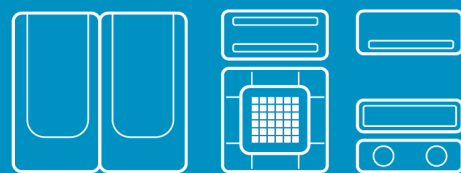


SINGLE

Technical Data Book

PAC for Europe (R410A, 50Hz, HP)



Model : AC***KNPDEH/EU
AC***KXAD*H/EU

History

Version	Modification	Date	Remark
Ver 1.0	Release SINGLE PAC for Europe (R410A, 50Hz)	16.07.15	-

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1 Nomenclature

Indoor Units

Model Names

AC	100	K	N	P	D	E	H	/	EU
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AC	SINGLE
AM	VRF

(2) Capacity

x 1/10 kW (3 digits)

(3) Version

F	2013
H	2014
J	2015
K	2016

(4) Product Type

N	Indoor Unit
X	Outdoor Unit

(5) Product Notation

1	1Way Cassette
2	2Way Cassette
N	4Way Cassette S (600 x 600)
4	4Way Cassette S
L	LSP Duct (Slim Duct)
M	MSP Duct
H	HSP Duct
C	Ceiling
T	Neo Forte
P	PAC

(6) Feature

D	DELUXE
F	FLAGSHIP
P	Premium
G(EHS)	Cascade (EEV)

(7) Rating Voltage

C	1Ø, 208~230V, 60Hz
E	1Ø, 220~240V, 50Hz
G	3Ø, 380~415V, 50Hz
K	1Ø, 220~240V, 50/60Hz
N	3Ø, 380~415V, 50/60Hz

(8) Mode

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

1 Nomenclature

Outdoor Units

Model Names

AC	100	K	X	A	D	E	H	/	EU
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AC	SINGLE
AM	VRF

(5) Feature1

A	Inv+Side+General Temp
B	Non Inv+Side+General Temp

(2) Capacity

x 1/10 kW (3 digits)

(6) Feature2

D	Deluxe
F	Flagship
P	Premium
S	Standard

(3) Version

F	2013
H	2014
J	2015
K	2016

(7) Rating Voltage

E	1Ø, 220~240V, 50Hz
G	3Ø, 380~415V, 50Hz
K	1Ø, 220~240V, 50/60Hz
N	3Ø, 380~415V, 50/60Hz

(4) Product Type

N	Indoor Unit
X	Outdoor Unit

(8) Mode

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

2 Specifications

PAC

Type				Floor Standing	Floor Standing		
Model Name	Indoor Unit			AC100KNPDEH/EU	AC140KNPDEH/EU		
	Outdoor Unit			AC100KXADEH/EU	AC140KXADGH/EU		
System	Mode			Heat Pump			
	Capacity	Cooling(Min/Std/Max)		kW	3.50 / 10.00 / 12.30	4.20 / 13.40 / 16.70	
				Btu/h	11,900 / 34,100 / 42,000	14,300 / 45,700 / 57,000	
		Heating(Min/Std/Max)		kW	4.20 / 11.20 / 14.00	4.00 / 15.50 / 20.00	
				Btu/h	14,300 / 38,200 / 47,800	13,600 / 52,900 / 68,200	
	Power	Power Input (Nominal)	Cooling(Min/Std/Max)	kW	1.10 / 3.70 / 4.90	0.90 / 4.32 / 5.90	
			Heating(Min/Std/Max)	kW	0.90 / 3.39 / 4.50	0.70 / 4.50 / 6.60	
		Current Input (Nominal)	Cooling(Min/Std/Max)	A	4.30 / 16.40 / 23.20	1.90 / 6.80 / 9.50	
			Heating(Min/Std/Max)	A	4.10 / 14.90 / 20.50	1.40 / 6.70 / 10.70	
		MCA		A	23.2	16.1	
		MFA		A	29.0	16.1	
	Energy Efficiency	EER (Nominal Cooling)		-	2.70	3.10	
		COP (Nominal Heating)		-	3.30	3.44	
		Energy Grade	SEER	-	A+(5.8)	-	
			SCOP	-	A+(4.1)	-	
	Piping Connections	Liquid Pipe		Ø, mm	9.52	9.52	
				Ø, inch	3/8"	3/8"	
		Gas Pipe		Ø, mm	15.88	15.88	
				Ø, inch	5/8"	5/8"	
		Installation Limitation	Max. Length	m	50	75	
Max. Height			m	30	30		
Field Wiring	Power Source Wire		Ø, mm	-	-		
	Transmission Cable		Ø, mm	-	-		
Refrigerant	Type		-	R410A	R410A		
	Control Method		-	EEV	EEV		
	Factory Charging		kg	3.00	3.50		
Indoor Unit	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	
	Fan	Type		-	Sirocco	Sirocco	
		Motor	Output		W	97 x 1	154 x 1
			Air Flow Rate		Turbo	CMM	29.00
		External Static Pressure		Min/Std/Max	mmAq	-	-
					Pa	-	-
	Drain	Drain Pipe		Ø,mm	-	-	
		Sound	Pressure	Turbo/High/Med		47 / 44 / 41	51 / 48 / 45
	Power		Cooling		60	63	
	External Dimension	Net Weight		kg	42.00	46.00	
		Shipping Weight		kg	49.00	53.00	
		Net Dimensions (WxHxD)		mm	610 x 1,850 x 400	610 x 1,850 x 400	
		Shipping Dimensions (WxHxD)		mm	705 x 1,963 x 493	705 x 1,963 x 493	
	Panel Size	Panel model		-	-	-	
		Panel Net Weight		kg	-	-	
		Shipping Weight		kg	-	-	
		Net Dimensions (WxHxD)		mm	-	-	
		Shipping Dimensions (WxHxD)		mm	-	-	
	Additional Accessories	Drain pump	Drain pump	-	-	-	
			Max. Lifting	mm/liter/h	-	-	
Air Filter		-	-	-			
Outdoor Unit	Power Supply			Ø, #, V, Hz	1,2,220-240,50	3,4,380-415,50	
	Compressor	Type		-	BLDC Rotary	Twin BLDC Rotary	
		Model		-	UG8T300FUBJU	UG5TK1450FJX	
		Output		kW	2.82	4.19	
		Oil	Type		-	PVE	PVE
	Fan		Air Flow Rate	Cooling	CMM	76.00	110.00
				I/s	1,266.67	1,833.33	
	Sound	Pressure	Cooling/Heating		53 / 55	53 / 54	
			Power	Cooling		70	70
	External Dimension	Net Weight		kg	72.00	85.0	
		Shipping Weight		kg	77.00	94.0	
		Net Dimensions (WxHxD)		mm	940 x 998 x 330	940 x 1,210 x 330	
		Shipping Dimensions (WxHxD)		mm	995 x 1,096 x 426	995 x 1,388 x 426	
	Operating Temp. Range	Cooling		°C	-15.0 ~ 50.0	-15.0 ~ 50.0	
		Heating		°C	-20.0 ~ 24.0	-20.0 ~ 24.0	

* Specifications may be subject to change without prior notice.

1) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 5m, Level differences : 0m

2) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 5m, Level differences : 0m

3) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

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

3 Capacity table

PAC

AC100KNPDEH/EU + AC100KXADEH/EU

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (°C)																				
	20 (DB)			22 (DB)			25 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)
-15.0	9.80	7.60	2.65	10.30	7.90	2.70	10.70	8.10	2.76	11.00	8.40	2.81	11.20	8.30	2.84	11.80	8.20	2.87	12.40	8.00	2.93
21.0	9.30	7.30	2.79	9.80	7.50	2.84	10.20	7.70	2.90	10.50	8.00	2.96	10.70	7.90	2.99	11.20	7.80	3.02	11.80	7.70	3.08
35.0	8.80	6.90	3.48	9.30	7.20	3.55	9.70	7.40	3.63	10.00	7.60	3.70	10.20	7.50	3.74	10.70	7.40	3.77	11.20	7.30	3.85
46.0	7.40	6.30	3.65	7.80	6.50	3.73	8.10	6.70	3.80	8.40	6.90	3.88	8.60	6.80	3.92	9.00	6.80	3.96	9.40	6.60	4.04
50.0	6.60	5.90	3.75	7.00	6.10	3.82	7.30	6.30	3.90	7.50	6.50	3.98	7.70	6.40	4.02	8.00	6.30	4.06	8.40	6.20	4.14

Heating

TC : Total Capacity, PI: Power Input

Outdoor Air Temp. (DB)	Indoor temperature (°C)											
	16 (DB)		18 (DB)		20 (DB)		21 (DB)		22 (DB)		24 (DB)	
	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)
-20.0	8.60	4.51	8.50	4.46	8.40	4.42	8.30	4.38	8.20	4.33	8.20	4.29
-15.0	9.80	4.86	9.70	4.81	9.60	4.76	9.50	4.71	9.40	4.67	9.30	4.62
-5.0	11.20	4.84	11.10	4.79	11.00	4.75	10.90	4.70	10.80	4.65	10.70	4.61
0.0	11.70	4.15	11.50	4.11	11.40	4.07	11.30	4.03	11.20	3.99	11.10	3.95
7.0	11.40	3.46	11.30	3.42	11.20	3.39	11.10	3.36	11.00	3.32	10.90	3.29
24.0	13.90	3.43	13.70	3.39	13.60	3.36	13.50	3.33	13.30	3.29	13.20	3.26

AC140KNPDEH/EU + AC140KXADGH/EU

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (°C)																				
	20 (DB)			22 (DB)			25 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)	TC(kW)	SHC(kW)	PI(kW)
-15.0	13.10	10.00	3.09	13.80	10.30	3.15	14.30	10.60	3.22	14.80	10.90	3.28	15.10	10.80	3.32	15.80	10.70	3.35	16.60	10.50	3.42
21.0	12.40	9.50	3.25	13.10	9.80	3.32	13.60	10.10	3.39	14.10	10.40	3.46	14.40	10.30	3.49	15.10	10.20	3.53	15.80	10.00	3.60
35.0	11.90	9.10	4.07	12.50	9.30	4.15	13.00	9.60	4.23	13.40	9.90	4.32	13.70	9.80	4.36	14.40	9.70	4.41	15.10	9.50	4.49
46.0	9.70	8.30	4.60	10.20	8.50	4.70	10.70	8.80	4.79	11.00	9.10	4.89	11.20	9.00	4.94	11.80	8.90	4.99	12.40	8.70	5.09
50.0	8.60	7.70	4.89	9.00	7.90	4.99	9.40	8.20	5.10	9.70	8.40	5.20	9.90	8.40	5.25	10.40	8.30	5.30	10.90	8.10	5.41

Heating

TC : Total Capacity PI: Power Input

Outdoor Air Temp. (DB)	Indoor temperature (°C)											
	16 (DB)		18 (DB)		20 (DB)		21 (DB)		22 (DB)		24 (DB)	
	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)	TC(kW)	PI(kW)
-20.0	9.60	5.30	9.50	5.25	9.40	5.20	9.30	5.15	9.20	5.10	9.10	5.05
-15.0	13.80	6.89	13.60	6.82	13.50	6.75	13.40	6.68	13.20	6.62	13.10	6.55
-5.0	15.50	6.43	15.30	6.36	15.20	6.30	15.00	6.24	14.90	6.17	14.70	6.11
0.0	16.10	5.51	16.00	5.45	15.80	5.40	15.70	5.35	15.50	5.29	15.30	5.24
7.0	15.80	4.59	15.70	4.55	15.50	4.50	15.30	4.46	15.20	4.41	15.00	4.37
24.0	20.50	5.15	20.30	5.10	20.10	5.05	19.90	5.00	19.70	4.95	19.50	4.90

* Capacity table may be subject to change without prior notice.

1) Capacities are based on following conditions:

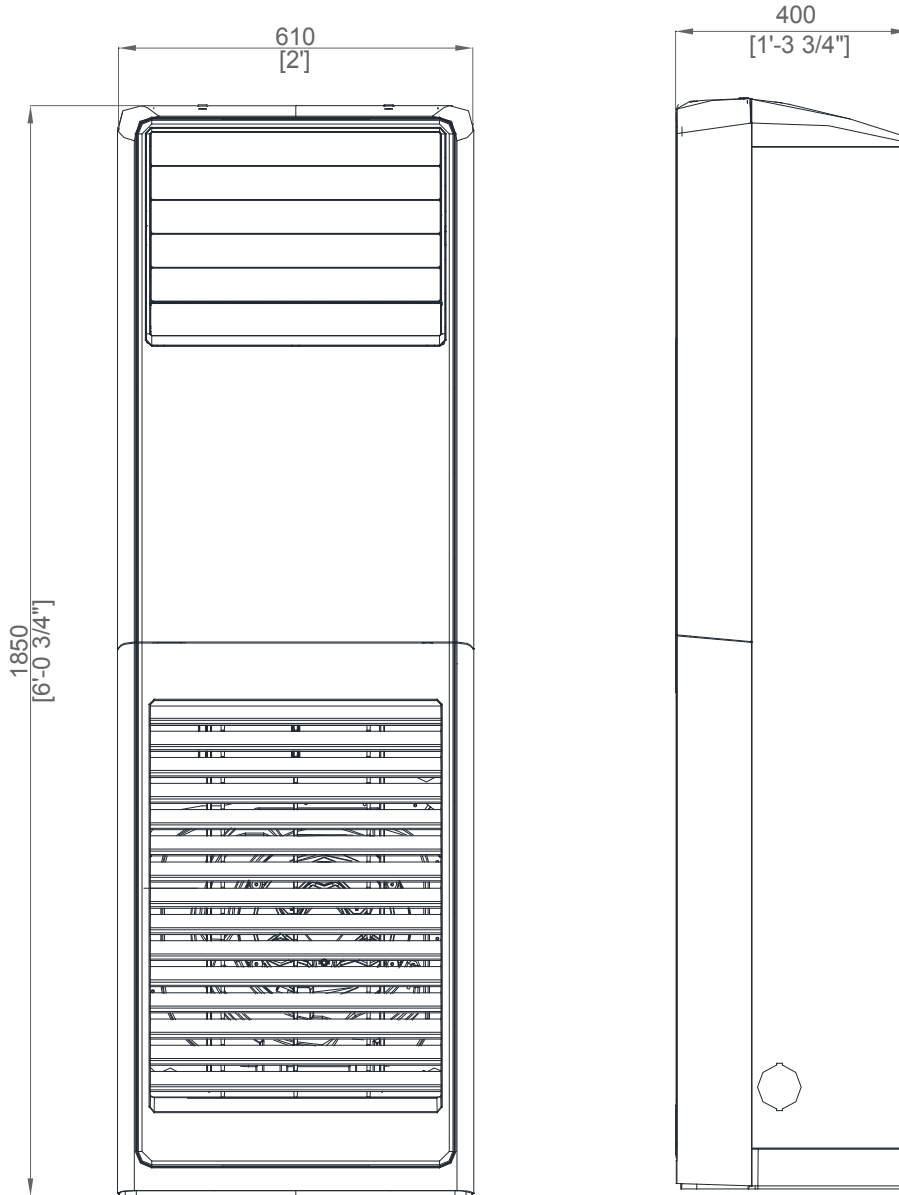
- . Cooling mode indoor air temperature (°C, DB/WB) : 20/14, 22/16, 25/18, 27/19, 28/20, 30/22, 32/24
- . Heating mode outdoor air : 85%RH. However, the condition rated capacity is 7°C DB / 6°C WB.
- . Refrigerant piping length : 5m
- . Level difference : 0m.

