DC Inverter Multi-Split System Technical Manual - 50Hz/R32

2020/03/28

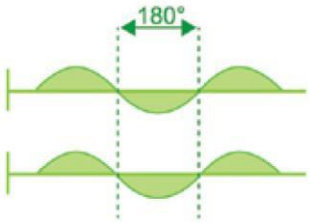
Contents

Part 1. General Information

1. Features

Compressor

180º sine wave compressor control, higher efficiency and lower power consumption and noise.



Built-in high temp. protection， guarantee safety revolution.

Using world famous brand twin rotary DC inverter compressor, rotating speed can be down to 30 RPS, has excellent efficiency in part load condition.

Operation range

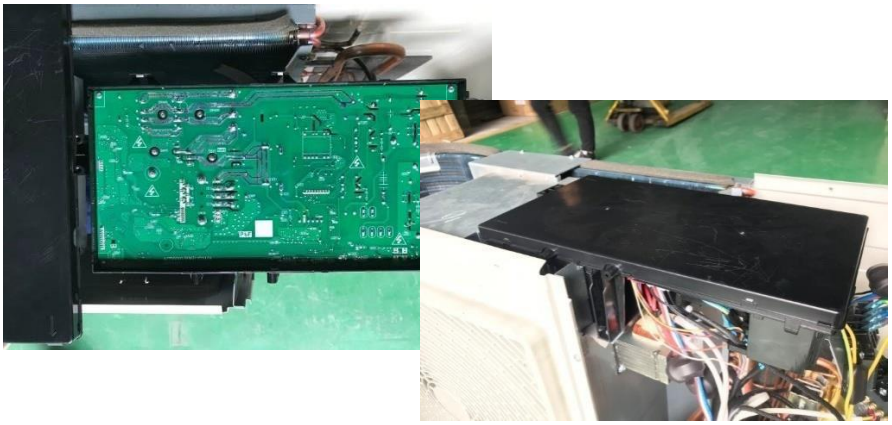
High temperature and low temperature operation stability， cooling:-15~50˚C, heating:-15-30˚C

Electrical design

Total new design for the E-box. Optimizing design of the E-box, fresh air cooling down the temperature of the inverter module.

New electric control integrates many components into one PCB, which not only reduces the damage rate of each component, but also reduces the cost of maintenance.

New electric control adopts upside-down installation method，which reduces the length of wire connection, and avoids the dust and water falling into the PCB.



New electric control box material changes from metal to plastic, which not only reduces the weight, but also avoids the short circuit caused by the PCB touching the metal box.

System design

Anticorrosive components design, leading to longer service live.

Profit from EXV design, the system can control the refrigerant flow much more precisely, leading to precise capacity output, make the users much more comfortable and save energy.

Free match

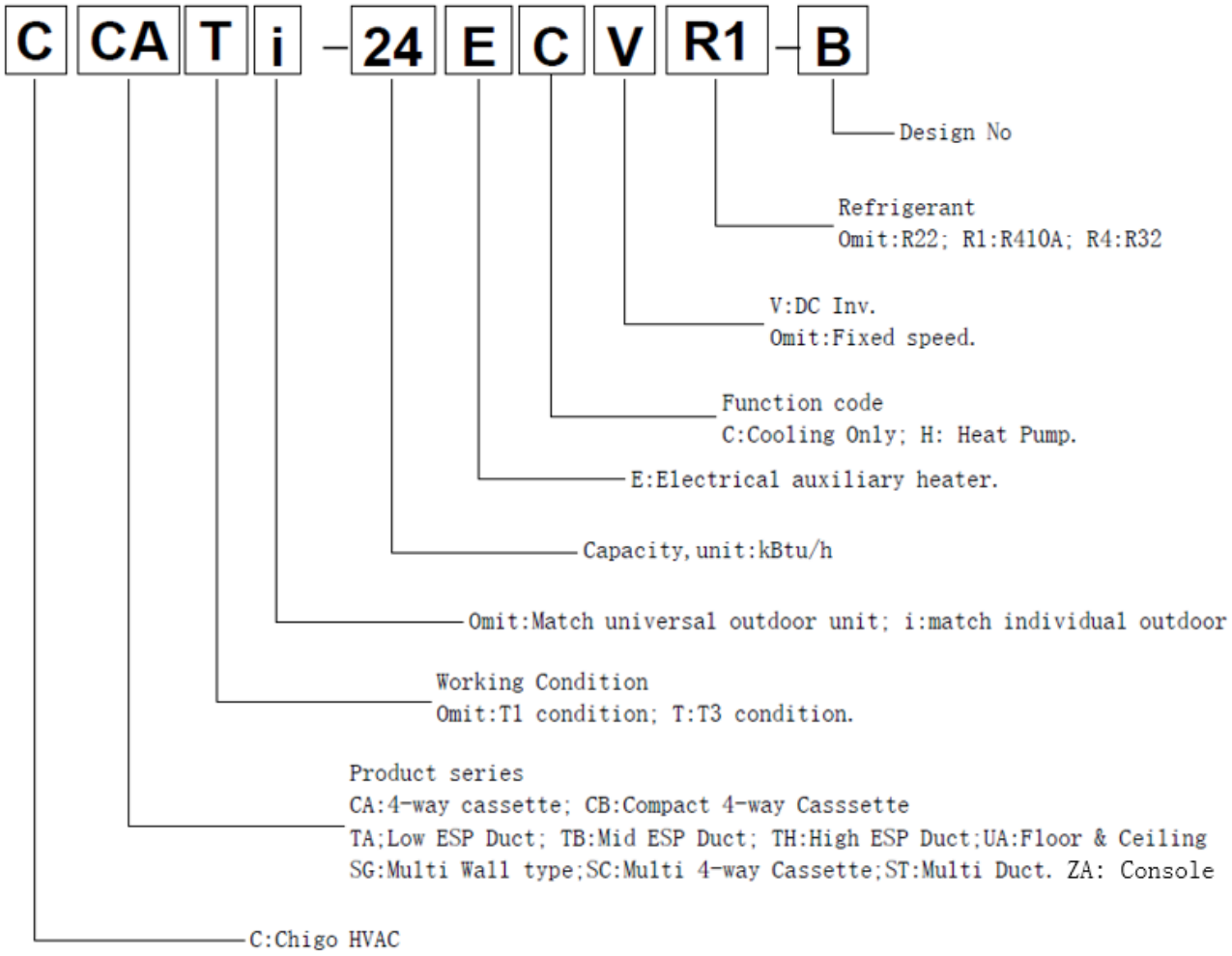
Different indoor units for choice. You can choose different indoor units appearance for your favorite.

Much more indoor units for free combination, meeting for different requirement such as office, house use, villa and etc.

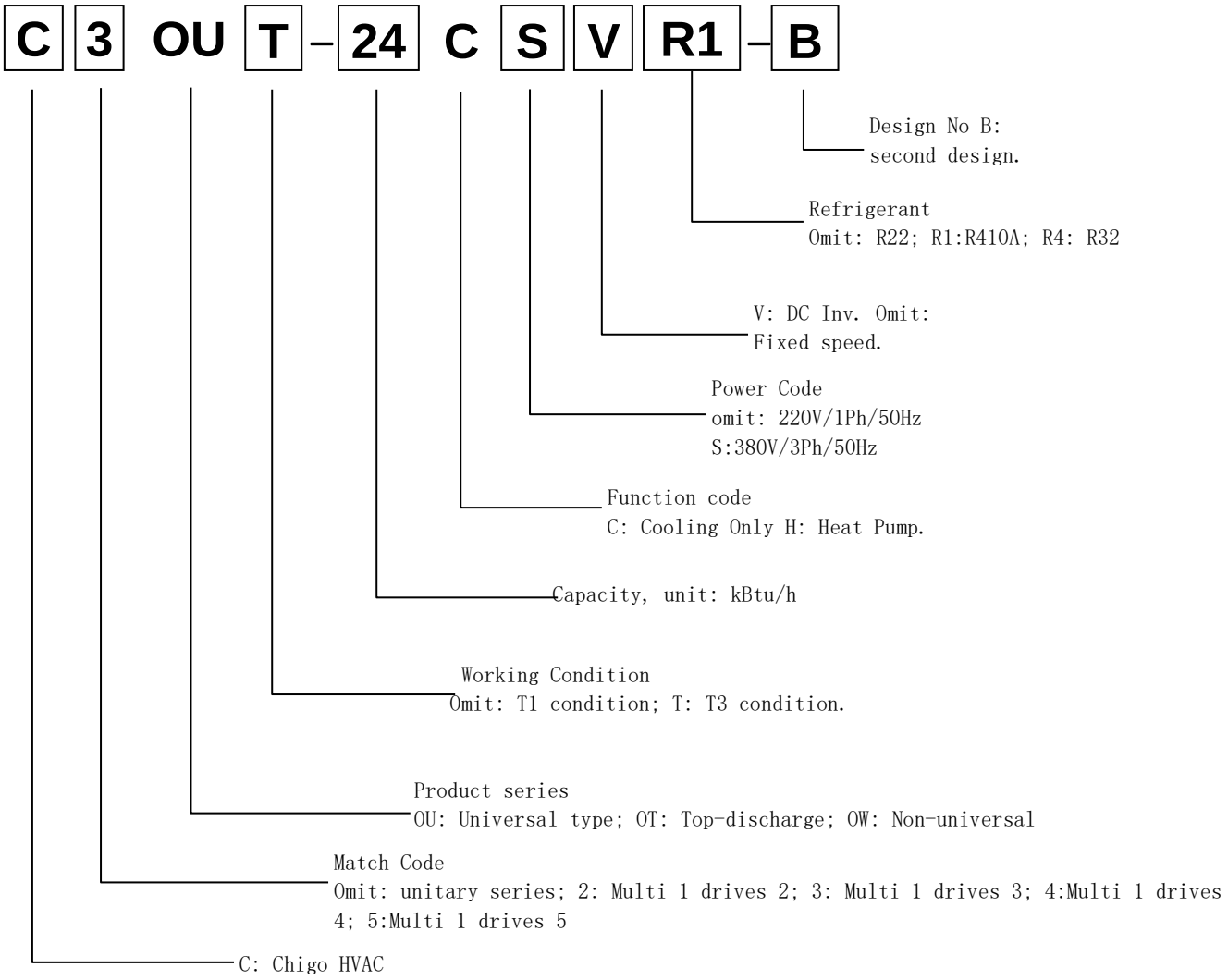
One or more indoor units' connection combination for your choice.

2. Nomenclature

Indoor Units



Outdoor Units



3. Products Line-up

Indoor Units

Model name	Dimension (W×H×D)(mm)	Net/Gross weight (kg)	Power supply
Wall Mounted			
CSG-07HVR4-A(J150)	878×290×227	8.5/10	220~240V/1Ph/50 Hz
CSG-07HVR4-A(J155)	878×290×227	8.5/10.5	220~240V/1Ph/50 Hz
CSG-07HVR4-A(J156)	878×290×227	8.5/11	220~240V/1Ph/50 Hz
CSG-09HVR4-A(J150)	878×290×227	8.5/10	220~240V/1Ph/50 Hz
CSG-09HVR4-A(J155)	878×290×227	8.5/10.5	220~240V/1Ph/50 Hz
CSG-09HVR4-A(J156)	878×290×227	8.5/11	220~240V/1Ph/50 Hz
CSG-12HVR4-A(J150)	878×290×227	8.5/10	220~240V/1Ph/50 Hz
CSG-12HVR4-A(J155)	878×290×227	8.5/10.5	220~240V/1Ph/50 Hz
CSG-12HVR4-A(J156)	878×290×227	8.5/11	220~240V/1Ph/50 Hz
CSG-18HVR4-A(P150)	953×347×270	10.5/13	220~240V/1Ph/50 Hz
CSG-18HVR4-A(P155)	953×347×270	10.5/13	220~240V/1Ph/50 Hz
CSG-18HVR4-A(P156)	953×347×270	10.5/13.5	220~240V/1Ph/50 Hz
CSG-24HVR4-A(W150)	1180×362×288	13.5/16	220~240V/1Ph/50 Hz
CSG-24HVR4-A(W155)	1180×362×288	13.5/16.5	220~240V/1Ph/50 Hz
CSG-24HVR4-A(W156)	1180×362×288	13.5/16.5	220~240V/1Ph/50 Hz
Ducted unit			
CST-07HVR4-A	814×210×467	17/19.5	220~240V/1Ph/50 Hz
CST-09HVR4-A	814×210×467	17/19.5	220~240V/1Ph/50 Hz
CST-12HVR4-A	814×210×467	17/19.5	220~240V/1Ph/50 Hz
CST-18HVR4-A	1010×210×467	20.5/24	220~240V/1Ph/50 Hz
Cassette unit			

CSC-07HVR4-A	565×267×565	16.5/21.5	220~240V/1Ph/50 Hz
CSC-09HVR4-A	565×267×565	16.5/21.5	220~240V/1Ph/50 Hz
CSC-12HVR4-A	565×267×565	16.5/21.5	220~240V/1Ph/50 Hz
CSC-18HVR4-A	565×267×565	16.5/21.5	220~240V/1Ph/50 Hz
Console unit			
CZA-09HVR4-A	700×630×215	15/18	220~240V/1Ph/50 Hz
CZA-12HVR4-A	700×630×215	15/18	220~240V/1Ph/50 Hz
CZA-18HVR4-A	700×630×215	15/18	220~240V/1Ph/50 Hz

Outdoor Units

Model name	Dimension (W×H×D) (mm)	Net/Gross weight (kg)	Power supply
DC Dual-split			
C2OU-14HDR4-A	944×608×345	41/44	220~240V/1Ph/50 Hz
C2OU-18HDR4-A	944×608×345	41/44	220~240V/1Ph/50 Hz
DC Tri-split			
C3OU-21HDR4-A	989×843×392	53.7/64.1	220~240V/1Ph/50 Hz
C3OU-27HDR4-A	989×843×392	56.1/66.6	220~240V/1Ph/50 Hz
DC Fourfold-split			
C4OU-28HDR4-A	1090×997×399	77.7/89..1	220~240V/1Ph/50 Hz
C4OU-36HDR4-A	1090×997×399	82.6/94	220~240V/1Ph/50 Hz
DC Fivefold-split			
C5OU-42HDR4-A	1090×997×399	84.5/95.9	220~240V/1Ph/50 Hz

4. External Appearance

Indoor Units

Wall Mounted	
 150 Series	 155 Series
 156 Series	

Ducted Units	4-way compact Cassette
	
Console unit	
	

Outdoor Units

DC Dual-split

DC Triple split

DC Fourfold & Fivefold split

5. Combination Table

Outdoor Unit	Qty. of indoor units	Combination Table (kBtu/h)
C2OU-14HDR4-A	1	7
	1	9
	1	12
	1	18
	2	7+7
	2	7+9
	2	7+12
	2	9+9
C2OU-18HDR4-A	1	7
	1	9
	1	12
	1	18
	2	7+7
	2	7+9
	2	7+12
	2	9+9
	2	9+12
	2	12+12
C3OU-21HDR4-A	2	7+7
	2	7+9
	2	7+12
	2	7+18
	2	9+9
	2	9+12
	2	9+18
	2	12+12
	3	7+7+7
	3	7+7+9

	3	7+9+9
	3	7+7+12
	3	9+9+9
C3OU-27HDR4-A	2	7+7
	2	7+9
	2	7+12
	2	7+18
	2	9+9
	2	9+12
	2	9+18
	2	12+12
	2	12+18
	3	7+7+7
	3	7+7+9
	3	7+7+12
	3	7+7+18
	3	7+9+9
	3	7+9+12
	3	7+9+18
	3	7+12+12
	3	9+9+9
	3	9+9+12
	3	9+12+12
C4OU-28HDR4-A	2	7+7
	2	7+9
	2	7+12
	2	7+18
	2	9+9
	2	9+12

	2	9+18
	2	12+12
	2	12+18
	2	18+18
	3	7+7+7
	3	7+7+9
	3	7+7+12
	3	7+7+18
	3	7+9+9
	3	7+9+12
	3	7+9+18
	3	7+12+12
	3	9+9+9
	3	9+9+12
	3	9+9+18
	3	9+12+12
	4	7+7+7+7
	4	7+7+7+9
	4	7+7+7+12
	4	7+7+9+9
	4	7+7+9+12
	4	7+9+9+9
	4	9+9+9+9
C4OU-36HDR4-A	3	7+7+7
	3	7+7+12
	3	7+7+18
	3	7+9+9

	3	7+9+12
	3	7+9+18

	3	7+12+12
	3	9+9+9
	3	9+9+12
	3	9+9+18
	3	9+12+12
	3	9+12+18
	3	9+18+18
	3	12+12+12
	3	12+12+18
	4	7+7+7+7
	4	7+7+7+9
	4	7+7+7+12
	4	7+7+7+18
	4	7+7+9+9
	4	7+7+9+12
	4	7+7+9+18
	4	7+7+12+12
	4	7+7+12+18
	4	7+9+9+9
	4	7+9+9+12
	4	7+9+9+18
	4	7+9+12+12
	4	7+9+12+18
	4	7+12+12+12
	4	9+9+9+9
	4	9+9+9+12
	4	9+9+9+18
	4	9+9+12+12
	4	9+12+12+12

C5OU-42HDR4-A	4	7+7+7+7
	4	7+7+7+9
	4	7+7+7+12
	4	7+7+7+18
	4	7+7+9+9
	4	7+7+9+12
	4	7+7+9+18
	4	7+7+12+12
	4	7+7+12+18
	4	7+7+18+18
	4	7+9+9+9
	4	7+9+9+12
	4	7+9+9+18
	4	7+9+12+12
	4	7+9+12+18
	4	7+12+12+12
	4	7+12+12+18
	4	9+9+9+9
	4	9+9+9+12
	4	9+9+9+18
	4	9+9+12+12
	4	9+9+12+18
	4	9+9+18+18
	4	9+12+12+12
	4	9+12+12+18
	5	7+7+7+7+7
	5	7+7+7+7+9
	5	7+7+7+7+12
	5	7+7+7+7+18

	5	7+7+7+9+9
	5	7+7+7+9+12
	5	7+7+7+9+18
	5	7+7+7+12+12
	5	7+7+7+12+18
	5	7+7+9+9+9
	5	7+7+9+9+12
	5	7+7+9+9+18
	5	7+7+9+12+12
	5	7+7+9+12+18
	5	7+7+12+12+12
	5	7+9+9+9+9
	5	7+9+9+9+12
	5	7+9+9+9+18
	5	9+9+9+9+9
	5	9+9+9+9+12
	5	9+9+9+9+18
	5	9+9+9+12+12

Part 2. Indoor Units

Wall-Mounted Type

1. Features

The wall-mounted indoor unit has several different types for your choice, such as 150 style, 155 style and 156 style. The different style panels can satisfy your different requirements. All the units have various functions, such as the function of auto-restart, sleep mode are standard, golden fins and some filter for optional.

2. Specifications

Model name				CSG-07HVR4-A	CSG-09HVR4-A	CSG-12HVR4-A
Power supply		V-Ph-Hz		220~240-1-50	220~240-1-50	220~240-1-50
Electricity supplying type				Outdoor unit supply		
Cooling	Capacity	Btu/h		7000	9000	12000
	Input	W		40	40	40
	Rated current	A		0.2	0.2	0.2
Heating	Capacity	Btu/h		8000	10000	13000
	Input	W		40	40	40
	Rated current	A		0.2	0.2	0.2
Indoor fan motor	Model			YDK-16-4 9	YDK-16-4 3	YDK-16-4 3
	Type			AC	AC	AC
	Brand			lvzhi	CHIGO	CHIGO
	Input	W		26	26	26
	Capacitor	μF		1	1	1
	Speed (H/M/L)	r/min		900/800/740	1000/850/740	1100/900/760
Indoor coil	Number of rows			2	2	2
	Tube pitch × row	mm		21×12.7	21×12.7	21×12.7
	Fin spacing	mm		1.5	1.5	1.5
	Fin type			Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside	mm		Φ7	Φ7	Φ7
	Tube type			Inner screw	Inner screw	Inner screw
	Number of circuits			2	2	2
Indoor air flow (H/M/L)		m^3/h		400/350/320	500/400/320	550/400/330
Indoor noise level(H/M/L)		dB(A)		30/27/24	33/28/24	36/30/25
Indoor unit	Net Dimension	mm		878×290×227	878×290×227	878×290×227
	PackingDimension (W×H×D)	mm	150	865×365×285	865×365×285	865×365×285
			155	885×375×315	885×375×315	885×375×315
			156	950×365×300	950×365×300	950×365×300
	Net/Gross weight	kg	150	8.5/10	8.5/10	8.5/10
			155	8.5/10.5	8.5/10.5	8.5/10.5
			156	8.5/11	8.5/11	8.5/11
Refrigerant Type				R32	R32	R32
Refrigerant pipe (Liquid side/		mm		Φ6.35/Φ9.52	Φ6.35/Φ9.52	Φ6.35/Φ9.52
Drainage water pipe diameter		mm		DN25	DN25	DN25
Controller(standard)				Remote Controller	Remote Controller	Remote Controller
Application area		m^2		10-15	12-18	16-23

Model name				CSG-18HVR4-A	CSG-24HVR4-A
Power supply		V-ph-Hz		220~240-1-50	220~240-1-50
Electricity Supplying type				Outdoor unit supply	
Cooling	Capacity	Btu/h		18000	24000
	Input	W		60	66
	Rated current	A		0.27	0.3
Heating	Capacity	Btu/h		19000	25000
	Input	W		60	66
	Rated current	A		0.27	0.3
Indoor fan motor	Model			YDK-23-4 A6	YDK-18-4 A7
	Type			AC	AC
	Brand			CHIGO	CHIGO
	Input	W		36	33
	Capacitor	μF		1.2	1.2
	Speed (H/M/L)	r/min		1250/1050/950	1200/1090/850
Indoor coil	Number of rows			2	2
	Tube pitch × row pitch	mm		21×12.7	21×12.7
	Fin spacing	mm		1.6	1.6
	Fin type			Hydrophilic	Hydrophilic
	Tube outside diameter	mm		Φ7	Φ7
	Tube type			Inner screw	Inner screw
	Number of circuits			4	5
Indoor air flow (H/M/L)		m^3/h		750/580/500	1000/900/700
Indoor noise level (H/M/L)		dB(A)		44/40/36	45/42/38
Indoor unit	Net Dimension (W×H×D)	mm		953×347×270	1180×362×288
	Packing Dimension (W×H×D)	mm	150	983×377×300	1145×392×318
			155	990×395×325	1190×405×345
			156	1075×380×310	1235×390×330
	Net/Gross weight	kg	150	10.5/13	13.5/16
			155	10.5/13	13.5/16.5
			156	10.5/13.5	13.5/16.5
Refrigerant Type				R32	R32
Refrigerant pipe (Liquid side/ Gas side)		mm		Φ6.35/Φ12.7	Φ9.52/Φ15.88
Drainage water pipe diameter		mm		DN25	DN25
Controller(standard)				Remote Controller	Remote Controller
Application area		m^2		23-34	34-51

Notes:

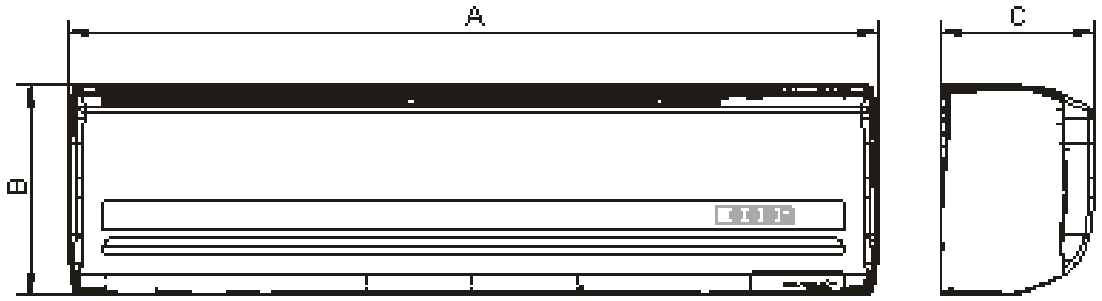
1. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)B, outdoor side7°C(42.8°F)B.

2. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)B, outdoor side7°C(42.8°F)B.

3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

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

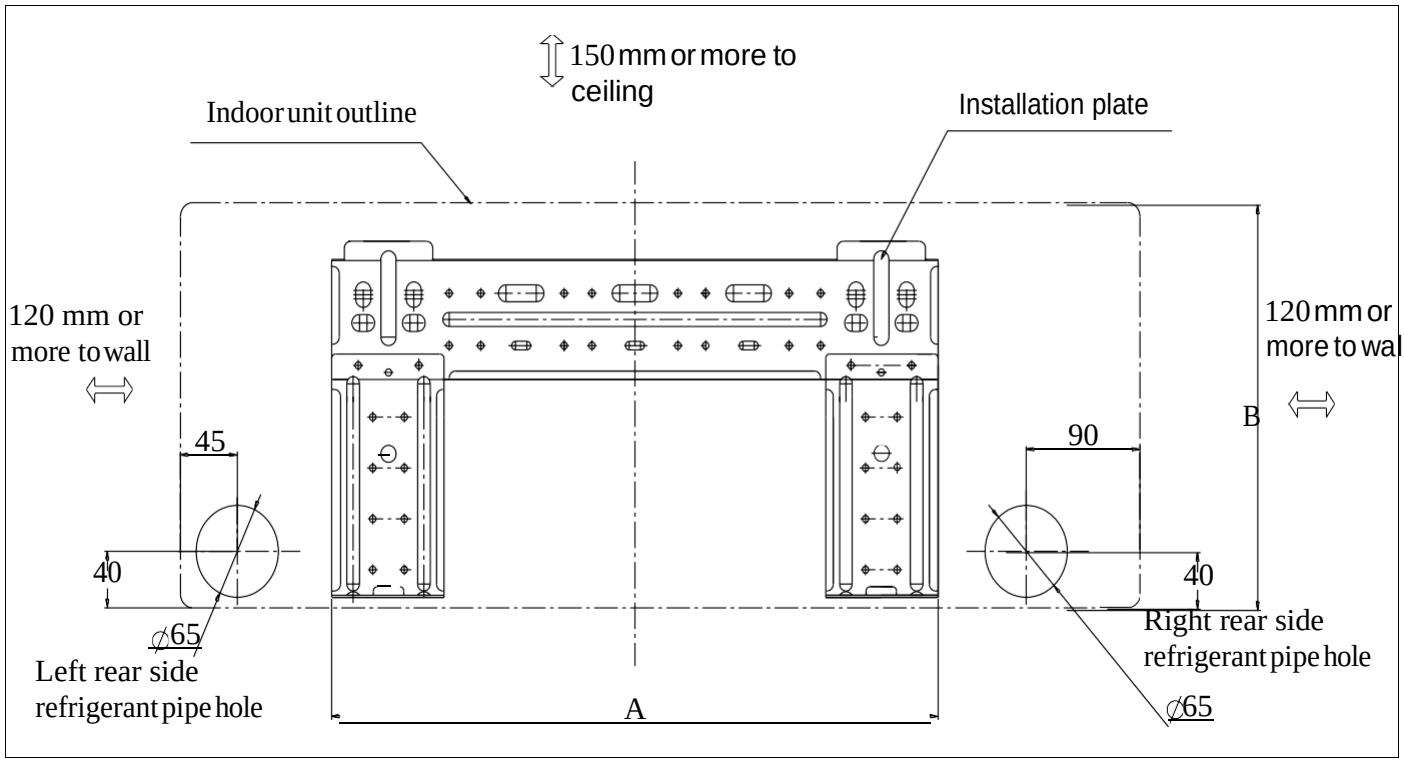
3. Dimensions



Unit: mm

Capacity	A	B	C
07/09/12k Btu/h	878	290	227
18k Btu/h	953	347	270
24k Btu/h	1180	362	288

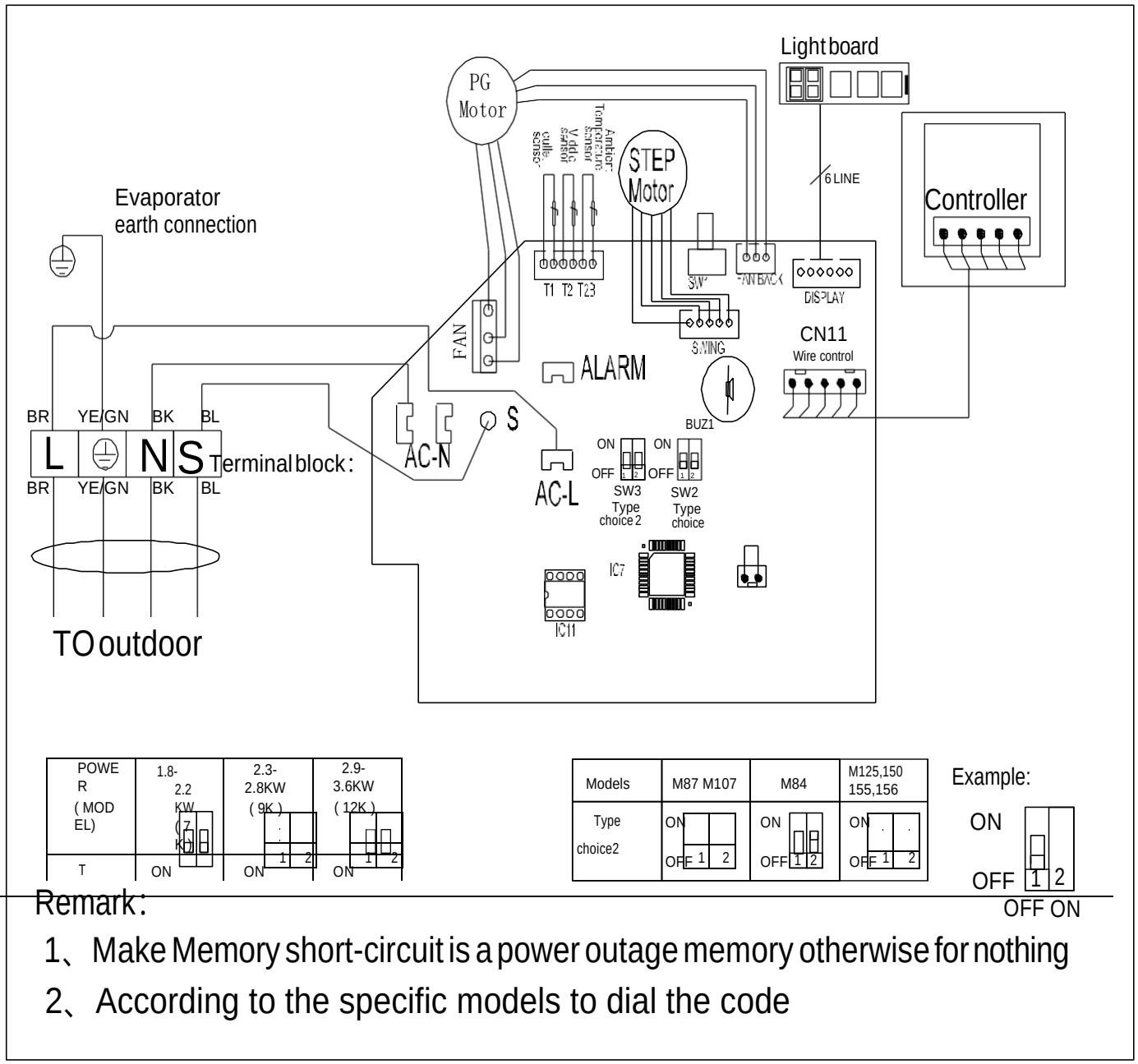
4. Service Space



Model	A(mm)	B(mm)
≤12000Btu/h	870	280
18000Btu/h	990	300
24000Btu/h	1200	310

5. Wiring Diagrams

CSG-07HVR4-A/CSG-09HVR4-A



POWER (MODEL)	1.8-2.2KW (7K)	2.3-2.8KW (9K)	2.9-3.6KW (12K)
T	ON	ON	ON

Models	M87 M107	M84	M125,150 155,156
Type choice2	ON OFF 1 2	ON OFF 1 2	ON OFF 1 2

Example:

ON

OFF 1 2

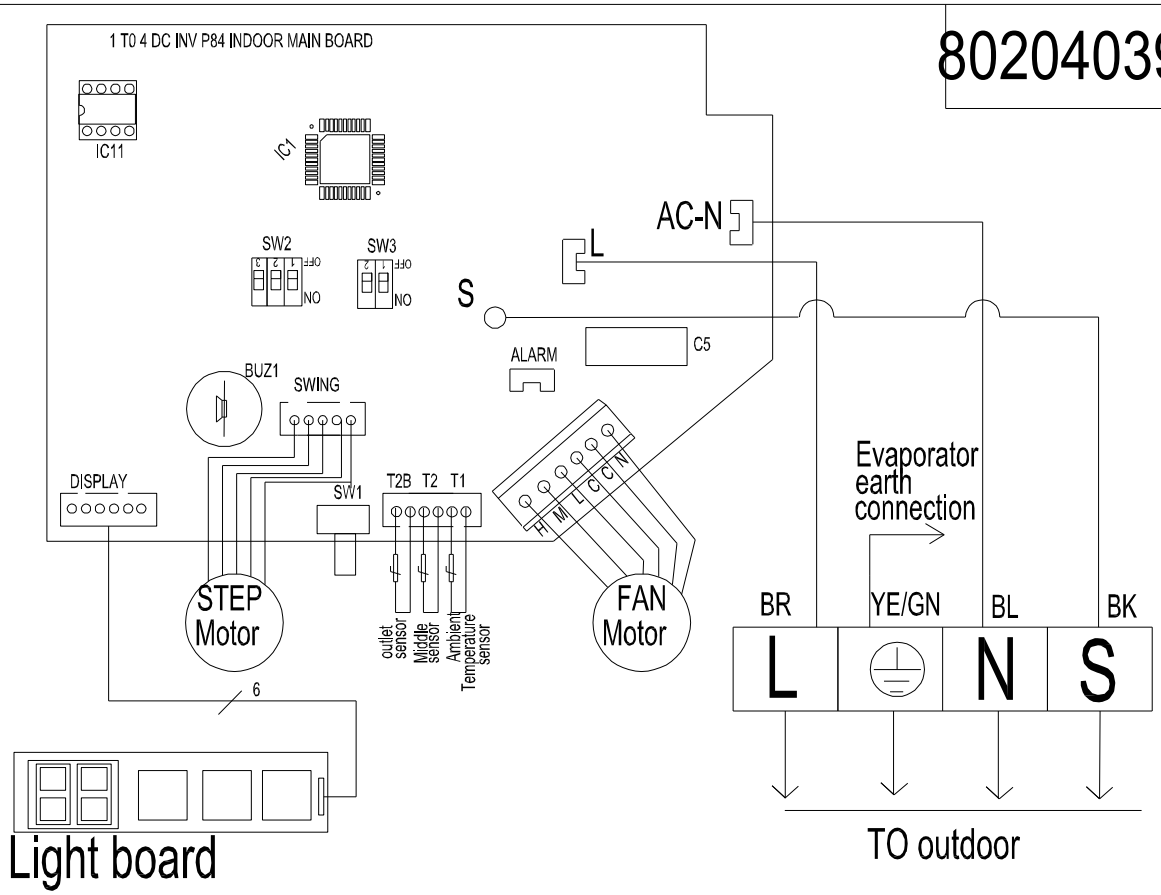
OFF ON

Remark:

1、Make Memory short-circuit is a power outage memory otherwise for nothing

2、According to the specific models to dial the code

CSG-18HVR4-A、CSG-24HVR4-A



POWER	5.3KW	7.0KW
SW2	ON OFF 1 2	ON OFF 1 2
Remarks	OFF OFF	ON ON

Model	76,87,107	84	125,150,155,156
SW3	ON OFF 1 2	ON OFF 1 2	ON OFF 1 2
Remarks	OFF OFF	OFF ON	ON OFF

Remark:
1、Make Memory short-circuit is a power outage memory otherwise for nothing
2、According to the specific models to dial the code

6. Capacity Table

Cooling

TC: Total Capacity; **SC**: Sensible Capacity **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	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
07kBtu/h (2.1kW)	10	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.52	1.64	2.58	1.60
	12	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.52	1.64	2.57	1.58
	14	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.50	1.63	2.55	1.57
	16	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.49	1.61	2.53	1.55
	18	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.47	1.60	2.51	1.53
	20	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.46	1.59	2.49	1.52
	21	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.44	1.57	2.47	1.50
	23	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.42	1.55	2.45	1.48
	25	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.24	1.62	2.40	1.54	2.44	1.47
	27	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.21	1.61	2.38	1.53	2.42	1.45
	29	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.19	1.60	2.34	1.52	2.40	1.44
	31	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.16	1.58	2.33	1.49	2.38	1.42
	33	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.13	1.56	2.32	1.47	2.36	1.40
	35	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.52	2.11	1.55	2.30	1.45	2.35	1.38
	37	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.51	2.08	1.53	2.29	1.43	2.33	1.36
	39	1.42	1.37	1.70	1.44	2.07	1.62	2.10	1.50	2.06	1.51	2.26	1.42	2.31	1.33
09kBtu/h (2.6kW)	10	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	3.14	2.18	3.33	2.11
	12	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	3.13	2.16	3.30	2.07
	14	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	3.11	2.15	3.28	2.03
	16	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	3.09	2.13	3.25	2.00
	18	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	3.06	2.11	3.22	1.96

	20	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	3.03	2.09	3.20	1.91
	21	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	3.00	2.07	3.17	1.87
	23	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.14	2.96	2.04	3.14	1.83
	25	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.77	2.13	2.92	2.01	3.12	1.80
	27	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.74	2.12	2.89	1.97	3.10	1.76
	29	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.71	2.10	2.86	1.95	3.07	1.72
	31	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.67	2.08	2.83	1.92	3.05	1.68
	33	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.64	2.05	2.81	1.90	3.01	1.65
	35	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.95	2.62	2.04	2.78	1.87	2.97	1.61
	37	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.94	2.58	2.01	2.74	1.85	2.91	1.57
	39	1.84	1.75	2.18	1.82	2.51	1.91	2.60	1.92	2.55	1.96	2.69	1.82	2.86	1.55

TC: Total Capacity; **SC**: Sensible Capacity **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	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
12kBtu/h (3.5kW)	10	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.16	2.82	4.34	2.60
	12	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.16	2.79	4.31	2.58
	14	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.14	2.78	4.28	2.55
	16	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.11	2.73	4.24	2.52
	18	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.08	2.70	4.20	2.49
	20	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.06	2.67	4.17	2.44
	21	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.04	2.62	4.13	2.41
	23	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.78	4.01	2.59	4.10	2.39
	25	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.88	2.76	3.97	2.56	4.07	2.36
	27	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.86	2.72	3.95	2.52	4.04	2.32
	29	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.84	2.70	3.91	2.49	4.01	2.29
	31	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.81	2.67	3.89	2.47	3.98	2.26
	33	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.77	2.64	3.85	2.43	3.95	2.23
	35	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.64	3.75	2.61	3.82	2.40	3.92	2.19
	37	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.62	3.72	2.59	3.78	2.37	3.89	2.16
	39	2.48	2.19	2.94	2.35	3.31	2.64	3.50	2.60	3.69	2.56	3.73	2.34	3.85	2.12
18kBtu/h (5.3kW)	10	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	6.20	4.16	6.43	3.86
	12	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	6.18	4.13	6.40	3.83
	14	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	6.15	4.11	6.37	3.80
	16	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	6.12	4.06	6.35	3.76
	18	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	6.07	4.03	6.31	3.71
	20	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	6.05	4.00	6.28	3.67
	21	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	6.01	3.96	6.23	3.62
	23	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.07	5.96	3.92	6.20	3.57

	25	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.78	4.02	5.91	3.89	6.16	3.52
	27	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.73	3.97	5.87	3.86	6.13	3.47
	29	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.70	3.93	5.84	3.83	6.10	3.41
	31	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.67	3.90	5.81	3.80	6.07	3.37
	33	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.62	3.88	5.76	3.77	6.03	3.31
	35	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.94	5.57	3.85	5.72	3.73	5.97	3.27
	37	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.92	5.52	3.81	5.67	3.70	5.93	3.23
	39	3.71	3.11	4.42	3.42	4.33	3.83	5.30	3.90	5.48	3.78	5.61	3.65	5.87	3.19
24kBtu/h (7.1kW)	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
	20	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	5.49	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

Heating

TC: Total Capacity; **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	Outdoor temperature (˚C)		Indoor temperature (˚C DB)					
			16	18	20	21	22	24
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
07kBtu/h (2.1kW)	-15.00	-14.70	1.59	1.59	1.59	1.59	1.59	1.59
	-13.00	-12.60	1.69	1.69	1.69	1.69	1.69	1.69
	-11.00	-10.50	1.72	1.72	1.72	1.72	1.72	1.72
	-10.00	-9.50	1.90	1.90	1.90	1.90	1.90	1.90
	-9.10	-8.50	1.95	1.95	1.95	1.95	1.95	1.95
	-7.60	-7.00	1.98	1.98	1.98	1.98	1.98	1.98
	-5.60	-5.00	2.05	2.05	2.05	2.05	2.05	2.05
	-3.70	-3.00	2.16	2.16	2.16	2.16	2.16	2.16
	-0.70	0.00	2.22	2.22	2.22	2.22	2.22	2.18
	2.20	3.00	2.28	2.28	2.28	2.28	2.26	2.18
	4.10	5.00	2.35	2.35	2.35	2.35	2.26	2.18
	6.00	7.00	2.40	2.40	2.40	2.40	2.26	2.18
	7.90	9.00	2.48	2.48	2.40	2.40	2.26	2.18
	9.80	11.00	2.57	2.57	2.40	2.40	2.26	2.18
	11.80	13.00	2.66	2.63	2.40	2.40	2.26	2.18
	13.70	15.00	2.73	2.70	2.40	2.40	2.26	2.18
09kBtu/h (2.6kW)	-15.00	-14.70	1.72	1.72	1.72	1.72	1.72	1.72
	-13.00	-12.60	1.84	1.84	1.84	1.84	1.84	1.84
	-11.00	-10.50	1.94	1.94	1.94	1.94	1.94	1.94
	-10.00	-9.50	2.04	2.04	2.04	2.04	2.04	2.04
	-9.10	-8.50	2.10	2.10	2.10	2.10	2.10	2.10
	-7.60	-7.00	2.13	2.13	2.13	2.13	2.13	2.13
	-5.60	-5.00	2.23	2.23	2.23	2.23	2.23	2.23
	-3.70	-3.00	2.36	2.36	2.36	2.36	2.36	2.36
	-0.70	0.00	2.55	2.55	2.55	2.55	2.55	2.39
	2.20	3.00	2.71	2.71	2.71	2.71	2.68	2.39
	4.10	5.00	2.80	2.80	2.80	2.80	2.68	2.39
	6.00	7.00	2.90	2.90	2.90	2.80	2.68	2.39
	7.90	9.00	3.00	3.00	2.90	2.80	2.68	2.39
	9.80	11.00	3.09	3.09	2.90	2.80	2.68	2.39
	11.80	13.00	3.22	3.16	2.90	2.80	2.68	2.39
	13.70	15.00	3.32	3.16	2.90	2.80	2.68	2.39

TC: Total Capacity; **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	Outdoor temperature (˚C)		Indoor temperature (˚C DB)					
			16	18	20	21	22	24
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
12kBtu/h (3.5kW)	-15.00	-14.70	2.40	2.40	2.40	2.40	2.40	2.40
	-13.00	-12.60	2.48	2.48	2.48	2.48	2.48	2.48
	-11.00	-10.50	2.60	2.60	2.60	2.60	2.60	2.60
	-10.00	-9.50	2.72	2.72	2.72	2.72	2.72	2.72
	-9.10	-8.50	2.80	2.80	2.80	2.80	2.80	2.80
	-7.60	-7.00	2.84	2.84	2.84	2.84	2.84	2.84
	-5.60	-5.00	2.96	2.96	2.96	2.96	2.96	2.96
	-3.70	-3.00	3.12	3.12	3.12	3.12	3.12	3.12
	-0.70	0.00	3.36	3.36	3.36	3.36	3.36	3.16
	2.20	3.00	3.56	3.56	3.56	3.56	3.48	3.16
	4.10	5.00	3.68	3.68	3.68	3.68	3.48	3.16
	6.00	7.00	3.80	3.80	3.80	3.68	3.48	3.16
	7.90	9.00	3.92	3.92	3.80	3.68	3.48	3.16
	9.80	11.00	4.04	4.04	3.80	3.68	3.48	3.16
	11.80	13.00	4.20	4.12	3.80	3.68	3.48	3.16
	13.70	15.00	4.32	4.12	3.80	3.68	3.48	3.16
18kBtu/h (5.3kW)	-15.00	-14.70	3.50	3.50	3.50	3.50	3.50	3.50
	-13.00	-12.60	3.62	3.62	3.62	3.62	3.62	3.62
	-11.00	-10.50	3.81	3.81	3.81	3.81	3.81	3.81
	-10.00	-9.50	4.00	4.00	4.00	4.00	4.00	4.00
	-9.10	-8.50	4.13	4.13	4.13	4.13	4.13	4.13
	-7.60	-7.00	4.19	4.19	4.19	4.19	4.19	4.19
	-5.60	-5.00	4.38	4.38	4.38	4.38	4.38	4.38
	-3.70	-3.00	4.63	4.63	4.63	4.63	4.63	4.63

