

VEHP-HA-G Series Ducted VRF Indoor Unit Technical Manual



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1. External appearance

- VEH 0 4Q A-GCV071, VEH 0 7Q A-GCV0 0, VEH 0 1Q A-GCV0 0



- VEH 0 5Q A-GCV100, VEH 040Q A-GCV1 0, VEH 0 0Q A-GCV1 0



- VEH 070Q A-GCV 00, VEHA0 5Q A-GCV 50, VEHA0 Q A-GCV 0



- VEHA154Q7A-GCV450, VEHA1 1Q7A-GCV5 0



Model			VEH 0 4Q A-GCV071	VEH 0 7Q A-GCV0 0	VEH 0 1Q A-GCV0 0
Power supply			220-240V/1PH/50Hz	220-240V/1PH/50Hz	220-240V/1PH/50Hz
Capacity	Cooling	kW	7.1	8	9
	Heating	kW	7.8	8.8	10.0
Power Input		kW	0.34	0.34	0.34
Fan motor	Model		YDK110-75F-4P3H105L-2 YSK120-150F-4P3H105-2	YDK110-75F-4P3H105L-2 YSK120-150F-4P3H105-2	YDK110-75F-4P3H105L-2 YSK120-150F-4P3H105-2
	Type		AC	AC	AC
	Brand		Kangbao	Kangbao	Kangbao
	Capacitor	μF	4+6	4+6	4+6
	Speed (Hi/Med/Low)	r/min	1430/1330/1280 1430/1280/1200	1430/1330/1280 1430/1280/1200	1430/1330/1280 1430/1280/1200
	ESP	Pa	150	150	150
Indoor coil	Number of rows		3	3	3
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	Tube diameter and type	mm	Ø7.94, Innergroove tube	Ø7.94, Innergroove tube	Ø7.94, Innergroove tube
Air flow (High speed)		m ³ /h	1500	1500	1500
Sound power level		dB(A)	40~42	40~42	40~42
Body	Dimension (W×H×D)	mm	1445×260×680	1445×260×680	1445×260×680
	Packing (W×H×D)	mm	1490×325×720	1490×325×720	1490×325×720
	Net/Gross weight	kg	46/50	46/50	46/50
Refrigerant type			R410A	R410A	R410A
Throttle type			EXV	EXV	EXV
Design pressure		MPa	4.5	4.5	4.5
Liquid pipe / Gas pipe		mm	Ø9.53/ Ø15.9	Ø9.53/ Ø15.9	Ø9.53/ Ø15.9
Connecting wire	Power wire	mm ²	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)
	Signal wire	mm ²	0.75*2 shield	0.75*2 shield	0.75*2 shield
Drainage water pipe (Outer diameter)		mm	Ø25	Ø25	Ø25
Controller	Standard		Wired controller	Wired controller	Wired controller
	Optional		Remote controller	Remote controller	Remote controller
Operation temp		°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			VEH 0 5Q A-GCV100	VEH 040Q A-GCV1 0	VEH 0 0Q A-GCV1 0
Power supply			220-240V/1PH/50Hz	220-240V/1PH/50Hz	220-240V/1PH/50Hz
Capacity	Cooling	kW	10	12	15
	Heating	kW	11.0	13.0	17.0
Power Input		kW	0.45	0.45	0.45
Fan motor	Model		YSK139-300F-4P3H95	YSK139-300F-4P3H95	YSK139-300F-4P3H95
	Type		AC	AC	AC
	Brand		Kangbao	Kangbao	Kangbao
	Capacitor	μF	15	15	15
	Speed (Hi/Med/Low)	r/min	1050/830/720	1050/830/720	1050/830/720
	ESP	Pa	150	150	150
Indoor coil	Number of rows		3	3	3
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	Tube diameter and type	mm	Ø7.94,Innergroove tube	Ø7.94,Innergroove tube	Ø7.94,Innergroove tube
Air flow (High speed)		m ³ /h	2300	2300	2300
Sound power level		dB(A)	44~52	44~52	44~52
Body	Dimension (W×H×D)	mm	1190×370×620	1190×370×620	1190×370×620
	Packing (W×H×D)	mm	1245×445×655	1245×445×655	1245×445×655
	Net/Gross weight	kg	47/51	47/51	47/51
Refrigerant type			R410A	R410A	R410A
Throttle type			EXV	EXV	EXV
Design pressure		MPa	4.5	4.5	4.5
Liquid pipe / Gas pipe		mm	Ø9.53/ Ø15.9	Ø9.53/ Ø15.9	Ø9.53/ Ø15.9
Connecting wire	Power wire	mm ²	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)
	Signal wire	mm ²	0.75*2 shield	0.75*2 shield	0.75*2 shield
Drainage water pipe (Outer diameter)		mm	Ø25	Ø25	Ø25
Controller	Standard		Wired controller	Wired controller	Wired controller
	Optional		Remote controller	Remote controller	Remote controller
Operation temp		°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			VEH 070Q A-GCV 00	VEHA0 5Q A-GCV 50	VEHA0 Q A-GCV 0
Power supply			220-240V/1PH/50Hz	220-240V/1PH/50Hz	220-240V/1PH/50Hz
Capacity	Cooling	kW	20	25	28
	Heating	kW	22.0	27.5	30.8
Power Input			kW	1.2	1.2
Fan motor	Model		YDK-300F-4P3 *2	YDK-300F-4P3 *2	YDK-300F-4P3 *2
	Type		AC	AC	AC
	Brand		Yongan	Yongan	Yongan
	Capacitor	μF	15+15	15+15	15+15
	Speed (Hi/Med/Low)	r/min	1050/920/820	1050/920/820	1050/920/820
	ESP	Pa	150	150	150
Indoor coil	Number of rows		4	4	4
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	Tube diameter and type	mm	Ø9.52,Innergroove tube	Ø9.52,Innergroove tube	Ø9.52,Innergroove tube
Air flow (High speed)		m ³ /h	4000	4200	4400
Sound power level		dB(A)	45~53	45~54	45~55
Body	Dimension (W×H×D)	mm	1465×448×811	1465×448×811	1465×448×811
	Packing (W×H×D)	mm	1510×580×870	1510×580×870	1510×580×870
	Net/Gross weight	kg	102/113	102/113	102/113
Refrigerant type			R410A	R410A	R410A
Throttle type			EXV	EXV	EXV
Design pressure		MPa	4.5	4.5	4.5
Liquid pipe / Gas pipe		mm	Ø12.7/Ø22.2	Ø12.7/Ø22.2	Ø12.7/Ø22.2
Connecting wire	Power wire	mm ²	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)
	Signal wire	mm ²	0.75*2 shield	0.75*2 shield	0.75*2 shield
Drainage water pipe (Outer diameter)		mm	Ø30	Ø30	Ø30
Controller	Standard		Wired controller	Wired controller	Wired controller
	Optional		Remote controller	Remote controller	Remote controller
Operation temp		°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			VEHA154Q7A-GCV450	VEHA1 1Q7A-GCV5 0
Power supply			3800-415V/3PH/50Hz	380-415V/3PH/50Hz
Capacity	Cooling	kW	45	56
	Heating	kW	50	63
Power Input		kW	1.6	2.45
Fan motor	Model		YX3-100L1-4-B3	YX3-100L1-4-B3
	Type		AC	AC
	Brand		Wannan	Wannan
	Capacitor	μF	/	/
	Speed (Hi/Med/Low)	r/min	1430	1430
	ESP	Pa	200	200
Indoor coil	Number of rows		3	3
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum
	Tube diameter and type	mm	Ø7.94,Innergrooved tube	Ø7.94,Innergrooved tube
Air flow (High speed)		m ³ /h	6000	8000
Sound power level		dB(A)	60	64
Body	Dimension (W×H×D)	mm	2165×916×676	2165×916×676
	Packing (W×H×D)	mm	2267×1050×840	2267×1050×840
	Net/Gross weight	kg	222/260	222/260
Refrigerant type			R410A	R410A
Throttle type			EXV	EXV
Design pressure		MPa	4.5	4.5
Liquid pipe / Gas pipe		mm	Ø15.9/Ø28.6	Ø15.9/Ø28.6
Connecting wire	Power wire	mm ²	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)	2.5*2+2.5(L≤20m) 4*2+2.5(20m<L≤50m)
	Signal wire	mm ²	0.75*2 shield	0.75*2 shield
Drainage water pipe (Outer diameter)		mm	Ø32	Ø32
Controller	Standard		Wired controller	Wired controller
	Optional		Remote controller	Remote controller
Operation temp		°C	16~32	16~32

Notes:

5) 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

6) Nominal heating capacities are based on the following condition.

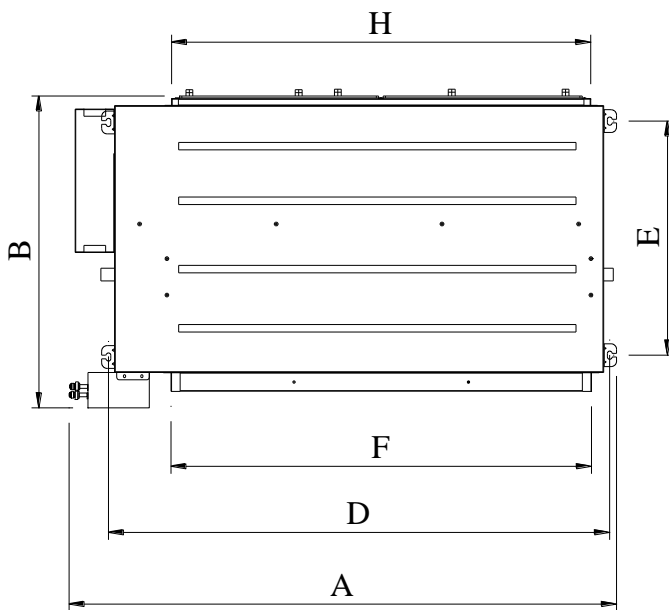
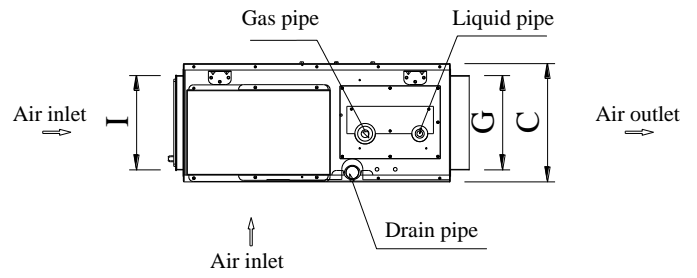
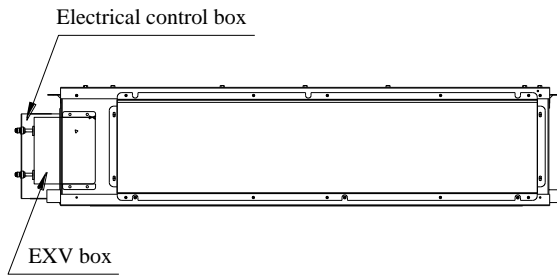
- Outdoor temperature: 7°C DB, 6°C WB
- Return air temperature: 20°C DB
- Equivalent piping length: 8m in horizontal

7) 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.

8) The above data may be changed without notice for future improvement on quality and performance.

