Discontinue

CKD

SM－391919－A

INSTRUCTION MANUAL

REFRIGERATED AIR DRYER
Xeroaqua G-Series

GT5055
GT5075D
GT7055
GT7075
GT7095
GT7120
GT7150D
GT7200D
GT7250D
GT7300D
GT7400D
GT7480D

- Please read this instruction manual carefully before using this product, particularly the section describing safety.
- Retain this instruction manual with the product for further consultation whenever necessary.

FEB-10 3rd EDITION
CKD Corporation

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Safety instructions

This dryer must be operated by a person who has basic knowledge of electric, compressed air,liquid, piping, refrigerant, etc. We are not responsible for any accidents caused when a person who does not have the basic knowledge or who is not well trained installation, operation, repair, etc.
Improper operation may cause poor performance of the dryer or may cause accidents.
We applied a variety of safety measures to our dryers, but improper handling of dryers could cause accidents. Thus, be sure to read and fully understand this manual before using them.
"Keep this manual together with the dryer".

Caution for safety

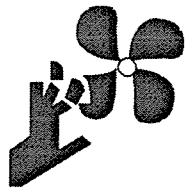
Cautions at operation are indicated in the following two ways. WARNING CAUTION

WARNING used when improper handling could kill or seriously harm operators

CAUTION used when improper handling could harm operators or damage objects

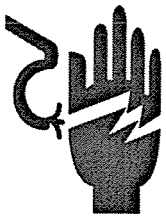
WARNING: ROTATION

★The fan may start rotating suddenly and may be harmful.
Do not put your hands or objects into the fan area.
●Be sure to turn off the power before inspection.



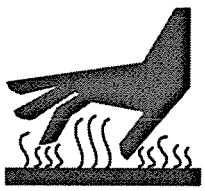
WARNING: ELECTRICAL SHOCK

★Power supply terminal box, switches, etc. may cause you electrical shock.
●Be sure to turn off the power before inspection. Do not operate the dryer with your wet hands.



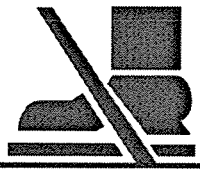
CAUTION: HIGH TEMPERATURE

★The dryer is hot for a while after shut down the dryer.
●Be sure to turn off the power and to confirm that dryer becomes cool before inspection.



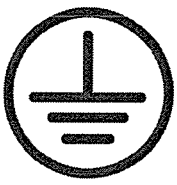
CAUTION: FOOT HOLD

★You could fall if you climb on the panel.
●Do not climb on the panel.



EARTH CONNECTION

★Be sure to connect earth to prevent electrical shock.



This dryer is industrials. Be sure to fully attend to using the dryer.

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Warranty

Assure next contents.

(1) **Warranty period**

One year from the date of purchase (date on delivery or invoice date).

(2) **Repair free of charge (Note: applied dryers to use in Japan)**

a. We will repair your dryer free of charge during the warranty period if it breaks down and is used properly as indicated in this manual and labels on your dryer.

b. We will charge you repair service fee even during our warranty period if the following apply.

* breakdown or damage due to improper operation, repair, or remodeling.
* breakdown or damage due to relocation after installation, drop, or transportation damage.
* breakdown or damage due to transportation by automobile, ship, etc.
* breakdown or damage due to fire, earthquake, flood, thunder, other natural disaster, pollution, salt hazard, gas hazard, abnormal voltage, abnormal water pressure or quality, congelation, or other external causes.
* breakdown or damage not caused by your dryer.
* travel expense

Warranty valid is only in Japan.

(3) **After warranty expiration**

Repair costs are needed for you.

(4) **Periodical inspection (charge)**

Ask us for this service.

(5) **No second compensations**

Our warranty policy is covered only for our products. We do not compensate for other equipments, products or compensation for business what are caused by this machine's accidents or failures. Please protect second compensations by your warning systems or nonlife insurances.

1 . Introduction

Thank you very much for purchasing our refrigerated air dryer, Xeroaqua GT Series.
This manual explains basic points of operation to have our dryer performs at their best.
Be sure to read this manual before using your dryer.
Keep this manual together with the dryer.

2. Certificate of pressure vessel

1 . Keep the certificate of pressure vessel

This machine is installed a pressure vessel that is applied the second class pressure vessel of boiler and pressure vessel safety regulation by the Japan Ministry of Labor. The machine is shipped with a certificate of the second class pressure vessel. This certificate should be kept carefully with this machine while this machine is operated. (It is not necessary to submit the relevant documents to the labor standard inspection office from October 1, 1990.)

2 . Handling for the second class pressure vessel certificate

1) Second class pressure vessel cannot be transferred, rent, and installed without the requirements of structure. The certificates of the second class pressure vessel supplied with the machine are important documents that certify the pressure vessels meet the requirement for the structure.

2) Carefully keep certificates of the second class pressure vessel in a safe place so that it is not damaged, broken, or lost.

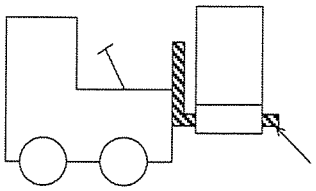
3) If you want reissue the certificates of second class pressure vessel, it must be within one year from individual inspection. Otherwise, it is absolutely necessary to inspect the pressure vessel again.

4) Inspect following items once a year by your self, then please keep those results for three years after installation of second class pressure vessels.
①Check the main body for damage.
②Check the lid tightening bolts for wear.
③Check the piping and valves for damage.

3. Cautions

3.1 Transportation

1) Always carefully deliver and transport the dryer so that personal injury or damage to the dryer does not occur, because this dryer is heavy.
2) The dryer is transported by the lifting fork holes in the dryer base with a forklift or hold the dryer up by putting cable through hooks.



Always put out fork heads of forklift with extending forks when that is transported.

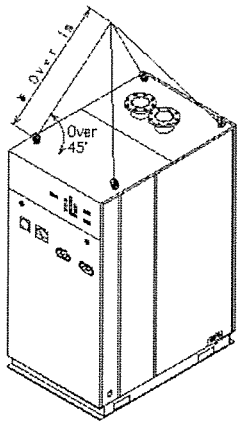
*The dryer fall to the ground and internal parts could get damaged or the forklift fall down.

3) Do not fall down the dryer. Also do not give vibration or impact to the dryer.
*Internal parts could get damaged.
4) Do not climb up on the dryer or put objects on the dryer.
*Workers could get hurt.

Move the dryer by lift

Hold the dryer up by putting cable through hoots

※GT7300D,7400D,7480D is over 1.5m.



3.2 Operation environment

1) Do not install the dryer outdoor.
*This product does not have water-proof structure. Water or rain splashing to its electrical system could result in leak or fire.
2) Operating ambient temperature should be 2 to 43℃ (no condensation).
*Drain freezes under the temperature of 2℃ or below, and this could cause break-down.
Operation under the temperature of 43℃ or above could stop the operation abnormally or could shorten the service life of the product.
3) Do not use the dryer in a place with direct sun light, powder dust and side of heating elements. Also, place the dryer without corrosive gas, explosive gas, ignitable gas or combustible gas.
*Breakdown, explosion, or fire may result.

3.3 Cautions at operation

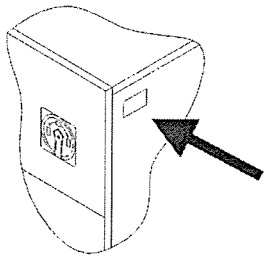
1) Do not use the dryer to remove humidity of except compressed air.
*Breakdown, explosion, or fire may result.
2) Install an earth leakage breaker on the power supply.
*Electric shock may result.
3) Need to earth wiring.
*Causes of an electric shock or a fire.
4) Operate the dryer within specification ranges.
*Operation may stop abnormally, or the product's service life may be shortened.
5) Do not turn on and turn off the dryer frequently more than 6 times an hour. Keep it running 5 minutes or more before turning it off and hold restarting it on 5 minutes or longer.
Do not operate while 3 minutes after stop this dryer, because the restart prevention circuit is operated.
*Breakdown or shorter service life of the product may result.
6) Do not turn on the power switch without enclosures.
*Electric shock or heat injury may result.
7) Do not remodel this dryer.
*Break-down or shorter life time of the product may result. If you did, the warranty is expired.

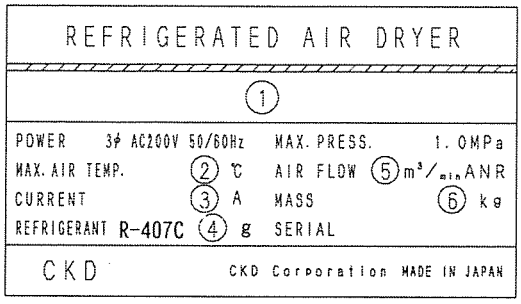
8) Turn on the power supply 4 hours before operation
(GT5075D,7150D,7200D,7250D,7300D,7400D,7480D)
*A crank case heater is built in the dryer to protect the compressor.
9) Before operation, check indicator by these refrigerant pressure gauges.
If the temperature transrated from refrigerant pressure gauges are almost same as ambient temperature, it is determined.
*If these indications are lower than ambient temperature, it is possible to leak refrigerant gas. Thus, turn off the power supply and referring to trouble shooting.
10) Check the indicator of dew point lamp during operation.
*If the yellow lamp of the indicator turns on, operation will be stopped.
11) This dryer has a security function for momentary power failure what is produced by lighting ETC. Reactivate the dryer immediately after power recovery, if instantaneous power failure is less than 0.5 seconds. Also, reactivate the dryer 3 minutes later after power recovery, if instantaneous power failure is less than 2 seconds.
Do not operate with 5 minutes after stop this dryer, because the restart prevention circuit is operated.
12) Remote start terminal D1-D2 is alternate non-voltage input. (GT5055,5075D,7055,7075,7095, 7120,7150D,7200D,7250D)
Remote start terminal D1-D2 and remote stop terminal D3-D4 are momentary non-voltage input.(GT7300D,7400D,7480D)
13) Do not touch any parts, wires, terminals or piping in side of the dryer.
*Causes of an electric shock or a fire.
14) If emergency stop occurs during operation, remove the cause of abnormal conditions referring to the trouble shooting.
*If the emergency stop occurs repeatedly, this may cause the dryer to malfunction.
15) Discharge drain and sludge accumulated in the heat exchangers and drain pipes when you turn off the dryer.
Thus, turn on the manual drain switch 10 second or longer and open the manual drain valve 10 second or longer.
16) Open the manual drain valve once or twice of about ten seconds a week, because contaminant that is accumulated in the pressure vessel need to be exhausted.
17) Do not operate local-remote switch during operation.
*It becomes the cause of stop.
18) Do not use the dryer for pneumatic caisson shield or respiratory medical equipment.
*It could cause an accident includes injury.
19) Do not use the dryer for transportation devices such as automobile, ship etc.
*Vibration could be a cause of break down of the internal components.

4. Installation

4.1 The beginning

1) Confirm the contents on the label. (Model No., Spec. etc.)





This machine right-hand side

①	②	③	④	⑤	⑥
GT5055-AC200V	80	9.3/10.2	1700	9.6/10.6	220
GT5075D-AC200V	80	12.9/13.5	2500	13/14.3	285
GT7055-AC200V	60	5.0/5.4	800	9.6/10.6	145
GT7075-AC200V	60	5.9/6.3	1350	13/14.3	175
GT7095-AC200V	60	7.4/8.5	1550	16/18.8	260
GT7120-AC200V	60	9.3/10.2	1700	20/23.5	260
GT7150D-AC200V	60	12.9/13.5	2650	25/30	360
GT7200D-AC200V	60	15.9/16.7	3400	32/37.6	430
GT7250D-AC200V	60	17.7/19.1	4400	39/46	570
GT7300D-AC200V	60	26.0/27.2	2600×2	48/56.5	800
GT7400D-AC200V	60	32.5/33.9	3650×2	67/79	1050
GT7480D-AC200V	60	37.1/39.2	4100×2	78/92	1100

*If the contents are not clear or there are any questions, please contact CKD or distributors before using the dryer.

2) Confirm damage or transformation that is made during the transportation.

3) Attachment list.

Parts name	Quantity	Remarks
◎Instruction manual	1 set	
◎Certificate of the second class pressure vessel	1 set	

4.2 Installation features

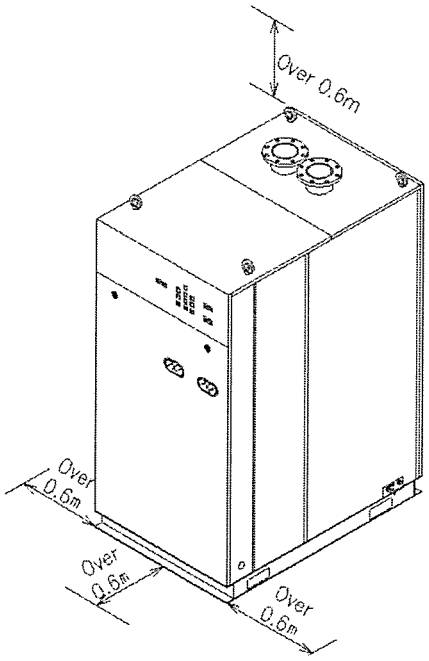
1) Do not install the dryer outdoor or high humidity place.
*This product does not have waterproof structure.
Water or rain splashing, high humidity (=85% RH or over) could cause leak or fire to electrical systems.

2) Operating ambient temperature should be 2 to 43℃ with no condensation.
*Drain freeze under the temperature of 2℃ or below, and this could cause breakdown.
Operation under the temperature of 43℃ or above could stop the operation abnormally or could shorten the service life of the product.

3) Install the dryer without direct sunlight, powder dust, heating elements, corrosive gas,explosive gas, inflammable gas or combustibles.
*Breakdown, explosion or ignition may result.

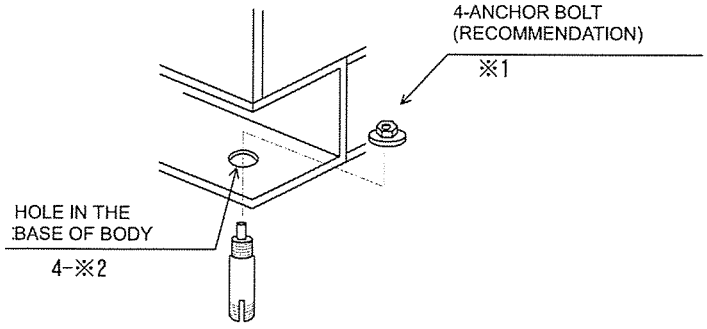
4) The installation floor should have a solid concrete foundation with level and flat surface.
*Weak or inclin foundation may cause noise and vibration.

5) Need to keep spaces as a following figure for maintenance.
Exhaust air should not carry out inhalation of air by surroundings for an upper part exhaust gas.
* Unusual stop may be carried out.



4.3 Fixation

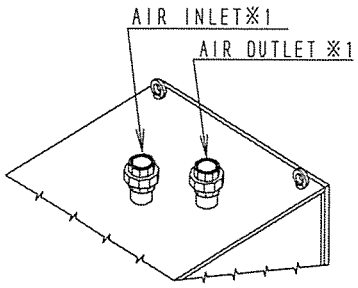
Fix the dryer body by anchor bolts to avoid the dryer falling due to earthquake or impact.

