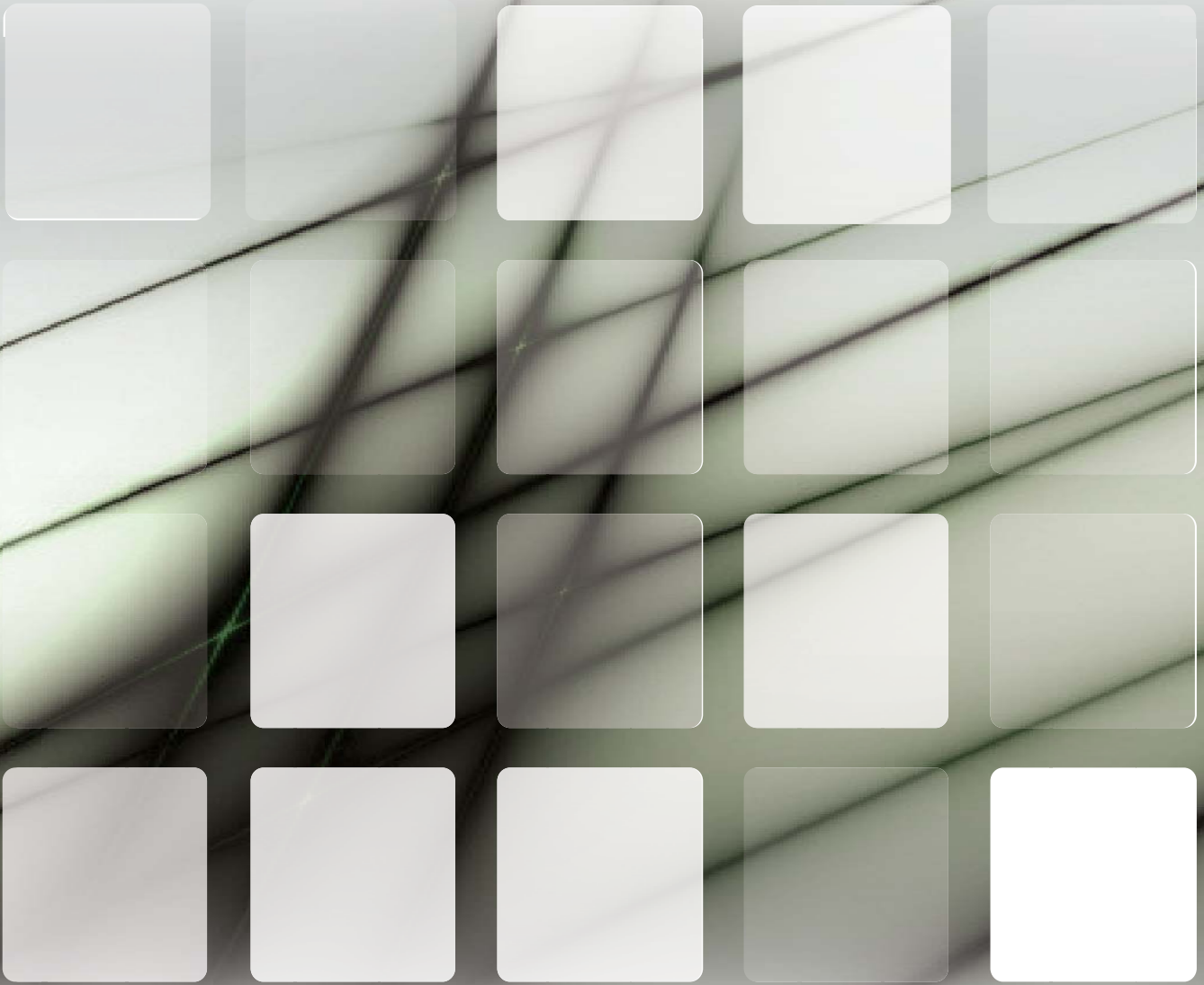


VECM Series

Compact Four-Way Cassette Indoor Unit Technical Manual

220~240V/1/50-60Hz



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1. Specifications

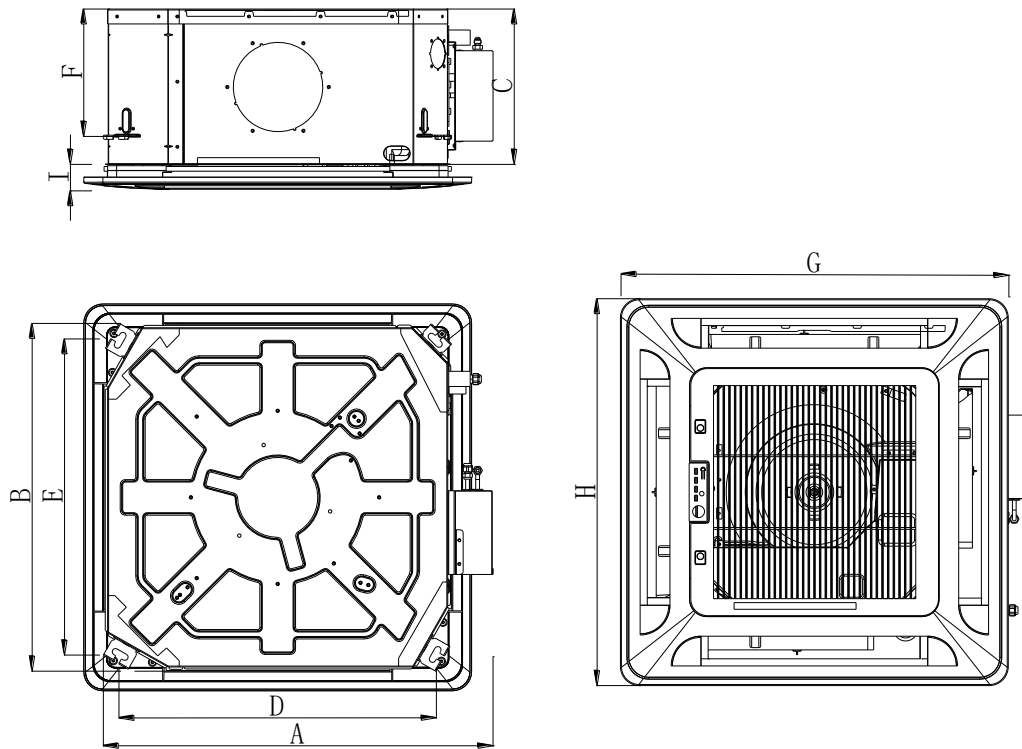
Model			VECM008Q0A-GWV022	VECM010Q0A-GWV028	VECM012Q0A-GWV036	VECM015Q0A-GWV045	
Power supply			220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz	
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	
	Heating	kW	2.5	3.2	4	5	
Power Input			kW	0.015	0.015	0.023	0.023
Fan motor	Model		DR-310-35Q-8-1	DR-310-35Q-8-1	DR-310-35Q-8-1	DR-310-35Q-8-1	
	Type		DC	DC	DC	DC	
	Speed (Hi/Med/Low)	r/min	570/440/350	570/440/350	640/530/440	640/530/440	
Indoor coil	Number of rows		2	2	2	2	
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum	
	Tube diameter and type	mm	Ø7, Innergroove Tube	Ø7, Innergroove Tube	Ø7, Innergroove Tube	Ø7, Innergroove Tube	
Air flow (H/M/L)			m ³ /h	440/327/246	440/327/246	530/432/327	530/432/327
Sound power level			dB(A)	21~32	21~32	26~36	26~36
Body	Dimension (W×H×D)	in/mm	25 3/4×10 1/2×23 (653×267×585)	25 3/4×10 1/2×23 (653×267×585)	25 3/4×10 1/2×23 (653×267×585)	25 3/4×10 1/2×23 (653×267×585)	
	Packing (W×H×D)	in/mm	29 3/4×14 3/4×26 3/4 (755×375×680)	29 3/4×14 3/4×26 3/4 (755×375×680)	29 3/4×14 3/4×26 3/4 (755×375×680)	29 3/4×14 3/4×26 3/4 (755×375×680)	
	Net/Gross weight	lbs/kg	38.58(17.5)/50.71(23)	38.58(17.5)/50.71(23)	38.58(17.5)/50.71(23)	38.58(17.5)/50.71(23)	
Panel	Dimension (W×H×D)	in/mm	25 5/8×30 1/21×25 5/8(650×30×650)	25 5/8×30 1/21×25 5/8(650×30×650)	25 5/8×30 1/21×25 5/8(650×30×650)	25 5/8×30 1/21×25 5/8(650×30×650)	
