Refrigerant R410A
INVERTER

AIR CONDITIONER

Wall Mounted type

DESIGN & TECHNICAL MANUAL

INDOOR

ASU30CLX1
ASU36CLX1

OUTDOOR

AOU30CLX1
AOU36CLX1

FUJITSU GENERAL LIMITED

1. INDOOR UNIT

WALL MOUNTED TYPE :

ASU30CLX1
ASU36CLX1

DTR_AS048E_01
2010.10.12

WALL MOUNTED TYPE
ASU30-36CLX1

CONTENTS

1. INDOOR UNIT

1. FEATURE ..... 01 - 01

2. WIRELESS REMOTE CONTROLLER ..... 01 - 03

3. SPECIFICATIONS ..... 01 - 05

4. DIMENSIONS ..... 01 - 06

5. WIRING DIAGRAMS ..... 01 - 07

6. CAPACITY TABLE ..... 01 - 08
   - 6-1. COOLING CAPACITY ..... 01 - 08

7. FAN PERFORMANCE ..... 01 - 10
   - 7-1. AIR VELOCITY DISTRIBUTION ..... 01 - 10
   - 7-2. AIR FLOW ..... 01 - 12

8. OPERATION NOISE ..... 01 - 13
   - 8-1. NOISE LEVEL CURVE ..... 01 - 13
   - 8-2. SOUND LEVEL CHECK POINT ..... 01 - 14

9. ELECTRIC CHARACTERISTICS ..... 01 - 15

10. SAFETY DEVICES ..... 01 - 16

11. EXTERNAL INPUT & OUTPUT ..... 01 - 17
   - 11-1. EXTERNAL INPUT ..... 01 - 17
   - 11-2. EXTERNAL OUTPUT ..... 01 - 18

12. FUNCTION SETTING ..... 01 - 19
   - 12-1. INDOOR UNIT ..... 01 - 19

13. OPTIONAL PARTS ..... 01 - 21

WALL MOUNTED TYPE
ASU30-36CLX1

1. FEATURE

■ MODEL

ASU30CLX1 / AOU30CLX1
ASU36CLX1 / AOU36CLX1

■ FEATURES

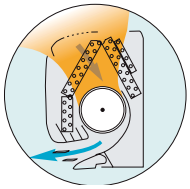
● High energy performance

		MODEL	
		ASU30CLX1	ASU36CLX1
Seasonal Energy Efficiency Ratio (SEER)	BTU/hW	16.5	15.5
Energy Efficient Ratio (EER)		9.5	8.5

MEASUREMENT CONDITIONS
ANSI/ASHRAE STANDARD 37-1988

● ALL DC

DC fan motor

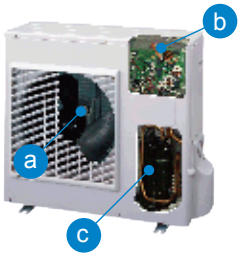


High efficiency layout
Large air flow and quiet operation by new air flow path

a **DC fan motor**

b **PAM control**
PAM technology makes a compressor more powerful.

c **DC twin rotary compressor**
More compact compared with conventional model



Front view

● Super quiet

Air flow mode can be set in 4 steps and more detailed air flow setting is possible.

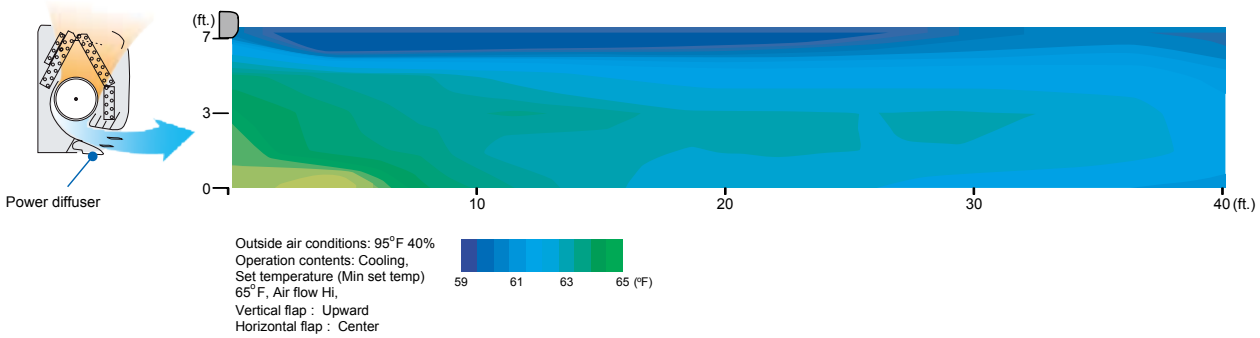
● Easy maintenance

Easy maintenance and always clean. Troublesome maintenance has been made easy.
Since the front panel is easy to remove, maintenance is also easy.

WALL MOUNTED TYPE
ASU30-36CLX1

● Power diffuser

"Healthy horizontal air flow" does not blow cool air directly at the occupants in the room.

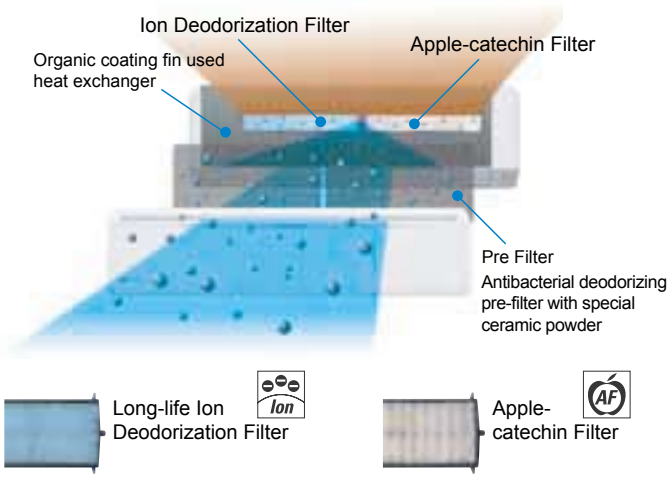


● Low outdoor air temperature cooling correspondence

Corresponds to cooling operation at 14°F (-10°C) outdoor air temperature

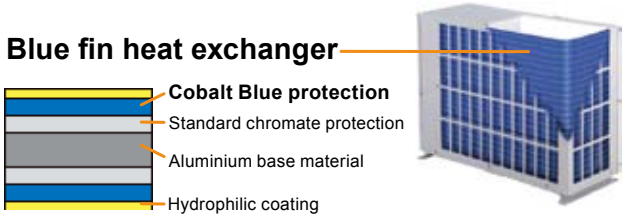
● Corresponds to maximum 164 feet (50m) long piping

● Air conditioner filter features



● Blue fin heat exchanger

Corrosion-resistance of the heat exchanger even in coastal areas has been improved by blue fin treatment of the outdoor unit heat exchanger.



WALL MOUNTED TYPE
ASU30-36CLX1

2. WIRELESS REMOTE CONTROLLER

■ FEATURES

- ∗ Four kinds of timer setup
  (On / Off / Program / Sleep) are possible.
- ∗ Four kinds of timers. Easy operation.
- ∗ Easy to change transmission code (4 patterns) by button operation.

● Built-in timers

Select from four different timer programs (On / Off / Program / Sleep).

● Program timer

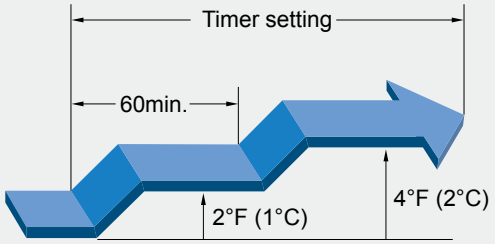
The program timer operates the on and off timer once within a 24 hour period.

● Sleep timer

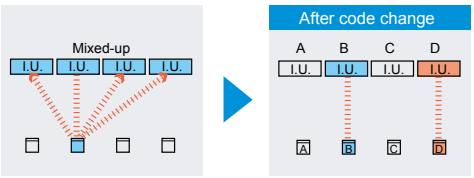
The sleep timer function automatically corrects the temperature thermostat setting according to the timer setting to prevent excessive cooling while sleeping.

Cooling operation/dry operation

When the sleep timer is set, the set temperature automatically rises 2°F (1°C) every hour. The set temperature can rise up to a maximum of 4°F (2°C).



● Switching remote controller signal code

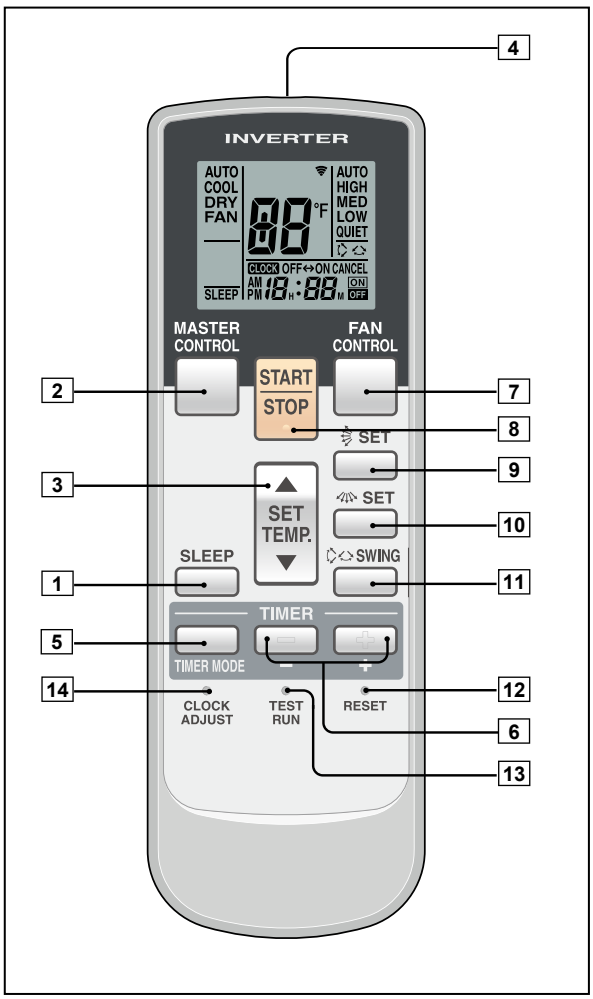


- Code selector switch eliminates unit being wrongly switched.
  (Up to 4 codes can be set.)

*I.U.=Indoor unit

WALL MOUNTED TYPE
ASU30-36CLX1

■ FUNCTIONS



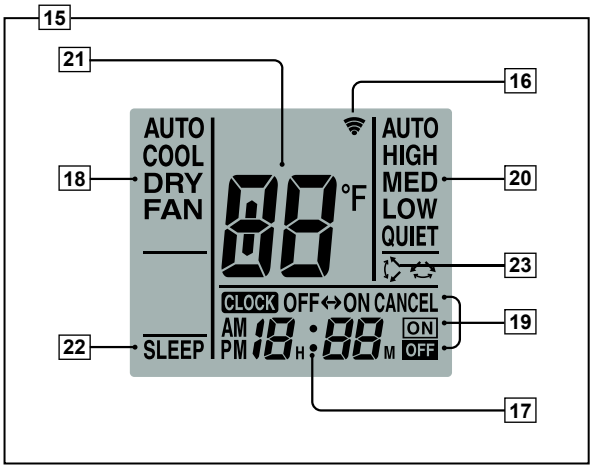
1 **SLEEP button**
2 **MASTER CONTROL button**
3 **SET TEMP. button (▲ / ▼)**
4 **Signal transmitter**
5 **TIMER MODE button**
6 **TIMER SET (+ / -) button**
7 **FAN CONTROL button**
8 **START/STOP button**
9 **SET button (Vertical)**
10 **SET button (Horizontal)**
11 **SWING button**
12 **RESET button**
13 **TEST RUN button**

- This button is used when installing the air conditioner, and should not be used under normal conditions, as it will cause the indoor unit's thermostat function to operate incorrectly.
- If this button is pressed during normal operation, the indoor unit will switch to test operation mode, and the Indoor Unit's OPERATION Indicator Lamp and TIMER Indicator Lamp will begin to flash simultaneously.
- To stop the test operation mode, press the START/STOP button to stop the air conditioner.

