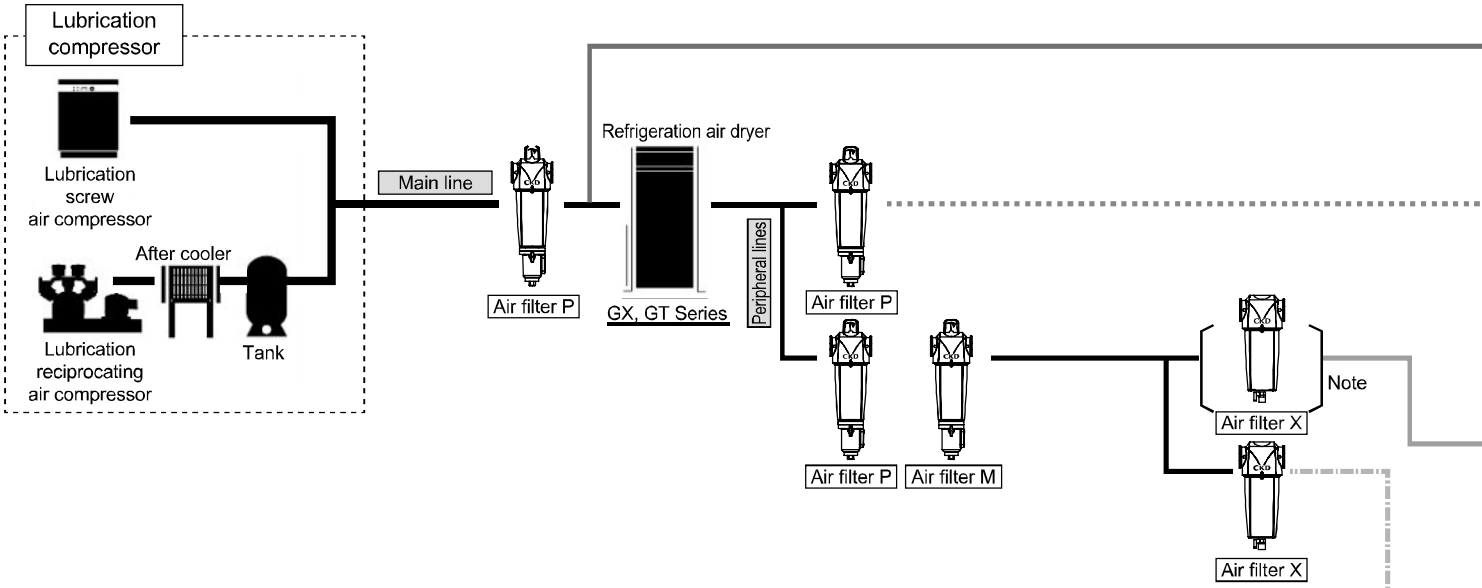
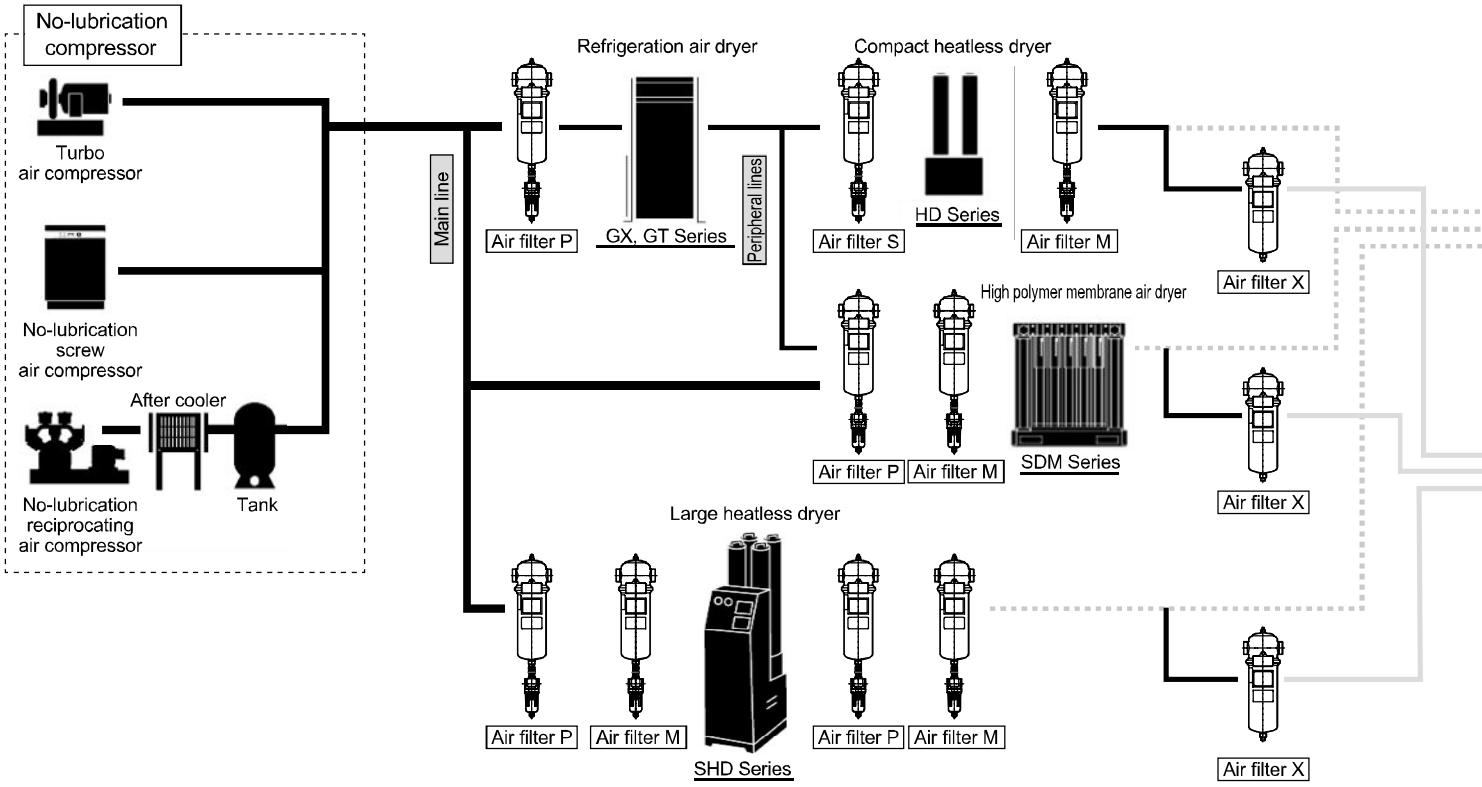
Main line component system configuration

Medium main line filter device recommended system configuration



Note: Install the X type shown in brackets when the inlet oil vapor is 0.005 mg/m^3 or more (at 21°C).
The oil grade is "Grade 2" when not installed.



JIS B 8392-1:2012 Compressed air purity grade

Grade	Solid particles				Humidity and moisture		Oil
	Max. number of particles per 1 m^3 for particle diameter d (μm)			Mass concentration Cp	Pressure dew point	Water conc Cw	Total oil concentration
	0.1 < d ≤ 0.5	0.5 < d ≤ 1.0	1.0 < d ≤ 5.0	mg/m^3	°C	g/m^3	mg/m^3
0	Conditions stricter than Grade 1 to be specified by user or supplier.						
1	≤ 20,000	≤ 400	≤ 10	-	≤ -70	-	≤ 0.01
2	≤ 400,000	≤ 6,000	≤ 100	-	≤ -40	-	≤ 0.1
3	-	≤ 90,000	≤ 1,000	-	≤ -20	-	≤ 1
4	-	-	≤ 10,000	-	≤ +3	-	≤ 5
5	-	-	≤ 100,000	-	≤ +7	-	-
6	-	-	-	0 < Cp ≤ 5	≤ +10	-	-
7	-	-	-	5 < Cp ≤ 10	-	Cw ≤ 0.5	-
8	-	-	-	-	-	0.5 < Cw ≤ 5	-
9	-	-	-	-	-	5 < Cw ≤ 10	-
X	-	-	-	Cp > 10	-	Cw > 10	> 5

JIS B 8392-1:2003 has been revised to JIS B 8392-1:2012.

For example,
What is Grade 1:2:1?

- Solid particles 0.1 to 0.5 μm are 20,000 particles or less,
  0.5 to 1.0 μm are 400 particles or less, and
  1.0 to 5.0 μm are 10 particles or less
- Pressure dew point -40°C or less
- Oil concentration 0.01 mg/m^3 or less.

