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※ Manufacture reserves the right to discontinue, or change at any time, specifications or designs without notices and without incurring obligations.

1. Product Lineup

Nominal Capacity Ton	Model		Refrigerant	Power Supply	
	Model Name	Function		V, Ph, Hz	
5	MRBT-60CWN1-R	Cooling only	R410A	380-415V, 3Ph,50Hz	
6.2	MRBT-062CWN1-R	Cooling only		R410A	380-415V, 3Ph,50Hz
6.2	MRCT-062EWN1-R	Cooling + EAH			
6.2	MRBT-062HWN1-R	Heat pump			
7.5	MRBT-075CWN1-R	Cooling only			
7.5	MRCT-075EWN1-R	Cooling + EAH			
7.5	MRBT-075HWN1-R	Heat pump			
8.5	MRBT-085CWN1-R	Cooling only			
8.5	MRCT-085EWN1-R	Cooling +EAH			
8.5	MRBT-085HWN1-R	Heat pump			
10	MRBT-100CWN1-R	Cooling only			
10	MRCT-100EWN1-R	Cooling + EAH			
10	MRBT-100HWN1-R	Heat pump			
12.5	'MRBT-125CWN1-R	Cooling only			
12.5	'MRBT-125HWN1-R	Heat pump			
15	MRBT-150CWN1-R	Cooling only			
15	MRCT-150EWN1-R	Cooling + EAH			
15	MRBT-150HWN1-R	Heat pump			
17.5	MRBT-175CWN1-R	Cooling only			
17.5	MRCT-175EWN1-R	Cooling + EAH			
17.5	MRBT-175HWN1-R	Heat pump			
20	MRBT-200CWN1-R	Cooling only			
20	MRCT-200EWN1-R	Cooling +EAH			
20	MRBT-200HWN1-R	Heat pump			
30	MRCT-300CWN1-R	Cooling only			
30	MRCT-300EWN1-R	Cooling +EAH			
30	MRCT-300HWN1-R	Heat pump			

Note:Please refer to specification tables for accurate cooling or heating capacity with Kw or Btu/h unit.

2. External Appearance

5Ton



6.2&7.5Ton



8.5&10Ton



12.5Ton



15&17.5&20Ton

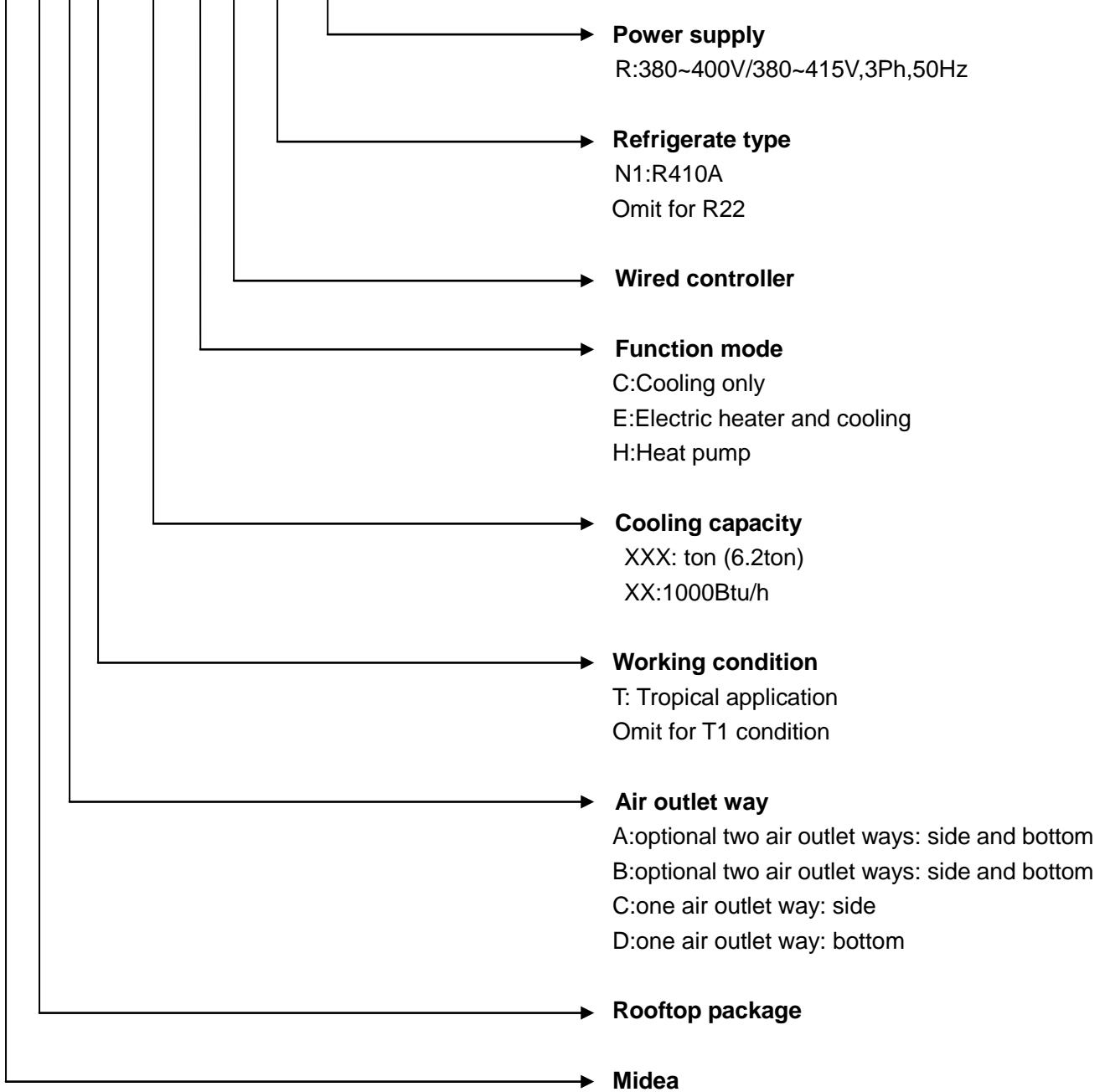


30Ton



3. Nomenclature

M R B T- 062 C W N1- R



4. Features

1. The adoption of anticorrosive-box

The reinforced anticorrosion by using galvanization armor plate and coated with man-composed paint. The appearance is stylish and easy for maintenance.
(Has been passed 1000 hours salt spray test)

2. The adoption of credible protection system

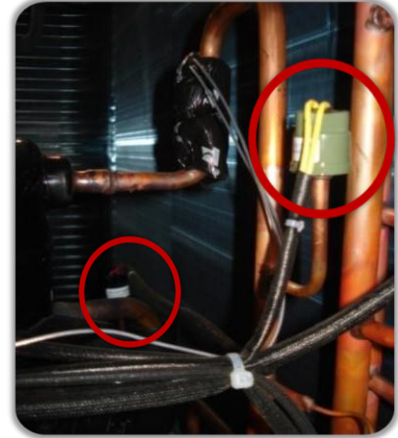
2.1 The protection of compressor

High-pressure protection, low-pressure protection, compressor's current protection and so on. The series' protectors can ensure compressor operating normally.

It adopts independent system, except for protection of sequence and wired controller output, any related protection to its corresponding compressor. Once a compressor protection energized, the corresponding compressor will stop, the others working still.

2.2 Fan motor

The fan motors for evaporator have over-heat protection and over-current protection function. The fan motors for condenser have the temperature controller protection function.



3. Energy saving design

3.1 High efficiency compressor

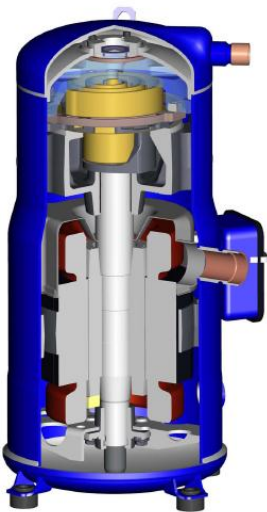
Using professional compressor, heat exchanger and optimum connection pipe, the compressor can startup under low power input. Provide maximum reliability, efficiency and quiet operation.

Two refrigerant circuits on larger units (above 12.5ton) provide efficient part load performance.

Standard low and high pressure safety switches.

Well compressor control

Compressor staging is controlled directly by the control temperature. When the control temperature is warmer than the cooling set point, cooling is staged up; when the control temperature is cooler than the cooling set point, cooling is staged down. However, a stage change can only occur when the control temperature is outside the dead band. Staging is constrained by an inter-stage delay timer. These constraints protect the compressors from short cycling while eliminating temperature variations near the diffusers.



3.2 Condenser

By using high-efficient thin wing, the condenser has high-efficient heat exchanger, the energy waste decreases greatly.

3.3 Evaporator

By using the high-efficient, super thin wing and inner grooved copper pipe, the evaporators get the higher capacity and the lower noise level.

3.4 The heat insulation of indoor unit

The heat insulation of indoor unit can availablely decrease heat loss.

3.5 The control and refrigerant cycle system

There are two independent refrigerant cycle systems, the capacity output is adjusted automatically by

different demand, save energy when one control system is in running according to low capacity output.

4. Optional collocation

4.1 Operation in high temperature

The air-conditioner designed for high temperature operating, even when the ambient temperature reaches up to 52°C (125°F) .

4.2 Strong air flow

Large air volume from the air inlet is forced ventilating by the condenser fan.

4.3 Minimum installation arrangement

The installation is fast and low cost with the easy installation and ready operation.

4.4 Pre-drilled duct flange

Flanges are prepared at the supply and return duct connections so that they can reduce duct connection work at site.



4.5 Quiet operation

Noise and vibration have been effectively reduced by adopting new style hermetic compressor. The centrifugal fan and fan casing are optimum shaped for efficient and low noise operation.

5. Cabinet

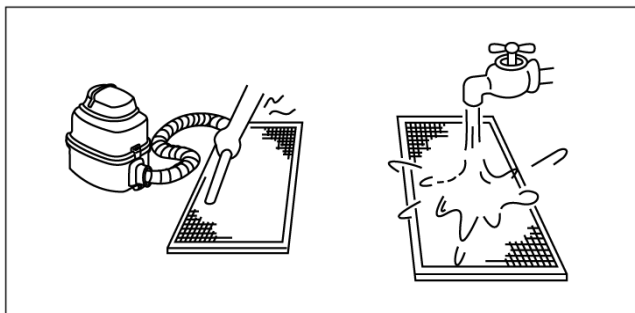
5.1 Sloped drain pan and drain pipe.

5.2 Cabinets have forklift and lifting holes for easy transportation.

5.3 Cabinets have fresh air function, and the filter can be washable.



Fresh air inlet



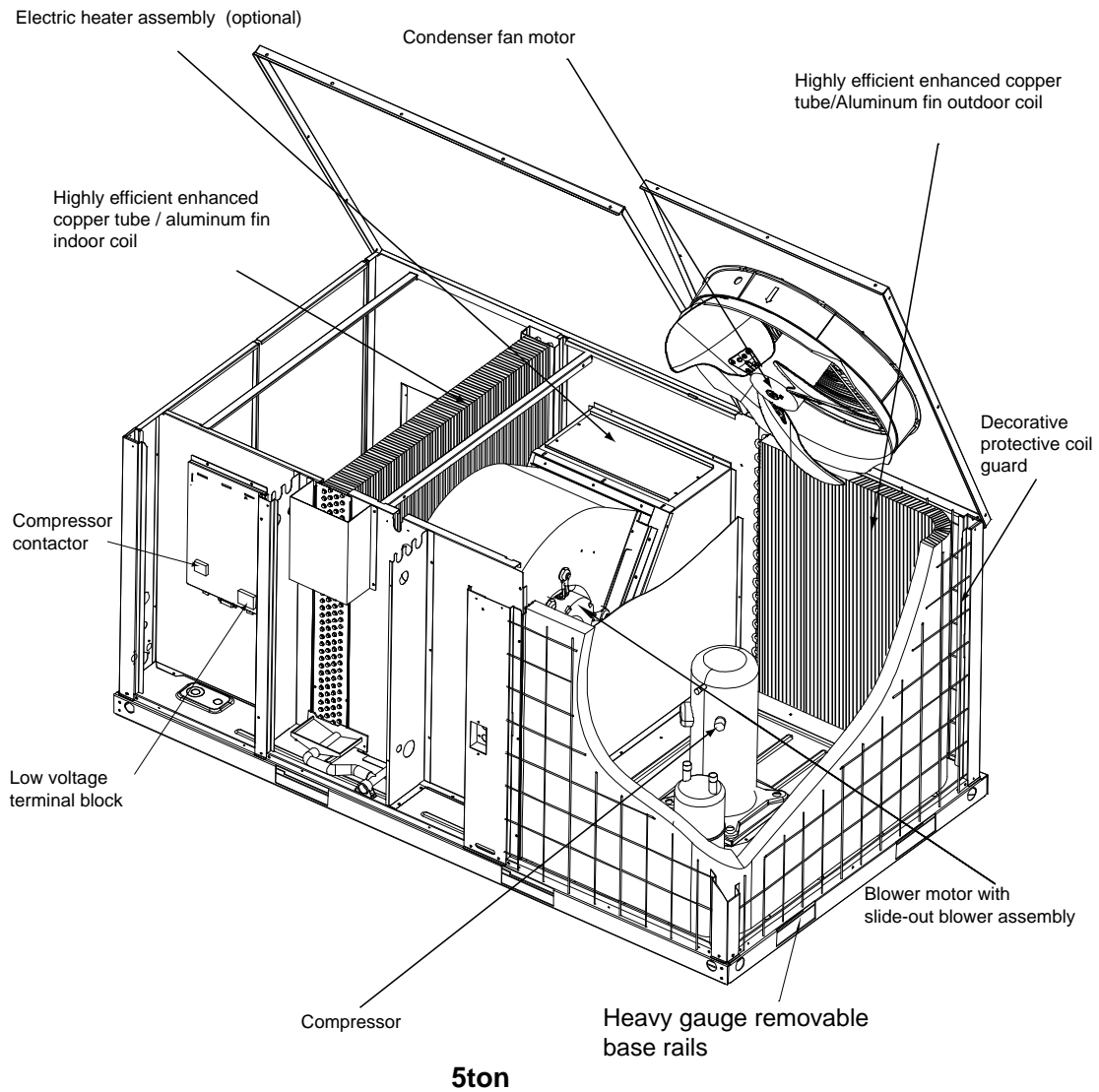
5.4 External pressure gauge ports.

With the gauge ports mounted externally, an accurate diagnostic of system operation can be performed quickly and easily without disrupting airflow.

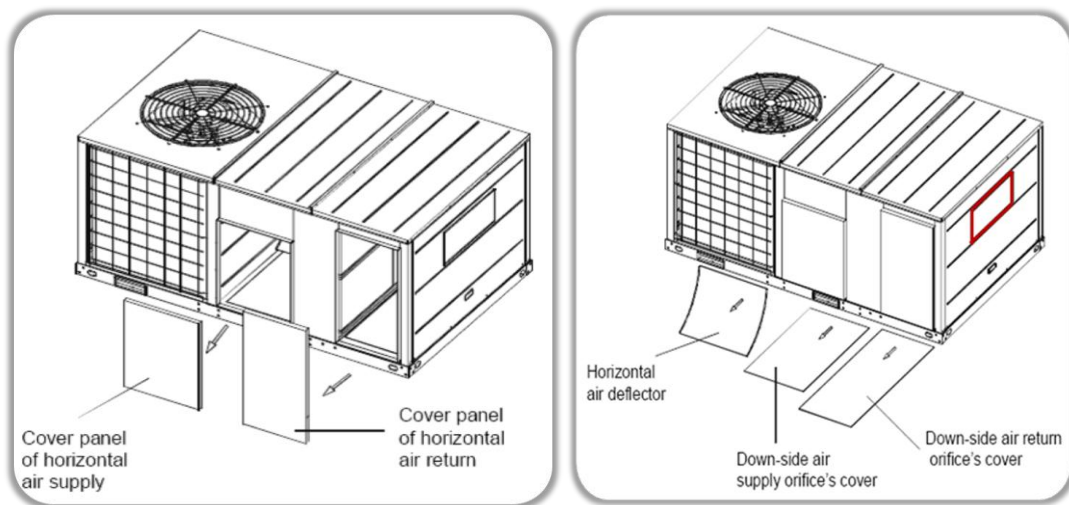
5.5 Durable construction.

Weather-resistant construction with capped seams and sloped top panels.

G90 galvanized heavy gauge plate conforming to ASTM-A-653, Zinc content of galvanized plate is 275 g/m² .



6. Optional supply/return airflow design, from side or bottom, It could be flexibly applied to multi-position. The rooftop and ground installation are optional.



7. Certificate of compressor

The compressors have CE certified, UL certified.

5. List of Functions

5.1 Standard specifications

A. General

The units are convertible airflow. All units shall be factory assembled, internally wired, fully charged refrigerant and 100% run tested to check cooling and heating operation, fan and blower rotation, and control sequence before leaving the factory. Wiring internal to the unit shall be colored and numbered for simplified identification. The unit is provided with an integral weather resistant control panel.

B. Unit enclosure

Panels are of heavy gauge, G-90 galvanized steel sheet with removable access panels, completely weatherized for outdoor installation and properly reinforced and brazed. Panels and access door are provided for inspection and access for all internal parts. Enclosures are provided with adequately reinforced points of support for setting in the unit. Steel sheet panels are zinc-coated and galvanized by the hot dip process of lock forming quality conforming to ASTM A 653 commercial weight G-90, followed by baked on electrostatic polyester dry powder coat paint, on all external panel.

C. Compressor

Compressors are scroll for all the models. They are provided with all the standard controls and accessories necessary for safe operation. These are equipped with internal motor protector; factory installed crank case heater and rubber vibration isolator for quiet and efficient operation.

D. Air-cooled condensing section

1. The air-cooled condensing section is enclosed within the unit housing and consists of condenser coil, fan(s) electric motor(s) and inherently protected compressor(s). Inner grooved copper tubes with wall thickness of 0.3mm, mechanically bonded to enhanced louvered aluminum fins are standard for all condenser coils. As an option, enhanced coated aluminum fins may be provided. Tube support sheets are galvanized steel, formed to provide structural strength.
2. Fans are propeller type, direct driven, upward discharge and provided with fan grille mounted on the casing.
3. Motors are totally enclosed air-over type with class F insulation. Inherent thermal protection is automatic reset type.

E. Evaporator coil section

1. All cooling coils are of enhanced louvered fins and inner grooved copper tubes with wall thickness of 0.3mm, mechanically bonded to aluminum fins. As option, enhanced coated aluminum fins may be provided. Tube support sheets are galvanized steel, formed to provide structural strength.
2. Drainage pan: An insulated drainage pan made of G-90 galvanized steel is provided, for additional corrosion protection.
3. Insulation: Insulation is supplied in adequate density and thickness for all units to prevent condensation from forming on the unit casing. Insulation meets the requirements of NFPA 90A and is protected against deterioration and erosion from air currents.

F. Evaporator fan

Evaporator fan is of centrifugal forward-curved blade design capable of handling total required CFM and static pressure in the low and the medium ranges. Casings are made of galvanized steel. Blower motors are of open drip proof type (totally enclosed types are optional) and conform to NEMA MG-1 and MG-2. Blower motor is mounted on adjustable base and secured by locking device. Pillow block bearing are selected for at 200,000 hours average life at design operating conditions. Shaft is turned, ground and

polished from solid steel. Fans and pulleys are keyed to shaft and designed for continuous operation at maximum motor horse power and fan speed. All rotating components and assemblies are statically and dynamically balanced and every unit is vibration tested before shipment from the factory.

G. Electronic thermostats

General information: A dedicated electronic thermostat is supplied with unit controls as standard. This thermostat controls one or two stage heating and cooling applications. The thermostat normally displays room temperature and mode of operation.

The temperature can be set by up/down buttons for both cooling and heating cycles. The thermostat also allows you to select continuous fan operation, or have the fan on intermittent operation with the equipment. It also displays the status of unit, thus providing maximum information for the end user.

5.2 Electric auxiliary heater

Electric auxiliary heaters are the resistance open coil type and conform to the requirements of UL 573 or equivalent. Electrical characteristics, kW capacities and number of stages are as indicated. Airflow switches, fusible links and overheat limit thermostats are provided to shut-off power in case of airflow failure/overheat. Electric heater kit is installed as an externally mounted kit at the supply opening.

5.3 Standard features/options/accessories

Description	Standard features	Options (factory installed)	Accessories (field installed)
Horizontal discharge	◆		
Compressor crankcase heaters	◆		
Evaporator fan-belt driven	◆		
Evaporator fan motor-ODP type(TEFC type optional)	◆		
Condenser fan-direct drive, propeller type(Except 5ton)	◆		
Condenser fan-direct drive, axial type(Only 5ton)	◆		
Condenser fan motor-totally enclosed air-over type	◆		
Electric auxiliary heater		◆	◆
Filter, Nylon(Thickness 10&12.5mm, except 5ton)	◆		
Filter, aluminum(Thickness 25mm)		◆	
Compressor overload protection	◆		
Low &high pressure switch	◆		
Cooling & heating thermostat	◆		
Condenser fan guard	◆		
Condenser coil guard	◆		
Wired controller KJR-12B	◆		
Wired controller KJR-23B			◆
Wired controller KJR-25B			◆
Drainage pipe			◆
Drainage outlet			◆
Snap ring			◆

6. Specifications

Nominal ton			5	6.2	6.2	6.2
Model			MRBT-60CWN1-R	MRBT-062CWN1-R	MRCT-062EWN1-R	MRBT-062HWN1-R
Cooling	Cooling Capacity 1	Btu/h	59000	75000	75000	75000
		kW	17	22	22	22
	Power Input 1	kW	5.6	7.7	7.7	7.7
	Cooling Capacity 2	Btu/h	51200	62700	62700	62700
		kW	15	18.4	18.4	18.4
Power Input 2	kW	6.7	8.6	8.6	8.6	
Heating	Heating Capacity	Btu/h	-	-	47800	89000
		kW	-	-	14	26
	Power Input	kW	-	-	14	7.6
Capacity steps		%	0/100	0/100	0/100	0/100
Electrical data	Power supply	V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
	Max. input consumption	kW	8.1	10.9	10.9	11.3
	Max. current	A	18	20.1	20.1	21
Performance	Indoor fan air flow	CFM	1800	2600	2600	2600
	ESP	Pa	50	60	60	60
	EER 1	Btu/W.h	10.4	9.7	9.7	9.7
	EER 2	Btu/W.h	7.6	7.3	7.3	7.3
	COP	Btu/W.h	/	/	/	11.6
Indoor Coil	Number of rows		4	2	2	2
	Fin spacing	mm	1.6	1.6	1.6	1.6
		inch	1/16"	1/16"	1/16"	1/16"
	Tube diameter	mm	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	837x704	880X847	880X847	880X847
		inch	32.9x27.7	34.6x33.3	34.6x33.3	34.6x33.3
Number of circuits		12	10	10	10	
Indoor fan	Type		FC centrifugal	FC centrifugal	FC centrifugal	FC centrifugal
	Quantity		1	1	1	1
	Diameter(Width)	mm	282	254	254	254
		inch	11.1	10	10	10
	Drive type		Direct	Belt	Belt	Belt
	Motors quantity		1	1	1	1
	Motor model		YDK550-4E	YFD90L-4-1.5	YFD90L-4-1.5	YFD90L-4-1.5
	Motor output	kW	0.55	1.5	1.5	1.5
Motor rpm	r/min	948	1400	1400	1400	
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Quantity		1	1	1	1
	Model		ZP67KCE-TFD-522	SH090A4ALC	SH090A4ALC	SH090A4ALC
	Brand		Copeland	Danfoss	Danfoss	Danfoss
	Capacity	Btu/h	55000	76090	76090	76090

	Input	kW	5.2	7.185	7.185	7.185
	Rated load Amps (RLA)	A	11.8	14.3	14.3	14.3
	Locked rotor Amps(LRA)	A	74	20	20	20
	Refrigerant oil charge	ml	1656	3000	3000	3000
Outdoor Coil	Number of rows		3	3	3	3
	Fin spacing	mm	1.3	1.6	1.6	1.6
		inch	1/16"	1/16"	1/16"	1/16"
	Tube diameter	mm	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	(outer2124/middle2074/inner2024) X 756	1404X968	1404X968	1404X968
inch		(outer83.6/middle81.7/inn9.7er7) X 29.8	55.3 X38.1	55.3 X38.1	55.3 X38.1	
Number of circuits			16	21	21	21
Outdoor Fan	Type		Axial fan	Propeller	Propeller	Propeller
	Quantity		1	1	1	1
	Diameter(Width)	mm	600	650	650	650
		inch	23.62	25.6	25.6	25.6
	Drive type		direct	Direct	Direct	Direct
	Motors quantity		1	1	1	1
	Motor model		YDK230-6G-6	YS600-6P	YS600-6P	YS600-6P
	Motor output	kW	0.23	0.6	0.6	0.6
Motor rpm	r/min	915	930	930	930	
Outdoor sound pressure level		dB(A)	62.9	70.3	70.3	70.3
Refrigerant	Type		R410A	R410A	R410A	R410A
	Refrigerant volume	Kg	5	5.2	5.2	5.2
	Refrigerant Control		Capillary	Capillary	Capillary	Capillary
Standard controller			KJR-12B	KJR-12B	KJR-12B	KJR-12B
Operation temp		°C	17~30	17~30	17~30	17~30
Outdoor ambient temp	Cooling	°C	18~52	18~52	18~52	18~52
	Heating	°C	-	-	-	-10~24
Dimensions	Net(WxHxD)	mm	1920X840X1068	1630 X1068X1065	1630 X1068X1065	1630 X1068X1065
	Packing(WxHxD)	mm	1955X870X1085	1700X1110X1155	1700X1110X1155	1700X1110X1155
Weight	Net weight	Kg(lbs)	230(507)	315(694.4)	323(712)	320(705.4)
	Gross weight	Kg(lbs)	234(516)	335(738.5)	343(756)	340(749.6)
Filter	Type		Nylon	Nylon	Nylon	Nylon
	Quantity	Pieces	1	2	2	2
	Size (WxHxD)	mm	410 X 495 X 25	447 X 885 X 10	447 X 885 X 10	447 X 885 X 10
Shipping	Qty'Per 20/40/40'HQ	Pieces	12/24/36	12/28/28	12/28/28	12/28/28

Note:

The data are based on the following conditions:

Cooling: (1): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 35°C(95°F) DB.

(2): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 46°C(114°F) DB.

Heating and Power input: Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB; - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) DB

Electrical data: Indoor Temperature 32°C(90°F) DB / 24°C(74°F) WB; - Outdoor Temperature 52°C(125°F) DB

Nominal ton		(Ton)	7.5	7.5	7.5	8.5	8.5
Model			MRBT-075CWN1-R	MRCT-075EWN1-R	MRBT-075HWN1-R	MRBT-085CWN1-R	MRCT-085EWN1-R
Cooling	Cooling Capacity 1	Btu/h	89000	89000	89000	103000	103000
		kW	26	26	26	30	30
	Power Input 1	kW	9.2	9.2	9.2	10.4	10.4
	Cooling Capacity 2	Btu/h	74500	74500	74500	85600	85600
		kW	21.8	21.8	21.8	25.1	25.1
Power Input 2	kW	9.9	9.9	9.9	11.4	11.4	
Heating	Heating Capacity	Btu/h	-	47800	102000	-	71700
		kW	-	14	30	-	21
	Power Input	kW	-	14	8.8	-	21
Capacity steps		%	0/100	0/100	0/100	0/100	0/100
Electrical data	Power supply	V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
	Max. input	kW	13	13	13.5	14	14
	Max. current	A	25	25	25.6	26.3	26.3
Performance	Indoor fan air flow	CFM	3000	3000	3000	3600	3600
	ESP	Pa	60	60	60	75	75
	EER 1	Btu/W.h	9.7	9.7	9.7	9.8	9.8
	EER 2	Btu/W.h	7.5	7.5	7.5	7.7	7.7
	COP	Btu/W.h	/	/	11.6	/	/
Indoor Coil	Number of rows		2	2	2	3	3
	Fin spacing	mm	1.6	1.6	1.6	1.4	1.4
		inch	1/16"	1/16"	1/16"	1/18"	1/18"
	Tube diameter	mm	7.94	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	880X847	880X847	880X847	1117X792	1117X792
inch		34.6x33.3	34.6x33.3	34.6x33.3	44 X31.2	44 X31.2	
Number of circuits			10	10	10	18	18
Indoor fan	Type		FC centrifugal	FC centrifugal	FC centrifugal	FC centrifugal	FC centrifugal
	Quantity		1	1	1	1	1
	Diameter(Width)	mm	254	254	254	305	305
		inch	10	10	10	12	12
	Drive type		Belt	Belt	Belt	Belt	Belt
	Motors quantity		1	1	1	1	1
	Motor model		YFD90L-4-1.5	YFD90L-4-1.5	YFD90L-4-1.5	YFD90L-4-1.5	YFD90L-4-1.5
	Motor output	kW	1.5	1.5	1.5	1.5	1.5
Motor rpm	r/min	1400	1400	1400	1400	1400	
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity		1	1	1	1	1
	Model		SH105A4ALC	SH105A4ALC	SH105A4ALC	SH120A4ALC	SH120A4ALC
	Brand		Danfoss	Danfoss	Danfoss	Danfoss	Danfoss
	Capacity	Btu/h	91500	91500	91500	102200	102200

	Input	kW	8.472	8.472	8.472	9.462	9.462
	Rated load Amps (RLA)	A	16.7	16.7	16.7	20.7	20.7
	Locked rotor Amps(LRA)	A	142	142	142	142	142
	Refrigerant oil charge	ml	3000	3000	3000	3300	3300
Outdoor Coil	Number of rows		3	3	3	3	3
	Fin spacing	mm	1.6	1.6	1.6	1.6	1.6
		inch	1/16"	1/16"	1/16"	1/16"	1/16"
	Tube diameter	mm	7.94	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	1404X968	1404X968	1404X968	1748X880	1748X880
inch		55.3 X38.1	55.3 X38.1	55.3 X38.1	68.8X34.6	68.8X34.6	
Number of circuits			21	21	21	20	20
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller	Propeller
	Quantity		1	1	1	1	1
	Diameter(Width)	mm	650	650	650	700	700
		inch	25.6	25.6	25.6	27.6	27.6
	Drive type		Direct	Direct	Direct	Direct	Direct
	Motors quantity		1	1	1	1	1
	Motor model		YS600-6P	YS600-6P	YS600-6P	YS1100-6	YS1100-6
	Motor output	kW	0.6	0.6	0.6	1.1	1.1
Motor rpm	r/min	930	930	930	940	940	
Outdoor sound pressure level		dB(A)	70.3	70.3	70.3	72.2	72.2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Refrigerant	Kg	5.6	5.6	6	6.5	6.5
	Refrigerant Control		Capillary	Capillary	Capillary	Capillary	Capillary
Standard controller			KJR-12B	KJR-12B	KJR-12B	KJR-12B	KJR-12B
Operation temp		°C	17~30	17~30	17~30	17~30	17~30
Outdoor ambient temp	Cooling	°C	18~52	18~52	18~52	18~52	18~52
	Heating	°C	-	-	-10~24	-	-
Dimensions	Net(WxHxD)	mm	1630 X1068X1065			2165X1002X1335	
	Packing(WxHxD)	mm	1700X1110X1155			2220X1040X1410	
Weight	Net weight	Kg(lbs)	315(694.4)	323(712)	380(837.7)	445(981)	455(1003)
	Gross weight	Kg(lbs)	335(738.5)	343(756)	390(859.8)	458(1009.7)	468(1031.7)
Filter	Type		Nylon	Nylon	Nylon	Nylon	Nylon
	Quantity	Pieces	2	2	2	2	2
	Size (WxHxD)	mm	447 X 885 X 10	447 X 885 X 10	447 X 885 X 10	566 X 814 X 10	566 X 814 X 10
Shipping	Qty/Per 20'/40'/40'HQ	Pieces	12/28/28	12/28/28	12/28/28	8/16/16	8/16/16

Note:

The data are based on the following conditions:

Cooling: (1): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 35°C(95°F) DB.

(2): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 46°C(114°F) DB.

Heating and Power input: Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB; - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) DB

Electrical data: Indoor Temperature 32°C(90°F) DB / 24°C(74°F) WB; - Outdoor Temperature 52°C(125°F) DB

Nominal ton			8.5	10	10	10
Model			MRBT-085HWN1-R	MRBT-100CWN1-R	MRCT-100EWN1-R	MRBT-100HWN1-R
Cooling	Cooling Capacity 1	Btu/h	103000	120000	120000	120000
		kW	30	35	35	35
	Power Input 1	kW	10.4	11.8	11.8	11.8
	Cooling Capacity 2	Btu/h	85600	100000	100000	100000
		kW	25.1	29.3	29.3	29.3
Power Input 2	kW	11.9	13.1	13.1	13.1	
Heating	Heating Capacity	Btu/h	120000	-	71700	126000
		kW	35	-	21	37
	Power Input	kW	10.1	-	21	10.9
Capacity steps		%	0/100	0/100	0/100	0/100
Electrical data	Power supply	V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
	Max. input consumption	kW	14.8	16.8	16.8	17.6
	Max. current	A	27.5	30	30	31
Performance	Indoor fan air flow	CFM	3600	3800	3800	3800
	ESP	Pa	75	75	75	75
	EER 1	Btu/W.h	9.8	10.2	10.2	10.2
	EER 2	Btu/W.h	7.5	7.6	7.6	7.6
	COP	Btu/W.h	11.6	/	/	11.6
Indoor Coil	Number of rows		3	3	3	3
	Fin spacing	mm	1.4	1.4	1.4	1.4
		inch	1/18"	1/18"	1/18"	1/18"
	Tube diameter	mm	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	1117X792	1117X792	1117X792	1117X792
		inch	44 X31.2	44 X31.2	44 X31.2	44 X31.2
Number of circuits		18	18	18	18	
Indoor fan	Type		FC centrifugal	FC centrifugal	FC centrifugal	FC centrifugal
	Quantity		1	1	1	1
	Diameter(Width)	mm	305	305	305	305
		inch	12	12	12	12
	Drive type		Belt	Belt	Belt	Belt
	Motors quantity		1	1	1	1
	Motor model		YFD90L-4-1.5	YFD90L-4-1.5	YFD90L-4-1.5	YFD90L-4-1.5
	Motor output	kW	1.5	1.5	1.5	1.5
Motor rpm	r/min	1400	1400	1400	1400	
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Quantity		1	1	1	1
	Model		SH120A4ALC	SH140A4ALC	SH140A4ALC	SH140A4ALC
	Brand		Danfoss	Danfoss	Danfoss	Danfoss
	Capacity	Btu/h	102200	119000	119000	119000
	Input	kW	9.462	10.862	10.862	10.862
	Rated load Amps	A	20.7	21.4	21.4	21.4

	(RLA)					
	Locked rotor Amps(LRA)	A	142	147	147	147
	Refrigerant oil charge	ml	3300	3300	3300	3300
Outdoor Coil	Number of rows		3	3	3	3
	Fin spacing	mm	1.6	1.6	1.6	1.6
		inch	1.6	1/16"	1/16"	1/16"
	Tube diameter	mm	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	1748X880	1748X880	1748X880	1748X880
		inch	68.8X34.6	68.8X34.6	68.8X34.6	68.8X34.6
Number of circuits			20	20	20	20
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller
	Quantity		1	1	1	1
	Diameter(Width)	mm	700	700	700	700
		inch	27.6	27.6	27.6	27.6
	Drive type		Direct	Direct	Direct	Direct
	Motors quantity		1	1	1	1
	Motor model		YS1100-6	YS1100-6	YS1100-6	YS1100-6
	Motor output	kW	1.1	1.1	1.1	1.1
Motor rpm	r/min	940	940	940	940	
Outdoor sound pressure level		dB(A)	72.2	72.2	72.2	72.2
Refrigerant	Type		R410A	R410A	R410A	R410A
	Refrigerant volume	Kg	6.8	6.7	6.7	7.5
	Refrigerant Control		Capillary	Capillary	Capillary	Capillary
Standard controller			KJR-12B	KJR-12B	KJR-12B	KJR-12B
Operation temp		°C	17~30	17~30	17~30	17~30
Outdoor ambient temp	Cooling	°C	18~52	18~52	18~52	18~52
	Heating	°C	-10~24	-	-	-10~24
Dimensions	Net(WxHxD)	mm	2165X1002X1335	2165X1002X1335	2165X1002X1335	2165X1002X1335
	Packing(WxHxD)	mm	2220X1040X1415	2220X1040X1415	2220X1040X1415	2220X1040X1415
Weight	Net weight	Kg(lbs)	450(990)	445(981)	455(1003)	450(992)
	Gross weight	Kg(lbs)	463(1018.6)	458(1009.7)	468(1031.7)	463(1020.7)
Filter	Type		Nylon	Nylon	Nylon	Nylon
	Quantity	Pieces	2	2	2	2
	Size (WxHxD)	mm	566 X 814 X 10	566 X 814 X 10	566 X 814 X 10	566 X 814 X 10
Shipping	Qty/Per 20'/40'/40'HQ	Pieces	8/16/16	8/16/16	8/16/16	8/16/16

Note:

The data are based on the following conditions:

Cooling: (1): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 35°C(95°F) DB.

(2): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 46°C(114°F) DB.

Heating and Power input: Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB; - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) DB

Electrical data: Indoor Temperature 32°C(90°F) DB / 24°C(74°F) WB; - Outdoor Temperature 52°C(125°F) DB

Nominal ton			12.5	12.5	15	15	15
Model			MRBT-125CWN1-R	MRBT-125HWN1-R	MRBT-150CWN1-R	MRCT-150EWN1-R	MRBT-150HWN1-R
Cooling	Cooling Capacity 1	Btu/h	150000	150000	180000	180000	180000
		kW	43	43	53	53	53
	Power Input 1	kW	15.3	15.3	18.6	18.6	18.6
	Cooling Capacity 2	Btu/h	125600	125600	159600	159600	159600
		kW	34.2	34.2	46.7	46.7	46.7
Power Input 2	kW	16.8	16.8	21.3	21.3	21.3	
Heating	Heating Capacity	Btu/h	-	175000	-	102400	191000
		kW	-	49	-	30	56
	Power Input	kW	-	14.2	-	30	17.5
Capacity steps		%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100
Electrical data	Power supply	V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
	Max. input consumption	kW	22	22.2	27	27	27.8
	Max. current	A	41.6	41.8	53	53	54.7
Performance	Indoor air flow	CFM	5200	5200	6600	6600	6600
	ESP	Pa	90	90	90	90	90
	EER 1	Btu/W.h	9.8	9.8	9.7	9.7	9.7
	EER 2	Btu/W.h	7.5	7.5	7.5	7.5	7.5
	COP	Btu/W.h	-	11.8	/	/	11
Indoor Coil	Number of rows		3	3	3	3	3
	Fin spacing	mm	1.5	1.5	1.4	1.4	1.4
		inch	1/16"	1/16"	1/18"	1/18"	1/18"
	Tube diameter	mm	7	7	7.94	7.94	7.94
		inch	9/32"	9/32"	5/16"	5/16"	5/16"
	Coil length X height	mm	1182X1008	1182X1008	1607X880	1607X880	1607X880
		inch	46.5x40	46.5x40	63.3X346.	63.3X346.	63.3X346.
Number of circuits		16+8	16+8	10+10	10+10	10+10	
Indoor fan	Type		Centrifugal	Centrifugal	FC centrifugal	FC centrifugal	FC centrifugal
	Quantity		1	1	1	1	1
	Diameter(Width)	mm	383	383	383	383	383
		inch	15	15	15	15	15
	Drive type		Belt	Belt	Belt	Belt	Belt
	Motors quantity		1	1	1	1	1
	Motor model		Y2-100L2-4	Y2-100L2-4	YFD132S-4-5.5	YFD132S-4-5.5	YFD132S-4-5.5
	Motor output	kW	2.7	2.7	5.5	5.5	5.5
Motor rpm	r/min	1420	1420	1440	1440	1440	
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity		2	2	2	2	2
	Model		ZP61KCE-TFD-522 +ZP120KCE-TFD-522	ZP61KCE-TFD-522 +ZP120KCE-TFD-522	SH105A4ALC	SH105A4ALC	SH105A4ALC
	Brand		Copeland	Copeland	Danfoss	Danfoss	Danfoss
	Capacity	Btu/h	50000+99500	50000+99500	91500	91500	91500
	Input	kW	4.75+9.2	4.75+9.2	8.472	8.472	8.472
	Rated load Amps (RLA)	A	10.9+20	10.9+20	16.7	16.7	16.7
	Locked rotor Amps(LRA)	A	64+118	64+118	156	156	156

	Refrigerant oil charge	ml	1685+3253	1685+3253	3000	3000	3000
Outdoor Coil	Number of rows		3.5	4.5	3	3	3
	Fin spacing	mm	1.5	1.5	1.6	1.6	1.6
		inch	1/16"	1/16"	1/16"	1/16"	1/16"
	Tube diameter	mm	7	7	7.94	7.94	7.94
		inch	9/32"	9/32"	5/16"	5/16"	5/16"
	Coil length X height	mm	1770X1050+854X1050	1770X1050+854X1050	2179X1100	2179X1100	2179X1100
		inch	70x41+33.6x41	70x41+33.6x41	85.8X43.3	85.8X43.3	85.8X43.3
Number of circuits			16+9	16+9	12+12	12+12	12+12
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller	Propeller
	Quantity		1	1	2	2	2
	Diameter(Width)	mm	650	650	650	650	650
		inch	25-19/32	25-19/32	25.6	25.6	25.6
	Drive type		Direct	Direct	Direct	Direct	Direct
	Motors quantity		1	1	2	2	2
	Motor model		YS1100-6	YS1100-6	YS600-6P	YS600-6P	YS600-6P
	Motor output	kW	1.3	1.3	0.6 X 2	0.6 X 2	0.6 X 2
Motor rpm	r/min	940	940	930	930	930	
Outdoor sound pressure level		dB(A)	72.3	72.3	72.4	72.4	72.4
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	Kg	4.6+2.2	5.4+3	5.8 X 2	5.8 X 2	6.5 X 2
	Refrigerant Control		Capillary	Capillary	Capillary	Capillary	Capillary
Standard controller			KJR-12B	KJR-12B	KJR-12B	KJR-12B	KJR-12B
Operation temp		°C	17~30	17~30	17~30	17~30	17~30
Outdoor ambient temp	Cooling	°C	18~52	18~52	18~52	18~52	18~52
	Heating	°C	-	-10~24	-	-	-10~24
Dimensions	Net(WxHxD)	mm	2230x1245x1400	2230x1245x1400	2229X1245X1825	2229 X1245X1825	2229 X1245X1825
	Packing(WxHxD)	mm	2265x1280x1455	2265x1280x1455	2236 X1280X1855	2236 X1280X1855	2236 X1280X1855
Weight	Net weight	kg(lbs)	520	550	710/ (1565.3)	720/ (1609.3)	730/ (1609.3)
	Gross weight	kg(lbs)	535	565	730(1609.3)	740(1653.4)	750(1653.4)
Filter	Type		Nylon	Nylon	Nylon	Nylon	Nylon
	Quantity	Pieces	2	2	2	2	2
	Size (WxHxD)	mm	605x1045x12.5	605x1045x12.5	900 X 815 X 12.5	900 X 815 X 12.5	900 X 815 X 12.5
Shipping	Qty'Per 20/40/40'HQ	Pieces	4/8/16	4/8/16	3/6/12	3/6/12	3/6/12

Note:

The data are based on the following conditions:

Cooling: (1): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 35°C(95°F) DB.

(2): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 46°C(114°F) DB.

Heating and Power input: Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB; - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) DB

Electrical data: Indoor Temperature 32°C(90°F) DB / 24°C(74°F) WB; - Outdoor Temperature 52°C(125°F) DB

Nominal ton			17.5	17.5	17.5	20	20
Model			MRBT-175CW N1-R	MRCT-175EWN1- R	MRBT-175HWN1- R	MRBT-200CWN1- R	MRCT-200EWN1 -R
Cooling	Cooling Capacity 1	Btu/h	210000	210000	210000	240000	240000
		kW	60	60	60	70	70
	Power Input 1	kW	20	20	20	23.6	23.6
	Cooling Capacity 2	Btu/h	180600	180600	180600	213000	213000
		kW	52.9	52.9	52.9	62.4	62.4
Power Input 2	kW	23.5	23.5	23.5	27.7	27.7	
Heating	Heating Capacity	Btu/h	-	102400	191000	-	133100
		kW	-	30	67	-	39
	Power Input	kW	-	30	19.8	-	39
Capacity steps		%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100
Electrical data	Power supply	V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
	Max. input consumption	kW	30.1	30.1	30.7	35	35
	Max. current	A	57.8	57.8	58.2	66	66
Performance	Indoor fan air flow	CFM	7300	7300	7300	8400	8400
	ESP	Pa	90	90	90	100	100;;
	EER 1	Btu/W.h	10.2	10.2	10.2	10.1	10.1
	EER 2	Btu/W.h	7.7	7.7	7.7	7.6	7.6
	COP	Btu/W.h	/	/	11.5	/	/
Indoor Coil	Number of rows		3	3	3	3	3
	Fin spacing	mm	1.4	1.4	1.4	1.6	1.6
		inch	1/18"	1/18"	1/18"	1/16"	1/16"
	Tube diameter	mm	7.94	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	1607X880	1607X880	1607X880	1882X1012	1882X1012
inch		63.3X346.	63.3X346.	63.3X346.	74.1X39.8	74.1X39.8	
Number of circuits			10+10	10+10	10+10	11+12	11+12
Indoor fan	Type		FC centrifugal	FC centrifugal	FC centrifugal	FC centrifugal	FC centrifugal
	Quantity		1	1	1	1	1
	Diameter(Width)	mm	383	383	383	452	452
		inch	15	15	15	17.8	17.8
	Drive type		Belt	Belt	Belt	Belt	Belt
	Motors quantity		1	1	1	1	1
	Motor model		YFD132S-4-5.5	YFD132S-4-5.5	YFD132S-4-5.5	YFD132S-4-5.5	YFD132S-4-5.5
	Motor output	kW	5.5	5.5	5.5	5.5	5.5
Motor rpm	r/min	1440	1440	1440	1440	1440	
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity		2	2	2	2	2
	Model		SH120A4ALC	SH105A4ALC	SH120A4ALC	SH140A4ALC	SH140A4ALC
	Brand		Danfoss	Danfoss	Danfoss	Danfoss	Danfoss
	Capacity	Btu/h	102200	102200	102200	119000	119000
	Input	kW	9.462	9.462	9.462	10.862	10.862
	Rated load Amps (RLA)	A	20.7	20.7	20.7	21.4	21.4
	Locked rotor Amps(LRA)	A	142	142	142	147	147

	Refrigerant oil charge	ml	3300	3300	3300	3300	3300
Outdoor Coil	Number of rows		3	3	3	4	4
	Fin spacing	mm	1.6	1.6	1.6	1.6	1.6
		inch	1/16"	1/16"	1/16"	1/16"	1/16"
	Tube diameter	mm	7.94	7.94	7.94	7.94	7.94
		inch	5/16"	5/16"	5/16"	5/16"	5/16"
	Coil length X height	mm	2179X1100	2179X1100	2179X1100	2650X1100	2650X1100
inch		85.8X43.3	85.8X43.3	85.8X43.3	104.3X43.3	104.3X43.3	
	Number of circuits		12+12	12+12	12+12	11+12	11+12
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller	Propeller
	Quantity		2	2	2	2	2
	Diameter(Width)	mm	650	650	650	750	750
		inch	25.6	25.6	25.6	29.5	29.5
	Drive type		Direct	Direct	Direct	Direct	Direct
	Motors quantity		2	2	2	2	2
	Motor model		YS1100-6	YS1100-6	YS1100-6	YS1500-6	YS1500-6
	Motor output	kW	1.3 X 2	1.3 X 2	1.3 X 2	1.5 X 2	1.5 X 2
Motor rpm	r/min	940	940	940	910	910	
Outdoor sound pressure level		dB(A)	72.4	72.4	72.4	74.2	74.2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	Kg	5.2X 2	5.2 X 2	5.6 X 2	8.1 X 2	8.1 X 2
	Refrigerant Control		Capillary	Capillary	Capillary	Capillary	Capillary
Standard controller			KJR-12B	KJR-12B	KJR-12B	KJR-12B	KJR-12B
Operation temp		℃	17~30	17~30	17~30	17~30	17~30
Outdoor ambient temp	Cooling	℃	18~52	18~52	18~52	18~52	18~52
	Heating	℃	-	-	-10~24	-	-
Dimensions	Net(WxHxD)	mm	2229 X1245X1825	2229 X1245X1825	2229 X1245X1825	2753 X1245X2157	2753 X1245X2157
	Packing(WxHxD)	mm	2236 X1280X1855	2236 X1280X1855	2236 X1280X1855	2760 X1280X2175	2760 X1280X2175
Weight	Net weight	Kg(lbs)	710/ (1565.3)	720/ (1609.3)	730/ (1609.3)	925(2039.2)	940(2072.3)
	Gross weight	Kg(lbs)	730(1609.3)	740(1653.4)	750(1653.4)	940(2072.3)	955(2105.4)
Filter	Type		Nylon	Nylon	Nylon	Nylon	Nylon
	Quantity	Pieces	2	2	2	3	3
	Size (WxHxD)	mm	900 X 815 X 12.5	900 X 815 X 12.5	900 X 815 X 12.5	640 X 1008 X 12.5	640 X 1008 X 12.5
Shipping	Qty/Per 20'/40'/40'HQ	Pieces	3/6/12	3/6/12	3/6/12	3/4/8	3/4/8

Note:

The data are based on the following conditions:

Cooling: (1): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 35°C(95°F) DB.

(2): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 46°C(114°F) DB.

Heating and Power input: Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB; - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) DB

Electrical data: Indoor Temperature 32°C(90°F) DB / 24°C(74°F) WB; - Outdoor Temperature 52°C(125°F) DB

Nominal ton			20	30	30	30
Model			MRBT-200HWN1-R	MRCT-300CWN1-R	MRCT-300EWN1-R	MRCT-300HWN1-R
Cooling	Cooling Capacity 1	Btu/h	240000	358000	358000	358000
		kW	70	105	105	105
	Power Input 1	kW	23.6	35.8	35.8	35.8
	Cooling Capacity 2	Btu/h	213000	328600	328600	328600
		kW	62.4	96	96	96
Power Input 2	kW	27.7	43.8	43.8	43.8	
Heating	Heating Capacity	Btu/h	256000	-	133000	358000
		kW	75	-	39	105
	Power Input	kW	23.4	-	39	34.8
Capacity steps		%	0/50/100	0/50/100	0/50/100	0/50/100
Electrical data	Power supply	V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
	Max. input consumption	kW	35.7	48	48	48.6
	Max. current	A	69.2	92	92	93.1
Performance	Indoor fan air flow	CFM	8400	13400	13400	13400
	ESP	Pa	100	250	250	250
	EER 1	Btu/W.h	10.1	10.8	10.8	10.8
	EER 2	Btu/W.h	7.6	7.5	7.5	7.5
	COP	Btu/W.h	11	-	-	10.3
Indoor Coil	Number of rows		3	3	3	3
	Fin spacing	mm	1.6	1.5	1.5	1.5
		inch	1/16"	1/16"	1/16"	1/16"
	Tube diameter	mm	7.94	7	7	7
		inch	5/16"	9/32"	9/32"	9/32"
	Coil length X height	mm	1882X1012	1882X1428	1882X1428	1882X1428
inch		74.1X39.8	74.1X56.2	74.1X56.2	74.1X56.2	
Number of circuits			11+12	17+17	17+17	17+17
Indoor fan	Type		FC centrifugal	FC centrifugal	FC centrifugal	FC centrifugal
	Quantity		1	1	1	1
	Diameter(Width)	mm	452	500	500	500
		inch	17.8	19.7	19.7	19.7
	Drive type		Belt	Belt	Belt	Belt
	Motors quantity		1	1	1	1
	Motor model		YFD132S-4-5.5	Y(2)132M-4-7.5	Y(2)132M-4-7.5	Y(2)132M-4-7.5
	Motor output	kW	5.5	7.5	7.5	7.5
Motor rpm	r/min	1440	1440	1440	1440	
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Quantity		2	2	2	2
	Model		SH140A4ALC	SH184A4ALC	SH184A4ALC	SH184A4ALC
	Brand		Danfoss	Danfoss	Danfoss	Danfoss
	Capacity	Btu/h	119000	152426	152426	152426
	Input	kW	10.862	13.732	13.732	13.732
	Rated load Amps (RLA)	A	21.4	27.6	27.6	27.6
	Locked rotor Amps(LRA)	A	147	197	197	197
Refrigerant oil charge	ml	3300	3600	3600	3600	
Outdoor Coil	Number of rows		4	4	4	4

	Fin spacing	mm	1.6	1.5	1.5	1.5
		inch	1/16"	1/16"	1/16"	1/16"
	Tube diameter	mm	7.94	7	7	7
		inch	5/16"	9/32"	9/32"	9/32"
	Coil length X height	mm	2650X1100	2650X1512	2650X1512	2650X1512
		inch	104.3X43.3	104.3X59.5	104.3X59.5	104.3X59.5
Number of circuits		11+12	12+12	12+12	12+12	
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller
	Quantity		2	2	2	2
	Diameter(Width)	mm	750	750	750	750
		inch	29.5	29.5	29.5	29.5
	Drive type		Direct	Direct	Direct	Direct
	Motors quantity		2	2	2	2
	Motor model		YS1500-6	YS1500-6	YS1500-6	YS1500-6
	Motor output	KW	1.5 X 2	1.5 X 2	1.5 X 2	1.5 X 2
Motor rpm	r/min	910	910	910	910	
Outdoor sound pressure level		dB(A)	74.2	75.1	75.1	75.4
Refrigerant	Type		R410A	R410A	R410A	R410A
	Refrigerant volume	Kg	8.8 X 2	8.3 X 2	8.3 X 2	9.4 X 2
	Refrigerant Control		Capillary	Capillary	Capillary	Capillary
Standard controller			KJR-12B	KJR-12B	KJR-12B	KJR-12B
Operation temp		°C	17~30	17~30	17~30	17~30
Outdoor ambient temp	Cooling	°C	18~52	18~52	18~52	18~52
	Heating	°C	-10~24			-10~24
Dimensions	Net(WxHxD)	mm	2753 X1245X2157	2753 X1674X2157	2753 X1674X2157	2753 X1674X2157
	Packing(WxHxD)	mm	2760 X1280X2175	2755 X1690X2180	2755 X1690X2180	2755 X1690X2180
Weight	Net weight	Kg(lbs)	940(2072.3)	1100(2425)	1130(2491.2)	1130(2491.2)
	Gross weight	Kg(lbs)	955(2105.4)	1110(2447)	1140(2513.2)	1140(2513.2)
Filter	Type		Nylon	Nylon	Nylon	Nylon
	Quantity	Pieces	3	3	3	3
	Size (WxHxD)	mm	640 X 1008 X 12.5	1492 X 640 X 12.5	1492 X 640 X 12.5	1492 X 640 X 12.5
Shipping	Qty/Per 20'/40'/40'HQ	Pieces	3/4/8	2/4/4	2/4/4	2/4/4

Note:

The data are based on the following conditions:

Cooling: (1): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 35°C(95°F) DB.

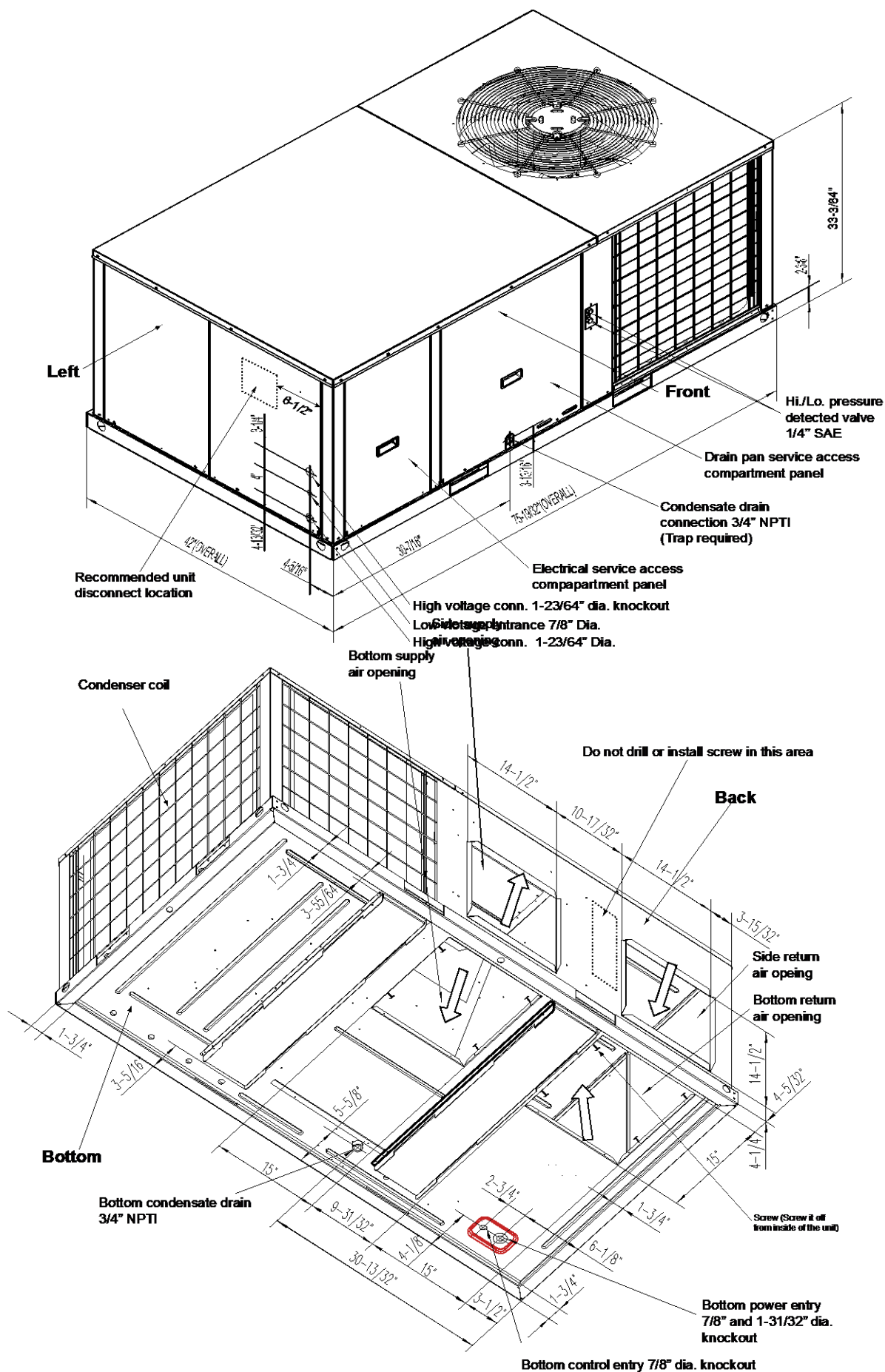
(2): Indoor Temperature 26.7°C(80°F) DB / 19.4°C(67°F) WB; - Outdoor Temperature 46°C(114°F) DB.

Heating and Power input: Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB; - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) DB

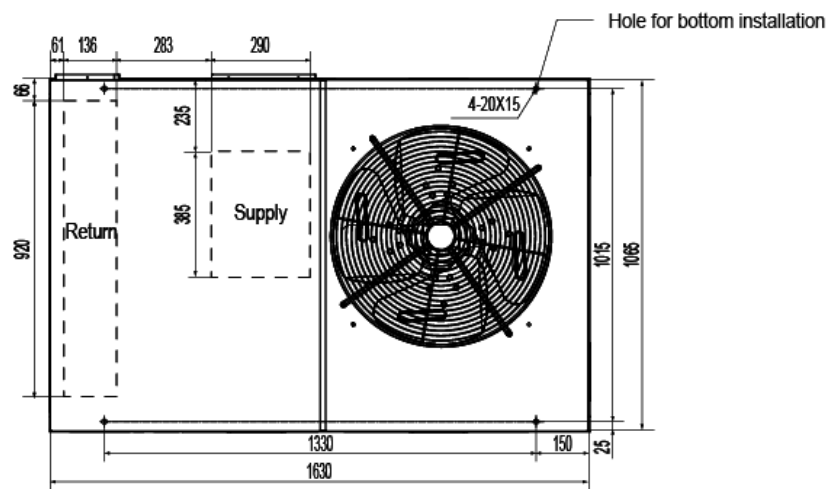
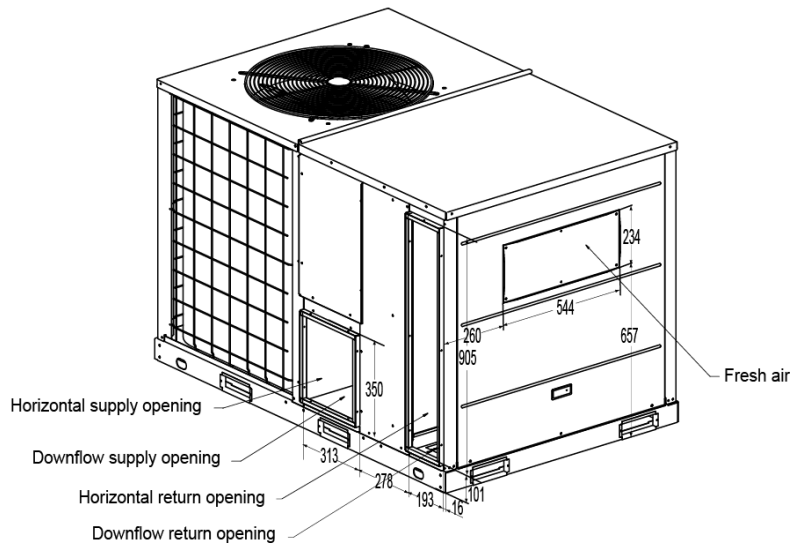
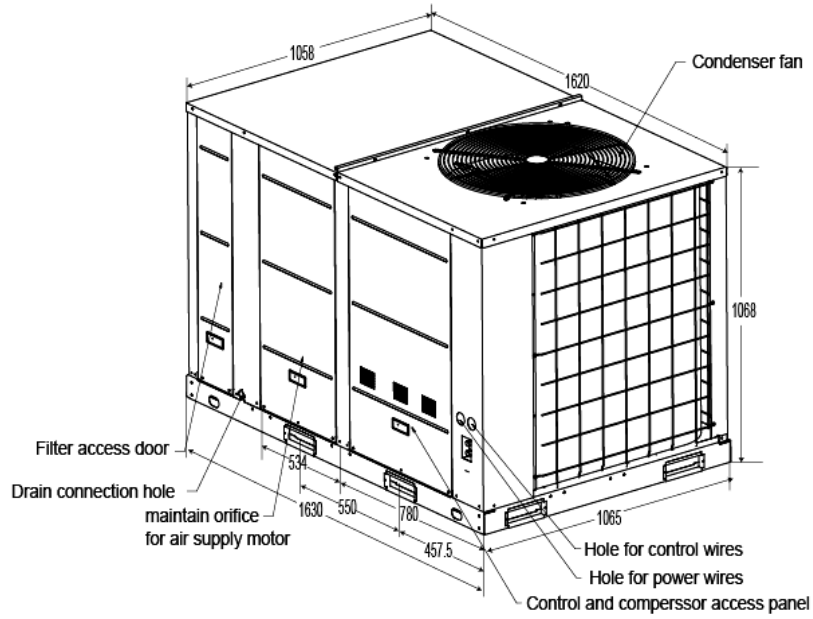
Electrical data: Indoor Temperature 32°C(90°F) DB / 24°C(74°F) WB; - Outdoor Temperature 52°C(125°F) DB

7. Dimensional Drawings

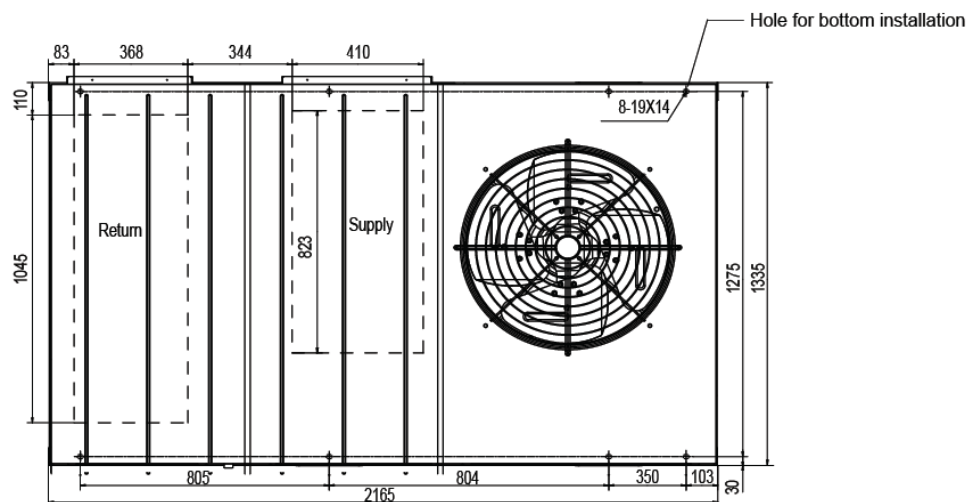
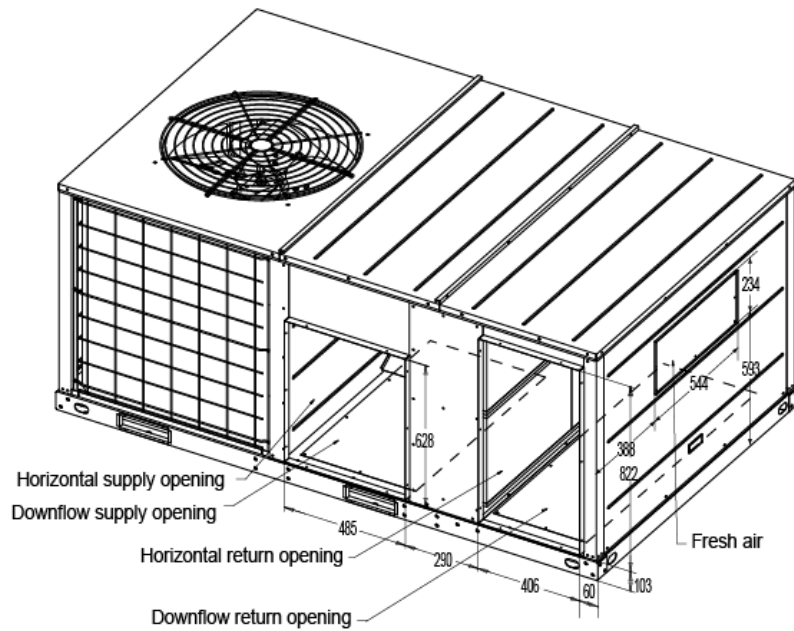
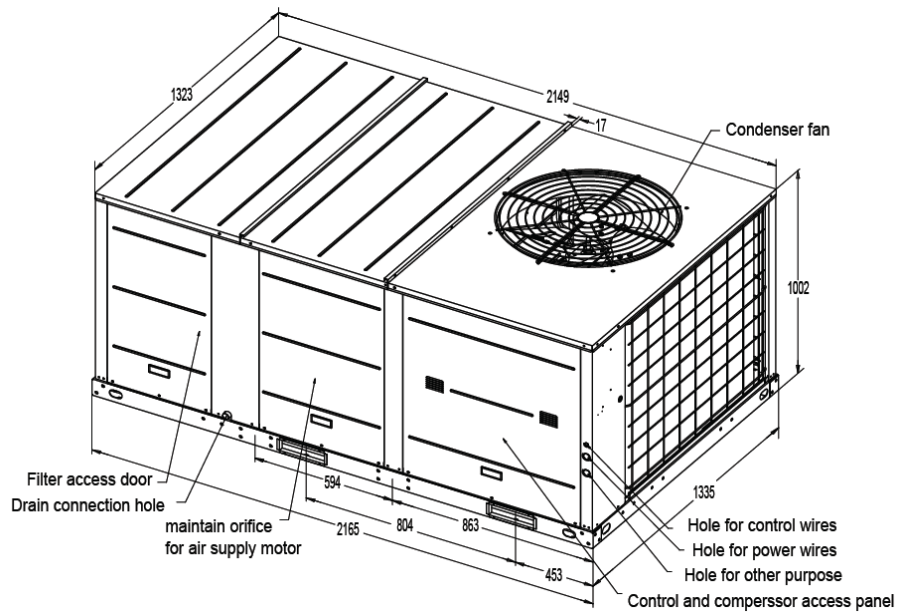
7.1 5ton



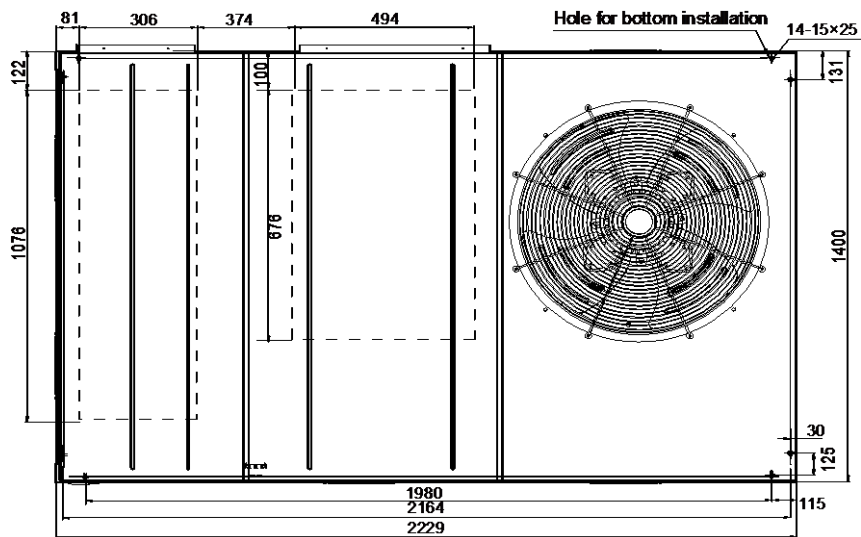
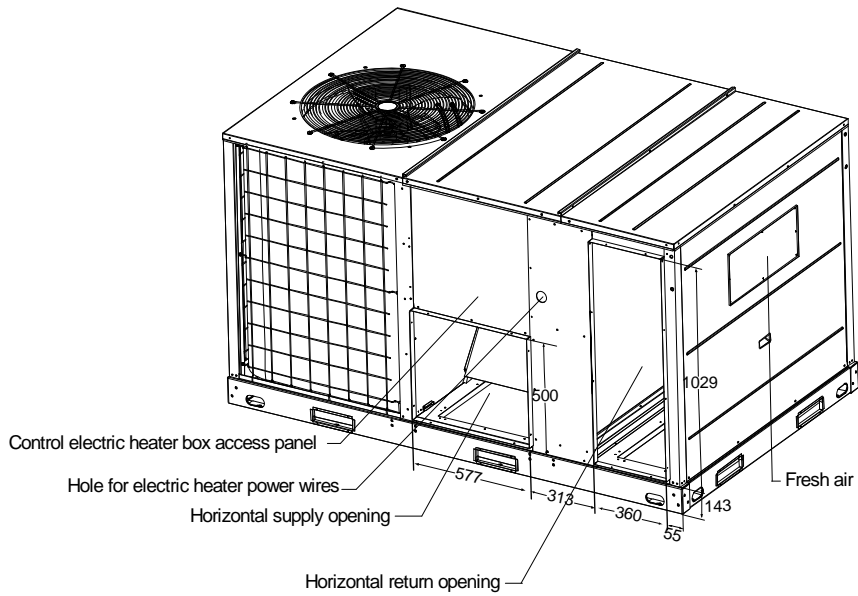
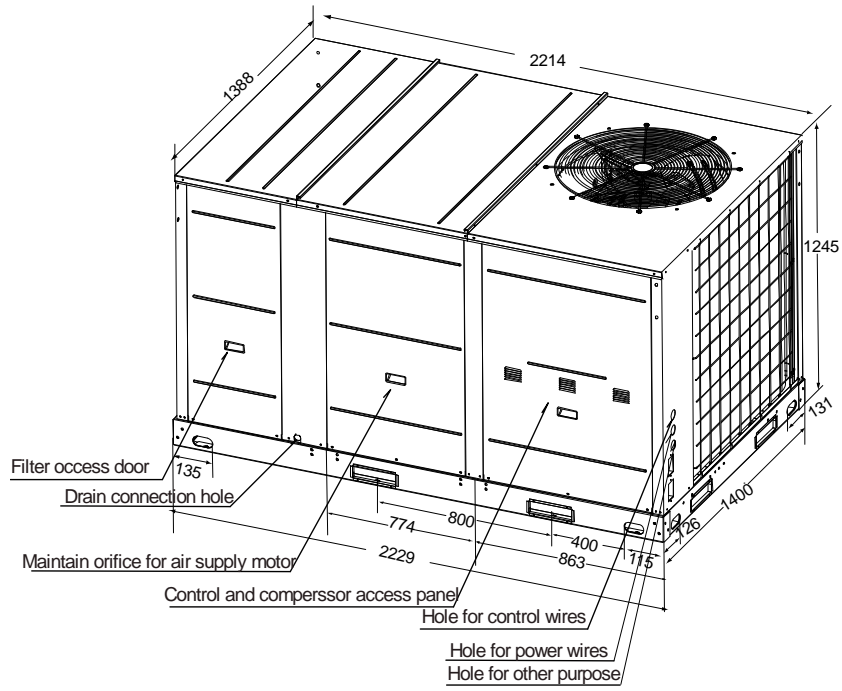
7.2 6.2&7.5ton



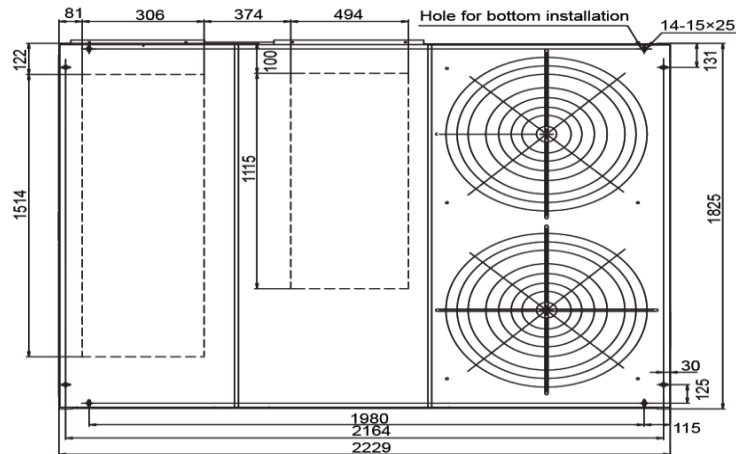
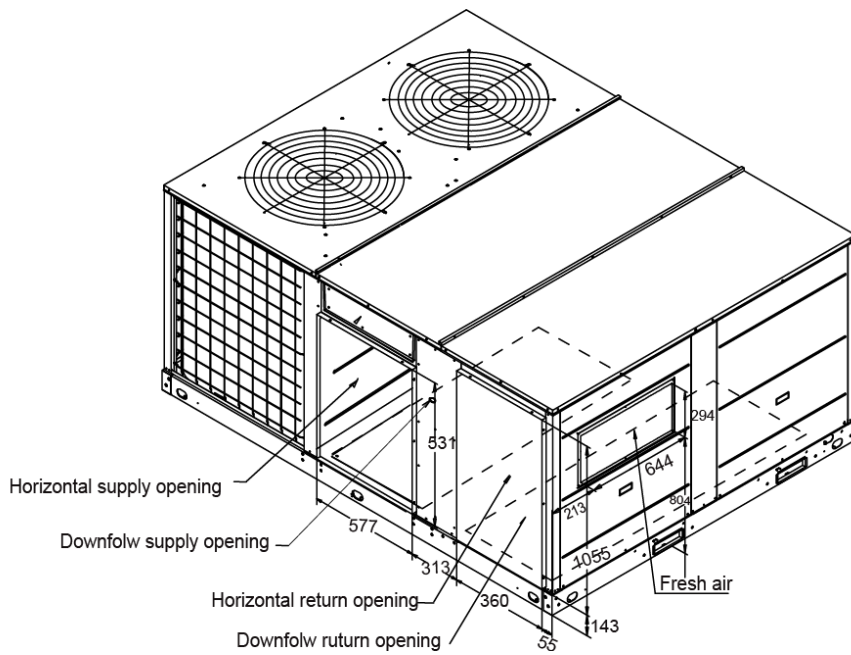
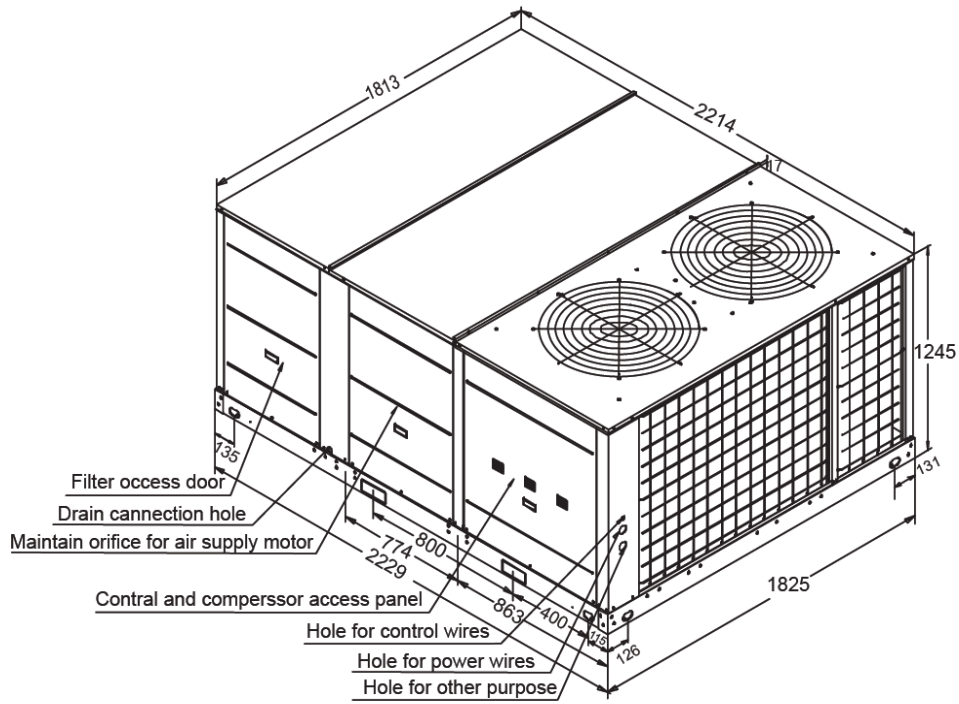
7.3 8.5&10ton



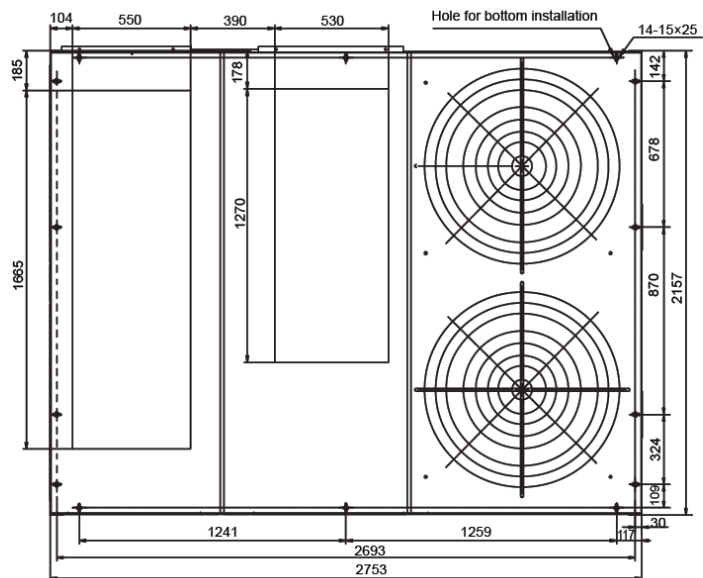
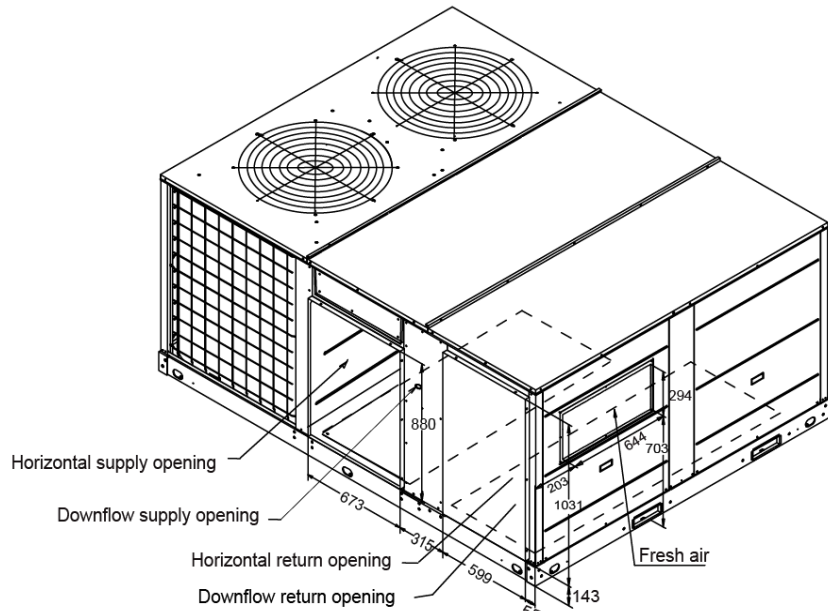
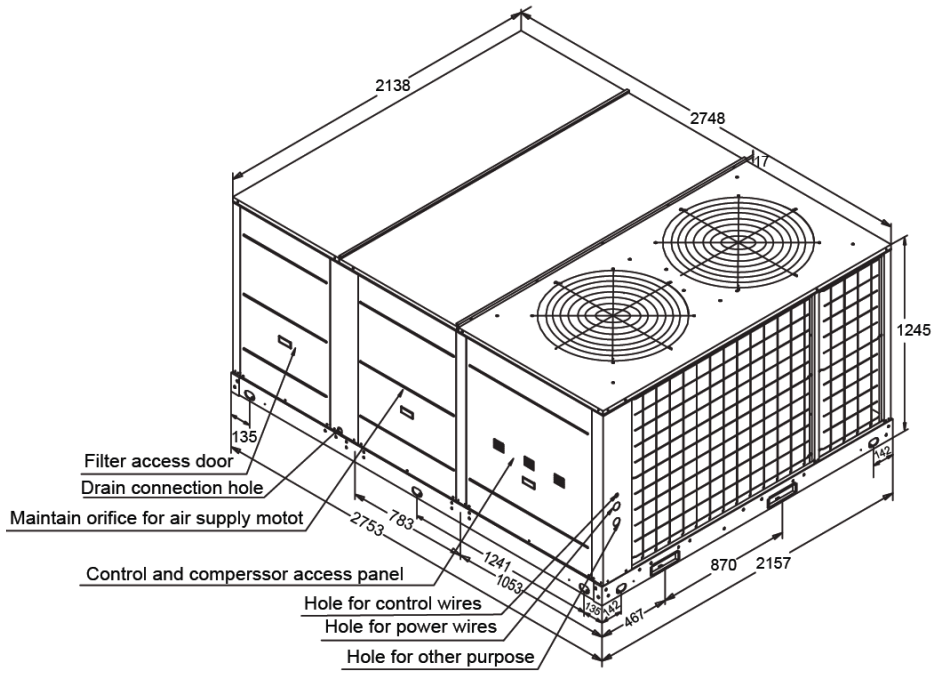
7.4 12.5ton



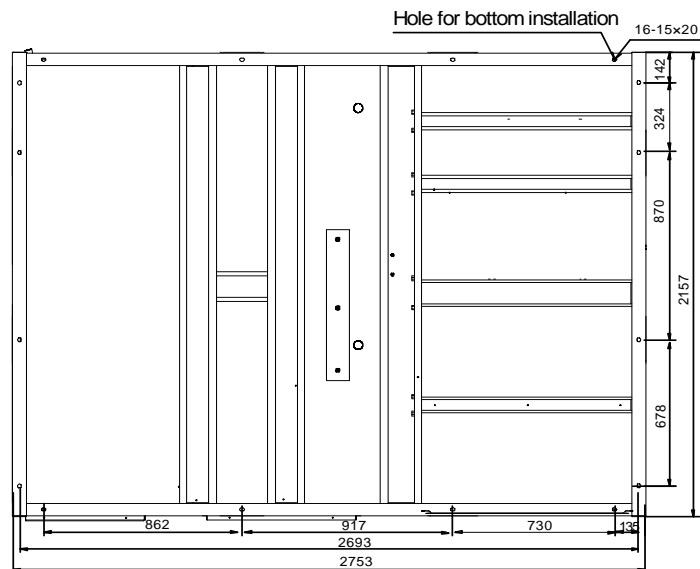
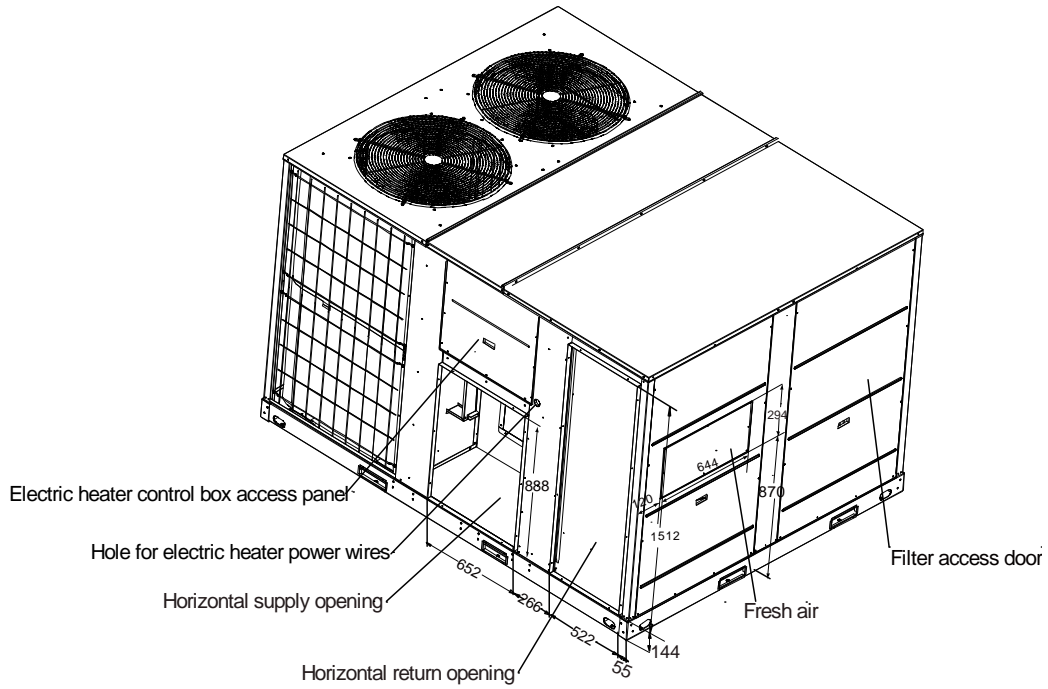
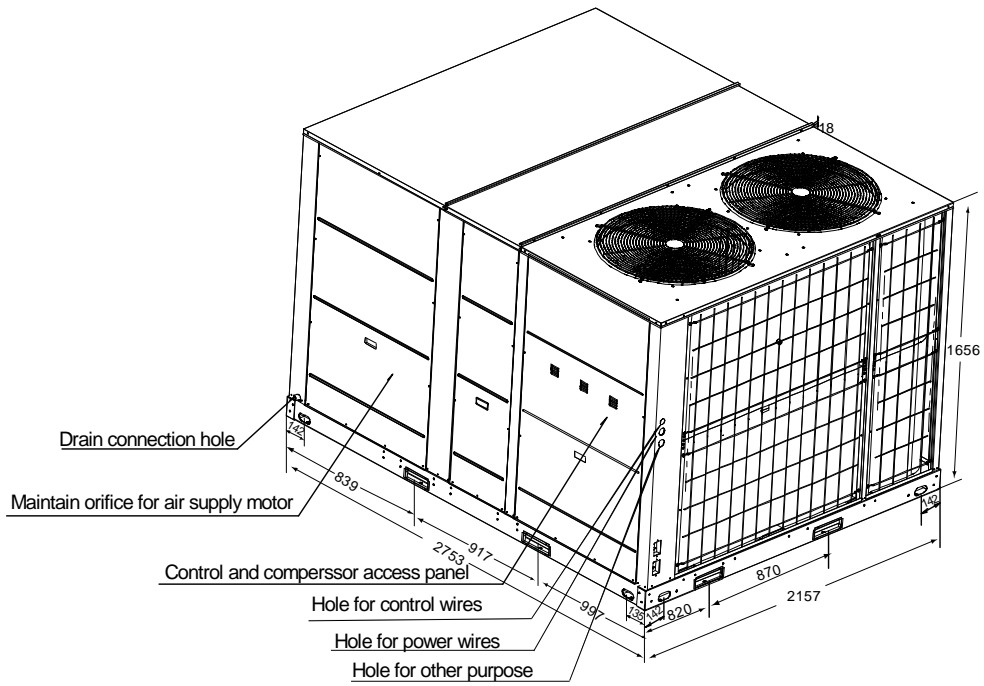
7.5 15&17.5ton



