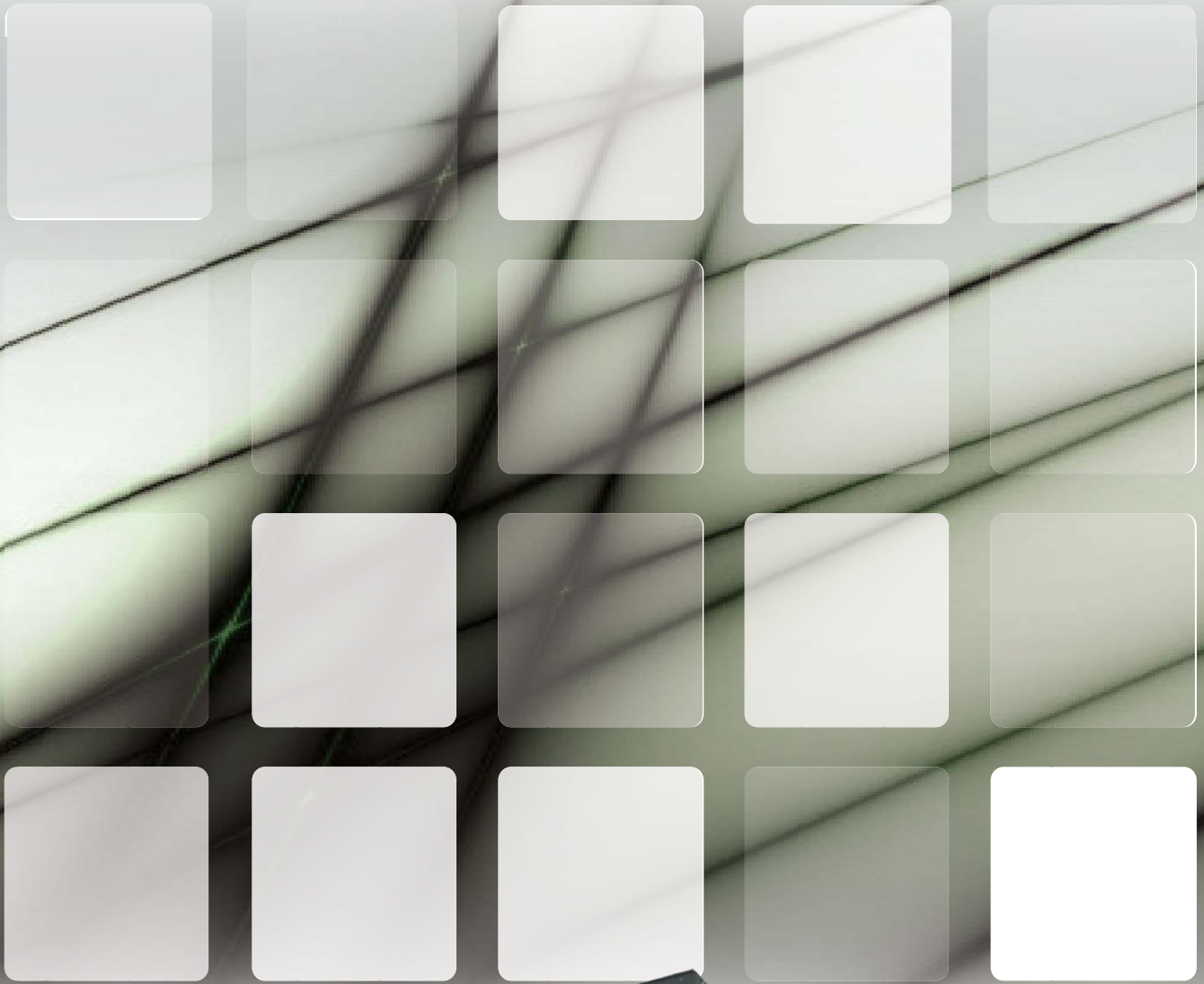


VECR Series

Round Flow VRF Cassette

Technical Manual

220~240V/1/50-60Hz



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1. Specifications

Model			VECR019Q0A-GWV056	VECR024Q0A-GWV071	VECR027Q0A-GWV080
Power supply			220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz
Capacity	Cooling	kW	5.6	7.1	8
	Heating	kW	6.3	8	8.8
Power Input		kW	0.014-0.023	0.018-0.063	0.018-0.063
Fan motor	Model		DR-310-60Q-8-1	DR-310-60Q-8-1	DR-310-60Q-8-1
	Type		DC	DC	DC
	Brand		Yongan	Yongan	Yongan
	Speed (Hi/Med/Low)	r/min	380/430/480	440/600/680	440/600/680
Indoor coil	Number of rows		2	2	2
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube diameter and type	mm	Ø7,Innergroove Tube	Ø7,Innergroove Tube	Ø7,Innergroove Tube
Air flow (H/M/L)		m ³ /h	710/810/910	825/1140/1310	825/1140/1310
Sound pressure level		dB(A)	31-38	34-39	34-39
Body	Dimension (W×H×D)	in/mm	32 3/4×9 1/8×35 1/2(833×232×900)	32 3/4×9 1/8×35 1/2(833×232×900)	32 3/4×9 1/8×35 1/2(833×232×900)
	Packing (W×H×D)	in/mm	36 1/21× 10 1/2×38 3/4(920×265×985)	36 1/21× 10 1/2×38 3/4(920×265×985)	36 1/21× 10 1/2×38 3/4(920×265×985)
	Net/Gross weight	lbs/kg	48.5(22)/61.73(28)	48.5(22)/61.73(28)	48.5(22)/61.73(28)
Panel	Dimension (W×H×D)	in/mm	37 3/8×2×37 3/8(950×50×950)	37 3/8×2×37 3/8(950×50×950)	37 3/8×2×37 3/8(950×50×950)
	Packing (W×H×D)	in/mm	40 1/2×4 1/8× 40 1/2(1030×105×1030)	40 1/2×4 1/8× 40 1/2(1030×105×1030)	40 1/2×4 1/8× 40 1/2(1030×105×1030)
	Net/Gross weight	lbs/kg	11.9(5.4)/17.64(8)	11.9(5.4)/17.64(8)	11.9(5.4)/17.64(8)
Refrigerant type			R410A	R410A	R410A
Throttle type			Electrical expansion valve	Electrical expansion valve	Electrical expansion valve
Design pressure		MPa	4.5	4.5	4.5
Liquid pipe / Gas pipe		mm	Ø6.35/ Ø12.7	Ø9.52/ Ø15.88	Ø9.52/ Ø15.88
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)
	Signal wire	AWG	0.75*2 shield	0.75*2 shield	0.75*2 shield
Drainage water pipe (Outer diameter)		mm	Ø25	Ø25	Ø25
Controller	Standard		Remote controller	Remote controller	Remote controller
	Optional		Wired controller	Wired controller	Wired controller
Setting Temperature Range		°C	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.

Model			VECR031Q0A-GWV090	VECR035Q0A-GWV100	VECR038Q0A-GWV112
Power supply			220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz
Capacity	Cooling	kW	9	10	11.2
	Heating	kW	10	11	12.5
Power Input		kW	0.026-0.066	0.026-0.066	0.026-0.066
Fan motor	Model		DR-310-100Q-8	DR-310-100Q-8	DR-310-100Q-8
	Type		DC	DC	DC
	Brand		Yongan	Yongan	Yongan
	Speed (Hi/Med/Low)	r/min	420/520/600	420/520/600	420/520/600
Indoor coil	Number of rows		2	2	2
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube diameter and type	mm	Ø7, Innergroove Tube	Ø7, Innergroove Tube	Ø7, Innergroove Tube
Air flow (H/M/L)		m ³ /h	1000/1200/1500	1000/1200/1500	1000/1200/1500
Sound pressure level		dB(A)	37~41	35-41	35-41
Body	Dimension (W×H×D)	in/mm	32 3/4×11 1/21×35 1/2(833×286×900)	32 3/4×11 1/21×35 1/2(833×286×900)	32 3/4×11 1/21×35 1/2(833×286×900)
	Packing (W×H×D)	in/mm	36 1/21×(920×310×985)	920×310×985	920×310×985
	Net/Gross weight	kg	27/33.5	27/33.5	27/33.5
Panel	Dimension (W×H×D)	mm	950×50×950	950×50×950	950×50×950
	Packing (W×H×D)	mm	1030×105×1030	1030×105×1030	1030×105×1030
	Net/Gross weight	kg	5.4/8	5.4/8	5.4/8
Refrigerant type			R410A	R410A	R410A
Throttle type			Electrical expansion valve	Electrical expansion valve	Electrical expansion valve
Design pressure		MPa	4.5	4.5	4.5
Liquid pipe / Gas pipe		mm	Ø9.52/ Ø15.88	Ø9.52/ Ø15.88	Ø9.52/ Ø15.88
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)
	Signal wire	AWG	0.75*2 shield	0.75*2 shield	0.75*2 shield
Drainage water pipe (Outer diameter)		mm	Ø25	Ø25	Ø25
Controller	Standard		Remote controller	Remote controller	Remote controller
	Optional		Wired controller	Wired controller	Wired controller
Setting Temperature Range		°C	16~32	16~32	16~32

