

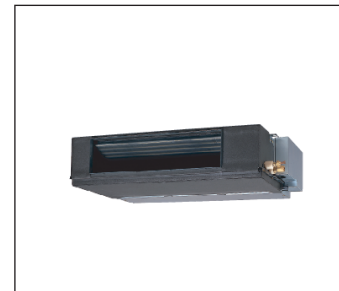
INDOOR UNIT

1. DUCT TYPE :

AR *A18LATN

1. FEATURE

■ **MODEL :**
AR*A18LATN



■ FEATURES

● Energy saving

High energy saving was realized by making the indoor unit and outdoor unit fan motor and compressor all DC and optimal design of the refrigerant cycle. Rank A was achieved in European energy rank.

● Universal design indoor unit

Since vertical and horizontal installation is possible, and the intake direction can also be selected from two directions, flexible installation is possible.



● Thin and compact indoor unit

● Quiet mode

Operation at *27dB(A) possible by Quiet Mode.

* See our measurement conditions page (01-13).

● Static pressure mode setting

Air flow, noise, etc. can be used under the optimum conditions by selecting the static pressure mode matched to the installation conditions.

● Room temperature adjustment correction

Suitable room temperature control is performed by changing the room temperature correction value by simple remote control operation to match the conditions under which the air conditioner is installed.

● Auto restart

The units restart automatically when the current was returned even when there was a power interruption during operation.

2. COMBINATION

2-1. OUTDOOR UNIT

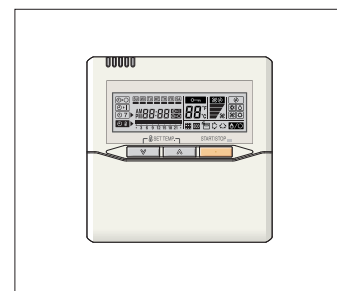
■ MODEL : AO*A18LACL



2-2. REMOTE CONTROLLER

2-2-1. WIRED REMOTE CONTROLLER

■ MODEL : UTB-*UD



CAUTION

Remote controller is not supplied with the indoor unit.
Separate purchase is necessary.

3. SPECIFICATIONS

Type			DUCTED MODEL		
			INVERTER HEATPUMP		
Model name			AR * A18LATN		
Power source			230V ~ 50Hz		
Available voltage range			198-264V ~ 50Hz		
European energy label			Cooling	A	
			Heating	A	
Capacity	Cooling	Rated	kW	5.2	
			BTU/h	17700	
		Min-Max	kW	0.9 - 5.9	
			BTU/h	3100 - 20100	
	Heating	Rated	kW	6.0	
			BTU/h	20500	
Min-Max		kW	0.9 - 7.5		
		BTU/h	3100 - 25600		
Input power	Cooling	Rated	kW	1.62	
		Min-Max		0.09 - 1.80	
	Heating	Rated		1.66	
		Min-Max		0.09 - 2.46	
Current	Cooling	Rated	A	7.1	
		Max		9.0	
	Heating	Rated		7.3	
		Max		10.8	
EER		Cooling	kW/kW	3.21	
COP		Heating		3.61	
Moisture removal			l/h (pints/h)	2.0 (3.5)	
Fan	Airflow rate	Cooling	High	m ³ /h	820
			Med		720
			Low		610
			Quiet		550
		Heating	High		820
			Med		720
			Low		610
			Quiet		550
	Type × Q'ty				Sirocco × 2
	Motor output			W	60
Recommended static pressure			Pa	0 to 90	
Sound pressure level			Cooling	High	33
				Med	31
				Low	29
				Quiet	27
			Heating	High	33
				Med	31
				Low	29
				Quiet	27
Heat exchanger type			Dimensions (H × W × D)	mm	294 × 700 × 39.9
			Fin pitch		1.30
			Rows x Stages		3 × 14
			Pipe type		Copper
			Fin type		Aluminium
Enclosure			Material		Steel
			Colour		-
Dimensions (H × W × D)	Net		mm	217 × 953 × 595	
	Gross			324 × 1075 × 686	
Weight	Net		kg(lb.)	23 (51)	
	Gross			27 (60)	
Connection pipe	Size	Liquid	mm	φ 6.35 (φ 1 / 4 in.)	
		Gas		φ 12.70 (φ 1 / 2 in.)	
	Method			Flare	
Operation range			Cooling	°C	18 to 32
				%RH	80 or less
			Heating	°C	30 or less
Remote controller type			Wired		
Drain pipe	Material		PS		
	Size		mm	Outer diameter: 26.0 / Inner diameter: 21.5	

Note :

Specifications are based on the following conditions.

Cooling : Indoor temperature of 27 °CDB / 19 °CWB. and outdoor temperature of 35 °CDB/24 °CWB.

Heating : Indoor temperature of 20 °CDB / 15 °CWB. and outdoor temperature of 7 °CDB/6 °CWB.

Standard static pressure : 0 Pa

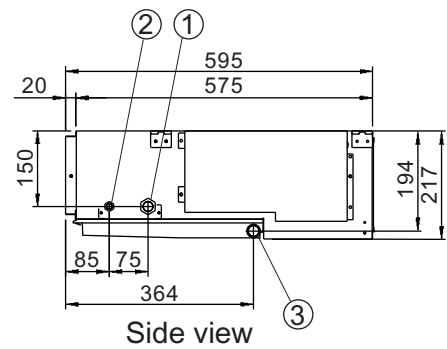
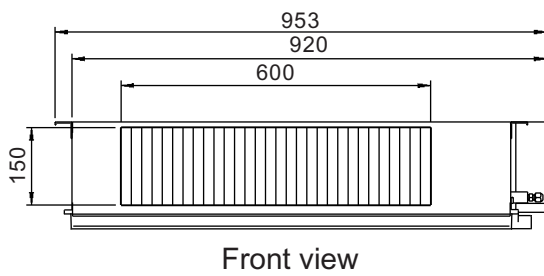
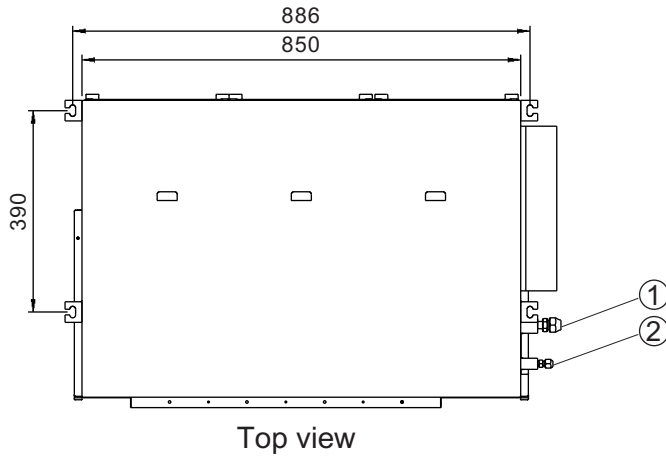
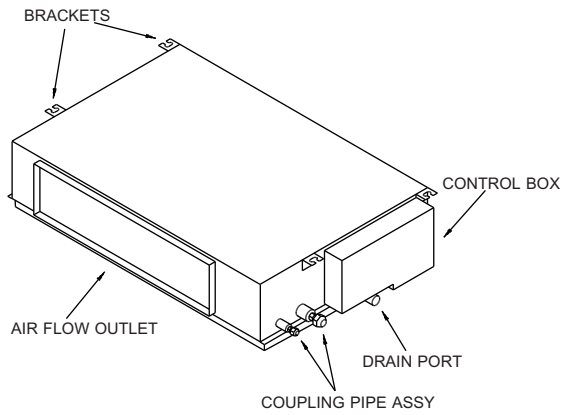
Pipe length : 7.5 m, Height difference : 0 m. (Outdoor unit - Indoor unit)

Sound pressure level : Install a 2m duct to the outlet port and a 1m duct to the suction port and measure.

4. DIMENSIONS

■ MODEL : AR*A18L

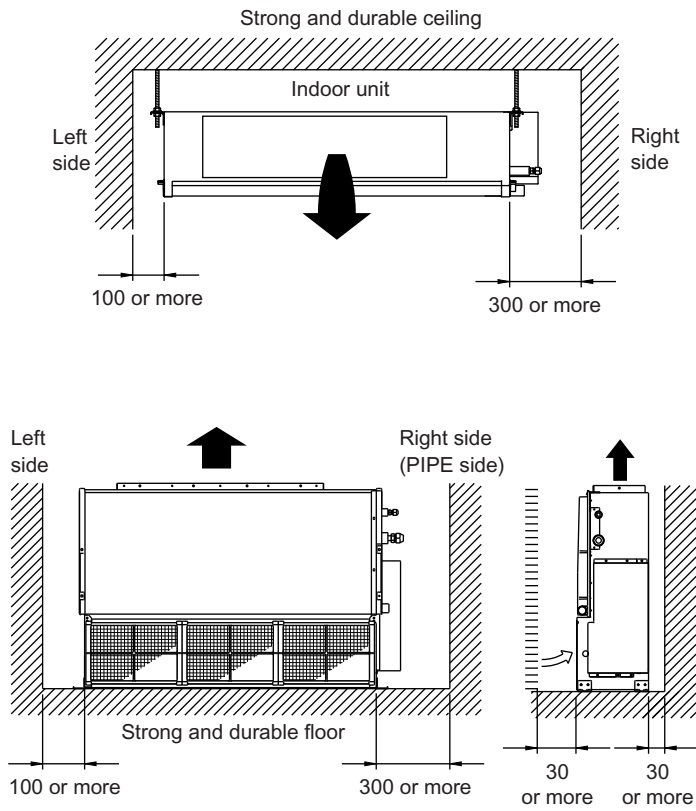
(Unit : mm)



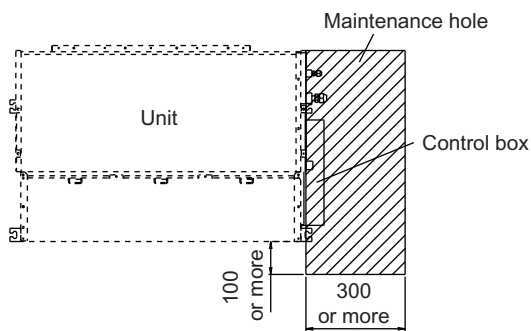
- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection

■ MOUNTING POSITION

(Unit : mm)

