

# LG

## Inverter Single Wall Mounted

Europe  
Wall Mounted  
(50Hz/R410A)  
5RMI0-01A

# TOTAL HVAC SOLUTION PROVIDER

## ENGINEERING PRODUCT DATA BOOK



# Inverter Single

## Wall Mounted - 50Hz (R410A)

- 1. Models line up**
- 2. Nomenclature**
- 3. Specifications**
- 4. Dimensional drawings**
- 5. Wiring diagrams**
- 6. Refrigerant cycle diagrams**
- 7. Capacity tables**
- 8. Capacity coefficient factor**
- 9. Operation range**
- 10. Air flow and temperature distributions (Reference data)**
- 11. Sound levels (Reference data)**
- 12. Remote controller**
- 13. Installation**
- 14. Website Information**
- 15. Energy label**

# Inverter Single

## Test condition of international standard

CLASSIFICATION			KSC 9306	ISO 5151	AHRI 210/240	AHAM	AS/NZS 3823.1	SASO 2681
Cooling Capacity	Indoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	27.0	27.0
		WB°C(°F)	19.5	19.0	19.4(67)	19.4(67)	19.0	19.0
	Outdoor	DB°C(°F)	35.0	35.0	35.0(95)	35.0(95)	35.0	35.0
		WB°C(°F)	24.0	24.0	23.9(75)	23.9(75)	24.0	24.0
Heating Capacity	Indoor	DB°C(°F)	20.0	20.0	21.1(70)	21.1(70)	20.0	20.0
		WB°C(°F)	15.0	15.0	15.6(60)	15.6(60)	15.0	15.0
	Outdoor	DB°C(°F)	7.0	7.0	8.3(47)	8.3(47)	7.0	7.0
		WB°C(°F)	6.0	6.0	6.1(43)	6.1(43)	6.0	6.0
Maximum Cooling Operating	Indoor	DB°C(°F)	32.0	32.0	26.7(80)	32.2(90)	32.0	32.0
		WB°C(°F)	23.0	23.0	19.4(67)	22.8(73)	23.0	23.0
	Outdoor	DB°C(°F)	43.0	43.0	46.1(115)	43.3(110)	43.0	43.0
		WB°C(°F)	26.0	26.0	23.9(75)	25.6(78)	26.0	26.0
Maximum Heating Operating	Indoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	27.0	27.0
		WB°C(°F)	15.0	-	19.4(67)	22.8(73)	-	-
	Outdoor	DB°C(°F)	21.0	24.0	23.9(75)	23.9(75)	24.0	24.0
		WB°C(°F)	15.0	18.0	18.3(65)	18.3(65)	18.0	18.0
Enclosure Sweat / Condensate Disposal	Indoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	27.0	27.0
		WB°C(°F)	24.0	24.0	23.9(75)	23.9(75)	24.0	24.0
	Outdoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	27.0	27.0
		WB°C(°F)	24.0	24.0	23.9(75)	23.9(75)	24.0	24.0
Freeze-up/ Low Temperature	Indoor	DB°C(°F)	21.0	21.0	19.4(67)	21.1(70)	21.0	21.0
		WB°C(°F)	15.0	15.0	13.9(57)	15.6(60)	15.0	15.0
	Outdoor	DB°C(°F)	21.0	21.0	19.4(67)	21.1(70)	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

---

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) Art Cool Units : A new concept of cooling introduced by LG in the field of Air conditioning.
- 2) Inverter Units : These units are capable of minimizing the power consumption with unique inverter technology.

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

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

The units are available with many standard and optional features which give our customers the choice to select the unit of their own desire. For more information refer to the detailed specification following this description.

This product contains Fluorinated Greenhouse Gases.

**LG Electronics Inc.**

---



# Inverter Single





## Publication history

PDB No.	Applied Model	Notes	Publication in
5RMI0-01A	D09CM (AS-W096J1R0) D12CM (AS-W126J1R0) D18CM (AS-W186K1R0) D24CM (AS-W246K1R0) E09EM (US-W096W4A1) E12EM (US-W126H4A1) E18EM (US-W186M4A1) Z09EM (US-W096WSA1) Z12EM (US-W126HSA1) H09AL (AS-W096MMS6) H12AL (AS-W126MMS6)	Add new 9 models	Mar, 2015

# Inverter Single

## 1. Models Line up


### 1.1 Indoor Unit


Type	Model names			
	kW (kBtu/h)			
	2.5 (9)	3.5 (12)	5.0 (18)	6.5 (24)
Deluxe 	D09CM.NSJ (ASNW096J1R0)	D12CM.NSJ (ASNW126J1R0)	D18CM.NSK (ASNW186K1R0)	D24CM.NSK (ASNW246K1R0)
Econo (E / S) 	E09EM.NSW (USNW096W4A1) Z09EM.NSW (USNW096WSA1)	E12EM.NSH (USNW126H4A1) Z12EM.NSH (USNW126HSA1)		
Econo (E) 			E18EM.NSM (USNW186M4A1)	
Prestige 	H09AL.NSM (ASNW096MMS6)	H12AL.NSM (ASNW126MMS6)		


# Inverter Single

## 1. Models Line up

### 1.2 Outdoor Unit

Heat pump		E09EM.UA3 (USUW096W4A1)	E12EM.UA3 (USUW126H4A1)
Total capacity index of connectable indoor units	kW	2.5	3.5
	kBtu/h	9	12
Power supply		1Ø , 220-240V, 50Hz	
Chassis		UA3+	
Picture			

Heat pump		D09CM.UL2 (ASUW096J1R0)	D12CM.UL2 (ASUW126J1R0)	D18CM.UL2 (ASUW186K1R0) E18EM.UL2 (USUW186M4A1)
Total capacity index of connectable indoor units	kW	2.5	3.5	5.0
	kBtu/h	9	12	18
Power supply		1Ø , 220-240V, 50Hz		
Chassis		UL2		
Picture				

Heat pump		H09AL.UE1 (ASUW096MMS6)	H12AL.UE1 (ASUW126MMS6)	D24CM.UUE (ASUW246K1R0)
Total capacity index of connectable indoor units	kW	2.5	3.5	6.5
	kBtu/h	9	12	24
Power supply		1Ø , 220-240V, 50Hz		
Chassis		UE		
Picture				

# Inverter Single

## 2. Nomenclature

**A S - W 0 9 6 J 1 R 0**

Serial Number

Function

A : Non Plasma + 2Way

R : Ionizer + 4Way

Look/Color

Chassis	Look	Classification
SW	4	White Panel (E-Look)
	S	White Panel (S-Look)
SH	4	White Panel (E-Look)
	S	White Panel (S-Look)
SM	4	White Panel (E-Look)
	M	White Panel (Moving)
SJ	1	Transparent Panel (No pattern)
SK	1	Transparent Panel (No pattern)

Electric Ratings

6 : 220-240V, 50Hz

Capacity

Ex) '09' → 9,000 Btu/h Class

Model Type

C : Cooling Only

H : Heat Pump

Q : DC Inverter C/O

W : DC Inverter H/P

Supply method dividing and Type

- : SET

N : Indoor Unit

U : Outdoor Unit

Product type

S: Split

Refrigerant type & code

A : R410, Made in Korea

U : R410, Made in China

# Inverter Single

## 3. Specifications

Buyer Model (Indoor Unit / Outdoor Unit)		Unit	D09CM.SSJ (D09CM.NSJ / D09CM.UL2)	D12CM.SSJ (D12CM.NSJ / D12CM.UL2)
Factory Model (Indoor Unit / Outdoor Unit)			AS-W096J1R0 (ASNW096J1R0 / ASUW096J1R0)	AS-W126J1R0 (ASNW126J1R0 / ASUW126J1R0)
Heat transfer (source / sink)		-	Air to Air	Air to Air
Type of appliance		-	Cooling/Heating (Inverter heatpump)	Cooling/Heating (Inverter heatpump)
Cooling Capacity		kW	2.5	3.5
Heating Capacity		kW	3.2	4.0
Low Temp. Heating Capacity (-7°C)		kW	3.2	3.8
Power Input	Cooling/Heating	W	556 / 712	898 / 975
Running Current	Cooling/Heating	A	2.5 / 3.2	4.0 / 4.3
Starting Current	Cooling/Heating	A	2.5 / 3.2	4.0 / 4.3
Max Current	Cooling/Heating	A	6.0 / 7.0	6.0 / 7.0
SEER		W/W	7.7	7.6
SCOP		W/W	4.6	4.6
Energy efficiency class*	Cooling/Heating	-	A++ / A++	A++ / A++
Annual energy consumption	Cooling/Heating	kWh	114 / 853	162 / 974
Power Supply		Ø / V / Hz	1 / 220-240 / 50	1 / 220-240 / 50
Air Flow Rate	Indoor,Max	m³/min	13	13
	Outdoor,Max	m³/min	35	35
Moisture Removal		l/h	-	-
Sound Pressure Level	Indoor,H/M/L/Sleep (Cooling)	dB(A)+1	40 / 35 / 24 / 19	40 / 35 / 24 / 19
	Indoor,H/M/L (Heatling)	dB(A)+1	40 / 35 / 24	40 / 35 / 24
	Outdoor,Max (Cooling/Heating)	dB(A)+1	47 / 48	47 / 48
Sound Power Level	Indoor,Max	dB(A)	59	59
	Outdoor,Max	dB(A)	65	65
Refrigerant & Charge (at 7.5 m)		g	R410A / 950	R410A / 950
Additional Refrigerant charge		g/m	20	20
Compressor	Model	-	GA102MKA	GA102MKA
	Motor Type	-	BLDC	BLDC
	O.L.P. name	-	-	-
Fan(Indoor)	Type	-	Cross Flow Fan	Cross Flow Fan
	Motor Type	-	BLDC	BLDC
	Motor Output	W	30	30
Fan(Outdoor)	Type	-	Propeller, Fan	Propeller, Fan
	Motor Type	-	BLDC	BLDC
	Motor Output	W	43	43
Circuit Breaker		A	15	15
Power Supply Cable		N x mm²	3 x 1.0	3 x 1.0
Power and Transmission Cable		N x mm²	4 x 1.0	4 x 1.0
Piping Connexions	Liquid Side	mm	6.35	6.35
	Gas Side	mm	9.52	9.52
Drain Hose(O.D, I.D)		mm	21.5, 16.0	21.5, 16.0
Dimensions	Indoor (WxHxD)	mm	837 x 302 x 189	837 x 302 x 189
	Outdoor (WxHxD)	mm	770 x 545 x 288	770 x 545 x 288
Net Weight	Indoor	kg	8.5	8.5
	Outdoor	kg	28.8	28.8
Operation Range	Cooling(Outdoor)	°C DB	-15 ~ 48	-15 ~ 48
	Heating(Outdoor)	°C DB	-15 ~ 24	-15 ~ 24
Piping Length (Min / Max)		m	3 / 20	3 / 20
Max Elevation Difference		m	10	10

Note : O : Applied, - : Not Applied

- Filters are optional in some specific areas.
- For Circuit Breaker Rating, please conform to local standards whenever necessary.
- Wiring cable size must comply with the applicable local and national code.
- The specification may be subject to change without prior notice for purpose of improvement.

# Inverter Single

## 3. Specifications

Buyer Model (Indoor Unit / Outdoor Unit)		Unit	D18CM.SSK (D18CM.NSK / D18CM.UL2)	D24CM.SSK (D24CM.NSK / D24CM.UUE)
Factory Model (Indoor Unit / Outdoor Unit)			AS-W186K1R0 (ASNW186K1R0 / ASUW186K1R0)	AS-W246K1R0 (ASNW246K1R0 / ASUW246K1R0)
Heat transfer (source / sink)		-	Air to Air	Air to Air
Type of appliance		-	Cooling/Heating (Inverter heatpump)	Cooling/Heating (Inverter heatpump)
Cooling Capacity		kW	5.0	6.6
Heating Capacity		kW	5.8	7.5
Low Temp. Heating Capacity (-7°C)		kW	3.8	4.85
Power Input	Cooling/Heating	W	1,562 / 1,611	2,275 / 2,238
Running Current	Cooling/Heating	A	6.9 / 7.1	10.1 / 10.4
Starting Current	Cooling/Heating	A	6.9 / 7.1	10.1 / 10.4
Max Current	Cooling/Heating	A	9.0 / 9.5	14.0 / 14.0
SEER		W/W	7.0	7.0
SCOP		W/W	4.2	4.0
Energy efficiency class*	Cooling/Heating	-	A++ / A+	A++ / A+
Annual energy consumption	Cooling/Heating	kWh	250 / 1,367	330 / 1,770
Power Supply		Ø / V / Hz	1 / 220-240 / 50	1 / 220-240 / 50
Air Flow Rate	Indoor,Max	m³/min	18	20
	Outdoor,Max	m³/min	35	50
Moisture Removal		l/h	1.8	2.5
Sound Pressure Level	Indoor,H/M/L/Sleep (Cooling)	dB(A)+1	44 / 39 / 34 / 31	47 / 42 / 34 / 31
	Indoor,H/M/L (Heatling)	dB(A)+1	44 / 39 / 34	47 / 42 / 34
	Outdoor,Max (Cooling/Heating)	dB(A)+1	53 / 55	56 / 57
Sound Power Level	Indoor,Max	dB(A)	60	65
	Outdoor,Max	dB(A)	65	70
Refrigerant & Charge (at 7.5 m)		g	R410A / 1,150	R410A / 1,300
Additional Refrigerant charge		g/m	20	30
Compressor	Model	-	GKT141MBA	GKT176MFA
	Motor Type	-	BLDC	BLDC
	O.L.P. name	-	-	-
Fan(Indoor)	Type	-	Cross Flow Fan	Cross Flow Fan
	Motor Type	-	BLDC	BLDC
	Motor Output	W	30	60
Fan(Outdoor)	Type	-	Propeller, Fan	Propeller, Fan
	Motor Type	-	BLDC	BLDC
	Motor Output	W	43	85
Circuit Breaker		A	20	25
Power Supply Cable		N x mm²	3 x 1.5	3 x 2.5
Power and Transmission Cable		N x mm²	4 x 1.0	4 x 1.0
Piping Connexions	Liquid Side	mm	6.35	6.35
	Gas Side	mm	12.7	15.88
Drain Hose(O.D, I.D)		mm	21.5, 16.0	21.5, 16.0
Dimensions	Indoor (WxHxD)	mm	998 x 330 x 210	998 x 330 x 210
	Outdoor (WxHxD)	mm	770 x 545 x 288	870 x 655 x 320
Net Weight	Indoor	kg	12.4	12.4
	Outdoor	kg	34.0	44.0
Operation Range	Cooling(Outdoor)	°C DB	-15 ~ 48	-15 ~ 48
	Heating(Outdoor)	°C DB	-10 ~ 24	-10 ~ 24
Piping Length (Min / Max)		m	- / 20	- / 30
Max Elevation Difference		m	10	15

Note : O : Applied, – : Not Applied

- Filters are optional in some specific areas.
- For Circuit Breaker Rating, please conform to local standards whenever necessary.
- Wiring cable size must comply with the applicable local and national code.
- The specification may be subject to change without prior notice for purpose of improvement.

# Inverter Single

## 3. Specifications

Buyer Model (Indoor Unit / Outdoor unit)		Unit	E09EM.SSW (E09EM.NSW / E09EM.UA3)	E12EM.SSH (E12EM.NSH / E12EM.UA3)	E18EM.SSM (E18EM.NSM / E18EM.UL2)
Factory Model (Indoor Unit / Outdoor unit)			US-W096W4A1 (USNW096W4A1 / USUW096W4A1)	US-W126H4A1 (USNW126H4A1 / USUW126H4A1)	US-W186M4A1 (USNW186M4A1 / USUW186M4A1)
Cooling Capacity (Min ~ Rated ~ Max)		kW	0.89 ~ 2.5 ~ 3.7	0.9 ~ 3.5 ~ 4.04	0.9 ~ 5.0 ~ 5.4
		Btu/h	3,036 ~ 8,530 ~ 12,623	3,070 ~ 12,000 ~ 13,783	3,070 ~ 17,060 ~ 18,424
Heating Capacity (Min ~ Rated ~ Max)		kW	0.89 ~ 3.2 ~ 4.1	0.89 ~ 3.8 ~ 5.1	0.9 ~ 5.4 ~ 6.1
		Btu/h	3,036 ~ 10,900 ~ 13,988	3,036 ~ 13,000 ~ 17,400	3,070 ~ 18,430 ~ 20,812
Heating Capacity (-7°C)		kW	3.00	3.60	3.80
Power Input	Cooling / Heating	W	730 / 950	1120 / 1040	1720 / 1540
Running Current (Rated ~ Max)	Cooling / Heating	A	3.2 ~ 6.5 / 4.2 ~ 6.0	4.9 ~ 6.5 / 4.6 ~ 6.0	7.8 ~ 9.0 / 7.0 ~ 9.5
Starting Current	Cooling / Heating	A	3.2 / 4.2	4.9 / 4.6	7.8 / 7.0
EER		W/W	3.42	3.13	2.91
SEER		-	5.7	5.8	5.3
P design C		kW	2.5	3.5	5.0
COP		W/W	3.37	3.65	3.51
SCOP		-	3.8	3.8	3.8
P design H		kW	2.3	3.2	3.8
Energy Label	Cooling / Heating	-	A+ / A	A+ / A	A / A
Annual Energy Consumption	Cooling / Heating	kWh	154 / 847	211 / 1400	330 / 1400
Power Supply		Ø / V / Hz	1 / 220-240 / 50	1 / 220-240 / 50	1 / 220-240 / 50
Power Factor		%	95.5	95.5	95.5
Air Flow Rate	Indoor,Max/H/M/L/SL (Cooling)	m³/min (CFM)	9.0(317.7) / 7.5(264.8) / 6.0(211.8) / 4.5(158.9) / 3.0(105.9)	12.0(423.6) / 10.0(353.0) / 8.0(282.4) / 5.5(194.2) / 3.5(123.6)	17.4(614.2) / 12.0(423.6) / 10.5(370.7) / 9.0(317.7) / 7.5(264.8)
	Indoor,Max/H/M/L (Heating)	m³/min (CFM)	8.0(282.4) / 6.0(211.8) / 5.0(176.5)	10.0(353.0) / 8.0(282.4) / 6.5(229.5)	13.0(458.9) / 10.0(353.0) / 8.0(282.4)
	Outdoor,Max	m³/min (CFM)	27 (953)	27(953)	32(1129.6)
Moisture Removal		l/h	0.83	1.3	1.8
Sound Pressure Level	Indoor,H/M/L/SL (Cooling)	dB(A)+3	39 / 33 / 25 / 20	39 / 33 / 25 / 20	42 / 40 / 35 / 29
	Indoor,H/M/L (Heating)	dB(A)+3	39 / 33 / 28	39 / 33 / 28	42 / 40 / 35
	Outdoor,Max (Cooling/Heating)	dB(A)+3	49 / 49	49 / 49	52 / 54
Sound Power Level	Indoor	dB(A)	58	58	60
	Outdoor	dB(A)	65	65	65
Compressor	Type	-	Single Rotary	Single Rotary	1P Rotary
	Model	-	GA102MDB	GA102MDB	5RS132XCA21
	Motor Type	-	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor
	Oil Type	-	PVE (FVC68D)	PVE (FVC68D)	FV50S
	Oil Charge	cc	310 ± 5	310 ± 5	370
	O.L.P. name	-	-	-	-
Fan (Indoor)	Type	-	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output	W	30	30	30
Fan (Outdoor)	Type	-	Propeller	Propeller	Propeller
	Motor Type	-	BLDC	BLDC	BLDC
	Motor Output	W	43	43	43
Circuit Breaker*		A	15	20	
Power Supply Cable		No. x mm²	3 x 1.0	3 x 1.0	3 x 1.5
Power and Transmission Cable		No. x mm²	4 x 0.75	4 x 0.75	4 x 0.75
Piping Connections	Liquid Side	mm (in)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
	Gas Side	mm (in)	9.52 (3/8)	9.52 (3/8)	12.7(1/2)
Drain Hose(O.D. , I.D.)		mm (in)	21.5, 16.0 (27/32, 5/8)	21.5, 16.0 (27/32, 5/8)	21.5, 16.0 (27/32, 5/8)
Dimensions	Indoor (W x H x D)	mm	756 x 265 x 184	798 x 292 x 214	885 x 296 x 236
		inch	29.8 x 10.4 x 7.2	31.4 x 11.5 x 8.4	34.8 x 11.7 x 9.3
	Outdoor (W x H x D)	mm	717 x 483 x 230	717 x 483 x 230	770 x 545 x 288
		inch	28.2 x 19.0 x 9.1	28.2 x 19.0 x 9.1	30.3 x 21.5 x 11.3
Net Weight	Indoor	kg (lbs)	7.4 (16.3)	8.5 (18.7)	9.5 (20.9)
	Outdoor	kg (lbs)	28 (61.7)	28 (61.7)	34.0 (75.0)
Gross Weight	Indoor	kg (lbs)	8.9 (19.6)	11 (24.2)	12.0 (26.5)
	Outdoor	kg (lbs)	30 (66.1)	30 (66.1)	36.0 (79.4)
Operation Range	Cooling (Outdoor)	°C(°F) DB	-10 ~ 48 (14 ~ 118.4)	-10 ~ 48 (14 ~ 118.4)	-10 ~ 48 (14 ~ 118.4)
	Heating (Outdoor)	°C(°F) DB	-10 ~ 24 (14 ~ 75.2)	-10 ~ 24 (14 ~ 75.2)	-10 ~ 24 (14 ~ 75.2)
Refrigerant & Charge			R410A, 850 (30.0) at 5m (16.4ft)	R410A, 900 (31.7) at 5m (16.4ft)	R410A, 1050 (37.0) at 5m (16.4ft)
Additional Refrigerant Charge		g/m (oz/ft)	20 (0.22) after 5m (16.4ft)	20 (0.22) after 5m (16.4ft)	20 (0.22) after 5m (16.4ft)
Piping Length (Min / Max)		m (ft)	3 (9.8) / 15 (49.2)	3 (9.8) / 15 (49.2)	3 (9.8) / 20 (65.6)
Chargeless		m (ft)	5 (16.4)	5 (16.4)	5 (16.4)
Max. Elevation Difference		m (ft)	7 (23.0)	7 (23.0)	10 (32.8)
Tool Code (Chassis)	Indoor + Outdoor		SW + UA3	SH + UA3	SM + UL2
Functions	Temperature Control		0	0	0
	1 Touch Soft Air		0	0	0
	Allergy free filter		-	-	-
	Plasma Filter		-	-	-
	Prefilter (Washable/Anti-fungus)		0	0	0
	Ionizer		-	-	-
	3M Micro Protection filter		-	-	-
	Auto Clean		0	0	0
	CHAOS Wind (Auto Wind)		-	-	-
	Steps, Fan/Cool/Heat		3 / 4 / 4	3 / 4 / 4	3 / 4 / 4
	Airflow Direction Control (Up& Down)		Auto	Auto	Auto
	Airflow Direction Control (Left & Right)		Manual	Manual	Manual
	Remote Controller Type		Wireless LCD	Wireless LCD	Wireless LCD
	Setting Temperature	Cooling	18 °C ~ 30 °C (64 °F~86 °F)	18 °C ~ 30 °C (64 °F~86 °F)	18 °C ~ 30 °C (64 °F~86 °F)
	Range	Heating	16 °C ~ 30° C (60 °F~86 °F)	16 °C ~ 30° C (60 °F~86 °F)	16 °C ~ 30° C (60 °F~86 °F)
	Auto Operation (Micom Control)		0	0	0
	Auto Changeover (Micom Control)		0	0	0
	Self Diagnosis		0	0	0
	Timer		24h, On / Off	24h, On / Off	24h, On / Off
	Sleep Operation		0	0	0
	Soft Dry Operation		0	0	0
	Restart Delay(minute)		3	3	3
	Deice Control(Defrost)		0	0	0
	Hot Start		0	0	0
	Jet Cool / Jet Heat		0 / 0	0 / 0	0 / 0
	Low Ambient Operation		0	0	0

Note : O : Applied, - : Not Applied

- Filters are optional in some specific areas.
- For Circuit Breaker Rating, please conform to local standards whenever necessary.
- Wiring cable size must comply with the applicable local and national code.
- The specification may be subject to change without prior notice for purpose of improvement.

# Inverter Single

## 3. Specifications

Buyer Model (Indoor Unit / Outdoor unit)		Unit	Z09EM.SSW	Z12EM.SSH
Factory Model (Indoor Unit / Outdoor unit)			(Z09EM.NSW / E09EM.UA3) US-W096WSA1 (USNW096WSA1 / USUW096W4A1)	(Z12EM.NSW / E12EM.UA3) US-W126HSA1 (USNW126HSA1 / USUW126H4A1)
Cooling Capacity (Min ~ Rated ~ Max)		kW	0.89 ~ 2.5 ~ 3.7	0.9 ~ 3.5 ~ 4.04
		Btu/h	3,036 ~ 8,530 ~ 12,623	3,070 ~ 12,000 ~ 13,783
Heating Capacity (Min ~ Rated ~ Max)		kW	0.89 ~ 3.2 ~ 4.1	0.89 ~ 3.8 ~ 5.1
		Btu/h	3,036 ~ 10,900 ~ 13,988	3,036 ~ 13,000 ~ 17,400
Heating Capacity (-7°C)		kW	3.00	3.60
Power Input		W	730 / 950	1120 / 1040
Running Current (Rated ~ Max)		A	3.2 ~ 6.5 / 4.2 ~ 6.0	4.9 ~ 6.5 / 4.6 ~ 6.0
Starting Current		A	3.2 / 4.2	4.9 / 4.6
EER		W/W	3.42	3.13
SEER		-	5.7	5.8
P design C		kW	2.5	3.5
COP		W/W	3.37	3.65
SCOP		-	3.8	3.8
P design H		kW	2.3	3.2
Energy Label		Cooling / Heating	-	A+ / A
Annual Energy Consumption		Cooling / Heating	kWh 154 / 847	211 / 1400
Power Supply		Ø / V / Hz	1 / 220~240 / 50	1 / 220~240 / 50
Power Factor		%	95.5	95.5
Air Flow Rate	Indoor,Max/H/M/L/SL (Cooling)	m³/min (CFM)	9.0(317.7) / 7.5(264.8) / 6.0(211.8) / 4.5(158.9) / 3.0(105.9)	12.0(423.6) / 10.0(353.0) / 8.0(282.4) / 5.5(194.2) / 3.5(123.6)
	Indoor,Max/H/M/L (Heating)	m³/min (CFM)	8.0(282.4) / 6.0(211.8) / 5.0(176.5)	10.0(353.0) / 8.0(282.4) / 6.5(229.5)
	Outdoor,Max	m³/min (CFM)	27 (953)	27(953)
Moisture Removal		l/h	0.83	1.3
Sound Pressure Level	Indoor,H/M/L/SL (Cooling)	dB(A)+3	39 / 33 / 25 / 20	39 / 33 / 25 / 20
	Indoor,H/M/L (Heating)	dB(A)+3	39 / 33 / 28	39 / 33 / 28
	Outdoor,Max (Cooling/Heating)	dB(A)+3	49 / 49	49 / 49
Sound Power Level	Indoor	dB(A)	58	58
	Outdoor	dB(A)	65	65
Compressor	Type	-	Single Rotary	Single Rotary
	Model	-	GA102MDB	GA102MDB
	Motor Type	-	Brushless DC Motor	Brushless DC Motor
	Oil Type	-	PVE (FVC68D)	PVE (FVC68D)
	Oil Charge	cc	310 ± 5	310 ± 5
	O.L.P. name	-	-	-
Fan (Indoor)	Type	-	Cross Flow Fan	Cross Flow Fan
	Motor Output	W	30	30
Fan (Outdoor)	Type	-	Propeller	Propeller
	Motor Type	-	BLDC	BLDC
	Motor Output	W	43	43
Circuit Breaker*		A	15	15
Power Supply Cable		No. x mm²	3 x 1.0	3 x 1.0
Power and Transmission Cable		No. x mm²	4 x 0.75	4 x 0.75
Piping Connections	Liquid Side	mm (in)	6.35 (1/4)	6.35 (1/4)
	Gas Side	mm (in)	9.52 (3/8)	9.52 (3/8)
Drain Hose(O.D. , I.D.)		mm (in)	21.5, 16.0 (27/32, 5/8)	21.5, 16.0 (27/32, 5/8)
Dimensions	Indoor (W x H x D)	mm	756 x 265 x 184	798 x 292 x 214
		inch	29.8 x 10.4 x 7.2	31.4 x 11.5 x 8.4
	Outdoor (W x H x D)	mm	717 x 483 x 230	717 x 483 x 230
		inch	28.2 x 19.0 x 9.1	28.2 x 19.0 x 9.1
Net Weight	Indoor	kg (lbs)	7.4 (16.3)	8.5 (18.7)
	Outdoor	kg (lbs)	28 (61.7)	28 (61.7)
Gross Weight	Indoor	kg (lbs)	8.9 (19.6)	11 (24.2)
	Outdoor	kg (lbs)	30 (66.1)	30 (66.1)
Operation Range	Cooling (Outdoor)	°C(°F) DB	-10 ~ 48 (14 ~ 118.4)	-10 ~ 48 (14 ~ 118.4)
	Heating (Outdoor)	°C(°F) DB	-10 ~ 24 (14 ~ 75.2)	-10 ~ 24 (14 ~ 75.2)
Refrigerant & Charge		g (oz)	R410A, 850 (30.0) at 5m (16.4ft)	R410A, 900 (31.7) at 5m (16.4ft)
Additional Refrigerant Charge		g/m (oz/ft)	20 (0.22) after 5m (16.4ft)	20 (0.22) after 5m (16.4ft)
Piping Length (Min / Max)		m (ft)	3 (9.8) / 15 (49.2)	3 (9.8) / 15 (49.2)
Chargeless		m (ft)	5 (16.4)	5 (16.4)
Max. Elevation Difference		m (ft)	7 (23.0)	7 (23.0)
Tool Code (Chassis)			SW + UA3	SH + UA3
Functions	Indoor + Outdoor			
	Temperature Control		O	O
	1 Touch Soft Air		O	O
	Allergy free filter		-	-
	Plasma Filter		-	-
	Prefilter (Washable/Anti-fungus)		O	O
	Ionizer		-	-
	3M Micro Protection filter		-	-
	Auto Clean		O	O
	CHAOS Wind (Auto Wind)		-	-
	Steps, Fan/Cool/Heat		3 / 4 / 4	3 / 4 / 4
	Airflow Direction Control (Up& Down)		Auto	Auto
	Airflow Direction Control (Left & Right)		Manual	Manual
	Remote Controller Type		Wireless LCD	Wireless LCD
	Setting Temperature Range	Cooling	18 °C ~ 30 °C (64 °F~86 °F)	18 °C ~ 30 °C (64 °F~86 °F)
		Heating	16 °C ~ 30° C (60 °F~86 °F)	16 °C ~ 30° C (60 °F~86 °F)
	Auto Operation (Micom Control)		-	-
	Auto Changeover (Micom Control)		O	O
	Self Diagnosis		O	O
	Timer		24h, On / Off	24h, On / Off
	Sleep Operation		O	O
	Soft Dry Operation		O	O
	Restart Delay(minute)		3	3
	Deice Control(Defrost)		O	O
	Hot Start		O	O
	Jet Cool / Jet Heat		O / O	O / O
	Low Ambient Operation		O	O

Note : O : Applied, - : Not Applied

- Filters are optional in some specific areas.
- For Circuit Breaker Rating, please conform to local standards whenever necessary.
- Wiring cable size must comply with the applicable local and national code.
- The specification may be subject to change without prior notice for purpose of improvement.



# Inverter Single

## 3. Specifications

Buyer Model (Indoor Unit / Outdoor unit)		Unit	H09AL.SSM (H09AL.NSM / H09AL.UE1)		H12AL.SSM (H12AL.NSM / H12AL.UE1)	
Factory Model (Indoor Unit / Outdoor unit)			AS-W096MMS6 (ASNW096MMS6 / ASUW096MMS6)		AS-W126MMS6 (ASNW126MMS6 / ASUW126MMS6)	
Cooling Capacity (Min ~ Rated ~ Max)		kW	0.30 ~ 2.50 ~ 3.80		0.30 ~ 3.50 ~ 4.04	
		Btu/h	1,024 ~ 8,530 ~ 12,975		1,024 ~ 11,940 ~ 13,783	
Heating Capacity (Min ~ Rated ~ Max)		kW	0.30 ~ 3.20 ~ 6.60		0.30 ~ 4.00 ~ 6.80	
		Btu/h	1,024 ~ 10,900 ~ 22,535		1,024 ~ 13,650 ~ 23,218	
Heating Capacity (-7°C)		kW	4.30		4.60	
Power Input		W	490 / 570		830 / 770	
Running Current (Rated ~ Max)		A	2.5 ~ 6.0 / 2.9 ~ 7.0		3.9 ~ 6.0 / 3.7 ~ 7.0	
Starting Current		A	2.5 / 2.9		3.9 / 3.7	
EER		W/W	5.10		4.22	
SEER		-	9.3		9.2	
P design C		kW	2.5		3.5	
COP		W/W	5.61		5.19	
SCOP		-	5.3		5.3	
P design H		kW	3.2		3.8	
Energy Label		Cooling / Heating	-		A+++ / A+++	
Annual Energy Consumption		Cooling / Heating	kWh		95 / 855	
Power Supply		Ø / V / Hz	1 / 220-240 / 50		1 / 220-240 / 50	
Power Factor		%	92.0		92.0	
Air Flow Rate	Indoor,Max/H/M/L/SL (Cooling)	m³/min (CFM)	15.5(547.4) / 14.5(512.1) / 11.5(406.1) / 8.5(300.2) / 5.0(176.6)		15.5(547.4) / 14.5(512.1) / 11.5(406.1) / 8.5(300.2) / 5.0(176.6)	
	Indoor,Max/H/M/L (Heating)	m³/min (CFM)	16.5(582.7) / 12.5(441.4) / 9.5(335.5)		16.5(582.7) / 12.5(441.4) / 9.5(335.5)	
	Outdoor,Max	m³/min (CFM)	40 (1,412.6)		40 (1,412.6)	
Moisture Removal		l/h	1.5		1.7	
Sound Pressure Level	Indoor,H/M/L/SL (Cooling)	dB(A)+3	39 / 33 / 25 / 17		39 / 33 / 25 / 17	
	Indoor,H/M/L (Heating)	dB(A)+3	39 / 33 / 25		39 / 33 / 25	
	Outdoor,Max (Cooling/Heating)	dB(A)+3	48 / 48		48 / 48	
Sound Power Level	Indoor	dB(A)	58		58	
	Outdoor	dB(A)	65		65	
Compressor	Type	-	Twin Rotary		Twin Rotary	
	Model	-	DA128A1FA-20F		DA128A1FA-20F	
	Motor Type	-	Hermetic Motor Compressor		Hermetic Motor Compressor	
	Oil Type	-	VG74		VG74	
	Oil Charge	cc	450		450	
	O.L.P. name	-	-		-	
Fan (Indoor)	Type	-	Cross Flow Fan		Cross Flow Fan	
	Motor Output	W	30		30	
Fan (Outdoor)	Type	-	Propeller		Propeller	
	Motor Type	-	BLDC		BLDC	
	Motor Output	W	85		85	
Circuit Breaker*	A	15		15		
Power Supply Cable		No. x mm²	3 x 1.0		3 x 1.0	
Power and Transmission Cable		No. x mm²	4 x 1.0		4 x 1.0	
Piping Connections	Liquid Side	mm (in)	6.35 (1/4)		6.35 (1/4)	
	Gas Side	mm (in)	9.52 (3/8)		9.52 (3/8)	
Drain Hose(O.D. , I.D.)		mm (in)	21.5, 16.0 (27/32, 5/8)		21.5, 16.0 (27/32, 5/8)	
Dimensions	Indoor (W x H x D)	mm	875 x 295 x 235		875 x 295 x 235	
		inch	34.4 x 11.6 x 9.3		34.4 x 11.6 x 9.3	
	Outdoor (W x H x D)	mm	870 x 655 x 320		870 x 655 x 320	
		inch	34.3 x 25.8 x 12.6		34.3 x 25.8 x 12.6	
Net Weight	Indoor	kg (lbs)	11.5 (25.4)		11.5 (25.4)	
	Outdoor	kg (lbs)	42 (92.6)		42 (92.6)	
Gross Weight	Indoor	kg (lbs)	13 (28.7)		13 (28.7)	
	Outdoor	kg (lbs)	47 (103.6)		47 (103.6)	
Operation Range	Cooling (Outdoor)	°C(°F) DB	-10 ~ 48 (14 ~ 118.4)		-10 ~ 48 (14 ~ 118.4)	
	Heating (Outdoor)	°C(°F) DB	-15 ~ 24 (5 ~ 75.2)		-15 ~ 24 (5 ~ 75.2)	
Refrigerant & Charge		g (oz)	R410A, 1150 (2.5) at 5m (16.4ft)		R410A, 1150 (2.5) at 5m (16.4ft)	
Additional Refrigerant Charge		g/m (oz/ft)	20 (0.22) after 12.5m (41.0ft)		20 (0.22) after 12.5m (41.0ft)	
Piping Length (Min / Max)		m (ft)	3 (9.8) / 20 (65.6)		3 (9.8) / 20 (65.6)	
Chargeless		m (ft)	12.5 (41.0)		12.5 (41.0)	
Max. Elevation Difference		m (ft)	10 (32.8)		10 (32.8)	
Tool Code (Chassis)		Indoor + Outdoor	SM + UE		SM + UE	
Functions	Temperature Control		O		O	
	1 Touch Soft Air		-		-	
	Allergy free filter		-		-	
	Plasma Filter		-		-	
	Prefilter (Washable/Anti-fungus)		O		O	
	Ionizer		O		O	
	3M Multi Protection Filter		O		O	
	Auto Clean		O		O	
	CHAOS Wind (Auto Wind)		-		-	
	Steps, Fan/Cool/Heat		5 / 6 / 6		5 / 6 / 6	
	Airflow Direction Control (Up& Down)		Auto		Auto	
	Airflow Direction Control (Left & Right)		Auto		Auto	
	Remote Controller Type		Wireless LCD		Wireless LCD	
	Setting Temperature Range	Cooling	18 °C ~ 30 °C (64 °F~86 °F)		18 °C ~ 30 °C (64 °F~86 °F)	
		Heating	16 °C ~ 30° C (60 °F~86 °F)		16 °C ~ 30° C (60 °F~86 °F)	
	Auto Operation (Microm Control)		O		O	
	Auto Changeover (Microm Control)		O		O	
	Self Diagnosis		O		O	
	Timer		24h, On / Off		24h, On / Off	
	Sleep Operation		O		O	
	Soft Dry Operation		O		O	
	Restart Delay(minute)		3		3	
	Deice Control(Defrost)		O		O	
	Hot Start		O		O	
	Jet Cool / Jet Heat		O / O		O / O	
	Low Ambient Operation		O		O	

Note : O : Applied, - : Not Applied

- Filters are optional in some specific areas.
- For Circuit Breaker Rating, please conform to local standards whenever necessary.
- Wiring cable size must comply with the applicable local and national code.
- The specification may be subject to change without prior notice for purpose of improvement.

# Inverter Single

## 4. Dimensional drawings

### 4.1 Indoor Units

D09CM (ASNW096J1R0)  
D12CM (ASNW126J1R0)

[ Unit : mm ]

**Note**

- The unit should be installed according to installation manual which is in the product box.
- The Unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.

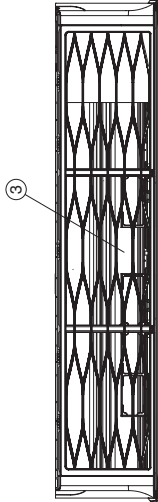
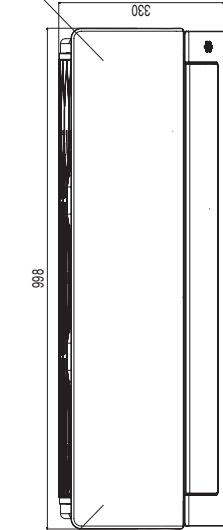
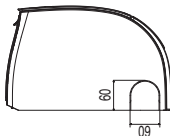
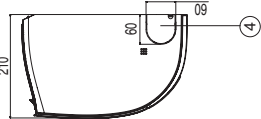

Item No.	Part Name	Remark
1	Front Panel	
2	Display & Signal Receiver	
3	Air Suction Grille	
4	Knockout hole	For pipe and cable
5	Installation Plate	

**LG Electronics**

CHASSIS : SJ

## 4. Dimensional drawings

D18CM (ASNW186K1R0)  
D24CM (ASNW246K1R0)

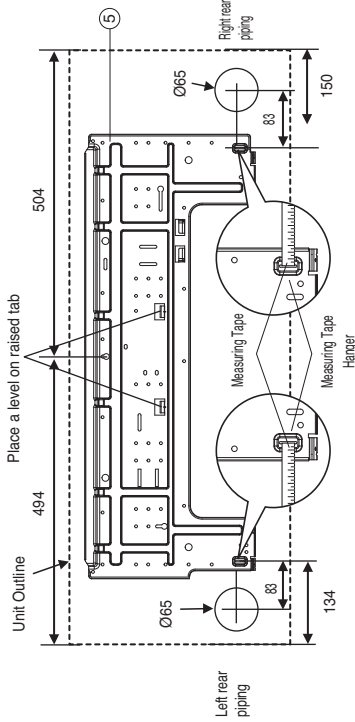






Item No.	Part Name	Remark
1	Front Panel	
2	Display & Signal Receiver	
3	Air Suction Grille	
4	Knockout hole	For pipe and cable
5	Installation Plate	

**Note**

- The unit should be installed according to installation manual which is in the product box.
- The Unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.