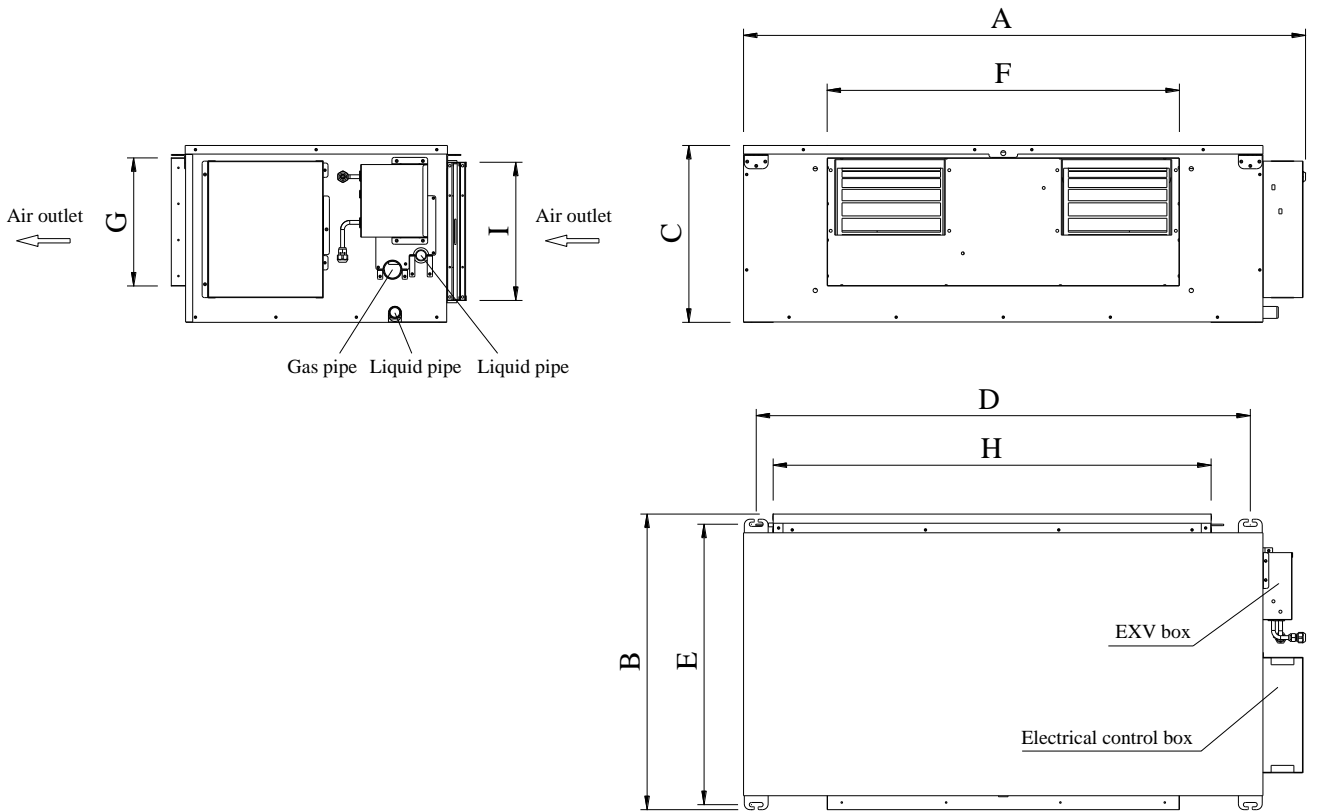
4. Dimensions

- VEH 0 4Q A-GCV071 VEH 0 7Q A-GCV0 0, VEH 0 1Q A-GCV0 0



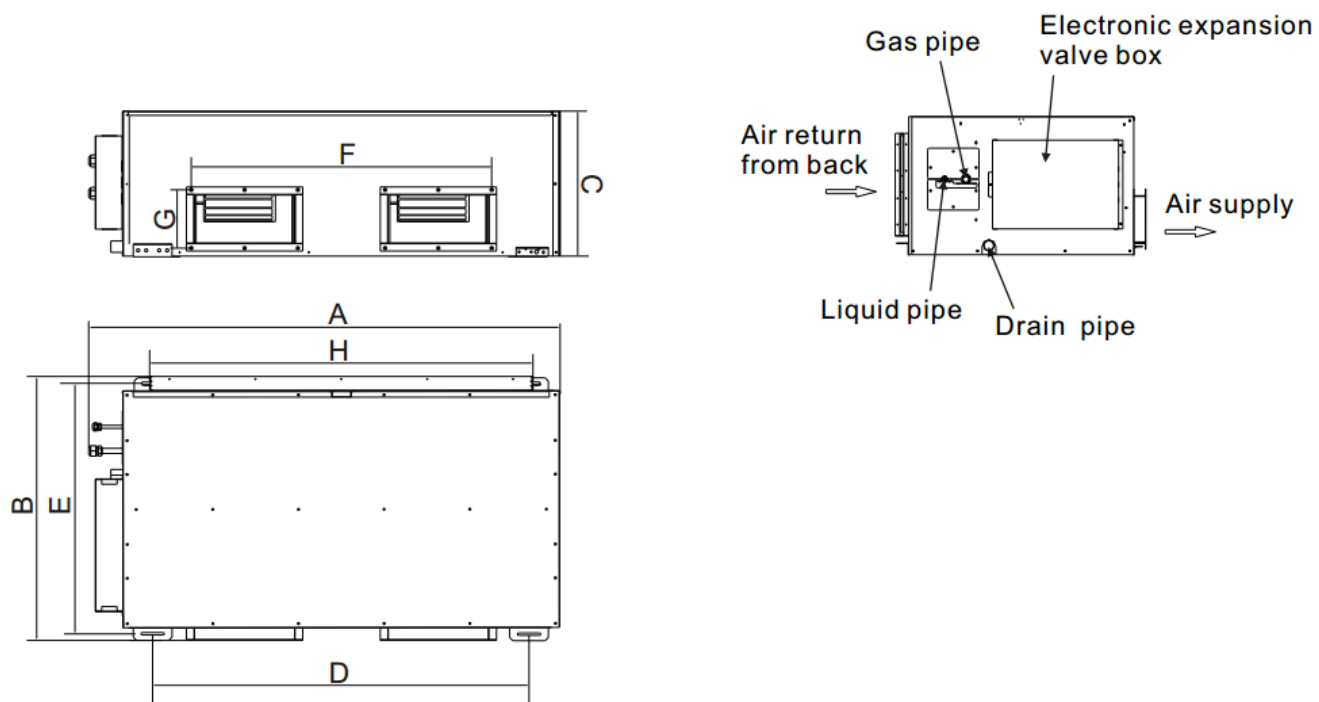
Mode	Body dimension(mm)			Installation dimension (mm)		Air outlet dimension (mm)		Air return dimension (mm)	
	A	B	C	D	E	F	G	H	I
VEH 0 4Q A-GCV071	1445	680	260	1337	515	1156	197	1156	207
VEH 0 7Q A-GCV0 0	1445	680	260	1337	515	1156	197	1156	207
VEH 0 1Q A-GCV0 0	1445	680	260	1337	515	1156	197	1156	207

- VEH 0 5Q A-GCV100, VEH 040Q A-GCV1 0, VEH 0 0Q A-GCV1 0



Mode	Body dimension(mm)			Installation dimension (mm)		Air outlet dimension (mm)		Air return dimension (mm)	
	A	B	C	D	E	F	G	H	I
VEHP035Q0A-GCV100	1190	620	370	1038	588	740	267	920	290
VEHP040Q0A-GCV120	1190	620	370	1038	588	740	267	920	290
VEHP060Q0A-GCV160	1190	620	370	1038	588	740	267	920	290

- VEH 070Q A-GCV 00, VEHA0 5Q A-GCV 50, VEHA0 Q A-GCV 0



Mode	Body dimension(mm)			Installation dimension (mm)		Air outlet dimension (mm)		Air return dimension (mm)	
	A	B	C	D	E	F	G	H	I
VEHP070Q2A-GCV200	1465	811	448	1162	771	930	180	1174	272
VEHP085Q2A-GCV250	1465	811	448	1162	771	930	180	1174	272
VEHP096Q2A-GCV280	1465	811	448	1162	771	930	180	1174	272

- VEHA154Q7A-GCV450, VEHA1 1Q7A-GCV5 0

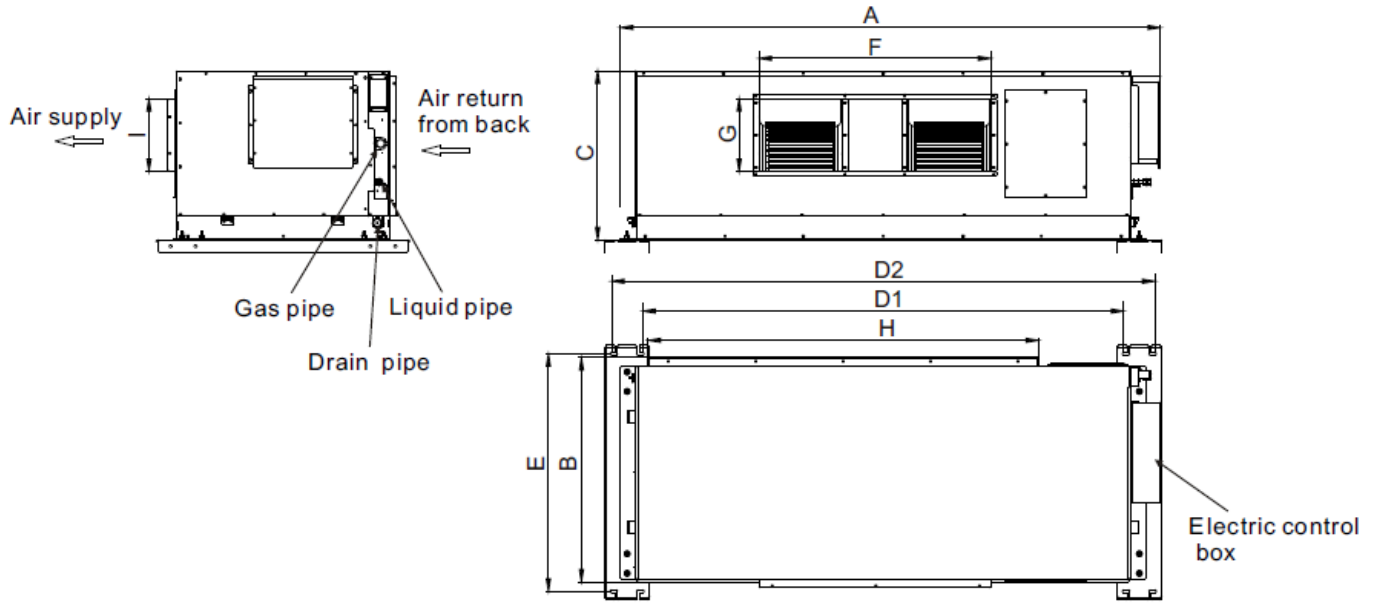
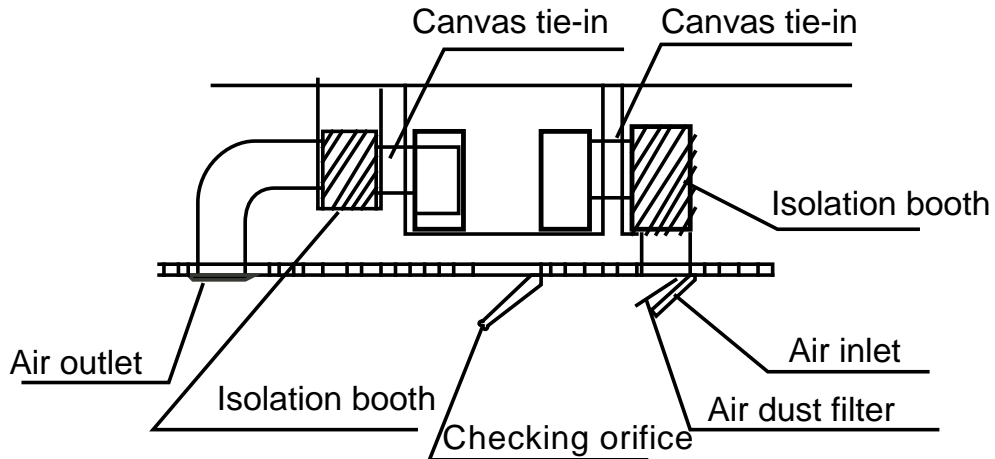


Table 3.7 Unit: mm

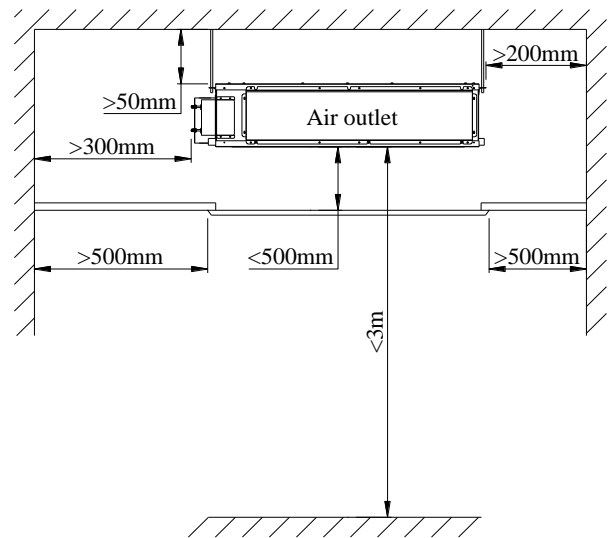
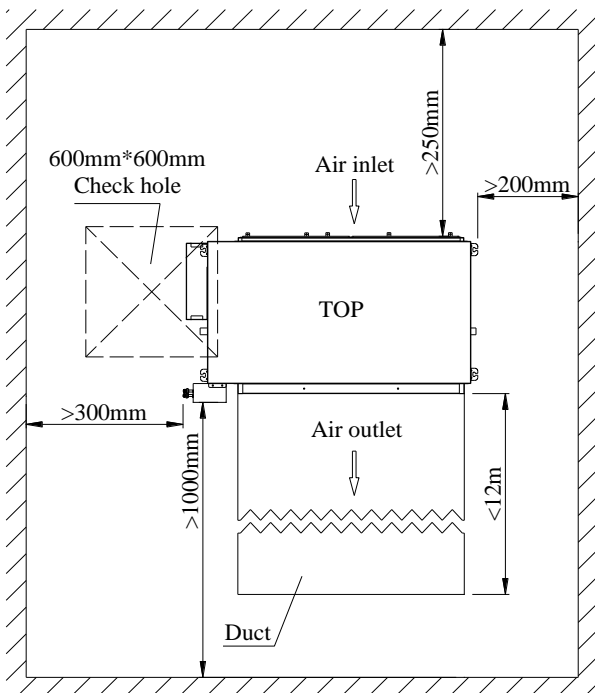
Mode	Body dimension(mm)			Installation dimension (mm)			Air outlet dimension (mm)		Air return dimension (mm)	
	A	B	C	D1	D2	E	F	G	H	I
VEHA1 1Q7A-GCV5 0	2165	916	676	1926	2176	950	928	292	1563	563
VEHA1 1Q7A-GCV5 0	2165	916	676	1926	2176	950	928	292	1563	563

5. Service space

- Ensure the needed spaces 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.
- Below is the recommended duct installation method:

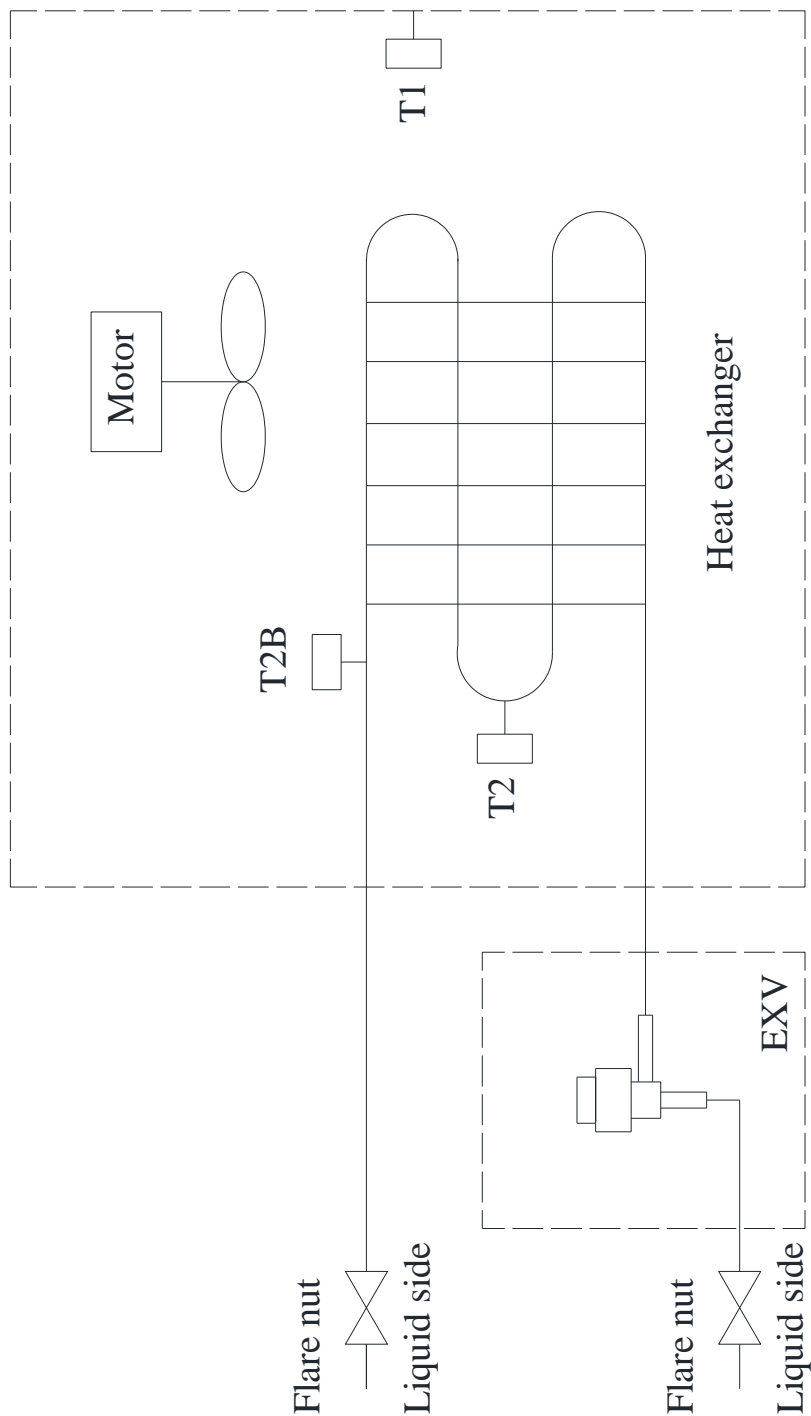


- Keep minimum 600*600 space for checking and maintenance:



6. Piping diagram

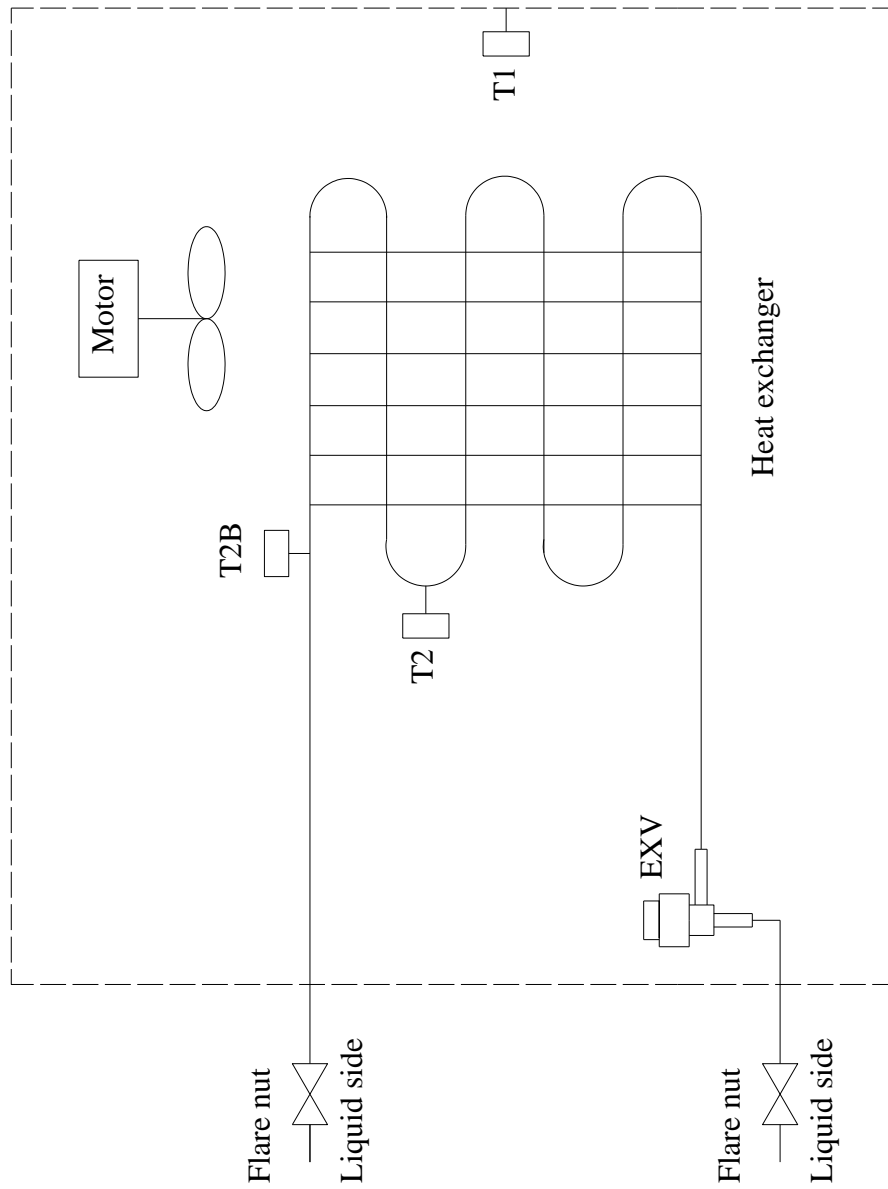
- VEH 0 4Q A-GCV071, VEH 0 7Q A-GCV0 0, VEH 0 1Q A-GCV0 0, VEH 0 5Q A-GCV100, VEH 040Q A-GCV1 0, VEH 0 0Q A-GCV1 0



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

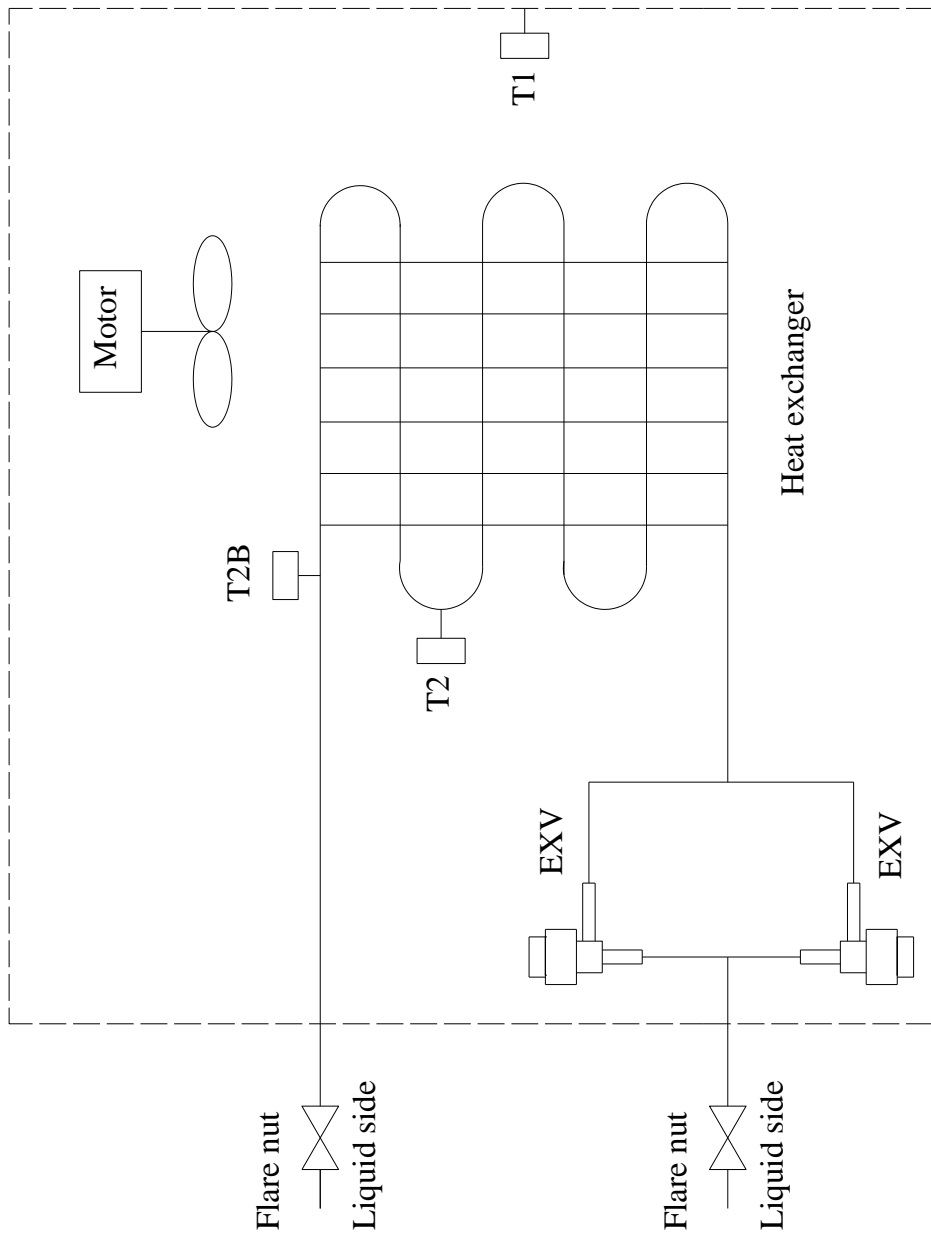
- VEH 070Q A-GCV 00, VEHA0 5Q A-GCV 50 VEHA0 Q A-GCV 0



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

- VEHA154Q7A-GCV450, VEHA1 1Q7A-GCV5 0



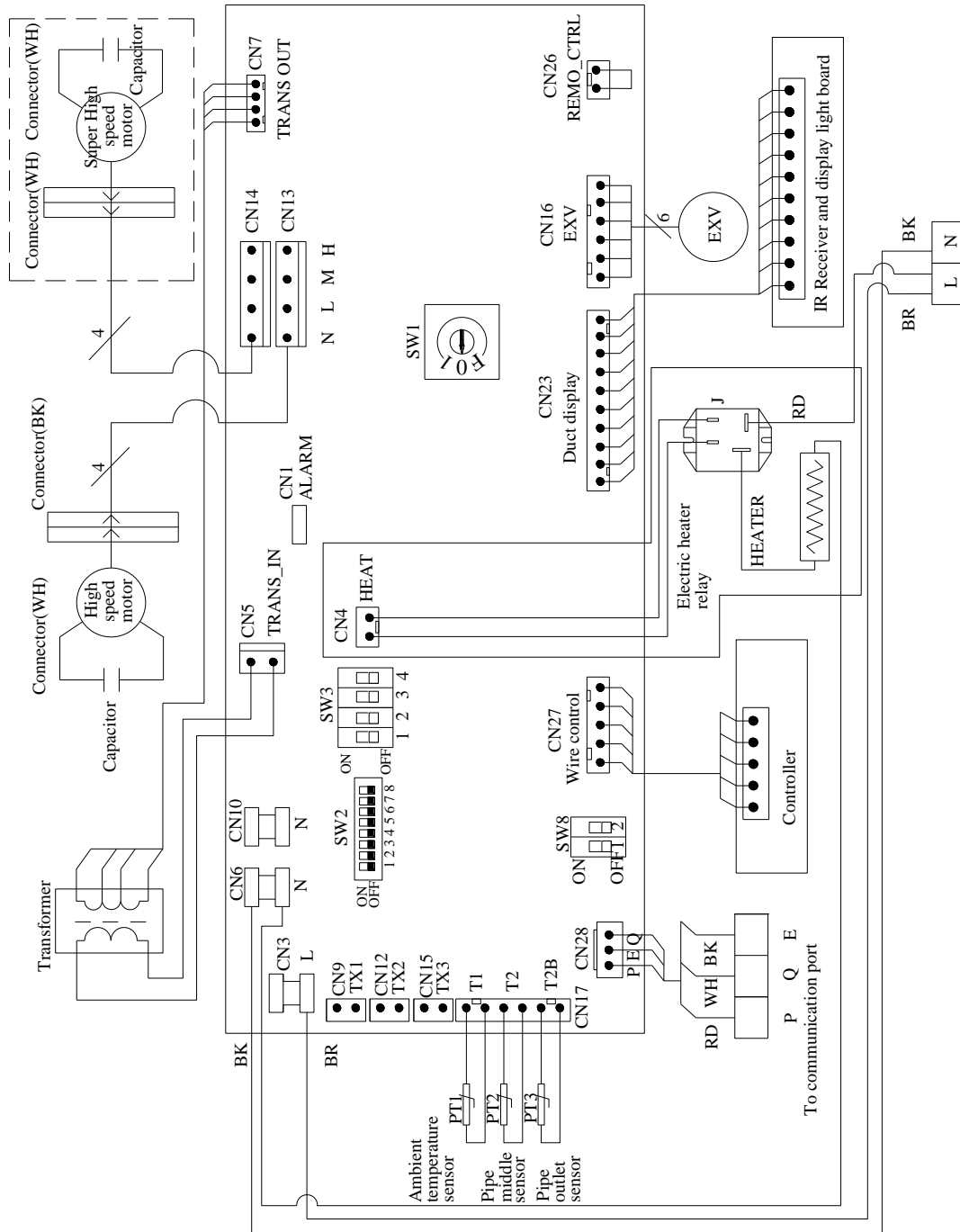
Notes:

- 5) T1: Room temperature sensor
- 6) T2: Temperature sensor of middle heat exchanger
- 7) T2B: Temperature sensor of heat exchanger outlet
- 8) EXV: Electrical expansion valve

7. Wiring diagram

7.1 Wiring diagram

- VEH 0 4Q A-GCV071, VEH 0 7Q A-GCV0 0, VEH 0 1Q A-GCV0 0



Notes:

1) Color code:

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

2) T1: Room temperature sensor

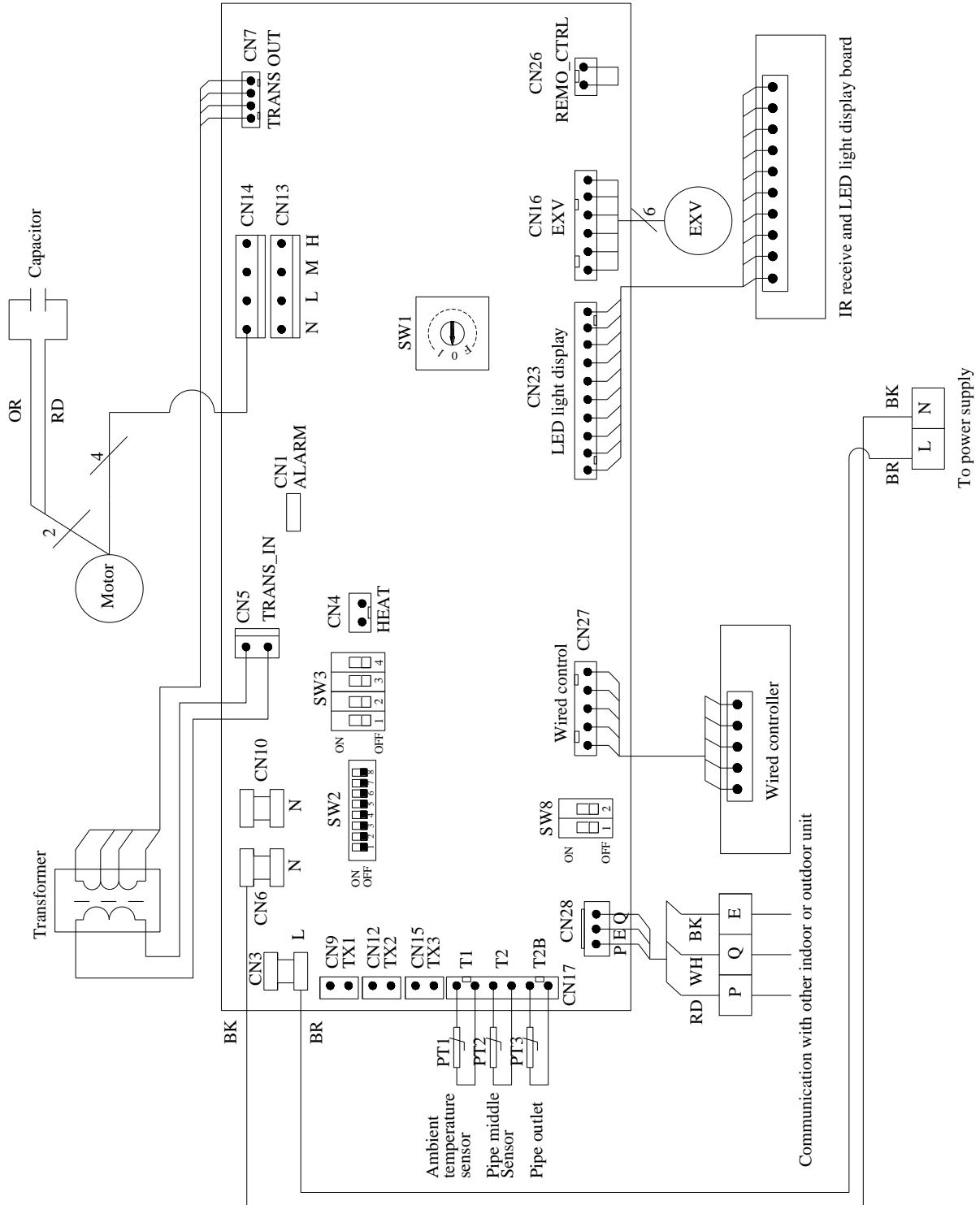
3) T2: Temperature sensor of middle heat exchanger

4) T2B: Temperature sensor of heat exchanger outlet

5) EXV: Electrical expansion valve

6) Electrical heater is optional, please contact to OMEGA's technician for the detail.