4 Dimensional drawing

Indoor : PAC

AC100KNPDEH/EU, AC140KNPDEH/EU

Units : mm / inches



No.	Name	Description
1	Refrigerant gas pipe	Ø15.88 Flare
2	Refrigerant liquid pipe	Ø9.52 Flare
3	Drain pipe connection	-

4 Dimensional drawing

Outdoor

AC100KXADEH/EU

Units : mm / inches

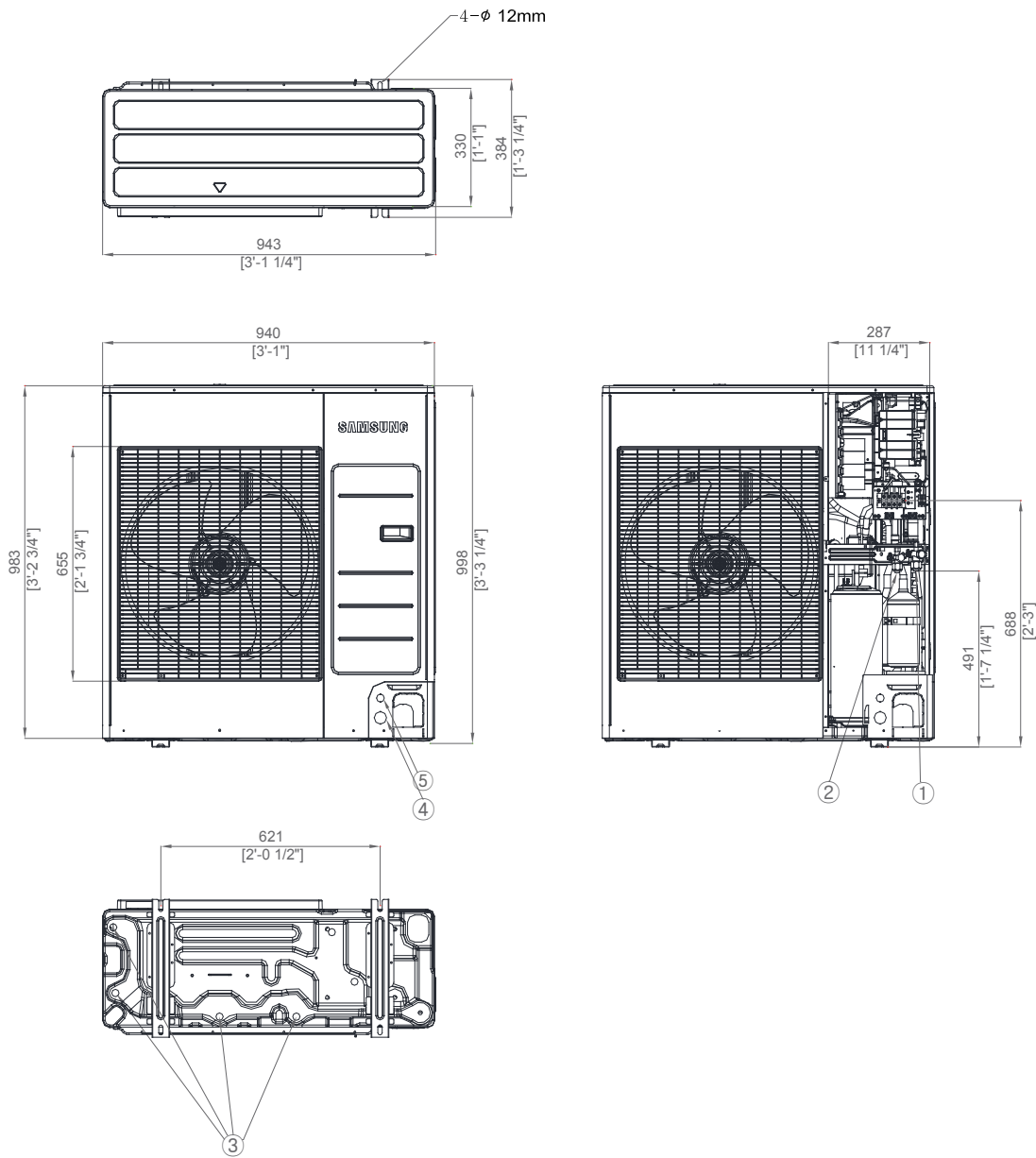


Table of descriptions

1	Refrigerant gas pipe	Ø15.88
2	Refrigerant liquid pipe	Ø 9.52
3	Drain Hole	Ø 20.6
4	Power wiring conduits	Ø 34.5
5	Comm. wiring conduits	Ø 22.2
6		