[ Unit : mm ]



**LG Electronics**

CHASSIS : SK

# Inverter Single

## 4. Dimensional drawings

E09EM (USNW096W4A1)  
Z09EM (USNW096WSA1)

[ Unit : mm ]

Item 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	

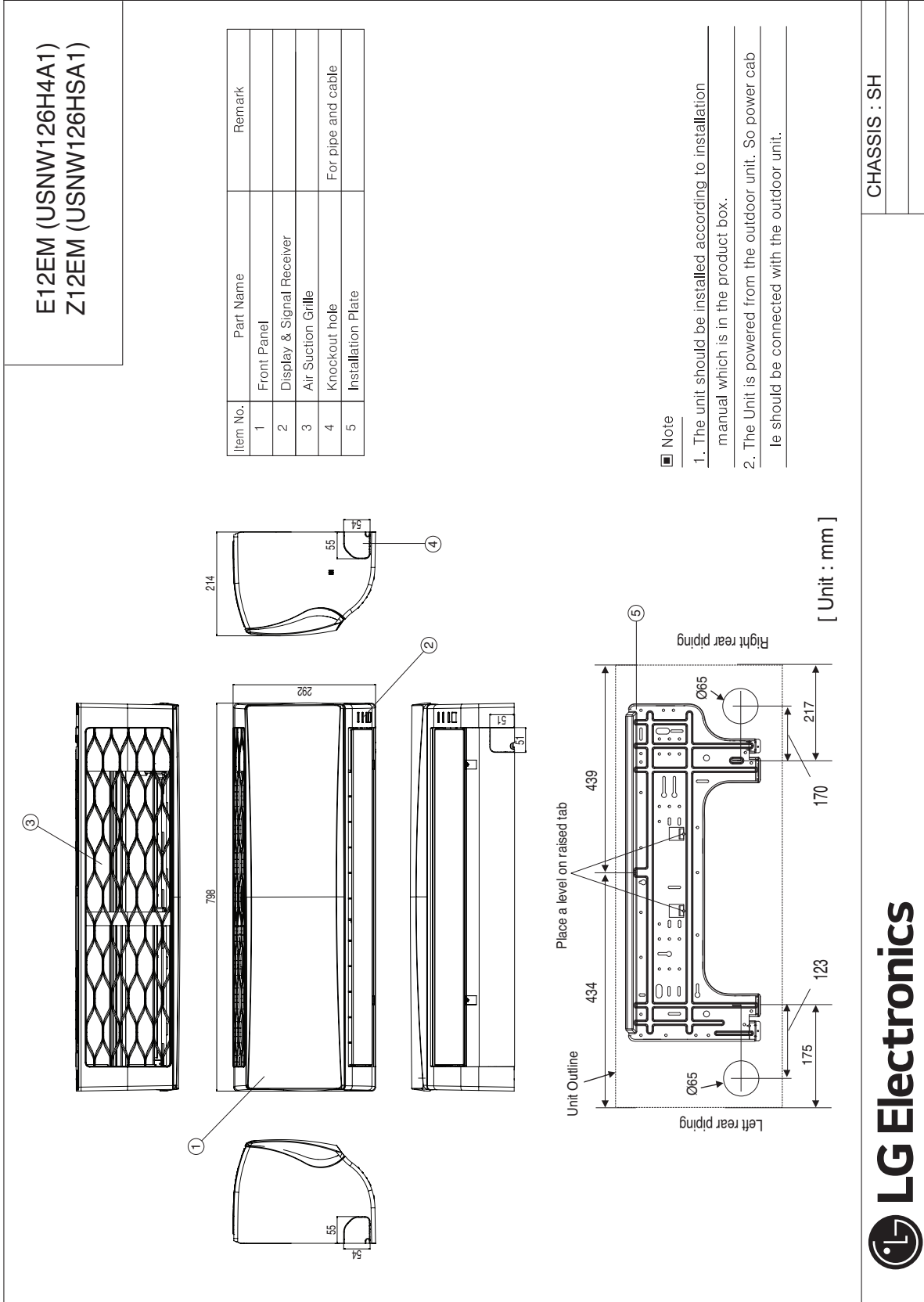
**Note**

- The unit should be installed according to installation manual which is in the product box.
- The Unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.

CHASSIS : SW



## 4. Dimensional drawings



# Inverter Single

## 4. Dimensional drawings

E18EM (USNW186M4A1)

Item 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	

③  
①

②

④

⑤

**Note**

- The unit should be installed according to installation manual which is in the product box.
- The Unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.

[ Unit : mm ]

CHASSIS : SM

## 4. Dimensional drawings

H09AL (ASNW096MMS6)  
H12AL (ASNW126MMS6)

[ Unit : mm ]

Item 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	

**Note**

- The unit should be installed according to installation manual which is in the product box.
- The Unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.

CHASSIS : SM

# Inverter Single

## 4. Dimensional drawings

### 4.2 Outdoor Units

E09EM (USUW096W4A1)  
E12EM (USUW126H4A1)

No.	Part Name	Remark
1	Air Discharge Grille	
2	Gas Pipe Connection Port	
3	Liquid Pipe Connection Port	
4	Power & Transmission connection	
5	Earth Screw	

CHASSIS : UA3+

[ Unit : mm ]

[ Unit : mm ]

**Note**

1. The unit should be installed according to installation manual which is in the product box.
2. The unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.



## 4. Dimensional drawings

D09CM (ASUW096J1R0) / D12CM (ASUW126J1R0)  
D18CM (ASUW186K1R0) / E18EM (USUW186M4A1)

No.	Part Name	Remark
1	Air Discharge Grille	
2	Gas Pipe Connection Port	
3	Liquid Pipe Connection Port	
4	Power & Transmission connection	
5	Earth Screw	

**Note**

- The unit should be installed according to installation manual which is in the product box.
- The unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.

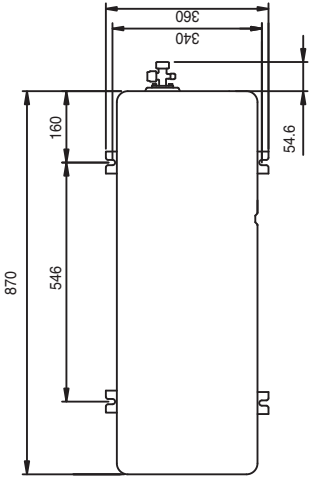
[ Unit : mm ]

LG Electronics

CHASSIS : UL2

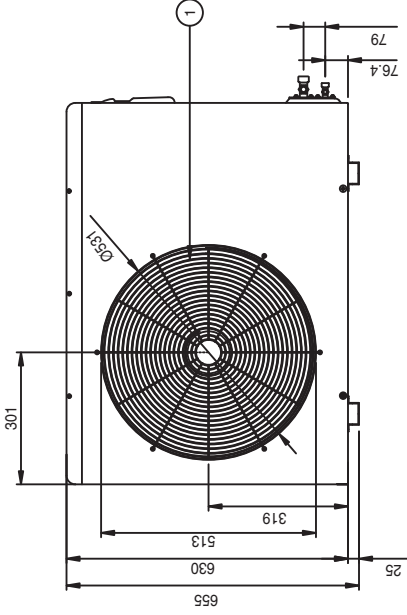
# Inverter Single

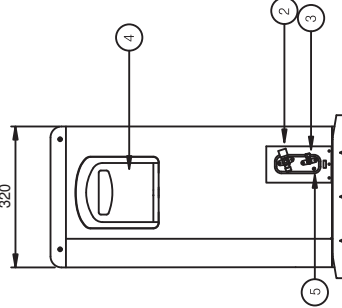
## 4. Dimensional drawings



D24CM (ASUW246K1R0)  
H09AL (ASUW096MMS6)  
H12AL (ASUW126MMS6)

No.	Part Name	Remark
1	Air Discharge Grille	
2	Gas Pipe Connection Port	
3	Liquid Pipe Connection Port	
4	Power & Transmission connection	
5	Earth Screw	





**Note**

- The unit should be installed according to installation manual which is in the product box.
- The unit is powered from the outdoor unit. So power cable should be connected with the outdoor unit.

[ Unit : mm ]

CHASSIS : UE

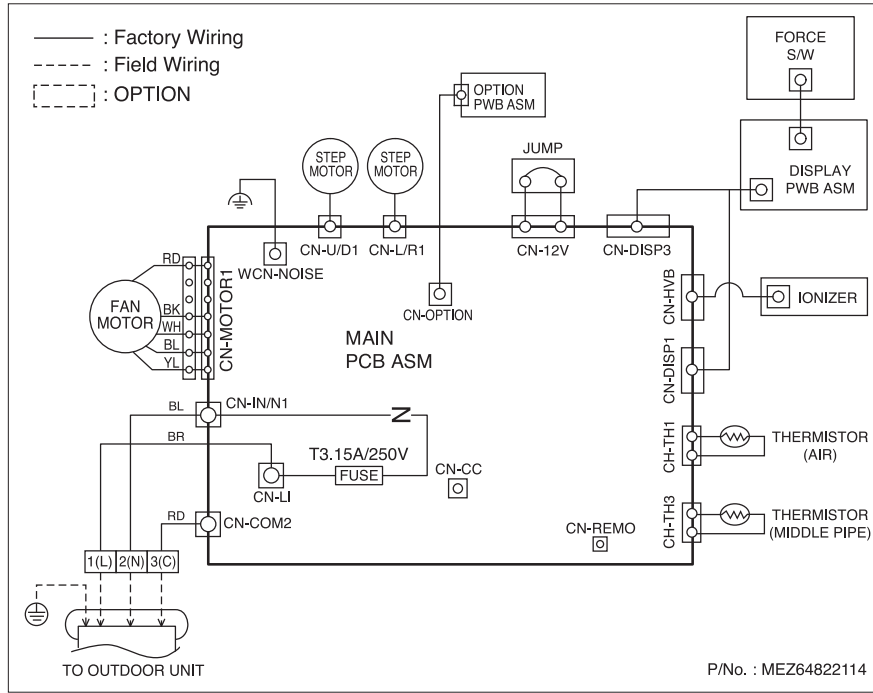


# Inverter Single

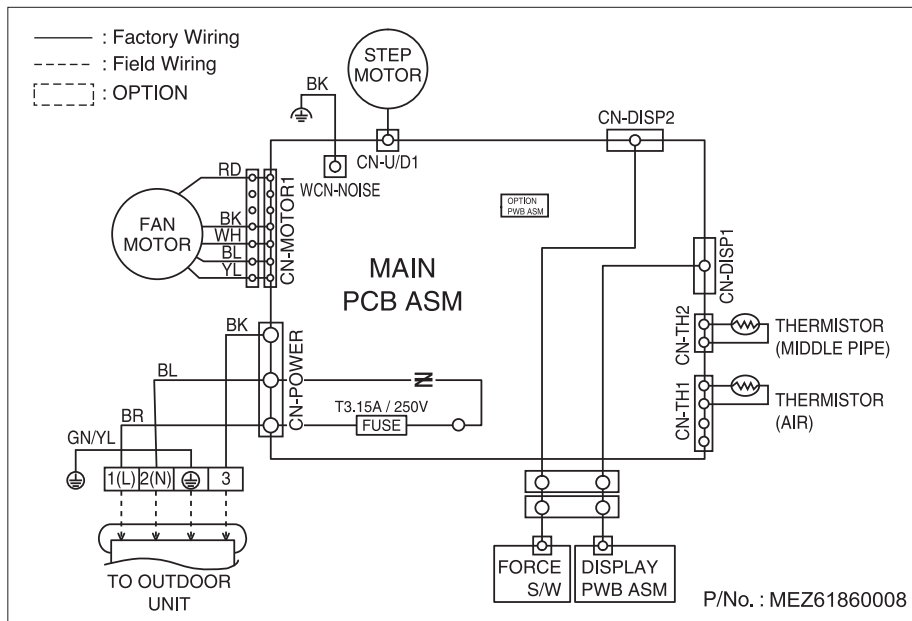
## 5. Wiring diagrams

### 5.1 Indoor units

Model : D09CM (ASNW096J1R0), D12CM (ASNW126J1R0), D18CM (ASNW186K1R0), D24CM (ASNW246K1R0)



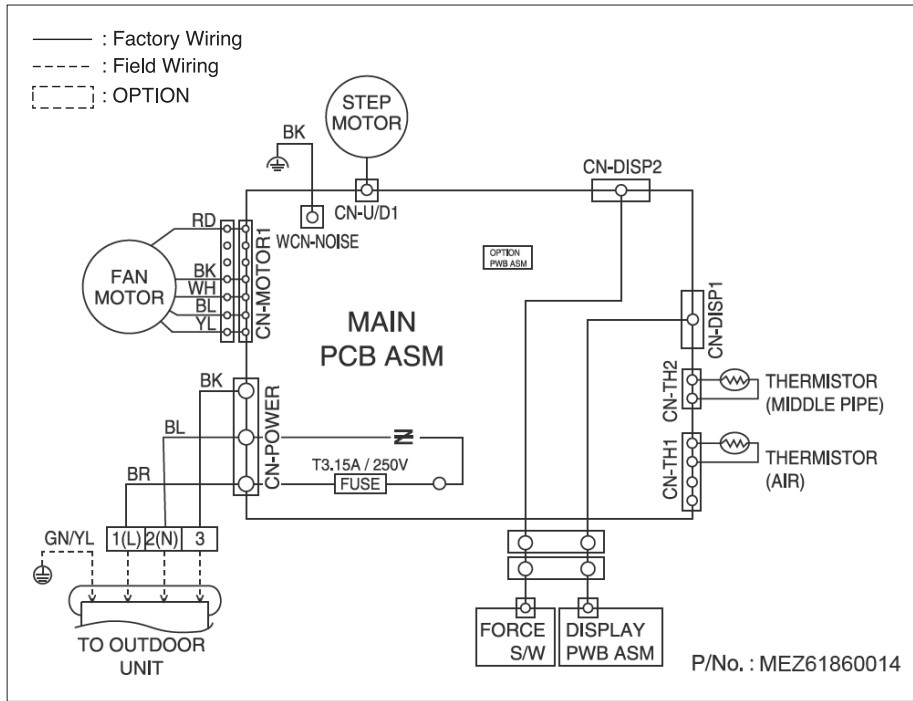
Model : E09EM (USNW096W4A1), Z09EM (USNW096WSA1)



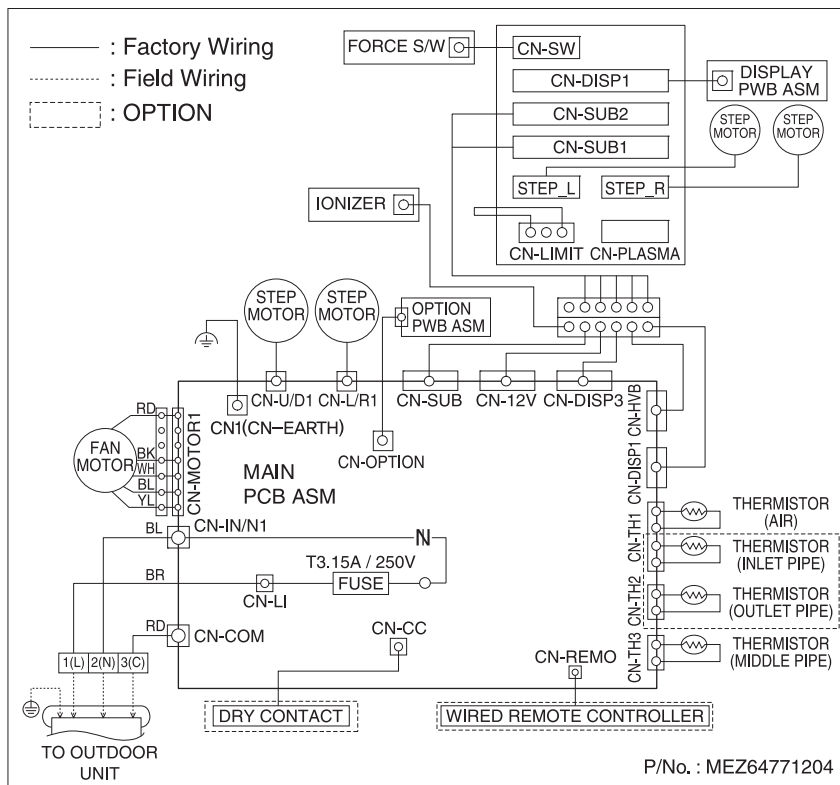
# Inverter Single

## 5. Wiring diagrams

Model : E12EM (USNW126H4A1), Z12EM (USNW126HSA1), E18EM (USNW186M4A1)



Model : H09AL (ASNW096MMS6), H12AL (ASNW126MMS6)

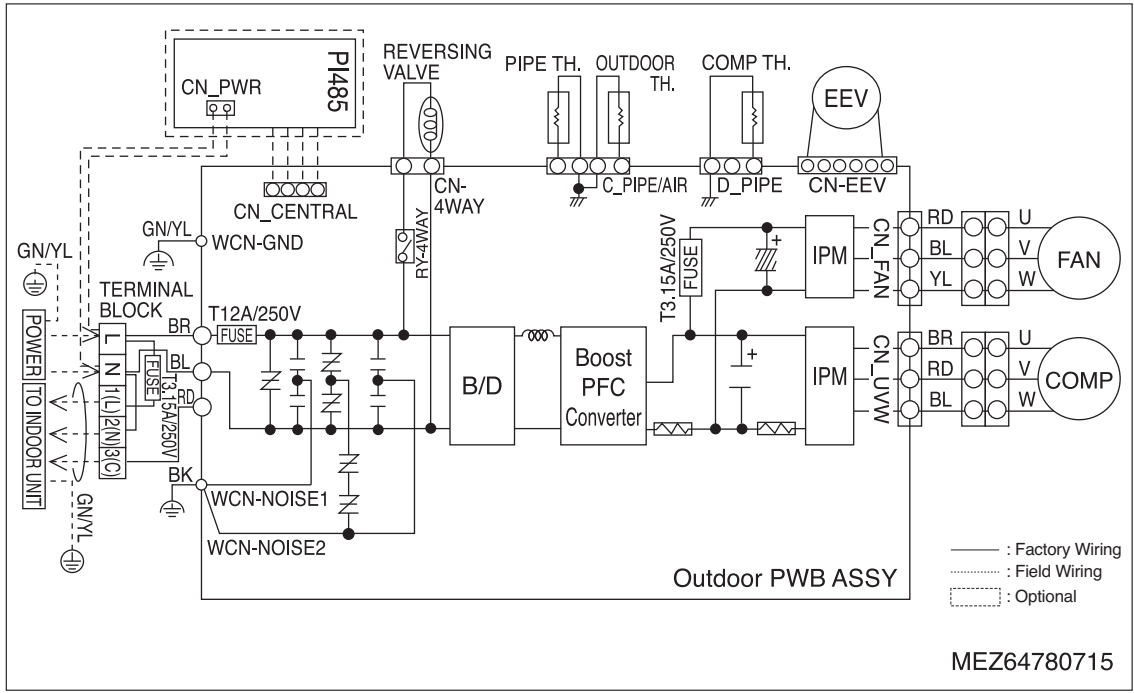


# Inverter Single

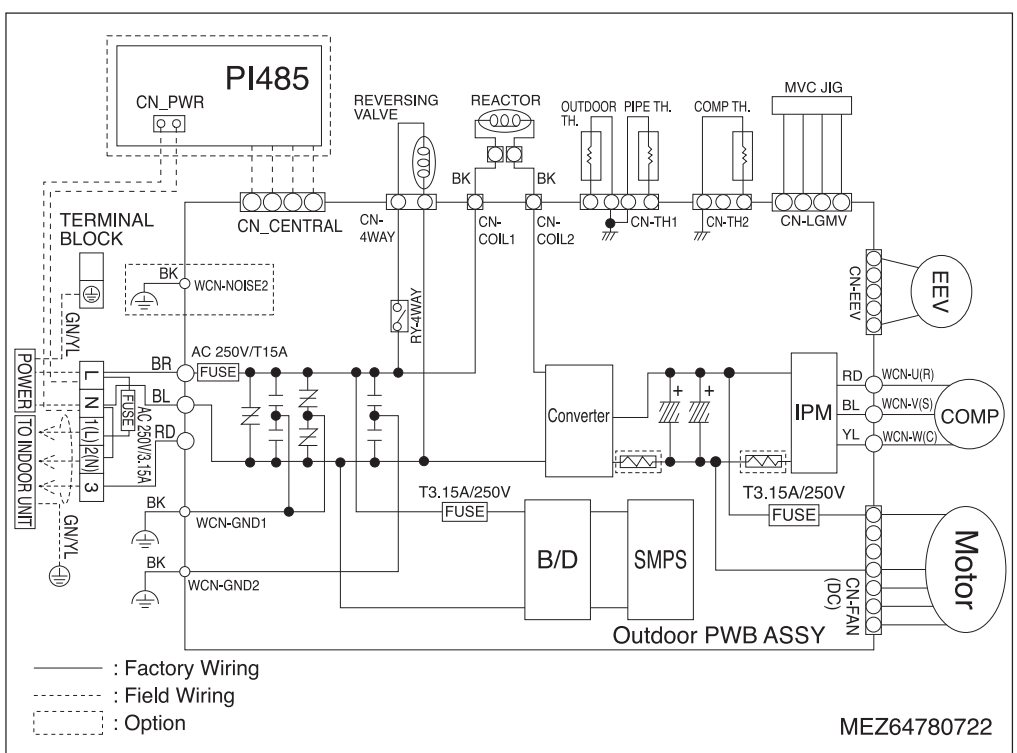
## 5. Wiring diagrams

### 5.2 Outdoor units

Model : D09CM (ASUW096J1R0), D12CM (ASUW126J1R0)



Model : D18CM (ASUW186K1R0)

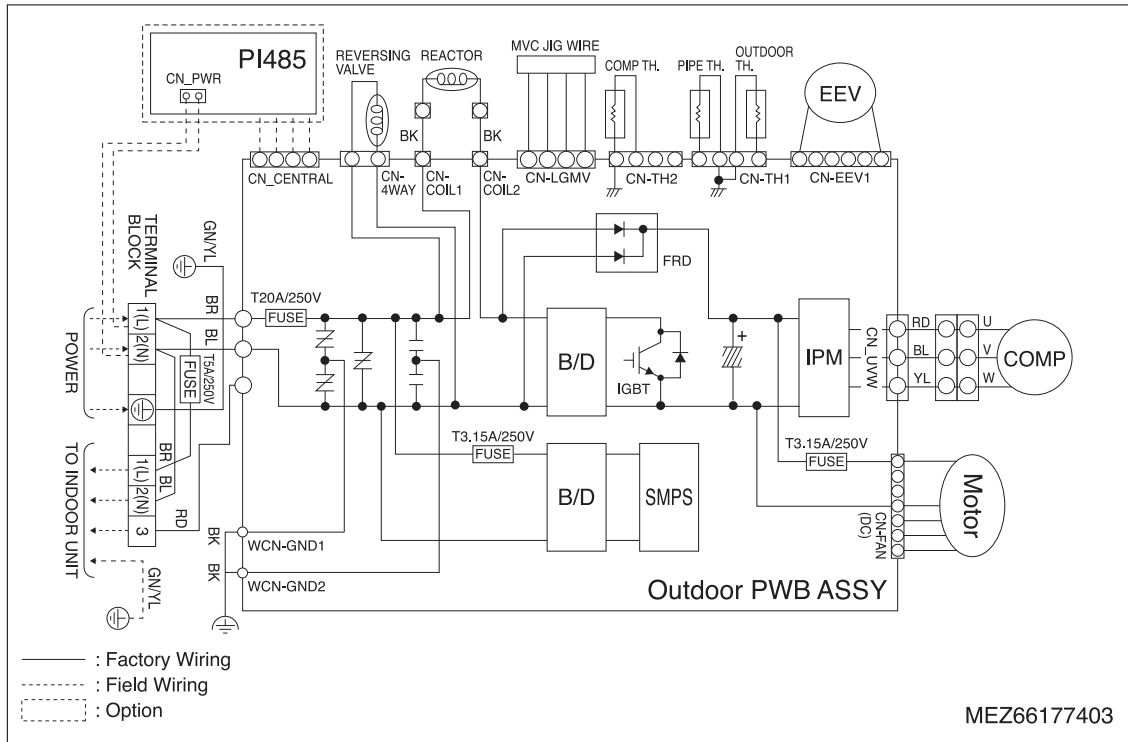


Inverter Single

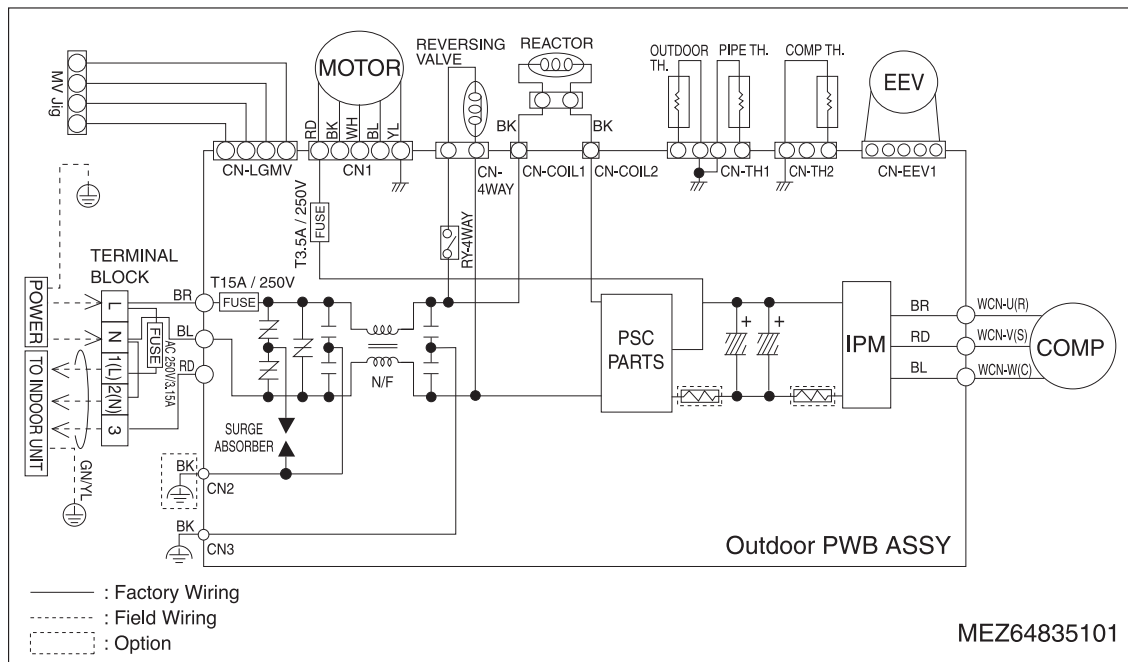
# Inverter Single

## 5. Wiring diagrams

Model : D24CM (ASUW246K1R0)



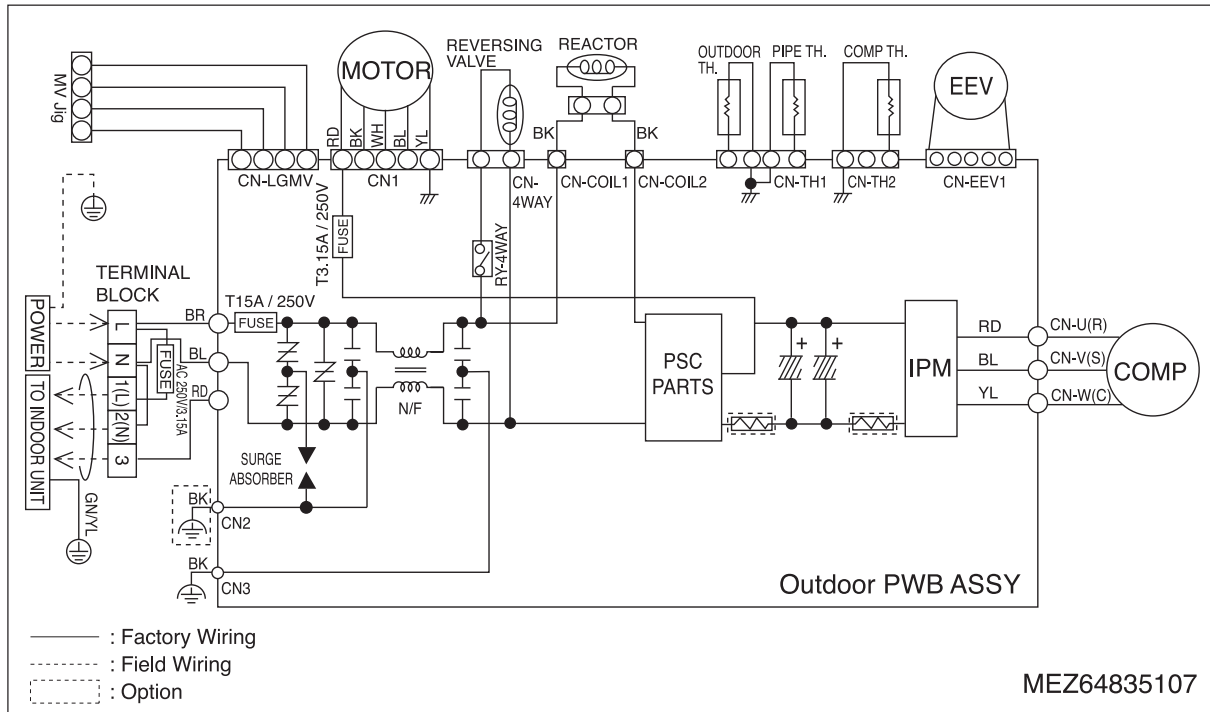
Model : E09EM (USUW096W4A1), E12EM (USUW126H4A1)



# Inverter Single

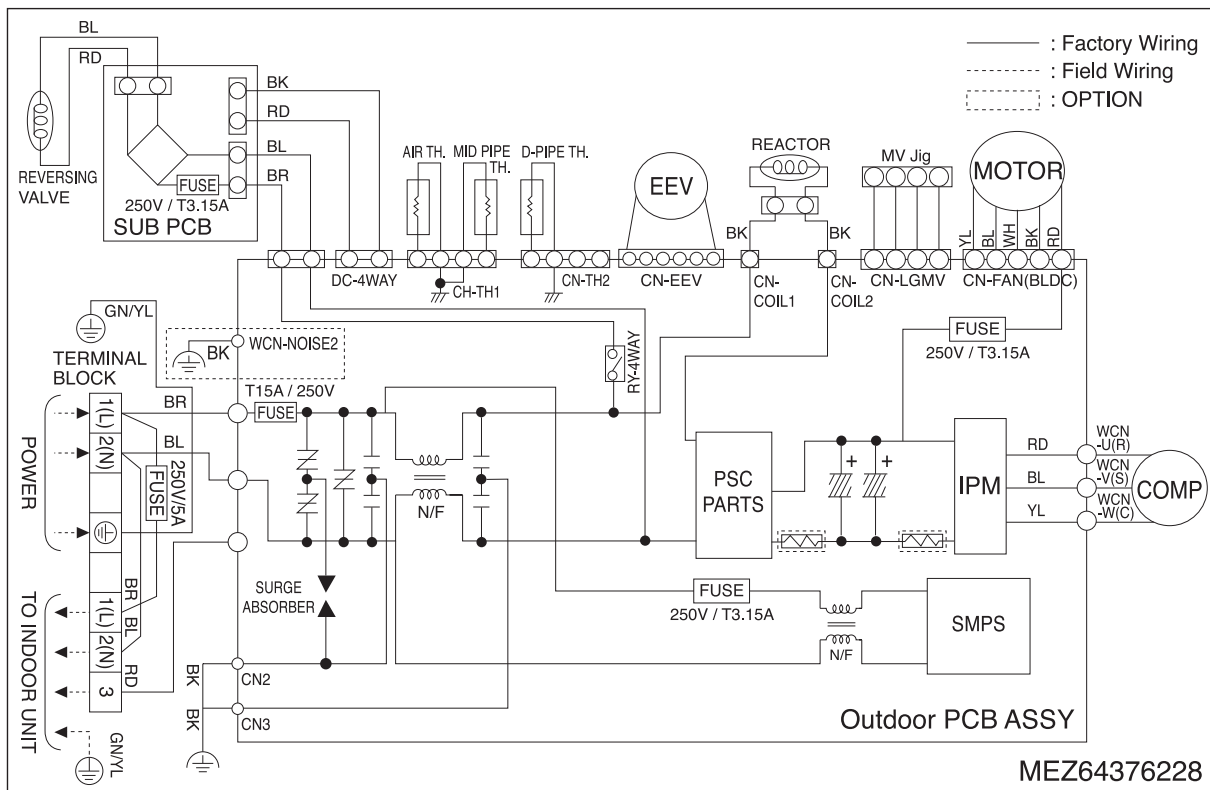
## 5. Wiring diagrams

Model : E18EM (USUW186M4A1)



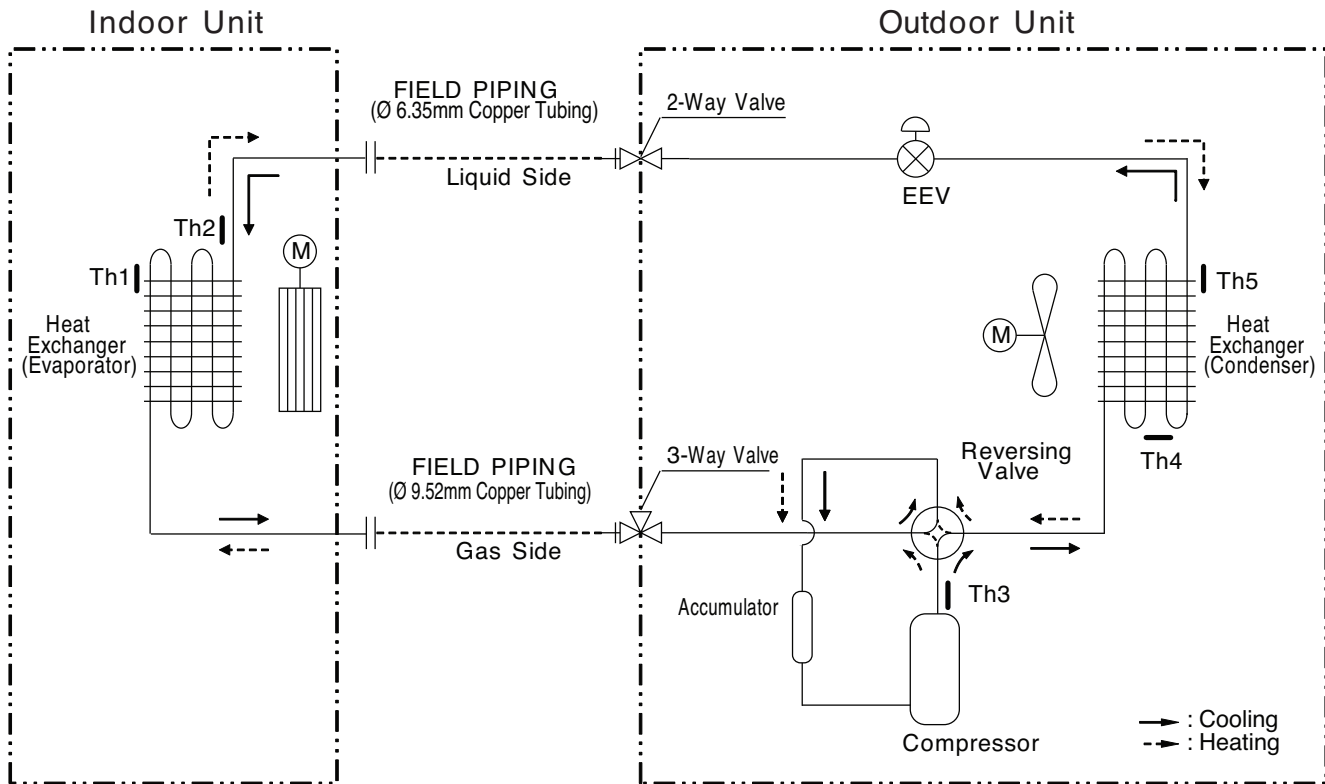
Inverter Single

Model : H09AL (ASUW096MMS6), H12AL (ASUW126MMS6)



## 6. Refrigerant cycle diagrams

Model : D09CM (AS-W096J1R0), D12CM (AS-W126J1R0)



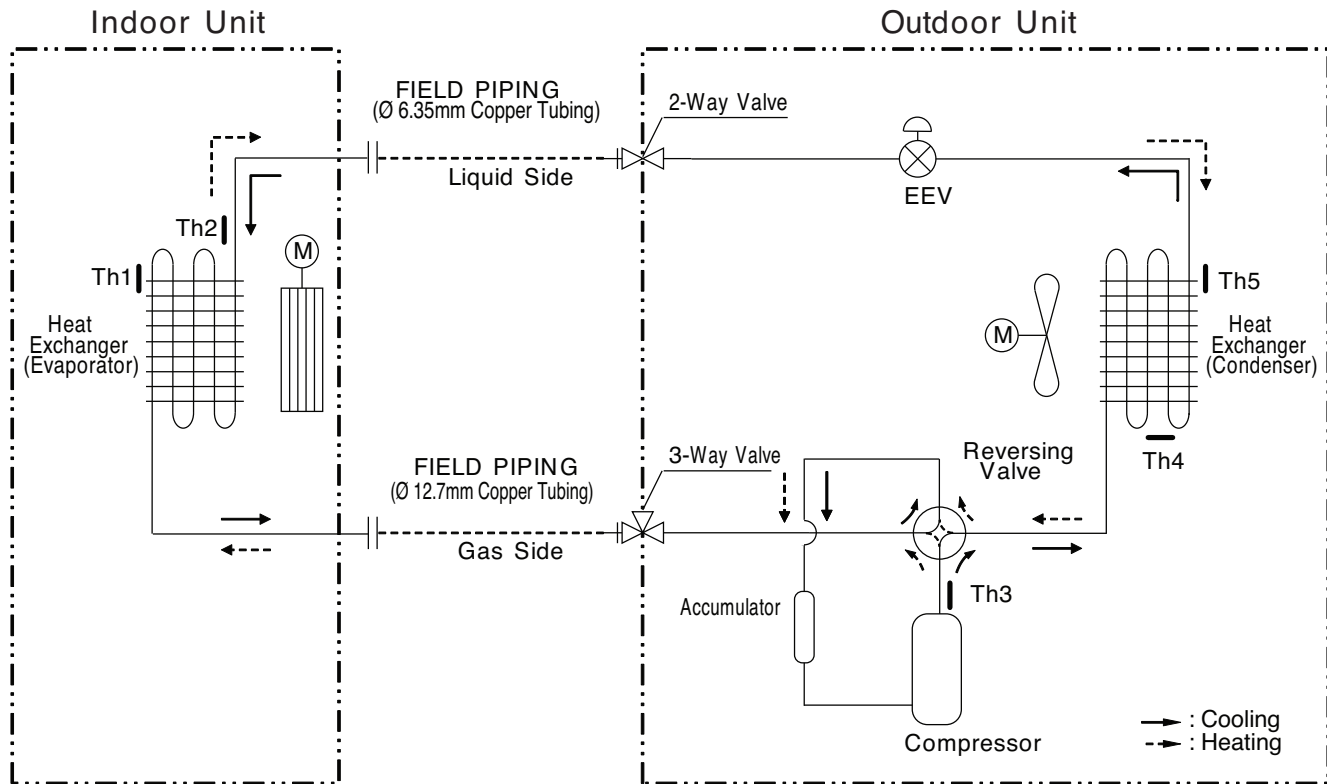
LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporating temperature	CN-TH3 (Indoor)
Th3	Thermistor for discharge pipe temperature	D_PIPE (Outdoor)
Th4	Thermistor for condensing temperature	C_PIPE/AIR (Outdoor)
Th5	Thermistor for outdoor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