Notes:

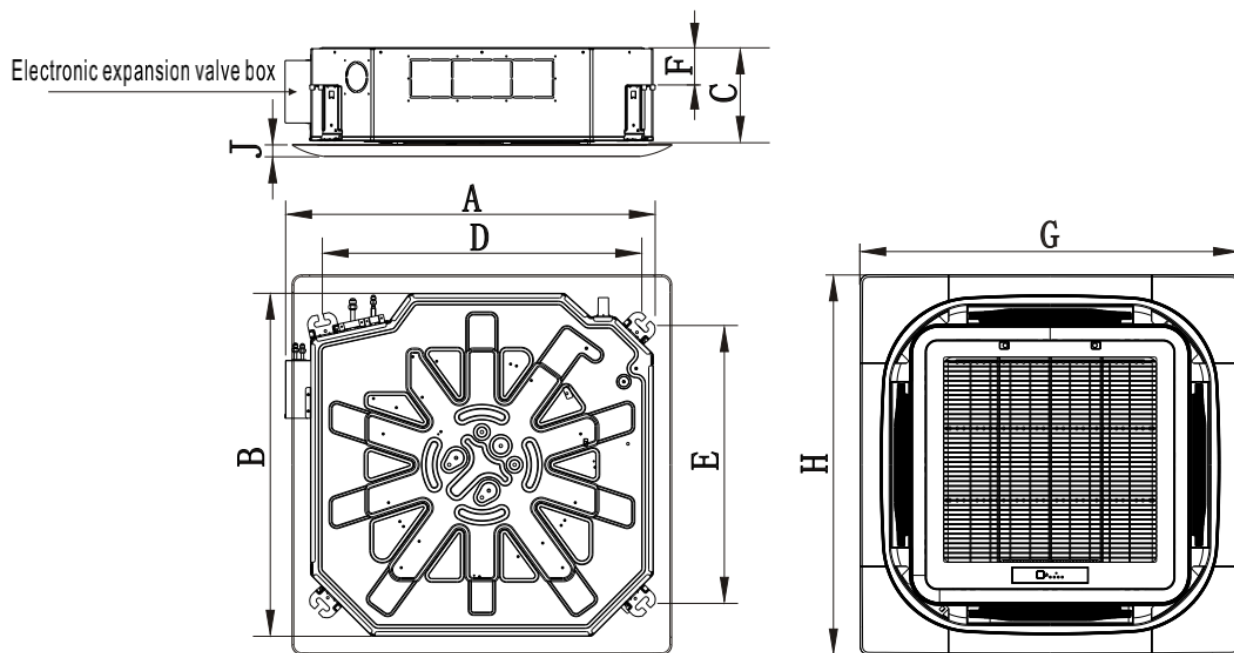
- 1) Nominal cooling capacities are based on the following conditions.
 - Outdoor temperature: 35°C DB
 - Return air temperature: 27°C DB, 19°C WB
 - Equivalent piping length: 8m in horizontal
- 2) Nominal heating capacities are based on the following condition.
 - Outdoor temperature: 7°C DB, 6°C WB
 - 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.

Model			VECR043Q0A-GWV125	VECR048Q0A-GWV140	VECR060Q0A-GWV160
Power supply			220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz	220-240V/1PH/50-60Hz
Capacity	Cooling	kW	12.5	14	16
	Heating	kW	14	15	17
Power Input		kW	0.04-0.1	0.04-0.1	0.04-0.1
Fan motor	Model		DR-310-100Q-8	DR-310-100Q-8	DR-310-100Q-8
	Type		DC	DC	DC
	Brand		Yongan	Yongan	Yongan
	Speed (Hi/Med/Low)	r/min	480/580/680	480/580/680	480/580/680
Indoor coil	Number of rows		2	2	2
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube diameter and type	mm	Ø7, Innergroove Tube	Ø7, Innergroove Tube	Ø7, Innergroove Tube
Air flow (H/M/L)		m ³ /h	1200/1400/1700	1200/1400/1700	1200/1400/1700
Sound pressure level		dB(A)	40-47	40-47	40-47
Body	Dimension (W×H×D)	mm	833×286×900	833×286×900	833×286×900
	Packing (W×H×D)	mm	920×310×985	920×310×985	920×310×985
	Net/Gross weight	kg	27/33.5	27/33.5	27/33.5
Panel	Dimension (W×H×D)	mm	950×50×950	950×50×950	950×50×950
	Packing (W×H×D)	mm	1030×105×1030	1030×105×1030	1030×105×1030
	Net/Gross weight	kg	5.4/8	5.4/8	5.4/8
Refrigerant type			R410A	R410A	R410A
Throttle type			Electrical expansion valve	Electrical expansion valve	Electrical expansion valve
Design pressure		MPa	4.5	4.5	4.5
Liquid pipe / Gas pipe		mm	Ø9.52/ Ø15.88	Ø9.52/ Ø15.88	Ø9.52/ Ø15.88
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)
	Signal wire	AWG	0.75*2 shield	0.75*2 shield	0.75*2 shield
Drainage water pipe (Outer diameter)		mm	Ø25	Ø25	Ø25
Controller	Standard		Remote controller	Remote controller	Remote controller
	Optional		Wired controller	Wired controller	Wired controller
Setting Temperature Range		°C	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.

