Библиотека СОК

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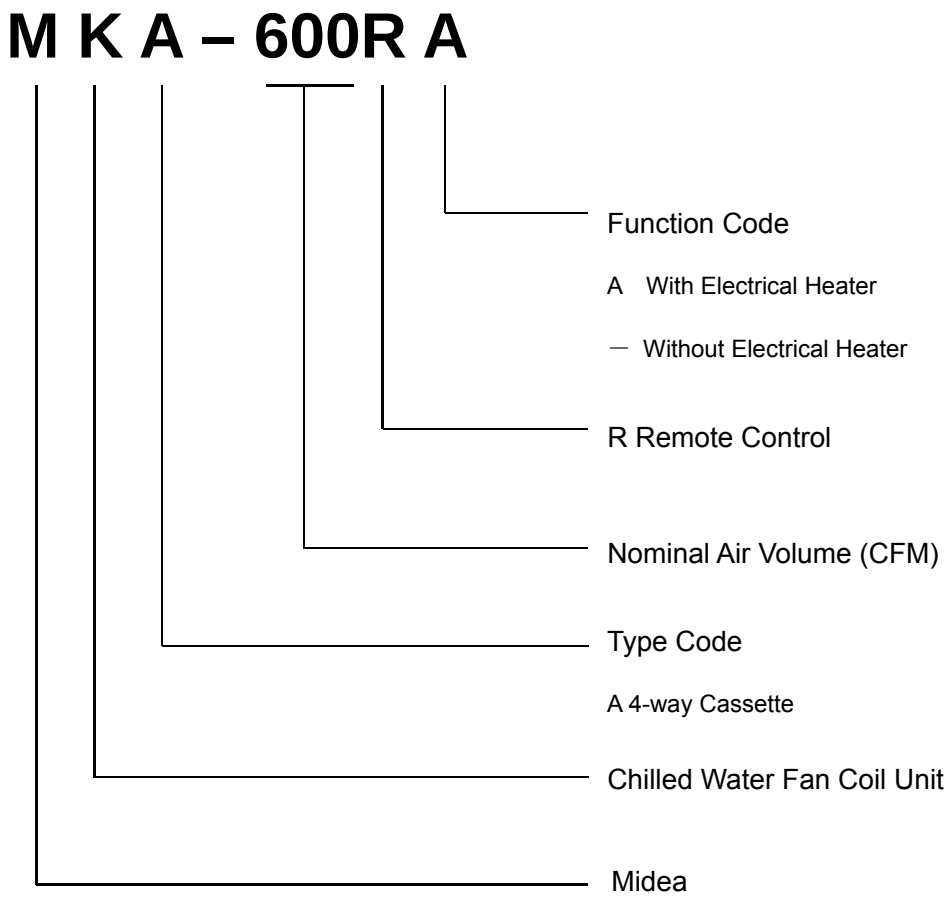
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1. Introduction

Fan coil unit is a kind of compound device which assemble fan and surface-type coil heating-exchanger together. Fan coil with fresh air supply system is a main type of center air-conditioner system, so it is an important component of AC devices. Fan coil has horizontal type, vertical type, etc. A cooling (heating) supply system usually consists of fan coil terminals and chilled water system (heated water system).

Midea® commercial AC fan coil is designed and manufactured on the base of advanced technology, and utilize qualified galvanized iron as material. Due to its supper-thin design, it has such advantages: beautiful outlook, space saving, easy installation, etc. And the most obvious advantage is that it can decrease the outlet air Temp-difference as low as possible to make room more comfortable, as well as don't decrease cooling capacity output. For the large air flow volume design, it can increase room ventilation frequency, supply more flesh air, and balance room temperature distribution. Benefiting from adoption of advanced material and technology, it can effectively decrease the running noise and keep running smoothly. With the advantages above, it can be widely applied in market, hospital, office building, hotel airport, etc..

2. Nomenclature



3. Product Schedule

Model	Air volume (CFM)	Power supply	Auxiliary Electrical Heater
MKA-600R	600	220~240V-1Ph-50Hz	Without
MKA-750R	750		
MKA-850R	850		
MKA-950R	950		
MKA-1200R	1200		
MKA-1500R	1500		
MKA-600RA	600	220~240V-1Ph-50Hz	With
MKA-750RA	750		
MKA-850RA	850		
MKA-950RA	950		
MKA-1200RA	1200		

4. External Appearance



5. Features

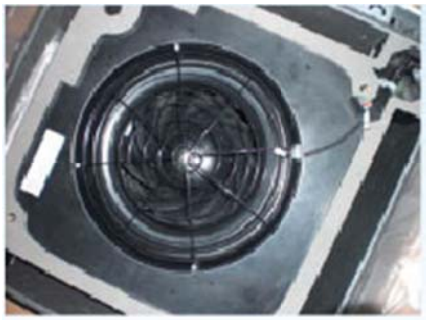
- Capacity range: 600CFM to 1500CFM
- 4-way air supply panel is standard, 360° air supply panel is optional

Current Panel **360°Panel**

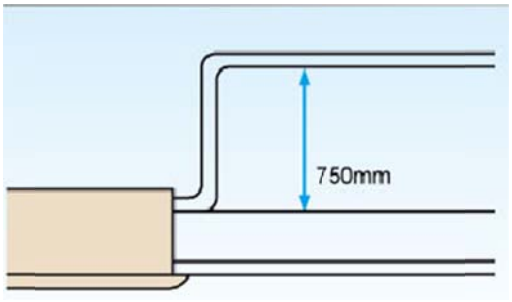




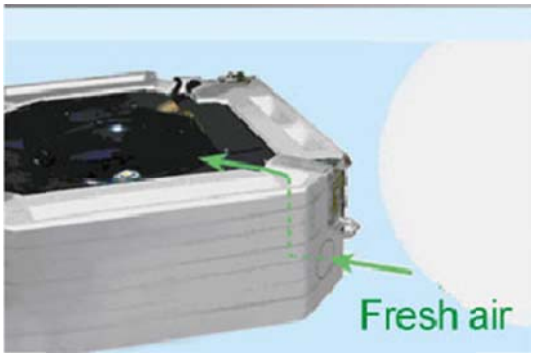
- Unique design of the centrifugal fan ensures extra-quiet operation and high efficiency
- Wireless remote control with LED display, wired control is optional
- Safety grill for safety maintenance



- Built-in drain water pump with 750mm pumping head



- Optional extended drainage pan for protecting your ceiling better
- Four speed motor with one reserved for more choice
- Fresh air provision makes life healthier and more comfortable



6. Specifications

Model MKA-			600R(A)	750R(A)	850R(A)
Air Volume	High	m^3/h	1000	1250	1400
		CFM	590	740	820
	Med	m^3/h	850	1060	1190
		CFM	500	620	700
	Low	m^3/h	720	900	1010
		CFM	420	530	590
Cooling Capacity (Hi/Med/Lo)		kW	5.7/4.73/3.96	7/5.62/4.72	7.27/6.46/5.71
Heating Capacity (Hi/Med/Lo)		kW	9.66/7.72/6.27	11.55/9.24/7.51	12.42/9.93/8.07
Electrical Auxiliary Heater (EAH)		W	2100	2100	2850
Power Input		W	125	130	150
Noise (Hi/Med/Lo)		dB(A)	45/41/36	46/42/37	47/43/38
Water Flow		l/min	16.4	20	20.8
Water Pressure Drop		kPa	23.8	25.2	27
Fan Motor	Type		Low noise 4-speed fan motor		
	Model		YDK80-6E	YDK80-6E	YDK90-6E
	Brand		Welling	Welling	Welling/Dayang
	Capacitor		3.5		
	Quantity		1		
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1		
Coil	Diameter	mm	Φ7		
	Row		2	2	2
	Tube pitch(a)xrow pitch(b)	mm	21×13.37		
	Fin spacing	mm	1.5		
	Fin type		Hydrophilic aluminium		
	Coil length x height x width	mm	1960×168×26.74	1960×168×26.74	1960×252×26.74
	Max. Working Pressure	MPa	1.6		
	Circuit		8	8	12
Panel	Net Dimension (W×H×D)	mm	950×45×950		
	Net Weight	kg	6		
	Packing Size (W×H×D)	mm	1035×90×1035		
	Gross Weight	kg	9		
Indoor Unit	Net Dimension (W×H×D)	mm	840×230×840	840×230×840	840×300×840
	Net Weight (without/with EAH)	kg	25/27	25/27	30.5/33
	Packing Size (W×H×D)	mm	900×237×900	900×237×900	900×307×900
	Gross Weight (without/with EAH)	kg	30/32	30/32	36.2/39
Pipe Connection	Water-inlet pipe	Inch	RC3/4"		
	Water-outlet pipe	Inch	RC3/4"		
	Drain pipe	mm	ODΦ32		

Note:1. The data is the performance in high speed with relevant static pressure.

2. Cooling Conditions: Entering Water 7°C, Temperature Rise 5°C, Entering Air Temperature 27°C DB,19°CWB.

Heating Conditions: Entering Water 50°C, enter air temperature 20°C, the same water flow as the cooling conditions.

3. Noise is tested in full-anechoic test room.

4. Hot water temperature cannot be ＞75°C.

Specifications

Model MKA-			950R(A)	1200R(A)	1500R
Air Volume	High	m^3/h	1600	2000	2550
		CFM	940	1180	1500
	Med	m^3/h	1360	1700	2170
		CFM	800	1000	1280
	Low	m^3/h	1150	1440	1840
		CFM	680	850	1080
Cooling Capacity (Hi/Med/Lo)		W	8.22/7.39/6.54	10.39/9.25/8.2	12.9/11.51/10.21
Heating Capacity (Hi/Med/Lo)		W	13.85/11.08/9	17.58/14.06/11.42	17.6/14.08/11.44
Electrical Auxiliary Heater (EAH)		W	2850	2850	/
Power Input		W	155	190	190
Noise (Hi/Med/Lo)		dB(A)	48/44/39	49/45/40	50/46/41
Water Flow		l/min	23.6	29.8	36.9
Water Pressure Drop		kPa	31.2	44	40
Fan Motor	Type		Low noise 4-speed fan motor		
	Model		YDK90-6E	YDK90-6E	YDK90-6E-1
	Brand		Welling/Dayang	Welling/Dayang	Welling/Dayang
	Capacitor		3.5		
	Quantity		1		
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1		
Coil	Diameter	mm	Φ7		
	Row		2	2	3
	Tube pitch(a)xrow pitch(b)	mm	21×13.37		
	Fin spacing	mm	1.5		
	Fin type		Hydrophilic aluminium		
	Coil length x height x width	mm	1960×252×26.74	1960×252×26.74	2080x252x40.11
	Max. Working Pressure	MPa	1.6		
	Circuit		12	12	12
Panel	Net Dimension (W×H×D)	mm	950×45×950		
	Net Weight	kg	6		
	Packing Size (W×H×D)	mm	1035×90×1035		
	Gross Weight	kg	9		
Indoor Unit	Net Dimension (W×H×D)	mm	840×300×840		
	Net Weight (without/with EAH)	kg	30.5/33	30.5/33	35
	Packing Size (W×H×D)	mm	900×307×900		
	Gross Weight (without/with EAH)	kg	36.2/39	36.2/39	41
Pipe Connection	Water-inlet pipe	Inch	RC3/4"		
	Water-outlet pipe	Inch	RC3/4"		
	Drain pipe	mm	ODΦ32		

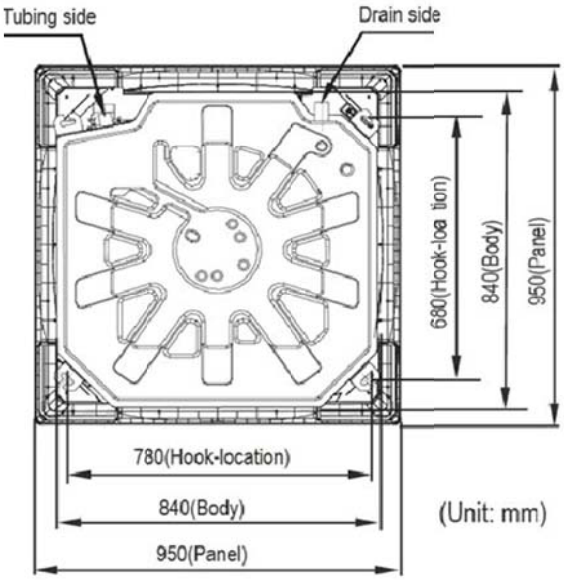
Note: 1. The data is the performance in high speed with relevant static pressure.

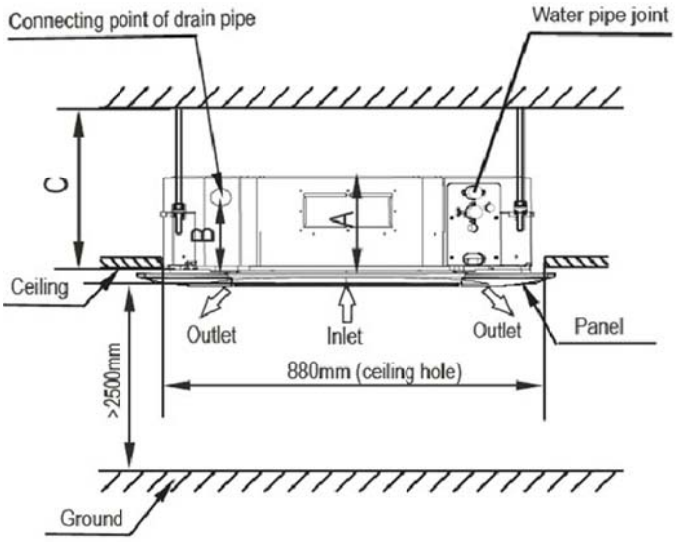
2. Cooling Conditions: Entering Water 7°C, Temperature Rise 5°C, Entering Air Temperature 27°C DB,19°CWB.
Heating Conditions: Entering Water 50°C, enter air temperature 20°C, the same water flow as the cooling conditions.