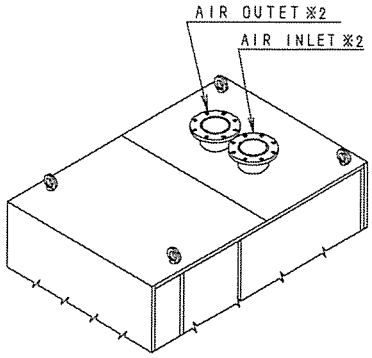


	※ 1	※2
GT7055,7075	M10×ℓ60	ϕ13
GT5055,5075D,7095 7120,7150D 7200D,7250D	M12×ℓ70	ϕ15
GT7300D,7400D,7480D	M16×ℓ100	ϕ20

4.4 Air piping

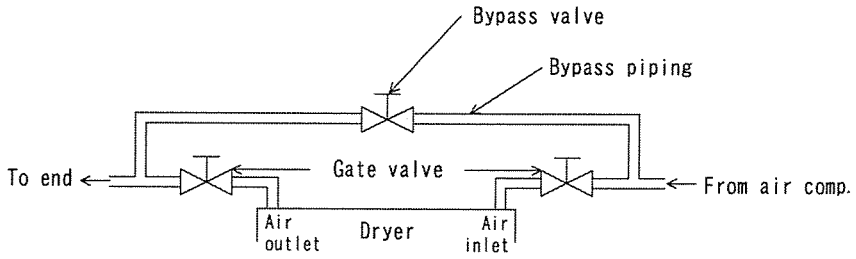
1） Confirm which is Air inlet or Air outlet before piping.





※1	GT5055,5075D,7055,7075	: Rc2 (UNION)
	GT7095,7120	: $2^{1}/_{2}$B 10K FLANGE
	GT7150D,7200D	: 3B 10K FLANGE
	GT7250D	: 4B 10K FLANGE
※2	GT7300D	: 4B 10K FLANGE
	GT7400D,7480D	: 6B 10K FLANGE

2） Install a bypass circuit in the air circuit.

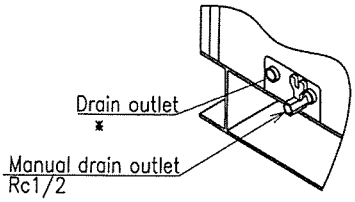


3） Make sure that the weight of the piping is not directly exerted on the dryer.
4） Make piping without transmitting vibration from the dryer operation on the dryer.
5） Piping must be able to endure the operating pressure and temperature. No air leakage is allowed from pipe connections.
6） Use zinc plated steel pipe or stainless steel pipe.
7） Make air flushing for pipes before piping to remove dusts.

4.5 Drain piping

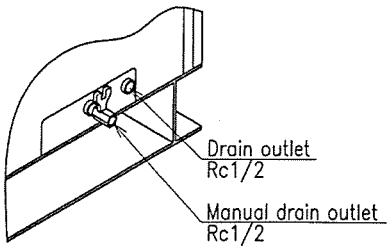
1) Confirm the drain outlet location before piping

・GT5055,5075D,7055,7075,7095
7120,7150D,7200D,7250D



View-Bottom on the left side panel

GT7300D,7400D,7480D



View-Bottom on the right side panel

※GT5055,5075D,7095,7120,7150D,7200D,7250D : $Rc^1/_2$
GT7055,7075 : $Rc^1/_4$

2) The drain pipe end should be opened to atmosphere.

3) Drain may not be discharged due to back pressure if some pipes rise up from the drain port or the drain pipe is too long or narrow. The drain piping may have declivity for smooth drain flow.

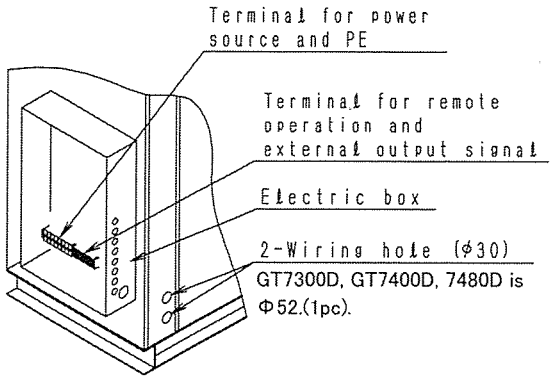
4) Fix drain discharge tube firmly, because the tube shakes strongly when drain is discharged automatically by air pressure.
※Drain scatters and there is fear of an unexpected accident.

5) Drain must be treated if oil is mixed in it. Consult with industrial waste treatment companies about this treatment.

6) Connect drain piping on the manual drain outlet.
※Open the manual drain valve once or twice of about ten seconds a week, because contaminant that is accumulated in the pressure vessel need to be exhausted.

4.6 Electrical wiring

1) Supply voltage should be within ±10% of rated voltage.
   3 phase / 180~220V AC 50Hz, 180~242V AC 60Hz
2) Have an earth leakage breaker with over-load protection that has 100mA sensitivity current on the power supply line.
3) Connection for power supply, external output signal, remote operation and Ground.



- Insert a power cable, an output signal cable, a remote operation cable and a ground cable to wire each terminals firmly without looseness or coming off.

※Looseness or coming off wiring could causes of a fire.

※Do not wire the ground line to a water pipe, gas pipe, a lighting conductor. It should wire to a ground terminal.

- Recommended electrical wiring

Model	Breaker capacity (A)	Cable size (mm^2)			
		Length 10m	Length 20m	Length 30m	Length 50m
GT5055	20	3.5	8.0	14.0	22.0
GT5075D	30	8.0	14.0	22.0	22.0
GT7055	10	2.0	3.5	5.5	8.0
GT7075	15	3.5	3.5	5.5	8.0
GT7095	15	3.5	8.0	8.0	14.0
GT7120	20	3.5	8.0	8.0	14.0
GT7150D	30	8.0	14.0	22.0	22.0
GT7200D	30	14.0	14.0	22.0	30.0
GT7250D	30	14.0	14.0	22.0	30.0
GT7300D	40	14.0	14.0	22.0	30.0
GT7400D	50	22.0	22.0	22.0	38.0
GT7480D	75	22.0	22.0	30.0	60.0

- Recommended wire is type IV (600V vinyl insulated wire) at ambient temperature is 40 ℃.
- Minimum power cable and ground cable sizes are shown by the cable size list as the above chart.

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・Number of terminal and connect the wire

Model #	Terminal No.	Terminal size	Description	Type of contact	Mode	Capacity
–	L1	※	Power source	—	—	—
	L2	※	Power source	—	—	—
	L3	※	Power source	—	—	—
	PE	※	Ground	—	—	—
GT5055 GT5075D GT7055 GT7075 GT7095 GT7120 GT7150D GT7200D GT7250D	D1-D2	M3	Remote start and stop	Input; non-voltage contact by a pulse input signal	Start at close Stop at open	—
	D3-D4	M3	Operation signal	Output; non-voltage Contact (a-contact)	Close contact at operation	Contact capacity; AC125V/DC110V 2A,62.5VA,30W
	D5-D6-D7	M3	Alarm signal	Output; non-voltage Contact (c-contact)	Close contact at (D5-D7) alarm	Contact capacity; AC125V/DC110V 2A,62.5VA,30W
	D8-D9-D10	M3	Abnormal dew point signal	Output; non-voltage Contact (c-contact)	Close contact at (D8-D10) dew point alarm	Contact capacity; AC125V/DC110V 2A,62.5VA,30W
GT7300D GT7400D GT7480D	D1-D2	M3	Remote start	Input; non-voltage contact by a pulse input signal	Start at momentary close contact	Minimum 0.5sec
	D3-D4	M3	Remote stop	Input; non-voltage contact by a pulse input signal	Stop at momentary close contact	Minimum 0.5sec
	D5-D6	M3	Operation signal	Output; non-voltage Contact (a-contact)	Close contact at operation	Contact capacity; AC125V/DC110V 2A,62.5VA,30W
	D7-D8	M3	Alarm signal	Output; non-voltage Contact (a-contact)	Close contact at abnormal condition	Contact capacity; AC125V/DC110V 2A,62.5VA,30W
	D9-D10	M3	Abnormal dew point signal	Output; non-voltage Contact (a-contact)	Close contact at abnormal dew point	Contact capacity; AC125V/DC110V 2A,62.5VA,30W
	D11-D12	M3	Drain over-flow signal	Output; non-voltage Contact (a-contact)	Close contact at drain over-flow	Contact capacity; AC125V/DC110V 2A,62.5VA,30W

※ GT7055,7075 :M3.5
GT5055,7095,7120 :M4
GT5075D,7150D,7200D,7250D,7300D :M5
GT7400D,7480D :M6

5. Startup and operation

5.1 Startup

1) Confirm air piping, drain piping, cooling water piping and electrical wiring those are properly connected.

2) Confirm gate valves across the dryer are opened and the gate valve of by-pass piping those are closed.
Confirm supply air pressure in the pipes that is zero.

3) Confirm the stop valve for manual drain outlet that is closed.

4) Turn on the main switch and turn on the power supply.
(GT5055,7055,7075,7095,7120)
Turn on the main switch and turn on the power supply 4 hours before operation.
(GT5075D,7150D,7200D,7250D,7300D,7400D,7480D)
"DEW POINT" lamp on the operation panel turns on.
At this moment, the lamp indicates ambient temperature.

5) To operate the dryer remotely using external signals, change the Local/Remote selector switch to remote. At the time of shipment, it is set to the local side.

6) GT7300D,7400D,7480D
If the dryer is operated for less than 50% load. Further, the dryer is wanted to operate by the energy saving mode, turn off No.1 or No.2 refrigerant circuit "OPERATE / STOP".

5.2 Operation

1) Start up the dryer
Push "START" button on the operation panel.
In the remote control mode, close between terminal number D1 and D2.

GT5055,5075D,7055,7075,7095,7120,7150D,7200D,7250D	: Non-voltage contact, hold input
GT7300D,7400D,7480D	: Non-voltage contact, Pulse input, Min.0.5sec.

2) Starting of operation
"RUN" lamp turns on, and the dryer operates. System1 and system2 compressors operate one by one with 5 seconds time lag.
(GT7300D,7400D,7480D)
Open supply air valve 5 minutes after dryer had been started.
※If the compressed air is flown into the dryer at the same time of the operation is started, moisturized air enters the outlet piping of the dryer, causing drain to occur.

3) During operation
After a while, dew point meter is working that should be within the green area. The drain removed by the dryer is regularly discharged compulsorily by air pressure when solenoid valve is on. You can check discharge of drain by pushing the "TEST" switch on the operation panel. When starting the dryer, discharge drain. Reactivate the dryer immediately after power recovery, if instantaneous power failure is less than 0.5 seconds. Also, reactivate the dryer 3 minutes later after power recovery, if instantaneous power failure is less than 2 seconds.

5.3 Shutdown the dryer

1) Push "STOP" button on the operation panel.
If you are using remote control mode, open between terminal number D1 and D2.
(GT5055,5075D,7055,7075,7095,7120,7150D,7200D,7250D : Non-voltage contact, open input)
If you are using remote control mode, open between terminal number D3 and D4.
GT7300D,7400D,7480D : Non-voltage contact, Input pulse more than 0.5 second.

2) "RUN" lamp will be turned off, then the dryer stops operation.
Keep it running 5 minutes or more before turning it off and hold restarting it on 5 minutes or longer. Do not operate while 3 minutes after stop this dryer, because the restart prevention circuit is operated.

5.4 Safety device activation

5.4.1 Safety devices

5.4.1.1 GT5055,7055,7075,7095,7120

1) Thermo switch ; When the refrigeration compressor become hot, thermo switch ST01 will be working, then the dryer stops operation.
2) Over current relay; When the refrigeration compressor has over current, over current relay FR01 will be working, then the dryer stops operation.
3) Over current relay; When the fan motor has over current, over current relay FR02 will be working, then the dryer stops operation.
4) High pressure switch; When the refrigerant high pressure exceeds the specified level, the high pressure switch SP01 will be working, then the dryer stops operation.
5) Dew point alarm; When the dryer has an abnormal dew point, DEW POINT meter shows a yellow lamp with output signal. However, the dryer operation is still continuing. When the pressure dew point become correct, the alarm condition is automatically reset.
6) Other safety devices; This machine has some fuse for control circuit.
7) Alarm indication; When those safety devices (except for fuses) are working and the dryer stop operation, the alarm lamp "HL08" and switch the warning signal "D5-D7".

8) Set points of safety devices.

Mark	Model	Parts name	Application	Set point	How to reset
ST01	GT5055	Thermo switch	External temp for refrig. comp.	115℃ OFF 85℃ ON	Auto reset
	GT7055		Coil temp. for refrig. comp.	135℃ OFF 113℃ ON	
	GT7075		External temp for refrig. comp.	115℃ OFF 85℃ ON	
	GT7095		External temp for refrig. comp.	115℃ OFF 85℃ ON	
	GT7120		External temp for refrig. comp.	115℃ OFF 85℃ ON	
FR01	GT5055	Over current relay	Operating current for refrig. compressor	14A OFF	Manual reset
	GT7055			9A OFF	
	GT7075				
	GT7095			12A OFF	
	GT7120			14A OFF	
FR02	GT5055	Over current relay	Operating current for fan motor	1.1A OFF	Manual reset
	GT7055			0.58A OFF	
	GT7075			1.1A OFF	
	GT7095			0.72A OFF	
	GT7120			1.1A OFF	
SP01	GT5055	High pressure switch	Refrig. circuit	2.75MPa OFF 2.26MPa ON	Auto reset
	GT7055				
	GT7075				
	GT7095				
	GT7120				
SA01	GT5055	Dew point alarm output	Cooling air temp.	23.5℃or over and –0.9℃ or less	Auto reset
	GT7055				
	GT7075				
	GT7095				
	GT7120				
FU01	GT5055	Thermo fuse		128℃	Repare the parts (TC01)
	GT7055				
	GT7075				
	GT7095				
	GT7120				
FU02	GT5055	Fuse		1A	Repare the parts (FU02)
	GT7055				
	GT7075				
	GT7095				
	GT7120				
FU03	GT5055	Fuse		0.5A	Repare the parts (SA01)
	GT7055				
	GT7075				
	GT7095				
	GT7120				
FU04	GT5055	Thermo fuse		131℃	Repare the parts (TC02)
	GT7055				
	GT7075				
	GT7095				
	GT7120				

5.4.1.2 GT5075D,7150D,7200D,7250D

1) Internal thermostat ; When the refrigeration compressor become hot, thermo switch ST01 will be working, then the dryer stops operation.
2) Over current relay; When the refrigeration compressor has over current, over current relay FR01 will be working, then the dryer stops operation.
3) Over current relay; When the fan motor has over current, over current relay FR02 will be working, then the dryer stops operation.
4) High pressure switch; When the refrigerant high pressure exceeds the specified level, the high pressure switch SP01 will be working, then the dryer stops operation.
5) Dew point alarm; When the dryer has an abnormal dew point, DEW POINT mater shows a yellow lamp with output signal. However, the dryer operation is still continuing. When the pressure dew point become correct, the alarm condition is automatically reset.
6) Other safety devices; This machine has some fuse for control circuit.
7) Alarm indication; When those safety devices (except for fuses) are working and the dryer stops operation, the alarm lamp "HL08" and switch the warning signal "D5-D7".
8) Set points of safety devices.