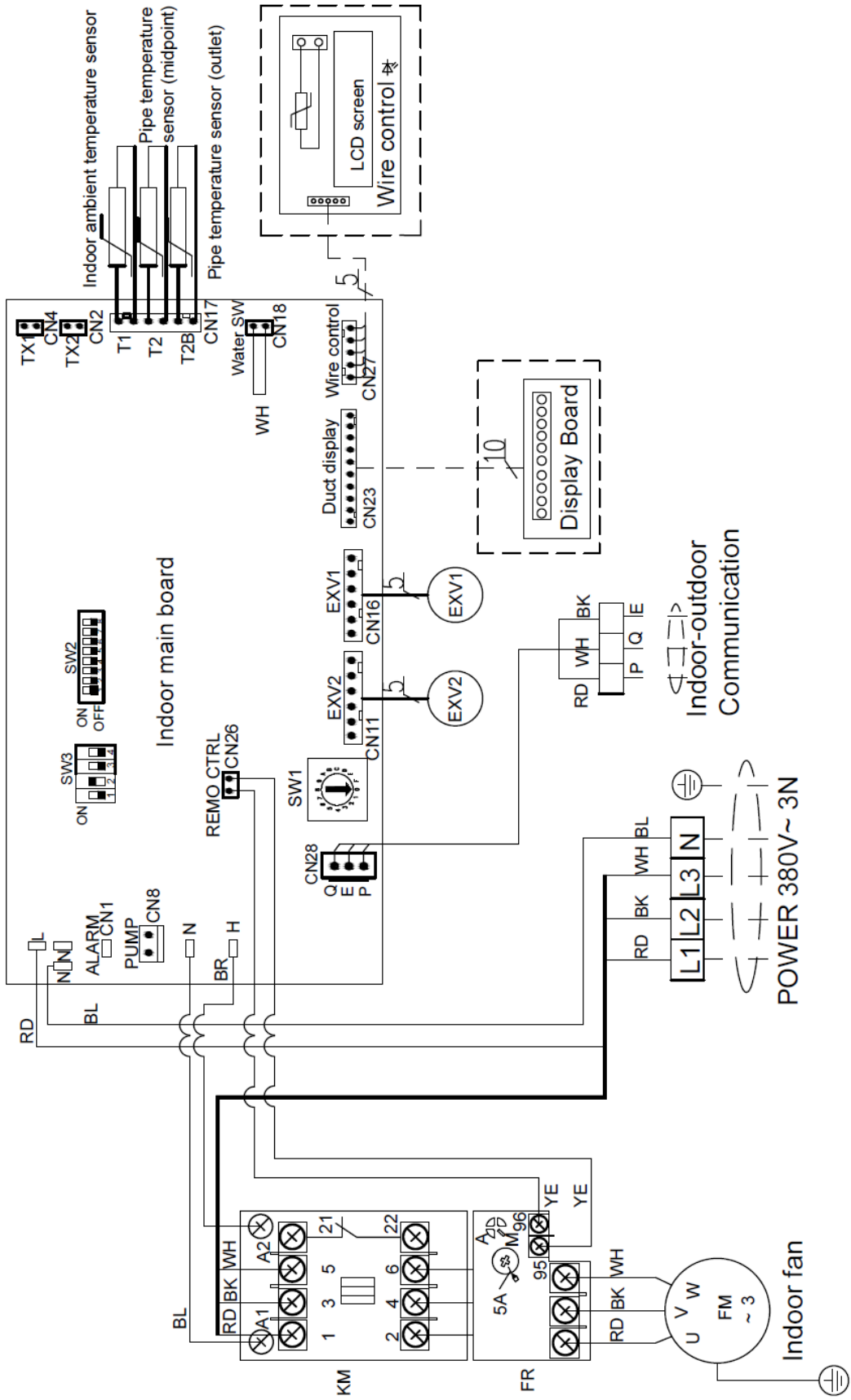
- VEH 0 5Q A-GCV100, VEH 040Q A-GCV1 0, VEH 0 0Q A-GCV1 0



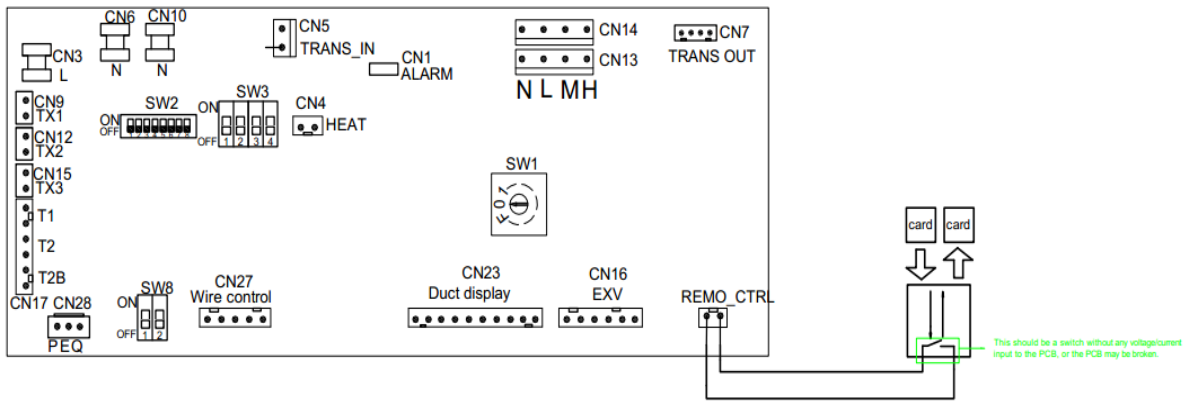
Notes:

- 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 OMEGA's technician for the detail.

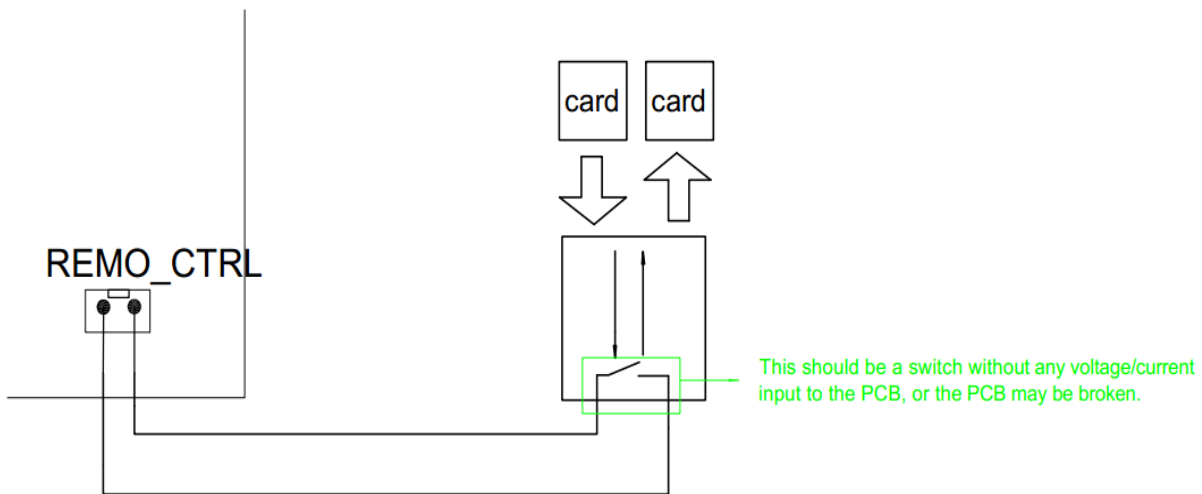
- VEHA154Q7A-GCV450, VEHA1 1Q7A-GCV5 0



OMEGA VRF indoor unit connect with card key



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

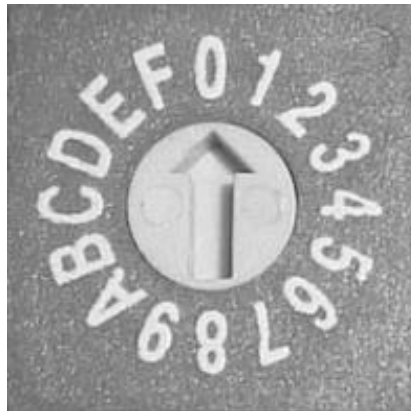


NOTE: The terminal in the hotel card module must be a switch without any voltage/current input to the PCB, otherwise the PCB will be broken.

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,



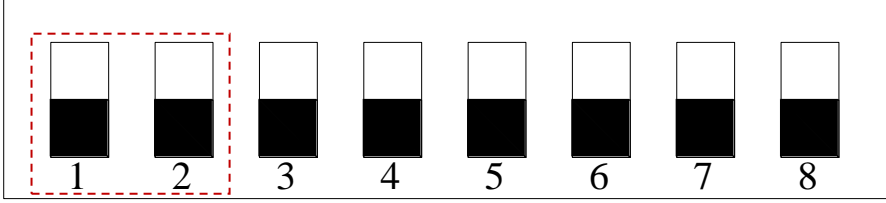
HP	0.8	1	1.2	1.7	2	2.5
Capacity (kW)	1.8/2.2	2.5/2.6/2.8	3.2/3.5/3.6	4.1/4.5/4.6	5.1/5.6	6.0/6.6/7.1
Code	0	1	2	3	4	5

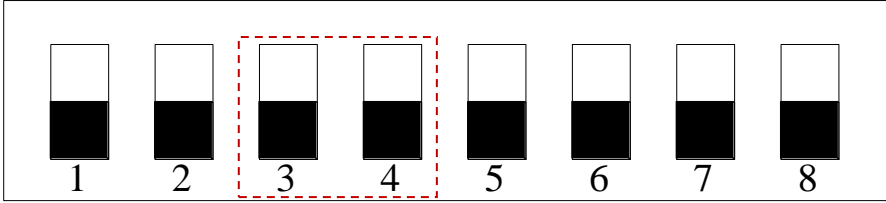
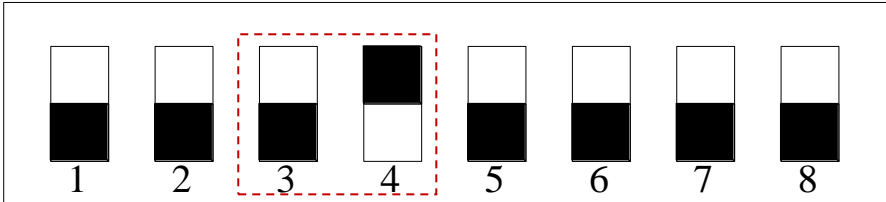
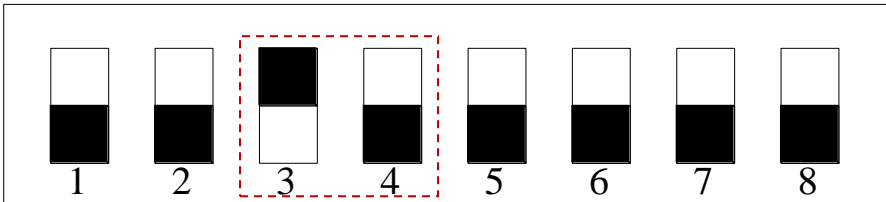
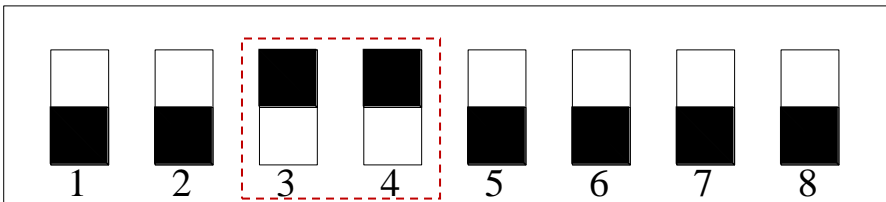
HP	3	3.2	4	5	6
Capacity (kW)	8.0	8.8/9.0	10.0/11.0/11.2	12.0/12.5/14.0	15.0/16.0
Code	6	7	8	9	9

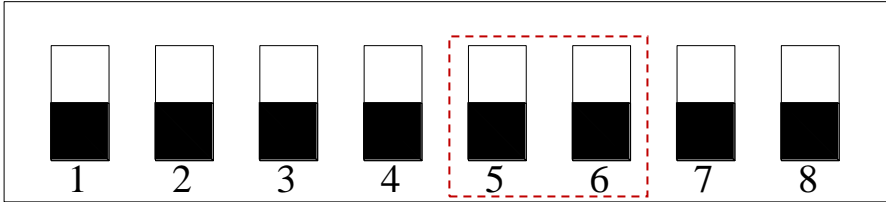
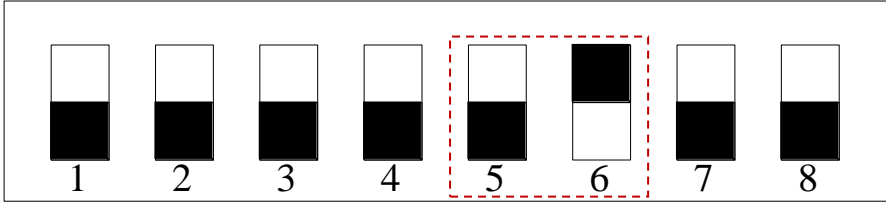
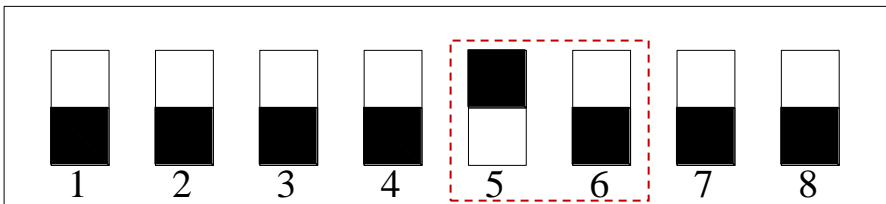
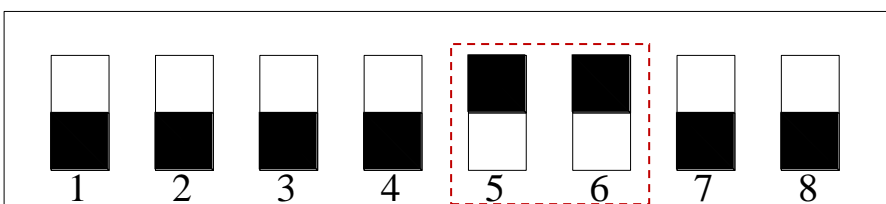
7.2.2 SW3