3. Noise is tested in full-anechoic test room.

4. Hot water temperatue cannot be ＞75°C.

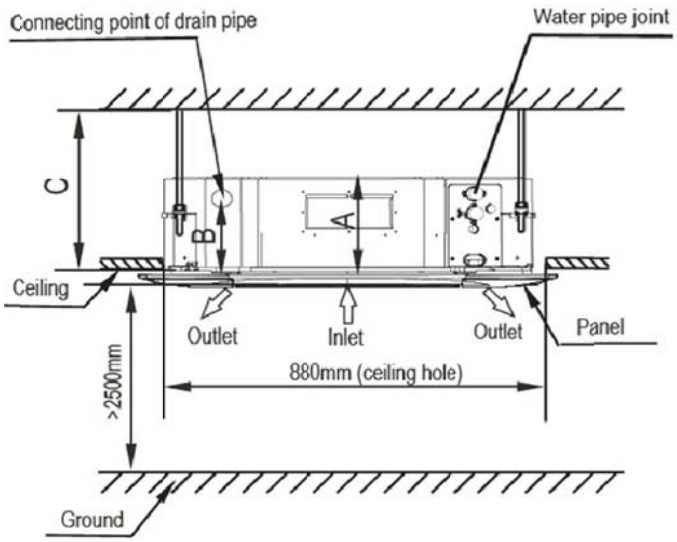
7. Dimension

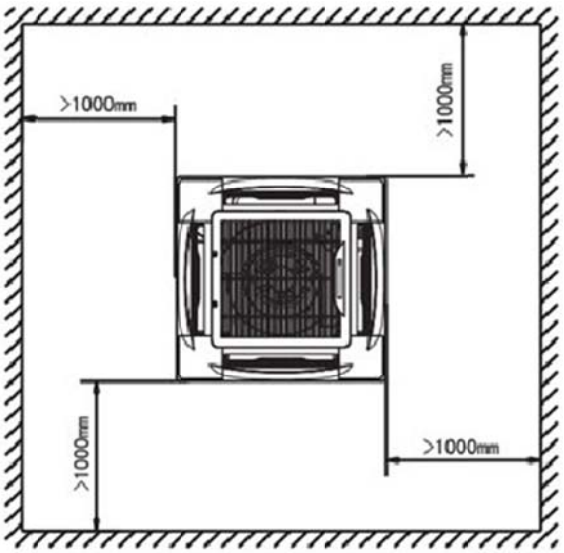


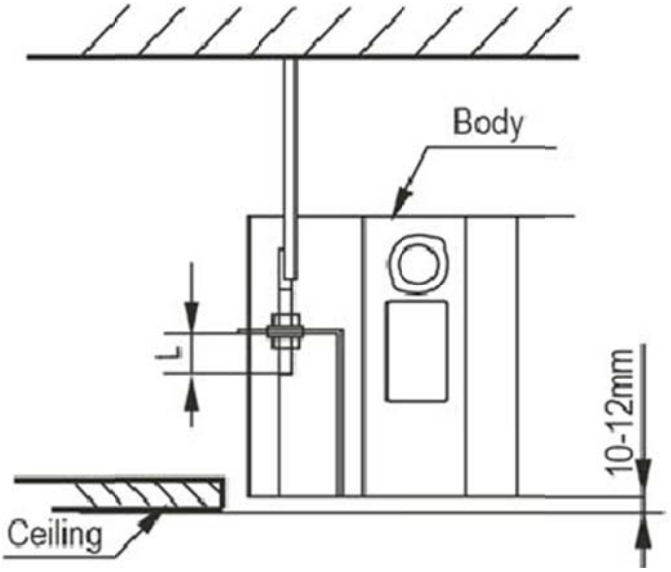


Model	A	B	C
600CFM, 750CFM	230	170	>260
850CFM, 950CFM, 1200CFM, 1500CFM	300	190	>330

8. Service Spaces



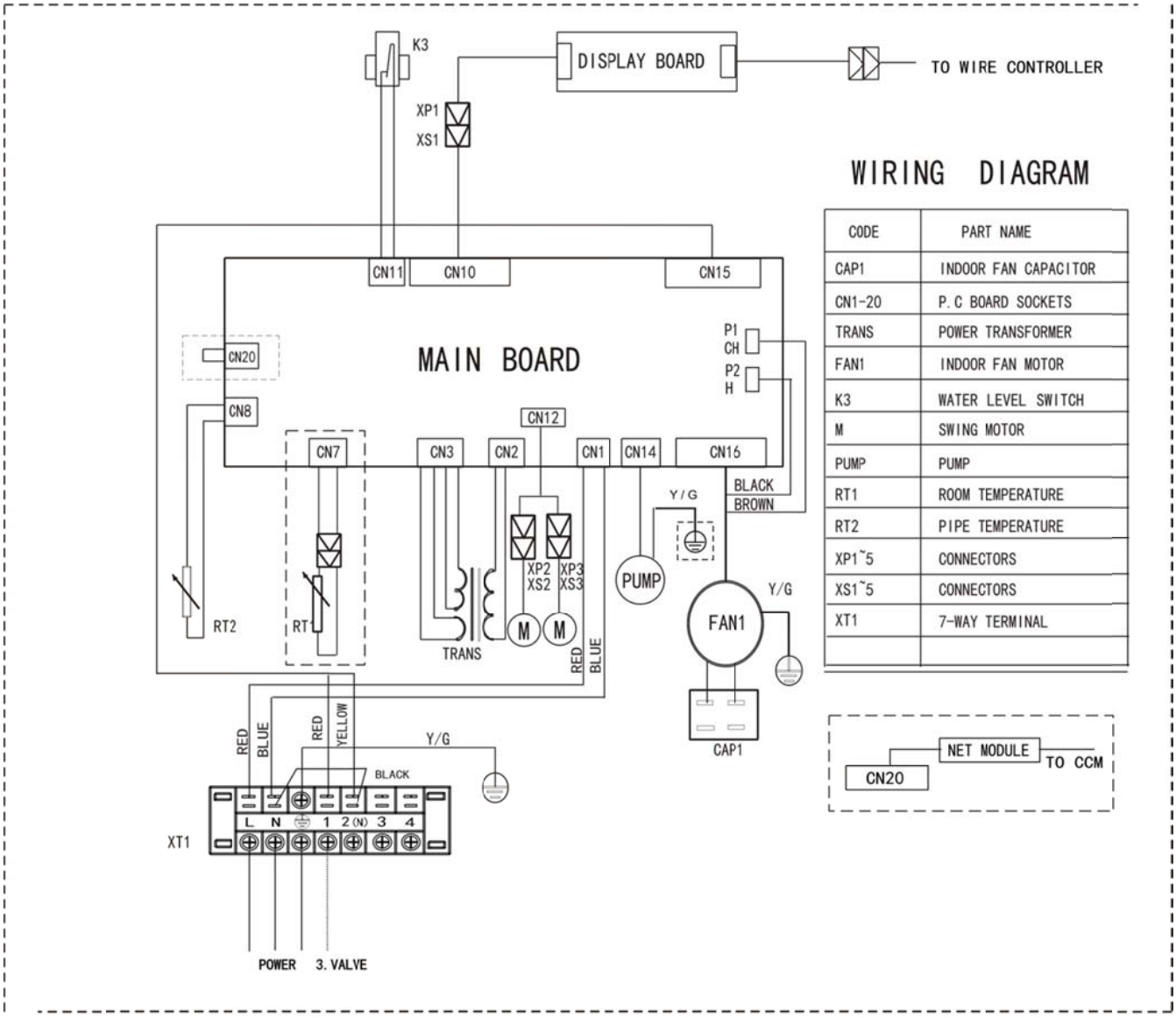




Model	A	B	C
600CFM, 750CFM	230	170	>260
850CFM, 950CFM, 1200CFM, 1500CFM	300	190	>330

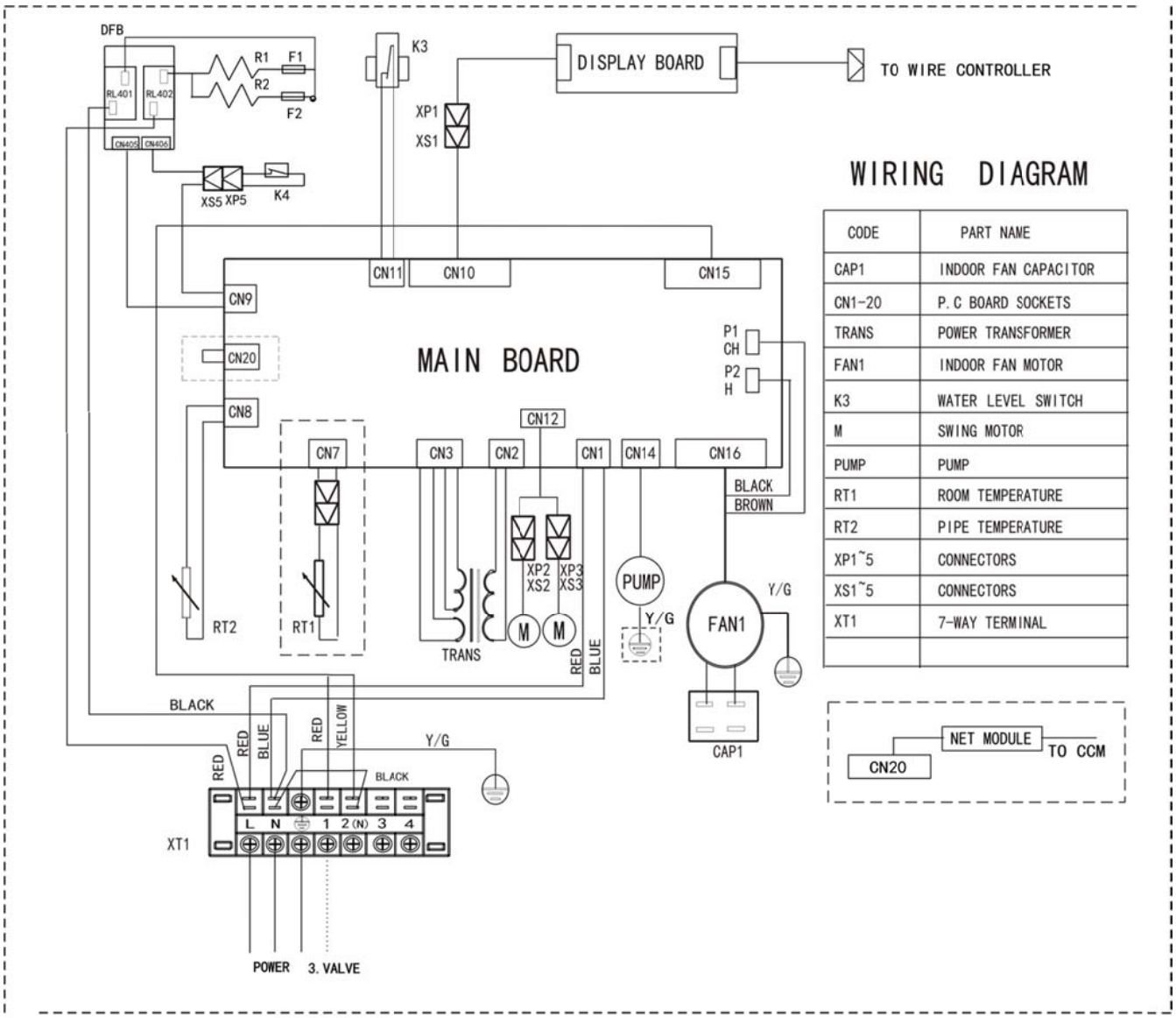
9. Wiring Diagrams

9.1 MKA-600R、MKA-750R、MKA-850R、MKA-950R、MKA-1200R、MKA-1500R



CODE	PART NAME
CAP1	INDOOR FAN CAPACITOR
CN1-20	P.C BOARD SOCKETS
TRANS	POWER TRANSFORMER
FAN1	INDOOR FAN MOTOR
K3	WATER LEVEL SWITCH
M	SWING MOTOR
PUMP	PUMP
RT1	ROOM TEMPERATURE
RT2	PIPE TEMPERATURE
XP1~5	CONNECTORS
XS1~5	CONNECTORS
XT1	7-WAY TERMINAL

9.2 MKA-600RA、MKA-750RA、MKA-850RA、MKA-950RA、MKA-1200RA



CODE	PART NAME
CAP1	INDOOR FAN CAPACITOR
CN1-20	P.C BOARD SOCKETS
TRANS	POWER TRANSFORMER
FAN1	INDOOR FAN MOTOR
K3	WATER LEVEL SWITCH
M	SWING MOTOR
PUMP	PUMP
RT1	ROOM TEMPERATURE
RT2	PIPE TEMPERATURE
XP1~5	CONNECTORS
XS1~5	CONNECTORS
XT1	7-WAY TERMINAL

10. Capacity Tables

Cooling Capacity:

Remark: **EWT:** Enter Water Temp. (℃); **Δ t:** Temperature Difference (℃)

DB: Dry Bub Temp. (℃); **WB:** Wet Bulb Temp. (℃);

TC: Total Cooling Capacity (kW); **SC:** Sensible Cooling Capacity (kW);

WF: Water Flow (m^3/h); **WPD:** Water Pressure Drop (kPa)

MKA-600R(A)																					
EWT	Δt	Air inlet condition																			
		DB:26.7 WB:19.4				DB:27 WB:18				DB:27 WB:19				DB:27 WB:20				DB:29 WB:21			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	7.26	4.38	2.08	107.3	6.66	4.81	1.91	90.3	7.11	4.56	2.04	103.0	7.53	4.37	2.16	115.3	7.95	4.17	2.28	128.5
	4	6.98	4.24	1.50	55.8	6.42	4.66	1.38	47.1	6.87	4.43	1.48	54.0	7.27	4.24	1.56	60.5	7.63	4.03	1.64	66.7
	5	6.68	4.10	1.15	32.7	6.11	4.56	1.05	27.4	6.55	4.29	1.13	31.4	6.98	4.09	1.20	35.7	7.34	6.34	1.26	39.4
	6	6.38	3.98	0.91	20.7	5.82	4.40	0.83	17.2	6.26	4.15	0.90	19.9	6.70	3.93	0.96	22.8	7.02	3.73	1.01	25.0
	7	6.07	3.79	0.75	13.8	5.49	4.29	0.68	11.3	5.93	4.01	0.73	13.1	6.37	3.79	0.78	15.2	6.72	3.59	0.83	16.9
6	3	6.85	4.20	1.96	95.5	6.24	4.63	1.79	79.3	6.70	4.38	1.92	91.2	7.13	4.18	2.04	103.5	7.54	3.98	2.16	115.8
	4	6.58	4.05	1.41	49.6	5.96	4.48	1.28	40.7	6.42	4.24	1.38	47.2	6.85	4.05	1.47	53.7	7.24	3.85	1.56	60.0
	5	6.26	3.91	1.08	28.7	5.69	4.36	0.98	23.7	6.14	4.11	1.06	27.6	6.54	3.87	1.12	31.3	6.95	3.70	1.20	35.4
	6	5.96	3.79	0.85	18.1	5.40	4.21	0.77	14.8	5.82	3.96	0.83	17.3	6.26	3.73	0.90	19.9	6.60	3.54	0.95	22.2
	7	5.65	3.62	0.69	11.9	5.06	4.10	0.62	9.6	5.51	3.85	0.68	11.4	5.91	3.60	0.73	13.0	6.31	3.39	0.78	14.9
7	3	6.40	4.00	1.83	83.3	5.81	4.45	1.66	68.6	6.26	4.20	1.79	79.7	6.72	3.99	1.93	91.9	7.10	3.78	2.03	102.5
	4	6.14	3.86	1.32	43.1	5.50	4.35	1.18	34.7	5.97	4.06	1.28	40.8	6.42	3.86	1.38	47.1	6.82	3.66	1.47	53.2
	5	5.82	3.72	1.00	24.8	5.22	4.21	0.90	20.0	5.70	3.92	0.98	23.8	6.11	3.68	1.05	27.4	6.49	3.51	1.12	30.9
	6	5.52	3.61	0.79	15.5	4.92	4.08	0.71	12.3	5.42	3.78	0.78	15.0	5.83	3.55	0.84	17.3	6.19	3.36	0.89	19.5
	7	5.22	3.45	0.64	10.2	4.59	3.93	0.56	7.9	5.05	3.67	0.62	9.5	5.49	3.43	0.67	11.3	5.86	3.22	0.72	12.9
8	3	5.96	3.82	1.71	72.4	5.32	4.29	1.53	57.6	5.82	4.01	1.67	69.0	6.27	3.78	1.80	79.9	6.67	3.58	1.91	90.5
	4	5.70	3.69	1.23	37.2	5.06	4.15	1.09	29.3	5.53	3.92	1.19	35.0	5.96	3.66	1.28	40.7	6.35	3.47	1.37	46.2
	5	5.41	3.54	0.93	21.5	4.75	4.03	0.82	16.5	5.25	3.75	0.90	20.2	5.69	3.53	0.98	23.7	6.08	3.33	1.05	27.1
	6	5.06	3.43	0.73	13.0	4.44	3.92	0.64	10.0	4.96	3.62	0.71	12.5	5.40	3.37	0.77	14.8	5.77	3.17	0.83	17.0
	7	4.76	3.27	0.59	8.5	4.12	3.76	0.51	6.4	4.61	3.50	0.57	8.0	5.05	3.24	0.62	9.5	5.40	3.04	0.66	10.9
9	3	5.54	3.65	1.59	62.5	4.88	4.13	1.40	48.4	5.39	3.83	1.54	59.1	5.85	3.59	1.68	69.6	6.23	3.41	1.78	78.9
	4	5.23	3.52	1.12	31.3	4.59	4.01	0.99	24.1	5.07	3.72	1.09	29.5	5.51	3.50	1.18	34.8	5.91	3.28	1.27	39.9
	5	4.95	3.37	0.85	18.0	4.24	3.92	0.73	13.2	4.80	3.59	0.82	16.8	5.22	3.35	0.90	20.0	5.62	3.13	0.97	23.1
	6	4.62	3.25	0.66	10.9	3.92	3.79	0.56	7.8	4.46	3.48	0.64	10.1	4.94	3.19	0.71	12.4	5.32	2.99	0.76	14.4
	7	4.28	3.09	0.53	6.8	3.66	/	0.45	5.0	4.13	3.32	0.51	6.4	4.57	3.09	0.56	7.8	4.95	2.85	0.61	9.2
10	3	5.08	3.46	1.46	52.6	4.38	3.97	1.25	39.0	4.88	3.69	1.40	48.4	5.37	3.45	1.54	58.7	5.79	3.22	1.66	68.2
	4	4.77	3.33	1.03	26.1	4.05	3.89	0.87	18.7	4.61	3.57	0.99	24.3	5.07	3.31	1.09	29.5	5.45	3.10	1.17	34.0
	5	4.46	3.22	0.77	14.6	3.79	/	0.65	10.5	4.27	3.45	0.73	13.4	4.75	3.18	0.82	16.6	5.17	2.96	0.89	19.5
	6	4.15	3.08	0.60	8.8	3.59	/	0.52	6.6	3.96	3.32	0.57	8.0	4.44	3.01	0.64	10.0	4.83	2.81	0.69	11.9
	7	3.79	2.95	0.47	5.4	3.38	/	0.42	4.3	3.61	3.20	0.44	4.9	4.07	2.92	0.50	6.2	4.52	2.67	0.55	7.6
11	3	4.59	3.31	1.32	42.9	3.89	/	1.12	30.8	4.43	3.52	1.27	39.8	4.89	3.29	1.40	48.6	5.32	3.05	1.53	57.6
	4	4.30	3.19	0.92	21.2	3.70	/	0.80	15.7	4.13	3.39	0.89	19.5	4.60	3.13	0.99	24.2	5.03	2.93	1.08	28.9
	5	3.97	3.07	0.68	11.6	3.52	/	0.61	9.1	3.79	3.31	0.65	10.5	4.28	3.00	0.74	13.4	4.70	2.79	0.81	16.2
	6	3.62	2.94	0.52	6.7	3.30	/	0.47	5.5	3.48	3.16	0.50	6.2	3.95	2.90	0.57	7.9	4.36	2.65	0.62	9.7
	7	3.22	2.84	0.40	3.9	3.11	/	0.38	3.6	3.11	/	0.38	3.6	3.58	2.76	0.44	4.8	4.01	2.49	0.49	6.0
12	3	4.10	3.15	1.18	34.3	3.60	/	1.03	26.4	3.91	3.40	1.12	31.1	4.43	3.10	1.27	39.8	4.84	2.89	1.39	47.6
	4	3.80	3.04	0.82	16.5	3.43	/	0.74	13.5	3.61	3.28	0.78	14.9	4.11	2.99	0.88	19.4	4.55	2.76	0.98	23.7
	5	3.47	2.94	0.60	8.8	3.28	/	0.56	7.9	3.29	3.17	0.57	7.9	3.79	2.88	0.65	10.5	4.22	2.63	0.73	13.0
	6	3.08	2.84	0.44	4.8	3.05	/	0.44	4.7	3.05	2.99	0.44	4.7	3.44	2.76	0.49	6.0	3.87	2.48	0.55	7.6
	7	2.73	/	0.34	2.8	2.84	/	0.35	3.0	2.81	/	0.35	3.0	3.00	2.62	0.37	3.4	3.51	2.34	0.43	4.6
13	3	3.59	3.01	1.03	26.2	3.32	/	0.95	22.5	3.38	3.27	0.97	23.3	3.90	2.95	1.12	30.9	4.36	2.72	1.25	38.7
	4	3.28	2.90	0.71	12.3	3.17	/	0.68	11.5	3.17	3.11	0.68	11.5	3.59	2.88	0.77	14.7	4.05	2.59	0.87	18.7
	5	2.93	2.86	0.50	6.3	2.95	/	0.51	6.4	2.96	/	0.51	6.4	3.27	2.74	0.56	7.9	3.73	2.47	0.64	10.2
	6	2.66	/	0.38	3.6	2.76	/	0.39	3.9	2.76	/	0.39	3.9	2.89	2.64	0.41	4.2	3.36	2.34	0.48	5.8
	7	2.43	/	0.30	2.2	2.53	/	0.31	2.4	2.53	/	0.31	2.4	2.53	2.48	0.31	2.4	2.94	2.20	0.36	3.2