\* EEV : Electronic Expansion Valve



## 6. Refrigerant cycle diagrams

Model : D18CM (AS-W186K1R0)



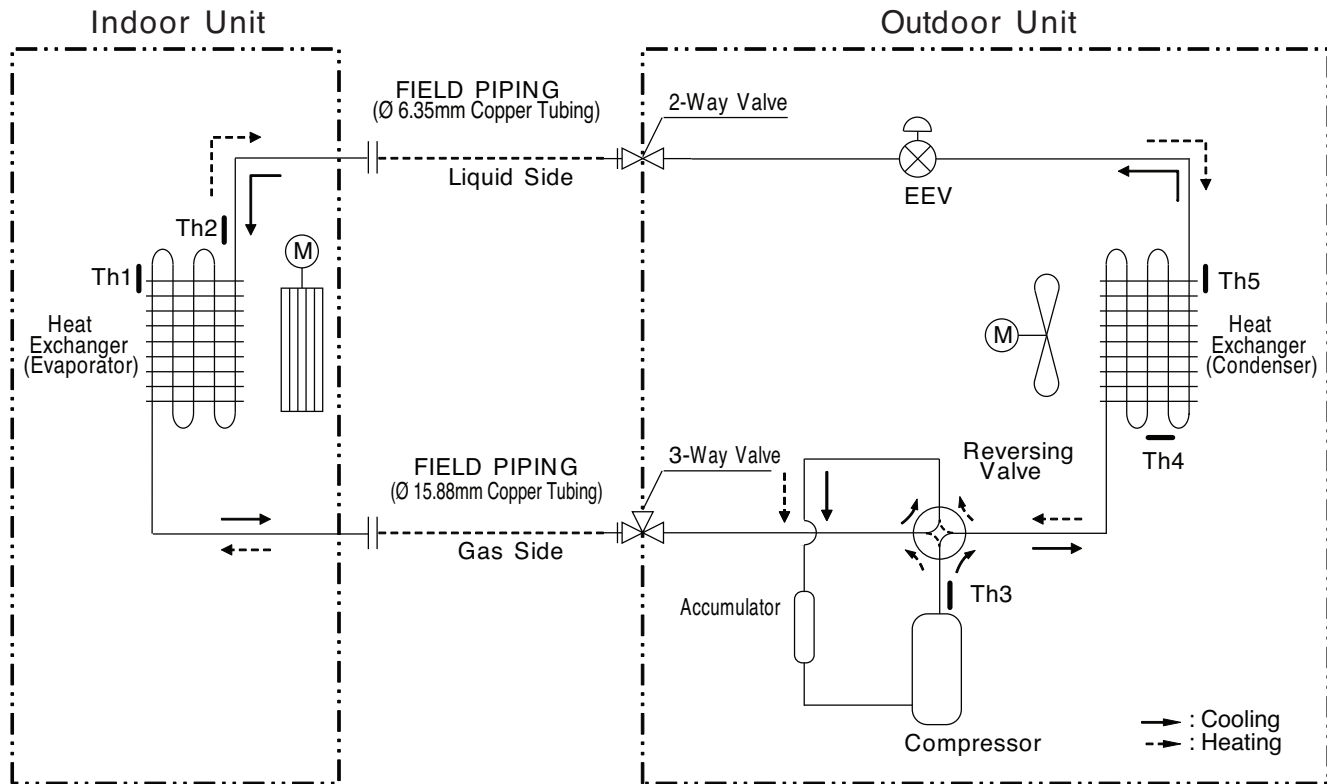
LOC.	Description	PCB Connector
Th1	Thermistor for air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th3	Thermistor for discharge pipe temperature	CN_TH2 (Outdoor)
Th4	Thermistor for condensing temperature	CN_TH1 (Outdoor)
Th5	Thermistor for outdoor air temperature	

\* EEV : Electronic Expansion Valve

# Inverter Single

## 6. Refrigerant cycle diagrams

Model : D24CM (AS-W246K1R0)

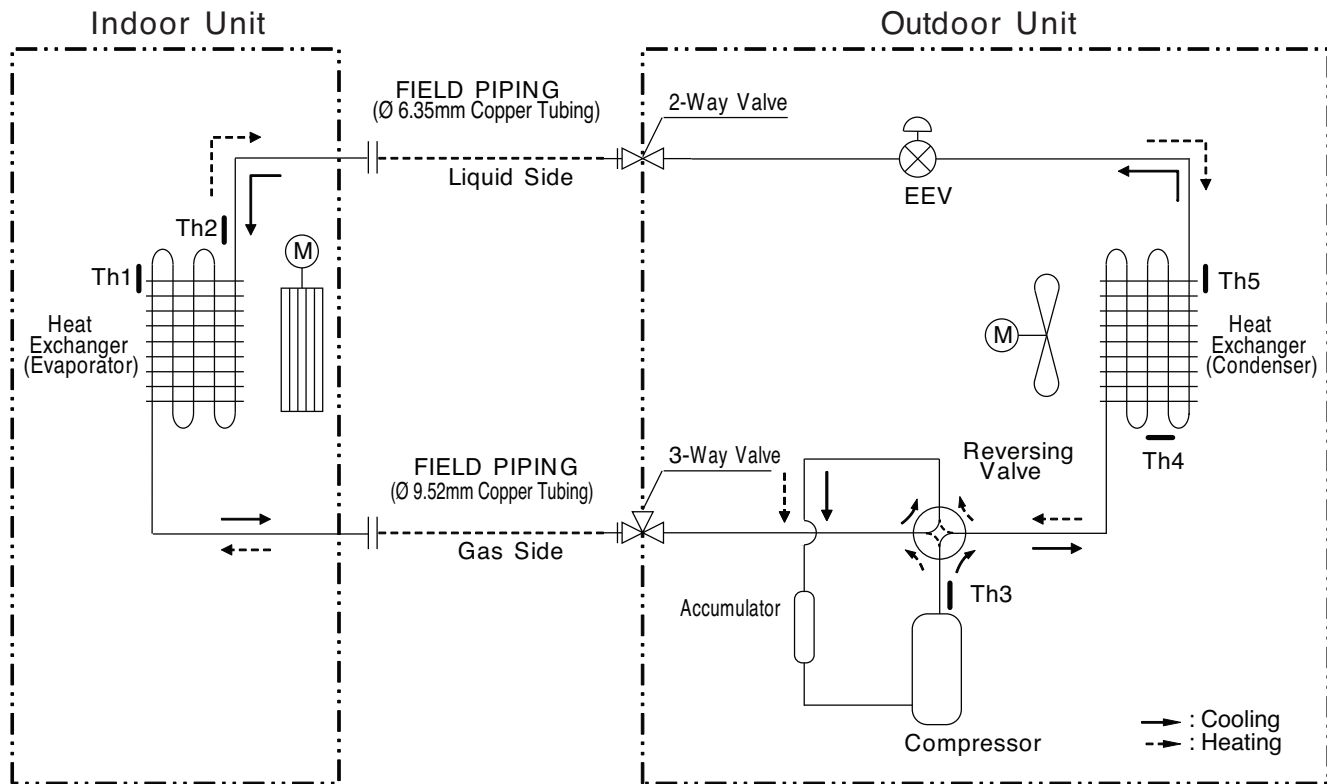


LOC.	Description	PCB Connector
Th1	Thermistor for air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th3	Thermistor for discharge pipe temperature	CN_TH2 (Outdoor)
Th4	Thermistor for condensing temperature	CN_TH1 (Outdoor)
Th5	Thermistor for outdoor air temperature	

\* EEV : Electronic Expansion Valve

## 6. Refrigerant cycle diagrams

Model : E09EM (US-W096W4A1), E12EM (US-W126H4A1), Z09EM (US-W096WSA1), Z12EM (US-W126HSA1)



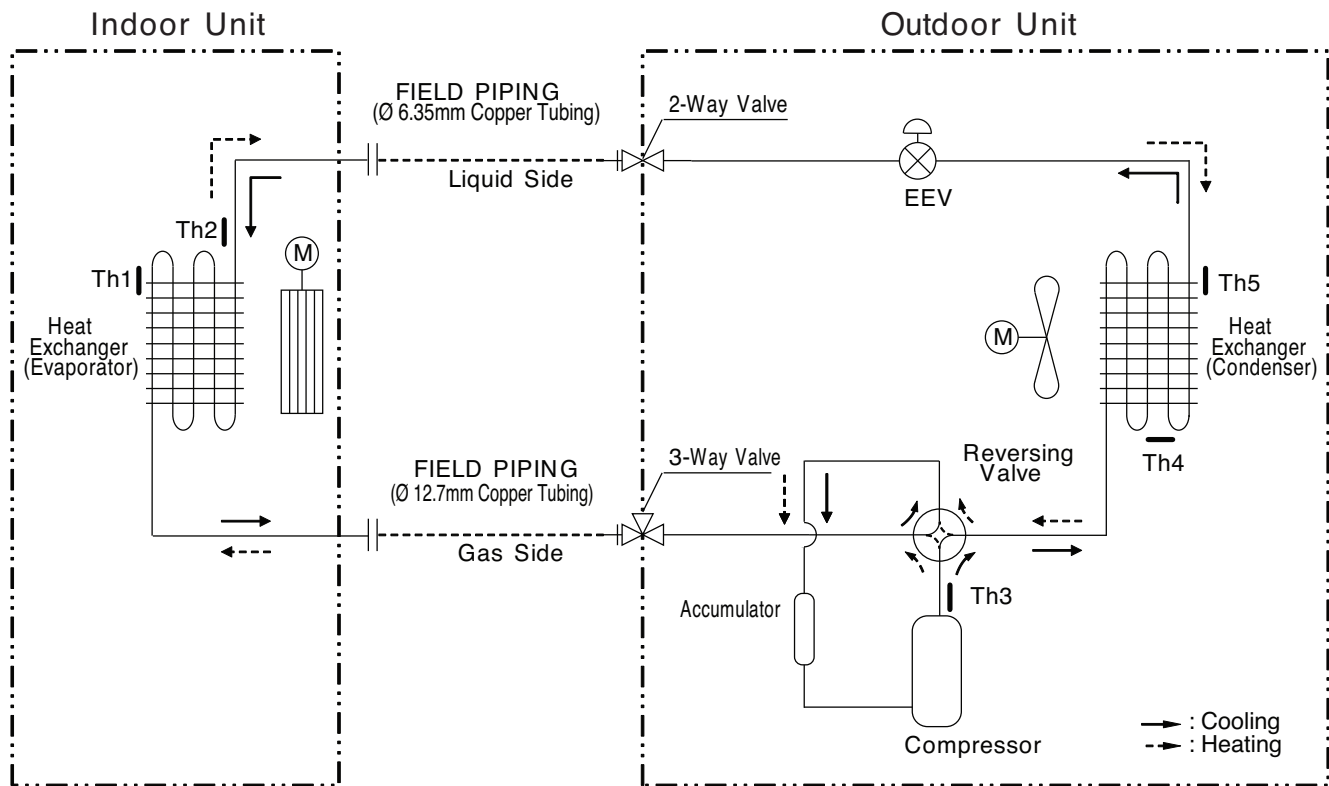
LOC.	Description	PCB Connector
Th1	Thermistor for air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH2 (Indoor)
Th3	Thermistor for discharge pipe temperature	CN-TH2 (Outdoor)
Th4	Thermistor for condensing temperature	CN-TH1 (Outdoor)
Th5	Thermistor for outdoor air temperature	

\* EEV : Electronic Expansion Valve

# Inverter Single

## 6. Refrigerant cycle diagrams

Model : E18EM (US-W186M4A1)

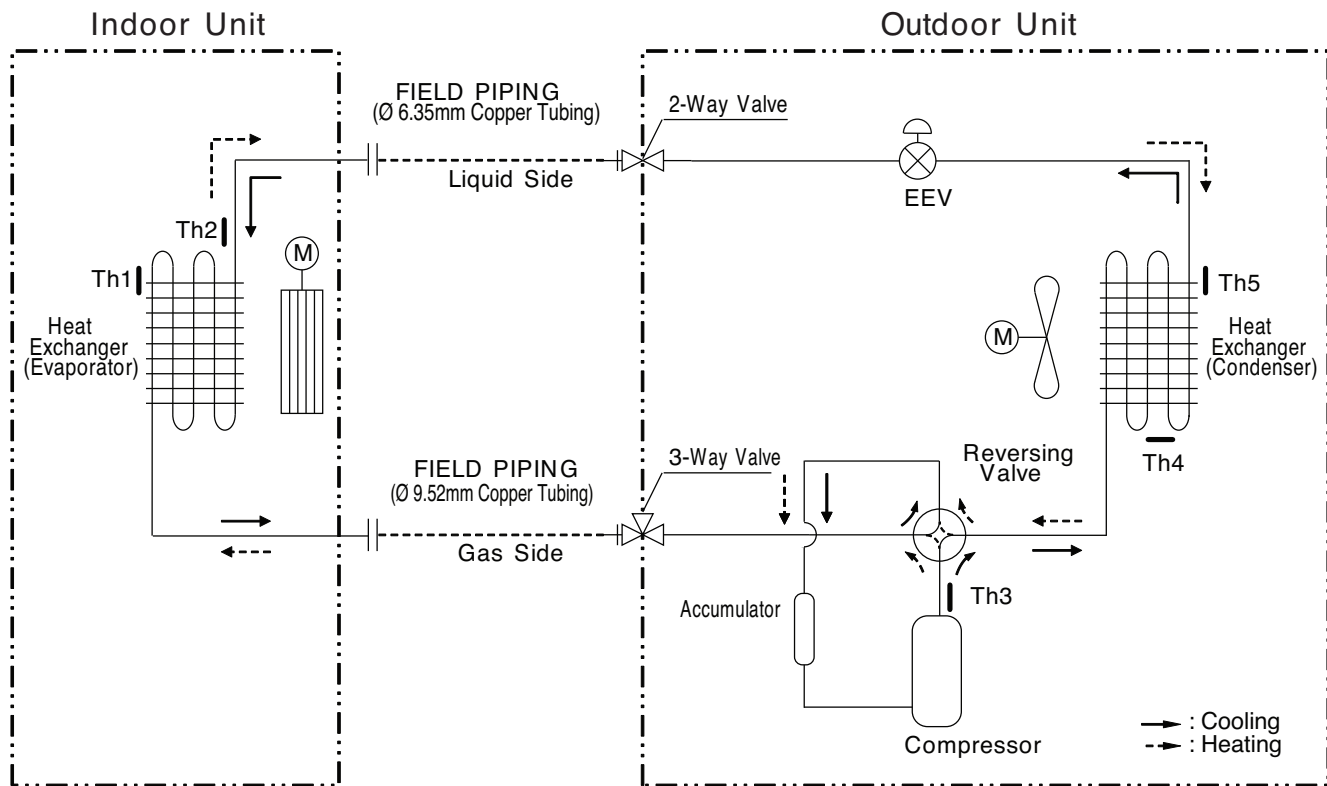


LOC.	Description	PCB Connector
Th1	Thermistor for air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator middle temperature	CN-TH2 (Indoor)
Th3	Thermistor for discharge pipe temperature	CN-TH2 (Outdoor)
Th4	Thermistor for condensing temperature	CN-TH1 (Outdoor)
Th5	Thermistor for outdoor air temperature	

\* EEV : Electronic Expansion Valve

## 6. Refrigerant cycle diagrams

Model : H09AL (AS-W096MMS6), H12AL (AS-W126MMS6)



LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporating temperature	CN-TH3 (Indoor)
Th3	Thermistor for discharge pipe temperature	CN_TH2 (Outdoor)
Th4	Thermistor for condensing temperature	CN_TH1 (Outdoor)
Th5	Thermistor for outdoor air temperature	

\* EEV : Electronic Expansion Valve

# Inverter Single

## 7. Capacity tables

### 7.1 Cooling Capacity

#### Model : D09CM (AS-W096J1R0)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.62	2.49	0.33	2.61	2.45	0.31	2.60	2.41	0.30	2.53	2.34	0.32	2.42	2.20	0.43
16.0	22.0	2.65	2.64	0.44	2.64	2.60	0.42	2.64	2.56	0.41	2.56	2.49	0.42	2.47	2.35	0.51
18.0	25.0	2.79	2.67	0.47	2.75	2.67	0.45	2.72	2.66	0.44	2.65	2.59	0.45	2.50	2.50	0.53
19.0	27.0	2.87	2.69	0.48	2.83	2.69	0.46	2.79	2.69	0.45	2.72	2.62	0.46	2.58	2.53	0.54
22.0	30.0	3.09	2.74	0.47	3.05	2.74	0.46	3.02	2.74	0.45	2.95	2.68	0.47	2.80	2.60	0.55
24.0	32.0	3.24	2.79	0.47	3.21	2.79	0.45	3.17	2.80	0.45	3.10	2.73	0.47	2.95	2.66	0.56

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.34	2.13	0.48	2.27	2.04	0.53	2.19	1.98	0.52	2.12	1.93	0.46	2.10	1.87	0.46
16.0	22.0	2.39	2.28	0.55	2.32	2.19	0.57	2.25	2.13	0.54	2.18	2.08	0.47	2.17	2.02	0.45
18.0	25.0	2.43	2.43	0.56	2.37	2.34	0.58	2.29	2.28	0.54	2.23	2.23	0.46	2.21	2.17	0.43
19.0	27.0	2.50	2.45	0.56	2.41	2.40	0.58	2.36	2.32	0.54	2.30	2.26	0.45	2.25	2.24	0.43
22.0	30.0	2.73	2.53	0.58	2.64	2.47	0.59	2.58	2.40	0.54	2.52	2.34	0.45	2.47	2.33	0.42
24.0	32.0	2.88	2.59	0.59	2.78	2.54	0.60	2.73	2.47	0.56	2.67	2.41	0.47	2.61	2.40	0.43

#### Model : D12CM (AS-W126J1R0)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.48	3.22	0.53	3.43	3.21	0.50	3.38	3.20	0.49	3.28	3.10	0.52	3.08	2.98	0.70
16.0	22.0	3.70	3.25	0.71	3.64	3.25	0.67	3.59	3.24	0.66	3.49	3.15	0.68	3.29	3.03	0.82
18.0	25.0	3.91	3.28	0.77	3.85	3.28	0.73	3.80	3.27	0.71	3.70	3.18	0.73	3.50	3.08	0.86
19.0	27.0	4.01	3.31	0.77	3.96	3.31	0.74	3.91	3.30	0.72	3.81	3.22	0.74	3.61	3.11	0.87
22.0	30.0	4.33	3.37	0.77	4.28	3.37	0.74	4.22	3.37	0.73	4.12	3.29	0.75	3.92	3.19	0.89
24.0	32.0	4.54	3.43	0.76	4.49	3.43	0.73	4.44	3.43	0.73	4.33	3.35	0.76	4.13	3.27	0.91

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.99	2.88	0.78	2.86	2.79	0.85	2.78	2.69	0.84	2.70	2.61	0.75	2.63	2.58	0.71
16.0	22.0	3.20	2.94	0.88	3.07	2.86	0.92	2.99	2.76	0.87	2.91	2.68	0.76	2.84	2.66	0.69
18.0	25.0	3.40	2.98	0.90	3.27	2.91	0.93	3.19	2.82	0.87	3.12	2.74	0.74	3.04	2.72	0.66
19.0	27.0	3.50	3.01	0.90	3.38	2.95	0.93	3.30	2.85	0.87	3.22	2.78	0.73	3.15	2.76	0.65
22.0	30.0	3.82	3.10	0.94	3.69	3.04	0.95	3.61	2.95	0.88	3.53	2.88	0.73	3.46	2.87	0.65
24.0	32.0	4.03	3.18	0.96	3.90	3.12	0.97	3.82	3.03	0.90	3.74	2.96	0.75	3.67	2.95	0.66

#### 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)	

#### Notes

- All capacities are net, evaporator fan motor heat is deducted.
- Indicates reference data. When operating at this temperature, these values can be different by discontinuous operation.
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:  
Cooling: - Indoor Temperature 27°C(80.6°F) DB/19°C(66.2°F) WB  
- Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB  
Piping Length - Interconnecting Piping Length 7.5m  
- Level Difference of Zero

### Model : D18CM (AS-W186K1R0)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	4.98	4.17	0.93	4.90	4.15	0.86	4.83	4.14	0.85	4.69	4.02	0.90	4.40	3.86	1.21
16.0	22.0	5.28	4.22	1.24	5.20	4.21	1.17	5.13	4.20	1.15	4.99	4.08	1.18	4.70	3.93	1.43
18.0	25.0	5.58	4.25	1.33	5.51	4.24	1.27	5.43	4.24	1.24	5.29	4.13	1.27	5.00	3.99	1.50
19.0	27.0	5.73	4.29	1.35	5.66	4.28	1.28	5.58	4.28	1.26	5.44	4.17	1.29	5.15	4.03	1.52
22.0	30.0	6.19	4.37	1.33	6.11	4.37	1.28	6.03	4.37	1.27	5.89	4.26	1.31	5.60	4.14	1.55
24.0	32.0	6.49	4.45	1.32	6.41	4.45	1.27	6.34	4.45	1.27	6.19	4.35	1.33	5.90	4.23	1.58

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	4.27	3.73	1.35	4.08	3.61	1.48	3.97	3.49	1.45	3.86	3.38	1.30	3.76	3.35	1.18
16.0	22.0	4.57	3.80	1.53	4.38	3.70	1.60	4.27	3.58	1.52	4.15	3.47	1.32	4.06	3.45	1.16
18.0	25.0	4.86	3.86	1.56	4.68	3.77	1.62	4.56	3.65	1.52	4.45	3.55	1.29	4.36	3.53	1.11
19.0	27.0	5.00	3.90	1.56	4.83	3.82	1.63	4.71	3.70	1.52	4.60	3.60	1.28	4.51	3.58	1.09
22.0	30.0	5.46	4.02	1.64	5.27	3.94	1.65	5.16	3.82	1.53	5.05	3.73	1.28	4.95	3.71	1.08
24.0	32.0	5.76	4.12	1.67	5.57	4.04	1.69	5.46	3.92	1.56	5.34	3.83	1.31	5.25	3.82	1.11

### Model : D24CM (AS-W246K1R0)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	6.57	5.15	1.35	6.47	5.13	1.26	6.37	5.12	1.24	6.19	4.97	1.31	5.81	4.77	1.76
16.0	22.0	6.97	5.21	1.81	6.87	5.20	1.70	6.77	5.19	1.67	6.59	5.04	1.72	6.21	4.86	2.08
18.0	25.0	7.37	5.25	1.94	7.27	5.24	1.84	7.17	5.24	1.81	6.98	5.10	1.85	6.60	4.92	2.18
19.0	27.0	7.57	5.29	1.96	7.47	5.29	1.86	7.37	5.28	1.83	7.18	5.15	1.88	6.80	4.98	2.21
22.0	30.0	8.17	5.39	1.94	8.07	5.40	1.86	7.96	5.39	1.85	7.78	5.26	1.91	7.39	5.11	2.26
24.0	32.0	8.56	5.49	1.92	8.46	5.50	1.85	8.36	5.50	1.85	8.17	5.37	1.93	7.78	5.23	2.30

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	5.63	4.60	1.97	5.39	4.46	2.16	5.24	4.31	2.12	5.09	4.17	1.90	4.97	4.14	1.70
16.0	22.0	6.03	4.70	2.23	5.78	4.57	2.33	5.63	4.42	2.21	5.48	4.29	1.92	5.37	4.26	1.67
18.0	25.0	6.42	4.77	2.28	6.17	4.65	2.36	6.02	4.51	2.21	5.88	4.38	1.88	5.76	4.36	1.59
19.0	27.0	6.60	4.82	2.28	6.37	4.71	2.37	6.22	4.57	2.21	6.07	4.45	1.86	5.95	4.42	1.56
22.0	30.0	7.21	4.97	2.38	6.96	4.86	2.40	6.81	4.72	2.23	6.66	4.61	1.86	6.54	4.59	1.55
24.0	32.0	7.60	5.08	2.43	7.35	4.99	2.45	7.20	4.85	2.28	7.05	4.73	1.90	6.94	4.72	1.58

#### 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)	

#### Notes

- All capacities are net, evaporator fan motor heat is deducted.
- Indicates reference data. When operating at this temperature, these values can be different by discontinuous operation.
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:  
 Cooling: - Indoor Temperature 27°C(80.6°F) DB/19°C(66.2°F) WB  
 - Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB  
 Piping Length - Interconnecting Piping Length 7.5m  
 - Level Difference of Zero

# Inverter Single

## 7. Capacity tables

Inverter Single

### Model : E09EM (US-W096W4A1), Z09EM (US-W096WSA1)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.49	2.14	0.43	2.45	2.13	0.40	2.41	2.12	0.40	2.34	2.06	0.42	2.20	1.98	0.57
16.0	22.0	2.64	2.16	0.58	2.60	2.16	0.55	2.56	2.15	0.54	2.49	2.09	0.55	2.35	2.02	0.67
18.0	25.0	2.79	2.18	0.62	2.75	2.18	0.59	2.72	2.17	0.58	2.65	2.12	0.59	2.50	2.04	0.70
19.0	27.0	2.87	2.20	0.63	2.83	2.20	0.60	2.79	2.19	0.59	2.72	2.14	0.60	2.58	2.07	0.71
22.0	30.0	3.09	2.24	0.62	3.05	2.24	0.60	3.02	2.24	0.59	2.95	2.18	0.61	2.80	2.12	0.72
24.0	32.0	3.24	2.28	0.62	3.21	2.28	0.59	3.17	2.28	0.59	3.10	2.23	0.62	2.95	2.17	0.74

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.13	1.91	0.63	2.04	1.85	0.69	1.98	1.79	0.68	1.93	1.73	0.61	1.87	1.72	0.59
16.0	22.0	2.28	1.95	0.72	2.19	1.90	0.75	2.13	1.83	0.71	2.08	1.78	0.62	2.02	1.77	0.58
18.0	25.0	2.43	1.98	0.73	2.34	1.93	0.76	2.28	1.87	0.71	2.23	1.82	0.60	2.17	1.81	0.55
19.0	27.0	2.50	2.00	0.73	2.41	1.96	0.76	2.36	1.90	0.71	2.30	1.85	0.60	2.24	1.84	0.54
22.0	30.0	2.73	2.06	0.77	2.64	2.02	0.77	2.58	1.96	0.72	2.52	1.91	0.60	2.47	1.90	0.54
24.0	32.0	2.88	2.11	0.78	2.78	2.07	0.79	2.73	2.01	0.73	2.67	1.97	0.61	2.61	1.96	0.55

### Model : E12EM (US-W126H4A1), Z12EM (US-W126HSA1)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.48	2.99	0.66	3.43	2.98	0.62	3.38	2.97	0.61	3.28	2.89	0.65	3.08	2.77	0.87
16.0	22.0	3.70	3.03	0.89	3.64	3.02	0.84	3.59	3.01	0.82	3.49	2.93	0.85	3.29	2.82	1.02
18.0	25.0	3.91	3.05	0.96	3.85	3.05	0.91	3.80	3.04	0.89	3.70	2.96	0.91	3.50	2.86	1.07
19.0	27.0	4.01	3.08	0.97	3.96	3.07	0.92	3.91	3.07	0.90	3.81	2.99	0.93	3.61	2.89	1.09
22.0	30.0	4.33	3.14	0.96	4.28	3.14	0.92	4.22	3.14	0.91	4.12	3.06	0.94	3.92	2.97	1.11
24.0	32.0	4.54	3.19	0.94	4.49	3.19	0.91	4.44	3.20	0.91	4.33	3.12	0.95	4.13	3.04	1.13

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.99	2.68	0.97	2.86	2.59	1.06	2.78	2.50	1.04	2.70	2.43	0.93	2.63	2.40	0.87
16.0	22.0	3.20	2.73	1.10	3.07	2.66	1.15	2.99	2.57	1.09	2.91	2.49	0.95	2.84	2.47	0.85
18.0	25.0	3.40	2.77	1.12	3.27	2.70	1.16	3.19	2.62	1.09	3.12	2.55	0.92	3.04	2.53	0.81
19.0	27.0	3.50	2.80	1.12	3.38	2.74	1.16	3.30	2.66	1.09	3.22	2.58	0.92	3.15	2.57	0.80
22.0	30.0	3.82	2.89	1.17	3.69	2.83	1.18	3.61	2.74	1.10	3.53	2.68	0.92	3.46	2.67	0.79
24.0	32.0	4.03	2.95	1.20	3.90	2.90	1.21	3.82	2.82	1.12	3.74	2.75	0.94	3.67	2.74	0.81

#### 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)

#### Notes

- All capacities are net, evaporator fan motor heat is deducted.
- Indicates reference data. When operating at this temperature, these values can be different by discontinuous operation.
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:  
 Cooling: - Indoor Temperature 27°C(80.6°F) DB/19°C(66.2°F) WB  
 - Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB  
 Piping Length - Interconnecting Piping Length 5.0m  
 - Level Difference of Zero



# Inverter Single

## 7. Capacity tables

### Model : E18EM (US-W186M4A1)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	4.98	4.27	1.02	4.90	4.26	0.95	4.83	4.25	0.93	4.69	4.12	0.99	4.40	3.96	1.33
16.0	22.0	5.28	4.33	1.37	5.20	4.32	1.29	5.13	4.31	1.26	4.99	4.19	1.30	4.70	4.03	1.57
18.0	25.0	5.58	4.36	1.47	5.51	4.35	1.39	5.43	4.35	1.37	5.29	4.23	1.40	5.00	4.09	1.65
19.0	27.0	5.73	4.40	1.48	5.66	4.39	1.41	5.58	4.39	1.38	5.44	4.27	1.42	5.15	4.13	1.67
22.0	30.0	6.19	4.48	1.47	6.11	4.48	1.41	6.03	4.48	1.40	5.89	4.37	1.45	5.60	4.24	1.71
24.0	32.0	6.49	4.56	1.45	6.41	4.56	1.40	6.34	4.56	1.40	6.19	4.46	1.46	5.90	4.34	1.74

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	4.27	3.82	1.49	4.08	3.71	1.63	3.97	3.58	1.60	3.86	3.46	1.44	3.76	3.43	1.30
16.0	22.0	4.57	3.90	1.69	4.38	3.79	1.76	4.27	3.67	1.67	4.15	3.56	1.45	4.06	3.53	1.27
18.0	25.0	4.86	3.96	1.72	4.68	3.86	1.78	4.56	3.74	1.67	4.45	3.64	1.42	4.36	3.62	1.22
19.0	27.0	5.00	4.00	1.72	4.83	3.91	1.79	4.71	3.79	1.67	4.60	3.69	1.41	4.51	3.67	1.20
22.0	30.0	5.46	4.12	1.80	5.27	4.04	1.82	5.16	3.92	1.68	5.05	3.82	1.41	4.95	3.81	1.18
24.0	32.0	5.76	4.22	1.84	5.57	4.14	1.86	5.46	4.03	1.72	5.34	3.93	1.44	5.25	3.92	1.21

#### 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)	

#### Notes

- All capacities are net, evaporator fan motor heat is deducted.
- Indicates reference data. When operating at this temperature, these values can be different by discontinuous operation.
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:  
 Cooling: - Indoor Temperature 27°C(80.6°F) DB/19°C(66.2°F) WB  
 - Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB  
 Piping Length - Interconnecting Piping Length 5.0m  
 - Level Difference of Zero

# Inverter Single

## 7. Capacity tables

Inverter Single

### Model : H09AL (AS-W096MMS6)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.54	2.49	0.29	2.54	2.45	0.27	2.53	2.41	0.27	2.45	2.34	0.28	2.35	2.20	0.38
16.0	22.0	2.64	2.57	0.39	2.60	2.57	0.37	2.56	2.56	0.36	2.49	2.49	0.37	2.40	2.35	0.45
18.0	25.0	2.79	2.59	0.42	2.75	2.59	0.40	2.72	2.59	0.39	2.65	2.52	0.40	2.50	2.43	0.47
19.0	27.0	2.87	2.62	0.42	2.83	2.61	0.40	2.79	2.61	0.39	2.72	2.54	0.40	2.58	2.46	0.48
22.0	30.0	3.09	2.66	0.42	3.05	2.67	0.40	3.02	2.66	0.40	2.95	2.60	0.41	2.80	2.53	0.49
24.0	32.0	3.24	2.71	0.41	3.21	2.71	0.40	3.17	2.72	0.40	3.10	2.65	0.42	2.95	2.58	0.50

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.27	2.13	0.42	2.21	2.04	0.47	2.13	1.98	0.46	2.06	1.93	0.41	2.04	1.87	0.41
16.0	22.0	2.32	2.28	0.48	2.26	2.19	0.50	2.18	2.13	0.48	2.12	2.08	0.41	2.10	2.02	0.41
18.0	25.0	2.43	2.36	0.49	2.34	2.30	0.51	2.28	2.23	0.48	2.23	2.16	0.40	2.17	2.15	0.39
19.0	27.0	2.50	2.38	0.49	2.41	2.33	0.51	2.36	2.26	0.48	2.30	2.20	0.40	2.24	2.18	0.38
22.0	30.0	2.73	2.45	0.51	2.64	2.40	0.52	2.58	2.33	0.48	2.52	2.28	0.40	2.47	2.27	0.38
24.0	32.0	2.88	2.51	0.52	2.78	2.46	0.53	2.73	2.40	0.49	2.67	2.34	0.41	2.61	2.33	0.39

### Model : H12AL (AS-W126MMS6)

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		18			20			22			25			32		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.54	3.48	0.49	3.53	3.43	0.46	3.52	3.38	0.45	3.42	3.28	0.48	3.28	3.08	0.64
16.0	22.0	3.70	3.59	0.66	3.64	3.58	0.62	3.59	3.57	0.61	3.49	3.47	0.63	3.34	3.29	0.76
18.0	25.0	3.91	3.62	0.71	3.85	3.61	0.67	3.80	3.61	0.66	3.70	3.51	0.68	3.50	3.39	0.80
19.0	27.0	4.01	3.65	0.72	3.96	3.64	0.68	3.91	3.64	0.67	3.81	3.54	0.69	3.61	3.43	0.81
22.0	30.0	4.33	3.72	0.71	4.28	3.72	0.68	4.22	3.72	0.67	4.12	3.62	0.70	3.92	3.52	0.82
24.0	32.0	4.54	3.78	0.70	4.49	3.78	0.68	4.44	3.79	0.67	4.33	3.70	0.70	4.13	3.60	0.84

Indoor Air Temperature		Outdoor Air Temperature : °CDB														
		35			40			43			46			48		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.17	2.99	0.72	3.07	2.86	0.79	2.97	2.78	0.77	2.87	2.70	0.69	2.85	2.63	0.66
16.0	22.0	3.24	3.20	0.81	3.15	3.07	0.85	3.04	2.99	0.81	2.95	2.91	0.70	2.93	2.84	0.65
18.0	25.0	3.40	3.29	0.83	3.27	3.20	0.86	3.19	3.10	0.81	3.12	3.02	0.68	3.04	3.00	0.62
19.0	27.0	3.50	3.32	0.83	3.38	3.25	0.86	3.30	3.15	0.81	3.22	3.06	0.68	3.15	3.04	0.61
22.0	30.0	3.82	3.42	0.87	3.69	3.35	0.88	3.61	3.25	0.81	3.53	3.17	0.68	3.46	3.16	0.60
24.0	32.0	4.03	3.50	0.89	3.90	3.43	0.90	3.82	3.34	0.83	3.74	3.26	0.69	3.67	3.25	0.62

#### 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)

#### Notes

- All capacities are net, evaporator fan motor heat is deducted.
- Indicates reference data. When operating at this temperature, these values can be different by discontinuous operation.
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:  
 Cooling: - Indoor Temperature 27°C(80.6°F) DB/19°C(66.2°F) WB  
 - Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB  
 Piping Length - Interconnecting Piping Length 5.0m  
 - Level Difference of Zero

## 7. Capacity tables

### 7.2 Heating Capacity

#### Model : D09CM (AS-W096J1R0)

Indoor Air Temperature	Outdoor Air Temperature : °CDB																	
	-15		-10		-5		0		7		10		15		20		24	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	2.41	0.58	2.53	0.57	2.74	0.59	2.93	0.64	3.31	0.69	3.44	0.71	3.73	0.76	3.38	0.63	2.76	0.44
18.0	2.38	0.59	2.53	0.58	2.75	0.61	2.93	0.65	3.28	0.70	3.39	0.72	3.72	0.76	3.31	0.63	2.63	0.43
20.0	2.37	0.60	2.53	0.60	2.75	0.63	2.92	0.67	3.20	0.71	3.37	0.73	3.73	0.77	3.25	0.62	2.49	0.42
21.0	2.36	0.61	2.53	0.60	2.75	0.64	2.92	0.68	3.22	0.72	3.37	0.74	3.70	0.77	3.19	0.61	2.39	0.41
22.0	2.36	0.61	2.53	0.61	2.75	0.65	2.91	0.69	3.20	0.73	3.37	0.74	3.67	0.77	3.12	0.61	2.28	0.40
24.0	2.33	0.63	2.50	0.63	2.71	0.66	2.88	0.71	3.16	0.74	3.31	0.75	3.63	0.78	2.98	0.60	2.05	0.37

#### Model : D12CM (AS-W126J1R0)

Indoor Air Temperature	Outdoor Air Temperature : °CDB																	
	-15		-10		-5		0		7		10		15		20		24	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	3.01	0.80	3.16	0.78	3.43	0.81	3.66	0.87	4.14	0.94	4.30	0.97	4.66	1.04	4.23	0.86	3.46	0.61
18.0	2.98	0.81	3.16	0.80	3.43	0.84	3.66	0.90	4.10	0.96	4.24	0.99	4.65	1.05	4.14	0.86	3.29	0.59
20.0	2.96	0.82	3.16	0.82	3.44	0.86	3.65	0.92	4.00	0.98	4.21	1.01	4.66	1.05	4.06	0.85	3.11	0.57
21.0	2.95	0.83	3.16	0.83	3.44	0.87	3.64	0.93	4.03	0.99	4.21	1.01	4.63	1.05	3.98	0.84	2.99	0.56
22.0	2.94	0.84	3.16	0.84	3.43	0.88	3.63	0.94	4.00	1.00	4.21	1.02	4.59	1.05	3.90	0.84	2.85	0.54
24.0	2.91	0.86	3.13	0.86	3.39	0.91	3.61	0.97	3.96	1.01	4.14	1.03	4.53	1.06	3.73	0.82	2.57	0.51

#### Model : D18CM (AS-W186K1R0)

Indoor Air Temperature	Outdoor Air Temperature : °CDB																	
	-15		-10		-5		0		7		10		15		20		24	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	4.36	1.31	4.59	1.28	4.97	1.34	5.31	1.44	6.00	1.55	6.23	1.60	6.76	1.71	6.13	1.42	5.01	1.01
18.0	4.32	1.33	4.58	1.31	4.98	1.38	5.31	1.48	5.95	1.59	6.15	1.63	6.74	1.73	6.00	1.41	4.77	0.98
20.0	4.29	1.36	4.58	1.35	4.98	1.42	5.30	1.52	5.80	1.61	6.11	1.66	6.75	1.74	5.89	1.40	4.51	0.95
21.0	4.28	1.37	4.58	1.37	4.98	1.44	5.28	1.54	5.84	1.63	6.11	1.67	6.71	1.74	5.77	1.39	4.33	0.92
22.0	4.27	1.39	4.58	1.38	4.98	1.46	5.27	1.56	5.79	1.64	6.10	1.68	6.65	1.74	5.65	1.38	4.14	0.90
24.0	4.22	1.42	4.54	1.42	4.92	1.50	5.23	1.60	5.74	1.67	6.00	1.70	6.58	1.75	5.41	1.36	3.72	0.85

#### Model : D24CM (AS-W246K1R0)

Indoor Air Temperature	Outdoor Air Temperature : °CDB																	
	-15		-10		-5		0		7		10		15		20		24	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	5.64	1.82	5.93	1.78	6.43	1.86	6.87	2.00	7.76	2.15	8.06	2.23	8.74	2.37	7.93	1.97	6.48	1.40
18.0	5.58	1.85	5.92	1.82	6.44	1.92	6.86	2.06	7.70	2.20	7.96	2.27	8.72	2.40	7.76	1.96	6.17	1.36
20.0	5.54	1.89	5.92	1.87	6.44	1.97	6.85	2.11	7.50	2.24	7.90	2.31	8.73	2.42	7.61	1.95	5.83	1.31
21.0	5.53	1.90	5.92	1.90	6.44	2.00	6.83	2.14	7.55	2.27	7.90	2.32	8.67	2.42	7.47	1.93	5.60	1.28
22.0	5.52	1.92	5.92	1.92	6.44	2.03	6.81	2.17	7.49	2.28	7.89	2.33	8.60	2.42	7.30	1.92	5.35	1.25
24.0	5.46	1.97	5.87	1.98	6.36	2.08	6.76	2.22	7.42	2.32	7.76	2.36	8.50	2.44	7.00	1.89	4.82	1.18

