Библиотека СОК

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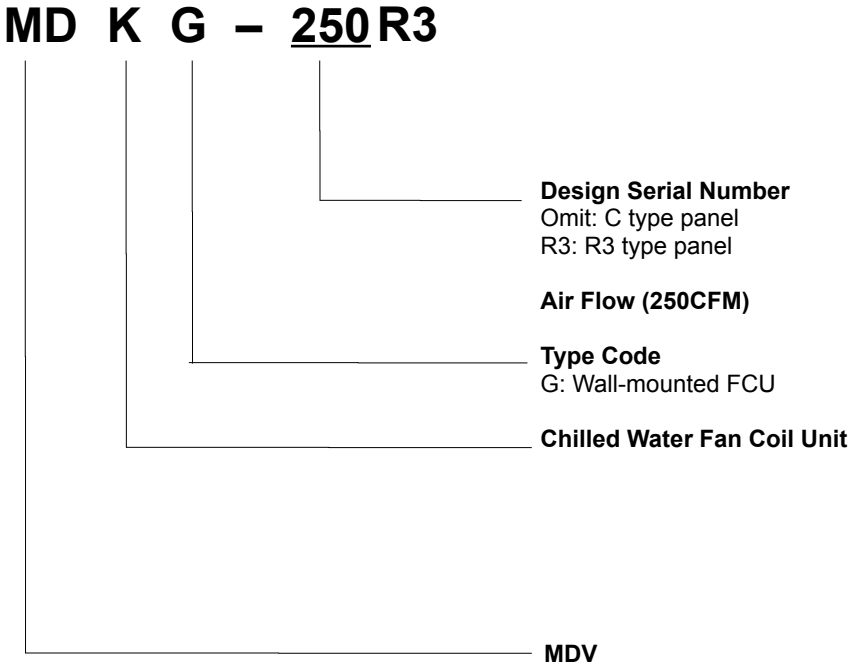
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1. Introduction

Fan coil unit is a kind of compound device which assemble fan and heat-exchang coil 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 unit has concealed type and exposed type. A cooling (heating) supply system usually consists of fan coil terminals and chilled water system (heated water system).

MDV ® 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

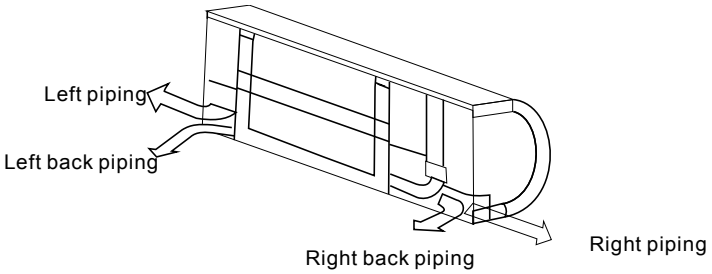
Model	Type	Air volume (CFM)	Power supply
MDKG-250R3	Wall mounted	250	220~240V-1Ph-50Hz
MDKG-300R3		300	
MDKG-400R3		400	
MDKG-500R3		500	
MDKG-600R3		600	

4. External Appearance

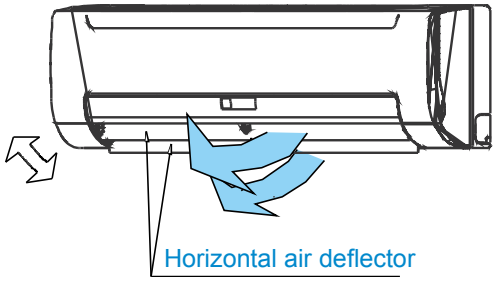


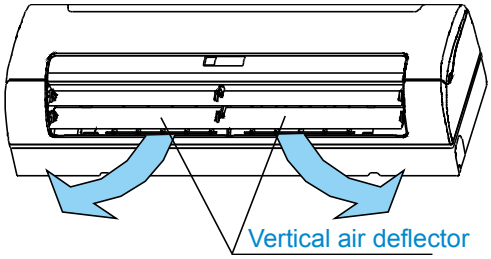
5. Features

- New panel supplies more choice for customs.
- Multi-connection outlet pipe method: left/right/rear, more flexible for installation.

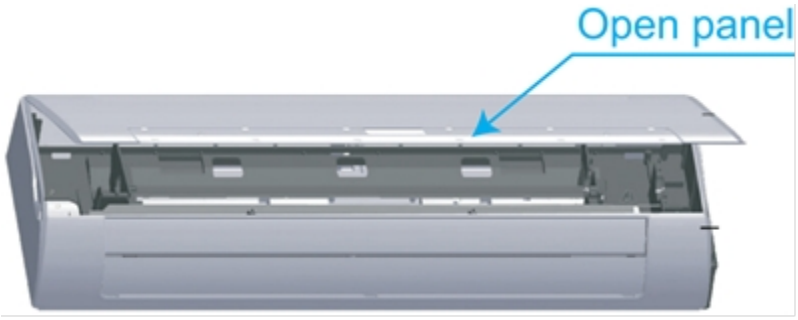


- Wind direction adjustment can be in horizontal and vertical way for auto swing louver





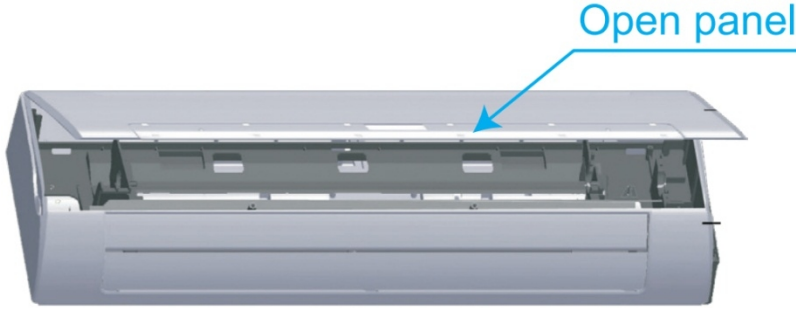
- Built-in 3-way electromagnetic valve.
- Easy maintenance has been realized as the front panel can be removed for easy access.



- Remote controller with LCD display is standard, wired controller and central controller are optional.
- Four-speed motor with super high speed reserved for more choice.
- Eurovent certified performance.

You can get the eurovent information of our products from: http://www.eurovent-certification.com

EUROVENT
CERTIFIED PEAFORMANCE



6. Specifications

Model MDKG-				250R3	300R3	400R3
Air flow		H/M/L	m^3/h	425/360/320	510/430/380	680/580/510
		H/M/L	CFM	250/210/190	300/250/220	400/340/300
Cooling	Capacity	H/M/L	kW	2.63/2.41/2.16	2.97/2.47/2.12	3.28/2.83/2.41
	Water flow rate	H	l/h	452	511	564
	Water pressure drop	H	kPa	29.4	35.6	43.5
Heating	Capacity	H/M/L	kW	3.36/3.1/2.79	3.91/3.26/2.77	4.37/3.73/3.17
	Water pressure drop	H	kPa	27.3	32.9	40.8
Power supply			V/ph/Hz	220-240/1/50		
Power input		H	W	24	37	40
Sound pressure level		H/M/L	dB(A)	30/24/20	35/29/24	37/31/26
Fan motor	Type			Low noise 4-speed fan motor		
	Quantity			1		
Fan	Type			Cross-flow fan		
	Quantity			1		
Coil	Row			2		
	Max. Working pressure		Mpa	1.6		
	Diameter		mm	Φ7		
Body	Dimensions	W×H×D	mm	915×230×290		
	Net weight		kg	13	13	13.3
	Packing	W×H×D	mm	1020×315×390		
	Gross weight		kg	16.3	16.3	16.7
Pipe connection	Water inlet/outlet pipe		Inch	G3/4"		
	Drain pipe		mm	ODΦ20		
Controller				R51/E (standard)		

Note:

1. H: high speed; M: medium speed; L: low speed
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 semi-anechoic test room.
4. Hot water temperature cannot be ＞75°C.

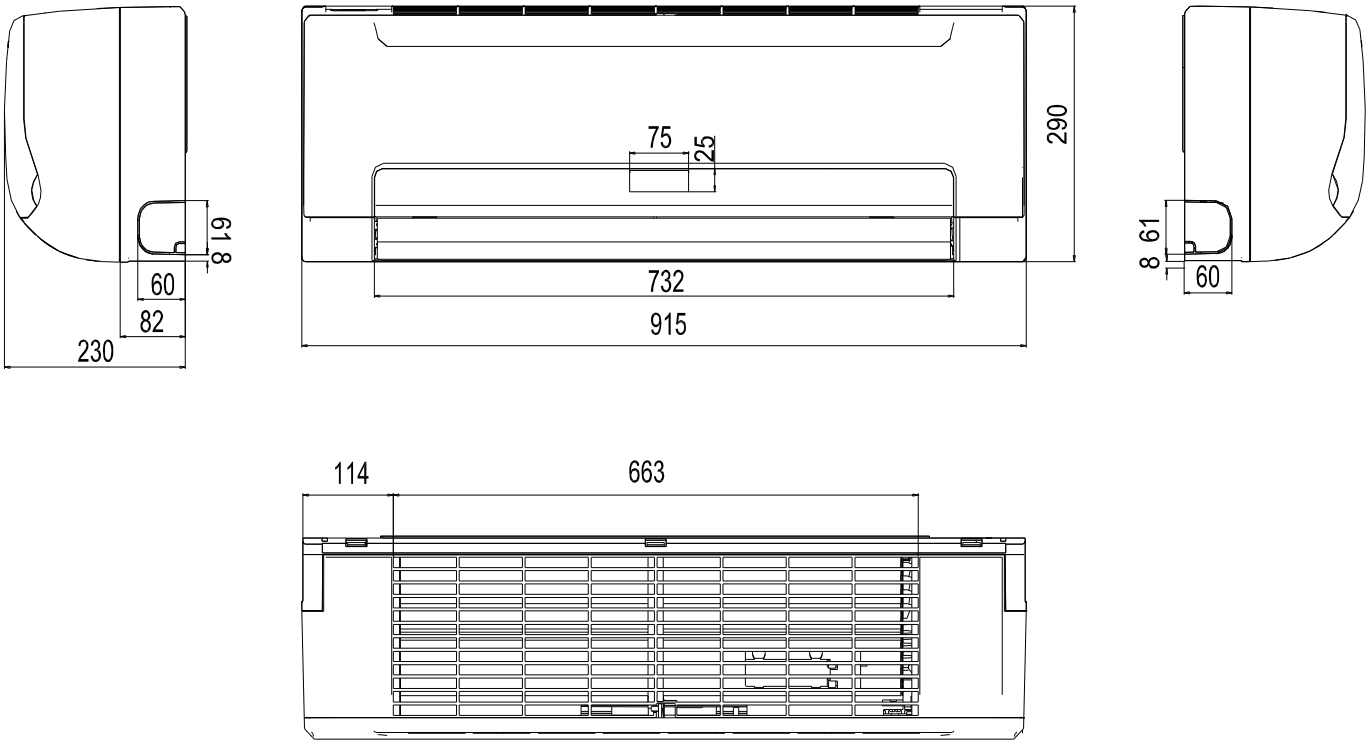
Model MDKG-				500R3	600R3
Air flow		H/M/L	m^3/h	850/720/640	1020/870/770
		H/M/L	CFM	500/420/380	600/510/450
Cooling	Capacity	H/M/L	kW	4.25/3.85/3.32	5/4.47/3.97
	Water flow rate	H	l/h	731	860
	Water pressure drop	H	kPa	31.8	42.5
Heating	Capacity	H/M/L	kW	5.81/5.17/4.43	6.7/6/5.28
	Water pressure drop	H	kPa	30.2	39.7
Power supply			V/ph/Hz	220-240/1/50	
Power input		H	W	50	66
Sound pressure level		H/M/L	dB(A)	39/33/28	40/34/29
Fan motor	Type			Low noise 4-speed fan motor	
	Quantity			1	
Fan	Type			Cross-flow fan	
	Quantity			1	
Coil	Row			2	
	Max. Working pressure		Mpa	1.6	
	Diameter		mm	Φ7	
Body	Dimensions	W×H×D	mm	1072×230×315	
	Net weight		kg	15.8	
	Packing	W×H×D	mm	1180×315×415	
	Gross weight		kg	19.4	
Pipe connection	Water inlet/outlet pipe		Inch	G3/4"	
	Drain pipe		mm	ODΦ20	
Controller				R51/E (standard)	

Note:

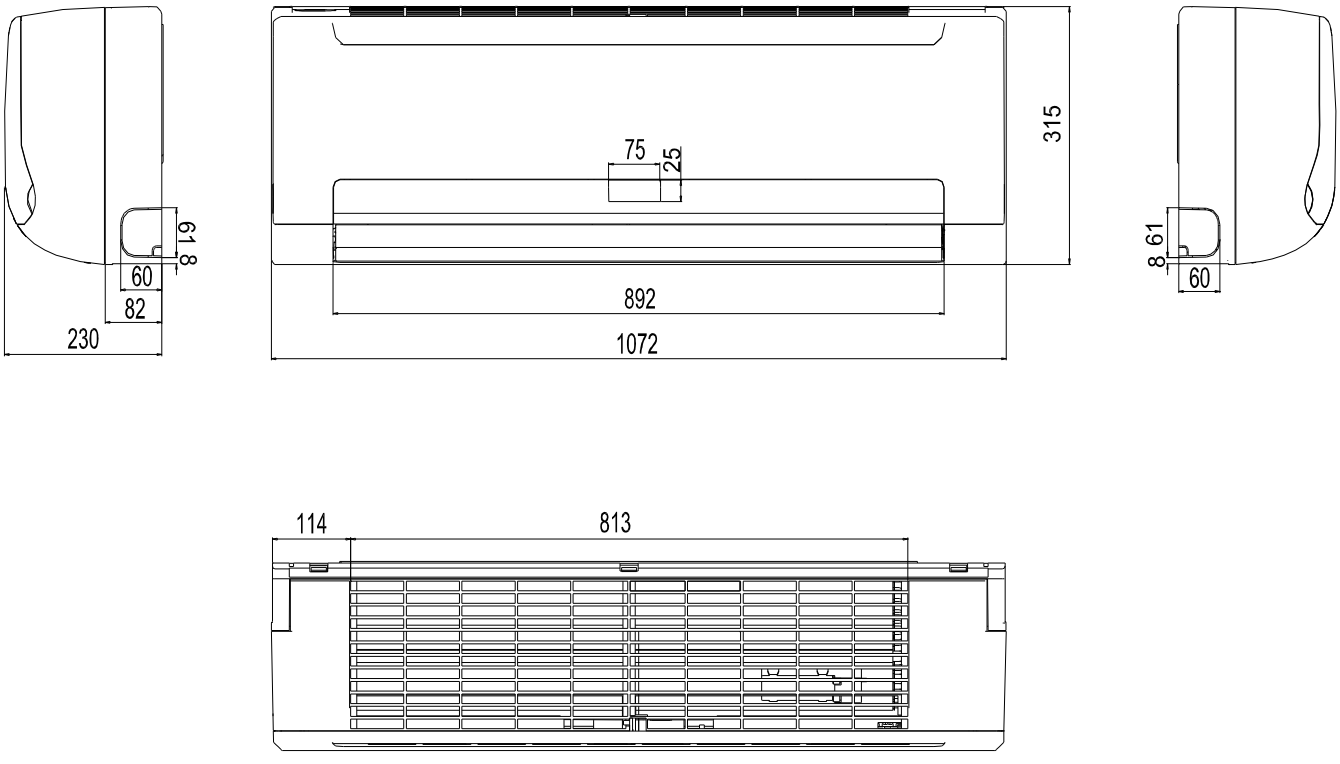
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7. Dimension