7.6 20ton



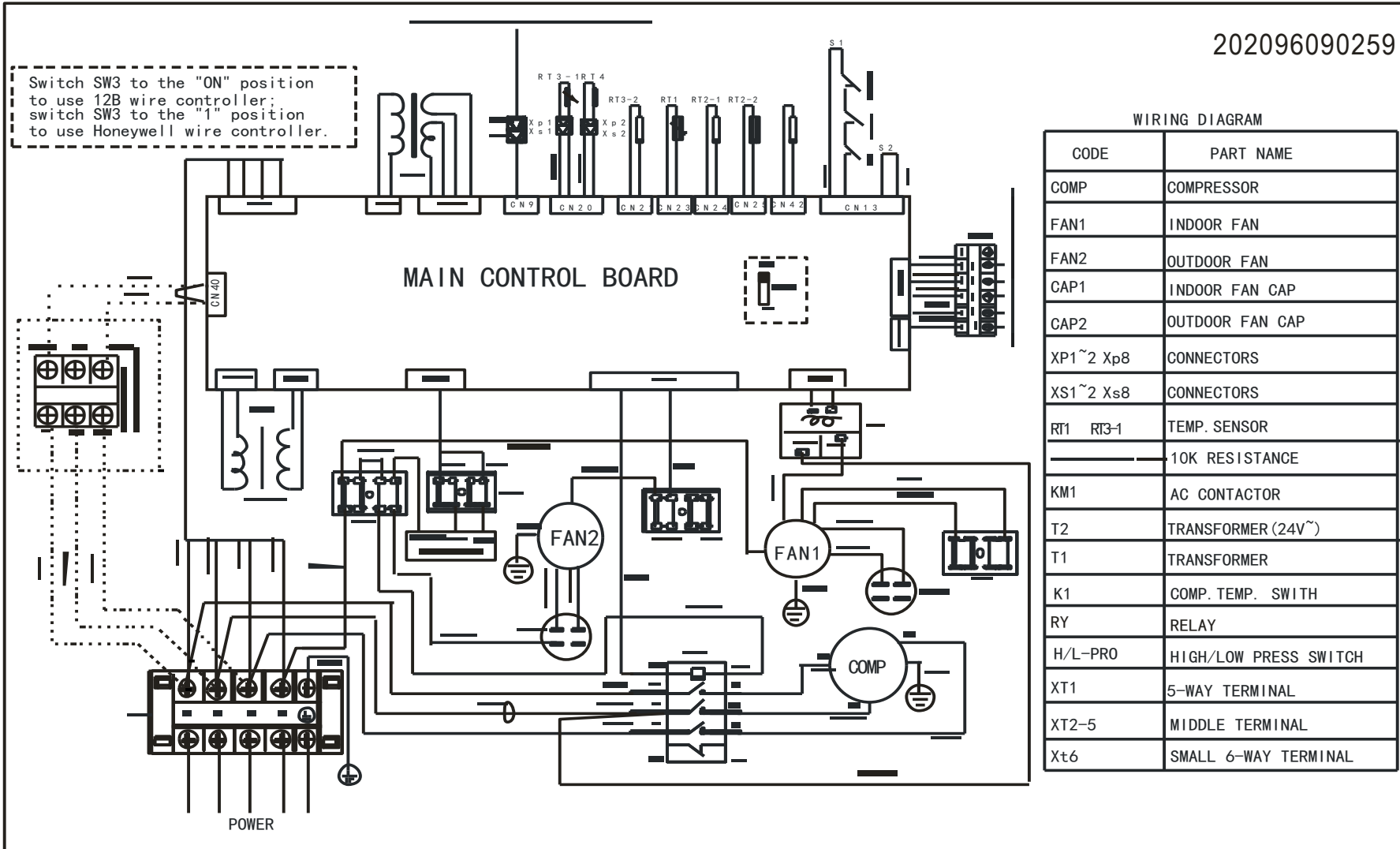
7.7 30ton



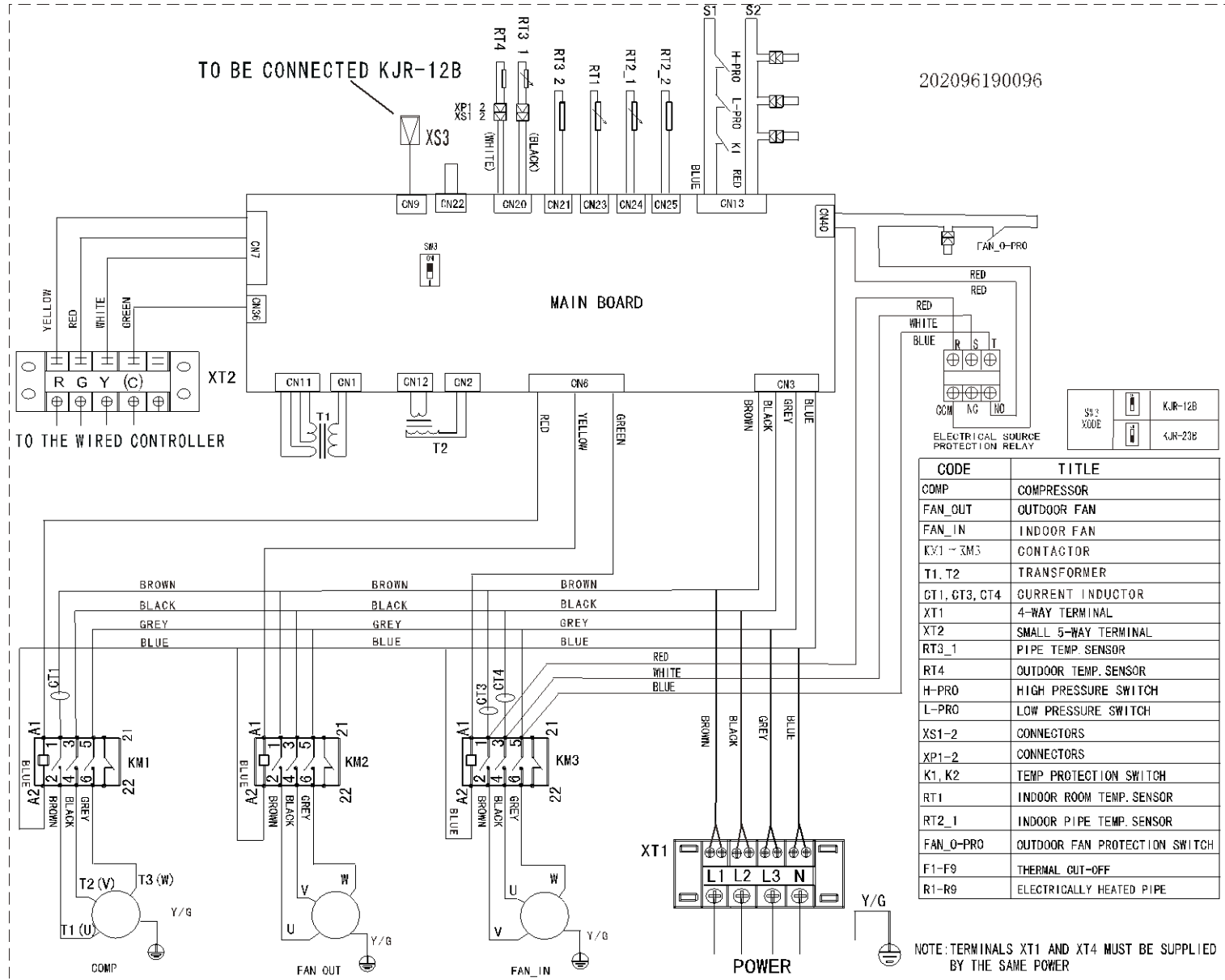
8. Wiring Diagrams

8.1 5ton

MRBT-60CWN1-R

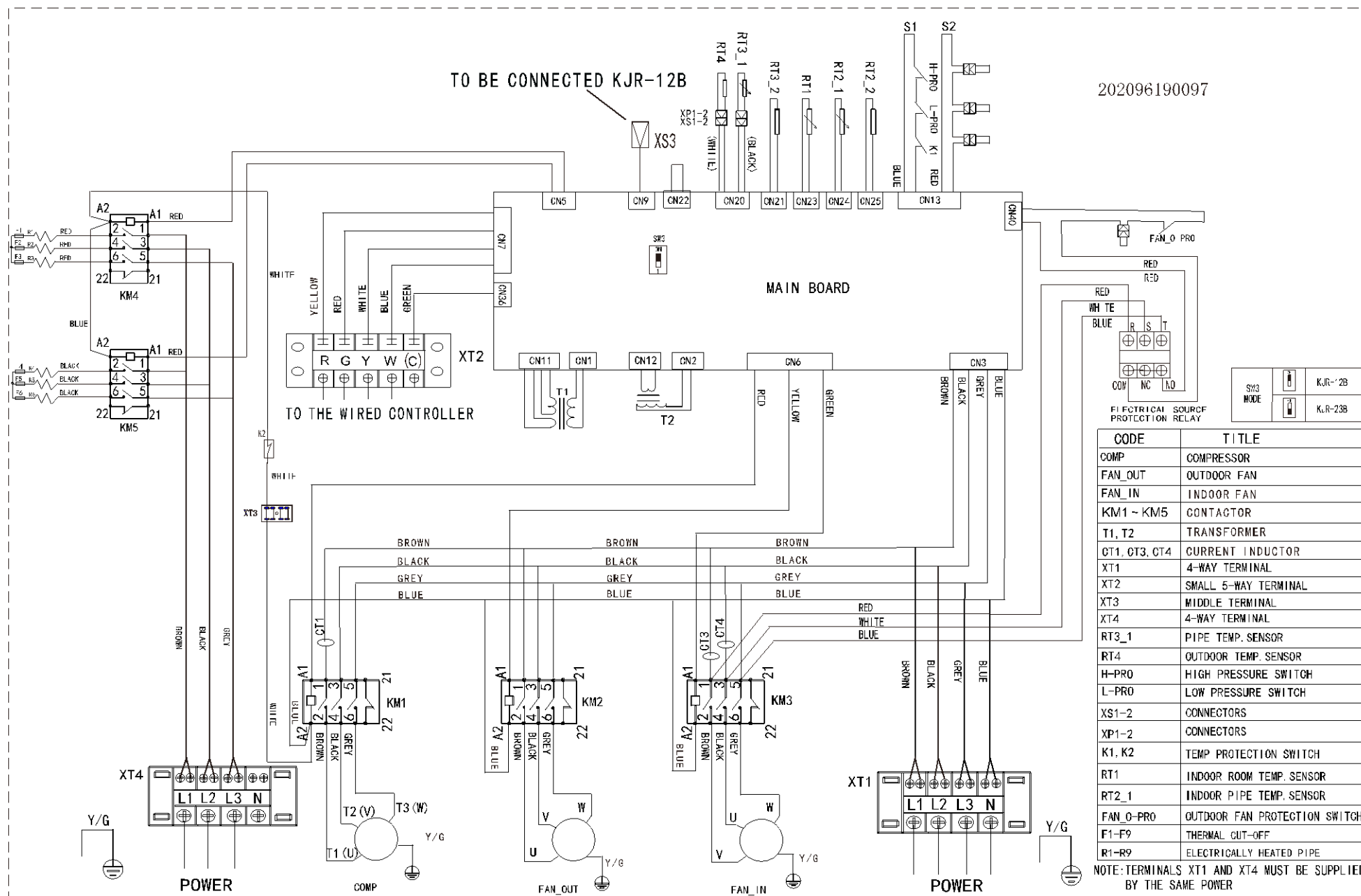


8.2 6.2ton
MRBT-062CWN1-R

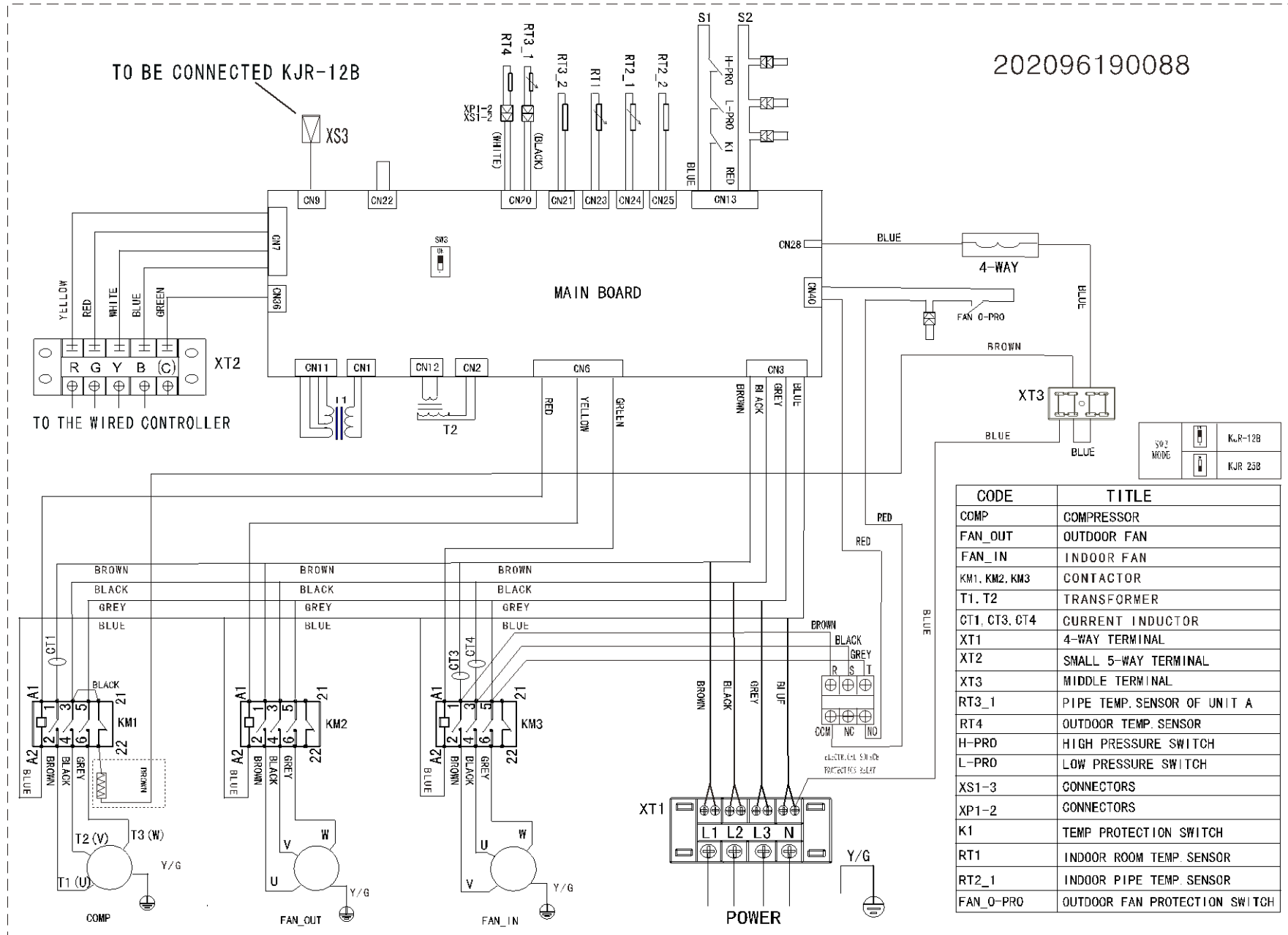


CODE	TITLE
COMP	COMPRESSOR
FAN_OUT	OUTDOOR FAN
FAN_IN	INDOOR FAN
KX1 - KM3	CONTACTOR
T1, T2	TRANSFORMER
CT1, CT3, CT4	CURRENT INDUCTOR
XT1	4-WAY TERMINAL
XT2	SMALL 5-WAY TERMINAL
RT3_1	PIPE TEMP. SENSOR
RT4	OUTDOOR TEMP. SENSOR
H-PRO	HIGH PRESSURE SWITCH
L-PRO	LOW PRESSURE SWITCH
XS1-2	CONNECTORS
XP1-2	CONNECTORS
K1, K2	TEMP PROTECTION SWITCH
RT1	INDOOR ROOM TEMP. SENSOR
RT2_1	INDOOR PIPE TEMP. SENSOR
FAN_O-PRO	OUTDOOR FAN PROTECTION SWITCH
F1-F9	THERMAL OUT-OFF
R1-R9	ELECTRICALLY HEATED PIPE

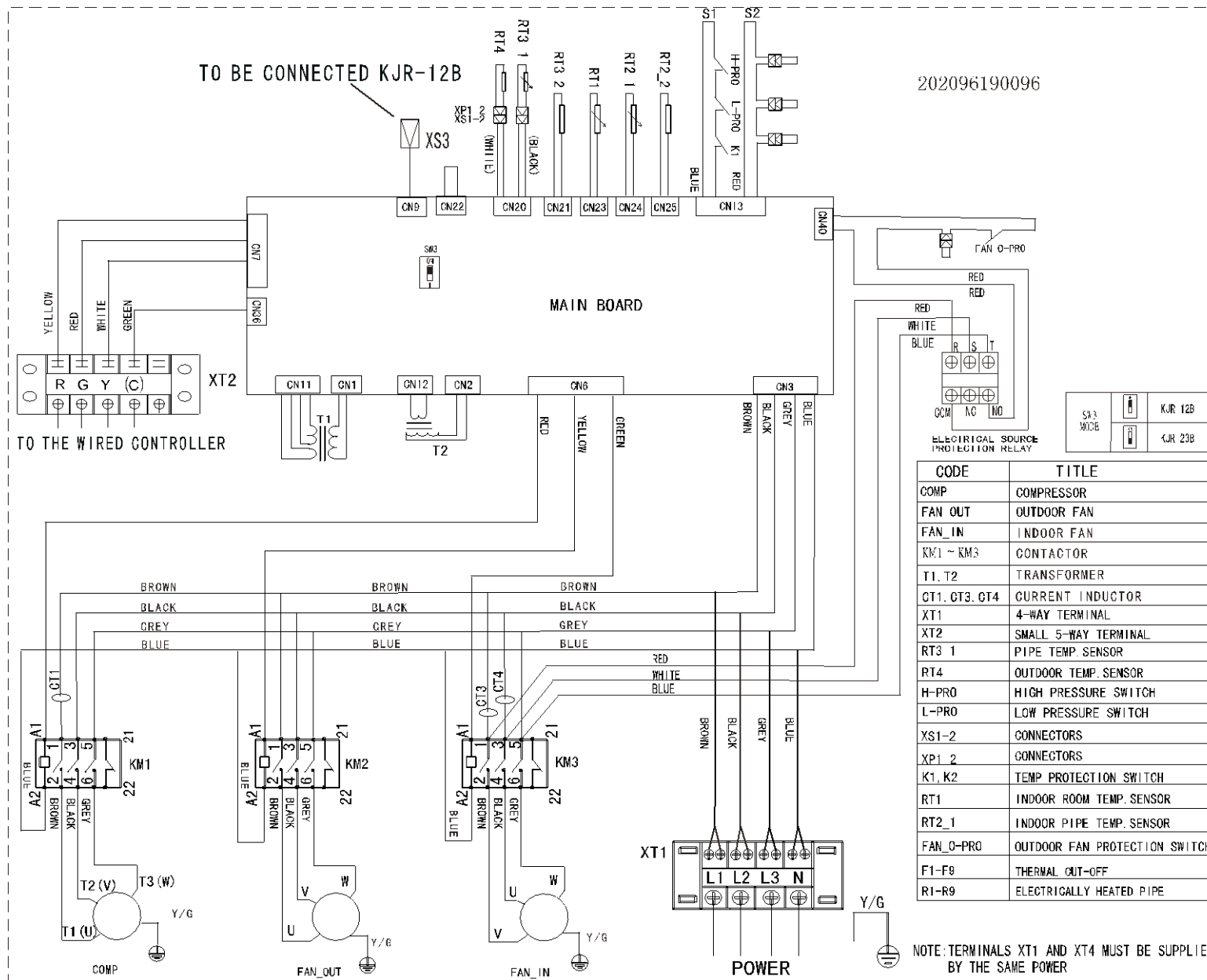
MRCT-062EWN1-R



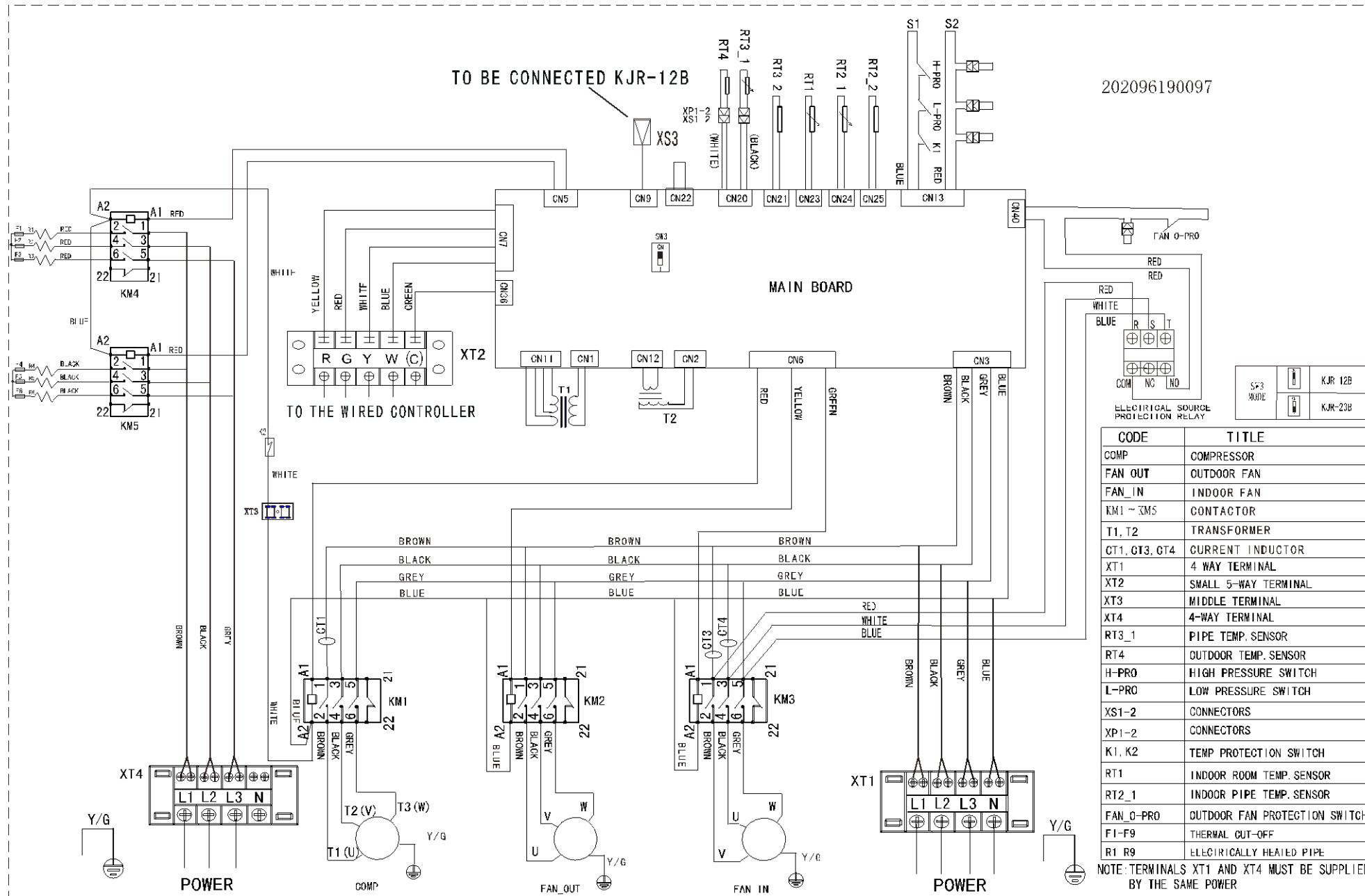
MRBT-062HWN1-R



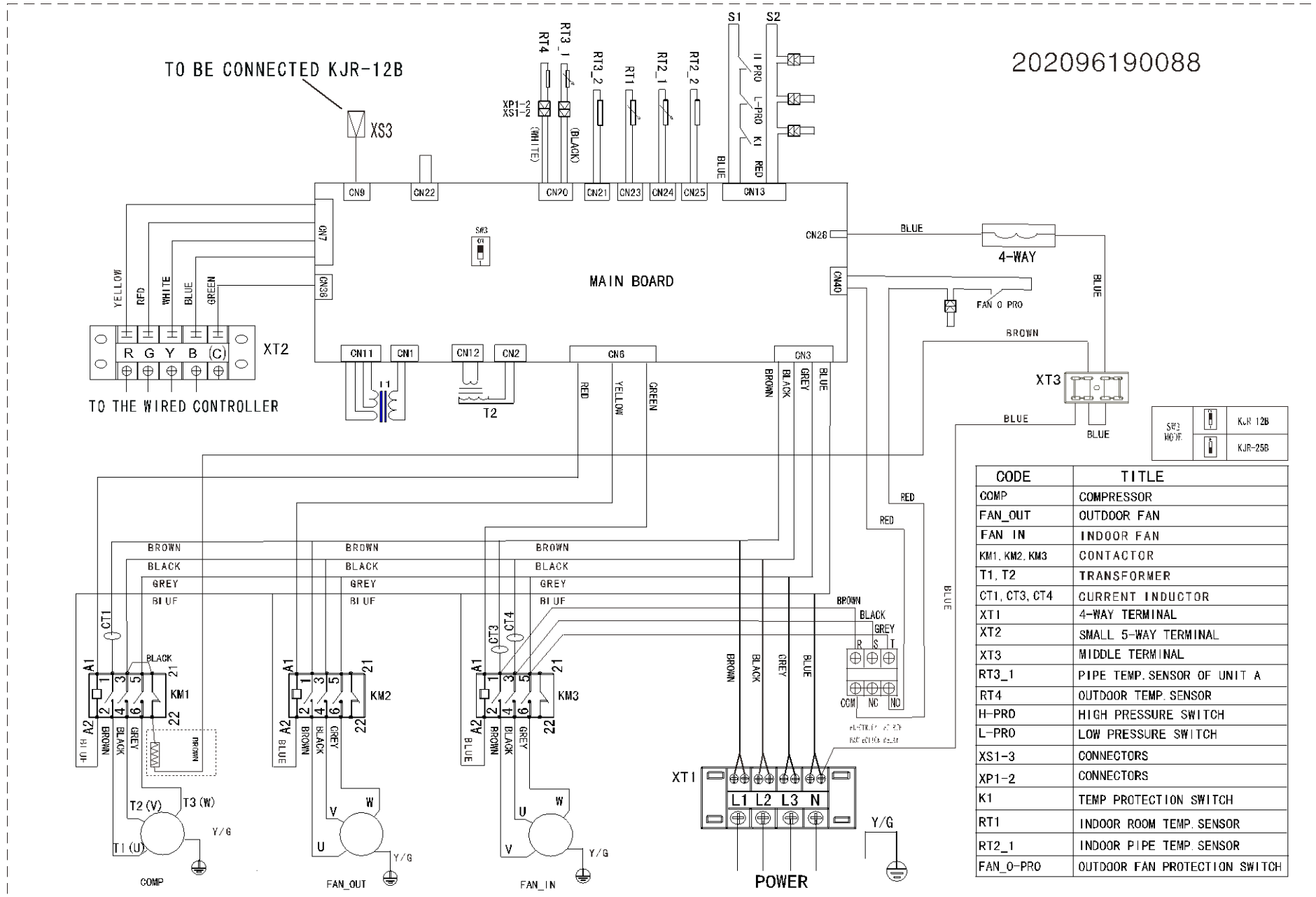
8.3 7.5ton
MRBT-075CWN1-R



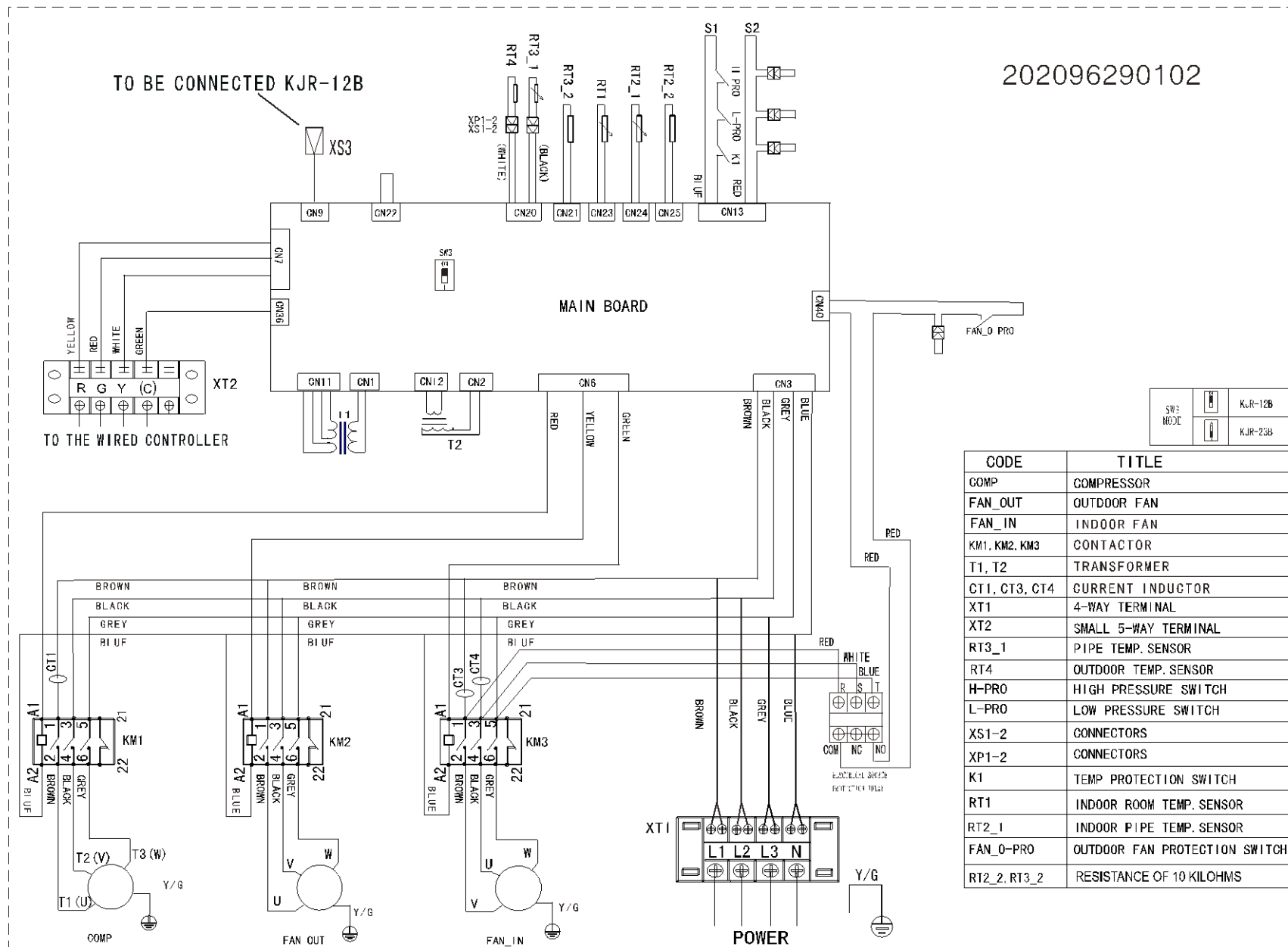
MRCT-075EWN1-R



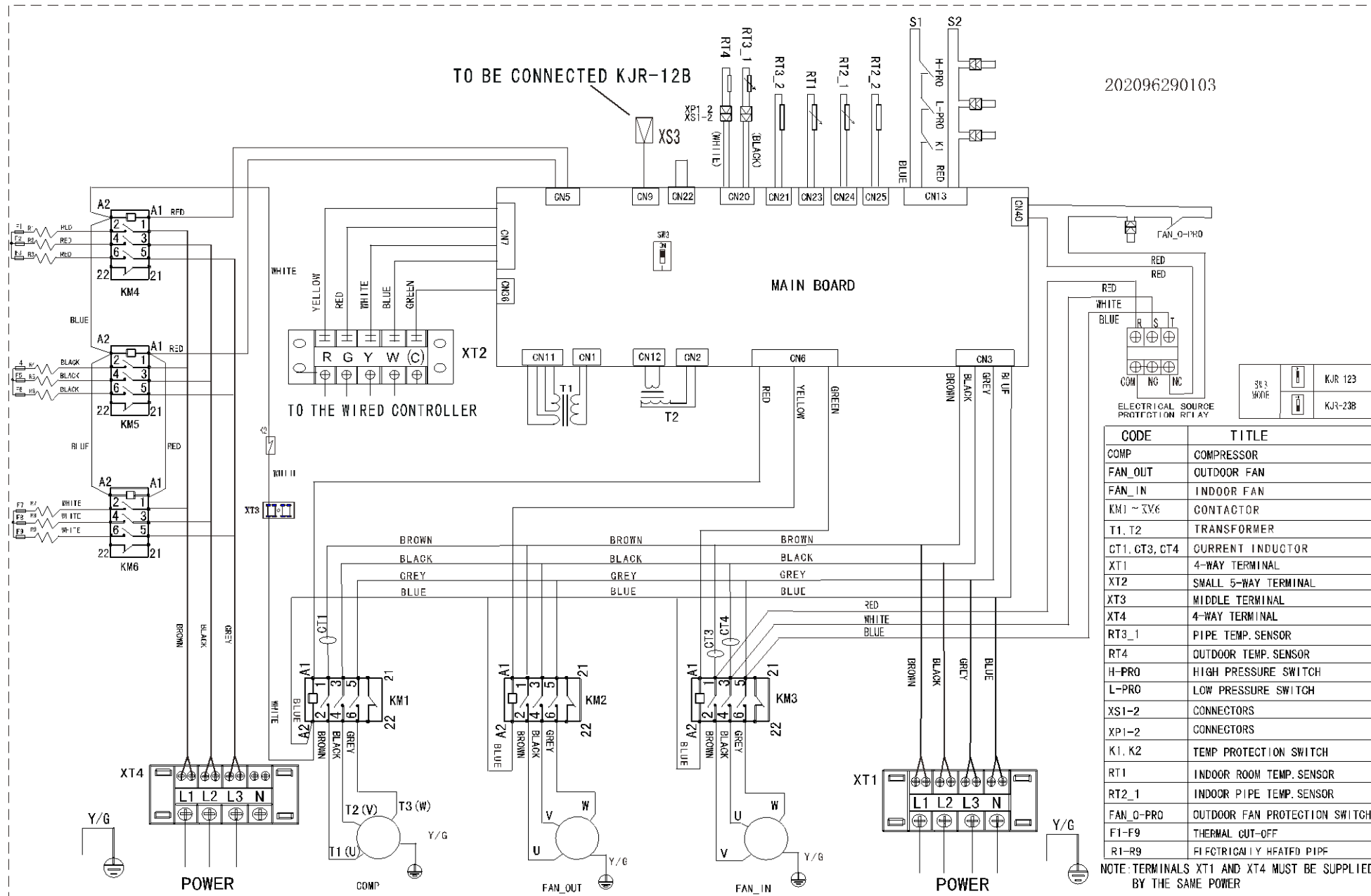
MRBT-075HWN1-R



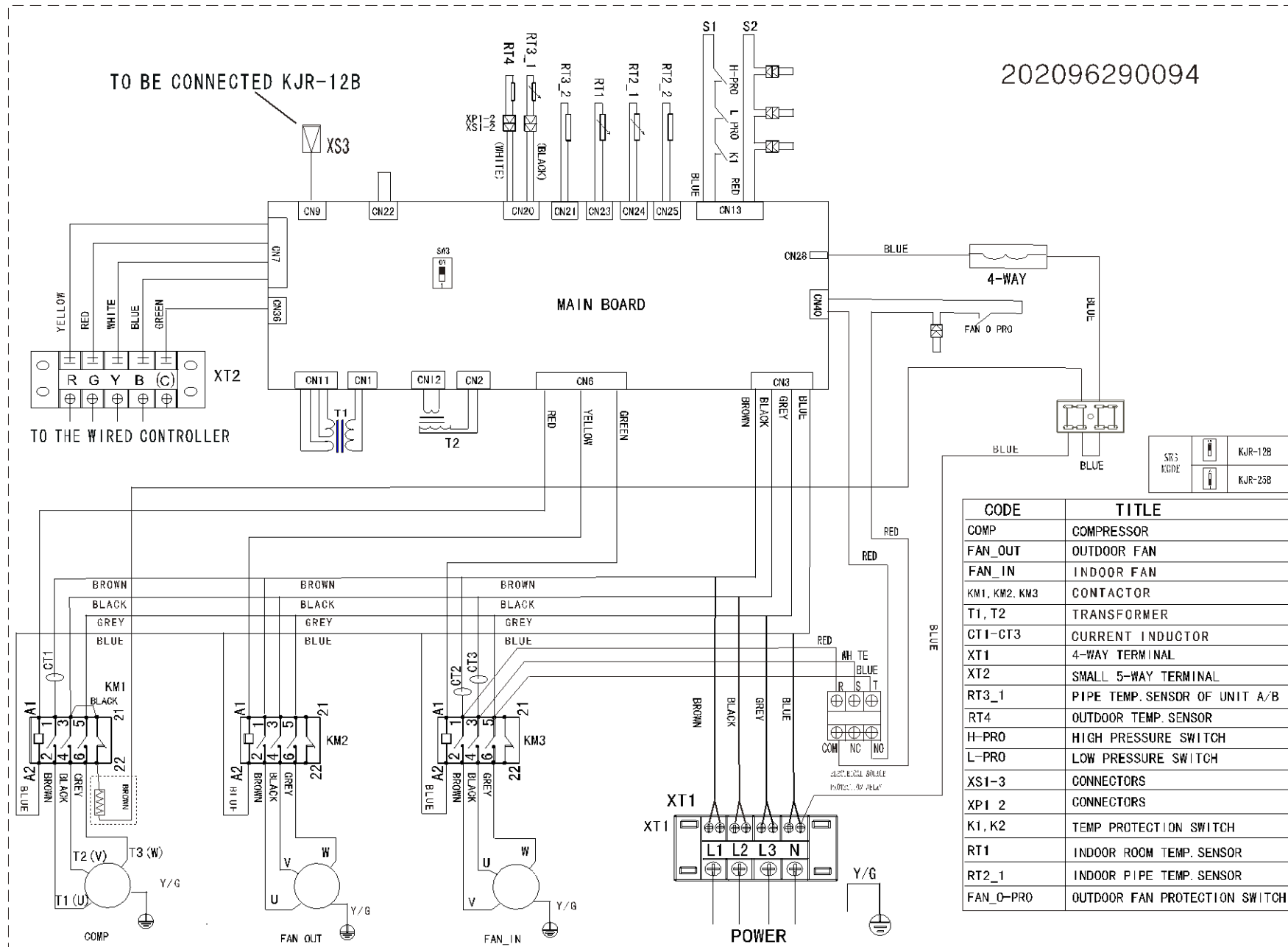
8.4 8.5ton
MRBT-085CWN1-R



MRCT-085EWN1-R

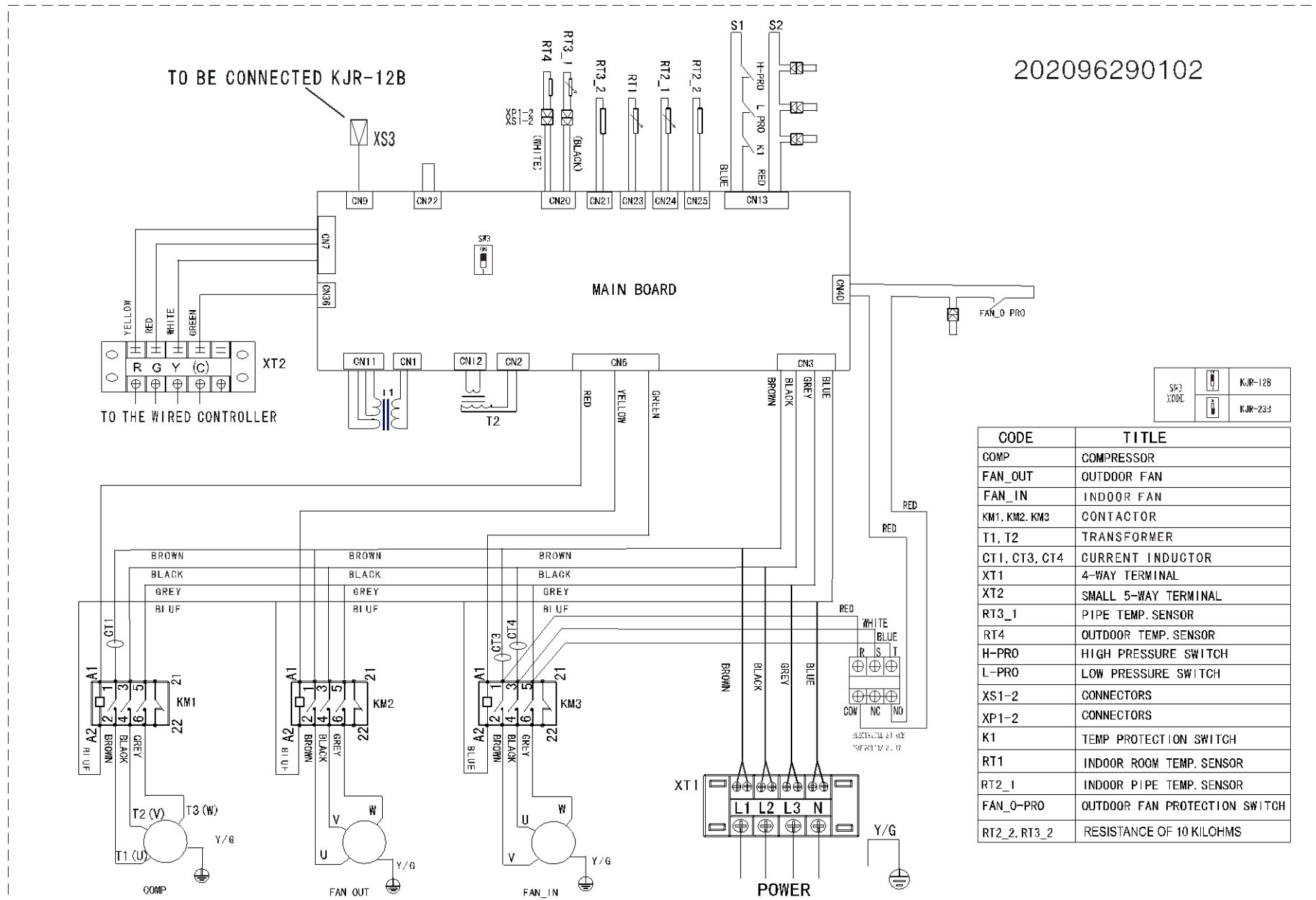


MRBT-085HWN1-R

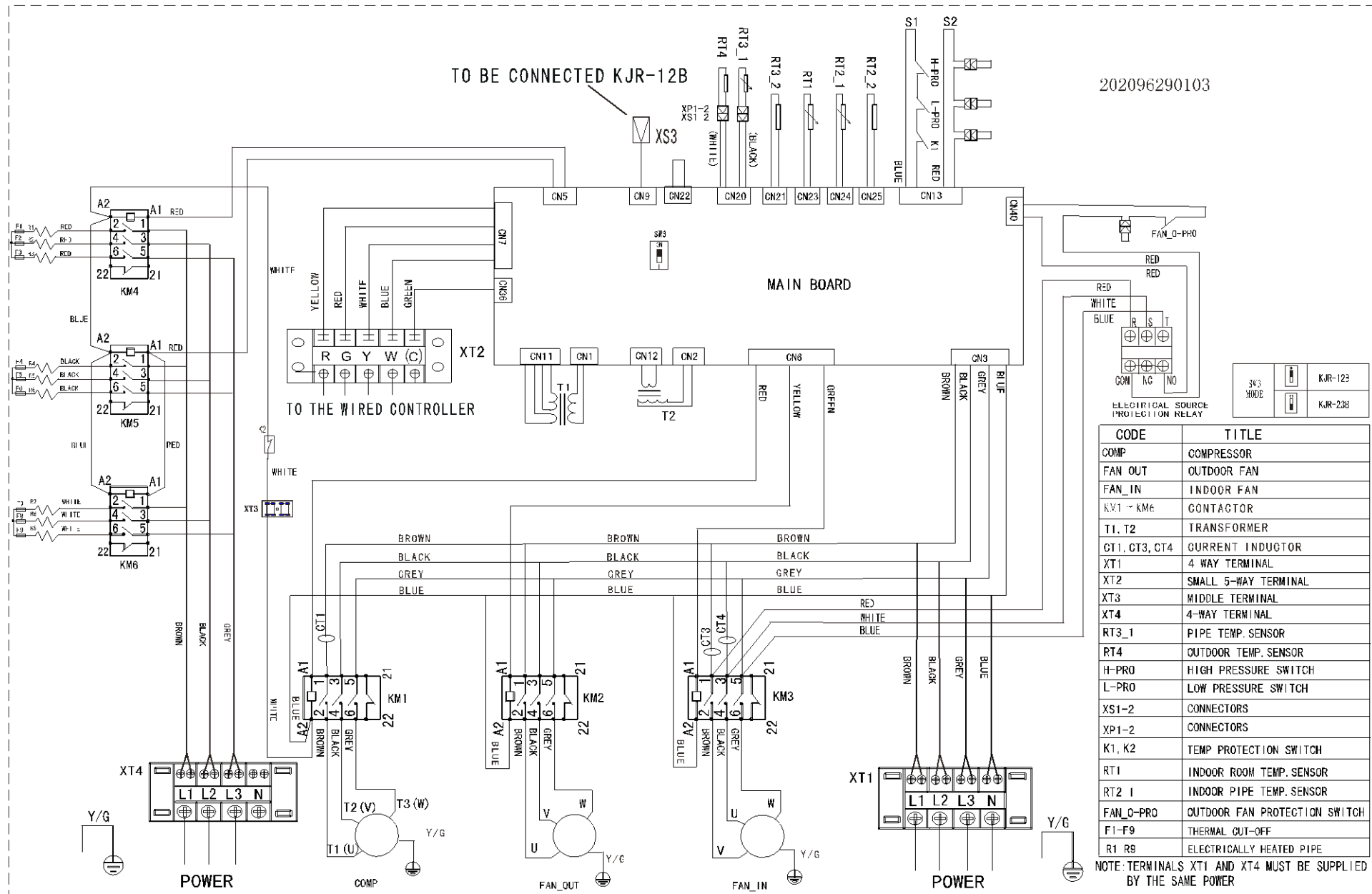


8.5 10ton
MRBT-100CWN1-R

202096290102

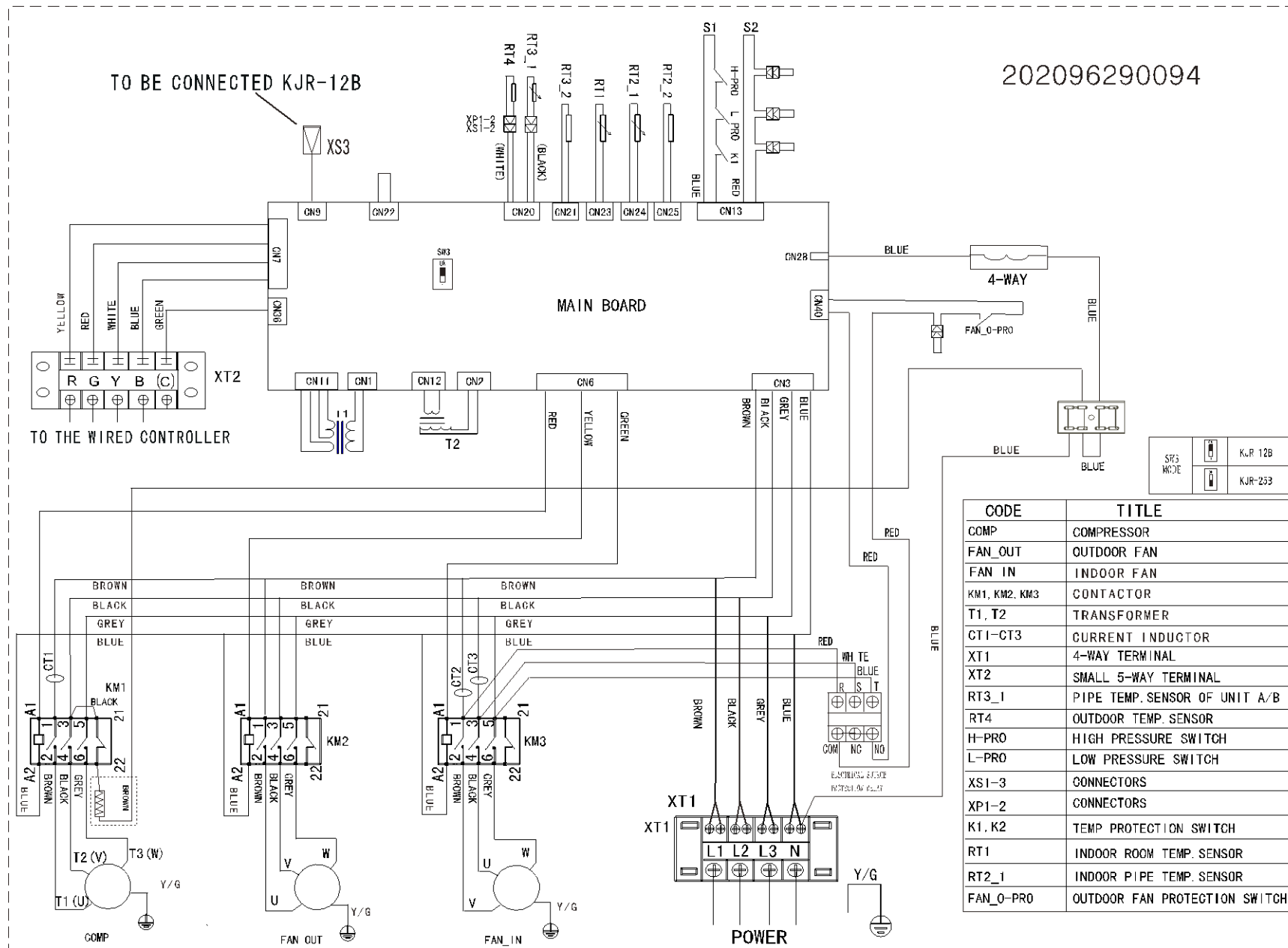


MRCT-100EWN1-R



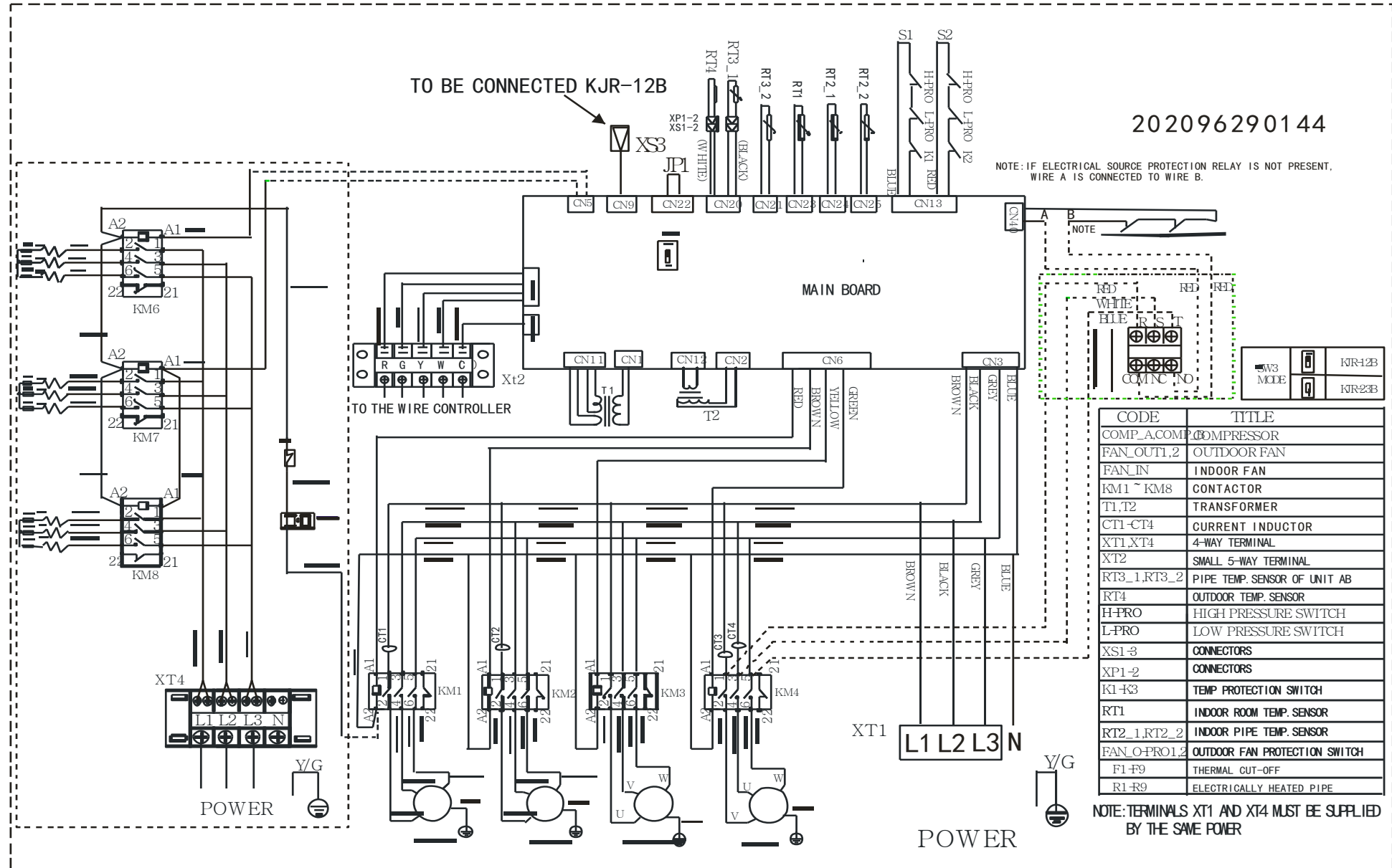
MRBT-100HWN1-R

202096290094



8.6 12.5ton

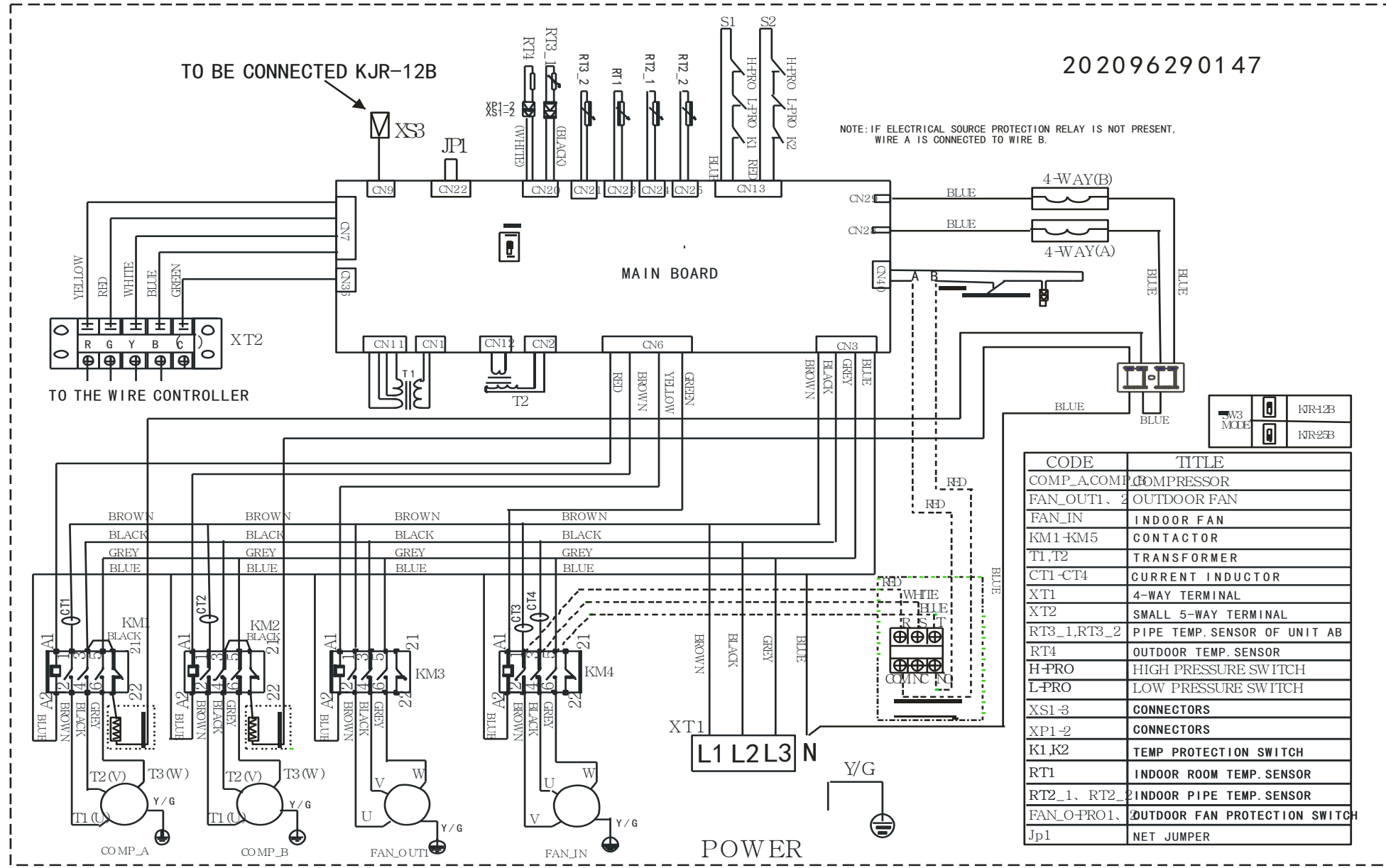
MRBT-125CWN1-R



MRBT-125HWN1-R

202096290147

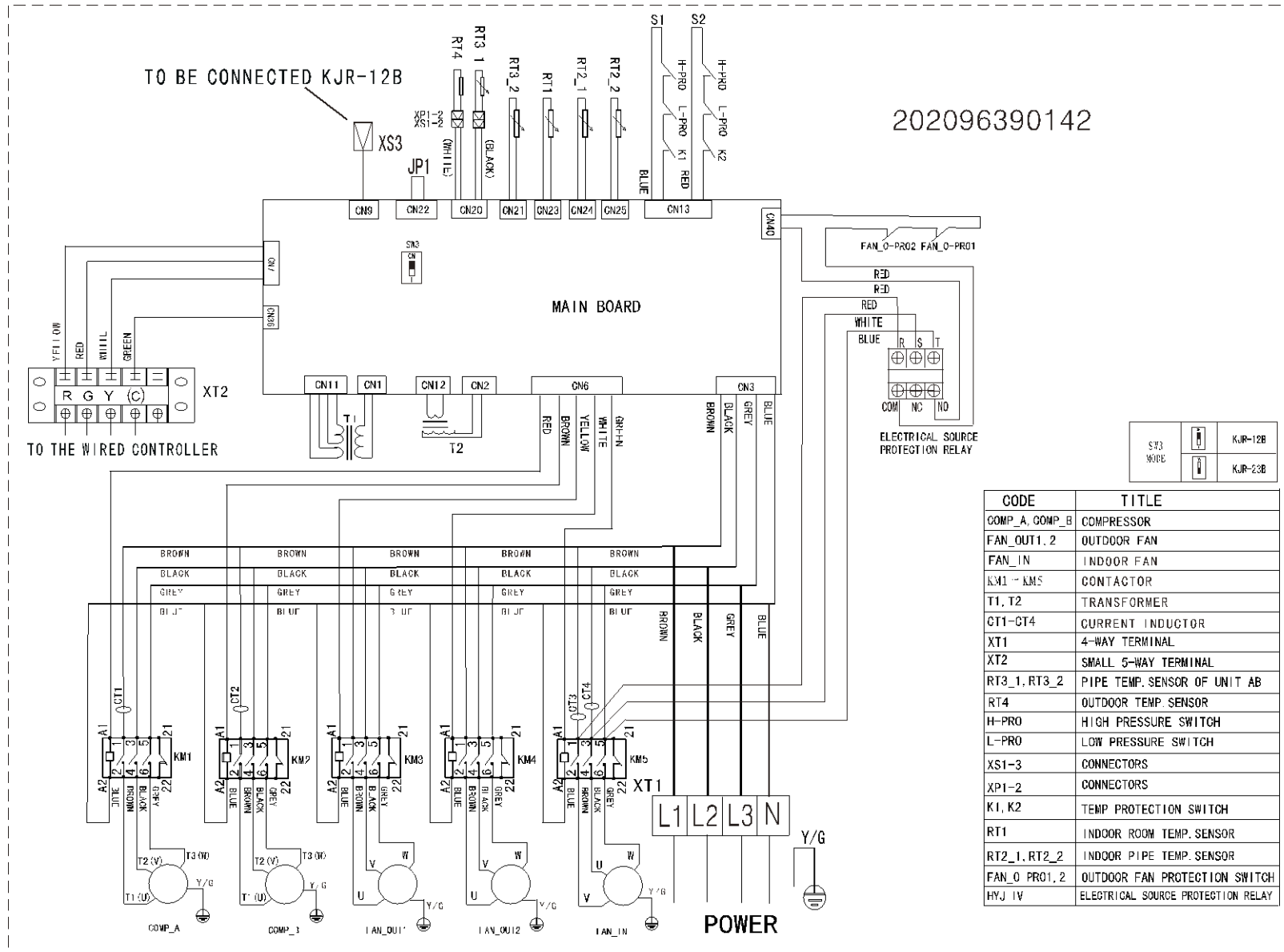
NOTE: IF ELECTRICAL SOURCE PROTECTION RELAY IS NOT PRESENT,
WIRE A IS CONNECTED TO WIRE B.



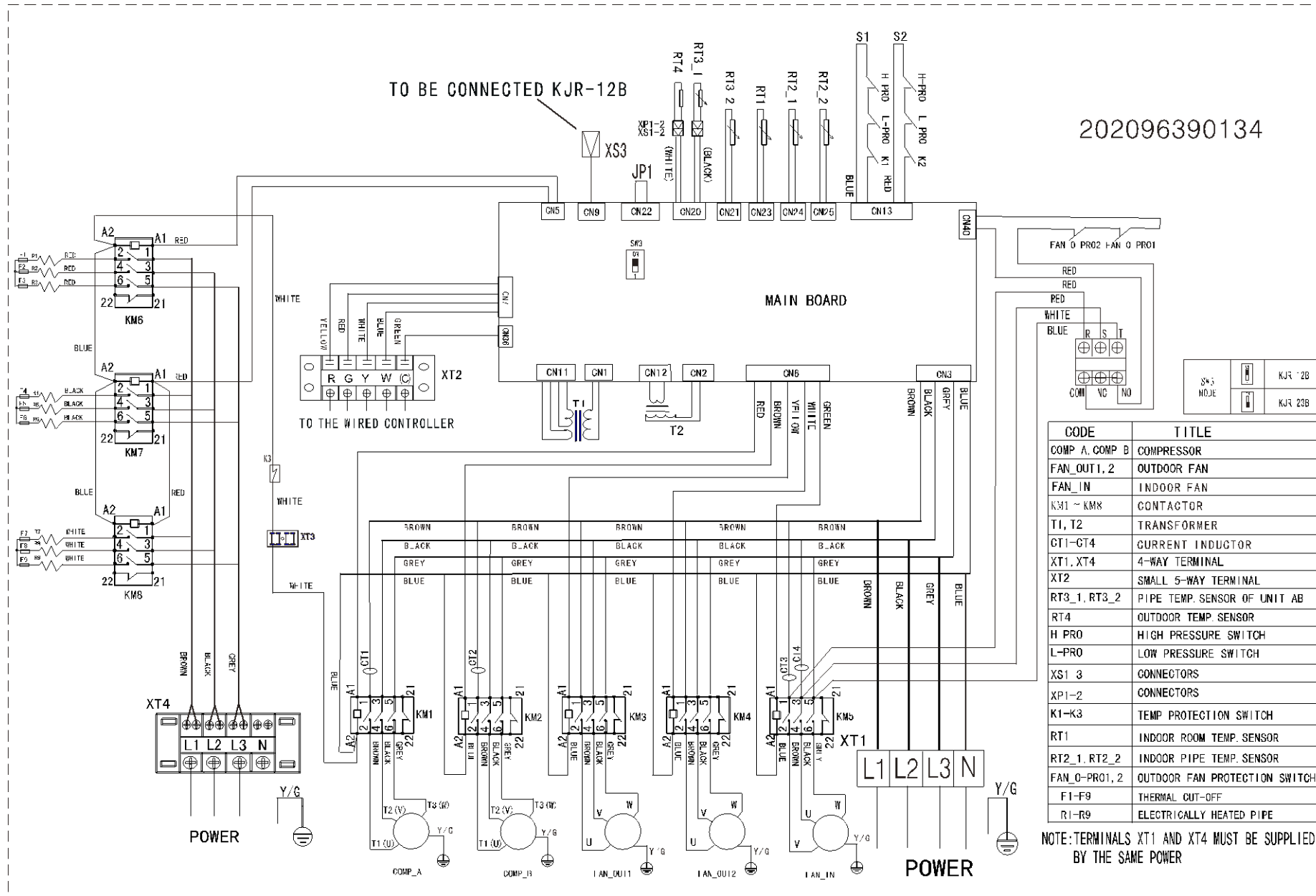
CODE	TITLE
COMP_A,COMP_B	COMPRESSOR
FAN_OUT1, 2	OUTDOOR FAN
FAN_IN	INDOOR FAN
KM1-KM5	CONTACTOR
T1, T2	TRANSFORMER
CT1-CT4	CURRENT INDUCTOR
XT1	4-WAY TERMINAL
XT2	SMALL 5-WAY TERMINAL
RT3_1, RT3_2	PIPE TEMP. SENSOR OF UNIT AB
RT4	OUTDOOR TEMP. SENSOR
H-PRO	HIGH PRESSURE SWITCH
L-PRO	LOW PRESSURE SWITCH
XS1-3	CONNECTORS
XP1-2	CONNECTORS
K1, K2	TEMP PROTECTION SWITCH
RT1	INDOOR ROOM TEMP. SENSOR
RT2_1, RT2_2	INDOOR PIPE TEMP. SENSOR
FAN_O-PRO1, 2	OUTDOOR FAN PROTECTION SWITCH
Jp1	NET JUMPER

8.7 15ton

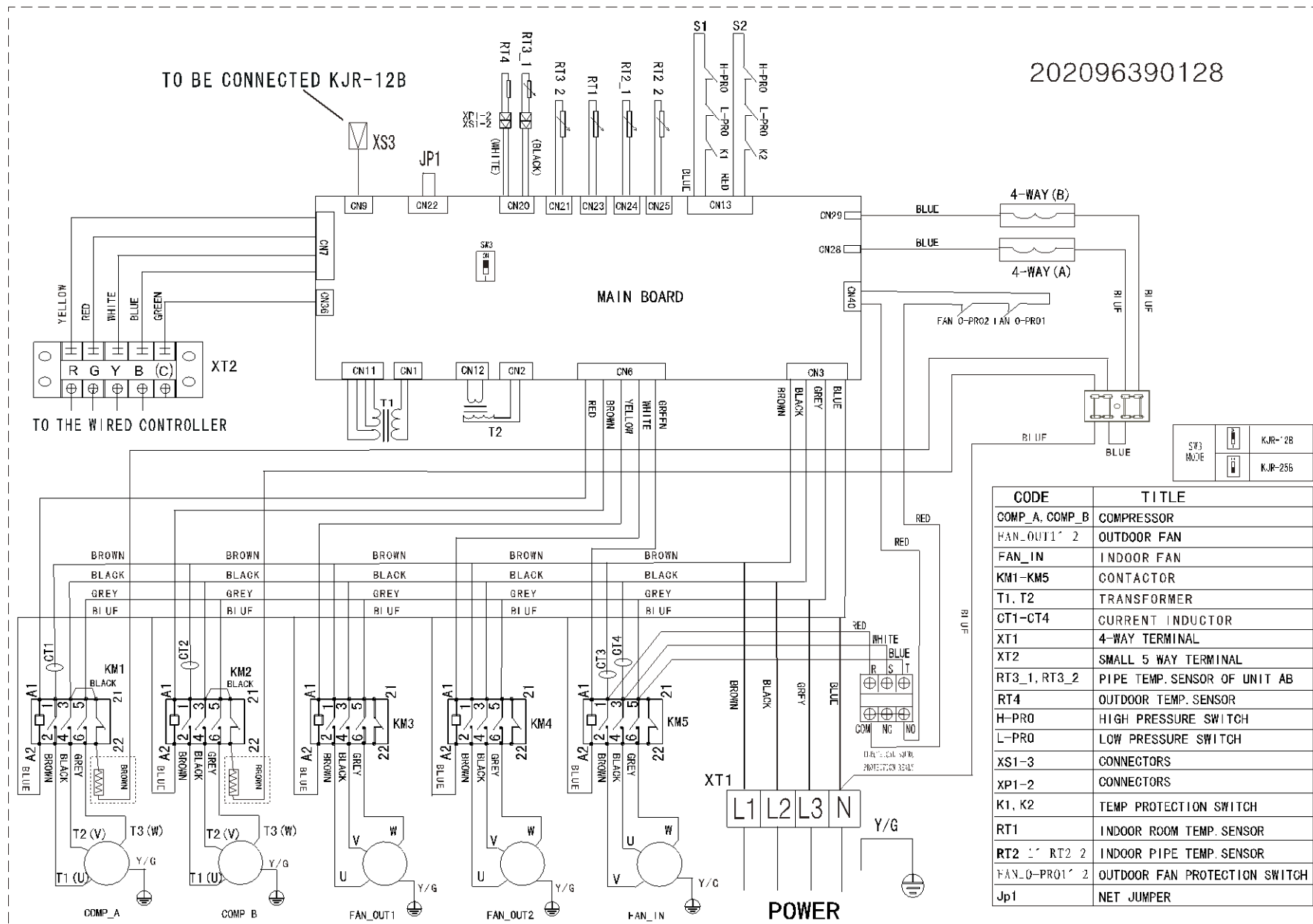
MRCT-150CWN1-R



MRCT-150EWN1-R

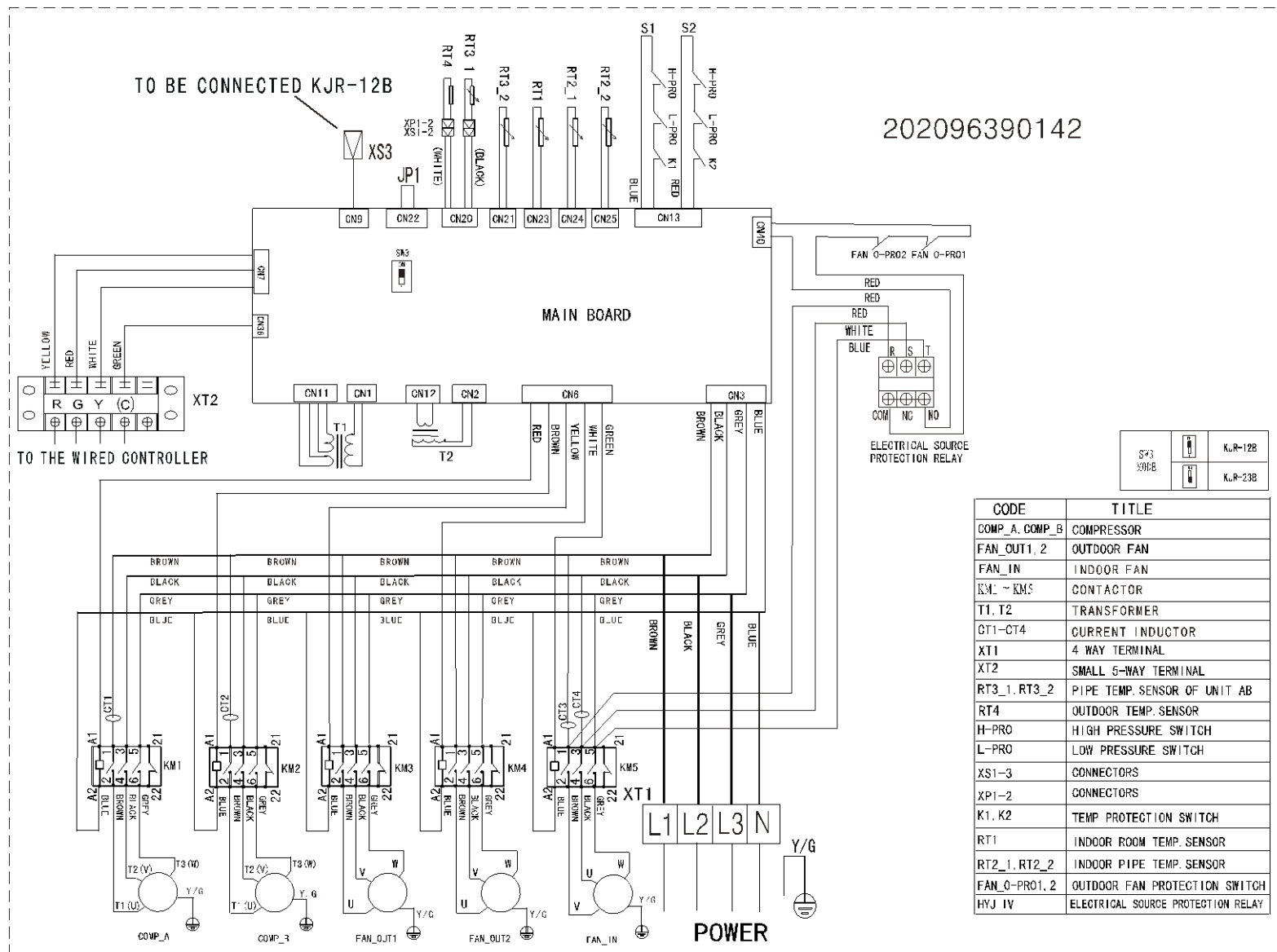


MRBT-150HWN1-R

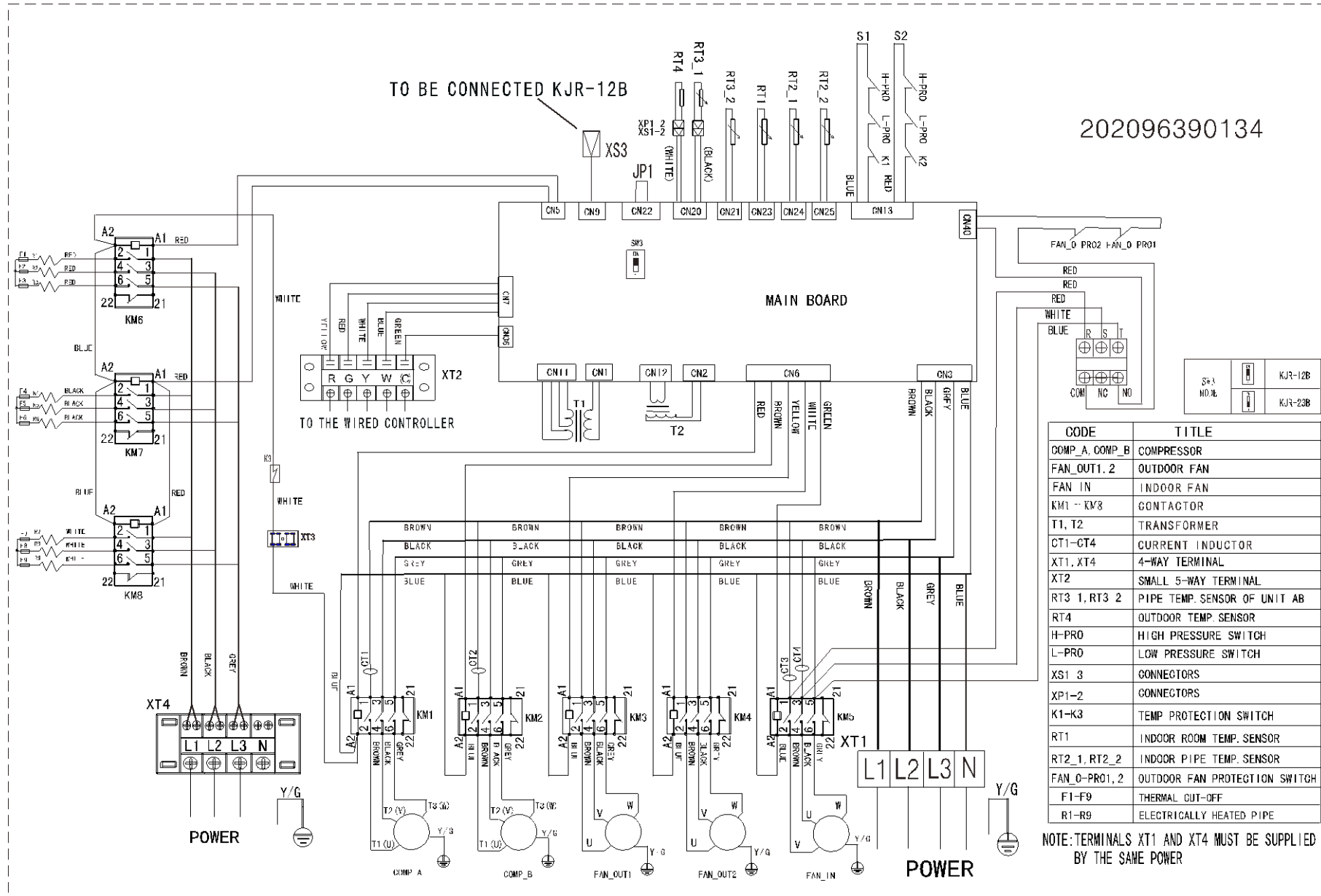


8.8 17.5ton

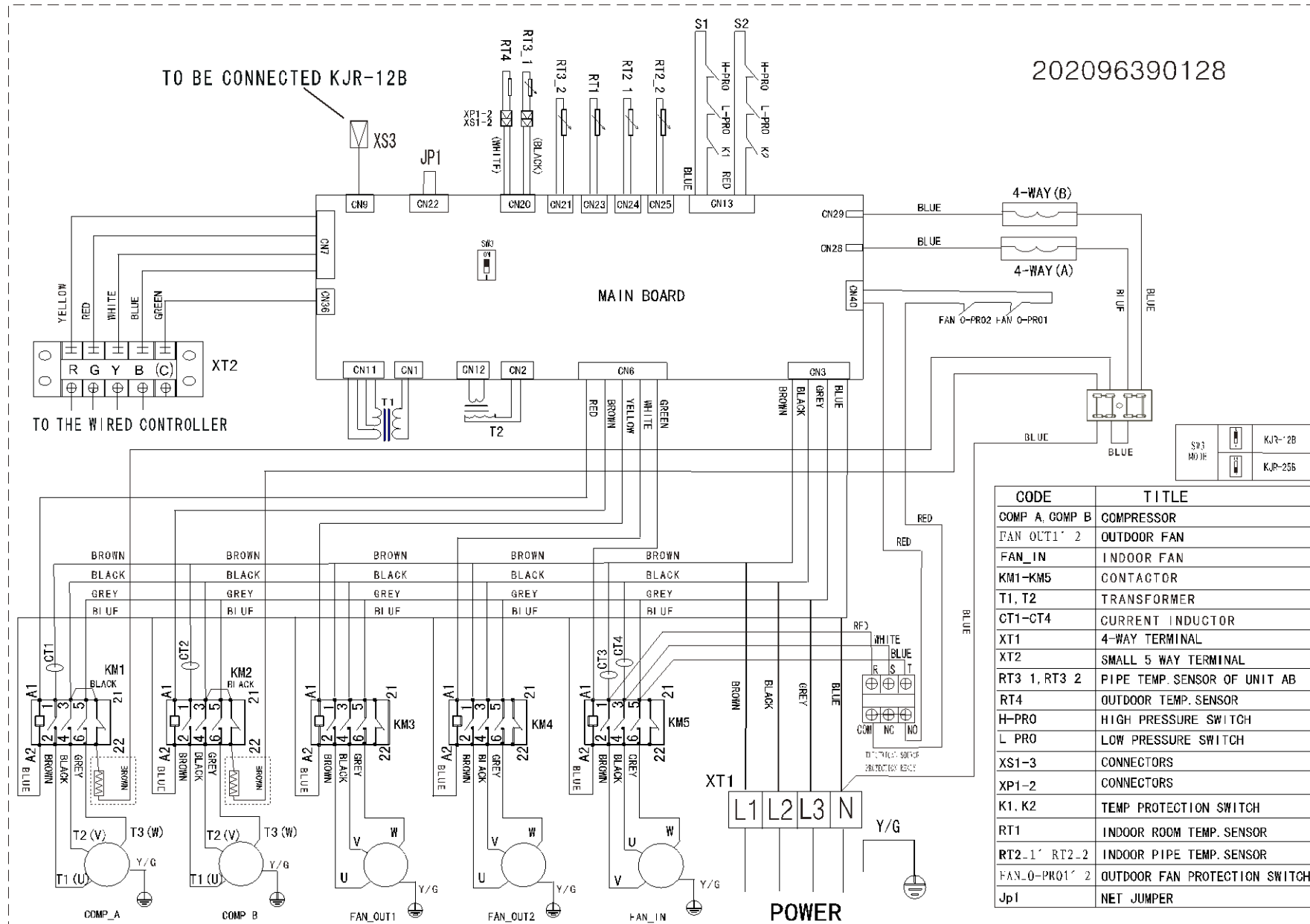
MRBT-175CWN1-R



MRCT-175EWN1-R

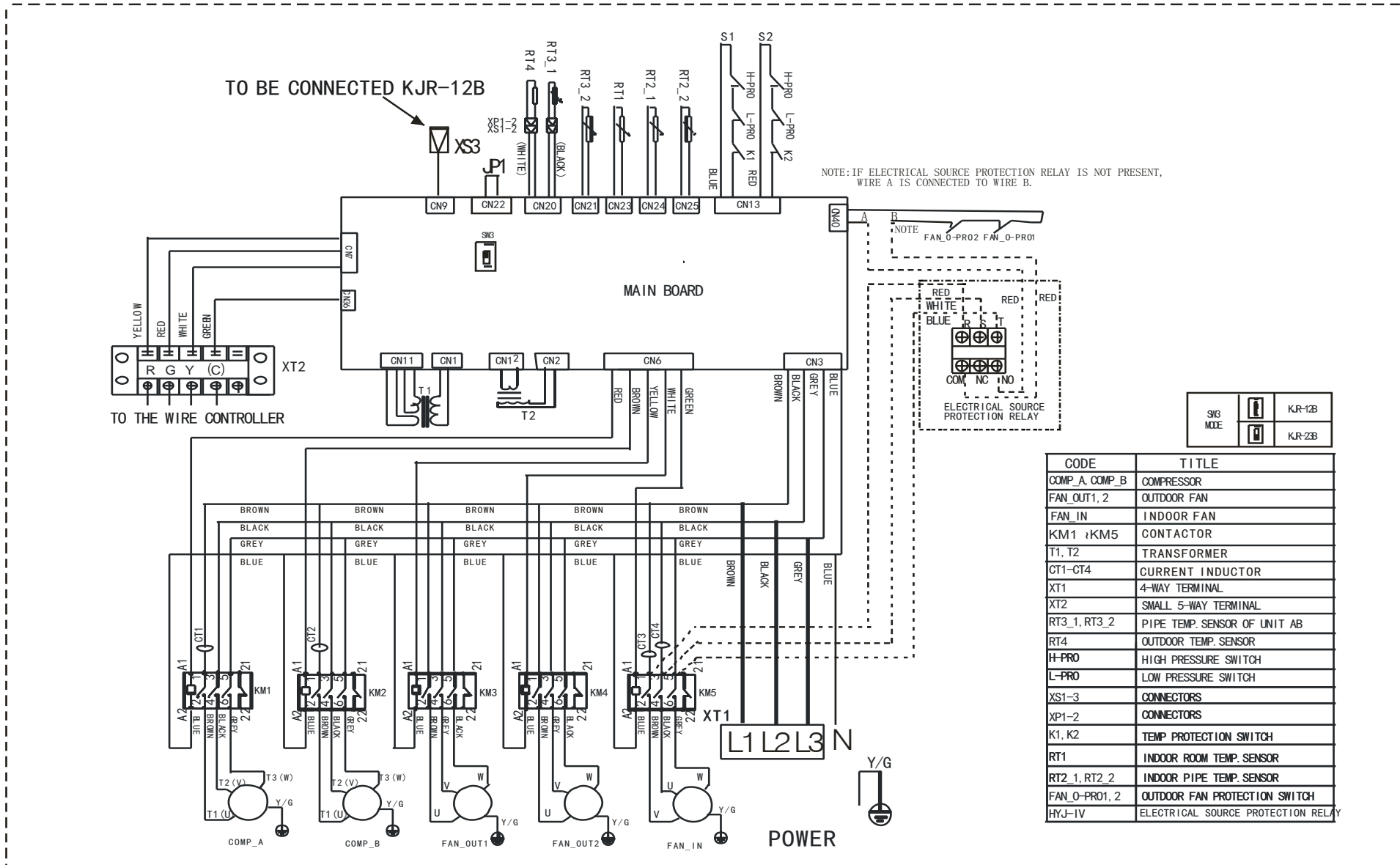


MRBT-175HWN1-R

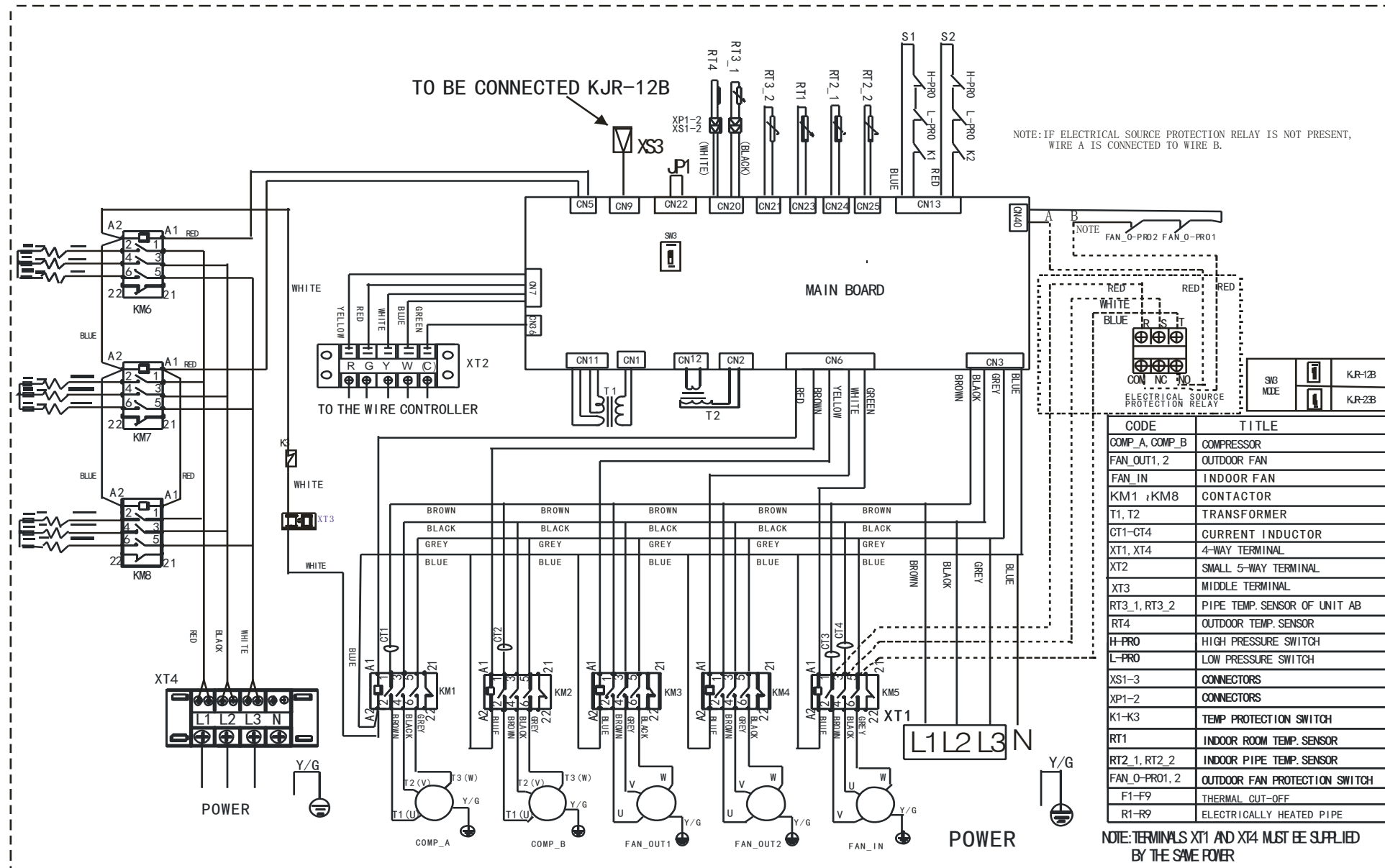


8.9 20ton

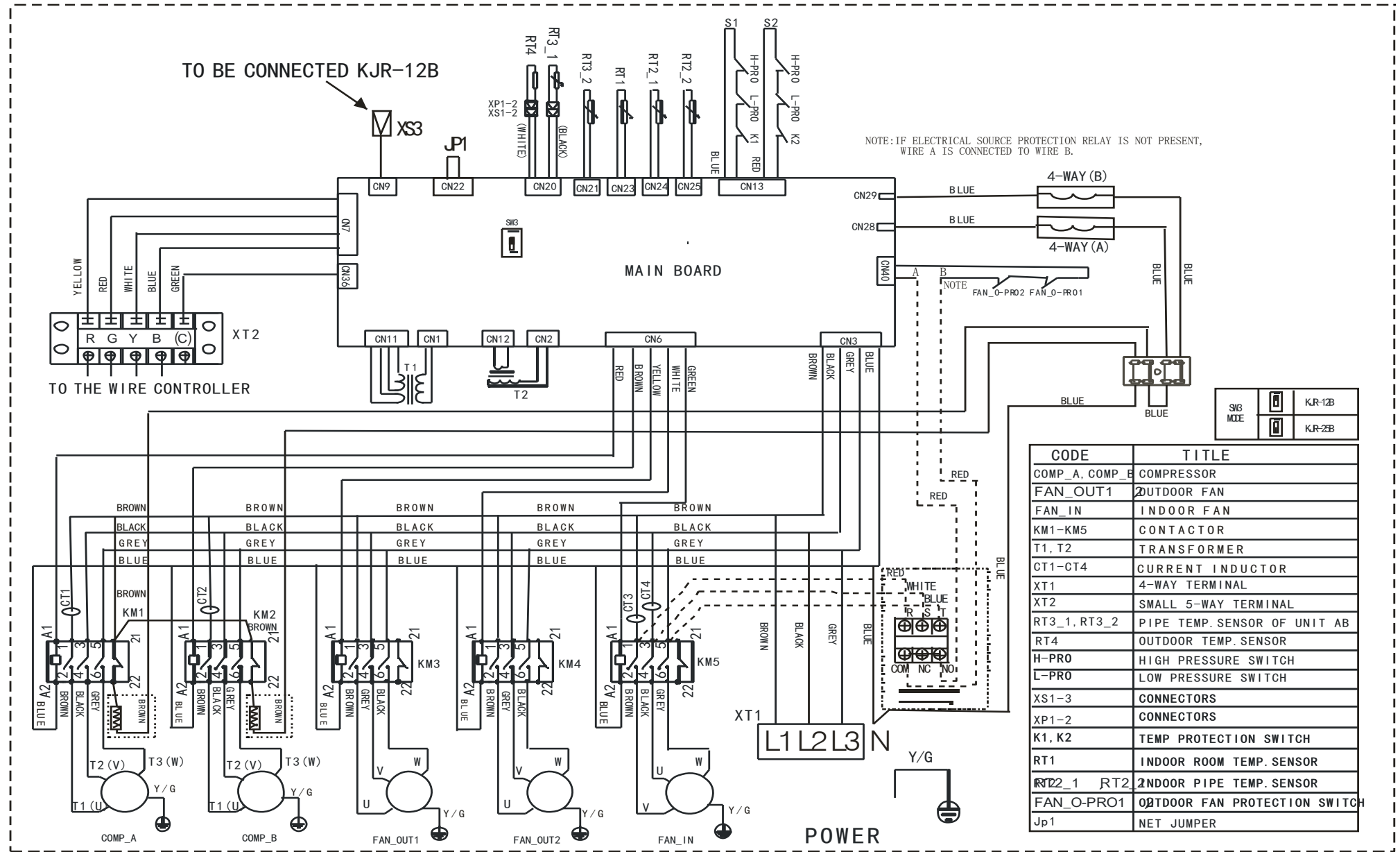
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MRCT-200EWN1-R