14 **CLOCK ADJUST button**
15 **Remote controller display**
16 **Transmit indicator**
17 **Clock display**
18 **Operating mode display**
19 **Timer mode display**
20 **Fan speed display**
21 **Temperature set display**
22 **Sleep display**
23 **Swing display**

Functions will be different due to type of indoor unit.
For details, please see operation manual.

Display panel



To facilitate explanation, the accompanying illustration has been drawn to show all possible indicators; in actual operation, however, the display will only show those indicators appropriate to the current operation.

■ SPECIFICATION

SIZE [H x W x D] in. (mm)	6-11/16 x 2-7/32 x 3/4 (170 x 56 x 19)
WEIGHT [w/o batteries] oz. (g)	3 (85)
ACCESSORY	Holder

WALL MOUNTED TYPE
ASU30-36CLX1

3. SPECIFICATIONS

Type					WALL MOUNTED	
					INVERTER COOLING ONLY	
Model name					ASU30CLX1	ASU36CLX1
Power source					208/230V ~ 60Hz	
Available voltage range					187-253V ~ 60Hz	
Capacity	Cooling	Rated		kW	9.00	9.70
				BTU/h	30,700	33,000
		Min-Max		kW	2.90 - 9.50	2.90 - 10.00
				BTU/h	9900 - 32400	9900 - 34100
	Heating	Rated		kW	-	-
				BTU/h	-	-
		Min-Max		kW	-	-
				BTU/h	-	-
Input power	Cooling	Rated		kW	3.24	3.88
		Max			3.87	4.10
	Heating	Rated			-	-
		Max			-	-
Current	Cooling	Rated		A	14.2	17.0
		Max			17.0	18.0
	Heating	Rated			-	-
		Max			-	-
EER		Cooling		kW/kW	2.78	2.50
				BTU/hW	9.5	8.5
COP		Heating		kW/kW	-	-
				BTU/hW	-	-
SEER		Cooling		BTU/hW	16.5	15.5
HSPF		Heating		BTU/hW	-	-
SENSIBLE CAPACITY		Cooling		kW	6.25	6.39
POWER FACTOR		Cooling		%	99	99
		Heating			-	-
Moisture removal				pints/h (l/h)	9.7(4.6)	10.1(4.8)
Fan	Airflow rate	Cooling	High	CFM (m^3/h)	659 (1,120)	694 (1,180)
			Med		530 (900)	530 (900)
			Low		435 (740)	435 (740)
			Quiet		365 (620)	365 (620)
		Heating	High		-	-
			Med		-	-
			Low		-	-
			Quiet		-	-
	Type × Q'ty				Cross flow fan x 1	
	Motor output			W	42	65
Sound pressure level		Cooling	High	dB(A)	49	50
			Med		42	42
			Low		37	37
			Quiet		33	33
		Heating	High		-	-
			Med		-	-
			Low		-	-
			Quiet		-	-
Heat exchanger type		Dimensions (H × W × D)		in. (mm)	Main:15-7/8 x 33-3/4 x 1-1/16 (378×832×26.6) Sub: 3-5/16 x 33-3/4 x 17/32 (84×832×13.3)	
		Fin pitch		FPI	Main:21, Sub:18	
		Rows x Stages			Main:2×18, Sub:1×4	
		Pipe type			Copper	
		Fin type			Aluminium	
Enclosure		Material			Polystyrene	
		Color			White Approximate Color of MUNSELL N9.25/	
Dimensions (H×W×D)	Net			mm	320×998×228	
				inch	12-5/8×39-1/4×9	
	Gross			mm	319×1090×429	
				inch	12-3/5×42-15/16×16-7/8	
Weight	Net			lb.(kg)	31 (14)	
	Gross				40 (18)	
Connection pipe	Size	Liquid		in. (mm)	Ø3/8 (Ø9.52)	
		Gas			Ø5 /8 (Ø15.88)	
	Method				Flare	
Operation range		Cooling		°F (°C)	64 to 90 (18 to 32)	
				%RH	80 or less	
		Heating		°F (°C)	-	-
Remote controller type					Wireless	
Drain pipe	Material				PVC	
	Size			mm (Reference in.)	Outer diameter: 28 (1-3/32) Inner diameter: 16 (5/8) .	

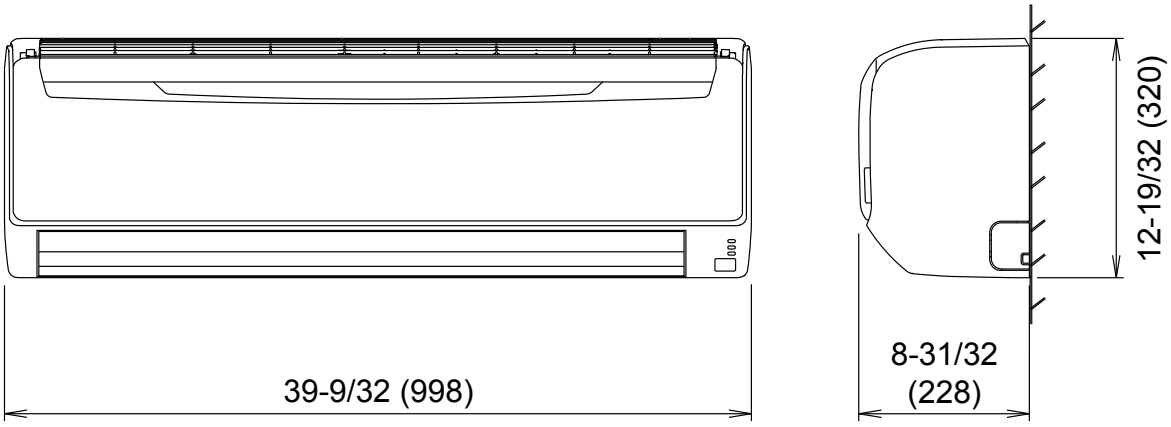
Note :
Specifications are based on the following conditions.
Cooling : Indoor temperature of 80°F (26.67 °C)DB / 67°F (19.44 °C)WB, and outdoor temperature of 95°F (35 °C)DB / 75°F (23.9 °C)WB.
Pipe length : 24ft.7in. (7.5 m), Height difference : 0 m.(Outdoor unit - Indoor unit)

WALL MOUNTED TYPE
ASU30-36CLX1

4. DIMENSIONS

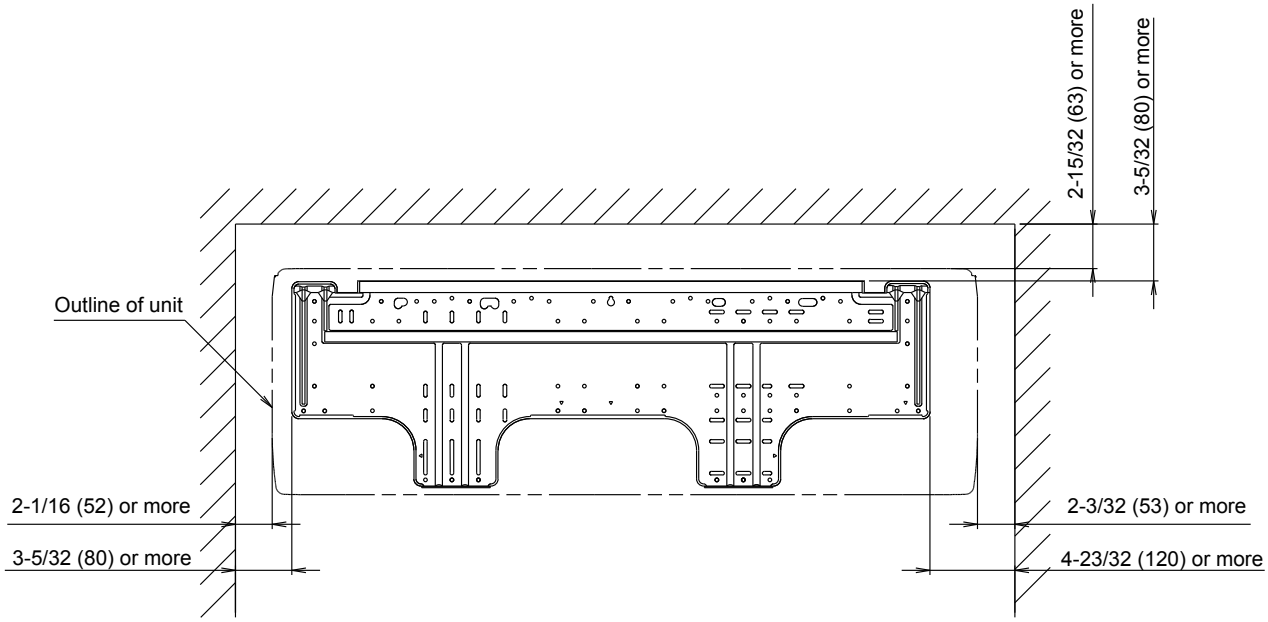
■ MODEL: ASU30CLX1, ASU36CLX1

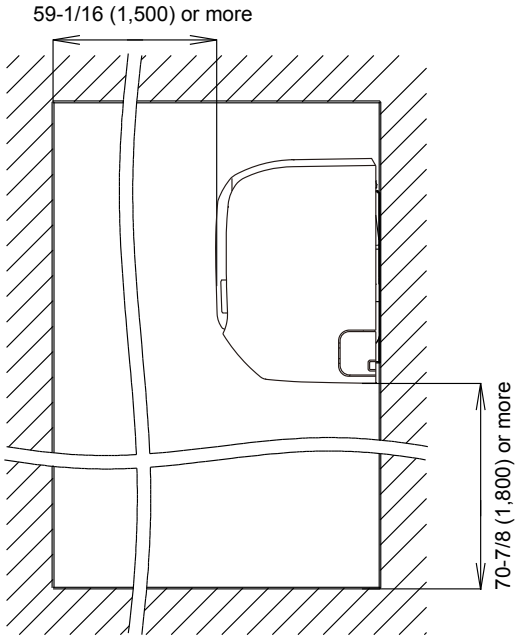
Unit : in. (mm)



■ INSTALLATION PLACE

Unit : in. (mm)

