restricted around the unit.
2. Do not place the unit where animals and/or plants will be in the path of the warm air, or where the warm air and/or noise will disturb neighbors.
3. Sunroof is recommended for installations that are exposed to direct sunlight and for installations in cold climates with heavy snow which can accumulate on top of outdoor unit.
4. Take the weight of the air conditioner into account and select a place where noise and vibration are minimum.
5. Observe the below clearance requirements.

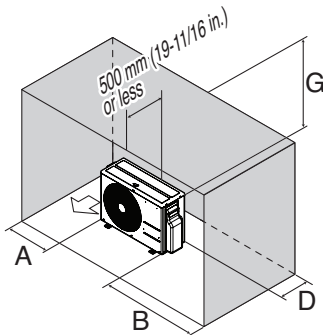
#### Note

- Normal clearances are recommended for service and cleaning access.
- If you do not meet the minimum clearances for installation, the unit does not guarantee the reliability of the unit.
- If the outdoor unit is installed between normal and minimum clearances, capacity can be decreased about 10%.

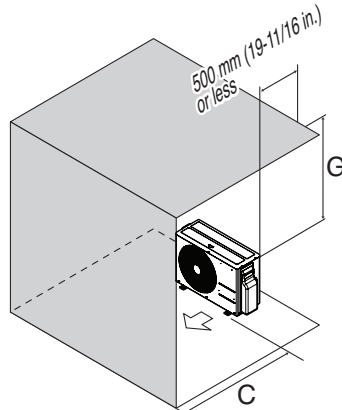
## 14. Installation

### Outdoor unit service access and allowable clearances

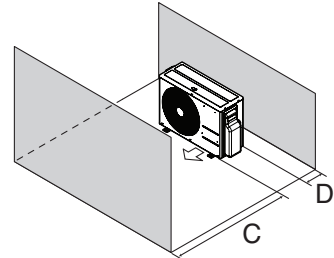
Case 1



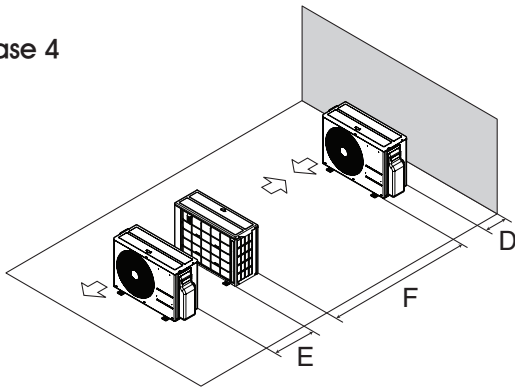
Case 2



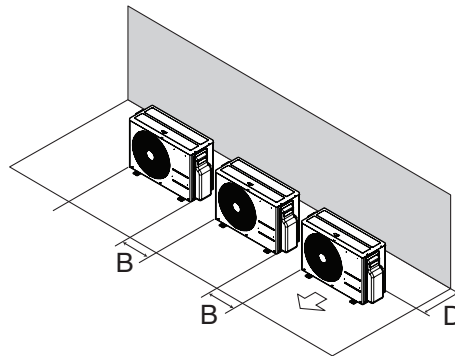
Case 3



Case 4



Case 5



Unit : mm		A	B	C	D	E	F	G
Case1	Normal	300	600	-	300	-	-	-
	Minimum	100	250	-	100	-	-	1000
Case2	Normal	-	-	500	-	-	-	-
	Minimum	-	-	350	-	-	-	1000
Case3	Normal	-	-	500	300	-	-	-
	Minimum	-	-	350	100	-	-	-
Case4	Normal	-	-	-	300	600	-	-
	Minimum	-	-	-	100	200	2000	-
Case5	Normal	-	600	-	300	-	-	-
	Minimum	-	250	-	100	-	-	-

Unit : inch		A	B	C	D	E	F	G
Case1	Normal	11-13/16	23-19/32	-	11-13/16	-	-	-
	Minimum	3-15/16	9-27/32	-	3-15/16	-	-	39-3/8
Case2	Normal	-	-	19-11/16	-	-	-	-
	Minimum	-	-	13-25/32	-	-	-	39-3/8
Case3	Normal	-	-	19-11/16	11-13/16	-	-	-
	Minimum	-	-	13-25/32	3-15/16	-	-	-
Case4	Normal	-	-	-	11-13/16	23-19/32	-	-
	Minimum	-	-	-	3-15/16	7-7/8	78-3/4	-
Case5	Normal	-	23-19/32	-	11-13/16	-	-	-
	Minimum	-	9-27/32	-	3-15/16	-	-	-

### Precautions about installation in regions with extreme snowfall and cold temperatures

To ensure the outdoor unit operates properly, certain measures are required in locations where there is a possibility of heavy snowfall or severe wind chill or cold :

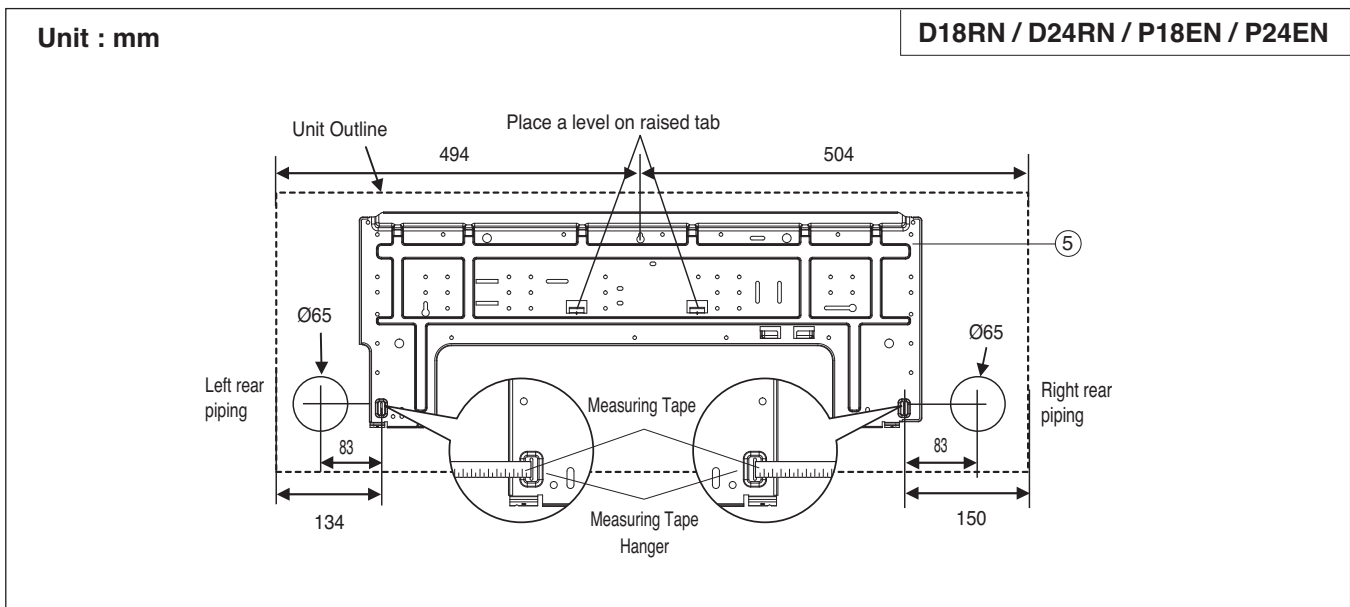
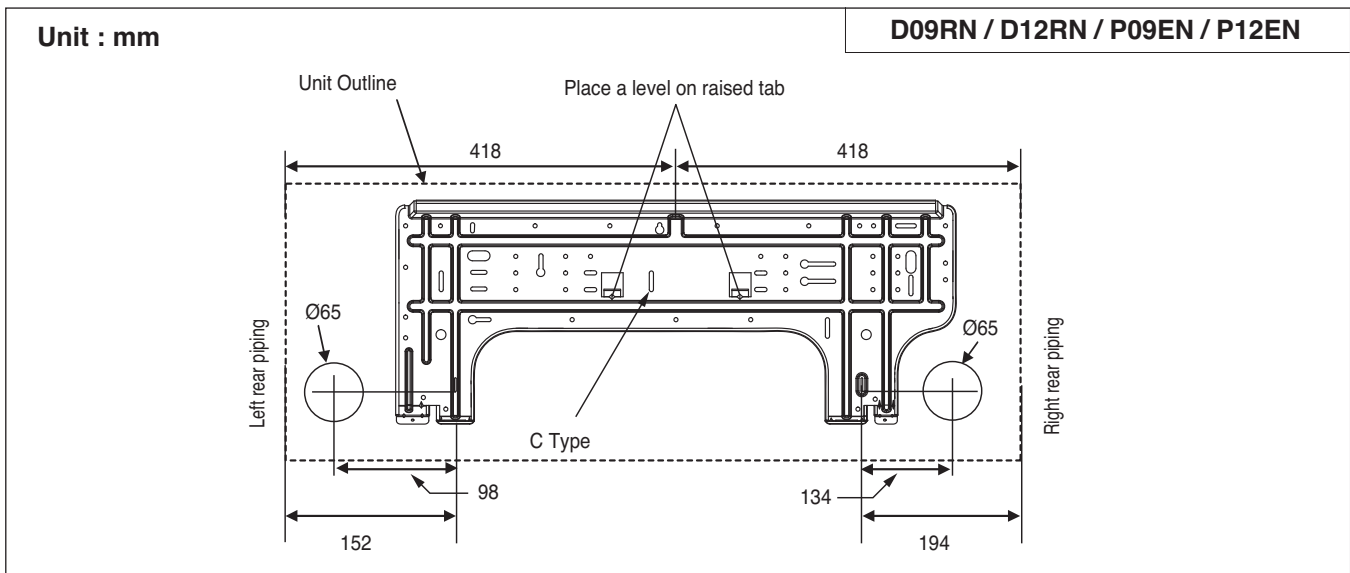
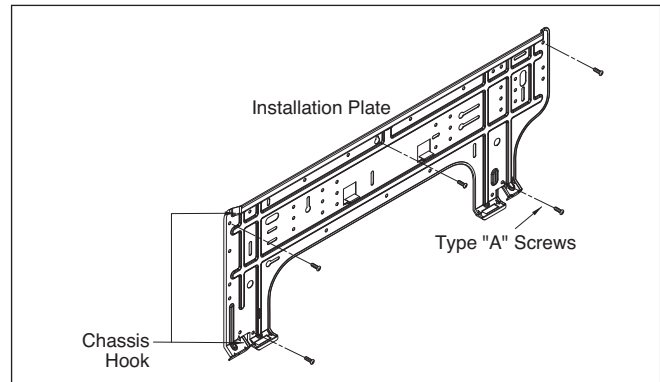
1. Prepare for severe winter wind chills and heavy snowfall, even in areas of the country where these are unusual phenomena.
2. Position the outdoor unit so that its airflow fans are not buried by direct, heavy snowfall. If snow piles up and blocks the airflow, the system may malfunction.
3. Remove any snow that has accumulated 100 mm ( 4 inches) or more on the top of the outdoor unit.
4. Place the outdoor unit on a raised platform at least 500 mm ( 20 inches) higher than the average annual snowfall for the area. If the frame width is wider than the outdoor unit, snow may accumulate.
5. Install a snow protection hood.
6. To prevent snow and heavy rain from entering the outdoor unit, install the suction and discharge ducts facing away from direct winds.
7. Additionally, the following conditions should be taken into consideration when the unit operates in defrost mode :
  - If the outdoor unit is installed in a highly humid environment (near an ocean, lake, etc.), ensure that the site is well-ventilated and has a lot of natural light. (Example : Install on a rooftop.)

## 14. Installation

### Fixing Installation Plate

The wall you select should be strong and solid enough to prevent vibration

1. Mount the installation plate on the wall with type "A" screws. If mounting the unit on a concrete wall, use anchor bolts.
  - Mount the installation plate horizontally by aligning the centerline using a level gauge.
2. Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate. Routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

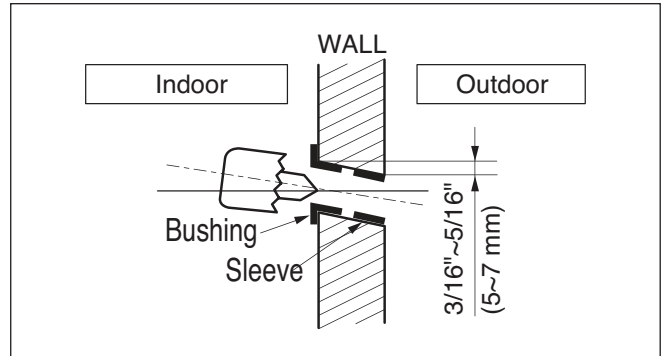


# Inverter Single

## 14. Installation

### Drill a Hole in the Wall

- Drill the piping hole with a  $\varnothing$  2-9/16 inch (65mm) hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.



#### **CAUTION**

- Use a sleeve to prevent damage to the tube assembly.

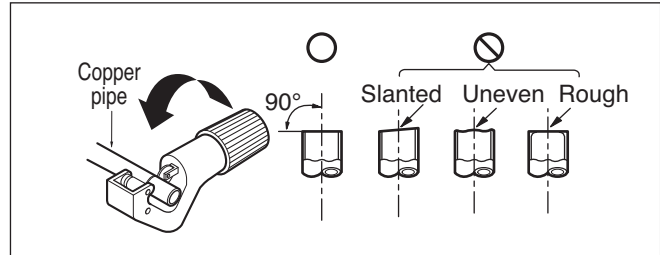


### Flaring Work

One cause of gas leakage is improper workmanship in flaring. Carry out correct flaring work in the following procedure.

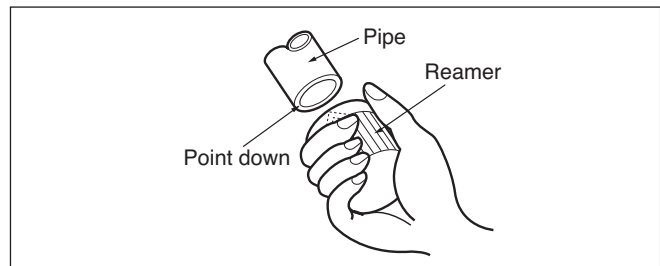
#### Cut the pipes and the cable.

1. Use the piping kit accessory or the pipes purchased locally.
2. Measure the distance between the indoor and the outdoor unit.
3. Cut the pipes a little longer than measured distance.
4. Cut the cable 1.5m(5ft) longer than the pipe length.



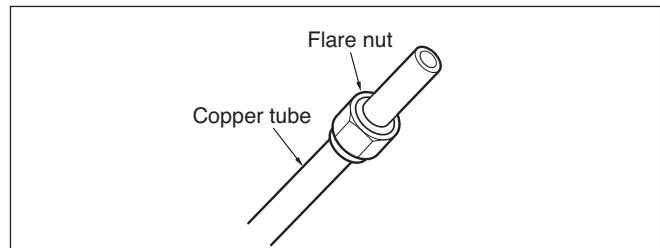
#### Burrs removal

1. Completely remove all burrs from the cut cross section of pipe/tube.
2. While removing burrs put the end of the copper tube/pipe in a downward direction while removing burrs location is also changed in order to avoid dropping burrs into the tubing.