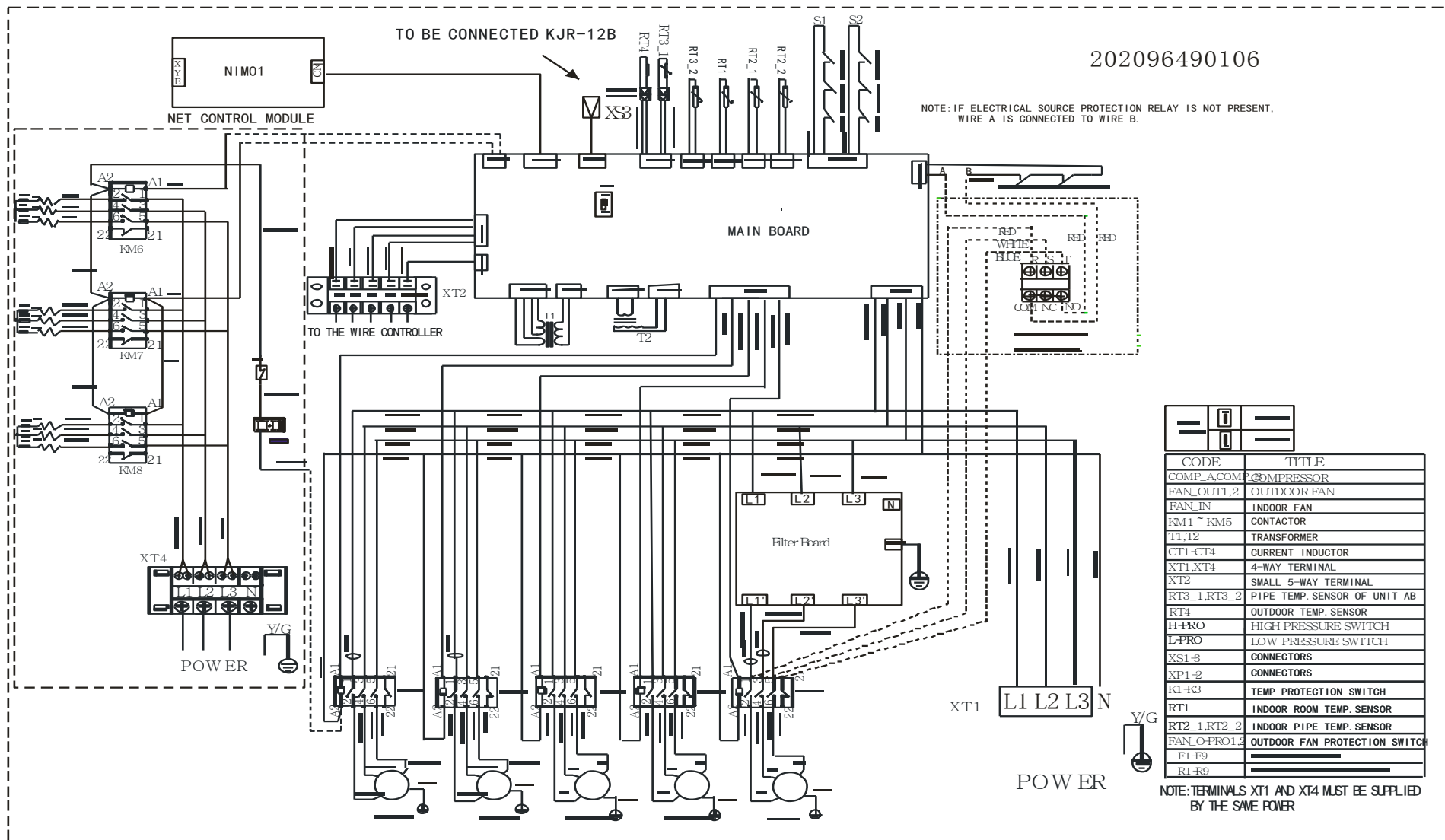


MRBT-200HWN1-R

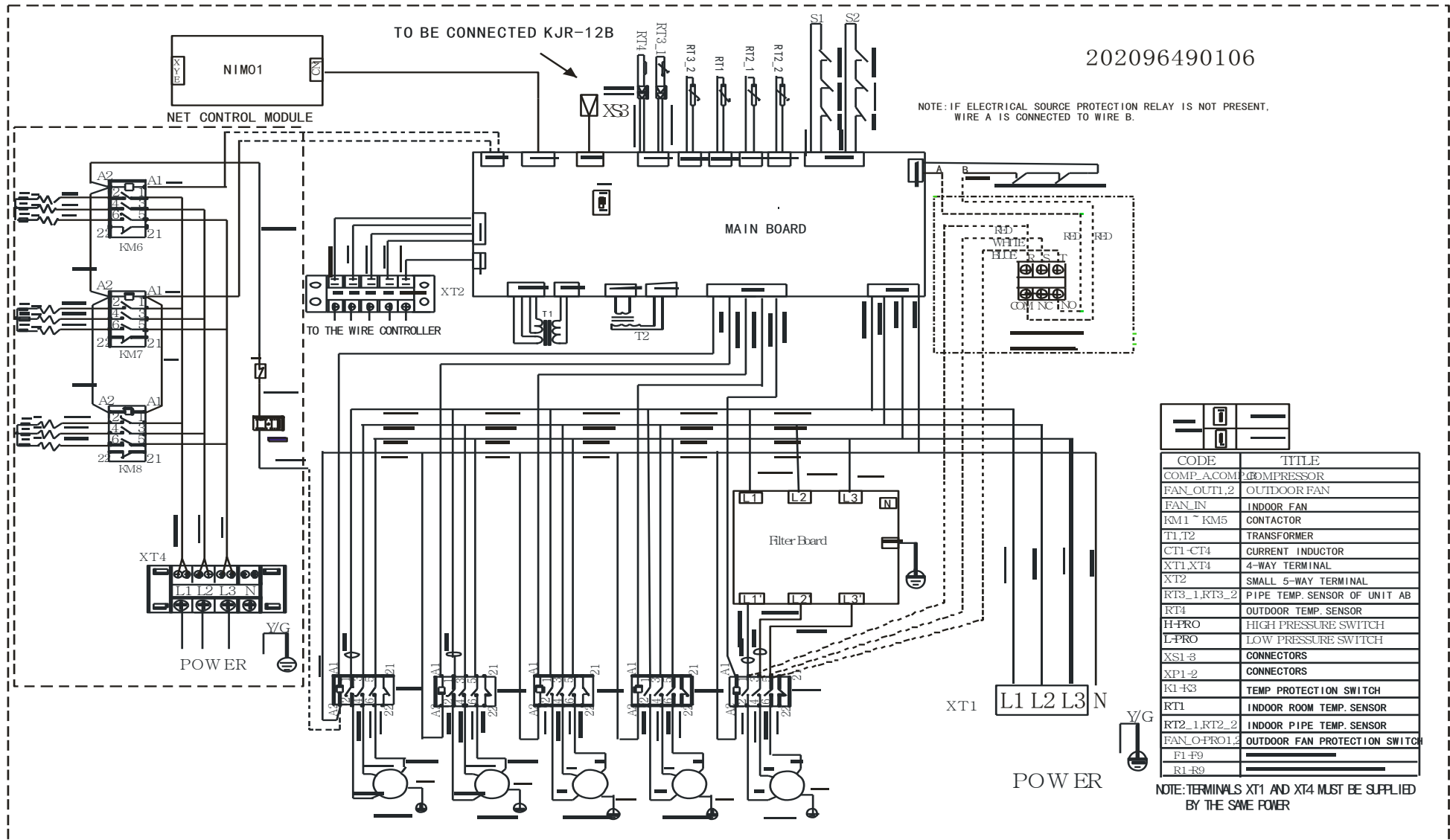


8.10 30ton

MRCT-300CWN1-R



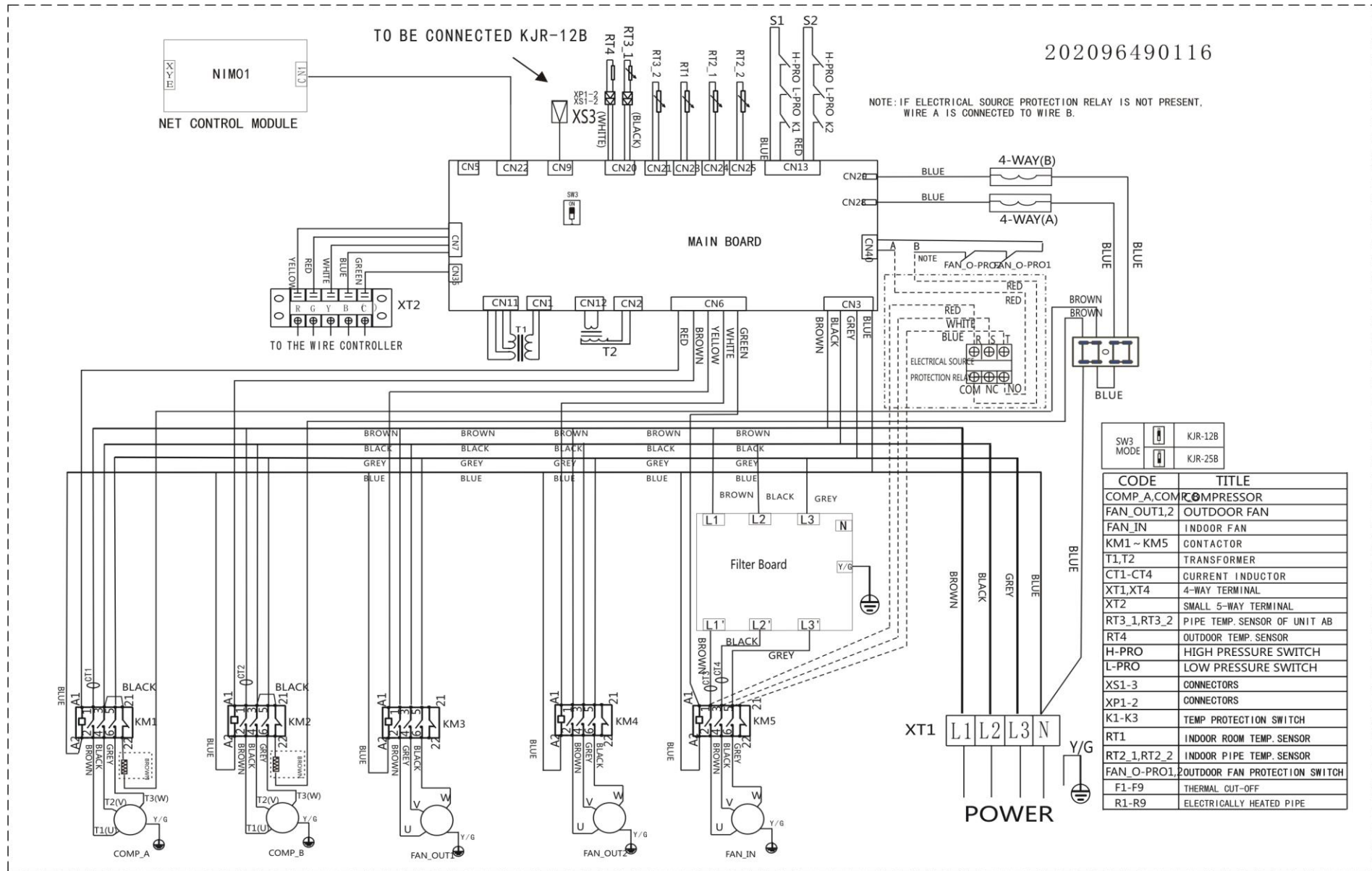
MRCT-300EWN1-R



CODE	TITLE
COMP_A.COM	COMPRESSOR
FAN_OUT.1,2	OUTDOOR FAN
FAN_IN	INDOOR FAN
KM1 ~ KM5	CONTACTOR
T1, T2	TRANSFORMER
CT1-CT4	CURRENT INDUCTOR
XT1, XT4	4-WAY TERMINAL
XT2	SMALL 5-WAY TERMINAL
RT3_1, RT3_2	PIPE TEMP. SENSOR OF UNIT AB
RT4	OUTDOOR TEMP. SENSOR
H-PRO	HIGH PRESSURE SWITCH
L-PRO	LOW PRESSURE SWITCH
XS1-3	CONNECTORS
XP1-2	CONNECTORS
K1-K3	TEMP PROTECTION SWITCH
RT1	INDOOR ROOM TEMP. SENSOR
RT2_1, RT2_2	INDOOR PIPE TEMP. SENSOR
FAN_O-PRO1,2	OUTDOOR FAN PROTECTION SWITCH
F1-F9	
R1-R9	

NOTE: TERMINALS XT1 AND XT4 MUST BE SUPPLIED BY THE SAME POWER

MRCT-300HWN1-R



9. Performance Data

9.1 Cooling capacity for 5Ton:

	Air Flow		CFM	1800			
	Ent DB	(°F)		75	80	85	90
Ambient Temperature(°F)	75	61	TC	63.6	66.8	72.8	75
			SC	47.8	50.2	54.2	55.7
		67	TC	65.7	69	74.5	76.7
			SC	47.3	49	52.9	54.5
		73	TC	67.4	70.7	76.4	78.3
			SC	46.8	48.1	51.7	53.2
	85	61	TC	59.6	62.6	68.2	70.3
			SC	45.4	47.7	51.5	52.8
		67	TC	61.5	64.6	69.7	71.8
			SC	44.3	46.5	50.2	51.7
		73	TC	63	66.2	71.5	73.3
			SC	42.9	45.1	49.1	50.6
	95	61	TC	55.5	58.3	63	64.8
			SC	42.9	45	48.6	49.8
		67	TC	57.1	60	65	66.9
			SC	41.7	44	47.2	48.8
		73	TC	58.7	61.7	66.6	68.3
			SC	41.1	43.1	46.6	48
	105	61	TC	51.6	54.2	59	60.8
			SC	40.9	43	46.4	47.6
		67	TC	53.2	55.9	60.3	62.2
			SC	40.4	42.5	45.9	47.2
		73	TC	54.6	57.3	61.9	63.4
			SC	39.7	41.7	45.5	46.8
115	61	TC	47.4	49.7	54.2	55.8	
		SC	39.4	41.4	45.1	46.2	
	67	TC	48.8	51.2	55.7	57.4	
		SC	39	39.8	43.7	45.4	
	73	TC	49.9	52.4	57.1	58.6	
		SC	38.8	39.3	42.8	44.1	

Notes:

1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
2. TC=Total Capacity. (Unit: 1000Btu/h).
3. SC=Sensible Capacity. (Unit: 1000Btu/h).

9.2 Cooling capacity for 6.2Ton:

Air Flow (CFM)			2200				2400				2600				2800				
Ent (DB)		(°F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90	
Ambient Temperature	85	61	TC	63.4	64.8	66.2	67.6	67.5	68.9	70.4	72.0	69.2	70.7	72.2	73.8	70.6	72.1	73.7	75.3
			SC	55.1	61.6	65.8	67.6	59.1	64.9	68.2	70.7	63.0	65.1	68.0	71.7	66.5	70.0	72.7	74.2
		67	TC	73.8	75.4	77.0	78.7	74.7	76.4	78.0	79.7	75.4	77.0	78.7	80.4	75.9	77.5	79.2	81.0
			SC	40.6	51.8	62.8	73.4	42.7	55.0	65.9	75.1	43.9	56.0	68.2	78.3	45.0	57.7	70.3	78.9
		73	TC	77.0	78.7	80.4	82.1	77.5	79.2	80.9	82.6	77.7	79.4	81.1	82.9	78.0	79.7	81.3	83.1
			SC	24.7	36.8	46.1	54.9	25.2	36.5	46.3	57.1	25.6	40.0	47.2	57.4	26.0	41.6	47.9	58.6
	95	61	TC	60.1	61.5	62.8	64.2	62.1	63.5	64.9	66.4	64.1	65.5	67.0	68.4	65.8	67.2	68.7	70.2
			SC	52.5	57.6	59.6	62.5	54.8	60.1	62.3	65.8	57.2	60.7	64.3	67.0	64.5	65.6	67.4	69.2
		67	TC	66.0	67.5	69.0	70.4	67.3	73.1	75.3	76.5	70.9	75.0	76.6	78.0	72.5	76.6	79.0	79.8
			SC	39.2	50.9	62.6	66.5	41.2	54.2	66.8	70.9	43.3	57.1	70.4	71.4	45.3	59.7	73.6	74.7
		73	TC	76.4	78.0	79.7	81.4	76.8	78.5	80.2	81.9	77.1	78.8	80.5	82.2	77.0	78.7	80.4	82.1
			SC	23.8	36.1	46.3	56.6	24.2	36.9	47.8	59.0	24.7	37.6	49.1	60.6	25.2	40.6	50.2	62.2
	105	61	TC	54.6	55.8	57.1	58.3	56.6	57.8	59.1	60.4	58.3	59.6	61.0	62.3	59.9	61.3	62.6	64.0
			SC	49.8	51.4	53.9	55.5	53.8	54.9	58.2	59.9	57.3	58.3	59.5	61.6	58.0	60.1	61.5	63.4
		67	TC	65.0	66.5	67.9	69.4	66.6	68.1	69.6	71.1	67.9	69.4	70.9	72.5	69.0	70.5	72.0	73.6
			SC	36.8	48.6	60.6	66.6	39.0	49.6	65.5	70.0	41.2	55.6	70.3	71.7	43.4	58.9	69.8	71.8
		73	TC	74.2	75.8	77.5	79.1	74.2	75.8	77.4	79.1	75.4	77.0	78.7	80.4	75.8	77.4	79.1	80.8
			SC	22.5	35.0	47.9	58.6	22.5	36.2	49.1	60.3	23.6	37.8	50.5	62.1	24.0	38.8	51.9	64.3
	115	61	TC	48.9	50.0	51.1	52.2	50.5	51.6	52.7	53.9	52.7	53.8	55.0	56.3	54.6	55.8	57.1	58.3
			SC	47.1	48.3	49.8	51.6	45.4	48.0	50.8	52.1	50.5	52.1	53.7	55.5	53.1	53.8	55.9	57.7
		67	TC	58.5	59.8	61.1	62.5	60.0	61.4	62.7	64.1	61.4	62.7	64.1	65.5	62.6	63.9	65.4	66.8
			SC	34.0	46.1	57.4	61.5	36.3	49.4	59.9	63.1	38.5	53.0	63.1	65.2	40.7	56.6	63.1	66.0
		73	TC	70.4	72.0	73.6	75.2	66.4	67.8	69.3	70.9	72.2	73.8	75.4	77.0	72.8	74.4	76.0	77.6
			SC	21.0	32.8	45.4	58.2	21.5	34.6	47.3	59.7	22.1	36.2	50.0	63.2	22.6	38.0	52.3	66.3
125	61	TC	44.3	45.3	46.3	47.4	45.8	46.8	47.8	48.9	47.8	48.9	50.0	51.1	49.5	50.7	51.8	53.0	
		SC	42.7	43.8	45.1	46.8	41.1	43.5	46.1	47.2	45.8	47.2	48.7	50.5	48.2	48.9	50.7	52.4	
	67	TC	53.2	54.4	55.5	56.8	54.5	55.8	57.0	58.2	55.8	57.1	58.3	59.6	56.9	58.2	59.4	60.7	
		SC	30.7	41.8	52.2	55.9	32.8	44.9	54.4	57.3	34.8	48.1	57.3	59.3	36.8	51.4	57.3	60.0	
	73	TC	64.1	65.5	67.0	68.4	60.4	61.7	63.1	64.4	65.7	67.1	68.7	70.1	66.3	67.7	69.2	70.7	
		SC	18.7	29.6	41.1	52.9	19.2	31.2	42.9	54.3	19.7	32.7	45.3	57.5	20.3	34.4	47.5	60.3	

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 6.2Ton:

Outdoor Temp(° F) 70% RH	Net Capacities(kW)-2600 CFM							
	Peak Net Heating(kW) at Indicated Dry Bulb(° F)				Peak Total Power (kW) at Indicated Dry Bulb(° F)			
	59	68	75.2	80.6	59	68	75.2	80.6
23	15.7	15.2	14.8	14.3	6.0	6.3	6.5	6.7
26.6	17.4	16.9	16.4	15.9	6.3	6.6	6.8	7.0
32	19.3	18.8	18.2	17.7	6.7	6.9	7.2	7.4
37.4	22.8	22.1	21.4	20.8	7.0	7.3	7.5	7.8
44.6	26.8	26.0	25.2	24.5	7.4	7.6	7.9	8.2
48.2	28.7	27.8	27.0	26.2	7.5	8.3	8.8	9.3
53.6	30.4	29.5	28.6	27.7	7.8	8.7	9.1	9.7
59	32.2	31.3	30.3	29.4	7.9	8.9	9.3	9.9
64.4	34.1	33.1	32.1	31.2	8.2	9.0	9.6	10.2
69.8	36.2	35.1	34.1	33.0	8.3	9.2	9.7	10.2
75.2	38.3	37.2	36.1	35.0	8.5	9.3	10.1	10.4

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.3 Cooling capacity for 7.5Ton:

Air Flow (CFM)			2600				2800				3000				3200					
Ent (DB)			(°F)		75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90
Ambient Temperature	85	61	TC	75.3	77.0	78.6	80.3	80.1	81.8	83.6	85.4	82.1	83.9	85.7	87.6	83.8	85.6	87.5	89.4	
			SC	65.5	73.2	78.1	78.9	70.2	77.1	81.0	83.9	74.8	77.3	80.7	85.1	79.0	83.1	86.3	88.0	
		67	TC	87.6	89.5	91.4	93.4	88.7	90.6	92.6	94.6	89.5	91.4	93.4	95.4	90.1	92.0	94.0	96.1	
			SC	48.4	61.6	74.6	87.1	50.8	65.4	78.2	89.1	52.3	66.6	81.0	92.9	53.6	68.6	83.5	93.6	
		73	TC	91.4	93.4	95.4	97.4	92.0	94.0	96.0	98.0	92.2	94.2	96.2	98.3	92.5	94.5	96.5	98.6	
			SC	29.6	43.8	54.8	65.2	30.1	43.5	55.1	67.9	30.6	47.6	56.1	68.2	31.1	49.5	57.0	69.6	
	95	61	TC	71.4	73.0	74.6	76.2	73.8	75.4	77.1	78.8	76.1	77.8	79.5	81.2	78.1	79.8	81.5	83.3	
			SC	62.4	68.4	70.8	74.2	65.1	71.4	74.0	78.1	68.0	72.1	76.3	79.5	76.6	77.9	80.0	82.1	
		67	TC	78.4	80.1	81.9	83.6	79.9	86.8	89.4	90.8	84.2	89.0	90.9	92.6	86.0	90.9	93.7	94.7	
			SC	46.7	60.5	74.4	79.0	49.1	64.4	79.3	84.1	51.5	67.8	83.6	84.8	53.9	70.9	87.3	88.7	
		73	TC	90.6	92.6	94.6	96.6	91.1	93.1	95.1	97.1	91.5	93.5	95.5	97.5	91.4	93.4	95.4	97.4	
			SC	28.5	43.0	55.1	67.3	29.0	44.0	56.9	70.1	29.6	44.8	58.4	72.0	30.1	48.4	59.7	73.9	
	105	61	TC	64.9	66.3	67.8	69.3	67.2	68.7	70.2	71.8	69.3	70.8	72.4	74.0	71.2	72.8	74.4	76.0	
			SC	59.2	61.1	64.1	66.0	64.0	65.2	69.1	71.2	68.1	69.3	70.7	73.2	68.9	71.4	73.1	75.3	
		67	TC	77.2	78.9	80.6	82.4	79.1	80.8	82.6	84.4	80.6	82.4	84.1	86.0	81.9	83.7	85.5	87.4	
			SC	43.8	57.8	72.0	79.1	46.5	59.0	77.8	83.1	49.1	66.1	83.4	85.1	51.6	70.0	82.9	85.2	
		73	TC	88.1	90.0	92.0	93.9	88.0	89.9	91.8	93.8	89.5	91.4	93.4	95.4	89.9	91.8	93.8	95.8	
			SC	27.0	41.7	57.0	69.6	26.9	43.2	58.4	71.6	28.2	45.0	60.0	73.7	28.7	46.2	61.7	76.3	
	115	61	TC	58.1	59.4	60.7	62.1	60.0	61.3	62.7	64.1	62.6	64.0	65.4	66.9	64.9	66.3	67.8	69.3	
			SC	56.0	57.4	59.2	61.4	54.0	57.1	60.4	61.9	60.1	61.9	63.8	66.0	63.1	64.0	66.4	68.6	
		67	TC	69.5	71.0	72.6	74.2	71.3	72.9	74.5	76.1	72.9	74.5	76.1	77.8	74.3	75.9	77.6	79.3	
			SC	40.6	54.9	68.2	73.0	43.3	58.8	71.1	74.9	45.9	63.0	74.9	77.4	48.5	67.2	74.9	78.4	
		73	TC	83.6	85.4	87.3	89.2	78.8	80.5	82.3	84.1	85.7	87.6	89.5	91.4	86.4	88.3	90.2	92.1	
			SC	25.2	39.1	54.0	69.2	25.8	41.2	56.3	70.9	26.5	43.2	59.4	75.1	27.1	45.3	62.2	78.7	
125	61	TC	52.7	53.9	55.1	56.4	54.5	55.7	56.9	58.2	56.8	58.1	59.4	60.8	58.9	60.3	61.6	63.0		
		SC	50.8	52.1	53.7	55.7	48.9	51.8	54.8	56.2	54.5	56.2	57.9	60.0	57.3	58.1	60.3	62.3		
	67	TC	63.2	64.6	66.0	67.5	64.8	66.3	67.7	69.2	66.3	67.8	69.3	70.8	67.6	69.1	70.6	72.1		
		SC	36.7	49.8	62.0	66.4	39.1	53.4	64.6	68.1	41.5	57.2	68.1	70.4	43.9	61.1	68.1	71.3		
	73	TC	76.1	77.8	79.5	81.2	71.7	73.3	74.9	76.5	78.0	79.7	81.5	83.2	78.7	80.4	82.1	83.9		
		SC	22.5	35.3	48.9	62.9	23.1	37.2	51.1	64.5	23.7	39.0	53.9	68.3	24.3	41.0	56.5	71.6		

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 7.5Ton:

Net Capacities(kW)-3000 CFM								
Outdoor Temp(°F) 70% RH	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power(kW) at Indicated Dry Bulb(°F)			
	59	68	75.2	80.6	59	68	75.2	80.8
5	14.9	14.0	13.7	13.4	6.9	7.6	8.0	8.5
10.4	16.0	15.3	15.0	14.9	7.1	7.7	8.1	8.6
15.8	17.0	16.5	16.4	16.4	7.1	7.8	8.2	8.8
21.2	17.8	17.3	17.1	16.9	7.2	7.9	8.3	8.9
26.6	18.8	18.5	18.4	18.1	7.3	8.0	8.5	9.1
32	20.3	20.0	19.7	19.4	7.4	8.1	8.6	9.2
37.4	23.3	23.1	22.7	22.4	7.5	8.3	8.8	9.3
44.6	30.3	30	29.6	29.2	7.8	8.8	9.1	9.6
48.2	30.5	30.2	29.9	29.6	8.1	9.0	9.5	10.1
53.6	32.4	33.5	33.4	33.1	8.4	9.4	9.9	10.5
59	35.0	34.4	34.2	33.8	8.6	9.6	10.1	10.7
64.4	37.1	36.4	36.0	35.7	8.9	9.8	10.4	11.0
69.8	39.8	38.9	38.4	37.9	9.0	10.0	10.5	11.0
75.2	42.0	40.9	40.2	39.8	9.2	10.1	10.9	11.3

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.4 Cooling capacity for 8.5Ton:

Air Flow (CFM)			3000				3300				3600				3900				
	Ent (DB)	(°F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90	
Ambient Temperature	85	61	TC	88.4	90.2	92.2	94.2	90.8	92.8	94.8	96.8	93.2	95.1	97.2	99.2	95.0	97.0	99.1	101.2
			SC	76.3	77.9	79.6	81.3	81.8	83.6	85.4	87.2	86.9	88.8	90.7	92.6	91.6	93.6	95.6	97.6
		67	TC	99.1	101.2	103.4	105.6	100.1	102.2	104.4	106.6	101.0	103.2	105.4	107.6	101.6	104.7	106.9	108.2
			SC	56.0	72.2	86.1	100.3	58.1	74.1	90.0	103.4	60.2	76.7	93.2	105.1	61.5	78.8	95.6	105.8
	73	TC	102.9	105.2	107.4	109.6	103.3	105.5	107.7	110.0	103.5	105.8	108.0	110.3	104.6	106.8	109.0	111.3	
		SC	34.2	48.9	61.5	75.0	34.7	49.7	62.9	76.2	35.3	55.1	63.9	77.6	35.9	58.1	65.5	80.1	
	95	61	TC	81.4	83.2	85.0	86.8	84.1	85.9	87.8	89.6	86.6	88.5	90.4	92.4	88.5	90.2	92.4	94.4
			SC	72.8	74.4	75.9	77.6	78.3	80.0	81.8	83.6	83.6	85.4	87.3	89.2	79.4	81.2	83.0	84.8
		67	TC	95.0	97.1	99.2	101.3	98.3	102.2	103.4	104.8	99.4	103.0	103.6	106.7	100.5	104.2	104.7	107.6
			SC	54.0	70.3	86.4	99.1	57.0	74.6	91.0	99.8	59.6	78.4	96.4	103.4	62.0	81.8	101.0	103.2
	73	TC	102.0	104.1	106.4	108.7	102.2	104.4	106.6	108.9	102.8	105.1	107.3	109.5	103.1	105.3	107.6	109.8	
		SC	33.0	49.4	63.2	77.1	33.8	50.5	65.6	80.6	34.0	51.2	66.8	83.0	34.8	52.2	68.6	84.8	
	105	61	TC	74.3	75.9	77.6	79.3	77.1	78.8	80.6	82.3	78.8	80.6	82.3	84.1	82.0	83.8	85.6	87.4
			SC	69.2	70.8	72.3	73.9	74.9	76.5	78.2	79.9	73.4	75.0	76.6	78.2	80.0	81.8	83.6	85.4
		67	TC	87.8	89.7	91.7	93.7	90.1	92.0	94.0	96.0	91.5	93.5	95.5	97.5	93.0	95.0	97.0	99.1
			SC	51.2	67.4	84.1	92.4	54.4	72.2	90.8	94.4	56.9	77.6	92.3	94.1	60.0	81.4	92.4	97.3
	73	TC	99.4	101.6	103.7	105.9	100.1	102.2	104.4	106.6	100.6	102.8	105.0	107.2	101.1	103.3	105.5	107.7	
		SC	31.3	47.5	62.7	77.6	32.0	49.5	66.4	82.2	32.5	51.2	67.8	84.8	33.0	53.0	71.5	87.9	
	115	61	TC	67.3	68.7	70.3	71.8	69.8	71.3	72.8	74.5	72.4	74.0	75.6	77.2	75.4	77.0	78.8	80.5
			SC	65.8	67.3	68.7	70.3	67.2	68.6	70.2	71.7	70.6	72.2	73.7	75.3	74.1	75.8	77.4	79.1
		67	TC	80.1	81.8	83.6	85.4	81.8	85.0	85.4	87.2	83.8	85.6	87.5	89.4	86.0	87.9	89.8	91.7
			SC	47.7	64.6	80.8	82.5	51.0	68.9	83.6	85.4	54.0	74.0	85.3	88.0	56.8	78.7	87.8	89.7
	73	TC	95.5	97.5	99.6	101.7	96.2	98.3	100.4	102.6	96.8	98.9	101.0	103.2	97.1	99.2	101.3	103.4	
		SC	29.5	45.8	62.0	77.9	30.1	48.2	65.6	82.5	30.8	50.6	68.6	87.0	31.3	52.5	71.5	89.9	
125	61	TC	60.6	61.9	63.2	64.7	62.8	64.2	65.6	67.1	65.2	66.7	68.6	69.6	68.0	69.4	71.0	72.5	
		SC	59.2	60.5	61.9	63.2	60.5	61.8	63.2	64.6	63.6	65.0	66.4	67.9	66.8	68.2	69.8	71.3	
	67	TC	72.2	73.8	75.4	77.0	73.7	77.2	77.5	78.7	75.6	77.4	78.9	80.6	77.6	79.3	81.0	82.8	
		SC	42.8	58.1	72.8	74.5	45.8	62.0	75.3	77.0	48.5	66.6	76.9	79.4	51.1	70.9	79.3	81.0	
73	TC	86.2	88.0	89.9	91.9	86.9	88.8	90.7	92.6	87.4	89.3	91.3	93.2	87.7	89.6	91.4	93.4		
	SC	26.2	41.0	55.7	70.2	26.7	43.3	59.0	74.4	27.3	45.3	61.8	78.5	27.8	47.1	64.4	81.2		

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 8.5Ton:

Net Capacities(kW)-3600 CFM								
Outdoor Temp(°F) 70% RH	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power(kW) at Indicated Dry Bulb(°F)			
	59	68	75.2	80.6	59	68	75.2	80.8
5	18.7	17.6	17.2	16.9	8.6	8.8	9.2	9.7
10.4	20.1	19.3	18.9	18.7	8.8	8.9	9.4	9.9
15.8	21.4	20.8	20.6	20.6	8.9	9.1	9.6	10.1
21.2	22.4	21.8	21.6	21.3	9.0	9.3	9.9	10.3
26.6	23.7	23.4	23.2	22.8	9.1	9.6	10.1	10.5
32	25.5	25.2	24.8	24.5	9.2	9.8	10.3	10.8
37.4	29.4	29.1	28.7	28.3	9.4	10.0	10.5	11.0
44.6	35.4	35.0	33.0	32.8	9.7	10.2	10.7	11.2
48.2	38.5	38.0	37.7	37.3	9.9	10.4	10.9	11.5
53.6	40.9	42.3	42.1	41.7	10.1	10.6	11.1	11.7
59	44.1	43.4	43.1	42.7	10.3	10.9	11.4	12.1
64.4	46.7	45.9	45.4	45.0	10.5	11.1	11.7	12.3
69.8	50.1	49.1	48.4	47.8	10.9	11.4	11.9	12.5
75.2	53.0	51.6	50.7	50.1	11.1	11.6	12.2	12.8

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.5 Cooling capacity for 10Ton:

Air Flow (CFM)			3600				3800				4000				4200				
Ambient Temperature	Ent (DB)	(°F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90	
			85	61	TC	104.1	106.3	108.6	110.9	107.0	109.3	111.6	114.0	109.7	112.0	114.4	116.8	111.8	114.2
SC	90.0	91.9			93.9	95.9	96.4	98.5	100.6	102.7	102.4	104.6	106.8	109.1	107.9	110.2	112.5	114.9	
67	TC	116.6		119.1	121.6	124.2	117.8	120.3	122.8	125.4	118.9	121.4	124.0	126.6	119.5	123.2	124.6	127.2	
	SC	66.4		85.2	101.5	118.0	68.8	87.5	106.0	121.7	71.2	90.5	109.7	123.6	72.8	92.9	112.6	124.4	
73	TC	121.1		123.7	126.3	128.9	121.5	124.1	126.7	129.4	121.8	124.4	127.0	129.7	123.0	125.6	128.2	130.9	
	SC	40.9		58.1	72.8	88.5	41.5	59.0	74.4	89.9	42.2	65.3	75.6	91.6	42.9	68.8	77.4	94.5	
95	61	TC		96.0	98.1	100.2	102.3	99.1	101.2	103.4	105.6	102.1	104.3	106.5	108.8	104.3	106.5	108.8	111.1
		SC		85.9	87.8	89.6	91.6	92.4	94.4	96.4	98.5	98.6	100.7	102.9	105.1	93.7	95.7	97.8	99.9
	67	TC		111.9	114.3	116.7	119.2	115.7	120.2	121.7	123.3	117.0	121.2	121.9	125.5	118.3	122.6	123.2	126.5
		SC		64.0	83.0	101.8	116.6	67.5	88.0	107.2	117.5	70.6	92.5	113.5	121.6	73.4	96.4	118.9	121.4
	73	TC		120.0	122.5	125.1	127.8	120.3	122.8	125.4	128.1	121.0	123.6	126.2	128.8	121.3	123.9	126.5	129.1
		SC		39.5	58.6	74.7	91.0	40.4	59.9	77.5	95.1	40.7	60.8	79.0	97.9	41.6	61.9	81.1	100.0
105	61	TC		87.7	89.6	91.5	93.5	91.0	93.0	95.0	97.0	93.0	95.0	97.0	99.1	96.7	98.8	100.9	103.0
		SC		81.8	83.6	85.4	87.2	88.4	90.3	92.2	94.2	86.6	88.5	90.4	92.3	94.4	96.4	98.5	100.6
	67	TC		103.5	105.7	108.0	110.3	106.1	108.4	110.7	113.0	107.8	110.1	112.4	114.8	109.5	111.8	114.2	116.6
		SC		60.8	79.6	99.1	108.8	64.5	85.3	106.9	111.1	67.4	91.5	108.7	110.8	71.0	96.0	108.8	114.5
	73	TC		117.0	119.5	122.0	124.6	117.8	120.3	122.8	125.4	118.4	120.9	123.5	126.1	119.0	121.5	124.1	126.7
		SC		37.5	56.4	74.2	91.5	38.4	58.8	78.5	96.9	38.9	60.7	80.1	100.0	39.5	62.9	84.4	103.6
115	61	TC		79.5	81.2	83.0	84.8	82.4	84.2	86.0	87.9	85.5	87.3	89.2	91.1	89.0	90.9	92.9	94.9
		SC		77.8	79.5	81.2	83.0	79.4	81.1	82.9	84.7	83.4	85.2	87.0	88.9	87.5	89.4	91.3	93.3
	67	TC		94.5	96.5	98.6	100.7	96.4	100.2	100.6	102.7	98.8	100.9	103.1	105.3	101.4	103.6	105.8	108.0
		SC		56.7	76.4	95.3	97.3	60.5	81.4	98.5	100.6	64.0	87.3	100.5	103.7	67.3	92.8	103.5	105.7
	73	TC		112.4	114.8	117.2	119.7	113.3	115.7	118.2	120.7	114.0	116.4	118.9	121.4	114.3	116.7	119.2	121.7
		SC		35.4	54.5	73.3	91.9	36.1	57.3	77.5	97.3	36.9	60.0	81.1	102.5	37.5	62.3	84.4	105.9
125	61	TC	71.7	73.2	74.8	76.5	74.3	75.9	77.6	79.3	77.1	78.8	80.5	82.2	80.3	82.0	83.8	85.6	
		SC	70.1	71.6	73.2	74.8	71.6	73.1	74.7	76.4	75.2	76.8	78.5	80.2	78.9	80.6	82.4	84.2	
	67	TC	85.3	87.1	89.0	90.9	87.0	91.1	91.4	92.8	89.2	91.3	93.1	95.1	91.6	93.5	95.5	97.6	
		SC	50.9	68.8	86.0	87.9	54.4	73.4	88.9	90.8	57.6	78.7	90.7	93.7	60.6	83.7	93.5	95.5	
	73	TC	101.6	103.7	105.9	108.2	102.4	104.6	106.8	109.1	103.0	105.2	107.5	109.7	103.3	105.5	107.7	110.0	
		SC	31.6	48.9	66.0	82.9	32.2	51.5	69.8	87.8	32.9	53.9	73.1	92.6	33.5	56.0	76.1	95.7	

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 10Ton:

Outdoor Temp(°F) 70% RH	Net Capacities(kW)-3800 CFM							
	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power(kW) at Indicated Dry Bulb(°F)			
	59	68	75.2	80.6	59	68	75.2	80.8
5	19.8	18.6	18.2	17.9	9.2	10.1	10.7	11.3
10.4	21.3	20.4	20	19.8	9.4	10.3	10.8	11.5
15.8	22.6	22	21.8	21.8	9.5	10.4	10.9	11.7
21.2	23.7	23	22.8	22.5	9.6	10.5	11.1	11.9
26.6	25.1	24.7	24.5	24.1	9.7	10.6	11.3	12.1
32	27	26.6	26.2	25.9	9.8	10.8	11.5	12.2
37.4	31.1	30.8	30.3	29.9	10	11	11.7	12.4
44.6	37.8	37	36.3	35.7	10.4	10.9	11.9	12.8
48.2	40.7	40.2	39.8	39.4	10.8	12	12.7	13.5
53.6	43.2	44.7	44.5	44.1	11.2	12.5	13.2	14
59	46.6	45.9	45.6	45.1	11.5	12.8	13.5	14.3
64.4	49.4	48.5	48	47.6	11.8	13.1	13.9	14.6
69.8	53	51.9	51.2	50.5	12	13.3	14	14.7
75.2	56	54.5	53.6	53	12.3	13.5	14.5	15

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.6 Cooling capacity for 12.5Ton:

Ambient Temperature	AirFlow (CFM)			4600				5100				5600				6100				
	Ent	DB	(F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90	
				TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC
85	61		TC	1295	1321	1349	1376	1330	1367	1385	1414	1362	1390	1418	1447	1387	1416	1445	1475	
			SC	1126	1148	1172	1196	1202	1228	1253	1278	1274	1301	1327	1355	1340	1368	1396	1424	
	67		TC	1445	1475	1505	1536	1459	1489	1519	1550	1472	1502	1534	1565	1480	1524	1541	1572	
			SC	842	1068	1264	1462	87.1	1096	1318	1506	90.0	1132	1362	1529	91.9	1160	1397	1538	
	73		TC	1499	1530	1561	1592	1504	1535	1566	1598	1507	1538	1570	1602	1522	1553	1584	1616	
			SC	536	743	919	1108	544	754	938	1124	552	829	953	1145	560	87.1	97.4	1180	
95	61		TC	1198	1223	1248	1273	1235	1260	1286	1313	1271	1297	1324	1351	1297	1321	1351	1379	
			SC	1076	1099	1121	1145	1154	1178	1202	1228	1229	1254	1280	1307	1170	1194	1219	1244	
	67		TC	1388	1417	1446	1476	1434	1488	1506	1525	1450	1500	1508	1552	1465	1517	1524	1564	
			SC	814	1042	1267	1445	85.6	1102	1332	1456	89.3	1156	1408	1505	92.6	120.2	147.2	150.2	
	73		TC	1486	1516	1547	1579	1489	1519	1550	1583	1498	1529	1560	1591	1501	1532	1564	1595	
			SC	520	749	942	1138	530	764	976	1187	534	775	994	1220	545	78.8	101.9	124.6	
105	61		TC	1098	1121	1144	1168	1138	1162	1186	1210	1162	1186	1210	1235	1206	1231	1256	1282	
			SC	1027	1049	1070	1092	1106	1129	1152	1176	1085	1108	1130	1153	1178	1202	1228	1253	
	67		TC	1288	1314	1342	1369	1319	1346	1374	1402	1339	1367	1394	1423	1360	1387	1416	1445	
			SC	775	1001	1235	1351	82.0	1069	1328	137.9	85.4	1144	1350	137.5	89.8	119.8	135.1	142.0	
	73		TC	1450	1480	1510	1541	1459	1489	1519	1550	1466	1496	1528	1559	1474	1504	1535	1566	
			SC	496	722	936	1144	506	75.1	988	120.8	51.2	77.4	100.7	124.6	52.0	80.0	105.8	128.9	
115	61		TC	1000	1020	1042	1063	1034	1056	1078	1100	1072	1093	1116	1139	1114	1136	1160	1184	
			SC	979	1000	1020	1042	998	1019	1040	1062	1046	1068	1090	1112	1096	1118	1141	1165	
	67		TC	1180	1204	1229	1254	1202	1248	1253	1278	1231	1256	1283	1309	1262	1289	1315	1342	
			SC	726	962	1189	121.3	77.2	1022	122.8	125.3	81.4	109.3	125.2	129.0	85.3	115.9	128.8	131.4	
	73		TC	1394	1423	1452	1482	1405	1434	1464	1494	1414	1442	1472	1502	141.7	144.6	147.6	150.6	
			SC	470	700	925	114.8	47.9	73.3	97.6	121.3	48.8	76.6	101.9	127.6	49.6	79.3	105.8	131.6	
125	61		TC	906	924	943	964	937	956	977	997	971	991	1018	1032	1009	1030	1051	1073	
			SC	887	905	924	943	905	923	942	962	948	967	988	1008	992	101.3	103.4	105.6	
	67		TC	1069	1091	1114	1136	1090	1139	1142	1159	1116	1141	1163	1187	1145	1168	1192	121.7	
			SC	656	87.1	107.8	110.0	69.8	92.6	111.2	113.5	73.7	99.0	113.4	117.0	77.3	105.0	116.8	119.2	
	73		TC	1265	1290	131.6	134.4	127.4	130.1	132.7	135.5	128.2	130.8	133.6	136.2	128.5	131.2	133.8	136.6	
			SC	425	632	838	104.0	43.2	66.4	88.3	109.9	44.0	69.2	92.3	115.7	44.8	71.8	95.9	119.4	

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 12.5Ton:

Outdoor Temp(°F) 70% RH	Net Capacities(kW)-5600 CFM							
	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power (kW) at Indicated Dry Bulb(°F)			
	59	70	75	80	59	70	75	80
23	29.2	28.4	28.1	27.8	12.1	13.2	13.9	14.9
27	30.9	30.5	30.2	29.7	12.2	13.3	14.2	15.1
32	33.3	32.8	32.3	31.9	12.3	13.5	14.4	15.3
37	38.3	37.9	37.3	36.8	12.6	13.8	14.6	15.5
43	44.1	43.5	43.0	42.7	13.0	14.0	15.1	16.0
48	50.1	49.5	49.0	48.5	13.5	15.0	15.9	16.9
54	53.2	55.0	54.8	54.3	14.0	15.6	16.5	17.5
60	57.4	56.5	56.1	55.5	14.4	16.0	16.9	17.8
64	60.8	59.7	59.1	58.6	14.8	16.4	17.3	18.2
70	65.2	63.9	63.0	62.2	15.0	16.6	17.5	18.3
75	68.9	67.1	66.0	65.2	15.4	16.9	18.1	18.7

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.7 Cooling capacity for 15Ton:

AirFlow (CFM)		5400				6000				6600				7200					
Ent (DB)		(°F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90	
Ambient Temperature	85	61	TC	157.1	159.1	166.4	176.2	161.5	165.1	172.5	182.2	163.4	167.7	178.6	187.1	170.1	172.5	182.3	189.6
			SC	125.0	149.3	159.5	168.8	132.2	159.1	167.1	176.5	139.6	160.7	171.2	179.4	145.8	165.3	174.8	181.7
		67	TC	176.8	179.0	181.1	183.7	182.2	183.5	184.6	185.9	184.5	186.0	187.1	188.6	186.0	187.1	189.6	190.8
			SC	98.2	121.3	143.3	166.4	102.8	126.2	150.6	173.7	104.7	129.9	155.5	181.1	107.2	133.6	160.3	187.1
		73	TC	187.1	190.8	193.3	195.7	189.3	192.0	195.7	198.0	191.8	194.5	196.8	199.3	194.5	197.7	200.1	202.6
			SC	65.7	90.3	110.5	129.9	67.1	92.5	113.1	132.1	68.4	93.4	115.1	137.2	69.6	94.5	116.6	141.1
	95	61	TC	146.9	150.6	158.0	168.9	148.8	155.5	165.2	174.9	154.3	158.0	170.1	179.8	158.0	164.0	174.9	183.5
			SC	118.8	143.3	153.0	163.6	126.2	150.6	160.1	169.5	133.6	153.0	164.8	174.3	139.6	158.9	169.5	177.8
		67	TC	165.2	167.7	170.1	173.7	172.5	173.5	176.2	177.4	178.6	180.0	181.2	182.2	179.2	181.7	183.3	191.4
			SC	93.4	116.5	139.6	162.7	97.6	122.5	147.0	172.5	101.6	126.3	154.3	179.8	104.6	132.4	160.3	182.4
		73	TC	182.3	184.6	187.0	189.6	183.7	185.7	188.7	192.0	185.4	187.8	190.3	191.5	189.1	192.8	195.2	197.7
			SC	62.5	86.6	108.3	128.7	64.0	89.8	111.3	133.6	65.3	91.4	114.2	137.2	66.7	93.0	116.5	140.9
	105	61	TC	136.2	139.9	147.3	159.6	141.1	144.8	157.1	164.5	143.6	149.7	163.2	172.1	147.3	155.9	168.2	178.0
			SC	113.1	134.0	141.1	152.9	121.4	138.7	150.5	157.6	128.8	145.0	158.1	166.7	133.6	151.0	162.9	172.5
		67	TC	157.1	159.6	163.2	164.5	158.3	162.0	166.9	169.4	166.9	169.4	171.9	174.3	170.6	173.1	175.5	180.0
			SC	88.1	111.6	134.8	159.2	102.5	117.7	143.3	164.1	96.1	123.8	150.6	168.9	99.8	128.7	158.0	178.0
		73	TC	179.2	180.5	181.7	182.9	181.7	182.9	184.2	186.6	184.2	185.4	186.6	187.8	185.4	186.6	187.8	190.3
			SC	59.1	82.7	105.2	126.3	60.5	85.8	109.0	132.4	61.8	88.8	112.1	135.9	63.1	90.1	115.0	142.3
	115	61	TC	123.9	128.8	141.1	153.4	127.6	135.0	147.3	159.6	131.3	133.9	144.4	165.7	135.0	144.8	158.3	169.4
			SC	108.0	124.7	136.7	148.6	115.1	129.3	141.1	152.9	121.4	129.7	139.9	160.5	120.8	140.3	153.4	164.1
		67	TC	147.3	149.7	150.9	154.4	148.5	152.2	154.6	157.1	157.1	159.6	163.2	167.5	160.8	163.2	165.7	169.4
			SC	91.9	106.9	130.0	153.4	96.8	113.4	138.6	157.1	101.7	119.0	144.8	162.3	95.3	125.1	154.6	165.9
		73	TC	166.9	169.4	171.9	173.1	171.9	174.3	175.5	176.8	175.5	176.8	178.0	179.2	176.8	178.0	179.2	180.5
			SC	55.6	79.1	102.4	125.1	57.0	83.3	106.7	130.0	59.9	85.8	111.6	137.4	59.9	89.4	114.0	139.9
125	61	TC	118.9	123.6	135.4	145.6	122.4	129.5	141.3	153.2	126.0	134.2	147.3	159.1	129.5	139.0	152.0	162.6	
		SC	103.6	119.7	131.2	141.0	110.5	125.4	136.9	148.4	116.5	130.0	142.6	154.1	115.9	133.2	145.6	155.9	
	67	TC	141.3	143.7	144.9	147.3	142.5	146.1	148.4	150.8	150.8	153.2	156.7	160.6	154.3	156.7	159.1	164.6	
		SC	88.1	102.5	124.8	147.3	92.8	108.8	133.1	146.1	97.6	114.1	139.0	155.6	91.4	120.0	148.4	159.5	
	73	TC	160.3	162.6	165.0	166.2	165.0	167.4	168.5	169.7	168.5	169.7	170.9	172.1	169.7	170.9	172.1	173.3	
		SC	53.2	75.8	98.2	120.0	54.5	79.8	102.3	124.8	57.4	82.2	107.0	131.9	57.4	85.8	109.4	134.2	

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 15Ton:

Outdoor Temp(°F) 70% RH	Net Capacities(kW)-6600 CFM							
	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power(KW) at Indicated Dry Bulb(°F)			
	59	68	75.2	80.6	59	68	75.2	80.8
5	29.7	27.9	27.3	26.9	13.8	15.2	16.1	17.0
10.4	32.0	30.6	30.0	29.7	14.1	15.5	16.2	17.3
15.8	33.9	33.0	32.7	32.7	14.3	15.6	16.4	17.6
21.2	35.6	34.5	34.2	33.8	14.4	15.8	16.7	17.9
26.6	37.7	37.1	36.8	36.2	14.6	15.9	17.0	18.2
32	40.5	39.9	39.3	38.9	14.7	16.2	17.3	18.3
37.4	46.7	46.2	45.5	44.9	15.0	16.5	17.6	18.6
44.6	56.7	56	54.3	53.7	15.6	17.5	18.2	19.2
48.2	61.1	60.3	59.7	59.1	16.2	18.0	19.1	20.3
53.6	64.8	67.1	66.8	66.2	16.8	18.8	19.8	21.0
59	69.9	68.9	68.4	67.7	17.3	19.2	20.3	21.5
64.4	74.1	72.8	72.0	71.4	17.7	19.7	20.9	21.9
69.8	79.5	77.9	76.8	75.8	18.0	20.0	21.0	22.1
75.2	84.0	81.8	80.4	79.5	18.5	20.3	21.8	22.5

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.8 Cooling capacity for 17.5Ton:

AirFlow (CFM)			7000				7300				7600				7900				
Ambient Temperature	Ent (DB)	(°F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90	
			85	61	TC	1862	1885	1969	2081	1912	1954	2039	2150	1934	1983	2108	2206	201.1	2039
SC	1494	1773			1889	1996	1576	1885	1977	2084	1661	1903	2024	2118	1732	1956	2065	2144	
67	TC	2088		2113	2137	2167	2150	2165	2177	2192	2176	2193	2206	2223	2193	2206	2235	2248	
	SC	1187		145.1	1704	1969	1239	1508	178.7	2052	126.1	1550	1844	213.7	1290	1592	1899	2206	
73	TC	2206		2248	2277	2305	2231	2262	2305	2331	2260	2291	231.7	234.6	2291	2327	2355	2384	
	SC	81.4		1096	1328	1550	830	1121	135.7	157.5	84.5	1132	1380	1634	85.9	1144	1398	1678	
95	61	TC		1745	178.7	1872	1997	176.7	184.4	195.5	2066	183.0	187.2	201.1	2122	187.2	194.1	206.6	216.5
		SC		1423	1704	181.5	193.6	150.8	178.7	189.6	2004	159.2	181.5	195.0	205.9	166.1	188.3	200.4	209.9
	67	TC		1955	198.3	201.1	205.2	203.9	205.0	208.1	209.5	210.8	212.5	213.8	215.0	211.5	214.4	216.2	225.5
		SC		1132	139.6	166.1	192.6	118.0	146.5	174.6	203.9	122.6	150.9	183.0	212.2	126.0	157.9	189.9	215.2
	73	TC		215.1	217.7	220.5	223.5	216.7	219.0	222.4	226.2	218.6	221.4	224.3	225.6	222.9	227.1	229.9	232.7
		SC		77.7	105.4	130.2	153.6	79.4	109.0	133.7	159.2	80.9	110.9	137.0	163.4	82.5	112.7	139.6	167.6
105	61	TC		1622	166.5	175.0	189.1	167.8	172.1	186.2	194.7	170.7	177.7	193.2	205.9	175.0	184.8	198.9	210.2
		SC		135.7	159.7	167.8	181.4	145.3	165.1	178.6	186.8	153.7	172.3	187.3	197.2	159.2	179.2	192.8	203.9
	67	TC		1862	189.1	193.2	194.7	187.6	191.8	197.4	200.3	197.4	200.3	203.2	205.9	201.7	204.5	207.3	212.5
		SC		107.1	134.0	160.6	188.6	123.6	141.0	170.4	194.2	116.2	148.0	178.7	199.7	120.5	153.6	187.2	210.2
	73	TC		211.5	213.0	214.4	215.8	214.4	215.8	217.3	220.0	217.3	218.6	220.0	221.4	218.6	220.0	221.4	224.3
		SC		73.8	100.9	126.7	150.9	75.4	104.4	131.0	157.9	76.9	107.9	134.6	161.9	78.4	109.4	137.9	169.2
115	61	TC		148.1	153.7	167.8	182.0	152.4	160.9	175.0	189.1	156.6	159.6	171.6	196.1	160.9	172.1	187.6	200.3
		SC		129.9	149.0	162.8	176.4	138.0	154.3	167.8	181.4	145.3	154.8	167.0	190.1	144.6	166.9	182.0	194.2
	67	TC		175.0	177.7	179.1	182.0	176.3	180.6	183.3	186.2	186.2	189.1	193.2	198.1	190.4	193.2	196.1	200.3
		SC		111.4	128.6	155.1	182.0	117.1	136.1	165.0	186.2	122.7	142.5	172.1	192.2	115.3	149.5	183.3	196.3
	73	TC		197.4	200.3	203.2	204.5	203.2	205.9	207.3	208.8	207.3	208.8	210.2	211.5	208.8	210.2	211.5	213.0
		SC		69.8	96.8	123.5	149.5	71.4	101.6	128.4	155.1	74.7	104.4	134.0	163.6	74.7	108.6	136.8	166.5
125	61	TC	142.4	147.8	161.3	173.0	146.4	154.5	168.1	181.7	150.5	159.9	175.0	188.5	154.5	165.4	180.3	192.5	
		SC	124.8	143.3	156.5	167.7	132.8	149.8	163.0	176.2	139.6	155.1	169.6	182.8	139.0	158.8	173.0	184.8	
	67	TC	168.1	170.8	172.2	175.0	169.5	173.6	176.2	179.0	179.0	181.7	185.7	190.2	183.0	185.7	188.5	194.8	
		SC	99.0	123.6	149.2	175.0	112.1	130.8	158.7	173.6	118.0	136.9	165.4	184.5	110.9	143.7	176.2	188.9	
	73	TC	189.9	192.5	195.3	196.6	195.3	198.0	199.3	200.6	199.3	200.6	202.0	203.4	200.6	202.0	203.4	204.8	
		SC	67.1	93.0	118.7	143.7	68.5	97.6	123.4	149.2	71.9	100.3	128.7	157.3	71.9	104.4	131.5	159.9	

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 17.5Ton:

Outdoor Temp(°F) 70% RH	Net Capacities(kW)-7300 CFM							
	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power(kW) at Indicated Dry Bulb(°F)			
	59	68	75.2	80.6	59	68	75.2	80.8
5	35.6	33.5	32.8	32.3	15.6	17.2	18.2	19.2
10.4	38.4	36.7	36.0	35.6	15.9	17.5	18.3	19.5
15.8	40.7	39.6	39.2	39.2	16.2	17.6	18.5	19.9
21.2	42.7	41.4	41.0	40.6	16.3	17.9	18.9	20.2
26.6	45.2	44.5	44.2	43.4	16.5	18.0	19.2	20.6
32	48.6	47.9	47.2	46.7	16.6	18.3	19.5	20.7
37.4	56.0	55.4	54.6	53.9	17.0	18.6	19.9	21.0
44.6	68.5	67.0	62.9	62.5	17.6	19.8	20.6	21.7
48.2	73.3	72.4	71.6	70.9	18.3	20.3	21.6	22.9
53.6	77.8	80.5	80.2	79.4	19.0	21.2	22.4	23.7
59	83.9	82.7	82.1	81.2	19.5	21.7	22.9	24.3
64.4	88.9	87.4	86.4	85.7	20.0	22.3	23.6	24.7
69.8	95.4	93.5	92.2	91.0	20.3	22.6	23.7	25.0
75.2	100.8	98.2	96.5	95.4	20.9	22.9	24.6	25.4

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.9 Cooling capacity for 20Ton:

		AirFlow (CFM)		6800				7600				8400				9200			
		Ent (DB)	(°F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90
Ambient Temperature	85	61	TC	209.7	212.3	222.1	234.9	215.6	220.3	230.0	242.9	218.0	223.7	238.2	249.4	227.0	230.0	243.0	252.6
			SC	167.3	199.5	215.2	227.7	176.9	212.3	222.9	235.4	186.7	216.8	230.8	241.7	194.8	222.9	235.6	244.9
		67	TC	235.7	238.7	241.4	244.8	242.9	244.7	246.1	247.8	246.0	247.9	249.4	251.3	247.9	249.4	252.6	254.3
			SC	131.9	162.4	191.5	222.1	138.1	168.9	201.1	231.7	140.5	173.8	207.6	241.4	143.8	178.7	214.0	249.4
		73	TC	249.4	254.3	257.5	260.8	252.3	255.9	260.8	263.8	255.6	259.1	262.2	265.5	259.1	263.4	266.6	269.9
			SC	89.0	121.5	148.1	173.8	90.8	124.4	151.6	176.7	92.6	125.6	154.3	183.4	94.2	127.0	156.3	188.6
	95	61	TC	196.2	201.1	210.9	225.3	198.8	207.6	220.5	233.3	206.0	210.9	227.0	239.8	210.9	218.8	233.3	244.7
			SC	159.2	191.5	204.3	218.4	168.9	199.1	211.4	223.7	178.7	204.3	219.9	232.4	186.7	212.1	226.1	237.1
		67	TC	220.5	223.7	227.0	231.7	230.0	233.6	234.9	236.5	238.2	240.0	241.6	242.9	239.0	242.2	244.3	247.1
			SC	125.6	156.1	186.7	217.2	131.1	164.1	196.4	230.0	136.4	169.1	206.0	239.8	140.3	177.1	214.0	227.1
		73	TC	243.0	246.1	249.2	252.6	244.8	247.6	251.5	255.9	247.1	250.4	253.6	255.2	252.0	256.9	260.1	263.4
			SC	84.8	116.6	145.2	172.2	86.7	120.8	149.3	178.7	88.5	123.0	153.0	183.4	90.3	125.1	156.1	188.3
	105	61	TC	182.1	187.0	196.7	213.0	188.6	193.5	209.7	219.5	191.9	200.0	217.9	232.5	196.7	208.1	224.4	237.4
			SC	151.6	181.2	190.6	206.4	162.6	187.5	203.2	212.7	172.4	193.8	211.1	225.3	178.7	201.7	217.4	230.0
		67	TC	209.7	213.0	217.9	219.5	211.4	216.2	222.7	226.0	222.7	226.0	229.2	232.5	227.6	230.9	234.1	237.4
			SC	118.6	149.6	180.3	212.5	137.6	157.7	191.5	202.7	129.1	165.7	201.1	232.5	134.0	172.2	210.9	227.4
		73	TC	239.0	240.6	242.2	243.9	242.2	243.9	245.5	248.7	245.5	247.1	248.7	250.4	247.1	248.7	250.4	253.6
			SC	80.2	111.4	141.2	169.1	82.2	115.6	146.2	177.1	83.8	119.5	150.3	181.8	85.6	121.2	154.2	190.2
	115	61	TC	165.9	172.4	188.6	204.9	170.7	180.5	196.7	213.0	175.6	187.0	204.9	221.1	180.5	193.5	211.4	226.0
			SC	144.9	167.0	182.8	198.5	154.3	174.9	190.6	206.4	162.6	181.2	198.5	214.3	174.5	187.5	204.8	219.0
		67	TC	196.7	200.0	201.6	204.9	198.4	203.2	206.5	209.7	209.7	213.0	217.9	221.1	214.6	217.9	221.1	227.7
			SC	123.6	143.4	174.0	204.9	130.1	152.0	185.4	209.7	136.6	159.4	193.5	221.1	128.2	167.5	206.5	226.0
		73	TC	222.7	226.0	229.2	230.9	229.2	232.5	234.1	236.7	234.1	236.7	237.4	239.0	236.7	237.4	239.0	240.6
			SC	75.7	106.7	137.4	167.5	77.5	112.2	143.1	174.0	81.4	115.5	149.6	183.7	81.4	120.4	152.9	187.0
125	61	TC	156.1	162.2	177.6	192.9	160.7	169.9	185.2	200.6	165.3	176.0	192.9	208.2	169.9	182.2	199.0	212.8	
		SC	136.3	157.2	172.0	186.9	145.2	164.6	179.5	194.3	153.0	170.6	186.9	201.8	163.9	176.5	192.9	206.2	
	67	TC	185.2	188.3	189.8	203.9	186.8	191.4	194.4	197.5	197.5	200.6	205.2	208.2	202.1	205.2	208.2	214.7	
		SC	116.2	134.9	163.8	182.9	122.4	143.1	174.5	193.4	128.5	150.0	182.2	203.9	120.5	157.6	194.4	210.3	
	73	TC	209.8	212.8	215.9	217.4	215.9	219.0	220.5	222.0	220.5	222.0	223.6	225.1	222.0	223.6	225.1	226.6	
		SC	71.0	100.3	129.3	157.6	72.7	105.5	134.6	163.8	76.4	108.6	140.8	173.0	76.4	113.2	143.8	176.0	

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 20Ton:

Outdoor Temp(°F) 70% RH	Net Capacities(kW)-8400 CFM							
	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power(KW) at Indicated Dry Bulb(°F)			
	59	68	75.2	80.6	59	68	75.2	80.8
5	39.6	37.2	36.4	35.8	18.4	20.2	21.4	22.6
10.4	42.6	40.8	40.0	39.6	18.8	20.6	21.6	23.0
15.8	45.2	44.0	43.6	43.6	19.0	20.8	21.8	23.4
21.2	47.4	46.0	45.6	45.0	19.2	21.0	22.2	23.8
26.6	50.2	49.4	49.0	48.2	19.4	21.2	22.6	24.2
32	54.0	53.2	52.4	51.8	19.6	21.6	23.0	24.4
37.4	62.2	61.6	60.6	59.8	20.0	22.0	23.4	24.8
44.6	75.8	75	74.2	73.6	20.8	23.4	24.2	25.6
48.2	81.4	80.4	79.6	78.8	21.6	24.0	25.4	27.0
53.6	86.4	89.4	89.0	88.2	22.4	25.0	26.4	28.0
59	93.2	91.8	91.2	90.2	23.0	25.6	27.0	28.6
64.4	98.8	97.0	96.0	95.2	23.6	26.2	27.8	29.2
69.8	106.0	103.8	102.4	101.0	24.0	26.6	28.0	29.4
75.2	112.0	109.0	107.2	106.0	24.6	27.0	29.0	30.0

- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

9.10 Cooling capacity for 30Ton:

Air Flow (CFM)			10000				12000				13400				14800				
Ambient Temperature	Ent(DB)	(°F)	75	80	85	90	75	80	85	90	75	80	85	90	75	80	85	90	
			85	61	TC	3179	3219	3359	355.1	3264	3335	3477	3667	330.1	3385	3595	376.1	343.1	347.8
SC	2602	3072			3269	345.0	274.1	3262	341.6	3539	288.4	3293	3495	365.5	300.4	338.2	356.4	370.0	
67	TC	3560		3604	3643	3696	3665	3691	371.1	3738	370.9	3739	3759	379.0	373.8	376.0	380.8	383.3	
	SC	2083		2531	2955	3404	217.2	2626	309.7	3545	220.9	2697	319.1	348.8	225.7	276.9	328.4	360.4	
73	TC	3759		3832	3879	3928	3802	3855	3926	397.2	385.0	3903	3947	399.7	380.2	396.5	401.1	406.1	
	SC	1455		1932	232.1	2698	148.2	197.4	237.2	274.1	150.7	199.2	241.0	250.2	153.1	201.3	243.9	291.5	
95	61	TC		2982	3055	3197	3409	301.9	3422	333.6	3525	312.5	3198	343.1	362.0	319.7	331.4	352.3	369.2
		SC		2482	2956	314.3	335.0	262.5	305.0	328.0	346.4	276.8	314.4	337.1	355.7	288.4	325.8	346.2	362.4
	67	TC		3439	3488	3534	3605	351.0	3583	365.2	367.7	369.8	372.6	374.8	377.0	371.0	375.9	378.9	394.7
		SC		1991	2438	288.4	333.2	259.2	307.4	330.7	342.2	261.9	278.8	322.8	348.3	271.7	310.2	328.4	371.3
	73	TC		3667	3712	375.7	381.0	369.4	373.3	379.0	385.6	372.6	377.4	382.1	384.6	379.8	387.1	391.6	396.6
		SC		1393	186.0	227.9	267.5	142.2	192.2	233.7	277.0	144.7	195.3	239.3	283.9	147.4	198.4	243.7	291.1
105	61	TC		2775	2848	2990	3230	287.0	2943	3179	332.4	291.8	3037	3297	351.4	299.0	315.7	339.4	368.5
		SC		2372	277.7	291.3	314.3	253.2	286.7	309.5	323.4	267.5	298.9	324.2	341.0	276.8	310.5	333.4	352.2
	67	TC		3179	3229	3297	3324	320.3	3275	336.9	341.9	336.9	341.8	346.5	351.4	344.0	349.0	353.5	362.4
		SC		1888	2344	279.1	326.5	216.7	246.1	295.5	336.0	204.3	257.9	309.7	345.2	211.4	267.4	324.0	352.8
	73	TC		3607	3633	3655	3680	365.5	367.9	370.3	375.2	370.3	372.7	375.0	377.1	372.6	375.1	377.3	382.3
		SC		1328	178.5	221.9	262.9	135.5	184.5	229.2	274.7	138.0	190.3	235.2	281.4	140.5	192.8	240.8	293.8
115	61	TC		2637	2733	297.0	321.0	270.9	285.3	309.0	333.0	278.1	283.2	303.4	344.8	285.2	304.3	330.3	351.9
		SC		2273	259.7	282.8	306.0	241.0	268.6	291.3	314.3	253.2	267.3	279.9	319.0	252.0	289.8	315.1	336.0
	67	TC		3190	3237	325.9	331.0	321.3	328.6	331.1	338.1	337.9	342.9	349.7	358.2	345.1	349.8	354.6	362.1
		SC		221.8	250.9	295.4	320.1	231.2	263.4	312.1	316.1	245.7	279.3	319.0	323.1	253.3	311.1	322.4	329.4
	73	TC		3369	341.8	346.5	349.1	346.5	351.3	353.5	356.2	353.5	356.1	358.3	360.9	356.0	358.4	360.7	363.4
		SC		1260	171.5	216.5	260.6	131.7	179.6	224.8	270.0	134.3	184.5	234.3	284.3	194.3	221.4	238.9	289.2
125	61	TC	2441	2533	276.0	295.9	250.8	264.7	287.4	310.6	257.8	273.8	299.0	322.0	264.6	283.0	308.1	328.8	
		SC	2188	230.0	252.1	271.3	232.1	261.0	283.2	305.6	243.7	259.9	284.2	314.6	242.6	276.1	300.0	310.1	
	67	TC	2874	2921	294.3	299.2	289.7	296.8	301.1	306.0	305.8	310.5	317.2	324.9	312.5	317.3	321.8	332.6	
		SC	1753	216.8	259.8	283.5	197.3	228.9	275.8	291.2	207.2	239.2	287.2	315.5	195.2	250.6	305.4	327.1	
	73	TC	3241	3287	333.2	335.7	333.2	337.9	340.0	342.5	340.0	342.4	344.6	347.1	342.3	344.7	346.9	349.5	
		SC	121.3	165.1	208.3	250.7	123.9	172.9	216.3	260.0	129.5	177.5	225.4	273.7	129.5	184.5	230.0	278.1	

- Notes: 1. All capacities are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat.
 2. TC=Total Capacity. (Unit: 1000Btu/h).
 3. SC=Sensible Capacity. (Unit: 1000Btu/h).

Heating capacity for 30Ton:

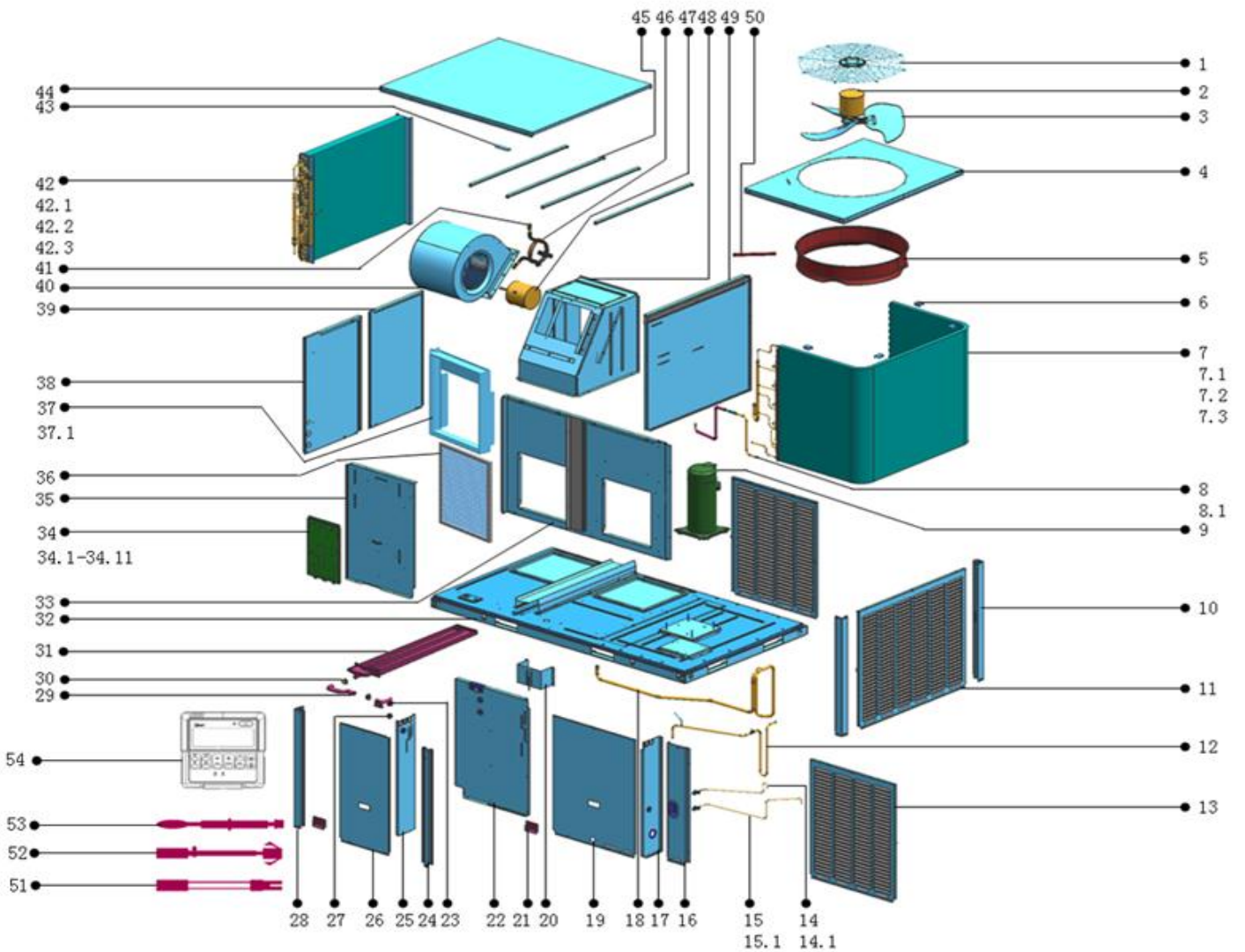
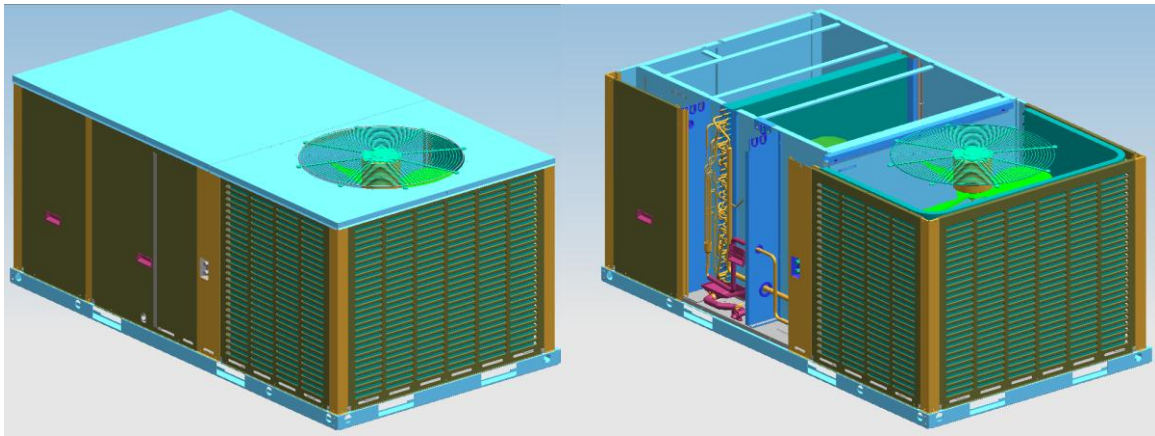
Net Capacities(kW)-12000 CFM								
Outdoor Temp(°F) 70% RH	Peak Net Heating(kW) at Indicated Dry Bulb(°F)				Peak Total Power (kW) at Indicated Dry Bulb(°F)			
	59	68	75.2	80.6	59	68	75.2	80.8
5	59.4	55.8	54.6	53.8	27.6	30.4	32.2	34
10.4	64	61.2	60	59.4	28.2	31	32.4	34.6
15.8	67.8	66	65.4	65.4	28.6	31.2	32.8	35.2
21.2	71.2	69	68.4	67.6	28.8	31.6	33.4	35.8
26.6	75.4	74.2	73.6	72.4	29.2	31.8	34	36.4
32	81	79.8	78.6	77.8	29.4	32.4	34.6	36.6
37.4	93.4	92.4	91	89.8	30	33	35.2	37.2
44.6	107.4	105.0	104.8	104.2	31.2	34.8	36.4	38.4
48.2	122.2	120.6	119.4	118.2	32.4	36	38.2	40.6
53.6	129.6	134.2	133.6	132.4	33.6	37.6	39.6	42
59	139.8	137.8	136.8	135.4	34.6	38.4	40.6	43
64.4	148.2	145.6	144	142.8	35.4	39.4	41.8	43.8
69.8	159	155.8	153.6	151.6	36	40	42	44.2
75.2	168	163.6	160.8	159	37	40.6	43.6	45

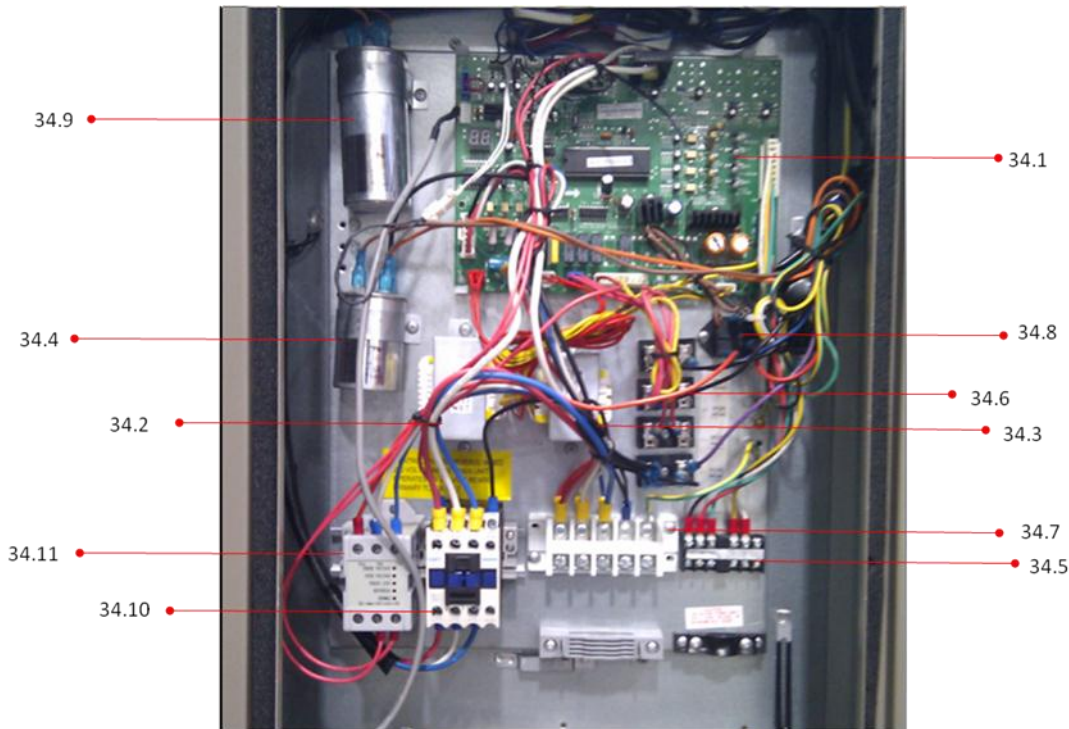
- Notes: 1. For other airflows, see heating capacity correction factor tables.
 2. Heating capacities and power are integrated to include the effects of defrost in the frost region.