4 Dimensional drawing

Outdoor

AC140KXADGH/EU

Units : mm / inches

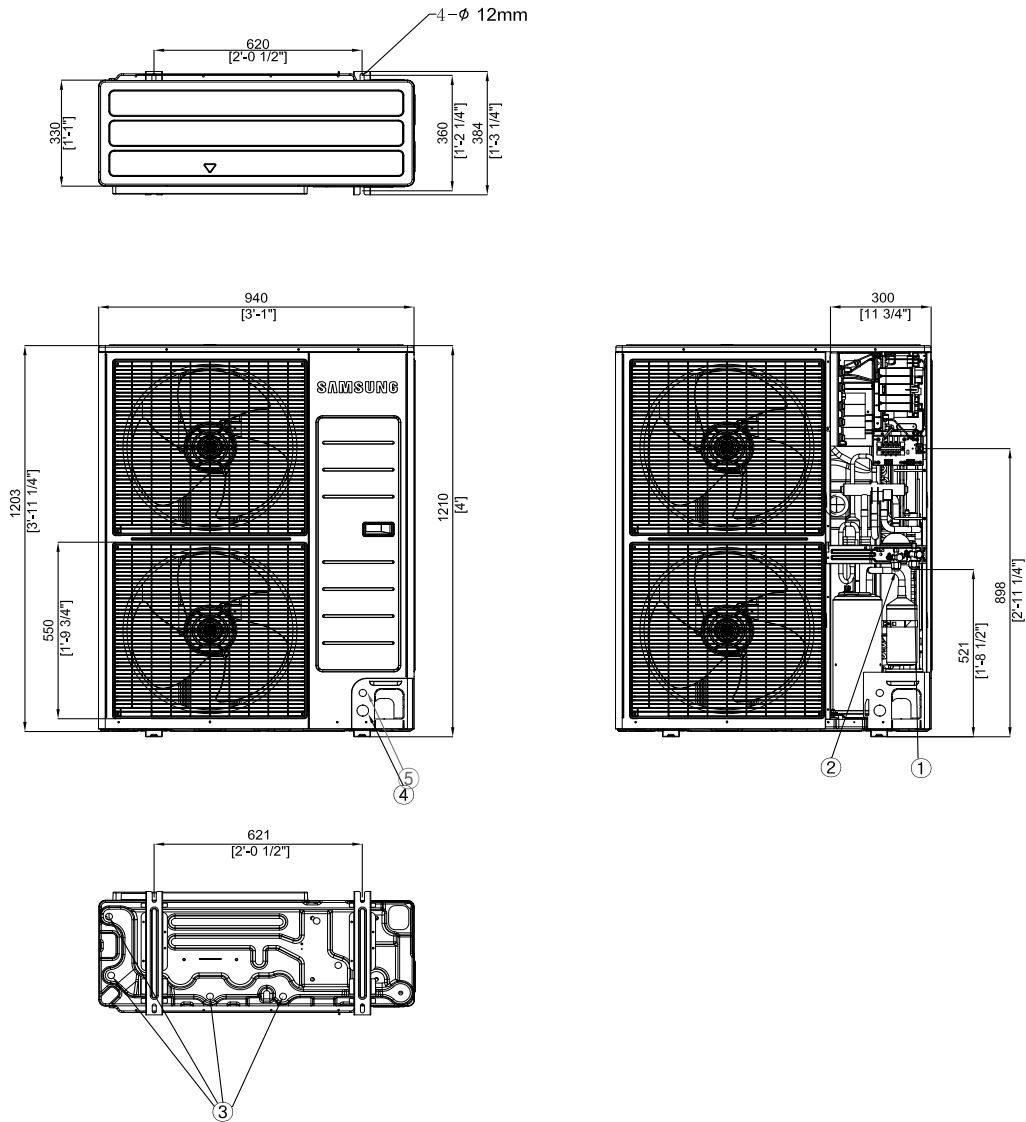


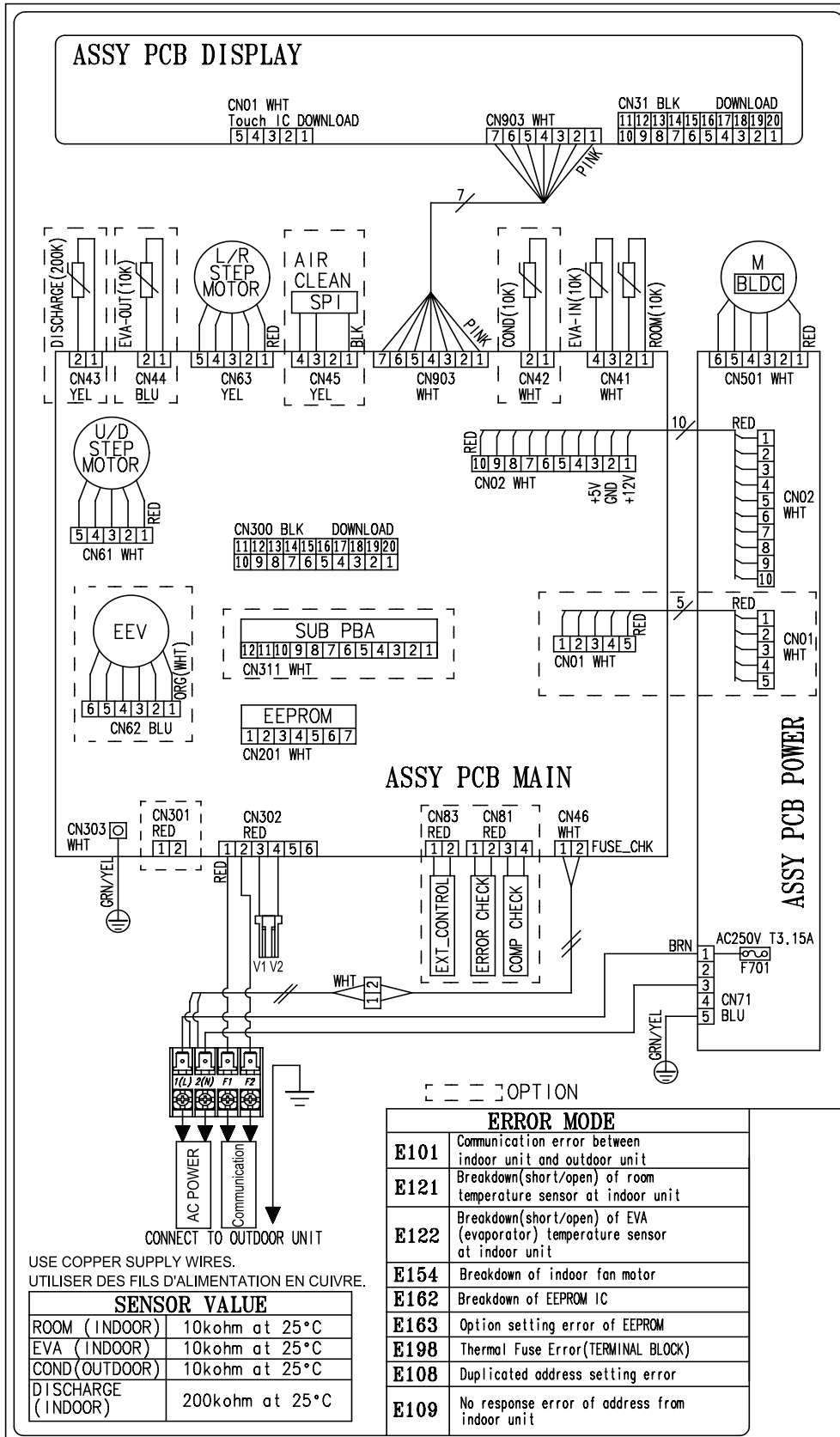
Table of descriptions

1	Refrigerant gas pipe	Ø15.88
2	Refrigerant liquid pipe	Ø 9.52
3	Drain Hole	Ø 20.6
4	Power wiring conduits	Ø 34.5
5	Comm. wiring conduits	Ø 22.2
6		