#### Putting nut on

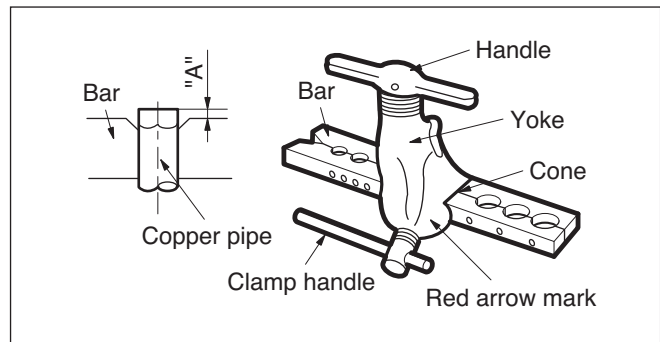
- Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal. (not possible to put them on after finishing flare work)



#### Flaring work

1. Firmly hold copper pipe in a bar with the dimension shown in table below.

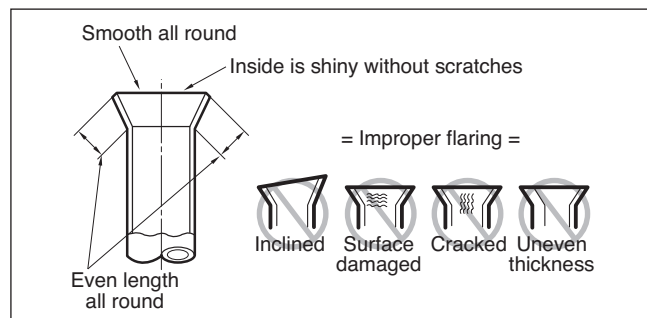
Outside diameter		A	
mm	inch	mm	inch
Ø6.35	1/4	1.1 ~ 1.3	0.043 ~ 0.051
Ø9.52	3/8	1.5 ~ 1.7	0.059 ~ 0.067
Ø12.7	1/2	1.6 ~ 1.8	0.063 ~ 0.071
Ø15.88	5/8	1.6 ~ 1.8	0.063 ~ 0.071



2. Carry out flaring work with the flaring tool.

#### Check

1. Compare the flared work with the figure by.
2. If a section is improperly flared, cut it off and perform flaring work again.



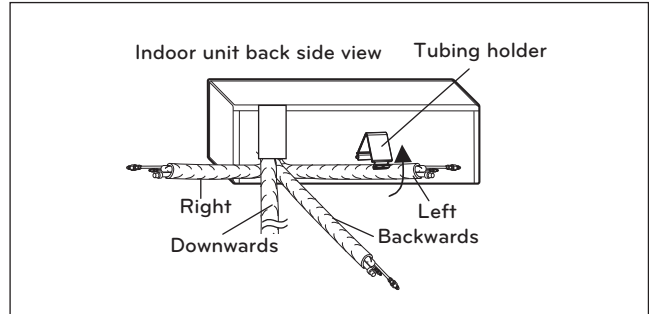
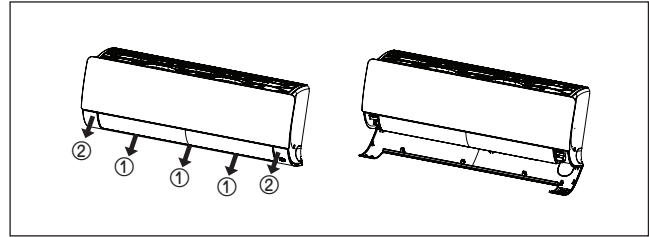
# Inverter Single

## 14. Installation

### Connecting the Piping

#### Indoor unit

1. Pull the cover at the bottom of the indoor unit.
2. Remove the cover from the indoor unit.
3. Pull back the tubing holder.
4. Remove the pipe port cover and position the piping.

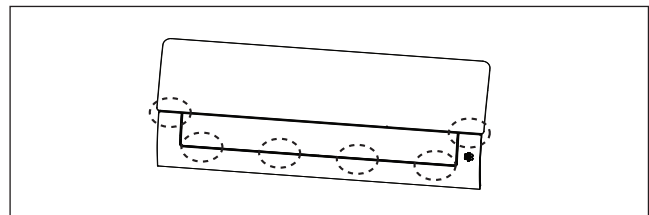
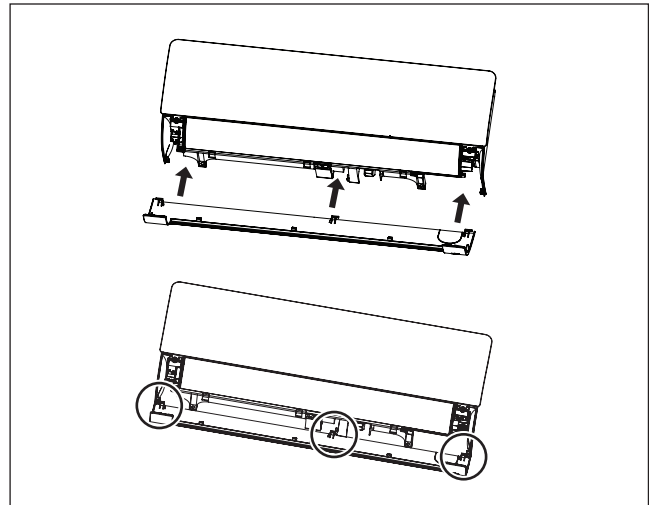


#### Assembly of chassis cover

1. Insert 3 or 4 hooks of the chassis cover into gap of the chassis certainly.
2. Push the hooks to assemble chassis cover.

**! CAUTION**

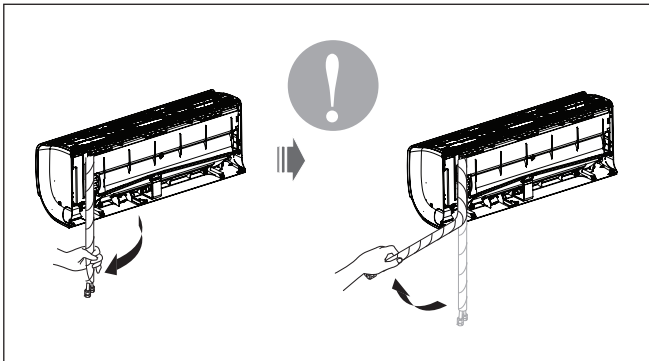
To protect the chassis cover bended, assembly chassis cover correctly.



### Folding the pipe

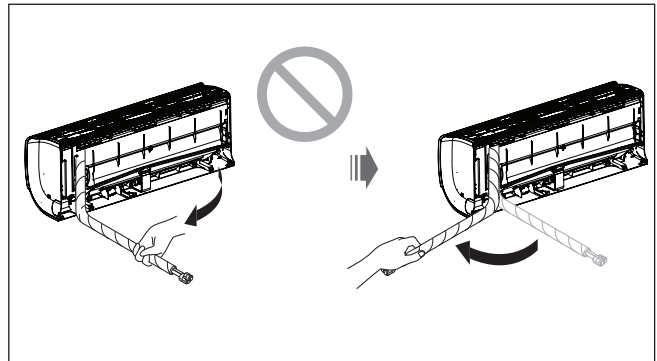
#### Good case

- Press on the tubing cover and unfold the tubing to downward slowly. And then bend to the left side slowly.



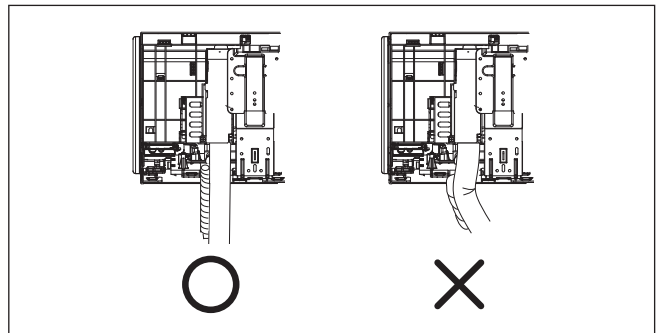
#### Bad case

- Following bending case from right to left directly may cause damage to the tubing.



#### ⚠ CAUTION

- Secure the pipe by using the tubing cover.
- Do not strongly press the refrigerant pipes onto the bottom frame.
- Do not strongly press the refrigerant pipes on the front grille, either.

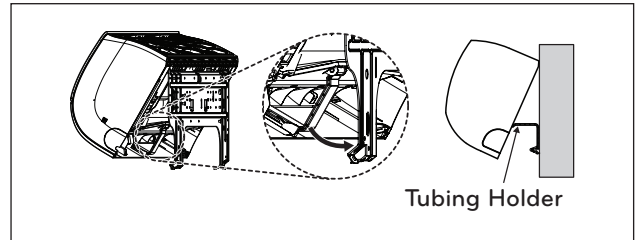
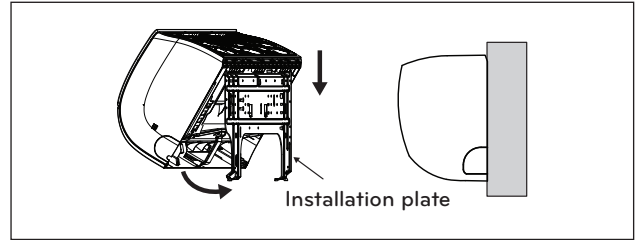


# Inverter Single

## 14. Installation

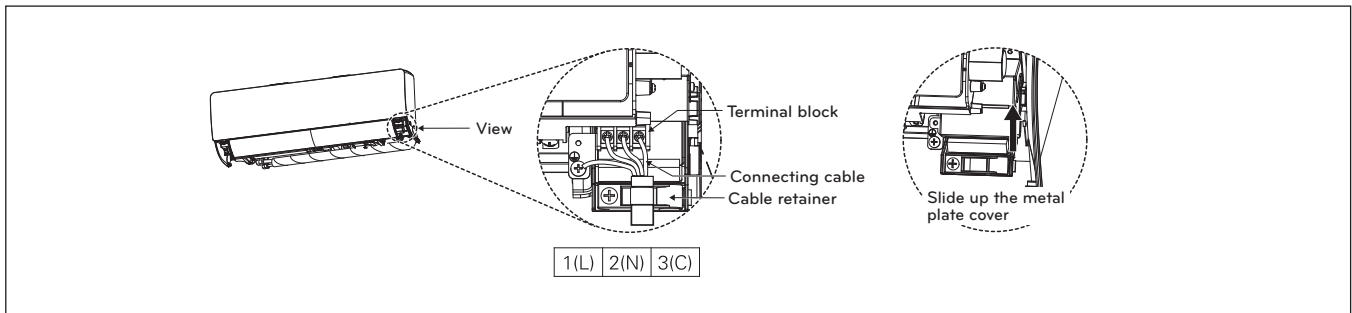
### Installation of Indoor Unit

1. Hook the indoor unit onto the upper portion of the installation plate. (engage the three hooks at the top of the indoor unit with the upper edge of the installation plate) Ensure that the hooks are properly seated on the installation plate by moving it left and right
2. Unlock the tubing holder from the chassis and mount between the chassis and installation plate in order to separate the bottom side of the indoor unit from the wall



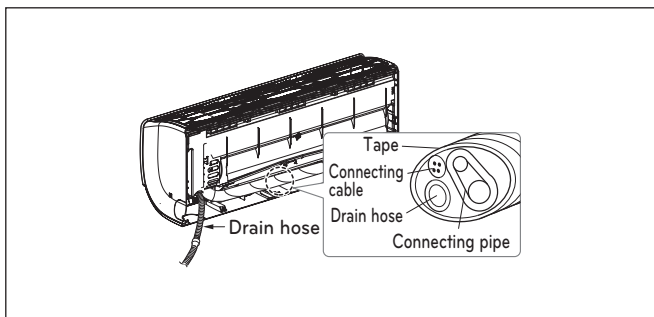
### Piping

1. Insert the connecting cable through the bottom side of indoor unit and connect the cable (You can see detail contents in 'Connecting the cables' section)
2. Secure the cable onto the control board with the cable retainer.

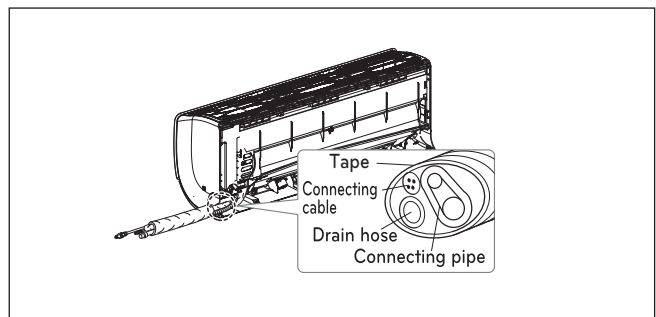


3. Tape the tubing pipe, drain hose and the connection cable. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause overflow from the drain pan through the inside of the unit. Be sure to install in the sequence of Connecting cable (Conduit), Drain hose and Connecting pipe as the picture below describes.

<Left side piping>



<Right side piping>

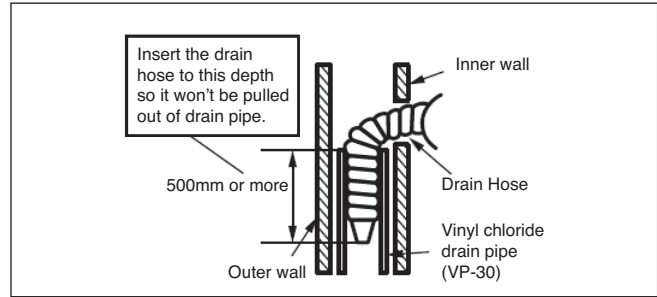
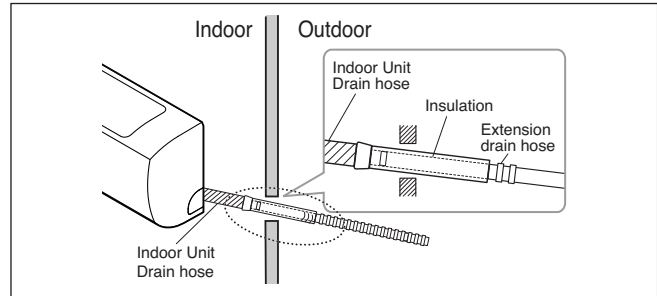


### ⚠ CAUTION

If the extension drain hose is routed inside the room, insulate the hose with an insulation material\* so that dripping from sweating (condensation) could not damage furniture or floors.

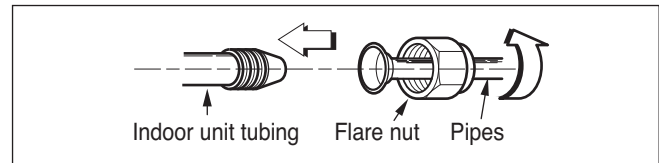
- Foamed polyethylene or equivalent is recommended.
- Insulation should be more than 100~300mm length and 7mm thickness.

- Insert the drain hose more than 50mm so it won't be pulled out of the drain pipe.



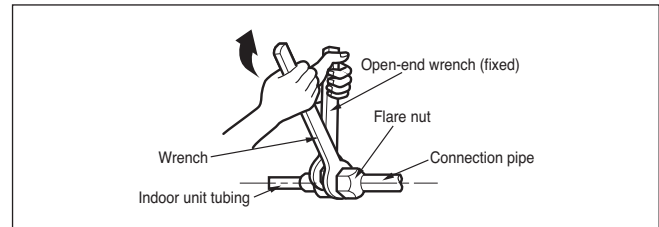
### Connecting the installation pipe and drain hose to the indoor unit.

1. Align the center of the pipes and sufficiently tighten the flare nut by hand

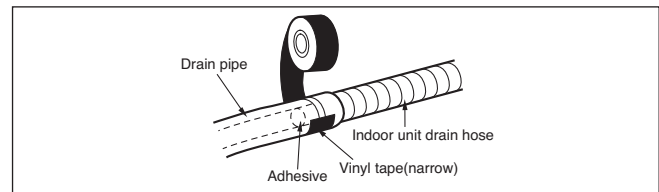


2. Tighten the flare nut with a wrench

Outside diameter		Torque	
mm	inch	kgf·m	lbf·ft
Ø6.35	1/4	1.8~2.5	13~18
Ø9.52	3/8	3.4~4.2	24.6~30.4
Ø12.7	1/2	5.5~6.6	39.8~47.7
Ø15.88	5/8	6.3~8.2	45.6~59.3



3. When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing

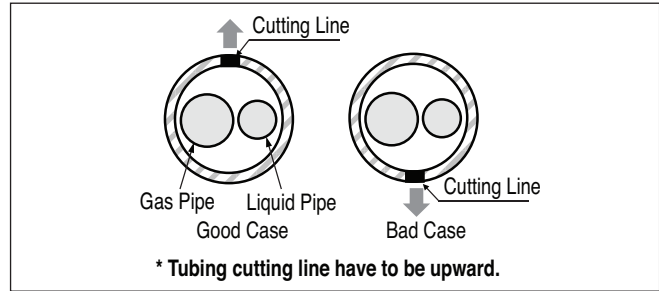
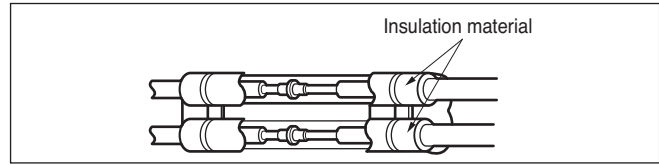


# Inverter Single

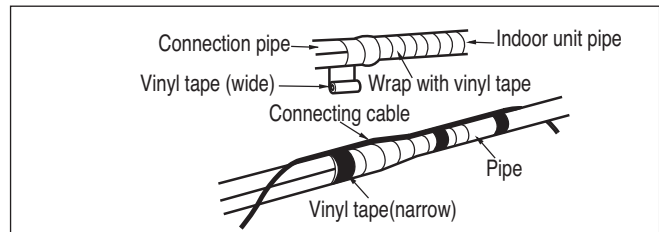
## 14. Installation

### Wrap the insulation material around the connecting portion.

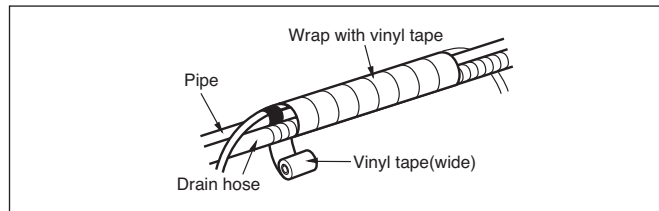
1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
2. Set the tubing cutting line upward.  
Wrap the area which accommodates the rear piping housing section with vinyl tape.