Mark	Model	Parts name	Application	Set point	How to reset
ST01	GT5075D GT7150D GT7200D GT7250D	Thermo switch	Compressor discharge piping temperature	115℃ OFF 105℃ ON	Auto reset
FR01	GT5075D GT7150D GT7200D GT7250D	Over current relay	Operating current for refrig. compressor	22A OFF 26A OFF 28A OFF	Manual reset
FR02	GT5075D GT7150D GT7200D GT7250D	Over current relay	Operating current for fan motor	2.1A OFF 2.6A OFF 3.5A OFF	Manual reset
SP01	GT5075D GT7150D GT7200D GT7250D	High pressure switch	Refrig. circuit	2.75MPa OFF 1.26MPa ON	Auto reset
SA01	GT5075D GT7150D GT7200D GT7250D	Dew point alarm output	Cooling air temp.	23.5℃or over and –0.9℃ or less	Auto reset
FU01	GT5075D GT7150D GT7200D GT7250D	Thermo fuse		128℃	Repair the parts (TC01)
FU02	GT5075D GT7150D GT7200D GT7250D	Fuse		1A	Repair the parts (FU02)
FU03	GT5075D GT7150D GT7200D GT7250D	Fuse		0.5A	Repair the parts (SA01)
FU04	GT5075D GT7150D GT7200D GT7250D GT7480WD	Thermo fuse		131℃	Repair the parts (TC02)

5.4.1.3 GT7300D,7400D,7480D

1) Internal thermostat ; When the refrigeration compressor become hot, thermo switch (ST01,02) will be working, then the dryer stops operation.
2) Over current relay; When the refrigeration compressor has over current, over current relay (FR01,02) will be working, then the dryer stops operation.
3) Over current relay; When the fan motor has over current, over current relay (FR03,04) will be working, then the dryer stops operation.
4) High pressure switch; When the refrigerant high pressure exceeds the specified level, the high pressure switch (SP01,02) will be working, then the dryer stops operation.
5) Dew point alarm; When the dryer has an abnormal dew point, dew point meter shows a yellow lamp with dew point alarm output (D9-D10) However, the dryer operation is still continuing. When the pressure dew point become correct, the alarm condition is automatically reset.
6) If drain level is exceeded over set point, light the drain alarm lamp"HL09"and switch the warning signal "D11-D12". However the dryer do not stop on those conditions.
7) Other safety devices; This machine has some fuse for control circuit.
8) Alarm indication; When those safety devices (except for fuses) are working and the dryer stops operation, the alarm lamp "HL08" and switch the warning signal "D5-D7".
9) Set points of safety devices.

Mark	Model	Parts name	Application	Set point	How to reset
ST01 ST02	GT7300D GT7400D GT7480D	Thermo switch	Compressor discharge piping temperature	115℃ OFF 105℃ ON	Auto reset
FR01 FR02	GT7300D GT7400D GT7480D	Over current relay	Operating current for refrig. compressor	22A OFF 26A OFF 28A OFF	
FR03 FR04	GT7300D GT7400D GT7480D	Over current relay	Operating current for fan motor	1.2A OFF 1.5A OFF 2.2A OFF	Manual reset
SP01 SP02	GT7300D GT7400D GT7480D	High pressure switch	Refrig. circuit	2.75MPa OFF 2.26MPa ON	Auto reset
FU01	GT7300D GT7400D GT7480D	Thermo fuse		131℃	Repair the parts (TC01)
FU02	GT7300D GT7400D GT7480D	Fuse		2A	Repair the parts (FU02)
FU03	GT7300D GT7400D GT7480D	Fuse		0.5A	Repair the parts (SA01)
FU04	GT7300D GT7400D GT7480D	Thermo fuse		131℃	Repair the parts (TC02)
FU05	GT7300D GT7400D GT7480D	Fuse		0.5A	Repair the parts (SA02)
FU06	GT7300D GT7400D GT7480D	Thermo fuse		131℃	Repair the parts (TC03)

5.4.2 Reset for the alarm

1) Turn off the power supply and main switch for "ALARM" lamp turning off.
2) The reset method of each safeguard is based on 5.4.1.
3) Remove causes that stopped the dryer abnormally. Be sure to turns off the power supply when remove causes of problems.
4) Turn on the power supply and main switch.

CAUTION: If thermal type safety devices had been working, the dryer can not restart until 10 to 15 minutes after power on, because of cooling time. You may restart after then.

6. Maintenance and check point

6.1 Items of maintenance and check point

Check following items for full performance and longer service life of the dryer.

Checking item	Contents		Checking cycle			
			Daily	Weekly	Monthly	6-Month
"RUN" lamp	"RUN" lamp is lighting.		X			
"DEW POINT" indicator	"DEW POINT" indicator lamp indicates in the green area.		X			
Refrigerant pressure	Before operation	Equivalent to the ambient temperature by R407C.		X		
	In operation	0.35～0.6MPa				
Refrigerant high pressure	Before operation	Equivalent to the ambient temperature by R407C.		X		
	During operation	1.1～2.5MPa				
Running signal	Check conduction between terminal number ※1 in operation.				X	
Drain switch	When you push "DRAIN" switch on the operation panel, drain is discharged properly.		X			
Dust filter	Dust filter is not dirty.				X (cleaning)	
Fan motor	No abnormal noise is generated.		X			
Refrigerant compressor						
Air leak	No air leaks.				X	

※1 D3-D4 : GT5055,5075D,7055,7075,7095,7120,7150D,7200D,7250D
D5-D6 : GT7300D,7400D,7480D

6.2 Removal of contaminant accumulated in the heat exchanger

Open the manual drain valve once or twice of about ten seconds a week, because contaminant that is accumulated in the pressure vessel need to be exhausted.

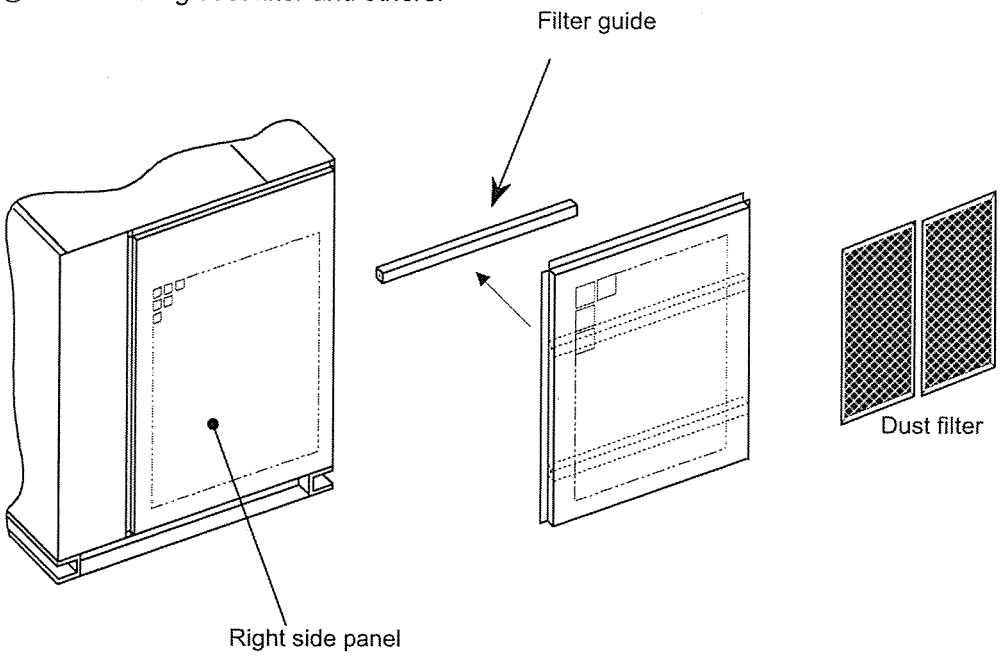
6.3 Cleaning of dust filter

Please keep clean dust filter. Otherwise, do not keep full performance of the dryer or there is a possibility to have abnormal stops when dust filter become clogging.

⚠ Neglect of cleaning of dust filter will cause machine trouble.

Cleaning diagram

① Take apart the right side panel.
② Take apart the filter guide.
③ Take apart for clean or replace the dust filter.
④ Assembling dust filter and others.



(GT7300D,7400D,7480D is right and left side panel)

6.4 Consumables and maintenance parts

(Note: pcs/set is use quantity per 1 set of these devices.)

●Consumables

(The parts which will be exchanged if the state exhausting was checked periodically and it has exhausted.)

Inspect the following parts periodically, and exchange it based on Exchange judgment standard.

Parts name	pcs/set	Inspection frequency	Exchange judgment standard※
Dust filter	Note(a)	Monthly	When it damages. When it does not come off.
Fuse	1	Each time	When being cut off.

※ Be careful that it is not a guarantee value since the operation time (years) indicated changes with operating conditions (ambient temperature, installation environment, etc.). Years are a standard at the time of considering as 12 hours/day (Japan Electrical Manufacturer's Association (JEMA)) x 300 days of operating ratios.

※ We recommend you to keep a fuse as spare parts.

●Periodic maintenance parts (The main parts for which exchange is needed with a use situation)

Check the following parts periodically and exchange them based on standard exchange time.

Parts name	pcs /set	How to exchange	Standard exchange time ※
Compressor	Note(b)	B	20,000 hours (6 years)
Pressure fan	Note(c)	A	20,000 hours (6 years)
Electromagnetic switch (For compressor)	Note(b)	A	20,000 hours (6 years)
Electromagnetic switch (For pressure fan)	Note(b)	A	20,000 hours (6 years)
Solenoid valve	1	A	20,000 hours (6 years)

※ Keep in mind that it is not a guarantee value since the operation time (years) indicated above changes with operating conditions (ambient temperature, installation environment, etc.). Years are a standard at the time of considering as 12 hours/day (Japan Electrical Manufacturers' Association (JEMA)) x 300 days of operating ratios. Moreover, since time for the rate of failure in the case where you use it above this time to increase is shown, although it is not necessary to necessarily exchange, this exchange time is exchanged when the case where there are abnormalities at the time of check, and preventive maintenance are performed

・How to exchange

A : Those who have the knowledge and experience of piping, electricity, etc. Need to perform exchange of parts.
(When there are not these knowledge and experiences, ask our company or a special contractor.)

B : Before part exchange, refrigerant recovery is required. Moreover, since technical knowledge is needed for exchange work, ask our company or a special contractor.

Note(a): 1 pc/set (GT5055,5075D,7055,7075,GT7095,7120,7150D)
2 pcs/set (GT7300D,7400D,7480D)
3 pcs/set (GT7200D,7250D)

Note(b): 1 pc/set (GT5055,5075D,7055,7075,7095,7120,7150D,7200D,7250D)
2 pcs/set (GT7300D,7400D,7480D)

Note(c): 1 pc/set (GT5055,5075D,7055,7075,7095,7120,7150D,7200D,7250D)
4 pcs/set (GT7300D,7400D,7480D)

6.5 Long term keeping

If the dryer is not used long term, keep the dryer with the following procedure.

1) Close the stop valves before/after the dryer.
2) Open the manual drain valve, because contaminant that is accumulated in the pressure vessel need to be exhausted.
3) Turn off the power supply and main switch.
4) Clean the dust filter.
5) Put a sheet over the dryer for keeping.

   Keep the dryer in a place where environment is the same as the operating specification.
6) When the dryer is started again, inspect the dryer parts and start it as the instruction in this manual.

6.6 After sale service

1) Contact your store, distributor or CKD you purchased this dryer to request repair services.
2) Provide the following information when requesting the repair service.

   *model number of the dryer.

   *serial number

   *date of installation

   *name of the store where you purchased the dryer

   *conditions of the dryer
3) We will repair your dryer even after the warranty period expires onerously. We will supply parts for seven years after production of your dryer is terminated except special orders.

7. Trouble shooting

Condition		Causes		Measures
"DEW POINT" lamp does not turn on		Power supply did not turn on.		Turn on the power supply.
		Main switch did not turn on.		Turn on the main switch.
		Fuse was failed	FU01	Replace the transformer(TC01).
			FU02	Replace the fuse.
			FU03	Replace the main control board.(SA01)
			FU04	Replace the transformer(TC02).
		Different power supply phase pattern.		Adjust the phase
		Main control boad (SA01) was failed.		Replace the main control boad.
"RUN" lamp does not turn on when the push "START" button.		GT5055,5075D,7055,7075,7095,7120,7150D,7200D,7250D		
		Local-Remote change over switch (SA05) was set at "REMOTE".		Set "LOCAL" on the Local-Remote change over switch.
		Main control boad(SA01) was failed.		Replace the main control boad.
		Start switch(SB01) was failed.		Replace the main control boad.
		GT7300D,7400D,7480D		
		Local-Remote change over switch (SA06) was set at "REMOTE".		Set "LOCAL" on the Local-Remote change over switch.
		Start switch (SA07,08) was set at "OFF".		Set "ON" on the start switch.
		Run lamp (HL07,08) bulb was failed.		Replace the run lamp bulb.
		Start switch (SB01) was failed.		Replace the start switch.
Dew point is abnormal	Yellow lamp (High temp. side of "DEW POINT" lamp) is turned on.	Refer to "*" mark in water comes out when the dryer is running.		
		Dew point sensor(RT01) was short-circuited.		Replace the dew point sensor.
	Yellow lamp (Low temp. side of "DEW POINT" lamp) is turned on.	Ambient temp. was low.		Adjust the temp.(2℃or higher)
		Inlet air temp. was low.		Adjust the temp.(5℃or higher)
		Dew point sensor(RT01) was burned out.		Replace the dew point sensor.
Water comes out when the dryer is running	Dew point is normal, but water comes out to the end of piping	The pipe temp. coming out from the dryer was lower than the dew point.		Insurate the pipe from ambient temp.
		By-pass circuit is open.		Close the by-pass circuit.
		Too much flow rate.		Reduce the flow (Less than rated condition.)
		Low inlet air pressure.		Increase the air pressure.
		Solenoid valve for drain discharge was failed.	Open the manual drain valve	Replace the solenoid valve.
		Drain piping is clogged.		Take apart and clean the drain pipe.
		Too much drain capacity.		Warch drain do not flow in the dryer.
		Drain sensor is broke down.		Replace the drain sensor.
	"DEW POINT" lamp is on, and water comes out to the end of piping.(*)	Over spec the load. ·High inlet air temp. ·Low inlet air press. ·High ambient temp. ·Too much treated flow rate.		·Reduce the inlet air temp. ·Increase the air press. ·Reduce the ambient temp. ·Reduce the treated flow rate.
		Low or high power supply voltage.		Adjust the voltage.
		Dust filter was contaminated.		Clean or replace the dust filter.
		GT7300D,7400D,7480D		
		Start switch (SA07,08) was set at "OFF".		Set "ON" on the start switch.

Discontinue

Condition		Causes		Measures
The dryer suddenly stops.	"ALARM" lamp turns on.	Some safety devices were turning on. ·Refrigerant gas leakage. ·Over spec the load.		Remove causes of problems and reset · Repair the parts leaking gas and refill refrigerant. ·Refer the P15 ＊ mark.
	All the lamps turn off, and the dryer stops.	Power supply was turned off.		Turn on the power supply.
		Low or high power supply voltage.		Adjust the voltage.
		Fuse was failed	FU01	Replace the transformer.(TC01)
			FU02	Replace the fuse.
			FU03,FU05	Replace the main control board
			FU04,FU06	Replace the transformer.
	"RUN" lamp is turns on when the dryer stops.	Momentary power failure.		Wait until the dryer is restarted by automatically. (Reactivate the dryer immediately after power recovery, if instantaneous power failure is less than 0.5 seconds. Also, reactivate the dryer 3 minutes later after power recovery, if instantaneous power failure is less than 2 seconds.)
	"RUN" lamp is turns off, and the dryer stops.	Power failure is occurred more than two seconds.		Please restart after three minutes or more.
Pressure drop before/after the dryer is too large.		Stopper valves before/after the dryer is closed.		Fully open the valves.
		Treated flow rate is too large.		Lower the flow rate.
		Congelation in the dryer.		·Increase ambient temp. ·Increase the inlet air temp.
Drain on pressurized air is exhausted continuously from the drain solenoid valve.		Solenoid valve for drain discharge was failed.		Take apart for clean or replace the solenoid valve. (During disposal, open the manual drain discharge valve and carry out drain discharge.)
		Inlet air temp. sensor was burned out.		Replace the inlet air temp. senser.
"DRAIN ALARM" lamp(HL09) is turns on, and "DRAIN OVER-FLOW" signal is output.		GT7300D,7400D,7480D		
		Drain discharge circuit was failed or drain pipe is choked up.	Open the manual drain valve	Take apart for clean or replace the solenoid valve. (During disposal, open the manual drain discharge valve and carry out drain discharge.)
		Inlet air temp. sensor was short-circuited.		Exchange the inlet air temp. senser.