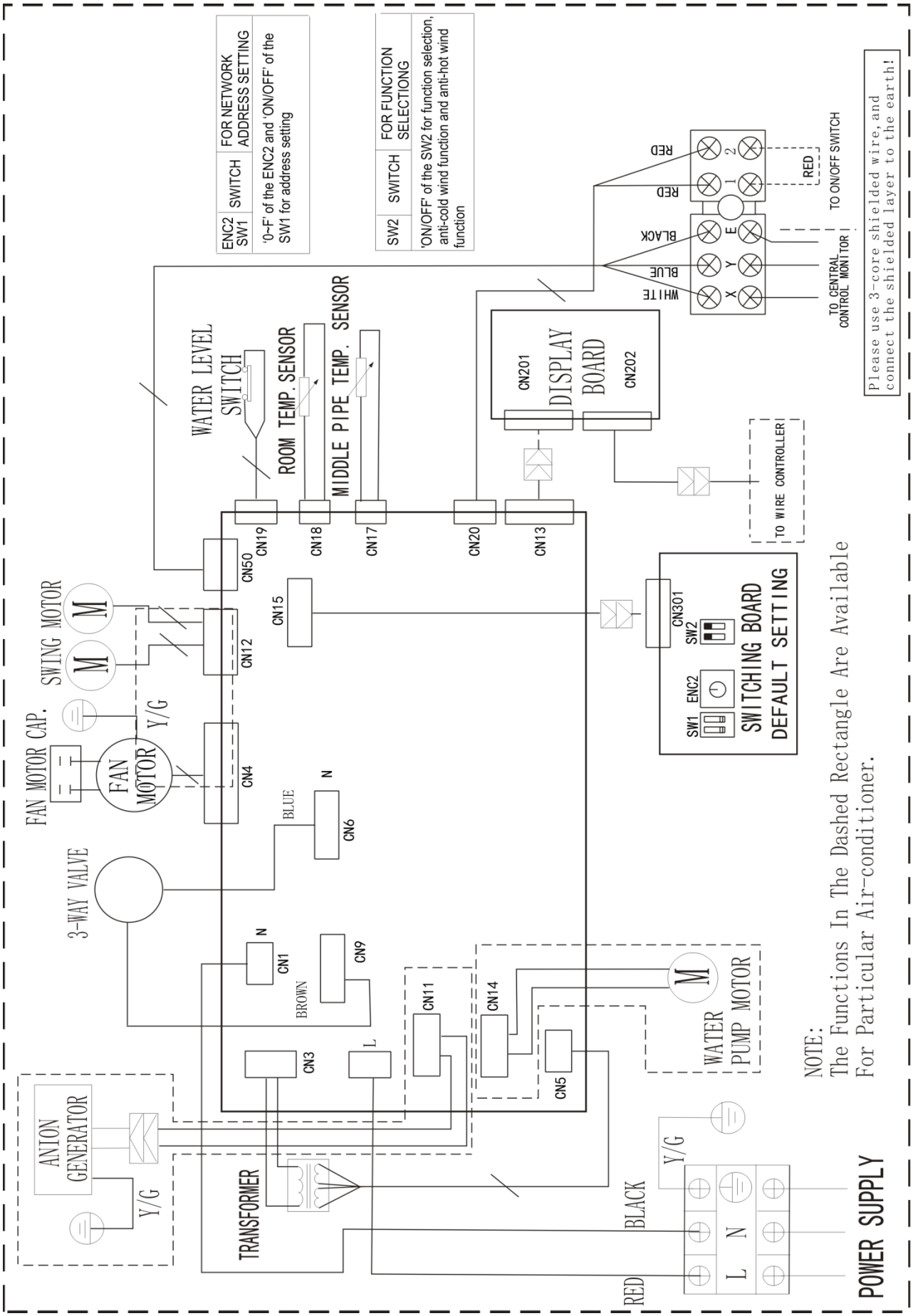
MDKG-250R3 MDKG-300R3 MDKG-400R3



MDKG-500R3 MDKG-600R3



8. Wiring Diagrams



10. Capacity Tables

Cooling Capacity:

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

DB: Dry Bulb 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)

MDKG-250R3																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	2.17	1.58	0.62	55.8	3.35	2.02	0.96	132.6	3.28	2.11	0.94	127.2	3.67	1.92	1.05	158.7	4.93	2.39	1.41	287.4
	4	2.05	1.49	0.44	27.8	3.22	1.96	0.69	68.9	3.17	2.05	0.68	66.7	3.52	1.86	0.76	82.4	4.78	2.32	1.03	151.9
	5	1.89	1.43	0.33	15.2	3.08	1.89	0.53	40.4	3.02	1.98	0.52	38.8	3.39	2.93	0.58	48.7	4.63	2.28	0.80	91.1
	6	1.73	1.37	0.25	8.8	2.94	1.84	0.42	25.6	2.89	1.91	0.41	24.6	3.24	1.72	0.46	30.9	4.52	2.20	0.65	60.2
	7	1.55	1.28	0.19	5.2	2.80	1.75	0.34	17.0	2.74	1.85	0.34	16.2	3.10	1.65	0.38	20.8	4.36	2.13	0.54	41.3
6	3	1.97	1.49	0.56	45.6	3.16	1.94	0.91	118.0	3.09	2.02	0.89	112.7	3.48	1.84	1.00	143.0	4.74	2.32	1.36	265.7
	4	1.83	1.42	0.39	22.1	3.04	1.87	0.65	61.2	2.96	1.95	0.64	58.3	3.34	1.78	0.72	74.1	4.59	2.24	0.99	140.0
	5	1.69	1.35	0.29	12.1	2.89	1.80	0.50	35.5	2.83	1.90	0.49	34.1	3.21	1.71	0.55	43.7	4.44	2.16	0.76	83.8
	6	1.51	1.29	0.22	6.8	2.75	1.75	0.39	22.3	2.69	1.83	0.39	21.3	3.05	1.63	0.44	27.4	4.33	2.09	0.62	55.2
	7	1.33	1.20	0.16	3.8	2.61	1.67	0.32	14.7	2.54	1.78	0.31	14.0	2.91	1.56	0.36	18.4	4.17	2.05	0.51	37.8
7	3	1.76	1.40	0.50	36.5	2.95	1.84	0.85	102.9	2.89	1.94	0.83	98.5	3.28	1.75	0.94	126.6	4.52	2.20	1.29	240.8
	4	1.61	1.34	0.35	17.3	2.83	1.78	0.61	53.2	2.76	1.87	0.59	50.4	3.15	1.69	0.68	65.7	4.40	2.16	0.95	128.7
	5	1.46	1.28	0.25	9.0	2.69	1.72	0.46	30.7	2.63	1.81	0.45	29.4	2.99	1.62	0.52	38.1	4.25	2.09	0.73	76.8
	6	1.28	1.21	0.18	4.9	2.55	1.67	0.36	19.1	2.50	1.75	0.36	18.5	2.86	1.55	0.41	24.1	4.14	2.01	0.59	50.5
	7	1.11	1.11	0.14	2.7	2.41	1.59	0.30	12.6	2.33	1.69	0.29	11.8	2.71	1.48	0.33	15.9	3.98	1.94	0.49	34.4
8	3	1.54	1.32	0.44	28.0	2.75	1.76	0.79	89.4	2.69	1.85	0.77	85.2	3.08	1.65	0.88	111.8	4.33	2.13	1.24	221.0
	4	1.39	1.28	0.30	12.8	2.63	1.70	0.57	45.9	2.55	1.81	0.55	43.2	2.93	1.60	0.63	57.0	4.17	2.05	0.90	115.7
	5	1.23	1.20	0.21	6.4	2.50	1.63	0.43	26.5	2.42	1.73	0.42	24.9	2.80	1.54	0.48	33.4	4.06	1.97	0.70	70.1
	6	1.10	1.10	0.16	3.6	2.33	1.58	0.33	16.1	2.29	1.67	0.33	15.5	2.66	1.46	0.38	21.0	3.91	1.94	0.56	45.1
	7	0.96	0.96	0.12	2.0	2.20	1.51	0.27	10.5	2.13	1.61	0.26	9.8	2.49	1.40	0.31	13.5	3.77	1.86	0.46	30.9
9	3	1.32	1.25	0.38	20.5	2.56	1.69	0.73	77.2	2.49	1.77	0.71	73.0	2.87	1.57	0.82	97.4	4.14	2.05	1.19	202.0
	4	1.20	1.20	0.26	9.5	2.41	1.62	0.52	38.7	2.34	1.72	0.50	36.4	2.72	1.51	0.59	49.3	3.98	1.97	0.86	105.5
	5	1.10	1.07	0.19	5.2	2.28	1.56	0.39	22.2	2.21	1.66	0.38	20.8	2.59	1.45	0.45	28.6	3.87	1.90	0.67	63.7
	6	0.97	0.97	0.14	2.8	2.13	1.50	0.31	13.4	2.06	1.61	0.29	12.5	2.46	1.38	0.35	17.8	3.71	1.86	0.53	40.6
	7	0.79	0.79	0.10	1.4	1.97	1.43	0.24	8.4	1.91	1.53	0.23	7.9	2.28	1.32	0.28	11.3	3.58	1.79	0.44	27.8
10	3	1.16	1.16	0.33	15.9	2.35	1.60	0.67	64.9	2.25	1.70	0.65	59.8	2.67	1.49	0.77	84.3	3.95	1.94	1.13	183.9
	4	1.07	1.07	0.23	7.6	2.20	1.54	0.47	32.2	2.13	1.65	0.46	30.0	2.52	1.43	0.54	42.0	3.78	1.90	0.81	95.1
	5	0.95	0.95	0.16	3.9	2.06	1.49	0.35	18.0	1.97	1.59	0.34	16.5	2.38	1.37	0.41	24.1	3.67	1.83	0.63	57.1
	6	0.82	0.82	0.12	2.0	1.92	1.42	0.27	10.8	1.83	1.53	0.26	9.9	2.23	1.30	0.32	14.6	3.51	1.78	0.50	36.3
	7	0.52	0.52	0.06	0.6	1.75	1.36	0.21	6.6	1.67	1.48	0.20	6.0	2.08	1.23	0.26	9.4	3.35	1.71	0.41	24.4
11	3	1.02	1.02	0.29	12.4	2.12	1.53	0.61	52.9	2.04	1.62	0.59	49.2	2.46	1.41	0.70	71.2	3.72	1.86	1.07	163.7
	4	0.94	0.94	0.20	5.8	1.98	1.47	0.43	26.2	1.91	1.56	0.41	24.1	2.32	1.35	0.50	35.7	3.57	1.81	0.77	84.7
	5	0.81	0.81	0.14	2.8	1.83	1.42	0.32	14.3	1.75	1.53	0.30	13.0	2.17	1.29	0.37	20.0	3.46	1.75	0.59	50.8
	6	0.65	0.65	0.09	1.2	1.67	1.36	0.24	8.2	1.61	1.46	0.23	7.6	2.01	1.22	0.29	11.9	3.30	1.70	0.47	32.1
	7	0.44	0.44	0.05	0.4	1.49	1.31	0.18	4.8	1.43	1.43	0.18	4.5	1.85	1.15	0.23	7.4	3.15	1.63	0.39	21.5
12	3	0.90	0.90	0.26	9.6	1.89	1.45	0.54	42.3	1.80	1.57	0.52	38.4	2.23	1.33	0.64	58.8	3.51	1.79	1.01	145.8
	4	0.80	0.80	0.17	4.2	1.75	1.40	0.38	20.4	1.67	1.51	0.36	18.4	2.10	1.27	0.45	29.3	3.37	1.73	0.72	75.3
	5	0.69	0.69	0.12	2.0	1.60	1.35	0.28	10.9	1.52	1.46	0.26	9.8	1.95	1.21	0.33	16.1	3.24	1.67	0.56	44.5
	6	0.41	0.41	0.06	0.5	1.42	1.31	0.20	6.0	1.41	1.38	0.20	5.9	1.78	1.15	0.26	9.4	3.08	1.62	0.44	28.0
	7	0.34	0.34	0.04	0.3	1.26	1.26	0.15	3.4	1.30	1.30	0.16	3.7	1.62	1.08	0.20	5.7	2.93	1.56	0.36	18.6
13	3	0.78	0.78	0.22	7.1	1.65	1.39	0.47	32.3	1.56	1.51	0.45	28.7	2.01	1.26	0.58	47.8	3.29	1.72	0.94	127.8
	4	0.66	0.66	0.14	2.9	1.51	1.34	0.33	15.2	1.46	1.43	0.31	14.2	1.87	1.20	0.40	23.2	3.15	1.65	0.68	65.9
	5	0.48	0.48	0.08	1.0	1.35	1.32	0.23	7.8	1.37	1.37	0.23	7.9	1.72	1.14	0.30	12.6	3.01	1.59	0.52	38.5
	6	0.32	0.32	0.05	0.3	1.23	1.23	0.18	4.5	1.27	1.27	0.18	4.8	1.55	1.08	0.22	7.1	2.85	1.55	0.41	24.0
	7	0.24	0.24	0.03	0.1	1.12	1.12	0.14	2.7	1.17	1.17	0.14	3.0	1.36	1.02	0.17	4.0	2.71	1.48	0.33	15.9

Cooling capacity table

MDKG-300R3																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	2.46	1.78	0.70	67.6	3.78	2.28	1.08	160.5	3.71	2.38	1.06	154.1	4.14	2.17	1.19	192.1	5.57	2.70	1.60	348.0
	4	2.31	1.68	0.50	33.6	3.64	2.21	0.78	83.5	3.58	2.31	0.77	80.8	3.98	2.10	0.86	99.7	5.40	2.61	1.16	183.9
	5	2.13	1.61	0.37	18.4	3.48	2.13	0.60	48.9	3.41	2.24	0.59	47.0	3.82	3.30	0.66	59.0	5.23	2.57	0.90	110.3
	6	1.95	1.54	0.28	10.7	3.33	2.07	0.48	31.0	3.26	2.16	0.47	29.8	3.66	1.95	0.52	37.5	5.10	2.49	0.73	72.9
	7	1.75	1.44	0.21	6.3	3.16	1.98	0.39	20.6	3.09	2.09	0.38	19.7	3.50	1.87	0.43	25.2	4.93	2.40	0.61	50.0
6	3	2.22	1.68	0.64	55.3	3.57	2.19	1.02	142.9	3.49	2.28	1.00	136.4	3.93	2.07	1.13	173.1	5.36	2.61	1.54	321.7
	4	2.06	1.60	0.44	26.8	3.43	2.11	0.74	74.1	3.35	2.21	0.72	70.6	3.77	2.01	0.81	89.7	5.19	2.53	1.11	169.6
	5	1.90	1.53	0.33	14.6	3.26	2.04	0.56	42.9	3.20	2.14	0.55	41.3	3.62	1.93	0.62	52.9	5.01	2.44	0.86	101.5
	6	1.71	1.46	0.25	8.2	3.11	1.98	0.45	27.1	3.03	2.06	0.43	25.8	3.44	1.84	0.49	33.2	4.89	2.36	0.70	66.9
	7	1.50	1.35	0.18	4.7	2.94	1.89	0.36	17.9	2.87	2.01	0.35	17.0	3.29	1.77	0.40	22.2	4.71	2.31	0.58	45.8
7	3	1.98	1.58	0.57	44.1	3.33	2.08	0.96	124.6	3.26	2.19	0.93	119.2	3.70	1.97	1.06	153.4	5.10	2.49	1.46	291.6
	4	1.82	1.52	0.39	20.9	3.20	2.01	0.69	64.5	3.11	2.12	0.67	61.0	3.55	1.91	0.76	79.6	4.97	2.44	1.07	155.9
	5	1.65	1.44	0.28	10.9	3.03	1.94	0.52	37.2	2.97	2.04	0.51	35.6	3.38	1.83	0.58	46.1	4.80	2.36	0.83	93.0
	6	1.45	1.37	0.21	5.9	2.88	1.88	0.41	23.2	2.82	1.97	0.40	22.4	3.23	1.75	0.46	29.2	4.67	2.27	0.67	61.2
	7	1.26	1.26	0.15	3.2	2.72	1.80	0.33	15.3	2.63	1.91	0.32	14.3	3.06	1.68	0.38	19.2	4.50	2.19	0.55	41.7
8	3	1.74	1.50	0.50	33.9	3.11	1.99	0.89	108.2	3.03	2.09	0.87	103.2	3.48	1.86	1.00	135.4	4.89	2.40	1.40	267.6
	4	1.57	1.45	0.34	15.5	2.97	1.92	0.64	55.6	2.88	2.04	0.62	52.3	3.31	1.81	0.71	69.0	4.71	2.31	1.01	140.1
	5	1.39	1.36	0.24	7.8	2.82	1.84	0.49	32.1	2.73	1.95	0.47	30.2	3.17	1.74	0.54	40.5	4.59	2.23	0.79	84.9
	6	1.25	1.25	0.18	4.4	2.64	1.79	0.38	19.5	2.58	1.89	0.37	18.7	3.01	1.65	0.43	25.4	4.41	2.19	0.63	54.6
	7	1.09	1.09	0.13	2.4	2.48	1.71	0.30	12.7	2.40	1.82	0.30	11.9	2.82	1.59	0.35	16.3	4.26	2.10	0.52	37.4
9	3	1.49	1.41	0.43	24.8	2.89	1.90	0.83	93.5	2.81	2.00	0.80	88.3	3.24	1.77	0.93	118.0	4.67	2.31	1.34	244.6
	4	1.35	1.35	0.29	11.5	2.73	1.83	0.59	46.9	2.64	1.94	0.57	44.1	3.08	1.71	0.66	59.7	4.50	2.23	0.97	127.7
	5	1.25	1.21	0.21	6.3	2.58	1.76	0.44	26.9	2.50	1.87	0.43	25.2	2.93	1.63	0.50	34.6	4.37	2.14	0.75	77.1
	6	1.09	1.09	0.16	3.3	2.41	1.69	0.35	16.3	2.32	1.81	0.33	15.1	2.77	1.56	0.40	21.5	4.19	2.10	0.60	49.1
	7	0.89	0.89	0.11	1.6	2.23	1.61	0.27	10.2	2.15	1.73	0.26	9.5	2.58	1.49	0.32	13.7	4.05	2.02	0.50	33.7
10	3	1.31	1.31	0.38	19.3	2.65	1.80	0.76	78.6	2.54	1.92	0.73	72.4	3.02	1.68	0.86	102.1	4.46	2.19	1.28	222.7
	4	1.20	1.20	0.26	9.1	2.49	1.74	0.53	39.0	2.40	1.86	0.52	36.3	2.84	1.62	0.61	50.9	4.27	2.14	0.92	115.1
	5	1.08	1.08	0.19	4.7	2.32	1.68	0.40	21.8	2.22	1.80	0.38	20.0	2.69	1.54	0.46	29.2	4.14	2.07	0.71	69.2
	6	0.92	0.92	0.13	2.4	2.16	1.61	0.31	13.1	2.07	1.73	0.30	12.0	2.52	1.47	0.36	17.7	3.96	2.01	0.57	44.0
	7	0.59	0.59	0.07	0.7	1.98	1.54	0.24	8.0	1.88	1.67	0.23	7.3	2.35	1.39	0.29	11.4	3.78	1.93	0.46	29.5
11	3	1.16	1.16	0.33	15.0	2.39	1.72	0.69	64.1	2.31	1.83	0.66	59.6	2.77	1.59	0.79	86.2	4.20	2.10	1.21	198.2
	4	1.06	1.06	0.23	7.1	2.24	1.66	0.48	31.7	2.15	1.77	0.46	29.2	2.62	1.53	0.56	43.2	4.03	2.05	0.87	102.6
	5	0.92	0.92	0.16	3.4	2.07	1.60	0.36	17.3	1.98	1.72	0.34	15.8	2.45	1.45	0.42	24.2	3.90	1.98	0.67	61.5
	6	0.73	0.73	0.10	1.5	1.89	1.53	0.27	10.0	1.81	1.65	0.26	9.2	2.27	1.38	0.33	14.5	3.72	1.92	0.53	38.9
	7	0.49	0.49	0.06	0.5	1.68	1.48	0.21	5.8	1.62	1.62	0.20	5.4	2.09	1.30	0.26	9.0	3.55	1.84	0.44	26.0
12	3	1.02	1.02	0.29	11.7	2.14	1.64	0.61	51.3	2.04	1.77	0.58	46.5	2.52	1.50	0.72	71.2	3.97	2.02	1.14	176.6
	4	0.90	0.90	0.19	5.1	1.98	1.59	0.43	24.7	1.88	1.71	0.40	22.3	2.37	1.44	0.51	35.4	3.80	1.96	0.82	91.1
	5	0.78	0.78	0.13	2.4	1.81	1.53	0.31	13.2	1.71	1.65	0.29	11.9	2.20	1.37	0.38	19.5	3.66	1.89	0.63	53.9
	6	0.47	0.47	0.07	0.6	1.61	1.48	0.23	7.2	1.59	1.56	0.23	7.1	2.01	1.29	0.29	11.4	3.48	1.83	0.50	33.9
	7	0.39	0.39	0.05	0.3	1.42	1.42	0.17	4.2	1.47	1.47	0.18	4.4	1.83	1.22	0.22	6.9	3.31	1.76	0.41	22.5
13	3	0.88	0.88	0.25	8.7	1.87	1.57	0.54	39.1	1.76	1.70	0.50	34.8	2.27	1.42	0.65	57.8	3.72	1.94	1.07	154.8
	4	0.75	0.75	0.16	3.5	1.71	1.51	0.37	18.4	1.65	1.62	0.35	17.2	2.11	1.35	0.45	28.0	3.56	1.87	0.76	79.8
	5	0.54	0.54	0.09	1.2	1.53	1.49	0.26	9.4	1.54	1.54	0.27	9.6	1.94	1.29	0.33	15.2	3.40	1.80	0.58	46.6
	6	0.36	0.36	0.05	0.4	1.39	1.39	0.20	5.4	1.44	1.44	0.21	5.8	1.75	1.22	0.25	8.6	3.22	1.75	0.46	29.1
	7	0.27	0.27	0.03	0.1	1.27	1.27	0.16	3.3	1.32	1.32	0.16	3.6	1.53	1.15	0.19	4.8	3.06	1.68	0.38	19.2