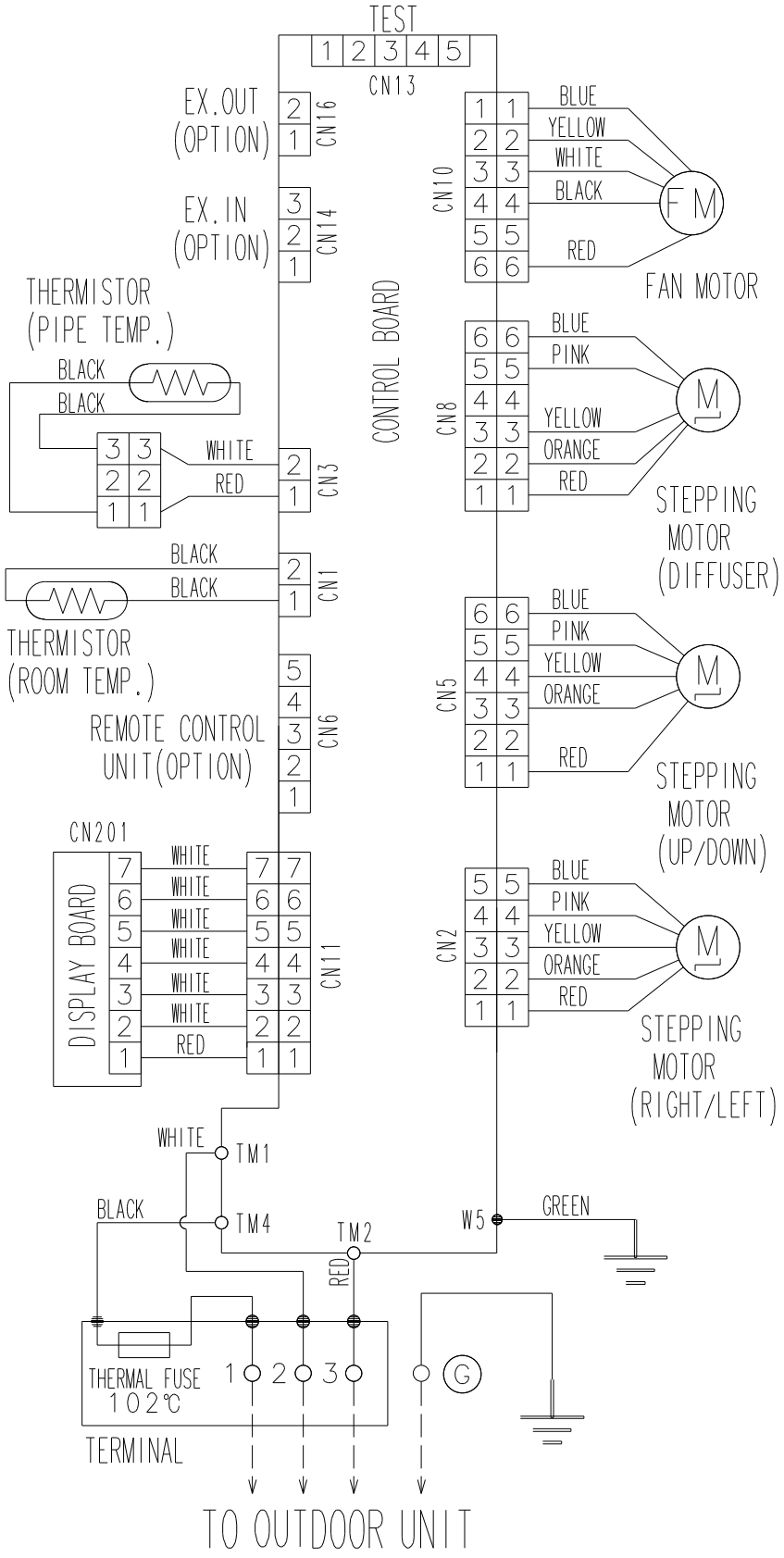




WALL MOUNTED TYPE
ASU30-36CLX1

5. WIRING DIAGRAMS

■ MODEL: ASU30CLX1, ASU36CLX1



WALL MOUNTED TYPE
ASU30-36CLX1

6. CAPACITY TABLE

6-1. COOLING CAPACITY

■ MODEL: ASU30CLX1

AFR	659

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	14	26.31	18.98	0.82	29.31	19.09	0.83	32.30	20.83	0.84	33.30	22.49	0.85	35.30	22.40	0.86	37.30	23.86	0.87
	32	26.28	19.70	1.08	29.27	19.81	1.10	32.27	21.61	1.11	33.27	23.34	1.12	35.26	23.24	1.13	37.26	24.76	1.14
	41	26.26	18.96	1.20	29.26	19.07	1.22	32.25	20.80	1.24	33.25	22.46	1.25	35.24	22.37	1.26	37.24	23.83	1.27
	50	26.20	19.33	1.36	29.19	19.44	1.38	32.17	21.21	1.40	33.17	22.90	1.41	35.16	22.81	1.42	37.15	24.30	1.44
	59	26.02	19.23	1.50	28.99	19.34	1.53	31.95	21.10	1.55	32.94	22.78	1.56	34.92	22.69	1.57	36.89	24.17	1.59
	67	25.03	18.67	1.76	27.88	18.78	1.78	30.73	20.48	1.81	31.68	22.12	1.82	33.58	22.03	1.84	35.48	23.47	1.86
	77	26.98	19.77	2.52	30.05	19.88	2.55	33.12	21.69	2.59	34.15	23.42	2.61	36.20	23.33	2.63	38.25	24.85	2.66
	87	25.67	19.03	2.81	28.60	19.14	2.86	31.52	20.88	2.90	32.50	22.55	2.91	34.45	22.46	2.94	36.40	23.92	2.97
	95	24.26	18.24	3.13	27.02	18.35	3.18	29.79	20.01	3.22	30.70	21.35	3.24	32.55	21.53	3.27	34.39	22.93	3.30
	104	22.68	17.37	3.43	25.26	17.47	3.49	27.84	19.06	3.54	28.70	20.58	3.56	30.43	20.50	3.59	32.15	21.84	3.63
	115	17.27	14.47	2.87	19.23	14.56	2.91	21.20	15.88	2.96	21.86	17.15	2.97	23.17	17.08	3.00	24.48	18.20	3.03

AFR: Air flow rate (CFM)
TC: Total capacity (kBTU)
SHC: Sensible heat capacity (kBTU)
PI: Power input (kW))

AFR	18.7

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.7			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	-10.0	7.71	5.56	0.82	8.59	5.60	0.83	9.47	6.10	0.84	9.76	6.59	0.85	10.35	6.56	0.86	10.93	6.99	0.87
	0.0	7.70	5.77	1.08	8.58	5.81	1.10	9.46	6.33	1.11	9.75	6.84	1.12	10.33	6.81	1.13	10.92	7.26	1.14
	5.0	7.70	5.56	1.20	8.57	5.59	1.22	9.45	6.10	1.24	9.74	6.58	1.25	10.33	6.56	1.26	10.91	6.98	1.27
	10.0	7.68	5.66	1.36	8.55	5.70	1.38	9.43	6.22	1.40	9.72	6.71	1.41	10.30	6.69	1.42	10.89	7.12	1.44
	15.0	7.63	5.64	1.50	8.50	5.67	1.53	9.36	6.18	1.55	9.65	6.68	1.56	10.23	6.65	1.57	10.81	7.08	1.59
	19.4	7.33	5.47	1.76	8.17	5.50	1.78	9.01	6.00	1.81	9.28	6.48	1.82	9.84	6.46	1.84	10.40	6.88	1.86
	25.0	7.91	5.79	2.52	8.81	5.83	2.55	9.71	6.36	2.59	10.01	6.86	2.61	10.61	6.84	2.63	11.21	7.28	2.66
	30.6	7.52	5.58	2.81	8.38	5.61	2.86	9.24	6.12	2.90	9.52	6.61	2.91	10.10	6.58	2.94	10.67	7.01	2.97
	35.0	7.11	5.35	3.13	7.92	5.38	3.18	8.73	5.87	3.22	9.00	6.26	3.24	9.54	6.31	3.27	10.08	6.72	3.30
	40.0	6.65	5.09	3.43	7.40	5.12	3.49	8.16	5.59	3.54	8.41	6.03	3.56	8.92	6.01	3.59	9.42	6.40	3.63
	46.1	5.06	4.24	2.87	5.64	4.27	2.91	6.21	4.65	2.96	6.41	5.03	2.97	6.79	5.01	3.00	7.17	5.33	3.03

AFR : Air flow rate (m^3/min)
TC : Total capacity (kW)
SHC : Sensible heat capacity (kW)
PI : Power input (kW)

WALL MOUNTED TYPE
ASU30-36CLX1

■ MODEL: ASU36CLX1

AFR	695

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	14	27.62	19.93	1.01	30.77	20.05	1.03	33.92	21.87	1.04	34.97	23.61	1.05	37.07	23.52	1.06	39.16	25.05	1.07
	32	27.59	20.68	1.33	30.74	20.80	1.35	33.88	22.69	1.37	34.93	24.50	1.38	37.02	24.41	1.39	39.12	26.00	1.41
	41	27.58	19.90	1.48	30.72	20.02	1.51	33.86	21.84	1.53	34.91	23.58	1.54	37.00	23.49	1.55	39.10	25.02	1.57
	50	27.51	20.29	1.68	30.65	20.41	1.70	33.78	22.27	1.73	34.83	24.05	1.74	36.92	23.95	1.76	39.01	25.51	1.77
	59	27.32	20.19	1.85	30.44	20.31	1.88	33.55	22.15	1.91	34.59	23.92	1.92	36.66	23.82	1.94	38.74	25.38	1.96
	67	26.28	19.60	2.16	29.27	19.72	2.20	32.26	21.51	2.23	33.26	23.23	2.24	35.26	23.13	2.27	37.25	24.64	2.29
	77	28.33	20.75	3.10	31.55	20.88	3.15	34.78	22.77	3.20	35.86	24.59	3.21	38.01	24.49	3.25	40.16	26.09	3.28
	87	26.96	19.98	3.47	30.03	20.10	3.52	33.10	21.92	3.58	34.12	23.68	3.60	36.17	23.58	3.63	38.22	25.12	3.67
	95	25.47	19.15	3.86	28.37	19.27	3.92	31.28	21.02	3.98	33.00	21.80	3.88	34.18	22.60	4.04	36.11	24.08	4.08
	104	23.81	18.24	4.23	26.52	18.35	4.30	29.24	20.01	4.37	30.14	21.61	4.39	31.95	21.52	4.43	33.76	22.93	4.48
	115	18.13	15.20	3.54	20.19	15.29	3.59	22.26	16.67	3.65	22.95	18.01	3.67	24.33	17.94	3.70	25.70	19.11	3.74

AFR: Air flow rate (CFM)
TC: Total capacity (kBTU)
SHC: Sensible heat capacity (kBTU)
PI: Power input (kW))

AFR	19.7

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.7			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	-10.0	8.10	5.84	1.01	9.02	5.88	1.03	9.94	6.41	1.04	10.25	6.92	1.05	10.86	6.89	1.06	11.48	7.34	1.07
	0.0	8.09	6.06	1.33	9.01	6.10	1.35	9.93	6.65	1.37	10.24	7.18	1.38	10.85	7.15	1.39	11.47	7.62	1.41
	5.0	8.08	5.83	1.48	9.00	5.87	1.51	9.92	6.40	1.53	10.23	6.91	1.54	10.84	6.88	1.55	11.46	7.33	1.57
	10.0	8.06	5.95	1.68	8.98	5.98	1.70	9.90	6.53	1.73	10.21	7.05	1.74	10.82	7.02	1.76	11.43	7.48	1.77
	15.0	8.01	5.92	1.85	8.92	5.95	1.88	9.83	6.49	1.91	10.14	7.01	1.92	10.75	6.98	1.94	11.35	7.44	1.96
	19.4	7.70	5.75	2.16	8.58	5.78	2.20	9.46	6.30	2.23	9.75	6.81	2.24	10.33	6.78	2.27	10.92	7.22	2.29
	25.0	8.30	6.08	3.10	9.25	6.12	3.15	10.19	6.67	3.20	10.51	7.21	3.21	11.14	7.18	3.25	11.77	7.65	3.28
	30.6	7.90	5.86	3.47	8.80	5.89	3.52	9.70	6.43	3.58	10.00	6.94	3.60	10.60	6.91	3.63	11.20	7.36	3.67
	35.0	7.47	5.61	3.86	8.32	5.65	3.92	9.17	6.16	3.98	9.70	6.39	3.88	10.02	6.62	4.04	10.58	7.06	4.08
	40.0	6.98	5.35	4.23	7.77	5.38	4.30	8.57	5.87	4.37	8.83	6.33	4.39	9.36	6.31	4.43	9.89	6.72	4.48
	46.1	5.31	4.45	3.54	5.92	4.48	3.59	6.52	4.89	3.65	6.73	5.28	3.67	7.13	5.26	3.70	7.53	5.60	3.74

AFR : Air flow rate (m^3/min)
TC : Total capacity (kW)
SHC : Sensible heat capacity (kW)
PI : Power input (kW)