\* both refrigerant pipes (liquid and gas) must be insulated between the ODU and IDU, not just the connection.

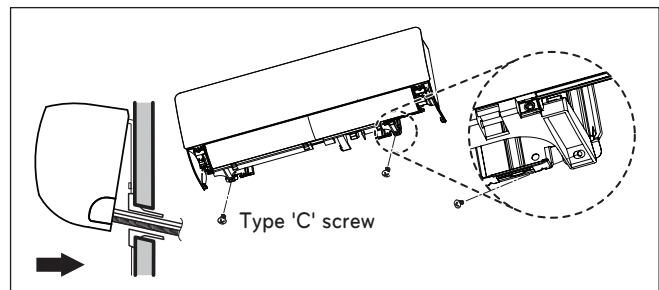


3. Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section.



### Finishing the indoor unit installation

1. Mount the tubing holder in the original position.
2. Ensure that the hooks are properly seated on the installation plate by moving it left and right.
3. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).
4. Finish the assembly by screwing the unit to the installation plate by using two pieces of type "C" screws. And assemble a chassis cover.



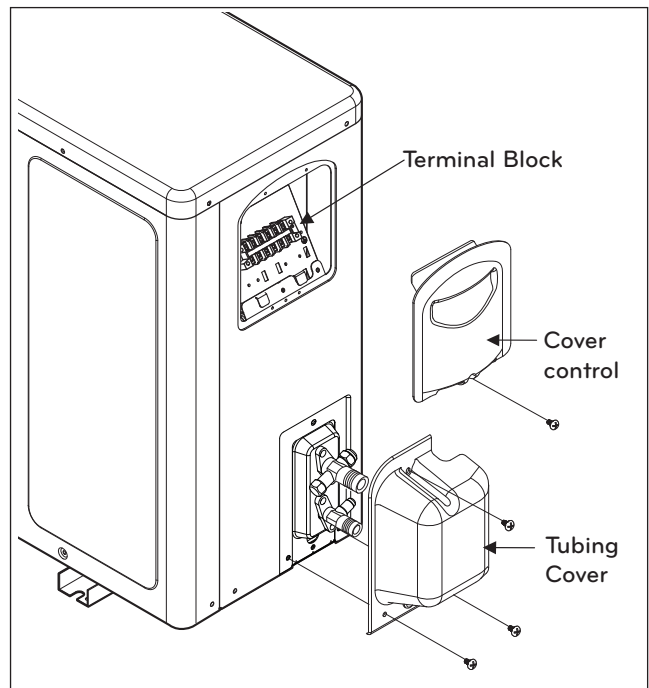
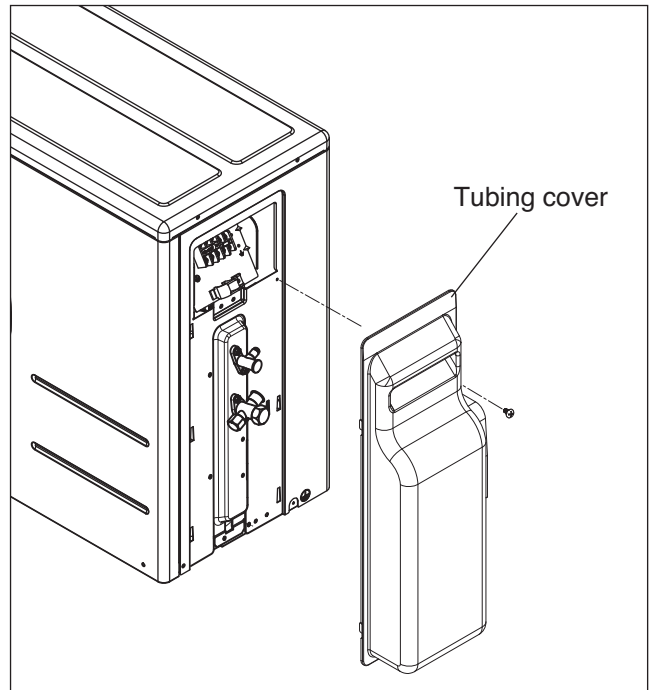
### ⚠ CAUTION

- Before finishing installation of the indoor unit, seal the hole of a wall except the pipe's ways to prevent condensate from inflow of outdoor air.

## 14. Installation

### Outdoor unit

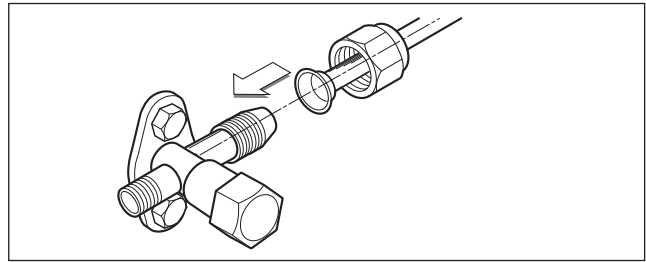
1. Remove the tubing cover from the unit by loosening the screw.



# Inverter Single

## 14. Installation

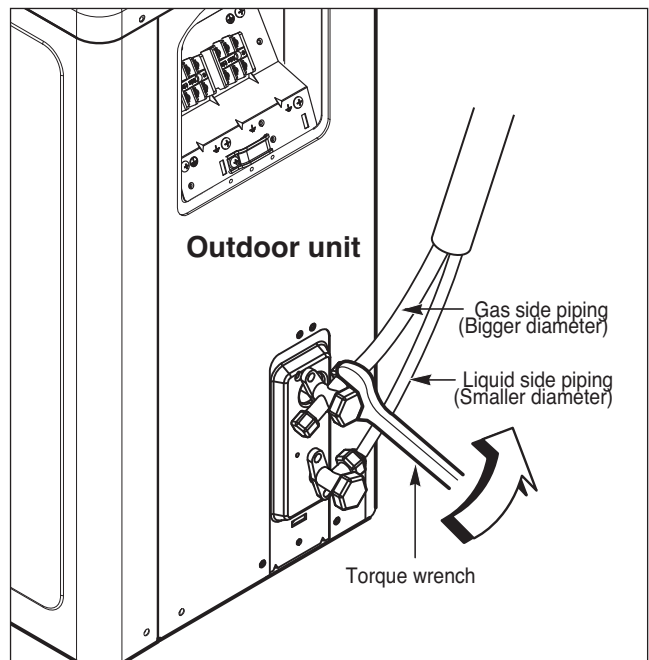
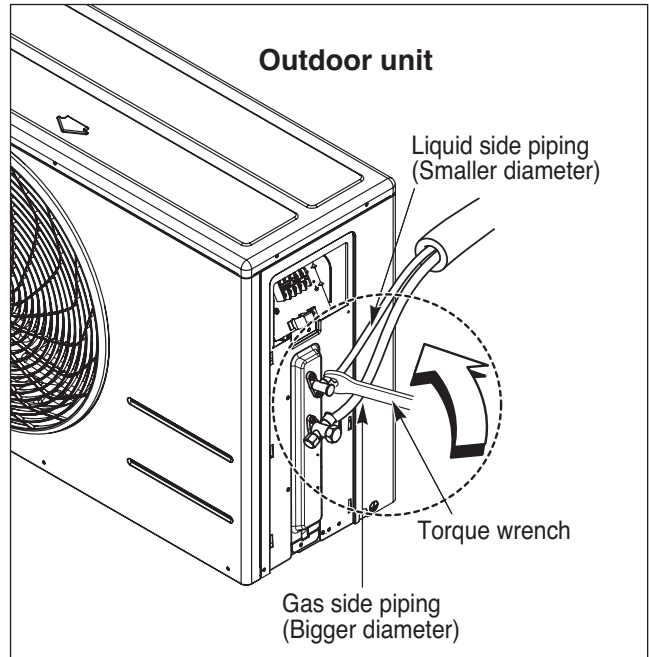
2. Align the center of the pipings and sufficiently tighten the flare nut by hand.



3. Finally, tighten the flare nut with torque wrench until the wrench clicks.

- When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.

Outside diameter		Torque	
mm	inch	kgf·m	lbf·ft
Ø6.35	1/4	1.8~2.5	13~18
Ø9.52	3/8	3.4~4.2	24.6~30.4
Ø12.7	1/2	5.5~6.6	39.8~47.7
Ø15.88	5/8	6.3~8.2	45.6~59.3





# Inverter Single

## 14. Installation

### Connecting the Cables

#### Indoor unit

Connect the cable to the indoor unit by connecting the wires to the terminals on the control board individually according to the outdoor unit connection. (Ensure that the color of the wires of the outdoor unit and the terminal No. are the same as those of the indoor unit.)

#### ⚠ CAUTION

- The circuit diagram is a subject to change without notice.
- The earth wire should be longer than the common wires.
- When installing, refer to the circuit diagram on the control cover.
- Connect the wires firmly so that they may not be pulled out easily.
- Connect the wires according to color codes, referring to the wiring diagram.
- Connect the wires should be sized per local code.

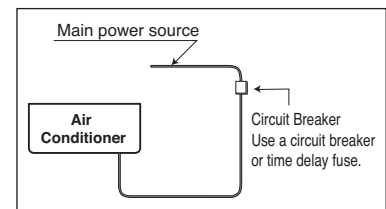
#### Outdoor unit

- Connect the wires to the terminals on the control board individually.
- Secure the cable onto the control board with the cord clamp.
- Use a recognized circuit breaker between the power source and the unit.
- A disconnecting device to adequately disconnect all supply lines must be fitted.
- Provide a circuit breaker between power source and the outdoor unit as shown below.

#### ⚠ CAUTION

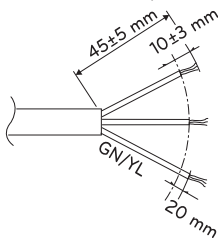
Provide the circuit breaker between power source and the unit as shown by.

Circuit Breaker	Capacity (kW)		
	2.5 ~ 3.5	5.0	6.6
A	15	20	25



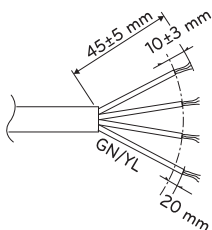
#### ⚠ CAUTION

The power cord connected to unit should be selected according to the following national wiring regulations. The supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (code designation 60245 IEC 57, H05RN-F)



Power Supply	Capacity (kW)		
	2.5 ~ 3.5	5.0	6.6
Nominal Cross-Sectional Area (mm <sup>2</sup> )	1.0	1.5	2.5

The power connecting cable with indoor and outdoor unit should be selected according to the following national wiring regulations. The supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (code designation 60245 IEC 57, H05RN-F)



Power Supply / Communication	Capacity (kW)		
	2.5 ~ 3.5	5.0	6.6
Nominal Cross-Sectional Area (mm <sup>2</sup> )	1.0	1.0	1.0

\* Field wiring shall be done such that the current carrying conductors become taut before the earthing conductor if the cord slips out of the cord anchorage.

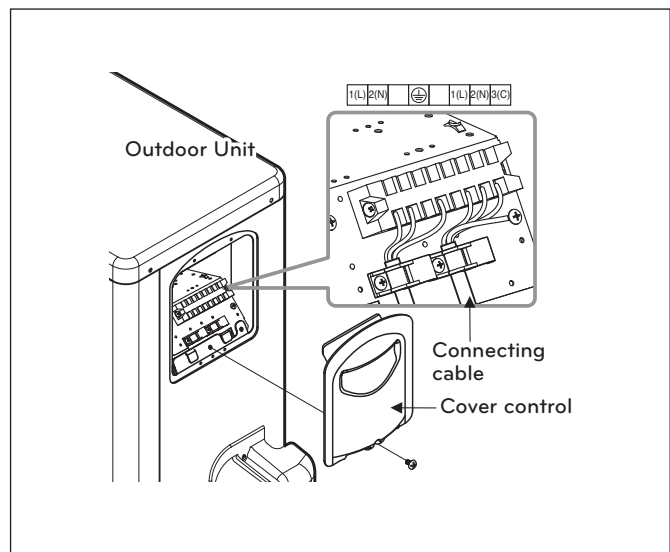
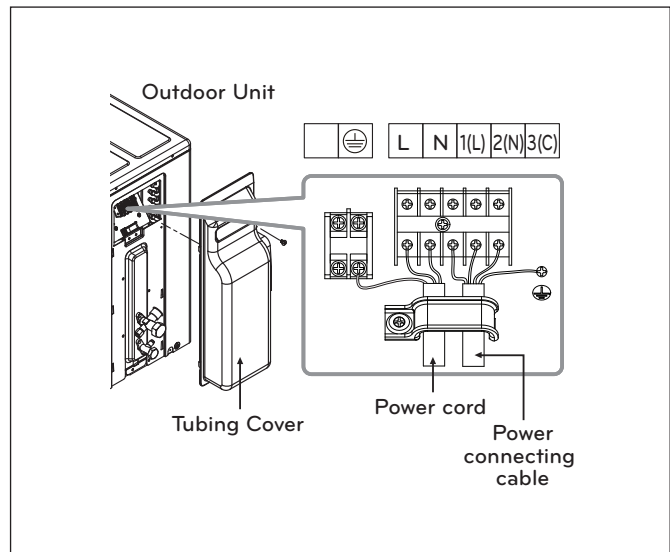
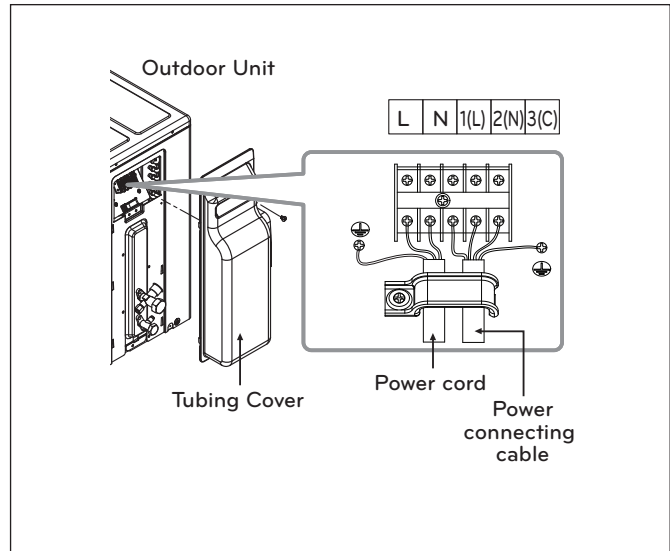
#### ⚠ CAUTION

When using the separate wire as the power cord, please fix the separate wire into the control box panel by using tie wrap as the fixture.

# Inverter Single

## 14. Installation

1. Remove the cover control from the unit by loosening the screw. Connect the wires to the terminals on the control board individually as the following.
2. Secure the cable onto the control board with the holder (clamer).
3. Refix the cover control to the original position with the screw.