	Packing (W×H×D)	in/mm	29 1/2×3 3/4×29 1/2(750×95×750)	29 1/2×3 3/4×29 1/2(750×95×750)	29 1/2×3 3/4×29 1/2(750×95×750)	29 1/2×3 3/4×29 1/2(750×95×750)	
	Net/Gross weight	lbs/kg	5.95(2.7)/8.82(4.0)	5.95(2.7)/8.82(4.0)	5.95(2.7)/8.82(4.0)	5.95(2.7)/8.82(4.0)	
Refrigerant type				R410A	R410A	R410A	R410A
Throttle type				Electrical expansion valve	Electrical expansion valve	Electrical expansion valve	Electrical expansion valve
Design pressure			MPa	4.5	4.5	4.5	4.5
Liquid pipe / Gas pipe			mm	Ø6.35/ Ø9.53	Ø6.35/ Ø9.53	Ø6.35/ Ø12.7	Ø6.35/ Ø12.7
Connecting wire	Power wire	AWG	2.5*2+2.5(L≤20m)	2.5*2+2.5(L≤20m)	2.5*2+2.5(L≤20m)	2.5*2+2.5(L≤20m)	
	Signal wire	AWG	0.75*2 shield	0.75*2 shield	0.75*2 shield	0.75*2 shield	
Drainage water pipe (outer diameter)			mm	Ø25	Ø25	Ø25	Ø25
Controller	Standard		Remote controller	Remote controller	Remote controller	Remote controller	
	Optional		Wired controller	Wired controller	Wired controller	Wired controller	
Setting Temperature Range			°C	16~32	16~32	16~32	16~32

Notes:

- 1) Nominal cooling capacities are based on the following conditions.
 - Outdoor temperature: 35°C DB
 - Return air temperature: 27°C DB, 19°C WB
 - Equivalent piping length: 8m in horizontal
- 2) Nominal heating capacities are based on the following condition.
 - Outdoor temperature: 7°C DB, 6°C WB
 - Return air temperature: 20°C DB
 - Equivalent piping length: 8m in horizontal
- 3) Sound pressure level: Semi-anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.4 m.
- 4) The above data may be changed without notice for future improvement on quality and performance.

2. Dimensions

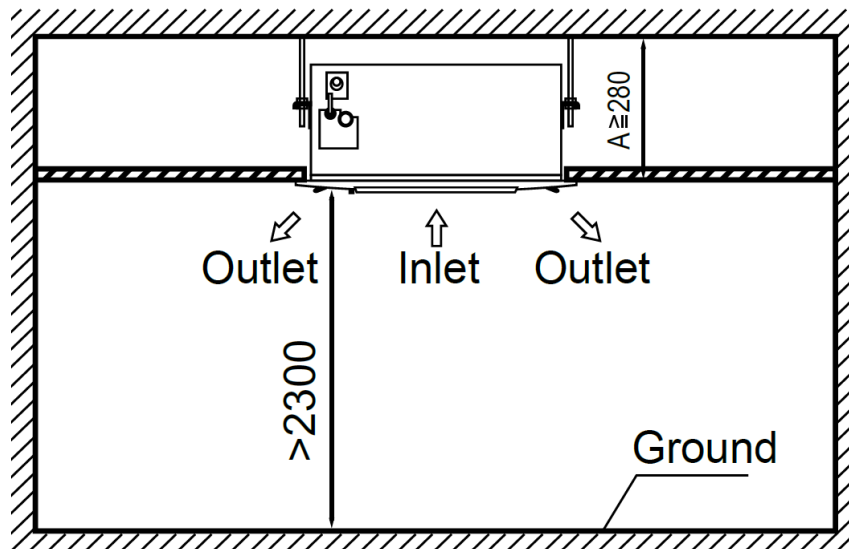
VECM008(010,012,015)