Cooling capacity table

MDKG-400R3																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	2.71	1.97	0.78	82.6	4.18	2.52	1.20	196.2	4.09	2.63	1.17	188.3	4.57	2.40	1.31	234.8	6.15	2.98	1.76	425.2
	4	2.55	1.86	0.55	41.1	4.02	2.44	0.86	102.0	3.95	2.55	0.85	98.7	4.39	2.32	0.94	121.9	5.96	2.89	1.28	224.7
	5	2.36	1.78	0.41	22.5	3.84	2.36	0.66	59.7	3.77	2.47	0.65	57.4	4.22	3.65	0.73	72.1	5.77	2.84	0.99	134.8
	6	2.15	1.70	0.31	13.0	3.67	2.29	0.53	37.9	3.60	2.39	0.52	36.4	4.04	2.15	0.58	45.8	5.63	2.75	0.81	89.1
	7	1.93	1.60	0.24	7.7	3.49	2.18	0.43	25.2	3.41	2.30	0.42	24.0	3.87	2.06	0.48	30.8	5.44	2.65	0.67	61.1
6	3	2.45	1.86	0.70	67.5	3.94	2.42	1.13	174.6	3.85	2.52	1.10	166.7	4.34	2.29	1.24	211.6	5.92	2.89	1.70	393.1
	4	2.28	1.77	0.49	32.7	3.79	2.33	0.81	90.6	3.70	2.44	0.79	86.3	4.17	2.22	0.90	109.6	5.73	2.79	1.23	207.2
	5	2.10	1.68	0.36	17.9	3.60	2.25	0.62	52.5	3.53	2.37	0.61	50.4	4.00	2.13	0.69	64.7	5.54	2.70	0.95	124.0
	6	1.89	1.61	0.27	10.0	3.43	2.18	0.49	33.1	3.35	2.28	0.48	31.5	3.80	2.04	0.54	40.6	5.40	2.60	0.77	81.7
	7	1.66	1.50	0.20	5.7	3.25	2.08	0.40	21.8	3.17	2.22	0.39	20.7	3.63	1.95	0.45	27.2	5.21	2.56	0.64	55.9
7	3	2.19	1.74	0.63	53.9	3.68	2.30	1.06	152.3	3.60	2.42	1.03	145.7	4.08	2.18	1.17	187.4	5.63	2.75	1.61	356.3
	4	2.01	1.68	0.43	25.6	3.53	2.22	0.76	78.8	3.44	2.34	0.74	74.6	3.92	2.11	0.84	97.3	5.49	2.70	1.18	190.4
	5	1.82	1.60	0.31	13.4	3.35	2.14	0.58	45.4	3.28	2.26	0.56	43.5	3.73	2.02	0.64	56.4	5.30	2.60	0.91	113.6
	6	1.60	1.51	0.23	7.2	3.18	2.08	0.46	28.3	3.12	2.18	0.45	27.3	3.56	1.93	0.51	35.7	5.16	2.51	0.74	74.7
	7	1.39	1.39	0.17	4.0	3.01	1.98	0.37	18.6	2.91	2.11	0.36	17.4	3.37	1.85	0.41	23.5	4.97	2.41	0.61	51.0
8	3	1.92	1.65	0.55	41.5	3.43	2.20	0.98	132.3	3.35	2.30	0.96	126.1	3.84	2.06	1.10	165.5	5.40	2.65	1.55	327.0
	4	1.73	1.60	0.37	19.0	3.28	2.13	0.71	68.0	3.18	2.25	0.68	63.9	3.65	2.00	0.79	84.3	5.21	2.56	1.12	171.2
	5	1.53	1.50	0.26	9.5	3.11	2.04	0.54	39.2	3.02	2.16	0.52	36.9	3.50	1.92	0.60	49.5	5.06	2.46	0.87	103.7
	6	1.38	1.38	0.20	5.3	2.91	1.97	0.42	23.8	2.85	2.08	0.41	22.9	3.32	1.83	0.48	31.0	4.88	2.41	0.70	66.7
	7	1.20	1.20	0.15	3.0	2.74	1.88	0.34	15.5	2.66	2.01	0.33	14.5	3.11	1.75	0.38	19.9	4.70	2.32	0.58	45.7
9	3	1.64	1.56	0.47	30.3	3.19	2.10	0.91	114.3	3.10	2.21	0.89	107.9	3.58	1.96	1.03	144.2	5.16	2.56	1.48	298.9
	4	1.49	1.49	0.32	14.0	3.01	2.03	0.65	57.2	2.92	2.14	0.63	53.9	3.40	1.89	0.73	73.0	4.97	2.46	1.07	156.0
	5	1.38	1.33	0.24	7.7	2.85	1.94	0.49	32.8	2.76	2.07	0.47	30.8	3.23	1.80	0.56	42.3	4.83	2.37	0.83	94.2
	6	1.21	1.21	0.17	4.1	2.66	1.87	0.38	19.9	2.57	2.00	0.37	18.5	3.06	1.72	0.44	26.3	4.62	2.31	0.66	60.0
	7	0.98	0.98	0.12	2.0	2.46	1.78	0.30	12.5	2.38	1.91	0.29	11.6	2.85	1.64	0.35	16.7	4.47	2.23	0.55	41.2
10	3	1.45	1.45	0.42	23.6	2.93	1.99	0.84	96.1	2.81	2.13	0.80	88.5	3.33	1.86	0.96	124.7	4.92	2.41	1.41	272.1
	4	1.33	1.33	0.29	11.2	2.75	1.92	0.59	47.6	2.65	2.05	0.57	44.4	3.14	1.78	0.67	62.2	4.72	2.37	1.01	140.7
	5	1.19	1.19	0.20	5.7	2.57	1.86	0.44	26.6	2.46	1.99	0.42	24.4	2.97	1.70	0.51	35.7	4.57	2.28	0.79	84.5
	6	1.02	1.02	0.15	2.9	2.39	1.77	0.34	16.0	2.28	1.91	0.33	14.6	2.78	1.62	0.40	21.7	4.37	2.22	0.63	53.7
	7	0.65	0.65	0.08	0.9	2.18	1.70	0.27	9.8	2.08	1.84	0.26	8.9	2.60	1.54	0.32	13.9	4.18	2.13	0.51	36.0
11	3	1.28	1.28	0.37	18.3	2.64	1.90	0.76	78.3	2.55	2.03	0.73	72.8	3.06	1.76	0.88	105.3	4.64	2.32	1.33	242.1
	4	1.17	1.17	0.25	8.6	2.48	1.84	0.53	38.7	2.38	1.95	0.51	35.7	2.89	1.68	0.62	52.8	4.45	2.26	0.96	125.3
	5	1.01	1.01	0.17	4.1	2.29	1.77	0.39	21.1	2.18	1.90	0.38	19.2	2.70	1.60	0.46	29.5	4.31	2.18	0.74	75.2
	6	0.80	0.80	0.12	1.8	2.08	1.69	0.30	12.2	2.00	1.82	0.29	11.3	2.51	1.52	0.36	17.7	4.11	2.13	0.59	47.5
	7	0.54	0.54	0.07	0.6	1.86	1.63	0.23	7.1	1.79	1.79	0.22	6.6	2.31	1.43	0.28	11.0	3.92	2.04	0.48	31.8
12	3	1.13	1.13	0.32	14.3	2.36	1.81	0.68	62.7	2.25	1.95	0.64	56.8	2.78	1.66	0.80	87.0	4.38	2.23	1.26	215.7
	4	0.99	0.99	0.21	6.2	2.19	1.75	0.47	30.2	2.08	1.89	0.45	27.3	2.62	1.59	0.56	43.3	4.20	2.16	0.90	111.3
	5	0.86	0.86	0.15	3.0	2.00	1.69	0.34	16.1	1.89	1.83	0.33	14.5	2.43	1.51	0.42	23.8	4.04	2.08	0.69	65.9
	6	0.52	0.52	0.07	0.7	1.77	1.63	0.25	8.8	1.76	1.72	0.25	8.7	2.22	1.43	0.32	13.9	3.84	2.03	0.55	41.5
	7	0.43	0.43	0.05	0.4	1.57	1.57	0.19	5.1	1.62	1.62	0.20	5.4	2.02	1.34	0.25	8.4	3.65	1.95	0.45	27.5
13	3	0.97	0.97	0.28	10.6	2.06	1.73	0.59	47.8	1.95	1.88	0.56	42.5	2.51	1.57	0.72	70.7	4.10	2.14	1.18	189.1
	4	0.83	0.83	0.18	4.3	1.89	1.67	0.41	22.5	1.82	1.79	0.39	21.0	2.33	1.49	0.50	34.3	3.93	2.06	0.84	97.5
	5	0.60	0.60	0.10	1.4	1.68	1.65	0.29	11.5	1.70	1.70	0.29	11.7	2.14	1.42	0.37	18.6	3.75	1.98	0.65	57.0
	6	0.40	0.40	0.06	0.4	1.53	1.53	0.22	6.6	1.59	1.59	0.23	7.1	1.94	1.34	0.28	10.5	3.56	1.93	0.51	35.6
	7	0.29	0.29	0.04	0.2	1.40	1.40	0.17	4.0	1.46	1.46	0.18	4.4	1.69	1.27	0.21	5.9	3.37	1.85	0.41	23.5