### CAUTION

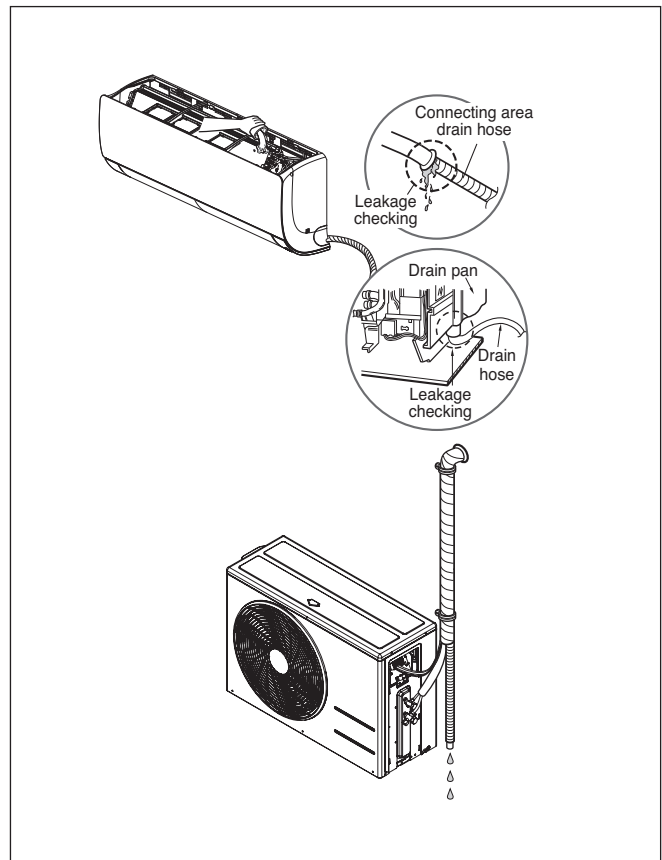
According to the confirmation of the above conditions, prepare the wiring as follows.

1. Never fail to have an individual power circuit specifically for the air conditioner. As for the method of wiring, be guided by the circuit diagram posted on the inside of control cover.
2. The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could cause burn-out of the wires.)
3. Specification of power source.
4. Confirm that electrical capacity is sufficient.
5. See that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
6. Confirm that the cable thickness is as specified in the power source specification. (Particularly note the relation between cable length and thickness.
7. Always install an earth leakage circuit breaker in a wet or moist area.
8. The following would be caused by voltage drop.
  - Vibration of a magnetic switch, which will damage the contact point, fuse breaking, disturbance of the normal function of the overload.
9. The means for disconnection from a power supply shall be incorporated in the fixed wiring and have an air gap contact separation of at least 3mm in each active(phase) conductors.

### Checking the Drainage

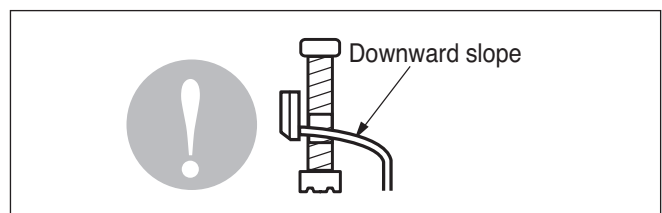
#### To check the drainage.

1. Pour a glass of water on the evaporator.
2. Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.



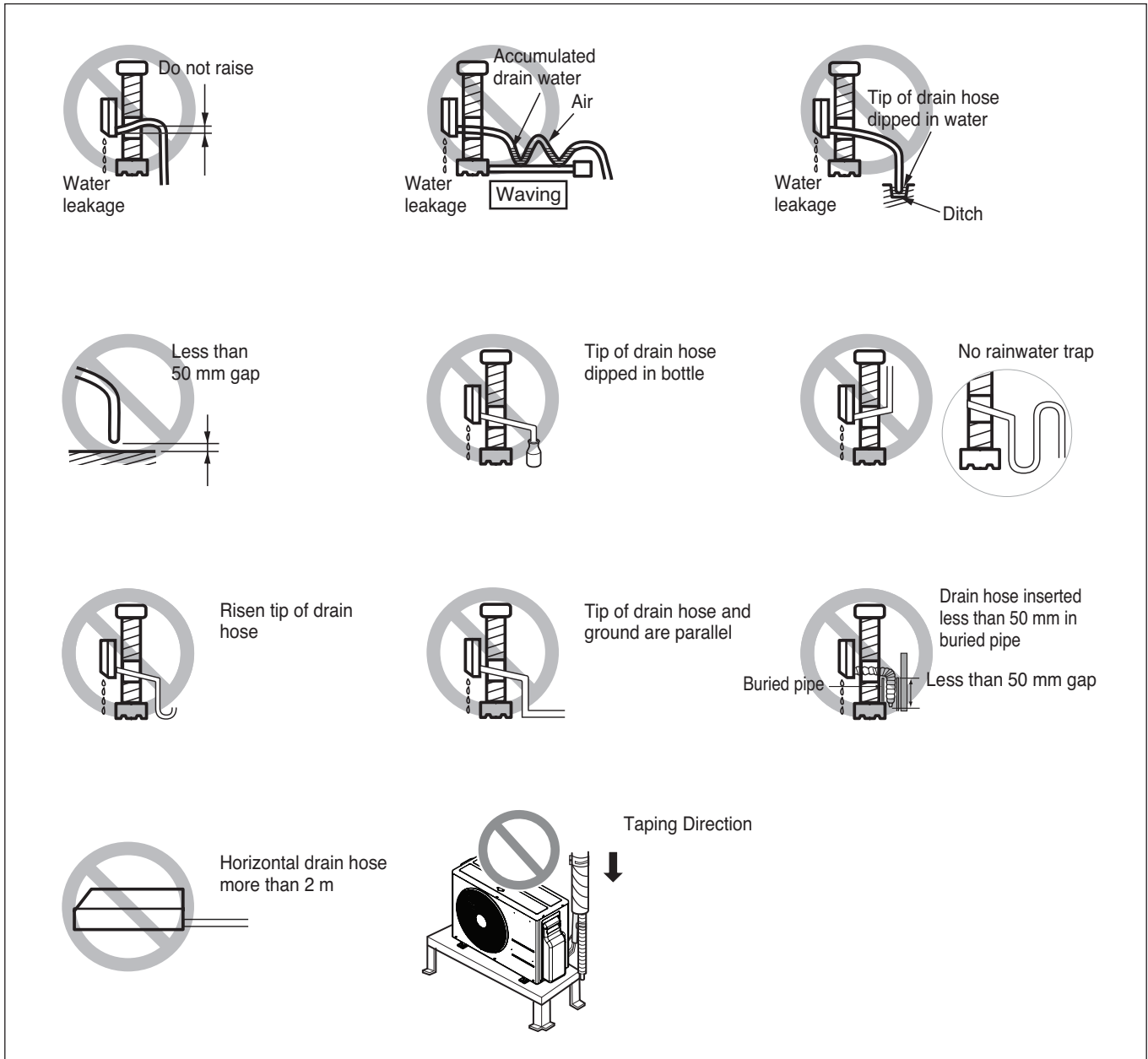
#### Drain piping

1. The drain hose should point downward for easy drain flow.



## 14. Installation

2. Do not make drain piping like the following.



# Inverter Single

## 14. Installation

### Installing Drain Piping of the Outdoor Unit

Depending on installation site, it may be required to install drain plug for drainage(Supplied with the unit). In cold areas, do not use a drain hose With the outdoor unit. Otherwise, drain water may freeze, impairing the heating performance.

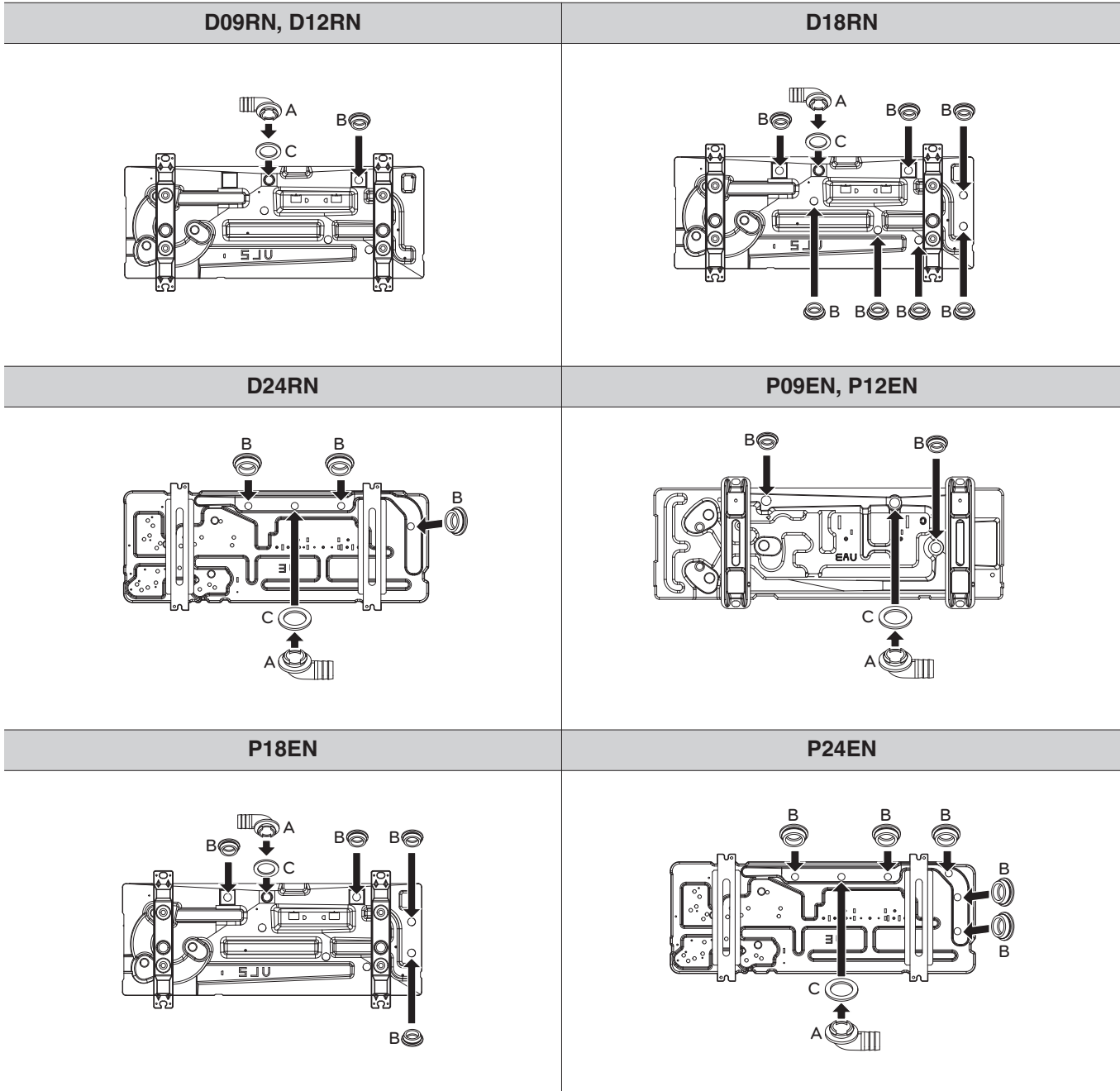
1. See the figure below for installation of the drain plug.

A : Drain connection

B : Drain cap

C : Drain washer

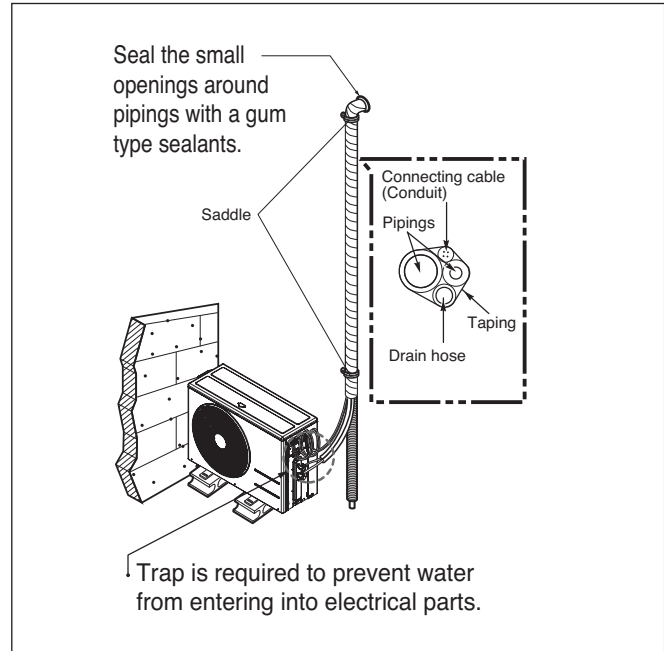
2. Connect a field supplied vinyl hose to the drain connection (A). If the hose is too long and hangs down, fix it carefully to prevent kinks.



### Forming the Piping

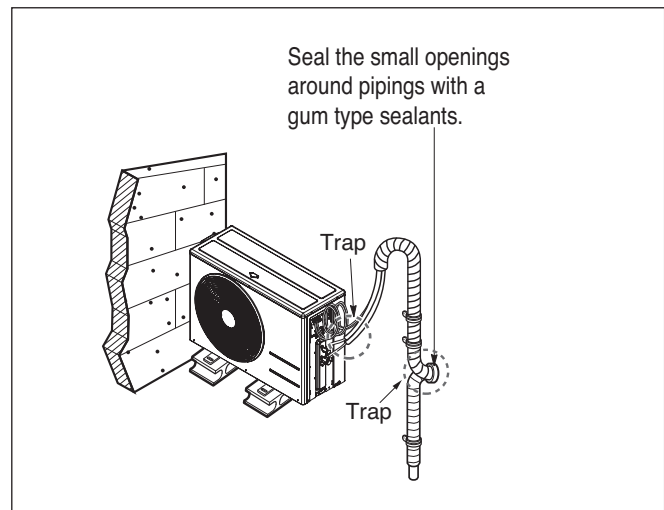
**In cases where the outdoor unit is installed below the indoor unit perform the following.**

1. Tape the piping, drain hose and connecting cable from down to up.
2. Secure the tapped piping along the exterior wall using saddle or equivalent.



**In cases where the outdoor unit is installed above the indoor unit perform the following.**

1. Tape the piping and connecting cable from down to up.
2. Secure the taped piping along the exterior wall. Form a trap to prevent water entering the room.
3. Fix the piping onto the wall using saddle or equivalent.



# Inverter Single

## 14. Installation

### Air Purging

The air and moisture remaining in the refrigerant system have undesirable effects as indicated below.

1. Pressure in the system rises.
2. Operating current rises.
3. Cooling(or heating) efficiency drops.
4. Moisture in the refrigerant circuit may freeze and block capillary tubing.
5. Water may lead to corrosion of parts in the refrigeration system.

Therefore, after evacuating the system, take a leak test for the piping and tubing between the indoor and outdoor unit.

### Air purging with vacuum pump

#### 1. Preparation

- Check that each tube(both liquid and gas side tubes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed. Remove the service valve caps from both the gas and the liquid side on the outdoor unit. Note that both the liquid and the gas side service valves on the outdoor unit are kept closed at this stage.

#### 2. Leak test

- Connect the manifold valve(with pressure gauges) and dry nitrogen gas cylinder to this service port with charge hoses.

#### ⚠ CAUTION

Be sure to use a manifold valve for air purging. If it is not available, use a stop valve for this purpose.

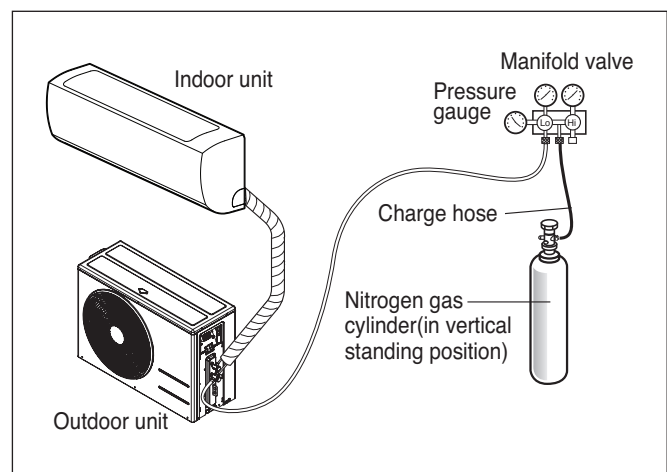
The knob of the 3-way valve must always be kept close.