	-0.70	0.00	5.01	5.01	5.01	5.01	5.01	4.69
	2.20	3.00	5.32	5.32	5.32	5.32	5.20	4.69
	4.10	5.00	5.51	5.51	5.51	5.51	5.20	4.69
	6.00	7.00	5.60	5.60	5.60	5.51	5.20	4.69
	7.90	9.00	5.89	5.89	5.60	5.51	5.20	4.69
	9.80	11.00	6.08	6.08	5.60	5.51	5.20	4.69
	11.80	13.00	6.63	6.20	5.60	5.51	5.20	4.69
	13.70	15.00	6.52	6.20	5.60	5.51	5.20	4.69
24kBtu/h (7.1kW)	-15.00	-14.70	4.80	4.80	4.80	4.80	4.80	4.80
	-13.00	-12.60	4.96	4.96	4.96	4.96	4.96	4.96
	-11.00	-10.50	5.20	5.20	5.20	5.20	5.20	5.20
	-10.00	-9.50	5.44	5.44	5.44	5.44	5.44	5.44
	-9.10	-8.50	5.60	5.60	5.60	5.60	5.60	5.60
	-7.60	-7.00	5.68	5.68	5.68	5.68	5.68	5.68
	-5.60	-5.00	5.92	5.92	5.92	5.92	5.92	5.92
	-3.70	-3.00	6.22	6.22	6.22	6.22	6.22	6.22
	-0.70	0.00	6.72	6.72	6.72	6.72	6.72	6.32
	2.20	3.00	7.12	7.12	7.12	7.12	6.96	6.32
	4.10	5.00	7.36	7.36	7.36	7.36	6.96	6.32
	6.00	7.00	7.40	7.40	7.40	7.36	6.96	6.32
	7.90	9.00	7.84	7.84	7.40	7.36	6.96	6.32
	9.80	11.00	8.08	8.08	7.40	7.36	6.96	6.32
	11.80	13.00	8.40	8.24	7.40	7.36	6.96	6.32
	13.70	15.00	8.64	8.24	7.40	7.36	6.96	6.32

7. Electric Characteristics

Model	Indoor Unit				Power Supply	IFM
	Hz	Voltage	Min	Max	MFA	kW
CSG-07HVR4-A(150)	50	220-240V	198	254	3.15	0.016
CSG-07HVR4-A(155)	50	220-240 V	198	254	3.15	0.016
CSG-07HVR4-A(156)	50	220-240 V	198	254	3.15	0.016
CSG-09HVR4-A(150)	50	220-240 V	198	254	3.15	0.016
CSG-09HVR4-A(155)	50	220-240 V	198	254	3.15	0.016
CSG-09HVR4-A(156)	50	220-240 V	198	254	3.15	0.016
CSG-12HVR4-A(150)	50	220-240 V	198	254	3.15	0.016
CSG-12HVR4-A(155)	50	220-240 V	198	254	3.15	0.016
CSG-12HVR4-A(156)	50	220-240 V	198	254	3.15	0.016
CSG-18HVR4-A(150)	50	220-240 V	198	254	3.15	0.023
CSG-18HVR4-A(155)	50	220-240 V	198	254	3.15	0.023
CSG-18HVR4-A(156)	50	220-240 V	198	254	3.15	0.023
CSG-24HVR4-A(150)	50	220-240 V	198	254	3.15	0.018
CSG-24HVR4-A(155)	50	220-240 V	198	254	3.15	0.018
CSG-24HVR4-A(156)	50	220-240 V	198	254	3.15	0.018

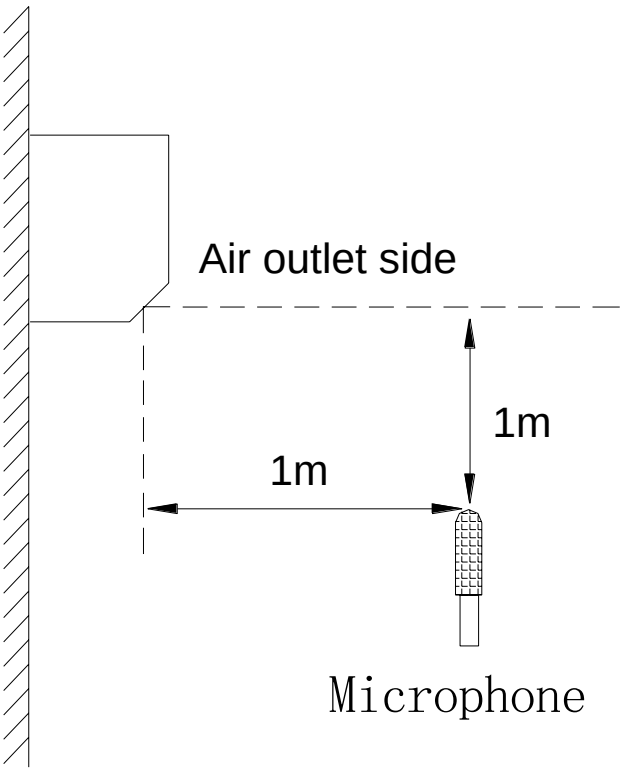
Remark:

MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (kW)

IFM: Indoor Fan Motor

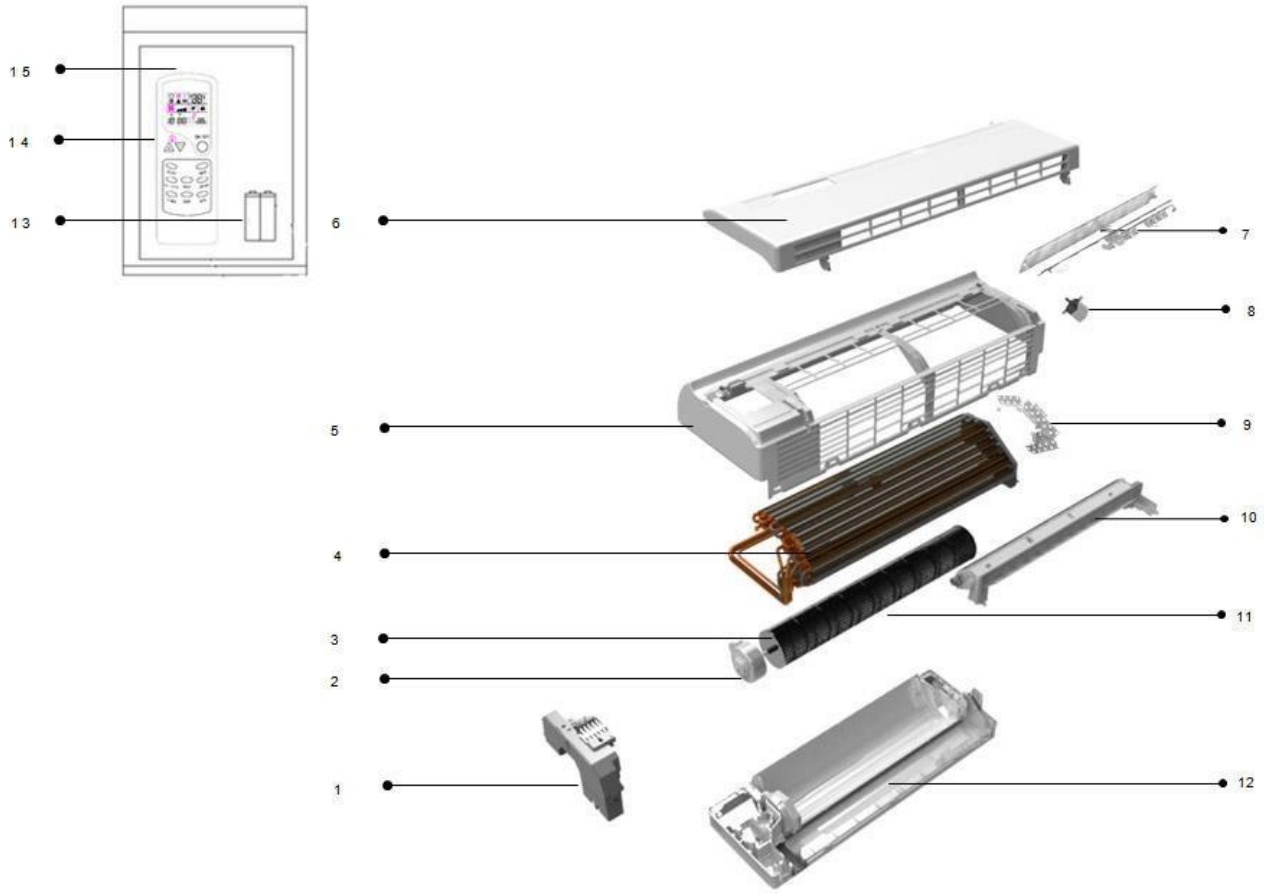
8. Sound Level



Model	Noise leveldB(A)
	High speed
CSG-07HVR4-A(150)	30
CSG-07HVR4-A(155)	30
CSG-07HVR4-A(156)	30
CSG-09HVR4-A(150)	33
CSG-09HVR4-A(155)	33
CSG-09HVR4-A(156)	33
CSG-12HVR4-A(150)	36
CSG-12HVR4-A(155)	36
CSG-12HVR4-A(156)	36
CSG-18HVR4-A(150)	44
CSG-18HVR4-A(155)	44
CSG-18HVR4-A(156)	44
CSG-24HVR4-A(150)	45
CSG-24HVR4-A(155)	45
CSG-24HVR4-A(156)	45

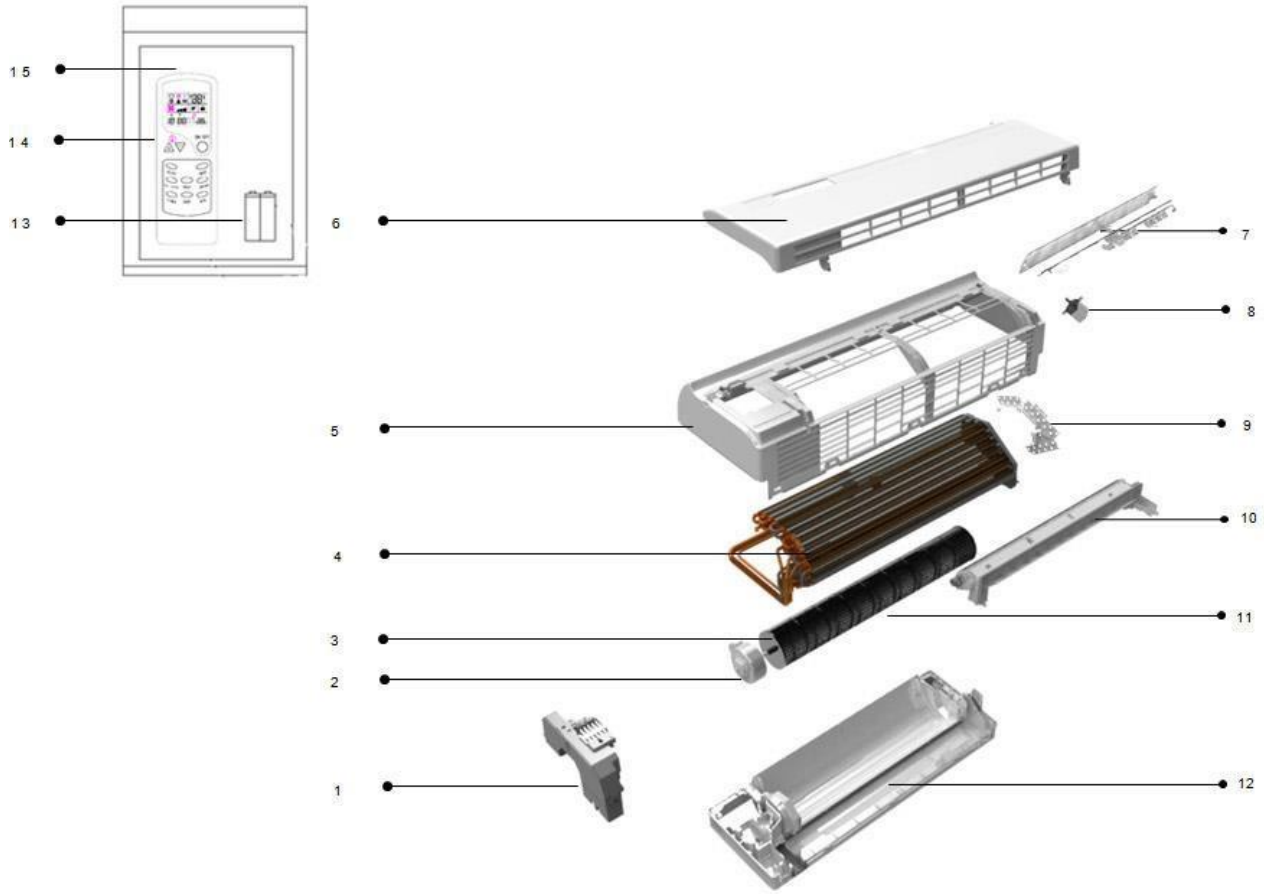
9. Exploded View

150 series



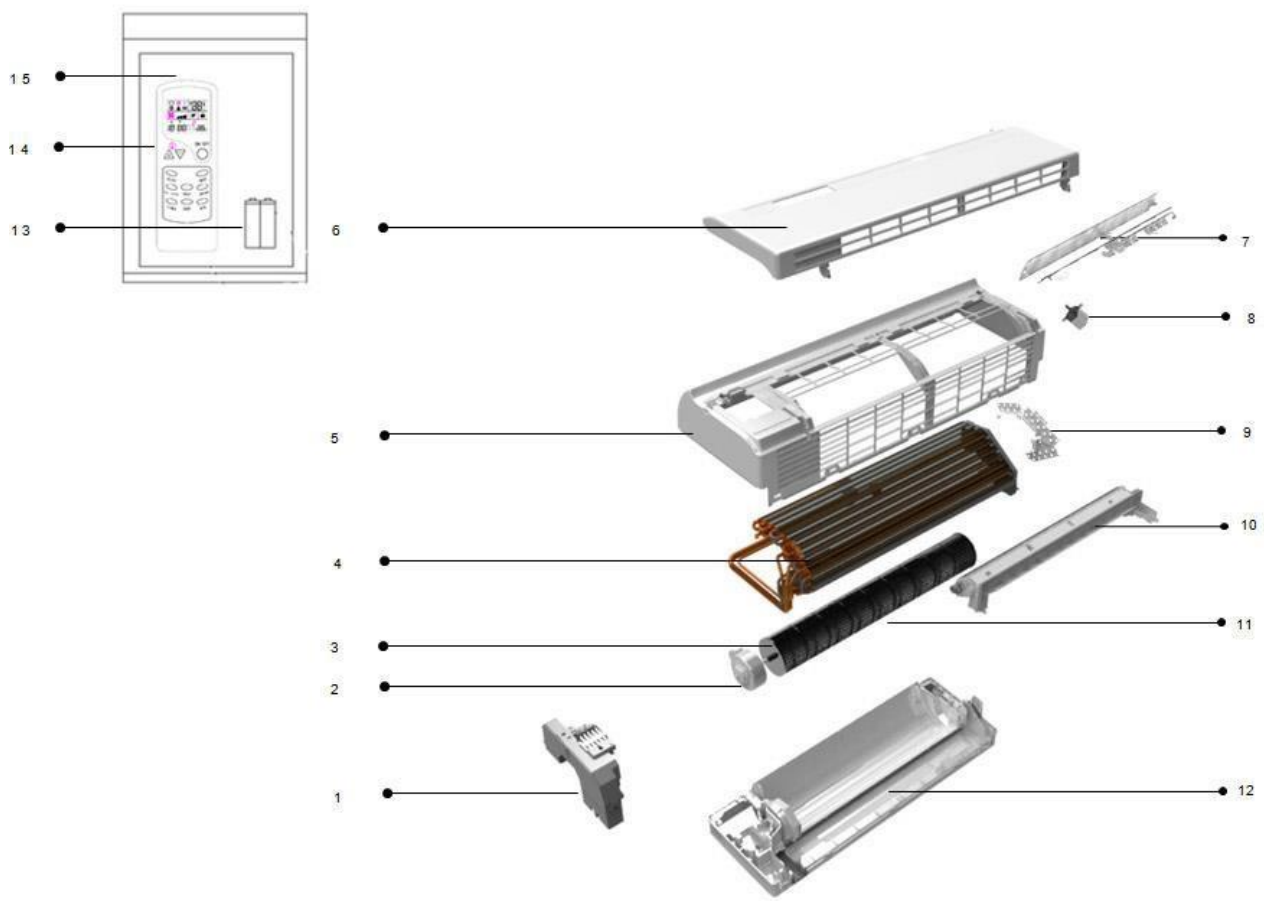
No.	Part Name	Quantity	No.	Part Name	Quantity
1	E-parts components	1	4.3	Insulating tube	1
1.1	indoor terminal	1	5	Middle frame assy	1
1.2	Main control box	1	6	Air outlet panel components	1
1.3	Groove clamp	1	7	Louver assy	1
1.4	Temperature sensor for indoor unit	1	8	Step motor	1
1.5	Indoor E-parts	1	9	Fixing tube panel	1
2	Indoor motor	1	11	Cross flow fan	1
3	Motor cover assy	1	12	Base assy	1
4	Evaporator components	1	13	Remote control battery	1
4.1	Evaporator assy	1	14	Chigo Elf general remote	1
4.2	Evaporator damping rubber strip	1	15	General manual plastic bag of export A/C	1

155 series



No.	Part Name	Quantity	No.	Part Name	Quantity
1	E-parts components	1	4.3	Insulating tube	1
1.1	indoor terminal	1	5	Middle frame assy	1
1.2	Main control box	1	6	Air outlet panel components	1
1.3	Groove clamp	1	7	Louver assy	1
1.4	Temperature sensor for indoor unit	1	8	Step motor	1
1.5	Indoor E-parts	1	9	Fixing tube panel	1
2	Indoor motor	1	11	Cross flow fan	1
3	Motor cover assy	1	12	Base assy	1
4	Evaporator components	1	13	Remote control battery	1
4.1	Evaporator assy	1	14	Chigo Elf general remote	1
4.2	Evaporator damping rubber strip	1	15	General manual plastic bag of export A/C	1

156 series



No.	Part Name	Quantity	No.	Part Name	Quantity
1	E-parts components	1	4.3	Insulating tube	1
1.1	indoor terminal	1	5	Middle frame assy	1
1.2	Main control box	1	6	Air outlet panel components	1
1.3	Groove clamp	1	7	Louver assy	1
1.4	Temperature sensor for indoor unit	1	8	Step motor	1
1.5	Indoor E-parts	1	9	Fixing tube panel	1
2	Indoor motor	1	11	Cross flow fan	1
3	Motor cover assy	1	12	Base assy	1
4	Evaporator components	1	13	Remote control battery	1
4.1	Evaporator assy	1	14	Chigo Elf general remote	1
4.2	Evaporator damping rubber strip	1	15	General manual plastic bag of export A/C	1

10. Accessories

NO.	NAME	SHAPE	QUANTITY
1	Insulating tube		2
2	Ribbon		6
3	Remote controller		1
4	Battery		2
5	Swell stopper		2
6	Self-tapping screw		2
7	Outlet pipe		1
8	Blank valve bag		3

11. Troubleshooting

Display with Fault

Definitions of malfunction	Contents appearing
The first time to switch on and there is no address	FE
Errors of phase sequence or fault of losing phase	E0
Communication failure of indoor and outdoor unit	E1
T1 sensor fault	E2
T2 sensor fault	E3
T2B sensor fault	E4
Malfunction of outdoor unit	E5
Testing fault of zero-crossing signal	E6
EEPROM malfunction	E7
Wind testing fault of PGelectric motor	E8
Alarming fault of water level switch	EE
Model conflict	EF

Display of LED

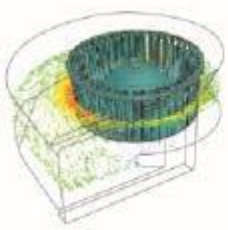
Definitions of malfunction	Contents appearing
The first time to switch on and there is no address	LED timing light and running light shinesslowly at the same time
Communication failure of indoor and outdoor unit	LED timing light shines quickly
Fault of indoor temperature sensor	LED running light shines quickly
Alarming fault of water level	LED alarming light shines quickly
Mode impact fault	LED defrost light shines quickly
Outdoor unit fault	LED alarming light shines slowly
EEPROM malfunction	LED defrost light shines slowly

Duct Type

1. Features

Short body, easy to install.

Adopting aviation centrifugal fans, and CFD technology design, increasing air-volume and decreasing noise level.



Three fan speed, meet different requirement.

High efficiency DC fan motor, low noise and more comfortable. Operate in low frequency and control indoor temperature precisely.

E-box is body-side design, convenient installation and maintenance.

2. Specifications

Model name			CST-07HVR4-A	CST-09HVR4-A	CST-12HVR4-A	CST-18HVR4-A
Power supply		V-Ph-Hz	220~240/1/50	220~240/1/50	220~240/1/50	220~240/1/50
Electricity supplying type			Outdoor unit supply			
Cooling	Capacity	Btu/h	7000	9000	12000	18000
	Input	W	20	20	30	45
	Rated current	A	0.1	0.1	0.15	0.2
Heating	Capacity	Btu/h	8000	10000	13000	19000
	Input	W	20	20	30	45
	Rated current	A	0.1	0.1	0.15	0.2
Indoor fan motor	Model		DR-310-27F-8	DR-310-27F-8	DR-310-27F-8	DR-310-55F-8
	Type		DC	DC	DC	DC
	Input	W	45	45	45	70
	Speed (H/M/L)	r/min	1130/980/920	1130/980/920	1330/1090/1000	1300/1150/1050
Indoor coil	Number of rows		2	2	2	2
	Tube pitch× row pitch	mm	21×12.7	21×12.7	21×12.7	21×12.7
	Fin spacing	mm	1.4	1.4	1.4	1.4
	Fin type		Hydrophilic	Hydrophilic	Hydrophilic	Hydrophilic
	Tube outside diameter	mm	Φ7	Φ7	Φ7	Φ7
	Tube type		Inner screw	Inner screw	Inner screw	Inner screw
	Coil size (W×D×H)	mm	2×(515×27×146)	2×(515×27×146)	2×(515×27×146)	2×(715×27×146)
	Number of circuits		4	4	4	4
Indoor air flow (H/M/L)		m^3/h	550/410/340	550/410/340	680/580/450	800/700/600
Indoor noise level(H)		dB(A)	47	47	52	48
Indoor unit	Net Dimension (W×H ×D)	mm	814×210×467	814×210×467	814×210×467	1010×210×467
	PackingDimension(W×H×D)	mm	910×240×510	910×240×510	910×240×510	1110×240×510
	Net/Gross weight	kg	17/19.5	17/19.5	17/19.5	20.5/24
Refrigerant Type			R32	R32	R32	R32
Refrigerant pipe (Liquid side/ Gas side)		mm	Φ6.35/Φ9.52	Φ6.35/Φ9.52	Φ6.35/Φ9.52	Φ6.35/Φ12.7
Drainage water pipe diameter		mm	DN25	DN25	DN25	DN25
Controller(standard)			Remote controller	Remote controller	Remote controller	Remote controller
Application area		m^2	10~15	12~18	16~23	23~34

Notes:

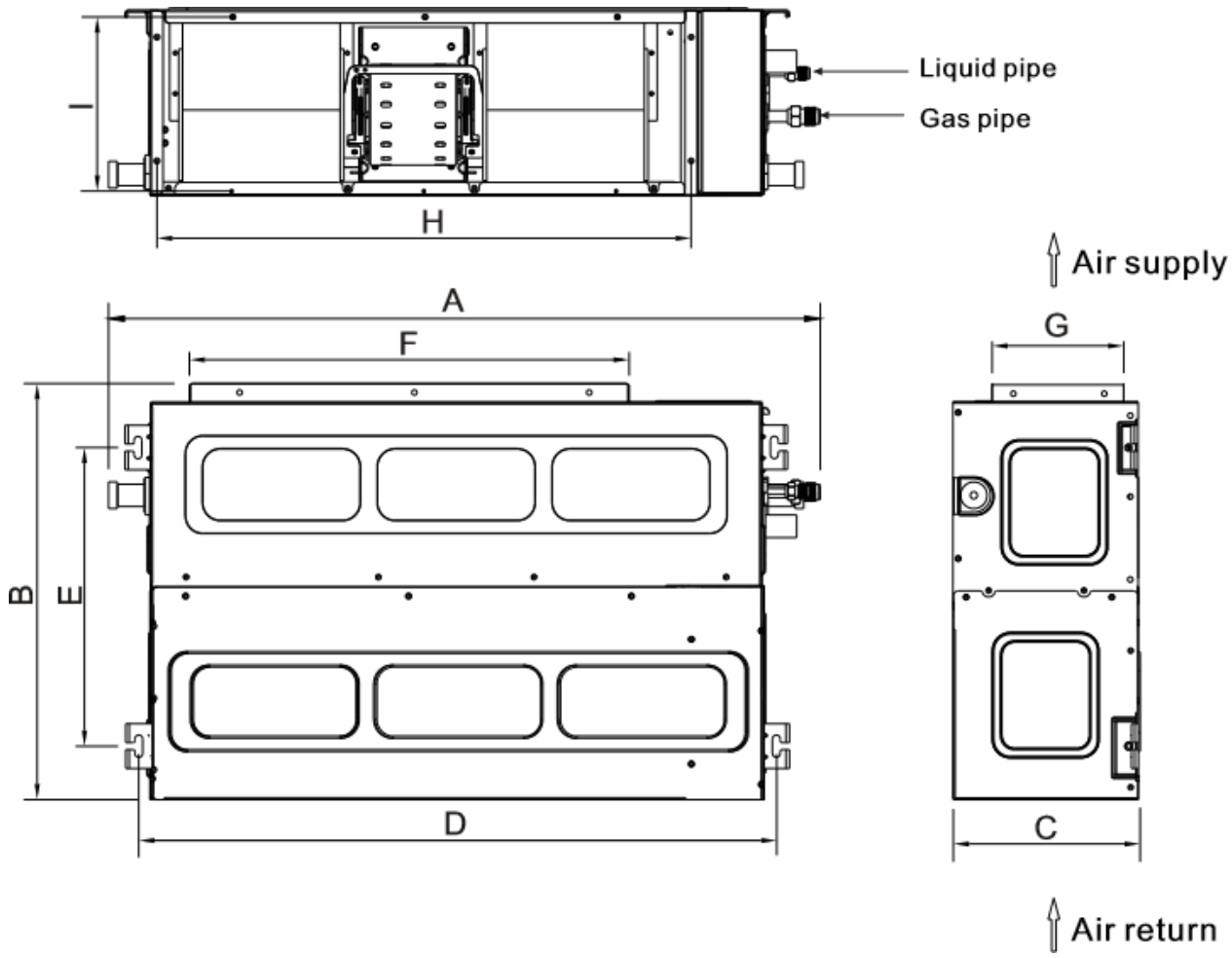
1. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB, outdoor side 35°C(95°F) DB.

2. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB, outdoor side 7°C(42.8°F)DB.

3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

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

3. Dimensions



Unit: mm

Size code / Model	Body size			Installing size		Air outlet size		Air return size	
	A	B	C	D	E	F	G	H	I
07/09/12k Btu/h	814	467	210	728	335	503	150	611	200
18k Btu/h	1010	467	210	928	335	705	150	811	200

4. Service Space

Ensure enough space required for installation and maintenance.

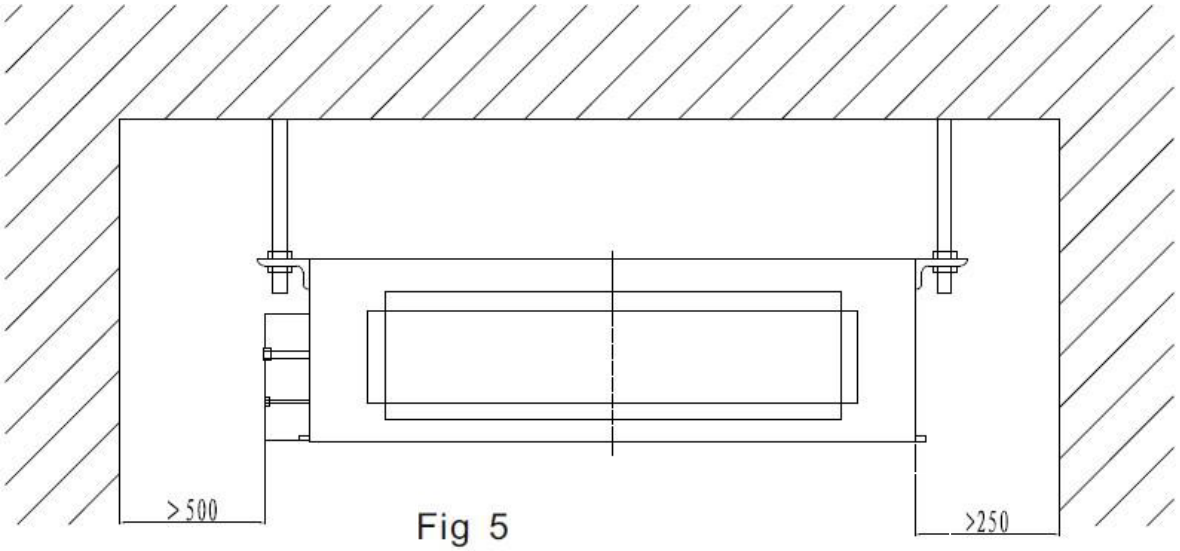
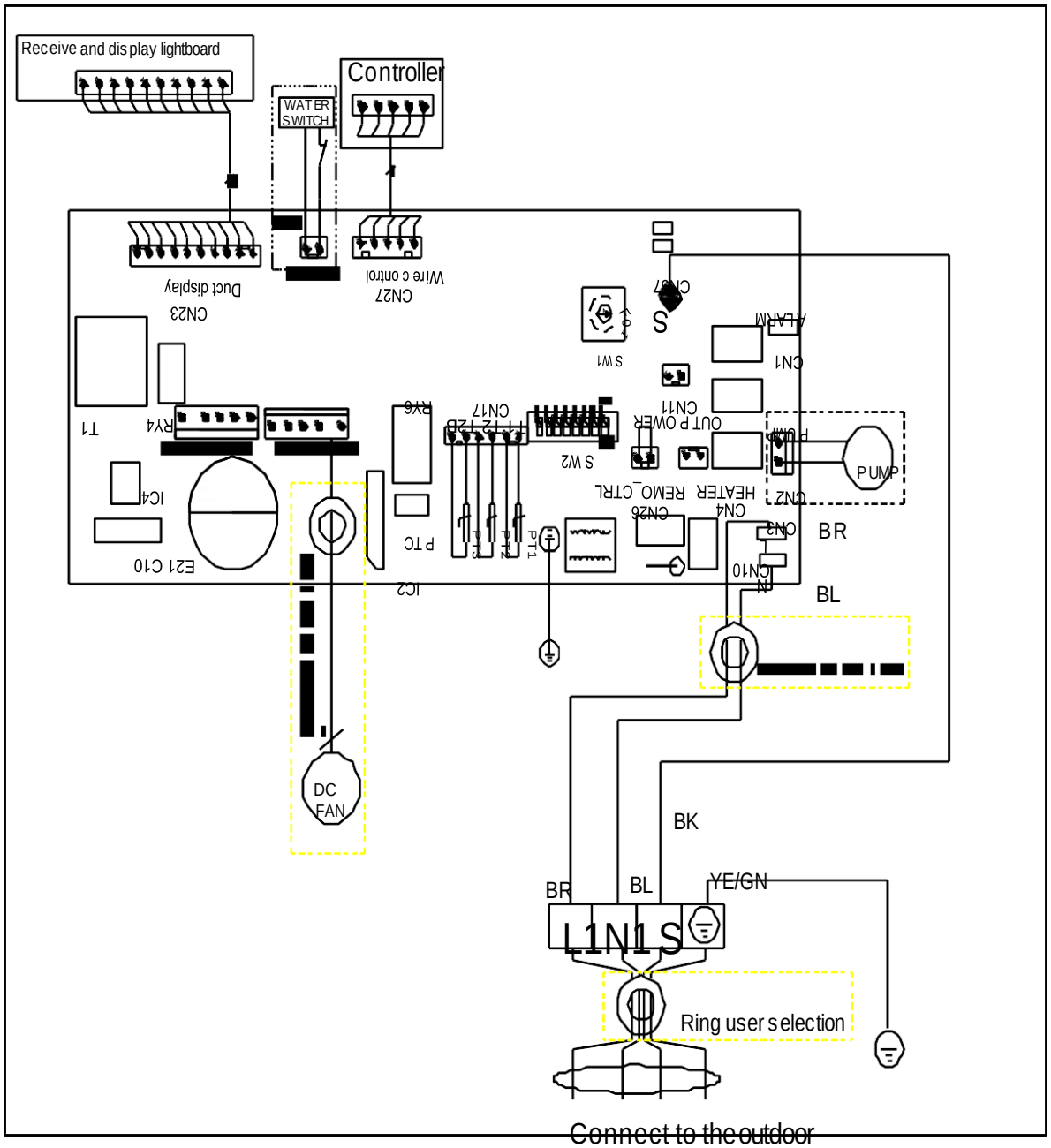


Fig 5

5. Wiring Diagrams

CST-07HVR4-A/CST-09HVR4-A/CST-12HVR4-A/CST-18HVR4-A



6. Capacity Table

Cooling

TC: Total Capacity; **SC**: Sensible Capacity **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	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
07kBtu/h (2.1kW)	10	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.46	1.64	2.57	1.46
	12	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.46	1.64	2.54	1.45
	14	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.44	1.63	2.52	1.44
	16	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.42	1.61	2.50	1.42
	18	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.40	1.60	2.47	1.41
	20	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.37	1.58	2.45	1.39
	21	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.35	1.57	2.42	1.38
	23	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.62	2.33	1.55	2.40	1.37
	25	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.30	1.60	2.30	1.53	2.38	1.35
	27	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.27	1.59	2.28	1.52	2.35	1.34
	29	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.25	1.57	2.26	1.50	2.33	1.33
	31	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.23	1.55	2.24	1.49	2.31	1.31
	33	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.21	1.52	2.21	1.47	2.28	1.30
	35	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.52	2.17	1.51	2.19	1.46	2.26	1.28
	37	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.51	2.14	1.47	2.17	1.43	2.21	1.26
	39	1.42	1.27	1.70	1.34	1.97	1.52	2.10	1.50	2.12	1.46	2.14	1.41	2.19	1.24
09kBtu/h (2.6kW)	10	1.74	1.55	2.09	1.63	2.44	1.86	2.50	1.86	2.85	1.99	3.06	2.02	3.19	1.79
	12	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.99	3.06	2.02	3.16	1.77
	14	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.99	3.03	2.00	3.13	1.76
	16	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.99	3.00	1.98	3.10	1.74

	18	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.99	2.98	1.96	3.07	1.72
	20	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.99	2.95	1.94	3.04	1.70
	21	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.99	2.92	1.92	3.01	1.68
	23	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.99	2.89	1.90	2.98	1.67
	25	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.85	1.97	2.86	1.88	2.95	1.65
	27	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.82	1.95	2.83	1.86	2.92	1.63
	29	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.79	1.93	2.80	1.84	2.89	1.61
	31	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.76	1.91	2.77	1.82	2.86	1.60
	33	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.73	1.87	2.74	1.80	2.83	1.58
	35	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.86	2.69	1.84	2.71	1.78	2.80	1.56
	37	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.85	2.65	1.80	2.68	1.74	2.74	1.53
	39	1.74	1.55	2.09	1.63	2.44	1.86	2.60	1.83	2.63	1.68	2.66	1.72	2.71	1.51

TC: Total Capacity; **SC**: Sensible Capacity **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	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
12kBtu/h (3.5kW)	10	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	4.20	2.85	4.36	2.56
	12	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	4.20	2.85	4.32	2.54
	14	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	4.16	2.83	4.29	2.51
	16	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	4.12	2.80	4.25	2.49
	18	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	4.08	2.78	4.21	2.47
	20	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	4.05	2.75	4.17	2.45
	21	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	4.01	2.73	4.13	2.42
	23	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.81	3.97	2.70	4.09	2.40
	25	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.92	2.79	3.93	2.67	4.05	2.38
	27	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.88	2.76	3.90	2.65	4.01	2.36
	29	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.85	2.73	3.86	2.62	3.98	2.33
	31	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.81	2.71	3.82	2.60	3.94	2.31
	33	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.77	2.66	3.78	2.57	3.90	2.29
	35	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.64	3.72	2.63	3.75	2.55	3.86	2.26
	37	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.63	3.66	2.58	3.71	2.50	3.78	2.22
	39	2.49	2.25	2.94	2.35	3.39	2.64	3.50	2.61	3.64	2.55	3.67	2.47	3.74	2.20
18kBtu/h (5.3kW)	10	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	6.23	4.14	6.49	3.68
	12	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	6.23	4.14	6.49	3.65
	14	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	6.17	4.10	6.37	3.61
	16	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	6.11	4.06	6.31	3.58
	18	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	6.05	4.02	6.25	3.54
	20	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	5.99	3.98	6.19	3.50
	21	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	5.94	3.94	6.12	3.47
	23	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.08	5.88	3.90	6.06	3.43

	25	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.80	4.03	5.82	3.86	6.00	3.40
	27	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.74	3.99	5.86	3.82	5.94	3.36
	29	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.68	3.95	5.80	3.78	5.88	3.33
	31	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.63	3.91	5.64	3.74	5.82	3.29
	33	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.57	3.83	5.58	3.70	5.76	3.26
	35	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.81	5.48	3.79	5.53	3.66	5.70	3.22
	37	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.79	5.40	3.71	5.47	3.58	5.58	3.15
	39	3.58	3.20	4.28	3.35	4.98	3.81	5.30	3.77	5.36	3.67	5.41	3.54	5.52	3.12

Heating

TC: Total Capacity; **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	Outdoor temperature (˚C)		Indoor temperature (˚C DB)					
			16	18	20	21	22	24
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
07kBtu/h (2.1kW)	-15.00	-14.70	1.59	1.59	1.59	1.59	1.59	1.59
	-13.00	-12.60	1.69	1.69	1.69	1.69	1.69	1.69
	-11.00	-10.50	1.75	1.75	1.75	1.75	1.75	1.75
	-10.00	-9.50	1.80	1.80	1.80	1.80	1.80	1.80
	-9.10	-8.50	1.85	1.85	1.85	1.85	1.85	1.85
	-7.60	-7.00	1.88	1.88	1.88	1.88	1.88	1.88
	-5.60	-5.00	1.95	1.95	1.95	1.95	1.95	1.95
	-3.70	-3.00	2.06	2.06	2.06	2.06	2.06	2.06
	-0.70	0.00	2.21	2.21	2.21	2.21	2.21	2.08
	2.20	3.00	2.34	2.34	2.34	2.34	2.29	2.08
	4.10	5.00	2.40	2.40	2.40	2.40	2.29	2.08
	6.00	7.00	2.50	2.50	2.40	2.40	2.29	2.08
	7.90	9.00	2.58	2.58	2.50	2.40	2.29	2.08
	9.80	11.00	2.66	2.66	2.50	2.40	2.29	2.08
	11.80	13.00	2.76	2.71	2.50	2.40	2.29	2.08
	13.70	15.00	2.84	2.71	2.50	2.40	2.29	2.08
09kBtu/h (2.6kW)	-15.00	-14.70	1.72	1.72	1.72	1.72	1.72	1.72
	-13.00	-12.60	1.84	1.84	1.84	1.84	1.84	1.84
	-11.00	-10.50	1.94	1.94	1.94	1.94	1.94	1.94
	-10.00	-9.50	2.04	2.04	2.04	2.04	2.04	2.04
	-9.10	-8.50	2.10	2.10	2.10	2.10	2.10	2.10
	-7.60	-7.00	2.13	2.13	2.13	2.13	2.13	2.13
	-5.60	-5.00	2.23	2.23	2.23	2.23	2.23	2.23

	-3.70	-3.00	2.36	2.36	2.36	2.36	2.36	2.36
	-0.70	0.00	2.55	2.55	2.55	2.55	2.55	2.39
	2.20	3.00	2.71	2.71	2.71	2.71	2.64	2.39
	4.10	5.00	2.80	2.80	2.80	2.80	2.64	2.39
	6.00	7.00	2.90	2.90	2.90	2.80	2.64	2.39
	7.90	9.00	3.00	3.00	2.90	2.80	2.64	2.39
	9.80	11.00	3.09	3.09	2.90	2.80	2.64	2.39
	11.80	13.00	3.22	3.16	2.90	2.80	2.64	2.39
	13.70	15.00	3.32	3.16	2.90	2.80	2.64	2.39

TC: Total Capacity; **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	Outdoor temperature (˚C)		Indoor temperature (˚C DB)					
			16	18	20	21	22	24
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
12kBtu/h (3.5kW)	-15.00	-14.70	2.40	2.40	2.40	2.40	2.40	2.40
	-13.00	-12.60	2.48	2.48	2.48	2.48	2.48	2.48
	-11.00	-10.50	2.60	2.60	2.60	2.60	2.60	2.60
	-10.00	-9.50	2.72	2.72	2.72	2.72	2.72	2.72
	-9.10	-8.50	2.80	2.80	2.80	2.80	2.80	2.80
	-7.60	-7.00	2.84	2.84	2.84	2.84	2.84	2.84
	-5.60	-5.00	2.96	2.96	2.96	2.96	2.96	2.96
	-3.70	-3.00	3.12	3.12	3.12	3.12	3.12	3.12
	-0.70	0.00	3.36	3.36	3.36	3.36	3.36	3.16
	2.20	3.00	3.56	3.56	3.56	3.56	3.48	3.16
	4.10	5.00	3.68	3.68	3.68	3.68	3.48	3.16
	6.00	7.00	3.80	3.80	3.80	3.68	3.48	3.16
	7.90	9.00	3.92	3.92	3.80	3.68	3.48	3.16
	9.80	11.00	4.04	4.04	3.80	3.68	3.48	3.16
	11.80	13.00	4.20	4.12	3.80	3.68	3.48	3.16
	13.70	15.00	4.32	4.12	3.80	3.68	3.48	3.16
18kBtu/h (5.3kW)	-15.00	-14.70	3.40	3.40	3.40	3.40	3.40	3.40
	-13.00	-12.60	3.52	3.52	3.52	3.52	3.52	3.52
	-11.00	-10.50	3.71	3.71	3.71	3.71	3.71	3.71
	-10.00	-9.50	3.90	3.90	3.90	3.90	3.90	3.90
	-9.10	-8.50	4.03	4.03	4.03	4.03	4.03	4.03
	-7.60	-7.00	4.09	4.09	4.09	4.09	4.09	4.09
	-5.60	-5.00	4.28	4.28	4.28	4.28	4.28	4.28
	-3.70	-3.00	4.53	4.53	4.53	4.53	4.53	4.53