Discontinue

8. Attachment data

8. 1 Specifications

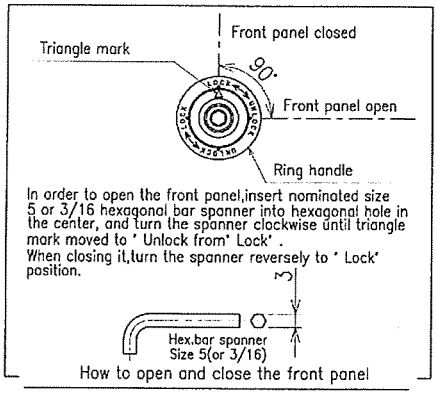
Model number / Description			GT5055 -AC200V	GT5075D -AC200V	GT7055 -AC200V	GT7075 -AC200V	GT7095 -AC200V	GT7120 -AC200V
Using condition	Media		Compressed air					
	Inlet air temp.	℃	5~80		5~60			
	Inlet air pressure	MPa	0.2~1.0					
	Ambient temp.	℃	2~43					
Rated conditions	Air flow rate	m^3/min ANR	9.6/10.6	13/14.3	9.6/10.6	13/14.3	16/18.8	20/23.5
	Inlet air temp.	℃	55		40			
	Inlet air press.	MPa	0.7					
Performance	Air outlet dew point	℃	10					
	Press. Drop	MPa	0.0088/ 0.0108	0.0101/ 0.0122	0.0088/ 0.0108	0.0101/ 0.0122	0.0046/ 0.0064	0.0073/ 0.010
Electric characteristics	Electric power		3 phase AC200/200-220V 50/60Hz					
	Power consumption	kW	2.4/2.9	3.6/4.2	1.3/1.5	1.6/2.0	2.1/2.6	2.4/2.9
	Operation current	A	9.3/10.2	12.9/13.5	5.0/5.4	5.9/6.3	7.4/8.5	9.3/10.2
	Starting current	A	55/50	100/91	27.5/26.5	46/42	45/42	55/50
Refrigerant			R-407C					
Piping size of air inlet and outlet			Rc2 (union)				$2^1/_2$ B 10K flange	
Piping size of drain outlet (main & manual)			2-$Rc^1/_2$		$Rc^1/_4$ & $Rc^1/_2$		2-$Rc^1/_2$	
Mass		kg	220	285	145	175	260	260

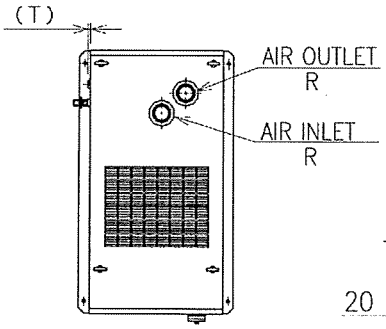
Model number / Description			GT7150D -AC200V	GT7200D -AC200V	GT7250D -AC200V	GT7300D -AC200V	GT7400D -AC200V	GT7480D -AC200V
Using condition	Media		Compressed air					
	Inlet air temp.	℃	5~60					
	Inlet air pressure	MPa	0.2~1.0					
	Ambient temp.	℃	2~43					
Rated conditions	Air flow rate	m^3/min ANR	25/30	32/37.6	39/46	48/56.5	67/79	78/92
	Inlet air temp.	℃	40					
	Inlet air press.	MPa	0.7					
Performance	Air outlet dew point	℃	10					
	Press. Drop	MPa	0.0083/ 0.012	0.013/ 0.018	0.010/ 0.014	0.0099/ 0.014	0.0077/ 0.011	0.010/ 0.015
Electric characteristics	Electric power		3 phase AC200/200-220V 50/60Hz					
	Power consumption	kW	3.6/4.2	4.3/5.3	4.7/5.9	6.9/8.0	8.7/10.5	9.6/11.9
	Operation current	A	12.9/13.5	15.9/16.7	17.7/19.1	26.0/27.2	32.5/33.9	37.1/39.2
	Starting current	A	100/91	126/112	140/122	111/102	140/127	156/138
Refrigerant			R-407C					
Piping size of air inlet and outlet			3 B 10K flange		4 B 10K flange		6 B 10K flange	
Piping size of drain outlet (main & manual)			2-$Rc^1/_2$					
Mass		kg	360	430	570	800	1050	1100

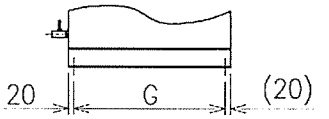
Note1) ANR shows conditions where 20℃ atmospheric pressure and relative humidity 65%.
Note2) Pressure drop is a reference value in an initial state.
Note3) Power consumption and operation current are the values under rated conditions.

8.2 Outline drawing

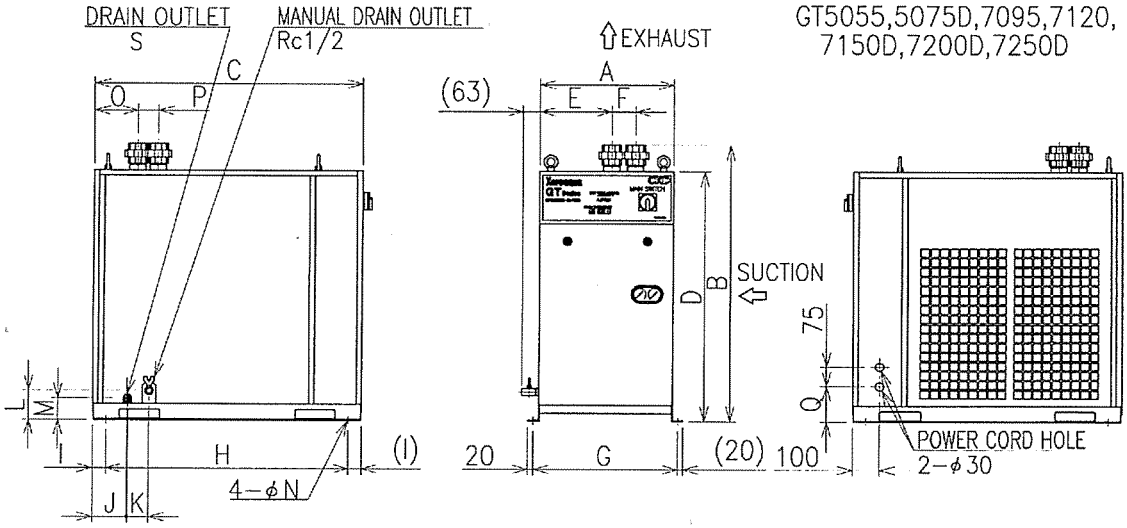
8.2.1 GT5055,5075D,7055,7075,7095,7120,7150D,7200D,7250D







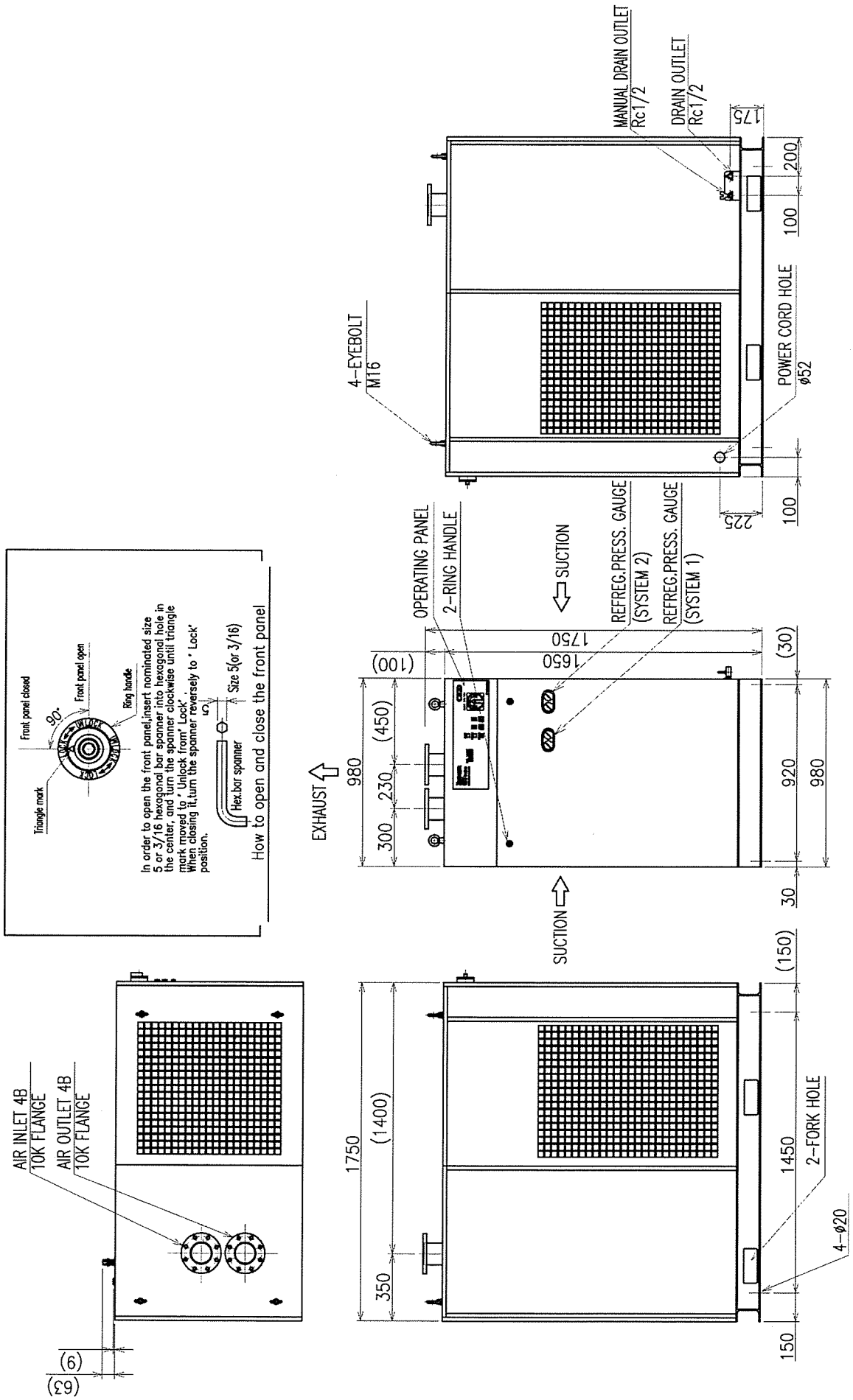
GT5055,5075D,7095,7120,
7150D,7200D,7250D



Symbol / Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
GT5055	600	1065	1250	965	315	90	560	1100	75	150	100	125	125	φ15	180	76	150	Rc2 union	Rc1/2	9
GT5075D	700	1095	1450	995	385	90	660	1250	100	150	100	125	125	φ15	232	76	150	Rc2 union	Rc1/2	9
GT7055	500	1050	1000	950	265	90	540	900	50	130	80	110	81	φ13	162	76	135	Rc2 union	Rc1/4	-5
GT7075	550	1080	1100	980	285	90	590	1000	50	130	80	110	81	φ13	182	76	135	Rc2 union	Rc1/4	-5
GT7095	600	1175	1250	1100	290	160	560	1100	75	150	100	125	125	φ15	215	90	150	$2^1/_2$B flange	Rc1/2	9
GT7120	600	1175	1250	1100	290	160	560	1100	75	150	100	125	125	φ15	215	90	150	$2^1/_2$B flange	Rc1/2	9
GT7150D	700	1375	1450	1300	350	140	660	1250	100	150	100	125	125	φ15	230	140	150	3B flange	Rc1/2	9
GT7200D	800	1375	1550	1300	430	140	760	1350	100	150	100	125	125	φ15	230	140	150	3B flange	Rc1/2	9
GT7250D	850	1600	1700	1500	392	156	810	1500	100	150	100	125	125	φ15	242	156	150	4B flange	Rc1/2	9