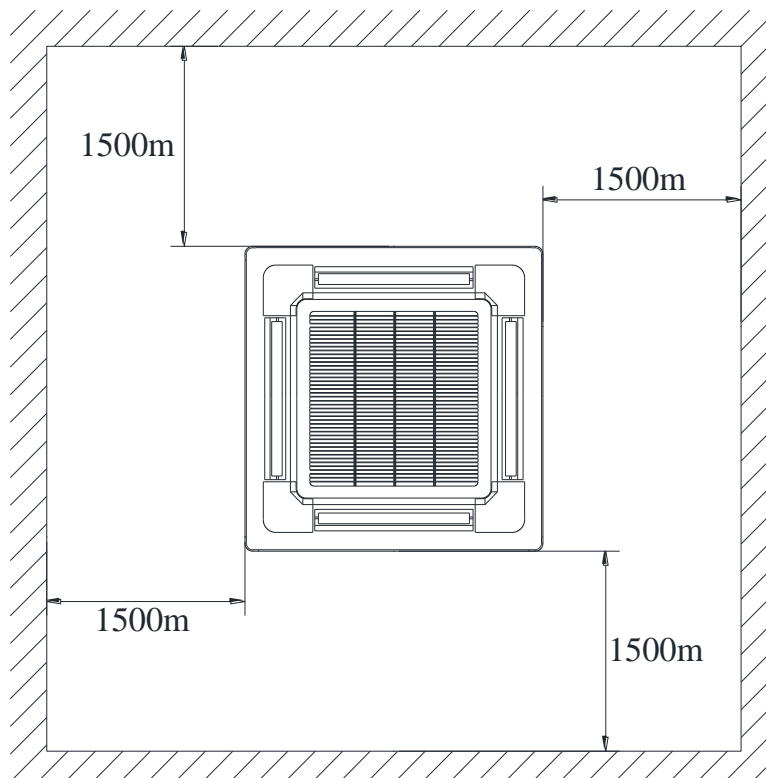
Model	Body dimension (mm)			Installation dimension (mm)			Panel dimension (mm)		
	A	B	C	D	E	F	G	H	I
VECM008Q0A-GWV022	653	585	267	528	528	212	650	650	30
VECM010Q0A-GWV028	653	585	267	528	528	212	650	650	30
VECM012Q0A-GWV036	653	585	267	528	528	212	650	650	30
VECM015Q0A-GWV045	653	585	267	528	528	212	650	650	30

3. Service space

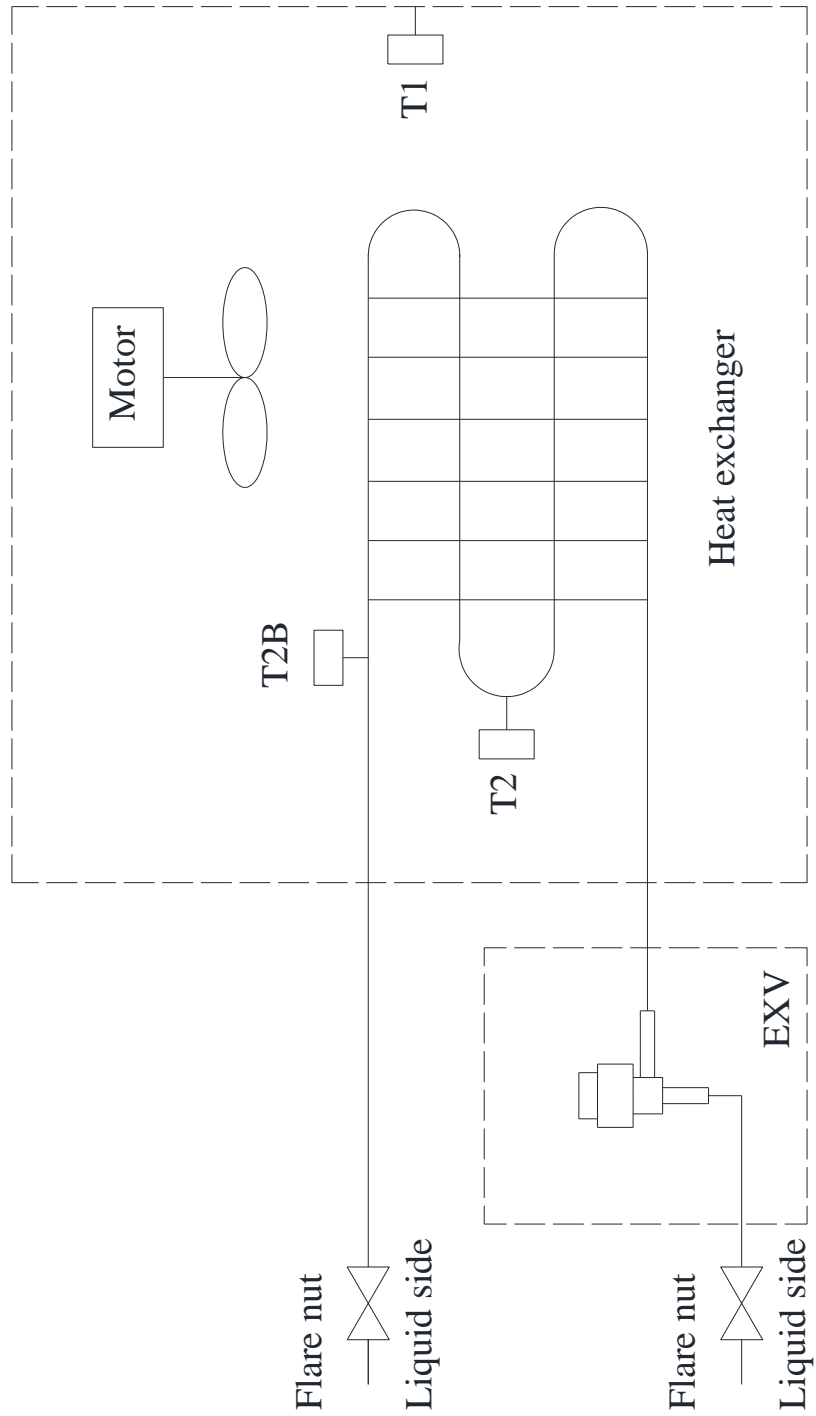
- There is enough room for installation and maintenance.
- The ceiling is horizontal, and its structure can endure the weight of the indoor unit.
- The outlet and the inlet are not impeded, and the influence of external air is the least.
- The air flow can reach throughout the room.
- The connecting pipe and drainpipe could be extracted out easily.
- There is no direct radiation from heaters.
- Keep more than 2.3m distance between the panel and ground of the room.



- Keep at least 1m to the wall of each side.



