GREE

Change for life

Service Manual

VERSATI IV Monobloc Type Air-to-water Heat Pump



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1 Product Data

1.1 Lineup

Series	Model	Product Code	Cooling Capacity (kW)	Heating Capacity (kW)	Power Supply	Refrigerant	Image
VERSATI IV	GRS-CQ4.0Pd/NhG3-E	ER01001870	5.00	5.00	230VAC,1Ph,50Hz	R32	
	GRS-CQ4.0Pd/NhG3-E(SG)	ER01001873	5.00	5.00			
	GRS-CQ6.0Pd/NhG3-E	ER01001880	6.50	6.00			
	GRS-CQ6.0Pd/NhG3-E(SG)	ER01001883	6.50	6.00			
	GRS-CQ8.0Pd/NhG3-E1	ER01002711	8.00	8.00			
	GRS-CQ8.0Pd/NhG3-E	ER01001890	8.30	8.20			
	GRS-CQ8.0Pd/NhG3-E(SG)	ER01001893	8.30	8.20			
	GRS-CQ10Pd/NhG3-E	ER01001960	10.20	10.20			
	GRS-CQ10Pd/NhG3-E(SG)	ER01001963	10.20	10.20			
	GRS-CQ12Pd/NhG3-E	ER01001930	12.00	12.00			
	GRS-CQ12Pd/NhG3-E(SG)	ER01001933	12.00	12.00			
	GRS-CQ14Pd/NhG3-E	ER01001950	13.70	14.20			
	GRS-CQ14Pd/NhG3-E(SG)	ER01001953	13.70	14.20			
	GRS-CQ16Pd/NhG3-E	ER01001970	15.50	15.70			
	GRS-CQ16Pd/NhG3-E(SG)	ER01001973	15.50	15.70			
	GRS-CQ8.0Pd/NhG3-M	ER01002530	8.30	8.20	400VAC,3Ph,50Hz		
	GRS-CQ8.0Pd/NhG3-M(SG)	ER01002533	8.30	8.20			
	GRS-CQ10Pd/NhG3-M	ER01001900	10.20	10.20			
	GRS-CQ10Pd/NhG3-M(SG)	ER01001903	10.20	10.20			
	GRS-CQ12PdG/NhG3-M	ER01001920	12.00	12.00			
	GRS-CQ12PdG/NhG3-M(SG)	ER01001923	12.00	12.00			
	GRS-CQ14PdG/NhG3-M	ER01001910	13.90	14.20			
	GRS-CQ14PdG/NhG3-M(SG)	ER01001913	13.90	14.20			
	GRS-CQ16PdG/NhG3-M	ER01001940	15.40	15.70			
	GRS-CQ16PdG/NhG3-M(SG)	ER01001943	15.40	15.70			

Series	Model	Product Code	Cooling Capacity (kW)	Heating Capacity (kW)	Power Supply	Refrigerant	Image
VERSATI IV	GRS-CQ4.0Pd/NhG4-E	ER01002180	5.00	5.00	230VAC,1Ph,50Hz	R32	
	GRS-CQ4.0Pd/NhG4-E(SG)	ER01002183	5.00	5.00			
	GRS-CQ6.0Pd/NhG4-E	ER01002160	6.50	6.00			
	GRS-CQ6.0Pd/NhG4-E(SG)	ER01002163	6.50	6.00			
	GRS-CQ8.0Pd/NhG4-E1	ER01002731	8.00	8.00			
	GRS-CQ8.0Pd/NhG4-E	ER01002170	8.30	8.20			
	GRS-CQ8.0Pd/NhG4-E(SG)	ER01002173	8.30	8.20			
	GRS-CQ10Pd/NhG4-E	ER01002150	10.20	10.20			
	GRS-CQ10Pd/NhG4-E(SG)	ER01002153	10.20	10.20			
	GRS-CQ12Pd/NhG4-E	ER01002120	12.00	12.00			
	GRS-CQ12Pd/NhG4-E(SG)	ER01002123	12.00	12.00			
	GRS-CQ14Pd/NhG4-E	ER01002100	13.70	14.20			
	GRS-CQ14Pd/NhG4-E(SG)	ER01002103	13.70	14.20			
	GRS-CQ16Pd/NhG4-E	ER01002110	15.50	15.70			
	GRS-CQ16Pd/NhG4-E(SG)	ER01002113	15.50	15.70			
	GRS-CQ8.0Pd/NhG4-M	ER01002520	8.30	8.20	400VAC,3Ph,50Hz		
	GRS-CQ8.0Pd/NhG4-M(SG)	ER01002523	8.30	8.20			
	GRS-CQ10Pd/NhG4-M	ER01002090	10.20	10.20			
	GRS-CQ10Pd/NhG4-M(SG)	ER01002093	10.20	10.20			
	GRS-CQ12Pd/NhG4-M	ER01002130	12.00	12.00			
	GRS-CQ12Pd/NhG4-M(SG)	ER01002133	12.00	12.00			
	GRS-CQ14Pd/NhG4-M	ER01002140	13.90	14.20			
	GRS-CQ14Pd/NhG4-M(SG)	ER01002143	13.90	14.20			
	GRS-CQ16Pd/NhG4-M	ER01002080	15.40	15.70			
	GRS-CQ16Pd/NhG4-M(SG)	ER01002083	15.40	15.70			

1.2 Nomenclature

G	RS	-	C	Q	14	Pd	/	Nh	G3	-	M
1	2		3	4	5	6		7	8		9

NO.	Description	Options
1	GREE	G-GREE Air to water heat pump
2	Heat Pump Water Heater	RS
3	Heating Mode	S= Static; C=Circulating
4	Function	Q=Multi-function; Omitted=Single-function
5	Nominal Heating Capacity	4.0=4.0kW; 6.0=6.0kW; 8.0=8.0kW;10=10kW; 12=12kW; 14=14kW; 16=16kW
6	Compressor Type	Pd=DC Inverter; Default=On/Off
7	Refrigerant	Nh=R32
8	Design Serial Number	G3,G4, G4 series is the same with G3 series but without the electric heater.
9	Power Supply	E/E1=230V,~,50Hz; M=400V,3N~,50Hz

1.3 Product Features

1.3.1 General

It's a kind of integrated DC inverter unit that can provide cooling, heating and water heating functions, and can reach an energy efficiency of COP up to 5.0. It adopts R32 refrigerant and dual-stage compressor. For heating, ambient temperature range is -25~35°C while the leaving water temperature range is 25~65°C.

The Versati III unit is designed specially for the European market where there is a demand for high-temperature water. Thanks to the dual-stage compression and enthalpy gain through gas injection, the heating energy efficiency at low temperature will rise up greatly with the leaving water temperature up to 60°C. The whole series of products strictly comply with EN14511,EUROVENT energy efficiency Class A and SCOP class A+++(35°C), SCOP class A++(55°C) with EN14825. The units can realize space heating and sanitary hot water supply through terminal units, like the fan coil unit, floor coil and radiator. Environment-friendly refrigerant R32 is adopted for the unit, with ODP of 0 and quite low GWP (=675). Besides, the adopted heat pump technologies will reduce consumption of coal and other energy source and lower greatly CO_2 emission. Ranged from 4.0kW~16kW, it is widely applicable to small and medium-sized apartment, large-sized villa etc.

1.3.2 Features

◆ Wide Operation Range

Heating: -25~35°C; Cooling: -15~48°C; Water Heating: -25~45°C

◆ Unique Low Ambient Dual-stage Compressor

(1) Under low-temperature conditions, compared with the conventional compressor, the dual-stage low ambient dual-stage compressor will generate less loss of heat capacity and get higher energy efficiency.

(2) Floodback, high discharge temperature and other problems can be completely avoided under low-temp conditions and the compressor's reliability will be enhanced greatly.

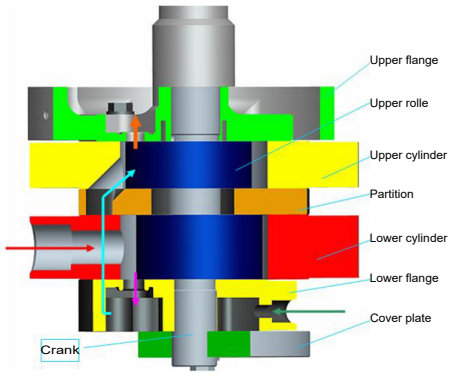
(3) Dual-stage compression, dual-stage throttling and enhanced vapor injection will raise the leaving water temperature and improve the control accuracy.

(4) Values of resistance to compressor status:

4/6KW——UV/VW/UW:1.67±7%Ω

8/10/12/14/16kW——UV/VW/UW:0.79±7%Ω





◆ High-efficiency Component(Inverter pump, Inverter fan, Plate heat exchanger)

(1) The A-class high-efficiency inverter water pump which complies with the European ErP directive, can control the running frequency based on the actual load. Therefore, it can enhance the operation efficiency and control the water temperature more accurately.

(2) The DC inverter fan can control the air volume accuratately and make the system run more stably and save more energy.

(3) The high-efficiency plate heat exchaner will improve the unit's performance largely.



(4) The high-efficiency water pump will also improve the unit's performance largely.



◆ All-in-one Design

(1) The unit can integrate with terminal units, like the radiator, floor heating device, FCU, water heating device, solar kit, gas furnace etc. Versatile functions can meet various kinds of demands from different users and enhance applicability of this product.

(2) The all-in-one structure design can save more installation cost, reduce risks of refrigerant leak, and improve safety and reliability of the system.

◆ Brand-new Controller

(1) White appearance, exquisite design, and the wall-mounted design that facilitates installation.

(2) Liquid crystal display and touch-screen operation.

(3) The 12V JACK interface can supply power to the control separately and lengthen the communication distance.

(4) The remote monitoring interface can monitor the unit through the Mobus interface and be integrated into the BMS system.



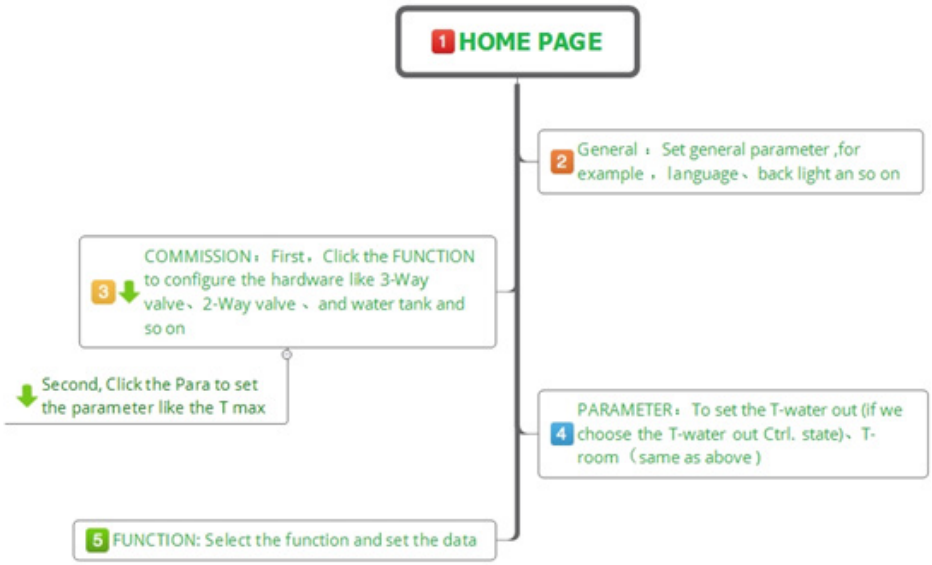
◆ Smart Control, Powerful Function

(1) The operating mode can be switched freely. Furthermore, based on different demands, the holiday mode, weather-dependent mode, quite timer, temperature timer and floor commissioning can activated.

(2) Multiple protections can make this product much safer. The added electric heater will prevent the plate heat exchanger from being frosted owing to too low water temperature and resultantly extend the service life of the product and enhance its safety and reliability.

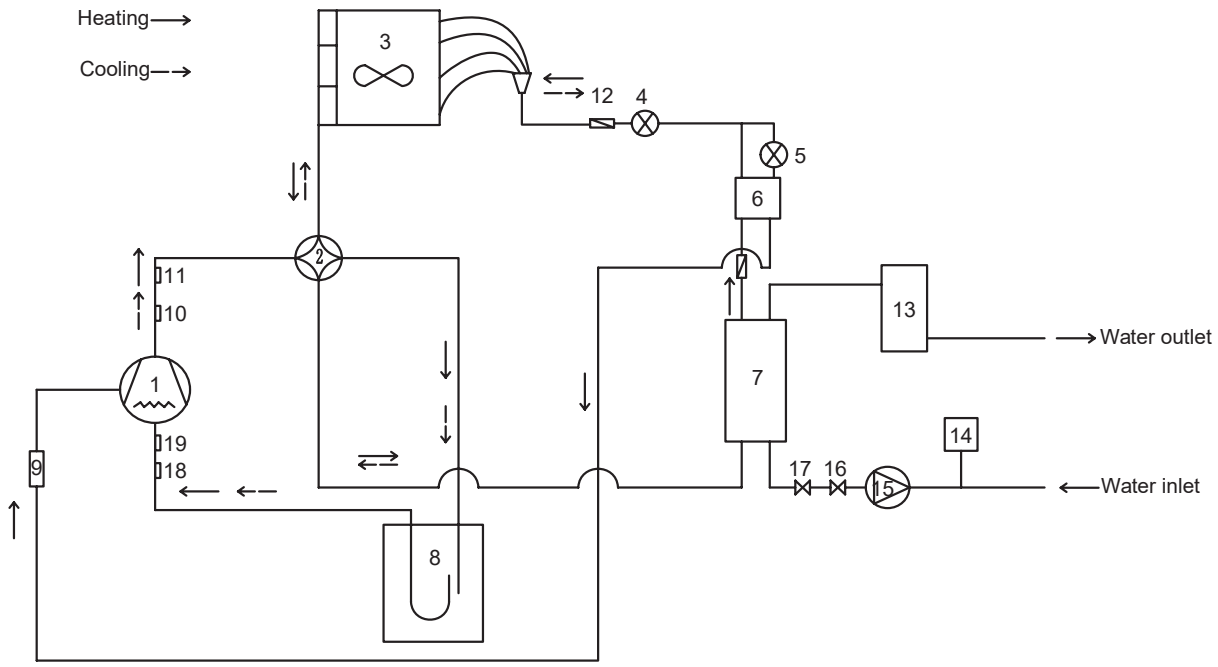
(3) The newly developed smart defrosting control program, can intelligently defrost when it is actually needed and thus ensure a sustainable heat supply for users.

The flowchart with parameters to be set.



1.4 Operating Principle

1.4.1 Schematic Diagram



Item	Description	Item	Description
1	Compressor	11	High pressure switch
2	4-Way Valve	12	Filter
3	Air side heat exchange	13	Electric heater
4	EXV1	14	Expansion valve
5	EXV2	15	Water pump
6	Economizer	16	Water flow switch
7	Plate-type heat exchanger	17	Safety valve
8	Gas-liquid separator	18	Low pressure switch for heating
9	Dryer	19	Low pressure switch for cooling
10	High pressure transducer		

Note: it is the system schematic diagram. The manufacturer is committed to continuously improving this product to ensure the highest quality and reliability standards and to meet local regulations and market requirements. All features and specifications are subject to change without prior notice.

1.5 Technical Data

1.5.1 Parameter List

Model			GRS-CQ4.0Pd/NhG3-E	GRS-CQ6.0Pd/NhG3-E	GRS-CQ8.0Pd/NhG3-E	GRS-CQ10Pd/NhG3-E
Product code Product code (SG)			ER01001870 ER01001873	ER01001880 ER01001883	ER01001890 ER01001893	ER01001960 ER01001963
Capacity*1	Cooling(floor cooling)	kW	5.00	6.50	8.30	10.20
	Heating(floor heating)	kW	5.00	6.00	8.20	10.20
Power input*1	Cooling(floor cooling)	kW	0.962	1.275	1.56	2.00
	Heating(floor heating)	kW	0.926	1.111	1.54	2.02
EER*1(floor cooling)		W/W	5.20	5.10	5.32	5.10
COP*1(floor heating)		W/W	5.40	5.40	5.32	5.05
Capacity*2	Cooling(fan coil)	kW	4.90	5.70	7.40	9.00
	Heating(fan coil or radiator)	kW	4.90	6.80	8.30	10.20
Power input*2	Cooling(fan coil)	kW	1.40	1.76	2.00	2.65
	Heating(fan coil or radiator)	kW	1.167	1.659	1.90	2.50
EER*2(fan coil)		W/W	3.50	3.25	3.70	3.40
COP*2(fan coil or radiator)		W/W	4.20	4.10	4.36	4.08
Refrigerant charge volume		kg	0.95	0.95	1.60	1.60
Sanitary water temperature		°C	40~80			
Sound pessure level	Heating	dB(A)	53	53	54	54
	Cooling	dB(A)	51	52	52	54
	Heating (quiet operation)	dB(A)	35		39	
	Cooling (quiet operation)	dB(A)	33		37	
Dimensions (W×D×H)	Outline	mm	1150×735×365		1206×878×445	
	Packaged	mm	1250×765×500		1320×885×525	
Net weight/Gross weight		kg	95/112		127/146	

Model			GRS-CQ12Pd/NhG3-E	GRS-CQ14Pd/NhG3-E	GRS-CQ16Pd/NhG3-E	GRS-CQ8.0Pd/NhG3-M
Product code Product code (SG)			ER01001930 ER01001933	ER01001950 ER01001953	ER01001970 ER01001973	ER01002530 ER01002533
Capacity*1	Cooling(floor cooling)	kW	12.00	13.70	15.50	8.30
	Heating(floor heating)	kW	12.00	14.20	15.7	8.20
Power input*1	Cooling(floor cooling)	kW	2.45	3.00	3.60	1.64
	Heating(floor heating)	kW	2.43	2.99	3.45	1.62
EER*1(floor cooling)		W/W	4.90	4.57	4.31	5.06
COP*1(floor heating)		W/W	4.94	4.75	4.55	5.06
Capacity*2	Cooling(fan coil)	kW	11.10	13.40	14.30	7.10
	Heating(fan coil or radiator)	kW	13.00	14.40	16.20	8.20
Power input*2	Cooling(fan coil)	kW	3.58	4.75	5.09	2.10
	Heating(fan coil or radiator)	kW	3.45	3.84	4.49	2.05
EER*2(fan coil)		W/W	3.10	2.80	2.71	3.38
COP*2(fan coil or radiator)		W/W	3.77	3.70	3.61	4.00
Refrigerant charge volume		kg	2.20	2.20	2.20	1.60
Sanitary water temperature		°C	40~80			
Sound pressure level	Heating	dB(A)	56	58	59	54
	Cooling	dB(A)	54	55	56	52
	Heating (quiet operation)	dB(A)	39			39
	Cooling (quiet operation)	dB(A)	38			37
Dimensions (W×D×H)	Outline	mm	1206×878×445			
	Packaged	mm	1320×885×525			
Net weight/Gross weight		kg	142/161			141/159

Model			GRS-CQ10Pd/NhG3-M	GRS-CQ12Pd/NhG3-M	GRS-CQ14Pd/NhG3-M	GRS-CQ16Pd/NhG3-M
Product code Product code (SG)			ER01001900 ER01001903	ER01001920 ER01001923	ER01001910 ER01001913	ER01001940 ER01001943
Capacity*1	Cooling(floor cooling)	kW	10.20	12.00	13.90	15.40
	Heating(floor heating)	kW	10.20	12.00	14.2	15.7
Power input*1	Cooling(floor cooling)	kW	2.13	2.61	3.32	4.05
	Heating(floor heating)	kW	2.06	2.49	3.09	3.57
EER*1(floor cooling)		W/W	4.79	4.60	4.19	3.80
COP*1(floor heating)		W/W	4.95	4.82	4.60	4.40
Capacity*2	Cooling(fan coil)	kW	9.10	11.10	13.30	13.80
	Heating(fan coil or radiator)	kW	10.20	13.00	14.20	16.20
Power input*2	Cooling(fan coil)	kW	2.80	3.68	4.75	5.09
	Heating(fan coil or radiator)	kW	2.60	3.45	3.84	4.49
EER*2(fan coil)		W/W	3.25	3.10	2.80	2.71
COP*2(fan coil or radiator)		W/W	3.92	3.77	3.70	3.61
Refrigerant charge volume		kg	1.60	2.20	2.20	2.20
Sanitary water temperature		°C	40~80			
Sound pressure level	Heating	dB(A)	56	56	58	59
	Cooling	dB(A)	54	54	55	56
	Heating (quiet operation)	dB(A)	39	39		
	Cooling (quiet operation)	dB(A)	37	38		
Dimensions (W×D×H)	Outline	mm	1206×878×445	1206×878×445		
	Packaged	mm	1320×885×525	1320×885×525		
Net weight/Gross weight		kg	141/159	148/166		

Model			GRS-CQ4.0Pd/NhG4-E	GRS-CQ6.0Pd/NhG4-E	GRS-CQ8.0Pd/NhG4-E	GRS-CQ10Pd/NhG4-E
Product code Product code (SG)			ER01002180 ER01002183	ER01002160 ER01002163	ER01002170 ER01002173	ER01002150/ ER01002153
Capacity*1	Cooling(floor cooling)	kW	5.00	6.50	8.30	10.20
	Heating(floor heating)	kW	5.00	6.00	8.20	10.20
Power input*1	Cooling(floor cooling)	kW	0.962	1.275	1.56	2.00
	Heating(floor heating)	kW	0.926	1.111	1.54	2.02
EER*1(floor cooling)		W/W	5.20	5.10	5.32	5.10
COP*1(floor heating)		W/W	5.40	5.40	5.32	5.05
Capacity*2	Cooling(fan coil)	kW	4.90	5.70	7.40	9.00
	Heating(foil or radiator)	kW	4.90	6.80	8.30	10.20
Power input*2	Cooling(fan coil)	kW	1.40	1.76	2.00	2.65
	Heating(fan coil or radiator)	kW	1.167	1.659	1.90	2.50
EER*2(fan coil)		W/W	3.50	3.25	3.70	3.40
COP*2(fan coil or radiator)		W/W	4.20	4.10	4.36	4.08
Refrigerant charge volume		kg	0.95	0.95	1.60	1.60
Sanitary water temperature		°C	40~80			
Sound pressure level	Heating	dB(A)	53	53	54	56
	Cooling	dB(A)	51	52	52	56
	Heating (quiet operation)	dB(A)	35		39	
	Cooling (quiet operation)	dB(A)	33		37	
Dimensions (W×D×H)	Outline	mm	1150×735×365		1206×878×445	
	Packaged	mm	1250×765×500		1320×885×525	
Net weight/Gross weight		kg	90/106		120/139	

Model			GRS-CQ12Pd/ NhG4-E	GRS-CQ14Pd/ NhG4-E	GRS-CQ16Pd/ NhG4-E	GRS-CQ8.0Pd/ NhG4-M
Product code			ER01002120 ER01002123	ER01002100 ER01002103	ER01002110 ER01002113	ER01002520 ER01002523
Capacity*1	Cooling(floor cooling)	kW	12.00	13.70	15.50	8.30
	Heating(floor heating)	kW	12.00	14.20	15.7	8.20
Power input*1	Cooling(floor cooling)	kW	2.45	3.00	3.60	1.64
	Heating(floor heating)	kW	2.43	2.99	3.45	1.62
EER*1(floor cooling)		W/W	4.90	4.57	4.31	5.06
COP*1(floor heating)		W/W	4.94	4.75	4.55	5.06
Capacity*2	Cooling(fan coil)	kW	11.10	13.40	14.30	7.10
	Heating(fan coil or radiator)	kW	13.00	14.40	16.20	8.20
Power input*2	Cooling(fan coil)	kW	3.58	4.75	5.09	2.10
	Heating(fan coil or radiator)	kW	3.45	3.84	4.49	2.05
EER*2(fan coil)		W/W	3.10	2.80	2.71	3.38
COP*2(fan coil or radiator)		W/W	3.77	3.70	3.61	4.00
Refrigerant charge volume		kg	2.20	2.20	2.20	1.60
Sanitary water temperature		°C	40~80			
Sound pressure level	Heating	dB(A)	56	58	59	54
	Cooling	dB(A)	54	55	56	52
	Heating (quiet operation)	dB(A)	39			39
	Cooling (quiet operation)	dB(A)	38			37
Dimensions (W×D×H)	Outline	mm	1206×878×445			
	Packaged	mm	1320×885×525			
Net weight/Gross weight		kg	138/156			134/152

Model			GRS-CQ10Pd/ NhG4-M	GRS-CQ12Pd/ NhG4-M	GRS-CQ14Pd/ NhG4-M	GRS-CQ16Pd/ NhG4-M
Product code Product code (SG)			ER01002090 ER01002093	ER01002130 ER01002133	ER01002140 ER01002143	ER01002080 ER01002083
Capacity*1	Cooling(floor cooling)	kW	10.20	12.00	13.90	15.40
	Heating(floor heating)	kW	10.20	12.00	14.2	15.7
Power input*1	Cooling(floor cooling)	kW	2.13	2.61	3.32	4.05
	Heating(floor heating)	kW	2.06	2.49	3.09	3.57
EER*1(floor cooling)		W/W	4.79	4.60	4.19	3.80
COP*1(floor heating)		W/W	4.95	4.82	4.60	4.40
Capacity*2	Cooling(fan coil)	kW	9.10	11.10	13.30	13.80
	Heating(fan coil or radiator)	kW	10.20	13.00	14.20	16.20
Power input*2	Cooling(fan coil)	kW	2.80	3.68	4.75	5.09
	Heating(fan coil or radiator)	kW	2.60	3.45	3.84	4.49
EER*2(fan coil)		W/W	3.25	3.10	2.80	2.71
COP*2(fan coil or radiator)		W/W	3.92	3.77	3.70	3.61
Refrigerant charge volume		kg	1.60	2.20	2.20	2.20
Sanitary water temperature		°C	40~80			
Sound pressure level	Heating	dB(A)	56	56	58	59
	Cooling	dB(A)	54	54	55	56
	Heating (quiet operation)	dB(A)	39	39		
	Cooling (quiet operation)	dB(A)	37	38		
Dimensions (W×D×H)	Outline	mm	1206×878×445	1206×878×445		
	Packaged	mm	1320×885×525	1320×885×525		
Net weight/Gross weight		kg	134/152	144/162		

Model			GRS-CQ8.0Pd/NhG3-E1	GRS-CQ8.0Pd/NhG4-E1
Product code			ER01002710	ER01002730
Capacity*1	Cooling(floor cooling)	kW	8.00	8.00
	Heating(floor heating)	kW	8.00	8.00
Power input*1	Cooling(floor cooling)	kW	1.65	/
	Heating(floor heating)	kW	1.63	/
EER*1(floor cooling)		W/W	4.85	/
COP*1(floor heating)		W/W	4.91	/
Capacity*2	Cooling(fan coil)	kW	7.20	7.20
	Heating(fan coil or radiator)	kW	8.00	8.00
Power input*2	Cooling(fan coil)	kW	1.65	1.65
	Heating(fan coil or radiator)	kW	2.11	2.11
EER*2(fan coil)		W/W	4.85	4.85
COP*2(fan coil or radiator)		W/W	3.80	3.80
Refrigerant charge volume		kg	1.23	1.23
Sanitary water temperature		°C	40~80	
Sound pessure level	Heating	dB(A)	56	56
	Cooling	dB(A)	55	55
	Heating (quiet operation)	dB(A)	39	
	Cooling (quiet operation)	dB(A)	37	
Dimensions (W×D×H)	Outline	mm	1150×735×365	
	Packaged	mm	1258×900×503	
Net weight/Gross weight		kg	95/112	

Notes

(a) "*1" indicates the capacity and power input are tested based on the conditions below:

Cooling:

Indoor Water Temperature: 23°C/18°C; Outdoor Temperature: 35°CDB/24°CWB

Heating:

Indoor Water Temperature: 30°C/35°C; Outdoor Temperature: 7°CDB/6°CWB

(b) "*2" indicates the capacity and power input are tested based on the conditions below:

Cooling:

Indoor Water Temperature: 12°C/7°C; Outdoor Temperature: 35°CDB/24°CWB

Heating:

Indoor Water Temperature: 40°C/45°C; Outdoor Temperature: 7°CDB/6°CWB

1.5.2 Nominal Working Conditions

Item	Water Side		Heat Source/User Side	
	Entering Water Temp (°C)	Leaving Water Temp(°C)	Dry Bulb Temp (°C)	Wet Bulb Temp (°C)
FCU Cooling	12	7	35	—
FCU Heating	40	45	7	6
Floor Cooling	23	18	35	—
Floor Heating	30	35	7	6
Water Heating	53	-	7	6

1.5.3 Operation Range

Maximum and minimum water operating temperatures

Item	Minimum water operating temperatures	Maximum water operating temperatures
Cooling	5°C	25°C
Heating	20°C	65°C*
Water heating	40°C	80°C**

Maximum and minimum water operating pressures

Item	Minimum water operating pressures	Maximum water operating pressures
Cooling	0.05MPa	0.25MPa
Heating		
Water heating		

Maximum and minimum entering water pressures

Item	Minimum entering water pressures	Maximum entering water pressures
Cooling	0.05MPa	0.25MPa
Heating		
Water heating		

*: The leaving water temperature varies at different environment. 65°C is the highest leaving water temperature at 10-20°C ambient temperature.

**: When the electric heater for the water tank prepared by the user themselves has been activated, the leaving water temperature can go up to 80°C.

1.5.4 Temperature sensor parameter

Displayed Name	Inspection range(°C)	Nominal working datas			Remark
		Cooling	Heating	Hot water	
T-outdoor	-30~150	8~50	-27~37	-27~45	temperature sensor resistance 15K
T-suction	-30~150	5~30	-25~20	-25~30	temperature sensor resistance 20K
T-discharge	-30~150	30~102	35~102	35~102	temperature sensor resistance 50K
T-defrost	-30~150	20~57	-25~30	-25~40	temperature sensor resistance 20K
T-water in PE	-30~150	10~30	20~55	20~55	temperature sensor resistance 20K
T-water out PE	-30~150	5~25	25~60	25~60	temperature sensor resistance 20K
T-optional water Sen.	-30~150	5~25	25~60	25~60	temperature sensor resistance 50K
T-tank ctrl.	-30~150	/	/	10~80	temperature sensor resistance 50K
T-floor debug	-30~150	/	25~45	/	/
Debug time	-30~150	/	12~72	/	/
T-liquid pipe	-30~150	5~25	20~57	20~57	temperature sensor resistance 20K
T-gas pipe	-30~150	30~102	35~102	35~102	temperature sensor resistance 20K
T-economizer in	-30~150	no EVI under cooling	-20~55	-20~55	temperature sensor resistance 20K
T-economizer out	-30~150	no EVI under cooling	-20~55	-20~55	temperature sensor resistance 20K
T-remote room	-30~150	18~30	18~30	18~30	/
Dis. Pressure	-40~70	25~60	25~62	25~62	/
T-weather depend	-30~150	7~25	25~60	/	based on calculation

1.5.5 Electric Data

Power cable specifications and Leakage switch types in the following list are recommended.

Model	Power Supply	Power Supply Air Break Switch	Air Break Switch (Electric heater)	Minimum Section Area of Earth Wire	Minimum Section Area of Earth Wire (Electric heater)	Minimum Section Area of Power Wire	Minimum Section Area of Power Wire (Electric heater)
	V,Ph, Hz	A	A	mm²	mm²	mm²	mm²
GRS-CQ4.0Pd/NhG3-E	230VAC 1Ph 50Hz	16	16	2.5	2.5	2*2.5	2*2.5
GRS-CQ6.0Pd/NhG3-E							
GRS-CQ8.0Pd/NhG3-E1		25	32	4	6	2*4	2*6
GRS-CQ8.0Pd/NhG3-E		32					
GRS-CQ10Pd/NhG3-E							
GRS-CQ12Pd/NhG3-E		40		6		2*6	
GRS-CQ14Pd/NhG3-E							
GRS-CQ16Pd/NhG3-E							
GRS-CQ4.0Pd/NhG4-E		16	/	2.5	/	2*2.5	/
GRS-CQ6.0Pd/NhG4-E							
GRS-CQ8.0Pd/NhG4-E1		25		4		2*4	
GRS-CQ8.0Pd/NhG4-E		32					
GRS-CQ10Pd/NhG4-E							
GRS-CQ12Pd/NhG4-E		40		6		2*6	
GRS-CQ14Pd/NhG4-E							
GRS-CQ16Pd/NhG4-E							
GRS-CQ8.0Pd/NhG3-M	400VAC 3Ph 50Hz	16	16	1.5	1.5	4*1.5	3*1.5
GRS-CQ10Pd/NhG3-M							
GRS-CQ12Pd/NhG3-M				2.5		4*2.5	
GRS-CQ14Pd/NhG3-M							
GRS-CQ16Pd/NhG3-M							
GRS-CQ8.0Pd/NhG4-M			/	1.5	/	4*1.5	/
GRS-CQ10Pd/NhG4-M							
GRS-CQ12Pd/NhG4-M				2.5		4*2.5	
GRS-CQ14Pd/NhG4-M							
GRS-CQ16Pd/NhG4-M							

Notes

(a) Leakage Switch is necessary for additional installation. If circuit breakers with leakage protection are in use, action response time must be less than 0.1 second, leakage circuit must be 30mA.

(b) The above selected power cable diameters are determined based on assumption of distance from the distribution cabinet to the unit less than 75m. If cables are laid out in a distance of 75m to 150m, diameter of power cable must be increased to a further grade.

(c) The power supply must be of rated voltage of the unit and special electrical line for air-conditioning.

(d) All electrical installation shall be carried out by professional technicians in accordance with the local laws and regulations.

(e) Ensure safe grounding and the grounding wire shall be connected with the special grounding equipment of the building and must be installed by professional technicians.

(f) The specifications of the breaker and power cable listed in the table above are determined based on the maximum power (maximum amps) of the unit.

(g) The specifications of the power cable listed in the table above are applied to the conduit-guarded multi-wire copper cable (like, YJV XLPE insulated power cable) used at 40°C and resistible to 90°C (see IEC 60364-5-52). If the working condition changes, they should be modified according to the related national standard.

(h) The specifications of the breaker listed in the table above are applied to the breaker with the working temperature at 40°C. If the working condition changes, they should be modified according to the related national standard.

1.5.6 Capacity Correction

Actual cooling capacity = nominal cooling capacity x cooling capacity correction coefficient.

Actual heating capacity = nominal heating capacity x heating capacity correction coefficient.

(1) Cooling capacity correction for 1-phase units

| Cooling Capacity Correction_4 | | |

Cooling Capacity Correction_6

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	2.34	0.37	6.30	2.30	0.32	7.31	2.27	0.27	8.32	2.30	0.25	9.07	2.22	0.30	7.39	7.25	1.28	5.67	6.90	1.35	5.12	6.61	1.44	4.59	6.26	1.54	4.06	5.97	1.68	3.57	5.80	1.87	3.10	4.14	1.45	2.86	2.77	1.20	2.31	2.54	1.35	1.88
	norm	2.15	0.35	6.21	2.11	0.29	7.21	2.08	0.25	8.20	2.12	0.23	9.32	2.05	0.27	7.60	6.50	1.11	5.86	6.26	1.19	5.26	6.20	1.33	4.68	6.16	1.45	4.26	5.87	1.57	3.74	5.70	1.75	3.25	3.13	1.05	2.99	2.27	0.96	2.37	2.08	1.08	1.92
	min	1.45	0.22	6.74	1.43	0.18	7.82	1.40	0.16	8.89	1.32	0.13	9.97	1.27	0.16	8.12	2.79	0.40	7.05	2.65	0.42	6.35	2.54	0.45	5.70	2.41	0.48	5.04	2.30	0.52	4.43	2.23	0.58	3.85	2.05	0.64	3.20	1.87	0.76	2.46	1.72	0.86	2.00
8	max	2.41	0.37	6.52	2.38	0.31	7.56	2.34	0.27	8.61	2.37	0.25	9.38	2.29	0.30	7.64	7.48	1.27	5.87	7.12	1.35	5.29	6.82	1.44	4.75	6.46	1.54	4.20	6.17	1.67	3.69	5.99	1.87	3.21	4.27	1.44	2.96	2.86	1.20	2.39	2.62	1.35	1.94
	norm	2.21	0.34	6.43	2.18	0.29	7.46	2.15	0.25	8.49	2.19	0.23	9.65	2.12	0.27	7.86	6.71	1.11	6.06	6.46	1.19	5.45	6.40	1.32	4.84	6.35	1.44	4.41	6.06	1.57	3.87	5.88	1.75	3.36	3.23	1.04	3.09	2.34	0.95	2.45	2.15	1.08	1.99
	min	1.50	0.21	6.97	1.47	0.18	8.09	1.45	0.16	9.20	1.36	0.13	10.32	1.31	0.16	8.41	2.88	0.39	7.29	2.74	0.42	6.57	2.62	0.44	5.90	2.49	0.48	5.22	2.37	0.52	4.58	2.30	0.58	3.98	2.12	0.64	3.31	1.93	0.76	2.55	1.77	0.86	2.07
9	max	2.49	0.37	6.74	2.45	0.31	7.82	2.41	0.27	8.89	2.45	0.25	9.70	2.37	0.30	7.90	7.71	1.27	6.07	7.34	1.34	5.47	7.04	1.43	4.91	6.66	1.53	4.34	6.36	1.67	3.81	6.17	1.86	3.32	4.40	1.44	3.06	2.95	1.19	2.47	2.70	1.35	2.01
	norm	2.28	0.34	6.64	2.25	0.29	7.71	2.21	0.25	8.77	2.26	0.23	9.97	2.18	0.27	8.12	6.92	1.10	6.26	6.66	1.18	5.63	6.60	1.32	5.00	6.55	1.44	4.55	6.25	1.56	4.00	6.06	1.74	3.48	3.33	1.04	3.20	2.41	0.95	2.53	2.21	1.08	2.06
	min	1.54	0.21	7.21	1.52	0.18	8.36	1.49	0.16	9.51	1.40	0.13	10.66	1.35	0.16	8.69	2.97	0.39	7.54	2.82	0.42	6.79	2.70	0.44	6.09	2.56	0.48	5.39	2.44	0.52	4.74	2.37	0.58	4.12	2.18	0.64	3.42	1.99	0.76	2.64	1.83	0.85	2.14
10	max	2.56	0.37	6.96	2.53	0.31	8.07	2.49	0.27	9.18	2.52	0.25	10.01	2.44	0.30	8.15	7.95	1.27	6.26	7.56	1.34	5.65	7.25	1.43	5.07	6.87	1.53	4.48	6.55	1.66	3.94	6.36	1.86	3.42	4.54	1.44	3.16	3.04	1.19	2.55	2.78	1.34	2.07
	norm	2.35	0.34	6.86	2.31	0.29	7.96	2.28	0.25	9.05	2.33	0.23	10.29	2.25	0.27	8.39	7.12	1.10	6.47	6.86	1.18	5.81	6.80	1.32	5.16	6.75	1.44	4.70	6.43	1.56	4.13	6.25	1.74	3.59	3.43	1.04	3.30	2.49	0.95	2.61	2.28	1.07	2.12
	min	1.59	0.21	7.44	1.56	0.18	8.63	1.54	0.16	9.82	1.44	0.13	11.01	1.39	0.16	8.97	3.06	0.39	7.78	2.91	0.41	7.01	2.79	0.44	6.29	2.64	0.47	5.57	2.52	0.52	4.89	2.44	0.58	4.25	2.25	0.64	3.53	2.05	0.75	2.72	1.88	0.85	2.21
11	max	2.64	0.37	7.17	2.60	0.31	8.32	2.56	0.27	9.47	2.60	0.25	10.32	2.51	0.30	8.41	8.18	1.27	6.46	7.79	1.34	5.82	7.46	1.43	5.22	7.07	1.53	4.62	6.74	1.66	4.06	6.54	1.85	3.53	4.67	1.43	3.26	3.13	1.19	2.63	2.87	1.34	2.14
	norm	2.42	0.34	7.07	2.38	0.29	8.20	2.35	0.25	9.34	2.40	0.23	10.62	2.31	0.27	8.65	7.33	1.10	6.67	7.06	1.18	5.99	7.00	1.31	5.32	6.94	1.43	4.85	6.62	1.56	4.26	6.43	1.74	3.70	3.53	1.04	3.40	2.56	0.95	2.70	2.35	1.07	2.19
	min	1.64	0.21	7.67	1.61	0.18	8.90	1.58	0.16	10.13	1.48	0.13	11.35	1.43	0.16	9.25	3.14	0.39	8.02	2.99	0.41	7.23	2.87	0.44	6.49	2.72	0.47	5.74	2.59	0.51	5.04	2.52	0.57	4.38	2.31	0.64	3.64	2.11	0.75	2.81	1.94	0.85	2.28
12	max	2.71	0.37	7.39	2.67	0.31	8.57	2.63	0.27	9.75	2.67	0.25	10.63	2.58	0.30	8.66	8.41	1.26	6.65	8.01	1.33	6.00	7.67	1.43	5.38	7.27	1.53	4.76	6.93	1.66	4.18	6.73	1.85	3.64	4.80	1.43	3.36	3.22	1.19	2.71	2.95	1.34	2.20
	norm	2.49	0.34	7.29	2.45	0.29	8.45	2.41	0.25	9.62	2.46	0.23	10.94	2.38	0.27	8.91	7.54	1.10	6.87	7.26	1.18	6.17	7.19	1.31	5.49	7.14	1.43	4.99	6.81	1.55	4.38	6.61	1.73	3.81	3.63	1.04	3.50	2.63	0.95	2.78	2.41	1.07	2.26
	min	1.68	0.21	7.90	1.66	0.18	9.17	1.63	0.16	10.43	1.53	0.13	11.70	1.47	0.15	9.53	3.23	0.39	8.26	3.08	0.41	7.45	2.95	0.44	6.68	2.79	0.47	5.92	2.66	0.51	5.19	2.59	0.57	4.52	2.38	0.63	3.75	2.17	0.75	2.89	1.99	0.85	2.35
13	max	2.79	0.37	7.61	2.75	0.31	8.82	2.70	0.27	10.04	2.74	0.25	10.95	2.65	0.30	8.92	8.64	1.26	6.85	8.23	1.33	6.18	7.88	1.42	5.54	7.47	1.52	4.90	7.12	1.65	4.30	6.91	1.85	3.74	4.93	1.43	3.46	3.30	1.18	2.79	3.03	1.34	2.27
	norm	2.56	0.34	7.50	2.52	0.29	8.70	2.48	0.25	9.90	2.53	0.22	11.26	2.45	0.27	9.17	7.75	1.10	7.07	7.46	1.17	6.36	7.39	1.31	5.65	7.34	1.43	5.14	7.00	1.55	4.51	6.79	1.73	3.92	3.73	1.03	3.61	2.70	0.95	2.86	2.48	1.07	2.32
	min	1.73	0.21	8.14	1.70	0.18	9.44	1.67	0.16	10.74	1.57	0.13	12.04	1.52	0.15	9.81	3.32	0.39	8.51	3.16	0.41	7.67	3.03	0.44	6.88	2.87	0.47	6.09	2.74	0.51	5.35	2.66	0.57	4.65	2.45	0.63	3.86	2.23	0.75	2.98	2.05	0.85	2.42
14	max	2.86	0.37	7.82	2.82	0.31	9.08	2.78	0.27	10.33	2.82	0.25	11.26	2.72	0.30	9.17	8.87	1.26	7.05	8.45	1.33	6.35	8.09	1.42	5.70	7.67	1.52	5.04	7.31	1.65	4.43	7.10	1.84	3.85	5.07	1.42	3.56	3.39	1.18	2.87	3.11	1.33	2.33
	norm	2.63	0.34	7.72	2.59	0.29	8.95	2.54	0.25	10.19	2.60	0.22	11.58	2.51	0.27	9.43	7.96	1.09	7.27	7.66	1.17	6.54	7.59	1.31	5.81	7.53	1.42	5.29	7.19	1.55	4.64	6.98	1.73	4.04	3.83	1.03	3.71	2.78	0.94	2.94	2.54	1.06	2.39
	min	1.77	0.21	8.37	1.75	0.18	9.71	1.72	0.16	11.05	1.61	0.13	12.38	1.56	0.15	10.09	3.41	0.39	8.75	3.25	0.41	7.89	3.11	0.44	7.08	2.95	0.47	6.26	2.81	0.51	5.50	2.73	0.57	4.78	2.51	0.63	3.97	2.29	0.75	3.06	2.10	0.85	2.49
15	max	2.94	0.37	8.04	2.89	0.31	9.33	2.85	0.27	10.62	2.89	0.25	11.57	2.79	0.30	9.43	9.11	1.26	7.24	8.67	1.33	6.53	8.30	1.42	5.86	7.87	1.52	5.18	7.50	1.65	4.55	7.28	1.84	3.96	5.20	1.42	3.66	3.48	1.18	2.95	3.19	1.33	2.40
	norm	2.69	0.34	7.93	2.65	0.29	9.20	2.61	0.25	10.47	2.67	0.22	11.90	2.58	0.27	9.70	8.16	1.09	7.48	7.86	1.17	6.72	7.79	1.30	5.97	7.73	1.42	5.43	7.37	1.55	4.77	7.16	1.73	4.15	3.93	1.03	3.81	2.85	0.94	3.02	2.61	1.06	2.46
	min	1.82	0.21	8.60	1.79	0.18	9.98	1.76	0.16	11.35	1.65	0.13	12.73	1.60	0.15	10.37	3.50	0.39	8.99	3.33	0.41	8.11	3.19	0.44	7.27	3.02	0.47	6.44	2.88	0.51	5.65	2.80	0.57	4.91	2.58	0.63	4.08	2.35	0.75	3.15	2.16	0.84	2.56
18	max	3.15	0.36	8.69	3.10	0.31	10.09	3.05	0.27	11.48	3.10	0.25	12.51	2.99	0.29	10.19	9.76	1.25	7.83	9.29	1.32	7.06	8.90	1.41	6.33	8.43	1.50	5.60	8.04	1.63	4.92	7.81	1.82	4.28	5.57	1.41	3.95	3.73	1.17	3.19	3.42	1.32	2.59
	norm	2.89	0.34	8.57	2.84	0.29	9.94	2.80	0.25	11.32	2.86	0.22	12.87	2.76	0.26	10.48	8.75	1.08	8.08	8.43	1.16	7.26	8.35	1.29	6.45	8.29	1.41	5.88	7.90	1.53	5.16	6.50	1.27	5.10	4.21	1.02	4.12	3.05	0.93	3.27	2.80	1.05	2.66
	min	1.95	0.21	9.30	1.92	0.18	10.79	1.89	0.15	12.27	1.77	0.13	13.76	1.71	0.15	11.21	3.75	0.39	9.72	3.57	0.41	8.77	3.42	0.44	7.86	3.24	0.47	6.96	3.09	0.51	6.11	3.00	0.56	5.31	2.76	0.63	4.41	2.52	0.74	3.40	2.31	0.84	2.76
20	max	3.31	0.36	9.12	3.26	0.31	10.58	3.21	0.27	12.04	3.26	0.25	13.13	3.15	0.29	10.69	10.27	1.25	8.21	9.77	1.32	7.41	9.36	1.41	6.64	8.87	1.51	5.88	8.46	1.64	5.16	8.21	1.83	4.49	5.86	1.41	4.15	3.93	1.17	3.35	3.60	1.32	2.72
	norm	3.04	0.34	9.00	2.99	0.29	10.44	2.94	0.25	11.87	3.01	0.22	13.50	2.91	0.26	11.00	9.20	1.09	8.48	8.86	1.16	7.62	8.78	1.30	6.77	8.72	1.41	6.16	8.31	1.54	5.41	8.07	1.72	4.71	4.43	1.02	4.33	3.21	0.94	3.43	2.94	1.06	2.79
	min	2.05	0.21	9.76	2.02	0.18	11.32	1.99	0.15	12.88	1.86	0.13	14.44	1.80	0.15	11.76	3.95	0.39	10.20	3.76	0.41	9.20	3.60	0.44	8.25	3.41	0.47	7.30	3.25	0.51	6.41	3.16	0.57	5.57	2.91	0.63	4.63	2.65	0.74	3.57	2.43	0.84	2.90
23	max	3.52	0.36	9.77	3.47	0.31	11.34	3.42	0.26	12.90	3.47	0.25	14.06	3.35	0.29	11.46	10.92	1.24	8.80	10.39	1.31	7.94	9.96	1.40	7.12	9.43	1.50	6.30	9.00	1.63	5.53	8.73	1.82	4.81	6.23	1.40	4.44	4.17	1.16	3.58	3.83	1.31	2.91
	norm	3.23	0.34	9.64	3.18	0.28	11.18	3.13	0.25	12.72	3.20	0.22	14.47	3.09	0.26	11.79	9.79	1.08	9.09	9.43	1.15	8.17	9.34	1.29	7.26	9.27	1.40	6.61	8.84	1.52	5.80	8.58	1.70	5.04	4.71	1.02	4.64	3.42	0.93	3.67	3.13	1.05	2.99
	min	2.18	0.21	10.45	2.15	0.18	12.13	2.12	0.15	13.80	1.98	0.13	15.47	1.91	0.15	12.60	4.20	0.38	10.93	4.00	0.41	9.86	3.83	0.43	8.84	3.63	0.46	7.82	3.46	0.50	6.87	3.36	0.56	5.97	3.09	0.62	4.96	2.82	0.74	3.82	2.59	0.83	3.11
25	max	3.66	0.36	10.21	3.60	0.30	11.84	3.55	0.26	13.48	3.60	0.24	14.69	3.48	0.29	11.97	11.34	1.23	9.19	10.79	1.30	8.29	10.34	1.39	7.43	9.80	1.49	6.58	9.34	1.62	5.78	9.07	1.81	5.02	6.47	1.40	4.64	4.34	1.16	3.74	3.97	1.31	3.04
	norm	3.35	0.33	10.07	3.30	0.28	11.68	3.25	0.24	13.29	3.32	0.22	15.11	3.21	0.26	12.31	10.17	1.07	9.49	9.79	1.15	8.53	9.70	1.28	7.58	9.63	1.40	6.90	9.18	1.52	6.06	8.91	1.69	5.27	4.89	1.01	4.84	3.55	0.92	3.84	3.25	1.04	3.12
	min	2.27	0.21	10.92	2.23	0.18	12.67	2.20	0.15	14.41	2.06	0.13	16.16	1.99	0.15	13.16	4.36	0.38	11.42	4.15	0.40	10.29	3.98	0.43	9.23	3.77	0.46	8.17	3.59	0.50	7.17	3.49	0.56	6.24	3.21	0.62	5.18	2.93	0.73	3.99	2.69	0.83	3.24

Cooling Capacity Correction_8

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	4.75	0.75	6.30	4.67	0.64	7.31	4.60	0.55	8.32	4.31	0.46	9.32	4.16	0.55	7.60	10.88	1.86	5.86	10.35	1.96	5.28	9.92	2.09	4.74	9.40	2.24	4.19	8.96	2.44	3.68	8.70	2.72	3.20	6.72	2.25	2.99	6.13	2.66	2.30	4.24	2.17	1.95
	norm	3.64	0.56	6.48	3.58	0.48	7.51	3.53	0.41	8.55	3.30	0.34	9.58	3.19	0.41	7.81	9.25	1.37	6.77	8.81	1.44	6.11	8.44	1.54	5.48	7.99	1.65	4.85	7.62	1.79	4.26	7.40	2.00	3.70	5.15	1.68	3.07	4.70	1.99	2.37	3.73	1.89	1.98
	min	2.93	0.44	6.65	2.88	0.37	7.71	2.84	0.32	8.78	2.66	0.27	9.84	2.57	0.32	8.02	5.63	0.81	6.95	5.36	0.85	6.27	5.13	0.91	5.62	4.86	0.98	4.98	4.64	1.06	4.37	4.50	1.18	3.80	4.14	1.31	3.15	3.78	1.55	2.43	3.47	1.75	1.98
8	max	4.90	0.75	6.52	4.82	0.64	7.56	4.75	0.55	8.61	4.44	0.46	9.65	4.29	0.55	7.86	11.22	1.85	6.06	10.68	1.96	5.46	10.24	2.09	4.90	9.70	2.23	4.34	9.25	2.43	3.81	8.98	2.71	3.31	6.93	2.24	3.09	6.33	2.65	2.38	4.37	2.17	2.02
	norm	3.76	0.56	6.70	3.70	0.48	7.77	3.64	0.41	8.85	3.41	0.34	9.92	3.29	0.41	8.08	9.55	1.36	7.01	9.09	1.44	6.32	8.71	1.54	5.67	8.25	1.64	5.02	7.87	1.79	4.40	7.64	1.99	3.83	5.32	1.67	3.18	4.85	1.98	2.45	3.85	1.88	2.05
	min	3.02	0.44	6.88	2.97	0.37	7.98	2.93	0.32	9.09	2.74	0.27	10.19	2.65	0.32	8.30	5.81	0.81	7.20	5.53	0.85	6.49	5.29	0.91	5.82	5.02	0.97	5.15	4.78	1.06	4.52	4.64	1.18	3.93	4.27	1.31	3.26	3.90	1.55	2.52	3.58	1.75	2.05
9	max	5.05	0.75	6.74	4.97	0.64	7.82	4.89	0.55	8.89	4.58	0.46	9.97	4.43	0.54	8.12	11.57	1.85	6.26	11.02	1.95	5.65	10.55	2.08	5.07	10.00	2.23	4.48	9.53	2.42	3.94	9.26	2.70	3.42	7.15	2.24	3.20	6.52	2.65	2.46	4.51	2.16	2.09
	norm	3.87	0.56	6.93	3.81	0.47	8.03	3.75	0.41	9.14	3.52	0.34	10.25	3.40	0.41	8.35	9.84	1.36	7.24	9.37	1.44	6.53	8.98	1.53	5.86	8.50	1.64	5.18	8.11	1.78	4.55	7.87	1.99	3.96	5.48	1.67	3.28	5.01	1.98	2.53	3.97	1.88	2.11
	min	3.11	0.44	7.11	3.06	0.37	8.25	3.02	0.32	9.39	2.82	0.27	10.53	2.73	0.32	8.58	5.99	0.80	7.44	5.70	0.85	6.71	5.46	0.91	6.01	5.17	0.97	5.32	4.93	1.06	4.67	4.79	1.18	4.06	4.40	1.31	3.37	4.02	1.55	2.60	3.69	1.74	2.11
10	max	5.20	0.75	6.96	5.12	0.63	8.07	5.04	0.55	9.18	4.72	0.46	10.29	4.56	0.54	8.39	11.92	1.84	6.47	11.35	1.95	5.83	10.87	2.08	5.23	10.30	2.23	4.63	9.82	2.42	4.06	9.54	2.70	3.53	7.36	2.23	3.30	6.72	2.64	2.54	4.64	2.16	2.15
	norm	3.99	0.56	7.15	3.93	0.47	8.29	3.87	0.41	9.44	3.62	0.34	10.58	3.50	0.41	8.62	10.14	1.36	7.48	9.65	1.43	6.74	9.25	1.53	6.05	8.76	1.64	5.35	8.35	1.78	4.70	8.11	1.99	4.08	5.65	1.67	3.39	5.16	1.97	2.61	4.09	1.88	2.18
	min	3.21	0.44	7.34	3.16	0.37	8.52	3.11	0.32	9.69	2.91	0.27	10.87	2.81	0.32	8.85	6.17	0.80	7.68	5.87	0.85	6.92	5.62	0.91	6.21	5.33	0.97	5.50	5.08	1.05	4.82	4.93	1.18	4.20	4.54	1.30	3.48	4.14	1.54	2.68	3.80	1.74	2.18
11	max	5.35	0.75	7.17	5.27	0.63	8.32	5.19	0.55	9.47	4.86	0.46	10.62	4.69	0.54	8.65	12.27	1.84	6.67	11.68	1.94	6.01	11.19	2.07	5.39	10.60	2.22	4.77	10.11	2.41	4.19	9.81	2.69	3.64	7.58	2.23	3.40	6.92	2.64	2.62	4.78	2.15	2.22
	norm	4.11	0.56	7.37	4.04	0.47	8.55	3.98	0.41	9.73	3.73	0.34	10.91	3.60	0.41	8.89	10.43	1.35	7.71	9.93	1.43	6.95	9.52	1.53	6.23	9.01	1.63	5.52	8.60	1.77	4.84	8.35	1.98	4.21	5.81	1.66	3.50	5.31	1.97	2.70	4.21	1.87	2.25
	min	3.30	0.44	7.57	3.25	0.37	8.78	3.20	0.32	9.99	2.99	0.27	11.21	2.89	0.32	9.13	6.35	0.80	7.92	6.04	0.85	7.14	5.79	0.90	6.40	5.48	0.97	5.67	5.23	1.05	4.98	5.08	1.17	4.33	4.67	1.30	3.59	4.26	1.54	2.77	3.91	1.74	2.25
12	max	5.50	0.74	7.39	5.42	0.63	8.57	5.33	0.55	9.75	5.00	0.46	10.94	4.83	0.54	8.91	12.62	1.84	6.87	12.01	1.94	6.19	11.50	2.07	5.56	10.90	2.22	4.92	10.39	2.41	4.32	10.09	2.69	3.75	7.79	2.22	3.50	7.11	2.63	2.70	4.91	2.15	2.29
	norm	4.22	0.56	7.60	4.16	0.47	8.81	4.09	0.41	10.03	3.83	0.34	11.24	3.70	0.40	9.16	10.73	1.35	7.94	10.21	1.43	7.16	9.79	1.52	6.42	9.27	1.63	5.69	8.84	1.77	4.99	8.58	1.98	4.34	5.98	1.66	3.60	5.46	1.96	2.78	4.33	1.87	2.32
	min	3.39	0.43	7.80	3.34	0.37	9.05	3.29	0.32	10.30	3.08	0.27	11.54	2.98	0.32	9.41	6.53	0.80	8.16	6.21	0.84	7.35	5.95	0.90	6.60	5.64	0.97	5.84	5.38	1.05	5.13	5.22	1.17	4.46	4.80	1.30	3.70	4.38	1.54	2.85	4.02	1.73	2.32
13	max	5.66	0.74	7.61	5.57	0.63	8.82	5.48	0.55	10.04	5.13	0.46	11.26	4.96	0.54	9.17	12.96	1.83	7.07	12.34	1.94	6.38	11.82	2.07	5.72	11.20	2.21	5.06	10.68	2.40	4.44	10.37	2.68	3.86	8.01	2.22	3.61	7.31	2.63	2.78	5.05	2.14	2.35
	norm	4.34	0.55	7.82	4.27	0.47	9.07	4.21	0.41	10.32	3.94	0.34	11.57	3.80	0.40	9.43	11.03	1.35	8.18	10.50	1.42	7.37	10.06	1.52	6.61	9.53	1.63	5.85	9.09	1.77	5.14	8.82	1.97	4.47	6.14	1.66	3.71	5.61	1.96	2.86	4.45	1.87	2.39
	min	3.49	0.43	8.03	3.43	0.37	9.31	3.38	0.32	10.60	3.16	0.27	11.88	3.06	0.32	9.68	6.71	0.80	8.40	6.38	0.84	7.57	6.11	0.90	6.79	5.79	0.96	6.01	5.52	1.05	5.28	5.36	1.17	4.59	4.93	1.30	3.81	4.51	1.53	2.94	4.13	1.73	2.39
14	max	5.81	0.74	7.82	5.72	0.63	9.08	5.63	0.55	10.33	5.27	0.46	11.58	5.09	0.54	9.43	13.31	1.83	7.27	12.67	1.93	6.56	12.14	2.06	5.88	11.50	2.21	5.21	10.97	2.40	4.57	10.65	2.68	3.97	8.22	2.22	3.71	7.51	2.62	2.86	5.18	2.14	2.42
	norm	4.46	0.55	8.04	4.39	0.47	9.33	4.32	0.41	10.62	4.04	0.34	11.90	3.91	0.40	9.70	11.32	1.35	8.41	10.78	1.42	7.58	10.33	1.52	6.80	9.78	1.62	6.02	9.33	1.77	5.28	9.06	1.97	4.60	6.31	1.65	3.81	5.76	1.96	2.94	4.57	1.86	2.45
	min	3.58	0.43	8.26	3.53	0.37	9.58	3.47	0.32	10.90	3.25	0.27	12.22	3.14	0.32	9.96	6.89	0.80	8.64	6.55	0.84	7.79	6.28	0.90	6.99	5.95	0.96	6.18	5.67	1.05	5.43	5.51	1.17	4.72	5.07	1.29	3.92	4.63	1.53	3.02	4.24	1.73	2.45
15	max	5.96	0.74	8.04	5.87	0.63	9.33	5.78	0.54	10.62	5.41	0.45	11.90	5.23	0.54	9.70	13.66	1.83	7.48	13.00	1.93	6.74	12.46	2.06	6.05	11.80	2.21	5.35	11.26	2.40	4.70	10.93	2.68	4.08	8.44	2.21	3.81	7.70	2.62	2.94	5.32	2.14	2.49
	norm	4.57	0.55	8.27	4.50	0.47	9.59	4.43	0.41	10.91	4.15	0.34	12.23	4.01	0.40	9.97	11.62	1.34	8.64	11.06	1.42	7.79	10.60	1.52	6.99	10.04	1.62	6.19	9.57	1.76	5.43	9.29	1.97	4.72	6.47	1.65	3.92	5.91	1.95	3.02	4.69	1.86	2.52
	min	3.67	0.43	8.49	3.62	0.37	9.85	3.56	0.32	11.21	3.33	0.27	12.56	3.22	0.31	10.23	7.07	0.80	8.88	6.73	0.84	8.00	6.44	0.90	7.18	6.10	0.96	6.35	5.82	1.04	5.58	5.65	1.17	4.85	5.20	1.29	4.03	4.75	1.53	3.10	4.35	1.73	2.52
18	max	6.39	0.73	8.69	6.29	0.62	10.09	6.19	0.54	11.48	5.80	0.45	12.87	5.60	0.53	10.48	14.64	1.81	8.08	13.94	1.91	7.29	13.35	2.04	6.54	12.65	2.19	5.78	12.06	2.38	5.08	11.71	2.65	4.42	9.04	2.19	4.12	8.25	2.60	3.18	5.70	2.12	2.69
	norm	4.90	0.55	8.94	4.82	0.47	10.37	4.75	0.40	11.79	4.45	0.34	13.22	4.30	0.40	10.77	12.45	1.33	9.34	11.85	1.41	8.42	11.35	1.50	7.56	10.76	1.61	6.69	10.26	1.75	5.87	8.30	1.56	5.32	6.93	1.64	4.24	6.33	1.94	3.27	5.03	1.84	2.73
	min	3.94	0.43	9.18	3.88	0.36	10.65	3.82	0.32	12.11	3.57	0.26	13.58	3.45	0.31	11.06	7.57	0.79	9.60	7.21	0.83	8.65	6.90	0.89	7.76	6.54	0.95	6.87	6.24	1.03	6.03	6.06	1.16	5.24	5.57	1.28	4.35	5.09	1.52	3.36	4.66	1.71	2.73
20	max	6.72	0.74	9.12	6.62	0.63	10.58	6.51	0.54	12.04	6.10	0.45	13.50	5.89	0.54	11.00	15.40	1.82	8.48	14.66	1.92	7.65	14.04	2.05	6.86	13.30	2.19	6.07	12.69	2.38	5.33	12.32	2.66	4.63	9.51	2.20	4.33	8.68	2.60	3.34	6.00	2.12	2.82
	norm	5.15	0.55	9.38	5.07	0.47	10.88	5.00	0.40	12.38	4.68	0.34	13.88	4.52	0.40	11.30	13.10	1.34	9.80	12.47	1.41	8.84	11.95	1.51	7.93	11.32	1.61	7.02	10.79	1.75	6.16	10.48	1.96	5.36	7.30	1.64	4.45	6.66	1.94	3.43	5.29	1.85	2.86
	min	4.14	0.43	9.63	4.08	0.37	11.17	4.01	0.32	12.71	3.76	0.26	14.25	3.63	0.31	11.61	7.97	0.79	10.07	7.58	0.84	9.08	7.26	0.89	8.14	6.88	0.95	7.21	6.56	1.04	6.33	6.37	1.16	5.50	5.86	1.28	4.57	5.35	1.52	3.52	4.91	1.71	2.86
23	max	7.15	0.73	9.77	7.04	0.62	11.34	6.93	0.54	12.90	6.49	0.45	14.47	6.27	0.53	11.79	16.38	1.80	9.09	15.59	1.90	8.19	14.94	2.03	7.35	14.15	2.18	6.50	13.50	2.36	5.71	13.10	2.64	4.96	10.11	2.18	4.64	9.23	2.58	3.57	6.38	2.11	3.03
	norm	5.48	0.55	10.05	5.40	0.46	11.65	5.31	0.40	13.26	4.98	0.33	14.87	4.81	0.40	12.11	13.93	1.33	10.51	13.26	1.40	9.47	12.70	1.50	8.50	12.04	1.60	7.52	11.48	1.74	6.60	11.14	1.94	5.74	7.76	1.63	4.76	7.08	1.93	3.67	5.62	1.83	3.07
	min	4.41	0.43	10.32	4.34	0.36	11.97	4.27	0.31	13.62	4.00	0.26	15.27	3.86	0.31	12.44	8.47	0.79	10.79	8.06	0.83	9.73	7.73	0.89	8.73	7.32	0.95	7.72	6.98	1.03	6.78	6.78	1.15	5.90	6.23	1.27	4.89	5.69	1.51	3.77	5.22	1.70	3.07
25	max	7.42	0.73	10.21	7.31	0.62	11.84	7.19	0.53	13.48	6.74	0.45	15.11	6.51	0.53	12.31	17.01	1.79	9.49	16.19	1.89	8.56	15.51	2.02	7.67	14.70	2.16	6.79	14.02	2.35	5.96	13.61	2.62	5.19	10.50	2.17	4.84	9.59	2.57	3.73	6.62	2.10	3.16
	norm	5.69	0.54	10.49	5.61	0.46	12.17	5.52	0.40	13.85	5.17	0.33	15.53	4.99	0.39	12.65	14.47	1.32	10.97	13.77	1.39	9.89	13.19	1.49	8.87	12.50	1.59	7.85	11.92	1.73	6.90	11.57	1.93	6.00	8.06	1.62	4.98	7.36	1.92	3.84	5.84	1.82	3.20
	min	4.57	0.42	10.78	4.50	0.36	12.50	4.43	0.31	14.22	4.15	0.26	15.95	4.01	0.31	12.99	8.80	0.78	11.27	8.38	0.82	10.16	8.02	0.88	9.11	7.60	0.94	8.07	7.25	1.02	7.08	7.04	1.14	6.16	6.47	1.27	5.11	5.91	1.50	3.94	5.42	1.69	3.20

Cooling Capacity Correction_10

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	4.75	0.75	6.30	4.67	0.64	7.31	4.60	0.55	8.32	4.60	0.50	9.14	4.45	0.60	7.45	11.88	2.09	5.67	11.31	2.21	5.12	10.83	2.36	4.59	10.26	2.53	4.06	9.79	2.74	3.57	9.50	3.06	3.10	6.72	2.25	2.99	6.13	2.66	2.30	4.24	2.17	1.95
	norm	3.99	0.62	6.48	3.93	0.52	7.51	3.87	0.45	8.55	4.31	0.46	9.32	4.16	0.55	7.60	11.25	1.81	6.22	10.71	1.91	5.61	10.26	2.04	5.03	9.72	2.18	4.45	9.27	2.37	3.91	9.00	2.65	3.40	5.65	1.84	3.07	5.16	2.18	2.37	3.87	1.96	1.98
	min	2.93	0.44	6.65	2.88	0.37	7.71	2.84	0.32	8.78	2.66	0.27	9.84	2.57	0.32	8.02	5.63	0.81	6.95	5.36	0.85	6.27	5.13	0.91	5.62	4.86	0.98	4.98	4.64	1.06	4.37	4.50	1.18	3.80	4.14	1.31	3.15	3.78	1.55	2.43	3.47	1.75	1.98
8	max	4.90	0.75	6.52	4.82	0.64	7.56	4.75	0.55	8.61	4.75	0.50	9.46	4.59	0.60	7.71	12.26	2.09	5.87	11.67	2.20	5.29	11.18	2.35	4.75	10.59	2.52	4.20	10.10	2.74	3.69	9.80	3.06	3.21	6.93	2.24	3.09	6.33	2.65	2.38	4.37	2.17	2.02
	norm	4.12	0.61	6.70	4.06	0.52	7.77	3.99	0.45	8.85	4.44	0.46	9.65	4.29	0.55	7.86	11.61	1.80	6.44	11.05	1.90	5.81	10.59	2.03	5.21	10.03	2.18	4.61	9.57	2.36	4.05	9.29	2.64	3.52	5.83	1.83	3.18	5.32	2.17	2.45	4.00	1.95	2.05
	min	3.02	0.44	6.88	2.97	0.37	7.98	2.93	0.32	9.09	2.74	0.27	10.19	2.65	0.32	8.30	5.81	0.81	7.20	5.53	0.85	6.49	5.29	0.91	5.82	5.02	0.97	5.15	4.78	1.06	4.52	4.64	1.18	3.93	4.27	1.31	3.26	3.90	1.55	2.52	3.58	1.75	2.05
9	max	5.05	0.75	6.74	4.97	0.64	7.82	4.89	0.55	8.89	4.90	0.50	9.78	4.73	0.59	7.97	12.64	2.08	6.07	12.03	2.20	5.47	11.52	2.35	4.91	10.92	2.51	4.34	10.41	2.73	3.81	10.11	3.05	3.32	7.15	2.24	3.20	6.52	2.65	2.46	4.51	2.16	2.09
	norm	4.25	0.61	6.93	4.18	0.52	8.03	4.12	0.45	9.14	4.58	0.46	9.97	4.43	0.54	8.12	11.97	1.80	6.65	11.40	1.90	6.00	10.92	2.03	5.38	10.34	2.17	4.76	9.86	2.36	4.18	9.58	2.63	3.64	6.01	1.83	3.28	5.49	2.17	2.53	4.12	1.95	2.11
	min	3.11	0.44	7.11	3.06	0.37	8.25	3.02	0.32	9.39	2.82	0.27	10.53	2.73	0.32	8.58	5.99	0.80	7.44	5.70	0.85	6.71	5.46	0.91	6.01	5.17	0.97	5.32	4.93	1.06	4.67	4.79	1.18	4.06	4.40	1.31	3.37	4.02	1.55	2.60	3.69	1.74	2.11
10	max	5.20	0.75	6.96	5.12	0.63	8.07	5.04	0.55	9.18	5.04	0.50	10.09	4.87	0.59	8.22	13.02	2.08	6.26	12.39	2.19	5.65	11.87	2.34	5.07	11.24	2.51	4.48	10.72	2.72	3.94	10.41	3.04	3.42	7.36	2.23	3.30	6.72	2.64	2.54	4.64	2.16	2.15
	norm	4.37	0.61	7.15	4.31	0.52	8.29	4.24	0.45	9.44	4.72	0.46	10.29	4.56	0.54	8.39	12.33	1.79	6.87	11.74	1.90	6.19	11.24	2.02	5.56	10.65	2.17	4.92	10.16	2.35	4.32	9.86	2.63	3.75	6.19	1.83	3.39	5.65	2.16	2.61	4.24	1.95	2.18
	min	3.21	0.44	7.34	3.16	0.37	8.52	3.11	0.32	9.69	2.91	0.27	10.87	2.81	0.32	8.85	6.17	0.80	7.68	5.87	0.85	6.92	5.62	0.91	6.21	5.33	0.97	5.50	5.08	1.05	4.82	4.93	1.18	4.20	4.54	1.30	3.48	4.14	1.54	2.68	3.80	1.74	2.18
11	max	5.35	0.75	7.17	5.27	0.63	8.32	5.19	0.55	9.47	5.19	0.50	10.41	5.02	0.59	8.48	13.40	2.07	6.46	12.75	2.19	5.82	12.22	2.34	5.22	11.57	2.50	4.62	11.04	2.72	4.06	10.72	3.04	3.53	7.58	2.23	3.40	6.92	2.64	2.62	4.78	2.15	2.22
	norm	4.50	0.61	7.37	4.43	0.52	8.55	4.36	0.45	9.73	4.86	0.46	10.62	4.69	0.54	8.65	12.69	1.89	7.08	12.08	1.89	6.39	11.57	2.02	5.73	10.96	2.16	5.07	10.46	2.35	4.45	10.15	2.62	3.87	6.37	1.82	3.50	5.82	2.16	2.70	4.37	1.94	2.25
	min	3.30	0.44	7.57	3.25	0.37	8.78	3.20	0.32	9.99	2.99	0.27	11.21	2.89	0.32	9.13	6.35	0.80	7.92	6.04	0.85	7.14	5.79	0.90	6.40	5.48	0.97	5.67	5.23	1.05	4.98	5.08	1.17	4.33	4.67	1.30	3.59	4.26	1.54	2.77	3.91	1.74	2.25
12	max	5.50	0.74	7.39	5.42	0.63	8.57	5.33	0.55	9.75	5.34	0.50	10.72	5.16	0.59	8.74	13.78	2.07	6.65	13.11	2.19	6.00	12.56	2.33	5.38	11.90	2.50	4.76	11.35	2.71	4.18	11.02	3.03	3.64	7.79	2.22	3.50	7.11	2.63	2.70	4.91	2.15	2.29
	norm	4.63	0.61	7.60	4.56	0.52	8.81	4.49	0.45	10.03	5.00	0.46	10.94	4.83	0.54	8.91	13.05	1.79	7.30	12.42	1.89	6.58	11.90	2.02	5.90	11.28	2.16	5.22	10.75	2.34	4.59	10.44	2.62	3.99	6.55	1.82	3.60	5.98	2.15	2.78	4.49	1.94	2.32
	min	3.39	0.43	7.80	3.34	0.37	9.05	3.29	0.32	10.30	3.08	0.27	11.54	2.98	0.32	9.41	6.53	0.80	8.16	6.21	0.84	7.35	5.95	0.90	6.60	5.64	0.97	5.84	5.38	1.05	5.13	5.22	1.17	4.46	4.80	1.30	3.70	4.38	1.54	2.85	4.02	1.73	2.32
13	max	5.66	0.74	7.61	5.57	0.63	8.82	5.48	0.55	10.04	5.49	0.50	11.04	5.30	0.59	8.99	14.16	2.07	6.85	13.48	2.18	6.18	12.91	2.33	5.54	12.23	2.49	4.90	11.66	2.71	4.30	11.32	3.03	3.74	8.01	2.22	3.61	7.31	2.63	2.78	5.05	2.14	2.35
	norm	4.76	0.61	7.82	4.68	0.52	9.07	4.61	0.45	10.32	5.13	0.46	11.26	4.96	0.54	9.17	13.41	1.78	7.51	12.77	1.88	6.77	12.23	2.01	6.08	11.59	2.15	5.38	11.05	2.34	4.72	10.73	2.61	4.11	6.73	1.82	3.71	6.15	2.15	2.86	4.62	1.93	2.39
	min	3.49	0.43	8.03	3.43	0.37	9.31	3.38	0.32	10.60	3.16	0.27	11.88	3.06	0.32	9.68	6.71	0.80	8.40	6.38	0.84	7.57	6.11	0.90	6.79	5.79	0.96	6.01	5.52	1.05	5.28	5.36	1.17	4.59	4.93	1.30	3.81	4.51	1.53	2.94	4.13	1.73	2.39
14	max	5.81	0.74	7.82	5.72	0.63	9.08	5.63	0.55	10.33	5.63	0.50	11.36	5.44	0.59	9.25	14.54	2.06	7.05	13.84	2.18	6.35	13.26	2.33	5.70	12.56	2.49	5.04	11.98	2.70	4.43	11.63	3.02	3.85	8.22	2.22	3.71	7.51	2.62	2.86	5.18	2.14	2.42
	norm	4.88	0.61	8.04	4.81	0.52	9.33	4.73	0.45	10.62	5.27	0.46	11.58	5.09	0.54	9.43	13.77	1.78	7.73	13.11	1.88	6.97	12.56	2.01	6.25	11.90	2.15	5.53	11.35	2.34	4.86	11.02	2.61	4.22	6.91	1.81	3.81	6.31	2.15	2.94	4.74	1.93	2.45
	min	3.58	0.43	8.26	3.53	0.37	9.58	3.47	0.32	10.90	3.25	0.27	12.22	3.14	0.32	9.96	6.89	0.80	8.64	6.55	0.84	7.79	6.28	0.90	6.99	5.95	0.96	6.18	5.67	1.05	5.43	5.51	1.17	4.72	5.07	1.29	3.92	4.63	1.53	3.02	4.24	1.73	2.45
15	max	5.96	0.74	8.04	5.87	0.63	9.33	5.78	0.54	10.62	5.78	0.50	11.67	5.58	0.59	9.51	14.92	2.06	7.24	14.20	2.17	6.53	13.60	2.32	5.86	12.89	2.49	5.18	12.29	2.70	4.55	11.93	3.02	3.96	8.44	2.21	3.81	7.70	2.62	2.94	5.32	2.14	2.49
	norm	5.01	0.61	8.27	4.94	0.51	9.59	4.86	0.45	10.91	5.41	0.45	11.90	5.23	0.54	9.70	14.13	1.78	7.94	13.45	1.88	7.16	12.89	2.01	6.42	12.21	2.15	5.69	11.64	2.33	4.99	11.30	2.60	4.34	7.09	1.81	3.92	6.48	2.14	3.02	4.86	1.93	2.52
	min	3.67	0.43	8.49	3.62	0.37	9.85	3.56	0.32	11.21	3.33	0.27	12.56	3.22	0.31	10.23	7.07	0.80	8.88	6.73	0.84	8.00	6.44	0.90	7.18	6.10	0.96	6.35	5.82	1.04	5.58	5.65	1.17	4.85	5.20	1.29	4.03	4.75	1.53	3.10	4.35	1.73	2.52
18	max	6.39	0.73	8.69	6.29	0.62	10.09	6.19	0.54	11.48	6.19	0.49	12.62	5.98	0.58	10.28	15.98	2.04	7.83	15.22	2.16	7.06	14.58	2.30	6.33	13.81	2.46	5.60	13.17	2.68	4.92	12.79	2.99	4.28	9.04	2.19	4.12	8.25	2.60	3.18	5.70	2.12	2.69
	norm	5.37	0.60	8.94	5.29	0.51	10.37	5.21	0.44	11.79	5.80	0.45	12.87	5.60	0.53	10.48	15.14	1.76	8.59	14.42	1.86	7.74	13.81	1.99	6.94	13.08	2.13	6.15	12.48	2.31	5.40	10.20	2.00	5.10	7.60	1.79	4.24	6.94	2.12	3.27	5.21	1.91	2.73
	min	3.94	0.43	9.18	3.88	0.36	10.65	3.82	0.32	12.11	3.57	0.26	13.58	3.45	0.31	11.06	7.57	0.79	9.60	7.21	0.83	8.65	6.90	0.89	7.76	6.54	0.95	6.87	6.24	1.03	6.03	6.06	1.16	5.24	5.57	1.28	4.35	5.09	1.52	3.36	4.66	1.71	2.73
20	max	6.72	0.74	9.12	6.62	0.63	10.58	6.51	0.54	12.04	6.52	0.49	13.24	6.30	0.58	10.79	16.82	2.05	8.21	16.01	2.16	7.41	15.34	2.31	6.64	14.53	2.47	5.88	13.86	2.68	5.16	13.45	3.00	4.49	9.51	2.20	4.33	8.68	2.60	3.34	6.00	2.12	2.82
	norm	5.65	0.60	9.38	5.56	0.51	10.88	5.48	0.44	12.38	6.10	0.45	13.50	5.89	0.54	11.00	15.93	1.77	9.01	15.17	1.87	8.12	14.53	1.99	7.29	13.76	2.13	6.45	13.13	2.32	5.66	12.74	2.59	4.92	8.00	1.80	4.45	7.30	2.13	3.43	5.48	1.92	2.86
	min	4.14	0.43	9.63	4.08	0.37	11.17	4.01	0.32	12.71	3.76	0.26	14.25	3.63	0.31	11.61	7.97	0.79	10.07	7.58	0.84	9.08	7.26	0.89	8.14	6.88	0.95	7.21	6.56	1.04	6.33	6.37	1.16	5.50	5.86	1.28	4.57	5.35	1.52	3.52	4.91	1.71	2.86
23	max	7.15	0.73	9.77	7.04	0.62	11.34	6.93	0.54	12.90	6.93	0.49	14.18	6.70	0.58	11.56	17.88	2.03	8.80	17.03	2.15	7.94	16.31	2.29	7.12	15.45	2.45	6.30	14.74	2.66	5.53	14.31	2.97	4.81	10.11	2.18	4.64	9.23	2.58	3.57	6.38	2.11	3.03
	norm	6.01	0.60	10.05	5.92	0.51	11.65	5.83	0.44	13.26	6.49	0.45	14.47	6.27	0.53	11.79	16.94	1.76	9.65	16.13	1.85	8.70	15.45	1.98	7.81	14.64	2.12	6.91	13.96	2.30	6.07	13.55	2.57	5.28	8.51	1.79	4.76	7.77	2.11	3.67	5.83	1.90	3.07
	min	4.41	0.43	10.32	4.34	0.36	11.97	4.27	0.31	13.62	4.00	0.26	15.27	3.86	0.31	12.44	8.47	0.79	10.79	8.06	0.83	9.73	7.73	0.89	8.73	7.32	0.95	7.72	6.98	1.03	6.78	6.78	1.15	5.90	6.23	1.27	4.89	5.69	1.51	3.77	5.22	1.70	3.07
25	max	7.42	0.73	10.21	7.31	0.62	11.84	7.19	0.53	13.48	7.20	0.49	14.82	6.95	0.58	12.07	18.57	2.02	9.19	17.68	2.13	8.29	16.94	2.28	7.43	16.05	2.44	6.58	15.30	2.65	5.78	14.86	2.96	5.02	10.50	2.17	4.84	9.59	2.57	3.73	6.62	2.10	3.16
	norm	6.24	0.59	10.49	6.15	0.50	12.17	6.05	0.44	13.85	6.74	0.45	15.11	6.51	0.53	12.31	17.60	1.75	10.08	16.75	1.84	9.09	16.05	1.97	8.15	15.20	2.11	7.22	14.50	2.29	6.34	14.08	2.55	5.51	8.83	1.78	4.98	8.07	2.10	3.84	6.06	1.89	3.20
	min	4.57	0.42	10.78	4.50	0.36	12.50	4.43	0.31	14.22	4.15	0.26	15.95	4.01	0.31	12.99	8.80	0.78	11.27	8.38	0.82	10.16	8.02	0.88	9.11	7.60	0.94	8.07	7.25	1.02	7.08	7.04	1.14	6.16	6.47	1.27	5.11	5.91	1.50	3.94	5.42	1.69	3.20