MKA-750R(A)																					
EWT	Δt	Air inlet condition																			
		DB:26.7 WB:19.4				DB:27 WB:18				DB:27 WB:19				DB:27 WB:20				DB:29 WB:21			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	8.92	5.37	2.56	113.7	8.18	5.91	2.35	95.6	8.74	5.61	2.50	109.1	9.24	5.36	2.65	122.0	9.76	5.12	2.80	136.0
	4	8.58	5.21	1.84	59.1	7.88	5.73	1.69	49.9	8.43	5.44	1.81	57.2	8.93	5.21	1.92	64.1	9.37	4.95	2.02	70.6
	5	8.20	5.03	1.41	34.6	7.51	5.60	1.29	29.0	8.04	5.27	1.38	33.3	8.58	5.02	1.48	37.8	9.01	7.79	1.55	41.8
	6	7.84	4.89	1.12	21.9	7.14	5.40	1.02	18.2	7.69	5.09	1.10	21.1	8.22	4.83	1.18	24.1	8.62	4.59	1.23	26.5
	7	7.45	4.66	0.92	14.6	6.75	5.27	0.83	12.0	7.28	4.92	0.89	13.9	7.82	4.66	0.96	16.0	8.25	4.40	1.01	17.9
6	3	8.41	5.16	2.41	101.1	7.67	5.69	2.20	84.0	8.22	5.38	2.36	96.6	8.76	5.13	2.51	109.6	9.26	4.89	2.66	122.6
	4	8.08	4.98	1.74	52.5	7.32	5.51	1.57	43.1	7.89	5.20	1.70	50.0	8.41	4.97	1.81	56.9	8.89	4.73	1.91	63.5
	5	7.69	4.80	1.32	30.4	6.99	5.35	1.20	25.1	7.54	5.05	1.30	29.2	8.03	4.76	1.38	33.2	8.54	4.55	1.47	37.5
	6	7.32	4.66	1.05	19.2	6.63	5.17	0.95	15.7	7.15	4.86	1.03	18.3	7.69	4.58	1.10	21.1	8.11	4.34	1.16	23.5
	7	6.94	4.44	0.85	12.6	6.21	5.04	0.76	10.1	6.77	4.73	0.83	12.0	7.25	4.42	0.89	13.8	7.75	4.16	0.95	15.8
7	3	7.86	4.91	2.25	88.2	7.13	5.46	2.04	72.7	7.69	5.16	2.20	84.4	8.25	4.90	2.37	97.3	8.72	4.65	2.50	108.6
	4	7.54	4.74	1.62	45.6	6.76	5.34	1.45	36.7	7.33	4.99	1.58	43.2	7.88	4.74	1.69	49.9	8.37	4.49	1.80	56.4
	5	7.15	4.57	1.23	26.3	6.41	5.17	1.10	21.2	7.00	4.82	1.20	25.2	7.51	4.53	1.29	29.0	7.97	4.31	1.37	32.7
	6	6.78	4.43	0.97	16.4	6.04	5.01	0.87	13.0	6.66	4.65	0.95	15.8	7.16	4.35	1.03	18.3	7.61	4.12	1.09	20.7
	7	6.41	4.23	0.79	10.8	5.64	4.83	0.69	8.3	6.20	4.51	0.76	10.1	6.74	4.21	0.83	11.9	7.20	3.95	0.88	13.6
8	3	7.32	4.70	2.10	76.6	6.54	5.27	1.87	61.0	7.15	4.92	2.05	73.1	7.70	4.65	2.21	84.6	8.19	4.39	2.35	95.9
	4	7.00	4.54	1.51	39.4	6.21	5.10	1.34	31.0	6.79	4.81	1.46	37.0	7.32	4.49	1.57	43.1	7.80	4.26	1.68	48.9
	5	6.65	4.34	1.14	22.7	5.83	4.95	1.00	17.5	6.44	4.61	1.11	21.4	6.99	4.33	1.20	25.1	7.46	4.09	1.28	28.7
	6	6.21	4.21	0.89	13.8	5.45	4.82	0.78	10.6	6.09	4.44	0.87	13.3	6.63	4.14	0.95	15.7	7.09	3.90	1.02	18.0
	7	5.85	4.02	0.72	9.0	5.06	4.62	0.62	6.7	5.67	4.29	0.70	8.4	6.20	3.98	0.76	10.1	6.64	3.74	0.82	11.6
9	3	6.81	4.48	1.95	66.2	5.99	5.07	1.72	51.3	6.62	4.71	1.90	62.5	7.18	4.41	2.06	73.7	7.65	4.18	2.19	83.5
	4	6.42	4.32	1.38	33.2	5.64	4.92	1.21	25.5	6.23	4.57	1.34	31.2	6.77	4.29	1.46	36.8	7.25	4.03	1.56	42.3
	5	6.08	4.14	1.05	19.0	5.21	4.81	0.90	14.0	5.89	4.41	1.01	17.8	6.41	4.11	1.10	21.2	6.90	3.85	1.19	24.5
	6	5.68	3.99	0.81	11.5	4.82	4.66	0.69	8.3	5.47	4.27	0.78	10.7	6.06	3.92	0.87	13.1	6.54	3.67	0.94	15.3
	7	5.25	3.80	0.65	7.2	4.49	/	0.55	5.3	5.07	4.08	0.62	6.8	5.62	3.80	0.69	8.3	6.08	3.51	0.75	9.7
10	3	6.24	4.25	1.79	55.7	5.37	4.88	1.54	41.3	5.99	4.54	1.72	51.3	6.60	4.23	1.89	62.2	7.11	3.96	2.04	72.2
	4	5.86	4.09	1.26	27.6	4.97	4.78	1.07	19.9	5.66	4.38	1.22	25.7	6.23	4.07	1.34	31.2	6.70	3.81	1.44	36.0
	5	5.47	3.96	0.94	15.4	4.66	/	0.80	11.2	5.24	4.24	0.90	14.1	5.84	3.91	1.00	17.5	6.34	3.64	1.09	20.7
	6	5.10	3.79	0.73	9.3	4.41	/	0.63	7.0	4.87	4.08	0.70	8.5	5.45	3.70	0.78	10.6	5.93	3.45	0.85	12.6
	7	4.66	3.63	0.57	5.7	4.15	/	0.51	4.5	4.43	3.93	0.54	5.2	5.00	3.59	0.61	6.6	5.55	3.28	0.68	8.1
11	3	5.64	4.06	1.62	45.4	4.78	/	1.37	32.6	5.43	4.32	1.56	42.2	6.00	4.04	1.72	51.4	6.54	3.75	1.87	61.0
	4	5.28	3.92	1.14	22.4	4.55	/	0.98	16.6	5.07	4.16	1.09	20.7	5.65	3.85	1.21	25.6	6.17	3.60	1.33	30.6
	5	4.88	3.77	0.84	12.2	4.32	/	0.74	9.6	4.66	4.06	0.80	11.2	5.25	3.69	0.90	14.2	5.77	3.42	0.99	17.1
	6	4.44	3.62	0.64	7.1	4.05	/	0.58	5.9	4.27	3.88	0.61	6.5	4.85	3.57	0.69	8.4	5.35	3.25	0.77	10.2
	7	3.96	3.48	0.49	4.1	3.82	/	0.47	3.8	3.82	/	0.47	3.8	4.39	3.38	0.54	5.1	4.93	3.06	0.61	6.4
12	3	5.04	3.87	1.44	36.3	4.42	/	1.27	28.0	4.80	4.17	1.38	32.9	5.43	3.81	1.56	42.2	5.94	3.55	1.70	50.4
	4	4.67	3.74	1.00	17.5	4.21	/	0.91	14.3	4.43	4.03	0.95	15.8	5.05	3.67	1.09	20.5	5.59	3.38	1.20	25.1
	5	4.26	3.61	0.73	9.3	4.03	/	0.69	8.4	4.04	3.90	0.69	8.4	4.66	3.54	0.80	11.2	5.18	3.23	0.89	13.8
	6	3.79	3.48	0.54	5.1	3.75	/	0.54	5.0	3.75	3.68	0.54	5.0	4.22	3.38	0.61	6.4	4.75	3.05	0.68	8.1
	7	3.35	/	0.41	3.0	3.48	/	0.43	3.2	3.45	/	0.42	3.1	3.69	3.21	0.45	3.6	4.31	2.87	0.53	4.9
13	3	4.40	3.70	1.26	27.7	4.08	/	1.17	23.8	4.15	4.01	1.19	24.6	4.79	3.63	1.37	32.8	5.35	3.34	1.53	40.9
	4	4.03	3.56	0.87	13.1	3.89	/	0.84	12.2	3.89	3.82	0.84	12.2	4.40	3.54	0.95	15.6	4.97	3.18	1.07	19.9
	5	3.60	3.52	0.62	6.7	3.63	/	0.62	6.8	3.64	/	0.63	6.8	4.02	3.36	0.69	8.3	4.58	3.03	0.79	10.8
	6	3.27	/	0.47	3.8	3.38	/	0.49	4.1	3.38	/	0.49	4.1	3.55	3.24	0.51	4.5	4.13	2.87	0.59	6.1
	7	2.99	/	0.37	2.4	3.10	/	0.38	2.5	3.11	/	0.38	2.5	3.11	3.04	0.38	2.5	3.62	2.71	0.44	3.4

