1. Product lineup

Nominal ton	Model	Function	Air outlet	Power supply
4	MRCT-48CWN1-R(C)	Cooling only	Side discharge	
5	MRCT-60CWN1-R(C)	Cooling only	Side discharge	
6.25	MRCT-062CWN1-R(C)	Cooling only	Side discharge	
7.5	MRCT-075CWN1-R(C)	Cooling only	Side discharge	
8.5	MRCT-085CWN1-R(C)	Cooling only	Side discharge	
8.5	MRCT-085CWN1-R(D)	Cooling only	Side discharge	
10	MRCT-100CWN1-R(C)	Cooling only	Side discharge	380~415V
10	MRCT-100CWN1-R(D)	Cooling only	Side discharge	3Ph 50Hz
12.5	MRCT-125CWN1-R(C)	Cooling only	Side discharge	
15	MRCT-150CWN1-R(C)	Cooling only	Side discharge	
17.5	MRCT-175CWN1-R(C)	Cooling only	Side discharge	
20	MRCT-200CWN1-R(C)	Cooling only	Side discharge	
25	MRCT-250CWN1-R(C)	Cooling only	Side discharge	
30	MRCT-300CWN1-R(C)	Cooling only	Side discharge	

Notes: Please refer to specification tables for accurate cooling capacity with kW or Btu/h.

2. External Appearances

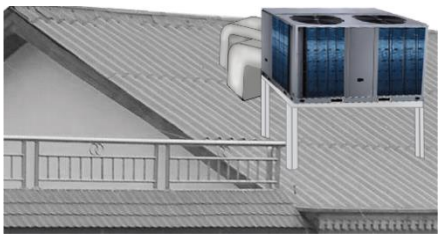
4&5ton

6.2&7.5ton

1. Features

✧ Design flexibility.

Compact design and flanges of air flow inlet and outlet as standard. It is suitable for installation in rooftop and ground.



✧ Durable construction.

Pre-painted exterior cabinet panels pass 1000 hours salt spray test for durability. Weather-resistant construction with capped steams and sloped top panels design.

The rooftop package air conditioners with special anti-corrosion treatment are suitable for seaside areas or the areas exposed to acidic substances. (It should be customized.)

✧ Reliable scroll compressor.

Famous brand compressor, it is more reliable. No complex internal suction and discharge valves for quieter operation and higher reliability. Compact and light-weight design, fewer moving parts design.

✧ Adjustable pulley

Through changing the working pitch diameter of the pulley mounted on driver shaft, in turn the revolutions per minute of the driven shaft will increase or decrease to change air volume.

✧ Multi-protection design.

Multi-measurement can ensure units operate normally and reliably:

System current protection;

High/low-pressure switch protection;

Temperature sensor on/off protection, etc.

The three-phase protector can be customized.

✧ Easy to installation.

Removable access door on the electric box is standard. It is easy to move the cover of the electric box. Only connect the wires of power supply, and no need to connect any signal wires.

Reserved external drainage port, quickly and accurately connect the rubber drainage pipe.

✧ The unit provides external pressure gauge ports for convenient and fast checking system pressure without removing the panel.

✧ System self-diagnostic function.

Press the Check button in Main PCB board, and the LED display of PCB board in unit will display the normal checking code. If the unit is in running with abnormal operation, the LED display will show the error code.

✧ EHK (Electrical heater kits) and air intake filter as optional.

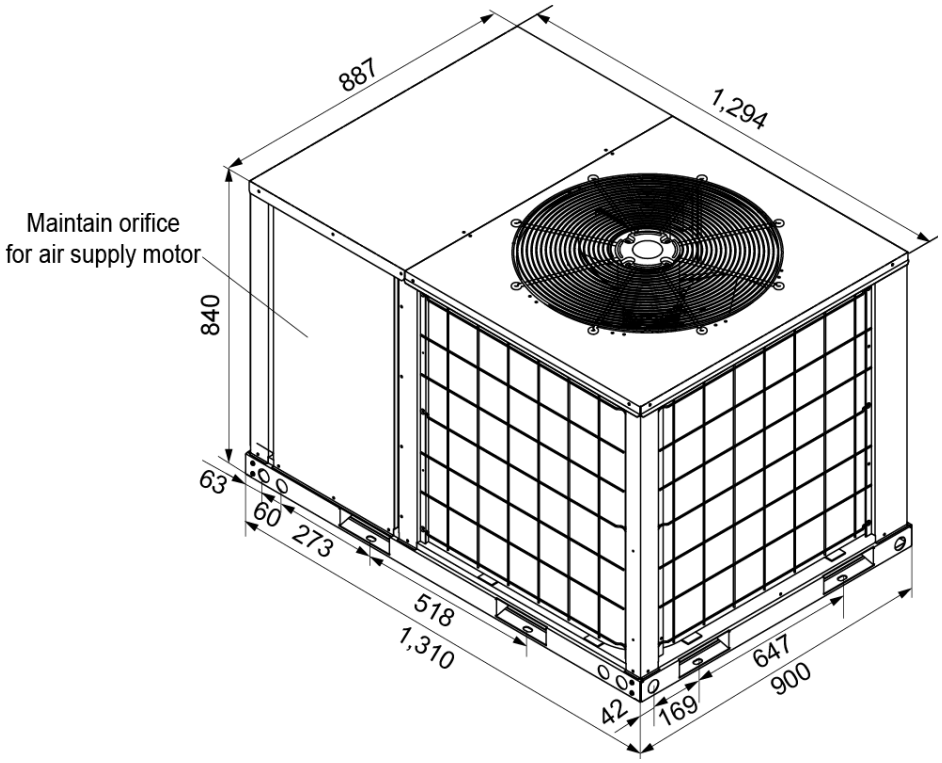
✧ Wired controller as standard. Besides Midea controller, other brand thermostat can be matched as optional solution.

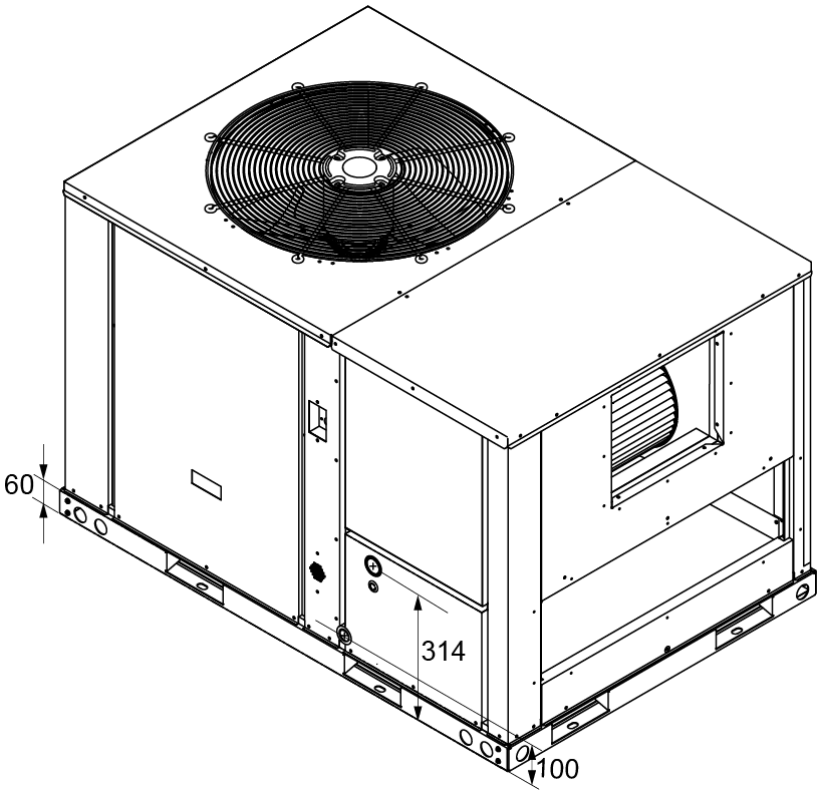
✧ Centralized control function can be achieved through the centralized controller as optional.

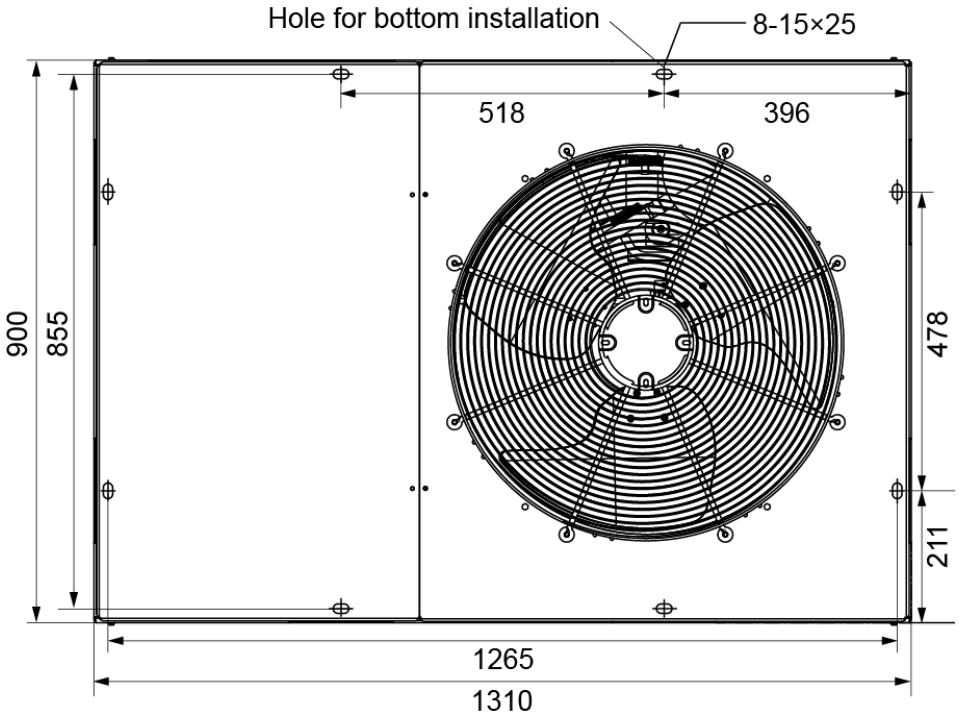
MD-NIM01 should be connected between the rooftop package units and centralized controller.

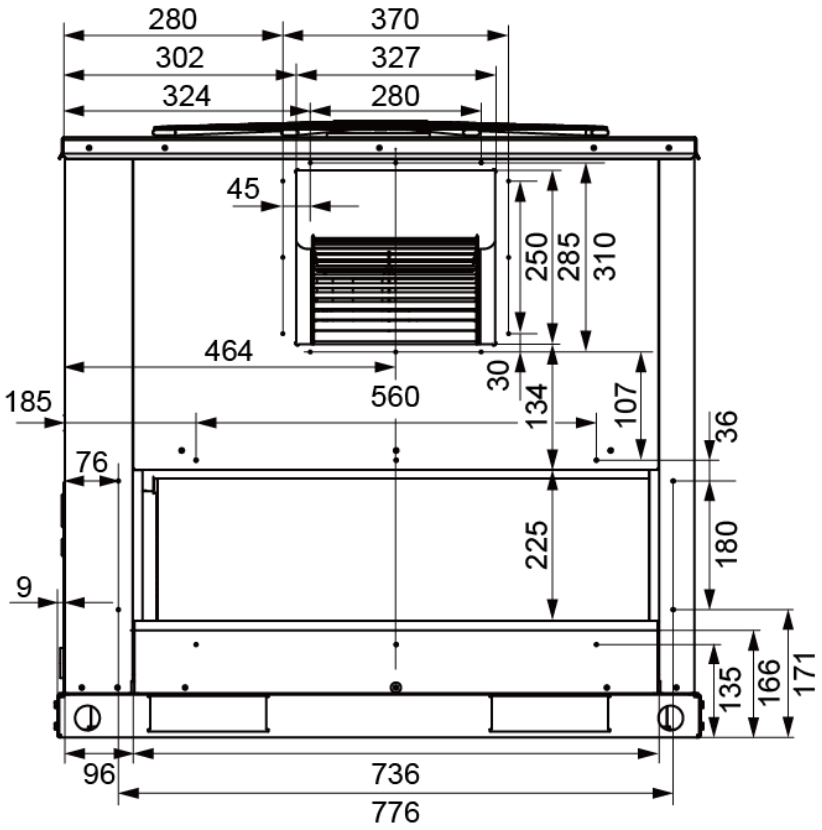
3. Dimensions drawings

MRCT-48CWN1-R(C), MRCT-60CWN1-R(C): (Unit: mm)

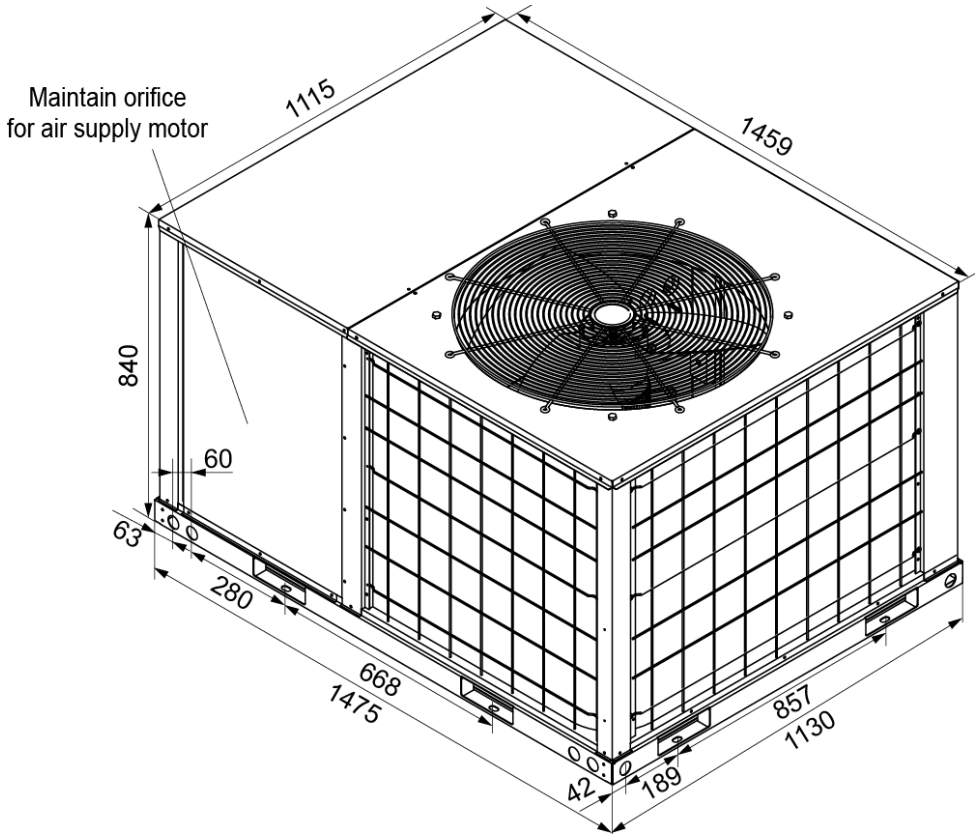


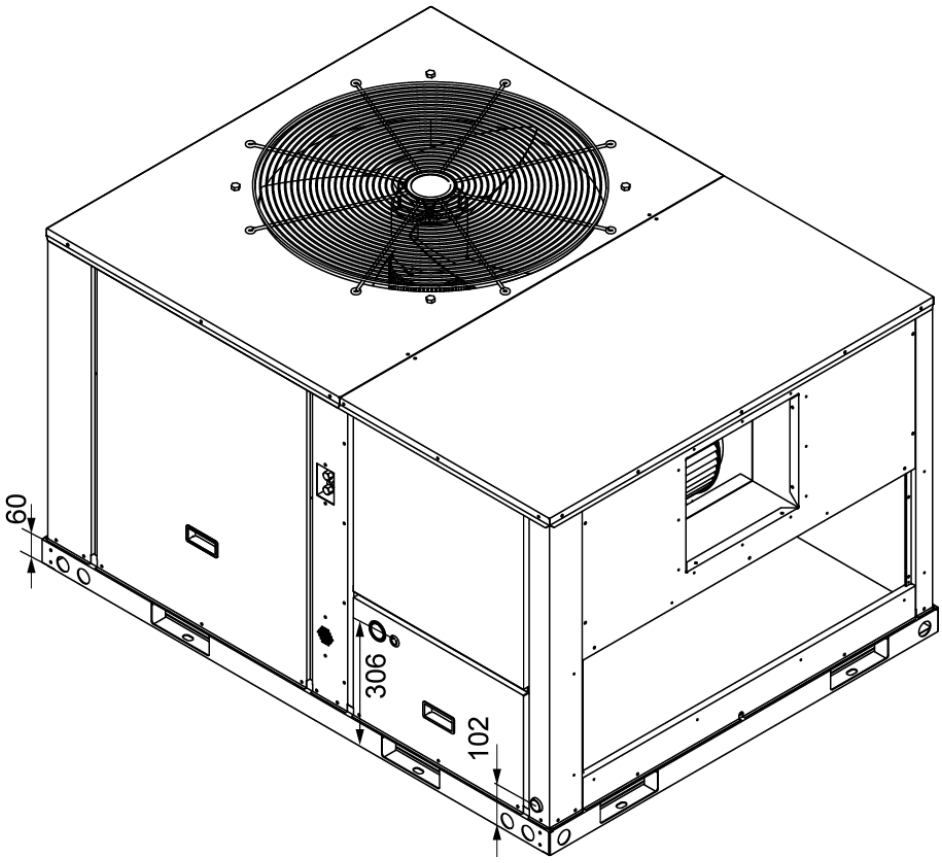


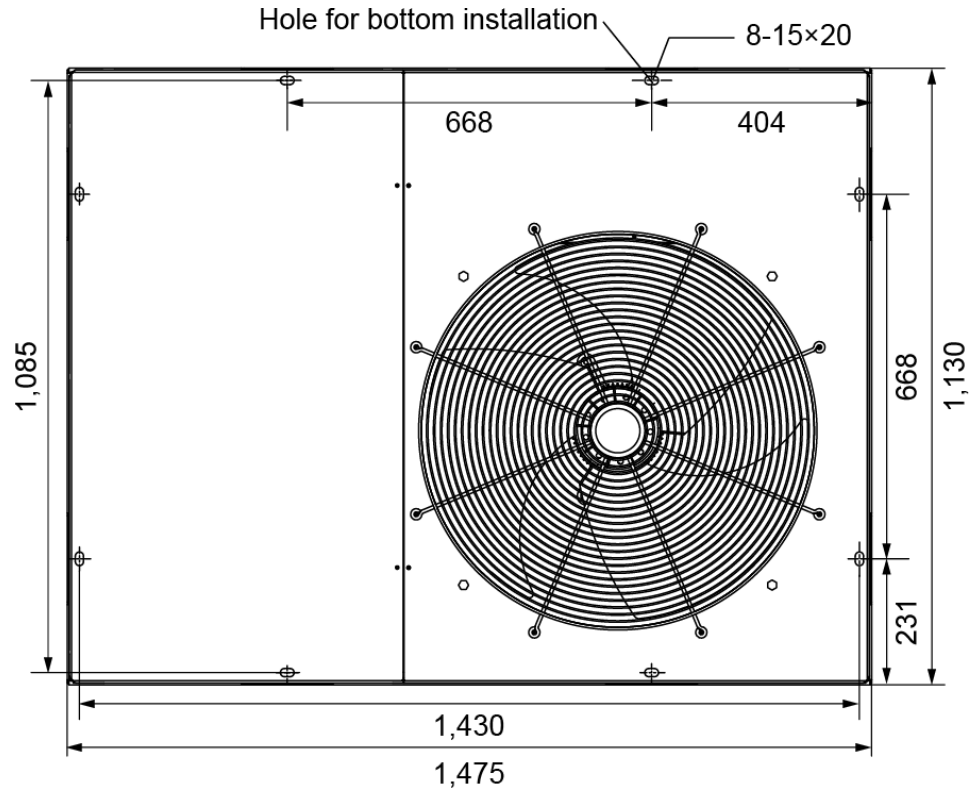

Hole for bottom installation
8-15×25
518
396
900
855
478
211
1265
1310

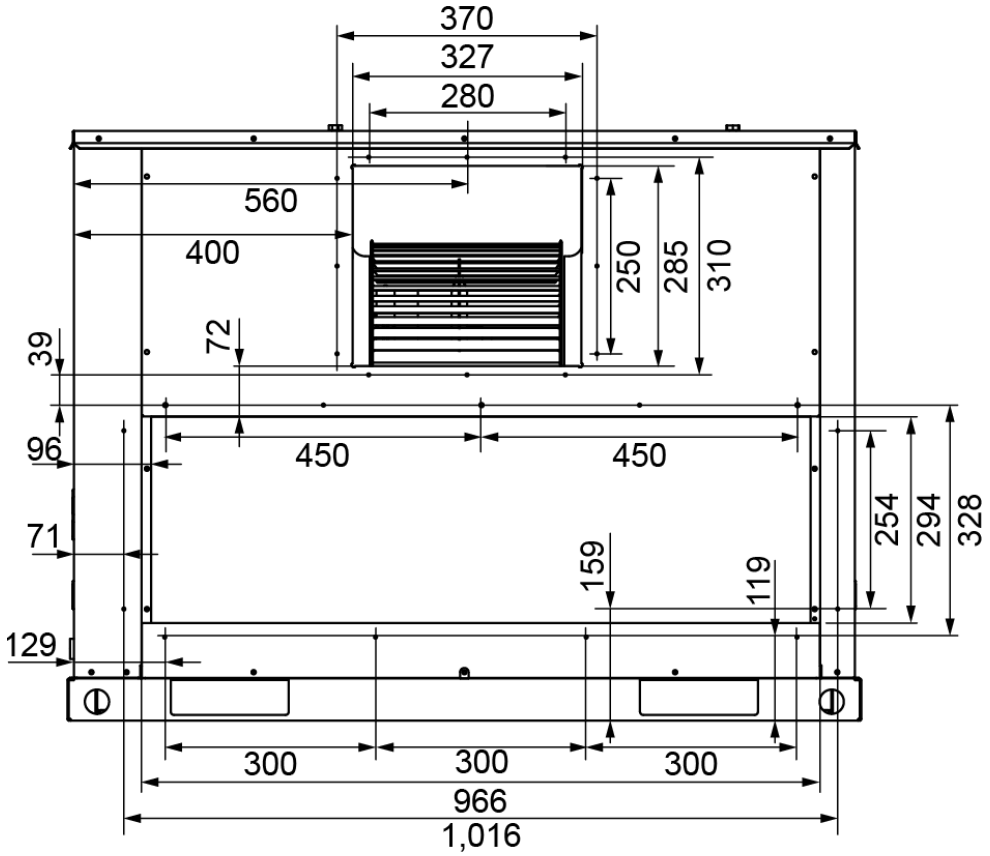

280
370
302
327
324
280
45
250
285
310
464
560
30
134
107
36
185
76
225
180
9
135
166
171
96
736
776