10. Explode View

10.1 5ton

MRBT-60CWN1-R





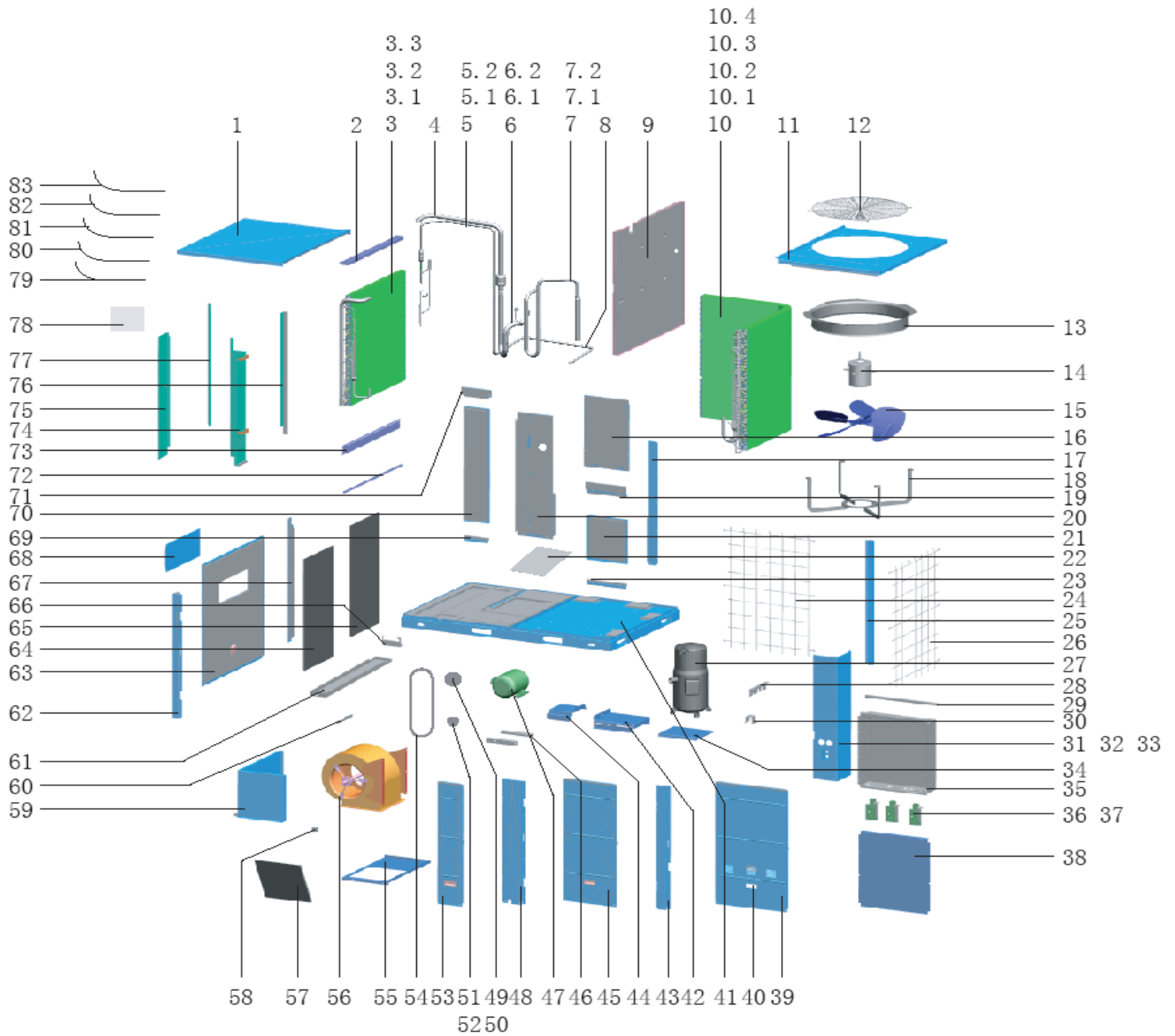
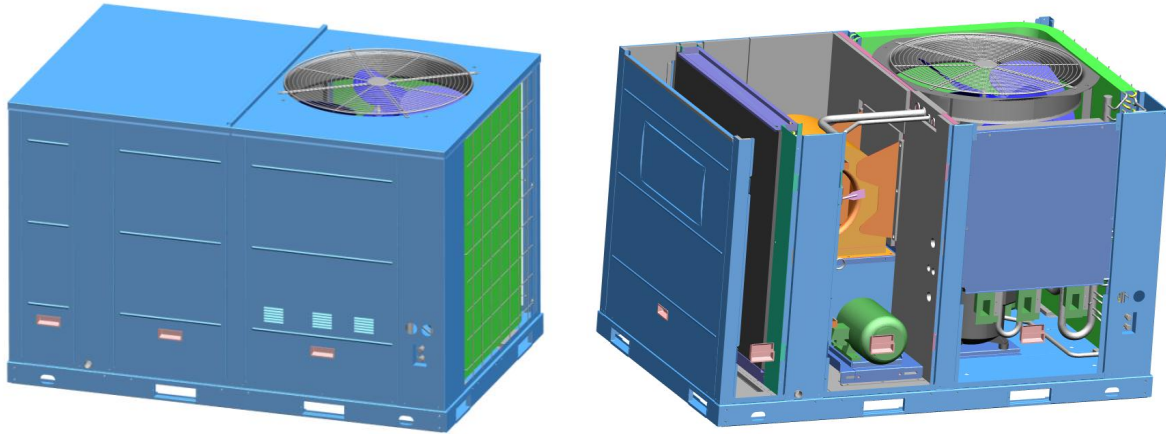
No.	Part Name	Qty	No.	Part Name	Qty
1	Top cover veil	1	33	Back to the panel kit	1
2	Motor	1	34	Rooftop electric box ass'y	1
3	Axial fan	1	34.1	Outdoor main board ass'y	1
4	Top cover	1	34.2	24V AC transformer	1
5	Ring	1	34.3	Transformer	1
6	Fixture clip	4	34.4	Compressor capacitor	1
7	Condenser ass'y	1	34.5	Wire joint	1
7.1	Condenser	1	34.6	Wire joint	4
7.2	Condenser inlet pipe ass'y	1	34.7	Wire joint, 6p	1
7.3	Condenser output pipe ass'y	1	34.8	Relay	1
8	Throttling parts	1	34.9	Compressor capacitor	1
8.1	One-way throttle valve pipe	1	34.10	AC contactor	1
9	Compressor	1	35	Connection board ass'y of evaporator	1
10	Left pole	2	36	Fliter	1
11	clapboard	1	37	Installation holder of filter	1
12	Suction pipe ass'y of compressor	1	37.1	Extraction board of filter	1
13	clapboard	2	37.2	Screw	1
14	High pressure gauge ports ass'y	1	38	Return II lateral plate assemblies	1
14.1	Pipe joint	1	39	Return I lateral plate assemblies	1
15	Low pressure gauge ports ass'y	1	40	Centrifugal fan	1
15.1	Pipe joint	1	41	Motor bracket I	3
16	Table connector box connection plate weld	1	42	Evaporator ass'y	1
17	Waterproof baffle components	1	42.1	Evaporator	1
18	Suction pipe ass'y of compressor	1	42.2	Input tube evaporator components	1
19	middle clapboard ass'y	1	42.3	Output tube evaporator components	1
20	Baffle ass'y	1	43	Clapboard supporting board	1

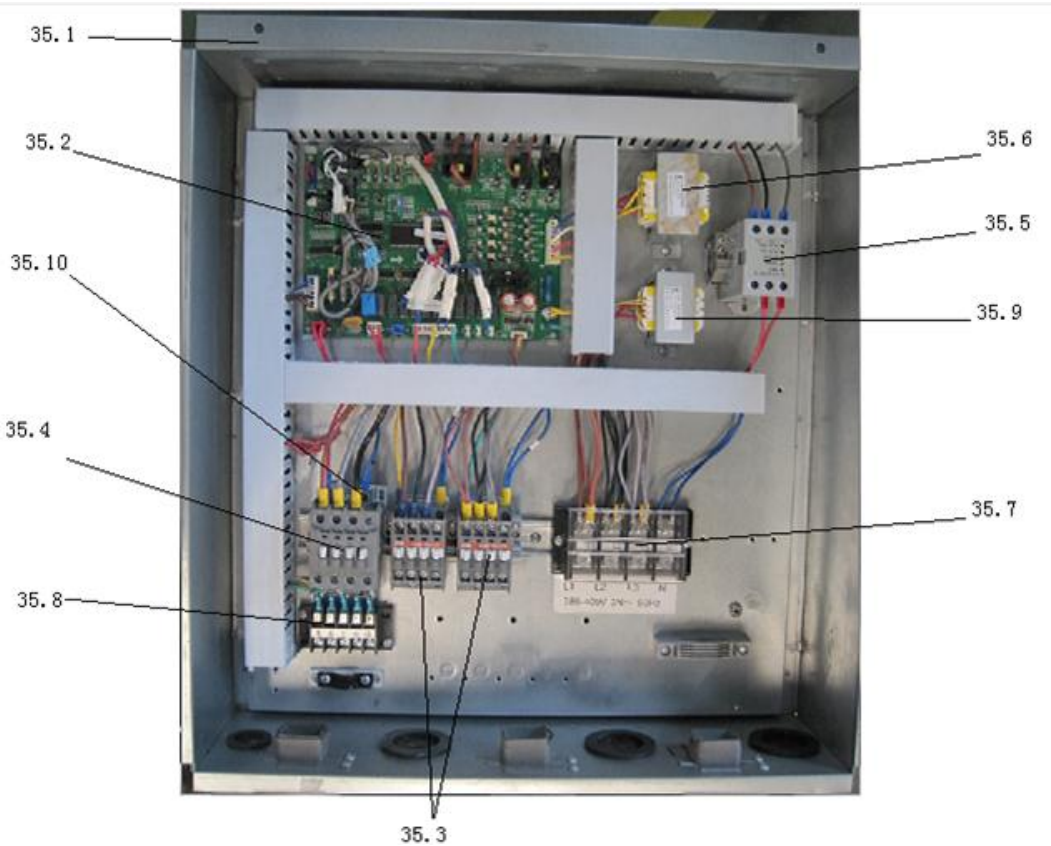
MCAC-RTSM-2014-06**R410A Tropical Rooftop Package Unit 50Hz**

21	Handle	2	44	Top cover ass'y	1
22	Evaporator right linking slab components	1	45	beam	4
23	Water outlet joint	1	46	Motor bracket II	1
24	Pole	1	47	Motor	1
25	Electronic components clapboard	1	48	Baffle ass'y	1
26	Electronic front cover	1	49	board ass'y	1
27	Seal Stopper	1	50	Pipe	1
28	Pole	1	51	Discharge temp sensor	1
29	Connecting pipe	1	52	Pipe temp. sensor	1
30	Throat bander	2	53	Indoor temp. sensor ass'y	1
31	Drainage pan ass'y	1	54	Wired controller	1
32	Base ass'y	1	55	R410A	5

10.2 6.2ton

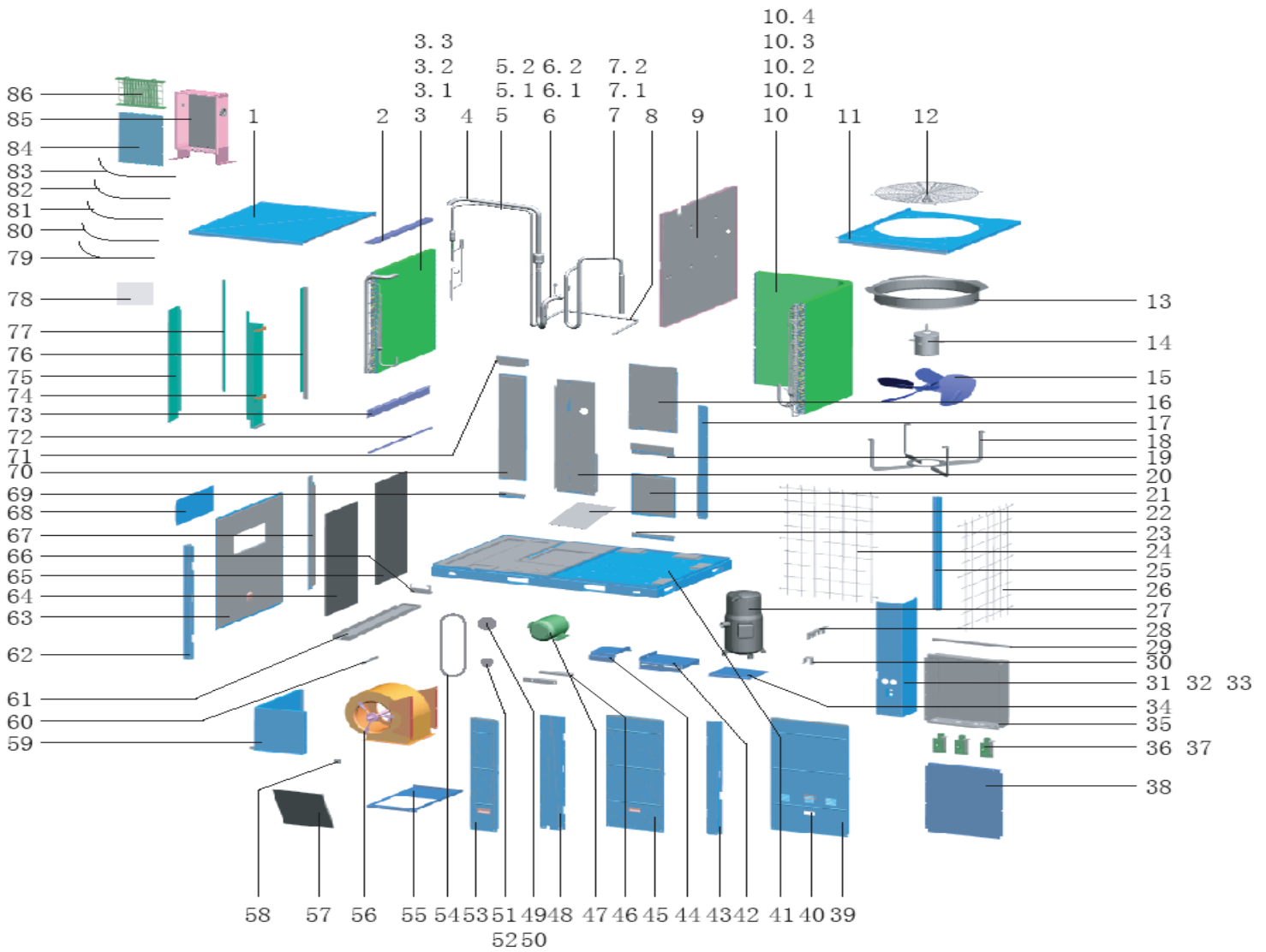
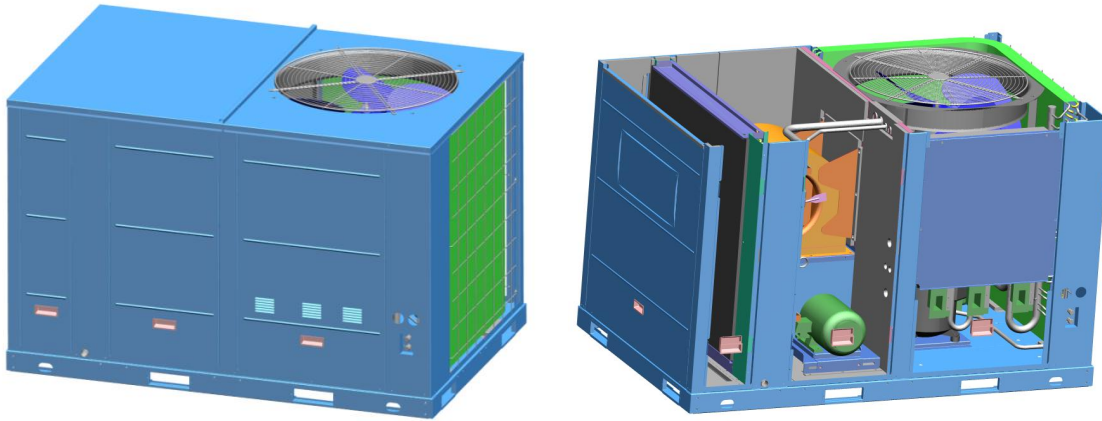
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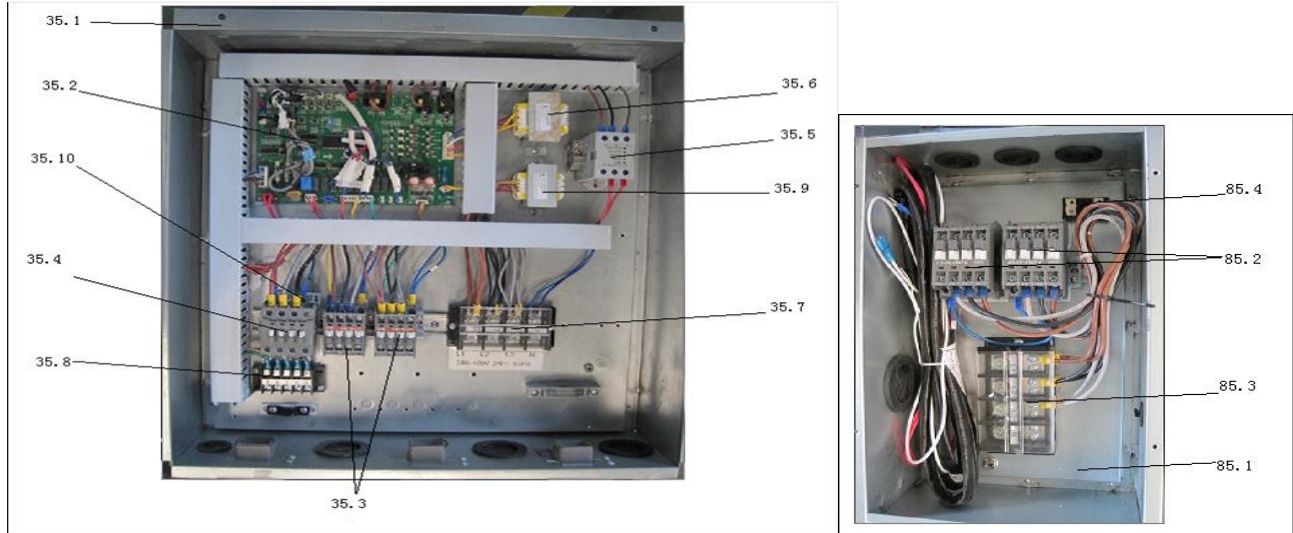




No.	Part Name	Qty	No.	Part Name	Qty
1	Components inside the top cover	1	35.7	Wire joint	1
2	Components on the seal plate evaporator	1	35.8	Wire joint	1
3	Evaporator parts	1	35.9	Transformer	1
3.1	Evaporator	1	35.10	Surge suppresser	3
3.2	Evaporator tube assembly output	1	36	Duct	3
3.3	Enter the evaporator tube assembly	1	37	Fixing board	3
4	Evaporator tube assembly output connector	1	38	Electronic control box cover plate	1
5	Evaporator input connection pipe ass'y	1	39	Lateral panel components	1
5.1	Strainer	1	40	Handle	4
5.2	One way valve	1	41	Chassis Parts	1
6	Suction pipe ass'y	1	42	I welding pieces of the motor bracket	1
6.1	Form fitting assemblies	1	43	Right anterior column II	1
6.2	Pressure controller	1	44	II welding pieces of the motor bracket	1
7	Discharge pipe ass'y	1	45	Middle panel components	1
7.1	Form fitting assemblies	1	46	Motor bracket sliding board assembly	2
7.2	Pressure controller	1	47	Motor	1
8	Condenser tube assembly output connector	1	48	Components of the left anterior column II	1
9	Partition board ass'y	1	49	Wheel	1
10	Condenser components	1	50	Sleeve	1
10.1	Condenser	1	51	Wheel	1
10.2	Input tube condenser components	1	52	Sleeve	1
10.3	Output tube condenser components	1	53	II components inside the panel	1
10.4	Over the condenser cooling tubes	1	54	Belt	1
11	Outside the top cover plate welding parts	1	55	Supporting board ass'y	1

12	Grille	1	56	Fan	1
13	Deflector	1	57	Side air deflector	1
14	Motor	1	58	Pipe clamp B	2
15	Fan blade	1	59	Circuit board assembly duct	1
16	Thermoelectric power auxiliary control board assembly lid	1	60	Then water board assembly inside	1
17	Right after the column II	1	61	Water tray components	1
18	Motor fixed holder	1	62	I component left column	1
19	I component supply air flange	1	63	Components inside the panel I	1
20	Components of the left rear column II	1	64	Air Filter	1
21	Side of the outlet cover assembly	1	65	Air Filter	1
22	Insulation board	1	66	Water tray support components	1
23	Supply air flange II	1	67	Components of the left rear column I	1
24	Fence II	1	68	Cover plate ass'y	1
25	Right after the column I	1	69	Return air flange II	1
26	I fence	1	70	Side of the return air cover components	1
27	Compressor	1	71	I return air flange components	1
28	Press plate assy	1	72	Filter fixed support	1
29	Electronic control box support plate	1	73	Components under the seal plate evaporator	1
30	Pipe support plate	1	74	IV evaporator components fixed support	1
31	Welding pieces of the right anterior column I	1	75	III evaporator components fixed support	1
32	Peccadillo coacervation	2	76	I support the evaporator component of fixed	1
33	Winding	2	77	Evaporator components fixed support II	1
34	Welding together pieces of the compressor base	1	78	Wire controller	1
35	Rooftop electrical box parts	1	79	Temp sensor ass'y	1
35.1	Welding together pieces of electronic control box	1	80	Coil temp sensor ass'y	1
35.2	Outdoor main board ass'y	1	81	room temp sensor ass'y	1
35.3	Contactator	2	82	Wire	1
35.4	AC contactor	1	83	Compressor wire joint ass'y	1
35.6	24V AC transformer	1			

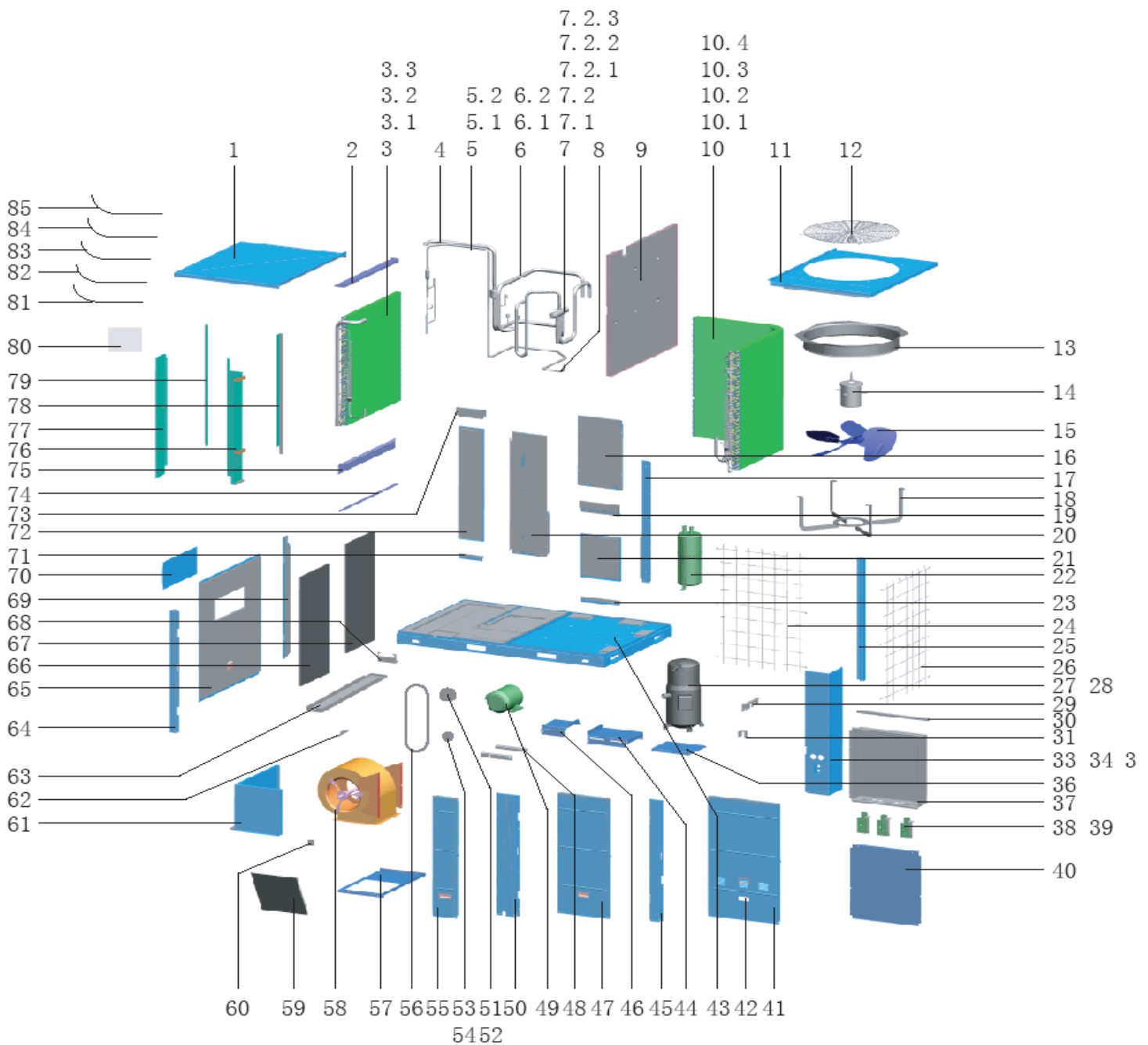
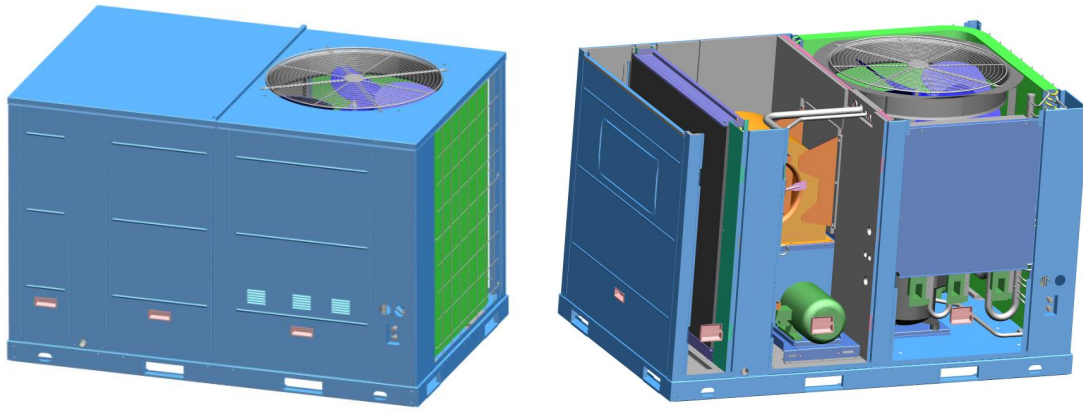


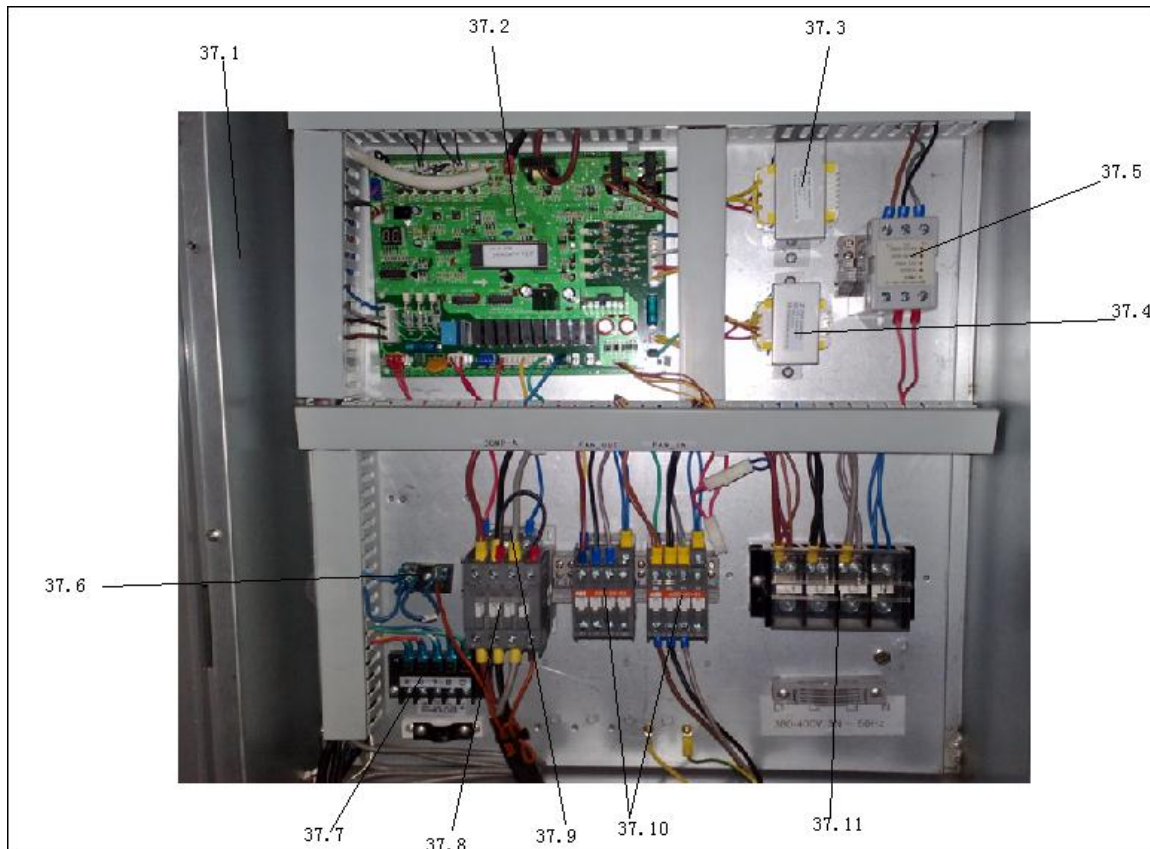


No.	Part Name	Qty	No.	Part Name	Qty
1	Components inside the top cover	1	35.10	Surge suppresser	3
2	Components on the seal plate evaporator	1	36	Duct	3
3	Evaporator parts	1	37	Fixing board	3
3.1	Evaporator	1	38	Electronic control box cover plate	1
3.2	Evaporator tube assembly output	1	39	Lateral panel components	1
3.3	Enter the evaporator tube assembly	1	40	Handle	4
4	Evaporator tube assembly output connector	1	41	Chassis Parts	1
5	Evaporator input connection pipe ass'y	1	42	I welding pieces of the motor bracket	1
5.1	Strainer	1	43	Right anterior column II	1
5.2	One way valve	1	44	II welding pieces of the motor bracket	1
6	Suction pipe ass'y	1	45	Middle panel components	1
6.1	Form fitting assemblies	1	46	Motor bracket sliding board assembly	2
6.2	Pressure controller	1	47	Motor	1
7	Discharge pipe ass'y	1	48	Components of the left anterior column II	1
7.1	Form fitting assemblies	1	49	Wheel	1
7.2	Pressure controller	1	50	Sleeve	1
8	Condenser tube assembly output connector	1	51	Wheel	1
9	Partition board ass'y	1	52	Sleeve	1
10	Condenser components	1	53	II components inside the panel	1
10.1	Condenser	1	54	Belt	1
10.2	Input tube condenser components	1	55	Supporting board ass'y	1
10.3	Output tube condenser components	1	56	Fan	1
10.4	Over the condenser cooling tubes	1	57	Side air deflector	1
11	Outside the top cover plate welding parts	1	58	Pipe clamp B	2
12	Grille	1	59	Circuit board assembly duct	1
13	Deflector	1	60	Then water board assembly inside	1
14	Motor	1	61	Water tray components	1
15	Fan blade	1	62	I component left column	1
16	Thermoelectric power auxiliary control board assembly lid	1	63	Components inside the panel I	1
17	Right after the column II	1	64	Air Filter	1

18	Motor fixed holder	1	65	Air Filter	1
19	I component supply air flange	1	66	Water tray support components	1
20	Components of the left rear column II	1	67	Components of the left rear column I	1
21	Side of the outlet cover assembly	1	68	Cover plate ass'y	1
22	Insulation board	1	69	Return air flange II	1
23	Supply air flange II	1	70	Side of the return air cover components	1
24	Fence II	1	71	I return air flange components	1
25	Right after the column I	1	72	Filter fixed support	1
26	I fence	1	73	Components under the seal plate evaporator	1
27	Compressor	1	74	IV evaporator components fixed support	1
28	Press plate assy	1	75	III evaporator components fixed support	1
29	Electronic control box support plate	1	76	I support the evaporator component of fixed	1
30	Pipe support plate	1	77	Evaporator components fixed support II	1
31	Welding pieces of the right anterior column I	1	78	Wire controller	1
32	Peccadillo coacervation	2	79	Temp sensor ass'y	1
33	Winding	2	80	Coil temp sensor ass'y	1
34	Welding together pieces of the compressor base	1	81	room temp sensor ass'y	1
35	Rooftop electrical parts	1	82	Wire	1
35.1	Welding together pieces of electronic control box	1	83	Compressor wire joint ass'y	1
35.2	Outdoor main board ass'y	1	84	E-Part box cover	1
35.3	Contactator	2	85	E-part box ass'y	1
35.4	AC contactor	1	85.1	E-part box	1
35.6	24V AC transformer	1	85.2	Contactator	2
35.7	Wire joint	1	85.3	Wire joint	1
35.8	Wire joint	1	85.4	Wire joint	1
35.9	Transformer	1	86	Electric heater ass'y	1

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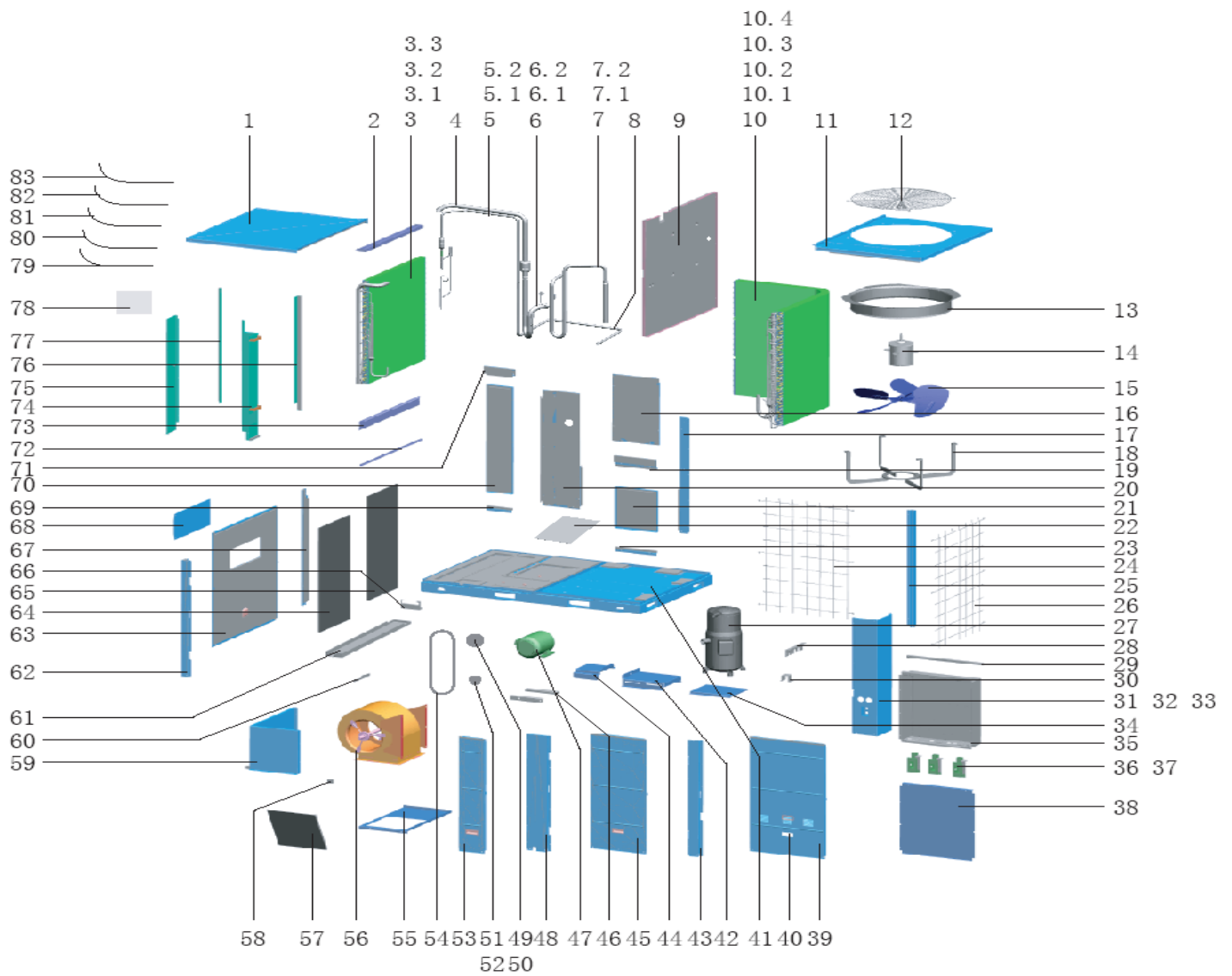
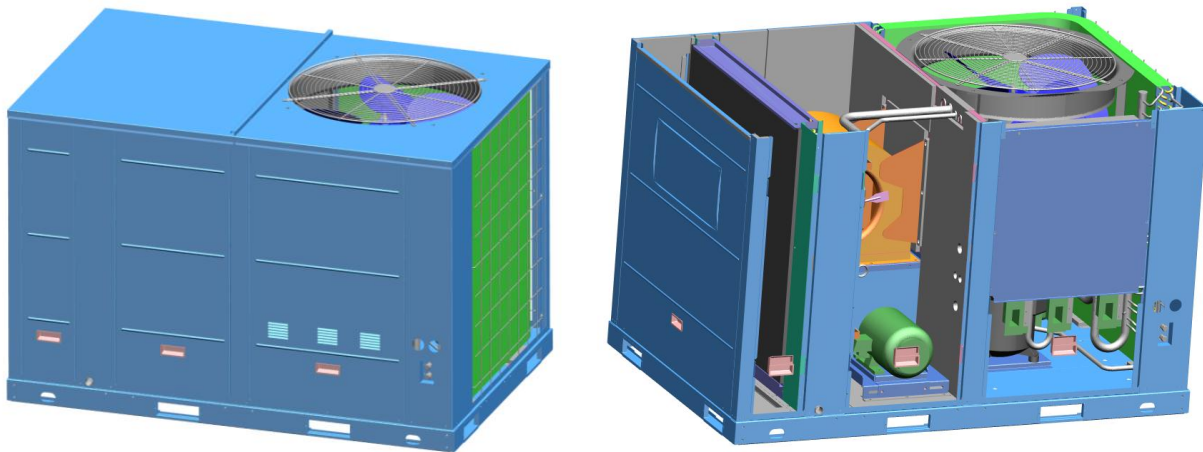


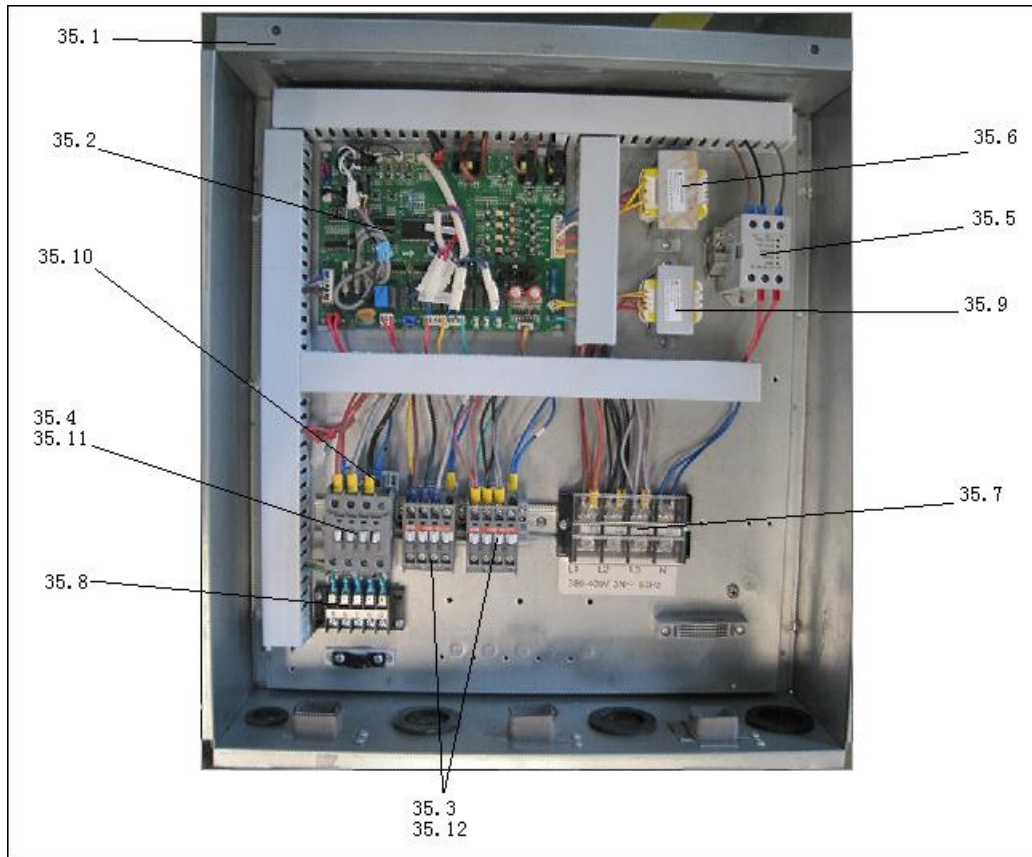
No.	Part Name	Qty	No.	Part Name	Qty
1	Components inside the top cover	1	37.4	Transformer	1
2	Components on the seal plate evaporator	1	37.6	Wire joint	1
3	Evaporator parts	1	37.7	Wire joint	1
3.1	Evaporator	1	37.8	AC contactor	1
3.2	Evaporator tube assembly output	1	37.9	Surge suppresser	3
3.3	Enter the evaporator tube assembly	1	37.10	Contactor	2
4	Evaporator tube assembly output connector	1	37.11	Wire joint	1
5	Evaporator input connection pipe ass'y	1	38	Duct	3
5.1	Strainer	1	39	Fixing board	3
5.2	One way valve	1	40	Electronic control box cover plate	1
6	Components of the compressor back to the trachea	1	41	Lateral panel components	1
6.1	Pressure controller	1	42	Handle	4
6.2	Form fitting assemblies	1	43	Chassis Parts	1
7	Four-way valve parts	1	44	I welding pieces of the motor bracket	1
7.1	4-Ways valve solenoid	1	45	Right anterior column II	1
7.2	Four-way valve assembly	1	46	II welding pieces of the motor bracket	1
7.2.1	4-way valve	1	47	Middle panel components	1
7.2.2	Pressure controller	1	48	Motor bracket sliding board assembly	2
7.2.3	Form fitting assemblies	1	49	Motor	1
8	Condenser tube assembly output connector	1	50	Components of the left anterior column II	1

9	Outside the partition component	1	51	Wheel	1
10	Condenser components	1	52	Sleeve	1
10.1	Condenser	1	53	Wheel	1
10.2	Input tube condenser components	1	54	Sleeve	1
10.3	Output tube condenser components	1	55	II components inside the panel	1
10.4	Over the condenser cooling tubes	1	56	Belt	1
11	Outside the top cover plate welding parts	1	57	Pieces of fan support plate welding	1
12	Grille	1	58	Fan	1
13	Deflector	1	59	Side air deflector	1
14	Motor	1	60	Pipe clamp B	2
15	Fan blade	1	61	Circuit board assembly duct	1
16	Thermoelectric power auxiliary control board assembly lid	1	62	Then water board assembly inside	1
17	Right after the column II	1	63	Water tray components	1
18	Motor fixed holder	1	64	I component left column	1
19	I component supply air flange	1	65	Components inside the panel I	1
20	Components of the left rear column II	1	66	Air Filter	1
21	Side of the outlet cover assembly	1	67	Air Filter	1
22	Gas-liquid separator	1	68	Water tray support components	1
23	Supply air flange II	1	69	Components of the left rear column I	1
24	Fence II	1	70	Cover plate ass'y	1
25	Right after the column I	1	71	Return air flange II	1
26	I fence	1	72	Side of the return air cover components	1
27	Compressor	1	73	I return air flange components	1
28	Electrical heating belt compression	1	74	Filter fixed support	1
29	Press plate assy	1	75	Components under the seal plate evaporator	1
30	Electronic control box support plate	1	76	IV evaporator components fixed support	1
31	Pipe support plate	1	77	III evaporator components fixed support	1
33	Welding pieces of the right anterior column I	1	78	I support the evaporator component of fixed	1
34	Peccadillo coacervation	2	79	Evaporator components fixed support II	1
35	Winding	2	80	Wire controller	1
36	Welding together pieces of the compressor base	1	81	Temp sensor ass'y	1
37	Rooftop electrical box parts	1	82	Coil temp sensor ass'y	1
37.1	Welding together pieces of electronic control box	1	83	room temp sensor ass'y	1
37.2	Outdoor main board ass'y	1	84	Wire	1
37.3	24V AC transformer	1	85	Compressor wire joint ass'y	1

10.3 7.5ton

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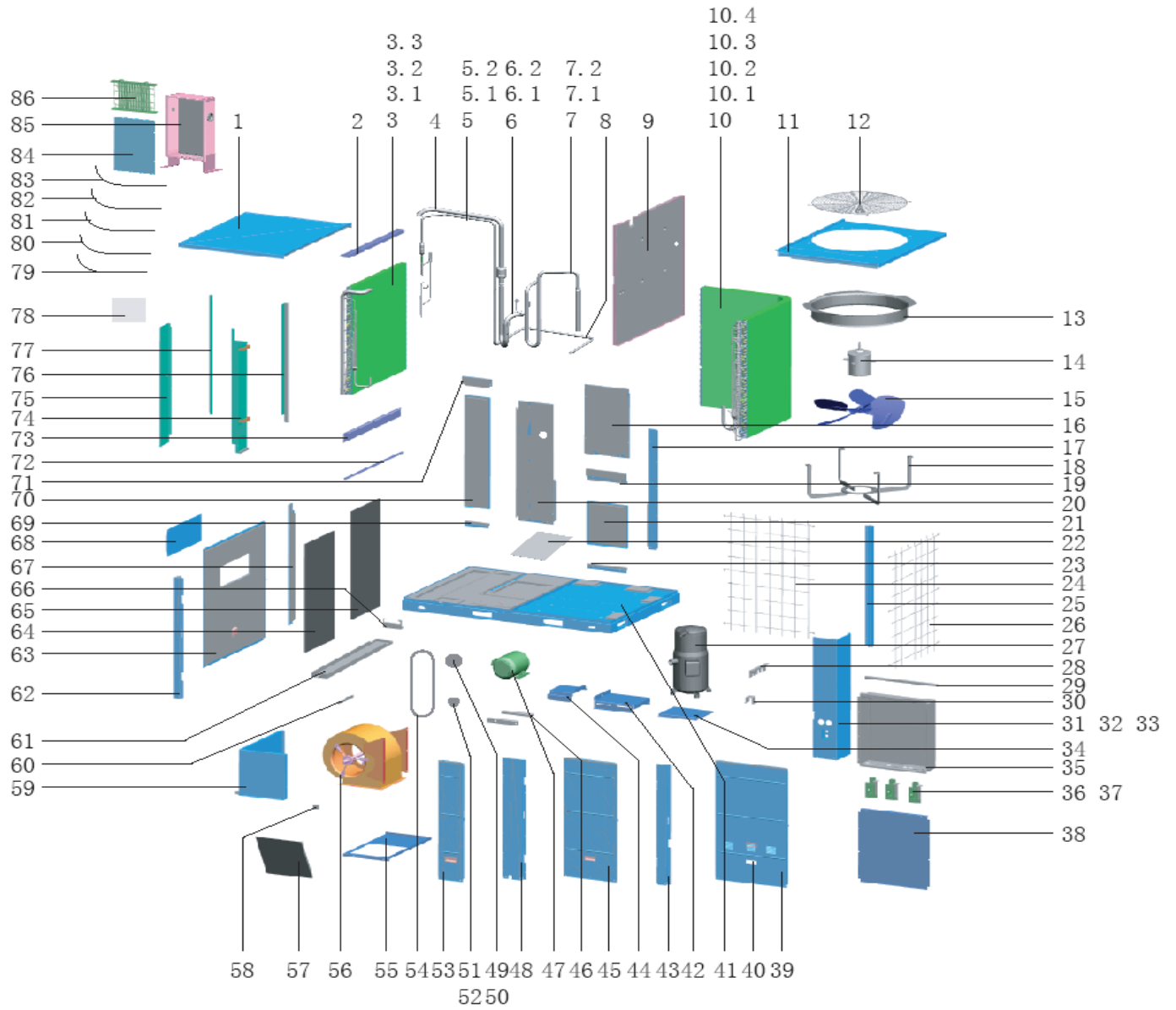


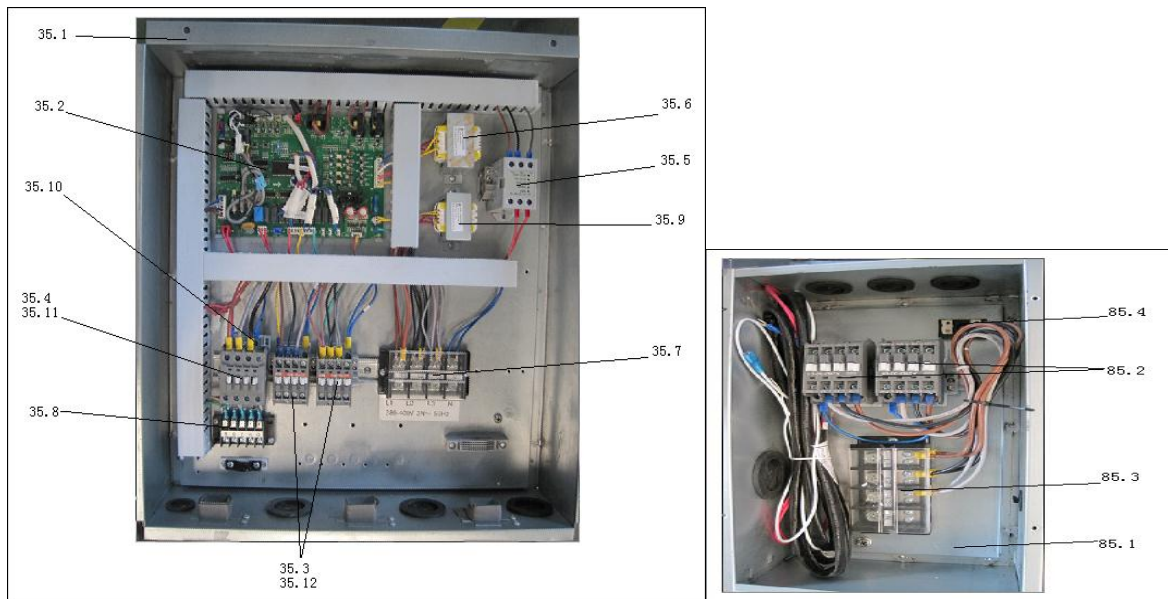


No.	Part Name	Qty	No.	Part Name	Qty
1	Components inside the top cover	1	35.7	Wire joint	1
2	Components on the seal plate evaporator	1	35.8	Wire joint	1
3	Evaporator parts	1	35.10	Surge suppresser	3
3.1	Evaporator	1	35.11	Press contacts cable group	1
3.2	Evaporator tube assembly output	1	35.12	Cable within the fan contactor group	1
3.3	Enter the evaporator tube assembly	1	36	Duct	3
4	Evaporator tube assembly output connector	1	37	Fixing board	3
5	Evaporator tube assembly input connections	1	38	Electronic control box cover plate	1
5.1	Strainer	1	39	Lateral panel components	1
5.2	Unloading valve	1	40	Handle	4
6	Suction pipe ass'y	1	41	Chassis Parts	1
6.1	Form fitting assemblies	1	42	I welding pieces of the motor bracket	1
6.2	Pressure controller	1	43	Right anterior column II	1
7	Discharge pipe ass'y	1	44	II welding pieces of the motor bracket	1
7.1	Form fitting assemblies	1	45	Middle panel components	1
7.2	Pressure controller	1	46	Motor bracket sliding board assembly	2
8	Condenser tube assembly output connector	1	47	Motor	1
9	Partition board ass'y	1	48	Components of the left anterior column II	1
10	Condenser components	1	49	Wheel	1
10.1	Condenser	1	50	Sleeve	1
10.2	Input tube condenser components	1	51	Wheel	1
10.3	Output tube condenser components	1	52	Sleeve	1
10.4	Over the condenser cooling tubes	1	53	II components inside the panel	1
11	Outside the top cover plate welding parts	1	54	Belt	1

12	Grille	1	55	Supporting board ass'y	1
13	Deflector	1	56	Fan	1
14	Motor	1	57	Side air deflector	1
15	Fan blade	1	58	Pipe clamp B	2
16	Thermoelectric power auxiliary control board assembly lid	1	59	Circuit board assembly duct	1
17	Right after the column II	1	60	Then water board assembly inside	1
18	Motor fixed holder	1	61	Water tray components	1
19	I component supply air flange	1	62	I component left column	1
20	Components of the left rear column II	1	63	Components inside the panel I	1
21	Side of the outlet cover assembly	1	64	Air Filter	1
22	Insulation board	1	65	Air Filter	1
23	Supply air flange II	1	66	Water tray support components	1
24	Fence II	1	67	Components of the left rear column I	1
25	Right after the column I	1	68	Cover plate ass'y	1
26	I fence	1	69	Return air flange II	1
27	Compressor	1	70	Side of the return air cover components	1
28	Press plate assy	1	71	I return air flange components	1
29	Electronic control box support plate	1	72	Filter fixed support	1
30	Pipe support plate	1	73	Components under the seal plate evaporator	1
31	Welding pieces of the right anterior column I	1	74	IV evaporator components fixed support	1
32	Peccadillo coacervation	2	75	III evaporator components fixed support	1
33	Winding	2	76	I support the evaporator component of fixed	1
34	Welding together pieces of the compressor base	1	77	Evaporator components fixed support II	1
35	Electrical control box parts roof	1	78	Wire controller	1
35.1	Welding together pieces of electronic control box	1	79	Temp sensor ass'y	1
35.2	Outdoor control board assembly	1	80	Coil temp sensor ass'y	1
35.3	Contactora	2	81	room temp sensor ass'y	1
35.4	AC contactora	1	82	Wire	1
35.5	Transformer	1	83	Compressor wire joint ass'y	1
35.6	24V AC transformer	1			

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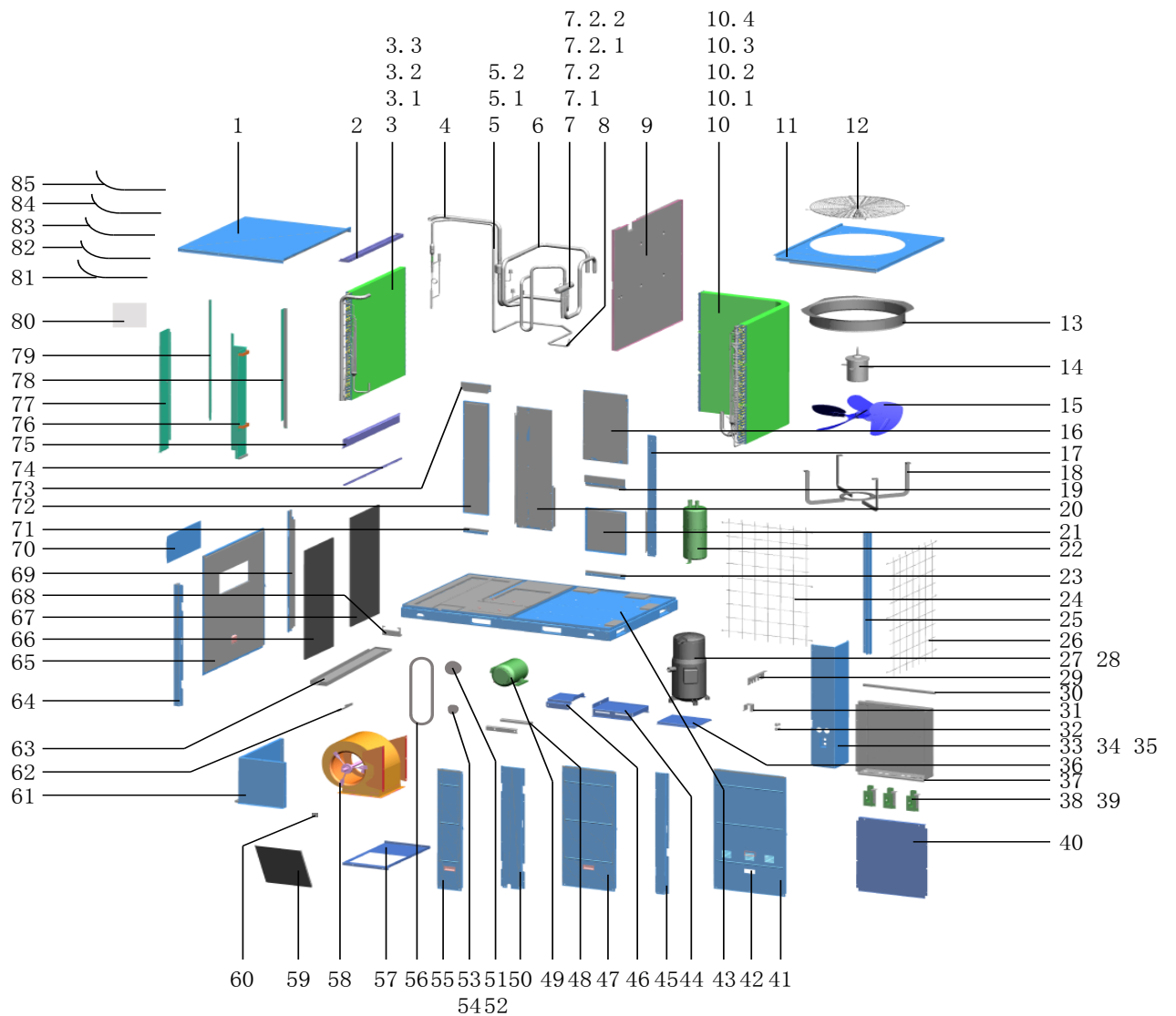
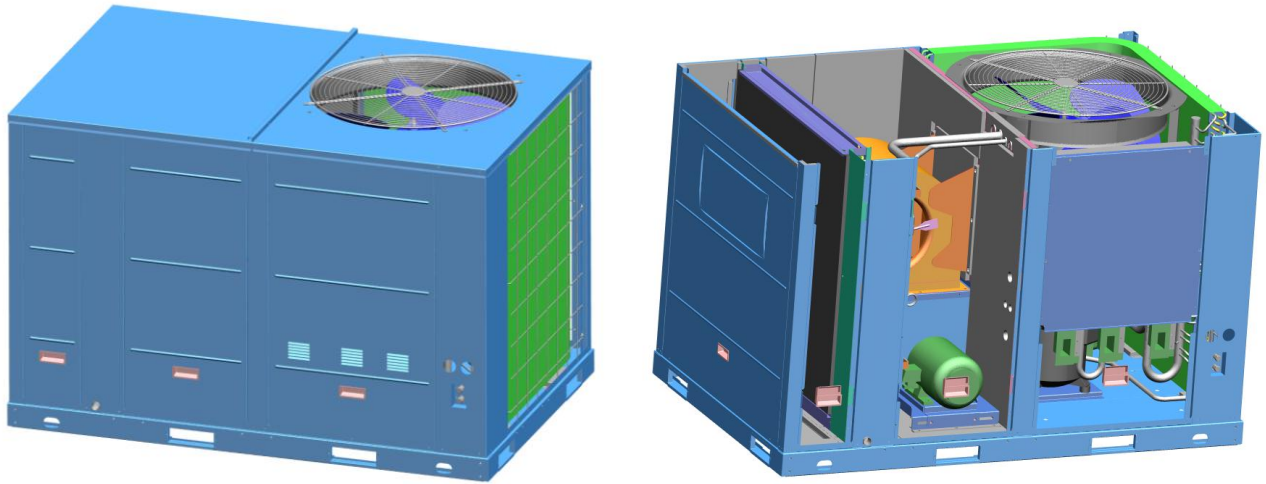




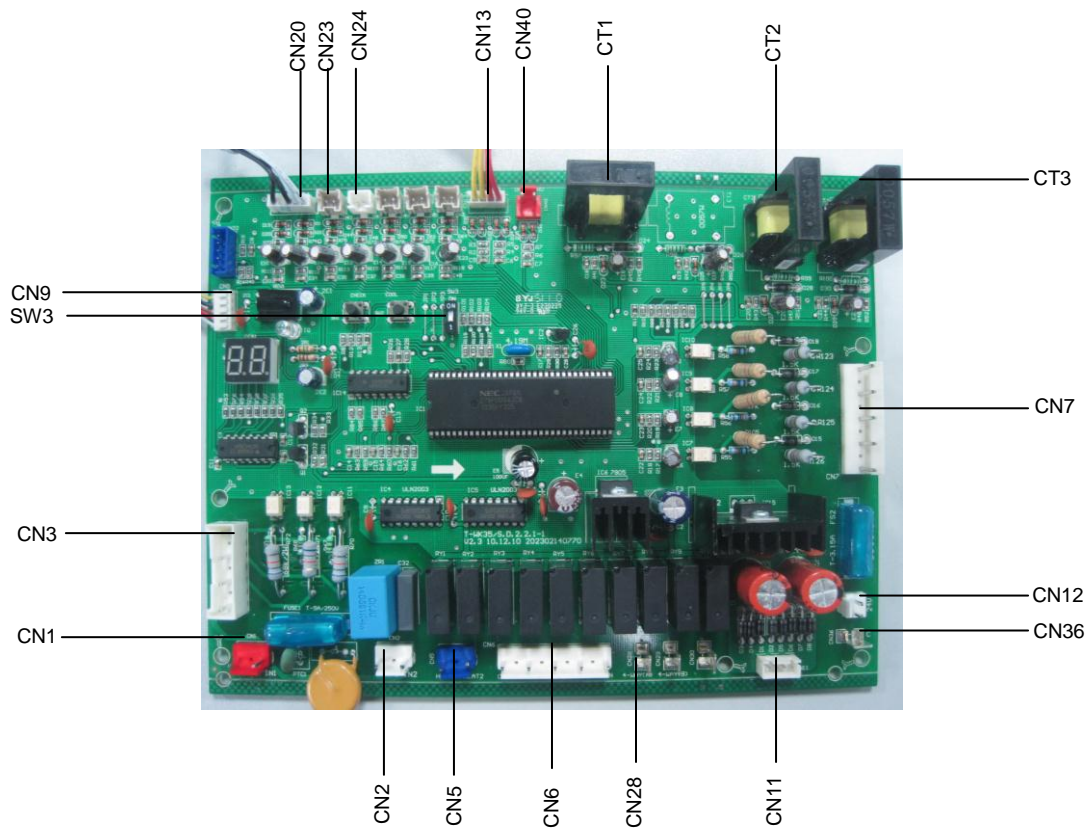
No.	Part Name	Qty	No.	Part Name	Qty
1	Components inside the top cover	1	35.11	Press contacts cable group	1
2	Components on the seal plate evaporator	1	35.12	Cable within the fan contactor group	1
3	Evaporator parts	1	36	Duct	3
3.1	Evaporator	1	37	Fixing board	3
3.2	Evaporator tube assembly output	1	38	Electronic control box cover plate	1
3.3	Enter the evaporator tube assembly	1	39	Lateral panel components	1
4	Evaporator tube assembly output connector	1	40	Handle	4
5	Evaporator tube assembly input connections	1	41	Chassis Parts	1
5.1	Strainer	1	42	I welding pieces of the motor bracket	1
5.2	Unloading valve	1	43	Right anterior column II	1
6	Suction pipe ass'y	1	44	II welding pieces of the motor bracket	1
6.1	Form fitting assemblies	1	45	Middle panel components	1
6.2	Pressure controller	1	46	Motor bracket sliding board assembly	2
7	Discharge pipe ass'y	1	47	Motor	1
7.1	Form fitting assemblies	1	48	Components of the left anterior column II	1
7.2	Pressure controller	1	49	Wheel	1
8	Condenser tube assembly output connector	1	50	Sleeve	1
9	Partition board ass'y	1	51	Wheel	1
10	Condenser components	1	52	Sleeve	1
10.1	Condenser	1	53	II components inside the panel	1
10.2	Input tube condenser components	1	54	Belt	1
10.3	Output tube condenser components	1	55	Supporting board ass'y	1
10.4	Over the condenser cooling tubes	1	56	Fan	1
11	Outside the top cover plate welding parts	1	57	Side air deflector	1
12	Grille	1	58	Pipe clamp B	2
13	Deflector	1	59	Circuit board assembly duct	1
14	Motor	1	60	Then water board assembly inside	1
15	Fan blade	1	61	Water tray components	1
16	Thermoelectric power auxiliary control board assembly lid	1	62	I component left column	1
17	Right after the column II	1	63	Components inside the panel I	1

18	Motor fixed holder	1	64	Air Filter	1
19	I component supply air flange	1	65	Air Filter	1
20	Components of the left rear column II	1	66	Water tray support components	1
21	Side of the outlet cover assembly	1	67	Components of the left rear column I	1
22	Insulation board	1	68	Cover plate ass'y	1
23	Supply air flange II	1	69	Return air flange II	1
24	Fence II	1	70	Side of the return air cover components	1
25	Right after the column I	1	71	I return air flange components	1
26	I fence	1	72	Filter fixed support	1
27	Compressor	1	73	Components under the seal plate evaporator	1
28	Press plate ass'y	1	74	IV evaporator components fixed support	1
29	Electronic control box support plate	1	75	III evaporator components fixed support	1
30	Pipe support plate	1	76	I support the evaporator component of fixed	1
31	Welding pieces of the right anterior column I	1	77	Evaporator components fixed support II	1
32	Peccadillo coacervation	2	78	Wire controller	1
33	Winding	2	79	Temp sensor ass'y	1
34	Welding together pieces of the compressor base	1	80	Coil temp sensor ass'y	1
35	E-part box ass'y	1	81	room temp sensor ass'y	1
35.1	Welding together pieces of electronic control box	1	82	Wire	1
35.2	Outdoor control board assembly	1	83	Compressor wire joint ass'y	1
35.3	Contactora	2	84	E-Part box cover	1
35.4	AC contactora	1	85	E-part box ass'y	1
35.6	24V AC transformer	1	85.1	E-part box	1
35.7	Wire joint	1	85.2	Contactora	2
35.8	Wire joint	1	85.3	Wire joint	1
35.9	Transformer	1	85.4	Wire joint	1
35.10	Surge suppresser	3	86	Electric heater ass'y	1

MRBT-075HWN1-R



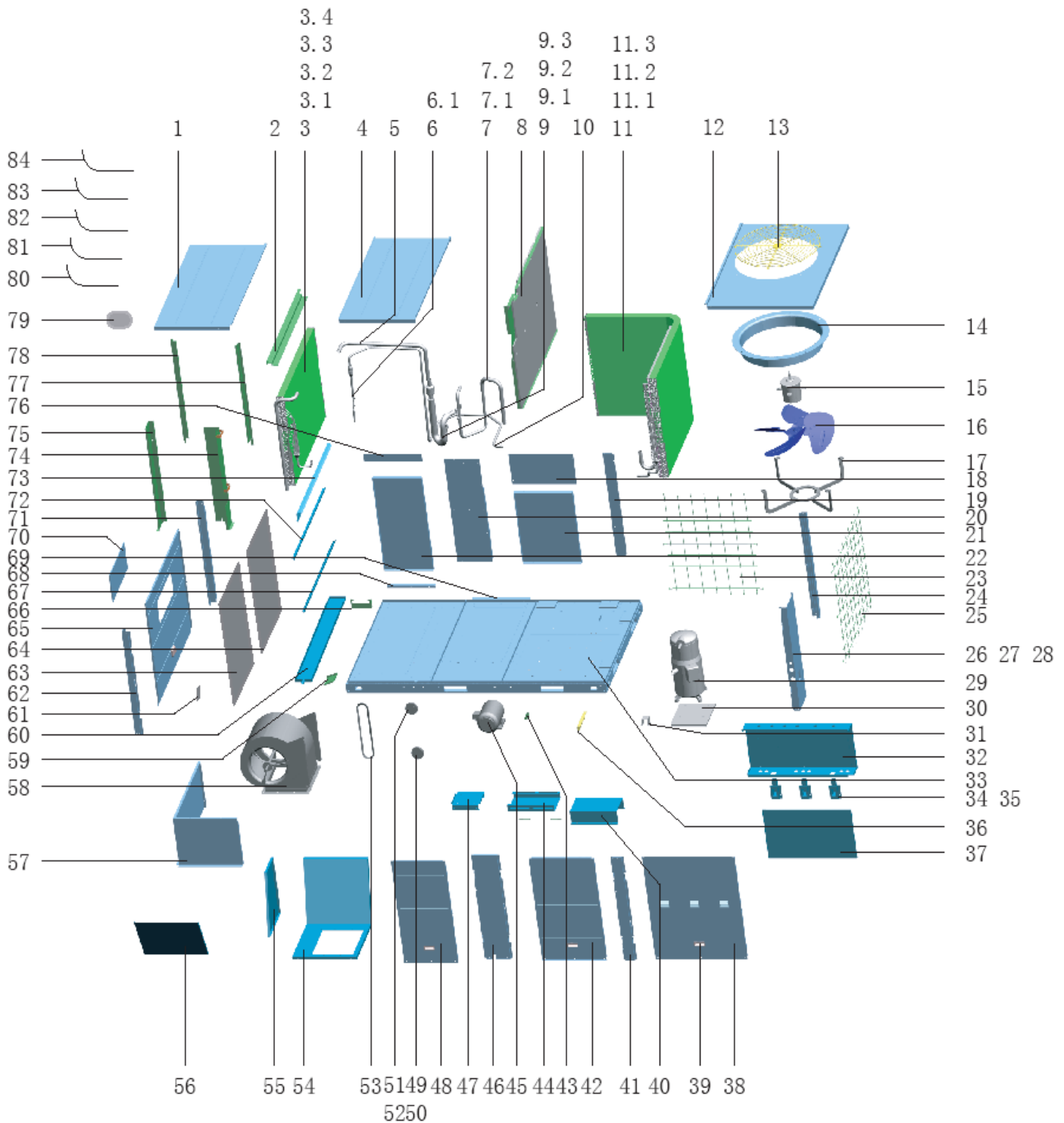
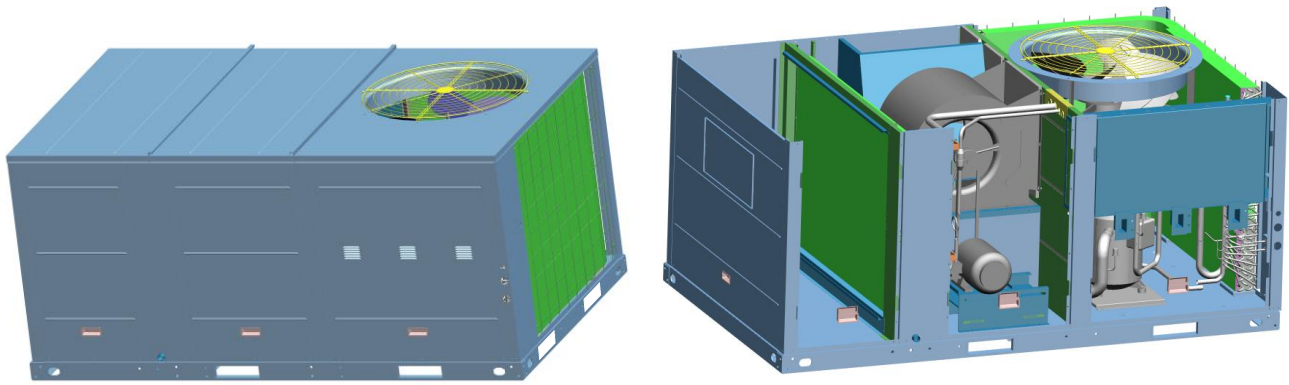
10.4	Over the condenser cooling tubes	1	53	Wheel	1
11	Outside the top cover plate welding parts	1	54	Sleeve	1
12	Grille	1	55	II components inside the panel	1
13	Deflector	1	56	Belt	1
14	Motor	1	57	Pieces of fan support plate welding	1
15	Fan blade	1	58	Fan	1
16	Thermoelectric power auxiliary control board assembly lid	1	59	Side air deflector	1
17	After the assembly the right column II	1	60	Pipe clamp B	2
18	Motor fixed holder	1	61	Circuit board assembly duct	1
19	I component supply air flange	1	62	Then water board assembly inside	1
20	Components of the left rear column II	1	63	Water tray components	1
21	Side of the outlet cover assembly	1	64	I component left column	1
22	Gas-liquid separator	1	65	Components inside the panel I	1
23	Air component flange II	1	66	Air Filter	1
24	Fence II	1	67	Air Filter	1
25	Right after the column I	1	68	Water tray support components	1
26	I fence	1	69	Components of the left rear column I	1
27	Compressor	1	70	Cover plate ass'y	1
28	Compressor electric heater	1	71	II components return air flange	1
29	Press plate assy	1	72	Side of the return air cover components	1
30	Electronic control box support plate	1	73	I return air flange components	1
31	Pipe support plate	1	74	Filter fixed support	1
32	Form fitting assemblies	2	75	Components under the seal plate evaporator	1
33	Welding pieces of the right anterior column I	1	76	IV evaporator components fixed support	1
34	Peccadillo coacervation	2	77	III evaporator components fixed support	1
35	Winding	2	78	I support the evaporator component of fixed	1
36	Welding together pieces of the compressor base	1	79	Evaporator components fixed support II	1
37	Electrical control box parts roof	1	80	Wire controller	1
37.1	24V AC transformer	1	81	Temp sensor ass'y	1
37.3	Transformer	1	82	Coil temp sensor ass'y	1
37.4	Cable within the fan contactor group	1	83	room temp sensor ass'y	1
37.5	Wire joint	1	84	Wire	1
37.6	Contactor	2	85	Compressor wire joint ass'y	1

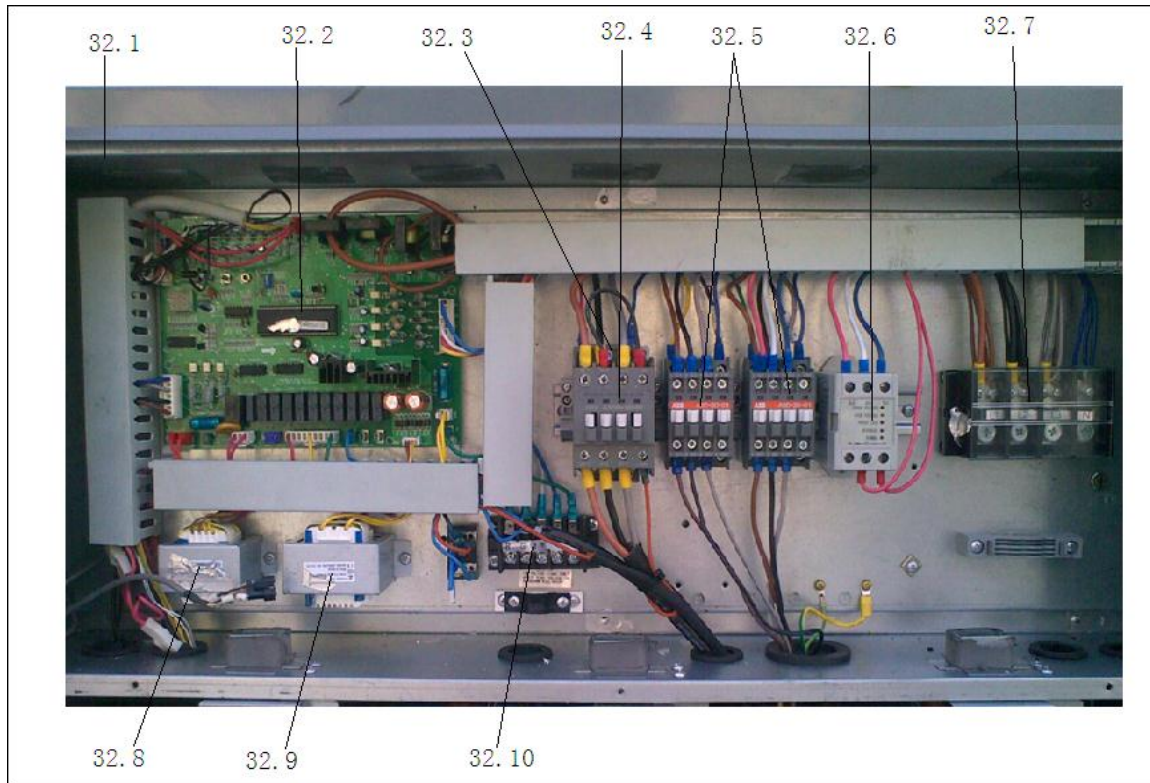


CODE	TITLE	CODE	TITLE	CODE	TITLE
CN1	Transformer	CN12	Transformer	CN24	Indoor pipe temp. sensor
CN2	Transformer	CN7	To the wire controller	CN23	Indoor room temp. sensor
CN5	Electric heater	CT3	Current indicator	CN20	Pipe temp. sensor of unit A/B Outdoor temp. sensor
CN6	Compressor, outdoor & indoor fan motor power supply	CT2	Current indicator	CN9	To be connected wired controller KJR-12B
CN28	4-way terminal (A)	CT1	Current indicator	SW3	Wired controller set up switch
CN11	Transformer	CN40	Outdoor fan protection switch	CN3	Power supply
CN36	To the wired controller	CN13	High & low pressure switch Temp protection switch		

10.4 8.5ton

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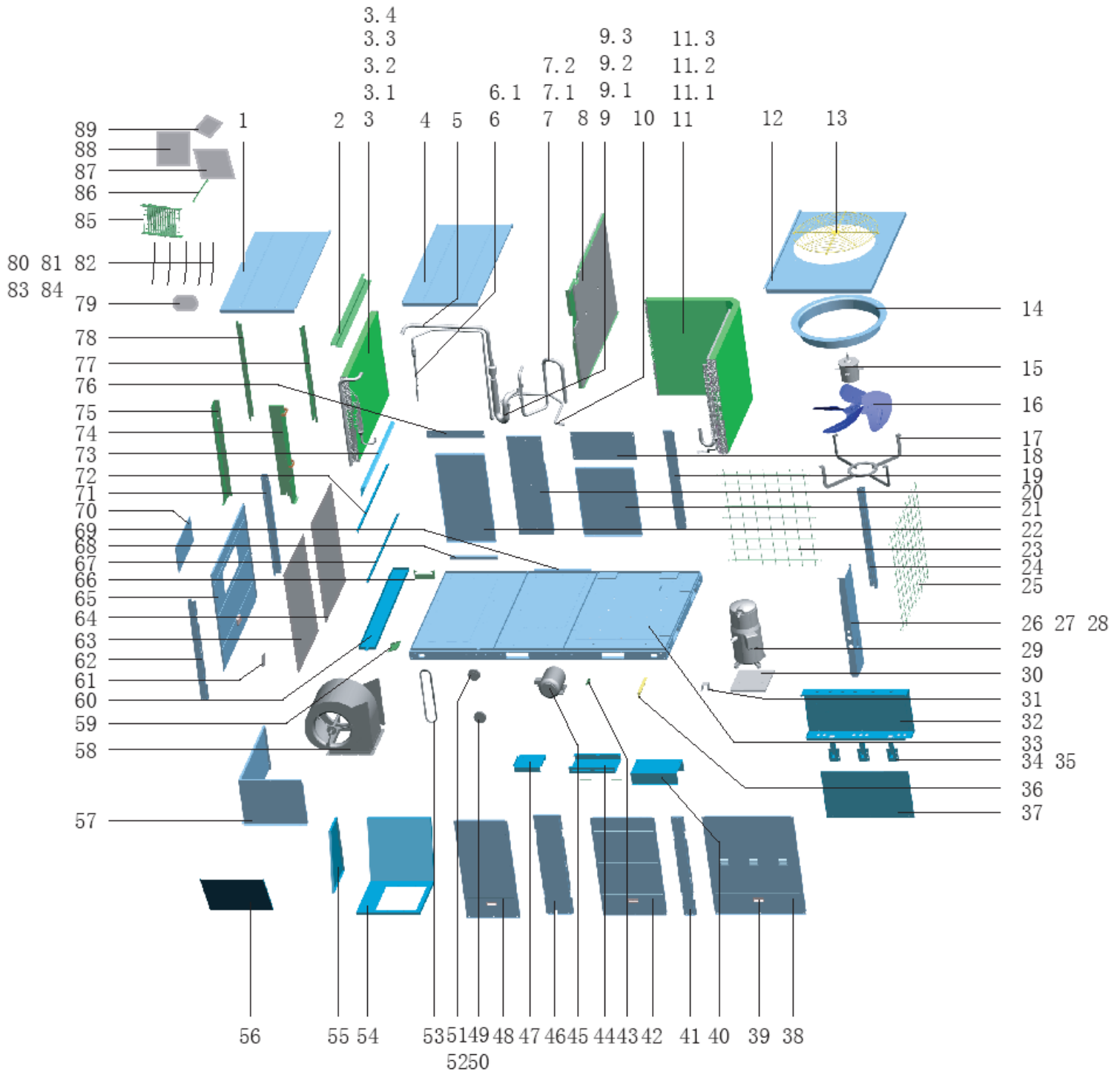
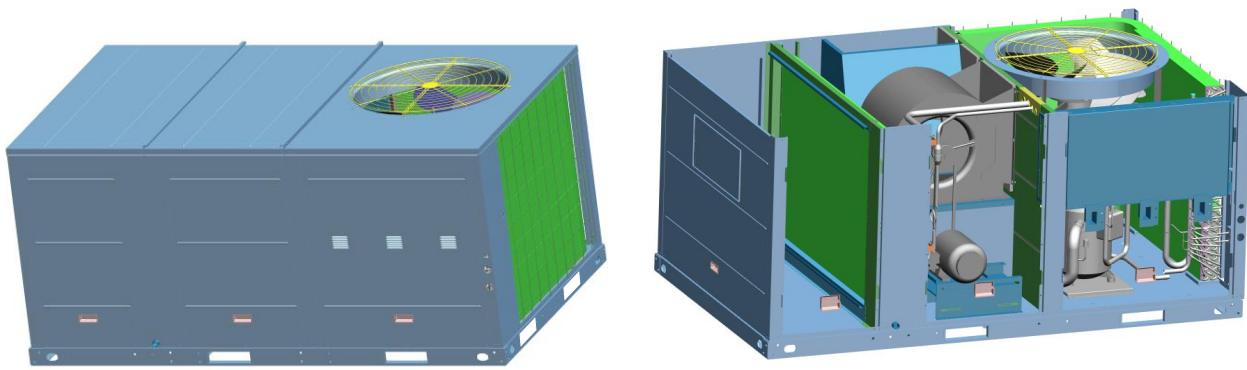
No.	Part Name	Qty	No.	Part Name	Qty
1	Top Cover plate ass'y	1	32.10	Wire joint	1
2	Evaporator seal board ass'y	1	33	Chassis components	1
3	Evaporator parts	1	34	Duct	3
3.1	Evaporator	1	35	Fixing board	3
3.2	Evaporator tube assembly output	1	36	Press plate assy	1
3.3	Enter the evaporator tube assembly	1	37	E-Part box cover	1
3.4	Y-Tee	1	38	Panel ass'y	1
4	Top cover ass'y	1	39	Handle	4
5	Evaporator tube assembly output connector	1	40	Motor bracket boarding	1
6	Evaporator input connetion pipe ass'y	1	41	Front right upright pole boarding	1
6.1	One way valve	1	42	Panel ass'y	1
7	Discharge pipe ass'y	1	43	Pipe clamp B	2
7.1	Pressure controller	1	44	Motor bracket	1
7.2	Form fitting assemblies	1	45	Motor	1
8	Outer baffle assembly	1	46	Rear left upright pole ass'y	1
9	Suction pipe ass'y	1	47	Motor holder	1
9.1	Pressure controller	1	48	Panel ass'y	1
9.2	Strainer	1	49	Wheel	1
9.3	Form fitting assemblies	1	50	Sleeve	1
10	Condenser tube assembly output connector	1	51	Wheel	1
11	Condenser parts	1	52	Sleeve	1
11.1	Condenser	1	53	Belt	1
11.2	Output tube condenser components	1	54	Supporting board	1
11.3	Input tube condenser components	1	55	Partition board ass'y	1
12	Outside the top cover plate welding parts	1	56	Guider board	1
13	Grille	1	57	Partition board ass'y	1

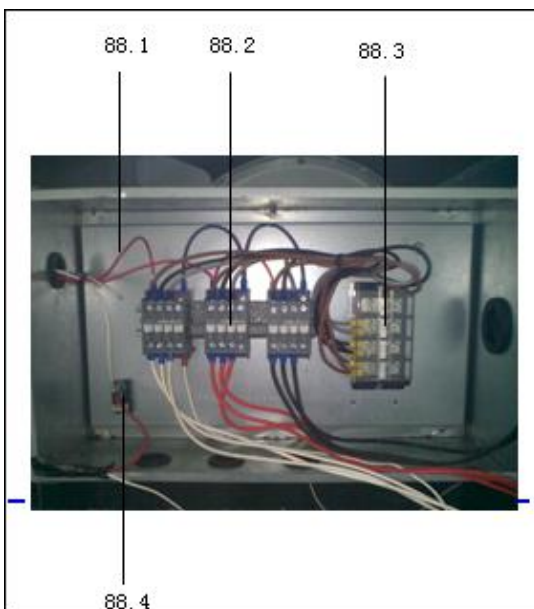
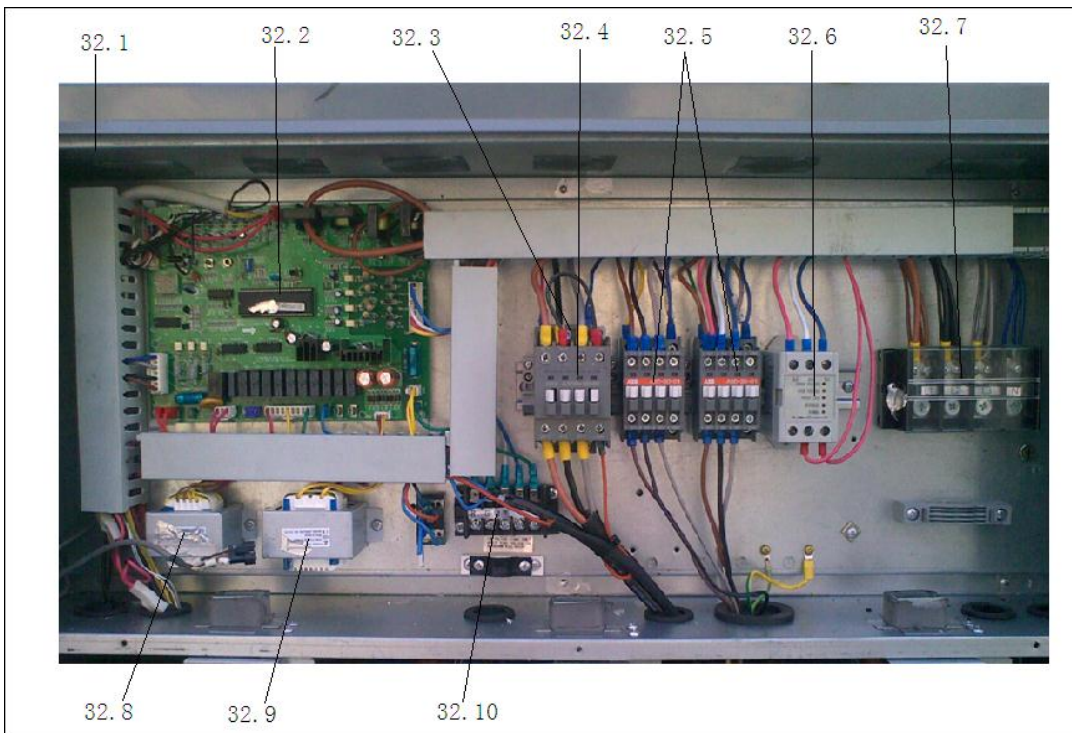
MCAC-RTSM-2014-06

R410A Tropical Rooftop Package Unit 50Hz

14	Deflector	1	58	Fan	1
15	Motor	1	59	Water collector	1
16	Fan	1	60	Drainage pan ass'y	1
17	Motor bracket	1	61	Fixed supporting	1
18	Supply air flange I ass'y	1	62	Rear left upright pole ass'y	1
19	Rear-right supporter	1	63	Air filter	1
20	Rear left upright pole ass'y	1	64	Air filter	1
21	Supply air cover plate ass'y	1	65	Panel ass'y	1
22	Return air cover plate ass'y	1	66	Supporting ass'y	1
23	Protection Net	1	67	Fixed supporting	1
24	Rear-right supporter	1	68	Return air flange	1
25	Protection Net	1	69	Supply air flange	1
26	Welding pieces of the right anterior column I	1	70	Cover plate ass'y	1
27	Peccadillo coacervation	2	71	Rear left upright pole ass'y	1
28	Winding	2	72	Fixed supporting	1
29	Compresor	1	73	Evaporator seal board ass'y	1
30	Welding together pieces of the compressor base	1	74	Evaporator holder	1
31	Pipe support plate	1	75	Evaporator holder	1
32	Rooftop electrical box parts	1	76	Return air flange I ass'y	1
32.1	Welding together pieces of electronic control box	1	77	Evaporator holder ass'y	1
32.2	Outdoor main board ass'y	1	78	Evaporator holder	1
32.3	Surge suppresser	3	79	Wire controller	1
32.4	AC contactor	1	80	Temp sensor ass'y	1
32.5	Contactor	2	81	Coil temp sensor ass'y	1
32.7	Wire joint	1	82	room temp sensor ass'y	1
32.8	Transformer	1	83	Wire	1
32.9	24V AC transformer	1	84	Compressor wire joint ass'y	1

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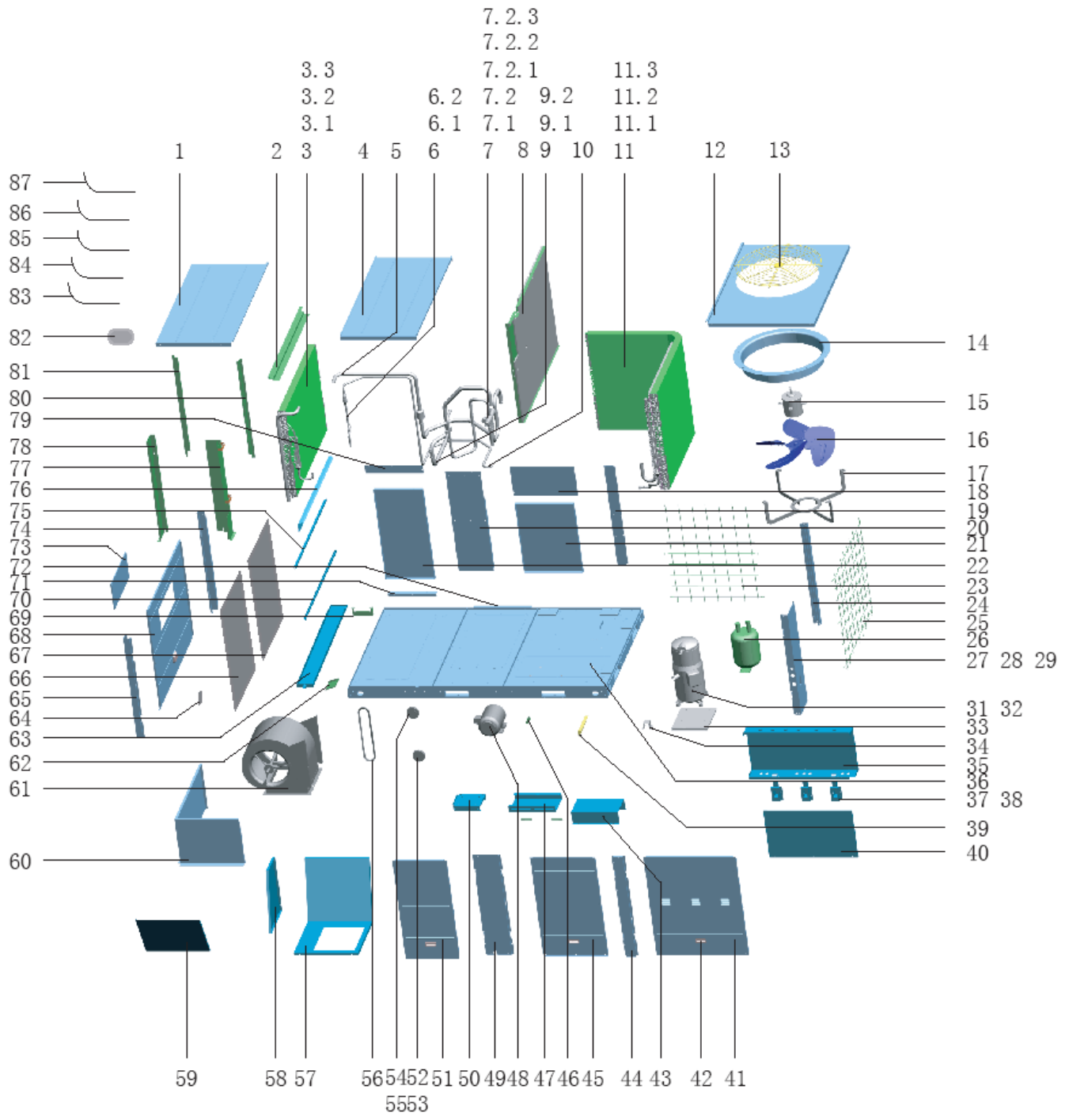
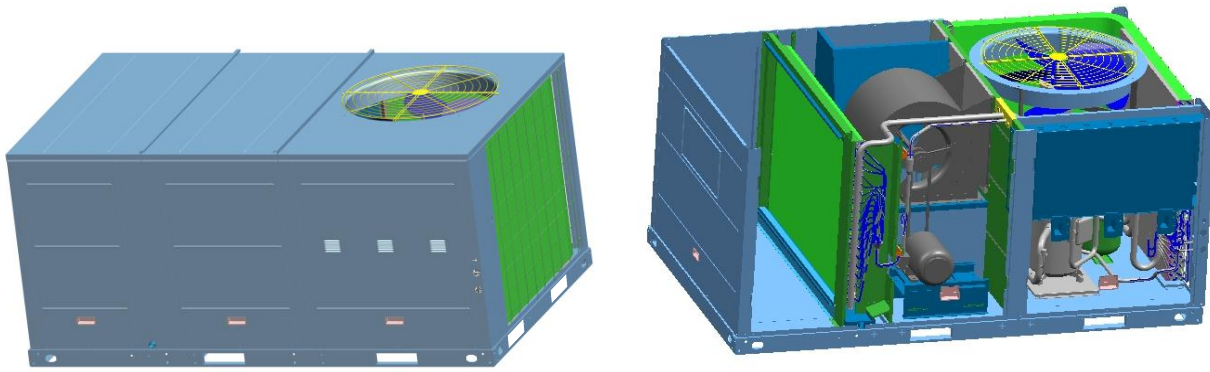


