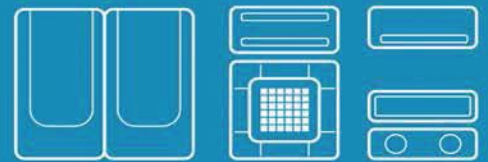


SINGLE

Technical Data Book

Multi-position AHU for North America (R410A, 60Hz, H/P)



Model : AC***KNZDCH/AA (IDU)
AC***JXADCH/AA (ODU)

History

Version	Modification	Date	Remark
Ver.0.0	Release SINGLE Multi-position AHU Pre-TDB for NA (R410A, 60Hz, HP)	16.03.02.	Preliminary Ver.
Ver.1.0	Release SINGLE Multi-position AHU TDB for NA (R410A, 60Hz, HP)	16.03.22.	Final Ver.
Ver.1.1	Modification for '2. Specification'. (COP: BTU/h-W → W/W)	16.04.21.	
Ver.1.2	Add the 54K model	16.04.28.	

Index

1 Nomenclature

2 Specifications

3 Capacity table

4 Dimensional drawing

5 Electrical wiring diagram

6 Sound pressure level

***7 Recommended operation range
(PQ curve)***

8 Cycle diagram

9 Capacity correction

1 Nomenclature

Indoor Units

Model Names

AC	036	K	N	Z	D	C	H	/	AA
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AC	SINGLE
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(2) Capacity

x 1000 Btu/h (3 digits)

(3) Version

F	2013
H	2014
J	2015
K	2016
L	2017

(4) Product Type

N	Indoor Unit (NASA)
B	Indoor Unit (Non-NASA)

(5) Feature1

4	4Way Cassette S / 360 Cassette
C	Ceiling
L	LSP Duct
M	MSP Duct
H	HSP Duct
Z	Multi-position AHU

(6) Feature2

F	Flagship
P	Premium
D	Deluxe
S	Standard

(7) Rating Voltage

C	1Φ, 208~230V, 60Hz
H	3Φ, 400V, 60Hz

(8) Mode

H	Heat Pump(R410A)
C	Cooling Only(R410A)
E	Heat Pump(R22)
D	Cooling Only(R22)

1 Nomenclature

Outdoor Units

Model Names

AC	036	J	X	A	D	C	H	/	AA
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AC	SINGLE
----	--------

(2) Capacity

x 1000 Btu/h (3 digits)

(3) Version

F	2013
H	2014
J	2015
K	2016
L	2017

(4) Product Type

X	Outdoor Unit (NASA)
C	Outdoor Unit (Non-NASA)

(5) Feature1

A	Inv+Side+General Temp
S	Inv+Side+Low Temp
Q	Inv+Side+Tropical Temp
R	Non Inv+Side+Tropical Temp
4	4Way Cassette only
M	MSP Duct only

(6) Feature2

D	DELUXE
C	DELUXE+Low Temp.
T	DELUXE+TROPICAL
R	PREMIUM+TROPICAL

(7) Rating Voltage

C	1Φ, 208~230V, 60Hz
H	3Φ, 400V, 60Hz

(8) Mode

H	Heat Pump (R410A)
C	Cooling Only (R410A)
E	Heat Pump (R22)
D	Cooling Only (R22)

2 Specifications

Multi-position AHU

Type					Multi-position AHU		Multi-position AHU			
Model Name		Indoor Unit			AC018KNZDCH/AA		AC024KNZDCH/AA			
		Outdoor Unit			AC018JXADCH/AA		AC024JXADCH/AA			
System	Mode				-	HEAT PUMP		HEAT PUMP		
	Capacity (Norminal)	Cooling (MIN/STD/MAX)			Btu/h	5,000 / 18,000 / 21,000		7,000 / 24,000 / 27,000		
					kW	1.46 / 5.28 / 6.15		2.05 / 7.03 / 7.91		
					USRT	0.42 / 1.50 / 1.75		0.58 / 2.00 / 2.25		
		Heating (MIN/STD/MAX)			Btu/h	4,400 / 20,000 / 24,000		6,700 / 27,000 / 29,000		
					kW	1.29 / 5.86 / 7.03		1.96 / 7.91 / 8.50		
					USRT	0.37 / 1.67 / 2.00		0.56 / 2.25 / 2.42		
	Power	Power Input (Nominal)	Cooling (Min / Std / Max)		kW	0.35 / 1.60 / 2.30		0.55 / 2.18 / 2.55		
			Heating (Min / Std / Max)			0.30 / 2.00 / 2.70		0.51 / 2.64 / 3.15		
		Current Input (Nominal)	Cooling (Min / Std / Max)		A	2.4 / 7.1 / 9.6		3.8 / 9.8 / 12.0		
			Heating (Min / Std / Max)			2.2 / 8.7 / 10.0		3.6 / 11.6 / 12.8		
		MCA				A	9.40		13.58	
		MOP				A	15		20	
	Energy Efficiency	EER (Nominal Cooling)			Btu/h-W	11.25		11.01		
		COP (Nominal Heating)			W/W	2.92		3.00		
		Energy Grade			Energy Grade (C)	SEER 20.1		SEER 19.5		
					Energy Grade (H)	HSPF 10.5		HSPF 11.5		
	Piping Connections	Liquid Pipe				Φ, mm	6.35		6.35	
						Φ, inch	1/4"		1/4"	
		Gas Pipe				Φ, mm	12.7		15.88	
						Φ, inch	1/2"		5/8"	
		Installation Limitation	Max. Length (Outdoor to indoor)		m	30		50		
					ft	98.4		164		
			Max. Height (Between ID/OD)		m	20		30		
					ft	65.6		98.4		
		Refrigerant	Type			-	R410A		R410A	
			Factory Charging			kg	1.3		2.1	
	lbs					2.87		4.63		
Indoor Unit	Power Supply				Φ, #, V, Hz	1, 2, 208-230, 60		1, 2, 208-230, 60		
	Fan	Type			-	Sirocco (ECM)		Sirocco (ECM)		
		Motor		Output	W	290		290		
		Number of Unit			EA	1		1		
		Air Flow Rate		High / Mid / Low	CFM	600.4 / 529.7 / 494.4		759.3 / 635.7 / 547.4		
					CMM	17.0 / 15.0 / 14.0		21.5 / 18.0 / 15.5		
		External Static Pressure		Min / Std / Max	In Wg	0.0 / 0.2 / 0.8		0.0 / 0.2 / 0.8		
	Drain	Drain Pipe			Φ, inch	FPT 3/4"		FPT 3/4"		
	Sound	Sound Pressure	High / Mid / Low		dB(A)	38 / 35 / 32		41 / 38 / 35		
	External Dimension	Net Weight			kg	44.5		44.5		
					lbs	98.11		98.11		
		Shipping Weight			kg	49.0		49.0		
					lbs	108.03		108.03		
		Net Dimensions (WxHxD)			mm	445 x 1,092 x 533		445 x 1,092 x 533		
					inch	17.50 x 43.00 x 21.00		17.50 x 43.00 x 21.00		
		Shipping Dimensions (WxHxD)			mm	493 x 1,135 x 665		493 x 1,135 x 665		
					inch	19.50 x 44.75 x 26.25		19.50 x 44.75 x 26.25		
	Additional Accessories	Air Filter Base (option, for vertical installation)			-	VFB-1 (MERV 8)		VFB-1 (MERV 8)		
		Heater kit (option, see NOTE 3)			-	VHK-103A VHK-105A		VHK-103A VHK-105A		
	Outdoor Unit	Power Supply				Φ, #, V, Hz	1, 2, 208-230, 60		1, 2, 208-230, 60	
Compressor		Type			-	Twin BLDC Rotary		Twin BLDC Rotary		
		Model			-	UG4T150LNBEQ		UG4T200LNFE4		
		Output			kW	1.42		1.85		
		Oil	Type		-	POE		POE		
Fan		Air Flow Rate	Cooling		CFM	1,550		2,190		
Sound		Sound Pressure	Cooling / Heating		dB(A)	48 / 48		50 / 50		
External Dimension		Net Weight			kg	45.0		64.5		
					lbs	99.2		142.2		
		Shipping Weight			kg	48.0		69.5		
					lbs	105.8		153.2		
		Net Dimensions (WxHxD)			mm	880 x 638 x 310		940 x 998 x 330		
					inch	34.6 × 25.1 × 12.2		37.0 × 39.3 × 13.0		
		Shipping Dimensions (WxHxD)			mm	1,023 x 730 x 413		995 x 1,096 x 426		
					inch	40.3 × 28.7 × 16.3		39.2 × 43.1 × 16.8		
Operating Temp. Range		Cooling			°F	0 ~ 115		0 ~ 115		
		Heating			°F	-4 ~ 75		-4 ~ 75		

* Specifications may be subject to change without prior notice.

1) Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft);

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB . Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

2) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

3) VHK-03/05/10A: 3/5/10[kW] supplemental electric heat kit.

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Multi-position AHU

Type					Multi-position AHU		Multi-position AHU			
Model Name		Indoor Unit			AC030KNZDCH/AA		AC036KNZDCH/AA			
		Outdoor Unit			AC030JXADCH/AA		AC036JXADCH/AA			
System	Mode			-	HEAT PUMP		HEAT PUMP			
	Capacity (Norminal)	Cooling (MIN/STD/MAX)			Btu/h	10,000 / 30,000 / 33,000		14,000 / 36,000 / 39,000		
					kW	2.93 / 8.79 / 9.67		4.10 / 10.55 / 11.43		
					USRT	0.83 / 2.50 / 2.75		1.17 / 3.00 / 3.25		
		Heating (MIN/STD/MAX)			Btu/h	9,000 / 32,000 / 36,000		12,000 / 40,000 / 43,000		
					kW	2.64 / 9.38 / 10.55		3.52 / 11.72 / 12.60		
					USRT	0.75 / 2.67 / 3.00		1.00 / 3.33 / 3.58		
	Power	Power Input (Nominal)	Cooling (Min / Std / Max)		kW	0.82 / 2.95 / 3.67		0.98 / 3.16 / 3.45		
			Heating (Min / Std / Max)			0.75 / 2.82 / 4.35		0.81 / 3.62 / 4.70		
		Current Input (Nominal)	Cooling (Min / Std / Max)		A	4.5 / 13.0 / 17.2		5.1 / 14.1 / 18.2		
			Heating (Min / Std / Max)			4.1 / 12.3 / 20.2		4.5 / 15.8 / 23.0		
		MCA		A			21.71		26.36	
		MOP		A			35		40	
	Energy Efficiency	EER (Nominal Cooling)			Btu/h-W	10.17		11.39		
		COP (Nominal Heating)			W/W	3.33		3.24		
		Energy Grade			Energy Grade (C)	SEER 19.6		SEER 19.0		
					Energy Grade (H)	HSPF 10.4		HSPF 10.2		
	Piping Connections	Liquid Pipe		Φ, mm		9.52		9.52		
				Φ, inch		3/8"		3/8"		
		Gas Pipe		Φ, mm		15.88		15.88		
				Φ, inch		5/8"		5/8"		
		Installation Limitation	Max. Length (Outdoor to indoor)		m		50		75	
					ft		164		246.1	
			Max. Height (Between ID/OD)		m		30		30	
					ft		98.4		98.4	
	Refrigerant	Type			-	R410A		R410A		
		Factory Charging			kg	2.6		2.8		
					lbs	5.73		6.17		
Indoor Unit	Power Supply				Φ, #, V, Hz	1, 2, 208-230, 60		1, 2, 208-230, 60		
	Fan	Type			-	Sirocco (ECM)		Sirocco (ECM)		
		Motor		Output	W	410		410		
		Number of Unit			EA	1		1		
		Air Flow Rate		High / Mid / Low	CFM	1,006.5 / 918.2 / 847.6		1,165.4 / 1,041.8 / 882.9		
					CMM	28.5 / 26.0 / 24.0		33.0 / 29.5 / 25.0		
		External Static Pressure		Min / Std / Max	In Wg	0.0 / 0.24 / 1.0		0.0 / 0.24 / 1.0		
	Drain	Drain Pipe			Φ, inch	FPT 3/4"		FPT 3/4"		
	Sound	Sound Pressure	High / Mid / Low		dB(A)	41 / 38 / 35		42 / 39 / 36		
	External Dimension	Net Weight			kg	56.0		56.0		
					lbs	123.46		123.46		
		Shipping Weight			kg	62.0		62.0		
					lbs	136.69		136.69		
		Net Dimensions (WxHxD)			mm	533 x 1,219 x 533		533 x 1,219 x 533		
					inch	21.00 x 48.00 x 21.00		21.00 x 48.00 x 21.00		
		Shipping Dimensions (WxHxD)			mm	590 x 1,305 x 665		590 x 1,305 x 665		
					inch	23.25 x 51.50 x 26.25		23.25 x 51.50 x 26.25		
	Additional Accessories	Air Filter Base (option, for vertical installation)			-	VFB-2 (MERV 8)		VFB-2 (MERV 8)		
		Heater kit (option, see NOTE 3)			-	VHK-205A VHK-210A		VHK-205A VHK-210A		
	Outdoor Unit	Power Supply				Φ, #, V, Hz	1, 2, 208-230, 60		1, 2, 208-230, 60	
Compressor		Type			-	Twin BLDC Rotary		Twin BLDC Rotary		
		Model			-	UG8T300LNBJU		UG5T450FUEJX		
		Output			kW	2.82		4.12		
		Oil	Type	-	PVE		PVE			
Fan		Air Flow Rate	Cooling	CFM	2,220		3,040			
Sound		Sound Pressure	Cooling / Heating	dB(A)	50 / 52		49 / 51			
External Dimension		Net Weight			kg	70.0		88.0		
					lbs	154.3		194.0		
		Shipping Weight			kg	74.0		98.0		
					lbs	163.1		216.0		
		Net Dimensions (WxHxD)			mm	940 x 998 x 330		940 x 1,210 x 330		
					inch	37.0 x 39.3 x 13.0		37.0 x 47.6 x 13.0		
		Shipping Dimensions (WxHxD)			mm	995 x 1,096 x 426		995 x 1,388 x 426		
					inch	39.2 x 43.1 x 16.8		39.2 x 54.6 x 16.8		
Operating Temp. Range		Cooling			°F	0 ~ 115		0 ~ 115		
		Heating			°F	-4 ~ 75		-4 ~ 75		

* Specifications may be subject to change without prior notice.

1) Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft);

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB

. Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

2) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

3) VHK-03/05/10A: 3/5/10[kW] supplemental electric heat kit.