MRCT-062CWN1-R(C), MRCT-075CWN1-R(C): (Unit: mm)



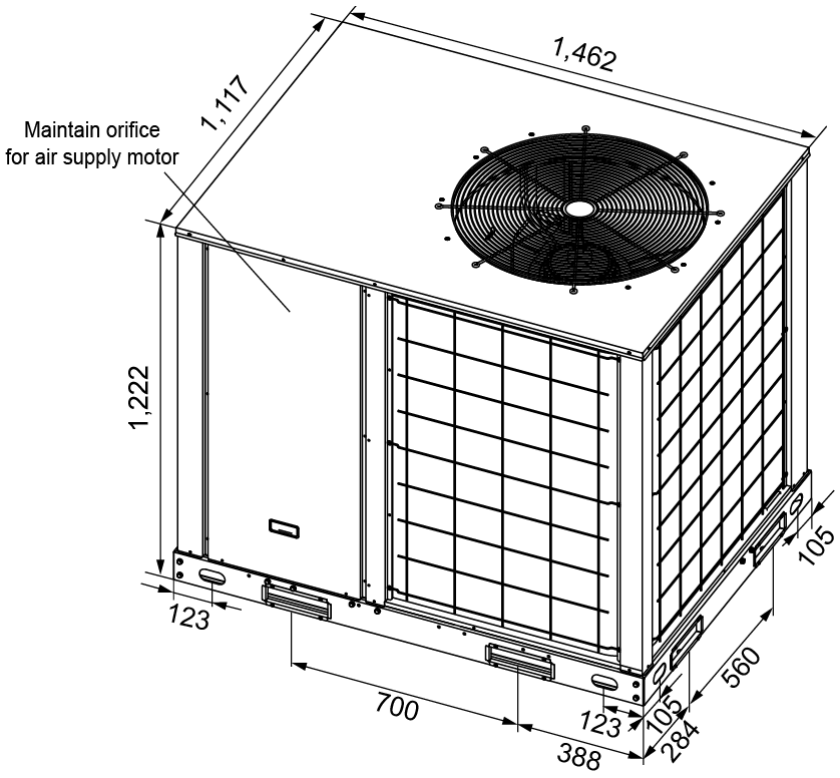


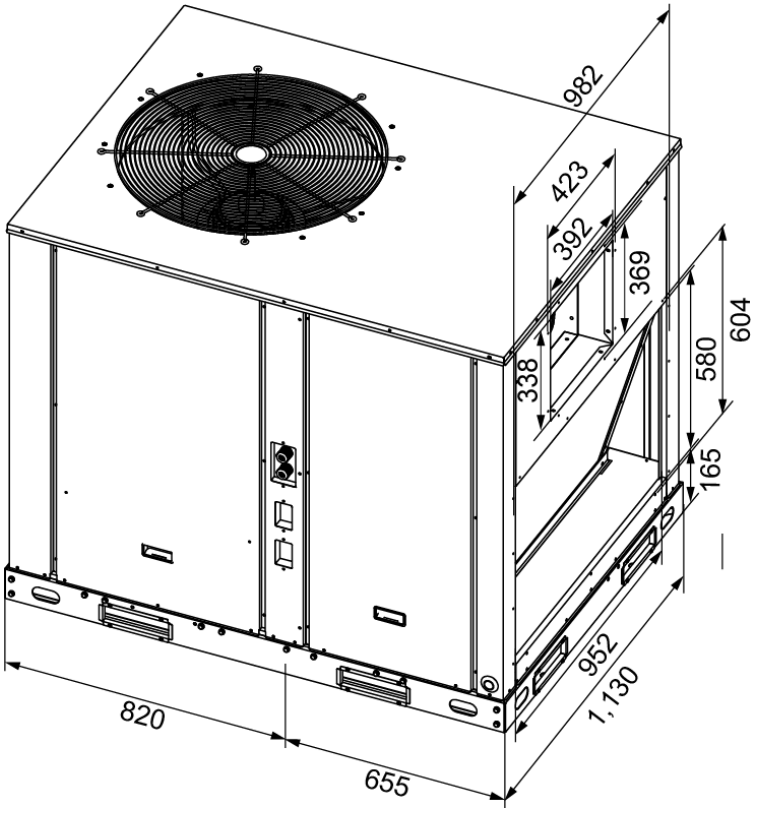

Hole for bottom installation
8-15×20
668
404
1,085
668
1,130
231
1,430
1,475

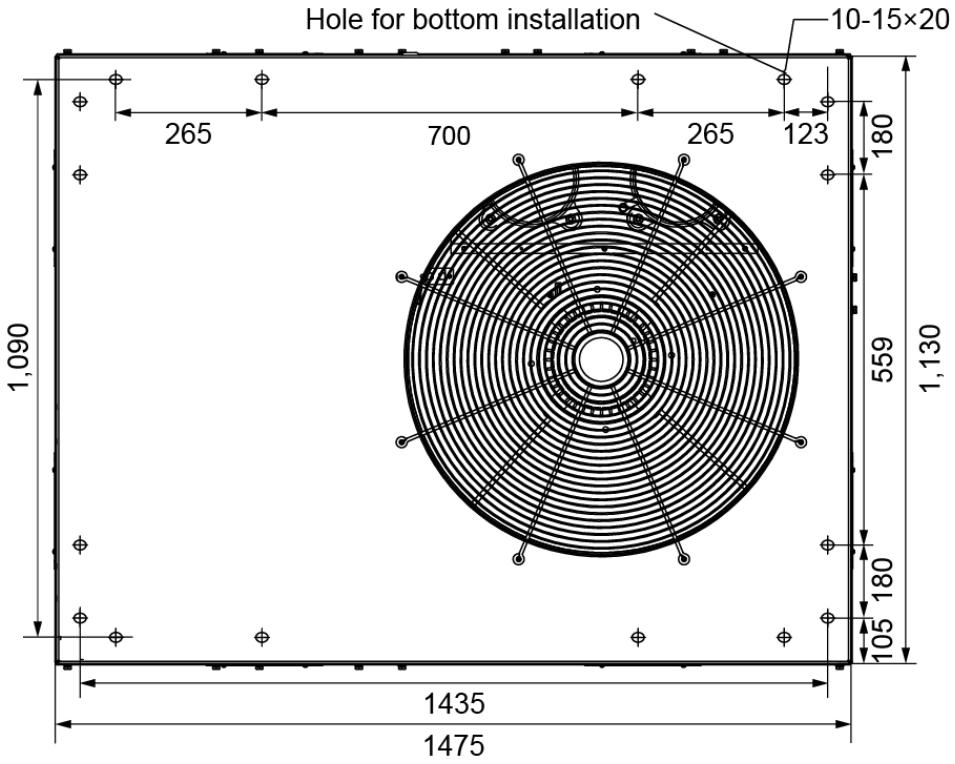

370
327
280
560
400
250
285
310
39
72
96
450
450
71
254
294
328
159
119
129
300
300
300
966
1,016

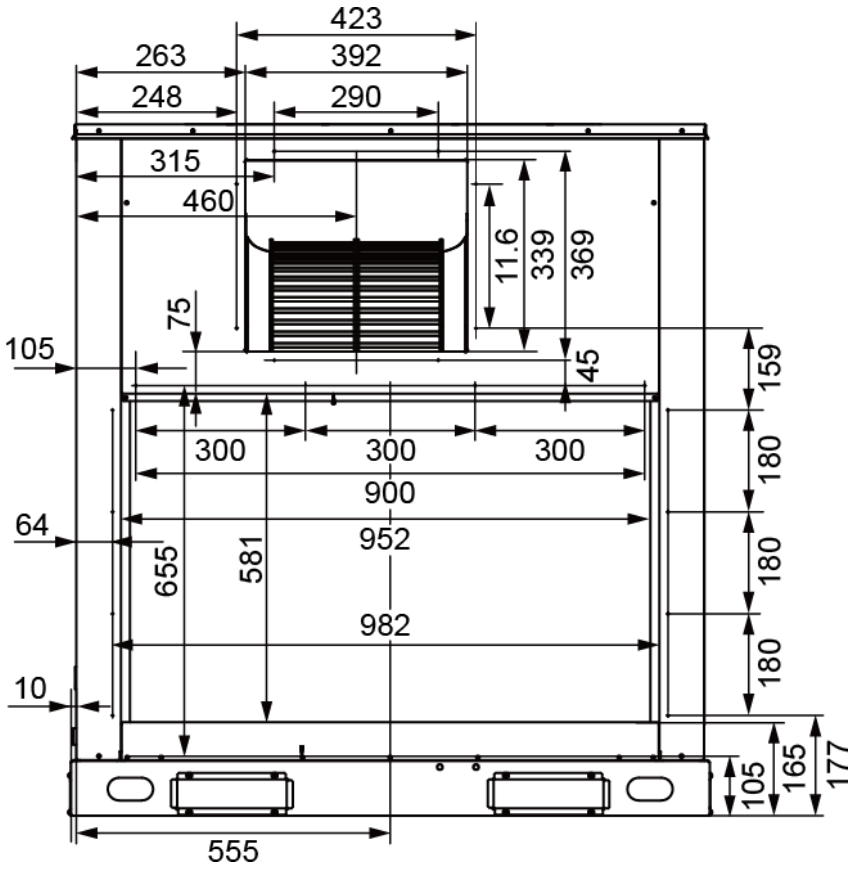
MRCT-085CWN1-R(C), MRCT-100CWN1-R(C),

MRCT-085CWN1-R(D), MRCT-100CWN1-R(D): (Unit: mm)

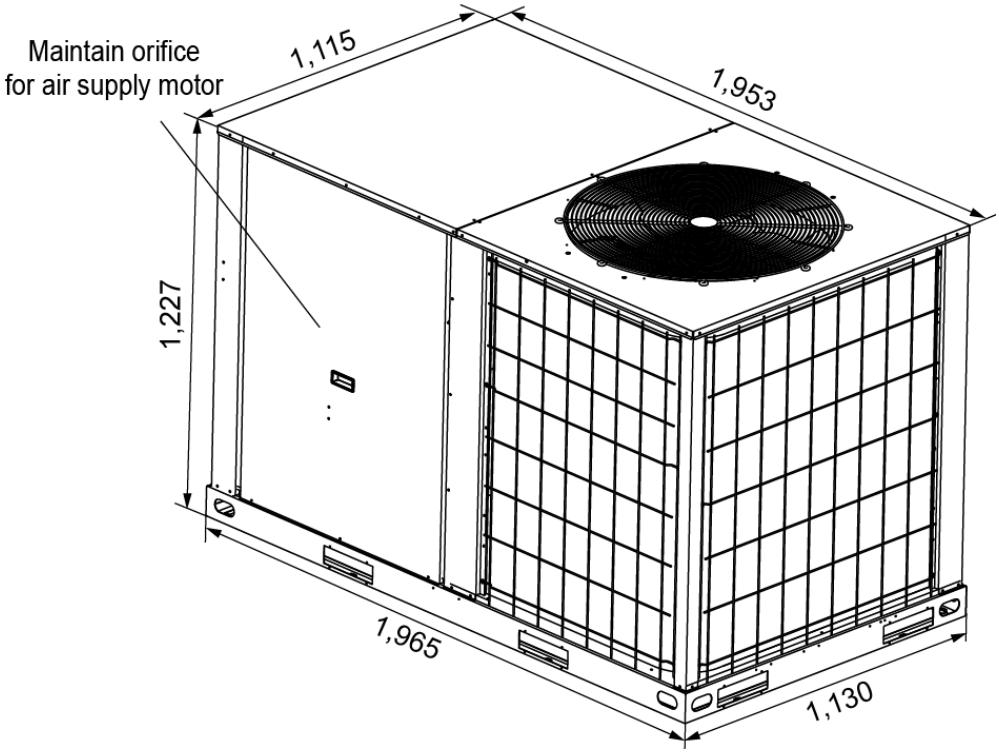


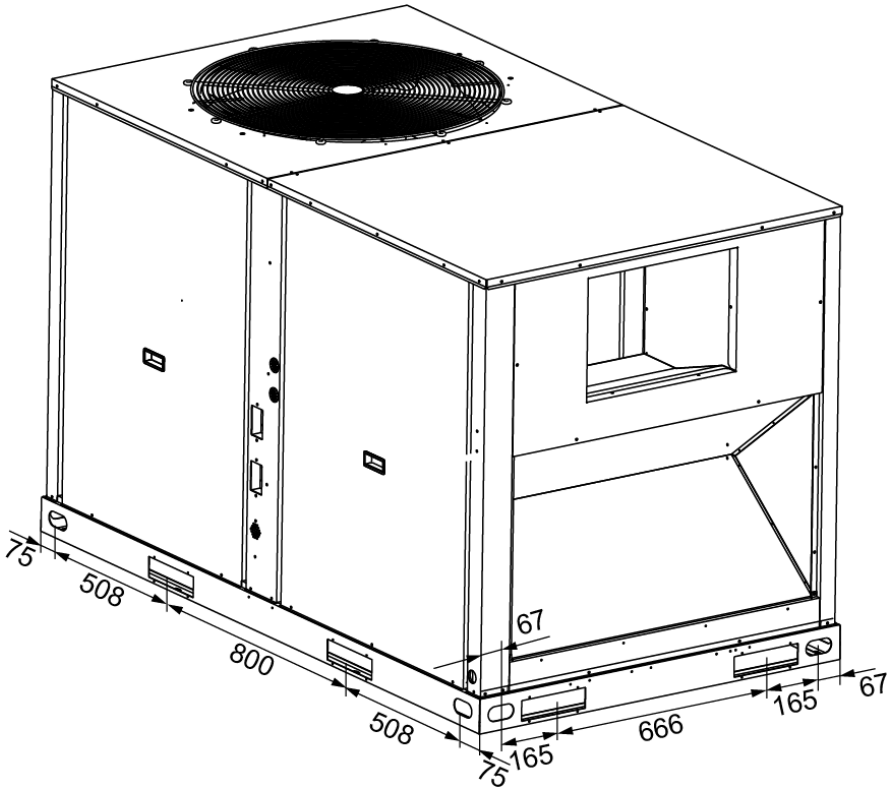


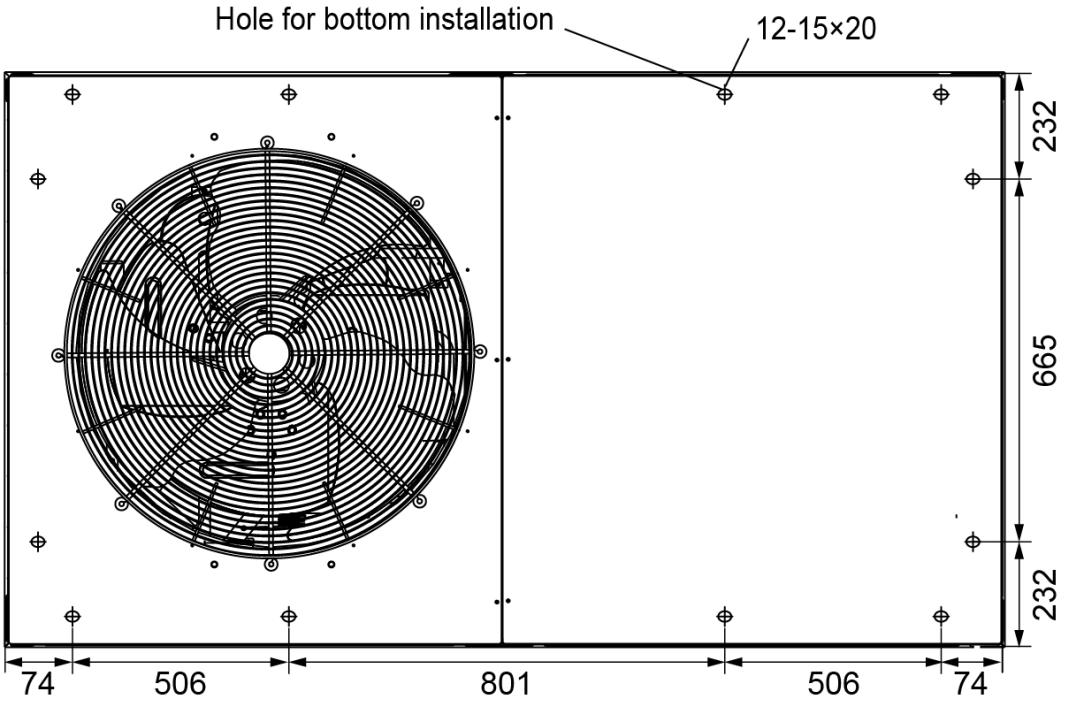

Hole for bottom installation
10-15×20
265
700
265
123
180
559
1,130
1,090
180
105
1435
1475

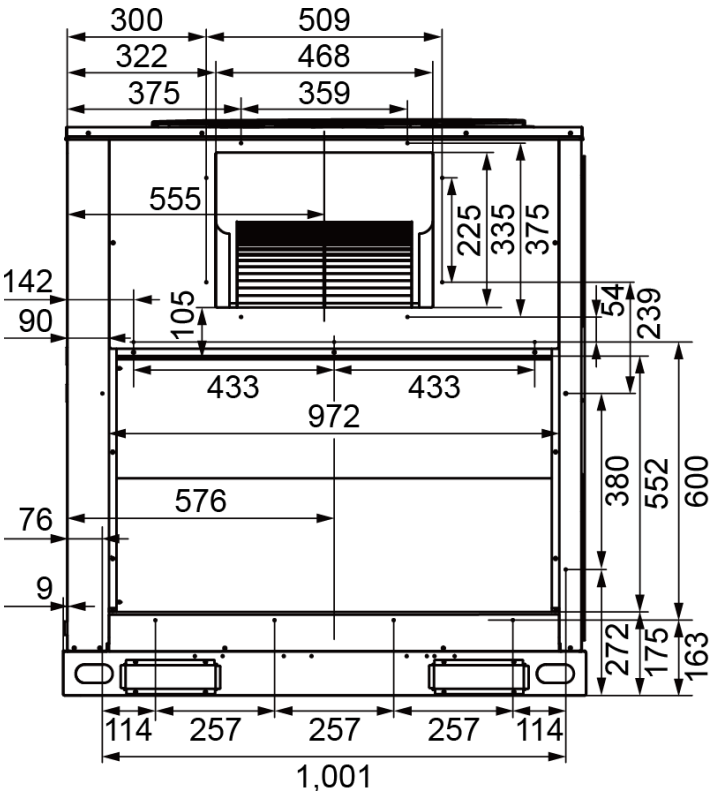

423
263
392
248
290
315
460
11.6
339
369
75
105
45
159
180
180
180
300
300
300
900
952
64
655
581
982
10
105
165
177
555

MRCT-125CWN1-R(C), MRCT-150CWN1-R(C): (Unit: mm)