MKA-850R(A)																					
EWT	Δt	Air inlet condition																			
		DB:26.7 WB:19.4				DB:27 WB:18				DB:27 WB:19				DB:27 WB:20				DB:29 WB:21			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	9.26	5.58	2.66	121.8	8.50	6.14	2.44	102.5	9.07	5.82	2.60	116.9	9.60	5.57	2.75	130.8	10.13	5.32	2.91	145.7
	4	8.91	5.41	1.91	63.3	8.18	5.95	1.76	53.4	8.76	5.65	1.88	61.3	9.27	5.41	1.99	68.7	9.74	5.14	2.09	75.7
	5	8.52	5.22	1.47	37.1	7.79	5.81	1.34	31.0	8.35	5.48	1.44	35.6	8.91	5.21	1.53	40.5	9.36	8.09	1.61	44.7
	6	8.14	5.08	1.17	23.5	7.42	5.61	1.06	19.5	7.98	5.29	1.14	22.6	8.54	5.01	1.22	25.9	8.95	4.76	1.28	28.4
	7	7.74	4.84	0.95	15.6	7.01	5.48	0.86	12.8	7.56	5.11	0.93	14.9	8.12	4.84	1.00	17.2	8.57	4.57	1.05	19.2
6	3	8.74	5.36	2.51	108.4	7.96	5.91	2.28	90.0	8.54	5.59	2.45	103.5	9.10	5.33	2.61	117.4	9.62	5.08	2.76	131.3
	4	8.39	5.17	1.80	56.2	7.61	5.72	1.64	46.2	8.19	5.40	1.76	53.6	8.74	5.16	1.88	61.0	9.23	4.91	1.98	68.0
	5	7.98	4.98	1.37	32.6	7.26	5.56	1.25	26.9	7.83	5.25	1.35	31.3	8.34	4.94	1.43	35.5	8.86	4.72	1.52	40.1
	6	7.61	4.84	1.09	20.5	6.88	5.37	0.99	16.8	7.43	5.05	1.06	19.6	7.98	4.75	1.14	22.6	8.42	4.51	1.21	25.2
	7	7.21	4.62	0.89	13.5	6.45	5.23	0.79	10.9	7.03	4.91	0.86	12.9	7.53	4.59	0.93	14.8	8.05	4.32	0.99	16.9
7	3	8.16	5.10	2.34	94.5	7.41	5.68	2.12	77.8	7.98	5.36	2.29	90.4	8.57	5.09	2.46	104.2	9.05	4.83	2.60	116.3
	4	7.83	4.92	1.68	48.9	7.02	5.55	1.51	39.3	7.62	5.18	1.64	46.3	8.18	4.92	1.76	53.4	8.70	4.67	1.87	60.4
	5	7.43	4.74	1.28	28.2	6.66	5.37	1.15	22.7	7.27	5.00	1.25	27.0	7.79	4.70	1.34	31.0	8.28	4.48	1.42	35.0
	6	7.04	4.61	1.01	17.6	6.27	5.20	0.90	14.0	6.91	4.83	0.99	17.0	7.44	4.52	1.07	19.6	7.90	4.28	1.13	22.1
	7	6.66	4.40	0.82	11.6	5.85	5.01	0.72	8.9	6.44	4.68	0.79	10.8	7.00	4.37	0.86	12.8	7.48	4.10	0.92	14.6
8	3	7.61	4.88	2.18	82.1	6.79	5.48	1.95	65.4	7.43	5.11	2.13	78.3	7.99	4.83	2.29	90.7	8.51	4.56	2.44	102.7
	4	7.27	4.71	1.56	42.2	6.45	5.30	1.39	33.2	7.05	4.99	1.52	39.7	7.61	4.67	1.64	46.2	8.10	4.43	1.74	52.4
	5	6.90	4.51	1.19	24.3	6.05	5.14	1.04	18.7	6.69	4.78	1.15	22.9	7.26	4.50	1.25	26.9	7.75	4.25	1.33	30.7
	6	6.45	4.37	0.92	14.8	5.66	5.00	0.81	11.4	6.33	4.62	0.91	14.2	6.88	4.30	0.99	16.8	7.36	4.05	1.06	19.2
	7	6.07	4.18	0.75	9.6	5.26	4.79	0.65	7.2	5.89	4.46	0.72	9.0	6.44	4.13	0.79	10.8	6.89	3.88	0.85	12.4
9	3	7.07	4.66	2.03	70.9	6.22	5.27	1.78	54.9	6.87	4.89	1.97	67.0	7.46	4.58	2.14	79.0	7.94	4.34	2.28	89.5
	4	6.67	4.49	1.43	35.5	5.85	5.11	1.26	27.4	6.47	4.74	1.39	33.4	7.03	4.46	1.51	39.4	7.53	4.19	1.62	45.3
	5	6.32	4.30	1.09	20.4	5.41	4.99	0.93	15.0	6.12	4.58	1.05	19.1	6.66	4.27	1.15	22.7	7.17	4.00	1.23	26.2
	6	5.90	4.14	0.85	12.3	5.00	4.84	0.72	8.9	5.69	4.44	0.81	11.5	6.29	4.07	0.90	14.1	6.79	3.81	0.97	16.3
	7	5.46	3.94	0.67	7.8	4.67	/	0.57	5.7	5.27	4.24	0.65	7.2	5.83	3.94	0.72	8.9	6.32	3.64	0.78	10.4
10	3	6.48	4.42	1.86	59.6	5.58	5.07	1.60	44.2	6.22	4.71	1.78	54.9	6.85	4.40	1.96	66.6	7.39	4.11	2.12	77.4
	4	6.08	4.25	1.31	29.6	5.16	4.96	1.11	21.3	5.87	4.55	1.26	27.6	6.47	4.23	1.39	33.4	6.96	3.95	1.50	38.6
	5	5.69	4.11	0.98	16.5	4.84	/	0.83	12.0	5.44	4.41	0.94	15.1	6.06	4.06	1.04	18.8	6.59	3.78	1.13	22.2
	6	5.30	3.93	0.76	10.0	4.58	/	0.66	7.5	5.06	4.24	0.72	9.1	5.66	3.84	0.81	11.4	6.16	3.59	0.88	13.5
	7	4.84	3.77	0.59	6.1	4.31	/	0.53	4.9	4.61	4.08	0.57	5.5	5.19	3.72	0.64	7.0	5.76	3.41	0.71	8.7
11	3	5.85	4.22	1.68	48.6	4.96	/	1.42	34.9	5.64	4.49	1.62	45.2	6.23	4.20	1.79	55.1	6.79	3.89	1.95	65.4
	4	5.49	4.07	1.18	24.0	4.72	/	1.01	17.8	5.27	4.32	1.13	22.1	5.86	4.00	1.26	27.5	6.41	3.73	1.38	32.8
	5	5.07	3.91	0.87	13.1	4.49	/	0.77	10.3	4.84	4.22	0.83	12.0	5.46	3.83	0.94	15.2	5.99	3.56	1.03	18.3
	6	4.62	3.76	0.66	7.6	4.21	/	0.60	6.3	4.44	4.03	0.64	7.0	5.04	3.70	0.72	9.0	5.56	3.38	0.80	11.0
	7	4.11	3.62	0.51	4.4	3.97	/	0.49	4.1	3.97	/	0.49	4.1	4.56	3.51	0.56	5.4	5.12	3.18	0.63	6.8
12	3	5.23	4.02	1.50	38.9	4.59	/	1.32	30.0	4.98	4.33	1.43	35.2	5.64	3.95	1.62	45.2	6.17	3.68	1.77	54.0
	4	4.85	3.88	1.04	18.8	4.37	/	0.94	15.3	4.61	4.19	0.99	16.9	5.25	3.81	1.13	22.0	5.80	3.51	1.25	26.9
	5	4.43	3.75	0.76	10.0	4.19	/	0.72	9.0	4.20	4.05	0.72	9.0	4.84	3.67	0.83	12.0	5.38	3.36	0.93	14.8
	6	3.93	3.62	0.56	5.5	3.89	/	0.56	5.4	3.89	3.82	0.56	5.4	4.39	3.51	0.63	6.8	4.93	3.17	0.71	8.6
	7	3.48	/	0.43	3.2	3.62	/	0.44	3.4	3.59	/	0.44	3.4	3.83	3.34	0.47	3.8	4.48	2.98	0.55	5.2
13	3	4.57	3.84	1.31	29.7	4.24	/	1.21	25.5	4.31	4.16	1.24	26.4	4.97	3.77	1.43	35.1	5.56	3.47	1.59	43.9
	4	4.19	3.69	0.90	14.0	4.04	/	0.87	13.0	4.04	3.97	0.87	13.0	4.57	3.67	0.98	16.7	5.16	3.30	1.11	21.3
	5	3.73	3.65	0.64	7.1	3.77	/	0.65	7.3	3.78	/	0.65	7.3	4.18	3.49	0.72	8.9	4.75	3.15	0.82	11.5
	6	3.40	/	0.49	4.1	3.51	/	0.50	4.4	3.51	/	0.50	4.4	3.68	3.37	0.53	4.8	4.29	2.98	0.61	6.5
	7	3.11	/	0.38	2.5	3.22	/	0.40	2.7	3.23	/	0.40	2.7	3.23	3.16	0.40	2.7	3.76	2.81	0.46	3.7

MKA-950R(A)																					
EWT	Δt	Air inlet condition																			
		DB:26.7 WB:19.4				DB:27 WB:18				DB:27 WB:19				DB:27 WB:20				DB:29 WB:21			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	10.47	6.31	3.00	140.7	9.61	6.94	2.75	118.4	10.26	6.58	2.94	135.0	10.85	6.30	3.11	151.1	11.46	6.01	3.28	168.4
	4	10.07	6.12	2.17	73.2	9.25	6.73	1.99	61.8	9.90	6.39	2.13	70.8	10.49	6.12	2.25	79.3	11.01	5.81	2.37	87.4
	5	9.63	5.91	1.66	42.8	8.81	6.57	1.52	35.9	9.44	6.19	1.62	41.2	10.07	5.90	1.73	46.8	10.58	9.15	1.82	51.7
	6	9.20	5.74	1.32	27.2	8.39	6.35	1.20	22.6	9.03	5.98	1.29	26.1	9.66	5.67	1.38	29.9	10.12	5.39	1.45	32.8
	7	8.75	5.47	1.08	18.1	7.92	6.19	0.97	14.8	8.55	5.78	1.05	17.2	9.18	5.47	1.13	19.9	9.69	5.17	1.19	22.1
6	3	9.88	6.06	2.83	125.2	9.00	6.68	2.58	104.0	9.66	6.32	2.77	119.6	10.28	6.03	2.95	135.7	10.88	5.74	3.12	151.8
	4	9.49	5.85	2.04	65.0	8.60	6.46	1.85	53.4	9.26	6.11	1.99	61.9	9.88	5.84	2.12	70.4	10.44	5.55	2.24	78.6
	5	9.03	5.63	1.55	37.6	8.21	6.29	1.41	31.1	8.85	5.93	1.52	36.2	9.43	5.59	1.62	41.1	10.02	5.34	1.72	46.4
	6	8.60	5.47	1.23	23.7	7.78	6.07	1.12	19.4	8.40	5.71	1.20	22.6	9.03	5.37	1.29	26.1	9.52	5.10	1.37	29.1
	7	8.15	5.22	1.00	15.6	7.29	5.92	0.90	12.5	7.95	5.55	0.98	14.9	8.52	5.20	1.05	17.1	9.10	4.89	1.12	19.5
7	3	9.23	5.76	2.65	109.2	8.37	6.42	2.40	90.0	9.03	6.06	2.59	104.5	9.69	5.75	2.78	120.5	10.24	5.46	2.93	134.4
	4	8.85	5.56	1.90	56.5	7.94	6.27	1.71	45.4	8.61	5.86	1.85	53.5	9.25	5.56	1.99	61.8	9.83	5.28	2.11	69.8
	5	8.40	5.36	1.44	32.6	7.53	6.07	1.30	26.2	8.22	5.66	1.41	31.2	8.81	5.31	1.52	35.9	9.36	5.06	1.61	40.4
	6	7.96	5.21	1.14	20.3	7.09	5.88	1.02	16.1	7.82	5.46	1.12	19.6	8.41	5.11	1.21	22.7	8.93	4.84	1.28	25.6
	7	7.53	4.97	0.93	13.4	6.62	5.67	0.81	10.3	7.28	5.29	0.89	12.5	7.91	4.95	0.97	14.8	8.46	4.64	1.04	16.9
8	3	8.60	5.52	2.47	94.9	7.67	6.19	2.20	75.5	8.40	5.78	2.41	90.5	9.04	5.46	2.59	104.8	9.62	5.16	2.76	118.7
	4	8.22	5.33	1.77	48.8	7.29	5.99	1.57	38.4	7.97	5.65	1.71	45.8	8.60	5.28	1.85	53.4	9.16	5.01	1.97	60.5
	5	7.80	5.10	1.34	28.1	6.84	5.81	1.18	21.6	7.57	5.41	1.30	26.4	8.21	5.09	1.41	31.1	8.77	4.80	1.51	35.5
	6	7.29	4.95	1.05	17.1	6.41	5.66	0.92	13.2	7.15	5.22	1.03	16.4	7.78	4.86	1.12	19.4	8.33	4.58	1.19	22.2
	7	6.87	4.72	0.84	11.1	5.94	5.42	0.73	8.3	6.65	5.04	0.82	10.4	7.28	4.67	0.89	12.5	7.79	4.39	0.96	14.3
9	3	7.99	5.27	2.29	82.0	7.03	5.95	2.02	63.5	7.77	5.53	2.23	77.4	8.43	5.18	2.42	91.2	8.98	4.91	2.57	103.4
	4	7.54	5.08	1.62	41.1	6.62	5.78	1.42	31.6	7.32	5.36	1.57	38.6	7.95	5.04	1.71	45.6	8.52	4.73	1.83	52.3
	5	7.14	4.86	1.23	23.5	6.12	5.65	1.05	17.3	6.92	5.18	1.19	22.1	7.53	4.83	1.30	26.2	8.10	4.52	1.39	30.3
	6	6.67	4.69	0.96	14.3	5.66	5.47	0.81	10.3	6.43	5.02	0.92	13.3	7.12	4.60	1.02	16.2	7.67	4.31	1.10	18.9
	7	6.17	4.46	0.76	9.0	5.28	/	0.65	6.6	5.95	4.79	0.73	8.4	6.59	4.46	0.81	10.3	7.14	4.12	0.88	12.0
10	3	7.33	4.99	2.10	68.9	6.31	5.73	1.81	51.1	7.03	5.33	2.02	63.5	7.75	4.97	2.22	77.0	8.35	4.65	2.39	89.4
	4	6.88	4.80	1.48	34.2	5.84	5.61	1.25	24.6	6.64	5.15	1.43	31.8	7.32	4.78	1.57	38.6	7.86	4.47	1.69	44.6
	5	6.43	4.65	1.11	19.1	5.47	/	0.94	13.8	6.16	4.98	1.06	17.5	6.86	4.59	1.18	21.7	7.45	4.27	1.28	25.6
	6	5.99	4.45	0.86	11.5	5.18	/	0.74	8.6	5.72	4.79	0.82	10.5	6.41	4.34	0.92	13.2	6.96	4.06	1.00	15.6
	7	5.47	4.26	0.67	7.0	4.88	/	0.60	5.6	5.21	4.61	0.64	6.4	5.87	4.21	0.72	8.1	6.51	3.85	0.80	10.0
11	3	6.62	4.77	1.90	56.2	5.61	/	1.61	40.4	6.38	5.08	1.83	52.2	7.05	4.74	2.02	63.7	7.67	4.40	2.20	75.5
	4	6.20	4.60	1.33	27.8	5.34	/	1.15	20.6	5.95	4.89	1.28	25.6	6.63	4.52	1.43	31.7	7.25	4.22	1.56	37.9
	5	5.73	4.42	0.99	15.2	5.08	/	0.87	11.9	5.47	4.77	0.94	13.8	6.17	4.33	1.06	17.6	6.77	4.02	1.16	21.2
	6	5.22	4.25	0.75	8.7	4.76	/	0.68	7.3	5.02	4.55	0.72	8.1	5.69	4.19	0.82	10.4	6.29	3.82	0.90	12.7
	7	4.65	4.09	0.57	5.1	4.48	/	0.55	4.7	4.48	/	0.55	4.7	5.16	3.97	0.63	6.3	5.79	3.59	0.71	7.9
12	3	5.92	4.54	1.70	44.9	5.20	/	1.49	34.6	5.63	4.90	1.62	40.7	6.38	4.47	1.83	52.2	6.97	4.16	2.00	62.4
	4	5.48	4.39	1.18	21.7	4.95	/	1.06	17.7	5.21	4.73	1.12	19.6	5.93	4.31	1.28	25.4	6.56	3.97	1.41	31.0
	5	5.01	4.23	0.86	11.6	4.73	/	0.81	10.3	4.74	4.58	0.82	10.4	5.47	4.15	0.94	13.8	6.08	3.80	1.05	17.1
	6	4.45	4.09	0.64	6.3	4.40	/	0.63	6.2	4.40	4.32	0.63	6.2	4.96	3.97	0.71	7.9	5.57	3.58	0.80	10.0
	7	3.94	/	0.48	3.7	4.09	/	0.50	4.0	4.06	/	0.50	3.9	4.33	3.77	0.53	4.4	5.06	3.37	0.62	6.0
13	3	5.17	4.34	1.48	34.3	4.79	/	1.37	29.5	4.88	4.71	1.40	30.5	5.62	4.26	1.61	40.6	6.29	3.93	1.80	50.7
	4	4.73	4.18	1.02	16.2	4.57	/	0.98	15.1	4.57	4.48	0.98	15.1	5.17	4.15	1.11	19.3	5.84	3.74	1.25	24.6
	5	4.22	4.13	0.73	8.2	4.26	/	0.73	8.4	4.27	/	0.73	8.4	4.72	3.95	0.81	10.3	5.37	3.56	0.92	13.3
	6	3.84	/	0.55	4.7	3.97	/	0.57	5.1	3.97	/	0.57	5.1	4.16	3.81	0.60	5.6	4.85	3.37	0.70	7.6
	7	3.51	/	0.43	2.9	3.64	/	0.45	3.1	3.65	/	0.45	3.1	3.65	3.57	0.45	3.1	4.25	3.18	0.52	4.3