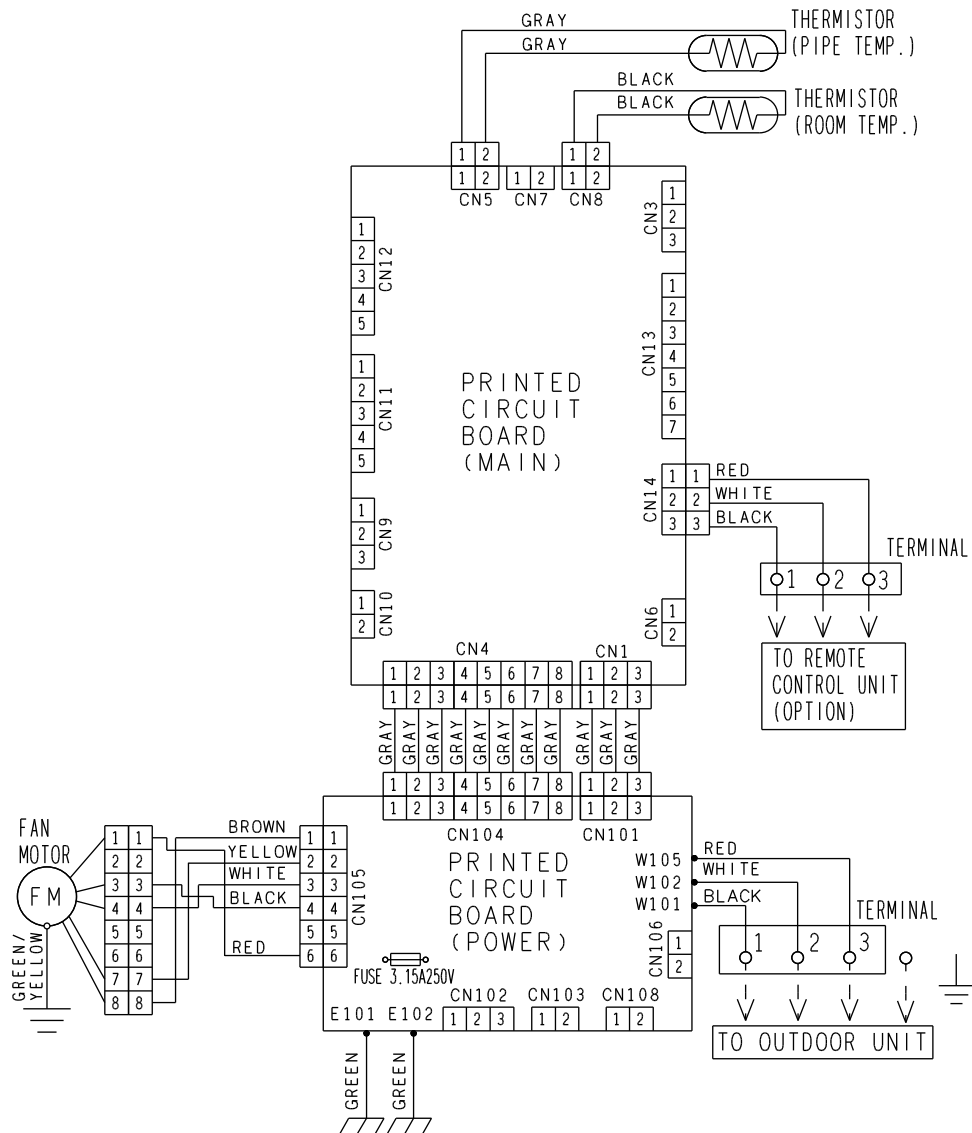


■ MAINTENANCE HOLE



5. WIRING DIAGRAMS

■ MODEL : AR*A18L



6. CAPACITY TABLE

6-1. COOLING CAPACITY

■ MODEL : AR*A18L

AFR	13.7
-----	------

		Indoor temperature																					
		18			21			23			25			27			29			32			
		°CDB			°CWB			°CDB			°CWB			°CDB			°CWB			°CDB			°CWB
Outdoor temperature	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	
	-10	4.44	3.44	0.35	4.94	3.46	0.35	5.11	3.77	0.35	5.45	3.78	0.36	5.62	4.08	0.36	5.96	4.06	0.36	6.29	4.33	0.37	
	0	4.34	3.40	0.41	4.83	3.42	0.42	5.00	3.71	0.42	5.33	3.72	0.42	5.49	4.02	0.42	5.82	4.01	0.43	6.15	4.27	0.43	
	5	4.20	3.33	0.51	4.68	3.35	0.52	4.84	3.64	0.52	5.16	3.65	0.53	5.32	3.94	0.53	5.64	3.93	0.54	5.96	4.19	0.54	
	10	4.04	3.25	0.62	4.50	3.27	0.63	4.66	3.56	0.63	4.96	3.57	0.63	5.12	3.86	0.64	5.42	3.84	0.64	5.73	4.09	0.65	
	15	4.10	3.28	0.54	4.56	3.30	0.54	4.72	3.59	0.55	5.03	3.60	0.55	5.19	3.89	0.56	5.50	3.87	0.56	5.81	4.12	0.57	
	20	5.22	3.83	1.17	5.82	3.85	1.19	6.02	4.19	1.19	6.41	4.20	1.21	6.61	4.54	1.21	7.01	4.52	1.22	7.40	4.81	1.24	
	25	4.98	3.71	1.31	5.55	3.73	1.33	5.74	4.06	1.34	6.12	4.07	1.35	6.31	4.40	1.36	6.69	4.38	1.38	7.06	4.66	1.39	
	30	4.73	3.58	1.46	5.27	3.60	1.48	5.45	3.92	1.49	5.81	3.93	1.51	5.98	4.25	1.51	6.34	4.23	1.53	6.70	4.50	1.55	
	35	4.66	3.55	1.74	5.19	3.57	1.76	5.37	3.88	1.77	5.72	3.90	1.79	5.90	4.21	1.80	6.25	4.19	1.82	6.61	4.46	1.84	
40	3.41	2.96	1.24	3.80	2.98	1.25	3.92	3.24	1.26	4.18	3.25	1.27	4.31	3.51	1.28	4.57	3.50	1.29	4.83	3.72	1.31		
46	2.43	2.53	0.94	2.70	2.54	0.95	2.79	2.76	0.96	2.98	2.77	0.97	3.07	2.99	0.97	3.25	2.98	0.98	3.44	3.18	0.99		

AFR : Air flow rate (m³/min) TC : Total capacity (kW) SHC : Sensible Heat capacity (kW) PI : Power Input (kW)

6-2. HEATING CAPACITY

■ MODEL : AR*A18L

AFR	13.7
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		Indoor temperature											
		°CDB		16		18		20		22		24	
		°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
Outdoor temperature	-15	-16	5.06	2.18	4.94	2.22	4.81	2.27	4.69	2.31	4.57	2.36	
	-10	-11	5.71	2.29	5.58	2.33	5.44	2.38	5.30	2.43	5.17	2.48	
	-5	-7	6.37	2.41	6.22	2.46	6.06	2.51	5.91	2.56	5.76	2.61	
	0	-2	7.25	2.58	7.08	2.63	6.91	2.68	6.73	2.74	6.56	2.79	
	5	3	8.13	2.75	7.93	2.81	7.74	2.87	7.55	2.93	7.35	2.98	
	7	6	7.87	2.36	7.69	2.41	7.50	2.46	7.31	2.51	7.12	2.56	
	10	8	8.16	2.41	7.97	2.46	7.77	2.51	7.58	2.57	7.39	2.62	
	15	10	7.75	2.07	7.56	2.11	7.38	2.16	7.19	2.20	7.01	2.24	
	20	15	7.24	1.65	7.07	1.68	6.90	1.72	6.73	1.75	6.55	1.79	
24	18	7.46	1.65	7.29	1.69	7.11	1.72	6.93	1.76	6.75	1.79		

AFR : Air flow rate (m³/min) TC : Total capacity (kW) PI : Power Input (kW)

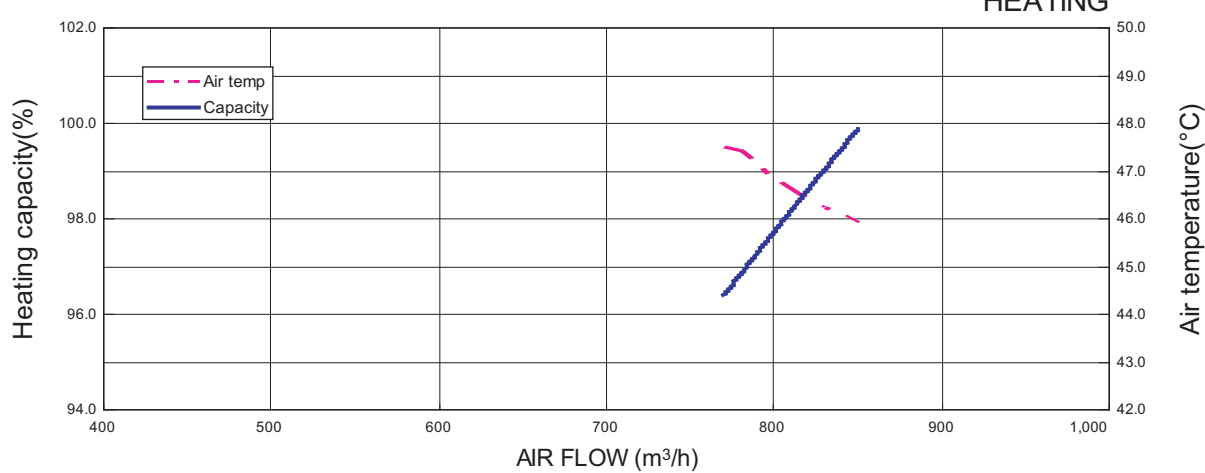
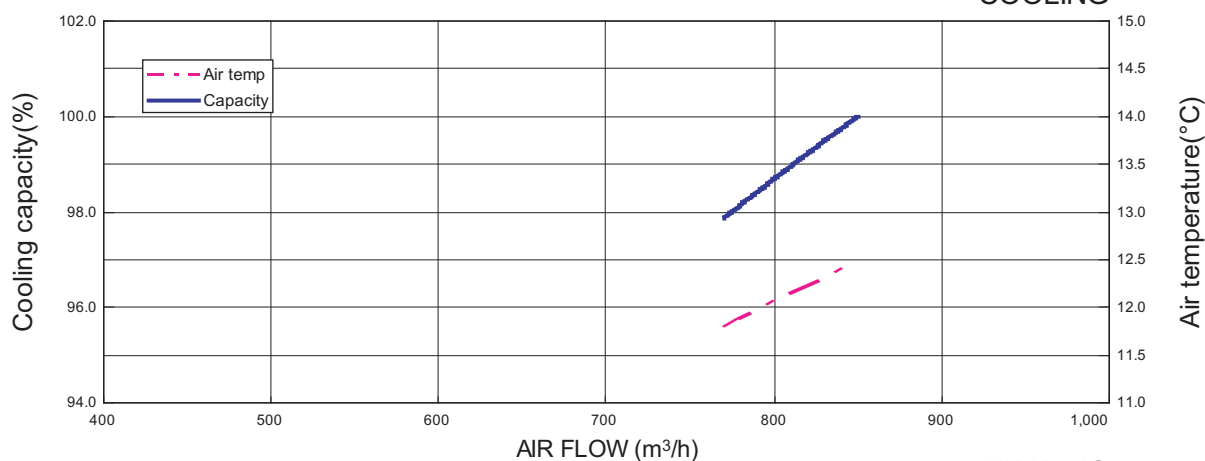
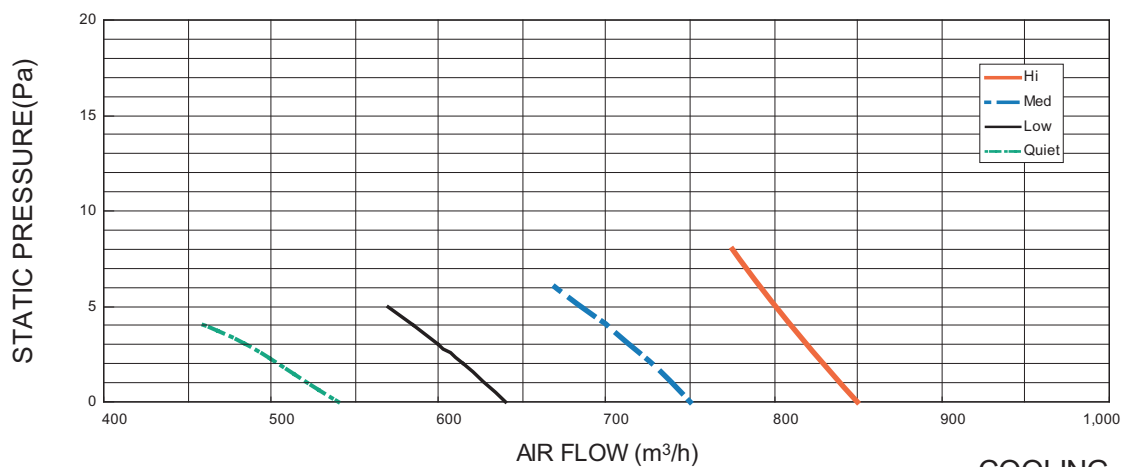
7. FAN PERFORMANCE AND CAPACITY