5 Electrical wiring diagram

Indoor : PAC

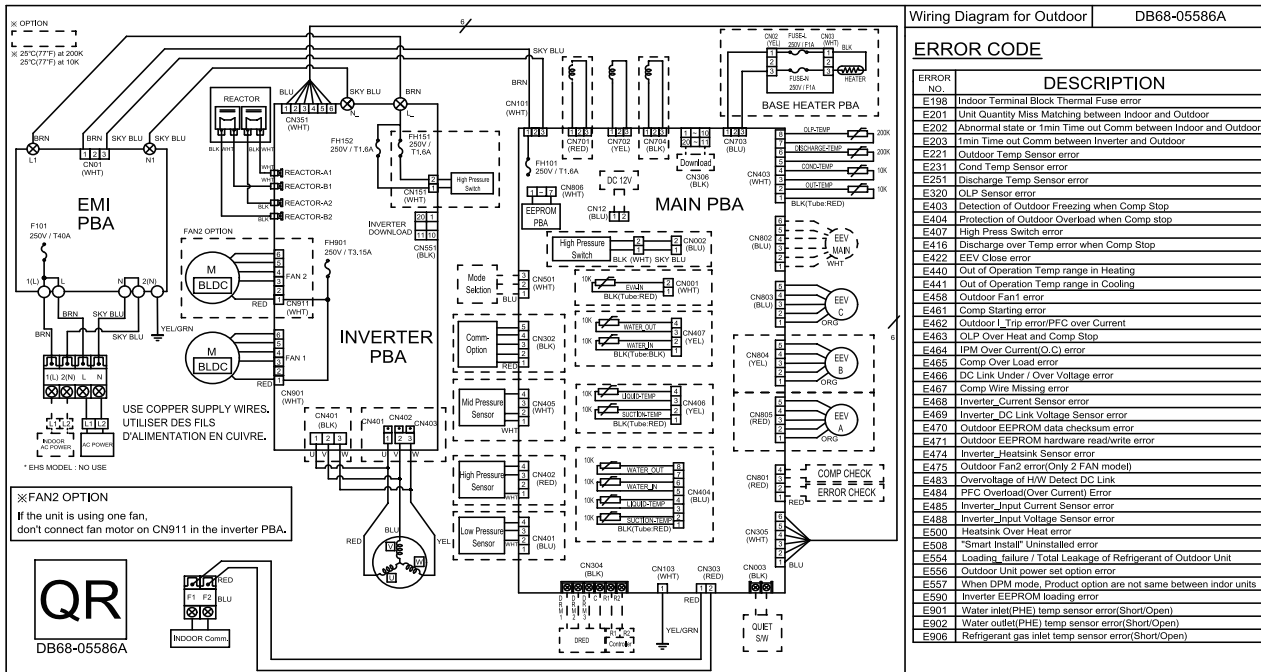
AC100KNPDEH/EU, AC140KNPDEH/EU



5 Electrical wiring diagram

Outdoor

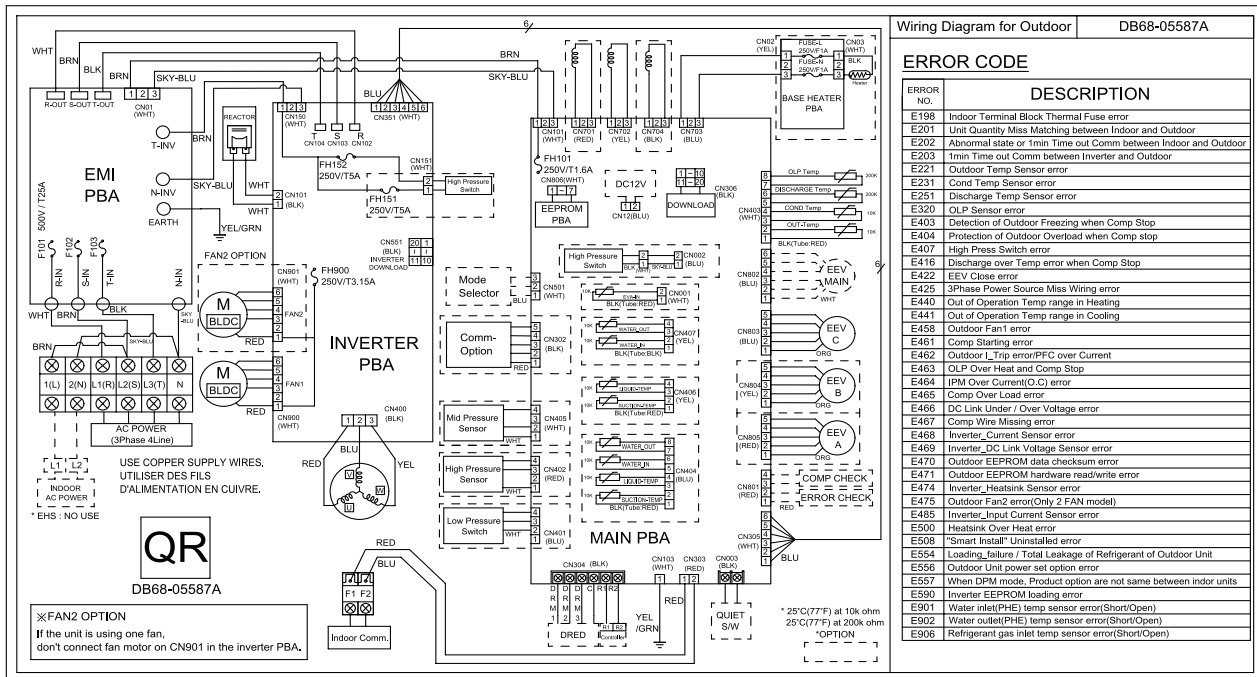
AC100KXADEH/EU



5 Electrical wiring diagram

Outdoor

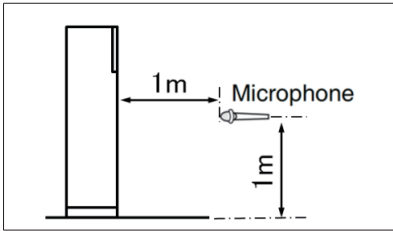
AC140KXADGH/EU



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 Overload when Comp stop
E407	High Press Switch error
E416	Discharge over Temp error when Comp Stop
E422	EEV Close error
E425	3Phase Power Source Miss Wiring 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 I_Trip error/PCF 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 Wires 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)
E485	Inverter_Input Current 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 set option error
E557	When DPM 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)

6 Sound pressure level

Indoor : PAC



Unit: dB(A)

Model	Turbo	Med
AC100KNPDEH/EU (ODU : AC100KXADEH/EU)	47	41
AC140KNPDEH/EU (ODU : AC140KXADGH/EU)	51	45

Note

* Specifications may be subject to change without prior notice

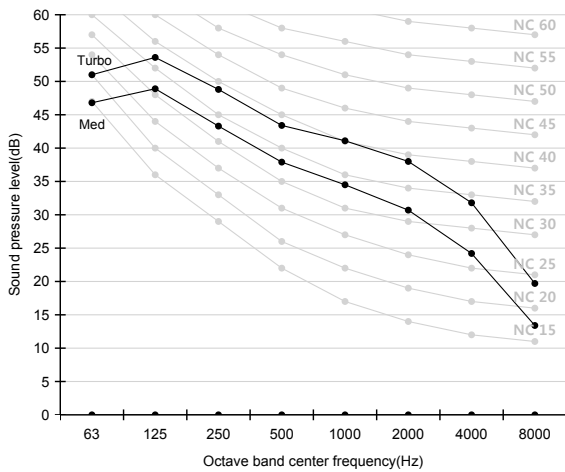
1) These operation values were obtained in an anechoic room.

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.

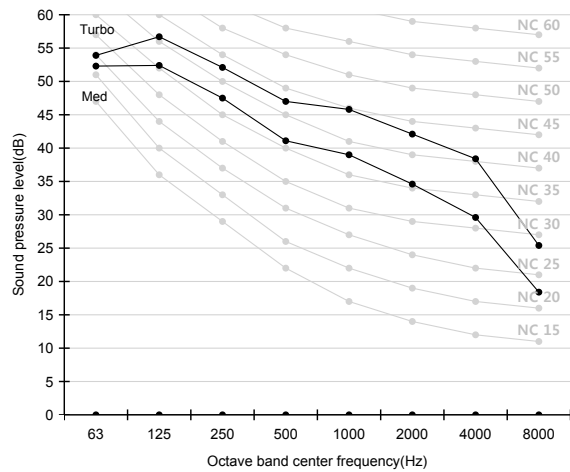
3) Operation sound level may differ depending on operation and ambient conditions.

NC curve

1) AC100KNPDEH/EU (ODU : AC100KXADEH/EU)



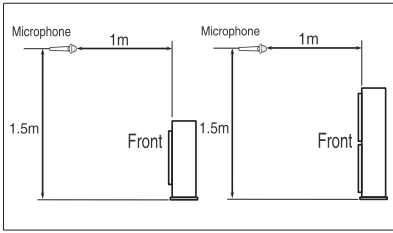
2) AC140KNPDEH/EU (ODU : AC140KXADGH/EU)



6 Sound pressure level

Outdoor

Unit: dB(A)



Model	Cooling	Heating
AC100KXADEH/EU (IDU : AC100KNPDEH/EU)	53	55
AC140KXADGH/EU (IDU : AC140KNPDEH/EU)	53	54

Note

* Specifications may be subject to change without prior notice

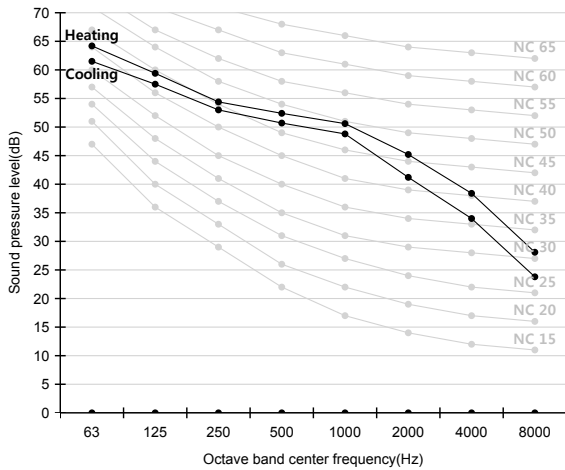
1) These operation values were obtained in an anechoic room.

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.

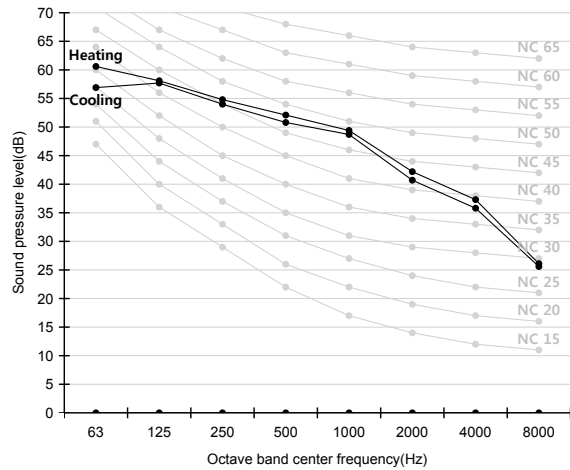
3) Operation sound level may differ depending on operation and ambient conditions.