#### 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)	

#### Notes

- All capacities are net, evaporator fan motor heat is deducted.
  - Direct interpolation is permissible. Do not extrapolate.
  - Capacities are based on the following conditions:
    - Heating: - Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB
    - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) WB
- Piping Length - Interconnecting Piping Length 7.5m  
 - Level Difference of Zero

# Inverter Single

## 7. Capacity tables

### Model : E09EM (US-W096W4A1), Z09EM (US-W096WSA1)

Indoor Air Temperature	Outdoor Air Temperature : °CDB															
	-10		-5		0		7		10		15		20		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	2.53	0.76	2.74	0.79	2.93	0.85	3.31	0.91	3.44	0.95	3.73	1.01	3.38	0.84	2.76	0.59
18.0	2.53	0.77	2.75	0.81	2.93	0.87	3.28	0.94	3.39	0.96	3.72	1.02	3.31	0.83	2.63	0.58
20.0	2.53	0.79	2.75	0.84	2.92	0.90	3.20	0.95	3.37	0.98	3.73	1.03	3.25	0.83	2.49	0.56
21.0	2.53	0.81	2.75	0.85	2.92	0.91	3.22	0.96	3.37	0.99	3.70	1.03	3.19	0.82	2.39	0.54
22.0	2.53	0.82	2.75	0.86	2.91	0.92	3.20	0.97	3.37	0.99	3.67	1.03	3.12	0.81	2.28	0.53
24.0	2.50	0.84	2.71	0.89	2.88	0.94	3.16	0.98	3.31	1.00	3.63	1.03	2.98	0.80	2.05	0.50

### Model : E12EM (US-W126H4A1), Z12EM (US-W126HSA1)

Indoor Air Temperature	Outdoor Air Temperature : °CDB															
	-10		-5		0		7		10		15		20		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	3.01	0.83	3.26	0.87	3.48	0.93	3.93	1.00	4.08	1.04	4.43	1.10	4.02	0.91	3.28	0.65
18.0	3.00	0.85	3.26	0.89	3.48	0.96	3.90	1.02	4.03	1.06	4.42	1.12	3.93	0.91	3.12	0.63
20.0	3.00	0.87	3.26	0.92	3.47	0.98	3.80	1.04	4.00	1.07	4.42	1.12	3.86	0.90	2.96	0.61
21.0	3.00	0.88	3.26	0.93	3.46	0.99	3.83	1.05	4.00	1.08	4.39	1.12	3.78	0.90	2.84	0.60
22.0	3.00	0.89	3.26	0.94	3.45	1.01	3.80	1.06	4.00	1.08	4.36	1.12	3.70	0.89	2.71	0.58
24.0	2.97	0.92	3.22	0.97	3.42	1.03	3.76	1.08	3.93	1.09	4.31	1.13	3.54	0.88	2.44	0.55

### Model : E18EM (US-W186M4A1)

Indoor Air Temperature	Outdoor Air Temperature : °CDB															
	-10		-5		0		7		10		15		20		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	4.27	1.23	4.63	1.28	4.95	1.38	5.59	1.48	5.80	1.53	6.29	1.63	5.71	1.35	4.67	0.96
18.0	4.27	1.26	4.64	1.32	4.94	1.42	5.54	1.52	5.73	1.56	6.27	1.65	5.59	1.35	4.44	0.94
20.0	4.26	1.29	4.64	1.36	4.93	1.45	5.40	1.54	5.69	1.59	6.29	1.66	5.48	1.34	4.20	0.90
21.0	4.26	1.31	4.64	1.38	4.92	1.47	5.44	1.56	5.69	1.60	6.24	1.66	5.38	1.33	4.03	0.88
22.0	4.26	1.32	4.64	1.40	4.91	1.49	5.39	1.57	5.68	1.61	6.19	1.66	5.26	1.32	3.85	0.86
24.0	4.22	1.36	4.58	1.43	4.87	1.53	5.34	1.59	5.59	1.62	6.12	1.68	5.04	1.30	3.47	0.81

#### 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)	

#### Notes

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:
    - Heating: - Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB
    - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) WB
- Piping Length - Interconnecting Piping Length 5.0m  
 - Level Difference of Zero

# Inverter Single

## 7. Capacity tables

### Model : H09AL (AS-W096MMS6)

Indoor Air Temperature	Outdoor Air Temperature : °CDB																	
	-20		-10		-5		0		7		10		15		20		24	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	2.35	0.53	2.53	0.45	2.74	0.47	2.93	0.51	3.31	0.55	3.44	0.57	3.73	0.60	3.38	0.50	2.76	0.36
18.0	2.31	0.53	2.53	0.46	2.75	0.49	2.93	0.52	3.28	0.56	3.39	0.58	3.72	0.61	3.31	0.50	2.63	0.35
20.0	2.27	0.53	2.53	0.48	2.75	0.50	2.92	0.54	3.20	0.57	3.37	0.59	3.73	0.62	3.25	0.50	2.49	0.33
21.0	2.23	0.53	2.53	0.48	2.75	0.51	2.92	0.55	3.22	0.58	3.37	0.59	3.70	0.62	3.19	0.49	2.39	0.33
22.0	2.20	0.54	2.53	0.49	2.75	0.52	2.91	0.55	3.20	0.58	3.37	0.59	3.67	0.62	3.12	0.49	2.28	0.32
24.0	2.15	0.54	2.50	0.50	2.71	0.53	2.88	0.57	3.16	0.59	3.31	0.60	3.63	0.62	2.98	0.48	2.05	0.30

### Model : H12AL (AS-W126MMS6)

Indoor Air Temperature	Outdoor Air Temperature : °CDB																	
	-20		-10		-5		0		7		10		15		20		24	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	2.94	0.71	3.16	0.61	3.43	0.64	3.66	0.69	4.14	0.74	4.30	0.77	4.66	0.82	4.23	0.68	3.46	0.48
18.0	2.89	0.71	3.16	0.63	3.43	0.66	3.66	0.71	4.10	0.76	4.24	0.78	4.65	0.83	4.14	0.68	3.29	0.47
20.0	2.84	0.72	3.16	0.64	3.44	0.68	3.65	0.73	4.00	0.77	4.21	0.79	4.66	0.83	4.06	0.67	3.11	0.45
21.0	2.79	0.72	3.16	0.65	3.44	0.69	3.64	0.74	4.03	0.78	4.21	0.80	4.63	0.83	3.98	0.67	2.99	0.44
22.0	2.76	0.72	3.16	0.66	3.43	0.70	3.63	0.75	4.00	0.79	4.21	0.80	4.59	0.83	3.90	0.66	2.85	0.43
24.0	2.69	0.73	3.13	0.68	3.39	0.72	3.61	0.76	3.96	0.80	4.14	0.81	4.53	0.84	3.73	0.65	2.57	0.40

#### Symbol

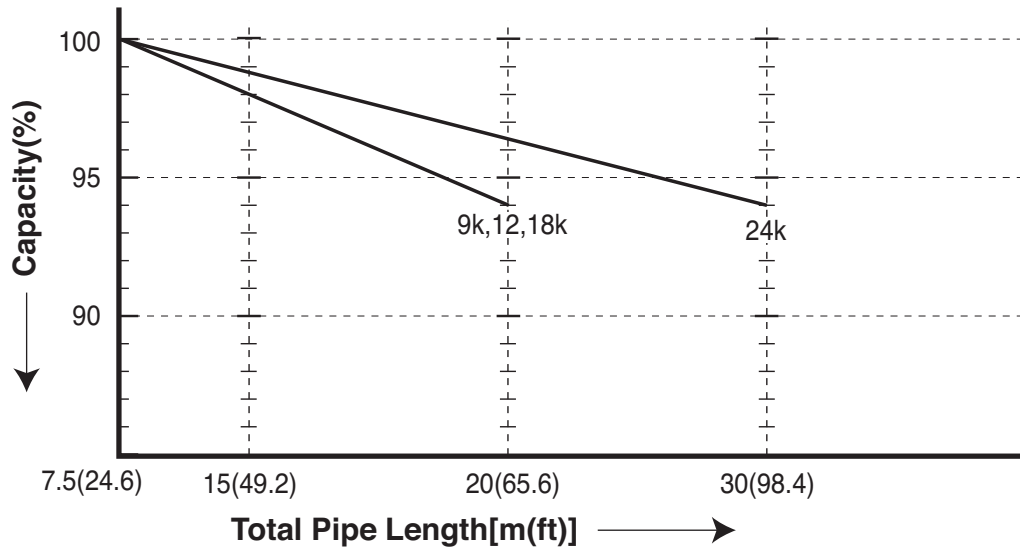
DB : Dry Bulb Temperature	[(°C)]
WB : Wet Bulb Temperature	[(°C)]
TC : Total Capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor + outdoor fan motor)	

#### Notes

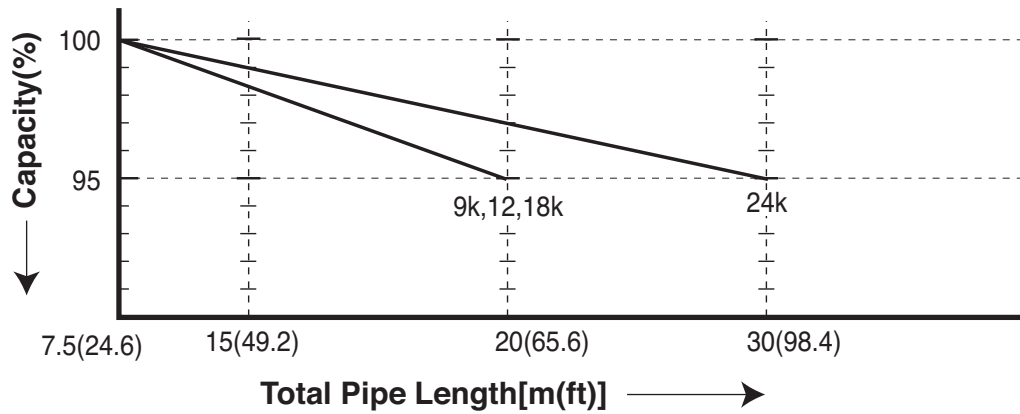
1. All capacities are net, evaporator fan motor heat is deducted.
  2. Direct interpolation is permissible. Do not extrapolate.
  3. Capacities are based on the following conditions:
    - Heating: - Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB
    - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) WB
- Piping Length - Interconnecting Piping Length 5.0m  
 - Level Difference of Zero

## 8. Capacity coefficient factor

### Cooling



### Heating

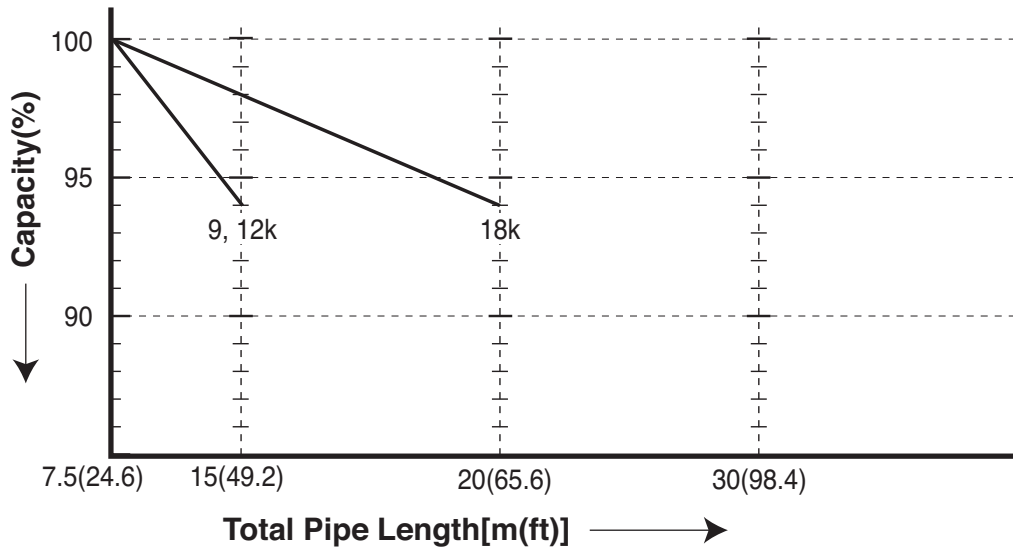


• **Applied Model**

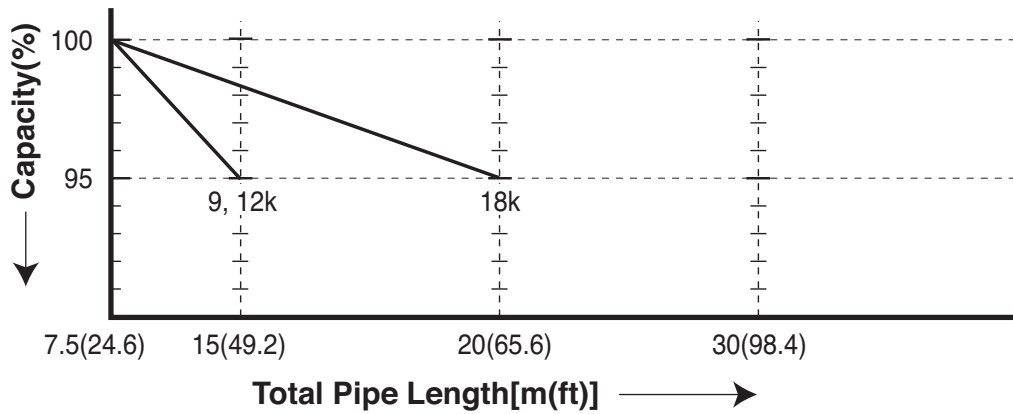
: D09CM (AS-W096J1R0), D12CM (AS-W126J1R0), D18CM (AS-W186K1R0),  
D24CM (AS-W246K1R0), H09AL (AS-W096MMS6), H12AL (AS-W126MMS6)

## 8. Capacity coefficient factor

### Cooling



### Heating



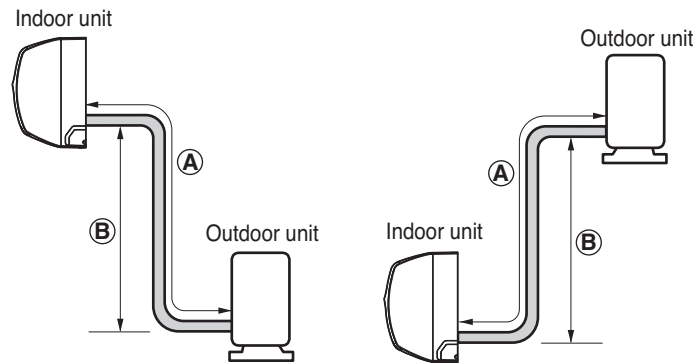
• **Applied Model**

: E09EM (US-W096W4A1), E12EM (US-W126H4A1), E18EM (US-W186M4A1),  
Z09EM (US-W096WSA1), Z12EM (US-W126HSA1)

# Inverter Single

## 8. Capacity coefficient factor

Models	Pipe Size				Standard Length [m (ft)]	Max. Pipe Length Ⓐ [m (ft)]	Max. Elevation Ⓑ [m (ft)]	Additional Refrigerant [g/m (oz/ft)]	Chargeless [m (ft)]
	GAS		LIQUID						
	mm	inch	mm	inch					
D09CM (AS-W096J1R0)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	7.5 (24.6)	20 (65.6)	10 (32.8)	20 (0.22)	12.5 (41.0)
D12CM (AS-W126J1R0)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	7.5 (24.6)	20 (65.6)	10 (32.8)	20 (0.22)	12.5 (41.0)
D18CM (AS-W186K1R0)	Ø 12.7	Ø 1/2	Ø 6.35	Ø 1/4	7.5 (24.6)	20 (65.6)	10 (32.8)	20 (0.22)	7.5 (24.6)
D24CM (AS-W246K1R0)	Ø 15.88	Ø 5/8	Ø 6.35	Ø 1/4	7.5 (24.6)	30 (98.4)	15 (49.2)	30 (0.32)	7.5 (24.6)
E09EM (US-W096W4A1)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	5 (16.4)	15 (49.2)	7 (23.0)	20 (0.22)	5 (16.4)
E12EM (US-W126H4A1)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	5 (16.4)	15 (49.2)	7 (23.0)	20 (0.22)	5 (16.4)
E18EM (US-W186M4A1)	Ø 12.7	Ø 1/2	Ø 6.35	Ø 1/4	5 (16.4)	20 (65.6)	10 (32.8)	20 (0.22)	5 (16.4)
Z09EM (US-W096WSA1)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	5 (16.4)	15 (49.2)	7 (23.0)	20 (0.22)	5 (16.4)
Z12EM (US-W126HSA1)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	5 (16.4)	15 (49.2)	7 (23.0)	20 (0.22)	5 (16.4)
H09AL (AS-W096MMS6)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	5 (16.4)	20 (65.6)	10 (32.8)	20 (0.22)	12.5 (41.0)
H12AL (AS-W126MMS6)	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4	5 (16.4)	20 (65.6)	10 (32.8)	20 (0.22)	12.5 (41.0)

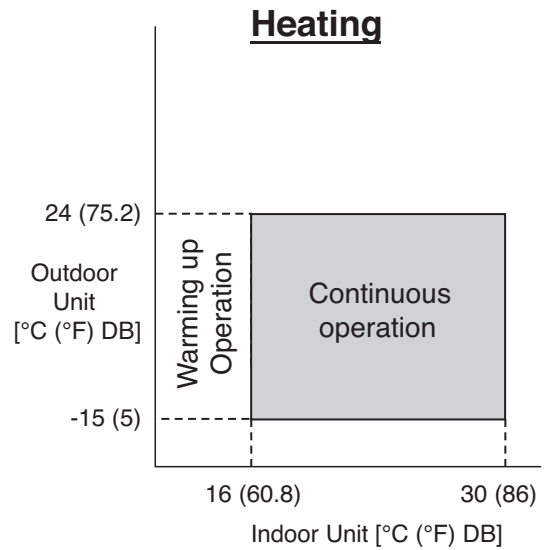
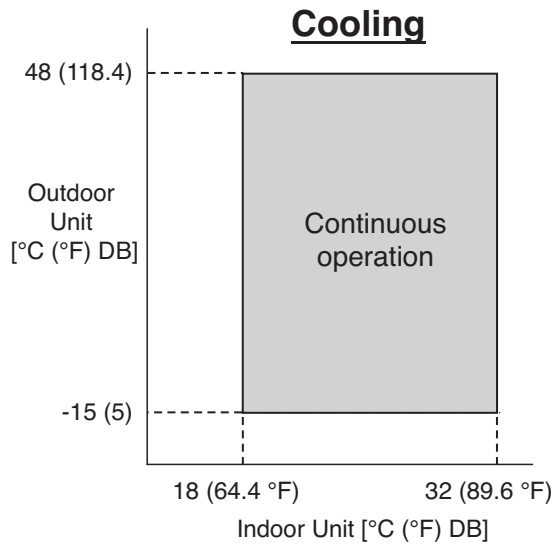


### CAUTION:

- Capacity is based on standard length and maximum allowable length on the basis of reliability.
- Additional refrigerant must be charged after chargeless length.



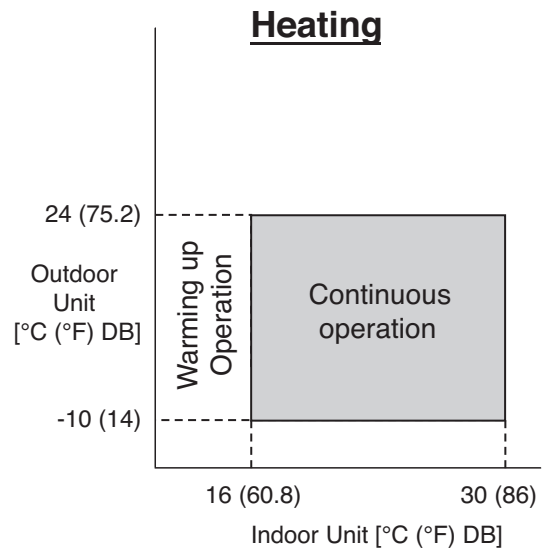
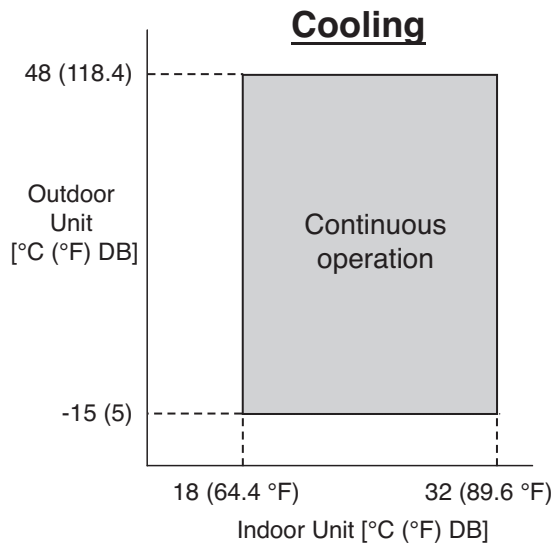
## 9. Operation range



The figures assume the following operating conditions - Equivalent piping length : 7.5m (24.6ft)  
 - Level difference : 0m (0ft)

• **Applied Model**

: D09CM (AS-W096J1R0), D12CM (AS-W126J1R0)

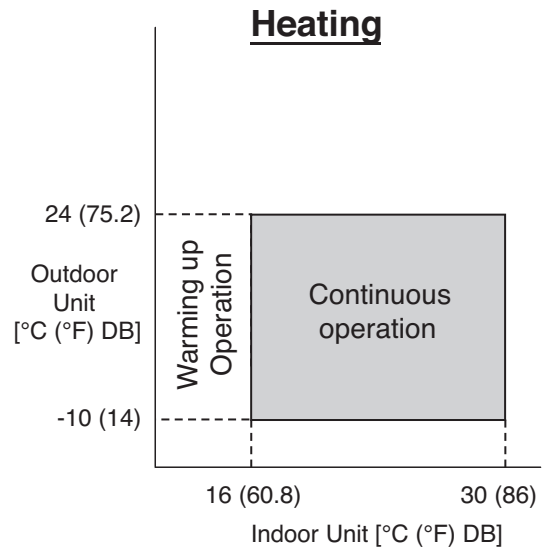
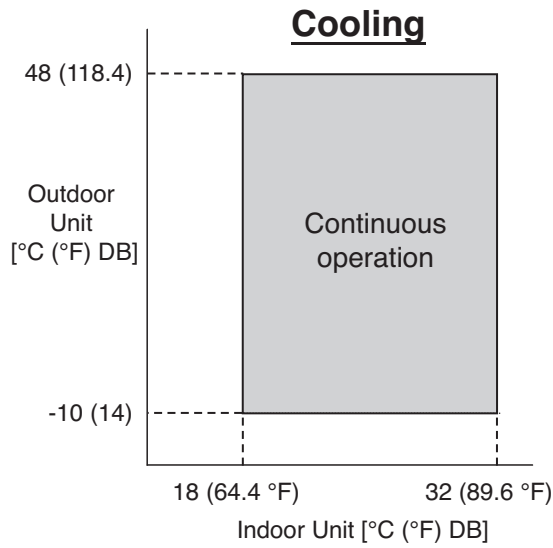


The figures assume the following operating conditions - Equivalent piping length : 7.5m (24.6ft)  
 - Level difference : 0m (0ft)

• **Applied Model**

: D18CM (AS-W186K1R0), D24CM (AS-W246K1R0)

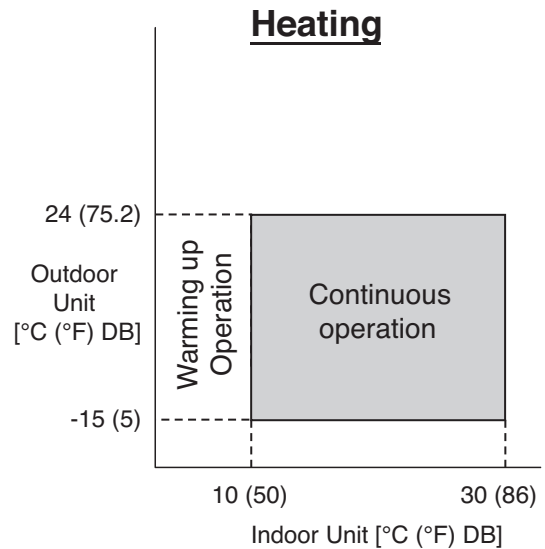
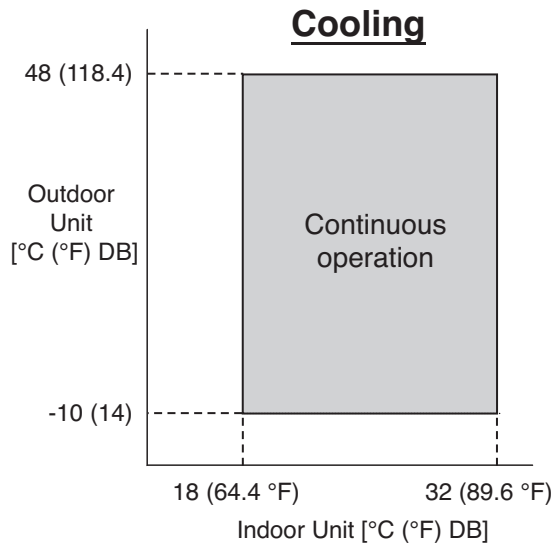
## 9. Operation range



The figures assume the following operating conditions - Equivalent piping length : 5m (16.4ft)  
 - Level difference : 0m (0ft)

• **Applied Model**

: E09EM (US-W096W4A1), E12EM (US-W126H4A1), E18EM (US-W186M4A1), Z09EM (US-096WSA1), Z12EM (US-W126HSA1)



The figures assume the following operating conditions - Equivalent piping length : 5m (16.4ft)  
 - Level difference : 0m (0ft)

• **Applied Model**

: H09AL (AS-W096MMS6), H12AL (AS-W126MMS6)

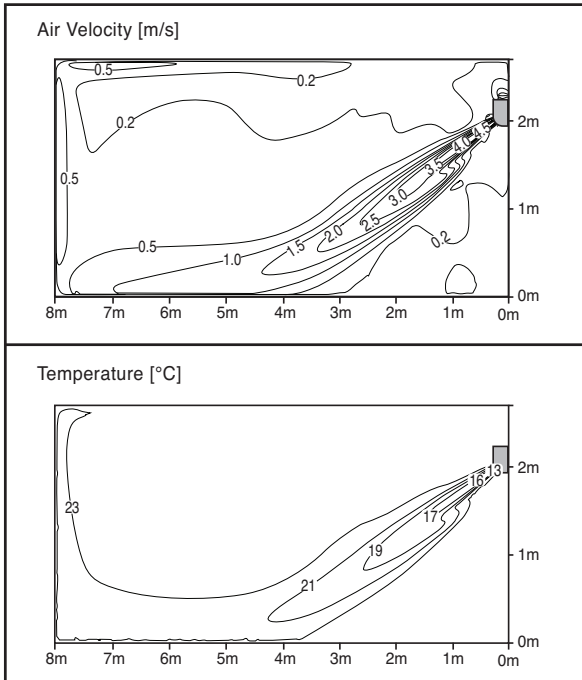
# Inverter Single

## 10. Air flow and temperature distributions (Reference data)

Model : D09CM (ASNW096J1R0)

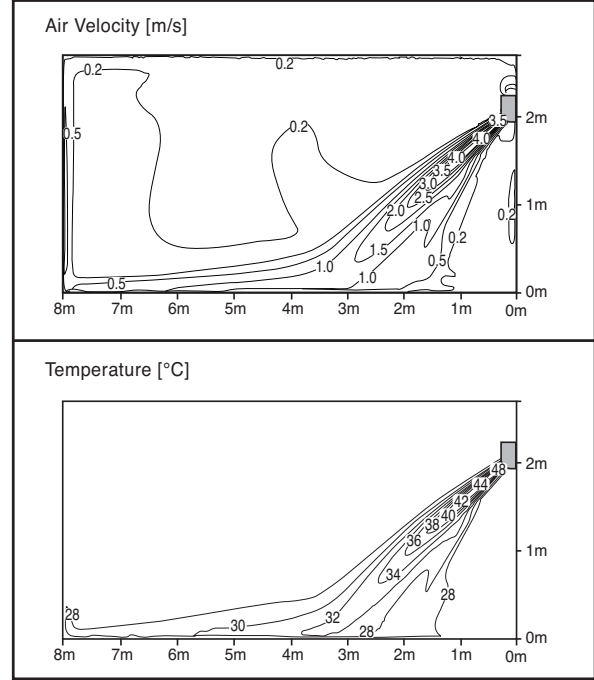
### Cooling

Discharge angle:90°



### Heating

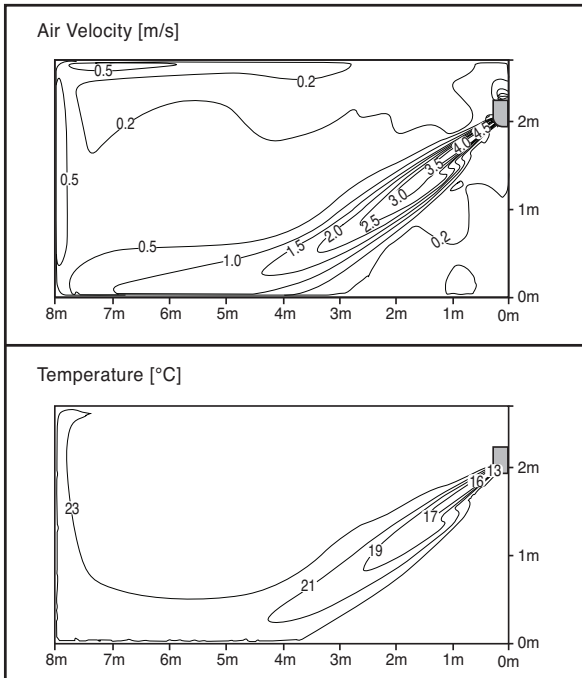
Discharge angle:100°



Model : D12CM (ASNW126J1R0)

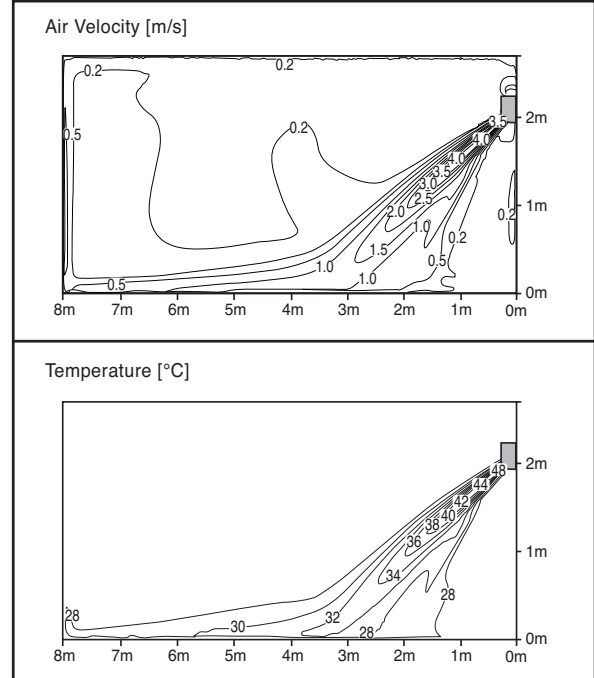
### Cooling

Discharge angle:90°



### Heating

Discharge angle:100°



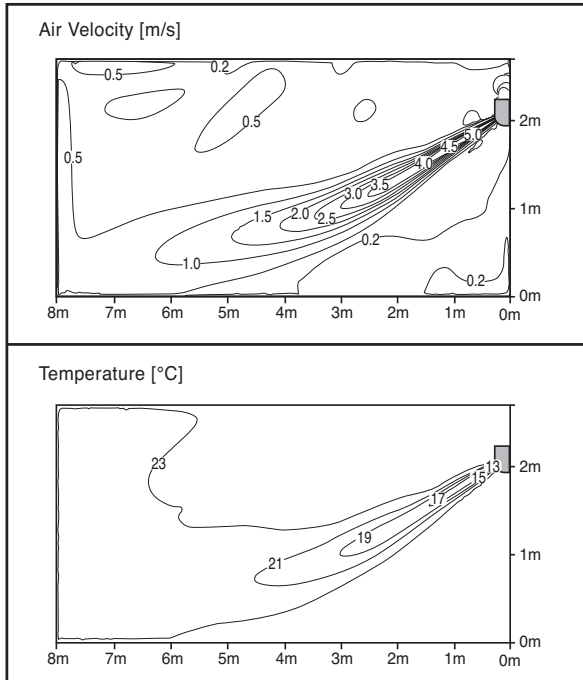
# Inverter Single

## 10. Air flow and temperature distributions (Reference data)

### Model : D18CM (ASNW186K1R0)

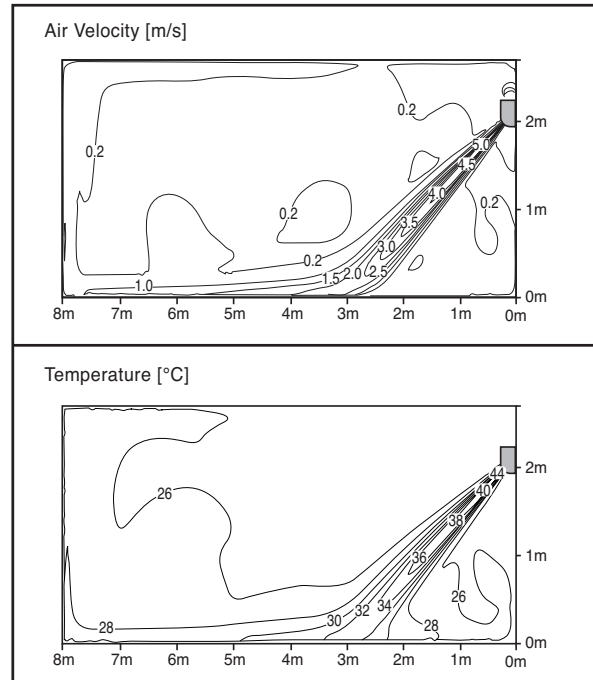
#### Cooling

Discharge angle:70°



#### Heating

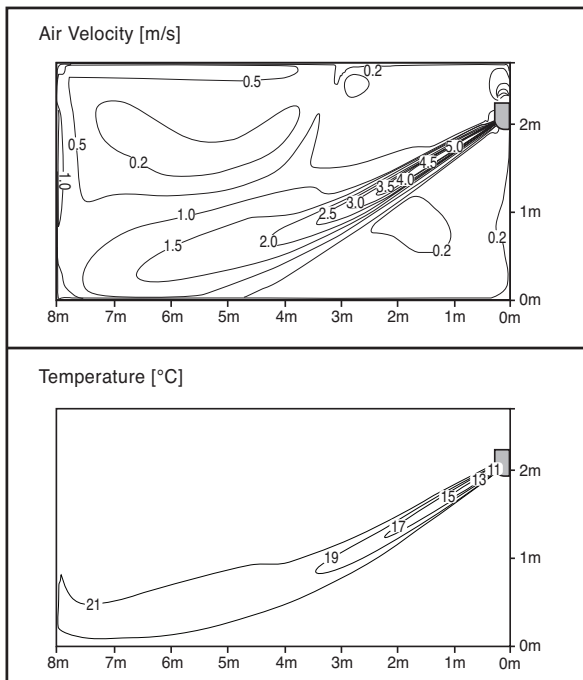
Discharge angle:90°



### Model : D24CM (ASNW246K1R0)

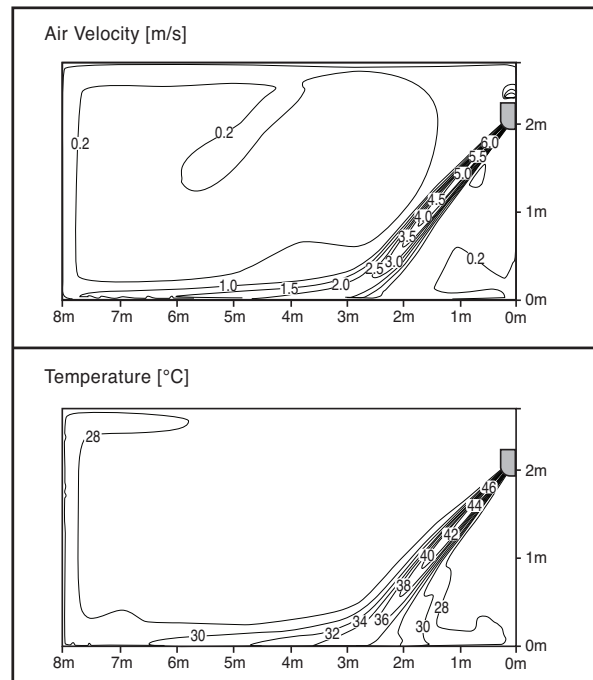
#### Cooling

Discharge angle:70°



#### Heating

Discharge angle:90°



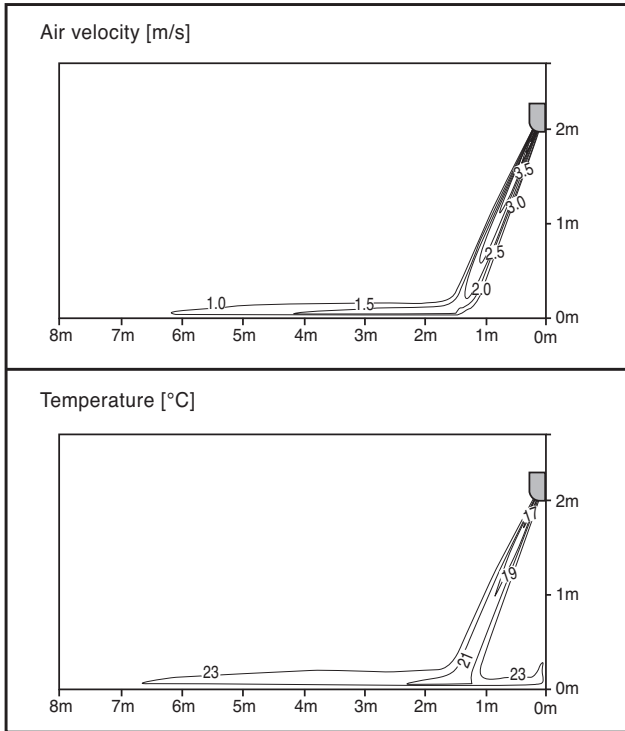
# Inverter Single

## 10. Air flow and temperature distributions (Reference data)

Model : E09EM (USNW096W4A1), Z09EM (USNW096WSA1)

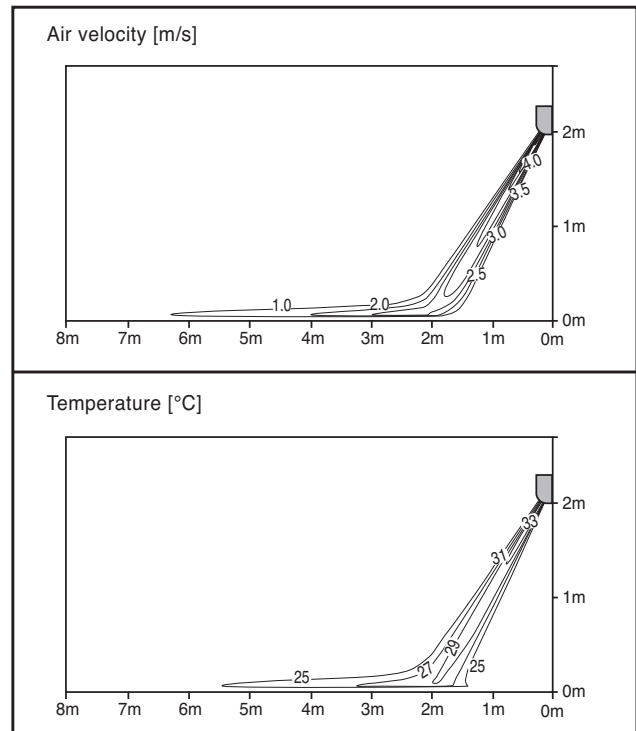
### Cooling

Discharge angle:110°



### Heating

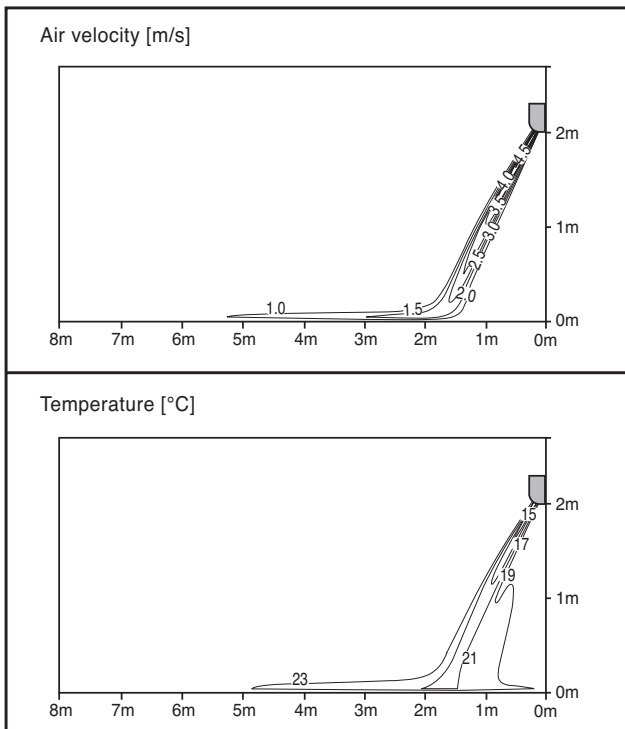
Discharge angle:100°



Model : E12EM (USNW126H4A1), Z12EM (USNW126HSA1)