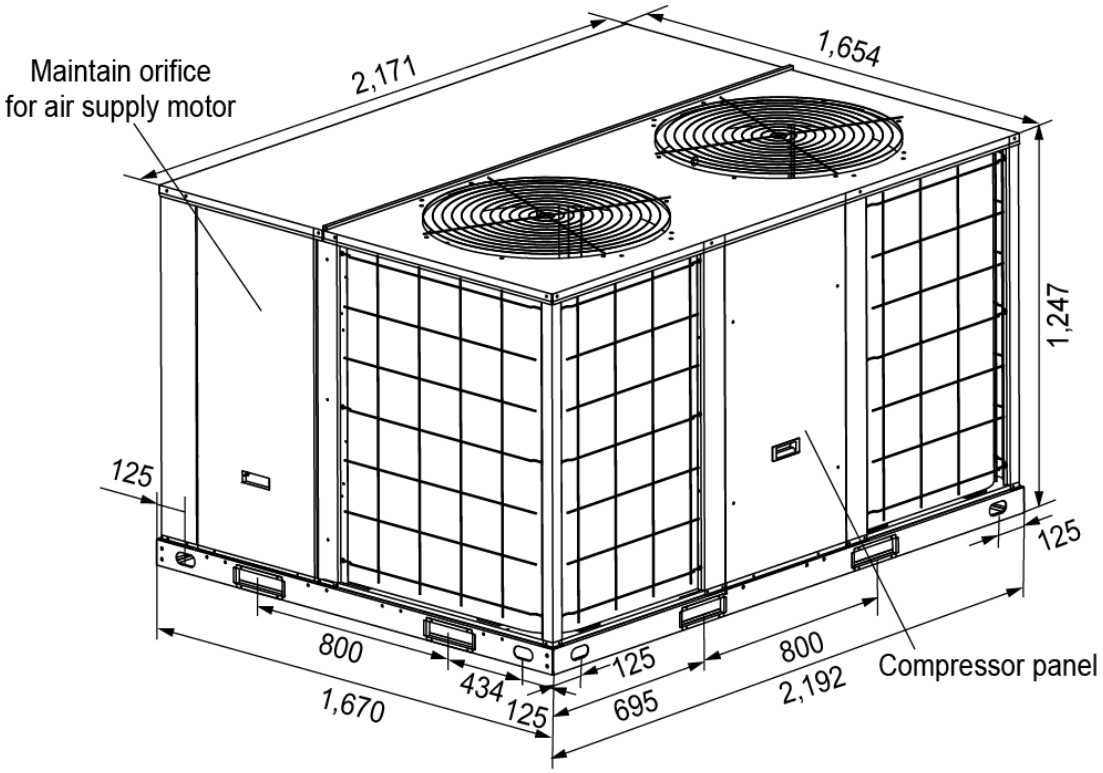


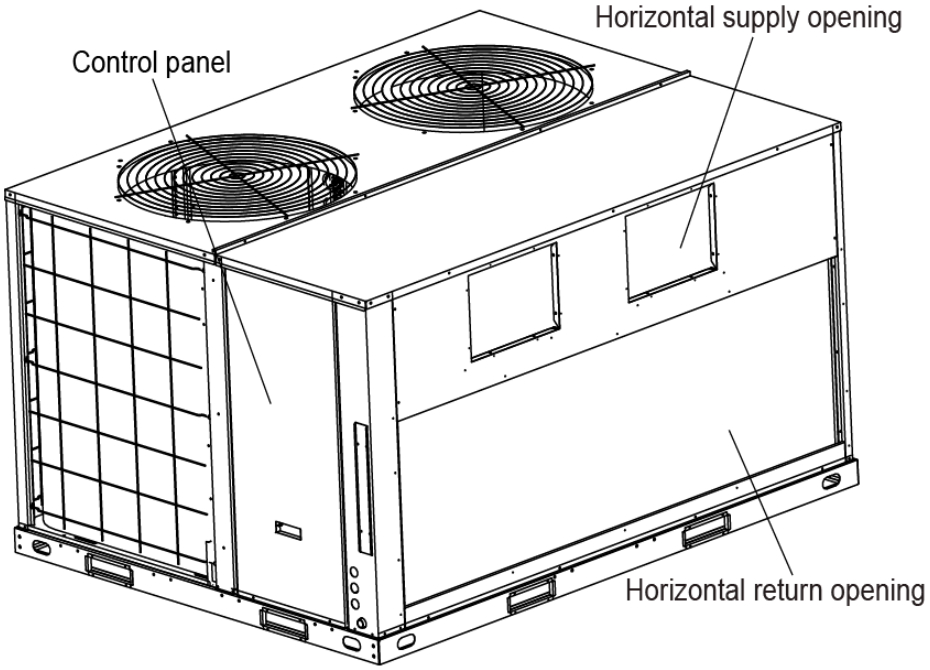


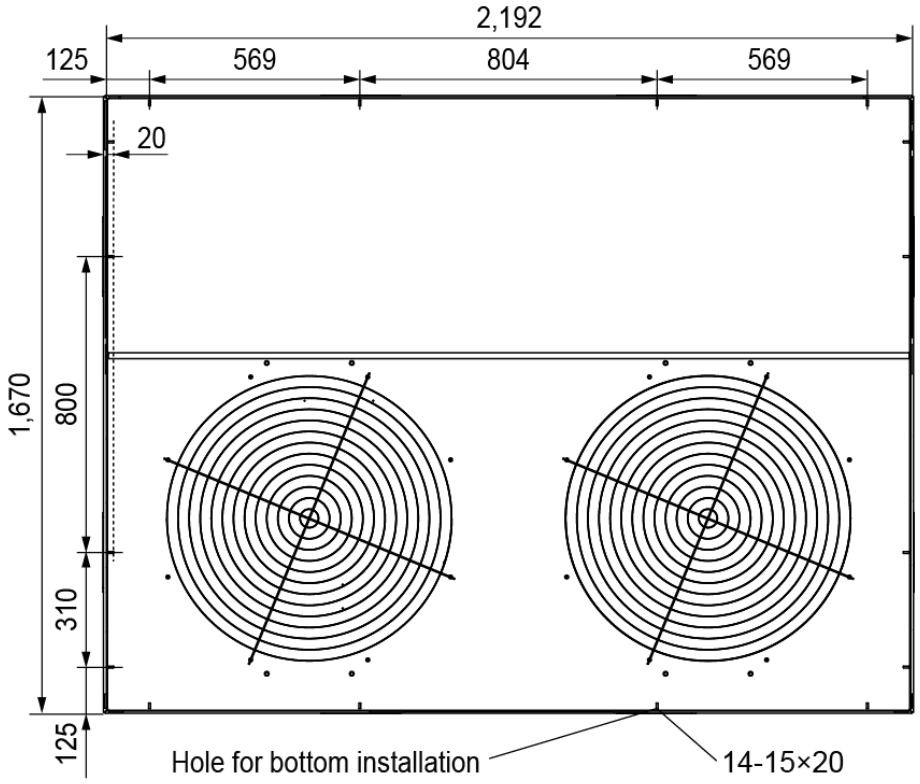

Hole for bottom installation
12-15×20
232
665
232
74
506
801
506
74

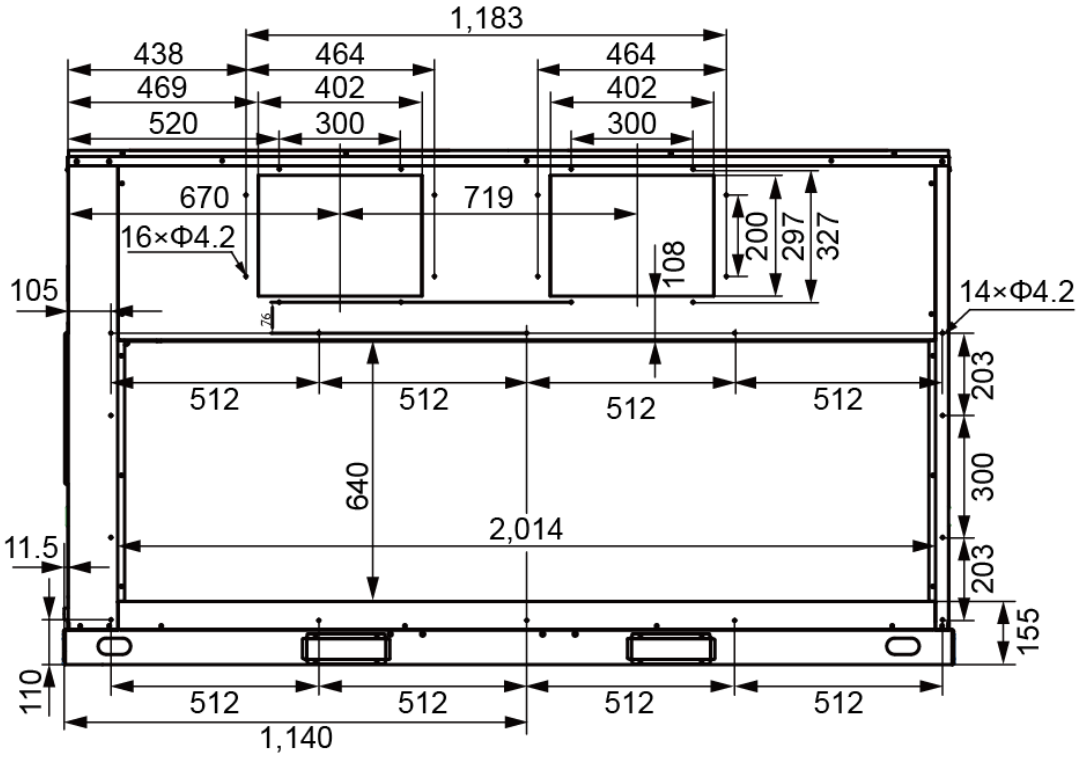

300
509
322
468
375
359
555
225
335
375
142
90
105
54
239
433
433
972
380
552
600
576
76
9
272
175
163
114
257
257
257
114
1,001

MRCT-175CWN1-R(C), MRCT-200CWN1-R(C): (Unit: mm)

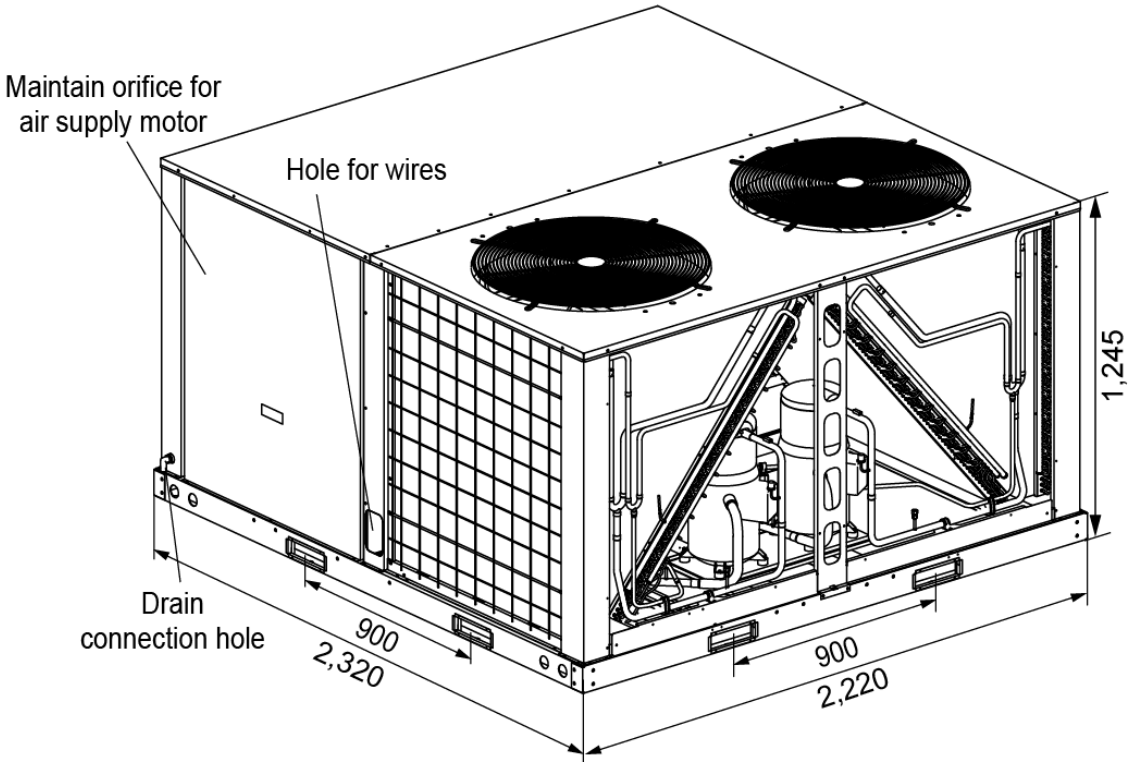


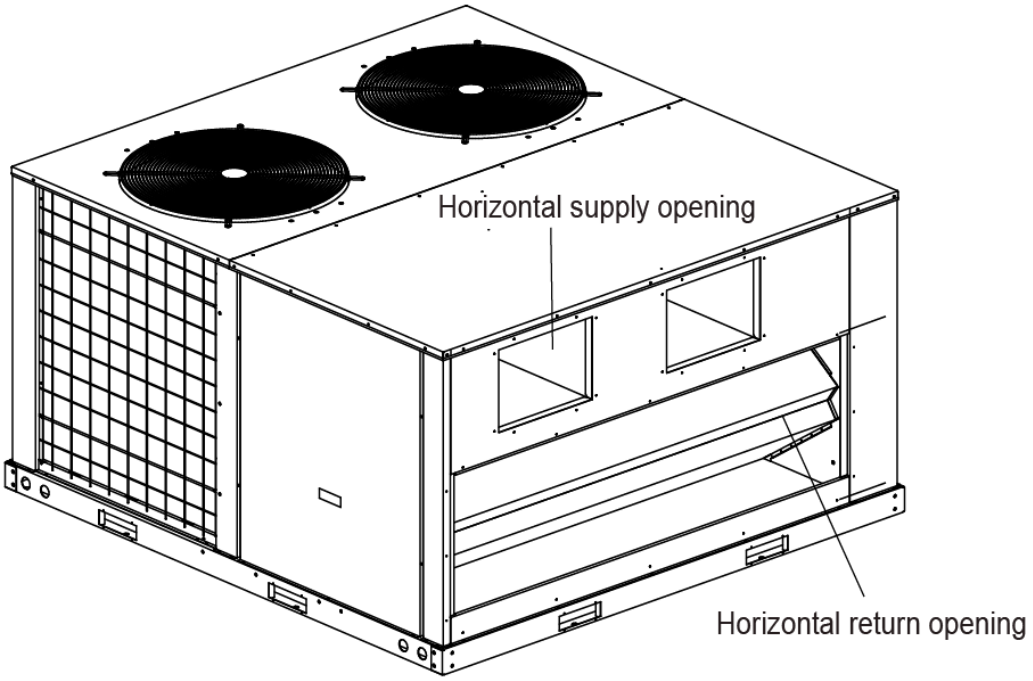


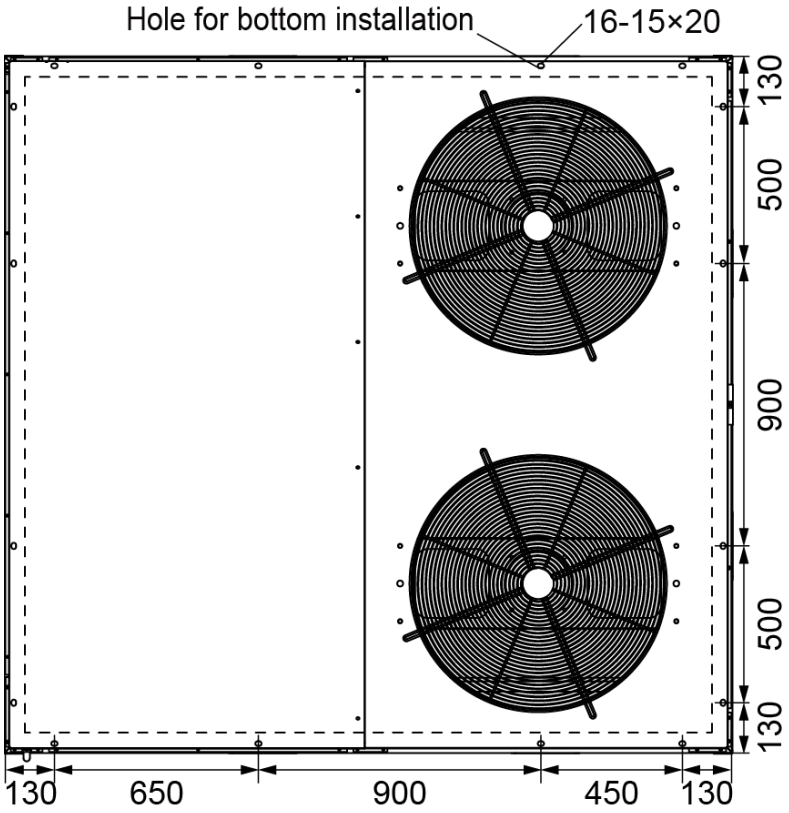

2,192
125
569
804
569
20
1,670
800
310
125
Hole for bottom installation
14-15×20

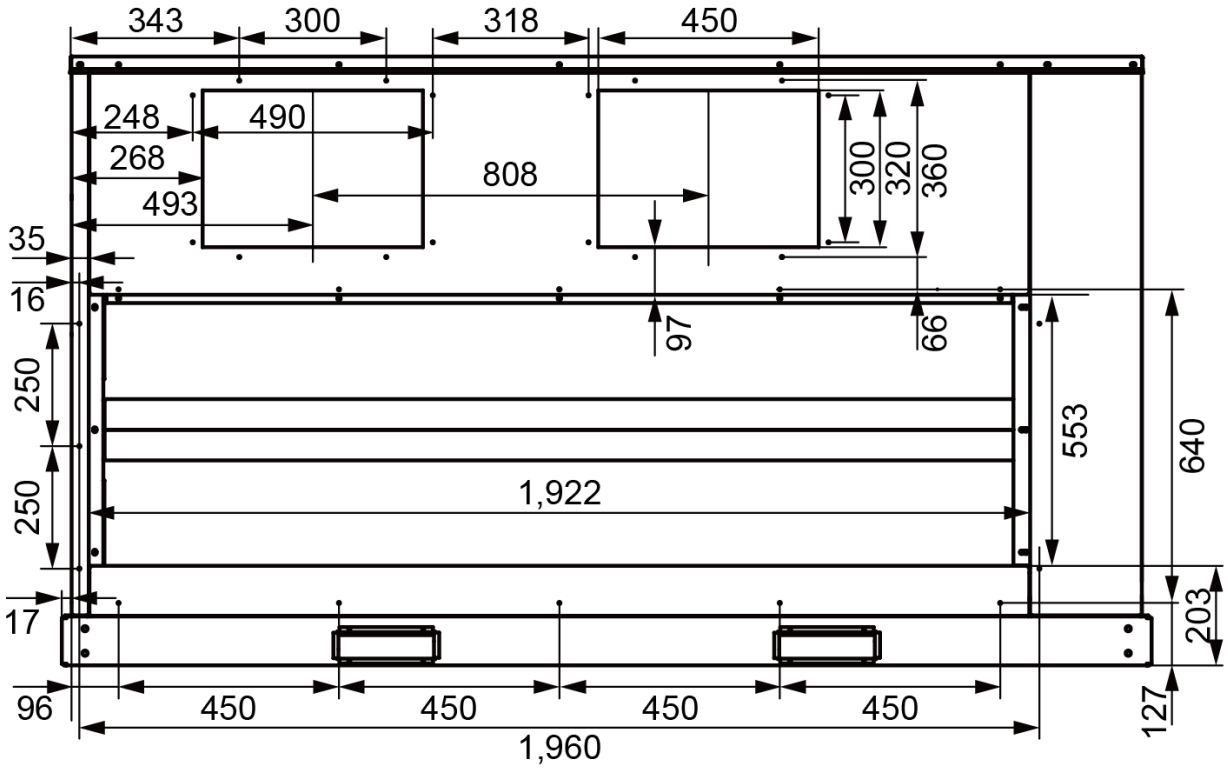

1,183
438
469
520
464
402
300
464
402
300
670
719
16×Φ4.2
108
200
297
327
105
14×Φ4.2
512
512
512
512
640
2,014
203
300
203
155
11.5
110
512
512
512
512
1,140

MRCT-250CWN1-R(C), MRCT-300CWN1-R(C): (Unit: mm)



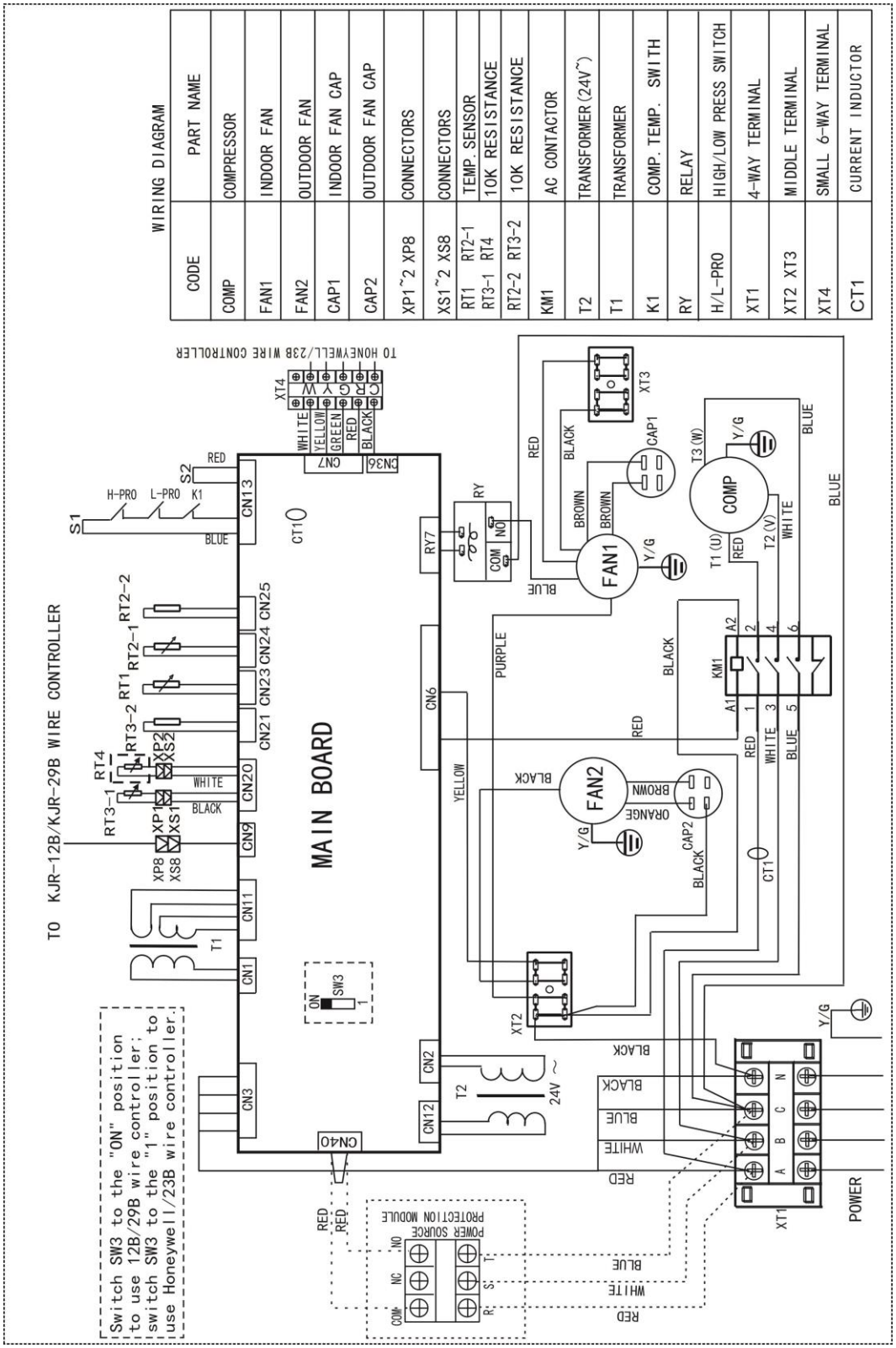



Hole for bottom installation
16-15×20
130
500
900
500
130
130
650
900
450
130

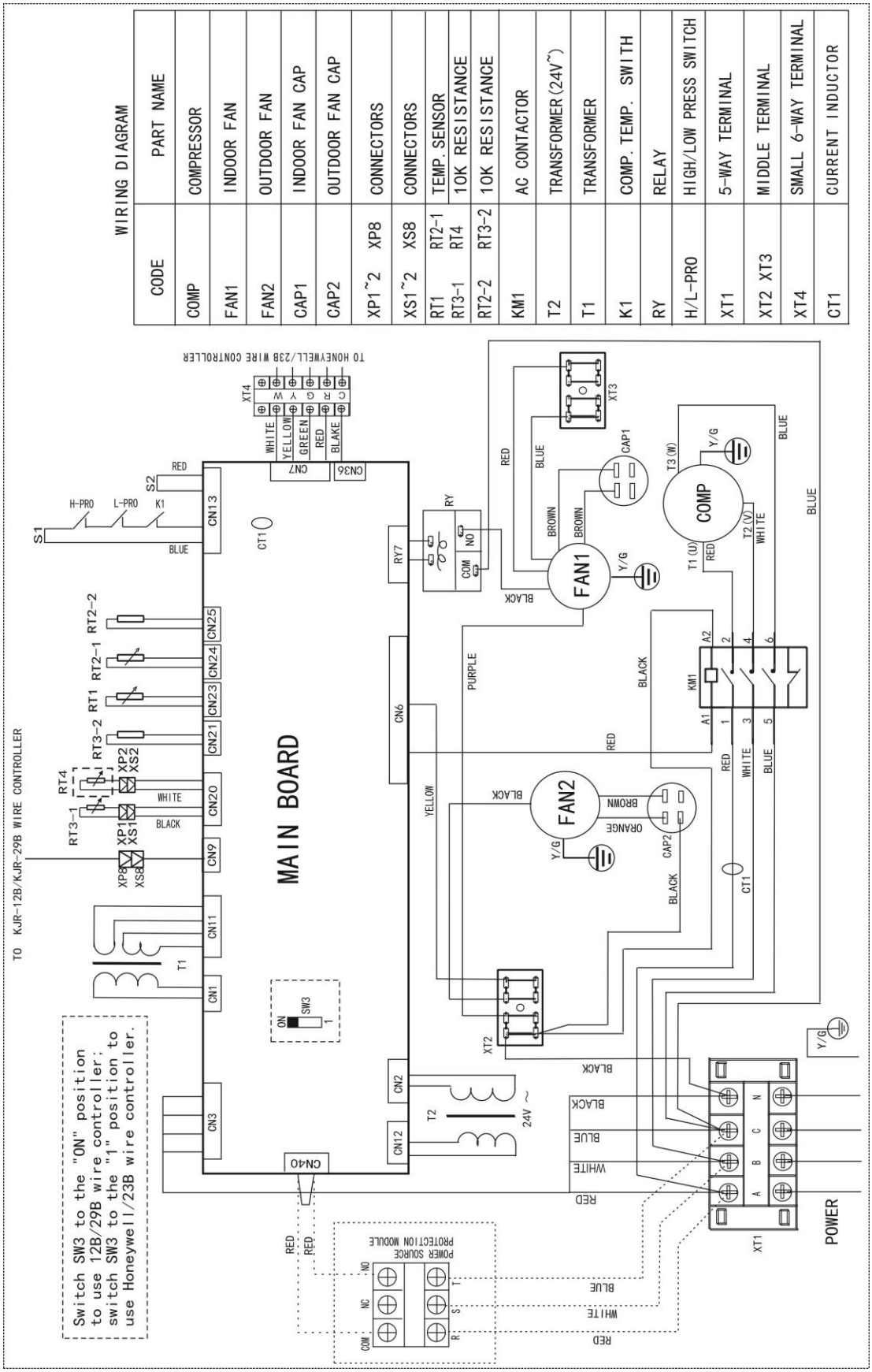

343
300
318
450
248
490
268
493
808
300
320
360
35
16
97
66
250
250
553
640
1,922
17
203
96
450
450
450
450
127
1,960