Series variation

Refrigeration air dryer

	General purpose		
Series	GX3200	GX5200	
Applications of installation	Terminal installation in plant, device integrated		
Features / Main specifications / Applications	General	Air cooling air compressor directly connected	
Applicable air compressor kW	·Ambient temperature: max. 45°C ·Inlet air temperature 35°C (40°C for GX3255D)	·Ambient temperature: max. 45°C (40°C for GX5255 and GX5275) ·Inlet air temperature 55°C	
0.75	●	●	
1.5	●	●	
2.2	●	●	
3.7	●	●	
5.5	●	●	
7.5	●	●	
11	●	●	
15	●	●	
22	●	●	
37	●	●	
55	●	●	
75		●	
90			
120			
150			
190			
240			
300			
380			
450			
710			
960			
Digital dew point monitor	×	×	
Medium pressure	×	×	
CE	×	×	
New refrigerant (R-134a, R-410A, R-407C)	● Standard compliance	● Standard compliance	
Stainless steel heat exchanger	● Standard equipment	● Standard equipment	
Drain forcible discharge method	×	×	
Different voltage compatible (transformer integrated)	Contact CKD for details.		
Paint color specification	×	×	
Copper tube rust proof coating	● Option	● Option	
Bypass piping set	● Accessory	● Accessory	
Remote control	● Option (standard for GX3215D, 3222D, 3237D, and 3255D)	● Option (standard for GX5211D, 5215D, 5222D, 5237D, 5255, and 5275)	
External signal	● Option	● Option (standard for GX5275)	
Outdoor	×	×	
Instantaneous power failure	×	×	
Dust filter for condenser	● Standard equipment	● Standard (none for GX5275)	
Anchor bolt	● Accessory	● Accessory	
Companion flange	-	-	
Stainless steel nameplate	● Option	● Option	
English language specifications	● Standard equipment	● Standard equipment	
Product photo	Contact CKD for details.		
Page	1554	1558	

This list is for selection guide. Refer to the appropriate page for selection, and select a model after checking installation conditions.

	GT9000	GT9000W	GT9000WV2
	Compressor direct connection		
	Air cooling air compressor directly connected	Water cooling air compressor directly connected	Water cooling air compressor directly connected
	·Ambient temperature: max. 40°C ·Inlet air temperature 40°C	·Inlet air temperature 40°C	·Inlet air temperature 40°C
			
	●	●	
	●	●	
	●	●	
	●	●	
	●	●	
	●	●	
	●	●	
	●	●	
			●
			●
	● Standard (GT9300 and higher)	● Standard (GT9300W and higher)	● Standard equipment
	×	×	×
	×	×	×
	● Standard compliance	● Standard compliance	● Standard compliance
	● Standard equipment	● Standard equipment	● Standard equipment
	×	×	● Standard equipment
	● Option	● Option	● Option
	Contact CKD for details.		
	● Option	● Option	● Option
	×	×	×
	● Standard equipment	● Standard equipment	● Standard equipment
	● Standard equipment	● Standard equipment	● Standard equipment
	Contact CKD for details.		
	×	×	● Standard compliance
	● Standard (GT9075, GT9240 and higher)	-	-
	● Accessory	● Accessory	● Accessory
	● Option (GT9120 and higher)	● Option (GT9120W and higher)	● Option
	● Option	● Option	● Option
	● Standard equipment	● Standard equipment	● Standard equipment
	Contact CKD for details.		
	1574	1580	1586

Periodic inspection descriptions

Conduct the following inspections periodically for a long, reliable service life.

Inspection descriptions	Inspection term				Inspection point	Inspection method	Judgment reference
	Daily	Every week	Every month	Per 6 months			
Operation confirmation	○				Operation light	Visual inspection	· This should light at operation
	○				Operation sound of refrigerating compressor	Listening to the sound	· No abnormal noise
	○				Fan rotation	Visual inspection Listening to the sound	· No abnormal noise and smooth rotation · ON and OFF operation or turned ON
Dew point (cooling) temperature	○				Refrigerant pressure gauge	Visual inspection	· It should be in the green zone
Inlet air pressure		○			Air pressure gauge	Visual inspection	· It should be within product specifications (should be specification pressure)
Drain discharge	○	Cleaning			Drain trap	Visual inspection	· Drainage should be discharged · Air should not be left blowing
Ambient temperature	○				Near condenser inlet	Measuring with thermometer	· It should be within specifications
Condenser clogging			○	Cleaning	Air cooling Condenser fin section	Visual inspection	· Foreign matter or dust should not be accumulated. · Condenser inlet section should not be plugged. · Condenser inlet section should not be exposed to hot air.
					Water cooling Refrigerant high pressure gauge		· It should be 1.95 MPa or lower. (Cleaning is required for 2.15 MPa and over)
Power supply voltage			○		Supply power	Measuring with a tester	· Rated voltage of specifications within ±10%
Operating current			○		Supply power	Measuring with a tester	· Rated voltage of specifications within ±20%

Xeroaqua dryer

GX

■ Refining and pressure adjusting components/main line unit/refrigeration air dryer

Overview

Compact refrigeration air dryer with outstanding environmental properties, reliability and safety.

Features

(1) Environment-friendly new refrigerant R-134a, R-410A and R-407C incorporated
New ozone-safe refrigerant is used.

(2) SUS heat exchanger
Oil-free stainless steel heat exchanger is used for all models.

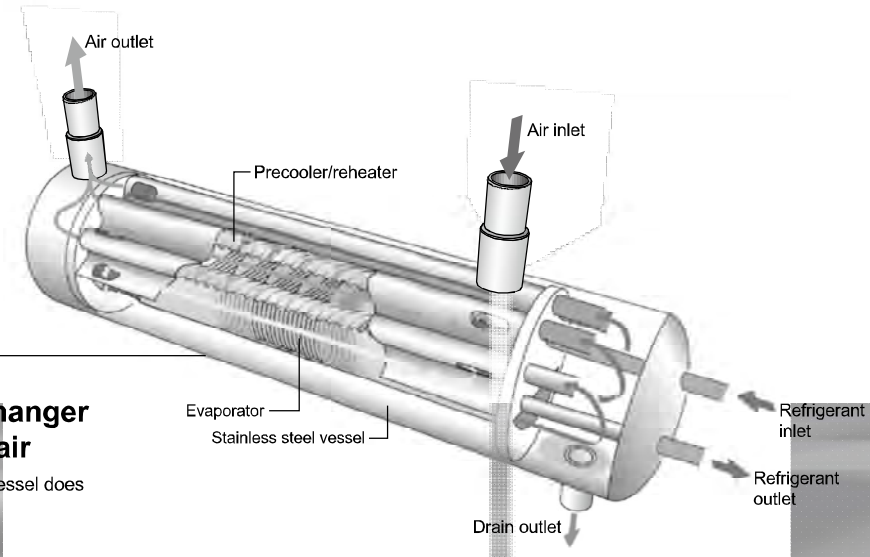
(3) Energy saving
The compact design reduces power consumption. A low air loss drain discharger has also been adopted.

(4) Thin and compact body

(5) Easy maintenance
The safe design allows the operation state to be confirmed at a glance. Easily service the unit even while it is running.

CONTENTS

High quality and high reliability



Stainless steel heat exchanger compatible with oil free air
The heat exchanger with stainless steel vessel does not generate dust.

Highly weather-resistant
Nickel plated refrigerant pipe (copper pipe) in the heat exchanger has improved corrosion resistance.

Improved high temperature tolerance
Operates normally even at 45°C ambient temperature. (40°C for GX5255 and 5275)

Reliable and energy/space saving

Refrigerated air dryer

Xeroaqua dryer GX Series

Standard inlet air **GX3200** Series/up to 55 kW

High-temperature inlet air **GX5200** Series/up to 75 kW

The Xeroaqua dryer GX Series come with higher reliability than ever before, offering high temperature resistance and more benefits.

Slim and low-profile

Slim and compact body
Suitable to any mounting position on the line and the equipment.

Width 180 mm
(GX3203D)

Energy saving

Low-air-loss drain discharger
The float structure discharges drain from the dryer as soon as it accumulates and thus minimizes air loss.