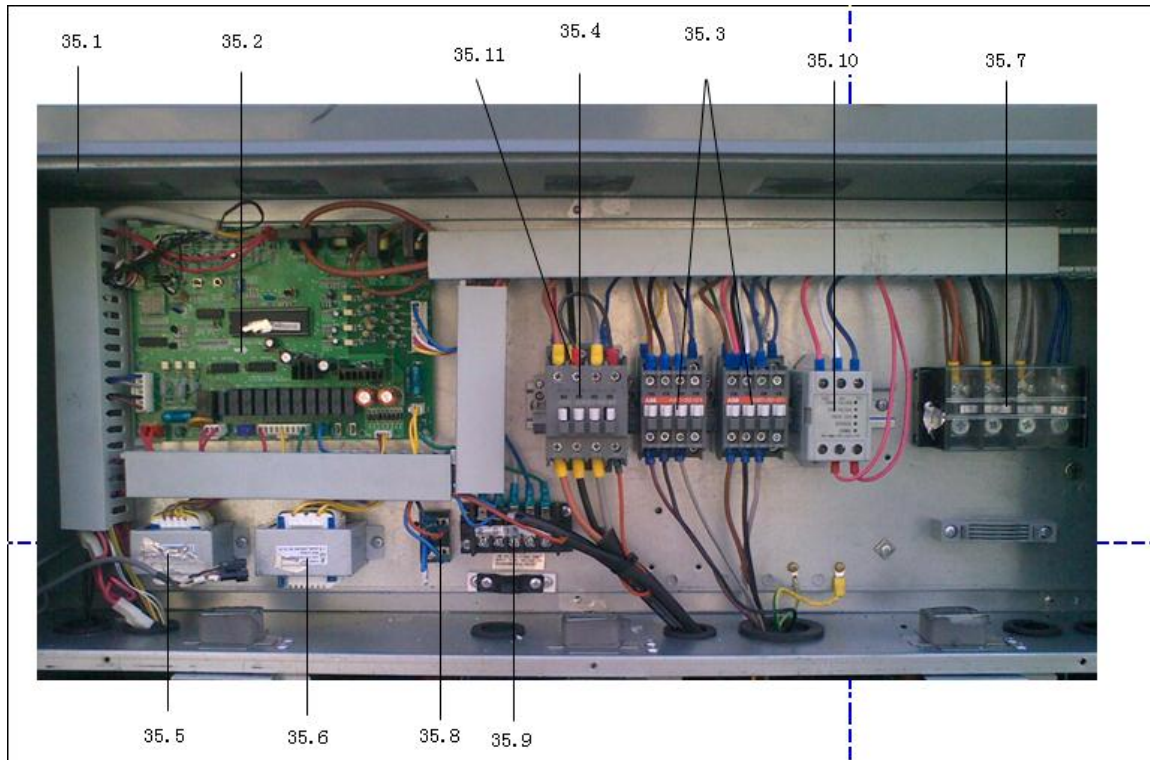


No.	Part Name	Qty	BOM code	No.	Part Name	Qty	BOM code
1	Top cover plate ass'y	1	201296590126	36	Press plate assy	1	201296490084
2	Evaporator seal board ass'y	1	201296290062	37	E-Part box cover	1	201296590100
3	Evaporator parts	1	201596290009	38	Panel ass'y	1	201296590076
3.1	Evaporator	1	201596290005	39	Handle	4	201148700003
3.2	Evaporator tube assembly output	1	201696290212	40	Motor bracket boarding	1	201296590064
3.3	Enter the evaporator tube assembly	1	201696290217	41	Front right upright pole boarding	1	201296590062
3.4	Y-Tee	1	201600500165	42	Panel ass'y	1	201296590072
4	Top cover ass'y	1	201296590124	43	Pipe clamp B	2	201286900515
5	Evaporator tube assembly output connector	1	201696290189	44	Motor bracket	1	201296590044
6	Evaporator input connetion pipe ass'y	1	201696290265	45	Motor	1	202400460005
6.1	One way valve	1	201600800042	46	Rear left upright pole ass'y	1	201296590047
7	Discharge pipe ass'y	1	201696290256	47	Motor holder	1	201296590066
7.1	Pressure controller	1	202301820041	48	Panel ass'y	1	201296590070
7.2	Form fitting assemblies	1	201696490506	49	Wheel	1	202900100220
8	Outer baffle assembly	1	201296290157	50	Sleeve	1	202900200010
9	Suction pipe ass'y	1	201696290254	51	Wheel	1	202900101012
9.1	Pressure controller	1	202301820021	52	Sleeve	1	202900200002
9.2	Strainer	1	201600900101	53	Belt	1	202701000216
9.3	Form fitting assemblies	1	201696490506	54	Supporting board	1	201296290016
10	Condenser tube assembly output connector	1	201696290191	55	Partition board ass'y	1	201296290014
11	Condenser parts	1	201596290012	56	Guider board	1	201296590101
11.1	Condenser	1	201596290004	57	Partition board ass'y	1	201296290002
11.2	Output tube condenser components	1	201696290239	58	Fan	1	201200300023
11.3	Input tube condenser components	1	201696290207	59	Water collector	1	201296290061
12	Outside the top cover plate welding parts	1	201296290137	60	Drainage pan ass'y	1	201296590097
13	Grille	1	201219900914	61	Fixed supporting	1	201296590102
14	Deflector	1	201219900912	62	Rear left upright pole ass'y	1	201296590045
15	Motor	1	202400800256	63	Air filter	1	201101100067
16	Fan	1	201200300225	64	Air filter	1	201101100066
17	Motor bracket	1	201219900913	65	Panel ass'y	1	201296590068
18	Supply air flange I ass'y	1	201296290010	66	Supporting ass'y	1	201296590085
19	Rear-right supporter	1	201296290069	67	Fixed supporting	1	201296590130
20	Rear left upright pole ass'y	1	201296290012	68	Return air flange	1	201296590042
21	Supply air cover plate ass'y	1	201296590112	69	Supply air flange	1	201296590043
22	Return air cover plate ass'y	1	201296590114	70	Cover plate ass'y	1	201296590078
23	Protection Net	1	201296290067	71	Rear left upright pole ass'y	1	201296590056
24	Rear-right supporter	1	201296290065	72	Fixed supporting	1	201296590131

No.	Part Name	Qty	BOM code	No.	Part Name	Qty	BOM code
25	Protection Net	1	201296290066	73	Evaporator seal board ass'y	1	201296290055
26	Welding pieces of the right anterior column I	1	201296290144	74	Evaporator holder	1	201296290083
27	Peccadillo coacervation	2	201196190007	75	Evaporator holder	1	201296290059
28	Winding	2	201196190008	76	Return air flange I ass'y	1	201296590080
29	Compresor	1	201402300210	77	Evaporator holder	1	201296290063
30	Welding together pieces of the compressor base	1	201296290142	78	Evaporator holder ass'y	1	201296290064
31	Pipe support plate	1	201296290146	79	Wire controller	1	203355100023
32	Rooftop electrical box parts	1	203396290033	80	Temp sensor ass'y	1	202301300033
32.1	Welding together pieces of electronic control box	1	201296290134	81	Coil temp sensor ass'y	1	202301300081
32.2	Outdoor main board ass'y	1	201396290035	82	room temp sensor ass'y	1	202301300091
32.3	Surge suppresser	3	202301610601	83	Wire	1	202496590001
32.4	AC contactor	1	202300850050	84	Compressor wire joint ass'y	1	202496590000
32.5	Contactor	2	202300800110	85	Auxiliary electric heater ass'y	1	202403100244
32.7	Wire joint	1	202301450110	86	Fixing board	2	201296290009
32.8	Transformer	1	202300900109	87	E-Part box cover	1	201296290006
32.9	24V AC transformer	1	202300900160	88	E-Part box	1	203396290016
32.10	Wire joint	1	202301450135	88.1	E-Part box	1	201296290021
33	Chassis components	1	201296290147	88.2	Contactor	3	202300850043
34	Duct	3	201295100008	88.3	Wire joint	1	202301450110
35	Fixing board	3	201296590082	88.4	Wire joint	1	202301450122
				89	Insulation board	1	201296290008

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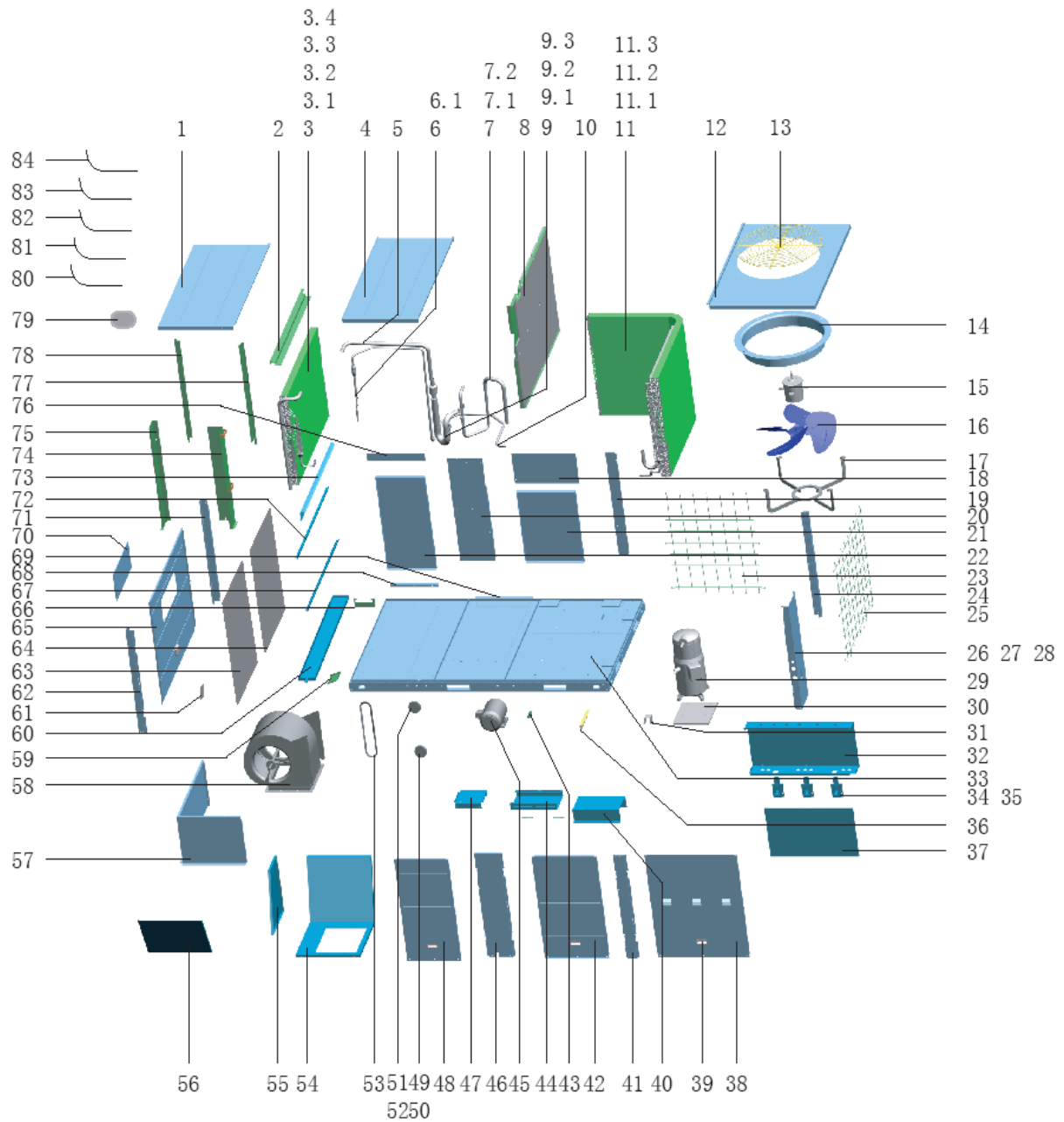
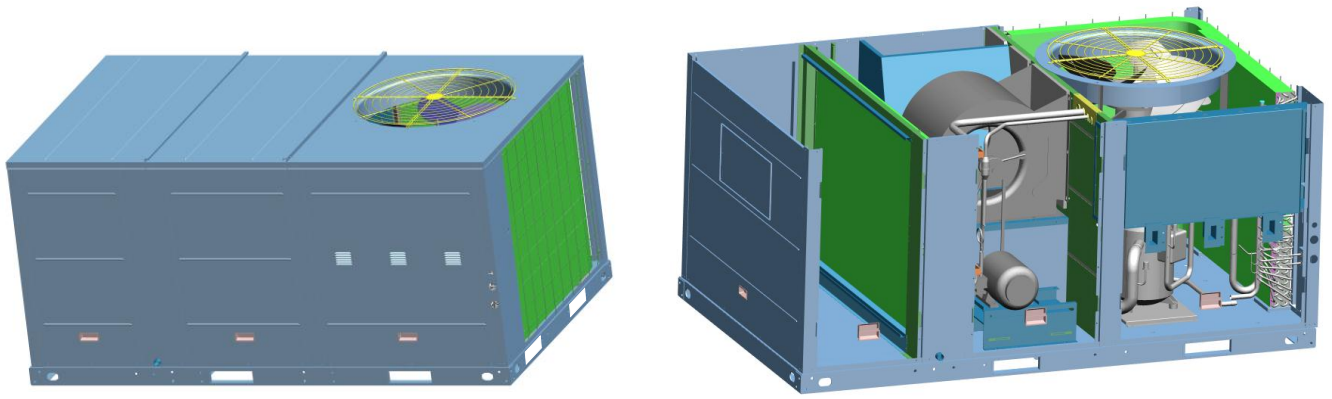


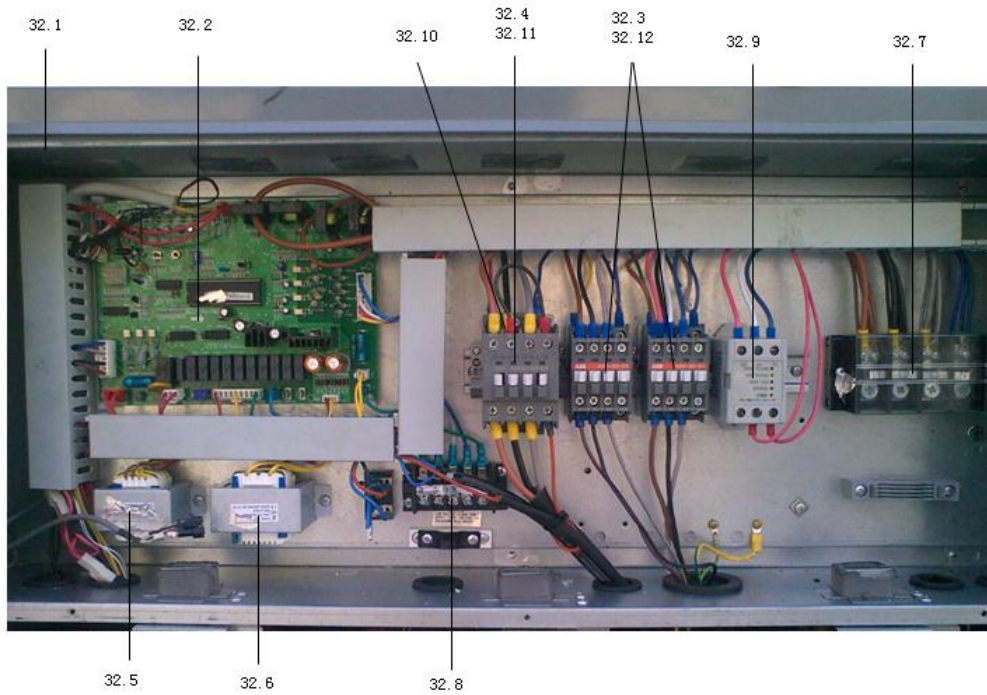
No.	Part Name	Qty	No.	Part Name	Qty
1	Top Cover plate ass'y	1	35.8	Wire joint	1
2	Evaporator seal board ass'y	1	35.9	Wire joint	1
3	Evaporator parts	1	35.11	Surge suppresser	3
3.1	Evaporator	1	36	Chassis components	1
3.2	Evaporator tube assembly output	1	37	Duct	3
3.3	Enter the evaporator tube assembly	1	38	Fixing board	3
4	Top cover ass'y	1	39	Press plate ass'y	1
5	Evaporator tube assembly output connector	1	40	E-Part box cover	1
6	Evaporator input connetion pipe ass'y	1	41	Panel ass'y	1
6.1	One way valve	1	42	Handle	4
6.2	Strainer	1	43	Motor bracket boarding	1
7	Four-way valve parts	1	44	Front right upright pole boarding	1
7.1	4-Ways valve solenoid	1	45	Panel ass'y	1
7.2	Four-way valve assembly	1	46	Pipe clamp B	2
7.2.1	4-way valve	1	47	Motor bracket	1
7.2.2	Pressure controller	1	48	Motor	1
7.2.3	Form fitting assemblies	1	49	Rear left upright pole ass'y	1
8	Outer baffle assembly	1	50	Motor holder	1
9	Components of the compressor back to the trachea	1	51	Panel ass'y	1
9.1	Pressure controller	1	52	Wheel	1
9.2	Form fitting assemblies	1	53	Sleeve	1
10	Condenser tube assembly output connector	1	54	Wheel	1
11	Condenser parts	1	55	Sleeve	1
11.1	Condenser	1	56	Belt	1
11.2	Input tube condenser components	1	57	Supporting board	1
11.3	Output tube condenser components	1	58	Partition board ass'y	1
12	Outside the top cover plate welding parts	1	59	Guider board	1

13	Grille	1	60	Partition board ass'y	1
14	Deflector	1	61	Fan	1
15	Motor	1	62	Water collector	1
16	Fan	1	63	Drainage pan ass'y	1
17	Motor bracket	1	64	Fixed supporting	1
18	Supply air flange I ass'y	1	65	Rear left upright pole ass'y	1
19	Rear-right supporter	1	66	Air filter	1
20	Rear left upright pole ass'y	1	67	Air filter	1
21	Supply air cover plate ass'y	1	68	Panel ass'y	1
22	Return air cover plate ass'y	1	69	Supporting ass'y	1
23	Protection Net	1	70	Fixed supporting	1
24	Rear-right supporter	1	71	Return air flange	1
25	Protection Net	1	72	Supply air flange	1
26	Separator	1	73	Cover plate ass'y	1
27	Welding pieces of the right anterior column I	1	74	Rear left upright pole ass'y	1
28	Peccadillo coacervation	2	75	Fixed supporting	1
29	Winding	2	76	Evaporator seal board ass'y	1
31	Compreesor	1	77	Evaporator holder	1
32	Electrical heating belt compression	1	78	Evaporator holder	1
33	Welding together pieces of the compressor base	1	79	Return air flange I ass'y	1
34	Pipe support plate	1	80	Evaporator holder	1
35	Rooftop electrical box parts	1	81	Evaporator holder ass'y	1
35.1	Welding together pieces of electronic control box	1	82	Wire controller	1
35.2	Outdoor main board ass'y	1	83	Temp sensor ass'y	1
35.3	Contactore	2	84	Coil temp sensor ass'y	1
35.4	AC contactore	1	85	room temp sensor ass'y	1
35.5	Transformer	1	86	Wire	1
35.6	24V AC transformer	1	87	Compressor wire joint ass'y	1
35.7	Wire joint	1			

10.5 10ton

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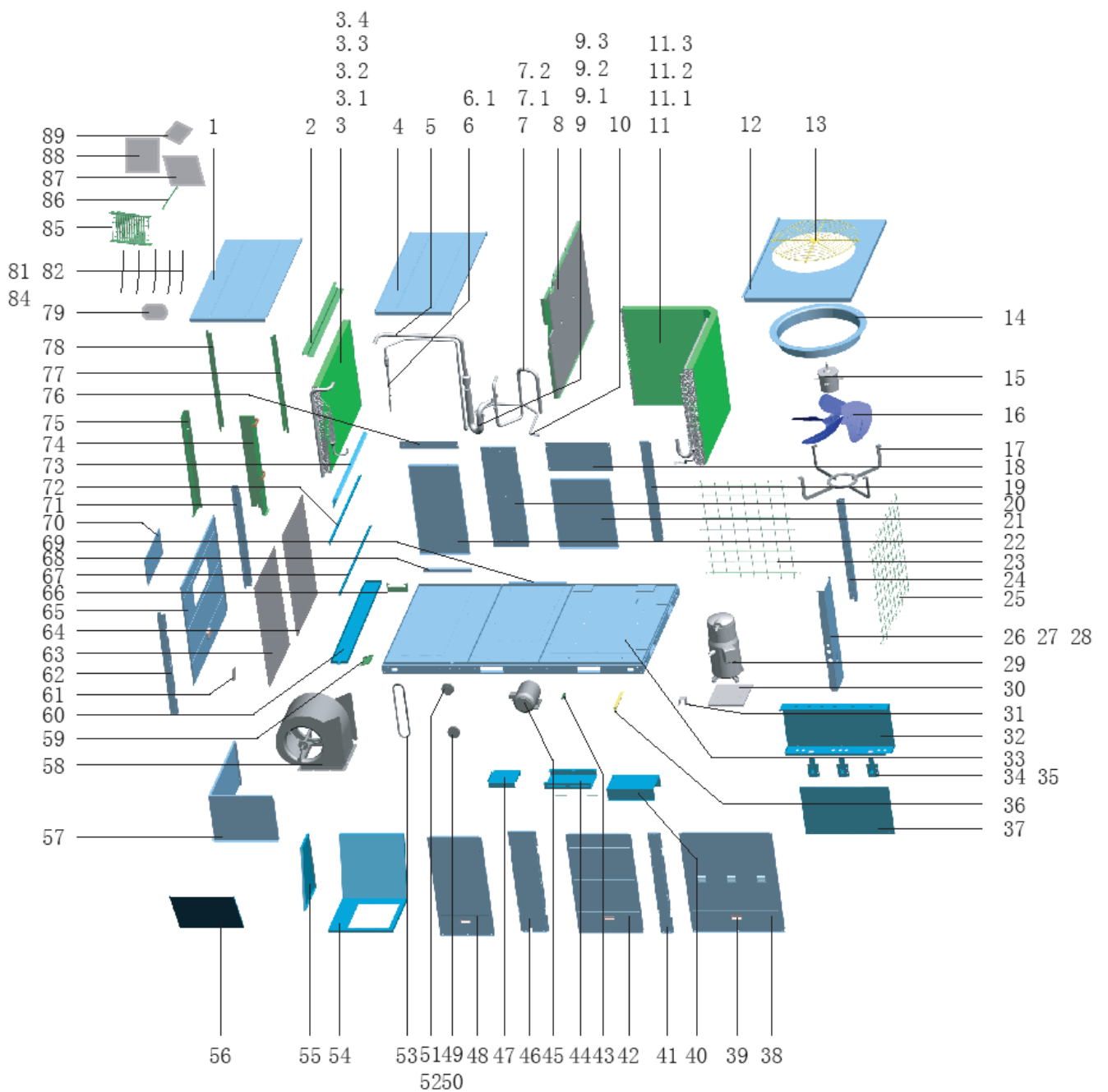
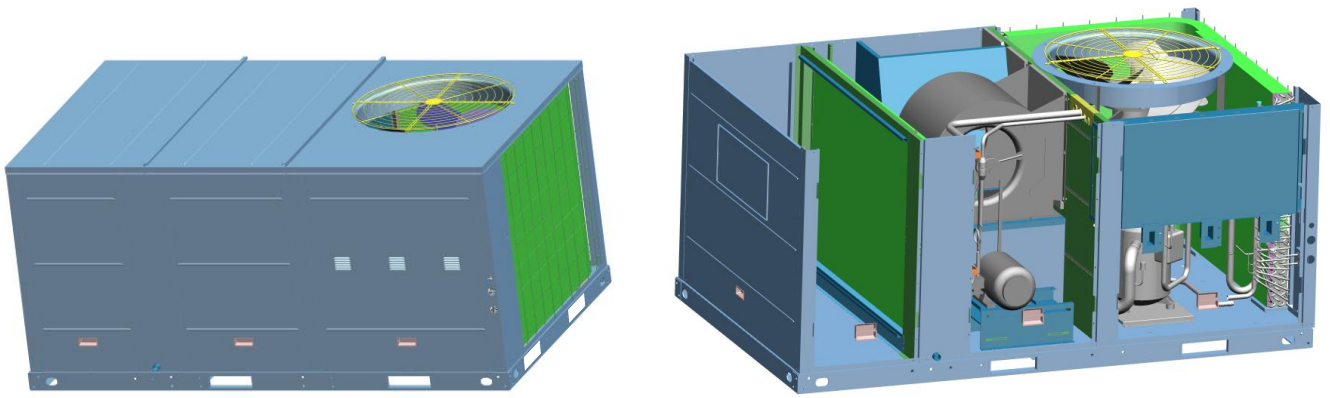


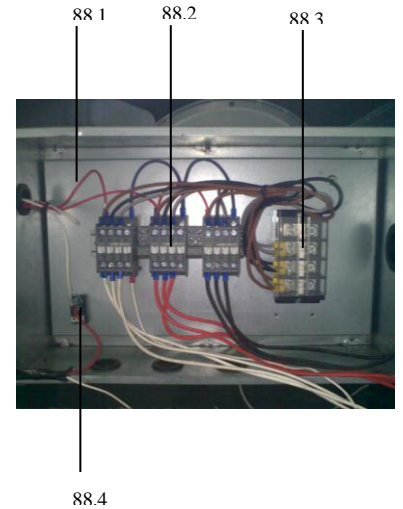
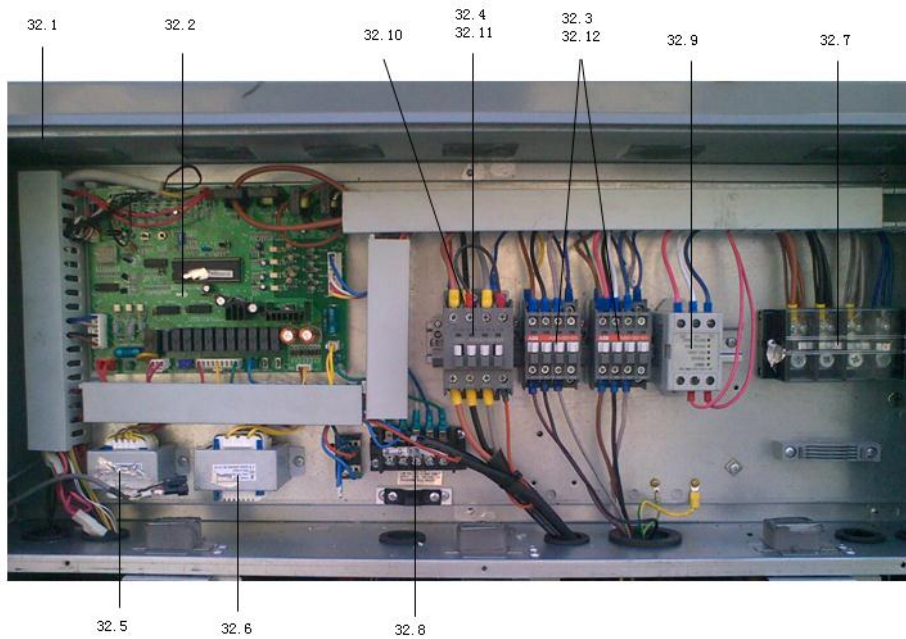


No.	Part Name	Qty	No.	Part Name	Qty
1	Top Cover plate ass'y	1	32.11	Wire joint ass'y	1
2	Evaporator seal board ass'y	1	32.12	Wire joint ass'y	1
3	Evaporator parts	1	33	Chassis components	1
3.1	Evaporator	1	34	Duct	3
3.2	Evaporator tube assembly output	1	35	Fixing board	3
3.3	Enter the evaporator tube assembly	1	36	Press plate assy	1
3.4	Y-Tee	1	37	E-Part box cover	1
4	Top cover ass'y	1	38	Panel ass'y	1
5	Evaporator tube assembly output connector	1	39	Handle	4
6	Evaporator tube assembly input connections	1	40	Motor bracket boarding	1
6.1	Strainer	1	41	Front right upright pole boarding	1
7	Discharge pipe ass'y	1	42	Panel ass'y	1
7.1	Pressure controller	1	43	Pipe clamp B	2
7.2	Form fitting assemblies	1	44	Motor bracket	1
8	Outer baffle assembly	1	45	Motor	1
9	Suction pipe ass'y	1	46	Rear left upright pole ass'y	1
9.1	Pressure controller	1	47	Motor holder	1
9.2	Strainer	1	48	Panel ass'y	1
9.3	Form fitting assemblies	1	49	Wheel	1
10	Condenser tube assembly output connector	1	50	Sleeve	1
11	Condenser components	1	51	Wheel	1
11.1	Condenser	1	52	Sleeve	1
11.2	Input tube condenser components	1	53	Belt	1
11.3	Output tube condenser components	1	54	Supporting board	1
12	Outside the top cover plate welding parts	1	55	Partition board ass'y	1
13	Grille	1	56	Guider board	1

14	Deflector	1	57	Partition board ass'y	1
15	Motor	1	58	Fan	1
16	Fan	1	59	Water collector	1
17	Motor bracket	1	60	Drainage pan ass'y	1
18	Supply air flange I ass'y	1	61	Fixed supporting	1
19	Rear-right supporter	1	62	Rear left upright pole ass'y	1
20	Rear left upright pole ass'y	1	63	Air filter	1
21	Supply air cover plate ass'y	1	64	Air filter	1
22	Return air cover plate ass'y	1	65	Panel ass'y	1
23	Protection Net	1	66	Supporting ass'y	1
24	Rear-right supporter	1	67	Fixed supporting	1
25	Protection Net	1	68	Return air flange	1
26	Welding pieces of the right anterior column I	1	69	Supply air flange	1
27	Peccadillo coacervation	2	70	Cover plate ass'y	1
28	Winding	2	71	Rear left upright pole ass'y	1
29	Compressor	1	72	Fixed supporting	1
30	Welding together pieces of the compressor base	1	73	Evaporator seal board ass'y	1
31	Pipe support plate	1	74	Evaporator holder	1
32	E-part box ass'y	1	75	Evaporator holder	1
32.1	Welding together pieces of electronic control box	1	76	Return air flange I ass'y	1
32.2	Main control board ass'y	1	77	Evaporator holder ass'y	1
32.3	Contactator	2	78	Evaporator holder	1
32.4	AC contactor	1	79	Wire controller	1
32.5	Transformer	1	80	Temp sensor ass'y	1
32.6	24V AC transformer	1	81	Coil temp sensor ass'y	1
32.7	Wire joint	1	82	room temp sensor ass'y	1
32.8	Wire joint	1	83	Wire	1
32.10	Surge suppresser	3	84	Compressor wire joint ass'y	1

MRCT-100EWN1-R





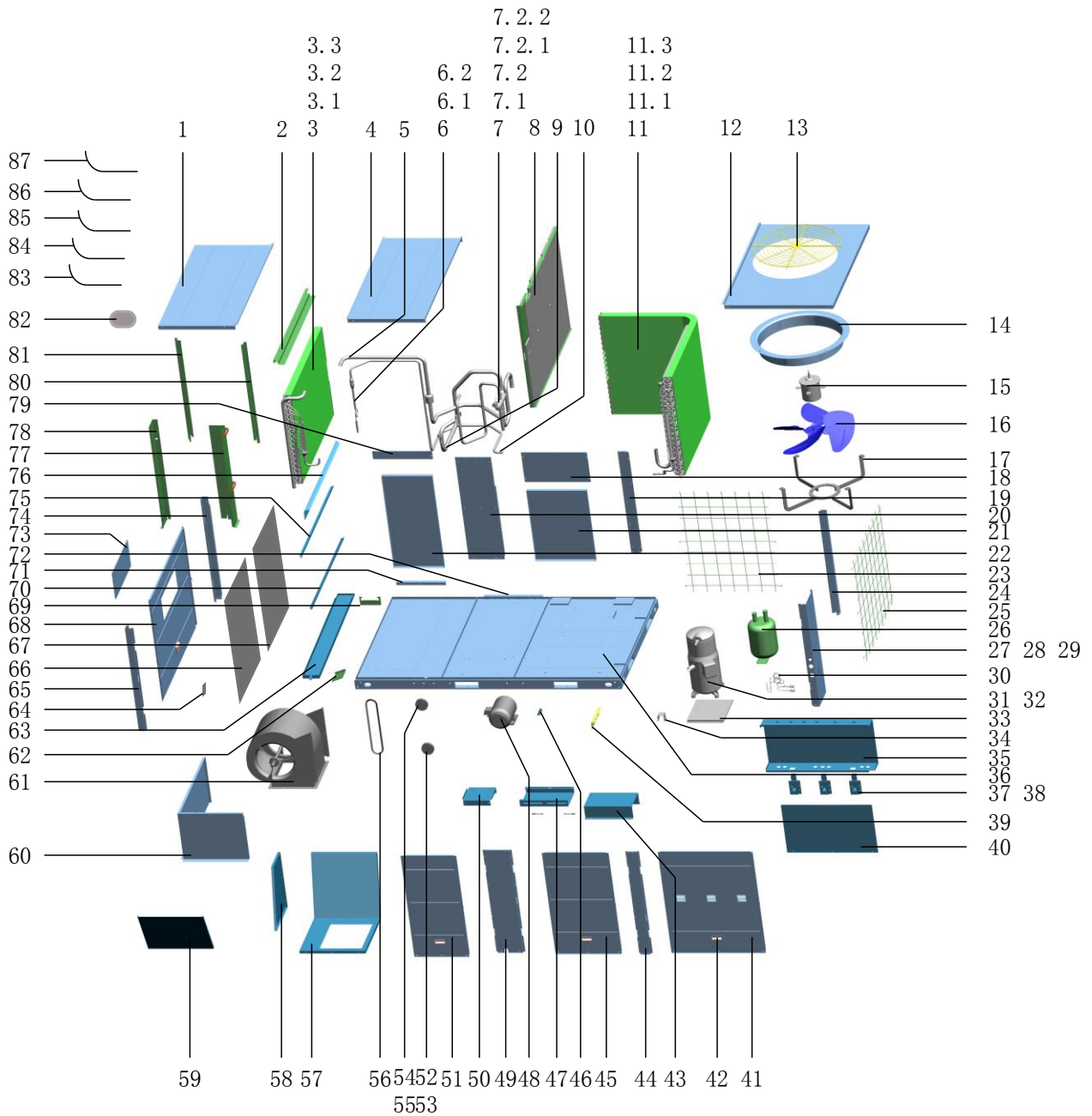
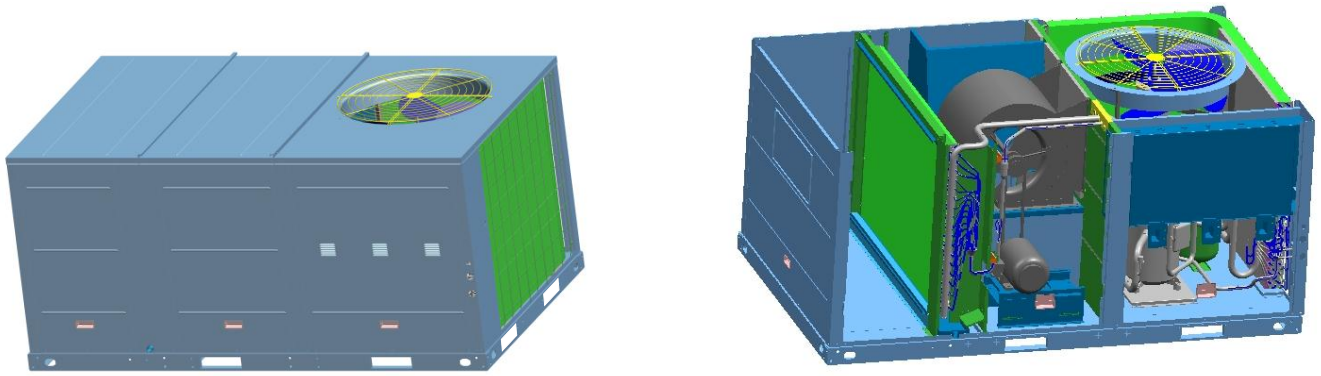
No.	Part Name	Qty	No.	Part Name	Qty
1	Top Cover plate ass'y	1	35	Fixing board	3
2	Evaporator seal board ass'y	1	36	Press plate ass'y	1
3	Evaporator parts	1	37	E-Part box cover	1
3.1	Evaporator	1	38	Panel ass'y	1
3.2	Evaporator tube assembly output	1	39	Handle	4
3.3	Enter the evaporator tube assembly	1	40	Motor bracket boarding	1
3.4	Y-Tee	1	41	Front right upright pole boarding	1
4	Top cover ass'y	1	42	Panel ass'y	1
5	Evaporator tube assembly output connector	1	43	Pipe clamp B	2
6	Evaporator tube assembly input connections	1	44	Motor bracket	1
6.1	Strainer	1	45	Motor	1
7	Discharge pipe ass'y	1	46	Rear left upright pole ass'y	1
7.1	Pressure controller	1	47	Motor holder	1
7.2	Form fitting assemblies	1	48	Panel ass'y	1
8	Outer baffle assembly	1	49	Wheel	1
9	Suction pipe ass'y	1	50	Sleeve	1
9.1	Pressure controller	1	51	Wheel	1
9.2	Strainer	1	52	Sleeve	1
9.3	Form fitting assemblies	1	53	Belt	1
10	Condenser tube assembly output connector	1	54	Supporting board	1
11	Condenser components	1	55	Partition board ass'y	1
11.1	Condenser	1	56	Guider board	1
11.2	Input tube condenser components	1	57	Partition board ass'y	1
11.3	Output tube condenser components	1	58	Fan	1
12	Outside the top cover plate welding parts	1	59	Water collector	1
13	Grille	1	60	Drainage pan ass'y	1
14	Deflector	1	61	Fixed supporting	1
15	Motor	1	62	Rear left upright pole ass'y	1

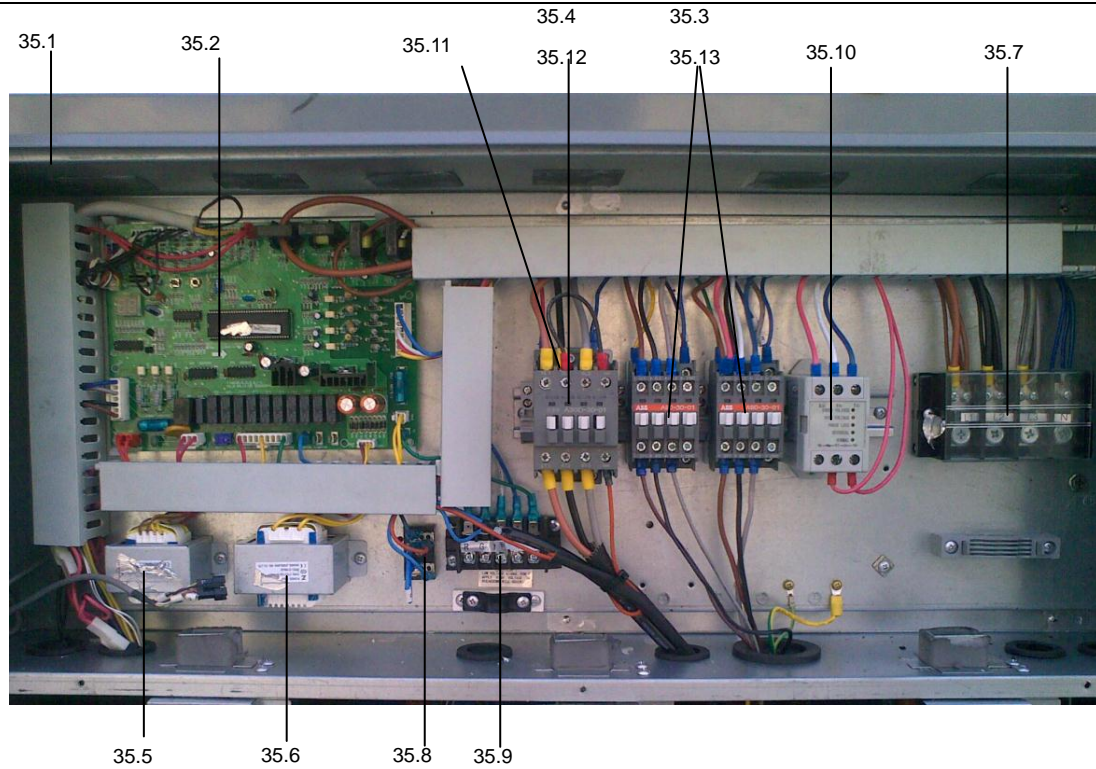
MCAC-RTSM-2014-06

R410A Tropical Rooftop Package Unit 50Hz

16	Fan	1	63	Air filter	1
17	Motor bracket	1	64	Air filter	1
18	Supply air flange I ass'y	1	65	Panel ass'y	1
19	Rear-right supporter	1	66	Supporting ass'y	1
20	Rear left upright pole ass'y	1	67	Fixed supporting	1
21	Supply air cover plate ass'y	1	68	Return air flange	1
22	Return air cover plate ass'y	1	69	Supply air flange	1
23	Protection Net	1	70	Cover plate ass'y	1
24	Rear-right supporter	1	71	Rear left upright pole ass'y	1
25	Protection Net	1	72	Fixed supporting	1
26	Welding pieces of the right anterior column I	1	73	Evaporator seal board ass'y	1
27	Peccadillo coacervation	2	74	Evaporator holder	1
28	Winding	2	75	Evaporator holder	1
29	Compressor	1	76	Return air flange I ass'y	1
30	Welding together pieces of the compressor base	1	77	Evaporator holder	1
31	Pipe support plate	1	78	Evaporator holder ass'y	1
32	E-part box ass'y	1	79	Wire controller	1
32.1	Welding together pieces of electronic control box	1	80	Temp sensor ass'y	1
32.2	Main control board ass'y	1	81	Coil temp sensor ass'y	1
32.3	Contactor	2	82	room temp sensor ass'y	1
32.4	AC contactor	1	83	Wire	1
32.5	Transformer	1	84	Compressor wire joint ass'y	1
32.6	24V AC transformer	1	85	Auxiliary electric heater ass'y	1
32.7	Wire joint	1	86	Fixing board	2
32.8	Wire joint	1	87	E-Part box cover	1
32.10	Surge suppresser	3	88	E-Part box	1
32.11	Wire joint ass'y	1	88.1	E-Part box	1
32.12	Wire joint ass'y	1	88.2	Contactor	3
33	Chassis components	1	88.3	Wire joint	1
34	Duct	3	88.4	Wire joint	1
			89	Insulation board	1

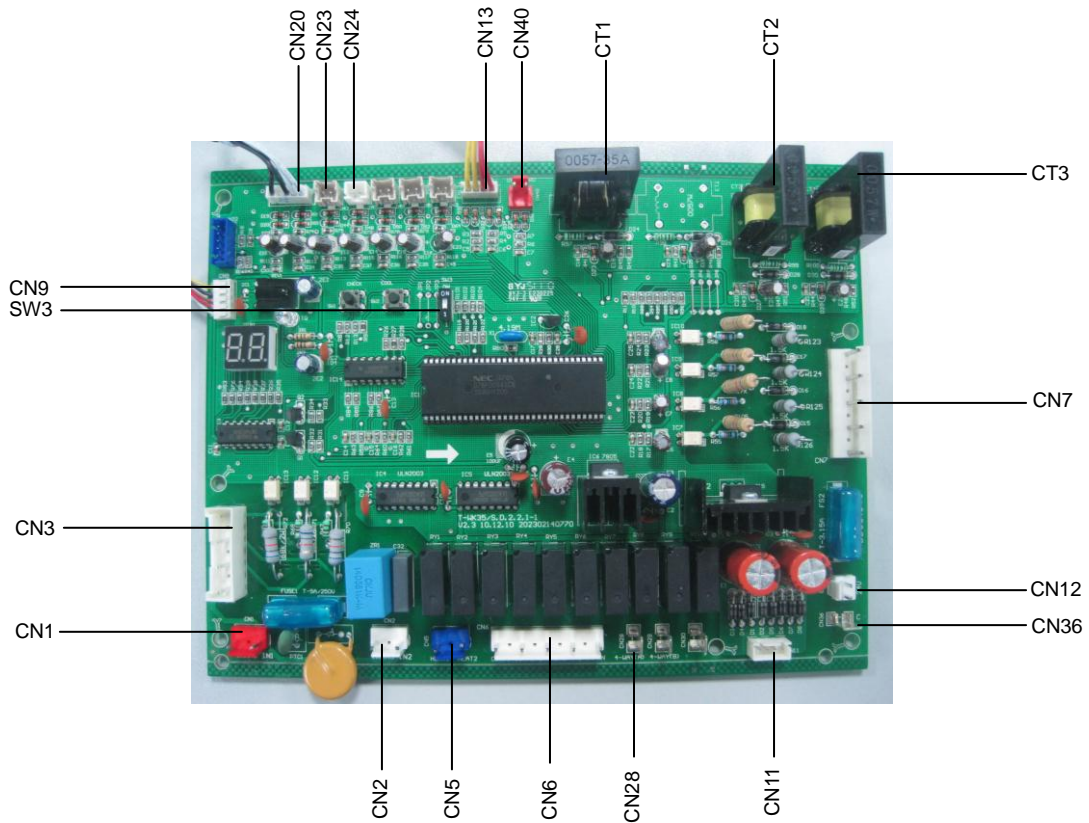
MRBT-100HWN1-R





No.	Part Name	Qty	No.	Part Name	Qty
1	Top Cover plate ass'y	1	35.9	Wire joint	1
2	Evaporator seal board ass'y	1	35.11	Surge suppresser	3
3	Evaporator parts	1	35.12	Wire joint ass'y	1
3.1	Evaporator	1	35.13	Wire joint ass'y	1
3.2	Evaporator tube assembly output	1	36	Chassis components	1
3.3	Enter the evaporator tube assembly	1	37	Duct	3
4	Top cover ass'y	1	38	Fixing board	3
5	Evaporator tube assembly output connector	1	39	Press plate ass'y	1
6	Evaporator tube assembly input connections	1	40	E-Part box cover	1
6.1	One way valve	1	41	Panel ass'y	1
6.2	Strainer	1	42	Handle	4
7	Four-way valve parts	1	43	Motor bracket boarding	1
7.1	4-Way valve solenoid	1	44	Front right upright pole boarding	1
7.2	Four-way valve assembly	1	45	Panel ass'y	1
7.2.1	4-way valve	1	46	Pipe clamp B	2
7.2.2	Pressure controller	1	47	Motor bracket	1
8	Outer baffle assembly	1	48	Motor	1
9	Components of the compressor back to the trachea	1	49	Rear left upright pole ass'y	1
10	Condenser tube assembly output connector	1	50	Motor holder	1
11	Condenser components	1	51	Panel ass'y	1
11.1	Condenser	1	52	Wheel	1
11.2	Input tube condenser components	1	53	Sleeve	1
11.3	Output tube condenser components	1	54	Wheel	1
12	Outside the top cover plate welding parts	1	55	Sleeve	1
13	Grille	1	56	Belt	1
14	Deflector	1	57	Supporting board	1
15	Motor	1	58	Partition board ass'y	1

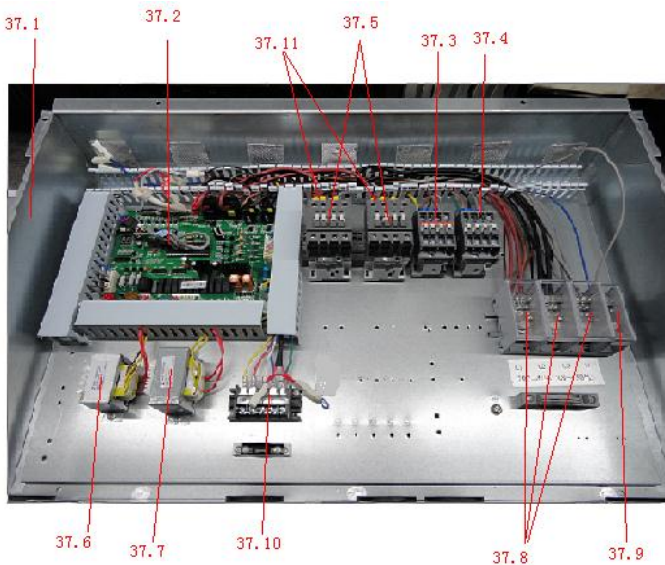
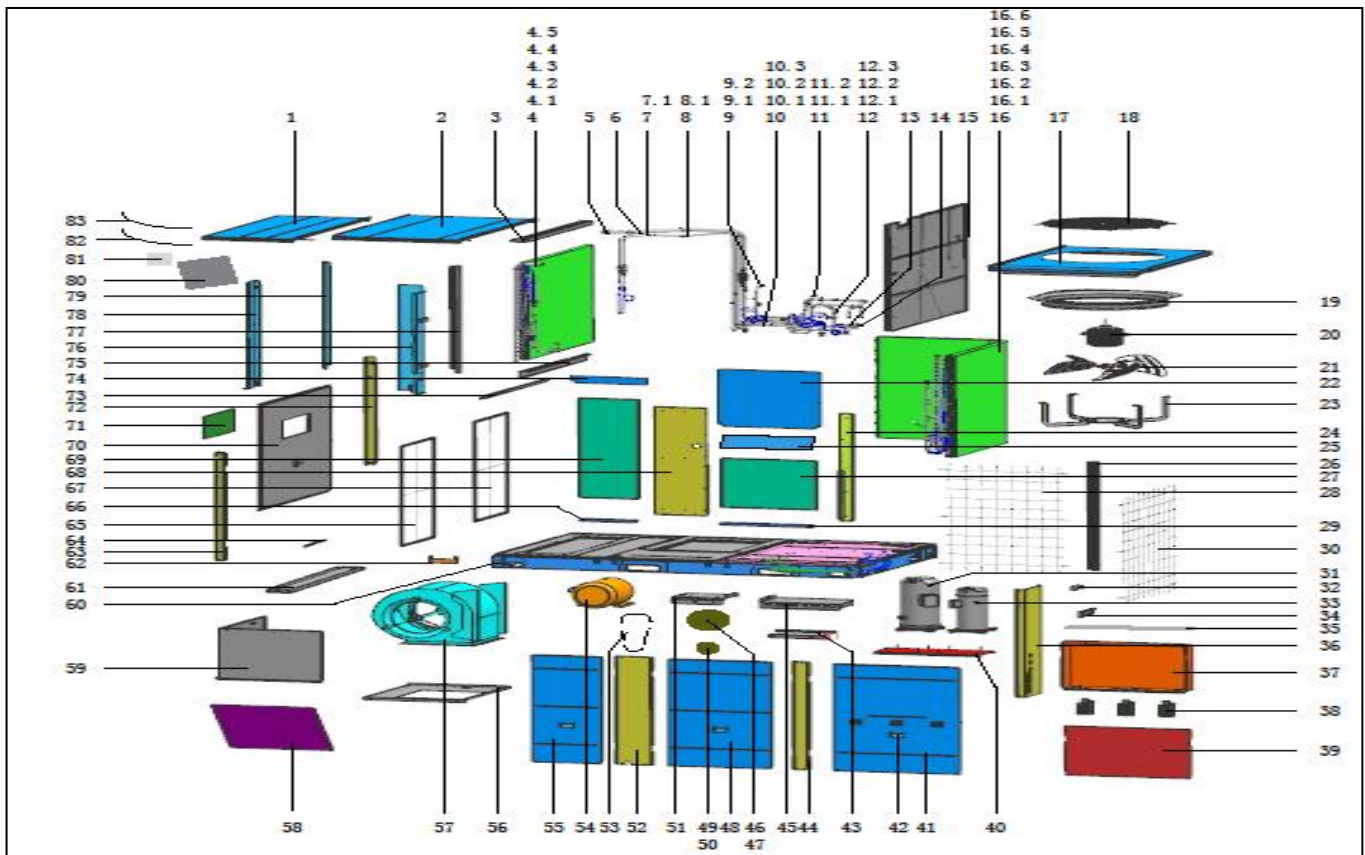
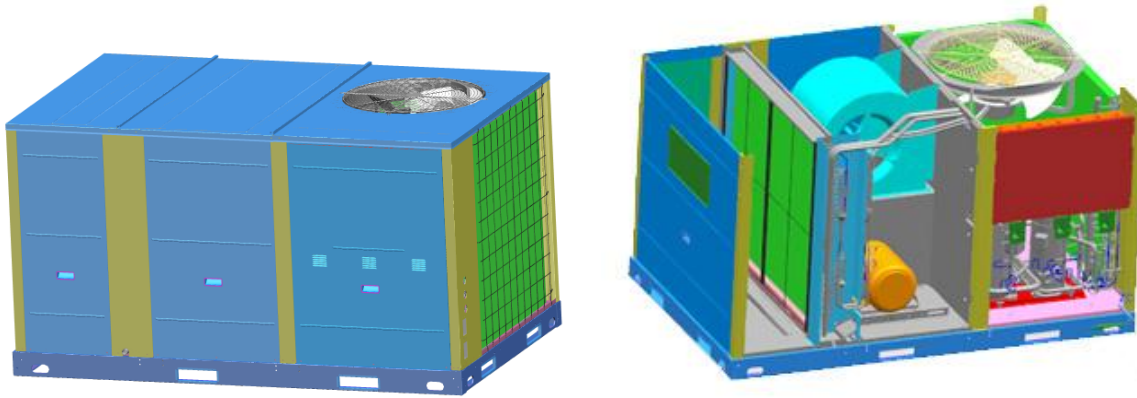
16	Fan	1	59	Guider board	1
17	Motor bracket	1	60	Partition board ass'y	1
18	Supply air flange I ass'y	1	61	Fan	1
19	Rear-right supporter	1	62	Water collector	1
20	Rear left upright pole ass'y	1	63	Drainage pan ass'y	1
21	Supply air cover plate ass'y	1	64	Fixed supporting	1
22	Return air cover plate ass'y	1	65	Rear left upright pole ass'y	1
23	Protection Net	1	66	Air filter	1
24	Rear-right supporter	1	67	Air filter	1
25	Protection Net	1	68	Panel ass'y	1
26	Separator	1	69	Supporting ass'y	1
27	Welding pieces of the right anterior column I	1	70	Fixed supporting	1
28	Peccadillo coacervation	2	71	Return air flange	1
29	Winding	2	72	Supply air flange	1
30	Form fitting assemblies	2	73	Cover plate ass'y	1
31	Compressor	1	74	Rear left upright pole ass'y	1
32	Compressor electric heater	1	75	Fixed supporting	1
33	Welding together pieces of the compressor base	1	76	Evaporator seal board ass'y	1
34	Pipe support plate	1	77	Evaporator holder	1
35	Electrical control box parts roof	1	78	Evaporator holder	1
35.1	Welding together pieces of electronic control box	1	79	Return air flange I ass'y	1
35.2	Outdoor control board assembly	1	80	Evaporator holder	1
35.3	Contacto	2	81	Evaporator holder ass'y	1
35.4	AC contacto	1	82	Wire controller	1
35.5	Transformer	1	83	Temp sensor ass'y	1
35.6	24V AC transformer	1	84	Coil temp sensor ass'y	1
35.7	Wire joint	1	85	room temp sensor ass'y	1
35.8	Wire joint	1	86	Wire	1
			87	Compressor wire joint ass'y	1



CODE	TITLE	CODE	TITLE	CODE	TITLE
CN1	Transformer	CN12	Transformer	CN24	Indoor pipe temp. sensor
CN2	Transformer	CN7	To the wire controller	CN23	Indoor room temp. sensor
CN5	Electric heater	CT3	Current indicator	CN20	Pipe temp. sensor of unit A/B Outdoor temp. sensor
CN6	Compressor , outdoor & indoor fan motor power supply	CT2	Current indicator	CN9	To be connected wired controller KJR-12B
CN28	4-way terminal (A)	CT1	Current indicator	SW3	Wired controller set up switch
CN11	Transformer	CN40	Outdoor fan protection switch	CN3	Power supply
CN36	To the wired controller	CN13	High & low pressure switch Temp protection switch		

10.6 12.5ton

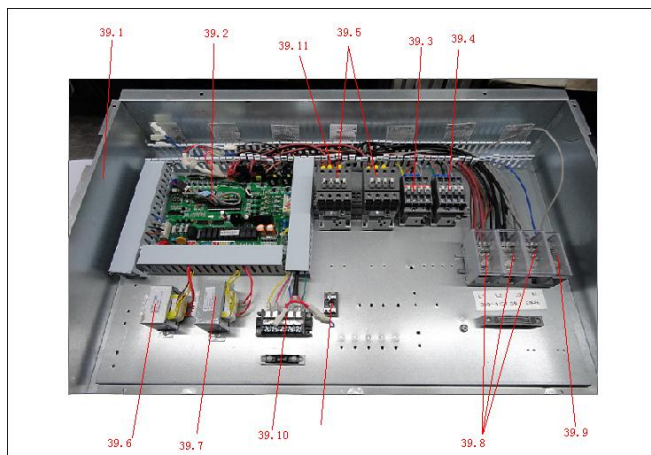
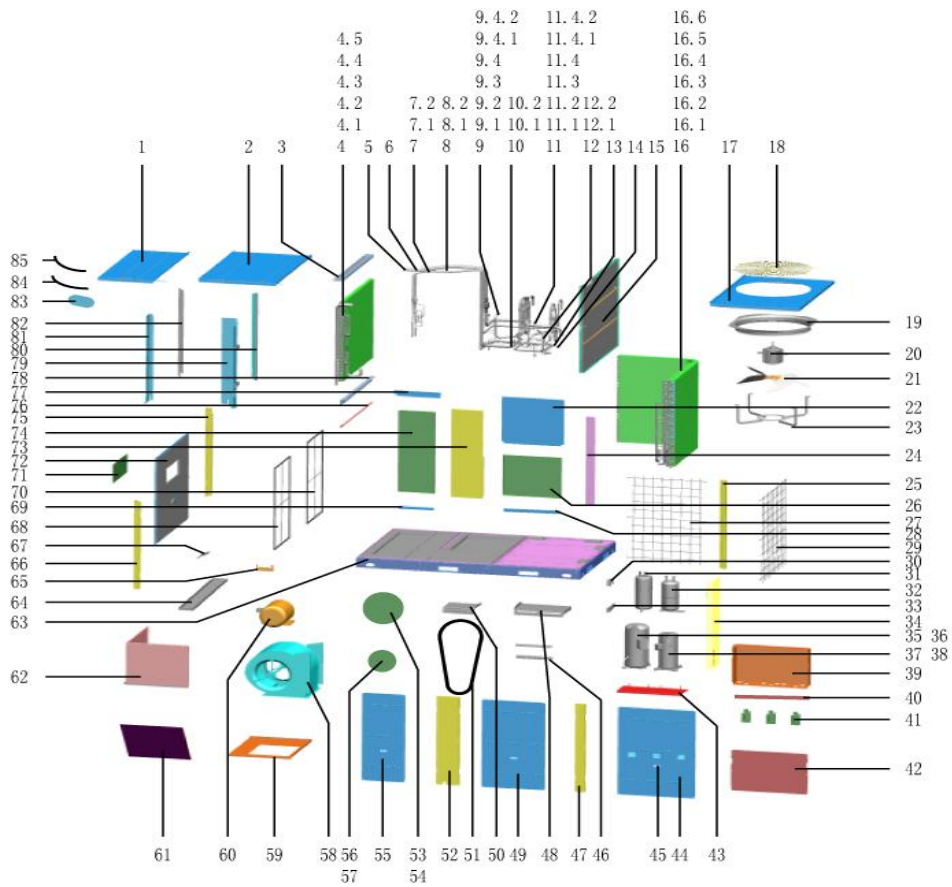
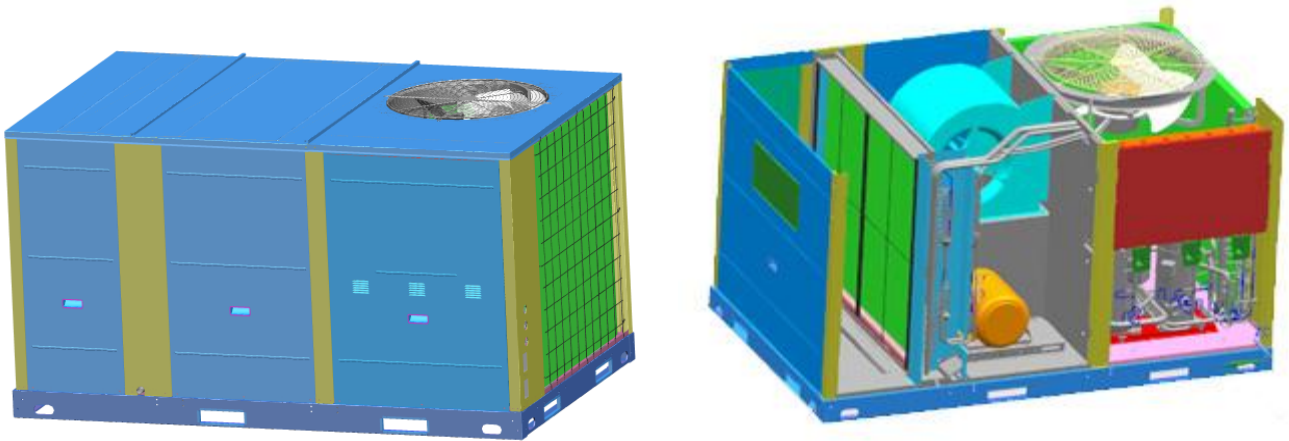
MRBT-125CWN1-R



No.	Part Name	Qty	No.	Part Name	Qty
1	Inside top cover board ass'y	1	37	E-box ass'y	1
2	Middle top cover ass'y	1	37.1	E-part box	1
3	Evaporator top seal plate ass'y	1	37.2	Main control board ass'y	1
4	Evaporator ass'y	1	37.3	Contactora	1
4.1	Evaporator	1	37.4	Contactora	1
4.2	A evaporator input pipe ass'y	1	37.5	AC contactora	2
4.3	B evaporator input pipe ass'y	1	37.6	Transformer	1
4.4	A evaporator output pipe ass'y	1	37.7	24V AC transformer	1
4.5	B evaporator output pipe ass'y	1	37.8	A Terminal Block	3
5	A evaporator output connection pipe ass'y	1	37.9	A Terminal Block	1
6	B evaporator output connection pipe ass'y	1	37.10	Wire joint	1
7	A evaporator input connection pipe ass'y	1	37.11	Surge suppresser	2
7.1	Strainer	1	38	Air duct ass'y	3
8	B evaporator input connection pipe ass'y	1	39	Electronic control box cover plate	1
8.1	Strainer	1	40	Compressor base	1
9	A compressor discharge pipe ass'y	1	41	Panel	1
9.1	Form fitting assemblies	1	42	Handle	4
9.2	Pressure controller	1	43	Motor bracket ass'y	2
10	A compressor return pipe ass'y	1	44	Front right upright pole ass'y II	1
10.1	Form fitting assemblies	1	45	Motor bracket I ass'y	1
10.2	Pressure controller	1	46	Pulley	1
10.3	Strainer	1	47	Sleeve	1
11	B compressor discharge pipe ass'y	1	48	Panel ass'y	1
11.1	Form fitting assemblies	1	49	Wheel	1
11.2	Pressure controller	1	50	Sleeve	1
12	B compressor return pipe ass'y	1	51	Motor bracket	1
12.1	Strainer	1	52	Rear left upright pole ass'y	1
12.2	Form fitting assemblies	1	53	Belt	1
12.3	Pressure controller	1	54	Motor	1
13	A condenser output pipe ass'y	1	55	Panel ass'y	1
14	B condenser output pipe ass'y	1	56	Motor support board ass'y	1
15	Outer partition board ass'y 2	1	57	Fan	1
16	Condenser ass'y	1	58	Air outlet deflector	1
16.1	Condenser	1	59	Air duct board ass'y	1
16.2	Condenser 1	1	60	Base ass'y	1
16.3	A condenser input pipe ass'y	1	61	Drainage pan ass'y	1
16.4	B condenser input pipe ass'y	1	62	Supporting ass'y	1

16.5	A condenser output pipe ass'y	1	63	Rear left upright pole ass'y	1
16.6	B condenser output pipe ass'y	1	64	Then water board assembly inside	1
17	Outside top cover board ass'y	1	65	Air filter	1
18	Grille	1	66	Components of the return air side of the flange II	1
19	Deflector	1	67	Air filter	1
20	Motor	1	68	Rear left upright pole ass'y	1
21	Fan	1	69	Side of the return air cover components	1
22	Air outlet clapboard ass'y	1	70	Inside panel ass'y I	1
23	Motor bracket	1	71	Cover plate ass'y	1
24	Rear-right supporting board II	1	72	Rear left upright pole ass'y	1
25	Air outlet flange ass'yII	1	73	Filter fixed supporting	1
26	Right rear supporting I	1	74	I return air side of flange components	1
27	Side of the outlet cover assembly	1	75	Evaporator under seal plate ass'y	1
28	Net II	1	76	Evaporator fixed supporting board ass'y IV	1
29	Side air flange kit	1	77	Evaporator fixed supporting board ass'y I	1
30	Net II	1	78	Evaporator fixed supporting board ass'y III	1
31	copeland compressor (with accessory)	1	79	Evaporator fixed supporting board ass'y II	1
32	Pipe support plate	1	80	Fire prevention board	1
33	Scroll Compressor	1	81	Wire controller	1
34	Press plate assy	1	82	Compressor wire joint ass'y	2
35	E-box support board	1	83	Wire	1
36	Front-right supporting board I	1			

MRBT-125HWN1-R

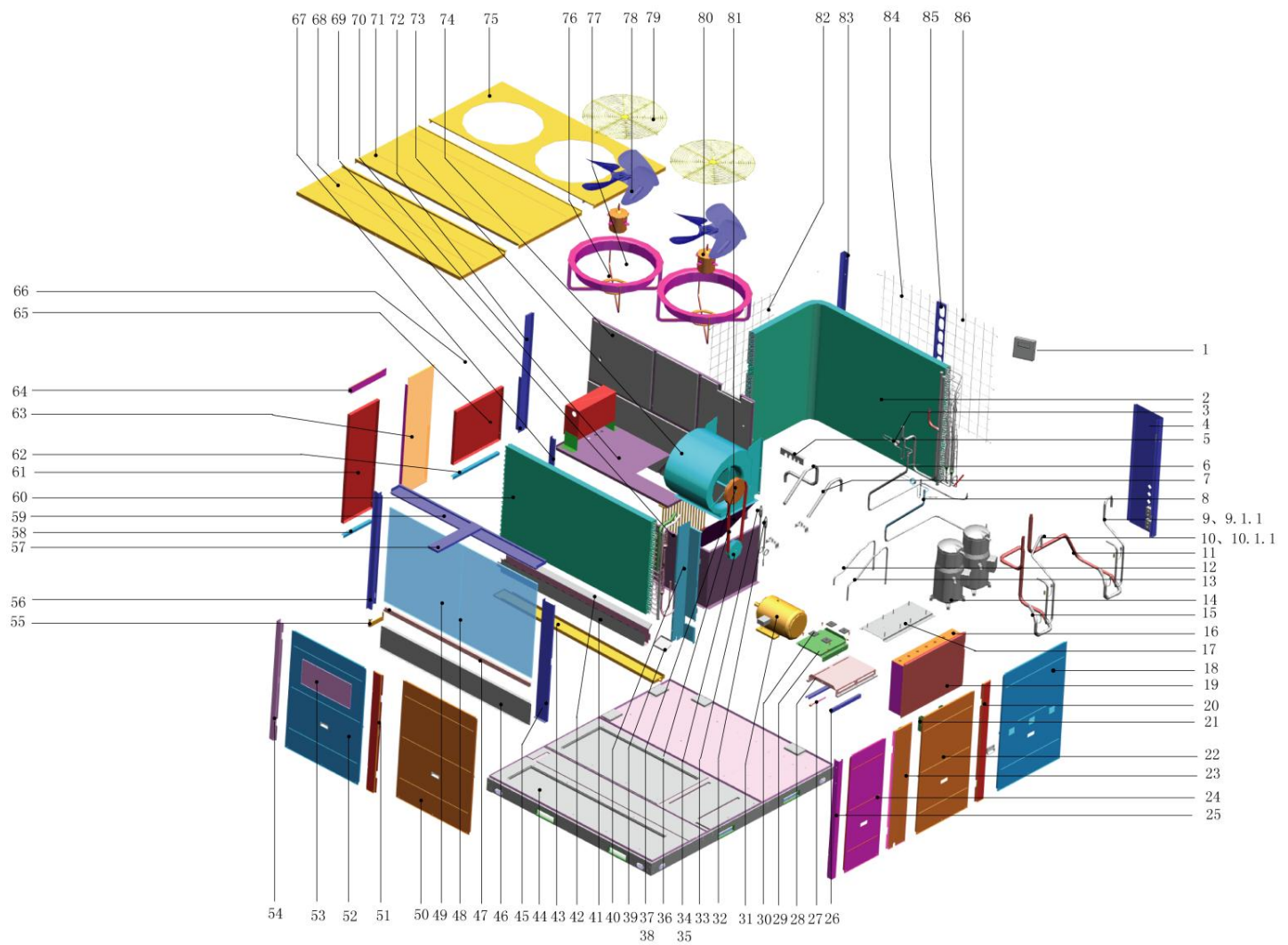
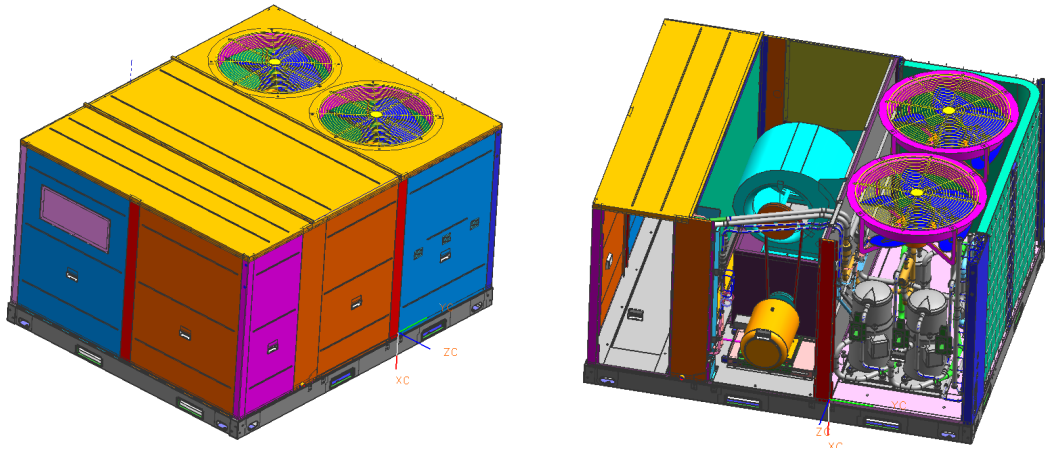


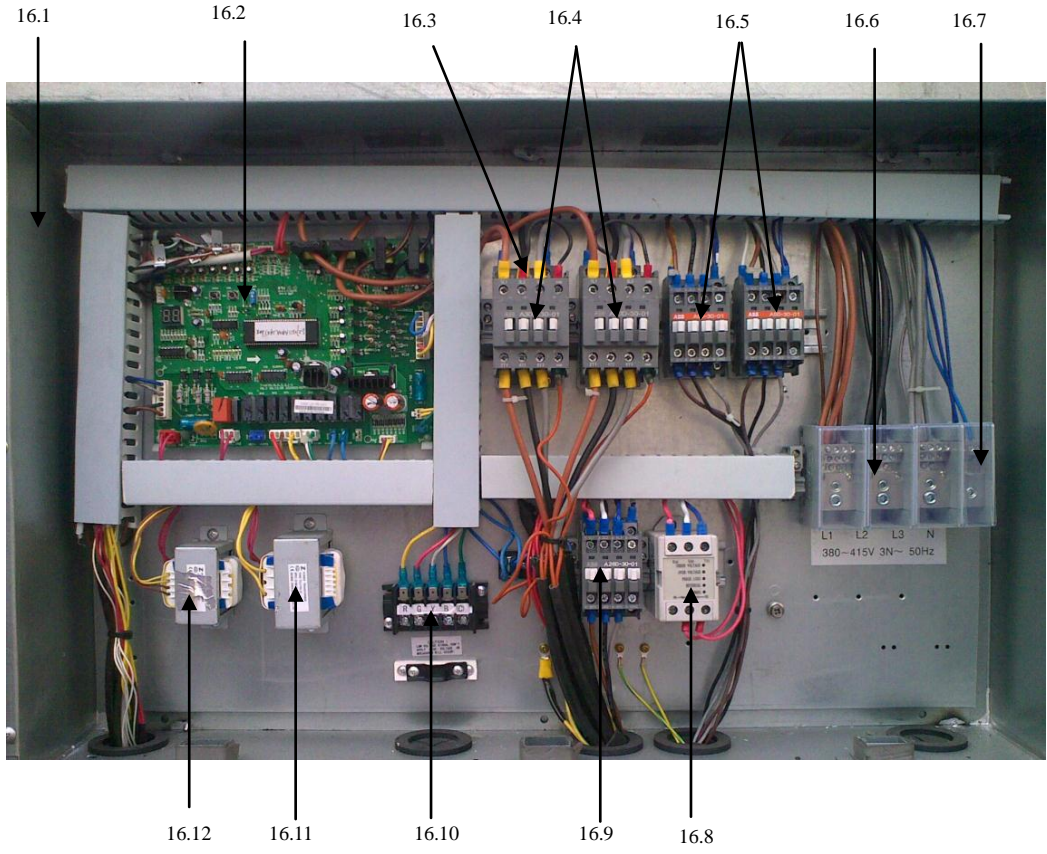
No.	Part Name	Qty	No.	Part Name	Qty
1	Inside top cover board ass'y	1	34	Welding pieces of the right anterior column I	1
2	Middle top cover ass'y	1	35	copeland compressor (with accessory)	1
3	Evaporator top seal plate ass'y	1	36	Compressor electric heater	1
4	Evaporator ass'y	1	37	Scroll Compressor	1
4.1	Evaporator	1	38	Compressor electric heater	1
4.2	A evaporator input pipe ass'y	1	39	E-part box ass'y	1
4.3	B evaporator input pipe ass'y	1	39.1	E-part box	1
4.4	A evaporator output pipe ass'y	1	39.2	Main control board ass'y	1
4.5	B evaporator output pipe ass'y	1	39.3	Contactora	1
5	A evaporator output connection pipe ass'y	1	39.4	Contactora	1
6	B evaporator output connection pipe ass'y	1	39.5	AC contactora	2
7	A evaporator input connection pipe ass'y	1	39.6	Transformer	1
7.1	One way valve	1	39.7	24V AC transformer	1
7.2	Strainer	1	39.8	A Terminal Block	3
8	B evaporator input connection pipe ass'y	1	39.9	A Terminal Block	1
8.1	One way valve	1	39.10	Wire joint	1
8.2	Strainer	1	39.11	Surge suppresser	2
9	4-way valve A	1	40	E-box support board	1
9.1	filter	1	41	Air duct ass'y	3
9.2	4-way valve	1	42	Electronic control box cover plate	1
9.3	4-Ways valve wire	1	43	Compressor base	1
9.4	A compressor exhaust pipe ass'y	1	44	Panel	1
9.4.1	Pressure controller	1	45	Handle	4
9.4.2	Form fitting assemblies	1	46	Motor bracket ass'y	2
10	A compressor return pipe ass'y	1	47	Front right upright pole ass'y II	1
10.1	Pressure controller	1	48	Motor bracket I ass'y	1
10.2	Form fitting assemblies	1	49	Panel ass'y	1
11	4-way valve B	1	50	Motor bracket	1
11.1	Strainer	1	51	Belt	1
11.2	4-way valve	1	52	Rear left upright pole ass'y	1
11.3	4-Ways valve wire	1	53	Pulley	1
11.4	B compressor exhaust pipe ass'y	1	54	Sleeve	1
11.4.1	Pressure controller	1	55	Panel ass'y	1
11.4.2	Form fitting assemblies	1	56	Wheel	1
12	B compressor return pipe ass'y	1	57	Sleeve	1
12.1	Form fitting assemblies	1	58	Fan	1
12.2	Pressure controller	1	59	Motor support board ass'y	1

No.	Part Name	Qty	No.	Part Name	Qty
13	A condenser output pipe ass'y	1	60	Motor	1
14	B condenser output pipe ass'y	1	61	Side air deflector	1
15	Outer partition board ass'y 2	1	62	Air duct board ass'y	1
16	Condenser ass'y	1	63	Base ass'y	1
16.1	Condenser	1	64	Drainage pan ass'y	1
16.2	Condenser 1	1	65	Supporting ass'y	1
16.3	A condenser input pipe ass'y	1	66	Rear left upright pole ass'y	1
16.4	B condenser input pipe ass'y	1	67	Then water board assembly inside	1
16.5	A condenser output pipe ass'y	1	68	Air filter	1
16.6	B condenser output pipe ass'y	1	69	Components of the return air side of the flange II	1
17	Outside top cover board ass'y	1	70	Air filter	1
18	Grille	1	71	Cover plate ass'y	1
19	Deflector	1	72	Inside panel ass'y I	1
20	Motor	1	73	Rear left upright pole ass'y	1
21	Fan	1	74	Side of the return air cover components	1
22	Air outlet clapboard ass'y	1	75	Rear left upright pole ass'y	1
23	Motor bracket	1	76	Filter fixed supporting	1
24	Rear right upright pole ass'y II	1	77	I return air side of flange components	1
25	Rear-right pole ass'y	1	78	Evaporator under seal plate ass'y	1
26	Side of the outlet cover assembly	1	79	Evaporator fixed supporting board ass'y IV	1
27	Net III	1	80	Evaporator fixed supporting board ass'y I	1
28	Side air flange kit	1	81	Evaporator fixed supporting board ass'y III	1
29	Net II	1	82	Evaporator fixed supporting board ass'y II	1
30	Pipe support plate	2	83	Wire controller	1
31	Gas-liquid separator	1	84	Compressor wire joint ass'y	2
32	Accumulator cylinder	1	85	Wire	1
33	Press plate ass'y	1			

10.7 15ton

MRBT-150CWN1-R

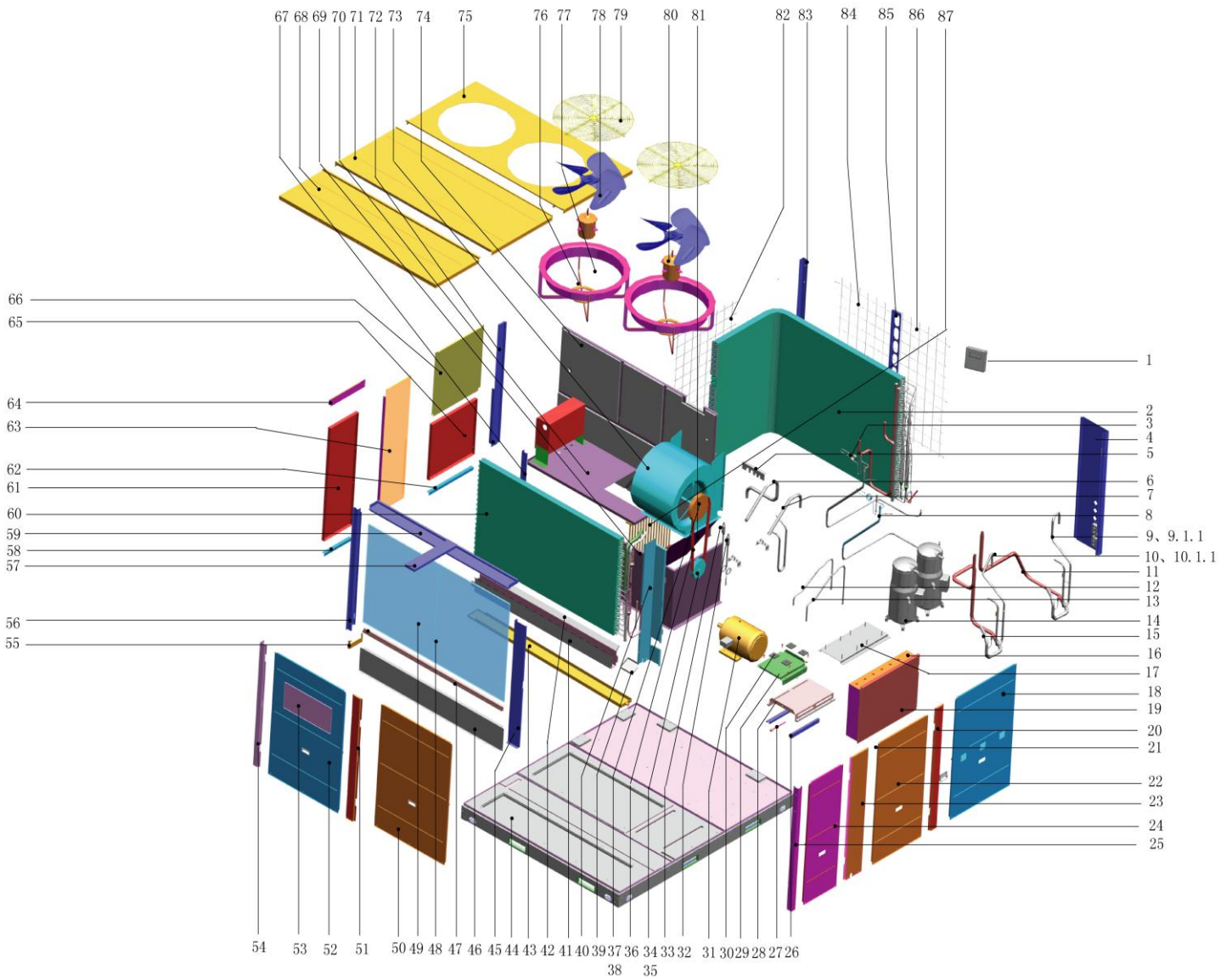
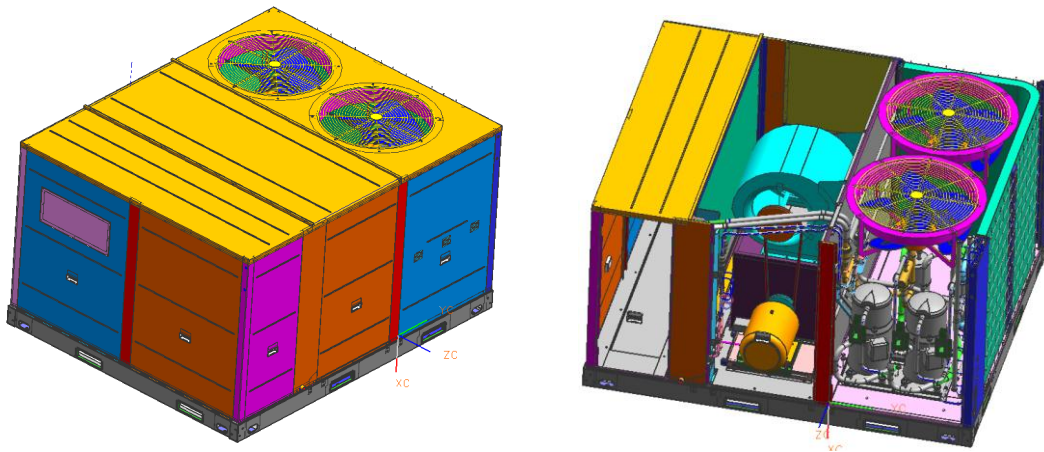


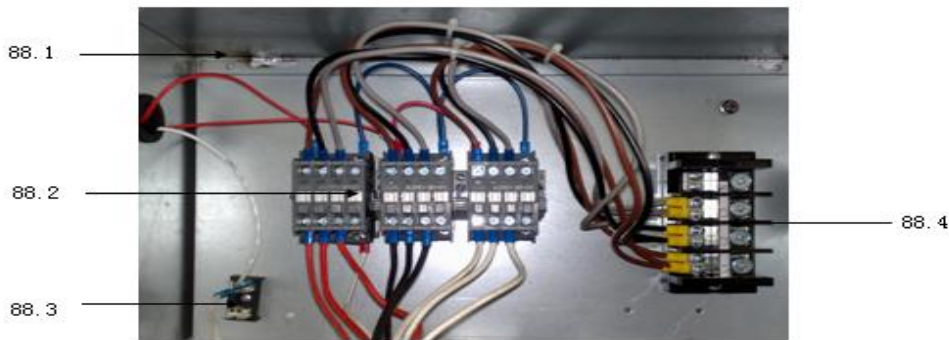
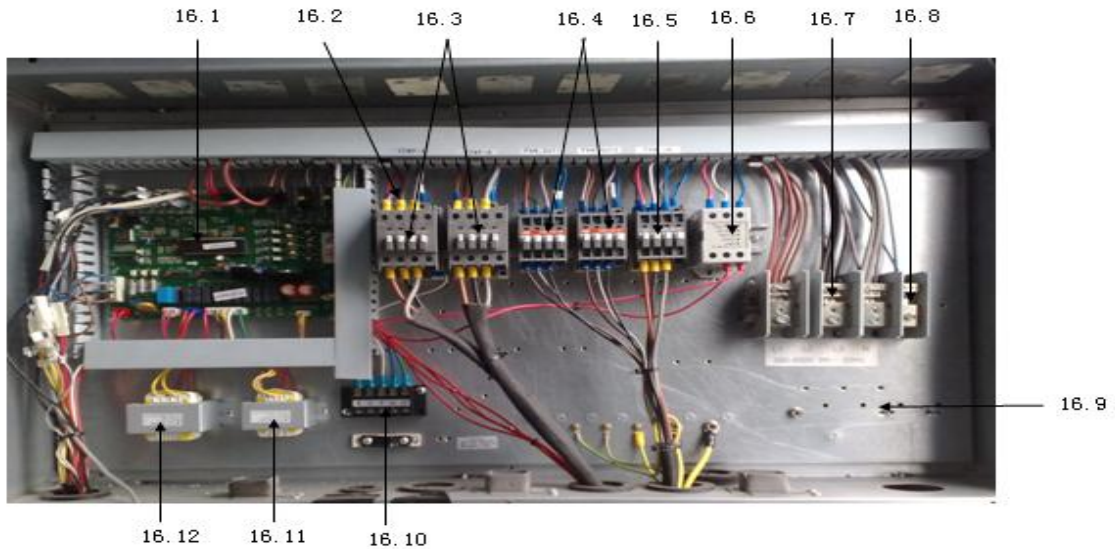


No.	Part Name	Qty	No.	Part Name	Qty
1	Wire controller	1	38	Taper casing	1
2	Evaporator parts	1	39	Then water board assembly inside	1
3	B-I component input tube	1	40	Evaporator fixing board ass'y IV	1
4	Welding pieces of the right anterior column I	1	41	Then water board 2 inside	1
5	Press plate assy	1	42	Then water board assembly 1 inside	1
6	B-1 components of low pressure pipe	1	43	Drainage pan ass'y	1
7	A low-pressure pipe 1 component machine	1	44	Chassis Parts	1
8	A machine component input tube I	1	45	Evaporator fixing board ass'y III	1
9	B Exhaust pipe assembly	1	46	Components under the seal plate evaporator	1
9.1	Pressure controller	1	47	I support the filter fixed	1
10	A local exhaust pipe components	1	48	Air Filter	1
10.1	Pressure controller	1	49	Air Filter	1
11	B machine back to the tube components	1	50	Panel ass'y	1
11.1	Pressure controller	1	51	pole ass'y	1
12	IV B component input tube machine	1	52	Panel ass'y	1
13	A machine component input tube IV	1	53	Cover plate ass'y	1
14	Compressor	2	54	Rear left upright pole ass'y	1
15	A machine back to the tube components	1	55	Supporting ass'y	1
15.1	Pressure controller	1	56	Evaporator fixing board ass'y II	1
16	Electrical control box parts roof	1	57	Inside of the roof support plate welding parts	1
16.1	E-part box	1	58	Components of the return air side of the flange II	1
16.2	Outdoor control board assembly	1	59	Components on the seal plate evaporator	1
16.3	Surge suppresser	5	60	Condenser components	1