- Pressurize the system to maximum 250 P.S.I.G. (R-22 model) or 400 P.S.I.G. (R-410A model) with dry nitrogen gas and close the cylinder valve when the gauge reading reaches 250 P.S.I.G. (R-22 model) or 400 P.S.I.G. (R-410A model). Next step is leak test with liquid soap.

#### ⚠ CAUTION

To avoid nitrogen entering the refrigerant system in a liquid state, the top of the cylinder must be higher than its bottom when you pressurize the system. Usually, the cylinder is used in a vertical standing position.

1. Do a leak test of all joints of the tubing(both indoor and outdoor) and both gas and liquid side service valves. Bubbles indicate a leak. Be sure to wipe off the test solution with a clean cloth.
2. After the system is found to be free of leaks, relieve the nitrogen pressure by loosening the charge hose connector at the nitrogen cylinder. When the system pressure is reduced to normal, disconnect the hose from the cylinder.





## 14. Installation

### Soap water method

1. Remove the caps from the 2-way and 3-way valves.
2. Remove the service-port cap from the 3-way valve.
3. Apply a soap water or a liquid neutral detergent on the indoor unit connection or outdoor unit connections by a soft brush to check for leakage of the connecting points of the piping.
4. If bubbles come out, the pipes have leakage.

### Evacuation

1. Connect the charge hose end described in the preceding steps to the vacuum pump to evacuate the tubing and indoor unit.

Confirm the "Lo" knob of the pressure Gauge is open.

Then, run the vacuum pump.

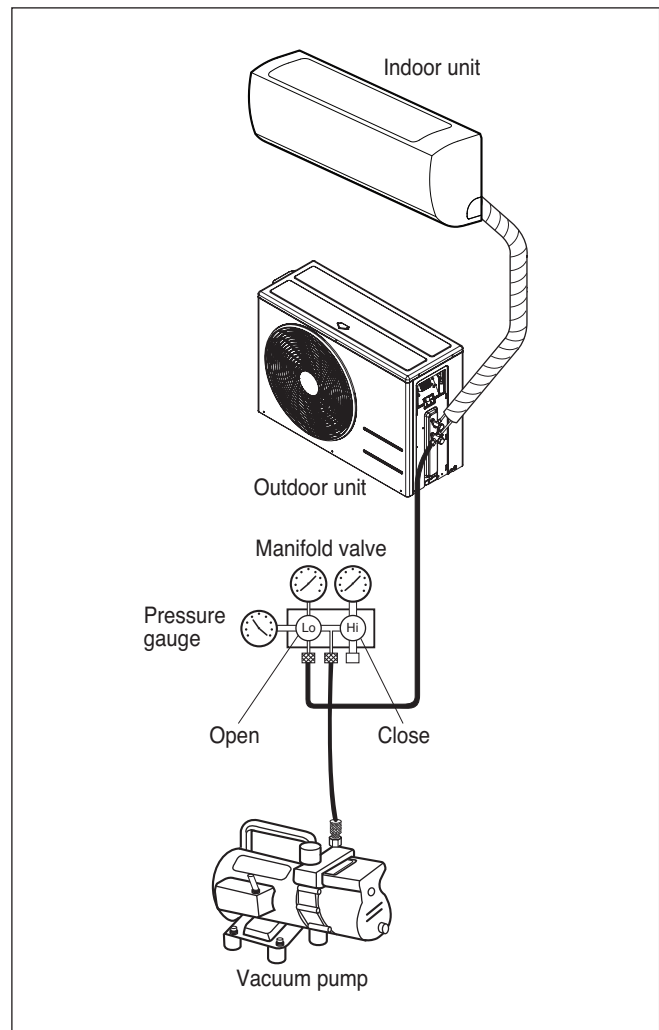
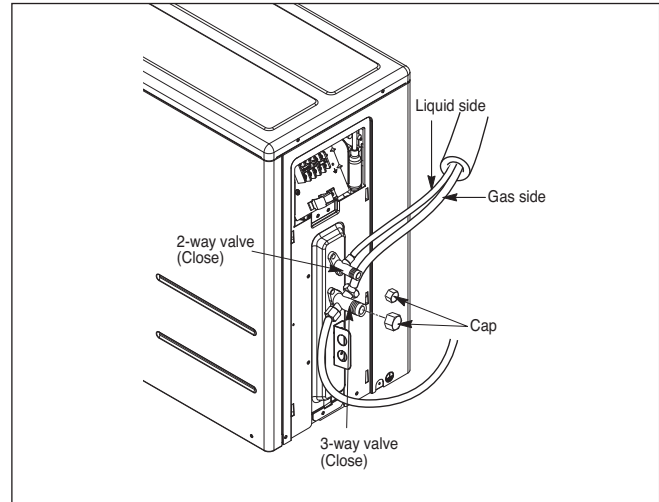
The operation time for evacuation varies with tubing length and capacity of the pump. The following table shows the time required for evacuation.

Required time for evacuation when 30 gal/h vacuum pump is used	
If tubing length is less than 10m (33 ft)	If tubing length is longer than 10m (33 ft)
10 min. or more	15 min. or more

2. When the desired vacuum is reached, close the knob of the 3-way valve and stop the vacuum pump.

### Finishing the job

1. With a service valve wrench, turn the valve of liquid side counter-clockwise to fully open the valve
2. Turn the valve of gas side counter clockwise to fully open the valve
3. Loosen the charge hose connected to the gas side service port slightly to release the pressure, then remove the hose.
4. Replace the flare nut and its bonnet on the gas side service port and fasten the flare nut securely with an adjustable wrench. This process is very important to prevent leakage from the system
5. Replace the valve caps at both gas and liquid side service valves and fasten them tight.  
This completes air purging with a vacuum pump.
6. Replace the pipe cover to the outdoor unit by one screw.  
Now the air conditioner is ready for test run.



### Test Running

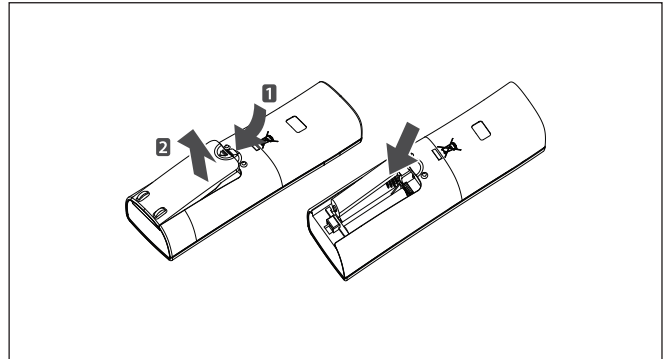
1. Check that all tubing and wiring are properly connected.
2. Check that the gas and liquid side service valves are fully open.

### Prepare remote controller

1. Remove the battery cover by pulling it according to the arrow direction.
2. Insert new batteries making sure that the (+) and (-) of battery are installed correctly.
3. Reattach the cover by pushing it back into position.

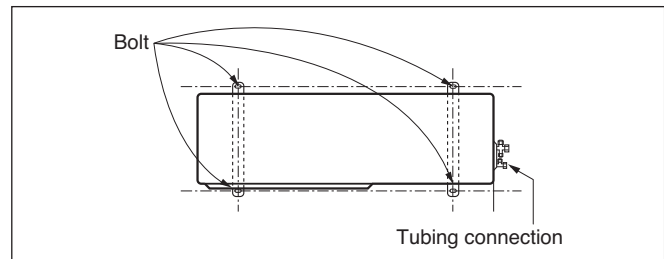
#### Note

- Use 2 AAA(1.5volt) batteries. Do not use rechargeable batteries.
- Remove the batteries from the remote controller if the system is not used for a long time.



### Settlement of outdoor unit

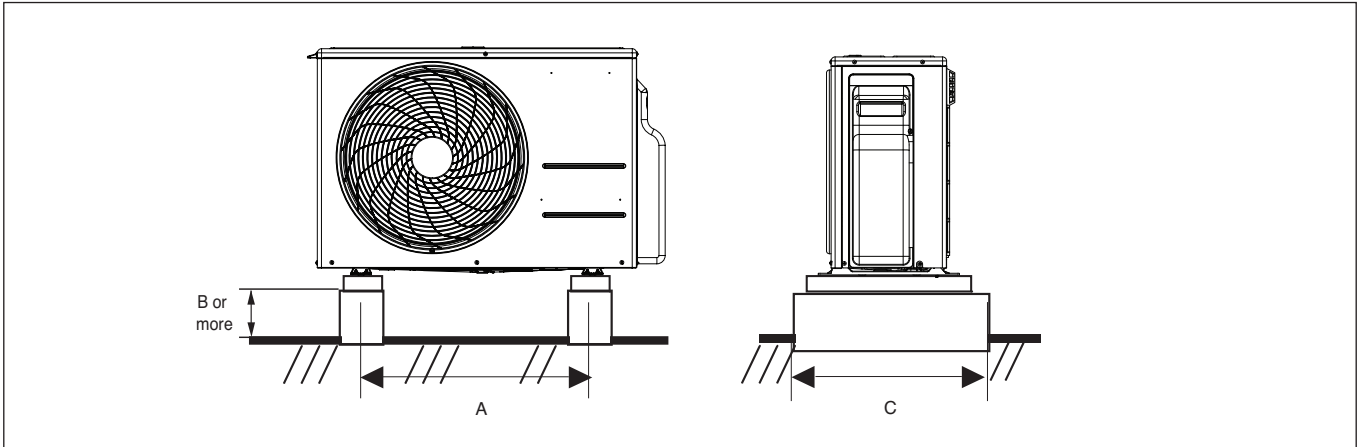
1. Fix the outdoor unit with a bolt and nut( $\phi 10\text{mm}$ ) tightly and horizontally on a concrete or rigid mount.
2. When installing on the wall, roof or rooftop, anchor the mounting base securely with a nail or wire assuming the influence of wind and earthquake.
3. If the vibration of the unit is transmitted to the pipe, secure the unit with an anti-vibration rubber.



## 14. Installation

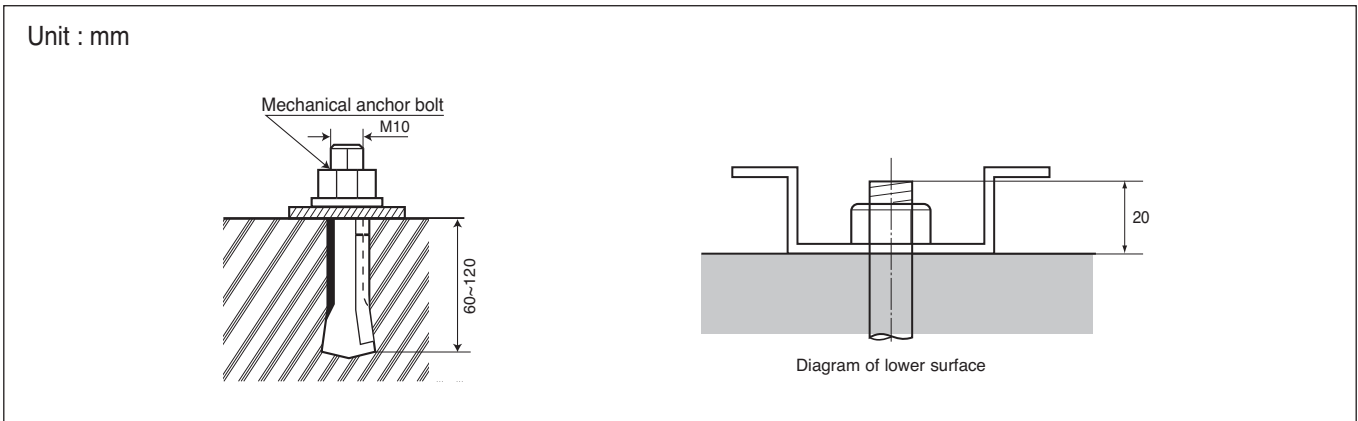
### Foundation

For good drain of outdoor unit, keep the bottom height from icing upward.



Unit : mm		Foundation			Leg	
Model	Tool	A	B	C	Material	Thickness
P09EN, P12EN	UA3	463	100	280	SGCC	1.2
D09RN, D12RN, D18RN, P18EN	UL2	558	100	370	SAZCC	1.2
D24RN, P24EN	UE	546	100	370	SAZCC	1.6

### Bolt construction work



# Inverter Single

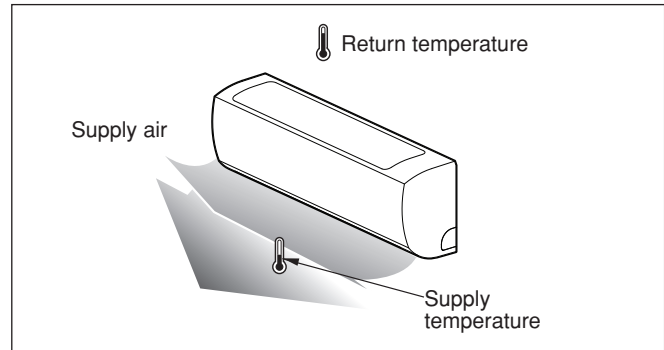
## 14. Installation

### Evaluation of the performance

Operate the unit for 15~20 minutes, then check the system refrigerant charge:

1. Measure the pressure of the gas side service valve.
2. Measure the air temperature from inlet and outlet of air conditioner.
3. Ensure the difference between the inlet and outlet temperature is more than 8°C(14.4°F).
4. For reference; the gas side pressure at optimum condition is shown on table (cooling)

The air conditioner is now ready to use.



Refrigerant	Outside ambient TEMP.	The pressure of the gas side
R-410A	35°C (95°F)	8.5~9.5kg/cm <sup>2</sup> G (120~135 P.S.I.G.)

### Note

If the actual pressure is higher than shown, the system is most likely over-charged, and charge should be removed.

If the actual pressure are lower than shown, the system is most likely undercharged, and charge should be added.

### Pump down

This is performed when the unit is relocated or the refrigerant circuit is serviced.

Pump Down means collecting all refrigerant into the outdoor unit without the loss of refrigerant.

#### CAUTION

Be sure to perform Pump Down procedure in the cooling mode.

### Pump down procedure

1. Connect a low-pressure gauge manifold hose to the charge port on the gas side service valve.
2. Open the gas side service valve halfway and purge the air in the manifold hose using the refrigerant.
3. Close the liquid side service valve(all the way).
4. Turn on the unit's operating switch and start the cooling operation.
5. When the low-pressure gauge reading becomes 1 to 0.5kg/cm<sup>2</sup> G(14.2 to 7.1 P.S.I.G.), fully close the gas side valve and then quickly turn off the unit. Now Pump Down procedure is completed, and all refrigerant is collected into the outdoor unit.

### Check test items

	Test Items	Check
1	Indoor unit is hooked to the installation plate properly.	
2	The gas and liquid service valves are fully opened.	
3	There is no refrigerant gas leakage.	
4	System is properly grounded.(No electrical leakage)	
5	The connection cable is clamped firmly.	
6	Indoor unit receives remote control commands and operates properly.	
7	Cooling/Heating operation is normal.	
8	There is no abnormal sound.	
9	There is no water leakage.	

# Inverter Single

## 14. Installation

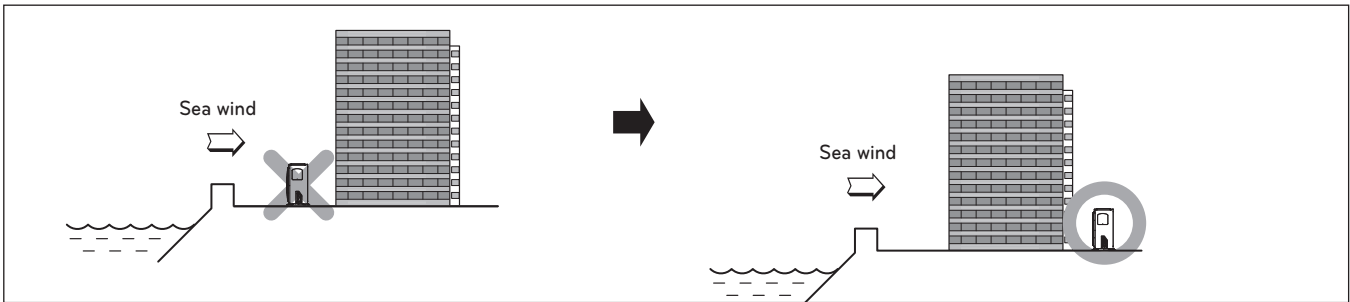
### Installation Guide for Areas Exposed to Sea Wind

#### ⚠ CAUTION

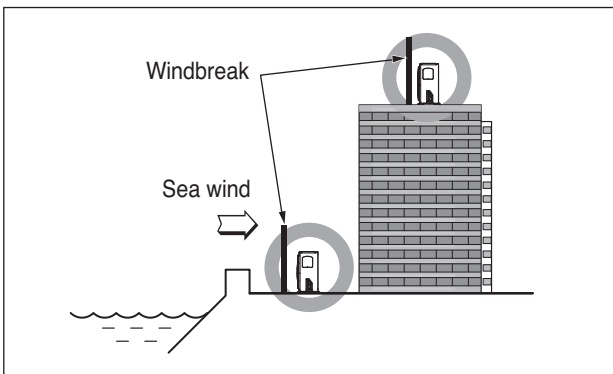
1. Air conditioners should not be installed in areas where corrosive gases, such as acid or alkaline gas, are produced.
2. Do not install the product where it could be exposed to sea wind (salty wind) directly. It can result corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient performance.
3. If outdoor unit is installed close to the seaside, it should avoid direct exposure to the sea wind. Otherwise it needs additional anticorrosion treatment on the heat exchanger.