NC curve

1) AC100KXADEH/EU (IDU : AC100KNPDEH/EU)



2) AC140KXADGH/EU (IDU : AC140KNPDEH/EU)



7 Sound power level

Indoor : PAC

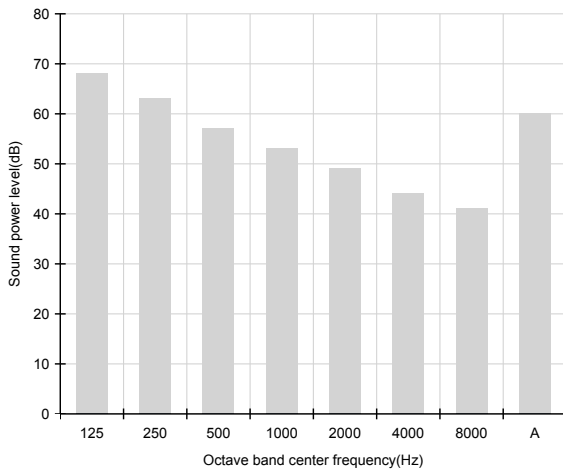
Note

- * Specifications may be subject to change
- 1) dBA = A-weighted sound power level.
- 2) Reference power : 1pW.
- 3) Measured according to ISO 3741.

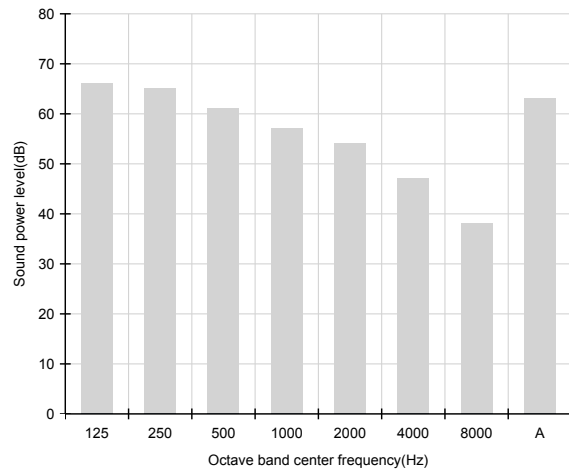
Unit: dB(A)

Model	Power
AC100KNPDEH/EU (ODU : AC100KXADEH/EU)	60
AC140KNPDEH/EU (ODU : AC140KXADGH/EU)	63

1) AC100KNPDEH/EU (ODU : AC100KXADEH/EU)



2) AC140KNPDEH/EU (ODU : AC140KXADGH/EU)



7 Sound power level

Outdoor

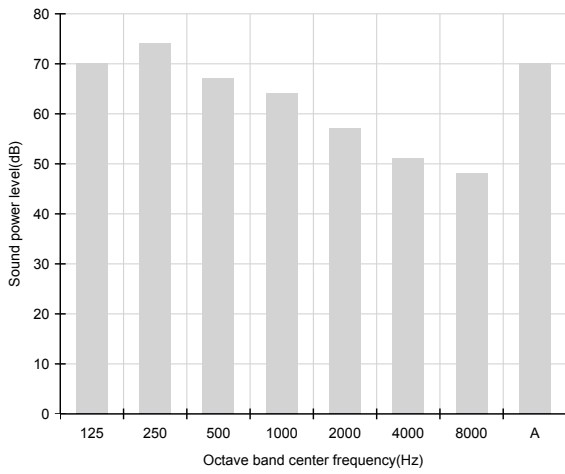
Note

- * Specifications may be subject to change
- 1) dBA = A-weighted sound power level.
- 2) Reference power : 1pW.
- 3) Measured according to ISO 3741.

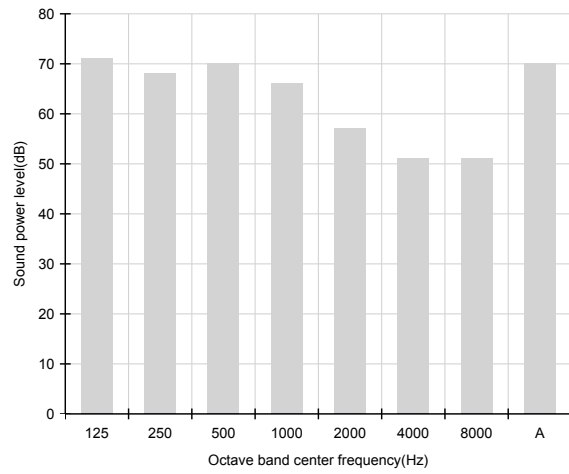
Unit: dB(A)

Model	Power
AC100KXADEH/EU (IDU : AC100KNPDEH/EU)	70
AC140KXADGH/EU (IDU : AC140KNPDEH/EU)	70

1) AC100KXADEH/EU (IDU : AC100KNPDEH/EU)



2) AC140KXADGH/EU (IDU : AC140KNPDEH/EU)