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Multi-position AHU

Type					Multi-position AHU		Multi-position AHU			
Model Name		Indoor Unit			AC042KNZDCH/AA		AC048KNZDCH/AA			
		Outdoor Unit			AC042JXADCH/AA		AC048JXADCH/AA			
System	Mode			-		HEAT PUMP		HEAT PUMP		
	Capacity (Norminal)	Cooling (MIN/STD/MAX)			Btu/h		17,000 / 42,000 / 44,000		19,000 / 48,000 / 50,000	
					kW		4.98 / 12.31 / 12.90		5.57 / 14.07 / 14.65	
					USRT		1.42 / 3.50 / 3.67		1.58 / 4.00 / 4.17	
		Heating (MIN/STD/MAX)			Btu/h		14,000 / 47,000 / 49,000		16,000 / 53,000 / 55,000	
					kW		4.10 / 13.77 / 14.36		4.69 / 15.53 / 16.12	
					USRT		1.17 / 3.92 / 4.08		1.33 / 4.42 / 4.58	
	Power	Power Input (Nominal)	Cooling (Min / Std / Max)		kW	1.15 / 4.14 / 4.46		1.42 / 5.00 / 5.40		
			Heating (Min / Std / Max)			0.88 / 4.22 / 5.30		1.28 / 4.95 / 5.60		
		Current Input (Nominal)	Cooling (Min / Std / Max)		A	5.6 / 18.0 / 21.2		7.9 / 21.3 / 23.0		
			Heating (Min / Std / Max)			5.5 / 18.3 / 22.5		7.5 / 21.6 / 23.5		
		MCA				A	26.36		26.36	
	MOP				A	40		40		
	Energy Efficiency	EER (Nominal Cooling)			Btu/h-W		10.14		9.60	
		COP (Nominal Heating)			W/W		3.26		3.14	
		Energy Grade			Energy Grade (C)		SEER 18.4		SEER 18.0	
					Energy Grade (H)		HSPF 9.6		HSPF 9.7	
	Piping Connections	Liquid Pipe		Φ, mm		9.52		9.52		
				Φ, inch		3/8"		3/8"		
		Gas Pipe		Φ, mm		15.88		15.88		
				Φ, inch		5/8"		5/8"		
		Installation Limitation	Max. Length (Outdoor to indoor)		m		75		75	
					ft		246.1		246.1	
			Max. Height (Between ID/OD)		m		30		30	
					ft		98.4		98.4	
	Refrigerant	Type			-		R410A		R410A	
		Factory Charging			kg		2.8		2.8	
					lbs		6.17		6.17	
Indoor Unit	Power Supply				Φ, #, V, Hz		1, 2, 208-230, 60		1, 2, 208-230, 60	
	Fan	Type			-		Sirocco (ECM)		Sirocco (ECM)	
		Motor		Output	W		410		590	
		Number of Unit			EA		1		1	
		Air Flow Rate		High / Mid / Low	CFM		1,271.4 / 1,165.4 / 1,059.5		1,412.6 / 1,271.4 / 1,130.1	
					CMM		36.0 / 33.0 / 30.0		40.0 / 36.0 / 32.0	
	External Static Pressure		Min / Std / Max	In Wg		0.1 / 0.28 / 1.0		0.1 / 0.28 / 1.0		
	Drain	Drain Pipe			Φ, inch		FPT 3/4"		FPT 3/4"	
	Sound	Sound Pressure	High / Mid / Low		dB(A)		42 / 39 / 36		43 / 41 / 38	
	External Dimension	Net Weight			kg		74.0		74.0	
					lbs		163.14		163.14	
		Shipping Weight			kg		80.0		80.0	
					lbs		176.37		176.37	
		Net Dimensions (WxHxD)			mm		622 x 1,492 x 553		622 x 1,492 x 553	
					inch		24.50 x 58.75 x 21.75		24.50 x 58.75 x 21.75	
	Shipping Dimensions (WxHxD)			mm		676 x 1,588 x 695		676 x 1,588 x 695		
				inch		26.50 x 62.50 x 27.25		26.50 x 62.50 x 27.25		
	Additional Accessories	Air Filter Base (option, for vertical installation)			-		VFB-3 (MERV 8)		VFB-3 (MERV 8)	
		Heater kit (option, see NOTE 3)			-		VHK-305A VHK-310A		VHK-305A VHK-310A	
	Outdoor Unit	Power Supply				Φ, #, V, Hz		1, 2, 208-230, 60		1, 2, 208-230, 60
Compressor		Type			-		Twin BLDC Rotary		Twin BLDC Rotary	
		Model			-		UG5T450FUEJX		UG5T450FUEJX	
		Output			kW		4.12		4.12	
		Oil	Type	-		PVE		PVE		
Fan		Air Flow Rate	Cooling	CFM		3,040		3,040		
Sound		Sound Pressure	Cooling / Heating	dB(A)		51 / 53		53 / 55		
External Dimension		Net Weight			kg		88.0		88.0	
					lbs		194.0		194.0	
		Shipping Weight			kg		98.0		98.0	
					lbs		216.0		216.0	
		Net Dimensions (WxHxD)			mm		940 x 1,210 x 330		940 x 1,210 x 330	
					inch		37.0 x 47.6 x 13.0		37.0 x 47.6 x 13.0	
		Shipping Dimensions (WxHxD)			mm		995 x 1,388 x 426		995 x 1,388 x 426	
					inch		39.2 x 54.6 x 16.8		39.2 x 54.6 x 16.8	
Operating Temp. Range		Cooling			°F		0 ~ 115		0 ~ 115	
		Heating			°F		-4 ~ 75		-4 ~ 75	

* Specifications may be subject to change without prior notice.

1) Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft);

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB . Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

2) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

3) VHK-03/05/10A: 3/5/10[kW] supplemental electric heat kit.

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Multi-position AHU

Type					Multi-position AHU			
Model Name		Indoor Unit			AC054KNZDCH/AA			
		Outdoor Unit			AC054KXADCH/AA			
System	Mode			-	HEAT PUMP			
	Capacity (Norminal)	Cooling (MIN/STD/MAX)		Btu/h	21,000 / 54,000 / 55,000			
				kW	6.15 / 15.83 / 16.12			
				USRT	1.75 / 4.50 / 4.58			
		Heating (MIN/STD/MAX)		Btu/h	21,000 / 60,000 / 62,000			
				kW	6.15 / 17.58 / 18.17			
				USRT	1.75 / 5.00 / 5.17			
	Power	Power Input (Nominal)	Cooling (Min / Std / Max)		kW	1.92 / 6.72 / 7.30		
			Heating (Min / Std / Max)			1.95 / 5.80 / 7.80		
		Current Input (Nominal)	Cooling (Min / Std / Max)		A	10.1 / 28.7 / 35.8		
			Heating (Min / Std / Max)			10.2 / 24.7 / 38.5		
		MCA		A		41.64		
		MOP		A		70		
	Energy Efficiency	EER (Nominal Cooling)		Btu/h-W		8.04		
		COP (Nominal Heating)		W/W		3.03		
		Energy Grade		Energy Grade (C)		SEER 17.1		
				Energy Grade (H)		HSPF 9.0		
		Piping Connections	Liquid Pipe		Φ, mm		9.52	
					Φ, inch		3/8"	
	Gas Pipe		Φ, mm		19.05			
			Φ, inch		3/4"			
	Installation Limitation		Max. Length (Outdoor to indoor)		m		75	
					ft		246.1	
			Max. Height (Between ID/OD)		m		30	
					ft		98.4	
	Refrigerant	Type		-		R410A		
		Factory Charging		kg		3.5		
				lbs		7.72		
	Indoor Unit	Power Supply			Φ, #, V, Hz	1, 2, 208-230, 60		
		Fan	Type		-			
Motor			Output	W	Sirocco (ECM) 590			
Number of Unit			EA	1				
Air Flow Rate			High / Mid / Low	CFM	1,889.4 / 1,500.9 / 1,342.0			
				CMM	53.5 / 42.5 / 38.0			
External Static Pressure			Min / Std / Max	In Wg	0.1 / 0.28 / 1.0			
Drain		Drain Pipe		Φ, inch	FPT 3/4"			
Sound		Sound Pressure	High / Mid / Low	dB(A)	45 / 42 / 39			
External Dimension		Net Weight		kg	74.0			
				lbs	163.14			
		Shipping Weight		kg	80.0			
				lbs	176.37			
		Net Dimensions (WxHxD)		mm	622 x 1,492 x 553			
				inch	24.50 x 58.75 x 21.75			
		Shipping Dimensions (WxHxD)		mm	676 x 1,588 x 695			
				inch	26.50 x 62.50 x 27.25			
Additional Accessories	Air Filter Base (option, for vertical installation)		-	VFB-3 (MERV 8)				
	Heater kit (option, see NOTE 3)		-	VHK-305A VHK-310A VHK-315A				
Outdoor Unit	Power Supply			Φ, #, V, Hz	1, 2, 208-230, 60			
	Compressor	Type		-				
		Model		-				
		Output		kW	4.01			
		Oil	Type	-	PVE			
	Fan	Air Flow Rate	Cooling	CFM	5160			
	Sound	Sound Pressure	Cooling / Heating	dB(A)	56 / 56			
	External Dimension	Net Weight		kg	96.0			
				lbs	211.6			
		Shipping Weight		kg	106.0			
				lbs	233.7			
		Net Dimensions (WxHxD)		mm	940 x 1420 x 330			
				inch	37.0 x 55.9 x 13.0			
		Shipping Dimensions (WxHxD)		mm	995 x 1598 x 426			
				inch	39.2 x 62.9 x 16.8			
	Operating Temp. Range	Cooling		°F	0 ~ 115			
		Heating		°F	-4 ~ 75			

* Specifications may be subject to change without prior notice.

1) Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft);

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB . Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

2) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

3) VHK-*05/10/15A: 5/10/15[kW] supplemental electric heat kit.

4) These products contain R410A which is fluorinated greenhouse gas.

Multi-position AHU

AC018KNZDCH + AC018JXADCH

Cooling

TC(Total Capacity), SHC(Sensible Heat Capacity), PI(Power Input)

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
0	20.5	16.4	0.70	21.0	16.8	0.71	21.5	17.2	0.73	22.0	17.6	0.75	22.2	17.8	0.76	22.4	18.0	0.77	22.7	18.1	0.77
70	21.8	17.5	1.21	22.4	17.9	1.24	22.9	18.3	1.27	23.5	18.8	1.30	23.7	19.0	1.31	24.0	19.2	1.33	24.2	19.4	1.34
95	16.7	13.4	1.49	17.1	13.7	1.52	17.6	14.1	1.56	18.0	14.4	1.60	18.2	14.5	1.62	18.4	14.7	1.63	18.5	14.8	1.65
115	16.3	13.0	2.27	16.7	13.3	2.32	17.1	13.7	2.38	17.5	14.0	2.44	17.7	14.1	2.46	17.9	14.3	2.49	18.0	14.4	2.51

Heating

TC : Total Capacity, PI: Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-4.0	10.5	1.58	10.4	1.56	10.3	1.55	10.2	1.53	10.1	1.5	10.0	1.5
14.0	19.6	1.95	19.4	1.93	19.2	1.91	19.0	1.89	18.8	1.9	18.6	1.9
32.0	20.5	1.94	20.3	1.92	20.1	1.90	19.9	1.88	19.7	1.9	19.5	1.8
47.0	20.6	2.06	20.4	2.04	20.2	2.02	20.0	2.00	19.8	2.0	19.6	2.0
75.2	26.0	1.46	25.7	1.45	25.5	1.43	25.2	1.42	24.9	1.4	24.7	1.4

AC024KNZDCH + AC024JXADCH

Cooling

TC(Total Capacity), SHC(Sensible Heat Capacity), PI(Power Input)

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
0	24.9	19.9	0.91	25.5	20.4	0.93	26.2	20.9	0.96	26.8	21.4	0.98	27.1	21.7	0.99	27.3	21.9	1.00	27.6	22.1	1.01
70	26.0	20.8	2.01	26.7	21.3	2.06	27.3	21.9	2.11	28.0	22.4	2.16	28.3	22.6	2.18	28.6	22.9	2.20	28.8	23.1	2.23
95	22.3	17.9	2.03	22.9	18.3	2.08	23.4	18.7	2.13	24.0	19.2	2.18	24.2	19.4	2.20	24.5	19.6	2.22	24.7	19.8	2.25
115	21.8	17.4	2.80	22.3	17.8	2.87	22.8	18.3	2.94	23.4	18.7	3.01	23.6	18.9	3.04	23.9	19.1	3.07	24.1	19.3	3.10

Heating

TC : Total Capacity PI: Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
-4.0	17.3	2.73	17.1	2.70	17.0	2.68	16.8	2.65	16.6	2.6	16.5	2.6
14.0	26.3	3.55	26.0	3.52	25.8	3.48	25.5	3.45	25.2	3.4	25.0	3.4
32.0	27.3	3.25	27.0	3.21	26.8	3.18	26.5	3.15	26.2	3.1	26.0	3.1
47.0	27.8	2.72	27.5	2.69	27.3	2.67	27.0	2.64	26.7	2.6	26.5	2.6
75.2	34.5	2.67	34.2	2.64	33.8	2.62	33.5	2.59	33.2	2.6	32.8	2.5

* Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft)

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB

. Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

Multi-position AHU

AC030KNZDCH + AC030JXADCH

Cooling

TC(Total Capacity), SHC(Sensible Heat Capacity), PI(Power Input)

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0	32.4	26.0	1.75	33.2	26.6	1.79	34.1	27.2	1.83	34.9	27.9	1.88	35.2	28.2	1.90	35.6	28.5	1.92	36.0	28.8	1.94
70	30.2	24.2	2.71	31.0	24.8	2.78	31.7	25.4	2.85	32.5	26.0	2.92	32.8	26.3	2.95	33.2	26.5	2.98	33.5	26.8	3.01
95	27.9	22.3	2.74	28.6	22.9	2.81	29.3	23.4	2.88	30.0	24.0	2.95	30.3	24.2	2.98	30.6	24.5	3.01	30.9	24.7	3.04
115	23.8	19.0	3.11	24.4	19.5	3.18	25.0	20.0	3.26	25.6	20.5	3.34	25.9	20.7	3.37	26.1	20.9	3.41	26.4	21.1	3.44

Heating

TC : Total Capacity, PI: Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	23.1	2.97	22.9	2.94	22.6	2.91	22.4	2.88	22.2	2.9	22.0	2.8
14.0	32.5	4.58	32.1	4.54	31.8	4.49	31.5	4.45	31.2	4.4	30.9	4.4
32.0	33.2	3.25	32.8	3.21	32.5	3.18	32.2	3.15	31.9	3.1	31.6	3.1
47.0	33.0	2.91	32.6	2.88	32.3	2.85	32.0	2.82	31.7	2.8	31.4	2.8
75.2	41.4	2.90	41.0	2.87	40.6	2.84	40.2	2.81	39.8	2.8	39.4	2.8

AC036KNZDCH + AC036JXADCH

Cooling

TC(Total Capacity), SHC(Sensible Heat Capacity), PI(Power Input)