### Selecting the location(Outdoor unit)

- 1) If the outdoor unit is to be installed close to the seaside, direct exposure to the sea wind should be avoided. Install the outdoor unit on the opposite side of the sea wind direction.



- 2) In case, to install the outdoor unit on the seaside, set up a windbreak not to be exposed to the sea wind.



- It should be strong enough like concrete to prevent the sea wind from the sea.
- The height and width should be more than 150% of the outdoor unit.
- Keep more than 2.3ft of space between outdoor unit and the windbreak for easy air flow.

- 3) Select a well-drained place.

1. If you can't meet above guide line in the seaside installation, please contact LG Electronics for the additional anticorrosion.
  2. Periodic ( more than once/year ) cleaning of the dust or salt particles stuck on the heat exchanger by using water.
- \* Do not use seawater you clean up the heat exchanger

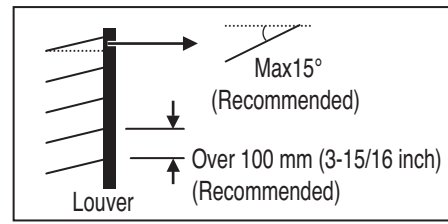
### Outdoor Unit Cabin

#### Outdoor cabin louver requirement

1. Outdoor cabin type : Manual door open type
2. Louver angle : Less than 15° on the horizontal base
3. Louver interval: Over 100 mm (3-15/16 inch) (Recommend)
4. Louver shape : Wing type or plane type

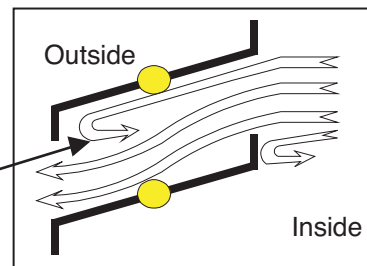
#### ⚠ CAUTION

- Opening rate and suction should be considered for louvered outdoor room.
- Do not use 'S' type louver.



Section

Noise can occur due to the backward flow of the air passing through the louver blade

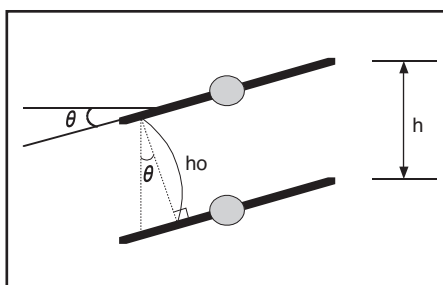


#### Note

The problem in case the louver opening rate is small.

1. Noise can occur due to the increased velocity of the air passing through louver blade.
2. Noise can occur due to the louver blade vibrations.
3. Drop in outdoor fan performance (Excess static pressure damage can cause drop in the performance as well as outdoor heat exchange efficiency).
4. In case the louver opening rate is small or there is insufficient air flow exchange, it might stop the air conditioner.

#### Opening rate by louver radian



$$\theta \leq 15^\circ$$

$$h_o = h \cdot \cos \theta$$

$$\text{Total face area}(A) = H \cdot W$$

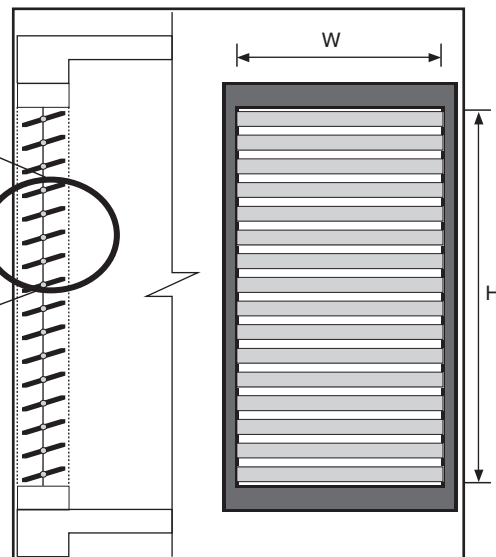
$$\text{Number of open space}(N) = (\text{number of louver} - 1)$$

$$\text{Effective face area}(A_f) = h_o \cdot W \cdot N$$

$$\text{Louver opening rate}(n) = A_f / A$$

$$\therefore A_f = A \cdot n$$

Effective face area of cross section



[Side view]

[Front view]

# Inverter Single

## 14. Installation

### Outdoor Unit Max External Static Pressure

Model	Tool	Air Flow Rate		Static Pressure	
		CMM	CFM	N/m <sup>2</sup>	inWG
P09EN, P12EN	UA3	27.0	953	9.5673	0.0384
D09RN, D12RN, D18RN, P18EN	UL2	35.0	1236	9.2296	0.0371
D24RN, P24EN	UE	50.0	1766	14.4679	0.0581



### Outdoor unit Indoor unit D09RN UL2 / D09RN NSJ

Function (indicate if present)	symbol	value	unit
cooling		Y	
heating		Y	
Item	symbol	value	unit
Design load			
cooling	P <sub>designc</sub>	2.5	kW
heating / Average	P <sub>designh</sub>	2.8	kW
heating / Warmer	P <sub>designh</sub>	x.x	kW
heating / Colder	P <sub>designh</sub>	x.x	kW
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	P <sub>dc</sub>	2.5	kW
Tj=30°C	P <sub>dc</sub>	1.9	kW
Tj=25°C	P <sub>dc</sub>	1.2	kW
Tj=20°C	P <sub>dc</sub>	1.1	kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td			
Tj=7°C	P <sub>dh</sub>	2.5	kW
Tj=2°C	P <sub>dh</sub>	1.5	kW
Tj=7°C	P <sub>dh</sub>	1.0	kW
Tj=12°C	P <sub>dh</sub>	1.0	kW
Tj=bivalent temperature	P <sub>dh</sub>	2.8	kW
Tj=operating limit	P <sub>dh</sub>	2.6	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.			
Average (mandatory)		Y	
Warmer (if designated)		N	
Colder (if designated)		N	
Item	symbol	value	unit
Seasonal efficiency			
cooling	SEER	7.7	-
heating / Average	SCOP/A	4.6	-
heating / Warmer	SCOP/W	x.x	-
heating / Colder	SCOP/C	x.x	-
Declared Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	EERd	4.5	-
Tj=30°C	EERd	6.0	-
Tj=25°C	EERd	9.2	-
Tj=20°C	EERd	15.0	-
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	COPd	2.9	-
Tj=2°C	COPd	4.6	-
Tj=7°C	COPd	5.7	-
Tj=12°C	COPd	7.1	-
Tj=bivalent temperature	COPd	2.8	-
Tj=operating limit	COPd	3.1	-
Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Bivalent temperature			
heating / Average	T <sub>biv</sub>	-8	°C
heating / Warmer	T <sub>biv</sub>	x	°C
heating / Colder	T <sub>biv</sub>	x	°C
Cycling interval capacity			
for cooling	P <sub>cyc</sub>	x.x	kW
for heating	P <sub>cyh</sub>	x.x	kW
Degradation co-efficient cooling**			
	C <sub>dc</sub>	0,25	-
Electric power input in power modes other than 'active mode'			
off mode	P <sub>OFF</sub>	0,0025	kW
standby mode	P <sub>SB</sub>	0,0025	kW
thermostat-off mode	P <sub>T/O</sub>	0,013	kW
crankcase heater mode	P <sub>CK</sub>	0	kW
Capacity control (indicate one of three options)			
fixed		N	
staged		N	
variable		Y	
Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=-7°C	COPd	x.x	-
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Operating limit temperature			
heating / Average	T <sub>ol</sub>	-10	°C
heating / Warmer	T <sub>ol</sub>	x	°C
heating / Colder	T <sub>ol</sub>	x	°C
Cycling interval efficiency			
for cooling	EER <sub>cyc</sub>	x.x	-
for heating	COP <sub>cyc</sub>	x.x	-
Degradation co-efficient heating**			
	C <sub>dh</sub>	0,25	-
Annual electricity consumption			
cooling	Q <sub>cE</sub>	114	kWh/a
heating / Average	Q <sub>hE</sub>	853	kWh/a
heating / Warmer	Q <sub>hE</sub>	xx	kWh/a
heating / Colder	Q <sub>hE</sub>	xx	kWh/a
Other items			
Sound power level (indoor/outdoor)	L <sub>WA</sub>	59/65	dB(A)
Global warming potential	GWP	2087,5	kgCO <sub>2</sub> eq
Rated air flow (indoor/outdoor)		780/2100	m <sup>3</sup> /h
Contact details for obtaining more information			
Christianna PAPAZAHARIOU Internal communicator - Energy & environment regulations expert, LG Electronics Paris Nord II - 117 avenue des Nations BP 59372 Villepinte - 95942 Roissy CDG Cedex chris.papazahariou@lge.com Tel. +33 1 49 89 57 41, +33 6 83 077 455			

\*= For staged capacity units, two values divided by a slash (/) will be declared in each box in the section  
 \*\*Declared capacity of the unit\* and \*declared EER/COP\* of the unit.  
 \*\*\*= If default Cd=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.



# Inverter Single

## 15. Website Information

### Outdoor unit Indoor unit D12RN UL2 / D12RN NSJ

Function (indicate if present)		cooling		heating			
		Y		Y			
Item	symbol	value	unit	Item	symbol	value	unit
Design load	Pdesignc	3.5	kW	Seasonal efficiency	SEER	7.6	-
cooling	Pdesignh	2.9	kW	cooling	SCOP/A	4.6	-
heating / Average	Pdesignh	x.x	kW	heating / Average	SCOP/W	x.x	-
heating / Warmer	Pdesignh	x.x	kW	heating / Warmer	SCOP/C	x.x	-
heating / Colder	Pdesignh	x.x	kW	heating / Colder	SCOP/C	x.x	-
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj							
Tj=35°C	Pdc	3.5	kW	EERd	3.8	-	-
Tj=30°C	Pdc	2.6	kW	EERd	5.5	-	-
Tj=25°C	Pdc	1.7	kW	EERd	9.2	-	-
Tj=20°C	Pdc	1.1	kW	EERd	15.4	-	-
Declared capacity* for heating / Average climate, at indoor temperature Td							
Tj=-7°C	Pdh	2.6	kW	COPd	3.0	-	-
Tj=-2°C	Pdh	1.6	kW	COPd	4.6	-	-
Tj=7°C	Pdh	1.0	kW	COPd	5.7	-	-
Tj=12°C	Pdh	1.0	kW	COPd	7.1	-	-
Tj=bivalent temperature	Pdh	2.9	kW	COPd	2.8	-	-
Tj=operating limit	Pdh	2.7	kW	COPd	3.1	-	-
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj							
Tj=2°C	Pdh	x.x	kW	COPd	x.x	-	-
Tj=7°C	Pdh	x.x	kW	COPd	x.x	-	-
Tj=12°C	Pdh	x.x	kW	COPd	x.x	-	-
Tj=bivalent temperature	Pdh	x.x	kW	COPd	x.x	-	-
Tj=operating limit	Pdh	x.x	kW	COPd	x.x	-	-
If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.							
Average (mandatory)		Y					
Warmer (if designated)		N					
Colder (if designated)		N					
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj							
Tj=-7°C	Pdh	x.x	kW	Pdh	x.x	kW	
Tj=-2°C	Pdh	x.x	kW	Pdh	x.x	kW	
Tj=7°C	Pdh	x.x	kW	Pdh	x.x	kW	
Tj=12°C	Pdh	x.x	kW	Pdh	x.x	kW	
Tj=bivalent temperature	Pdh	x.x	kW	Pdh	x.x	kW	
Tj=operating limit	Pdh	x.x	kW	Pdh	x.x	kW	
Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj							
Tj=-7°C	COPd	x.x	-				
Tj=-2°C	COPd	x.x	-				
Tj=7°C	COPd	x.x	-				
Tj=12°C	COPd	x.x	-				
Tj=bivalent temperature	COPd	x.x	-				
Tj=operating limit	COPd	x.x	-				
Operating limit temperature							
heating / Average	Tol	-10	°C				
heating / Warmer	Tol	x	°C				
heating / Colder	Tol	x	°C				
Cycling interval efficiency							
for cooling	EERcyc	x.x	-				
for heating	COPcyc	x.x	-				
Degradation co-efficient heating**							
	Cdh	0,25	-				
Annual electricity consumption							
cooling	Qce	162	kWh/a				
heating / Average	Qhe	883	kWh/a				
heating / Warmer	Qhe	xx	kWh/a				
heating / Colder	Qhe	xx	kWh/a				
Other items							
Sound power level (indoor/outdoor)	LWA	59/65	dB(A)				
Global warming potential	GWP	2087,5	kgCO2eq.				
Rated air flow (indoor/outdoor)		-	780/2100	m³/h			
Contact details for obtaining more information							
Christianna PAPAZAHARIOU Internal communicator - Energy & environment regulations expert, LG Electronics Paris Nord II - 117 avenue des Nations BP 959372 Villepinte - 95942 Roissy CDG Cedex chris.papazahariou@lge.com Tel. +33 1 49 89 57 41, +33 6 83 077 455							
* = For staged capacity units, two values divided by a slash (/) will be declared in each box in the section							
**Declared capacity of the unit* and "declared EER/COP" of the unit.							
**= If default Cdh=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cycling cycling test value is required.							

**Outdoor unit Indoor unit**  
**D18RN UL2 / D18RN NSK**

Function (indicate if present)	Y	N	
cooling	Y		
heating	Y		
Item	symbol	value	unit
Design load			
cooling	P <sub>designc</sub>	5.0	kW
heating / Average	P <sub>designh</sub>	4.1	kW
heating / Warmer	P <sub>designh</sub>	x.x	kW
heating / Colder	P <sub>designh</sub>	x.x	kW
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	P <sub>dc</sub>	5.0	kW
Tj=30°C	P <sub>dc</sub>	3.7	kW
Tj=25°C	P <sub>dc</sub>	2.4	kW
Tj=20°C	P <sub>dc</sub>	1.1	kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td			
Tj=7°C	P <sub>dh</sub>	3.6	kW
Tj=2°C	P <sub>dh</sub>	2.2	kW
Tj=7°C	P <sub>dh</sub>	1.4	kW
Tj=12°C	P <sub>dh</sub>	1.1	kW
Tj=bivalent temperature	P <sub>dh</sub>	3.8	kW
Tj=operating limit	P <sub>dh</sub>	4.1	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.			
Average (mandatory)	Y		
Warmer (if designated)	N		
Colder (if designated)	N		
Item	symbol	value	unit
Seasonal efficiency			
cooling	SEER	7.0	-
heating / Average	SCOP/A	4.2	-
heating / Warmer	SCOP/W	x.x	-
heating / Colder	SCOP/C	x.x	-
Declared Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	EERd	3.2	-
Tj=30°C	EERd	5.1	-
Tj=25°C	EERd	8.4	-
Tj=20°C	EERd	13.8	-
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	COPd	2.8	-
Tj=2°C	COPd	4.1	-
Tj=7°C	COPd	5.3	-
Tj=12°C	COPd	6.5	-
Tj=bivalent temperature	COPd	2.9	-
Tj=operating limit	COPd	2.6	-
Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Bivalent temperature			
heating / Average	T <sub>biv</sub>	-8	°C
heating / Warmer	T <sub>biv</sub>	x	°C
heating / Colder	T <sub>biv</sub>	x	°C
Cycling interval capacity			
for cooling	P <sub>cyc</sub>	x.x	kW
for heating	P <sub>cyh</sub>	x.x	kW
Degradation co-efficient cooling**			
	C <sub>dc</sub>	0.25	-
Electric power input in power modes other than 'active mode'			
off mode	P <sub>OFF</sub>	0.0020	kW
standby mode	P <sub>SB</sub>	0.0020	kW
thermostat-off mode	P <sub>T/O</sub>	0.020	kW
crankcase heater mode	P <sub>CK</sub>	0	kW
Capacity control (indicate one of three options)			
fixed		N	
staged		N	
variable		Y	
Contact details for obtaining more information			
Christianna PAPAZAHARIOU Internal communicator - Energy & environment regulations expert, LG Electronics Paris Nord II - 117 avenue des Nations BP 59372 Villepinte - 95942 Roissy CDG Cedex chris.papazahariou@lge.com Tel. +33 1 49 89 57 41, +33 6 83 077 455			
* = For staged capacity units, two values divided by a slash (/) will be declared in each box in the section **Declared capacity of the unit* and *declared EER/COP* of the unit. *** = If default Cd=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.			