4. Piping diagram

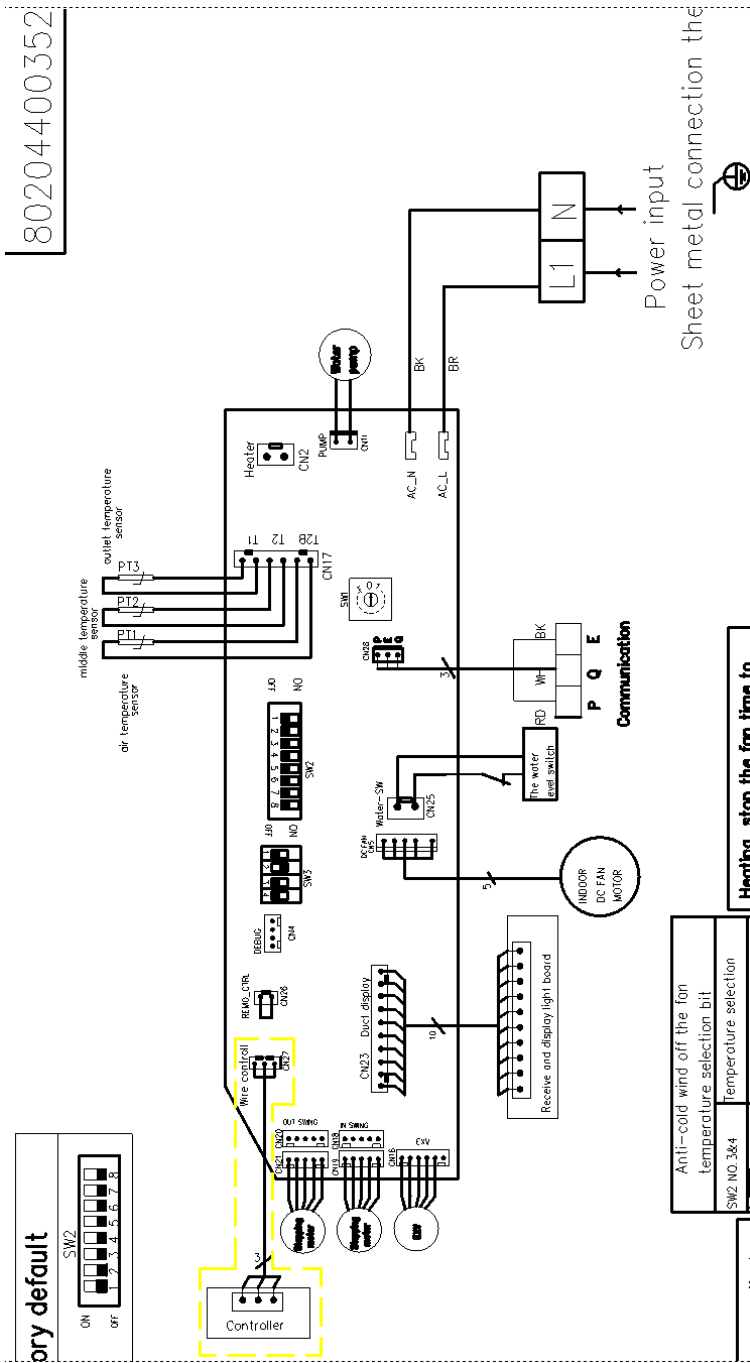


Notes:

- 1) T1: Room temperature sensor
- 2) T2: Temperature sensor of middle heat exchanger
- 3) T2B: Temperature sensor of heat exchanger outlet
- 4) EXV: Electrical expansion valve

5. Wiring diagram

7.1 Wiring diagram



Notes:

1) Color code:

- RD: Red
- OR: Orange
- BK: Black:
- BR: Brown
- WH: White

2) T1: Room temperature sensor

3) T2: Temperature sensor of middle heat exchanger

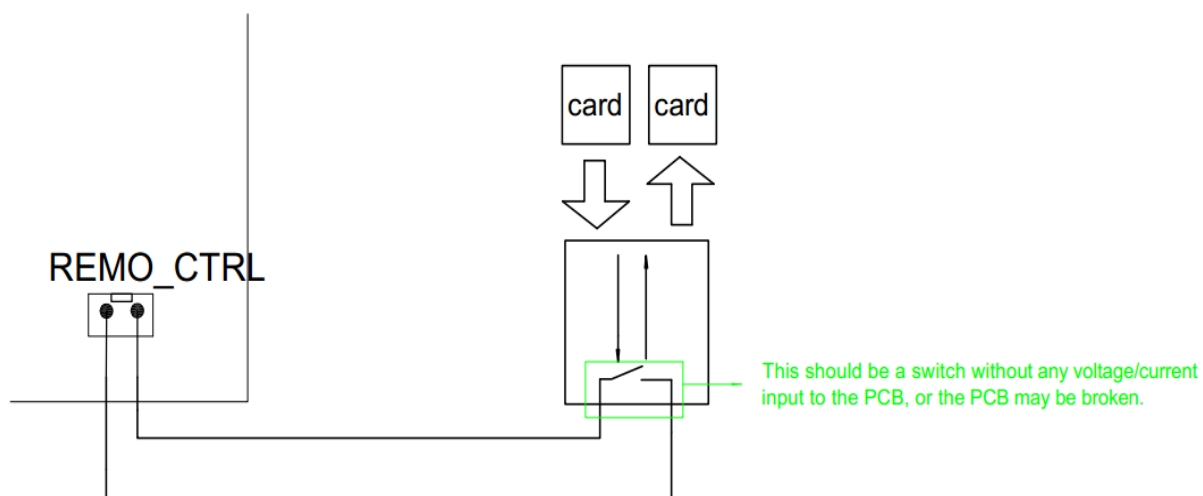
4) T2B: Temperature sensor of heat exchanger outlet

5) EXV: Electrical expansion valve

6) Electrical heater is optional, please contact to Chigo's

OMEGA VRF indoor unit connect with card key

Connect the remote control terminal on the indoor PCB to the hotel card module.



NOTE: The terminal in the hotel card module must be a switch without any voltage/current input to the PCB, otherwise the PCB will be broken.

7.2 Dial switches

7.2.1 SW1:Capacity switch.

Different number in the switch indicates different capacity. It is set in factory, leave it as default setting,

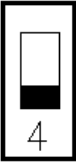

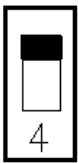



HP	0.8	1	1.2	1.7	2	2.5
Capacity (kW)	1.8/2.2	2.5/2.6/2.8	3.2/3.5/3.6	4.1/4.5/4.6	5.1/5.6	6.0/6.6/7.1
Code	0	1	2	3	4	5





HP	3	3.2	4	5	6
Capacity (kW)	8.0	8.8/9.0	10.0/11.0/11.2	12.0/12.5/14.0	15.0/16.0
Code	6	7	8	9	A





7.2.2 SW3

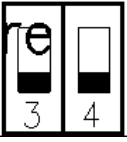
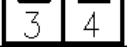
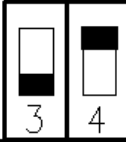