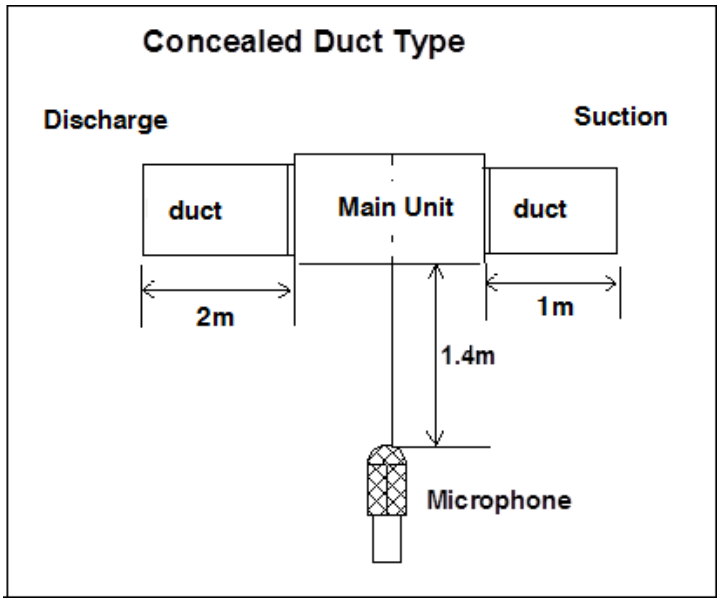
	-0.70	0.00	4.91	4.91	4.91	4.91	4.91	4.59
	2.20	3.00	5.22	5.22	5.22	5.22	5.10	4.59
	4.10	5.00	5.41	5.41	5.41	5.41	5.10	4.59
	6.00	7.00	5.60	5.60	5.60	5.41	5.10	4.59
	7.90	9.00	5.79	5.79	5.60	5.41	5.10	4.59
	9.80	11.00	5.98	5.98	5.60	5.41	5.10	4.59
	11.80	13.00	6.23	6.10	5.60	5.41	5.10	4.59
	13.70	15.00	6.42	6.10	5.60	5.41	5.10	4.59

7. Electric Characteristics

Model	Indoor Unit				Power Supply	IFM
	Hz	Voltage	Min	Max	MFA	kW
CST-07HVR4-A	50	220-240V	198	254	3.15	0.027
CST-09HVR4-A	50	220-240 V	198	254	3.15	0.027
CST-12HVR4-A	50	220-240 V	198	254	3.15	0.027
CST-18HVR4-A	50	220-240 V	198	254	3.15	0.055

Remark:
MFA: Max. fuse amps (A);
IFM: Indoor fan motor

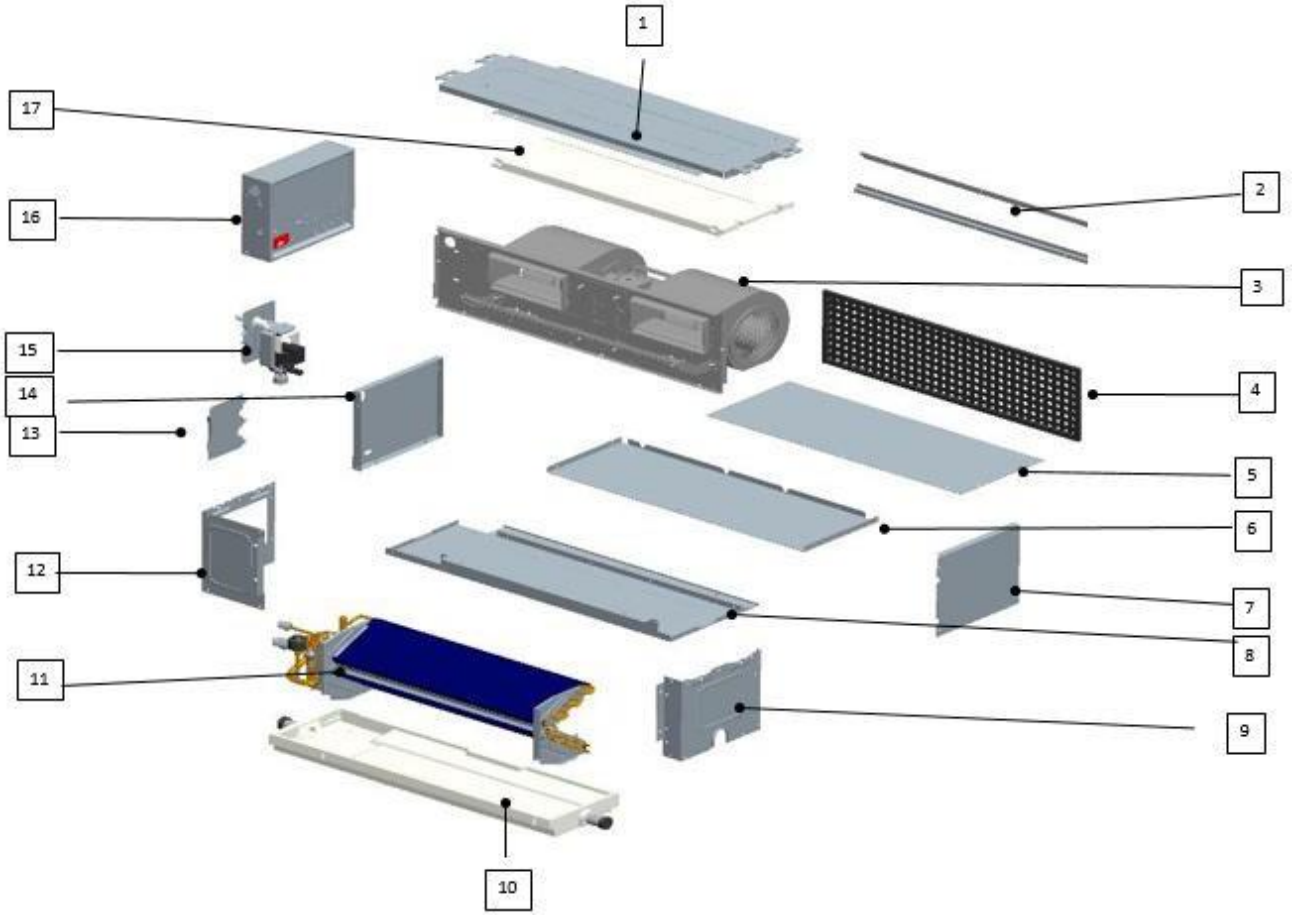
8. Sound Level



Model	Noise leveldB(A)
	High speed
CST-07HVR4-A	30
CST-09HVR4-A	30
CST-12HVR4-A	36
CST-18HVR4-A	32

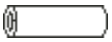
9. Exploded View

CST-07HVR4-A / CST-09HVR4-A / CST-12HVR4-A / CST-18HVR4-A



No.	Part Name	Qty	No.	Part Name	Qty
1	Cover assembly attached cotton	1	11.1.2	Throttle assembly	1
1.1	Hanger	4	11.1.3	Manifold assembly	1
2	Filter baffles	2	11.1.4	Splitter assembly	1
3	Motor assembly	1	11.2	Splitter assembly	2
3.1	Fixing board assy attached cotton for fan	1	11.3	Sheath pipe insulation	1
3.2	Motor bracket	1	11.4	Sheath pipe insulation	1
3.3	Wind scroll case	2	11.5	EXV coil	1
3.4	Biaxial indoor motor	1	12	Left pannel attached cotton assy	1
3.5	Motor bracket connect plate	1	13	Tube cover attached cotton assy	1
3.6	Motor bushings right gland	1	14	Left air return board attached cotton assy	1
3.7	Motor bushings left gland	1	15	water pump assembly	1
4	Fliter	1	15.1	Drainage connecting pipe	1
5	Upper panel of air return box	1	15.2	Pump fixed plate attached cotton assy	1
6	Down panel of air return box	1	15.3	Water Level switch fixed plate	1
7	Right panel of air return box	1	15.4	water pump	1
8	Down panel attached cotton assembly	1	15.5	water lever switch	1
8.1	Down panel attached assembly	1	15.6	Drain pipe	1
8.1.1	Down panel	1	16	Eletronic control components	1
8.1.2	Fixing board assy for fan	1	16.1	Electronically controlled bottom board	1
8.2	Down air outlet cotton	1	16.2	Electric control box cover	1
8.3	Down pannel cotton	1	16.3	Electric control board plastic base	1
9	Right pannel attached cotton assy	1	16.4	Eletronic control board for indoor unit	1
10	Foam water tray	1	16.5	Terminal	1
11	Evaporator assy	1	16.6	Transformer	1
11.1	Evaporator pre-welded assy	1	16.7	Terminal	1
11.1.1	Evaporator	2	17	Upper foam	1

10. Accessories

NO.	NAME	SHAPE	QUANTITY
1	Installation instruction for indoor unit	The manual	1
2	Insulating tube		2
3	Ribbon		6
4	Dome insulated tip		6
5	X-type insulated tip		3
6	Wireless controller		1
7	Connecting pipe of electronic expansion valve		1
8	Connection wire for wired controller		1
9	Blank valve bag		3

11. Troubleshooting

Display with Fault

Definitions of malfunction	Contents appearing
Communication failure of indoor and outdoor unit	E1
T1 sensor fault	E2
T2 sensor fault	E3
T2B sensor fault	E4
Malfunction of outdoor unit	E5
EEPROM malfunction	E7
Wind testing fault of PG Electric motor	E8
Alarming fault of water level switch	EE

Display of LED

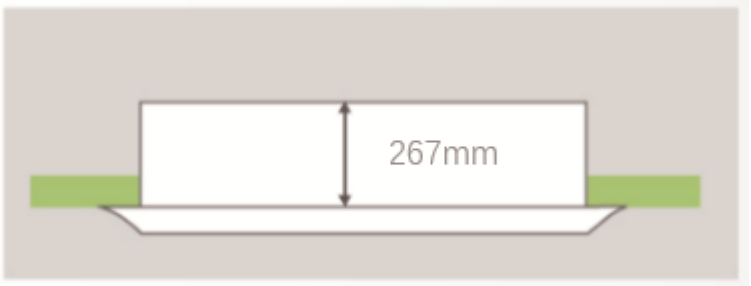
Definitions of malfunction	Contents appearing
Communication failure of indoor and outdoor unit	LED timing light shines quickly
Fault of indoor temperature sensor	LED running shines quickly
Alarming fault of water level	LED alarming light shines quickly
Mode impact fault	LED defrost light shines quickly
Outdoor unit fault	LED alarming light shines slowly
EEPROM malfunction	LED defrost light shines slowly

4-way cassette Type

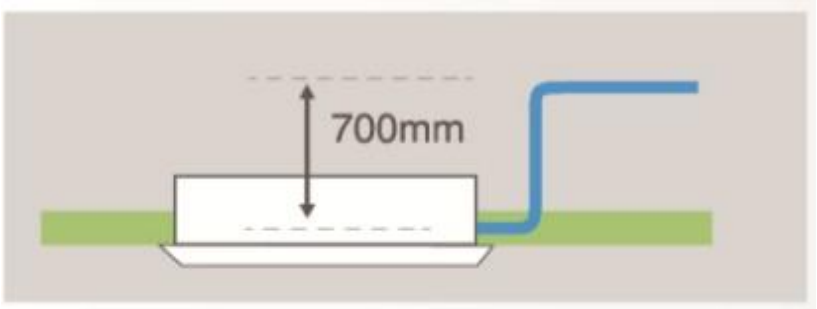
1. Features

New developed panel. Indoor unit. Indoor unit uniform standard panel, simple and convenient.

Ultra-thin body design, the min. height is only 267mm, save installation space.



Built-in water pump,water head up to 700 mm.



High efficiency DC fan motor, low noise and more comfortable. Operate in low frequency and control indoor temperature precisely.

Built in water tray, insulating foam coated by special plastic, preventing the leakage of the condensed water effectively

Standard for wireless controller; option for wired controller.

Standard

optional

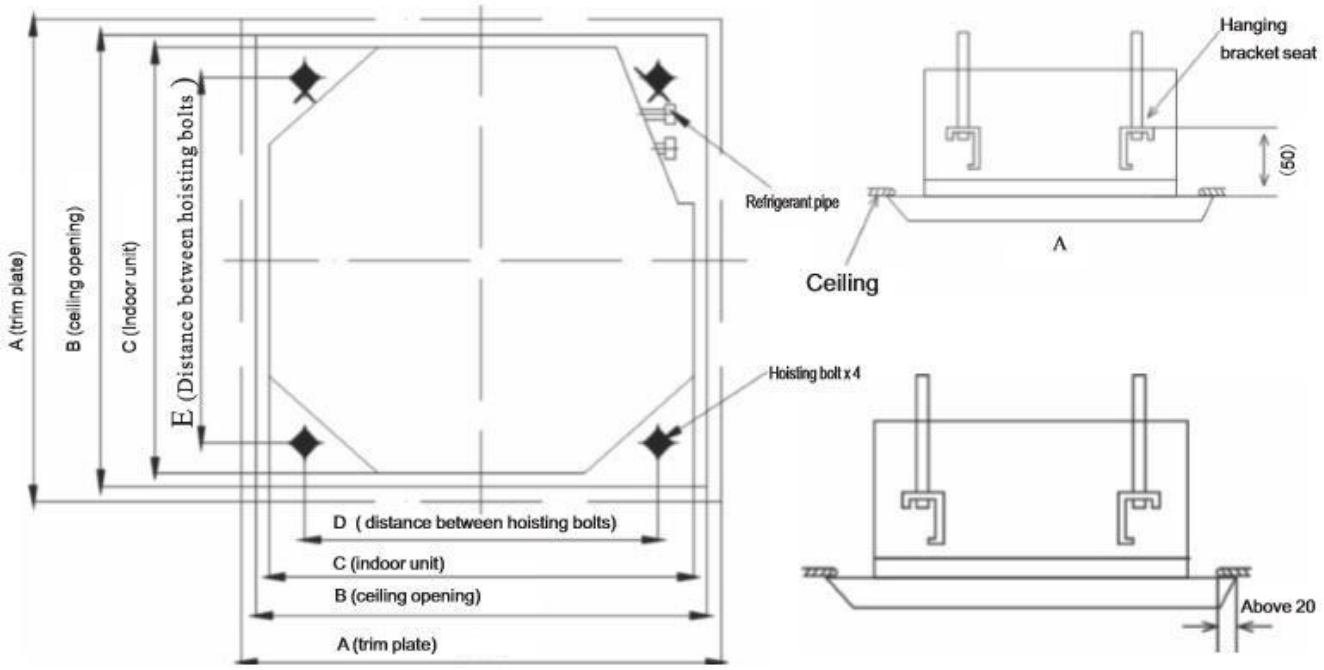
2. Specifications

Model name			CSC-07HVR4-A	CSC-09HVR4-A	CSC-12HVR4-A	CSC-18HVR4-A
Power supply		V-Ph-Hz	220~240/1/50	220~240/1/50	220~240/1/50	220~240/1/50
Electricity supplying type			Outdoor unit supply			
Cooling	Capacity	Btu/h	7000	9000	12000	18000
	Input	W	25	25	26	34
	Rated current	A	0.12	0.12	0.12	0.16
Heating	Capacity	Btu/h	8000	10000	13000	19000
	Input	W	25	25	26	34
	Rated current	A	0.12	0.12	0.12	0.16
Indoor fan motor	Model		DR-310-35Q-8-1	DR-310-35Q-8-1	DR-310-35Q-8-1	DR-310-35Q-8-1
	Type		DC	DC	DC	DC
	Input	W	21/16/12	21/16/12	23/18/13	30/24/18
	Speed (H/M/L)	r/min	670/590/500	670/590/500	690/610/520	790/740/610
Indoor coil	Number of rows		2	2	2	2
	Tube pitch× row pitch	mm	21×13.37	21×13.37	21×13.37	21×13.37
	Fin spacing	mm	1.4	1.4	1.4	1.4
	Fin type		Hydrophilic	Hydrophilic	Hydrophilic	Hydrophilic
	Tube outside diameter	mm	Φ7	Φ7	Φ7	Φ7
	Tube type		Inner screw	Inner screw	Inner screw	Inner screw
	Coil size (W×D×H)	mm	1313×26.74×210	1313×26.74×210	1313×26.74×210	1313×26.74×210
	Number of circuits		4	4	4	4
Indoor air flow (H/M/L)		m^3/h	540/490/410	540/490/410	690/610/520	790/710/610
Indoor noise level(H)		dB(A)	39/36/33	39/36/33	40/37/34	44/41/38
Indoor unit	Net Dimension (W×H ×D)	Body(mm)	565×267×565	565×267×565	565×267×565	565×267×565
		Panel(mm)	650×30×650	650×30×650	650×30×650	650×30×650
	PackingDimension(W×H×D)	Body(mm)	745×375×675	745×375×675	745×375×675	745×375×675
		Panel(mm)	750×95×750	750×95×750	750×95×750	750×95×750
	Net/Gross weight	Body(kg)	16.5/22	16.5/22	16.5/22	16.5/22
		Panel(kg)	2.7/4.0	2.7/4.0	2.7/4.0	2.7/4.0
Refrigerant Type			R32	R32	R32	R32
Refrigerant pipe (Liquid side/ Gas side)		mm	Φ6.35/Φ9.52	Φ6.35/Φ9.52	Φ6.35/Φ9.52	Φ6.35/Φ12.7
Drainage water pipe diameter		mm	DN25	DN25	DN25	DN25
Controller(standard)			Remote controller	Remote controller	Remote controller	Remote controller
Application area		m^2	10~15	12~18	16~23	23~34

Notes:

1. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB outdoor side 35°C(95°F) DB.
2. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)DB.
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
4. The above data may be changed without notice for future improvement on quality and performance.

3. Dimensions

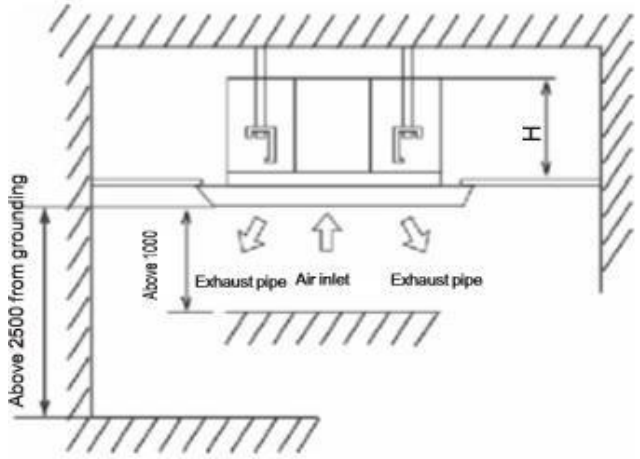


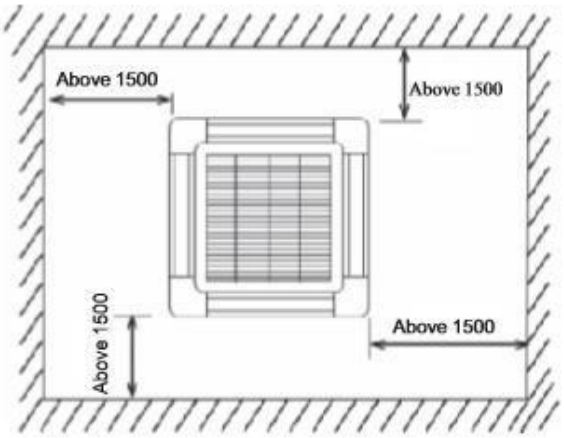
Unit: mm

Model	Size				
	A	B	C	D	E
7K/9K/12K/18K	650	610	565	528	528

4. Service Space

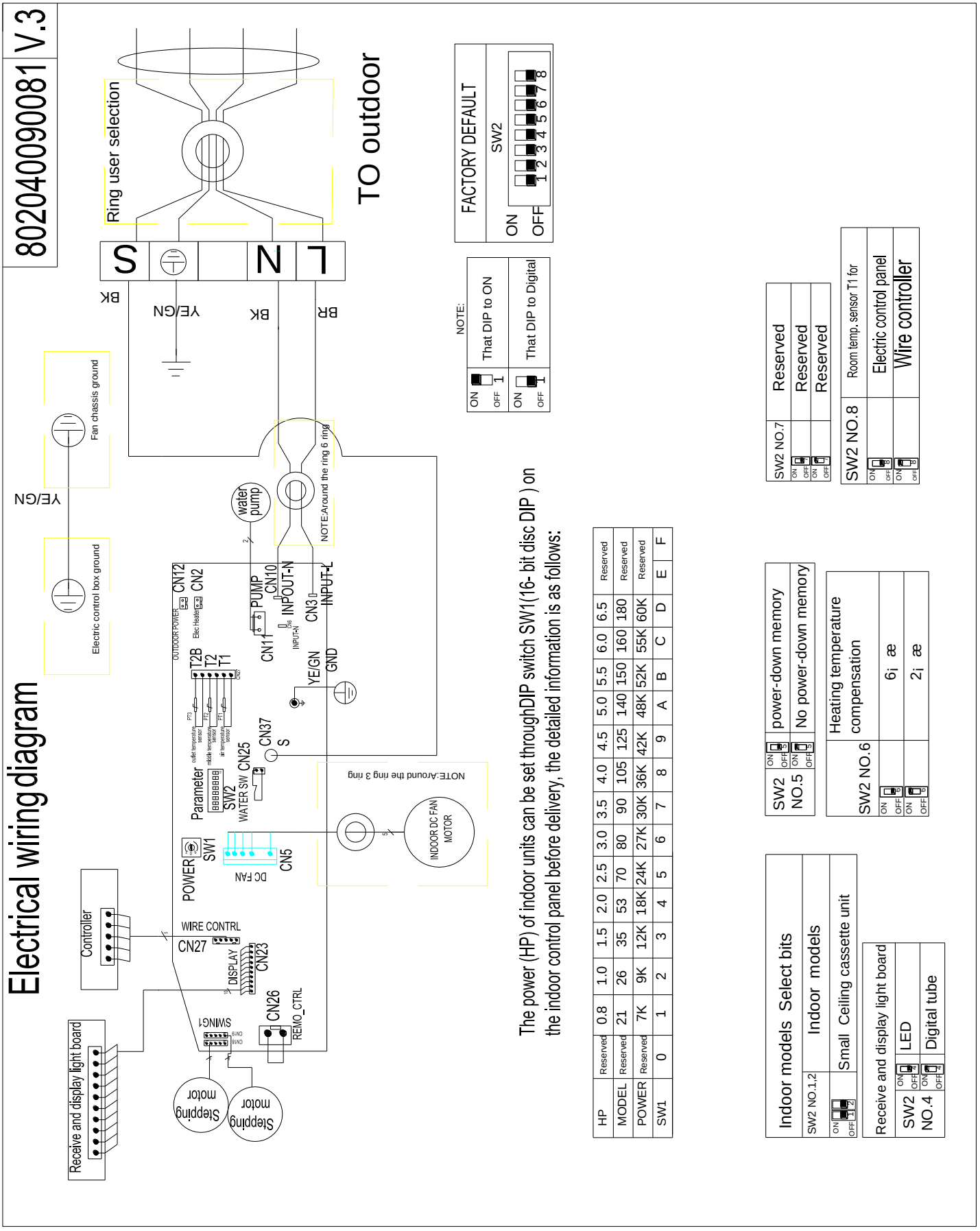
Ensure enough space required for installation and maintenance.





Model	Machine body height(H)
7K/9K/12K/18K	267

5. Wiring diagram



The power (HP) of indoor units can be set throughDIP switch SW1(16- bit disc DIP) on the indoor control panel before delivery, the detailed information is as follows:

HP	Reserved	0.8	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	Reserved
MODEL	Reserved	21	26	35	53	70	80	90	105	125	140	150	160	180	Reserved
POWER	Reserved	7K	9K	12K	18K	24K	27K	30K	36K	42K	48K	52K	55K	60K	Reserved
SW1	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

6. Capacity Table

Cooling

TC: Total Capacity; **SC**: Sensible Capacity **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	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
07kBtu/h (2.1kW)	10	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.46	1.72	2.57	1.54
	12	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.46	1.72	2.54	1.53
	14	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.44	1.71	2.52	1.52
	16	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.42	1.69	2.50	1.50
	18	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.40	1.68	2.47	1.49
	20	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.37	1.66	2.45	1.47
	21	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.35	1.65	2.42	1.46
	23	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.70	2.33	1.63	2.40	1.45
	25	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.30	1.68	2.30	1.61	2.38	1.43
	27	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.27	1.67	2.28	1.60	2.35	1.42
	29	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.25	1.65	2.26	1.58	2.33	1.41
	31	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.23	1.63	2.24	1.57	2.31	1.39
	33	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.21	1.60	2.21	1.55	2.28	1.38
	35	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.60	2.17	1.59	2.19	1.54	2.26	1.36
	37	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.59	2.14	1.55	2.17	1.51	2.21	1.34
	39	1.42	1.27	1.70	1.34	1.97	1.60	2.10	1.58	2.12	1.54	2.14	1.49	2.19	1.32
09kBtu/h (2.6kW)	10	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.96	2.22	3.07	2.04
	12	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.96	2.22	3.04	2.03
	14	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.94	2.21	3.02	2.02
	16	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.92	2.19	3.00	2.00

	18	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.90	2.18	2.97	1.99
	20	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.87	2.16	2.95	1.97
	21	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.85	2.15	2.92	1.96
	23	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.20	2.83	2.13	2.90	1.95
	25	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.80	2.18	2.80	2.11	2.88	1.93
	27	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.77	2.17	2.78	2.10	2.85	1.92
	29	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.75	2.15	2.76	2.08	2.83	1.91
	31	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.73	2.13	2.74	2.07	2.81	1.89
	33	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.71	2.10	2.71	2.05	2.78	1.88
	35	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.10	2.67	2.09	2.69	2.04	2.76	1.86
	37	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.09	2.64	2.05	2.67	2.01	2.71	1.84
	39	1.92	1.77	2.20	1.84	2.47	2.10	2.60	2.08	2.62	2.04	2.64	1.99	2.69	1.82

TC: Total Capacity; **SC**: Sensible Capacity **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	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
12kBtu/h (3.5kW)	10	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	4.10	2.83	4.26	2.54
	12	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	4.10	2.83	4.22	2.52
	14	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	4.06	2.81	4.19	2.49
	16	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	4.02	2.78	4.15	2.47
	18	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	3.98	2.76	4.11	2.45
	20	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	3.95	2.73	4.07	2.43
	21	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	3.91	2.71	4.03	2.40
	23	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.79	3.87	2.68	3.99	2.38
	25	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.82	2.77	3.83	2.65	3.95	2.36
	27	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.78	2.74	3.80	2.63	3.91	2.34
	29	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.75	2.71	3.76	2.60	3.88	2.31
	31	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.71	2.69	3.72	2.58	3.84	2.29
	33	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.67	2.64	3.68	2.55	3.80	2.27
	35	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.62	3.62	2.61	3.65	2.53	3.76	2.24
	37	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.61	3.56	2.56	3.61	2.48	3.68	2.20
	39	2.39	2.15	2.84	2.25	3.29	2.62	3.50	2.59	3.54	2.53	3.57	2.45	3.64	2.18
18kBtu/h (5.3kW)	10	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	6.04	4.37	6.25	4.00
	12	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	6.04	4.37	6.21	3.97
	14	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	6.00	4.33	6.16	3.94
	16	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	5.95	4.30	6.11	3.91
	18	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	5.90	4.27	6.06	3.89
	20	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	5.86	4.24	6.01	3.86
	21	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	5.81	4.21	5.96	3.83
	23	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.32	5.76	4.17	5.91	3.80

	25	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.70	4.28	5.72	4.14	5.87	3.77
	27	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.65	4.25	5.67	4.11	5.82	3.74
	29	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.61	4.22	5.62	4.08	5.77	3.72
	31	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.56	4.18	5.58	4.05	5.72	3.69
	33	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.52	4.12	5.53	4.02	5.67	3.66
	35	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.10	5.45	4.09	5.48	3.98	5.63	3.63
	37	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.09	5.38	4.02	5.44	3.92	5.53	3.57
	39	3.92	3.61	4.48	3.74	5.04	4.10	5.30	4.07	5.34	3.99	5.39	3.99	5.48	3.55

Heating

TC: Total Capacity; **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	Outdoor temperature (˚C)		Indoor temperature (˚C DB)					
			16	18	20	21	22	24
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
07kBtu/h (2.1kW)	-15.00	-14.70	1.46	1.46	1.46	1.46	1.46	1.46
	-13.00	-12.60	1.56	1.56	1.56	1.56	1.56	1.56
	-11.00	-10.50	1.58	1.60	1.60	1.60	1.60	1.60
	-10.00	-9.50	1.65	1.65	1.65	1.65	1.65	1.65
	-9.10	-8.50	1.70	1.70	1.70	1.70	1.70	1.70
	-7.60	-7.00	1.72	1.72	1.72	1.72	1.72	1.72
	-5.60	-5.00	1.80	1.80	1.80	1.80	1.80	1.80
	-3.70	-3.00	1.89	1.89	1.89	1.89	1.89	1.89
	-0.70	0.00	2.04	2.04	2.04	2.04	2.04	1.92
	2.20	3.00	2.16	2.16	2.16	2.16	2.11	1.92
	4.10	5.00	2.30	2.40	2.40	2.30	2.11	1.92
	6.00	7.00	2.40	2.40	2.40	2.30	2.11	1.92
	7.90	9.00	2.47	2.47	2.40	2.30	2.11	1.92
	9.80	11.00	2.54	2.54	2.40	2.30	2.11	1.92
	11.80	13.00	2.64	2.59	2.40	2.30	2.11	1.92
	13.70	15.00	2.71	2.59	2.40	2.30	2.11	1.92
09kBtu/h (2.6kW)	-15.00	-14.70	1.72	1.72	1.72	1.72	1.72	1.72
	-13.00	-12.60	1.84	1.84	1.84	1.84	1.84	1.84
	-11.00	-10.50	1.94	1.94	1.94	1.94	1.94	1.94
	-10.00	-9.50	2.04	2.04	2.04	2.04	2.04	2.04
	-9.10	-8.50	2.10	2.10	2.10	2.10	2.10	2.10
	-7.60	-7.00	2.13	2.13	2.13	2.13	2.13	2.13
	-5.60	-5.00	2.23	2.23	2.23	2.23	2.23	2.23

	-3.70	-3.00	2.36	2.36	2.36	2.36	2.36	2.36
	-0.70	0.00	2.55	2.55	2.55	2.55	2.55	2.39
	2.20	3.00	2.71	2.71	2.71	2.71	2.64	2.39
	4.10	5.00	2.80	2.80	2.80	2.80	2.64	2.39
	6.00	7.00	2.90	2.90	2.90	2.80	2.64	2.39
	7.90	9.00	3.00	3.00	2.90	2.80	2.64	2.39
	9.80	11.00	3.09	3.09	2.90	2.80	2.64	2.39
	11.80	13.00	3.22	3.16	2.90	2.80	2.64	2.39
	13.70	15.00	3.32	3.16	2.90	2.80	2.64	2.39

TC: Total Capacity; **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	Outdoor temperature (˚C)		Indoor temperature (˚C DB)					
			16	18	20	21	22	24
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
12kBtu/h (3.5kW)	-15.00	-14.70	2.40	2.40	2.40	2.40	2.40	2.40
	-13.00	-12.60	2.48	2.48	2.48	2.48	2.48	2.48
	-11.00	-10.50	2.60	2.60	2.60	2.60	2.60	2.60
	-10.00	-9.50	2.72	2.72	2.72	2.72	2.72	2.72
	-9.10	-8.50	2.80	2.80	2.80	2.80	2.80	2.80
	-7.60	-7.00	2.84	2.84	2.84	2.84	2.84	2.84
	-5.60	-5.00	2.96	2.96	2.96	2.96	2.96	2.96
	-3.70	-3.00	3.12	3.12	3.12	3.12	3.12	3.12
	-0.70	0.00	3.36	3.36	3.36	3.36	3.36	3.16
	2.20	3.00	3.56	3.56	3.56	3.56	3.48	3.16
	4.10	5.00	3.68	3.68	3.68	3.68	3.48	3.16
	6.00	7.00	3.80	3.80	3.80	3.68	3.48	3.16
	7.90	9.00	3.92	3.92	3.80	3.68	3.48	3.16
	9.80	11.00	4.04	4.04	3.80	3.68	3.48	3.16
	11.80	13.00	4.20	4.12	3.80	3.68	3.48	3.16
	13.70	15.00	4.32	4.12	3.80	3.68	3.48	3.16
18kBtu/h (5.3kW)	-15.00	-14.70	3.85	3.85	3.85	3.85	3.85	3.85
	-13.00	-12.60	3.95	3.95	3.95	3.95	3.95	3.95
	-11.00	-10.50	4.10	4.10	4.10	4.10	4.10	4.10
	-10.00	-9.50	4.15	4.15	4.15	4.15	4.15	4.15
	-9.10	-8.50	4.35	4.35	4.35	4.35	4.35	4.35
	-7.60	-7.00	4.40	4.40	4.40	4.40	4.40	4.40
	-5.60	-5.00	4.55	4.55	4.55	4.55	4.55	4.55
	-3.70	-3.00	4.75	4.75	4.75	4.75	4.75	4.75

	-0.70	0.00	5.05	5.05	5.05	5.05	5.05	4.80
	2.20	3.00	5.30	5.30	5.30	5.30	5.20	4.80
	4.10	5.00	5.45	5.45	5.45	5.45	5.20	4.80
	6.00	7.00	5.60	5.60	5.60	5.45	5.20	4.80
	7.90	9.00	5.75	5.75	5.60	5.45	5.20	4.80
	9.80	11.00	5.90	5.90	5.60	5.45	5.20	4.80
	11.80	13.00	6.10	6.00	5.60	5.45	5.20	4.80
	13.70	15.00	6.25	6.00	5.60	5.45	5.20	4.80

7. Electric Characteristics

Model	Indoor Unit				Power Supply	IFM
	Hz	Voltage	Min	Max	MFA	kW
CSC-07HVR4-A	50	220-240V	198	254	3.15	0.035
CSC-09HVR4-A	50	220-240 V	198	254	3.15	0.035
CSC-12HVR4-A	50	220-240 V	198	254	3.15	0.035
CSC-18HVR4-A	50	220-240 V	198	254	3.15	0.035

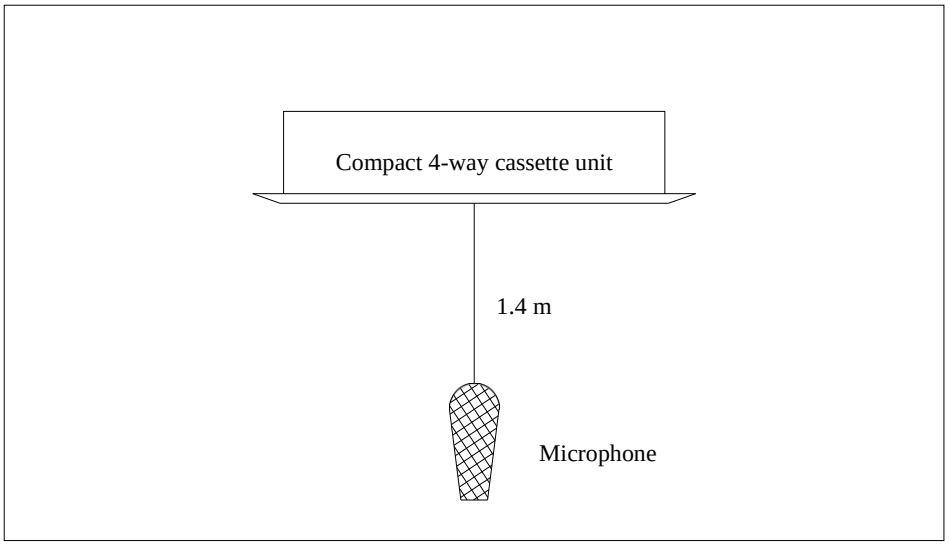
Remark:

MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (kW)

IFM: Indoor Fan Motor

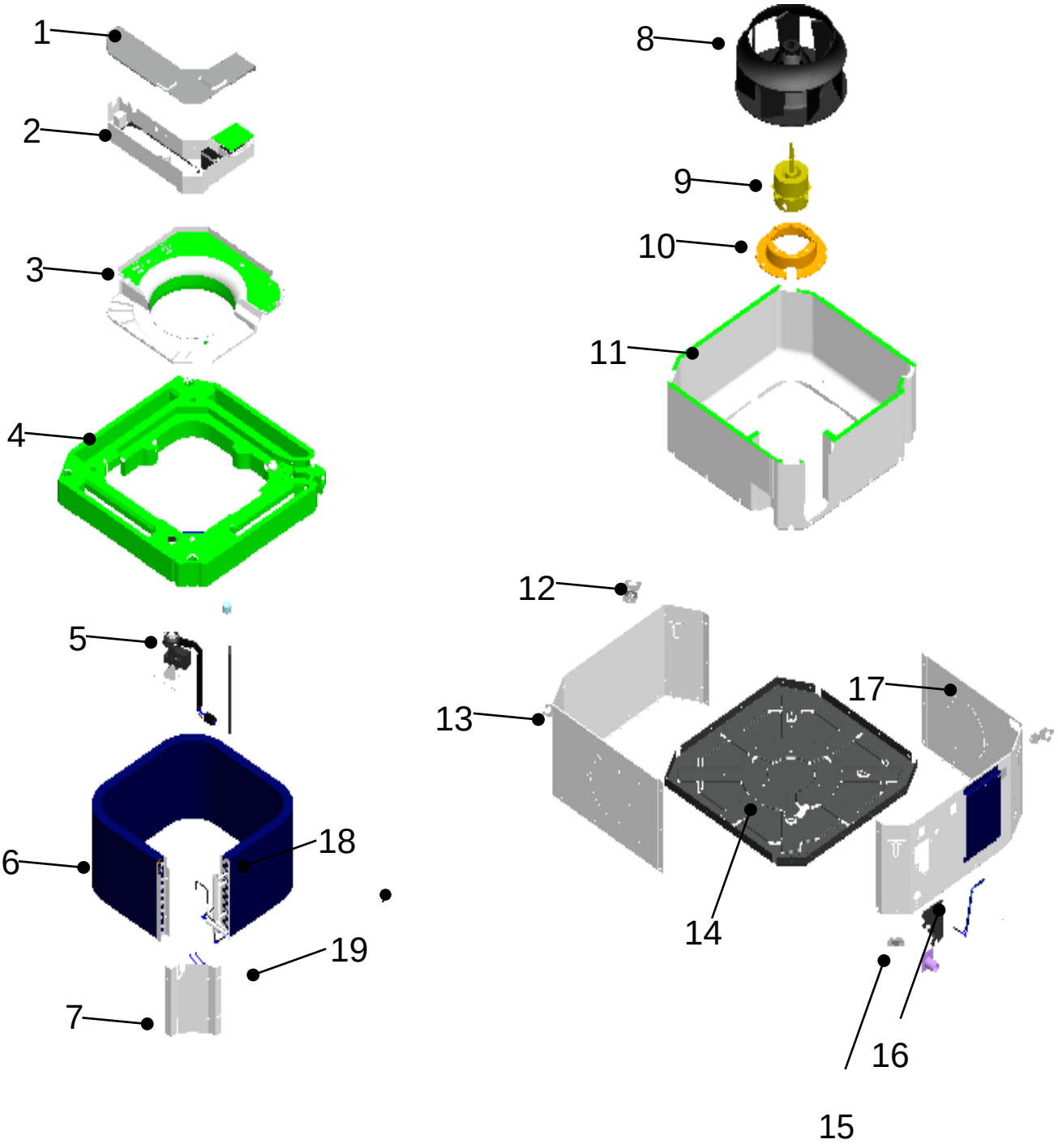
8. Sound Level



Model	Noise leveldB(A)
	High speed
CSC-07HVR4-A	39
CSC-09HVR4-A	39
CSC-12HVR4-A	40
CSC-18HVR4-A	44

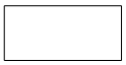
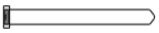
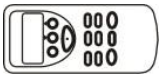
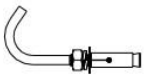
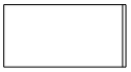
9. Exploded view

CSC-07HVR4-A / CSC-09HVR4-A / CSC-12HVR4-A / CSC-18HVR4-A



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

10. Accessories

NO.	NAME	SHAPE	QUANTITY
1	Insulating tube		2
2	Large-sized heat insulating mattress		1
3	Ribbon		10
4	Dome insulated tip		6
5	X-type insulated tip		3
6	Remote controller		1
7	Battery		2
8	Screw configuration		4
9	Hoop		2
10	Drain pipe		1
11	Expandable screw		4
12	Blank valve bag		4

11. Troubleshooting

Display with Fault

Definitions of malfunction	Contents appearing
Communication failure of indoor and outdoor unit	E1
T1 sensor fault	E2
T2 sensor fault	E3
T2B sensor fault	E4
Malfunction of outdoor unit	E5
EEPROM malfunction	E7
Wind testing fault of PG Electric motor	E8
Alarming fault of water level switch	EE
Indoor unit and wired controller communication failure	E9

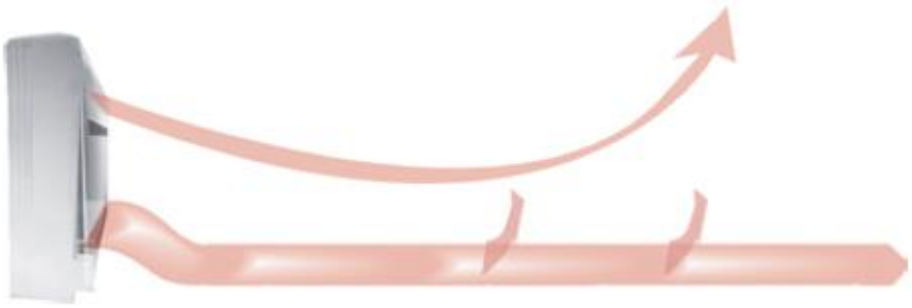
Display of LED

Definitions of malfunction	Contents appearing
Communication failure of indoor and outdoor unit	LED timing light shines quickly
Fault of indoor temperature sensor	LED running shines quickly
Alarming fault of water level	LED alarming light shines quickly
Mode impact fault	LED defrost light shines quickly
Outdoor unit fault	LED alarming light shines slowly
EEPROM malfunction	LED defrost light shines slowly

Console Type

1. Features

Console adopts upper and lower dual air supply design, the lower air outlet port uses the principle of adherent flow to achieve hot air covering the entire room along the ground, and the upper air outlet perfects the airflow organization to achieve rapid temperature control. Indoor comfort is comparable to floor heating, but the heating efficiency is far better than floor heating equipment.

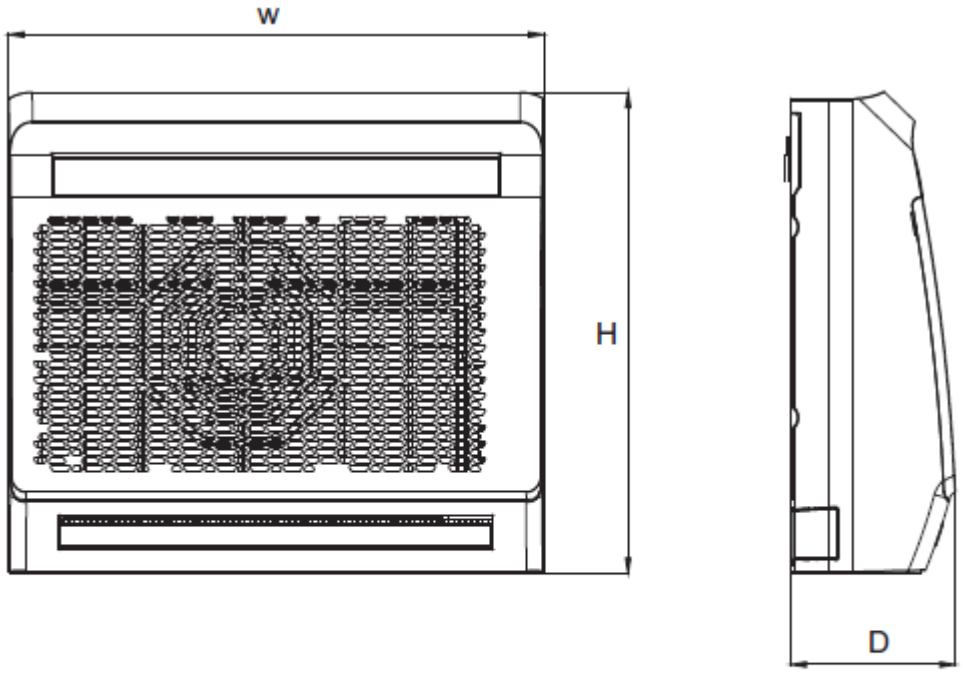


After repeatedly optimizing the air outlet panel and air guide strip of the console, the air supply angle of the upper air outlet reaches 60。, covering the entire room easily. Compared with the traditional wall-mounted unit, the console is equipped with a DC motor fan with a larger fan blade area and higher air output efficiency. On the basis of almost unchanged energy consumption, the air volume and air supply range are greatly increased.