# Inverter Single

## 15. Website Information

### Outdoor unit Indoor unit D24RN UUE / D24RN NSK

Function (indicate if present)		If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.	
cooling	Y	Average (mandatory)	Y
heating	Y	Warmer (if designated)	N
		Colder (if designated)	N
Item	symbol	value	unit
Design load			
cooling	P <sub>designc</sub>	6.6	kW
heating / Average	P <sub>designh</sub>	5.0	kW
heating / Warmer	P <sub>designh</sub>	x.x	kW
heating / Colder	P <sub>designh</sub>	x.x	kW
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	P <sub>dc</sub>	6.6	kW
Tj=30°C	P <sub>dc</sub>	4.9	kW
Tj=25°C	P <sub>dc</sub>	3.1	kW
Tj=20°C	P <sub>dc</sub>	1.5	kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td			
Tj=7°C	P <sub>dh</sub>	4.4	kW
Tj=2°C	P <sub>dh</sub>	2.7	kW
Tj=7°C	P <sub>dh</sub>	1.7	kW
Tj=12°C	P <sub>dh</sub>	1.6	kW
Tj=bivalent temperature	P <sub>dh</sub>	5.0	kW
Tj=operating limit	P <sub>dh</sub>	4.6	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	COPd	2.7	-
Tj=7°C	COPd	3.9	-
Tj=12°C	COPd	5.1	-
Tj=bivalent temperature	COPd	6.0	-
Tj=operating limit	COPd	2.5	-
Declared Coefficient of performance* for warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Bivalent temperature heating / Average heating / Warmer heating / Colder heating	T <sub>biv</sub>	-8	°C
	T <sub>biv</sub>	x	°C
	T <sub>biv</sub>	x	°C
Cycling interval capacity for cooling for heating	P <sub>cycc</sub>	x.x	kW
	P <sub>cycc</sub>	x.x	kW
Degradation co-efficient cooling**	C <sub>dc</sub>	0,25	-
Electric power input in power modes other than 'active mode'			
off mode	P <sub>off</sub>	0,0015	kW
standby mode	P <sub>sb</sub>	0,0015	kW
thermostat-off mode	P <sub>to</sub>	0,018	kW
crankcase heater mode	P <sub>ck</sub>	0	kW
Capacity control (indicate one of three options)			
fixed	N		
staged	N		
variable	Y		
Declared Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	EERd	2.9	-
Tj=30°C	EERd	4.7	-
Tj=25°C	EERd	7.2	-
Tj=20°C	EERd	13.6	-
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	COPd	2.7	-
Tj=2°C	COPd	3.9	-
Tj=7°C	COPd	5.1	-
Tj=12°C	COPd	6.0	-
Tj=bivalent temperature	COPd	2.5	-
Tj=operating limit	COPd	2.7	-
Declared Coefficient of performance* for warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	COPd	xx	-
Tj=2°C	COPd	xx	-
Tj=7°C	COPd	xx	-
Tj=12°C	COPd	xx	-
Tj=bivalent temperature	COPd	xx	-
Tj=operating limit	COPd	xx	-
Tj=-15°C	COPd	xx	-
Operating limit temperature heating / Average heating / Warmer heating / Colder heating	T <sub>ol</sub>	-10	°C
	T <sub>ol</sub>	x	°C
	T <sub>ol</sub>	x	°C
Cycling interval efficiency for cooling for heating	EER <sub>cycc</sub>	x.x	-
	COP <sub>cycc</sub>	x.x	-
Degradation co-efficient heating**	C <sub>dh</sub>	0,25	-
Annual electricity consumption			
cooling	Q <sub>ce</sub>	356	kWh/a
heating / Average	Q <sub>he</sub>	1770	kWh/a
heating / Warmer	Q <sub>he</sub>	xx	kWh/a
heating / Colder	Q <sub>he</sub>	xx	kWh/a
Other items			
Sound power level (indoor/outdoor)	L <sub>wa</sub>	65 / 70	dB(A)
Global warming potential	GWP	2087,5	kgCO <sub>2</sub> eq.
Rated air flow (indoor/outdoor) -		1200 / 3000	m <sup>3</sup> /h
Contact details for obtaining more information	Christianna PAPAZAHARIOU Internal communicator - Energy & environment regulations expert, LG Electronics Paris Nord II - 117 avenue des Nations BP 59372 Villepinte - 95942 Roissy CDG Cedex chris.papazahariou@lge.com Tel. +33 1 49 89 57 41, +33 6 83 077 455		

\* = For staged capacity units, two values divided by a slash (/) will be declared in each box in the section  
 \*\*Declared capacity of the unit\* and \*declared EER/COP\* of the unit.  
 \*\*\* = If default Cd=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.



Outdoor unit Indoor unit  
**P09EN UA3 / P09EN NSJ**

Function (indicate if present)	Y	Y
cooling	Y	
heating	Y	
Item	symbol	value unit
Design load		
cooling	P <sub>designc</sub>	2.5 kW
heating / Average	P <sub>designh</sub>	2.4 kW
heating / Warmer	P <sub>designh</sub>	x.x kW
heating / Colder	P <sub>designh</sub>	x.x kW
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj		
Tj=35°C	P <sub>dc</sub>	2.50 kW
Tj=30°C	P <sub>dc</sub>	1.85 kW
Tj=25°C	P <sub>dc</sub>	1.19 kW
Tj=20°C	P <sub>dc</sub>	1.34 kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td		
Tj=7°C	P <sub>dh</sub>	2.13 kW
Tj=2°C	P <sub>dh</sub>	1.35 kW
Tj=7°C	P <sub>dh</sub>	0.88 kW
Tj=12°C	P <sub>dh</sub>	1.17 kW
Tj=bivalent temperature	P <sub>dh</sub>	2.22 kW
Tj=operating limit	P <sub>dh</sub>	2.40 kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj		
Tj=2°C	P <sub>dh</sub>	x.x kW
Tj=7°C	P <sub>dh</sub>	x.x kW
Tj=12°C	P <sub>dh</sub>	x.x kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x kW
Tj=operating limit	P <sub>dh</sub>	x.x kW
If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.	Y	
Average (mandatory)	N	
Warmer (if designated)	N	
Colder (if designated)	N	
Item	symbol	value unit
Seasonal efficiency		
cooling	SEER	6.5
heating / Average	SCOP/A	4.0
heating / Warmer	SCOP/W	x.x
heating / Colder	SCOP/C	x.x
Declared Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj		
Tj=35°C	EERd	3.73
Tj=30°C	EERd	5.86
Tj=25°C	EERd	8.15
Tj=20°C	EERd	12.65
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj		
Tj=7°C	COPd	2.92
Tj=2°C	COPd	4.05
Tj=7°C	COPd	4.63
Tj=12°C	COPd	6.32
Tj=bivalent temperature	COPd	2.98
Tj=operating limit	COPd	2.77
Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj		
Tj=2°C	COPd	x.x
Tj=7°C	COPd	x.x
Tj=12°C	COPd	x.x
Tj=bivalent temperature	COPd	x.x
Tj=operating limit	COPd	x.x
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj		
Tj=7°C	P <sub>dh</sub>	x.x kW
Tj=2°C	P <sub>dh</sub>	x.x kW
Tj=7°C	P <sub>dh</sub>	x.x kW
Tj=12°C	P <sub>dh</sub>	x.x kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x kW
Tj=operating limit	P <sub>dh</sub>	x.x kW
Bivalent temperature		
heating / Average	T <sub>biv</sub>	-8 °C
heating / Warmer	T <sub>biv</sub>	x °C
heating / Colder	T <sub>biv</sub>	x °C
Cycling interval capacity		
for cooling	P <sub>cyc</sub>	x.x kW
for heating	P <sub>cyc</sub>	x.x kW
Degradation co-efficient cooling**	C <sub>dc</sub>	0.25
Electric power input in power modes other than 'active mode'		
off mode	P <sub>OFF</sub>	0.006 kW
standby mode	P <sub>SB</sub>	0.006 kW
thermostat-off mode	P <sub>TO</sub>	0.013 kW
crankcase heater mode	P <sub>CK</sub>	0 kW
Capacity control (indicate one of three options)		
fixed	N	
staged	N	
variable	Y	
Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj		
Tj=-7°C	COPd	x.x
Tj=2°C	COPd	x.x
Tj=7°C	COPd	x.x
Tj=12°C	COPd	x.x
Tj=bivalent temperature	COPd	x.x
Tj=operating limit	COPd	x.x
Operating limit temperature		
heating / Average	T <sub>ol</sub>	-10 °C
heating / Warmer	T <sub>ol</sub>	x °C
heating / Colder	T <sub>ol</sub>	x °C
Cycling interval efficiency		
for cooling	EER <sub>cyc</sub>	x.x
for heating	COP <sub>cyc</sub>	x.x
Degradation co-efficient heating**	C <sub>dh</sub>	0.25
Annual electricity consumption		
cooling	Q <sub>cE</sub>	134 kWh/a
heating / Average	Q <sub>hE</sub>	840 kWh/a
heating / Warmer	Q <sub>hE</sub>	xx kWh/a
heating / Colder	Q <sub>hE</sub>	xx kWh/a
Other items		
Sound power level (indoor/outdoor)	L <sub>WA</sub>	59 / 65 dB(A)
Global warming potential	GWP	2087.5 kgCO <sub>2</sub> eq.
Rated air flow (indoor/outdoor)		680 / 1620 m <sup>3</sup> /h
Contact details for obtaining more information	Christianna PAPAZAHARIOU Internal communicator - Energy & environment regulations expert, LG Electronics Paris Nord II - 117 avenue des Nations BP 59372 Villepinte - 95942 Roissy CDG Cedex chris.papazahariou@lge.com Tel. +33 1 49 89 57 41, +33 6 83 077 455	

\*= For staged capacity units, two values divided by a slash (/) will be declared in each box in the section  
 \*\*Declared capacity of the unit\* and \*declared EER/COP\* of the unit.  
 \*\*\*= If default C<sub>d</sub>=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.



# Inverter Single

## 15. Website Information

Outdoor unit Indoor unit  
**P12EN UA3 / P12EN NSJ**

Function (indicate if present)		If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.	
cooling	Y	Average (mandatory)	Y
heating	Y	Warmer (if designated)	N
		Colder (if designated)	N
Item	symbol	value	unit
Design load			
cooling	P <sub>designc</sub>	3.5	kW
heating / Average	P <sub>designh</sub>	2.5	kW
heating / Warmer	P <sub>designh</sub>	x.x	kW
heating / Colder	P <sub>designh</sub>	x.x	kW
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	P <sub>dc</sub>	3.50	kW
Tj=30°C	P <sub>dc</sub>	2.58	kW
Tj=25°C	P <sub>dc</sub>	1.66	kW
Tj=20°C	P <sub>dc</sub>	1.34	kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td			
Tj=7°C	P <sub>dh</sub>	2.22	kW
Tj=2°C	P <sub>dh</sub>	1.95	kW
Tj=7°C	P <sub>dh</sub>	0.88	kW
Tj=12°C	P <sub>dh</sub>	1.17	kW
Tj=bivalent temperature	P <sub>dh</sub>	2.31	kW
Tj=operating limit	P <sub>dh</sub>	2.50	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	COPd	2.88	-
Tj=2°C	COPd	4.03	-
Tj=7°C	COPd	4.56	-
Tj=12°C	COPd	6.32	-
Tj=bivalent temperature	COPd	3.00	-
Tj=operating limit	COPd	2.90	-
Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Bivalent temperature heating / Average heating / Warmer heating / Colder heating	T <sub>biv</sub>	-8 °C	°C
T <sub>biv</sub>	T <sub>biv</sub>	x	°C
T <sub>biv</sub>	T <sub>biv</sub>	x	°C
Cycling interval capacity for cooling for heating	P <sub>cycc</sub>	x.x	kW
P <sub>cycc</sub>	P <sub>cycc</sub>	x.x	kW
Degradation co-efficient cooling**	C <sub>dc</sub>	0.25	-
Electric power input in power modes other than 'active mode'			
off mode	P <sub>off</sub>	0.006	kW
standby mode	P <sub>sb</sub>	0.006	kW
thermostat-off mode	P <sub>to</sub>	0.013	kW
crankcase heater mode	P <sub>ck</sub>	0	kW
Capacity control (indicate one of three options)			
fixed	N		
staged	N		
variable	Y		
Other items			
Sound power level (indoor/outdoor)	L <sub>WA</sub>	59 / 65	dB(A)
Global warming potential	GWP	2087.5	kgCO <sub>2</sub> eq.
Rated air flow (indoor/outdoor)		750 / 1620	m <sup>3</sup> /h
Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=-7°C	COPd	x.x	-
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Operating limit temperature heating / Average heating / Warmer heating / Colder heating	T <sub>ol</sub>	-10 °C	°C
T <sub>ol</sub>	T <sub>ol</sub>	x	°C
T <sub>ol</sub>	T <sub>ol</sub>	x	°C
Cycling interval efficiency for cooling for heating	EER <sub>cycc</sub>	x.x	-
COP <sub>cycc</sub>	COP <sub>cycc</sub>	x.x	-
Degradation co-efficient heating**	C <sub>dh</sub>	0.25	-
Annual electricity consumption			
cooling	Q <sub>cE</sub>	191	kWh/a
heating / Average	Q <sub>hE</sub>	875	kWh/a
heating / Warmer	Q <sub>hE</sub>	xx	kWh/a
heating / Colder	Q <sub>hE</sub>	xx	kWh/a
Contact details for obtaining more information			
Christianna PAPAZAHARIOU			
Internal communicator - Energy & environment regulations expert, LG Electronics			
Paris Nord II - 117 avenue des Nations			
BP 59372 Villepinte - 95942 Roissy CDG Cedex			
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Tel. +33 1 49 89 57 41, +33 6 83 077 455			

\*= For staged capacity units, two values divided by a slash (/) will be declared in each box in the section  
 \*\*Declared capacity of the unit\* and \*declared EER/COP\* of the unit.  
 \*\*= If default Cd=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.