MKA-1200R(A)																					
EWT	Δt	Air inlet condition																			
		DB:26.7 WB:19.4				DB:27 WB:18				DB:27 WB:19				DB:27 WB:20				DB:29 WB:21			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	13.24	7.98	3.80	198.4	12.14	8.77	3.48	167.0	12.97	8.32	3.72	190.4	13.72	7.96	3.93	213.1	14.48	7.60	4.15	237.5
	4	12.73	7.74	2.74	103.2	11.69	8.50	2.51	87.1	12.52	8.08	2.69	99.8	13.25	7.74	2.85	111.9	13.91	7.35	2.99	123.3
	5	12.17	7.47	2.09	60.4	11.14	8.31	1.92	50.6	11.93	7.83	2.05	58.1	12.73	7.45	2.19	66.0	13.37	11.56	2.30	72.9
	6	11.63	7.26	1.67	38.3	10.60	8.02	1.52	31.8	11.41	7.56	1.64	36.9	12.20	7.17	1.75	42.2	12.79	6.81	1.83	46.3
	7	11.06	6.91	1.36	25.5	10.02	7.83	1.23	20.9	10.81	7.30	1.33	24.3	11.60	6.91	1.43	28.0	12.25	6.54	1.50	31.2
6	3	12.49	7.66	3.58	176.6	11.38	8.44	3.26	146.6	12.20	7.99	3.50	168.6	13.00	7.62	3.73	191.3	13.75	7.26	3.94	214.0
	4	11.99	7.39	2.58	91.6	10.87	8.17	2.34	75.3	11.71	7.72	2.52	87.3	12.49	7.38	2.69	99.3	13.19	7.02	2.84	110.9
	5	11.41	7.12	1.96	53.1	10.38	7.95	1.78	43.9	11.18	7.50	1.92	51.0	11.92	7.06	2.05	57.9	12.67	6.75	2.18	65.4
	6	10.87	6.91	1.56	33.4	9.84	7.68	1.41	27.4	10.61	7.21	1.52	31.9	11.41	6.79	1.64	36.9	12.04	6.45	1.73	41.0
	7	10.30	6.60	1.27	22.1	9.22	7.48	1.13	17.7	10.05	7.02	1.23	21.0	10.76	6.57	1.32	24.1	11.50	6.18	1.41	27.5
7	3	11.66	7.29	3.34	154.0	10.58	8.11	3.03	126.9	11.41	7.66	3.27	147.4	12.25	7.27	3.51	169.9	12.94	6.90	3.71	189.5
	4	11.18	7.03	2.40	79.7	10.03	7.93	2.16	64.1	10.88	7.41	2.34	75.5	11.69	7.03	2.51	87.1	12.43	6.67	2.67	98.4
	5	10.61	6.78	1.83	45.9	9.52	7.68	1.64	36.9	10.39	7.15	1.79	44.0	11.14	6.72	1.92	50.6	11.83	6.40	2.03	57.0
	6	10.06	6.58	1.44	28.7	8.97	7.44	1.29	22.8	9.88	6.90	1.42	27.6	10.63	6.46	1.52	32.0	11.29	6.12	1.62	36.1
	7	9.52	6.28	1.17	18.9	8.37	7.17	1.03	14.6	9.21	6.69	1.13	17.6	10.00	6.25	1.23	20.8	10.69	5.86	1.31	23.8
8	3	10.87	6.97	3.12	133.8	9.70	7.83	2.78	106.5	10.61	7.30	3.04	127.6	11.42	6.90	3.28	147.8	12.16	6.52	3.49	167.4
	4	10.39	6.73	2.23	68.8	9.22	7.57	1.98	54.1	10.08	7.14	2.17	64.7	10.87	6.67	2.34	75.3	11.57	6.33	2.49	85.3
	5	9.87	6.45	1.70	39.7	8.65	7.35	1.49	30.5	9.57	6.84	1.65	37.3	10.38	6.43	1.78	43.9	11.08	6.07	1.91	50.0
	6	9.22	6.25	1.32	24.1	8.10	7.15	1.16	18.6	9.04	6.60	1.30	23.1	9.84	6.15	1.41	27.4	10.52	5.79	1.51	31.4
	7	8.68	5.97	1.07	15.7	7.51	6.85	0.92	11.7	8.41	6.37	1.03	14.7	9.21	5.91	1.13	17.6	9.85	5.55	1.21	20.2
9	3	10.11	6.66	2.90	115.6	8.89	7.53	2.55	89.5	9.82	6.99	2.82	109.2	10.66	6.55	3.06	128.7	11.35	6.21	3.25	145.8
	4	9.54	6.42	2.05	57.9	8.37	7.30	1.80	44.6	9.25	6.78	1.99	54.5	10.05	6.37	2.16	64.3	10.76	5.98	2.31	73.8
	5	9.03	6.15	1.55	33.2	7.74	7.14	1.33	24.4	8.74	6.55	1.50	31.1	9.52	6.10	1.64	36.9	10.24	5.71	1.76	42.7
	6	8.43	5.92	1.21	20.1	7.15	6.91	1.03	14.5	8.13	6.34	1.16	18.7	9.00	5.82	1.29	22.9	9.70	5.44	1.39	26.6
	7	7.80	5.64	0.96	12.6	6.67	/	0.82	9.3	7.53	6.06	0.92	11.8	8.34	5.64	1.02	14.5	9.03	5.20	1.11	16.9
10	3	9.27	6.31	2.66	97.2	7.98	7.24	2.29	72.0	8.89	6.73	2.55	89.5	9.79	6.28	2.81	108.5	10.55	5.88	3.03	126.1
	4	8.70	6.07	1.87	48.2	7.38	7.09	1.59	34.7	8.40	6.51	1.81	44.9	9.25	6.04	1.99	54.5	9.94	5.65	2.14	62.9
	5	8.13	5.88	1.40	26.9	6.91	/	1.19	19.5	7.78	6.30	1.34	24.7	8.67	5.80	1.49	30.6	9.42	5.40	1.62	36.1
	6	7.57	5.62	1.09	16.2	6.55	/	0.94	12.2	7.23	6.06	1.04	14.8	8.10	5.49	1.16	18.6	8.80	5.13	1.26	21.9
	7	6.91	5.38	0.85	9.9	6.16	/	0.76	7.9	6.58	5.83	0.81	9.0	7.42	5.32	0.91	11.5	8.23	4.87	1.01	14.1
11	3	8.37	6.03	2.40	79.2	7.09	/	2.03	56.9	8.07	6.42	2.31	73.7	8.91	6.00	2.55	89.8	9.70	5.56	2.78	106.5
	4	7.84	5.82	1.69	39.2	6.75	/	1.45	29.0	7.53	6.18	1.62	36.1	8.38	5.71	1.80	44.7	9.16	5.34	1.97	53.4
	5	7.24	5.59	1.25	21.4	6.42	/	1.10	16.8	6.91	6.03	1.19	19.5	7.80	5.47	1.34	24.8	8.56	5.08	1.47	29.9
	6	6.60	5.37	0.95	12.3	6.01	/	0.86	10.2	6.34	5.76	0.91	11.4	7.20	5.29	1.03	14.7	7.95	4.83	1.14	17.9
	7	5.88	5.17	0.72	7.2	5.67	/	0.70	6.7	5.67	/	0.70	6.7	6.52	5.02	0.80	8.9	7.32	4.54	0.90	11.1
12	3	7.48	5.74	2.14	63.4	6.57	/	1.88	48.8	7.12	6.19	2.04	57.4	8.07	5.65	2.31	73.7	8.82	5.26	2.53	88.0
	4	6.93	5.55	1.49	30.6	6.25	/	1.34	24.9	6.58	5.98	1.42	27.6	7.50	5.44	1.61	35.8	8.29	5.02	1.78	43.8
	5	6.33	5.35	1.09	16.3	5.98	/	1.03	14.6	6.00	5.79	1.03	14.7	6.91	5.25	1.19	19.5	7.69	4.80	1.32	24.1
	6	5.62	5.17	0.81	9.0	5.56	/	0.80	8.8	5.56	5.46	0.80	8.8	6.27	5.02	0.90	11.1	7.05	4.53	1.01	14.1
	7	4.98	/	0.61	5.2	5.17	/	0.64	5.6	5.13	/	0.63	5.5	5.47	4.77	0.67	6.2	6.40	4.26	0.79	8.5
13	3	6.54	5.49	1.87	48.4	6.06	/	1.74	41.5	6.16	5.95	1.77	43.0	7.11	5.38	2.04	57.2	7.95	4.96	2.28	71.5
	4	5.98	5.28	1.29	22.8	5.77	/	1.24	21.2	5.77	5.67	1.24	21.2	6.54	5.25	1.41	27.2	7.38	4.72	1.59	34.7
	5	5.34	5.22	0.92	11.6	5.38	/	0.93	11.8	5.40	/	0.93	11.9	5.97	4.99	1.03	14.5	6.79	4.50	1.17	18.8
	6	4.86	/	0.70	6.7	5.02	/	0.72	7.1	5.02	/	0.72	7.1	5.26	4.81	0.75	7.8	6.13	4.26	0.88	10.6
	7	4.44	/	0.55	4.1	4.60	/	0.57	4.4	4.62	/	0.57	4.4	4.62	4.51	0.57	4.4	5.37	4.02	0.66	6.0

MKA-1500R

EWT	Δt	Air inlet condition																			
		DB:26.7 WB:19.4				DB:27 WB:18				DB:27 WB:19				DB:27 WB:20				DB:29 WB:21			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	16.44	9.90	4.71	180.4	15.08	10.89	4.32	151.8	16.10	10.33	4.62	173.1	17.03	9.88	4.88	193.7	17.98	9.44	5.15	215.9
	4	15.80	9.61	3.40	93.8	14.52	10.55	3.12	79.2	15.54	10.03	3.34	90.7	16.46	9.61	3.54	101.7	17.27	9.12	3.71	112.1
	5	15.12	9.27	2.60	54.9	13.83	10.31	2.38	46.0	14.82	9.72	2.55	52.8	15.80	9.25	2.72	60.0	16.60	14.35	2.86	66.3
	6	14.45	9.01	2.07	34.8	13.16	9.96	1.89	28.9	14.17	9.38	2.03	33.5	15.15	8.90	2.17	38.3	15.88	8.45	2.28	42.1
	7	13.74	8.58	1.69	23.1	12.43	9.72	1.53	19.0	13.42	9.07	1.65	22.1	14.41	8.58	1.77	25.5	15.21	8.12	1.87	28.4
6	3	15.51	9.51	4.45	160.5	14.13	10.48	4.05	133.3	15.15	9.92	4.34	153.3	16.14	9.46	4.63	173.9	17.07	9.01	4.89	194.6
	4	14.89	9.18	3.20	83.3	13.50	10.15	2.90	68.4	14.54	9.59	3.13	79.4	15.51	9.16	3.33	90.3	16.38	8.71	3.52	100.8
	5	14.17	8.84	2.44	48.2	12.88	9.87	2.22	39.9	13.89	9.31	2.39	46.4	14.80	8.77	2.55	52.6	15.73	8.38	2.71	59.5
	6	13.50	8.58	1.93	30.4	12.21	9.53	1.75	24.9	13.18	8.95	1.89	29.0	14.17	8.43	2.03	33.5	14.95	8.00	2.14	37.3
	7	12.79	8.19	1.57	20.1	11.45	9.29	1.41	16.1	12.47	8.71	1.53	19.1	13.37	8.15	1.64	21.9	14.28	7.67	1.75	25.0
7	3	14.48	9.05	4.15	140.0	13.14	10.07	3.77	115.3	14.17	9.51	4.06	134.0	15.21	9.03	4.36	154.4	16.06	8.56	4.61	172.3
	4	13.89	8.73	2.99	72.4	12.45	9.85	2.68	58.3	13.51	9.20	2.91	68.6	14.52	8.73	3.12	79.2	15.43	8.28	3.32	89.4
	5	13.18	8.41	2.27	41.8	11.82	9.53	2.03	33.6	12.90	8.88	2.22	40.0	13.83	8.34	2.38	46.0	14.69	7.95	2.53	51.9
	6	12.49	8.17	1.79	26.0	11.13	9.23	1.60	20.7	12.27	8.56	1.76	25.1	13.20	8.02	1.89	29.1	14.02	7.59	2.01	32.8
	7	11.82	7.80	1.45	17.1	10.39	8.90	1.28	13.2	11.43	8.30	1.40	16.0	12.42	7.76	1.53	18.9	13.27	7.28	1.63	21.6
8	3	13.50	8.66	3.87	121.6	12.04	9.72	3.45	96.9	13.18	9.07	3.78	116.0	14.18	8.56	4.07	134.3	15.10	8.10	4.33	152.2
	4	12.90	8.36	2.77	62.5	11.45	9.40	2.46	49.2	12.51	8.86	2.69	58.8	13.50	8.28	2.90	68.4	14.37	7.86	3.09	77.6
	5	12.25	8.00	2.11	36.1	10.74	9.12	1.85	27.7	11.88	8.49	2.04	33.9	12.88	7.99	2.22	39.9	13.76	7.54	2.37	45.5
	6	11.45	7.76	1.64	21.9	10.05	8.88	1.44	16.9	11.22	8.19	1.61	21.0	12.21	7.63	1.75	24.9	13.07	7.19	1.87	28.5
	7	10.78	7.41	1.32	14.3	9.33	8.51	1.15	10.7	10.44	7.91	1.28	13.4	11.43	7.33	1.40	16.0	12.23	6.89	1.50	18.3
9	3	12.55	8.26	3.60	105.1	11.04	9.34	3.16	81.4	12.19	8.67	3.50	99.3	13.24	8.13	3.79	117.0	14.09	7.71	4.04	132.6
	4	11.84	7.97	2.55	52.6	10.39	9.07	2.23	40.5	11.49	8.41	2.47	49.5	12.47	7.91	2.68	58.4	13.37	7.43	2.87	67.1
	5	11.21	7.63	1.93	30.2	9.61	8.86	1.65	22.2	10.85	8.13	1.87	28.3	11.82	7.58	2.03	33.6	12.71	7.09	2.19	38.9
	6	10.46	7.35	1.50	18.3	8.88	8.58	1.27	13.2	10.09	7.87	1.45	17.0	11.17	7.22	1.60	20.8	12.04	6.76	1.73	24.2
	7	9.68	7.00	1.19	11.5	8.28	/	1.02	8.4	9.34	7.52	1.15	10.7	10.35	7.00	1.27	13.1	11.21	6.46	1.38	15.4
10	3	11.50	7.84	3.30	88.4	9.90	8.99	2.84	65.5	11.04	8.36	3.16	81.4	12.16	7.80	3.48	98.7	13.10	7.30	3.76	114.7
	4	10.80	7.54	2.32	43.8	9.16	8.80	1.97	31.5	10.42	8.08	2.24	40.8	11.49	7.50	2.47	49.5	12.34	7.02	2.65	57.2
	5	10.09	7.30	1.74	24.5	8.58	/	1.48	17.7	9.66	7.82	1.66	22.4	10.76	7.20	1.85	27.8	11.69	6.70	2.01	32.9
	6	9.40	6.98	1.35	14.8	8.13	/	1.17	11.1	8.97	7.52	1.29	13.4	10.05	6.81	1.44	16.9	10.93	6.37	1.57	19.9
	7	8.58	6.68	1.05	9.0	7.65	/	0.94	7.2	8.17	7.24	1.00	8.2	9.21	6.61	1.13	10.4	10.22	6.05	1.26	12.8
11	3	10.39	7.48	2.98	72.0	8.80	/	2.52	51.8	10.01	7.97	2.87	67.0	11.06	7.45	3.17	81.6	12.04	6.91	3.45	96.9
	4	9.74	7.22	2.09	35.6	8.38	/	1.80	26.4	9.34	7.67	2.01	32.8	10.41	7.09	2.24	40.7	11.37	6.63	2.45	48.6
	5	8.99	6.94	1.55	19.4	7.97	/	1.37	15.3	8.58	7.48	1.48	17.7	9.68	6.79	1.66	22.5	10.63	6.31	1.83	27.2
	6	8.19	6.66	1.17	11.2	7.46	/	1.07	9.3	7.87	7.15	1.13	10.4	8.94	6.57	1.28	13.3	9.87	5.99	1.41	16.3
	7	7.30	6.42	0.90	6.5	7.04	/	0.86	6.1	7.04	/	0.86	6.1	8.10	6.24	0.99	8.0	9.08	5.64	1.12	10.1
12	3	9.29	7.13	2.66	57.6	8.15	/	2.34	44.4	8.84	7.69	2.53	52.2	10.01	7.02	2.87	67.0	10.95	6.53	3.14	80.0
	4	8.60	6.89	1.85	27.8	7.76	/	1.67	22.6	8.17	7.43	1.76	25.1	9.31	6.76	2.00	32.5	10.29	6.24	2.21	39.8
	5	7.86	6.65	1.35	14.8	7.43	/	1.28	13.3	7.45	7.19	1.28	13.3	8.58	6.52	1.48	17.7	9.55	5.96	1.64	21.9
	6	6.98	6.42	1.00	8.1	6.91	/	0.99	8.0	6.91	6.78	0.99	8.0	7.78	6.24	1.12	10.1	8.75	5.62	1.25	12.8
	7	6.18	/	0.76	4.7	6.42	/	0.79	5.1	6.37	/	0.78	5.0	6.79	5.92	0.83	5.7	7.95	5.29	0.98	7.8
13	3	8.12	6.81	2.33	44.0	7.52	/	2.16	37.8	7.65	7.39	2.19	39.1	8.82	6.68	2.53	52.0	9.87	6.16	2.83	65.0
	4	7.43	6.55	1.60	20.7	7.17	/	1.54	19.3	7.17	7.04	1.54	19.3	8.12	6.52	1.74	24.7	9.16	5.86	1.97	31.5
	5	6.63	6.48	1.14	10.6	6.68	/	1.15	10.7	6.70	/	1.15	10.8	7.41	6.20	1.27	13.2	8.43	5.58	1.45	17.1
	6	6.03	/	0.86	6.1	6.24	/	0.89	6.5	6.24	/	0.89	6.5	6.53	5.98	0.94	7.1	7.61	5.29	1.09	9.7
	7	5.51	/	0.68	3.7	5.71	/	0.70	4.0	5.73	/	0.70	4.0	5.73	5.60	0.70	4.0	6.66	4.99	0.82	5.5