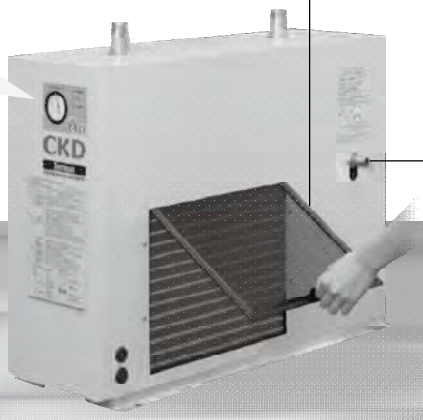
Low power consumption
Max. 15% of energy can be saved. (Comparison between GX3237D and our conventional model)

Environment-friendly refrigerant

Environment-friendly new refrigerant R-134a, R-410A and R-407C incorporated
Friendly to the ozone layer.

Easy maintenance

GX3215D to 3255D,
GX5211D to 5237D



Dust filter supplied as standard (except for GX5275)

Reduces the work of cleaning the condenser. Attachment and detachment is very easy.

Externally mounted drain discharger

Easily perform maintenance even while the unit is running.

Centralized factory control

Remote control and operation/alarm signal output (option) are available.

Bypass piping set available as accessories

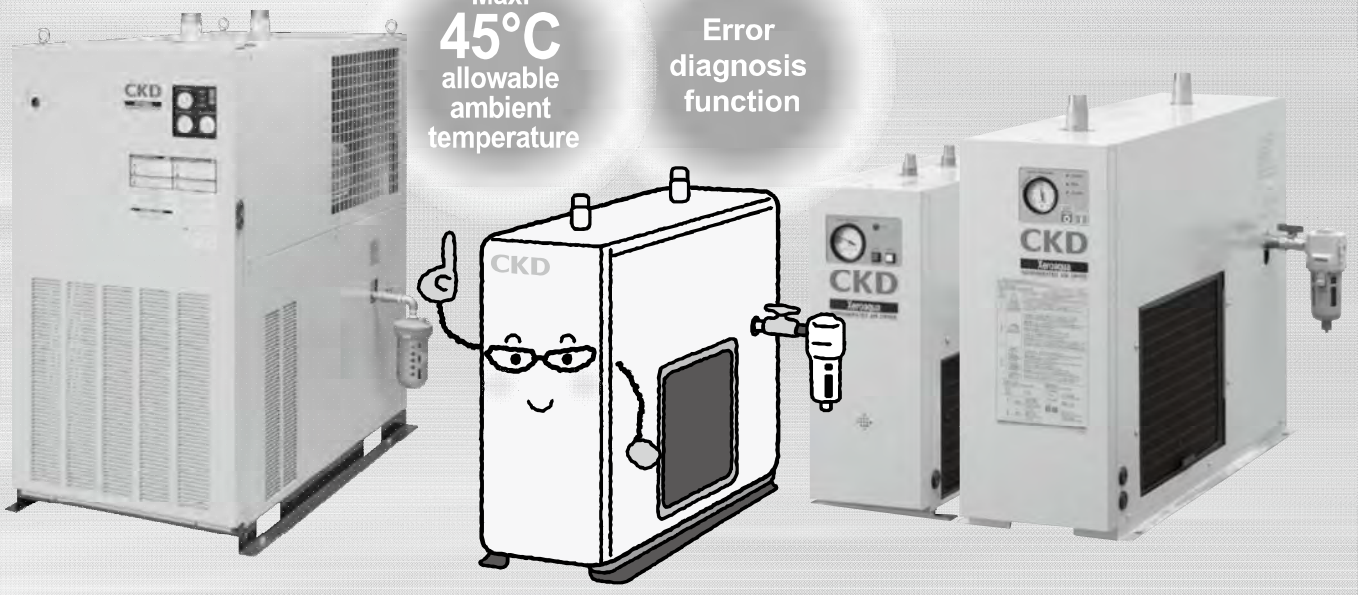
(option)

Inspection at sight

Normal inspection can be completed just by viewing the operation section.
The refrigerant pressure gauge and operation lights show necessary information about the operation status.

Simple error diagnosis

(GX3215D to 3255D, GX5211D to 5237D)
Lighting status of the alarm light indicates the cause of the error.



(Series variation)

Series	Applications	Rated conditions				Applicable air compressor (kW)									
		Pressure dew point (°C)	Inlet air pressure (MPa)	Ambient temperature (°C)	Inlet air temperature (°C)	to 2.2	3.7	5.5	7.5	11	15	22	37	55	75
Standard inlet air GX3200	For installation	10	0.7	32	35 (GX3203D to GX3237D) / 40 (GX3255D)	●	●		●	●	●	●	●	●	*1
High-temperature inlet air GX5200	For direct air compressor connection	10	0.7	32	55	●	●	●	●	●	●	●	●	●	●

*1: Available for GT9000 Series.

Refrigeration air dryer Xeroaqua

GX3200 Series

Standard inlet air

Compatible air compressors: for 2.2, 3.7, 5.5, 7.5, 11, 15, 22, 37, 55 kW

JIS symbol 

RoHS

Specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Model No.		GX3203D	GX3206D	GX3208D	GX3211D	GX3215D	GX3222D	GX3237D	GX3255D
Applicable air compressor kW		to 2.2	3.7, 5.5	7.5	11	15	22	37	55
Working range	Working fluid	Compressed air							
	Inlet air temperature °C	5 (41°F) to 50 (122°F)							
	Inlet air pressure MPa	0.15 to 1.0	0.1 (≈15 psi, 1 bar) to 1.0 (≈150 psi, 10 bar)						
	Ambient temperature °C	2 (35.6°F) to 45 (113°F) (*2)				2 (35.6°F) to 45 (113°F)			
Rating	Processing air rate m^3/min (ANR) 50/60 Hz (*3)	0.30/0.35	0.64/0.72	0.94/1.13	1.65/1.82	2.40/2.80	3.70/4.20	5.70/6.10	8.40/9.80
	Processing air rate (compress suction state) m^3/min 50/60 Hz (*4)	0.31/0.37	0.67/0.76	0.99/1.19	1.73/1.91	2.52/2.94	3.88/4.41	5.98/6.40	8.81/10.3
	Inlet air temperature °C	35 (95°F)							40 (104°F)
	Inlet air pressure MPa	0.7 (≈100 psi, 7 bar)							
	Ambient temperature °C	32 (89.6°F)							
Perfm.	Outlet air pressure dew point °C (*5)	10 (50°F)							
	Pressure drop MPa 50/60Hz (*6)	0.002/0.003	0.009/0.011	0.009/0.013	0.011/0.013	0.012/0.017	0.024/0.031	0.023/0.026	0.018/0.025
Power supply		Single-phase 100/100, 110 VAC 50/60 Hz Single-phase 200, 220/200, 220 VAC 50/60 Hz				Three-phase 200/200, 220 VAC 50/60 Hz			
Electrical specifications (*7)	Power consumption (at 100, 110 V) kW 50/60 Hz	0.17/0.19,0.20	0.26/0.27,0.30	0.32/0.34,0.41	0.52/0.52,0.55	-	-	-	-
	Power consumption (at 200, 220 V) kW 50/60 Hz	0.16, 0.17/0.19, 0.21	0.24, 0.28/0.26, 0.29	0.29, 0.35/0.32, 0.34	0.44, 0.49/0.52, 0.53	0.61/0.71,0.73	0.65/0.79,0.79	1.16/1.41,1.41	1.30/1.63,1.60
	Current consumption (at 100, 110 V) A 50/60 Hz	1.9/1.9, 1.8	3.2/2.8, 2.8	3.9/3.4, 3.7	6.5/5.2, 5.0	-	-	-	-
	Current consumption (at 200, 220 V) A 50/60 Hz	0.8, 0.8/1.0, 1.0	1.4, 1.6/1.3, 1.3	1.7, 2.1/1.6, 1.6	2.6, 2.9/2.6, 2.4	2.6/2.5, 2.5	3.0/2.8, 2.9	4.5/4.6, 4.4	5.3/5.7, 5.4
	Starting current (at 100 V) A 50/60 Hz	7.1/7.9	11.1/12.1	16.4/17.3	26.5/24.8	-	-	-	-
	Starting current (at 200 V) A 50/60 Hz	3.0/3.3	6.3/6.2	7.7/7.3	13.2/12.4	22.5/25.0	27.5/31.5	31.5/40.6	41.3/43.8
Refrigerant		R-134a			R-410A				
Air inlet and outlet port size		R 1/2	R 1/2	R 3/4	R 3/4	R1	R1	R1 1/2	R2
Weight kg		18	21	26	33	39	42	68	84
Released heat kW 50/60Hz (*7)		0.29/0.32	0.57/0.65	0.72/0.81	1.2/1.3	1.6/1.8	2.3/2.5	3.0/3.3	4.8/5.6

*1: Outer panel: Quality cool white (Munsell No. 5GY7.5/0.5)

*2: When the power supply voltage is ±5%. 2 to 40°C for power supply voltage ±10%.