Cooling capacity table

MDKG-500R3																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	3.51	2.55	1.01	60.4	5.42	3.26	1.55	143.4	5.30	3.40	1.52	137.6	5.92	3.11	1.70	171.6	7.97	3.86	2.29	310.8
	4	3.31	2.41	0.71	30.1	5.21	3.16	1.12	74.6	5.12	3.31	1.10	72.1	5.69	3.01	1.22	89.1	7.73	3.74	1.66	164.3
	5	3.05	2.31	0.53	16.4	4.98	3.05	0.86	43.7	4.88	3.20	0.84	42.0	5.47	4.73	0.94	52.7	7.48	3.68	1.29	98.6
	6	2.79	2.21	0.40	9.5	4.76	2.97	0.68	27.7	4.67	3.09	0.67	26.6	5.23	2.78	0.75	33.5	7.30	3.56	1.05	65.1
	7	2.50	2.07	0.31	5.6	4.53	2.83	0.56	18.4	4.42	2.99	0.54	17.6	5.01	2.67	0.62	22.6	7.05	3.43	0.87	44.7
6	3	3.18	2.40	0.91	49.4	5.11	3.13	1.46	127.6	4.99	3.27	1.43	121.9	5.62	2.97	1.61	154.7	7.67	3.74	2.20	287.4
	4	2.95	2.29	0.63	23.9	4.91	3.02	1.05	66.2	4.79	3.16	1.03	63.1	5.40	2.87	1.16	80.1	7.42	3.62	1.60	151.5
	5	2.72	2.18	0.47	13.1	4.67	2.91	0.80	38.3	4.58	3.07	0.79	36.9	5.18	2.76	0.89	47.3	7.18	3.50	1.23	90.6
	6	2.45	2.09	0.35	7.3	4.45	2.83	0.64	24.2	4.34	2.95	0.62	23.0	4.92	2.64	0.71	29.7	6.99	3.37	1.00	59.8
	7	2.15	1.94	0.26	4.2	4.21	2.70	0.52	15.9	4.11	2.87	0.50	15.2	4.70	2.53	0.58	19.9	6.75	3.31	0.83	40.9
7	3	2.84	2.26	0.81	39.4	4.77	2.98	1.37	111.3	4.67	3.13	1.34	106.5	5.29	2.82	1.52	137.0	7.30	3.56	2.09	260.5
	4	2.61	2.17	0.56	18.7	4.58	2.88	0.98	57.6	4.45	3.03	0.96	54.5	5.08	2.73	1.09	71.1	7.11	3.50	1.53	139.2
	5	2.35	2.07	0.41	9.8	4.34	2.77	0.75	33.2	4.25	2.93	0.73	31.8	4.84	2.62	0.83	41.2	6.87	3.37	1.18	83.1
	6	2.07	1.96	0.30	5.3	4.12	2.69	0.59	20.7	4.04	2.82	0.58	20.0	4.62	2.50	0.66	26.1	6.68	3.25	0.96	54.6
	7	1.80	1.80	0.22	2.9	3.89	2.57	0.48	13.6	3.77	2.74	0.46	12.7	4.37	2.40	0.54	17.2	6.44	3.13	0.79	37.2
8	3	2.49	2.14	0.71	30.3	4.45	2.85	1.27	96.7	4.34	2.99	1.24	92.2	4.97	2.67	1.43	121.0	6.99	3.43	2.00	239.0
	4	2.24	2.07	0.48	13.9	4.25	2.75	0.91	49.7	4.12	2.92	0.89	46.7	4.73	2.59	1.02	61.7	6.75	3.31	1.45	125.2
	5	1.99	1.94	0.34	7.0	4.04	2.64	0.69	28.7	3.91	2.80	0.67	27.0	4.53	2.48	0.78	36.2	6.56	3.19	1.13	75.8
	6	1.78	1.78	0.26	3.9	3.77	2.56	0.54	17.4	3.70	2.70	0.53	16.7	4.31	2.37	0.62	22.7	6.32	3.13	0.91	48.8
	7	1.56	1.56	0.19	2.2	3.55	2.44	0.44	11.3	3.44	2.61	0.42	10.6	4.03	2.27	0.50	14.6	6.10	3.01	0.75	33.4
9	3	2.13	2.02	0.61	22.1	4.13	2.72	1.18	83.6	4.02	2.86	1.15	78.9	4.64	2.54	1.33	105.4	6.68	3.31	1.92	218.5
	4	1.93	1.93	0.42	10.3	3.90	2.62	0.84	41.8	3.78	2.77	0.81	39.4	4.40	2.45	0.95	53.3	6.44	3.19	1.38	114.1
	5	1.78	1.73	0.31	5.6	3.69	2.51	0.64	24.0	3.58	2.68	0.61	22.5	4.19	2.34	0.72	30.9	6.26	3.07	1.08	68.9
	6	1.56	1.56	0.22	3.0	3.45	2.42	0.49	14.5	3.32	2.59	0.48	13.5	3.97	2.23	0.57	19.2	5.99	3.00	0.86	43.9
	7	1.28	1.28	0.16	1.5	3.19	2.31	0.39	9.1	3.08	2.48	0.38	8.5	3.69	2.13	0.45	12.2	5.79	2.89	0.71	30.1
10	3	1.88	1.88	0.54	17.2	3.79	2.58	1.09	70.2	3.64	2.75	1.04	64.7	4.32	2.40	1.24	91.2	6.38	3.13	1.83	198.9
	4	1.72	1.72	0.37	8.2	3.56	2.48	0.76	34.8	3.43	2.66	0.74	32.4	4.07	2.31	0.87	45.5	6.11	3.07	1.31	102.8
	5	1.54	1.54	0.26	4.2	3.32	2.40	0.57	19.5	3.18	2.58	0.55	17.8	3.85	2.21	0.66	26.1	5.92	2.96	1.02	61.8
	6	1.32	1.32	0.19	2.1	3.10	2.30	0.44	11.7	2.96	2.48	0.42	10.7	3.60	2.10	0.52	15.8	5.67	2.88	0.81	39.3
	7	0.84	0.84	0.10	0.6	2.83	2.20	0.35	7.2	2.69	2.39	0.33	6.5	3.37	1.99	0.41	10.2	5.42	2.76	0.67	26.3
11	3	1.66	1.66	0.47	13.4	3.42	2.47	0.98	57.3	3.30	2.62	0.95	53.2	3.97	2.28	1.14	77.0	6.02	3.01	1.72	177.0
	4	1.51	1.51	0.33	6.3	3.21	2.38	0.69	28.3	3.08	2.53	0.66	26.1	3.75	2.18	0.81	38.6	5.77	2.93	1.24	91.6
	5	1.31	1.31	0.23	3.0	2.96	2.29	0.51	15.4	2.83	2.47	0.49	14.1	3.50	2.08	0.60	21.6	5.59	2.83	0.96	55.0
	6	1.04	1.04	0.15	1.3	2.70	2.20	0.39	8.9	2.59	2.35	0.37	8.2	3.25	1.97	0.47	12.9	5.33	2.75	0.76	34.7
	7	0.71	0.71	0.09	0.4	2.40	2.12	0.30	5.2	2.32	2.32	0.28	4.8	2.99	1.86	0.37	8.0	5.08	2.64	0.62	23.2
12	3	1.46	1.46	0.42	10.4	3.06	2.35	0.88	45.8	2.91	2.53	0.84	41.5	3.61	2.15	1.03	63.6	5.68	2.89	1.63	157.7
	4	1.29	1.29	0.28	4.6	2.83	2.27	0.61	22.1	2.69	2.45	0.58	19.9	3.39	2.05	0.73	31.6	5.44	2.80	1.17	81.4
	5	1.11	1.11	0.19	2.2	2.59	2.19	0.45	11.8	2.45	2.37	0.42	10.6	3.15	1.96	0.54	17.4	5.23	2.70	0.90	48.2
	6	0.67	0.67	0.10	0.5	2.30	2.12	0.33	6.5	2.28	2.23	0.33	6.3	2.88	1.85	0.41	10.2	4.98	2.62	0.71	30.3
	7	0.55	0.55	0.07	0.3	2.04	2.04	0.25	3.7	2.10	2.10	0.26	4.0	2.62	1.74	0.32	6.2	4.73	2.52	0.58	20.1
13	3	1.26	1.26	0.36	7.7	2.67	2.24	0.77	35.0	2.52	2.43	0.72	31.1	3.25	2.03	0.93	51.7	5.32	2.78	1.52	138.3
	4	1.07	1.07	0.23	3.2	2.45	2.16	0.53	16.5	2.36	2.32	0.51	15.3	3.02	1.93	0.65	25.0	5.09	2.67	1.09	71.3
	5	0.77	0.77	0.13	1.1	2.18	2.13	0.38	8.4	2.21	2.21	0.38	8.6	2.78	1.84	0.48	13.6	4.86	2.57	0.84	41.6
	6	0.52	0.52	0.07	0.3	1.99	1.99	0.28	4.8	2.05	2.05	0.29	5.2	2.51	1.74	0.36	7.7	4.61	2.50	0.66	26.0
	7	0.38	0.38	0.05	0.1	1.82	1.82	0.22	3.0	1.89	1.89	0.23	3.2	2.20	1.64	0.27	4.3	4.37	2.40	0.54	17.2

Cooling capacity table

MDKG-600R3																					
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	4.13	3.00	1.19	80.7	6.37	3.84	1.83	191.7	6.24	4.00	1.79	183.9	6.97	3.66	2.00	229.4	9.38	4.55	2.69	415.4
	4	3.89	2.84	0.84	40.2	6.13	3.72	1.32	99.7	6.02	3.89	1.30	96.4	6.70	3.54	1.44	119.1	9.09	4.40	1.95	219.5
	5	3.59	2.71	0.62	21.9	5.86	3.59	1.01	58.3	5.74	3.77	0.99	56.1	6.44	5.56	1.11	70.4	8.80	4.33	1.51	131.7
	6	3.28	2.60	0.47	12.7	5.60	3.49	0.80	37.0	5.49	3.64	0.79	35.6	6.15	3.28	0.88	44.7	8.59	4.18	1.23	87.0
	7	2.94	2.43	0.36	7.5	5.32	3.33	0.65	24.6	5.20	3.51	0.64	23.5	5.89	3.15	0.72	30.1	8.30	4.04	1.02	59.7
6	3	3.74	2.83	1.07	66.0	6.01	3.69	1.72	170.6	5.87	3.85	1.68	162.9	6.62	3.49	1.90	206.7	9.02	4.40	2.59	384.1
	4	3.47	2.69	0.75	32.0	5.77	3.56	1.24	88.5	5.63	3.72	1.21	84.3	6.35	3.38	1.37	107.1	8.73	4.26	1.88	202.4
	5	3.20	2.57	0.55	17.4	5.49	3.43	0.94	51.2	5.38	3.61	0.93	49.2	6.10	3.25	1.05	63.2	8.44	4.11	1.45	121.1
	6	2.88	2.45	0.41	9.8	5.23	3.33	0.75	32.3	5.11	3.47	0.73	30.8	5.79	3.10	0.83	39.6	8.23	3.97	1.18	79.9
	7	2.53	2.28	0.31	5.6	4.96	3.17	0.61	21.3	4.83	3.38	0.59	20.3	5.53	2.97	0.68	26.6	7.94	3.90	0.98	54.6
7	3	3.34	2.66	0.96	52.7	5.61	3.51	1.61	148.8	5.49	3.69	1.57	142.4	6.23	3.32	1.78	183.1	8.59	4.18	2.46	348.1
	4	3.07	2.55	0.66	25.0	5.38	3.38	1.16	77.0	5.24	3.56	1.13	72.9	5.98	3.21	1.29	95.0	8.37	4.11	1.80	186.1
	5	2.77	2.43	0.48	13.0	5.11	3.26	0.88	44.4	5	3.44	0.86	42.5	5.69	3.08	0.98	55.1	8.08	3.97	1.39	111.0
	6	2.44	2.31	0.35	7.0	4.84	3.17	0.69	27.7	4.75	3.32	0.68	26.7	5.43	2.94	0.78	34.8	7.86	3.82	1.13	73.0
	7	2.11	2.11	0.26	3.9	4.58	3.02	0.56	18.2	4.43	3.22	0.54	17.0	5.14	2.82	0.63	23.0	7.58	3.68	0.93	49.8
8	3	2.93	2.52	0.84	40.5	5.23	3.35	1.50	129.2	5.11	3.51	1.46	123.2	5.85	3.14	1.68	161.7	8.23	4.04	2.36	319.5
	4	2.64	2.44	0.57	18.5	5.00	3.24	1.08	66.4	4.85	3.43	1.04	62.4	5.57	3.04	1.20	82.4	7.94	3.90	1.71	167.3
	5	2.34	2.29	0.40	9.3	4.75	3.10	0.82	38.3	4.60	3.29	0.79	36.0	5.33	2.92	0.92	48.3	7.72	3.75	1.33	101.3
	6	2.10	2.10	0.30	5.2	4.44	3.01	0.64	23.2	4.35	3.17	0.62	22.3	5.06	2.78	0.73	30.3	7.43	3.68	1.07	65.2
	7	1.83	1.83	0.23	2.9	4.18	2.87	0.51	15.1	4.05	3.07	0.50	14.2	4.74	2.67	0.58	19.5	7.17	3.54	0.88	44.6
9	3	2.50	2.37	0.72	29.6	4.86	3.20	1.39	111.7	4.73	3.36	1.35	105.5	5.46	2.99	1.57	140.9	7.86	3.90	2.25	292.1
	4	2.27	2.27	0.49	13.7	4.59	3.09	0.99	55.9	4.45	3.26	0.96	52.6	5.18	2.88	1.11	71.3	7.58	3.75	1.63	152.4
	5	2.10	2.03	0.36	7.5	4.34	2.96	0.75	32.1	4.21	3.15	0.72	30.1	4.93	2.75	0.85	41.3	7.36	3.61	1.27	92.1
	6	1.84	1.84	0.26	4.0	4.05	2.85	0.58	19.4	3.91	3.05	0.56	18.1	4.67	2.62	0.67	25.7	7.05	3.53	1.01	58.7
	7	1.50	1.50	0.18	2.0	3.75	2.71	0.46	12.2	3.62	2.91	0.44	11.4	4.34	2.50	0.53	16.4	6.81	3.40	0.84	40.2
10	3	2.21	2.21	0.63	23.0	4.46	3.04	1.28	93.9	4.28	3.24	1.23	86.4	5.08	2.83	1.46	121.8	7.50	3.68	2.15	265.9
	4	2.03	2.03	0.44	10.9	4.18	2.92	0.90	46.5	4.04	3.13	0.87	43.4	4.78	2.72	1.03	60.8	7.19	3.61	1.55	137.4
	5	1.81	1.81	0.31	5.6	3.91	2.83	0.67	26.0	3.74	3.03	0.64	23.8	4.53	2.60	0.78	34.9	6.97	3.48	1.20	82.6
	6	1.55	1.55	0.22	2.8	3.64	2.71	0.52	15.7	3.48	2.91	0.50	14.3	4.24	2.47	0.61	21.2	6.67	3.38	0.96	52.5
	7	0.99	0.99	0.12	0.8	3.33	2.59	0.41	9.6	3.17	2.81	0.39	8.7	3.96	2.34	0.49	13.6	6.37	3.25	0.78	35.2
11	3	1.95	1.95	0.56	17.9	4.03	2.90	1.15	76.5	3.88	3.09	1.11	71.2	4.67	2.68	1.34	102.9	7.08	3.54	2.03	236.6
	4	1.78	1.78	0.38	8.4	3.77	2.80	0.81	37.8	3.62	2.97	0.78	34.8	4.41	2.57	0.95	51.6	6.79	3.45	1.46	122.4
	5	1.54	1.54	0.27	4.1	3.48	2.69	0.60	20.6	3.33	2.90	0.57	18.8	4.12	2.45	0.71	28.9	6.57	3.33	1.13	73.4
	6	1.23	1.23	0.18	1.8	3.17	2.58	0.46	11.9	3.05	2.77	0.44	11.0	3.82	2.32	0.55	17.3	6.27	3.24	0.90	46.4
	7	0.83	0.83	0.10	0.6	2.83	2.49	0.35	6.9	2.73	2.73	0.34	6.5	3.52	2.19	0.43	10.8	5.98	3.10	0.73	31.0
12	3	1.72	1.72	0.49	13.9	3.60	2.76	1.03	61.2	3.43	2.98	0.98	55.5	4.24	2.53	1.22	85.0	6.68	3.41	1.92	210.8
	4	1.52	1.52	0.33	6.1	3.33	2.67	0.72	29.5	3.17	2.88	0.68	26.6	3.99	2.42	0.86	42.3	6.40	3.30	1.38	108.8
	5	1.31	1.31	0.22	2.9	3.04	2.58	0.52	15.8	2.89	2.78	0.50	14.2	3.70	2.31	0.64	23.3	6.15	3.17	1.06	64.4
	6	0.79	0.79	0.11	0.7	2.71	2.49	0.39	8.6	2.68	2.63	0.38	8.5	3.39	2.18	0.49	13.6	5.86	3.09	0.84	40.5
	7	0.65	0.65	0.08	0.4	2.40	2.40	0.29	5.0	2.47	2.47	0.30	5.3	3.08	2.05	0.38	8.2	5.57	2.97	0.68	26.9
13	3	1.48	1.48	0.42	10.3	3.15	2.64	0.90	46.7	2.97	2.86	0.85	41.5	3.82	2.39	1.10	69.1	6.26	3.27	1.79	184.8
	4	1.26	1.26	0.27	4.2	2.88	2.54	0.62	22.0	2.78	2.73	0.60	20.5	3.55	2.27	0.76	33.5	5.99	3.15	1.29	95.3
	5	0.91	0.91	0.16	1.4	2.57	2.51	0.44	11.2	2.60	2.60	0.45	11.5	3.27	2.16	0.56	18.2	5.72	3.02	0.98	55.7
	6	0.61	0.61	0.09	0.4	2.34	2.34	0.34	6.5	2.42	2.42	0.35	6.9	2.95	2.05	0.42	10.3	5.43	2.94	0.78	34.8
	7	0.45	0.45	0.05	0.2	2.14	2.14	0.26	4.0	2.22	2.22	0.27	4.3	2.58	1.93	0.32	5.8	5.14	2.82	0.63	23.0

Cooling capacity modification coefficient table:

Speed	250R3		300R3		400R3		500R3		600R3	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
High	1	1	1	1	1	1	1	1	1	1
Mid	0.92	0.9	0.83	0.8	0.86	0.83	0.91	0.86	0.89	0.85
Low	0.82	0.8	0.71	0.7	0.73	0.7	0.78	0.75	0.79	0.75

Heating Capacity:

Remark:

Δt: Temperature Difference (℃) ; **TH:** Total Heating Capacity (kW);

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

MDKG-250R3

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	1.15	0.10	1.2	1.80	0.15	2.8	2.49	0.21	5.4	3.14	0.27	8.7	3.80	0.33	12.6	4.46	0.38	17.5	5.11	0.44	22.9	5.75	0.49	29.0
8	1.27	0.14	2.2	1.98	0.21	5.4	2.65	0.28	9.6	3.31	0.36	15.0	3.94	0.42	21.3	4.58	0.49	28.8	5.23	0.56	37.4	5.87	0.63	47.2
6	1.47	0.21	5.3	2.14	0.31	11.2	2.78	0.40	18.8	3.45	0.49	29.0	4.10	0.59	41.0	4.74	0.68	54.9	5.35	0.77	69.7	6.03	0.86	88.6

MDKG-300R3

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	1.33	0.11	1.5	2.08	0.18	3.7	2.89	0.25	7.1	3.64	0.31	11.3	4.40	0.38	16.6	5.17	0.45	22.9	5.92	0.51	30.0	6.67	0.57	38.0
8	1.47	0.16	2.9	2.29	0.25	7.0	3.07	0.33	12.6	3.83	0.41	19.6	4.57	0.49	27.9	5.31	0.57	37.7	6.06	0.65	49.1	6.81	0.73	61.9
6	1.71	0.24	6.9	2.48	0.36	14.7	3.22	0.46	24.6	4.00	0.57	38.0	4.76	0.68	53.7	5.50	0.79	71.9	6.20	0.89	91.3	6.99	1.00	116.1

MDKG-400R3

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	1.49	0.13	2.1	2.34	0.20	5.1	3.25	0.28	9.7	4.10	0.35	15.5	4.95	0.43	22.7	5.82	0.50	31.3	6.66	0.57	41.0	7.50	0.65	52.0
8	1.66	0.18	4.0	2.58	0.28	9.6	3.46	0.37	17.3	4.31	0.46	26.8	5.14	0.55	38.2	5.98	0.64	51.6	6.82	0.73	67.1	7.66	0.82	84.7
6	1.92	0.28	9.5	2.80	0.40	20.1	3.62	0.52	33.7	4.50	0.65	52.0	5.35	0.77	73.5	6.19	0.89	98.4	6.98	1.00	124.9	7.87	1.13	158.9