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0	34.9	27.9	2.37	35.7	28.6	2.43	36.6	29.3	2.49	37.5	30.0	2.55	37.9	30.3	2.58	38.3	30.6	2.60	38.6	30.9	2.63
70	35.4	28.3	2.49	36.3	29.0	2.55	37.2	29.7	2.62	38.1	30.5	2.68	38.5	30.8	2.71	38.9	31.1	2.73	39.3	31.4	2.76
95	33.5	26.8	2.94	34.3	27.4	3.01	35.1	28.1	3.08	36.0	28.8	3.16	36.4	29.1	3.19	36.7	29.4	3.22	37.1	29.7	3.26
115	25.3	20.2	3.02	25.9	20.7	3.10	26.5	21.2	3.17	27.2	21.8	3.25	27.5	22.0	3.28	27.7	22.2	3.32	28.0	22.4	3.35

Heating

TC : Total Capacity PI: Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	28.3	4.48	28.1	4.44	27.8	4.39	27.5	4.35	27.2	4.3	27.0	4.3
14.0	39.2	5.00	38.8	4.95	38.4	4.90	38.0	4.85	37.6	4.8	37.2	4.8
32.0	40.4	4.35	40.0	4.30	39.6	4.26	39.2	4.22	38.8	4.2	38.4	4.1
47.0	41.2	3.73	40.8	3.69	40.4	3.66	40.0	3.62	39.6	3.6	39.2	3.5
75.2	47.6	3.25	47.1	3.21	46.7	3.18	46.2	3.15	45.7	3.1	45.3	3.1

* Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft)

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB

. Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

Multi-position AHU

AC042KNZDCH + AC042JXADCH

Cooling

TC(Total Capacity), SHC(Sensible Heat Capacity), PI(Power Input)

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0	41.4	33.1	3.02	42.4	33.9	3.10	43.4	34.7	3.17	44.5	35.6	3.25	44.9	36.0	3.28	45.4	36.3	3.32	45.8	36.7	3.35
70	40.2	32.1	3.16	41.2	32.9	3.24	42.2	33.7	3.32	43.2	34.6	3.40	43.6	34.9	3.43	44.1	35.3	3.47	44.5	35.6	3.50
95	39.0	31.2	3.85	40.0	32.0	3.94	41.0	32.8	4.04	42.0	33.6	4.14	42.4	33.9	4.18	42.8	34.3	4.22	43.3	34.6	4.27
115	28.0	22.4	3.92	28.7	22.9	4.02	29.4	23.5	4.12	30.1	24.1	4.22	30.4	24.3	4.26	30.7	24.6	4.30	31.0	24.8	4.35

Heating

TC : Total Capacity, PI: Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	27.3	4.31	27.0	4.26	26.8	4.22	26.5	4.18	26.2	4.1	26.0	4.1
14.0	40.7	5.16	40.3	5.11	39.9	5.06	39.5	5.01	39.1	5.0	38.7	4.9
32.0	46.2	4.67	45.7	4.62	45.2	4.58	44.8	4.53	44.4	4.5	43.9	4.4
47.0	48.4	4.35	47.9	4.30	47.5	4.26	47.0	4.22	46.5	4.2	46.1	4.1
75.2	53.0	4.04	52.5	4.00	52.0	3.96	51.5	3.92	51.0	3.9	50.5	3.8

AC048KNZDCH + AC048JXADCH

Cooling

TC(Total Capacity), SHC(Sensible Heat Capacity), PI(Power Input)

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0	46.6	37.3	3.02	47.7	38.2	3.10	48.9	39.1	3.17	50.1	40.1	3.25	50.6	40.5	3.28	51.1	40.9	3.32	51.6	41.3	3.35
70	47.0	37.6	3.14	48.1	38.5	3.22	49.3	39.4	3.30	50.5	40.4	3.38	51.0	40.8	3.41	51.5	41.2	3.45	52.0	41.6	3.48
95	44.6	35.7	4.65	45.7	36.6	4.76	46.8	37.5	4.88	48.0	38.4	5.00	48.5	38.8	5.05	49.0	39.2	5.10	49.5	39.6	5.15
115	34.9	27.9	4.42	35.7	28.6	4.52	36.6	29.3	4.64	37.5	30.0	4.75	37.9	30.3	4.80	38.3	30.6	4.85	38.6	30.9	4.89

Heating

TC : Total Capacity PI: Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	28.6	4.78	28.4	4.73	28.1	4.69	27.8	4.64	27.5	4.6	27.2	4.5
14.0	43.8	5.17	43.4	5.12	42.9	5.07	42.5	5.02	42.1	5.0	41.7	4.9
32.0	45.1	5.31	44.7	5.25	44.2	5.20	43.8	5.15	43.4	5.1	42.9	5.0
47.0	54.6	5.10	54.1	5.05	53.5	5.00	53.0	4.95	52.5	4.9	51.9	4.9
75.2	54.1	4.92	53.6	4.88	53.0	4.83	52.5	4.78	52.0	4.7	51.5	4.7

* Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft)

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB

. Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

3 Capacity table

Multi-position AHU

AC054KNZDCH + AC054KXADCH

Cooling

TC(Total Capacity), SHC(Sensible Heat Capacity), PI(Power Input)

Outdoor Temperature ("F, DB)	Indoor Temperature ("F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0	49.6	39.7	5.78	50.9	40.7	5.93	52.1	41.7	6.07	53.4	42.7	6.22	53.9	43.1	6.28	54.5	43.6	6.35	55.0	44.0	6.41
70	55.3	44.3	5.88	56.7	45.3	6.02	58.1	46.5	6.17	59.5	47.6	6.32	60.1	48.1	6.38	60.7	48.6	6.45	61.3	49.0	6.51
95	50.2	40.2	6.25	51.4	41.2	6.40	52.7	42.2	6.56	54.0	43.2	6.72	54.5	43.6	6.79	55.1	44.1	6.86	55.6	44.5	6.92
115	45.1	36.1	4.88	46.2	37.0	5.00	47.3	37.9	5.12	48.5	38.8	5.25	49.0	39.2	5.30	49.5	39.6	5.36	50.0	40.0	5.41

Heating

TC : Total Capacity, PI: Power Input

Outdoor Temperature ("F, DB)	Indoor Temperature ("F, DB)											
	61		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	43.5	5.41	43.0	5.36	42.6	5.30	42.2	5.25	41.8	5.2	41.4	5.1
14.0	51.7	6.78	51.2	6.71	50.7	6.65	50.2	6.58	49.7	6.5	49.2	6.4
32.0	61.3	7.05	60.7	6.98	60.1	6.91	59.5	6.84	58.9	6.8	58.3	6.7
47.0	61.8	5.98	61.2	5.92	60.6	5.86	60.0	5.80	59.4	5.7	58.8	5.7
75.2	64.4	5.67	63.8	5.61	63.1	5.56	62.5	5.50	61.9	5.4	61.3	5.4

* Nominal capacity are based on (Refrigerant Piping : 24.6ft , Level Differences : 0ft)

. Cooling : Indoor temp. 80°F DB, 67°F WB / Outdoor temp. 95°F DB, 75°F WB

. Heating : Indoor temp. 70°F DB, 60°F WB / Outdoor temp. 47°F DB, 43°F WB

4 Dimensional drawing

Indoor : Multi-position AHU

AC018KNZDCH/AA, AC024KNZDCH/AA

Units : mm / inches

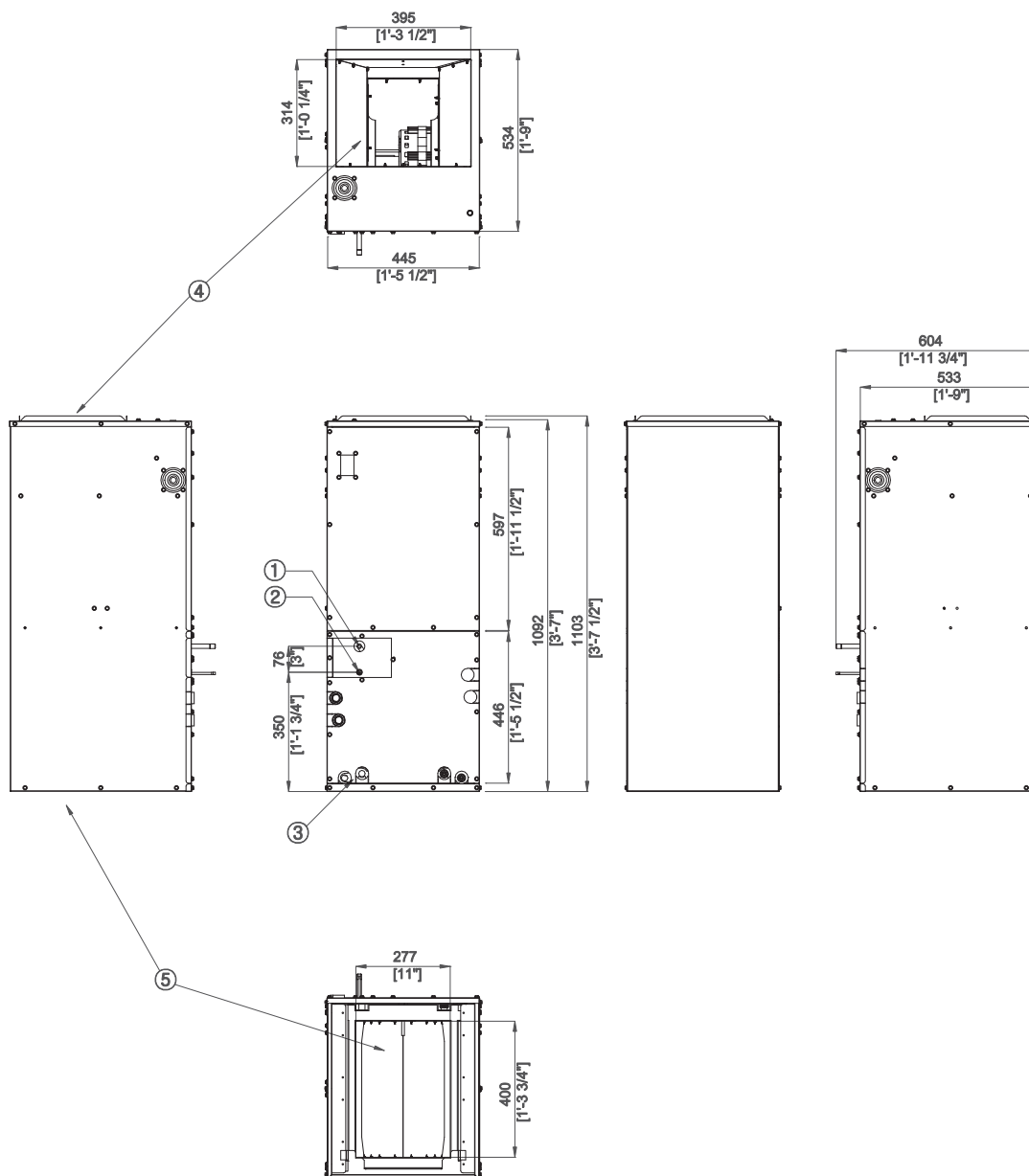


Table of descriptions

1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Condensate drain pipe	9	
4	Air outlet	10	
5	Air intake	11	
6		12	

4 Dimensional drawing

Indoor : Multi-position AHU

AC030KNZDCH/AA, AC036KNZDCH/AA

Units : mm / inches

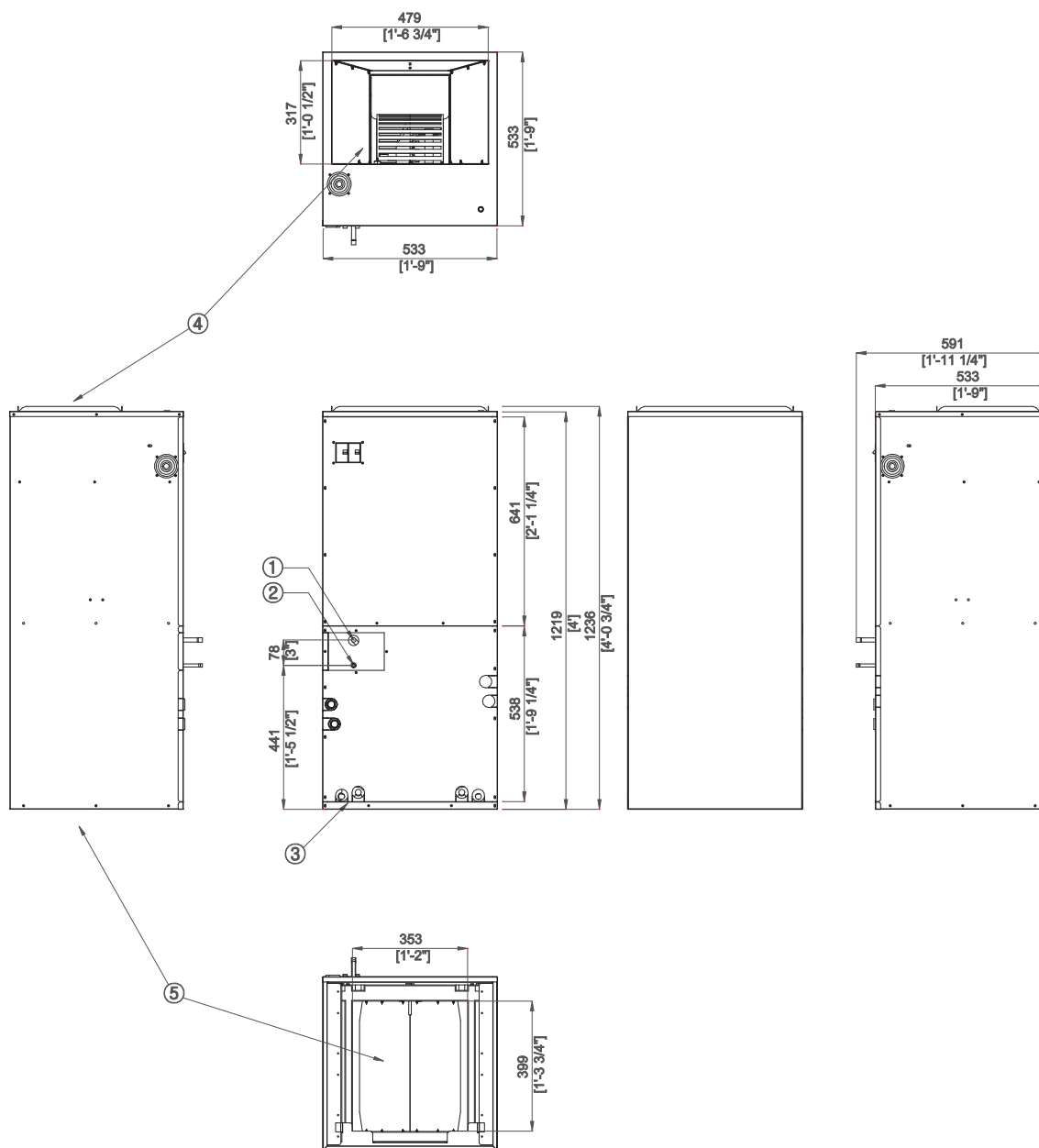


Table of descriptions

1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Condensate drain pipe	9	
4	Air outlet	10	
5	Air intake	11	
6		12	