**Outdoor unit Indoor unit**  
**P18EN UL2 / P18EN NSK**

Function (indicate if present)		If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.	
cooling	Y	Average (mandatory)	Y
heating	Y	Warmer (if designated)	N
		Colder (if designated)	N
Item	symbol	value	unit
Design load			
cooling	P <sub>designc</sub>	5.0	kW
heating / Average	P <sub>designh</sub>	3.9	kW
heating / Warmer	P <sub>designw</sub>	x.x	kW
heating / Colder	P <sub>designc</sub>	x.x	kW
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	P <sub>dc</sub>	5.00	kW
Tj=30°C	P <sub>dc</sub>	3.75	kW
Tj=25°C	P <sub>dc</sub>	2.49	kW
Tj=20°C	P <sub>dc</sub>	1.34	kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td			
Tj=7°C	P <sub>dh</sub>	3.45	kW
Tj=2°C	P <sub>dh</sub>	2.10	kW
Tj=7°C	P <sub>dh</sub>	1.35	kW
Tj=12°C	P <sub>dh</sub>	1.32	kW
Tj=bivalent temperature	P <sub>dh</sub>	3.60	kW
Tj=operating limit	P <sub>dh</sub>	3.90	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Declared energy efficiency ratio** for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	EERd	3.25	-
Tj=30°C	EERd	4.49	-
Tj=25°C	EERd	7.55	-
Tj=20°C	EERd	14.10	-
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	COPd	2.84	-
Tj=2°C	COPd	3.93	-
Tj=7°C	COPd	4.91	-
Tj=12°C	COPd	6.14	-
Tj=bivalent temperature	COPd	2.95	-
Tj=operating limit	COPd	2.60	-
Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	COPd	x.x	-
Tj=7°C	COPd	x.x	-
Tj=12°C	COPd	x.x	-
Tj=bivalent temperature	COPd	x.x	-
Tj=operating limit	COPd	x.x	-
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Bivalent temperature			
heating / Average	T <sub>biv</sub>	-8	°C
heating / Warmer	T <sub>biv</sub>	x	°C
heating / Colder	T <sub>biv</sub>	x	°C
Cycling interval capacity			
for cooling	P <sub>cyc</sub>	x.x	kW
for heating	P <sub>ych</sub>	x.x	kW
Degradation co-efficient			
cooling**	C <sub>dc</sub>	0.25	-
Electric power input in power modes other than 'active mode'			
off mode	P <sub>off</sub>	0.002	kW
standby mode	P <sub>sb</sub>	0.002	kW
thermostat-off mode	P <sub>to</sub>	0.020	kW
crankcase heater mode	P <sub>ck</sub>	0	kW
Capacity control (indicate one of three options)			
fixed		N	
staged		N	
variable		Y	
Contact details for obtaining more information			
Christianna PAPAZAHARIOU Internal communicator - Energy & environment regulations expert, LG Electronics Paris Nord II - 117 avenue des Nations BP 59372 Villepinte - 95942 Roissy CDG Cedex chris.papazahariou@lge.com Tel. +33 1 49 89 57 41, +33 6 83 077 455			
* = For staged capacity units, two values divided by a slash (/) will be declared in each box in the section			
**Declared capacity of the unit* and 'declared EER/COP*' of the unit.			
***= If default Cd=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.			



# Inverter Single

## 15. Website Information

Outdoor unit Indoor unit  
**P24EN UUE / P24EN NSK**

Function (indicate if present)		If the function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.	
cooling	Y	Average (mandatory)	Y
heating	Y	Warmer (if designated)	N
		Colder (if designated)	N
Item	symbol	value	unit
Design load			
cooling	P <sub>designc</sub>	6.6	kW
heating / Average	P <sub>designh</sub>	5.0	kW
heating / Warmer	P <sub>designh</sub>	x.x	kW
heating / Colder	P <sub>designh</sub>	x.x	kW
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj			
Tj=35°C	P <sub>dc</sub>	6.60	kW
Tj=30°C	P <sub>dc</sub>	4.87	kW
Tj=25°C	P <sub>dc</sub>	3.13	kW
Tj=20°C	P <sub>dc</sub>	1.66	kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td			
Tj=7°C	P <sub>dh</sub>	4.43	kW
Tj=2°C	P <sub>dh</sub>	2.70	kW
Tj=7°C	P <sub>dh</sub>	1.80	kW
Tj=12°C	P <sub>dh</sub>	1.65	kW
Tj=bivalent temperature	P <sub>dh</sub>	4.62	kW
Tj=operating limit	P <sub>dh</sub>	5.00	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=2°C	P <sub>dh</sub>	x.x	kW
Tj=7°C	P <sub>dh</sub>	x.x	kW
Tj=12°C	P <sub>dh</sub>	x.x	kW
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW
Tj=operating limit	P <sub>dh</sub>	x.x	kW
Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	COPd	xx	-
Tj=2°C	COPd	xx	-
Tj=7°C	COPd	xx	-
Tj=12°C	COPd	xx	-
Tj=bivalent temperature	COPd	xx	-
Tj=operating limit	COPd	xx	-
Tj=-15°C	COPd	xx	-
Operating limit temperature heating / Average heating / Warmer heating / Colder heating	Tol	-10	°C
	Tol	x	°C
	Tol	x	°C
Cycling interval efficiency for cooling	EERcyc	xx	-
for heating	COPcyc	xx	-
Degradation co-efficient heating**	Cdh	0.25	-
Annual electricity consumption			
cooling	Q <sub>cE</sub>	372	kWh/a
heating / Average	Q <sub>hE</sub>	1794	kWh/a
heating / Warmer	Q <sub>hE</sub>	xx	kWh/a
heating / Colder	Q <sub>hE</sub>	xx	kWh/a
Other items			
Sound power level (indoor/outdoor)	L <sub>WA</sub>	65 / 70	dB(A)
Global warming potential	GWP	2087.5	kgCO <sub>2</sub> eq.
Rated air flow (indoor/outdoor)		1200 / 3000	m <sup>3</sup> /h
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj			
Tj=7°C	P <sub>dh</sub>	xx	kW
Tj=2°C	P <sub>dh</sub>	xx	kW
Tj=7°C	P <sub>dh</sub>	xx	kW
Tj=12°C	P <sub>dh</sub>	xx	kW
Tj=bivalent temperature	P <sub>dh</sub>	xx	kW
Tj=operating limit	P <sub>dh</sub>	xx	kW
Bivalent temperature heating / Average heating / Warmer heating / Colder heating	Tbiv	-8	°C
	Tbiv	x	°C
	Tbiv	x	°C
Cycling interval capacity for cooling	P <sub>oCyc</sub>	xx	kW
for heating	P <sub>oCyc</sub>	xx	kW
Degradation co-efficient cooling**	Cdc	0.25	-
Electric power input in power modes other than 'active mode'			
off mode	P <sub>OFF</sub>	0.002	kW
standby mode	P <sub>SB</sub>	0.002	kW
thermostat-off mode	P <sub>TO</sub>	0.035	kW
crankcase heater mode	P <sub>CK</sub>	0	kW
Capacity control (indicate one of three options)			
fixed		N	
staged		N	
variable		Y	
Contact details for obtaining more information	Christianna PAPAZAHARIOU Internal communicator - Energy & environment regulations expert, LG Electronics Paris Nord II - 117 avenue des Nations BP 59372 Villepinte - 95942 Roissy CDG Cedex chris.papazahariou@lge.com Tel. +33 1 49 89 57 41, +33 6 83 077 455		

\* = For staged capacity units, two values divided by a slash (/) will be declared in each box in the section  
 \*\*Declared capacity of the unit\* and \*declared EER/COP\* of the unit.  
 \*\* = If default Cdh=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.

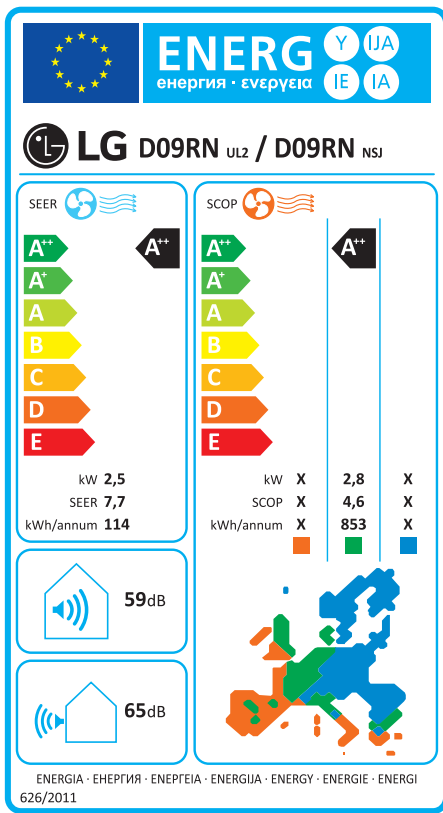




# Inverter Single

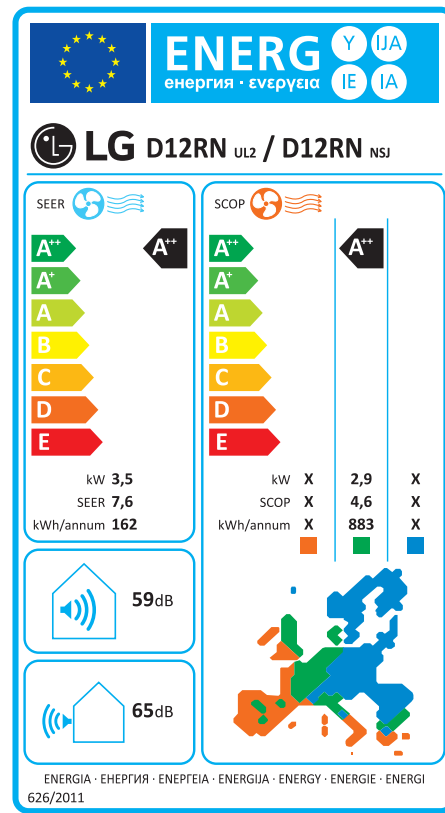
## 16. Energy label

D09RN (AS-W096J1R1)



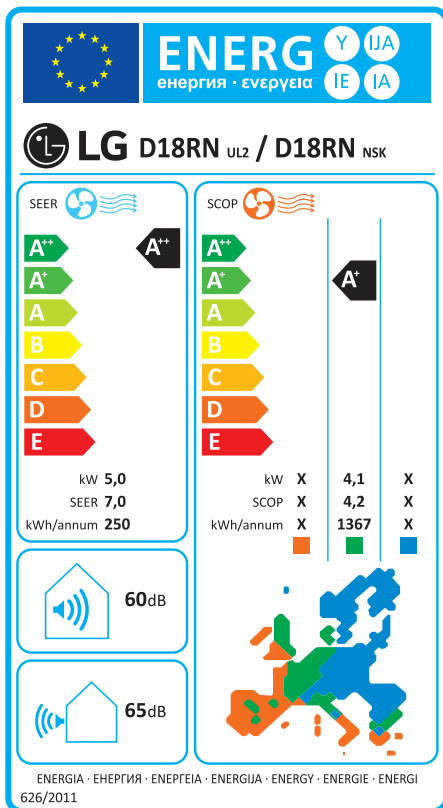
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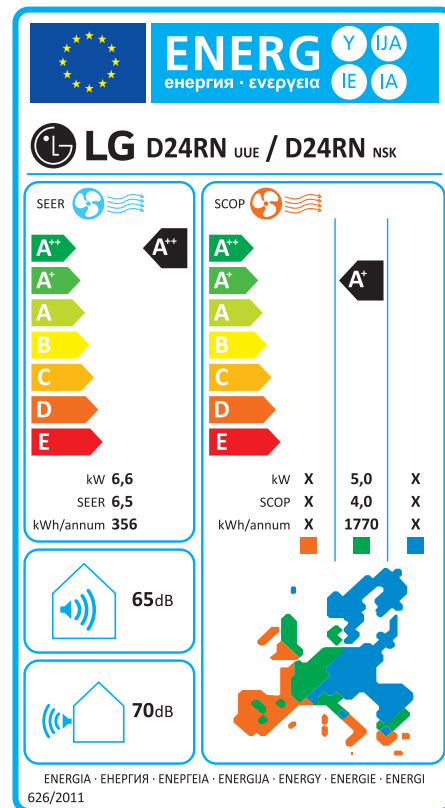
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D18RN (AS-W186K1R1)



MEZ66073209

D24RN (AS-W246K1R1)

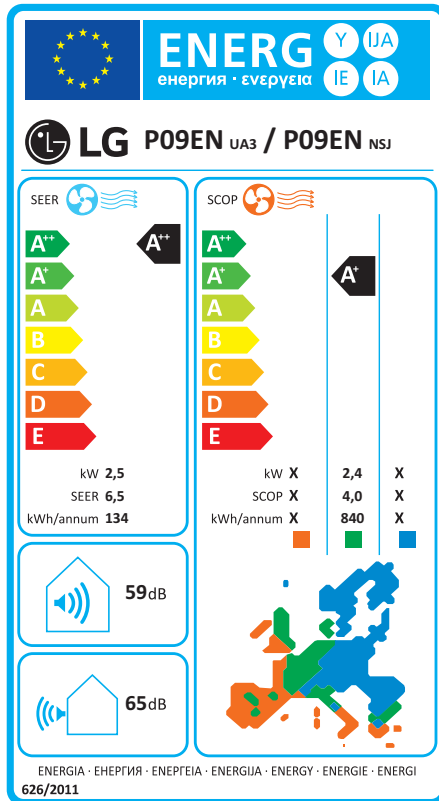


MEZ66073208

# Inverter Single

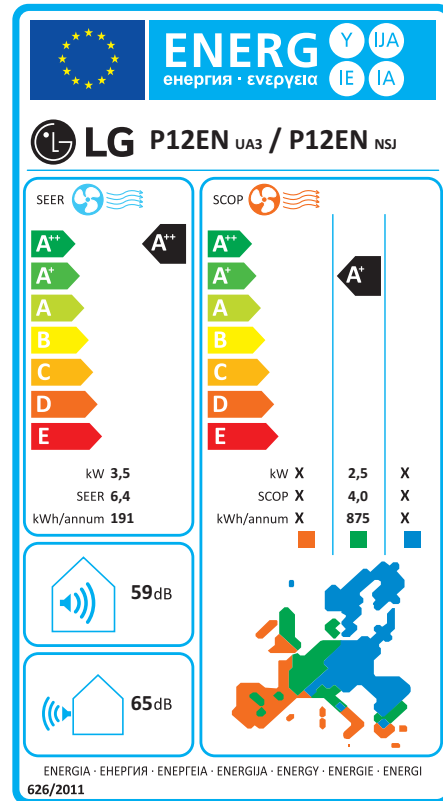
## 16. Energy label

P09EN (US-W096J3A0)



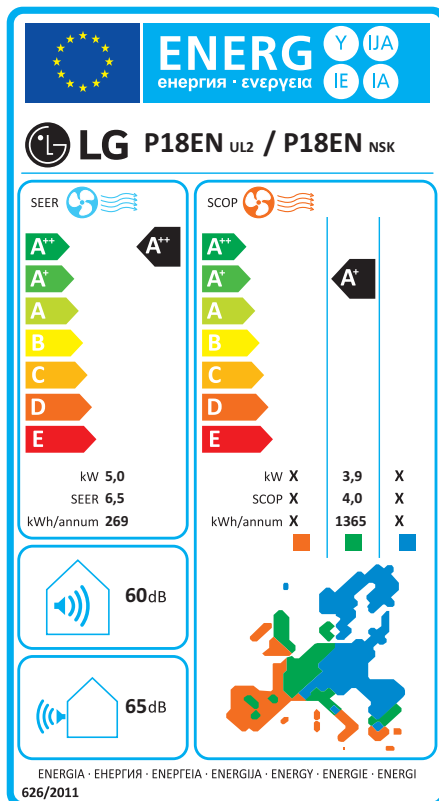
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P12EN (US-W126J3A0)



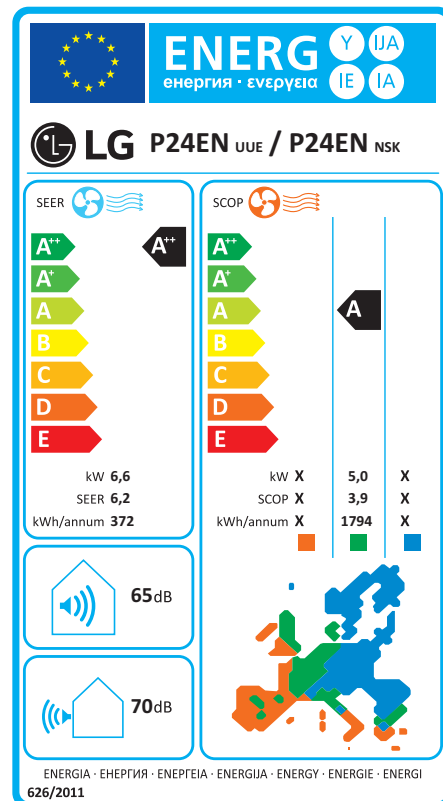
MEZ66072505

P18EN (US-W186K3A0)



MEZ66072506

P24EN (US-W246K3A0)



MEZ66072507



P/No.: MFL66305323



## LG Electronics

### Air Conditioner

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The air conditioners manufactured by LG have received ISO9001 certificate for  
quality assurance and ISO14001 certificate for environmental management system.