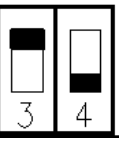
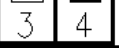
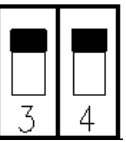
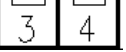
Name	Switch number 1 2 3 of SW3			
Function	Unit Type			
Setting	<p>ON OFF</p> <p>1 2 3</p> <p>Big Ceiling Cassette Unit</p>	<p>ON OFF</p> <p>1 2 3</p> <p>360 Ceiling Cassette Unit</p>	<p>ON OFF</p> <p>1 2 3</p> <p>Small Ceiling Cassette Unit (Default setting)</p>	<p>ON OFF</p> <p>1 2 3</p> <p>Reserved</p>
	<p>ON OFF</p> <p>1 2 3</p> <p>Reserved</p>	<p>ON OFF</p> <p>1 2 3</p> <p>Reserved</p>	<p>ON OFF</p> <p>1 2 3</p> <p>Reserved</p>	<p>ON OFF</p> <p>1 2 3</p> <p>Reserved</p>

Name	Switch number 4 of SW3	
Function	Automatic Addressing mode(Factory Default)	Test Mode(allow to clear address)
Setting	<p>ON </p> <p>OFF </p>	<p>ON </p> <p>OFF </p>

7.2.1 SW2, only available in heating mode.

Name	Switch number 1 of SW2	
Function	Refrigerant temperature compensation temperature value select bits	
Setting	<p>ON </p> <p>OFF </p> <p>3°C(Factory default)</p>	<p>ON </p> <p>OFF </p> <p>1°C</p>

Name	Switch number 2 of SW2	
Function	Heating temperature compensation temperature value select bits	
Setting	<p>ON </p> <p>OFF </p> <p>6°C(Factory default)</p>	<p>ON </p> <p>OFF </p> <p>2°C</p>

Name	Switch number 3,4 of SW2			
Function	Anti-cold wind off the fan temperature selection bit			
Setting	<p>ON </p> <p>OFF </p> <p>15°C(Factory default)</p>	<p>ON </p> <p>OFF </p> <p>20°C</p>	<p>ON </p> <p>OFF </p> <p>24°C</p>	<p>ON </p> <p>OFF </p> <p>26°C</p>

Name	Switch number 5 of SW2	
Function	Heating stop the fan time to chooset	
Setting	<p>ON</p> <p>OFF</p> <p>4min(Factory default)</p>	<p>ON</p> <p>OFF</p> <p>8min</p>

Name	Switch number 6 of SW2	
Function	According to the contract custom power lost memory functions	
Setting	<p>ON</p> <p>OFF</p> <p>Power-down memory (Factory default)</p>	<p>ON</p> <p>OFF</p> <p>No Power-down memory</p>

Name	Switch number 8 of SW2	
Function	Fan Speed Choice	
Setting	<p>ON</p> <p>OFF</p> <p>Standard Mode (Factory default)</p>	<p>ON</p> <p>OFF</p> <p>Mode2</p>

Switch number 7 of SW2, reserved, leave it as default setting (switch dial down).

8 Capacity tables

8.1 Cooling

TC: Total Capacity SC: Sensible Capacity WB: Wet-bulb Temperature DB: Dry-bulb Temperature

Capacity (kW)	Outdoor temperature (°C DB)	Indoor temperature (°C WB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW
2.2	10	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.56	1.82	2.67	1.64
	12	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.56	1.82	2.64	1.63
	14	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.54	1.81	2.62	1.62
	16	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.52	1.79	2.60	1.60
	18	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.50	1.78	2.57	1.59
	19	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.47	1.76	2.55	1.57
	21	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.45	1.75	2.52	1.56
	23	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.80	2.43	1.73	2.50	1.55
	25	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.40	1.78	2.40	1.71	2.48	1.53
	27	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.37	1.77	2.38	1.70	2.45	1.52
	29	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.35	1.75	2.36	1.68	2.43	1.51
	31	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.33	1.73	2.34	1.67	2.41	1.49
	33	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.31	1.70	2.31	1.65	2.38	1.48
	35	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.70	2.27	1.69	2.29	1.64	2.36	1.46
	37	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.69	2.24	1.65	2.27	1.61	2.31	1.44
	39	1.52	1.37	1.80	1.44	2.07	1.70	2.20	1.68	2.22	1.64	2.24	1.59	2.29	1.42
	41	1.52	1.37	1.80	1.44	2.05	1.70	2.18	1.67	2.20	1.62	2.22	1.57	2.26	1.41
43	1.52	1.37	1.80	1.44	2.02	1.70	2.16	1.66	2.18	1.61	2.20	1.56	2.24	1.39	
46	1.52	1.37	1.76	1.41	1.96	1.70	2.13	1.66	2.16	1.59	2.18	1.54	2.22	1.38	
48	1.52	1.37	1.74	1.39	1.89	1.65	2.07	1.64	2.13	1.57	2.11	1.53	2.16	1.37	
50	1.50	1.37	1.73	1.38	1.83	1.63	2.00	1.60	2.07	1.56	2.05	1.51	2.09	1.35	
2.8	10	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.26	2.30	3.39	2.07
	12	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.26	2.30	3.36	2.05
	14	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.23	2.28	3.33	2.04
	16	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.20	2.26	3.30	2.02
	18	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.18	2.24	3.27	2.00
	19	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.15	2.22	3.24	1.98
	21	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.12	2.20	3.21	1.96
	23	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.27	3.09	2.18	3.18	1.95
	25	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.05	2.25	3.06	2.16	3.15	1.93
	27	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	3.02	2.23	3.03	2.14	3.12	1.91
	29	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	2.99	2.21	3.00	2.12	3.09	1.89
	31	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	2.96	2.19	2.97	2.10	3.06	1.88
	33	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	2.93	2.15	2.94	2.08	3.03	1.86
	35	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.14	2.89	2.12	2.91	2.06	3.00	1.84
	37	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.13	2.85	2.08	2.88	2.02	2.94	1.81
	39	1.94	1.75	2.29	1.83	2.64	2.14	2.80	2.11	2.83	2.06	2.86	2.00	2.91	1.79
	41	1.94	1.75	2.29	1.83	2.60	2.14	2.77	2.10	2.80	2.04	2.83	1.98	2.88	1.77
43	1.94	1.75	2.29	1.83	2.58	2.14	2.74	2.09	2.77	2.02	2.80	1.96	2.85	1.75	
46	1.94	1.75	2.24	1.79	2.49	2.14	2.72	2.09	2.74	2.00	2.77	1.94	2.83	1.74	
48	1.94	1.75	2.22	1.77	2.41	2.07	2.63	2.07	2.72	1.98	2.69	1.92	2.74	1.72	
50	1.90	1.75	2.20	1.75	2.32	2.05	2.55	2.01	2.63	1.96	2.60	1.90	2.66	1.70	
3.6	10	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	4.20	2.93	4.36	2.64
	12	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	4.20	2.93	4.32	2.62
	14	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	4.16	2.91	4.29	2.59
	16	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	4.12	2.88	4.25	2.57
	18	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	4.08	2.86	4.21	2.55
	19	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	4.05	2.83	4.17	2.53
	21	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	4.01	2.81	4.13	2.50
	23	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.89	3.97	2.78	4.09	2.48
	25	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.92	2.87	3.93	2.75	4.05	2.46
	27	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.88	2.84	3.90	2.73	4.01	2.44
	29	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.85	2.81	3.86	2.70	3.98	2.41
	31	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.81	2.79	3.82	2.68	3.94	2.39
	33	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.77	2.74	3.78	2.65	3.90	2.37
	35	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.72	3.72	2.71	3.75	2.63	3.86	2.34
	37	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.71	3.66	2.66	3.71	2.58	3.78	2.30
	39	2.49	2.25	2.94	2.35	3.39	2.72	3.60	2.69	3.64	2.63	3.67	2.55	3.74	2.28
	41	2.49	2.25	2.94	2.35	3.35	2.72	3.56	2.68	3.60	2.60	3.64	2.52	3.71	2.25
43	2.49	2.25	2.94	2.35	3.31	2.72	3.53	2.67	3.56	2.58	3.60	2.50	3.67	2.23	
46	2.49	2.25	2.88	2.30	3.20	2.72	3.49	2.66	3.53	2.55	3.56	2.47	3.64	2.21	
48	2.49	2.25	2.85	2.28	3.10	2.64	3.38	2.63	3.49	2.52	3.46	2.45	3.53	2.19	
50	2.45	2.25	2.83	2.26	2.99	2.62	3.28	2.56	3.38	2.50	3.35	2.42	3.42	2.16	