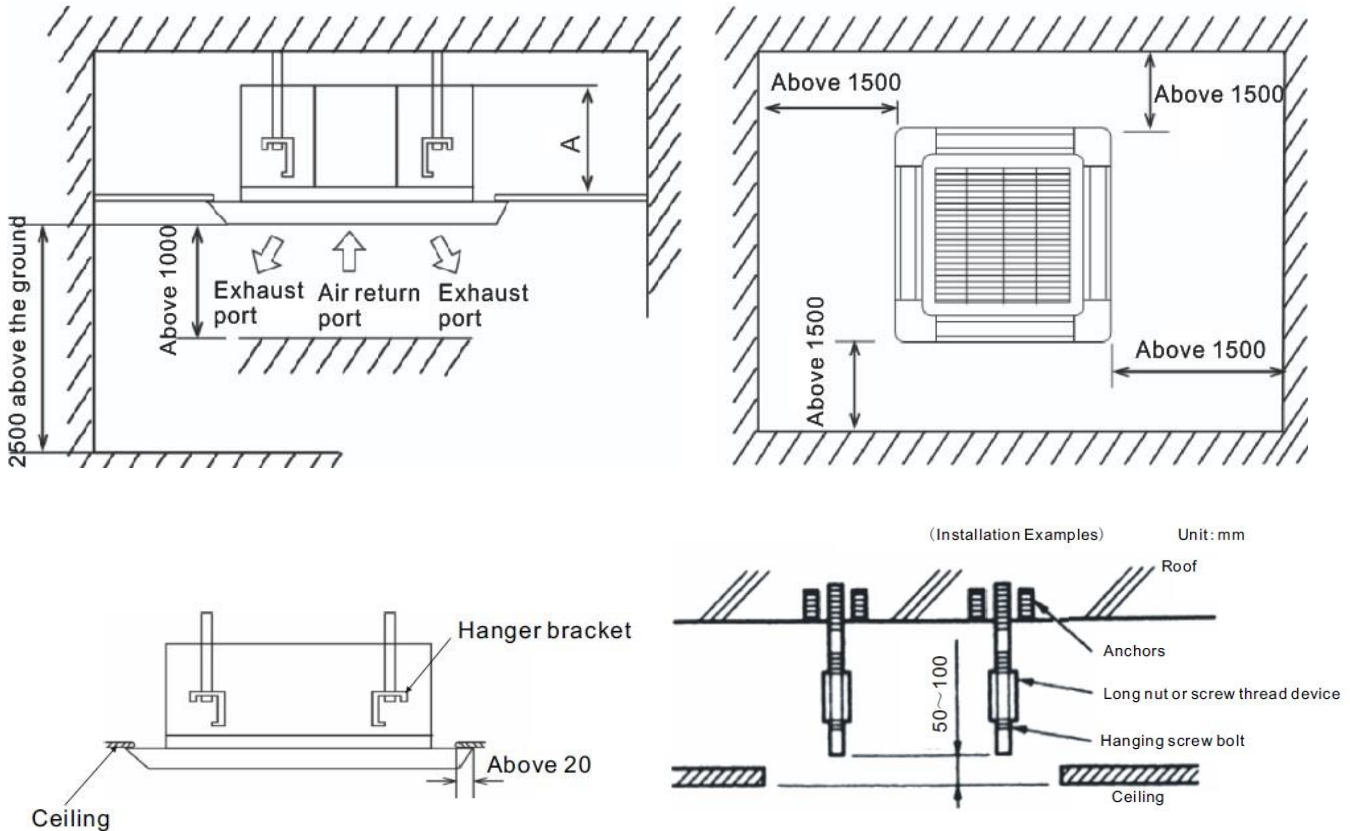
2. Dimensions



Model	Body dimension (mm)			Installation dimension (mm)			Panel dimension (mm)		
	A	B	C	D	E	F	G	H	J
VECR019Q0A-GWV056	900	833	232	776	684	91	950	950	80
VECR024Q0A-GWV071	900	833	232	776	684	91	950	950	80
VECR027Q0A-GWV080	900	833	232	776	684	91	950	950	80
VECR031Q0A-GWV090	900	833	286	776	684	150	950	950	80
VECR035Q0A-GWV100	900	833	286	776	684	150	950	950	80
VECR038Q0A-GWV112	900	833	286	776	684	150	950	950	80
VECR043Q0A-GWV125	900	833	286	776	684	150	950	950	80
VECR048Q0A-GWV140	900	833	286	776	684	150	950	950	80
VECR060Q0A-GWV160	900	833	286	776	684	150	950	950	80

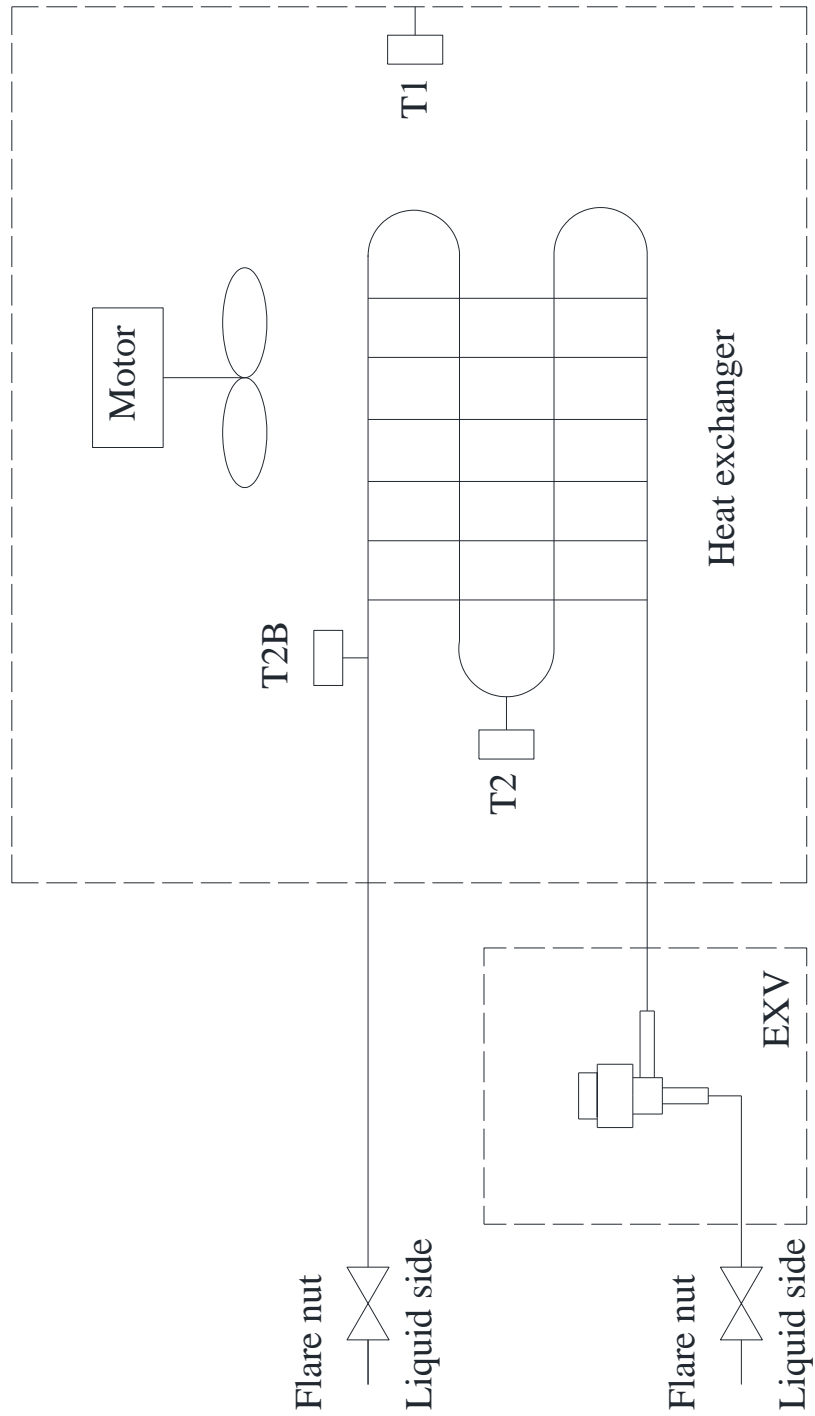
3. Service space

- 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.
- If the temperature and humidity of the ceiling exceeds respectively 30°C and RH80%, please stick insulating material on the body of the air conditioner. Please use glass wool or expanded polyethylene etc., which is more than 10 mm thick. (If it is more than 10 mm, please collect it in the opening of the ceiling.)



Indoor unit	A(mm)
VECR019Q0A-GWV056	232
VECR024Q0A-GWV071	232
VECR027Q0A-GWV080	232
VECR031Q0A-GWV090	286
VECR035Q0A-GWV100	286
VECR038Q0A-GWV112	286
VECR043Q0A-GWV125	286
VECR048Q0A-GWV140	286
VECR060Q0A-GWV160	286

4. Piping diagram

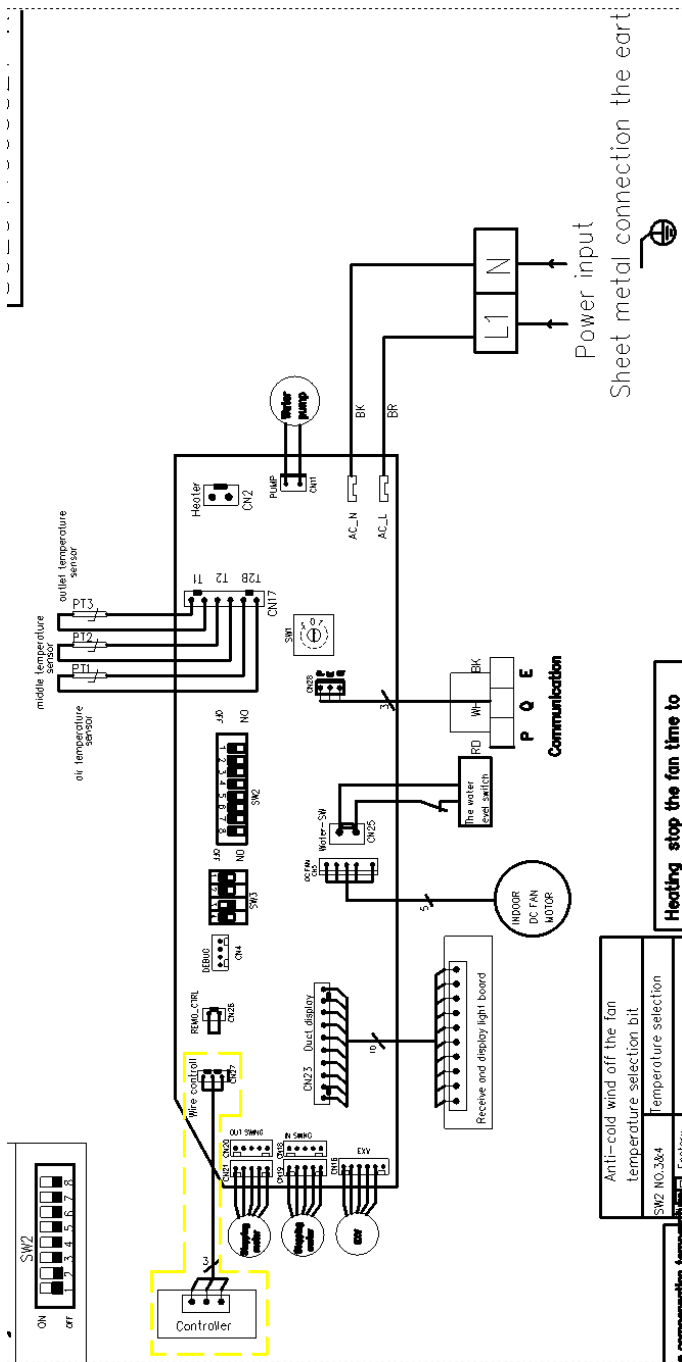


Notes:

- 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

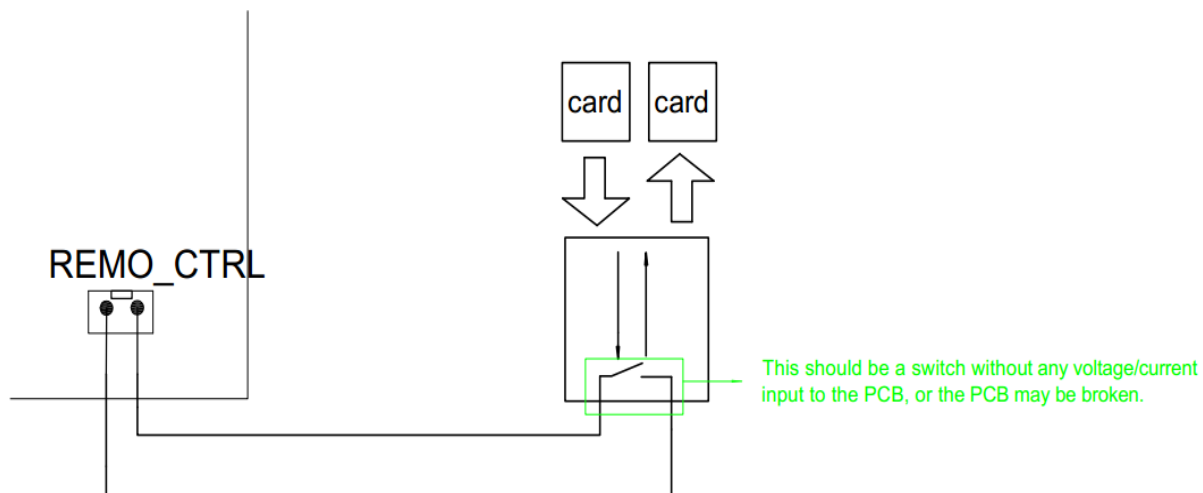


Notes:

- 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 technician for the detail.

Omega VRF indoor unit connect with card key

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

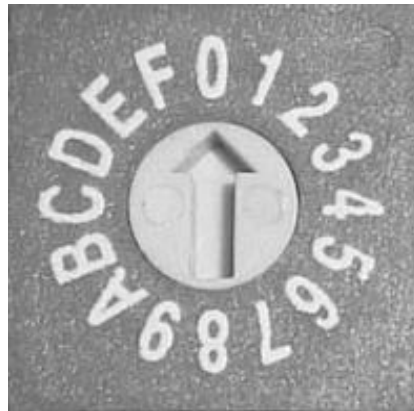


NOTE: The terminal in the hotel card module must be a switch without any voltage/current input to the PCB, otherwise the PCB will be broken.

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,

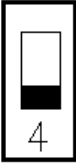

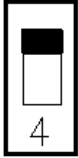



HP	0.8	1	1.2	1.7	2	2.5
Capacity (kW)	1.8/2.2	2.5/2.6/2.8	3.2/3.5/3.6	4.1/4.5/4.6	5.1/5.6	6.0/6.6/7.1
Code	0	1	2	3	4	5





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





7.2.1 SW3

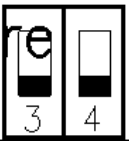

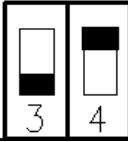
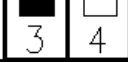
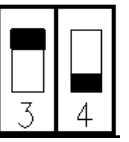

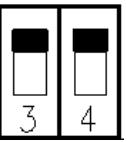
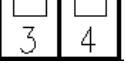
Name	Switch number 1 2 3 of SW3			
Function	Unit Type			
Setting	<p>ON OFF</p> <p>Big Ceiling Cassette Unit</p>	<p>ON OFF</p> <p>360 Ceiling Cassette Unit</p>	<p>ON OFF</p> <p>Small Ceiling Cassette Unit (Default setting)</p>	<p>ON OFF</p> <p>Reserved</p>
	<p>ON OFF</p> <p>Reserved</p>	<p>ON OFF</p>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

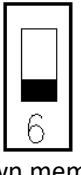
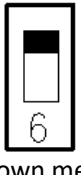
7.2.1 SW2, only available in heating mode.

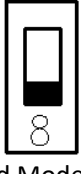
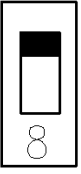
Name	Switch number 1 of SW2	
Function	Refrigerant temperature compensation temperature value selects bits	
Setting	<p>ON </p> <p>OFF </p> <p>3°C (Factory default)</p>	<p>ON </p> <p>OFF </p> <p>1°C</p>

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	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
5.6	10	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.53	4.44	6.79	3.98
	12	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.53	4.44	6.73	3.95
	14	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.47	4.40	6.67	3.91
	16	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.41	4.36	6.61	3.88
	18	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.35	4.32	6.55	3.84
	19	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.29	4.28	6.49	3.80
	21	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.24	4.24	6.42	3.77
	23	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.38	6.18	4.20	6.36	3.73
	25	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.10	4.33	6.12	4.16	6.30	3.70
	27	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	6.04	4.29	6.06	4.12	6.24	3.66
	29	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	5.98	4.25	6.00	4.08	6.18	3.63
	31	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	5.93	4.21	5.94	4.04	6.12	3.59
	33	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	5.87	4.13	5.88	4.00	6.06	3.56
	35	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.11	5.78	4.09	5.83	3.96	6.00	3.52
	37	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.09	5.70	4.01	5.77	3.88	5.88	3.45
	39	3.88	3.50	4.58	3.65	5.28	4.11	5.60	4.07	5.66	3.97	5.71	3.84	5.82	3.42
	41	3.88	3.50	4.58	3.65	5.21	4.11	5.54	4.05	5.60	3.93	5.66	3.80	5.76	3.38
	43	3.88	3.50	4.58	3.65	5.15	4.11	5.49	4.03	5.54	3.89	5.60	3.76	5.70	3.35
	46	3.88	3.50	4.49	3.58	4.98	4.11	5.43	4.01	5.49	3.84	5.54	3.72	5.66	3.31
	48	3.88	3.50	4.44	3.54	4.82	3.99	5.26	3.97	5.43	3.80	5.38	3.68	5.49	3.28
50	3.81	3.50	4.40	3.51	4.65	3.95	5.10	3.86	5.26	3.76	5.21	3.64	5.32	3.24	
7.1	10	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	8.27	5.63	8.60	5.05
	12	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	8.27	5.63	8.53	5.00
	14	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	8.20	5.58	8.45	4.96
	16	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	8.13	5.53	8.38	4.91
	18	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	8.05	5.47	8.30	4.87
	19	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	7.98	5.42	8.22	4.82
	21	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	7.91	5.37	8.15	4.78
	23	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.55	7.83	5.32	8.07	4.73
	25	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.73	5.50	7.76	5.27	7.99	4.69
	27	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.66	5.44	7.68	5.22	7.92	4.64
	29	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.58	5.39	7.61	5.17	7.84	4.60
	31	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.51	5.34	7.54	5.12	7.76	4.56
	33	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.44	5.24	7.46	5.07	7.69	4.51
	35	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.21	7.33	5.18	7.39	5.02	7.61	4.47
	37	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.19	7.22	5.08	7.31	4.92	7.46	4.38
	39	4.92	4.44	5.80	4.63	6.69	5.21	7.10	5.15	7.17	5.03	7.24	4.87	7.38	4.33
	41	4.92	4.44	5.80	4.63	6.60	5.21	7.03	5.13	7.10	4.98	7.17	4.82	7.31	4.29
	43	4.92	4.44	5.80	4.63	6.53	5.21	6.96	5.11	7.03	4.93	7.10	4.77	7.23	4.24
	46	4.92	4.44	5.69	4.54	6.32	5.21	6.89	5.09	6.96	4.87	7.03	4.72	7.17	4.20
	48	4.92	4.44	5.63	4.49	6.11	5.06	6.67	5.03	6.89	4.82	6.82	4.67	6.96	4.15
50	4.83	4.44	5.57	4.45	5.89	5.01	6.46	4.90	6.67	4.77	6.60	4.62	6.75	4.11	
8.0	10	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	9.32	6.34	9.70	5.69
	12	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	9.32	6.34	9.61	5.64
	14	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	9.24	6.28	9.52	5.59
	16	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	9.16	6.23	9.44	5.54
	18	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	9.07	6.17	9.35	5.49
	19	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	8.99	6.11	9.27	5.44
	21	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	8.91	6.06	9.18	5.38
	23	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.25	8.82	6.00	9.09	5.33
	25	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.71	6.19	8.74	5.94	9.01	5.28
	27	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.63	6.13	8.66	5.89	8.92	5.23
	29	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.55	6.08	8.57	5.83	8.83	5.18
	31	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.47	6.02	8.49	5.77	8.75	5.13
	33	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.38	5.90	8.41	5.72	8.66	5.08
	35	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.87	8.26	5.84	8.32	5.66	8.58	5.03
	37	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.84	8.14	5.73	8.24	5.55	8.41	4.93
	39	5.54	5.00	6.54	5.22	7.54	5.88	8.00	5.81	8.08	5.67	8.16	5.49	8.32	4.88
	41	5.54	5.00	6.54	5.22	7.44	5.88	7.92	5.78	8.00	5.61	8.08	5.43	8.23	4.83
	43	5.54	5.00	6.54	5.22	7.36	5.88	7.84	5.76	7.92	5.55	8.00	5.38	8.15	4.78
	46	5.54	5.00	6.41	5.12	7.12	5.88	7.76	5.73	7.84	5.49	7.92	5.32	8.08	4.73
	48	5.54	5.00	6.34	5.06	6.88	5.70	7.52	5.67	7.76	5.43	7.68	5.26	7.84	4.68
50	5.44	5.00	6.28	5.01	6.64	5.64	7.28	5.52	7.52	5.37	7.44	5.21	7.60	4.63	