4 Dimensional drawing

Indoor : Multi-position AHU

AC042KNZDCH/AA, AC048KNZDCH/AA, AC054KNZDCH/AA

Units : mm / inches

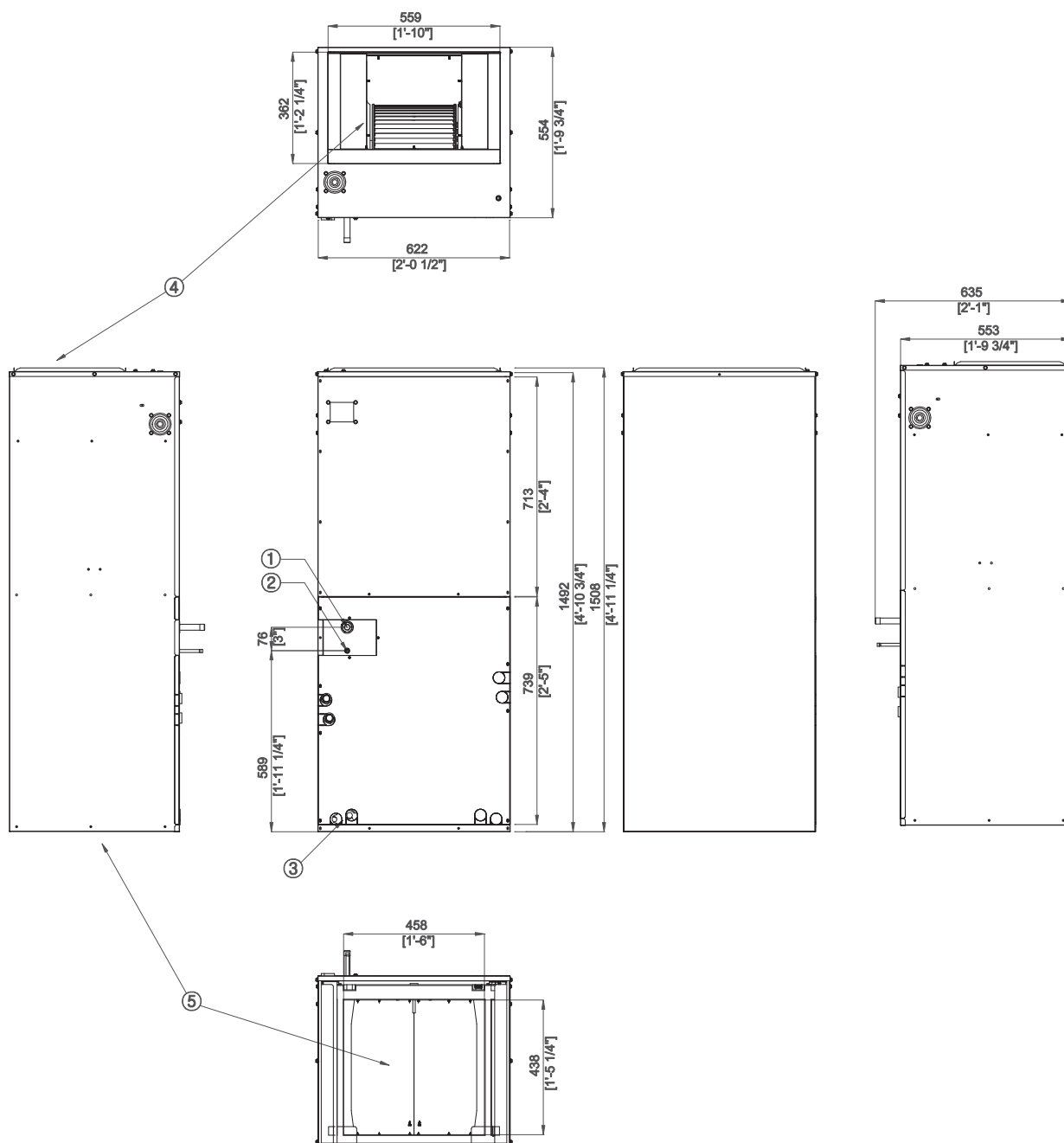


Table of descriptions

1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Condensate drain pipe	9	
4	Air outlet	10	
5	Air intake	11	
6		12	

4 Dimensional drawing

Outdoor

AC018JXADCH/AA

Units : mm / inches

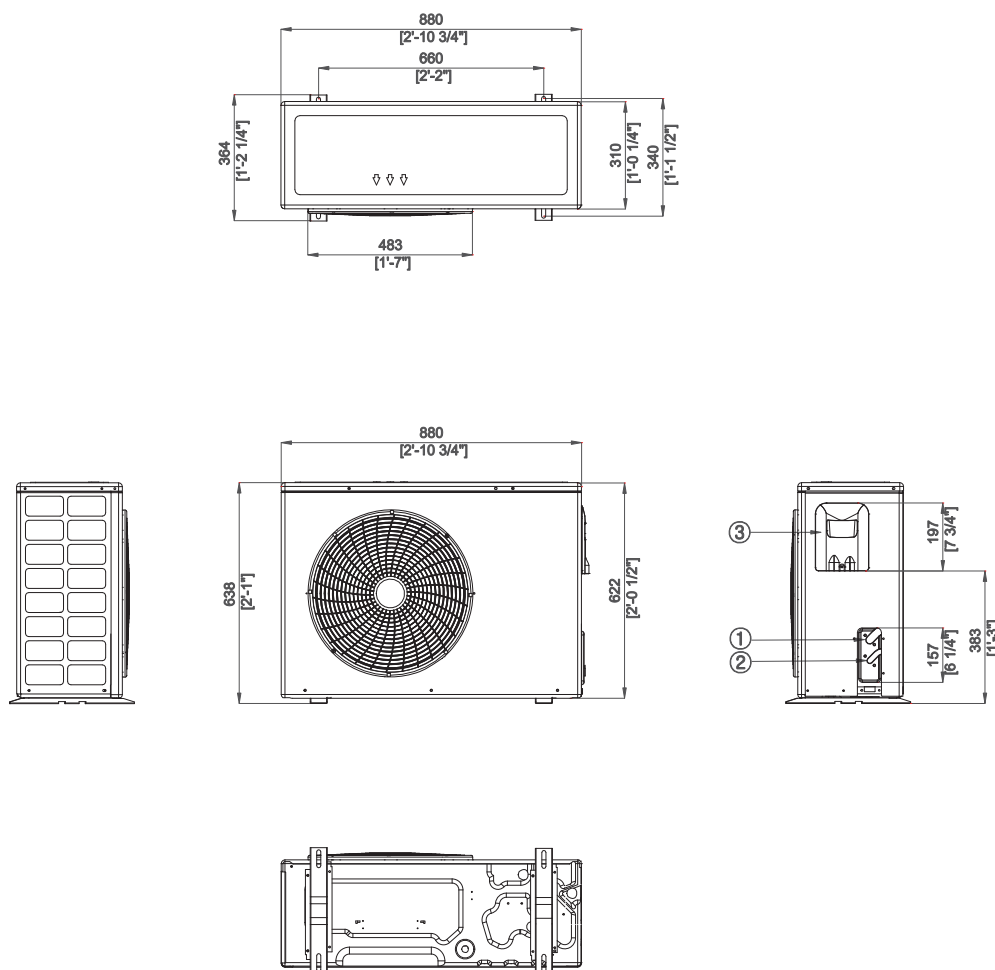


Table of descriptions

1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Power & Comm. wiring conduits	9	
4		10	
5		11	
6		12	

4 Dimensional drawing

Outdoor

AC024JXADCH/AA, AC030JXADCH/AA

Units : mm / inches

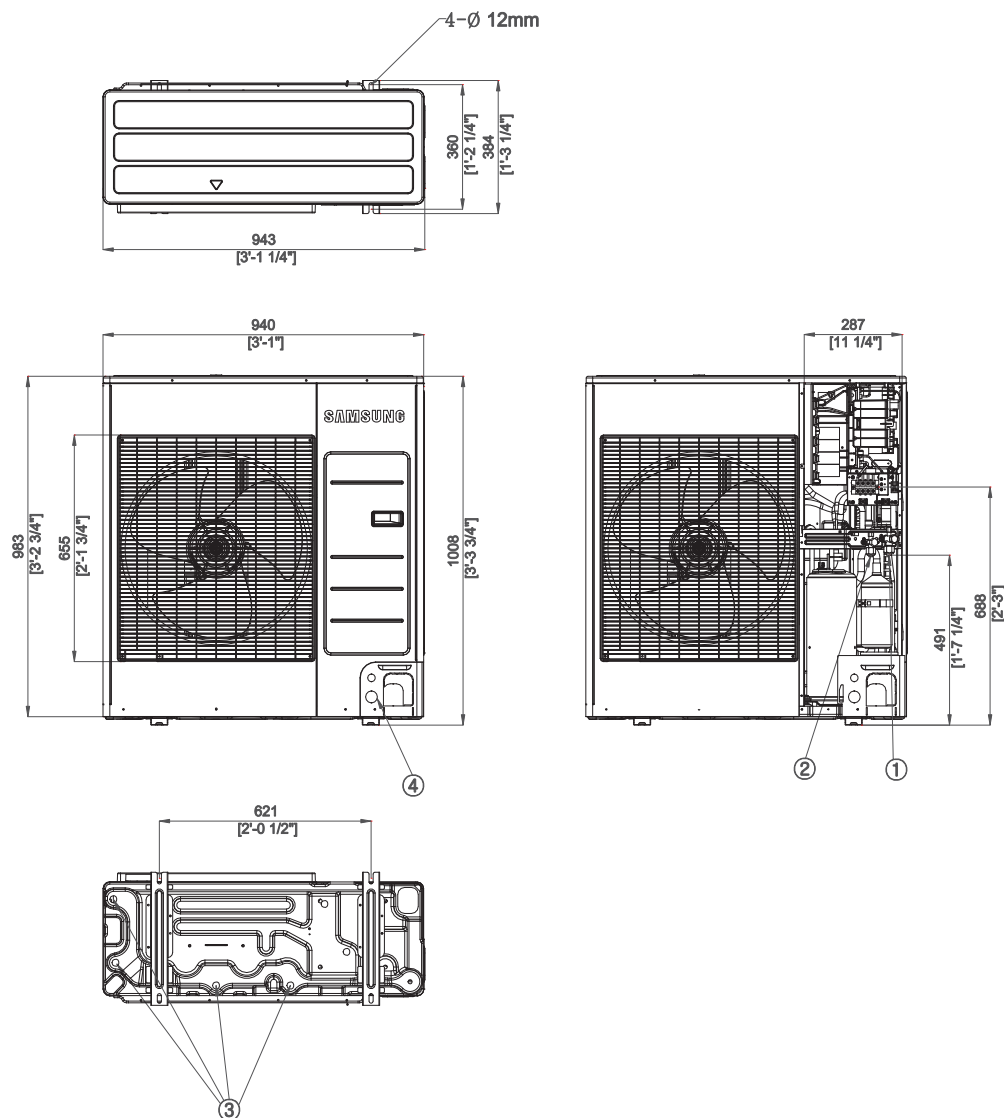


Table of descriptions

1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Drain Hole	9	
4	Power & Comm. wiring conduits	10	
5		11	
6		12	

4 Dimensional drawing

Outdoor

AC036JXADCH/AA, AC042JXADCH/AA, AC048JXADCH/AA

Units : mm / inches

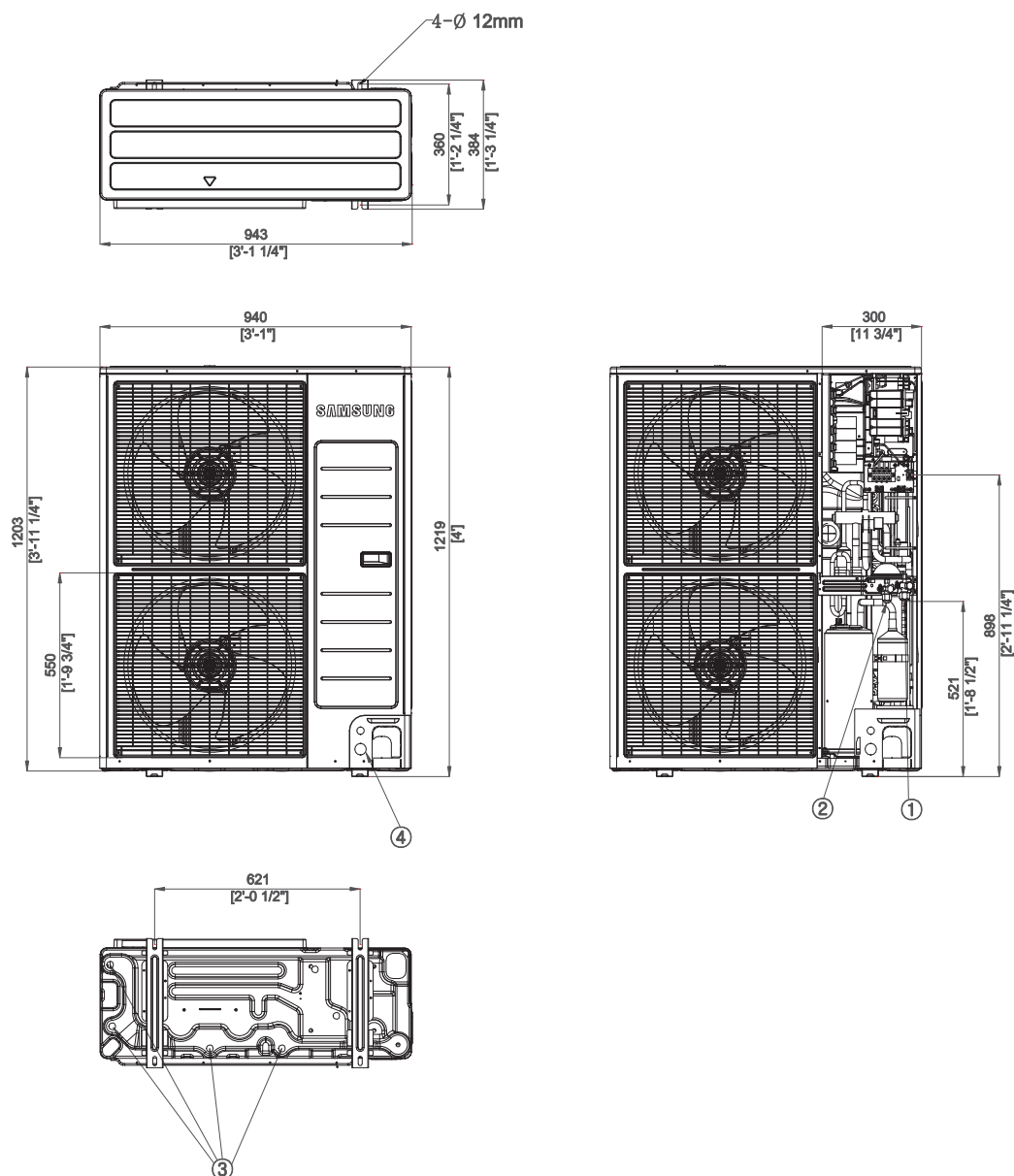


Table of descriptions

1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Drain Hole	9	
4	Power & Comm. wiring conduits	10	
5		11	
6		12	