TC: Total Capacity SC: Sensible Capacity WB: Wet-bulb Temperature DB: Dry-bulb Temperature

Capacity (kW)	Outdoor temperature (°C DB)	Indoor temperature (°C WB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW
4.5	10	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	5.24	3.57	5.45	3.20
	12	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	5.24	3.57	5.41	3.17
	14	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	5.20	3.53	5.36	3.14
	16	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	5.15	3.50	5.31	3.11
	18	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	5.10	3.47	5.26	3.09
	19	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	5.06	3.44	5.21	3.06
	21	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	5.01	3.41	5.16	3.03
	23	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.52	4.96	3.37	5.11	3.00
	25	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.90	3.48	4.92	3.34	5.07	2.97
	27	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.85	3.45	4.87	3.31	5.02	2.94
	29	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.81	3.42	4.82	3.28	4.97	2.92
	31	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.76	3.38	4.78	3.25	4.92	2.89
	33	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.72	3.32	4.73	3.22	4.87	2.86
	35	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.30	4.65	3.29	4.68	3.18	4.83	2.83
	37	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.29	4.58	3.22	4.64	3.12	4.73	2.77
	39	3.12	2.81	3.68	2.94	4.24	3.30	4.50	3.27	4.54	3.19	4.59	3.09	4.68	2.75
	41	3.12	2.81	3.68	2.94	4.19	3.30	4.46	3.25	4.50	3.15	4.54	3.06	4.63	2.72
	43	3.12	2.81	3.68	2.94	4.14	3.30	4.41	3.24	4.46	3.12	4.50	3.02	4.58	2.69
46	3.12	2.81	3.61	2.88	4.01	3.30	4.36	3.22	4.41	3.09	4.46	2.99	4.54	2.66	
48	3.12	2.81	3.57	2.85	3.87	3.21	4.23	3.19	4.36	3.06	4.32	2.96	4.41	2.63	
50	3.06	2.81	3.53	2.82	3.74	3.17	4.09	3.11	4.23	3.02	4.19	2.93	4.28	2.60	
52	3.01	2.81	3.42	2.79	3.56	3.14	3.91	3.01	4.09	2.99	4.01	2.90	4.09	2.58	

8.2 Heating

TC: Total Capacity WB: Wet-bulb Temperature DB: Dry-bulb Temperature

Capacity (kW)	Outdoor temperature (° C DB)		Indoor temperature (° C DB)					
			16	18	20	21	22	24
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
2.2	-20	-19.8	1.34	1.34	1.34	1.34	1.34	1.34
	-19	-18.8	1.44	1.44	1.44	1.44	1.44	1.44
	-17	-16.7	1.51	1.51	1.51	1.51	1.51	1.51
	-15	-14.7	1.56	1.56	1.56	1.56	1.56	1.56
	-13	-12.6	1.66	1.66	1.66	1.66	1.66	1.66
	-11	-10.5	1.68	1.70	1.70	1.70	1.70	1.70
	-10	-9.5	1.75	1.75	1.75	1.75	1.75	1.75
	-9.1	-8.5	1.80	1.80	1.80	1.80	1.80	1.80
	-7.6	-7	1.82	1.82	1.82	1.82	1.82	1.82
	-5.6	-5	1.90	1.90	1.90	1.90	1.90	1.90
	-3.7	-3	1.99	1.99	1.99	1.99	1.99	1.99
	-0.7	0	2.14	2.14	2.14	2.14	2.14	2.02
	2.2	3	2.26	2.26	2.26	2.26	2.21	2.02
	4.1	5	2.40	2.40	2.40	2.40	2.21	2.02
	6	7	2.50	2.50	2.50	2.40	2.21	2.02
7.9	9	2.57	2.57	2.50	2.40	2.21	2.02	
9.8	11	2.64	2.64	2.50	2.40	2.21	2.02	
11.8	13	2.74	2.69	2.50	2.40	2.21	2.02	
13.7	15	2.81	2.69	2.50	2.40	2.21	2.02	
2.8	-20	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	2.02	2.02	2.02	2.02	2.02	2.02
	-13	-12.6	2.14	2.14	2.14	2.14	2.14	2.14
	-11	-10.5	2.24	2.24	2.24	2.24	2.24	2.24
	-10	-9.5	2.34	2.34	2.34	2.34	2.34	2.34
	-9.1	-8.5	2.40	2.40	2.40	2.40	2.40	2.40
	-7.6	-7	2.43	2.43	2.43	2.43	2.43	2.43
	-5.6	-5	2.53	2.53	2.53	2.53	2.53	2.53
	-3.7	-3	2.66	2.66	2.66	2.66	2.66	2.66
	-0.7	0	2.85	2.85	2.85	2.85	2.85	2.69
	2.2	3	3.01	3.01	3.01	3.01	2.94	2.69
	4.1	5	3.10	3.10	3.10	3.10	2.94	2.69
	6	7	3.20	3.20	3.20	3.10	2.94	2.69
7.9	9	3.30	3.30	3.20	3.10	2.94	2.69	
9.8	11	3.39	3.39	3.20	3.10	2.94	2.69	
11.8	13	3.52	3.46	3.20	3.10	2.94	2.69	
13.7	15	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	2.60	2.60	2.60	2.60	2.60	2.60
	-13	-12.6	2.68	2.68	2.68	2.68	2.68	2.68
	-11	-10.5	2.80	2.80	2.80	2.80	2.80	2.80
	-10	-9.5	2.92	2.92	2.92	2.92	2.92	2.92
	-9.1	-8.5	3.00	3.00	3.00	3.00	3.00	3.00
	-7.6	-7	3.04	3.04	3.04	3.04	3.04	3.04
	-5.6	-5	3.16	3.16	3.16	3.16	3.16	3.16
	-3.7	-3	3.32	3.32	3.32	3.32	3.32	3.32
	-0.7	0	3.56	3.56	3.56	3.56	3.56	3.36
	2.2	3	3.76	3.76	3.76	3.76	3.68	3.36
	4.1	5	3.88	3.88	3.88	3.88	3.68	3.36
	6	7	4.00	4.00	4.00	3.88	3.68	3.36
7.9	9	4.12	4.12	4.00	3.88	3.68	3.36	
9.8	11	4.24	4.24	4.00	3.88	3.68	3.36	
11.8	13	4.40	4.32	4.00	3.88	3.68	3.36	
13.7	15	4.52	4.32	4.00	3.88	3.68	3.36	