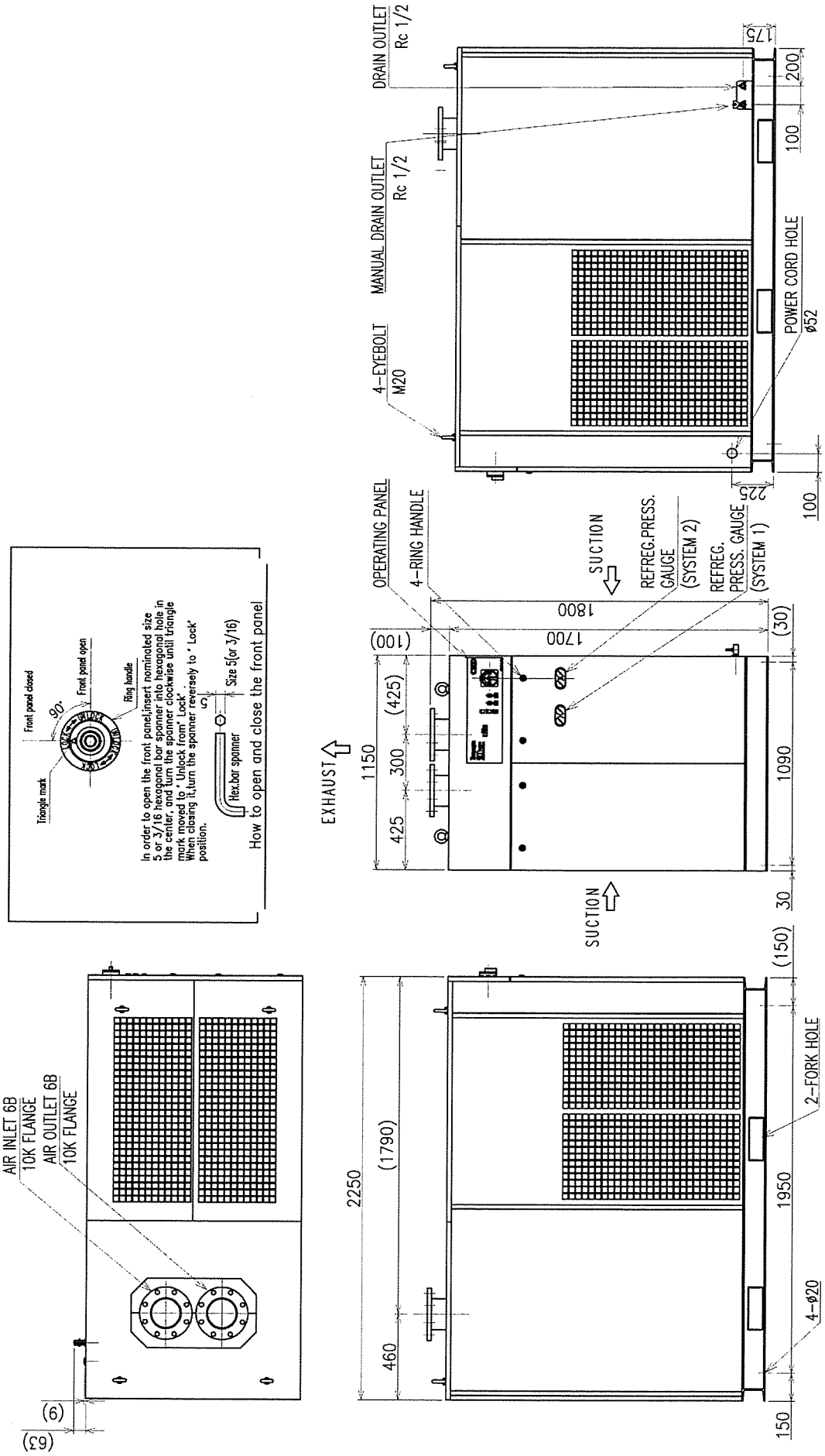
Discontinue

8. 2. 2 GT7300D



Discontinue

8. 2. 3 GT7400D, 7480D

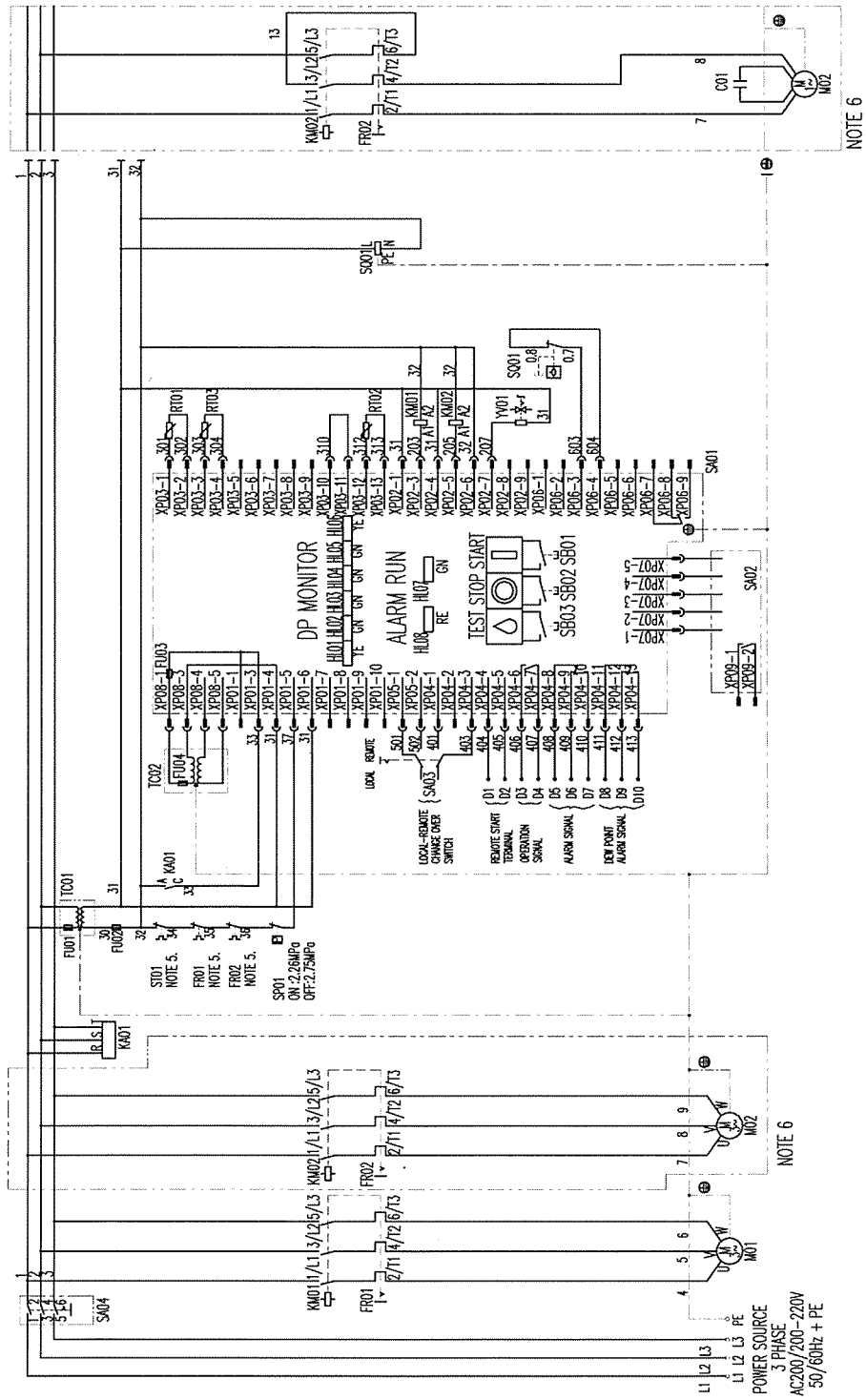


Discontinue

8.3 Electric circuit diagram

8.3.1 GT5055,7055,7075,7095,7120

No	PARTS	Q'TY	REMARK
C01	RUNNING CAPACITOR	1	
HL01	INDICATING LAMP	1	YELLOW
HL02	INDICATING LAMP	1	GREEN
HL03	INDICATING LAMP	1	GREEN
HL04	INDICATING LAMP	1	GREEN
HL05	INDICATING LAMP	1	GREEN
HL06	INDICATING LAMP	1	YELLOW
HL07	INDICATING LAMP	1	GREEN
HL08	INDICATING LAMP	1	RED
FU01	TEMPERATURE FUSE	1	128c,1A
FU02	FUSE	1	1A
FU03	FUSE	1	0.5A
FU04	TEMPERATURE FUSE	1	131c,0.5A
SA01	MAIN COTROL BOAD	1	
SA02	REMOTE BOARD OF UNIVERSAL POWER FAILURE	1	
SA03	LOCAL-REMOTE CHANGE OVER SWITCH	1	
SA04	MAIN SWITCH	1	
SB01	START SWITCH	1	
SB02	STOP SWITCH	1	
SB03	DRAIN TEST SWITCH	1	
SP01	HIGH PRESSURE SWITCH	1	
YV01	SOLENOID VALVE	1	
TC01	TRANSFORMER	1	200/100V
TC02	TRANSFORMER	1	100/16V
MO1	REFRIGERATED COMPRESSOR	1	
MO2	FAN MOTOR	1	
KM01	ELECTROMAGNETIC CONTACTOR	1	
KM02	ELECTROMAGNETIC CONTACTOR	1	
FR01	THERMAL RELAY	1	
FR02	THERMAL RELAY	1	
RT01	TEMPERATURE SENSOR	1	DEW POINT
RT02	TEMPERATURE SENSOR	1	INLET AIR TEMP.
RT03	TEMPERATURE SENSOR	1	FAN CONTROL
ST01	THERMO SWITCH	1	
SQ01	WATER LEVEL SENSOR	1	DRAIN
KA01	PHASE PROTECTOR	1	



NOTE
1.Remote start terminal D1-D2 non voltage input.
Set up switches SA03 and SA04 as following
when the dryer is operated by remote control.
SA03:REMOTE,SA04:ON
Relay D1 D2

2.Operation signal is non voltage a-contact,alarm,
dew point alarm signal are non-voltage c-contact.
(Operation:D3-D4 close,Alarm:D5-D7 close,Dew point
alarm:D8-D10 close)
Contact capacity:125VAC/110VDC,2A,62.5VA,30W

3.Reactivate the dryer immediately after power recovery,if instantaneous power failure is less than 0.5 seconds.
Also,reactivate the dryer 3 minutes later after power recovery,if instantaneous power failure is less than 2 seconds.

4.Do not operate while 5 minutes after stop this dryer,because the restart prevention circuit is operated.

5.Setting value

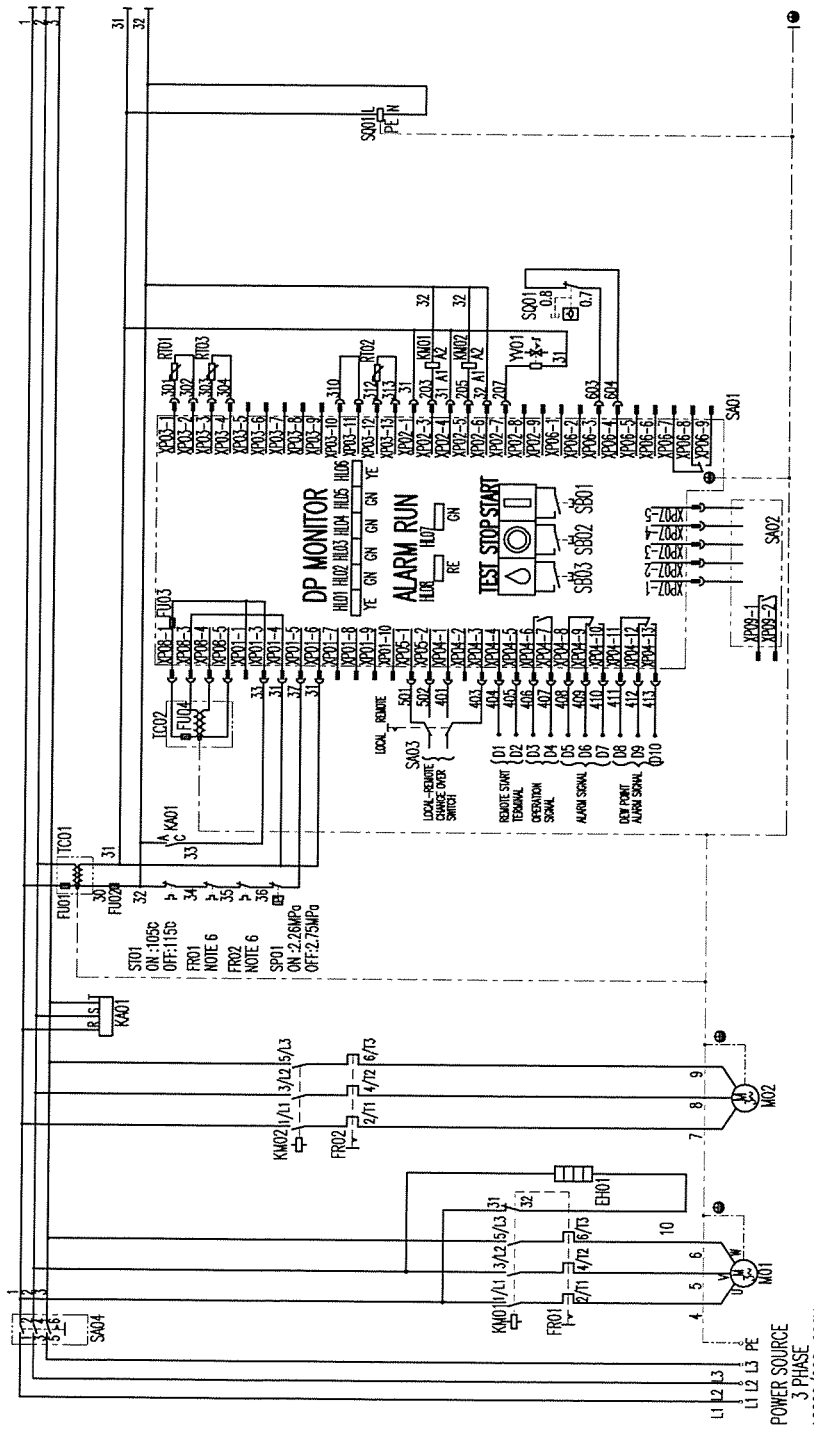
	Setting value		
	ST01	FR01	FR02
GT5055	ON=85c OFF=115c	OFF=14A	OFF=1.1A
GT7055	ON=113c OFF=135c	OFF=9A	OFF=0.58A
GT7075	ON=85c OFF=115c	OFF=12A	OFF=1.1A
GT7095		OFF=14A	OFF=0.72A
GT7120			OFF=1.1A

6.It applies to GT7055.

Discontinue

8. 3. 2 GT5075D, 7150D, 7200D, 7250D

No	PARTS	Q'TY	REMARK
HL01	INDICATING LAMP	1	YELLOW
HL02	INDICATING LAMP	1	GREEN
HL03	INDICATING LAMP	1	GREEN
HL04	INDICATING LAMP	1	GREEN
HL05	INDICATING LAMP	1	GREEN
HL06	INDICATING LAMP	1	YELLOW
HL07	INDICATING LAMP	1	GREEN
HL08	INDICATING LAMP	1	RED
EH01	CRANK CASE HEATER	1	200V-33W
FU01	TEMPERATURE FUSE	1	128C,1A
FU02	FUSE	1	1A
FU03	FUSE	1	0.5A
FU04	TEMPERATURE FUSE	1	131C,0.5A
SA01	MAIN COTROL BOAD	1	
SA02	PROTECTIVE BOARD OF MOMENTARY POWER FAILURE	1	
SA03	LOCAL-REMOTE CHANGE OVER SWITCH	1	
SA04	MAIN SWITCH	1	
SB01	START SWITCH	1	
SB02	STOP SWITCH	1	
SB03	DRAIN TEST SWITCH	1	
SP01	HIGH PRESSURE SWITCH	1	
YV01	SOLENOID VALVE	1	
TC01	TRANSFORMER	1	200/100V
TC02	TRANSFORMER	1	100/16V
M01	REFRIGERATED COMPRESSOR	1	
M02	PRESSURE FAN	1	
KM01	ELECTROMAGNETIC CONTACTOR	1	
KM02	ELECTROMAGNETIC CONTACTOR	1	
FR01	THERMAL RELAY	1	
FR02	THERMAL RELAY	1	
RT01	TEMPERATURE SENSOR	1	DEW POINT
RT02	TEMPERATURE SENSOR	1	INLET AIR TEMP.
RT03	TEMPERATURE SENSOR	1	FAN CONTROL
ST01	THERMO SWITCH	1	
SQ01	WATER LEVEL SENSOR	1	DRAIN
KA01	PHASE PROTECTOR	1	



6.Setting value

Model	Setting value	
	FR01	FR02
GT5075D	22A	2.1A
GT7150D	22A	2.1A
GT7200D	26A	2.6A
GT7250D	28A	3.5A

NOTE
1.Remote start terminal D1-D2 non voltage input.
Set up switches SA03 and SA04 as following
when the dryer is operated by remote control.
SA03:REMOTE,SA04:ON

2.Operation signal is non voltage a-contact,alarm,
dew point alarm signal are non-voltage c-contact.
(Operation:D3-D4 close,Alarm:D5-D7 close,Dew point
alarm:D8-D10 close)
Contact capacity:125VAC/110VDC,2A,62.5VA,30W

3.Reactivate the dryer immediately after power recovery,if instantaneous power failure is less than 0.5 seconds.
Also,reactivate the dryer 3 minutes later after power recovery,if instantaneous power failure is less than 2 seconds.