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	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
9	10	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	10.49	7.13	10.91	6.40
	12	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	10.49	7.13	10.81	6.34
	14	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	10.39	7.07	10.71	6.28
	16	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	10.30	7.00	10.62	6.23
	18	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	10.21	6.94	10.52	6.17
	19	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	10.11	6.88	10.43	6.11
	21	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	10.02	6.81	10.33	6.06
	23	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	7.03	9.93	6.75	10.23	6.00
	25	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.80	6.97	9.83	6.69	10.13	5.94
	27	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.71	6.90	9.74	6.62	10.04	5.89
	29	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.61	6.84	9.65	6.56	9.94	5.83
	31	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.53	6.77	9.55	6.49	9.84	5.77
	33	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.43	6.64	9.46	6.43	9.75	5.72
	35	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.61	9.30	6.57	9.36	6.37	9.65	5.66
	37	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.57	9.16	6.44	9.27	6.24	9.46	5.55
	39	6.23	5.62	7.36	5.87	8.48	6.61	9.00	6.53	9.09	6.38	9.18	6.18	9.36	5.49
	41	6.23	5.62	7.36	5.87	8.37	6.61	8.91	6.51	9.00	6.31	9.09	6.11	9.26	5.44
	43	6.23	5.62	7.36	5.87	8.28	6.61	8.82	6.47	8.91	6.24	9.00	6.05	9.17	5.38
	46	6.23	5.62	7.21	5.76	8.01	6.61	8.73	6.45	8.82	6.18	8.91	5.98	9.09	5.32
	48	6.23	5.62	7.14	5.70	7.74	6.41	8.46	6.38	8.73	6.11	8.64	5.92	8.82	5.27
50	6.12	5.62	7.06	5.64	7.47	6.35	8.19	6.21	8.46	6.05	8.37	5.86	8.55	5.21	
10	10	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.65	7.92	12.12	7.11
	12	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.65	7.92	12.01	7.05
	14	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.55	7.85	11.90	6.98
	16	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.44	7.78	11.80	6.92
	18	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.34	7.71	11.69	6.86
	19	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.24	7.64	11.58	6.79
	21	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.13	7.57	11.47	6.73
	23	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.81	11.03	7.50	11.37	6.67
	25	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.89	7.74	10.92	7.43	11.26	6.61
	27	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.79	7.67	10.82	7.36	11.15	6.54
	29	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.68	7.59	10.72	7.29	11.04	6.48
	31	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.58	7.52	10.62	7.22	10.94	6.42
	33	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.48	7.38	10.51	7.15	10.83	6.35
	35	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.34	10.33	7.30	10.40	7.07	10.72	6.29
	37	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.30	10.17	7.16	10.30	6.93	10.51	6.16
	39	6.92	6.25	8.17	6.53	9.42	7.34	10.00	7.26	10.10	7.08	10.20	6.86	10.40	6.10
	41	6.92	6.25	8.17	6.53	9.30	7.34	9.90	7.23	10.00	7.01	10.10	6.79	10.29	6.04
	43	6.92	6.25	8.17	6.53	9.20	7.34	9.80	7.19	9.90	6.94	10.00	6.72	10.19	5.98
	46	6.92	6.25	8.01	6.39	8.90	7.34	9.70	7.16	9.80	6.86	9.90	6.65	10.10	5.91
	48	6.92	6.25	7.93	6.33	8.60	7.12	9.40	7.09	9.70	6.79	9.60	6.58	9.80	5.85
50	6.80	6.25	7.85	6.26	8.30	7.05	9.10	6.90	9.40	6.72	9.30	6.51	9.50	5.79	
11.2	10	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	13.05	8.87	13.57	7.96
	12	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	13.05	8.87	13.45	7.89
	14	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	12.93	8.79	13.33	7.82
	16	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	12.82	8.72	13.21	7.75
	18	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	12.70	8.64	13.09	7.68
	19	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	12.59	8.56	12.97	7.61
	21	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	12.47	8.48	12.85	7.54
	23	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.75	12.35	8.40	12.73	7.47
	25	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.20	8.67	12.24	8.32	12.61	7.40
	27	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	12.08	8.59	12.12	8.24	12.49	7.33
	29	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	11.96	8.51	12.00	8.16	12.37	7.26
	31	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	11.85	8.42	11.89	8.08	12.25	7.19
	33	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	11.74	8.26	11.77	8.00	12.13	7.12
	35	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.22	11.57	8.18	11.65	7.92	12.01	7.05
	37	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.18	11.40	8.02	11.54	7.76	11.77	6.90
	39	7.76	7.00	9.16	7.31	10.56	8.23	11.20	8.13	11.31	7.93	11.42	7.69	11.65	6.83
	41	7.76	7.00	9.16	7.31	10.42	8.23	11.09	8.10	11.20	7.85	11.31	7.61	11.53	6.76
	43	7.76	7.00	9.16	7.31	10.30	8.23	10.98	8.06	11.09	7.77	11.20	7.53	11.41	6.69
	46	7.76	7.00	8.97	7.16	9.97	8.23	10.86	8.02	10.98	7.69	11.09	7.45	11.31	6.62
	48	7.76	7.00	8.88	7.09	9.63	7.98	10.53	7.94	10.86	7.61	10.75	7.37	10.98	6.55
50	7.62	7.00	8.79	7.02	9.30	7.90	10.19	7.73	10.53	7.52	10.42	7.29	10.64	6.48	