*3: ANR shows conditions of 20°C atmospheric pressure and relative humidity 65%.

*4: Value converted into air compressor intake state at 32°C atmospheric pressure and relative humidity 75%.

*5: Contact CKD for information on the dew point performance guarantee.

*6: The pressure drop value is a typical value and is not a guaranteed value.

*7: The power consumption, current consumption, and exhaust heat are all reference values under the rated conditions and are not guaranteed values.

How to order

GX32 [03D] - [M] - [AC200V]

- [03D] Ⓐ Capacity category
- [M] Ⓑ Option *1
- [AC200V] Ⓒ Voltage

Code	Content
Ⓐ Capacity category	
03D	to 2.2 kW
06D	3.7, 5.5 kW
08D	7.5 kW
11D	11 kW
15D	15 kW
22D	22 kW
37D	37 kW
55D	55 kW
Ⓑ Option	
Blank	Standard products
H2	SUS nameplate
H3	Simple export packaging *3
M	Operation/fault signal output *2 (GX3215D, 3222D, 3237D, 3255D only)
M3	Remote control & operation/fault signal output (GX3203D, 3206D, 3208D, 3211D only) *2
N1	Copper tube rust proof coating
Ⓒ Voltage	
100 VAC (GX3203D, GX3206D, GX3208D, GX3211D only)	
200 VAC	

Precautions for model No. selection

*1: Indicate options in alphabetical order.
*2: The equipment of remote control and operation/error signals are as listed in the table below.

Model No.	Terminal for remote control	Operation/error signal
GX3203D,3206D 3208D,3211D	Option M3 (Momentary)	Option M3
GX3215D,3222D 3237D,3255D	Standard equipment (Alternate)	Option M

*3: Option H3 is packaged in plywood.
*4: The instruction manual and nameplates are provided in Japanese and English.
*5: Contact CKD if a photo of the completed product is required.
*6: Contact CKD to designate the color of the body panel.

Selection guide

When determining the appropriate model from the max. processing air rate of each model No.
Standard processing air rate × (1) Pressure dew point coefficient × (2) Inlet air temperature coefficient × (3) Ambient temperature coefficient × (4) Inlet air pressure coefficient = Max. processing air rate
Note: Select with conditions where the value of the product of each coefficient ((1)×(2)×(3)×(4)) does not exceed the upper limit coefficient of (5).

Conditions	Working conditions	Selecting conditions	Coefficient
Pressure dew point	Below 17°C	15°C	(1) 1.15
Inlet air temperature	20 to 23°C	25°C	(2) 1.25
Ambient temperature	20 to 23°C	25°C	(3) 1.08
Inlet air pressure	0.35 to 0.45 MPa	0.3 MPa	(4) 0.75
Frequency	50 Hz	50 Hz	50 Hz

Substitute the above conditions into the equation above to obtain the processing air rate when using the GX3215.
Product of each coefficient
(1) × (2) × (3) × (4) = 1.15 × 1.25 × 1.08 × 0.75 = 1.16
The (5) ceiling coefficient of 0.97 at the inlet air pressure 0.3 MPa (use conditions) is exceeded.
Therefore, the max. processing air rate is the following, using the ceiling coefficient 0.97.
2.40 (reference processing air rate) x 0.97 = 2.32 m^3/min (ANR).
If the used flow rate is less than or equal to this value, select that model.

① Pressure dew point coefficient

Pressure dew point	Coefficient
15°C	1.15
10°C	1.00
7°C	0.72
5°C	0.58

② Inlet air temperature coefficient

Inlet air temperature	Coefficient		
	GX3203D GX3206D GX3208D	GX3211D GX3215D GX3222D GX3237D	GX3255D
25°C	1.25	1.25	1.30
30°C	1.13	1.13	1.23
35°C	1.00	1.00	1.12
40°C	0.80	0.80	1.00
45°C	0.65	0.65	0.80
50°C	0.40	0.54	0.65

③ Ambient temperature coefficient

Ambient temperature	Coefficient
25°C	1.08
30°C	1.02
32°C	1.00
35°C	0.90
40°C	0.72
45°C	0.47

④ Inlet air pressure coefficient

Inlet air pressure	Coefficient
0.1 MPa *1	0.50
0.2MPa	0.65
0.3 MPa	0.75
0.4 MPa	0.83
0.5 MPa	0.89
0.6 MPa	0.94
0.7 MPa	1.00
0.8 MPa	1.01
0.9 MPa	1.02
1.0 MPa	1.03

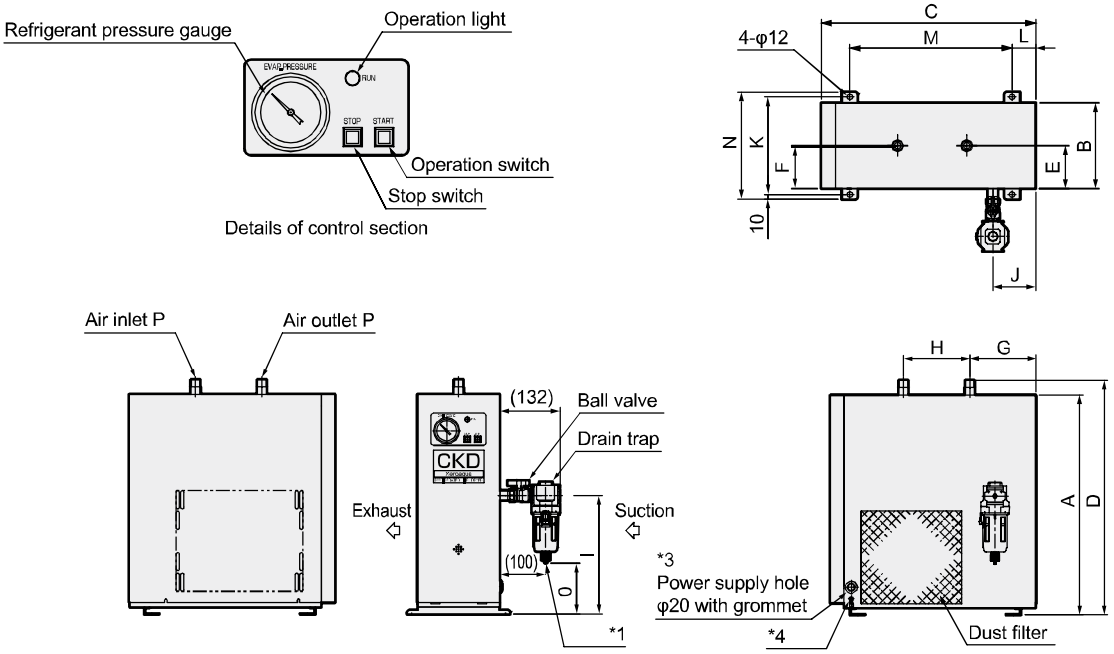
⑤ Upper limit coefficient

Use conditions (inlet air pressure)	Coefficient		
	GX3203D GX3211D GX3215D GX3222D GX3237D GX3255D	GX3206D	GX3208D
0.1 MPa *1	0.65	0.55	0.57
0.2 MPa	0.84	0.71	0.74
0.3 MPa	0.97	0.82	0.86
0.4 MPa	1.07	0.91	0.95
0.5 MPa	1.15	0.97	1.02
0.6 MPa	1.22	1.03	1.08
0.7 MPa	1.30	1.10	1.15
0.8 MPa	1.31	1.11	1.16
0.9 MPa	1.32	1.12	1.17
1.0 MPa	1.33	1.13	1.18

*1: GX3203D is 0.15 MPa.