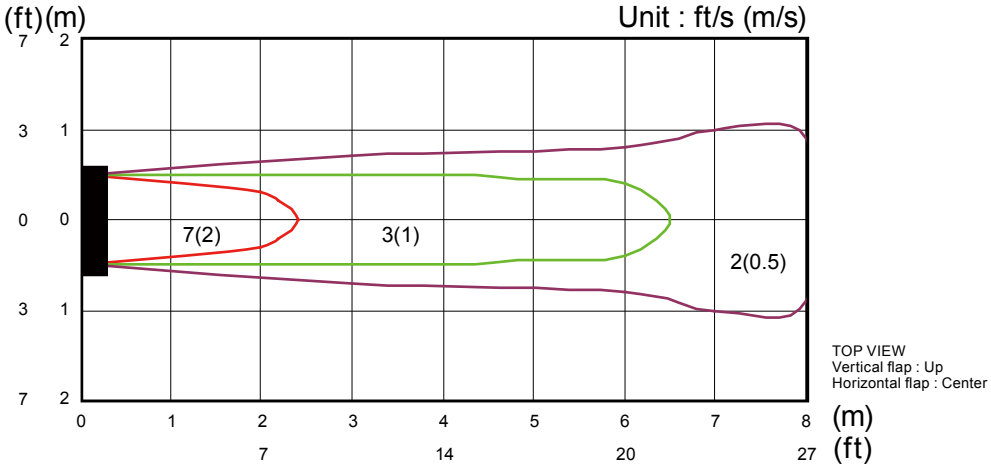
WALL MOUNTED TYPE
ASU30-36CLX1

7. FAN PERFORMANCE

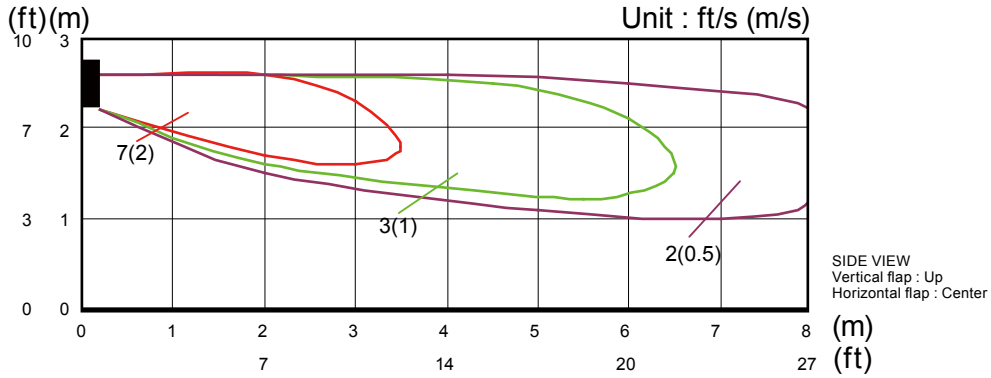
7-1. AIR VELOCITY DISTRIBUTION

■ MODEL: ASU30CLX1

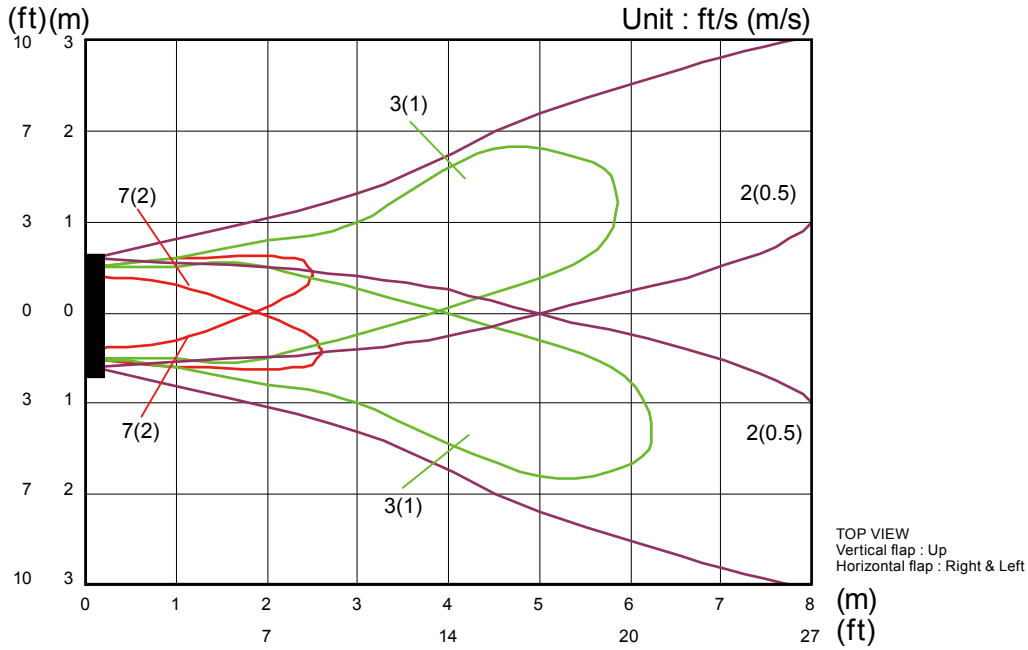
Note:
Fan speed : HIGH
Operation mode : FAN



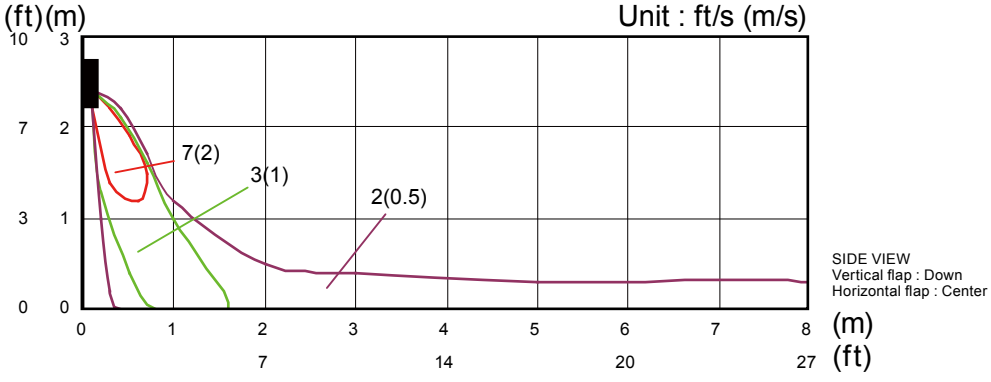
TOP VIEW
Vertical flap : Up
Horizontal flap : Center



SIDE VIEW
Vertical flap : Up
Horizontal flap : Center



TOP VIEW
Vertical flap : Up
Horizontal flap : Right & Left

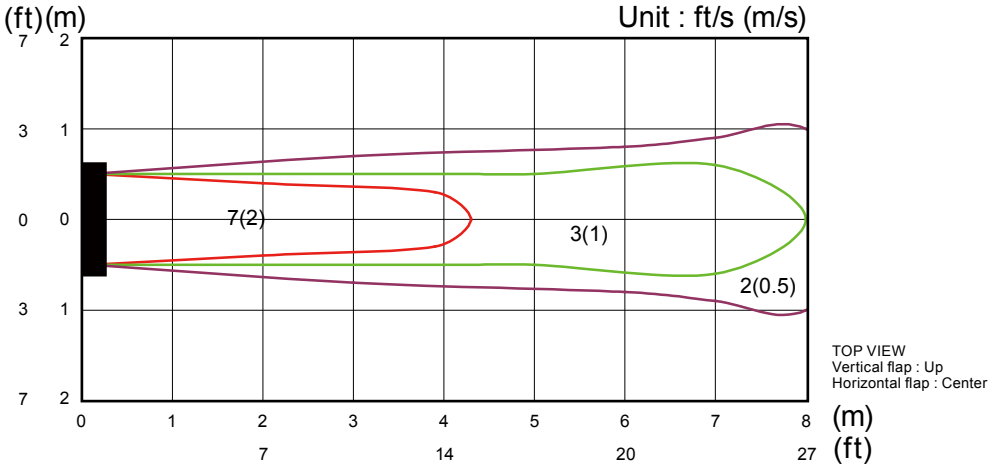


SIDE VIEW
Vertical flap : Down
Horizontal flap : Center

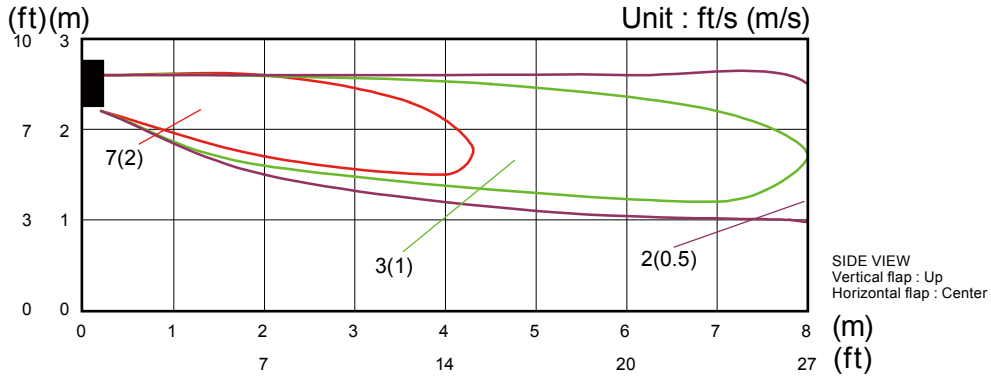
WALL MOUNTED TYPE
ASU30-36CLX1

Note:
Fan speed : High
Operation mode : FAN

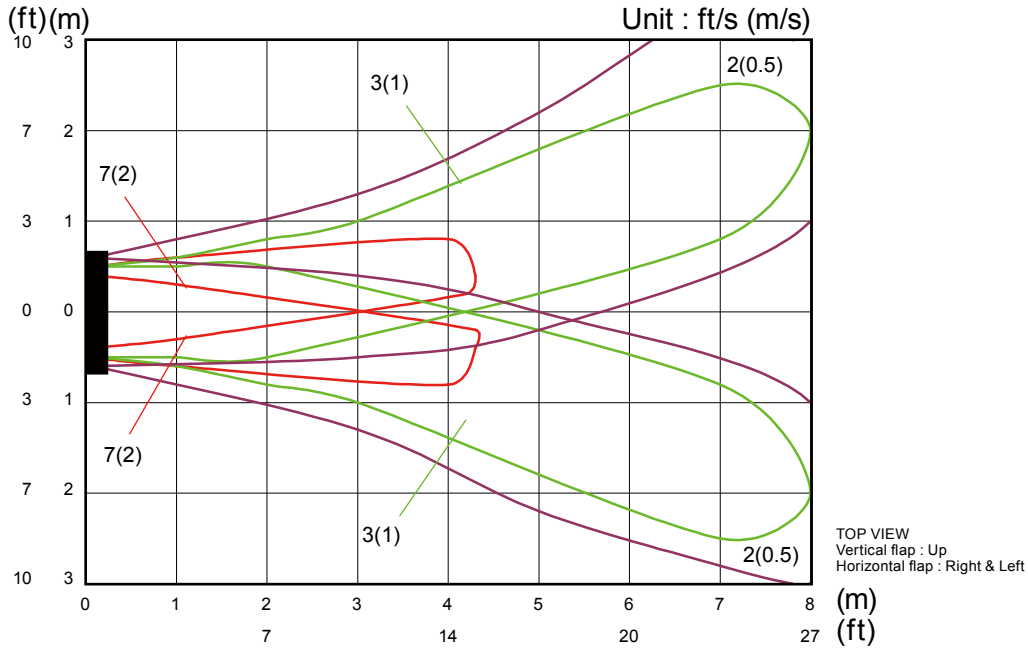
■ MODEL: ASU36CLX1



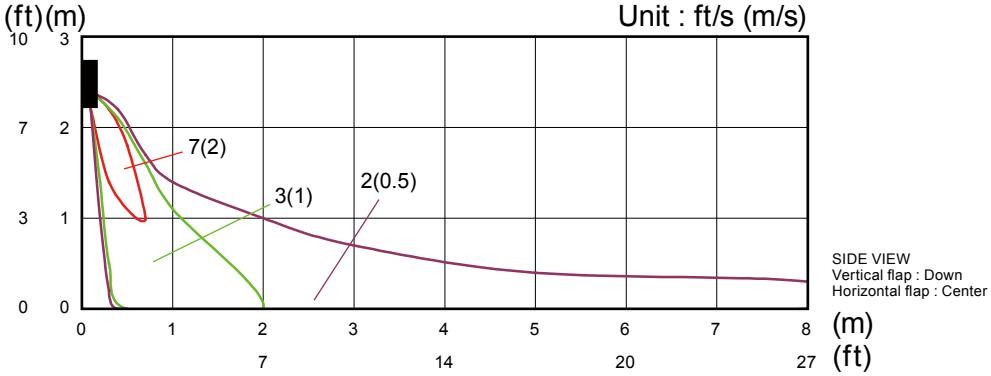
TOP VIEW
Vertical flap : Up
Horizontal flap : Center