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	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
12.5	10	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	14.57	9.90	15.15	8.89
	12	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	14.57	9.90	15.01	8.81
	14	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	14.43	9.82	14.88	8.73
	16	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	14.31	9.73	14.75	8.65
	18	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	14.18	9.64	14.61	8.57
	19	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	14.05	9.55	14.48	8.49
	21	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	13.92	9.46	14.34	8.41
	23	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.77	13.78	9.37	14.21	8.34
	25	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.61	9.68	13.66	9.29	14.07	8.26
	27	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.48	9.58	13.53	9.20	13.94	8.18
	29	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.35	9.49	13.40	9.11	13.80	8.10
	31	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.23	9.40	13.27	9.02	13.67	8.02
	33	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	13.10	9.22	13.13	8.93	13.54	7.94
	35	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.18	12.91	9.13	13.01	8.84	13.40	7.86
	37	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.13	12.72	8.95	12.88	8.67	13.13	7.71
	39	8.66	7.81	10.22	8.16	11.78	9.18	12.50	9.08	12.62	8.85	12.75	8.58	13.00	7.63
	41	8.66	7.81	10.22	8.16	11.63	9.18	12.38	9.04	12.50	8.76	12.62	8.49	12.87	7.55
	43	8.66	7.81	10.22	8.16	11.50	9.18	12.25	8.99	12.38	8.67	12.50	8.40	12.73	7.47
	46	8.66	7.81	10.01	7.99	11.13	9.18	12.12	8.96	12.25	8.58	12.38	8.31	12.62	7.39
	48	8.66	7.81	9.91	7.91	10.75	8.90	11.75	8.86	12.12	8.49	12.00	8.22	12.25	7.31
50	8.50	7.81	9.81	7.83	10.38	8.81	11.37	8.63	11.75	8.40	11.63	8.14	11.88	7.23	
14	10	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	16.32	11.09	16.97	9.95
	12	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	16.32	11.09	16.82	9.86
	14	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	16.17	10.99	16.67	9.78
	16	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	16.02	10.89	16.52	9.69
	18	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	15.88	10.80	16.37	9.60
	19	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	15.73	10.70	16.22	9.51
	21	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	15.59	10.60	16.06	9.42
	23	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.94	15.44	10.50	15.91	9.34
	25	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.24	10.84	15.29	10.40	15.76	9.25
	27	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	15.10	10.73	15.15	10.30	15.61	9.16
	29	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	14.96	10.63	15.01	10.20	15.46	9.07
	31	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	14.82	10.53	14.86	10.10	15.31	8.98
	33	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	14.67	10.33	14.71	10.00	15.16	8.89
	35	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.28	14.46	10.22	14.57	9.90	15.01	8.81
	37	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.23	14.24	10.02	14.42	9.71	14.71	8.63
	39	9.69	8.75	11.44	9.14	13.19	10.28	14.00	10.16	14.14	9.92	14.28	9.61	14.56	8.54
	41	9.69	8.75	11.44	9.14	13.02	10.28	13.86	10.12	14.00	9.81	14.14	9.51	14.41	8.45
	43	9.69	8.75	11.44	9.14	12.88	10.28	13.72	10.07	13.86	9.71	14.00	9.41	14.26	8.37
	46	9.69	8.75	11.22	8.95	12.46	10.28	13.58	10.03	13.72	9.61	13.86	9.31	14.14	8.28
	48	9.69	8.75	11.10	8.86	12.04	9.97	13.16	9.93	13.58	9.51	13.44	9.21	13.72	8.19
50	9.52	8.75	10.99	8.77	11.62	9.87	12.74	9.66	13.16	9.41	13.02	9.11	13.30	8.10	
16	10	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.50	18.65	12.68	19.22	11.27
	12	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.50	18.48	12.56	19.05	11.17
	14	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.50	18.31	12.45	18.88	11.07
	16	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.50	18.15	12.34	18.70	10.97
	18	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.50	17.98	12.22	18.53	10.87
	19	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.50	17.82	12.11	18.36	10.77
	21	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.50	17.64	12.00	18.18	10.67
	23	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.42	12.39	17.48	11.88	18.01	10.57
	25	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.26	12.27	17.31	11.77	17.84	10.47
	27	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	17.09	12.15	17.15	11.66	17.67	10.37
	29	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	16.93	12.03	16.98	11.55	17.50	10.27
	31	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	16.77	11.80	16.81	11.43	17.33	10.17
	33	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.75	16.53	11.68	16.65	11.32	17.16	10.06
	35	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.69	16.28	11.45	16.48	11.09	16.81	9.86
	37	11.08	10.00	13.08	10.44	15.08	11.75	16.00	11.62	16.16	11.33	16.32	10.98	16.64	9.76
	39	11.08	10.00	13.08	10.44	14.88	11.75	15.84	11.57	16.00	11.22	16.16	10.87	16.47	9.66
	41	11.08	10.00	13.08	10.44	14.72	11.75	15.68	11.51	15.84	11.10	16.00	10.75	16.30	9.56
	43	11.08	10.00	12.82	10.23	14.24	11.75	15.52	11.46	15.68	10.98	15.84	10.64	16.16	9.46
	46	11.08	10.00	12.69	10.13	13.76	11.40	15.04	11.35	15.52	10.87	15.36	10.53	15.68	9.36
	48	10.88	10.00	12.56	10.02	13.28	11.28	14.56	11.04	15.04	10.75	14.88	10.41	15.20	9.26
50	12.66	11.42	14.95	11.93	17.23	13.43	18.29	13.42	19.91	14.29	21.31	14.49	21.96	12.88	

8.2 Heating

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

Capacity (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.0	18.0	20.0	21.0	22.0	24.0
	WB	DB	TC	TC	TC	TC	TC	TC
			kW	kW	kW	kW	kW	kW
5.6	-20	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13	-12.6	4.22	4.22	4.22	4.22	4.22	4.22
	-11	-10.5	4.41	4.41	4.41	4.41	4.41	4.41
	-10	-9.5	4.60	4.60	4.60	4.60	4.60	4.60
	-9.1	-8.5	4.73	4.73	4.73	4.73	4.73	4.73
	-7.6	-7	4.79	4.79	4.79	4.79	4.79	4.79
	-5.6	-5	4.98	4.98	4.98	4.98	4.98	4.98
	-3.7	-3	5.23	5.23	5.23	5.23	5.23	5.23
	-0.7	0	5.61	5.61	5.61	5.61	5.61	5.29
	2.2	3	5.92	5.92	5.92	5.92	5.80	5.29
	4.1	5	6.11	6.11	6.11	6.11	5.80	5.29
	6	7	6.30	6.30	6.30	6.11	5.80	5.29
	7.9	9	6.49	6.49	6.30	6.11	5.80	5.29
9.8	11	6.68	6.68	6.30	6.11	5.80	5.29	
11.8	13	6.93	6.80	6.30	6.11	5.80	5.29	
13.7	15	7.12	6.80	6.30	6.11	5.80	5.29	
7.1	-20	-19.8	4.48	4.48	4.48	4.48	4.48	4.48
	-19	-18.8	4.80	4.80	4.80	4.80	4.80	4.80
	-17	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15	-14.7	5.20	5.20	5.20	5.20	5.20	5.20
	-13	-12.6	5.36	5.36	5.36	5.36	5.36	5.36
	-11	-10.5	5.60	5.60	5.60	5.60	5.60	5.60
	-10	-9.5	5.84	5.84	5.84	5.84	5.84	5.84
	-9.1	-8.5	6.00	6.00	6.00	6.00	6.00	6.00
	-7.6	-7	6.08	6.08	6.08	6.08	6.08	6.08
	-5.6	-5	6.32	6.32	6.32	6.32	6.32	6.32
	-3.7	-3	6.64	6.64	6.64	6.64	6.64	6.64
	-0.7	0	7.12	7.12	7.12	7.12	7.12	6.72
	2.2	3	7.52	7.52	7.52	7.52	7.36	6.72
	4.1	5	7.76	7.76	7.76	7.76	7.36	6.72
	6	7	8.00	8.00	8.00	7.76	7.36	6.72
	7.9	9	8.24	8.24	8.00	7.76	7.36	6.72
9.8	11	8.48	8.48	8.00	7.76	7.36	6.72	
11.8	13	8.80	8.64	8.00	7.76	7.36	6.72	
13.7	15	9.04	8.64	8.00	7.76	7.36	6.72	
8.0	-20	-19.8	5.04	5.04	5.04	5.04	5.04	5.04
	-19	-18.8	5.40	5.40	5.40	5.40	5.40	5.40
	-17	-16.7	5.67	5.67	5.67	5.67	5.67	5.67
	-15	-14.7	5.85	5.85	5.85	5.85	5.85	5.85
	-13	-12.6	6.03	6.03	6.03	6.03	6.03	6.03
	-11	-10.5	6.30	6.30	6.30	6.30	6.30	6.30
	-10	-9.5	6.57	6.57	6.57	6.57	6.57	6.57
	-9.1	-8.5	6.75	6.75	6.75	6.75	6.75	6.75
	-7.6	-7	6.84	6.84	6.84	6.84	6.84	6.84
	-5.6	-5	7.11	7.11	7.11	7.11	7.11	7.11
	-3.7	-3	7.47	7.47	7.47	7.47	7.47	7.47
	-0.7	0	8.01	8.01	8.01	8.01	8.01	7.56
	2.2	3	8.46	8.46	8.46	8.46	8.28	7.56
	4.1	5	8.73	8.73	8.73	8.67	8.28	7.56
	6	7	9.00	9.00	8.80	8.67	8.28	7.56
	7.9	9	9.27	9.27	9.00	8.67	8.28	7.56
9.8	11	9.54	9.54	9.00	8.67	8.28	7.56	
11.8	13	9.90	9.72	9.00	8.67	8.28	7.56	
13.7	15	10.17	9.72	9.00	8.67	8.28	7.56	