Cooling Capacity Correction_12

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	6.76	1.19	5.69	6.66	1.01	6.60	6.55	0.87	7.51	6.49	0.84	7.77	6.27	0.99	6.33	14.56	2.61	5.58	13.86	2.75	5.03	13.28	2.94	4.51	12.58	3.15	4.00	12.00	3.42	3.51	12.30	4.17	2.95	9.57	3.55	2.70	7.16	3.11	2.30	6.56	3.50	1.87
	norm	5.79	0.93	6.21	5.70	0.79	7.21	5.61	0.68	8.20	6.14	0.73	8.42	5.93	0.86	6.86	11.88	2.09	5.21	11.75	2.25	5.21	11.68	2.51	4.65	11.46	2.80	4.09	11.31	3.15	3.59	11.10	3.58	3.10	8.19	2.78	2.95	6.72	2.84	2.37	6.16	3.20	1.92
	min	3.58	0.54	6.56	3.52	0.46	7.61	3.47	0.40	8.66	3.25	0.33	9.71	3.14	0.40	7.91	6.88	1.00	6.86	6.55	1.06	6.19	6.27	1.13	4.91	5.94	1.21	4.91	5.67	1.31	4.31	5.50	1.47	3.75	5.06	1.63	3.11	4.62	1.93	2.40	4.24	2.17	1.95
8	max	6.98	1.19	5.89	6.87	1.01	6.83	6.76	0.87	7.77	6.70	0.83	8.04	6.47	0.99	6.55	15.02	2.60	5.78	14.30	2.75	5.21	13.70	2.93	4.67	12.98	3.14	4.14	12.38	3.41	3.63	12.69	4.16	3.05	9.87	3.54	2.79	7.39	3.10	2.38	6.77	3.49	1.94
	norm	5.97	0.93	6.43	5.88	0.79	7.46	5.79	0.68	8.49	6.33	0.73	8.71	6.12	0.86	7.10	12.26	2.09	5.87	12.13	2.25	5.40	12.05	2.51	4.81	11.83	2.80	4.23	11.67	3.14	3.71	11.46	3.57	3.21	8.45	2.83	2.45	6.94	2.83	2.45	6.36	3.19	1.99
	min	3.69	0.54	6.79	3.63	0.46	7.88	3.58	0.40	8.97	3.35	0.33	10.05	3.24	0.40	8.19	7.10	1.00	6.75	6.47	1.05	6.40	6.47	1.13	5.74	6.13	1.21	5.08	5.85	1.31	4.46	5.68	1.46	3.88	5.22	1.62	3.22	4.77	1.92	2.48	4.37	2.17	2.02
9	max	7.19	1.18	6.08	7.08	1.00	7.06	6.97	0.87	8.03	6.91	0.83	8.31	6.67	0.99	6.77	15.49	2.59	5.97	14.75	2.74	5.38	14.13	2.93	4.83	13.38	3.13	4.27	12.76	3.40	3.75	13.09	4.15	3.16	10.18	3.53	2.88	7.62	3.09	2.46	6.98	3.49	2.00
	norm	6.16	0.93	6.64	6.06	0.79	7.71	5.97	0.68	8.77	6.53	0.73	9.00	6.31	0.86	7.33	12.64	2.08	5.58	12.50	2.24	5.08	12.42	2.50	4.97	12.19	2.79	4.37	12.03	3.14	3.84	11.81	3.56	3.32	8.71	2.76	3.15	7.15	2.82	2.53	6.55	3.19	2.06
	min	3.80	0.54	7.02	3.75	0.46	8.14	3.69	0.40	9.26	3.45	0.33	10.39	3.34	0.39	8.46	7.32	1.00	6.62	6.96	1.05	6.16	6.67	1.12	5.94	6.32	1.20	5.25	6.03	1.31	4.61	5.85	1.46	4.01	5.38	1.62	3.33	4.92	1.92	2.57	4.51	2.16	2.09
10	max	7.41	1.18	6.28	7.29	1.00	7.28	7.18	0.87	8.29	7.11	0.83	8.58	6.87	0.98	6.99	15.96	2.59	6.16	15.19	2.73	5.56	14.55	2.92	4.98	13.79	3.13	4.41	13.15	3.40	3.87	13.48	4.14	3.26	10.49	3.52	2.98	7.84	3.08	2.54	7.19	3.48	2.07
	norm	6.34	0.92	6.86	6.24	0.78	7.96	6.15	0.68	9.05	6.73	0.72	9.29	6.50	0.86	7.57	15.49	2.59	6.16	15.19	2.73	5.56	14.55	2.92	4.98	13.79	3.13	4.41	13.15	3.40	3.87	13.48	4.14	3.26	10.49	3.52	2.98	7.84	3.08	2.54	7.19	3.48	2.07
	min	3.92	0.54	7.25	3.86	0.46	8.40	3.80	0.40	9.56	3.56	0.33	10.72	3.44	0.39	8.74	7.54	0.99	6.83	7.17	1.05	6.26	6.87	1.12	6.13	6.51	1.20	5.42	6.21	1.30	4.76	6.03	1.46	4.14	5.55	1.61	3.44	5.06	1.91	2.65	4.64	2.16	2.15
11	max	7.63	1.18	6.48	7.51	1.00	7.51	7.39	0.86	8.55	7.32	0.83	8.85	7.07	0.98	7.21	16.42	2.58	6.35	15.63	2.73	5.73	14.98	2.91	5.14	14.19	3.12	4.55	13.53	3.39	3.99	13.87	4.13	3.36	10.79	3.51	3.07	8.07	3.08	2.62	7.40	3.47	2.13
	norm	6.53	0.92	7.07	6.43	0.78	8.20	6.32	0.68	9.34	6.92	0.72	9.58	6.69	0.86	7.81	13.40	2.07	6.46	13.26	2.23	5.94	13.17	2.49	5.29	12.93	2.78	4.65	12.76	3.12	4.08	12.52	3.55	3.53	9.24	3.35	2.70	7.58	2.81	2.70	6.95	3.17	2.19
	min	4.03	0.54	7.47	3.97	0.46	8.67	3.91	0.40	9.86	3.66	0.33	11.06	3.54	0.39	9.01	7.76	0.99	7.81	7.38	1.05	7.04	7.07	1.12	6.32	6.70	1.20	5.59	6.39	1.30	4.91	6.20	1.45	4.27	5.71	1.61	3.54	5.21	1.91	2.73	4.78	2.15	2.22
12	max	7.84	1.18	6.67	7.72	1.00	7.74	7.60	0.86	8.81	7.53	0.83	9.11	7.27	0.98	7.43	16.89	2.58	6.55	16.08	2.72	5.90	15.40	2.91	5.29	14.59	3.11	4.69	13.91	3.38	4.11	14.27	4.12	3.46	11.10	3.51	3.16	8.30	3.07	2.70	7.61	3.47	2.20
	norm	6.71	0.92	7.29	6.61	0.78	8.45	6.50	0.68	9.62	7.12	0.72	9.87	6.88	0.85	8.04	13.78	2.07	6.65	13.63	2.23	6.12	13.55	2.48	5.45	13.29	2.77	4.79	13.12	3.12	4.21	12.88	3.54	3.64	9.50	2.75	3.46	7.80	2.81	2.78	7.15	3.17	2.26
	min	4.15	0.54	7.70	4.08	0.46	8.93	4.02	0.40	10.16	3.76	0.33	11.39	3.64	0.39	9.28	7.98	0.99	8.05	7.59	1.05	7.26	7.27	1.12	6.51	6.89	1.20	5.76	6.57	1.30	5.06	6.38	1.45	4.40	5.87	1.61	3.65	5.36	1.90	2.82	4.91	2.15	2.29
13	max	8.06	1.17	6.87	7.93	1.00	7.97	7.81	0.86	9.07	7.74	0.82	9.38	7.47	0.98	7.64	17.35	2.57	6.74	16.52	2.72	6.08	15.83	2.90	5.45	14.99	3.11	4.82	14.30	3.38	4.24	14.66	4.12	3.56	11.41	3.50	3.26	8.53	3.07	2.78	7.82	3.46	2.26
	norm	6.90	0.92	7.50	6.79	0.78	8.70	6.68	0.67	9.90	7.31	0.72	10.16	7.07	0.85	8.28	14.16	2.07	6.85	14.01	2.22	6.30	13.92	2.48	5.61	13.66	2.77	4.94	13.48	3.11	4.33	13.23	3.53	3.74	9.76	2.74	3.56	8.01	2.80	2.86	7.34	3.16	2.32
	min	4.26	0.54	7.92	4.20	0.46	9.19	4.13	0.39	10.46	3.87	0.33	11.73	3.74	0.39	9.55	8.20	0.99	8.29	7.80	1.04	7.47	7.47	1.12	6.70	7.08	1.19	5.93	6.75	1.30	5.21	6.56	1.45	4.53	6.03	1.60	3.76	5.51	1.90	2.90	5.05	2.14	2.35
14	max	8.27	1.17	7.06	8.15	0.99	8.19	8.02	0.86	9.32	7.94	0.82	9.65	7.67	0.98	7.86	17.82	2.57	6.93	16.96	2.71	6.25	16.25	2.90	5.61	15.40	3.10	4.96	14.68	3.37	4.36	15.06	4.11	3.66	11.71	3.50	3.35	8.76	3.06	2.86	8.03	3.45	2.33
	norm	7.08	0.92	7.72	6.97	0.78	8.95	6.86	0.67	10.19	7.51	0.72	10.45	7.26	0.85	8.52	14.54	2.06	7.05	14.38	2.22	6.48	14.29	2.48	5.77	14.03	2.76	5.08	13.84	3.11	4.46	13.59	3.53	3.85	10.02	2.74	3.66	8.23	2.80	2.94	7.54	3.16	2.39
	min	4.38	0.54	8.15	4.31	0.46	9.45	4.24	0.39	10.76	3.97	0.33	12.06	3.84	0.39	9.83	8.42	0.99	8.52	8.01	1.04	7.68	7.67	1.11	6.89	7.27	1.19	6.10	6.93	1.29	5.36	6.73	1.45	4.66	6.19	1.60	3.87	5.65	1.90	2.98	5.18	2.14	2.42
15	max	8.49	1.17	7.26	8.36	0.99	8.42	8.23	0.86	9.58	8.15	0.82	9.92	7.88	0.97	8.08	18.28	2.57	7.12	17.41	2.71	6.42	16.68	2.89	5.76	15.80	3.10	5.10	15.07	3.37	4.48	15.45	4.10	3.77	12.02	3.49	3.44	8.99	3.06	2.94	8.24	3.45	2.39
	norm	7.27	0.92	7.93	7.15	0.78	9.20	7.04	0.67	10.47	7.71	0.72	10.74	7.45	0.85	8.75	14.92	2.06	7.24	14.76	2.22	6.66	14.67	2.47	5.93	14.39	2.76	5.22	14.20	3.10	4.58	13.94	3.52	3.96	10.28	2.73	3.76	8.44	2.79	3.02	7.74	3.15	2.46
	min	4.49	0.54	8.38	4.42	0.45	9.72	4.35	0.39	11.06	4.08	0.33	12.40	3.94	0.39	10.10	8.64	0.99	8.76	8.22	1.04	7.90	7.88	1.11	7.08	7.46	1.19	6.27	7.12	1.29	5.50	6.91	1.44	4.79	6.36	1.60	3.97	5.80	1.89	3.06	5.32	2.14	2.49
18	max	9.10	1.16	7.85	8.96	0.98	9.10	8.82	0.85	10.36	8.74	0.81	10.72	8.44	0.97	8.74	19.59	2.54	7.70	18.65	2.69	6.94	17.87	2.87	6.23	16.93	3.07	5.51	16.15	3.34	4.84	16.56	4.07	4.07	12.88	3.46	3.72	9.63	3.03	3.18	8.83	3.42	2.58
	norm	7.79	0.91	8.57	7.67	0.77	9.94	7.55	0.67	11.32	8.26	0.71	11.62	7.98	0.84	9.46	15.98	2.04	7.83	15.82	2.20	7.20	15.72	2.45	6.41	15.42	2.73	5.64	15.22	3.07	4.95	12.00	2.45	4.90	11.02	2.71	4.07	9.05	2.77	3.27	8.29	3.12	2.66
	min	4.81	0.53	9.06	4.74	0.45	10.51	4.66	0.39	11.95	4.37	0.33	13.40	4.22	0.39	10.92	9.25	0.98	9.47	8.81	1.03	8.54	8.44	1.10	7.66	8.00	1.18	6.78	7.63	1.28	5.95	7.40	1.43	5.18	6.81	1.59	4.30	6.22	1.88	3.31	5.70	2.12	2.69
20	max	9.57	1.16	8.24	9.42	0.99	9.55	9.28	0.85	10.87	9.19	0.82	11.25	8.88	0.97	9.17	20.61	2.55	8.08	19.62	2.69	7.29	18.80	2.88	6.54	17.81	3.08	5.79	16.99	3.34	5.08	17.42	4.08	4.27	13.55	3.47	3.91	10.14	3.04	3.34	9.29	3.43	2.71
	norm	8.19	0.91	9.00	8.07	0.77	10.44	7.94	0.67	11.87	8.69	0.71	12.19	8.39	0.85	9.93	16.82	2.05	8.21	16.64	2.20	7.55	16.53	2.46	6.73	16.23	2.74	5.92	16.01	3.08	5.20	15.72	3.50	4.49	11.59	2.72	4.27	9.52	2.78	3.43	8.72	3.13	2.79
	min	5.06	0.53	9.50	4.98	0.45	11.02	4.91	0.39	12.54	4.59	0.33	14.06	4.44	0.39	11.46	9.74	0.98	9.94	9.27	1.03	8.96	8.88	1.10	8.04	8.41	1.18	7.11	8.02	1.28	6.24	7.79	1.43	5.43	7.16	1.59	4.51	6.54	1.88	3.48	6.00	2.12	2.82
23	max	10.18	1.15	8.82	10.02	0.98	10.24	9.87	0.85	11.65	9.77	0.81	12.06	9.44	0.96	9.82	21.92	2.53	8.66	20.87	2.67	7.81	19.99	2.85	7.00	18.94	3.06	6.20	18.07	3.32	5.44	18.52	4.05	4.58	14.41	3.44	4.19	10.78	3.02	3.57	9.88	3.40	2.90
	norm	8.71	0.90	9.64	8.58	0.77	11.18	8.44	0.66	12.72	9.24	0.71	13.06	8.93	0.84	10.64	17.88	2.03	8.80	17.70	2.19	8.09	17.59	2.44	7.21	17.26	2.72	6.34	17.03	3.06	5.57	16.72	3.48	4.81	12.33	2.70	4.57	10.12	2.75	3.67	9.28	3.11	2.99
	min	5.38	0.53	10.18	5.30	0.45	11.81	5.22	0.39	13.44	4.89	0.32	15.07	4.72	0.38	12.28	10.35	0.97	10.65	9.86	1.03	9.60	9.44	1.10	8.61	8.95	1.17	7.62	8.53	1.28	6.69	8.28	1.42	5.82	7.62	1.58	4.83	6.96	1.87	3.72	6.38	2.11	3.03
25	max	10.57	1.15	9.22	10.41	0.97	10.69	10.25	0.84	12.17	10.15	0.81	12.59	9.81	0.96	10.26	22.77	2.52	9.04	21.68	2.66	8.16	20.76	2.84	7.31	19.67	3.04	6.47	18.76	3.30	5.68	19.24	4.02	4.78	14.96	3.42	4.37	11.19	3.00	3.73	10.26	3.38	3.03
	norm	9.05	0.90	10.07	8.91	0.76	11.68	8.77	0.66	13.29	9.60	0.70	13.64	9.27	0.83	11.11	18.57	2.02	9.19	18.38	2.18	8.45	18.26	2.43	7.53	17.92	2.71	6.62	17.69	3.04	5.81	17.36	3.46	5.02	12.81	2.68	4.77	10.51	2.74	3.84	9.63	3.09	3.12
	min	5.59	0.53	10.63	5.51	0.45	12.34	5.42	0.39	14.04	5.08	0.32	15.74	4.90	0.38	12.82	10.75	0.97	11.12	10.24	1.02	10.03	9.81	1.09	8.99	9.29	1.17	7.96	8.86	1.27	6.99	8.60	1.42	6.08	7.91	1.57	5.04	7.23	1.86	3.89	6.62	2.10	3.16

Cooling Capacity Correction_14

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	7.15	1.36	5.25	7.04	1.16	6.09	6.93	1.00	6.93	6.96	0.89	7.82	6.73	1.06	6.37	16.13	3.20	5.03	15.35	3.38	4.54	14.71	3.61	4.07	13.93	3.87	3.60	13.29	4.20	3.16	13.52	5.01	2.70	9.57	3.55	2.70	7.39	3.23	2.29	6.78	3.64	1.86
	norm	6.76	1.19	5.69	6.66	1.01	6.60	6.55	0.87	7.51	6.49	0.84	7.77	6.27	0.99	6.33	14.88	2.73	5.45	14.16	2.88	4.92	13.77	3.15	4.37	13.45	3.52	3.83	13.20	3.96	3.34	13.30	4.75	2.80	8.42	2.86	2.95	6.80	2.87	2.37	6.24	3.24	1.92
	min	3.58	0.54	6.56	3.52	0.46	7.61	3.47	0.40	8.66	3.25	0.33	9.71	3.14	0.40	7.91	6.88	1.00	6.86	6.55	1.06	6.19	6.27	1.13	5.55	5.94	1.21	4.91	5.67	1.31	4.31	5.50	1.47	3.75	5.06	1.63	3.11	4.62	1.93	2.40	4.24	2.17	1.95
8	max	7.38	1.36	5.43	7.27	1.15	6.30	7.15	1.00	7.17	7.18	0.89	8.10	6.94	1.05	6.60	16.64	3.19	5.21	15.84	3.37	4.70	15.18	3.60	4.21	14.38	3.86	3.73	13.71	4.19	3.27	13.95	4.99	2.79	9.87	3.54	2.79	7.63	3.22	2.37	6.99	3.63	1.93
	norm	6.98	1.19	5.89	6.87	1.01	6.83	6.76	0.87	7.77	6.70	0.83	8.04	6.47	0.99	6.55	15.35	2.72	5.64	14.61	2.87	5.09	14.21	3.15	4.52	13.88	3.51	3.96	13.63	3.95	3.45	13.73	4.74	2.90	8.69	2.85	3.05	7.02	2.86	2.45	6.44	3.23	1.99
	min	3.69	0.54	6.79	3.63	0.46	7.88	3.58	0.40	8.97	3.35	0.33	10.05	3.24	0.40	8.19	7.10	1.00	7.10	6.75	1.05	6.40	6.47	1.13	5.74	6.13	1.21	5.08	5.85	1.31	4.46	5.68	1.46	3.88	5.22	1.62	3.22	4.77	1.92	2.48	4.37	2.17	2.02
9	max	7.61	1.35	5.61	7.49	1.15	6.51	7.37	0.99	7.41	7.41	0.89	8.37	7.16	1.05	6.82	17.16	3.19	5.38	16.33	3.37	4.85	15.65	3.59	4.35	14.82	3.85	3.85	14.14	4.18	3.38	14.39	4.98	2.89	10.18	3.53	2.88	7.87	3.21	2.45	7.21	3.62	1.99
	norm	7.19	1.18	6.08	7.08	1.00	7.06	6.97	0.87	8.03	6.91	0.83	8.31	6.67	0.99	6.77	15.83	2.71	5.83	15.07	2.87	5.26	14.65	3.14	4.67	14.31	3.50	4.09	14.05	3.94	3.57	14.15	4.73	2.99	8.96	2.84	3.15	7.24	2.86	2.53	6.64	3.23	2.06
	min	3.80	0.54	7.02	3.75	0.46	8.14	3.69	0.40	9.26	3.45	0.33	10.39	3.34	0.39	8.46	7.32	1.00	7.34	6.96	1.05	6.62	6.67	1.12	5.94	6.32	1.20	5.25	6.03	1.31	4.61	5.85	1.46	4.01	5.38	1.62	3.33	4.92	1.92	2.57	4.51	2.16	2.09
10	max	7.84	1.35	5.80	7.72	1.15	6.72	7.60	0.99	7.65	7.63	0.88	8.64	7.37	1.05	7.03	17.67	3.18	5.56	16.82	3.36	5.01	16.12	3.59	4.49	15.27	3.84	3.98	14.56	4.17	3.49	14.82	4.97	2.98	10.49	3.52	2.98	8.10	3.20	2.53	7.43	3.61	2.06
	norm	7.41	1.18	6.28	7.29	1.00	7.28	7.18	0.87	8.29	7.11	0.83	8.58	6.87	0.98	6.99	16.30	2.71	6.02	15.52	2.86	5.43	15.09	3.13	4.82	14.74	3.49	4.22	14.47	3.93	3.68	14.58	4.72	3.09	9.23	2.84	3.25	7.46	2.85	2.61	6.84	3.22	2.12
	min	3.92	0.54	7.25	3.86	0.46	8.40	3.80	0.40	9.56	3.56	0.33	10.72	3.44	0.39	8.74	7.54	0.99	7.58	7.17	1.05	6.83	6.87	1.12	6.13	6.51	1.20	5.42	6.21	1.30	4.76	6.03	1.46	4.14	5.55	1.61	3.44	5.06	1.91	2.65	4.64	2.16	2.15
11	max	8.07	1.35	5.98	7.94	1.15	6.93	7.82	0.99	7.89	7.85	0.88	8.91	7.59	1.05	7.25	18.19	3.17	5.73	17.32	3.35	5.17	16.59	3.58	4.63	15.72	3.83	4.10	14.99	4.16	3.60	15.25	4.96	3.07	10.79	3.51	3.07	8.34	3.20	2.61	7.64	3.61	2.12
	norm	7.63	1.18	6.48	7.51	1.00	7.51	7.39	0.86	8.55	7.32	0.83	8.85	7.07	0.98	7.21	16.78	2.70	6.21	15.97	2.85	5.60	15.53	3.13	4.97	15.17	3.48	4.35	14.89	3.92	3.80	15.00	4.71	3.19	9.50	2.83	3.35	7.67	2.85	2.70	7.04	3.21	2.19
	min	4.03	0.54	7.47	3.97	0.46	8.67	3.91	0.40	9.86	3.66	0.33	11.06	3.54	0.39	9.01	7.76	0.99	7.81	7.38	1.05	7.04	7.07	1.12	6.32	6.70	1.20	5.59	6.39	1.30	4.91	6.20	1.45	4.27	5.71	1.61	3.54	5.21	1.91	2.73	4.78	2.15	2.22
12	max	8.29	1.35	6.16	8.17	1.14	7.14	8.04	0.99	8.13	8.08	0.88	9.17	7.80	1.04	7.47	18.71	3.35	5.90	17.81	3.35	5.32	17.06	3.57	4.77	16.16	3.82	4.23	15.41	4.15	3.71	15.68	4.95	3.17	11.10	3.51	3.16	8.57	3.19	2.69	7.86	3.60	2.18
	norm	7.84	1.18	6.67	7.72	1.00	7.74	7.60	0.86	8.81	7.53	0.83	9.11	7.27	0.98	7.43	17.26	2.70	6.40	16.43	2.85	5.77	15.97	3.12	5.12	15.60	3.48	4.49	15.32	3.92	3.91	15.43	4.70	3.28	9.77	2.83	3.46	7.89	2.84	2.78	7.23	3.21	2.26
	min	4.15	0.54	7.70	4.08	0.46	8.93	4.02	0.40	10.16	3.76	0.33	11.39	3.64	0.39	9.28	7.98	0.99	8.05	7.59	1.05	7.26	7.27	1.12	6.51	6.89	1.20	5.76	6.57	1.30	5.06	6.38	1.45	4.40	5.87	1.61	3.65	5.36	1.90	2.82	4.91	2.15	2.29
13	max	8.52	1.34	6.34	8.39	1.14	7.35	8.26	0.99	8.37	8.30	0.88	9.44	8.02	1.04	7.69	19.22	3.16	6.08	18.30	3.34	5.48	17.53	3.57	4.91	16.61	3.82	4.35	15.84	4.15	3.82	16.12	4.94	3.26	11.41	3.50	3.26	8.81	3.18	2.77	8.08	3.59	2.25
	norm	8.06	1.17	6.87	7.93	1.00	7.97	7.81	0.86	9.07	7.74	0.82	9.38	7.47	0.98	7.64	17.73	2.69	6.58	16.88	2.84	5.94	16.42	3.11	5.27	16.03	3.47	4.62	15.74	3.91	4.03	15.85	4.69	3.38	10.04	2.82	3.56	8.11	2.84	2.86	7.43	3.20	2.32
	min	4.26	0.54	7.92	4.20	0.46	9.19	4.13	0.39	10.46	3.87	0.33	11.73	3.74	0.39	9.55	8.20	0.99	8.29	7.80	1.04	7.47	7.47	1.12	6.70	7.08	1.19	5.93	6.75	1.30	5.21	6.56	1.45	4.53	6.03	1.60	3.76	5.51	1.90	2.90	5.05	2.14	2.35
14	max	8.75	1.34	6.52	8.62	1.14	7.56	8.48	0.99	8.61	8.52	0.88	9.71	8.23	1.04	7.91	19.74	3.16	6.25	18.79	3.33	5.64	18.00	3.56	5.05	17.05	3.81	4.47	16.26	4.14	3.93	16.55	4.93	3.35	11.71	3.50	3.35	9.05	3.18	2.85	8.29	3.59	2.31
	norm	8.27	1.17	7.06	8.15	0.99	8.19	8.02	0.86	9.32	7.94	0.82	9.65	7.67	0.98	7.86	18.21	2.69	6.77	17.33	2.84	6.11	16.86	3.11	5.42	16.46	3.46	4.75	16.16	3.90	4.14	16.28	4.68	3.48	10.31	2.82	3.66	8.33	2.83	2.94	7.63	3.19	2.39
	min	4.38	0.54	8.15	4.31	0.46	9.45	4.24	0.39	10.76	3.97	0.33	12.06	3.84	0.39	9.83	8.42	0.99	8.52	8.01	1.04	7.68	7.67	1.11	6.89	7.27	1.19	6.10	6.93	1.29	5.36	6.73	1.45	4.66	6.19	1.60	3.87	5.65	1.90	2.98	5.18	2.14	2.42
15	max	8.98	1.34	6.70	8.84	1.14	7.77	8.70	0.98	8.85	8.74	0.88	9.98	8.45	1.04	8.13	20.25	3.15	6.42	19.28	3.33	5.79	18.47	3.56	5.20	17.50	3.81	4.60	16.69	4.13	4.04	16.98	4.93	3.45	12.02	3.49	3.44	9.28	3.17	2.92	8.51	3.58	2.38
	norm	8.49	1.17	7.26	8.36	0.99	8.42	8.23	0.86	9.58	8.15	0.82	9.92	7.88	0.97	8.08	18.68	2.68	6.96	17.79	2.83	6.28	17.30	3.10	5.57	16.89	3.46	4.88	16.58	3.90	4.26	16.70	4.67	3.57	10.58	2.81	3.76	8.55	2.83	3.02	7.83	3.19	2.46
	min	4.49	0.54	8.38	4.42	0.45	9.72	4.35	0.39	11.06	4.08	0.33	12.40	3.94	0.39	10.10	8.64	0.99	8.76	8.22	1.04	7.90	7.88	1.11	7.08	7.46	1.19	6.27	7.12	1.29	5.50	6.91	1.44	4.79	6.36	1.60	3.97	5.80	1.89	3.06	5.32	2.14	2.49
18	max	9.62	1.33	7.25	9.48	1.13	8.40	9.33	0.98	9.56	9.37	0.87	10.79	9.05	1.03	8.79	21.70	3.13	6.94	20.66	3.30	6.26	19.79	3.52	5.62	18.75	3.77	4.97	17.88	4.10	4.36	18.20	4.88	3.73	12.88	3.46	3.72	9.95	3.15	3.16	9.12	3.55	2.57
	norm	9.10	1.16	7.85	8.96	0.98	9.10	8.82	0.85	10.36	8.74	0.81	10.72	8.44	0.97	8.74	20.02	2.66	7.53	19.06	2.81	6.79	18.54	3.08	6.03	18.10	3.43	5.28	17.77	3.86	4.60	13.70	3.00	4.57	11.34	2.79	4.07	9.16	2.80	3.27	8.40	3.16	2.66
	min	4.81	0.53	9.06	4.74	0.45	10.51	4.66	0.39	11.95	4.37	0.33	13.40	4.22	0.39	10.92	9.25	0.98	9.47	8.81	1.03	8.54	8.44	1.10	7.66	8.00	1.18	6.78	7.63	1.28	5.95	7.40	1.43	5.18	6.81	1.59	4.30	6.22	1.88	3.31	5.70	2.12	2.69
20	max	10.12	1.33	7.60	9.97	1.13	8.82	9.81	0.98	10.03	9.86	0.87	11.33	9.52	1.03	9.23	22.83	3.13	7.29	21.74	3.31	6.57	20.82	3.53	5.89	19.73	3.78	5.22	18.81	4.11	4.58	19.14	4.90	3.91	13.55	3.47	3.91	10.47	3.15	3.32	9.59	3.56	2.70
	norm	9.57	1.16	8.24	9.42	0.99	9.55	9.28	0.85	10.87	9.19	0.82	11.25	8.88	0.97	9.17	21.06	2.67	7.90	20.05	2.82	7.12	19.50	3.08	6.32	19.04	3.44	5.54	18.70	3.87	4.83	18.83	4.65	4.05	11.93	2.80	4.27	9.63	2.81	3.43	8.83	3.17	2.79
	min	5.06	0.53	9.50	4.98	0.45	11.02	4.91	0.39	12.54	4.59	0.33	14.06	4.44	0.39	11.46	9.74	0.98	9.94	9.27	1.03	8.96	8.88	1.10	8.04	8.41	1.18	7.11	8.02	1.28	6.24	7.79	1.43	5.43	7.16	1.59	4.51	6.54	1.88	3.48	6.00	2.12	2.82
23	max	10.77	1.32	8.15	10.60	1.12	9.45	10.44	0.97	10.75	10.48	0.86	12.14	10.13	1.02	9.89	24.28	3.11	7.81	23.12	3.28	7.04	22.15	3.51	6.31	20.98	3.75	5.59	20.01	4.08	4.91	20.36	4.86	4.19	14.41	3.44	4.19	11.13	3.13	3.55	10.20	3.53	2.89
	norm	10.18	1.15	8.82	10.02	0.98	10.24	9.87	0.85	11.65	9.77	0.81	12.06	9.44	0.96	9.82	22.40	2.65	8.46	21.33	2.80	7.63	20.74	3.06	6.77	20.25	3.41	5.93	19.89	3.84	5.17	20.03	4.61	4.34	12.68	2.77	4.57	10.25	2.79	3.67	9.39	3.15	2.99
	min	5.38	0.53	10.18	5.30	0.45	11.81	5.22	0.39	13.44	4.89	0.32	15.07	4.72	0.38	12.28	10.35	0.97	10.65	9.86	1.03	9.60	9.44	1.10	8.61	8.95	1.17	7.62	8.53	1.28	6.69	8.28	1.42	5.82	7.62	1.58	4.83	6.96	1.87	3.72	6.38	2.11	3.03
25	max	11.18	1.31	8.51	11.01	1.12	9.87	10.84	0.97	11.23	10.89	0.86	12.68	10.52	1.02	10.33	25.22	3.09	8.16	24.01	3.27	7.35	23.00	3.49	6.60	21.79	3.73	5.84	20.78	4.05	5.12	21.15	4.83	4.38	14.96	3.42	4.37	11.56	3.11	3.71	10.60	3.51	3.02
	norm	10.57	1.15	9.22	10.41	0.97	10.69	10.25	0.84	12.17	10.15	0.81	12.59	9.81	0.96	10.26	23.26	2.63	8.84	22.15	2.78	7.97	21.54	3.04	7.08	21.03	3.39	6.20	20.65	3.82	5.40	20.80	4.58	4.54	13.17	2.76	4.77	10.64	2.77	3.84	9.75	3.13	3.12
	min	5.59	0.53	10.63	5.51	0.45	12.34	5.42	0.39	14.04	5.08	0.32	15.74	4.90	0.38	12.82	10.75	0.97	11.12	10.24	1.02	10.03	9.81	1.09	8.99	9.29	1.17	7.96	8.86	1.27	6.99	8.60	1.42	6.08	7.91	1.57	5.04	7.23	1.86	3.89	6.62	2.10	3.16

Cooling Capacity Correction_16

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	7.67	1.45	5.29	7.55	1.23	6.13	7.43	1.07	6.98	7.26	0.95	7.64	7.01	1.13	6.22	16.90	3.42	4.94	16.09	3.61	4.46	15.41	3.86	4.00	14.60	4.13	3.54	13.93	4.48	3.11	14.15	5.34	2.65	11.04	4.43	2.49	7.98	3.67	2.18	7.32	4.14	1.77
	norm	7.15	1.36	5.25	7.04	1.16	6.09	6.93	1.00	6.93	6.96	0.89	7.82	6.73	1.06	6.37	15.10	3.04	4.96	15.04	3.13	4.80	14.82	3.46	4.28	14.44	3.84	3.76	14.15	4.32	3.28	13.80	5.09	2.71	9.02	3.06	2.95	7.14	3.02	2.37	6.55	3.40	1.92
	min	3.58	0.54	6.56	3.52	0.46	7.61	3.47	0.40	8.66	3.25	0.33	9.71	3.14	0.40	7.91	6.88	1.00	6.86	6.55	1.06	6.19	6.27	1.13	5.55	5.94	1.21	4.91	5.67	1.31	4.31	5.50	1.47	3.75	5.06	1.63	3.11	4.62	1.93	2.40	4.24	2.17	1.95
8	max	7.92	1.45	5.47	7.79	1.23	6.35	7.67	1.06	7.22	7.49	0.95	7.91	7.24	1.12	6.44	17.44	3.41	5.11	16.60	3.60	4.61	15.91	3.85	4.14	15.07	4.12	3.66	14.37	4.47	3.21	14.60	5.32	2.74	11.39	4.42	2.58	8.24	3.66	2.25	7.55	4.13	1.83
	norm	7.38	1.36	5.43	7.27	1.15	6.30	7.15	1.00	7.17	7.18	0.89	8.10	6.94	1.05	6.60	15.58	3.04	5.13	15.52	3.12	4.97	15.29	3.45	4.43	14.90	3.83	3.89	14.61	4.31	3.39	14.24	5.08	2.80	9.30	3.05	3.05	7.37	3.01	2.45	6.75	3.39	1.99
	min	3.69	0.54	6.79	3.63	0.46	7.88	3.58	0.40	8.97	3.35	0.33	10.05	3.24	0.40	8.19	7.10	1.00	7.10	6.75	1.05	6.40	6.47	1.13	5.74	6.13	1.21	5.08	5.85	1.31	4.46	5.68	1.46	3.88	5.22	1.62	3.22	4.77	1.92	2.48	4.37	2.17	2.02
9	max	8.16	1.44	5.65	8.04	1.23	6.56	7.91	1.06	7.46	7.72	0.94	8.17	7.46	1.12	6.66	17.98	3.40	5.28	17.12	3.59	4.76	16.40	3.84	4.27	15.54	4.11	3.78	14.82	4.46	3.32	15.06	5.31	2.83	11.75	4.41	2.66	8.49	3.65	2.33	7.78	4.12	1.89
	norm	7.61	1.35	5.61	7.49	1.15	6.51	7.37	0.99	7.41	7.41	0.89	8.37	7.16	1.05	6.82	16.07	3.03	5.30	16.00	3.12	5.14	15.77	3.45	4.57	15.36	3.82	4.02	15.06	4.30	3.51	14.68	5.07	2.90	9.59	3.04	3.15	7.60	3.00	2.53	6.96	3.38	2.06
	min	3.80	0.54	7.02	3.75	0.46	8.14	3.69	0.40	9.26	3.45	0.33	10.39	3.34	0.39	8.46	7.32	1.00	7.34	6.96	1.05	6.62	6.67	1.12	5.94	6.32	1.20	5.25	6.03	1.31	4.61	5.85	1.46	4.01	5.38	1.62	3.33	4.92	1.92	2.57	4.51	2.16	2.09
10	max	8.41	1.44	5.83	8.28	1.22	6.77	8.15	1.06	7.70	7.95	0.94	8.44	7.68	1.12	6.87	18.52	3.40	5.45	17.63	3.59	4.92	16.89	3.83	4.41	16.00	4.10	3.90	15.26	4.45	3.43	15.51	5.30	2.93	12.10	4.40	2.75	8.75	3.64	2.40	8.02	4.11	1.95
	norm	7.84	1.35	5.80	7.72	1.15	6.72	7.60	0.99	7.65	7.63	0.88	8.64	7.37	1.05	7.03	16.55	3.02	5.48	16.49	3.11	5.30	16.24	3.44	4.72	15.83	3.81	4.15	15.51	4.29	3.62	15.12	5.06	2.99	9.88	3.04	3.25	7.83	2.99	2.61	7.17	3.38	2.12
	min	3.92	0.54	7.25	3.86	0.46	8.40	3.80	0.40	9.56	3.56	0.33	10.72	3.44	0.39	8.74	7.54	0.99	7.58	7.17	1.05	6.83	6.87	1.12	6.13	6.51	1.20	5.42	6.21	1.30	4.76	6.03	1.46	4.14	5.55	1.61	3.44	5.06	1.91	2.65	4.64	2.16	2.15
11	max	8.65	1.44	6.02	8.52	1.22	6.98	8.39	1.06	7.94	8.19	0.94	8.70	7.91	1.12	7.09	19.06	3.39	5.63	18.15	3.58	5.07	17.39	3.82	4.55	16.47	4.09	4.03	15.71	4.44	3.54	15.96	5.29	3.02	12.45	4.39	2.83	9.00	3.63	2.48	8.25	4.10	2.01
	norm	8.07	1.35	5.98	7.94	1.15	6.93	7.82	0.99	7.89	7.85	0.88	8.91	7.59	1.05	7.25	17.03	3.02	5.65	16.97	3.10	5.47	16.72	3.43	4.87	16.29	3.81	4.28	15.96	4.28	3.73	15.57	5.05	3.09	10.17	3.03	3.35	8.05	2.99	2.70	7.38	3.37	2.19
	min	4.03	0.54	7.47	3.97	0.46	8.67	3.91	0.40	9.86	3.66	0.33	11.06	3.54	0.39	9.01	7.76	0.99	7.81	7.38	1.05	7.04	7.07	1.12	6.32	6.70	1.20	5.59	6.39	1.30	4.91	6.20	1.45	4.27	5.71	1.61	3.54	5.21	1.91	2.73	4.78	2.15	2.22
12	max	8.90	1.44	6.20	8.76	1.22	7.19	8.62	1.05	8.18	8.42	0.94	8.96	8.13	1.11	7.30	19.60	3.38	5.80	18.66	3.57	5.23	17.88	3.81	4.69	16.94	4.08	4.15	16.15	4.44	3.64	16.41	5.28	3.11	12.81	4.38	2.92	9.26	3.63	2.55	8.49	4.09	2.07
	norm	8.29	1.35	6.16	8.17	1.14	7.14	8.04	0.99	8.13	8.08	0.88	9.17	7.80	1.04	7.47	17.52	3.01	5.82	17.45	3.10	5.63	17.19	3.43	5.02	16.75	3.80	4.41	16.42	4.27	3.84	16.01	5.04	3.18	10.46	3.03	3.46	8.28	2.98	2.78	7.59	3.36	2.26
	min	4.15	0.54	7.70	4.08	0.46	8.93	4.02	0.40	10.16	3.76	0.33	11.39	3.64	0.39	9.28	7.98	0.99	8.05	7.59	1.05	7.26	7.27	1.12	6.51	6.89	1.20	5.76	6.57	1.30	5.06	6.38	1.45	4.40	5.87	1.61	3.65	5.36	1.90	2.82	4.91	2.15	2.29
13	max	9.14	1.43	6.38	9.00	1.22	7.40	8.86	1.05	8.42	8.65	0.94	9.23	8.36	1.11	7.52	20.14	3.38	5.97	19.18	3.57	5.38	18.37	3.81	4.83	17.41	4.08	4.27	16.60	4.43	3.75	16.87	5.27	3.20	13.16	4.38	3.01	9.51	3.62	2.63	8.72	4.08	2.13
	norm	8.52	1.34	6.34	8.39	1.14	7.35	8.26	0.99	8.37	8.30	0.88	9.44	8.02	1.04	7.69	18.00	3.01	5.99	17.93	3.09	5.80	17.67	3.42	5.16	17.21	3.79	4.54	16.87	4.26	3.96	16.45	5.03	3.27	10.75	3.02	3.56	8.51	2.98	2.86	7.80	3.36	2.32
	min	4.26	0.54	7.92	4.20	0.46	9.19	4.13	0.39	10.46	3.87	0.33	11.73	3.74	0.39	9.55	8.20	0.99	8.29	7.80	1.04	7.47	7.47	1.12	6.70	7.08	1.19	5.93	6.75	1.30	5.21	6.56	1.45	4.53	6.03	1.60	3.76	5.51	1.90	2.90	5.05	2.14	2.35
14	max	9.39	1.43	6.56	9.24	1.21	7.61	9.10	1.05	8.66	8.88	0.94	9.49	8.58	1.11	7.73	20.69	3.37	6.14	19.69	3.56	5.53	18.87	3.80	4.96	17.87	4.07	4.39	17.04	4.42	3.86	17.32	5.26	3.29	13.51	4.37	3.09	9.77	3.61	2.70	8.95	4.08	2.20
	norm	8.75	1.34	6.52	8.62	1.14	7.56	8.48	0.99	8.61	8.52	0.88	9.71	8.23	1.04	7.91	18.48	3.00	6.16	18.41	3.09	5.96	18.14	3.41	5.31	17.67	3.78	4.67	17.32	4.26	4.07	16.89	5.02	3.37	11.04	3.02	3.66	8.74	2.97	2.94	8.01	3.35	2.39
	min	4.38	0.54	8.15	4.31	0.46	9.45	4.24	0.39	10.76	3.97	0.33	12.06	3.84	0.39	9.83	8.42	0.99	8.52	8.01	1.04	7.68	7.67	1.11	6.89	7.27	1.19	6.10	6.93	1.29	5.36	6.73	1.45	4.66	6.19	1.60	3.87	5.65	1.90	2.98	5.18	2.14	2.42
15	max	9.63	1.43	6.75	9.49	1.21	7.83	9.34	1.05	8.91	9.11	0.93	9.75	8.81	1.11	7.95	21.23	3.37	6.31	20.21	3.55	5.69	19.36	3.80	5.10	18.34	4.06	4.51	17.49	4.41	3.96	17.77	5.25	3.38	13.87	4.36	3.18	10.02	3.61	2.78	9.19	4.07	2.26
	norm	8.98	1.34	6.70	8.84	1.14	7.77	8.70	0.98	8.85	8.74	0.88	9.98	8.45	1.04	8.13	18.97	3.00	6.33	18.89	3.08	6.13	18.61	3.41	5.46	18.14	3.78	4.80	17.78	4.25	4.18	17.33	5.01	3.46	11.32	3.01	3.76	8.97	2.97	3.02	8.22	3.35	2.46
	min	4.49	0.54	8.38	4.42	0.45	9.72	4.35	0.39	11.06	4.08	0.33	12.40	3.94	0.39	10.10	8.64	0.99	8.76	8.22	1.04	7.90	7.88	1.11	7.08	7.46	1.19	6.27	7.12	1.29	5.50	6.91	1.44	4.79	6.36	1.60	3.97	5.80	1.89	3.06	5.32	2.14	2.49
18	max	10.32	1.42	7.29	10.16	1.20	8.46	10.01	1.04	9.63	9.77	0.93	10.54	9.44	1.10	8.59	22.75	3.34	6.82	21.66	3.52	6.15	20.75	3.76	5.51	19.65	4.03	4.88	18.74	4.37	4.28	19.05	5.21	3.66	14.86	4.32	3.44	10.74	3.58	3.00	9.85	4.04	2.44
	norm	9.62	1.33	7.25	9.48	1.13	8.40	9.33	0.98	9.56	9.37	0.87	10.79	9.05	1.03	8.79	20.32	2.97	6.84	20.25	3.06	6.63	19.95	3.38	5.90	19.44	3.75	5.19	19.05	4.21	4.52	15.50	3.60	4.31	12.14	2.98	4.07	9.61	2.94	3.27	8.81	3.32	2.66
	min	4.81	0.53	9.06	4.74	0.45	10.51	4.66	0.39	11.95	4.37	0.33	13.40	4.22	0.39	10.92	9.25	0.98	9.47	8.81	1.03	8.54	8.44	1.10	7.66	8.00	1.18	6.78	7.63	1.28	5.95	7.40	1.43	5.18	6.81	1.59	4.30	6.22	1.88	3.31	5.70	2.12	2.69
20	max	10.86	1.42	7.65	10.69	1.20	8.88	10.53	1.04	10.10	10.28	0.93	11.06	9.93	1.10	9.01	23.93	3.34	7.15	22.78	3.53	6.45	21.82	3.77	5.79	20.68	4.04	5.12	19.72	4.39	4.50	20.04	5.22	3.84	15.63	4.34	3.61	11.30	3.59	3.15	10.36	4.05	2.56
	norm	10.12	1.33	7.60	9.97	1.13	8.82	9.81	0.98	10.03	9.86	0.87	11.33	9.52	1.03	9.23	21.38	2.98	7.18	21.30	3.06	6.95	20.99	3.39	6.19	20.45	3.76	5.44	20.04	4.22	4.75	19.54	4.98	3.92	12.77	2.99	4.27	10.11	2.95	3.43	9.27	3.33	2.79
	min	5.06	0.53	9.50	4.98	0.45	11.02	4.91	0.39	12.54	4.59	0.33	14.06	4.44	0.39	11.46	9.74	0.98	9.94	9.27	1.03	8.96	8.88	1.10	8.04	8.41	1.18	7.11	8.02	1.28	6.24	7.79	1.43	5.43	7.16	1.59	4.51	6.54	1.88	3.48	6.00	2.12	2.82
23	max	11.55	1.41	8.20	11.37	1.20	9.51	11.20	1.03	10.82	10.93	0.92	11.85	10.56	1.09	9.66	25.45	3.32	7.67	24.23	3.51	6.91	23.21	3.74	6.20	21.99	4.01	5.49	20.97	4.35	4.82	21.31	5.18	4.11	16.63	4.30	3.86	12.02	3.56	3.38	11.02	4.02	2.74
	norm	10.77	1.32	8.15	10.60	1.12	9.45	10.44	0.97	10.75	10.48	0.86	12.14	10.13	1.02	9.89	22.74	2.96	7.69	22.65	3.04	7.45	22.32	3.36	6.64	21.75	3.73	5.83	21.31	4.19	5.09	20.78	4.94	4.20	13.58	2.97	4.57	10.75	2.93	3.67	9.86	3.30	2.99
	min	5.38	0.53	10.18	5.30	0.45	11.81	5.22	0.39	13.44	4.89	0.32	15.07	4.72	0.38	12.28	10.35	0.97	10.65	9.86	1.03	9.60	9.44	1.10	8.61	8.95	1.17	7.62	8.53	1.28	6.69	8.28	1.42	5.82	7.62	1.58	4.83	6.96	1.87	3.72	6.38	2.11	3.03
25	max	12.00	1.40	8.56	11.81	1.19	9.93	11.63	1.03	11.30	11.35	0.92	12.38	10.97	1.09	10.09	26.43	3.30	8.01	25.16	3.49	7.22	24.11	3.72	6.48	22.84	3.98	5.73	21.78	4.33	5.03	22.13	5.15	4.29	17.27	4.28	4.04	12.48	3.54	3.53	11.44	3.99	2.87
	norm	11.18	1.31	8.51	11.01	1.12	9.87	10.84	0.97	11.23	10.89	0.86	12.68	10.52	1.02	10.33	23.62	2.94	8.04	23.53	3.02	7.78	23.18	3.34	6.93	22.58	3.71	6.09	22.13	4.17	5.31	21.58	4.91	4.39	14.10	2.95	4.77	11.17	2.91	3.84	10.24	3.28	3.12
	min	5.59	0.53	10.63	5.51	0.45	12.34	5.42	0.39	14.04	5.08	0.32	15.74	4.90	0.38	12.82	10.75	0.97	11.12	10.24	1.02	10.03	9.81	1.09	8.99	9.29	1.17	7.96	8.86	1.27	6.99	8.60	1.42	6.08	7.91	1.57	5.04	7.23	1.86	3.89	6.62	2.10	3.16

Cooling Capacity Correction_8(E1)

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	3.32	0.58	5.69	3.26	0.49	6.60	3.21	0.43	7.51	3.01	0.36	8.42	2.91	0.42	6.86	9.50	1.46	6.50	9.04	1.54	5.86	8.66	1.65	5.25	8.21	1.76	4.65	7.83	1.92	4.08	7.60	2.14	3.55	5.52	1.99	2.78	5.04	2.35	2.14	4.04	2.25	1.79
	norm	2.70	0.49	5.51	2.66	0.42	6.39	2.61	0.36	7.28	2.45	0.30	8.16	2.37	0.36	6.65	9.00	1.54	5.86	8.57	1.62	5.28	8.21	1.73	4.74	7.78	1.85	4.19	7.42	2.02	3.68	7.20	2.25	3.20	4.32	1.63	2.66	3.95	1.93	2.05	3.35	1.98	1.69
	min	2.08	0.41	5.08	2.05	0.35	5.89	2.02	0.30	6.70	1.89	0.25	7.51	1.82	0.30	6.12	4.00	0.72	5.58	3.81	0.76	5.03	3.65	0.81	4.51	3.46	0.86	4.00	3.30	0.94	3.51	3.20	1.05	3.05	2.94	1.16	2.53	2.69	1.38	1.95	2.58	1.63	1.59
8	max	3.42	0.58	5.89	3.37	0.49	6.83	3.32	0.43	7.77	3.11	0.36	8.71	3.00	0.42	7.10	9.80	1.46	6.72	9.33	1.54	6.06	8.94	1.64	5.44	8.47	1.76	4.81	8.08	1.91	4.23	7.84	2.13	3.67	5.70	1.98	2.88	5.20	2.34	2.22	4.17	2.25	1.86
	norm	2.78	0.49	5.71	2.74	0.41	6.62	2.70	0.36	7.53	2.53	0.30	8.44	2.44	0.35	6.88	9.29	1.53	6.06	8.84	1.62	5.46	8.47	1.73	4.90	8.02	1.85	4.34	7.65	2.01	3.81	7.43	2.24	3.31	4.46	1.62	2.75	4.07	1.92	2.12	3.46	1.98	1.75
	min	2.15	0.41	5.25	2.11	0.35	6.09	2.08	0.30	6.93	1.95	0.25	7.77	1.88	0.30	6.33	4.13	0.71	5.78	3.93	0.75	5.21	3.76	0.81	4.67	3.57	0.86	4.14	3.40	0.94	3.63	3.30	1.05	3.16	3.04	1.16	2.62	2.77	1.37	2.02	2.66	1.62	1.64
9	max	3.53	0.58	6.08	3.47	0.49	7.06	3.42	0.43	8.03	3.20	0.36	9.00	3.09	0.42	7.33	10.11	1.45	6.95	9.62	1.54	6.26	9.22	1.64	5.62	8.73	1.76	4.97	8.33	1.91	4.37	8.09	2.13	3.80	5.87	1.98	2.97	5.36	2.34	2.29	4.30	2.24	1.92
	norm	2.87	0.49	5.90	2.83	0.41	6.84	2.78	0.36	7.78	2.61	0.30	8.73	2.52	0.35	7.11	9.58	1.53	6.26	9.12	1.61	5.65	8.73	1.72	5.07	8.27	1.85	4.48	7.89	2.00	3.94	7.66	2.24	3.42	4.60	1.62	2.84	4.20	1.92	2.19	3.56	1.97	1.81
	min	2.21	0.41	5.43	2.18	0.35	6.30	2.15	0.30	7.16	2.01	0.25	8.03	1.94	0.30	6.54	4.26	0.71	5.97	4.05	0.75	5.38	3.88	0.80	4.83	3.68	0.86	4.27	3.51	0.93	3.74	3.40	1.04	3.26	3.13	1.16	2.71	2.86	1.37	2.09	2.74	1.62	1.70
10	max	3.63	0.58	6.28	3.58	0.49	7.28	3.52	0.42	8.29	3.30	0.35	9.29	3.19	0.42	7.57	10.41	1.45	7.17	9.91	1.53	6.47	9.50	1.64	5.80	9.00	1.75	5.13	8.58	1.90	4.51	8.33	2.13	3.92	6.05	1.97	3.07	5.52	2.33	2.37	4.43	2.24	1.98
	norm	2.96	0.49	6.09	2.91	0.41	7.06	2.87	0.36	8.03	2.68	0.30	9.01	2.59	0.35	7.34	9.86	1.53	6.47	9.39	1.61	5.83	9.00	1.72	5.23	8.52	1.84	4.63	8.13	2.00	4.06	7.89	2.23	3.53	4.74	1.62	2.93	4.33	1.91	2.26	3.67	1.97	1.87
	min	2.28	0.41	5.60	2.24	0.35	6.50	2.21	0.30	7.40	2.07	0.25	8.29	2.00	0.30	6.76	4.38	0.71	6.16	4.17	0.75	5.56	4.00	0.80	4.98	3.79	0.86	4.41	3.61	0.93	3.87	3.51	1.04	3.37	3.23	1.15	2.79	2.95	1.37	2.16	2.83	1.61	1.75
11	max	3.74	0.58	6.48	3.68	0.49	7.51	3.62	0.42	8.55	3.39	0.35	9.58	3.28	0.42	7.81	10.72	1.45	7.40	10.20	1.53	6.67	9.77	1.63	5.98	9.26	1.75	5.29	8.83	1.90	4.65	8.57	2.12	4.04	6.23	1.97	3.17	5.69	2.33	2.44	4.56	2.23	2.04
	norm	3.04	0.48	6.28	3.00	0.41	7.28	2.95	0.36	8.28	2.76	0.30	9.29	2.67	0.35	7.57	10.15	1.52	6.67	9.66	1.61	6.01	9.26	1.72	5.39	8.77	1.84	4.77	8.37	2.00	4.19	8.12	2.23	3.64	4.88	1.61	3.02	4.45	1.91	2.33	3.78	1.96	1.92
	min	2.35	0.41	5.78	2.31	0.34	6.70	2.27	0.30	7.63	2.13	0.25	8.55	2.06	0.30	6.97	4.51	0.71	6.35	4.30	0.75	5.73	4.11	0.80	5.14	3.90	0.86	4.55	3.72	0.93	3.99	3.61	1.04	3.47	3.32	1.15	2.88	3.03	1.36	2.22	2.91	1.61	1.81
12	max	3.85	0.58	6.67	3.79	0.49	7.74	3.73	0.42	8.81	3.49	0.35	9.87	3.37	0.42	8.04	11.02	1.45	7.62	10.49	1.53	6.87	10.05	1.63	6.16	9.52	1.75	5.46	9.08	1.90	4.79	8.82	2.12	4.16	6.40	1.96	3.26	5.85	2.32	2.51	4.69	2.23	2.10
	norm	3.13	0.48	6.47	3.08	0.41	7.50	3.03	0.36	8.54	2.84	0.30	9.57	2.74	0.35	7.80	10.44	1.52	6.87	9.94	1.60	6.19	9.52	1.71	5.56	9.02	1.83	4.92	8.60	1.99	4.32	8.35	2.23	3.75	5.02	1.61	3.12	4.58	1.91	2.40	3.89	1.96	1.98
	min	2.41	0.41	5.95	2.38	0.34	6.91	2.34	0.30	7.86	2.19	0.25	8.81	2.12	0.29	7.18	4.64	0.71	6.55	4.42	0.75	5.90	4.23	0.80	5.29	4.01	0.86	4.69	3.82	0.93	4.11	3.71	1.04	3.58	3.42	1.15	2.97	3.12	1.36	2.29	2.99	1.61	1.86
13	max	3.95	0.58	6.87	3.89	0.49	7.97	3.83	0.42	9.07	3.59	0.35	10.16	3.47	0.42	8.28	11.32	1.44	7.84	10.78	1.52	7.07	10.33	1.63	6.34	9.78	1.74	5.62	9.33	1.89	4.93	9.06	2.11	4.29	6.58	1.96	3.36	6.01	2.32	2.59	4.82	2.22	2.17
	norm	3.22	0.48	6.66	3.17	0.41	7.72	3.12	0.35	8.79	2.92	0.30	9.85	2.82	0.35	8.03	10.73	1.52	7.07	10.21	1.60	6.38	9.78	1.71	5.72	9.27	1.83	5.06	8.84	1.99	4.44	8.58	2.22	3.86	5.15	1.61	3.21	4.71	1.90	2.47	3.99	1.96	2.04
	min	2.48	0.40	6.13	2.44	0.34	7.11	2.40	0.30	8.09	2.25	0.25	9.07	2.17	0.29	7.39	4.77	0.71	6.74	4.54	0.75	6.08	4.35	0.80	5.45	4.12	0.85	4.82	3.93	0.93	4.24	3.81	1.04	3.68	3.51	1.15	3.06	3.20	1.36	2.36	3.07	1.61	1.92
14	max	4.06	0.57	7.06	4.00	0.49	8.19	3.93	0.42	9.32	3.68	0.35	10.45	3.56	0.42	8.52	11.63	1.44	8.07	11.07	1.52	7.28	10.60	1.63	6.53	10.05	1.74	5.78	9.58	1.89	5.07	9.30	2.11	4.41	6.76	1.96	3.45	6.17	2.32	2.66	4.95	2.22	2.23
	norm	3.30	0.48	6.85	3.25	0.41	7.94	3.20	0.35	9.04	3.00	0.30	10.13	2.90	0.35	8.25	11.02	1.51	7.27	10.49	1.60	6.56	10.05	1.71	5.88	9.52	1.83	5.21	9.08	1.99	4.57	8.81	2.22	3.97	5.29	1.60	3.30	4.83	1.90	2.54	4.10	1.95	2.10
	min	2.55	0.40	6.30	2.51	0.34	7.31	2.47	0.30	8.32	2.31	0.25	9.33	2.23	0.29	7.60	4.90	0.71	6.93	4.66	0.75	6.25	4.47	0.80	5.61	4.23	0.85	4.96	4.03	0.93	4.36	3.92	1.03	3.79	3.60	1.15	3.14	3.29	1.36	2.42	3.16	1.60	1.97
15	max	4.16	0.57	7.26	4.10	0.49	8.42	4.04	0.42	9.58	3.78	0.35	10.74	3.65	0.42	8.75	11.93	1.44	8.29	11.36	1.52	7.48	10.88	1.62	6.71	10.31	1.74	5.94	9.83	1.89	5.21	9.55	2.11	4.53	6.93	1.95	3.55	6.33	2.31	2.74	5.08	2.22	2.29
	norm	3.39	0.48	7.04	3.34	0.41	8.16	3.28	0.35	9.29	3.08	0.30	10.41	2.97	0.35	8.48	11.30	1.51	7.48	10.76	1.60	6.74	10.31	1.71	6.05	9.77	1.83	5.35	9.31	1.98	4.70	9.04	2.21	4.08	5.43	1.60	3.39	4.96	1.90	2.61	4.21	1.95	2.16
	min	2.61	0.40	6.48	2.57	0.34	7.51	2.53	0.30	8.55	2.37	0.25	9.59	2.29	0.29	7.81	5.02	0.71	7.12	4.78	0.74	6.42	4.58	0.80	5.76	4.34	0.85	5.10	4.14	0.92	4.48	4.02	1.03	3.89	3.70	1.14	3.23	3.38	1.35	2.49	3.24	1.60	2.02
18	max	4.46	0.57	7.85	4.39	0.48	9.10	4.32	0.42	10.36	4.05	0.35	11.62	3.91	0.41	9.46	12.79	1.43	8.97	12.17	1.51	8.08	11.66	1.61	7.25	11.05	1.72	6.42	10.54	1.87	5.63	10.23	2.09	4.90	7.43	1.94	3.84	6.78	2.29	2.96	5.44	2.20	2.48
	norm	3.63	0.48	7.61	3.57	0.41	8.82	3.52	0.35	10.04	3.30	0.29	11.26	3.18	0.35	9.17	12.11	1.50	8.08	11.53	1.58	7.29	11.05	1.69	6.54	10.47	1.81	5.78	9.98	1.97	5.08	8.00	1.65	4.85	5.82	1.59	3.67	5.31	1.88	2.83	4.51	1.93	2.33
	min	2.80	0.40	7.00	2.76	0.34	8.12	2.71	0.29	9.24	2.54	0.25	10.37	2.46	0.29	8.44	5.38	0.70	7.70	5.13	0.74	6.94	4.91	0.79	6.23	4.65	0.84	5.51	4.44	0.92	4.84	4.31	1.02	4.21	3.96	1.13	3.49	3.62	1.34	2.69	3.47	1.59	2.19
20	max	4.69	0.57	8.24	4.62	0.48	9.55	4.55	0.42	10.87	4.26	0.35	12.19	4.12	0.41	9.93	13.45	1.43	9.41	12.81	1.51	8.48	12.27	1.61	7.61	11.62	1.73	6.73	11.08	1.88	5.91	10.76	2.09	5.14	7.82	1.94	4.03	7.14	2.30	3.10	5.72	2.20	2.60
	norm	3.82	0.48	7.98	3.76	0.41	9.26	3.70	0.35	10.54	3.47	0.29	11.81	3.35	0.35	9.62	12.74	1.50	8.48	12.13	1.59	7.65	11.62	1.69	6.86	11.01	1.81	6.07	10.50	1.97	5.33	10.20	2.20	4.63	6.12	1.59	3.85	5.59	1.89	2.97	4.74	1.94	2.45
	min	2.95	0.40	7.35	2.90	0.34	8.52	2.85	0.29	9.70	2.67	0.25	10.88	2.58	0.29	8.86	5.66	0.70	8.08	5.39	0.74	7.29	5.17	0.79	6.54	4.89	0.85	5.79	4.67	0.92	5.08	4.53	1.03	4.42	4.17	1.14	3.67	3.81	1.35	2.83	3.65	1.59	2.30
23	max	4.99	0.57	8.82	4.92	0.48	10.24	4.84	0.42	11.65	4.53	0.35	13.06	4.38	0.41	10.64	14.31	1.42	10.08	13.62	1.50	9.09	13.05	1.60	8.15	12.36	1.71	7.22	11.79	1.86	6.33	11.45	2.08	5.51	8.31	1.93	4.31	7.59	2.28	3.33	6.09	2.19	2.78
	norm	4.06	0.47	8.55	4.00	0.40	9.92	3.94	0.35	11.29	3.69	0.29	12.66	3.56	0.35	10.31	13.55	1.49	9.09	12.90	1.58	8.19	12.36	1.68	7.35	11.71	1.80	6.50	11.17	1.96	5.71	10.84	2.18	4.96	6.51	1.58	4.12	5.95	1.87	3.18	5.04	1.92	2.62
	min	3.13	0.40	7.87	3.08	0.34	9.13	3.04	0.29	10.39	2.84	0.24	11.65	2.75	0.29	9.49	6.02	0.70	8.66	5.73	0.73	7.81	5.49	0.78	7.00	5.20	0.84	6.20	4.96	0.91	5.44	4.82	1.02	4.73	4.43	1.13	3.93	4.05	1.34	3.03	3.88	1.58	2.46
25	max	5.18	0.56	9.22	5.10	0.48	10.69	5.03	0.41	12.17	4.71	0.35	13.64	4.55	0.41	11.11	14.86	1.41	10.53	14.14	1.49	9.49	13.55	1.59	8.51	12.84	1.70	7.54	12.24	1.85	6.62	11.89	2.07	5.75	8.63	1.92	4.51	7.88	2.27	3.47	6.32	2.17	2.91
	norm	4.22	0.47	8.93	4.15	0.40	10.36	4.09	0.35	11.79	3.83	0.29	13.22	3.70	0.34	10.77	14.08	1.48	9.49	13.40	1.57	8.56	12.84	1.67	7.67	12.16	1.79	6.79	11.60	1.94	5.96	11.26	2.17	5.19	6.76	1.57	4.30	6.17	1.86	3.32	5.24	1.91	2.74
	min	3.25	0.40	8.22	3.20	0.34	9.54	3.15	0.29	10.86	2.95	0.24	12.17	2.85	0.29	9.92	6.26	0.69	9.04	5.96	0.73	8.16	5.71	0.78	7.31	5.41	0.83	6.47	5.15	0.91	5.68	5.00	1.01	4.94	4.60	1.12	4.10	4.20	1.33	3.16	4.03	1.57	2.57