4. Wiring diagrams

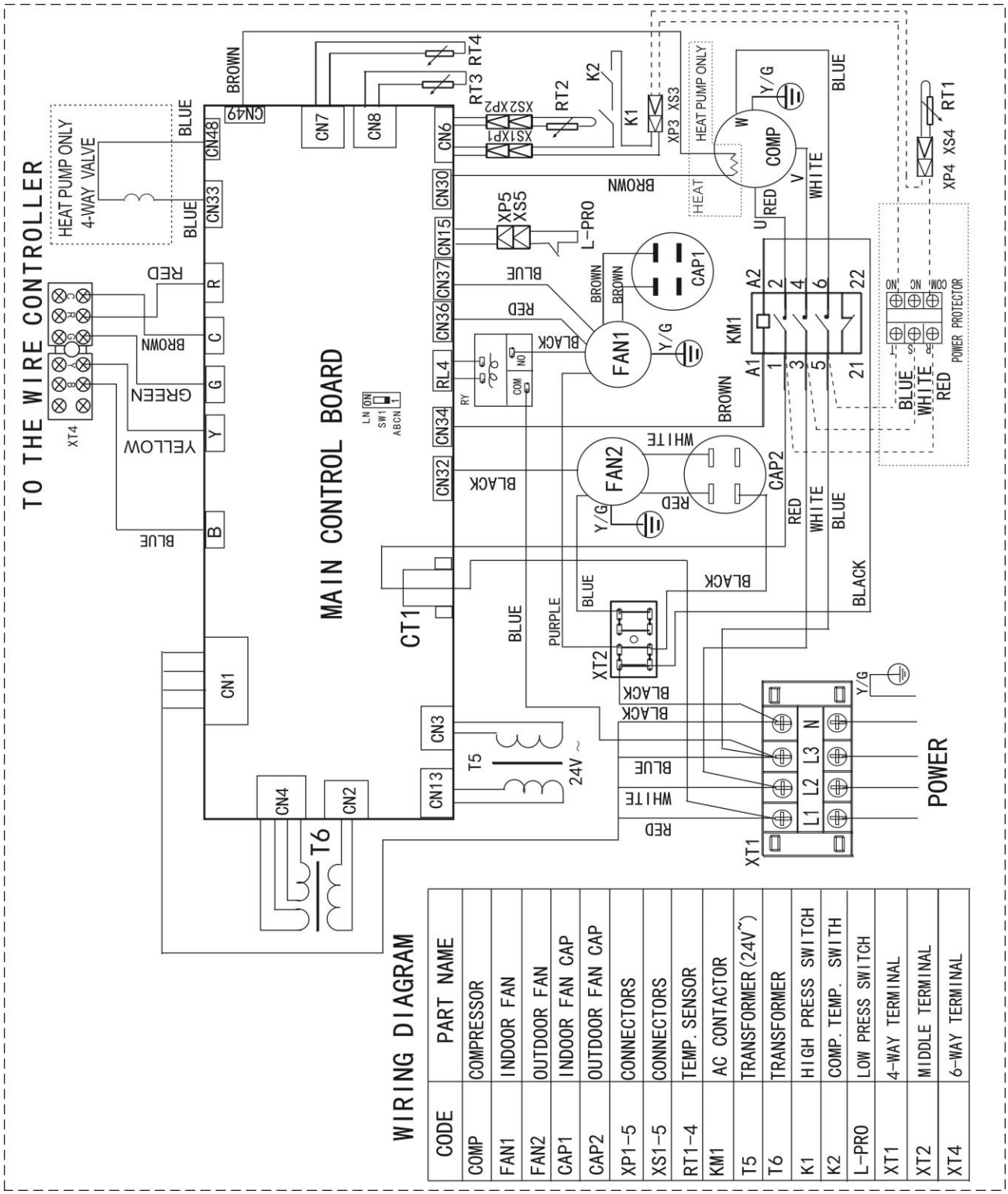
MRCT-48CWN1-R(C):



MRCT-60CWN1-R(C):

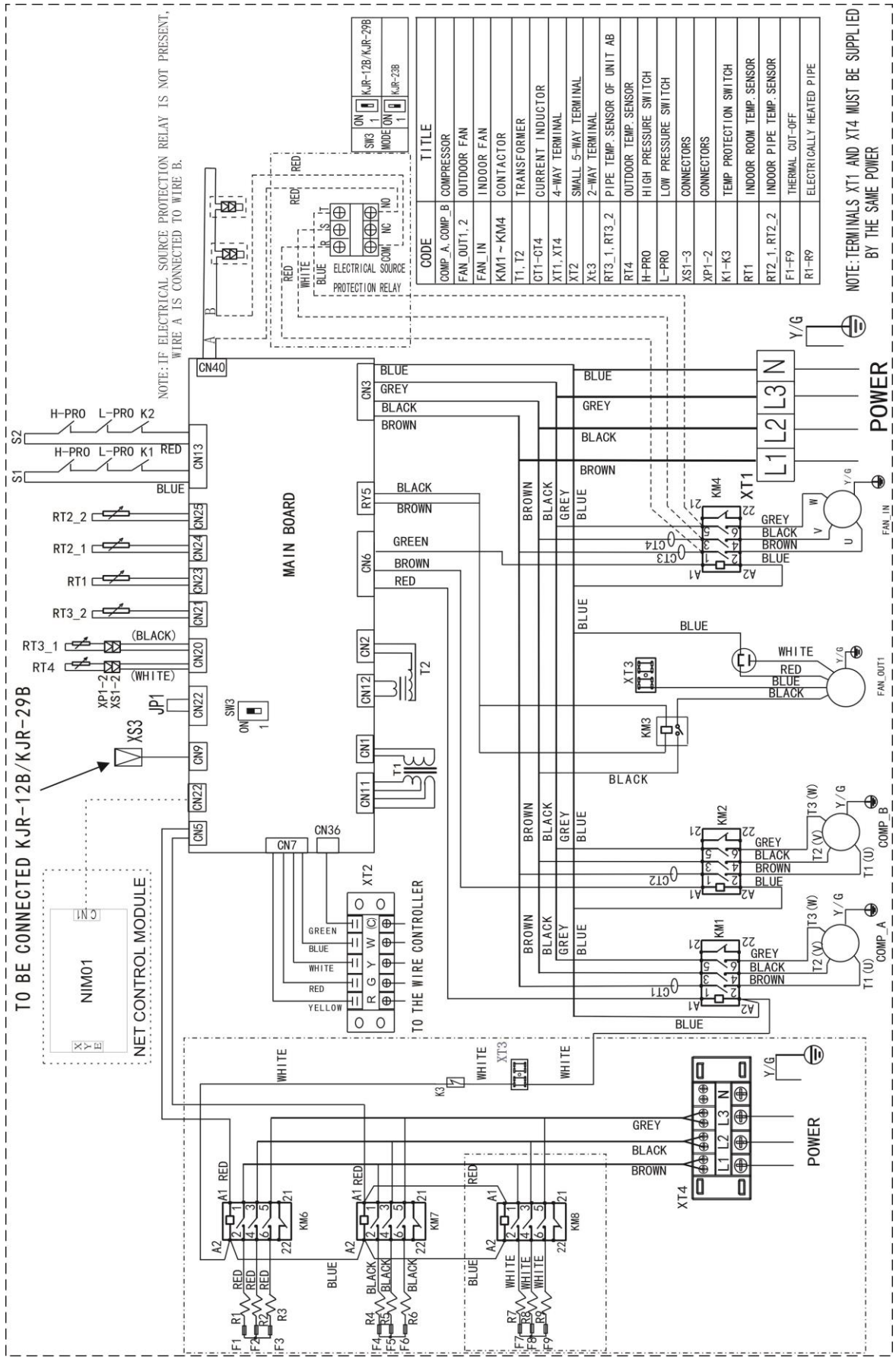


MRCT-062CWN1-R(C), MRCT-075CWN1-R(C):

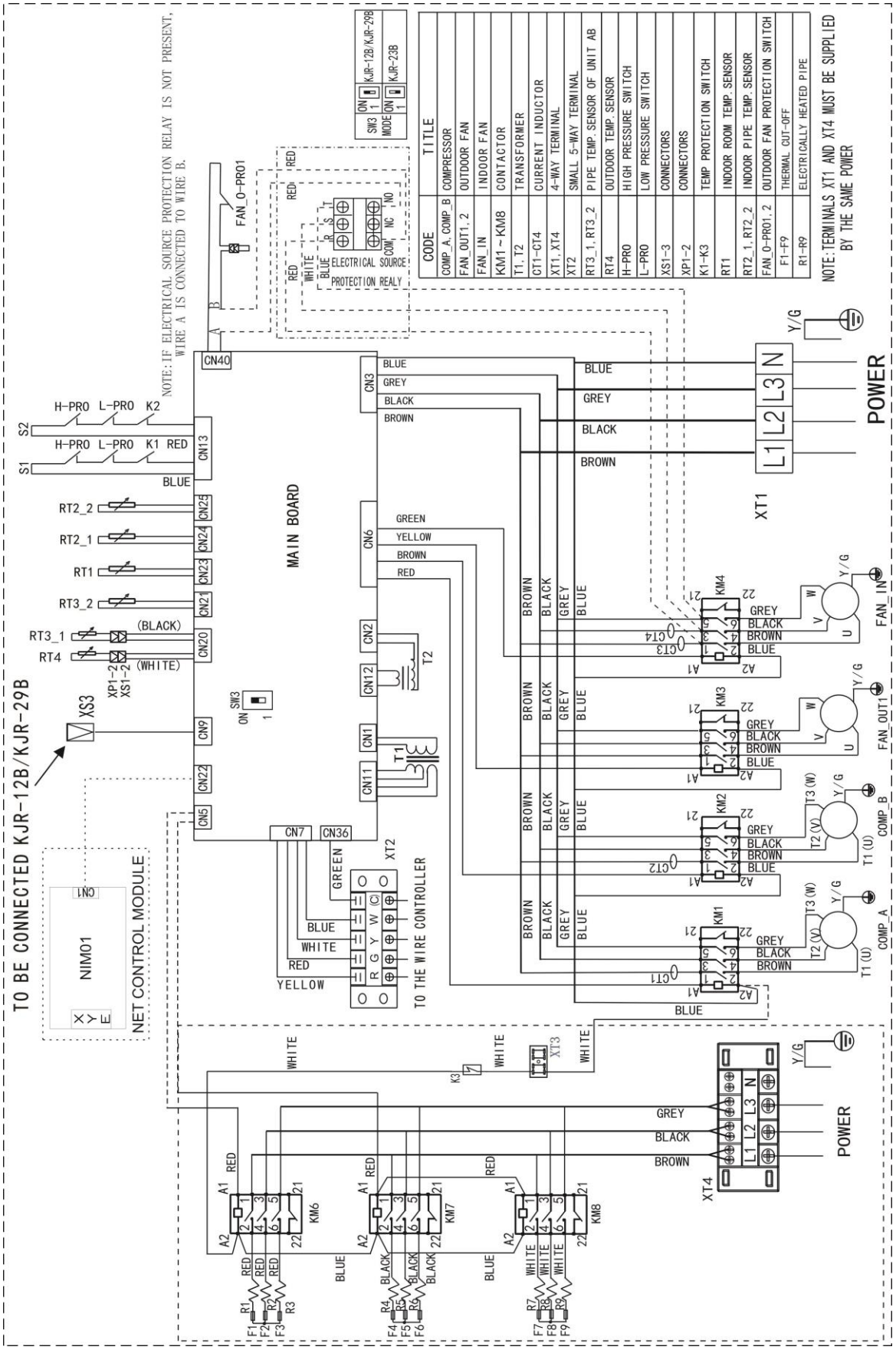


CODE	PART NAME
COMP	COMPRESSOR
FAN1	INDOOR FAN
FAN2	OUTDOOR FAN
CAP1	INDOOR FAN CAP
CAP2	OUTDOOR FAN CAP
XP1-5	CONNECTORS
XS1-5	CONNECTORS
RT1-4	TEMP. SENSOR
KM1	AC CONTACTOR
T5	TRANSFORMER(24V~)
T6	TRANSFORMER
K1	HIGH PRESS SWITCH
K2	COMP. TEMP. SWITH
L-PRO	LOW PRESS SWITCH
XT1	4-WAY TERMINAL
XT2	MIDDLE TERMINAL
XT4	6-WAY TERMINAL

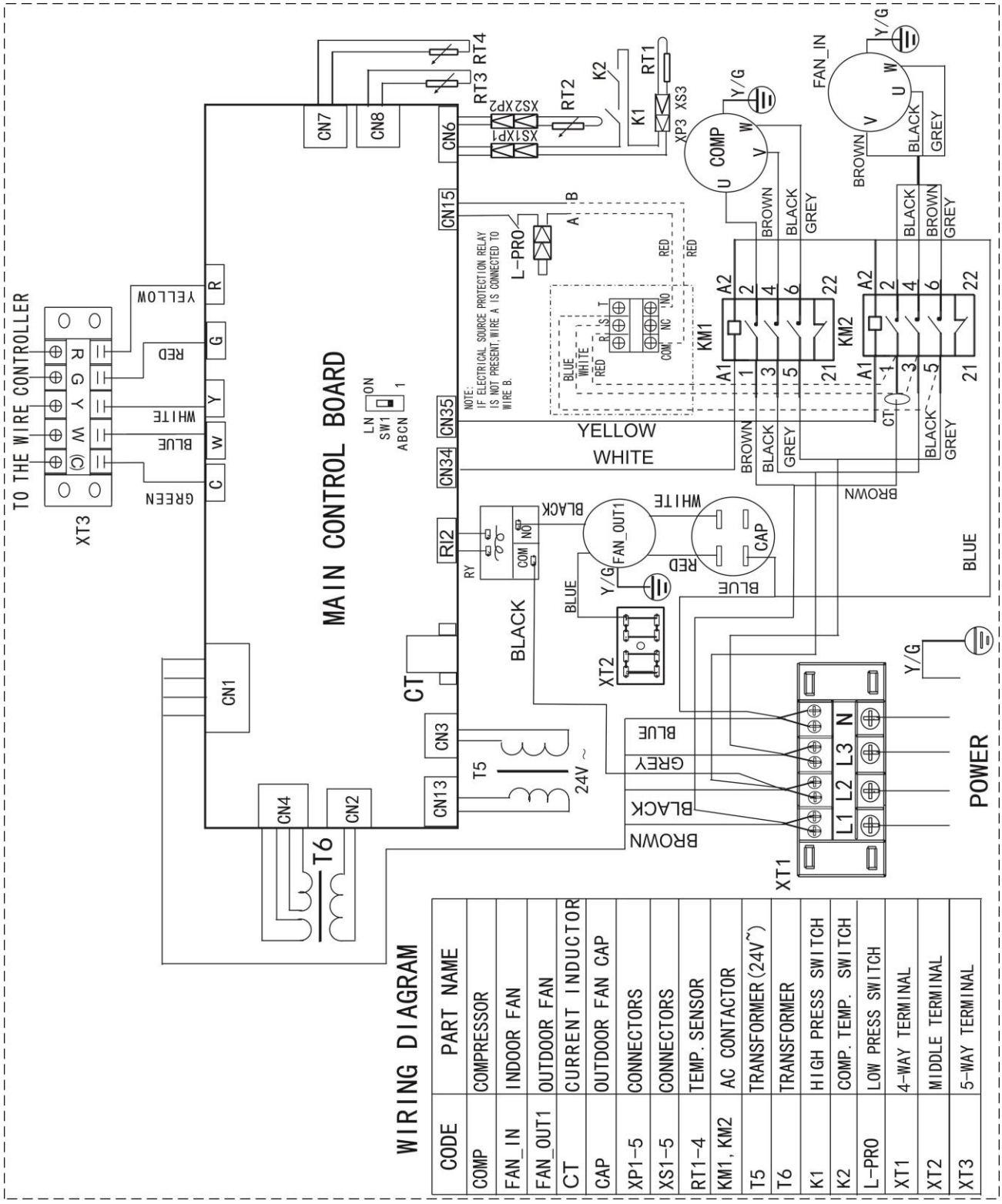
MRCT-085CWN1-R(C):



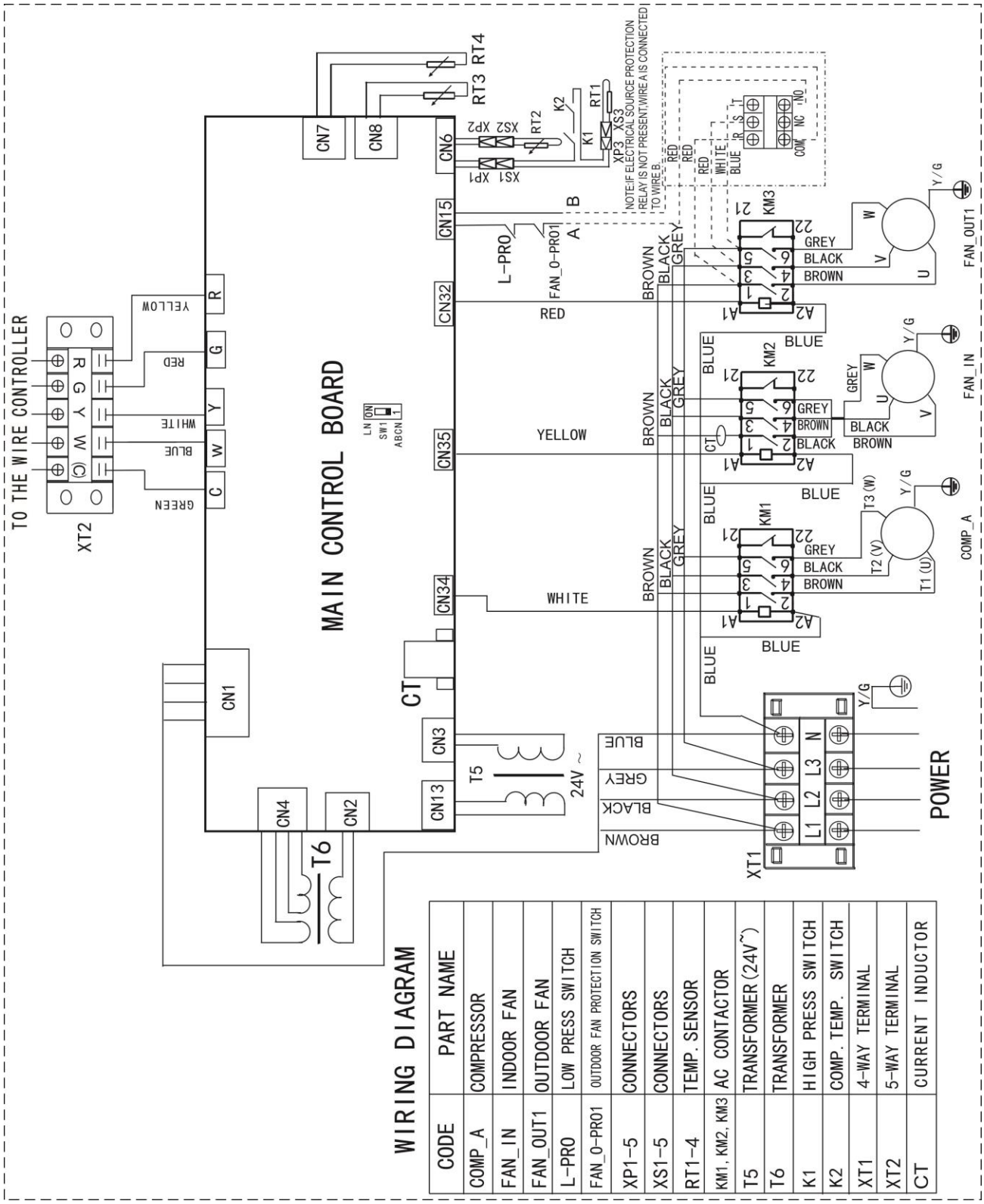
MRCT-100CWN1-R(C):