TC: Total Capacity WB: Wet-bulb Temperature DB: Dry-bulb Temperature

Capacity (kW)	Outdoor temperature (° C DB)		Indoor temperature (° C DB)					
			16	18	20	21	22	24
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
4.5	-20	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13	-12.6	3.35	3.35	3.35	3.35	3.35	3.35
	-11	-10.5	3.50	3.50	3.50	3.50	3.50	3.50
	-10	-9.5	3.65	3.65	3.65	3.65	3.65	3.65
	-9.1	-8.5	3.75	3.75	3.75	3.75	3.75	3.75
	-7.6	-7	3.80	3.80	3.80	3.80	3.80	3.80
	-5.6	-5	3.95	3.95	3.95	3.95	3.95	3.95
	-3.7	-3	4.15	4.15	4.15	4.15	4.15	4.15
	-0.7	0	4.45	4.45	4.45	4.45	4.45	4.20
	2.2	3	4.70	4.70	4.70	4.70	4.60	4.20
	4.1	5	4.85	4.85	4.85	4.85	4.60	4.20
	6	7	5.00	5.00	5.00	4.85	4.60	4.20
	7.9	9	5.15	5.15	5.00	4.85	4.60	4.20
9.8	11	5.30	5.30	5.00	4.85	4.60	4.20	
11.8	13	5.50	5.40	5.00	4.85	4.60	4.20	
13.7	15	5.65	5.40	5.00	4.85	4.60	4.20	

9 Electrical characteristics

VECM008(010,012,015)

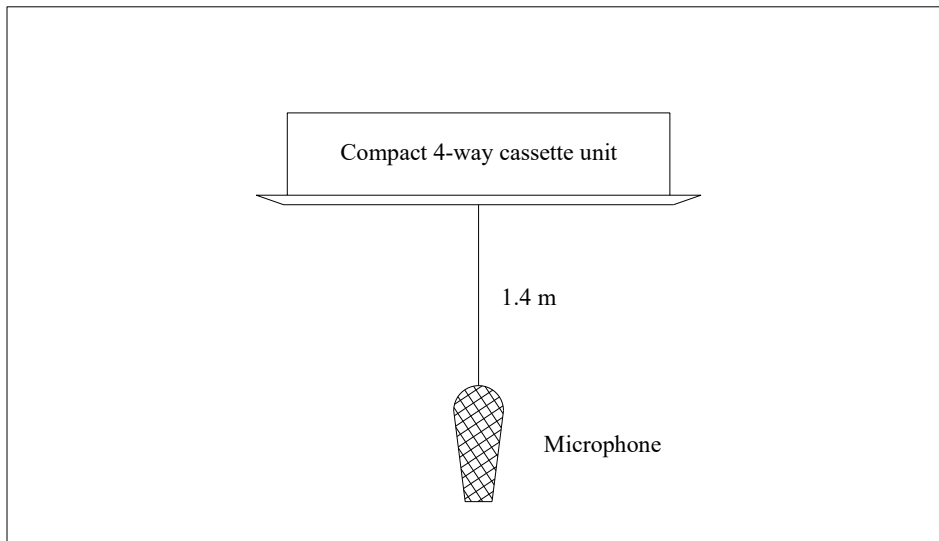
Model	Indoor unit				MFC	Power cable			Signal cable
	Hz	Voltage	Minimum	Maximum		L ≤ 20m	L ≤ 50m	Grounded	
VECM008Q0A-GWV022	50/60	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECM010Q0A-GWV028	50/60	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECM012Q0A-GWV036	50/60	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECM015Q0A-GWV045	50/60	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²

Notes:

- 1) *Minimum: Permitted minimum operating voltage, lower than this value may damage the system*
- 2) *Maximum: Permitted maximum operating voltage, higher than this value may damage the system*
- 3) *MC: Minimum Current (A)*
- 4) *MFC: Maximum Fuse Current (A)*
- 5) *L: Total length of cable (m)*

10 Sound levels

10.1 Test condition



Notes:

Semi-anechoic chamber conversion value, measured at a point 1m in front of the unit at a height of 1.4m

10.2 Test data (Sound pressurelevel) VECM008(010,012,015)



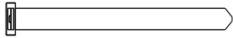
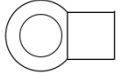

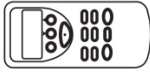

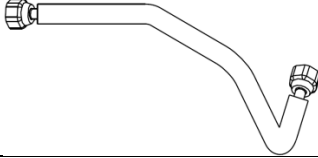


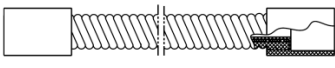

Model	Sound pressurelevel (dB(A))		
	High speed	Medium speed	Low speed
VECM008Q0A-GWV022	32	25	21
VECM010Q0A-GWV028	32	25	21
VECM012Q0A-GWV036	36	30	26
VECM015Q0A-GWV045	36	30	26

Notes:

During actual operation, these values are normally somewhat higher as a result of ambient conditions.