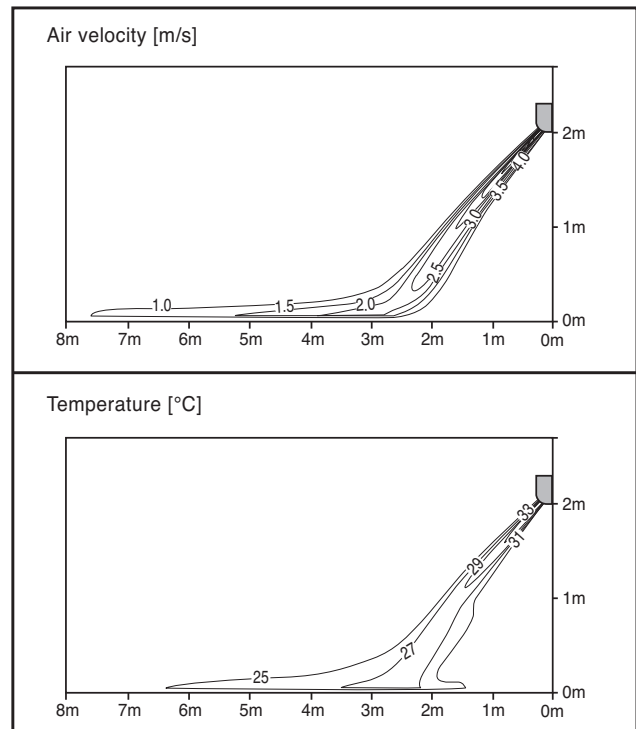
### Cooling

Discharge angle:147°



### Heating

Discharge angle:117°



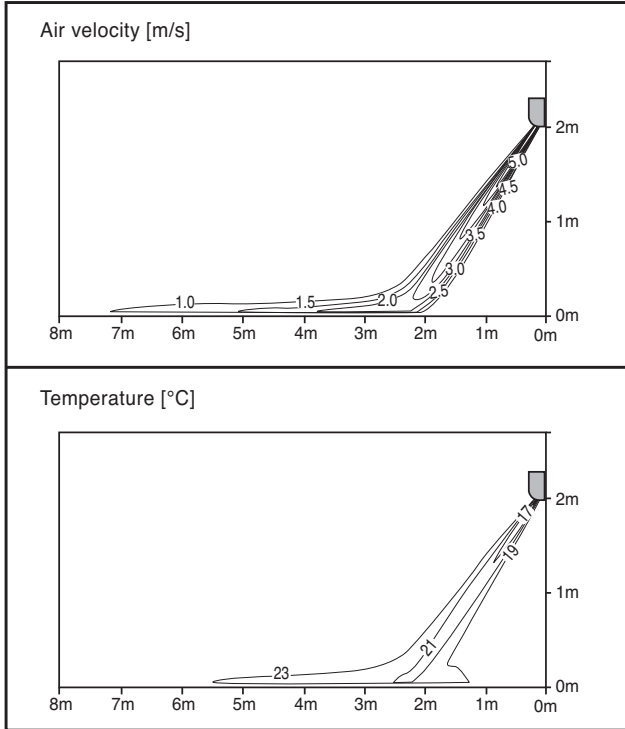
# Inverter Single

## 10. Air flow and temperature distributions (Reference data)

Model : E18EM (USNW186M4A1)

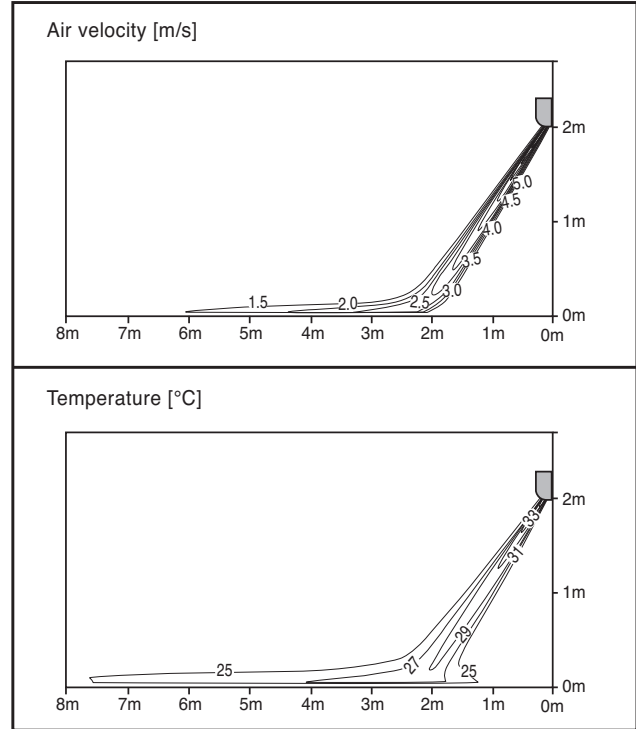
### Cooling

Discharge angle:160°



### Heating

Discharge angle:110°



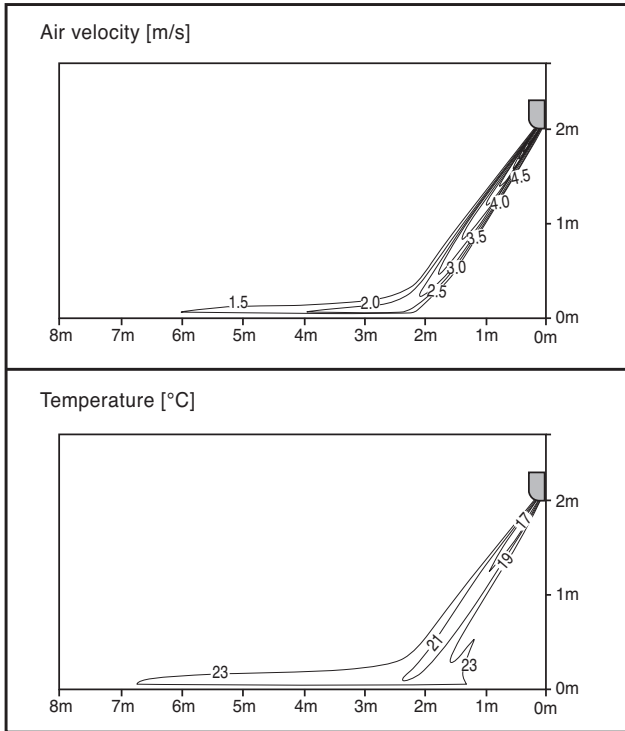
# Inverter Single

## 10. Air flow and temperature distributions (Reference data)

Model : H09AL (AS-W096MMS6)

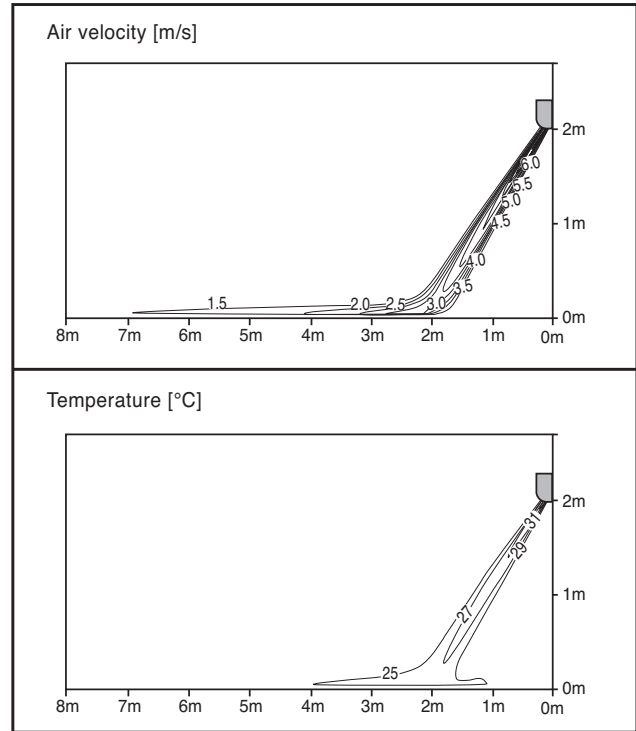
### Cooling

Discharge angle:160°



### Heating

Discharge angle:110°

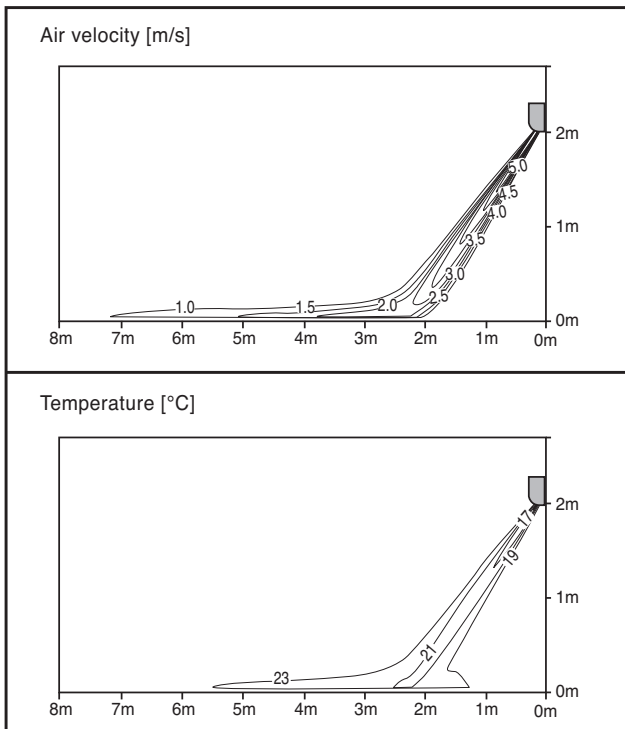


Inverter Single

Model : H12AL (AS-W126MMS6)

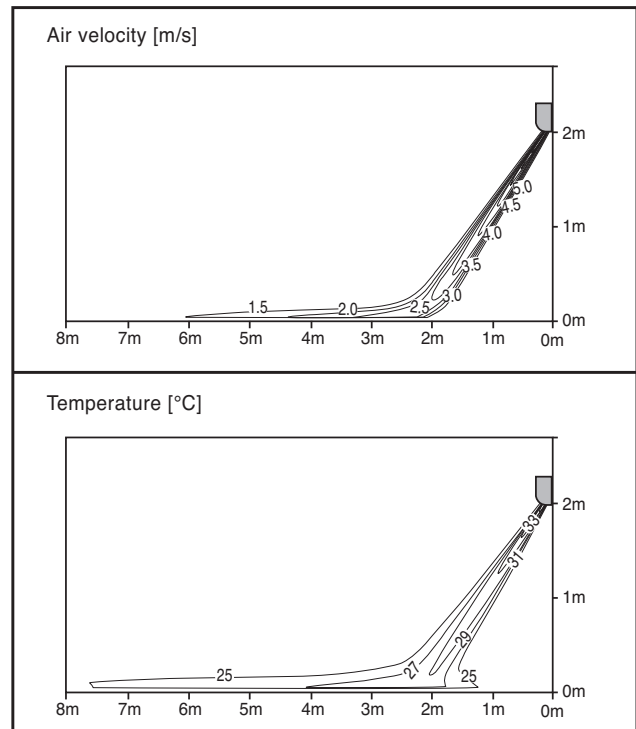
### Cooling

Discharge angle:160°



### Heating

Discharge angle:110°

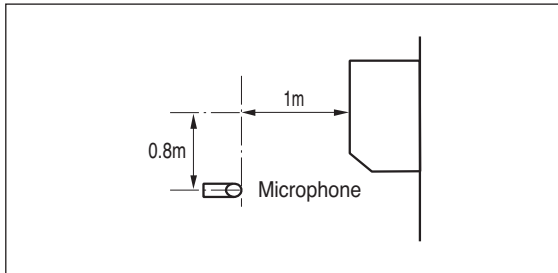


# Inverter Single

## 11. Sound levels (Reference data)

### 11.1 Indoor Units

#### Overall



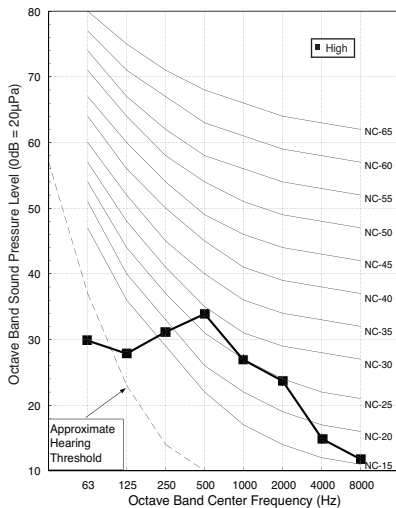
**Notes:**

- Sound measured at 1m(3.28 ft) 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.

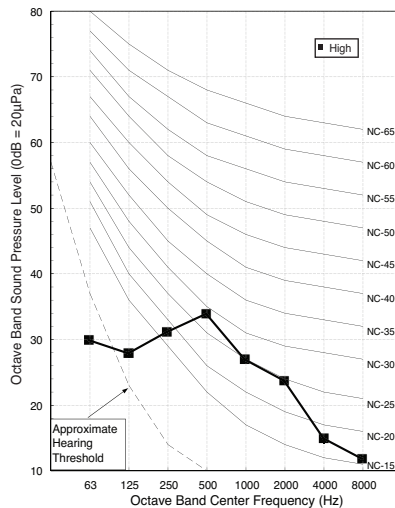
Model	Sound Levels [dB(A)]					
	Cooling			Heating		
	H	M	L	H	M	L
D09CM (ASNW096J1R0)	38	33	22	38	33	22
D12CM (ASNW126J1R0)	38	33	22	38	33	22
D18CM (ASNW186K1R0)	42	37	32	42	37	32
D24CM (ASNW246K1R0)	45	40	32	45	40	32
E09EM (USNW096W4A1) Z09EM (USNW096WSA1)	39	33	25	39	33	28
E12EM (USNW126H4A1) Z12EM (USNW126HSA1)	39	33	25	39	33	28
E18EM (USNW186M4A1)	42	40	35	42	40	35
H09AL (ASNW096MMS6)	39	33	25	39	33	25
H12AL (ASNW126MMS6)	39	33	25	39	33	25

### Sound Pressure Level

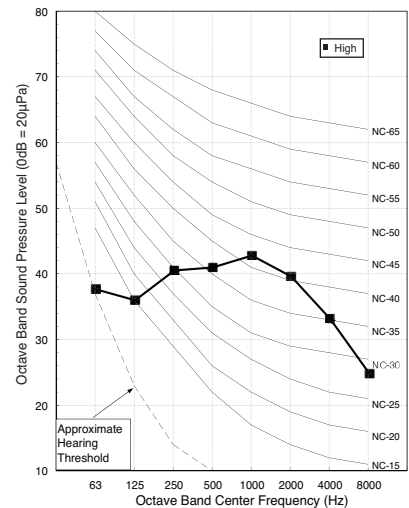
**D09CM (ASNW096J1R0)**



**D12CM (ASNW126J1R0)**



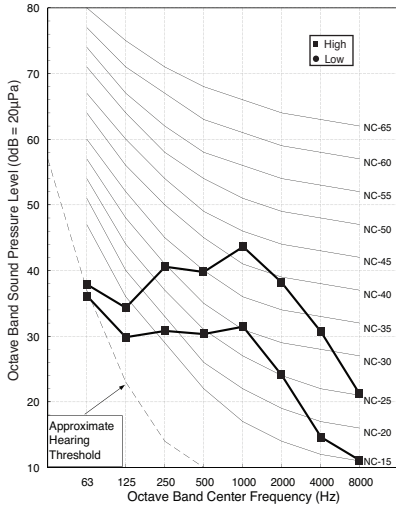
**D18CM (ASNW186K1R0)**



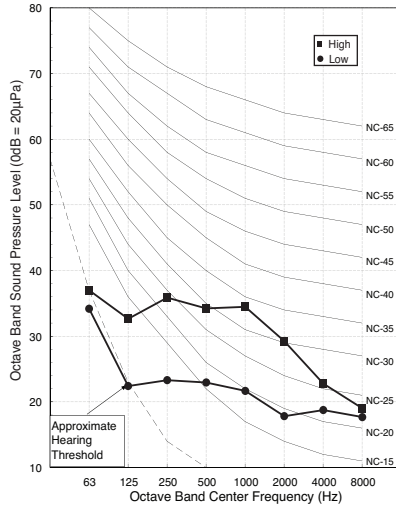


## 11. Sound levels (Reference data)

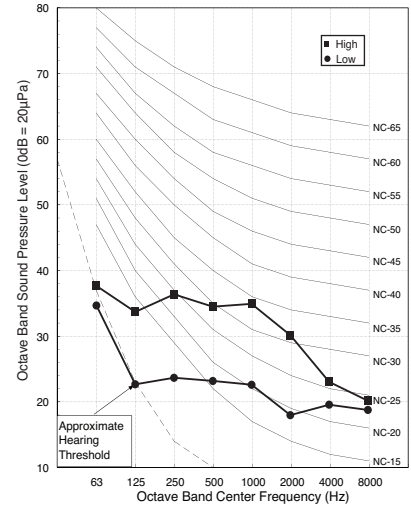
**D24CM (ASNW246K1R0)**



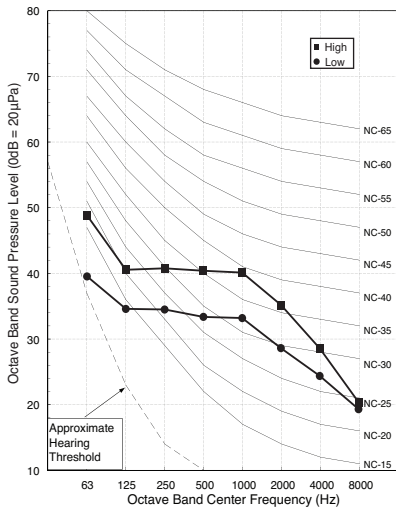
**E09EM (USNW096W4A1)  
Z09EM (USNW096WSA1)**



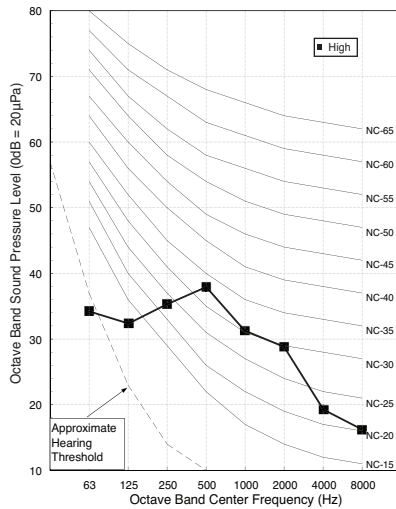
**E12EM (USNW126H4A1)  
Z12EM (USNW126HSA1)**



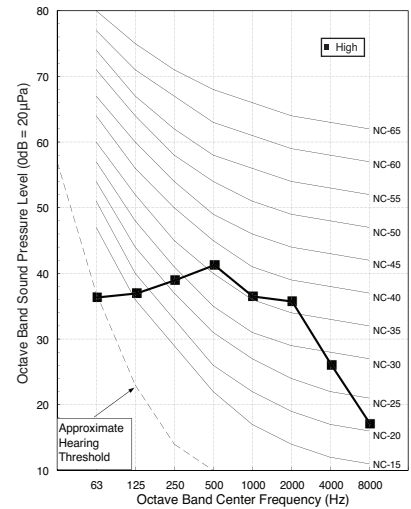
**E18EM (USNW186M4A1)**



**H09AL (ASNW096MMS6)**



**H12AL (ASNW126MMS6)**

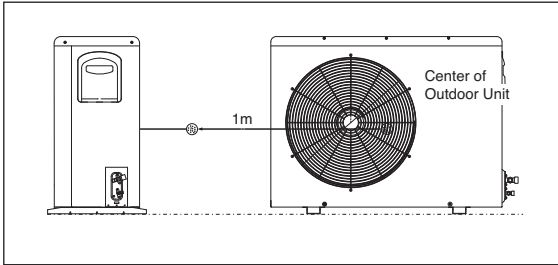


# Inverter Single

## 11. Sound levels (Reference data)

### 11.2 Outdoor Units

#### Overall



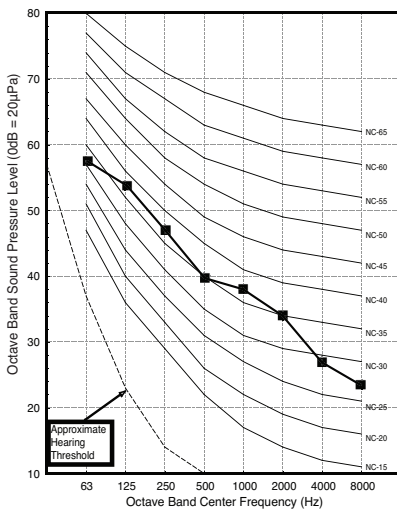
**Notes:**

- Sound measured at 1m(3.28 ft) away from the center of 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.

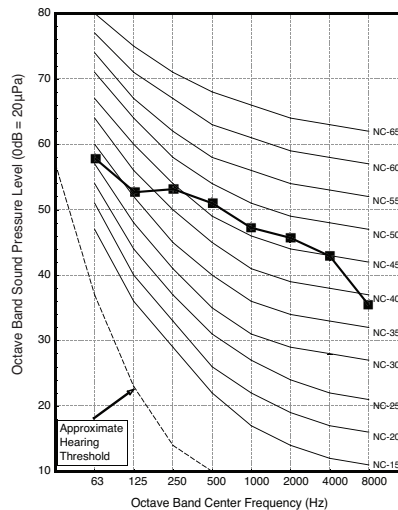
Model	Sound Levels [dB(A)]		Model	Sound Levels [dB(A)]	
	Cooling	Heating		Cooling	Heating
D09CM (ASUW096J1R0)	45	46	E09EM (USUW096W4A1)	49	49
D12CM (ASUW126J1R0)	45	46	E12EM (USUW126H4A1)	49	49
D18CM (ASUW186K1R0)	51	53	E18EM (USUW186M4A1)	52	54
D24CM (ASUW246K1R0)	54	55	H09AL (ASUW096MMS6)	48	48
			H12AL (ASUW126MMS6)	48	48

### Sound Pressure Level

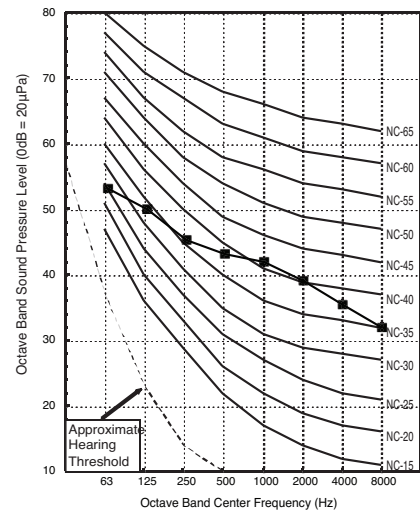
D09CM (ASUW096J1R0)



D12CM (ASUW126J1R0)

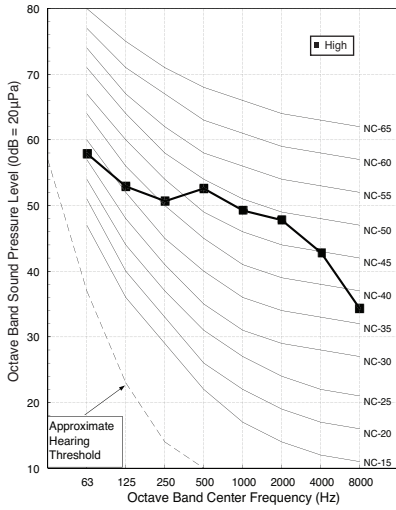


D18CM (ASUW186K1R0)

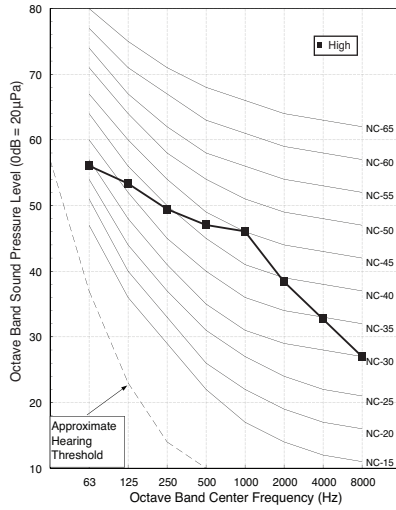


## 11. Sound levels (Reference data)

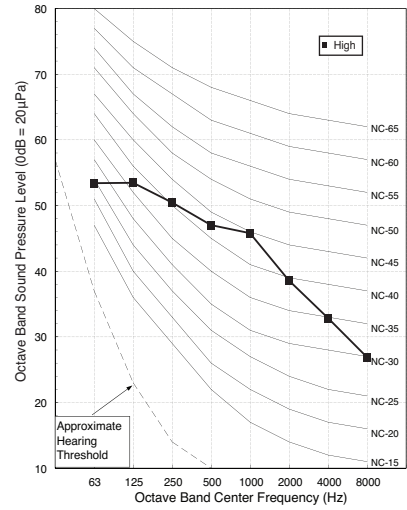
**D24CM (ASUW246K1R0)**



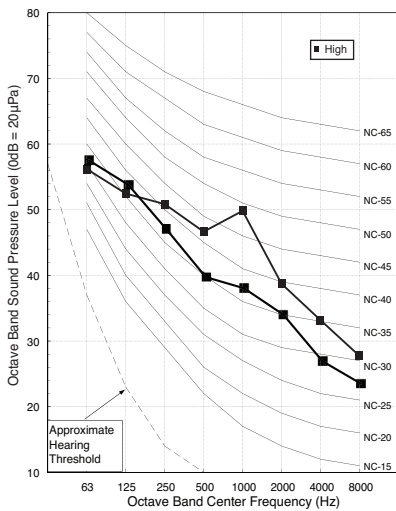
**E09EM (USUW096W4A1)**



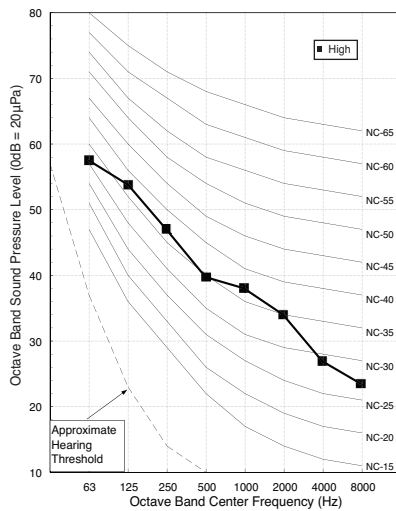
**E12EM (USUW126H4A1)**



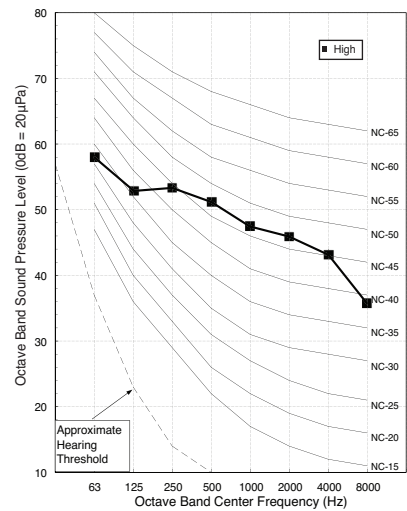
**E18EM (USNW186M4A1)**



**H09AL (ASUW096MMS6)**



**H12AL (ASUW126MMS6)**

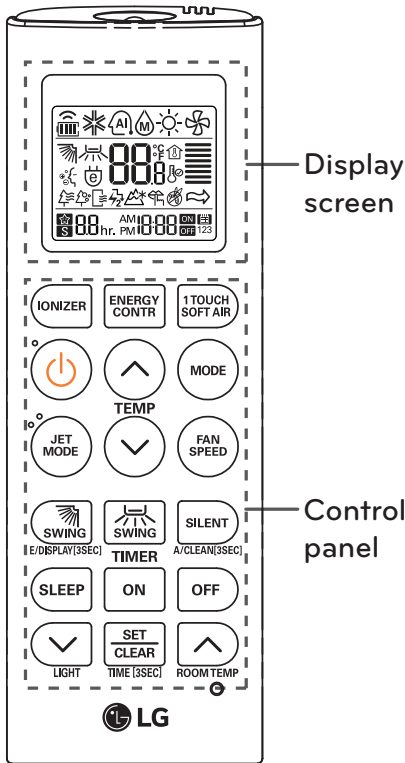


# Inverter Single

## 12. Remote controller

### Wireless remote control

P/No : AKB74055414

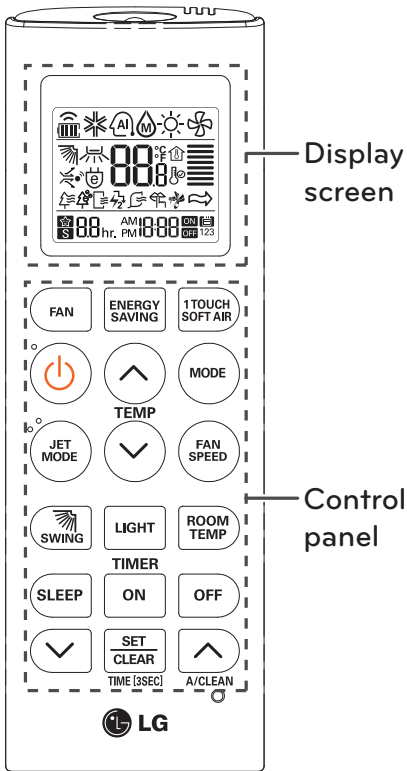


- **Applied Model**  
 D09CM (ASNW096J1R0),  
 D12CM (ASNW126J1R0),  
 D18CM (ASNW186K1R0),  
 D24CM (ASNW246K1R0)

Control panel	Display screen	Description
IONIZER		<b>IONIZER button*</b> : Plasmaster Ionizer sterilize the aerial bacteria and other harmful substances.
1 TOUCH SOFT AIR		<b>1 Touch soft air button</b> : Easily adjust the air flow to deflect direct wind away.
SLEEP		<b>Sleep mode auto button*</b> : Sets the sleep mode auto operation.
	88 °C	<b>Temperature adjustment buttons</b> : Adjusts the room temperature when cooling and heating.
	-	<b>On/Off button</b> : Turns the power on/off.
FAN SPEED		<b>Indoor fan speed button</b> : Adjusts the fan speed.
MODE		<b>Operation mode selection button*</b> : Selects the operation mode. Cooling operation (❄️) / Auto operation or auto changeover (AI) / Dehumidifying operation (💧) / Heating operation (🔥) / Air circulation (🌀)
JET MODE	Po	<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.
ON OFF	AM 12:00 ON OFF	<b>Timer button</b> : Sets the current time and the start / end time.
SILENT A/CLEAN S3SEC ENERGY CONTR ROOMTEMP		<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.
LIGHT	-	Adjusts the brightness of the indoor unit display
SET CLEAR	-	<b>Set/clear button</b> : Sets or cancels functions.
O	-	<b>Reset button</b> : Resets the air conditioner settings.

\* Some functions may not be supported, depending on the model.

P/No : AKB74515420

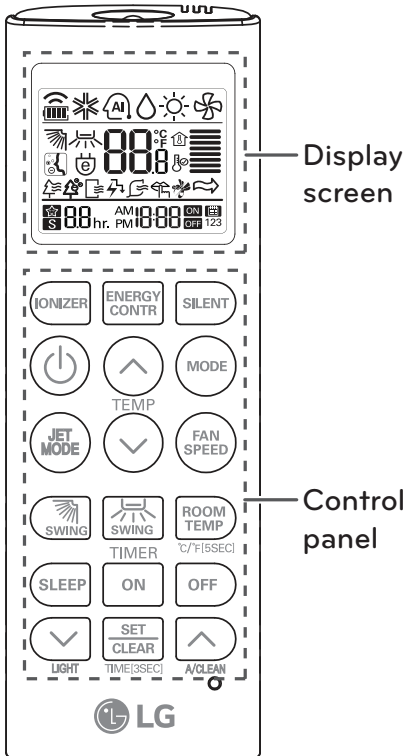


- **Applied Model**  
 E09EM (USNW096W4A1),  
 E12EM (USNW126H4A1),  
 E18EM (USNW186M4A1),  
 Z09EM (USNW096WSA1),  
 Z12EM (USNW126HSA1)

Control panel	Display screen	Description
		<b>Fan button</b> : Air come out from the indoor unit below to the room without air temperature change.
		<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 (☀️)
		<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.
		<b>Temperature display button</b> : Displays the room temperature.
		<b>Timer button</b> : Sets the current time and the start / end time.
		<b>Navigation and functions button*</b> : Sets the special functions. ☰: Auto clean ⌚: Operates energy saving cooling
	-	<b>Set/clear button</b> : Sets or cancels functions.
	-	<b>Reset button</b> : Resets the remote control settings.
		<b>LIGHT button</b> : Adjusts the brightness of the indoor unit display.
		<b>1 Touch soft air button</b> : Easily adjust the air flow to deflect direct wind away.

\* Some functions may not be supported, depending on the model.

P/No : AKB73635619



- **Applied Model**  
H09AL (ASNW096MMS6),  
H12AL (ASNW126MMS6)

Control panel	Display screen	Description
		<b>IONIZER button*</b> : Plasmaster Ionizer sterilize the aerial bacteria and other harmful substances.
		<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 vertically or horizontally.
		<b>Temperature display button</b> : Displays the room temperature. Also changes unit from °C to °F if pressed for 5 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
	-	Adjusts the brightness of the indoor unit display
	-	<b>Set/clear button</b> : Sets or cancels functions.
	-	<b>Reset button</b> : Resets the air conditioner settings.

\* Some functions may not be supported, depending on the 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.



## 13. 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

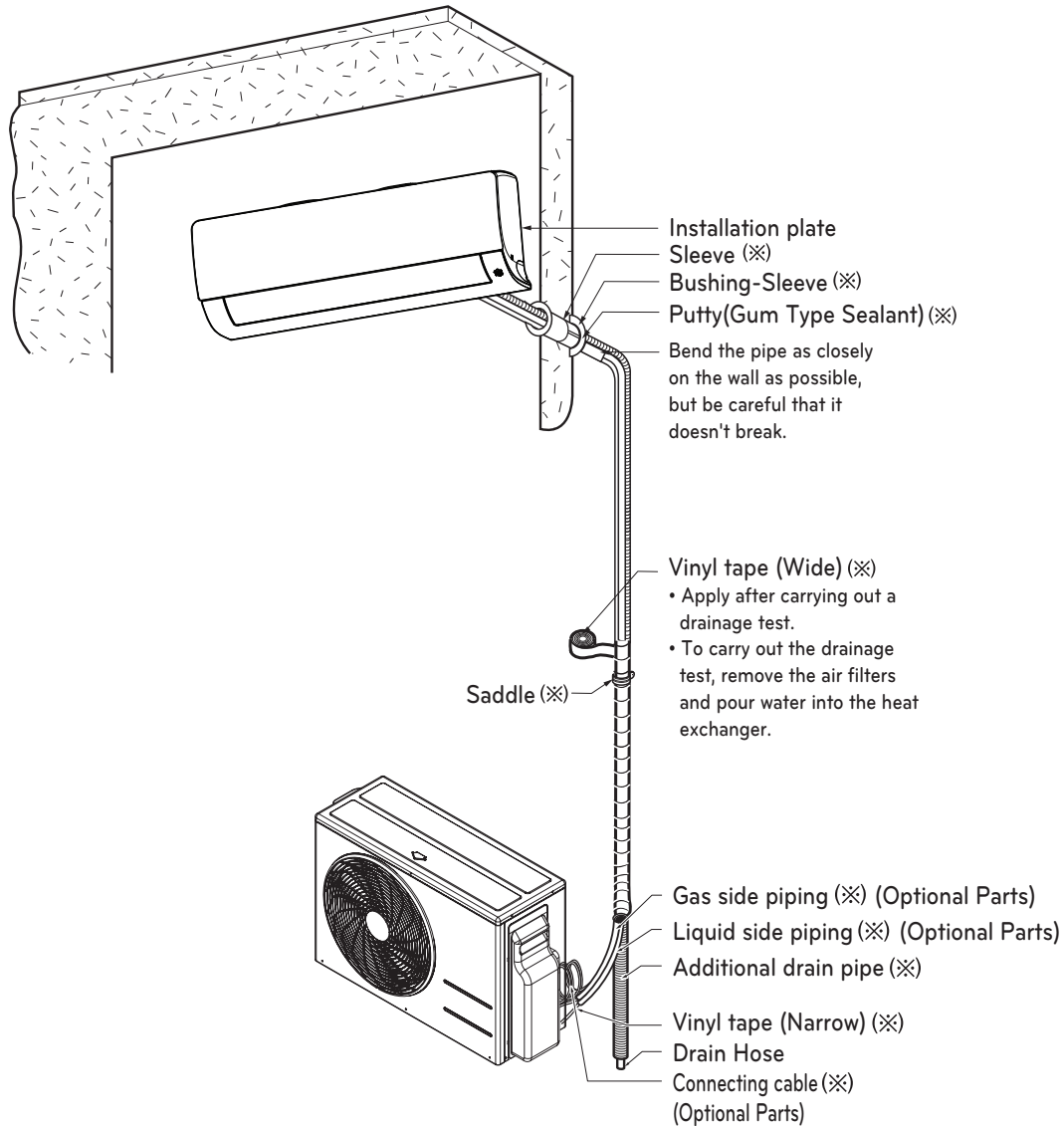
- Avoid excessive cooling ; account for and consider ventilation.
    - Otherwise, it may do harm to your health.
  - Use a soft cloth to clean. Do not use wax, thinner, or a strong detergent.
    - The appearance of the air conditioner may deteriorate, change color, or develop surface flaws.
  - Do 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.



## 13. Installation

D09CM (AS-W096J1R0), D12CM (AS-W126J1R0), D18CM (AS-W186K1R0),  
D24CM (AS-W246K1R0)

### Installation Map



\* The feature can be changed according to type of model.

### NOTICE

• You should purchase the installation parts.

# Inverter Single

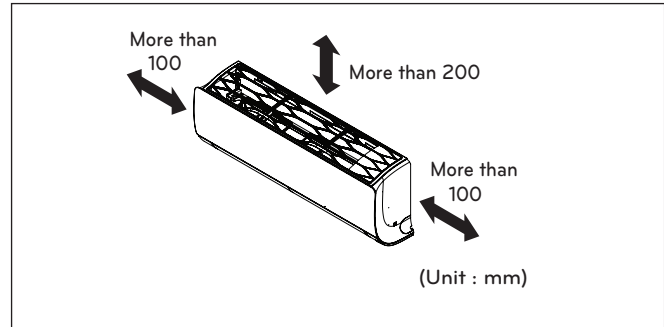
## 13. Installation

### Select the best Location

#### Indoor unit

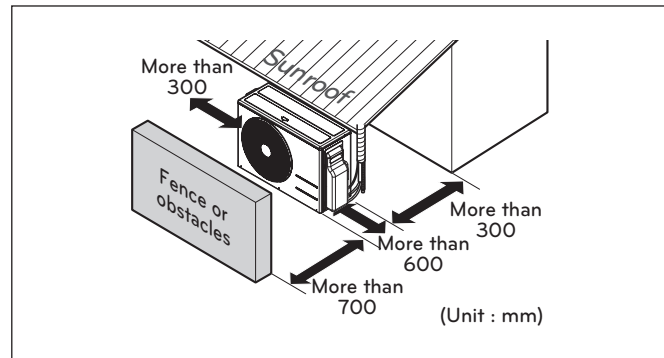
- There should not be any heat or steam near the unit.
- Select a place where there are no obstacles around of the unit.
- Make sure that condensation drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the interval between a wall and the left (or right) of the unit is more than 100mm.  
The unit should be installed as high as possible on the wall, allowing a minimum of 200mm from ceiling.
- Use a metal detector to locate studs to prevent unnecessary damage to the wall.