SIDE VIEW
Vertical flap : Up
Horizontal flap : Center



TOP VIEW
Vertical flap : Up
Horizontal flap : Right & Left



SIDE VIEW
Vertical flap : Down
Horizontal flap : Center

WALL MOUNTED TYPE
ASU30-36CLX1

7-2. AIR FLOW

■ MODEL: ASU30CLX1

● Cooling

Fan speed	Number of rotations (r.p.m.)	Air flow	
HIGH	1480	1120	m^3/h
		311	l/s
		659	CFM
MED	1220	900	m^3/h
		250	l/s
		530	CFM
LOW	1020	740	m^3/h
		206	l/s
		435	CFM
QUIET	900	620	m^3/h
		172	l/s
		365	CFM

■ MODEL: ASU36CLX1

● Cooling

Fan speed	Number of rotations (r.p.m.)	Air flow	
HIGH	1560	1180	m^3/h
		328	l/s
		694	CFM
MED	1220	900	m^3/h
		250	l/s
		530	CFM
LOW	1020	740	m^3/h
		206	l/s
		435	CFM
QUIET	900	620	m^3/h
		172	l/s
		365	CFM

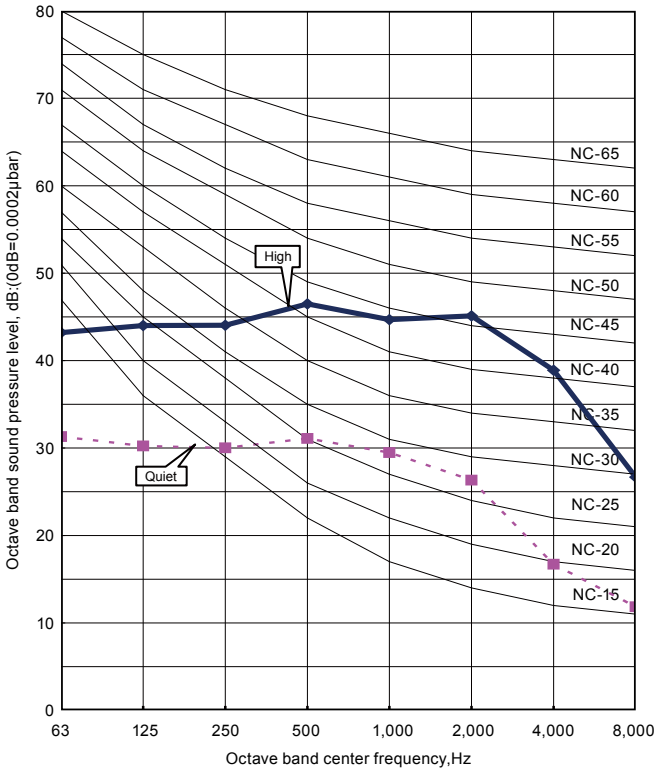
WALL MOUNTED TYPE
ASU30-36CLX1

8. OPERATION NOISE

8-1. NOISE LEVEL CURVE

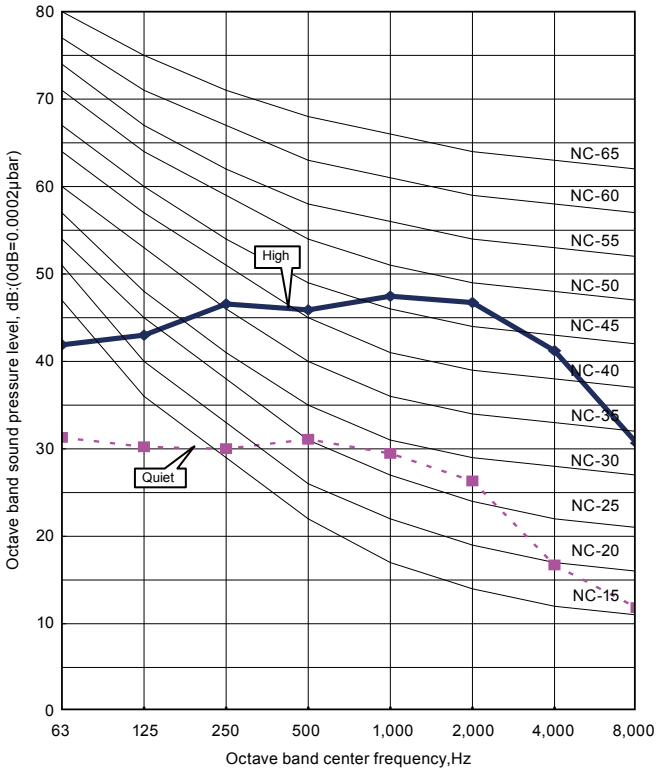
■ MODEL: ASU30CLX1

● Cooling



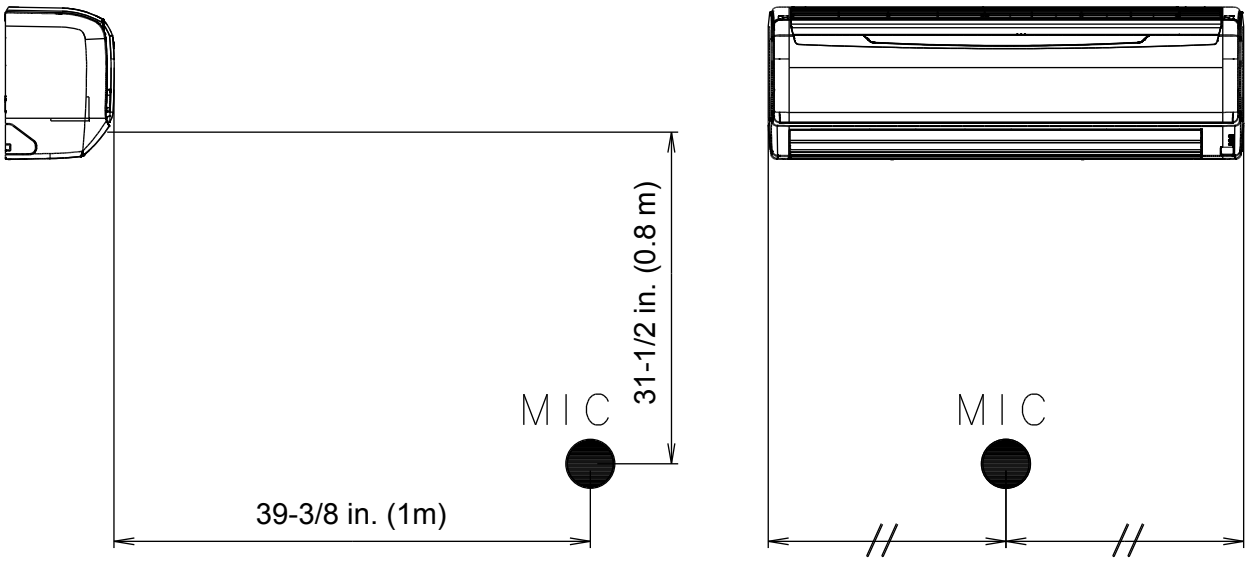
■ MODEL: ASU36CLX1

● COOLING



WALL MOUNTED TYPE
ASU30-36CLX1

8-2. SOUND LEVEL CHECK POINT



WALL MOUNTED TYPE
ASU30-36CLX1

9. ELECTRIC CHARACTERISTICS

Model name			ASU30CLX1, ASU36CLX1
Power supply	Voltage	V	208/230~
	Frequency	Hz	60
Max. operating current		A	0.3
*)Wiring Spec.	Circuit breaker	A	0.4
	Connection cable	AWG	14
	Limited wiring length	ft.	167

*) Wiring Spec.
Selected Sample
(Selected based on Japan Electrotechnical Standard and Codes Committee E0005)

WALL MOUNTED TYPE
ASU30-36CLX1

10. SAFETY DEVICES

	Protection form	Model	
		ASU30CLX1	ASU36CLX1
Circuit protection	Current fuse (PCB)	3.15A 250V	
Terminal protection	Current fuse	3A 250V	
Fan motor protection	Thermal protection program	212^{+27}_{-18}°F (100^{+15}_{-10}°C) OFF 203^{+9}_{-18}°F (95^{+5}_{-10}°C) ON	

WALL MOUNTED TYPE
ASU30-36CLX1

11. EXTERNAL INPUT & OUTPUT

Connector	INPUT	OUTPUT	REMARKS
CN14	Control input (Operation / stop)	-	See external input/output settings for details.
CN16	-	Operation status output	

11-1. EXTERNAL INPUT

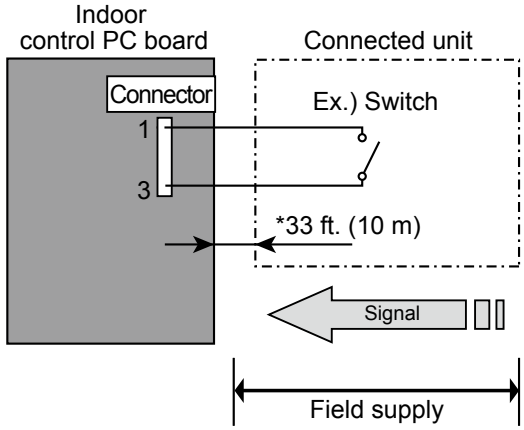
■ CONTROL INPUT (Operation/Stop)

The air conditioner can be remotely operated by means of the following on-site work.

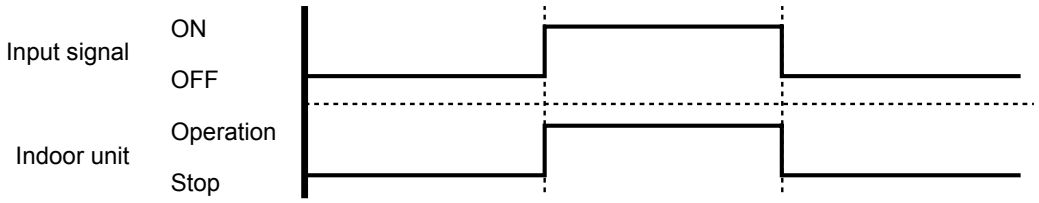
Operation is started at the following contents by adding the contact input of a commercial ON/OFF switch to a connector on the external control PC board and turning it ON.