4 Dimensional drawing

Outdoor

AC054KXADCH/AA

Units : mm / inches

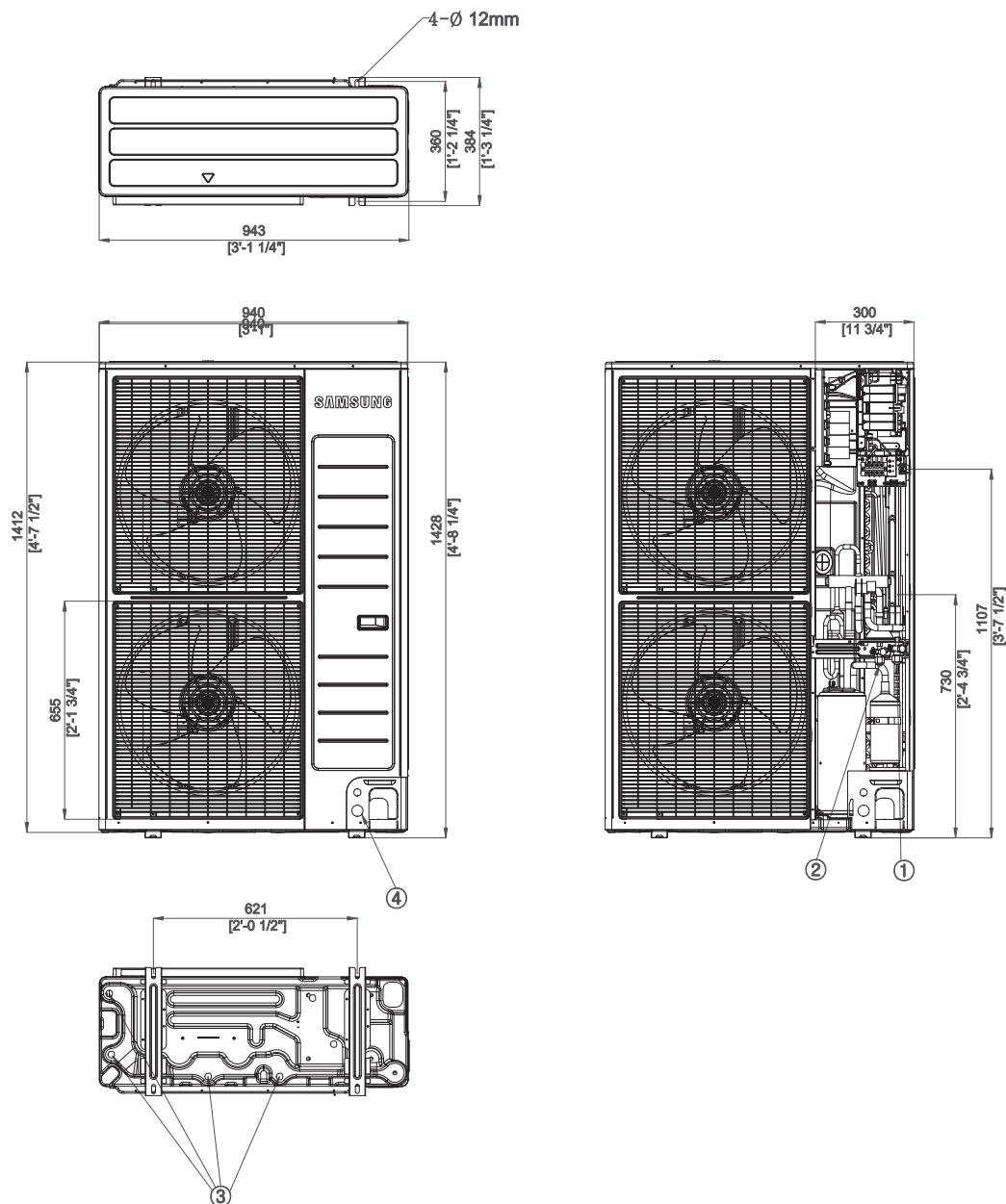


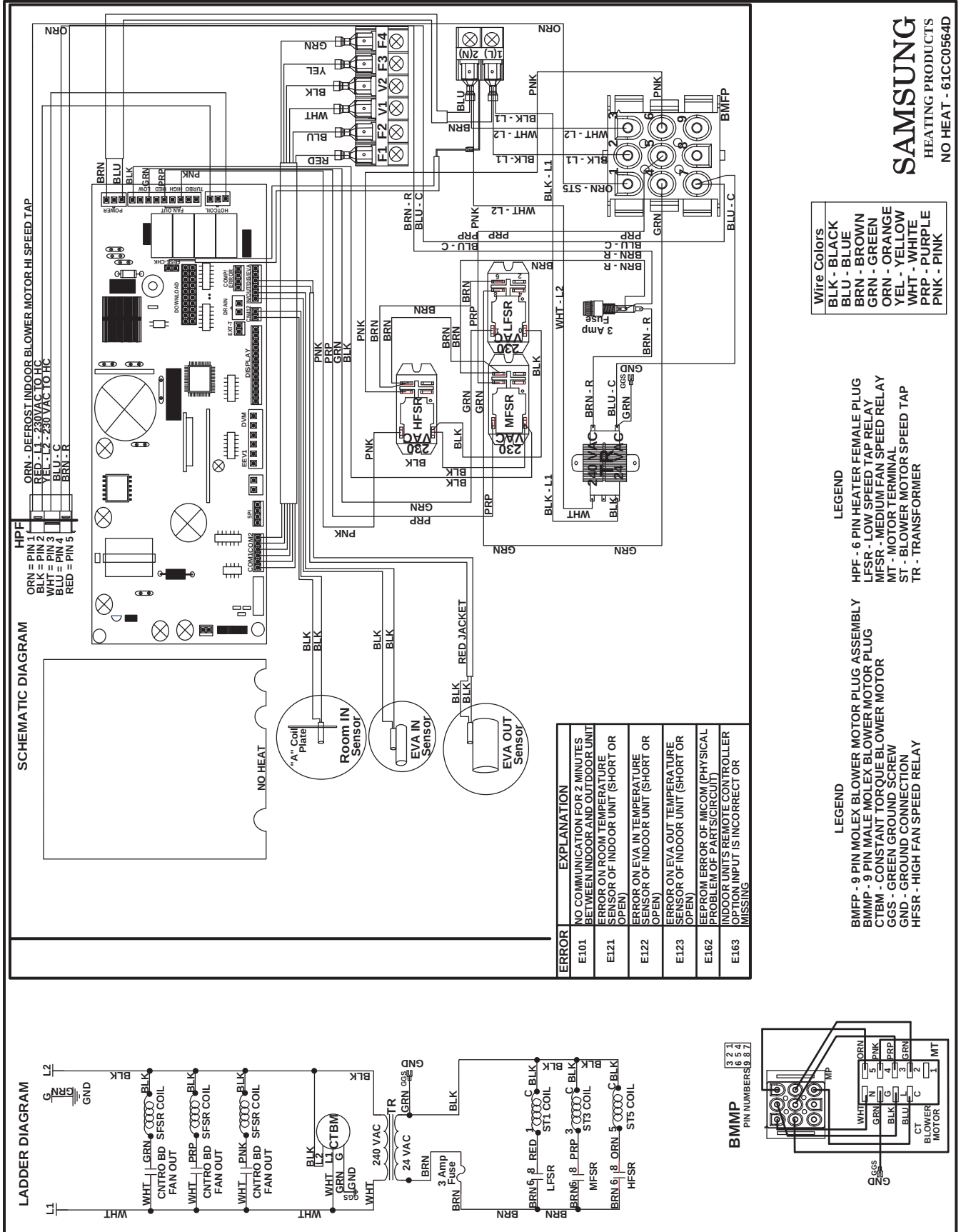
Table of descriptions

1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Drain Hole	9	
4	Power & Comm. wiring conduits	10	
5		11	
6		12	

5 Electrical wiring diagram

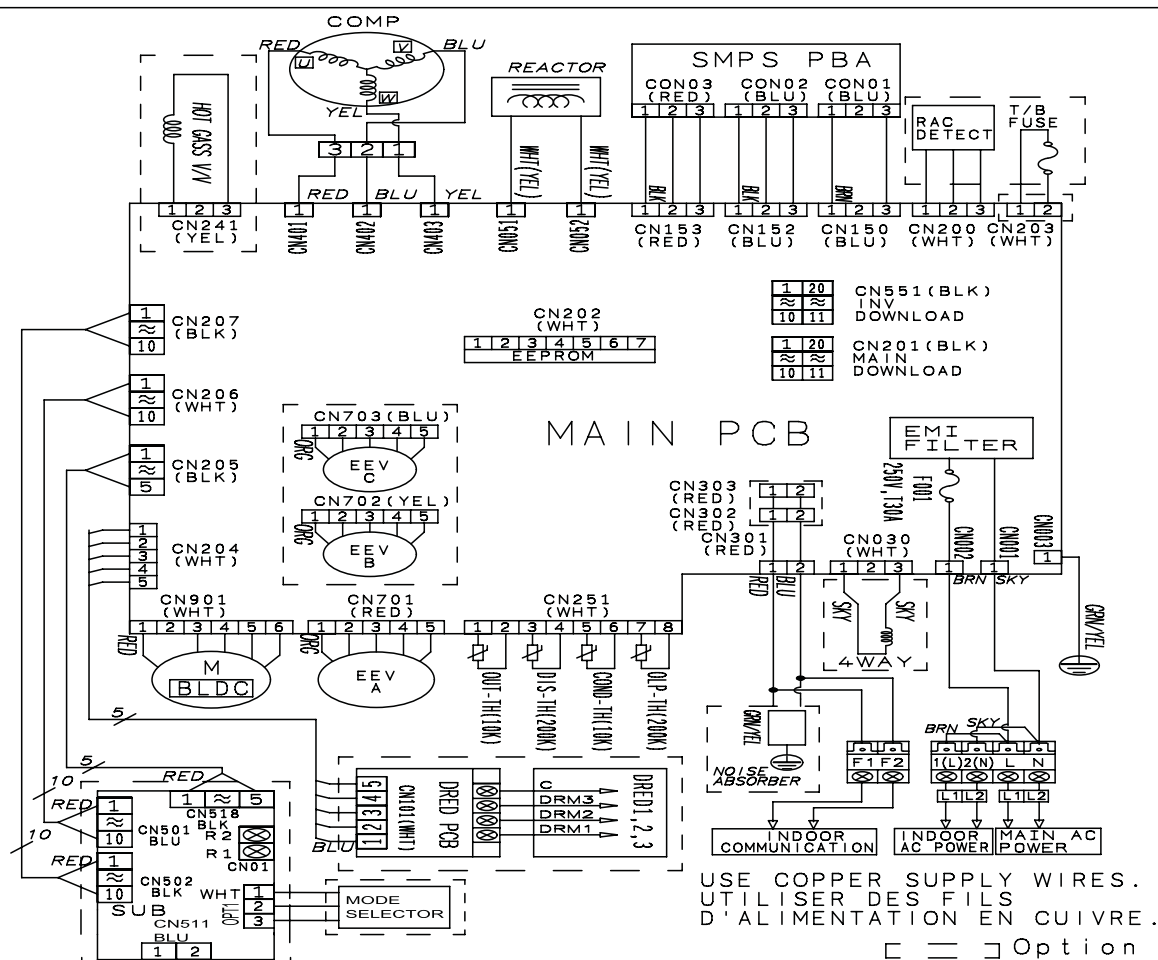
Indoor : Multi-position AHU

AC018KNZDCH/AA, AC024KNZDCH/AA, AC030KNZDCH/AA, AC036KNZDCH/AA, AC042KNZDCH/AA, AC048KNZDCH/AA, AC054KNZDCH/AA



Outdoor

AC018.JXADCH/AA

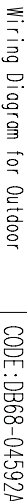


※ NOTE
THERMISTOR MARK BASED ON THE TEMP at 25°C, 77°F

ERROR MODE	
E198	IDU_Terminal Block Thermal Fuse Error
E201	Communication Error (Pre tracking fail or The mismatched of indoor unit)
E202	Communication Error between the outdoor and indoor unit
E203	Time out Comm. (Inv Micom $\longleftrightarrow$ Main Micom)
E221	Outdoor Temperature Sensor Error(OPEN/SHORT)
E231	COND Temperature Sensor Error(OPEN/SHORT)
E251	Discharge Temperature Sensor Error(OPEN/SHORT)
E320	COMP-OLP Temperature Sensor Error(Open/Short)
E403	Comp Down by a freezing protection
E404	System stop to protect from overload
E416	Discharge Temperature Sensor Over Error
E422	EEV or Valve Close
E440	Prohibit Operation Condition Error(Heating)
E441	Prohibit Operation Condition Error(Cooling)
E458	Fan Error
E461	Comp Starting Error
E462	AC Input I_Limit Trip Error
E463	System stop due to OLP(Temp.)
E464	IPM Over Current(O.C) Error
E465	Comp V_Limit/I_Limit Error
E466	DC Link Voltage Protecting Error
E467	Comp Wire Missing Error
E468	Current Sensor Error
E469	DC Link Voltage Sensor Error
E470	EEPROM Read/Write Error
E471	EEPROM Read/Write Error (H/W)
E474	Heatsink Sensor Error
E483	Over Voltage Protecting Error
E484	PFC Overload Error
E485	Input Current Sensor Error
E488	AC Input V_Limit Sensor Error
E500	IPM Overheat Error
E554	Gas Leak Error
E556	Model Mismatching Error(ODU/IDU)
E590	EEPROM CHECKSUM Error (Main $\longrightarrow$ INVERTER)