Dimensions

●GX3203D,GX3206D,GX3208D

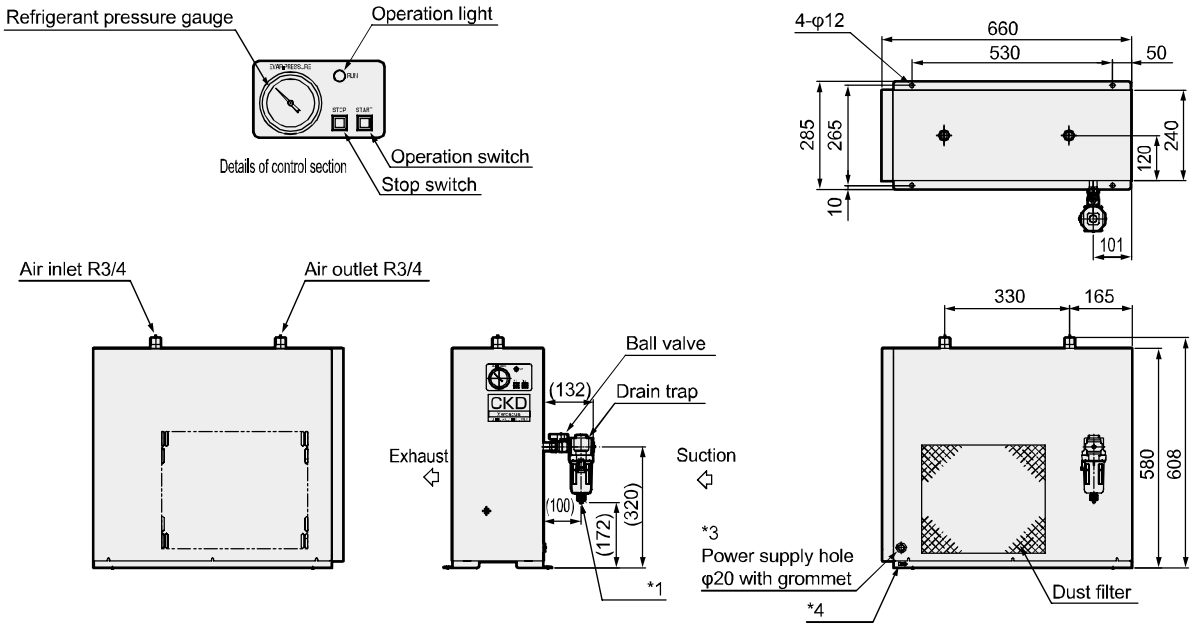


*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.
*3: A power supply cable (approx. 1.8 m) equipped with a plug is included with the 100 VAC.
*4: A grounding terminal (TMEV2-4) is attached to the panel with the 100 VAC.

Model No.	A	B	C	D	E	F	G	H	I	J	K	L	M
GX3203D	480	180	450	513	90	90	145	145	(260)	90	205	50	340
GX3206D	510	180	540	542	113	83	120	300	(274)	96	205	60	420
GX3208D	510	240	600	537	140	140	138	335	(280)	78	265	60	480

Model No.	N	O	P
GX3203D	225	(112)	R 1/2
GX3206D	225	(126)	R 1/2
GX3208D	285	(132)	R 3/4

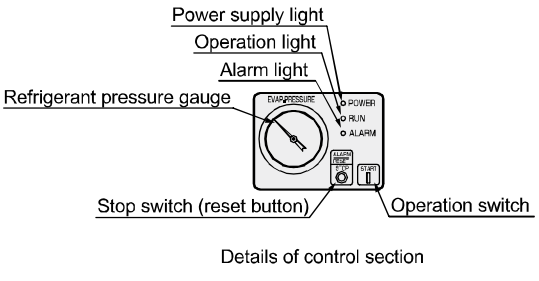
●GX3211D



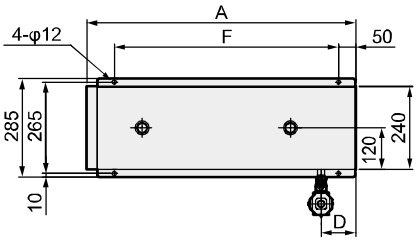
*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.
*3: A power supply cable (approx. 1.8 m) equipped with a plug is included with the 100 VAC.
*4: A grounding terminal (TMEV2-4) is attached to the panel with the 100 VAC.

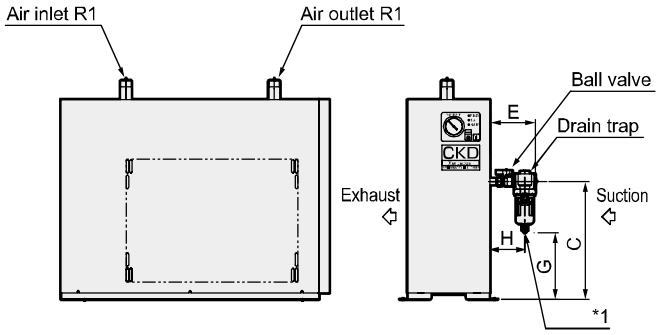
Dimensions

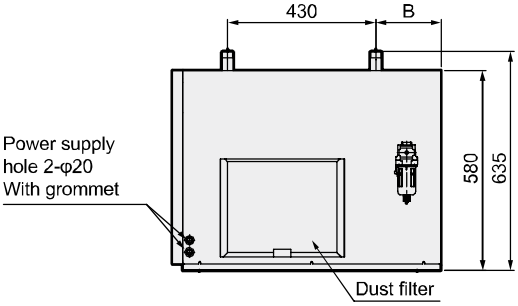
●GX3215D,GX3222D



Details of control section



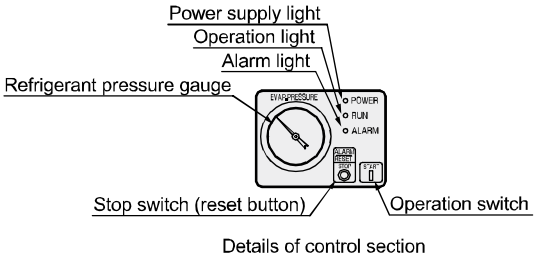




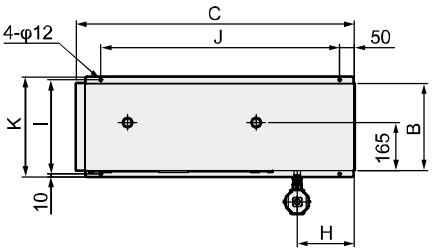
*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.

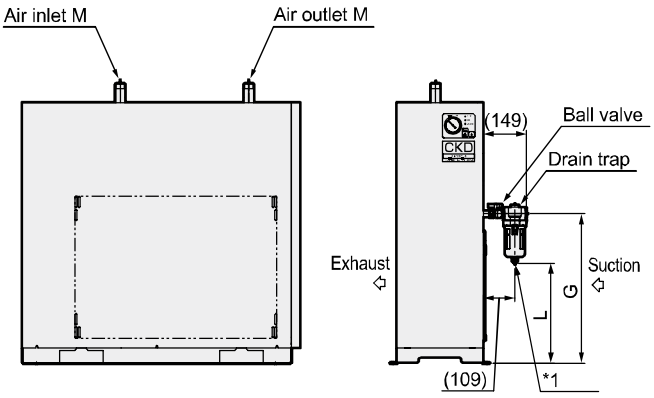
Model No.	A	B	C	D	E	F	G	H
GX3215D	780	190	(340)	101	(132)	650	(192)	(100)
GX3222D	870	280	(370)	105	(149)	740	(199)	(109)

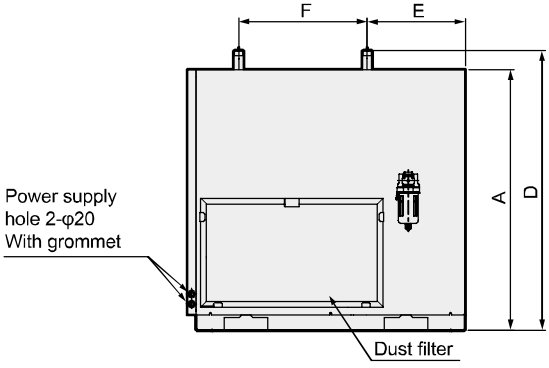
●GX3237D,GX3255D



Details of control section







*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.