2. Specifications

Console IDU			CZA-09HVR4	CZA-12HVR4	CZA-18HVR4
Power supply		V/ph/Hz	220~240/1/50	220~240/1/50	220~240/1/50
Capacity					
Cooling	Capacity	Btu/h	4500~9000~9900	6000~12000~13200	9000~18000~19800
		kW	1.3~2.6~2.9	1.76~3.5~3.87	2.64~5.3~5.80
	Input	W	35~40~45	35~40~45	40~45~50
	Rated current	A	0.20	0.20	0.22
Heating	Capacity	Btu/h	5000~10000~11000	6500~13000~14300	9500~19000~20900
		kW	1.5~2.9~3.2	1.91~3.8~4.19	2.78~5.6~6.13
	Input	W	35~40~45	35~40~45	40~45~50
	Rated current	A	0.20	0.20	0.22
Physical data					
Fan motor	Model		DR-310-30N-8	DR-310-30N-8	DR-310-30N-8
	Type		DC	DC	DC
	Input	W	38	38	43
	Speed(H/M/L)	r/min	600/570/500	650/600/570	700/650/600
Indoor coil	Number of rows		2	2	2
	Tube pitch(a)xrow pitch(b)	mm	21×13.37	21×13.37	21×13.37
	Fin type		Hydrophilic	Hydrophilic	Hydrophilic
	Fin spacing	mm	1.4	1.4	1.4
	Tube outside dia. and type	mm	7	7	7
			Inner screw	Inner screw	Inner screw
	Coil size (W*D*H)	mm	552*26.74*378	552*26.74*378	552*26.74*378
	Number of circuits		3	3	3
Indoor air flow(Hi/Mi/Lo)		m^3/h	520/480/420	560/520/480	610/560/520
Indoor noise(Hi/Mi/Lo)		dB(A)	39/37/35	41/39/37	43/41/39
Sound power noise level （Hi/Mi/Lo）		dB(A)	50/48/46	52/50/48	54/52/50
Net dimension(W×H×D)		mm	700×630×215	700×630×215	700×630×215
packing dimension(W×H×D)		mm	790×700×275	790×700×275	790×700×275
Net/Gross weight		kg	15/18	15/18	15/18
Piping data					
Liquid/Gas		mm	6.35/9.52	6.35/9.52	6.35/12.7
Drainage pipe		mm	DN25	DN25	DN25
Application area		m^2	12~18	16~23	23~34
Deumidication		kg/h	0.6	0.84	1.27

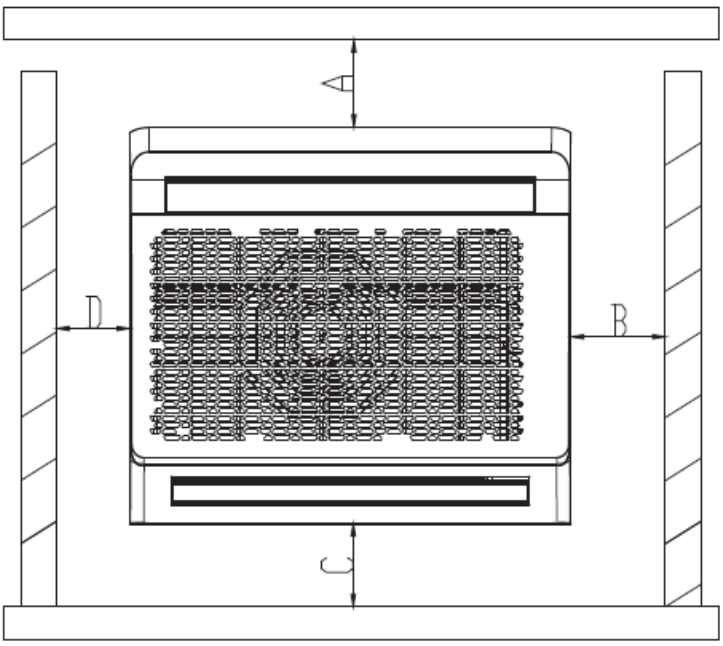
3. Dimensions



INDOOR UNIT DIMENSIONS Inches(mm)

Model	Size		
	W	D	H
9K\12K\18K	27.6(700)	8.5(215)	24.8(630)

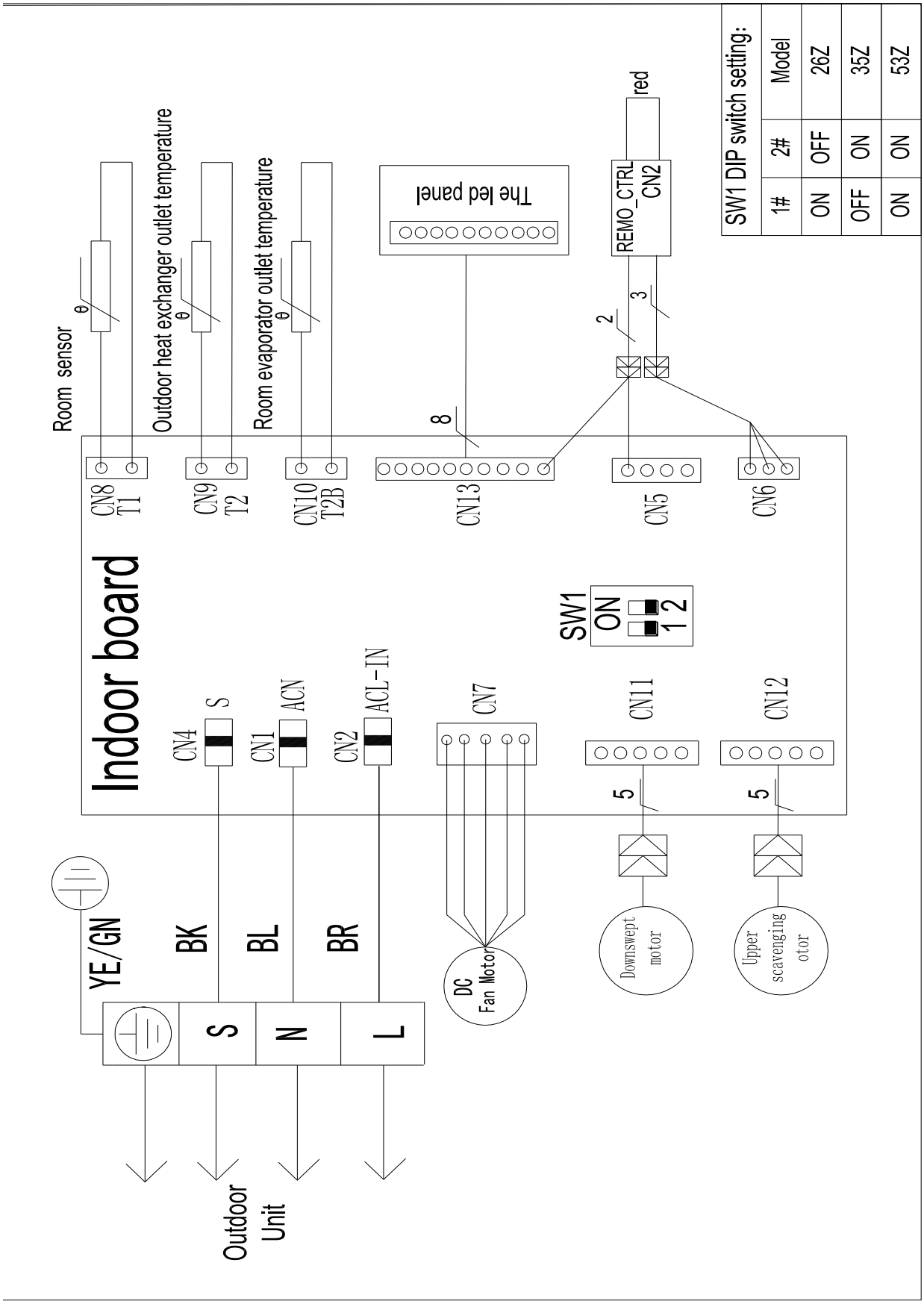
4. Service space



MINIMUM INDOOR CLEARANCE (mm)

A	B	C	D
1524	610	152	610

5. Wiring diagram



6. Capacity table

Cooling mode

TC: Total Capacity; **SC**: Sensible Capacity **WB**: Wet-bulb temp. **DB**: Dry-bulb temp.

Indoor Unit size	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
09kBtu/h (2.6kW)	10	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.96	2.22	3.07	2.04
	12	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.96	2.22	3.04	2.03
	14	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.94	2.21	3.02	2.02
	16	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.92	2.19	3	2
	18	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.9	2.18	2.97	1.99
	20	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.87	2.16	2.95	1.97
	21	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.85	2.15	2.92	1.96
	23	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.2	2.83	2.13	2.9	1.95
	25	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.8	2.18	2.8	2.11	2.88	1.93
	27	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.77	2.17	2.78	2.1	2.85	1.92
	29	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.75	2.15	2.76	2.08	2.83	1.91
	31	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.73	2.13	2.74	2.07	2.81	1.89
	33	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.71	2.1	2.71	2.05	2.78	1.88
	35	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.1	2.67	2.09	2.69	2.04	2.76	1.86
	37	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.09	2.64	2.05	2.67	2.01	2.71	1.84
	39	1.92	1.77	2.2	1.84	2.47	2.1	2.6	2.08	2.62	2.04	2.64	1.99	2.69	1.82
12kBtu/h (3.5kW)	10	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	4.1	2.83	4.26	2.54
	12	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	4.1	2.83	4.22	2.52
	14	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	4.06	2.81	4.19	2.49
	16	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	4.02	2.78	4.15	2.47
	18	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	3.98	2.76	4.11	2.45
	20	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	3.95	2.73	4.07	2.43
	21	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	3.91	2.71	4.03	2.4
	23	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.79	3.87	2.68	3.99	2.38
	25	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.82	2.77	3.83	2.65	3.95	2.36
	27	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.78	2.74	3.8	2.63	3.91	2.34
	29	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.75	2.71	3.76	2.6	3.88	2.31
	31	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.71	2.69	3.72	2.58	3.84	2.29
	33	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.67	2.64	3.68	2.55	3.8	2.27
	35	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.62	3.62	2.61	3.65	2.53	3.76	2.24
	37	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.61	3.56	2.56	3.61	2.48	3.68	2.2
	39	2.39	2.15	2.84	2.25	3.29	2.62	3.5	2.59	3.54	2.53	3.57	2.45	3.64	2.18
18kBtu/h (5.3kW)	10	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	6.04	4.37	6.25	4
	12	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	6.04	4.37	6.21	3.97
	14	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	6	4.33	6.16	3.94
	16	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	5.95	4.3	6.11	3.91
	18	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	5.9	4.27	6.06	3.89
	20	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	5.86	4.24	6.01	3.86
	21	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	5.81	4.21	5.96	3.83

	23	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.32	5.76	4.17	5.91	3.8
	25	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.7	4.28	5.72	4.14	5.87	3.77
	27	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.65	4.25	5.67	4.11	5.82	3.74
	29	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.61	4.22	5.62	4.08	5.77	3.72
	31	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.56	4.18	5.58	4.05	5.72	3.69
	33	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.52	4.12	5.53	4.02	5.67	3.66
	35	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.1	5.45	4.09	5.48	3.98	5.63	3.63
	37	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.09	5.38	4.02	5.44	3.92	5.53	3.57
	39	3.92	3.61	4.48	3.74	5.04	4.1	5.3	4.07	5.34	3.99	5.39	3.99	5.48	3.55

Heating mode

Indoor Unit size	Outdoor temperature (˚C)		Indoor temperature (˚C DB)					
			16	18	20	21	22	24
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
09kBtu/h (2.6kW)	-15	-14.7	1.72	1.72	1.72	1.72	1.72	1.72
	-13	-12.6	1.84	1.84	1.84	1.84	1.84	1.84
	-11	-10.5	1.94	1.94	1.94	1.94	1.94	1.94
	-10	-9.5	2.04	2.04	2.04	2.04	2.04	2.04
	-9.1	-8.5	2.1	2.1	2.1	2.1	2.1	2.1
	-7.6	-7	2.13	2.13	2.13	2.13	2.13	2.13
	-5.6	-5	2.23	2.23	2.23	2.23	2.23	2.23
	-3.7	-3	2.36	2.36	2.36	2.36	2.36	2.36
	-0.7	0	2.55	2.55	2.55	2.55	2.55	2.39
	2.2	3	2.71	2.71	2.71	2.71	2.64	2.39
	4.1	5	2.8	2.8	2.8	2.8	2.64	2.39
	6	7	2.9	2.9	2.9	2.8	2.64	2.39
	7.9	9	3	3	2.9	2.8	2.64	2.39
	9.8	11	3.09	3.09	2.9	2.8	2.64	2.39
	11.8	13	3.22	3.16	2.9	2.8	2.64	2.39
	13.7	15	3.32	3.16	2.9	2.8	2.64	2.39
12kBtu/h (3.5kW)	-15	-14.7	2.4	2.4	2.4	2.4	2.4	2.4
	-13	-12.6	2.48	2.48	2.48	2.48	2.48	2.48
	-11	-10.5	2.6	2.6	2.6	2.6	2.6	2.6
	-10	-9.5	2.72	2.72	2.72	2.72	2.72	2.72
	-9.1	-8.5	2.8	2.8	2.8	2.8	2.8	2.8
	-7.6	-7	2.84	2.84	2.84	2.84	2.84	2.84
	-5.6	-5	2.96	2.96	2.96	2.96	2.96	2.96
	-3.7	-3	3.12	3.12	3.12	3.12	3.12	3.12
	-0.7	0	3.36	3.36	3.36	3.36	3.36	3.16
	2.2	3	3.56	3.56	3.56	3.56	3.48	3.16
	4.1	5	3.68	3.68	3.68	3.68	3.48	3.16
	6	7	3.8	3.8	3.8	3.68	3.48	3.16
	7.9	9	3.92	3.92	3.8	3.68	3.48	3.16
	9.8	11	4.04	4.04	3.8	3.68	3.48	3.16
	11.8	13	4.2	4.12	3.8	3.68	3.48	3.16
	13.7	15	4.32	4.12	3.8	3.68	3.48	3.16

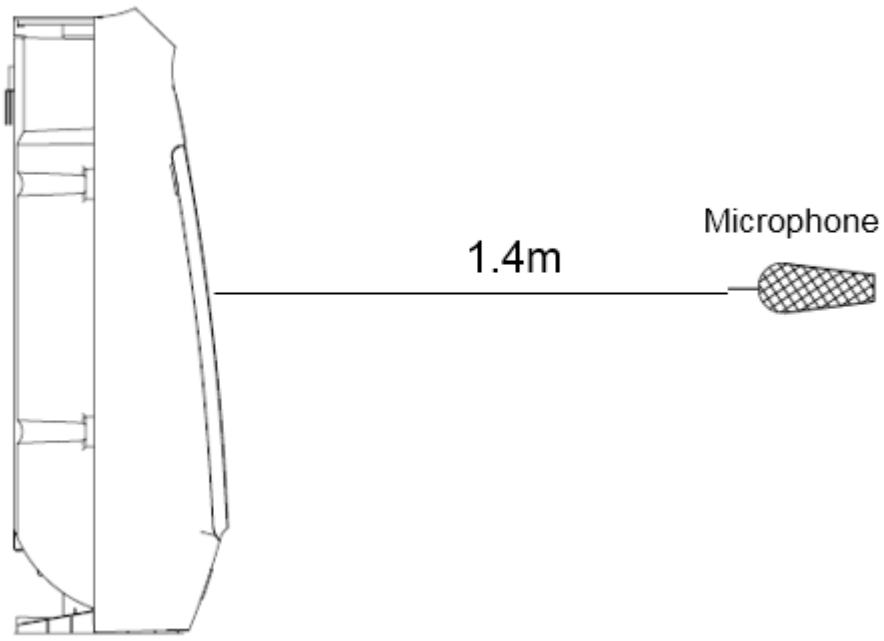
18kBtu/h (5.3kW)	-15	-14.7	3.85	3.85	3.85	3.85	3.85	3.85
	-13	-12.6	3.95	3.95	3.95	3.95	3.95	3.95
	-11	-10.5	4.1	4.1	4.1	4.1	4.1	4.1
	-10	-9.5	4.15	4.15	4.15	4.15	4.15	4.15
	-9.1	-8.5	4.35	4.35	4.35	4.35	4.35	4.35
	-7.6	-7	4.4	4.4	4.4	4.4	4.4	4.4
	-5.6	-5	4.55	4.55	4.55	4.55	4.55	4.55
	-3.7	-3	4.75	4.75	4.75	4.75	4.75	4.75
	-0.7	0	5.05	5.05	5.05	5.05	5.05	4.8
	2.2	3	5.3	5.3	5.3	5.3	5.2	4.8
	4.1	5	5.45	5.45	5.45	5.45	5.2	4.8
	6	7	5.6	5.6	5.6	5.45	5.2	4.8
	7.9	9	5.75	5.75	5.6	5.45	5.2	4.8
	9.8	11	5.9	5.9	5.6	5.45	5.2	4.8
	11.8	13	6.1	6	5.6	5.45	5.2	4.8
	13.7	15	6.25	6	5.6	5.45	5.2	4.8

7. Electric Characteristics

Model	Indoor Unit				Power Supply	IFM
	Hz	Voltage	Min	Max	MFA	kW
CZA-09HVR4-A	50	220-240 V	198	254	3.15	0.038
CZA-12HVR4-A	50	220-240 V	198	254	3.15	0.038
CZA-18HVR4-A	50	220-240 V	198	254	3.15	0.043

Remark:
MFA: MFA: Max. fuse amps (A);
IFM: Indoor fan motor

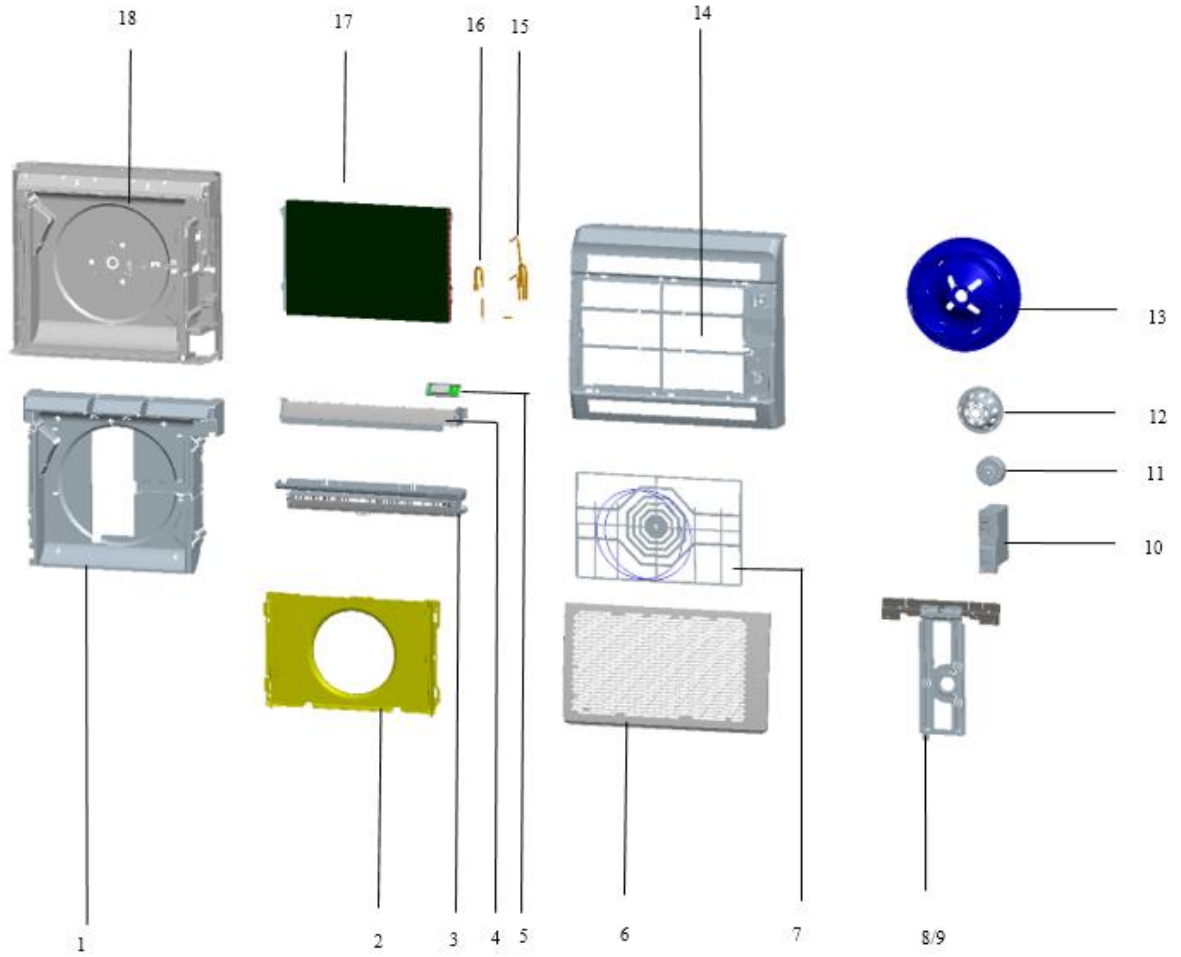
8. Sound level



Model	Noise leveldB(A)
	High speed
CZA-09HVR4-A	39
CZA-12HVR4-A	41
CZA-18HVR4-A	43

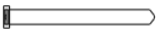
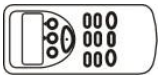
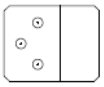
9. Explode view

CZA-09HVR4, CZA-12HVR4, CZA-18HVR4



No.	Part Name	Quantity	No.	Part Name	Quantity
1	Foam insulation	1	10	EC box assy	1
2	Air guide ring	1	11	DC fan motor	1
3	Water pan assy	1	12	fan motor support	1
4	Upper wind-casing	1	13	centrifugal fan	1
5	Display box assy	1	14	Frame with cotton assy	1
6	Air inlet panel	1	15	Gaas collector assy	1
7	Filter	1	16	Shunt assy	1
8	Rear support board welded assy	1	17	Evaporator assy	1
9	Hang board	1	18	Base with cotton assy	1

10. Accessories

NO.	NAME	SHAPE	QUANTITY
1	Insulating tube		2
2	Ribbon		6
3	Dome insulated tip		6
4	U-type insulated tip		3
5	Remote controller		1
6	Battery		2
7	Drain pipe		1
8	Blank valve bag		4
9	Hooks		2
10	Swell stopper		6
11	Self-tapping screw		6

11. Trouble shooting

PROBLEM	CAUSE/SOLUTION
System does not restart.	**Cause:** The system has a built-in three-minute delay to prevent short and/or rapid cycling of the compressor. **Solution:** Wait three minutes for the protection delay to expire.
Indoor unit emits unpleasant odor when started	**Cause:** Typically unpleasant odors are the result of mold or mildew forming on the coil surfaces or the air filter. **Solution:** Wash indoor air filter in warm water with mild cleaner. If odors persist, contact a qualified service professional to clean the coil surfaces.
You hear a “water flowing” sound.	**Cause:** It is normal for the system to make “water flowing” or “gurgling” sounds from refrigerant pressures equalizing when the compressor starts and stops **Solution:** The noises should discontinue as the refrigerant system equalizes after two or three minutes.
A thin fog or vapor coming out of the discharge register when system is running.	**Cause:** It is normal for the system to emit a slight fog or water vapor when cooling extremely humid warm air. **Solution:** The fog or water vapor will disappear as the system cools and dehumidifies the room space.
You hear a slight cracking sound when the system stops or starts.	**Cause:** It is normal for the system to make “slight cracking” sounds from parts expanding and contracting during system starts and stops. **Solution:** The noises will discontinue as temperature equalizes after two or three minutes.
The system will not run.	**Cause**: there are a number of situations that will prevent the system from running. **Solution**: Check for the following: • Circuit breaker is tripped or turned off. • Power button of controller is not turned on. • Controller is in sleep mode or timer mode. • Otherwise, contact a qualified service for assistance.
The unit is not heating or cooling adequately.	**Cause:** There are a number of reasons for inadequate cooling or heating. **Solution:** Check the following: • Remove obstructions blocking airflow into the room. • Clean dirty or blocked air filter that is restricting airflow into the system. • Seal around door or windows to prevent air infiltration into the room. • Relocate or remove heat sources from the room.
Water leaking from the indoor unit into the room.	**Cause:** While it is normal for the system to generate condensate water in cooling mode. It is designed to drain the water via a condensate drain system to a safe location. **Solution**: If water is leaking into the room, it may indicate one of the following: • The indoor unit is not level right to left. Level indoor unit. • The condensate drain pipe is restricted or plugged. All restriction must be removed to allow continuous drainage by gravity. • Otherwise, contact a qualified service for assistance.
The unit will not deliver air.	**Cause:** There are a number of system functions that will prevent air flow. **Solution:** Check for the following: • In heating mode, the indoor fan may not start for three minutes if the room temperature is very low. This is to prevent blowing cold wind. • In heating mode, if the outdoor temperature is low and humidity is high, the system may need defrost for up to 10 minutes before beginning a heating cycle. • In dry mode, the indoor fan may stop for up to three minutes during the compressor of delay. • Otherwise, contact a qualified service for assistance.

Self diagnosis function

Our company provides considerate service for the customer and install various judgment systems to indicate following abnormalities.

Table 1: Failure code list of indoor unit

Fault description	Digtal display	Wired controller display
Indoor and outdoor unit communication failure	E1	E1
Temperature sensor (T1) fault	E2	E2
Pipe temperature sensor in middle part of evaporator (T2) fault	E3	E3
Pipe temperature sensor in outlet of evaporator (T2B) fault	E4	E4
Outdoor unit failure	E5	E5
The indoor unit EEPROM fault	E7	E7
Water over protection	EE	EE
Mode conflict	EF	EF
Indoor unit and wired controller communication failure	E9	E9
Anti-freeze protection of evaporator in cooling mode	F2	F2
Outdoor temperature sensor (T4) fault	F4	F4
Outdoor unit condenser temperature sensor (T3) fault	F6	F6

Part 3. Outdoor Units

1. Features

One outdoor unit match many indoor units, free combination, suit for small office, house, villa and etc. Sometimes the bigger buildingalso needs one set outdoor unit only because of the small A/C space of the building; DC Inverter Multi Series which is simple and direct should be a better choice, and the location space needs is small.

Soft start, the start current of the compressor is small and smooth.

Easy piping and wiring connection, no welding and only flare nut connection which makes the installation work easy and convenient.

2. Specifications

Outdoor model name			C2OU-14HDR4-A	C2OU-18HDR4-A
Power supply		V-Ph-Hz	220~240-1-50	220~240-1-50
Electricity supplying type			Outdoor unit supply power	Outdoor unit supply power
Cooling	Capacity	Btu/h	7000-14000	7000-18000
	Input	W	1280	1650
	Rated current	A	5.56	7.3
	EER	W/W	3.2	3.2
	SEER	W/W	6.6	6.3
Heating	Capacity	Btu/h	8000-16000	8000-20000
	Input	W	1350	1730
	Rated current	A	6.4	7.97
	COP	W/W	3.5	3.4
	SCOP	W/W	4.0	4.4
Compressor	Model		SVB140FVCMC	SVB140FVCMC
	Type		DC	DC
	Capacity	w	4450	4450
	Input	W	1420	1420
	Refrigerant oil	ml	350	350
Fan motor	Model		DR-310-60-8	DR-310-60-8
	Type		DC	DC
	Input	W	68	68
	Speed	r/min	800	800
Outdoor coil	Number of rows		1	2
	Tube pitch × row pitch	mm	25×22	22×19.05
	Fin spacing	mm	1.6	1.6
	Fin type		Hydrophilic	Hydrophilic
	Tube diameter and type	mm	Φ9.52/Inner screw	Φ7.94/Inner screw
	Number of circuits		2	4
Outdoor air flow		m3/h	2800	2800
Outdoor noise level		dB(A)	54	54
Outdoor unit	Net dimension (W×H×D)	mm	944×608×345	944×608×345
	Packing dimension	mm	995×680×415	995×680×415
	Net / Gross weight	kg	41/44	41/44
Refrigerant	Type		R32	R32
	Charged volume	g	1200	1500
Throttle type			EXV	
Max. pressure(Hi/Lo)		MPa	4.5/1.6	4.5/1.6
Refrigerant piping (Between each IU and OU)	Liquid side/ Gas side	mm	2×(Φ6.35/Φ9.52)	2×(Φ6.35/Φ9.52)
	Max. pipe length	m	30	30
	Max. height difference	m	10	10
Connection wiring	Power wiring	m^2	3×2.5 mm^2	3×2.5 mm^2
	Signal wiring	m^2	4×1 mm^2	4×1 mm^2
Ambient temperature		˚C	-15~52	-15~48
Application area		m^2	2×(10~15)	2×(12~18)

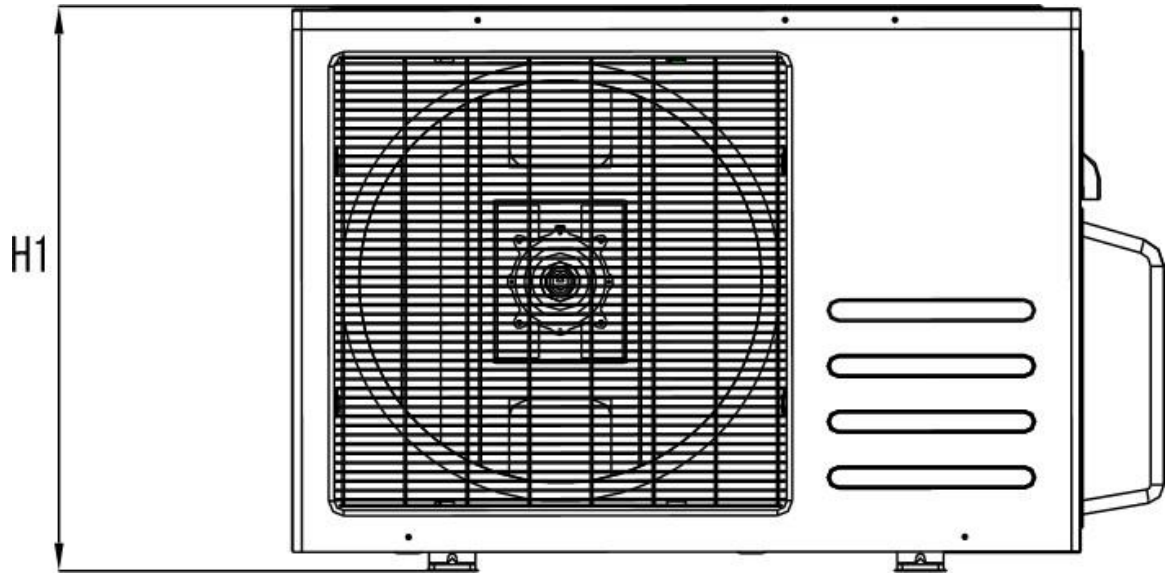
Outdoor model name			C3OU-21HDR4-A	C3OU-27HDR4-A
Power supply		V-Ph-Hz	220~240-1-50	220~240-1-50
Electricity supplying type			Outdoor unit supply power	
Cooling	Capacity	Btu/h	7000-21000	7000-27000
	Input	W	1930	2472
	Rated current	A	8.4	10.9
	EER	W/W	3.2	3.2
	SEER	W/W	6.5	6.3
Heating	Capacity	Btu/h	8000-24000	8000-30000
	Input	W	2150	2600
	Rated current	A	10.8	10.8
	COP	W/W	3.4	3.4
	SCOP	W/W	4	4
Compressor	Model		SVB140FVCMC	KTM240D57UMT
	Type		DC	DC
	Capacity	w	4450	7715
	Input	W	1420	2085
	Refrigerant oil	ml	350	670
Fan motor	Model		DR-310-72-8	DR-310-72-8
	Type		DC	DC
	Input	W	72	72
	Speed	r/min	800	800
Outdoor coil	Number of rows		2	2
	Tube pitch × row pitch	mm	25 ×22	25 ×22
	Fin spacing	mm	1.6	1.6
	Fin type		Hydrophilic	Hydrophilic
	Tube diameter and type	mm	Φ9.52/Inner screw	Φ9.52/Inner screw
	Number of circuits		4	4
Outdoor air flow		m3/h	4200	4200
Outdoor noise level		dB(A)	68	68
Outdoor unit	Net dimension (W×H×D)	mm	989×843×392	989×843×392
	Packingdimension	mm	1030×960×435	1030×960×435
	Net / Gross weight	kg	53.7/64.1	56.1/66.6
Refrigerant	Type		R32	R32
	Charged volume	g	1800	1800
Throttle type			EXV	
Max. pressure(Hi/Lo)		MPa	4.5/1.6	4.5/1.6
Refrigerant piping (Between each IU and OU)	Liquid side/ Gas side	mm	3×(Φ6.35/Φ9.52)	3×(Φ6.35/Φ9.52)
	Max. pipe length	m	45	45
	Max. height difference	m	10	10
Connection wiring	Power wiring	mm^2	3×4 mm^2	3×4 mm^2
	Signal wiring	mm^2	4×1 mm^2	4×1 mm^2
Ambient temperature		˚C	-15~52	-15~52
Application area		m^2	3×(10~15)	3×(12~18)

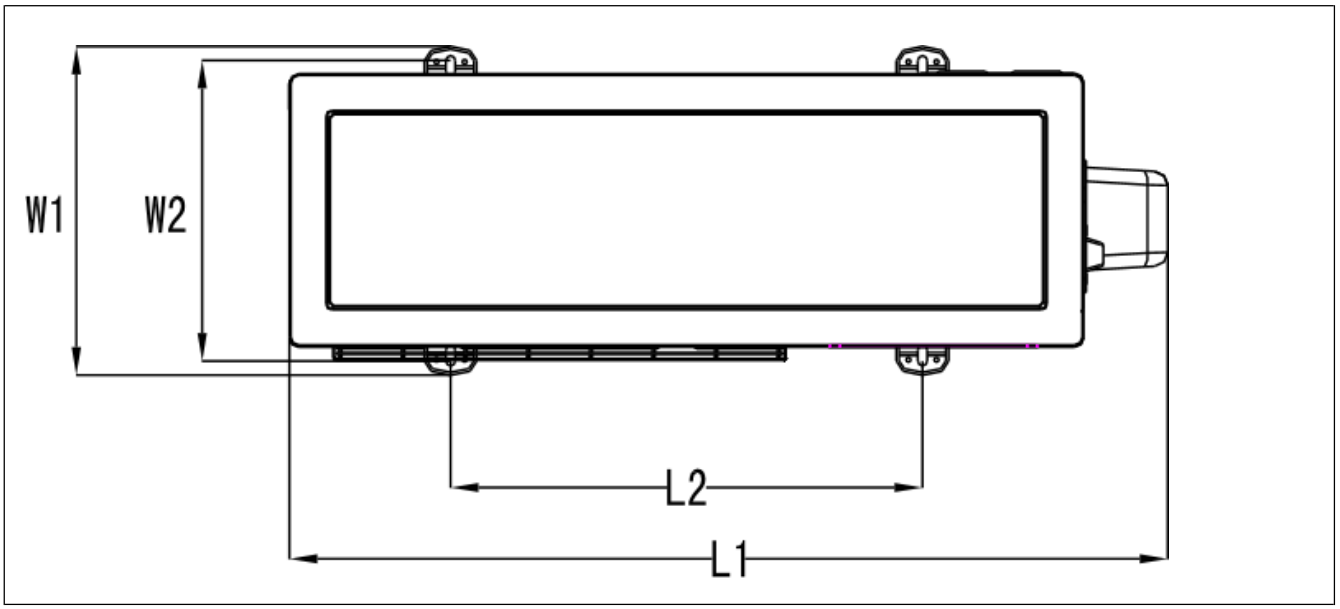
Outdoor model name			C4OU-28HDR4-A	C4OU-36HDR4-A	C5OU-42HDR4-A
Power supply		V-Ph-Hz	220~240-1-50	220~240-1-50	220~240-1-50
Electricity supplying type			Outdoor unit supply power		
Cooling	Capacity	Btu/h	7000-28000	7000-36000	7000-42000
	Input	W	2520	3400	3900
	Rated current	A	11.2	15.2	18
	EER	W/W	3.25	3.2	3.2
	SEER	W/W	6.8	6.8	6.5
Heating	Capacity	Btu/h	8000-30000	8000-38000	8000-44000
	Input	W	2450	3080	3650
	Rated current	A	11.2	15.2	18
	COP	W/W	3.63	3.6	3.55
	SCOP	W/W	4.0	4.0	4.0
Compressor	Model		KTM240D57UMT	KTM240D57UMT	KTF310D43UMT
	Type		DC	DC	DC
	Capacity	W	7715	7715	10010
	Input	W	2085	2085	2765
	Refrigerant oil	ml	670	670	1000
Fan motor	Model		DR-310-165-12	DR-310-165-12	DRN-310-165-12
	Type		DC	DC	DC
	Input	W	165	165	165
	Speed	r/min	840	840	840
Outdoor coil	Number of rows		2	2	2
	Tube pitch × row pitch	mm	25 ×22	25 ×22	25 ×22
	Fin spacing	mm	1.6	1.6	1.6
	Fin type		Hydrophilic	Hydrophilic	Hydrophilic
	Tube diameter and type	mm	Φ9.52/Inner screw	Φ9.52/Inner screw	Φ9.52/Inner screw
	Number of circuits		5	5	5
Outdoor air flow		m3/h	5000	5000	5000
Outdoor noise level		dB(A)	59	61	62
Outdoor unit	Net dimension (W×H×D)	mm	1090×997×399	1090×997×399	1090×997×399
	Packingdimension (W×H×D)	mm	1145×1120×475	1145×1120×475	1145×1120×475
	Net / Gross weight	kg	77.7/89.1	82.6/94	84.5/95.9
Refrigerant	Type		R32	R32	R32
	Charged volume	g	2400	3000	3300
Throttle type			EXV		
Max. pressure(Hi/Lo)		MPa	4.5/1.6	4.5/1.6	4.5/1.6
Refrigerant piping (Between each IU and OU)	Liquid side/ Gas side	mm	4×(Φ6.35/Φ9.52)	4×(Φ6.35/Φ9.52)	5×(Φ6.35/Φ9.52)
	Max. pipe length	m	60	60	75
	Max. height difference	m	10	10	10
Connection wiring	Power wiring	mm^2	3×6 mm^2	3×6mm^2	3×6mm^2
	Signal wiring	mm^2	4×1 mm^2	4×1 mm^2	4×1 mm^2
Ambient temperature		˚C	-15~52	-15~52	-15~52
Application area		m^2	4×(10~15)	4×(12~18)	5×(12~18)

Notes:

1. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB outdoor side 35°C(95°F) DB.
2. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)DB.
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
4. The above data may be changed without notice for future improvement on quality and performance.