Cooling capacity modification coefficient table:

Speed	600		750		850		950		1200		1500	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
High	1	1	1	1	1	1	1	1	1	1	1	1
Mid	0.83	0.80	0.80	0.78	0.89	0.85	0.9	0.85	0.89	0.85	0.89	0.84
Low	0.69	0.65	0.67	0.64	0.79	0.75	0.8	0.75	0.79	0.74	0.79	0.74

Heating Capacity:

For T3 models:

Remark:

Δ**t:** Temperature Difference (℃); **TH:** Total Heating Capacity (kW); **WF:** Water Flow (m^3/h); **WPD:** Water Pressure Drop

600																								
Δt	Air inlet temp. (20℃ DB)																							
	Water inlet temp. (℃)																							
	35			40			45			50			55			60			65			70		
	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
10	3.3	0.3	1.8	5.1	0.4	4.4	7.1	0.6	8.4	9.0	0.8	13.3	10.9	0.9	19.4	12.8	1.1	26.9	14.6	1.3	35.2	16.5	1.4	44.6
8	3.6	0.4	3.4	5.7	0.6	8.2	7.6	0.8	14.8	9.5	1.0	23.0	11.3	1.2	32.7	13.1	1.4	44.3	15.0	1.6	57.6	16.8	1.8	72.6
6	4.2	0.6	8.1	6.1	0.9	17.2	7.9	1.1	28.9	9.9	1.2	44.6	11.7	1.7	63.0	13.6	1.9	84.4	15.3	2.2	107.2	17.3	2.5	136.3
750																								
Δt	Air inlet temp. (20℃ DB)																							
	Water inlet temp. (℃)																							
	35			40			45			50			55			60			65			70		
	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
10	3.9	0.3	1.9	6.1	0.5	4.6	8.5	0.7	8.8	10.7	0.9	14.1	12.9	1.1	20.5	15.2	1.3	28.4	17.4	1.5	37.2	19.6	1.7	47.1
8	4.3	0.5	3.6	6.7	0.7	8.7	9.0	1.0	15.6	11.3	1.1	24.3	13.4	1.4	34.6	15.6	1.7	46.8	17.8	1.9	60.8	20.0	2.2	76.7
6	5.0	0.7	8.6	7.3	1.0	18.2	9.5	1.4	30.6	11.8	1.7	47.1	14.0	2.0	66.6	16.2	2.3	89.1	18.2	2.6	113.2	20.6	2.9	144.0
850																								
Δt	Air inlet temp. (20℃ DB)																							
	Water inlet temp. (℃)																							
	35			40			45			50			55			60			65			70		
	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
10	4.2	0.4	2.0	6.6	0.6	5.0	9.1	0.8	9.6	11.5	1.0	15.2	13.9	1.2	22.2	16.3	1.4	30.7	18.7	1.6	40.2	21.0	1.8	51.0
8	4.6	0.5	3.9	7.2	0.8	9.4	9.7	1.0	16.9	12.1	1.2	26.3	14.4	1.5	37.4	16.7	1.8	50.6	19.1	2.1	65.9	21.4	2.3	83.1
6	5.4	0.8	9.3	7.8	1.1	19.7	10.1	1.5	33.1	12.6	1.6	51.0	15.0	2.1	72.1	17.3	2.5	96.5	19.5	2.8	122.5	22.0	3.2	155.9
950																								
Δt	Air inlet temp. (20℃ DB)																							
	Water inlet temp. (℃)																							
	35			40			45			50			55			60			65			70		
	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
10	4.7	0.4	2.4	7.4	0.6	5.9	10.2	0.9	11.2	12.8	1.1	17.9	15.5	1.3	26.1	18.3	1.6	36.2	20.9	1.8	47.3	23.5	2.0	60.0
8	5.2	0.6	4.6	8.1	0.9	11.1	10.8	1.2	19.9	13.5	1.3	31.0	16.1	1.7	44.0	18.7	2.0	59.6	21.4	2.3	77.5	24.0	2.6	97.7
6	6.0	0.9	10.9	8.8	1.3	23.2	11.4	1.6	38.9	14.1	1.7	60.0	16.8	2.4	84.8	19.4	2.8	113.5	21.9	3.1	144.2	24.7	3.5	183.4
1200																								
Δt	Air inlet temp. (20℃ DB)																							
	Water inlet temp. (℃)																							
	35			40			45			50			55			60			65			70		
	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
10	5.9	0.5	3.3	9.3	0.8	8.0	12.9	1.1	15.4	16.3	1.4	24.5	19.7	1.7	35.8	23.2	2.0	49.5	26.5	2.3	64.8	29.8	2.6	82.2
8	6.6	0.7	6.3	10.3	1.1	15.2	13.7	1.5	27.3	17.1	1.7	42.4	20.4	2.2	60.3	23.8	2.6	81.6	27.1	2.9	106.2	30.5	3.3	133.9
6	7.6	1.1	15.0	11.1	1.6	31.7	14.4	2.1	53.3	17.9	2.3	82.2	21.3	3.1	116.2	24.6	3.5	155.5	27.7	4.0	197.5	31.3	4.5	251.3

1500																								
Δt	Air inlet temp. (20℃ DB)																							
	Water inlet temp. (℃)																							
	35			40			45			50			55			60			65			70		
	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
10	6.0	0.5	2.0	9.4	0.8	4.9	13.0	1.1	9.4	16.4	1.4	15.0	19.8	1.7	21.9	23.3	2.0	30.3	26.6	2.3	39.6	30.0	2.6	50.2
8	6.6	0.7	3.8	10.3	1.1	9.3	13.8	1.5	16.7	17.2	1.9	25.9	20.6	2.2	36.9	23.9	2.6	49.9	27.3	2.9	64.9	30.6	3.3	81.8
6	7.7	1.1	9.1	11.2	1.6	19.4	14.5	2.1	32.6	18.0	2.6	50.2	21.4	3.1	71.0	24.8	3.5	95.0	27.9	4.0	120.7	31.5	4.5	153.5

Heating capacity modification coefficient table**:**

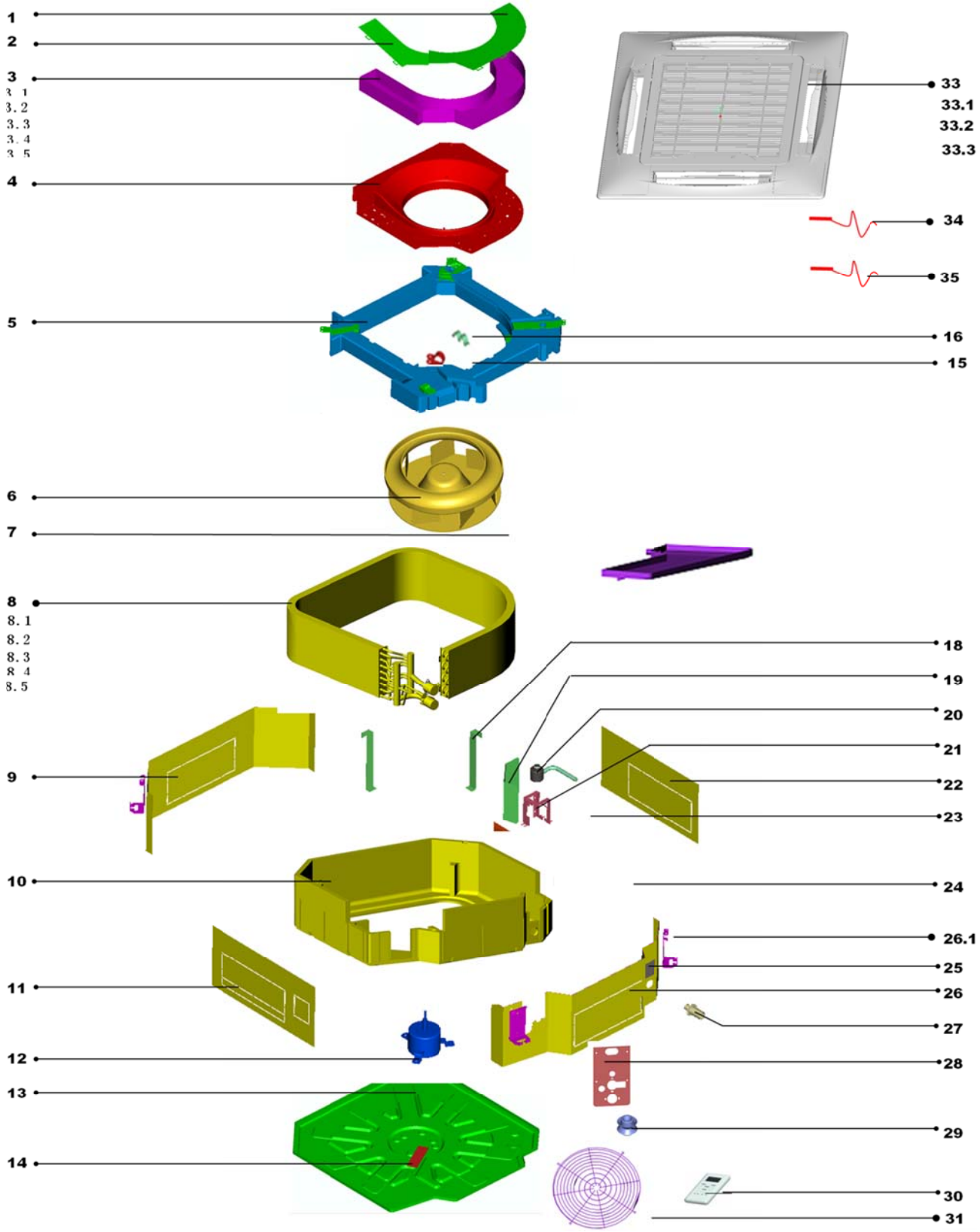
Speed	200	300	400	500	600	800
	TH	TH	TH	TH	TH	TH
High	1	1	1	1	1	1
Mid	0.79	0.78	0.79	0.8	0.78	0.79
Low	0.64	0.65	0.63	0.65	0.64	0.66

Altitude modification coefficient table:

Altitude	TC	SC	TH
500	0.98	0.95	0.95
1000	0.97	0.91	0.91
1500	0.95	0.86	0.86
2000	0.94	0.82	0.82
2500	0.93	0.78	0.78
3000	0.91	0.74	0.7

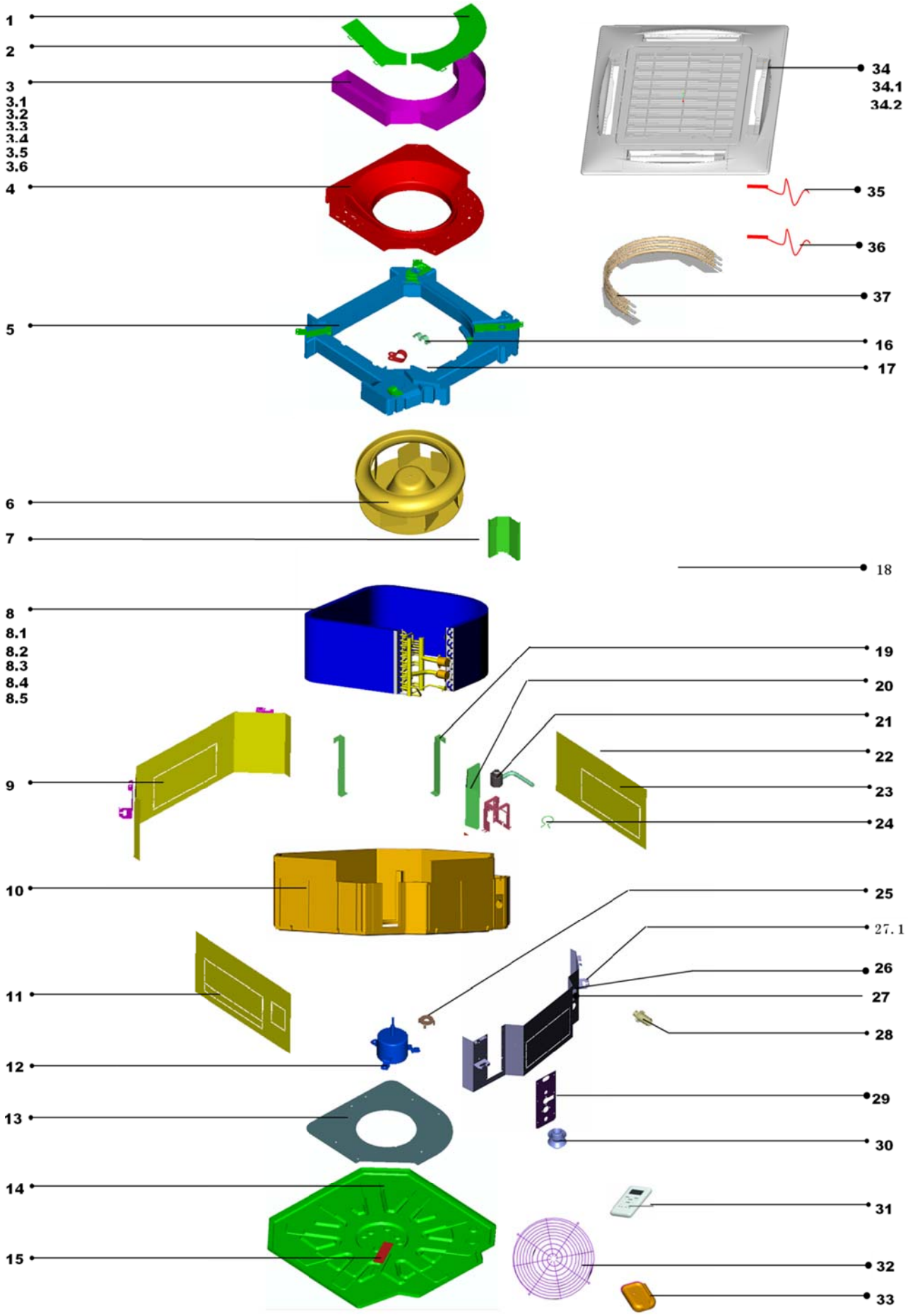
11. Exploded View

MKA-600R, MKA-750R, MKA-850R, MKA-950R, MKA-1200R, MKA-1500R



No.	Part Name	Qty		No.	Part Name	Qty
1	Electric control box head cover I	1		16	Wire clip	1
2	Electric control box head cover II	1		17	Drip tray assembly	1
3	Electric control box assembly of indoor unit	1		18	Evaporator fixing hook	3
3.1	Electric control box welded assembly	1		19	Water pump baffle plate	1
3.2	Transformer	1		20	Water drain pump subassembly	1
3.3	Capacitor	1		21	Water pump installation bracket subassembly	1
3.4	Four sides air outlet indoor main control plate	1		22	Front barrier IV subassembly	1
3.5	7-hole wiring terminal	1		23	Water pump pumping pipe grommet	1
4	Air inducting coils subassembly	1		24	Fan fixer	1
5	Foam subassembly, drain tray	1		25	Water finder cover subassembly	1
6	Fan assembly	1		26	Front barrier III subassembly	1
7	Evaporator fixing board	1		26.1	Install lifting lug	4
8	Evaporator assembly	1		27	Water pumping connect pipe	1
8.1	Evaporator	1		28	Exhalant tube seal plate subassembly	1
8.2	Evaporator output tube assembly	1		29	Water pump's rubber pad	1
8.3	Evaporator filter assembly	1		30	Remote controller	1
8.4	Barrel	1		31	Fan protecting net	1
8.5	Discharge assembly	1		32	Bracket, remote controller	1
9	Front barrier I subassembly	1		33	Front panel	1
10	Foam seat subassembly	1		33.1	Panel assembly	1
11	Front barrier II subassembly	1		33.2	Swing motor	2
12	Asynchronous dynamo	1		33.3	Room temperature sensor	1
13	Base pan welded assembly	1		34	Evaporator temperature sensor	1
14	Plate, wire	1		35	Drain water level sensor	1
15	Tandem, wire	1				