\* The feature can be changed according to type of model.



#### Outdoor unit

- If an awning is built over the unit to prevent direct sunlight or rain exposure, make sure that heat radiation from the condenser is not restricted.
- Ensure that the space around the back and sides is more than 300mm. The space in front of the unit should be more than 700mm of space.
- Do not place animals and plants in the path of the warm air.
- Take the weight of the air conditioner into account and select a place where noise and vibration are minimum.
- Select a place where the warm air and noise from the air conditioner do not disturb neighbors.

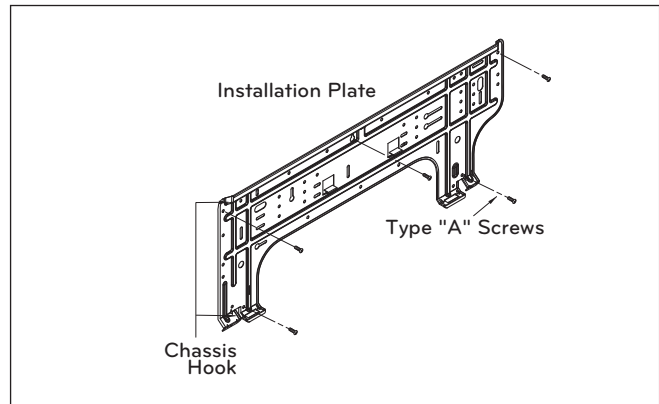
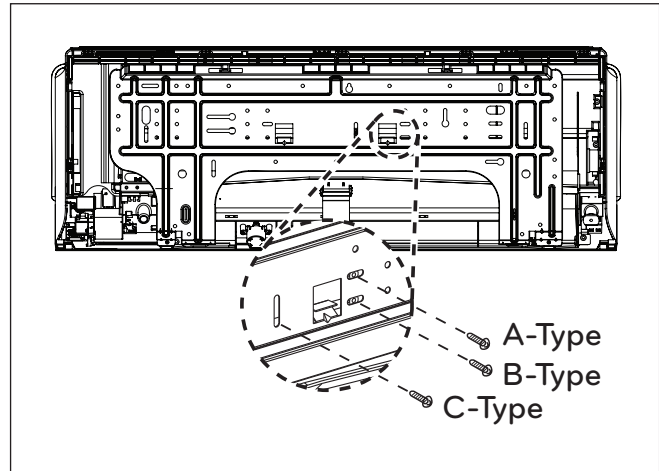


## 13. Installation

### Fixing Installation Plate

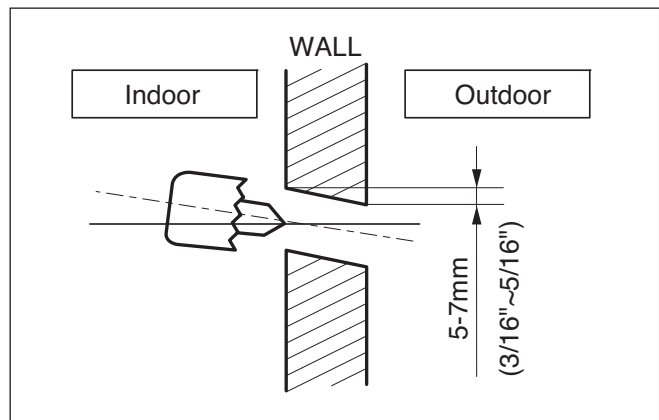
The wall you select should be strong and solid enough to prevent vibration.

1. Before installation, confirm the position of a screw between chassis and Installation plate.
2. 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 Horizontal meter .
3. 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.



### Drill a Hole in the Wall

- Drill the piping hole with a  $\phi 65\text{mm}$  hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.



# Inverter Single

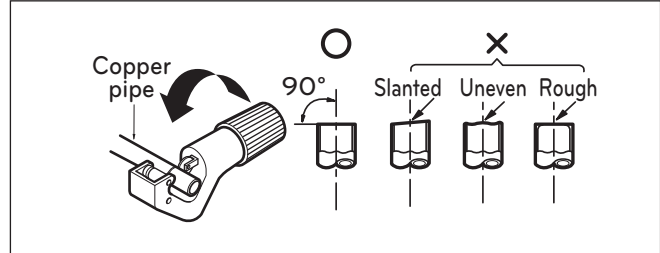
## 13. Installation

### Flaring Work

Main cause for gas leakage is due to defect of flaring work. Carry out correct flaring work in the following procedure.

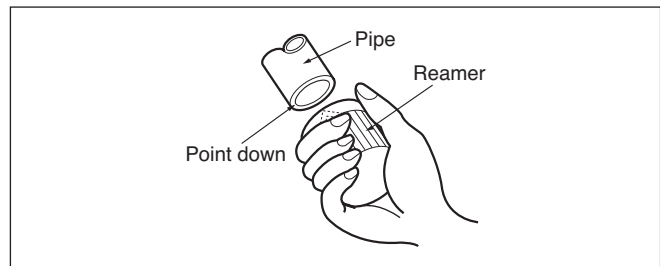
#### Cut the pipes and the cable

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 longer than the pipe length.



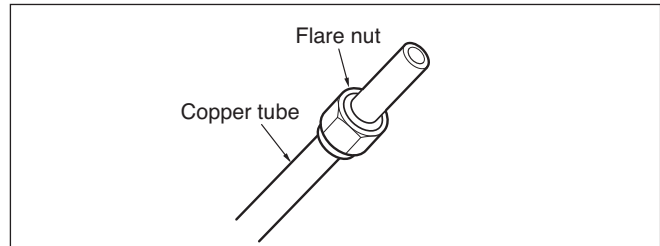
#### Burrs removal

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

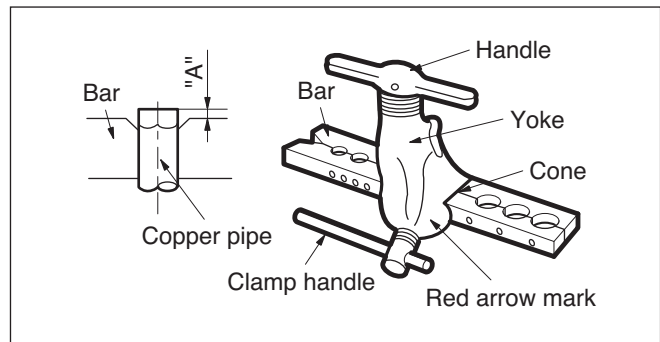
- Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.  
(not possible to put them on after finishing flare work)



#### Flaring work

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

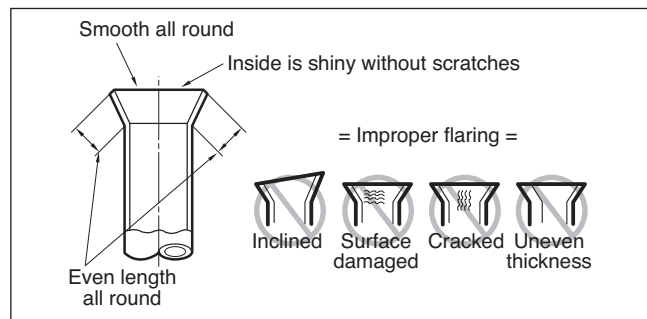
Outside diameter		A	Thickness
mm	inch	mm	mm
Ø6.35	1/4"	1.1~1.3	0.7
Ø9.52	3/8"	1.5~1.7	0.8
Ø12.7	1/2"	1.6~1.8	0.8
Ø15.88	5/8"	1.6~1.8	1.0



2. Carry out flaring work with the flaring tool.

#### Check

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

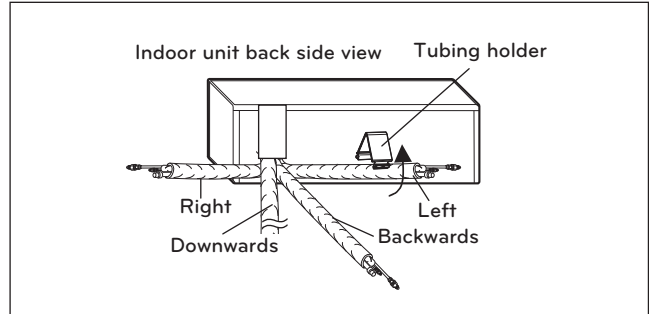
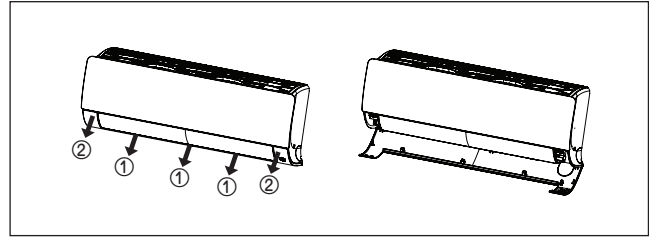


## 13. Installation

### 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.

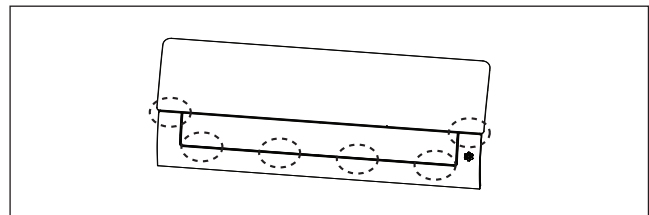
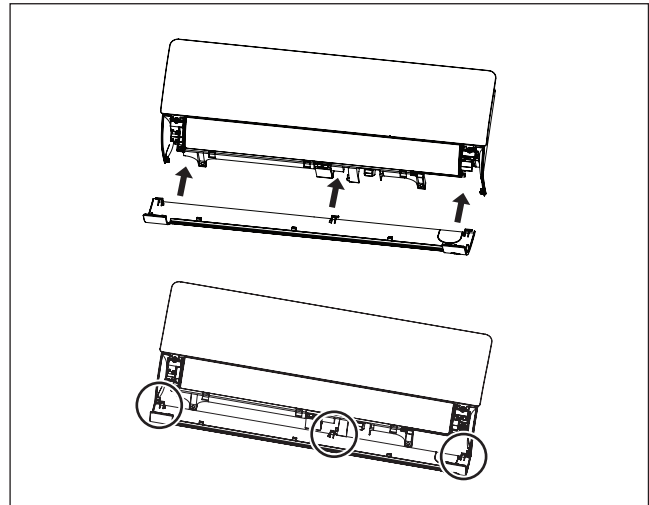


#### Assembly of chassis cover

1. Insert 3 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.

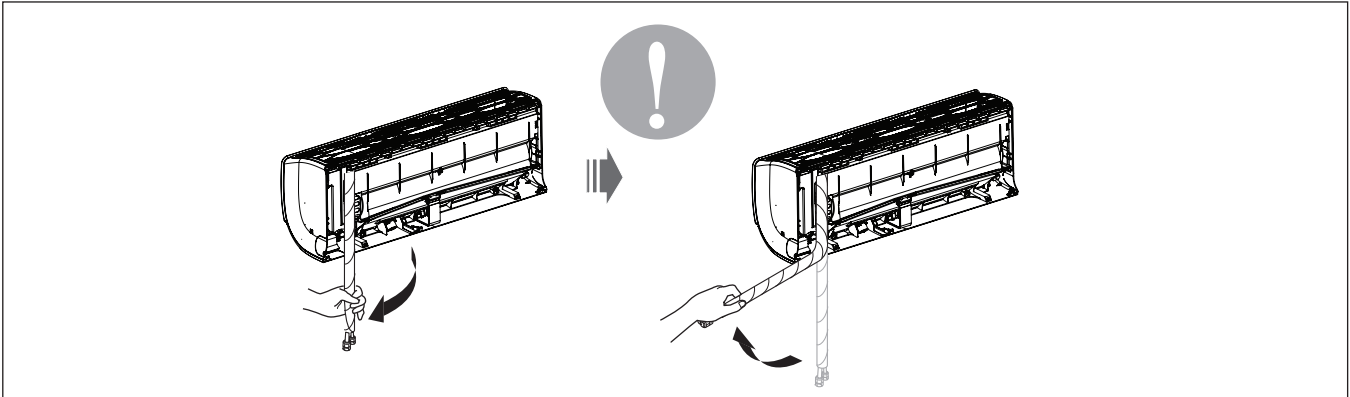


## Inverter Single

### 13. Installation

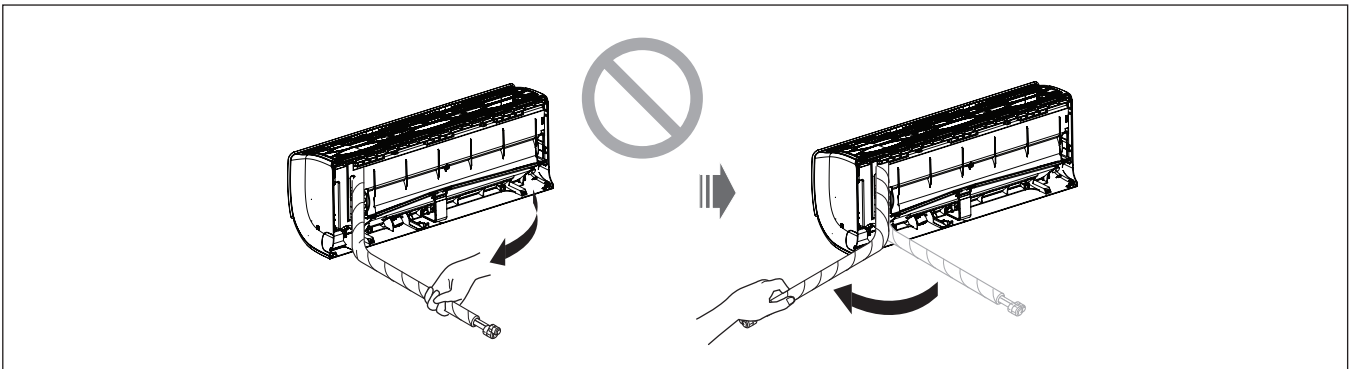
#### Good case

- 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**

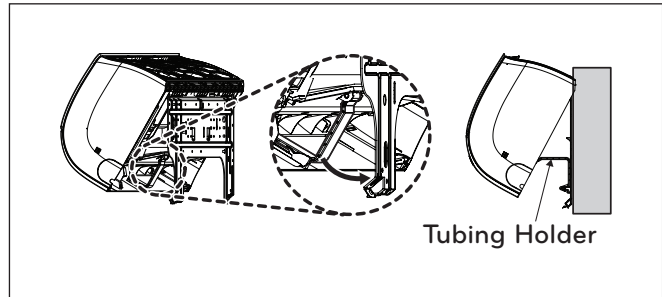
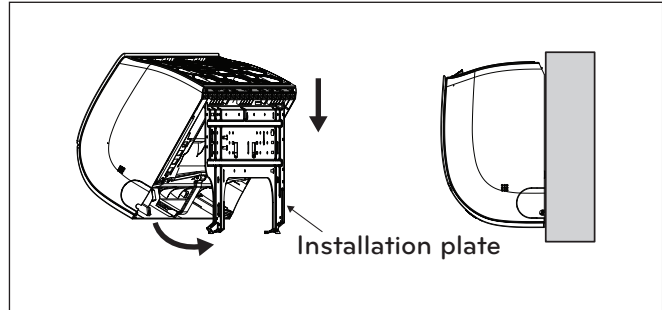
Installation Information. For right piping. Follow the instruction above.

## 13. Installation

### Installation of Indoor Unit

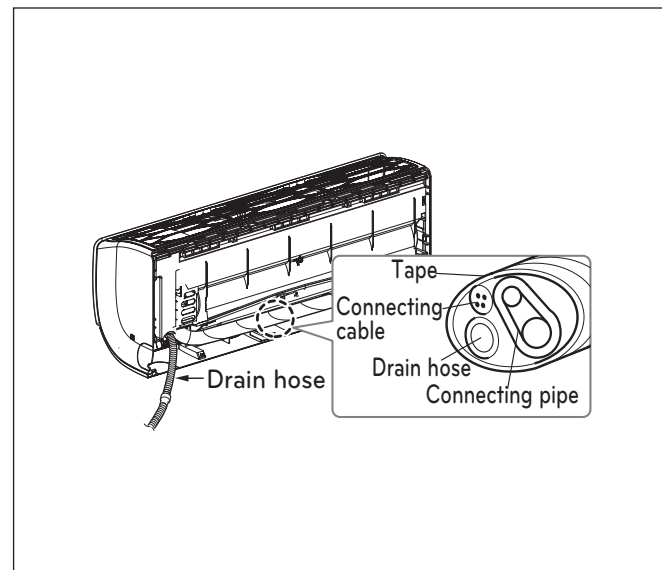
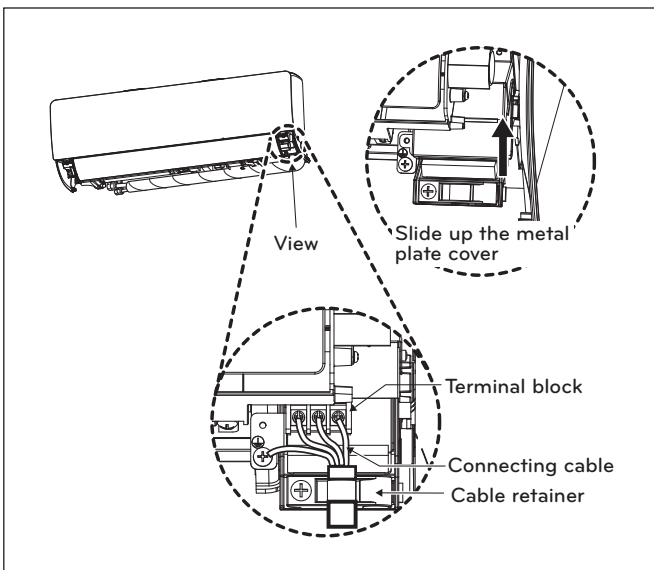
1. Hook the indoor unit onto the upper portion of the installation plate. (engage the three hooks at the top of the indoor unit with the upper edge of the installation plate) Ensure that the hooks are properly seated on the installation plate by moving it left and right
2. Unlock the tubing holder from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

\* The feature can be changed according to type of model.



### 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.

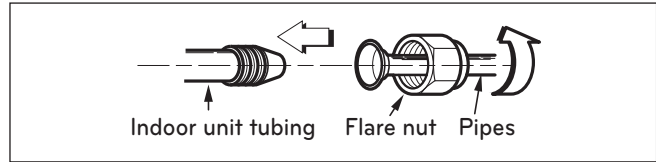
\* The feature can be changed according to type of model.

# Inverter Single

## 13. Installation

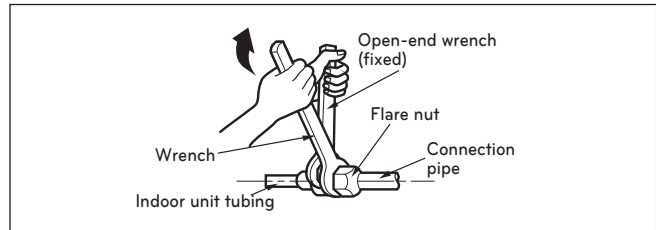
### Connecting the installation pipe and drain hose to the indoor unit.

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

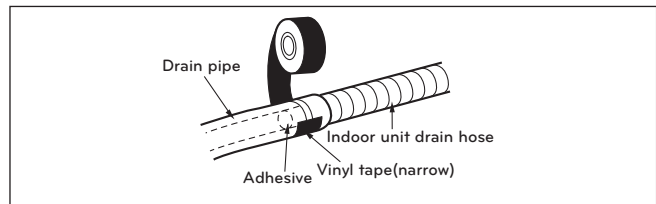


2. Tighten the flare nut with a wrench

Outside Diameter		Torque	
mm	inch	kgf·cm	N·m
Ø6.35	1/4	180~250	17.6~24.5
Ø9.52	3/8	340~420	33.3~41.2
Ø12.7	1/2	550~660	53.9~64.7
Ø15.88	5/8	630~820	61.7~80.4

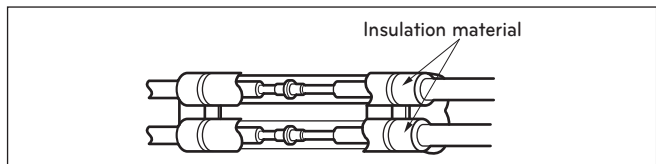


3. When needed to extend the drain hose of indoor unit, assemble the drain pipe as shown on the drawing

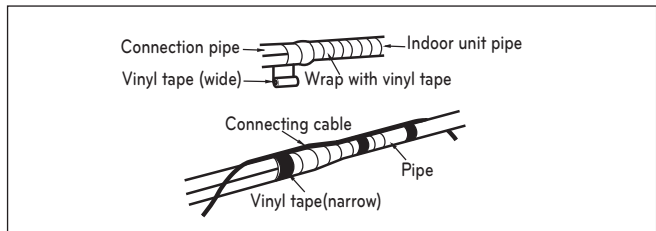
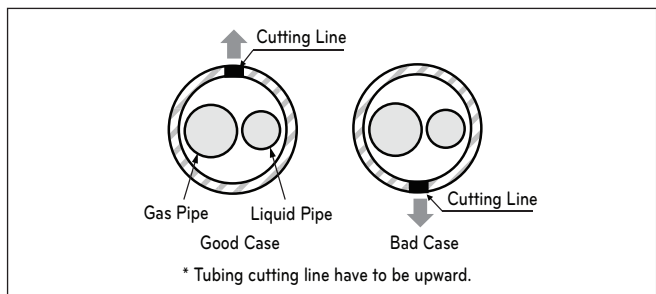


### Wrap the insulation material around the connecting portion.

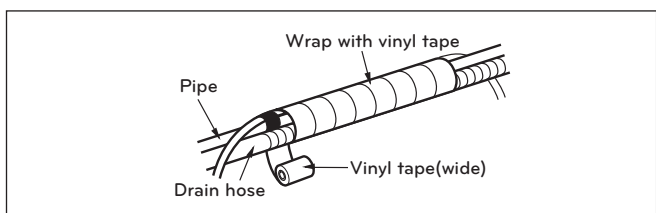
1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.



2. Set the tubing cutting line upward. Wrap the area which accommodates the rear piping housing section with vinyl tape.



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.

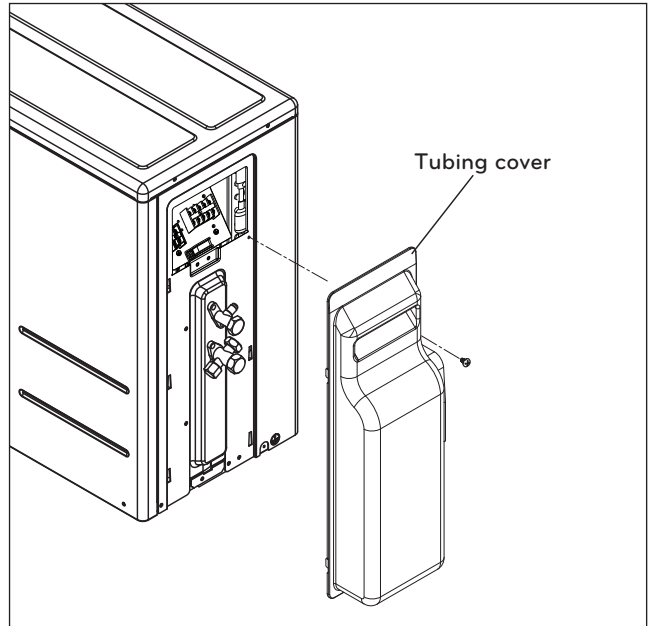




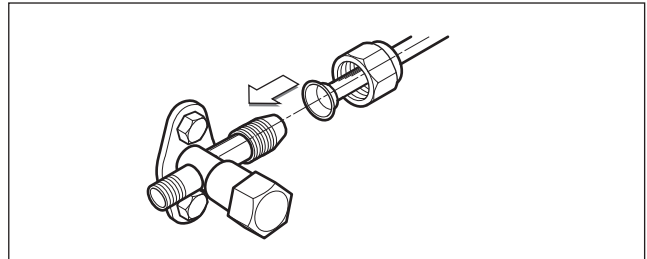
## 13. Installation

### Outdoor unit

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

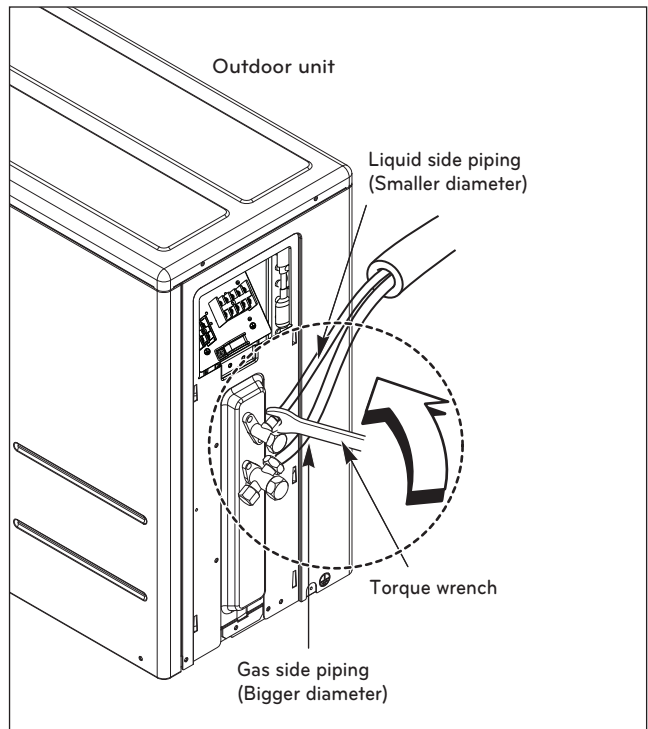


2. Align the center of the pipings and sufficiently tighten the flare nut by hand.



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-cm	N·m
Ø6.35	1/4	180~250	17.6~24.5
Ø9.52	3/8	340~420	33.3~41.2
Ø12.7	1/2	550~660	53.9~64.7
Ø15.88	5/8	630~820	61.7~80.4



# Inverter Single

## 13. Installation

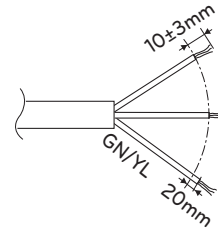
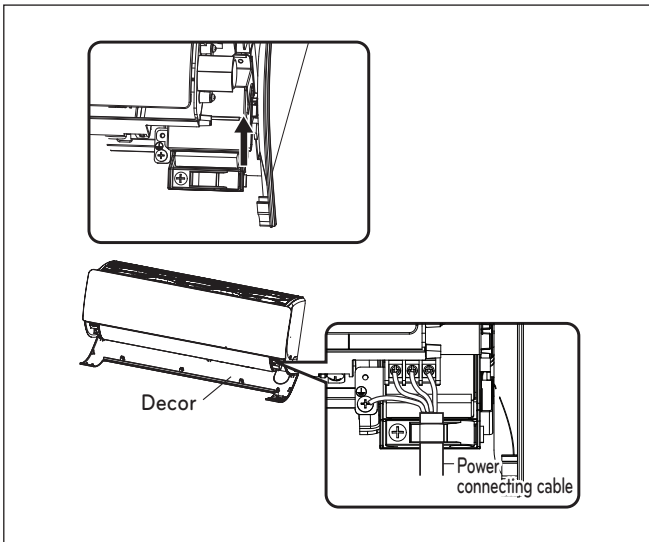
### Connecting the Cables

#### Indoor

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.)

Insert the connecting cable through the bottom side of indoor unit and connect the cable.

- (1) Open the Décor.
- (2) Slide up the Metal Plate Cover.
- (3) Connect the connecting cable.



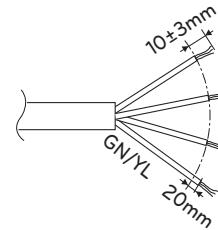
NOMINAL CROSS-SECTIONAL AREA	Grade		
		2.5~3.5	5.0
	1.0	1.5	2.5

(mm<sup>2</sup>)

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)



NOMINAL CROSS-SECTIONAL AREA	Grade (kW)	
		2.5 ~ 6.6
	1.0	

(mm<sup>2</sup>)

#### ⚠ 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 chassis 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.

#### ⚠ 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.

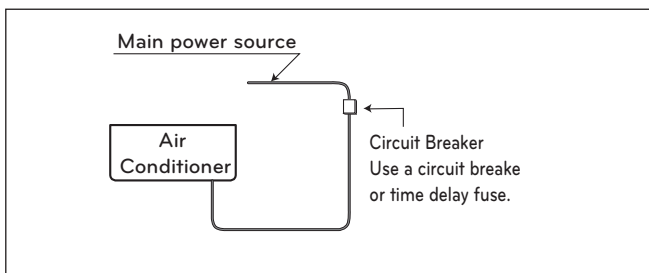
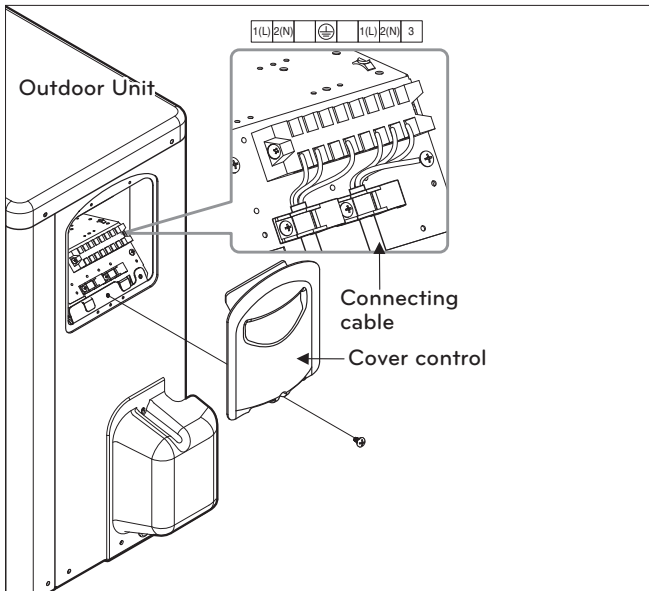
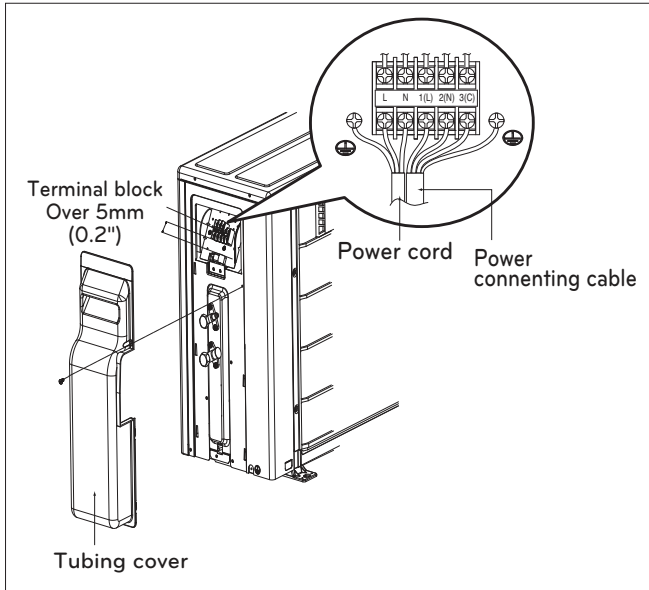
(code designation 60245 IEC 57, H05RN-F)

- 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.

Circuit Breaker(A)	Grade		
		2.5~3.5	5.0
	15	20	25

## 13. Installation



### ⚠ CAUTION

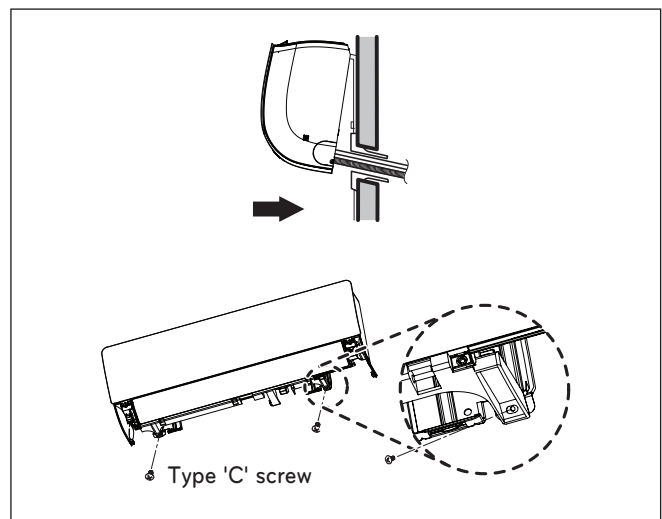
According to the confirmation of the above conditions, prepare the wiring as follows.

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.
10. Open the terminal cover block before connecting the indoor side wire.

### 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.



# Inverter Single

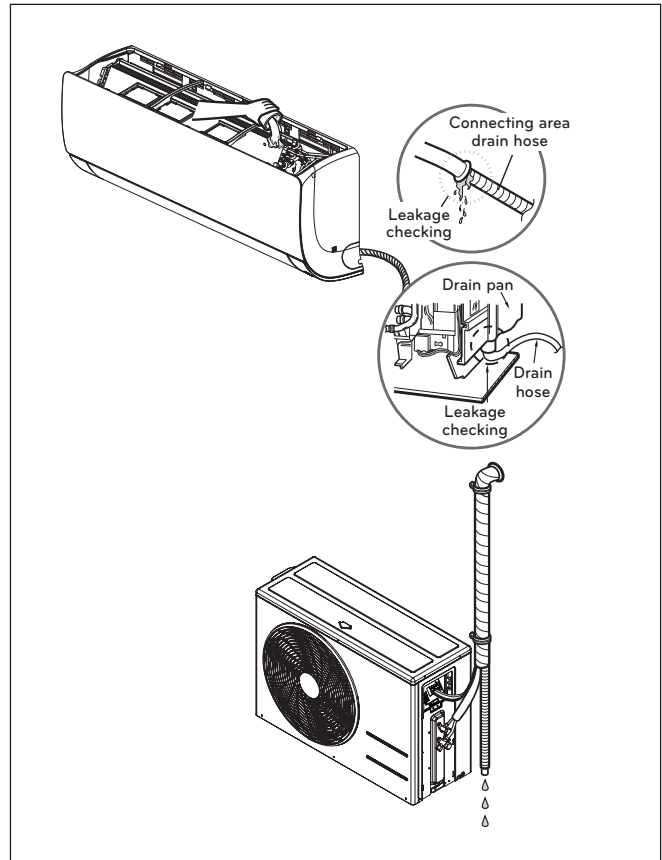
## 13. Installation

### Checking the Drainage

#### To check the drainage.

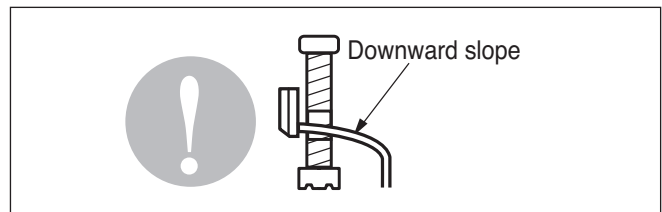
1. Pour a glass of water on the evaporator.
2. Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.

\*The feature can be changed according to type of model.

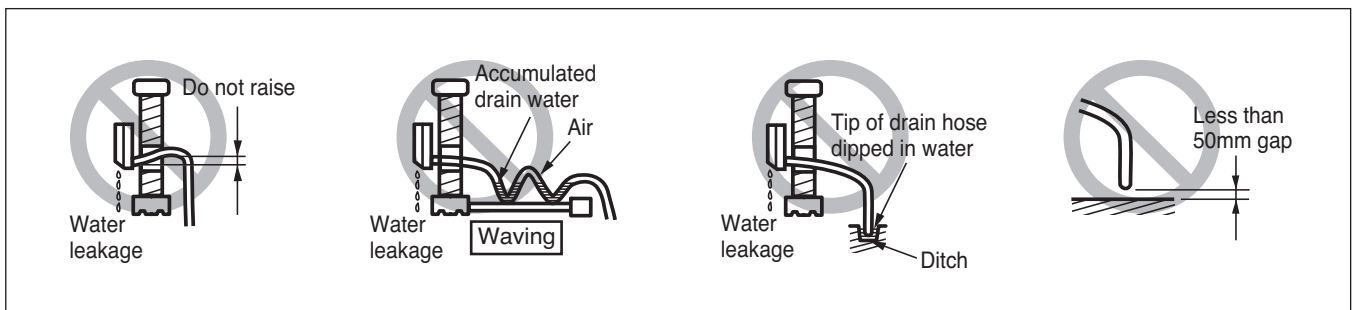


#### Drain piping

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



2. Do not make drain piping like the following.



\* The feature can be changed according to type of model.

## 13. Installation

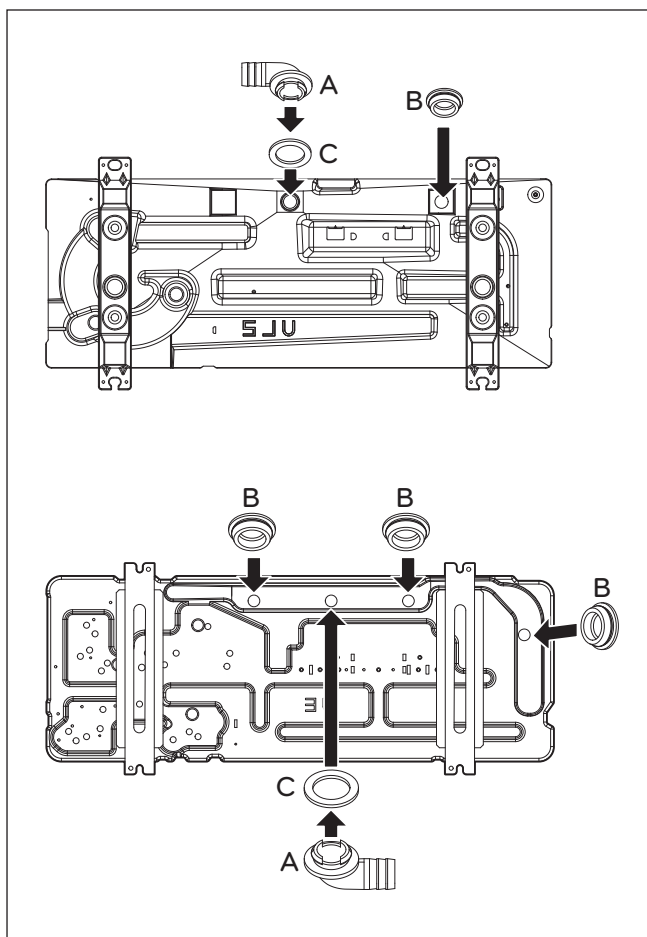
### Installing drain piping of the outdoor unit

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 nipple
- B Drain cap
- C Drain washer

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



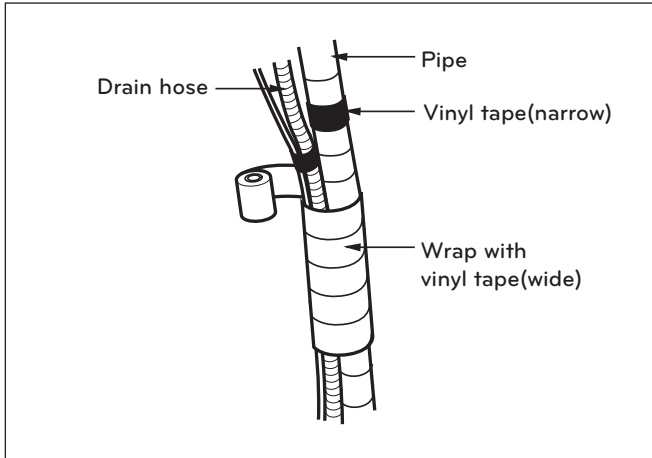
# Inverter Single

## 13. Installation

### Forming the Piping

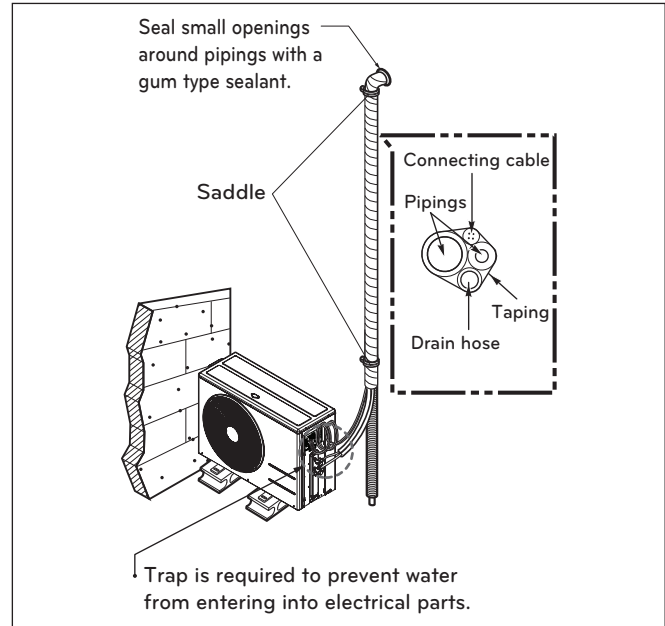
Form the piping by wrapping the connecting portion of the indoor unit with insulation material and secure it with two kinds of vinyl tapes.