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

Capacity (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.0	18.0	20.0	21.0	22.0	24.0
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
9.0	-20	-19.8	5.60	5.04	5.60	5.60	5.60	5.60
	-19	-18.8	6.00	5.40	6.00	6.00	6.00	6.00
	-17	-16.7	6.30	6.30	6.30	6.30	6.30	6.30
	-15	-14.7	6.50	6.50	6.50	6.50	6.50	6.50
	-13	-12.6	6.70	6.70	6.70	6.70	6.70	6.70
	-11	-10.5	7.00	7.00	7.00	7.00	7.00	7.00
	-10	-9.5	7.30	7.30	7.30	7.30	7.30	7.30
	-9.1	-8.5	7.50	7.50	7.50	7.50	7.50	7.50
	-7.6	-7	7.60	7.60	7.60	7.60	7.60	7.60
	-5.6	-5	7.90	7.90	7.90	7.90	7.90	7.90
	-3.7	-3	8.30	8.30	8.30	8.30	8.30	8.30
	-0.7	0	8.90	8.90	8.90	8.90	8.90	8.40
	2.2	3	9.40	9.40	9.40	9.40	9.20	8.40
	4.1	5	9.70	9.70	9.70	9.70	9.20	8.40
	6	7	10.00	10.00	10.00	9.70	9.20	8.40
	7.9	9	10.30	10.30	10.00	9.70	9.20	8.40
9.8	11	10.60	10.60	10.00	9.70	9.20	8.40	
11.8	13	11.00	10.80	10.00	9.70	9.20	8.40	
13.7	15	11.30	10.80	10.00	9.70	9.20	8.40	
10.0	-20	-19.8	6.16	6.16	6.16	6.16	6.16	6.16
	-19	-18.8	6.60	6.60	6.60	6.60	6.60	6.60
	-17	-16.7	6.93	6.93	6.93	6.93	6.93	6.93
	-15	-14.7	7.15	7.15	7.15	7.15	7.15	7.15
	-13	-12.6	7.37	7.37	7.37	7.37	7.37	7.37
	-11	-10.5	7.70	7.70	7.70	7.70	7.70	7.70
	-10	-9.5	8.03	8.03	8.03	8.03	8.03	8.03
	-9.1	-8.5	8.25	8.25	8.25	8.25	8.25	8.25
	-7.6	-7	8.36	8.36	8.36	8.36	8.36	8.36
	-5.6	-5	8.69	8.69	8.69	8.69	8.69	8.69
	-3.7	-3	9.13	9.13	9.13	9.13	9.13	9.13
	-0.7	0	9.79	9.79	9.79	9.79	9.79	9.24
	2.2	3	10.34	10.34	10.34	10.34	10.12	9.24
	4.1	5	10.67	10.67	10.67	10.67	10.12	9.24
	6	7	11.00	11.00	11.00	10.67	10.12	9.24
	7.9	9	11.33	11.33	11.00	10.67	10.12	9.24
9.8	11	11.66	11.66	11.00	10.67	10.12	9.24	
11.8	13	12.10	11.88	11.00	10.67	10.12	9.24	
13.7	15	12.43	11.88	11.00	10.67	10.12	9.24	
11.2	-20	-19.8	7.00	7.00	7.00	7.00	7.00	7.00
	-19	-18.8	7.50	7.50	7.50	7.50	7.50	7.50
	-17	-16.7	7.88	7.88	7.88	7.88	7.88	7.88
	-15	-14.7	8.13	8.13	8.13	8.13	8.13	8.13
	-13	-12.6	8.38	8.38	8.38	8.38	8.38	8.38
	-11	-10.5	8.75	8.75	8.75	8.75	8.75	8.75
	-10	-9.5	9.13	9.13	9.13	9.13	9.13	9.13
	-9.1	-8.5	9.38	9.38	9.38	9.38	9.38	9.38
	-7.6	-7	9.50	9.50	9.50	9.50	9.50	9.50
	-5.6	-5	9.88	9.88	9.88	9.88	9.88	9.88
	-3.7	-3	10.38	10.38	10.38	10.38	10.38	10.38
	-0.7	0	11.13	11.13	11.13	11.13	11.13	10.50
	2.2	3	11.75	11.75	11.75	11.75	11.50	10.50
	4.1	5	12.13	12.13	12.13	12.13	11.50	10.50
	6	7	12.50	12.50	12.50	12.13	11.50	10.50
	7.9	9	12.88	12.88	12.50	12.13	11.50	10.50
9.8	11	13.25	13.25	12.50	12.13	11.50	10.50	
11.8	13	13.75	13.50	12.50	12.13	11.50	10.50	
13.7	15	14.13	13.50	12.50	12.13	11.50	10.50	

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

Capacity (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.0	18.0	20.0	21.0	22.0	24.0
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
12.5	-20	-19.8	7.75	7.75	7.75	7.75	7.75	7.75
	-19	-18.8	8.30	8.30	8.30	8.30	8.30	8.30
	-17	-16.7	8.72	8.72	8.72	8.72	8.72	8.72
	-15	-14.7	9.00	9.00	9.00	9.00	9.00	9.00
	-13	-12.6	9.29	9.29	9.29	9.29	9.29	9.29
	-11	-10.5	9.73	9.73	9.73	9.73	9.73	9.73
	-10	-9.5	10.09	10.09	10.09	10.09	10.09	10.09
	-9.1	-8.5	10.36	10.36	10.36	10.36	10.36	10.36
	-7.6	-7	10.54	10.54	10.54	10.54	10.54	10.54
	-5.6	-5	10.98	10.98	10.98	10.98	10.98	10.98
	-3.7	-3	11.52	11.52	11.52	11.52	11.52	11.52
	-0.7	0	12.32	12.32	12.32	12.32	12.32	11.61
	2.2	3	13.04	13.04	13.04	13.04	12.77	11.61
	4.1	5	13.39	13.39	13.39	13.39	12.77	11.61
	6	7	14.00	14.00	14.00	13.39	12.77	11.61
	7.9	9	14.29	14.29	14.25	13.39	12.77	11.61
9.8	11	14.64	14.64	14.25	13.39	12.77	11.61	
11.8	13	15.27	14.91	14.25	13.39	12.77	11.61	
13.7	15	15.63	14.91	14.25	13.39	12.77	11.61	
14	-20	-19.8	8.68	8.68	8.68	8.68	8.68	8.68
	-19	-18.8	9.30	9.30	9.30	9.30	9.30	9.30
	-17	-16.7	9.77	9.77	9.77	9.77	9.77	9.77
	-15	-14.7	10.08	10.08	10.08	10.08	10.08	10.08
	-13	-12.6	10.40	10.40	10.40	10.40	10.40	10.40
	-11	-10.5	10.90	10.90	10.90	10.90	10.90	10.90
	-10	-9.5	11.30	11.30	11.30	11.30	11.30	11.30
	-9.1	-8.5	11.60	11.60	11.60	11.60	11.60	11.60
	-7.6	-7	11.80	11.80	11.80	11.80	11.80	11.80
	-5.6	-5	12.30	12.30	12.30	12.30	12.30	12.30
	-3.7	-3	12.90	12.90	12.90	12.90	12.90	12.90
	-0.7	0	13.80	13.80	13.80	13.80	13.80	13.00
	2.2	3	14.60	14.60	14.60	14.60	14.30	13.00
	4.1	5	15.00	15.00	15.00	15.00	14.30	13.00
	6	7	15.50	15.50	15.00	15.00	14.30	13.00
	7.9	9	16.00	16.00	15.50	15.00	14.30	13.00
9.8	11	16.40	16.40	15.50	15.00	14.30	13.00	
11.8	13	17.10	16.70	15.50	15.00	14.30	13.00	
13.7	15	17.50	16.70	15.50	15.00	14.30	13.00	
16	-20	-19.8	9.92	9.92	9.92	9.92	9.92	9.92
	-19	-18.8	10.63	10.63	10.63	10.63	10.63	10.63
	-17	-16.7	11.17	11.17	11.17	11.17	11.17	11.17
	-15	-14.7	11.52	11.52	11.52	11.52	11.52	11.52
	-13	-12.6	11.89	11.89	11.89	11.89	11.89	11.89
	-11	-10.5	12.46	12.46	12.46	12.46	12.46	12.46
	-10	-9.5	12.91	12.91	12.91	12.91	12.91	12.91
	-9.1	-8.5	13.26	13.26	13.26	13.26	13.26	13.26
	-7.6	-7	13.49	13.49	13.49	13.49	13.49	13.49
	-5.6	-5	14.06	14.06	14.06	14.06	14.06	14.06
	-3.7	-3	14.74	14.74	14.74	14.74	14.74	14.74
	-0.7	0	15.77	15.77	15.77	15.77	15.77	14.86
	2.2	3	16.69	16.69	16.69	16.69	16.34	14.86
	4.1	5	16.80	16.80	16.80	16.80	16.34	14.86
	6	7	17.00	17.00	17.00	16.80	16.34	14.86
	7.9	9	18.29	18.29	17.71	16.80	16.34	14.86
9.8	11	18.74	18.74	17.71	16.80	16.34	14.86	
11.8	13	19.54	19.09	17.71	16.80	16.34	14.86	
13.7	15	20.00	19.09	17.71	16.80	16.34	14.86	