MKA-600RA、MKA-750RA、MKA-850RA、MKA-950RA、MKA-1200RA



No	Part Name	Qty		No	Part Name	Qty
1	Electric control box head cover I	1		16	Tandem, wire	1
2	Electric control box head cover II	1		17	Wire clip	1
3	Electric control box assembly of indoor unit	1		18	Drip tray assembly	1
3.1	Electric control box welded assembly	1		19	Evaporator fixing hook	3
3.2	Voltage transformer	1		20	Water pump baffle plate	1
3.3	Supporter of electrical heater	1		21	Water drain pump subassembly	1
3.4	Capacitor	1		22	Water pump installation bracket subassembly	1
3.5	Four sides air outlet indoor main control plate	1		23	Front barrier IV subassembly	1
3.6	7-hole wring terminal	1		24	Water pump pumping pipe grommet	1
4	Air inducting coils subassembly	1		25	Fan fixer	1
5	Foam subassembly, drain tray	1		26	Water finder cover subassembly	1
6	Fan assembly	1		27	Front barrier III subassembly	1
7	Evaporator fixing board	1		27.1	Install lifting lug	4
8	Evaporator assembly	1		28	Water pumping connect pipe	1
8.1	Evaporator	1		29	Exhalant tube seal plate subassembly	1
8.2	Evaporator output tube assembly	1		30	Water pump's rubber pad	1
8.3	Evaporator input tube assembly	1		31	Remote controller	1
8.4	Discharge assembly	1		32	Fan protecting net	1
8.5	Barrel	1		33	Bracket, remote controller	1
9	Front barrier I subassembly	1		34	Front panel	1
10	Foam seat subassembly	1		34.1	Swing motor	2
11	Front barrier II subassembly	1		34.2	Panel	1
12	Asynchronous dynamo	1		35	Evaporator temperature sensor	1
13	Base pan seat	1		36	Drain water level sensor	1
14	Base pan welded assembly	1		37	Auxiliary electrical heater assembly	1
15	Plate, wire	1				

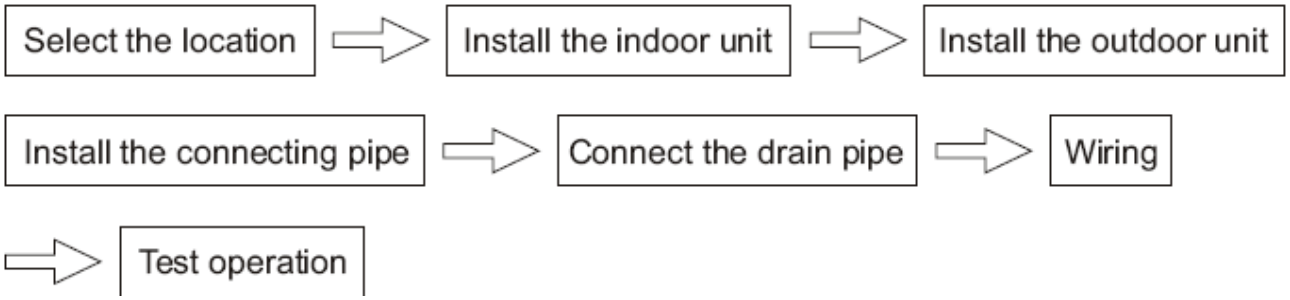
12. Troubleshooting

No.	Malfunction	Operation lamp	Timer lamp	Defrosting lamp	Alarm lamp	Error code
1	Room temp. sensor checking channel is abnormal	X	☆	X	X	E2
2	Evaporator pipe temp. sensor checking channel is abnormal	☆	X	X	X	E3
3	EEPROM malfunction	☆	☆	X	X	E7
4	Water-level switch malfunction	X	X	X	☆	E8

13. Installation

13.1 Before Installation

Please check whether the accessories are of full scope. If there are some fittings free from use, please restore them carefully.



13.2 Installation space

(Refer to fig.1, fig.2, fig.3 and table 1 for specification.)

The indoor unit should be installed in a location that meets the following requirements:

- There is enough room for installation and maintenance.
- The ceiling is horizontal, and its structure can endure the weight of the indoor unit.
- The outlet and the inlet are not impeded, and the influence of external air is the least.
- The air flow can reach throughout the room.
- The connecting water pipe and drainpipe could be extracted out easily.
- There is no direct radiation from heaters.

Caution:

Keep indoor unit, outdoor unit, power supply wiring and transmission wiring at least 1 meter away from televisions and radios. This is to prevent image interference and noise in those electrical appliances. (Noise may be generated depending on the conditions under which the electric wave is generated, even if 1 meter is kept.)

13.3 Installation procedures for fresh air intake duct connection

Preparing the connection hole

- Cut off the knockout hole on the side plate with a nipper.
- Cut the inner insulation of the hole portion with a cutter.

Placing the insulation

- Put the insulation tightly around the hole of the unit as shown. The ends of the side plate and the inner insulation must be completely adhered without leaving any clearance along the circumference of the hole. Make sure the inner surface of insulation tightly contacts the inner insulation edge and the side plate. (refer to fig.5)

13.4 Install the Main Body

A. The existing ceiling (to be horizontal)

a. Cut a quadrangular hole of 880×880mm in the ceiling according to the shape of the installation paper board.

- The center of the hole should be at the same position of that of the air conditioner body.
- Determine the lengths and outlets of the connecting pipe, drain pipe and cables.
- To balance the ceiling and to avoid vibration, please enforce the ceiling when necessary.

b. Select the position of installation hooks according to the hook holes on the installation board.

- Drill four holes of Ø12mm, 50~55mm deep at the selected positions on the ceiling. Then embed the expansible hooks (fittings).

- Face the concave side of the installation hooks toward the expansible hooks. Determine the length of the installation hooks from the height of ceiling, and then cut off the unnecessary part.
- If the ceiling is extremely high, please determine the length of the installation hook according to facts.

c. Adjust the hexangular nuts on the four installation hooks evenly, to ensure the balance of the body.

- If the drainpipe is awry, leakage will be caused by the malfunction of the water-level switch.
- Adjust the position to ensure the gaps between the body and the four sides of ceiling are even. The body's lower part should sink into the ceiling for 10~12 mm (refer to fig.6).
- In general, L is half of the screw length of the installation hook. (refer to fig.6)
- Locate the air conditioner firmly by wrenching the nuts after having adjusted the body's position well. (refer to fig.7)

B. New built houses and ceilings

a. In the case of new built house, the hook can be embedded in advance (refer to the A.b mentioned above). But it should be strong enough to bear the indoor unit and will not become loose because of concrete shrinking.

b. After installing the body, please fasten the installation paper board onto the air conditioner with bolts (M6*12) to determine in advance the sizes and positions of the hole opening on ceiling. (refer to fig.8)

- Please first guarantee the flatness and horizontal of ceiling when installing it.
- Refer to the A.a mentioned above for others.

c. Refer to the A.c mentioned above for installation.

d. Remove the installation paper board.

Caution:

After installing the body, the four bolts(M6x12)must be fastened to the air conditioner onto ensure the body is grounded well.

FIGURES 1

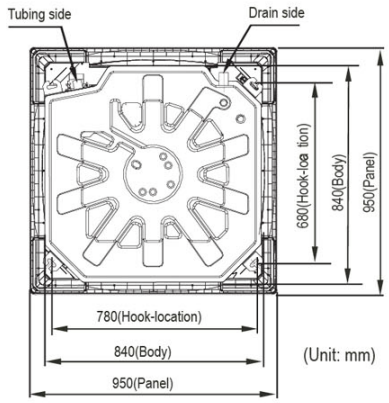


fig.1

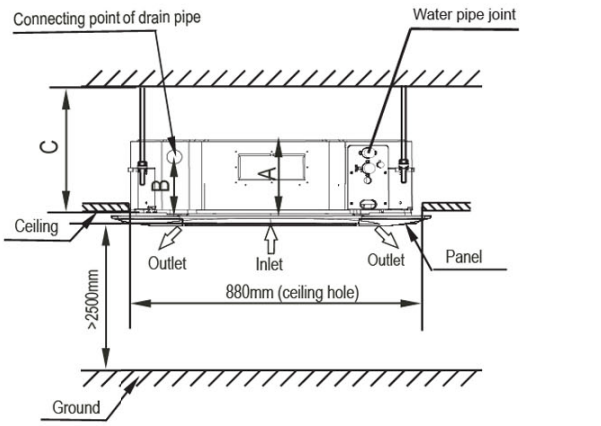


fig.2

Table 1 mm

MODEL	A	B	C
12.5	230	170	>260
16/20	300	190	>330

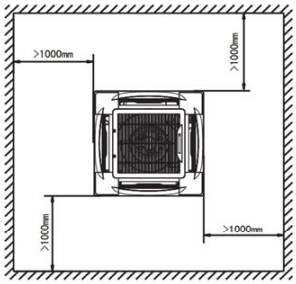


fig.3

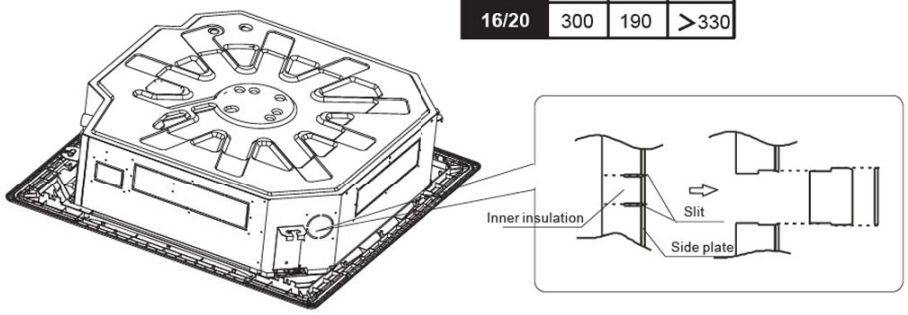


fig.4

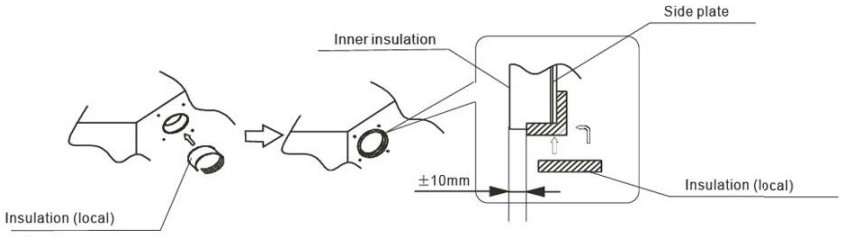


fig.5

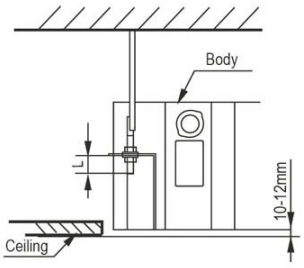


fig.6

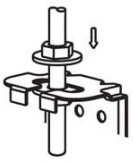


fig.7

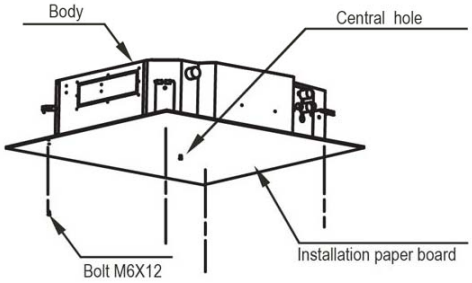


fig.8



fig.9

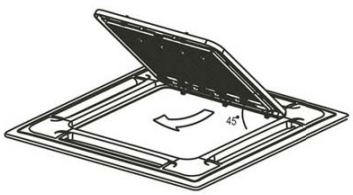


fig.10

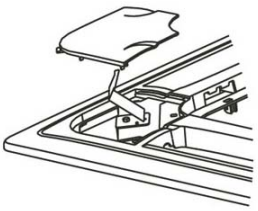
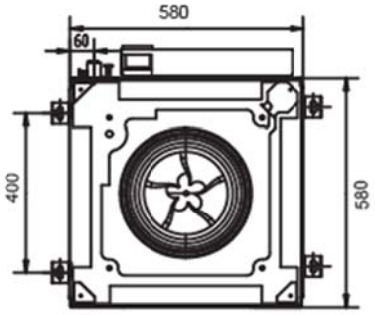
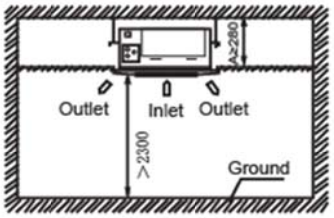


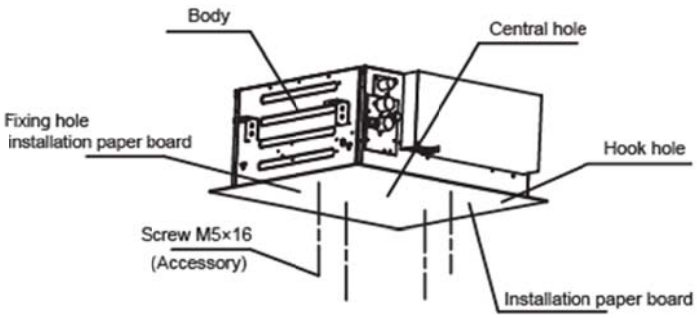
fig.11

FIGURES 2

Installation sketch for slim four-way cassette

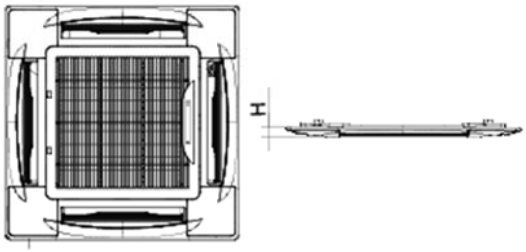




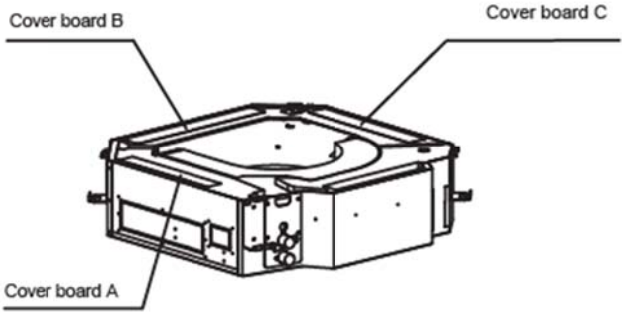


Height of the front panel:

Type	H(mm)
Four-way cassette	46
Slim four-way cassette	20



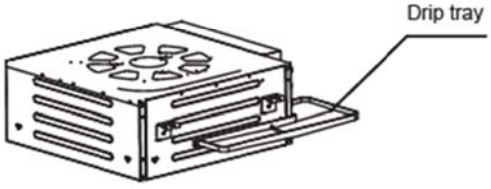
FIGURES 3



Name	Model
Cover board A	CE-FP-12.5KBM-Z-D.2
Cover board B	CE-FP-12.5KBM-Z-D.3
Cover board C	CE-FP-12.5KBM-Z-D.4

Note: the cover board is only owned by four-way cassette type, not for slim four-way cassette type.