(2) Cooling capacity correction for 3-phase units

Cooling Capacity Correction_8

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-15			-10			-5			0			5			10			15			20			25			30			35			40			45			48		
			Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER	Capacity	Power	EER
7	max		4.75	0.81	5.86	4.67	0.69	6.80	4.60	0.59	7.74	4.31	0.50	8.68	4.16	0.59	7.07	10.88	1.86	5.86	10.35	1.96	5.28	9.92	2.09	4.74	9.40	2.24	4.19	8.96	2.44	3.68	8.70	2.72	3.20	6.72	2.42	2.78	6.13	2.86	2.14	4.24	2.33	1.82
	norm		3.64	0.62	5.92	3.58	0.52	6.86	3.53	0.45	7.81	3.30	0.38	8.75	4.16	0.59	7.13	9.25	1.50	6.18	8.81	1.58	5.57	8.44	1.69	5.00	7.99	1.81	4.42	7.62	1.96	3.88	7.10	2.10	3.38	5.15	1.84	2.81	4.70	2.17	2.16	3.73	1.94	1.92
	min		2.93	0.44	6.62	2.88	0.38	7.67	2.84	0.32	8.73	2.66	0.27	9.79	2.57	0.32	7.98	5.63	0.81	6.92	5.36	0.86	6.24	5.13	0.92	5.59	4.86	0.98	4.95	4.64	1.07	4.35	4.50	1.19	3.78	4.14	1.32	3.14	3.78	1.56	2.42	3.47	1.76	1.97
8	max		4.90	0.81	6.07	4.82	0.69	7.04	4.75	0.59	8.01	4.44	0.49	8.98	4.29	0.59	7.32	11.22	1.85	6.06	10.68	1.96	5.46	10.24	2.09	4.90	9.70	2.23	4.34	9.25	2.43	3.81	8.98	2.71	3.31	6.93	2.41	2.88	6.33	2.85	2.22	4.37	2.32	1.88
	norm		3.76	0.61	6.12	3.70	0.52	7.10	3.64	0.45	8.08	3.41	0.38	9.06	3.29	0.45	7.38	9.55	1.49	6.40	9.09	1.58	5.77	8.71	1.68	5.17	8.25	1.80	4.58	7.87	1.96	4.02	7.64	2.18	3.50	5.32	1.83	2.90	4.85	2.17	2.24	3.85	1.93	1.99
	min		3.02	0.44	6.85	2.97	0.37	7.94	2.93	0.32	9.04	2.74	0.27	10.13	2.65	0.32	8.25	5.81	0.81	7.16	5.53	0.86	6.46	5.29	0.91	5.79	5.02	0.98	5.13	4.78	1.06	4.50	4.64	1.19	3.91	4.27	1.32	3.25	3.90	1.56	2.50	3.58	1.76	2.03
9	max		5.05	0.81	6.27	4.97	0.68	7.27	4.89	0.59	8.28	4.58	0.49	9.28	4.43	0.59	7.56	11.57	1.85	6.26	11.02	1.95	5.65	10.55	2.08	5.07	10.00	2.23	4.48	9.53	2.42	3.94	9.26	2.70	3.42	7.15	2.40	2.97	6.52	2.85	2.29	4.51	2.31	1.95
	norm		3.87	0.61	6.33	3.81	0.52	7.34	3.75	0.45	8.35	3.52	0.38	9.36	3.40	0.45	7.63	9.84	1.49	6.61	9.37	1.57	5.96	9.04	1.68	5.35	8.50	1.80	4.73	8.11	1.95	4.15	7.87	2.18	3.61	5.48	1.83	3.00	5.01	2.16	2.31	3.97	1.93	2.06
	min		3.11	0.44	7.07	3.06	0.37	8.21	3.02	0.32	9.34	2.82	0.27	10.47	2.73	0.32	8.53	5.99	0.81	7.40	5.70	0.85	6.67	5.46	0.91	5.98	5.17	0.98	5.30	4.93	1.06	4.65	4.79	1.18	4.04	4.40	1.31	3.36	4.02	1.55	2.59	3.69	1.75	2.10
10	max		5.20	0.80	6.47	5.12	0.68	7.51	5.04	0.59	8.54	4.72	0.49	9.58	4.56	0.58	7.80	11.92	1.84	6.47	11.35	1.95	5.83	10.87	2.08	5.23	10.30	2.23	4.63	9.82	2.42	4.06	9.54	2.70	3.53	7.36	2.40	3.07	6.72	2.84	2.37	4.64	2.31	2.01
	norm		3.99	0.61	6.53	3.93	0.52	7.57	3.87	0.45	8.62	3.62	0.37	9.66	3.50	0.44	7.87	10.14	1.49	6.82	9.65	1.57	6.15	9.25	1.68	5.52	8.76	1.79	4.88	8.35	1.95	4.29	8.11	2.18	3.73	5.65	1.82	3.10	5.16	2.16	2.39	4.09	1.93	2.12
	min		3.21	0.44	7.30	3.16	0.37	8.47	3.11	0.32	9.64	2.91	0.27	10.81	2.81	0.32	8.81	6.17	0.81	7.64	5.87	0.85	6.89	5.62	0.91	6.18	5.33	0.97	5.47	5.08	1.06	4.80	4.93	1.18	4.17	4.54	1.31	3.46	4.14	1.55	2.67	3.80	1.75	2.17
11	max		5.35	0.80	6.67	5.27	0.68	7.74	5.19	0.59	8.81	4.86	0.49	9.88	4.69	0.58	8.05	12.27	1.84	6.67	11.68	1.94	6.01	11.19	2.07	5.39	10.60	2.22	4.77	10.11	2.41	4.19	9.81	2.69	3.64	7.58	2.39	3.17	6.92	2.83	2.44	4.78	2.31	2.07
	norm		4.11	0.61	6.73	4.04	0.52	7.81	3.98	0.45	8.89	3.73	0.37	9.97	3.60	0.44	8.12	10.43	1.48	7.04	9.93	1.57	6.34	9.52	1.67	5.79	9.01	1.79	5.04	8.60	1.94	4.42	8.35	2.17	3.84	5.81	1.82	3.19	5.31	2.15	2.46	4.21	1.92	2.19
	min		3.30	0.44	7.53	3.25	0.37	8.74	3.20	0.32	9.94	2.99	0.27	11.15	2.89	0.32	9.08	6.35	0.81	7.88	6.04	0.85	7.10	5.79	0.91	6.37	5.48	0.97	5.64	5.23	1.06	4.95	5.08	1.18	4.30	4.67	1.31	3.57	4.26	1.55	2.75	3.91	1.75	2.24
12	max		5.50	0.80	6.88	5.42	0.68	7.98	5.33	0.59	9.08	5.00	0.49	10.18	4.83	0.58	8.29	12.62	1.84	6.87	12.01	1.94	6.19	11.50	2.07	5.56	10.90	2.22	4.92	10.39	2.41	4.32	10.09	2.69	3.75	7.79	2.39	3.26	7.11	2.83	2.51	4.91	2.30	2.13
	norm		4.22	0.61	6.94	4.16	0.52	8.05	4.09	0.45	9.16	3.83	0.37	10.27	3.70	0.44	8.37	10.73	1.48	7.25	10.21	1.56	6.54	9.79	1.67	5.86	9.27	1.79	5.19	8.84	1.94	4.56	8.58	2.17	3.96	5.98	1.82	3.29	5.46	2.15	2.54	4.33	1.92	2.26
	min		3.39	0.44	7.76	3.34	0.37	9.00	3.29	0.32	10.24	3.08	0.27	11.48	2.98	0.32	9.36	6.53	0.80	8.11	6.21	0.85	7.32	5.95	0.91	6.56	5.64	0.97	5.81	5.38	1.05	5.10	5.22	1.18	4.43	4.80	1.30	3.68	4.38	1.55	2.84	4.02	1.74	2.31
13	max		5.66	0.80	7.08	5.57	0.68	8.21	5.48	0.59	9.34	5.13	0.49	10.48	4.96	0.58	8.54	12.96	1.83	7.07	12.34	1.94	6.38	11.82	2.07	5.72	11.20	2.21	5.06	10.68	2.40	4.44	10.37	2.68	3.86	8.01	2.38	3.36	7.31	2.82	2.59	5.05	2.30	2.20
	norm		4.34	0.61	7.14	4.27	0.52	8.29	4.21	0.45	9.43	3.94	0.37	10.57	3.80	0.44	8.61	11.03	1.48	7.46	10.50	1.56	6.73	10.06	1.67	6.04	9.53	1.78	5.34	9.09	1.94	4.69	8.82	2.16	4.08	6.14	1.81	3.39	5.61	2.15	2.61	4.45	1.92	2.32
	min		3.49	0.44	7.99	3.43	0.37	9.27	3.38	0.32	10.54	3.16	0.27	11.82	3.06	0.32	9.63	6.71	0.80	8.35	6.38	0.85	7.53	6.11	0.91	6.76	5.79	0.97	5.98	5.52	1.05	5.25	5.36	1.18	4.56	4.93	1.30	3.79	4.51	1.54	2.92	4.13	1.74	2.37
14	max		5.81	0.80	7.28	5.72	0.68	8.45	5.63	0.59	9.61	5.27	0.49	10.78	5.09	0.58	8.78	13.31	1.83	7.27	12.67	1.93	6.56	12.14	2.06	5.88	11.50	2.21	5.21	10.97	2.40	4.57	10.65	2.68	3.97	8.22	2.38	3.45	7.51	2.82	2.66	5.18	2.29	2.26
	norm		4.46	0.61	7.35	4.39	0.51	8.52	4.32	0.45	9.70	4.04	0.37	10.87	3.91	0.44	8.86	11.32	1.48	7.68	10.78	1.56	6.92	10.33	1.66	6.21	9.78	1.78	5.49	9.33	1.93	4.82	9.06	2.16	4.19	6.31	1.81	3.48	5.76	2.14	2.69	4.57	1.91	2.39
	min		3.58	0.44	8.22	3.53	0.37	9.53	3.47	0.32	10.84	3.25	0.27	12.16	3.14	0.32	9.91	6.89	0.80	8.59	6.55	0.85	7.75	6.28	0.90	6.95	5.95	0.97	6.15	5.67	1.05	5.40	5.51	1.17	4.69	5.07	1.30	3.90	4.63	1.54	3.00	4.24	1.74	2.44
15	max		5.96	0.80	7.48	5.87	0.68	8.68	5.78	0.58	9.88	5.41	0.49	11.08	5.23	0.58	9.02	13.66	1.83	7.48	13.00	1.93	6.74	12.46	2.06	6.05	11.80	2.21	5.35	11.26	2.40	4.70	10.93	2.68	4.08	8.44	2.38	3.55	7.70	2.81	2.74	5.32	2.29	2.32
	norm		4.57	0.61	7.55	4.50	0.51	8.76	4.43	0.44	9.97	4.15	0.37	11.17	4.01	0.44	9.10	11.62	1.47	7.89	11.06	1.56	7.11	10.60	1.66	6.38	10.04	1.78	5.65	9.57	1.93	4.96	9.29	2.16	4.31	6.47	1.81	3.58	5.91	2.14	2.76	4.69	1.91	2.46
	min		3.67	0.44	8.44	3.62	0.37	9.80	3.56	0.32	11.15	3.33	0.27	12.50	3.22	0.32	10.18	7.07	0.80	8.83	6.73	0.84	7.96	6.44	0.90	7.14	6.10	0.97	6.32	5.82	1.05	5.55	5.65	1.17	4.83	5.20	1.30	4.00	4.75	1.54	3.09	4.35	1.73	2.51
18	max		6.39	0.79	8.09	6.29	0.67	9.38	6.19	0.58	10.68	5.80	0.48	11.97	5.60	0.57	9.75	14.64	1.81	8.08	13.94	1.91	7.29	13.35	2.04	6.54	12.65	2.19	5.78	12.06	2.38	5.08	11.71	2.65	4.42	9.04	2.36	3.84	8.25	2.79	2.96	5.70	2.27	2.51
	norm		4.90	0.60	8.16	4.82	0.51	9.47	4.75	0.44	10.77	4.45	0.37	12.08	4.30	0.44	9.84	12.45	1.46	8.53	11.85	1.54	7.69	11.35	1.65	6.90	10.76	1.76	6.10	10.26	1.91	5.36	8.30	1.64	5.06	6.93	1.79	3.87	6.33	2.12	2.99	5.03	1.89	2.66
	min		3.94	0.43	9.13	3.88	0.37	10.59	3.82	0.32	12.05	3.57	0.26	13.51	3.45	0.31	11.01	7.57	0.79	9.55	7.21	0.84	8.61	6.90	0.89	7.72	6.54	0.96	6.83	6.24	1.04	6.00	6.06	1.16	5.22	5.57	1.29	4.33	5.09	1.52	3.34	4.66	1.72	2.71
20	max		6.72	0.79	8.49	6.62	0.67	9.85	6.51	0.58	11.21	6.10	0.49	12.56	5.89	0.58	10.24	15.40	1.82	8.48	14.66	1.92	7.65	14.04	2.05	6.86	13.30	2.19	6.07	12.69	2.38	5.33	12.32	2.66	4.63	9.51	2.36	4.03	8.68	2.80	3.10	6.00	2.28	2.64
	norm		5.15	0.60	8.56	5.07	0.51	9.94	5.00	0.44	11.31	4.68	0.37	12.68	4.52	0.44	10.33	13.10	1.46	8.95	12.47	1.55	8.07	11.95	1.65	7.24	11.32	1.77	6.41	10.79	1.92	5.62	10.48	2.14	4.89	7.30	1.80	4.06	6.66	2.13	3.13	5.29	1.90	2.79
	min		4.14	0.43	9.58	4.08	0.37	11.11	4.01	0.32	12.64	3.76	0.27	14.18	3.63	0.31	11.55	7.97	0.80	10.02	7.58	0.84	9.03	7.26	0.90	8.10	6.88	0.96	7.17	6.56	1.04	6.29	6.37	1.16	5.47	5.86	1.29	4.54	5.35	1.53	3.50	4.91	1.72	2.85
23	max		7.15	0.79	9.10	7.04	0.67	10.55	6.93	0.58	12.01	6.49	0.48	13.46	6.27	0.57	10.97	16.38	1.80	9.09	15.59	1.90	8.19	14.94	2.03	7.35	14.15	2.18	6.50	13.50	2.36	5.71	13.10	2.64	4.96	10.11	2.34	4.31	9.23	2.78	3.33	6.38	2.26	2.82
	norm		5.48	0.60	9.18	5.40	0.51	10.65	5.31	0.44	12.11	4.98	0.37	13.58	4.81	0.43	11.06	13.93	1.45	9.59	13.26	1.53	8.65	12.70	1.64	7.75	12.04	1.75	6.86	11.48	1.91	6.03	11.14	2.13	5.24	7.76	1.78	4.35	7.08	2.11	3.36	5.62	1.88	2.99
	min		4.41	0.43	10.26	4.34	0.36	11.91	4.27	0.32	13.55	4.00	0.26	15.19	3.86	0.31	12.37	8.47	0.79	10.73	8.06	0.83	9.68	7.73	0.89	8.68	7.32	0.95	7.68	6.98	1.03	6.74	6.78	1.16	5.86	6.23	1.28	4.87	5.69	1.52	3.75	5.22	1.71	3.05
25	max		7.42	0.78	9.50	7.31	0.66	11.02	7.19	0.57	12.54	6.74	0.48	14.06	6.51	0.57	11.45	17.01	1.79	9.49	16.19	1.89	8.56	15.51	2.02	7.67	14.70	2.16	6.79	14.02	2.35	5.96	13.61	2.62	5.19	10.50	2.33	4.51	9.59	2.76	3.47	6.62	2.25	2.95
	norm		5.69	0.59	9.59	5.61	0.50	11.12	5.52	0.44	12.65	5.17	0.36	14.19	4.99	0.43	11.56	14.47	1.44	10.01	13.77	1.53	9.03	13.19	1.63	8.10	12.50	1.74	7.17	11.92	1.89	6.29	11.57	2.11	5.47	8.06	1.77	4.55	7.36	2.10	3.51	5.84	1.87	3.12
	min		4.57	0.43	10.72	4.50	0.36	12.43	4.43	0.31	14.15	4.15	0.26	15.87	4.01	0.31	12.92	8.80	0.78	11.21	8.38	0.83	10.11	8.02	0.89	9.07	7.60	0.95	8.02	7.25	1.03	7.04	7.04	1.15	6.13	6.47	1.27	5.08	5.91	1.51	3.92	5.42	1.70	3.19

Cooling Capacity Correction_10

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	4.75	0.81	5.86	4.67	0.69	6.80	4.60	0.59	7.74	4.60	0.56	8.29	4.45	0.66	6.75	11.88	2.13	5.58	11.31	2.25	5.03	10.83	2.40	4.51	10.26	2.57	4.00	9.79	2.79	3.51	9.50	3.11	3.05	6.72	2.42	2.78	6.13	2.86	2.14	4.24	2.33	1.82
	norm	3.99	0.67	5.92	3.93	0.57	6.86	3.87	0.50	7.81	4.31	0.50	8.68	4.16	0.59	7.07	11.25	1.89	5.95	10.71	2.00	5.36	10.26	2.13	4.81	9.72	2.28	4.26	9.27	2.48	3.74	9.10	2.80	3.25	5.65	2.01	2.81	5.16	2.38	2.16	3.87	2.01	1.93
	min	2.93	0.44	6.62	2.88	0.38	7.67	2.84	0.32	8.73	2.66	0.27	9.79	2.57	0.32	7.98	5.63	0.81	6.92	5.36	0.86	6.24	5.13	0.92	5.59	4.86	0.98	4.95	4.64	1.07	4.35	4.50	1.19	3.78	4.14	1.32	3.14	3.78	1.56	2.42	3.47	1.76	1.97
8	max	4.90	0.81	6.07	4.82	0.69	7.04	4.75	0.59	8.01	4.75	0.55	8.58	4.59	0.66	6.99	12.26	2.12	5.78	11.67	2.24	5.21	11.18	2.39	4.67	10.59	2.56	4.14	10.10	2.78	3.63	9.80	3.11	3.16	6.93	2.41	2.88	6.33	2.85	2.22	4.37	2.32	1.88
	norm	4.12	0.67	6.12	4.06	0.57	7.10	3.99	0.49	8.08	4.44	0.49	8.98	4.29	0.59	7.32	11.61	1.89	6.16	11.05	1.99	5.55	10.59	2.13	4.98	10.03	2.28	4.41	9.57	2.47	3.87	9.29	2.76	3.36	5.83	2.01	2.90	5.32	2.38	2.24	4.00	2.00	2.00
	min	3.02	0.44	6.85	2.97	0.37	7.94	2.93	0.32	9.04	2.74	0.27	10.13	2.65	0.32	8.25	5.81	0.81	7.16	5.53	0.86	6.46	5.29	0.91	5.79	5.02	0.98	5.13	4.78	1.06	4.50	4.64	1.19	3.91	4.27	1.32	3.25	3.90	1.56	2.50	3.58	1.76	2.03
9	max	5.05	0.81	6.27	4.97	0.68	7.27	4.89	0.59	8.28	4.90	0.55	8.86	4.73	0.66	7.22	12.64	2.12	5.97	12.03	2.23	5.38	11.52	2.39	4.83	10.92	2.55	4.27	10.41	2.78	3.75	10.11	3.10	3.26	7.15	2.40	2.97	6.52	2.85	2.29	4.51	2.31	1.95
	norm	4.25	0.67	6.33	4.18	0.57	7.34	4.12	0.49	8.35	4.58	0.49	9.28	4.43	0.59	7.56	11.97	1.88	6.36	11.40	1.99	5.74	10.92	2.12	5.14	10.34	2.27	4.55	9.86	2.47	4.00	9.58	2.75	3.48	6.01	2.00	3.00	5.49	2.37	2.31	4.12	2.00	2.06
	min	3.11	0.44	7.07	3.06	0.37	8.21	3.02	0.32	9.34	2.82	0.27	10.47	2.73	0.32	8.53	5.99	0.81	7.40	5.70	0.85	6.67	5.46	0.91	5.98	5.17	0.98	5.30	4.93	1.06	4.65	4.79	1.18	4.04	4.40	1.31	3.36	4.02	1.55	2.59	3.69	1.75	2.10
10	max	5.20	0.80	6.47	5.12	0.68	7.51	5.04	0.59	8.54	5.04	0.55	9.15	4.87	0.65	7.45	13.02	2.11	6.16	12.39	2.23	5.56	11.87	2.38	4.98	11.24	2.55	4.41	10.72	2.77	3.87	10.41	3.09	3.37	7.36	2.40	3.07	6.72	2.84	2.37	4.64	2.31	2.01
	norm	4.37	0.67	6.53	4.31	0.57	7.57	4.24	0.49	8.62	4.72	0.49	9.58	4.56	0.58	7.80	12.33	1.88	6.57	11.74	1.98	5.92	11.24	2.12	5.31	10.65	2.27	4.70	10.16	2.46	4.13	9.86	2.75	3.59	6.19	2.00	3.10	5.65	2.37	2.39	4.24	1.99	2.13
	min	3.21	0.44	7.30	3.16	0.37	8.47	3.11	0.32	9.64	2.91	0.27	10.81	2.81	0.32	8.81	6.17	0.81	7.64	5.87	0.85	6.89	5.62	0.91	6.18	5.33	0.97	5.47	5.08	1.06	4.80	4.93	1.18	4.17	4.54	1.31	3.46	4.14	1.55	2.67	3.80	1.75	2.17
11	max	5.35	0.80	6.67	5.27	0.68	7.74	5.19	0.59	8.81	5.19	0.55	9.44	5.02	0.65	7.69	13.40	2.11	6.35	12.75	2.23	5.73	12.22	2.38	5.14	11.57	2.54	4.55	11.04	2.76	3.99	10.72	3.09	3.47	7.58	2.39	3.17	6.92	2.83	2.44	4.78	2.31	2.07
	norm	4.50	0.67	6.73	4.43	0.57	7.81	4.36	0.49	8.89	4.86	0.49	9.97	4.69	0.58	8.05	12.69	1.87	6.77	12.08	1.98	6.11	11.57	2.11	5.48	10.96	2.26	4.85	10.46	2.46	4.26	10.15	2.74	3.70	6.37	1.99	3.19	5.82	2.36	2.46	4.37	1.99	2.20
	min	3.30	0.44	7.53	3.25	0.37	8.74	3.20	0.32	9.94	3.33	0.27	11.15	3.22	0.32	9.08	6.35	0.81	7.88	6.04	0.85	7.10	5.79	0.91	6.37	5.48	0.97	5.64	5.23	1.06	4.95	5.08	1.18	4.30	4.67	1.31	3.57	4.26	1.55	2.75	3.91	1.75	2.24
12	max	5.50	0.80	6.88	5.42	0.68	7.98	5.33	0.59	9.08	5.34	0.55	9.72	5.16	0.65	7.92	13.78	2.10	6.55	13.11	2.22	5.90	12.56	2.37	5.29	11.90	2.54	4.69	11.35	2.76	4.11	11.02	3.08	3.58	7.79	2.39	3.26	7.11	2.83	2.51	4.91	2.30	2.13
	norm	4.63	0.67	6.94	4.56	0.57	8.05	4.49	0.49	9.16	5.00	0.49	10.18	4.83	0.58	8.29	13.05	1.87	6.98	12.42	1.98	6.29	11.90	2.11	5.64	11.28	2.26	4.99	10.75	2.45	4.38	10.44	2.74	3.81	6.55	1.99	3.29	5.98	2.36	2.54	4.49	1.99	2.26
	min	3.39	0.44	7.76	3.34	0.37	9.00	3.29	0.32	10.24	3.08	0.27	11.48	2.98	0.32	9.36	6.53	0.80	8.11	6.21	0.85	7.32	5.95	0.91	6.56	5.64	0.97	5.81	5.38	1.05	5.10	5.22	1.18	4.43	4.80	1.30	3.68	4.38	1.55	2.84	4.02	1.74	2.31
13	max	5.66	0.80	7.08	5.57	0.68	8.21	5.48	0.59	9.34	5.49	0.55	10.01	5.30	0.65	8.15	14.16	2.10	6.74	13.48	2.22	6.08	12.91	2.37	5.45	12.23	2.53	4.82	11.66	2.75	4.24	11.32	3.07	3.68	8.01	2.38	3.36	7.31	2.82	2.59	5.05	2.30	2.20
	norm	4.76	0.67	7.14	4.68	0.57	8.29	4.61	0.49	9.43	5.13	0.49	10.48	4.96	0.58	8.54	13.41	1.87	7.18	12.77	1.97	6.48	12.23	2.11	5.81	11.59	2.25	5.14	11.05	2.45	4.51	10.73	2.73	3.92	6.73	1.99	3.39	6.15	2.35	2.61	4.62	1.98	2.33
	min	3.49	0.44	7.99	3.43	0.37	9.27	3.38	0.32	10.54	3.16	0.27	11.82	3.06	0.32	9.63	6.71	0.80	8.35	6.38	0.85	7.53	6.11	0.91	6.76	5.79	0.97	5.98	5.52	1.05	5.25	5.36	1.18	4.56	4.93	1.30	3.79	4.51	1.54	2.92	4.13	1.74	2.37
14	max	5.81	0.80	7.28	5.72	0.68	8.45	5.63	0.59	9.61	5.63	0.55	10.29	5.44	0.65	8.39	14.54	2.10	6.93	13.84	2.21	6.25	13.26	2.36	5.61	12.56	2.53	4.96	11.98	2.75	4.36	11.63	3.07	3.79	8.22	2.38	3.45	7.51	2.82	2.66	5.18	2.29	2.26
	norm	4.88	0.66	7.35	4.81	0.56	8.52	4.73	0.49	9.70	5.27	0.49	10.78	5.09	0.58	8.78	13.77	1.86	7.39	13.11	1.97	6.66	12.56	2.10	5.97	11.90	2.25	5.29	11.35	2.44	4.64	11.02	2.73	4.04	6.91	1.98	3.48	6.31	2.35	2.69	4.74	1.98	2.40
	min	3.58	0.44	8.22	3.53	0.37	9.53	3.47	0.32	10.84	3.25	0.27	12.16	3.14	0.32	9.91	6.89	0.80	8.59	6.55	0.85	7.75	6.28	0.90	6.95	5.95	0.97	6.15	5.67	1.05	5.40	5.51	1.17	4.69	5.07	1.30	3.90	4.63	1.54	3.00	4.24	1.74	2.44
15	max	5.96	0.80	7.48	5.87	0.68	8.68	5.78	0.58	9.88	5.78	0.55	10.58	5.58	0.65	8.62	14.92	2.09	7.12	14.20	2.21	6.42	13.60	2.36	5.76	12.89	2.53	5.10	12.29	2.74	4.48	11.93	3.06	3.89	8.44	2.38	3.55	7.70	2.81	2.74	5.32	2.29	2.32
	norm	5.01	0.66	7.55	4.94	0.56	8.76	4.86	0.49	9.97	5.41	0.49	11.08	5.23	0.58	9.02	14.13	1.86	7.59	13.45	1.97	6.85	12.89	2.10	6.14	12.21	2.25	5.43	11.64	2.44	4.77	11.30	2.72	4.15	7.09	1.98	3.58	6.48	2.35	2.76	4.86	1.98	2.46
	min	3.67	0.44	8.44	3.62	0.37	9.80	3.56	0.32	11.15	3.33	0.27	12.50	3.22	0.32	10.18	7.07	0.80	8.83	6.73	0.84	7.96	6.44	0.90	7.14	6.10	0.97	6.32	5.82	1.05	5.55	5.65	1.17	4.83	5.20	1.30	4.00	4.75	1.54	3.09	4.35	1.73	2.51
18	max	6.39	0.79	8.09	6.29	0.67	9.38	6.19	0.58	10.68	6.19	0.54	11.44	5.98	0.64	9.32	15.98	2.08	7.70	15.22	2.19	6.94	14.58	2.34	6.23	13.81	2.50	5.51	13.17	2.72	4.84	12.79	3.04	4.21	9.04	2.36	3.84	8.25	2.79	2.96	5.70	2.27	2.51
	norm	5.37	0.66	8.16	5.29	0.56	9.47	5.21	0.48	10.77	5.80	0.48	11.97	5.60	0.57	9.75	15.14	1.84	8.21	14.42	1.95	7.40	13.81	2.08	6.64	13.08	2.23	5.88	12.48	2.42	5.16	10.20	2.13	4.79	7.60	1.96	3.87	6.94	2.33	2.99	5.21	1.96	2.66
	min	3.94	0.43	9.13	3.88	0.37	10.59	3.82	0.32	12.05	3.57	0.26	13.51	3.45	0.31	11.01	7.57	0.79	9.55	7.21	0.84	8.61	6.90	0.89	7.72	6.54	0.96	6.83	6.24	1.04	6.00	6.06	1.16	5.22	5.57	1.29	4.33	5.09	1.52	3.34	4.66	1.72	2.71
20	max	6.72	0.79	8.49	6.62	0.67	9.85	6.51	0.58	11.21	6.52	0.54	12.00	6.30	0.64	9.78	16.82	2.08	8.08	16.01	2.20	7.29	15.34	2.35	6.54	14.53	2.51	5.79	13.86	2.73	5.08	13.45	3.05	4.42	9.51	2.36	4.03	8.68	2.80	3.10	6.00	2.28	2.64
	norm	5.65	0.66	8.56	5.56	0.56	9.94	5.48	0.48	11.31	6.10	0.49	12.56	5.89	0.58	10.24	15.93	1.85	8.61	15.17	1.95	7.76	14.53	2.09	6.96	13.76	2.23	6.16	13.13	2.43	5.41	12.74	2.71	4.71	8.00	1.97	4.06	7.30	2.33	3.13	5.48	1.96	2.79
	min	4.14	0.43	9.58	4.08	0.37	11.11	4.01	0.32	12.64	3.76	0.27	14.18	3.63	0.31	11.55	7.97	0.80	10.02	7.58	0.84	9.03	7.26	0.90	8.10	6.88	0.96	7.17	6.56	1.04	6.29	6.37	1.16	5.47	5.86	1.29	4.54	5.35	1.53	3.50	4.91	1.72	2.85
23	max	7.15	0.79	9.10	7.04	0.67	10.55	6.93	0.58	12.01	6.93	0.54	12.86	6.70	0.64	10.48	17.88	2.07	8.66	17.03	2.18	7.81	16.31	2.33	7.00	15.45	2.49	6.20	14.74	2.71	5.44	14.31	3.02	4.73	10.11	2.34	4.31	9.23	2.78	3.33	6.38	2.26	2.82
	norm	6.01	0.65	9.18	5.92	0.56	10.65	5.83	0.48	12.11	6.49	0.48	13.46	6.27	0.57	10.97	16.94	1.84	9.23	16.13	1.94	8.32	15.45	2.07	7.46	14.64	2.22	6.61	13.96	2.41	5.80	13.55	2.69	5.04	8.51	1.95	4.35	7.77	2.31	3.36	5.83	1.95	2.99
	min	4.41	0.43	10.26	4.34	0.36	11.91	4.27	0.32	13.55	4.00	0.26	15.19	3.86	0.31	12.37	8.47	0.79	10.73	8.06	0.83	9.68	7.73	0.89	8.68	7.32	0.95	7.68	6.98	1.03	6.74	6.78	1.16	5.86	6.23	1.28	4.87	5.69	1.52	3.75	5.22	1.71	3.05
25	max	7.42	0.78	9.50	7.31	0.66	11.02	7.19	0.57	12.54	7.20	0.54	13.43	6.95	0.64	10.94	18.57	2.05	9.04	17.68	2.17	8.16	16.94	2.32	7.31	16.05	2.48	6.47	15.30	2.69	5.68	14.86	3.01	4.94	10.50	2.33	4.51	9.59	2.76	3.47	6.62	2.25	2.95
	norm	6.24	0.65	9.59	6.15	0.55	11.12	6.05	0.48	12.65	6.74	0.48	14.06	6.51	0.57	11.45	17.60	1.83	9.64	16.75	1.93	8.69	16.05	2.06	7.79	15.20	2.20	6.90	14.50	2.39	6.06	14.08	2.67	5.27	8.83	1.94	4.55	8.07	2.30	3.51	6.06	1.94	3.13
	min	4.57	0.43	10.72	4.50	0.36	12.43	4.43	0.31	14.15	4.15	0.26	15.87	4.01	0.31	12.92	8.80	0.78	11.21	8.38	0.83	10.11	8.02	0.89	9.07	7.60	0.95	8.02	7.25	1.03	7.04	7.04	1.15	6.13	6.47	1.27	5.08	5.91	1.51	3.92	5.42	1.70	3.19

Cooling Capacity Correction_12

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	6.76	1.25	5.43	6.66	1.06	6.29	6.55	0.91	7.16	6.49	0.82	7.90	6.27	0.97	6.44	14.56	2.70	5.40	13.86	2.85	4.87	13.28	3.04	4.37	12.58	3.25	3.86	12.00	3.54	3.39	12.30	4.32	2.85	9.57	3.72	2.57	7.16	3.39	2.11	6.56	3.82	1.72
	norm	5.79	0.98	5.90	5.70	0.83	6.84	5.61	0.72	7.78	6.14	0.76	8.03	5.93	0.91	6.54	11.88	2.09	5.67	11.75	2.30	5.10	11.68	2.59	4.51	11.46	2.91	3.94	11.31	3.31	3.42	11.10	3.58	3.10	8.19	2.93	2.80	6.72	2.98	2.25	6.16	3.37	1.83
	min	3.58	0.57	6.30	3.52	0.48	7.31	3.47	0.42	8.32	3.25	0.35	9.32	3.14	0.41	7.60	6.88	1.04	6.59	6.55	1.10	5.94	6.27	1.18	5.33	5.94	1.26	4.72	5.67	1.37	4.14	5.50	1.53	3.60	5.06	1.69	2.99	4.62	2.01	2.30	4.24	2.26	1.87
8	max	6.98	1.24	5.61	6.87	1.05	6.51	6.76	0.91	7.41	6.70	0.82	8.18	6.47	0.97	6.66	15.02	2.69	5.59	14.30	2.84	5.04	13.70	3.03	4.52	12.98	3.25	4.00	12.38	3.53	3.51	12.69	4.30	2.95	9.87	3.71	2.66	7.39	3.38	2.19	6.77	3.81	1.78
	norm	5.97	0.98	6.10	5.88	0.83	7.08	5.79	0.72	8.06	6.33	0.76	8.31	6.12	0.90	6.77	12.26	2.09	5.87	12.13	2.30	4.67	12.05	2.58	4.67	11.83	2.90	4.08	11.67	3.30	3.54	11.46	3.57	3.21	8.45	2.92	2.89	6.94	2.97	2.33	6.36	3.36	1.89
	min	3.69	0.57	6.52	3.63	0.48	7.56	3.58	0.42	8.61	3.35	0.35	9.65	3.24	0.41	7.86	7.10	1.04	6.82	6.75	1.10	6.15	6.47	1.17	5.51	6.13	1.26	4.88	5.85	1.36	4.28	5.68	1.52	3.73	5.22	1.69	3.09	4.77	2.00	2.38	4.37	2.26	1.94
9	max	7.19	1.24	5.80	7.08	1.05	6.73	6.97	0.91	7.66	6.91	0.82	8.45	6.67	0.97	6.88	15.49	2.68	5.77	14.75	2.83	5.21	14.13	3.03	4.67	13.38	3.24	4.13	12.76	3.52	3.63	13.09	4.29	3.05	10.18	3.70	2.75	7.62	3.37	2.26	6.98	3.80	1.84
	norm	6.16	0.98	6.31	6.06	0.83	7.32	5.97	0.72	8.33	6.53	0.76	8.59	6.31	0.90	7.00	12.64	2.08	6.07	12.50	2.29	5.45	12.42	2.57	4.83	12.19	2.89	4.22	12.03	3.29	3.65	11.81	3.56	3.32	8.71	2.91	2.99	7.15	2.97	2.41	6.55	3.35	1.96
	min	3.80	0.56	6.74	3.75	0.48	7.82	3.69	0.41	8.89	3.45	0.35	9.97	3.34	0.41	8.12	7.32	1.04	7.05	6.96	1.10	6.35	6.67	1.17	5.70	6.32	1.25	5.04	6.03	1.36	4.43	5.85	1.52	3.85	5.38	1.68	3.20	4.92	1.99	2.46	4.51	2.25	2.00
10	max	7.41	1.24	5.99	7.29	1.05	6.95	7.18	0.91	7.91	7.11	0.82	8.72	6.87	0.97	7.10	15.96	2.68	5.96	15.19	2.83	5.37	14.55	3.02	4.82	13.79	3.23	4.27	13.15	3.51	3.75	13.48	4.28	3.15	10.49	3.69	2.84	7.84	3.36	2.33	7.19	3.80	1.89
	norm	6.34	0.97	6.51	6.24	0.83	7.55	6.15	0.72	8.59	6.73	0.76	8.86	6.50	0.90	7.22	13.02	2.08	6.26	12.88	2.29	5.63	12.80	2.57	4.98	12.56	2.89	4.35	12.40	3.29	3.77	12.17	3.55	3.42	8.97	3.09	3.09	7.37	2.96	2.49	6.75	3.34	2.02
	min	3.92	0.56	6.96	3.86	0.48	8.07	3.80	0.41	9.18	3.56	0.35	10.29	3.44	0.41	8.39	7.54	1.04	7.27	7.17	1.09	6.56	6.87	1.17	5.88	6.51	1.25	5.21	6.21	1.36	4.57	6.03	1.52	3.97	5.55	1.68	3.30	5.06	1.99	2.54	4.64	2.25	2.07
11	max	7.63	1.23	6.18	7.51	1.05	7.16	7.39	0.91	8.15	7.32	0.81	8.99	7.07	0.97	7.33	16.42	2.67	6.15	15.63	2.82	5.54	14.98	3.01	4.97	14.19	3.22	4.40	13.53	3.50	3.86	13.87	4.28	3.24	10.79	3.68	2.93	8.07	3.36	2.40	7.40	3.79	1.95
	norm	6.53	0.97	6.71	6.43	0.82	7.79	6.32	0.71	8.86	6.92	0.76	9.14	6.69	0.90	7.45	13.40	2.07	6.46	13.26	2.28	5.80	13.17	2.56	5.14	12.93	2.88	4.49	12.76	3.28	3.89	12.52	3.55	3.53	9.24	2.90	3.18	7.58	2.96	2.56	6.95	3.33	2.08
	min	4.03	0.56	7.17	3.97	0.48	8.32	3.91	0.41	9.47	3.66	0.34	10.62	3.54	0.41	8.65	7.76	1.03	7.50	7.38	1.09	6.76	7.07	1.17	6.07	6.70	1.25	5.37	6.39	1.36	4.71	6.20	1.51	4.10	5.71	1.68	3.40	5.21	1.99	2.62	4.78	2.24	2.13
12	max	7.84	1.23	6.36	7.72	1.05	7.38	7.60	0.90	8.40	7.53	0.81	9.27	7.27	0.96	7.55	16.89	2.67	6.33	16.08	2.82	5.71	15.40	3.01	5.12	14.59	3.22	4.53	13.91	3.50	3.98	14.27	4.27	3.34	11.10	3.68	3.02	8.30	3.35	2.48	7.61	3.78	2.01
	norm	6.71	0.97	6.92	6.61	0.82	8.02	6.50	0.71	9.13	7.12	0.76	9.42	6.88	0.90	7.67	13.78	2.07	6.65	13.63	2.28	5.98	13.55	2.56	5.29	13.29	2.87	4.63	13.12	3.27	4.01	12.88	3.54	3.64	9.50	2.89	3.28	7.80	2.95	2.64	7.15	3.33	2.15
	min	4.15	0.56	7.39	4.08	0.48	8.57	4.02	0.41	9.75	3.76	0.34	10.94	3.64	0.41	8.91	7.98	1.03	7.73	7.59	1.09	6.97	7.27	1.16	6.25	6.89	1.25	5.53	6.57	1.35	4.86	6.38	1.51	4.22	5.87	1.67	3.50	5.36	1.98	2.70	4.91	2.24	2.20
13	max	8.06	1.23	6.55	7.93	1.04	7.60	7.81	0.90	8.65	7.74	0.81	9.54	7.47	0.96	7.77	17.35	2.66	6.52	16.52	2.81	5.88	15.83	3.00	5.27	14.99	3.21	4.67	14.30	3.49	4.10	14.66	4.26	3.44	11.41	3.67	3.11	8.53	3.35	2.55	7.82	3.77	2.07
	norm	6.90	0.97	7.12	6.79	0.82	8.26	6.68	0.71	9.40	7.31	0.75	9.70	7.07	0.89	7.90	14.16	2.07	6.85	14.01	2.28	6.16	13.92	2.55	5.45	13.66	2.87	4.76	13.48	3.27	4.12	13.23	3.53	3.74	9.76	2.89	3.38	8.01	2.94	2.72	7.34	3.32	2.21
	min	4.26	0.56	7.61	4.20	0.48	8.82	4.13	0.41	10.04	3.87	0.34	11.26	3.74	0.41	9.17	8.20	1.03	7.96	7.80	1.09	7.17	7.47	1.16	6.43	7.08	1.24	5.69	6.75	1.35	5.00	6.56	1.51	4.35	6.03	1.67	3.61	5.51	1.98	2.78	5.05	2.23	2.26
14	max	8.27	1.23	6.74	8.15	1.04	7.82	8.02	0.90	8.89	7.94	0.81	9.81	7.67	0.96	7.99	17.82	2.66	6.70	16.96	2.81	6.05	16.25	3.00	5.42	15.40	3.21	4.80	14.68	3.48	4.21	15.06	4.25	3.54	11.71	3.66	3.20	8.76	3.34	2.62	8.03	3.77	2.13
	norm	7.08	0.97	7.32	6.97	0.82	8.50	6.86	0.71	9.67	7.51	0.75	9.97	7.26	0.89	8.12	14.54	2.06	7.05	14.38	2.27	6.33	14.29	2.55	5.61	14.03	2.86	4.90	13.84	3.26	4.24	13.59	3.53	3.85	10.02	2.88	3.47	8.23	2.94	2.80	7.54	3.32	2.27
	min	4.38	0.56	7.82	4.31	0.47	9.08	4.24	0.41	10.33	3.97	0.34	11.58	3.84	0.41	9.43	8.42	1.03	8.18	8.01	1.09	7.38	7.67	1.16	6.62	7.27	1.24	5.86	6.93	1.35	5.14	6.73	1.51	4.47	6.19	1.67	3.71	5.65	1.98	2.86	5.18	2.23	2.33
15	max	8.49	1.23	6.93	8.36	1.04	8.03	8.23	0.90	9.14	8.15	0.81	10.08	7.88	0.96	8.21	18.28	2.65	6.89	17.41	2.80	6.21	16.68	2.99	5.57	15.80	3.20	4.93	15.07	3.48	4.33	15.45	4.25	3.64	12.02	3.66	3.28	8.99	3.33	2.70	8.24	3.76	2.19
	norm	7.27	0.97	7.53	7.15	0.82	8.73	7.04	0.71	9.94	7.71	0.75	10.25	7.45	0.89	8.35	14.92	2.06	7.24	14.76	2.27	6.51	14.67	2.55	5.76	14.39	2.86	5.03	14.20	3.26	4.36	13.94	3.52	3.96	10.28	2.88	3.57	8.44	2.94	2.88	7.74	3.31	2.34
	min	4.49	0.56	8.04	4.42	0.47	9.33	4.35	0.41	10.62	4.08	0.34	11.90	3.94	0.41	9.70	8.64	1.03	8.41	8.22	1.08	7.58	7.88	1.16	6.80	7.46	1.24	6.02	7.12	1.35	5.28	6.91	1.50	4.60	6.36	1.67	3.81	5.80	1.97	2.94	5.32	2.23	2.39
18	max	9.10	1.22	7.49	8.96	1.03	8.68	8.82	0.89	9.88	8.74	0.80	10.90	8.44	0.95	8.88	19.59	2.63	7.45	18.65	2.78	6.72	17.87	2.97	6.03	16.93	3.17	5.33	16.15	3.45	4.68	16.56	4.21	3.93	12.88	3.63	3.55	9.63	3.31	2.91	8.83	3.73	2.37
	norm	7.79	0.96	8.14	7.67	0.81	9.44	7.55	0.70	10.74	8.26	0.75	11.08	7.98	0.88	9.03	15.98	2.04	7.83	15.82	2.25	7.04	15.72	2.52	6.23	15.42	2.83	5.44	15.22	3.23	4.71	12.00	2.61	4.60	11.02	2.86	3.86	9.05	2.91	3.11	8.29	3.28	2.53
	min	4.81	0.55	8.69	4.74	0.47	10.09	4.66	0.41	11.48	4.37	0.34	12.87	4.22	0.40	10.48	9.25	1.02	9.09	8.81	1.07	8.20	8.44	1.15	7.35	8.00	1.23	6.51	7.63	1.33	5.71	7.40	1.49	4.97	6.81	1.65	4.12	6.22	1.96	3.18	5.70	2.21	2.58
20	max	9.57	1.22	7.86	9.42	1.03	9.11	9.28	0.89	10.37	9.19	0.80	11.44	8.88	0.95	9.32	20.61	2.64	7.82	19.62	2.78	7.05	18.80	2.97	6.32	17.81	3.18	5.60	16.99	3.46	4.91	17.42	4.22	4.13	13.55	3.64	3.73	10.14	3.31	3.06	9.29	3.74	2.48
	norm	8.19	0.96	8.54	8.07	0.81	9.91	7.94	0.70	11.27	8.69	0.75	11.63	8.39	0.89	9.47	16.82	2.05	8.21	16.64	2.25	7.38	16.53	2.53	6.54	16.23	2.84	5.71	16.01	3.24	4.95	15.72	3.50	4.49	11.59	2.86	4.05	9.52	2.92	3.26	8.72	3.29	2.65
	min	5.06	0.55	9.12	4.98	0.47	10.58	4.91	0.41	12.04	4.59	0.34	13.50	4.44	0.40	11.00	9.74	1.02	9.54	9.27	1.08	8.60	8.88	1.15	7.71	8.41	1.23	6.83	8.02	1.34	5.99	7.79	1.49	5.21	7.16	1.66	4.33	6.54	1.96	3.34	6.00	2.21	2.71
23	max	10.18	1.21	8.42	10.02	1.03	9.76	9.87	0.89	11.11	9.77	0.80	12.26	9.44	0.95	9.98	21.92	2.62	8.38	20.87	2.76	7.55	19.99	2.95	6.77	18.94	3.16	6.00	18.07	3.43	5.26	18.52	4.19	4.42	14.41	3.61	3.99	10.78	3.29	3.28	9.88	3.71	2.66
	norm	8.71	0.95	9.15	8.58	0.81	10.61	8.44	0.70	12.08	9.24	0.74	12.46	8.93	0.88	10.15	17.88	2.03	8.80	17.70	2.24	7.91	17.59	2.51	7.00	17.26	2.82	6.12	17.03	3.21	5.30	16.72	3.48	4.81	12.33	2.84	4.34	10.12	2.90	3.50	9.28	3.27	2.84
	min	5.38	0.55	9.77	5.30	0.47	11.34	5.22	0.40	12.90	4.89	0.34	14.47	4.72	0.40	11.79	10.35	1.01	10.22	9.86	1.07	9.22	9.44	1.14	8.27	8.95	1.22	7.32	8.53	1.33	6.42	8.28	1.48	5.59	7.62	1.64	4.64	6.96	1.95	3.57	6.38	2.20	2.90
25	max	10.57	1.20	8.79	10.41	1.02	10.20	10.25	0.88	11.60	10.15	0.79	12.80	9.81	0.94	10.43	22.77	2.60	8.75	21.68	2.75	7.89	20.76	2.93	7.08	19.67	3.14	6.26	18.76	3.41	5.50	19.24	4.17	4.62	14.96	3.59	4.17	11.19	3.27	3.42	10.26	3.69	2.78
	norm	9.05	0.95	9.56	8.91	0.80	11.09	8.77	0.70	12.62	9.60	0.74	13.01	9.27	0.87	10.60	18.57	2.02	9.19	18.38	2.22	8.26	18.26	2.50	7.31	17.92	2.80	6.39	17.69	3.20	5.53	17.36	3.46	5.02	12.81	2.83	4.53	10.51	2.88	3.65	9.63	3.25	2.97
	min	5.59	0.55	10.21	5.51	0.46	11.84	5.42	0.40	13.48	5.08	0.34	15.11	4.90	0.40	12.31	10.75	1.01	10.68	10.24	1.06	9.63	9.81	1.14	8.63	9.29	1.22	7.64	8.86	1.32	6.71	8.60	1.47	5.83	7.91	1.63	4.84	7.23	1.94	3.73	6.62	2.18	3.03

Cooling Capacity Correction_14

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	7.15	1.34	5.34	7.04	1.14	6.19	6.93	0.98	7.05	6.96	0.91	7.64	6.73	1.08	6.22	16.13	3.20	5.03	15.35	3.38	4.54	14.71	3.61	4.07	13.93	3.87	3.60	13.29	4.20	3.16	13.52	5.04	2.68	9.57	3.66	2.61	7.39	3.40	2.18	6.78	3.83	1.77
	norm	6.76	1.25	5.43	6.66	1.06	6.29	6.55	0.91	7.16	6.49	0.82	7.90	6.27	0.97	6.44	14.88	2.81	5.29	14.16	2.97	4.77	13.77	3.26	4.22	13.45	3.65	3.68	13.20	4.15	3.19	13.30	4.75	2.80	8.42	3.01	2.80	6.80	3.02	2.25	6.24	3.41	1.83
	min	3.58	0.57	6.30	3.52	0.48	7.31	3.47	0.42	8.32	3.25	0.35	9.32	3.14	0.41	7.60	6.88	1.04	6.59	6.55	1.10	5.94	6.27	1.18	5.33	5.94	1.26	4.72	5.67	1.37	4.14	5.50	1.53	3.60	5.06	1.69	2.99	4.62	2.01	2.30	4.24	2.26	1.87
8	max	7.38	1.34	5.52	7.27	1.13	6.41	7.15	0.98	7.29	6.94	0.91	7.91	6.94	1.08	6.44	16.64	3.19	5.21	15.84	3.37	4.70	14.61	3.81	4.21	14.38	3.86	3.73	13.71	4.19	3.27	13.95	5.03	2.77	9.87	3.65	2.71	7.63	3.39	2.25	6.99	3.82	1.83
	norm	6.98	1.24	5.61	6.87	1.05	6.51	6.76	0.91	7.41	6.70	0.82	8.18	6.47	0.97	6.66	15.35	2.80	5.47	14.61	2.96	4.94	14.21	3.26	4.37	13.88	3.64	3.81	13.63	4.13	3.30	13.73	4.74	2.90	8.69	3.00	2.89	7.02	3.01	2.33	6.44	3.40	1.89
	min	3.69	0.57	6.52	3.63	0.48	7.56	3.58	0.42	8.61	3.35	0.35	9.65	3.24	0.41	7.86	7.10	1.04	6.82	6.75	1.10	6.15	6.47	1.17	5.51	6.13	1.26	4.88	5.85	1.36	4.28	5.68	1.52	3.73	5.22	1.69	3.09	4.77	2.00	2.38	4.37	2.26	1.94
9	max	7.61	1.33	5.71	7.49	1.13	6.62	7.37	0.98	7.54	7.16	0.91	8.17	7.16	1.08	6.66	17.16	3.19	5.38	16.33	3.37	4.85	15.65	3.59	4.35	14.82	3.85	3.85	14.14	4.18	3.38	14.39	5.02	2.87	10.18	3.64	2.80	7.87	3.38	2.33	7.21	3.81	1.89
	norm	7.19	1.24	5.80	7.08	1.05	6.73	6.97	0.91	7.66	6.91	0.82	8.45	6.67	0.97	6.88	15.83	2.80	5.66	15.07	2.95	5.10	14.65	3.25	4.51	14.31	3.63	3.94	14.05	4.12	3.41	14.15	4.73	2.99	8.96	3.00	2.99	7.24	3.00	2.41	6.64	3.39	1.96
	min	3.80	0.56	6.74	3.75	0.48	7.82	3.69	0.41	8.89	3.45	0.35	9.97	3.34	0.41	8.12	7.32	1.04	7.05	6.96	1.10	6.35	6.67	1.17	5.70	6.32	1.25	5.04	6.03	1.36	4.43	5.85	1.52	3.85	5.38	1.68	3.20	4.92	1.99	2.46	4.51	2.25	2.00
10	max	7.84	1.33	5.89	7.72	1.13	6.84	7.60	0.98	7.78	7.63	0.90	8.44	7.37	1.07	6.87	17.67	3.18	5.56	16.82	3.36	5.01	16.12	3.59	4.49	15.27	3.84	3.98	14.56	4.17	3.49	14.82	5.01	2.96	10.49	3.63	2.89	8.10	3.37	2.40	7.43	3.80	1.95
	norm	7.41	1.24	5.99	7.29	1.05	6.95	7.18	0.91	7.91	7.11	0.82	8.72	6.87	0.97	7.10	16.30	2.79	5.84	15.52	2.95	5.26	15.09	3.24	4.66	14.74	3.63	4.06	14.47	4.12	3.52	14.58	4.72	3.09	9.23	2.99	3.09	7.46	3.00	2.49	6.84	3.38	2.02
	min	3.92	0.56	6.96	3.86	0.48	8.07	3.80	0.41	9.18	3.56	0.35	10.29	3.44	0.41	8.39	7.54	1.04	7.27	7.17	1.09	6.56	6.87	1.17	5.88	6.51	1.25	5.21	6.21	1.36	4.57	6.03	1.52	3.97	5.55	1.68	3.30	5.06	1.99	2.54	4.64	2.25	2.07
11	max	8.07	1.33	6.08	7.94	1.13	7.05	7.82	0.97	8.02	7.85	0.90	8.70	7.59	1.07	7.09	18.19	3.17	5.73	17.32	3.35	5.17	16.59	3.58	4.63	15.72	3.83	4.10	14.99	4.16	3.60	15.25	5.00	3.05	10.79	3.63	2.98	8.34	3.37	2.48	7.64	3.80	2.01
	norm	7.63	1.23	6.18	7.51	1.05	7.16	7.39	0.91	8.15	7.32	0.81	8.99	7.07	0.97	7.33	16.78	2.79	6.02	15.97	2.94	5.43	15.53	3.23	4.80	15.17	3.62	4.19	14.89	4.11	3.63	15.00	4.71	3.19	9.50	2.98	3.18	7.67	2.99	2.56	7.04	3.38	2.08
	min	4.03	0.56	7.17	3.97	0.48	8.32	3.91	0.41	9.47	3.66	0.34	10.62	3.54	0.41	8.65	7.76	1.03	7.50	7.38	1.09	6.76	7.07	1.17	6.07	6.70	1.25	5.37	6.39	1.36	4.71	6.20	1.51	4.10	5.71	1.68	3.40	5.21	1.99	2.62	4.78	2.24	2.13
12	max	8.29	1.32	6.26	8.17	1.12	7.26	8.04	0.97	8.26	8.08	0.90	8.96	7.80	1.07	7.30	18.71	3.17	5.90	17.81	3.35	5.32	17.06	3.57	4.77	16.16	3.82	4.23	15.41	4.15	3.71	15.68	4.99	3.14	11.10	3.62	3.07	8.57	3.36	2.55	7.86	3.79	2.07
	norm	7.84	1.23	6.36	7.72	1.05	7.38	7.60	0.90	8.40	7.53	0.81	9.27	7.27	0.96	7.55	17.26	2.78	6.20	16.43	2.94	5.59	15.97	3.23	4.95	15.60	3.61	4.32	15.32	4.10	3.74	15.43	4.70	3.28	9.77	2.98	3.28	7.89	2.99	2.64	7.23	3.37	2.15
	min	4.15	0.56	7.39	4.08	0.48	8.57	4.02	0.41	9.75	3.76	0.34	10.94	3.64	0.41	8.91	7.98	1.03	7.73	7.59	1.09	6.97	7.27	1.16	6.25	6.89	1.25	5.53	6.57	1.35	4.86	6.38	1.51	4.22	5.87	1.67	3.50	5.36	1.98	2.70	4.91	2.24	2.20
13	max	8.52	1.32	6.45	8.39	1.12	7.48	8.26	0.97	8.51	8.30	0.90	9.23	8.02	1.07	7.52	19.22	3.16	6.08	18.30	3.34	5.48	17.53	3.57	4.91	16.61	3.82	4.35	15.84	4.15	3.82	16.12	4.98	3.24	11.41	3.61	3.16	8.81	3.35	2.63	8.08	3.78	2.13
	norm	8.06	1.23	6.55	7.93	1.04	7.60	7.81	0.90	8.65	7.74	0.81	9.54	7.47	0.96	7.77	17.73	2.78	6.39	16.88	2.93	5.76	16.42	3.22	5.09	16.03	3.61	4.44	15.74	4.09	3.85	15.85	4.69	3.38	10.04	2.97	3.38	8.11	2.98	2.72	7.43	3.36	2.21
	min	4.26	0.56	7.61	4.20	0.48	8.82	4.13	0.41	10.04	3.87	0.34	11.26	3.74	0.41	9.17	8.20	1.03	7.96	7.80	1.09	7.17	7.47	1.16	6.43	7.08	1.24	5.69	6.75	1.35	5.00	6.56	1.51	4.35	6.03	1.67	3.61	5.51	1.98	2.78	5.05	2.23	2.26
14	max	8.75	1.32	6.63	8.62	1.12	7.69	8.48	0.97	8.75	8.52	0.90	9.49	8.23	1.06	7.73	19.74	3.16	6.25	18.79	3.33	5.64	18.00	3.56	5.05	17.05	3.81	4.47	16.26	4.14	3.93	16.55	4.97	3.33	11.71	3.61	3.25	9.05	3.35	2.70	8.29	3.78	2.20
	norm	8.27	1.23	6.74	8.15	1.04	7.82	8.02	0.90	8.89	7.94	0.81	9.81	7.67	0.96	7.99	18.21	2.77	6.57	17.33	2.93	5.92	16.86	3.22	5.24	16.46	3.60	4.57	16.16	4.09	3.96	16.28	4.68	3.48	10.31	2.97	3.47	8.33	2.98	2.80	7.63	3.36	2.27
	min	4.38	0.56	7.82	4.31	0.47	9.08	4.24	0.41	10.33	3.97	0.34	11.58	3.84	0.41	9.43	8.42	1.03	8.18	8.01	1.09	7.38	7.67	1.16	6.62	7.27	1.24	5.86	6.93	1.35	5.14	6.73	1.51	4.47	6.19	1.67	3.71	5.65	1.98	2.86	5.18	2.23	2.33
15	max	8.98	1.32	6.81	8.84	1.12	7.90	8.70	0.97	8.99	8.74	0.90	9.75	8.45	1.06	7.95	20.25	3.15	6.42	19.28	3.33	5.79	18.47	3.56	5.20	17.50	3.81	4.60	16.69	4.13	4.04	16.98	4.96	3.42	12.02	3.60	3.34	9.28	3.34	2.78	8.51	3.77	2.26
	norm	8.49	1.23	6.93	8.36	1.04	8.03	8.23	0.90	9.14	8.15	0.81	10.08	7.88	0.96	8.21	18.88	2.77	6.75	17.79	2.92	6.09	17.30	3.21	5.38	16.89	3.59	4.70	16.58	4.08	4.07	16.70	4.67	3.57	10.58	2.96	3.57	8.55	2.97	2.88	7.83	3.35	2.34
	min	4.49	0.56	8.04	4.42	0.47	9.33	4.35	0.41	10.62	4.08	0.34	11.90	3.94	0.41	9.70	8.64	1.03	8.41	8.22	1.08	7.58	7.88	1.16	6.80	7.46	1.24	6.02	7.12	1.35	5.28	6.91	1.50	4.60	6.36	1.67	3.81	5.80	1.97	2.94	5.32	2.23	2.39
18	max	9.62	1.31	7.37	9.48	1.11	8.54	9.33	0.96	9.72	9.37	0.89	10.54	9.05	1.05	8.59	21.70	3.13	6.94	20.66	3.30	6.26	19.79	3.52	5.62	18.75	3.77	4.97	17.88	4.10	4.36	18.20	4.92	3.70	12.88	3.57	3.61	9.95	3.31	3.00	9.12	3.74	2.44
	norm	9.10	1.22	7.49	8.96	1.03	8.68	8.82	0.89	9.88	8.74	0.80	10.90	8.44	0.95	8.88	20.02	2.74	7.30	19.06	2.90	6.58	18.54	3.18	5.82	18.10	3.56	5.08	17.77	4.04	4.40	13.90	3.32	4.19	11.34	2.94	3.86	9.16	2.95	3.11	8.40	3.32	2.53
	min	4.81	0.55	8.69	4.74	0.47	10.09	4.66	0.41	11.48	4.37	0.34	12.87	4.22	0.40	10.48	9.25	1.02	9.09	8.81	1.07	8.20	8.44	1.15	7.35	8.00	1.23	6.51	7.63	1.33	5.71	7.40	1.49	4.97	6.81	1.65	4.12	6.22	1.96	3.18	5.70	2.21	2.58
20	max	10.12	1.31	7.73	9.97	1.11	8.97	9.81	0.96	10.20	9.86	0.89	11.06	9.52	1.06	9.01	22.83	3.13	7.29	21.74	3.31	6.57	20.82	3.53	5.89	19.73	3.78	5.22	18.81	4.11	4.58	19.14	4.93	3.88	13.55	3.58	3.79	10.47	3.32	3.15	9.59	3.75	2.56
	norm	9.57	1.22	7.86	9.42	1.03	9.11	9.28	0.89	10.37	9.19	0.80	11.44	8.88	0.95	9.32	21.06	2.75	7.66	20.05	2.90	6.90	19.50	3.19	6.11	19.04	3.57	5.33	18.70	4.05	4.61	18.83	4.65	4.05	11.93	2.94	4.05	9.63	2.95	3.26	8.83	3.33	2.65
	min	5.06	0.55	9.12	4.98	0.47	10.58	4.91	0.41	12.04	4.59	0.34	13.50	4.44	0.40	11.00	9.74	1.02	9.54	9.27	1.08	8.60	8.88	1.15	7.71	8.41	1.23	6.83	8.02	1.34	5.99	7.79	1.49	5.21	7.16	1.66	4.33	6.54	1.96	3.34	6.00	2.21	2.71
23	max	10.77	1.30	8.28	10.60	1.10	9.61	10.44	0.95	10.93	10.48	0.88	11.85	10.13	1.05	9.66	24.28	3.11	7.81	23.12	3.28	7.04	22.15	3.51	6.31	20.98	3.75	5.59	20.01	4.08	4.91	20.36	4.90	4.16	14.41	3.55	4.06	11.13	3.30	3.38	10.20	3.72	2.74
	norm	10.18	1.21	8.42	10.02	1.03	9.76	9.87	0.89	11.11	9.77	0.80	12.26	9.44	0.95	9.98	22.40	2.73	8.21	21.33	2.88	7.40	20.74	3.17	6.54	20.25	3.55	5.71	19.89	4.02	4.94	20.03	4.61	4.34	12.68	2.92	4.34	10.25	2.93	3.50	9.39	3.31	2.84
	min	5.38	0.55	9.77	5.30	0.47	11.34	5.22	0.40	12.90	4.89	0.34	14.47	4.72	0.40	11.79	10.35	1.01	10.22	9.86	1.07	9.22	9.44	1.14	8.27	8.95	1.22	7.32	8.53	1.33	6.42	8.28	1.48	5.59	7.62	1.64	4.64	6.96	1.95	3.57	6.38	2.20	2.90
25	max	11.18	1.29	8.65	11.01	1.10	10.03	10.84	0.95	11.42	10.89	0.88	12.38	10.52	1.04	10.09	25.22	3.09	8.16	24.01	3.27	7.35	23.00	3.49	6.60	21.79	3.73	5.84	20.78	4.05	5.12	21.15	4.87	4.34	14.96	3.53	4.24	11.56	3.28	3.53	10.60	3.70	2.87
	norm	10.57	1.20	8.79	10.41	1.02	10.20	10.25	0.88	11.60	10.15	0.79	12.80	9.81	0.94	10.43	23.26	2.71	8.57	22.15	2.87	7.73	21.54	3.15	6.84	21.03	3.53	5.97	20.65	4.00	5.16	20.80	4.58	4.54	13.17	2.91	4.53	10.64	2.91	3.65	9.75	3.29	2.97
	min	5.59	0.55	10.21	5.51	0.46	11.84	5.42	0.40	13.48	5.08	0.34	15.11	4.90	0.40	12.31	10.75	1.01	10.68	10.24	1.06	9.63	9.81	1.14	8.63	9.29	1.22	7.64	8.86	1.32	6.71	8.60	1.47	5.83	7.91	1.63	4.84	7.23	1.94	3.73	6.62	2.18	3.03

Cooling Capacity Correction_16

Outflow water(°C)	Capacity level	Ambient Temp.(°C) -15 Capacity	-15 Power	-15 EER	-10 Capacity	-10 Power	-10 EER	-5 Capacity	-5 Power	-5 EER	0 Capacity	0 Power	0 EER	5 Capacity	5 Power	5 EER	10 Capacity	10 Power	10 EER	15 Capacity	15 Power	15 EER	20 Capacity	20 Power	20 EER	25 Capacity	25 Power	25 EER	30 Capacity	30 Power	30 EER	35 Capacity	35 Power	35 EER	40 Capacity	40 Power	40 EER	45 Capacity	45 Power	45 EER	48 Capacity	48 Power	48 EER
7	max	7.67	1.49	5.16	7.55	1.26	5.99	7.43	1.09	6.81	7.26	0.98	7.38	6.27	1.04	6.01	16.90	3.45	4.90	16.09	3.64	4.42	15.41	3.89	3.97	14.60	4.16	3.51	13.93	4.52	3.08	14.15	5.55	2.55	11.04	4.75	2.32	7.98	3.90	2.05	7.32	4.40	1.66
	norm	7.15	1.34	5.34	7.04	1.14	6.19	6.93	0.98	7.05	6.14	0.80	7.64	5.93	0.95	6.22	15.10	3.04	4.96	15.04	3.27	4.60	14.82	3.64	4.07	14.44	4.07	3.55	14.15	4.61	3.07	13.80	5.09	2.71	9.02	3.22	2.80	7.14	3.17	2.25	6.55	3.58	1.83
	min	3.58	0.57	6.30	3.52	0.48	7.31	3.47	0.42	8.32	3.25	0.35	9.32	3.14	0.41	7.60	6.88	1.04	6.59	6.55	1.10	5.94	6.27	1.18	5.33	5.94	1.26	4.72	5.67	1.37	4.14	5.50	1.53	3.60	5.06	1.69	2.99	4.62	2.01	2.30	4.24	2.26	1.87
8	max	7.92	1.48	5.34	7.79	1.26	6.20	7.67	1.09	7.05	6.70	0.88	7.64	6.47	1.04	6.22	17.44	3.44	5.08	16.60	3.63	4.58	15.91	3.87	4.11	15.07	4.15	3.63	14.37	4.51	3.19	14.60	5.53	2.64	11.39	4.74	2.41	8.24	3.89	2.12	7.55	4.38	1.72
	norm	7.38	1.34	5.52	7.27	1.13	6.41	7.15	0.98	7.29	6.33	0.80	7.91	6.12	0.95	6.44	15.58	3.04	5.13	15.52	3.26	4.76	15.29	3.63	4.21	14.90	4.06	3.67	14.61	4.60	3.18	14.24	5.08	2.80	9.30	3.21	2.89	7.37	3.16	2.33	6.75	3.57	1.89
	min	3.69	0.57	6.52	3.63	0.48	7.56	3.58	0.42	8.61	3.35	0.35	9.65	3.24	0.41	7.86	7.10	1.04	6.82	6.75	1.10	6.15	6.47	1.17	5.51	6.13	1.26	4.88	5.85	1.36	4.28	5.68	1.52	3.73	5.22	1.69	3.09	4.77	2.00	2.38	4.37	2.26	1.94
9	max	8.16	1.48	5.52	8.04	1.25	6.40	7.91	1.09	7.29	6.91	0.87	7.89	6.67	1.04	6.43	17.98	3.43	5.25	17.12	3.62	4.73	16.40	3.87	4.24	15.54	4.14	3.75	14.82	4.50	3.30	15.06	5.52	2.73	11.75	4.73	2.49	8.49	3.88	2.19	7.78	4.37	1.78
	norm	7.61	1.33	5.71	7.49	1.13	6.62	7.37	0.98	7.54	6.53	0.80	8.17	6.31	0.95	6.66	16.07	3.03	5.30	16.00	3.25	4.92	15.77	3.62	4.35	15.36	4.05	3.80	15.06	4.59	3.28	14.68	5.07	2.90	9.59	3.21	2.99	7.60	3.15	2.41	6.96	3.56	1.96
	min	3.80	0.56	6.74	3.75	0.48	7.82	3.69	0.41	8.89	3.45	0.35	9.97	3.34	0.41	8.12	7.32	1.04	7.05	6.96	1.10	6.35	6.67	1.17	5.70	6.32	1.25	5.04	6.03	1.36	4.43	5.85	1.52	3.85	5.38	1.68	3.20	4.92	1.99	2.46	4.51	2.25	2.00
10	max	8.41	1.47	5.70	8.28	1.25	6.61	8.15	1.08	7.52	7.11	0.87	8.15	6.87	1.04	6.64	18.52	3.42	5.41	17.63	3.61	4.88	16.89	3.86	4.38	16.00	4.13	3.88	15.26	4.49	3.40	15.51	5.51	2.82	12.10	4.72	2.57	8.75	3.87	2.26	8.02	4.36	1.84
	norm	7.84	1.33	5.89	7.72	1.13	6.84	7.60	0.98	7.78	6.73	0.80	8.44	6.50	0.95	6.87	16.55	3.02	5.48	16.49	3.24	5.08	16.24	3.61	4.49	15.83	4.04	3.92	15.51	4.58	3.39	15.12	5.06	2.99	9.88	3.20	3.09	7.83	3.15	2.49	7.17	3.55	2.02
	min	3.92	0.56	6.96	3.86	0.48	8.07	3.80	0.41	9.18	3.56	0.35	10.29	3.44	0.41	8.39	7.54	1.04	7.27	7.17	1.09	6.56	6.87	1.17	5.88	6.51	1.25	5.21	6.21	1.36	4.57	6.03	1.52	3.97	5.55	1.68	3.30	5.06	1.99	2.54	4.64	2.25	2.07
11	max	8.65	1.47	5.88	8.52	1.25	6.82	8.39	1.08	7.76	7.32	0.87	8.40	7.07	1.03	6.85	19.06	3.41	5.58	18.15	3.60	5.03	17.39	3.85	4.52	16.47	4.12	4.00	15.71	4.48	3.51	15.96	5.50	2.90	12.45	4.71	2.65	9.00	3.86	2.33	8.25	4.36	1.89
	norm	8.07	1.33	6.08	7.94	1.13	7.05	7.82	0.97	8.02	6.92	0.80	8.70	6.69	0.94	7.09	17.03	3.02	5.65	16.97	3.24	5.24	16.72	3.61	4.63	16.29	4.03	4.04	15.96	4.57	3.50	15.57	5.05	3.09	10.17	3.19	3.18	8.05	3.14	2.56	7.38	3.54	2.08
	min	4.03	0.56	7.17	3.97	0.48	8.32	3.91	0.41	9.47	3.66	0.34	10.62	3.54	0.41	8.65	7.76	1.03	7.50	7.38	1.09	6.76	7.07	1.17	6.07	6.70	1.25	5.37	6.39	1.36	4.71	6.20	1.51	4.10	5.71	1.68	3.40	5.21	1.99	2.62	4.78	2.24	2.13
12	max	8.90	1.47	6.06	8.76	1.25	7.02	8.62	1.08	7.99	7.53	0.87	8.66	7.27	1.03	7.05	19.60	3.41	5.75	18.66	3.60	5.19	17.88	3.84	4.65	16.94	4.11	4.12	16.15	4.47	3.62	16.41	5.49	2.99	12.81	4.70	2.73	9.26	3.85	2.40	8.49	4.35	1.95
	norm	8.29	1.32	6.26	8.17	1.12	7.26	8.04	0.97	8.26	7.12	0.79	8.96	6.88	0.94	7.30	17.52	3.01	5.82	17.45	3.23	5.40	17.19	3.60	4.77	16.75	4.02	4.16	16.42	4.56	3.60	16.01	5.04	3.18	10.46	3.19	3.28	8.28	3.13	2.64	7.59	3.54	2.15
	min	4.15	0.56	7.39	4.08	0.48	8.57	4.02	0.41	9.75	3.76	0.34	10.94	3.64	0.41	8.91	7.98	1.03	7.73	7.59	1.09	6.97	7.27	1.16	6.25	6.89	1.25	5.53	6.57	1.35	4.86	6.38	1.51	4.22	5.87	1.67	3.50	5.36	1.98	2.70	4.91	2.24	2.20
13	max	9.14	1.47	6.23	9.00	1.24	7.23	8.86	1.08	8.23	7.74	0.87	8.91	7.47	1.03	7.26	20.14	3.40	5.92	19.18	3.59	5.34	18.37	3.84	4.79	17.41	4.11	4.24	16.60	4.46	3.72	16.87	5.48	3.08	13.16	4.69	2.81	9.51	3.85	2.47	8.72	4.34	2.01
	norm	8.52	1.32	6.45	8.39	1.12	7.48	8.26	0.97	8.51	7.31	0.79	9.23	7.07	0.94	7.52	18.00	3.01	5.99	17.93	3.23	5.56	17.67	3.59	4.91	17.21	4.02	4.29	16.87	4.55	3.71	16.45	5.03	3.27	10.75	3.18	3.38	8.51	3.13	2.72	7.80	3.53	2.21
	min	4.26	0.56	7.61	4.20	0.48	8.82	4.13	0.41	10.04	3.87	0.34	11.26	3.74	0.41	9.17	8.20	1.03	7.96	7.80	1.09	7.17	7.47	1.16	6.43	7.08	1.24	5.69	6.75	1.35	5.00	6.56	1.51	4.35	6.03	1.67	3.61	5.51	1.98	2.78	5.05	2.23	2.26
14	max	9.39	1.46	6.41	9.24	1.24	7.44	9.10	1.08	8.46	7.94	0.87	9.17	7.67	1.03	7.47	20.69	3.40	6.09	19.69	3.59	5.49	18.87	3.83	4.93	17.87	4.10	4.36	17.04	4.45	3.83	17.32	5.47	3.17	13.51	4.68	2.89	9.77	3.84	2.54	8.95	4.33	2.07
	norm	8.75	1.32	6.63	8.62	1.12	7.69	8.48	0.97	8.75	7.51	0.79	9.49	7.26	0.94	7.73	18.48	3.00	6.16	18.41	3.22	5.72	18.14	3.59	5.05	17.67	4.01	4.41	17.32	4.54	3.81	16.89	5.02	3.37	11.04	3.18	3.47	8.74	3.12	2.80	8.01	3.52	2.27
	min	4.38	0.56	7.82	4.31	0.47	9.08	4.24	0.41	10.33	3.97	0.34	11.58	3.84	0.41	9.43	8.42	1.03	8.18	8.01	1.09	7.38	7.67	1.16	6.62	7.27	1.24	5.86	6.93	1.35	5.14	6.73	1.51	4.47	6.19	1.67	3.71	5.65	1.98	2.86	5.18	2.23	2.33
15	max	9.63	1.46	6.59	9.49	1.24	7.64	9.34	1.07	8.70	8.15	0.87	9.42	7.88	1.03	7.68	21.23	3.39	6.26	20.21	3.58	5.64	19.36	3.82	5.06	18.34	4.09	4.48	17.49	4.45	3.93	17.77	5.46	3.26	13.87	4.67	2.97	10.02	3.83	2.61	9.19	4.33	2.12
	norm	8.98	1.32	6.81	8.84	1.12	7.90	8.70	0.97	8.99	7.71	0.79	9.75	7.45	0.94	7.95	18.97	3.00	6.33	18.89	3.21	5.88	18.61	3.58	5.20	18.14	4.00	4.53	17.78	4.54	3.92	17.33	5.01	3.46	11.32	3.17	3.57	8.97	3.12	2.88	8.22	3.52	2.34
	min	4.49	0.56	8.04	4.42	0.47	9.33	4.35	0.41	10.62	4.08	0.34	11.90	3.94	0.41	9.70	8.64	1.03	8.41	8.22	1.08	7.58	7.88	1.16	6.80	7.46	1.24	6.02	7.12	1.35	5.28	6.91	1.50	4.60	6.36	1.67	3.81	5.80	1.97	2.94	5.32	2.23	2.39
18	max	10.32	1.45	7.12	10.16	1.23	8.26	10.01	1.06	9.40	8.74	0.86	10.19	8.44	1.02	8.30	22.75	3.36	6.77	21.66	3.55	6.10	20.75	3.79	5.47	19.65	4.06	4.84	18.74	4.41	4.25	19.05	5.41	3.52	14.86	4.63	3.21	10.74	3.80	2.83	9.85	4.29	2.30
	norm	9.62	1.31	7.37	9.48	1.11	8.54	9.33	0.96	9.72	8.26	0.78	10.54	7.98	0.93	8.59	20.32	2.97	6.84	20.25	3.19	6.35	19.95	3.55	5.62	19.44	3.97	4.90	19.05	4.50	4.24	15.40	4.05	3.80	12.14	3.14	3.86	9.61	3.09	3.11	8.81	3.49	2.53
	min	4.81	0.55	8.69	4.74	0.47	10.09	4.66	0.41	11.48	4.37	0.34	12.87	4.22	0.40	10.48	9.25	1.02	9.09	8.81	1.07	8.20	8.44	1.15	7.35	8.00	1.23	6.51	7.63	1.33	5.71	7.40	1.49	4.97	6.81	1.65	4.12	6.22	1.96	3.18	5.70	2.21	2.58
20	max	10.86	1.45	7.48	10.69	1.23	8.67	10.53	1.07	9.87	9.19	0.86	10.69	8.88	1.02	8.71	23.93	3.37	7.10	22.78	3.56	6.40	21.82	3.80	5.74	20.68	4.07	5.08	19.72	4.42	4.46	20.04	5.43	3.69	15.63	4.65	3.37	11.30	3.81	2.97	10.36	4.30	2.41
	norm	10.12	1.31	7.73	9.97	1.11	8.97	9.81	0.96	10.20	8.69	0.79	11.06	8.39	0.93	9.01	21.38	2.98	7.18	21.30	3.20	6.67	20.99	3.56	5.89	20.45	3.98	5.14	20.04	4.51	4.45	19.54	4.98	3.92	12.77	3.15	4.05	10.11	3.10	3.26	9.27	3.50	2.65
	min	5.06	0.55	9.12	4.98	0.47	10.58	4.91	0.41	12.04	4.59	0.34	13.50	4.44	0.40	11.00	9.74	1.02	9.54	9.27	1.08	8.60	8.88	1.15	7.71	8.41	1.23	6.83	8.02	1.34	5.99	7.79	1.49	5.21	7.16	1.66	4.33	6.54	1.96	3.34	6.00	2.21	2.71
23	max	11.55	1.44	8.01	11.37	1.22	9.29	11.20	1.06	10.57	9.77	0.85	11.45	9.44	1.01	9.33	25.45	3.34	7.61	24.23	3.53	6.86	23.21	3.77	6.15	21.99	4.04	5.45	20.97	4.39	4.78	21.31	5.39	3.96	16.63	4.61	3.61	12.02	3.78	3.18	11.02	4.27	2.58
	norm	10.77	1.30	8.28	10.60	1.10	9.61	10.44	0.95	10.93	9.24	0.78	11.85	8.93	0.92	9.66	22.74	2.96	7.69	22.65	3.17	7.14	22.32	3.53	6.31	21.75	3.95	5.51	21.31	4.47	4.76	20.78	4.94	4.20	13.58	3.13	4.34	10.75	3.08	3.50	9.86	3.47	2.84
	min	5.38	0.55	9.77	5.30	0.47	11.34	5.22	0.40	12.90	4.89	0.34	14.47	4.72	0.40	11.79	10.35	1.01	10.22	9.86	1.07	9.22	9.44	1.14	8.27	8.95	1.22	7.32	8.53	1.33	6.42	8.28	1.48	5.59	7.62	1.64	4.64	6.96	1.95	3.57	6.38	2.20	2.90
25	max	12.00	1.43	8.37	11.81	1.22	9.70	11.63	1.05	11.04	10.15	0.85	11.96	9.81	1.01	9.74	26.43	3.33	7.95	25.16	3.51	7.17	24.11	3.75	6.43	22.84	4.01	5.69	21.78	4.36	4.99	22.13	5.36	4.13	17.27	4.58	3.77	12.48	3.76	3.32	11.44	4.24	2.70
	norm	11.18	1.29	8.65	11.01	1.10	10.03	10.84	0.95	11.42	9.60	0.78	12.38	9.27	0.92	10.09	23.62	2.94	8.04	23.53	3.15	7.46	23.18	3.51	6.60	22.58	3.93	5.75	22.13	4.45	4.98	21.58	4.91	4.39	14.10	3.11	4.53	11.17	3.06	3.65	10.24	3.45	2.97
	min	5.59	0.55	10.21	5.51	0.46	11.84	5.42	0.40	13.48	5.08	0.34	15.11	4.90	0.40	12.31	10.75	1.01	10.68	10.24	1.06	9.63	9.81	1.14	8.63	9.29	1.22	7.64	8.86	1.32	6.71	8.60	1.47	5.83	7.91	1.63	4.84	7.23	1.94	3.73	6.62	2.18	3.03