7-1. NORMAL MODE

■ MODEL : AR*A18L

			Static pressure (Pa)							
			0	2	3	4	5	6	7	8
FAN SPEED	Hi	m ³ /h	850	830	820	810	801	793	784	775
		l/s	236	231	228	225	223	220	218	215
		CFM	500	489	483	477	471	467	461	456
	Med	m ³ /h	750	727	713	700	685	670	-	-
		l/s	208	202	198	194	190	186	-	-
		CFM	441	428	420	412	403	394	-	-
	Low	m ³ /h	640	614	600	585	570	-	-	-
		l/s	178	171	167	163	158	-	-	-
		CFM	377	361	353	344	335	-	-	-
	Quiet	m ³ /h	540	504	483	460	-	-	-	-
		l/s	150	140	134	128	-	-	-	-
		CFM	318	297	284	271	-	-	-	-

Q-h Characteristic curve



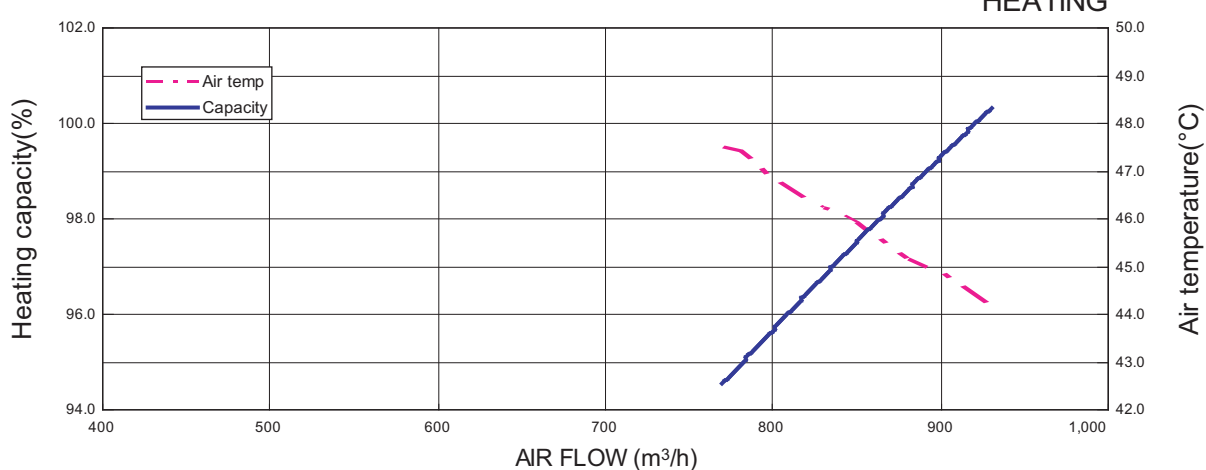
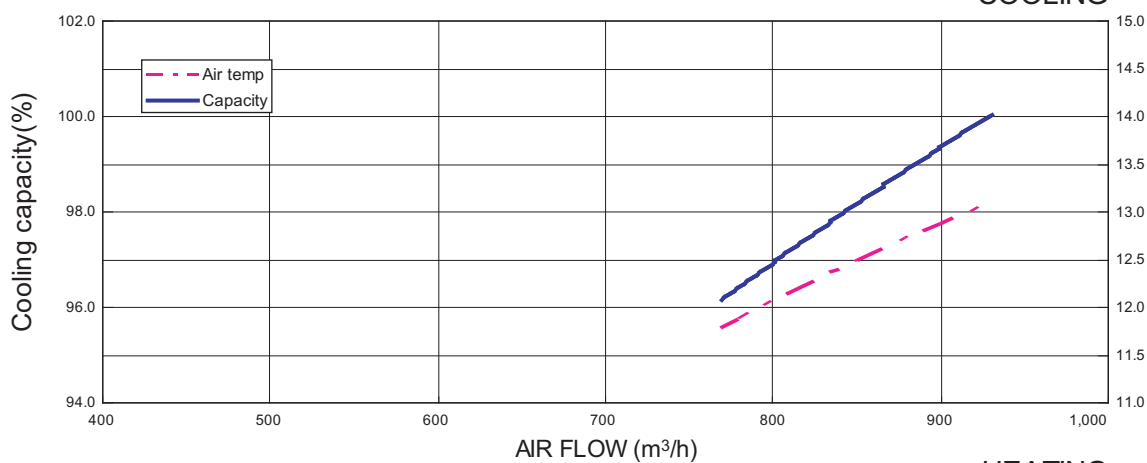
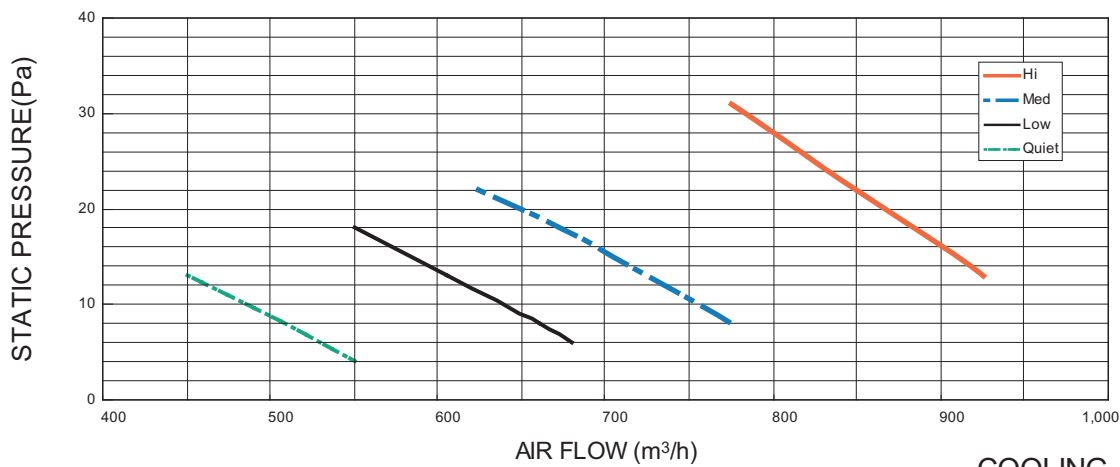
7-2. HIGH STATIC MODE

7-2-1. MODE 1

■ MODEL : AR*A18L

			Static pressure (Pa)							
			4	6	8	13	18	22	25	31
FAN SPEED	Hi	m ³ /h	-	-	-	925	884	850	825	775
		l/s	-	-	-	257	246	236	229	215
		CFM	-	-	-	544	520	500	486	456
	Med	m ³ /h	-	-	775	725	672	625	-	-
		l/s	-	-	215	201	187	174	-	-
		CFM	-	-	456	427	396	368	-	-
	Low	m ³ /h	-	680	660	605	550	-	-	-
		l/s	-	189	183	168	153	-	-	-
		CFM	-	400	388	356	324	-	-	-
	Quiet	m ³ /h	550	530	508	450	-	-	-	-
		l/s	153	147	141	125	-	-	-	-
		CFM	324	312	299	265	-	-	-	-

Q-h Characteristic curve

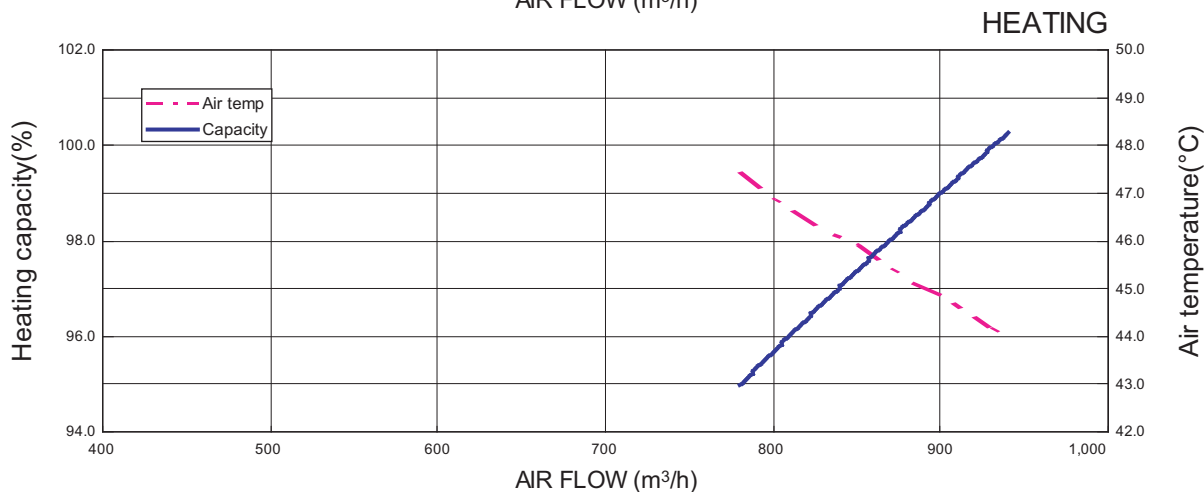
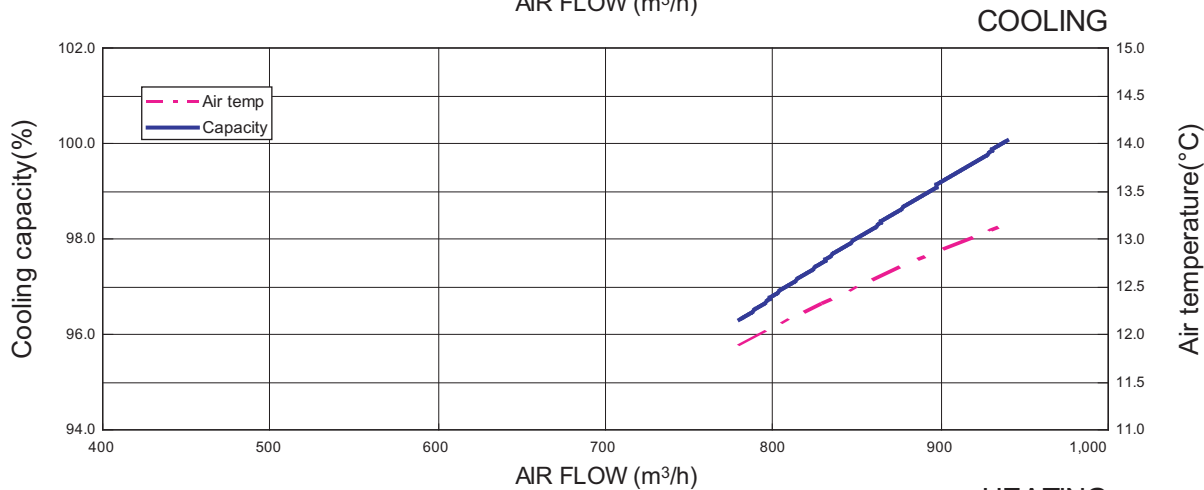
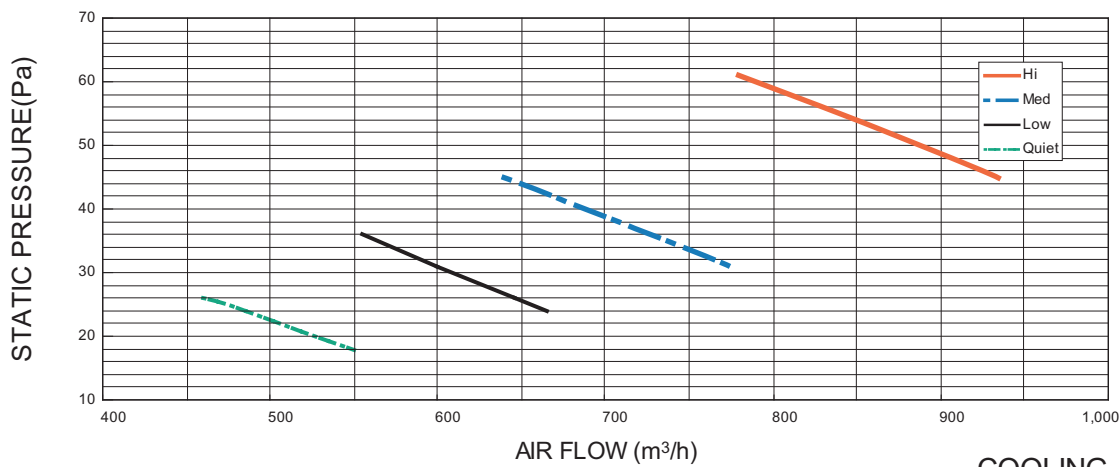