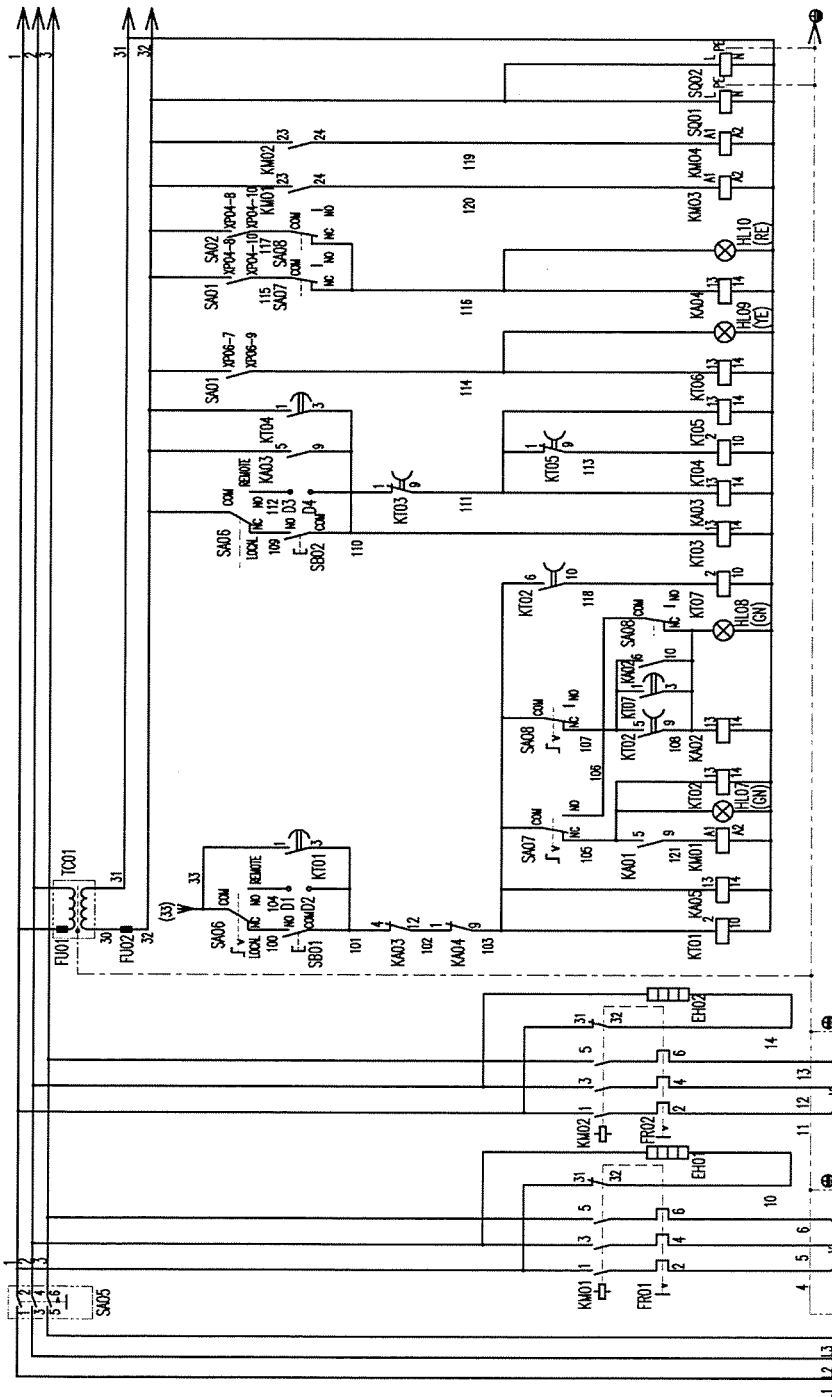
4.Do not operate while 5 minutes after stop this dryer,because the restart prevention circuit is operated.

5.Do not drop main power supply and main switch during stop for crank case heater energized.

Discontinue

8. 3. 3 GT7300D, 7400D, 7480D

No	PARTS	QTY	REMARK
C01~04	RUNNING CAPACITOR	EACH 1	
KT01	TIMER(OFF DELAY)	1	2sec
KT02,05,06	TIMER(ON DELAY)	EACH 1	5sec
KT03	TIMER(ON DELAY)	1	5min
KT04	TIMER(OFF DELAY)	1	3sec
KT07	TIMER(OFF DELAY)	1	8sec
KA01~05	AUXILIARY RELAY	EACH 1	
KA06	PHASE PROTECTOR	1	
YV01	SOLENOID VALVE	1	
SB01	START SWITCH	1	
SB02	STOP SWITCH	1	
SB03	DRAIN TEST SWITCH	1	
SP01,02	HIGH PRESSURE SWITCH	EACH 1	
ST01,02	THERMO SWITCH	EACH 1	
SA01,02	MAIN CONTROL BOAD	EACH 1	
SA03,04	PROTECTIVE BOAD OF MOMENTARY POWER FAILRE	EACH 1	
SA05	MAIN SWITCH	1	
SA06	LOCAL-REMOTE CHANGE OVER SWITCH	1	
SA07	No.1 START/STOP SWITCH	1	
SA08	No.2 START/STOP SWITCH	1	
HL01	INDICATING LAMP	1	YELLOW(DEW POINT)
HL02~05	INDICATING LAMP	EACH 1	GREEN(DEW POINT)
HL06	INDICATING LAMP	1	YELLOW(DEW POINT)
HL07,08	INDICATING LAMP	EACH 1	GREEN(START)
HL09	INDICATING LAMP	1	YELLOW(OVER FLOW)
HL10	INDICATING LAMP	1	RED(ALARM)
RT01	TEMPERATURE SENSOR	1	DEW POINT
RT02	TEMPERATURE SENSOR	1	INLET AIR TEMP.
RT03,04	TEMPERATURE SENSOR	EACH 1	FAN CONTROL
FU01	TEMPERATURE FUSE	1	131C,2A
FU02	FUSE	1	2A
FU03,05	FUSE	EACH 1	0.5A
FU04,06	TEMPERATURE FUSE	EACH 1	128C,0.5A
SQ01	WATER LEVEL SENSOR	1	DRAIN
SQ02	WATER LEVEL SENSOR	1	OVER FLOW
TC01	TRANSFORMER	1	200/100V
TC02,03	TRANSFORMER	EACH 1	100/16V
EH01,02	CRANK CASE HEATER	EACH 1	
FR03,04	THERMAL RELAY	EACH 1	
FR01,02	THERMAL RELAY	EACH 1	
KM03,04	ELECTROMAGNETIC CONTACTOR	EACH 1	
KM01,02	ELECTROMAGNETIC CONTACTOR	EACH 1	
M03~06	FAN MOTOR	EACH 1	
M01,02	REFRIGERATED COMPRESSOR	EACH 1	

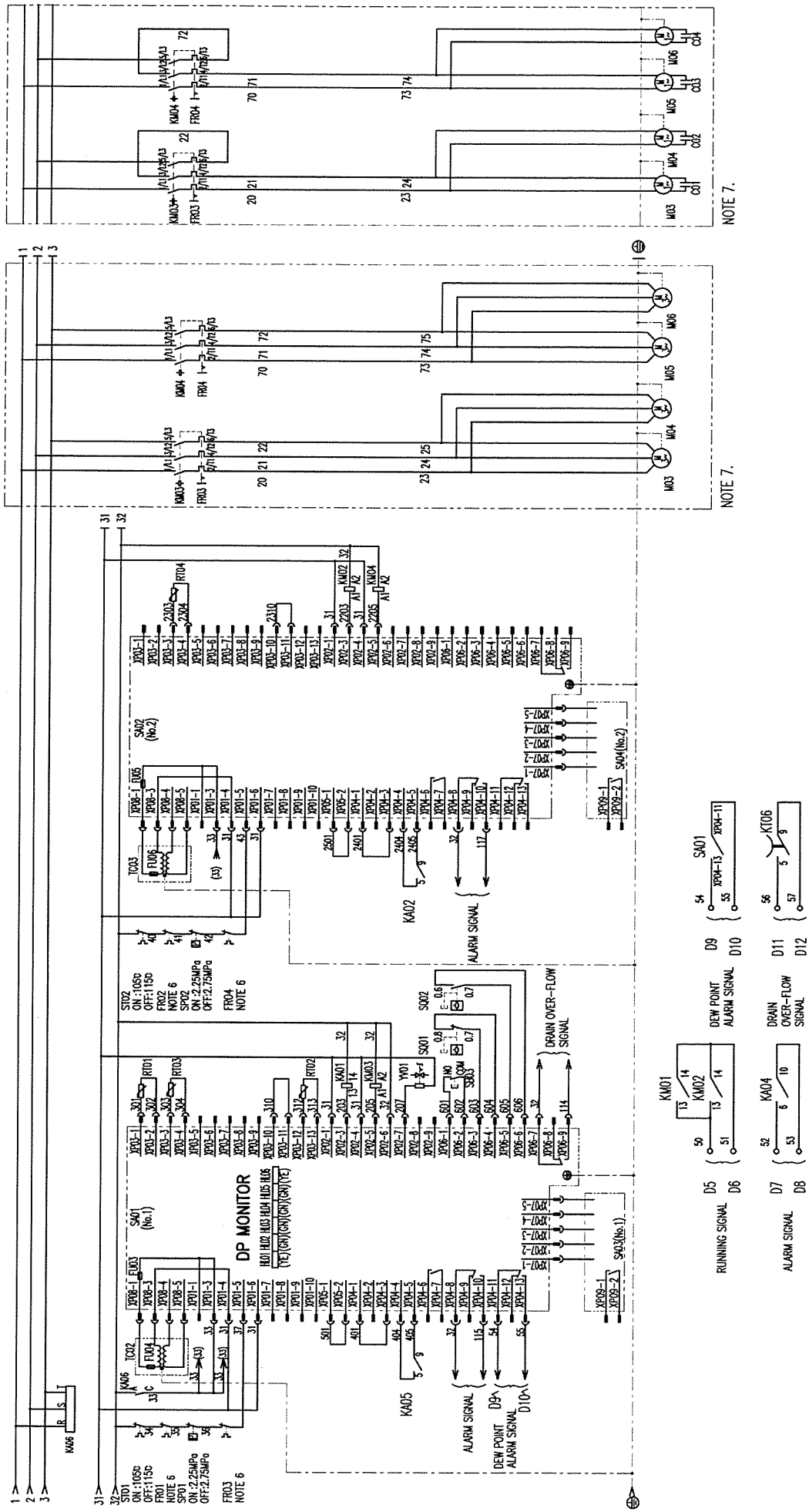


6.SETTING VALUE

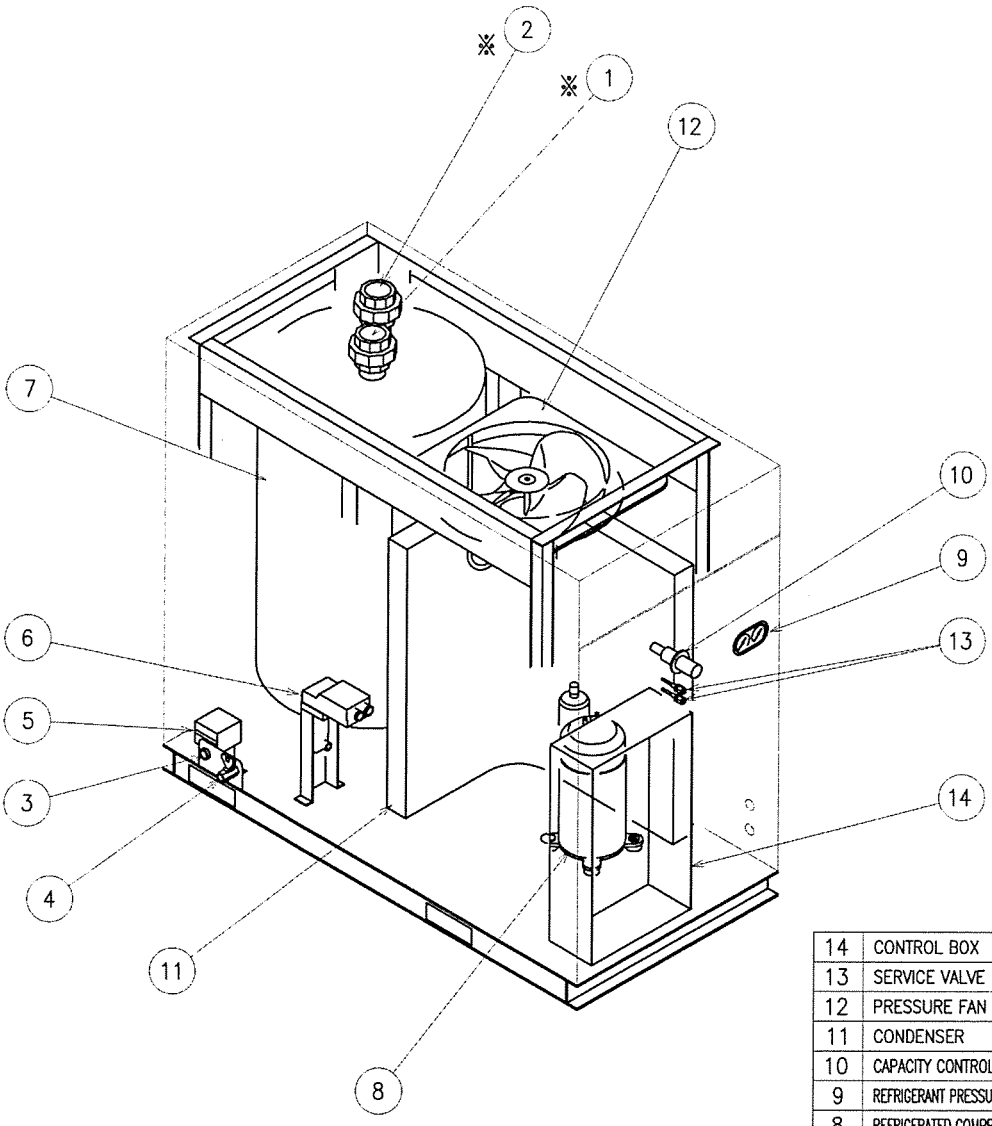
Model	Setting value	
	FR01,02	FR03,04
GT7300D	OFF:22A	OFF:1.2A
GT7400D	OFF:26A	OFF:1.5A
GT7480D	OFF:28A	OFF:2.2A