(3) Heating capacity correction for 1-phase units

Heating Capacity Correction_4

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	2.77	2.97	3.56	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.25	6.85	5.96	6.44
		Power	1.29	1.17	1.22	1.14	1.13	1.11	1.08	0.96	0.97	0.99	0.82	0.85	0.70	0.73
		COP	2.15	2.53	2.91	3.42	3.80	4.34	4.82	6.34	6.50	7.07	7.65	8.10	8.55	8.88
	norm	Capacity	2.25	2.41	2.89	3.16	3.48	4.51	4.23	4.95	5.10	5.22	5.34	5.41	5.42	5.73
		Power	1.00	0.91	0.95	0.89	0.88	0.87	0.84	0.75	0.76	0.72	0.69	0.66	0.63	0.64
		COP	2.24	2.64	3.03	3.56	3.95	4.51	5.01	6.59	6.75	7.26	7.74	8.22	8.57	8.91
	min	Capacity	1.34	1.44	1.73	1.89	2.08	2.53	2.53	3.17	3.26	3.65	4.00	4.38	4.77	5.15
		Power	0.59	0.54	0.56	0.53	0.52	0.51	0.50	0.48	0.48	0.49	0.51	0.53	0.55	0.57
		COP	2.26	2.66	3.06	3.59	3.99	4.55	5.05	6.65	6.82	7.41	7.88	8.34	8.68	9.01
30	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.16	6.34	7.08	6.90	7.44	6.00	6.48
		Power	1.43	1.30	1.36	1.26	1.25	1.23	1.19	1.06	1.06	1.09	0.90	0.93	0.76	0.80
		COP	1.98	2.33	2.68	3.14	3.49	3.98	4.42	5.82	5.97	6.49	7.02	7.44	7.85	8.15
	norm	Capacity	2.30	2.46	2.94	3.21	3.53	4.14	4.60	6.05	6.20	6.74	7.11	7.53	7.86	8.16
		Power	1.12	1.02	1.06	0.98	0.97	0.96	0.93	0.83	0.83	0.78	0.76	0.72	0.69	0.71
		COP	2.06	2.42	2.78	3.27	3.63	4.18	4.64	6.10	6.26	6.81	7.23	7.66	7.97	8.27
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.56	2.56	3.20	3.30	3.68	4.03	4.42	4.80	5.18
		Power	0.66	0.60	0.63	0.58	0.58	0.57	0.55	0.52	0.53	0.54	0.56	0.58	0.60	0.63
		COP	2.08	2.44	2.81	3.30	3.66	4.64	4.64	6.10	6.26	6.81	7.23	7.66	7.97	8.27
35	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.16	6.34	7.08	6.90	7.44	6.00	6.48
		Power	1.61	1.46	1.52	1.41	1.40	1.37	1.34	1.18	1.19	1.22	1.01	1.04	0.86	0.89
		COP	1.77	2.08	2.39	2.80	3.12	3.56	3.95	5.20	5.33	5.80	6.27	6.64	7.01	7.28
	norm	Capacity	2.30	2.46	2.94	3.21	3.53	3.70	4.10	5.40	5.54	5.27	5.38	5.45	5.45	5.76
		Power	1.25	1.14	1.18	1.10	1.09	1.07	1.04	0.93	0.93	0.87	0.85	0.81	0.78	0.79
		COP	1.84	2.16	2.48	2.92	3.24	3.73	4.14	5.45	5.59	6.08	6.46	6.84	7.02	7.29
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.63	2.56	3.20	3.30	3.68	4.03	4.42	4.80	5.18
		Power	0.74	0.68	0.70	0.65	0.65	0.63	0.62	0.59	0.59	0.61	0.62	0.65	0.67	0.70
		COP	1.85	2.18	2.51	2.94	3.27	3.73	4.14	5.45	5.59	6.08	6.46	6.84	7.11	7.38
40	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.16	6.34	7.08	6.90	7.44	6.00	6.48
		Power	1.83	1.66	1.73	1.60	1.59	1.56	1.52	1.35	1.35	1.39	1.14	1.18	0.97	1.01
		COP	1.55	1.83	2.10	2.47	2.74	3.13	3.47	4.58	4.69	5.10	5.52	5.84	6.17	6.40
	norm	Capacity	2.30	2.46	2.94	3.21	3.53	3.26	4.28	5.27	5.27	5.30	5.58	5.91	6.18	6.42
		Power	1.42	1.29	1.35	1.25	1.24	1.22	1.19	1.06	1.06	0.99	0.96	0.92	0.88	0.90
		COP	1.62	1.90	2.19	2.57	2.85	3.26	3.61	4.75	4.87	5.30	5.58	5.91	6.18	6.42
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.37	2.56	3.20	3.30	3.68	4.03	4.42	4.80	5.18
		Power	0.84	0.77	0.80	0.74	0.73	0.72	0.70	0.67	0.67	0.69	0.71	0.73	0.77	0.80
		COP	1.63	1.92	2.21	2.59	2.88	3.29	3.64	4.80	4.92	5.35	5.68	6.02	6.26	6.50
45	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.16	6.34	7.08	6.30	6.85	6.00	6.48
		Power	2.01	1.83	1.90	1.76	1.75	1.72	1.67	1.48	1.49	1.53	1.26	1.30	1.07	1.11
		COP	1.41	1.66	1.91	2.24	2.49	2.85	3.16	4.16	4.26	4.64	5.01	5.31	5.61	5.82
	norm	Capacity	2.30	2.46	2.94	3.21	3.53	3.96	4.28	5.27	5.15	5.27	5.38	5.45	5.45	5.76
		Power	1.57	1.42	1.48	1.38	1.36	1.34	1.30	1.09	1.16	1.09	1.06	1.01	0.97	0.99
		COP	1.47	1.73	1.99	2.33	2.59	2.96	3.28	4.20	4.43	4.82	5.08	5.38	5.62	5.83
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.56	2.56	3.20	3.30	3.68	4.03	4.42	4.80	5.18
		Power	1.48	1.42	1.76	1.82	1.81	1.79	1.77	1.63	1.64	1.68	1.38	1.43	1.18	1.22
		COP	1.77	2.08	2.39	2.80	3.12	3.56	3.95	5.20	5.33	5.80	6.27	6.64	7.01	7.28
50	max	Capacity	2.97	3.04	3.56	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.25	6.85	5.96	6.44
		Power	1.99	1.83	1.90	1.76	1.75	1.72	1.67	1.48	1.49	1.53	1.26	1.30	1.07	1.11
		COP	1.50	1.66	1.91	2.24	2.49	2.85	3.16	4.16	4.26	4.64	5.01	5.31	5.61	5.82
	norm	Capacity	2.41	2.46	2.89	3.16	3.48	3.91	4.23	4.95	5.10	5.22	5.34	5.41	5.42	5.70
		Power	1.55	1.42	1.62	1.50	1.49	1.47	1.43	1.27	1.28	1.20	1.17	1.12	1.07	1.09
		COP	1.56	1.73	1.79	2.10	2.33	2.66	2.95	3.89	3.99	4.34	4.57	4.84	5.06	5.25
	min	Capacity	1.44	1.57	1.73	1.89	2.08	2.34	2.53	3.17	3.26	3.65	4.00	4.38	4.77	5.13
		Power	0.92	0.84	0.96	0.89	0.88	0.87	0.85	0.81	0.81	0.83	0.86	0.89	0.93	0.97
		COP	1.57	1.74	1.81	2.12	2.35	2.69	2.98	3.92	4.02	4.38	4.65	4.92	5.12	5.32
55	max	Capacity	3.56	2.97	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.85	5.96	6.42		
		Power	2.37	1.99	2.07	1.93	1.91	1.83	1.63	1.64	1.87	1.92	1.58	1.64	1.35	1.40
		COP	1.51	1.50	1.72	2.02	2.24	2.56	3.13	3.74	3.36	3.65	3.95	4.18	4.41	4.58
	norm	Capacity	2.89	2.41	3.56	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.25	6.85	5.96	6.42
		Power	1.85	1.55	1.63	1.50	1.49	1.88	1.83	1.63	1.64	1.68	1.38	1.43	1.18	1.24
		COP	1.56	1.56	1.79	2.10	2.33	2.56	2.59	3.89	3.49	4.34	4.17	4.78	5.05	5.59
	min	Capacity	1.73	1.44	1.76	1.89	2.08	2.34	2.53	3.17	3.26	3.65	4.00	4.38	4.77	5.13
		Power	1.09	0.92	0.96	0.89	0.88	0.87	0.85	0.81	0.81	0.83	0.86	0.89	0.93	0.97
		COP	1.58	1.57	1.81	2.12	2.35	2.69	2.98	3.92	4.02	4.38	4.65	4.92	5.12	5.32
60	max	Capacity	4.22	/	3.56	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.25	6.85	5.96	6.42
		Power	2.42	/	2.37	1.93	1.91	1.83	1.63	1.64	1.87	1.92	1.58	1.64	1.35	1.40
		COP	1.75	/	1.51	2.02	2.24	2.56	3.13	3.74	3.36	3.65	3.95	4.18	4.41	4.58
	norm	Capacity	3.42	/	2.89	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.25	6.85	5.96	6.42
		Power	1.89	/	1.85	1.72	1.91	1.83	1.63	1.64	1.87	1.92	1.58	1.64	1.35	1.40
		COP	1.81	/	1.56	1.84	2.04	2.33	2.59	3.25	3.49	4.23	4.00	4.23	4.42	4.59
	min	Capacity	2.08	/	1.89	2.08	2.34	2.53	2.63	3.26	3.26	3.65	4.00	4.38	4.77	5.13
		Power	1.01	/	1.09	1.02	1.01	0.99	0.97	0.92	0.93	0.95	0.98	1.02	1.06	1.10
		COP	2.06	/	1.58	1.85	2.06	2.35	2.61	3.43	3.52	3.83	4.07	4.31	4.48	4.65
65	max	Capacity	4.75	/	4.29	4.75	6.04	6.22	7.08	3.68	4.92	5.35	4.03	4.42	4.80	5.18
		Power	2.39	/	2.19	2.20	2.07	2.08	1.53	0.69	0.98	2.14	1.76	1.82	1.50	1.56
		COP	1.99	/	1.96	1.77	2.91	3.28	4.64	5.45	5.59	3.65	3.51	3.72	3.92	4.07
	norm	Capacity	3.42	/	2.89	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.25	6.85	5.96	6.42
		Power	1.89	/	1.85	1.72	1.91	1.83	1.63	1.64	1.87	1.92	1.58	1.64	1.35	1.40
		COP	1.81	/	1.56	1.84	2.04	2.33	2.59	3.25	3.49	4.23	4.00	4.23	4.42	4.59
	min	Capacity	2.08	/	1.89	2.08	2.34	2.53	2.63	3.26	3.26	3.65	4.00	4.38	4.77	5.13
		Power	1.02	/	1.09	1.02	1.01	0.99	0.97	0.92	0.93	0.95	0.98	1.02	1.06	1.10
		COP	2.06	/	1.58	1.85	2.06	2.35	2.61	3.43	3.52	3.83	4.07	4.31	4.48	4.65
65	max	Capacity	4.75	/	4.29	4.75	6.04	6.22	7.08	3.68	4.92	5.35	4.03	4.42	4.80	5.18
		Power	2.39	/	2.19	2.20	2.07	2.08	1.53	0.69	0.98	2.14	1.76	1.82	1.50	1.56
		COP	1.99	/	1.96	1.77	2.91	3.28	4.64	5.45	5.59	3.65	3.51	3.72	3.92	4.07
	norm	Capacity	3.42	/	2.89	3.89	4.29	4.82	5.21	6.10	6.28	7.02	6.25	6.85	5.96	6.42
		Power	1.89	/	1.85	1.72	1.91	1.83	1.63	1.64	1.87	1.92	1.58	1.64	1.35	1.40
		COP	1.81	/	1.56	1.84	2.04	2.33	2.59	3.25	3.49	4.23	4.00	4.23	4.42	4.59
	min	Capacity	2.08	/	1.89	2.08	2.34	2.53	2.63	3.26	3.26	3.65	4.00	4.38	4.77	5.13
		Power	1.01	/	1.09	1.02	1.01	0.99	0.97	0.92	0.93	0.95	0.98	1.02	1.06	1.10
		COP	2.06	/	1.58	1.85	2.06	2.35	2.61	3.43	3.52	3.83	4.07	4.31	4.48	4.65

Heating Capacity Correction_6

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	2.77	2.97	3.56	3.89	4.29	4.82	5.21	6.53	6.73	7.52	7.50	8.22	6.36	6.87
		Power	1.34	1.22	1.27	1.18	1.17	1.15	1.12	1.07	1.08	1.11	0.99	1.02	0.75	0.78
		COP	2.07	2.44	2.81	3.29	3.66	4.18	4.64	6.10	6.25	6.80	7.58	8.03	8.51	8.83
	norm	Capacity	2.52	2.70	3.24	3.54	3.90	4.38	4.74	5.94	6.12	6.22	6.22	6.28	6.24	6.11
		Power	1.16	1.05	1.10	1.02	1.01	1.00	0.97	0.90	0.91	0.87	0.81	0.77	0.73	0.69
		COP	2.18	2.56	2.95	3.46	3.84	4.39	4.87	6.59	6.75	7.17	7.67	8.15	8.52	8.86
	min	Capacity	1.34	1.44	1.73	1.89	2.08	2.34	2.53	3.17	3.26	3.65	4.00	4.38	4.77	5.15
		Power	0.59	0.54	0.56	0.53	0.52	0.51	0.50	0.48	0.48	0.49	0.51	0.53	0.55	0.57
		COP	2.26	2.66	3.06	3.59	3.99	4.55	5.05	6.65	6.82	7.41	7.88	8.34	8.68	9.01
30	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.60	6.80	7.59	7.56	8.28	6.40	6.91
		Power	1.49	1.36	1.41	1.31	1.30	1.27	1.24	1.18	1.18	1.22	1.09	1.12	0.82	0.85
		COP	1.90	2.24	2.58	3.02	3.36	3.84	4.26	5.60	5.74	6.24	6.96	7.37	7.81	8.11
	norm	Capacity	2.58	2.76	3.30	3.60	3.96	4.44	4.80	6.00	6.20	6.27	7.04	6.33	6.28	6.15
		Power	1.29	1.17	1.22	1.13	1.12	1.10	1.07	0.99	1.00	0.93	0.89	0.85	0.80	0.76
		COP	2.00	2.35	2.70	3.18	3.53	4.03	4.47	6.05	6.20	6.74	7.04	7.46	7.82	8.12
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.56	3.30	4.36	4.80	5.28	6.27	6.33	6.28	6.15
		Power	0.66	0.60	0.63	0.58	0.58	0.57	0.55	0.52	0.53	0.54	0.56	0.58	0.60	0.63
		COP	2.08	2.44	2.81	3.30	3.66	4.64	4.64	6.10	6.26	6.81	7.23	7.66	7.97	8.27
35	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.60	6.80	7.59	7.56	8.28	6.40	6.91
		Power	1.67	1.52	1.58	1.47	1.45	1.43	1.39	1.32	1.33	1.36	1.22	1.26	0.92	0.95
		COP	1.70	2.00	2.30	2.70	3.00	3.43	3.80	5.00	5.13	5.58	6.21	6.58	6.97	7.24
	norm	Capacity	2.58	2.76	3.30	3.60	3.96	4.44	4.80	6.00	6.18	6.27	6.27	6.33	6.28	6.15
		Power	1.45	1.31	1.37	1.27	1.26	1.23	1.20	1.11	1.12	1.04	1.00	0.95	0.90	0.85
		COP	1.79	2.10	2.42	2.84	3.15	3.60	3.99	5.40	5.54	6.02	6.29	6.66	6.98	7.25
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.37	2.56	3.20	3.30	3.68	4.03	4.42	4.80	5.18
		Power	0.74	0.68	0.70	0.65	0.65	0.63	0.62	0.59	0.59	0.61	0.62	0.65	0.67	0.70
		COP	1.85	2.18	2.51	2.94	3.27	3.73	4.14	5.45	5.59	6.08	6.46	6.84	7.11	7.38
40	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.60	6.80	7.59	7.56	8.28	6.40	6.91
		Power	1.90	1.73	1.79	1.67	1.65	1.62	1.58	1.50	1.51	1.55	1.38	1.43	1.04	1.09
		COP	1.50	1.76	2.02	2.38	2.64	3.01	3.34	4.40	4.51	4.91	5.47	5.79	6.14	6.37
	norm	Capacity	2.58	2.76	3.30	3.60	3.96	4.44	4.80	6.00	6.18	6.27	6.33	6.33	6.28	6.15
		Power	1.64	1.49	1.55	1.44	1.43	1.40	1.37	1.26	1.27	1.18	1.13	1.08	1.02	0.96
		COP	1.57	1.85	2.13	2.49	2.77	3.16	3.51	4.75	4.87	5.30	5.53	5.86	6.14	6.38
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.37	2.56	3.20	3.30	3.68	4.03	4.42	4.80	5.18
		Power	0.84	0.77	0.80	0.74	0.73	0.72	0.70	0.67	0.67	0.69	0.71	0.73	0.77	0.80
		COP	1.63	1.92	2.21	2.59	2.88	3.29	3.64	4.80	4.92	5.35	5.68	6.02	6.26	6.50
45	max	Capacity	2.84	3.04	3.63	3.96	4.36	4.88	5.28	6.60	6.80	7.59	7.56	8.28	6.40	6.91
		Power	2.09	1.90	1.97	1.83	1.82	1.78	1.74	1.65	1.66	1.70	1.52	1.57	1.15	1.19
		COP	1.36	1.60	1.84	2.16	2.40	2.74	3.04	4.00	4.10	4.46	4.97	5.26	5.58	5.79
	norm	Capacity	2.58	2.76	3.30	3.60	3.96	4.44	4.80	6.80	6.18	6.27	6.27	6.33	6.28	6.15
		Power	1.81	1.64	1.71	1.59	1.57	1.54	1.50	1.66	1.40	1.30	1.25	1.19	1.12	1.06
		COP	1.43	1.68	1.93	2.27	2.52	2.88	3.19	4.10	4.43	4.82	5.03	5.33	5.59	5.80
	min	Capacity	1.38	1.47	1.76	1.92	2.11	2.37	2.56	3.20	3.30	3.68	4.03	4.42	4.80	5.18
		Power	0.93	0.84	0.88	0.82	0.81	0.79	0.77	0.73	0.74	0.76	0.78	0.81	0.84	0.88
		COP	1.48	1.74	2.01	2.35	2.62	2.99	3.31	4.36	4.47	4.86	5.17	5.47	5.69	5.91
50	max	Capacity	/	2.97	3.56	3.89	4.29	4.82	5.21	6.53	6.73	7.52	7.50	8.22	6.36	6.85
		Power	/	2.06	2.15	2.00	1.99	1.95	1.91	1.82	1.82	1.87	1.68	1.73	1.27	1.31
		COP	/	1.44	1.66	1.94	2.16	2.47	2.74	3.60	3.69	4.01	4.47	4.74	5.02	5.21
	norm	Capacity	/	2.70	3.24	3.54	4.29	4.38	4.74	5.94	6.12	6.22	6.22	6.28	6.24	6.08
		Power	/	1.79	1.86	1.73	1.72	1.69	1.65	1.53	1.54	1.43	1.38	1.31	1.24	1.17
		COP	/	1.51	1.74	2.04	2.27	2.59	2.87	3.89	3.99	4.34	4.53	4.79	5.03	5.22
	min	Capacity	/	1.44	1.73	1.89	2.08	2.34	2.53	3.17	3.26	3.65	4.00	4.38	4.77	5.13
		Power	/	0.92	0.96	0.89	0.88	0.87	0.85	0.81	0.81	0.83	0.86	0.89	0.93	0.97
		COP	/	1.57	1.81	2.12	2.35	2.69	2.98	3.92	4.02	4.38	4.65	4.92	5.12	5.32
55	max	Capacity	/	3.56	3.89	1.70	1.89	2.16	2.39	3.15	3.23	3.51	3.91	4.15	4.39	4.56
		Power	/	2.46	2.29	2.04	2.27	1.89	2.18	2.07	2.09	2.14	1.92	1.98	1.45	1.50
		COP	/	1.45	1.98	1.79	1.97	2.27	2.51	3.15	3.49	3.79	3.96	4.19	4.40	4.57
	norm	Capacity	/	3.24	3.54	3.90	4.29	4.74	4.74	5.80	6.12	6.22	6.22	6.28	6.24	6.08
		Power	/	2.13	1.52	1.73	1.72	1.93	1.89	1.84	1.76	1.64	1.57	1.50	1.42	1.33
		COP	/	1.52	1.74	2.13	2.27	2.61	2.51	3.51	3.26	3.79	3.96	4.19	4.40	4.57
	min	Capacity	/	1.73	1.89	2.08	2.34	2.53	2.53	3.17	3.26	3.65	4.00	4.38	4.77	5.13
		Power	/	1.09	1.58	1.85	1.01	0.99	0.97	0.92	0.93	0.95	0.98	1.02	1.06	1.10
		COP	/	1.58	2.21	2.59	2.88	3.29	3.64	4.80	4.92	5.35	4.07	4.31	4.48	4.65
60	max	Capacity	/	/	/	/	4.22	4.75	5.15	6.47	6.66	7.44	4.00	4.38	4.77	6.78
		Power	/	/	/	/	2.51	2.48	2.42	2.31	2.32	2.38	2.13	8.11	1.06	1.61
		COP	/	/	/	/	1.68	2.48	2.13	2.80	2.87	3.12	3.48	2.20	3.91	4.06
	norm	Capacity	/	/	/	3.84	2.18	4.32	4.68	5.88	6.06	6.15	6.15	6.20	6.16	6.02
		Power	/	/	/	/	1.76	2.15	2.09	1.94	1.95	1.82	1.75	1.66	1.57	1.48
		COP	/	/	/	/	1.12	1.10	2.23	3.02	3.10	3.37	3.52	3.73	3.91	4.06
	min	Capacity	/	/	/	2.05	1.83	2.30	2.50	3.14	3.23	3.61	3.95	4.33	4.70	5.08
		Power	/	/	/	/	/	1.10	1.08	1.03	1.03	1.06	1.09	1.13	1.18	1.23
		COP	/	/	/	/	/	2.09	2.32	3.05	3.13	3.40	3.62	3.83	3.98	4.14
65	max	Capacity	/	/	/	/	/	/	/	6.40	6.59	7.36	7.33	/	/	/
		Power	/	/	/	/	/	/	/	2.56	2.57	2.64	2.36	/	/	/
		COP	/	/	/	/	/	/	/	2.50	2.56	2.79	3.11	/	/	/
	norm	Capacity	/	/	/	/	/	/	/	5.82	5.99	6.08	6.09	/	/	/
		Power	/	/	/	/	/	/	/	2.16	2.17	2.02	1.94	/	/	/
		COP	/	/	/	/	/	/	/	2.70	2.77	3.01	3.14	/	/	/
	min	Capacity	/	/	/	/	/	/	/	3.10	3.20	3.57	3.91	/	/	/
		Power	/	/	/	/	/	/	/	1.14	1.14	1.17	1.21	/	/	/
		COP	/	/	/	/	/	/	/	2.73	2.79	3.04	3.23	/	/	/

Heating Capacity Correction_8

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
			Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity
			Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power
			COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP
25	max		6.09	6.53	7.83	8.56	9.43	9.49	10.27	9.70	10.00	11.17	10.75	11.78	10.13	10.95
			3.10	2.82	2.94	2.74	2.72	2.35	2.29	1.58	1.59	1.64	1.46	1.51	1.23	1.28
			1.97	2.31	2.66	3.12	3.47	4.04	4.48	6.12	6.28	6.83	7.36	7.79	8.26	8.58
	norm		4.62	4.95	5.94	6.49	7.15	7.45	8.06	8.12	8.36	8.62	8.75	9.17	9.45	9.65
			2.25	2.05	2.14	1.99	1.97	1.78	1.74	1.25	1.26	1.19	1.17	1.15	1.14	1.11
			2.05	2.42	2.78	3.26	3.62	4.18	4.64	6.49	6.65	7.24	7.49	7.96	8.31	8.66
	min		2.23	2.39	2.86	3.13	3.45	3.87	4.19	8.12	10.09	8.62	10.84	8.78	10.20	9.71
			1.01	0.92	0.96	0.90	0.89	0.87	0.85	1.25	1.26	1.19	1.17	1.15	1.14	1.11
			2.20	2.59	2.97	3.49	3.88	4.43	4.91	6.47	6.63	7.21	7.66	8.11	8.44	8.76
30	max		6.24	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
			3.45	3.14	3.27	3.03	3.00	2.60	2.53	1.74	1.75	1.80	1.60	1.66	1.34	1.40
			1.80	2.12	2.44	2.87	3.19	3.71	4.11	5.62	5.76	6.27	6.76	7.15	7.59	7.88
	norm		4.73	5.06	6.05	6.60	7.26	7.55	8.16	8.20	8.45	8.70	8.82	9.23	9.51	9.71
			2.51	2.28	2.37	2.20	2.18	1.97	1.92	1.38	1.38	1.31	1.28	1.26	1.25	1.22
			1.88	2.22	2.55	2.99	3.33	3.84	4.26	5.96	6.11	6.64	6.87	7.31	7.63	7.95
	min		2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.13	1.03	1.07	0.99	0.98	0.96	0.94	0.89	0.90	0.92	0.95	0.98	1.03	1.07
			2.02	2.37	2.73	3.21	3.56	4.07	4.51	5.94	6.08	6.62	7.03	7.45	7.75	8.04
35	max		6.24	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
			3.87	3.52	3.66	3.40	3.36	2.91	2.83	1.95	1.96	2.01	1.80	1.86	2.08	1.57
			1.61	1.90	2.18	2.56	2.84	3.31	3.67	5.02	5.15	5.60	6.03	6.39	6.77	7.03
	norm		4.73	5.06	6.05	6.60	7.26	7.55	8.16	8.20	8.45	8.70	8.82	9.23	9.51	9.71
			2.81	2.56	2.66	2.47	2.44	2.20	2.15	1.54	1.55	1.47	1.44	1.41	1.40	1.37
			1.68	1.98	2.28	2.67	2.97	3.43	3.80	5.32	5.45	5.93	6.14	6.53	6.81	7.10
	min		2.28	2.44	2.92	3.18	3.92	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.26	1.15	1.20	1.11	1.10	1.08	1.05	1.00	1.00	1.03	1.06	1.10	1.15	1.20
			1.80	2.12	2.44	2.86	3.18	3.63	4.03	5.30	5.43	5.91	6.28	6.65	6.92	7.18
40	max		6.24	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
			4.40	4.00	4.16	3.86	3.82	3.30	3.22	2.22	2.23	2.29	2.04	2.11	1.71	1.78
			1.42	1.67	1.92	2.25	2.50	2.91	3.23	4.42	4.53	4.93	5.31	5.62	5.96	6.19
	norm		4.73	5.06	6.05	6.60	7.26	7.55	8.16	8.20	8.45	8.70	8.82	9.23	9.51	9.71
			3.19	2.90	3.02	2.81	2.78	2.50	2.44	1.75	1.76	1.67	1.63	1.61	1.59	1.55
			1.48	1.74	2.00	2.35	2.61	3.01	3.34	4.68	4.80	5.22	5.40	5.74	5.99	6.25
	min		2.28	2.44	2.92	3.18	3.92	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.44	1.31	1.36	1.26	1.25	1.23	1.20	1.14	1.14	1.17	1.21	1.25	1.31	1.36
			1.59	1.87	2.15	2.52	2.80	3.19	3.54	4.66	4.78	5.20	5.53	5.85	6.09	6.32
45	max		6.24	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
			4.84	4.40	4.57	4.25	4.21	3.63	3.54	2.44	2.45	2.52	2.25	2.32	1.88	1.96
			1.29	1.52	1.74	2.05	2.28	2.65	2.94	4.02	4.12	4.48	4.83	5.11	5.42	5.63
	norm		4.73	5.06	6.05	6.60	7.26	7.55	8.16	8.30	8.45	8.70	8.82	9.23	9.51	9.71
			3.51	3.19	3.32	3.09	3.06	2.75	2.68	1.90	1.94	1.83	1.80	1.77	1.75	1.71
			1.35	1.58	1.82	2.14	2.38	2.74	3.04	4.36	4.36	4.75	4.91	5.22	5.45	5.68
	min		2.28	2.44	2.92	3.18	3.92	3.92	4.22	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.44	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
			1.59	1.70	1.95	2.29	2.54	2.90	3.22	4.24	4.35	4.73	5.02	5.32	5.53	5.75
50	max		/	6.53	7.83	8.56	9.43	9.49	10.27	9.70	10.00	11.17	10.75	11.78	10.13	10.91
			/	4.78	4.99	4.64	4.60	3.98	3.89	2.68	2.70	2.77	2.48	2.56	2.08	2.15
			/	1.37	1.57	1.84	2.05	2.38	2.64	3.61	3.70	4.03	4.34	4.60	4.88	5.06
	norm		/	4.95	5.94	6.49	7.15	7.45	8.06	8.12	8.36	8.62	8.75	9.17	9.45	9.61
			/	3.47	3.62	3.37	3.34	3.02	2.95	2.12	2.13	2.02	1.98	1.95	1.93	1.88
			/	1.43	1.64	1.92	2.14	2.47	2.74	3.83	3.93	4.27	4.42	4.70	4.90	5.11
	min		/	1.53	1.76	2.06	2.29	2.61	2.90	3.82	3.91	4.25	4.52	4.79	4.98	5.17
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
	max		/	/	7.83	8.56	9.43	9.49	10.27	9.70	10.00	11.17	10.75	11.78	10.13	10.91
			/	/	5.70	5.31	5.26	4.55	4.44	3.07	3.08	3.17	2.83	2.93	2.37	2.46
			/	/	1.37	1.61	1.79	2.08	2.31	3.16	3.24	3.53	3.80	4.02	4.27	4.43
	norm		/	/	5.94	6.49	7.15	7.45	8.06	8.12	8.36	8.62	8.75	9.17	9.45	9.61
			/	/	4.14	3.85	3.82	3.45	3.37	2.44	2.43	2.31	2.26	2.23	2.20	2.15
			/	/	1.43	1.68	1.87	2.16	2.39	3.20	3.44	3.74	3.87	4.11	4.29	4.47
	min		/	/	2.86	3.13	3.45	3.87	4.19	3.34	5.41	6.04	6.63	7.26	7.90	8.50
			/	/	/	/	/	/	/	5.25	1.58	1.62	1.67	1.73	1.81	1.88
			/	/	1.54	1.80	2.00	2.29	2.54	5.25	3.42	3.72	3.96	4.19	4.36	4.52
60	max		/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
	norm		/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
	min		/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
65	max		/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
	norm		/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
	min		/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/
			/	/	/	/	/	/	/	/	/	/	/	/	/	/

Heating Capacity Correction_10

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
			Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity
			Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power
			COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP
25	max		6.30	6.75	8.10	8.85	9.75	10.15	10.98	11.09	11.42	12.77	10.75	11.78	10.13	10.95
			3.22	2.93	3.06	2.85	2.82	2.54	2.48	1.84	1.85	1.90	1.46	1.51	1.23	1.28
			1.96	2.30	2.65	3.11	3.46	3.99	4.43	6.03	6.18	6.72	7.36	7.79	8.26	8.58
	norm		4.96	5.31	6.37	6.96	7.67	8.03	8.69	10.10	8.54	10.21	10.32	10.36	9.98	10.49
			2.44	2.22	2.32	2.16	2.14	1.94	1.89	1.64	1.63	1.48	1.40	1.31	1.21	1.22
			2.03	2.39	2.75	3.23	3.59	4.14	4.59	6.16	6.27	6.90	7.39	7.89	8.28	8.60
	min		2.23	2.39	2.86	3.13	3.45	4.43	4.19	5.25	5.41	6.04	6.63	7.26	7.90	8.53
			1.01	0.92	0.96	0.90	0.89	0.87	0.85	0.81	0.82	0.84	0.86	0.89	0.94	0.97
			2.20	2.59	2.97	3.49	3.88	4.43	4.91	6.47	6.63	7.21	7.66	8.11	8.44	8.76
30	max		6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	11.02
			3.59	3.26	3.39	2.85	3.12	2.80	2.73	2.02	2.03	2.09	1.60	1.66	1.34	1.40
			1.80	2.11	2.57	2.96	2.37	2.14	2.09	1.80	1.79	1.63	1.53	1.44	1.32	1.34
	norm		5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.05	10.56
			2.72	2.47	2.57	2.39	2.37	2.14	2.09	1.80	1.79	1.63	1.53	1.44	1.32	1.34
			1.87	2.20	2.52	2.96	3.29	3.80	4.21	5.66	5.75	6.33	6.78	7.24	7.60	7.89
	min		2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.13	1.03	1.07	0.99	0.98	0.96	0.94	0.89	0.90	0.92	0.95	0.98	1.03	1.07
			2.02	2.37	2.73	3.21	3.56	4.07	4.51	5.94	5.96	6.62	7.03	7.45	7.75	8.04
35	max		6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	11.02
			4.02	3.65	3.80	3.53	3.50	3.14	3.06	2.27	2.28	2.34	1.80	1.86	1.51	1.57
			1.60	1.89	2.17	2.55	2.83	3.27	3.63	4.94	5.06	5.51	6.03	6.39	6.77	7.03
	norm		5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.05	10.56
			3.05	2.77	2.88	2.68	2.65	2.40	2.34	2.02	2.01	1.82	1.72	1.61	1.48	1.50
			1.67	1.96	2.25	2.65	2.94	3.39	3.76	5.05	5.14	5.65	6.06	6.46	6.79	7.05
	min		2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.26	1.15	1.20	1.11	1.10	1.08	1.05	1.00	1.00	1.03	1.06	1.10	1.15	1.20
			1.80	2.12	2.44	2.86	3.18	3.63	4.03	5.30	5.43	5.91	6.28	6.65	6.92	7.18
40	max		6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	11.02
			4.57	4.15	4.32	4.01	3.97	3.57	3.48	2.58	2.59	2.66	2.04	2.11	1.71	1.78
			1.41	1.66	1.91	2.24	2.49	2.88	3.20	4.35	4.46	4.85	5.31	5.62	5.96	6.19
	norm		5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.05	10.56
			3.46	3.15	3.27	3.04	3.01	2.59	2.66	2.30	2.28	2.07	1.95	1.83	1.68	1.70
			1.47	1.72	1.98	2.33	2.59	2.98	3.31	4.44	4.52	4.97	5.33	5.69	5.97	6.20
	min		2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.44	1.31	1.36	1.26	1.25	1.23	1.20	1.14	1.14	1.17	1.21	1.25	1.31	1.36
			1.59	1.87	2.15	2.52	2.80	3.19	3.54	4.66	4.78	5.20	5.53	5.85	6.09	6.32
45	max		6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	11.02
			5.02	4.57	4.75	4.41	4.37	3.93	3.83	3.95	2.85	2.92	2.25	2.32	1.88	1.96
			1.28	1.51	1.74	2.04	2.27	2.62	2.91	3.83	4.05	4.41	4.83	5.11	5.42	5.63
	norm		5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.05	10.56
			3.81	3.46	3.60	3.34	3.31	3.00	2.92	2.50	2.51	2.28	2.15	2.02	1.85	1.87
			1.33	1.57	1.80	2.12	2.35	2.71	3.01	4.08	4.11	4.52	4.84	5.17	5.43	5.64
	min		2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
			1.44	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
			1.58	1.70	1.95	2.29	2.54	2.90	3.22	4.24	4.35	4.73	5.02	5.32	5.53	5.75
50	max		/	6.75	8.10	8.85	9.75	10.15	10.98	11.09	11.42	12.77	10.75	11.78	10.13	10.91
			/	4.97	5.18	4.82	4.78	4.30	4.20	3.12	3.13	3.22	2.48	2.56	2.08	2.15
			/	1.36	1.56	1.84	2.04	2.36	2.62	3.56	3.65	3.97	4.34	4.60	4.88	5.06
	norm		/	5.31	6.37	6.96	7.67	8.03	8.69	10.10	10.20	10.21	10.32	10.36	9.98	10.45
			/	3.76	3.93	3.65	3.62	3.29	3.21	2.78	2.76	2.51	2.37	2.23	2.04	2.06
			/	1.41	1.62	1.91	2.12	2.44	2.71	3.64	3.70	4.07	4.36	4.65	4.89	5.07
	min		/	2.39	2.86	3.13	3.87	4.19	2.90	5.25	5.41	6.04	6.63	7.26	7.90	8.50
			/	1.56	1.63	1.52	1.50	1.48	1.44	1.38	1.38	1.42	1.47	1.52	1.59	1.64
			/	1.53	1.76	2.06	2.29	2.61	2.06	2.29	3.82	3.91	4.25	4.79	4.98	5.17
55	max		/	/	8.10	8.85	9.75	10.15	10.98	11.09	11.42	12.77	10.75	11.78	10.13	10.91
			/	/	5.92	5.51	5.46	4.92	4.80	3.56	3.58	3.68	2.83	2.93	2.37	2.46
			/	/	1.37	1.61	1.78	2.06	2.29	3.11	3.19	3.47	3.80	4.02	4.27	4.43
	norm		/	/	6.37	6.96	7.67	8.03	8.69	10.30	10.20	10.21	10.32	10.36	9.98	10.45
			/	/	4.49	4.18	4.14	3.76	3.67	3.30	3.15	2.87	2.71	2.54	2.34	2.35
			/	/	1.42	1.67	1.85	2.14	2.37	3.12	3.24	3.56	3.81	4.07	4.28	4.44
	min		/	/	2.86	3.13	3.45	3.87	4.19	5.25	5.41	6.04	6.63	7.26	7.90	8.50
			/	/	1.86	1.73	1.72	1.69	1.65	1.57	1.58	1.62	1.67	1.73	1.81	1.88
			/	/	1.54	1.80	2.00	2.29	2.54	3.34	3.42	3.72	3.96	4.19	4.36	4.52
60	max		/	/	/	/	/	/	10.84	11.31	12.62	10.62	11.63	10.00	3.79	10.80
			/	/	/	/	/	5.46	5.33	3.97	3.99	4.09	3.14	3.25	2.64	2.74
			/	/	/	/	/	1.83	2.03	2.77	2.84	3.08	3.38	3.58	3.79	3.94
	norm		/	/	/	/	/	9.60	10.98	11.31	10.09	10.09	10.62	10.23	9.85	10.35
			/	/	/	/	/	7.55	4.07	3.53	3.51	3.19	3.01	2.83	2.59	2.62
			/	/	/	/	/	1.90	2.11	2.83	2.88	3.17	3.39	3.62	3.80	3.95
	min		/	/	/	/	/	3.39	4.13	5.19	5.35	6.54	7.17	7.72	7.79	8.41
			/	/	/	/	/	1.78	1.83	1.75	1.76	1.80	1.86	1.92	2.01	2.09
			/	/	/	/	/	3.82	2.26	2.97	3.04	3.31	3.52	3.72	3.87	4.02
65	max		/	/	/	/	/	/	/	10.86	11.19	12.49	10.51	/	/	/
			/	/	/	/	/	/	/	4.40	4.42	4.54	3.49	/	/	/
			/	/	/	/	/	/	/	2.47	2.53	2.75	3.02	/	/	/
	norm		/	/	/	/	/	/	/	9.89	9.99	9.99	10.09	/	/	/
			/	/	/	/	/	/	/	3.92	3.89	3.53	3.33	/	/	/
			/	/	/	/	/	/	/	2.53	2.57	2.83	3.03	/	/	/
	min		/	/	/	/	/	/	/	5.14	5.30	5.91	6.48	/	/	/
			/	/	/	/	/	/	/	1.94	1.95	2.00	2.06	/	/	/
			/	/	/	/	/	/	/	2.65	2.72	2.95	3.14	/	/	/

Heating Capacity Correction_12

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	7.06	7.56	9.07	9.91	10.92	12.26	13.27	14.65	15.10	16.87	13.50	14.80	13.11	14.17
		Power	3.66	3.33	3.48	3.24	3.21	3.16	3.08	2.53	2.54	2.61	1.89	1.95	1.61	1.68
		COP	1.93	2.27	2.61	3.06	3.40	3.89	4.31	5.80	5.94	6.46	7.16	7.58	8.14	8.45
	norm	Capacity	5.80	6.21	7.45	8.14	8.97	10.07	10.90	11.88	12.24	12.31	12.50	12.60	12.81	13.20
		Power	2.91	2.65	2.77	2.69	2.55	2.51	2.45	1.97	1.98	1.83	1.74	1.64	1.57	1.56
		COP	1.99	2.34	3.51	3.16	3.51	4.01	4.45	6.03	6.18	6.73	7.20	7.70	8.17	8.48
	min	Capacity	2.73	2.93	3.51	3.84	4.23	4.75	10.90	11.88	12.24	12.31	12.50	12.60	12.81	13.20
		Power	1.27	1.15	1.20	1.12	1.11	1.09	1.07	1.01	1.02	1.05	1.08	1.12	1.17	1.22
		COP	2.16	2.54	2.92	3.43	3.81	4.35	4.82	6.34	6.50	7.07	7.52	7.96	8.28	8.60
30	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	13.61	14.90	13.20	14.26
		Power	4.08	3.71	3.86	2.81	3.55	3.48	3.40	2.78	2.80	2.87	2.07	2.14	1.77	1.84
		COP	1.77	2.08	2.40	2.81	3.12	3.57	3.96	5.32	5.45	5.93	6.57	6.96	7.47	7.75
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.00	12.36	12.42	12.60	12.70	12.90	13.28
		Power	3.25	2.95	3.07	2.85	2.82	2.77	2.70	2.17	2.18	2.01	1.91	1.80	1.72	1.71
		COP	1.83	2.15	2.47	2.90	3.23	3.68	4.09	5.53	5.67	6.18	6.61	7.07	7.50	7.79
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	4.43	6.50	5.97	7.48	8.19	8.97	9.75	10.53
		Power	1.41	1.28	1.33	1.24	1.23	1.21	1.17	1.12	1.12	1.15	1.19	1.23	1.28	1.33
		COP	1.98	2.33	2.68	3.14	3.49	3.99	4.43	5.82	5.97	6.49	6.90	7.31	7.60	7.89
35	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	13.61	14.90	13.20	14.26
		Power	4.57	4.15	4.32	4.01	3.97	3.90	3.80	3.12	3.13	3.21	2.32	2.40	1.98	2.06
		COP	1.58	1.86	2.14	2.51	2.79	3.19	3.53	4.75	4.87	5.30	5.87	6.21	6.67	6.92
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.00	12.36	12.42	12.60	12.70	12.90	13.28
		Power	3.64	3.31	3.44	3.19	3.16	3.11	3.03	2.43	2.44	2.25	2.14	2.01	1.93	1.91
		COP	1.63	1.92	2.21	2.59	2.88	3.29	3.65	4.94	5.06	5.52	5.90	6.31	6.69	6.95
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.58	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
		COP	1.77	2.08	2.39	2.81	3.12	3.56	3.95	5.20	5.33	5.80	6.16	6.53	6.79	7.05
40	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	13.61	14.90	13.20	14.26
		Power	5.19	4.72	4.91	4.56	4.52	4.44	4.32	3.54	3.56	3.65	2.64	2.73	2.25	2.34
		COP	1.39	1.64	1.88	2.21	2.46	2.80	3.11	4.18	4.28	4.66	5.16	5.47	5.87	6.09
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.00	12.42	12.42	12.60	12.70	12.90	13.28
		Power	4.13	3.76	3.91	3.63	3.59	3.53	3.44	2.76	2.77	2.56	2.43	2.29	2.19	2.17
		COP	1.44	1.69	1.94	2.28	2.53	2.89	3.21	4.35	4.46	4.86	5.19	5.56	5.89	6.12
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.80	1.63	1.70	1.58	1.56	1.53	1.50	1.42	1.43	1.47	1.51	1.56	1.63	1.70
		COP	1.56	1.83	2.10	2.47	2.75	3.13	3.48	4.58	4.69	5.10	5.42	5.74	5.97	6.20
45	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	14.90	14.90	13.20	14.26
		Power	5.71	5.19	5.40	5.02	4.97	4.88	4.75	3.89	3.91	4.02	3.00	3.00	2.47	2.57
		COP	1.26	1.49	1.71	2.01	2.23	2.55	2.83	3.80	3.90	4.24	4.69	4.97	5.33	5.54
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.36	12.36	12.42	12.60	12.70	12.90	13.28
		Power	4.55	4.13	4.30	3.99	3.95	3.88	3.78	3.45	3.05	2.81	2.67	2.51	2.41	2.39
		COP	1.31	1.54	1.77	2.07	2.30	2.63	2.92	3.77	4.05	4.42	4.72	5.05	5.36	5.56
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.98	1.80	1.87	1.74	1.72	1.69	1.64	1.56	1.57	1.61	1.66	1.72	1.80	1.87
		COP	1.41	1.66	1.91	2.25	2.50	2.85	3.16	4.16	4.26	4.64	4.93	5.22	5.43	5.64
50	max	Capacity	/	7.56	9.07	9.91	10.92	12.26	13.27	14.65	15.10	16.87	13.50	14.80	13.11	14.11
		Power	/	5.65	5.89	5.48	5.44	5.35	5.22	4.28	4.31	4.42	3.20	3.31	2.73	2.83
		COP	/	1.34	1.54	1.81	2.01	2.29	2.54	3.42	3.51	3.81	4.22	4.47	4.80	4.99
	norm	Capacity	/	6.21	7.45	8.14	8.97	10.07	10.90	11.88	12.24	12.31	12.50	12.60	12.81	13.15
		Power	/	4.49	4.69	4.36	4.33	4.26	4.15	3.34	3.36	3.10	2.94	2.77	2.66	2.63
		COP	/	1.38	1.59	1.87	2.07	2.37	2.63	3.56	3.65	3.97	4.25	4.55	4.82	5.00
	min	Capacity	/	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	1.95	2.04	1.90	1.88	1.85	1.80	1.72	1.73	1.78	1.83	1.90	1.98	2.05
		COP	/	1.50	1.72	2.02	2.25	2.56	2.85	3.74	3.84	4.17	4.44	4.70	4.89	5.07
55	max	Capacity	/	/	9.07	9.91	10.92	12.26	13.27	14.65	15.10	16.87	13.50	14.80	13.11	14.11
		Power	/	/	6.73	6.27	6.21	6.11	5.96	4.90	4.92	5.06	3.65	3.78	3.12	3.24
		COP	/	/	1.35	1.58	1.76	2.01	2.23	2.99	3.07	3.34	3.70	3.91	4.20	4.36
	norm	Capacity	/	/	7.45	8.14	8.97	10.07	10.90	12.00	12.24	12.31	12.50	12.60	12.81	13.15
		Power	/	/	5.36	4.99	4.94	4.86	4.74	3.93	3.84	3.54	3.36	3.17	3.04	3.00
		COP	/	/	1.39	1.63	1.81	2.07	2.30	3.05	3.19	3.48	3.72	3.98	4.22	4.38
	min	Capacity	/	/	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	/	2.33	2.17	2.15	2.11	2.06	1.96	1.97	2.03	2.09	2.17	2.27	2.35
		COP	/	/	1.51	1.77	1.97	2.24	2.49	3.28	3.36	3.65	3.88	4.11	4.28	4.44
60	max	Capacity	/	/	/	10.75	10.75	12.10	13.10	14.50	14.94	16.68	13.34	14.61	12.94	13.97
		Power	/	/	/	/	6.88	6.78	6.62	5.45	5.48	5.62	4.06	4.20	3.46	3.60
		COP	/	/	/	/	1.56	1.78	1.98	2.66	2.73	2.97	3.28	3.48	3.73	3.88
	norm	Capacity	/	/	/	8.83	8.97	9.94	10.76	11.76	12.11	12.17	12.35	12.44	12.64	13.02
		Power	/	/	/	/	5.48	5.40	5.27	4.25	4.27	3.94	3.74	3.52	3.37	3.34
		COP	/	/	/	/	1.61	1.84	2.04	2.77	2.84	3.09	3.30	3.54	3.75	3.89
	min	Capacity	/	/	/	4.16	4.16	4.68	5.07	6.37	6.56	7.33	8.03	8.79	9.56	10.32
		Power	/	/	/	/	2.38	2.35	2.29	2.19	2.20	2.26	2.33	2.41	2.51	2.62
		COP	/	/	/	/	1.75	1.99	2.21	2.91	2.98	3.25	3.45	3.65	3.80	3.95
65	max	Capacity	/	/	/	/	/	/	/	14.36	14.79	16.51	13.20	/	/	/
		Power	/	/	/	/	/	/	/	6.04	6.07	6.23	4.50	/	/	/
		COP	/	/	/	/	/	/	/	2.38	2.43	2.65	2.93	/	/	/
	norm	Capacity	/	/	/	/	/	/	/	11.64	11.99	12.05	12.22	/	/	/
		Power	/	/	/	/	/	/	/	4.71	4.74	4.37	4.14	/	/	/
		COP	/	/	/	/	/	/	/	2.47	2.53	2.76	2.95	/	/	/
	min	Capacity	/	/	/	/	/	/	/	6.31	6.49	7.25	7.94	/	/	/
		Power	/	/	/	/	/	/	/	2.43	2.44	2.50	2.58	/	/	/
		COP	/	/	/	/	/	/	/	2.60	2.67	2.90	3.08	/	/	/

Heating Capacity Correction_14

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	7.48	8.01	9.61	10.50	11.57	12.99	14.06	15.84	16.32	18.24	13.50	14.80	13.71	14.81
		Power	3.92	3.57	3.72	3.47	3.44	3.38	3.30	2.77	2.78	2.86	1.89	1.95	1.71	1.78
		COP	1.91	2.24	2.58	3.03	3.37	3.84	4.27	5.72	5.86	6.38	7.16	7.58	8.01	8.32
	norm	Capacity	6.22	6.66	7.99	8.73	9.62	10.80	11.69	15.84	16.32	14.59	13.25	13.43	13.41	13.85
		Power	3.15	2.87	3.00	2.79	2.77	2.72	2.65	2.43	2.44	2.21	1.85	1.75	1.67	1.66
		COP	1.97	2.32	2.67	3.13	3.48	3.97	4.40	5.80	5.94	6.60	7.17	7.66	8.02	8.36
	min	Capacity	2.73	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.47
		Power	1.27	1.15	1.20	1.12	1.11	1.09	1.07	1.01	1.02	1.05	1.08	1.12	1.17	1.22
		COP	2.16	2.54	2.92	3.43	3.81	4.35	4.82	6.34	6.50	7.07	7.52	7.96	8.28	8.60
30	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	4.37	3.97	4.13	3.84	3.80	3.73	3.64	3.05	3.06	3.14	2.07	2.14	1.88	1.95
		COP	1.75	2.06	2.37	2.78	3.09	3.53	3.92	5.25	5.38	5.86	6.57	6.96	7.35	7.63
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	3.52	3.20	3.33	3.09	3.06	3.01	2.93	2.67	2.68	2.43	2.03	1.92	1.83	1.81
		COP	1.81	2.13	2.45	2.87	3.19	3.64	4.04	5.32	5.45	6.06	6.58	7.03	7.37	7.68
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.41	1.28	1.33	1.24	1.23	1.21	1.17	1.12	1.12	1.15	1.19	1.23	1.28	1.33
		COP	1.98	2.33	2.68	3.14	3.49	3.99	4.43	5.82	5.97	6.49	6.90	7.31	7.60	7.89
35	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	4.89	4.45	4.63	4.30	4.26	4.18	4.07	3.41	3.43	3.52	2.32	2.40	2.10	2.19
		COP	1.56	1.84	2.12	2.48	2.76	3.15	3.50	4.69	4.81	5.23	5.87	6.21	6.56	6.82
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	3.94	3.58	3.73	3.46	3.43	3.37	3.28	2.99	3.00	2.72	2.27	2.16	2.05	2.03
		COP	1.62	1.90	2.19	2.57	2.85	3.25	3.61	4.75	4.87	5.41	5.88	6.28	6.58	6.86
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.70	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.58	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
		COP	1.77	2.08	2.39	2.81	3.12	3.56	3.95	5.20	5.33	5.80	6.16	6.53	6.79	7.05
40	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	5.56	5.06	5.26	4.89	4.84	4.75	4.63	3.88	3.90	4.00	2.64	2.73	2.39	2.48
		COP	1.38	1.62	1.86	2.19	2.43	2.77	3.08	4.13	4.23	4.60	5.16	5.47	5.78	6.00
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	4.48	4.07	4.23	3.93	3.89	3.82	3.73	3.40	3.41	3.09	2.58	2.45	2.33	2.31
		COP	1.42	1.67	1.92	2.26	2.51	2.86	3.18	4.18	4.28	4.76	5.17	5.52	5.79	6.03
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.70	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.80	1.63	1.70	1.58	1.56	1.53	1.50	1.42	1.43	1.47	1.51	1.56	1.63	1.70
		COP	1.56	1.83	2.10	2.47	2.75	3.13	3.48	4.58	4.69	5.10	5.42	5.74	5.97	6.20
45	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	6.12	5.56	5.78	5.37	5.32	5.23	5.09	4.26	4.29	4.40	2.90	3.00	2.63	2.73
		COP	1.25	1.47	1.69	1.99	2.21	2.52	2.80	3.75	3.85	4.18	4.69	4.97	5.25	5.45
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	4.93	4.48	4.66	4.33	4.28	4.21	4.10	3.84	3.76	3.40	2.84	2.69	2.57	2.54
		COP	1.29	1.52	1.75	2.05	2.28	2.60	2.89	3.70	3.90	4.33	4.70	5.02	5.26	5.49
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.98	1.80	1.87	1.74	1.72	1.69	1.64	1.56	1.57	1.61	1.66	1.72	1.80	1.87
		COP	1.41	1.66	1.91	2.25	2.50	2.85	3.16	4.16	4.26	4.64	4.93	5.22	5.43	5.64
50	max	Capacity	/	8.01	9.61	10.50	11.57	12.99	14.06	15.84	16.32	18.24	13.50	14.80	13.71	14.75
		Power	/	6.05	6.31	5.87	5.82	5.73	5.59	4.69	4.72	4.84	3.20	3.31	2.90	3.01
		COP	/	1.32	1.52	1.79	1.99	2.27	2.52	3.38	3.46	3.77	4.22	4.47	4.73	4.91
	norm	Capacity	/	6.66	7.99	8.73	9.62	10.80	11.69	14.06	14.48	14.59	13.25	13.43	13.41	13.79
		Power	/	4.87	5.08	4.73	4.69	4.61	4.50	4.11	4.13	3.75	3.13	2.97	2.83	2.79
		COP	/	1.37	1.57	1.85	2.05	2.34	2.60	3.42	3.51	3.89	4.23	4.52	4.74	4.94
	min	Capacity	/	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	1.95	2.04	1.90	1.88	1.85	1.80	1.72	1.73	1.78	1.83	1.90	1.98	2.05
		COP	/	1.50	1.72	2.02	2.25	2.56	2.85	3.74	3.84	4.17	4.44	4.70	4.89	5.07
55	max	Capacity	/	/	9.61	10.50	11.57	12.99	14.06	15.84	16.32	18.24	13.50	14.80	13.71	14.75
		Power	/	/	6.31	5.87	5.82	5.73	5.59	4.69	4.72	4.84	3.20	3.31	2.90	3.01
		COP	/	/	1.52	1.79	1.99	2.27	2.52	3.38	3.46	3.77	4.22	4.47	4.73	4.91
	norm	Capacity	/	/	7.99	8.73	9.62	10.80	11.69	14.06	14.48	14.59	13.25	13.43	13.41	13.79
		Power	/	/	5.08	4.73	4.69	4.61	4.50	4.11	4.13	3.75	3.13	2.97	2.83	2.79
		COP	/	/	1.57	1.85	2.05	2.34	2.60	3.42	3.51	3.89	4.23	4.52	4.74	4.94
	min	Capacity	/	/	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	/	2.04	1.90	1.88	1.85	1.80	1.72	1.73	1.78	1.83	1.90	1.98	2.05
		COP	/	/	1.72	2.02	2.25	2.56	2.85	3.74	3.84	4.17	4.44	4.70	4.89	5.07
60	max	Capacity	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		Power	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		COP	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	norm	Capacity	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		Power	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		COP	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	min	Capacity	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		Power	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		COP	/	/	/	/	/	/	/	/	/	/	/	/	/	/
65	max	Capacity	/	/	/	/	/	/	/	15.52	15.99	17.85	13.50	14.80	13.71	14.75
		Power	/	/	/	/	/	/	/	6.62	6.65	6.83	3.65	3.78	3.31	3.44
		COP	/	/	/	/	/	/	/	2.35	2.40	2.61	3.29	3.91	4.14	4.29
	norm	Capacity	/	/	/	/	/	/	/	13.77	14.19	14.28	12.96	13.25	13.41	13.79
		Power	/	/	/	/	/	/	/	5.80	5.83	5.28	4.41	3.40	3.24	3.19
		COP	/	/	/	/	/	/	/	2.38	2.43	2.70	2.94	3.95	4.14	4.32
	min	Capacity	/	/	/	/	/	/	/	6.31	6.49	7.25	7.94	/	/	10.42
		Power	/	/	/	/	/	/	/	2.43	2.44	2.50	2.58	/	/	2.35
		COP	/	/	/	/	/	/	/	2.60	2.67	2.90	3.08	/	/	4.44

Heating Capacity Correction_16

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
			Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity
			Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power	Power
			COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP	COP
25	max		7.56	8.10	9.72	10.62	11.70	13.14	14.22	17.62	18.16	20.29	14.75	16.17	15.50	16.74
			3.97	3.62	3.77	3.51	3.48	3.43	3.34	3.14	3.16	3.24	2.08	2.15	1.96	2.04
			1.90	2.24	2.58	3.02	3.36	3.84	4.26	5.61	5.75	6.26	7.08	7.50	7.91	8.22
	norm		6.64	7.11	8.53	9.32	10.27	12.48	14.40	15.54	5.90	15.96	14.50	14.80	15.20	15.46
			3.40	3.10	3.23	3.01	2.99	2.86	3.69	2.80	1.43	2.45	2.04	1.95	1.92	1.87
			1.95	2.29	2.64	3.10	3.44	4.36	3.91	4.36	4.26	3.93	7.10	7.58	7.93	8.28
	min		2.73	2.93	3.51	3.84	4.23	5.14	1.07	6.44	1.02	7.41	8.13	8.91	9.69	10.47
			1.27	1.15	1.20	1.12	1.11	1.09	4.82	1.01	6.34	7.07	1.08	1.12	1.17	1.22
			2.16	2.54	2.92	3.43	3.81	4.75	6.44	6.50	6.63	7.41	14.87	7.96	8.28	8.60
30	max		7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
			4.43	4.03	4.19	2.36	3.08	3.78	3.69	3.45	3.47	3.56	2.29	2.36	2.15	2.23
			1.75	2.06	2.36	2.78	3.52	3.91	3.91	5.15	5.28	20.47	6.50	6.89	7.26	7.54
	norm		6.79	7.27	8.69	9.48	10.43	11.69	12.64	15.70	5.10	16.10	14.62	14.90	15.30	15.55
			3.80	3.45	3.59	3.34	3.30	3.24	3.16	3.08	2.93	2.69	2.24	2.14	2.10	2.05
			1.79	2.11	2.42	2.84	3.16	3.61	4.00	5.10	5.42	5.98	6.52	6.96	7.28	7.60
	min		2.80	2.99	3.58	3.90	4.29	4.81	4.43	6.50	5.82	6.70	8.19	8.97	9.75	10.53
			1.98	1.28	1.33	1.24	1.23	1.21	1.17	1.12	5.97	1.12	1.19	1.23	1.28	1.33
			1.41	2.33	2.68	3.14	3.49	3.99	4.13	3.87	4.72	3.89	6.90	7.31	7.60	7.89
35	max		7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
			4.96	4.51	4.69	4.36	4.31	4.24	4.13	3.87	3.89	3.99	2.56	2.65	2.41	2.50
			1.56	1.84	2.11	2.48	2.75	3.14	3.49	4.60	4.72	5.13	5.81	6.15	6.49	6.73
	norm		6.79	7.27	8.69	9.48	10.43	11.69	12.64	15.70	4.55	15.86	14.90	14.90	15.30	15.55
			4.25	3.87	4.02	3.74	3.70	3.63	3.54	3.45	3.28	3.01	2.51	2.40	2.35	2.29
			1.60	1.88	2.16	2.54	2.82	3.22	3.57	4.55	4.84	5.34	5.82	6.21	6.50	6.79
	min		2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	5.33	7.48	8.19	8.97	9.75	10.53
			1.58	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
			1.77	2.08	2.39	2.81	3.12	3.56	3.95	5.20	4.26	5.80	6.16	6.53	6.79	7.05
40	max		7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
			5.64	5.12	5.33	4.95	4.90	4.81	4.69	4.40	4.42	4.54	2.91	3.01	2.73	2.84
			1.37	1.62	1.86	2.18	2.42	2.77	3.07	4.05	4.15	4.51	5.11	5.41	5.71	5.93
	norm		6.79	7.27	8.69	9.48	10.43	11.69	12.64	15.70	4.26	16.10	14.62	14.90	15.30	15.55
			4.83	4.39	4.57	4.24	4.20	4.13	4.02	3.92	3.73	3.43	2.85	2.73	2.68	2.60
			1.41	1.65	1.90	2.23	2.48	2.83	3.14	4.00	4.69	4.70	5.12	5.47	5.72	5.97
	min		2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	4.58	7.48	8.19	8.97	9.75	10.53
			1.80	1.63	1.70	1.58	1.56	1.53	1.50	1.42	1.43	1.47	1.51	1.56	1.63	1.70
			1.56	1.83	2.10	2.47	2.75	3.13	3.48	4.58	4.69	5.10	5.42	5.74	5.97	6.20
45	max		7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
			6.20	5.64	5.86	5.45	5.39	5.30	5.16	4.84	4.86	4.99	3.20	3.31	3.01	3.13
			1.25	1.47	1.69	1.98	2.20	2.52	2.79	3.68	3.77	4.10	4.65	4.92	5.19	5.39
	norm		6.79	7.27	8.69	9.48	10.43	11.69	12.64	16.20	3.61	16.10	14.65	14.90	15.30	15.55
			5.31	4.83	5.02	4.67	4.62	4.54	4.42	4.49	3.87	3.77	3.14	3.00	2.94	2.86
			1.28	1.50	1.73	2.03	2.26	2.58	2.86	3.61	4.10	4.27	4.65	4.97	5.20	5.43
	min		2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	4.16	6.70	8.19	8.97	9.75	10.53
			1.98	1.80	1.87	1.74	1.72	1.69	1.64	1.56	1.57	1.61	1.66	1.72	1.80	1.87
			1.41	1.66	1.91	2.25	2.50	2.85	3.16	4.16	4.26	4.64	4.93	5.22	5.43	5.64
50	max		/	8.10	9.72	10.62	11.70	13.14	14.22	17.62	18.16	20.29	14.75	16.17	15.50	16.68
			/	6.13	6.39	5.95	5.90	5.80	5.66	5.32	5.35	5.49	3.53	3.65	3.32	3.44
			/	1.32	1.52	1.78	1.98	2.26	2.51	3.31	3.39	20.29	3.69	4.43	4.67	4.85
	norm		/	7.11	8.53	9.32	10.27	11.53	12.48	15.54	4.51	15.96	14.50	14.80	15.20	15.40
			/	5.25	5.48	5.10	5.06	4.98	4.85	4.74	3.48	4.15	3.46	3.31	3.25	3.15
			/	1.35	1.56	1.83	2.03	2.32	2.57	3.28	15.71	3.85	4.19	4.47	4.68	4.89
	min		/	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
			/	1.95	2.04	1.90	1.88	1.85	1.80	1.72	1.73	1.78	1.83	1.90	1.98	2.05
			/	1.50	1.72	2.02	2.25	2.56	2.85	3.74	3.84	4.17	4.44	4.70	4.89	5.07
55	max		/	/	9.72	10.62	11.70	13.14	14.22	17.62	18.16	20.29	14.75	16.17	15.50	16.68
			/	/	7.31	6.80	6.74	5.98	6.47	6.08	6.11	6.28	4.03	4.17	3.79	3.93
			/	/	1.33	1.56	1.74	1.98	2.20	2.90	2.97	3.23	3.66	3.87	4.09	4.24
	norm		/	/	8.53	9.32	10.27	11.53	12.48	15.71	3.05	15.96	14.50	14.80	15.20	15.40
			/	/	6.26	5.83	5.78	5.69	5.55	5.31	5.15	4.74	3.96	3.78	3.71	3.60
			/	/	1.36	1.60	1.78	2.03	2.25	2.90	3.26	3.36	3.67	3.91	4.09	4.28
	min		/	/	3.51	3.84	4.75	2.11	2.24	3.28	6.44	7.41	8.13	8.91	9.69	10.42
			/	/	2.33	1.77	2.15	2.11	2.06	1.96	1.97	2.03	3.65	2.17	2.27	2.35
			/	/	1.51	2.17	1.97	4.75	5.14	6.47	3.36	6.98	2.87	4.11	4.28	4.44
60	max		/	/	/	/	/	11.52	14.04	17.44	17.97	20.06	14.57	15.96	15.29	16.51
			/	/	/	/	/	7.47	7.19	6.77	6.80	6.98	4.48	4.63	4.21	4.38
			/	/	/	/	/	1.54	1.95	2.58	2.64	2.87	3.25	3.44	3.63	3.77
	norm		/	/	/	10.11	10.27	12.96	12.32	15.39	4.69	15.78	14.32	14.61	14.99	15.24
			/	/	/	6.40	5.78	7.36	6.16	6.04	3.77	5.28	4.40	4.20	4.12	4.01
			/	/	/	1.58	1.78	6.31	2.00	2.55	2.71	2.99	3.26	3.48	3.64	3.80
	min		/	/	/	/	4.23	11.38	12.32	15.54	5.74	15.54	14.87	14.90	14.99	15.24
			/	/	/	/	2.38	1.80	6.16	2.19	6.80	2.20	2.33	2.41	2.51	2.62
			/	/	/	/	1.75	2.35	2.29	2.91	2.64	2.98	3.45	3.65	3.80	3.95
65	max		/	/	/	/	/	/	/	17.27	17.78	19.86	14.42	2.56	/	/
			/	/	/	/	/	/	/	7.51	7.54	7.74	4.97	3.74	/	/
			/	/	/	/	/	/	/	2.30	2.36	2.56	2.90	2.90	/	/
	norm		/	/	/	/	/	/	/	15.23	15.39	15.62	14.18	5.85	/	/
			/	/	/	/	/	/	/	6.69	6.36	5.85	4.87	2.50	/	/
			/	/	/	/	/	/	/	2.28	2.42	2.67	2.91	2.67	/	/
	min		/	/	/	/	/	/	/	6.31	6.49	7.25	7.94	2.58	/	/
			/	/	/	/	/	/	/	2.43	2.44	2.50	2.58	2.90	/	/
			/	/	/	/	/	/	/	2.60	2.67	2.90	3.08	3.08	/	/

Heating Capacity Correction_8(E1)

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	3.72	3.98	4.78	5.22	5.75	6.39	6.91	8.27	8.52	9.52	8.94	9.80	10.21	11.03
		Power	1.87	1.70	1.77	1.65	1.64	1.58	1.54	1.43	1.43	1.47	1.21	1.26	1.24	1.29
		COP	1.99	2.34	2.69	3.16	3.51	4.04	4.48	5.80	5.94	6.46	7.36	7.79	8.26	8.58
	norm	Capacity	2.86	3.06	3.67	4.01	4.42	4.85	5.25	7.92	8.16	8.62	7.81	9.17	9.65	9.71
		Power	1.44	1.31	1.37	1.27	1.26	1.21	1.18	1.32	1.33	1.29	1.09	1.15	0.85	1.11
		COP	1.98	2.33	2.68	3.15	3.50	4.01	4.45	5.98	6.13	6.67	7.20	7.96	8.31	8.66
	min	Capacity	1.91	2.05	2.46	2.68	2.96	3.15	3.41	4.28	4.41	4.92	5.40	5.92	6.44	6.96
		Power	0.98	0.89	0.93	0.87	0.86	0.71	0.69	0.71	0.71	0.73	0.75	0.78	0.80	0.83
		COP	1.95	2.29	2.64	3.10	3.44	4.43	4.91	6.04	6.19	6.73	7.16	7.58	8.04	8.35
30	max	Capacity	3.81	4.07	4.87	5.31	5.84	6.48	7.00	8.35	8.60	9.60	9.01	9.87	10.28	11.10
		Power	2.08	1.89	1.97	1.83	1.81	1.75	1.70	1.57	1.58	1.62	1.33	1.38	1.35	1.41
		COP	1.83	2.15	2.47	2.90	3.23	3.71	4.11	5.32	5.45	5.93	6.76	7.15	7.59	7.88
	norm	Capacity	2.92	3.13	3.74	4.08	4.49	4.92	5.32	8.00	8.24	8.70	7.88	9.23	9.71	9.71
		Power	1.61	1.46	1.52	1.41	1.40	1.34	1.30	1.46	1.46	1.42	1.19	1.26	0.94	1.22
		COP	1.82	2.14	2.46	2.89	3.21	3.68	4.09	5.49	5.63	6.12	6.61	7.31	7.63	7.95
	min	Capacity	1.96	2.09	2.50	2.73	3.00	3.20	3.46	4.32	4.45	4.97	5.44	5.96	6.48	7.00
		Power	1.09	0.99	1.03	0.96	0.95	0.79	0.77	0.78	0.78	0.80	0.83	0.86	0.88	0.91
		COP	1.79	2.11	2.42	2.84	3.16	4.07	4.51	5.54	5.68	6.18	6.57	6.96	7.38	7.66
35	max	Capacity	3.81	4.07	4.87	5.31	5.84	6.48	7.00	8.35	8.60	9.60	9.01	9.87	10.28	11.10
		Power	2.33	2.12	2.20	2.05	2.03	1.96	1.91	1.76	1.77	1.81	1.49	1.54	1.52	1.58
		COP	1.63	1.92	2.21	2.59	2.88	3.31	3.67	4.75	4.87	5.30	6.03	6.39	6.77	7.03
	norm	Capacity	2.92	3.13	3.74	4.08	4.49	4.92	5.32	8.00	8.24	8.70	7.88	9.23	9.71	9.71
		Power	1.80	1.64	1.70	1.58	1.56	1.50	1.46	1.63	1.64	1.59	1.33	1.41	1.05	1.37
		COP	1.63	1.91	2.20	2.58	2.87	3.29	3.65	4.90	5.02	5.46	5.90	6.53	6.81	7.10
	min	Capacity	1.96	2.09	2.50	2.73	3.00	3.20	3.46	4.32	4.45	4.97	5.44	5.96	6.48	7.00
		Power	1.22	1.11	1.16	1.08	1.06	0.88	0.86	0.87	0.88	0.90	0.93	0.96	0.98	1.02
		COP	1.60	1.88	2.16	2.54	2.82	3.63	4.03	4.95	5.07	5.52	5.87	6.21	6.59	6.84
40	max	Capacity	3.81	4.07	4.87	5.31	5.84	6.48	7.00	8.35	8.60	9.60	9.01	9.87	10.28	11.10
		Power	2.65	2.41	2.51	2.33	2.30	2.22	2.17	2.00	2.01	2.06	1.70	1.76	1.72	1.79
		COP	1.44	1.69	1.94	2.28	2.53	2.91	3.23	4.18	4.28	4.66	5.31	5.62	5.96	6.19
	norm	Capacity	2.92	3.13	3.74	4.08	4.49	4.92	5.32	8.00	8.24	8.70	7.88	9.23	9.71	9.71
		Power	2.04	1.86	1.93	1.80	1.78	1.70	1.66	1.86	1.86	1.81	1.52	1.61	1.19	1.55
		COP	1.43	1.68	1.93	2.27	2.52	2.89	3.21	4.31	4.42	4.81	5.19	5.74	5.99	6.25
	min	Capacity	1.96	2.09	2.50	2.73	3.00	3.20	3.46	4.32	4.45	4.97	5.44	5.96	6.48	7.00
		Power	1.39	1.27	1.32	1.22	1.21	1.00	0.97	0.99	1.00	1.02	1.05	1.09	1.12	1.16
		COP	1.41	1.65	1.90	2.23	2.48	3.19	3.54	4.36	4.46	4.86	5.16	5.47	5.80	6.02
45	max	Capacity	3.81	4.07	4.87	5.31	5.84	6.48	7.00	8.35	8.60	9.60	9.01	9.87	10.28	11.10
		Power	2.91	2.65	2.76	2.56	2.54	2.45	2.38	2.20	2.21	2.27	1.87	1.93	1.90	1.97
		COP	1.31	1.54	1.77	2.07	2.30	2.65	2.94	3.80	3.90	4.24	4.83	5.11	5.42	5.63
	norm	Capacity	2.92	3.13	3.74	4.08	4.49	4.92	5.32	8.30	8.24	8.70	7.88	9.23	9.71	9.71
		Power	2.25	2.04	2.13	1.98	1.96	1.87	1.82	2.18	2.05	1.99	1.67	1.77	1.31	1.71
		COP	1.30	1.53	1.76	2.06	2.29	2.63	2.92	3.80	4.02	4.37	4.72	5.22	5.45	5.68
	min	Capacity	1.96	2.09	2.50	2.73	3.00	3.20	3.46	4.32	4.45	4.97	5.44	5.96	6.48	7.00
		Power	1.53	1.39	1.45	1.34	1.33	1.10	1.07	1.09	1.10	1.13	1.16	1.20	1.23	1.28
		COP	1.28	1.50	1.73	2.03	2.26	2.90	3.22	3.96	4.06	4.42	4.69	4.97	5.27	5.47
50	max	Capacity	/	3.98	4.78	5.22	5.75	6.39	6.91	8.27	8.52	9.52	8.94	9.80	10.21	10.99
		Power	/	2.88	3.01	2.80	2.77	2.68	2.62	2.42	2.43	2.50	2.06	2.13	2.09	2.17
		COP	/	1.38	1.59	1.87	2.07	2.38	2.64	3.42	3.51	3.81	4.34	4.60	4.88	5.06
	norm	Capacity	/	3.06	3.67	4.01	4.42	4.85	5.25	7.92	8.16	8.62	7.81	9.17	9.61	9.61
		Power	/	2.22	2.32	2.16	2.14	2.05	2.00	2.24	2.26	2.19	1.84	1.95	1.45	1.88
		COP	/	1.38	1.58	1.86	2.06	2.37	2.63	3.53	3.62	3.93	4.25	4.70	4.90	5.11
	min	Capacity	/	2.05	2.46	2.68	2.96	3.15	3.41	4.28	4.41	4.92	5.40	5.92	6.44	6.93
		Power	/	1.51	1.58	1.47	1.46	1.21	1.18	1.20	1.21	1.24	1.28	1.32	1.36	1.41
		COP	/	1.35	1.56	2.16	2.03	2.61	2.90	3.56	3.65	3.97	4.22	4.47	4.74	4.93
55	max	Capacity	/	/	4.78	5.22	5.75	6.39	6.91	8.27	8.52	9.52	8.94	9.80	10.21	10.99
		Power	/	/	3.44	3.20	3.17	3.06	2.99	2.76	2.78	2.85	2.35	2.43	2.39	2.48
		COP	/	/	1.39	1.63	1.81	2.08	2.31	2.99	3.07	3.34	3.80	4.02	4.27	4.43
	norm	Capacity	/	/	3.67	4.01	4.42	4.85	5.25	7.80	8.16	8.62	7.81	9.17	9.61	9.61
		Power	/	/	2.65	2.47	2.45	2.34	2.29	2.56	2.58	2.50	2.10	2.23	1.65	2.15
		COP	/	/	1.39	1.63	1.81	2.07	2.30	3.05	3.16	3.44	3.72	4.11	4.29	4.47
	min	Capacity	/	/	2.46	2.68	2.96	3.15	3.41	4.28	4.41	4.92	5.40	5.92	6.44	6.93
		Power	/	/	1.80	1.68	1.66	1.38	1.34	1.37	1.38	1.42	1.46	1.51	1.55	1.61
		COP	/	/	1.36	1.60	1.78	2.29	2.54	3.12	3.20	3.48	3.70	3.91	4.15	4.31
60	max	Capacity	/	/	/	/	5.66	6.30	6.83	8.18	8.43	9.41	8.83	9.67	10.07	10.88
		Power	/	/	/	/	3.51	3.40	3.32	3.08	3.09	3.17	2.61	2.70	2.65	2.76
		COP	/	/	/	/	1.61	1.85	2.06	2.66	2.73	2.97	3.38	3.58	3.79	3.94
	norm	Capacity	/	/	/	/	4.35	4.79	5.19	7.84	8.08	8.52	7.72	9.05	9.52	9.52
		Power	/	/	/	/	2.71	2.60	2.54	2.86	2.87	2.79	2.34	2.48	1.83	2.39
		COP	/	/	/	/	1.61	1.84	2.04	2.74	2.81	3.06	3.30	3.65	3.81	3.98
	min	Capacity	/	/	/	/	2.91	3.11	3.37	4.23	4.36	4.87	5.33	5.84	6.35	6.86
		Power	/	/	/	/	1.84	1.53	1.49	1.53	1.53	1.58	1.62	1.68	1.72	1.79
		COP	/	/	/	/	1.58	2.03	2.26	2.77	2.84	3.09	3.28	3.48	3.69	3.83
65	max	Capacity	/	/	/	/	/	/	8.10	8.34	9.31	8.74	2.90	/	/	/
		Power	/	/	/	/	/	/	/	3.41	3.43	3.52	3.02	/	/	/
		COP	/	/	/	/	/	/	/	2.38	2.43	2.65	2.65	/	/	/
	norm	Capacity	/	/	/	/	/	/	7.76	7.99	8.43	7.64	2.59	/	/	/
		Power	/	/	/	/	/	/	/	3.17	3.09	3.09	2.73	/	/	/
		COP	/	/	/	/	/	/	/	2.45	2.51	2.73	2.95	/	/	/
	min	Capacity	/	/	/	/	/	/	4.19	1.69	1.70	2.54	4.82	1.75	2.76	5.28
		Power	/	/	/	/	/	/	/	2.48	4.32	1.80	2.93	/	/	/
		COP	/	/	/	/	/	/	/	/	/	/	/	/	/	/