7-2-2. MODE 2

MODEL : AR*A18L

			Static pressure (Pa)							
			18	24	26	31	36	45	53	61
FAN SPEED	Hi	m ³ /h	-	-	-	-	-	935	860	780
		l/s	-	-	-	-	-	260	239	217
		CFM	-	-	-	-	-	550	506	459
	Med	m ³ /h	-	-	-	775	727	640	-	-
		l/s	-	-	-	215	202	178	-	-
		CFM	-	-	-	456	428	377	-	-
	Low	m ³ /h	-	665	645	600	555	-	-	-
		l/s	-	185	179	167	154	-	-	-
		CFM	-	391	380	353	327	-	-	-
	Quiet	m ³ /h	550	485	460	-	-	-	-	-
		l/s	153	135	128	-	-	-	-	-
		CFM	324	285	271	-	-	-	-	-

Q-h Characteristic curve

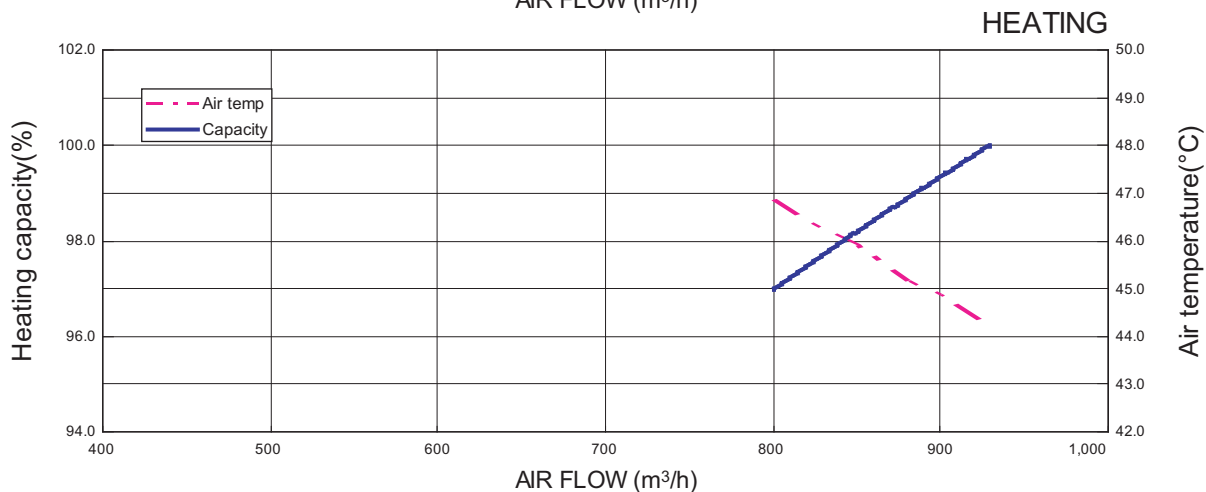
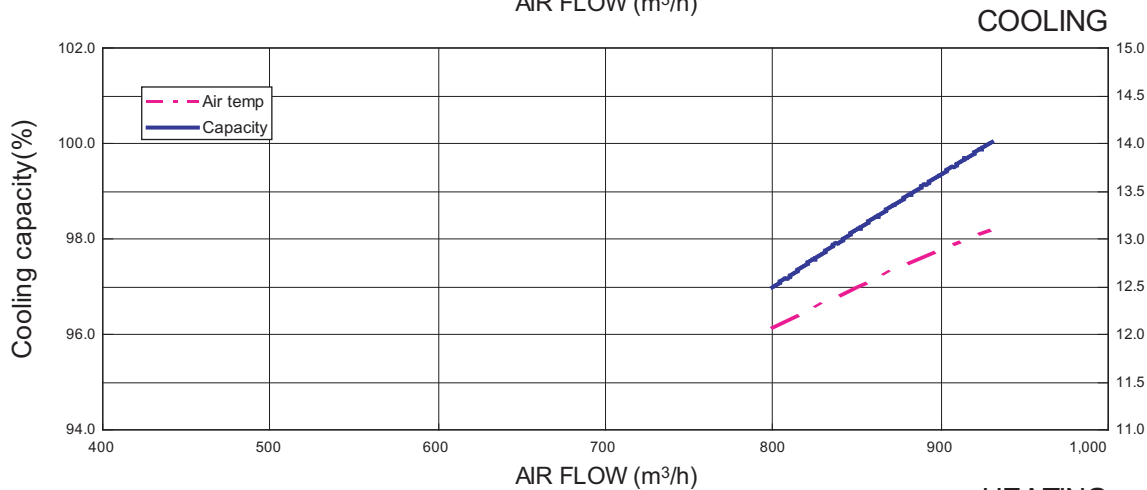
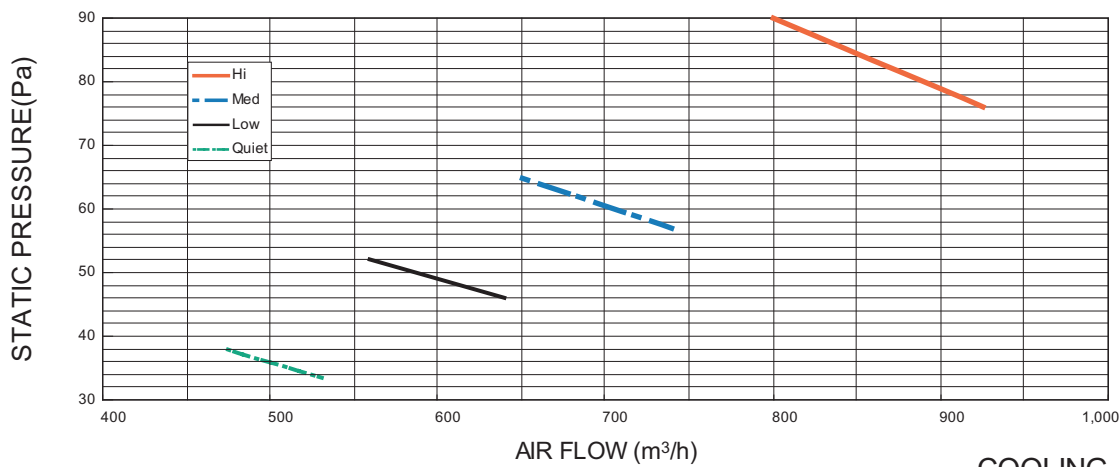


7-2-3. MODE 3

MODEL : AR*A18L

			Static pressure (Pa)							
			34	38	46	52	57	65	76	90
FAN SPEED	Hi	m ³ /h	-	-	-	-	-	-	925	800
		l/s	-	-	-	-	-	-	257	222
		CFM	-	-	-	-	-	-	544	471
	Med	m ³ /h	-	-	-	-	740	650	-	-
		l/s	-	-	-	-	206	181	-	-
		CFM	-	-	-	-	436	383	-	-
	Low	m ³ /h	-	-	640	560	-	-	-	-
		l/s	-	-	178	156	-	-	-	-
		CFM	-	-	377	330	-	-	-	-
	Quiet	m ³ /h	525	475	-	-	-	-	-	-
		l/s	146	132	-	-	-	-	-	-
		CFM	309	280	-	-	-	-	-	-