Type	Model
300/400/450/500	CE-FP-8KBM-Z-D.1
600/750/850/950/1200/1500	CE-FP-12.5KBM-Z-D.5

Note: the cover boards and the drip tray are accessories just for the customers to choose.

13.5 Install the Panel

Caution:

Never put the panel face down on floor or against the wall, or on bulgy objects.

Never crash or strike it.

(1) Remove the air inlet grill.

a. Slide two grid switches toward the middle at the same time, and then pull them up. (Refer to fig. 9)

b. Draw the grid up to an angle of about 45o, and remove it. (Refer to fig. 10)

(2) Remove the installation covers at the four corners.

Wrench off the bolts, loose the rope of the installation covers, and remove them. (Refer to fig. 11)

(3) Install the panel

a. Align the swing motor on the panel to the tubing joints of the body properly.

b. Fix hooks of the panel at swing motor and its opposite sides to the hooks of corresponding water receiver. Then hang the other two panel hooks onto corresponding hangers of the body.

Cautions:

Do not coil the wiring of the swing motor into the seal sponge.

c. Adjust the four panel hook screws to keep the panel horizontal, and screw them up to the ceiling evenly.

d. Regulate the panel in the direction of the arrow slightly to fit the panel's center to the center of the ceiling's opening. Guarantee that hooks of four corners are fixed well.

e. Keep fastening the screws under the panel hooks, until the thickness of the sponge between the body and the panel's outlet has been reduced to about 4~6mm. The edge of the panel should contact with the ceiling well.

If the gap between the panel and ceiling still exists after fastening the screws, the height of the indoor unit should be modified again.

You can modify the height of the indoor unit through the openings on the panel's four corners; if the lift of the indoor unit and the drainpipe is not influenced.

(4) Hang the air-in grid to the panel, and then connect the lead terminator of the swing motor and that of the control box with corresponding terminators on the body respectively.

(5) Relocate the air-in grid in the procedure of reversed order.

(6) Relocate the installation cover.

a. Fasten the rope of installation cover on the bolt of the installation cover.

b. Press the installation cover into the panel slightly.

13.6 Connect the Drain Pipe

Install the drainpipe of the indoor unit

- The drainpipe can use PVC pipe (external diameter about 37～39mm, inner diameter is 32mm).
- Joint drainpipe connector to the end side of water pumping pipe, and fix drainpipe together with water outflow pipe and thermal insulation tube by clasp of water outflow pipe (attached).

Caution: Don’t use forcing strength to crack the water-pumping pipe.

- Water-pumping pipe and drainpipe from main body must be wrapped by insulation tube evenly, and bound by tighten band for obstructing air getting in and coagulation.
- Prevent from water backflow into unit inside during shutdown, the drain pipe shall place down side and drain water to outdoor (drain side), the gradient of the drain pipe should be higher than (1/100), without salient and water remain.(Refer to Fig.6-1 a)
- When connecting drainpipe, don’t drag the pipe that would pull the main unit. For this, please arrange bearing points every 0.8 to 1.0 meter to avoid pipe be bended (See Fig.6-1 b).

- When connect a lengthen drainpipe, apply protective tube to wrap its indoor parts for ensuring the lengthen part connected tightly.
- In case the drainpipe outlet is higher than pumping connective pipe of the main body, the drainpipe must be arranged upwards vertically by using connective assembly of the water outlet for vertical bending, and the height of the drainpipe shall set to the defrosting pan surface no more than 1000mm, otherwise, too much backflow while shutdown would leads to overflow (Refer to Fig.6-2).
- Base on the actual requirement to bend piping, and use connective assembly of water outlet in terminal box for pipe layout.

Caution: The joints in drain system must be sealed to avoid water leakage.

- The height from floor to the end of drainpipe or the bottom of drain slot must more than 50 mm. Don't immerse the end of drainpipe or the bottom of drain slot into water. When drain condensate liquid to raceway, please bend the drainpipe to a U-sharped hydroseal for avoiding stench transmitted by drainpipe to indoor.

Note: All the pictures in this manual are for explanation purpose only. They may be slightly different from the air conditioner you purchased (depend on model).The actual shape shall prevail.

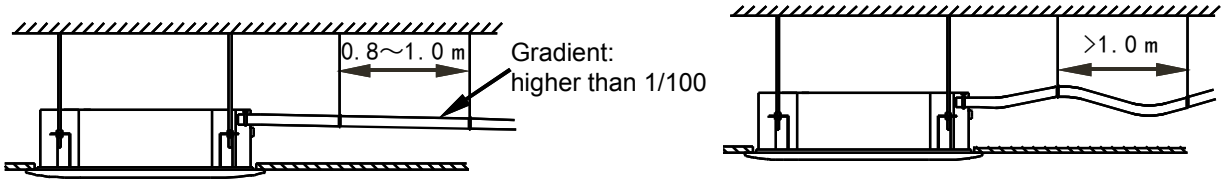


Fig.6-1

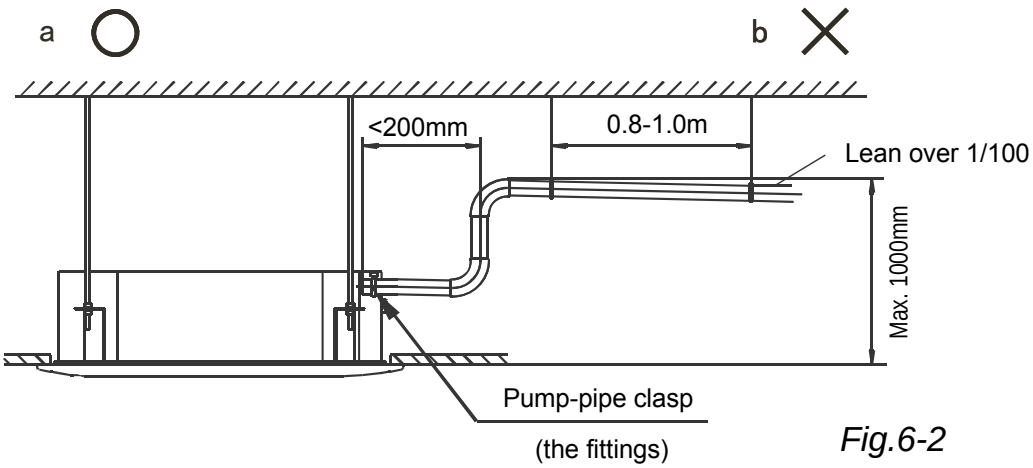


Fig.6-2

Drainage test

- Check whether the drainpipe is unhindered
- New built house should have this test done before paving the ceiling.

1. Remove the test cover, and stow water of about 2000ml to the water receiver through the stow tube.
2. Turn on the power, and operate the air conditioner under the "COOLING" mode. Listen to the sound of the drain pump. Check whether the water is discharged well (a lag of 1min is allowed before discharging, according to the length of the drain pipe), and check whether water leaks from the joints.

Cautions: If there is any malfunction, please resolve it immediately.

3. Stop the air conditioner for three minutes, check if everything is ok. If the drain hose is located unreasonable, water overflow will cause the Alarm indicator lamp flashing (For both cooling and heating type or cooling only type), even the water leak out from the water receiver.
4. Check the drain pump whether drain water immediately when alarm sound for the high water lever. If

the water lever can't come down below to the limited water lever, the air conditioner will stop. Restart it until turn off the power and drain off all the water.

5. Turn off the power, drain the water away.

- The drain plug is used to empty the water-receiver for maintenance of the air conditioner. Please stuff it imposition at all times during operation to avoid leakage.

13.7 Wiring

Caution:

- The air conditioner should use separate power supply with rated voltage.
- The external power supply to the air conditioner should have ground wiring, which is linked to the ground wiring of the indoor and outdoor unit.
- The wiring work should be done by qualified persons according to circuit drawing.
- An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device(RCD)with the rating of above 10mA shall be incorporated in the fixed wiring according to the national rule.
- The appliance shall be installed in accordance with national wiring regulations.
- Be sure to locate the power wiring and the signal wring well to avoid cross-disturbance.
- Do not turn on the power until you have checked carefully after wiring.

Note: Remark per EMC Directive 2004/108/EC for to prevent flicker impressions during the start of the compressor (technical process), following installation conditions do apply.

1. The power connection for the air conditioner has to be done at the main power distribution. The distribution has to be of a low impedance, normally the required impedance reaches at a 32 A fusing point.
2. No other equipment has to be connected with this power line.
3. For detailed installation acceptance please refer to your power supplier, if restrictions do apply for products like washing machines, air conditioners or electrical ovens.
4. For power details of the air conditioner refer to the rating plate of the product.
5. For any question contact your local dealer.

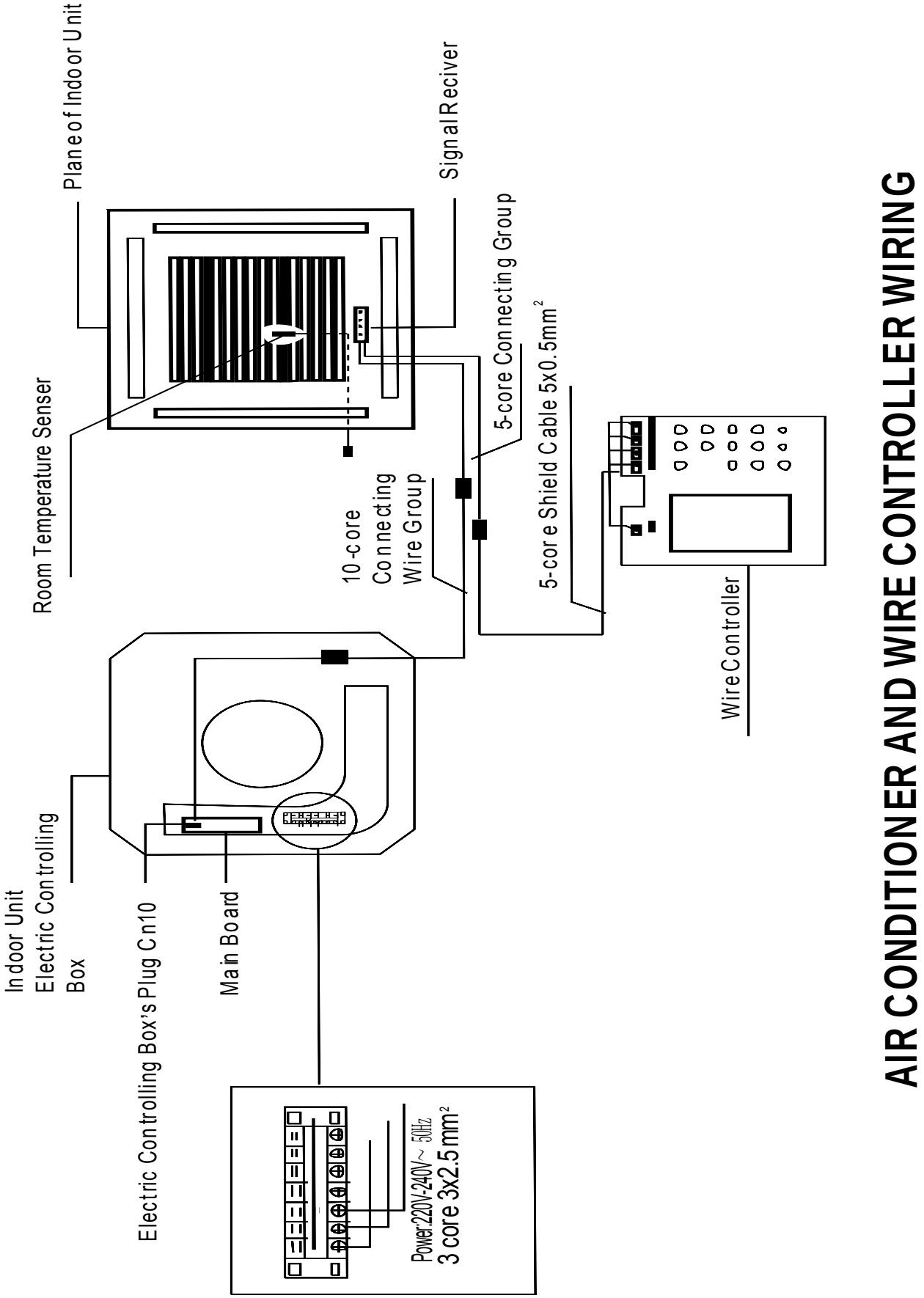
13.7.1 Connect the cable

- Dissemble the bolts from the cover.(If there isn't a cover on the outdoor unit, disassemble the bolts from the maintenance board, and pull it in the direction of the arrow to remove the protection board.)
- Connect the connective cables to the terminals as identified with their respective mached numbers on the terminal block of indoor and outdoor units.
- Re-install the cover or the protection board.

Table 7-1

AIR FLOW(m3/h)		510~2550
POWER	PHASE	1-phase
	FREQUENCY AND VOLT	220-240V~ 50Hz
CIRCUIT BREAKER/FUSE(A)		15/15
INDOOR UNIT POWER WIRING(mm2)	BELOW 20M	Twisted pairwire 2.5mm2
	BELOW 50M	Twisted pairwire 2.5mm2
GROUND WIRING(mm2)		2.5

13.7.2 Wiring figure



Note: If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

13.8 Test operation

- The test operation must be carried out after the entire installation has been completed.
- Please confirm the following points before the test operation:

The indoor unit and outdoor unit are installed properly.
Tubing and wiring are correctly completed.
The water pipe system is leakage-checked. The drainage is unimpeded.
The heating insulation works well.
The ground wiring is connected correctly.
The length of the tubing has been recorded.
The power voltage fits the rated voltage of the air conditioner.
There is no obstacle at the outlet and inlet of the outdoor and indoor units.
The air conditioner is pre-heated by turning on the power.

- According to the user's requirement, install the remote controller frame where the remote controller's signal can reach the indoor unit smoothly.
- Test operation

Set the air conditioner under the mode of "COOLING" with the remote controller, and check the following points. If there is any malfunction, please resolve it according to the chapter "Troubleshooting" in the "Owner's Manual".

a. Whether the switch on the remote controller works well.
b. Whether the buttons on the remote controller works well.
c. Whether the air flow louver moves normally.
d. Whether the room temperature is adjusted well.
e. Whether the indicator lights normally.
f. Whether the temporary buttons works well.
g. Whether the drainage is normal.
h. Whether there is vibration or abnormal noise during operation.
I. Whether the air conditioner heats well in the case of the HEATING/COOLING type.

Caution: A protection feature prevents the air conditioner from being activated for approximately 3 minutes when it is restarted immediately after shut off.