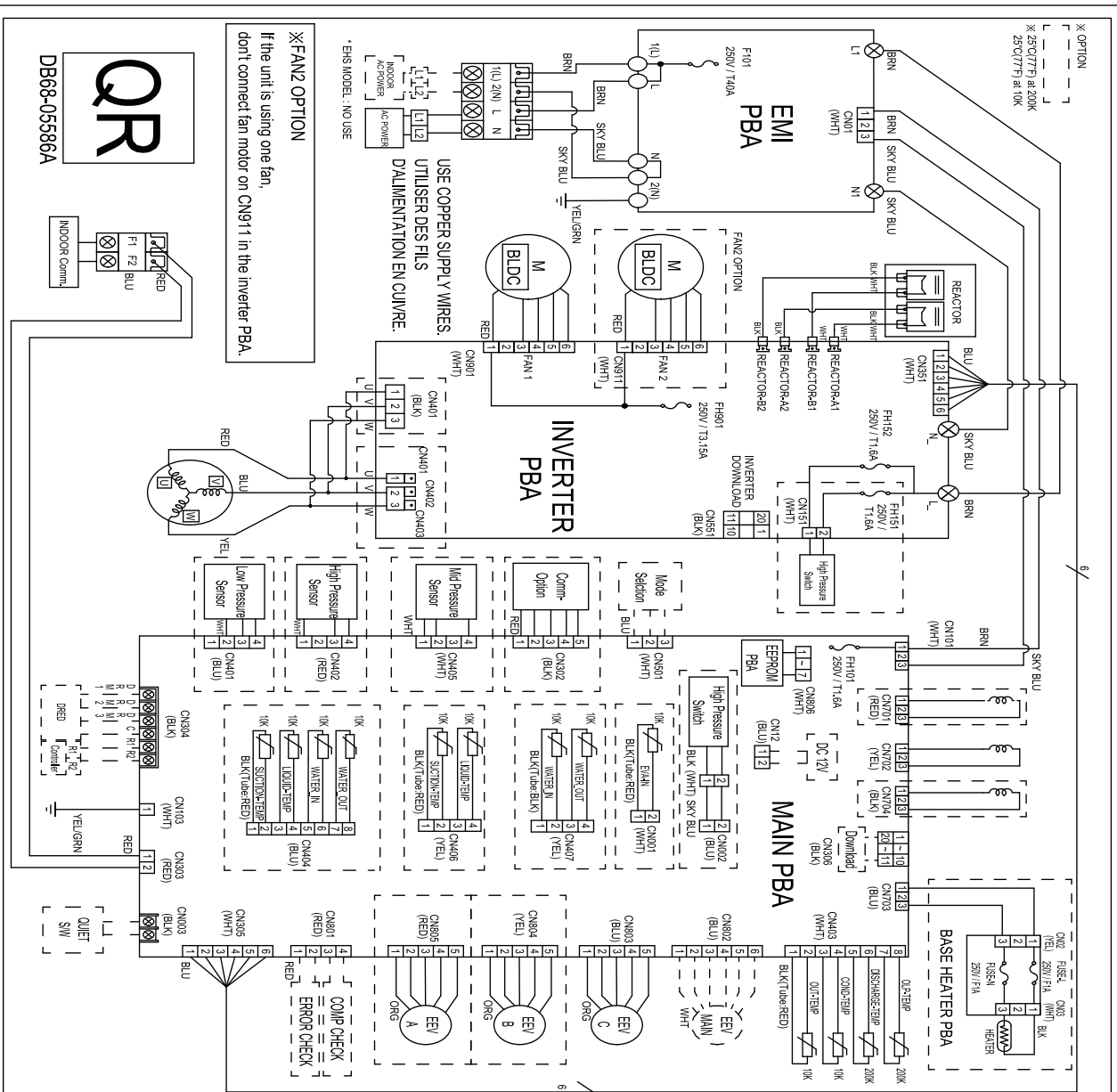
DB68-04513A OUTDOOR UNIT

AC024JXADCH/AA, AC030JXADCH/AA, AC036JXADCH/AA, AC042JXADCH/AA, AC048JXADCH/AA



ERROR NO	DESCRIPTION
E198	Indoor Terminal Block Thermal Fuse error
E201	Unit Quantity Miss Matching between Indoor and Outdoor
E202	Abnormal state or Min Time out Cam between Indoor and Outdoor
E203	Min Time out Cam between Inverter and Outdoor
E221	Outdoor Temp Sensor error
E231	Cool Temp Sensor error
E251	Discharge Temp Sensor error
E320	OLP Sensor error
E403	Detection of Outdoor Freezing when Comp Stop
E404	Protection of Outdoor Overload when Comp Stop
E407	HIGH PRESS SWITCH error
E416	Discharge over Temp error when Comp Stop
E419	Indoor EVI open error
E422	EVI Close error
E439	Gas leakage error (Stop state)
E440	Out of Operation Temp range in Heating
E441	Out of Operation Temp range in Cooling
E443	Gas leakage error (before operating)
E458	Outdoor Fan1 error
E461	Comp Starting error
E462	L1trip error/PhC Over Current
E463	OLP Over Heat and Comp Stop
E464	IPM Over Current(0.0) error
E465	COMP Over Load error
E466	DC Link Under/Over Voltage error
E467	COMP Wire Missing error
E468	Current Sensor error
E469	DC Link Voltage Sensor error
E470	Outdoor EEPROM data checksum error
E471	Outdoor EEPROM hardware read/write error
E474	Heatsink Sensor error
E475	Indoor Fan2 error (Only 2 Fan model)
E484	PhC Over Load error
E485	Input current sensor error
E504	Heatsink Over Heat error
E534	Gas Leak error
E536	Capacity Miss Matching between Indoor and Outdoor
E537	Option Code Miss Matching among the Indoor(only for DM)
E590	Inverter EEPROM loading error
E901	Water inlet (PIE) Temp sensor error (Short/Open)
E902	Water outlet (PIE) Temp sensor error (Short/Open)
E906	Refrigerant gas inlet Temp sensor error (Short/Open)

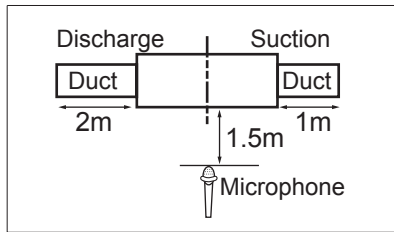
AC054KXADCH/AA



Wiring Diagram for Outdoor	DB68-05586A
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ERROR CODE	
ERROR NO.	DESCRIPTION
E198	Indoor Terminal Block Thermal Fuse error
E201	Unit Quantity Miss Matching between Indoor and Outdoor
E202	Abnormal state or 1min Time out Comm between Indoor and Outdoor
E203	1min Time out Comm between Inverter and Outdoor
E221	Outdoor Temp Sensor error
E231	Cond Temp Sensor error
E251	Discharge Temp Sensor error
E320	OLP Sensor error
E403	Detection of Outdoor Freezing when Comp Stop
E404	Protection of Outdoor Overheat when Comp stop
E407	High Press Switch error
E416	Discharge over Temp error when Comp Stop
E422	EEV close error
E440	Out of Operation Temp range in Heating
E441	Out of Operation Temp range in Cooling
E458	Outdoor Fan1 error
E461	Comp Starting error
E462	Outdoor L1 Trip error/PGC over Current
E463	OLP Over Heat and Comp Stop
E464	IPM Over Current/O.C error
E465	Comp Over Load error
E466	DC Link Under / Over Voltage error
E467	Comp Wire Missing error
E468	Inverter Current Sensor error
E469	Inverter DC Link Voltage Sensor error
E470	Outdoor EEPROM data checksum error
E471	Outdoor EEPROM hardware read/write error
E474	Inverter Heatsink Sensor error
E475	Outdoor Fan2 error(Only 2 FAN model)
E483	Overvoltage of HM Detect DC Link
E484	PGC Overheat(Over Current) Error
E485	Inverter Input Current Sensor error
E486	Inverter Input Voltage Sensor error
E500	Heatsink Over Heat error
E508	*Smart Install Uninstalled error
E554	Loading failure / Total Leakage of Refrigerant of Outdoor Unit
E556	Outdoor Unit power save option error
E557	When DIP1 mode, Product option are not same between indoor units
E590	Inverter EEPROM loading error
E901	Water inlet(PHE) temp sensor error(Short/Open)
E902	Water outlet(PHE) temp sensor error(Short/Open)
E906	Refrigerant gas inlet temp sensor error(Short/Open)

Indoor : Multi-position AHU



Unit: dB(A)

Model	High	Low
AC018KNZDCH/AA (ODU : AC018JXADCH/AA)	38	32
AC024KNZDCH/AA (ODU : AC024JXADCH/AA)	41	35
AC030KNZDCH/AA (ODU : AC030JXADCH/AA)	41	35
AC036KNZDCH/AA (ODU : AC036JXADCH/AA)	42	36

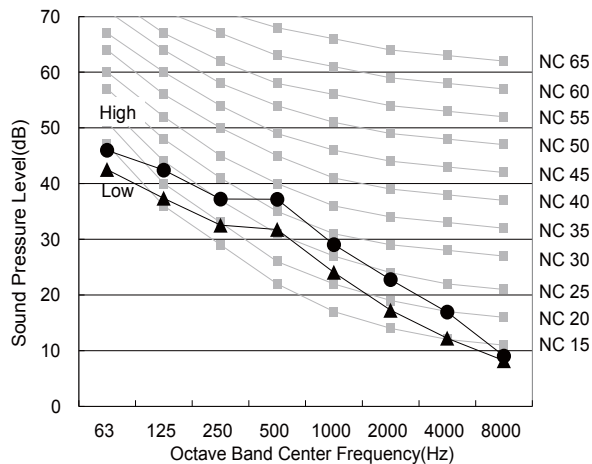
Note

* Specifications may be subject to change without prior notice

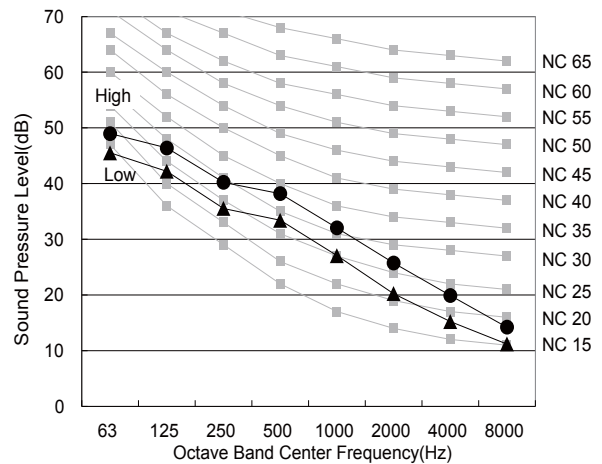
- 1) These operation values were obtained in an anechoic room.
- 2) Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.
- 3) Operation sound level may differ depending on operation and ambient conditions.

NC curve

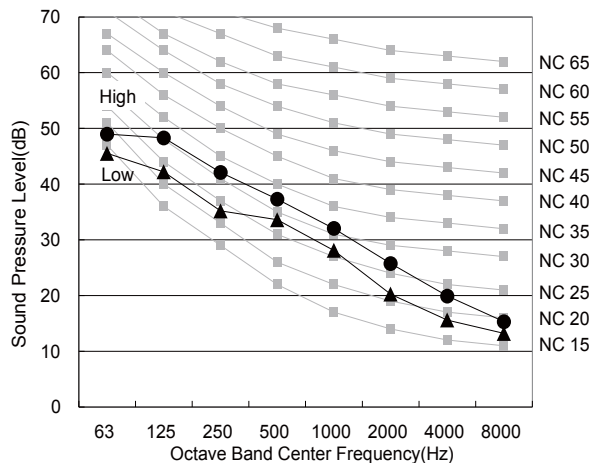
1) AC018KNZDCH/AA (ODU : AC018JXADCH/AA)



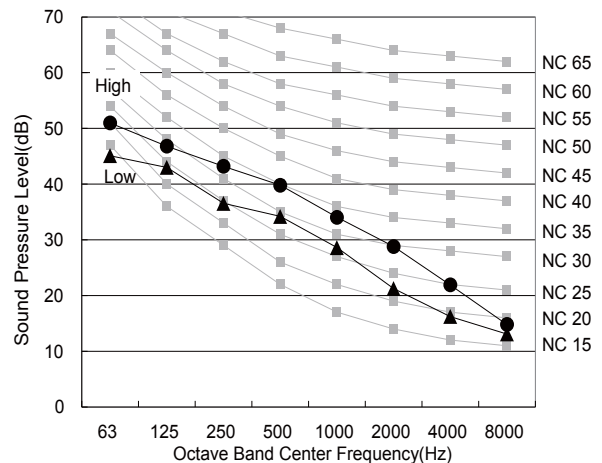
2) AC024KNZDCH/AA (ODU : AC024JXADCH/AA)



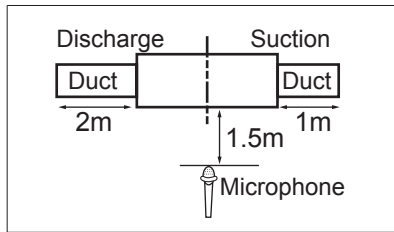
3) AC030KNZDCH/AA (ODU : AC030JXADCH/AA)



4) AC036KNZDCH/AA (ODU : AC036JXADCH/AA)



Indoor : Multi-position AHU



Unit: dB(A)

Model	High	Low
AC042KNZDCH/AA (ODU : AC042JXADCH/AA)	42	36
AC048KNZDCH/AA (ODU : AC048JXADCH/AA)	43	38
AC048KNZDCH/AA (ODU : AC048JXADCH/AA)	45	39

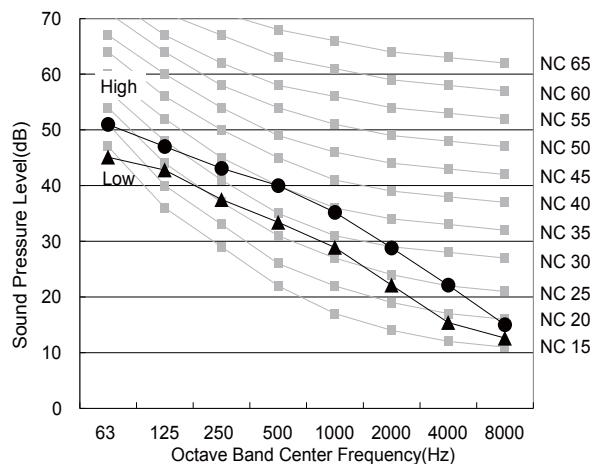
Note

* Specifications may be subject to change without prior notice

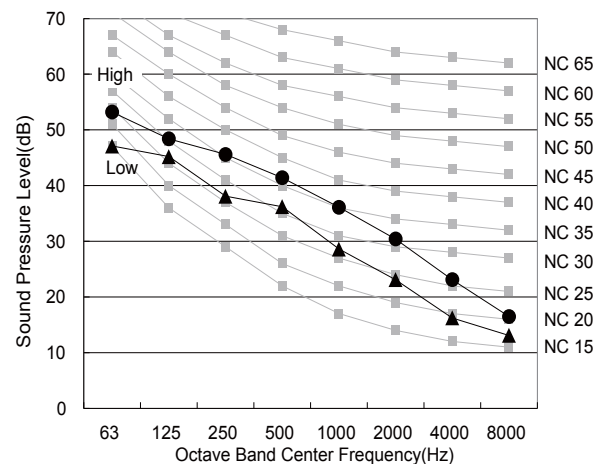
- 1) These operation values were obtained in an anechoic room.
- 2) Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.
- 3) Operation sound level may differ depending on operation and ambient conditions.