Q-h Characteristic curve



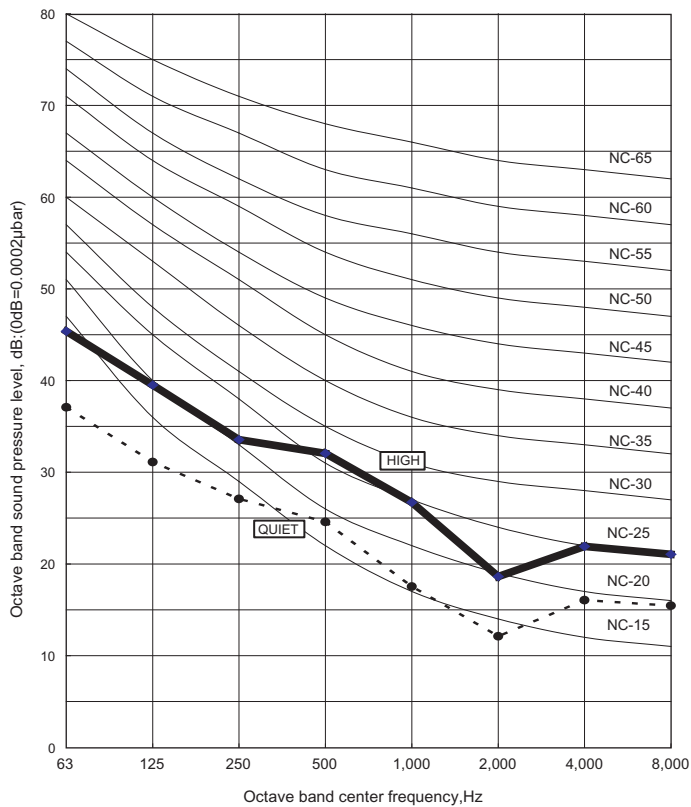
8. OPERATION NOISE

8-1. NOISE LEVEL CURVE

Condition
 Static pressure : 0Pa
 Static mode : Normal

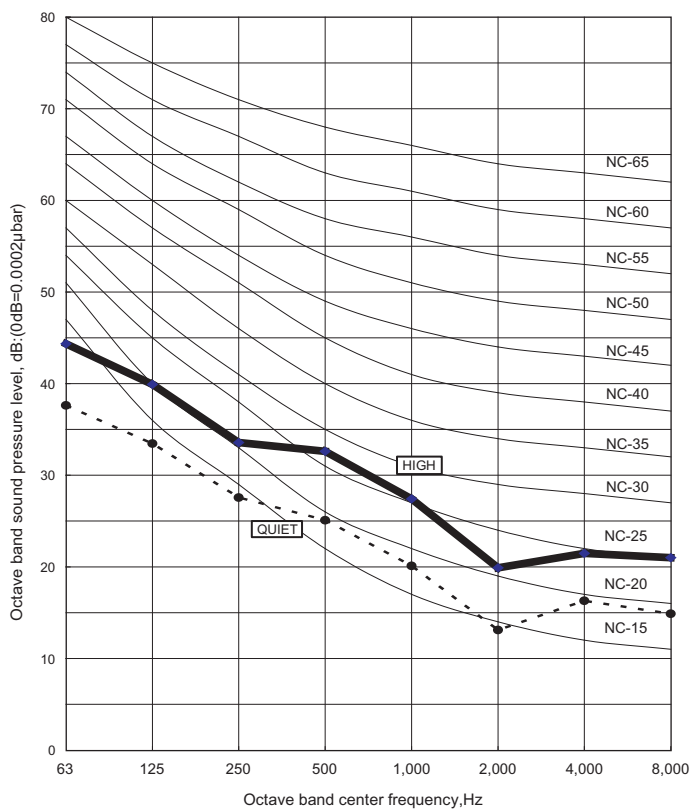
■ COOLING

● MODEL : AR*A18L

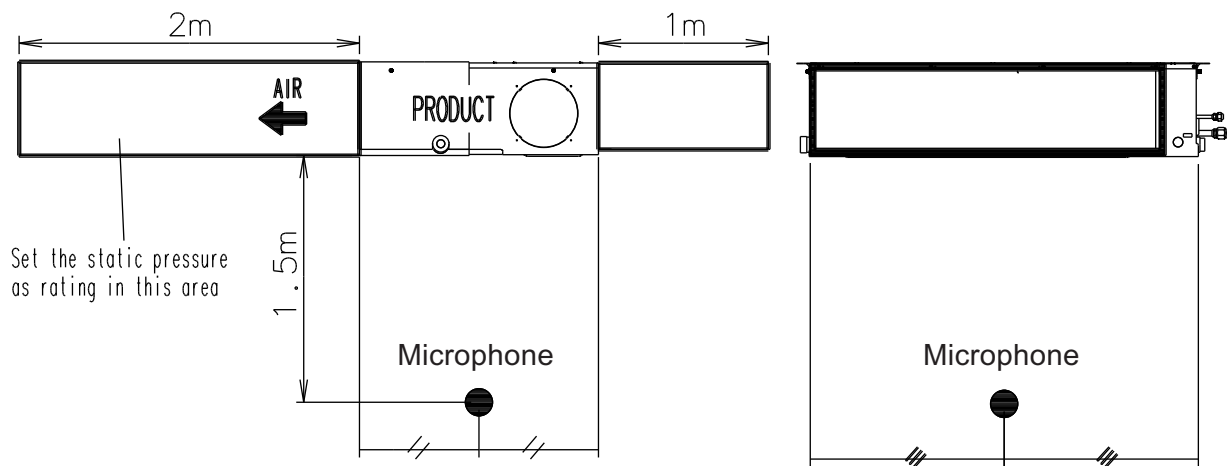


■ HEATING

● MODEL : AR*A18L



8-2. SOUND LEVEL CHECK POINT



9. ELECTRIC CHARACTERISTICS

Model Name			AR * A18L
Power Supply	Voltage	V	230~
	Frequency	Hz	50
Max Operating Current		A	0.5
*1)Wiring Spec.	Circuit breaker	A	0.6
	Connection Cable	mm ²	1.5 - 2.5
	Limited wiring length	m	26

*1) Wiring Spec.

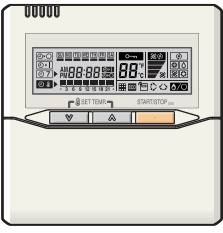

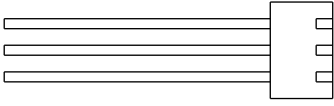
Selected Sample

(Selected based on Japan Electrotechnical Standard and Codes Committee E0005)

10. SAFETY DEVICES

	Protection form	Model
		AR * A18L
Circuit protection	Current fuse (PCB)	3.15A 250V
Fan motor protection	Thermal protection program	140±20°C OFF 110±20°C ON

11. OPTIONAL PARTS

Exterior	Parts name	Model No.	Summary
	Wired remote controller	UTB- *UD	Unit control is performed by wired remote controller .
	Remote Sensor	UTD-RS100	New amenity space can be offered by installing the Remote sensor in the remote controller.
	External control set	UTD-ECS5A	Use to connect with various peripheral devices and air conditioner PC board.

OUTDOOR UNIT

2. SINGLE TYPE :

AO * A18LACL

AO * A24LACL

1. SPECIFICATIONS

OUTDOOR UNIT
AO*A18-24L

OUTDOOR UNIT
AO*A18-24L

Type			INVERTER HEATPUMP			
Model name			AO * A18LACL		AO * A24LACL	
Power source			230V~ 50Hz			
Available voltage range			198-264V~ 50Hz			
Starting current			A	7.7	10.0	
Fan	Airflow rate	Cooling	m ³ /h	2000	2470	
		Heating	m ³ /h	1910	2470	
	Type × Q'ty		Propeller × 1			
	Motor output		W	54	65	
Sound pressure level		Cooling	dB(A)	50	52	
		Heating	dB(A)	50	53	
Heat exchanger type		Dimensions (H × W × D)	mm	546 × 876 × 18.2 546 × 842 × 18.2	546 × 866 × 18.2 546 × 832 × 18.2 504 × 589 × 18.2	
			Fin pitch	mm	1.30	1.40
		Rows x Stages			2 × 26	2 × 26 1 × 24
		Pipe type		Copper		
		Fin type		Aluminium		
Compressor		Type × Q'ty		Twin Rotary × 1		
		Motor output		W	1100	
Refrigerant		Type		R410A		
		Charge		g	1250	1700
Refrigerant oil		Type		POE		
Enclosure		Material		Steel sheet		
		Colour		Beige (10YR7.5/1.0NN)		
Dimensions (H × W × D)		Net		mm	578 × 790 × 300	578 × 790 × 315
		Gross		648 × 910 × 380		
Weight		Net		kg(lb.)	40 (88)	44 (97)
		Gross		kg(lb.)	44 (97)	48 (106)
Connection pipe		Size	Liquid	mm	φ 6.35 (φ 1/4 in.)	
			Gas	mm	φ 12.70 (φ 1/2 in.)	φ 15.88(φ 5/8 in.)
		Method		Flare		
		Max. length		m	25(chargeless : 15)	30(chargeless : 15)
Max. height difference		m	15	20		
Operation range		Cooling		°C	-10 to 46	
		Heating		°C	-15 to 24	

Note :

Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB/19°CWB. and outdoor temperature of 35°CDB/24°CWB.

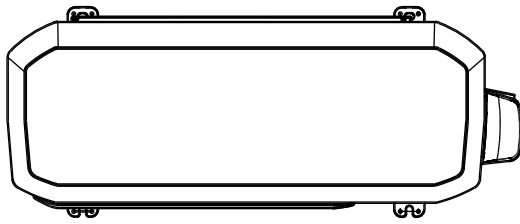
Heating : Indoor temperature of 20°CDB/15°CWB. and outdoor temperature of 7°CDB/6°CWB.

Pipe length : 7.5 m, Height difference : 0 m. (Outdoor unit - Indoor unit)

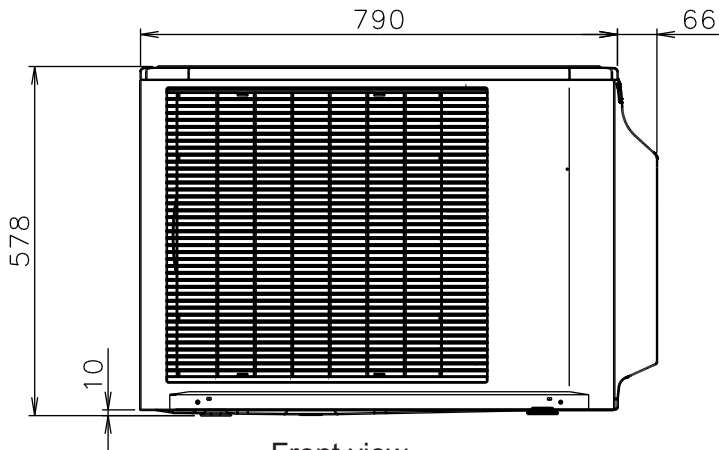
2. DIMENSIONS

MODELS : AO*A18L, AO*A24L

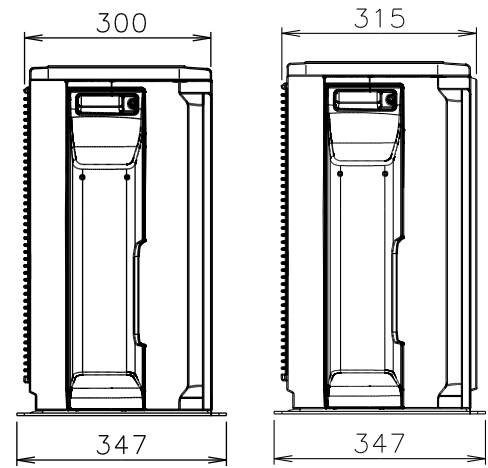
(Unit : mm)



Top view



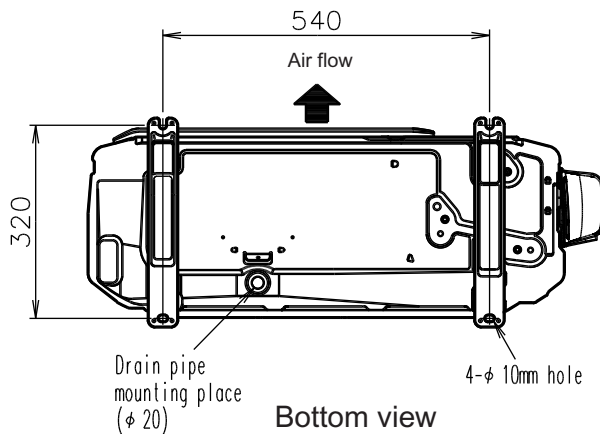
Front view



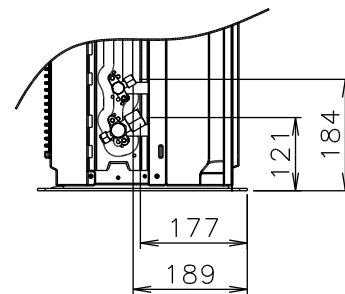
AO*A18L

AO*A24L

Side view



Bottom view

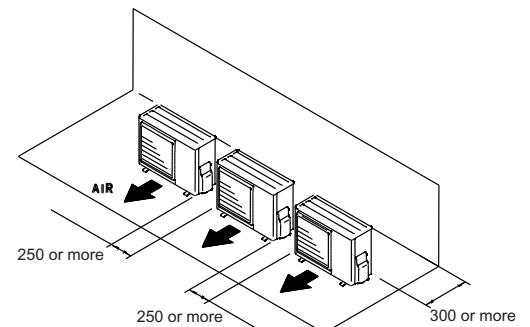
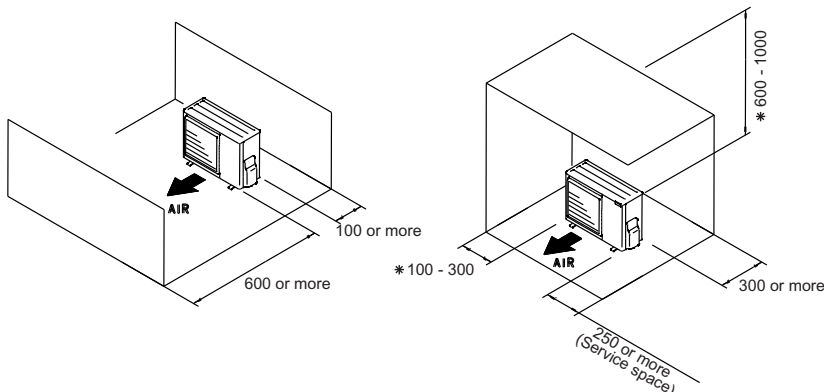


MOUNTING POSITION

When there are obstacles at the back or front sides.

When there are obstacles at the back, side(s), and top.

When there are obstacles at the back, side with the installation of more than one unit.