(4) Heating capacity correction for 3-phase units

Heating Capacity Correction_8

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	/	6.53	7.83	8.56	9.43	9.49	10.27	9.70	10.00	11.17	10.75	11.78	10.13	10.95
		Power	/	2.96	3.09	2.87	2.85	2.44	2.38	1.61	1.62	1.67	1.48	1.53	1.23	1.28
		COP	/	2.20	2.53	2.98	3.31	3.89	4.31	6.01	6.16	6.71	7.29	7.72	8.26	8.58
	norm	Capacity	/	4.95	5.94	6.49	7.15	7.45	8.06	8.12	8.36	8.62	8.75	9.17	9.45	9.65
		Power	/	2.10	2.19	2.04	2.02	1.81	1.77	1.32	1.32	1.24	1.17	1.15	1.14	1.11
		COP	/	2.36	2.71	3.18	3.54	4.10	4.55	6.17	6.33	6.98	7.49	7.98	8.31	8.73
	min	Capacity	/	2.39	2.86	3.13	3.45	3.87	4.19	5.25	5.41	6.04	6.63	7.26	7.90	8.53
		Power	/	0.93	0.97	0.90	0.89	0.88	0.86	0.81	0.82	0.84	0.87	0.90	0.94	0.98
		COP	/	2.58	2.96	3.48	3.86	4.41	4.90	6.44	6.60	7.18	7.63	8.08	8.41	8.73
30	max	Capacity	/	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
		Power	/	3.30	3.43	3.18	3.15	2.70	2.63	1.77	1.78	1.83	1.62	1.68	1.34	1.40
		COP	/	2.02	2.33	2.73	3.04	3.57	3.96	5.52	5.66	6.16	6.69	7.08	7.59	7.88
	norm	Capacity	/	5.06	6.05	6.60	7.26	7.55	8.16	8.20	8.45	8.70	8.82	9.23	9.51	9.71
		Power	/	2.34	2.43	2.26	2.24	2.00	1.95	1.45	1.45	1.36	1.28	1.26	1.25	1.21
		COP	/	2.16	2.49	2.92	3.25	3.77	4.18	5.67	5.81	6.41	6.87	7.32	7.63	8.01
	min	Capacity	/	2.37	2.72	3.19	3.55	4.05	4.49	5.30	5.46	6.10	6.59	7.42	7.72	8.01
		Power	/	1.03	1.07	1.00	0.99	0.97	0.94	0.90	0.90	0.92	0.95	0.99	1.03	1.07
		COP	/	1.81	2.08	2.44	2.71	3.02	2.94	4.93	5.05	5.50	5.97	6.33	6.77	7.03
35	max	Capacity	/	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
		Power	/	3.69	3.84	3.57	3.53	3.02	2.94	1.99	2.00	2.05	1.81	1.88	1.51	1.57
		COP	/	1.93	2.22	2.53	2.90	2.24	2.19	1.62	1.63	1.52	1.44	1.41	1.40	1.36
	norm	Capacity	/	5.06	6.05	6.60	7.26	7.55	8.16	8.20	8.45	8.70	8.82	9.23	9.51	9.71
		Power	/	2.62	2.72	2.53	2.51	2.24	2.19	1.62	1.63	1.52	1.44	1.41	1.40	1.36
		COP	/	1.93	2.22	2.61	2.92	3.36	3.73	5.06	5.19	5.72	6.14	6.54	6.81	7.15
	min	Capacity	/	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
		Power	/	1.15	1.20	1.12	1.10	1.08	1.06	1.00	1.01	1.04	1.07	1.10	1.15	1.20
		COP	/	2.11	2.43	2.85	3.17	3.62	4.01	5.28	5.41	5.89	6.26	6.63	6.89	7.15
40	max	Capacity	/	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
		Power	/	4.20	4.36	4.05	4.01	3.43	3.34	2.26	2.27	2.33	2.06	2.13	1.71	1.78
		COP	/	1.59	1.83	2.15	2.38	2.80	3.11	4.34	4.45	4.84	5.26	5.57	5.96	6.19
	norm	Capacity	/	5.06	6.05	6.60	7.26	7.55	8.16	8.20	8.45	8.70	8.82	9.23	9.51	9.71
		Power	/	2.98	3.09	2.88	2.85	2.55	2.48	1.84	1.85	1.73	1.63	1.60	1.59	1.54
		COP	/	1.70	1.96	2.30	2.55	2.96	3.28	4.45	4.56	5.03	5.40	5.75	5.99	6.30
	min	Capacity	/	2.11	2.14	2.51	2.79	3.18	3.53	5.30	5.46	6.10	6.68	7.31	7.95	8.59
		Power	/	1.31	1.36	1.27	1.25	1.23	1.20	1.14	1.15	1.18	1.21	1.25	1.31	1.36
		COP	/	1.86	2.14	2.51	2.79	3.18	3.53	4.65	4.76	5.18	5.51	5.83	6.06	6.30
45	max	Capacity	/	6.67	7.98	8.70	9.57	9.62	10.40	9.80	10.09	11.27	10.84	11.87	10.20	11.02
		Power	/	4.61	4.80	4.46	4.41	3.78	3.68	2.48	2.50	2.56	2.27	2.35	1.88	1.96
		COP	/	1.45	1.66	1.95	2.17	2.55	2.83	3.94	4.04	4.40	4.78	5.06	5.42	5.63
	norm	Capacity	/	5.06	6.05	6.60	7.26	7.55	8.16	8.20	8.45	8.70	8.82	9.23	9.51	9.71
		Power	/	3.27	3.40	3.16	3.13	2.81	2.73	2.05	2.04	1.90	1.80	1.77	1.75	1.70
		COP	/	1.55	1.78	2.09	2.32	2.69	2.99	4.00	4.15	4.58	4.91	5.23	5.45	5.72
	min	Capacity	/	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
		Power	/	1.44	1.50	1.39	1.38	1.36	1.32	1.25	1.26	1.29	1.33	1.38	1.44	1.50
		COP	/	1.69	1.94	2.28	2.53	2.89	3.21	4.22	4.33	4.71	5.01	5.30	5.51	5.72
50	max	Capacity	/	6.53	7.83	8.56	9.43	9.49	10.27	9.70	10.00	11.17	10.75	11.78	10.13	10.91
		Power	/	5.02	5.23	4.87	4.83	4.14	4.04	2.73	2.75	2.82	2.50	2.59	2.08	2.15
		COP	/	1.30	1.50	1.76	1.95	2.29	2.54	3.55	3.64	3.96	4.30	4.55	4.88	5.06
	norm	Capacity	/	4.95	5.94	6.49	7.15	7.45	8.06	8.12	8.36	8.62	8.75	9.17	9.45	9.61
		Power	/	3.56	3.71	3.46	3.43	3.07	3.00	2.23	2.24	2.09	1.98	1.95	1.93	1.87
		COP	/	1.39	1.60	1.88	2.09	2.42	2.69	3.64	3.73	4.12	4.42	4.71	4.90	5.15
	min	Capacity	/	2.39	2.86	3.13	3.45	3.87	4.19	5.25	5.41	6.04	6.63	7.26	7.90	8.50
		Power	/	1.57	1.64	1.52	1.51	1.49	1.45	1.38	1.39	1.43	1.47	1.52	1.59	1.65
		COP	/	1.52	1.75	2.05	2.28	2.60	2.89	3.80	3.90	4.24	4.50	4.77	4.96	5.15
55	max	Capacity	/	7.83	8.56	9.43	9.49	9.49	10.27	9.70	10.00	11.17	10.75	11.78	10.13	10.91
		Power	/	5.98	5.57	5.52	4.73	4.73	4.61	3.12	3.14	3.23	2.86	2.96	2.37	2.46
		COP	/	1.31	1.54	1.71	2.23	1.71	2.23	3.11	3.18	3.46	3.76	3.98	4.27	4.43
	norm	Capacity	/	5.94	6.49	7.15	7.45	7.45	8.06	7.81	8.36	8.62	8.75	9.17	9.45	9.61
		Power	/	4.24	3.95	3.92	3.83	3.51	3.43	2.55	2.56	2.39	2.26	2.23	2.20	2.13
		COP	/	1.40	1.64	1.83	2.12	2.35	3.06	3.27	3.60	3.87	4.12	4.29	4.51	
	min	Capacity	/	2.86	3.13	3.45	3.87	4.19	5.25	5.41	6.04	6.63	7.26	7.90	8.50	
		Power	/	1.87	1.74	1.73	1.70	1.66	1.58	1.59	1.63	1.68	1.74	1.82	1.89	
		COP	/	1.53	1.80	2.00	2.28	2.53	3.33	4.17	4.41	4.64	4.94	5.23	5.45	
60	max	Capacity	/	/	/	9.28	9.36	9.60	10.14	9.51	9.89	11.04	10.62	11.63	10.00	10.80
		Power	/	/	/	6.11	5.25	5.12	3.48	3.50	2.83	3.59	3.18	3.28	2.64	2.74
		COP	/	/	/	1.52	1.78	1.98	2.76	2.83	3.08	3.34	3.79	3.54	3.94	
	norm	Capacity	/	/	/	7.04	7.34	7.96	8.04	8.28	8.52	8.64	8.64	9.05	9.32	9.52
		Power	/	/	/	4.34	3.90	3.81	2.84	2.85	2.90	2.66	2.51	2.47	2.44	2.38
		COP	/	/	/	1.62	1.88	2.09	2.83	2.90	3.20	3.44	3.81	3.66	3.81	4.01
	min	Capacity	/	/	/	3.39	3.82	4.13	5.19	5.35	5.97	6.54	7.17	7.79	8.41	
		Power	/	/	/	1.91	1.88	1.84	1.76	1.77	1.81	1.87	1.93	2.02	2.10	
		COP	/	/	/	1.77	2.03	2.25	2.96	3.03	3.30	3.50	3.71	3.86	4.01	
65	max	Capacity	/	/	/	/	/	/	/	9.51	9.79	10.93	10.51	/	/	/
		Power	/	/	/	/	/	/	/	3.86	3.88	3.98	3.52	/	/	/
		COP	/	/	/	/	/	/	/	2.47	2.53	2.75	2.99	/	/	/
	norm	Capacity	/	/	/	/	/	/	7.95	8.19	8.43	8.56	8.64	9.17	9.61	
		Power	/	/	/	/	/	/	3.14	3.16	2.95	2.86	2.79	3.07	3.13	
		COP	/	/	/	/	/	/	2.53	2.59	2.86	3.20	3.44	3.66	3.81	
	min	Capacity	/	/	/	/	/	/	5.14	5.30	5.91	6.48	7.17	7.79	8.41	
		Power	/	/	/	/	/	/	1.95	1.96	2.01	2.07	2.13	2.02	2.10	
		COP	/	/	/	/	/	/	2.64	2.71	2.94	3.13	3.71	3.86	4.01	

Heating Capacity Correction_10

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	6.30	6.75	8.10	8.85	9.75	10.15	10.98	11.09	11.42	12.77	10.75	11.78	10.13	10.95
		Power	3.38	3.08	3.22	2.99	2.97	2.65	2.59	1.89	1.90	1.95	1.48	1.53	1.23	1.28
		COP	1.86	2.19	2.52	2.96	3.28	3.83	4.25	5.88	6.03	6.56	7.29	7.72	8.27	8.58
	norm	Capacity	4.96	5.31	6.37	6.96	7.67	8.03	8.69	10.10	10.20	10.21	10.32	10.36	9.98	10.49
		Power	2.51	2.29	2.39	2.22	2.20	1.99	1.94	1.67	1.66	1.50	1.41	1.32	1.21	1.22
		COP	1.97	2.32	2.67	3.14	3.48	4.04	4.48	6.04	6.15	6.82	7.33	7.86	8.28	8.63
	min	Capacity	2.23	2.39	2.86	3.13	3.45	3.87	4.19	5.25	5.41	6.04	6.63	7.26	7.90	8.53
		Power	1.02	0.93	0.97	0.90	0.89	0.88	0.86	0.81	0.82	0.84	0.87	0.90	0.94	0.98
		COP	2.19	2.58	2.96	3.48	3.86	4.41	4.90	6.44	6.60	7.18	7.63	8.08	8.41	8.73
30	max	Capacity	6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	10.94
		Power	3.77	3.43	3.57	3.32	3.28	2.93	2.85	2.07	2.08	2.14	1.62	1.68	1.34	1.40
		COP	1.71	2.01	2.31	2.71	3.02	3.51	3.90	5.40	5.53	6.02	6.69	7.08	7.59	11.02
	norm	Capacity	5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.05	10.56
		Power	2.80	2.55	2.65	2.46	2.43	2.20	2.14	1.84	1.82	1.64	1.55	1.45	1.32	1.33
		COP	1.81	2.13	2.45	2.88	3.20	3.71	4.11	5.54	5.65	6.26	6.73	7.21	7.60	7.92
	min	Capacity	2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
		Power	1.13	1.03	1.07	1.00	0.99	0.97	0.94	0.90	0.90	0.92	0.95	0.99	1.03	1.07
		COP	2.01	2.37	2.72	3.19	3.55	4.05	4.49	5.91	6.06	6.59	7.01	7.42	7.72	8.01
35	max	Capacity	6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	11.02
		Power	4.23	3.84	4.00	3.71	3.68	3.28	3.19	2.32	2.33	2.40	1.81	1.88	1.51	1.57
		COP	1.53	1.79	2.06	2.42	2.69	3.14	3.48	4.82	4.94	5.37	5.97	6.33	6.78	7.04
	norm	Capacity	5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.05	10.56
		Power	3.14	2.85	2.96	2.75	2.73	2.46	2.40	2.06	2.04	1.84	1.73	1.62	1.48	1.49
		COP	1.62	1.90	2.19	2.57	2.86	3.31	3.67	4.95	5.05	5.59	6.01	6.44	6.79	7.07
	min	Capacity	2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
		Power	1.27	1.15	1.20	1.12	1.10	1.08	1.06	1.00	1.01	1.04	1.07	1.10	1.15	1.20
		COP	1.80	2.11	2.43	2.85	3.17	3.62	4.01	5.28	5.41	5.89	6.26	6.63	6.89	7.15
40	max	Capacity	6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	11.02
		Power	4.80	4.37	4.54	4.22	4.18	3.73	3.63	2.64	2.65	2.72	2.06	2.13	1.71	1.78
		COP	1.34	1.58	1.82	2.13	2.37	2.76	3.06	4.24	4.35	4.73	5.26	5.57	5.96	6.19
	norm	Capacity	5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.05	10.56
		Power	3.56	3.24	3.37	3.13	3.10	2.79	2.72	2.34	2.32	2.09	1.97	1.84	1.68	1.70
		COP	1.42	1.68	1.93	2.26	2.51	2.91	3.23	4.36	4.44	4.92	5.29	5.67	5.97	6.22
	min	Capacity	2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
		Power	1.44	1.31	1.36	1.27	1.25	1.23	1.20	1.14	1.15	1.18	1.21	1.25	1.31	1.36
		COP	1.58	1.86	2.14	2.51	2.79	3.18	3.53	4.65	4.76	5.18	5.51	5.83	6.06	6.30
45	max	Capacity	6.45	6.90	8.25	9.00	9.90	10.29	11.12	11.20	11.54	12.88	10.84	11.87	10.20	11.02
		Power	5.28	4.81	5.00	4.64	4.60	4.10	3.99	2.90	2.92	3.00	2.27	2.35	1.88	1.96
		COP	1.22	1.44	1.65	1.94	2.15	2.51	2.78	3.86	3.95	4.30	4.78	5.06	5.42	5.63
	norm	Capacity	5.07	5.43	6.49	7.08	7.79	8.14	8.80	10.20	10.30	10.30	10.40	10.43	10.56	10.56
		Power	3.92	3.56	3.71	3.44	3.41	3.07	3.00	2.60	2.55	2.30	2.16	2.03	1.85	1.87
		COP	1.29	1.52	1.75	2.06	2.28	2.65	2.94	3.92	4.04	4.47	4.81	5.15	5.43	5.66
	min	Capacity	2.28	2.44	2.92	3.18	3.50	3.92	4.24	5.30	5.46	6.10	6.68	7.31	7.95	8.59
		Power	1.44	1.44	1.50	1.39	1.38	1.36	1.32	1.25	1.26	1.29	1.33	1.38	1.44	1.50
		COP	1.44	1.69	1.94	2.28	2.53	2.89	3.21	4.22	4.33	4.71	5.01	5.30	5.51	5.72
50	max	Capacity	/	6.75	8.10	8.85	9.75	10.15	10.98	11.09	11.42	12.77	10.75	11.78	10.13	10.91
		Power	/	5.22	5.45	5.07	5.03	4.49	4.38	3.20	3.21	3.30	2.50	2.59	2.08	2.15
		COP	/	1.29	1.49	1.74	1.94	2.26	2.51	3.47	3.56	3.87	4.30	4.55	4.88	5.07
	norm	Capacity	/	5.31	6.37	6.96	7.67	8.03	8.69	10.10	10.20	10.21	10.32	10.36	9.98	10.45
		Power	/	3.87	4.04	3.76	3.73	3.37	3.29	2.83	2.81	2.54	2.39	2.23	2.04	2.05
		COP	/	1.37	1.58	1.85	2.06	2.38	2.64	3.56	3.63	4.02	4.33	4.64	4.89	5.09
	min	Capacity	/	2.39	2.86	3.13	3.45	3.87	4.19	5.25	5.41	6.04	6.63	7.26	7.90	8.50
		Power	/	1.57	1.64	1.52	1.51	1.49	1.45	1.38	1.39	1.43	1.47	1.52	1.59	1.65
		COP	/	1.52	1.75	2.05	2.28	2.60	2.89	3.80	3.90	4.24	4.50	4.77	4.96	5.15
55	max	Capacity	/	8.10	8.85	9.75	10.15	10.98	11.09	11.42	12.77	10.75	11.78	10.13	10.91	
		Power	/	6.23	5.80	5.75	5.13	5.01	3.65	3.67	3.77	2.86	2.96	2.37	2.46	
		COP	/	1.30	1.53	1.70	1.98	2.19	3.04	3.11	3.39	3.76	3.98	4.27	4.43	
	norm	Capacity	/	6.37	6.96	8.03	8.69	10.30	10.20	10.21	10.32	10.36	9.98	10.45		
		Power	/	4.62	4.30	3.85	3.76	2.31	3.38	3.05	3.21	2.90	2.73	2.55	2.34	2.35
		COP	/	1.38	1.62	1.80	2.09	3.18	3.21	3.52	3.79	4.06	4.28	4.46		
	min	Capacity	/	2.86	1.87	1.53	1.74	3.13	1.70	2.28	4.19	5.25	1.58	3.33	5.41	6.04
		Power	/	1.87	1.80	1.73	1.66	2.53	1.59	3.41	1.63	3.71	6.63	1.68	3.94	7.26
		COP	/	1.53	1.80	2.00	2.53	2.28	1.66	1.58	4.19	6.04	1.74	4.17	7.90	1.82
60	max	Capacity	/	9.60	6.37	1.51	1.95	1.76	10.84	10.98	4.07	2.70	11.31	4.09	2.77	10.62
		Power	/	7.55	4.72	1.60	4.17	1.85	8.58	10.00	3.61	2.77	10.09	3.57	2.83	10.20
		COP	/	10.01	7.92	4.27	1.70	2.03	4.13	2.25	1.76	2.96	5.35	1.77	3.03	5.97
	norm	Capacity	/	3.39	1.91	1.77	3.82	1.88	1.84	5.19	1.76	2.96	5.35	1.77	3.03	5.97
		Power	/	1.74	1.80	2.25	5.19	1.84	2.06	10.00	3.61	2.77	10.09	3.57	2.83	10.09
		COP	/	1.80	2.28	3.82	1.77	2.06	4.17	8.58	4.13	2.25	5.19	1.76	2.96	5.35
	min	Capacity	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		Power	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		COP	/	/	/	/	/	/	/	/	/	/	/	/	/	/
65	max	Capacity	/	/	/	/	/	/	/	10.86	11.19	12.49	10.51	11.63	10.00	10.80
		Power	/	/	/	/	/	/	/	4.51	4.53	4.65	3.52	3.28	2.63	2.74
		COP	/	/	/	/	/	/	/	2.41	2.47	2.69	2.99	3.54	3.79	3.94
	norm	Capacity	/	/	/	/	/	/	/	9.89	9.99	9.99	10.09	10.23	9.85	10.35
		Power	/	/	/	/	/	/	/	4.00	3.96	3.57	3.36	2.84	2.59	2.61
		COP	/	/	/	/	/	/	/	2.48	2.52	2.79	3.00	3.61	3.80	3.96
	min	Capacity	/	/	/	/	/	/	/	5.14	5.30	5.91	6.48	7.17	7.79	8.41
		Power	/	/	/	/	/	/	/	1.95	1.96	2.01	2.07	1.93	2.02	2.10
		COP	/	/	/	/	/	/	/	2.64	2.71	2.94	3.13	3.71	3.86	4.01

Heating Capacity Correction_12

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	7.06	7.56	9.07	9.91	10.92	12.26	13.27	14.65	15.10	16.87	13.50	14.80	13.11	14.17
		Power	3.96	3.60	3.76	3.50	3.47	3.41	3.33	2.67	2.68	2.76	1.91	1.97	1.61	1.68
		COP	1.78	2.10	2.41	2.83	3.15	3.59	3.99	5.49	5.63	6.12	7.08	7.50	8.12	8.43
	norm	Capacity	5.80	6.21	7.45	8.14	8.97	10.07	10.90	11.88	12.24	12.31	12.50	12.60	12.81	13.20
		Power	3.04	2.77	2.89	2.69	2.66	2.62	2.56	2.02	2.03	1.85	1.74	1.63	1.57	1.55
		COP	1.91	2.24	2.58	3.03	3.37	3.84	4.27	5.88	6.03	6.67	7.17	7.75	8.15	8.53
	min	Capacity	2.73	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.47
		Power	1.27	1.15	1.20	1.12	1.11	1.09	1.07	1.01	1.02	1.05	1.08	1.12	1.17	1.22
		COP	2.16	2.54	2.92	3.43	3.81	4.35	4.82	6.34	6.50	7.07	7.52	7.96	8.28	8.60
30	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	13.61	14.90	13.20	14.26
		Power	4.41	4.01	4.17	3.88	3.84	3.77	3.67	2.94	2.95	3.03	2.09	2.16	1.77	1.84
		COP	1.64	1.93	2.22	2.60	2.89	3.30	3.66	5.04	5.17	5.62	6.50	6.89	7.45	7.74
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.00	12.36	12.42	12.60	12.70	12.90	13.28
		Power	3.39	3.08	3.20	2.98	2.95	2.89	2.82	2.22	2.23	2.03	1.91	1.79	1.72	1.70
		COP	1.75	2.06	2.37	2.78	3.09	3.53	3.92	5.40	5.53	6.12	6.58	7.11	7.48	7.83
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.41	1.28	1.33	1.24	1.23	1.21	1.17	1.12	1.12	1.15	1.19	1.23	1.28	1.33
		COP	1.98	2.33	2.68	3.14	3.49	3.99	4.43	5.82	5.97	6.49	6.90	7.31	7.60	7.89
35	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	13.61	14.90	13.20	14.26
		Power	4.94	4.49	4.67	4.34	4.30	4.22	4.11	3.29	3.30	3.39	2.34	2.42	1.98	2.06
		COP	1.46	1.72	1.98	2.32	2.58	2.95	3.27	4.50	4.61	5.02	5.81	6.15	6.66	6.91
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.00	12.36	12.42	12.60	12.70	12.90	13.28
		Power	3.79	3.45	3.59	3.33	3.30	3.24	3.16	2.49	2.50	2.27	2.14	2.00	1.93	1.90
		COP	1.56	1.84	2.12	2.48	2.76	3.15	3.50	4.82	4.94	5.46	5.88	6.35	6.68	6.99
	min	Capacity	2.80	2.99	3.90	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.58	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
		COP	1.77	2.08	2.39	2.81	3.12	3.56	3.95	5.20	5.33	5.80	6.16	6.53	6.79	7.05
40	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	13.61	14.90	13.20	14.26
		Power	5.61	5.11	5.31	4.93	4.88	4.80	4.67	3.74	3.76	3.85	2.66	2.75	2.25	2.34
		COP	1.29	1.51	1.74	2.04	2.27	2.59	2.88	3.96	4.06	4.42	5.11	5.41	5.86	6.08
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.00	12.36	12.42	12.60	12.70	12.90	13.28
		Power	4.31	3.92	4.08	3.79	3.75	3.68	3.59	2.83	2.84	2.58	2.44	2.27	2.19	2.16
		COP	1.38	1.62	1.86	2.19	2.43	2.77	3.08	4.24	4.35	4.81	5.17	5.59	5.88	6.15
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.80	1.63	1.70	1.58	1.56	1.53	1.50	1.42	1.43	1.47	1.51	1.56	1.63	1.70
		COP	1.56	1.83	2.10	2.47	2.75	3.13	3.48	4.58	4.69	5.10	5.42	5.74	5.97	6.20
45	max	Capacity	7.22	7.73	9.24	10.08	11.09	12.43	13.44	14.80	15.24	17.02	13.61	14.90	13.20	14.26
		Power	6.18	5.62	5.84	5.43	5.37	5.28	5.14	4.11	4.13	4.24	2.93	3.03	2.48	2.58
		COP	1.17	1.38	1.58	1.86	2.06	2.36	2.61	3.60	3.69	4.01	4.65	4.92	5.32	5.53
	norm	Capacity	5.93	6.35	7.59	8.28	9.11	10.21	11.04	12.00	12.36	12.42	12.60	12.70	12.90	13.28
		Power	4.74	4.31	4.48	4.17	4.13	4.05	3.95	3.45	3.13	2.84	2.68	2.50	2.41	2.37
		COP	1.25	1.47	1.69	1.99	2.21	2.52	2.80	3.77	3.95	4.37	4.70	5.08	5.35	5.59
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.98	1.80	1.87	1.74	1.72	1.69	1.64	1.56	1.57	1.61	1.66	1.72	1.80	1.87
		COP	1.41	1.66	1.91	2.25	2.50	2.85	3.16	4.16	4.26	4.64	4.93	5.22	5.43	5.64
50	max	Capacity	/	7.56	9.07	9.91	10.92	12.26	13.27	14.65	15.10	16.87	13.50	14.80	13.11	14.11
		Power	/	6.10	6.37	5.93	5.88	5.78	5.64	4.52	4.55	4.67	3.23	3.34	2.74	2.84
		COP	/	1.24	1.42	1.67	1.86	2.12	2.35	3.24	3.32	3.61	4.18	4.43	4.79	4.98
	norm	Capacity	/	6.21	7.45	8.14	8.97	10.07	10.90	11.88	12.24	12.31	12.50	12.60	12.81	13.15
		Power	/	4.69	4.89	4.55	4.51	4.44	4.33	3.42	3.44	3.13	2.95	2.76	2.66	2.61
		COP	/	1.32	1.52	1.79	1.99	2.27	2.52	3.47	3.56	3.93	4.23	4.57	4.81	5.03
	min	Capacity	/	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	1.95	2.04	1.90	1.88	1.85	1.80	1.72	1.73	1.78	1.83	1.90	1.98	2.05
		COP	/	1.50	1.72	2.02	2.25	2.56	2.85	3.74	3.84	4.17	4.44	4.70	4.89	5.07
55	max	Capacity	/	/	9.07	9.91	10.92	12.26	13.27	14.65	15.10	16.87	13.50	14.80	13.11	14.11
		Power	/	/	6.72	6.78	6.72	6.61	6.45	5.17	5.19	5.34	3.69	3.82	3.13	3.24
		COP	/	/	1.63	1.46	1.63	1.86	2.06	2.84	2.91	3.16	3.66	3.87	4.19	4.35
	norm	Capacity	/	7.45	8.97	8.14	8.97	10.07	10.90	12.00	12.24	12.31	12.50	12.60	12.81	13.15
		Power	/	5.59	5.16	5.20	5.37	5.07	4.95	4.12	3.93	3.58	3.38	3.15	3.04	2.99
		COP	/	1.33	1.74	1.56	1.75	1.99	2.20	2.91	3.11	3.44	3.70	4.00	4.21	4.40
	min	Capacity	/	3.51	4.75	3.84	4.23	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42	
		Power	/	2.33	2.15	2.17	2.38	2.11	2.06	1.96	1.97	2.03	2.09	2.17	2.27	2.35
		COP	/	1.51	1.97	1.77	1.75	2.24	2.49	3.28	3.36	3.65	3.88	4.11	4.28	4.44
60	max	Capacity	/	/	10.75	/	/	12.10	13.10	14.50	13.27	16.68	13.34	14.61	12.94	13.97
		Power	/	/	7.44	/	/	7.33	7.16	5.76	5.78	5.94	4.10	4.24	3.47	3.61
		COP	/	/	1.44	/	/	1.65	1.83	2.52	2.58	2.81	3.25	3.44	3.73	3.87
	norm	Capacity	/	/	8.83	/	/	9.94	10.76	11.76	12.11	12.17	12.35	12.44	12.64	13.02
		Power	/	/	5.71	/	/	5.63	5.50	4.36	4.38	3.98	3.75	3.50	3.38	3.32
		COP	/	/	1.55	/	/	1.76	1.96	2.70	2.77	3.06	3.29	3.56	3.74	3.92
	min	Capacity	/	/	4.16	/	/	4.68	5.07	6.37	6.56	7.33	8.03	8.79	9.56	10.32
		Power	/	/	2.38	/	/	2.35	2.29	2.19	2.20	2.26	2.33	2.41	2.51	2.62
		COP	/	/	1.75	/	/	1.99	2.21	2.91	2.98	3.25	3.45	3.65	3.80	3.95
65	max	Capacity	/	/	/	/	/	/	/	14.36	14.79	16.51	13.20	/	/	/
		Power	/	/	/	/	/	/	/	6.38	6.41	6.58	4.55	/	/	/
		COP	/	/	/	/	/	/	/	2.25	2.31	2.51	2.90	/	/	/
	norm	Capacity	/	/	/	/	/	/	/	11.64	12.05	12.22	7.94	/	/	/
		Power	/	/	/	/	/	/	/	4.83	4.85	4.41	4.16	/	/	/
		COP	/	/	/	/	/	/	/	2.41	2.47	2.73	2.94	/	/	/
	min	Capacity	/	/	/	/	/	/	/	6.31	6.49	7.25	7.94	/	/	/
		Power	/	/	/	/	/	/	/	2.43	2.44	2.50	2.58	/	/	/
		COP	/	/	/	/	/	/	/	2.60	2.67	2.90	3.08	/	/	/

Heating Capacity Correction_14

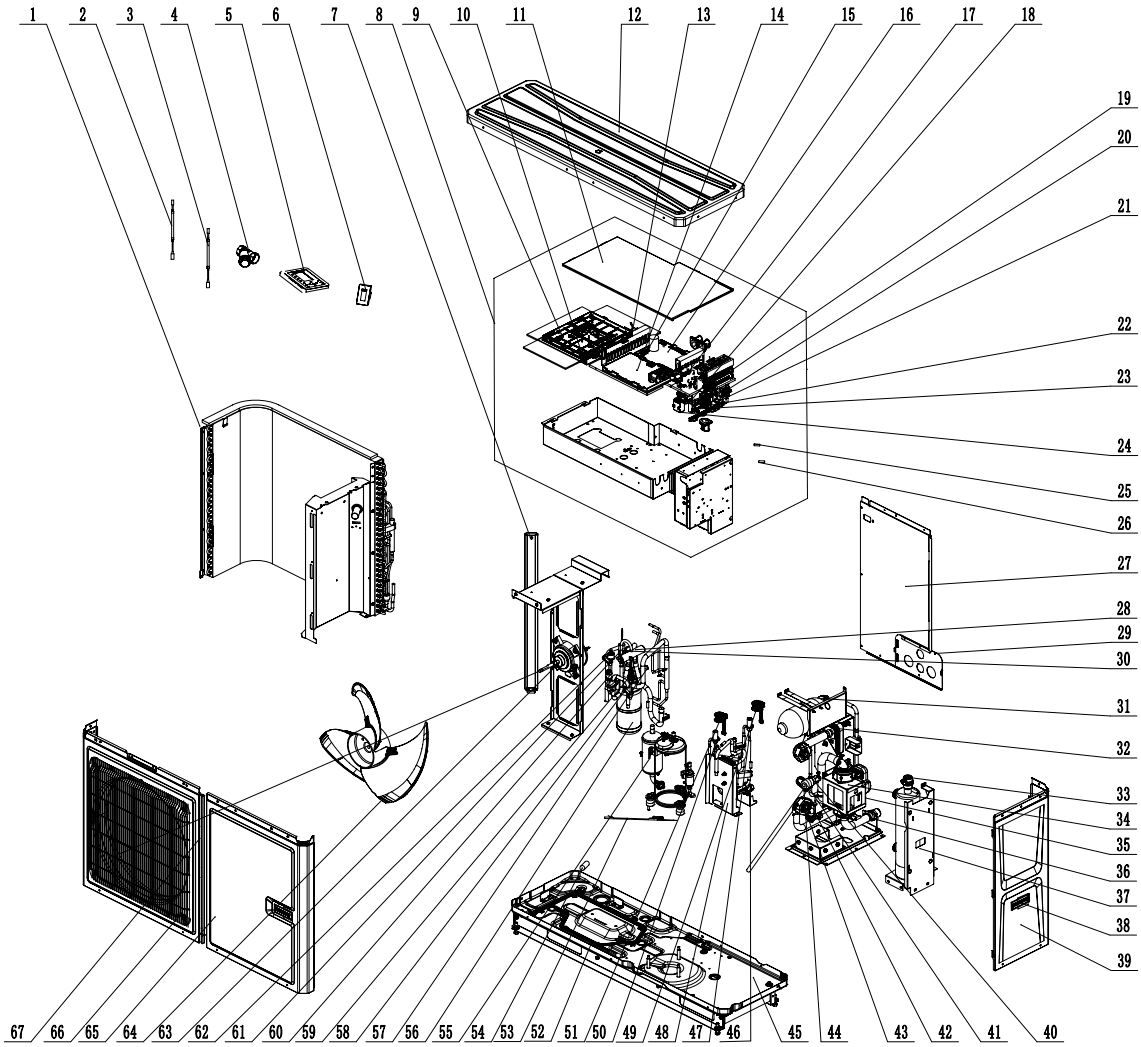
Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	7.48	8.01	9.61	10.50	11.57	12.99	14.06	15.84	16.32	18.24	13.50	14.80	13.71	14.81
		Power	4.29	3.91	4.08	3.80	3.76	3.70	3.61	2.96	2.98	3.06	1.91	1.97	1.71	1.78
		COP	1.74	2.05	2.36	2.77	3.07	3.51	3.89	5.34	5.48	5.96	7.08	7.50	8.01	8.32
	norm	Capacity	6.22	6.66	7.99	8.73	9.62	10.80	11.69	14.06	14.48	14.59	13.25	13.43	13.41	13.85
		Power	3.33	3.03	3.16	2.95	2.92	2.87	2.80	2.50	2.52	2.28	1.86	1.75	1.67	1.64
		COP	1.87	2.20	2.53	2.96	3.29	3.76	4.17	5.61	5.75	6.39	7.11	7.66	8.02	8.46
	min	Capacity	2.73	2.93	3.51	3.84	4.75	4.35	5.14	6.44	6.63	7.41	8.13	8.91	9.69	9.60
		Power	1.27	1.15	1.20	1.12	1.11	1.09	1.07	1.01	1.02	1.05	1.08	1.12	1.17	1.22
		COP	2.16	2.54	2.92	3.43	3.81	4.35	4.82	6.34	6.50	7.07	7.52	7.96	8.28	8.60
30	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	4.79	4.35	4.52	4.20	4.16	4.09	3.98	3.26	3.28	3.36	2.09	2.16	1.88	1.95
		COP	1.60	1.88	2.16	2.54	2.82	3.22	3.58	4.91	5.03	5.47	6.50	6.89	7.35	7.63
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	3.71	3.38	3.51	3.26	3.23	3.17	3.09	2.76	2.77	2.51	2.05	1.92	1.83	1.79
		COP	1.71	2.02	2.32	2.72	3.02	3.45	3.83	5.15	5.28	5.87	6.53	7.03	7.37	7.77
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	9.70
		Power	1.41	1.28	1.33	1.24	1.23	1.21	1.17	1.12	1.12	1.15	1.19	1.23	1.28	1.33
		COP	1.98	2.33	2.68	3.14	3.49	3.99	4.43	5.82	5.97	6.49	6.90	7.31	7.60	7.89
35	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	5.36	4.87	5.07	4.71	4.66	4.58	4.46	3.65	3.67	3.77	2.34	2.42	2.10	2.19
		COP	1.43	1.68	1.93	2.27	2.52	2.88	3.19	4.38	4.49	4.88	5.81	6.15	6.56	6.82
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	4.16	3.78	3.93	3.65	3.62	3.55	3.46	3.09	3.10	2.81	2.29	2.16	2.05	2.01
		COP	1.53	1.80	2.07	2.43	2.70	3.08	3.42	4.60	4.72	5.24	5.83	6.28	6.58	6.94
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.58	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
		COP	1.77	2.08	2.39	2.81	3.12	3.56	3.95	5.20	5.33	5.80	6.16	6.53	6.79	7.05
40	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	6.09	5.54	5.76	5.35	5.30	5.20	5.07	4.15	4.17	4.28	2.66	2.75	2.39	2.48
		COP	1.26	1.48	1.70	2.00	2.22	2.53	2.81	3.85	3.95	4.30	5.11	5.41	5.78	6.00
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	4.73	4.30	4.47	4.15	4.11	4.04	3.93	3.51	3.53	3.19	2.60	2.45	2.33	2.28
		COP	1.35	1.58	1.82	2.14	2.38	2.71	3.01	4.05	4.15	4.61	5.13	5.52	5.79	6.11
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.80	1.63	1.70	1.58	1.56	1.53	1.50	1.42	1.43	1.47	1.51	1.56	1.63	1.70
		COP	1.56	1.83	2.10	2.47	2.75	3.13	3.48	4.58	4.69	5.10	5.42	5.74	5.97	6.20
45	max	Capacity	7.65	8.19	9.79	10.68	11.75	13.17	14.24	16.00	16.48	18.40	13.61	14.90	13.80	14.90
		Power	6.70	6.09	6.33	5.89	5.83	5.72	5.58	4.57	4.59	4.71	2.93	3.03	2.63	2.73
		COP	1.14	1.34	1.55	1.81	2.02	2.30	2.55	3.50	3.59	3.91	4.65	4.92	5.25	5.45
	norm	Capacity	6.36	6.81	8.14	8.88	9.77	10.95	11.84	14.20	14.63	14.72	13.36	13.52	13.50	13.93
		Power	5.20	4.73	4.92	4.57	4.52	4.44	4.33	3.84	3.88	3.51	2.86	2.69	2.57	2.51
		COP	1.22	1.44	1.66	1.94	2.16	2.47	2.74	3.70	3.77	4.19	4.66	5.02	5.26	5.55
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.98	1.80	1.87	1.74	1.72	1.69	1.64	1.56	1.57	1.61	1.66	1.72	1.80	1.87
		COP	1.41	1.66	1.91	2.25	2.50	2.85	3.16	4.16	4.26	4.64	4.93	5.22	5.43	5.64
50	max	Capacity	/	8.01	9.61	10.50	11.57	12.99	14.06	15.84	16.32	18.24	13.50	14.80	13.71	14.75
		Power	/	6.62	6.91	6.43	6.38	6.27	6.12	5.02	5.05	5.19	3.23	3.34	2.90	3.01
		COP	/	1.21	1.39	1.63	1.81	2.07	2.30	3.15	3.23	3.52	4.18	4.43	4.73	4.91
	norm	Capacity	/	6.66	7.99	8.73	9.62	11.69	11.69	14.06	14.48	14.59	13.25	13.43	13.41	13.79
		Power	/	5.14	5.36	4.99	4.95	4.87	4.75	4.24	4.27	3.87	3.16	2.97	2.83	2.76
		COP	/	1.30	1.49	1.75	1.94	2.22	2.46	3.31	3.39	3.77	4.20	4.52	4.74	5.00
	min	Capacity	/	2.93	3.51	3.84	4.75	4.23	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	1.95	2.04	1.90	1.85	1.88	1.80	1.72	1.73	1.78	1.83	1.90	1.98	2.05
		COP	/	1.50	1.72	2.02	2.25	2.56	2.85	3.74	3.84	4.17	4.44	4.70	4.89	5.07
55	max	Capacity	/	/	9.61	10.50	11.57	12.99	14.06	15.84	16.32	18.24	13.50	14.80	13.71	14.75
		Power	/	/	7.90	7.35	7.29	7.17	6.99	5.74	5.77	5.93	3.69	3.82	3.31	3.44
		COP	/	/	1.22	1.43	1.59	1.81	2.01	2.76	2.83	3.08	3.66	3.87	4.14	4.29
	norm	Capacity	/	/	7.99	8.73	9.62	11.69	11.69	13.80	14.48	14.59	13.25	13.43	13.41	13.79
		Power	/	/	6.13	5.70	5.66	5.56	5.43	4.84	4.88	4.42	3.30	3.40	3.24	3.16
		COP	/	/	1.30	1.53	1.70	1.94	2.15	2.85	2.97	3.30	3.67	3.95	4.14	4.37
	min	Capacity	/	/	3.51	3.84	4.75	2.24	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	/	2.33	2.17	2.15	2.11	2.06	1.96	1.97	2.03	2.09	2.17	2.27	2.35
		COP	/	/	1.51	1.77	1.97	2.24	2.49	3.28	3.36	3.65	3.88	4.11	4.28	4.44
60	max	Capacity	/	/	/	/	4.23	11.39	13.88	15.68	16.15	18.03	13.34	14.61	13.52	14.61
		Power	/	/	/	/	8.07	7.95	7.77	6.39	6.42	6.59	4.10	4.24	3.68	3.83
		COP	/	/	/	/	1.41	1.61	1.79	2.45	2.51	2.73	3.25	3.44	3.68	3.82
	norm	Capacity	/	/	/	/	9.47	11.73	11.54	13.92	14.33	14.43	13.09	13.25	13.23	13.65
		Power	/	/	/	/	6.26	6.17	6.03	5.40	5.43	4.92	2.93	3.77	3.59	3.51
		COP	/	/	/	/	1.51	1.73	1.92	2.58	2.64	2.93	4.01	3.51	3.68	3.89
	min	Capacity	/	/	/	/	4.16	4.68	5.07	6.37	6.56	7.33	8.03	8.79	9.56	10.32
		Power	/	/	/	/	2.38	2.35	2.29	2.19	2.20	2.26	2.33	2.41	2.51	2.62
		COP	/	/	/	/	1.75	1.99	2.21	2.91	2.98	3.25	3.45	3.65	3.80	3.95
65	max	Capacity	/	/	/	/	/	/	/	15.52	15.99	17.85	13.20	/	/	/
		Power	/	/	/	/	/	/	/	7.09	7.12	7.31	4.55	/	/	/
		COP	/	/	/	/	/	/	/	2.19	2.24	2.44	2.90	/	/	/
	norm	Capacity	/	/	/	/	/	/	/	13.77	14.19	14.28	12.96	/	/	/
		Power	/	/	/	/	/	/	/	5.99	6.02	5.45	4.44	/	/	/
		COP	/	/	/	/	/	/	/	2.30	2.36	2.62	2.92	/	/	/
	min	Capacity	/	/	/	/	/	/	/	6.31	6.49	7.25	7.94	/	/	/
		Power	/	/	/	/	/	/	/	2.43	2.44	2.50	2.58	/	/	/
		COP	/	/	/	/	/	/	/	2.60	2.67	2.90	3.08	/	/	/

Heating Capacity Correction_16

Outflow water(°C)	Capacity level	Ambient Temp.(°C)	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	max	Capacity	7.56	8.10	9.72	10.62	11.70	13.14	14.22	17.62	18.16	20.29	14.75	16.17	15.50	16.74
		Power	4.36	3.97	4.14	3.86	3.82	3.76	3.67	3.44	3.46	3.55	2.13	2.20	1.97	2.05
		COP	1.73	2.04	2.35	2.75	3.06	3.49	3.88	5.12	5.25	5.71	6.94	7.35	7.86	8.17
	norm	Capacity	6.64	7.11	8.53	9.32	10.27	11.53	12.48	15.54	15.71	15.96	14.50	14.80	15.20	15.46
		Power	3.64	3.31	3.46	3.22	3.19	3.14	3.06	2.90	2.83	2.56	2.08	1.97	1.92	1.86
		COP	1.83	2.15	2.47	2.90	3.22	3.68	4.08	5.37	5.55	6.23	6.97	7.50	7.90	8.30
	min	Capacity	2.73	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.47
		Power	1.27	1.15	1.20	1.12	1.11	1.09	1.07	1.01	1.02	1.05	1.08	1.12	1.17	1.22
		COP	2.16	2.54	2.92	3.43	3.81	4.35	4.82	6.34	6.50	7.07	7.52	7.96	8.28	8.60
30	max	Capacity	7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
		Power	4.86	4.42	4.60	4.27	4.23	4.15	4.05	3.78	3.80	3.90	2.33	2.41	2.16	2.25
		COP	1.59	1.87	2.15	2.53	2.81	3.21	3.56	4.70	4.82	5.24	6.37	6.75	7.22	7.50
	norm	Capacity	6.79	7.27	8.69	9.48	10.43	11.69	12.64	15.70	15.86	16.10	14.62	14.90	15.30	15.55
		Power	4.05	3.69	3.83	3.56	3.53	3.46	3.37	3.19	3.11	2.81	2.28	2.16	2.11	2.04
		COP	1.68	1.97	2.27	2.66	2.96	3.38	3.75	4.93	5.10	5.72	6.40	6.89	7.25	7.62
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.41	1.28	1.33	1.24	1.23	1.21	1.17	1.12	1.12	1.15	1.19	1.23	1.28	1.33
		COP	1.98	2.33	2.68	3.14	3.49	3.99	4.43	5.82	5.97	6.49	6.90	7.31	7.60	7.89
35	max	Capacity	7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
		Power	5.45	4.95	5.15	4.78	4.74	4.65	4.53	4.24	4.26	4.37	2.61	2.70	2.42	2.52
		COP	1.42	1.67	1.92	2.26	2.51	2.86	3.18	4.20	4.31	4.68	5.69	6.02	6.45	6.69
	norm	Capacity	6.79	7.27	8.69	9.48	10.43	11.69	12.64	15.70	15.86	16.10	14.62	14.90	15.30	15.55
		Power	4.54	4.13	4.29	3.99	3.95	3.88	3.78	3.57	3.49	3.15	2.56	2.42	2.36	2.29
		COP	1.50	1.76	2.02	2.38	2.64	3.01	3.34	4.40	4.55	5.11	5.71	6.15	6.47	6.80
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.58	1.44	1.49	1.39	1.38	1.35	1.32	1.25	1.26	1.29	1.33	1.37	1.44	1.49
		COP	1.77	2.08	2.39	2.81	3.12	3.56	3.95	5.20	5.33	5.80	6.16	6.53	6.79	7.05
40	max	Capacity	7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
		Power	6.19	5.63	5.85	5.44	5.38	5.29	5.15	4.82	4.84	4.97	2.97	3.07	2.75	2.86
		COP	1.25	1.47	1.69	1.99	2.21	2.52	2.80	3.70	3.79	4.12	5.01	5.30	5.67	5.89
	norm	Capacity	6.79	7.27	8.69	9.48	10.43	11.69	12.64	15.70	15.86	16.10	14.62	14.90	15.30	15.55
		Power	5.16	4.69	4.88	4.53	4.49	4.41	4.30	4.05	3.96	3.58	2.91	2.75	2.69	2.60
		COP	1.32	1.55	1.78	2.09	2.32	2.65	2.94	3.87	4.00	4.49	5.03	5.41	5.70	5.99
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.80	1.63	1.70	1.58	1.56	1.53	1.50	1.42	1.43	1.47	1.51	1.56	1.63	1.70
		COP	1.56	1.83	2.10	2.47	2.75	3.13	3.48	4.58	4.69	5.10	5.42	5.74	5.97	6.20
45	max	Capacity	7.74	8.28	9.90	10.80	11.88	13.32	14.40	17.80	18.33	20.47	14.87	16.28	15.60	16.85
		Power	6.81	6.19	6.44	5.98	5.92	5.81	5.67	5.30	5.32	5.46	3.27	3.38	3.02	3.15
		COP	1.14	1.34	1.54	1.81	2.01	2.29	2.54	3.36	3.44	3.75	4.55	4.82	5.16	5.35
	norm	Capacity	6.79	7.27	8.69	9.48	10.43	11.69	12.64	16.20	15.86	16.10	14.62	14.90	15.30	15.55
		Power	5.68	5.16	5.37	4.99	4.94	4.85	4.72	4.49	4.36	3.94	3.20	3.03	2.95	2.86
		COP	1.20	1.41	1.62	1.90	2.11	2.41	2.68	3.61	3.64	4.09	4.57	4.92	5.18	5.44
	min	Capacity	2.80	2.99	3.58	3.90	4.29	4.81	5.20	6.50	6.70	7.48	8.19	8.97	9.75	10.53
		Power	1.98	1.80	1.87	1.74	1.72	1.69	1.64	1.56	1.57	1.61	1.66	1.72	1.80	1.87
		COP	1.41	1.66	1.91	2.25	2.50	2.85	3.16	4.16	4.26	4.64	4.93	5.22	5.43	5.64
50	max	Capacity	/	8.10	9.72	10.62	11.70	13.14	14.22	17.62	18.16	20.29	14.75	16.17	15.50	16.68
		Power	/	6.73	7.02	6.53	6.48	6.37	6.22	5.83	5.86	6.02	3.60	3.73	3.34	3.46
		COP	/	1.20	1.38	1.63	1.81	2.06	2.29	3.02	3.10	3.37	4.10	4.34	4.64	4.82
	norm	Capacity	/	7.11	8.53	9.32	10.27	11.53	12.48	15.54	15.71	15.96	14.50	14.80	15.20	15.40
		Power	/	5.61	5.85	5.45	5.40	5.32	5.18	4.91	4.79	4.34	3.53	3.34	3.26	3.14
		COP	/	1.27	1.46	1.71	1.90	2.17	2.41	3.17	3.28	3.68	4.11	4.43	4.66	4.90
	min	Capacity	/	2.93	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	1.95	2.04	1.90	1.88	1.85	1.80	1.72	1.73	1.78	1.83	1.90	1.98	2.05
		COP	/	1.50	1.72	2.02	2.25	2.56	2.85	3.74	3.84	4.17	4.44	4.70	4.89	5.07
55	max	Capacity	/	/	9.72	10.62	11.70	13.14	14.22	17.62	18.16	20.29	14.75	16.17	15.50	16.68
		Power	/	/	8.02	7.47	7.40	7.28	7.11	6.66	6.69	6.88	4.12	4.26	3.82	3.96
		COP	/	/	1.21	1.42	1.58	1.80	2.00	2.65	2.71	2.95	3.58	3.80	4.06	4.22
	norm	Capacity	/	/	8.53	9.32	10.27	11.53	12.48	15.40	15.71	15.96	14.50	14.80	15.20	15.40
		Power	/	/	6.69	6.23	6.17	6.07	5.92	5.60	5.48	4.96	4.03	3.82	3.73	3.59
		COP	/	/	1.28	1.50	1.66	1.90	2.11	2.75	2.87	3.22	3.60	3.87	4.08	4.29
	min	Capacity	/	/	3.51	3.84	4.23	4.75	5.14	6.44	6.63	7.41	8.13	8.91	9.69	10.42
		Power	/	/	2.33	2.17	2.15	2.11	2.06	1.96	1.97	2.03	2.09	2.17	2.27	2.35
		COP	/	/	1.51	1.77	1.97	2.24	2.49	3.28	3.36	3.65	3.88	4.11	4.28	4.44
60	max	Capacity	/	/	/	/	11.52	12.96	14.04	17.44	17.97	20.06	14.57	15.96	15.29	16.51
		Power	/	/	/	/	8.20	8.08	7.89	7.42	7.45	7.65	4.57	4.73	4.23	4.40
		COP	/	/	/	/	1.40	1.60	1.78	2.35	2.41	2.62	3.19	3.37	3.61	3.75
	norm	Capacity	/	/	/	10.11	10.27	11.69	12.32	15.39	15.54	15.78	14.32	14.61	14.99	15.24
		Power	/	/	/	/	6.84	6.74	6.58	6.24	6.10	5.52	4.48	4.24	4.14	4.00
		COP	/	/	/	/	1.48	1.69	1.87	2.46	2.55	2.86	3.20	3.44	3.62	3.81
	min	Capacity	/	/	/	/	4.16	4.68	5.07	6.37	6.56	7.33	8.03	8.79	9.56	10.32
		Power	/	/	/	/	2.38	2.35	2.29	2.19	2.20	2.26	3.45	3.65	3.80	2.62
		COP	/	/	/	/	1.75	1.99	2.21	2.91	2.98	3.25	3.45	3.65	3.80	3.95
65	max	Capacity	/	/	/	/	/	/	/	17.27	2.10	19.86	2.84	/	/	/
		Power	/	/	/	/	/	/	/	8.22	17.78	8.48	14.42	5.07	/	/
		COP	/	/	/	/	/	/	/	2.10	8.26	2.34	2.84	/	/	/
	norm	Capacity	/	/	/	/	/	/	/	15.23	15.39	15.62	14.18	4.96	/	/
		Power	/	/	/	/	/	/	/	6.92	6.76	6.12	2.86	/	/	/
		COP	/	/	/	/	/	/	/	2.20	2.28	2.55	2.86	/	/	/
	min	Capacity	/	/	/	/	/	/	/	6.31	6.49	7.25	7.94	2.58	/	/
		Power	/	/	/	/	/	/	/	2.43	2.44	2.50	2.90	3.08	/	/
		COP	/	/	/	/	/	/	/	2.60	2.67	2.90	3.08	/	/	/

1.6 Exploded Views and Part Lists

(1) GRS-CQ4.0Pd/NhG3-E, GRS-CQ6.0Pd/NhG3-E

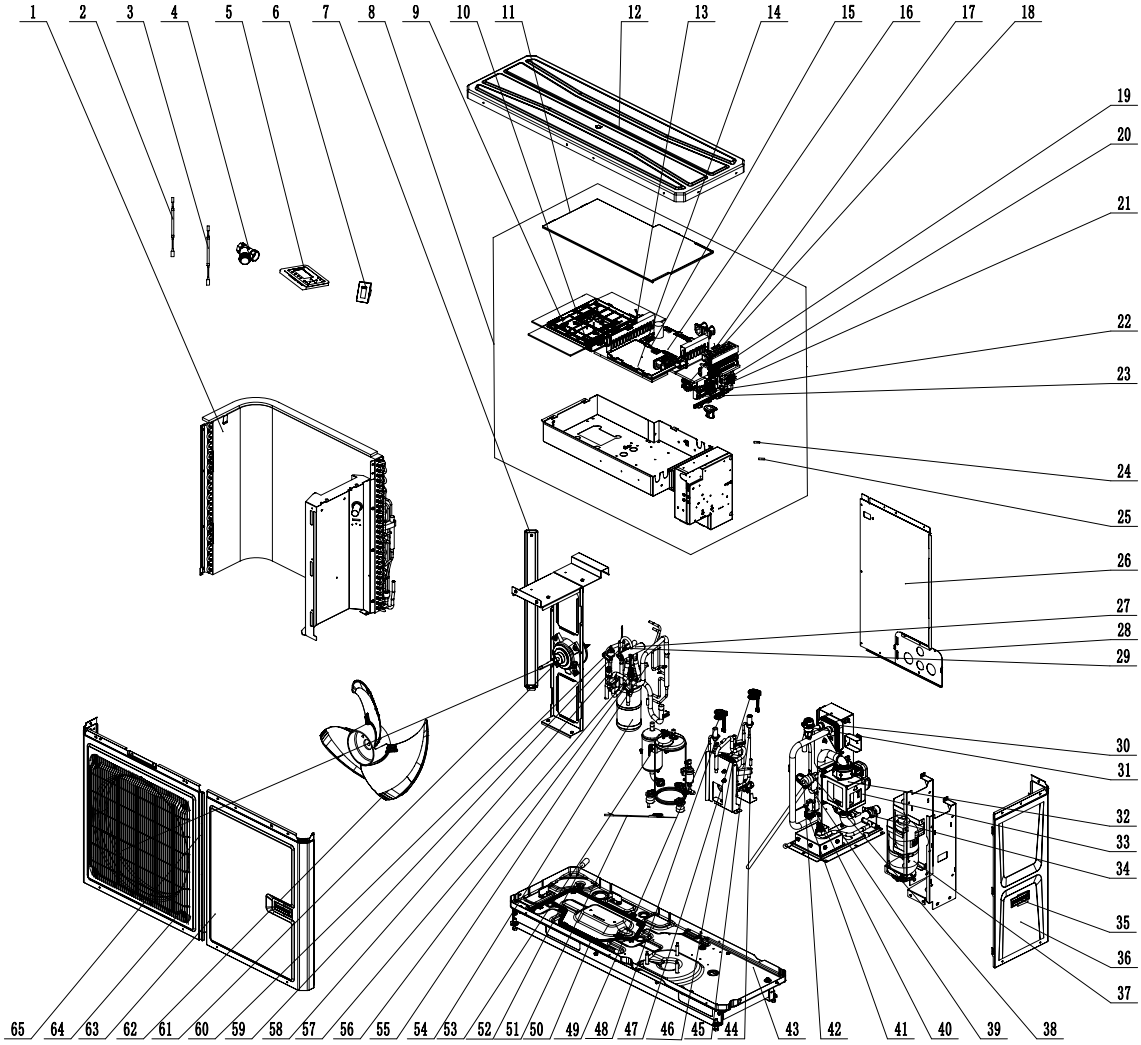


Parts List of GRS-CQ4.0Pd/NhG3-E, GRS-CQ6.0Pd/NhG3-E

No.	Name	Quantity
1	Condenser Assy	1
2	Temperature Sensor	1
3	Temperature Sensor	1
4	Strainer	1
5	Display Board	1
6	Receiver Board	1
7	Supporter	1
8	Electric Box Assy	1
9	Main Board	1
10	Radiator	1
11	Electric Box Cover	1
12	Top cover	1
13	Leaded PFC Inductance	2
14	Main Board	1
15	mounting card(main board)	1
16	Main Board	1
17	Bipolar AC Contactor	3
18	Terminal Board	1

No.	Name	Quantity
19	Terminal Board	1
20	Communication Interface Board	1
21	Electrical Retaining Plate	1
22	Terminal Board	1
23	Terminal Board	1
24	Thermostat	1
25	Jumper	1
26	Jumper	1
27	Supporter	1
28	4-way Valve	1
29	Supporter	1
30	Magnet Coil	1
31	Expansion Drum	1
32	Plate-type Heat Exchanger Sub-Assy	1
33	Auto Air Outlet Valve	1
34	Water Pump	1
35	Supporter	1
36	Water Pipe Connector	2
37	Electric Heater	1
38	Handle	2
39	Right side plate	1
40	Strainer	2
41	Relief Valve	1
42	Steam current Switch	1
43	Water Pipe Connector	1
44	Drainage Pipe Sub-assy	1
45	Chassis Sub-assy	1
46	Cut-off valve	1
47	Electronic Expansion Valve	1
48	Plate-type Heat Exchanger	1
49	Electric Expand Valve Fitting	1
50	Electronic Expansion Valve	1
51	Electric Expand Valve Fitting	1
52	Electrical Heater	1
53	Electrical Heater	1
54	Drainage Hose	1
55	Compressor and Fittings	1
56	Gas-liquid Separator Assy	1
57	Nozzle for Adding Freon	1
58	Nozzle for Adding Freon	1
59	Pressure Sensor	1
60	Pressure Protect Switch	1
61	Pressure Protect Switch	1
62	Pressure Protect Switch	1
63	Brushless DC Motor	1
64	Axial Flow Fan	1
65	Front side plate	1
66	Front Grill	1
67	Cabinet Assy	1

(2) GRS-CQ4.0Pd/NhG4-E, GRS-CQ6.0Pd/NhG4-E

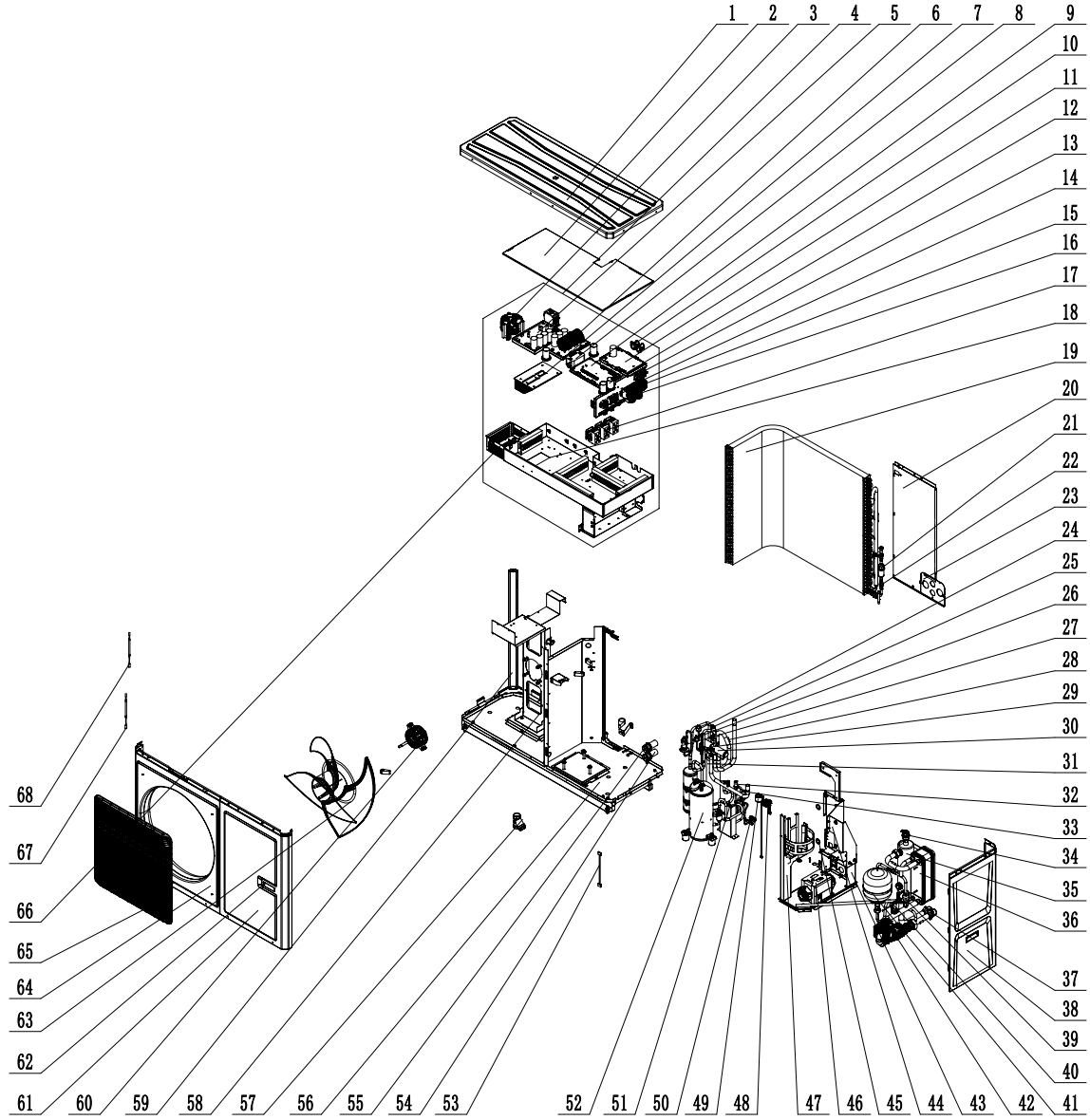


Parts List of GRS-CQ4.0Pd/NhG4-E, GRS-CQ6.0Pd/NhG4-E

No.	Name	Quantity
1	Condenser Assy	1
2	Temperature Sensor	1
3	Temperature Sensor	1
4	Strainer	1
5	Display Board	1
6	Receiver Board	1
7	Supporter	1
8	Electric Box Assy	1
9	Main Board	1
10	Radiator	1
11	Electric Box Cover	1
12	Top cover	1
13	Leaded PFC Inductance	2
14	Main Board	1
15	mounting card(main board)	1
16	Main Board	1
17	Bipolar AC Contactor	1
18	Terminal Board	1
19	Terminal Board	1

No.	Name	Quantity
20	Communication Interface Board	1
21	Electrical Retaining Plate	1
22	Terminal Board	1
23	Terminal Board	1
24	Jumper	1
25	Jumper	1
26	Supporter	1
27	4-way Valve	1
28	Supporter	1
29	Magnet Coil	1
30	Plate-type Heat Exchanger Sub-Assy	1
31	Auto Air Outlet Valve	1
32	Water Pump	1
33	Supporter	1
34	Water Pipe Connector	2
35	Handle	2
36	Right side plate	1
37	Expansion Drum	1
38	Strainer	2
39	Relief Valve	1
40	Steam current Switch	1
41	Water Pipe Connector	1
42	Drainage Pipe Sub-assy	1
43	Chassis Sub-assy	1
44	Cut-off valve	1
45	Electronic Expansion Valve	1
46	Plate-type Heat Exchanger	1
47	Electric Expand Valve Fitting	1
48	Electronic Expansion Valve	1
49	Electric Expand Valve Fitting	1
50	Electrical Heater	1
51	Electrical Heater	1
52	Drainage Hose	1
53	Compressor and Fittings	1
54	Gas-liquid Separator Assy	1
55	Nozzle for Adding Freon	1
56	Nozzle for Adding Freon	1
57	Pressure Sensor	1
58	Pressure Protect Switch	1
59	Pressure Protect Switch	1
60	Pressure Protect Switch	1
61	Brushless DC Motor	1
62	Axial Flow Fan	1
63	Front side plate	1
64	Front Grill	1
65	Cabinet Assy	1

(3) GRS-CQ8.0Pd/NhG3-E, GRS-CQ10Pd/NhG3-E

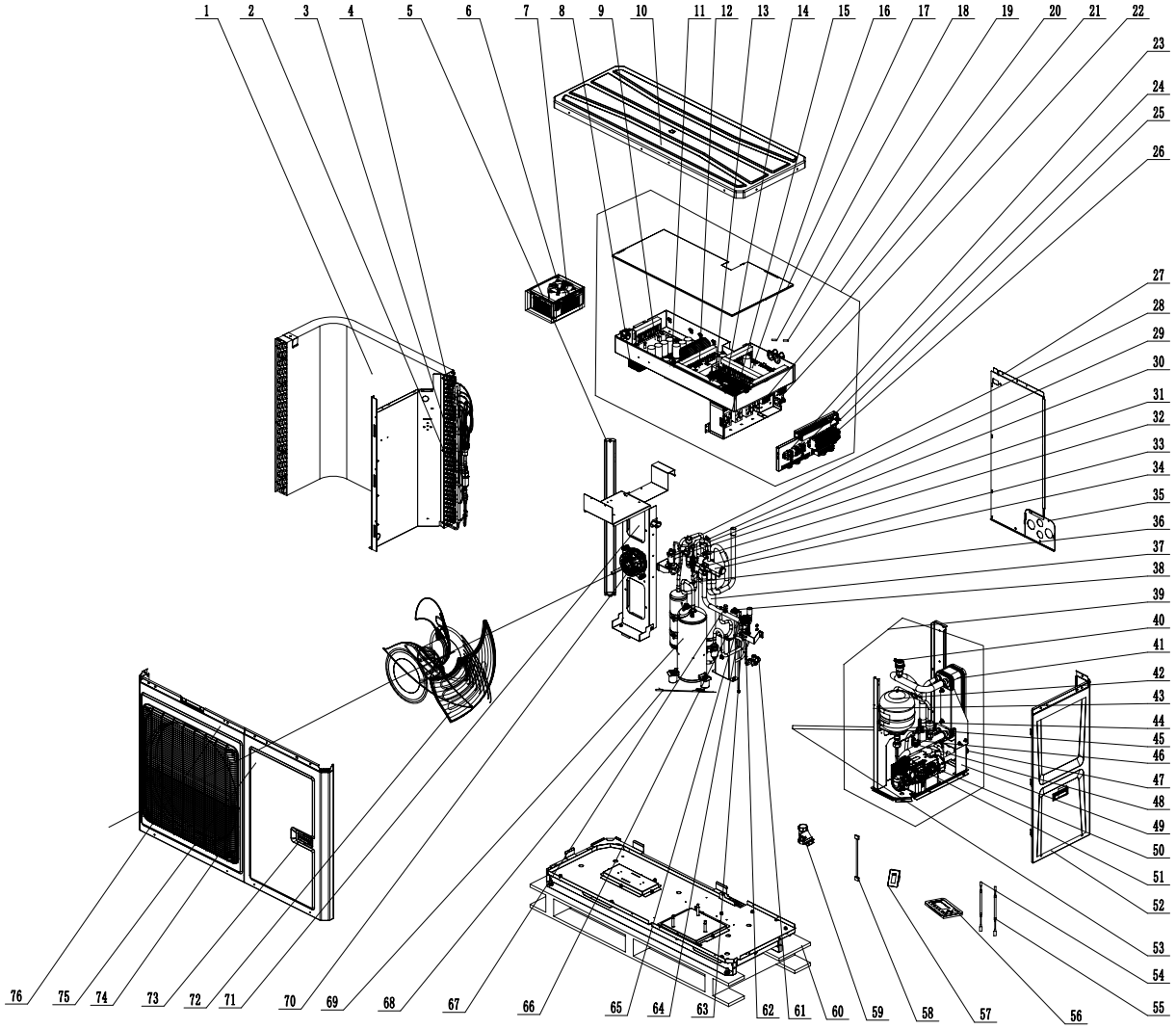


No.	Name	Quantity
1	Top cover	1
2	Electric Box Cover	1
3	PFC Inductance	1
4	Electric Box Assy	1
5	Drive Board	1
6	Filter Board	1
7	Radiator	1
8	Filter	1
9	Main Board	1
10	Cable Cross Loop	4
11	Main Board	1
12	Rubber ring (wire-passing)	4
13	Communication Interface Board	1
14	Terminal Board	1
15	Terminal Board	1
16	Terminal Board	1

No.	Name	Quantity
17	Bipolar AC Contactor	3
18	Electric Box Sub-Assy	1
19	Condenser Assy	1
20	Rear Side Plate	1
21	Silencer	1
22	Strainer	1
23	Connection Board	1
24	Pressure Protect Switch	1
25	Pressure Protect Switch	1
26	Pressure Protect Switch	1
27	Relief Valve	1
28	Temp Sensor Sleeving	6
29	Pressure Sensor	1
30	4-Way Valve	1
31	Gas-liquid Separator	1
32	Electronic Expansion Valve	1
33	Electronic Expansion Valve	1
34	Auto Air Outlet Valve	1
35	Electric Heater	1
36	Plate-type Heat Exchanger	1
37	Joint	2
38	Right Side Plate	1
39	Relief Valve	1
40	Steam current Switch	1
41	Expansion Drum	1
42	Water Pump	1
43	Support Sub-assy	1
44	Supporter	1
45	Rubber cushion	2
46	Supporter	1
47	Support Sub-assy	1
48	Electric Expand Valve Fitting	1
49	Electric Expand Valve Fitting	1
50	Cut-off valve 1/4(N)	1
51	Connection Pipe Sub-assy	1
52	Compressor and Fittings	1
53	Signal Wire	1
54	Rubber Band	2
55	Cable Cross Loop	2
56	Chassis Sub-assy	1
57	Strainer	1
58	Motor Support Sub-Assy	1
59	Supporter	1
60	Brushless DC Motor	1
61	Front Side Plate	1
62	Handle	2
63	Axial Flow Fan	1
64	Cabinet	1

No.	Name	Quantity
65	Front Grill	1
66	Inductance Box Sub-assy	1
67	Temperature Sensor	1
68	Temperature Sensor	1