NC curve

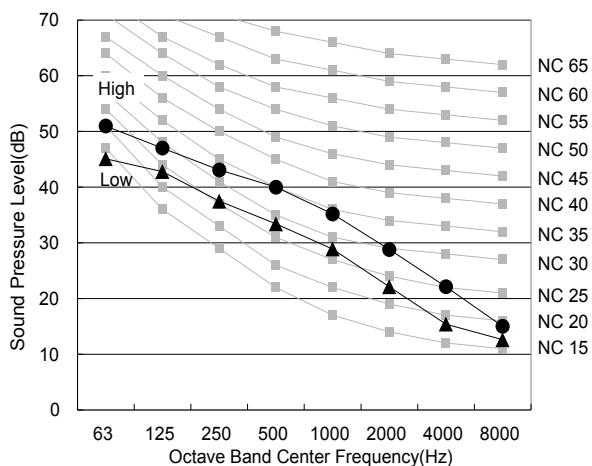
1) AC042KNZDCH/AA (ODU : AC042JXADCH/AA)



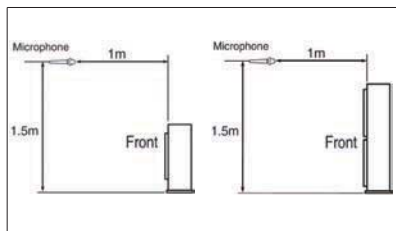
2) AC048KNZDCH/AA (ODU : AC048JXADCH/AA)



3) AC054KNZDCH/AA (ODU : AC054KXADCH/AA)



Outdoor



Unit: dB(A)

Model	Cooling
AC018JXADCH/AA (IDU : AC018KNZDCH/AA)	48
AC024JXADCH/AA (IDU : AC024KNZDCH/AA)	50
AC030JXADCH/AA (IDU : AC030KNZDCH/AA)	50
AC036JXADCH/AA (IDU : AC036KNZDCH/AA)	49

Note

* Specifications may be subject to change without prior notice

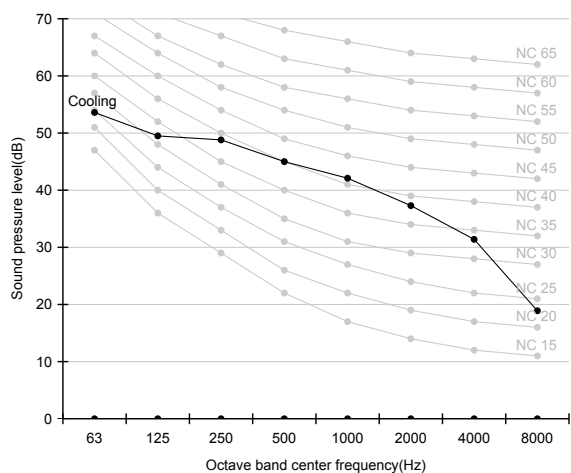
1) These operation values were obtained in an anechoic room.

2) Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.

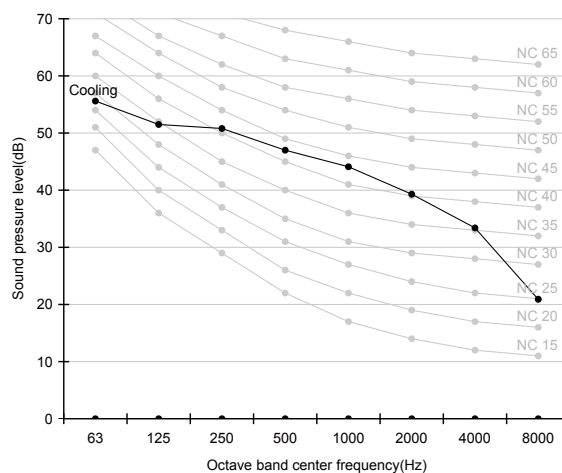
3) Operation sound level may differ depending on operation and ambient conditions.

NC curve

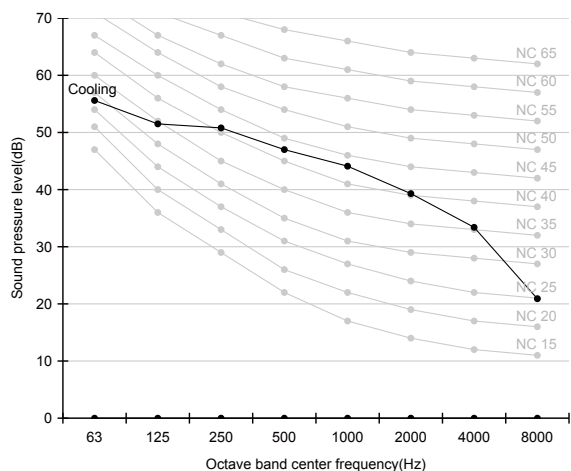
1) AC018JXADCH/AA (IDU : AC018KNZDCH/AA)



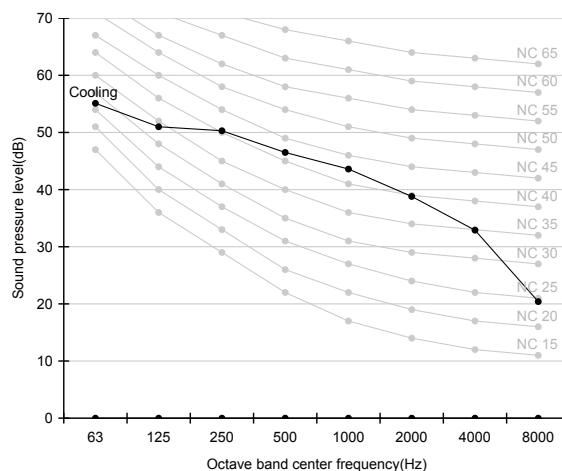
2) AC024JXADCH/AA (IDU : AC024KNZDCH/AA)



3) AC030JXADCH/AA (IDU : AC030KNZDCH/AA)

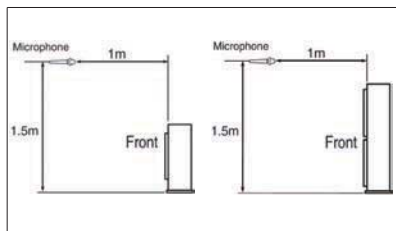


4) AC036JXADCH/AA (IDU : AC036KNZDCH/AA)



6 Sound pressure level

Outdoor



Unit: dB(A)

Model	Cooling
AC042JXADCH/AA (IDU : AC042KNZDCH/AA)	51
AC048JXADCH/AA (IDU : AC048KNZDCH/AA)	53
AC054KXADCH/AA (IDU : AC054KNZDCH/AA)	56

Note

* Specifications may be subject to change without prior notice

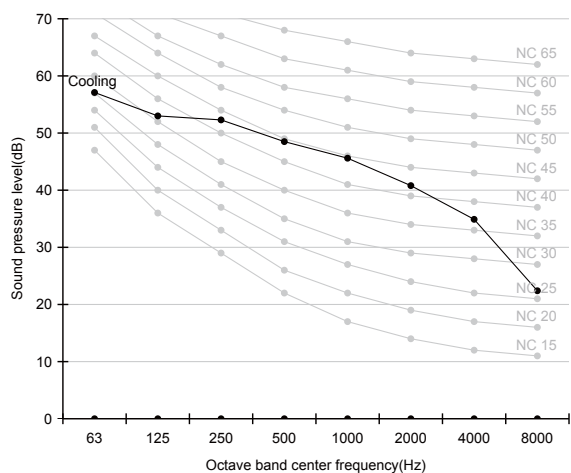
1) These operation values were obtained in an anechoic room.

2) Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.

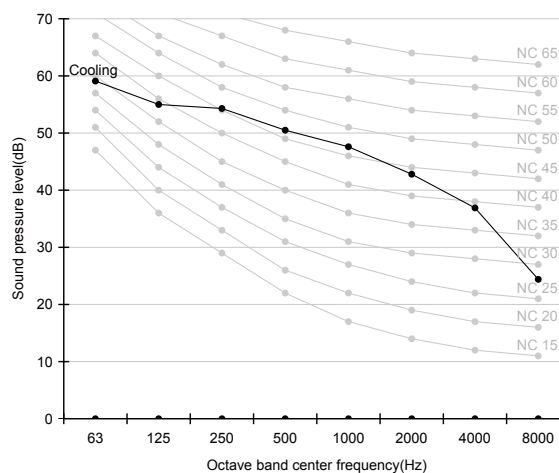
3) Operation sound level may differ depending on operation and ambient conditions.

NC curve

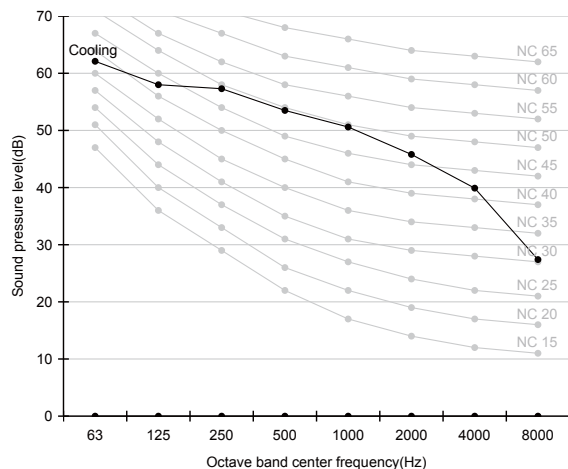
1) AC042JXADCH/AA (IDU : AC042KNZDCH/AA)



2) AC048JXADCH/AA (IDU : AC048KNZDCH/AA)

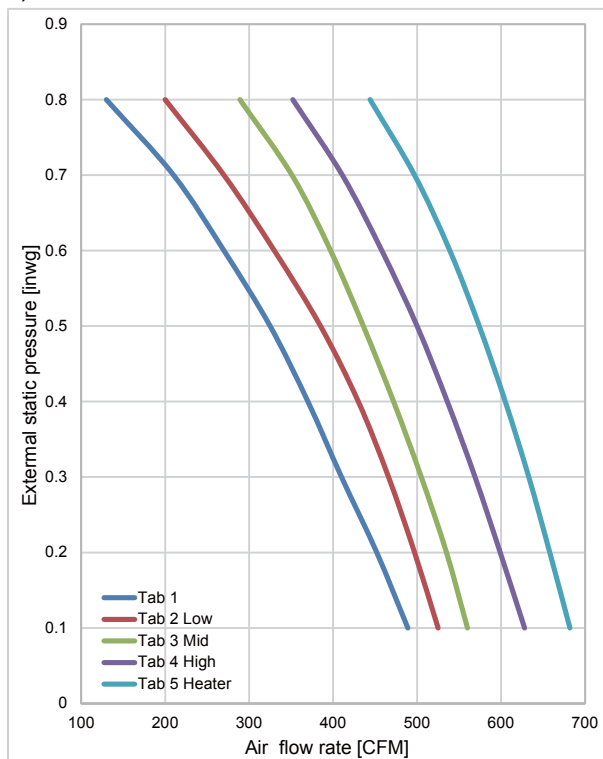


3) AC054KXADCH/AA (IDU : AC054KNZDCH/A)