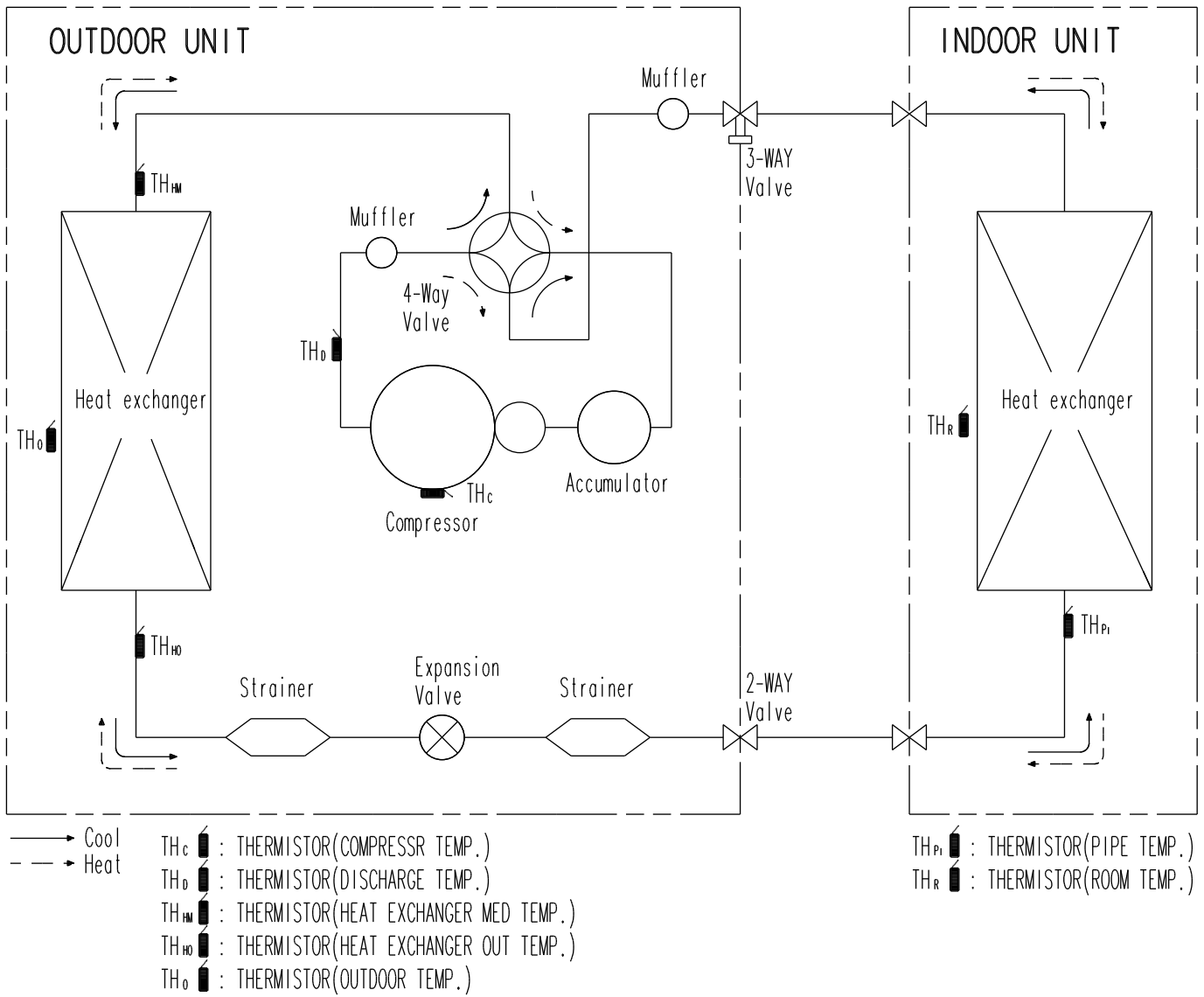


* If the space is larger that is stated, the condition will be the same as that are no obstacles.

3. REFRIGERANT CIRCUIT

OUTDOOR UNIT
AO*18-24L

OUTDOOR UNIT
AO*18-24L

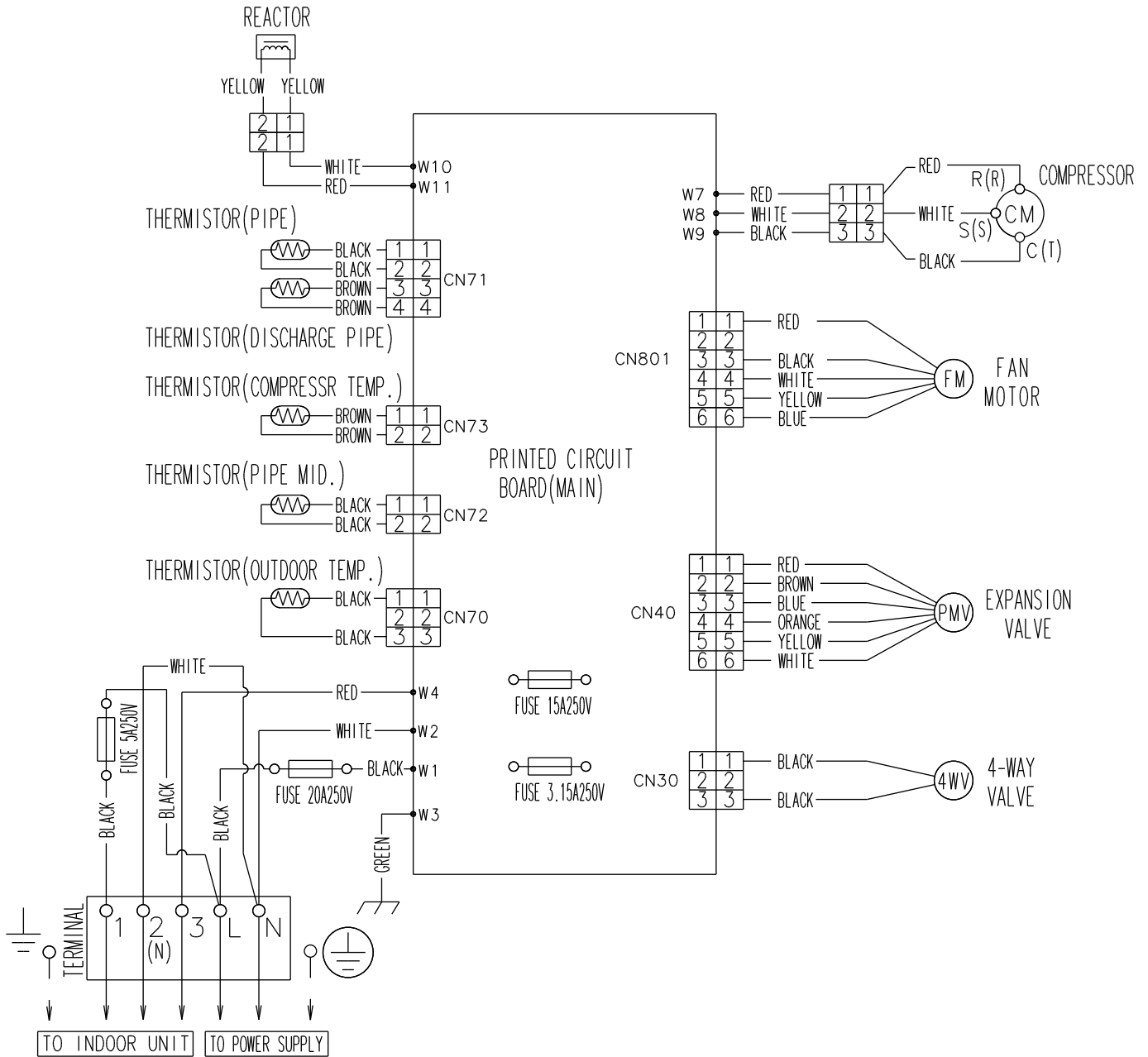


4. WIRING DIAGRAMS

■ MODELS : AO*A18L, AO*A24L

OUTDOOR UNIT
AO*A18-24L

OUTDOOR UNIT
AO*A18-24L



5. COEFFICIENT OF COMPENSATION FOR PIPE LENGTH AND HEIGHT DIFFERENCE

MODEL : AO*A18L

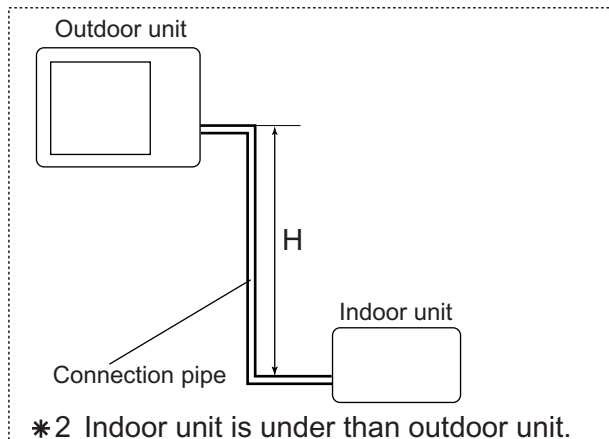
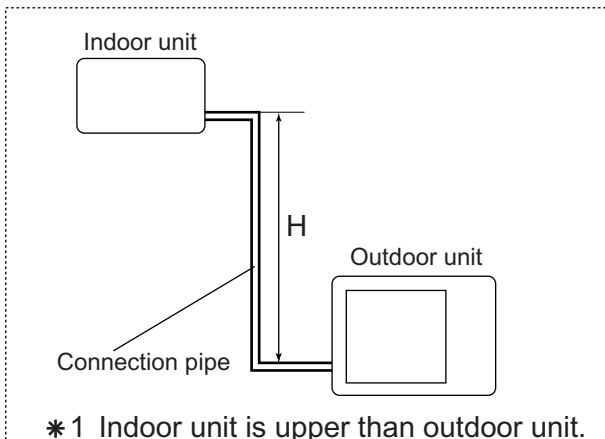
OUTDOOR UNIT
AO*A18-24L

OUTDOOR UNIT
AO*A18-24L

COOLING			Pipe length (m)					
			5	7.5	10	15	20	25
Height difference H (m)	* 1 Indoor unit is upper than outdoor unit.	15	-	-	-	0.953	0.950	0.947
		10	-	-	0.983	0.968	0.966	0.962
		7.5	-	0.988	0.987	0.972	0.970	0.966
		5	0.992	0.992	0.991	0.976	0.974	0.970
	* 2 Indoor unit is under than outdoor unit	0	1.000	1.000	0.999	0.984	0.982	0.978
		-5	1.000	1.000	0.999	0.984	0.982	0.978
		-7.5	-	1.000	0.999	0.984	0.982	0.978
		-10	-	-	0.999	0.984	0.982	0.978
		-15	-	-	-	0.984	0.982	0.978

HEATING			Pipe length (m)					
			5	7.5	10	15	20	25
Height difference H (m)	* 1 Indoor unit is upper than outdoor unit.	15	-	-	-	0.920	0.894	0.867
		10	-	-	0.982	0.920	0.894	0.867
		7.5	-	1.000	0.982	0.920	0.894	0.867
		5	0.993	1.000	0.982	0.920	0.894	0.867
	* 2 Indoor unit is under than outdoor unit	0	0.993	1.000	0.982	0.920	0.894	0.867
		-5	0.988	0.995	0.977	0.916	0.889	0.862
		-7.5	-	0.993	0.975	0.913	0.887	0.860
		-10	-	-	0.972	0.911	0.885	0.858
		-15	-	-	-	0.902	0.876	0.849