16.4	AC contactor	2	61	Side of the return air cover components	1
16.5	Contactora	2	62	Side air flange kit	1
16.6	Wire joint	3	63	Rear left upright pole ass'y	1
16.7	Wire joint	1	64	I return air side of flange components	1
16.9	Contactora	1	65	Side of the outlet cover assembly	1
16.10	Wire joint	1	66	Air outlet clapboard ass'y	1
16.11	24V AC transformer	1	67	Evaporator fixing board ass'y I	1
16.12	Transformer	1	68	Components inside the top cover	1
17	Welding together pieces of the compressor base	1	69	Fan support plate welding parts II	1
18	Panel	1	70	I fan support plate assembly	1
19	Electronic control box cover plate	1	71	Top cover ass'y	1
20	Front right upright pole ass'y II	1	72	Rear right upright pole ass'y II	1
21	Duct	3	73	Fan	1
22	Panel ass'y	1	74	Outside the partition component	1
23	Rear left upright pole ass'y	1	75	Top cover board	1
24	Panel ass'y	1	76	Guider board	2
25	Rear left upright pole ass'y	1	77	Motor fixed holder	2
26	Motor bracket ass'y	2	78	Fan blade	2
27	Screw	1	79	Net	2
28	Motor bracket I ass'y	1	80	Motor	2
29	Motor bracket	1	81	Side air deflector	1
30	Motor vibration pad	4	82	Net III	1
34	Pulley	1	83	Rear-right pole ass'y	1
35	Sleeve	1	84	Net II	1
36	Belt	2	85	Pole ass'y	1
37	Pulley	1	86	Net I	1

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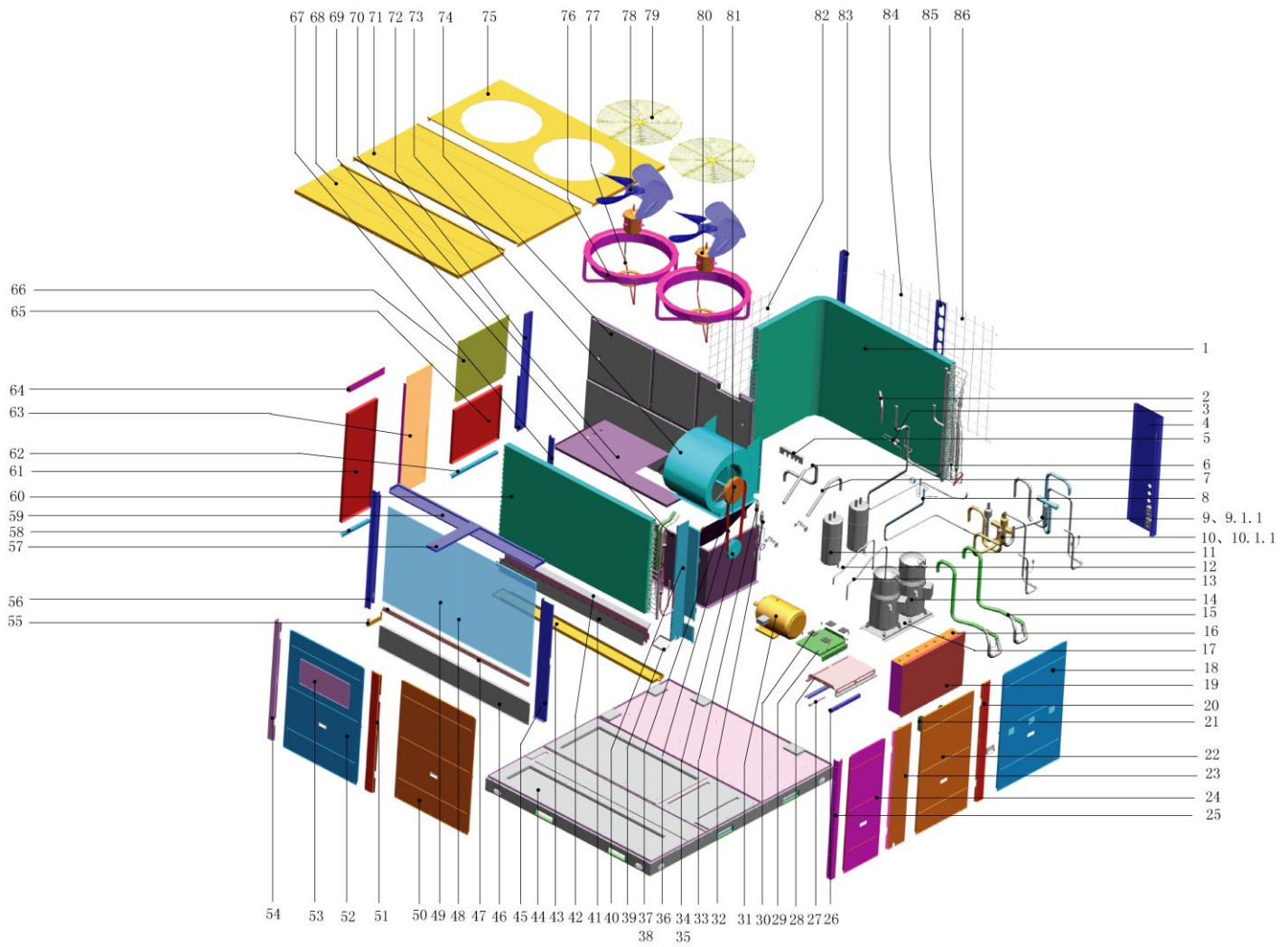
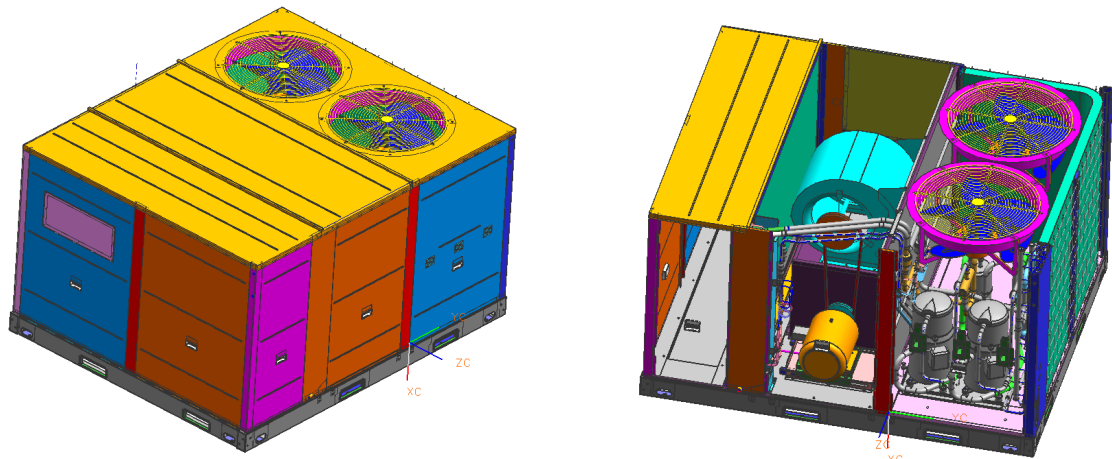


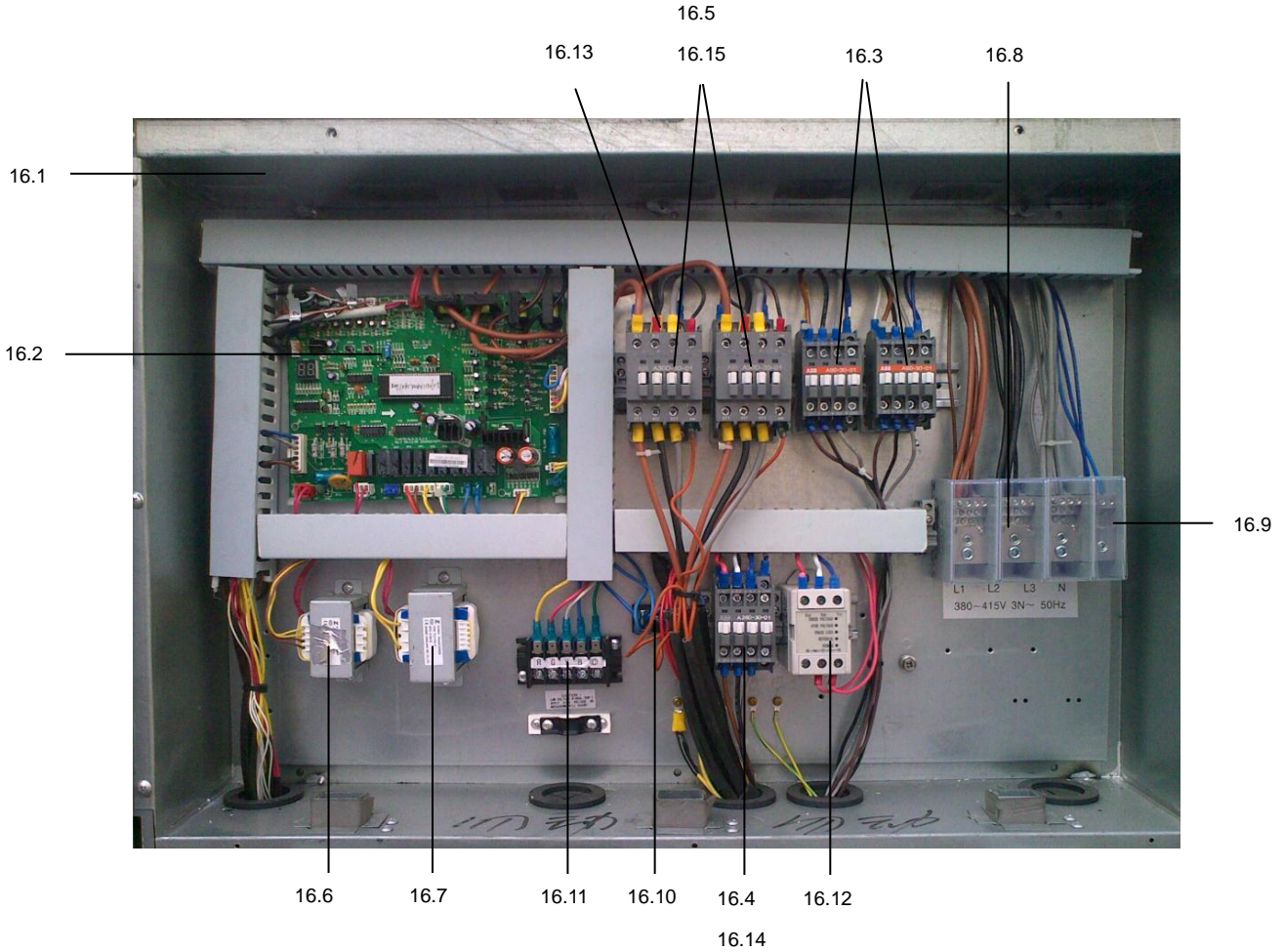


No.	Part Name	Qty	No.	Part Name	Qty
1	Wire controller	1	40	Evaporator fixing board ass'y IV	1
2	Evaporator parts	1	41	Then water board 2 inside	1
3	B-I component input tube	1	42	Then water board assembly 1 inside	1
4	Welding pieces of the right anterior column I	1	43	Drainage pan ass'y	1
5	Press plate assy	1	44	Chassis Parts	1
6	B-1 components of low pressure pipe	1	45	Evaporator fixing board ass'y III	1
7	A low-pressure pipe 1 component machine	1	46	Components under the seal plate evaporator	1
8	A machine component input tube I	1	47	I support the filter fixed	1
9	B Exhaust pipe assembly	1	48	Air Filter	1
9.1	Pressure controller	1	49	Air Filter	1
10	A local exhaust pipe components	1	50	Panel ass'y	1
10.1	Pressure controller	1	51	pole ass'y	1
11	B machine back to the tube components	1	52	Panel ass'y	1
12	IV B component input tube machine	1	53	Cover plate ass'y	1
13	A machine component input tube IV	1	54	Rear left upright pole ass'y	1
14	Compressor	2	55	Supporting ass'y	1
15	A machine back to the tube components	1	56	Evaporator fixing board ass'y II	1
16	Electrical control box parts roof	1	57	Inside of the roof support plate welding parts	1
16.1	Outdoor control board assembly	1	58	Components of the return air side of the flange II	1
16.2	Surge suppresser	5	59	Components on the seal plate evaporator	1

16.3	AC contactor	2	60	Condenser components	1
16.4	Contactora	2	61	Side of the return air cover components	1
16.5	Contactora	1	62	Side air flange kit	1
16.7	Wire joint	3	63	Rear left upright pole ass'y	1
16.8	Wire joint	1	64	I return air side of flange components	1
16.9	E-part box	1	65	Side of the outlet cover assembly	1
16.10	Wire joint	1	67	Evaporator fixing board ass'y I	1
16.11	Transformer	1	68	Components inside the top cover	1
16.12	24V AC transformer	1	69	I fan support plate assembly	1
17	Welding together pieces of the compressor base	1	70	Fan support plate welding parts II	1
18	Panel	1	71	Top cover ass'y	1
19	Electronic control box cover plate	1	72	Part II right after the column	1
20	Front right upright pole ass'y II	1	73	Fan	1
21	Duct	3	74	Outside the partition component	1
22	Panel ass'y	1	75	Top cover board	1
23	Rear left upright pole ass'y	1	76	Guider board	2
24	Panel ass'y	1	77	Motor fixed holder	2
25	Rear left upright pole ass'y	1	78	Fan blade	2
26	Motor bracket ass'y	2	79	Net	2
27	Screw	1	80	Motor	2
28	Motor bracket I ass'y	1	81	Side air deflector	1
29	Motor bracket	1	82	Net III	1
30	Motor vibration pad	4	83	Rear-right pole ass'y	1
31	Three-phase asynchronous motor	1	84	Net II	1
32	B-capillary components	1	85	Pole ass'y	1
33	A unit capillary component	1	86	Net I	1
34	Pulley	1	87	Electric heater ass'y	1
35	Sleeve	1	88	Thermoelectric power auxiliary control box components	1
36	Belt	2	88.1	E-part box	1
37	Pulley	1	88.2	Contactora	3
38	Taper casing	1	88.3	Wire joint	1
39	Then water board assembly inside	1	88.4	Wire joint	1

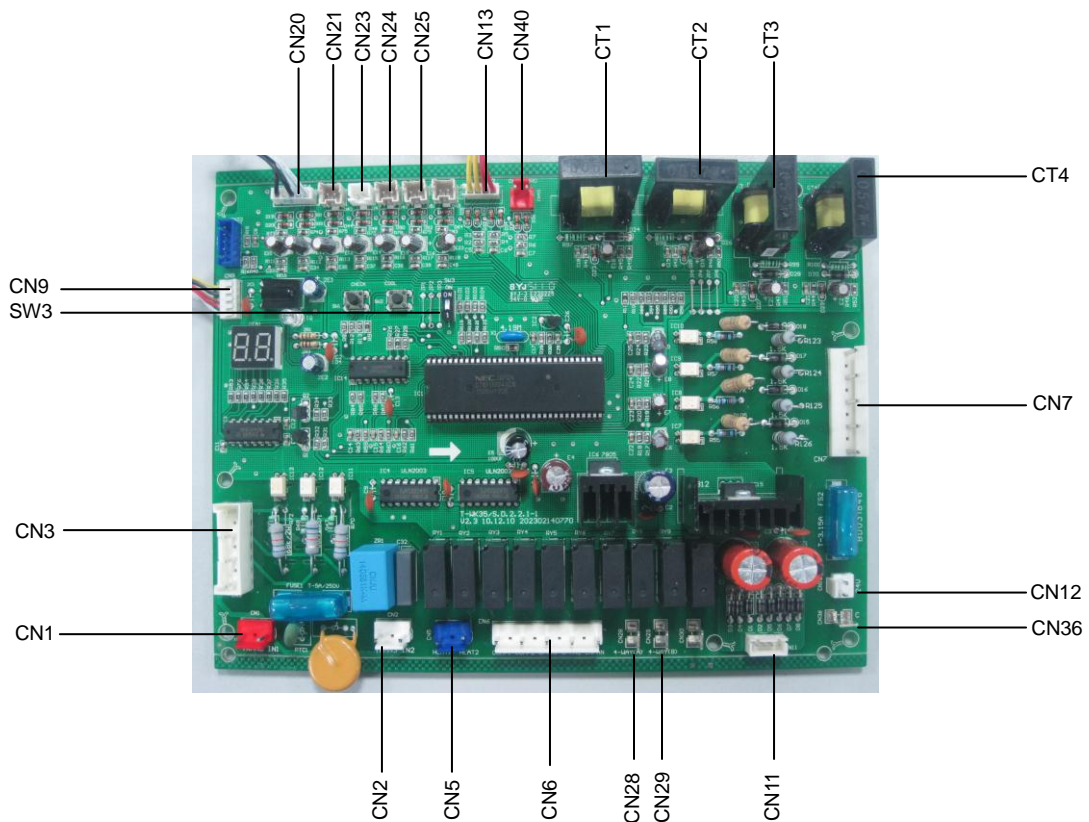
MRBT-150HWN1-R





No.	Part Name	Qty	No	Part Name	Qty
1	Condenser components	1	35	Sleeve	1
2	A condenser over	1	36	Belt	2
3	B-I component input tube	1	37	Pulley	1
4	Welding pieces of the right anterior column I	1	38	Taper casing	1
5	Press plate assy	1	39	Then water board assembly inside	1
6	B-1 components of low pressure pipe	1	40	Evaporator fixing board ass'y IV	1
7	A low-pressure pipe 1 component machine	1	41	Then water board 2 inside	1
8	A machine component input tube I	1	42	Then water board assembly 1 inside	1
9	B-way valve parts	1	43	Drainage pan ass'y	1
9.1	A local exhaust pipe components	1	44	Chassis Parts	1
9.1.1	Pressure controller	1	45	Evaporator fixing board ass'y III	1
10	A four-way valve parts machine	1	46	Components under the seal plate evaporator	1
10.1	A local exhaust pipe components	1	47	I support the filter fixed	1
11	Gas-liquid separator	2	48	Air Filter	1
12	IV B component input tube machine	1	49	Air Filter	1
13	A machine component input tube IV	1	50	Panel ass'y	1
14	Compressor	2	51	pole ass'y	1
15	A machine back to the tube components	2	52	Panel ass'y	1
16	Electrical control box parts roof	1	53	Cover plate ass'y	1
16.1	E-part box	1	54	Rear left upright pole ass'y	1
16.2	Outdoor control board assembly	1	55	Supporting ass'y	1
16.3	Contactor	2	56	Evaporator fixing board ass'y II	1

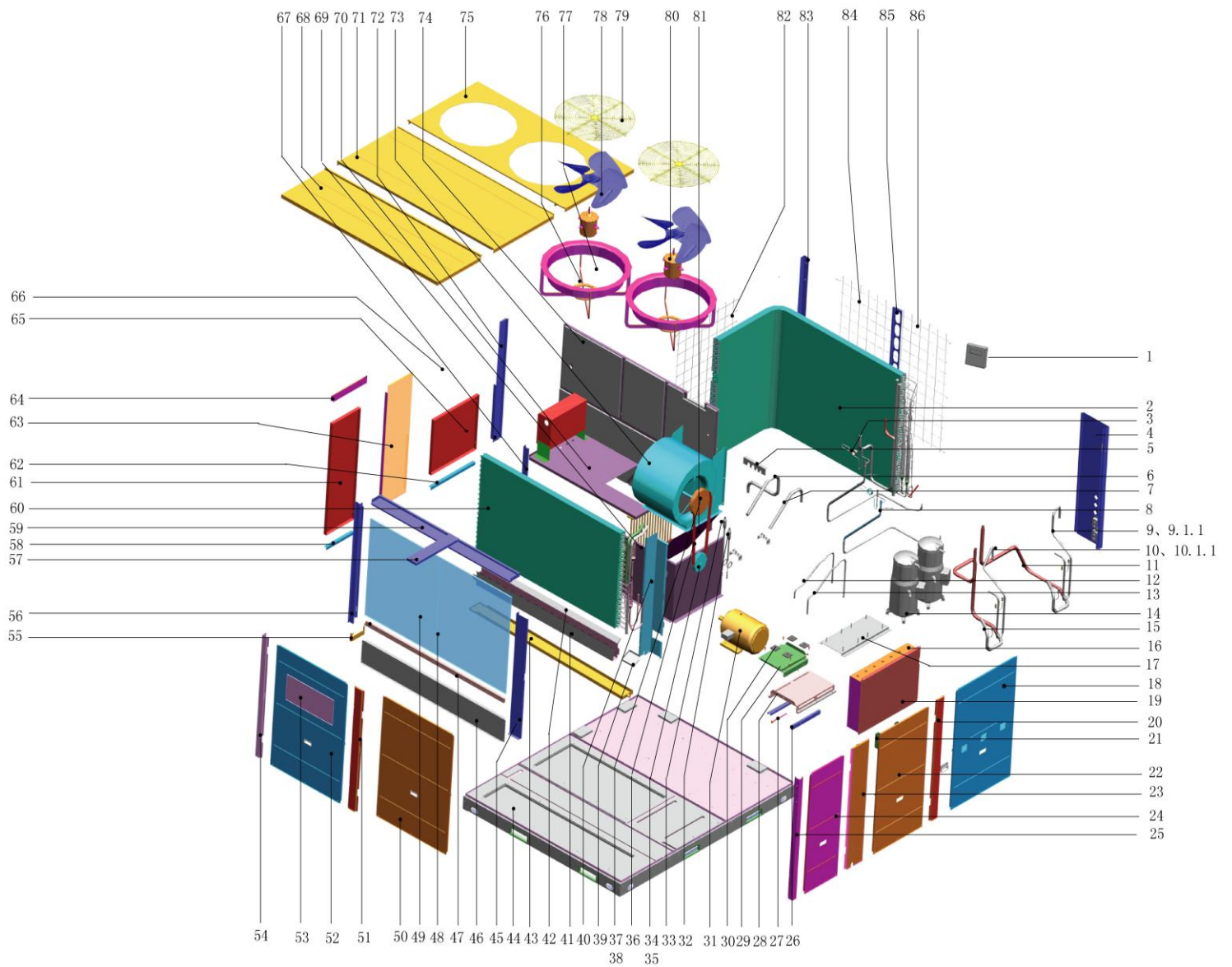
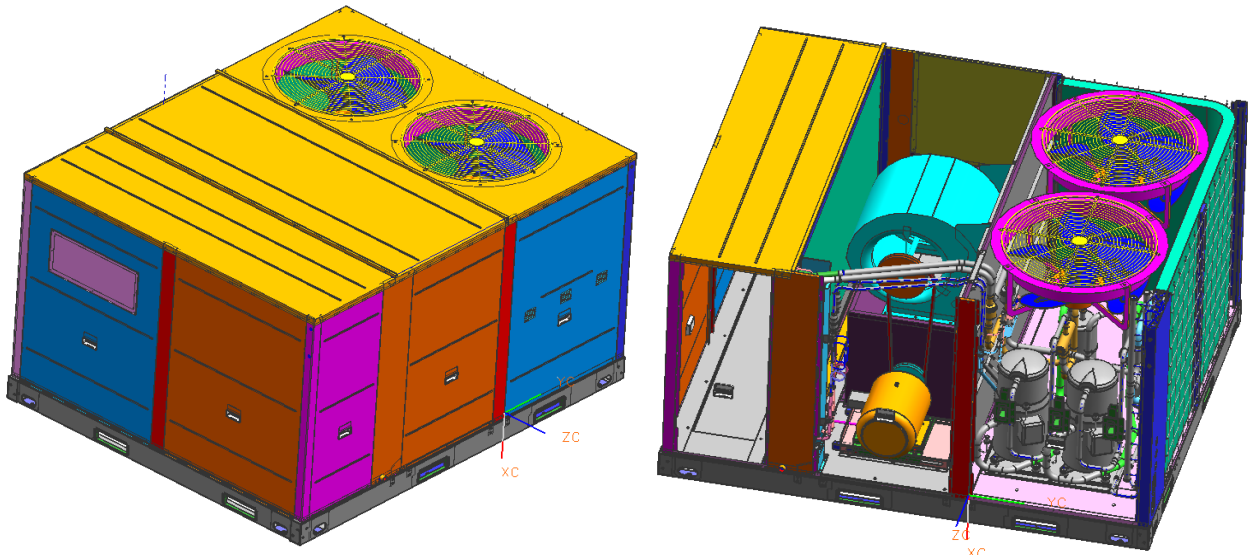
16.4	Contactora	1	57	Cover supporter	1
16.5	AC contactora	2	58	Components of the return air side of the flange II	1
16.6	Transformer	1	59	Components on the seal plate evaporator	1
16.7	24V AC transformer	1	60	Evaporator parts	1
16.8	Wire joint	3	61	Side of the return air cover components	1
16.9	Wire joint	1	62	Side air flange kit	1
16.10	Wire joint	1	63	Rear left upright pole ass'y	1
16.11	Wire joint	1	64	I return air side of flange components	1
16.13	Surge suppresser	5	65	Side of the outlet cover assembly	1
16.14	Contacts within the fan cable group 2	1	66	Air outlet clapboard ass'y	1
16.15	Wire joint ass'y	2	67	Evaporator fixing board ass'y I	1
17	Welding together pieces of the compressor base	1	68	Components inside the top cover	1
18	Panel	1	69	Fan support plate welding parts II	1
19	Electronic control box cover plate	1	70	I fan support plate assembly	1
20	Front right upright pole ass'y II	1	71	Top cover ass'y	1
21	Duct	3	72	Rear right upright pole ass'y II	1
22	Panel ass'y	1	73	Fan	1
23	Rear left upright pole ass'y	1	74	Outside the partition component	1
24	Panel ass'y	1	75	Top cover board	1
25	Rear left upright pole ass'y	1	76	Guider board	2
26	Motor bracket ass'y	2	77	Motor fixed holder	2
27	Screw	1	78	Fan blade	2
28	Motor bracket I ass'y	1	79	Net	2
29	Motor bracket	1	80	Motor	2
30	Motor vibration pad	4	81	Side air deflector	1
31	Motor	1	82	Net III	1
32	A unit capillary component	1	83	Rear-right pole ass'y	1
33	B-capillary components	1	84	Net II	1
34	Pulley	1	85	Pole ass'y	1
			86	Net I	1

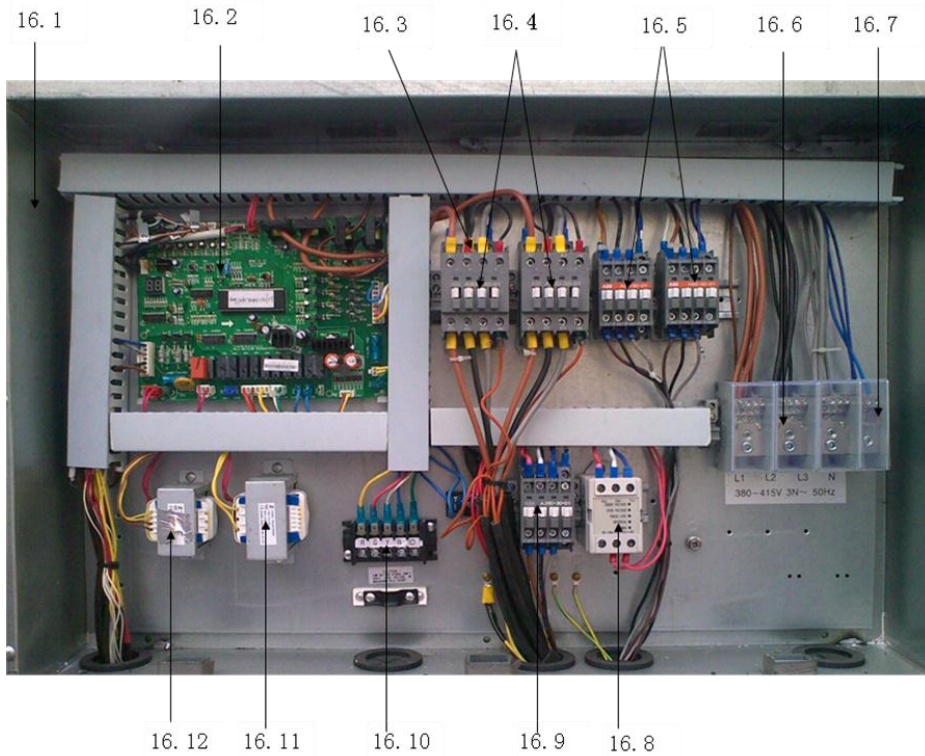


CODE	TITLE	CODE	TITLE	CODE	TITLE
CN1	Transformer	CN12	Transformer	CN25	Indoor pipe temp. sensor
CN2	Transformer	CN7	To the wire controller	CN24	Indoor pipe temp. sensor
CN5	Electric heater	CT4	Current indicator	CN23	Indoor room temp. sensor
CN6	Compressor, outdoor & indoor fan motor power supply	CT3	Current indicator	CN21	Pipe temp. sensor of unit AB
CN28	4-way terminal(A)	CT2	Current indicator	CN20	Outdoor temp. sensor
CN29	4-way terminal (B)	CT1	Current indicator	CN9	To be connected wired controller KJR-12B
CN11	Transformer	CN40	Outdoor fan motor protection switch	SW3	Wired controller set up switch
CN36	To the wired controller	CN13	High & low pressure switch Temp protection switch	CN3	Power supply

10.7 17.5 TON

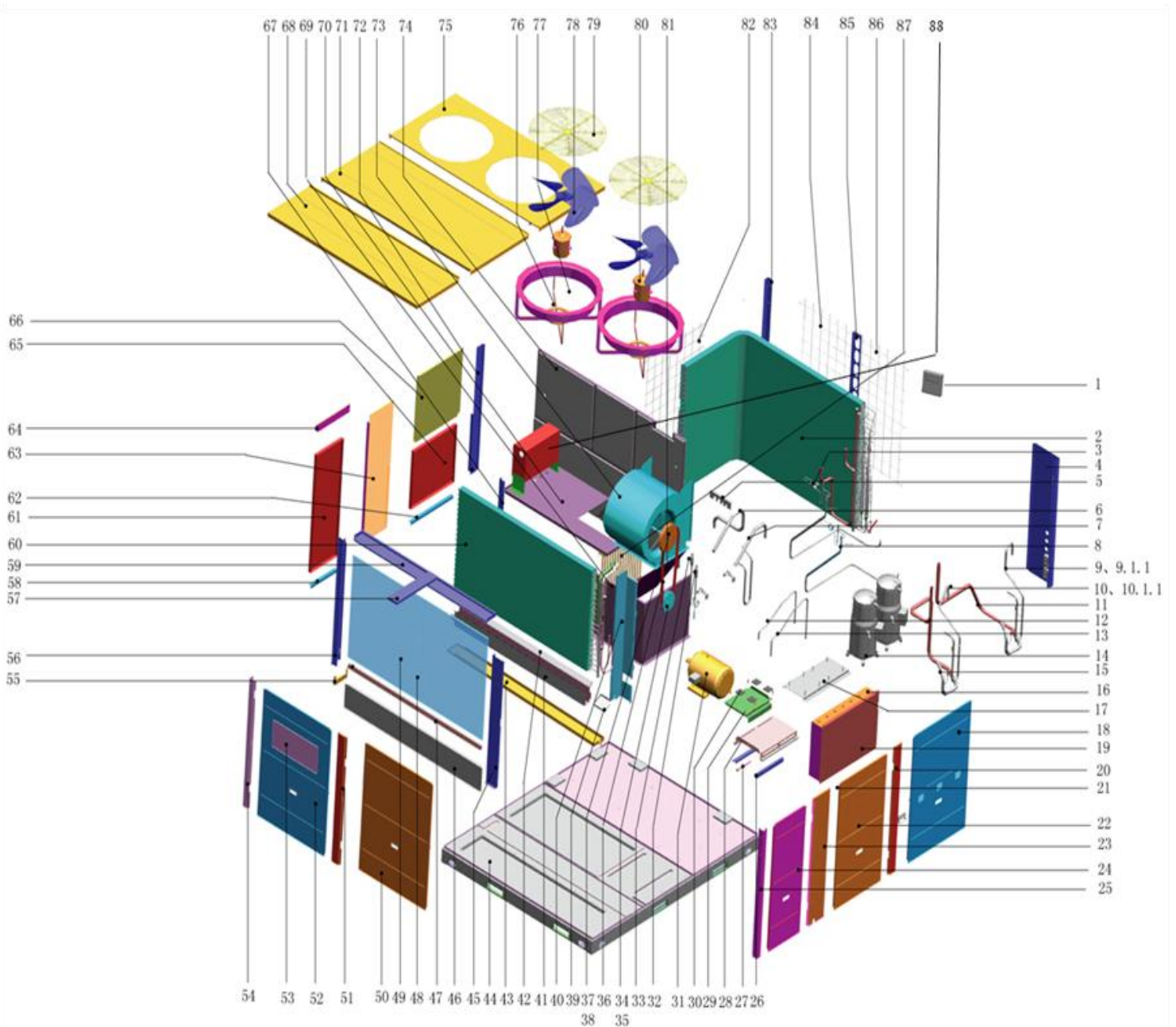
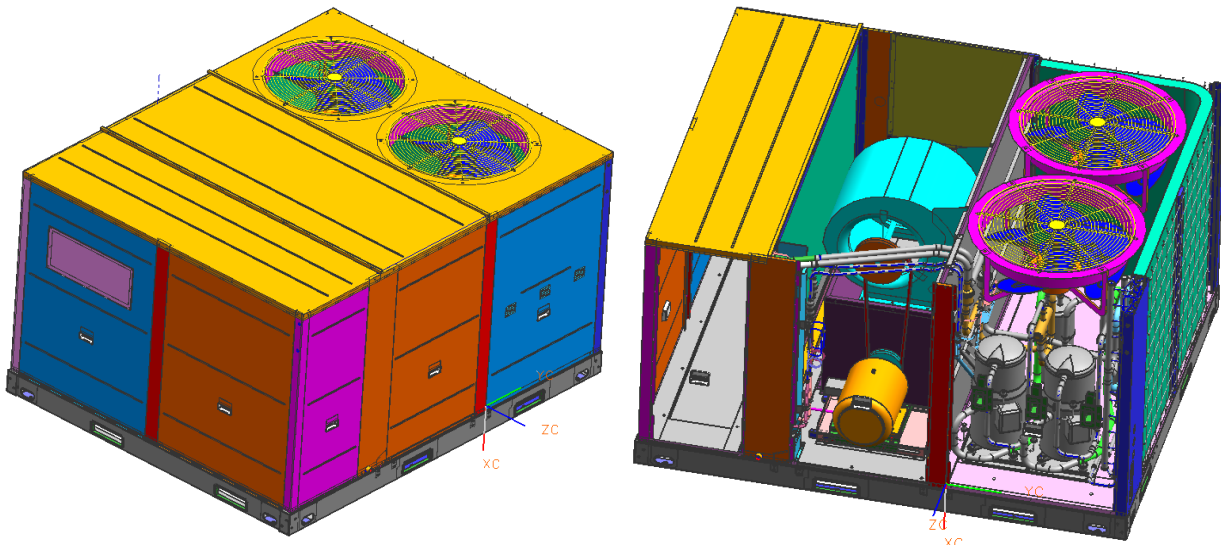
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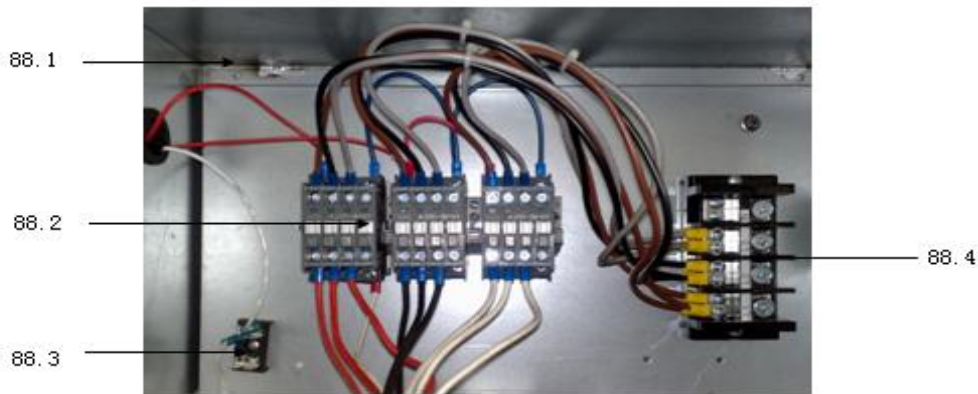
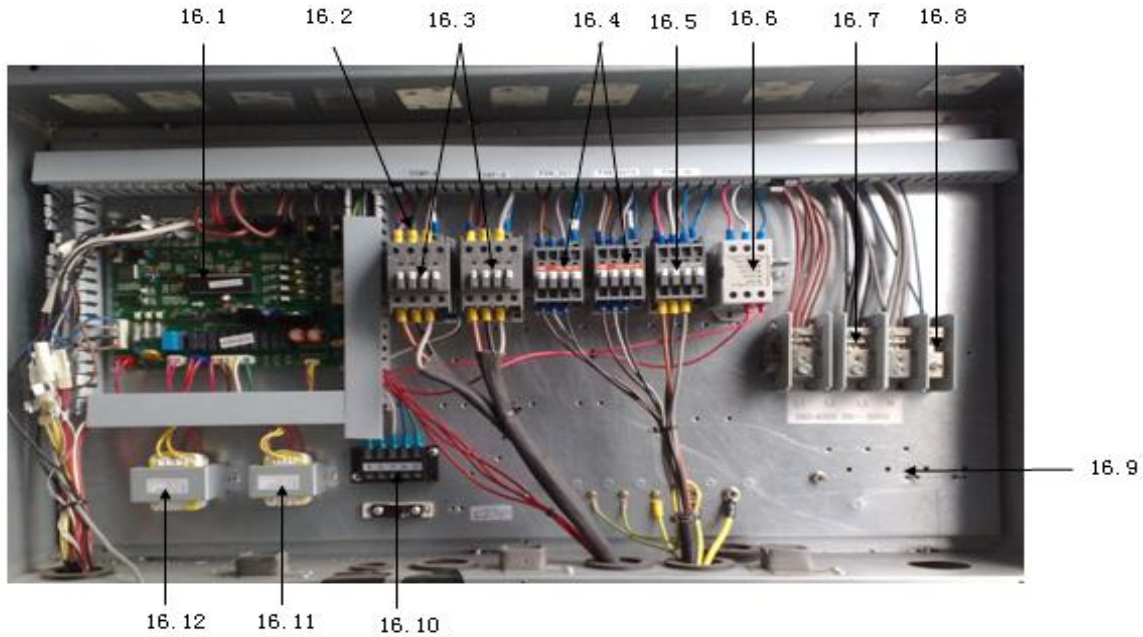




No.	Part Name	Qty	No	Part Name	Qty
1	Wire controller	1	36	Pulley	1
2	Condenser components	1	37	Belt	2
3	B-I component input tube	1	38	Taper casing	1
4	Welding pieces of the right anterior column I	1	39	Then water board assembly inside	1
5	Press plate assy	1	40	Evaporator fixing board ass'y IV	1
6	B-1 components of low pressure pipe	1	41	Then water board 2 inside	1
7	A low-pressure pipe 1 component machine	1	42	Then water board assembly 1 inside	1
8	A machine component input tube I	1	43	Drainage pan ass'y	1
9	B unit discharge pipe ass'y	1	44	Chassis Parts	1
9.1	Pressure controller	1	45	Evaporator fixing board ass'y III	1
10	A unit discharge pipe ass'y	1	46	Components under the seal plate evaporator	1
10.1	Pressure controller	1	47	I support the filter fixed	1
11	B machine back to the tube components	1	48	Air Filter	1
11.1	Pressure controller	1	49	Air Filter	1
12	IV B component input tube machine	1	50	Panel ass'y	1
13	A machine component input tube IV	1	51	pole ass'y	1
14	Compressor	2	52	Panel ass'y	1
15	A machine back to the tube components	1	53	Cover plate ass'y	1
15.1	Pressure controller	1	54	Rear left upright pole ass'y	1
16	Rooftop electrical box parts	1	55	Supporting ass'y	1
16.1	E-part box	1	56	Evaporator fixing board ass'y II	1
16.2	Outdoor main board ass'y	1	57	Inside of the roof support plate welding parts	1
16.3	Surge suppresser	5	58	Components of the return air side of the flange II	1
16.4	AC contactor	2	59	Components on the seal plate evaporator	1
16.5	Contactor	2	60	Evaporator parts	1

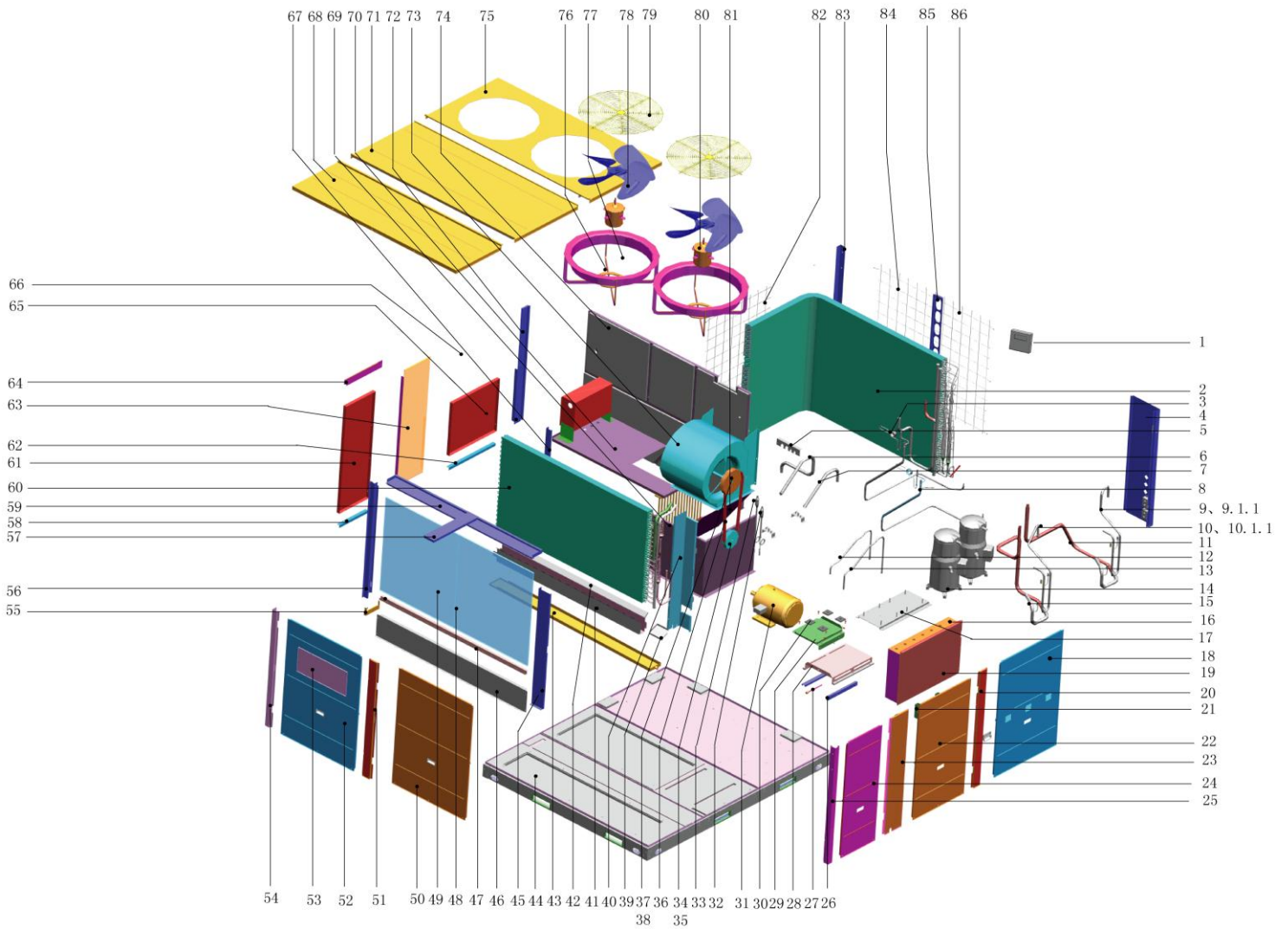
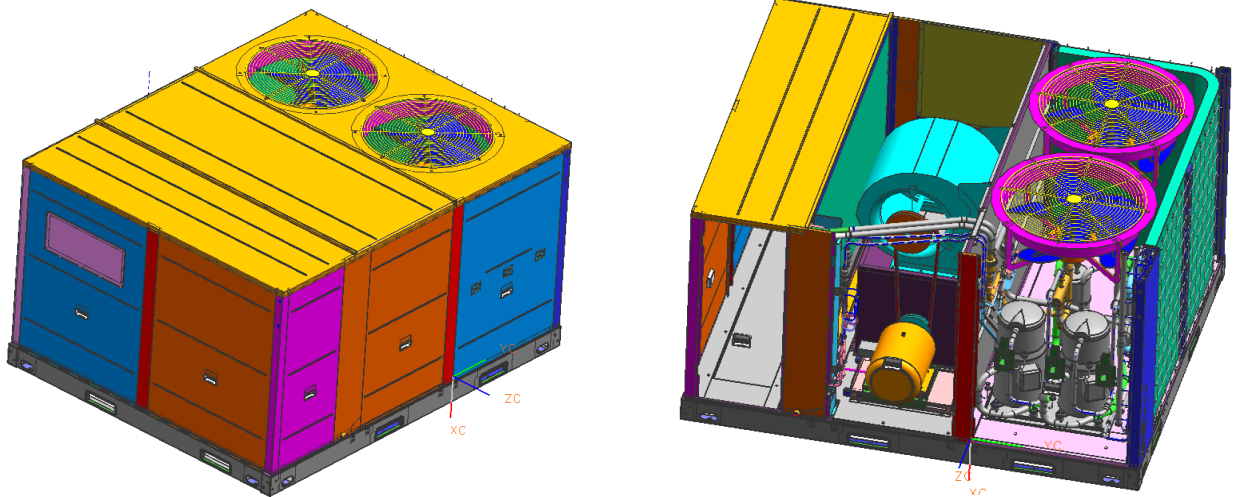
16.6	Wire joint	3	61	Side of the return air cover components	1
16.7	Wire joint	1	62	Side air flange kit	1
16.9	Contactator	1	63	Rear left upright pole ass'y	1
16.10	Wire joint	1	64	I return air side of flange components	1
16.11	24V AC transformer	1	65	Side of the outlet cover assembly	1
16.12	Transformer	1	66	Air outlet clapboard ass'y	1
17	Welding together pieces of the compressor base	1	67	Evaporator fixing board ass'y I	1
18	Panel	1	68	Components inside the top cover	1
19	Electronic control box cover plate	1	69	Fan support plate welding parts II	1
20	Front right upright pole ass'y II	1	70	I fan support plate assembly	1
21	Duct	3	71	Top cover ass'y	1
22	Panel ass'y	1	72	Rear right upright pole ass'y II	1
23	Rear left upright pole ass'y	1	73	Fan	1
24	Panel ass'y	1	74	Outside the partition component	1
25	Rear left upright pole ass'y	1	75	Outside top cover welding part	1
26	Motor bracket ass'y	2	76	Deflector	2
27	Screw	1	77	Motor bracket	2
28	Motor bracket I ass'y	1	78	Fan	2
29	Motor bracket	1	79	Grille	2
30	Motor vibration pad	4	80	Motor	2
31	Three-phase asynchronous motor	1	81	Side air deflector	1
32	B unit capillary ass'y	1	82	Net III	1
33	A unit capillary ass'y	1	83	Rear-right pole ass'y	1
34	Pulley	1	84	Net II	1
35	Sleeve	1	85	Pole ass'y	1
			86	Net I	1

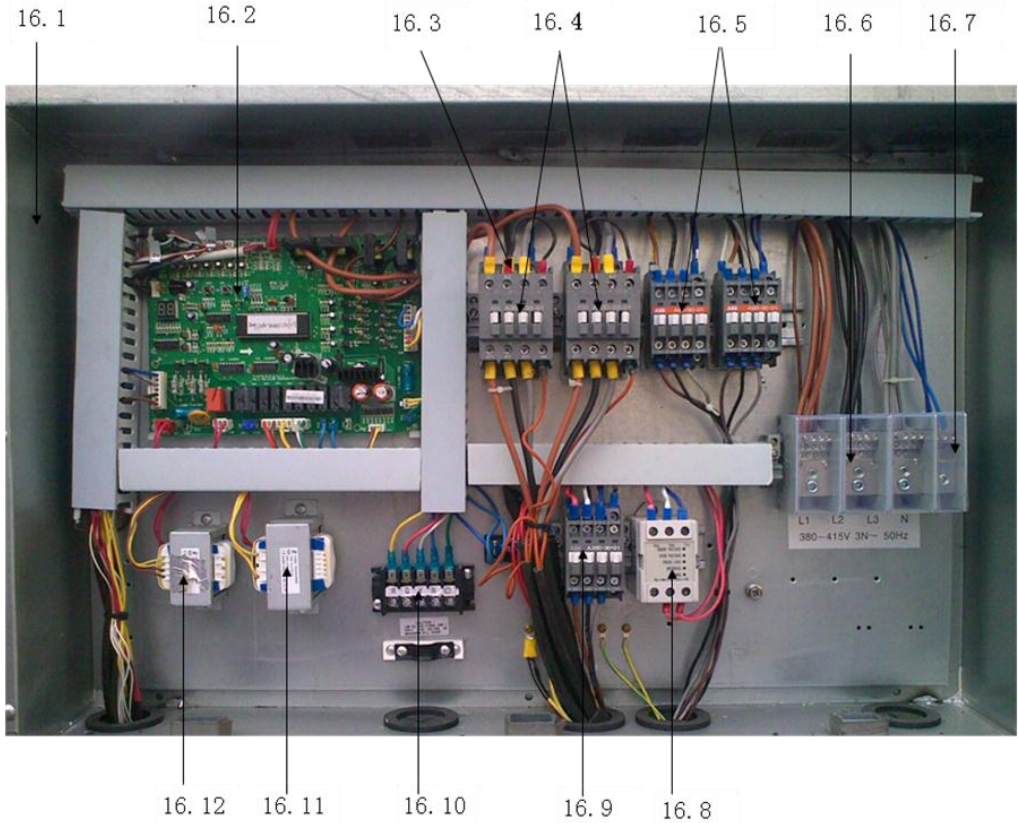




No.	Part Name	Qty	No.	Part Name	Qty
1	Wire controller	1	40	Evaporator fixing board ass'y IV	1
2	Evaporator parts	1	41	Then water board 2 inside	1
3	B-I component input tube	1	42	Then water board assembly 1 inside	1
4	Welding pieces of the right anterior column I	1	43	Drainage pan ass'y	1
5	Press plate ass'y	1	44	Chassis Parts	1
6	B-1 components of low pressure pipe	1	45	Evaporator fixing board ass'y III	1
7	A low-pressure pipe 1 component machine	1	46	Components under the seal plate evaporator	1
8	A machine component input tube I	1	47	I support the filter fixed	1
9	B unit discharge pipe ass'y	1	48	Air Filter	1
9.1	Pressure controller	1	49	Air Filter	1
10	A unit discharge pipe ass'y	1	50	Panel ass'y	1
10.1	Pressure controller	1	51	pole ass'y	1
11	B machine back to the tube components	1	52	Panel ass'y	1
12	IV B component input tube machine	1	53	Cover plate ass'y	1
13	A machine component input tube IV	1	54	Rear left upright pole ass'y	1
14	Compressor	2	55	Supporting ass'y	1
15	A machine back to the tube components	1	56	Evaporator fixing board ass'y II	1
16	Rooftop electrical box parts	1	57	Inside of the roof support plate welding parts	1

16.1	Outdoor main board ass'y	1	58	Components of the return air side of the flange II	1
16.2	Surge suppresser	5	59	Components on the seal plate evaporator	1
16.3	AC contactor	2	60	Condenser components	1
16.4	Contactora	2	61	Side of the return air cover components	1
16.5	Contactora	1	62	Side air flange kit	1
16.7	Wire joint	3	63	Rear left upright pole ass'y	1
16.8	Wire joint	1	64	I return air side of flange components	1
16.9	E-part box	1	65	Side of the outlet cover assembly	1
16.10	Wire joint	1	67	Evaporator fixing board ass'y I	1
16.11	Transformer	1	68	Components inside the top cover	1
16.12	24V AC transformer	1	69	I fan support plate assembly	1
17	Welding together pieces of the compressor base	1	70	Fan support plate welding parts II	1
18	Panel	1	71	Top cover ass'y	1
19	Electronic control box cover plate	1	72	Part II right after the column	1
20	Front right upright pole ass'y II	1	73	Fan	1
21	Duct	3	74	Outside the partition component	1
22	Panel ass'y	1	75	Outside top cover welding part	1
23	Rear left upright pole ass'y	1	76	Deflector	2
24	Panel ass'y	1	77	Motor bracket	2
25	Rear left upright pole ass'y	1	78	Fan	2
26	Motor bracket ass'y	2	79	Grille	2
27	Screw	1	80	Motor	2
28	Motor bracket I ass'y	1	81	Side air deflector	1
29	Motor bracket	1	82	Net III	1
30	Motor vibration pad	4	83	Rear-right pole ass'y	1
31	Three-phase asynchronous motor	1	84	Net II	1
32	B unit capillary ass'y	1	85	Pole ass'y	1
33	A unit capillary ass'y	1	86	Net I	1
34	Pulley	1	87	Electric heater ass'y	1
35	Sleeve	1	88	Thermoelectric power auxiliary control box components	1
36	Pulley	1	88.1	E-part box	1
37	Belt	2	88.2	Contactora	3
38	Taper casing	1	88.3	Wire joint	1
39	Then water board assembly inside	1	88.4	Wire joint	1



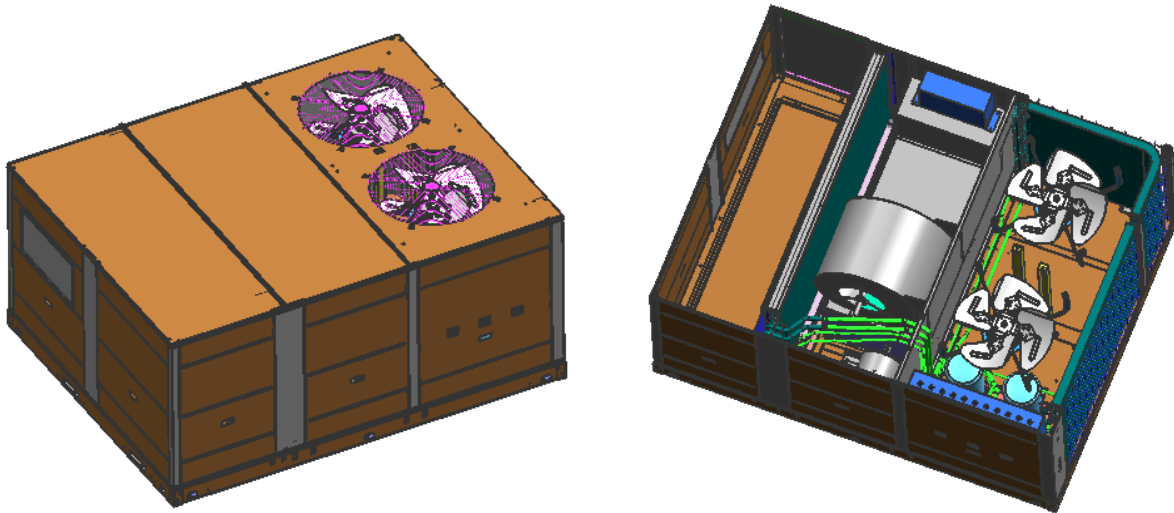


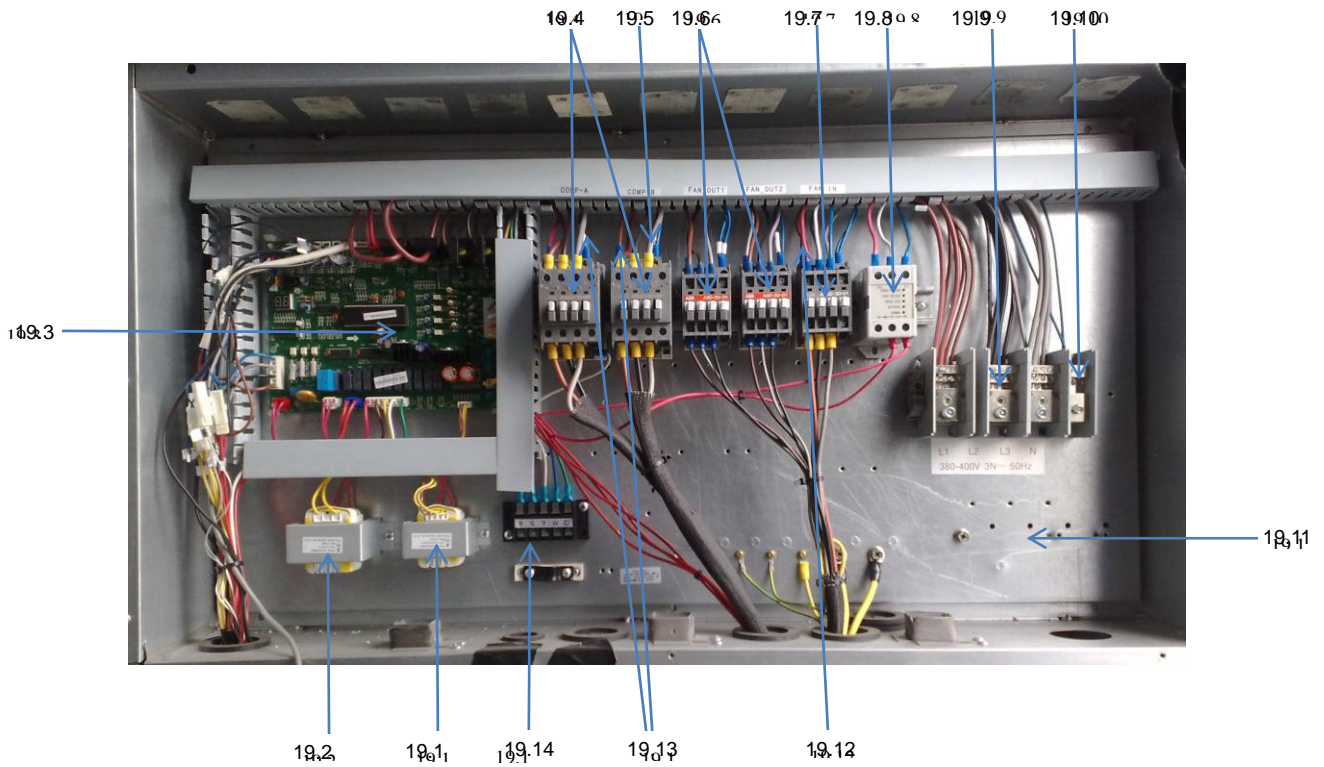
No.	Part Name	Qty	No.	Part Name	Qty
1	Wire controller	1	38	Taper casing	1
2	Condenser components	1	39	Then water board assembly inside	1
3	B-I component input tube	1	40	Evaporator fixing board ass'y IV	1
4	Welding pieces of the right anterior column I	1	41	Then water board 2 inside	1
5	Press plate ass'y	1	42	Then water board assembly 1 inside	1
6	B-1 components of low pressure pipe	1	43	Drainage pan ass'y	1
7	A low-pressure pipe 1 component machine	1	44	Chassis Parts	1
8	A machine component input tube I	1	45	Evaporator fixing board ass'y III	1
9	B-way valve parts	1	46	Components under the seal plate evaporator	1
9.1	A local exhaust pipe components	1	47	I support the filter fixed	1
10	A four-way valve parts machine	1	48	Air Filter	1
10.1	A local exhaust pipe components	1	49	Air Filter	1
11	Gas-liquid separator	2	50	Panel ass'y	1
12	IV B component input tube machine	1	51	pole ass'y	1
13	A machine component input tube IV	1	52	Panel ass'y	1
14	Compressor	2	53	Cover plate ass'y	1
15	A machine back to the tube components	2	54	Rear left upright pole ass'y	1
16	Rooftop electrical box parts	1	55	Supporting ass'y	1
16.1	E-part box	1	56	Evaporator fixing board ass'y II	1
16.2	Outdoor main board ass'y	1	57	Inside of the roof support plate welding parts	1
16.3	Surge suppresser	5	58	Components of the return air side of the flange II	1
16.4	AC contactor	2	59	Components on the seal plate evaporator	1
16.5	Contactur	2	60	Evaporator parts	1
16.6	Wire joint	3	61	Side of the return air cover components	1
16.7	Wire joint	1	62	Side air flange kit	1

16.9	Contactora	1	63	Rear left upright pole ass'y	1
16.10	Wire joint	1			
16.11	24V AC transformer	1	64	I return air side of flange components	1
16.12	Transformer	1	65	Side of the outlet cover assembly	1
17	Welding together pieces of the compressor base	1	66	Air outlet clapboard ass'y	1
18	Panel	1	67	Evaporator fixing board ass'y I	1
19	Electronic control box cover plate	1	68	Components inside the top cover	1
20	Front right upright pole ass'y II	1	69	Fan support plate welding parts II	1
21	Duct	3	70	I fan support plate assembly	1
22	Panel ass'y	1	71	Top cover ass'y	1
23	Rear left upright pole ass'y	1	72	Rear right upright pole ass'y II	1
24	Panel ass'y	1	73	Fan	1
25	Rear left upright pole ass'y	1	74	Outside the partition component	1
26	Motor bracket ass'y	2	75	Outside top cover welding part	1
27	Screw	1	76	Deflector	2
28	Motor bracket I ass'y	1	77	Motor bracket	2
29	Motor bracket	1	78	Fan	2
30	Motor vibration pad	4	79	Grille	2
31	Three-phase asynchronous motor	1	80	Motor	2
32	B unit capillary ass'y	1	81	Side air deflector	1
33	A unit capillary ass'y	1	82	Net III	1
34	Pulley	1	83	Rear-right pole ass'y	1
35	Sleeve	1	84	Net II	1
36	Pulley	1	85	Pole ass'y	1
37	Belt	2	86	Net I	1

10.8 20 TON

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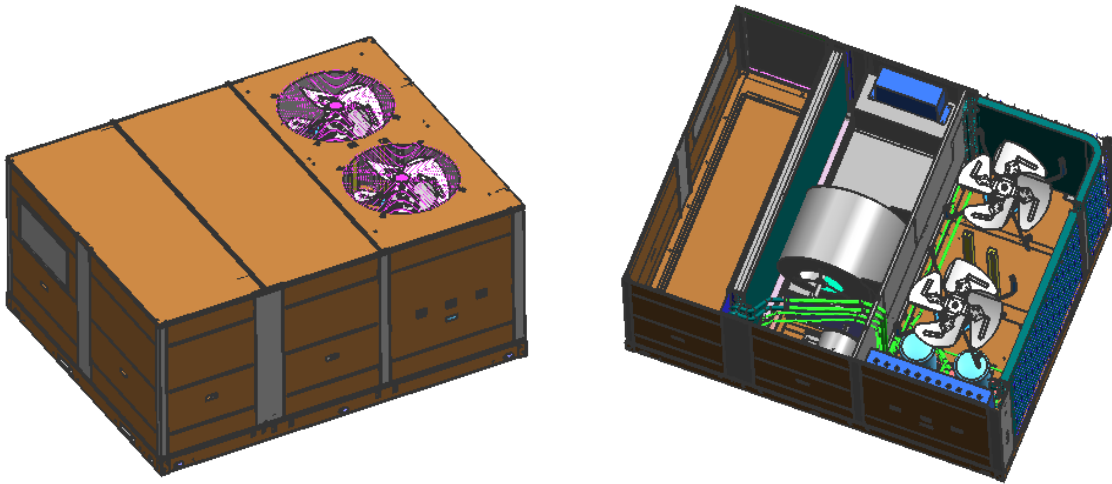


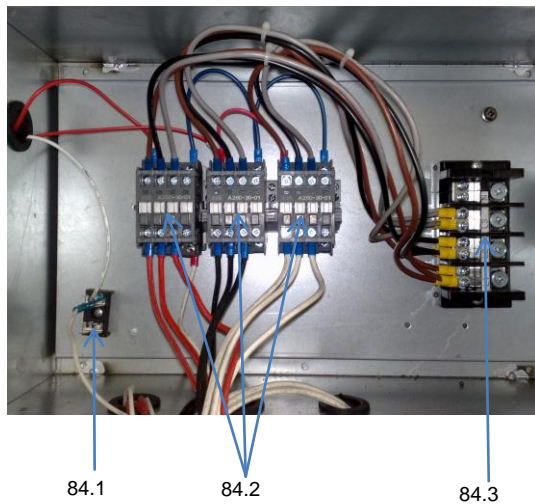
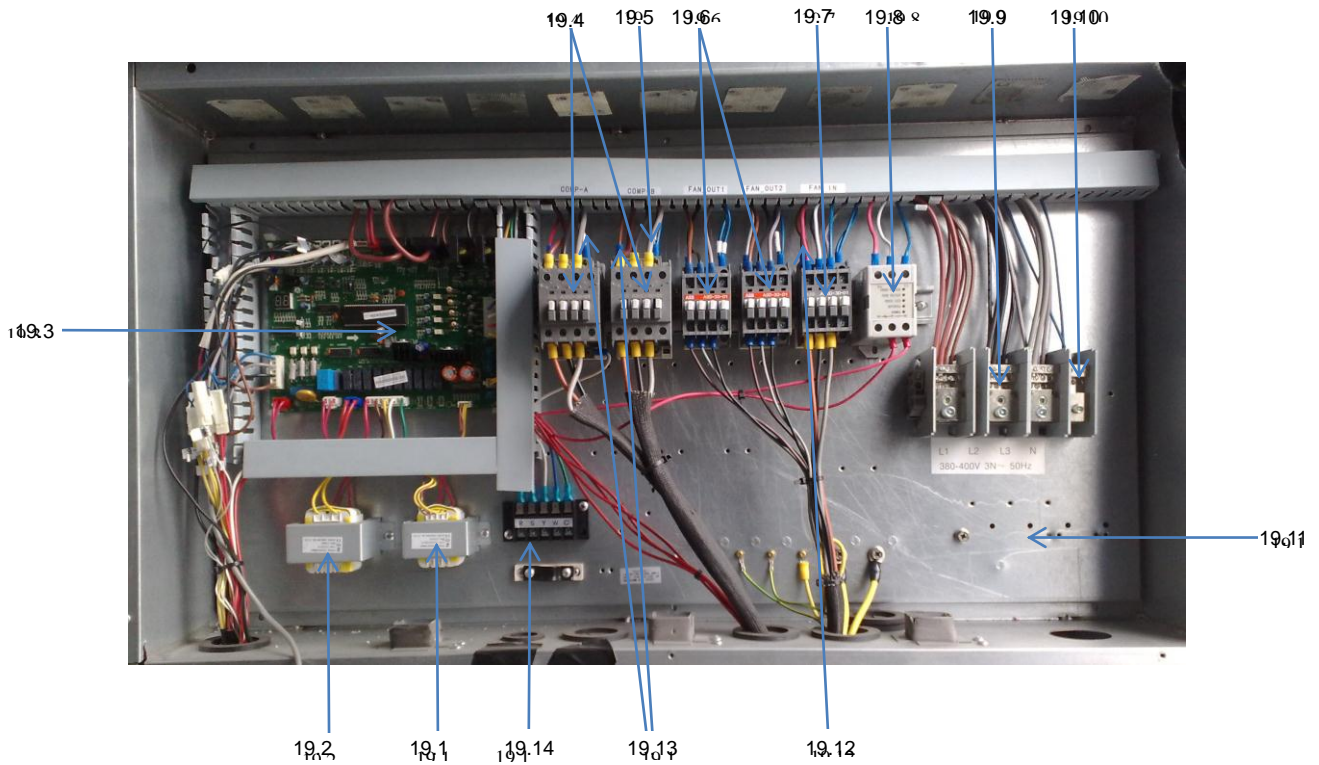
No.	Part Name	Qty	No.	Part Name	Qty
1	A condenser components	1	34	Evaporator parts	1
2	A condenser receiver assembly 1	1	35	III fixed support component evaporator	1
3	Net I	1	36	Water tray components	1
4	A condenser over component 2	1	37	Components under the seal plate evaporator	1
4.1	Unloading valve	1	38	Air filter	2
5	Over component B machine evaporator	1	39	Rear left upright pole ass'y	1
6	A machine components over the evaporator	1	40	Panel ass'y II	1
7	Over component B condenser	1	41	Pole ass'y	1
7.1	Unloading valve	1	42	Panel ass'y I	1
8	Top cover pole	2	43	Cover plate ass'y	1
9	A unit capillary component	1	44	Rear left upright pole ass'y	1
10	Part B condenser	1	45	Air filter	1
12	B-capillary components	1	46	Components on the seal plate evaporator	1
14	B machine back to the tube components	1	47	Fixed supporting	1
14.1	Pressure controller	1	48	Return air flange II ass'y	1
16	A machine back to the tube components	1	49	Supporting ass'y	1
16.1	Pressure controller	1	50	Fixed supporting ass'y II	1
17	Compressor	2	51	Return air cover plate ass'y	1
18	Compressor base	1	52	Return air flange I ass'y	1
19	Electrical control box parts roof	1	53	Fixed supporting ass'y I	1
19.1	Transformer	1	54	Supply air flange II ass'y	1
19.2	24V AC transformer	1	56	Fixing board	3
19.3	Main control board power supply wire	1	57	Supporting board	1
19.4	AC contactor	2	58	Partition board ass'y	1
19.5	Surge suppresser	5	59	Supporting board ass'y	1
19.6	Contactor	2	60	Top cover plate ass'y	1

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19.7	Contactora	1	61	Supply air cover plate ass'y	1
19.9	Wire joint	3	62	Duct	3
19.10	Wire joint	1	63	Rear right upright pole II ass'y	1
19.11	E-part box	1	64	Inside of the roof support plate	1
19.12	Wire joint ass'y	1	65	Top cover ass'y	1
19.13	Press contacts cable group	2	66	Net III	1
19.14	Wire joint	1	67	Guide circle	2
20	Welding pieces of the right anterior column I	1	68	Motor	2
21	Panel ass'y	1	69	Outside top cover board assy	1
22	Pole	1	70	Partition board ass'y	1
23	Panel ass'y	1	71	Motor fixed mounted	2
24	Rear left upright pole ass'y	1	72	Axial flow fan	2
25	Panel ass'y III	1	73	Right rear Pole I	1
26	Chassis Parts	1	74	C type net	2
27	Three-phase asynchronous motor	1	75	Fan	1
28	Motor bracket I ass'y	1	76	Pulley	1
29	Motor bracket ass'y	2	77	Sleeve	1
30	Motor bracket	1	78	Taper casing	1
31	Pulley	1	79	Belt	2
32	Evaporator fixed supporter ass'y IV	1	80	Net II	1
33	Water connection board ass'y	1	81	Outside mid Pole ass'y	1
			82	Wire controller	1

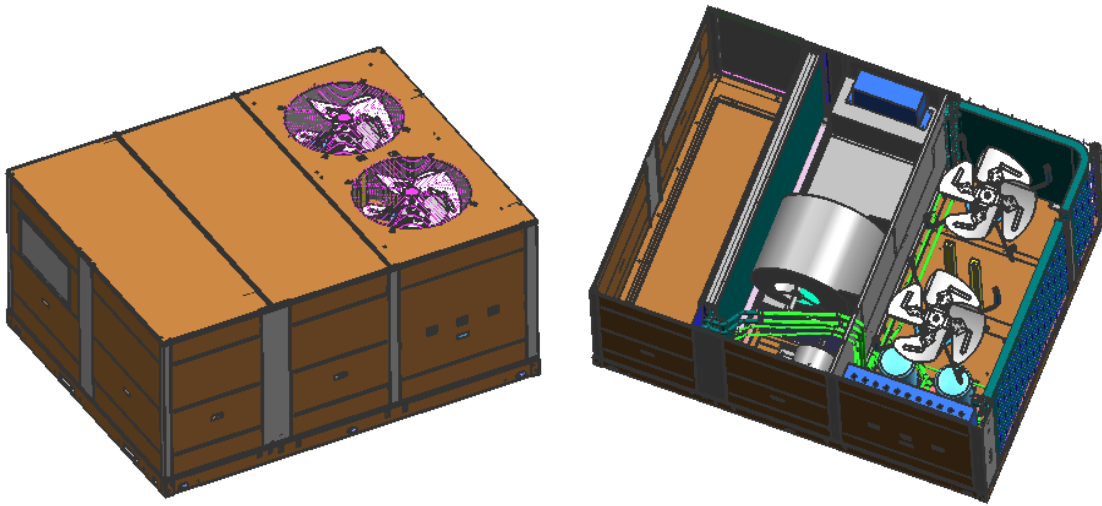


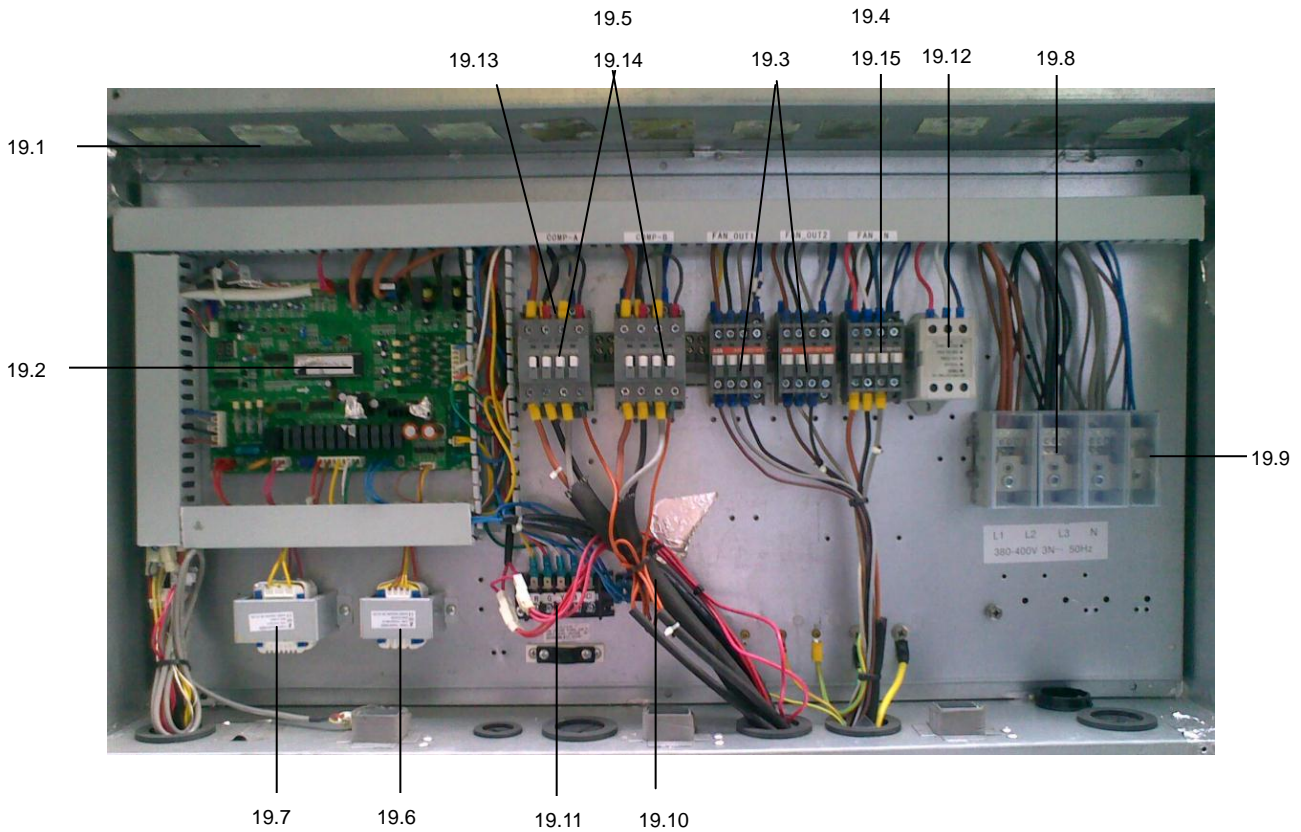


No.	Part Name	Qty	No.	Part Name	Qty
1	A condenser components	1	37	Components under the seal plate evaporator	1
2	A condenser receiver assembly 1	1	38	Air filter	2
3	Net I	1	39	Rear left upright pole ass'y	1
4	A condenser over component 2	1	40	Panel ass'y II	1
4.1	Unloading valve	1	41	Pole ass'y	1
5	Over component B machine evaporator	1	42	Panel ass'y I	1
6	A machine components over the evaporator	1	43	Cover plate ass'y	1
7	Over component B condenser	1	44	Rear left upright pole ass'y	1
7.1	Unloading valve	1	45	Air filter	1
8	Top cover pole	2	46	Components on the seal plate evaporator	1
9	A unit capillary component	1	47	Fixed supporting	1
10	Part B condenser	1	48	Return air flange II ass'y	1
12	B-capillary components	1	49	Supporting ass'y	1
14	B machine back to the tube components	1	50	Fixed supporting ass'y II	1

14.1	Pressure controller	1	51	Return air cover plate ass'y	1
16	A machine back to the tube components	1	52	Return air flange I ass'y	1
16.1	Pressure controller	1	53	Fixed supporting ass'y I	1
17	Compressor	2	54	Supply air flange II ass'y	1
18	Compressor base	1	55	Components of the left rear column II	1
19	Electrical control box parts roof	1	56	Fixing board	3
19.1	Transformer	1	57	Supporting board	1
19.2	24V AC transformer	1	58	Partition board ass'y	1
19.3	Outdoor control board assembly	1	59	Supporting board ass'y	1
19.4	AC contactor	2	60	Top cover plate ass'y	1
19.5	Surge suppresser	5	61	Supply air cover plate ass'y	1
19.6	Contactor	2	62	Duct	3
19.7	Contactor	1	63	Rear right upright pole II ass'y	1
19.9	Wire joint	3	64	Inside of the roof support plate	1
19.10	Wire joint	1	65	Top cover ass'y	1
19.11	E-part box	1	66	Net III	1
19.12	Wire joint ass'y	1	67	Guide circle	2
19.13	Press contacts cable group	2	68	Motor	2
19.14	Wire joint	1	69	Outside top cover board assy	1
20	Welding pieces of the right anterior column I	1	70	Outside the partition component	1
21	Panel ass'y	1	71	Motor fixed mounted	2
22	Pole	1	72	Axial flow fan	2
23	Panel ass'y	1	73	Right rear Pole I	1
24	Rear left upright pole ass'y	1	74	C type net	2
25	Panel ass'y III	1	75	Fan	1
26	Chassis Parts	1	76	Pulley	1
27	Three-phase asynchronous motor	1	77	Sleeve	1
28	Motor bracket I ass'y	1	78	Taper casing	1
29	Motor bracket ass'y	2	79	Belt	2
30	Motor bracket	1	80	Net II	1
31	Pulley	1	81	Outside mid Pole ass'y	1
32	Evaporator fixed supporter ass'y IV	1	82	Wire controller	1
33	Water connection board ass'y	1	83	Electric heater ass'y	1
34	Evaporator parts	1	84	Thermoelectric power auxiliary control box components	1
35	III fixed support component evaporator	1	84.1	Wire joint	1
36	Water tray components	1	84.2	Contactor	3
			84.3	Wire joint	1

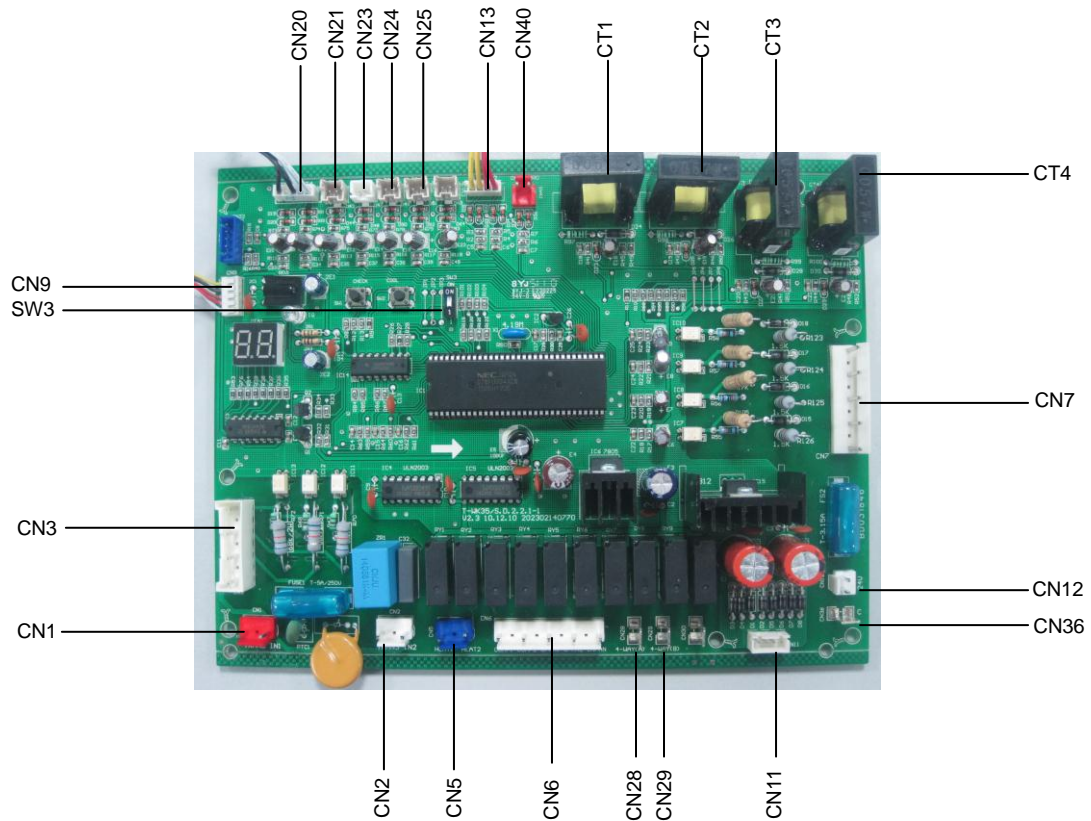
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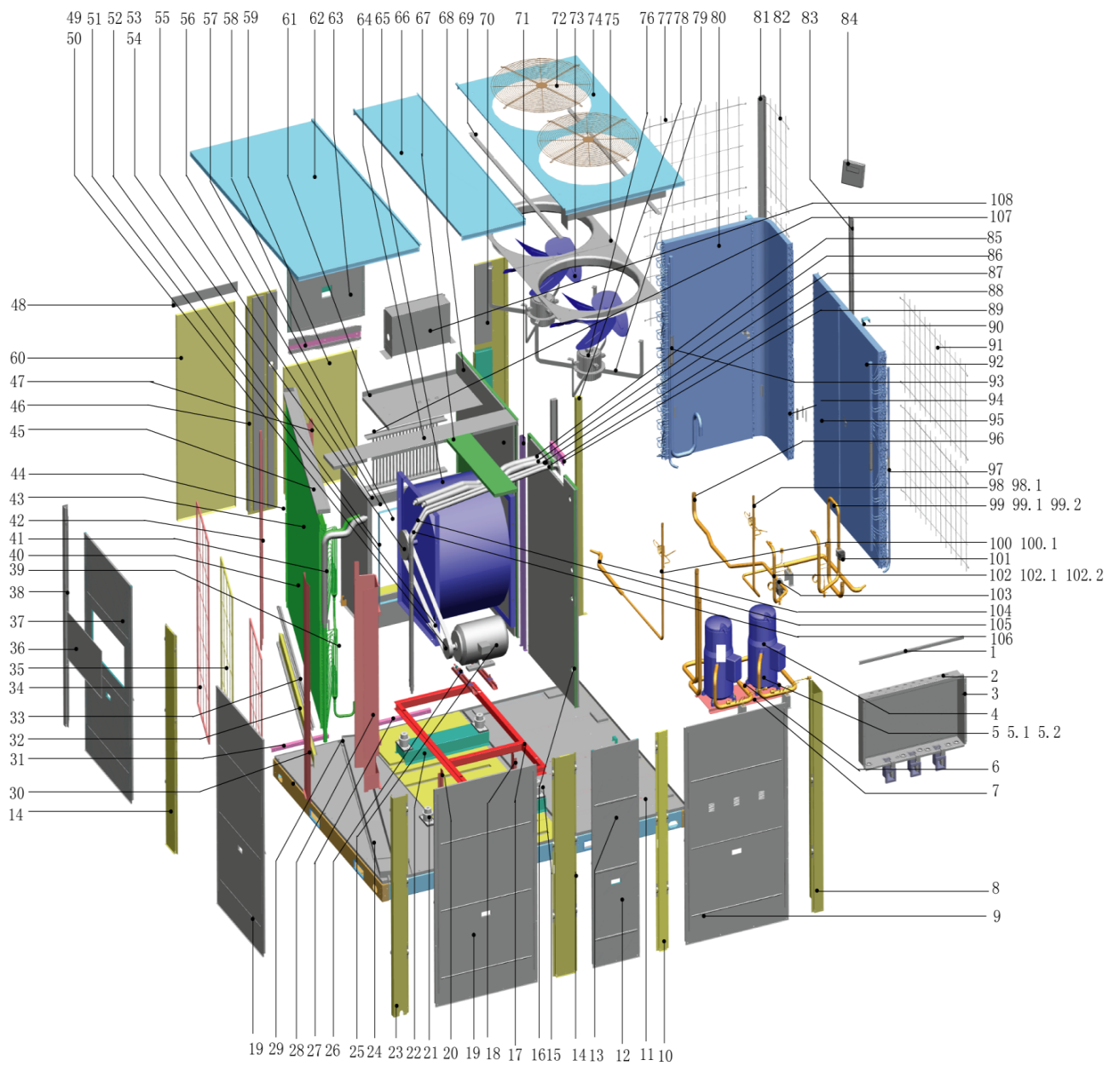
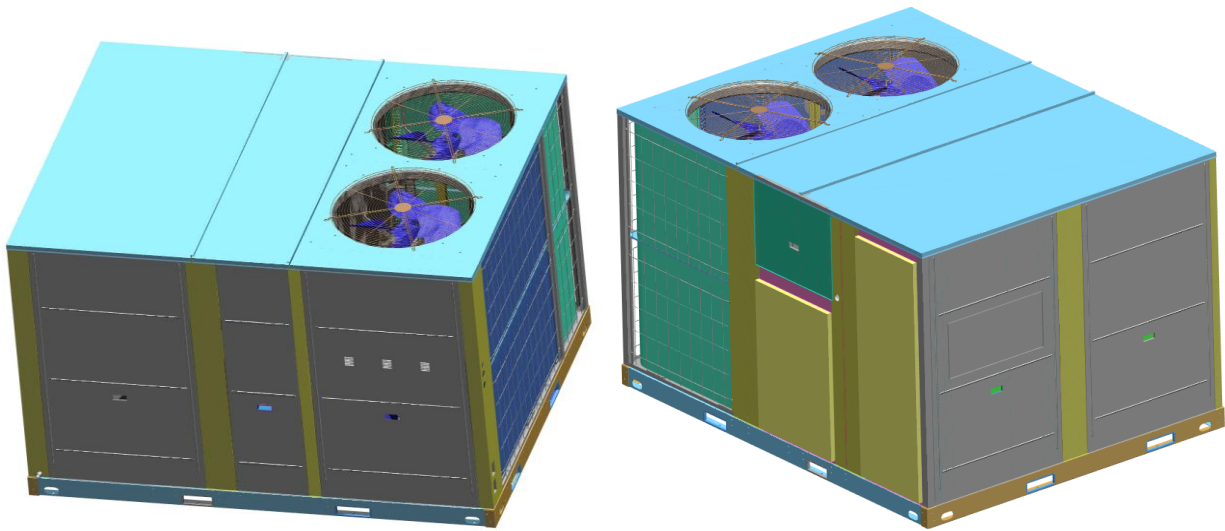
No.	Part Name	Qty	No.	Part Name	Qty
1	A condenser components	1	32	Evaporator fixed supporter ass'y IV	1
2	A condenser receiver assembly 1	1	33	Water connection board ass'y	1
3	Net I	1	34	Evaporator parts	1
4	A condenser over component 2	1	35	III fixed support component evaporator	1
4.1	Unloading valve	1	36	Water tray components	1
5	Over component B machine evaporator	1	37	Components under the seal plate evaporator	1
6	A machine components over the evaporator	1	38	Air filter	2
7	Over component B condenser	1	39	Rear left upright pole ass'y	1
7.1	Unloading valve	1	40	Panel ass'y II	1
8	Top cover pole	2	41	Pole ass'y	1
9	Separator	2	42	Panel ass'y I	1
10	Part B condenser	1	43	Cover plate ass'y	1
11	Form fitting assemblies	4	44	Rear left upright pole ass'y	1
12	Back to the trachea components	2	45	Air filter	1
13	A unit capillary component	1	46	Components on the seal plate evaporator	1
14	B-capillary components	1	47	Fixed supporting	1
15	B-way valve assembly	1	48	Return air flange II ass'y	1
15.1	Pressure controller	1	49	Supporting ass'y	1
16	A four-way valve assembly machine	1	50	Fixed supporting ass'y II	1
16.1	Pressure controller	1	51	Return air cover plate ass'y	1
17	Compressor	2	52	Return air flange I ass'y	1
18	Compressor base	1	53	Fixed supporting ass'y I	1
19	Electrical control box parts roof	1	54	Supply air flange II ass'y	1
19.1	E-part box	1	55	Rear left upright pole ass'y	1