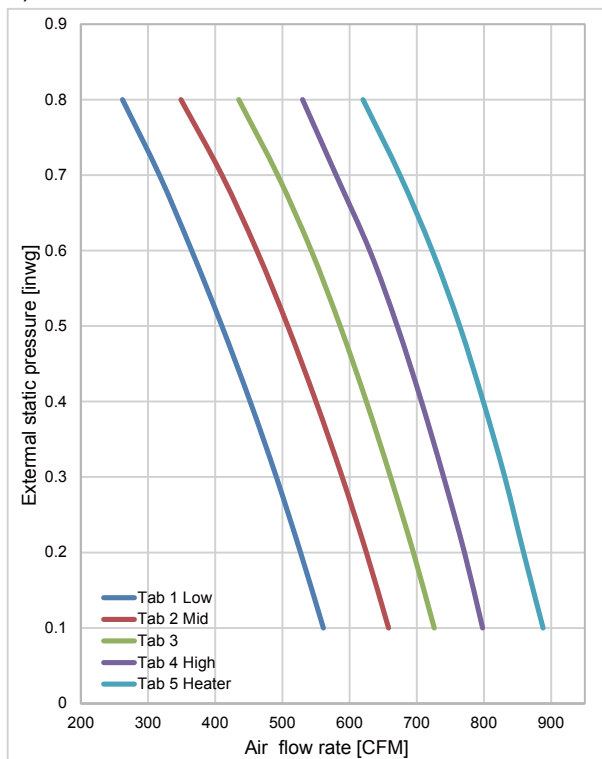


Multi-position AHU

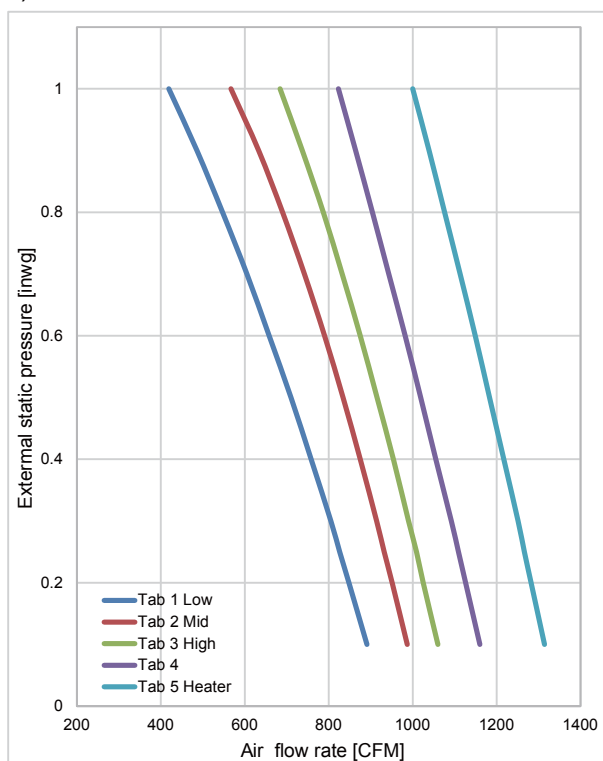
1) AC018KNZDCH/AA



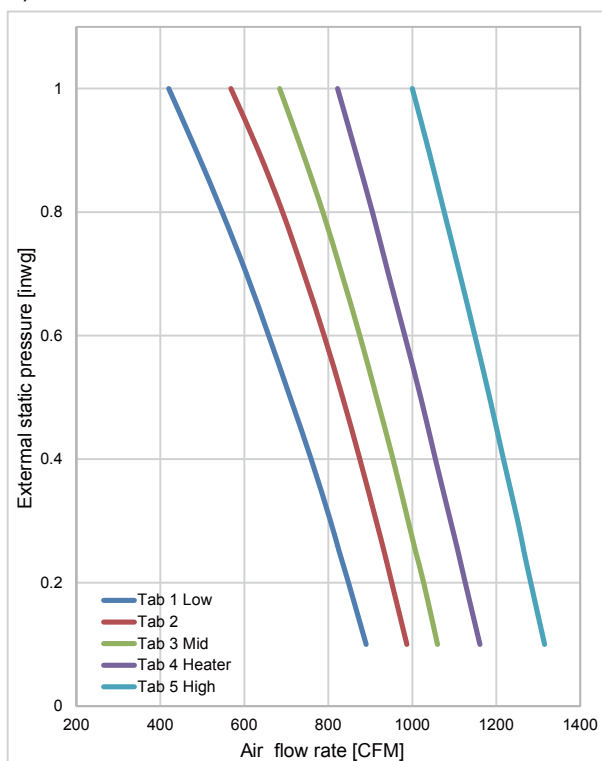
2) AC024KNZDCH/AA



3) AC030KNZDCH/AA



4) AC036KNZDCH/AA

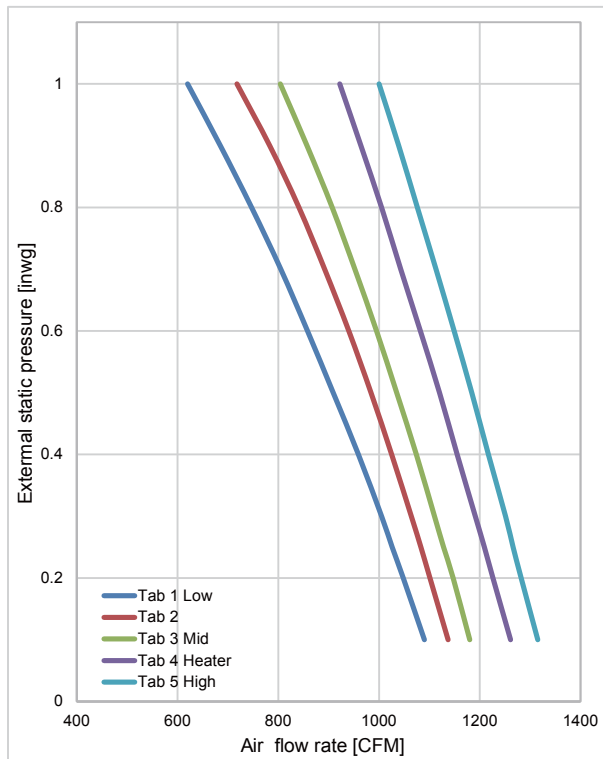


Note

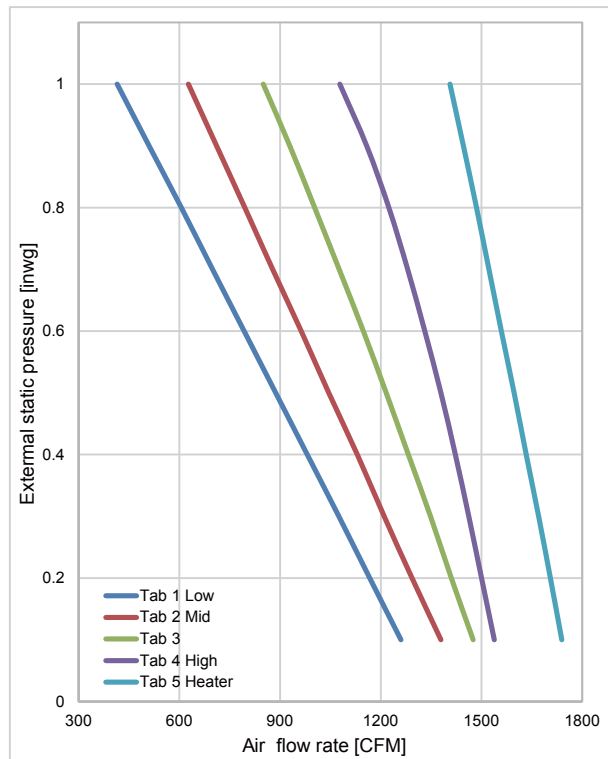
- The speed taps can be adjusted according to installation conditions.

Multi-position AHU

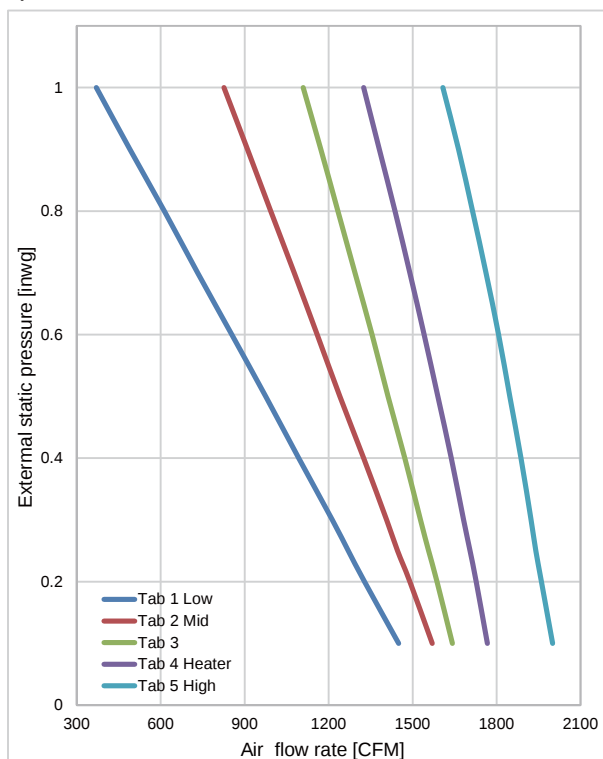
5) AC042KNZDCH/AA



6) AC048KNZDCH/AA



7) AC054KNZDCH/AA



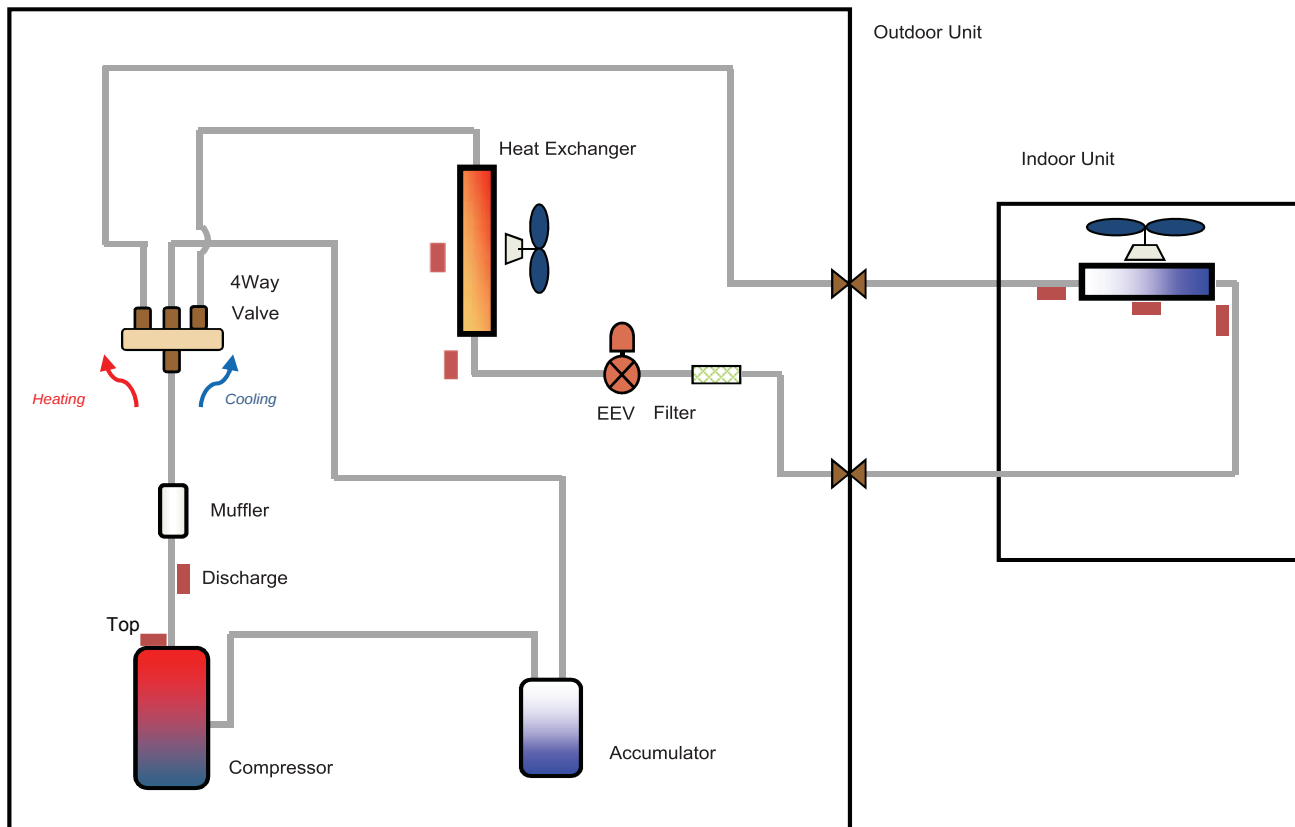
Note

- The speed taps can be adjusted according to installation conditions.

8 Cycle diagram

Outdoor

AC018JXADCH/AA, AC024JXADCH/AA, AC030JXADCH/AA, AC036JXADCH/AA, AC042JXADCH/AA, AC048JXADCH/AA, AC054KXADCH/AA



Category		Symbol	Description
Compressor			Rotary Inverter Compressor
Heat Exchanger			Condensing(FMC)/Evaporating unit
Accumulator			Accumulator
Filter			Filter
Valve	Expansion		Electronic Expansion Valve(EEV)
	Reversing		4 Way valve (Reversing valve)
	Service		Service valve
Sensor	Temperature		Pipe/Air Temperature sensor

Outdoor

AC018KNZDCH/AA + AC018JXADCH/AA

Cooling



		Pipe Length (ft)					
		16	33	49	66	82	98
Level Difference (ft)	66	-	-	-	0.96	0.94	0.93
	49	-	-	0.97	0.96	0.94	0.93
	33	-	0.99	0.97	0.96	0.94	0.93
	16	1.00	0.99	0.97	0.96	0.94	0.93
	0	1.00	0.99	0.97	0.96	0.94	0.93
	-16	1.00	0.98	0.97	0.95	0.94	0.92
	-33	-	0.97	0.96	0.95	0.94	0.92
	-49	-	-	0.96	0.94	0.93	0.92
	-66	-	-	-	0.94	0.92	0.91

Heating



		Pipe Length (ft)					
		16	33	49	66	82	98
Level Difference (ft)	66	-	-	-	0.94	0.92	0.90
	49	-	-	0.96	0.94	0.92	0.90
	33	-	0.98	0.96	0.94	0.92	0.90
	16	1.00	0.98	0.96	0.94	0.92	0.90
	0	1.00	0.98	0.96	0.94	0.92	0.90
	-16	1.00	0.98	0.96	0.94	0.92	0.90
	-33	-	0.98	0.96	0.94	0.92	0.90
	-49	-	-	0.96	0.94	0.92	0.90
	-66	-	-	-	0.94	0.92	0.90

AC024KNZDCH/AA + AC024JXADCH/AA

Cooling



		Pipe Length (ft)									
		16	33	49	66	82	98	115	131	148	164
Level Difference (ft)	98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	66	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	33	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90	0.88
	-33	-	0.98	0.97	0.96	0.95	0.94	0.92	0.91	0.89	0.87
	-49	-	-	0.97	0.96	0.94	0.93	0.92	0.90	0.88	0.85
	-66	-	-	-	0.95	0.94	0.93	0.91	0.89	0.87	0.83
	-82	-	-	-	-	0.94	0.92	0.91	0.89	0.86	0.82
	-98	-	-	-	-	-	0.92	0.90	0.88	0.85	0.80

Heating



		Pipe Length (ft)									
		16	33	49	66	82	98	115	131	148	164
Level Difference (ft)	98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	66	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	33	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-33	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-49	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-66	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-82	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	-98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90

Outdoor

AC030KNZDCH/AA + AC030JXADCH/AA

Cooling



		Pipe Length (ft)									
		16	33	49	66	82	98	115	131	148	164
Level Difference (ft)	98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	66	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	33	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90	0.88
	-33	-	0.98	0.97	0.96	0.95	0.94	0.92	0.91	0.89	0.87
	-49	-	-	0.97	0.96	0.94	0.93	0.92	0.90	0.88	0.85
	-66	-	-	-	0.95	0.94	0.93	0.91	0.89	0.87	0.83
	-82	-	-	-	-	0.94	0.92	0.91	0.89	0.86	0.82
	-98	-	-	-	-	-	0.92	0.90	0.88	0.85	0.80

Heating



		Pipe Length (ft)									
		16	33	49	66	82	98	115	131	148	164
Level Difference (ft)	98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	66	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	33	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-33	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-49	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-66	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-82	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	-98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90

AC036KNZDCH/AA + AC036JXADCH/AA

Cooling



		Pipe Length (ft)														
		16	33	49	66	82	98	115	131	148	164	180	197	213	230	246
Level Difference (ft)	98	-	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	82	-	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	66	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	49	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	33	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	16	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	0	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-16	1.00	0.99	0.98	0.97	0.96	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-33	-	0.98	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.92	0.91	0.90	0.89	0.87	0.85
	-49	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.84
	-66	-	-	-	0.96	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.83
	-82	-	-	-	-	0.95	0.94	0.93	0.92	0.92	0.91	0.90	0.88	0.87	0.85	0.81
	-98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.84	0.80

Heating



		Pipe Length (ft)														
		16	33	49	66	82	98	115	131	148	164	180	197	213	230	246
Level Difference (ft)	98	-	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	82	-	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	66	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	49	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	33	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	16	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	0	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-16	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-33	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-49	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-66	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-82	-	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-98	-	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88

Outdoor

AC054KNZDCH/AA + AC054KXADCH/AA

Cooling



		Pipe Length (ft)														
		16	33	49	66	82	98	115	131	148	164	180	197	213	230	246
Level Difference (ft)	98	-	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	82	-	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	66	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	49	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	33	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	16	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	0	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-16	1.00	0.99	0.98	0.97	0.96	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-33	-	0.98	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.92	0.91	0.90	0.89	0.87	0.85
	-49	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.84
	-66	-	-	-	0.96	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.83
	-82	-	-	-	-	0.95	0.94	0.93	0.92	0.92	0.91	0.90	0.88	0.87	0.85	0.81
	-98	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.84	0.80

Heating



		Pipe Length (ft)														
		16	33	49	66	82	98	115	131	148	164	180	197	213	230	246
Level Difference (ft)	98	-	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	82	-	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	66	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	49	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	33	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	16	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	0	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-16	1.00	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-33	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-49	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-66	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-82	-	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
	-98	-	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88

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