Model No.	A	B	C	D	E	F	G	H	I	J	K	L	M
GX3237D	900	300	960	966	338	447	(516)	197	325	825	345	(345)	R1 1/2
GX3255D	1100	330	990	1165	325	500	(701)	145	355	855	375	(530)	R2

Refrigeration air dryer Xeroaqua

GX5200 Series

High-temperature inlet air

Compatible air compressors: for 2.2, 3.7, 5.5, 7.5, 11, 15, 22, 37, 55, 75 kW

JIS symbol 

RoHS

Specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Model No.		GX5203D	GX5204D	GX5206D	GX5208D	GX5211D	GX5215D	GX5222D	GX5237D	GX5255	GX5275
Applicable air compressor kW		to 2.2	3.7	5.5	7.5	11	15	22	37	55	75
Working range	Working fluid	Compressed air									
	Inlet air temperature °C	5 (41°F) to 80 (176°F)									
	Inlet air pressure MPa	0.15 to 1.0	0.1 (≈15 psi, 1 bar) to 1.0 (≈150 psi, 10 bar)								
	Ambient temperature °C	2 (35.6°F) to 45 (113°F) (*2)				2 (35.6°F) to 45 (113°F)				2 (35.6°F) to 40 (104°F)	
Rating	Processing air rate m^3/min (ANR) 50/60 Hz (*3)	0.30/0.35	0.44/0.50	0.64/0.72	1.22/1.32	1.65/1.82	2.10/2.40	3.70/4.20	5.70/6.10	7.80/9.20	10.4/12.3
	Processing air rate (compress suction state) m^3/min 50/60 Hz (*4)	0.31/0.37	0.46/0.52	0.67/0.76	1.28/1.38	1.73/1.91	2.20/2.52	3.88/4.41	5.98/6.40	8.18/9.65	10.9/12.9
	Inlet air temperature °C	55 (131°F)									
	Inlet air pressure MPa	0.7 (≈100 psi, 7 bar)									
	Ambient temperature °C	32 (89.6°F)									
Perfm.	Outlet air pressure dew point °C (*5)	10 (50°F)									
	Pressure drop MPa 50/60Hz (*6)	0.002/0.003	0.002/0.003	0.010/0.013	0.005/0.006	0.006/0.007	0.009/0.012	0.016/0.020	0.011/0.013	0.015/0.020	0.005/0.007
Power supply		Single-phase 100/100, 110 VAC 50/60 Hz Single-phase 200, 220/200, 220 VAC 50/60 Hz			Single phase 200, 220/ 200, 220 VAC 50/60 Hz	Three-phase 200/200, 220 VAC 50/60 Hz					
Electrical specifications (*7)	Power consumption (at 100, 110 V) kW 50/60 Hz	0.26/0.27,0.30	0.32/0.34,0.41	0.34/0.37,0.40	-	-	-	-	-	-	-
	Power consumption (at 200, 220 V) kW 50/60 Hz	0.24,0.28/ 0.26,0.29	0.29,0.35/ 0.32,0.34	0.32,0.36/ 0.36,0.40	0.42,0.47/ 0.48,0.49	0.63/ 0.75,0.78	0.69/ 0.78,0.87	1.21/ 1.48,1.48	1.31/ 1.62,1.64	2.08/ 2.59,2.62	3.15/ 4.07,4.02
	Current consumption (at 100, 110 V) A 50/60 Hz	3.2/2.8,2.8	3.9/3.4,3.7	4.3/3.8,3.8	-	-	-	-	-	-	-
	Current consumption (at 200, 220 V) A 50/60 Hz	1.4,1.6/1.3,1.3	1.7,2.1/1.6,1.6	1.8,2.0/1.8,1.8	2.6,2.9/2.5,2.3	2.5/2.5,2.5	3.0/2.8,3.0	4.7/4.8,4.6	5.4/5.7,5.5	8.7/8.5,8.4	11.3/13.5,12.4
	Starting current (at 100 V) A 50/60 Hz	11.1/12.1	16.4/17.3	16.4/17.3	-	-	-	-	-	-	-
	Starting current (at 200 V) A 50/60 Hz	6.3/6.2	7.7/7.3	7.7/7.3	13.2/12.4	22.5/25.0	27.5/31.5	31.5/40.6	41.3/43.8	43.8/39.1	83.0/77.0
Refrigerant		R-134a			R-410A					R-407C	
Air inlet and outlet port size		R 1/2	R 3/4	R 3/4	R 3/4	R1	R1	R1	R1 1/2	R1 1/2	R2
Weight kg		21	26	31	37	39	42	68	84	105	253
Released heat kW 50/60Hz (*7)		0.63/0.70	0.74/0.80	1.1/1.3	1.6/1.7	2.1/2.3	2.3/2.5	4.4/5.0	5.4/6.0	8.5/10.0	10.7/12.3

*1: Outer panel: Quality cool white (Munsell No. 5GY7.5/0.5)

*2: When the power supply voltage is ±5%. 2 to 40°C for power supply voltage ±10%.

*3: ANR shows conditions of 20°C atmospheric pressure and relative humidity 65%.

*4: Value converted into air compressor intake state at 32°C atmospheric pressure and relative humidity 75%.

*5: Contact CKD for information on the dew point performance guarantee.

*6: The pressure drop value is a typical value and is not a guaranteed value.

*7: The power consumption, current consumption, and exhaust heat are all reference values under the rated conditions and are not guaranteed values.

How to order

GX52 [03D] - [M] - [AC200V]

- 03D: Ⓐ Capacity category
- M: Ⓑ Option *1
- AC200V: Ⓒ Voltage

Code	Content
Ⓐ Capacity category	
03D	to 2.2 kW
04D	3.7 kW
06D	5.5 kW
08D	7.5 kW
11D	11 kW
15D	15 kW
22D	22 kW
37D	37 kW
55	55 kW
75	75 kW
Ⓑ Option	
Blank	Standard products
H2	SUS nameplate
H3	Simple export packaging *3
M	Operation/fault signal output *2 (only compatible with GX5211D, 5215D, 5222D, 5237D, 5255)
M3	Remote control & operation / fault signal output *2 (only compatible with GX5203D, 5204D, 5206D, 5208D)
N1	Copper tube rust proof coating
Ⓒ Voltage	
100 VAC (GX5203D, GX5204D, GX5206D only)	
200 VAC	

Precautions for model No. selection

*1: Indicate options in alphabetical order.
*2: The equipment of remote control and operation/error signals are as listed in the table below.

Model No.	Terminal for remote control	Operation/error signal
GX5203D,5204D 5206D,5208D	Option M3 (Momentary)	Option M3
GX5211D,5215D 5222D,5237D	Standard equipment (Alternate)	Option M
GX5255	Standard equipment (Momentary)	Option M
GX5275	Standard equipment (Momentary)	Standard equipment

*3: Option H3 is packaged in plywood.
*4: The instruction manual and nameplates are provided in Japanese and English.
*5: Contact CKD if a photo of the completed product is required.
*6: Contact CKD to designate the color of the body panel.

Selection guide

When determining the appropriate model from the max. processing air rate of each model No.
Standard processing air rate × (1) Pressure dew point coefficient × (2) Inlet air temperature coefficient × (3) Ambient temperature coefficient × (4) Inlet air pressure coefficient = Max. processing air rate
Note: Select with conditions where the value of the product of each coefficient ((1)×(2)×(3)×(4)) does not exceed the upper limit coefficient of (5).

Conditions	Working conditions	Selecting conditions	Coefficient
Pressure dew point	Below 7°C	5°C	(1) 0.58
Inlet air temperature	55 to 63°C	65°C	(2) 0.72
Ambient temperature	25 to 33°C	35°C	(3) 0.90
Inlet air pressure	0.55 to 0.75 MPa	0.5 MPa	(4) 0.89
Frequency	50 Hz	50 Hz	50 Hz

Substitute the above conditions in the above formula and determine the quantity of handling air in cases when GX5208 is used.
Product of each coefficient
(1) × (2) × (3) × (4) = 0.58 × 0.72 × 0.90 × 0.89 = 0.33
The (5) upper limit coefficient of 1.15 at the inlet air pressure 0.5 MPa (use conditions) is exceeded.
The maximum processing air rate is
1.22 (reference processing air volume) x 0.33 = 0.40m^3/min (ANR).
If the used flow rate is less than or equal to this value, select that model.