- If you want to connect an additional drain hose, the end of the drain outlet should be routed above the ground. Secure the drain hose appropriately.



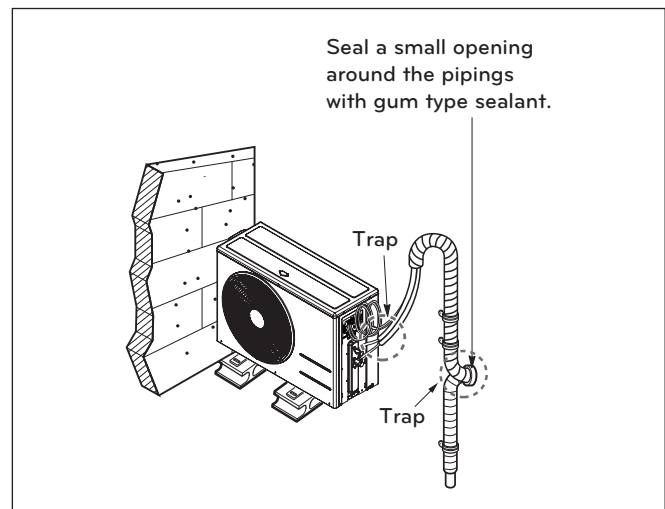
In cases where the outdoor unit is installed below the indoor unit perform the following.

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.
- \*The feature can be changed according to type of model.



### 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 17.6kg/cm<sup>2</sup>G (R-22 model) or 28.1kg/cm<sup>2</sup>G (R-410A model) with dry nitrogen gas and close the cylinder valve when the gauge reading reaches 17.6kg/cm<sup>2</sup>G (R-22 model) or 28.1kg/cm<sup>2</sup>G (R-410A model). Next step is leak test with liquid soap.

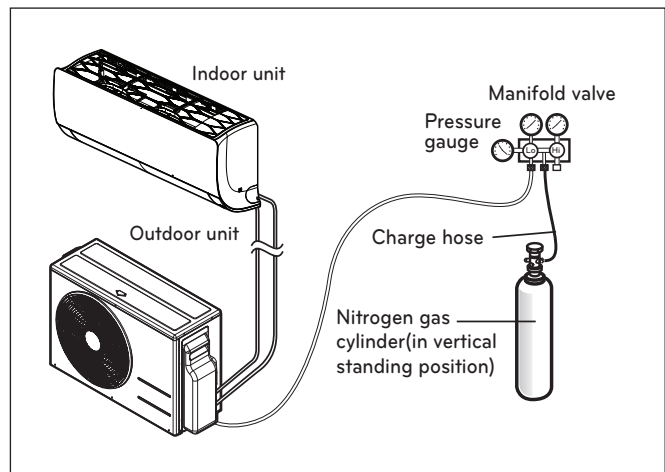
### ⚠ CAUTION

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.

### ⚠ CAUTION

⚠ There is a risk of fire and explosion. Inert gas (nitrogen) should be used when you check plumbing leaks, cleaning or repairs of pipes etc. If you are using combustible gases including oxygen, product may have the risk of fires and explosions.

- 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 soap with a clean cloth.
- 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.



# Inverter Single

## 13. 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.

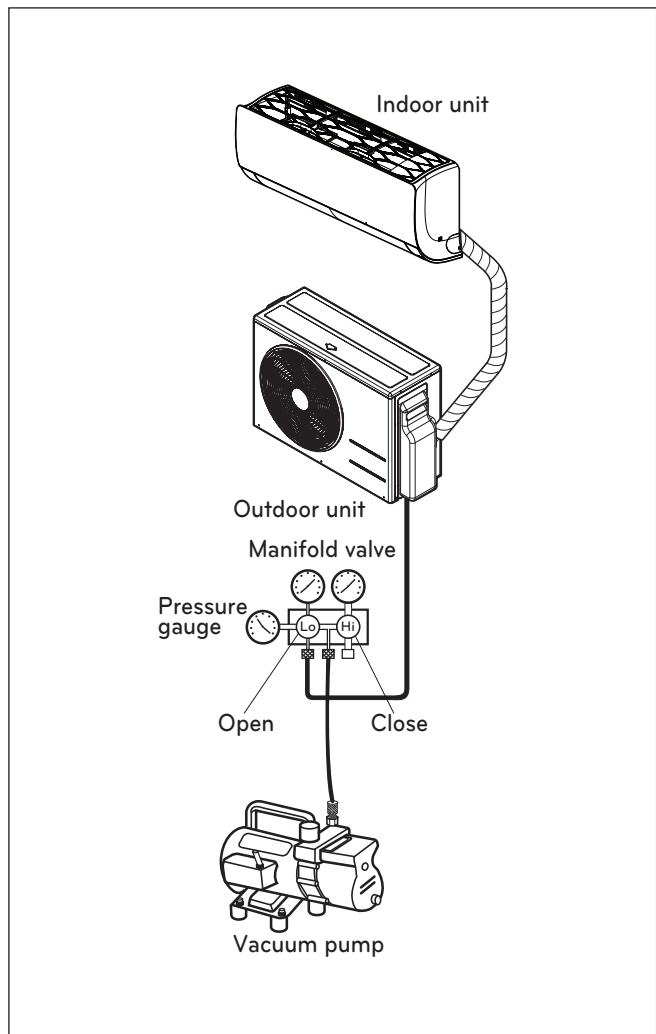
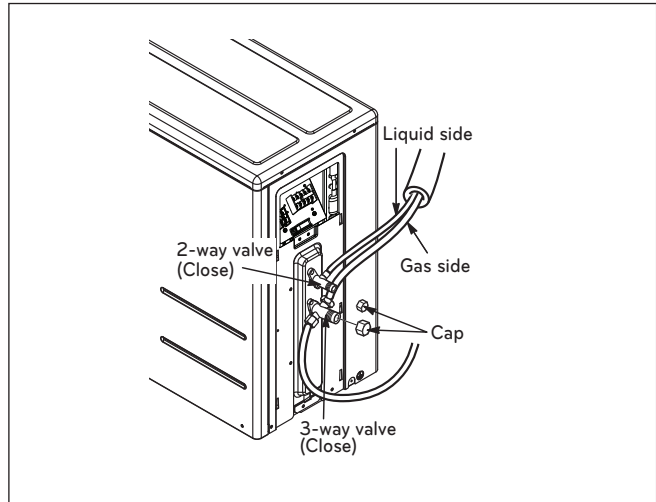
\* The feature can be changed according to type of model.

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

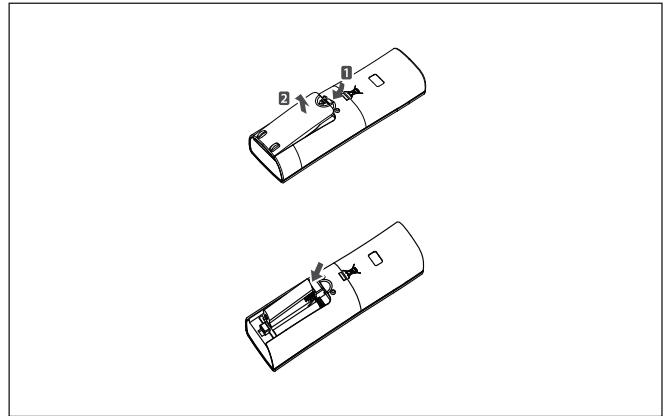
1. Check that all tubing and wiring are properly connected.
2. Check that the gas and liquid side service valves are fully open.

### 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.

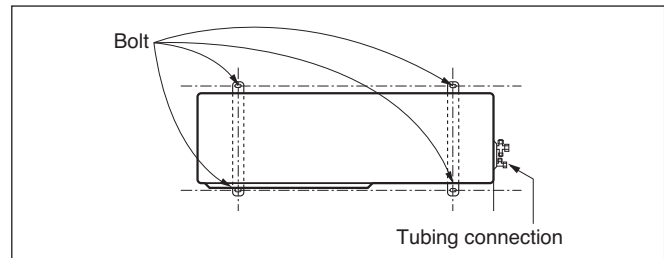
#### NOTICE

- 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.

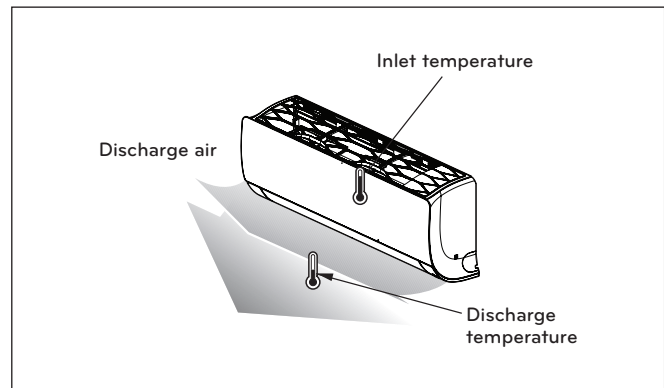


### Evaluation of the performance

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.
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 service valve.
R-22	35°C (95°F)	4~5kg/cm <sup>2</sup> G (56.8~71.0 P.S.I.G.)
R-410A	35°C (95°F)	8.5~9.5kg/cm <sup>2</sup> G (120~135 P.S.I.G.)

#### NOTICE

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.

## 13. Installation

### 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 units 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.

<9, 12k>

Mode	Indoor temperature	Outdoor temperature
Cooling	18°C ~ 32°C	-15°C ~ 48°C
Heating	16°C ~ 30°C	-15°C ~ 24°C

<18, 24k>

Mode	Indoor temperature	Outdoor temperature
Cooling	18°C ~ 32°C	-15°C ~ 48°C
Heating	16°C ~ 30°C	-10°C ~ 24°C

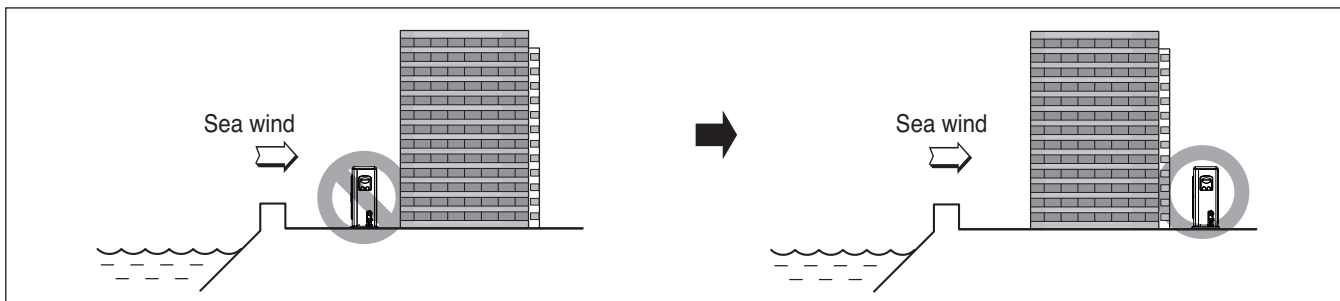
### Installation Guide for Areas Exposed to Sea Wind

#### ⚠ CAUTION

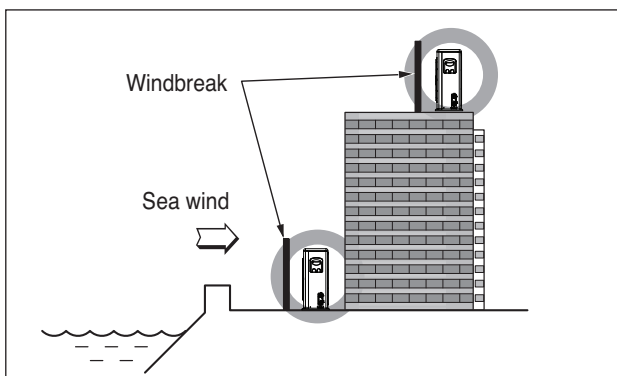
1. Air conditioners should not be installed in areas where corrosive gases, such as acid or alkaline gas, are produced.
2. Do not install the product where it could be exposed to sea wind (salty wind) directly. It can result corrosion on the product. Corrosion, particularly on the condenser and evaporator 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, then 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 of installing the outdoor unit on the sea side, setup a windbreak to prevent 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 70 cm of space between outdoor unit and the windbreak for easy air flow.

- 3) Select a well-drained place.

1. If you cant meet above guide line in the seaside installation, please contact LG Electronics for the additional anticorrosion treatment.
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 when you clean up the heat exchanger.

# Inverter Single

## 13. Installation

### MANUAL THE DECOR, AIR FILTER ASSEMBLY & DISASSEMBLY

#### Disassemble the decor

- 1 Turn off the power and unplug the power cord.
- 2 Pull the decor at the bottom of the indoor unit.

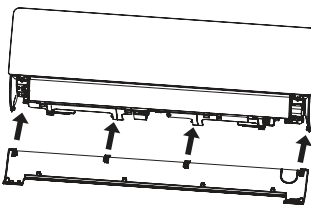


- 3 Remove the decor from the indoor unit.

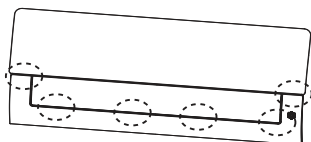


#### Assemble the decor

- 1 Turn off the power and unplug the power cord.
- 2 Insert 4 hooks of the decor into gap of the indoor unit certainly.



- 3 Push the hooks to assemble the decor.



#### **CAUTION**

- The air filter can be broken when it is bended.
- Features may change according to the type of model.

#### Disassemble the air filter

- 1 Turn off the power and unplug the power cord.
- 2 Hold the knob of air filter, Lift it up slightly.



- 3 Hold the knob of the air filter, lift it up slightly and remove it from the unit.

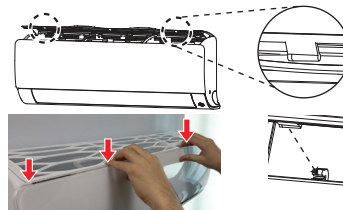


#### Assemble the air filter

- 1 Turn off the power and unplug the power cord.
- 2 Insert the hooks of the air filter into the front grille.



- 3 Push down hooks to assemble the air filter.



- 4 Check side of the front grille for the air filter assembled correctly.



#### **NOTICE**

If the air filter is not assembled correctly, Dust and other substance come into the indoor unit. If look at the indoor unit from higher than it, can assemble the air filter easily.

Outdoor unit Indoor unit  
**D09CM UL2 / D09CM NSJ**

Function (indicate if present)	Y	N
cooling	Y	
heating	Y	

Item	symbol	value	unit	symbol	value	unit
<b>Design load</b>	cooling	Pdesignc	2.5	KW		
	heating / Average	Pdesignh	2.8	KW		
	heating / Warmer	Pdesignh	x.x	KW		
	heating / Colder	Pdesignh	x.x	KW		
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj						
	Tj=35°C	Pdc	2.5	KW	EERd	4.5
	Tj=30°C	Pdc	1.75	KW	EERd	6.2
	Tj=25°C	Pdc	1.2	KW	EERd	9.5
	Tj=20°C	Pdc	1.05	KW	EERd	14.6
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td						
	Tj=-7°C	Pdh	2.62	KW	COPd	2.8
	Tj=2°C	Pdh	1.40	KW	COPd	4.7
	Tj=7°C	Pdh	1.05	KW	COPd	5.8
	Tj=12°C	Pdh	1.25	KW	COPd	7.1
	Tj=bivalent temperature	Pdh	2.7	KW	COPd	3.1
	Tj=operating limit	Pdh	2.8	KW	COPd	2.7
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'.		Y	N
Average (mandatory)		Y	
Warmer (if designated)		N	
Colder (if designated)		N	

Item	symbol	value	unit
<b>Seasonal efficiency</b>	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 6.2
Tj=25°C	EERd 9.5
Tj=20°C	EERd 14.6

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 4.7
Tj=7°C	COPd 5.8
Tj=12°C	COPd 7.1
Tj=bivalent temperature	COPd 3.1
Tj=operating limit	COPd 2.7

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	Pdh x.x
Tj=2°C	Pdh x.x
Tj=7°C	Pdh x.x
Tj=12°C	Pdh x.x
Tj=bivalent temperature	Pdh x.x
Tj=operating limit	Pdh x.x

Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj	
Tj=2°C	Pdh x.x
Tj=7°C	Pdh x.x
Tj=12°C	Pdh x.x
Tj=bivalent temperature	Pdh x.x
Tj=operating limit	Pdh x.x

Bivalent temperature heating / Average heating / Warmer heating / Colder	
Tol	-8 °C
Tol	x °C
Tol	x °C

Cycling interval capacity for cooling for heating	
Pcyc	x.x
Pcyc	x.x

Degradation co-efficient cooling**	
Cdc	0.25

Electric power input in power modes other than 'active mode'	
P <sub>OFF</sub>	0.003
P <sub>SB</sub>	0.003
P <sub>TO</sub>	0.013
P <sub>CK</sub>	0.000

Capacity control (indicate one of three options)	
fixed	N
staged	N
variable	Y

Annual electricity consumption	
cooling	Q <sub>CE</sub> kWh/a
heating / Average	Q <sub>HE</sub> kWh/a
heating / Warmer	Q <sub>HE</sub> kWh/a
heating / Colder	Q <sub>HE</sub> kWh/a

Other items	
Sound power level (indoor/outdoor)	L <sub>WA</sub> dB(A)
Global warming potential	GWP kgCO <sub>2</sub> eq.
Rated air flow (indoor/outdoor)	720/2040 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	
Tol	-10 °C
Tol	x °C
Tol	x °C

Cycling interval efficiency for cooling for heating	
EERcyc	x.x
COPcyc	x.x

Degradation co-efficient heating**	
Cdh	0.25



# Inverter Single

## 14. Website Information

Outdoor unit / Indoor unit  
**D12CM UL2 / D12CM NSJ**

Function (indicate if present)		cooling		heating	
Item	symbol	value	unit	symbol	value
<p><b>If function includes heating: Indicate the heating season in the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.</b></p> <p>Average (mandatory) Y</p> <p>Warmer (if designated) N</p> <p>Colder (if designated) N</p>					
<p><b>Seasonal efficiency</b></p> <p>cooling SEER 7.6</p> <p>heating / Average SCOP/A 4.6</p> <p>heating / Warmer SCOP/W x.x</p> <p>heating / Colder SCOP/C x.x</p>					
<p><b>Declared capacity* for cooling, at indoor temperature 27(19) °C and outdoor temperature Tj</b></p> <p>Tj=35°C Pdc 3.5 kW</p> <p>Tj=30°C Pdc 2.2 kW</p> <p>Tj=25°C Pdc 1.4 kW</p> <p>Tj=20°C Pdc 1.0 kW</p>					
<p><b>Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj</b></p> <p>Tj=-7°C Pdh 2.5 kW</p> <p>Tj=-2°C Pdh 1.4 kW</p> <p>Tj=7°C Pdh 1.1 kW</p> <p>Tj=12°C Pdh 1.2 kW</p> <p>Tj=bivalent temperature Pdh 2.9 kW</p> <p>Tj=operating limit Pdh 2.9 kW</p>					
<p><b>Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</b></p> <p>Tj=2°C COPd x.x</p> <p>Tj=7°C COPd x.x</p> <p>Tj=12°C COPd x.x</p> <p>Tj=bivalent temperature COPd x.x</p> <p>Tj=operating limit COPd x.x</p>					
<p><b>Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</b></p> <p>Tj=-7°C Pdh x.x kW</p> <p>Tj=2°C Pdh x.x kW</p> <p>Tj=7°C Pdh x.x kW</p> <p>Tj=12°C Pdh x.x kW</p> <p>Tj=bivalent temperature Pdh x.x kW</p> <p>Tj=operating limit Pdh x.x kW</p>					
<p><b>Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</b></p> <p>Tj=-7°C COPd x.x</p> <p>Tj=2°C COPd x.x</p> <p>Tj=7°C COPd x.x</p> <p>Tj=12°C COPd x.x</p> <p>Tj=bivalent temperature COPd x.x</p> <p>Tj=operating limit COPd x.x</p>					
<p><b>Operating limit temperature</b></p> <p>heating / Average heating / Warmer heating / Colder heating / Colder heating</p> <p>Tol -10 °C</p> <p>Tol x °C</p> <p>Tol x °C</p>					
<p><b>Cycling interval efficiency</b></p> <p>for cooling EERcyc x.x</p> <p>for heating COPcyc x.x</p>					
<p><b>Degradation co-efficient heating* Cdh</b></p> <p>* 0.25</p>					
<p><b>Annual electricity consumption</b></p> <p>cooling QCE 162 kWh/a</p> <p>heating / Average QHE 974 kWh/a</p> <p>heating / Warmer QHE x kWh/a</p> <p>heating / Colder QHE x kWh/a</p>					
<p><b>Other items</b></p> <p>Sound power level (indoor/outdoor) 59/ dB(A)</p> <p>LWA 65</p> <p>Global warming potential GWP 2087 kgCO2 eq</p> <p>Rated air flow (indoor/outdoor) 780/ m3/h</p> <p>2100</p>					
<p><b>Contact details for obtaining more information</b></p> <p>Name, position, postal address, e-mail address and, telephone number.</p>					
<p><b>**= 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.</b></p>					



Outdoor unit Indoor unit  
**D18CM UL2 / D18CM NSK**

Function (indicate if present)	Y	Y																																														
cooling	Y																																															
heating	Y																																															
<p><b>If the function includes heating: indicate the heating season the information relates to. Indicated values should relate to one heating season 'Average'.</b></p> <p><b>Average (mandatory)</b> Y</p> <p><b>Warmer (if designated)</b> N</p> <p><b>Colder (if designated)</b> N</p>																																																
Item	symbol	value	unit	symbol	value	unit																																										
<b>Design load</b>																																																
cooling	Pdesignc	5.0	kW	SEER	7.0	-																																										
heating / Average	Pdesignh	4.1	kW	SCOP/A	4.2	-																																										
heating / Warmer	Pdesignh	x.x	kW	SCOP/W	x.x	-																																										
heating / Colder	Pdesignh	x.x	kW	SCOP/C	x.x	-																																										
<p><b>Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj</b></p> <table border="1"> <tr> <td>Tj=35°C</td> <td>Pdc</td> <td>5.0</td> <td>kW</td> <td>EERd</td> <td>3.2</td> <td>-</td> </tr> <tr> <td>Tj=30°C</td> <td>Pdc</td> <td>3.4</td> <td>kW</td> <td>EERd</td> <td>5.1</td> <td>-</td> </tr> <tr> <td>Tj=25°C</td> <td>Pdc</td> <td>2.0</td> <td>kW</td> <td>EERd</td> <td>8.4</td> <td>-</td> </tr> <tr> <td>Tj=20°C</td> <td>Pdc</td> <td>1.3</td> <td>kW</td> <td>EERd</td> <td>15.2</td> <td>-</td> </tr> </table>							Tj=35°C	Pdc	5.0	kW	EERd	3.2	-	Tj=30°C	Pdc	3.4	kW	EERd	5.1	-	Tj=25°C	Pdc	2.0	kW	EERd	8.4	-	Tj=20°C	Pdc	1.3	kW	EERd	15.2	-														
Tj=35°C	Pdc	5.0	kW	EERd	3.2	-																																										
Tj=30°C	Pdc	3.4	kW	EERd	5.1	-																																										
Tj=25°C	Pdc	2.0	kW	EERd	8.4	-																																										
Tj=20°C	Pdc	1.3	kW	EERd	15.2	-																																										
<p><b>Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td</b></p> <table border="1"> <tr> <td>Tj=-7°C</td> <td>Pdh</td> <td>3.4</td> <td>kW</td> <td>COP-d</td> <td>2.9</td> <td>-</td> </tr> <tr> <td>Tj=2°C</td> <td>Pdh</td> <td>2.0</td> <td>kW</td> <td>COP-d</td> <td>4.2</td> <td>-</td> </tr> <tr> <td>Tj=7°C</td> <td>Pdh</td> <td>1.3</td> <td>kW</td> <td>COP-d</td> <td>5.3</td> <td>-</td> </tr> <tr> <td>Tj=12°C</td> <td>Pdh</td> <td>1.3</td> <td>kW</td> <td>COP-d</td> <td>6.6</td> <td>-</td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>Pdh</td> <td>3.7</td> <td>kW</td> <td>COP-d</td> <td>2.9</td> <td>-</td> </tr> <tr> <td>Tj=operating limit</td> <td>Pdh</td> <td>4.2</td> <td>kW</td> <td>COP-d</td> <td>2.5</td> <td>-</td> </tr> </table>							Tj=-7°C	Pdh	3.4	kW	COP-d	2.9	-	Tj=2°C	Pdh	2.0	kW	COP-d	4.2	-	Tj=7°C	Pdh	1.3	kW	COP-d	5.3	-	Tj=12°C	Pdh	1.3	kW	COP-d	6.6	-	Tj=bivalent temperature	Pdh	3.7	kW	COP-d	2.9	-	Tj=operating limit	Pdh	4.2	kW	COP-d	2.5	-
Tj=-7°C	Pdh	3.4	kW	COP-d	2.9	-																																										
Tj=2°C	Pdh	2.0	kW	COP-d	4.2	-																																										
Tj=7°C	Pdh	1.3	kW	COP-d	5.3	-																																										
Tj=12°C	Pdh	1.3	kW	COP-d	6.6	-																																										
Tj=bivalent temperature	Pdh	3.7	kW	COP-d	2.9	-																																										
Tj=operating limit	Pdh	4.2	kW	COP-d	2.5	-																																										
<p><b>Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</b></p> <table border="1"> <tr> <td>Tj=2°C</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td>COP-d</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=7°C</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td>COP-d</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=12°C</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td>COP-d</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td>COP-d</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=operating limit</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td>COP-d</td> <td>x.x</td> <td>-</td> </tr> </table>							Tj=2°C	Pdh	x.x	kW	COP-d	x.x	-	Tj=7°C	Pdh	x.x	kW	COP-d	x.x	-	Tj=12°C	Pdh	x.x	kW	COP-d	x.x	-	Tj=bivalent temperature	Pdh	x.x	kW	COP-d	x.x	-	Tj=operating limit	Pdh	x.x	kW	COP-d	x.x	-							
Tj=2°C	Pdh	x.x	kW	COP-d	x.x	-																																										
Tj=7°C	Pdh	x.x	kW	COP-d	x.x	-																																										
Tj=12°C	Pdh	x.x	kW	COP-d	x.x	-																																										
Tj=bivalent temperature	Pdh	x.x	kW	COP-d	x.x	-																																										
Tj=operating limit	Pdh	x.x	kW	COP-d	x.x	-																																										
<p><b>Declared Capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</b></p> <table border="1"> <tr> <td>Tj=-7°C</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tj=2°C</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tj=7°C</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tj=12°C</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tj=operating limit</td> <td>Pdh</td> <td>x.x</td> <td>kW</td> <td></td> <td></td> <td></td> </tr> </table>							Tj=-7°C	Pdh	x.x	kW				Tj=2°C	Pdh	x.x	kW				Tj=7°C	Pdh	x.x	kW				Tj=12°C	Pdh	x.x	kW				Tj=bivalent temperature	Pdh	x.x	kW				Tj=operating limit	Pdh	x.x	kW			
Tj=-7°C	Pdh	x.x	kW																																													
Tj=2°C	Pdh	x.x	kW																																													
Tj=7°C	Pdh	x.x	kW																																													
Tj=12°C	Pdh	x.x	kW																																													
Tj=bivalent temperature	Pdh	x.x	kW																																													
Tj=operating limit	Pdh	x.x	kW																																													
<p><b>Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</b></p> <table border="1"> <tr> <td>Tj=-7°C</td> <td>COPd</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=2°C</td> <td>COPd</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=7°C</td> <td>COPd</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=12°C</td> <td>COPd</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>COPd</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=operating limit</td> <td>COPd</td> <td>x.x</td> <td>-</td> </tr> </table>							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	-																		
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	-																																													
<p><b>Operating limit temperature</b></p> <table border="1"> <tr> <td>heating / Average</td> <td>Tol</td> <td>-10</td> <td>°C</td> </tr> <tr> <td>heating / Warmer</td> <td>Tol</td> <td>x</td> <td>°C</td> </tr> <tr> <td>heating / Colder</td> <td>Tol</td> <td>x</td> <td>°C</td> </tr> </table>							heating / Average	Tol	-10	°C	heating / Warmer	Tol	x	°C	heating / Colder	Tol	x	°C																														
heating / Average	Tol	-10	°C																																													
heating / Warmer	Tol	x	°C																																													
heating / Colder	Tol	x	°C																																													
<p><b>Cycling interval efficiency</b></p> <table border="1"> <tr> <td>for cooling</td> <td>EERcyc</td> <td>x.x</td> <td>-</td> </tr> <tr> <td>for heating</td> <td>COPcyc</td> <td>x.x</td> <td>-</td> </tr> </table>							for cooling	EERcyc	x.x	-	for heating	COPcyc	x.x	-																																		
for cooling	EERcyc	x.x	-																																													
for heating	COPcyc	x.x	-																																													
<p><b>Degradation co-efficient heating**</b></p> <table border="1"> <tr> <td>Cdh</td> <td>0.25</td> <td>-</td> </tr> </table>							Cdh	0.25	-																																							
Cdh	0.25	-																																														
<p><b>Annual electricity consumption</b></p> <table border="1"> <tr> <td>cooling</td> <td>QcE</td> <td>250</td> <td>kWh/a</td> </tr> <tr> <td>heating / Average</td> <td>QhE</td> <td>1,367</td> <td>kWh/a</td> </tr> <tr> <td>heating / Warmer</td> <td>QhE</td> <td>x</td> <td>kWh/a</td> </tr> <tr> <td>heating / Colder</td> <td>QhE</td> <td>x</td> <td>kWh/a</td> </tr> </table>							cooling	QcE	250	kWh/a	heating / Average	QhE	1,367	kWh/a	heating / Warmer	QhE	x	kWh/a	heating / Colder	QhE	x	kWh/a																										
cooling	QcE	250	kWh/a																																													
heating / Average	QhE	1,367	kWh/a																																													
heating / Warmer	QhE	x	kWh/a																																													
heating / Colder	QhE	x	kWh/a																																													
<p><b>Other items</b></p> <table border="1"> <tr> <td>Sound power level (indoor/outdoor)</td> <td>L<sub>WA</sub></td> <td>60 / 65</td> <td>dB(A)</td> </tr> <tr> <td>Global warming potential</td> <td>GWP</td> <td>2087.5</td> <td>kgCO<sub>2</sub> eq.</td> </tr> <tr> <td>Rated air flow (indoor/outdoor) -</td> <td></td> <td>1080 / 2,100</td> <td>m<sup>3</sup>/h</td> </tr> </table>							Sound power level (indoor/outdoor)	L <sub>WA</sub>	60 / 65	dB(A)	Global warming potential	GWP	2087.5	kgCO <sub>2</sub> eq.	Rated air flow (indoor/outdoor) -		1080 / 2,100	m <sup>3</sup> /h																														
Sound power level (indoor/outdoor)	L <sub>WA</sub>	60 / 65	dB(A)																																													
Global warming potential	GWP	2087.5	kgCO <sub>2</sub> eq.																																													
Rated air flow (indoor/outdoor) -		1080 / 2,100	m <sup>3</sup> /h																																													
<p><b>Capacity control (indicate one of three options)</b></p> <table border="1"> <tr> <td>fixed</td> <td>N</td> </tr> <tr> <td>staged</td> <td>N</td> </tr> <tr> <td>variable</td> <td>Y</td> </tr> </table>							fixed	N	staged	N	variable	Y																																				
fixed	N																																															
staged	N																																															
variable	Y																																															
<p>Christianna PAPAZHARIOU                  Internal communicator - Energy &amp; 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</p>																																																
<p>*= 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.</p>																																																





# Inverter Single

## 14. Website Information

Outdoor unit Indoor unit  
**D24CM UUE / D24CM NSK**

Function (indicate if present)	Y	N
cooling	Y	
heating	Y	

Item	symbol	value	unit
Design load	Pdesignc	6.6	kW
	Pdesignh	5.0	kW
	Pdesignw	x.x	kW
	Pdesignh	x.x	kW
Seasonal efficiency	SEER	7.0	-
	SCOP/A	4.0	-
heating / Warmer	SCOP/W	x.x	-
	SCOP/C	x.x	-

Item	symbol	value	unit
Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj	Pdc	6.6	kW
	Pdc	2.5	kW
	Pdc	1.9	kW
	Pdc	1.5	kW
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td	Pdh	4.5	kW
	Pdh	2.2	kW
	Pdh	1.9	kW
	Pdh	1.6	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj	Pdh	x.x	kW
	Pdh	x.x	kW

Item	symbol	value	unit
Declared Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj	EERd	2.9	-
	EERd	5.9	-
	EERd	8.7	-
	EERd	12.9	-
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj	COPd	2.8	-
	COPd	4.1	-
	COPd	5.1	-
	COPd	6.0	-
Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj	COPd	2.7	-
	COPd	2.0	-

Item	symbol	value	unit
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj	Pdh	x.x	kW
	Pdh	x.x	kW
	Pdh	x.x	kW
	Pdh	x.x	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj	Pdh	x.x	kW
	Pdh	x.x	kW

Item	symbol	value	unit
Bivalent temperature heating / Average heating / Warmer heating / Colder heating / Colder	Tbiv	-8	°C
	Tbiv	x	°C
	Tbiv	x	°C
	Tbiv	x	°C
Cycling interval capacity for cooling	Poycc	x.x	kW
	Poych	x.x	kW
Degradation co-efficient cooling**	Cdc	0.25	-
	Cdc	-	-
Electric power input in power modes other than active mode <sup>1</sup>	P <sub>OFF</sub>	0.002	kW
	P <sub>SB</sub>	0.002	kW
	P <sub>TO</sub>	0.035	kW
	P <sub>OK</sub>	0.000	kW
Capacity control (indicate one of three options)	fixed	N	
	staged	N	
	variable	Y	
	variable	Y	

Item	symbol	value	unit
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj	Pdh	x.x	kW
	Pdh	x.x	kW
	Pdh	x.x	kW
	Pdh	x.x	kW
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj	Pdh	x.x	kW
	Pdh	x.x	kW

Item	symbol	value	unit	
Operating limit temperature heating / Average heating / Warmer heating / Colder heating	Tol	-10	°C	
	Tol	x	°C	
	Tol	x	°C	
	Tol	x	°C	
Cycling interval efficiency for cooling	EERcyc	x.x	-	
	COPcyc	x.x	-	
Degradation co-efficient heating**	Cdh	0.25	-	
	Cdh	-	-	
Annual electricity consumption	cooling	3.30	kWh/a	
	heating / Average	1.770	kWh/a	
	heating / Warmer	x	kWh/a	
	heating / Colder	x	kWh/a	
Other items	Sound power level (indoor/outdoor)	65 / 70	dB(A)	
	Global warming potential	GWP	2087.3 eq.	
	Rated air flow (indoor/outdoor) -		1200	/
			3000	/

Item	symbol	value	unit
Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj	COPd	x.x	-
	COPd	x.x	-
	COPd	x.x	-
	COPd	x.x	-
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj	COPd	x.x	-
	COPd	x.x	-
Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj	COPd	x.x	-
	COPd	x.x	-

Item	symbol	value	unit	
Operating limit temperature heating / Average heating / Warmer heating / Colder heating	Tol	-10	°C	
	Tol	x	°C	
	Tol	x	°C	
	Tol	x	°C	
Cycling interval efficiency for cooling	EERcyc	x.x	-	
	COPcyc	x.x	-	
Degradation co-efficient heating**	Cdh	0.25	-	
	Cdh	-	-	
Annual electricity consumption	cooling	3.30	kWh/a	
	heating / Average	1.770	kWh/a	
	heating / Warmer	x	kWh/a	
	heating / Colder	x	kWh/a	
Other items	Sound power level (indoor/outdoor)	65 / 70	dB(A)	
	Global warming potential	GWP	2087.3 eq.	
	Rated air flow (indoor/outdoor) -		1200	/
			3000	/



Christiana 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.