(4) GRS-CQ8.0Pd/NhG4-E, GRS-CQ10Pd/NhG4-E

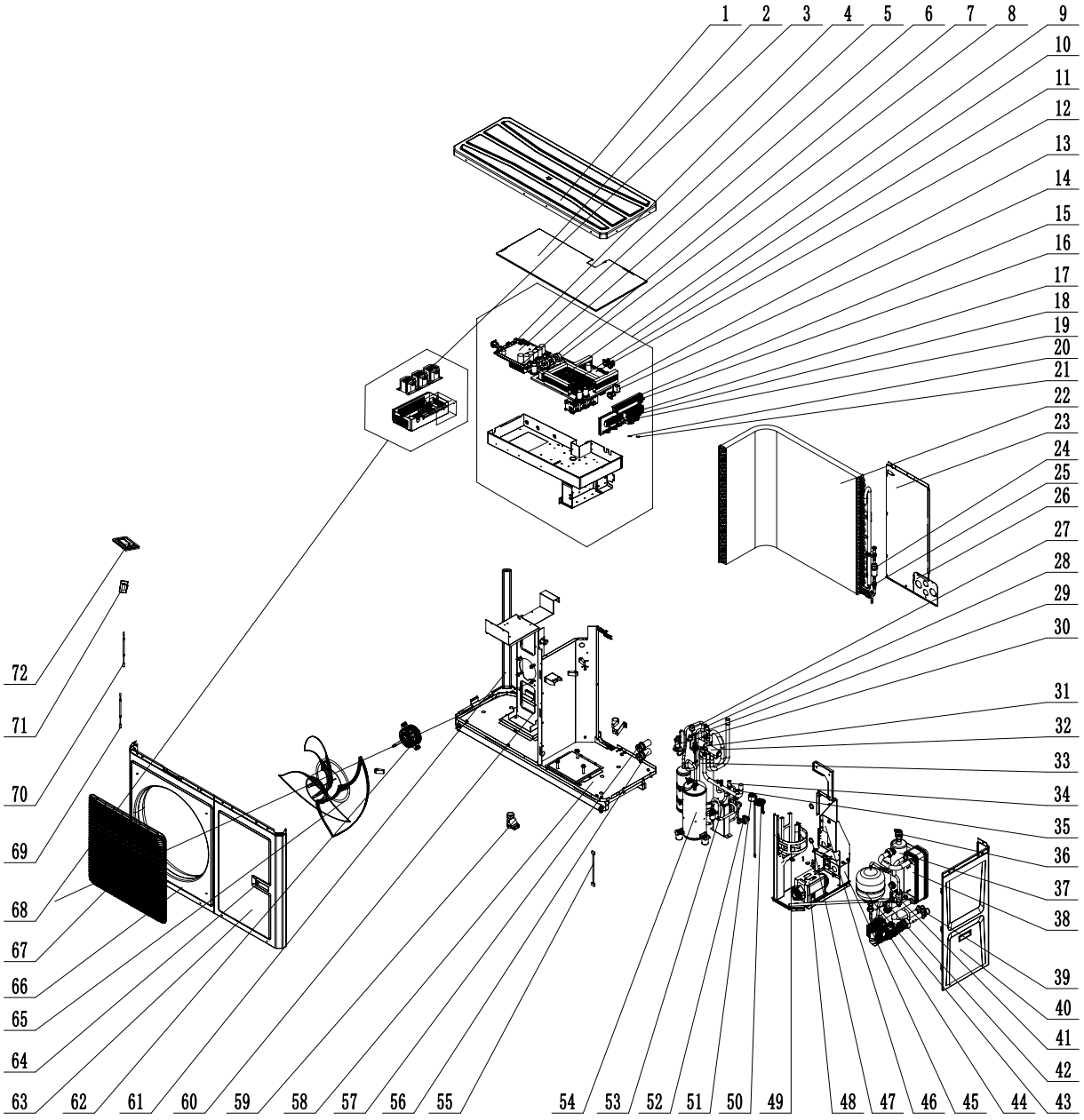


No.	Name	Quantity
1	Condenser Assy	1
2	Filter	2
3	Silencer	1
4	Current Divider	2
5	Supporter	1
6	Inductance Box Sub-assy	1
7	PFC Inductance	1
8	Radiator	1
9	Drive Board	1
10	Top cover	1
11	Filter Board	1
12	Filter	1
13	Mounting plate	1
14	Main board	1
15	Bipolar AC Contactor	1

No.	Name	Quantity
16	Main board	1
17	Electric Box Cover	1
18	Jumper	1
19	Jumper	1
20	Electric Box Assy	1
21	Terminal Board	1
22	Communication Interface Board	1
23	Terminal Board	1
24	Terminal Board	1
25	Mounting plate	1
26	Terminal Board	1
27	Rear Side Plate	1
28	Pressure Protect Switch	1
29	Pressure Protect Switch	1
30	Relief Valve	1
31	Pressure Protect Switch	1
32	Pressure Sensor	1
33	Magnet Coil	1
34	4-Way Valve	1
35	Connection Board	1
36	Nozzle for Adding Freon	1
37	Gas-liquid Separator Sub-Assy	1
38	Electric Expand Valve Fitting	1
39	Evaporator Assy	1
40	Auto Air Outlet Valve	1
41	Plate-type Heat Exchanger	1
42	Expansion Drum	1
43	Support Sub-assy	1
44	Relief Valve	1
45	Drainage Pipe Sub-assy	1
46	Steam current Switch	1
47	Water pipe connector	2
48	Water paper connector	1
49	Support Sub-assy	1
50	Water pump	1
51	Supporter	1
52	Right Side Plate	1
53	Drainage Hose	1
54	Temperature Sensor	1
55	Temperature Sensor	1
56	Display Board	1
57	Remote room temperature sensor	1
58	Signal Wire	1
59	Strainer	1
60	Chassis Sub-assy	1
61	Cut-off valve 1/4(N)	1
62	Electronic Expansion Valve	1
63	Electric Expand Valve Fitting	1
64	Connection Pipe Sub-assy	1
65	Electronic Expansion Valve	1
66	Plate-type Heat Exchanger	1

No.	Name	Quantity
67	Nozzle for Adding Freon	1
68	Electrical Heater(Compressor)	1
69	Compressor and Fittings	1
70	Brushless DC Motor	1
71	Motor Support Sub-Assy	1
72	Axial Flow Fan	1
73	Handle	2
74	Front Grill	1
75	Front Side Plate	1
76	Cabinet	1

(5) GRS-CQ8.0Pd/NhG3-M, GRS-CQ10Pd/NhG3-M

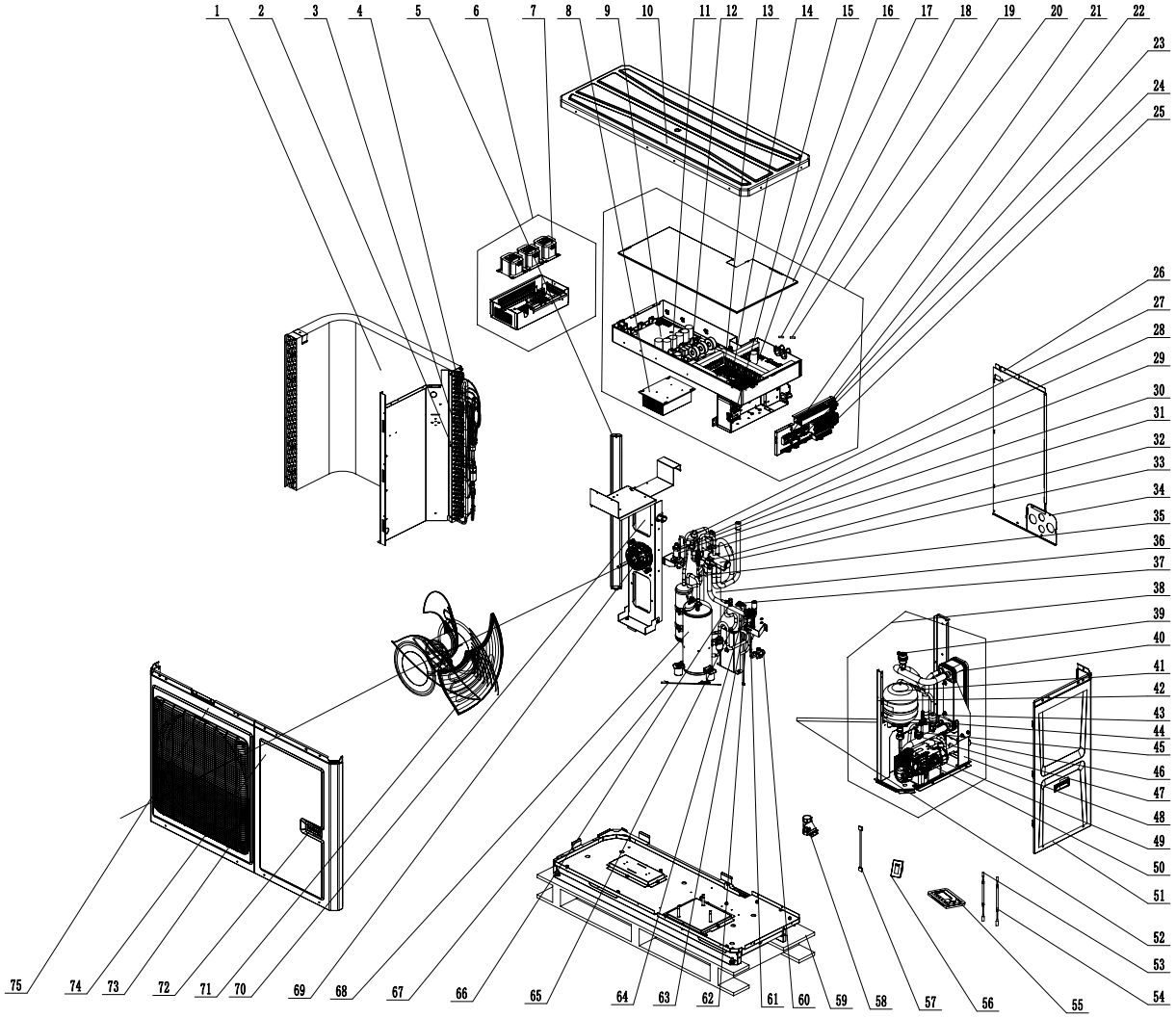


No.	Name	Quantity
1	Top cover	1
2	Electric Box Cover	1
3	Reactor	3
4	Retaining Plate	1

5	Drive Board	1
6	Radiator	1
7	Filter Board	1
8	Reactor	1
9	Mounting card(main board)	1
10	Electric Box Assy	1
11	Main Board	1
12	Main Board	1
13	AC Contactor	3
14	Thermostat	1
15	Electrical Retaining Plate	1
16	Communication Interface Board	1
17	Terminal Board	1
18	Terminal Board	3
19	Terminal Board	1
20	Jumper	1
21	Jumper	1
22	Condenser Assy	1
23	Rear Side Plate	1
24	Silencer	1
25	Strainer	2
26	Connection Board	1
27	Pressure Protect Switch	1
28	Pressure Protect Switch	1
29	Pressure Protect Switch	1
30	Relief Valve	1
31	Pressure Sensor	1
32	4-Way Valve	1
33	Gas-liquid Separator	1
34	Electronic Expansion Valve	1
35	Electronic Expansion Valve	1
36	Auto Air Outlet Valve	1
37	Electric Heater	1
38	Plate-type Heat Exchanger	1
39	Joint	2
40	Right Side Plate	1
41	Relief Valve	1
42	Steam current Switch	1
43	Expansion Drum	1
44	Water Pump	1
45	Support Sub-assy	1
46	Supporter	1
47	Rubber cushion	2
48	Supporter	1
49	Support Sub-assy	1
50	Electric Expand Valve Fitting	1
51	Electric Expand Valve Fitting	1
52	Cut-off valve 1/4(N)	1
53	Connection Pipe Sub-assy	1

54	Compressor and Fittings	1
55	Signal Wire	1
56	Rubber Band	2
57	Cable Cross Loop	2
58	Chassis Sub-assy	1
59	Strainer	1
60	Motor Support Sub-Assy	1
61	Supporter	1
62	Brushless DC Motor	1
63	Front Side Plate	1
64	Handle	2
65	Axial Flow Fan	1
66	Cabinet	1
67	Front Grill	1
68	Inductance Box Sub-assy	1
69	Temperature Sensor	1
70	Temperature Sensor	1
71	Remote room temperature sensor	1
72	Display Board	1

(6) GRS-CQ8.0Pd/NhG4-M, GRS-CQ10Pd/NhG4-M

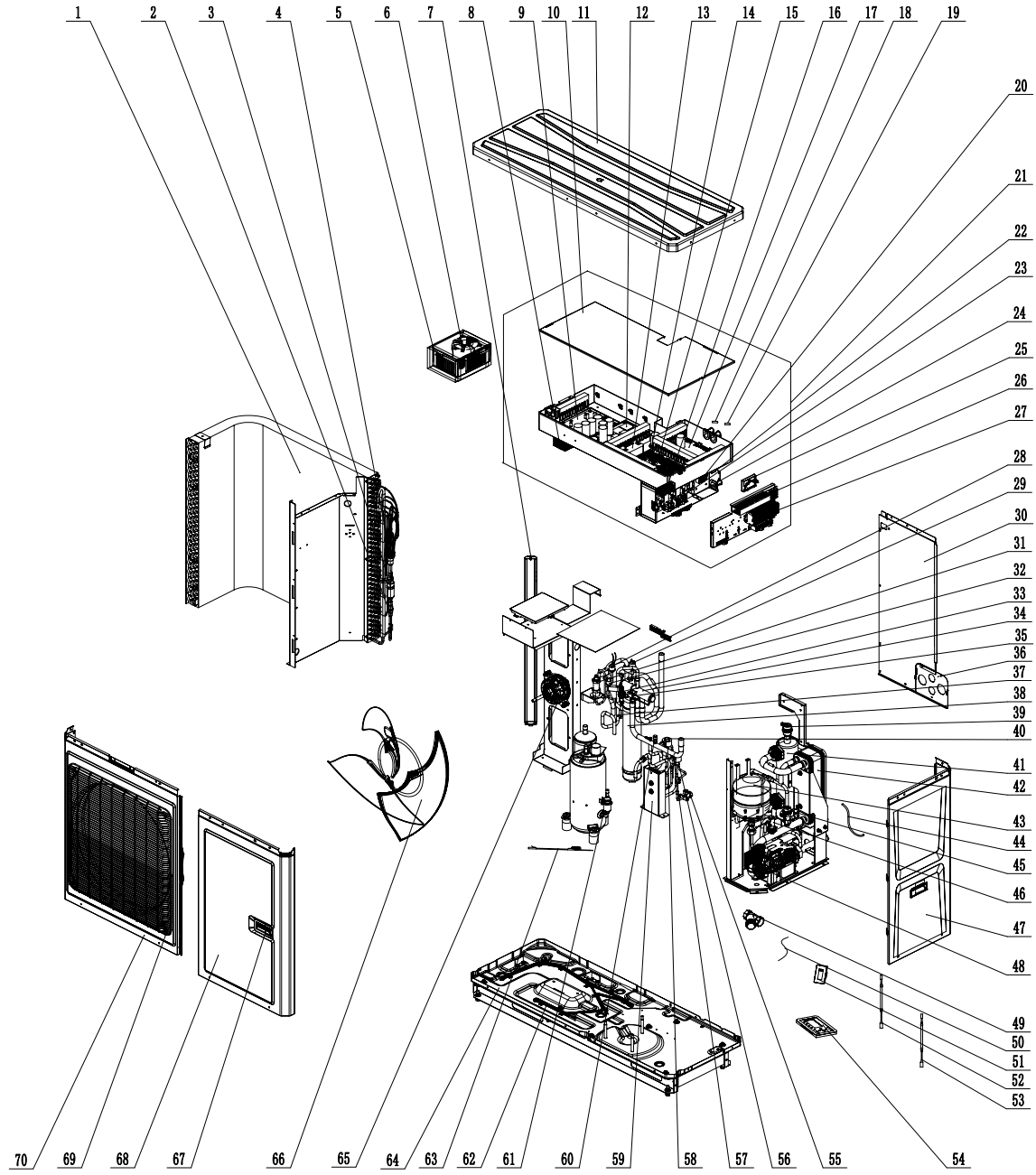


No.	Name	Quantity
1	Condenser Assy	1
2	Filter	2
3	Silencer	1
4	Current Divider	2
5	Supporter	1
6	Inductance Box Sub-assy	1
7	PFC Inductance	3
8	Radiator	1
9	Drive Board	1
10	Top cover	1
11	Filter Board	1
12	Filter	1
13	Mounting plate	1
14	Main board	1
15	Bipolar AC Contactor	1
16	Main board	1
17	Electric Box Cover	1
18	Jumper	1
19	Jumper	1
20	Electric Box Assy	1
21	Terminal Board	1

No.	Name	Quantity
22	Mounting plate	1
23	Communication Interface Board	1
24	Terminal Board	1
25	Terminal Board	1
26	Rear Side Plate	1
27	Pressure Protect Switch	1
28	Pressure Protect Switch	1
29	Relief Valve	1
30	Pressure Protect Switch	1
31	Pressure Sensor	1
32	Magnet Coil	1
33	4-Way Valve	1
34	Connection Board	1
35	Nozzle for Adding Freon	1
36	Gas-liquid Separator Sub-Assy	1
37	Electric Expand Valve Fitting	1
38	Evaporator Assy	1
39	Auto Air Outlet Valve	1
40	Plate-type Heat Exchanger	1
41	Expansion Drum	1
42	Support Sub-assy	1
43	Relief Valve	1
44	Drainage Pipe Sub-assy	1
45	Steam current Switch	1
46	Water pipe connector	2
47	Water paper connector	1
48	Support Sub-assy	1
49	Water pump	1
50	Supporter	1
51	Right Side Plate	1
52	Drainage Hose	1
53	Temperature Sensor	1
54	Temperature Sensor	1
55	Display Board	1
56	Remote room temperature sensor	1
57	Signal Wire	1
58	Strainer	1
59	Chassis Sub-assy	1
60	Cut-off valve 1/4(N)	1
61	Electronic Expansion Valve	1
62	Electric Expand Valve Fitting	1
63	Connection Pipe Sub-assy	1
64	Electronic Expansion Valve	1
65	Plate-type Heat Exchanger	1
66	Nozzle for Adding Freon	1
67	Electrical Heater(Compressor)	1
68	Compressor and Fittings	1
69	Brushless DC Motor	1
70	Motor Support Sub-Assy	1
71	Axial Flow Fan	1
72	Handle	2

No.	Name	Quantity
73	Front Grill	1
74	Front Side Plate	1

(7) GRS-CQ12Pd/NhG3-E, GRS-CQ14Pd/NhG3-E, GRS-CQ16Pd/NhG3-E



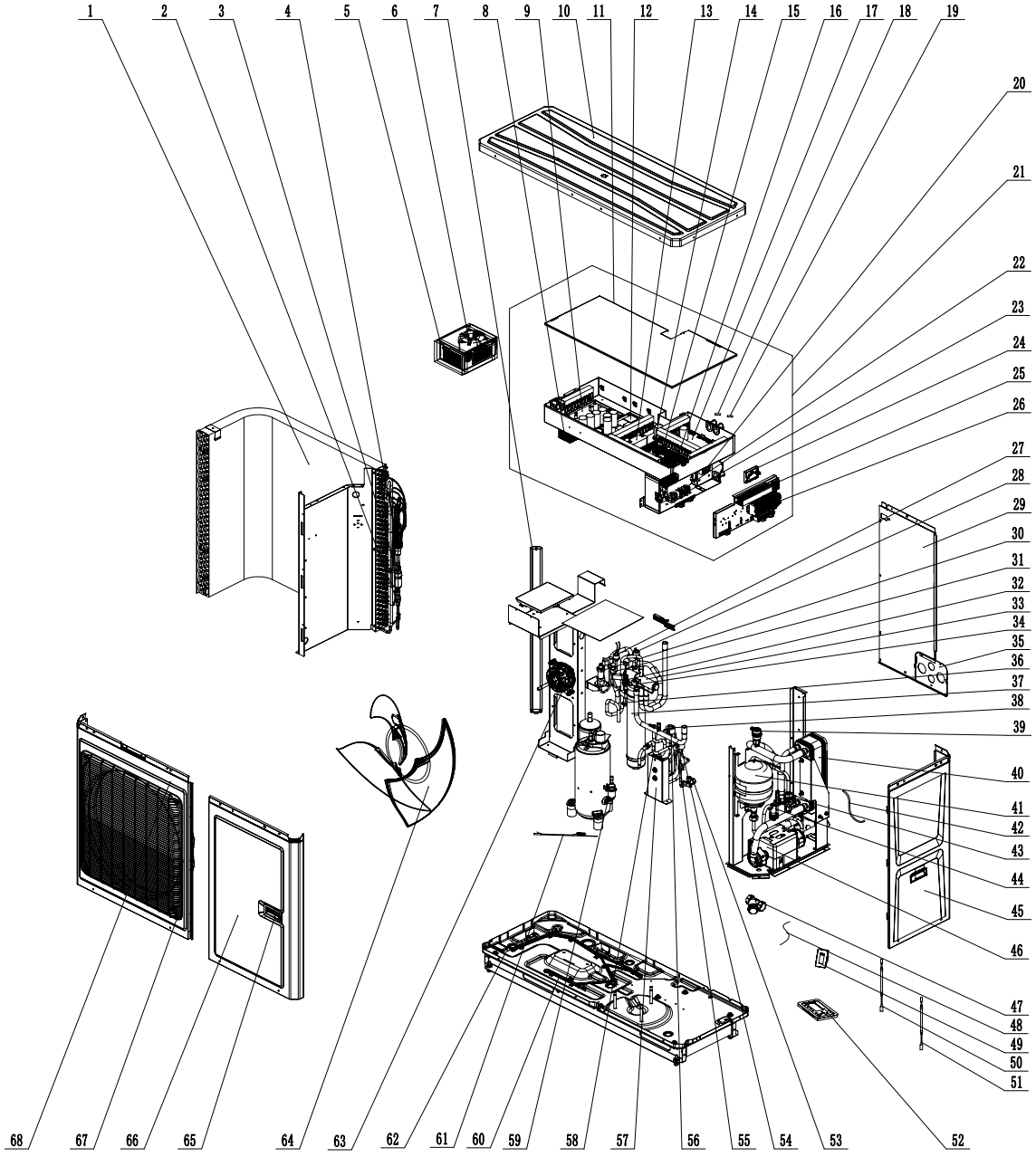
Parts List of GRS-CQ12Pd/NhG3-E, GRS-CQ14Pd/NhG3-E, GRS-CQ16Pd/NhG3-E

No.	Name	Quantity
1	Condenser Assy	1
2	Strainer	2
3	Silencer	1
4	Current Divider	1
5	Inductance Box Sub-assy	1
6	PFC Inductance	1
7	Supporter	1
8	Radiator	1
9	Drive Board	1
10	Electric Box Cover	1

No.	Name	Quantity
11	Top cover	1
12	Filter Board	1
13	Filter	1
14	mounting card(main board)	1
15	Main Board	1
16	Bipolar AC Contactor	3
17	Main Board	1
18	Jumper	1
19	Jumper	1
20	Terminal Board	1
21	Electric Box Assy	1
22	Thermostat	1
23	Terminal Board	1
24	Terminal Board	1
25	Electrical Retaining Plate	1
26	Communication Interface Board	1
27	Terminal Board	1
28	Pressure Protect Switch	1
29	Pressure Protect Switch	1
30	Rear Side Plate	1
31	Relief Valve	1
32	Pressure Protect Switch	1
33	Pressure Sensor	1
34	4-Way Valve	1
35	Magnet Coil	1
36	Connection Board	1
37	Nozzle for Adding Freon	1
38	Gas-liquid Separator	1
39	Auto Air Outlet Valve	1
40	Electric Expand Valve Fitting	1
41	Electric Heater	1
42	Plate-type Heat Exchanger	1
43	Expansion Drum	1
44	Drainage Pipe Sub-assy	1
45	Relief Valve	1
46	Steam current Switch	1
47	Right Side Plate	1
48	Water Pump	1
49	Strainer	1
50	Signal Wire	1
51	Remote room temperature sensor	1
52	Temperature Sensor	1
53	Temperature Sensor	1
54	Display Board	1
55	Cut-off valve 1/4(N)	1
56	Electronic Expansion Valve	1
57	Electric Expand Valve Fitting	1
58	Electronic Expansion Valve	1
59	Economizer	1

No.	Name	Quantity
60	Nozzle for Adding Freon	1
61	Compressor and Fittings	1
62	Electrical Heater(Compressor)	1
63	Electrical Heater(Compressor)	1
64	Chassis Sub-assy	1
65	Brushless DC Motor	1
66	Axial Flow Fan	1
67	Handle	2
68	Front Side Plate Sub-Assy	1
69	Front Grill	1
70	Cabinet Assy	1

(8) GRS-CQ12Pd/NhG4-E, GRS-CQ14Pd/NhG4-E, GRS-CQ16Pd/NhG4-E

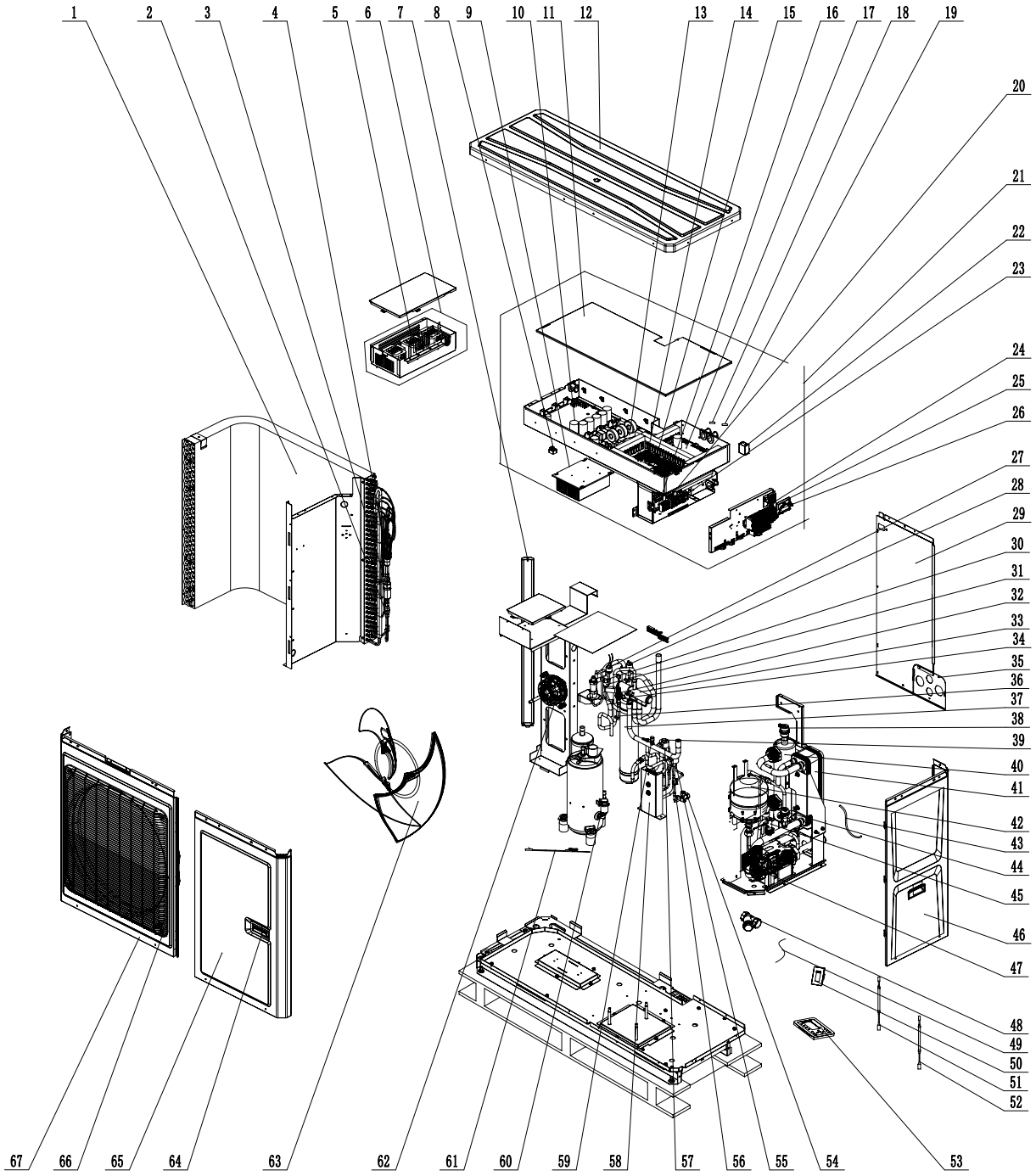


Parts List of GRS-CQ12Pd/NhG4-E, GRS-CQ14Pd/NhG4-E, GRS-CQ16Pd/NhG4-E

No.	Name	Quantity
1	Condenser Assy	1
2	Strainer	2
3	Silencer	1
4	Current Divider	1
5	Inductance Box Sub-assy	1
6	PFC Inductance	1
7	Supporter	1
8	Radiator	1
9	Drive Board	1
10	Top cover	1
11	Electric Box Cover	1
12	Filter Board	1
13	Filter	1
14	mounting card(main board)	1
15	Main Board	1
16	Bipolar AC Contactor	1
17	Main Board	1
18	Jumper	1
19	Jumper	1
20	Terminal Board	1
21	Electric Box Assy	1
22	Terminal Board	1
23	Terminal Board	1
24	Electrical Retaining Plate	1
25	Communication Interface Board	1
26	Terminal Board	1
27	Pressure Protect Switch	1
28	Pressure Protect Switch	1
29	Rear Side Plate	1
30	Relief Valve	1
31	Pressure Protect Switch	1
32	Pressure Sensor	1
33	4-Way Valve	1
34	Magnet Coil	1
35	Connection Board	1
36	Nozzle for Adding Freon	1
37	Gas-liquid Separator	1
38	Electric Expand Valve Fitting	1
39	Auto Air Outlet Valve	1
40	Plate-type Heat Exchanger	1
41	Expansion Drum	1
42	Drainage Pipe Sub-assy	1
43	Relief Valve	1
44	Steam current Switch	1
45	Right Side Plate	1
46	Water Pump	1
47	Strainer	1
48	Signal Wire	1

No.	Name	Quantity
49	Remote room temperature sensor	1
50	Temperature Sensor	1
51	Temperature Sensor	1
52	Display Board	1
53	Cut-off valve 1/4(N)	1
54	Electronic Expansion Valve	1
55	Electric Expand Valve Fitting	1
56	Electronic Expansion Valve	1
57	Economizer	1
58	Nozzle for Adding Freon	1
59	Compressor and Fittings	1
60	Electrical Heater(Compressor)	1
61	Electrical Heater(Compressor)	1
62	Chassis Sub-assy	1
63	Brushless DC Motor	1
64	Axial Flow Fan	1
65	Handle	2
66	Front Side Plate Sub-Assy	1
67	Front Grill	1
68	Cabinet Assy	1

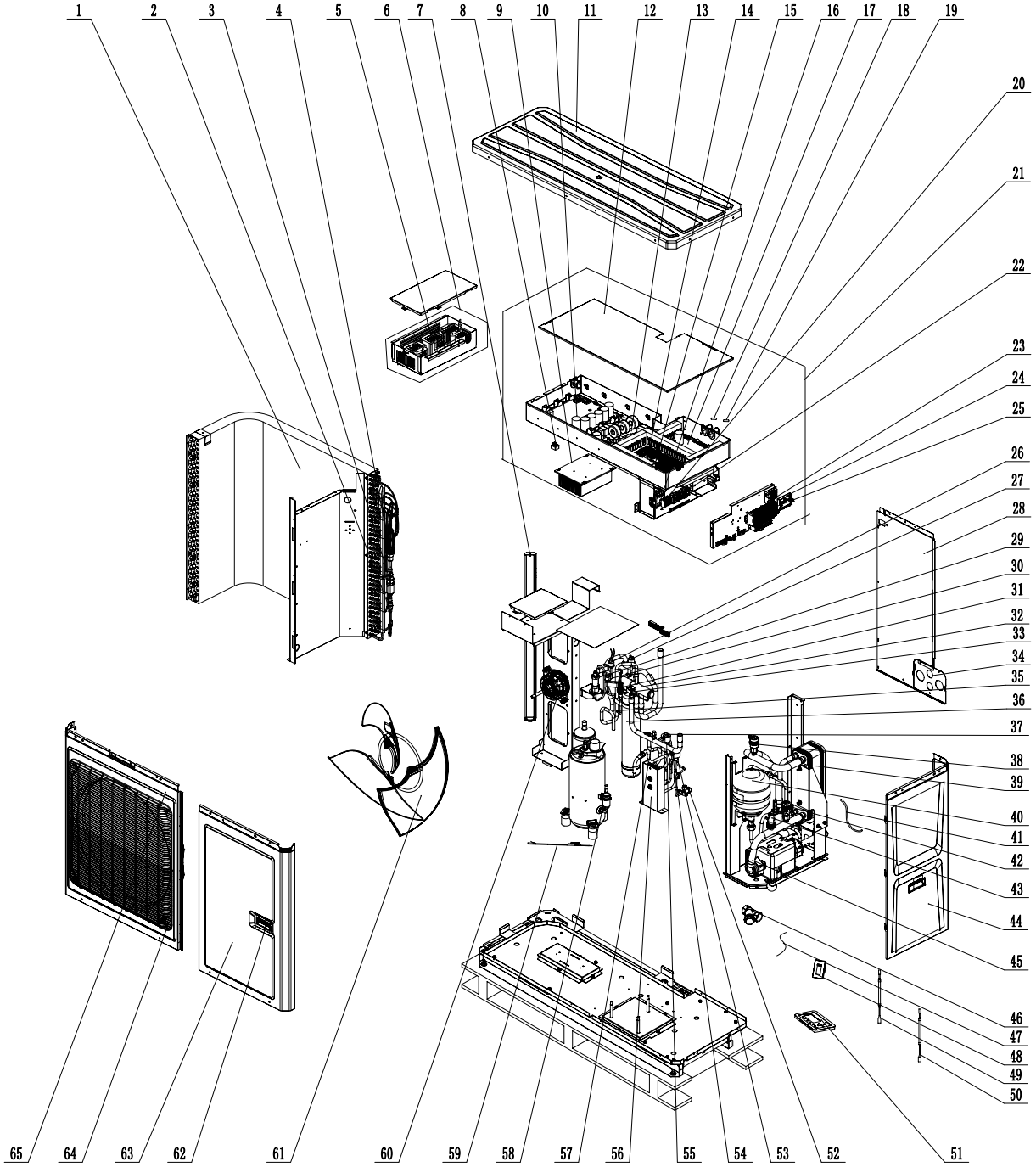
(9) GRS-CQ12Pd/NhG3-M, GRS-CQ14Pd/NhG3-M, GRS-CQ16Pd/NhG3-M



No.	Name	Quantity
1	Condenser Assy	1
2	Strainer	2
3	Silencer	1
4	Current Divider	1
5	Reactor	3
6	Reactor Sub-assy	1
7	Supporter	1
8	Terminal Board	1
9	Radiator	1
10	Main Board	1
11	Electric Box Cover	1

No.	Name	Quantity
12	Top cover	1
13	Filter Board	1
14	Mounting card(main board)	1
15	Main Board	1
16	Bipolar AC Contactor	3
17	Main Board	1
18	Jumper	1
19	Jumper	1
20	Terminal Board	1
21	Electric Box Assy	1
22	Thermostat	1
23	Terminal Board	3
24	Communication Interface Board	1
25	Electrical Retaining Plate	1
26	Terminal Board	1
27	Pressure Protect Switch	1
28	Pressure Protect Switch	1
29	Rear Side Plate	1
30	Relief Valve	1
31	Pressure Protect Switch	1
32	Pressure Sensor	1
33	4-Way Valve	1
34	Magnet Coil	1
35	Connection Board	1
36	Nozzle for Adding Freon	1
37	Gas-liquid Separator	1
38	Auto Air Outlet Valve	1
39	Electric Expand Valve Fitting	1
40	Electric Heater	1
41	Plate-type Heat Exchanger	1
42	Expansion Drum	1
43	Drainage Pipe Sub-assy	1
44	Relief Valve	1
45	Steam current Switch	1
46	Right Side Plate	1
47	Water Pump	1
48	Strainer	1
49	Signal Wire	1
50	Remote room temperature sensor	1
51	Temperature Sensor	1
52	Temperature Sensor	1
53	Display Board	1
54	Cut-off valve 1/4(N)	1
55	Electronic Expansion Valve	1
56	Electric Expand Valve Fitting	1
57	Electronic Expansion Valve	1
58	Economizer	1
59	Nozzle for Adding Freon	1
60	Compressor and Fittings	1
61	Electrical Heater(Compressor)	1
62	Brushless DC Motor	1
63	Axial Flow Fan	1
64	Handle	2
65	Front Side Plate Sub-Assy	1
66	Front Grill	1
67	Cabinet Assy	1

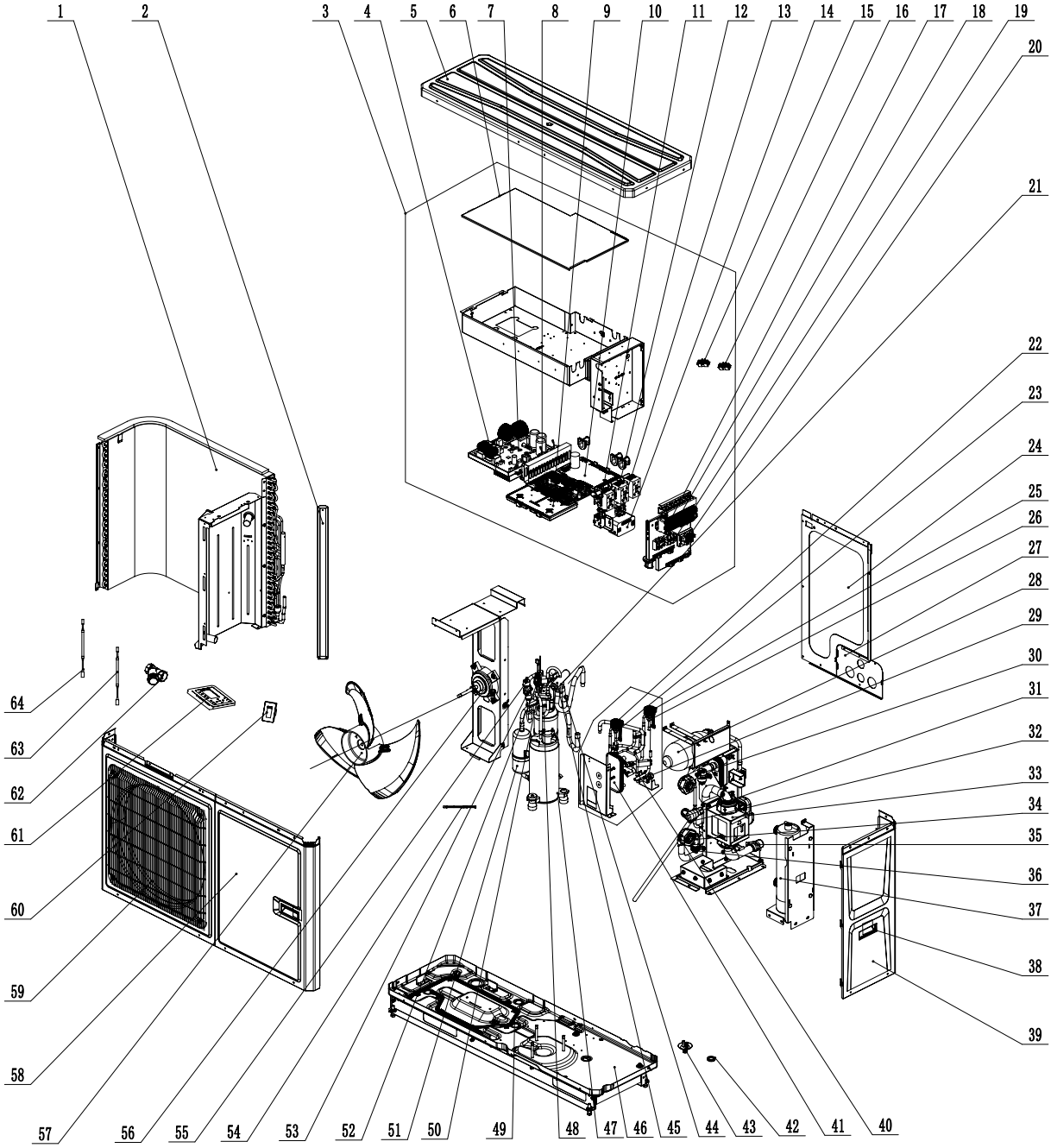
(10) GRS-CQ12Pd/NhG4-M, GRS-CQ14Pd/NhG4-M, GRS-CQ16Pd/NhG4-M



No.	Name	Quantity
1	Condenser Assy	1
2	Strainer	2
3	Silencer	1
4	Current Divider	1
5	Reactor	3
6	Reactor Sub-assy	1
7	Supporter	1
8	Terminal Board	1
9	Radiator	1
10	Main Board	1
11	Top cover	1
12	Electric Box Cover	1
13	Filter Board	1

14	Mounting card(main board)	1
15	Main Board	1
16	Bipolar AC Contactor	1
17	Main Board	1
18	Jumper	1
19	Jumper	1
20	Terminal Board	1
21	Electric Box Assy	1
22	Terminal Board	3
23	Communication Interface Board	1
24	Electrical Retaining Plate	1
25	Terminal Board	1
26	Pressure Protect Switch	1
27	Pressure Protect Switch	1
28	Rear Side Plate	1
29	Relief Valve	1
30	Pressure Protect Switch	1
31	Pressure Sensor	1
32	4-Way Valve	1
33	Magnet Coil	1
34	Connection Board	1
35	Nozzle for Adding Freon	1
36	Gas-liquid Separator	1
37	Electric Expand Valve Fitting	1
38	Auto Air Outlet Valve	1
39	Plate-type Heat Exchanger	1
40	Expansion Drum	1
41	Drainage Pipe Sub-assy	1
42	Relief Valve	1
43	Steam current Switch	1
44	Right Side Plate	1
45	Water Pump	1
46	Strainer	1
47	Signal Wire	1
48	Remote room temperature sensor	1
49	Temperature Sensor	1
50	Temperature Sensor	1
51	Display Board	1
52	Cut-off valve 1/4(N)	1
53	Electronic Expansion Valve	1
54	Electric Expand Valve Fitting	1
55	Electronic Expansion Valve	1
56	Economizer	1
57	Nozzle for Adding Freon	1
58	Compressor and Fittings	1
59	Electrical Heater(Compressor)	1
60	Brushless DC Motor	1
61	Axial Flow Fan	1
62	Handle	2
63	Front Side Plate Sub-Assy	1
64	Front Grill	1
65	Cabinet Assy	1

(11) GRS-CQ8.0Pd/NhG3-E1

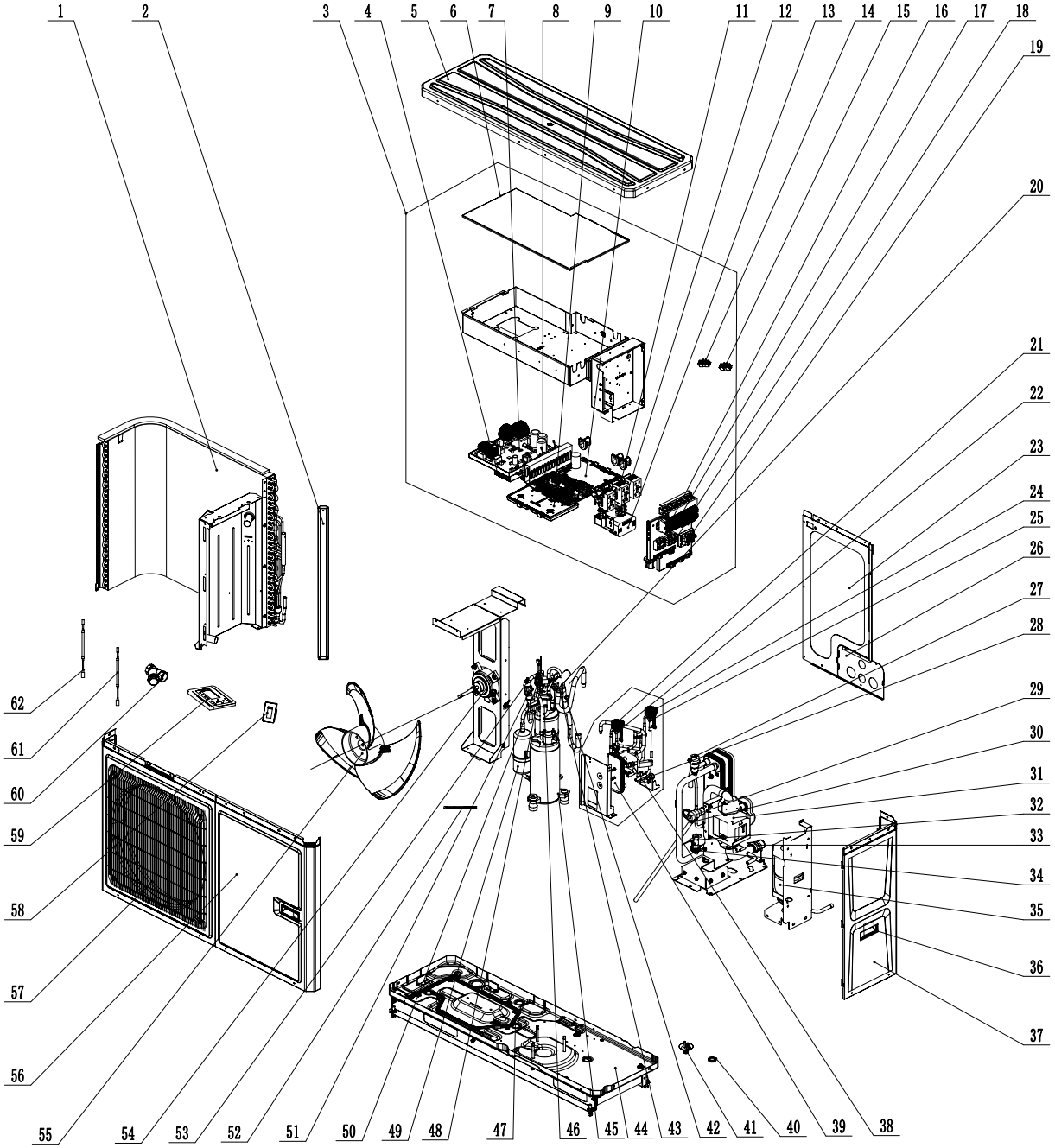


No.	Name	Quantity
1	Condenser Assy	1
2	Supporter	1
3	Electric Box Assy	1
4	Radiator	1
5	Top cover	1
6	Supporter	1
7	Main Board	1
8	Leaded PFC Inductance	2
9	Main Board	1
10	Main Board	1

No.	Name	Quantity
11	Thermostat	1
12	Bipolar AC Contactor	3
13	Terminal board	1
14	Wave filter	1
15	Jumper	1
16	Jumper	1
17	Terminal Board	1
18	Terminal Board	1
19	Terminal Board	1
20	Communication Interface Board	1
21	Magnet Coil	1
22	Electric Expand Valve Fitting	1
23	Electronic Expansion Valve	1
24	Support Sub-assy	1
25	Electric Expand Valve Fitting	1
26	Electronic Expansion Valve	1
27	Supporter	1
28	Expansion Drum	1
29	Cut-off valve 1/4(N)	1
30	Auto Air Outlet Valve	1
31	Relief Valve	1
32	Drainage Pipe Sub-assy	1
33	Water Pump	1
34	Steam current Switch	1
35	Water Pipe Connector	2
36	Water Pipe Connector	1
37	Electric Heater	1
38	Handle	2
39	Right Side Plate	1
40	Strainer	2
41	Plate-type Heat Exchanger	1
42	Drainage hole Cap	4
43	Drainage Joint	1
44	Nozzle for Adding Freon	1
45	4-way Valve	1
46	Chassis Sub-assy	1
47	Compressor and Fittings	1
48	Nozzle for Adding Freon	1
49	Electrical Heater	1
50	Pressure Protect Switch	1
51	Gas-liquid Separator Assy	1
52	Pressure Sensor	1

No.	Name	Quantity
53	Pressure Protect Switch	1
54	Electrical Heater	1
55	Pressure Protect Switch	1
56	Brushless DC Motor	1
57	Axial Flow Fan	1
58	Front Side Plate Sub-Assy	1
59	Cabinet	1
60	Receiver Board	1
61	Display Board	1
62	Strainer	1
63	Temperature Sensor	1
64	Temperature Sensor	1

(12) GRS-CQ8.0Pd/NhG4-E1



No.	Name	Quantity
1	Condenser Assy	1
2	Supporter	1
3	Electric Box Assy	1
4	Radiator	1
5	Top cover	1
6	Supporter	1
7	Main Board	1
8	Leaded PFC Inductance	2
9	Main Board	1
10	Main Board	1

No.	Name	Quantity
11	Bipolar AC Contactor	3
12	Terminal board	1
13	Wave filter	1
14	Jumper	1
15	Jumper	1
16	Terminal Board	1
17	Terminal Board	1
18	Terminal Board	1
19	Communication Interface Board	1
20	Magnet Coil	1
21	Electric Expand Valve Fitting	1
22	Electronic Expansion Valve	1
23	Support Sub-assy	1
24	Electric Expand Valve Fitting	1
25	Electronic Expansion Valve	1
26	Supporter	1
27	Auto Air Outlet Valve	1
28	Cut-off valve 1/4(N)	1
29	Relief Valve	1
30	Drainage Pipe Sub-assy	1
31	Water Pump	1
32	Steam current Switch	1
33	Water Pipe Connector	2
34	Water Pipe Connector	1
35	Expansion Drum	1
36	Handle	2
37	Right Side Plate	1
38	Strainer	2
39	Plate-type Heat Exchanger	1
40	Drainage hole Cap	4
41	Drainage Joint	1
42	Nozzle for Adding Freon	1
43	4-way Valve	1
44	Chassis Sub-assy	1
45	Compressor and Fittings	1
46	Nozzle for Adding Freon	1
47	Electrical Heater	1
48	Pressure Protect Switch	1
49	Gas-liquid Separator Assy	1
50	Pressure Sensor	1
51	Pressure Protect Switch	1
52	Electrical Heater	1

No.	Name	Quantity
53	Pressure Protect Switch	1
54	Brushless DC Motor	1
55	Axial Flow Fan	1
56	Front Side Plate Sub-Assy	1
57	Cabinet	1
58	Receiver Board	1
59	Display Board	1
60	Strainer	1
61	Temperature Sensor	1
62	Temperature Sensor	1

1.7 Supply Scope

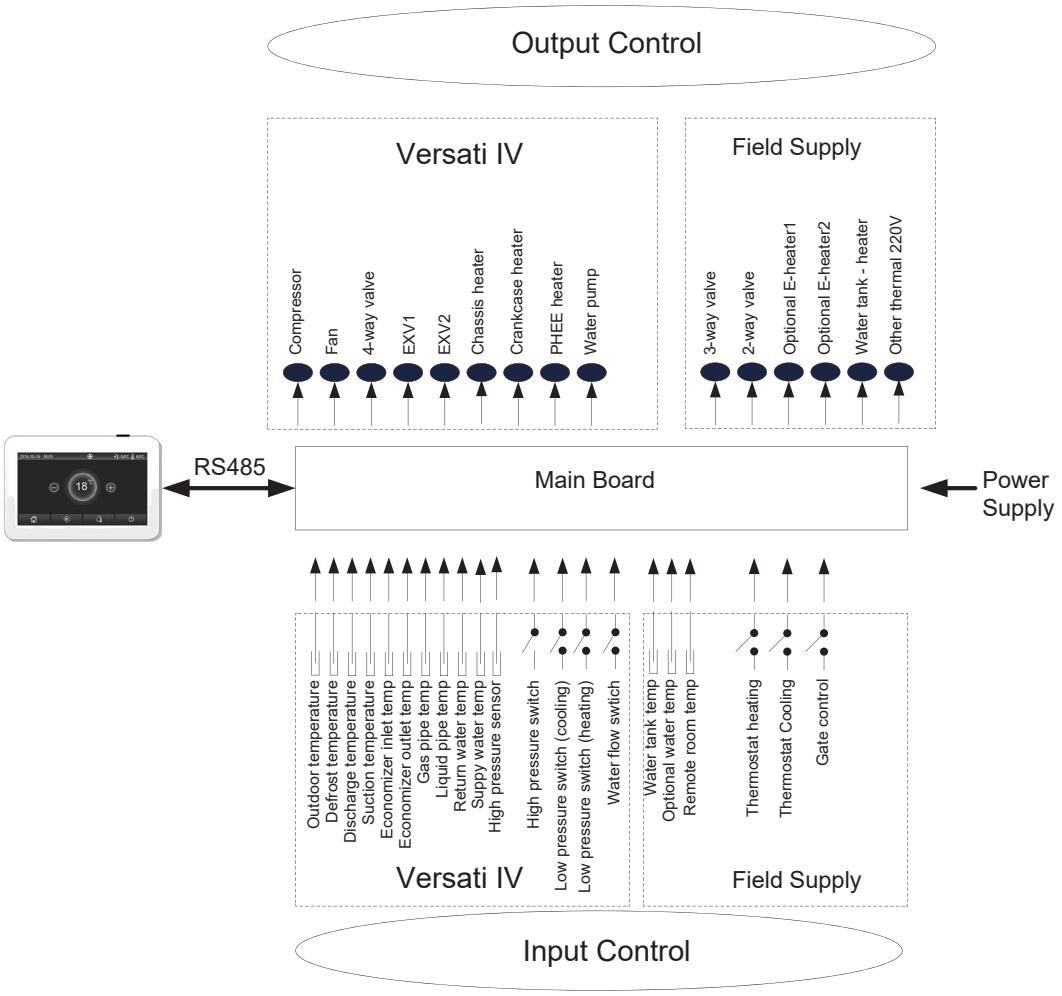
S= Standard O= Optional F= Field Supplied

Name	Standard	Optional	Field Supplied	Standard Part Code
Owner's Manual for the Main Unit	√	/	/	600005063520
Owner’s Manual for the Control	√	/	/	600005064437 600005065860
Owner's Manual for the Water Tank	√	/	/	600005067454
2-way Valve	/	/	√	/
3-way Valve	/	/	√	/
Remote Temperature Sensor	√	/	/	30261014
Wired Controller	√	/	/	/
Communication Cable	√	/	/	400300412
Water Tank Temperature Sensor	√	/	/	3900028316G
Expansion Bolt	√	/	/	70110066
Other thermal	/	/	√	/
Optional Electric Heater	/	/	√	/

2 Control

2.1 Control Principle Diagram

◆ Control diagram



◆ Instructions for Protective Elements

(1) The outdoor temperature is detected by the sensor installed at fins of the finned heat exchanger, which is mainly used to control the initialization steps of the fan and the electronic expansion valve and also limit the maximum running frequency of the compressor. When this sensor fails, the main board will detect it and deliver this error message to the controller and then the unit will fail to start up or shut down.

(2) The defrost temperature is detected by the sensor installed at the defrosting pipes of the finned heat exchanger, which is mainly used to control defrosting. When this sensor fails at the heating or water heating mode, the compressor will stop and this error will be displayed at the controller. When it fails at the cooling mode, the compressor continues to run but this error will be displayed at the controller.

(3) The discharge temperature is detected by the sensor installed at the discharge pipe of the compressor, which is mainly used for high discharge temperature protection. When this sensor fails, this error will be displayed at the controller, all loads except the water pump of the solar system and the electric heater of the water tank will stop. Then, the main unit will resume normal running when this error is eliminated.

(4) The suction temperature is detected by the sensor installed at the suction pipe of the compressor, which is mainly used to control superheating degree. When this sensor fails, this error will be displayed at the controller, all loads except the water pump of the solar system and the electric heater of the water tank will stop. Then, the main unit will resume normal running when this error is eliminated.

(5) The temperature sensor at the economizer is used to detect the temperature of the economizer after throttling via the electrostatic expansion 2. Under the Heating or Hot Water mode, this sensor and that at the economizer outlet both are used to control the opening angle of the electronic expansion valve 2. Under the Cooling mode, the electronic expansion valve 2 is fully closed.

(6) The temperature sensor at the economizer outlet is used to detect the tmpeature of the outlet of the economizer. Under the Heating or Hot Water mode, this sensor and that at the economser inlet both are used to control the opening angle of the electronic expansion valve 2. Under the Cooling mode, the electronic expansion valve 2 is fully closed.

(7) The high pressure is detected by the sensor installed at the discharge pipe of the compressor, the low pressure is detected by the sensor installed at the suction pipe of the compressor, and the enhanced vapor injection pressure is detected by the sensor installed at the enhanced vapor injection pipe. The first one is mainly used for high pressure protection, the second one is mainly used to control defrosting, freeze protection and superheating degree, and all of three are used to together to control the intermediate pressure ratio of the compressor. When any of these sensors fails, it will be displayed at the controller, all loads except the water pump of the solar system and the electric heater of the water tank will stop. Among them, the water pump will stop 120 seconds later than the compressor. Then, the main unit will resume normal running when this error is eliminated.

Component	Range
High pressure sensor	4.7/3.8MPa(gauge)
Low pressure switch (cooling)	0.45/0.55MPa(gauge)
Low pressure switch (heating)	0.1/0.2 MPa(gauge)

(8) The return water temperature of the plate heat exchanger is detected by the sensor installed at the inlet pipe of the plate heat exchanger, which is mainly used for freeze protection. When this sensor fails, this error will be displayed at the controller but the unit will resume normal operation.

(9) The supply water temperature of the plate heat exchanger is detected by the sensor installed at the outlet pipe of the plate heat exchanger, which is mainly used for freeze protection at the water side. When this sensor fails, this error will be displayed at the controller and the unit will continues to operate.

(10) The optional water temperature is detected by the sensor installed at the outlet pipe of the optional E-heater, which is mainly used to control the supply water temperature. When this sensor fails, this error will be displayed at the controller, all loads except the electric heater of the water tank will stop (the 2-way electric and 3-way electric valves will be closed).

(11) The tempeaure sensor for the vapor line is used to detect the temperature of the vapor refrigerant line. Under the Cooling mode, it and that for the liquid line together are used to control the opening of the electronic expansion valve 1.

(12) The tempeaure sensor for the liquid line is used to detect the temperature of the liquid refrigerant line. Under the Cooling mode, it and that for the vapor line together are used to control the opening angle of the electronic expansion valve 1.

(13) The hi-pressure switch is used to judge the system pressure. When the pressure is too high, this switch will disconnect and the unit will shut down.

(14) The flow switch of the main unit is mainly used to judge the water flow. When the flow rate is too low, this switch will be disconnected; all loads except the water tank heater and the water pump of the solar system will stop. This error will be displayed at the controller and will be unrecoverable. The unit can restart only when it is repowered on and this error does not be displayed again.

Items from 1~14 listed above are control parameters input by the main unit.

(15) The water tank temperature is detected by sensors immersed inside the water tank. These sensors can be divided into two groups. Group 1 is used to control the water tank temperature and group 2 is used to display the water tank temperature. When group 1 fails at the heating mode, this error will be displayed at the controller, and all loads except the water pump of the main unit will stop. When group 2 fails, this error also will be displayed at the controller but the unit continues normal operation.

(16) The leaving and entering water temperature of the solar panel and also the solar panel temperature are detected by sensors installed at the inlet pipe, outlet pipe and solar panel of the solar system respectively. Theses sensors are mainly used to control the water pump of the hot water of the solar system. When the entering water temperature sensor fails, this error will be displayed at the controller and the unit continues normal operation. When other two sensors fail, this error also will be displayed at the controller and the water pump of the solar system will stop.

(17) The remote room temperature is detected by the sensor installed at the room, which is mainly used to control the input capacity of the compressor through room temperature setting. When the main unit is controlled through the room temperature and this sensor fails, all loads except the water pump of the solar system and the electric heater of the water tank will stop. However, when the main unit is controlled through the leaving water temperature, if this sensor fails, this error will be displayed but the main unit will resume normal operation.

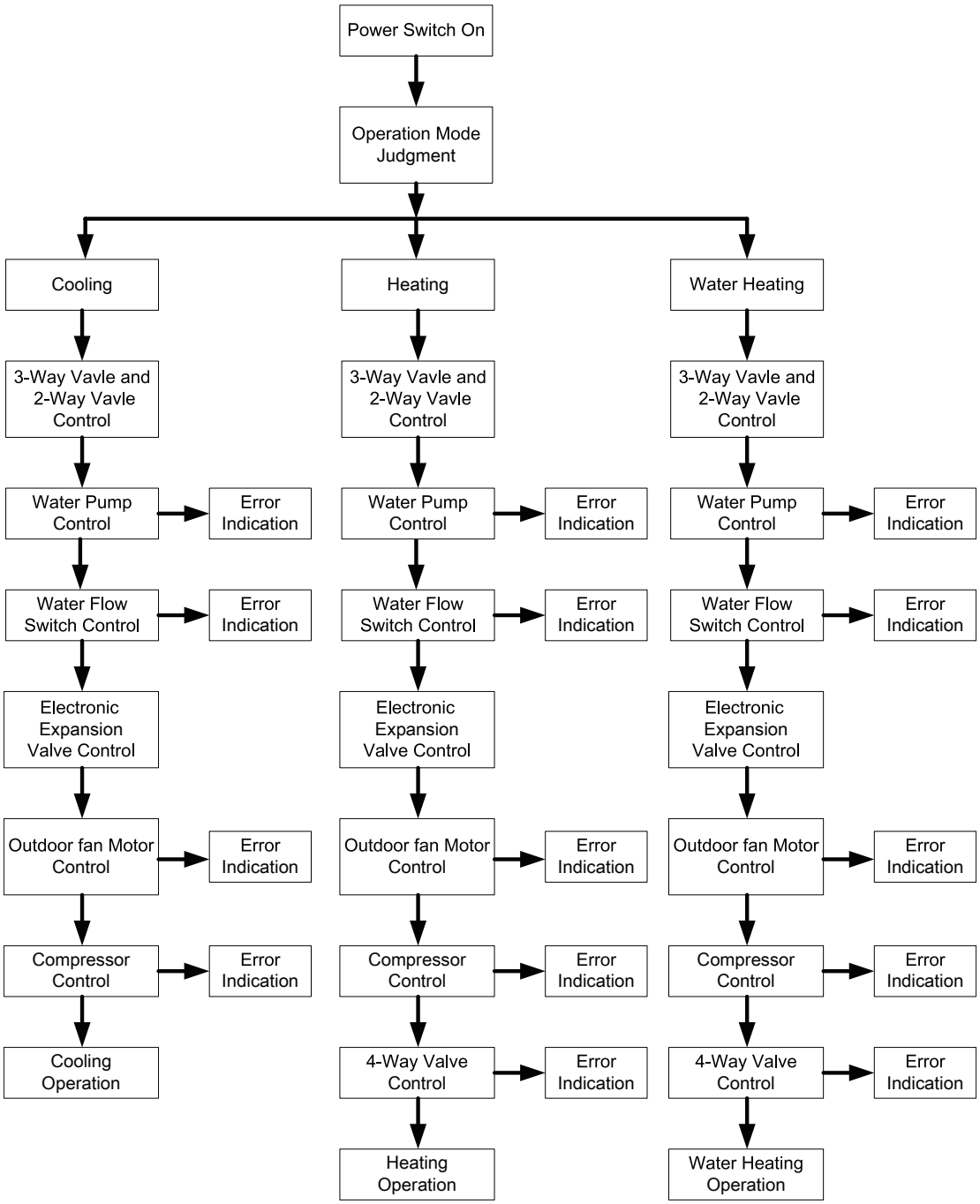
(18) Only when the control function of the thermostat has been activated through the wired controller, then the thermostat can switch run modes among cooling, heating and shutdown, otherwise, the unit will run as per the run mode set by the wired controller.

(19) The gate control function can be set to be “On” or “Off” at the function setting page of the wired controller. When this function has been activated and it is detected that the gate control card has been drawn out, the unit will shut down and will tell any key operation of the controller is invalid. Then, if it is detected that the gate control card has been inserted in, the unit will resume normal operation.

(20) The flow switch of the solar system is mainly used to judge the water flow. When the flow rate is too low, the flow switch will disconnect and immediately the water pump of the solar system will stop. This error will be displayed at the controller and is unrecoverable. When this error is cleared, upon power on again, the unit will restart.

Items 15~ 20 are control parameters input by the field installed equipment.

2.2 Control Flowchart



2.3 Control to Cooling

2.3.1 Control to the Compressor

When the unit is controlled by the leaving water temperature, the compressor operating frequency will be adjusted according to the temperature difference in direct proportion. (Temperature difference= actual leaving water temperature-leaving water temperature set point).

2.3.2 Freeze Protection

When it is detected that the leaving water temperature of the plate heat exchanger is lower than the freeze protection temperature, the compressor will drop its operating frequency until it reaches the minimum operating frequency. Then if it is still detected that the leaving water temperature is lower than the freeze protection temperature, the main unit will stop as per the shutdown frequency but the water pump keeps normal operation.

When it is detected that the leaving water temperature of the plate heat exchanger is equal to or larger than the freeze protection withdrawing temperature, freeze protection will stop. At this point, once the compressor has stopped for three minutes and conditions for startup have been satisfied, the compressor will run for cooling.

2.4 Control to Heating

2.4.1 Control to the Compressor

When the unit is controlled by the leaving water temperature, the operating frequency of the compressor will be adjusted by the temperature difference in the way that it increases as the temperature difference goes up and it decreases as the temperature difference goes down. When the compressor reaches the minimum frequency but the temperature frequency is still quite large, the unit will shut down (temperature difference= actual leaving water temperature-leaving water temperature set point).

2.4.2 Over-temperature Protection

When the compressor is running and it is detected that the leaving water temperature of the auxiliary electric heater is higher than the over-temperature protection temperature, the compressor will lower its frequency to the minimal. Then if it is still detected that the leaving water temperature of the auxiliary electric heater is higher than the over-temperature protection temperature, all loads except the water pump of the main unit and the 4-way valve will stop. Over-temperature protection will stop until the leaving water temperature of the auxiliary electric heater is lower than the over-temperature withdrawing temperature. After that, the unit will resume normal operation.

2.5 Control to Water Heating

Water heating can be achieved by either the solar system or the main unit (heat pump).

2.5.1 Water Heating by the Main Unit

(1) When the outdoor temperature is out of the operation range, the compressor will not start, and water heating will be done by the water tank heater.

(2) When the outdoor temperature is within the operation range, water heating will be done by the main unit. The output frequency of the compressor will be adjusted by the difference between the water tank temperature set point and the actual water tank temperature.

(3) Control to the Water Tank Electric Heater

- when the water tank temperature set point is lower than the maximum value of the water heating range of the main unit, the auxiliary electric heater of the main unit will run depending on the temperature difference, and the water tank keeps shut-down.
- when the water tank temperature set point is higher than the maximum value of the water heating range of the main unit but the actual water tank temperature is lower than the maximum value of the water heating range of the main unit, the auxiliary electric heater of the main unit will run depending on the temperature difference. If the actual water tank temperature is higher than the maximum value of the water heating range of the main unit, the water tank heater will start. At any time, only one between the auxiliary electric heater and the water tank heater is allowed to run.

(4) Over-temperature Protection for Water Heating

When the compressor is running, if it is detected that the leaving water temperature of the auxiliary electric heater of the main unit is higher than the over-temperature protection temperature, the compressor will lower its operating frequency until it reaches the minimal operating frequency. At this point, if it is still detected that leaving water temperature is still lower than the over-temperature protection, all loads except the water pump of the main unit and the 4-way valve will stop. Over-temperature protection will exit when the leaving water temperature is lower than the over-temperature protection temperature. Then, the main unit will resume normal operation.

2.5.2 Water Heating by the Solar System

When the solar water heating system is equipped but temperature difference value (it is the difference of solar panel temperature and the actual water tank temperature) for startup is not reached, the water pump of the solar system will not start. When the temperature difference value is reached, the water pump will start. However, when it is detected that the water tank temperature reaches the set point, or the entering/leaving water temperature difference of the solar panel is too small, then this water pump will stop running.

2.6 Control to Shutdown

There are three kinds of shutdown conditions: normal shutdown, shutdown with some error, shutdown for protection

Shutdown sequence: for normal shutdown, the compressor lowers its frequency firstly to the minmum value, while for shutdown with some error or for protection, the compressor will stop directly.Then, the electronic expansion valve turns to the maximum opening angle; the fan stops after the compressor has stopped; the water pump of the main unit stops after the compressor has stopped; the electronic expansion valve turns the maximum opening angle to the fixed opening angle.

During shutdown under the heating and water heating modes, the 4-way valve will be powered off after the compressor has stopped.

For shutdown owing to some error (except the communication error) or protection, the 4-way valve will keep the power-on status.

For shutdown owing to communication between the unit and the wired controller, the 4-way valve will be powered off some time later.

For shutdown with some error or for protection, the electronic expansion valve will keep the maximum opening angle.

2.7 Control to the Compressor

When the unit is controlled by the leaving water temperature, the output frequency of the compressor is adjusted by the difference between the actual water temperature and the leaving water temperature set point. When the unit is controlled by the room temperature, the output frequency of the compressor is adjusted by the difference between the actual room temperature and the room temperature set point.

2.8 Control to the Fan

Under the cooling mode, the operating frequency of the fan is adjusted according to pressure at the high pressure side. Under the heating or water heating mode, the operating frequency of the fan is adjusted according to the pressure at the low pressure side. During defrosting, the fan stops and resumes operation when defrosting ends up.

2.9 Control to the 4-way Valve

The 4-way valve always keeps on under the cooling mode and will off after the compressor starts up under the heating or water heating mode. When the unit comes into defrosting, the 4-way valve will be on and resume the off status when defrosting ends up. For shutdown under the heating mode, the 4-way valve will be closed after the compressor stops.

2.10 Control to the Water Pump

The water pump firstly will run at the initialized speed and then adjust the speed according to the entering/leaving water temperature difference. When the temperature difference is large, the fan runs at the high speed. When the temperature difference is small, the fan runs at the low speed.

2.11 Control the Electronic Expansion Valve

There are two electronic expansion valves for two-stage throttling control. The opening angle of the first-stage electronic expansion valve is adjusted based on the ratio of readings of the high-pressure sensor, low-pressure sensor and enthalpy-adding sensor. The opening angle of the second-stage is adjusted based on the suction superheating degree.

2.12 Protection Control

(1) Compressor Low-pressure Protection

When it is detected continuously that pressure at the low side is too low, then low-pressure protection will occur and this error will be displayed at the controller, all loads act as per the shutdown sequence. This error is unrecoverable and can be cleared unless repowered on.

(2) High Discharge Temperature Protection

When it is detected continuously that the discharge temperature is higher than the recoverable temperature, the electronic expansion valve will turn to the maximum opening angle with large step until the discharge temperature is lower than the recoverable temperature. However, if this condition remains, the compressor will restrict the frequency output or lower its frequency three times. At any time, if it is detected that the discharge temperature is higher than the set point for protection for three seconds, the compressor will stop and the unit comes into high discharge temperature protection.

(3) Compressor Hi-pressure Protection

In any case, when it is detected that the high-pressure switch acts, the unit will come into high-pressure protection three seconds later. This protection is unrecoverable.

(4) Flow Switch Protection

In any case, when it is detected that the flow switch of the main unit disconnects, then all loads except the water pump of the solar system and the auxiliary electric heater of the water tank will stop. This protection is unrecoverable. The unit is allowed to be restart only after this error is cleared and the unit is repowered on.

(5) Communication Error

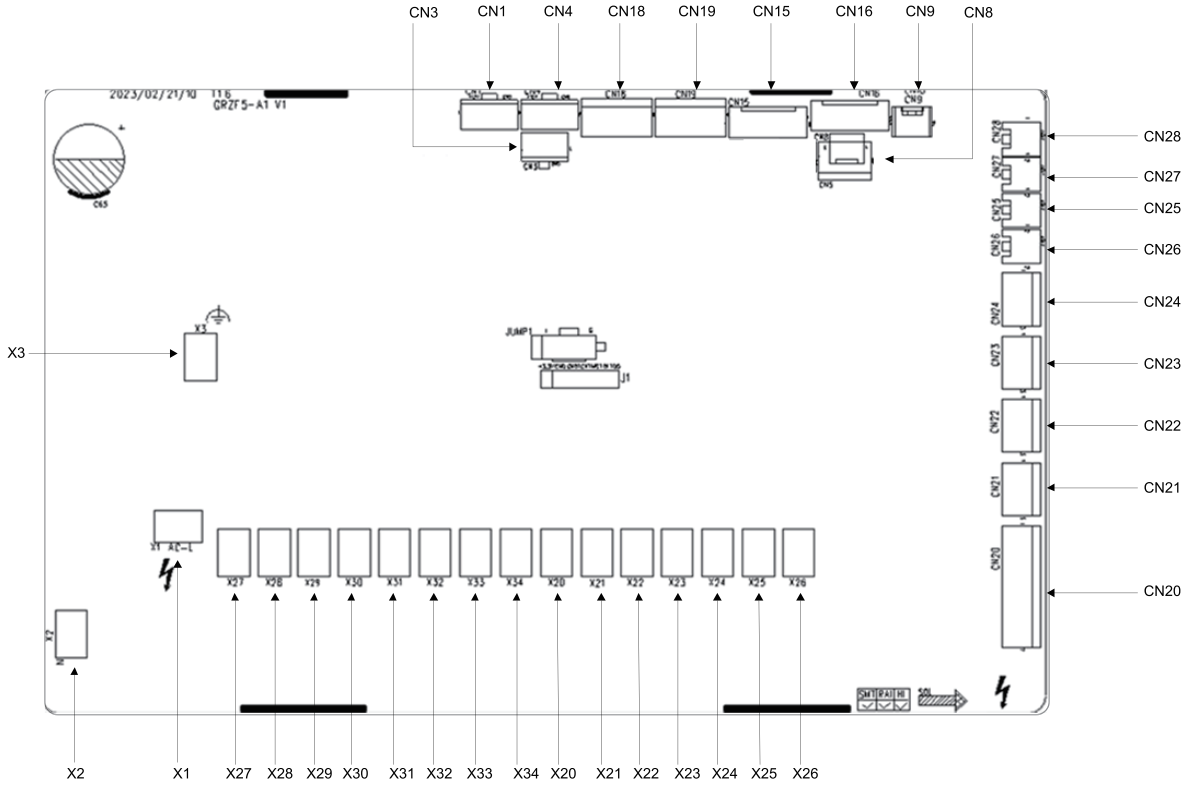
When the indoor unit main board or drive board does not receive correctly any data from the unit main board, all loads will stop.