MDKG-500R3

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	1.99	0.17	1.6	3.13	0.27	3.9	4.33	0.37	7.5	5.46	0.47	11.9	6.60	0.57	17.4	7.76	0.67	24.1	8.88	0.76	31.5	10.00	0.86	40.0
8	2.21	0.24	3.1	3.44	0.37	7.4	4.61	0.50	13.3	5.75	0.62	20.7	6.85	0.74	29.4	7.97	0.86	39.7	9.09	0.98	51.7	10.21	1.10	65.1
6	2.56	0.37	7.3	3.73	0.53	15.4	4.83	0.69	25.9	6.00	0.86	40.0	7.13	1.02	56.5	8.25	1.18	75.7	9.30	1.33	96.1	10.49	1.50	122.3

MDKG-600R3

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	2.29	0.20	2.0	3.59	0.31	4.9	4.98	0.43	9.4	6.28	0.54	14.9	7.59	0.65	21.8	8.93	0.77	30.1	10.21	0.88	39.4	11.50	0.99	50.0
8	2.54	0.27	3.8	3.96	0.43	9.2	5.30	0.57	16.6	6.61	0.71	25.8	7.88	0.85	36.7	9.17	0.99	49.7	10.45	1.12	64.6	11.74	1.26	81.4
6	2.94	0.42	9.1	4.29	0.61	19.3	5.56	0.80	32.4	6.90	0.99	50.0	8.20	1.18	70.7	9.49	1.36	94.6	10.70	1.53	120.1	12.06	1.73	152.8

Heating capacity modification coefficient table:

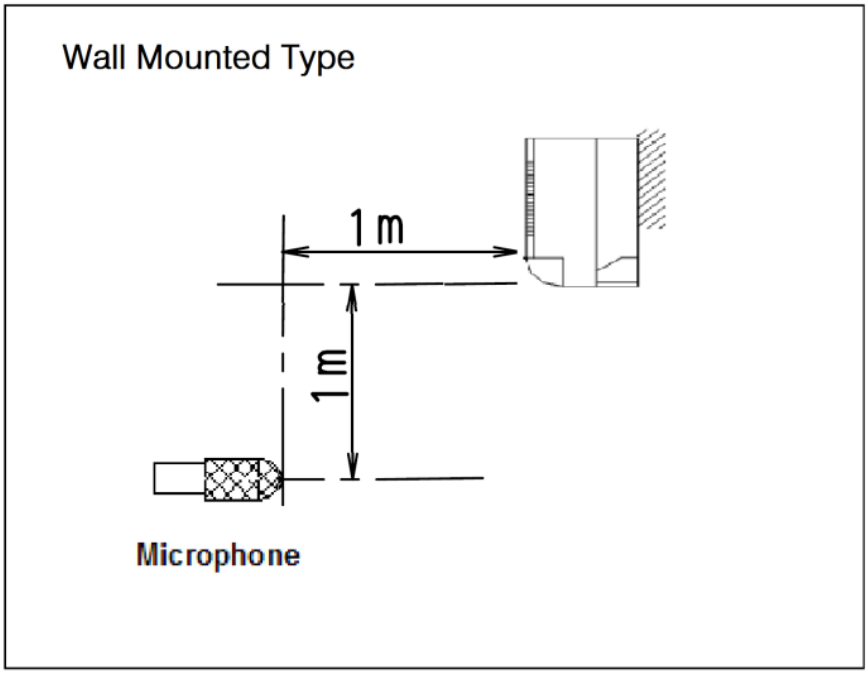
Speed	250	300	400	500	600
	TH	TH	TH	TH	TH
High	1	1	1	1	1
Mid	0.92	0.83	0.85	0.89	0.90
Low	0.83	0.71	0.73	0.76	0.79

Altitude modification coefficient table:

Altitude (m)	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

11. Sound Levels

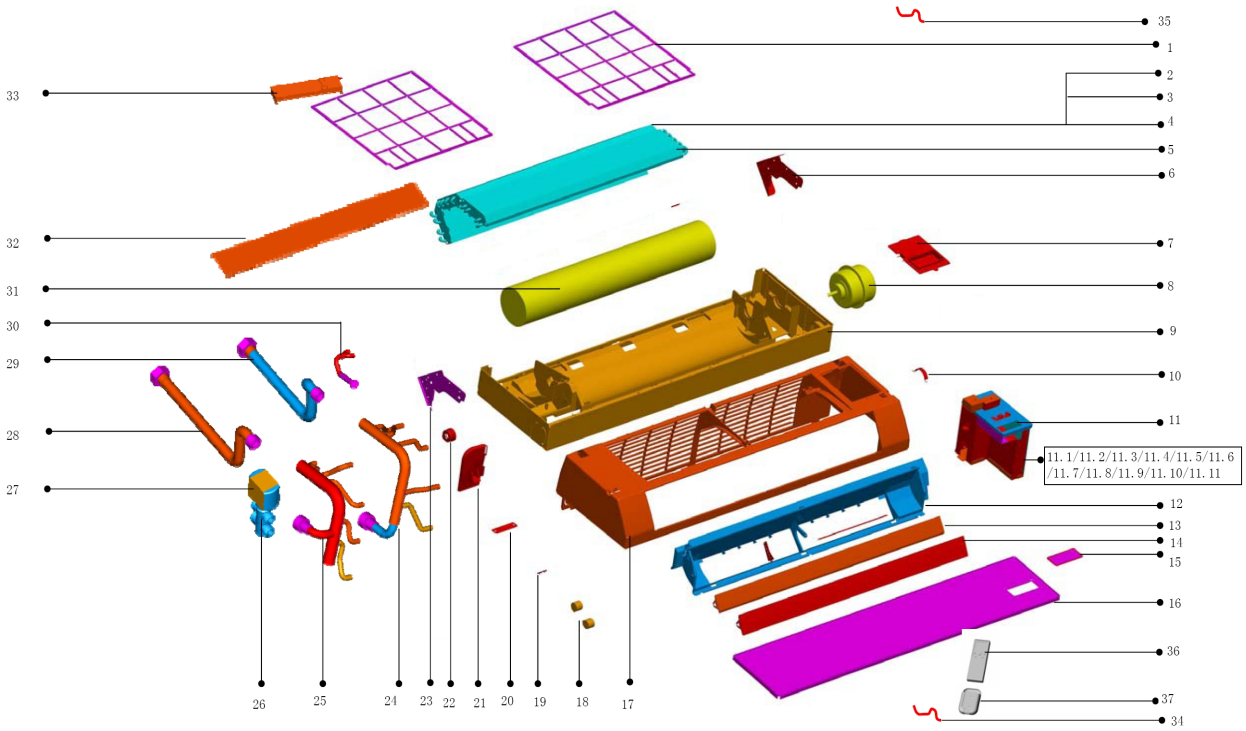
Test condition



Unit Number	Model	Sound pressure level under three speeds of fan (dB(A))		
		H	M	L
1	MDKG-250R3	30	24	20
2	MDKG-300R3	35	29	24
3	MDKG-400R3	37	31	26
4	MDKG-500R3	39	33	28
5	MDKG-600R3	40	34	29

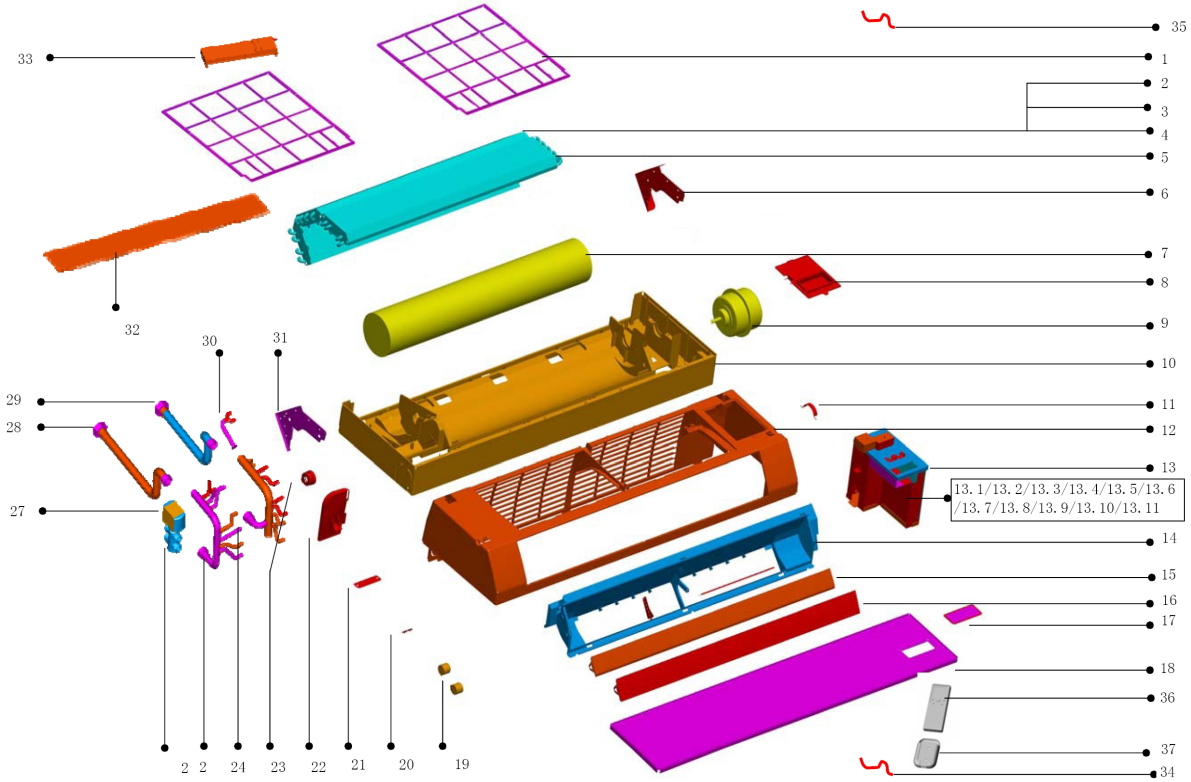
12. Exploded View

MDKG-250R3 MDKG-300R3 MDKG-400R3



No.	Part Name	Quantity		No.	Part Name	Quantity
1	Filter	2		14	Louver	1
2	Evaporator I	1		15	Panel dalle	1
3	Evaporator II	1		16	Panel	1
4	Evaporator III	1		17	Panel frame ass'y	1
5	Coil temp sensor	1		18	Stepper motor	2
6	Evaporate connect board	1		19	Screw cover	3
7	Display board ass'y	1		20	Pipe clamp	1
8	Motor	1		21	Drainage pan	1
9	Base pan assembly	1		22	Bearing base	1
10	Motor spud	2		23	Evaporator left clapboard	1
11	E-part box ass'y	1		24	Water inlet pipe ass'y	1
11.1	Dial code switch box cover	1		25	Water outlet pipe ass'y	1
11.2	Electric control box seat	1		26	Three-way valve	1
11.3	E-Part box cover	1		27	Control wire for 3-Ways valve	1
11.4	Electric control box soleplate	1		28	Outlet screw pipe ass'y	1
11.5	Electric control box side board ass'y	1		29	Inlet screw pipe ass'y	1
11.6	Dial code switch board ass'y	1		30	Discharge valve	1
11.7	Main controller ass'y	1		31	Cross fan	1
11.8	Transformer	1		32	Base pan holder	1
11.9	Wire joint	1		33	Formaldehyde killer	1
11.10	Wire joint, 3p	1		34	Room Temperature Sensor Ass'y	1
11.11	Motor capacitor	1		35	Network matching wire	1
12	Air outlet frame mount ass'y	1		36	Remote controller	1
13	Louver board	1		37	Remote controller holder ass'y	1

MKG-500R3 MKG-600R3



No.	Part Name	Quantity
1	Filter	2
2	Evaporator I	1
3	Evaporator II	1
4	Evaporator III	1
5	Coil temp sensor	1
6	Evaporate connect board	1
7	Cross fan	1
8	Display board ass'y	1
9	Motor	1
10	Base pan assembly	1
11	Motor spud	2
12	Panel frame ass'y	1
13	E-part box ass'y	1
13.1	Dial code switch box cover	1
13.2	Electric control box seat	1
13.3	E-Part box cover	1
13.4	Electric control box soleplate	1
13.5	Electric control box side board ass'y	1
13.6	Dial code switch board ass'y	1
13.7	Main controller ass'y	1
13.8	Transformer	1
13.9	Motor capacitor	1
13.10	Wire joint, 3p	1
13.11	Wire joint	1

No.	Part Name	Quantity
14	Air outlet frame mount ass'y	1
15	Louver board	1
16	Louver	1
17	Panel dalle	1
18	Panel	1
19	Stepper motor	2
20	Screw cover	3
21	Pipe clamp	1
22	Drainage pan	1
23	Bearing base	1
24	Water inlet pipe ass'y	1
25	Water outlet pipe ass'y	1
26	Three-way valve	1
27	Control wire for 3-Ways valve	1
28	Outlet screw pipe ass'y	1
29	Inlet screw pipe ass'y	1
30	Discharge valve	1
31	Evaporator left clapboard	1
32	Base pan holder	1
33	Formaldehyde killer	1
34	Room Temperature Sensor Ass'y	1
35	Network matching wire	1
36	Remote controller	1
37	Remote controller holder ass'y	1

13. Installation

13.1 Precautions

- Be sure to be in conformity with the local, national and international laws and regulations.
- Read "PRECAUTIONS" carefully before installation.
- The following precautions include important safty items. Observe them and never forget.
- Keep the installation manual in a handy place for future reference.
- Before out from factory, FAN COIL UNIT (AIR UNITS) has passed Fan Coil Overpressure Resistant Test, Statically and Dynamically Balanced Adjustment, Noise Test, Air (cool) Volume Test, Electric Property Test, Outline Quality Detection.

The safety precautions listed here are divided into two categories. In either case, important safety information is listed which must be read carefully.

Warning: Failure to observe a warning may result in death.

Caution: Failure to observe a caution may result in injury or damage to the equipment.

After completing the installation, make sure that the unit operates properly during the start-up operation. Please instruct the customer on how to operate the unit and keep it maintained.

✧ **Warning:**

- **Be sure only trained and qualified service personnel to install, repair or service the equipment.**
  Improper installation, repair, and maintenance may result in electric shocks, short-circuit, leaks, fire or other damage to the equipment.
- **Install according to the installation instructions strictly.**
  If installation is defective, it will cause water leakage, electrical shock and fire.
- **When installing the unit in a small room, take measures against to keep refrigerant concentration from exceeding allowable safety limits in the event of refrigerant leakage.**
  Contact the place of purchase for more information. Excessive refrigerant in a closed ambient can lead to oxygen deficiency.
- **Use the attached accessories parts and specified parts for installation.**
  Otherwise, it will cause the set to fall, water leakage, electrical shock and fire.
- **The appliance must be installed 2.3m above floor.**
- **The appliance shall not be installed in the laundry.**
- **Before obtaining access to terminals, all supply circuits must be disconnected.**
- **The appliance must be positioned so that the plug is accessible.**
- **The enclosure of the appliance shall be marked by word, or by symbols, with the direction of the fluid flow.**
- **For electrical work, follow the local national wiring standard, regulation the installation instructions. An independent circuit and single outlet must be used.**
  If electrical circuit capacity is not enough or defect in electrical work, it will cause electrical shock fire.
- **Use the specified cable and connect tightly and clamp the cable so that no external force will be acted on the terminal.**
  If connection or fixing is not perfect, it will cause heat-up or fire at the connection.
- **Wiring routing must be properly arranged so that control board cover is fixed properly.**
  If control board cover is not fixed perfectly, it will cause heat-up at connection point of terminal, fire or electrical shock.
- **If the supply cord is damaged, it must be replaced by the manufacture or its service agent or a similarly qualified person in order to avoid a hazard.**
- **An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.**
- **When carrying out piping connection, take care not to let air substances go into refrigeration**

cycle.

Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle.

- **Do not modify the length of the power supply cord or use of extension cord, and do not share the single outlet with other electrical appliances.**

  Otherwise, it will cause fire or electrical shock.
- **If the water leaks during installation, ventilate the area immediately.**
- **After completing the installation work, check that the water does not leak.**

  The cool water in the unit is not lower than 3℃, hot water is not higher than 70℃. Water in the unit must clean, air quality must meet to the standard of PH=6.5~7.5.

✧ **Caution:**

- **Ground the air conditioner.**

  Do not connect the ground wire to gas or water pipes, lightning rod or telephone ground wire.Incomplete grounding may result in electric shocks.
- **Be sure to install an earth leakage breaker.**

  Failure to install an earth leakage breaker may result in electric shocks.
- **Connect the outdoor unit wires, and then connect the indoor unit wires.**

  You are not allowed to connect the air conditioner with the power source until wiring and piping the air conditioner is done.
- **While following the installation instructions, install drain piping in order to ensure proper drainage and insulate piping in order to prevent condensation.**

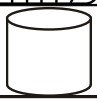
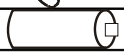
  Improper drain piping may result in water leakage and property damage.
- **Install the indoor and outdoor units, power supply wiring and connecting wires at least 1 meter away from televisions or radios in order to prevent image interference or noise.**

  Depending on the radio waves, a distance of 1 meter may not be sufficient enough to eliminate the noise.
- **This appliance is not intended for use by persons (including children) with reduced physical,sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**

✧ **Don't install the air conditioner in the following locations:**

- There is petrolatum existing.
- There is salty air surrounding (near the coast).
- There is caustic gas (the sulfide, for example) existing in the air (near a hot spring).
- The Volt vibrates violently (in the factories).
- In buses or cabinets.
- In kitchen where it is full of oil gas.
- There is strong electromagnetic wave existing.
- There are inflammable materials or gas.
- There is acid or alkaline liquid evaporating.
- Other special conditions.