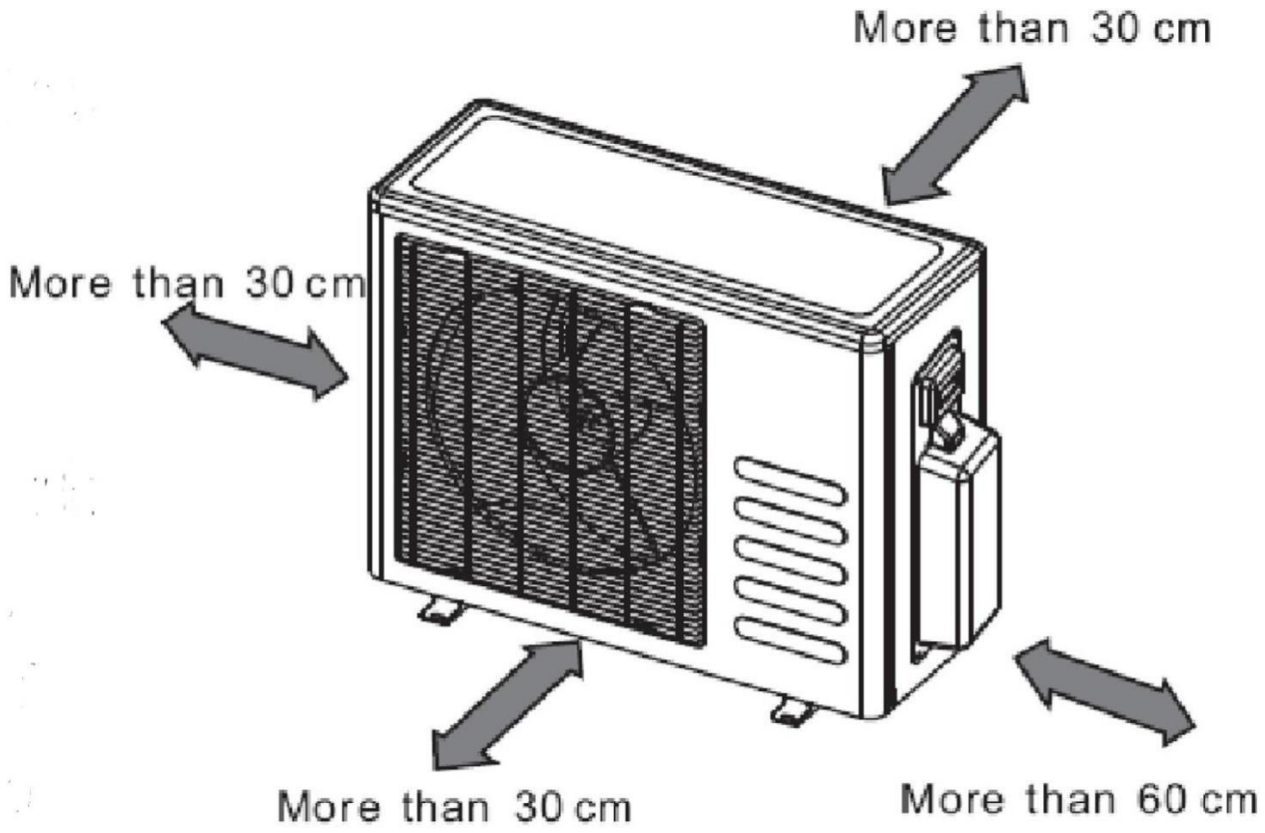
3. Dimensions





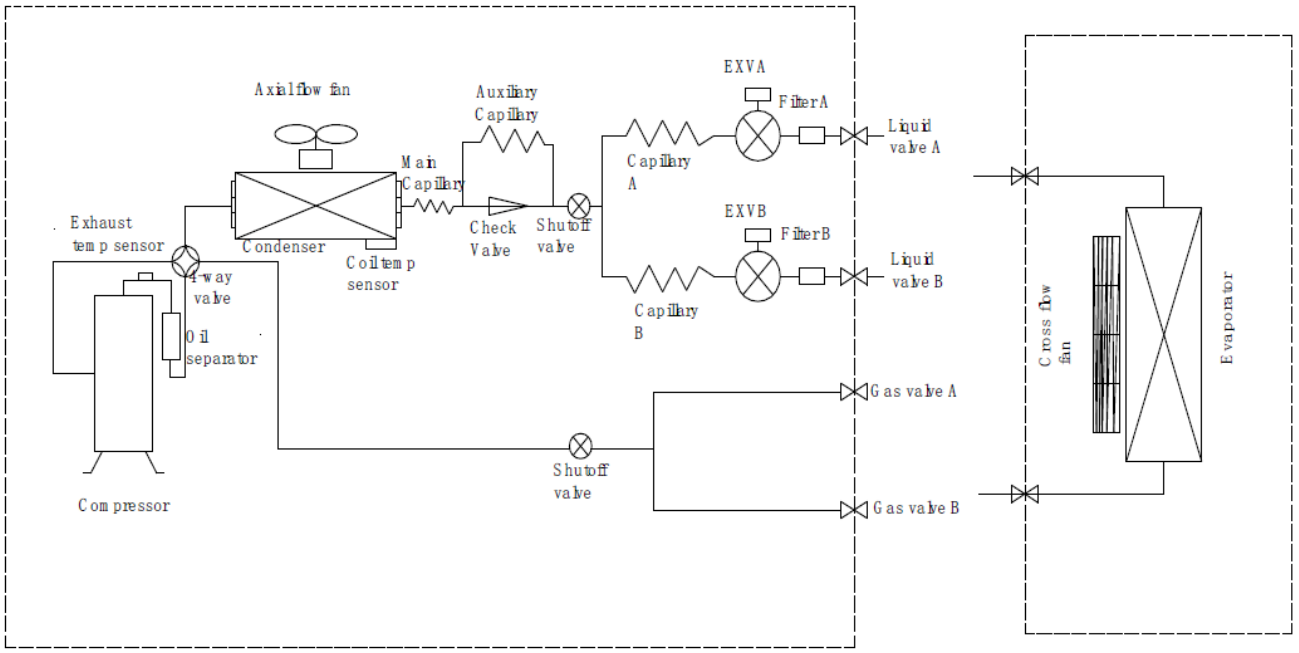
Outdoor unit dimension		Mounting dimensions	
mm(L1×H1×W1)		L2(mm)	W2(mm)
14K/18K	940×609×352	505	322
21K/27K	991×839×388	600	361
28K~42K	1090 ×994×400	694	374

4. Service Space

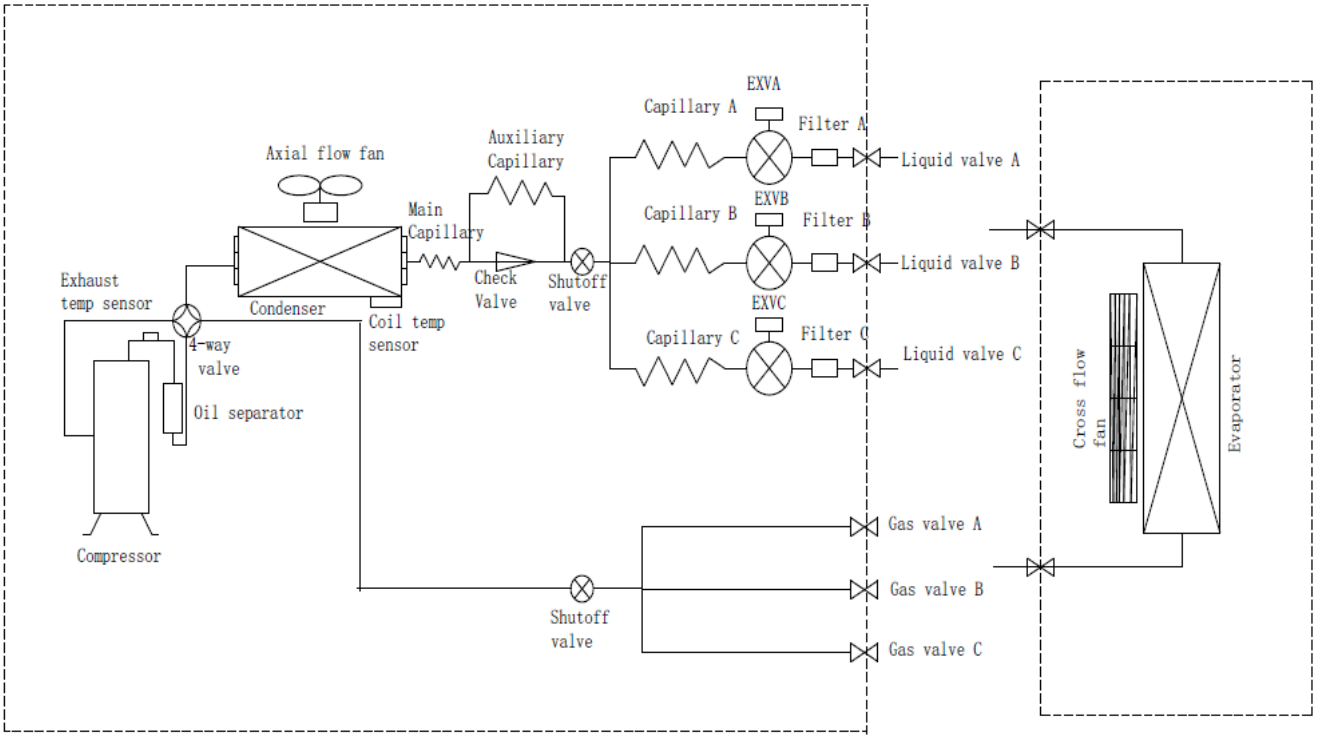


5. Piping diagrams

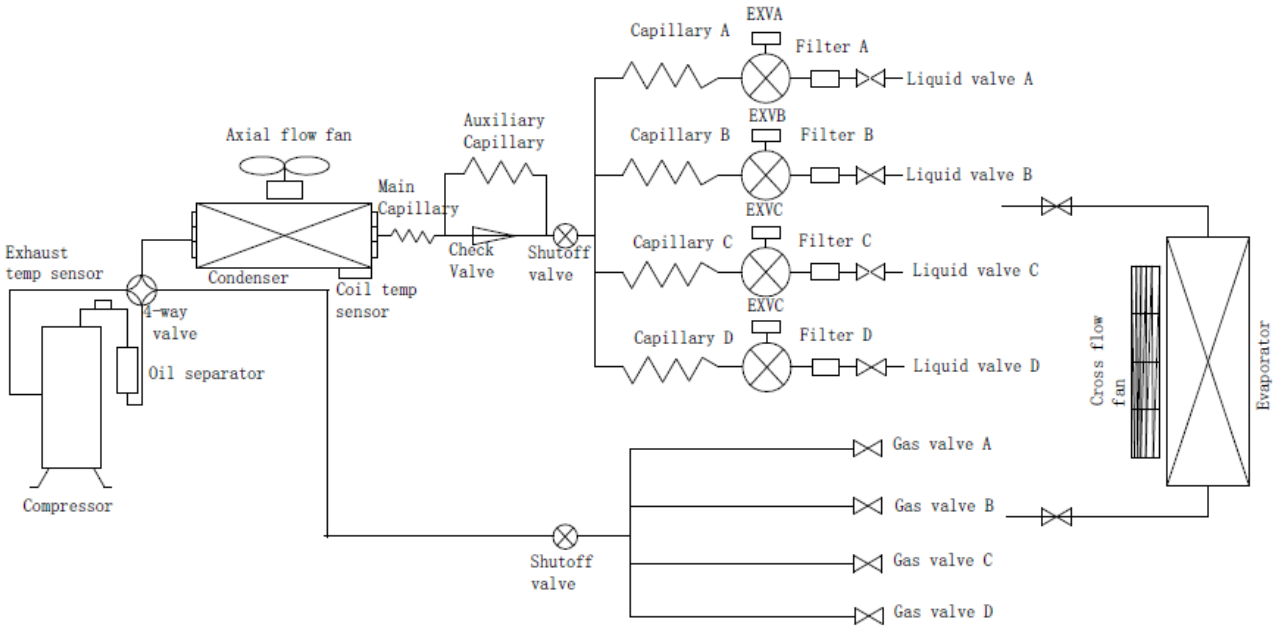
C2OU-14HDR4-A C2OU-18HDR4-A



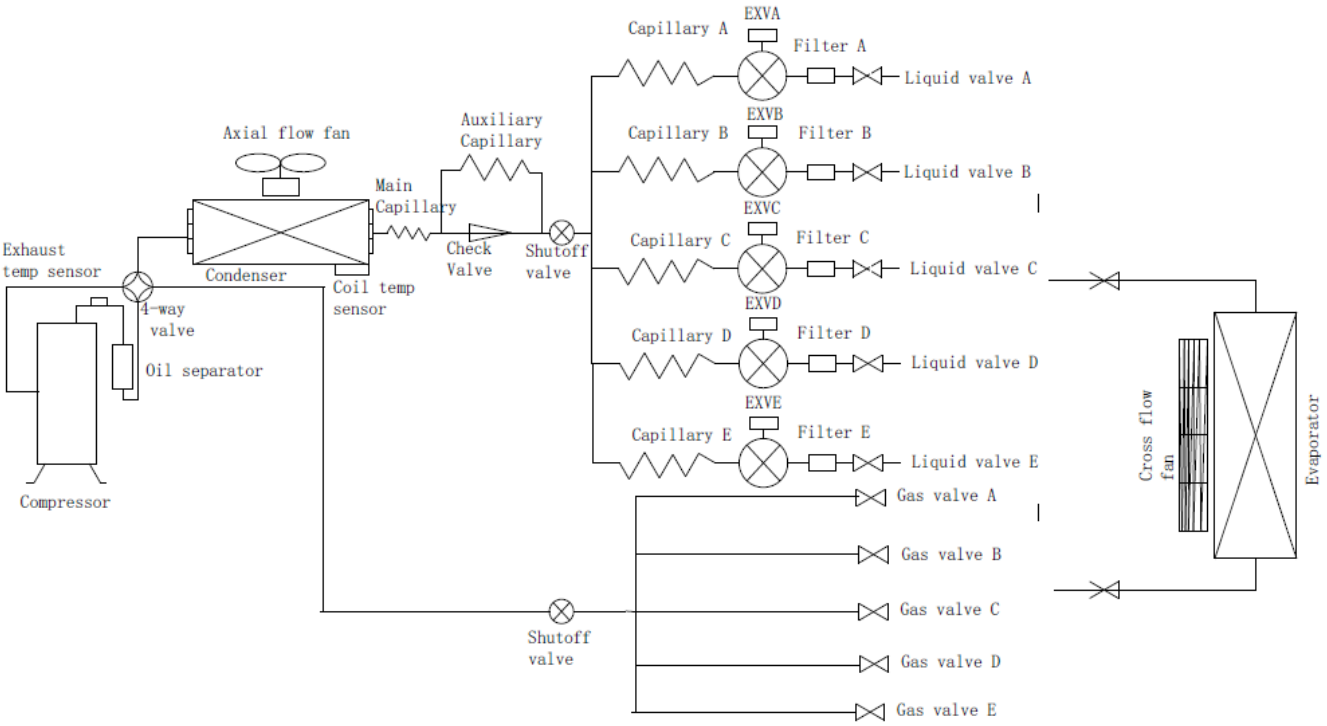
C3OU-21HDR4-A C3OU-27HDR4-A



C4OU-27HDR4-A, C4OU-36HDR4-A

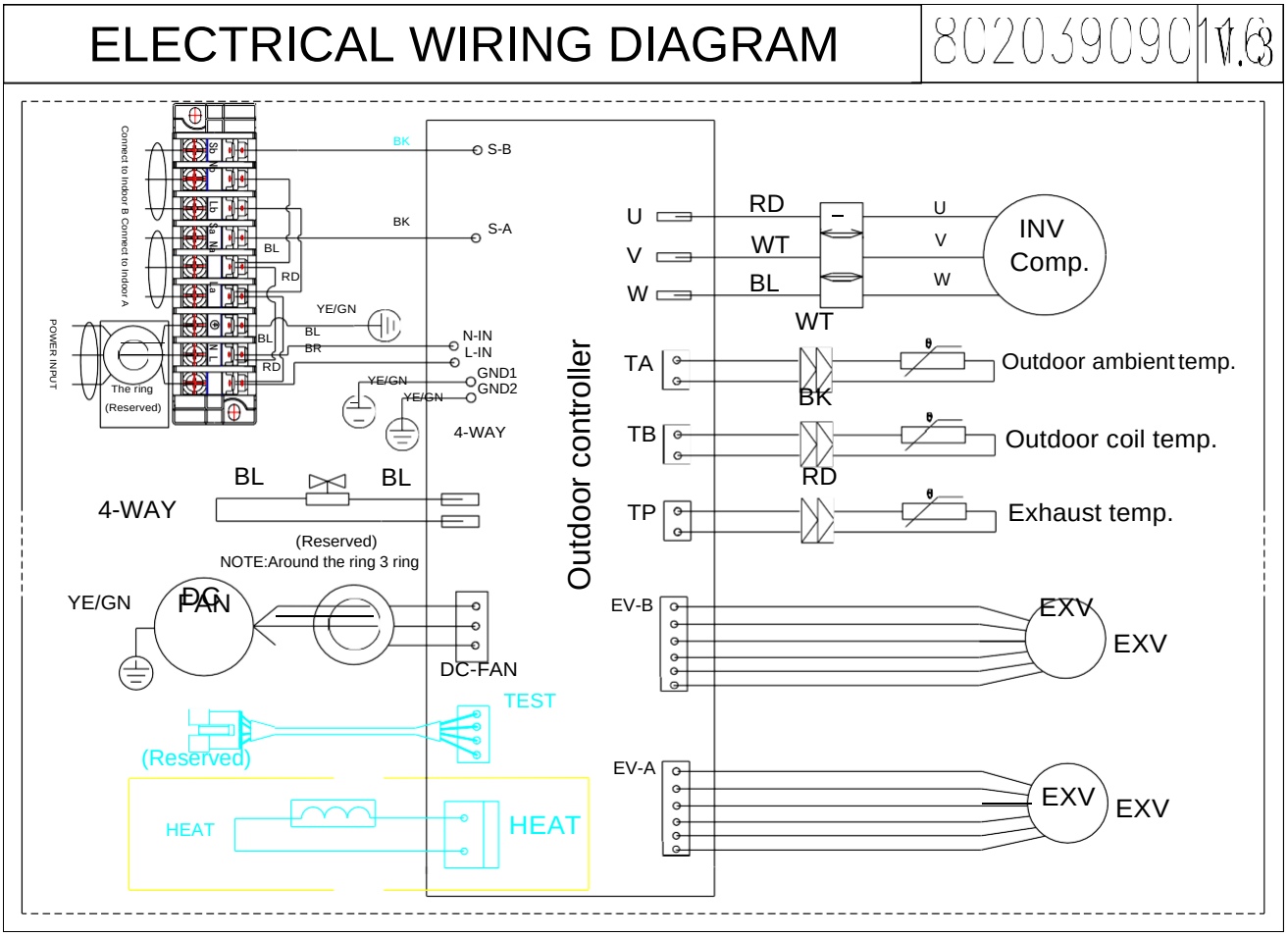


C5OU-42HDR4-A

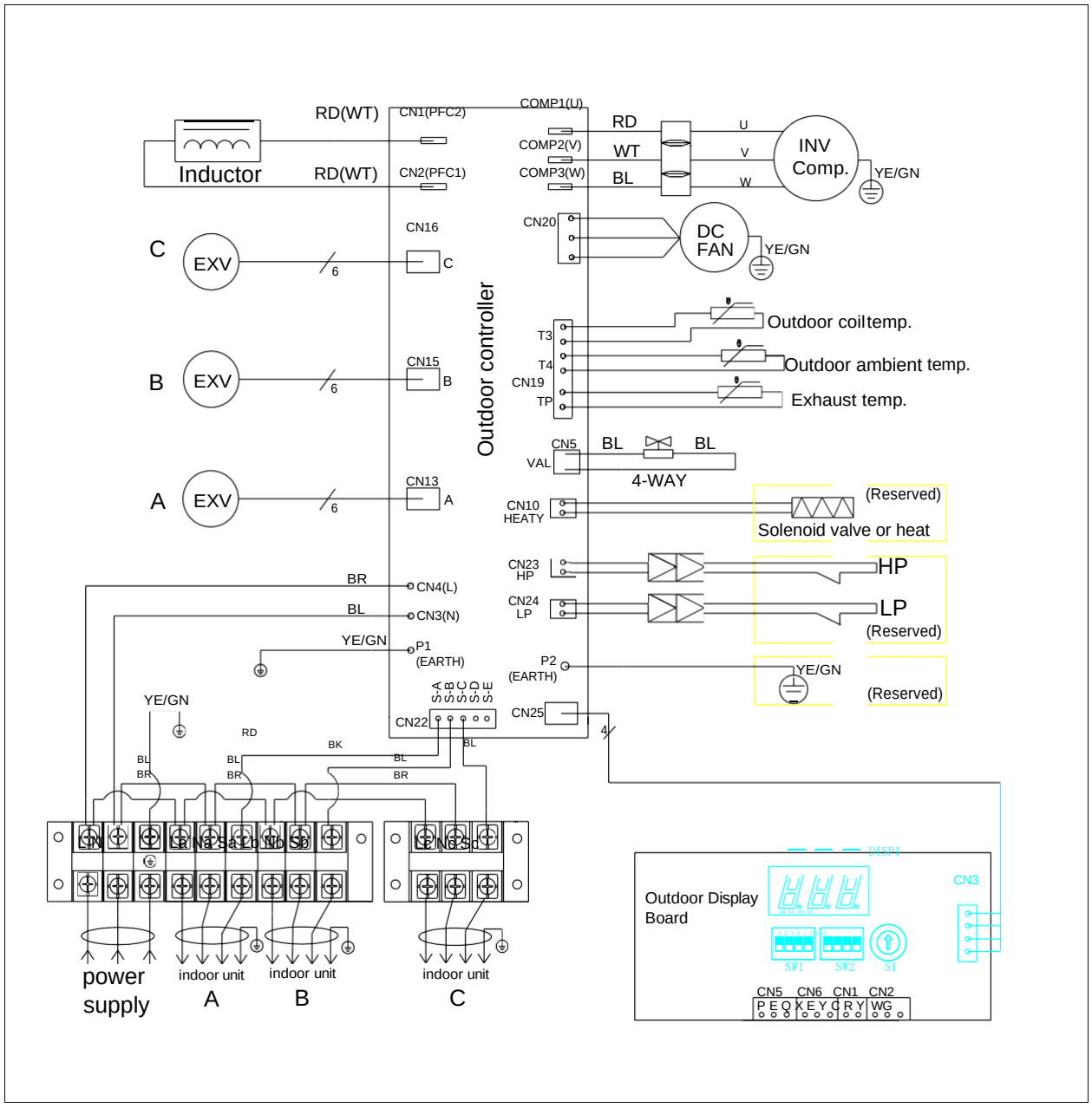


6. Wiring diagrams

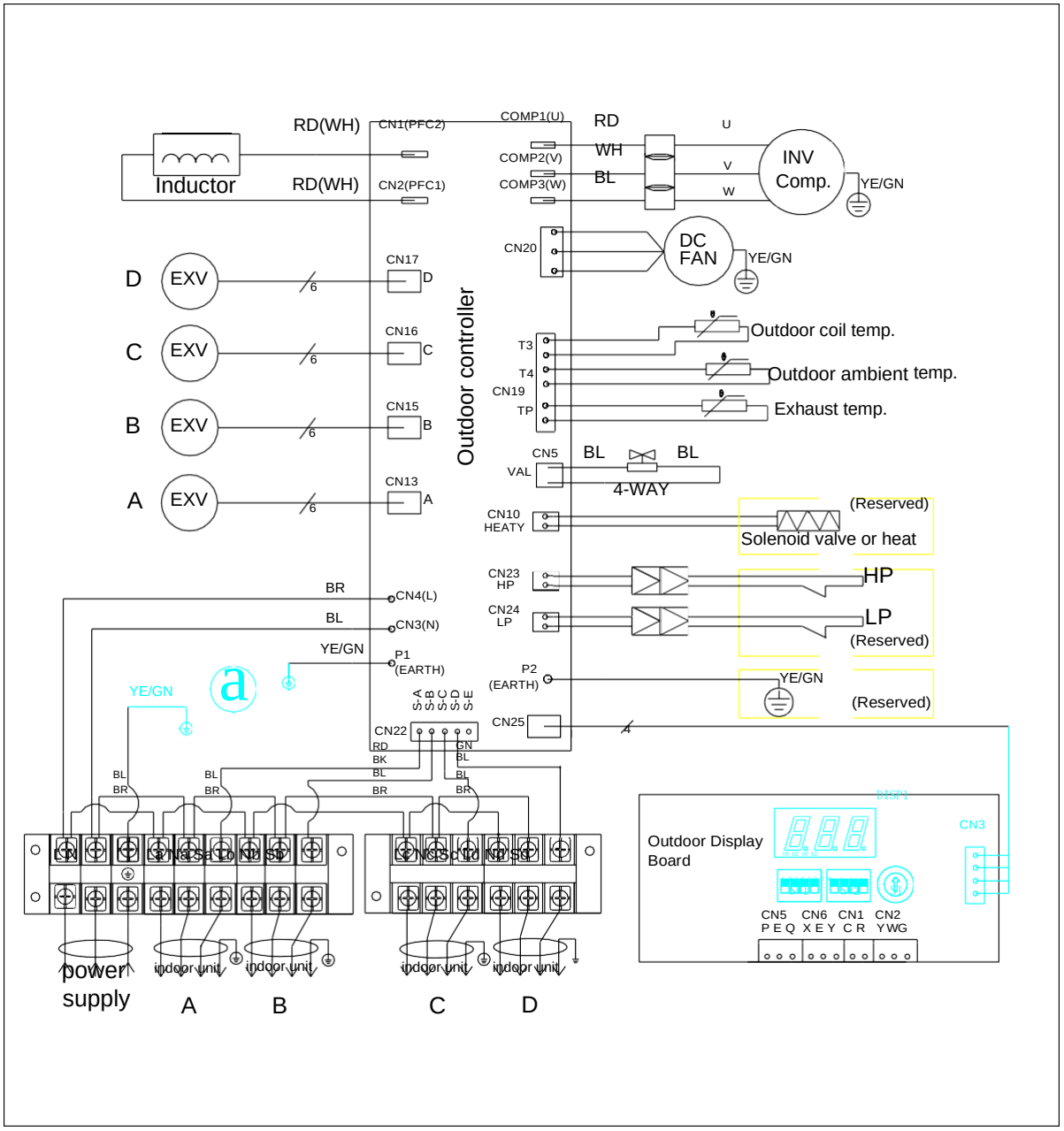
C2OU-14HDR4-A, C2OU-18HDR4-A



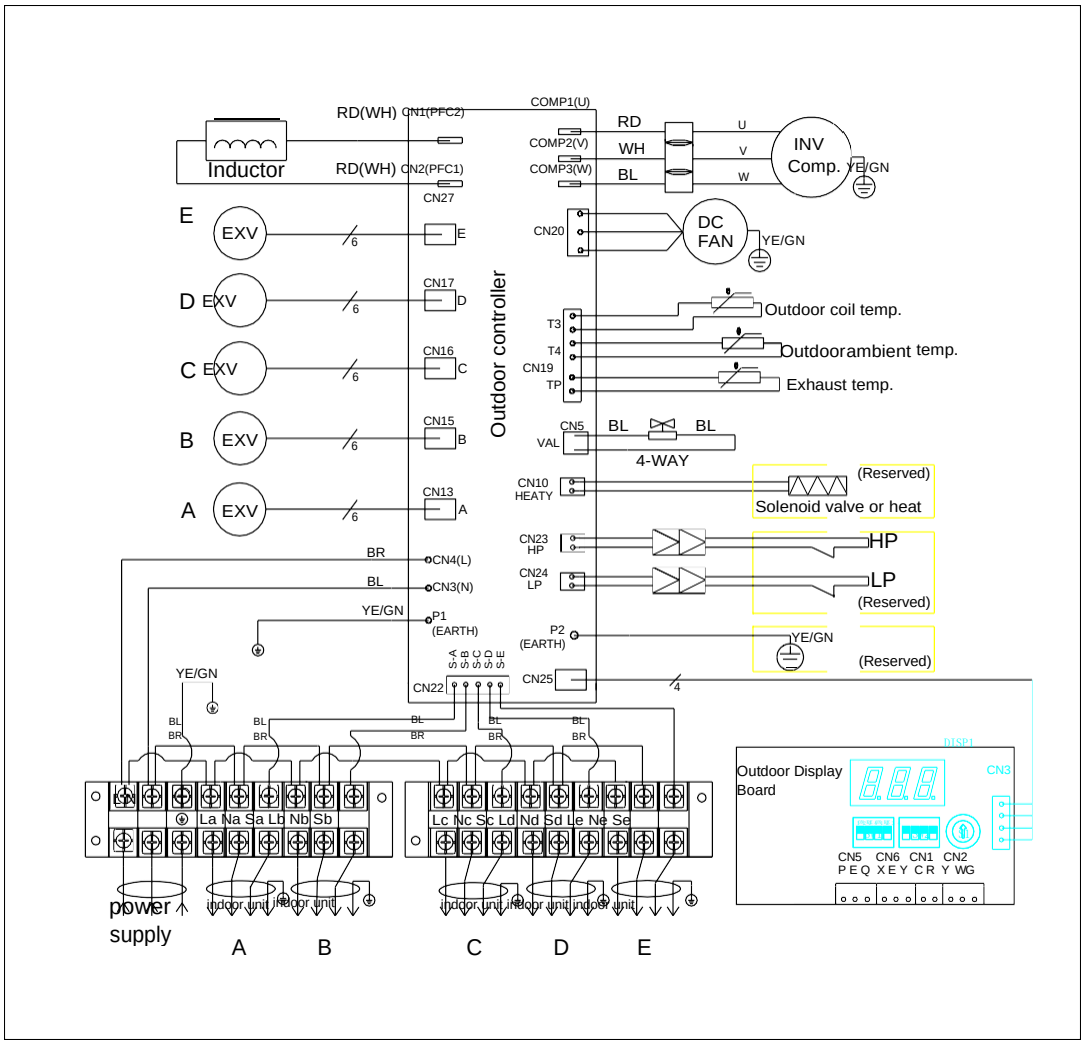
C3OU-21HDR4-A, C3OU-27HDR4-A



C4OU-28HDR4-A, C4OU-36HDR4-A



C5OU-42HDR4-A



7. Combination Capacity Table

C2OU-14HDR4-A

Cooling

Combination	Outdoor temperature (°C DB)	Indoor temperature (°C)													
		DB:20.8,WB: 14		DB:23.3,WB: 16		DB:25.8,WB: 18		DB:27,WB:19		DB:28.2,WB: 20		DB:30.7,WB: 22		DB:32,WB:24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	4.85	0.15	4.87	0.16	4.90	0.18	4.92	0.20	4.95	0.22	4.98	0.24	5.01	0.27
	-13	4.81	0.18	4.84	0.20	4.86	0.22	4.89	0.24	4.91	0.25	4.95	0.28	4.98	0.30
	-11	4.78	0.23	4.81	0.24	4.83	0.26	4.86	0.28	4.88	0.30	4.91	0.32	4.95	0.35
	-9	4.75	0.27	4.77	0.29	4.80	0.30	4.82	0.32	4.85	0.34	4.88	0.37	4.91	0.39
	-7	4.71	0.31	4.74	0.33	4.76	0.35	4.79	0.37	4.81	0.38	4.85	0.41	4.88	0.44
	-5	4.68	0.36	4.71	0.37	4.73	0.39	4.76	0.41	4.78	0.43	4.81	0.45	4.85	0.48
	-3	4.65	0.40	4.67	0.42	4.70	0.44	4.72	0.45	4.75	0.47	4.78	0.50	4.81	0.52
	-1	4.61	0.44	4.64	0.46	4.66	0.48	4.69	0.50	4.71	0.51	4.75	0.54	4.78	0.57
	1	4.58	0.49	4.61	0.51	4.63	0.52	4.66	0.54	4.68	0.56	4.71	0.58	4.75	0.61
	3	4.55	0.53	4.57	0.55	4.60	0.57	4.62	0.58	4.65	0.60	4.68	0.63	4.71	0.65
	5	4.51	0.57	4.54	0.59	4.56	0.61	4.59	0.63	4.61	0.64	4.65	0.67	4.68	0.70
	7	4.48	0.62	4.51	0.64	4.53	0.65	4.56	0.67	4.58	0.69	4.61	0.71	4.65	0.74
	9	4.45	0.66	4.47	0.68	4.50	0.70	4.52	0.71	4.55	0.73	4.58	0.76	4.61	0.78
	11	4.42	0.71	4.44	0.72	4.47	0.74	4.49	0.76	4.51	0.77	4.55	0.80	4.58	0.83
	13	4.38	0.75	4.41	0.77	4.43	0.78	4.46	0.80	4.48	0.82	4.51	0.84	4.55	0.87
	15	4.35	0.79	4.37	0.81	4.40	0.83	4.42	0.84	4.45	0.86	4.48	0.89	4.51	0.91
	17	4.32	0.84	4.34	0.85	4.37	0.87	4.39	0.89	4.42	0.91	4.45	0.93	4.48	0.96
	19	4.28	0.88	4.31	0.90	4.33	0.91	4.36	0.93	4.38	0.95	4.42	0.98	4.45	1.00
	21	4.25	0.92	4.27	0.94	4.30	0.96	4.32	0.98	4.35	0.99	4.38	1.02	4.42	1.04

	23	4.22	0.97	4.24	0.98	4.27	1.00	4.29	1.02	4.32	1.04	4.35	1.06	4.38	1.09
	25	4.18	1.01	4.21	1.03	4.23	1.04	4.26	1.06	4.28	1.08	4.32	1.11	4.35	1.13
	27	4.15	1.05	4.17	1.07	4.20	1.09	4.22	1.11	4.25	1.12	4.28	1.15	4.32	1.18
	29	4.12	1.10	4.14	1.11	4.17	1.13	4.19	1.15	4.22	1.17	4.25	1.19	4.28	1.22
	31	4.08	1.14	4.11	1.16	4.13	1.18	4.16	1.19	4.18	1.21	4.22	1.24	4.25	1.26
	33	4.05	1.18	4.08	1.20	4.10	1.22	4.12	1.24	4.15	1.25	4.18	1.28	4.22	1.31
	35	4.03	1.23	4.05	1.25	4.08	1.26	4.10	1.28	4.12	1.30	4.16	1.32	4.19	1.35
	37	3.97	1.27	3.99	1.29	4.02	1.31	4.04	1.32	4.07	1.34	4.10	1.37	4.13	1.39
	39	3.91	1.31	3.93	1.33	3.96	1.35	3.98	1.37	4.01	1.38	4.04	1.41	4.08	1.44
	41	3.85	1.36	3.88	1.38	3.90	1.39	3.93	1.41	3.95	1.43	3.98	1.45	4.02	1.48
	43	3.79	1.40	3.82	1.42	3.84	1.44	3.87	1.45	3.89	1.47	3.93	1.50	3.96	1.52
	45	3.73	1.45	3.76	1.46	3.78	1.48	3.81	1.50	3.83	1.52	3.87	1.54	3.90	1.57
	47	3.68	1.49	3.70	1.51	3.73	1.52	3.75	1.54	3.78	1.56	3.81	1.58	3.84	1.61
	49	3.62	1.53	3.64	1.55	3.67	1.57	3.69	1.58	3.72	1.60	3.75	1.63	3.78	1.65

Heating

Combination	Outdoor air temperature		Indoor temperature(°C DB)											
			16		18		20		21		22		24	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	-16.2	4.98	1.51	4.91	1.46	4.83	1.40	4.76	1.35	4.69	1.30	4.61	1.24
	-13.7	-15	5.01	1.54	4.94	1.49	4.86	1.43	4.79	1.38	4.72	1.33	4.64	1.27
	-11.8	-13	5.04	1.57	4.97	1.52	4.89	1.46	4.82	1.41	4.75	1.36	4.67	1.30
	-9.8	-11	5.07	1.60	5.00	1.55	4.92	1.49	4.85	1.44	4.78	1.39	4.70	1.33
	-9.5	-10	5.10	1.63	5.03	1.58	4.95	1.52	4.88	1.47	4.81	1.42	4.73	1.36
	-8.5	-9.1	5.13	1.66	5.06	1.61	4.98	1.55	4.91	1.50	4.84	1.45	4.76	1.39
	-7	-7.6	5.16	1.69	5.09	1.64	5.01	1.58	4.94	1.53	4.87	1.48	4.79	1.42
	-5	-5.6	5.19	1.72	5.12	1.67	5.04	1.61	4.97	1.56	4.90	1.51	4.82	1.45
	-3	-3.7	5.22	1.75	5.15	1.70	5.07	1.64	5.00	1.59	4.93	1.54	4.85	1.48
	0	-0.7	5.25	1.78	5.18	1.73	5.10	1.67	5.03	1.62	4.96	1.57	4.88	1.51
	3	2.2	5.28	1.81	5.21	1.76	5.13	1.70	5.06	1.65	4.99	1.60	4.91	1.54
	5	4.1	5.31	1.84	5.24	1.79	5.16	1.73	5.09	1.68	5.02	1.63	4.94	1.57
	7	6	5.34	1.87	5.27	1.82	5.19	1.76	5.12	1.71	5.05	1.66	4.97	1.60
	9	7.9	5.37	1.90	5.30	1.85	5.22	1.79	5.15	1.74	5.08	1.69	5.00	1.63
	11	9.8	5.40	1.93	5.33	1.88	5.25	1.82	5.18	1.77	5.11	1.72	5.03	1.66
	13	11.8	5.43	1.96	5.36	1.91	5.28	1.85	5.21	1.80	5.14	1.75	5.06	1.69
	15	13.7	5.46	1.99	5.39	1.94	5.31	1.88	5.24	1.83	5.17	1.78	5.09	1.72
	17	14.2	5.49	2.02	5.42	1.97	5.34	1.91	5.27	1.86	5.20	1.81	5.12	1.75
	19	14.8	5.52	2.05	5.45	2.00	5.37	1.94	5.30	1.89	5.23	1.84	5.15	1.78
	21	15	5.55	2.08	5.48	2.03	5.40	1.97	5.33	1.92	5.26	1.87	5.18	1.81
	23	16.8	5.58	2.11	5.51	2.06	5.43	2.00	5.36	1.95	5.29	1.90	5.21	1.84
	25	18.2	5.61	2.14	5.54	2.09	5.46	2.03	5.39	1.98	5.32	1.93	5.24	1.87
	27	19	5.64	2.17	5.57	2.12	5.49	2.06	5.42	2.01	5.35	1.96	5.27	1.90
	29	19.8	5.67	2.20	5.60	2.15	5.52	2.09	5.45	2.04	5.38	1.99	5.30	1.93

C2OU-18HDR4-A

Cooling

Combination	Outdoor temperature (°C DB)	Indoor temperature (°C)													
		DB:20.8,WB:14		DB:23.3,WB:16		DB:25.8,WB:18		DB:27,WB:19		DB:28.2,WB:20		DB:30.7,WB:22		DB:32,WB:24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	6.16	0.31	6.19	0.33	6.22	0.35	6.25	0.37	6.28	0.39	6.32	0.42	6.36	0.45
	-13	6.12	0.36	6.15	0.38	6.18	0.40	6.21	0.42	6.24	0.44	6.28	0.47	6.32	0.50
	-11	6.09	0.41	6.11	0.43	6.14	0.45	6.17	0.47	6.20	0.49	6.24	0.52	6.28	0.55
	-9	6.05	0.46	6.08	0.48	6.11	0.50	6.13	0.52	6.16	0.54	6.20	0.57	6.24	0.60
	-7	6.01	0.51	6.04	0.53	6.07	0.55	6.10	0.57	6.12	0.59	6.16	0.63	6.20	0.66
	-5	5.97	0.56	6.00	0.58	6.03	0.60	6.06	0.63	6.09	0.65	6.12	0.68	6.16	0.71
	-3	5.93	0.61	5.96	0.64	5.99	0.66	6.02	0.68	6.05	0.70	6.09	0.73	6.12	0.76
	-1	5.89	0.67	5.92	0.69	5.95	0.71	5.98	0.73	6.01	0.75	6.05	0.78	6.09	0.81
	1	5.85	0.72	5.88	0.74	5.91	0.76	5.94	0.78	5.97	0.80	6.01	0.83	6.05	0.86
	3	5.81	0.77	5.84	0.79	5.87	0.81	5.90	0.83	5.93	0.85	5.97	0.88	6.01	0.91
	5	5.78	0.82	5.80	0.84	5.83	0.86	5.86	0.88	5.89	0.90	5.93	0.93	5.97	0.96
	7	5.74	0.87	5.77	0.89	5.79	0.91	5.82	0.93	5.85	0.95	5.89	0.98	5.93	1.01
	9	5.70	0.92	5.73	0.94	5.76	0.96	5.78	0.98	5.81	1.00	5.85	1.04	5.89	1.07
	11	5.66	0.97	5.69	0.99	5.72	1.01	5.75	1.04	5.78	1.06	5.81	1.09	5.85	1.12
	13	5.62	1.02	5.65	1.05	5.68	1.07	5.71	1.09	5.74	1.11	5.78	1.14	5.81	1.17
	15	5.58	1.08	5.61	1.10	5.64	1.12	5.67	1.14	5.70	1.16	5.74	1.19	5.78	1.22
	17	5.54	1.13	5.57	1.15	5.60	1.17	5.63	1.19	5.66	1.21	5.70	1.24	5.74	1.27
	19	5.50	1.18	5.53	1.20	5.56	1.22	5.59	1.24	5.62	1.26	5.66	1.29	5.70	1.32
	21	5.46	1.23	5.49	1.25	5.52	1.27	5.55	1.29	5.58	1.31	5.62	1.34	5.66	1.37
	23	5.43	1.28	5.45	1.30	5.48	1.32	5.51	1.34	5.54	1.36	5.58	1.39	5.62	1.42
	25	5.39	1.33	5.42	1.35	5.45	1.37	5.47	1.39	5.50	1.41	5.54	1.45	5.58	1.48
	27	5.35	1.38	5.38	1.40	5.41	1.42	5.44	1.45	5.46	1.47	5.50	1.50	5.54	1.53

	29	5.31	1.43	5.34	1.46	5.37	1.48	5.40	1.50	5.43	1.52	5.46	1.55	5.50	1.58
	31	5.27	1.49	5.30	1.51	5.33	1.53	5.36	1.55	5.39	1.57	5.43	1.60	5.46	1.63
	33	5.23	1.54	5.26	1.56	5.29	1.58	5.32	1.60	5.35	1.62	5.39	1.65	5.43	1.68
	35	5.19	1.59	5.22	1.61	5.25	1.63	5.28	1.65	5.31	1.67	5.35	1.70	5.39	1.73
	37	5.15	1.64	5.18	1.66	5.21	1.68	5.24	1.70	5.27	1.72	5.31	1.75	5.35	1.78
	39	5.12	1.69	5.14	1.71	5.17	1.73	5.20	1.75	5.23	1.77	5.27	1.80	5.31	1.83
	41	5.08	1.74	5.11	1.76	5.13	1.78	5.16	1.80	5.19	1.82	5.23	1.85	5.27	1.89
	43	5.04	1.79	5.07	1.81	5.10	1.83	5.12	1.85	5.15	1.88	5.19	1.91	5.23	1.94
	45	5.00	1.84	5.03	1.87	5.06	1.89	5.09	1.91	5.12	1.93	5.15	1.96	5.19	1.99
	47	4.96	1.90	4.99	1.92	5.02	1.94	5.05	1.96	5.08	1.98	5.12	2.01	5.15	2.04
	50	4.92	1.95	4.95	1.97	4.98	1.99	5.01	2.01	5.04	2.03	5.08	2.06	5.12	2.09

Heating

Combination	Outdoor air temperature		Indoor temperature(°C DB)											
			16		18		20		21		22		24	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	-16.2	5.64	1.50	5.57	1.46	5.49	1.40	5.42	1.35	5.35	1.31	5.26	1.25
	-13.7	-15	5.67	1.53	5.60	1.48	5.52	1.43	5.45	1.38	5.38	1.34	5.29	1.28
	-11.8	-13	5.71	1.56	5.63	1.51	5.55	1.46	5.48	1.41	5.41	1.36	5.32	1.31
	-9.8	-11	5.74	1.58	5.66	1.54	5.58	1.48	5.51	1.44	5.44	1.39	5.36	1.34
	-9.5	-10	5.77	1.61	5.70	1.57	5.61	1.51	5.54	1.46	5.47	1.42	5.39	1.36
	-8.5	-9.1	5.80	1.64	5.73	1.59	5.64	1.54	5.57	1.49	5.50	1.45	5.42	1.39
	-7	-7.6	5.83	1.67	5.76	1.62	5.67	1.57	5.60	1.52	5.53	1.47	5.45	1.42
	-5	-5.6	5.86	1.69	5.79	1.65	5.71	1.59	5.63	1.55	5.56	1.50	5.48	1.45
	-3	-3.7	5.89	1.72	5.82	1.68	5.74	1.62	5.66	1.57	5.59	1.53	5.51	1.47
	0	-0.7	5.92	1.75	5.85	1.70	5.77	1.65	5.70	1.60	5.62	1.56	5.54	1.50
	3	2.2	5.95	1.78	5.88	1.73	5.80	1.68	5.73	1.63	5.65	1.58	5.57	1.53
	5	4.1	5.98	1.80	5.91	1.76	5.83	1.70	5.76	1.66	5.68	1.61	5.60	1.56
	7	6	6.01	1.83	5.94	1.78	5.86	1.73	5.79	1.68	5.72	1.64	5.63	1.58
	9	7.9	6.05	1.86	5.97	1.81	5.89	1.76	5.82	1.71	5.75	1.67	5.66	1.61
	11	9.8	6.08	1.89	6.00	1.84	5.92	1.78	5.85	1.74	5.78	1.69	5.70	1.64
	13	11.8	6.11	1.91	6.04	1.87	5.95	1.81	5.88	1.77	5.81	1.72	5.73	1.67
	15	13.7	6.14	1.94	6.07	1.89	5.98	1.84	5.91	1.79	5.84	1.75	5.76	1.69
	17	14.2	6.17	1.97	6.10	1.92	6.01	1.87	5.94	1.82	5.87	1.78	5.79	1.72
	19	14.8	6.20	2.00	6.13	1.95	6.05	1.89	5.97	1.85	5.90	1.80	5.82	1.75
	21	15	6.23	2.02	6.16	1.98	6.08	1.92	6.00	1.88	5.93	1.83	5.85	1.78
	23	16.8	6.26	2.05	6.19	2.00	6.11	1.95	6.04	1.90	5.96	1.86	5.88	1.80
	25	18.2	6.29	2.08	6.22	2.03	6.14	1.98	6.07	1.93	5.99	1.89	5.91	1.83
	27	19	6.32	2.11	6.25	2.06	6.17	2.00	6.10	1.96	6.02	1.91	5.94	1.86
	29	19.8	6.35	2.13	6.28	2.09	6.20	2.03	6.13	1.99	6.06	1.94	5.97	1.89

C3OU-21HDR4-A

Cooling

Combination	Outdoor temperature (°C DB)	Indoor temperature (°C)													
		DB:20.8,WB:14		DB:23.3,WB:16		DB:25.8,WB:18		DB:27,WB:19		DB:28.2,WB:20		DB:30.7,WB:22		DB:32,WB:24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	7.32	0.27	7.36	0.29	7.40	0.31	7.43	0.35	7.48	0.37	7.52	0.40	7.57	0.44
	-13	7.27	0.33	7.30	0.36	7.35	0.38	7.38	0.40	7.42	0.43	7.48	0.47	7.52	0.51
	-11	7.22	0.39	7.26	0.42	7.29	0.44	7.34	0.47	7.37	0.50	7.42	0.53	7.48	0.57
	-9	7.16	0.46	7.21	0.48	7.24	0.51	7.28	0.53	7.32	0.55	7.37	0.60	7.42	0.63
	-7	7.12	0.52	7.15	0.54	7.20	0.57	7.23	0.60	7.27	0.62	7.32	0.66	7.37	0.69
	-5	7.07	0.59	7.11	0.61	7.14	0.63	7.19	0.66	7.22	0.68	7.27	0.73	7.32	0.76
	-3	7.01	0.65	7.06	0.67	7.09	0.69	7.13	0.73	7.16	0.75	7.22	0.79	7.27	0.82
	-1	6.97	0.72	7.00	0.74	7.05	0.76	7.08	0.79	7.12	0.81	7.16	0.85	7.22	0.89
	1	6.92	0.77	6.96	0.80	6.99	0.82	7.03	0.85	7.07	0.88	7.12	0.91	7.16	0.95
	3	6.86	0.83	6.91	0.87	6.94	0.89	6.98	0.91	7.01	0.94	7.07	0.98	7.12	1.02
	5	6.82	0.90	6.85	0.92	6.89	0.95	6.93	0.98	6.97	1.00	7.01	1.04	7.07	1.07
	7	6.77	0.97	6.81	0.99	6.84	1.02	6.88	1.04	6.92	1.06	6.97	1.11	7.01	1.14
	9	6.71	1.03	6.75	1.05	6.79	1.07	6.83	1.11	6.86	1.13	6.92	1.17	6.97	1.20
	11	6.67	1.10	6.70	1.12	6.74	1.14	6.78	1.17	6.82	1.19	6.86	1.23	6.92	1.27
	13	6.61	1.15	6.65	1.18	6.69	1.20	6.73	1.23	6.77	1.26	6.82	1.29	6.86	1.33
	15	6.56	1.21	6.60	1.25	6.64	1.27	6.68	1.29	6.71	1.32	6.77	1.36	6.82	1.40
	17	6.52	1.28	6.55	1.30	6.59	1.33	6.62	1.36	6.67	1.39	6.71	1.42	6.77	1.46
	19	6.46	1.34	6.50	1.37	6.54	1.40	6.57	1.42	6.61	1.44	6.67	1.49	6.71	1.52
	21	6.41	1.41	6.45	1.43	6.48	1.46	6.53	1.49	6.56	1.51	6.61	1.55	6.67	1.58
	23	6.37	1.47	6.40	1.50	6.44	1.52	6.47	1.55	6.52	1.57	6.56	1.62	6.61	1.65
	25	6.31	1.54	6.34	1.56	6.39	1.58	6.42	1.62	6.46	1.64	6.52	1.67	6.56	1.71
	27	6.26	1.59	6.30	1.63	6.33	1.65	6.38	1.67	6.41	1.70	6.46	1.73	6.52	1.78