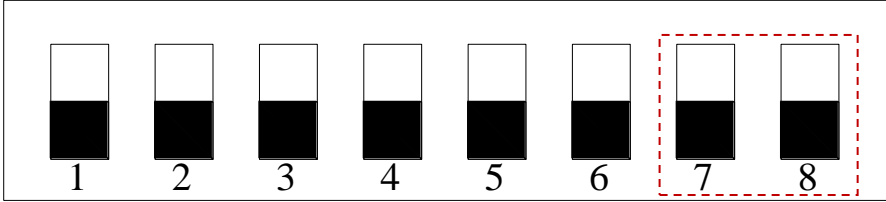
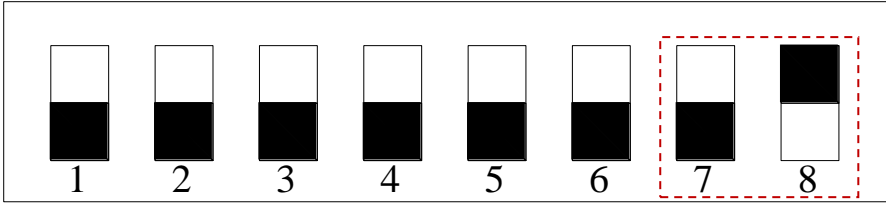
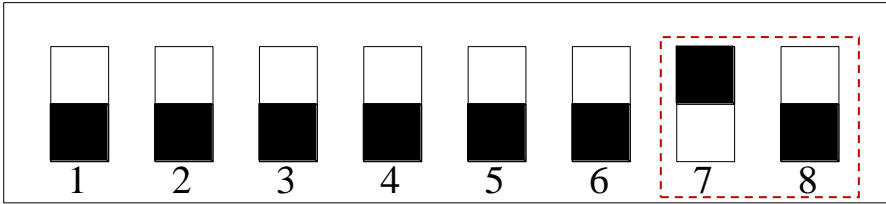
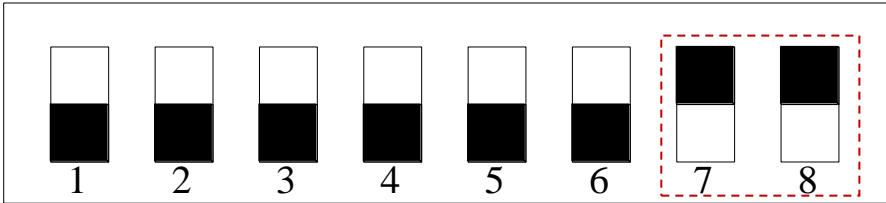
Name	Switch number 1 of SW3	Switch number 4 of SW3	Switch number 2,3 of SW3
Function	Auto-restart when power failure switch. ON/OFF status, operation mode, fan speed, temperature, swing, remote control locked will be recovered.	Indoor unit address elimination	Reserved
Setting	<p>Dial upto disable Auto-restart function</p>	<p>Dial upto erase indoor unit's address.</p>	<p>Default setting</p>
	<p>Dial downto enable Auto-restart function (Default setting)</p>	<p>Default setting</p>	

7.2.3 SW2, only available in heating mode.

Name	Switch number 1,2 of SW2	
Function	Reserved	
Setting		Default setting

Name	Switch number 3,4 of SW2	
Function	<ul style="list-style-type: none"> ● Heating temperature compensation value selection. When temperature difference between setting temperature and room temperature is higher than the setting value, indoor fan motor turns off. ● DO NOT change the default setting without professional guidance. 	
Setting	<p>ON</p> <p>OFF</p> 	6 °C Default setting
	<p>ON</p> <p>OFF</p> 	2 °C
	<p>ON</p> <p>OFF</p> 	4 °C
	<p>ON</p> <p>OFF</p> 	8 °C

Name	Switch number 5,6 of SW2	
Function	<ul style="list-style-type: none"> ● Temperature selection of turning off fan motor in anti-cold-wind-blow mode. When indoor heat exchanger temperature is lower than the setting value, indoor fan motor turns off. ● DO NOT change the default setting without professional guidance. 	
Setting	<p>ON</p> <p>OFF</p> 	15 °C Default setting
	<p>ON</p> <p>OFF</p> 	20 °C
	<p>ON</p> <p>OFF</p> 	24 °C
	<p>ON</p> <p>OFF</p> 	26 °C

Name	Switch number 7,8 of SW2	
Function	<ul style="list-style-type: none"> Indoor fan motor stopping gap selection in heating mode. When room temperature gets to (set point + temperature value in Switch number 3,4 of SW2), at this moment indoor unit capacity requirement is 0, indoor fan motor turns off for 4minutes (this stopping duration time can be changed by below setting).After that indoor fan will run in low speed for 1 minute (this timing is fixed), if indoor unit capacity requirement is still 0, then indoor fan motor keeps off for 4 minutes, and then cycles. DO NOT change the default setting without professional guidance. 	
Setting	<p>ON</p>  <p>OFF</p>	4 minutes Default setting
	<p>ON</p>  <p>OFF</p>	8 minutes
	<p>ON</p>  <p>OFF</p>	12 minutes
	<p>ON</p>  <p>OFF</p>	16 minutes

SW8, reserved, leave it as default setting (both switches dial down).

1. 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
7.1	10	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	8.27	5.72	8.60	5.14
	12	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	8.27	5.72	8.53	5.09
	14	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	8.20	5.67	8.45	5.05
	16	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	8.13	5.62	8.38	5.00
	18	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	8.05	5.56	8.30	4.96
	19	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	7.98	5.51	8.22	4.91
	21	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	7.91	5.46	8.15	4.87
	23	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.64	7.83	5.41	8.07	4.82
	25	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.73	5.59	7.76	5.36	7.99	4.78
	27	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.66	5.53	7.68	5.31	7.92	4.73
	29	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.58	5.48	7.61	5.26	7.84	4.69
	31	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.51	5.43	7.54	5.21	7.76	4.65
	33	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.44	5.33	7.46	5.16	7.69	4.60
	35	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.30	7.33	5.27	7.39	5.11	7.61	4.56
	37	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.28	7.22	5.17	7.31	5.01	7.46	4.47
	39	4.92	4.44	5.80	4.63	6.69	5.30	7.10	5.24	7.17	5.12	7.24	4.96	7.38	4.42
	41	4.92	4.44	5.80	4.63	6.60	5.30	7.03	5.22	7.10	5.07	7.17	4.91	7.31	4.38
43	4.92	4.44	5.80	4.63	6.53	5.30	6.96	5.20	7.03	5.02	7.10	4.86	7.23	4.33	
46	4.92	4.44	5.69	4.54	6.32	5.30	6.89	5.18	6.96	4.96	7.03	4.81	7.17	4.29	
48	4.92	4.44	5.63	4.49	6.11	5.15	6.67	5.12	6.89	4.91	6.82	4.76	6.96	4.24	
50	4.83	4.44	5.57	4.45	5.89	5.10	6.46	4.99	6.67	4.86	6.60	4.71	6.75	4.20	
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	
9.0	10	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	10.49	7.22	10.91	6.49
	12	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	10.49	7.22	10.81	6.43
	14	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	10.39	7.16	10.71	6.37
	16	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	10.30	7.09	10.62	6.32
	18	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	10.21	7.03	10.52	6.26
	19	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	10.11	6.97	10.43	6.20
	21	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	10.02	6.90	10.33	6.15
	23	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.12	9.93	6.84	10.23	6.09
	25	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.80	7.06	9.83	6.78	10.13	6.03
	27	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.71	6.99	9.74	6.71	10.04	5.98
	29	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.61	6.93	9.65	6.65	9.94	5.92
	31	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.53	6.86	9.55	6.58	9.84	5.86
	33	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.43	6.73	9.46	6.52	9.75	5.81
	35	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.70	9.30	6.66	9.36	6.46	9.65	5.75
	37	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.66	9.16	6.53	9.27	6.33	9.46	5.64
	39	6.23	5.62	7.36	5.87	8.48	6.70	9.00	6.62	9.09	6.47	9.18	6.27	9.36	5.58
	41	6.23	5.62	7.36	5.87	8.37	6.70	8.91	6.60	9.00	6.40	9.09	6.20	9.26	5.53
43	6.23	5.62	7.36	5.87	8.28	6.70	8.82	6.56	8.91	6.33	9.00	6.14	9.17	5.47	
46	6.23	5.62	7.21	5.76	8.01	6.70	8.73	6.54	8.82	6.27	8.91	6.07	9.09	5.41	
48	6.23	5.62	7.14	5.70	7.74	6.50	8.46	6.47	8.73	6.20	8.64	6.01	8.82	5.36	
50	6.12	5.62	7.06	5.64	7.47	6.44	8.19	6.30	8.46	6.14	8.37	5.95	8.55	5.30	

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	kW
10	10	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.65	8.02	12.12	7.21
	12	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.65	8.02	12.01	7.15
	14	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.55	7.95	11.90	7.08
	16	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.44	7.88	11.80	7.02
	18	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.34	7.81	11.69	6.96
	19	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.24	7.74	11.58	6.89
	21	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.13	7.67	11.47	6.83
	23	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.91	11.03	7.60	11.37	6.77
	25	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.89	7.84	10.92	7.53	11.26	6.71
	27	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.79	7.77	10.82	7.46	11.15	6.64
	29	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.68	7.69	10.72	7.39	11.04	6.58
	31	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.58	7.62	10.62	7.32	10.94	6.52
	33	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.48	7.48	10.51	7.25	10.83	6.45
	35	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.44	10.33	7.40	10.40	7.17	10.72	6.39
	37	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.40	10.17	7.26	10.30	7.03	10.51	6.26
	39	6.92	6.25	8.17	6.53	9.42	7.44	10.00	7.36	10.10	7.18	10.20	6.96	10.40	6.20
	41	6.92	6.25	8.17	6.53	9.30	7.44	9.90	7.33	10.00	7.11	10.10	6.89	10.29	6.14
	43	6.92	6.25	8.17	6.53	9.20	7.44	9.80	7.29	9.90	7.04	10.00	6.82	10.19	6.08
	46	6.92	6.25	8.01	6.39	8.90	7.44	9.70	7.26	9.80	6.96	9.90	6.75	10.10	6.01
	48	6.92	6.25	7.93	6.33	8.60	7.22	9.40	7.19	9.70	6.89	9.60	6.68	9.80	5.95
50	6.80	6.25	7.85	6.26	8.30	7.15	9.10	7.00	9.40	6.82	9.30	6.61	9.50	5.89	
12	10	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.99	9.51	14.54	8.53
	12	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.99	9.51	14.41	8.45
	14	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.86	9.42	14.29	8.38
	16	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.73	9.34	14.16	8.30
	18	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.61	9.25	14.03	8.23
	19	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.49	9.17	13.90	8.15
	21	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.36	9.08	13.77	8.08
	23	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.38	13.23	9.00	13.64	8.00
	25	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	13.07	9.29	13.11	8.91	13.51	7.93
	27	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	12.94	9.20	12.99	8.83	13.38	7.85
	29	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	12.82	9.11	12.86	8.74	13.25	7.78
	31	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	12.70	9.03	12.74	8.66	13.12	7.70
	33	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	12.58	8.85	12.61	8.57	13.00	7.62
	35	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.81	12.40	8.76	12.49	8.49	12.87	7.55
	37	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.77	12.21	8.59	12.36	8.32	12.61	7.40
	39	8.31	7.50	9.81	7.83	11.31	8.81	12.00	8.71	12.12	8.50	12.24	8.23	12.48	7.32
	41	8.31	7.50	9.81	7.83	11.16	8.81	11.88	8.68	12.00	8.41	12.12	8.15	12.35	7.25
	43	8.31	7.50	9.81	7.83	11.04	8.81	11.76	8.63	11.88	8.33	12.00	8.06	12.22	7.17
	46	8.31	7.50	9.61	7.67	10.68	8.81	11.64	8.60	11.76	8.24	11.88	7.98	12.12	7.10
	48	8.31	7.50	9.51	7.60	10.32	8.55	11.28	8.51	11.64	8.15	11.52	7.89	11.76	7.02
50	8.16	7.50	9.42	7.52	9.96	8.46	10.92	8.28	11.28	8.06	11.16	7.81	11.40	6.94	
15	10	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	17.48	11.88	18.18	10.66
	12	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	17.48	11.88	18.02	10.57
	14	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	17.32	11.78	17.86	10.47
	16	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	17.17	11.67	17.70	10.38
	18	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	17.01	11.57	17.54	10.29
	19	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	16.86	11.46	17.38	10.19
	21	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	16.70	11.35	17.21	10.10
	23	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.72	16.54	11.25	17.05	10.00
	25	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.33	11.61	16.39	11.14	16.89	9.91
	27	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.18	11.50	16.23	11.04	16.73	9.81
	29	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	16.02	11.39	16.08	10.93	16.57	9.72
	31	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	15.88	11.28	15.92	10.82	16.40	9.62
	33	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	15.72	11.06	15.76	10.72	16.24	9.53
	35	10.39	9.37	12.26	9.79	14.14	11.02	15.00	11.01	15.49	10.95	15.61	10.61	16.08	9.44
	37	10.39	9.37	12.26	9.79	14.14	11.02	15.00	10.96	15.26	10.73	15.45	10.40	15.76	9.25
	39	10.39	9.37	12.26	9.79	14.14	11.02	15.00	10.89	15.15	10.63	15.30	10.29	15.60	9.15
	41	10.39	9.37	12.26	9.79	13.95	11.02	14.85	10.85	15.00	10.52	15.15	10.19	15.44	9.06
	43	10.39	9.37	12.26	9.79	13.80	11.02	14.70	10.79	14.85	10.41	15.00	10.08	15.28	8.96
	46	10.39	9.37	12.02	9.59	13.35	11.02	14.55	10.75	14.70	10.30	14.85	9.97	15.15	8.87
	48	10.39	9.37	11.89	9.49	12.90	10.69	14.10	10.64	14.55	10.19	14.40	9.87	14.70	8.78
50	10.20	9.37	11.77	9.40	12.45	10.58	13.65	10.35	14.10	10.08	13.95	9.76	14.25	8.68	