	Initial starting after power turned on	Starting other than at the left
Operation mode	Auto changeover	Mode at previous operation
Set temperature	75°F (24°C)	Temperature at previous operation
Air flow mode	AUTO	Mode at previous operation
Up-down air direction (swing)	Standard air direction (swing OFF)	Air direction at previous operation
Left-right air direction (swing)	Standard air direction (swing OFF)	Air direction at previous operation

● Circuit diagram example



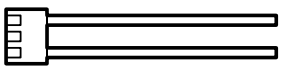
* Make the distance from the PC board to the connected unit within 33 ft. (10m).
Contact capacity : 5VDC or more, 20mA or more.
Please use the non-polar relays and switches.



● Parts (Optional)

Parts name	Model name
External connect kit	UTY-XWZX

Wire (External input)



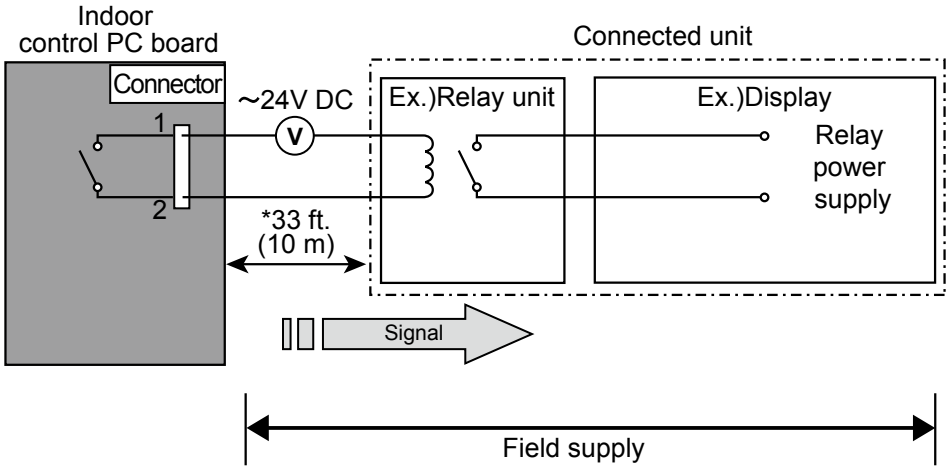
WALL MOUNTED TYPE
ASU30-36CLX1

11-2. EXTERNAL OUTPUT

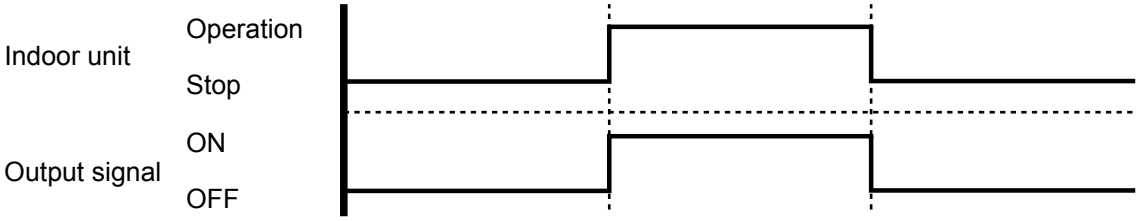
■ OPERATION STATUS OUTPUT

An air conditioner operation status signal can be output.

● Circuit diagram example



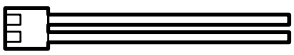
* Make the distance from the PC board to the connected unit within 33ft. (10m).
Relay spec. : Max.24VDC, 10mA to less than 500mA.



● Parts (Optional)

Parts name	Model name
External connect kit	UTY-XWZX

Wire (External output)



WALL MOUNTED TYPE
ASU30-36CLX1

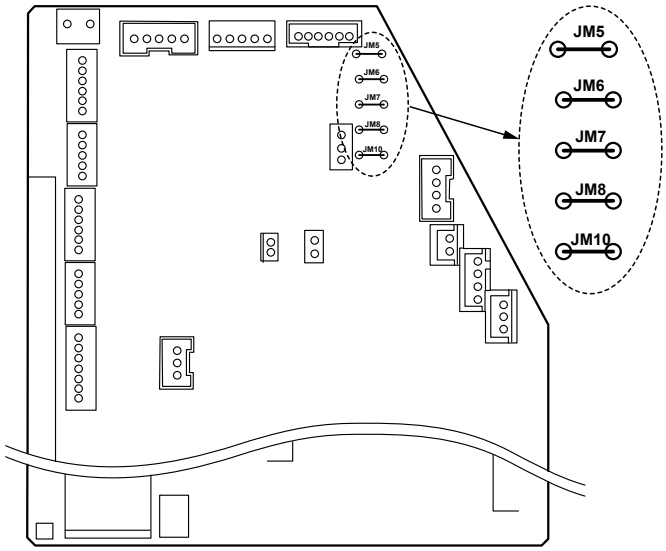
12. FUNCTION SETTING

12-1. INDOOR UNIT

INDOOR UNIT		
Jumper Wire	JM 5	Auto restart
	JM 6	Room temperature correction
	JM 7	
	JM 8	Remote controller signal code
	JM 10	

■ SWITCH POSITION

MAIN PCB



WALL MOUNTED TYPE
ASU30-36CLX1

■ JUMPER WIRE SETTING

● Auto restart setting (JM5)

(◆··· Factory setting)

	JM 5	Auto restart
◆	Connect	Validity
	Disconnect	Invalidity

● Room temperature correction setting (JM6, JM7)

(◆··· Factory setting)

	JM 6	JM 7	Room temperature correction	
			Cooling	Drying
◆	Connect	Connect	Standard	
	Disconnect	Connect	Slightly lower control	
	Connect	Disconnect	Slightly lower control	
	Disconnect	Disconnect	Lower control	

● Remote controller signal code setting (JM8, JM10)

(◆··· Factory setting)

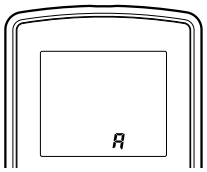
	Jumper wire		Remote controller signal code
	JM 8	JM 10	
◆	Connect	Connect	A
	Disconnect	Connect	B
	Connect	Disconnect	C
	Disconnect	Disconnect	D

■ REMOTE CONTROLLER SIGNAL CODE SETTING

Use the following steps to select the signal code of the remote controller.

(Note that the air conditioner cannot receive a signal code if the air conditioner has not been set for the signal code.)

1. Press the START/STOP button until only the clock is displayed on the remote controller display.
2. Press the MODE button for at least five seconds to display the current signal code (initially set to A).
3. Press the SET TEMP. (▲) (▼) button to change the signal code between A → b → c → d.
   Match the code on the display to the air conditioner signal code.
4. Press the MODE button again to return to the clock display. The signal code will be changed.



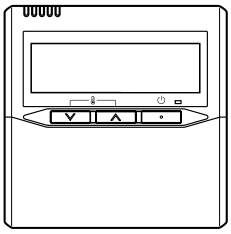
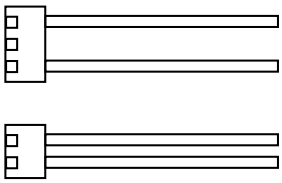
If no buttons are pressed within 30 seconds after the signal code is displayed, the system returns to the original clock display. In this case, start again from step 1.

The air conditioner signal code is set to A prior to shipment. Contact your retailer to change the signal code.

The remote controller resets to signal code A when the batteries in the remote controller are replaced. If you use a signal code other than signal code A, reset the signal code after replacing the batteries.
If you do not know the air conditioner signal code setting,try each of the signal codes (A → b → c → d.) until you find the code which operates the air conditioner.

WALL MOUNTED TYPE
ASU30-36CLX1

13. OPTIONAL PARTS

Exterior	Parts name	Model No.	Summary
	Wired remote controller	UTY-RNBYU	Unit control is performed by wired remote controller.
	Apple-catechin filter	UTR-FA13-1	Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited and deactivated by the polyphenol ingredient extracted from apples.
	Ion deodorisation filter	UTR-FA13-2	The filter deodorizes by powerfully decomposing absorbed odors using the oxidizing and reducing effects of ions generated by the ultra fine-particle ceramic.
	External connect kit	UTY-XWZX	Use to connect with various peripheral devices and air conditioner PC board.

2. OUTDOOR UNIT

SINGLE TYPE :

AOU30CLX1
AOU36CLX1

DTR_AO070E_01
2010.10.12

CONTENTS

2. OUTDOOR UNIT

1. SPECIFICATIONS ..... 02 - 01
2. DIMENSIONS ..... 02 - 02
3. REFRIGERANT CIRCUIT ..... 02 - 03
4. WIRING DIAGRAMS ..... 02 - 04
5. CAPACITY COMPENSATION RATE FOR PIPE LENGTH AND HEIGHT DIFFERENCE ..... 02 - 05
6. ADDITIONAL CHARGE CALCULATION ..... 02 - 06
7. AIR FLOW ..... 02 - 07
8. OPERATION NOISE ..... 02 - 08
   8-1. NOISE LEVEL CURVE ..... 02 - 08
   8-2. SOUND LEVEL CHECK POINT ..... 02 - 09
9. ELECTRIC CHARACTERISTICS ..... 02 - 10
10. SAFETY DEVICES ..... 02 - 11

OUTDOOR UNIT
AOU30-36CLX1

1. SPECIFICATIONS

Type				INVERTER COOLING ONLY	
Model name				AOU30CLX1	AOU36CLX1
Power source				208/230V~ 60Hz	
Available voltage range				187-253V ~ 60Hz	
Starting current			A	14.2	17.0
Fan	Airflow rate	Cooling	CFM (m^3/h)	2,119 (3,600)	2,119 (3,600)
		Heating		-	-
	Type × Q'ty			Propeller fan×1	
	Motor output		W	100	
Sound pressure level		Cooling	dB(A)	54	54
		Heating		-	-
Heat exchanger type		Dimensions (H × W × D)	in.	31-7/16 x 35-7/16 x 1-7/16	
			mm	798 x 900 x 36.4	
		Fin pitch	FPI	20	
		Rows x Stages		2 × 38	
		Pipe type		Copper	
		Fin type		Aluminum	
Compressor	Type × Q'ty			Rotary x 1	
	Motor output		W	2,100	
Refrigerant		Type		R410A	
		Charge	lb.oz.	4lb.10.1oz.	
			kg	2.1	
Refrigerant oil		Type		POE (RB68)	
Enclosure		Material		Steel	
		Color		Beige Approximate color of MUNSELL 10YR7.5/1.0	
Dimensions (H×W×D)	Net		mm	830 x 900 x 330	
			inch	32-3/4 x 35-3/8 x 13	
	Gross		mm	970 x 1050 x 445	
			inch	38-1/4 x 41-1/2 x 17-1/2	
Weight	Net		lb.(kg)	135(61)	
	Gross			150(68)	
Connection pipe	Size	Liquid	in. (mm)	Ø3/8 (Ø9.52)	
		Gas		Ø5/8 (Ø15.88)	
	Method			Flare	
	Max. length		ft. (m)	164 (50) [chargeless:66(20)]	
	Max. height difference			98 (30)	
Operation range		Cooling	°F (°C)	14 to 115 (-10 to 46)	
		Heating		-	-