	29	6.21	1.66	6.25	1.69	6.29	1.71	6.32	1.73	6.37	1.77	6.41	1.80	6.46	1.84
	31	6.16	1.72	6.19	1.75	6.24	1.78	6.27	1.80	6.31	1.82	6.37	1.86	6.41	1.90
	33	6.12	1.79	6.16	1.81	6.19	1.84	6.24	1.86	6.27	1.89	6.32	1.93	6.38	1.96
	35	6.03	1.85	6.07	1.88	6.11	1.90	6.15	1.93	6.18	1.95	6.24	2.00	6.29	2.03
	37	5.95	1.92	5.98	1.94	6.02	1.96	6.06	2.00	6.10	2.02	6.15	2.06	6.19	2.09
	39	5.86	1.97	5.89	2.01	5.93	2.03	5.97	2.06	6.01	2.08	6.06	2.11	6.11	2.16
	41	5.77	2.04	5.80	2.07	5.85	2.09	5.88	2.11	5.92	2.15	5.97	2.18	6.02	2.22
	43	5.68	2.10	5.72	2.14	5.75	2.16	5.79	2.18	5.83	2.21	5.88	2.24	5.93	2.29
	45	5.59	2.17	5.63	2.19	5.66	2.22	5.71	2.24	5.74	2.27	5.79	2.31	5.85	2.34
	47	5.50	2.23	5.55	2.26	5.58	2.29	5.62	2.31	5.65	2.33	5.71	2.37	5.75	2.41
	50	5.42	2.30	5.45	2.32	5.49	2.34	5.52	2.37	5.57	2.40	5.62	2.44	5.66	2.47

Heating

Combination	Outdoor air temperature		Indoor temperature(°C DB)											
			16		18		20		21		22		24	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	-16.2	6.75	1.56	6.65	1.63	6.54	1.70	6.45	1.76	6.36	1.84	6.24	1.90
	-13.7	-15	6.79	1.60	6.69	1.68	6.59	1.73	6.49	1.80	6.39	1.87	6.29	1.94
	-11.8	-13	6.83	1.63	6.73	1.71	6.62	1.77	6.53	1.84	6.44	1.91	6.32	1.98
	-9.8	-11	6.87	1.68	6.78	1.75	6.67	1.81	6.57	1.87	6.47	1.95	6.37	2.01
	-9.5	-10	6.91	1.71	6.81	1.78	6.71	1.85	6.61	1.91	6.52	1.99	6.40	2.05
	-8.5	-9.1	6.95	1.75	6.86	1.83	6.75	1.88	6.65	1.95	6.56	2.02	6.45	2.09
	-7	-7.6	7.00	1.78	6.89	1.86	6.79	1.92	6.69	1.99	6.60	2.06	6.49	2.13
	-5	-5.6	7.03	1.83	6.94	1.90	6.83	1.96	6.73	2.02	6.64	2.10	6.53	2.16
	-3	-3.7	7.08	1.86	6.97	1.94	6.87	2.00	6.78	2.06	6.68	2.14	6.57	2.20
	0	-0.7	7.11	1.90	7.02	1.98	6.91	2.04	6.81	2.10	6.72	2.17	6.61	2.24
	3	2.2	7.16	1.94	7.05	2.01	6.95	2.07	6.86	2.14	6.76	2.21	6.65	2.28
	5	4.1	7.19	1.98	7.10	2.05	7.00	2.12	6.89	2.17	6.80	2.25	6.69	2.31
	7	6	7.24	2.01	7.13	2.09	7.03	2.15	6.94	2.21	6.84	2.29	6.73	2.35
	9	7.9	7.27	2.05	7.18	2.13	7.08	2.19	6.97	2.25	6.88	2.32	6.78	2.39
	11	9.8	7.32	2.09	7.23	2.16	7.11	2.23	7.02	2.29	6.93	2.37	6.81	2.43
	13	11.8	7.35	2.13	7.26	2.20	7.16	2.27	7.05	2.32	6.96	2.40	6.86	2.46
	15	13.7	7.40	2.16	7.31	2.24	7.19	2.30	7.10	2.37	7.01	2.44	6.89	2.50
	17	14.2	7.44	2.20	7.34	2.28	7.24	2.34	7.13	2.40	7.04	2.47	6.94	2.54
	19	14.8	7.48	2.24	7.39	2.31	7.27	2.38	7.18	2.44	7.09	2.52	6.97	2.58
	21	15	7.52	2.28	7.42	2.35	7.32	2.42	7.23	2.47	7.12	2.55	7.02	2.61
	23	16.8	7.56	2.31	7.47	2.39	7.35	2.45	7.26	2.52	7.17	2.59	7.05	2.66
	25	18.2	7.60	2.35	7.50	2.43	7.40	2.49	7.31	2.55	7.20	2.62	7.10	2.69
	27	19	7.64	2.39	7.55	2.46	7.44	2.53	7.34	2.59	7.25	2.67	7.13	2.73
	29	19.8	7.68	2.43	7.59	2.50	7.48	2.57	7.39	2.62	7.28	2.71	7.18	2.76

C3OU-27HDR4-A

Cooling

Combination	Outdoor temperature (°C DB)	Indoor temperature (°C)													
		DB:20.8,WB:14		DB:23.3,WB:16		DB:25.8,WB:18		DB:27,WB:19		DB:28.2,WB:20		DB:30.7,WB:22		DB:32,WB:24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	9.24	0.46	9.28	0.49	9.31	0.52	9.36	0.56	9.40	0.59	9.46	0.63	9.52	0.68
	-13	9.18	0.54	9.22	0.57	9.26	0.60	9.30	0.63	9.34	0.66	9.40	0.71	9.46	0.75
	-11	9.12	0.62	9.16	0.65	9.21	0.68	9.25	0.71	9.29	0.74	9.34	0.78	9.40	0.82
	-9	9.06	0.69	9.10	0.72	9.15	0.75	9.19	0.78	9.24	0.81	9.29	0.85	9.34	0.91
	-7	9.00	0.77	9.04	0.80	9.09	0.82	9.13	0.85	9.18	0.89	9.24	0.94	9.29	0.98
	-5	8.94	0.84	8.98	0.87	9.03	0.91	9.07	0.94	9.12	0.97	9.18	1.01	9.24	1.06
	-3	8.89	0.92	8.92	0.95	8.97	0.98	9.01	1.01	9.06	1.04	9.12	1.09	9.18	1.13
	-1	8.83	1.00	8.87	1.03	8.91	1.06	8.95	1.09	9.00	1.12	9.06	1.16	9.12	1.21
	1	8.77	1.07	8.81	1.10	8.86	1.13	8.90	1.16	8.94	1.19	9.00	1.25	9.06	1.29
	3	8.71	1.15	8.75	1.18	8.80	1.21	8.84	1.25	8.89	1.28	8.94	1.32	9.00	1.37
	5	8.65	1.22	8.69	1.26	8.74	1.29	8.78	1.32	8.83	1.35	8.89	1.40	8.94	1.44
	7	8.59	1.31	8.63	1.34	8.68	1.37	8.72	1.40	8.77	1.43	8.83	1.47	8.89	1.52
	9	8.53	1.38	8.57	1.41	8.62	1.44	8.66	1.47	8.71	1.50	8.77	1.55	8.83	1.60
	11	8.48	1.46	8.51	1.49	8.56	1.52	8.60	1.55	8.65	1.58	8.71	1.63	8.77	1.67
	13	8.42	1.53	8.47	1.56	8.50	1.60	8.54	1.63	8.59	1.66	8.65	1.70	8.71	1.75
	15	8.36	1.62	8.41	1.64	8.45	1.67	8.49	1.70	8.53	1.73	8.59	1.78	8.65	1.82
	17	8.30	1.69	8.35	1.72	8.39	1.75	8.44	1.78	8.48	1.81	8.53	1.85	8.59	1.90
	19	8.24	1.76	8.29	1.79	8.33	1.82	8.38	1.85	8.42	1.88	8.48	1.93	8.53	1.98
	21	8.18	1.84	8.23	1.87	8.27	1.90	8.32	1.93	8.36	1.97	8.42	2.01	8.48	2.06
	23	8.12	1.91	8.17	1.95	8.21	1.98	8.26	2.01	8.30	2.04	8.36	2.09	8.42	2.13
	25	8.07	2.00	8.11	2.03	8.15	2.06	8.20	2.09	8.24	2.12	8.30	2.16	8.36	2.21
	27	8.01	2.07	8.06	2.10	8.10	2.13	8.14	2.16	8.18	2.19	8.24	2.24	8.30	2.28

	29	7.95	2.15	8.00	2.18	8.04	2.21	8.09	2.24	8.12	2.27	8.18	2.32	8.24	2.37
	31	7.89	2.22	7.94	2.25	7.98	2.28	8.03	2.32	8.07	2.35	8.12	2.40	8.18	2.44
	33	7.83	2.31	7.88	2.34	7.92	2.37	7.97	2.40	8.01	2.43	8.07	2.47	8.12	2.51
	35	7.77	2.38	7.82	2.41	7.86	2.44	7.91	2.47	7.95	2.50	8.01	2.54	8.07	2.59
	37	7.71	2.45	7.76	2.48	7.80	2.51	7.85	2.54	7.89	2.57	7.95	2.62	8.01	2.67
	39	7.67	2.53	7.71	2.56	7.74	2.59	7.79	2.62	7.83	2.66	7.89	2.70	7.95	2.75
	41	7.61	2.60	7.65	2.63	7.70	2.67	7.73	2.70	7.77	2.73	7.83	2.78	7.89	2.82
	43	7.55	2.69	7.59	2.72	7.64	2.75	7.68	2.78	7.71	2.81	7.77	2.85	7.83	2.90
	45	7.49	2.76	7.53	2.79	7.58	2.82	7.62	2.85	7.67	2.88	7.71	2.93	7.77	2.97
	47	7.43	2.84	7.47	2.87	7.52	2.90	7.56	2.93	7.61	2.96	7.67	3.01	7.71	3.06
	50	7.37	2.91	7.41	2.94	7.46	2.97	7.50	3.01	7.55	3.04	7.61	3.09	7.67	3.13

Heating

Combination	Outdoor air temperature		Indoor temperature(°C DB)											
			16		18		20		21		22		24	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	-16.2	8.47	1.94	8.35	2.02	8.23	2.10	8.13	2.16	8.02	2.25	7.90	2.32
	-13.7	-15	8.51	1.98	8.41	2.07	8.28	2.14	8.18	2.21	8.06	2.29	7.94	2.36
	-11.8	-13	8.56	2.02	8.45	2.11	8.32	2.18	8.22	2.25	8.12	2.33	7.99	2.40
	-9.8	-11	8.60	2.07	8.50	2.15	8.38	2.22	8.26	2.29	8.16	2.37	8.03	2.45
	-9.5	-10	8.66	2.11	8.54	2.19	8.42	2.26	8.31	2.33	8.20	2.42	8.09	2.49
	-8.5	-9.1	8.70	2.15	8.59	2.24	8.47	2.31	8.35	2.37	8.25	2.46	8.13	2.53
	-7	-7.6	8.75	2.19	8.63	2.28	8.51	2.34	8.41	2.42	8.29	2.51	8.18	2.57
	-5	-5.6	8.79	2.24	8.69	2.32	8.56	2.39	8.45	2.46	8.34	2.54	8.22	2.62
	-3	-3.7	8.84	2.28	8.73	2.36	8.60	2.43	8.50	2.51	8.39	2.59	8.26	2.66
	0	-0.7	8.88	2.32	8.78	2.40	8.66	2.48	8.54	2.54	8.44	2.63	8.31	2.70
	3	2.2	8.94	2.36	8.82	2.45	8.70	2.51	8.59	2.59	8.48	2.68	8.35	2.74
	5	4.1	8.98	2.40	8.87	2.49	8.75	2.56	8.63	2.63	8.53	2.71	8.41	2.79
	7	6	9.02	2.45	8.91	2.53	8.79	2.60	8.69	2.68	8.57	2.76	8.45	2.83
	9	7.9	9.07	2.49	8.97	2.57	8.84	2.65	8.73	2.71	8.62	2.80	8.50	2.88
	11	9.8	9.11	2.53	9.01	2.62	8.88	2.69	8.78	2.76	8.67	2.85	8.54	2.91
	13	11.8	9.16	2.57	9.05	2.66	8.94	2.73	8.82	2.80	8.72	2.88	8.59	2.96
	15	13.7	9.20	2.62	9.10	2.70	8.98	2.77	8.87	2.85	8.76	2.93	8.63	3.00
	17	14.2	9.26	2.66	9.14	2.74	9.02	2.82	8.91	2.88	8.81	2.97	8.69	3.04
	19	14.8	9.30	2.70	9.19	2.79	9.07	2.86	8.97	2.93	8.85	3.01	8.73	3.08
	21	15	9.35	2.74	9.24	2.83	9.11	2.90	9.01	2.97	8.90	3.06	8.78	3.12
	23	16.8	9.39	2.79	9.29	2.88	9.16	2.94	9.05	3.01	8.95	3.09	8.82	3.17
	25	18.2	9.44	2.83	9.33	2.91	9.20	2.99	9.10	3.06	9.00	3.14	8.87	3.21
	27	19	9.48	2.88	9.38	2.96	9.26	3.03	9.14	3.09	9.04	3.18	8.91	3.25
	29	19.8	9.54	2.91	9.42	3.00	9.30	3.06	9.19	3.14	9.08	3.23	8.97	3.29

C4OU-28HDR4-A

Cooling

Combination	Outdoor temperature (°C DB)	Indoor temperature (°C)													
		DB:20.8,WB:14		DB:23.3,WB:16		DB:25.8,WB:18		DB:27,WB:19		DB:28.2,WB:20		DB:30.7,WB:22		DB:32,WB:24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	9.59	0.47	9.63	0.50	9.67	0.53	9.72	0.56	9.76	0.60	9.82	0.64	9.88	0.69
	-13	9.53	0.55	9.57	0.58	9.61	0.61	9.66	0.64	9.70	0.67	9.76	0.72	9.82	0.77
	-11	9.46	0.63	9.51	0.66	9.56	0.69	9.60	0.72	9.64	0.76	9.70	0.80	9.76	0.84
	-9	9.41	0.71	9.44	0.74	9.49	0.77	9.54	0.80	9.59	0.83	9.64	0.87	9.70	0.93
	-7	9.35	0.79	9.38	0.82	9.44	0.84	9.48	0.87	9.53	0.90	9.59	0.96	9.64	1.00
	-5	9.28	0.86	9.33	0.90	9.38	0.93	9.41	0.96	9.46	0.99	9.53	1.03	9.59	1.08
	-3	9.23	0.93	9.26	0.96	9.31	1.00	9.36	1.03	9.41	1.06	9.46	1.11	9.53	1.16
	-1	9.16	1.02	9.20	1.05	9.25	1.08	9.30	1.11	9.35	1.14	9.41	1.19	9.46	1.24
	1	9.10	1.09	9.15	1.12	9.20	1.16	9.23	1.19	9.28	1.22	9.35	1.27	9.41	1.32
	3	9.04	1.17	9.08	1.21	9.13	1.24	9.17	1.27	9.23	1.30	9.28	1.35	9.35	1.40
	5	8.98	1.25	9.02	1.28	9.07	1.32	9.11	1.35	9.16	1.38	9.23	1.43	9.28	1.47
	7	8.92	1.33	8.96	1.36	9.01	1.40	9.05	1.43	9.10	1.46	9.16	1.50	9.23	1.56
	9	8.86	1.41	8.90	1.44	8.95	1.47	8.99	1.50	9.04	1.53	9.10	1.59	9.16	1.62
	11	8.80	1.49	8.84	1.52	8.89	1.56	8.93	1.59	8.98	1.62	9.04	1.66	9.10	1.70
	13	8.74	1.56	8.79	1.59	8.83	1.62	8.87	1.66	8.92	1.69	8.98	1.73	9.04	1.78
	15	8.67	1.65	8.72	1.67	8.77	1.70	8.81	1.73	8.86	1.77	8.92	1.82	8.98	1.86
	17	8.62	1.72	8.67	1.75	8.71	1.78	8.76	1.82	8.80	1.85	8.86	1.89	8.92	1.94
	19	8.56	1.80	8.61	1.83	8.65	1.86	8.70	1.89	8.74	1.92	8.80	1.97	8.86	2.02
	21	8.49	1.88	8.54	1.91	8.59	1.94	8.64	1.97	8.67	2.01	8.74	2.05	8.80	2.10
	23	8.43	1.96	8.49	1.99	8.52	2.02	8.57	2.05	8.62	2.08	8.67	2.13	8.74	2.17
	25	8.37	2.04	8.42	2.07	8.46	2.10	8.51	2.13	8.56	2.17	8.62	2.20	8.67	2.26
	27	8.31	2.11	8.36	2.14	8.41	2.17	8.46	2.20	8.49	2.23	8.56	2.29	8.62	2.33

	29	8.25	2.20	8.30	2.23	8.34	2.26	8.39	2.29	8.43	2.32	8.49	2.36	8.56	2.41
	31	8.19	2.27	8.24	2.30	8.28	2.33	8.33	2.36	8.37	2.39	8.43	2.44	8.49	2.49
	33	8.13	2.35	8.18	2.38	8.22	2.41	8.28	2.44	8.31	2.47	8.37	2.52	8.43	2.57
	35	8.07	2.42	8.12	2.46	8.16	2.49	8.21	2.52	8.25	2.55	8.31	2.60	8.37	2.65
	37	8.01	2.50	8.06	2.53	8.10	2.57	8.15	2.60	8.19	2.63	8.25	2.68	8.31	2.72
	39	7.96	2.58	8.00	2.62	8.04	2.65	8.09	2.68	8.13	2.71	8.19	2.75	8.25	2.81
	41	7.90	2.66	7.93	2.69	7.99	2.72	8.03	2.75	8.07	2.78	8.13	2.84	8.19	2.88
	43	7.84	2.74	7.88	2.78	7.93	2.81	7.97	2.84	8.01	2.87	8.07	2.91	8.13	2.96
	45	7.77	2.81	7.82	2.84	7.87	2.88	7.91	2.91	7.96	2.94	8.01	2.99	8.07	3.03
	47	7.72	2.90	7.75	2.93	7.80	2.96	7.85	2.99	7.90	3.02	7.96	3.07	8.01	3.12
	50	7.65	2.97	7.70	3.00	7.75	3.03	7.79	3.07	7.84	3.10	7.90	3.15	7.96	3.19

Heating

Combination	Outdoor air temperature		Indoor temperature(°C DB)											
			16		18		20		21		22		24	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	-16.2	8.47	1.82	8.35	1.90	8.23	1.97	8.13	2.04	8.03	2.12	7.90	2.18
	-13.7	-15	8.51	1.87	8.40	1.95	8.29	2.01	8.18	2.08	8.06	2.15	7.94	2.23
	-11.8	-13	8.56	1.90	8.45	1.98	8.32	2.05	8.22	2.12	8.12	2.19	7.99	2.26
	-9.8	-11	8.60	1.95	8.50	2.03	8.38	2.09	8.26	2.15	8.16	2.23	8.03	2.30
	-9.5	-10	8.66	1.98	8.55	2.06	8.42	2.12	8.32	2.19	8.20	2.28	8.09	2.34
	-8.5	-9.1	8.70	2.03	8.60	2.11	8.47	2.17	8.35	2.23	8.25	2.32	8.13	2.39
	-7	-7.6	8.75	2.06	8.63	2.14	8.51	2.21	8.40	2.28	8.29	2.36	8.18	2.42
	-5	-5.6	8.79	2.11	8.69	2.18	8.56	2.25	8.45	2.32	8.35	2.39	8.22	2.46
	-3	-3.7	8.84	2.14	8.73	2.23	8.60	2.28	8.50	2.36	8.39	2.44	8.26	2.50
	0	-0.7	8.89	2.18	8.78	2.26	8.66	2.33	8.55	2.39	8.44	2.48	8.32	2.55
	3	2.2	8.94	2.23	8.82	2.30	8.70	2.37	8.60	2.44	8.48	2.52	8.35	2.58
	5	4.1	8.98	2.26	8.87	2.34	8.75	2.41	8.63	2.48	8.53	2.55	8.40	2.63
	7	6	9.02	2.30	8.92	2.39	8.79	2.45	8.69	2.52	8.58	2.60	8.45	2.66
	9	7.9	9.07	2.34	8.97	2.42	8.84	2.49	8.73	2.55	8.63	2.64	8.50	2.71
	11	9.8	9.12	2.39	9.01	2.46	8.89	2.53	8.78	2.60	8.66	2.68	8.55	2.74
	13	11.8	9.17	2.42	9.05	2.50	8.94	2.57	8.82	2.64	8.72	2.72	8.60	2.79
	15	13.7	9.20	2.46	9.10	2.55	8.98	2.61	8.87	2.68	8.76	2.76	8.63	2.82
	17	14.2	9.26	2.50	9.15	2.58	9.02	2.65	8.92	2.72	8.81	2.79	8.69	2.86
	19	14.8	9.30	2.55	9.20	2.63	9.07	2.69	8.97	2.76	8.86	2.83	8.73	2.90
	21	15	9.35	2.58	9.23	2.66	9.12	2.73	9.01	2.79	8.91	2.88	8.78	2.94
	23	16.8	9.39	2.63	9.29	2.71	9.17	2.77	9.05	2.83	8.95	2.91	8.82	2.99
	25	18.2	9.44	2.66	9.33	2.74	9.20	2.81	9.10	2.88	9.00	2.95	8.87	3.02
	27	19	9.49	2.71	9.38	2.79	9.26	2.85	9.15	2.91	9.04	2.99	8.92	3.06
	29	19.8	9.54	2.74	9.43	2.82	9.30	2.88	9.20	2.95	9.08	3.04	8.97	3.10

C4OU-36HDR4-A

Cooling

Combination	Outdoor temperature (°C DB)	Indoor temperature (°C)													
		DB:20.8,WB:14		DB:23.3,WB:16		DB:25.8,WB:18		DB:27,WB:19		DB:28.2,WB:20		DB:30.7,WB:22		DB:32,WB:24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	12.32	0.64	12.37	0.68	12.42	0.72	12.49	0.77	12.54	0.80	12.62	0.86	12.69	0.94
	-13	12.24	0.74	12.29	0.78	12.35	0.82	12.41	0.86	12.46	0.91	12.54	0.98	12.62	1.04
	-11	12.16	0.85	12.21	0.89	12.28	0.94	12.33	0.98	12.39	1.02	12.46	1.08	12.54	1.13
	-9	12.09	0.95	12.13	0.99	12.20	1.04	12.25	1.08	12.32	1.12	12.39	1.17	12.46	1.25
	-7	12.01	1.07	12.06	1.10	12.13	1.13	12.17	1.17	12.24	1.22	12.32	1.29	12.39	1.35
	-5	11.93	1.16	11.98	1.20	12.05	1.25	12.10	1.29	12.16	1.33	12.24	1.39	12.32	1.46
	-3	11.85	1.26	11.90	1.30	11.97	1.35	12.02	1.39	12.09	1.43	12.16	1.50	12.24	1.56
	-1	11.77	1.38	11.83	1.41	11.89	1.46	11.94	1.50	12.01	1.54	12.09	1.60	12.16	1.67
	1	11.69	1.47	11.75	1.52	11.81	1.56	11.86	1.60	11.93	1.65	12.01	1.71	12.09	1.77
	3	11.61	1.59	11.67	1.63	11.73	1.67	11.79	1.71	11.85	1.75	11.93	1.81	12.01	1.88
	5	11.54	1.69	11.59	1.73	11.65	1.77	11.71	1.81	11.77	1.86	11.85	1.93	11.93	1.99
	7	11.46	1.80	11.52	1.84	11.58	1.88	11.63	1.93	11.69	1.97	11.77	2.02	11.85	2.10
	9	11.38	1.90	11.44	1.94	11.50	1.99	11.56	2.02	11.61	2.07	11.69	2.14	11.77	2.20
	11	11.30	2.02	11.36	2.05	11.42	2.10	11.48	2.14	11.54	2.18	11.61	2.24	11.69	2.30
	13	11.23	2.11	11.29	2.15	11.34	2.20	11.40	2.24	11.46	2.28	11.54	2.33	11.61	2.41
	15	11.15	2.23	11.22	2.25	11.27	2.30	11.32	2.33	11.38	2.38	11.46	2.45	11.54	2.51
	17	11.07	2.33	11.14	2.36	11.19	2.41	11.26	2.45	11.30	2.49	11.38	2.55	11.46	2.62
	19	10.99	2.42	11.06	2.46	11.11	2.51	11.18	2.55	11.23	2.60	11.30	2.66	11.38	2.72
	21	10.92	2.54	10.98	2.58	11.03	2.62	11.10	2.66	11.15	2.70	11.23	2.76	11.30	2.83
	23	10.84	2.64	10.90	2.68	10.96	2.72	11.02	2.76	11.07	2.81	11.15	2.88	11.23	2.94
	25	10.76	2.75	10.82	2.79	10.88	2.83	10.94	2.88	10.99	2.92	11.07	2.97	11.15	3.04
	27	10.68	2.85	10.74	2.89	10.80	2.94	10.86	2.97	10.92	3.02	10.99	3.09	11.07	3.15

	29	10.60	2.96	10.67	3.00	10.72	3.04	10.78	3.09	10.84	3.13	10.92	3.19	10.99	3.26
	31	10.52	3.06	10.59	3.10	10.64	3.15	10.70	3.19	10.76	3.23	10.84	3.30	10.92	3.36
	33	10.44	3.18	10.51	3.22	10.56	3.26	10.63	3.30	10.68	3.34	10.76	3.40	10.84	3.46
	35	10.37	3.27	10.43	3.31	10.48	3.36	10.55	3.40	10.60	3.44	10.68	3.50	10.76	3.57
	37	10.29	3.37	10.36	3.41	10.41	3.46	10.47	3.50	10.52	3.54	10.60	3.61	10.68	3.67
	39	10.22	3.49	10.28	3.53	10.33	3.57	10.40	3.61	10.44	3.65	10.52	3.71	10.60	3.78
	41	10.14	3.58	10.20	3.62	10.26	3.67	10.32	3.71	10.37	3.76	10.44	3.83	10.52	3.89
	43	10.07	3.70	10.12	3.74	10.18	3.78	10.24	3.83	10.29	3.87	10.37	3.92	10.44	3.99
	45	9.99	3.80	10.04	3.84	10.11	3.89	10.16	3.92	10.22	3.97	10.29	4.04	10.37	4.10
	47	9.91	3.91	9.96	3.95	10.03	3.99	10.08	4.04	10.14	4.08	10.22	4.14	10.29	4.20
	50	9.84	4.01	9.88	4.05	9.95	4.10	10.00	4.14	10.07	4.18	10.14	4.25	10.22	4.31

Heating

Combination	Outdoor air temperature		Indoor temperature(°C DB)											
			16		18		20		21		22		24	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	-16.2	10.73	2.29	10.59	2.39	10.43	2.48	10.30	2.56	10.17	2.67	10.01	2.74
	-13.7	-15	10.78	2.35	10.66	2.45	10.50	2.53	10.36	2.62	10.22	2.71	10.06	2.80
	-11.8	-13	10.85	2.39	10.70	2.49	10.55	2.59	10.42	2.67	10.29	2.76	10.13	2.84
	-9.8	-11	10.91	2.45	10.77	2.55	10.62	2.63	10.47	2.71	10.34	2.81	10.18	2.90
	-9.5	-10	10.97	2.49	10.82	2.60	10.67	2.67	10.54	2.76	10.39	2.87	10.25	2.95
	-8.5	-9.1	11.02	2.55	10.89	2.66	10.73	2.73	10.59	2.81	10.46	2.91	10.30	3.00
	-7	-7.6	11.09	2.60	10.95	2.70	10.78	2.78	10.66	2.87	10.51	2.97	10.36	3.05
	-5	-5.6	11.14	2.66	11.01	2.74	10.85	2.83	10.70	2.91	10.58	3.01	10.42	3.10
	-3	-3.7	11.21	2.70	11.06	2.80	10.91	2.88	10.77	2.97	10.63	3.07	10.47	3.15
	0	-0.7	11.26	2.74	11.13	2.84	10.97	2.94	10.82	3.01	10.69	3.11	10.54	3.21
	3	2.2	11.33	2.80	11.18	2.90	11.02	2.98	10.89	3.07	10.74	3.17	10.59	3.25
	5	4.1	11.37	2.84	11.25	2.95	11.09	3.03	10.95	3.11	10.81	3.22	10.66	3.30
	7	6	11.43	2.90	11.30	3.00	11.14	3.08	11.01	3.17	10.87	3.27	10.70	3.35
	9	7.9	11.50	2.95	11.36	3.05	11.21	3.14	11.06	3.22	10.93	3.32	10.77	3.41
	11	9.8	11.55	3.00	11.41	3.10	11.26	3.18	11.13	3.27	10.99	3.37	10.82	3.45
	13	11.8	11.62	3.05	11.47	3.15	11.33	3.23	11.18	3.32	11.05	3.42	10.89	3.51
	15	13.7	11.66	3.10	11.54	3.21	11.37	3.28	11.25	3.37	11.10	3.48	10.95	3.55
	17	14.2	11.73	3.15	11.59	3.25	11.43	3.34	11.30	3.42	11.17	3.52	11.01	3.60
	19	14.8	11.78	3.21	11.66	3.30	11.50	3.38	11.36	3.48	11.22	3.56	11.06	3.65
	21	15	11.85	3.25	11.70	3.35	11.55	3.44	11.41	3.52	11.29	3.62	11.13	3.70
	23	16.8	11.90	3.30	11.77	3.41	11.62	3.49	11.47	3.56	11.33	3.67	11.18	3.76
	25	18.2	11.97	3.35	11.82	3.45	11.66	3.54	11.54	3.62	11.40	3.72	11.25	3.80
	27	19	12.02	3.41	11.89	3.51	11.73	3.58	11.59	3.67	11.46	3.77	11.30	3.85
	29	19.8	12.09	3.45	11.94	3.55	11.78	3.63	11.66	3.72	11.51	3.82	11.36	3.90

C5OU-42HDR4-A

Cooling

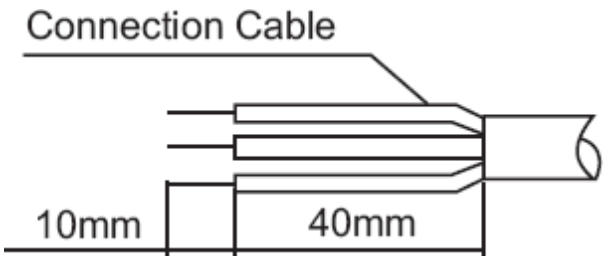
Combination	Outdoor temperature (°C DB)	Indoor temperature (°C)													
		DB:20.8,WB:14		DB:23.3,WB:16		DB:25.8,WB:18		DB:27,WB:19		DB:28.2,WB:20		DB:30.7,WB:22		DB:32,WB:24	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-15	14.37	0.73	14.43	0.78	14.50	0.83	14.57	0.88	14.63	0.93	14.72	0.99	14.81	1.07
	-13	14.28	0.84	14.35	0.89	14.41	0.94	14.48	0.99	14.54	1.04	14.63	1.12	14.72	1.19
	-11	14.19	0.97	14.25	1.02	14.33	1.07	14.39	1.12	14.45	1.17	14.54	1.23	14.63	1.30
	-9	14.10	1.09	14.16	1.14	14.24	1.19	14.30	1.23	14.37	1.28	14.45	1.35	14.54	1.43
	-7	14.01	1.22	14.07	1.26	14.15	1.30	14.21	1.35	14.28	1.39	14.37	1.48	14.45	1.54
	-5	13.92	1.33	13.98	1.38	14.06	1.43	14.12	1.48	14.19	1.53	14.28	1.59	14.37	1.67
	-3	13.83	1.45	13.89	1.50	13.96	1.54	14.02	1.59	14.10	1.64	14.19	1.72	14.28	1.79
	-1	13.74	1.57	13.80	1.63	13.87	1.67	13.94	1.72	14.01	1.77	14.10	1.83	14.19	1.92
	1	13.65	1.69	13.71	1.74	13.78	1.79	13.84	1.83	13.92	1.88	14.01	1.96	14.10	2.03
	3	13.55	1.82	13.61	1.87	13.69	1.92	13.75	1.96	13.83	2.01	13.92	2.08	14.01	2.16
	5	13.46	1.94	13.52	1.98	13.60	2.03	13.66	2.08	13.74	2.13	13.83	2.21	13.92	2.27
	7	13.38	2.06	13.44	2.11	13.51	2.16	13.57	2.21	13.65	2.26	13.74	2.32	13.83	2.40
	9	13.28	2.18	13.34	2.23	13.42	2.27	13.48	2.32	13.55	2.37	13.65	2.45	13.74	2.52
	11	13.19	2.31	13.25	2.36	13.33	2.40	13.39	2.45	13.46	2.50	13.55	2.56	13.65	2.63
	13	13.10	2.42	13.18	2.47	13.24	2.52	13.30	2.56	13.38	2.62	13.46	2.68	13.55	2.76
	15	13.01	2.55	13.09	2.58	13.15	2.63	13.20	2.68	13.28	2.73	13.38	2.81	13.46	2.87
	17	12.91	2.67	12.99	2.71	13.05	2.76	13.13	2.81	13.19	2.86	13.28	2.93	13.38	3.00
	19	12.83	2.78	12.90	2.83	12.96	2.87	13.04	2.93	13.10	2.97	13.19	3.05	13.28	3.12
	21	12.74	2.91	12.81	2.96	12.87	3.00	12.95	3.05	13.01	3.10	13.10	3.17	13.19	3.25
	23	12.64	3.02	12.72	3.07	12.78	3.12	12.86	3.17	12.91	3.22	13.01	3.29	13.10	3.36
	25	12.55	3.15	12.63	3.20	12.69	3.25	12.76	3.29	12.83	3.35	12.91	3.41	13.01	3.49
	27	12.46	3.26	12.54	3.31	12.60	3.36	12.68	3.41	12.74	3.46	12.83	3.54	12.91	3.60

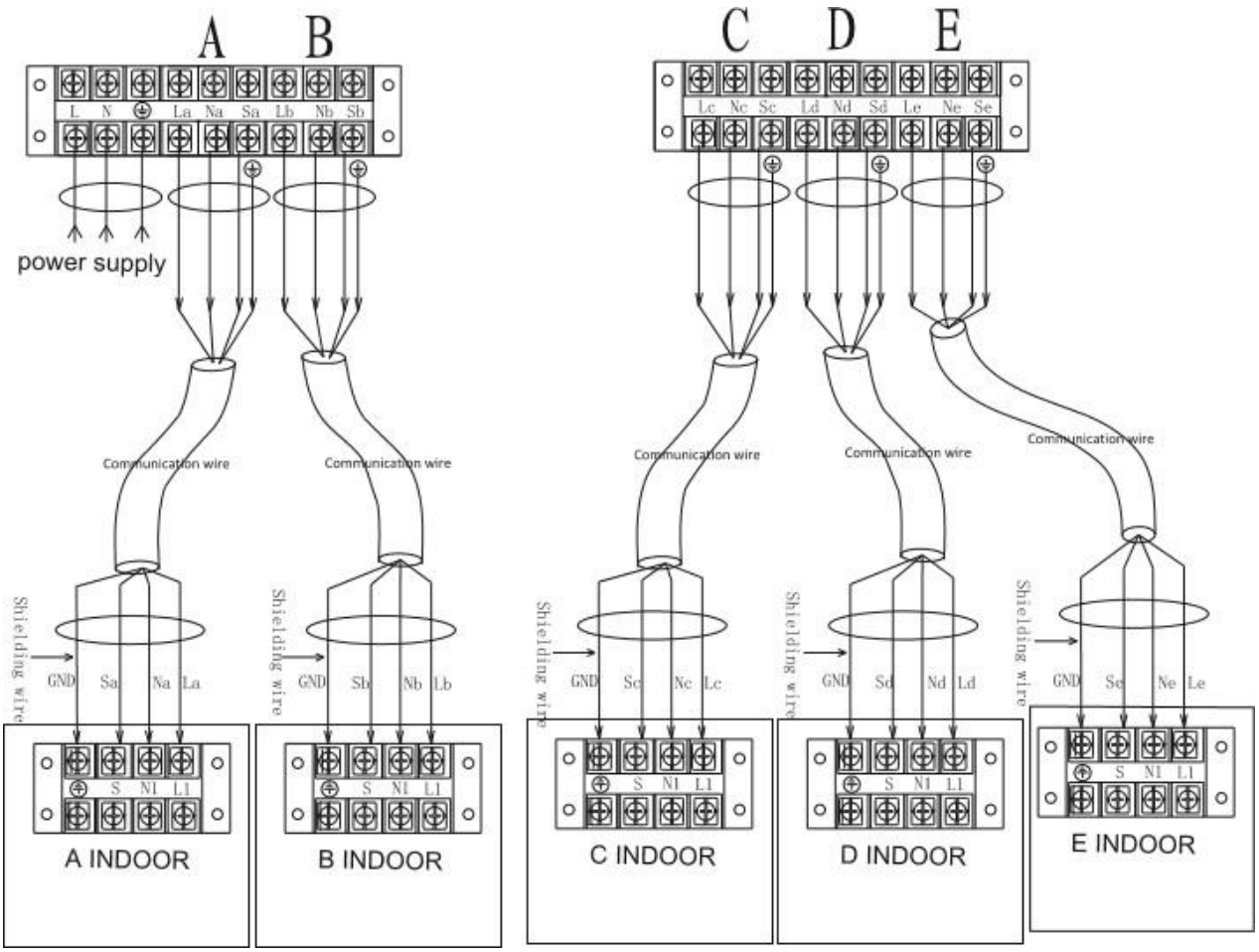
	29	12.37	3.40	12.45	3.44	12.51	3.49	12.58	3.54	12.64	3.59	12.74	3.66	12.83	3.73
	31	12.28	3.51	12.35	3.56	12.42	3.60	12.49	3.66	12.55	3.70	12.64	3.79	12.74	3.85
	33	12.19	3.64	12.27	3.69	12.33	3.73	12.40	3.79	12.46	3.83	12.55	3.90	12.64	3.97
	35	12.10	3.75	12.17	3.80	12.23	3.85	12.31	3.90	12.37	3.95	12.46	4.01	12.55	4.10
	37	12.00	3.86	12.08	3.91	12.14	3.97	12.22	4.01	12.28	4.06	12.37	4.14	12.46	4.21
	39	11.93	3.99	11.99	4.04	12.05	4.10	12.13	4.14	12.19	4.19	12.28	4.26	12.37	4.34
	41	11.84	4.11	11.90	4.16	11.98	4.21	12.04	4.26	12.10	4.30	12.19	4.39	12.28	4.45
	43	11.75	4.24	11.81	4.29	11.88	4.34	11.94	4.39	12.00	4.43	12.10	4.50	12.19	4.58
	45	11.66	4.35	11.72	4.40	11.79	4.45	11.86	4.50	11.93	4.55	12.00	4.63	12.10	4.70
	47	11.57	4.48	11.63	4.53	11.71	4.58	11.77	4.63	11.84	4.68	11.93	4.74	12.00	4.83
	50	11.48	4.59	11.53	4.65	11.61	4.70	11.67	4.74	11.75	4.79	11.84	4.87	11.93	4.94

Heating

Combination	Outdoor air temperature		Indoor temperature(°C DB)											
			16		18		20		21		22		24	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-15	-16.2	12.43	2.72	12.26	2.83	12.08	2.94	11.92	3.04	11.77	3.15	11.59	3.25
	-13.7	-15	12.49	2.78	12.33	2.90	12.15	2.99	12.00	3.10	11.84	3.21	11.65	3.32
	-11.8	-13	12.57	2.83	12.40	2.96	12.21	3.06	12.06	3.15	11.91	3.28	11.73	3.37
	-9.8	-11	12.63	2.90	12.47	3.02	12.29	3.12	12.12	3.21	11.97	3.33	11.79	3.44
	-9.5	-10	12.70	2.96	12.53	3.08	12.35	3.17	12.20	3.28	12.04	3.40	11.86	3.49
	-8.5	-9.1	12.76	3.02	12.61	3.15	12.43	3.24	12.26	3.33	12.11	3.45	11.92	3.56
	-7	-7.6	12.84	3.08	12.67	3.20	12.49	3.29	12.33	3.40	12.17	3.51	12.00	3.61
	-5	-5.6	12.90	3.15	12.74	3.25	12.57	3.35	12.40	3.45	12.25	3.57	12.06	3.67
	-3	-3.7	12.98	3.20	12.81	3.32	12.63	3.41	12.47	3.51	12.31	3.64	12.12	3.73
	0	-0.7	13.04	3.25	12.88	3.37	12.70	3.48	12.53	3.57	12.38	3.69	12.20	3.80
	3	2.2	13.11	3.32	12.94	3.44	12.76	3.53	12.61	3.64	12.45	3.76	12.26	3.85
	5	4.1	13.17	3.37	13.02	3.49	12.84	3.60	12.67	3.69	12.52	3.81	12.33	3.92
	7	6	13.23	3.44	13.08	3.56	12.90	3.65	12.74	3.76	12.58	3.88	12.40	3.97
	9	7.9	13.31	3.49	13.16	3.61	12.98	3.72	12.81	3.81	12.66	3.93	12.47	4.03
	11	9.8	13.37	3.56	13.22	3.67	13.04	3.77	12.88	3.88	12.72	3.99	12.53	4.09
	13	11.8	13.45	3.61	13.28	3.73	13.11	3.83	12.94	3.93	12.79	4.05	12.61	4.15
	15	13.7	13.51	3.67	13.35	3.80	13.17	3.89	13.02	3.99	12.86	4.12	12.67	4.21
	17	14.2	13.58	3.73	13.42	3.85	13.23	3.96	13.08	4.05	12.93	4.17	12.74	4.26
	19	14.8	13.64	3.80	13.49	3.92	13.31	4.01	13.16	4.12	12.99	4.22	12.81	4.33
	21	15	13.72	3.85	13.55	3.97	13.37	4.08	13.22	4.17	13.07	4.29	12.88	4.38
	23	16.8	13.78	3.92	13.63	4.03	13.45	4.13	13.28	4.22	13.13	4.34	12.94	4.45
	25	18.2	13.86	3.97	13.69	4.09	13.51	4.19	13.35	4.29	13.20	4.41	13.02	4.50
	27	19	13.92	4.03	13.76	4.15	13.58	4.25	13.42	4.34	13.27	4.46	13.08	4.57
	29	19.8	13.99	4.09	13.83	4.21	13.64	4.30	13.49	4.41	13.33	4.53	13.16	4.62

8. Field Wiring





9. Electric Characteristics

Model	Outdoor Unit				Power Supply		OFM
	Hz	Voltage	Min.	Max.	TOCA	MFA	kW
C2OU-14HDR4-A	50	220-240	198	264	11.4	32	0.06
C2OU-18HDR4-A	50	220-240	198	264	12.3	32	0.06
C3OU-21HDR4-A	50	220-240	198	264	14.2	32	0.072
C3OU-27HDR4-A	50	220-240	198	264	17.2	32	0.072
C3OU-28HDR4-A	50	220-240	198	264	19.0	32	0.165
C3OU-36HDR4-A	50	220-240	198	264	27.0	32	0.165
C5OU-42HDR4-A	50	220-240	198	264	28.0	32	0.165

Remark:

TOCA: Total Over-currentAmps. (A)

MFA: Max. Fuse Amps. (A)

MSC: Max. starting Amps. (A)

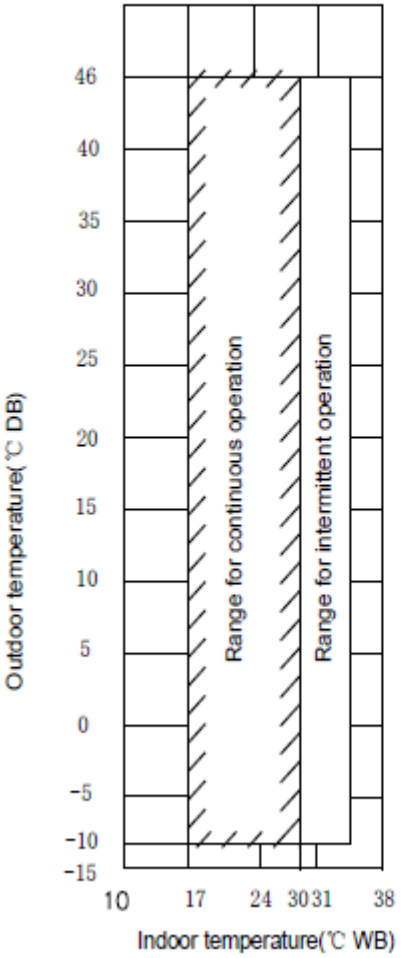
RLA: Rated Locked Amps. (A)

OFM: Fan Motor.