① Pressure dew point coefficient

Pressure dew point	Coefficient: GX5203D GX5204D GX5206D GX5208D GX5211D GX5215D GX5222D GX5237D	Coefficient: GX5255 GX5275
15°C	1.15	1.16
10°C	1.00	1.00
7°C	0.72	0.89
5°C	0.58	0.82

② Inlet air temperature coefficient

Inlet air temperature	Coefficient: GX5203D GX5204D GX5206D	Coefficient: GX5208D GX5211D GX5215D GX5222D GX5237D	Coefficient: GX5255 GX5275
40°C	1.12	1.30	1.20
45°C	1.08	1.20	1.10
50°C	1.04	1.10	1.05
55°C	1.00	1.00	1.00
60°C	0.84	0.84	0.95
65°C	0.72	0.72	0.90
70°C	0.60	0.60	0.86
75°C	0.45	0.45	0.82
80°C	0.30	0.30	0.79

③ Ambient temperature coefficient

Ambient temperature	Coefficient: GX5203D GX5204D GX5206D GX5208D GX5211D GX5215D GX5222D GX5237D	Coefficient: GX5255 GX5275
25°C	1.08	1.20
30°C	1.02	1.06
32°C	1.00	1.00
35°C	0.90	0.89
40°C	0.72	0.70
45°C	0.47	-

④ Inlet air pressure coefficient

Inlet pressure	Coefficient: GX5203D GX5204D GX5206D GX5208D GX5211D GX5215D GX5222D GX5237D	Coefficient: GX5255 GX5275
0.1 MPa *1	0.50	0.60
0.2 MPa	0.65	0.66
0.3 MPa	0.75	0.73
0.4 MPa	0.83	0.80
0.5 MPa	0.89	0.87
0.6 MPa	0.94	0.93
0.7 MPa	1.00	1.00
0.8 MPa	1.01	1.07
0.9 MPa	1.02	1.13
1.0 MPa	1.03	1.19

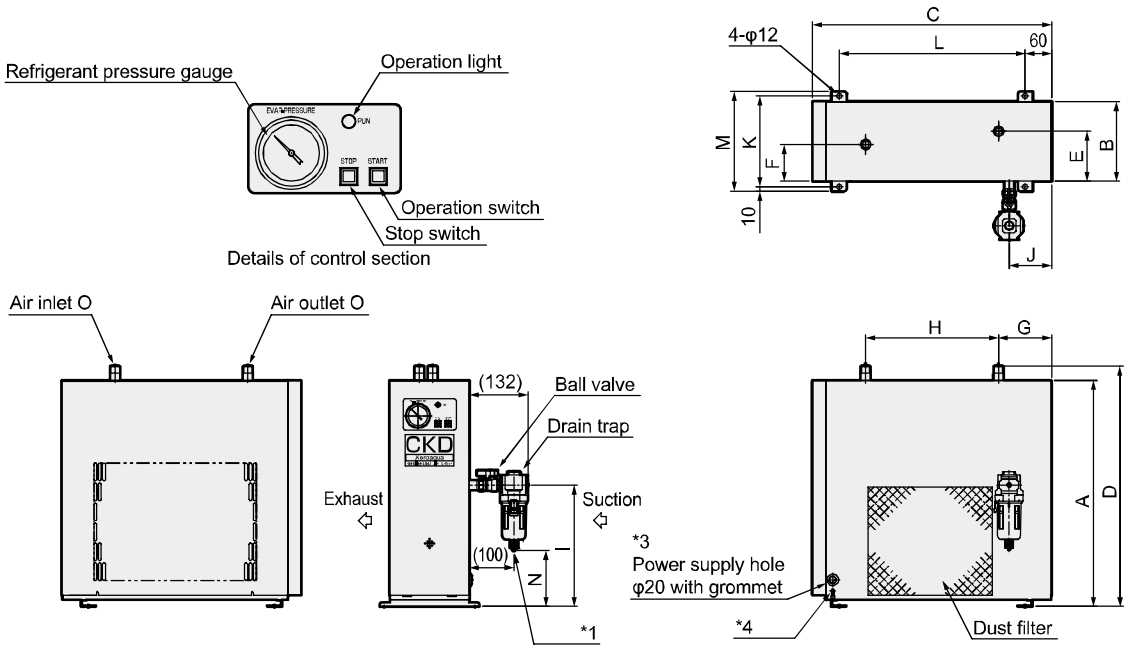
⑤ Upper limit coefficient

Working conditions (Inlet air pressure)	Coefficient: GX5203D GX5204D GX5206D GX5208D GX5211D GX5215D GX5222D GX5237D	Coefficient: GX5255 GX5275
0.1 MPa *1	0.65	0.75
0.2 MPa	0.84	0.82
0.3 MPa	0.97	0.91
0.4 MPa	1.07	1.00
0.5 MPa	1.15	1.08
0.6 MPa	1.22	1.16
0.7 MPa	1.30	1.25
0.8 MPa	1.31	1.33
0.9 MPa	1.32	1.41
1.0 MPa	1.33	1.48

*1: GX5203D is 0.15 MPa.

Dimensions

●GX5203D,GX5204D,GX5206D

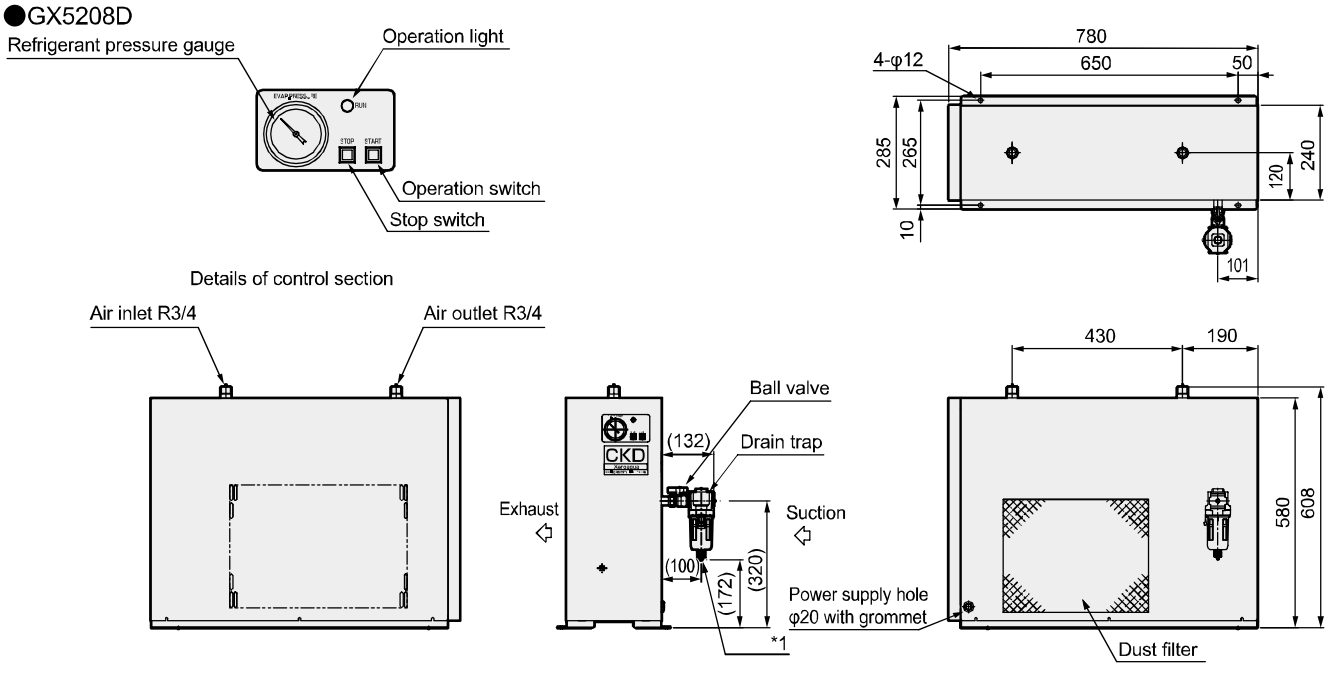


*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.
*3: A power supply cable (approx. 1.8 m) equipped with a plug is included with the 100 VAC.
*4: A grounding terminal (TMEV2-4) is attached to the panel with the 100 VAC.

Model No.	A	B	C	D	E	F	G	H	I	J	K	L	M
GX5203D	510	180	540	542	113	83	120	300	(274)	96	205	420	225
GX5204D	510	240	600	537	140	140	138	335	(280)	78	265	480	285
GX5206D	600	240	660	627	140	140	84	416	(370)	105	265	542	285

Model No.	N	O
GX5203D	(126)	R 1/2
GX5204D	(132)	R 3/4
GX5206D	(222)	R 3/4

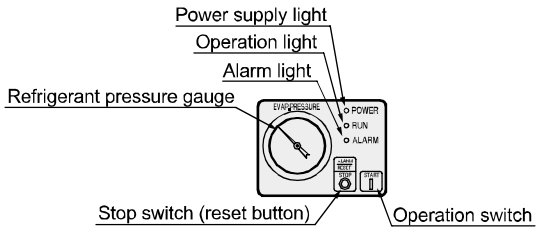
●GX5208D



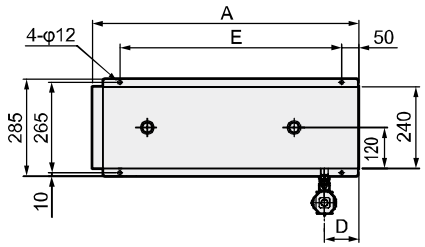
*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.