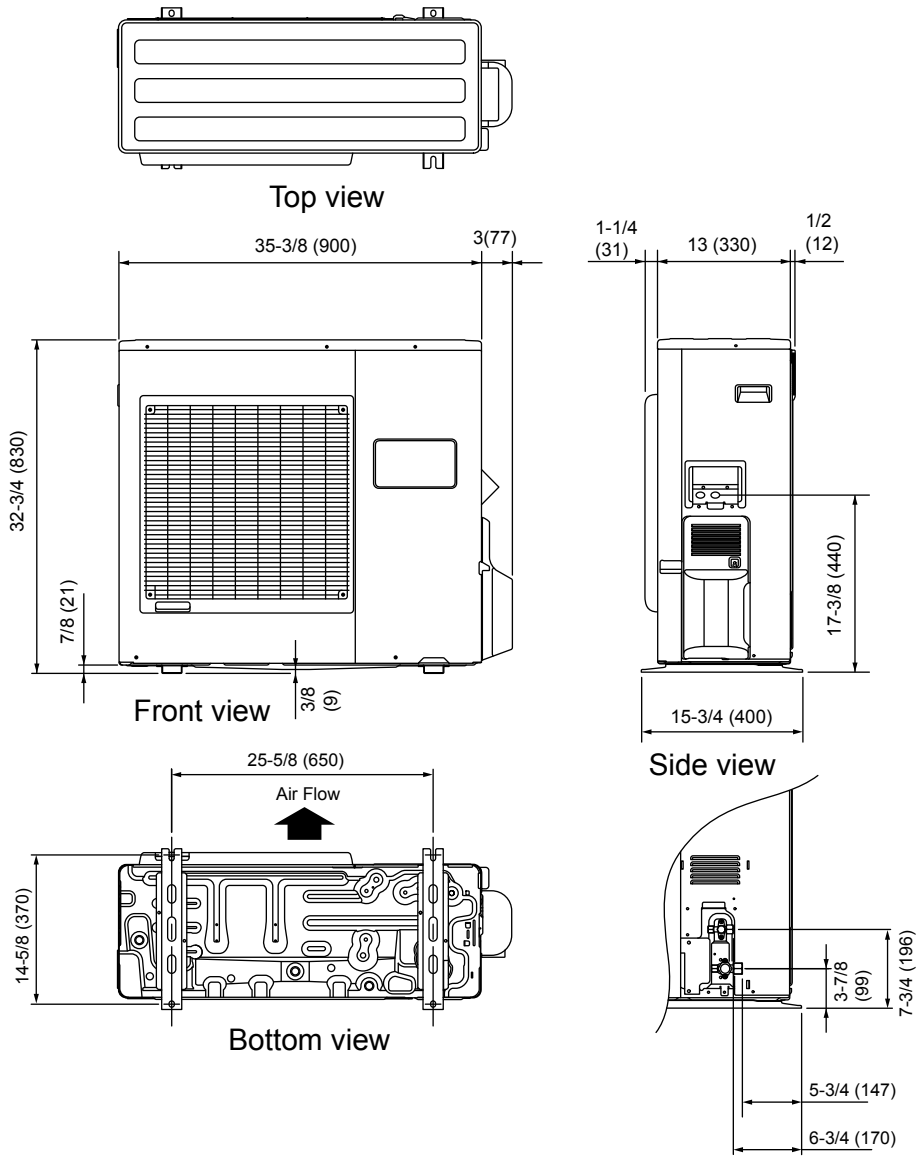
Note :
Specifications are based on the following conditions.
Cooling : Indoor temperature of 80°F(26.67°C)DB / 67°F(19.44°C)WB,and outdoor temperature of 95°F(35°C)DB/75°F(23.9°C)WB.
Pipe length : 24ft.7in.(7.5 m), Height difference : 0 m.(Outdoor unit - Indoor unit)

OUTDOOR UNIT
AOU30-36CLX1

2. DIMENSIONS

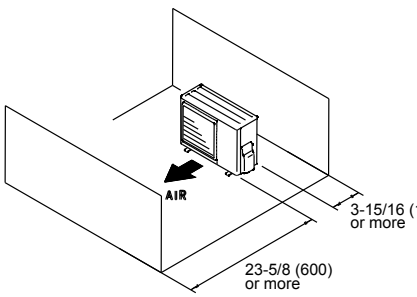
■ MODEL: AOU30CLX1, AOU36CLX1

Unit : in.(mm)

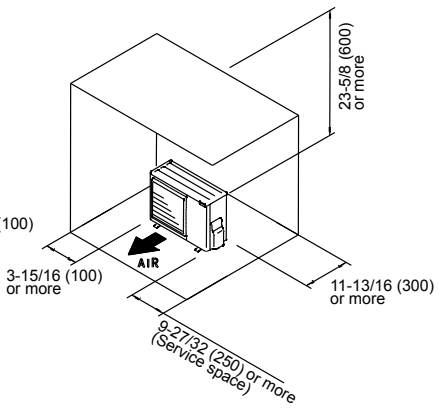


■ INSTALLATION PLACE

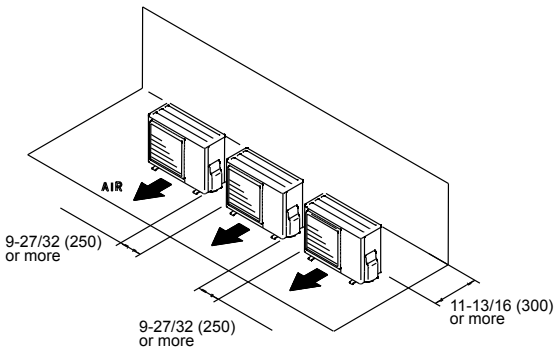
When there are obstacles at the back or front sides.



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

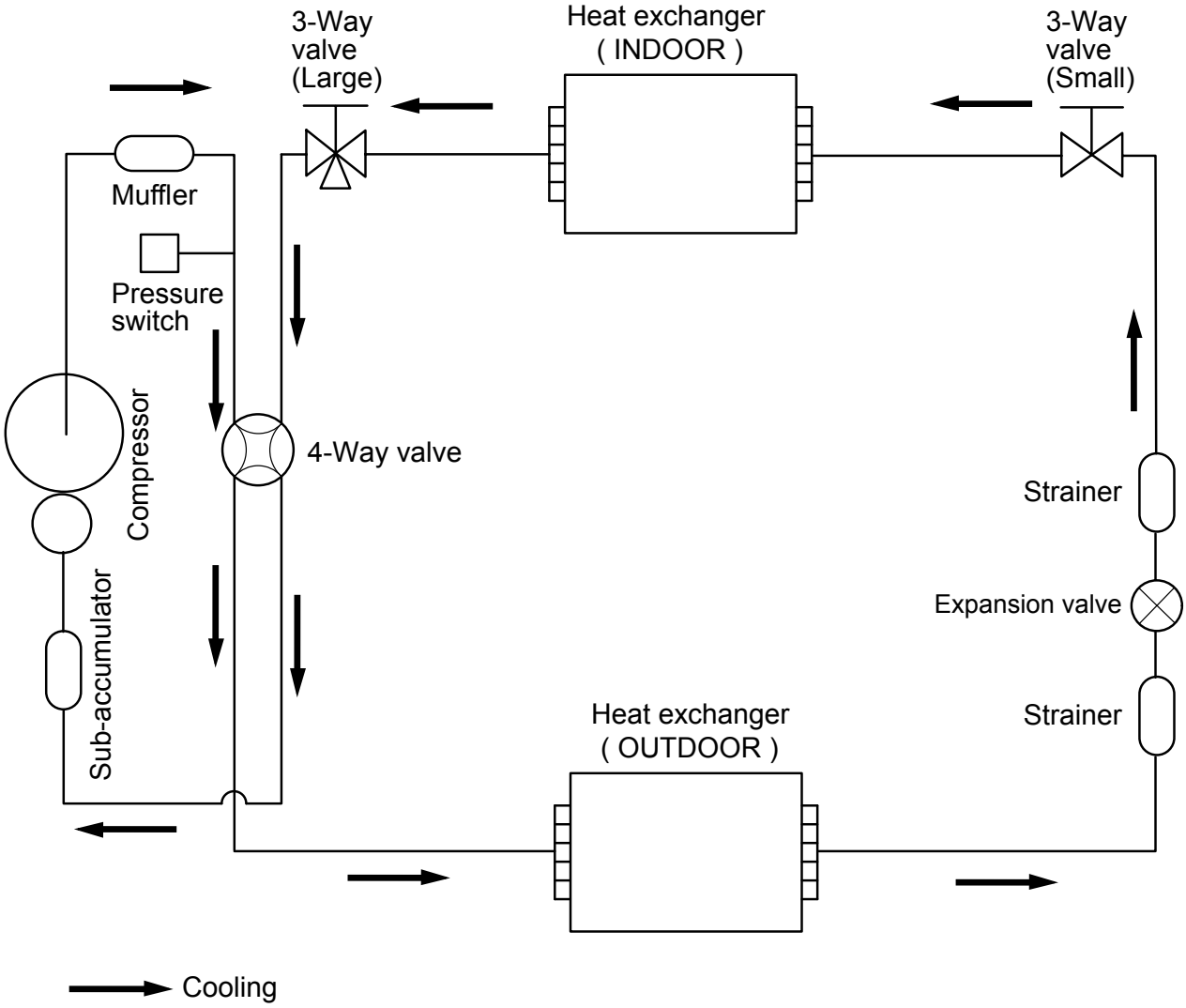


When there are obstacles at the back, side with the installation of more than one unit.



3. REFRIGERANT CIRCUIT

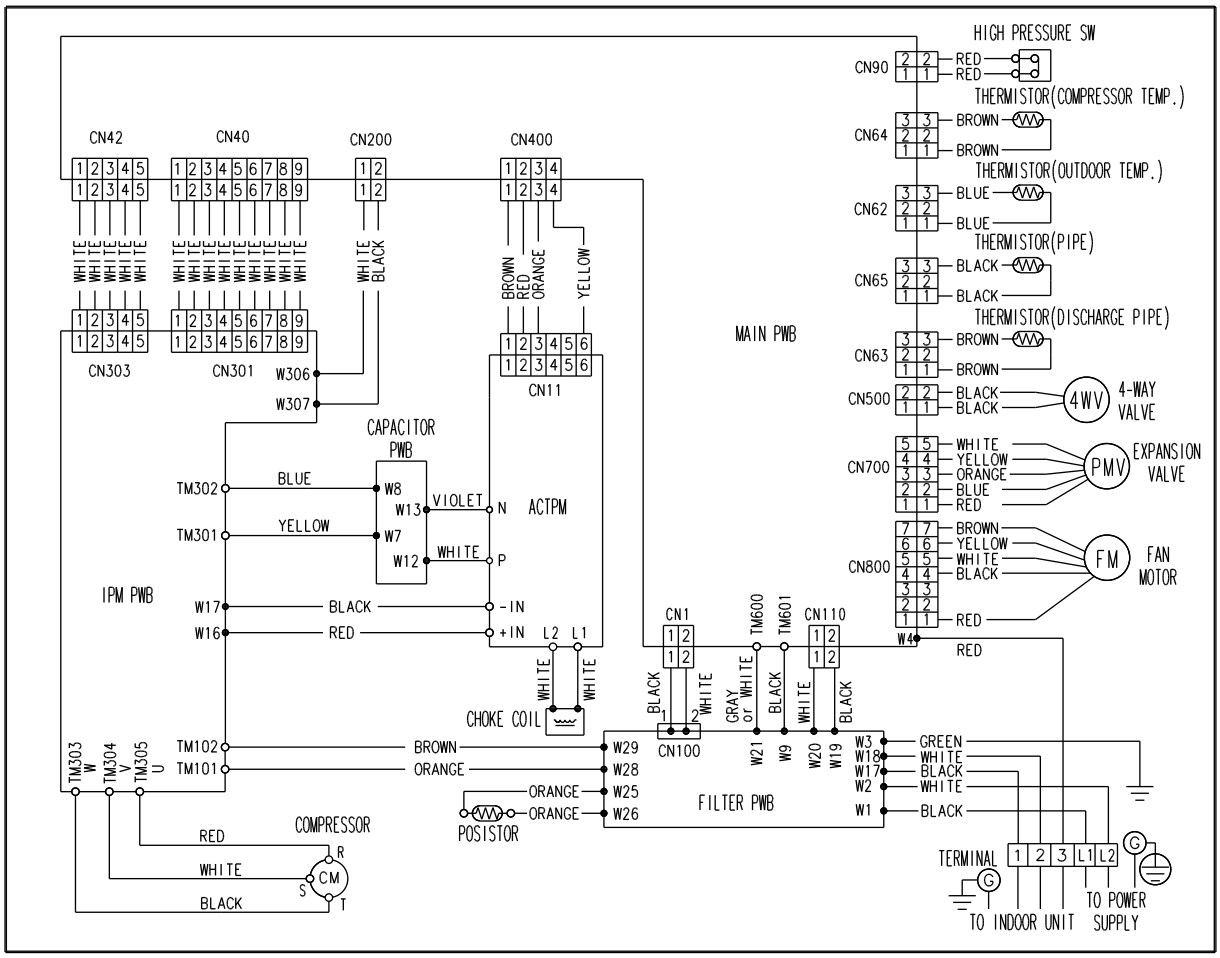
■ MODEL: AOU30CLX1, AOU36CLX1



Refrigerant pipe diameter
Liquid : 3/8" (9.52 mm)
Gas : 5/8" (15.88 mm)