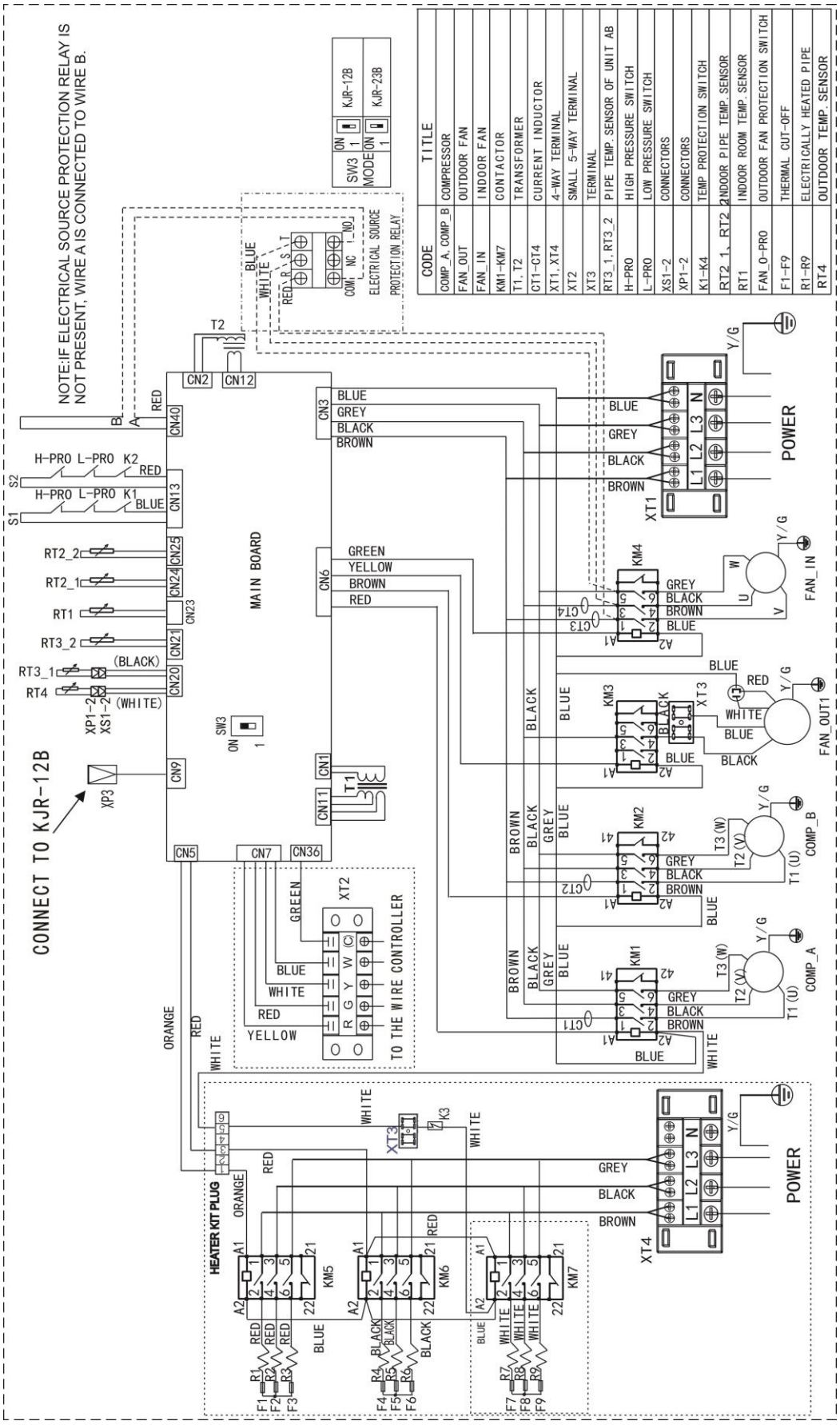
MRCT-085CWN1-R(D):



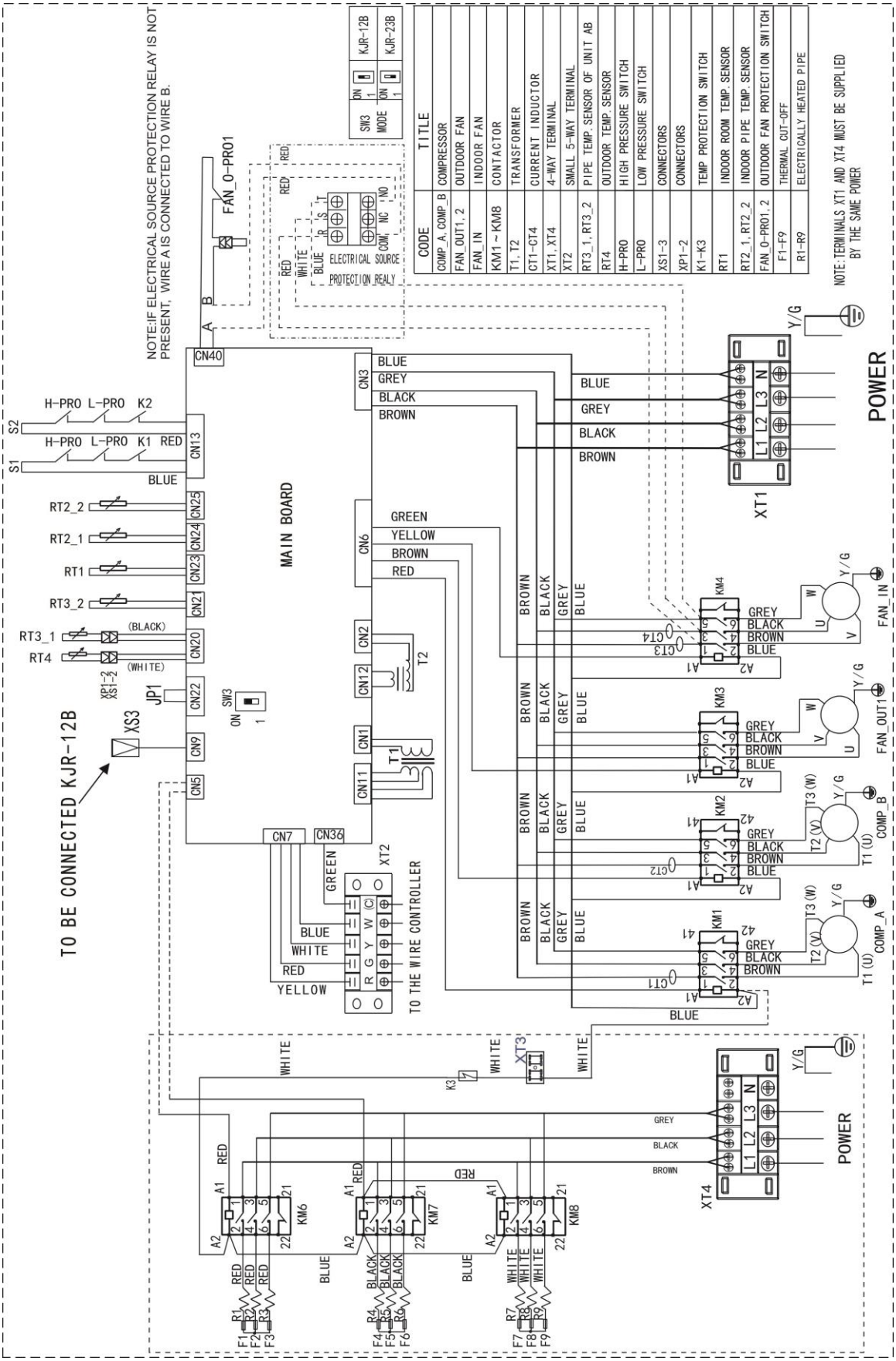
MRCT-100CWN1-R(D):



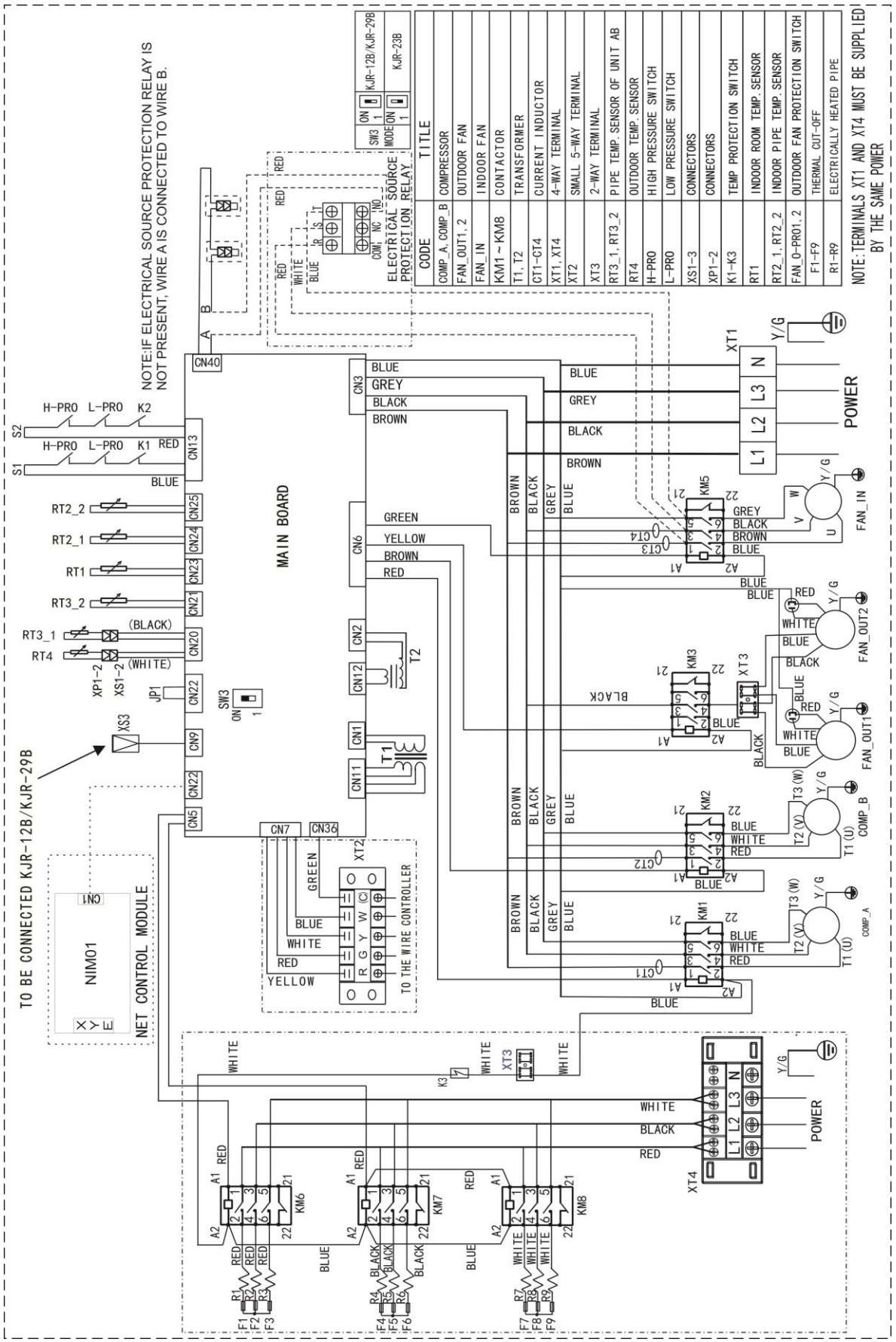
MRCT-125CWN1-R(C):



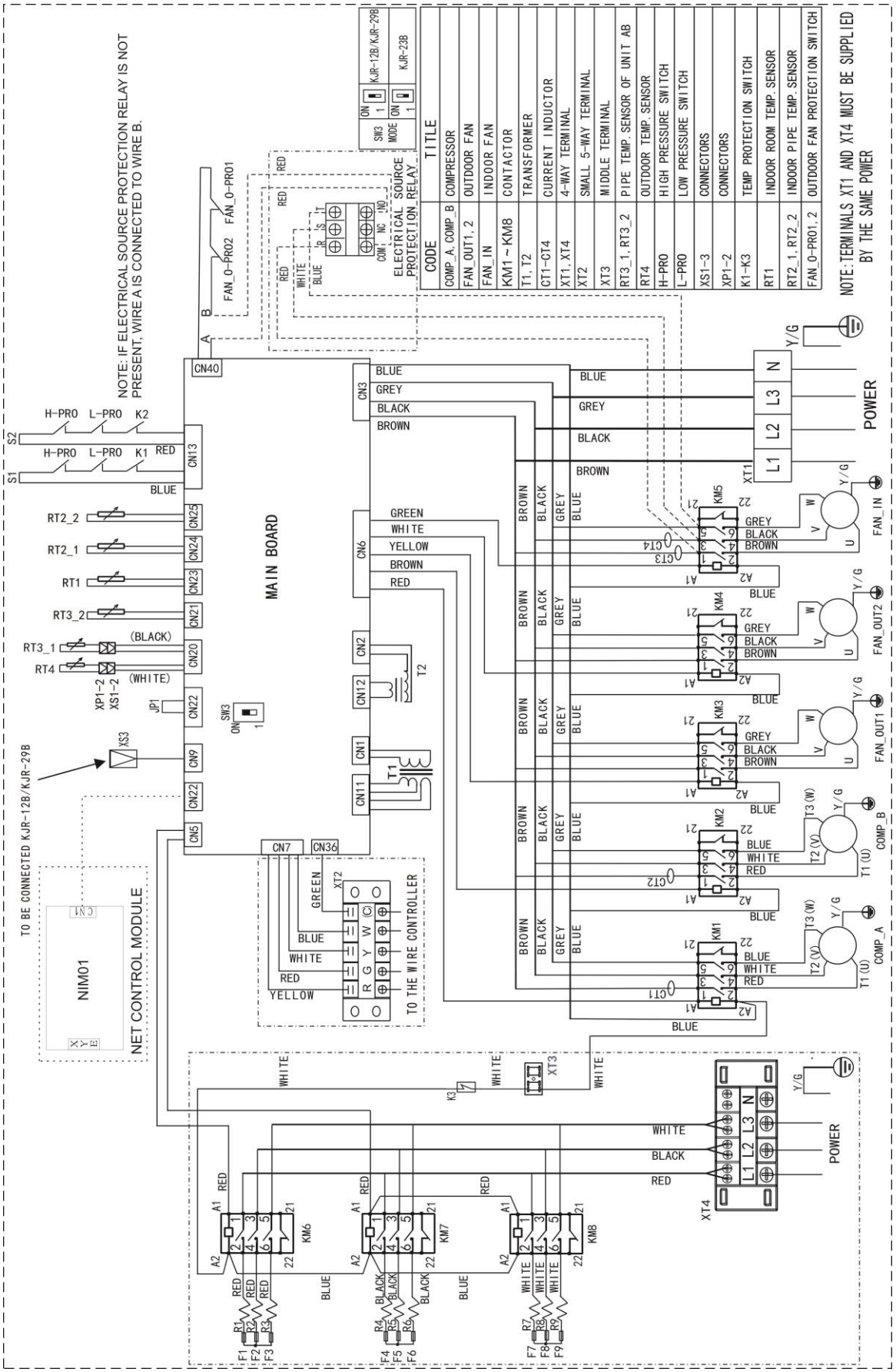
MRCT-150CWN1-R(C):



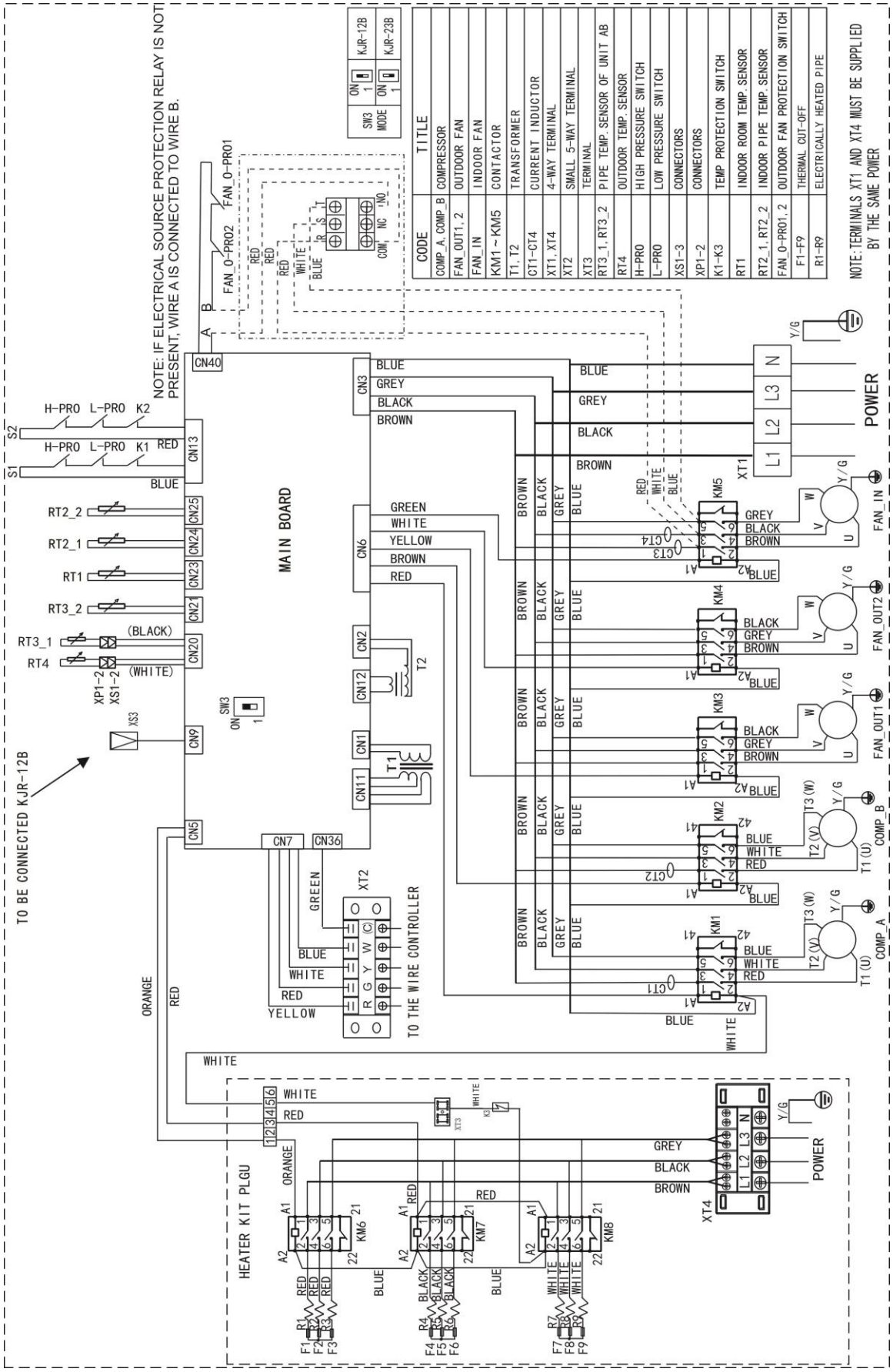
MRCT-175CWN1-R(C):



MRCT-200CWN1-R(C):



MRCT-250CWN1-R(C), MRCT-300CWN1-R(C):



MRCT-085CWN1-R(C), MRCT-085CWN1-R(D)

ESP (Pa)	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2
	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5
0	Fan speed (rpm)	896	887	876	866	855	847	839	830	821
	Power input (W)	1,790	1,720	1,710	1,665	1,620	1,560	1,500	1,445	1,390
	Air flow (CFM)	4,320	4,213	4,166	4,130	4,094	4,041	3,988	3,946	3,905
25	Fan speed (rpm)	899	890	878	867	857	849	842	849	823
	Power input (W)	1,710	1,640	1,630	1,590	1,550	1,490	1,430	1,378	1,325
	Air flow (CFM)	4,134	4,035	3,987	3,943	3,899	3,855	3,810	3,761	3,713
50	Fan speed (rpm)	902	893	880	869	858	851	844	851	825
	Power input (W)	1,630	1,560	1,550	1,515	1,480	1,420	1,360	1,310	1,260
	Air flow (CFM)	3,947	3,858	3,808	3,756	3,705	3,669	3,632	3,577	3,521
75	Fan speed (rpm)	904	896	880	871	**862**	854	847	854	827
	Power input (W)	1,555	1,485	1,467	1,436	**1,405**	1,345	1,285	1,235	1,185
	Air flow (CFM)	3,770	3,675	3,620	3,570	**3,520**	3,470	3,420	3,364	3,307
100	Fan speed (rpm)	907	896	885	876	866	858	849	858	828
	Power input (W)	1,470	1,400	1,390	1,360	1,330	1,265	1,200	1,150	1,100
	Air flow (CFM)	3,582	3,483	3,428	3,321	3,215	3,215	3,215	3,154	3,092
125	Fan speed (rpm)	910	900	886	877	869	860	852	860	830
	Power input (W)	1,375	1,310	1,295	1,265	1,235	1,175	1,115	1,065	1,015
	Air flow (CFM)	3,362	3,266	3,206	3,122	3,039	3,005	2,971	2,901	2,831
150	Fan speed (rpm)	913	903	887	879	871	863	854	863	832
	Power input (W)	1,280	1,220	1,200	1,170	1,140	1,085	1,030	980	930
	Air flow (CFM)	3,141	3,048	2,984	2,924	2,864	2,795	2,727	2,649	2,570
175	Fan speed (rpm)	915	906	892	883	874	865	857	/	/
	Power input (W)	1,170	1,115	1,095	1,068	1,040	945	850	/	/
	Air flow (CFM)	2,851	2,761	2,683	2,619	2,555	2,325	2,094	/	/
200	Fan speed (rpm)	918	909	897	887	876	868	859	/	/
	Power input (W)	1,060	1,010	990	965	940	805	670	/	/
	Air flow (CFM)	2,560	2,473	2,383	2,315	2,246	1,854	1,462	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