7.It applies to GT7300D

Discontinue



8.4 Inside structure drawing
8.4.1 GT5055,7095,7120



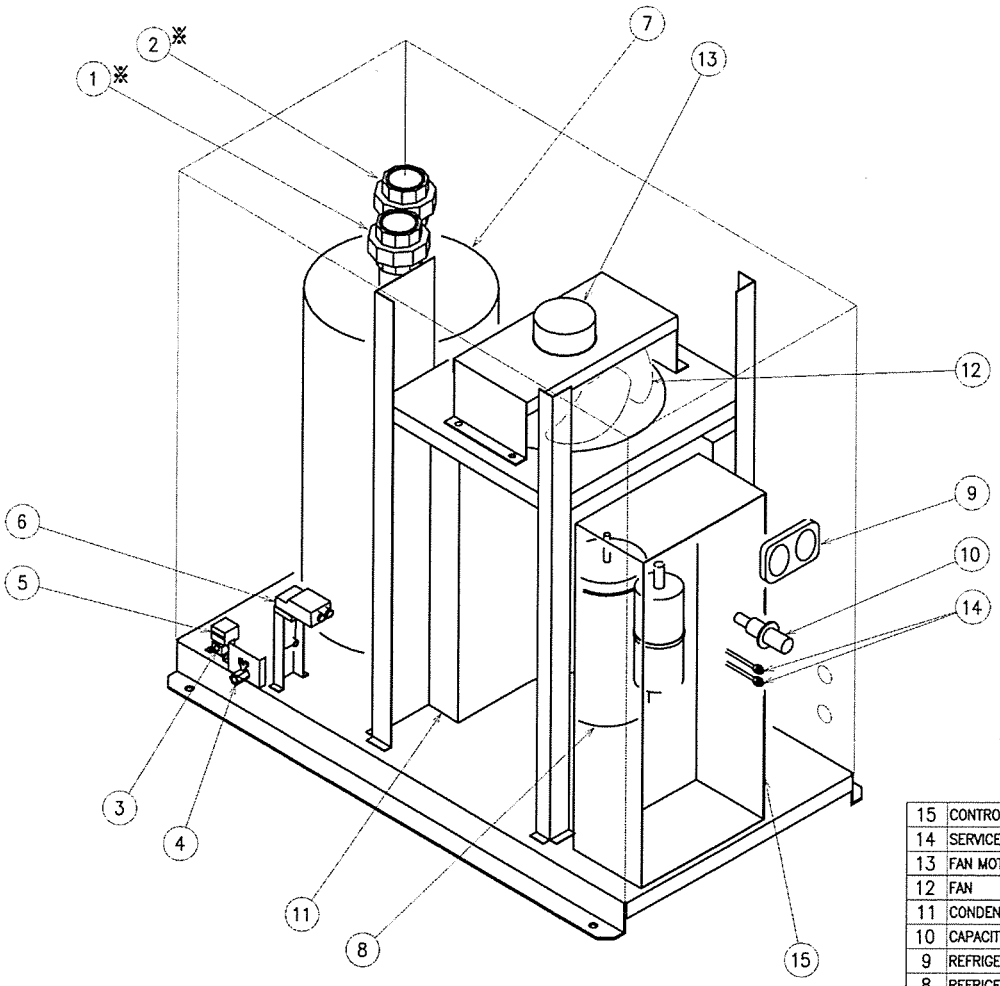
No	PARTS	Q'TY	
14	CONTROL BOX	1	
13	SERVICE VALVE	2	
12	PRESSURE FAN	1	
11	CONDENSER	1	
10	CAPACITY CONTROL VALVE	1	
9	REFRIGERANT PRESSURE GAUGE	1	
8	REFRIGERATED COMPRESSOR	1	
7	HEAT EXCHANGER	1	
6	WATER LEVEL SENSOR	1	DRAIN
5	SOLENOID VALVE	1	
4	MANUAL DRAIN OUTLET	1	
3	DRAIN OUTLET	1	
2	AIR OUTLET	1	
1	AIR INLET	1	

※ Air inlet and outlet

GT5055	: R c2 (UNION)
GT7095,7120	:$2^{1}/_{2}$B 10K FLANGE

Discontinue

8.4.2 GT7055,7075

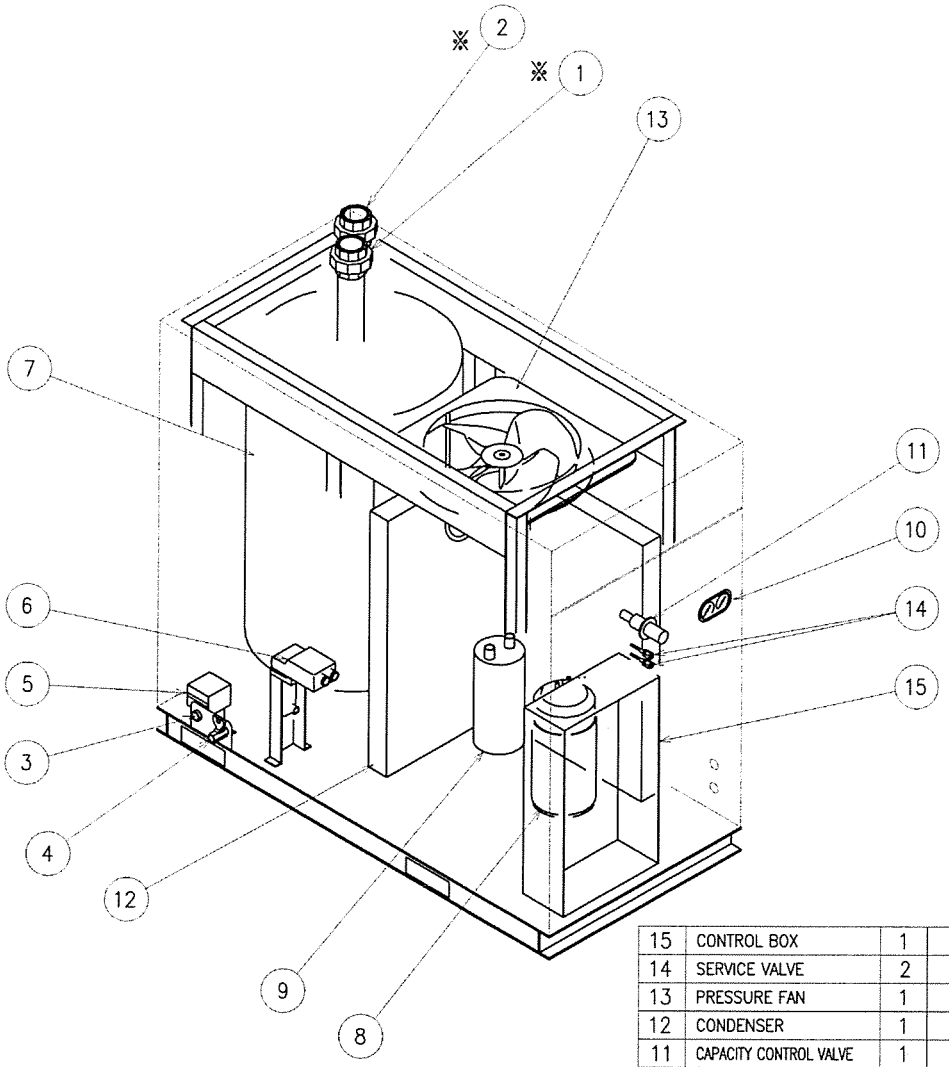


No	PARTS	Q'TY	
15	CONTROL BOX	1	
14	SERVICE VALVE	2	
13	FAN MOTOR	1	
12	FAN	1	
11	CONDENSER	1	
10	CAPACITY CONTROL VALVE	1	
9	REFRIGERANT PRESSURE GAUGE	1	
8	REFRIGERATED COMPRESSOR	1	
7	HEAT EXCHANGER	1	
6	WATER LEVEL SENSOR	1	DRAIN
5	SOLENOID VALVE	1	
4	MANUAL DRAIN OUTLET	1	
3	DRAIN OUTLET	1	
2	AIR OUTLET	1	
1	AIR INLET	1	

※ Air inlet and outlet
GT7055,7075 : R c2 (UNION)

Discontinue

8. 4. 3 GT5075D, 7150D, 7200D, 7250D



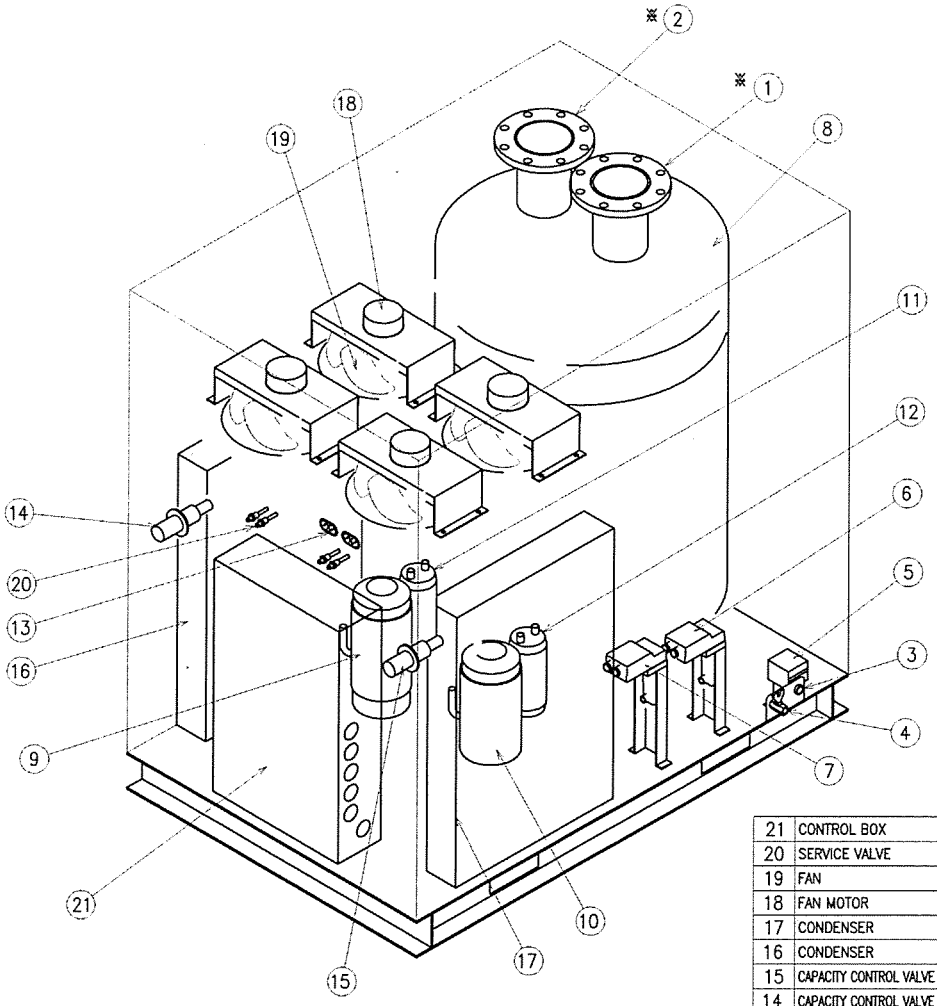
品番	部品名	数量	
15	CONTROL BOX	1	
14	SERVICE VALVE	2	
13	PRESSURE FAN	1	
12	CONDENSER	1	
11	CAPACITY CONTROL VALVE	1	
10	REFRIGERANT PRESSURE GAUGE	1	
9	ACCUMULATOR	1	
8	REFRIGERATED COMPRESSOR	1	
7	HEAT EXCHANGER	1	
6	WATER LEVEL SENSOR	1	DRAIN
5	SOLENOID VALVE	1	
4	MANUAL DRAIN OUTLET	1	
3	DRAIN OUTLET	1	
2	AIR OUTLET	1	
1	AIR INLET	1	

※ Air inlet and outlet

GT5075D	:Rc2 UNION
GT7150D,7200D	:3B 10K FLANGE
GT7250D	:4B 10K FLANGE

Discontinue

8. 4. 4 GT7300D, 7400D, 7480D



No	PARTS	Q'TY	
21	CONTROL BOX	1	
20	SERVICE VALVE	4	
19	FAN	4	
18	FAN MOTOR	4	
17	CONDENSER	1	SYSTEM 2
16	CONDENSER	1	SYSTEM 1
15	CAPACITY CONTROL VALVE	1	SYSTEM 2
14	CAPACITY CONTROL VALVE	1	SYSTEM 1
13	REFRIGERANT PRESSURE GAUGE	2	
12	ACCUMULATOR	1	SYSTEM 2
11	ACCUMULATOR	1	SYSTEM 1
10	REFRIGERATED COMPRESSOR	1	SYSTEM 2
9	REFRIGERATED COMPRESSOR	1	SYSTEM 1
8	HEAT EXCHANGER	1	
7	WATER LEVEL SENSOR	1	OVER FLOW
6	WATER LEVEL SENSOR	1	DRAIN
5	SOLENOID VALVE	1	
4	MANUAL DRAIN OUTLET	1	
3	DRAIN OUTLET	1	
2	AIR OUTLET	1	
1	AIR INLET	1	