9 Electrical characteristics

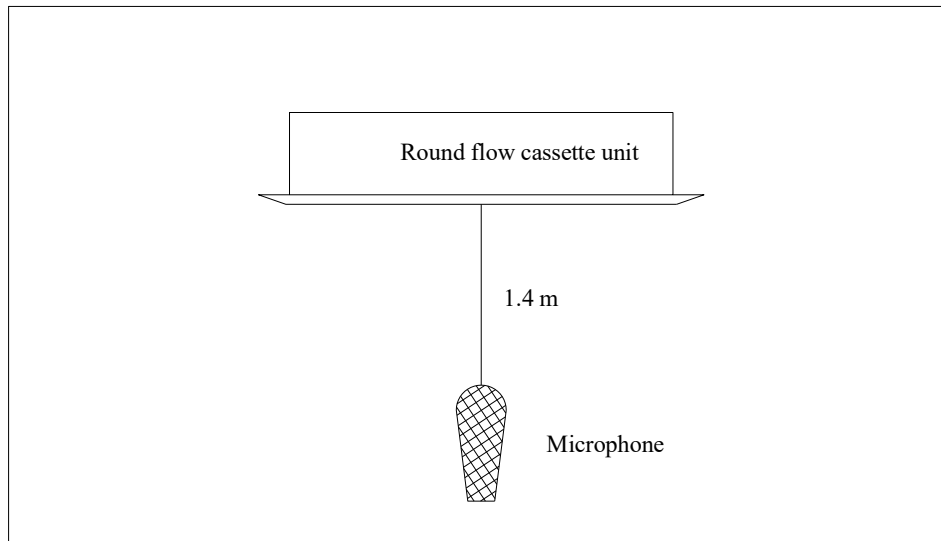
Model	Indoor unit				MFC	Power cable			Signal cable
	Hz	Voltage	Minimum	Maximum		L ≤ 20m	L ≤ 50m	Grounded	
VECR019Q0A-GWV056	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR024Q0A-GWV071	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR027Q0A-GWV080	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR031Q0A-GWV090	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR035Q0A-GWV100	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR038Q0A-GWV112	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR043Q0A-GWV125	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR048Q0A-GWV140	50/60Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VECR060Q0A-GWV160	50/60Hz	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 pressure level)



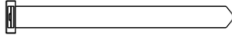
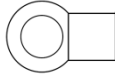

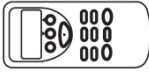

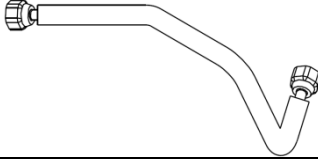
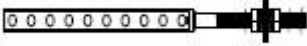


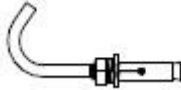

Model	Sound pressure level (dB(A))		
	Low speed	Medium speed	High speed
VECR019Q0A-GWV056	31	34	38
VECR024Q0A-GWV071	34	36	39
VECR027Q0A-GWV080	34	36	39
VECR031Q0A-GWV090	35	37	41
VECR035Q0A-GWV100	35	37	41
VECR038Q0A-GWV112	35	37	41
VECR043Q0A-GWV125	40	42	47
VECR048Q0A-GWV140	40	42	47
VECR060Q0A-GWV160	40	42	47

Notes:

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

11 Accessories

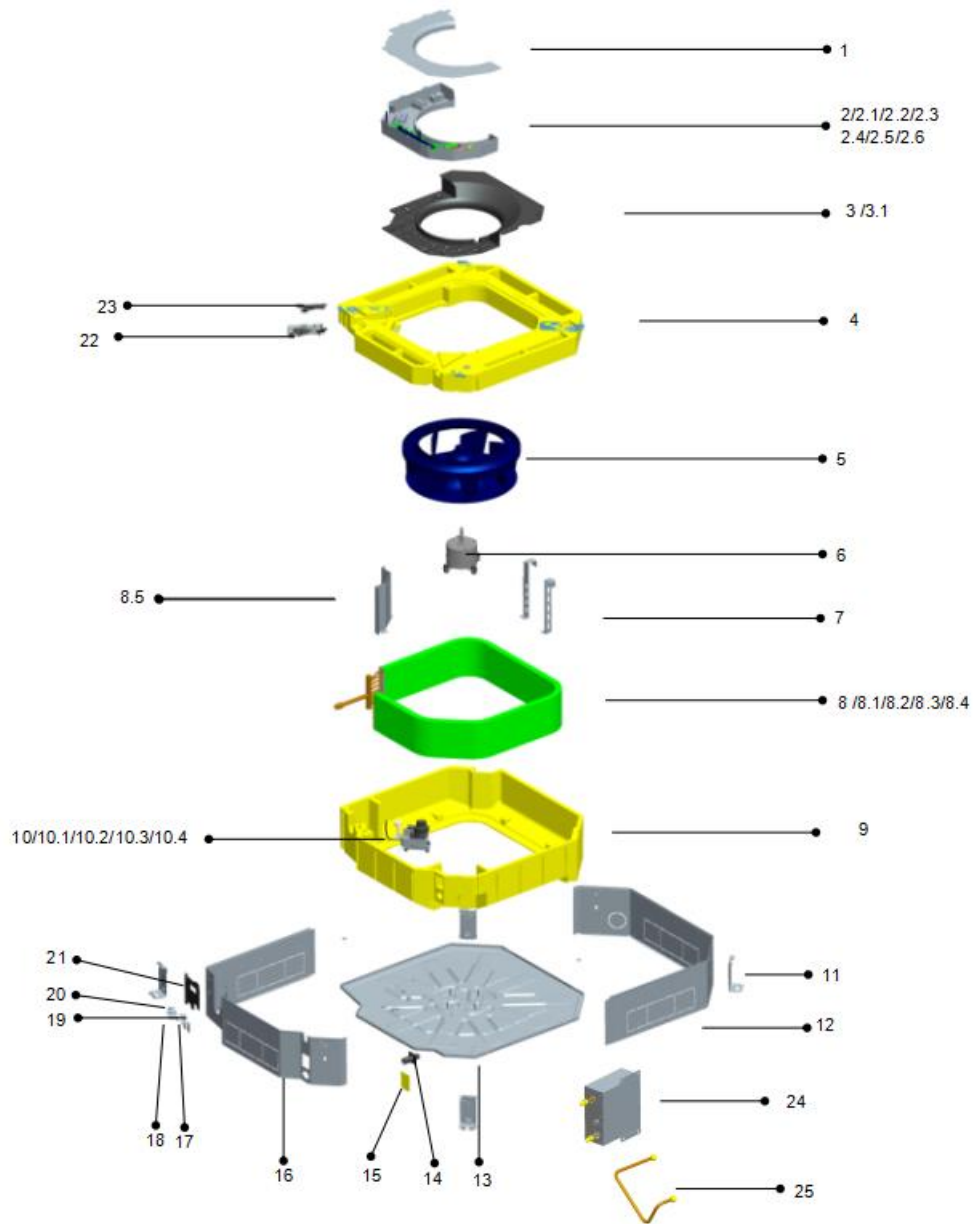
11.1 Standard accessories.

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	10		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	4		For hanging indoor unit
Circlips	2		For fixing drainage pipe
Drainage connection pipe	1		For connecting draining condensate water pipe to indoor unit
Expandable screw	4		Used to hang the air conditioner
Bag	4		For bagging accessories

11.2 Local buy accessories.

Item	Specification		
	5.6kW	7.1kW~8.0kW	9.0kW~16.0kW
Liquid side copper pipe	Ø6.35mm*0.8mm	Ø9.53mm*0.8mm	
Gas side copper pipe	Ø12.7mm*0.8mm	Ø15.9mm*1.0mm	
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	2*0.75 mm ² (AVP, RVP, RVVP)		

12 Exploded view



No.	Part Name	Qty	No.	Part Name	Qty
1	E-parts box cover	1	8.5	Main fixing board	1
2	Electric control components for indoor unit	1	9	Upper foam components	1
2.1	Fan motor capacitor	1	10	Pre-assembling assy for water pump	1
2.2	Terminal	1	10.1	water pump support	1
2.3	Terminal	1	10.2	Water pump	1
2.4	E-parts board for indoor unit	1	10.3	Liquid-level sensor	1
2.5	Temperature sensor	1	10.4	Underlay for water pump support	3
2.6	Welded chassis for E-parts box	1	11	Hanger	4
3	Wind inlet guide assy	1	12	Rear brattice	1
3.1	Wind inlet guide	1	13	Chassis assy	1
4	Water pan components	1	14	Discharge pipe assembly	1
5	Centrifugal fan	1	15	Maintenance board component	1
6	Fan motor for indoor unit	1	16	Front brattice	1
7	Auxiliary fixing board for evaporator	2	17	Lower pipe clamp	1
8	Evaporator components	1	18	Lower pipe clamp(ϕ 35)	1
8.1	Insulating pipe	1	19	Upper pipe clamp	1
8.2	Insulating pipe	1	20	Upper pipe clamp(ϕ 35)	1
8.3	Evaporator attached cotton	1	21	Valve panel component	1
8.4	Evaporator welding assy	1	22	Wire out board	1
8.4.1	Installation tube for probe	2	23	Wire out board cover	1
8.4.2	Evaporator	1	24	Electronic expansion valve box components	1
8.4.3	collecting pipe welding assy	1	25	Connecting pipe assy	1
8.4.4	Current divider capillary assy	1			



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