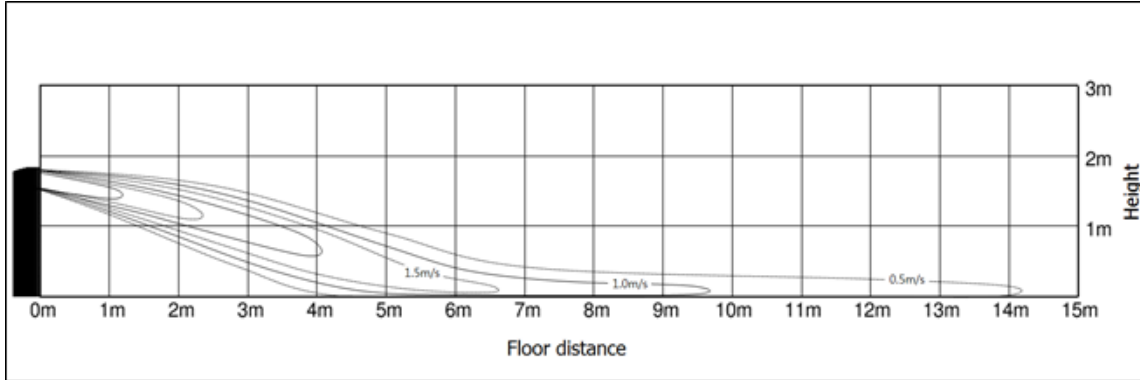


8 Temperature and air flow distribution

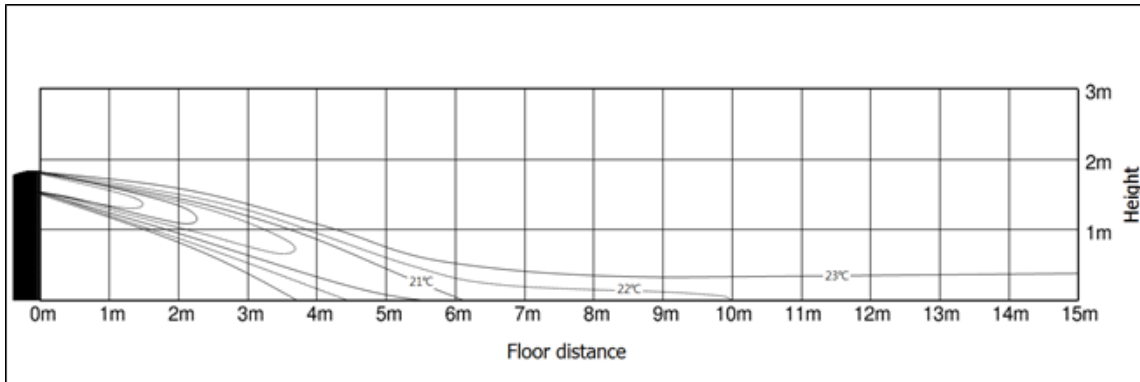
Indoor : PAC

AC100KNPDEH/EU

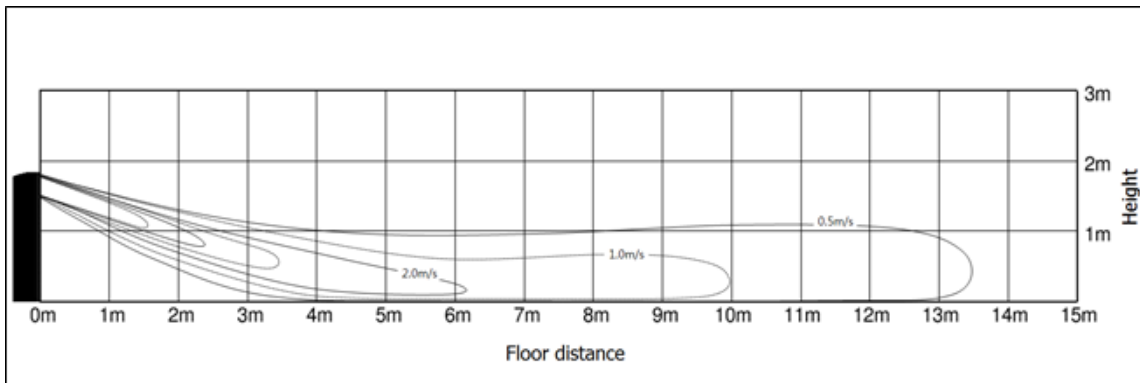
(1) Cooling air velocity distribution



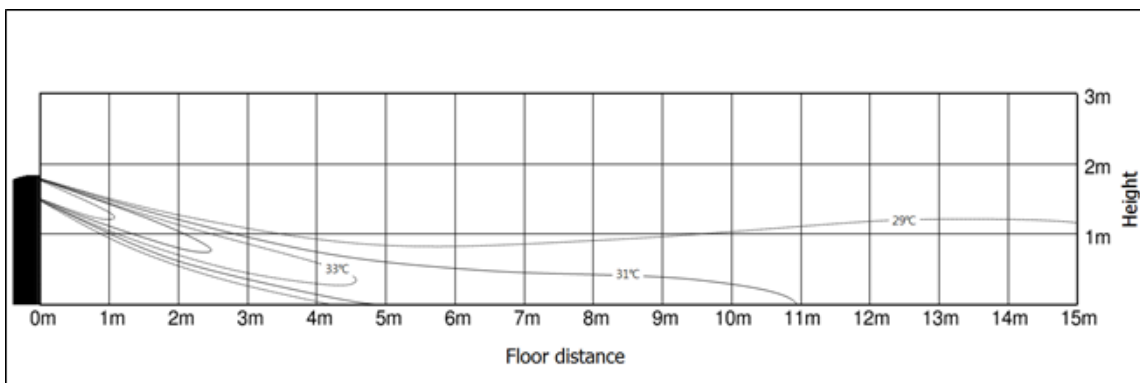
(2) Cooling temperature distribution



(3) Heating air velocity distribution



(4) Heating temperature distribution

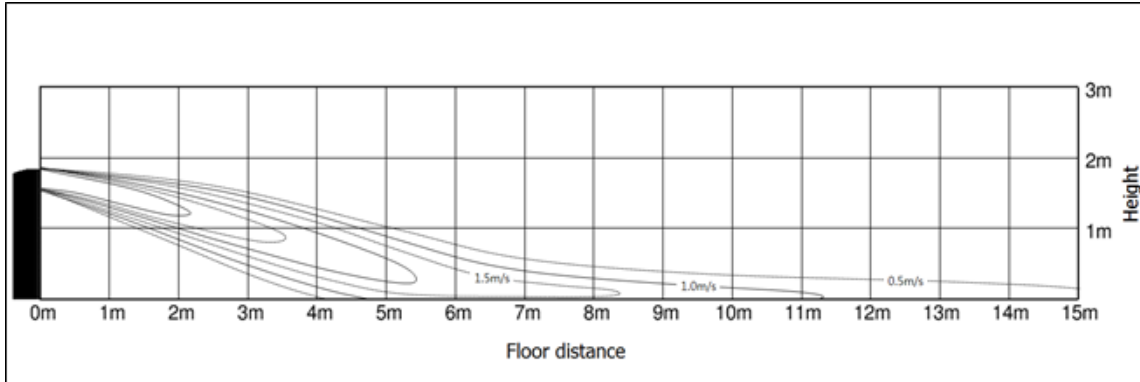


8 Temperature and air flow distribution

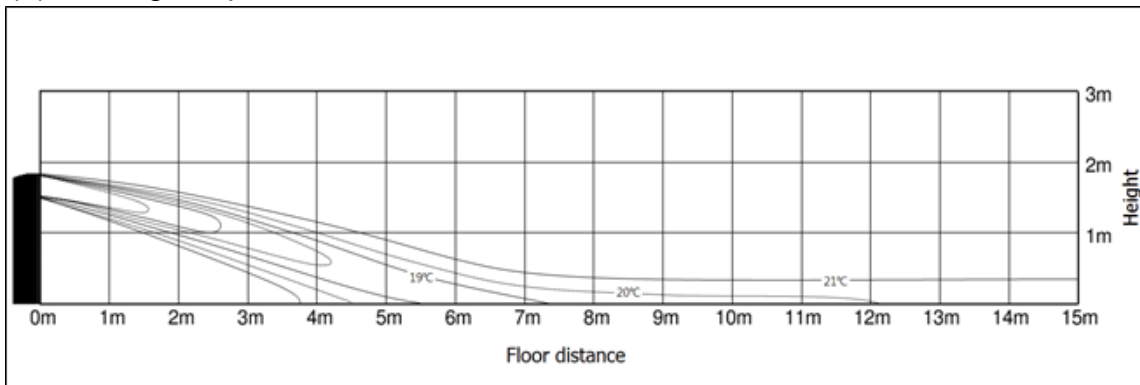
Indoor : PAC

AC140KNPDEH/EU

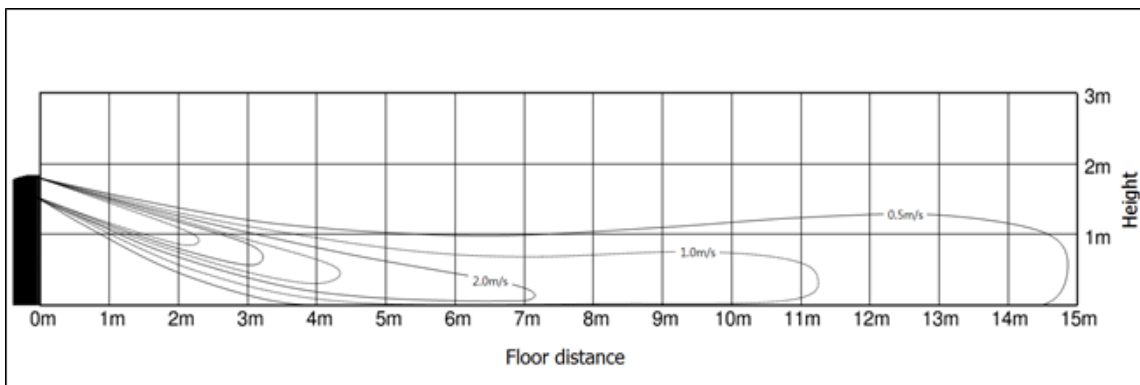
(1) Cooling air velocity distribution



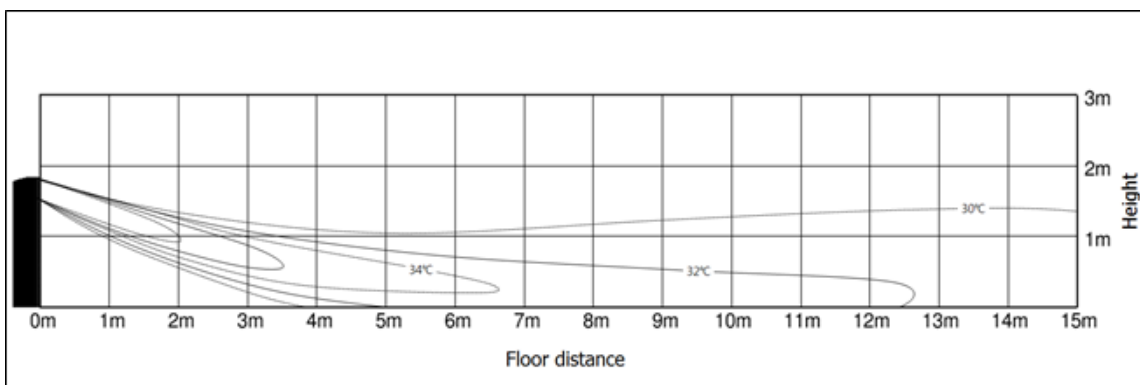
(2) Cooling temperature distribution



(3) Heating air velocity distribution

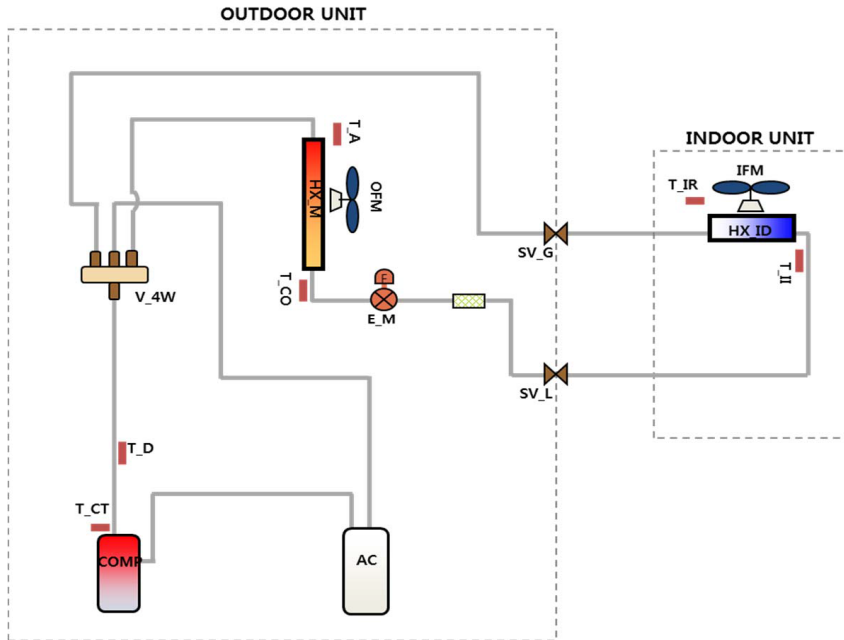


(4) Heating temperature distribution



9 Cycle diagram

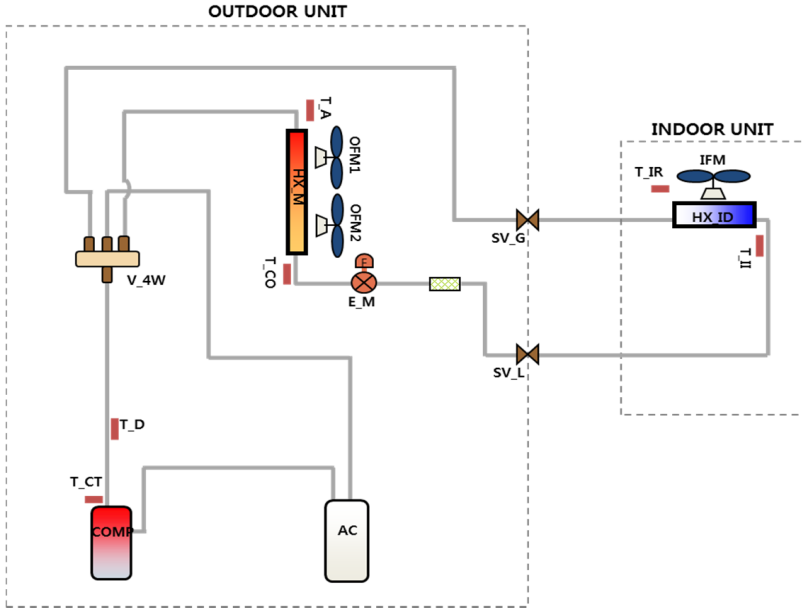
AC100KNPDEH/EU + AC100KXADEH/EU




















Category	Symbol	Description
Compressor		Compressor
Heat Exchanger		Heat Exchanger - Main (Outdoor unit)
		Heat Exchanger - Indoor unit
Tank		Accumulator
Filter		Filter
EEV		Electronic Expansion Valve - Main
Valve (etc)		Service Valve - Gas Pipe
		Service Valve - Liquid Pipe
Thermistor		Thermistor - Compressor Top
		Thermistor - Discharge pipe
		Thermistor - Cond Out
		Thermistor - Ambient
		Thermistor - Indoor Room
		Thermistor - IDU Heat Exchanger In
Fan		Indoor Fan Motor
		Outdoor Fan Motor

9 Cycle diagram

AC140KNPDEH/EU + AC140KXADGH/EU




Category	Symbol	Description
Compressor		Compressor
Heat Exchanger		Heat Exchanger - Main (Outdoor unit)
		Heat Exchanger - Indoor unit
Tank		Accumulator
Filter		Filter
EEV		Electronic Expansion Valve - Main
Valve (etc)		Service Valve - Gas Pipe
		Service Valve - Liquid Pipe
Thermistor		Thermistor - Compressor Top
		Thermistor - Discharge pipe
		Thermistor - Cond Out
		Thermistor - Ambient
		Thermistor - Indoor Room
		Thermistor - IDU Heat Exchanger In
Fan		Outdoor Fan Motor 1
		Outdoor Fan Motor 2
		Indoor Fan Motor

10 Capacity correction

Outdoor


AC100KNPDEH/EU + AC100KXADEH/EU

Cooling



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.92	0.90	0.88	0.87	0.85
	25	-	-	-	-	0.93	0.92	0.90	0.88	0.87	0.85
	20	-	-	-	0.95	0.93	0.92	0.90	0.88	0.87	0.85
	15	-	-	0.97	0.95	0.93	0.92	0.90	0.88	0.87	0.85
	10	-	0.98	0.97	0.95	0.93	0.92	0.90	0.88	0.87	0.85
	5	1.00	0.98	0.97	0.95	0.93	0.92	0.90	0.88	0.87	0.85
	0	1.00	0.98	0.97	0.95	0.93	0.92	0.90	0.88	0.87	0.85
	-5	1.00	0.98	0.96	0.94	0.93	0.91	0.89	0.88	0.86	0.84
	-10	-	0.97	0.96	0.94	0.92	0.90	0.89	0.87	0.85	0.82
	-15	-	-	0.95	0.93	0.92	0.90	0.88	0.86	0.84	0.81
	-20	-	-	-	0.93	0.91	0.89	0.87	0.85	0.83	0.80
	-25	-	-	-	-	0.90	0.89	0.87	0.85	0.82	0.78
	-30	-	-	-	-	-	0.88	0.86	0.84	0.81	0.77


Heating