MRCT-100CWN1-R(C), MRCT-100CWN1-R(D)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5
0	Fan speed (rpm)	/	/	/	/	/	/	962	946	931
	Power input (W)	/	/	/	/	/	/	2,020	1,945	1,870
	Air flow (CFM)	/	/	/	/	/	/	4,571	4,500	4,428
25	Fan speed (rpm)	/	/	/	/	/	969	964	969	933
	Power input (W)	/	/	/	/	/	2,010	1,930	1,855	1,780
	Air flow (CFM)	/	/	/	/	/	4,442	4,398	4,323	4,248
50	Fan speed (rpm)	/	/	/	/	977	972	967	972	935
	Power input (W)	/	/	/	/	1,990	1,915	1,840	1,765	1,690
	Air flow (CFM)	/	/	/	/	4,320	4,272	4,224	4,146	4,067
75	Fan speed (rpm)	/	/	/	981	980	975	970	975	937
	Power input (W)	/	/	/	1,998	1,915	1,843	1,770	1,695	1,620
	Air flow (CFM)	/	/	/	4,214	4,183	4,127	4,072	3,997	3,922
100	Fan speed (rpm)	/	/	**986**	984	982	977	972	977	938
	Power input (W)	/	/	**2,000**	1,900	1,800	1,730	1,660	1,590	1,520
	Air flow (CFM)	/	/	**4,129**	4,052	3,974	3,905	3,835	3,771	3,707
125	Fan speed (rpm)	/	989	989	987	985	980	975	980	940
	Power input (W)	/	1,980	1,960	1,833	1,705	1,635	1,565	1,495	1,425
	Air flow (CFM)	/	3,953	4,065	3,927	3,789	3,719	3,648	3,579	3,509
150	Fan speed (rpm)	1,009	991	991	990	988	983	978	983	942
	Power input (W)	2,050	1,880	1,865	1,738	1,610	1,540	1,470	1,400	1,330
	Air flow (CFM)	3,830	3,778	3,891	3,748	3,605	3,532	3,460	3,386	3,312
175	Fan speed (rpm)	1,011	933	994	992	990	/	/	/	/
	Power input (W)	1,945	1,775	1,770	1,638	1,505	/	/	/	/
	Air flow (CFM)	3,656	3,586	3,718	3,549	3,381	/	/	/	/
200	Fan speed (rpm)	1,012	995	997	995	993	/	/	/	/
	Power input (W)	1,840	1,670	1,660	1,530	1,400	/	/	/	/
	Air flow (CFM)	3,481	3,394	3,517	3,337	3,157	/	/	/	/
225	Fan speed (rpm)	1,014	996	1,000	/	/	/	/	/	/
	Power input (W)	1,725	1,545	1,550	/	/	/	/	/	/
	Air flow (CFM)	3,292	3,148	3,316	/	/	/	/	/	/
250	Fan speed (rpm)	1,016	998	1,002	/	/	/	/	/	/
	Power input (W)	1,610	1,420	1,425	/	/	/	/	/	/
	Air flow (CFM)	3,104	2,902	3,048	/	/	/	/	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

MRCT-125CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5
0	Fan speed (rpm)	857	849	840	828	816	806	795	784	774	772	769
	Power input (W)	3,530	3,445	3,360	3,225	3,090	3,000	2,910	2,810	2,710	2,620	2,530
	Air flow (CFM)	6,773	6,718	6,662	6,575	6,487	6,395	6,302	6,230	6,158	6,103	6,049
25	Fan speed (rpm)	858	850	841	829	817	807	796	785	775	772	770
	Power input (W)	3,415	3,323	3,230	3,103	2,975	2,878	2,780	2,690	2,600	2,513	2,425
	Air flow (CFM)	6,571	6,503	6,435	6,354	6,272	6,176	6,079	6,004	5,929	5,872	5,815
50	Fan speed (rpm)	859	851	842	830	818	808	797	787	776	773	770
	Power input (W)	3,300	3,200	3,100	2,980	2,860	2,755	2,650	2,570	2,490	2,405	2,320
	Air flow (CFM)	6,368	6,288	6,208	6,133	6,057	5,956	5,856	5,778	5,699	5,641	5,582
75	Fan speed (rpm)	861	852	843	831	819	809	798	788	777	774	771
	Power input (W)	3,175	3,078	2,980	2,868	2,755	2,643	2,530	2,455	2,380	2,278	2,175
	Air flow (CFM)	6,151	6,069	5,987	5,901	5,814	5,711	5,608	5,534	5,461	5,363	5,265
700	Fan speed (rpm)	862	853	844	832	**821**	810	799	789	778	775	772
	Power input (W)	3,050	2,955	2,860	2,755	**2,650**	2,530	2,410	2,340	2,270	2,150	2,030
	Air flow (CFM)	5,933	5,850	5,766	5,669	**5,571**	5,465	5,359	5,291	5,222	5,085	4,948
125	Fan speed (rpm)	863	854	845	833	822	811	800	790	779	776	773
	Power input (W)	2,900	2,800	2,700	2,583	2,465	2,358	2,250	2,183	2,115	1,983	1,850
	Air flow (CFM)	5,645	5,538	5,432	5,361	5,290	5,179	5,067	4,977	4,887	4,694	4,500
150	Fan speed (rpm)	864	855	846	834	823	812	801	791	780	777	774
	Power input (W)	2,800	2,700	2,600	2,475	2,350	2,245	2,140	2,075	2,010	1,860	1,710
	Air flow (CFM)	5,456	5,347	5,238	5,169	5,101	4,978	4,856	4,754	4,652	4,398	4,144
175	Fan speed (rpm)	865	856	847	835	824	813	802	792	781	778	774
	Power input (W)	2,635	2,535	2,435	2,323	2,210	2,103	1,995	1,925	1,855	1,713	1,570
	Air flow (CFM)	5,187	5,066	4,946	4,870	4,794	4,656	4,519	4,397	4,275	4,031	3,788

Continued: MRCT-125CWN1-R(C)

ESP (Pa)	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5
	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5
200	Fan speed (rpm)	866	857	848	836	825	814	804	793	782	/	/
	Power input (W)	2,470	2,370	2,270	2,170	2,070	1,960	1,850	1,775	1,700	/	/
	Air flow (CFM)	4,917	4,786	4,654	4,571	4,488	4,335	4,182	4,040	3,898	/	/
225	Fan speed (rpm)	868	859	849	837	826	815	805	794	783	/	/
	Power input (W)	2,295	2,203	2,110	2,000	1,890	1,788	1,685	1,608	1,530	/	/
	Air flow (CFM)	4,575	4,434	4,293	4,187	4,082	3,922	3,763	3,622	3,481	/	/
250	Fan speed (rpm)	869	860	850	838	827	816	806	795	784	/	/
	Power input (W)	2,120	2,035	1,950	1,830	1,710	1,615	1,520	1,440	1,360	/	/
	Air flow (CFM)	4,232	4,082	3,932	3,804	3,676	3,510	3,344	3,204	3,064	/	/
275	Fan speed (rpm)	870	861	851	839	828	/	/	/	/	/	/
	Power input (W)	1,950	1,855	1,760	1,675	1,590	/	/	/	/	/	/
	Air flow (CFM)	3,816	3,674	3,533	3,423	3,314	/	/	/	/	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

MRCT-150CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5
0	Fan speed (rpm)	/	/	1,008	999	989	979	969	959	949
	Power input (W)	/	/	5,146	4,968	4,790	4,575	4,360	4,155	3,950
	Air flow (CFM)	/	/	7,928	7,867	7,805	7,686	7,566	7,452	7,338
25	Fan speed (rpm)	/	/	1,014	1,003	991	983	974	964	953
	Power input (W)	/	/	5,043	4,824	4,605	4,418	4,230	4,025	3,820
	Air flow (CFM)	/	/	7,791	7,691	7,592	7,473	7,353	7,239	7,124
50	Fan speed (rpm)	/	1,022	1,020	1,006	993	986	979	968	957
	Power input (W)	/	4,954	4,940	4,680	4,420	4,260	4,100	3,895	3,690
	Air flow (CFM)	/	7,700	7,653	7,516	7,379	7,259	7,139	7,025	6,910
75	Fan speed (rpm)	1,031	1,026	1,022	1,009	995	989	982	971	960
	Power input (W)	4,870	4,810	4,750	4,495	4,240	4,088	3,935	3,745	3,555
	Air flow (CFM)	7,622	7,529	7,436	7,313	7,191	7,048	6,904	6,790	6,675
100	Fan speed (rpm)	1,035	1,028	1,021	**1,008**	995	988	982	971	959
	Power input (W)	4,770	4,665	4,560	**4,310**	4,060	3,915	3,770	3,595	3,420
	Air flow (CFM)	7,475	7,347	7,219	**7,111**	7,002	6,836	6,669	6,554	6,439
125	Fan speed (rpm)	1,050	1,044	1,039	1,026	1,013	1,006	998	990	981
	Power input (W)	4,510	4,440	4,370	4,123	3,875	3,760	3,645	3,465	3,285
	Air flow (CFM)	7,113	7,046	6,979	6,844	6,708	6,571	6,434	6,297	6,159
150	Fan speed (rpm)	1,060	1,056	1,052	1,039	1,026	1,021	1,015	1,005	995
	Power input (W)	4,350	4,290	4,230	4,005	3,780	3,695	3,610	3,410	3,210
	Air flow (CFM)	6,899	6,863	6,828	6,679	6,531	6,411	6,291	6,134	5,976
175	Fan speed (rpm)	1,070	1,065	1,060	1,049	1,039	1,032	1,025	1,017	1,008
	Power input (W)	4,170	4,078	3,985	9,808	3,630	3,518	3,405	3,248	3,090
	Air flow (CFM)	6,658	6,609	6,559	6,419	6,279	6,161	6,043	5,859	5,675

Continued: MRCT-150CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5
200	Fan speed (rpm)	1,082	1,074	1,067	1,059	1,051	1,044	1,036	1,028	1,020
	Power input (W)	3,990	3,865	3,740	3,610	3,480	3,340	3,200	3,085	2,970
	Air flow (CFM)	6,418	6,354	6,291	6,159	6,027	5,911	5,794	5,584	5,375
225	Fan speed (rpm)	1,089	1,082	1,074	1,065	1,056	1,048	1,040	1,033	1,027
	Power input (W)	3,855	3,728	3,600	3,455	3,310	3,180	3,050	2,928	2,805
	Air flow (CFM)	6,194	6,108	6,022	5,879	5,736	5,600	5,464	5,269	5,075
250	Fan speed (rpm)	1,097	1,089	1,082	1,072	1,061	1,053	1,044	1,038	1,033
	Power input (W)	3,720	3,590	3,460	3,300	3,140	3,020	2,900	2,770	2,640
	Air flow (CFM)	5,971	5,862	5,754	5,600	5,446	5,289	5,133	4,954	4,776
275	Fan speed (rpm)	1,104	1,095	1,086	1,076	1,065	/	/	/	/
	Power input (W)	3,595	3,438	3,280	3,115	2,950	/	/	/	/
	Air flow (CFM)	5,705	5,585	5,464	5,308	5,151	/	/	/	/
300	Fan speed (rpm)	1,112	/	/	/	/	/	/	/	/
	Power input (W)	3,470	/	/	/	/	/	/	/	/
	Air flow (CFM)	5,439	/	/	/	/	/	/	/	/
325	Fan speed (rpm)	1,112	/	/	/	/	/	/	/	/
	Power input (W)	3,470	/	/	/	/	/	/	/	/
	Air flow (CFM)	5,439	/	/	/	/	/	/	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

MRCT-175CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5
0	Fan speed (rpm)	/	/	994	987	980	971	961	953	944	936	927
	Power input (W)	/	/	4,751	4,857	4,962	4,643	4,323	4,216	4,109	3,960	3,811
	Air flow (CFM)	/	/	9,837	9,896	9,955	9,722	9,489	9,498	9,507	9,346	9,185
25	Fan speed (rpm)	/	/	994	988	981	972	963	954	946	937	928
	Power input (W)	/	/	4,580	4,683	4,787	4,494	4,202	4,078	3,955	3,809	3,664
	Air flow (CFM)	/	/	9,575	9,635	9,695	9,506	9,317	9,264	9,211	9,041	8,871
50	Fan speed (rpm)	1,010	1,003	995	988	982	973	965	956	947	939	930
	Power input (W)	4,581	4,495	4,408	4,510	4,612	4,346	4,080	3,940	3,800	3,659	3,517
	Air flow (CFM)	9,591	9,451	9,312	9,373	9,434	9,290	9,145	9,030	8,915	8,736	8,557
75	Fan speed (rpm)	1,012	1,004	997	990	983	975	966	958	949	940	931
	Power input (W)	4,392	4,313	4,235	4,338	4,442	4,181	3,920	3,777	3,635	3,495	3,356
	Air flow (CFM)	9,307	9,153	8,998	9,067	9,136	8,999	8,861	8,729	8,597	8,421	8,246
100	Fan speed (rpm)	1,013	1,005	998	991	984	976	968	959	951	942	933
	Power input (W)	4,202	4,132	4,061	4,166	4,271	4,015	3,759	3,614	3,469	3,332	3,194
	Air flow (CFM)	9,024	8,854	8,683	8,761	8,839	8,708	8,578	8,429	8,279	8,107	7,934
125	Fan speed (rpm)	1,015	1,007	999	992	985	977	969	961	952	943	934
	Power input (W)	4,005	3,934	3,864	3,967	4,071	3,810	3,550	3,404	3,258	3,127	2,996
	Air flow (CFM)	8,684	8,510	8,336	8,421	8,507	8,350	8,194	8,027	7,860	7,684	7,507
150	Fan speed (rpm)	1,018	1,009	1,000	994	987	979	**971**	962	954	945	935
	Power input (W)	3,807	3,737	3,667	3,769	3,870	3,605	**3,340**	3,193	3,046	2,922	2,797
	Air flow (CFM)	8,345	8,167	7,989	8,082	8,175	7,992	**7,809**	7,625	7,441	7,261	7,081
175	Fan speed (rpm)	1,019	1,011	1,002	995	988	980	972	964	955	946	937
	Power input (W)	3,570	3,509	3,448	3,548	3,649	3,374	3,100	2,950	2,801	2,682	2,564
	Air flow (CFM)	7,899	7,719	7,539	7,648	7,757	7,518	7,279	7,093	6,907	9,715	6,522

Continued: MRCT-175CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5
200	Fan speed (rpm)	1,021	1,012	1,004	998	992	983	974	965	957	947	938
	Power input (W)	3,332	3,281	3,229	3,328	3,427	3,143	2,859	2,707	2,555	2,443	2,330
	Air flow (CFM)	7,454	7,272	7,090	7,215	7,339	7,044	6,748	6,561	6,374	6,169	5,963
225	Fan speed (rpm)	1,033	1,019	1,006	1,000	994	/	/	/	/	/	/
	Power input (W)	3,042	3,135	3,229	3,128	3,026	/	/	/	/	/	/
	Air flow (CFM)	6,817	6,953	7,090	6,696	6,303	/	/	/	/	/	/
250	Fan speed (rpm)	1,045	/	/	/	/	/	/	/	/	/	/
	Power input (W)	2,751	/	/	/	/	/	/	/	/	/	/
	Air flow (CFM)	6,180	/	/	/	/	/	/	/	/	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

MRCT-200CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
0	Fan speed (rpm)	/	/	/	/	1,194	1,181	1,168	1,154	1,140	1,127	1,113	1,098	1,081
	Power input (W)	/	/	/	/	6,951	6,710	6,468	6,266	6,063	5,831	5,599	5,422	5,188
	Air flow (CFM)	/	/	/	/	11,210	11,104	10,997	10,872	10,746	10,623	10,499	10,306	10,078
25	Fan speed (rpm)	/	/	/	/	1,195	1,182	1,169	1,155	1,141	1,128	1,114	1,100	1,083
	Power input (W)	/	/	/	/	6,756	6,531	6,306	6,103	5,901	5,671	5,442	5,255	5,057
	Air flow (CFM)	/	/	/	/	10,982	10,890	10,798	10,668	10,539	10,398	10,258	10,068	9,892
50	Fan speed (rpm)	/	/	/	1,214	1,196	1,183	1,170	1,156	1,142	1,129	1,115	1,101	1,084
	Power input (W)	/	/	/	6,944	6,561	6,352	6,143	5,941	5,738	5,512	5,285	5,088	4,926
	Air flow (CFM)	/	/	/	10,877	10,754	10,676	10,599	10,465	10,332	10,174	10,016	9,829	9,705
75	Fan speed (rpm)	/	/	/	1,214	1,197	1,184	1,171	1,157	1,143	1,130	1,116	1,102	1,085
	Power input (W)	/	/	/	6,738	6,390	6,180	5,970	5,754	5,539	5,328	5,118	5,069	4,748
	Air flow (CFM)	/	/	/	10,628	10,540	10,453	10,367	10,207	10,047	9,898	9,749	9,807	9,403
100	Fan speed (rpm)	/	1,240	1,228	1,215	1,198	1,185	1,172	1,158	1,145	1,131	1,117	1,103	1,087
	Power input (W)	/	6,941	6,765	6,532	6,218	6,008	5,797	5,568	5,339	5,145	4,950	5,049	4,570
	Air flow (CFM)	/	10,582	10,491	10,378	10,326	10,230	10,135	9,948	9,761	9,622	9,483	9,785	9,102
125	Fan speed (rpm)	/	1,241	1,230	1,215	1,199	1,186	1,173	1,159	1,146	1,131	1,117	1,105	**1,091**
	Power input (W)	/	6,753	6,659	6,367	6,068	5,866	5,663	5,441	5,218	5,013	4,808	4,570	**4,351**
	Air flow (CFM)	/	10,357	10,349	10,170	10,113	10,017	9,922	9,753	9,584	9,435	9,285	9,024	**8,815**
150	Fan speed (rpm)	1,258	1,242	1,230	1,216	1,202	1,189	1,175	1,162	1,149	1,134	1,120	1,105	1,091
	Power input (W)	6,736	6,565	6,360	6,158	5,820	5,611	5,401	5,180	4,958	4,769	4,579	4,327	4,141
	Air flow (CFM)	10,287	10,132	10,049	9,952	9,818	9,692	9,566	9,395	9,224	9,069	8,915	8,599	8,418

Continued: MRCT-200CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
175	Fan speed (rpm)	1,261	1,244	1,232	1,218	1,204	1,190	1,177	1,163	1,149	1,135	1,121	1,106	1,093
	Power input (W)	6,511	6,332	6,169	5,929	5,607	5,391	5,175	4,953	4,731	4,545	4,358	4,107	3,925
	Air flow (CFM)	10,042	9,864	9,794	9,650	9,524	9,377	9,231	9,046	8,861	8,699	8,537	8,243	8,045
200	Fan speed (rpm)	1,263	1,245	1,233	1,221	1,205	1,192	1,179	1,164	1,150	1,136	1,123	1,106	1,094
	Power input (W)	6,285	6,099	5,977	5,700	5,394	5,172	4,949	4,727	4,504	4,321	4,137	3,887	3,709
	Air flow (CFM)	9,798	9,597	9,540	9,347	9,230	9,063	8,896	8,697	8,497	8,328	8,158	7,887	7,672
225	Fan speed (rpm)	1,264	1,248	1,235	1,222	1,207	1,194	1,181	1,166	1,152	1,138	1,124	1,110	1,096
	Power input (W)	6,046	5,871	5,696	5,451	5,160	4,923	4,686	4,461	4,237	4,049	3,861	3,624	3,433
	Air flow (CFM)	9,505	9,301	9,183	9,019	8,877	8,693	8,508	8,291	8,074	7,871	7,669	7,387	7,138
250	Fan speed (rpm)	1,265	1,251	1,237	1,224	1,209	1,196	1,183	1,169	1,154	1,140	1,126	1,113	1,099
	Power input (W)	5,807	5,643	5,415	5,201	4,925	4,674	4,422	4,196	3,969	3,777	3,585	3,361	3,157
	Air flow (CFM)	9,212	9,004	8,826	8,691	8,524	8,322	8,120	7,885	7,650	7,415	7,180	6,887	6,605
275	Fan speed (rpm)	1,267	1,253	1,239	1,226	1,211	1,198	1,185	1,171	1,157	1,144	1,130	1,117	1,094
	Power input (W)	5,523	5,350	5,120	4,872	4,585	4,322	4,059	3,812	3,564	3,331	3,098	2,800	2,662
	Air flow (CFM)	8,831	8,594	8,380	8,204	8,010	7,740	7,470	7,173	6,876	6,487	6,099	5,562	5,395
300	Fan speed (rpm)	1,269	1,254	1,242	1,228	1,213	1,201	1,188	1,174	1,160	1,147	1,134	1,120	1,088
	Power input (W)	5,238	5,056	4,825	4,542	4,245	3,971	3,696	3,428	3,159	2,885	2,611	2,239	2,167
	Air flow (CFM)	8,450	8,184	7,933	7,717	7,495	7,157	6,819	8,460	6,102	5,560	5,018	4,237	4,186
325	Fan speed (rpm)	1,272	1,258	1,245	1,233	1,218	1,206	1,193	/	/	/	/	/	/
	Power input (W)	4,892	4,650	4,334	3,987	3,707	3,334	2,961	/	/	/	/	/	/
	Air flow (CFM)	7,955	7,559	7,136	6,775	6,406	5,820	5,234	/	/	/	/	/	/

Continued: MRCT-200CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
350	Fan speed (rpm)	1,276	1,262	1,248	1,235	1,223	/	/	/	/	/	/	/	/
	Power input (W)	4,546	4,243	3,842	3,731	3,169	/	/	/	/	/	/	/	/
	Air flow (CFM)	7,459	6,935	6,339	6,285	5,318	/	/	/	/	/	/	/	/
375	Fan speed (rpm)	1,280	1,267	1,254	/	/	/	/	/	/	/	/	/	/
	Power input (W)	3,982	3,457	3,371	/	/	/	/	/	/	/	/	/	/
	Air flow (CFM)	6,465	5,433	5,387	/	/	/	/	/	/	/	/	/	/
400	Fan speed (rpm)	1,284	/	/	/	/	/	/	/	/	/	/	/	/
	Power input (W)	3,417	/	/	/	/	/	/	/	/	/	/	/	/
	Air flow (CFM)	5,471	/	/	/	/	/	/	/	/	/	/	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