# 14. Website Information

Outdoor unit Indoor unit  
**E09EM UA3 / E09EM NSW**  
**Z09EM NSW**

Function (indicate if present)	Symbol	Value	Unit
cooling	Y		
heating	Y		
<p>If 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'.</p> <p>Average (mandatory) Y</p> <p>Warmer (if designated) N</p> <p>Colder (if designated) N</p>			
Item	Symbol	Value	Unit
<p><b>Design load</b></p> <p>cooling Pdesignc 2.5 kW</p> <p>heating / Average Pdesignh 2.3 kW</p> <p>heating / Warmer Pdesignh x.x kW</p> <p>heating / Colder Pdesignh x.x kW</p>			
<p>Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj</p> <p>Tj=35°C Pdc 2.5 kW</p> <p>Tj=30°C Pdc 1.8 kW</p> <p>Tj=25°C Pdc 1.1 kW</p> <p>Tj=20°C Pdc 1.1 kW</p>			
<p>Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td</p> <p>Tj=7°C Pdh 2.1 kW</p> <p>Tj=2°C Pdh 1.2 kW</p> <p>Tj=7°C Pdh 1.0 kW</p> <p>Tj=12°C Pdh 1.2 kW</p> <p>Tj=bivalent temperature Pdh 2.1 kW</p> <p>Tj=operating limit Pdh 2.3 kW</p>			
<p>Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</p> <p>Tj=2°C Pdh x.x kW</p> <p>Tj=7°C Pdh x.x kW</p> <p>Tj=12°C Pdh x.x kW</p> <p>Tj=bivalent temperature Pdh x.x kW</p> <p>Tj=operating limit Pdh x.x kW</p>			
<p><b>Seasonal efficiency</b></p> <p>cooling SEER 5.7</p> <p>heating / Average SCOP/A 3.8</p> <p>heating / Warmer SCOP/W x.x</p> <p>heating / Colder SCOP/C x.x</p>			
<p>Declared Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj</p> <p>Tj=35°C EERd 3.4</p> <p>Tj=30°C EERd 4.7</p> <p>Tj=25°C EERd 7.6</p> <p>Tj=20°C EERd 9.8</p>			
<p>Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj</p> <p>Tj=7°C COPd 2.1</p> <p>Tj=2°C COPd 3.8</p> <p>Tj=7°C COPd 4.9</p> <p>Tj=12°C COPd 6.0</p> <p>Tj=bivalent temperature COPd 2.7</p> <p>Tj=operating limit COPd 2.4</p>			
<p>Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</p> <p>Tj=2°C COPd x.x</p> <p>Tj=7°C COPd x.x</p> <p>Tj=12°C COPd x.x</p> <p>Tj=bivalent temperature COPd x.x</p> <p>Tj=operating limit COPd x.x</p>			
<p>Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</p> <p>Tj=7°C COPd x.x</p> <p>Tj=2°C COPd x.x</p> <p>Tj=7°C COPd x.x</p> <p>Tj=12°C COPd x.x</p> <p>Tj=bivalent temperature COPd x.x</p> <p>Tj=operating limit COPd x.x</p>			
<p>Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</p> <p>Tj=7°C COPd x.x</p> <p>Tj=2°C COPd x.x</p> <p>Tj=7°C COPd x.x</p> <p>Tj=12°C COPd x.x</p> <p>Tj=bivalent temperature COPd x.x</p> <p>Tj=operating limit COPd x.x</p>			
<p>Operating limit temperature heating / Average heating / Warmer heating / Colder</p> <p>Tol -10 °C</p> <p>Tol x °C</p> <p>Tol x °C</p>			
<p>Cycling interval efficiency for cooling for heating</p> <p>EERcyc x.x</p> <p>COPcyc x.x</p>			
<p>Degradation heating**</p> <p>co-efficient Cdh 0.25</p>			
<p>Annual electricity consumption</p> <p>cooling QCE 154 kWh/a</p> <p>heating / Average QHE 847 kWh/a</p> <p>heating / Warmer QHE x kWh/a</p> <p>heating / Colder QHE x kWh/a</p>			
<p>Other items</p> <p>power level LWA 58/65 dB(A)</p> <p>Global warming potential GWP 2087.5 kgCO2 eq.</p> <p>Rated air flow (indoor/outdoor) - 540/620 m3/h</p>			
<p>Capacity control (indicate one of three options)</p> <p>fixed N</p> <p>staged N</p> <p>variable Y</p>			
<p>Christianna PAPAZHARIU                  Internal communicator - Energy &amp; 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</p>			
<p>*= 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.</p> <p>**= 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.</p>			



# Inverter Single

## 14. Website Information

Outdoor unit Indoor unit  
**E12EM UA3 / E12EM.NSH**  
**Z12EM.NSH**

Function (indicate if present)	symbol	value	unit
cooling	Y		
heating	Y		
<b>If 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'.</b>			
Average (mandatory)	Y		
Warmer (if designated)	N		
Colder (if designated)	N		
<b>Item</b>	<b>symbol</b>	<b>value</b>	<b>unit</b>
<b>Design load</b>			
cooling	Pdesignc	3.5	kW
heating / Average	Pdesignh	3.2	kW
heating / Warmer	Pdesignh	x.x	kW
heating / Colder	Pdesignh	x.x	kW
<b>Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj</b>			
Tj=35°C	Pdc	3.5	kW
Tj=30°C	Pdc	2.5	kW
Tj=25°C	Pdc	1.6	kW
Tj=20°C	Pdc	1.1	kW
<b>Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td</b>			
Tj=7°C	Pdh	2.7	kW
Tj=2°C	Pdh	1.65	kW
Tj=7°C	Pdh	1.1	kW
Tj=12°C	Pdh	1.1	kW
Tj=bivalent temperature	Pdh	2.95	kW
Tj=operating limit	Pdh	3.2	kW
<b>Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</b>			
Tj=2°C	Pdh	x.x	kW
Tj=7°C	Pdh	x.x	kW
Tj=12°C	Pdh	x.x	kW
Tj=bivalent temperature	Pdh	x.x	kW
Tj=operating limit	Pdh	x.x	kW
<b>Seasonal efficiency</b>			
cooling	SEER	5.8	-
heating / Average	SCOP/A	3.8	-
heating / Warmer	SCOP/W	x.x	-
heating / Colder	SCOP/C	x.x	-
<b>Declared Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj</b>			
Tj=35°C	EERd	3.1	-
Tj=30°C	EERd	4.7	-
Tj=25°C	EERd	7.4	-
Tj=20°C	EERd	9.5	-
<b>Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj</b>			
Tj=7°C	COPd	2.3	-
Tj=2°C	COPd	3.8	-
Tj=7°C	COPd	5.1	-
Tj=12°C	COPd	5.2	-
Tj=bivalent temperature	COPd	2.5	-
Tj=operating limit	COPd	2.4	-
<b>Declared Coefficient of performance* / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</b>			
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	-
<b>Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</b>			
Tj=7°C	Pdh	x.x	kW
Tj=2°C	Pdh	x.x	kW
Tj=7°C	Pdh	x.x	kW
Tj=12°C	Pdh	x.x	kW
Tj=bivalent temperature	Pdh	x.x	kW
Tj=operating limit	Pdh	x.x	kW
<b>Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</b>			
Tj=7°C	Pdh	x.x	kW
Tj=2°C	Pdh	x.x	kW
Tj=7°C	Pdh	x.x	kW
Tj=12°C	Pdh	x.x	kW
Tj=bivalent temperature	Pdh	x.x	kW
Tj=operating limit	Pdh	x.x	kW
<b>Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</b>			
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	-
<b>Operating limit temperature</b>			
heating / Average	Tol	-10	°C
heating / Warmer	Tol	x	°C
heating / Colder	Tol	x	°C
<b>Cycling interval efficiency</b>			
for cooling	EERcyc	x.x	-
for heating	COPcyc	x.x	-
<b>Degradation heating**</b>			
co-efficient	Cdc	0.25	-
<b>Electric power input in power modes other than 'active mode'</b>			
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
<b>Capacity control (indicate one of three options)</b>			
fixed	N		
staged	N		
variable	Y		
<b>Annual electricity consumption</b>			
cooling	Q <sub>CE</sub>	2.11	kWh/a
heating / Average	Q <sub>HE</sub>	1400	kWh/a
heating / Warmer	Q <sub>HE</sub>	x	kWh/a
heating / Colder	Q <sub>HE</sub>	x	kWh/a
<b>Other items</b>			
Sound (indoor/outdoor)	level L <sub>WA</sub>	58/ 65	dB(A)
Global warming potential	GWP	2087.5	kgCO <sub>2</sub> eq.
Rated air flow (indoor/outdoor)	-	720/620	m <sup>3</sup> /h
<b>Contact details for obtaining more information</b>			
Christiana PAPAZHARIU 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 Cdc=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.			



# 14. Website Information

Outdoor unit Indoor unit  
**E18EM UL2 / E18EM NSM**

Function (indicate if present)		symbol		value		unit																																																	
cooling	Y																																																						
heating	Y																																																						
<p>If 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'.</p> <table border="1"> <tr> <td>Average (mandatory)</td> <td>Y</td> </tr> <tr> <td>Warmer (if designated)</td> <td>N</td> </tr> <tr> <td>Colder (if designated)</td> <td>N</td> </tr> </table>								Average (mandatory)	Y	Warmer (if designated)	N	Colder (if designated)	N																																										
Average (mandatory)	Y																																																						
Warmer (if designated)	N																																																						
Colder (if designated)	N																																																						
Item	symbol	value	unit	Item	symbol	value	unit																																																
<b>Design load</b>																																																							
cooling	P <sub>designc</sub>	5.0	kW	SEER		5.3	-																																																
heating / Average	P <sub>designh</sub>	3.8	kW	SCOP/A		3.8	-																																																
heating / Warmer	P <sub>designh</sub>	x.x	kW	SCOP/W		x.x	-																																																
heating / Colder	P <sub>designh</sub>	x.x	kW	SCOP/C		x.x	-																																																
<p>Declared capacity* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj</p> <table border="1"> <tr> <td>Tj=35°C</td> <td>P<sub>dc</sub></td> <td>5.0</td> <td>kW</td> <td>EERd</td> <td></td> <td>2.8</td> <td>-</td> </tr> <tr> <td>Tj=30°C</td> <td>P<sub>dc</sub></td> <td>3.6</td> <td>kW</td> <td>EERd</td> <td></td> <td>4.5</td> <td>-</td> </tr> <tr> <td>Tj=25°C</td> <td>P<sub>dc</sub></td> <td>2.4</td> <td>kW</td> <td>EERd</td> <td></td> <td>6.7</td> <td>-</td> </tr> <tr> <td>Tj=20°C</td> <td>P<sub>dc</sub></td> <td>2.4</td> <td>kW</td> <td>EERd</td> <td></td> <td>8.2</td> <td>-</td> </tr> </table>								Tj=35°C	P <sub>dc</sub>	5.0	kW	EERd		2.8	-	Tj=30°C	P <sub>dc</sub>	3.6	kW	EERd		4.5	-	Tj=25°C	P <sub>dc</sub>	2.4	kW	EERd		6.7	-	Tj=20°C	P <sub>dc</sub>	2.4	kW	EERd		8.2	-																
Tj=35°C	P <sub>dc</sub>	5.0	kW	EERd		2.8	-																																																
Tj=30°C	P <sub>dc</sub>	3.6	kW	EERd		4.5	-																																																
Tj=25°C	P <sub>dc</sub>	2.4	kW	EERd		6.7	-																																																
Tj=20°C	P <sub>dc</sub>	2.4	kW	EERd		8.2	-																																																
<p>Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td</p> <table border="1"> <tr> <td>Tj=7°C</td> <td>P<sub>dh</sub></td> <td>3.3</td> <td>kW</td> <td>COPd</td> <td></td> <td>2.7</td> <td>-</td> </tr> <tr> <td>Tj=2°C</td> <td>P<sub>dh</sub></td> <td>1.9</td> <td>kW</td> <td>COPd</td> <td></td> <td>3.8</td> <td>-</td> </tr> <tr> <td>Tj=7°C</td> <td>P<sub>dh</sub></td> <td>1.7</td> <td>kW</td> <td>COPd</td> <td></td> <td>4.7</td> <td>-</td> </tr> <tr> <td>Tj=12°C</td> <td>P<sub>dh</sub></td> <td>1.9</td> <td>kW</td> <td>COPd</td> <td></td> <td>5.6</td> <td>-</td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>P<sub>dh</sub></td> <td>3.3</td> <td>kW</td> <td>COPd</td> <td></td> <td>2.8</td> <td>-</td> </tr> <tr> <td>Tj=operating limit</td> <td>P<sub>dh</sub></td> <td>3.8</td> <td>kW</td> <td>COPd</td> <td></td> <td>2.6</td> <td>-</td> </tr> </table>								Tj=7°C	P <sub>dh</sub>	3.3	kW	COPd		2.7	-	Tj=2°C	P <sub>dh</sub>	1.9	kW	COPd		3.8	-	Tj=7°C	P <sub>dh</sub>	1.7	kW	COPd		4.7	-	Tj=12°C	P <sub>dh</sub>	1.9	kW	COPd		5.6	-	Tj=bivalent temperature	P <sub>dh</sub>	3.3	kW	COPd		2.8	-	Tj=operating limit	P <sub>dh</sub>	3.8	kW	COPd		2.6	-
Tj=7°C	P <sub>dh</sub>	3.3	kW	COPd		2.7	-																																																
Tj=2°C	P <sub>dh</sub>	1.9	kW	COPd		3.8	-																																																
Tj=7°C	P <sub>dh</sub>	1.7	kW	COPd		4.7	-																																																
Tj=12°C	P <sub>dh</sub>	1.9	kW	COPd		5.6	-																																																
Tj=bivalent temperature	P <sub>dh</sub>	3.3	kW	COPd		2.8	-																																																
Tj=operating limit	P <sub>dh</sub>	3.8	kW	COPd		2.6	-																																																
<p>Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj</p> <table border="1"> <tr> <td>Tj=2°C</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> <td>COPd</td> <td></td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=7°C</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> <td>COPd</td> <td></td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=12°C</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> <td>COPd</td> <td></td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> <td>COPd</td> <td></td> <td>x.x</td> <td>-</td> </tr> <tr> <td>Tj=operating limit</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> <td>COPd</td> <td></td> <td>x.x</td> <td>-</td> </tr> </table>								Tj=2°C	P <sub>dh</sub>	x.x	kW	COPd		x.x	-	Tj=7°C	P <sub>dh</sub>	x.x	kW	COPd		x.x	-	Tj=12°C	P <sub>dh</sub>	x.x	kW	COPd		x.x	-	Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW	COPd		x.x	-	Tj=operating limit	P <sub>dh</sub>	x.x	kW	COPd		x.x	-								
Tj=2°C	P <sub>dh</sub>	x.x	kW	COPd		x.x	-																																																
Tj=7°C	P <sub>dh</sub>	x.x	kW	COPd		x.x	-																																																
Tj=12°C	P <sub>dh</sub>	x.x	kW	COPd		x.x	-																																																
Tj=bivalent temperature	P <sub>dh</sub>	x.x	kW	COPd		x.x	-																																																
Tj=operating limit	P <sub>dh</sub>	x.x	kW	COPd		x.x	-																																																
<p>Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</p> <table border="1"> <tr> <td>Tj=-7°C</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> </tr> <tr> <td>Tj=2°C</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> </tr> <tr> <td>Tj=7°C</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> </tr> <tr> <td>Tj=12°C</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> </tr> <tr> <td>Tj=operating limit</td> <td>P<sub>dh</sub></td> <td>x.x</td> <td>kW</td> </tr> </table>				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	<p>Declared Coefficient of performance* / Colder climate, at indoor temperature 20°C and outdoor temperature Tj</p> <table border="1"> <tr> <td>Tj=-7°C</td> <td>COPd</td> <td>x.x</td> </tr> <tr> <td>Tj=2°C</td> <td>COPd</td> <td>x.x</td> </tr> <tr> <td>Tj=7°C</td> <td>COPd</td> <td>x.x</td> </tr> <tr> <td>Tj=12°C</td> <td>COPd</td> <td>x.x</td> </tr> <tr> <td>Tj=bivalent temperature</td> <td>COPd</td> <td>x.x</td> </tr> <tr> <td>Tj=operating limit</td> <td>COPd</td> <td>x.x</td> </tr> </table>				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						
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																																																				
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																																																					
<p>Bivalent temperature</p> <table border="1"> <tr> <td>heating / Average</td> <td>T<sub>biv</sub></td> <td>-7</td> <td>°C</td> </tr> <tr> <td>heating / Warmer</td> <td>T<sub>biv</sub></td> <td>x</td> <td>°C</td> </tr> <tr> <td>heating / Colder</td> <td>T<sub>biv</sub></td> <td>x</td> <td>°C</td> </tr> </table>				heating / Average	T <sub>biv</sub>	-7	°C	heating / Warmer	T <sub>biv</sub>	x	°C	heating / Colder	T <sub>biv</sub>	x	°C	<p>Operating limit temperature</p> <table border="1"> <tr> <td>heating / Average</td> <td>T<sub>ol</sub></td> <td>-10</td> <td>°C</td> </tr> <tr> <td>heating / Warmer</td> <td>T<sub>ol</sub></td> <td>x</td> <td>°C</td> </tr> <tr> <td>heating / Colder</td> <td>T<sub>ol</sub></td> <td>x</td> <td>°C</td> </tr> </table>				heating / Average	T <sub>ol</sub>	-10	°C	heating / Warmer	T <sub>ol</sub>	x	°C	heating / Colder	T <sub>ol</sub>	x	°C																								
heating / Average	T <sub>biv</sub>	-7	°C																																																				
heating / Warmer	T <sub>biv</sub>	x	°C																																																				
heating / Colder	T <sub>biv</sub>	x	°C																																																				
heating / Average	T <sub>ol</sub>	-10	°C																																																				
heating / Warmer	T <sub>ol</sub>	x	°C																																																				
heating / Colder	T <sub>ol</sub>	x	°C																																																				
<p>Cycling interval capacity for cooling for heating</p> <table border="1"> <tr> <td>P<sub>ycyc</sub></td> <td>x.x</td> <td>kW</td> </tr> <tr> <td>P<sub>psych</sub></td> <td>x.x</td> <td>kW</td> </tr> </table>				P <sub>ycyc</sub>	x.x	kW	P <sub>psych</sub>	x.x	kW	<p>Cycling interval efficiency for cooling for heating</p> <table border="1"> <tr> <td>EER<sub>ycyc</sub></td> <td>x.x</td> </tr> <tr> <td>COP<sub>ycyc</sub></td> <td>x.x</td> </tr> </table>				EER <sub>ycyc</sub>	x.x	COP <sub>ycyc</sub>	x.x																																						
P <sub>ycyc</sub>	x.x	kW																																																					
P <sub>psych</sub>	x.x	kW																																																					
EER <sub>ycyc</sub>	x.x																																																						
COP <sub>ycyc</sub>	x.x																																																						
<p>Degradation cooling**</p> <table border="1"> <tr> <td>co-efficient</td> <td>C<sub>dc</sub></td> <td>0.25</td> </tr> </table>				co-efficient	C <sub>dc</sub>	0.25	<p>Degradation heating**</p> <table border="1"> <tr> <td>co-efficient</td> <td>C<sub>dh</sub></td> <td>0.25</td> </tr> </table>				co-efficient	C <sub>dh</sub>	0.25																																										
co-efficient	C <sub>dc</sub>	0.25																																																					
co-efficient	C <sub>dh</sub>	0.25																																																					
<p>Electric power input in power modes other than 'active mode'</p> <table border="1"> <tr> <td>off mode</td> <td>P<sub>off</sub></td> <td>0.006</td> <td>kW</td> </tr> <tr> <td>standby mode</td> <td>P<sub>sb</sub></td> <td>0.006</td> <td>kW</td> </tr> <tr> <td>thermostat-off mode</td> <td>P<sub>to</sub></td> <td>0.020</td> <td>kW</td> </tr> <tr> <td>crankcase heater mode</td> <td>P<sub>ck</sub></td> <td>0</td> <td>kW</td> </tr> </table>								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>	0.020	kW	crankcase heater mode	P <sub>ck</sub>	0	kW	<p>Annual electricity consumption</p> <table border="1"> <tr> <td>cooling</td> <td>Q<sub>ce</sub></td> <td>3.30</td> <td>kWh/a</td> </tr> <tr> <td>heating / Average</td> <td>Q<sub>he</sub></td> <td>1400</td> <td>kWh/a</td> </tr> <tr> <td>heating / Warmer</td> <td>Q<sub>he</sub></td> <td>x</td> <td>kWh/a</td> </tr> <tr> <td>heating / Colder</td> <td>Q<sub>he</sub></td> <td>x</td> <td>kWh/a</td> </tr> </table>				cooling	Q <sub>ce</sub>	3.30	kWh/a	heating / Average	Q <sub>he</sub>	1400	kWh/a	heating / Warmer	Q <sub>he</sub>	x	kWh/a	heating / Colder	Q <sub>he</sub>	x	kWh/a												
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>	0.020	kW																																																				
crankcase heater mode	P <sub>ck</sub>	0	kW																																																				
cooling	Q <sub>ce</sub>	3.30	kWh/a																																																				
heating / Average	Q <sub>he</sub>	1400	kWh/a																																																				
heating / Warmer	Q <sub>he</sub>	x	kWh/a																																																				
heating / Colder	Q <sub>he</sub>	x	kWh/a																																																				
<p>Capacity control (indicate one of three options)</p> <table border="1"> <tr> <td>fixed</td> <td>N</td> </tr> <tr> <td>staged</td> <td>N</td> </tr> <tr> <td>variable</td> <td>Y</td> </tr> </table>				fixed	N	staged	N	variable	Y	<p>Other items</p> <table border="1"> <tr> <td>Sound (indoor/outdoor)</td> <td>level L<sub>WA</sub></td> <td>60/65</td> <td>dB(A)</td> </tr> <tr> <td>Global warming potential</td> <td>GWP</td> <td>2087.5</td> <td>kgCO<sub>2</sub> eq.</td> </tr> <tr> <td>Rated air flow (indoor/outdoor)</td> <td></td> <td>1044/2880</td> <td>m<sup>3</sup>/h</td> </tr> </table>				Sound (indoor/outdoor)	level L <sub>WA</sub>	60/65	dB(A)	Global warming potential	GWP	2087.5	kgCO <sub>2</sub> eq.	Rated air flow (indoor/outdoor)		1044/2880	m <sup>3</sup> /h																														
fixed	N																																																						
staged	N																																																						
variable	Y																																																						
Sound (indoor/outdoor)	level L <sub>WA</sub>	60/65	dB(A)																																																				
Global warming potential	GWP	2087.5	kgCO <sub>2</sub> eq.																																																				
Rated air flow (indoor/outdoor)		1044/2880	m <sup>3</sup> /h																																																				
<p>Contact details for obtaining more information</p> <p>Christianna PAPAZAHARIOU                  Internal communicator - Energy &amp; environment regulations expert                  LG Electronics                  Paris Nord II – 117 avenue des Nations                  BP 59372 Villepinte – 95942 Roissy CDG Cedex                  chris.papazahariou@lg.com                  Tel. +33 1 49 89 57 41. +33 6 83 077 455</p>																																																							
<p>*= 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>dc</sub>=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.</p>																																																							



# Inverter Single

## 14. Website Information

Outdoor unit Indoor unit  
**H09AL UE1 / H09AL NSM**

Function (indicate if present)		cooling		heating		
	Y					
	Y					
Item	symbol	value	unit	symbol	value	unit
<b>Design load</b>						
cooling	Pdesigng	2.5	KW			
heating / Average	Pdesignh	3.2	KW			
heating / Warmer	Pdesignh	x,x	KW			
heating / Colder	Pdesignh	x,x	KW			
Declared capacity* for cooling, at indoor temperature 27(19) °C and outdoor temperature Tj						
Tj=35°C	Pdc	2.5	KW			
Tj=30°C	Pdc	1.7	KW			
Tj=25°C	Pdc	1.1	KW			
Tj=20°C	Pdc	0.8	KW			
Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td						
Tj=7°C	Pdh	2.8	KW			
Tj=2°C	Pdh	1.7	KW			
Tj=7°C	Pdh	1.1	KW			
Tj=12°C	Pdh	0.8	KW			
Tj=bivalent temperature	Pdh	3.0	KW			
Tj=operating limit	Pdh	3.1	KW			
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj						
Tj=2°C	Pdh	x,x	KW			
Tj=7°C	Pdh	x,x	KW			
Tj=12°C	Pdh	x,x	KW			
Tj=bivalent temperature	Pdh	x,x	KW			
Tj=operating limit	Pdh	x,x	KW			
If function includes heating; Indicate the heating season in 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			
Tj=2°C	Pdh	x,x	KW			
Tj=7°C	Pdh	x,x	KW			
Tj=12°C	Pdh	x,x	KW			
Tj=bivalent temperature	Pdh	x,x	KW			
Tj=operating limit	Pdh	x,x	KW			
Tj=15°C	Pdh	x,x	KW			
Declared capacity* for heating / Colder climate, at indoor temperature 20°C and outdoor temperature Tj						
Tj=7°C	Pdh	x,x	KW			
Tj=2°C	Pdh	x,x	KW			
Tj=7°C	Pdh	x,x	KW			
Tj=12°C	Pdh	x,x	KW			
Tj=bivalent temperature	Pdh	x,x	KW			
Tj=operating limit	Pdh	x,x	KW			
Tj=15°C	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	-			
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	-			
Seasonal efficiency						
cooling	SEER	9.3	-			
heating / Average	SCOP/A	5.3	-			
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	5.0	-			
Tj=30°C	EERd	7.0	-			
Tj=25°C	EERd	10.8	-			
Tj=20°C	EERd	15.2	-			
Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj						
Tj=7°C	COPd	3.3	-			
Tj=2°C	COPd	5.1	-			
Tj=7°C	COPd	6.3	-			
Tj=12°C	COPd	7.3	-			
Tj=bivalent temperature	COPd	3.4	-			
Tj=operating limit	COPd	3.2	-			
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	Pdh	x,x	KW			
Tj=2°C	Pdh	x,x	KW			
Tj=7°C	Pdh	x,x	KW			
Tj=12°C	Pdh	x,x	KW			
Tj=bivalent temperature	Pdh	x,x	KW			
Tj=operating limit	Pdh	x,x	KW			
Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj						
Tj=7°C	Pdh	x,x	KW			
Tj=2°C	Pdh	x,x	KW			
Tj=7°C	Pdh	x,x	KW			
Tj=12°C	Pdh	x,x	KW			
Tj=bivalent temperature	Pdh	x,x	KW			
Tj=operating limit	Pdh	x,x	KW			
Declared interval capacity						
for cooling	Pecc	x,x	KW			
for heating	Psych	x,x	KW			
Cycling interval efficiency						
for cooling	EEReye	x,x	-			
for heating	COPEye	x,x	-			
Degradation co-efficient						
cooling**	Cdc	0.25	-			
Degradation co-efficient heating** Cdh						
		0.25	-			
Annual electricity consumption						
cooling	Qce	95	KW/h/a			
heating / Average	Qhe	855	KW/h/a			
heating / Warmer	Qhe	x	KW/h/a			
heating / Colder	Qhe	x	KW/h/a			
Other items						
Sound power level (indoor/outdoor)	Lwa	58 / 65	dB(A)			
Global warming potential	GWP	2087.5	kgCO2 eq.			
Rated air flow (indoor/outdoor)		930 / 2400	m3/h			
Contact details for obtaining more information						
Name, position, postal address, e-mail address and, telephone number.						
* = 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 CQ=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.						



# 14. Website Information

Outdoor unit Indoor unit  
**H12AL UE1 / H12AL NSM**

Function (indicate if present)	Y	N
cooling	Y	N
heating	Y	N

Item	symbol	value	unit
<b>Design load</b>			
cooling	Pdesignc	3.5	kW
heating / Average	Pdesignh	3.8	kW
heating / Warmer	Pdesignh	x.x	kW
heating / Colder	Pdesignh	x.x	kW

Item	symbol	value	unit
<b>Seasonal efficiency</b>			
cooling	SEER	9.2	-
heating / Average	SCOP/A	5.3	-
heating / Warmer	SCOP/W	x.x	-
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
Tj=30°C	Pdc 2.4 kW
Tj=25°C	Pdc 1.5 kW
Tj=20°C	Pdc 0.8 kW

Declared capacity* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Td	
Tj=-7°C	Pdh 3.1 kW
Tj=2°C	Pdh 1.9 kW
Tj=7°C	Pdh 1.2 kW
Tj=12°C	Pdh 0.8 kW
Tj=bivalent temperature	Pdh 3.5 kW
Tj=operating limit	Pdh 3.7 kW

Declared capacity* for heating / Warmer climate, at indoor temperature 20°C and outdoor temperature Tj	
Tj=2°C	Pdh x.x kW
Tj=7°C	Pdh x.x kW
Tj=12°C	Pdh x.x kW
Tj=bivalent temperature	Pdh x.x kW
Tj=operating limit	Pdh x.x kW

If function includes heating: Indicate the heating season in 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 Energy efficiency ratio* for cooling, at indoor temperature 27(19)°C and outdoor temperature Tj	
Tj=35°C	EERd 4.2
Tj=30°C	EERd 6.5
Tj=25°C	EERd 10.5
Tj=20°C	EERd 16.4

Declared Coefficient of performance* for heating / Average climate, at indoor temperature 20°C and outdoor temperature Tj	
Tj=-7°C	COPd 3.2
Tj=2°C	COPd 5.1
Tj=7°C	COPd 6.3
Tj=12°C	COPd 7.3
Tj=bivalent temperature	COPd 3.3
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	Pdh x.x kW
Tj=2°C	Pdh x.x kW
Tj=7°C	Pdh x.x kW
Tj=12°C	Pdh x.x kW
Tj=bivalent temperature	Pdh x.x kW
Tj=operating limit	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

Bivalent temperature	
heating / Average	Tbiv °C
heating / Warmer	Tbiv °C
heating / Colder	Tbiv °C

Cycling interval capacity	
for cooling	Pecc kW
for heating	Pecc kW

Degradation co-efficient	
cooling**	Cdc 0.25

Electric power input in power modes other than 'active mode'	
off mode	Poff kW
standby mode	Psb kW
thermostat-off mode	Pto kW
crankcase heater mode	Pck 0 kW

Capacity control (indicate one of three options)	
fixed	N
staged	N
variable	Y

Annual electricity consumption	
cooling	Qce kWh/a
heating / Average	Qhe kWh/a
heating / Warmer	Qhe kWh/a
heating / Colder	Qhe kWh/a

Other items	
Sound power level (indoor/outdoor)	LWA 58 / dB(A)
Global warming potential	GWP 2067.5 kgCO2 eq
Rated air flow (indoor/outdoor)	930 / m3/h

Contact details for obtaining more information	
Name, position, postal address and, telephone number.	

\*= 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 Cc=0.25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.



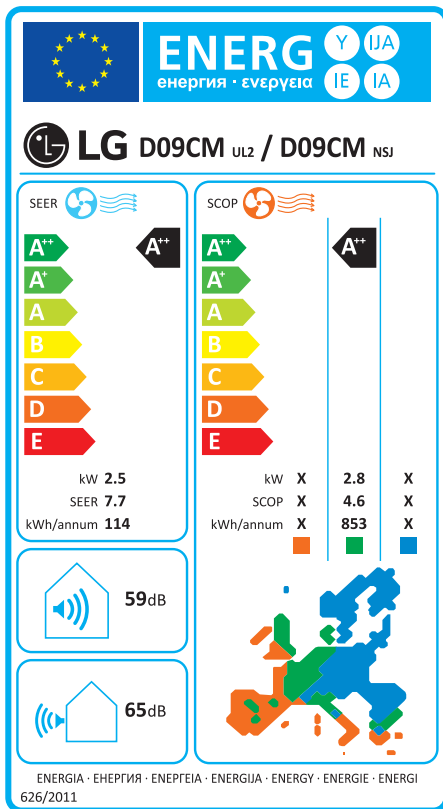
# Inverter Single

## 15. Energy label

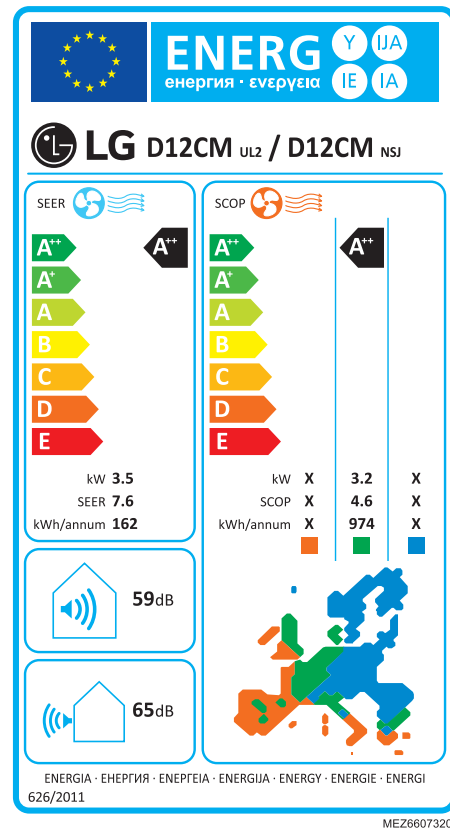
• Labelling Efficiency

Energy Efficiency Class	Split and Window systems	
	SEER	SCOP
A+++	SEER $\geq$ 8.5	SCOP $\geq$ 5.1
A++	6.1 $\leq$ SEER < 8.5	4.6 $\leq$ SCOP < 5.1
A+	5.6 $\leq$ SEER < 6.1	4.0 $\leq$ SCOP < 4.6
A	5.1 $\leq$ SEER < 5.6	3.4 $\leq$ SCOP < 4.0
B	4.6 $\leq$ SEER < 5.1	3.1 $\leq$ SCOP < 3.4
C	4.1 $\leq$ SEER < 4.6	2.8 $\leq$ SCOP < 3.1
D	3.6 $\leq$ SEER < 4.1	2.5 $\leq$ SCOP < 2.8
E	3.1 $\leq$ SEER < 3.6	2.2 $\leq$ SCOP < 2.5
F	2.6 $\leq$ SEER < 3.1	1.9 $\leq$ SCOP < 2.2
G	SEER < 2.6	SCOP < 1.9

D09CM (AS-W096J1R0)

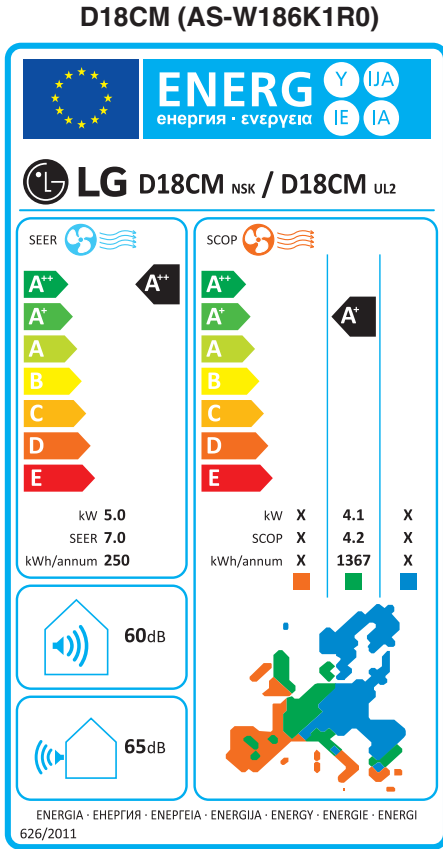


D12CM (AS-W126J1R0)

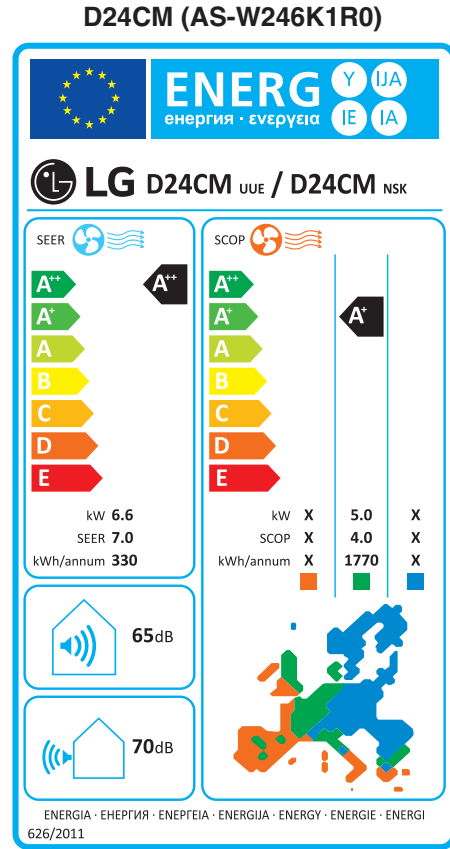


# Inverter Single

## 15. Energy label

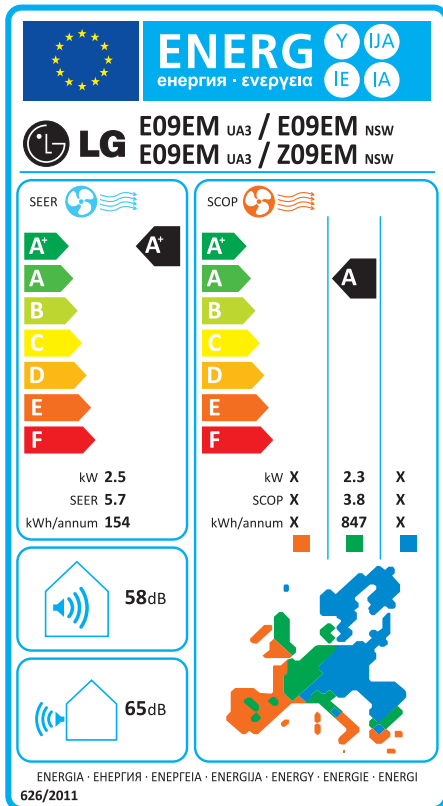


MEZ66073205



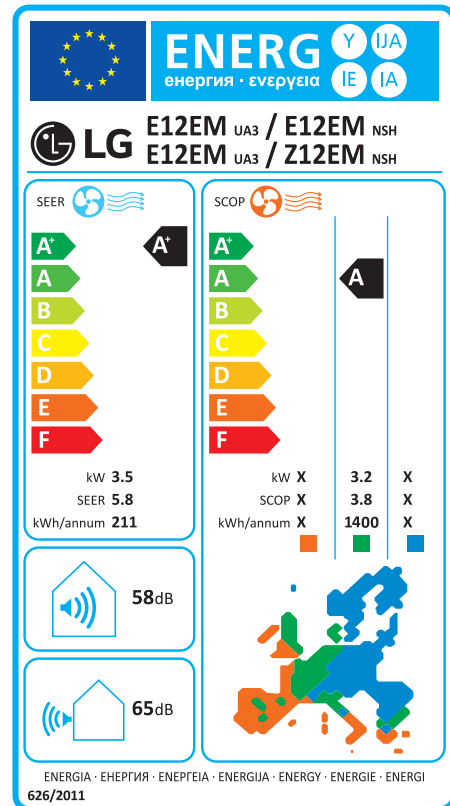
MEZ66073202

**E09EM (US-W096W4A1)  
Z09EM (US-W096WSA1)**



MEZ66072501

**E12EM (US-W126H4A1)  
Z12EM (US-W126HSA1)**



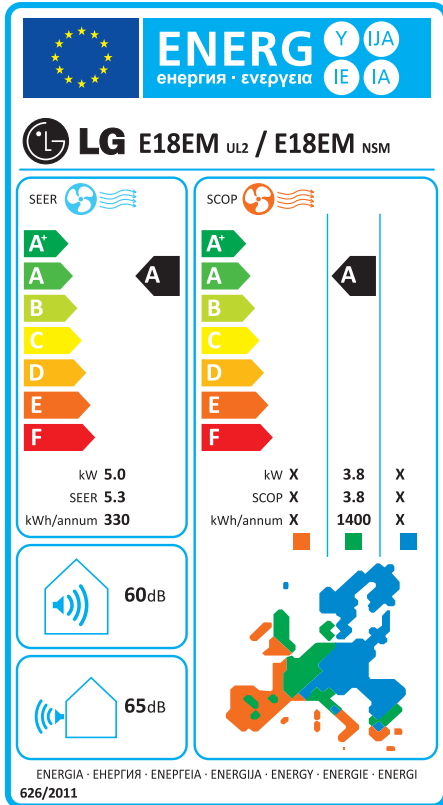
MEZ66072503



# Inverter Single

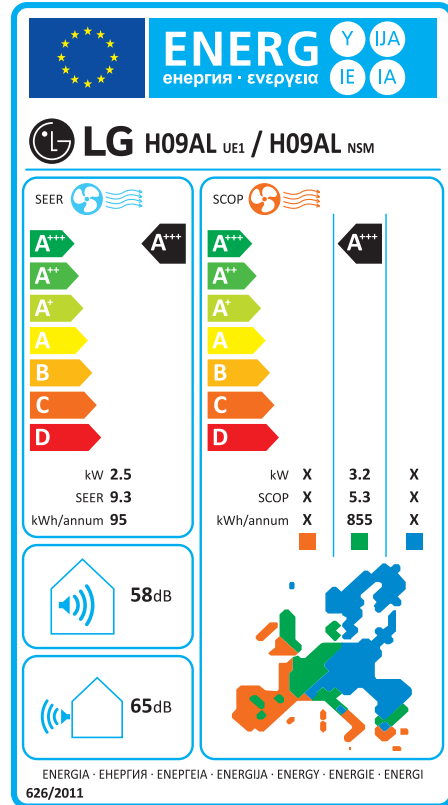
## 15. Energy label

E18EM (US-W186M4A1)



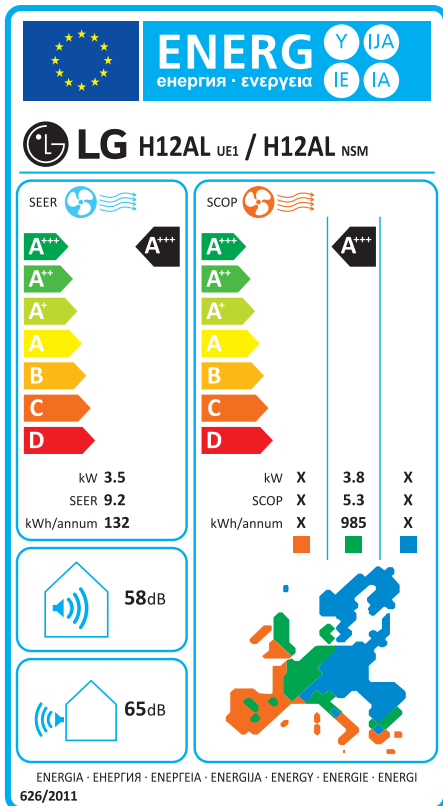
MEZ66072502

H09AL (AS-W096MMS6)



MEZ64820338

H12AL (AS-W126MMS6)



MEZ64820337



## 15. Energy label

### Test Condition

Temp. condition	Cooling Test	Heating Test (Average)	Heating Test (Warmer)	Heating Test (Colder)
Tdesign temp.	Tdesignc 27(19)/35(24)	Tdesignh 20(15)/ -10(-11)	Tdesignh 20(15)/ 2(1)	Tdesignh 20(15)/-22 (-23)
A	27(19) / 35(24)	20(15) / -7(-8)	N.A.	20(15) / -7(-8)
B	27(19) / 30(*)	20(15) / 2(1)	20(15) / 2(1)	20(15) / 2(1)
C	27(19) / 25(*)	20(15) / 7(6)	20(15) / 7(6)	20(15) / 7(6)
D	27(19) / 20(*)	20(15) / 12(11)	20(15) / 12(11)	20(15) / 12(11)
E	N.A.	Tol (max -7 ↓)	Tol (max 2 ↓)	Tol (max -15 ↓)
F	N.A.	Tbivalent (max 2 ↓)	Tbivalent (max 7 ↓)	Tbivalent (max -7 ↓)

Indoor D.B(W.B)/ Outdoor D.B(W.B) : [unit : °C]



P/No.: MFL66305322



## LG Electronics

### Air Conditioner

20 Yeouido-dong, Yeongdeungpo-gu,  
Yeouido P.O.Box 335 Seoul,  
150-721, Korea.  
<http://www.lgeaircon.com>

### All rights reserved

Printed in Korea March / 2015  
The specifications, designs, and  
information in this brochure are subject to  
change without notice.

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