13.2 Accessory

Name	Shape	Quantity	Function
1. Screw ST3.9x25 for installation board		3	Secure the installation board
2. Plastic expanded tube		3	———
3. Wrapping tape		1	———
4. Drain pipe		1	———
5. Wall conduit cover		1	———
6. Remote controller (including operation manual)		1	———
7. Frame		1	Hold the remote controller
8. Mounting screw (ST2.9 x 10-C-H)		2	Insulation the holder of remote controller
9. Alkaline dry batteries (AM4)		2	———
10. Owner's manual		1	———
11. Installation manual		1	———
12. seel gasket		4	For connecting water pipe

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13.4 Indoor unit installation

13.4.1 Installation place

Installation in the following places may cause trouble. If it is unavoidable, please consult with the local dealer.

- A place full of machine oil.

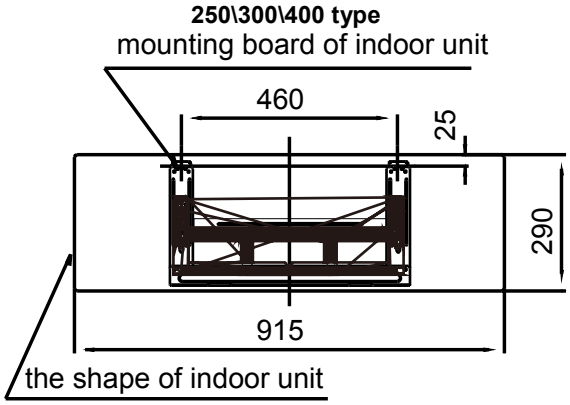
- A saline place such as coast.
- A place full of sulfide gas such as hot-spring resort.
- Places where there are high frequency machines such as wireless equipment, welding machine, and medical facility.
- A place there is no combustive gases and volatile matter.
- A place of special environmental conditions.

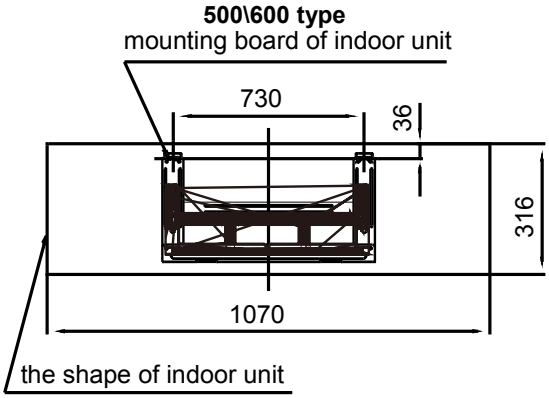
Indoor unit installation place

- A place where is no obstacle near the inlet and outlet area.
- A place which can bear the indoor unit.
- A place which is convenient to maintenance.
- A place which provides the space around the indoor unit as required right in the diagram.
- There is strong electromagnetic wave existing.
- A place which is far from heat, steam and inflammable gas.

13.4.2 Drilling a hole and mounting installation board

Installation Board and Its Direction (unit: mm)

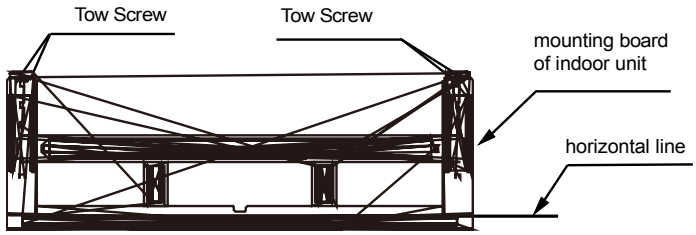




Fix the installation board.

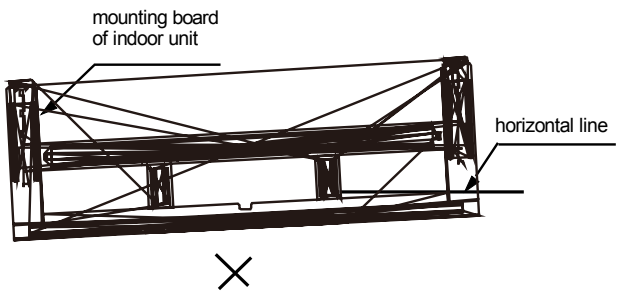
- Install the installation board horizontally on structural parts on the wall with the spaces provided around the plate.
- In case of brick, concrete or similar type walls, make 5mm dia. holes on the wall. Insert clip anchors for appropriate mounting screws.
- Fix the installation board on the wall.

Right installation

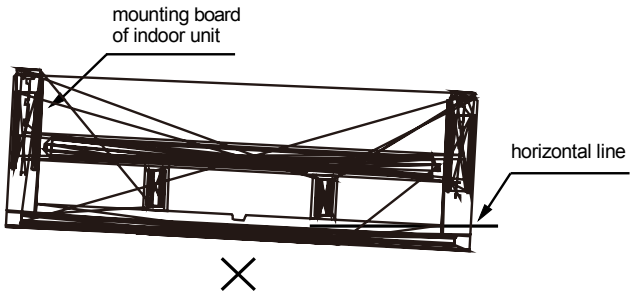


○

False installation



×



×

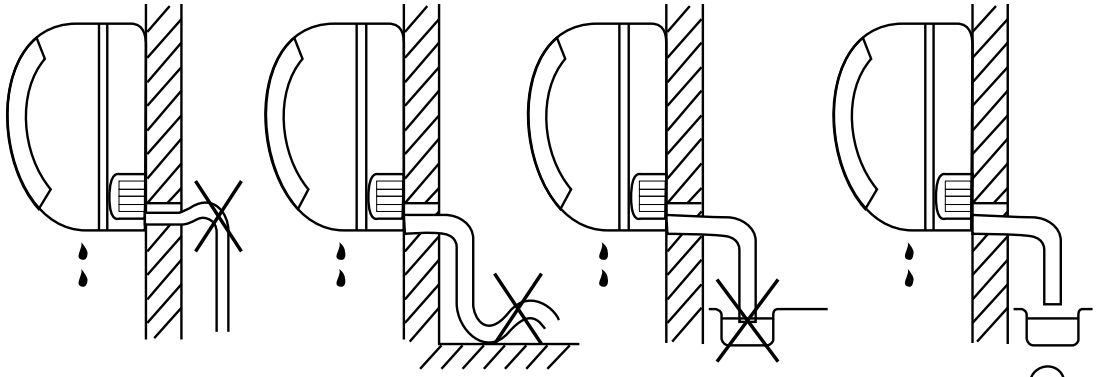
Drilling a hole

- Determine the pipe hole position using the installation board, and drill the pipe hole (N95mm) so it slants slightly downward.
- Always use a wall hole conduit when piercing metal lath, ply wood or metal plate.

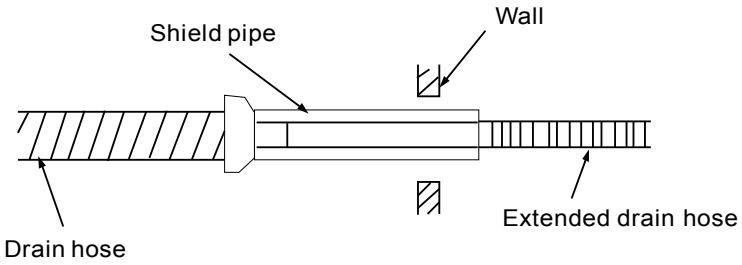
13.4.3 Connective and drain pipe installation

Drain pipe installation

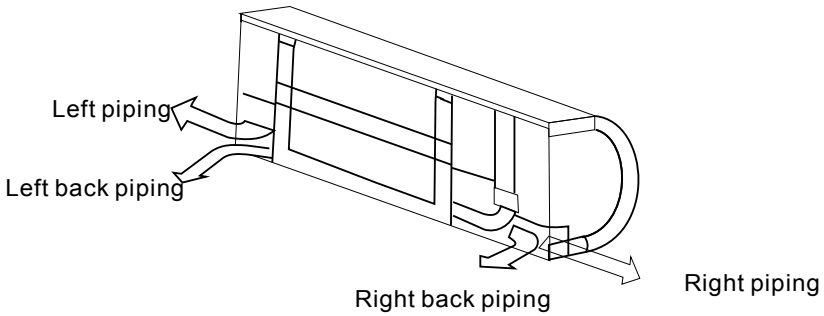
- Run the drain hose sloping downward. Do not install the drain hose as illustrated below.



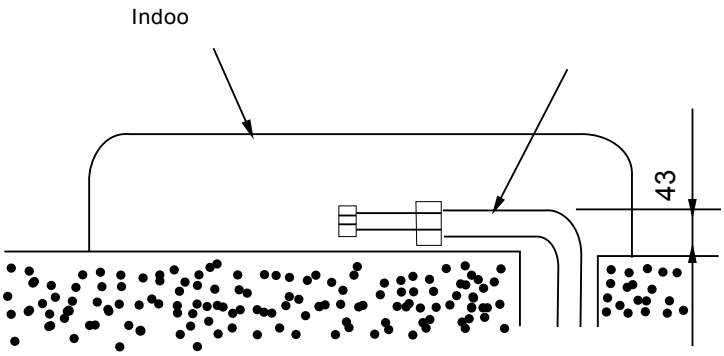
- When connection extended drain hose, insulate the connecting part of extended drain hose with a shield pipe.



Connection pipe installation



- For the left-hand and rear-left-hand piping, install the piping as shown. Bend the connective pipe to be laid at 43mm height or less from the wall.



- Fix the end of the connective pipe. (Refer to Tightening Connection in WATER PIPING INSTALLATION)

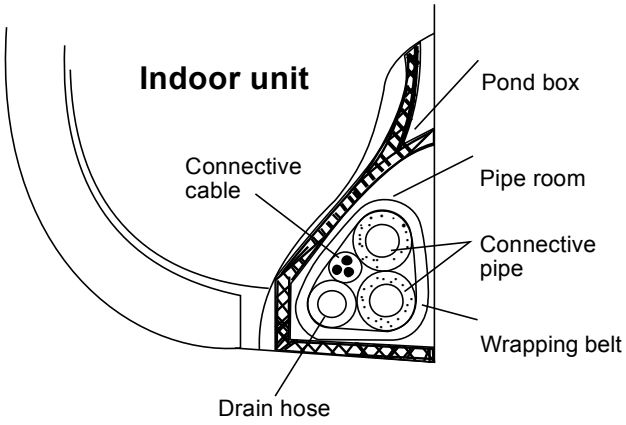
Cautions:

- Connect the indoor unit first, then the outdoor unit. Bend and arrange the pipe carefully.
- Do not allow the piping to let out from the back of the indoor unit.
- Be careful not to let the drain hose slack.
- Insulate both of the auxiliary piping.
- Banding the drain hose under the auxiliary pipe.

Piping and bandaging

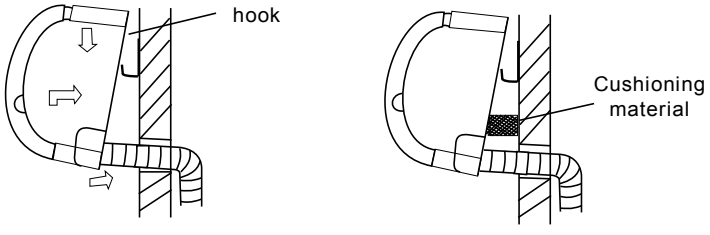
Wind the connective cable, drain hose and wiring with tape securely, evenly as shown below.

- Because the condensed water from rear of the indoor unit is gathered in Pond Box and is piped out of room. Do not put anything else in the box.



13.4.4 Indoor unit installation

- Pass the piping through the hole in the wall.
- Put the claw at the back of the indoor unit on the hook of the installation board, move the Indoor Unit from side to side to see that it is securely hooked.
- Piping can easily lift the indoor unit by the cushioning material between the indoor unit and the wall. Get it out after finish piping.
- Push the lower part of the Indoor Unit up to the wall, and then move the Indoor Unit from side to side, up and down to check if it is hooked securely.

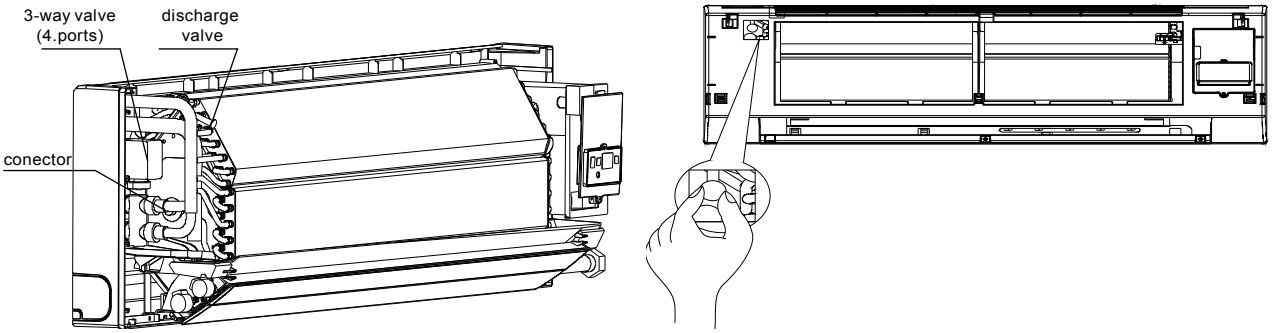


13.5 Water pipe installation

Connection of the water pipe should be done by professionals. Double-span should be used when connecting pipes of Indoor Unit.



- At the first debugging, completely expel air from coils via expelling valve.



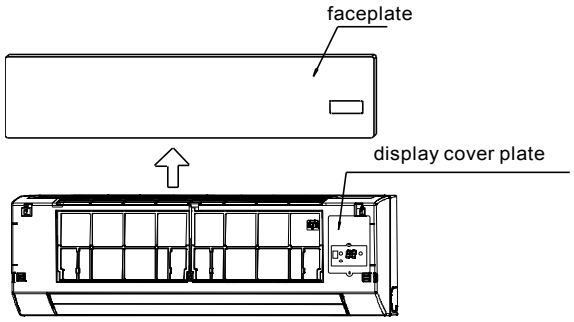
13.6 Wiring chart

The wiring diagram please refers to chapter 8.

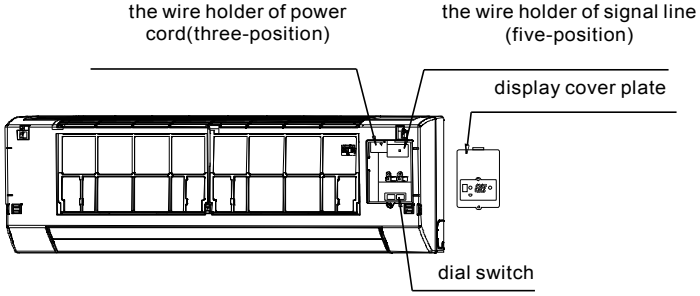
Cautions:

- The reserved function is indicated in broken line table, users can select it when necessary.
- 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.

Take out the faceplate, and then dismantle the display cover



Individual connect the power cord and signal line, adjust the dial switch.

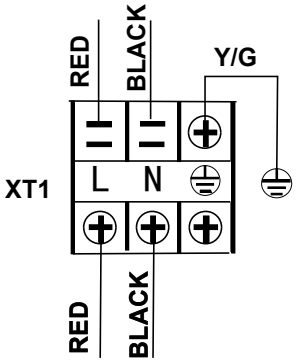


13.6.1 Terminal Board Diagram

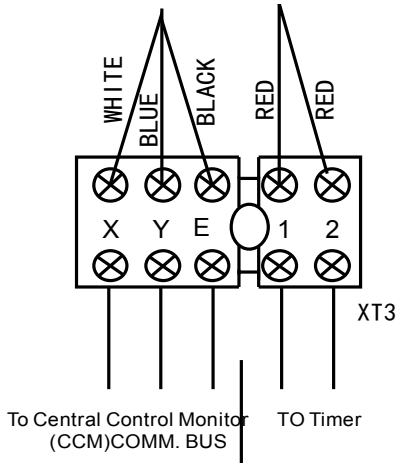
Note: The air-conditioners can connect with Central Control Monitor (CCM). Before operation, please wiring correctly and set system address and network address of indoor units.