19.2	Outdoor control board assembly	1	56	Partition board ass'y	1
19.3	Contactora	2	57	Supporting board	1
19.4	Contactora	1	58	Partition board ass'y	1
19.5	AC contactor	2	59	Supporting board ass'y	1
19.6	Transformer	1	60	Top cover plate ass'y	1
19.7	24V AC transformer	1	61	Supply air cover plate ass'y	1
19.8	Wire joint	3	62	Supply air flange I ass'y	1
19.9	Wire joint	1	63	Rear right upright pole II ass'y	1
19.10	Wire joint	1	64	Inside of the roof support plate	1
19.11	Wire joint	1	65	Top cover ass'y	1
19.13	Surge suppresser	5	66	Net III	1
19.14	Press contacts cable group	2	67	Guide circle	2
19.15	Wire joint ass'y	1	68	Motor	2
20	Welding pieces of the right anterior column I	1	69	Outside top cover board assy	1
21	Panel ass'y	1	70	Partition board ass'y	1
22	Pole	1	71	Motor fixed mounted	2
23	Panel ass'y	1	72	Axial flow fan	2
24	Rear left upright pole ass'y	1	73	Right rear Pole I	1
25	Panel ass'y III	1	74	C type net	2
26	Chassis Parts	1	75	Fan	1
27	Motor	1	76	Pulley	1
28	Motor bracket I ass'y	1	77	Sleeve	1
29	Motor bracket ass'y	2	78	Taper casing	1
30	Motor bracket	1	79	Belt	2
31	Pulley	1	80	Net II	1
			81	Outside mid Pole ass'y	1



CODE	TITLE	CODE	TITLE	CODE	TITLE
CN1	Transformer	CN12	Transformer	CN25	Indoor pipe temp. sensor
CN2	Transformer	CN7	To the wire controller	CN24	Indoor pipe temp. sensor
CN5	Electric heater	CT4	Current indicator	CN23	Indoor room temp. sensor
CN6	Compressor, outdoor & indoor fan motor power supply	CT3	Current indicator	CN21	Pipe temp. sensor of unit AB
CN28	4-way terminal (A)	CT2	Current indicator	CN20	Outdoor temp. sensor
CN29	4-way terminal (B)	CT1	Current indicator	CN9	To be connected wired controller KJR-12B
CN11	Transformer	CN40	Outdoor fan motor protection switch	SW3	Wired controller set up switch
CN36	To the wired controller	CN13	High & low pressure switch Temp protection switch	CN3	Power supply

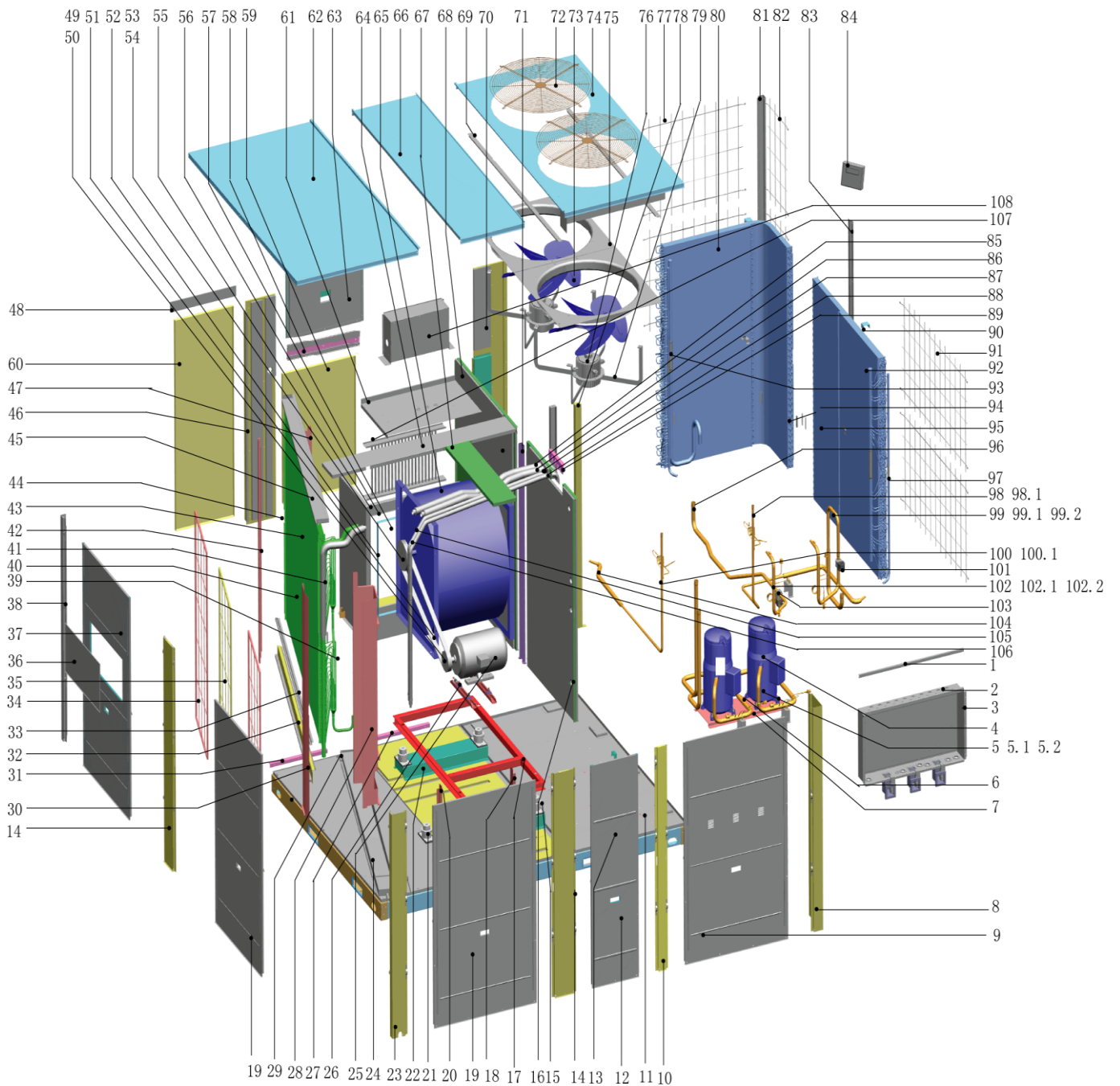
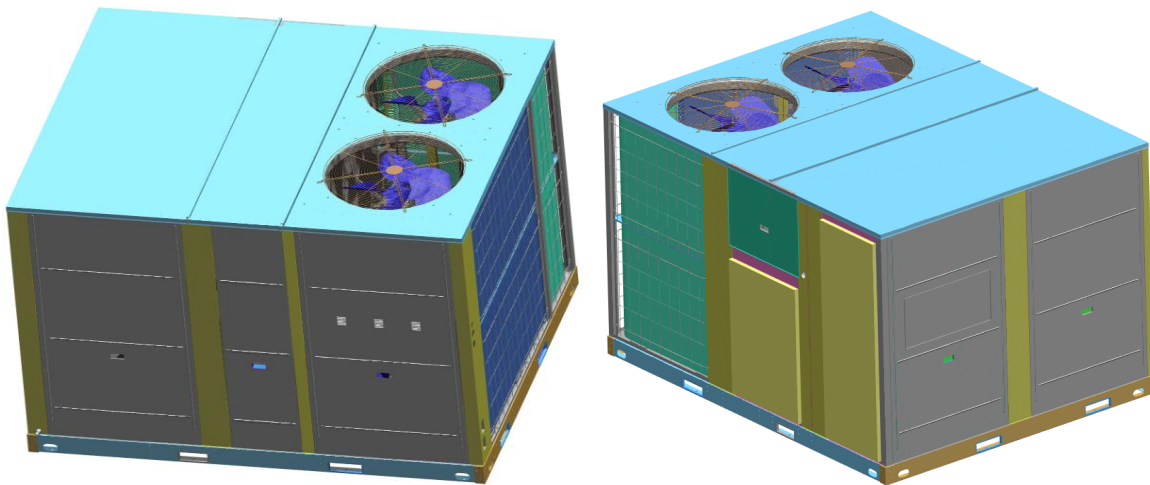
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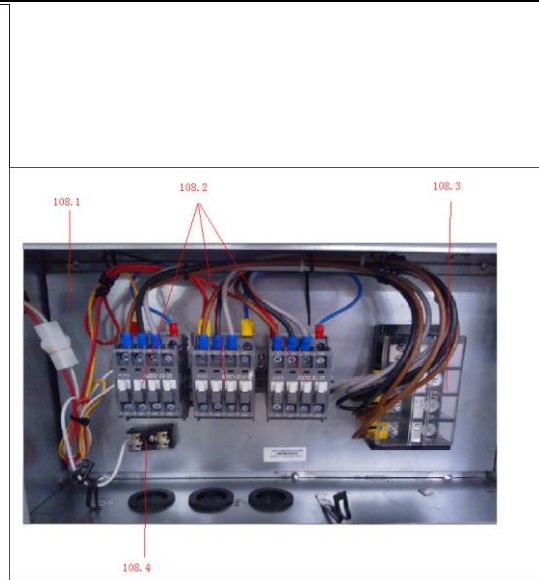
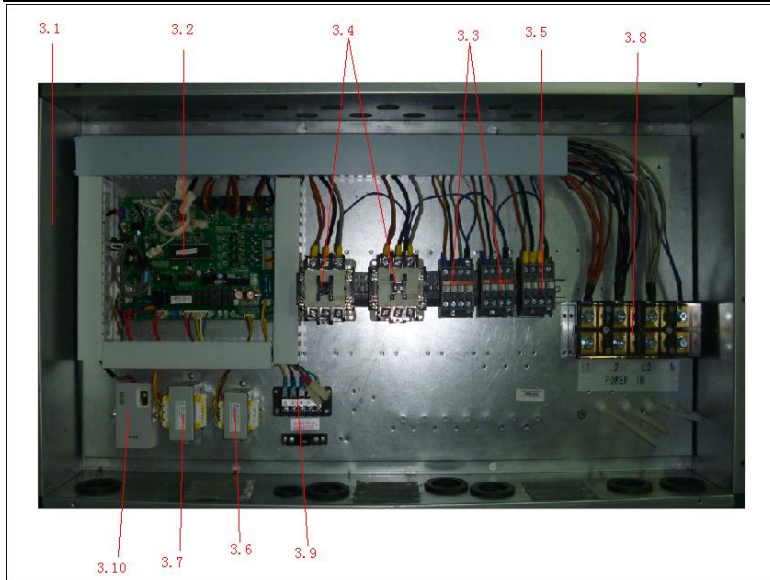


No.	Part Name	Qty	No.	Part Name	Qty
1	E-box support board	1	52	Flexible joint clamp	2
2	Cover plate ass'y	1	53	Wheel	1
3	E-part ass'y	1	54	Sleeve	1
3.1	E-part box	1	55	Air duct board ass'y II	1
3.2	Main control board ass'y	1	56	Joint beam clamp 3	2
3.3	Contactor	2	57	Joint beam clamp 2	2
3.4	AC contactor	2	58	Air outlet flange II	1
3.5	Contactor	1	59	Side air outlet cover board	1
3.6	Transformer	1	60	Side return air cover board	1
3.7	24V AC transformer	1	61	Air duct board ass'y I	1
3.8	Wire joint	1	62	Top Cover plate ass'y	1
3.9	Wire joint	1	63	EAH service port cover ass'y	1
3.10	Network module	1	64	Inside top cover supporting board ass'y	1
4	Compressor	2	65	Fan	1
5	Suction pipe ass'y B	1	66	Top cover ass'y	1
6	Suction pipe ass'y A	1	67	Middle top cover supporter	1
7	Compressor base	1	68	Outer partition board ass'y 1	1
8	Front-right supporting board I	1	69	Outer top cover strengthen board	2
9	Panel ass'y	1	70	Right rear supporting board ass'yII	1
10	Front-right supporting board ass'y II	1	71	Outer partition board ass'y	1
11	Base ass'y	1	72	Grille	2
12	Handle	6	73	Axial fan	2
13	Inside panel ass'y I	1	74	Outside top cover board ass'y	1
14	Inside middle supporting board ass'y	2	75	Ventilation	2
15	Absorber	3	76	Motor	2
16	Outer partition board ass'y 2	1	77	Net II	2
17	Fan motor base ass'y	1	78	Column ass'y, outside, top cover	2
18	Absorber board ass'y 2	1	79	Motor bracket	2
19	Inside panel ass'y II	2	80	A Condenser ass'y 1	1
20	Absorber board ass'y 1	1	81	Right column I, rear	1
21	Absorber	1	82	Net III	2
22	Motor supporter ass'y	2	83	Middle column ass'y, Outside	1
23	Front-left supporting board ass'y	1	84	Wire controller	1
24	Drainage pan ass'y	1	85	B evaporator connection pipe ass'y 2	1
25	Motor	1	86	A evaporator connection pipe ass'y 2	1
26	Guide way ass'y	2	87	Capillary ass'y A	1
27	Air outlet flange II	1	88	Capillary ass'y B	1

28	Evaporator supporting board ass'y 4	1	89	Pipe clamp board ass'y	1
29	Supporting ass'y	1	90	Condenser fixed board	4
30	Evaporator fixed supporting ass'y 3	1	91	Net I	2
31	Air intake flange II	1	92	B condenser ass'y 1	1
32	Evaporator under seal plate ass'y	1	93	Flute shape connection pipe ass'y	2
33	Fixed supporting	1	94	A condenser ass'y 2	1
34	Air filter	2	95	B condenser ass'y 2	1
35	Air filter	1	96	A condenser connection pipe 1	1
36	Cover plate ass'y	1	97	Flute shape connection pipe ass'y 2	2
37	Inside panel ass'y III	1	98	B condenser connection pipe ass'y 1	1
38	Lefe rear supporting board ass'yI	1	98.1	Unloading valve Capillary	1
39	Distributor connection pipe ass'y	1	99	B discharge pipe ass'y	1
40	Evaporator ass'y A	1	99.1	Form fitting assemblies	1
41	Flute shape connection pipe ass'y	1	99.2	Pressure controller	1
42	Evaporator fixed supporting board ass'y 2	1	100	A condenser connection pipe ass'y 1	1
43	Evaporator ass'y B	1	100.1	Unloading valve	1
44	Board joint beam clamp 2	13	101	Rubber supporting	4
45	Evaporator top seal plate ass'y	1	102	A discharge pipe ass'y	1
46	Rear-left supporting boar ass'y II	1	102.1	Form fitting assemblies	1
47	Evaporator fixed supporting board ass'y 1	1	102.2	Pressure controller	1
48	Air intake flange I assy	1	103	Rubber supporting	2
49	Belt pulley	1	104	A condenser connection pipe ass'y	1
50	Sleeve	1	105	Capillary ass'y A	1
51	Belt	2	106	Capillary ass'y B	1

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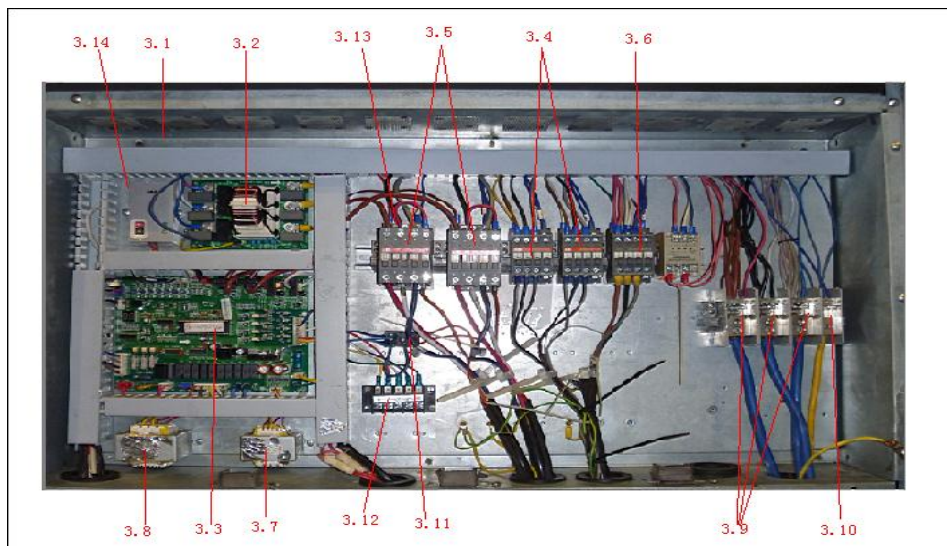
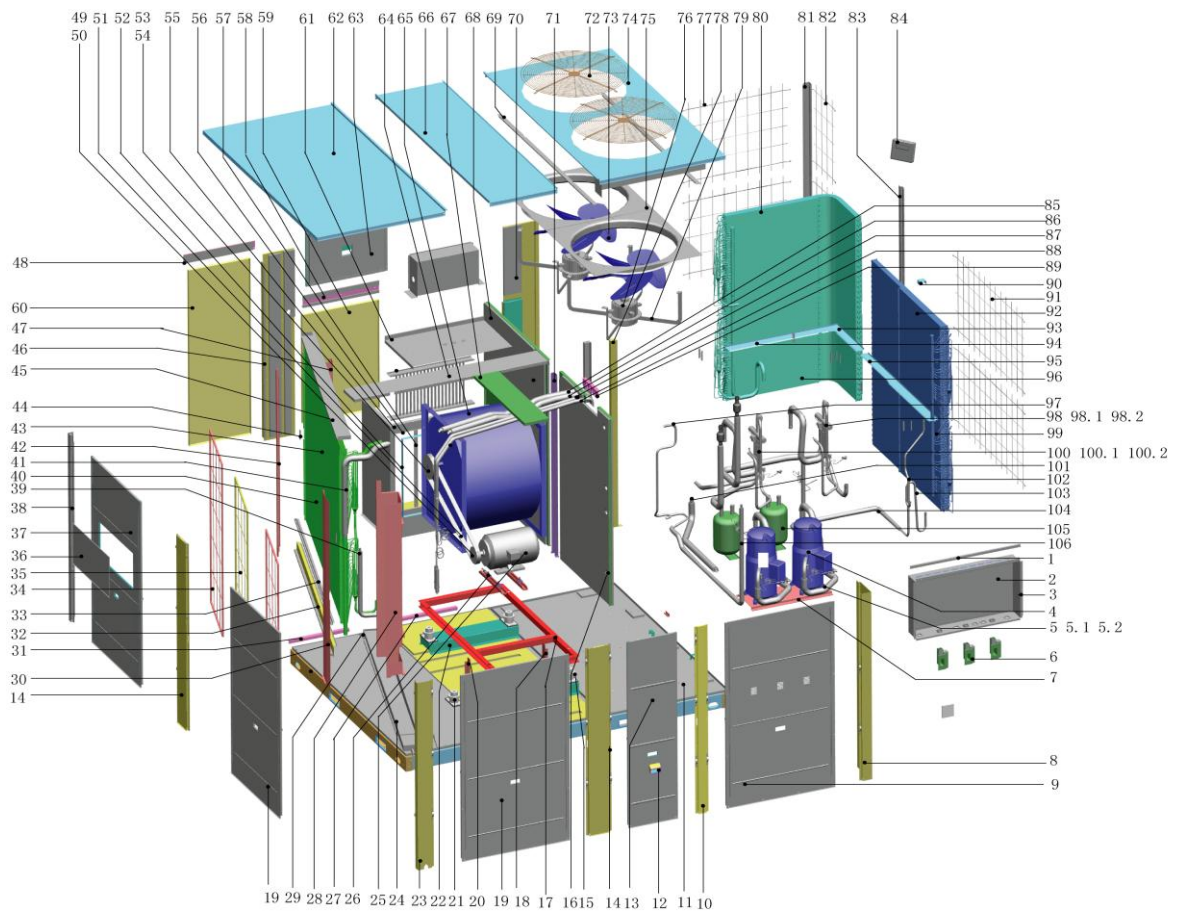
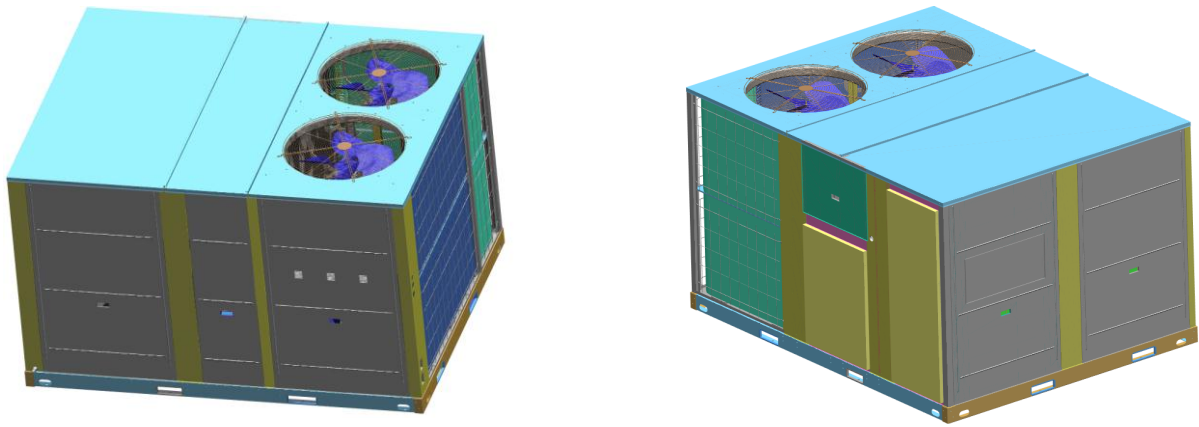




No.	Part Name	Qty	No.	Part Name	Qty
1	E-box support board	1	55	Air duct board ass'y II	1
2	Cover plate ass'y	1	56	Joint beam clamp 3	2
3	E-part ass'y	1	57	Joint beam clamp 2	2
3.1	E-part box	1	58	Air outlet flange II	1
3.2	Main control board ass'y	1	59	Side air outlet cover board	1
3.3	Contactor	2	60	Side return air cover board	1
3.4	AC contactor	2	61	Air duct board ass'y I	1
3.5	Contactor	1	62	Top Cover plate ass'y	1
3.6	Transformer	1	63	EAH service port cover ass'y	1
3.7	24V AC transformer	1	64	Inside top cover supporting board ass'y	1
3.8	Wire joint	1	65	Fan	1
3.9	Wire joint	1	66	Top cover ass'y	1
3.10	Network module	1	67	Middle top cover supporter	1
4	Compressor	2	68	Outer partition board ass'y 1	1
5	Suction pipe ass'y B	1	69	Outer top cover strengthen board	2
6	Suction pipe ass'y A	1	70	Right rear supporting board ass'yII	1
7	Compressor base	1	71	Outer partition board ass'y	1
8	Front-right supporting board I	1	72	C type net	2
9	Outer panel ass'y	1	73	Axial flow fan	2
10	Front-right supporting board ass'y II	1	74	Outside top cover board assy	1
11	Base ass'y	1	75	Guide circle	2
12	Handle	6	76	Motor	2
13	Inside panel ass'y I	1	77	Net II	2
14	Inside middle supporting board ass'y	2	78	Outer top cover supporting ass'y	2
15	Absorber	3	79	Motor fixed mounted	2
16	Outer partition board ass'y 2	1	80	A Condenser ass'y 1	1
17	Fan motor base ass'y	1	81	Rear-right supporting board I	1

18	Absorber board ass'y 2	1	82	Net III	2
19	Inside panel ass'y II	2	83	Outer middle board ass'y	1
20	Absorber board ass'y 1	1	84	Wire controller	1
21	Absorber	1	85	B evaporator connection pipe ass'y 2	1
22	Motor supporter ass'y	2	86	A evaporator connection pipe ass'y 2	1
23	Front-left supporting board ass'y	1	87	Capillary ass'y A	1
24	Drainage pan ass'y	1	88	Capillary ass'y B	1
25	Motor	1	89	Pipe clamp board ass'y	1
26	Guide way ass'y	2	90	Condenser fixed board	4
27	Air outlet flange II	1	91	Net I	2
28	Evaporator supporting board ass'y 4	1	92	B condenser ass'y 1	1
29	Supporting ass'y	1	93	Flute shape connection pipe ass'y	2
30	Evaporator fixed supporting ass'y 3	1	94	A condenser ass'y 2	1
31	Air intake flange II	1	95	B condenser ass'y 2	1
32	Evaporator under seal plate ass'y	1	96	A condenser connection pipe 1	1
33	Fixed supporting	1	97	Flute shape connection pipe ass'y 2	2
34	Air filter	2	98	B condenser connection pipe ass'y 1	1
35	Air filter	1	98.1	Unloading valve Capillary	1
36	Cover plate ass'y	1	99	B discharge pipe ass'y	1
37	Inside panel ass'y III	1	99.1	Form fitting assemblies	1
38	Left rear supporting board ass'y I	1	99.2	Pressure controller	1
39	Distributor connection pipe ass'y	1	100	A condenser connection pipe ass'y 1	1
40	Evaporator ass'y A	1	100.1	Unloading valve	1
41	Flute shape connection pipe ass'y	1	101	Rubber supporting	4
42	Evaporator fixed supporting board ass'y 2	1	102	A discharge pipe ass'y	1
43	Evaporator ass'y B	1	102.1	Form fitting assemblies	1
44	Board joint beam clamp 2	13	102.2	Pressure controller	1
45	Evaporator top seal plate ass'y	1	103	Rubber supporting	2
46	Rear-left supporting board ass'y II	1	104	A condenser connection pipe ass'y	1
47	Evaporator fixed supporting board ass'y 1	1	105	Capillary ass'y A	1
48	Air intake flange I ass'y	1	106	Capillary ass'y B	1
49	Belt pulley	1	107	Auxiliary electric heater ass'y	1
50	Sleeve	1	108	Auxiliary electric heater E-box ass'y	1
51	Belt	2	108.1	Auxiliary electric heater E-box ass'y	1
52	Flexible joint clamp	2	108.2	AC contactor	3
53	Wheel	1	108.3	Wire joint	1
54	Sleeve	1	108.4	Terminal block	1

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No.	Part Name	Qty	No.	Part Name	Qty
1	E-box support board	1	48	Air intake flange I assy	1
2	Cover plate ass'y	1	49	Pulley	1
3	E-part ass'y	1	50	Sleeve	1
3.1	E-part box	1	51	Belt	2
3.2	Outdoor power board ass'y	1	52	Flexible joint clamp	2
3.3	Main control board ass'y	1	53	Wheel	1
3.4	Contacto	2	54	Sleeve	1
3.5	Contacto	2	55	Air duct board ass'y II	1
3.6	Contacto	1	56	Joint beam clamp 3	2
3.7	Transformer	1	57	Joint beam clamp 2	2
3.8	24V AC transformer	1	58	Air outlet flange II	1
3.9	A Terminal Block	3	59	Side air outlet cover board	1
3.10	A Terminal Block	1	60	Side return air cover board	1
3.11	Wire joint	1	61	Air duct board ass'y I	1
3.12	Wire joint	1	62	Top Cover plate ass'y	1
3.13	Surge suppresser	2	63	EAH service port cover ass'y	1
3.14	Network module	1	64	Inside top cover supporting board ass'y	1
4	Compressor	2	65	Fan	1
5	Suction pipe ass'y	2	66	Top cover ass'y	1
5.1	Pressure controller	1	67	Middle top cover supporter	1
5.2	Form fitting assemblies	1	68	Outer partition board ass'y 1	1
6	Air duct ass'y	3	69	Outer top cover strengthen board	2
7	Compressor base	1	70	Right rear supporting board ass'yII	1
8	Front-right supporting board I	1	71	Outer partition board ass'y	1
9	Outer panel ass'y	1	72	C type net	2
10	Front-right supporting board ass'y II	1	73	Axial flow fan	2
11	Base ass'y	1	74	Outside top cover board assy	1
12	Handle	6	75	Guide circle	2
13	Inside panel ass'y I	1	76	Motor	2
14	Inside middle supporting board ass'y	2	77	Net II	2
15	Absorber	3	78	Outer top cover supporting ass'y	2
16	Outer partition board ass'y 2	1	79	Motor fixed mounted	2
17	Fan motor base ass'y	1	80	Condenser ass'y A	1
18	Absorber board ass'y 2	1	81	Rear-right supporting board I	1
19	Inside panel ass'y II	2	82	Net III	2
20	Absorber board ass'y 1	1	83	Outer middle board ass'y	1
21	Absorber	1	84	Wire controller	1
22	Motor supporter ass'y	2	85	B evaporator connection pipe ass'y 2	1
23	Front-left supporting board ass'y	1	86	A evaporator connection pipe ass'y 2	1
24	Drainage pan ass'y	1	87	Capillary ass'y A	1
25	Motor	1	88	Capillary ass'y B	1
26	Guide way ass'y	2	89	Pipe clamp board ass'y	1
27	Air outlet flange II	1	90	Condenser fixed board	4
28	Evaporator supporting board ass'y 4	1	91	Net I	2

No.	Part Name	Qty	No.	Part Name	Qty
29	Supporting ass'y	1	92	B condenser ass'y 1	1
30	Evaporator fixed supporting ass'y 3	1	93	Condenser drainage board 3	1
31	Air intake flange II	1	94	Condenser drainage board 2	1
32	Evaporator under seal plate ass'y	1	95	Condenser drainage board 1	1
33	Fixed supporting	1	96	A condenser ass'y 2	1
34	Air filter	2	97	A condenser connection pipe ass'y	1
35	Air filter	1	98	4-way valve ass'y B	1
36	Cover plate ass'y	1	98.1	4-way valve	1
37	Inside panel ass'y III	1	98.2	Pressure controller	1
38	Lefe rear supporting board ass'y I	1	99	Condenser ass'y B	1
39	Distributor connection pipe ass'y	1	100	4-way valve ass'y A	1
40	Evaporator ass'y A	1	100.1	4-way valve	1
41	Flute shape connection pipe ass'y	1	100.2	Pressure controller	1
42	Evaporator fixed supporting board ass'y 2	1	101	A condenser connection pipe 1	1
43	Evaporator ass'y B	1	102	B condenser connection pipe 5	1
44	Board joint beam clamp 2	13	103	B condenser connection pipe 4	1
45	Evaporator top seal plate ass'y	1	104	B condenser connection pipe ass'y 1	1
46	Rear-left supporting board ass'y II	1	105	Separator	2
47	Evaporator fixed supporting board ass'y 1	1	106	A condenser connection pipe ass'y 1	1

11. Electrical Data

11.1 Electrical Data

Model	Power Supply			Compressor(Each)				Evaporator fan motor(Each)			Condenser fan motor(Each)		
	MCA(A)	TOCA(A)	MFA(A)	RLA(A)	LRA(A)	IP(kW)	QTY	FLA(A)	IP(kW)	QTY	FLA(A)	IP(kW)	QTY
MRBT-60CWN1-R	20.4	23.5	35.0	12.3	74.0	5.6	1	3.5	0.8	1	1.5	0.3	1
MRBT-062CWN1-R	23.2	26.8	40.0	14.3	98.0	7.2	1	3.7	1.3	1	1.7	0.9	1
MRCT-062EWN1-R	23.2	26.8	40.0	14.3	98.0	7.2	1	3.7	1.3	1	1.7	0.9	1
MRBT-062HWN1-R	23.2	26.8	40.0	14.3	98.0	7.2	1	3.7	1.3	1	1.7	0.9	1
MRBT-075CWN1-R	25.9	30.0	45.0	16.4	142.0	8.5	1	3.7	1.3	1	1.7	0.9	1
MRCT-075EWN1-R	25.9	30.0	45.0	16.4	142.0	8.5	1	3.7	1.3	1	1.7	0.9	1
MRBT-075HWN1-R	25.9	30.0	45.0	16.4	142.0	8.5	1	3.7	1.3	1	1.7	0.9	1
MRBT-085CWN1-R	32.3	37.5	55.0	20.7	142.0	9.5	1	3.7	1.3	1	2.7	1.3	1
MRCT-085EWN1-R	32.3	37.5	55.0	20.7	142.0	9.5	1	3.7	1.3	1	2.7	1.3	1
MRBT-085HWN1-R	32.3	37.5	55.0	20.7	142.0	9.5	1	3.7	1.3	1	2.7	1.3	1
MRBT-100CWN1-R	33.2	38.5	55.0	21.4	147.0	10.9	1	3.7	1.3	1	2.7	1.3	1
MRCT-100EWN1-R	33.2	38.5	55.0	21.4	147.0	10.9	1	3.7	1.3	1	2.7	1.3	1
MRBT-100HWN1-R	33.2	38.5	55.0	21.4	147.0	10.9	1	3.7	1.3	1	2.7	1.3	1
MRBT-125CWN1-R	47.4	55.1	80.0	10.9/20	64/118	4.75/9.2	2	6.0	3.1	1	2.7	1.3	1
MRBT-125HWN1-R	47.4	55.1	80.0	10.9/20	64/118	4.75/9.2	2	6.0	3.1	1	2.7	1.3	1
MRBT-150CWN1-R	56.2	64.4	90.0	16.4	142.0	8.5	2	11.8	5.1	1	1.7	0.9	2
MRCT-150EWN1-R	56.2	64.4	90.0	16.4	142.0	8.5	2	11.8	5.1	1	1.7	0.9	2
MRBT-150HWN1-R	56.2	64.4	90.0	16.4	142.0	8.5	2	11.8	5.1	1	1.7	0.9	2
MRBT-175CWN1-R	69.03	79.38	115	20.7	142.0	9.5	2	11.8	5.1	1	2.7	1.3	2
MRCT-175EWN1-R	69.03	79.38	115	20.7	142.0	9.5	2	11.8	5.1	1	2.7	1.3	2
MRBT-175HWN1-R	69.03	79.38	115	20.7	142.0	9.5	2	11.8	5.1	1	2.7	1.3	2
MRBT-200CWN1-R	71.8	82.5	115	21.4	147.0	10.9	2	11.8	5.1	1	3.3	1.7	2
MRCT-200EWN1-R	71.8	82.5	115	21.4	147.0	10.9	2	11.8	5.1	1	3.3	1.7	2
MRBT-200HWN1-R	71.8	82.5	115	21.4	147.0	10.9	2	11.8	5.1	1	3.3	1.7	2
MRCT-300CWN1-R	90.9	104.7	115	27.6	197.0	13.7	2	15.4	5.9	1	3.3	1.7	2
MRCT-300EWN1-R	90.9	104.7	150.0	27.6	197.0	13.7	2	15.4	5.9	1	3.3	1.7	2
MRCT-300HWN1-R	90.9	104.7	150.0	27.6	197.0	13.7	2	15.4	5.9	1	3.3	1.7	2

MCA: Min. Current Amps. (A)

TOCA: Total Over-current Amps. (A)

MFA: Max. Fuse Amps. (A)

RLA: Rated Current (A)

LRA: Locked rotor Amps. (A)

IP: Input (kW)

FLA: Full Load Amps. (A)

11.2 Motor protection class

Model	Compressor	Indoor fan motor		Indoor coil	Outdoor fan motor		Outdoor coil
	Motor protection	Insulation class	Safe class	Pressure	Insulation class	Safe class	Pressure
MRBT-60CWN1-R	IOP	F	IPX0	250psi	B	IPX4	450psi
MRBT-062CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-062EWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-062HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-075CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-075EWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-075HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-085CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-085EWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-085HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-100CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-100EWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-100HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-125CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-125HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-150CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-150EWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-150HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-175CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-175EWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-175HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-200CWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-200EWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRBT-200HWN1-R	IOP	F	IP54	250psi	F	IP54	450psi
MRCT-300CWN1-R	IOP	F	IP54	250psi	F	IP44	450psi
MRCT-300EWN1-R	IOP	F	IP54	250psi	F	IP44	450psi
MRCT-300HWN1-R	IOP	F	IP54	250psi	F	IP44	450psi

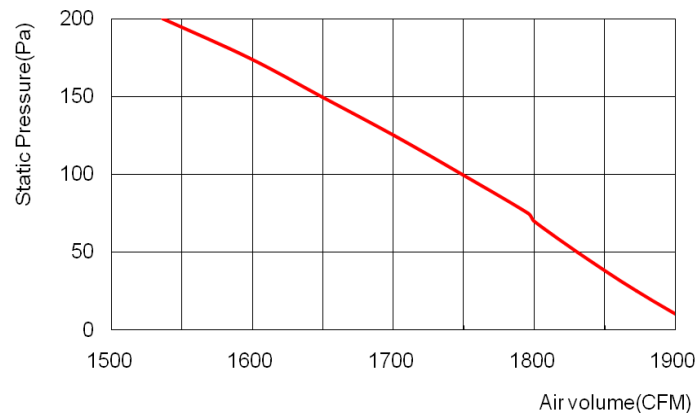
IOP: Internal overload protector

12. Parameter and Pressure Chart for Air Volume

12.1 Model:5ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	25	50	70	75	100	125	150	175	200
Air flow (CFM)	1920	1872	1831	1800	1795	1749	1701	1649	1598	1536
Brake power (kW)	0.7782	0.7634	0.752	0.742	0.7417	0.73	0.716	0.7015	0.687	0.67
Fan speed (rpm)	846	881	914	944	948	975	1006	1036	1067	1096



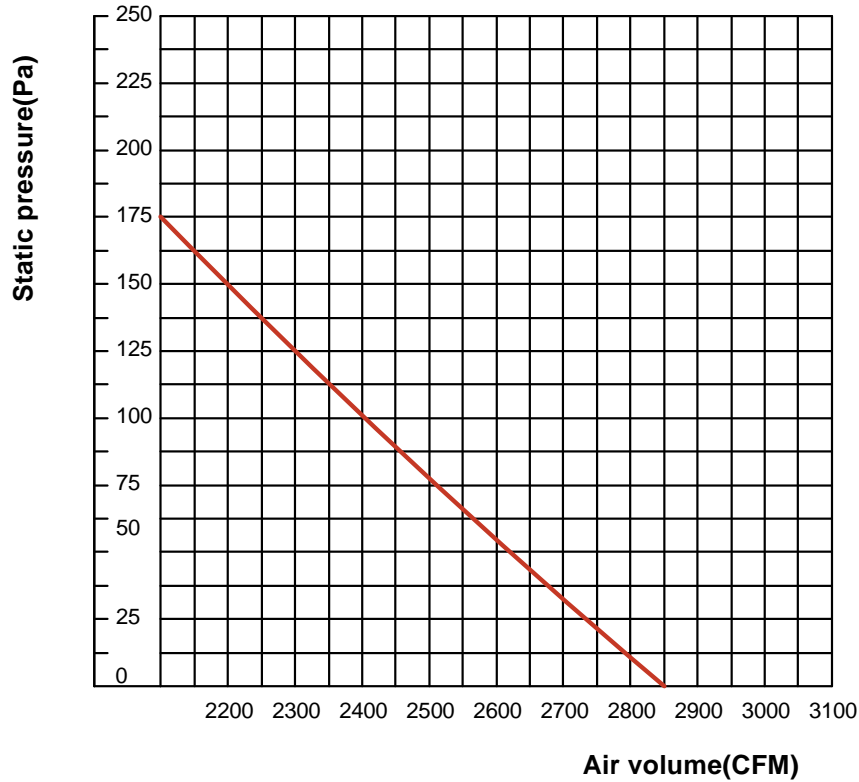
Parameter table for outdoor unit air volume:

Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
5Ton	0	4114	0.345	1080

12.2 Model:6.2ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	25	50	60	75	100	125	150	175
Air flow (CFM)	2853	2754	2632	2602	2522	2413	2310	2236	2108
Brake power (kW)	1.51	1.4	1.36	1.34	1.2	1.14	1.09	1.05	0.98
Fan speed (rpm)	1068	1072	1077	1077	1080	1082	1085	1089	1091



Parameter table for outdoor unit air volume:

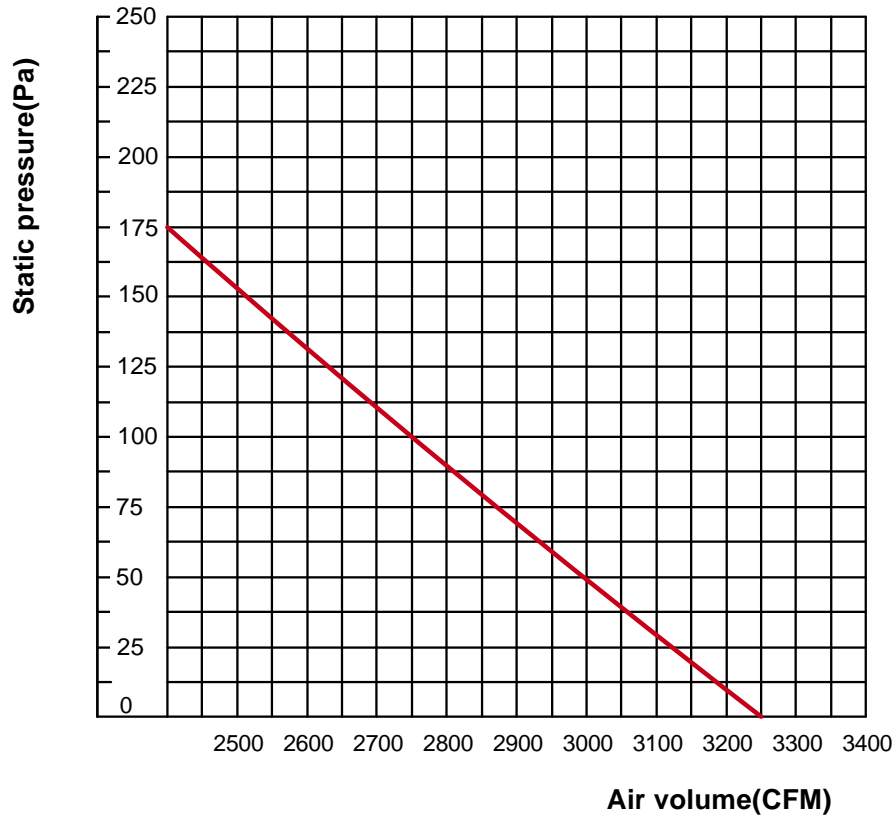
Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
6.2Ton	0	5880	0.78	900
	10	5647	0.79	889
	20	5411	0.80	875

12.3 Model: 7.5Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	20	50	60	75	100	125	150	175
Air flow (CFM)	3240	3149	2996	2941	2886	2782	2664	2540	2411
Brake power (kW)	1.83	1.78	1.70	1.66	1.63	1.58	1.53	1.47	1.41
Fan speed (rpm)	1260	1265	1268	1271	1274	1277	1281	1285	1287

Curve diagram of static pressure, air flow volume:



Parameter table for outdoor unit air volume:

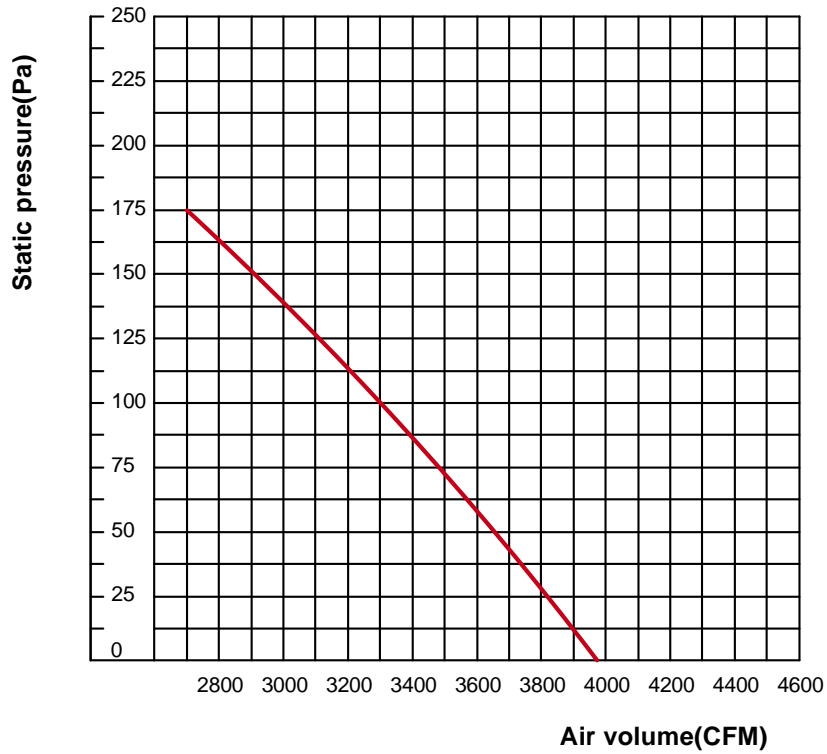
Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
7.5Ton	0	5880	0.78	900
	10	5647	0.79	889
	20	5411	0.80	875

12.4 Model: 8.5Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	25	50	75	100	125	150	175
Air flow (CFM)	3940	3785	3612	3451	3302	3130	2955	2759
Brake power (kW)	1.88	1.81	1.73	1.66	1.59	1.51	1.43	1.35
Fan speed (rpm)	933	937	939	944	946	949	952	953

Curve diagram of static pressure, air flow volume:



Parameter table for outdoor unit air volume:

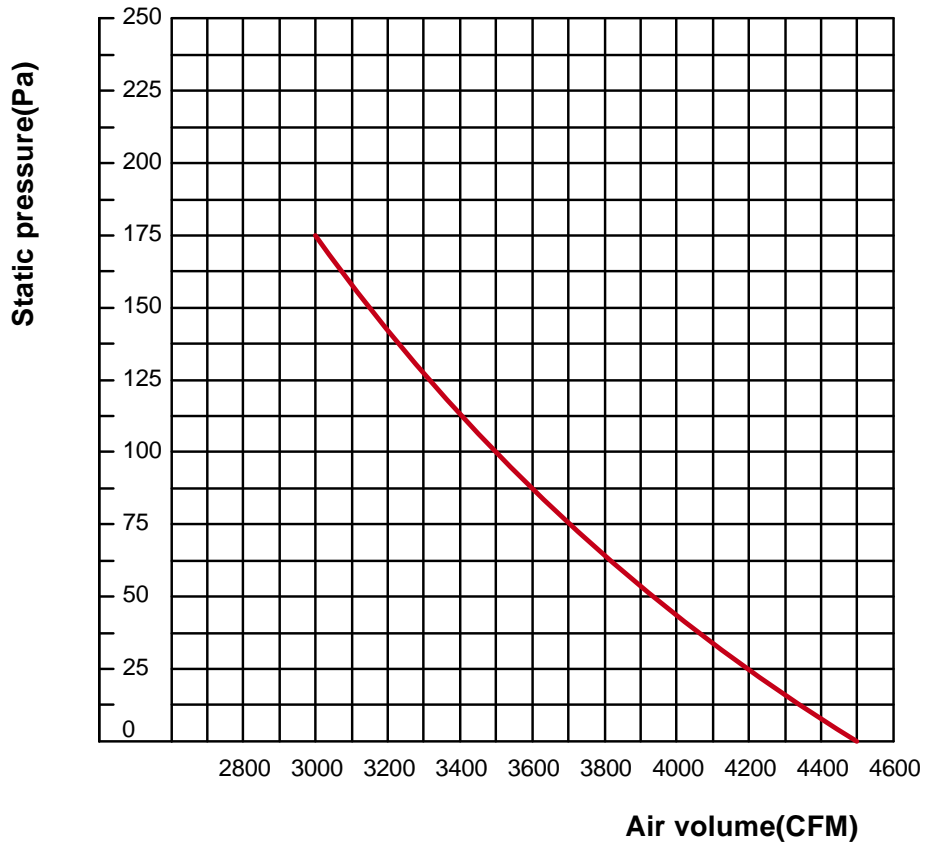
Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
8.5Ton	0	7060	0.78	935
	10	6765	0.79	926
	20	6471	0.80	918

12.5 Model: 10Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	25	50	75	100	125	150	175
Air flow (CFM)	4298	4156	3929	3756	3579	3382	3218	3020
Brake power (kW)	2.18	2.1	2.02	1.96	1.86	1.79	1.71	1.62
Fan speed (rpm)	1000	1004	1006	1011	1014	1016	1020	1021

Curve diagram of static pressure, air flow volume:



Parameter table for outdoor unit air volume:

Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
10Ton	0	7060	0.78	935
	10	6765	0.79	926
	20	6471	0.80	918

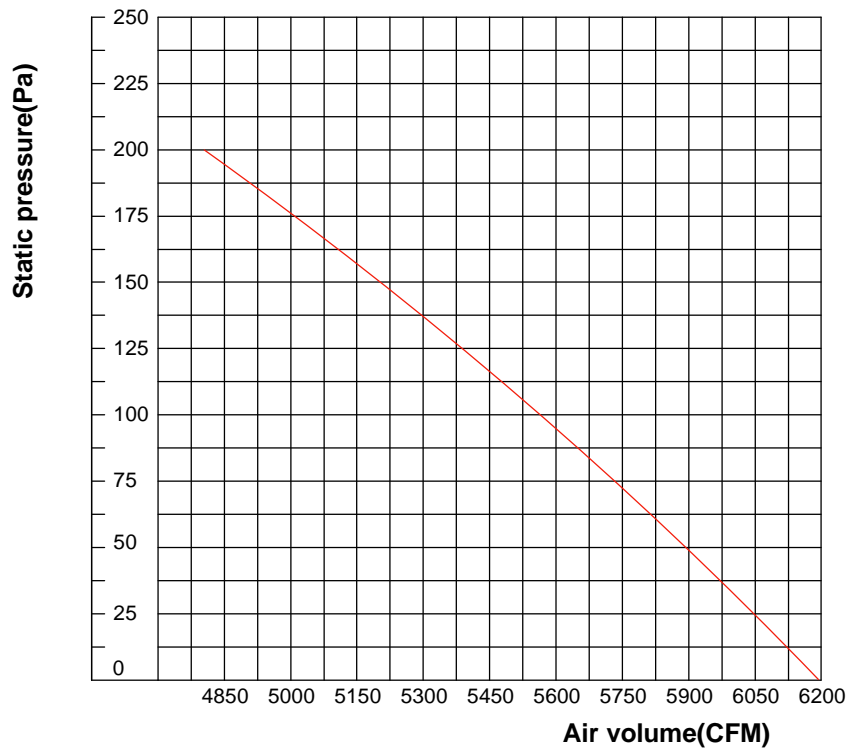
12.6 Model: 12.5Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	25	50	90	125	175	200	225
Air flow (CFM)	6200	6050	5900	5580	5375	5000	4820	4670
Brake power (kW)	3.06	2.95	2.85	2.69	2.56	2.35	2.24	2.14
Fan speed (rpm)	895	894	896	897	898	898	899	899

Curve diagram of static pressure, air flow volume:

12.5 Tons (50Hz)



Parameter table for outdoor unit air volume:

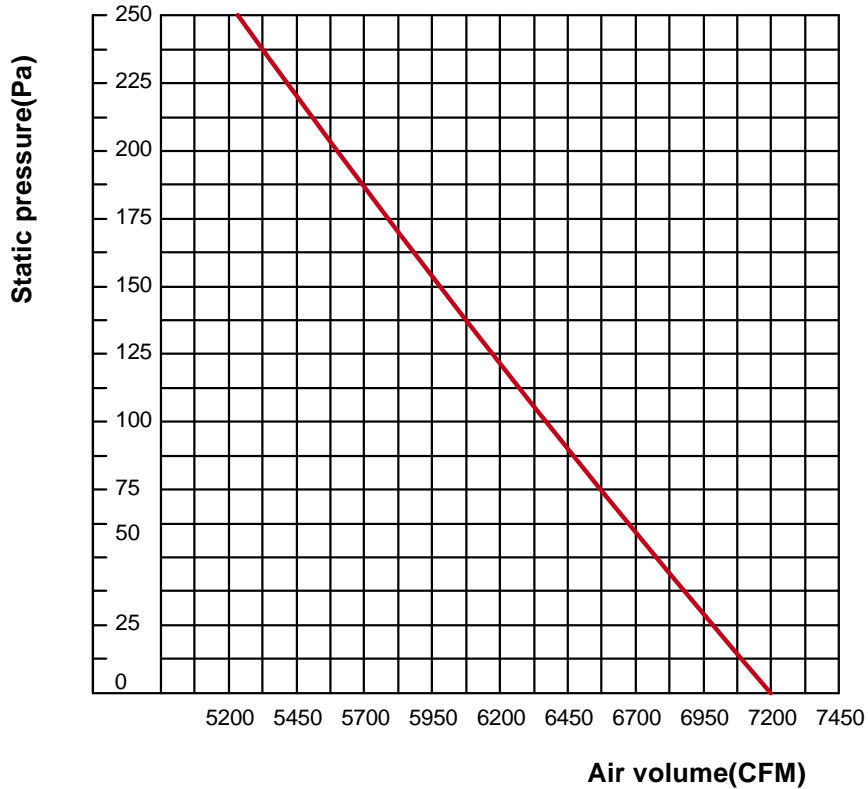
Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
12.5Ton	0	7060	0.78	935
	10	6765	0.79	926
	20	6471	0.80	918

12.6 Model: 15Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	50	75	90	125	150	200	250
Air flow (CFM)	7209	6675	6575	6400	6150	6044	5639	5227
Brake power (kW)	5.11	4.85	4.71	4.65	4.45	4.32	4.08	3.82
Fan speed (rpm)	1029	1029	1030	1031	1031	1032	1033	1034

Curve diagram of static pressure, air flow volume:



Parameter table for outdoor unit air volume:

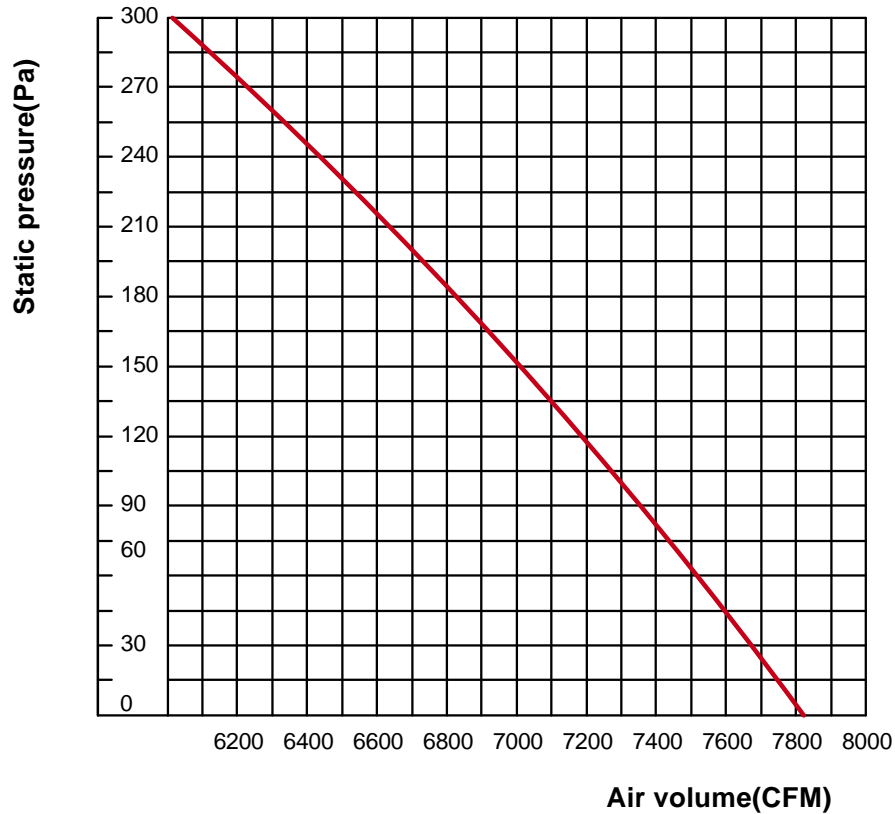
Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
15Ton	0	11000	0.78x2	935
	10	9800	0.79x2	926
	20	9600	0.80x2	918

12.7 Model: 17.5Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	0	25	50	75	100	125	150	175	200	225	250	275	300
Air flow (CFM)	7858	7712	7546	7392	7271	7091	6977	6836	6680	6534	6354	6178	6020
Brake power (kW)	5.76	5.66	5.57	5.36	5.3	5.14	5.05	4.88	4.78	4.67	4.55	4.37	4.12
Fan speed (rpm)	1019	1020	1020	1021	1022	1022	1023	1024	1025	1025	1026	1027	1030

Curve diagram of static pressure, air flow volume:



Parameter table for outdoor unit air volume:

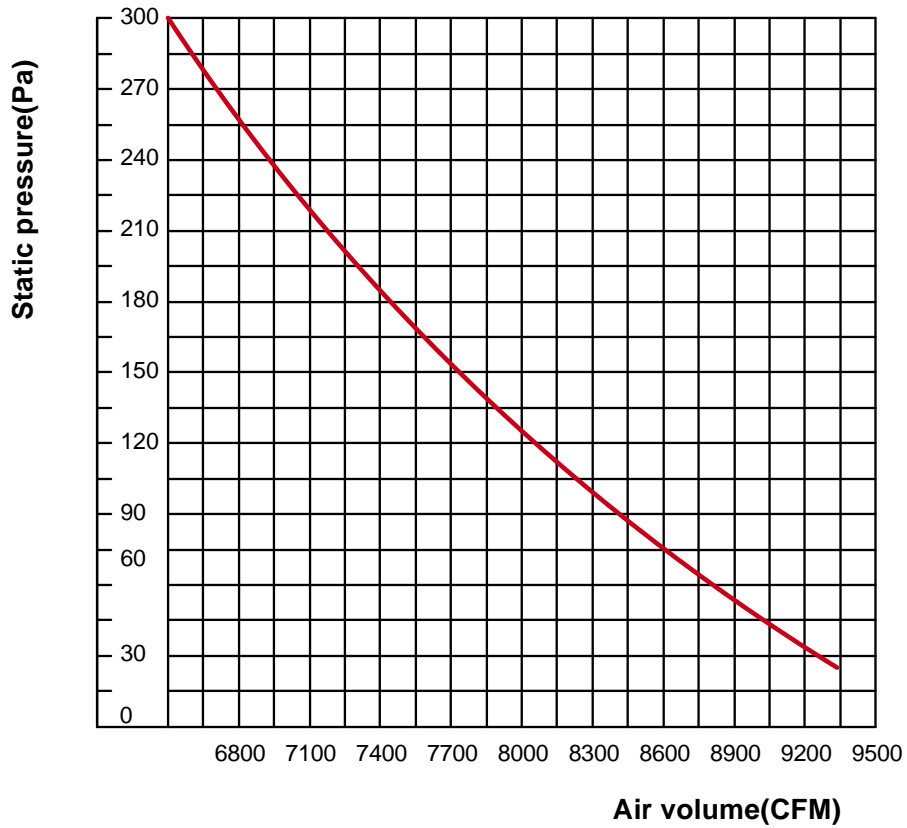
Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
17.5Ton	0	11000	0.78x2	935
	10	9800	0.79x2	926
	20	9600	0.80x2	918

12.8 Model: 20Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	25	50	75	100	125	150	200	250	300
Air flow (CFM)	9296	8782	8452	8289	8179	7826	7388	6955	6555
Brake power (kW)	5.86	5.73	5.59	5.44	5.50	5.27	4.98	4.66	4.32
Fan speed (rpm)	818	819	819	820	820	821	822	823	825

Curve diagram of static pressure, air flow volume:



Parameter table for outdoor unit air volume:

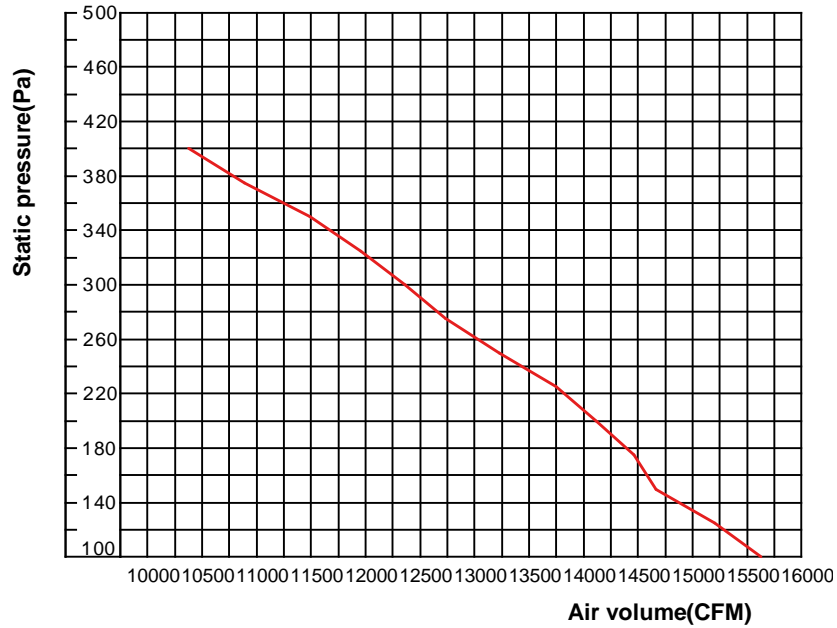
Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
20Ton	0	14000	1.3x2	940
	10	13500	1.4x2	938
	20	13100	1.5x2	930

12.9 Model: 30Ton

Parameter table for indoor unit air volume:

Static pressure (Pa)	150	175	200	225	250	275	300	325	350
Air flow (CFM)	14664	14464	14119	13743	13230	12729	12365	11957	11489
Brake power (kW)	8.91	8.59	8.30	8.01	7.71	7.40	7.07	6.74	6.39
Fan speed (rpm)	775	775	776	777	778	779	780	782	782

Curve diagram of static pressure, air flow volume:



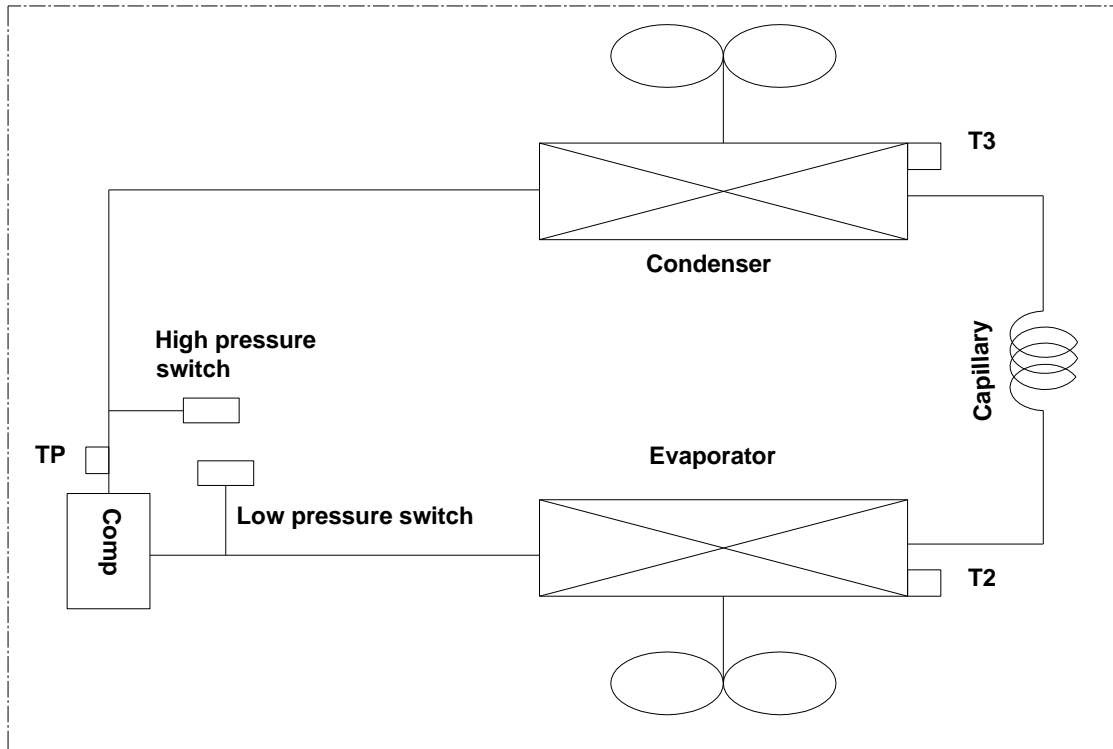
Parameter table for outdoor unit air volume:

Model	Static pressure (Pa)	Air flow (CFM)	Brake power (kW)	Fan speed (rpm)
30Ton	0	14000	1.3x2	940
	10	13500	1.4x2	938
	20	13100	1.5x2	930

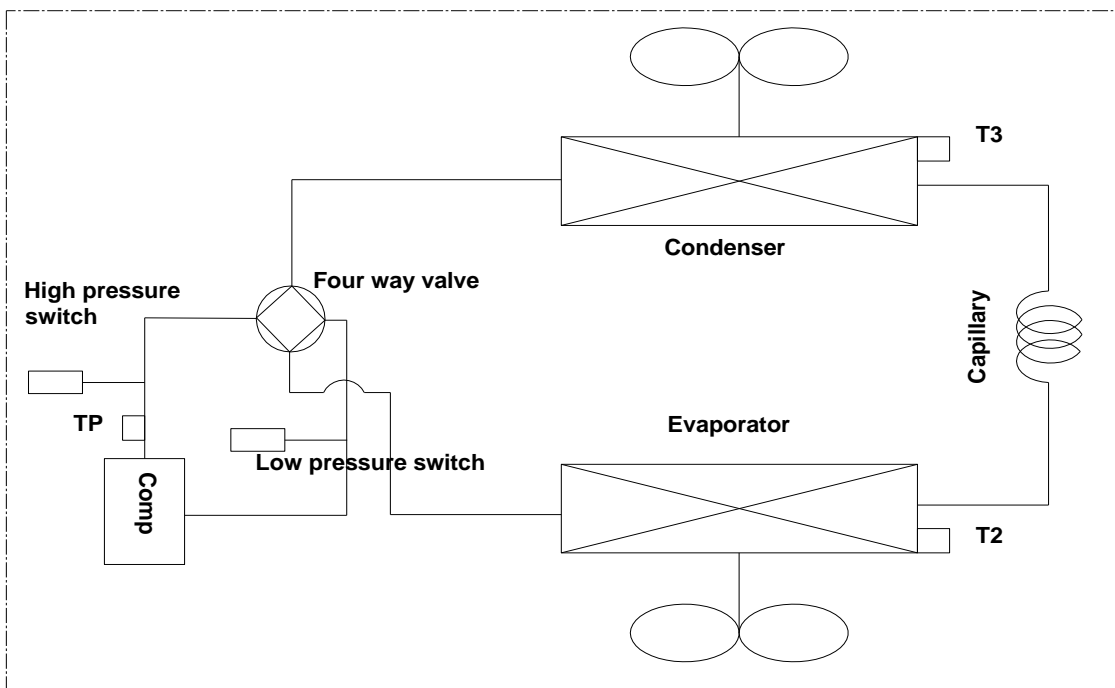
13. Refrigerant Cycle Diagram

13.1 5,6.2,7.5,8.5,10 ton:

Cooling, Cooling+EAH type



Cooling and Heating type:



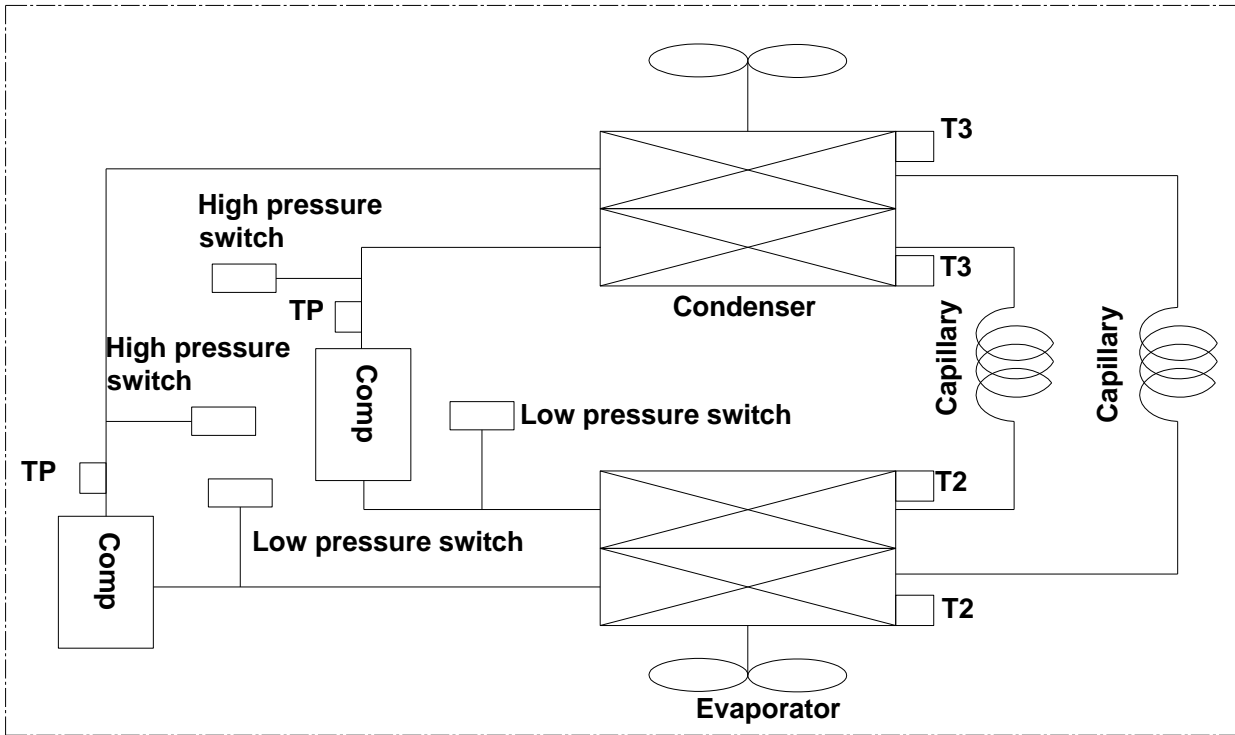
TP: Compressor discharge temperature sensor in system

T2: Indoor coil temperature sensor in system

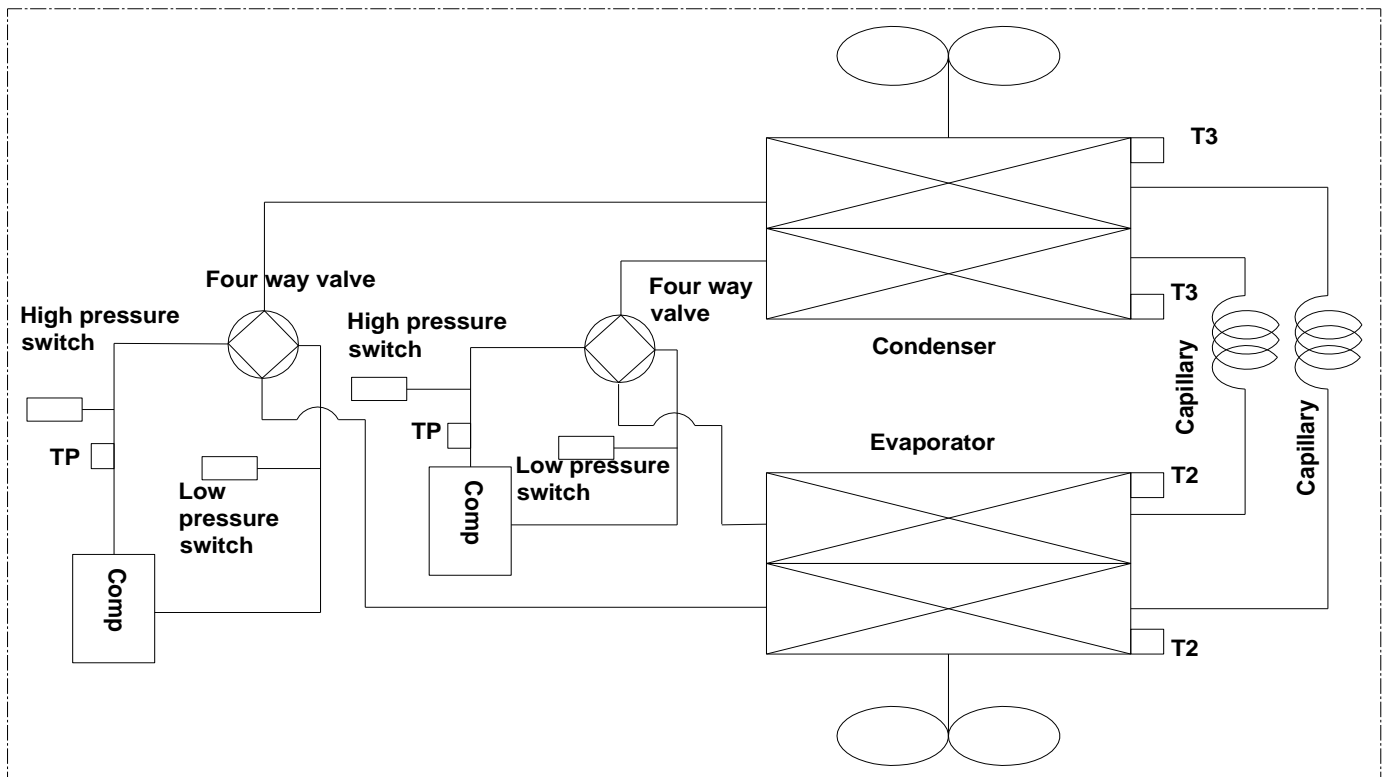
T3: Outdoor coil temperature sensor in system

13.2 12.5,15,17.5,20,30 ton:

Cooling, Cooling+EAH type



Cooling and Heating type:



TP: Compressor discharge temperature sensor in system A and B

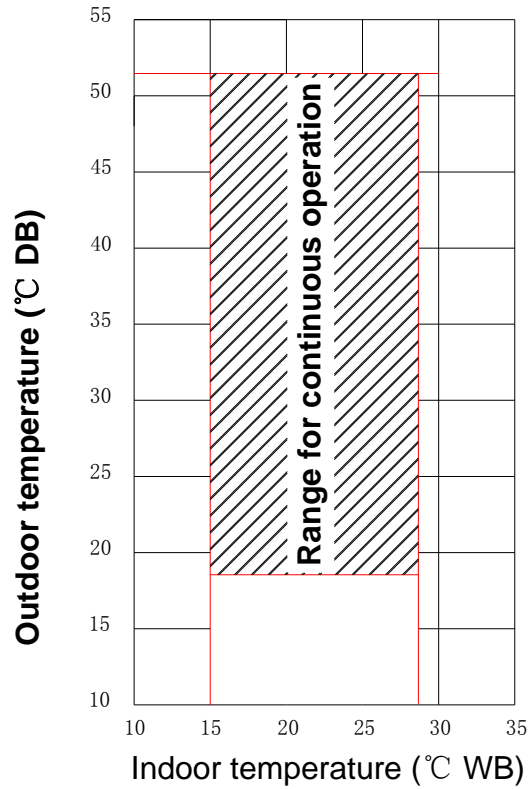
T2: Indoor coil temperature sensor in system A and B

T3: Outdoor coil temperature sensor in system A and B

14. Operation Limit

14.1 Cooling only and cooling with auxiliary heater

Cooling



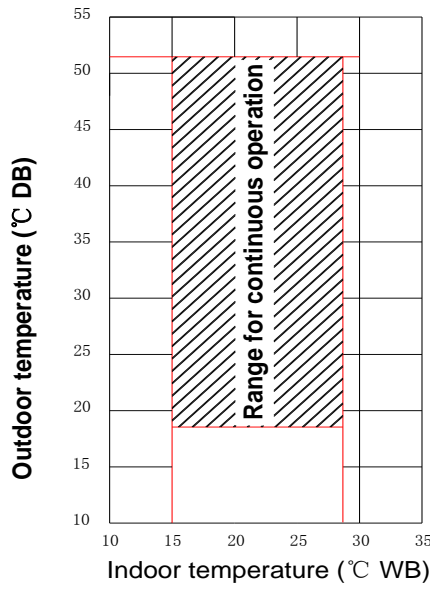
Model	Temperature	Outdoor temperature	Indoor temperature
Cooling mode		18°C ~ 52°C	17°C ~ 30°C
With auxiliary electric heater models		--	17°C ~ 30°C

Note:

Room relative humidity less than 80% . If the unit operates in excess of this figure, the surface of the unit may attract condensation.

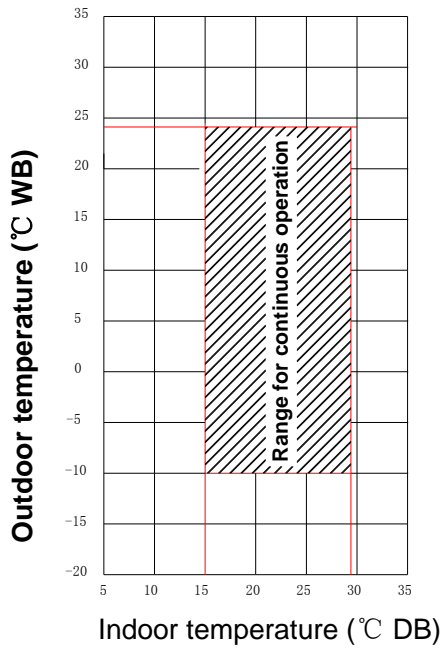
14.2 Cooling and heating

Cooling mode



Mode	Temperature	Outdoor temperature	Indoor temperature
Cooling mode		18°C ~ 52°C	17°C ~ 30°C

Heating mode



Mode	Temperature	Outdoor temperature	Indoor temperature
Heating mode		-10°C ~ 24°C	17°C ~ 30°C

Note:

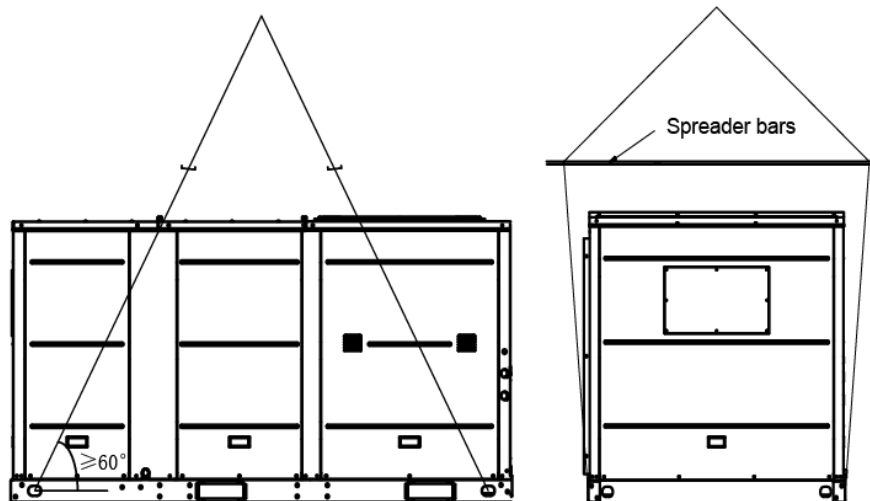
Room relative humidity less than 80% . If the unit operates in excess of this figure, the surface of the unit may attract condensation.

15. Installation

15.1 Lifting

Rigging cables should have adequate capability to resist 3 times weight of unit. Before lift, please check and ensure that hooks are holding tightly to unit and lifting angles are no less than 60°.

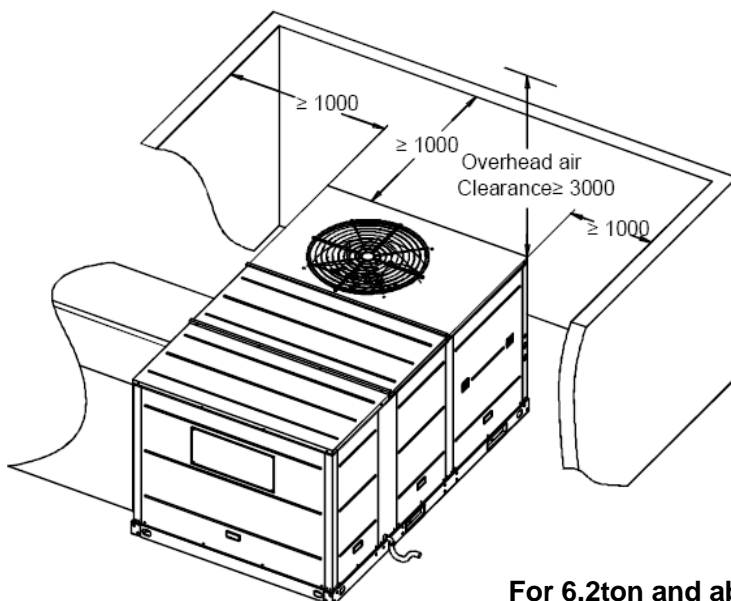
Cloth material or hard-paper should be padded in the contact place between unit and rigging cable. Rigging cable should be entwined a round at the hook for prevent danger by cable slip because of weight unbalance. During lifting, anyone forbidden lingering under the lifting unit.



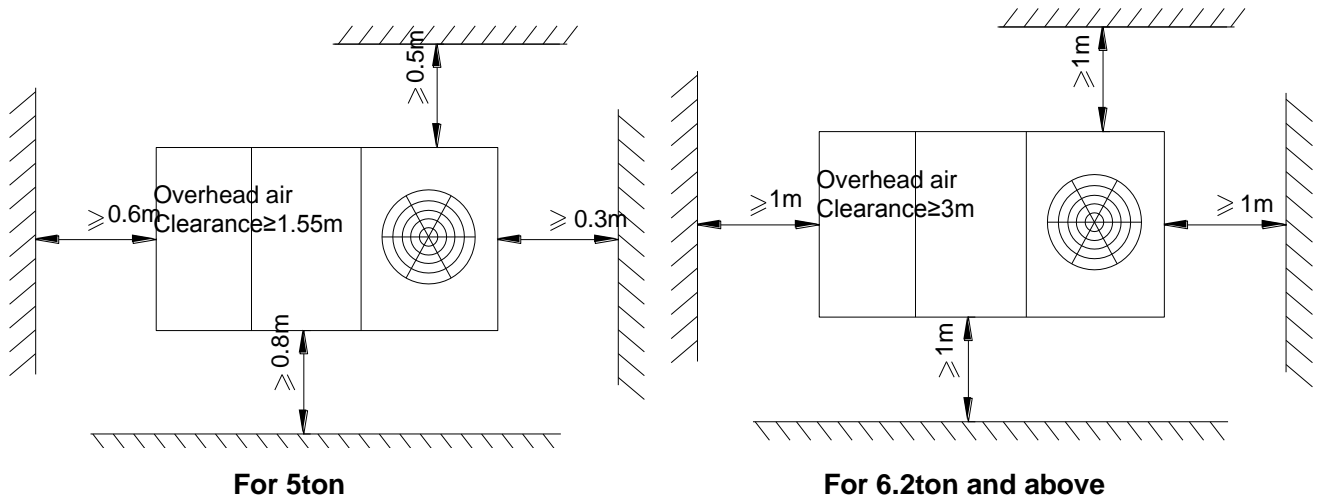
15.2 Service Space

1. The recommended clearances for single-unit installations are illustrated in following *Fig.*

These minimum requirements are not only an important consideration when determining unit placement, but they are also essential to ensure adequate serviceability, maximum capacity, and peak operating efficiency. 2. Any reduction of the unit clearances indicated in these illustrations may result in condenser coil starvation or the recirculation of warm condenser air. Actual clearances which appear to be inadequate should be reviewed with a local engineer.



For 6.2ton and above

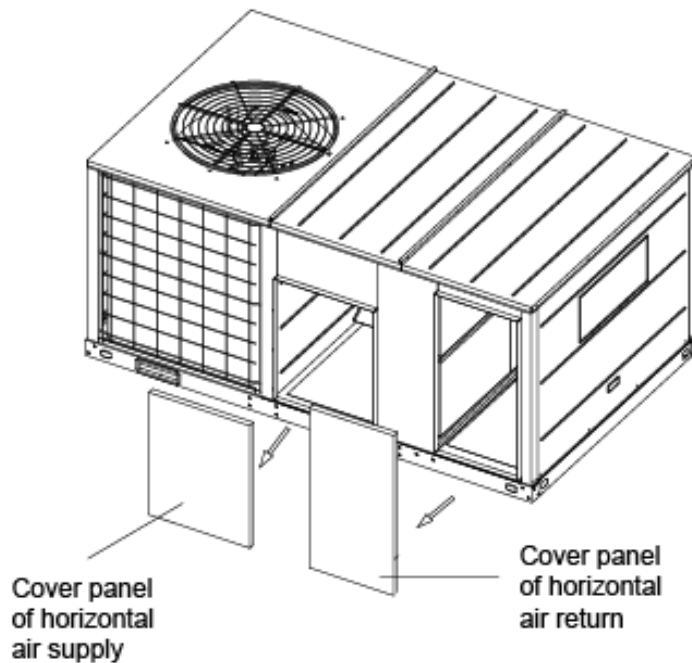


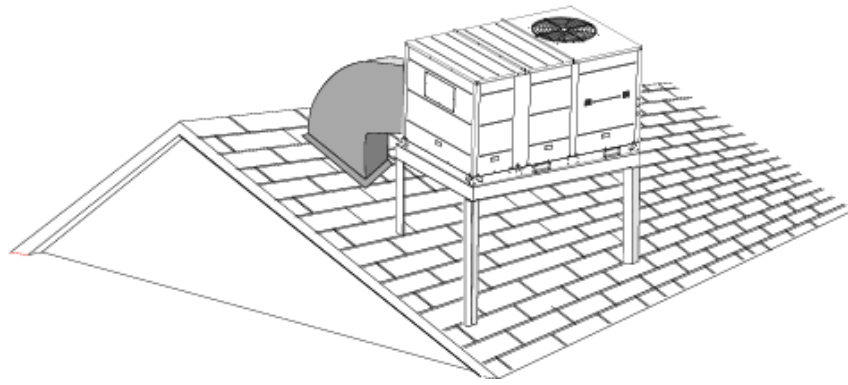
15.3 Rooftop -- units

For roof top applications using a field fabricated frame and ducts, according to the following procedure:

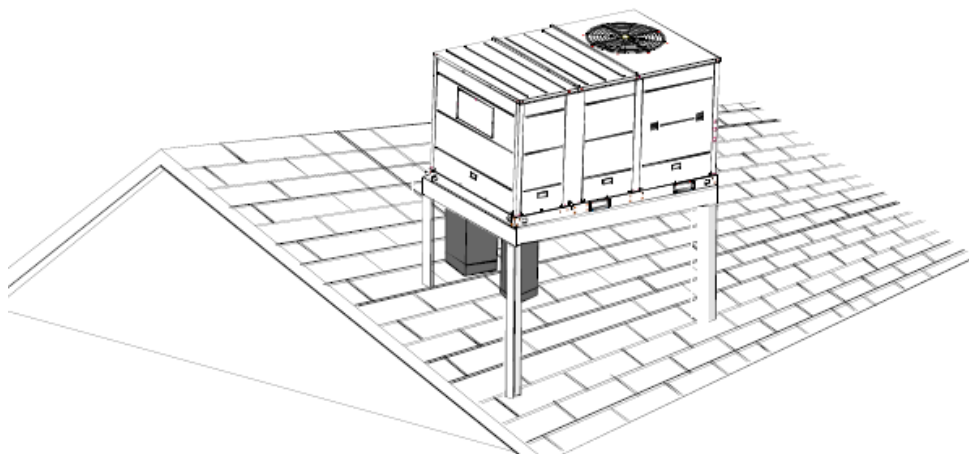
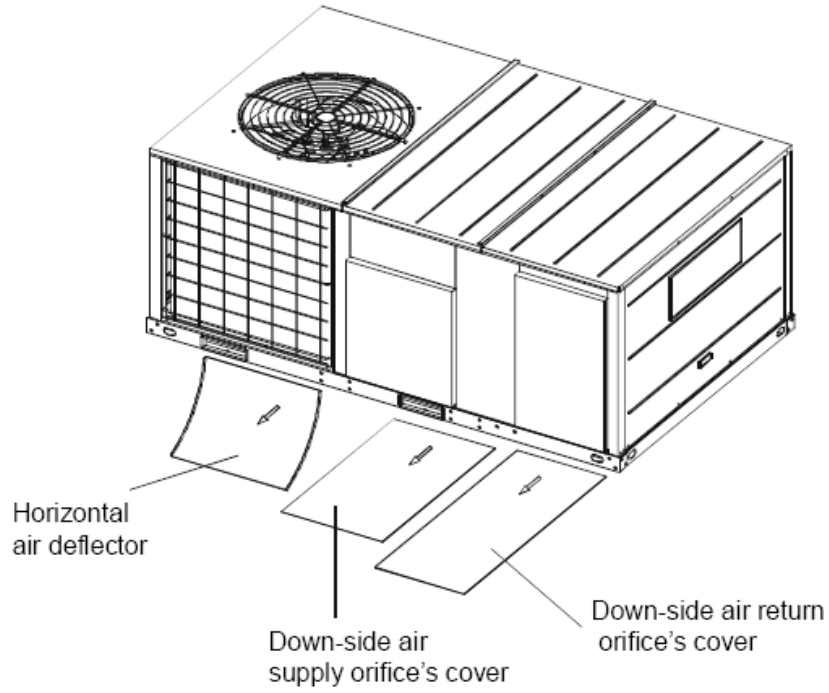
- 1) The frame must be located and secured by bolting or welding to the roof. Flashing is required.
- 2) The hole in the roof must be prepared in advance of installing the unit.
- 3) Secure the ducts to the roof.
- 4) Place the unit on the frame or roof curb.
- 5) Secure the unit to the frame or roof curb.
- 6) Insulate any ductwork outside of the structure with at least two (2) inches of insulation and then weatherproof. There must be a weatherproof seal where the duct enters the structure.
- 7) Complete the installation according to the instructions.