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	kW
20	10	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	23.31	15.30	24.24	15.30
	12	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	23.31	15.30	24.02	15.00
	14	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	23.10	15.30	23.81	15.00
	16	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	22.89	15.30	23.60	14.50
	18	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	22.68	15.30	23.38	14.30
	19	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	22.48	15.30	23.17	13.80
	21	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	22.27	15.30	22.94	13.80
	23	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	22.06	14.80	22.73	13.80
	25	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.78	15.50	21.85	14.60	22.52	13.70
	27	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.57	15.50	21.64	14.60	22.30	13.70
	29	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.37	15.50	21.44	14.10	22.09	13.52
	31	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	21.17	15.50	21.23	14.10	21.87	13.50
	33	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	20.96	15.50	21.02	14.10	21.66	13.46
	35	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	20.66	15.30	20.81	13.30	21.44	13.40
	37	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	20.35	15.30	20.60	13.30	21.02	13.35
	39	13.85	12.60	16.35	13.60	18.85	14.40	20.00	14.60	20.20	14.60	20.40	13.30	20.80	13.29
	41	13.85	12.60	16.35	13.60	18.60	14.35	19.80	14.48	20.00	14.51	20.20	13.11	20.59	13.01
	43	13.85	12.60	16.35	13.60	18.40	14.30	19.60	14.39	19.80	14.36	20.00	12.94	20.37	12.78
	46	13.85	12.60	16.02	13.35	17.80	14.22	19.40	14.22	19.60	14.22	19.80	12.78	20.20	12.63
	48	13.85	12.60	15.86	13.26	17.20	13.98	18.80	13.89	19.40	14.02	19.20	12.40	19.60	12.25
50	13.60	12.51	15.70	13.20	16.60	13.51	18.20	13.47	18.80	13.56	18.60	11.91	19.00	11.96	
25	10	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	29.14	19.13	30.30	19.13
	12	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	29.14	19.13	30.03	18.75
	14	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	28.87	19.13	29.76	18.75
	16	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	28.61	19.13	29.49	18.13
	18	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	28.35	19.13	29.23	17.88
	19	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	28.10	19.13	28.96	17.25
	21	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	27.84	19.13	28.68	17.25
	23	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	27.57	18.50	28.41	17.25
	25	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	27.22	19.38	27.31	18.25	28.14	17.13
	27	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	26.96	19.38	27.05	18.25	27.88	17.13
	29	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	26.71	19.38	26.80	17.63	27.61	16.90
	31	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	26.46	19.38	26.54	17.63	27.34	16.88
	33	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	26.20	19.38	26.27	17.63	27.07	16.83
	35	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	25.82	19.13	26.01	16.63	26.81	16.75
	37	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	25.44	19.13	25.75	16.63	26.27	16.69
	39	17.31	15.75	20.44	17.00	23.56	18.00	25.00	18.25	25.25	18.25	25.50	16.63	26.00	16.61
	41	17.31	15.75	20.44	17.00	23.25	17.94	24.75	18.10	25.00	18.14	25.25	16.39	25.73	16.26
	43	17.31	15.75	20.44	17.00	23.00	17.88	24.50	17.99	24.75	17.95	25.00	16.18	25.47	15.98
	46	17.31	15.75	20.03	16.69	22.25	17.78	24.25	17.78	24.50	17.78	24.75	15.98	25.25	15.79
	48	17.31	15.75	19.82	16.58	21.50	17.48	23.50	17.36	24.25	17.53	24.00	15.50	24.50	15.31
50	17.00	15.64	19.62	16.50	20.75	16.89	22.75	16.84	23.50	16.95	23.25	14.89	23.75	14.95	
28	10	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	32.63	21.42	33.93	21.42
	12	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	32.63	21.42	33.63	21.00
	14	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	32.33	21.42	33.33	21.00
	16	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	32.04	21.42	33.03	20.30
	18	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	31.76	21.42	32.73	20.02
	19	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	31.47	21.42	32.43	19.32
	21	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	31.18	21.42	32.12	19.32
	23	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	30.88	20.72	31.82	19.32
	25	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.49	21.70	30.59	20.44	31.52	19.18
	27	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	30.20	21.70	30.30	20.44	31.22	19.18
	29	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	29.91	21.70	30.01	19.74	30.92	18.93
	31	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	29.63	21.70	29.72	19.74	30.62	18.90
	33	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	29.34	21.70	29.42	19.74	30.32	18.84
	35	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	28.92	21.42	29.13	18.62	30.02	18.76
	37	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	28.49	21.42	28.84	18.62	29.42	18.69
	39	19.39	17.64	22.89	19.04	26.39	20.16	28.00	20.44	28.28	20.44	28.56	18.62	29.12	18.61
	41	19.39	17.64	22.89	19.04	26.04	20.09	27.72	20.27	28.00	20.31	28.28	18.35	28.82	18.21
	43	19.39	17.64	22.89	19.04	25.76	20.02	27.44	20.15	27.72	20.10	28.00	18.12	28.52	17.89
	46	19.39	17.64	22.43	18.69	24.92	19.91	27.16	19.91	27.44	19.91	27.72	17.89	28.28	17.68
	48	19.39	17.64	22.20	18.56	24.08	19.57	26.32	19.45	27.16	19.63	26.88	17.36	27.44	17.15
50	19.04	17.51	21.98	18.48	23.24	18.91	25.48	18.86	26.32	18.98	26.04	16.67	26.60	16.74	

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
45	10	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	52.44	34.43	54.53	34.43
	12	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	52.44	34.43	54.05	33.75
	14	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	51.96	34.43	53.57	33.75
	16	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	51.49	34.43	53.08	32.63
	18	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	51.04	34.43	52.60	32.18
	19	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	50.58	34.43	52.12	31.05
	21	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	50.11	34.43	51.62	31.05
	23	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	49.63	33.30	51.14	31.05
	25	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	49.00	34.88	49.16	32.85	50.66	30.83
	27	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	48.54	34.88	48.70	32.85	50.18	30.83
	29	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	48.07	34.88	48.23	31.73	49.69	30.42
	31	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	47.62	34.88	47.76	31.73	49.21	30.38
	33	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	47.15	34.88	47.28	31.73	48.73	30.28
	35	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	46.48	34.43	46.82	29.93	48.25	30.15
	37	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	45.79	34.43	46.35	29.93	47.28	30.04
	39	31.16	28.35	36.79	30.60	42.41	32.40	45.00	32.85	45.45	32.85	45.90	29.93	46.80	29.91
	41	31.16	28.35	36.79	30.60	41.85	32.29	44.55	32.58	45.00	32.64	45.45	29.49	46.32	29.27
	43	31.16	28.35	36.79	30.60	41.40	32.18	44.10	32.38	44.55	32.30	45.00	29.12	45.84	28.75
	46	31.16	28.35	36.05	30.04	40.05	32.00	43.65	32.00	44.10	32.00	44.55	28.75	45.45	28.41
	48	31.16	28.35	35.68	29.83	38.70	31.45	42.30	31.26	43.65	31.55	43.20	27.90	44.10	27.56
50	30.60	28.14	35.33	29.70	37.35	30.39	40.95	30.31	42.30	30.50	41.85	26.79	42.75	26.90	
56	10	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	65.26	42.84	67.86	42.84
	12	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	65.26	42.84	67.26	42.00
	14	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	64.66	42.84	66.66	42.00
	16	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	64.08	42.84	66.06	40.60
	18	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	63.52	42.84	65.46	40.04
	19	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	62.94	42.84	64.86	38.64
	21	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	62.36	42.84	64.24	38.64
	23	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	61.76	41.44	63.64	38.64
	25	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.98	43.40	61.18	40.88	63.04	38.36
	27	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	60.40	43.40	60.60	40.88	62.44	38.36
	29	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	59.82	43.40	60.02	39.48	61.84	37.86
	31	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	59.26	43.40	59.44	39.48	61.24	37.80
	33	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	58.68	43.40	58.84	39.48	60.64	37.68
	35	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	57.84	42.84	58.26	37.24	60.04	37.52
	37	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	56.98	42.84	57.68	37.24	58.84	37.38
	39	38.78	35.28	45.78	38.08	52.78	40.32	56.00	40.88	56.56	40.88	57.12	37.24	58.24	37.22
	41	38.78	35.28	45.78	38.08	52.08	40.18	55.44	40.54	56.00	40.62	56.56	36.70	57.64	36.42
	43	38.78	35.28	45.78	38.08	51.52	40.04	54.88	40.30	55.44	40.20	56.00	36.24	57.04	35.78
	46	38.78	35.28	44.86	37.38	49.84	39.82	54.32	39.82	54.88	39.82	55.44	35.78	56.56	35.36
	48	38.78	35.28	44.40	37.12	48.16	39.14	52.64	38.90	54.32	39.26	53.76	34.72	54.88	34.30
50	38.08	35.02	43.96	36.96	46.48	37.82	50.96	37.72	52.64	37.96	52.08	33.34	53.20	33.48	

8.2 Heating

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

Capacity (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16	18	20	21	22	24
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
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	7.80	7.76	7.36	6.72
	8	-20	-19.8	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	8.73	8.28	7.56
6		7	9.00	9.00	8.80	8.73	8.28	7.56
9		-20	-19.8	5.60	5.04	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	

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

Capacity (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16	18	20	21	22	24
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
10	-20	-19.8	6.25	6.25	6.25	6.25	6.25	6.25
	-19	-18.8	6.70	6.70	6.70	6.70	6.70	6.70
	-17	-16.7	7.04	7.04	7.04	7.04	7.04	7.04
	-15	-14.7	7.26	7.26	7.26	7.26	7.26	7.26
	-13	-12.6	7.48	7.48	7.48	7.48	7.48	7.48
	-11	-10.5	7.81	7.81	7.81	7.81	7.81	7.81
	-10	-9.5	8.15	8.15	8.15	8.15	8.15	8.15
	-9.1	-8.5	8.38	8.38	8.38	8.38	8.38	8.38
	-7.6	-7	8.48	8.48	8.48	8.48	8.48	8.48
	-5.6	-5	8.82	8.82	8.82	8.82	8.82	8.82
	-3.7	-3	9.27	9.27	9.27	9.27	9.27	9.27
	-0.7	0	9.94	9.94	9.94	9.94	9.94	9.38
	2.2	3	10.49	10.49	10.49	10.49	10.27	9.38
	4.1	5	10.83	10.83	10.83	10.83	10.27	9.38
	6	7	11.00	11.00	11.00	10.83	10.27	9.38
7.9	9	11.50	11.50	11.00	10.83	10.27	9.38	
9.8	11	11.83	11.83	11.00	10.83	10.27	9.38	
11.8	13	12.28	12.05	11.00	10.83	10.27	9.38	
13.7	15	12.62	12.05	11.00	10.83	10.27	9.38	
12	-20	-19.8	7.50	7.50	7.50	7.50	7.50	7.50
	-19	-18.8	8.04	8.04	8.04	8.04	8.04	8.04
	-17	-16.7	8.44	8.44	8.44	8.44	8.44	8.44
	-15	-14.7	8.71	8.71	8.71	8.71	8.71	8.71
	-13	-12.6	8.98	8.98	8.98	8.98	8.98	8.98
	-11	-10.5	9.38	9.38	9.38	9.38	9.38	9.38
	-10	-9.5	9.78	9.78	9.78	9.78	9.78	9.78
	-9.1	-8.5	10.05	10.05	10.05	10.05	10.05	10.05
	-7.6	-7	10.18	10.18	10.18	10.18	10.18	10.18
	-5.6	-5	10.59	10.59	10.59	10.59	10.59	10.59
	-3.7	-3	11.12	11.12	11.12	11.12	11.12	11.12
	-0.7	0	11.93	11.93	11.93	11.93	11.93	11.25
	2.2	3	12.59	12.59	12.59	12.59	12.32	11.25
	4.1	5	13.00	13.00	13.00	13.00	12.32	11.25
	6	7	13.39	13.39	13.00	13.00	12.32	11.25
7.9	9	13.80	13.80	13.00	13.00	12.32	11.25	
9.8	11	14.20	14.20	13.00	13.00	12.32	11.25	
11.8	13	14.73	14.46	13.00	13.00	12.32	11.25	
13.7	15	15.14	14.46	13.00	13.00	12.32	11.25	
15	-20	-19.8	9.20	9.20	9.20	9.20	9.20	9.20
	-19	-18.8	9.90	9.90	9.90	9.90	9.90	9.90
	-17	-16.7	10.40	10.40	10.40	10.40	10.40	10.40
	-15	-14.7	10.70	10.70	10.70	10.70	10.70	10.70
	-13	-12.6	11.40	11.40	11.40	11.40	11.40	11.40
	-11	-10.5	11.60	11.70	11.70	11.70	11.70	11.70
	-10	-9.5	12.00	12.00	12.00	12.00	12.00	12.00
	-9.1	-8.5	12.40	12.40	12.40	12.40	12.40	12.40
	-7.6	-7	12.50	12.50	12.50	12.50	12.50	12.50
	-5.6	-5	13.00	13.00	13.00	13.00	13.00	13.00
	-3.7	-3	13.70	13.70	13.70	13.70	13.70	13.70
	-0.7	0	14.70	14.70	14.70	14.70	14.70	13.90
	2.2	3	15.50	15.50	15.50	15.50	15.20	13.90
	4.1	5	17.00	17.00	17.00	16.50	15.20	13.90
	6	7	17.50	17.50	17.00	16.50	15.20	13.90
7.9	9	18.00	18.00	17.00	16.50	15.20	13.90	
9.8	11	18.50	18.50	17.00	16.50	15.20	13.90	
11.8	13	19.20	18.80	17.00	16.50	15.20	13.90	
13.7	15	19.60	18.80	17.00	16.50	15.20	13.90	

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

Capacity (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16	18	20	21	22	24
	WB	DB	TC	TC	TC	TC	TC	TC
			kW	kW	kW	kW	kW	kW
20	-20	-19.8	12.60	12.60	12.60	12.60	12.60	12.60
	-19	-18.8	13.50	13.50	13.50	13.50	13.50	13.50
	-17	-16.7	14.20	14.20	14.20	14.20	14.20	14.20
	-15	-14.7	14.60	14.60	14.60	14.60	14.60	14.60
	-13	-12.6	15.50	15.50	15.50	15.50	15.50	15.50
	-11	-10.5	15.80	16.00	16.00	16.00	16.00	16.00
	-10	-9.5	16.40	16.40	16.40	16.40	16.40	16.40
	-9.1	-8.5	16.90	16.90	16.90	16.90	16.90	16.90
	-7.6	-7	17.10	17.10	17.10	17.10	17.10	17.10
	-5.6	-5	17.80	17.80	17.80	17.80	17.80	17.80
	-3.7	-3	18.70	18.70	18.70	18.70	18.70	18.70
	-0.7	0	20.00	20.00	20.00	20.00	20.00	18.90
	2.2	3	21.20	21.20	21.20	21.20	20.70	18.90
	4.1	5	21.80	21.80	21.80	21.80	20.70	18.90
	6	7	22.50	22.50	22.00	21.80	20.70	18.90
	7.9	9	23.20	23.20	22.00	21.80	20.70	18.90
9.8	11	23.90	23.90	22.00	21.80	20.70	18.90	
11.8	13	24.80	24.30	22.00	21.80	20.70	18.90	
13.7	15	25.40	24.30	22.00	21.80	20.70	18.90	
25	-20	-19.8	14.56	14.56	14.56	14.56	14.56	14.56
	-19	-18.8	15.60	15.60	15.60	15.60	15.60	15.60
	-17	-16.7	16.38	16.38	16.38	16.38	16.38	16.38
	-15	-14.7	16.90	16.90	16.90	16.90	16.90	16.90
	-13	-12.6	17.94	17.94	17.94	17.94	17.94	17.94
	-11	-10.5	18.20	18.46	18.46	18.46	18.46	18.46
	-10	-9.5	18.98	18.98	18.98	18.98	18.98	18.98
	-9.1	-8.5	19.50	19.50	19.50	19.50	19.50	19.50
	-7.6	-7	19.76	19.76	19.76	19.76	19.76	19.76
	-5.6	-5	20.54	20.54	20.54	20.54	20.54	20.54
	-3.7	-3	21.58	21.58	21.58	21.58	21.58	21.58
	-0.7	0	23.14	23.14	23.14	23.14	23.14	21.84
	2.2	3	24.44	24.44	24.44	24.44	23.92	21.84
	4.1	5	25.22	25.22	25.22	25.22	23.92	21.84
	6	7	27.50	27.50	27.50	25.22	23.92	21.84
	7.9	9	27.78	27.78	27.50	25.22	23.92	21.84
9.8	11	28.56	28.56	27.50	25.22	23.92	21.84	
11.8	13	29.08	28.90	27.50	25.22	23.92	21.84	
13.7	15	29.38	29.08	27.50	25.22	23.92	21.84	
28	-20	-19.8	17.60	17.60	17.60	17.60	17.60	17.60
	-19	-18.8	18.90	18.90	18.90	18.90	18.90	18.90
	-17	-16.7	19.80	19.80	19.80	19.80	19.80	19.80
	-15	-14.7	20.50	20.50	20.50	20.50	20.50	20.50
	-13	-12.6	21.70	21.70	21.70	21.70	21.70	21.70
	-11	-10.5	22.10	22.40	22.40	22.40	22.40	22.40
	-10	-9.5	23.00	23.00	23.00	23.00	23.00	23.00
	-9.1	-8.5	23.60	23.60	23.60	23.60	23.60	23.60
	-7.6	-7	23.90	23.90	23.90	23.90	23.90	23.90
	-5.6	-5	24.90	24.90	24.90	24.90	24.90	24.90
	-3.7	-3	26.10	26.10	26.10	26.10	26.10	26.10
	-0.7	0	28.00	28.00	28.00	28.00	28.00	26.50
	2.2	3	29.60	29.60	29.60	29.60	29.00	26.50
	4.1	5	30.20	30.20	30.20	30.20	29.00	26.50
	6	7	30.80	30.80	30.80	30.20	29.00	26.50
	7.9	9	31.40	31.40	30.80	30.20	29.00	26.50
9.8	11	32.40	32.40	30.80	30.20	29.00	26.50	
11.8	13	33.70	33.00	30.80	30.20	29.00	26.50	
13.7	15	34.60	33.00	30.80	30.20	29.00	26.50	