- Single phase indoor unit

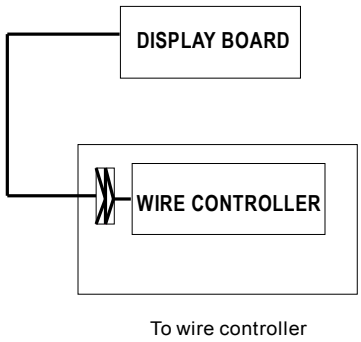
Power supply		220-240V/1 ph/50Hz
Circuit breaker/fuse (A)		15/15
Indoor unit power wiring	Below 20m	Twisted pairwire 2.5 mm^2
	Below 50m	Twisted pairwire 6 mm^2
Ground wiring (mm^2)		2.5



INDOOR UNIT POWER
220-240V～50Hz



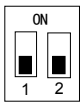
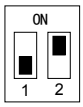
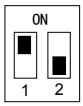
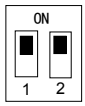
- Please adopt the shielded twisted-pair wire, and connect the shielded layer to E



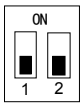
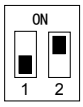
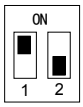
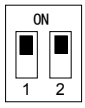
The reserved wire control function is indicated in broken line table, users can purchase the wire controller when necessary.

13.6.2 Network address setting

Every air-conditioner in network has only one network address to distinguish each other. Address code of air-conditioner in LAN is set by code switch on Network Interface Module (NIM), and the set range is 0-63.

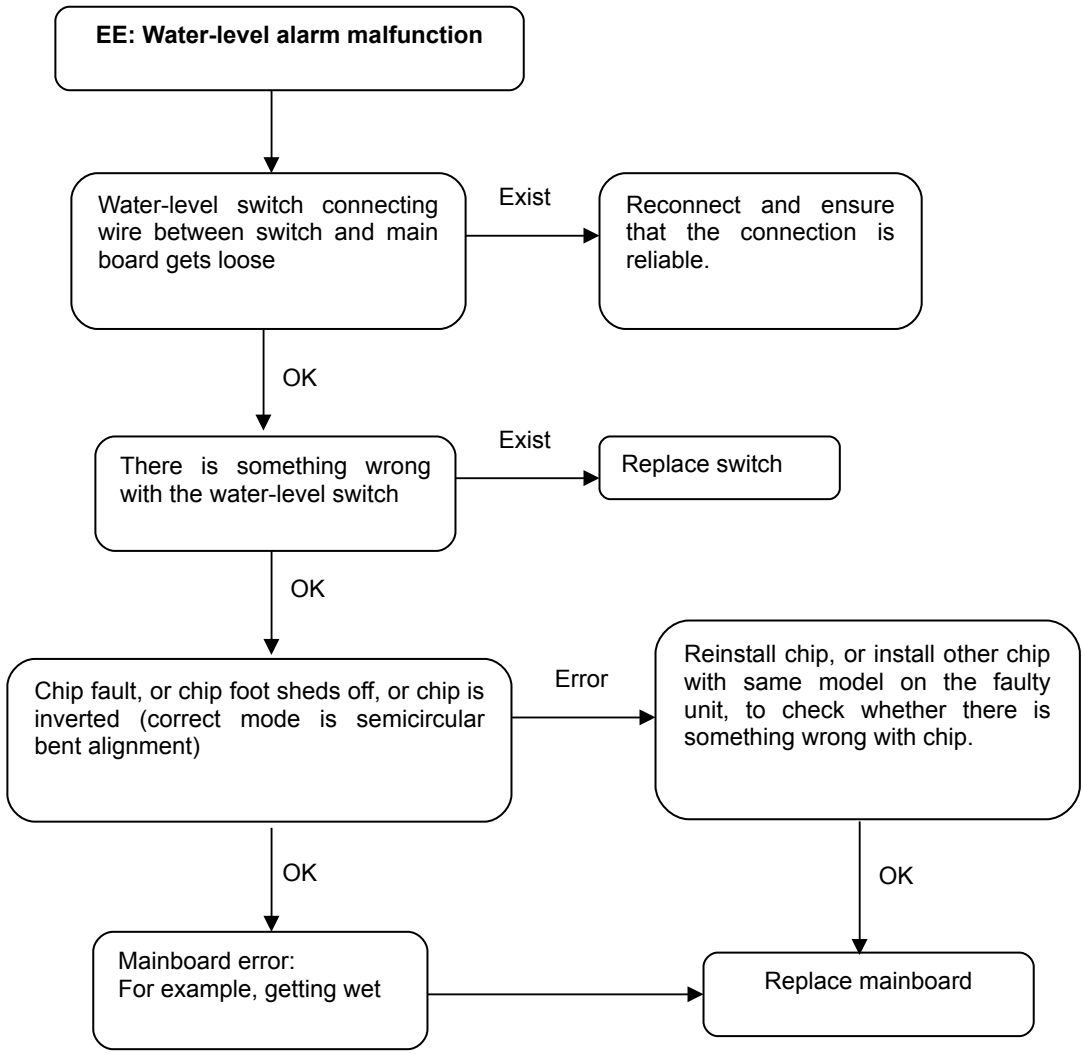
Toggle switch set		Network address code
SW1	ENC2	
		00~15
		16~31
		32~47
		48-63

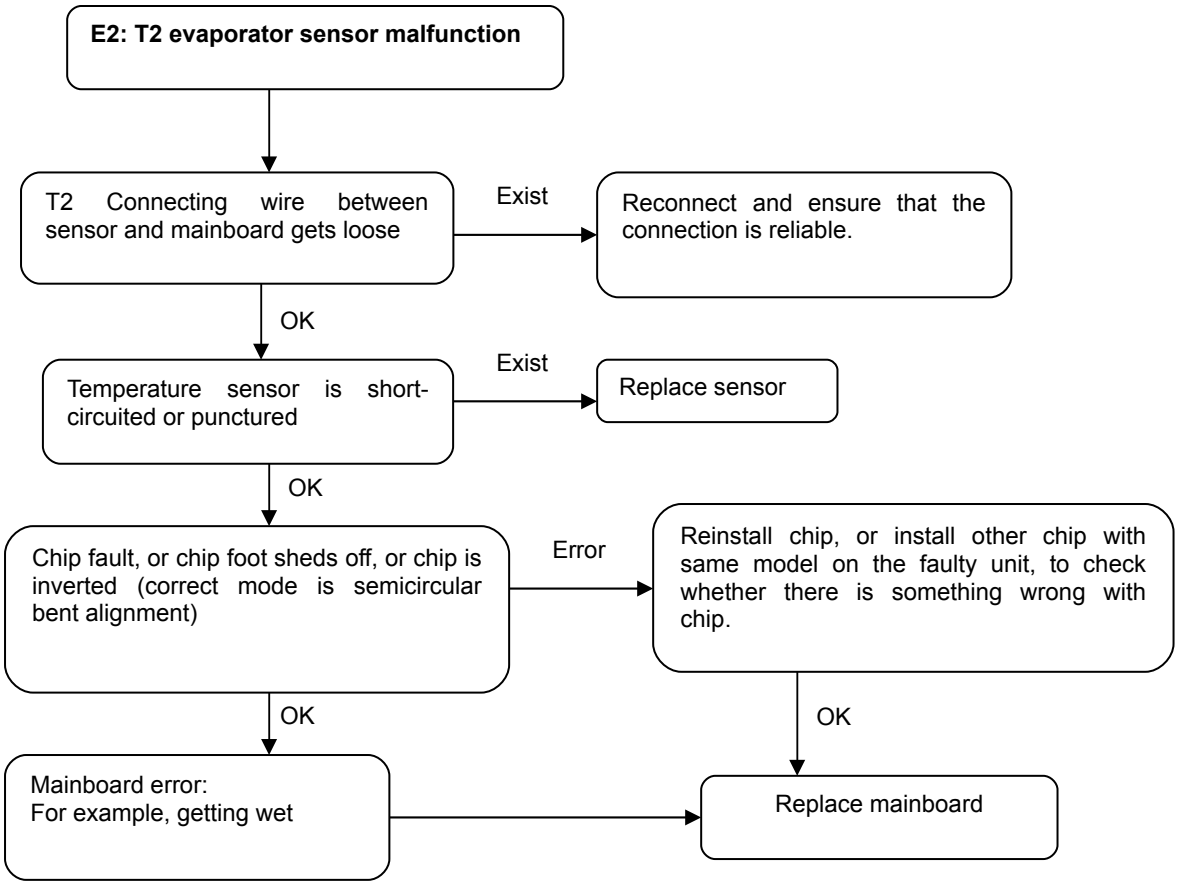
Functions of anti-cold wind and anti-hot wind

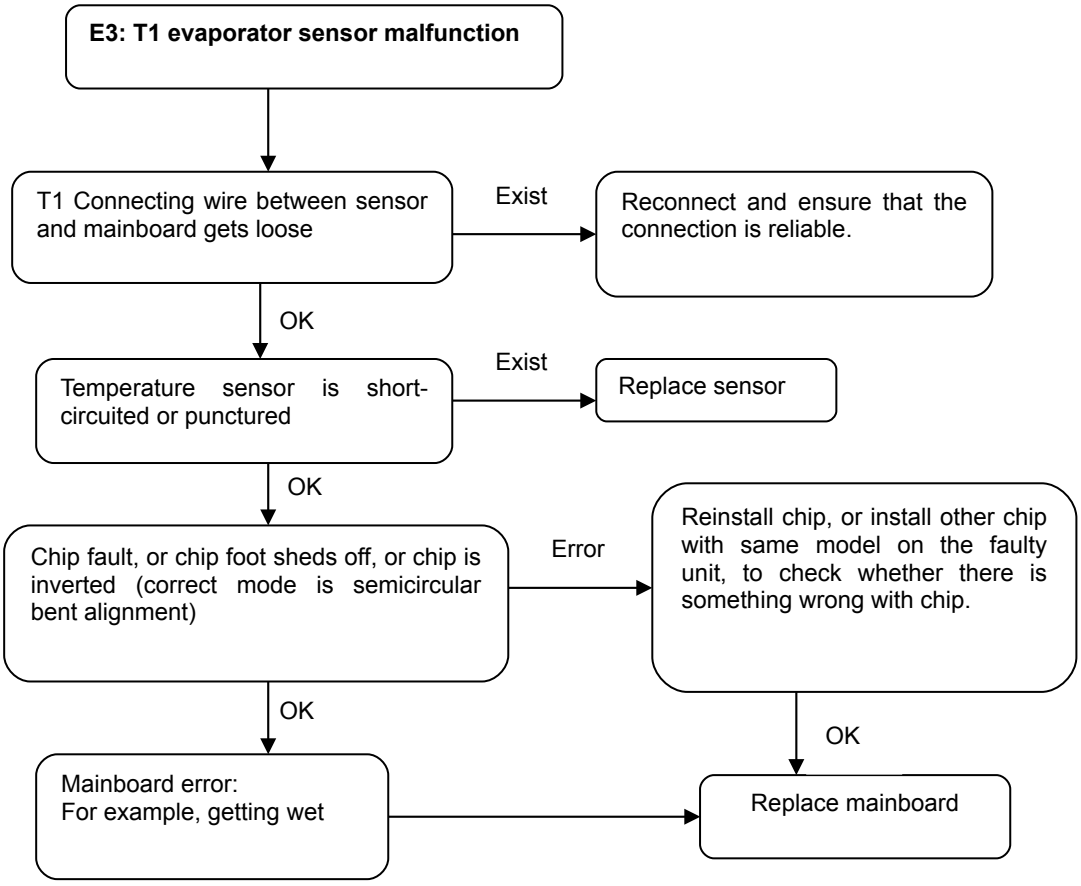
Toggle switch set	Function selection
SW2	
	Anti-cold wind OFF, Anti-hot wind OFF
	Anti-cold wind OFF, Anti-hot wind ON
	Anti-cold wind ON, Anti-hot wind OFF
	Anti-cold wind ON, Anti-hot wind O

13.7 Troubleshooting

Malfunction code	Malfunction
EE	Water-level alarm malfunction
E2	T2 evaporator sensor malfunction
E3	T1 evaporator sensor malfunction




E2: T2 evaporator sensor malfunction
T2 Connecting wire between sensor and mainboard gets loose
Exist
Reconnect and ensure that the connection is reliable.
OK
Temperature sensor is short-circuited or punctured
Exist
Replace sensor
OK
Chip fault, or chip foot sheds off, or chip is inverted (correct mode is semicircular bent alignment)
Error
Reinstall chip, or install other chip with same model on the faulty unit, to check whether there is something wrong with chip.
OK
OK
Mainboard error:
For example, getting wet
Replace mainboard


E3: T1 evaporator sensor malfunction
T1 Connecting wire between sensor and mainboard gets loose
Exist
Reconnect and ensure that the connection is reliable.
OK
Temperature sensor is short-circuited or punctured
Exist
Replace sensor
OK
Chip fault, or chip foot sheds off, or chip is inverted (correct mode is semicircular bent alignment)
Error
Reinstall chip, or install other chip with same model on the faulty unit, to check whether there is something wrong with chip.
OK
OK
Mainboard error:
For example, getting wet
Replace mainboard

13.7.1 Troubles and causes of air conditioner

If one of the following malfunctions occur, stop operation, shut off the power, and contact with your dealer.

- The operation lamp is flashing rapidly (twice every second)
- This lamp is still flashing rapidly after turn off the power and turn on again.
- Remote controller receives malfunction or the button does not work well.
- A safety device such as a fuse, a breaker frequently actuates.
- Water leaks from indoor unit.
- Other malfunctions.

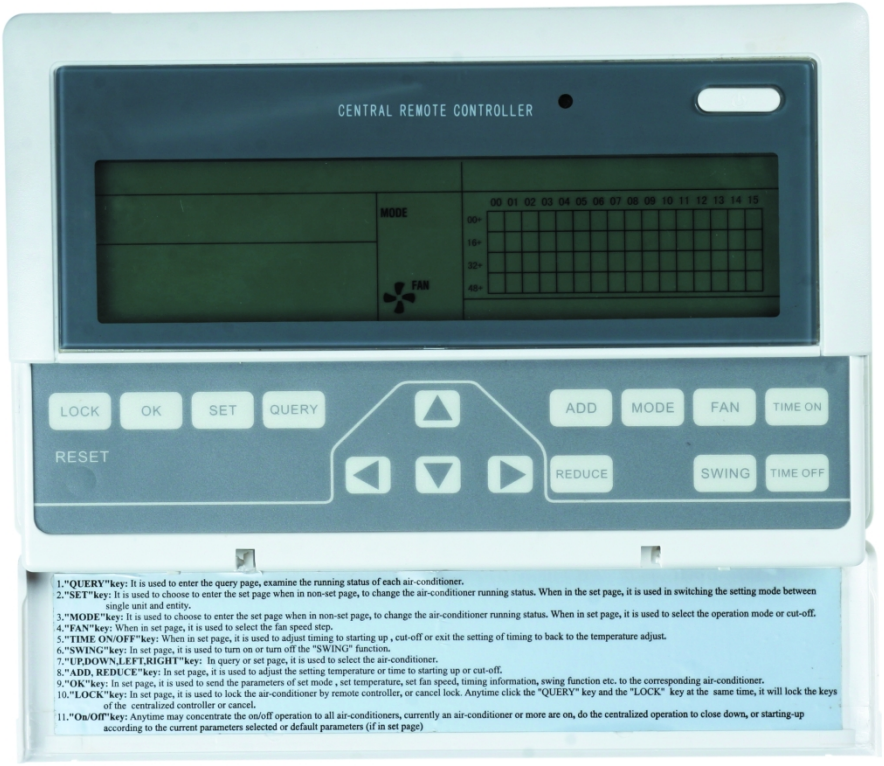
Symptoms	Causes	Solution
Unit does not start	• Power failure. • Power switch is off. • Fuse of power switch may have burned. • Batteries of remote controller exhausted or other problem of controller.	• Wait for the comeback of power. • Switch on the power. • Replace the fuse. • Replace the batteries or check the controller.
Air flowing normally but completely can't cooling	• Temperature is not set correctly.	• Set the temperature properly.
Low cooling effect	• Indoor unit heat exchanger is dirty. • The air filter is dirty. • Inlet of indoor units is blocked. • Doors and windows are open • Sunlight directly shine. • Too much heat resource. • Outdoor temp. is too high.	• Clean the heat exchanger. • Clean the air filter. • Eliminate all dirties and make air smooth. • Close doors and windows. • Make curtains in order to shelter from sunshine. • Reduce heat source. • AC cooling capacity reduces (normal).
Low heating effect	• Outdoor temperature is lower than 7°C . • Doors and windows not completely closed.	• Use heating device. • Close doors and windows.