MRCT-250CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
0	Fan speed (rpm)	1,075	1,059	1,044	1,034	1,026	1,009	1,002	985	973	963	934	939	925
	Power input (W)	6,962	6,840	6,589	6,382	6,068	5,930	5,651	5,544	5,232	5,085	4,765	4,893	4,734
	Air flow (CFM)	12,304	12,345	12,115	12,068	11,907	11,717	11,587	11,472	11,269	11,177	10,868	10,894	10,757
25	Fan speed (rpm)	1,075	1,060	1,041	1,035	1,027	1,010	1,003	986	974	964	935	939	926
	Power input (W)	6,750	6,663	6,363	6,203	5,914	5,736	5,487	5,374	5,065	4,905	4,632	4,740	4,597
	Air flow (CFM)	12,052	12,092	11,849	11,797	11,645	11,431	11,322	11,191	10,982	10,879	10,572	10,610	10,471
50	Fan speed (rpm)	1,074	1,061	1,038	1,036	1,028	1,011	1,004	987	975	965	936	940	927
	Power input (W)	6,538	6,485	6,137	6,023	5,759	5,541	5,323	5,203	4,898	4,724	4,498	4,587	4,459
	Air flow (CFM)	11,801	11,838	11,583	11,527	11,383	11,144	11,058	10,909	10,695	10,581	10,276	10,326	10,185
75	Fan speed (rpm)	1,075	1,062	1,040	1,036	1,029	1,011	1,004	987	976	966	937	941	928
	Power input (W)	6,391	6,301	5,903	5,842	5,573	5,329	5,152	5,019	4,698	4,524	4,304	4,410	4,282
	Air flow (CFM)	11,575	11,558	11,249	11,218	11,055	10,820	10,745	10,585	10,345	10,217	9,914	9,964	9,825
100	Fan speed (rpm)	1,075	1,063	1,041	1,036	1,030	1,012	1,005	988	977	967	937	942	928
	Power input (W)	6,243	6,117	5,668	5,660	5,387	5,116	4,980	4,834	4,498	4,324	4,110	4,233	4,104
	Air flow (CFM)	11,350	11,278	10,915	10,910	10,728	10,496	10,432	10,260	9,995	9,853	9,552	9,602	9,465
125	Fan speed (rpm)	1,076	1,063	1,044	1,037	1,030	1,013	1,005	989	979	968	938	943	929
	Power input (W)	6,089	5,904	5,425	5,441	5,178	4,900	4,790	4,626	4,292	4,114	3,928	4,040	3,911
	Air flow (CFM)	11,019	10,945	10,566	10,567	10,361	10,123	10,054	9,870	9,598	9,432	9,155	9,168	9,021
150	Fan speed (rpm)	1,077	1,063	**1,047**	1,037	1,031	1,015	1,005	990	980	969	939	944	930
	Power input (W)	5,934	5,690	**5,181**	5,222	4,969	4,683	4,600	4,418	4,085	3,904	3,746	3,846	3,717
	Air flow (CFM)	10,688	10,612	**10,217**	10,224	9,994	9,749	9,677	9,480	9,201	9,010	8,758	8,735	8,577

Continued: MRCT-250CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
175	Fan speed (rpm)	1,077	1,064	1,047	1,038	1,032	1,015	1,006	991	981	969	939	944	931
	Power input (W)	5,613	5,449	4,984	4,995	4,746	4,455	4,382	4,203	3,862	3,683	3,548	3,645	3,512
	Air flow (CFM)	10,300	10,229	9,839	9,828	9,590	9,294	9,245	9,031	8,703	8,496	8,259	8,225	8,064
200	Fan speed (rpm)	1,078	1,065	1,048	1,039	1,033	1,016	1,006	992	982	969	940	945	932
	Power input (W)	5,292	5,207	4,786	4,768	4,522	4,226	4,163	3,987	3,638	3,462	3,349	3,443	3,307
	Air flow (CFM)	9,913	9,847	9,462	9,432	9,186	8,838	8,812	8,581	8,206	7,983	7,760	7,715	7,551
225	Fan speed (rpm)	1,079	1,066	1,051	1,040	1,034	1,017	1,007	993	983	970	941	946	932
	Power input (W)	5,294	4,968	4,527	4,522	4,299	3,990	3,958	3,758	3,408	3,240	3,135	3,203	3,078
	Air flow (CFM)	9,875	9,378	8,936	8,922	8,670	8,306	8,296	8,037	7,615	7,383	7,169	7,025	6,863
250	Fan speed (rpm)	1,080	1,067	1,053	1,042	1,034	1,018	1,008	994	984	970	942	947	933
	Power input (W)	5,295	4,728	4,267	4,275	4,076	3,753	3,753	3,528	3,177	3,018	2,921	2,962	2,849
	Air flow (CFM)	9,837	8,910	8,410	8,412	8,154	7,775	7,780	7,492	7,024	6,784	6,578	6,335	6,175
275	Fan speed (rpm)	1,082	1,068	1,050	1,042	1,035	1,019	1,009	995	985	971	942	948	934
	Power input (W)	4,879	4,488	4,013	4,034	3,825	3,496	3,486	3,341	2,975	2,803	2,717	2,792	2,530
	Air flow (CFM)	8,972	8,391	7,852	7,864	7,575	7,096	7,053	6,824	6,335	5,996	5,844	5,744	5,204
300	Fan speed (rpm)	1,084	1,070	1,047	1,043	1,035	1,021	1,010	995	986	973	943	949	935
	Power input (W)	4,463	4,248	3,759	3,793	3,574	3,239	3,219	3,153	2,773	2,587	2,512	2,621	2,210
	Air flow (CFM)	8,107	7,871	7,293	7,316	6,996	6,418	6,325	6,156	5,647	5,209	5,110	5,152	4,234
325	Fan speed (rpm)	1,084	1,072	1,054	1,046	1,036	1,023	1,010	997	986	/	/	/	/
	Power input (W)	4,219	3,996	3,636	3,538	3,313	3,089	3,219	2,818	2,773	/	/	/	/
	Air flow (CFM)	7,663	7,324	6,813	6,603	6,221	5,896	6,325	5,316	5,647	/	/	/	/

Continued: MRCT-250CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
350	Fan speed (rpm)	1,085	1,073	1,061	1,050	1,038	1,025	1,011	/	/	/	/	/	/
	Power input (W)	3,975	3,744	3,513	3,282	3,051	2,940	3,024	/	/	/	/	/	/
	Air flow (CFM)	7,219	6,776	6,332	5,889	5,445	5,375	5,815	/	/	/	/	/	/
375	Fan speed (rpm)	1,087	1,074	1,062	/	/	/	/	/	/	/	/	/	/
	Power input (W)	3,708	3,474	3,241	/	/	/	/	/	/	/	/	/	/
	Air flow (CFM)	6,428	5,990	5,551	/	/	/	/	/	/	/	/	/	/
400	Fan speed (rpm)	1,088	/	/	/	/	/	/	/	/	/	/	/	/
	Power input (W)	3,440	/	/	/	/	/	/	/	/	/	/	/	/
	Air flow (CFM)	5,637	/	/	/	/	/	/	/	/	/	/	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

MRCT-300CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
0	Fan speed (rpm)	/	/	/	/	/	/	1,106	1,090	1,074	1,053	1,032	1,027	1,022
	Power input (W)	/	/	/	/	/	/	8,203	7,899	7,595	7,256	6,917	6,894	6,872
	Air flow (CFM)	/	/	/	/	/	/	13,393	13,210	13,026	12,794	12,563	12,499	12,434
25	Fan speed (rpm)	/	/	/	/	1,133	1,133	1,106	1,090	1,074	1,053	1,032	1,027	1,022
	Power input (W)	/	/	/	/	9,142	9,142	8,010	7,702	7,394	7,078	6,761	6,736	6,710
	Air flow (CFM)	/	/	/	/	13,735	13,735	13,243	13,044	12,845	12,605	12,366	12,307	12,248
50	Fan speed (rpm)	/	/	/	/	1,135	1,135	1,108	1,092	1,076	1,055	1,034	1,029	1,023
	Power input (W)	/	/	/	/	8,664	8,664	7,736	7,427	7,118	6,828	6,537	6,509	6,480
	Air flow (CFM)	/	/	/	/	13,304	13,304	12,902	12,690	12,479	12,234	11,990	11,937	11,884
75	Fan speed (rpm)	/	/	/	/	1,137	1,137	1,109	1,094	1,078	1,056	1,035	1,030	1,025
	Power input (W)	/	/	/	/	8,425	8,425	7,490	7,160	6,831	9,544	6,258	6,241	6,225
	Air flow (CFM)	/	/	/	/	13,089	13,089	12,619	12,384	12,149	11,897	11,644	11,591	11,539
100	Fan speed (rpm)	/	/	1,153	1,146	1,138	1,138	1,110	1,095	1,080	1,058	1,036	1,031	1,026
	Power input (W)	/	/	9,127	8,545	8,186	8,186	7,244	6,893	6,543	6,261	5,978	5,974	5,970
	Air flow (CFM)	/	/	13,410	12,993	12,873	12,873	12,336	12,078	11,820	11,558	11,296	11,245	11,193
125	Fan speed (rpm)	/	/	1,155	1,148	1,140	1,140	1,112	1,097	1,083	1,060	1,038	1,033	1,028
	Power input (W)	/	/	8,920	8,330	7,963	7,963	7,007	6,642	6,278	6,012	5,746	5,733	5,720
	Air flow (CFM)	/	/	13,149	12,713	12,576	12,576	12,002	11,730	11,457	11,193	10,929	10,849	10,769
150	Fan speed (rpm)	1,172	1,165	1,157	1,150	1,142	1,142	1,113	1,099	1,085	1,062	1,039	1,035	1,030
	Power input (W)	9,645	9,015	8,712	8,069	7,741	7,080	6,770	6,391	6,012	5,763	5,513	5,492	5,470
	Air flow (CFM)	13,274	12,898	12,887	12,386	12,278	11,362	11,669	11,381	11,094	10,827	10,560	10,451	10,342

Continued: MRCT-300CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
175	Fan speed (rpm)	1,172	1,166	1,158	1,152	1,144	1,144	1,114	1,100	1,087	1,064	1,041	1,036	1,032
	Power input (W)	9,364	8,711	8,385	7,748	7,426	7,426	6,467	6,083	5,699	5,468	5,236	5,210	5,184
	Air flow (CFM)	12,944	12,550	12,522	12,006	11,884	11,884	11,246	10,916	10,587	10,317	10,047	9,928	9,809
200	Fan speed (rpm)	1,173	1,167	1,159	1,153	1,145	1,145	1,116	1,102	1,088	1,065	1,042	1,038	1,033
	Power input (W)	9,083	8,407	8,058	7,415	7,111	7,111	6,164	5,775	5,387	5,173	4,959	4,928	4,897
	Air flow (CFM)	12,615	12,175	12,156	11,586	11,489	11,489	10,822	10,450	10,078	9,804	9,530	9,402	9,273
225	Fan speed (rpm)	1,174	1,168	1,161	1,155	1,147	1,147	1,117	1,104	1,091	1,067	1,044	1,039	1,035
	Power input (W)	8,884	8,145	7,732	7,083	6,772	6,772	5,812	5,408	5,004	4,804	4,603	4,562	4,520
	Air flow (CFM)	12,356	11,835	11,735	11,139	11,016	11,016	10,298	9,875	9,452	9,175	8,898	8,708	8,518
250	Fan speed (rpm)	1,176	1,172	1,162	1,156	1,148	1,148	1,119	1,106	1,093	1,069	1,046	1,041	1,036
	Power input (W)	8,686	7,877	7,406	6,744	6,433	6,433	5,460	5,041	4,622	4,436	4,250	4,197	4,145
	Air flow (CFM)	12,097	11,466	11,313	10,604	10,546	10,546	9,773	9,298	8,823	8,542	8,262	8,009	7,756
275	Fan speed (rpm)	1,187	1,176	**1,168**	1,159	1,149	1,149	1,121	1,108	1,095	1,071	1,047	1,042	1,038
	Power input (W)	8,462	7,587	**7,067**	6,394	6,081	6,081	5,095	4,722	4,348	4,159	3,970	3,834	3,697
	Air flow (CFM)	11,693	10,973	**10,835**	10,015	9,895	9,895	8,955	8,500	8,044	7,732	7,420	7,014	6,608
300	Fan speed (rpm)	1,182	1,175	1,166	1,159	1,150	1,150	1,123	1,109	1,096	1,072	1,048	1,044	1,039
	Power input (W)	8,114	7,246	6,711	6,082	5,721	5,721	4,730	4,402	4,075	3,883	3,691	3,469	3,247
	Air flow (CFM)	11,270	10,508	10,253	9,488	9,195	9,195	8,138	7,701	7,265	6,919	6,574	6,010	5,447
325	Fan speed (rpm)	1,185	1,178	1,169	1,161	1,152	1,138	1,124	/	/	/	/	/	/
	Power input (W)	7,721	6,884	6,379	5,782	5,453	4,990	4,527	/	/	/	/	/	/
	Air flow (CFM)	10,729	9,983	9,745	8,998	8,723	8,211	7,700	/	/	/	/	/	/

Continued: MRCT-300CWN1-R(C)

ESP	N	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3
(Pa)	X	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
350	Fan speed (rpm)	1,188	1,182	1,171	1,164	1,154	1,139	1,125	/	/	/	/	/	/
	Power input (W)	7,328	6,237	6,046	5,347	5,185	4,755	4,324	/	/	/	/	/	/
	Air flow (CFM)	10,187	8,913	9,238	8,209	8,250	7,756	7,262	/	/	/	/	/	/
375	Fan speed (rpm)	1,191	1,183	1,173	1,165	1,155	1,140	1,126	/	/	/	/	/	/
	Power input (W)	7,114	6,130	5,596	5,121	4,916	4,576	4,236	/	/	/	/	/	/
	Air flow (CFM)	9,916	8,778	8,439	7,810	7,715	7,353	6,991	/	/	/	/	/	/
400	Fan speed (rpm)	1,195	1,185	1,175	1,166	1,156	1,141	1,127	/	/	/	/	/	/
	Power input (W)	6,899	6,022	5,146	4,896	4,647	4,397	4,148	/	/	/	/	/	/
	Air flow (CFM)	9,645	8,643	7,640	7,410	7,180	6,951	6,721	/	/	/	/	/	/

Notes:

1. Legend: X – Regulation space of motor pulley (mm); N: Number of turns; ESP: External static pressure (in.w.g);

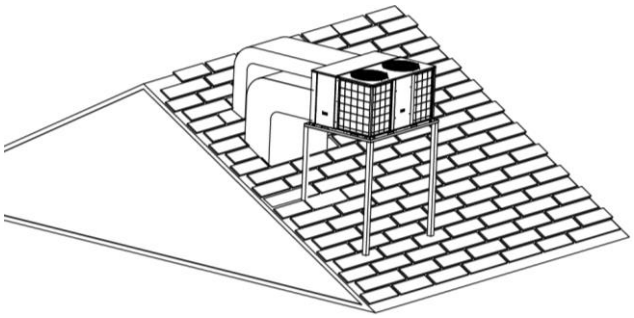
2: Pulley pitch factory set point: The table, No. of turns (N) = 5;

3. Bold data is the performance testing set point;

4. Shading data are rated airflow.

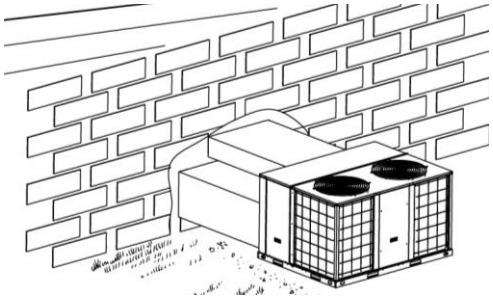
4. Installation

4.1 For roof top applications using a field fabricated frame and ducts:



- ✧ The frame must be located and secured by bolting or welding to the roof. Flashing is required.
- ✧ The hole in the roof must be prepared in advance of installing the unit.
- ✧ Secure the ducts to the roof.
- ✧ Place the unit to the frame or roof curb.
- ✧ Insulate any ductwork outside of the structure with at least 2 inches of insulation and then weatherproof. There must be a weatherproof seal where the duct enters the structure.
- ✧ Complete the installation according to the instructions.
- ✧ Typical rooftop application with frame.

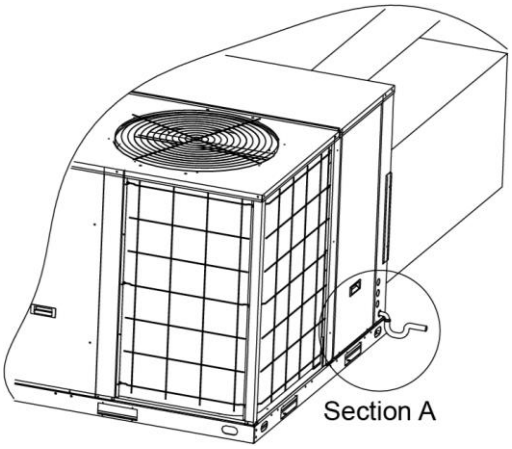
4.2 For ground level installations:

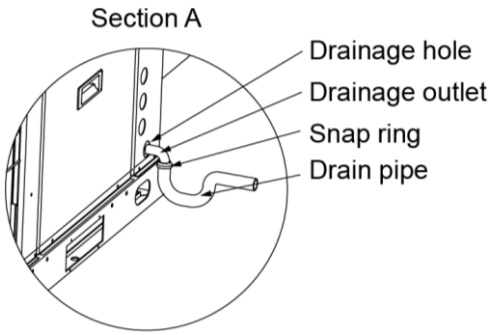


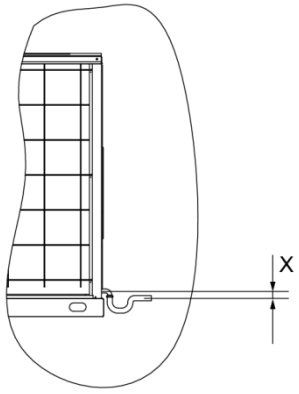
- ✧ The unit should be positioned on a pad in the size of the unit or larger. The unit must be level on the pad. The pad must not come in contact with the structure. Be sure the outdoor portion of the supply and return air ducts are as short as possible.
- ✧ Place the unit on the pad.

- ✧ Attach the supply and return air ducts to the unit.
- ✧ 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.
- ✧ Complete the installation.

5. Condensate drainage

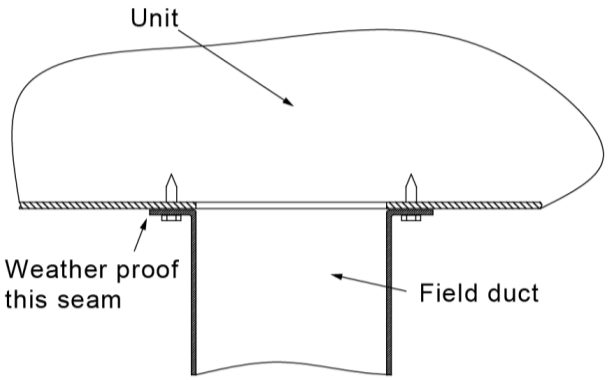






Model	X value (mm)	Model	X value (mm)
MRCT-48CWN1-R(C)	20 ≤ X ≤ 40	MRCT-60CWN1-R(C)	20 ≤ X ≤ 40
MRCT-062CWN1-R(C)	20 ≤ X ≤ 40	MRCT-075CWN1-R(C)	20 ≤ X ≤ 40
MRCT-085CWN1-R(C)	20 ≤ X ≤ 40	MRCT-085CWN1-R(D)	20 ≤ X ≤ 40
MRCT-100CWN1-R(C)	20 ≤ X ≤ 40	MRCT-100CWN1-R(D)	20 ≤ X ≤ 40
MRCT-125CWN1-R(C)	20 ≤ X ≤ 40	MRCT-150CWN1-R(C)	20 ≤ X ≤ 40
MRCT-175CWN1-R(C)	20 ≤ X ≤ 40	MRCT-200CWN1-R(C)	20 ≤ X ≤ 40
MRCT-250CWN1-R(C)	20 ≤ X ≤ 40	MRCT-300CWN1-R(C)	0 < X ≤ 20

6. Duct work



- ✧ All conditioned air ductwork should be insulated to minimize heating and cooling duct losses. Use a minimum of 2 inches of insulation with a vapor barrier. The outside ductwork must be weatherproofed between the unit and the building.
- ✧ 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.
- ✧ Do not draw the canvas taut between the solid ducts.
- ✧ At least 1m flame resistant layer must be laid at the end of air duct internal surface.

7. Electrical wiring

7.1 Warning

- ✧ An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- ✧ The appliance shall be installed in accordance with national wiring regulations.
- ✧ An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device (RCD) with the rating of above 10mA shall be incorporated in the fixed wiring according to the national rule.
- ✧ The appliance shall be installed in accordance with national wiring regulations.