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

Capacity (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16	18	20	21	22	24
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
45	-20	-19.8	28.6	28.6	28.6	28.6	28.6	28.6
	-19	-18.8	30.7	30.7	30.7	30.7	30.7	30.7
	-17	-16.7	32.1	32.1	32.1	32.1	32.1	32.1
	-15	-14.7	33.3	33.3	33.3	33.3	33.3	33.3
	-13	-12.6	35.2	35.2	35.2	35.2	35.2	35.2
	-11	-10.5	35.9	36.4	36.4	36.4	36.4	36.4
	-10	-9.5	37.3	37.3	37.3	37.3	37.3	37.3
	-9.1	-8.5	38.3	38.3	38.3	38.3	38.3	38.3
	-7.6	-7	38.8	38.8	38.8	38.8	38.8	38.8
	-5.6	-5	40.4	40.4	40.4	40.4	40.4	40.4
	-3.7	-3	42.4	42.4	42.4	42.4	42.4	42.4
	-0.7	0	45.5	45.5	45.5	45.5	45.5	43.0
	2.2	3	48.1	48.1	48.1	48.1	47.1	43.0
	4.1	5	49.0	49.0	49.0	49.0	47.1	43.0
	6	7	50.0	50.0	50.0	49.0	47.1	43.0
	7.9	9	51.0	51.0	50.0	49.0	47.1	43.0
	9.8	11	52.6	52.6	50.0	49.0	47.1	43.0
11.8	13	54.7	53.6	50.0	49.0	47.1	43.0	
13.7	15	56.2	53.6	50.0	49.0	47.1	43.0	
56	-20	-19.8	36.0	36.0	36.0	36.0	36.0	36.0
	-19	-18.8	38.7	38.7	38.7	38.7	38.7	38.7
	-17	-16.7	40.5	40.5	40.5	40.5	40.5	40.5
	-15	-14.7	41.9	41.9	41.9	41.9	41.9	41.9
	-13	-12.6	44.4	44.4	44.4	44.4	44.4	44.4
	-11	-10.5	45.2	45.8	45.8	45.8	45.8	45.8
	-10	-9.5	47.0	47.0	47.0	47.0	47.0	47.0
	-9.1	-8.5	48.3	48.3	48.3	48.3	48.3	48.3
	-7.6	-7	48.9	48.9	48.9	48.9	48.9	48.9
	-5.6	-5	50.9	50.9	50.9	50.9	50.9	50.9
	-3.7	-3	53.4	53.4	53.4	53.4	53.4	53.4
	-0.7	0	57.3	57.3	57.3	57.3	57.3	54.2
	2.2	3	60.5	60.5	60.5	60.5	59.3	54.2
	4.1	5	61.8	61.8	61.8	61.8	59.3	54.2
	6	7	63.0	63.0	63.0	61.8	59.3	54.2
	7.9	9	64.2	64.2	63.0	61.8	59.3	54.2
	9.8	11	66.3	66.3	63.0	61.8	59.3	54.2
11.8	13	68.9	67.5	63.0	61.8	59.3	54.2	
13.7	15	70.8	67.5	63.0	61.8	59.3	54.2	

2. Electrical characteristics

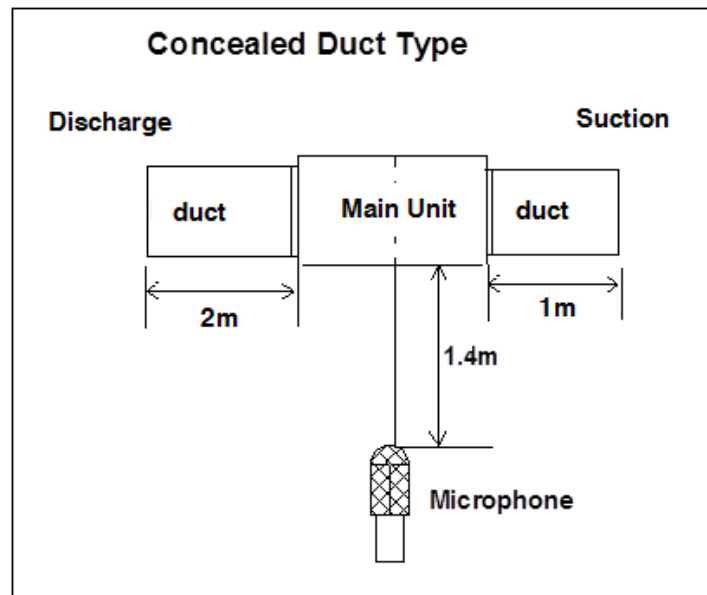
Model	Indoor unit				MFC	Power cable			Signal cable
	Hz	Voltage	Minimum	Maximum		L ≤ 20m	L ≤ 50m	Grounded	
VEH 0 4Q A-GCV071	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VEH 0 7Q A-GCV0 0	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VEH 0 1Q A-GCV0 0	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VEH 0 5Q A-GCV100	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VEH 040Q A-GCV1 0	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VEH 04 Q A-GCV140	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	2.5mm ²	2*0.75 mm ²
VEH 070Q A-GCV 00	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	4.0mm ²	2*0.75 mm ²
VEHA0 5Q A-GCV 50	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	4.0mm ²	2*0.75 mm ²
VEHA0 Q A-GCV 0	50Hz	220-240V	198	264	15	2*2.5mm ²	2*4.0mm ²	4.0mm ²	2*0.75 mm ²
VEHA154Q7A-GCV450	50Hz	380-415V	342	437	15	4*2.5mm ²	4*4.0mm ²	2.5mm ²	2*0.75 mm ²
VEHA1 1Q7A-GCV5 0	50Hz	380-415V	342	437	15	4*2.5mm ²	4*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) *Output: Fan motor rated powerOutput (W)*
- 6) *FLC: Full Load Current (A)*

3. 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))		
	High speed	Medium speed	Low speed
VEH 0 4Q A-GCV071	42	41	40
VEH 0 7Q A-GCV0 0	42	41	40
VEH 0 1Q A-GCV0 0	42	41	40
VEH 0 5Q A-GCV100	52	48	44
VEH 040Q A-GCV1 0	52	48	44
VEH 04 Q A-GCV140	52	48	44
VEH 070Q A-GCV 00	53	49	45
VEHA0 5Q A-GCV 50	54	49	45
VEHA0 Q A-GCV 0	54	49	45


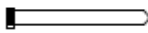




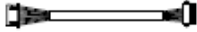
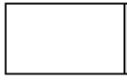
Model	Sound pressure level (dB(A))
VEHA154Q7A-GCV450	60
VEHA1 1Q7A-GCV5 0	64

Notes:

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

4. Accessories

11.1 Standard accessories.

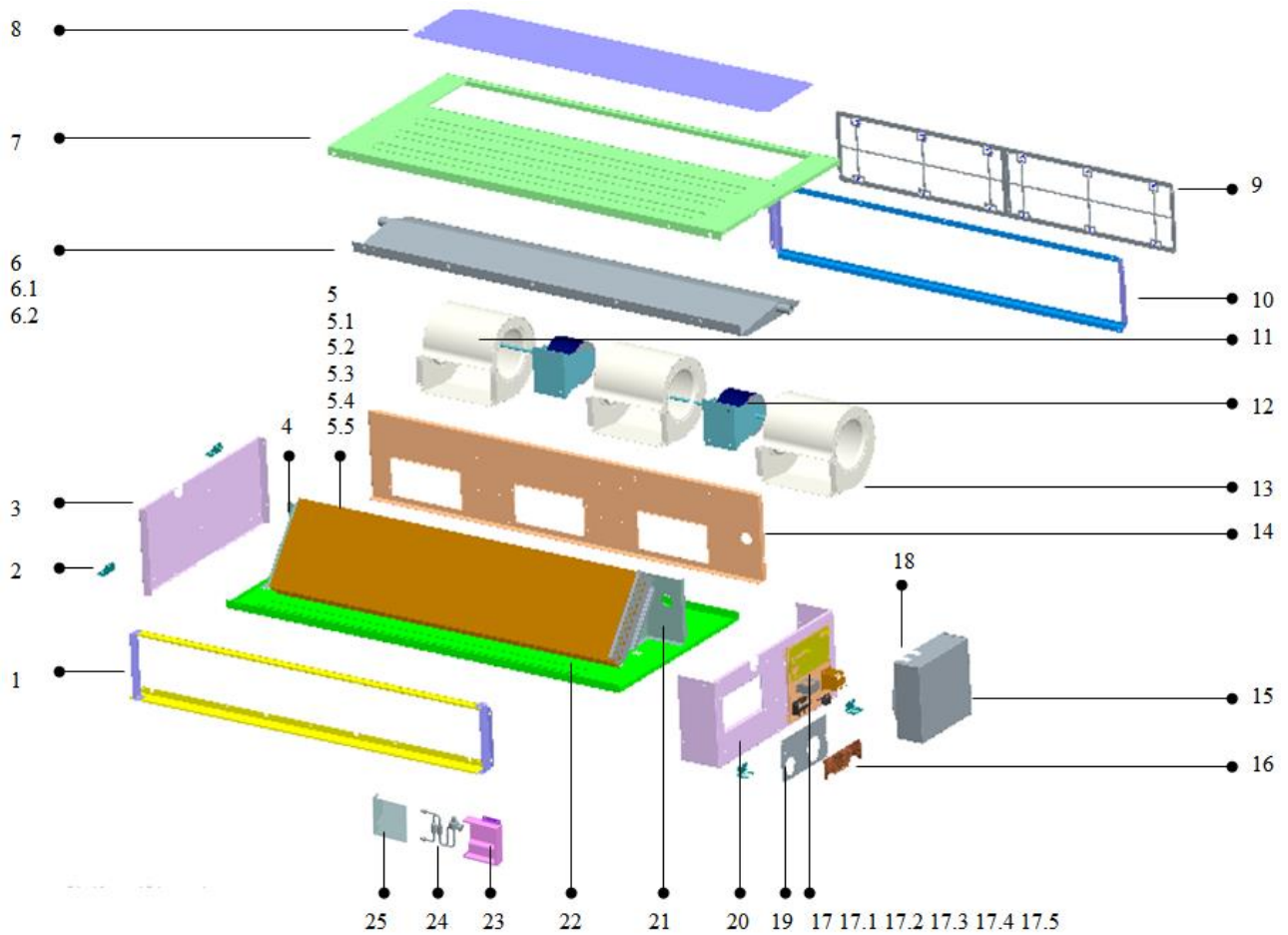
Name of accessories	Numbers	Shape	Application
Installation instruction for indoor unit	1	The manual	(Please be sure to hand it to user.)
Insulating tube	2		To encase single joints of high and low pressure pipes.
Ribbon	6		Bind up cables and connecting pipes.
Dome insulated tip	6		Used to connect wires
X-type insulated tip	3		Used to connect wires
Wire controller	1		Control A/C
Connecting pipe of electronic expansion valve	1		Connect electronic expansion valve and liquid side of indoor unit (Different models may have different sizes and calibers. Please install according to the real products.)
Connection wire for wire controller	1		The wire that connect the wire controller and PCB
Blank valve bag	3		Used to contain accessories.

11.2 Parts purchased locally

Cooper pipe	Type	2. 2kW~2. 8kW	3. 2kW~5. 6kW	6. 3kW~8. 0kW	9. 0kW~16. 0kW	20. 0kW~28. 0kW	45. 0kW~56. 0kW
	Liquid pipe (mm)		φ 6.35 × 0.8		φ 9.52 × 0.8		φ 12.7 × 0.8
Gas pipe (mm)		φ 9.52 × 0.8	φ 12.7 × 0.8	φ 15.88 × 1.0		φ 22.2 × 1.0	φ 28.6 × 1.2
PVC drainpipe	For the indoor unit drainpipe. The length is decided according to the actual need.						
Insulation bushing	Assort inner diameter respectively with relevant copper pipe and hard polyethylene plastic pipe. The thickness is usually 10 mm (above). It should be appropriately thickened in closed and wet areas.						