Height difference H



MODEL : AO*A24L

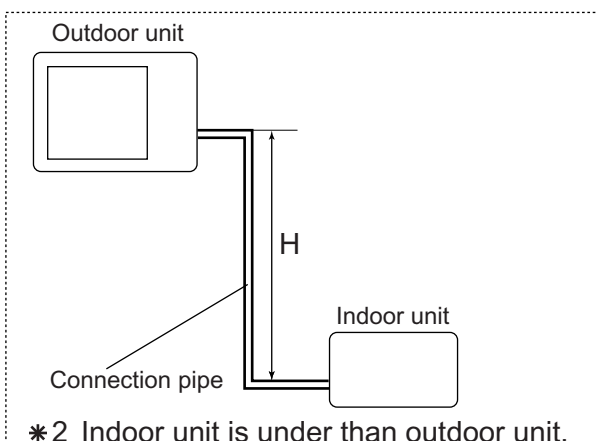
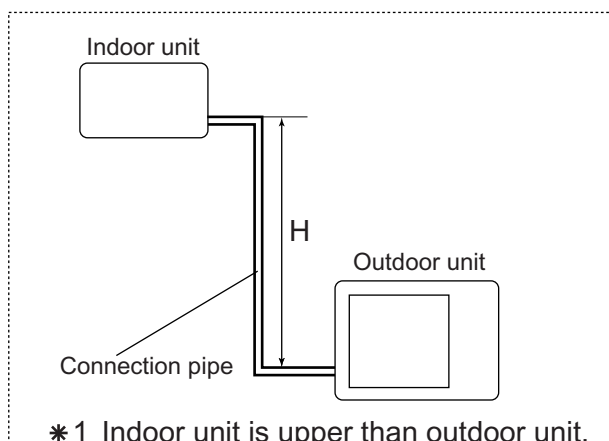
OUTDOOR UNIT
AO*A18-24L

OUTDOOR UNIT
AO*A18-24L

COOLING			Pipe length (m)						
			5	7.5	10	15	20	25	30
Height difference H (m)	* 1 Indoor unit is upper than outdoor unit.	20	-	-	-	-	0.963	0.961	0.959
		10	-	-	0.984	0.981	0.979	0.977	0.975
		7.5	-	0.988	0.988	0.985	0.983	0.981	0.979
		5	0.992	0.992	0.992	0.989	0.987	0.985	0.983
		0	1.000	1.000	1.000	0.997	0.995	0.993	0.991
	* 2 Indoor unit is under than outdoor unit	-5	1.000	1.000	1.000	0.997	0.995	0.993	0.991
		-7.5	-	1.000	1.000	0.997	0.995	0.993	0.991
		-10	-	-	1.000	0.997	0.995	0.993	0.991
-20		-	-	-	-	0.995	0.993	0.991	

HEATING			Pipe length (m)						
			5	7.5	10	15	20	25	30
Height difference H (m)	* 1 Indoor unit is upper than outdoor unit.	20	-	-	-	-	0.927	0.893	0.863
		10	-	-	0.992	0.952	0.927	0.893	0.863
		7.5	-	1.000	0.992	0.952	0.927	0.893	0.863
		5	1.001	1.000	0.992	0.952	0.927	0.893	0.863
		0	1.001	1.000	0.992	0.952	0.927	0.893	0.863
	* 2 Indoor unit is under than outdoor unit	-5	0.996	0.995	0.987	0.947	0.922	0.888	0.859
		-7.5	-	0.993	0.984	0.945	0.920	0.886	0.857
		-10	-	-	0.982	0.943	0.917	0.884	0.855
-20		-	-	-	-	0.908	0.875	0.846	

Height difference H



6. ADDITIONAL CHARGE CALCULATION

■ MODEL : AO*A18L

Refrigerant type		R410A
Refrigerant amount	g	1250

● REFRIGERANT CHARGE

Pipe length	m	~ 15	20	25	20g/m
Additional charge	g	0 (Chargeless)	+100	+200	

■ MODEL : AO*A24L

Refrigerant type		R410A
Refrigerant amount	g	1700

● REFRIGERANT CHARGE

Pipe length	m	~ 15	20	25	30	20g/m
Additional charge	g	0 (Chargeless)	+100	+200	+300	

7. AIR FLOW

■ MODEL : AO*A18L

● COOLING

NUMBER OF ROTATIONS (r.p.m)	Airflow	
	860	m ³ /h
l/s		556
CFM		1177

● HEATING

NUMBER OF ROTATIONS (r.p.m)	Airflow	
	820	m ³ /h
l/s		531
CFM		1124

■ MODEL : AO*A24L

● COOLING

NUMBER OF ROTATIONS (r.p.m)	Airflow	
	1050	m ³ /h
l/s		686
CFM		1454

● HEATING

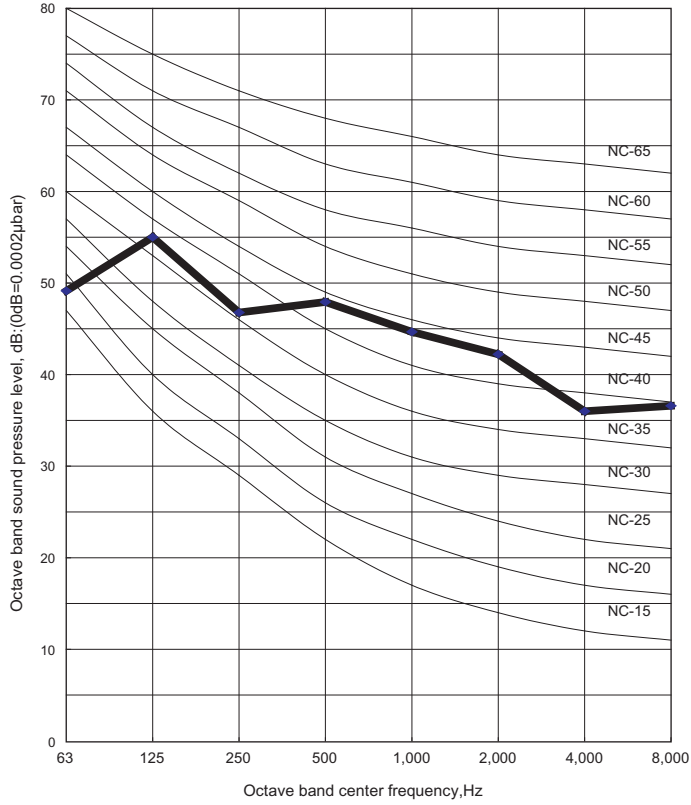
NUMBER OF ROTATIONS (r.p.m)	Airflow	
	1050	m ³ /h
l/s		686
CFM		1454