7.2 Wiring provision

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

- ✧ Main power wiring to the unit control wiring between the control center and the unit, and earth wiring are required in the field.
- ✧ The following components are required: main power fuses; conduit coupling.
- ✧ Wire and fuse sizes should be selected in accordance with national and standard, taking the designed maximum current shall be the total of the compressor maximum current, condenser fan motor current and evaporator fan motor current.
- ✧ The wire size between the wired controller 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 wired controller and unit (One way)				
Min. wire size (mm^2)	10m	15m	20m	30m	40m
	0.5	0.5	0.75	0.75	1.0

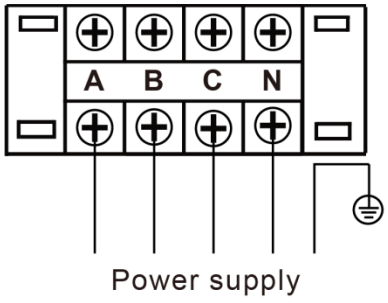
- ✧ Main power supply parameters:

Model	Main power	Main power switch	Fuse
MRCT-48CWN1-R(C)	380~415V, 3Ph~, 50Hz	25A	20A
MRCT-60CWN1-R(C)		30A	25A
MRCT-062CWN1-R(C)		35A	25A
MRCT-075CWN1-R(C)		40A	30A
MRCT-085CWN1-R(C) / (D)		45A	35A
MRCT-100CWN1-R(C) / (D)		50A	40A
MRCT-125CWN1-R(C)		63A	50A
MRCT-150CWN1-R(C)		75A	63A
MRCT-175CWN1-R(C)		90A	80A
MRCT-200CWN1-R(C)		100A	90A
MRCT-250CWN1-R(C)		120A	100A
MRCT-300CWN1-R(C)		120A	100A

Model	Wires for power supply	Type of wires
MRCT-48CWN1-R(C)	3×6mm² + 2×3mm²	3 × UL1015 9AWG 2 × UL1015 12AWG
MRCT-60CWN1-R(C)	3×6mm² + 2×3mm²	3 × UL1015 9AWG 2 × UL1015 12AWG
MRCT-062CWN1-R(C)	3×6mm² + 2×3mm²	3 × UL1015 9AWG 2 × UL1015 12AWG
MRCT-075CWN1-R(C)	3×10mm² + 2×6mm²	3 × UL1015 7AWG 2 × UL1015 9AWG
MRCT-085CWN1-R(C) / (D)	3×10mm² + 2×6mm²	3 × UL1015 7AWG 2 × UL1015 9AWG
MRCT-100CWN1-R(C) / (D)	3×10mm² + 2×6mm²	3 × UL1015 7AWG 2 × UL1015 9AWG
MRCT-125CWN1-R(C)	3×16mm² + 2×10mm²	3 × UL1015 5AWG 2 × UL1015 7AWG
MRCT-150CWN1-R(C)	3×16mm² + 2×10mm²	3 × UL1015 5AWG 2 × UL1015 7AWG
MRCT-175CWN1-R(C)	3×25mm² + 2×10mm²	3 × UL1015 3AWG 2 × UL1015 7AWG
MRCT-200CWN1-R(C)	3×25mm² + 2×10mm²	3 × UL1015 3AWG 2 × UL1015 5AWG
MRCT-250CWN1-R(C)	3×35mm² + 2×16mm²	3 × UL1015 2AWG 2 × UL1015 5AWG
MRCT-300CWN1-R(C)	3×35mm² + 2×16mm²	3 × UL1015 2AWG 2 × UL1015 7AWG

✧ Power supply wiring diagram

MRCT-48CWN1-R(C), MRCT-60CWN1-R(C):

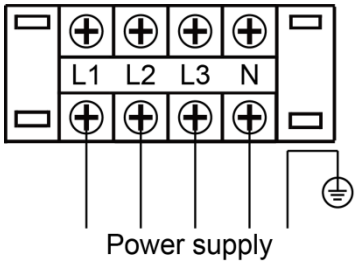


MRCT-062CWN1-R(C), MRCT-075CWN1-R(C), MRCT-085CWN1-R(C),

MRCT-085CWN1-R(D), MRCT-100CWN1-R(C), MRCT-100CWN1-R(D),

MRCT-125CWN1-R(C), MRCT-150CWN1-R(C), MRCT-175CWN1-R(C),

MRCT-200CWN1-R(C), MRCT-250CWN1-R(C), MRCT-300CWN1-R(C):



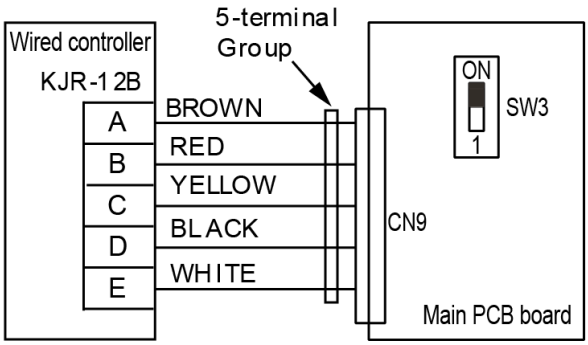
✧ Wired controller wiring diagram (Standard wired controller)

MRCT-48CWN1-R(C), MRCT-60CWN1-R(C), MRCT-085CWN1-R(C),

MRCT-100CWN1-R(C), MRCT-125CWN1-R(C), MRCT-150CWN1-R(C),

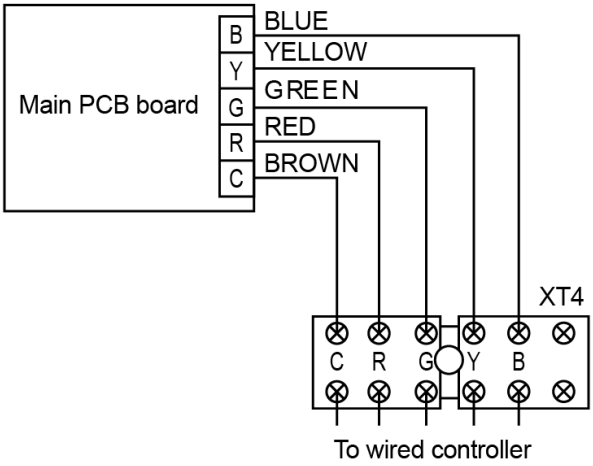
MRCT-175CWN1-R(C), MRCT-200CWN1-R(C), MRCT-250CWN1-R(C),

MRCT-300CWN1-R(C):



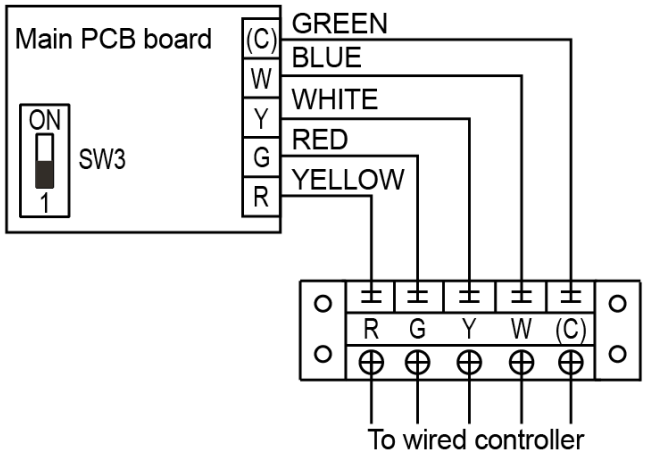
The standard wired controller model of these units is KJR-12B/dp(T)-E. When KJR-12B is connected, the switch SW3 should be set to ON.

MRCT-062CWN1-R(C), MRCT-075CWN1-R(C):



The standard wired controller model of these units is KJR-25B.

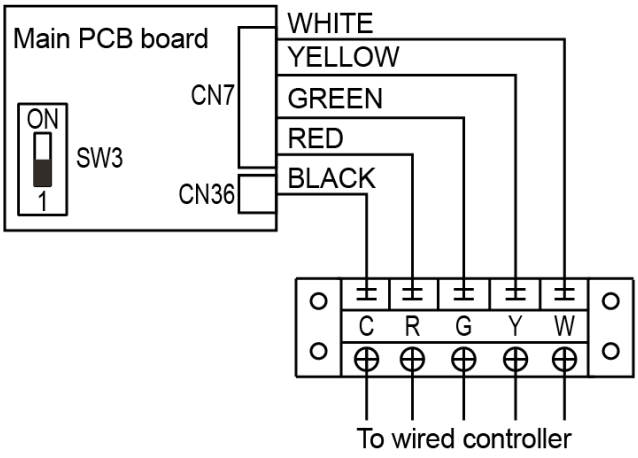
MRCT-085CWN1-R(D), MRCT-100CWN1-R(D):



The standard wired controller model of these units is KJR-23B. When KJR-23B is connected, the switch SW3 should be set to 1.

✧ Wired controller wiring diagram (Optional wired controller)

MRCT-48CWN1-R(C), MRCT-60CWN1-R(C):



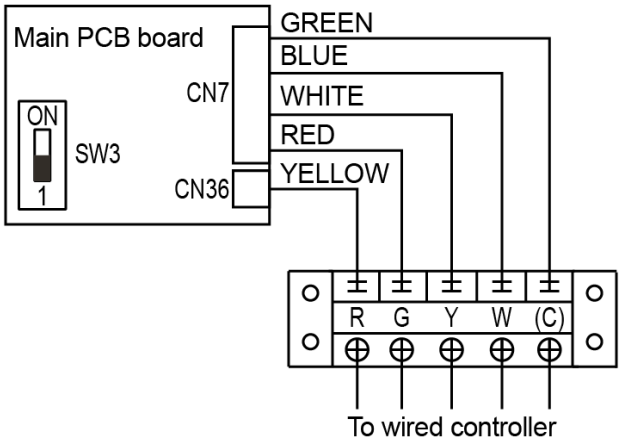
Optional wired controller of these two units is KJR-23B. When KJR-23B is connected, the switch SW3 should be set to 1. After settings, please shut off the power supply and repower again, otherwise, the new settings function could not work.

MRCT-062CWN1-R(C), MRCT-075CWN1-R(C),

MRCT-085CWN1-R(D), MRCT-100CWN1-R(D):

These units cannot directly connect with wired controller KJR-120B. If these units connect with KJR-120B, it should be customized to change the main PCB board of the unit.

MRCT-085CWN1-R(C), MRCT-100CWN1-R(C), MRCT-125CWN1-R(C), MRCT-150CWN1-R(C), MRCT-175CWN1-R(C), MRCT-200CWN1-R(C), MRCT-250CWN1-R(C), MRCT-300CWN1-R(C):



✧ If choose KJR-23B or Non-programmed electrical thermostat of other brand, such as Honeywell. Wiring should refer to the manual of the thermostat. After connection, set SW3 in 1. Finally, shut off the power supply and then repower.

8. Start-up

Before starting unit:

✧ Is the unit properly located and level with the proper clearance?

✧ Is the duct work correctly sized, run, taped, insulated, and weatherproofed with proper unit arrangement?

✧ Is the wiring properly sized and run according to the unit wiring diagram?

✧ Are all the wiring connections tight, including those in the unit?

✧ Has the unit been properly grounded and fused with the recommended fuse size?

✧ Has the air conditioning system been checked at the service ports for charge and leak tested if necessary?

✧ Does the condenser fan and indoor blower fan free without rubbing, and are they tight on the shafts?

✧ Are all covers and access panels in place to prevent air loss and safety hazards?

Starting the unit:

✧ When the unit operates under cooling mode, please check the line voltage of the unit. The

voltage should be within the range shown on the unit nameplate.

✧ If low voltage is encountered, check the size and the length of power supply wire from the mian disconnect to the unit. The line may be undersized for the length of the run.

Shut-down the unit:

✧ Place the system selector in the OFF position or reset thermostat (Wired controller) at a setting above room temperature.

✧ Do not de-energize the main power supply disconnect except when unit is to be serviced.

9. Safety control

Functions

✧ Minutes delay for the compressor start-up:

At the beginning of energizing, 3-minutes delay should be taken to start the compressor. While after the stop of the compressor, 7-minutes delay should be taken to restart the compressor.

✧ Compressor discharge temperature protection:

When the temperature of compressor discharge is higher than 125°C (257°F), the compressor will stop. Once the temperature is lower than 90°C (194°F), the compressor can be started again.

✧ Reverse phase protection relay:

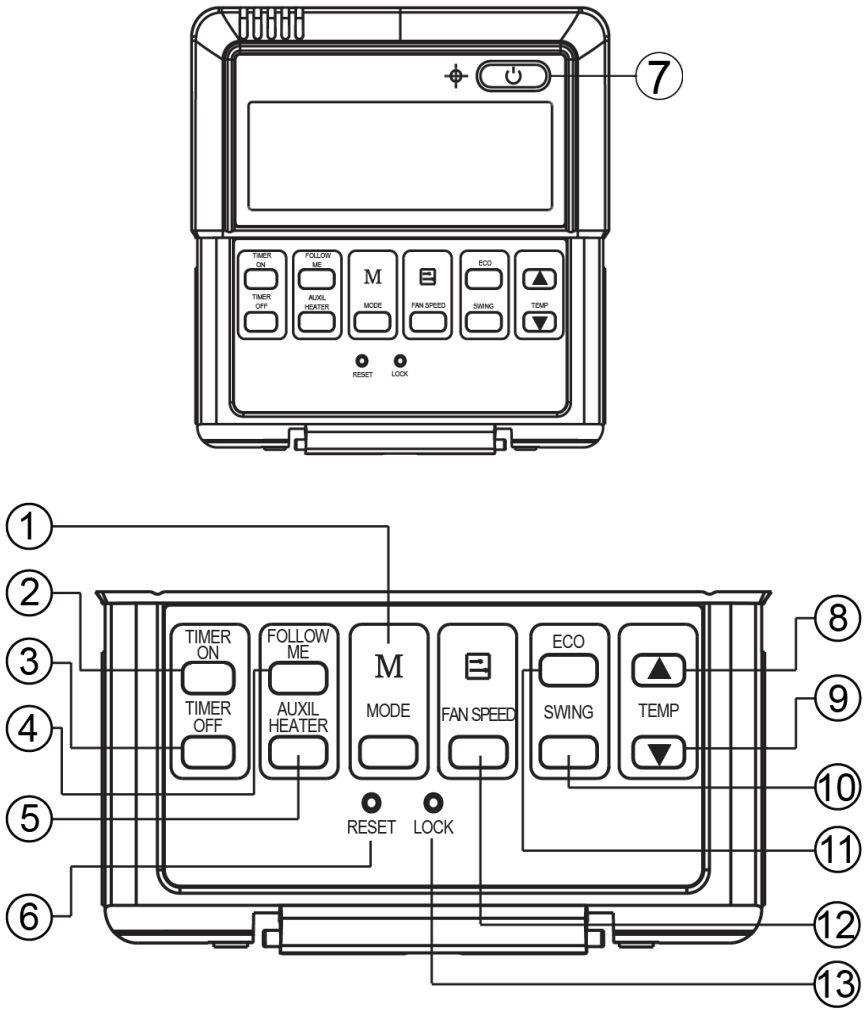
The reverse phase protection relay will make the unit not start, when the power supply source is in correctly conneted.

The checking of phase order is just carried out at the first time of electrifying. If malfunction happens then the checking will be going on until the order of phase is right, and the error code will be displayed on the board. If there is no problem in the first checking, then it will be omitted.

✧ High pressure and low pressure protection :

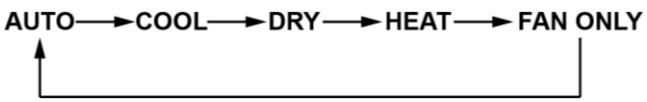
When high pressure is equal or higher than 638 Psi, and lower pressure is equal or lower than 21Psi, the unit will stop.

1.3 Introduction of buttons



1. **Mode** button:

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



   But 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 will increase 0.5h, after 10 hours, increase by 1 hour for 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 Then every press, the time will increase

0.5h, after 10 hours, increase by 1 hour for each press. If cancel this function, just set it to 0.0

4. **FOLLOW ME** button:

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

5. **AUXIL HEATER** button: (Only available for Cooling only with EHK model.)

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

6. **RESET** button: (Hidden)

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

7. **ON/OFF** button

When in off state, press this button, the indicator is on, the wired controller enters into on state, and send setting information to main PCB board. When in on state, press this button, the indicator is off, and send instruction. If timer-on or timer-off has been set, it cancels this setting then sends instruction to stop the machine.

8. **TEMP ▲** adjust button:

Set indoor temperature up. If press and hold on, it will increase at 1°C (2°F) per 0.5 second.

9. **TEMP ▼** adjust button:

Set indoor temperature up. If press and hold on, it will decrease at 1°C (2°F) per 0.5 second.

10. **SWING** button: (Reserved)

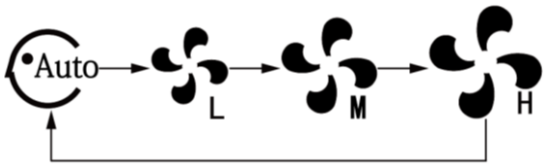
First press, then start swing function; after second press, stop swing.

11. **ECO** button: (Economy operation, Reserved)

Press this button, and then the unit will operate in economy mode. Press again, this mode can be exited.

12. **FAN SPEED** button: (For rooftop packages, it is not available.)

When press this button consecutively, and then the indoor side fan speed will circles as following:



13. **LOCK** button: (Hidden)

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

1.4 Operation

Automatic operation

Connect to the power supply, and the operation lamp in main PCB board will flash.

Step 1: Press **MODE** button, and select ***AUTO*** icon.

Step 2: Press the button ▲ and ▼, set temperature as requirement; generally it is among from 17°C to 30°C.

Step 3: Press **ON/OFF** button, operation lamp is on, the unit can be worked in auto mode, and indoor side fan speed is auto, and cannot be changed. Auto is displayed on LCD. Press it again to stop.

Notes: Economy operation is valid in auto mode.

Cool / Heat / Fan only mode operation

Step 1: Press **MODE** button, and select ***COOL***, or ***HEAT***, or ***FAN ONLY*** icon.

Step 2: Press temperature adjust button to select setting temperature.

Step 3: Press **FAN SPEED** button to select high, medium, low or auto. (For rooftop packages, it is not available.)

Step 4: Press **ON/OFF** button, indoor unit operation lamp on, it works in selected mode. Press **ON/OFF** button again, it stops to work.

Notes: In fan only mode, temperature cannot be set.

Dry operation

Step 1: Press **MODE** button, select ***DRY*** icon.

Step 2: Press temperature adjust button to select setting temperature.

Step 3: Press **ON/OFF** button, indoor unit operation lamp on, it works in dry mode. Press **ON/OFF** button again, it stops to work.

Notes: Under dry mode, economy operation and fan speed adjustment are ineffective.

Timer setting

The timer time is relative time, and that is delay after setting time. So when timer is set, the standard time cannot be adjusted.

Timer setting – Timer on only

Step 1: Press **TIME ON** button, it display ***SET*** on LCD screen, and display ***H*** and ***ON***, it is waiting for timer on setting.

Step 2: Press **TIMER ON** button repeatedly to adjust time setting.

Step 3: If press this button and hold on, the time will increase at 0.5h, after 10 hours, it increase at 1 hour.

Step 4: After setting 0.5 second, the wired controller sends timer-on information to the unit, it is finished.

Timer setting – Timer off only

Step 1: Press **TIME OFF** button, it display ***SET*** on LCD screen, and display ***H*** and ***OFF***, it is waiting for timer on setting.

Step 2: Press **TIMER OFF** button repeatedly to adjust time setting.

Step 3: If press this button and hold on, the time will increase at 0.5h, after 10 hours, it increase at 1 hour.

Step 4: After setting 0.5 second, the wired controller sends timer-on information to the unit, it is finished.

Timer-on and timer-off both

Step 1: Set timer-on time as the corresponding step 1 and step 2.

Step 2: Set timer-off time as the corresponding step 1 and step 2.

Notes: Timer-off time must be longer than timer-on time.

Step 3: 0.5 second after setting, the wired controller send information to the unit. And the setting is finished.

Change timer

When need to change timer time, press corresponding button to revise it. If cancel timer, please change timer time to 0.0.

1.5 Installation of wired controller

Caution

- ✧ Do not install it in a place where combustible gas easily leaks. Once combustible gas leaks and remains around wired controller, fire may be cause. Do not install it in a place with oil, steam or sulphur gas, or else deform or malfunction may occur.
- ✧ Wires must be suitable for the current of the wired controller. Otherwise, electricity leakage or heating may be caused, which may result in fire.
- ✧ Install the wire joint (5P) to the appointed position of the electric controlling box.
- ✧ Circuit of wired controller is low voltage circuit, and never connected with a standard 220V or 380V circuit. Also do not put it into a same wiring tube, and the interval must be more than 300~ 500mm.
- ✧ The shield cable must be connected stable to the ground, otherwise transmission may fail.
- ✧ Wire must be suitable for wired controller, never bring outside force to bear on the terminal.
- ✧ Do not to attempt to extend the shield cable by cutting. If it is necessary, please use terminal connection block to connect.

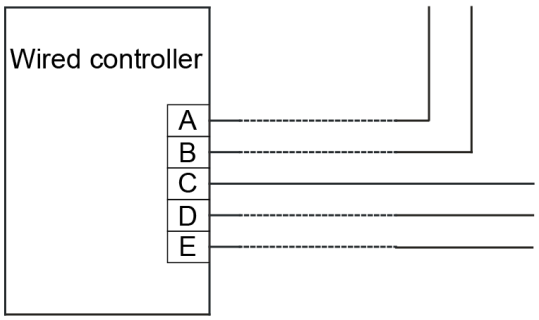
Accessories

Item	Quantity	Remarks
Wired controller	1	\
Wood mounting screw	3	M4×20 (For mounting on the wall)
Mounting screw	3	M4×25 (For mounting on the electrical switch box)
Installation manual	1	\
Owner's manual	1	\
5P terminal group	\	\
Installation screw	\	For fixing terminal.

Preparing at site

Item	Quantity	Remarks
5-core shield cable	1	RVVP-05mm^2×5. The longest wire is 30m.
Switch box	1	\
Wiring tube	1	Insulating sleeve and tightening screw.

Wiring principle

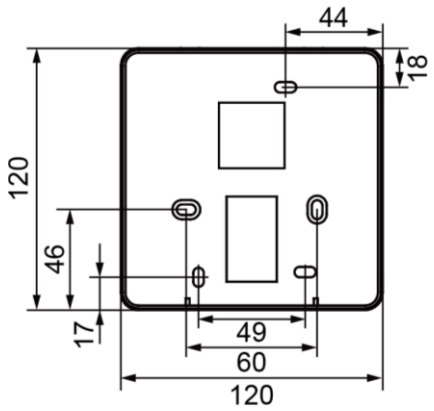


When it is necessary to use the wired controller, please follow the label of A/B/C/D/E to connect the wired controller. And the other side of the signal wire should be connected with main PCB board well. A is anode, and B is cathode. C is +5V. D is GND and E is RUN.

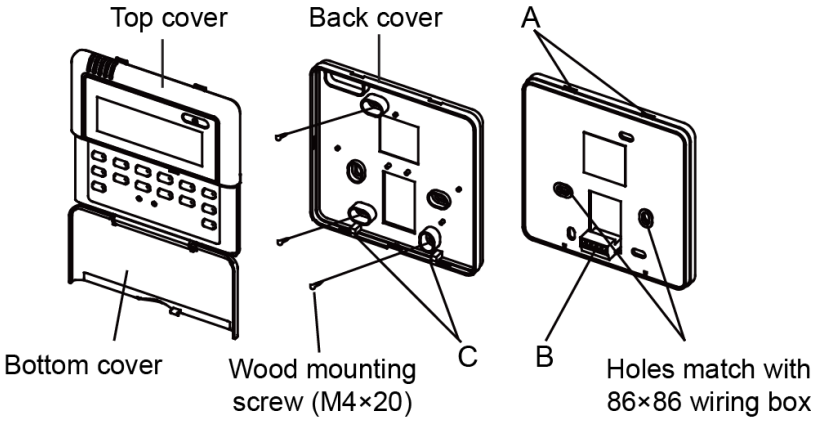
Installation:

Confirm the installed location of wired controller, before install the wired controller. If install it on the wall without electric switch box, the hole for 5P-terminal of wired controller is necessary.

Dimension of rear cover as following picture (Unit: mm):



Installation figure as following:



A: Turn a screwdriver at the concave on bottom panel of the wired controller to remove the back cover.

B: When installing the wired controller cover, it is sure that there is a hole in the wall to avoid the wired controller back cover being fixed directly to the wall which is not allowed for the wire joint extrudes out of the back cover.

C: When installing the wired controller, adjust the bottom of the controller board to the back cover which should be fixed first, then press the other end of the controller board.

Notes: The connecting wire should be a little longer as to take away the switch board and controller easily for maintenance.