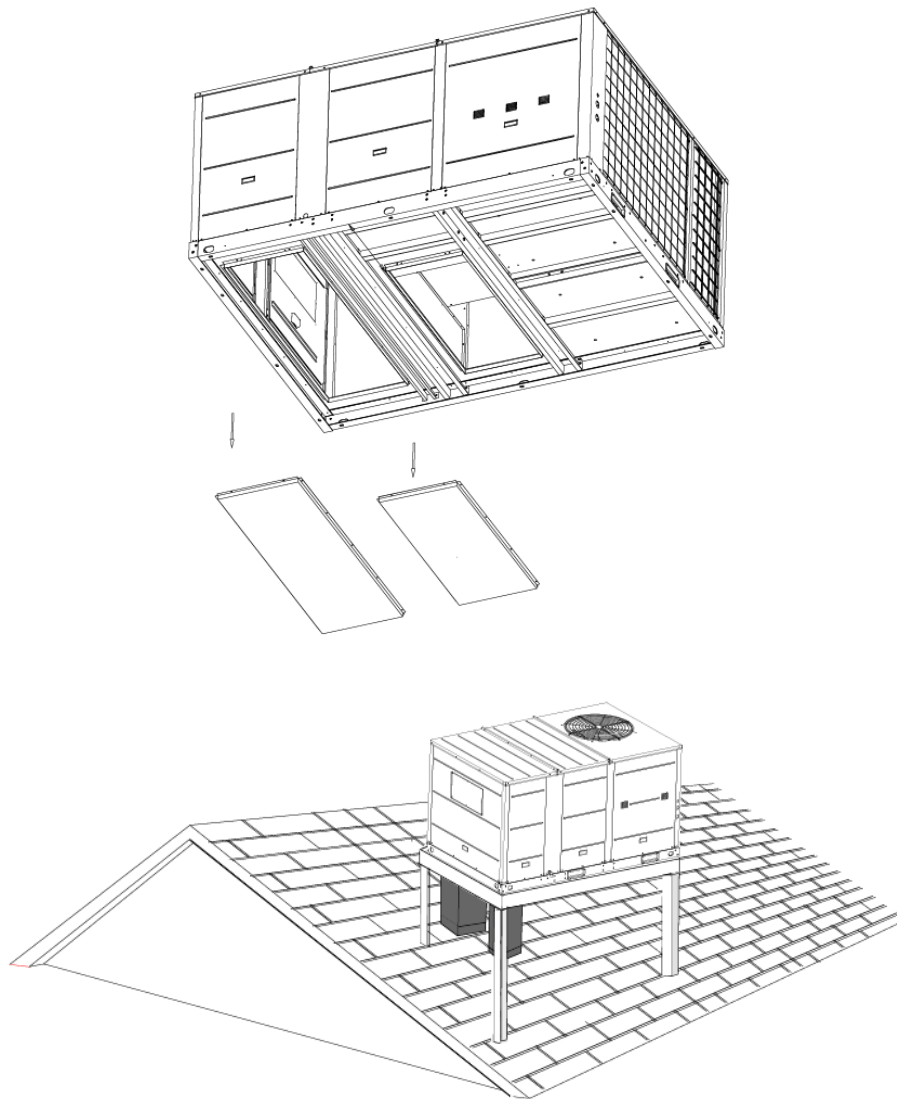
Typical rooftop application with frame:





Typical rooftop application with frame:





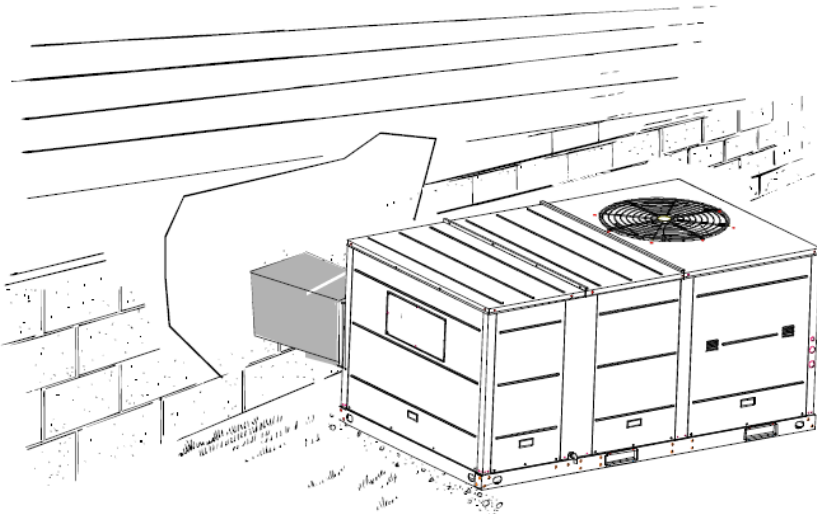
15.4 Ground Level -- Horizontal Units

For ground level installations, the unit should be positioned on a pad the size of the unit or larger. The unit must be level on the pad. The pad must not come in contact with the structure. Be sure the outdoor portion of the supply and return air ducts are as short as possible.

Installation according to the following procedure:

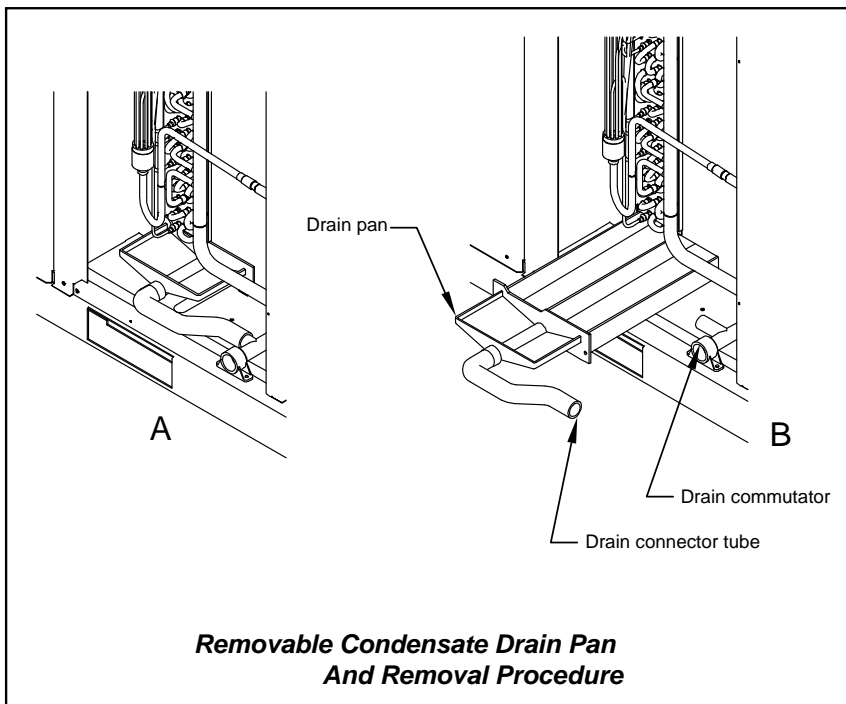
- 1) Place the unit on the pad.
- 2) Attach the supply and return air ducts to the unit.
- 3) Insulate any ductwork outside of the structure with at least 2 inches of insulation and weatherproof. There must be a weatherproof seal where the duct enters the structure.
- 4) Complete the installation according to the instructions.

Typical ground level application:

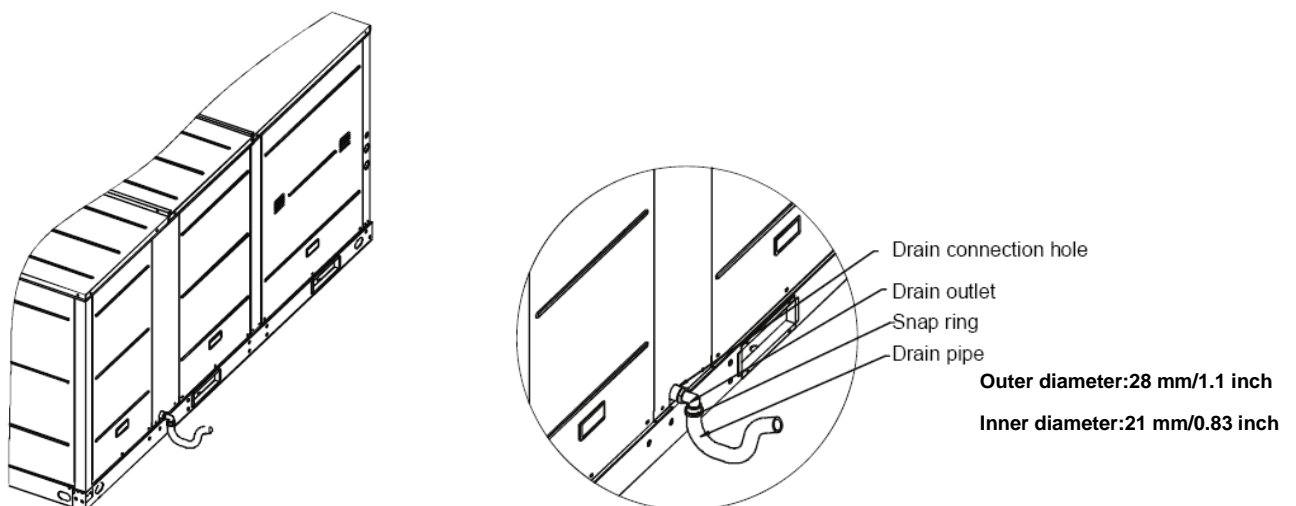


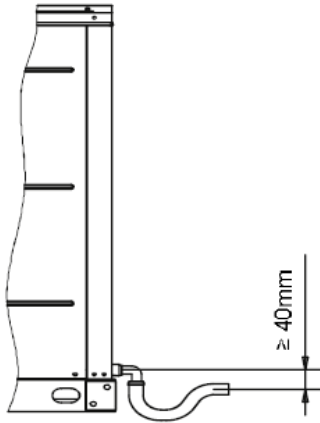
15.5 Installation of condensate drain piping

5ton:



6.2&7.5&8.5&10&15&17.5&20ton:





15.6 Ductwork

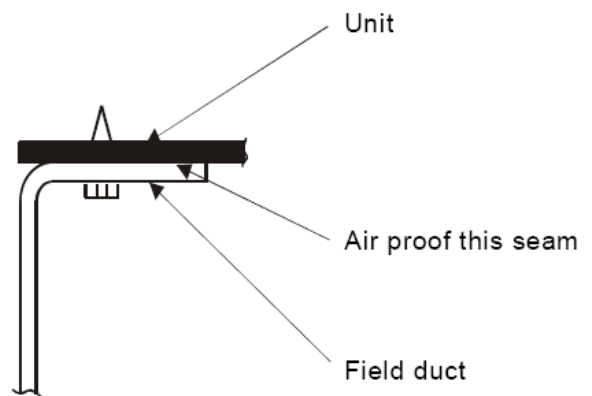
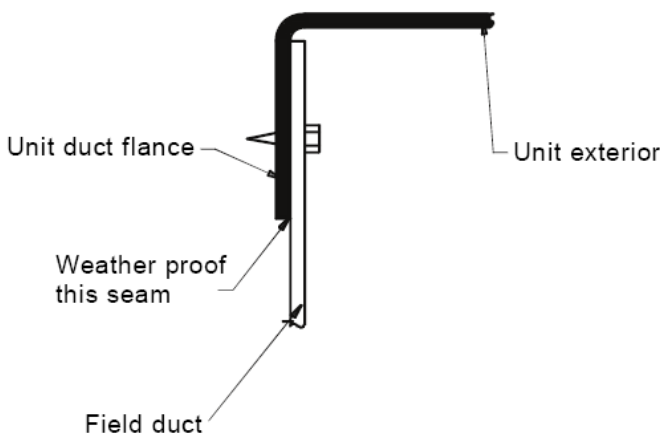
1. Attaching horizontal ductwork to unit

1) All conditioned air ductwork should be insulated to minimize heating and cooling duct losses. Use a minimum of two (2) inches of insulation with a vapor barrier. The outside ductwork must be weatherproofed between the unit and the building.

2) When attaching ductwork to a horizontal unit, provide a flexible watertight connection to prevent noise transmission from the unit to the ducts. The flexible connection must be indoors and made out of heavy canvas.

Note:

Do not draw the canvas taut between the solid ducts.



2. Attaching down flow ductwork to roof curb

Supply and return air flanges are provided on the roof curb for easy duct installation. All ductwork must be run and attached to the curb before the unit is set into place.

Follow these guidelines for ductwork construction:

- 1) Connections to the unit should be made with three-inch canvas connectors to minimize noise and vibration transmission.
- 2) Elbows with turning vanes or splitters are recommended to minimize air noise and resistance.
- 3) The first elbow in the ductwork leaving the unit should be no closer than two feet from the unit, to minimize noise and resistance.

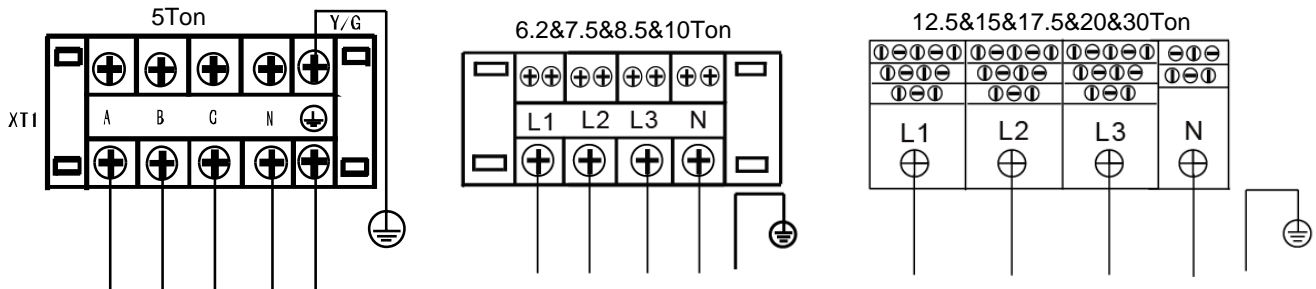
15.7 Wiring provision

Field wiring

The units are internally wired at the factory according to generally accepted electrical technology.

Required field wiring

Main power wiring to the unit control wiring between the control center and the unit, and earth wiring are required in the field.



Required components

The following components are required: main power fuse, conduit coupling, and field supplied room thermostat.

Wire and fuse size selection for main power source.

Wire and fuse size should be selected in accordance with national standard, taking the designed maximum current shall be the total of the compressor maximum current, condenser fan motor current and evaporator fan motor current (refer to “electrical data”).

Wire size between room thermostat and unit.

The wire size between the room thermostat and the unit should be determined according to the following table, because the 24V power source is applied to the control circuit.

	Wiring length between room thermostat and unit(one way)				
	10m	15m	20m	30m	40m
Minimum wire size(mm ²)	0.5	0.5	0.75	0.75	1.0

16 Wired Controller

16.1 Standard wired controller: KJR-12B/DP (T)-E



KJR-12B/DP (T)-E

1. SAFETY PRECAUTIONS

The following contents are stated on the product and the operation manual, including usage, precautions against personal harm and property loss, and the methods of using the product correctly and safely. After fully understanding the following contents (identifiers and icons), read the text body and observe the following rules.

Identifier description

Identifier	Meaning
Warning	Means improper handling may lead to personal death or severe injury.
Caution	Means improper handling may lead to personal injury or property loss.
[Note]: 1. "Harm" means injury, burn and electric shock which need long-term treatment but need no hospitalization 2. "Property loss" means loss of properties and materials.	

■ Icon description

Icon	Meaning
	It indicates forbidding. The forbidden subject-matter is indicated in the icon or by images or characters aside.
	It indicates compulsory implementation. The compulsory subject-matter is indicated in the icon or by images or characters aside.

Warning

	Delegate installation	Please entrust the distributor or professionals to install the unit. The installers must have the relevant know-how. Improper installation performed by the user without permission may cause fire, electric, shock, personal injury or water leakage.
	Forbid	Do not spray flammable aerosol to the wire controller directly. Otherwise, fire may occur.
	Forbid	Do not operate with wet hands or let water enter the wire controller. Otherwise, electric shock may occur.

2. SUMMARIZE

Usage condition:

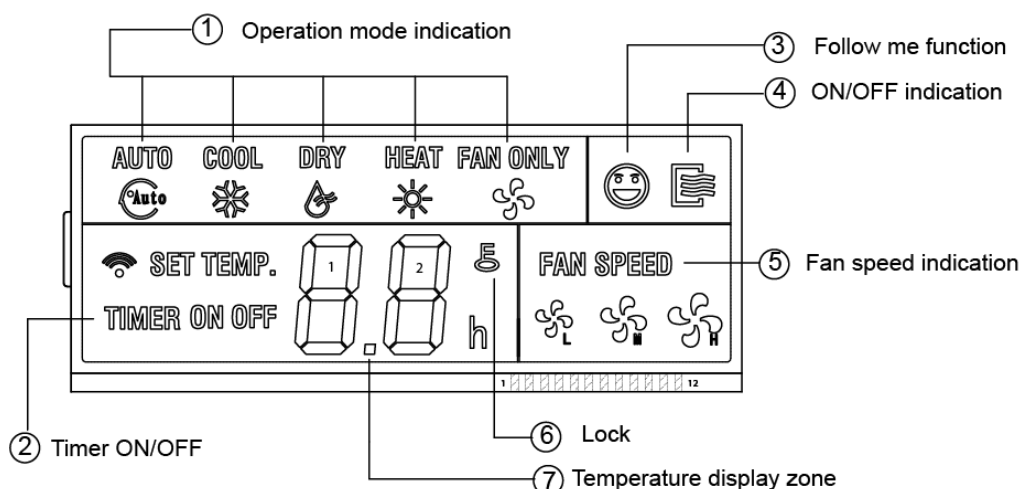
- ①. Power supply: 5V DC.
- ②. Operation temperature: -15℃-+43℃.
- ③. Operation humidity: 40%-90%, RH.

3. FUNCTION SUMMARY

Main function:

- ①. Connecting to indoor unit by A, B, C, D, E terminal;
- ②. Button setting action mode.
- ③. LCD display.
- ④. Timer for rest time.

4. NAME AND FUCTION OF INDICATORS ON THE CONTROLLER



① Operation mode indication:

When press " MODE " button, the following mode can be selected in circle. Auto→Cool →Dry→Heat→ Fan only→Auto. For cooling only model,heat mode is skipped.

② Timer :

When adjust setting on time or only on time is set, the "ON" is lighted.

When adjust setting off time or only off time is set, the "OFF" is lighted. If both 'on' and 'off' timer are set, both the "ON" and "OFF" are lighted.

③ Follow me function:

There is a temperature sensor inside the wire controller, after setting temperature, it will compare the two temperatures, and the space of wire controller will be the same as setting temperature. It is available under cooling, heating, auto mode.

④ ON/OFF indication :

When it is on, the icon display, otherwise it is extinguished.

⑤ Fan speed indication :

There are four fan modes : low, middle, high, auto. For some models, no middle fan then the middle fan is seen as high speed. The function is not suitable for the rooftop package units.

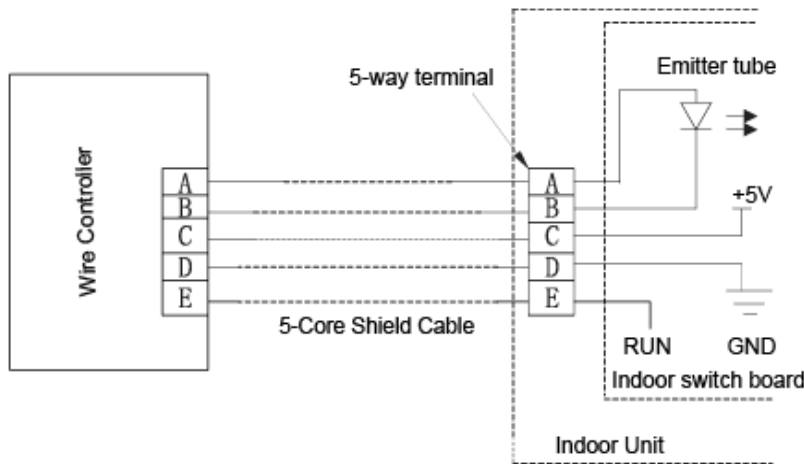
⑥ Lock:

When the " LOCK " button is pressed, the icon appear and other buttons is unable, press again, the icon disappear.

⑦ Temperature display zone:

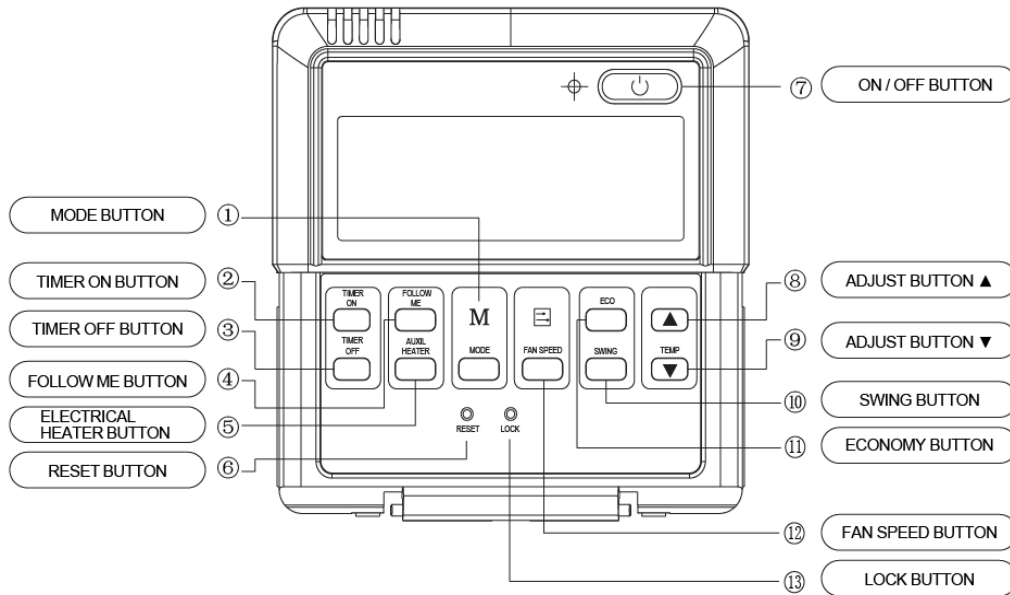
Generally it displays setting temperature, it can be adjusted by press temperature button ▲ and ▼. But in fan mode, no display here.

5. INSTALLATION METHOD



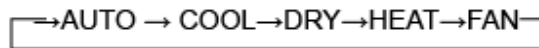
When a wired controller is needed, a small 5-way terminal should be added, fix an infrared emitter with gumwater near the receiver on the switch board. Connect its anode and cathode to A and B, and +5V, GND, RUN to C, D, E on the switch board.

6. NAME AND OPERATION OF THE BUTTON ON THE WIRE CONTROLLER



① Mode button:

When press this button, the operation mode change as the following sequence:



Remark: For the cooling only model, the heating mode is skipped.

② Timer on button :

Press this button, timer on function is active. Then every press, the time increase 0.5h, after 10h, 1h increase after each press. If cancel this Function, just set it to "0.0".

③ Timer off button:

Press this button, timer off function is active. Then every press, the time increase 0.5h, after 10h, per 1h increase after each press. If cancel this function, just set it to "0.0".

④ Follow me button:

When under cool, heat and auto mode, press this button, follow me function is active. Press again, this function is ineffective.

⑤ Electrical heater button :

If press this button in heat mode, electrical heater function become ineffective.

⑥ Reset button(hidden):

Use a 1mm stick to press in the little hole , then the current setting is canceled . The wired controller will enter into original state.

⑦ ON/OFF button:

When in off state, press this button, the indicator is on, the wire controller enter into on state, and send setting information to in door PCB. When in on state, press this button, the indicator is off, and send instruction. If timer on or timer off has been set, it cancel this setting then send instruction to stop the machine.

⑧ Adjust button ▲:

Set indoor temperature up. If press and hold on, it will increase at 1 degree per 0.5 second.

⑨ Adjust button ▼ :

Set indoor temperature down. If press and hold on, it will decrease at 1degree per 0.5 second.

⑩ Swing button:

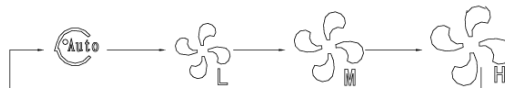
First pressing: start swing function; second pressing: stop swing. (Match to some model with swing function).

⑪ Economy operation button:

Press this button, the indoor unit operates in economy mode, press it again, exit this mode (it may be ineffective for some models)

⑫ Fan speed button:

Press this button consecutively, the fan speed will circle as follow:



⑬ Lock button (hidden):

When you push the LOCK button, all current settings are locked in and the wire controller does not accept any operation except that of the LOCK button. Use the lock mode when you want to prevent setting from being changed accidentally or play fully. Push the LOCK button again when you want to cancel the LOCK mode.

7. USING METHOD

AUTOMATIC OPERATION

Connect to power, indoor operation lamp flash.

- ①. Press "MODE" button, select " AUTO " ;
- ②. Press the button "▲" and "▼", set temperature you want, generally it is among 17°C~30°C;
- ③. Press " ON/OFF" button, operation lamp is on, the air-conditioner work in auto mode, indoor fan is auto, and can not be changed. Auto is displayed on LCD. Press " ON/OFF" button again to stop.
- ④. Economy operation is valid in auto mode.

COOL/HEAT/FAN MODE OPERATION

- ①. Press "MODE" button, select "COOL", "HEAT" or "FAN ONLY" mode.
- ②. Press temperature adjust button to select setting temp..
- ③. Press "FAN SPEED" button to select high/mid/low/auto.
- ④. Press "ON/OFF" button, indoor unit operation lamp on, it works in selected mode. Press "ON/OFF" button again, it stops to work.

Remark: When in fan mode, no temperature can be set.

DRY OPERATION

- ①. Press " MODE " button, select " DRY " mode.
- ②. Press temperature adjust button to select setting temp.
- ③. Press " ON/OFF " button, indoor unit operation lamp on, it works in dry mode. Press ON/OFF button again, it stops to work.
- ④. In dry mode, economy operation and fan speed are ineffective.

TIMER SETTING

Timer on only:

- ①. Press " TIME ON " button, it display "SET" on LCD, and display " H " and "ON" , it is waiting for timer on setting.
- ②. Press " timer " on button repeatedly to adjust time setting.
- ③. If press this button and hold on, the time will increase at 0.5h, after 10h, it increases at 1h.
- ④. After setting 0.5 second, the wire controller send timer on information, it is finished.

Timer off only:

- ①. Press "TIME OFF " button, it display "SET" on LCD, and display " H " and ON, it is waiting for timer on setting.
- ②. Press "TIME OFF" button repeatedly to adjust time setting.
- ③. If press this button and hold on, the time will increase at 0.5h, after 10h, it increases at 1h.
- ④. After setting 0.5 second, the wire controller send timer off information, it is finished.

TIMER ON AND TIMER OFF BOTH

- ①. Set timer on time as the corresponding step1 and 2.
- ②. Set timer off time as the corresponding step1 and 2.
- ③. Timer off time must be longer than timer on time.
- ④. 0.5 second after setting, the wire controller send information, the setting is finished.

CHANGE TIMER

If there is a timer of changing time to be need, press corresponding button to revise it. If cancel timer, change time to 0.0.

NOTE: The timer time is relative time, that is delay after setting time (i, e: setting time is 8:05 A,M). So when timer is set, the standard time can not be adjusted.

8. TECHNICAL INDICATION AND REQUIREMENT

EMC and EMI comply with the CE certification requirements.

16.2 Optional wired controller:

KJR-23B: For cooling only and cooling with auxiliary heater

KJR-25B: For Cooling and heating



KJR-23B

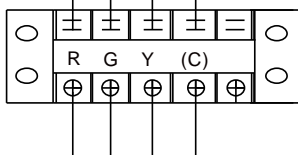


KJR-25B

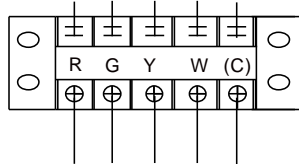
16.3 Field wiring

To connect wired controller

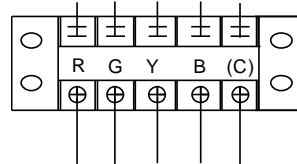
For Cooling Units



For Cooling+EAH Units



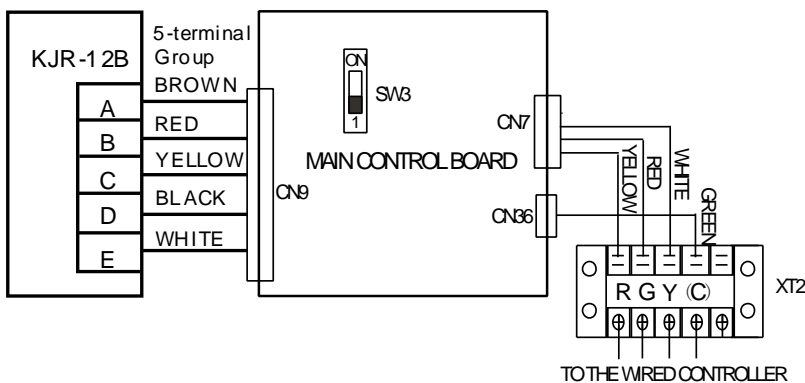
For Heating&cooling Units



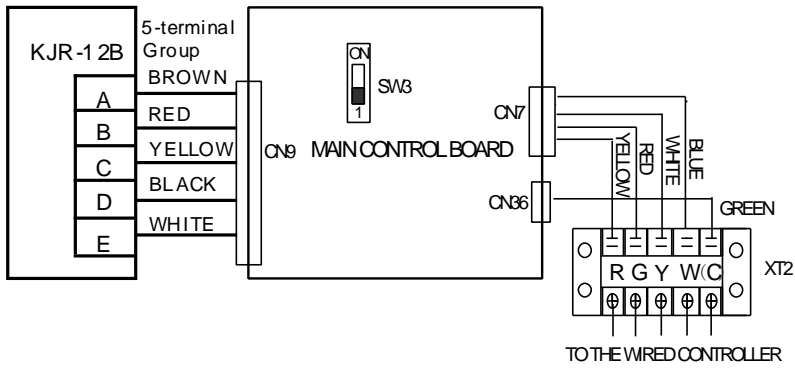
Dial code setting

The wired controller KJR-12B can be used when the SW3 is on “on”, if the SW3 is on “1”, the wired controller KJR-23B or KJR-25B can be used. After setting, please shut off the power supply and then power on it again, otherwise, the new settings function will be invalid.

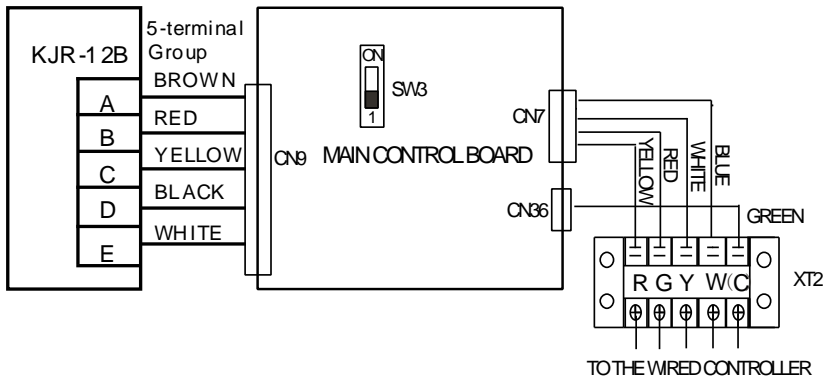
For Cooling Units



For Cooling+EAH Units



For Cooling+EAH Units



Remark:

Two stage capacity output controlling is optional.

17. Error Code

17.1 Error Code for 5ton

Type	Content	Code	Remarks
Normal	Standby	--	
Normal	Constraint cooling	On	
Normal	Run	10.	
Error	Compressor phase sequence error or phase default	E0	Manual reset
Error	Outdoor coil temp. sensor T3-1 default	E1	Manual reset
Error	Outdoor coil temp. sensor T3-2 default	E2	Manual reset
Error	Indoor coil temp. sensor T2-1 default	E5	Manual reset
Error	Indoor coil temp. sensor T2-2 default	E6	Manual reset
Error	Indoor temp. sensor T1 error	E9	Manual reset
Error	Outdoor ambient temp. sensor T4 error	EA	Manual reset
Error	Wired controller output error	Eb	Manual reset
Protection	Over current protection	P0	Auto reset
Protection	Comprehensive protection for outdoor fan	P3	Auto reset
Protection	Protection for Hi./Lo. Pressure or exhaust temp. (System 1)	P4	Auto reset
Protection	Protection for Hi./Lo. Pressure or exhaust temp. (System 1)	P5	Auto reset
Protection	Protection for High temperature of the outdoor condenser	P8	Auto reset

Error code for 6.2ton and above

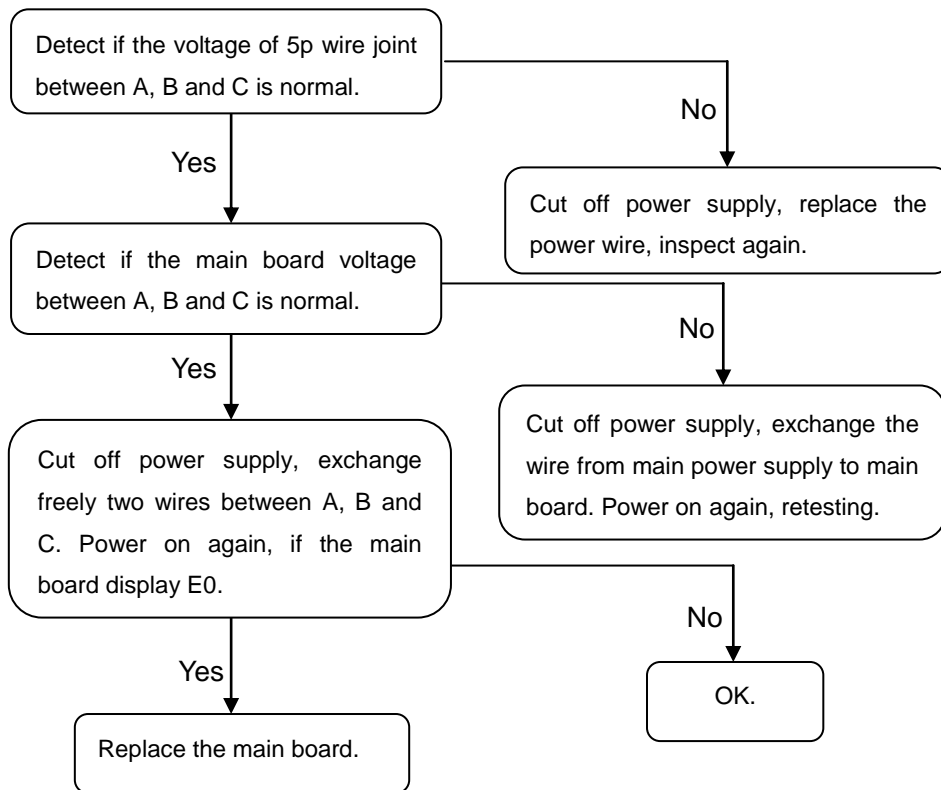
Type	Content	Code	Remarks
Normal	Standby	--	
Normal	Constraint cool	On	
Normal	Run	10.	
Error	Compressor phase sequence error or phase default	E0	Manual reset
Error	Outdoor coil temp. sensor in sys. A error	E1	Manual reset
Error	Outdoor coil temp. sensor in sys. B error	E2	Manual reset
Error	Indoor coil temp. sensor in sys. A error	E5	Manual reset
Error	Indoor coil temp. sensor in sys. B error	E6	Manual reset
Error	Indoor temp. sensor error	E9	Manual reset
Error	Outdoor ambient temp. sensor error	EA	Manual reset
Error	Wire controller output error	Eb	Manual reset
Protection	Overcurrent protection in sys. A	P0	Auto reset
Protection	Overcurrent protection in sys. B	P1	Auto reset
Protection	Overcurrent protection for indoor fan	P2	Auto reset
Protection	Comprehensive protection for outdoor fan	P3	Auto reset
Protection	Protection for Hi./Lo. Pressure or exhaust temp. in sys. A	P4	Comprehensive protection in sys. A
Protection	Protection for Hi./Lo. Pressure or exhaust temp. in sys. B	P5	Comprehensive protection in sys. B
Protection	T2 evaporator Hi-temperature protection stop outdoor unit fan	P6	Auto reset
Protection	T2 evaporator Hi- temperature protection then stop outdoor unit fan and compressor	P7	Auto reset
Protection	Protection for condenser Hi-temp. in sys. A	P8	Auto reset
Protection	Protection for condenser Hi-temp. in sys. B	P9	Auto reset
Protection	Anti-freezing protection for evaporator in sys. A	Pc	Auto reset
Protection	Anti-freezing protection for evaporator in sys. B	Pd	Auto reset
Protection	Defrosting	dF	Auto reset

17.2 Troubleshooting

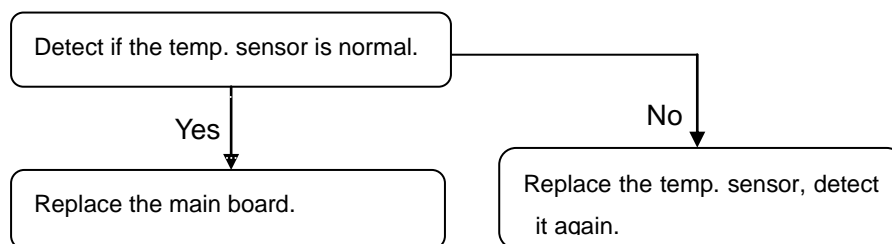
For 5ton

Item	Content	Error code
1	Compressor phase sequence error or phase default	E0
2	Outdoor coil temp. sensor T3-1 default	E1
3	Outdoor coil temp. sensor T3-2 default	E2
4	Indoor coil temp. sensor T2-1 default	E5
5	Indoor coil temp. sensor T2-2 default	E6
6	Indoor temp. sensor T1 error	E9
7	Outdoor ambient temp. sensor T4 error	EA
8	Wired controller output error	Eb
9	Over current protection	P0
10	Comprehensive protection for outdoor fan	P3
11	Protection for Hi./Lo. Pressure or exhaust temp.	P4

① E0: Compressor phase sequence error or phase default

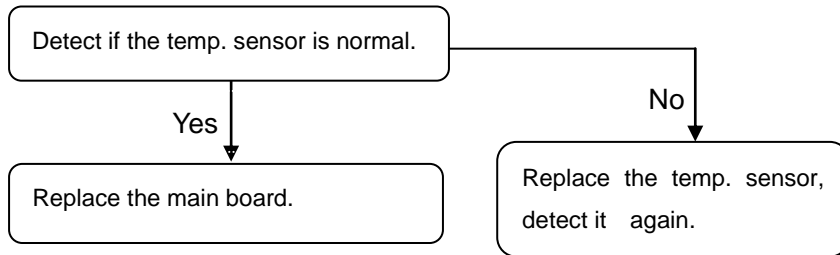


② E1: Outdoor coil temp. sensor T3 default.



③ E9: Indoor coil temp. sensor T2 default.

(Indoor temp. and Pipe Temp. Sensor Resistance Value Table, see **Appendix 2**)



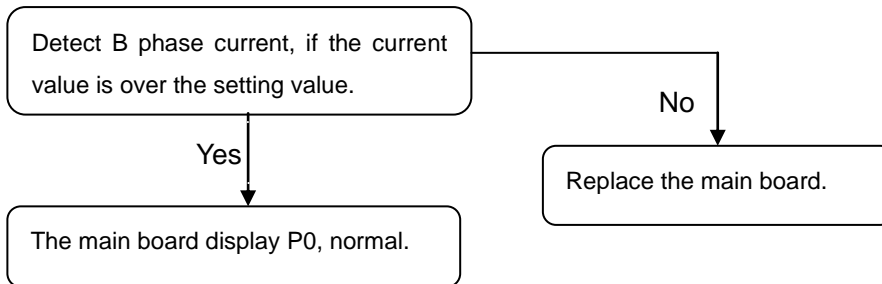
④ When E2,E5,E6 or EA displays, please check the wired nameplate, if the terminals of T2_1、 T2_2、 T3_2、 T4 are connected as short circuit. If no, please connect all as short circuit, unless replace main board.

⑤ Eb: Wired controller output error.(Only for KJR-23B or KJR-25B).

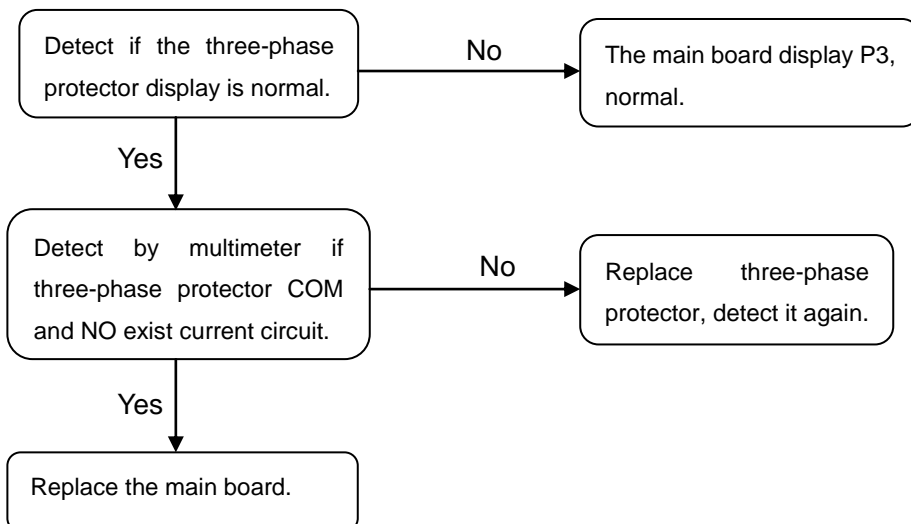
Avoid three conditions as following:

- 1) The wired controller output signal has Y, no G.
- 2) The wired controller output signal has W, no G.
- 3) The wired controller output signal has Y and W, no G.

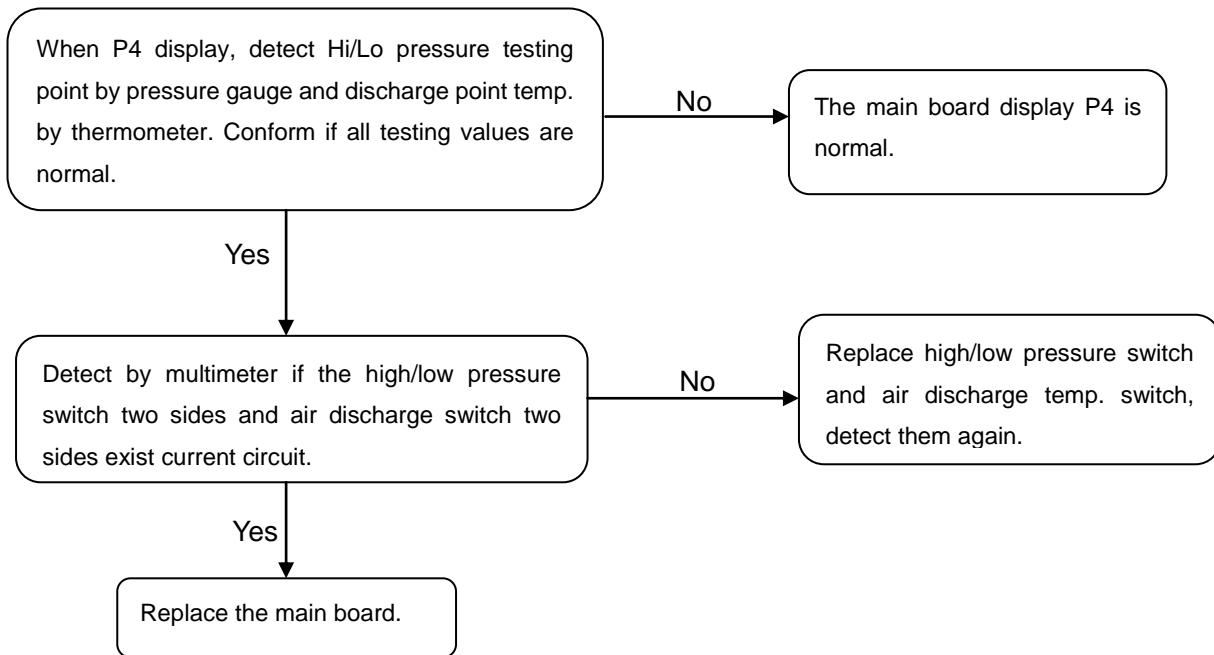
⑥ P0: Compressor over current protection.(The over current protection value is 16A)



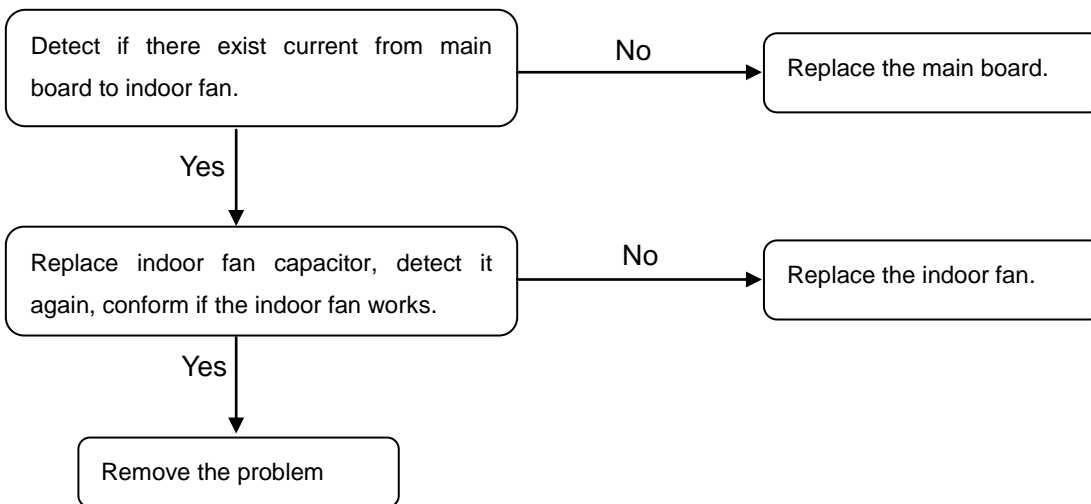
⑦ P3: Comprehensive protection for outdoor fan



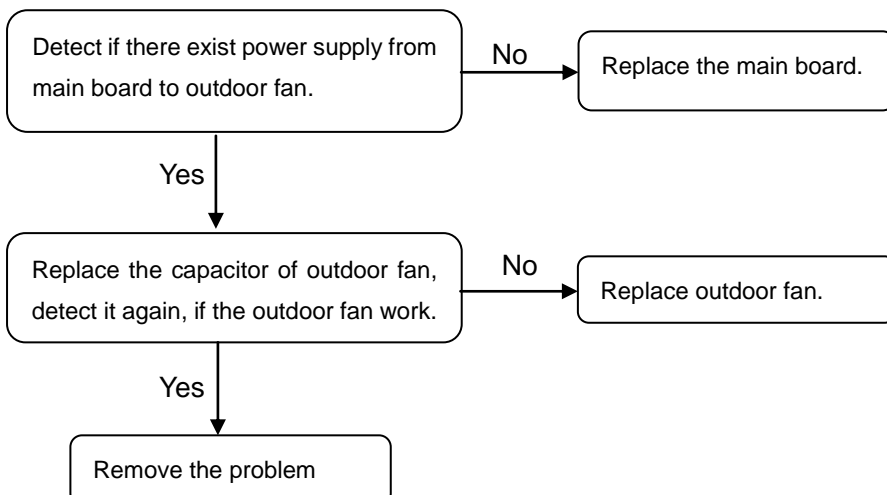
⑧ P4: Protection for Hi./Lo. Pressure or exhaust temp. (High pressure protection value: 4.4MPa, High pressure protection value: 0.14MPa; air discharge temp. protection value: 130°C above)



⑨ Indoor fan motor don't work.



⑩ Outdoor fan motor don't work.

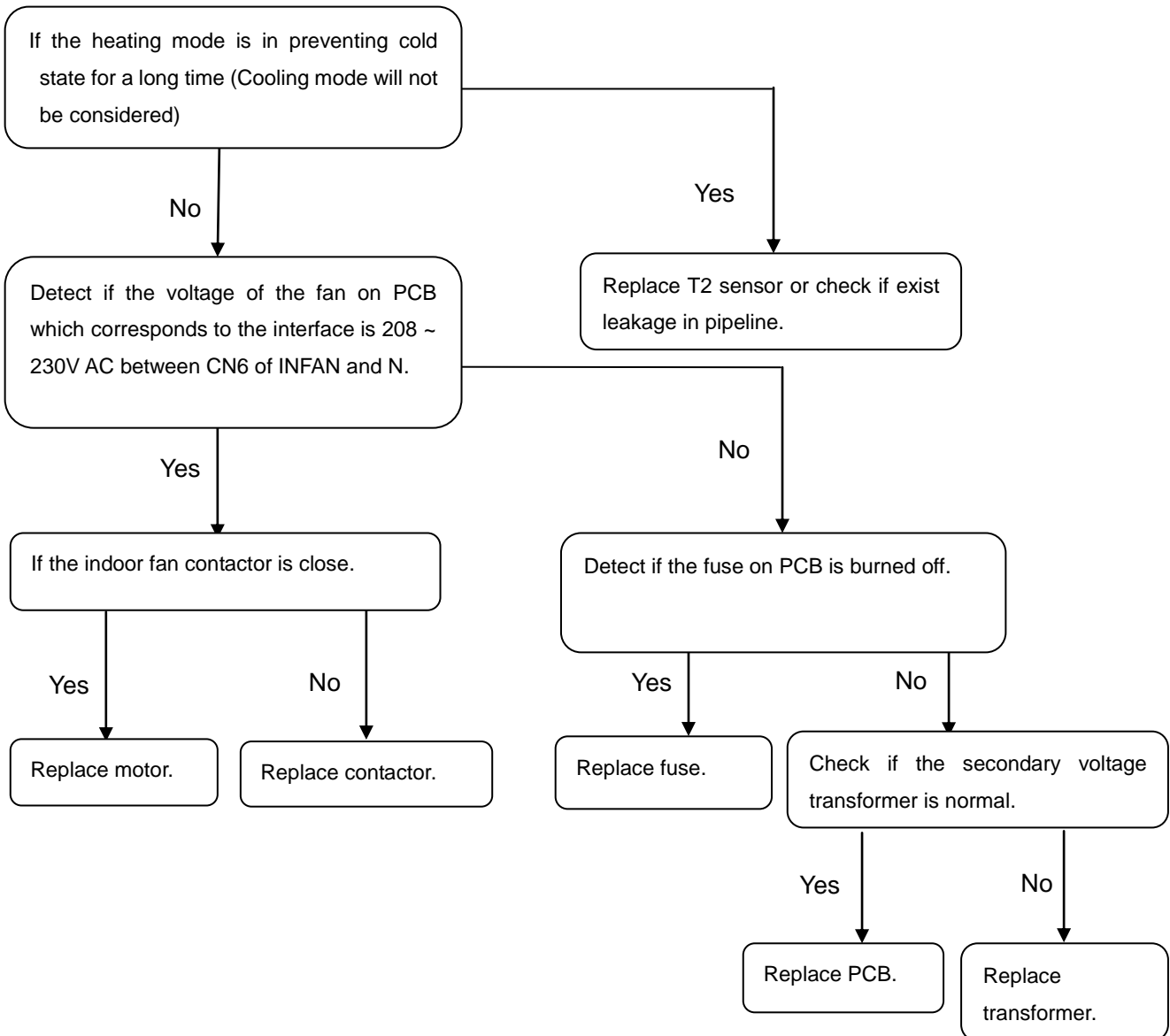


For 6.2ton and above

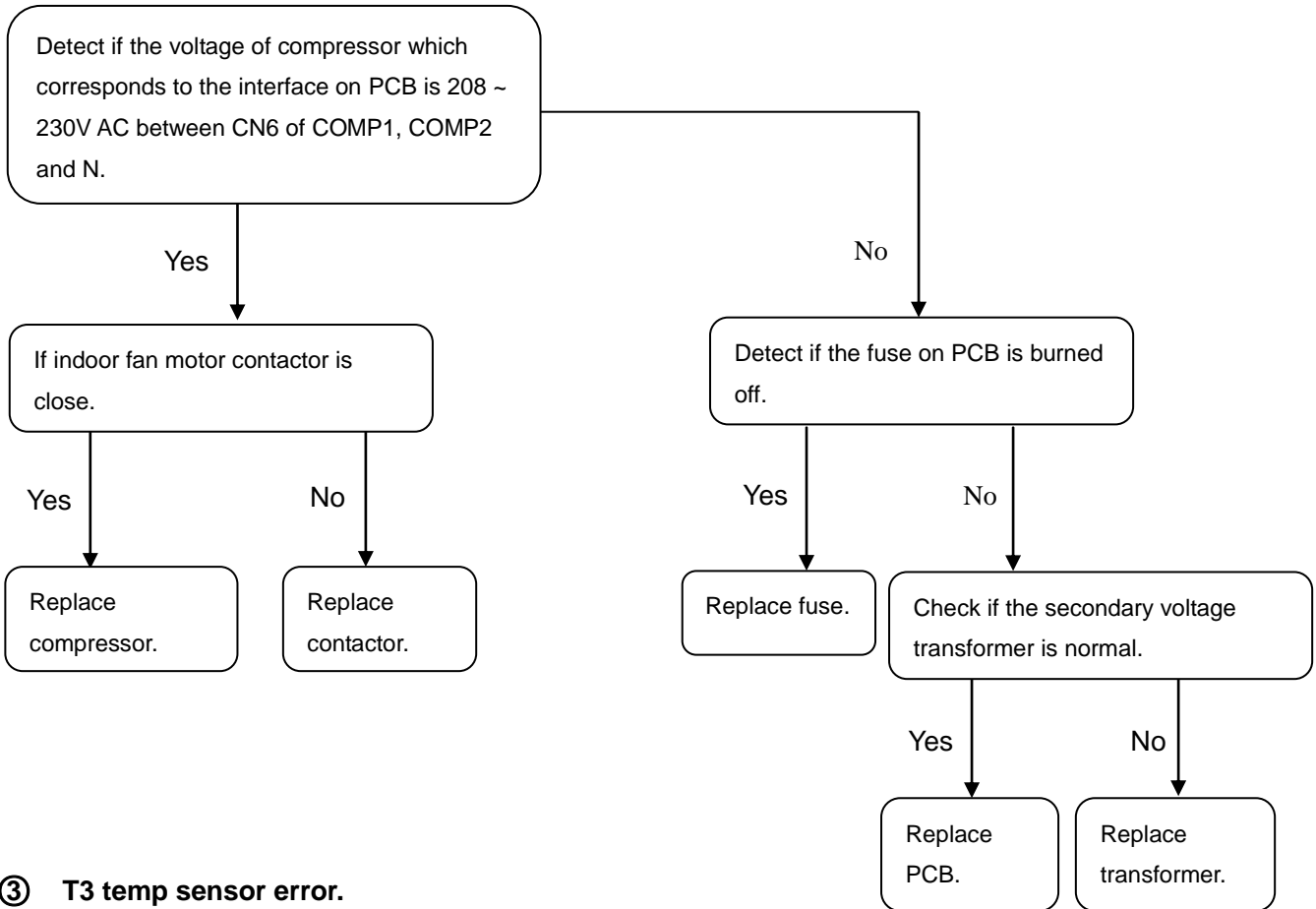
Item	Content	Error code
1	Indoor fan motor didn't run.	--
2	Compressor didn't run.	--
3	T3 temp sensor error.	EA
4	Check if the low pressure protection is normal.	--
5	Outdoor fan motor didn't run.	--
6	Four ways valve didn't work.	--
7	Condenser high temp protection.	P8,P9

① Indoor fan motor don't run.

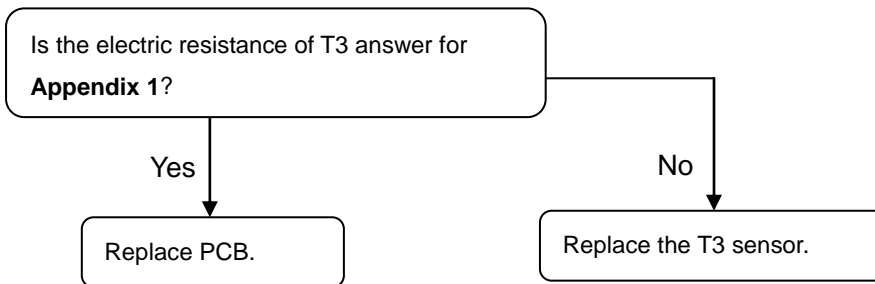
The first check if the power supplier is normal, if all wire connection terminal is loose, if the wired controller set and wire connection are correct, operating as flow process after confirm.



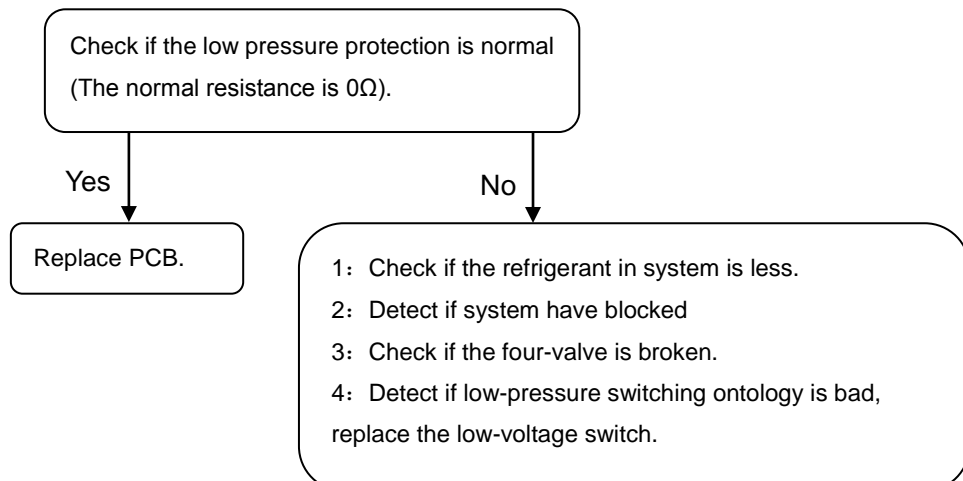
② Compressor don't run (All wires connection are correct and reliable, if power supplier is required range. If compressor don't run, you can analysis as flowing)



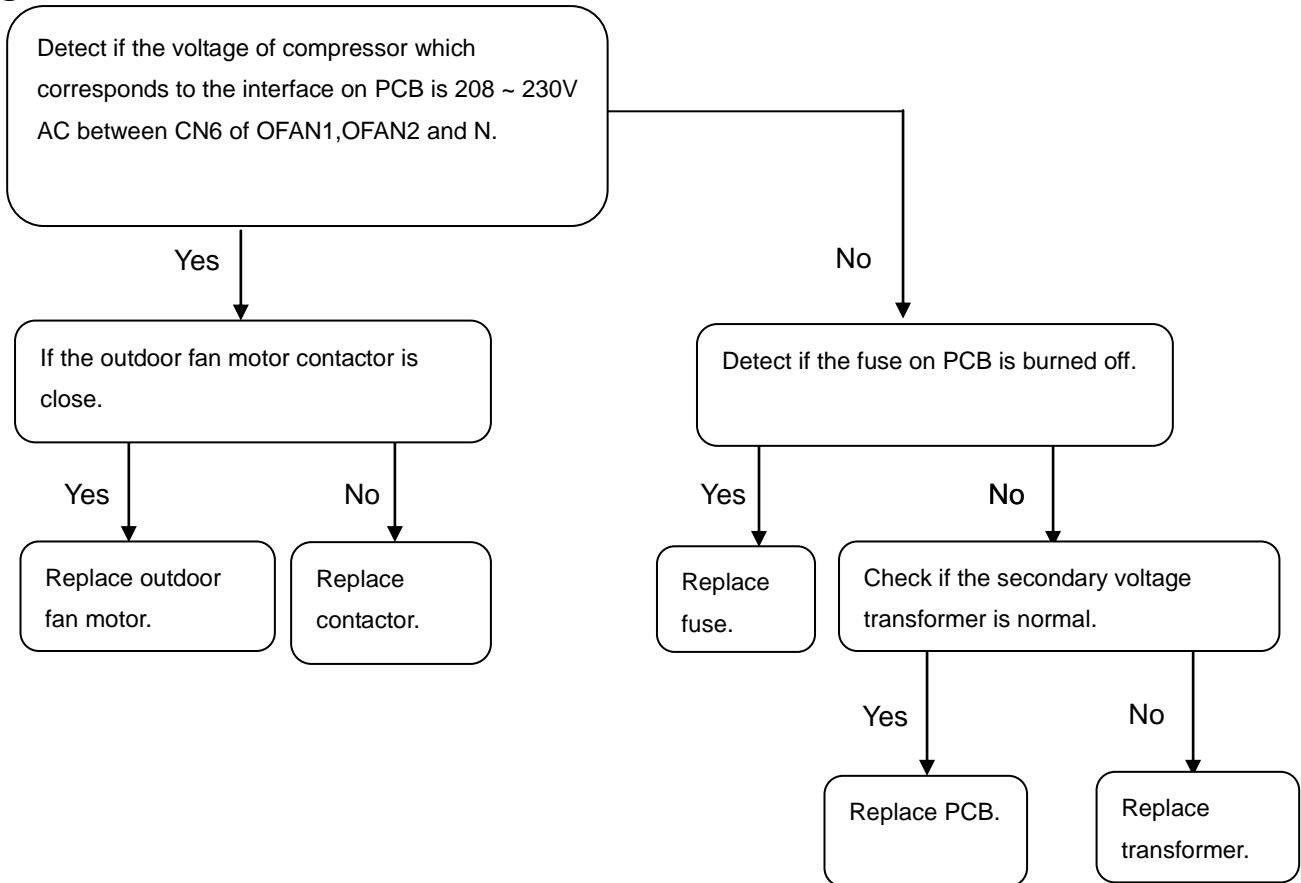
③ T3 temp sensor error.



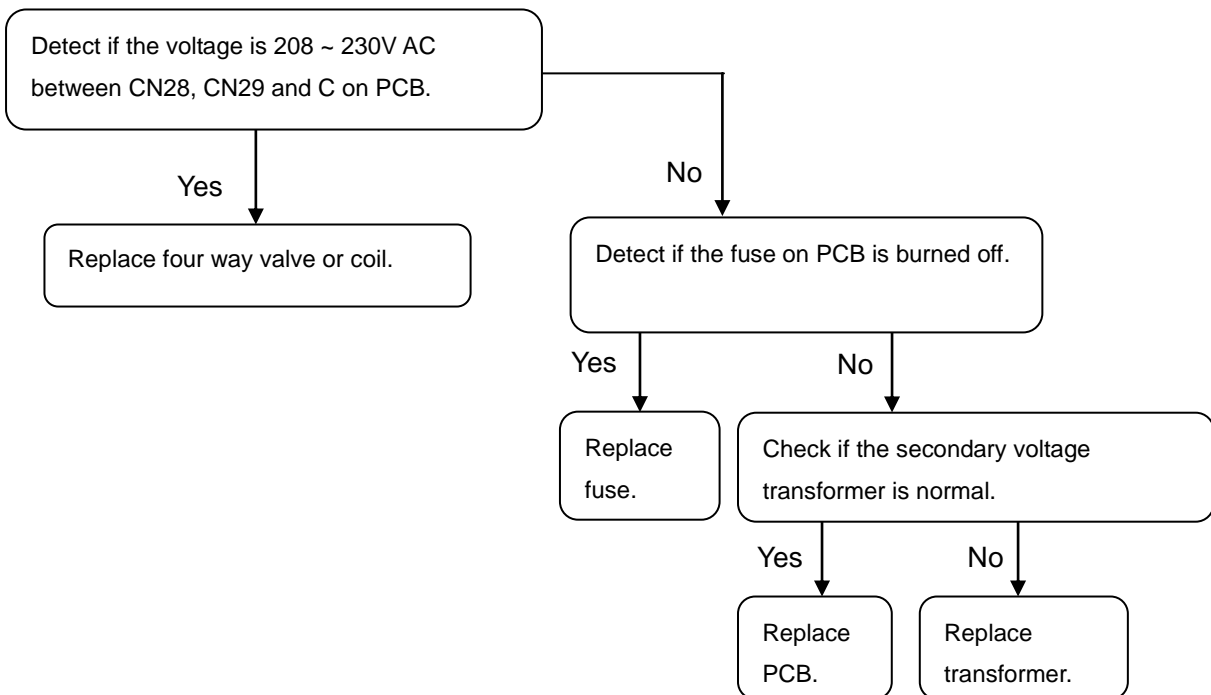
④ Check if the low pressure protection is normal.



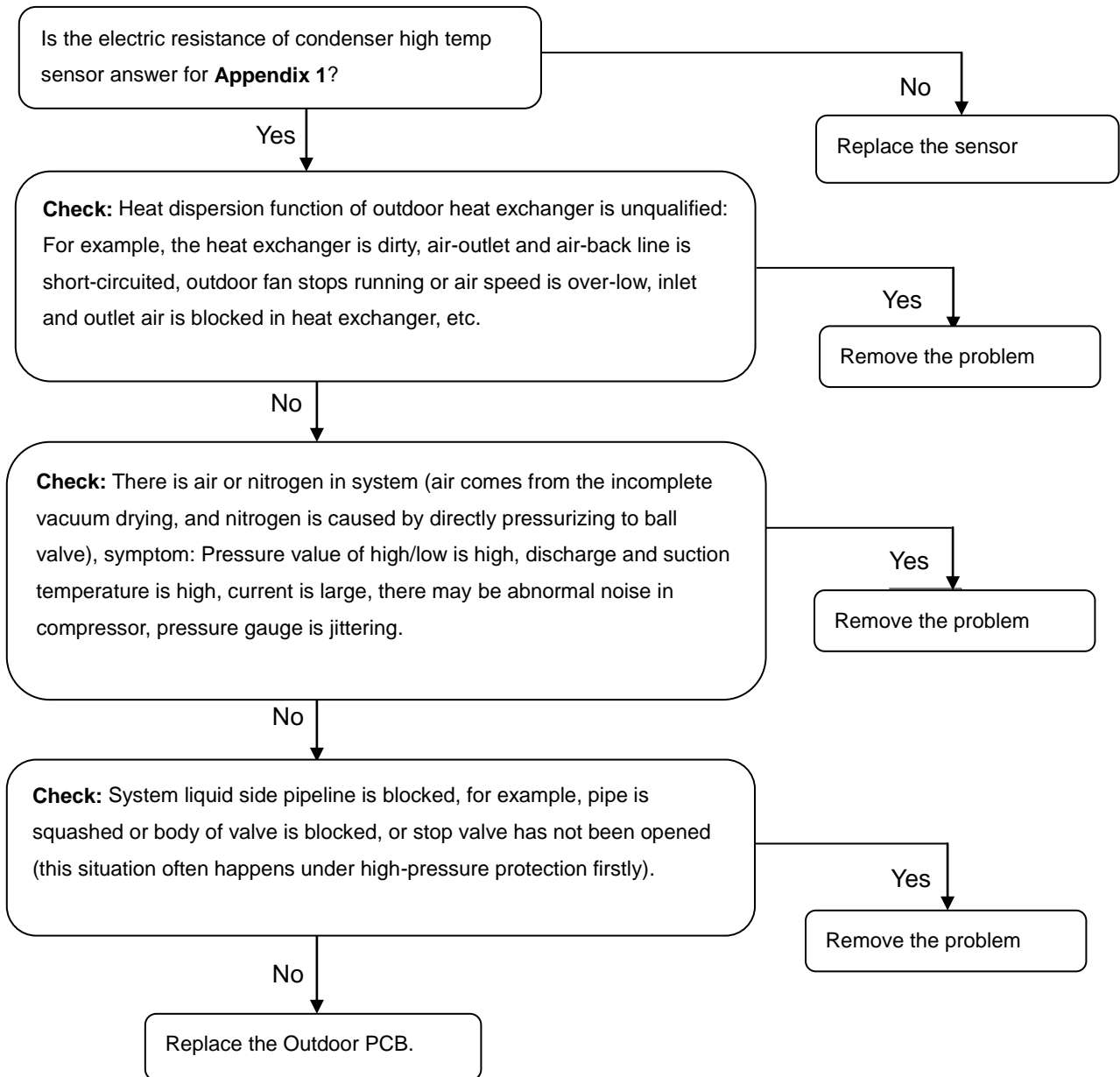
⑤ Outdoor fan motor don't run.







⑥ Four ways valve don't work.



⑦ Condenser high temperature protection



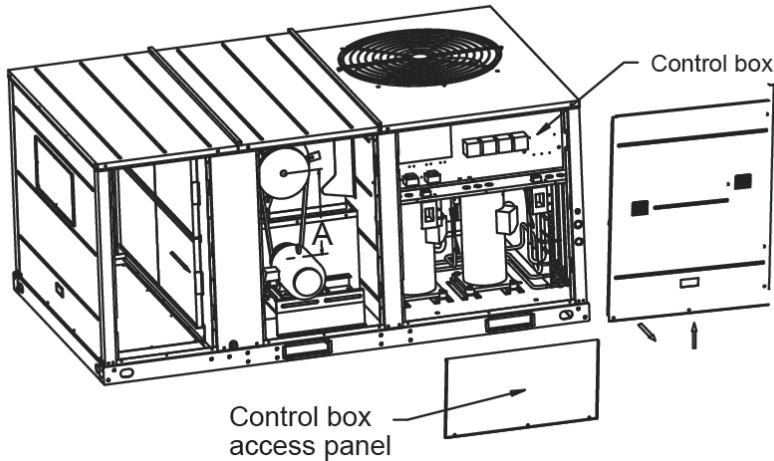
18. Accessories

Name of accessories	Qty	Shape
Manual	1	—————
Drain outlet	1	
Snap ring	1	
Drain pipe	1	
KJR-12B Wired controller	1	

19. Maintenance and Upkeep

Regular maintenance and upkeep

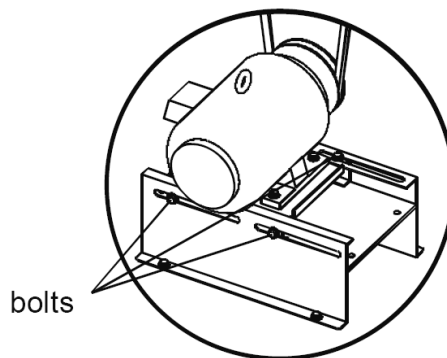
Some regular maintenance and upkeep have been carry on by user, includes: change the one-time dust filter, clean casing, wash condenser and replace a new belt, as well as do some test for the equipment.



Model	A
6.2 Ton	328mm
7.5 Ton	328mm
8.5Ton	395mm
10 Ton	395mm
12.5Ton	620mm
15 Ton	576mm
17.5 Ton	576mm
20 Ton	525mm
30Ton	925mm

Note: At least 1m flame resistant layer must be laid at the end of the air duct internal surface.

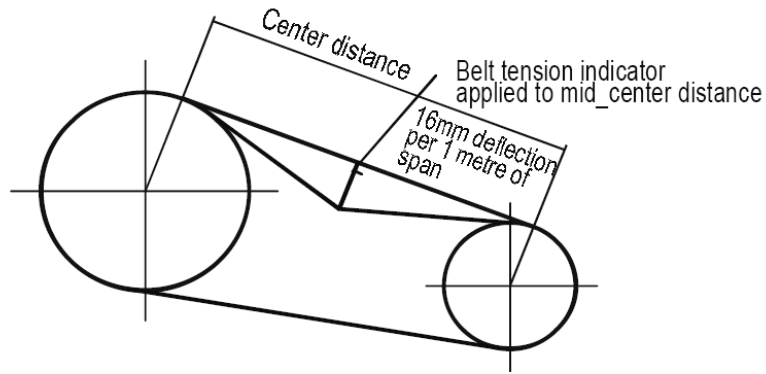
Regulating belt of rate of tension, inner fan Refer to the following Fig. fixed bolt of electric motor's supporting slide was loosened, following electric motor was droved, belt of rate of tension will begin change.



Method of belt tensioning using belt tension indicator

Calculate the deflection in mm on a basis of 16mm per meter of center distance

Center distance (m) ×16=deflection (mm).



Belt section	For required to deflection belt 16 mm per meter of span		
	Small pulley diameter (mm)	Newton (N)	Kilogram-force (kgf)
SPA	80 to 132	25 to 35	2.5 to 3.6
SPB	140 to 224	45 to 65	4.6 to 6.6

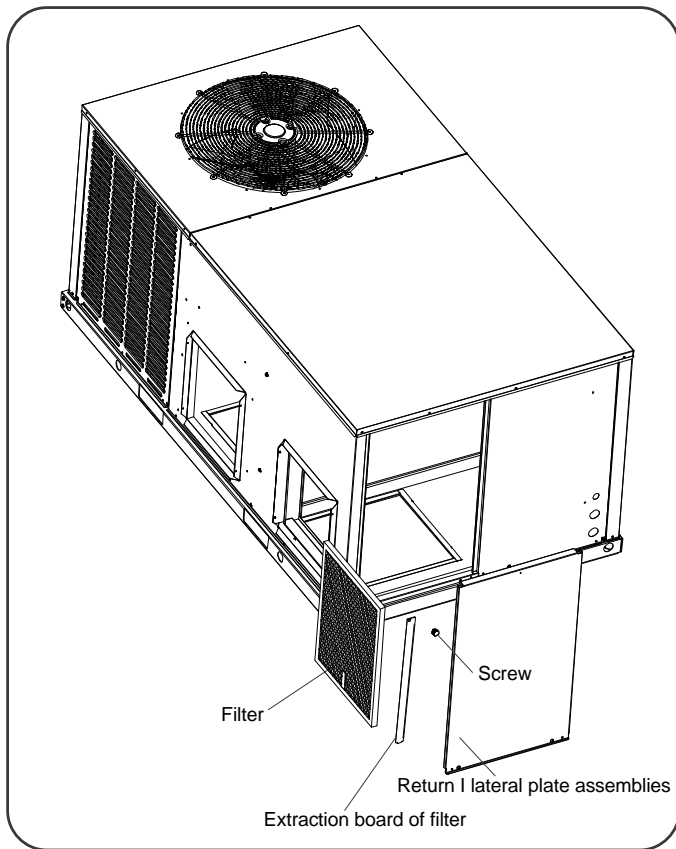
NOTE: The belt which is too tight or too loose may generate noise and be harmful to the unit.

Dismantle the air filter.

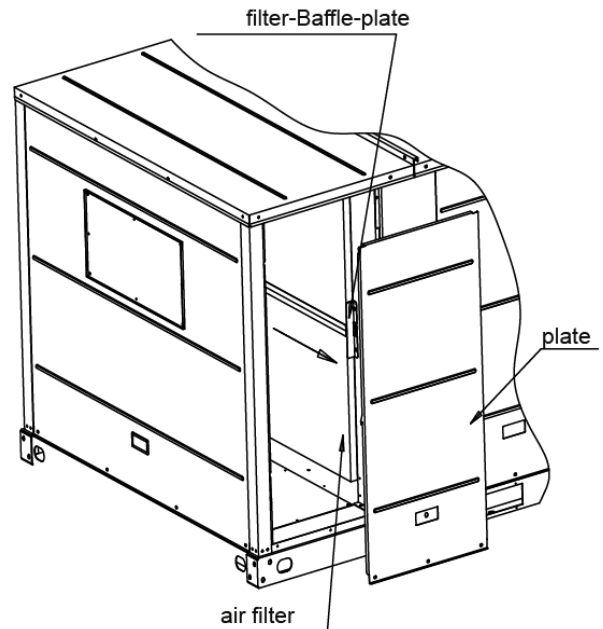
Twist of screws and up the plate that is gets out.

Upon loose the filter-baffle-plate, the filter could be pulled out along the supporting slot.

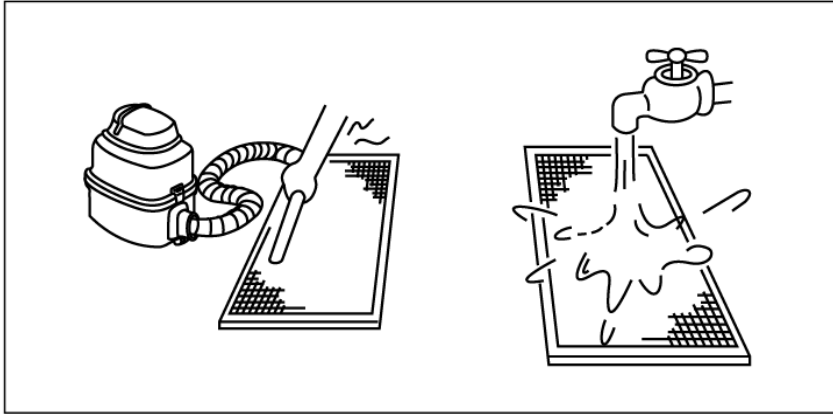
5ton



7.5~30ton



Clean the air filter (Vacuum cleaner or pure water may be used to clean the air filter. If the dust accumulation is too heavy, please use soft brush and mild detergent to clean it and dry out in cool place).



The air-in side should face up when using vacuum cleaner.

The air-in side should face down when using water.

CAUTION: Do not dry out the air filter under direct sunshine or with fire.

Re-install the air filter

Condenser coil

Unfiltered air circulates through the unit's condenser coil and can cause the coil's surface to become clogged with dust, dirt, etc. To clean the coil, vertically (i.e., with the fins) stroke the coil surface with a soft-bristled brush. Be sure to keep all vegetation away from the condenser coil area.

Maintenance performed by serviceman.

To keep your unit operating safely and efficiently, the manufacturer recommends that a qualified serviceman check the entire system at least once each year and any other time that you feel one is needed. Your serviceman should examine these areas of your unit:

Filters

Motors and drive system components

Economizer gaskets (for possible replacement)

Safety controls (for mechanical cleaning)

Electrical components and wiring (for possible replacement and connection tightness)

Condensate drain (for cleaning)

Unit duct connections (to see that they are physically sound and sealed to the unit casing)

Unit mounting support (for structural integrity)

The unit (for obvious unit deterioration)

CAUTION:

Do not operate the unit without the evaporator fan access panel in place. Reinstall the access panel after performing any maintenance. Operating the unit without the access panel may result in severe personal injury or death.

Appendix :

1. Indoor Temp. and Pipe Temp. Sensor Resistance Value Table (6.2ton and above)

°C	K Ohm	°C	K Ohm	°C	K Ohm	°C	K Ohm
-20	115.266	20	12.6431	60	2.35774	100	0.62973
-19	108.146	21	12.0561	61	2.27249	101	0.61148
-18	101.517	22	11.5000	62	2.19073	102	0.59386
-17	96.3423	23	10.9731	63	2.11241	103	0.57683
-16	89.5865	24	10.4736	64	2.03732	104	0.56038
-15	84.2190	25	10.0000	65	1.96532	105	0.54448
-14	79.3110	26	9.55074	66	1.89627	106	0.52912
-13	74.5360	27	9.12445	67	1.83003	107	0.51426
-12	70.1698	28	8.71983	68	1.76647	108	0.49989
-11	66.0898	29	8.33566	69	1.70547	109	0.48600
-10	62.2756	30	7.97078	70	1.64691	110	0.47256
-9	58.7079	31	7.62411	71	1.59068	111	0.45957
-8	56.3694	32	7.29464	72	1.53668	112	0.44699
-7	52.2438	33	6.98142	73	1.48481	113	0.43482
-6	49.3161	34	6.68355	74	1.43498	114	0.42304
-5	46.5725	35	6.40021	75	1.38703	115	0.41164
-4	44.0000	36	6.13059	76	1.34105	116	0.40060
-3	41.5878	37	5.87359	77	1.29078	117	0.38991
-2	39.8239	38	5.62961	78	1.25423	118	0.37956
-1	37.1988	39	5.39689	79	1.21330	119	0.36954
0	35.2024	40	5.17519	80	1.17393	120	0.35982
1	33.3269	41	4.96392	81	1.13604	121	0.35042
2	31.5635	42	4.76253	82	1.09958	122	0.3413
3	29.9058	43	4.57050	83	1.06448	123	0.33246
4	28.3459	44	4.38736	84	1.03069	124	0.32390
5	26.8778	45	4.21263	85	0.99815	125	0.31559
6	25.4954	46	4.04589	86	0.96681	126	0.30754
7	24.1932	47	3.88673	87	0.93662	127	0.29974
8	22.5662	48	3.73476	88	0.90753	128	0.29216
9	21.8094	49	3.58962	89	0.87950	129	0.28482
10	20.7184	50	3.45097	90	0.85248	130	0.27770
11	19.6891	51	3.31847	91	0.82643	131	0.27078
12	18.7177	52	3.19183	92	0.80132	132	0.26408
13	17.8005	53	3.07075	93	0.77709	133	0.25757
14	16.9341	54	2.95896	94	0.75373	134	0.25125
15	16.1156	55	2.84421	95	0.73119	135	0.24512
16	15.3418	56	2.73823	96	0.70944	136	0.23916
17	14.6181	57	2.63682	97	0.68844	137	0.23338
18	13.9180	58	2.53973	98	0.66818	138	0.22776
19	13.2631	59	2.44677	99	0.64862	139	0.22231

2. Indoor Temp. and Pipe Temp. Sensor Resistance Value Table (5ton)

Temp (°C)	Resistance (KΩ)			Resist.tol (%)		Temp.tol(°C)	
	Rmax	R (t) Normal	Rmin	MAX(+)	MIN(-)	MAX(+)	MIN(-)
-20	116.539	106.732	96.920	9.19	9.19	1.59	1.59
-19	110.231	100.552	91.451	9.63	9.05	1.57	1.57
-18	103.743	94.769	86.328	9.47	8.91	1.56	1.55
-17	97.673	89.353	81.525	9.31	8.76	1.54	1.54
-16	91.990	84.278	77.017	9.15	8.62	1.53	1.52
-15	86.669	79.521	72.788	8.99	8.47	1.51	1.50
-14	81.684	75.059	68.815	8.83	8.32	1.49	1.48
-13	77.013	70.873	65.083	8.66	8.17	1.47	1.47
-12	72.632	66.943	61.574	8.50	8.02	1.45	1.45
-11	68.523	63.252	58.274	8.33	7.87	1.44	1.43
-10	64.668	59.784	55.169	8.17	7.72	1.42	1.41
-9	61.048	56.524	52.246	8.00	7.57	1.40	1.39
-8	57.649	53.458	49.492	7.84	7.42	1.38	1.37
-7	54.456	50.575	46.899	7.67	7.27	1.35	1.35
-6	51.456	47.862	44.455	7.51	7.12	1.33	1.32
-5	48.636	45.308	42.150	7.35	6.97	1.31	1.30
-4	45.984	42.903	39.977	7.18	6.82	1.29	1.28
-3	43.490	40.638	37.927	7.02	6.67	1.27	1.26
-2	41.144	38.504	35.992	6.86	6.52	1.25	1.24
-1	38.935	36.492	34.165	6.70	6.38	1.23	1.21
0	36.857	34.596	32.440	6.53	6.23	1.21	1.19
1	34.898	32.807	30.810	6.38	6.09	1.18	1.17
2	33.055	31.120	29.271	6.22	5.94	1.16	1.15
3	31.317	29.528	27.815	6.06	5.80	1.14	1.12
4	29.681	28.026	26.440	5.90	5.66	1.12	1.10
5	28.138	26.608	25.140	5.75	5.52	1.10	1.08
6	26.682	25.268	23.909	5.60	5.38	1.07	1.06
7	25.310	24.003	22.745	5.45	5.24	1.05	1.03
8	24.016	22.808	21.644	5.30	5.10	1.03	1.01
9	22.794	21.678	20.601	5.15	4.97	1.01	0.99
10	21.641	20.610	19.614	5.00	4.83	0.99	0.97
11	20.553	19.601	18.680	4.86	4.70	0.96	0.94
12	19.525	18.646	17.794	4.71	4.57	0.94	0.92
13	18.554	17.743	16.955	4.57	4.44	0.92	0.90
14	17.636	16.888	16.160	4.43	4.31	0.90	0.88
15	16.769	16.079	15.406	4.29	4.19	0.88	0.85
16	15.949	15.313	14.691	4.15	4.06	0.86	0.83
17	15.174	14.588	14.014	4.02	3.94	0.84	0.81
18	14.442	13.902	13.372	3.89	3.81	0.81	0.79
19	13.748	13.251	12.762	3.75	3.69	0.79	0.76
20	13.093	12.635	12.183	3.62	3.57	0.77	0.74
21	12.471	12.050	11.634	3.50	3.46	0.75	0.72
22	11.883	11.496	11.112	3.37	3.34	0.73	0.70
23	11.327	10.971	10.617	3.25	3.23	0.71	0.68
24	10.800	10.473	10.147	3.12	3.11	0.69	0.66
25	10.300	10.000	9.700	3.00	3.00	0.67	0.63
26	9.848	9.551	9.255	3.11	3.10	0.69	0.66
27	9.418	9.125	8.834	3.21	3.19	0.72	0.69
28	9.010	8.721	8.434	3.31	3.29	0.75	0.71

29	8.621	8.337	8.055	3.41	3.38	0.77	0.74
30	8.252	7.972	7.695	3.51	3.47	0.80	0.77
31	7.900	7.625	7.353	3.61	3.57	0.83	0.79
32	7.566	7.296	7.029	3.70	3.66	0.85	0.82
33	7.247	6.982	6.721	3.80	3.74	0.88	0.84
34	6.944	6.684	6.428	3.89	3.83	0.91	0.87
35	6.656	6.401	6.150	3.98	3.92	0.93	0.90
36	6.381	6.131	5.886	4.08	4.00	0.96	0.93
37	6.119	5.874	5.634	4.17	4.09	0.98	0.95
38	5.870	5.630	5.395	4.26	4.17	1.01	0.98
39	5.631	5.397	5.167	4.34	4.26	1.03	1.01
40	5.404	5.175	4.951	4.43	4.34	1.06	1.03
41	5.188	4.964	4.745	4.52	4.42	1.09	1.06
42	4.982	4.763	4.549	4.60	4.50	1.12	1.09
43	4.785	4.571	4.362	4.69	4.58	1.14	1.12
44	4.596	4.387	4.183	4.77	4.66	1.17	1.14
45	4.417	4.213	4.014	4.85	4.74	1.19	1.17
46	4.246	4.046	3.851	4.93	4.81	1.22	1.20
47	4.082	3.887	3.697	5.02	4.89	1.25	1.23
48	3.925	3.735	3.550	5.10	4.97	1.28	1.25
49	3.776	3.590	3.409	5.18	5.04	1.30	1.28
50	3.632	3.451	3.274	5.25	5.12	1.33	1.30
51	3.495	3.318	3.146	5.33	5.19	1.35	1.33
52	3.363	3.191	3.023	5.41	5.26	1.41	1.36
53	3.237	3.069	2.905	5.49	5.34	1.43	1.38
54	3.116	2.952	2.793	5.56	5.41	1.46	1.41
55	3.001	2.841	2.685	5.64	5.48	1.48	1.44
56	2.890	2.734	2.582	5.71	5.55	1.51	1.46
57	2.784	2.632	2.484	5.79	5.62	1.54	1.49
58	2.682	2.534	2.390	5.86	5.69	1.56	1.52
59	2.585	2.440	2.299	5.93	5.76	1.59	1.54
60	2.491	2.350	2.213	6.01	5.83	1.62	1.57
61	2.401	2.264	2.130	6.08	5.90	1.64	1.60
62	2.315	2.181	2.051	6.15	5.96	1.67	1.62
63	2.233	2.102	1.975	6.22	6.03	1.70	1.65
64	2.154	2.026	1.903	6.29	6.10	1.72	1.68
65	2.077	1.953	1.833	6.36	6.16	1.75	1.70
66	2.004	1.883	1.766	6.42	6.23	1.77	1.73
67	1.934	1.816	1.702	6.49	6.29	1.80	1.76
68	1.867	1.752	1.641	6.56	6.35	1.83	1.78
69	1.802	1.690	1.582	6.62	6.41	1.85	1.81
70	1.740	1.631	1.525	6.69	6.48	1.88	1.84
71	1.680	1.574	1.471	6.75	6.54	1.91	1.86
72	1.622	1.519	1.419	6.82	6.60	1.93	1.89
73	1.567	1.466	1.369	6.88	6.66	1.96	1.92
74	1.514	1.416	1.321	6.94	6.71	1.98	1.94
75	1.463	1.367	1.275	7.00	6.77	2.01	1.97