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.93	0.91	0.90	0.88	0.87
	25	-	-	-	-	0.94	0.93	0.91	0.90	0.88	0.87
	20	-	-	-	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	15	-	-	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	10	-	0.99	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	5	1.00	0.99	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	0	1.00	0.99	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	-5	1.00	0.99	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	-10	-	0.99	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	-15	-	-	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	-20	-	-	-	0.96	0.94	0.93	0.91	0.90	0.88	0.87
	-25	-	-	-	-	0.94	0.93	0.91	0.90	0.88	0.87
	-30	-	-	-	-	-	0.93	0.91	0.90	0.88	0.87


AC140KNPDEH/EU + AC140KXADGH/EU

Cooling



		Pipe Length (m)														
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Level Difference (m)	30	-	-	-	-	-	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
	25	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
	20	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
	15	-	-	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
	10	-	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
	5	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
	0	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
	-5	1.00	0.98	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.85
	-10	-	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.84
	-15	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.85	0.83
	-20	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.88	0.87	0.86	0.84	0.82
	-25	-	-	-	-	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.84	0.81
	-30	-	-	-	-	-	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.85	0.83	0.80

Heating



		Pipe Length (m)														
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Level Difference (m)	30	-	-	-	-	-	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	25	-	-	-	-	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	20	-	-	-	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	15	-	-	0.98	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	10	-	0.99	0.98	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	5	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	0	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-5	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-10	-	0.99	0.98	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-15	-	-	0.98	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-20	-	-	-	0.97	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-25	-	-	-	-	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
	-30	-	-	-	-	-	0.95	0.94	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87

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