11 Accessories

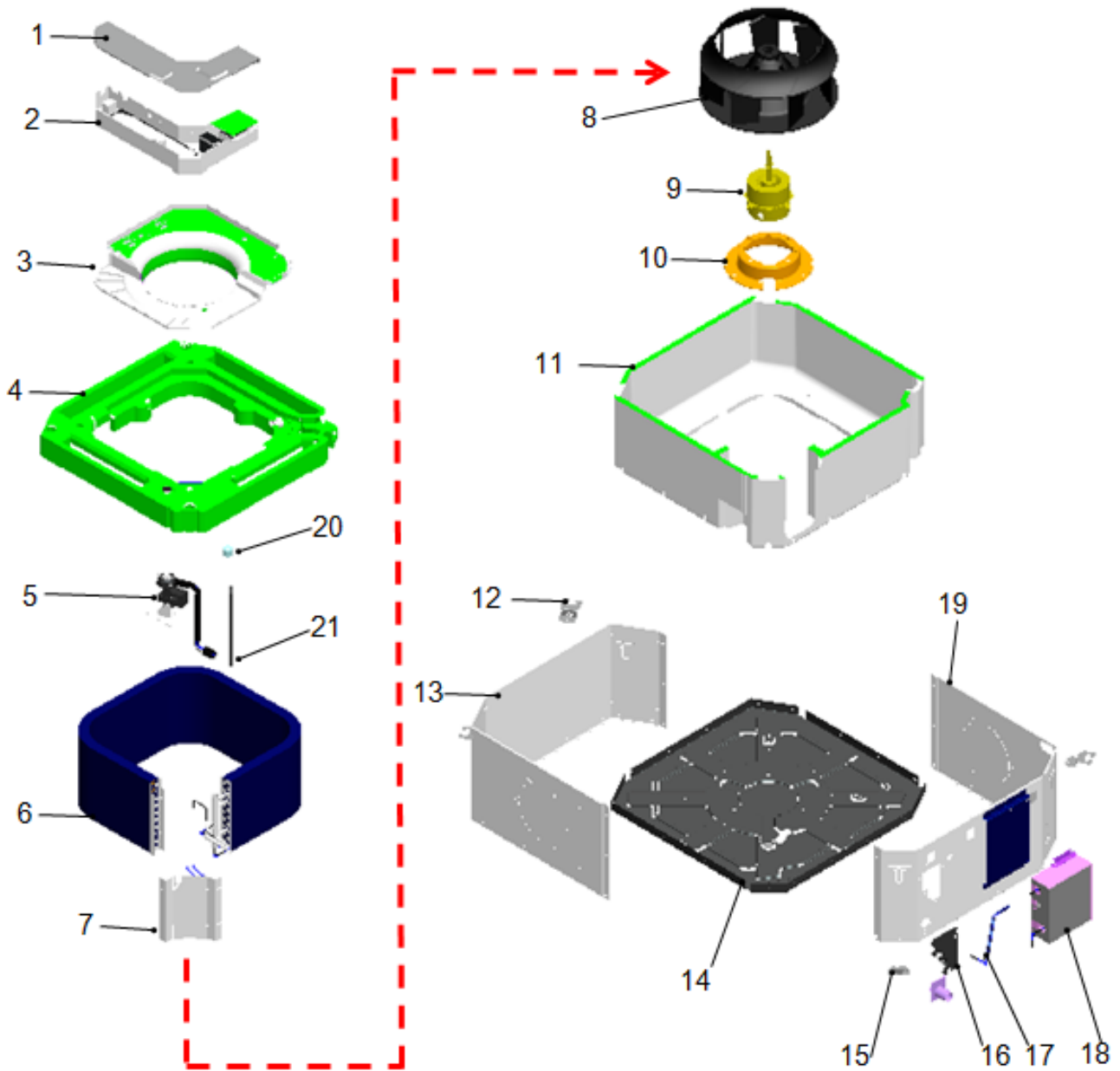
11.1 Standard accessories.

Item	Quantity	Shape	Usage
Installation manual for indoor unit	1	/	Must deliver to customer
Insulation sheath	2		Thermal insulation for the jointing part of piping
Thermal insulated material	1		Thermal insulation for the jointing part of drain pipe
Strapping tapes	5		Bind up the wires and pipes
Round shape insulation termination points	6		For wiring
U shape insulation termination points	3		For wiring
Remote controller	1		For controlling indoor unit
Batteries	2		Power to remote controller
EXV connection pipe	1		Connecting with EXV box and indoor unit liquid pipe
Nuts, gaskets	8		For hanging indoor unit
Circlips	2		For fixing drainage pipe
Drainage connection pipe	1		For connecting draining condensate water pipe to indoor unit
Bag	3		For bagging accessories

11.2 Local buy accessories.

Item	Specification	
	2.2kW~2.8kW	3.6kW~4.5kW
Liquid side copper pipe	Ø6.35mm*0.75mm	
Gas side copper pipe	Ø9.53mm*0.75mm	Ø12.7mm*0.75mm
Drainage pipe	PVC	
Pipe insulation	Thickness ≥ 10mm	
Power cables	2*2.5 mm ² (When total cable length is ≤20m) 2*4.0 mm ² (When total cable length is ≤50m)	
Grounded cable	2.5 mm ²	
Signal cables	Two-core shielded cable 2*0.75 mm ² (AVP, RVP, RVVP)	

12 Exploded view



No.	Part Name	Quantity	No.	Part Name	Quantity
1	Electrical lifted the lid	1	6.3	Evaporator bypass capillary components	1
2	Electronic components	1	7	End plate fixed plate component	1
2.1	Electric control board seats	1	8	Centrifugal wind leaf	1
2.2	Electrical box welded components	1	9	The motor	1
2.3	The temperature sensor group	1	10	The motor bracket	1
2.4	Stepper motor line	2	11	Chassis bubble component	1
2.5	Indoor motor winding connection	1	12	Lug 2	3
2.6	Terminal station	1	13	After the coaming components	1
2.7	Quad lamp plate connection	1	14	Chassis parts	1
2.8	Indoor plate component	1	14.1	Chassis external thermal insulation cotton	1
2.9	Insert the fan capacitance	1	14.2	Chassis welded components	1
3	Guide solar or lunar halo	1	14.3	Fan wire fixed plate	1
4	Bubble water pans components	1	15	Lug 1	1
5	Pump parts	1	16	Refrigerant tube support plate component	1
5.1	Drainage to take over the component	1	17	Expansion valve connecting pipe component	1
5.2	The water pump	1	18	Electronic expansion valve box parts	1
5.3	Water pump gasket 2	1	18.1	Stick cotton component	1
5.4	Water pump gasket 1	1	18.2	Cover plate stick cotton parts	1
5.5	Water pump about seat	1	18.3	Electronic expansion valve welding components	1
5.6	Water pump brace	1	19	Dash panel stick cotton component	1
6	The evaporator components	1	20	Water level switch	1
6.1	Welded components evaporator	1	21	The evaporator pressure	1
6.2	Back to the trachea components	1			



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