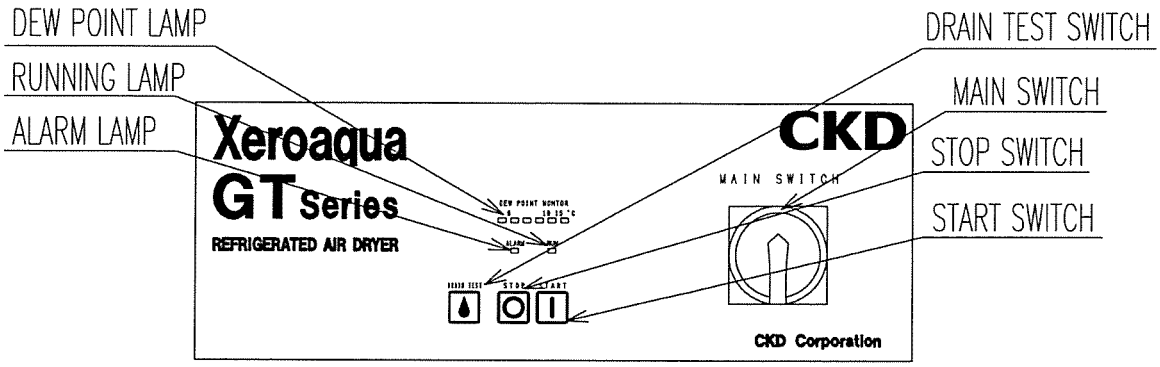
※ Air inlet and outlet

GT7300D :4B 10K FLANGE

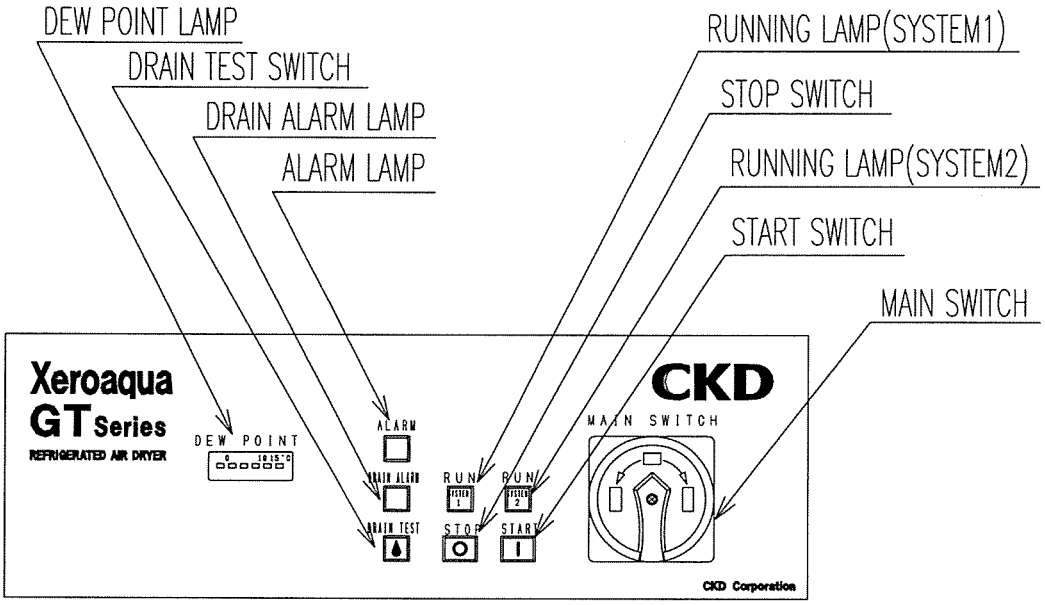
GT7400D,7480D :6B 10K FLANGE

8. 5 Operating panel

8. 5. 1 GT5055, 5075D, 7055, 7075, 7095, 7120, 7150D, 7200D, 7250D

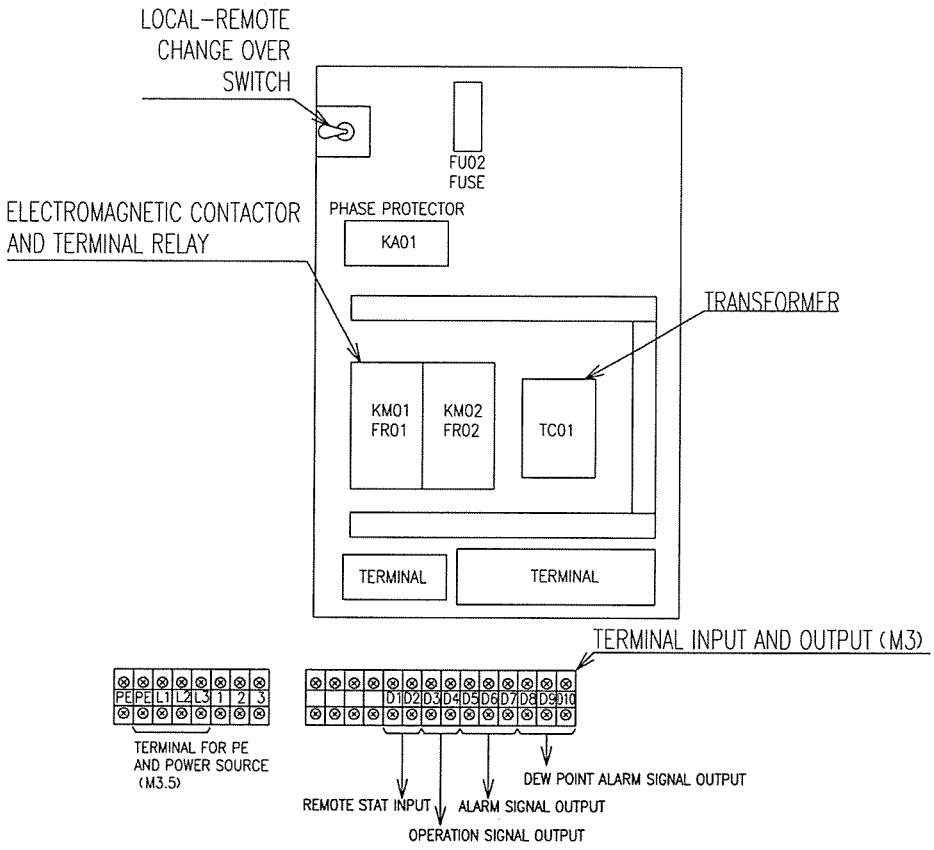


8. 5. 2 GT7300D, 7400D, 7480D

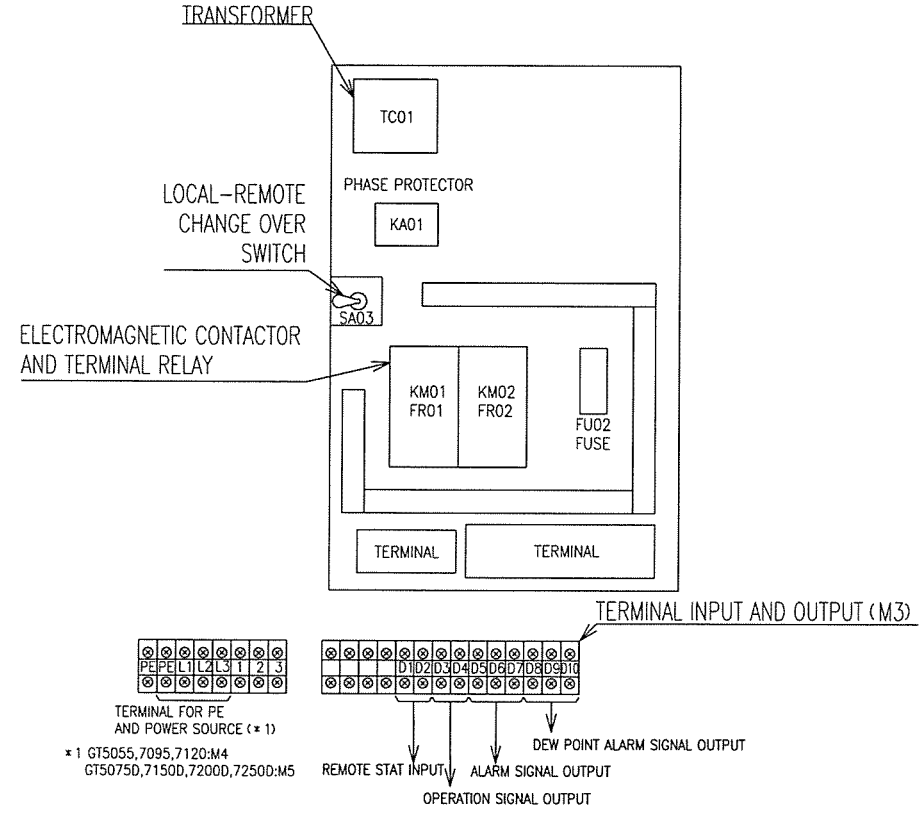


8. 6 Electric box

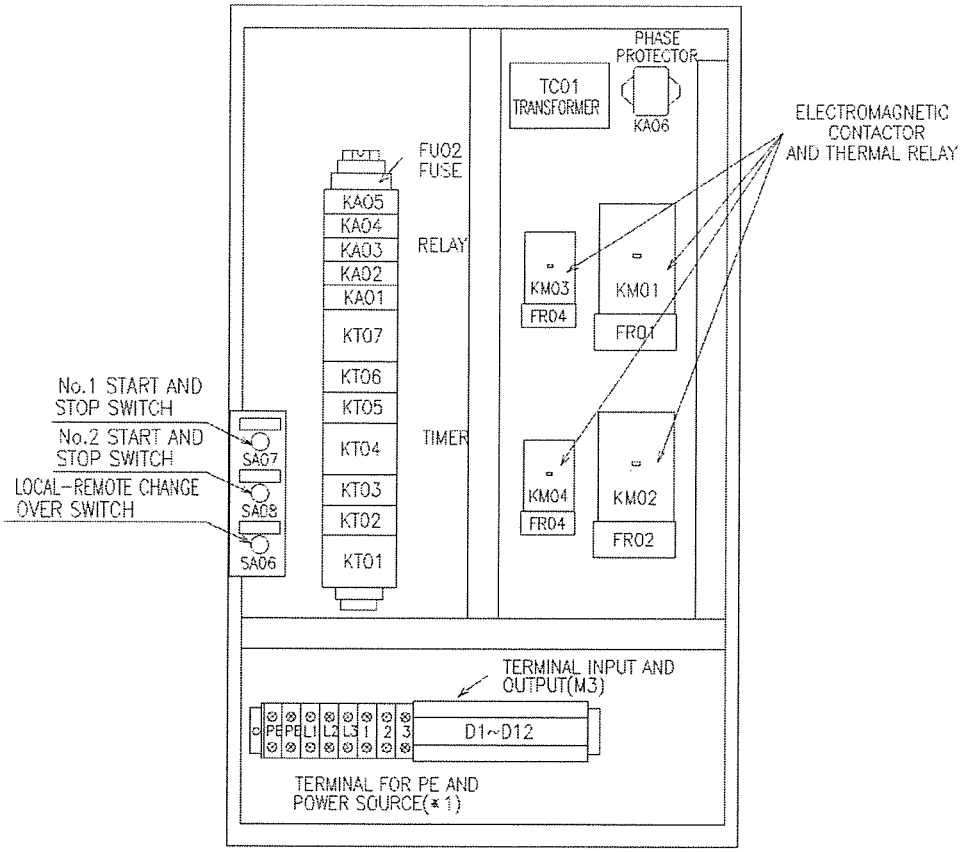
8. 6. 1 GT7055, 7075



8. 6. 2 GT5055, 5075D, 7095, 7120, 7150D, 7200D, 7250D



8. 6. 3 GT7300D, 7400D, 7480D



※1

GT7300D :M5

GT7400D,7480D :M6

※2

D1-D2 : Remote start terminal

D3-D4 : Remote stop terminal

D5-D6 : Operation signal output

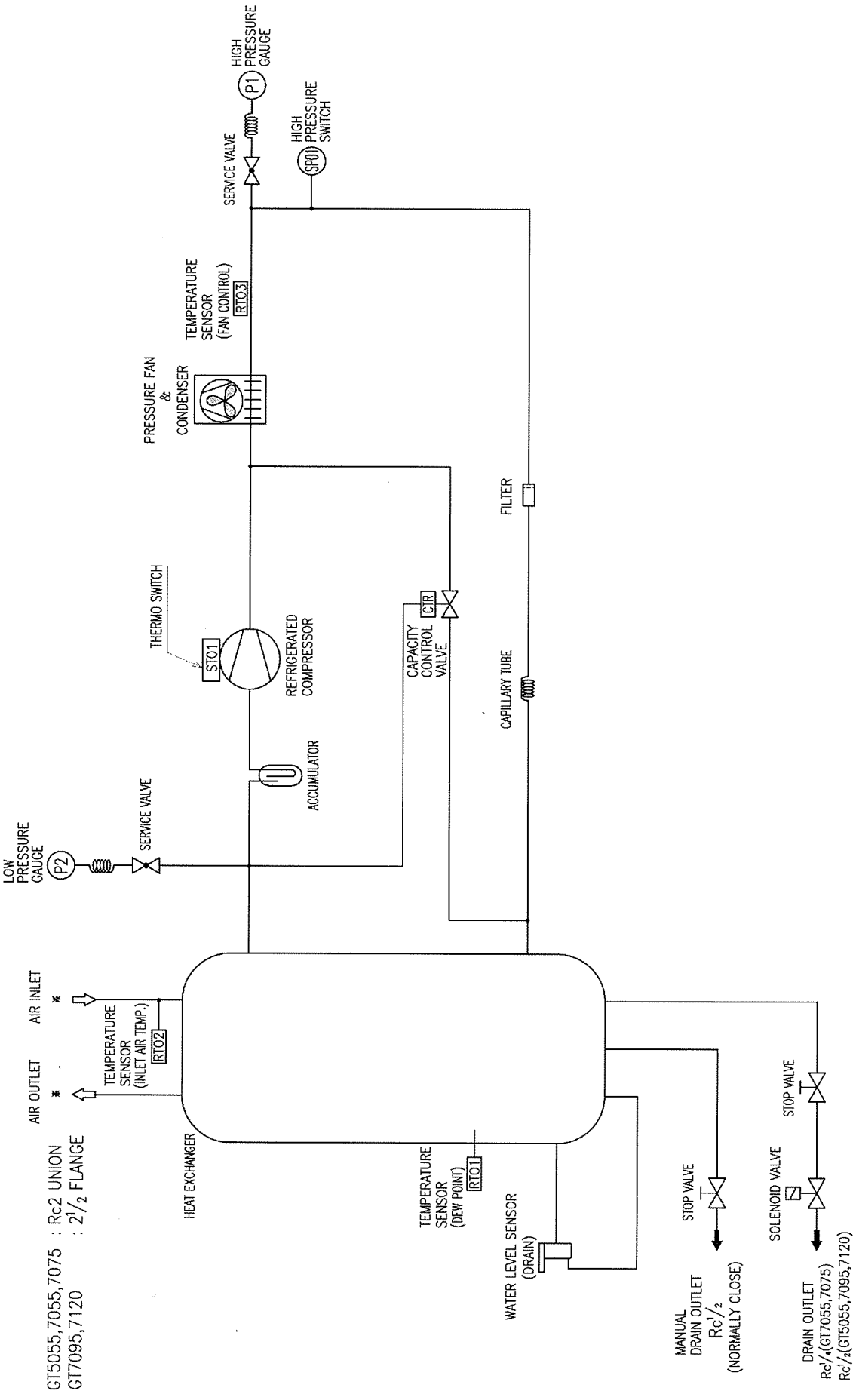
D7-D8 : Alarm signal output

D9-D10 : Dew point alarm output

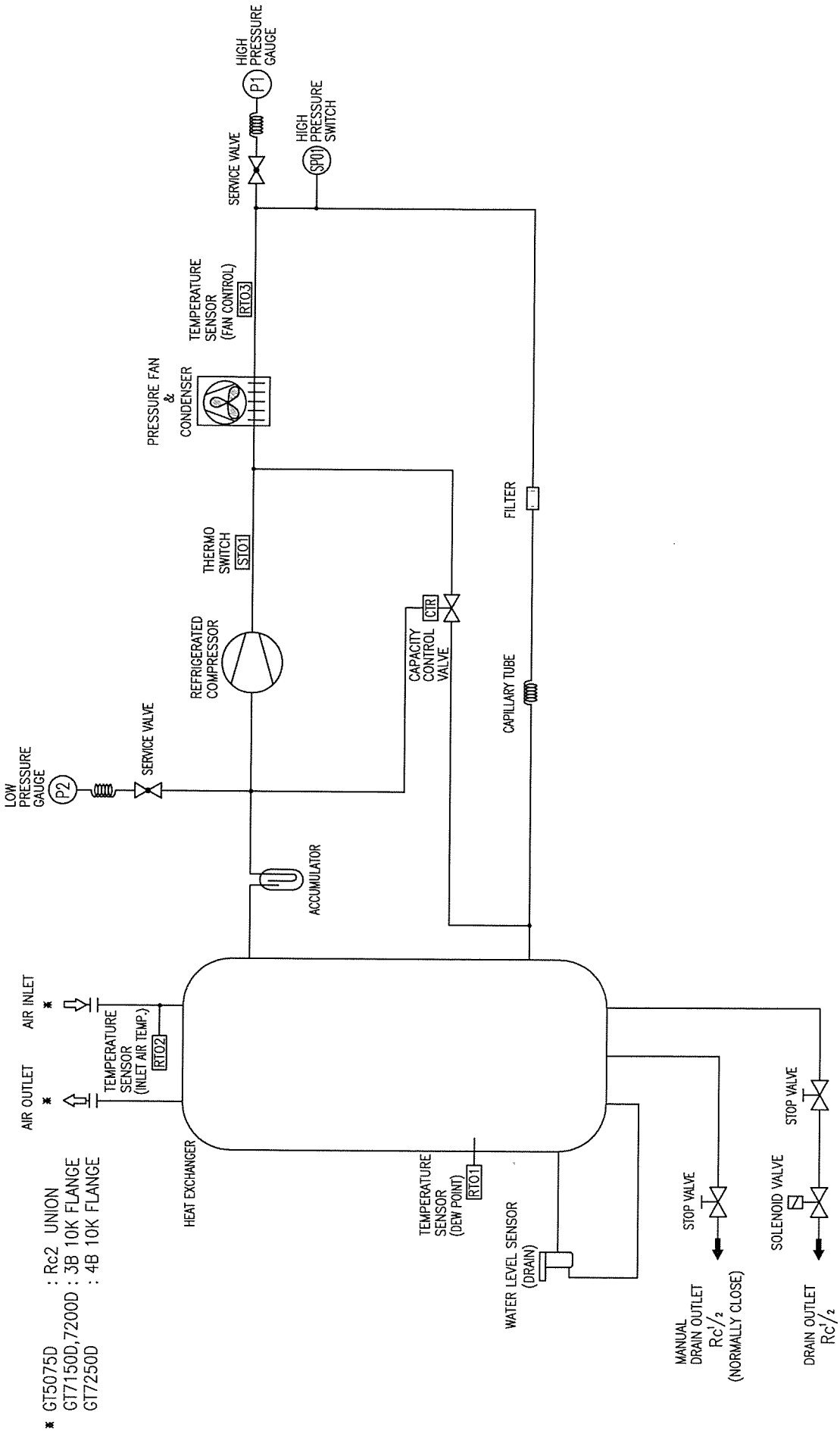
D11-D12 : Drain over flow output

8.7 Flow chart

8.7.1 GT5055,7055,7075,7095,7120



8. 7. 2 GT5075D, 7150D, 7200D, 7250D



Discontinue

8. 7. 3 GT7300D, 7400D, 7480D