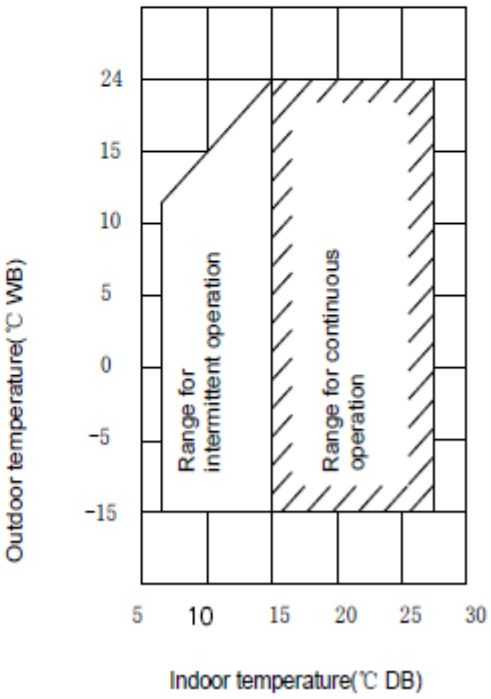
KW: Rated Motor Output (kW)

10. Operation Limits

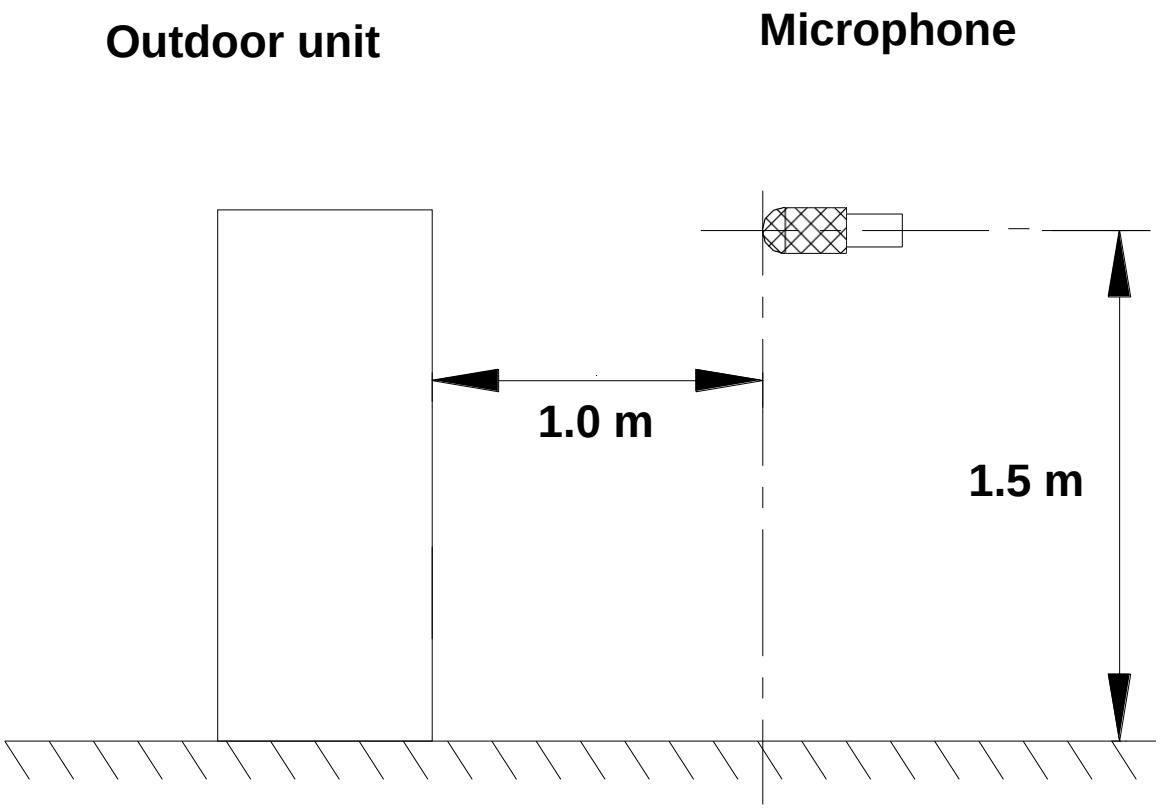
Cooling



Heating



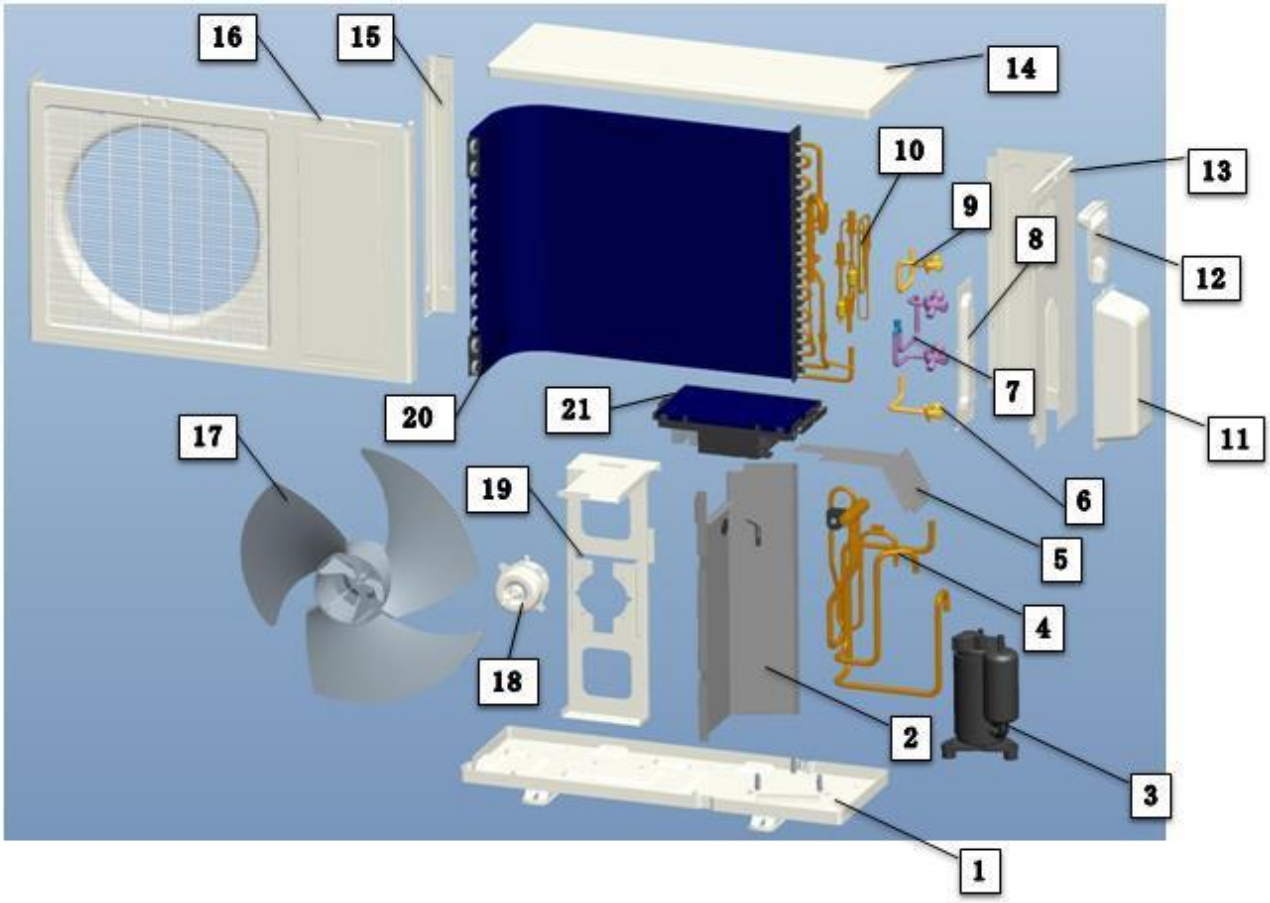
11. Sound Levels



Model	Noise level dB(A)
	H
C2OU-14HDR4-A	54
C2OU-18HDR4-A	54
C3OU-21HDR4-A	55
C3OU-27HDR4-A	55
C4OU-28HDR4-A	59
C4OU-36HDR4-A	61
C5OU-42HDR4-A	62

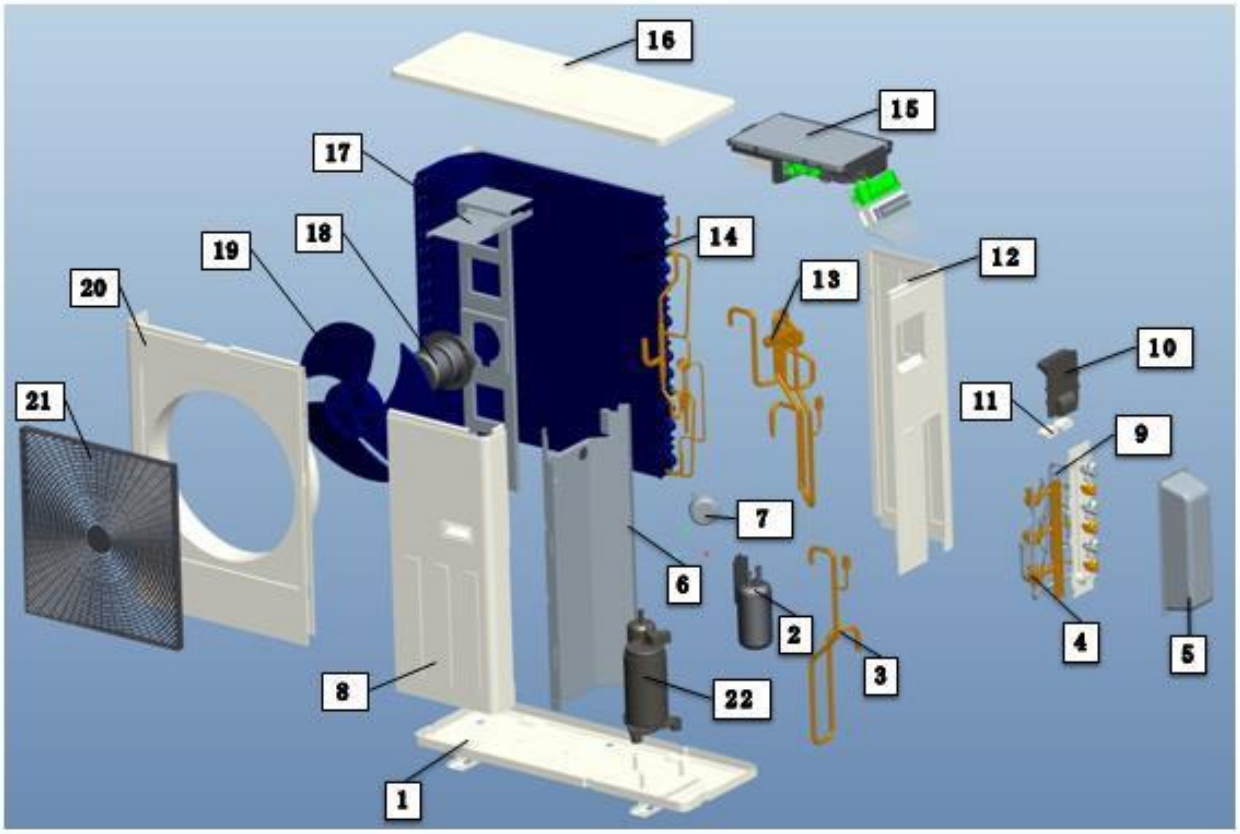
12. Exploded View

C2OU-14HDR4-A / C2OU-18HDR4-A



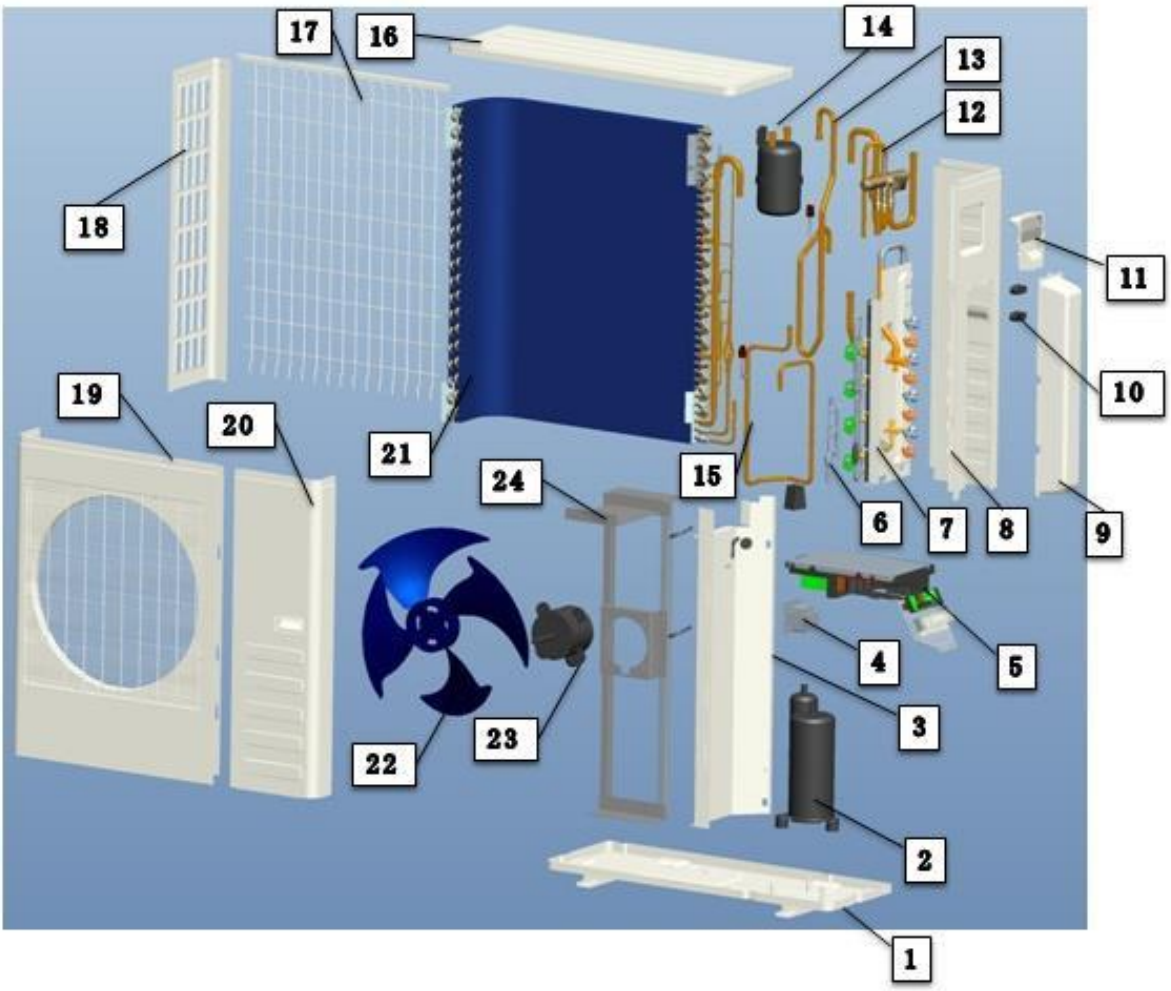
No.	Part Name	Quantity	No.	Part Name	Quantity
1	Chassis assembly	1	10.6	Two-way filter	1
2	Main board installation assembly	1	10.7	Length of straight pipe	2
3	Inverter compressor	1	10.8	Length of capilary	2
4	4-way valve assembly	1	10.9	Length of straight pipe	1
4.1	4-way valve	1	10.10	Length of straight pipe	1
4.2	4-way valve coil	1	10.11	Length of capilary	1
4.3	4-way valve connection pipe D assembly	1	10.12	Transition tube	1
4.4	4-way valve connection pipe C assembly	1	11	Valve holder protecting cover	1
4.5	4-way valve connection pipe E	1	12	Big handle	1
4.6	4-way valve connection pipe S	1	13	Right clapboard attached cotton assembly	1
5	Terminal block	1	14	Top cover attached cotton assembly	1
6	DN4 cut-off valve B	1	15	Left upright post	1
7	DN8 cut-off valve assembly	1	16	Front panel assembly	1
7.1	Y-shape tube	1	17	Axial fan blade	1
7.2	DN8 cut-off valve A	1	18	Single-axis DC fan motor	1
7.3	DN8 cut-off valve B	1	19	Fan motor holder assembly	1
8	Valve holder	1	20	Condenser part	1
9	DN4 cut-off valve A	1	20.1	Condenser assembly	1
10	EXV assembly	1	20.2	Gas collector assembly	1
10.1	EXV	2	20.3	Distributing capillary assembly	1
10.2	EXV coil	2	20.4	L-shape tube	1
10.3	Two-way filter	2	20.5	Process pipe	1
10.4	Transition tube	4	20.6	Probe of copper pipe	1
10.5	3-way tube	1	20.7	Length of straight pipe	1
21	E-parts	1	21.4	Electric wires	2
21.1	Electric wires	1	21.5	Terminal	1
21.2	Line pressing button	1	21.6	Four-core switch wire	1
21.3	Integrated PCB	1			

C3OU-21HDR4-A / C3OU-27HDR4-A



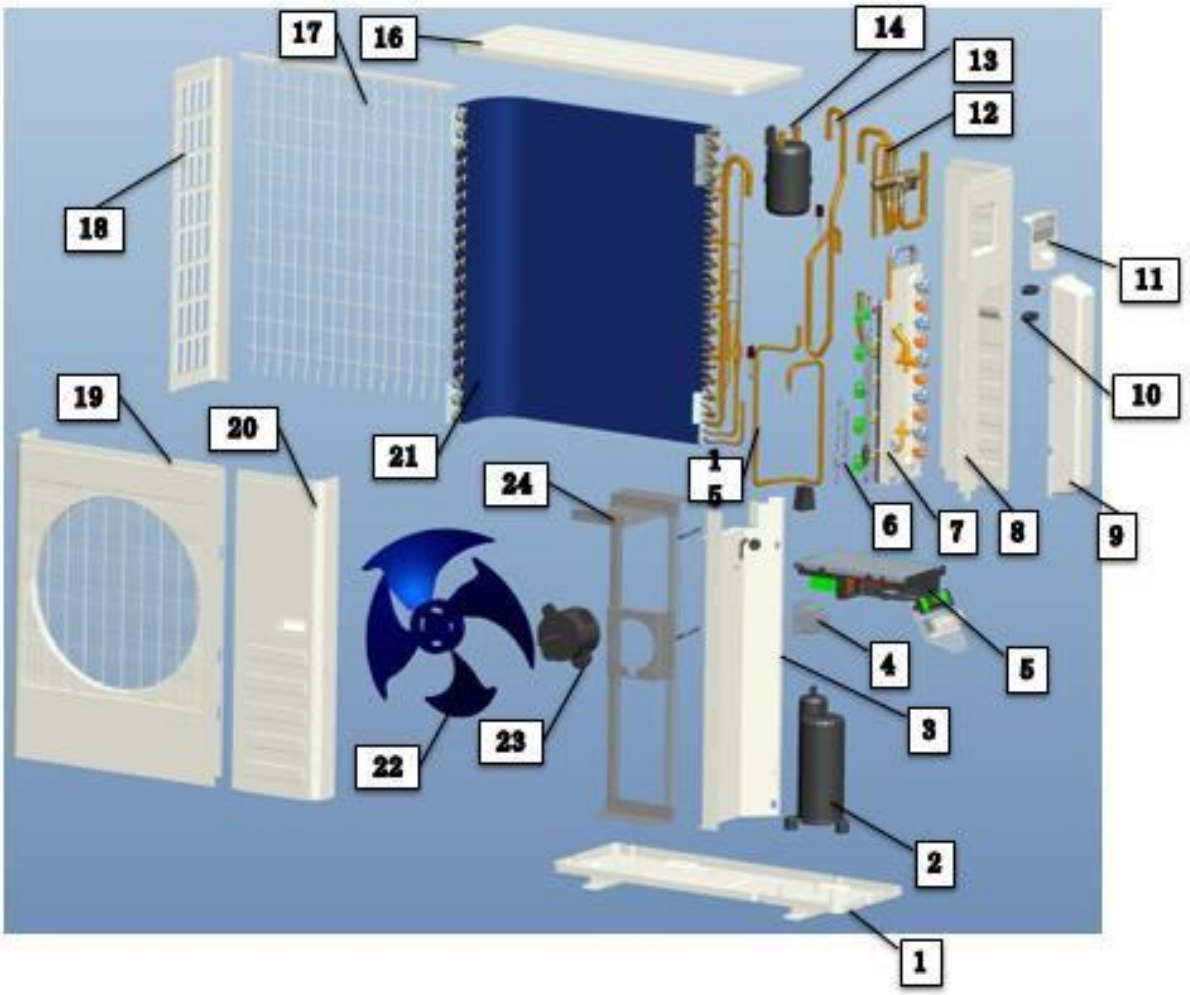
No.	Part Name	Quantity	No.	Part Name	Quantity
1	Chassis assembly	1	14.1	condenser	1
2	gas-liquid seperator	1	14.2	gas collector welding assembly	1
3	suction pipe assembly	1	14.3	Distributing capillary assembly	1
4	cut-off valve parts	1	14.4	connectiong pipe welding assembly	1
4.1	EXV assembly	1	15	E-parts	1
4.2	low pressure valve assembly	1	15.1	terminal board	1
4.3	Valve holder	1	15.2	integrated PCB (anti-explosion)	1
4.4	support plate	1	15.3	line pressing button	1
4.5	pipe clamp	1	15.4	terminal	1
5	valve holder protecting cover	1	15.5	terminal	1
6	seperating board	1	15.6	communication display board	1
7	reactor	1	15.7	terminal supprting board	1
8	front maintance board attached cotton assembly	1	16	top cover attached cotton assembly	1
9	check valve assembly	1	17	fan motor holder assembly	1
10	big handle attached cotton assembly	1	18	single-axis fan motor	1
11	line pressing button	2	19	axial fan blade	1
12	right clapboard	1	20	front panel	1
13	4-way valve assembly	1	21	front net	1
14	condenser welding assembly	1	22	inverter compressor	1

C4OU-28HDR4-A / C4OU-36HDR4-A



No.	Part Name	Qty	No.	Part Name	Qty
1	Chassis assembly	1	7.3	Valve holder	1
2	inverter compressor	1	7.4	supporting board	1
3	seperating board assembly	1	7.5	EXV assembly	1
4	reactor	1	7.6	low pressure cut-off valve assembly	1
5	E-parts	1	7.7	pipe clamp	4
5.1	integrated PCB (anti-explosion)	1	8	right clapboard	1
5.2	terminal board	1	9	valve holder protecting cover	1
5.3	terminal supprting board	1	10	line pressing button	2
5.4	terminal	1	11	big handle attached cotton assembly	1
5.5	terminal	1	12	4-way valve assembly	1
5.6	communication board installed basement	1	13	suction pipe assembly	1
5.7	one drives four communication wire	1	14	gas-liquid seperator	1
5.8	line pressing button	1	15	discharge pipe assembly	1
5.9	communication display board	1	16	top cover assembly	1
5.10	communication wire	1	17	back net assembly	1
6	throttling assembly	2	18	left panel assembly	1
6.1	length of straight pipe	1	19	front panel assembly	1
6.2	two-way filter	1	20	maintenance panel assembly	1
6.3	length of capilary	1	21	condenser part	1
6.4	check valve	1	21.1	condenser assembly	1
6.5	straight pipe	1	21.2	gas collector assembly	1
7	Valve holder part	1	21.3	Distributing capillary assembly	1
7.1	low pressure valve welding assembly	1	21.4	-shape pipe	1
7.2	high pressure valve welding assembly	1	21.5	process pipe	1
21.6	length of straight pipe	1	22	single-axis DC fan motor	1
21.7	Probe of copper pipe	1	23	axial fan blade	1
21.8	condenser retaining clip	1	24	fan motor holder assembly	1
21.6	length of straight pipe	1	22	single-axis DC fan motor	1
21.7	Probe of copper pipe	1	23	axial fan blade	1
21.8	condenser retaining clip	1	24	fan motor holder assembly	1

C5OU-42HDR4-A



No.	Part Name	Quantity	No.	Part Name	Quantity
1	Chassis assembly	1	7.3	Valve holder	1
2	inverter compressor	1	7.4	supporting board	1
3	seperating board assembly	1	7.5	EXV assembly	1
4	reactor	1	7.6	low pressure cut-off valve assembly	1
5	E-parts	1	7.7	pipe clamp	4
5.1	integrated PCB (anti-explosion)	1	8	right clapboard	1
5.2	terminal board	1	9	valve holder protecting cover	1
5.3	terminal supprting board	1	10	line pressing button	2
5.4	terminal	1	11	big handle attached cotton assembly	1
5.5	terminal	1	12	4-way valve assembly	1
5.6	communication board installed basement	1	13	suction pipe assembly	1
5.7	one drives four communication wire	1	14	gas-liquid seperator	1
5.8	line pressing button	1	15	discharge pipe assembly	1
5.9	communication display board	1	16	top cover assembly	1
5.10	communication wire	1	17	back net assembly	1
6	throttling assembly	2	18	left panel assembly	1
6.1	length of straight pipe	1	19	front panel assembly	1
6.2	two-way filter	1	20	maintenance panel assembly	1
6.3	length of capilary	1	21	condenser part	1
6.4	length of capilary	1	21.1	condenser assembly	1
6.5	check valve	1	21.2	gas collector assembly	1
6.6	straight pipe	1	21.3	Distributing capillary assembly	1
7	Valve holder part	1	21.4	L-shape pipe	1
7.1	low pressure valve welding assembly	1	21.5	process pipe	1
7.2	high pressure valve welding assembly	1	21.6	length of straight pipe	1
21.7	Probe of copper pipe	**1**	**23**	axial fan blade	**1**
21.8	condenser retaining clip	**1**	**24**	fan motor holder assembly	**1**
22	single-axis DC fan motor	**1**			

13. Troubleshooting

Indoor unit:

Definitions of malfunction	Contents appearing
The first time to switch on and there is no address	FE
Errors of phase sequence or fault of losing phase	E0
Communication failure of indoor and outdoor unit	E1
T1 sensor fault	E2
T2 sensor fault	E3
T2B sensor fault	E4
Malfunction of outdoor unit	E5
Testing fault of zero-crossing signal	E6
EEPROM malfunction	E7
Wind testing fault of PG electric motor	E8
Communication fault of wire controller	E9
Alarming fault of water level switch	EE
Model conflict	EF

Display of LED:

LED running indicators shine slowly when it is electrified and reset. All of them will go out when it is on standby, while starting up, they will light up. When it is anti-cold or defrost, the preheating light/defrost light will turn on. If timing function is turned on, timing light will light up. When it encounters fault, it manifests the following contents:

Definitions of malfunction	Contents appearing
The first time to switch on and there is no address	LED timing light and running light shine slowly at the same time.
Communication failure of indoor and outdoor unit	LED timing light shines quickly
Fault of indoor temperature sensor	LED running shines quickly
Alarming fault of water level	LED alarming light shines quickly
Mode impact fault	LED defrost light shines quickly
Outdoor unit fault	LED alarming light shines slowly
EEPROM malfunction	LED defrost light shines slowly

It shines slowly with a cycle of 2 seconds and quickly with a cycle of 0.4 second.

Outdoor unit:

Fault Code	Fault Contents	Remark
E1	Reserved	
E2	Communication fault between the indoor unit and the outdoor unit	
E4	Environment temperature sensor fault	
E6	Condensate temperature sensor fault	
E9	AC overvoltage/undervoltage protection	
E10	EEPROM fault	
H0	Communication failure between master chip and DSP	
H4	The protection of 3 times P6 in 30 minutes	
H5	The protection of 3 times P2 in 30 minutes	
H6	The protection of 3 times P4 in 100 minutes	
H10	The protection of 3 times P3 in 60 minutes	
P1	High pressure protection	
P2	Low pressure protection	
P3	AC/DC current flows through protection	
P4	Excessive exhaust temperature protection	
P5	T3 high temperature protection	
P6	IPM modules protection	

Part 4. Installation

1. Selecting installation place

Read completely, then follow step by step:

■ Indoor unit

- Do not expose the indoor unit to heat or steam.
- Select a place where there are no obstacles in front or around the unit.
- Make sure that condensation drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the space on the left and right of the unit is more than 15cm.
- Use a stud finder to locate studs to prevent unnecessary damage to the wall.
- The indoor unit should be installed on the wall at a height of 2.0 meters or more from the floor.
- The indoor unit should be installed allowing a minimum clearance of 15cm from the ceiling.
- Any variations in pipe length will/may require adjustment to refrigerant charge.
- There should not be any direct sunlight. Otherwise, the sun will fade the plastic cabinet and affect its appearance. If unavoidable, sunlight prevention should be taken into consideration.

■ Outdoor unit

- If an awning is built over the outdoor unit to prevent direct sunlight or rain exposure, make sure that heat radiation from the condenser is not restricted.
- Ensure that the clearance around the back of the unit is more than 30cm and left side is more than 30cm. The front of the unit should have more than 200cm of clearance and the connection side (right side) should have more than 60cm of clearance.
- Do not place animals and plants in the path of the air inlet or outlet.
- Take the air conditioner weight into account and select a place where noise and vibration will not be an issue.
- Select a place so that the warm air and noise from the air conditioner do not disturb neighbors.

2. Rooftop installation

- If the outdoor unit is installed on a roof structure, be sure to level the unit.
- Ensure the roof structure and anchoring method are adequate for the unit location.
- Consult local codes regarding rooftop mounting.
- If the outdoor unit is installed on roof structures or external walls, this may result in excessive noise and vibration, and may also be classed as a non serviceable installation.

3. Refrigerant pipe connection

Flaring work

- Main cause for refrigerant leakage is due to defect in the flaring work.

  Carry out correct flaring work using the following procedure:

- Cut the pipes and the cable

1. Use the piping kit accessory or pipes purchased locally.

2. Measure the distance between the indoor and the outdoor unit.

3. Cut the pipes a little longer than the measured distance.

4. Cut the cable 1.5m longer than the pipe length.

- Burr removal

1. Completely remove all burrs from the cut cross section of pipe/tube.

2. Put the end of the copper tube/pipe in a downward direction as you remove burrs in order to avoid dropping burrs into the tubing.

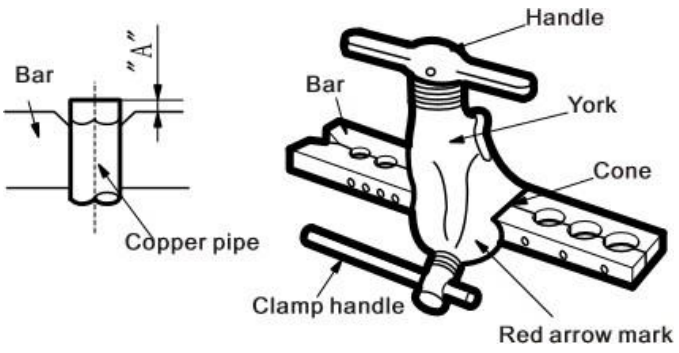
- Putting nut on

Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.(not possible to put them on after flaring work).

- Flaring work

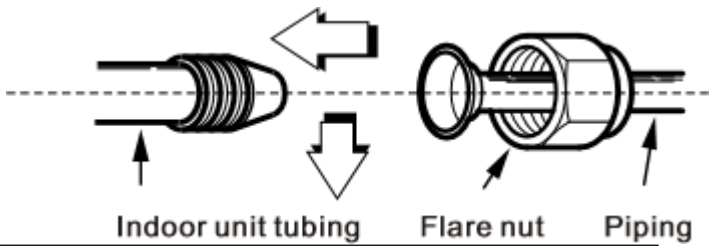
Firmly hold copper pipe in a die in the dimension shown in the table below.

Outer diam. (mm)	A(mm)	
	Max.	Min.
φ6.35	1.3	0.7
φ9.52	1.6	1.0
φ12.7	1.8	1.0
φ15.88	2.0	1.2

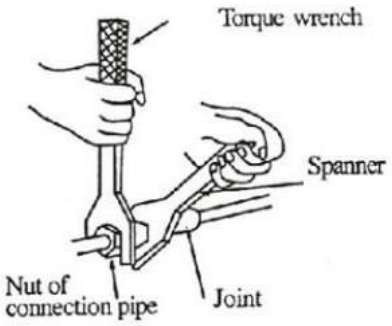


Tightening Connection

- Align the center of the pipes.
- Sufficiently tighten the flare nut with fingers, and then tighten it with a spanner and torque wrench.



Outer diam. (mm)	Tightening torque (N.cm)	Additional tightening torque (N.cm)
φ6.35	1000	1200
φ9.52	1500	1800
φ12.7	2000	2300
φ15.88	2800	3200



Caution

Excessive torque can break nut depending on installation conditions.

Make sure of piping length and height difference according with following form

One IDU	Length	Max.15m
Dual split	Total length	Max.30m
	Difference in height between indoor and outdoor units	Max.10m
	Difference in height between indoor units	Max. 5m
Triple split	Total length	Max.45m
	Difference in height between indoor and outdoor units	Max.10m
	Difference in height between indoor units	Max. 5m
Quadruple split	Total length	Max.60m
	Difference in height between indoor and outdoor units	Max.10m
	Difference in height between indoor units	Max. 5m
Quintuple split	Total length	Max.75m
	Difference in height between indoor and outdoor units	Max.10m
	Difference in height between indoor units	Max. 5m

Connection pipe diameter:

Indoor unit	Liquid	Gas	Accessories
7K/9K/12K	φ6.35	φ9.52	/
18K	φ6.35	φ12.7	Adapter
24K	φ9.52	φ15.88	Adapter component

The caution for indoor unit connection

1. For 7K/9K/12K unit:

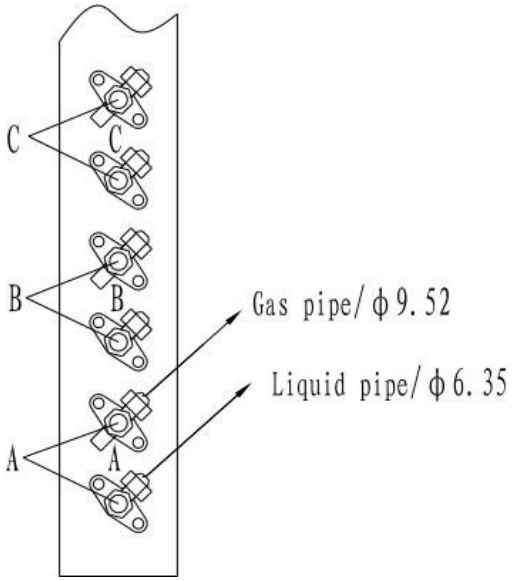
(1) For one 7K/9K/12K indoor unit gas/liquid pipe,

it should connect to the same group gas/liquid pipe.

eg. Connect to Group A gas/liquid pipe together, as figure shown below.

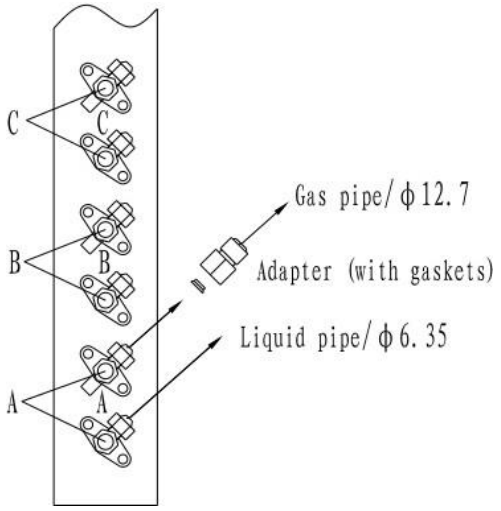
(2) The Group number of copper pipe,

it should be the same as communication wire group number.



2. For 18K unit:

For gas pipe connection, adapter and sealed copper gasket should be used, change the pipe connector diameter of outdoor unit from 9.52mm to 12.7mm, and connector diameter of indoor unit is 12.7mm.

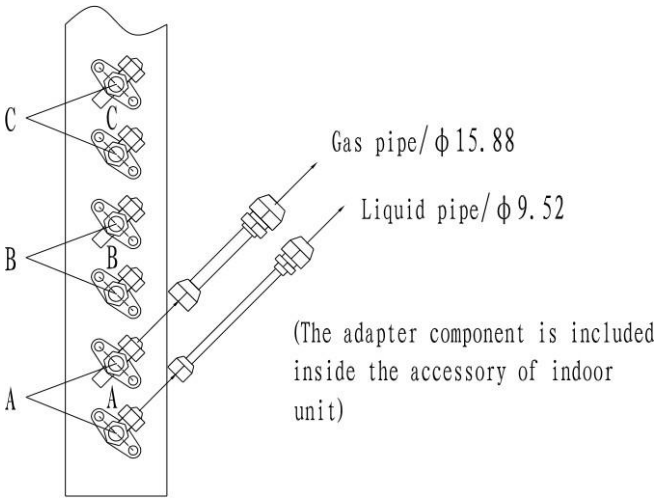


3. For 24K unit:

(1). For gas pipe connection, adapter component should be used, change the pipe connector diameter of outdoor unit from 9.52mm to 15.8mm, and connector diameter of indoor unit is 15.88mm.

(2) For liquid pipe connection, adapter component should be used, change the pipe connector diameter of outdoor unit from 6.35mm to 9.52mm, and connector diameter of indoor unit is 9.52mm.

(3) The adapter component is included inside the accessory of indoor uint.



4. AIR PURGING

Air purging

Air and moisture in the refrigerant system have undesirable effects as indicated below:

● Pressure in the system rises.

● Operating current rises.

● Cooling or heating efficiency drops.

● Moisture in the refrigerant circuit may freeze and block capillary tubing.

● Water may lead to corrosion of parts in the refrigeration system.

Therefore, the indoor unit and tubing between the indoor and outdoor unit must be leak tested and evacuated to remove any non-condensable and moisture from the system.

Air purging with vacuum pump

● Preparation

Check that each tube(both liquid and gas side tubes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed. Remove the service valve caps from both the gas and the liquid side on the outdoor unit. Note that both the liquid and the gas side service valves on the outdoor unit are kept closed at this stage.

● Pipe length and refrigerant amount:

Connective pipe length	Air purging method	Additional amount of refrigerant to be charged
Less than 5m	Use vacuum pump.	----------
More than 5m	Use vacuum pump.	R32: (Pipe length-5m)×15g/m forφ6.35 R32: (Pipe length-5m)×20g/m forφ9.52

Note: Pipe length means the liquid side of each indoor unit.

●When relocate the unit to another place ,perform evacuation using vacuum pump.

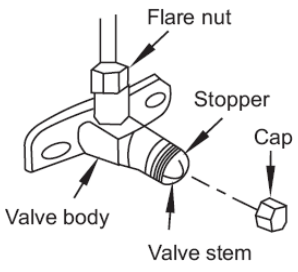
● Make sure the refrigerant added into the air-conditioneris liquid form in any case.

Caution in handling the packed valve

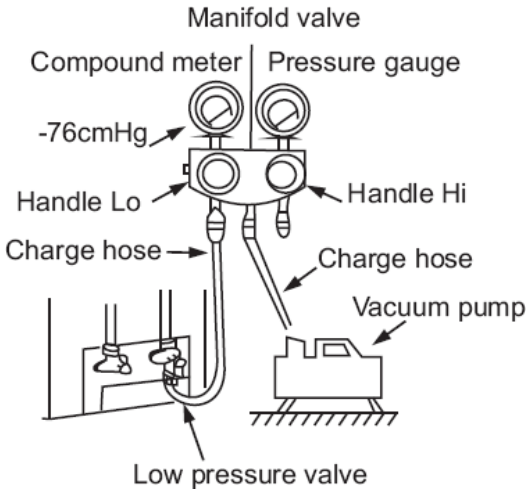
● Open the valve stem until it hits against the stopper. Do not try to open it further.

● Securely tighten the valve stem cap with a spanner or the like.

● Valve stem cap tightening torque.



When using the vacuum pump



● Preparation

(For method of using a manifold valve, refer to its operation manual.)

1. Completely tighten the flare nuts, A, B, C, D, connect the manifold Valve charge hose to a charge port of the low-pressure valve on the gas pipe side.

2. Connect the charge hose connection to the vacuum pump.

3. Fully open the handle Lo of the manifold valve.

4. Operate the vacuum pump to evacuate. After starting evacuation, Slightly loose the flare nut of the Lo valve on the gas pipe side and check that the air is entering(Operation noise of the vacuum pump changes and a compound meter indicates 0 instead of minus)

5 after the evacuation is complete, fully close the handle Lo of the manifold valve and stop the operation of the vacuum pump. Make evacuation for 15 minutes or more and check that the compound meter indicates-76cmHg (-1x105Pa).

6. Turn the stem of the packed valve B about45° counterclockwise for 6~7 seconds after the gas coming out, then tighten the flare nut again. Make sure the pressure display in the pressure indicator is a little higher than the atmosphere pressure.

7. Remove the charge hose from the Low pressure charge hose.

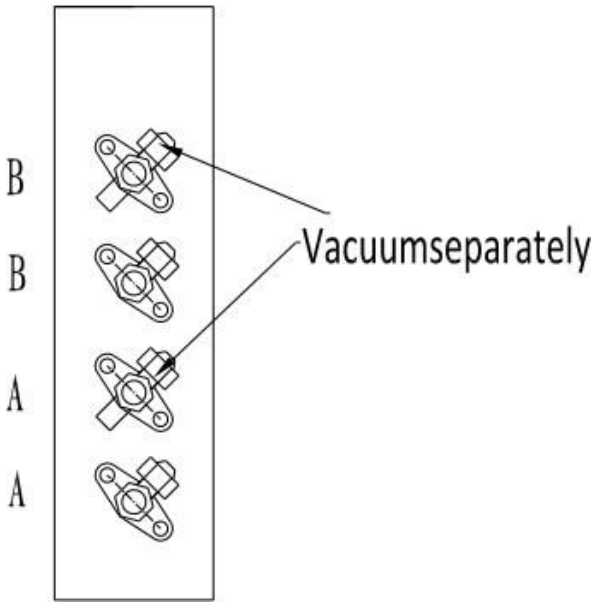
8. Fully open the packed valve stems B and A.

9. Securely tighten the cap of the packed valve.

Vacuum

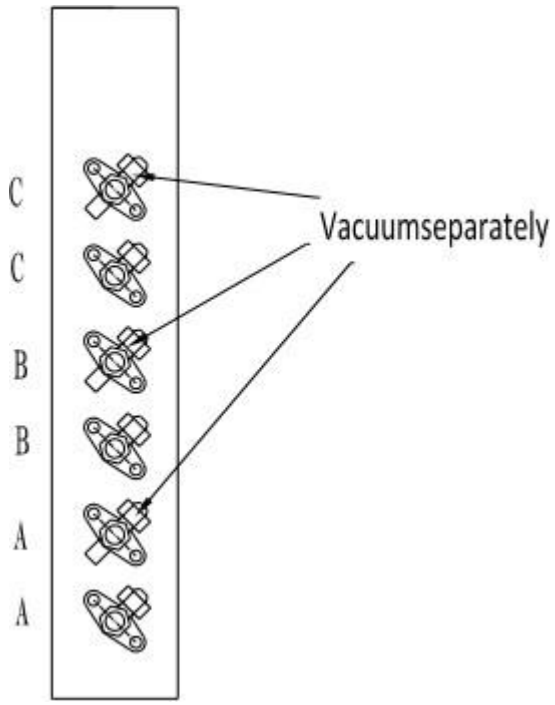
1.For one drive two unit:

Vacuum for two indoor units separately.