3 Electric Diagram

3.1 Control Board

(1) Main board 1

GRS-CQ4.0Pd/NhG3-E	GRS-CQ6.0Pd/NhG3-E	GRS-CQ4.0Pd/NhG4-E	GRS-CQ6.0Pd/NhG4-E
GRS-CQ8.0Pd/NhG3-E	GRS-CQ10Pd/NhG3-E	GRS-CQ12Pd/NhG3-E	GRS-CQ14Pd/NhG3-E
GRS-CQ16Pd/NhG3-E	GRS-CQ8.0Pd/NhG4-E	GRS-CQ10Pd/NhG4-E	GRS-CQ12Pd/NhG4-E
GRSCQ14Pd/NhG4-E	GRS-CQ16Pd/NhG4-E	GRS-CQ8.0Pd/NhG3-M	GRS-CQ10Pd/NhG3-M
GRS-CQ12Pd/NhG3-M	GRS-CQ14Pd/NhG3-M	GRS-CQ16Pd/ NhG3-M	GRS-CQ8.0Pd/NhG4-M
GRS-CQ10Pd/NhG4-M	GRS-CQ12Pd/NhG4-M	GRS-CQ14Pd/NhG4-M	GRS-CQ16Pd/NhG4-M
GRS-CQ8.0Pd/NhG3-E1	GRS-CQ8.0Pd/NhG4-E1		

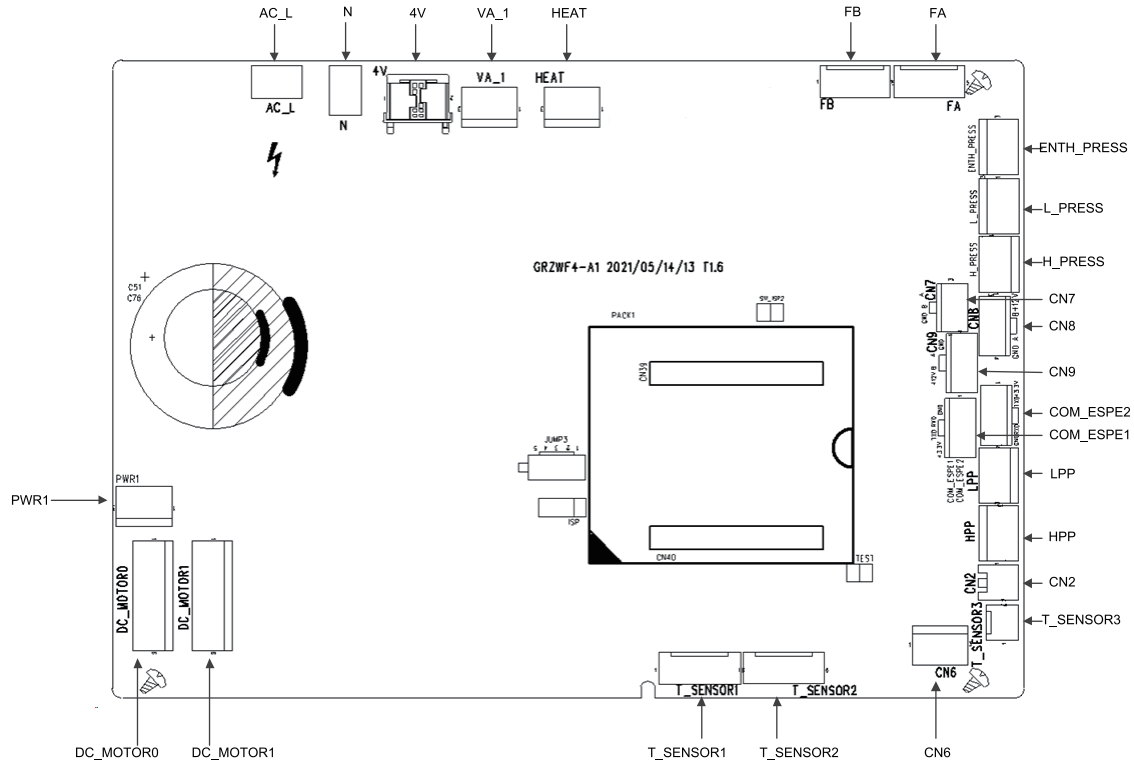


Silk Screen	Introduction
X1	Power supply
X2	Power supply
X3	To the ground
CN3	Communication with the unit
CN1	DC12V for Anode
CN4	Communication with control panel
CN18	Build-in water pump signal(PWM)
CN19	Back-up water pump signal(PWM)-field supply
CN15	20K temperature sensor (inlet water);20K temperature sensor (outlet water);20K temperature sensor (refrigerant liquid line)
CN16	20K temperature sensor (refrigerant vapor line);10K temperature sensor (leaving water for the optional electric heater)
CN9	Water tank temperature sensor
CN8	Remote room temperature sensor
CN28	EVU signal
CN27	SG signal

Silk Screen	Introduction
CN25	Flow switch
CN26	DHW signal
CN24	Gate-control detection
CN23	Detection to welding protection for the water tank electric heater
CN22	Detection to welding protection for the optional electric heater 2
CN21	Detection to welding protection for the optional electric heater 1
CN20	Thermostat
X26	Reserved
X25	Plate heat exchanger anti-freezing
X24	Field supplied water pump
X23	Other thermal by 230VAC
X22	E-heater 2
X21	E-heater 1
X20	E-heater of water tank
X34	Electric three-way valve 2 closed
X33	Electric three-way valve 2 open
X32	Reserved
X31	Field supplied 3-way valve 1
X30	Reserved
X29	Water pump of the water tank
X28	2-way valve 1 is normally closed
X27	2-way valve 1 is normally open

(2) Main board 2

GRS-CQ4.0Pd/NhG3-E	GRS-CQ6.0Pd/NhG3-E	GRS-CQ4.0Pd/NhG4-E	GRS-CQ6.0Pd/NhG4-E
GRS-CQ8.0Pd/NhG3-E	GRS-CQ10Pd/NhG3-E	GRS-CQ12Pd/NhG3-E	GRS-CQ14Pd/NhG3-E
GRS-CQ16Pd/NhG3-E	GRS-CQ8.0Pd/NhG4-E	GRS-CQ10Pd/NhG4-E	GRS-CQ12Pd/NhG4-E
GRSCQ14Pd/NhG4-E	GRS-CQ16Pd/NhG4-E	GRS-CQ8.0Pd/NhG3-M	GRS-CQ10Pd/NhG3-M
GRS-CQ12Pd/NhG3-M	GRS-CQ14Pd/NhG3-M	GRS-CQ16Pd/ NhG3-M	GRS-CQ8.0Pd/NhG4-M
GRS-CQ10Pd/NhG4-M	GRS-CQ12Pd/NhG4-M	GRS-CQ14Pd/NhG4-M	GRS-CQ16Pd/NhG4-M
GRS-CQ8.0Pd/NhG3-E1	GRS-CQ8.0Pd/NhG4-E1		

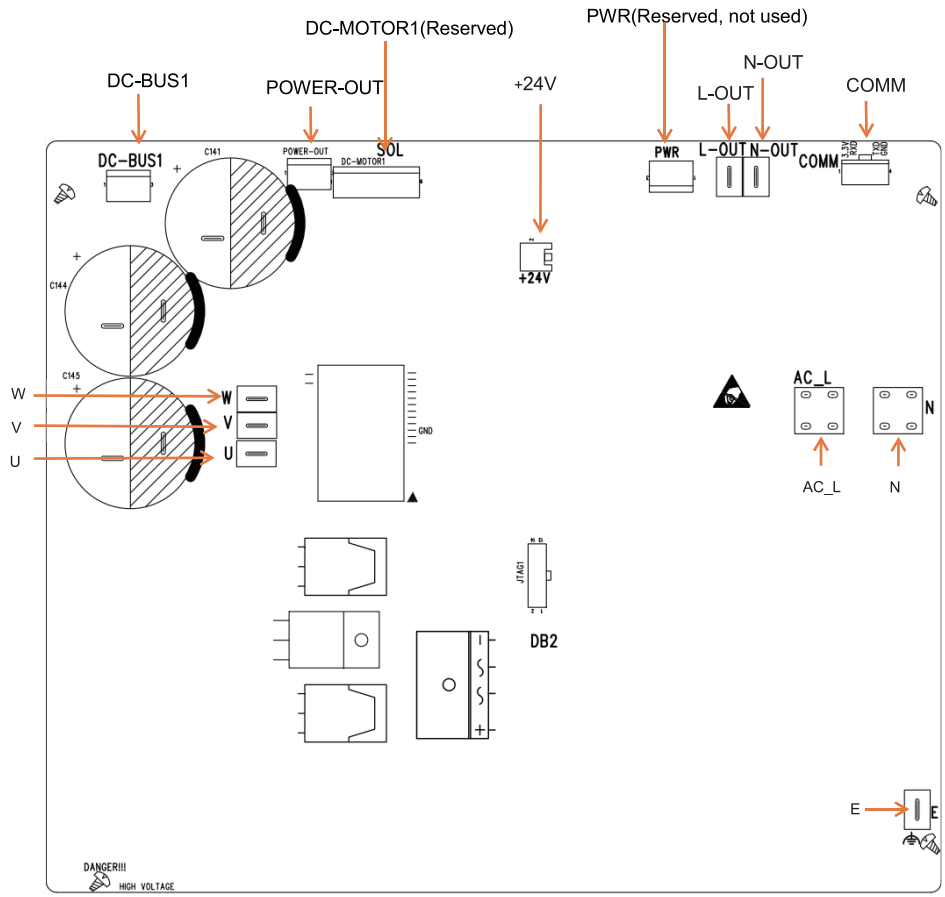


Silk Screen	Introduction
AC-L	Power supply
N	Power supply
4V	4-way valve
VA-1	E-heater of chassis
HEAT	Electric heating tape
FB	1, 2, 3, 4 signals, 5 power supply to EXV2, pipe electronic expansion valve,1-4 pin: driving impulse output; 5 pin: +12V
FA	1, 2, 3, 4 signals, 5 power supply to EXV1,pipe electronic expansion valve,1-4 pin: driving impulse output; 5 pin: +12V
ENTH_PRESS	Reserve
L_PRESS	Reserve
H_PRESS	5V signal input of pressure sensor 1 pin: GND; 2 pin: signal input; 3 pin:+5V
CN7	Communication between AP1 and AP2;communication cable 2-pin: B,3-pin: A;
CN8	1-pin:12V, 2-pin:B, 3-pin: A, 4-pin: ground, To the control panel,communication cable;
CN9	1-pin:+12V, 2-pin:B;3-pin:A, 4-pin: ground
COM_ESPE2	1-pin:+3.3V, 2-pin:TXD, 3-pin:RXD, 4-pin:ground
COM_ESPE1	1-pin:+3.3V, 2-pin:TXD, 3-pin:RXD, 4-pin:ground
LPP	1-pin: +12V, 3-pin: signal
HPP	1-pin:+12V, 3-pin: signal

Silk Screen	Introduction
CN2	1-pin:+12V, 2-pin: signal
T_SENSOR3	Reserve
CN6	Reserve
T_SENSOR2	1,2: environment; 3,4:discharge; 5,6: suction
T_SENSOR1	1,2: economizer inlet; 3,4: economizer outlet; 5,6:defrost
DC-MOTORO1	1-pin: fan power supply;3-pin: fan GND; 4-pin: +15V; 5-pin: control signal;6-pin: feedback signal
DC-MOTORO0	1-pin: fan power supply; 3-pin: fan GND; 4-pin: +15V; 5-pin:control signal;6-pin:feedback signal
PWR1	310V Supply 310V DC power to the drive

(3) Drive board

GRS-CQ4.0Pd/NhG3-E GRS-CQ6.0Pd/NhG3-E GRS-CQ4.0Pd/NhG4-E GRS-CQ6.0Pd/NhG4-E
GRS-CQ8.0Pd/NhG3-E1 GRS-CQ8.0Pd/NhG4-E1

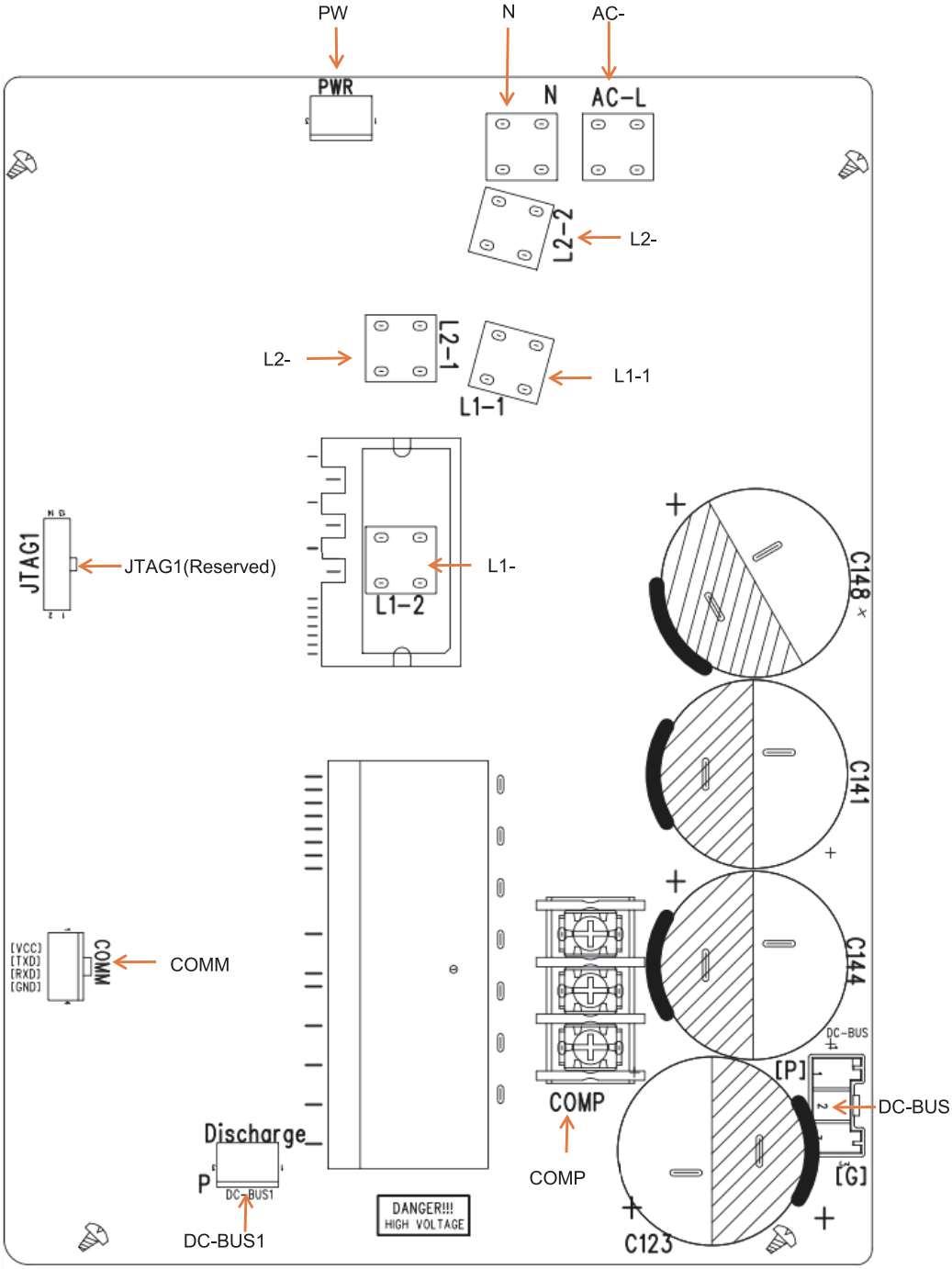


Silk Screen	Introduction
DC-BUS1	DC-BUS1 Pin for electric discharge of the high-voltage bar during test
POWER-OUT	Open DC link voltage
+24V	Provide 24V voltage to the main board
L-OUT	Live line output (to the main boards)
N-OUT	Neutral line output (to the main boards)
COMM	Communication interface[1-3.3V,2-RX,3-TX,4-GND]
U	Connector to the compressor phase-U
V	Connector to the compressor phase-V
W	Connector to the compressor phase-W

Silk Screen	Introduction
AC_L	L-OUT Live line input of the main board
N	N-OUT Neutral line input of the main board
E	Grounding line

(4) Drive board

GRS-CQ8.0Pd/NhG3-E GRS-CQ10Pd/NhG3-E GRS-CQ12Pd/NhG3-E GRS-CQ14Pd/NhG3-E
GRS-CQ16Pd/NhG3-E GRS-CQ8.0Pd/NhG4-E GRS-CQ10Pd/NhG4-E GRS-CQ12Pd/NhG4-E
GRSCQ14Pd/NhG4-E GRS-CQ16Pd/NhG4-E

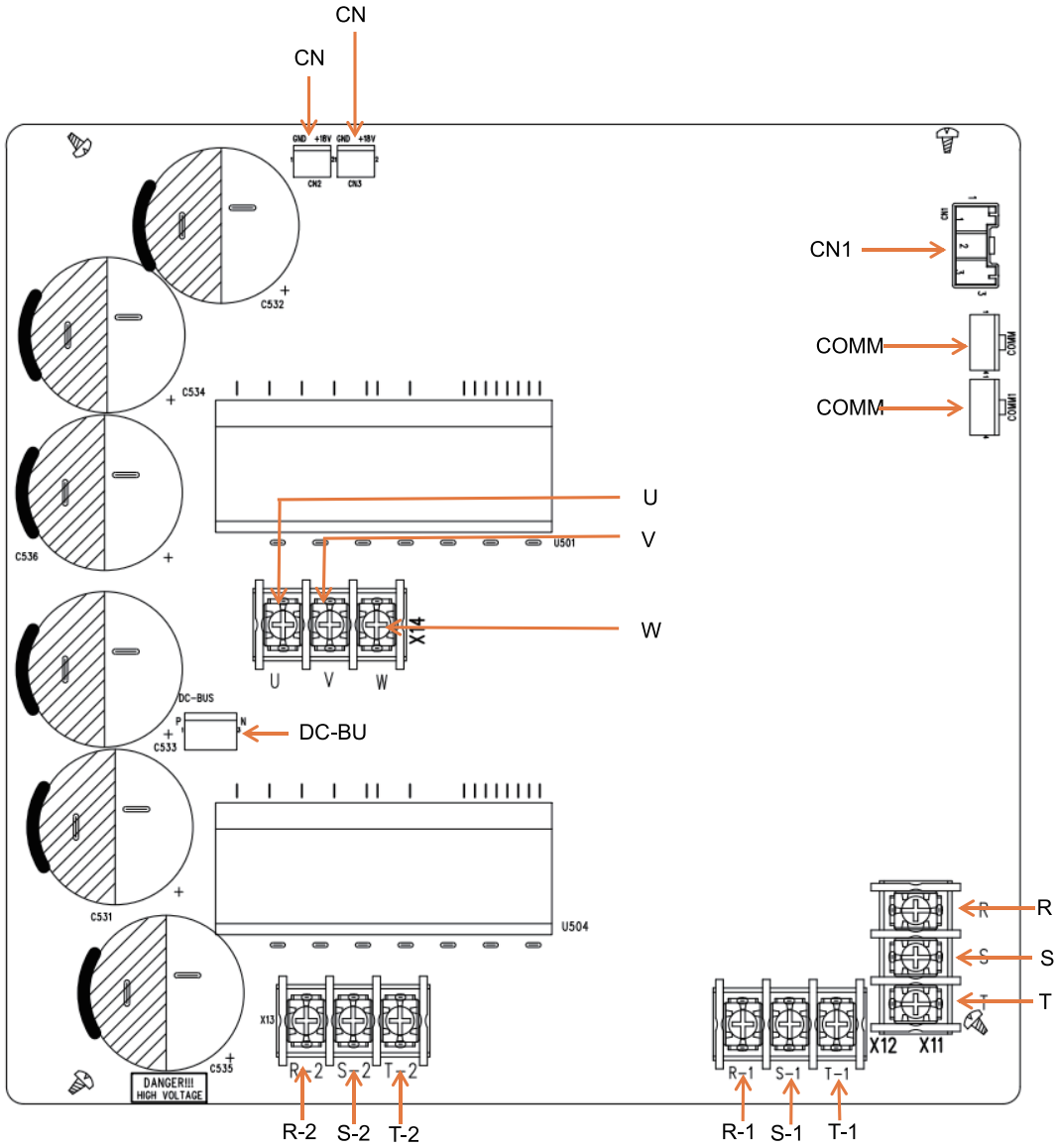


Silk Screen	Introduction
AC-L	L-OUT Live line input of the filter board
N	N-OUT Neutral line input of the filter board

Silk Screen	Introduction
L1-1	To PFC inductor brown line
L1-2	To PFC inductor white line
L2-1	To PFC inductor yellow line
L2-2	To PFC inductor blue line
COMP	Wiring board (3-pin)(DT-66BO1W-03)(variable-frequency)
COMM	Communication interface[1-3.3V,2-TX,3-RX,4-GND]
DC-BUS	DC-BUS Pin for electric discharge of the high-voltage bar during test
PWR	Power input of the drive board [1-GND,2-18V,3-15V]
DC-BUS1	Pin for electric discharge of the high-voltage bar during test

(5) Drive board

GRS-CQ8.0Pd/NhG3-M GRS-CQ10Pd/NhG3-M GRS-CQ12Pd/NhG3-M GRS-CQ14Pd/NhG3-M
GRS-CQ16Pd/NhG3-M GRS-CQ8.0Pd/NhG4-M GRS-CQ10Pd/NhG4-M GRS-CQ12Pd/NhG4-M
GRSCQ14Pd/NhG4-M GRS-CQ16Pd/NhG4-M

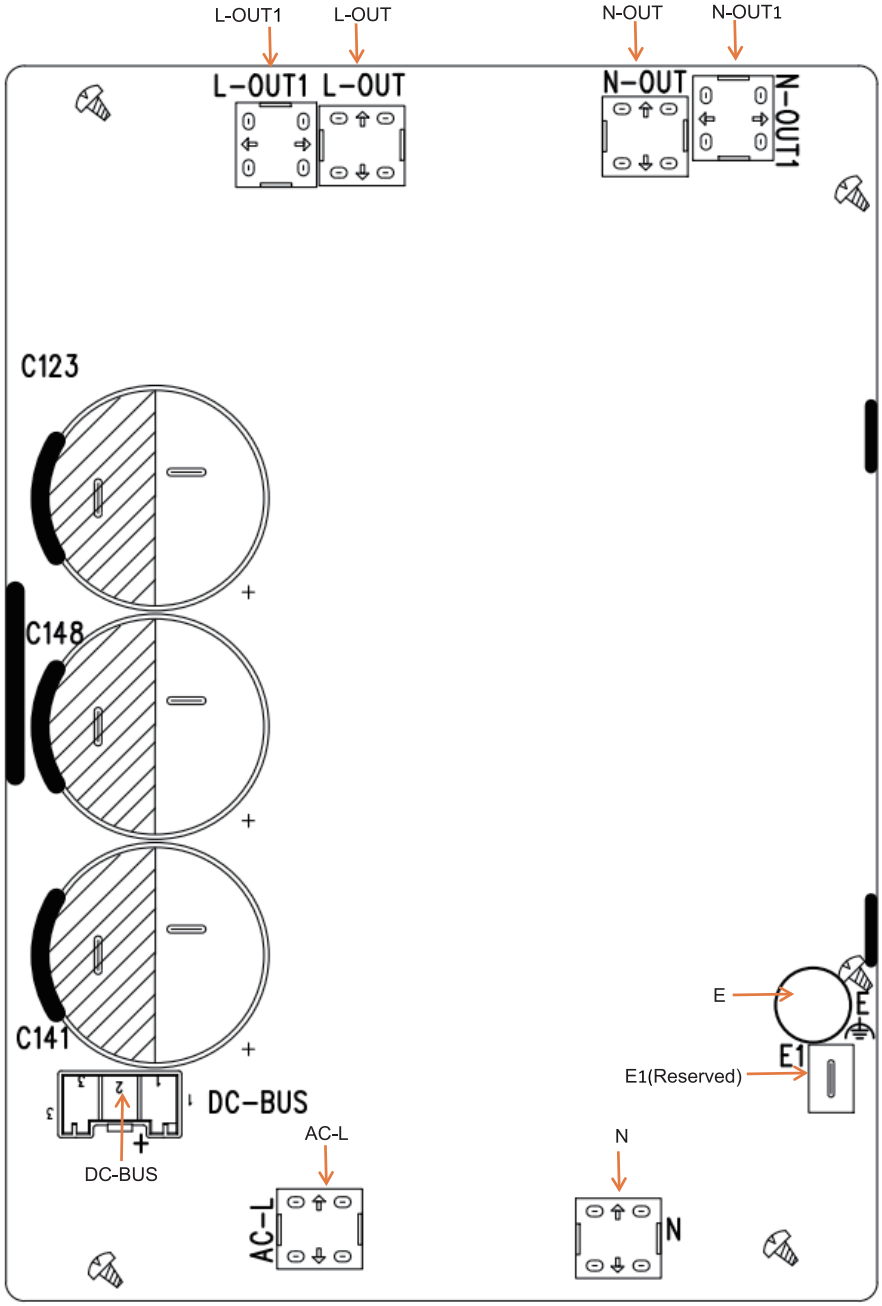


Silk Screen	Introduction
W	Connector to the compressor phase-W

Silk Screen	Introduction
U	Connector to the compressor phase-U
V	Connector to the compressor phase-V
R-2	Connector to reactor (input)
S-2	
T-2	
R-1	Connector to reactor (input)
S-1	
T-1	
R	Connector to filter L1-F
S	Connector to filter L2-F
T	Connector to filter L3-F
COMM1	Reserved
COMM	Communication
CN1	Switch power input

(6) Filter board

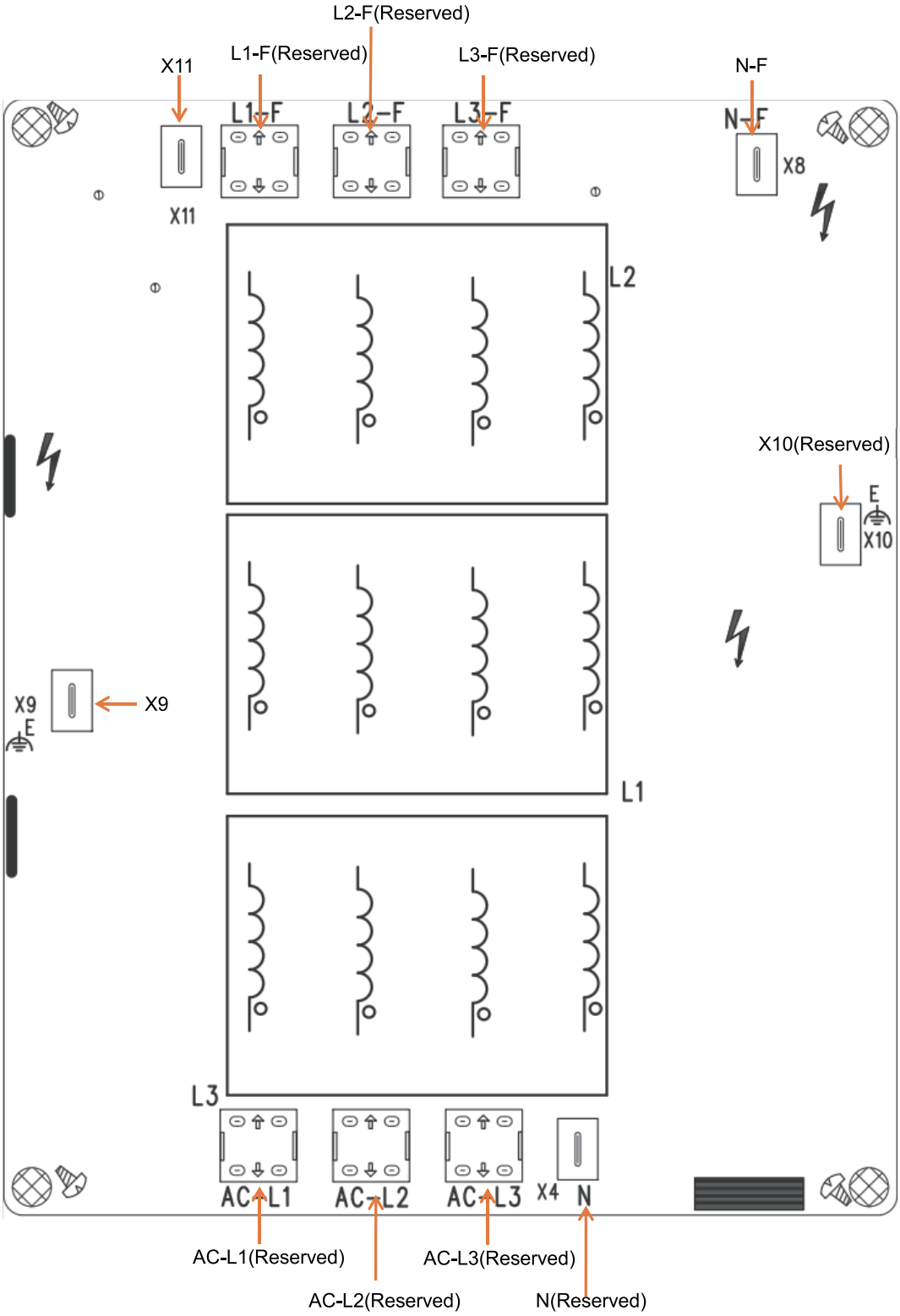
GRS-CQ8.0Pd/NhG3-E GRS-CQ10Pd/NhG3-E GRS-CQ12Pd/NhG3-E GRS-CQ14Pd/NhG3-E
GRS-CQ16Pd/NhG3-E GRS-CQ8.0Pd/NhG4-E GRS-CQ10Pd/NhG4-E GRS-CQ12Pd/NhG4-E
GRSCQ14Pd/NhG4-E GRS-CQ16Pd/NhG4-E



Silk Screen	Introduction
AC-L	Live line input of the main board
N	Neutral line of the power supply for the main board
L-OUT	Live line output of the filter board (to the drive and main boards)
N-OUT	Neutral line output of the filter board (to the drive board)
N-OUT1	Output neutral line
L-OUT1	Output live line
DC-BUS	DC-BUS, the other end to the drive board
E	Screw hole for grounding
E1	Grounding line, reserved

(7) Fiter board

GRS-CQ8.0Pd/NhG3-M GRS-CQ10Pd/NhG3-M GRS-CQ12Pd/NhG3-M GRS-CQ14Pd/NhG3-M
GRS-CQ16Pd/NhG3-M GRS-CQ8.0Pd/NhG4-M GRS-CQ10Pd/NhG4-M GRS-CQ12Pd/NhG4-M
GRSCQ14Pd/NhG4-M GRS-CQ16Pd/NhG4-M



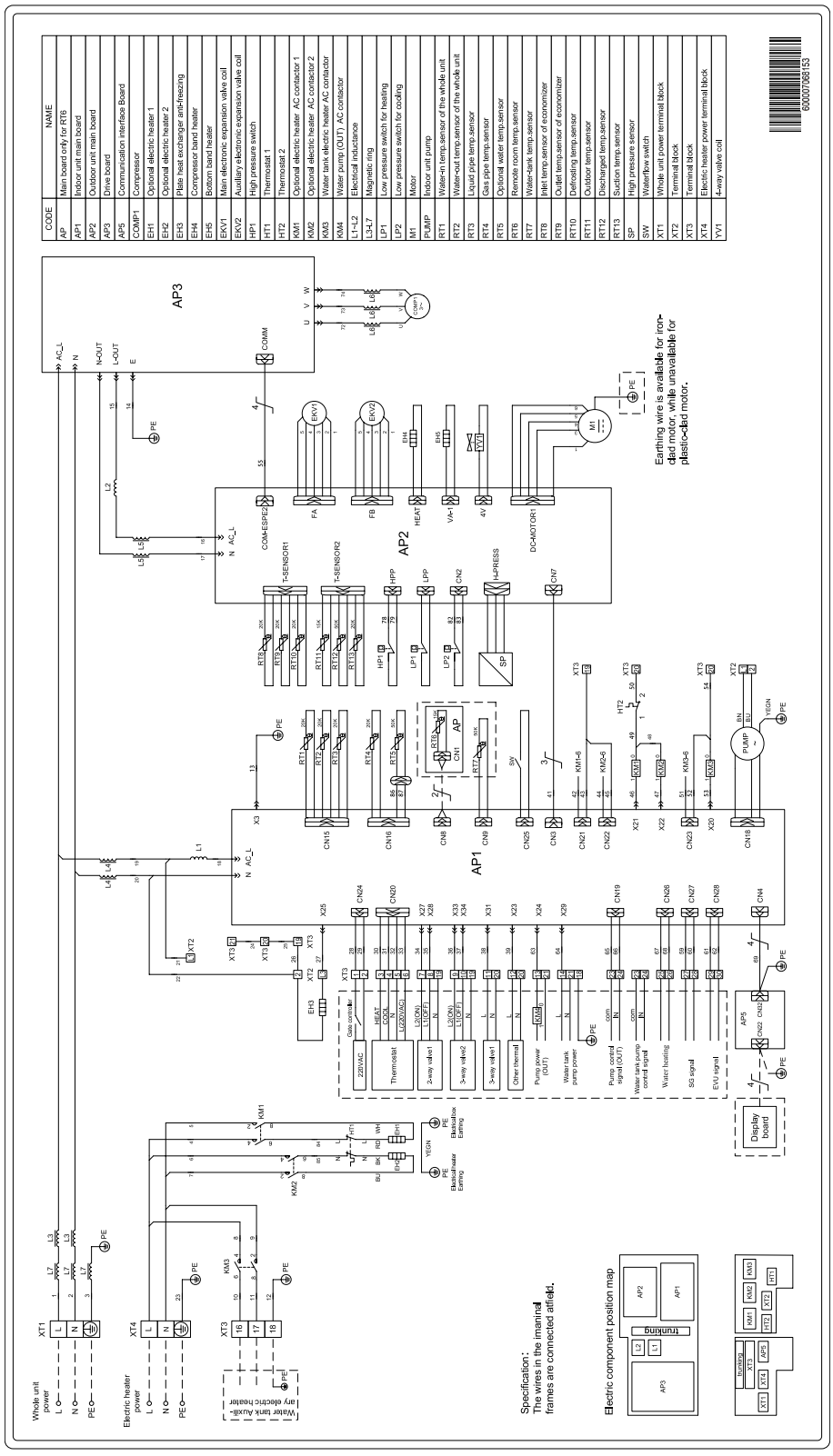
Silk Screen	Introduction
AC-L1	Input side phase L1 of the whole unit
AC-L2	Input side phase L2 of the whole unit
AC-L3	Input side phase L3 of the whole unit

Silk Screen	Introduction
N	Input side neutral line of the whole unit
L1-F	Connect to the power supply input of the drive board
L2-F	
L3-F	
N-F	Neutral line for power supply to the main control board
X11	Live line for power supply to the main control board

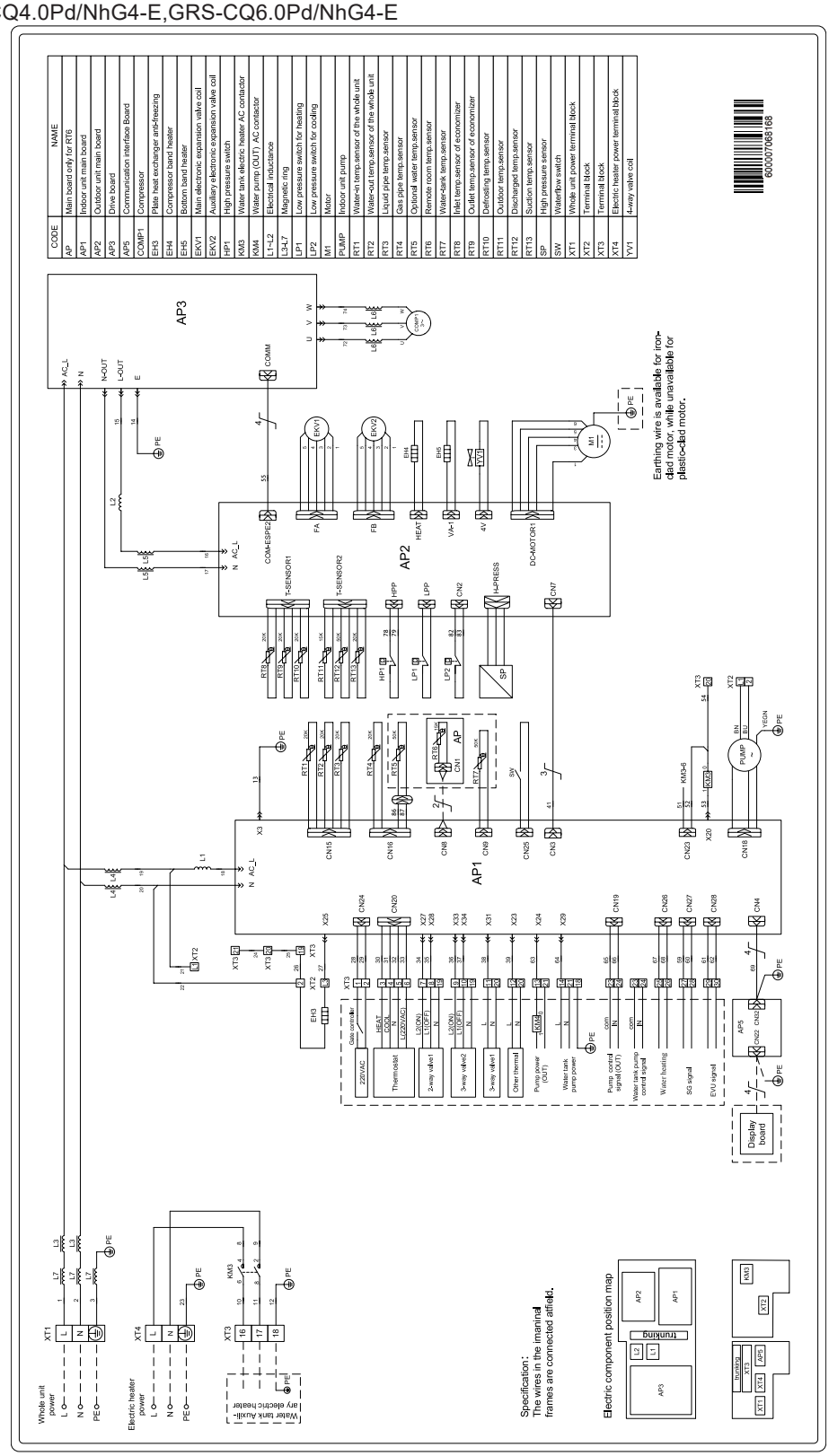
3.2 Electric Wiring

The wiring diagram stuck to the unit always prevails.

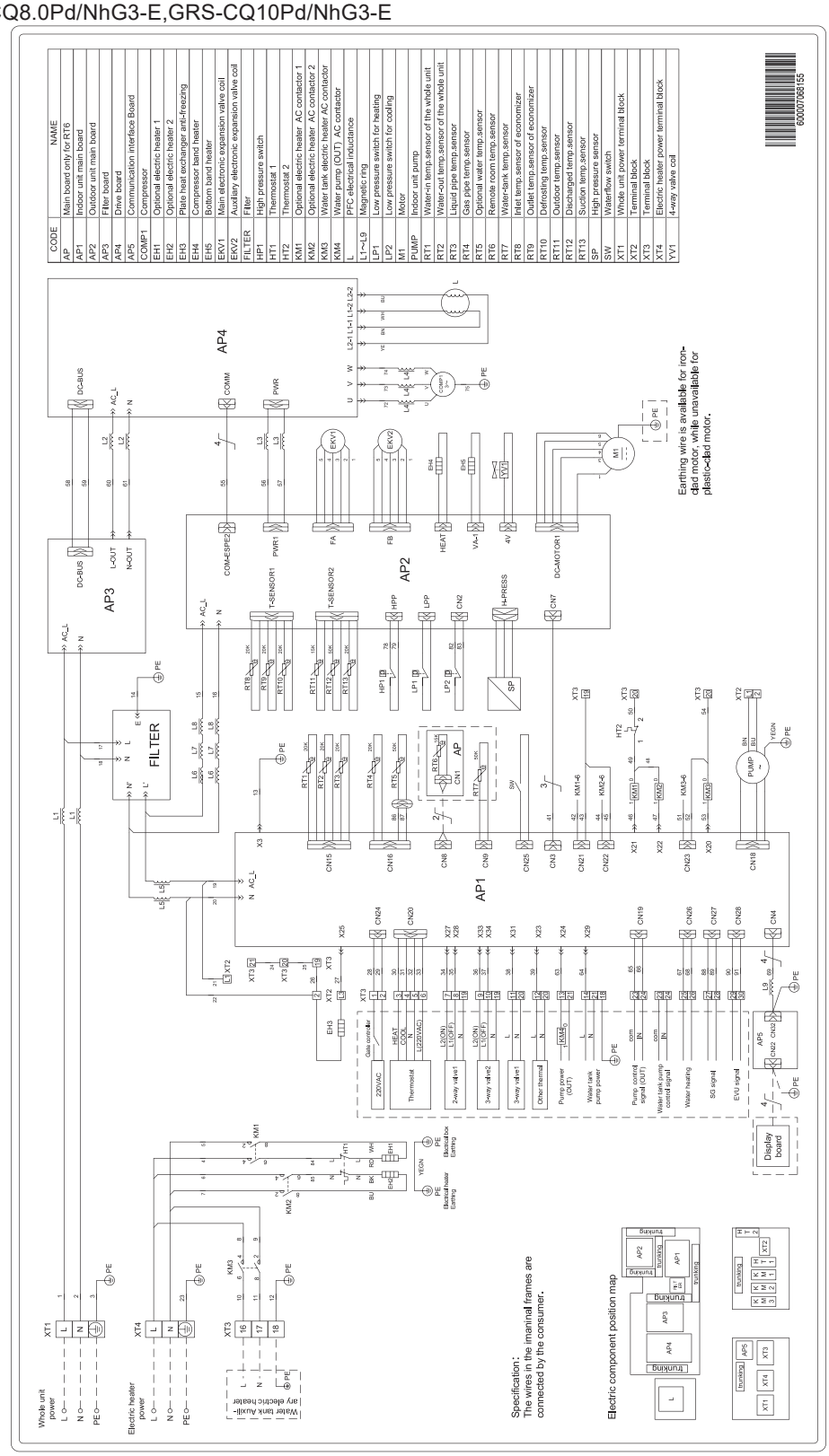
(1) GRS-CQ4.0Pd/NhG3-E,GRS-CQ6.0Pd/NhG3-E



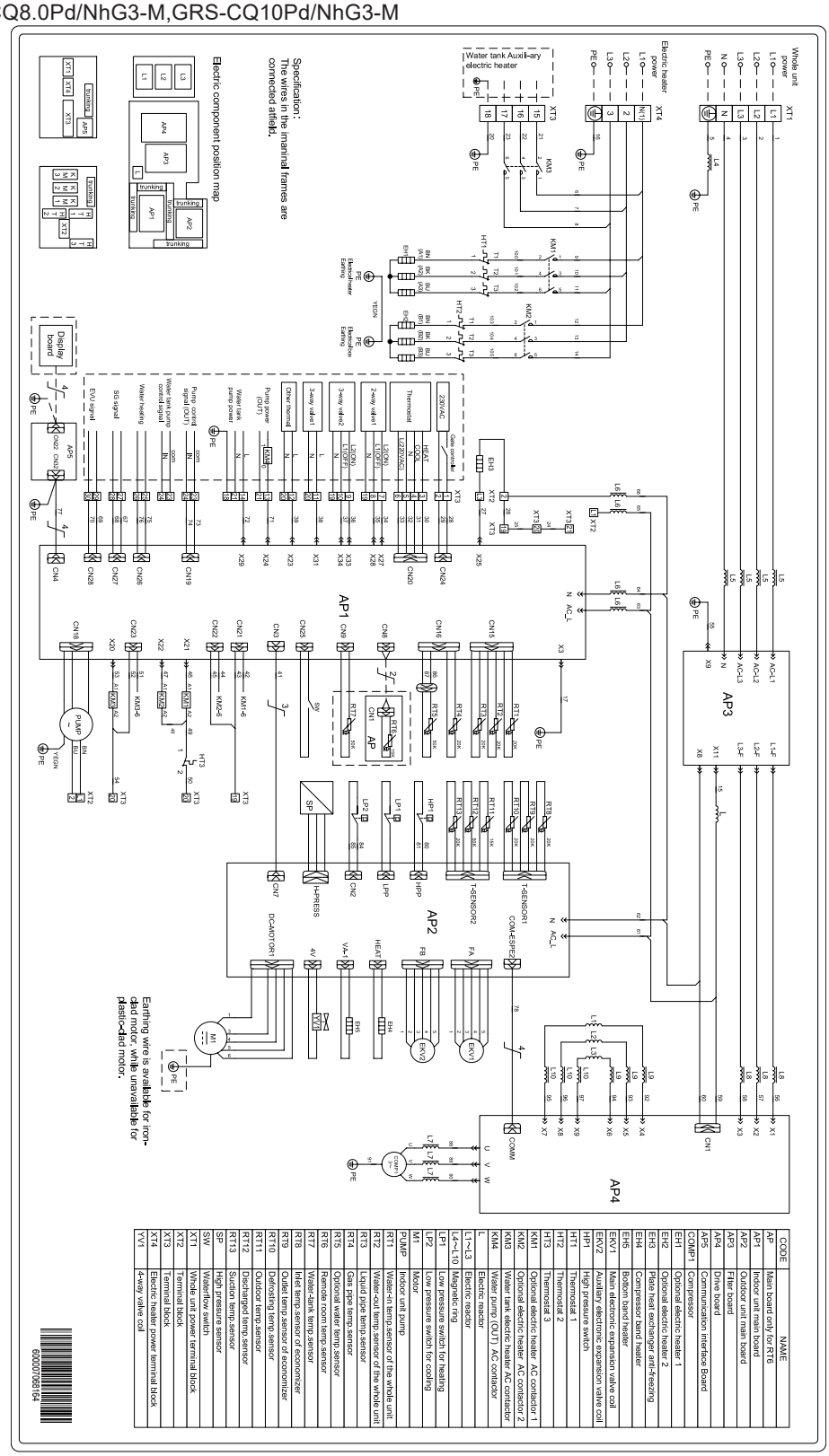
(2) GRS-CQ4.0Pd/NhG4-E,GRS-CQ6.0Pd/NhG4-E



(3) GRS-CQ8.0Pd/NhG3-E,GRS-CQ10Pd/NhG3-E

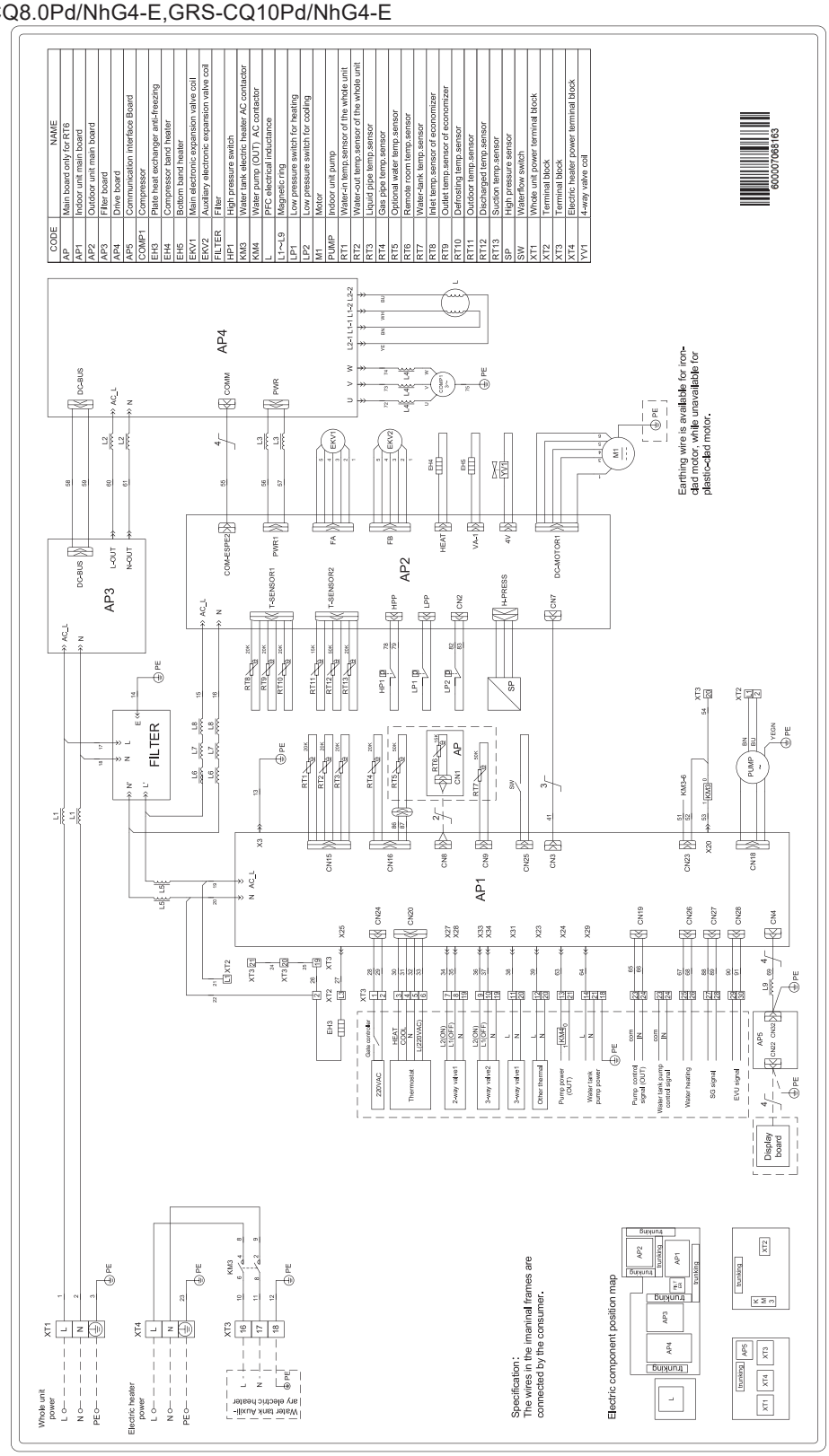


(4) GRS-CQ8.0Pd/NhG3-M,GRS-CQ10Pd/NhG3-M

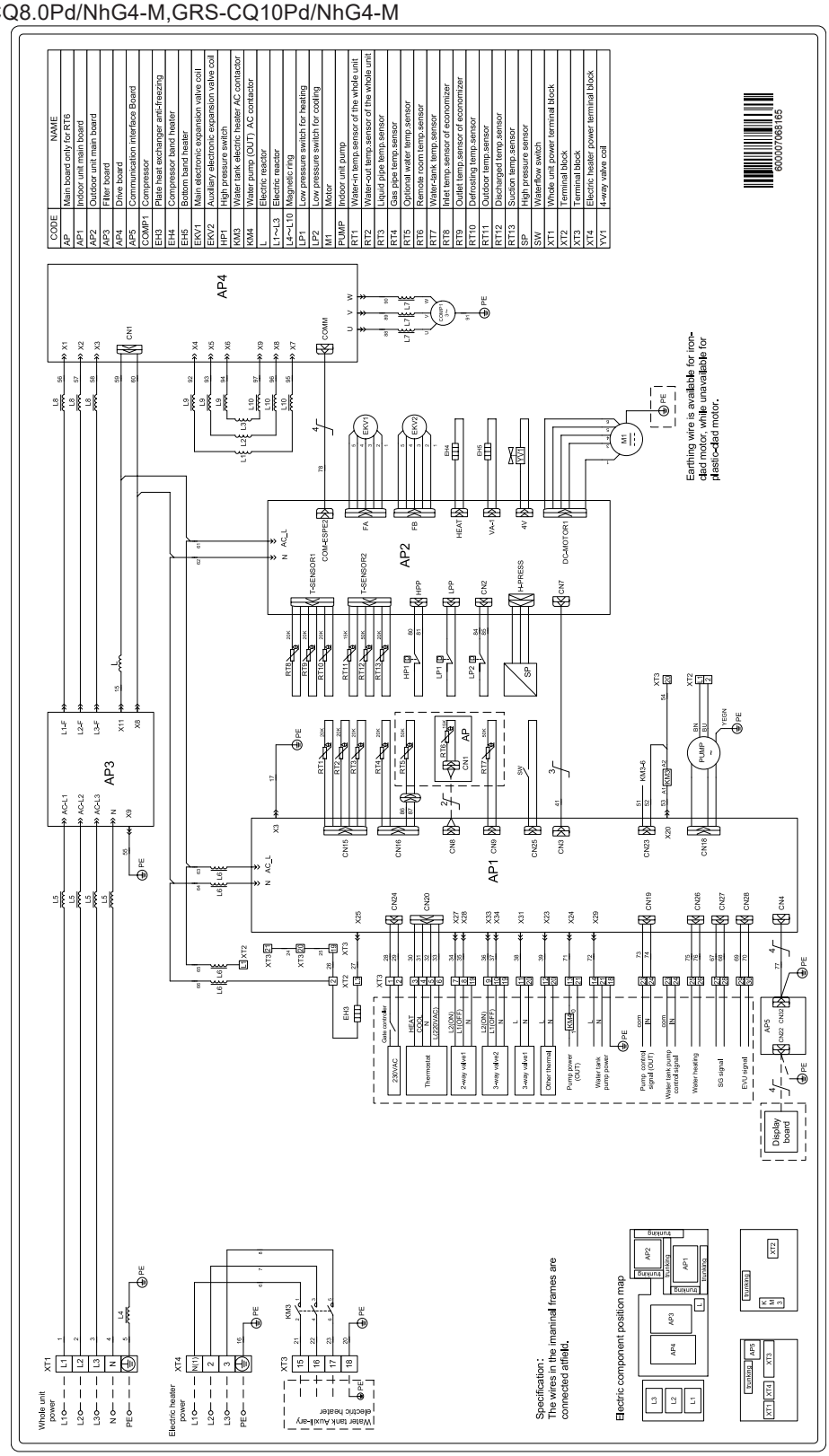


CODE	NAME
AP	Main board only for RT6
AP1	Indoor unit main board
AP2	Outdoor unit main board
AP3	Filter board
AP4	Drive board
AP5	Communication Interface Board
COMP1	Compressor
EH1	Optional electric heater 1
EH2	Optional electric heater 2
EH3	Plate heat exchanger anti-freezing
EH4	Compressor band heater
EH5	Bottom band heater
EKV1	Main electronic expansion valve coil
EKV2	Auxiliary electronic expansion valve coil
HP1	High pressure switch
HT1	Thermostat 1
HT2	Thermostat 2
HT3	Thermostat 3
KM1	Optional electric heater AC contactor 1
KM2	Optional electric heater AC contactor 2
KM3	Water tank electric heater AC contactor
KM4	Water pump (OUT) AC contactor
L	Electric reactor
L1~L3	Electric reactor
L4~L10	Magnetic ring
LP1	Low pressure switch for heating
LP2	Low pressure switch for cooling
M1	Motor
PUMP	Indoor unit pump
RT1	Water-in temp.sensor of the whole unit
RT2	Water-out temp.sensor of the whole unit
RT3	Liquid pipe temp.sensor
RT4	Gas pipe temp.sensor
RT5	Optional water temp.sensor
RT6	Remote room temp.sensor
RT7	Water-tank temp.sensor
RT8	Inlet temp.sensor of economizer
RT9	Outlet temp.sensor of economizer
RT10	Defrosting temp.sensor
RT11	Outdoor temp.sensor
RT12	Discharged temp.sensor
RT13	Suction temp.sensor
SP	High pressure sensor
SW	Waterflow switch
XT1	Whole unit power terminal block
XT2	Terminal block
XT3	Terminal block
XT4	Electric heater power terminal block
YV1	4-way valve coil

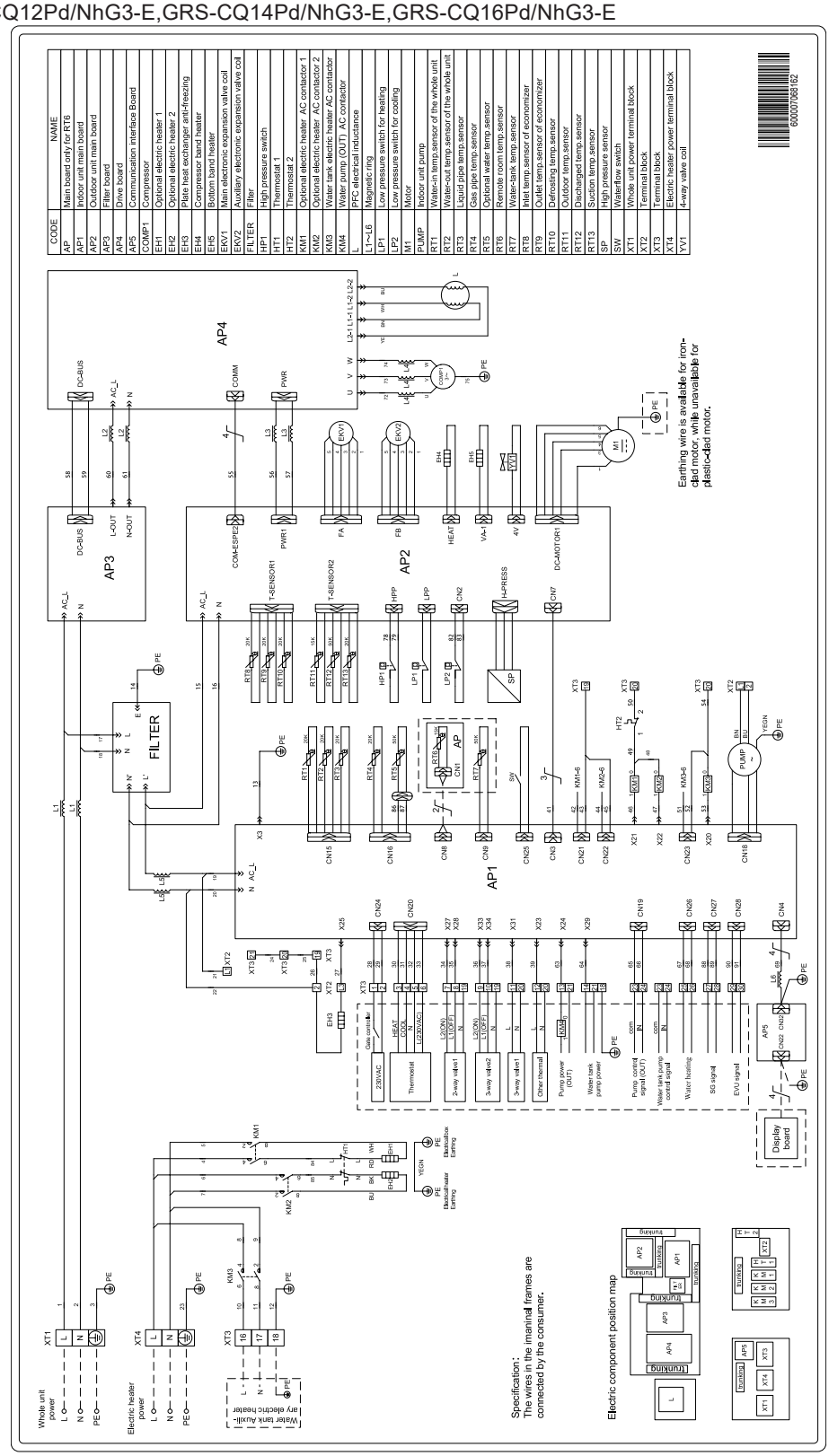
(5) GRS-CQ8.0Pd/NhG4-E,GRS-CQ10Pd/NhG4-E



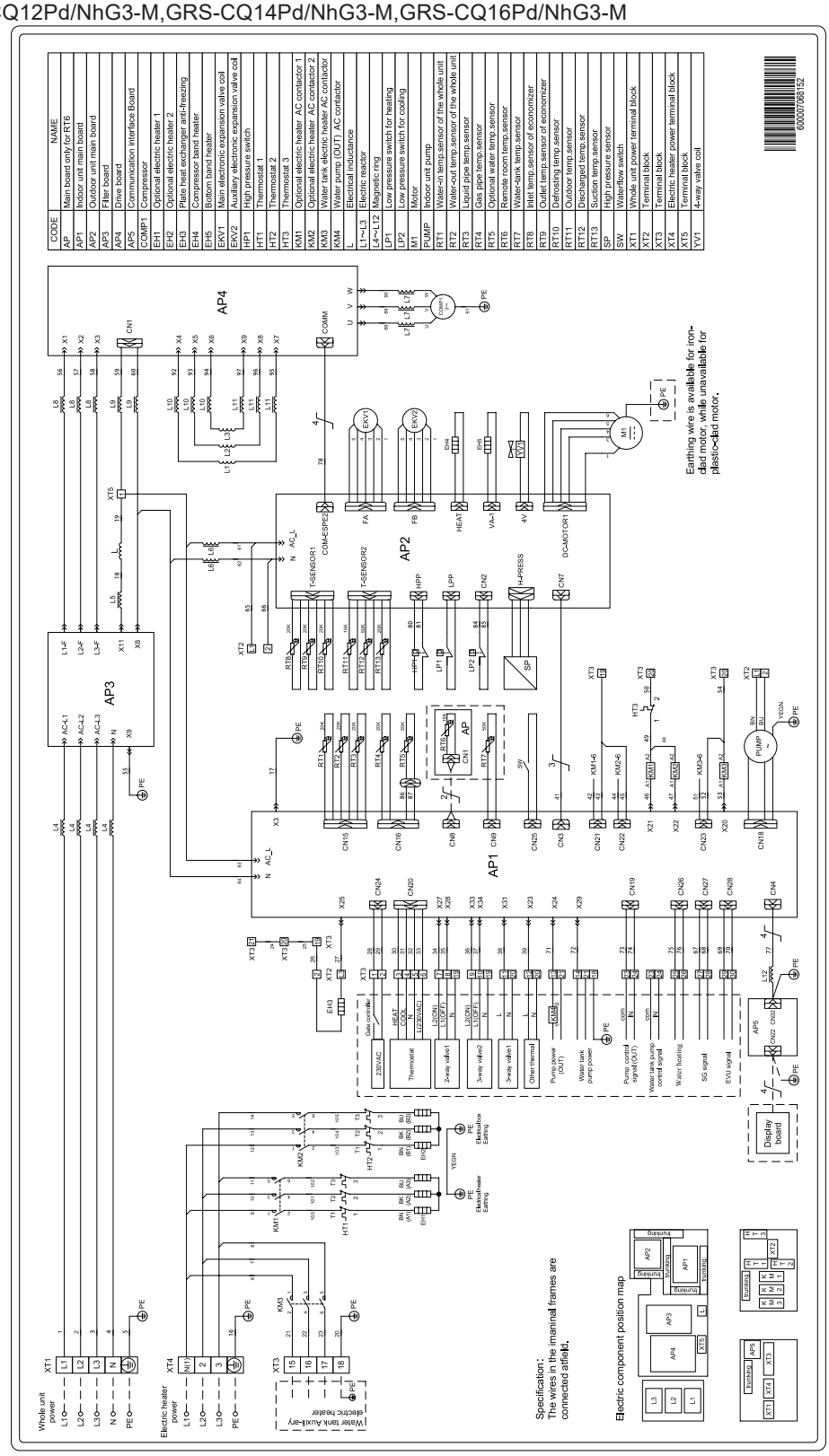
(6) GRS-CQ8.0Pd/NhG4-M,GRS-CQ10Pd/NhG4-M



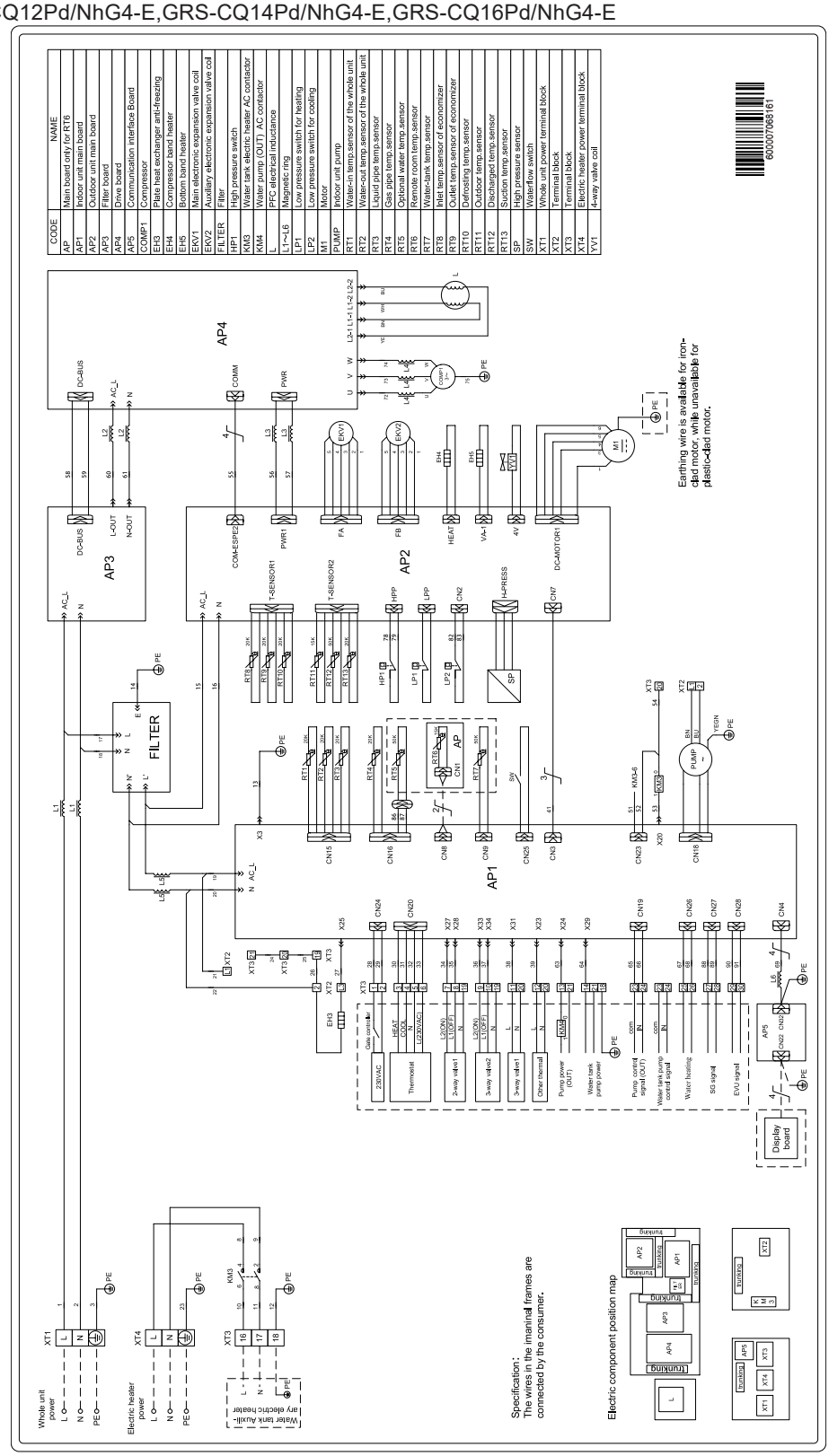
(7) GRS-CQ12Pd/NhG3-E,GRS-CQ14Pd/NhG3-E,GRS-CQ16Pd/NhG3-E



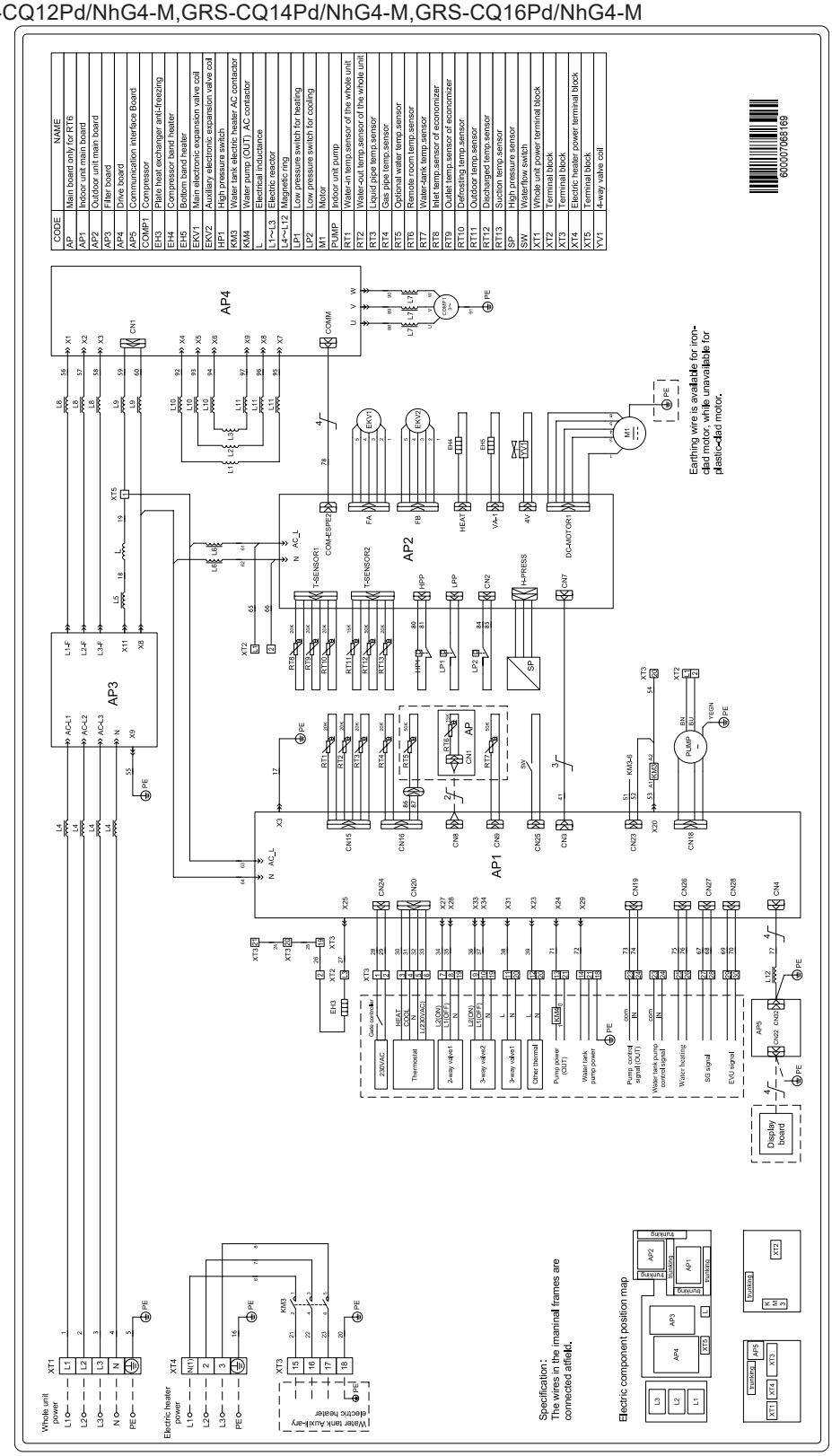
(8) GRS-CQ12Pd/NhG3-M,GRS-CQ14Pd/NhG3-M,GRS-CQ16Pd/NhG3-M



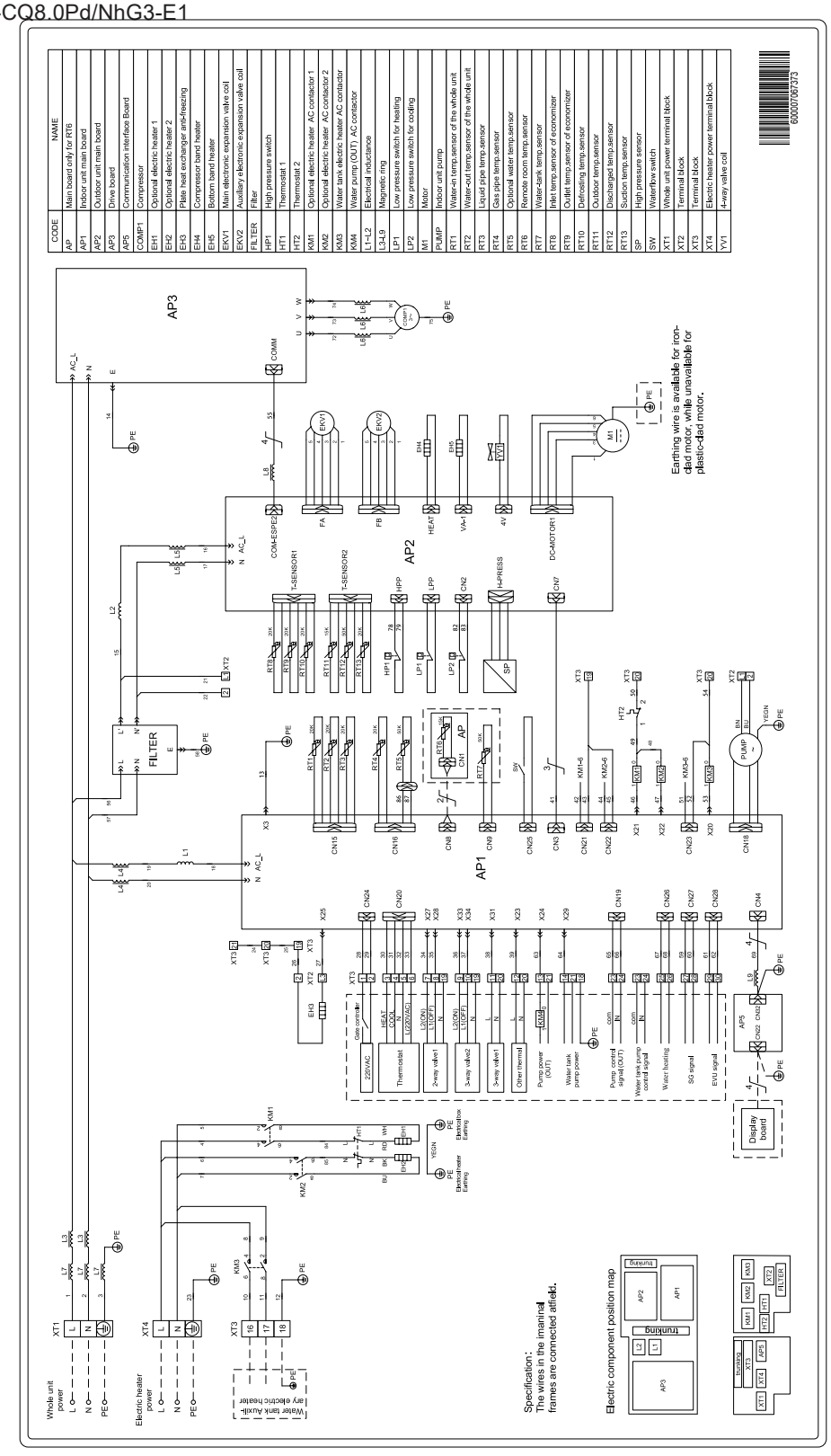
(9) GRS-CQ12Pd/NhG4-E,GRS-CQ14Pd/NhG4-E,GRS-CQ16Pd/NhG4-E



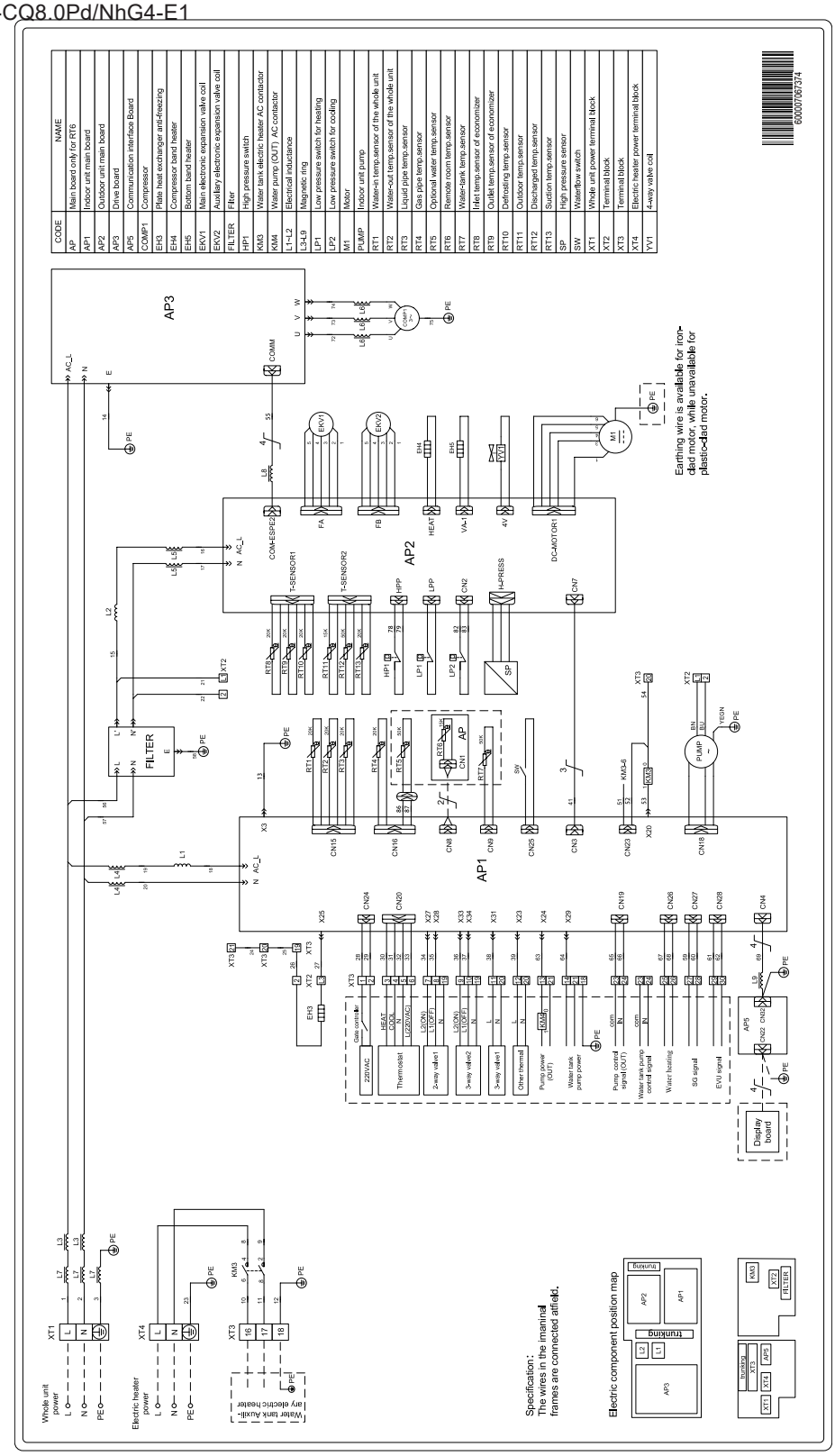
(10) GRS-CQ12Pd/NhG4-M,GRS-CQ14Pd/NhG4-M,GRS-CQ16Pd/NhG4-M