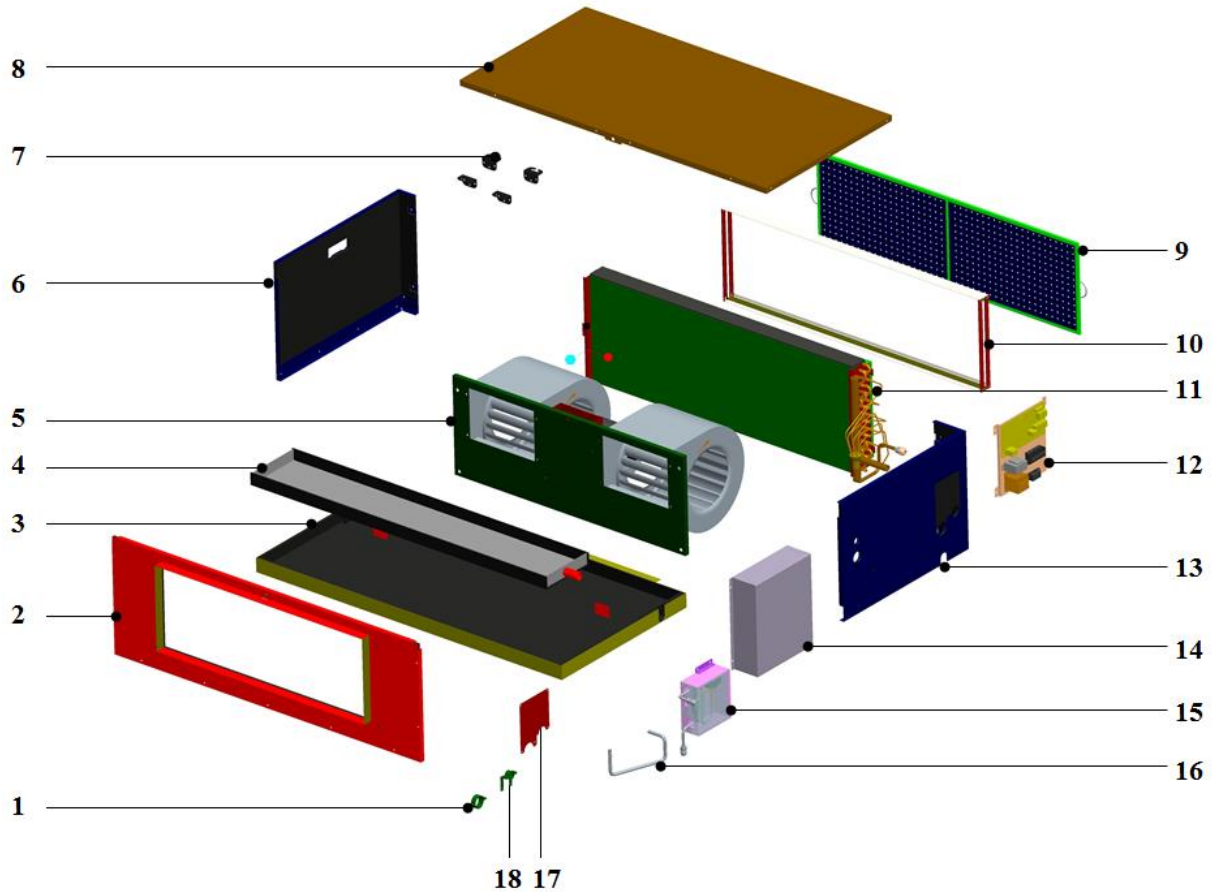
5. Exploded view

12.1 VEH 0 4Q A-GCV071, CMV-V80TH/HR1-B, CMV-V90TH/HR1-B



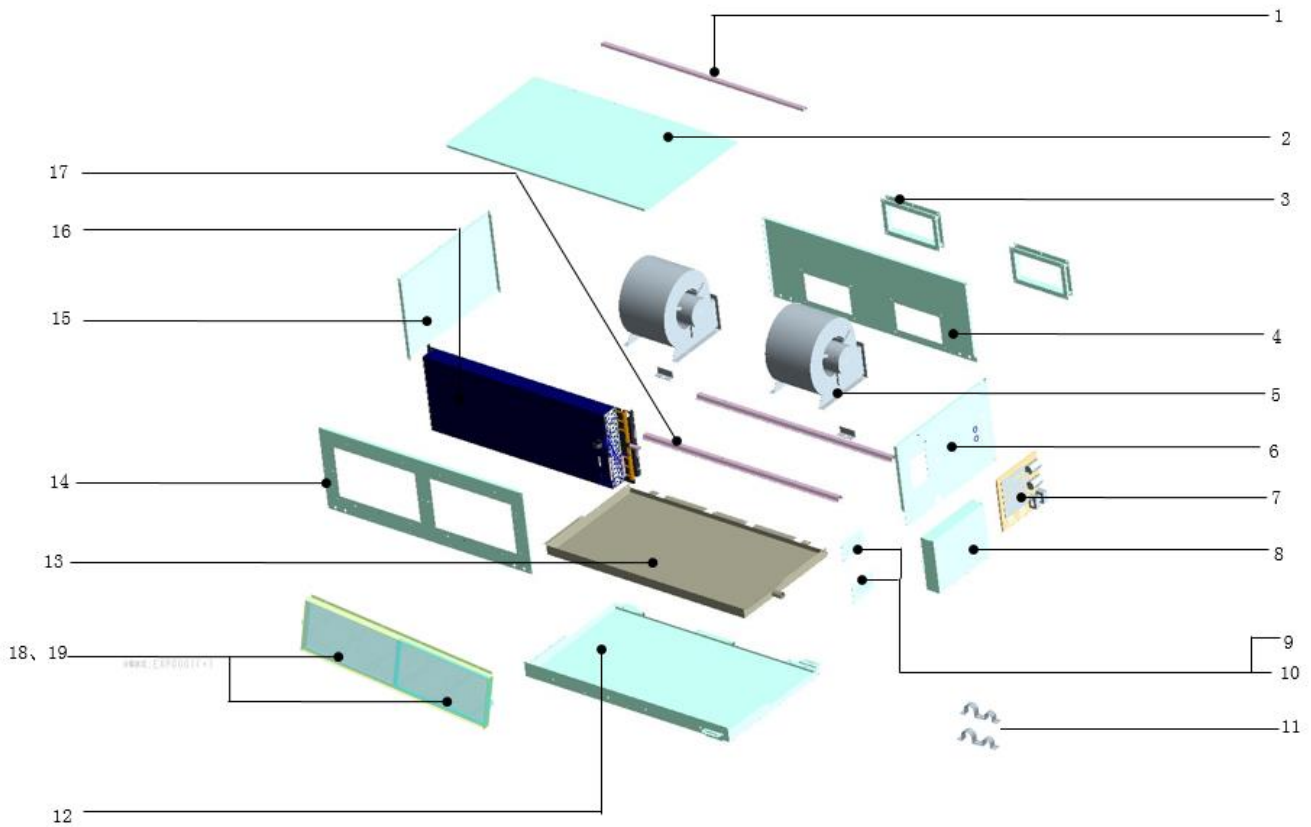
No.	Part name	Quantity	No.	Part name	Quantity
1	Air outlet assy	1	13	Right scroll case	2
2	Hanger	4	14	Fixing board assy for fan	1
3	Left side board	1	15	E- parts box cover	1
4	Left connecting panel for evaporator	1	16	Small cover	1
5	Evaporator components	1	17	Electronic control components	1
5.1	Transition	6	17.1	Electronic control board of indoor unit	1
5.2	Current dividing assy	1	17.2	Temp sensor	1
5.3	Collecting pipe assy	1	17.3	Transformer	1
5.4	Evaporator assy	1	17.4	Terminal	1
5.5	Installation tube for probe	1	17.5	Groove clamp 7	2
6	Water pan assy	1	18	E- parts box base	1
6.1	Discharge pipe assy	2	19	Big cover	1
6.2	Rubber cover for water outlet joint	2	20	Right side board	1
7	Lower panel	1	21	Right connecting panel for evaporator	1
8	Air return baffle	1	22	Upper panel	1
9	Air filter	2	23	Welding assy for large expansion valve	1
10	Air return assy	1	24	EXV box welding assy	1
11	Leftscroll case	1	25	Large expansion valve cover	1
12	Indoor motor	2			

12.2 VEH 0 5Q A-GCV100, CMV-V120TH/HR1-B, CMV-V150TH/HR1-B



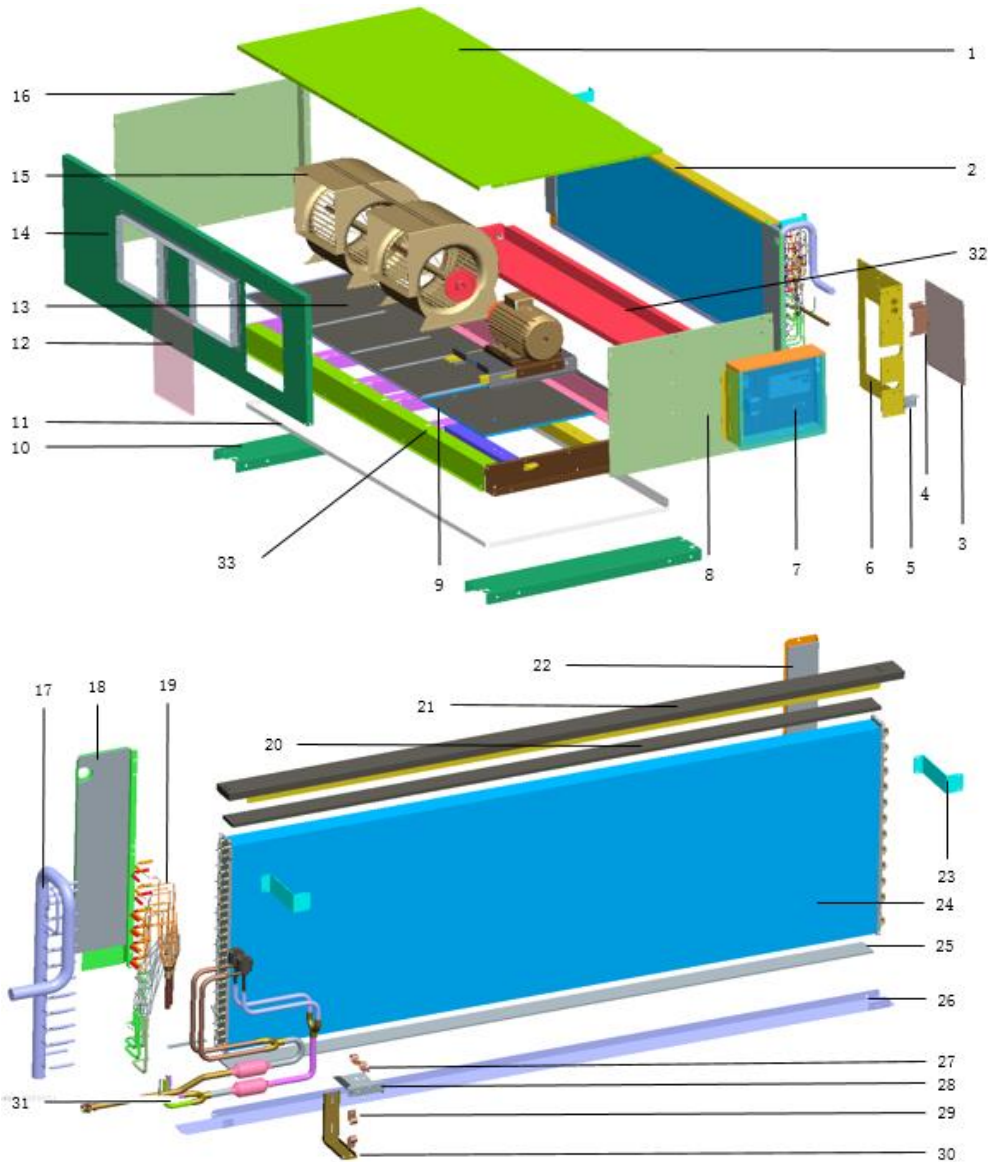
No.	Part name	Quantity	No.	Part name	Quantity
1	Pipe clamp1	1	11.1	Evaporator	1
1a	Pipe clamp2	1	11.2	Current dividing assy	1
2	Front panel assy	2	11.3	Air inlet header pipe assembly of evaporator	1
2.1	Front panel	1	12	E-parts assy	1
3	Chassis assy	1	12.1	Electric boxpanel	1
3.1	Chassis	1	12.2	Indoor E-parts box	1
4	Water pan welding assy	1	12.3	Temperature sensors	1
4.1	Water pan welding assy	1	12.4	Capacitor	1
4.2	Water outlet rubber cover	1	12.5	Compressor capacitor	1
5	Indoor E-parts box	1	12.6	Transformer	1
5.1	Fixing panel for fan	1	12.7	Terminal	1
5.2	Motor	1	13	Right side board assy	1
5.3	Left scroll case	1	13.1	Right side board	1
5.4	Right scroll case	1	14	Electric box cover	1
6	Left side board assy	1	15	Welding assy for expansion valve	1
6.1	Left side board	1	15.1	Welding assy for expansion valve	1
6.2	Handle	1	15.2	Expansion valve cover	1
7	Hanger	4	15.3	EXV box welding assy	1
8	Top Cover assembly	1	16	pipe connection assy	1
8.1	Upper cover	1	17	Cover for chassis assy	1
9	Filter	2	17.1	Cover for chassis	1
10	Retune air welding assy	1	18	Lower Pipe clamp1	1
11	Evaporator assy	1	18a	Upper Pipe clamp1	1

VEH 070Q A-GCV 00, CMV-V250TH/HR1-B, CMV-V280TH/HR1-B



No.	Part name	Quantity	No.	Part name	Quantity
1	Reinforcing plate	1	10	Lid	1
2	Top cover plate attached to the cotton component	1	11	Pipe clamps	1
2.1	Top cover plate	1	11.1	Pipe clamps1	1
3	Flange affixed cotton parts	2	12	Chassis paste cotton parts	1
3.1	Flange welded components	2	13	The water tray Sticker cotton parts	1
3.1.1	Air out board	1	14	Air return panel assy	1
4	Motor bracket assembly	1	14.1	Air return panel	1
4.1	Indoor motor	2	15	Right panel affixed cotton parts	1
4.2	The fan assembly	2	15.1	Right side board	1
5	Motor bracket assembly	1	16	Evaporator parts	1
5.1	Indoor motor	2	16.1	Evaporator assy	1
5.2	The fan assembly	2	16.2	High-pressure hose assemblies	1
6	Left panel affixed cotton parts	1	16.3	Low-pressure pipe assembly	1
6.1	Left side board	1	17	Motor bracket assembly	2
7	Electronic control components	1	18	Return air component	1
8	E- parts box cover	1	19	Filter assembly	2
9	Lid welded assemblies	1			

12.4 VEHA154Q7A-GCV450, CMV-V560TH/HZR1



No.	Part name	Quantity	No.	Part name	Quantity
1	Top cover plate attached to the cotton component	1	18	The right supporting board	1
2	Pipe assy	1	19	Current dividing assy A	1+1
3	Repair plate affixed cotton assy B	1	20	Regular sponge	1
4	Pressure line panel affixed cotton assy	1	21	Upper cover plate cotton assy	1
5	Fixing panel for pipe C	1	22	The left supporting board for evaporator	1
6	The vice board for right side plate affixed cotton parts	1	23	Fixing panel for Evaporator	2
7	Eletronic control components	1	24	Evaporator components	1
8	Right side plate affixed cotton parts	1	25	Regular sponge	1
9	Fan motor fixing board assy B	1	26	Lower cover plate for evaporator	1
10	Hanger	2	27	Pipe clamps	2
11	Chassis cover plate affixed cotton parts	1	28	Fixing panel for pipe A	1
12	Repair plate affixed cotton assy A	1	29	Pipe clamps	2
13	Fan motor fixing board assy A	1	30	Fixing panel for pipe B	1
14	Air outlet affixed cotton assy	1	31	Emerson assy	1
15	Fan motor assy for indoor unit	1	32	The water tray Sticker cotton parts	1
16	Left side plate affixed cotton parts	1	33	Base assy	1
17	Collecting pipe assy	1			



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