2.For one drive three unit:

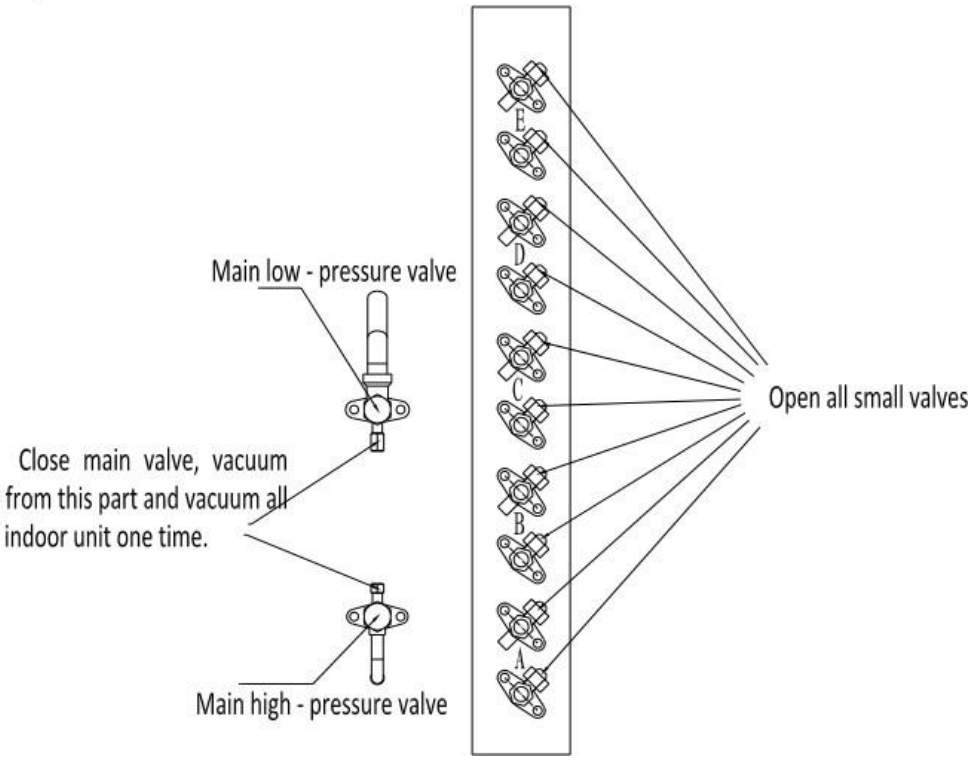
Vacuum for three indoor units separately.



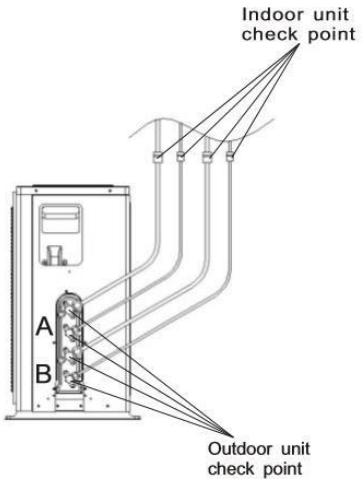
3. For one drive four and one drive five units:

a. Vacuum from the main valve, no need vacuum for each indoor unit;

b. Make sure main valve close before vacuum, then open all small valves for indoor units , keep the small valve close if there is no indoor unit.



5. Safety and leakage check



Electrical safety check

Perform the electric safe check after completing installation:

1. Insulated resistance

The insulated resistance must be more than2MΩ.

2. Grounding work

After finishing grounding work, measure the grounding resistance by visual detection and grounding resistance tester. Make sure the grounding resistance is less than 4Ω.

3.Ectrical leakage check (performing during test running)

During test operation after finishing installation, the serviceman can use the electroprobe and multimeter to perform the electrical leakage check. Turn off the unit immediately if leakage happens. Check and find out the solution ways till the unit operate properly.

Gas leak check

● **Soap water method**:

Apply a soap water or a liquid neutral detergent on the indoor unit connectionor outdoor unit connections by a soft brush to check for leakage of the connectingpoints of the piping. If bubblescome out, the pipes have leakage.

● **Leak detector**

Use the leak detector to check for leakage.

Caution:

A, B,C,D and E are packed valve of outdoor unit.

Note:

The illustration is for explanation purpose only. The actual order of A,B,C,D and E on the machine may be slightly different from the unit you purchased. The actual shape shall prevail.

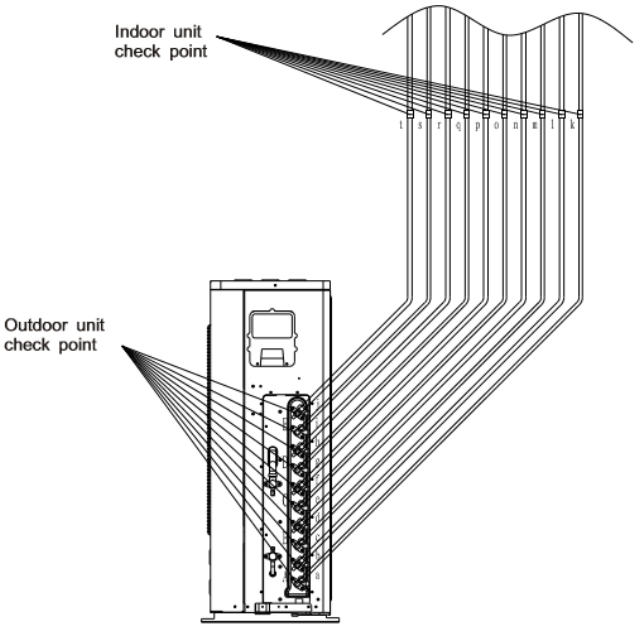


Fig 43

A, b, c, d, e, f, g, h, k, l, m, n, o, p, q and r are points for Quadruple split type.
a, b, c, d, e, f, g, h, i, j, k, l, m, n,o, p, q, r, s and t are points for Quintuple split type.

6. Water Drainage

Gradient and Supporting

1) Keep the drainpipe sloping downwards at a gradient of at least 1/100. Keep the drainpipe as short as possible and eliminate the air bubble.

2) The horizontal drainpipe should be short. When the pipe is too long, a prop stand must be installed to keep the gradient of 1/100 and prevent bending. Refer to the following table for the specification of the prop stand.

	Diameter	Distance between the prop stands
Hard PVC pipe	25~40 mm	1.5~2m

3) Precautions

① The diameter of drainpipe should meet the drainage requirement at least.

② the drainpipe should be heat-insulated to prevent atomization.

③ Drainpipe should be installed before installing indoor unit. After powering on, there is some water in water-receiver plate. Please check if the drain pump can operate correctly.

④ All connection should be firm.

⑤ Wipe color on PVC pipe to note connection.

⑥ Climbing, horizontal and bending conditions are prohibited.

⑦ The dimension of drainpipe can't less than the connecting dimension of indoor drainpipe.

⑧ Heat-insulation should be done well to prevent condensation.

⑨ Indoor units with different drainage type can't share one convergent drainpipe.

7. Insulation Work

Insulation material and thickness

1) Insulation material

Insulation material should adopt the material which is able to endure the pipe's temperature: no less than 70°C in the high-pressure side, no less than 120°C in the low-pressure side(For the cooling type machine, no requirements at the low-pressure side.)

Example: Heat pump type----Heat-resistant Polyethylene foam (withstand above 120°C)

Cooling only type---- Polyethylene foam (withstand above 100°C)

2) Thickness choice for insulation material

Insulation material thickness is as follows:

	Pipe diameter (mm)	Adiabatic material thickness
Refrigerant pipe	φ6.4—φ25.4	10mm
	φ28.6—φ38.1	15mm
Drainage pipe	Inner diameterΦ20—Φ32	6mm

Refrigerant pipe insulation

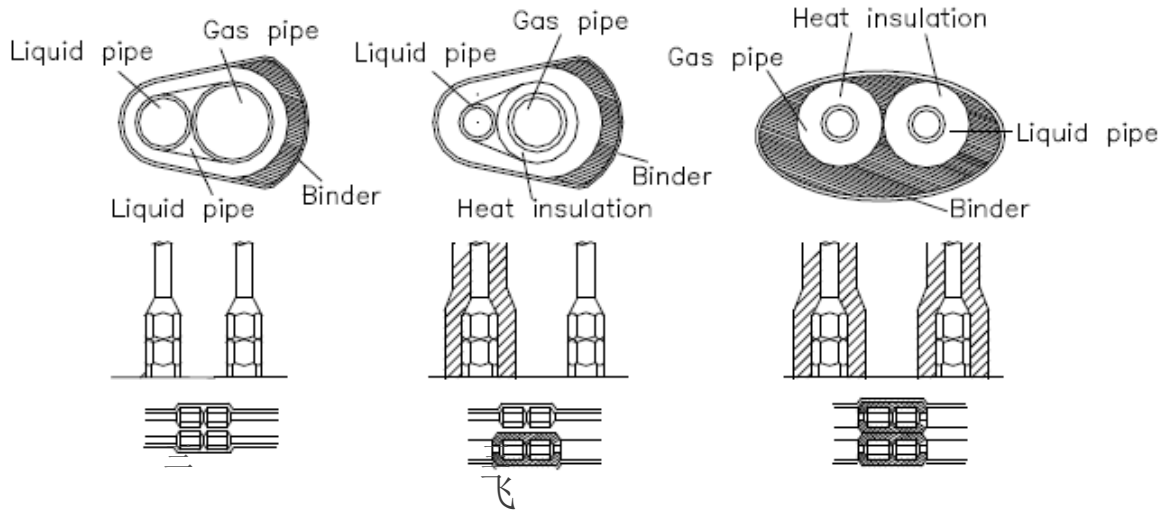
1) Work Procedure

① Before laying the pipes, the non-jointing parts and non-connection parts should be heat insulated.

② When the gas proof test is eligible, the jointing area, expanding area and the flange area should be heat insulated.

2) Insulation for non-jointing parts and non-connection parts.

Wrong	Right	
Gas pipe and liquid pipe should not be	Insulate the gas pipe (cooling only)	Insulate the gas pipe and liquid pipe

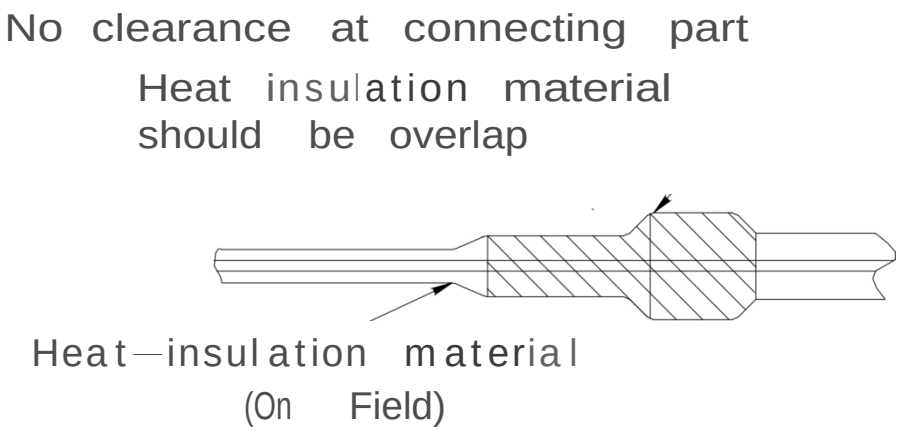


For construction convenience, before laying pipes, use insulation material to insulate the pipes to be deal with, at the same time, at two ends of the pipe, remain some length not to be insulated, in order to be welded and check the leakage after laying the pipes.

3) Insulate for the jointing area, expanding area and the flange area

① Insulate for the jointing area, expanding area and the flange area should be done after checking leakage of the pipes

② Make sure there's no clearance in the joining part of the accessorial insulation material and local preparative insulation material.



Drainage pipe insulation

The connection part should be insulated, or else water will be condensing at the non-insulation part.

Note

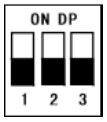
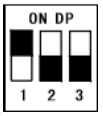
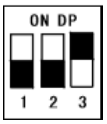
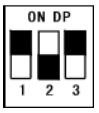
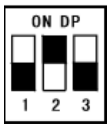
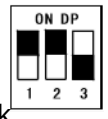
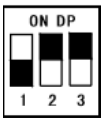
1) The jointing area, expanding area and the flange area should be heat insulated after passing the pressure test

2) The gas and liquid pipe should be heat insulated individually, the connecting part should be heat insulated individually.

3) Use the attached heat-insulation material to insulate the pipe connections (pipes' tie-in,expand nut) of the indoor unit.

Part 5. Test Running

1. Dialing setting of main control board

Switch No.	Dialing Illustration	
SW3	14k 	28k 
	18k 	36k 
	21k 	42k 
	27k 	

2. Outdoor unit spot-check instructions

Check Table			
NUM	Display content	NUM	Display content
00	Frequency, the number of indoor units, run mode or failure code	20	The indoor B demand
		21	The T1 temp of indoor B
01	Outdoor power	22	The expansion valve of indoor B
02	Run mode (0: shutdown; 2: refrigeration; 3: heating; 4: forced refrigeration)	23	The indoor C demand
		24	The T1 temp of indoor C
03	Indoor demand	25	The expansion valve of indoor C
04	Actual operation ability	26	The indoor D demand
05	Target operation ability	27	The T1 temp of indoor D
06	Fan speed state (0-7)	28	The expansion valve of indoor D
07	T2 average temp.	29	The indoor E demand
08	T3 condensing temp.	30	The T1 temp of indoor E
09	T4 outdoor ambient temp.	31	The expansion valve of indoor E
10	T5 exhaust temp.	32	T2B average temp
11	AC current	33	Frequency limited condition(1: current limit;2: refrigeration; 4:T5; 8:T3; 16:T2)
12	DC current		
13	AC voltage	34	The reason of P6 protection
14	DC voltage	35	Sof version
15	The number of indoor units	36	Memorizer version
16	The number of turned on indoor units	37	Last failure or protection code
17	The indoor A demand	38	- - -
18	The T1 temp of indoor A	39	- - -
19	The expansion valve of indoor A	40	

Failure and Protection

Code	Failure or protection definition	Code	Failure or protection definition
E1	Reserved	H6	The protection of three times P4 in 100 minutes
E2	Comm. failure between indoor and outdoor units	H10	The protection of three times P3 in 60 minutes
E4	Environment temperature sensor failure	P1	High pressure protection
E6	Condensate temperature sensor failure	P2	Low pressure protection
E9	AC overvoltage/undervoltage protection	P3	AC /DC current flows through protection
E10	EEPROM failure	P4	Excessive exhaust temperature protection
H0	Comm. failure between master chip and DSP	P5	T3 high temperature protection
H4	The protection of three times P6 in 30 minutes	P6	IPM modules protection
H5	The protection of three times P2 in 30 minutes		

3. Inspection and confirmation before debugging

1. Check and make sure the refrigerating pipeline and communication line connecting with the indoor and outdoor units are connected with the same refrigerating system. Otherwise, some running faults occur.

2. The power supply voltage is within the rated voltage of ±10%.

3. Check and make sure the power supply line and the control line are correctly connected.

4. Before power-on, make sure there is no short circuit.

5. Check if all units have passed 24-hour nitrogen pressure-maintaining (40kgf /cm2) test.

6. Make sure the debugged system is fully vacuumized, dried and filled with the refrigerant as specified.

4. Preparation before debugging

1. Calculate the refilling volume of refrigerant for each set of units according to the length of on-site liquid pipe.

2. Prepare the required refrigerant.

3. Prepare the system plan, system piping diagram and control wiring diagram.

4. Mark the set address codes on the system plan.

5. Turn on the power supply switch of the outdoor unit in advance, and make sure it is power-on for more than 12 hours, so that the heater heats the compressor oil.

6. Fully open air pipe check valve, liquid pipe check valve and oil balance valve of the outdoor unit. If they are fully opened, the machine may be damaged.

7. Check if the power supply phase sequence of the outdoor unit is correct.

8. Check if all dialing switches of the indoor and outdoor units are set according to the technical requirements of the product.

5. Filling of names of connecting systems

When the multiple indoor units are arranged, in order to distinguish the connecting systems of indoor and outdoor units, all systems shall be named respectively and recorded on the nameplate on the electronic control box cover of the outdoor unit.

6. Precautions against refrigerant leak

1. The refrigerant of the air conditioner is harmless and nonflammable.

2. The room for the air conditioner shall have an appropriate space. In case of refrigerant leak, it cannot go beyond the critical concentration. In addition, necessary measures can be taken.

3. The critical gas concentration harmless to the human body is 0.3 kg/m.

4. Confirm the critical concentration according to the following steps and take corresponding measures.

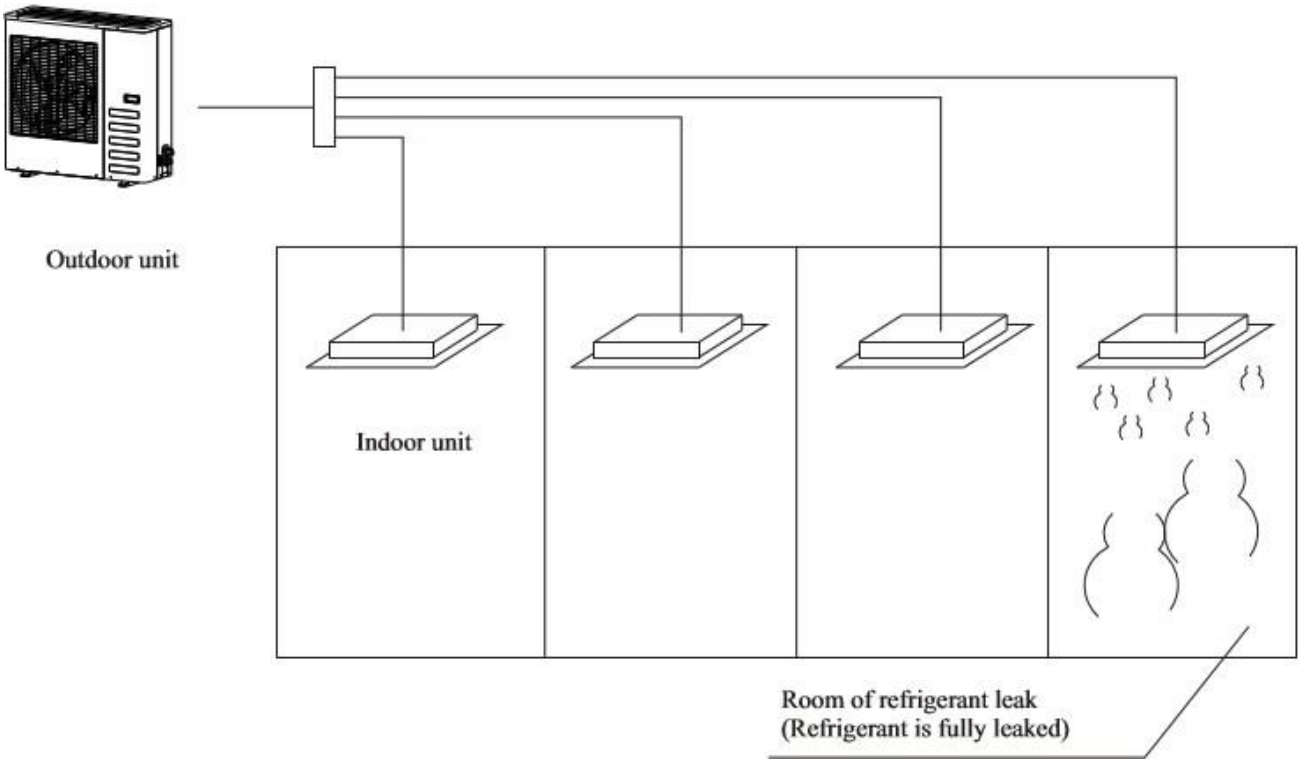
a) Calculate the filling volume of refrigerant (A[kg])

Volume of refrigerant = filling volume of refrigerant before delivery (see the nameplate) + refilling volume of refrigerant corresponding to the length of pipe.

b) Calculate the indoor volume (B [m^3]) (by the minimum volume)

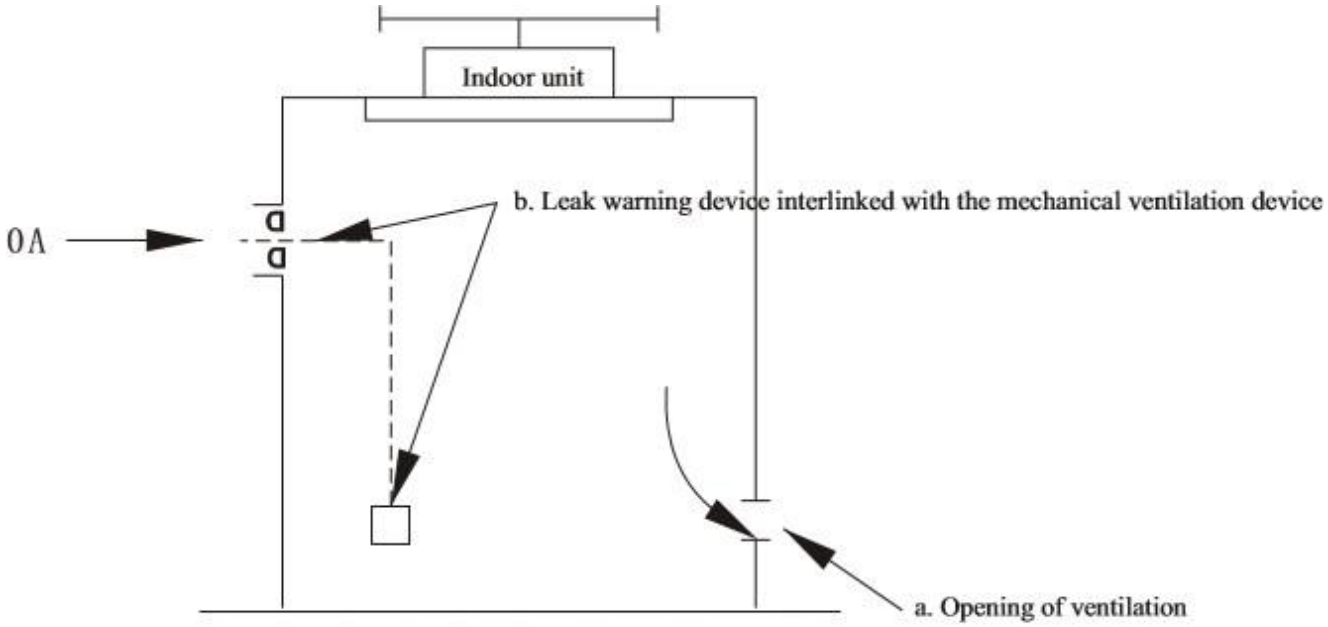
c) Calculate the refrigerant concentration.

$$\frac{A[kg]}{B[m^3]} \leq Critical\ concentration: 0.3[Kg/m^3]$$



5. Measures against exceeding the critical concentration

a) To reduce the refrigerant concentration below the critical concentration, install a mechanical ventilation device (for frequent ventilation).

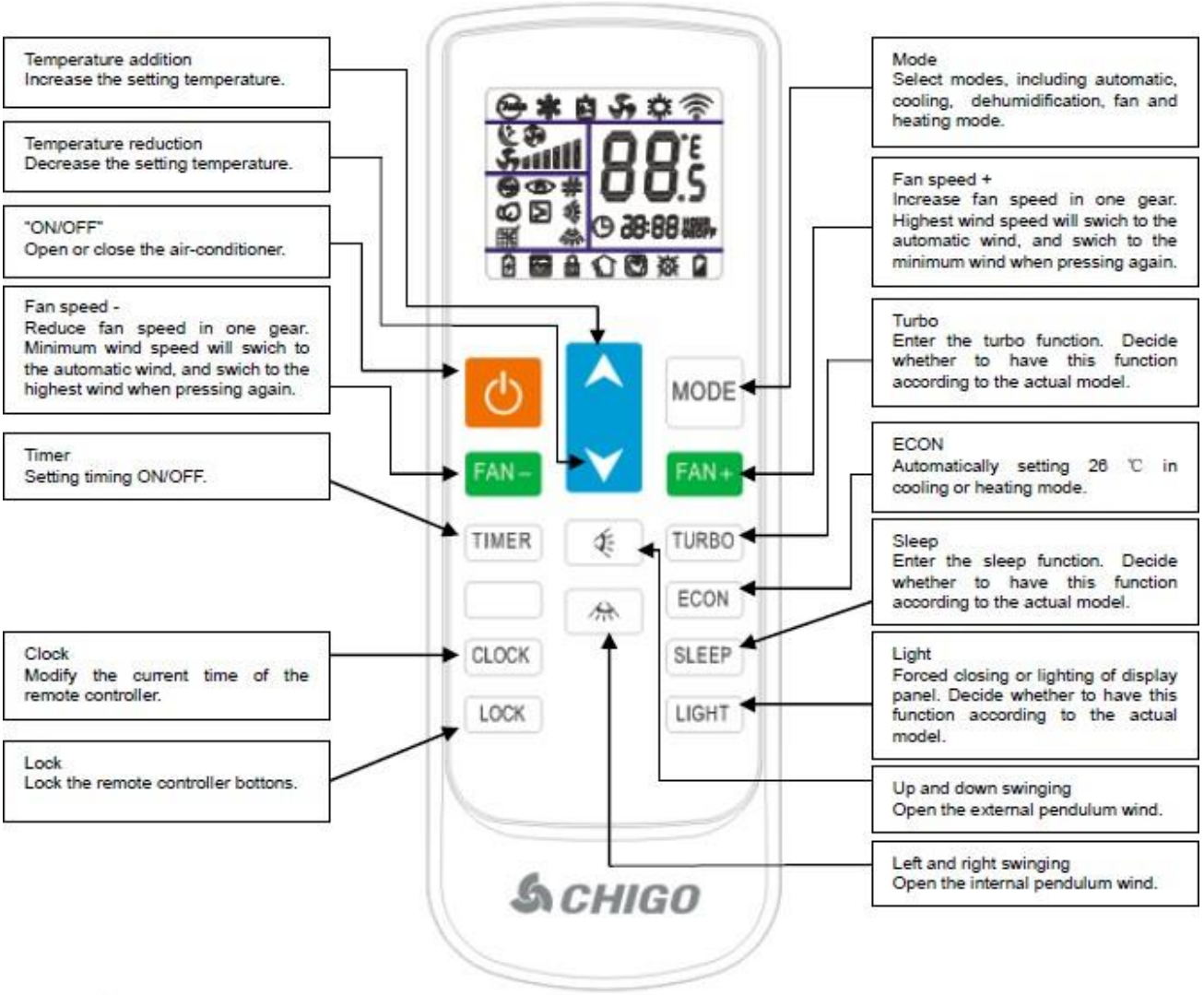


(The leak warning device shall be installed in the gathering place of refrigerant.)

Part 6. Controller

1. Wireless Remote Controller

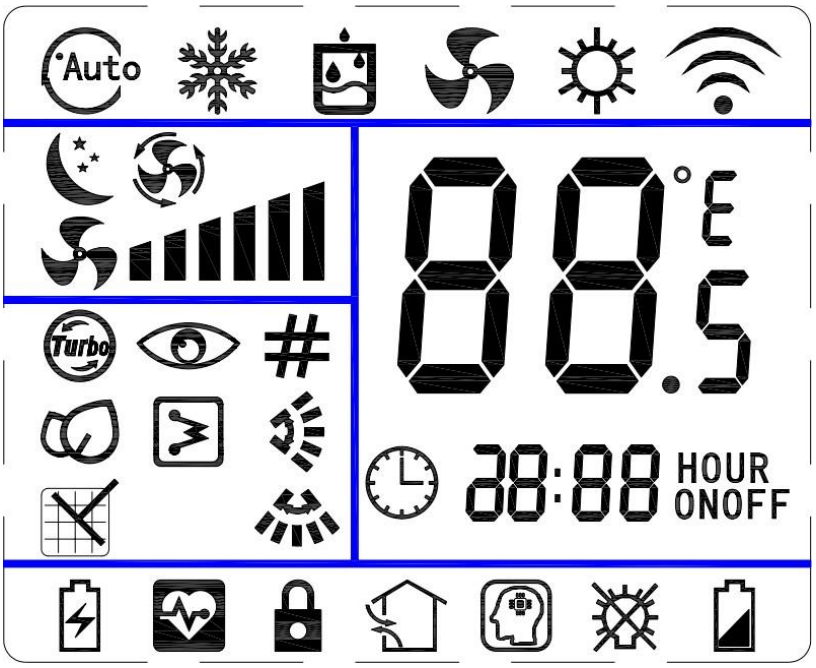
NT-03A



USE OF REMOTE CONTROLLER:

The icon meaning of remote controller

1 ） The remote controller is equipped with 15 buttons, and the LCD is newly maded. All the icons are kept in touch with the touch-screen remote controller.



2 ） At the first power on, the LCD of the remote controller displays all the icons first and then enters the standby state, displaying only the clock 12:00 and the light icon.

3） Introduction of LCD screen icon:

- Mode display: automatic、cooling 、dehumidification 、fan and heating .
- Temperature display: displays temperature, which range between 16 ~ 32℃ or 61 ~ 90℉.
- Wind speed display: means wind speed. means automatic wind speed.
- Swinging display: means external pendulum wind. means internal pendulum wind.
- Timer display: HOUR ON means TIME ON. HOUR OFF means TIME OFF.
- Other display: means clock. means sleep. means TURBO. means ECON. means cleaning. means electric heating. # means address. means lock. means lack of electricity.
- Reservation function: means Auto Config. means power saving. means healthy. means new wind. means intelligence. means lamplight.

Button function of remote controller

（1） **ON/OFF**

① When pressing this key, the remote controller switches by "on, off, on" circularly.

② When the first power on, the working state is set by default: setting temperature 25℃ (77℉), automatic mode, automatic fan speed, internal and external pendulum wind, no TURBO, no sleep,

no timer, no lock).

③ When the power on is not the first time, the state before shutdown is recovered. After shutdown, the sleep, TURBO, ECON and timer functions will be canceled.

(2) **Mode**

① When pressing this key, the remote controller swiches by "automatic, cooling, dehumidification, fan, heating, automatic" circularly.

② The dehumidification mode is locked at 25℃ and the temperature can not be adjusted. The internal pendulum wind stays unchanged according to the state before switching, but the external pendulum wind is forced to close.

(3) **Temperature reduction ▼**

① Temperature setting: when pressing this key, the setting temperature will be reduced by 1. The temperature of centigrade model will be reduced progressively by "32℃, 31℃, ……, 17℃, 16℃". The temperature of fahrenheit model will be reduced progressively by "90℉, 89℉, ……, 62℉, 61℉". When pressing this key in dehumidification and fan mode, the temperature will not change.

② In the clock setting state (the clock icon will flicker to show the prompt), this key is used to set the clock time.

③ Keep pressing will continuously change the temperature.

(4) **Temperature addition ▲**

① Temperature setting: when pressing this key, the setting temperature will be added by 1. The temperature of centigrade model will be added progressively by "16℃, 17℃, ……, 31℃, 32℃". The temperature of fahrenheit model will be added progressively by "61℉, 62℉, ……, 89℉, 90℉". When pressing this key in dehumidification and fan mode, the temperature will not change.

② In the clock setting state (the clock icon will flicker to show the prompt), this key is used to set the clock time.

③ Keep pressing will continuously change the temperature.

(5) **Up and down swinging (**External pendulum wind**)**

① Pressing this key in the dehumidification mode, the external pendulum wind is forced to close.

② Pressing this key in the other modes, the external pendulum switches by "swing, fixed wind, swing" circularly.

(6) **Left and right swinging (**Internal pendulum wind**)**

① Pressing this key in the dehumidification mode, the internal pendulum wind stays unchanged according to the state before switching.

② Pressing this key in the other modes, the internal pendulum switches by "swing, stop, swing" circularly.

（7） “FAN -”

① When the first power on, the remote controller is set to the automatic wind speed by default. In dehumidification mode, the wind speed is fixed to low wind and is not adjustable. By pressing the wind speed key, there is no response to the remote controller.

② Pressing this key in the other modes, the wind speed switches by "automatic wind speed, high speed, middle speed, low speed, automatic wind speed " circularly.

（8） “FAN +”

① When the first power on, the remote controller is set to the automatic wind speed by default. In dehumidification mode, the wind speed is fixed to low wind and is not adjustable. By pressing the wind speed key, there is no response to the remote controller.

② Pressing this key in the other modes, the wind speed switches by "automatic wind speed, low speed, middle speed, high speed, automatic wind speed " circularly.

（9） Timer

① Under the shutdown state, press this key to set the opening time, range from 1 hour to 24 hour.

② Under the boot state, press this key to set the shutdown time, range from 1 hour to 24 hour.

③ The timing time is according to the cycle of "1h, 2h, ……, 23h, 24h, cancel, 1h".

④ Exit timing adjustment after 3 seconds without key pressing.

（10） TURBO

① Extension code remote controller has the effect. The remote controller is no TURBO by default, and the TURBO key will not work in automatic mode, dehumidification mode and fan mode.

② Pressing this key in the cooling or heating mode, the TURBO mode switches between opening and closing. When in the TURBO mode, it does not display the wind speed. Switching mode or entering sleep function will close TURBO mode.

③ If the air conditioner has four gear wind speeds, the TURBO icon will light up and the fan will run in the fourth gear wind speed by pressing this key.

（11） ECON

① The remote controller is no ECON by default, and the ECON key will not work in automatic mode, dehumidification mode and fan mode.

② Pressing this key in the cooling or heating mode, the ECON mode switches between opening and closing. When in the ECON mode, the setting temperature is set to 26℃ (77℉) and other settings are unchanged. If closing ECON mode, the remote controller will recover to the setting before opening ECON mode. Switching mode will close ECON mode.

(12) **Sleep**

① Pressing this key in the modes except of the fan mode, the sleep function switches between opening and closing. Switching mode will cancle sleep function.

② When pressing this key, the wind speed is automatically switched to low wind. However, the wind speed can be adjusted according to the wind speed key (except of the dehumidification mode).

(13) **Light**

① When the first power on, there is lamplight by default. Pressing this key force to turn off or turn on the lamplight. Decide whether to have this function according to the actual model.

(14) **Clock**

① This key is used to set the clock. Pressing enters the hour adjustment state, and the hour digital tube on the LCD is flickering at the same time. The hour can be set by temperature addition or reduction keys, and it ranges from 0 to 23.

② When the hour is set, press this key again to enter the minute adjustment state, and the minute digital tube on the LCD is flickering at the same time. The minute can be set by temperature addition or reduction keys, and it ranges from 00 to 59.

③ After adjusting, press the clock key again to confirm the setting and the adjustment state exits. If do not press the clock key again to confirm, the time adjustment state will exit after 3 seconds, and recover the clock before the adjustment.

(15) **Lock**

① There is no lock by default. Pressing this key, the lock function switches between opening and closing.

② When it is locked, the remote controller does not work except the lock key.

(16) **Combinatorial key: "FAN -" + "FAN +"**

① Extension code remote controller has the effect. Switch 3 gear wind and 6 gear wind. There is 6

gear wind on the LCD. If the 3 gear wind is switched, the first and second gear wind will be "low wind"; the third and fourth gear wind will be "middle wind"; the fifth and sixth gear wind will be "high wind".

(17) **Combinatorial key: "Mode" + "Lock"**

① Enter address setting

1) On the shutdown interface, press the combinatorial key on the remote controller for 5 seconds to enter the address setting interface.

2) The last address (when the first power on, 00 is displayed) and the "#" icon are displayed and flickering.

② The step instructions of setting address

1) At the address setting interface, press the temperature addition or reduction to adjust the setting address, and it ranges from 00 to 63.

2) When the first time entering the interface or pressing the temperature addition or reduction key, the address display flickers for 3 seconds and then does not flicker.

3) Press the ON / OFF key to enter the sending state and send the address setting code.

③ The step instructions of inquiring address

1) At the address setting interface, press the mode key to send the query code.

2) At this time, the "#" icon flickers. 3 seconds later, it normally displays the last setting addresses and the "#" icon does not flicker.

④ Exit setting

1) Pressing the mode key and lock key at the same time can exit the address setting interface.

2) If there is no key pressing associated with address setting for more than 30 minutes, the remote controller will exit the address setting interface.

Battery replacement

1) If the air conditioner is unable to receive the signal from the wire controller, or the LCD of wire controller is blurred, it means that the battery is depleted and needs to be replaced.

2) Take off the back cover and remove the old batteries. When replacing batteries, please pay attention to the "+" and "-" marking on the battery.

3) Install the back cover and set the current time.

Warning

- Do not mix old and new batteries together.
- When the wire controller is idle for a long time, the battery should be removed.
- In general, the service life of a dry battery that meets the JIS or IECstandards can be up to 6-12 months, but if it exceeds the use time or not in conformity with above specifications, the dry battery may leak and may even cause the wire controller operation to be invalid.
- The recommended service life is marked on the battery, but the actual service life may be shorter.

2. Wired Controller

ZKX-C/TE-05

I. Use-method

The control panel of wire controller is responsible for controlling the operation status of the system by the button and displaying the working status of the entire system by its LCD screen, and is responsible for communicating with the control board of the system.

Fig1 Appearance of Wire Controller

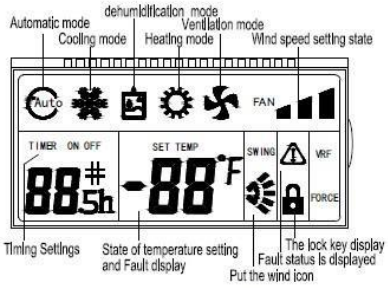


Fig2 LCD display content of Wire Controller

Operation and Instruction:

"ON/OFF" Button:

1) Control the On/Off status of the system.

2) Press and hold the On/Off button when the wire controller is powered on, to go into the self-test mode. And then you can release the button.

"MODE" Button:

When the air conditioning is powered on, every time you press mode button or the mode button of remote controller, the mode will change in the following sequence.

Auto Mode→Refrigeration→Dehumidification→Heating→Ventilation→Auto Mode

"TEMP+" and "TEMP-" Button ("▲", "▼"):

1) Boot state, press "▲" and "▼"Button, increase/decrease the setting temperature . Refrigeration, Dehumidification, Ventilation and Heating mode Scope of temperature setting: 16 ℃ ~ 32 ℃ ; The setting temperature do not adjust in Auto Mode .

2) Press the "▲" and "▼" button for 3s simultaneously to lock this button. At this time, It will display the locking icon in LCD. Deactivate this button, and press the "▲" and "▼" button again simultaneously.

"TIMER" Button

Set Timing On or Timing Off. The wire controller to set the time range as 1-24h.

1) Press the Timer button in the Off status to go into the Timing On for 1 hour, and then press the Timer button plus 1 until it is timing on for 24h. At this time, if you press the Timer button, it will deactivate Timing On.

2) Press the Timer button in the On status to go into the Timing Off for 1 hour, and then press the Timer button plus 1 until it is timing off for 24h. At this time, if you press the Timer button, it will deactivate Timing Off.

"FAN SPEED" Button:

1) The Fan Speed button is valid in the "Cooling mode", "Heating mode" and "Ventilation mode".

2) Press the Fan Speed button of the wire controller or the Volume button of the remote controller in the Cooling mode、Heating mode or Ventilation mode, and the volume changes as follows:

High speed→Middle speed→Low speed→Auto wind

3) There is no Auto wind in the Ventilation mode.

"SWING" Button:

1) Press it to display the Swing icon. The Swing icon will swing back and forth.

2) Press the Swing button, and the upper and lower wind deflectors will swing within the specified range automatically, and the left and right wind deflectors will swing within the specified range automatically, and press it again to stop the swing.

26℃/CHECK Button Function:

1) Short press this button , Enter a state of energy saving of 26 ℃, namely the setting temperature is 26 ℃. this function under the boot of Refrigeration and Heating mode is effective.

2) Long press this button , will enter the query condition; It will exit the query condition , when you press this button again and five seconds is not operating in the condition of the query.

By pressing "▲" and" ▼"Button to check the temperature in the query condition. 1 is Indoor environment temperature , 2 is Indoor pipe temperature , 3 is outdoor pipe temperature

Description of DIP Switch:

	2 ON	2 OFF
3 ON	-4℃	-2℃
3 OFF	2℃	0℃
	ON	OFF
1	The old protocol	The new protocol
4	with power failure memory	without power failure memory

1) The second and third bits of the DIP switch will select the compensation value of the indoor temperature. The compensation value is -4℃ when the second and third bits are ON, and the compensation value is 0℃ when the second and third bits are OFF. The compensation value is 2℃ when the second bit is ON and the third bit is OFF, and the compensation value is -2℃ when the second bit is OFF and the third bit is On (for the wire controller sensor only).

2) The first bit of the DIP switch indicates to select the new or old protocol. Light commercial units select the new protocol.

3) The fourth bit ON of the DIP switch indicates it is With Power Failure Memory function, and the fourth bit OFF indicates it is Without Power Failure Memory.

NOTE: Just need to dial the code when matching the old type . Detailed please see after-sales guidance !

1、The installation position and requirements of the wire controller

1) Please do not install the wire controller in damp or direct sunlight places.

2) Please do not install the wire controller in the places, where is near the high temperature or easy to splash water.

3) To avoid the interference of the neighbors' remote controller which has the same model , then cause abnormal work. Please do not install the wire controller where the face up to the window.

4) Before installation , please cut off the power which is Buried in the wall mounting holes. The whole installation process does not allow operation with power.

5) In order to avoid the unit by reason of electromagnetic interference caused by abnormal work . When wiring , please pay attention to the following matters.

A) Ensure that communication line access right, otherwise will lead to communication failures.

B) If the air conditioning unit is installed on the places , which is influence by electromagnetic interference . the wire controller signal lines must use shielded twisted-pair cable .

6) The standard accessories which is installation need to prepare ： installed inside a wall socket bottom box, controller base plate, screw the M4 x 25, control panel.

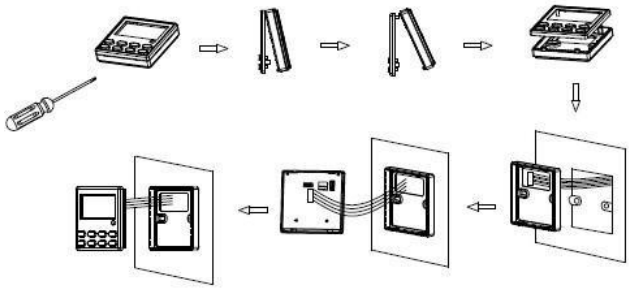
2、The installation of the wire controller

First of all, the wire controller signal line connection mode is as follows :

1) Open interior electrical lifted the lid, and the signal wires through the rubber ring;

2) Plug the wire controller signal lines within the five core needle base on the indoor machine circuit boards, and using cable tie line tied tightly fixed.

Next, the wire controller installation steps as shown in the figure below:

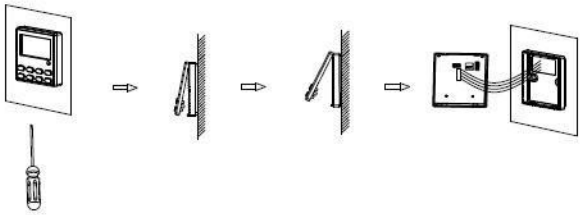


1) The signal lines of short through rectangle hole of the wire controller bottom plate, and then pull out five core twisted pair from the wall installation hole. Finally connect the line and the other end.

2) Use screws M4 x 25 to fix the controller base plate on the mounting holes of the wall.

3) Put the wire controller panel and floor buttons together, and this installation is complete. When installation, please reserve a certain length of the line at the bottom of box, to facilitate maintenance later removed.

3、Disassembly of the wire controller



! After the completion of the installation, confirm there is no abnormity for the commissioning, and deliver the instruction to customers for storage.

Note:

- It may cause the rear cover deformed if the screw is tightened too much.
- It is necessary to reserve a certain length for the connecting cable of the wire controller during the installation, so as to take down the wire controller for the maintenance.