4. WIRING DIAGRAMS

■ MODEL: AOU30CLX1, AOU36CLX1

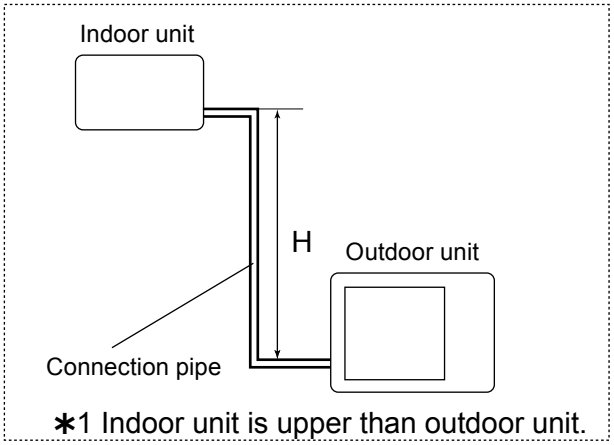


5. CAPACITY COMPENSATION RATE FOR PIPE LENGTH AND HEIGHT DIFFERENCE

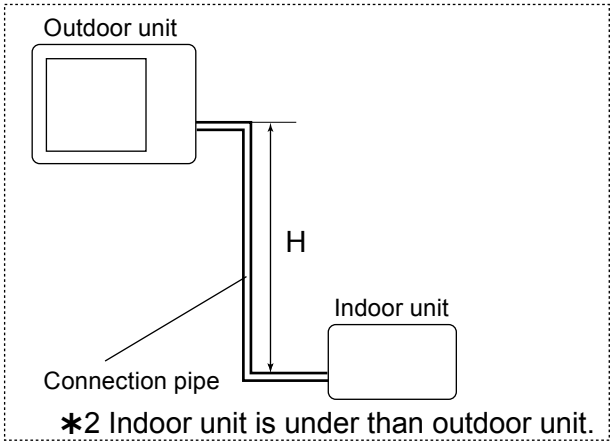
■ MODEL: AOU30CLX1, AOU36CLX1

COOLING				Pipe length						
				5m	7.5m	10m	20m	30m	40m	50m
				16ft.	25ft.	33ft.	66ft.	99ft.	131ft.	164ft.
Height difference H	✳1 Indoor unit is upper than outdoor unit.	30m	99ft.	-	-	-	-	0.932	0.929	0.924
		20m	66ft.	-	-	-	0.945	0.947	0.945	0.940
		10m	33ft.	-	-	0.984	0.961	0.963	0.960	0.956
		7.5m	25ft.	-	0.988	0.988	0.965	0.967	0.964	0.959
		5m	16ft.	0.990	0.992	0.992	0.968	0.971	0.968	0.963
		0m	0ft.	0.998	1.000	1.000	0.976	0.979	0.976	0.971
	✳2 Indoor unit is under than outdoor unit	-5m	-16ft.	0.998	1.000	1.000	0.976	0.979	0.976	0.971
		-7.5m	-25ft.	-	1.000	1.000	0.976	0.979	0.976	0.971
		-10m	-33ft.	-	-	1.000	0.976	0.979	0.976	0.971
		-20m	-66ft.	-	-	-	0.976	0.979	0.976	0.971
		-30m	-99ft.	-	-	-	-	0.979	0.976	0.971

Height difference H



✳1 Indoor unit is upper than outdoor unit.



✳2 Indoor unit is under than outdoor unit.

6. ADDITIONAL CHARGE CALCULATION

■ MODEL: AOU30CLX1, AOU36CLX1

Refrigerant type		R410A
Refrigerant amount	lb. oz.	4lb. 10.1oz.
	g	2100

● REFRIGERANT CHARGE

Pipe length	ft.	~66	98	131	164	0.43oz./ft. (40g/m)
	m	~20	30	40	50	
Additional charge	oz.	0 (Chargeless)	14.1	28.2	42.3	
	g	0 (Chargeless)	+400	+800	+1200	

OUTDOOR UNIT
AOU30-36CLX1

7. AIR FLOW

■ MODEL: AOU30CLX1, AOU36CLX1

● Cooling

Number of rotations (r.p.m.)	Air flow	
850	3600	m^3/h
	1000	l/s
	2119	CFM

OUTDOOR UNIT
AOU30-36CLX1

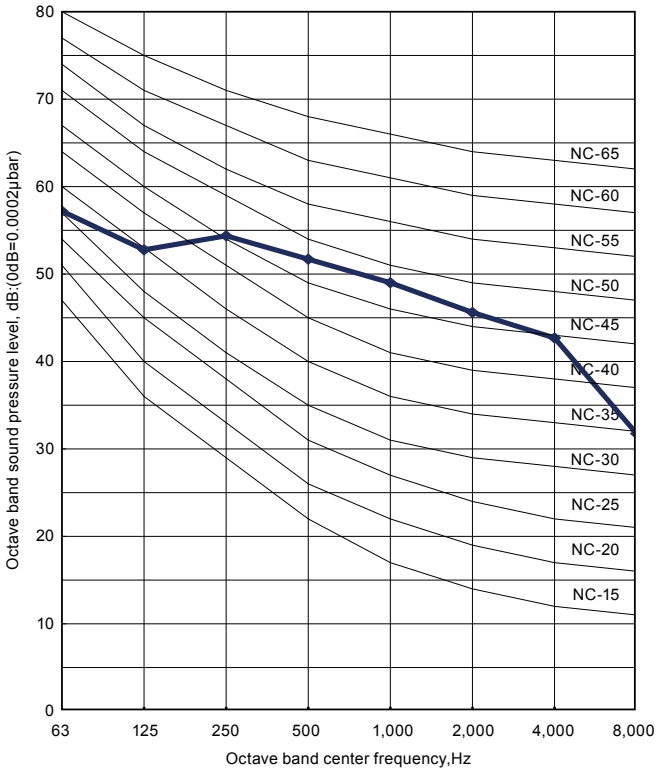
OUTDOOR UNIT
AOU30-36CLX1

8. OPERATION NOISE

8-1. NOISE LEVEL CURVE

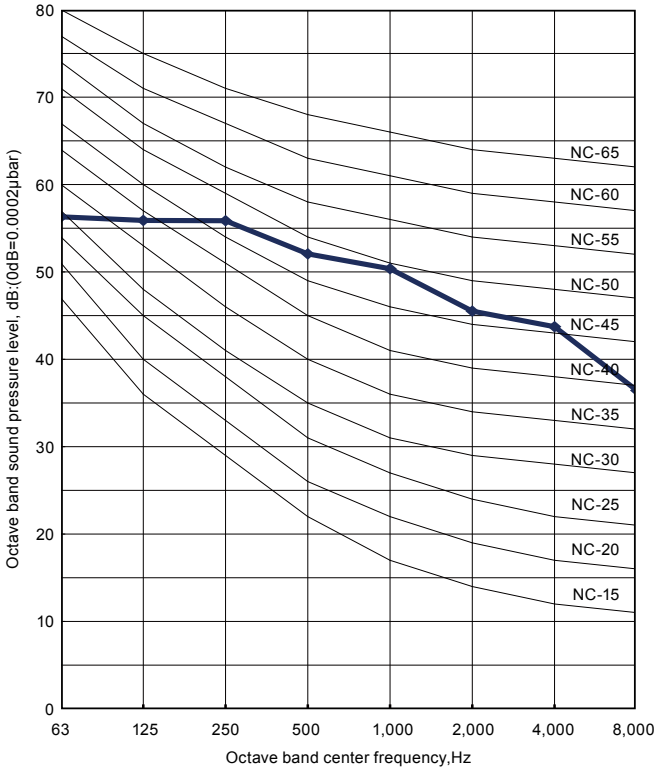
■ MODEL: AOU30CLX1

● Cooling

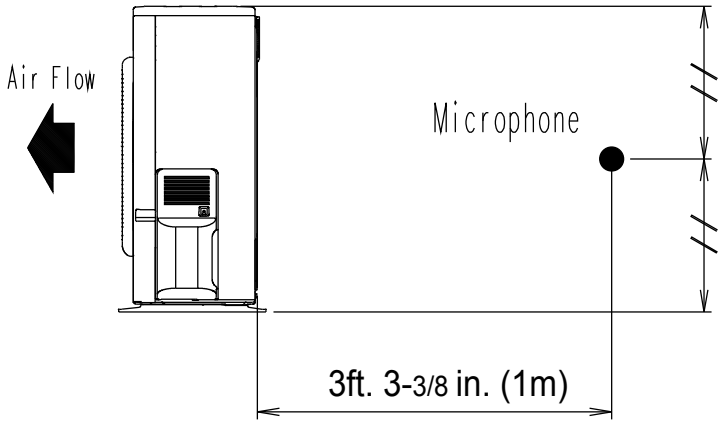


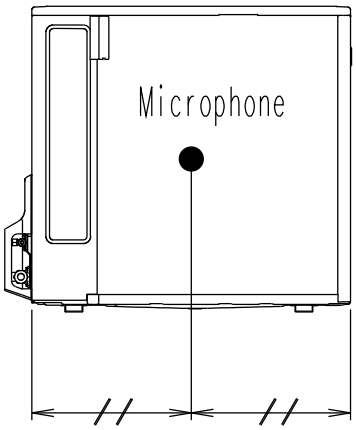
■ MODEL: AOU36CLX1

● Cooling



8-2. SOUND LEVEL CHECK POINT





OUTDOOR UNIT
AOU30-36CLX1

9. ELECTRIC CHARACTERISTICS

Model Name			AOU30CLX1	AOU36CLX1
Power Supply	Voltage	V	208 / 230~	
	Frequency	Hz	60	
*1) Max. Operating Current		A	17.0	18.0
Starting Current		A	14.2	17.0
*2) Wiring Spec.	Main Fuse (Circuit breaker) Current	A	30	
	Power Cable	AWG	10	
	*3) Limited wiring length	ft.	60	57

*1) The maximum current is the total current of indoor unit and outdoor unit.

*2) Wiring Spec.

Selected Sample
(Selected based on Japan Electrotechnical Standard and Codes Committee E00005)

*3) 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

	Protection form	Model
		AOU30CLX1, AOU36CLX1
Circuit protection	Current fuse (NEAR THE TERMINAL)	5A 250V
	Current fuse (MAIN PRINTED CIRCUIT BOARD)	3.15A 250V x 2
Fan motor protection	Thermal protection program	OFF : 230^{+27}_{-18}°F (110^{+15}_{-10}°C) ON : 221^{+27}_{-18}°F (105^{+15}_{-10}°C)
High Pressure Protection	Pressure Switch	OFF : 4.2±0.1MPa ON : 3.2±0.15MPa
Compressor protection	Thermal protection program (COMPRESSOR TEMP.)	OFF : 226°F (108°C) ON : 176°F (80°C)
	Thermal protection program (DISCHARGE TEMP.)	OFF : 230°F (110°C) ON : After 7 minutes
	Thermal protection program (OUTDOOR TEMP.) (Cooling / Dry mode)	OFF : -13°F (-25°C) ON : -4°F (-20°C)

OUTDOOR UNIT
AOU30-36CLX1