(11) GRS-CQ8.0Pd/NhG3-E1


CODE NAME
AP Main board only for RT6
AP1 Indoor unit main board
AP2 Outdoor unit main board
AP3 Drive board
AP5 Communication interface Board
COMP1 Compressor
EH1 Optional electric heater 1
EH2 Optional electric heater 2
EH3 Plate heat exchanger anti-freezing
EH4 Compressor band heater
EH5 Bottom band heater
EKV1 Main electronic expansion valve coil
EKV2 Auxiliary electronic expansion valve coil
FILTER Filter
HP1 High pressure switch
HT1 Thermostat 1
HT2 Thermostat 2
KM1 Optional electric heater AC contactor 1
KM2 Optional electric heater AC contactor 2
KM3 Water tank electric heater AC contactor
KM4 Water pump (OUT) AC contactor
L1~L2 Electrical inductance
L3~L9 Magnetic ring
LP1 Low pressure switch for heating
LP2 Low pressure switch for cooling
M1 Motor
PUMP Indoor unit pump
RT1 Water-in temp.sensor of the whole unit
RT2 Water-out temp.sensor of the whole unit
RT3 Liquid pipe temp.sensor
RT4 Gas pipe temp.sensor
RT5 Optional water temp.sensor
RT6 Remote room temp.sensor
RT7 Water-tank temp.sensor
RT8 Inlet temp.sensor of economizer
RT9 Outlet temp.sensor of economizer
RT10 Defrosting temp.sensor
RT11 Outdoor temp.sensor
RT12 Discharged temp.sensor
RT13 Suction temp.sensor
SP High pressure sensor
SW Waterflow switch
XT1 Whole unit power terminal block
XT2 Terminal block
XT3 Terminal block
XT4 Electric heater power terminal block
YV1 4-way valve coil
6300070657373
AP3
AP2
AP1
FILTER
Earthing wire is available for iron-clad motor, while unavailable for plastic-clad motor.
Whole unit power
Electric heater power
Water tank Auxilr. ary electric heater
Specification:
The wires in the imaginal frames are connected alike.
Electric component position map
Display board
Turn/ring
Turn/ring
Turn/ring

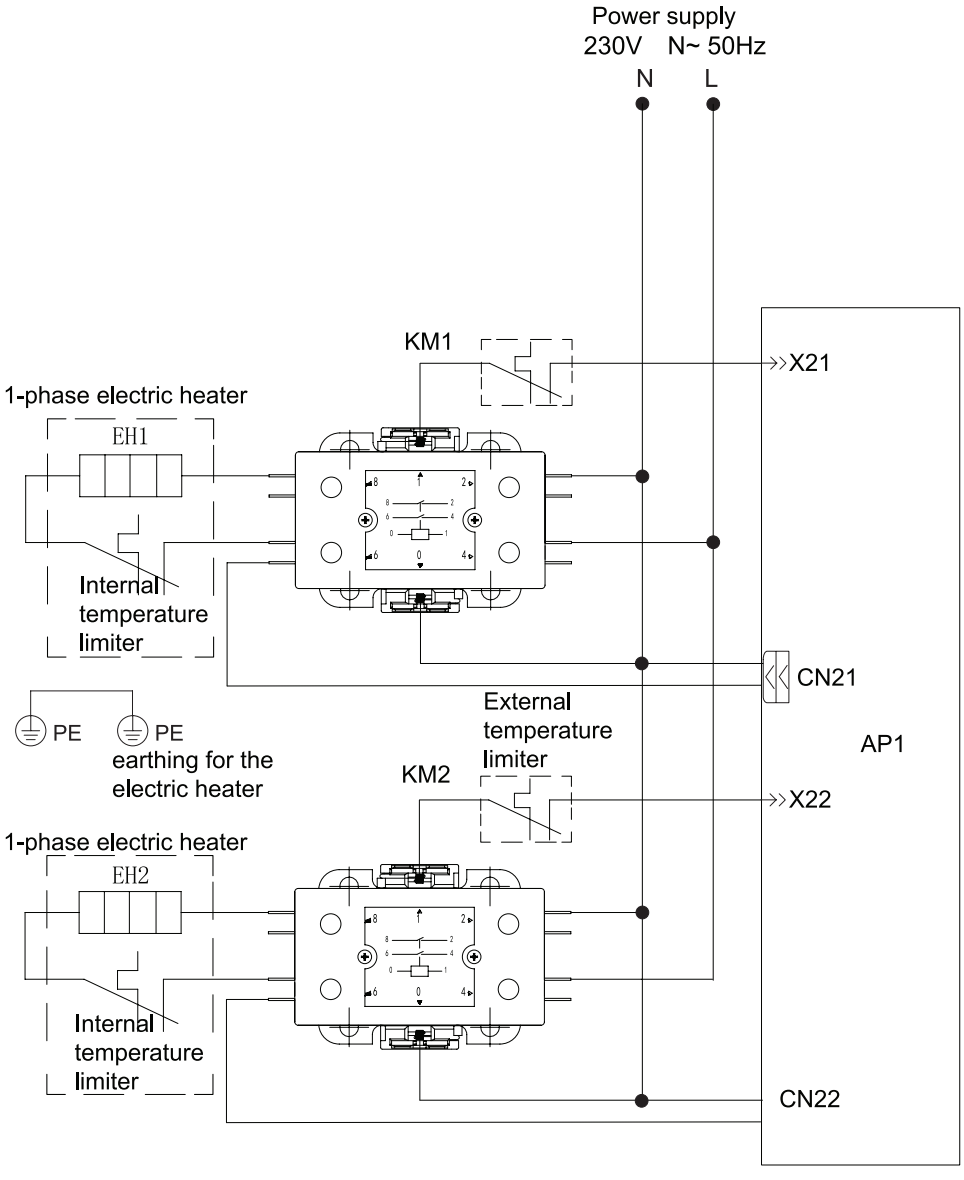
(12) GRS-CQ8.0Pd/NhG4-E1



3.3 Wiring of the Field Supplied Electric Heater

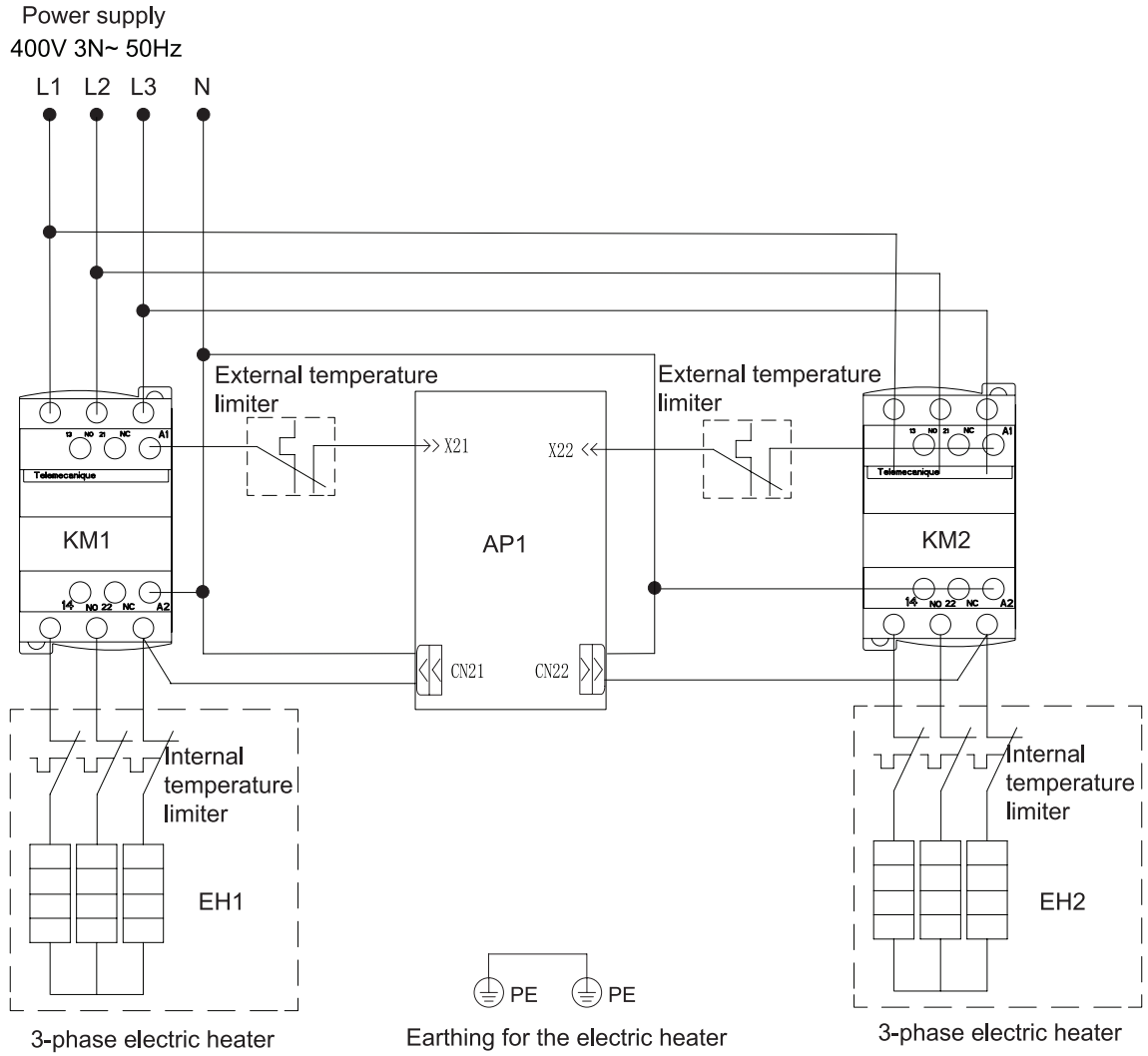
(1) 1-Phase G4 Units

- The electric heater is powered by the field supplied power source (230V N~ 50Hz).
- The electric heater is controlled by the field supplied AC contactor which should be selected based on the power size of the electric heater.
- As required, the temperature limiter can be placed either internally or externally.
- As shown in the figure below, on the main board there are two groups of controllers for the electric heater, corresponding to contactors KM1 and KM2.
  - For group 1, the hot line L of the power supply is connected to KM1-4 and the neutral line N is connected to KM1-2. The electric heater is connected to KM1-8 and KM1-6 at the contactor output sides. The contactor coil KM1-1 is connected to the main board AP1-X2 and the contactor coil KM1-0 is connected to the neutral line N. One end of the AP1-CN21 is connected to the contactor KM1-6 (output hot lien) and the other is to the neutral line N.
  - For group 2, the hot line of the power supply is connected to KM2-4 and the neutral line is connected to KM2-2. The electric heater is connected to KM2-8 and KM2-8 at the contactor output sides. The contactor coil KM2-1 is connected to the main board AP1-X22 and the contactor coil KM2-0 is connected to the neutral line N. One end of the AP1-CN22 is connected to the contactor KM2-6 (output hot lien) and the other is to the neutral line N.



(2) 3-Phase G4 Units

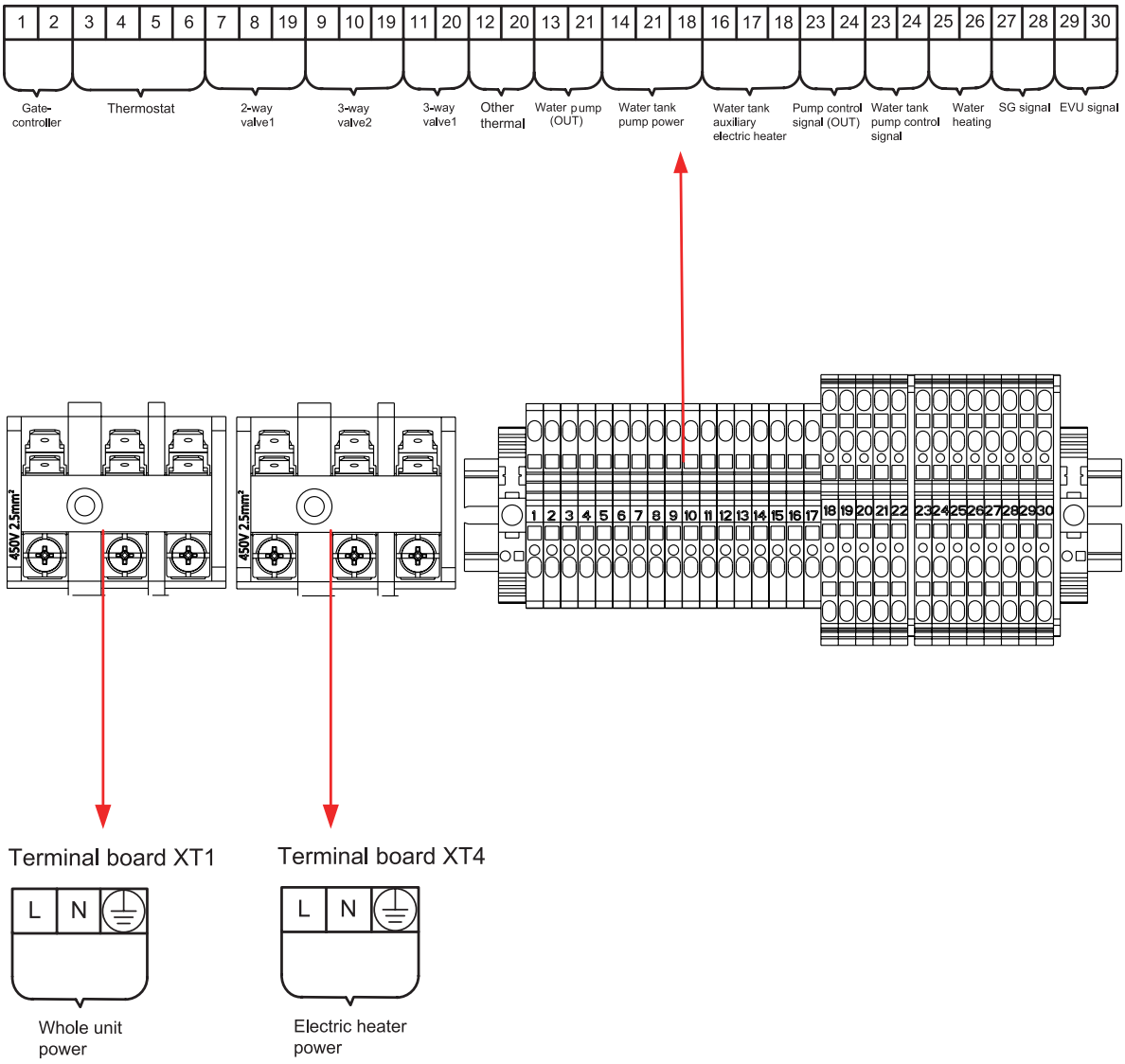
- The electric heater is powered by the field supplied power source (400V 3N~ 50Hz)).
- The electric heater is controlled by the field supplied AC contactor which should be selected based on the power size of the electric heater.
- As required, the temperature limiter can be placed either internally or externally.
- As shown in the figure below, on the main board there are two groups of controllers for the electric heater, corresponding to contactors KM1 and KM2.
  - For group 1, the hot line L1, L2 and L3 of the power supply is connected to KM1-1, KM1-3, and KM1-5. The electric heater is connected to KM1-2, KM1-4, and KM1-6 at the contactor output sides. The contactor coil KM1-A1 is connected to the main board AP1-X21 and the contactor coil KM1-A2 is connected to the neutral line N. One end of the AP1-CN21 is connected to the contactor KM1-6 (output hot lien) and the other is to the neutral line N.
  - For group 1, the hot line L1, L2 and L3 of the power supply is connected to KM2-1, KM2-3, and KM2-5. The electric heater is connected to KM2-2, KM2-4, and KM2-6 at the contactor output sides. The contactor coil KM2-A1 is connected to the main board AP2-X21 and the contactor coil KM2-A2 is connected to the neutral line N. One end of the AP1-CN22 is connected to the contactor KM2-6 (output hot lien) and the other is to the neutral line N.



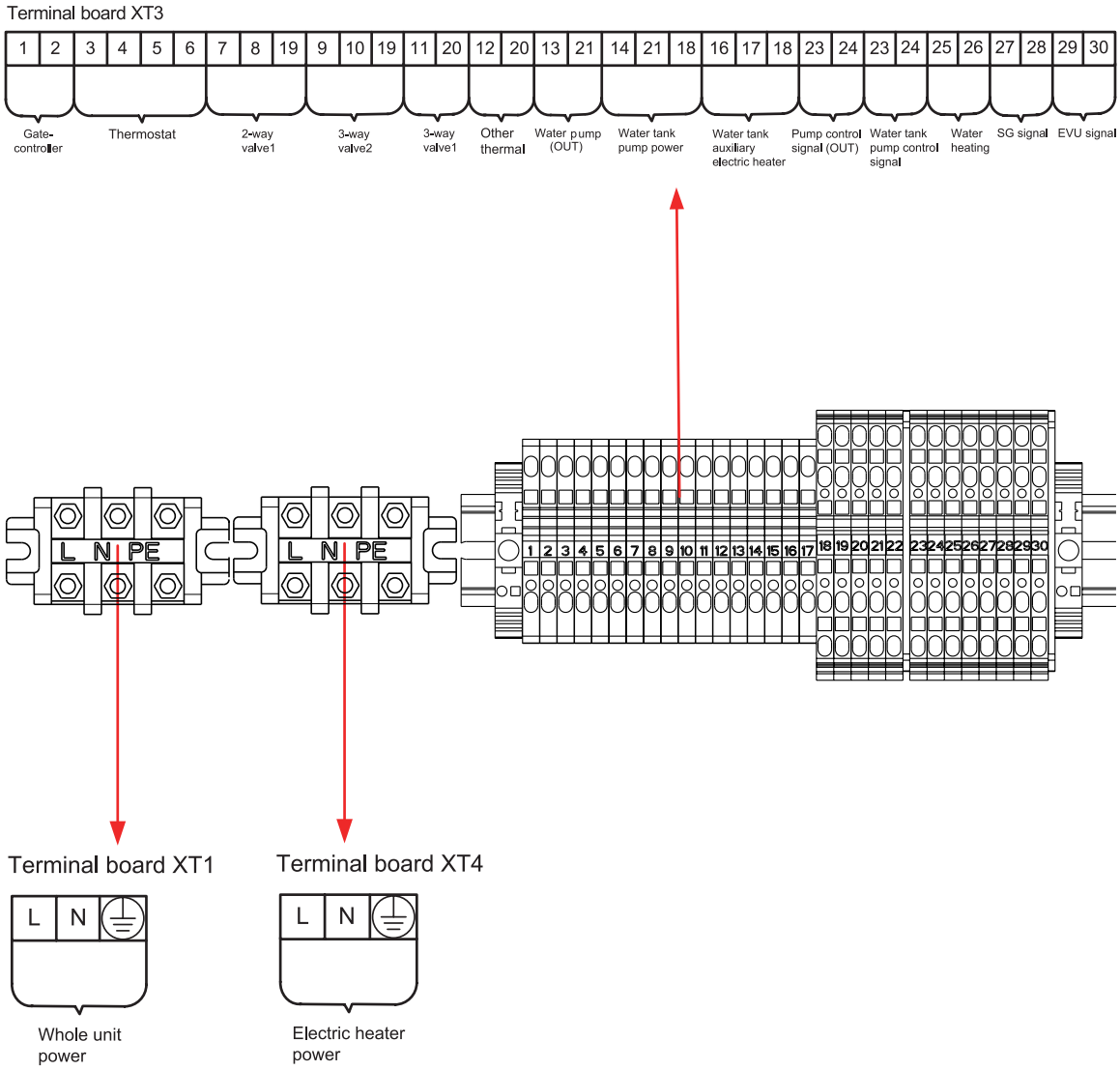
3.4 Terminal Board

(1) GRS-CQ4.0Pd/NhG3-E, GRS-CQ6.0Pd/NhG3-E, GRS-CQ4.0Pd/NhG4-E, GRS-CQ6.0Pd/NhG4-E

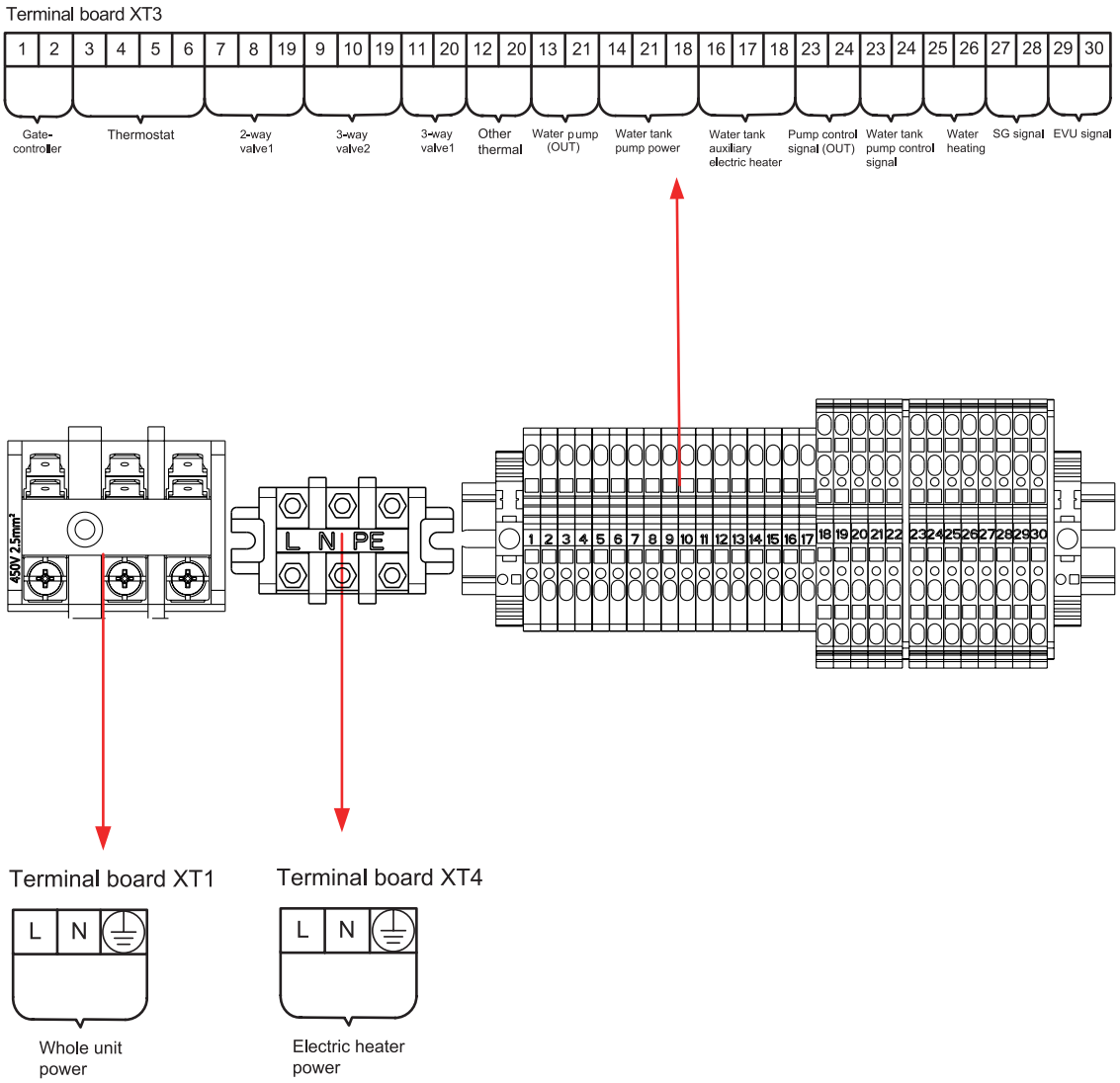
Terminal board XT3



(2) GRS-CQ8.0Pd/NhG3-E, GRS-CQ10Pd/NhG3-E,GRS-CQ12Pd/NhG3-E, GRS-CQ14Pd/NhG3-E, GRS-CQ16Pd/NhG3-E, GRS-CQ8.0Pd/NhG4-E, GRSCQ10Pd/NhG4-E,GRS-CQ12Pd/NhG4-E, GRSCQ14Pd/NhG4-E, GRS-CQ16Pd/NhG4-E

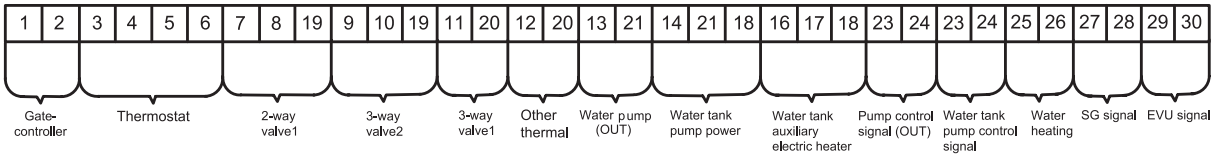


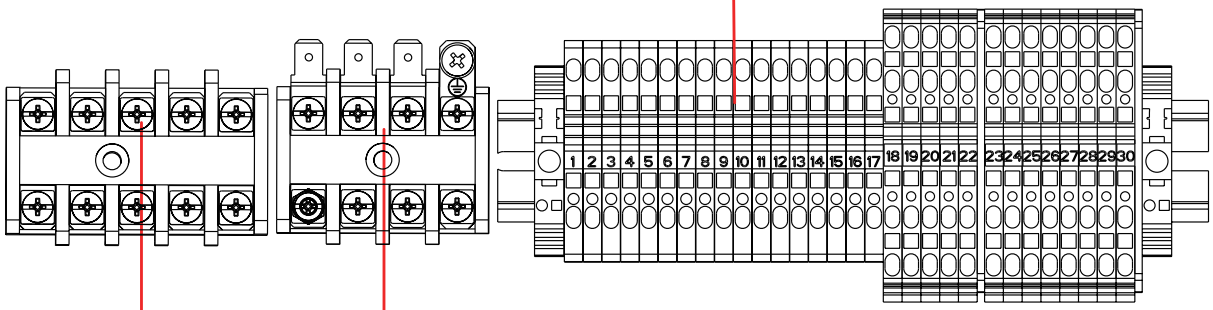
(3) GRS-CQ8.0Pd/NhG3-E1, GRS-CQ8.0Pd/NhG4-E1



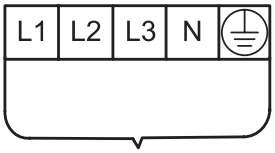
(4) GRS-CQ8.0Pd/NhG3-M,GRS-CQ10Pd/NhG3-M, GRS-CQ8.0Pd/NhG4-M, GRS-CQ10Pd/NhG4-M, GRS-CQ12Pd/NhG3-M, GRS-CQ14Pd/NhG3-M, GRS-CQ16Pd/NhG3-M, GRS-CQ12Pd/NhG4-M, GRS-CQ14Pd/NhG4-M, GRS-CQ16Pd/NhG4-M

Terminal board XT3



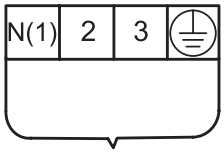


Terminal blockXT1



Whole unit power

Terminal blockXT4



Electric heater power

4 Test Operation

4.1 Check for Wiring

⚠ NOTE

• Do not check for the power supply unless proper checkout equipment has prepared and preventive measures have been taken, otherwise it would lead to severe injury.

(1) Are sizes of connection lines and the air switch properly selected?

(2) Does wiring comply with relative standards and electric codes?

(3) Is there any incorrect wiring?

(4) Does each contact work properly?

(5) Is the power supply and insulation proper?

(6) Are initial set points of control and protective elements satisfied?

4.2 Check for the Water System

(1) Are water inlet and outlet directions correct?

(2) Is the water piping cleaned? Are there foreign matters at the pipe joints? Is the water quality satisfied?

(3) Is insulation of water pipes in good condition?

(4) Does exhaust valve of the water system work properly?

4.3 Check for the Communication System

When the unit is powered on, check for the communication system, including: communication between AP1 and AP2, between the wired controller and the main board. When there is unusual communication, this error will be displayed at the wired controller. Then, check out the cause according to the displayed error. See the figure below for wiring of the communication system.

4.4 Trial Run

Start the unit when there is no any problem for wiring and piping. After startup, check for the electrostatic expansion valve, water pump, fan, and compressor to see if they work normally. When there is any error, solve it according to the troubleshooting flowchart covered in this manual. However, if the troubleshooting flowchart is still unhelpful, please contact GREE sales distributor.

5 Troubleshooting

5.1 Troubleshooting for the Main Unit

Code Indication	Error Name	Source of Error Signal	Control Description
F4	Ambient temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
d6	Defrosting temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
F7	Discharge temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.

Code Indication	Error Name	Source of Error Signal	Control Description
F5	Suction temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
F2	Economizer inlet temperature sensor	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
F6	Economizer outlet temperature sensor	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
EF	Fan error	① The main control board 2 is damaged. ② The wire connecting the wiring terminals of the mainboard breaks.	If it occurs for 6 times during one hour, it should be cleared by deenergization. If it occurs for less than 6 times, it will be automatically cleared.
E1	High pressure protection	① Comp High-pressure switch is broken or the wiring is loose. ② The water in the tank is not enough. ③ The installation of tank temp sensor is not correct. ④ The gas valve and liquid valve are not fully open. ⑤ The electronic expansion valve cannot work normally.	De-energize the unit and then, energize it again. If the malfunction is removed, the code will be cleared.
E3	Low pressure protection	① Comp Low-pressure switch is broken or the wiring is loose. ② The system has leaked. ③ The fans stop running or reverse.	It will be cleared if the malfunction is removed after the unit has been turned off.
E4	High discharge protection	① The resistance of temperature sensor is not correct. ② The electronic expansion valve is blocked. ③ The system has leaked. ④ The main cotnrol board 2 is damaged.	It will be cleared if the discharge temp is lower than 92°C .
E6	Communication error between the main boards	① The communication line of the unit is not connected. ② The communication line is not through. ③ The communication line of the unit is not connected correctly. ④ The two ends of communication line are not mounted with magnetic ring. ⑤ The unit is not electrically powered.	It will be cleared once communication recovers or it will be shown all the time.

Code Indication	Error Name	Source of Error Signal	Control Description
E6	Communication error between the main control board 2 and the drive board	① The communication line of the unit is not connected. ② The communication line is not through. ③ The communication line of the unit is not connected correctly. ④ The two ends of communication line are not mounted with magnetic ring. ⑤ The unit is not electrically powered.	It will be cleared once communication recovers or it will be shown all the time.
E6	Communication error between the control panel and indoor main board	① The communication line of the unit is not connected. ② The communication line is not through. ③ The communication line of the unit is not connected correctly. ④ The two ends of communication line are not mounted with magnetic ring. ⑤ The unit is not electrically powered.	It will be cleared once communication recovers or it will be shown all the time.
Fc	High pressure sensor error	① The sensor is damaged. ② The wire of the sensor is loose. ③ The position of the sensor is wrong.	It will be automatically cleared after the failure is removed.
F9	Leaving water temperature sensor error for the plate type heat exchanger of the heat pump	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
dH	Leaving water temperature sensor error for the auxiliary electric heat of the heat pump	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
/	Entering water temperature sensor error of the plate type heat exchanger of the heat pump	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
FE	Water tank temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
F0	Remote room temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.

Code Indication	Error Name	Source of Error Signal	Control Description
Ec	Protection for the flow switch of the heat pump	① The switch is damaged. ② The wire of the switch is loose. ③ The position of the switch is wrong	It will be cleared after the unit is turned off.
E2	Indoor anti-frozen protection	① The resistance of temperature sensor is not correct. ② The electronic expansion valve cannot work normally.	It will be cleared once malfunction is removed or it will be shown all the time; but it will be cleared immediately when switching operation mode.
Ed	outlet temperature High-temp protection	① The resistance of temperature sensor is not correct. ② The plug on temperature sensor is not correctly connected to the socket on mainboard. ③ The main control board is damaged.	De-energize the unit and then, energize it again. If the malfunction is removed, the code will be cleared.
EH	Welding protection to the auxiliary electric heater 1 of the heat pump	The AC contactor is damaged.	De-energize the unit and then, energize it again. If the malfunction is removed, the code will be cleared.
EH	Welding protection to the auxiliary electric heater 2 of the heat pump	The AC contactor is damaged.	De-energize the unit and then, energize it again. If the malfunction is removed, the code will be cleared.
EH	Welding protection to the water tank electric heater	The AC contactor is damaged.	De-energize the unit and then, energize it again. If the malfunction is removed, the code will be cleared.
c5	Jumper cap error	Incorrect jumper is used or the jumper is not fixed securely.	De-energize, re-energize and re-inspect it. This error cannot be cleared automatically.
E6	Communication error between the control panel and the unit	① The communication line of the unit is not connected. ② The communication line is not through. ③ The communication line of the unit is not connected correctly. ④ The two ends of communication line are not mounted with magnetic ring. ⑤ The unit is not electrically powered.	It will be cleared once communication recovers or it will be shown all the time.
F3	Refrigerant vapor line temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.

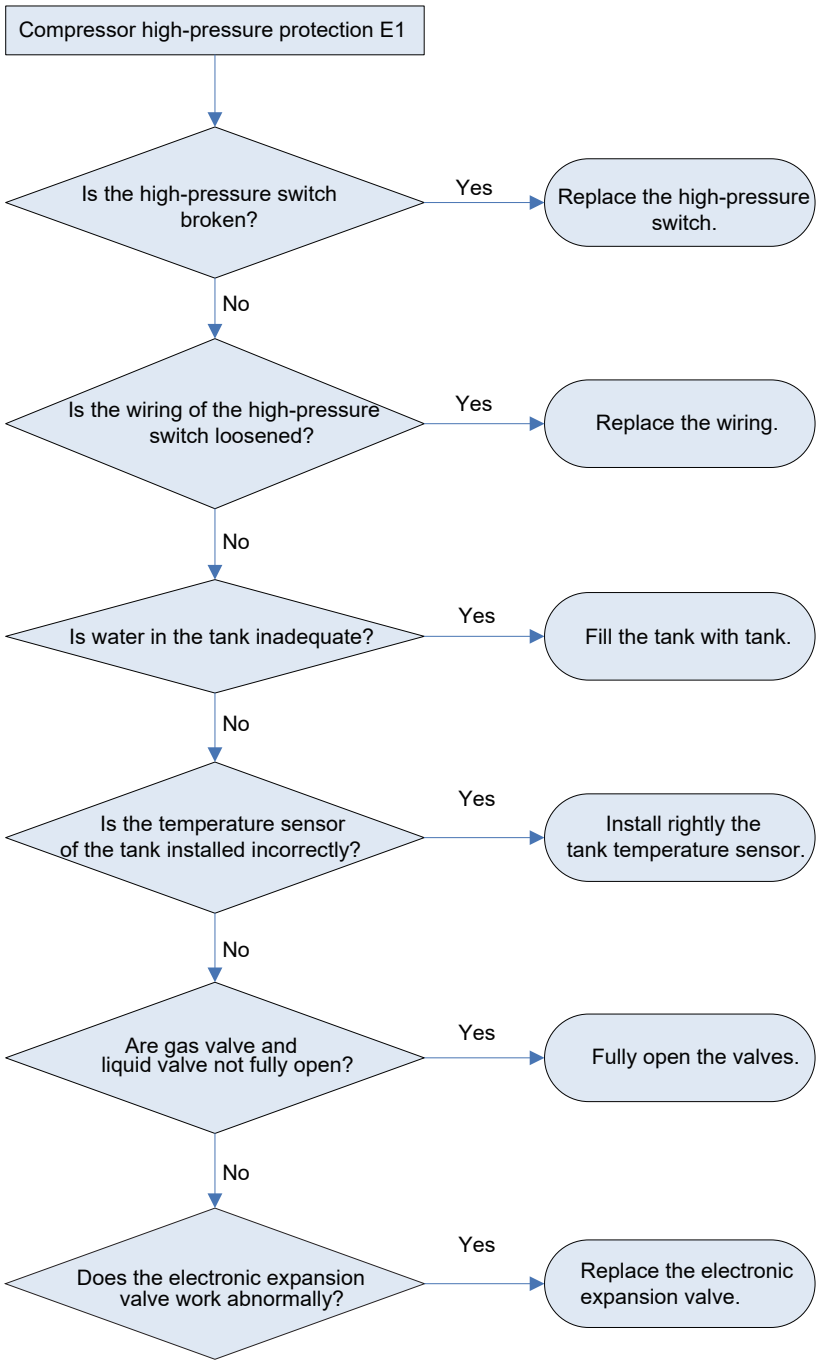
Code Indication	Error Name	Source of Error Signal	Control Description
F1	Refrigerant liquid line temperature sensor error	① The plug on temperature sensor is not correctly connected to the socket on mainboard. ② The resistance of temperature sensor is not correct.	It will be automatically cleared after the failure is removed.
U7	4-way valve error	The jammed 4-way valve fails to reverse the operating mode.	De-energize and then re-energize it, or clear this error manually. It cannot be cleared automatically.

5.2 Troubleshooting for the Drive

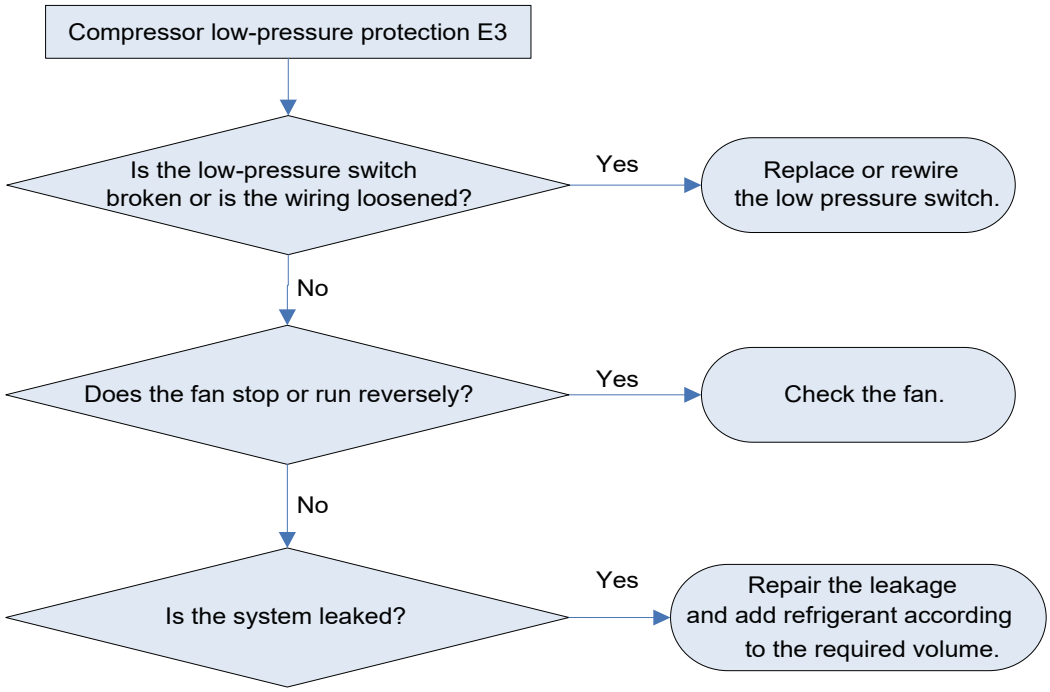
Item		Display on Nixie Tube of the Unit	Display on Wired Controller	Others
Inverter Drive Failure	Reset of Drive System	P0	Reset of Drive System	
	Startup Failure of Compressor	Lc	Startup Failure of Compressor	
	Phase Protection	Ld	Phase Protection	
	Current protection of compressor	P5	Current protection of compressor	
	Communication failure	P6	Communication failure	
	Sensor failure of heat sink	P7	Sensor failure of heat sink	
	Overheat protection of heat sink	P8	Overheat protection of heat sink	
	AC current protection (input side)	PA	AC current protection (input side)	
	Current sensor failure	Pc	Current sensor failure	
	Connection protection of sensor	Pd	Connection protection of sensor	
	Overvoltage protection	PH	Overvoltage protection	
	Under-voltage protection	PL	Under-voltage protection	
	Abnormality of input AC voltage	PP	Abnormality of input AC voltage	
	Charge circuit failure	PU	Charge circuit failure	
	IPM protection	H5	IPM protection	
	Desynchronizing of motor	H7	Desynchronizing of motor	
	PFC abnormality	Hc	PFC abnormality	

5.3 Flow Chart of Troubleshooting

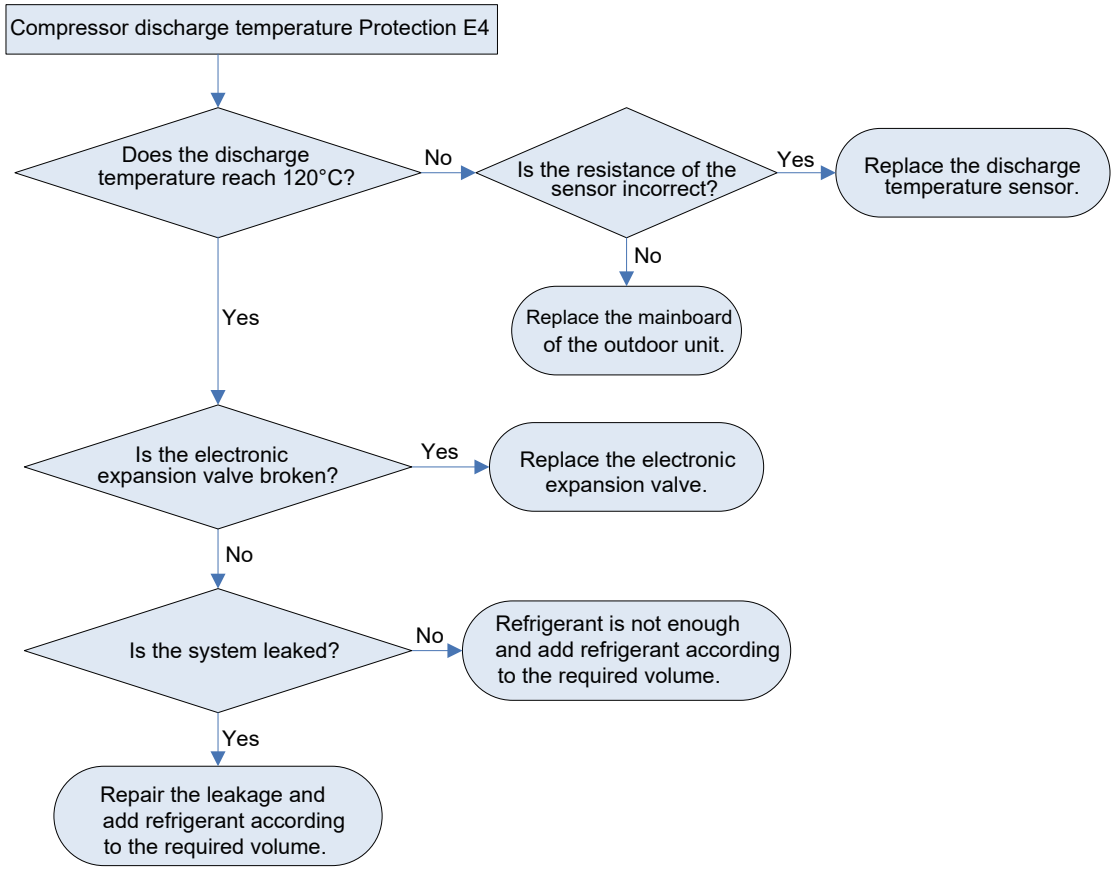
(1) Comp high-pressure protection E1



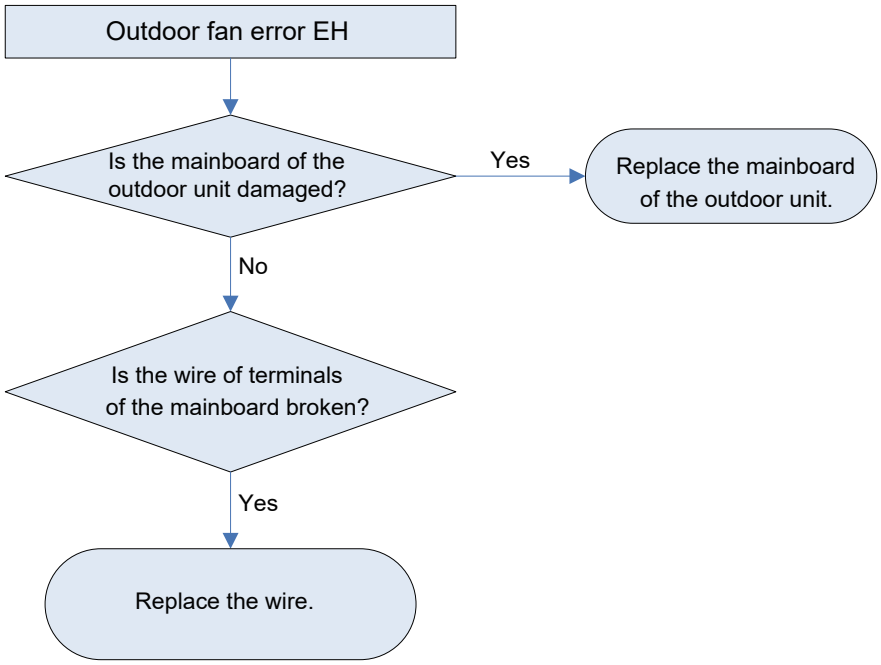
(2) Comp Low- pressure protection E3



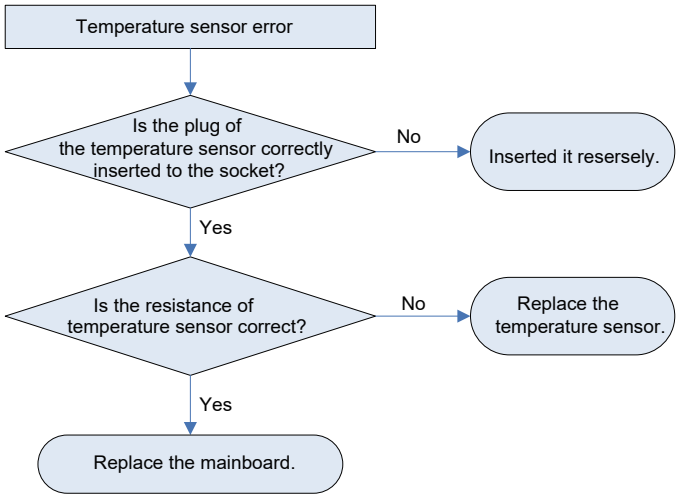
(3) Comp discharge temp protection E4



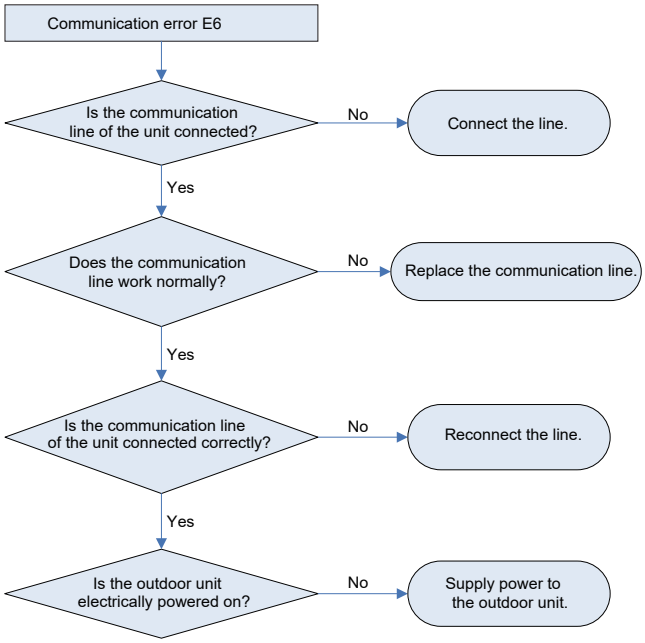
(4) Outdoor fan error EH



(5) Temperature sensor error



(6) Communication malfunction E6



6 Daily Maintenance and Repair

6.1 Daily Maintenance Precautions

In order to avoid damage of unit, all protecting devices in the unit have been set before packaging and delivering, so the user should never adjust or remove them.

For the first startup of the unit or next startup of unit after long-period stop (above 1 day) by cutting off the power, please electrify the unit in advance to preheat the unit for more than 8hr

Never put sundries on the unit and accessories. Keep dry, clean and ventilated around the unit.

Remove the dust accumulated on the condenser fin timely to ensure performance of unit and to avoid stop of unit for protection.

In order to avoid damage of unit caused by blockage of water system, clean the filter in water system periodically and frequently check water replenishing device.

In order to ensure anti-freezing protection, never cut off the power if ambient temperature is below zero in winter.

In order to avoid frost crack of the unit, water in the unit and pipeline systemd should be drained reguarly. In addition, open the end cap of water tank for drainage.

Never frequently make the unit on/off and close manual valve of water system during operation of unit by users.

Ensure frequently check the working condition of each part to see if there is oil stain at pipeline joint and charge valve to avoid leakage of refrigerant.

If users are not able to handle the malfunction of the unit,, please timely contact with authorized service center of company.

⚠ NOTE

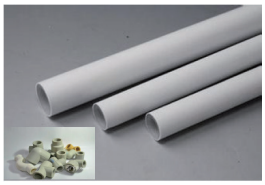
The water pressure gage is installed in returning water line in the indoor unit, Please adjust the hydraulics system pressure according to next item:

(1) If the pressure is less than 0.5 bar, please recharge the water immediately;

(2) When recharging, the hydraulics system pressure should be not more than 2.5 Bar.

6.2 Field Supplied Pipes and Valves

Name	Picture	Usage
Water Filter		It is used to remove foreign matters in the waterway.
2-way Valve		It is used to switch waterways between underfloor system and the FCU.

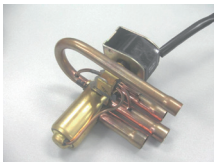
Name	Picture	Usage
3-way Valve		It is used to switch waterways of hot water inside the water tank and circulation water inside the main unit.
Bypass Valve		It is used to balance the water pressure.
Water manifold		It is used to distribute water.
Pipe and Pipe Joint		It is used to connect the water pipes.
Cut-off Valve		It is used to cut off or get through the waterway.

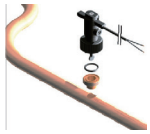
6.3 Service Tools

Name	Picture
Spanner	
Screw Driver	

Name	Picture
Pliers	
Tube Tongs	

6.4 Key Components

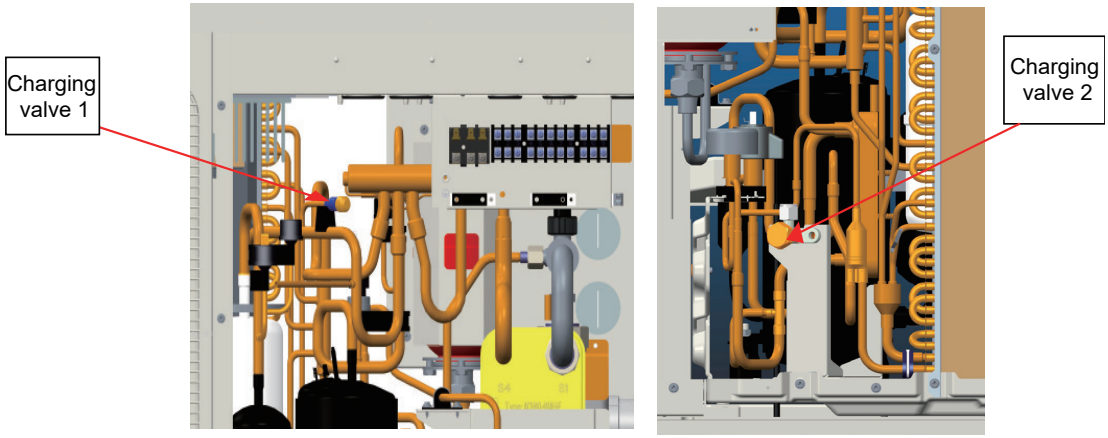
Picture	Name	Function
	Compressor	It is the heart of the cooling system, mainly used to turn the low-temperature, low-pressure refrigerant vapor to high-temperature high-pressure vapor and then discharge it to the evaporator. The two-stage enthalpy-adding compressor is adopted herein, which can improve the heating performance of the unit largely.
	Electrnoic Expansion Valve	It is one of four main components and used to turn the hi-pressure liquid refrigerant to low-temperature, low-pressure vapor-liquid mixture and adjust the refrigerant flow rate entering the evaporator.
	Gas-liquid Separator	It is installed at the side of the suction line, and used to prevent liquid refrigerant entering the compressor, otherwise, the wet compression or the liquid slugging may occur.
	4-way Valve	It is used to switch flow direction of refrigerant and then realize switchover between cooling and heating. It also can be used for defrosting through the counterflow.
	Plate Heat Exchanger	It is the water-refrigerant plate type heat exchanger, used to liquefy the high-temperature high-pressure vapor refrigerant or evaporate the low-temperature low pressure liquid refrigerant. Heat of condensation is taken away by circulation water and heat for evaporation is supplied also by circulation water.
	Water Pump	It is the power equipment for water circulation.
	Expansion vessel	It is used to keep stable pressure of the water system. The tank is charged with a certain volume of nitrogen which is separated from the water side with a gasbag. When pressure of the water side exceeds the nitrogen pressure, the gasbag will expand and water enters into the tank so as to lower the pressure of the water system. In contract, when pressure of the water system goes down, nitrogen in the tank will expel water out to the water system.

Picture	Name	Function
	Flow Switch	It is used to prevent the heat exchanger from being frozen owing to reduced water flow rate. When the flow rate goes down to the point at which the flow switch will act, the switch will trip off and the unit will raise an alarm and shut down.
	Economizer	It is used in heating mode and water heating mode but NOT used in cooling mode.On one side,it can increase the subcooling before EXV,and on the other side it can improve the efficiency in heating circuit.
	Safety Valve	It is used to prevent the pressure of circulation water from increasing unusually. When the pressure is larger than the set point (0.3MPa), this valve will open to relieve water pressure.
	Exhaust Valve	It is used to expel air trapped inside the water system to make sure normal operation of the system. It is usually installed at the highest point of the system.

6.5 Charging and Discharging of Refrigerant

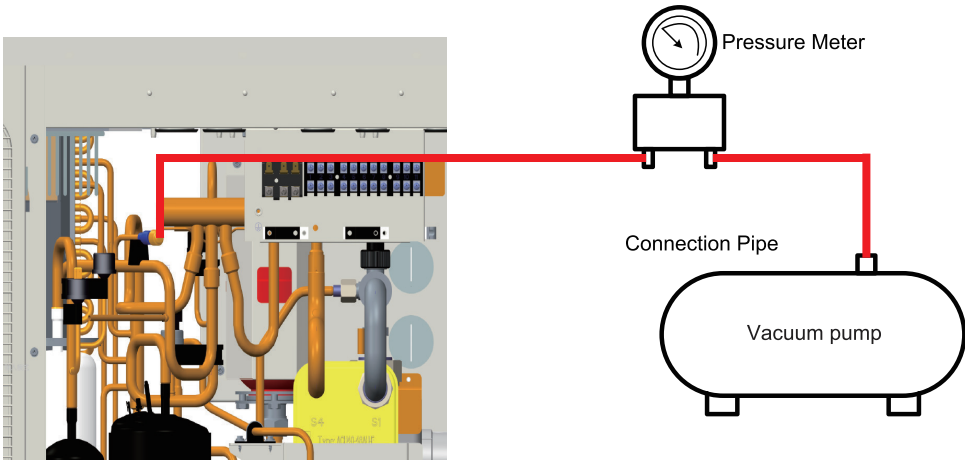
The unit has been charged with refrigerant before delivery. Overcharging or undercharging will cause the compressor to run improperly or be damaged. When refrigerant is required to be charged or discharged for installation, maintenance and other reasons, please follow steps below and nominal charged volume on the nameplate.

Discharging: remove metal sheets of the outer casing, connect a hose to the charging valve and then discharge refrigerant:



⚠ NOTE

- Discharge is allowed unless the unit has been stopped. (Cut off the power and repower it 1 minutes later)
- Protective measures should be taken during discharging to avoid frost bites.
- When discharging is finished, if vacuuming cannot be done immediately, remove the hose to avoid air or foreign matters entering the unit.
- Vacuuming: when discharging is finished, use hoses to connect the charging valve, manometer and vacuum pump to vacuum the unit.
- When vacuuming is finished, pressure inside the unit should be kept lower than 80Pa for at least 30 minutes to make sure there is no leak. Either charging valve 1 or charging valve 2 can be used for vacuuming.
- When vacuuming is finished and it is certain that there is no leak, charging can be done.



◆ Leak Detection Methods

The following leak detection methods are deemed acceptable for systems containing flammable refrigerants.

Electronic leak detector shall be used to detect flammable refrigerant, but the sensitivity may not be adequate, or may need re-calibration (Detection equipment shall be calibrated in a refrigerant-free area).

Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant.

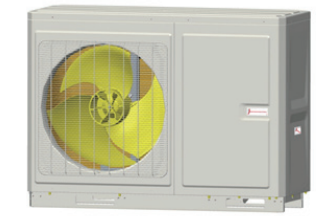
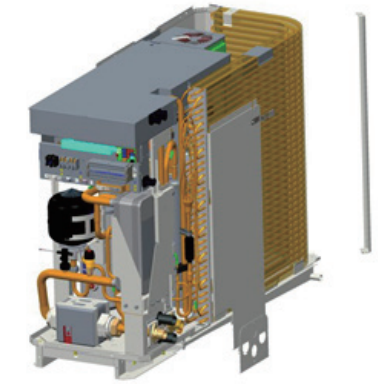
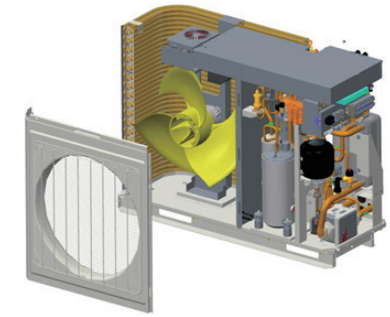
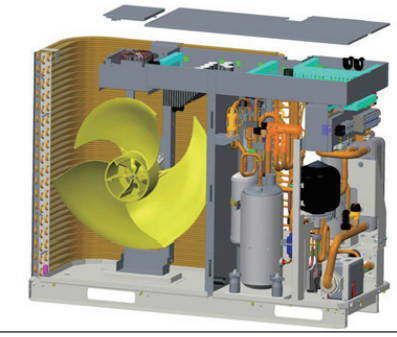
Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25% maximum) is confirmed.

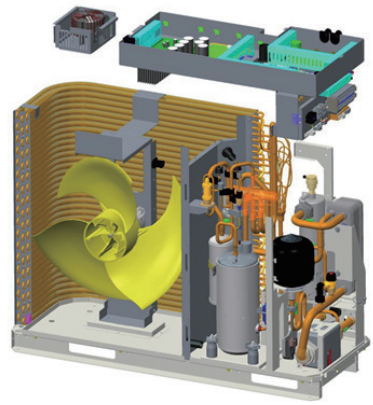
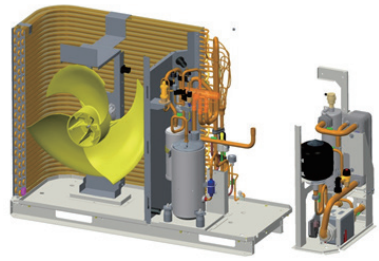
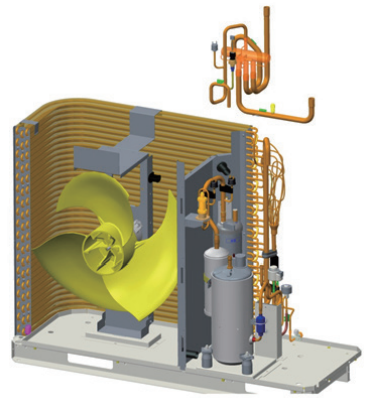
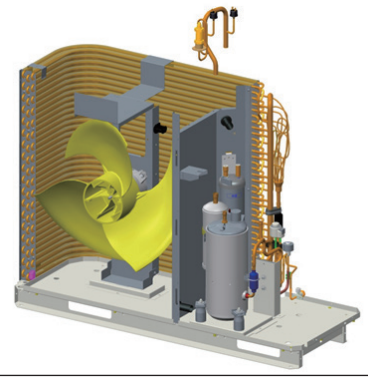
Leak detection fluids are suitable for us with most refrigerant but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

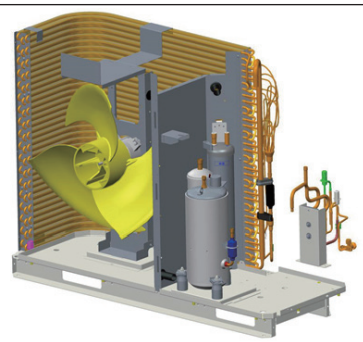
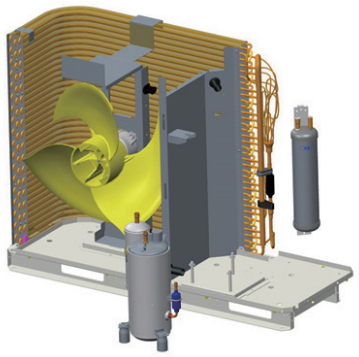
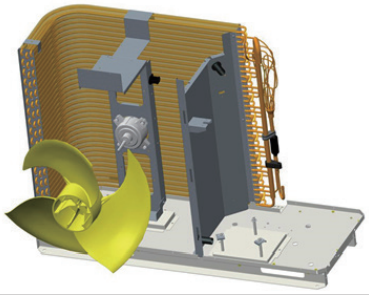
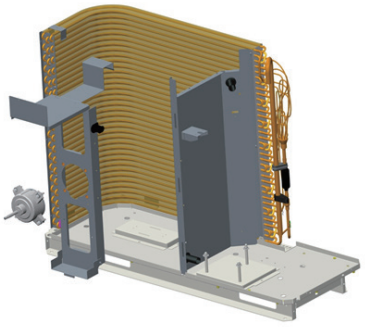
If a leak is suspected, all naked flames shall be removed / extinguished. If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

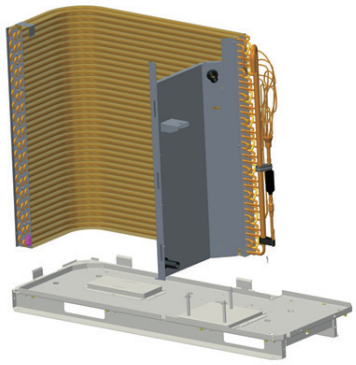
Note: before and during operation, use an appropriate refrigerant leak detector to monitor the operation area and make sure the technicians can be well aware of any potential or actual leakage of inflammable gas. Make sure the leak detecting device is applicable to inflammable refrigerant. For example, it should be free of sparks, completely sealed and safe in nature.

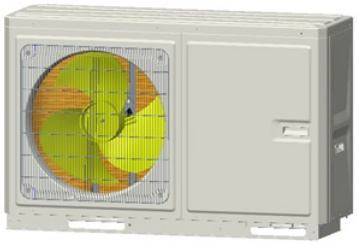
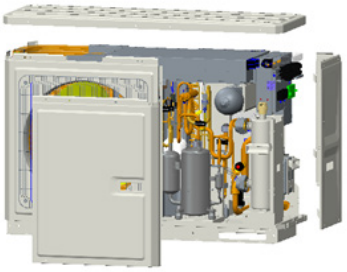
6.6 Disassembly of the Main Unit

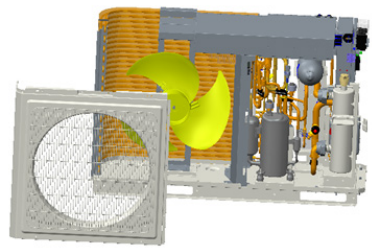
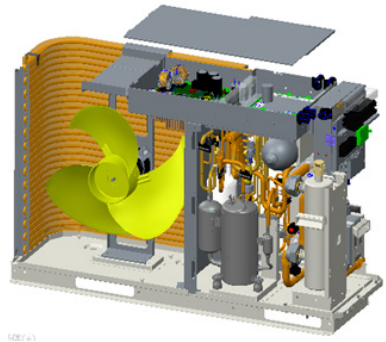
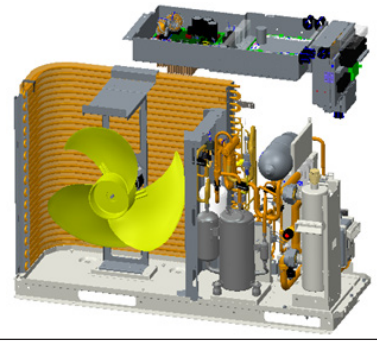
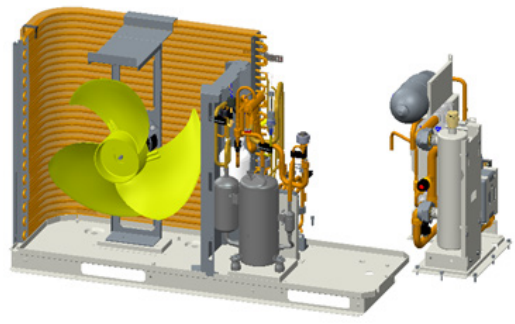
Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ8.0Pd/NhG3-E, GRS-CQ10Pd/NhG3-E, GRS-CQ12Pd/NhG3-E, GRS-CQ14Pd/NhG3-E, GRS-CQ16Pd/NhG3-E, GRS-CQ8.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG4-E1, GRS-CQ10Pd/NhG4-E, GRS-CQ12Pd/NhG4-E, GRS-CQ14Pd/NhG4-E, GRS-CQ16Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-M, GRS-CQ10Pd/NhG3-M, GRS-CQ12Pd/NhG3-M, GRS-CQ14Pd/NhG3-M, GRS-CQ16Pd/NhG3-M, GRS-CQ8.0Pd/NhG4-M, GRS-CQ10Pd/NhG4-M, GRS-CQ12Pd/NhG4-M, GRS-CQ14Pd/NhG4-M, GRS-CQ16Pd/NhG4-M	
Remove the top panel, front panel and right panel.	 
Remove the fixing nuts and then the rear panel, connection panel and upright frame. Remove the fixing nuts and then the front grille.	 
Remove the cover of both the electic box and the inductance box.	

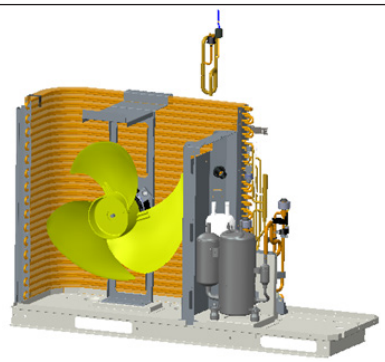
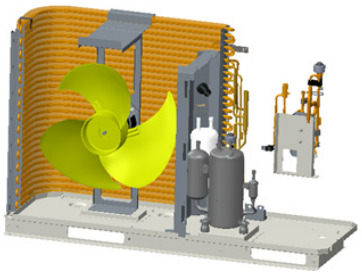
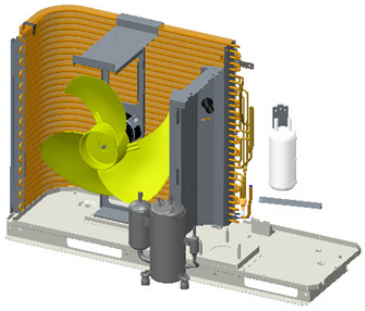
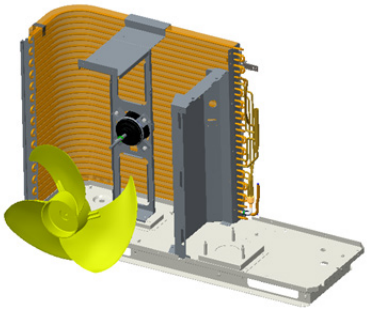
Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ8.0Pd/NhG3-E, GRS-CQ10Pd/NhG3-E, GRS-CQ12Pd/NhG3-E, GRS-CQ14Pd/NhG3-E, GRS-CQ16Pd/NhG3-E, GRS-CQ8.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG4-E1, GRS-CQ10Pd/NhG4-E, GRS-CQ12Pd/NhG4-E, GRS-CQ14Pd/NhG4-E, GRS-CQ16Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-M, GRS-CQ10Pd/NhG3-M, GRS-CQ12Pd/NhG3-M, GRS-CQ14Pd/NhG3-M, GRS-CQ16Pd/NhG3-M, GRS-CQ8.0Pd/NhG4-M, GRS-CQ10Pd/NhG4-M, GRS-CQ12Pd/NhG4-M, GRS-CQ14Pd/NhG4-M, GRS-CQ16Pd/NhG4-M	
Remove the electric box and the inductance box.	
Remove fastening bolts, desolder the joints between the plate heat exchanger gas/liquid pipe and the refrigerant system, and then remove the water system. (when desoldering the connection joint, pay attention to covering the solder joints with a damp cloth to avoid high temperature damage).	
Remove the 4-way valve. • Loosen the screws fixing the coil of 4-way valve • Remove the coil of 4-way valve • Unsolder the tubes connected to the 4-way valve. • Remove the 4-way valve. • Note:when desoldering the connection joint, pay attention to covering the solder joints with a damp cloth to avoid high temperature damage.	
Remove the suction line • Loosen the bolts fixing the gas valve. • desolder the line connected to the gas valve. • Note:when desoldering the connection joint, pay attention to covering the solder joints with a wet cloth to avoid high temperature damage.	

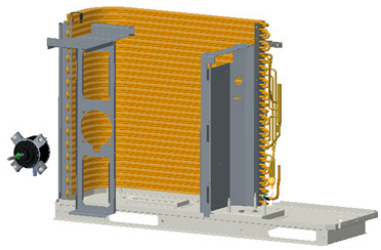
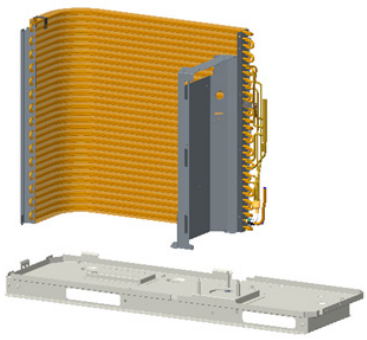
Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ8.0Pd/NhG3-E, GRS-CQ10Pd/NhG3-E, GRS-CQ12Pd/NhG3-E, GRS-CQ14Pd/NhG3-E, GRS-CQ16Pd/NhG3-E, GRS-CQ8.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG4-E1, GRS-CQ10Pd/NhG4-E, GRS-CQ12Pd/NhG4-E, GRS-CQ14Pd/NhG4-E, GRS-CQ16Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-M, GRS-CQ10Pd/NhG3-M, GRS-CQ12Pd/NhG3-M, GRS-CQ14Pd/NhG3-M, GRS-CQ16Pd/NhG3-M, GRS-CQ8.0Pd/NhG4-M, GRS-CQ10Pd/NhG4-M, GRS-CQ12Pd/NhG4-M, GRS-CQ14Pd/NhG4-M, GRS-CQ16Pd/NhG4-M	
Remove the economizer • Loosen the bolts fixing the . • Unsolder the pipe connected to the liquid valve. • Note:when desoldering the connection joint, pay attention to covering the solder joints with a damp cloth to avoid high temperature damage.	
Remove compressor and gas-liquid separator • Remove the connection wire of compressor. • Unsolder the suction pipe and discharge pipe. • Loosen the bolts fixing the compressor and remove the compressor and gas-liquid separator.	
Remove the fiting bolts and the fan.	
Remove the fixing bolts at the motor and fitting nuts at the motor support, and then remove the motor and the motor support.	

Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ8.0Pd/NhG3-E, GRS-CQ10Pd/NhG3-E, GRS-CQ12Pd/NhG3-E, GRS-CQ14Pd/NhG3-E, GRS-CQ16Pd/NhG3-E, GRS-CQ8.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG4-E1, GRS-CQ10Pd/NhG4-E, GRS-CQ12Pd/NhG4-E, GRS-CQ14Pd/NhG4-E, GRS-CQ16Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-M, GRS-CQ10Pd/NhG3-M, GRS-CQ12Pd/NhG3-M, GRS-CQ14Pd/NhG3-M, GRS-CQ16Pd/NhG3-M, GRS-CQ8.0Pd/NhG4-M, GRS-CQ10Pd/NhG4-M, GRS-CQ12Pd/NhG4-M, GRS-CQ14Pd/NhG4-M, GRS-CQ16Pd/NhG4-M	
Seperate the condenser from the base by removing fixing bolts at them.	

Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ4.0Pd/NhG3-E, GRS-CQ6.0Pd/NhG3-E, GRS-CQ4.0Pd/NhG4-E, GRS-CQ6.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-E1, GRS-CQ8.0Pd/NhG4-E1	
Remove the fixing bolts, top cover, front panel and right panel.	 
Remove the fixing bolts, real panel, connector panel, support (upright column).	

Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ4.0Pd/NhG3-E, GRS-CQ6.0Pd/NhG3-E, GRS-CQ4.0Pd/NhG4-E, GRS-CQ6.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-E1, GRS-CQ8.0Pd/NhG4-E1	
Remove the fixing bolts and outer guard.	
Remove the fixing bolts and cover of the electric box.	
Remove the fixing bolts and electric box.	
Remove fixing bolts, desolder connection points between gas/liquid lines of the plate-type heat exchanger and the main unit, and then remove the water system. Note:when desoldering the connection joint, pay attention to covering the solder joints with a wet cloth to avoid high temperature damage.	
Desolder connection points of the 4-way valve, and remove the pipelines of the 4-way valve. Note:when desoldering the connection joint, pay attention to covering the solder joints with a wet cloth to avoid high temperature damage.	

Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ4.0Pd/NhG3-E, GRS-CQ6.0Pd/NhG3-E, GRS-CQ4.0Pd/NhG4-E, GRS-CQ6.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-E1, GRS-CQ8.0Pd/NhG4-E1	
Desolder connection points of the suction lines and remove suction lines. Note:when desoldering the connection joint, pay attention to covering the solder joints with a wet cloth to avoid high temperature damage.	
Desolder connection points of the economizer, remove fixing bolts and then remove the economize. Note:when desoldering the connection joint, pay attention to covering the solder joints with a wet cloth to avoid high temperature damage.	
Remove fixing bolts of the compressor and the gas-liquid separator, and then remove the compressor and the gas-liquid separator.	
Remove fixing bolts and then then fan.	

Note: firstly please cut off the power supply and discharge refrigerant out of the unit.	
Operation Procedure	Illustration
GRS-CQ4.0Pd/NhG3-E, GRS-CQ6.0Pd/NhG3-E, GRS-CQ4.0Pd/NhG4-E, GRS-CQ6.0Pd/NhG4-E, GRS-CQ8.0Pd/NhG3-E1, GRS-CQ8.0Pd/NhG4-E1	
Remove fixing bolts of the motor and the motor support and then move them.	
Remove fixing bolts, and then separate the condenser from the base.	



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