8. OPERATION NOISE

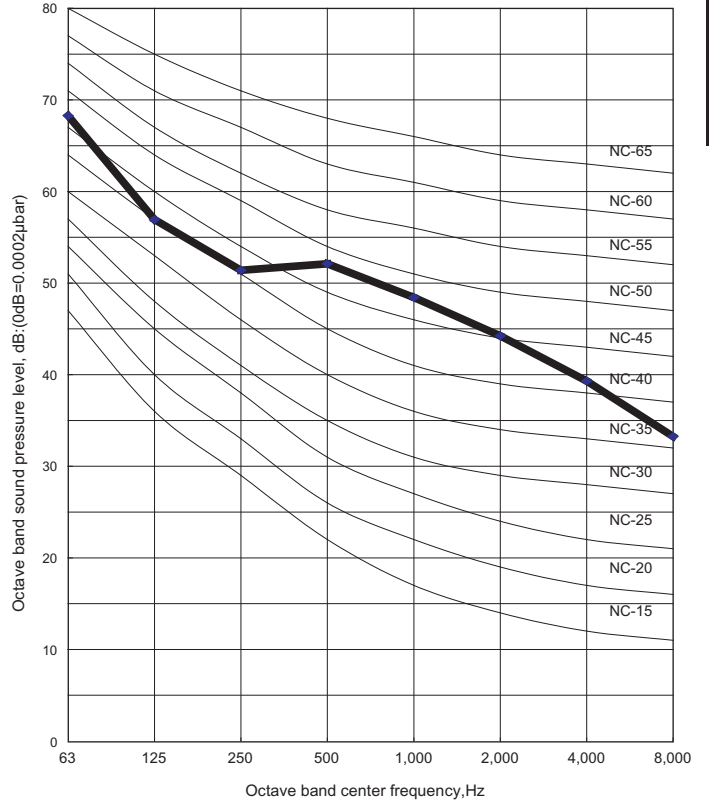
8-1. NOISE LEVEL CURVE

COOLING

MODEL : AO*A18L

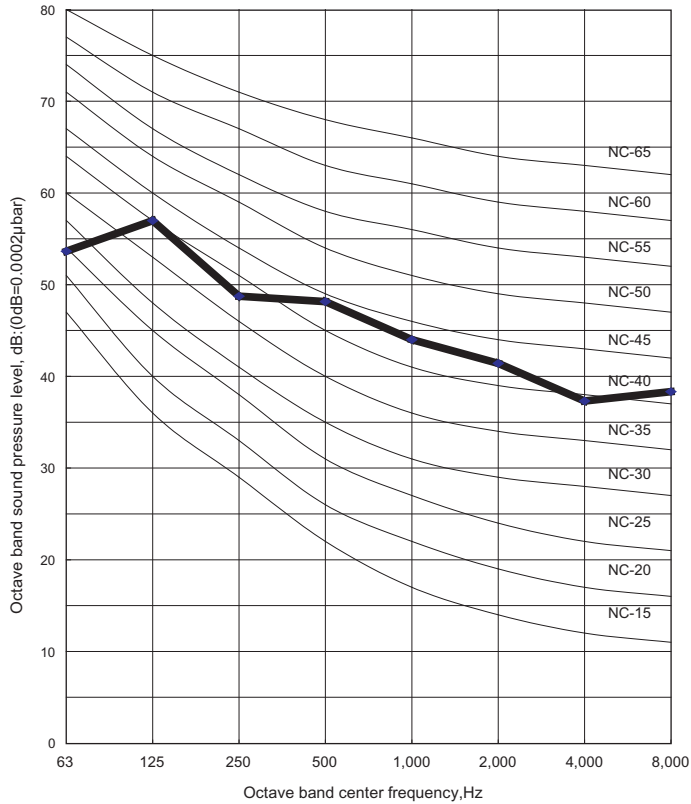


MODEL : AO*A24L

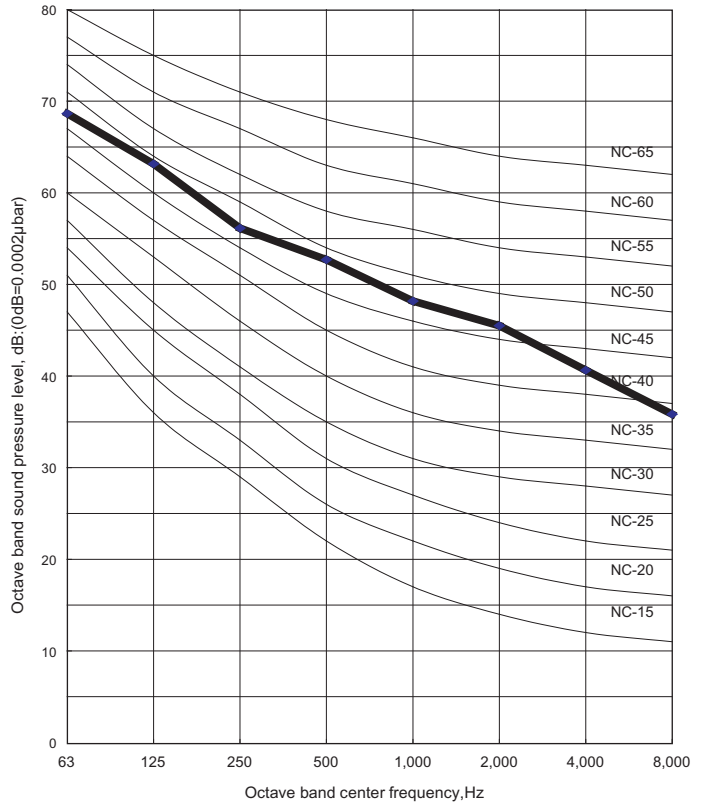


HEATING

MODEL : AO*A18L



MODEL : AO*A24L

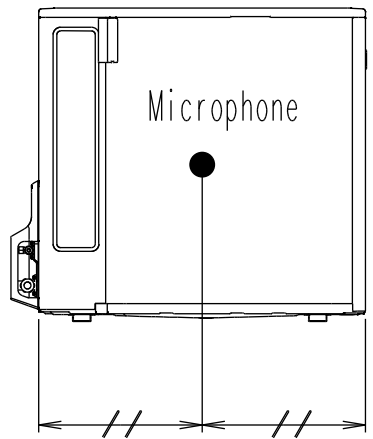
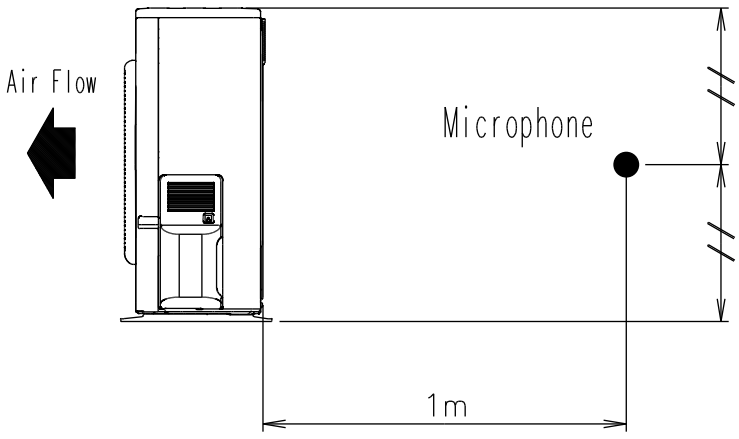


OUTDOOR UNIT
AO*A18-24L

OUTDOOR UNIT
AO*A18-24L

8-2. SOUND LEVEL CHECK POINT

OUTDOOR UNIT
AO*A18-24L



OUTDOOR UNIT
AO*A18-24L

9. ELECTRIC CHARACTERISTICS

Model Name			AO * A18L	AO * A24L
Power Supply	Voltage	V	230~	
	Frequency	Hz	50	
Max Operating Current		A	15.0	16.2
Starting Current		A	7.7	10.0
*1) Wiring Spec.	Main Fuse (Circuit breaker) Current	A	20	20
	Power Cable	mm ²	3.5 - 4.5	
	*2)Limited wiring length	m	24	22

*1) Wiring Spec.

Selected Sample

(Selected based on Japan Electrotechnical Standard and Codes Committee E0005)

*2) Limited Wiring length :

This is the wiring length in case voltage descent is less than 2%.

When the wiring length becomes long, please select the wiring of a more larger diameter.

10. SAFETY DEVICES

OUTDOOR UNIT
AO*A18-24L

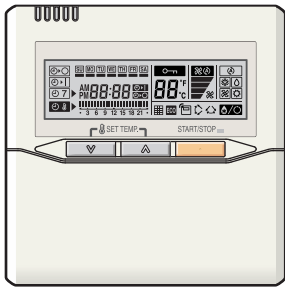
OUTDOOR UNIT
AO*A18-24L

	Protection form	Model	
		AO * A18L	AO * A24L
Circuit protection	Current fuse (NEAR THE TERMINAL)	20A 250V	
		5A 250V	
	Current fuse (MAIN PRINTED CIRCUIT BOARD)	15A 250V	
		3.15A 250V	
Fan motor protection	Thermal protection program	OFF:100 ⁺¹⁵ ₋₁₀ °C ON:95 ⁺¹⁵ ₋₁₀ °C	OFF:110 ⁺¹⁵ ₋₁₀ °C ON:105 ⁺¹⁵ ₋₁₀ °C
Compressor protection	Thermal protection program (COMPRESSOR TEMP.)	OFF:110°C ON: After 40 minutes	
	Thermal protection program (DISCHARGE TEMP.)	OFF:110°C ON: After 7 minutes	

REMOTE CONTROLLER

3. WIRED REMOTE CONTROLLER : UTB - *UD

FEATURES



- * Various timer setup (ON / OFF / WEEKLY) are possible.
- * Equipped with weekly timer as standard function. (2 times Start / Stop per day for a week)
- * When setting up a timer, operation mode and a temperature setup can be changed.
- * When a failure occurs, the error code is displayed. (Maximum of 16)
- * Error indication. (A maximum of 16 error histories are memorizable.)
- * Up to 16 indoor units can be simultaneously controlled.
- * Economy operation are possible.
- * Easy installation with a slim shape with no bulge in the back.
- * The room temperature can be controlled by being detected the temperature accurately with built-in thermo sensor.

REMOTE CONTROLLER
UTB-*/UD

REMOTE CONTROLLER
UTB-*/UD

Simple function setting

Setting of the air conditioner selection function is performed by remote controller.

High performance and compact size

Three functions are combined in one unit.



Built-in timers

Weekly timer

Possible to set ON/OFF time to operate twice each day of the week.

Easy-to-understand time bar display

Screen after setup

Setup screen example
(Set to Wednesday: 8:00 to 20:00.)

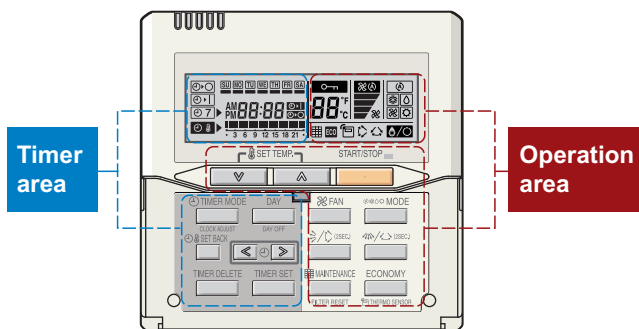
Setback timer

Possible to set temperature for two time spans and for each day of the week.

Setup screen example
(Set from Sunday to Saturday: 12:00 to 15:00, 28 °C.)

At "Weekly timer" + "Set back timer" setup

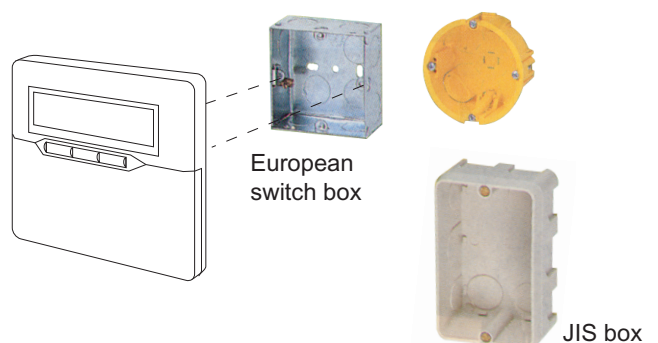
Easy-to-understand operation



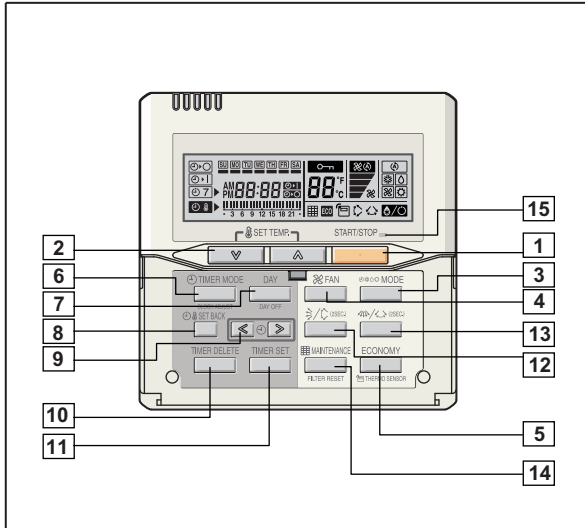
[Variable timer control]
The operation/display sections are zoned according to time and operation, enabling variable programming to match application.

Simple installation

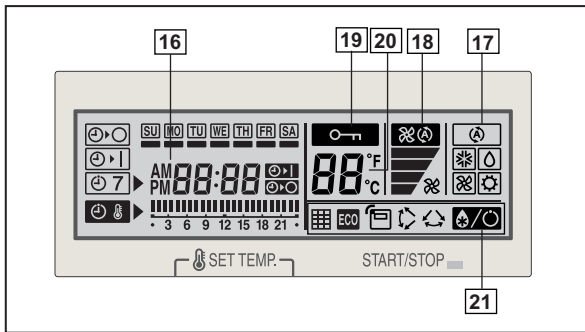
Components are compatible with standard switch boxes. Flat back construction allows equipment to be installed wherever it is needed.



FUNCTIONS

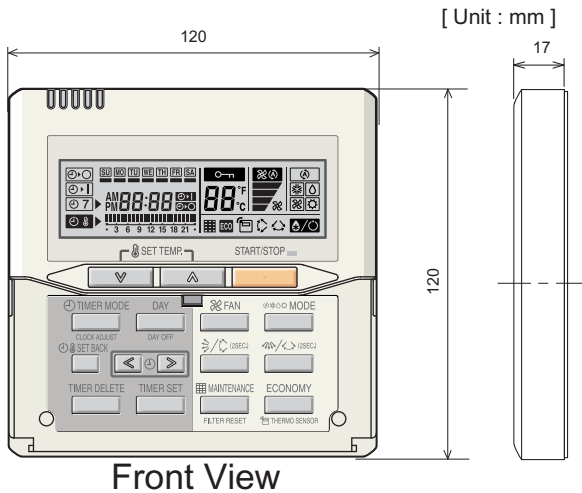


Display panel



- 1 **START/STOP button**
Pressed to start and stop operation.
- 2 **Set temperature button**
Selects the setting temperature.
- 3 **Master control button**
Selects the operating mode(AUTO, HEAT, FAN, COOL, DRY).
- 4 **Fan control button**
Selects the fan speed (AUTO, QUIET, LOW, MED, HIGH).
- 5 **Economy button**
Turns the economy efficient mode on and off.
- 6 **Timer mode (CLOCK ADJUST) button**
Selects the timer mode (OFF TIMER, ON TIMER, WEEKLY TIMER)
Set the current time.
- 7 **Day (DAY OFF) button**
Temporarily cancels of one day timer.
- 8 **Set back button**
Pressed to select the set back timer.
- 9 **Set time button**
Pressed to set time.
- 10 **Delete button**
The schedule of a weekly timer is deleted.
- 11 **Set button**
Sets the date, hour, minute and on-off time.
- 12 **Vertical airflow direction and swing button**
Push for two seconds to change the swing mode.
- 13 **Horizontal airflow direction and swing button**
Push for two seconds to change the swing mode.
- 14 **Filter button**
- 15 **Operation lamp**
Lights during operation and when the timer is on.
- 16 **Timer and clock display**
- 17 **Operation mode display**
- 18 **Fan speed display**
- 19 **Operation lock display**
- 20 **Temperature display**
- 21 **Function display**
 - Defrost display
 - Thermo sensor display
 - Economy display
 - Vertical swing display
 - Horizontal swing display
 - Filter display

DIMENSION



SPECIFICATION

SIZE (H x W x D mm)	120 x 120 x 17
WEIGHT (g)	160
CABLE LENGTH (m)	10
POWER (V)	12