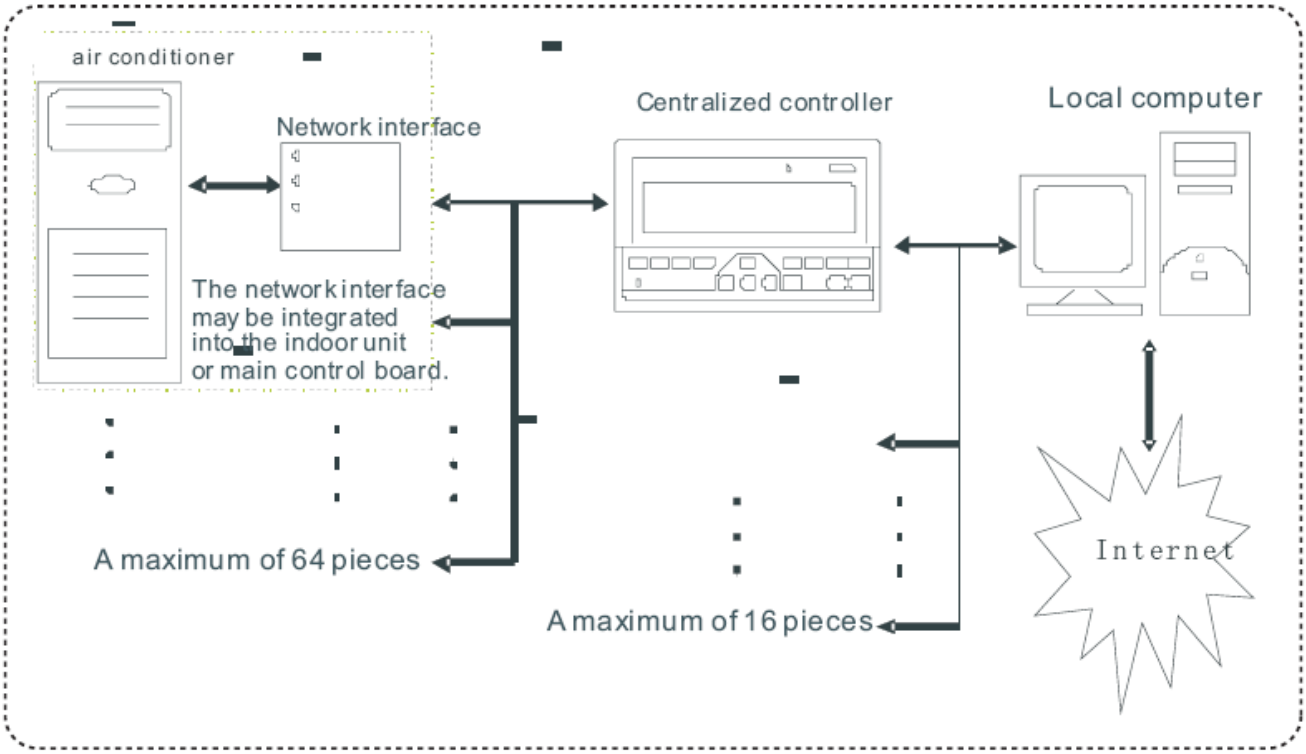
13.7.2 Troubles and causes of remote controller

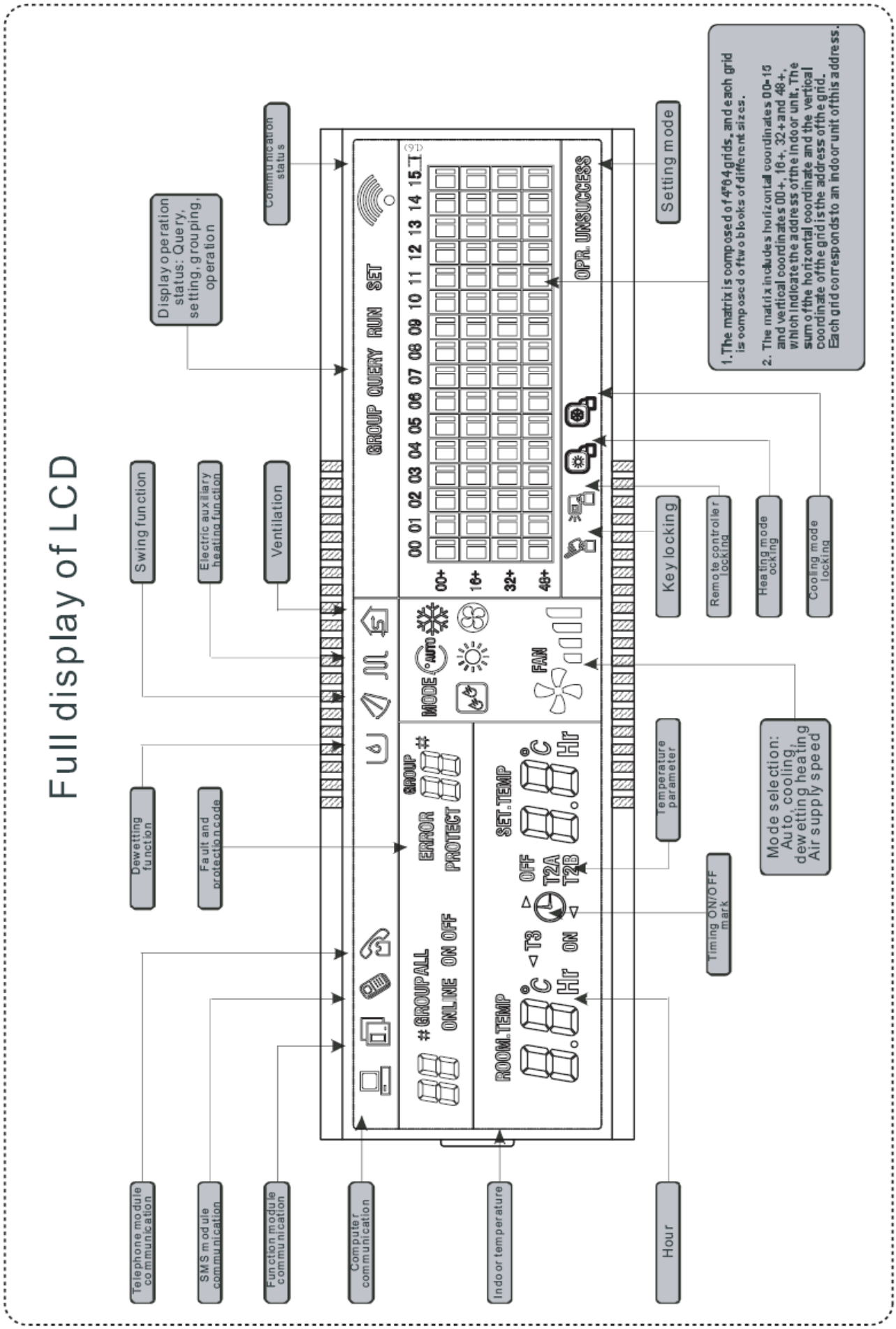
Before asking for serving or repairing, check the following points.

Symptoms	Causes	Solution
The fan speed can not be changed.	● Check whether the MODE indicated on the display is "AUTO"	When the automatic mode is selected, the air conditioner will automatically change the fan speed.
	● Protection against hot wind in cooling mode. ● Protection against cold wind in heating mod	Reduce the temperature of inlet in cooling mode rise the temperature of inlet in heating mode.
The remote controller signal is not transmitted even when the ON/OFF button is pushed.	● Check whether the batteries in the remote controller are exhausted.	The power supply is off.
The TEMP. indicator does not come on.	● Check whether the MODE indicated on the display is FAN ONLY	The temperature cannot be set during FAN mode.
The indication on the display disappears after a lapse of time.	● Check whether the timer operation has come to an end when the TIMER OFF is indicated on the display.	The air conditioner operation will stop up to the set time
The TIMER ON indicator goes off after a lapse of certain time.	● Check whether the timer operation is started when the TIMER ON is indicated on the display.	Up to the set time, the air conditioner will automatically start and the appropriate indicator will go off.
No receiving tone sounds from the indoor unit even when the ON/OFF button is pressed.	● Check whether the signal transmitter of the remote controller is properly directed to the infrared signal receiver of the indoor unit when the ON/OFF button is pressed.	Directly transmit the signal transmitter of the remote controller to the infrared signal receiver of the indoor unit, and then repeatly push the ON/OFF button twice.

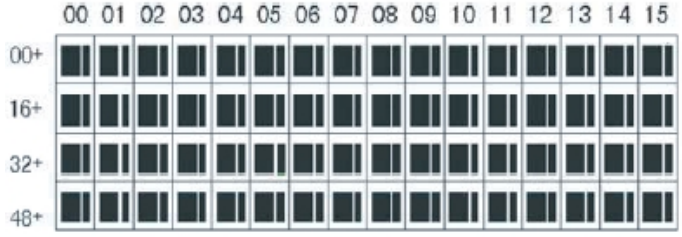
14.2.3 Central Controller: CCM03





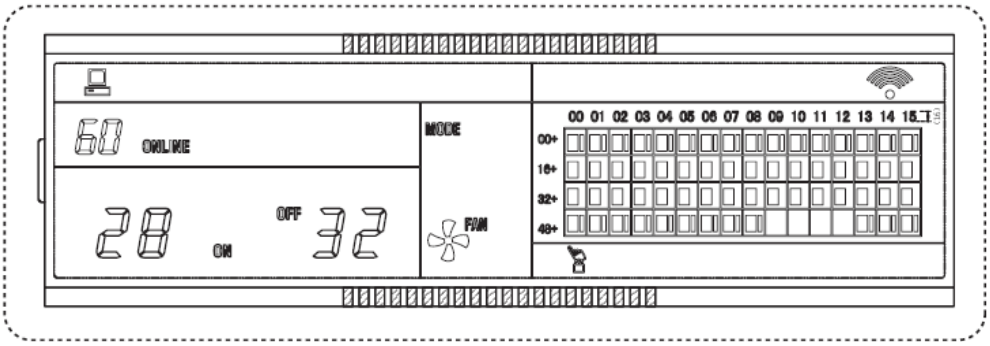

Full display of LCD
Communicaton status
Display operation status: Query, setting, grouping, operation
Setting mode
1.The matrix is composed of 4*64 grids, and each grid is composed of two blocks of different sizes.
2. The matrix includes horizontal coordinates 00-15 and vertical coordinates 00+, 16+, 32+ and 48+, which indicate the address of the indoor unit. The sum of the horizontal coordinate and the vertical coordinate of the grid is the address of the grid. Each grid corresponds to an indoor unit of this address.
GROUP QUERY RUN SET
OPR. UNSUCCESS
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
00+
16+
32+
48+
Swing function
Electric auxiliary heating function
Ventilation
Key locking
Remote controller locking
Heating mode locking
Cooling mode locking
MODE
FAN
GROUP
ERROR
PROTECT
GROUP ALL
ONLINE ON OFF
ROOM.TEMP
SET.TEMP
T3
T2A
T2B
OFF
ON
Dewetting function
Fault and protection code
Temperature parameter
Timing ON/OFF mark
Mode selection: Auto, cooling, dewetting heating Air supply speed
Telephone module communication
SMS module communication
Function module communication
Computer communication
Indoor temperature
Hour

Liquid crystal matrix display description:



1. The liquid crystal matrix is composed of 4*64 grids, and each grid is composed of two blocks of different sizes (as shown in the above figure).
2. The matrix includes horizontal coordinates 00-15 on the upper side and vertical coordinates 00+, 16+, 32+ and 48+ on the left
   Side, which indicate the address of the indoor unit. The sum of the horizontal coordinate and the vertical coordinate of the grid is the address of the grid. Each grid corresponds to an indoor unit of this address.
3. One grid is composed of two blocks of different sizes. The status
   Indication table is as follows:

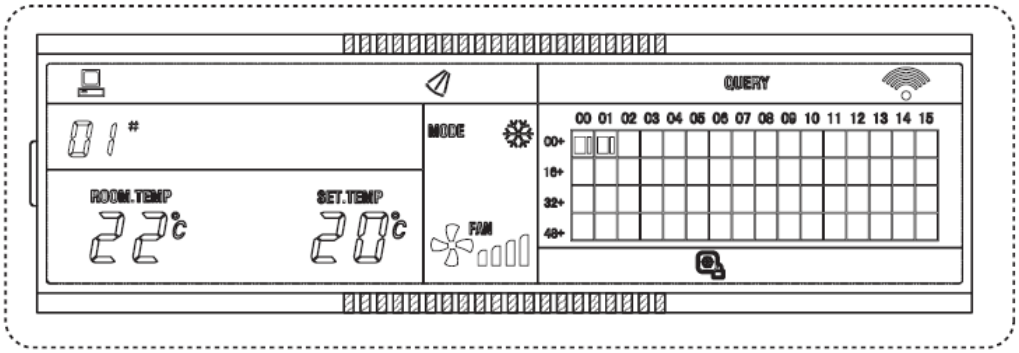
Status Object	Constantly on	Slow blink		Fast blink
Big black block	In-service	Selected		Out of service
Small black block	Power on		Fault of indoor unit	Power off



LCD display description

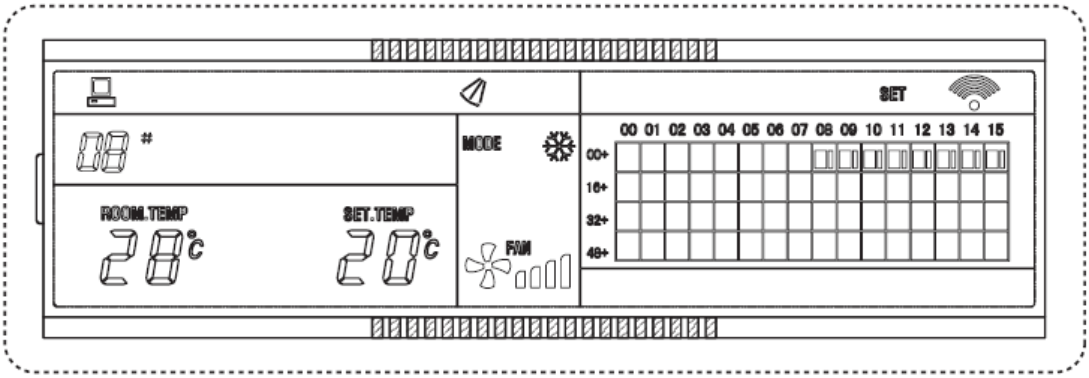
1. Description of the standby page

1) The LCD displays the standby page, 60 air conditioners are in service, of which 28 are powered on and 32 off.
2) In the matrix, the big dots of (00, 16+) and (15,32+) are luminous, and the small dots are not luminous. It indicates the 32 air conditioners with the addresses from 16 to 47 are powered off.
3) In the matrix, the big and small dots of (09, 48+) and (12, 48+) are not luminous. It indicates the four air conditioners with the addresses from 57 to 60 are outside the network.
4) All other big and small dots in the matrix are luminous. It indicates all other air conditioners are in the network and powered on.
5) The address of the air conditioner is sum of the coordinates. For example, the address of (09, 48+) is 09+48=57.
6) The centralized controller keypad is locked, and the centralized controller communicates with the computer normally.



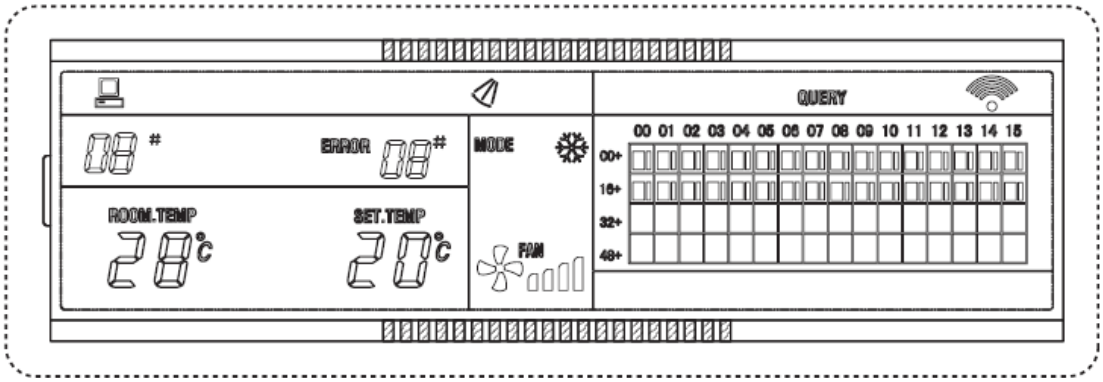
Query page description

1) The LCD displays the query page, and the air conditioner with the address of 08 is being queried. Mode of the air conditioner with the address 01 is: Cooling, strong air, swing on, indoor temperature 22°C, set temperature 20°C, cooling mode “lock”.
2) In the matrix, only the big and small black dots at (00, 00+) and (01, 00+) are luminous. It indicates the in-service and power-on status of the air conditioners with the addresses of 00 and 01.
3) The centralized controller communicates with the computer normally.



Setting page description

1) The LCD displays the setting page, and queries the air conditioner with the address of 08. The mode of the air conditioner with the address 08 is: Cooling, strong air, swing on, indoor temperature 28°C, set temperature 22°C, cooling.
2) In the matrix, only the big black dots from (08, 00+) to (16, 00+) are luminous. It indicates the air conditioners with the addresses from 08 to 16 are in service.
3) The centralized controller communicates with the computer normally.



Fault page display description

1) Query the air conditioner with the address of 08 in the query page. The air conditioner with the address of 08 is faulty, and the fault code is 08. The big black dot below (08, 0+) blinks.
2) In the matrix, only the big and small black dots from (00, 00+) to (16, 15+) illuminate. It indicates the in-service status of the air conditioners with the addresses of 00 and 01.
3) The centralized controller communicates with the computer normally.