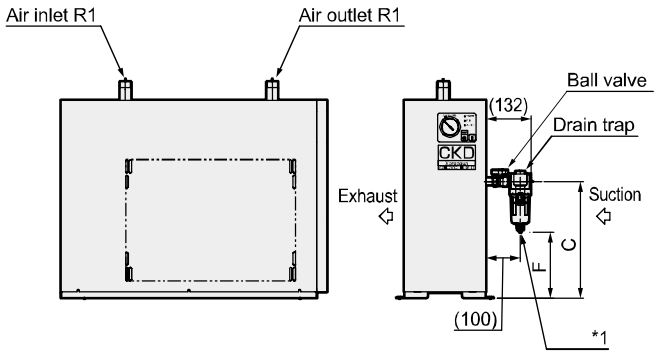
Dimensions

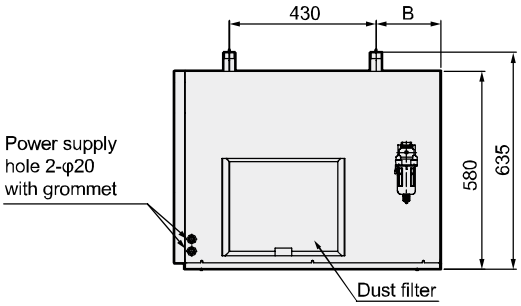
●GX5211D,GX5215D



Details of control section



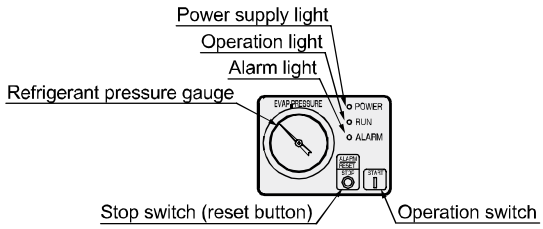




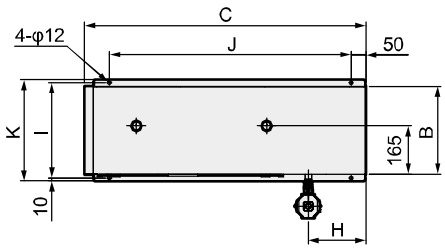
*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.

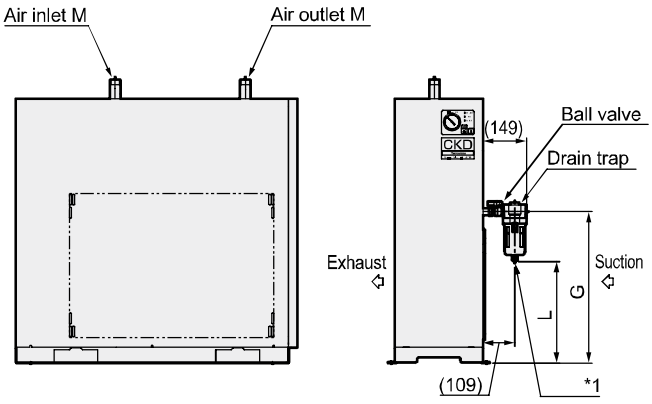
Model No.	A	B	C	D	E	F
GX5211D	780	190	(340)	101	650	(192)
GX5215D	870	280	(370)	105	740	(222)

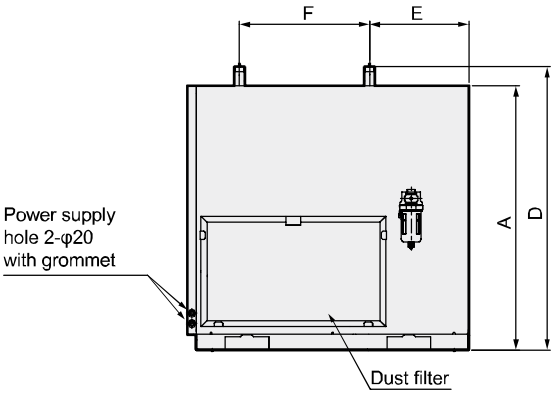
●GX5222D,GX5237D



Details of control section





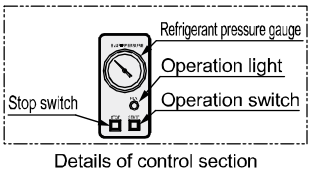


*1: Directly insert a nylon tube with an inner diameter of φ5.7 to φ6.0 into the drain cock.
*2: The drain trap and ball valve are attached products.

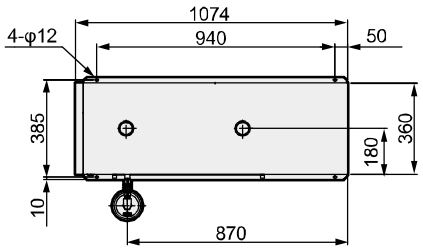
Model No.	A	B	C	D	E	F	G	H	I	J	K	L	M
GX5222D	900	300	960	966	341	444	(516)	197	325	825	345	(345)	R1
GX5237D	1100	330	990	1165	325	500	(701)	145	355	855	375	(530)	R1 1/2

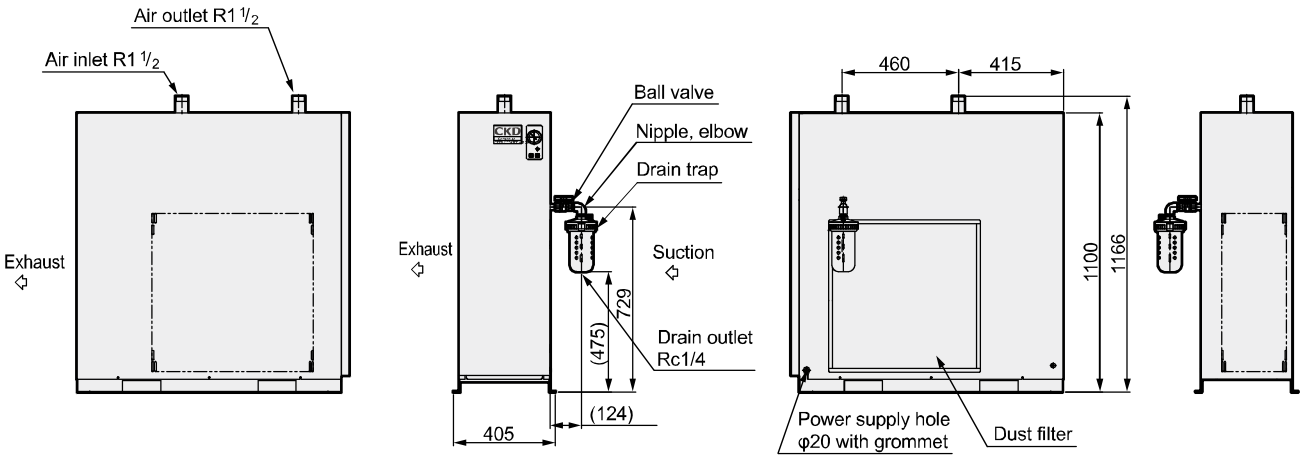
Dimensions

●GX5255



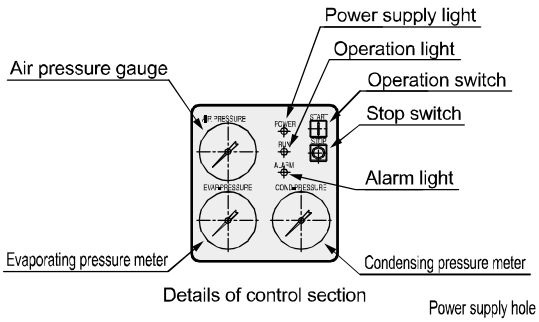
Details of control section





*1: The drain trap, ball valve, nipple, and elbow are attached products.

●GX5275



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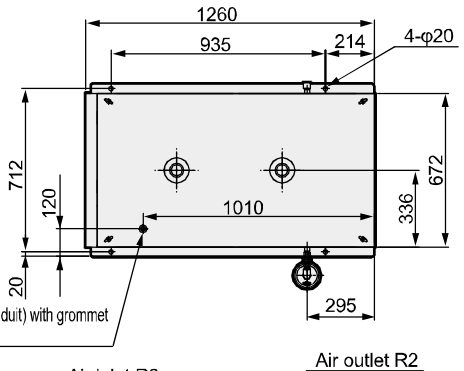
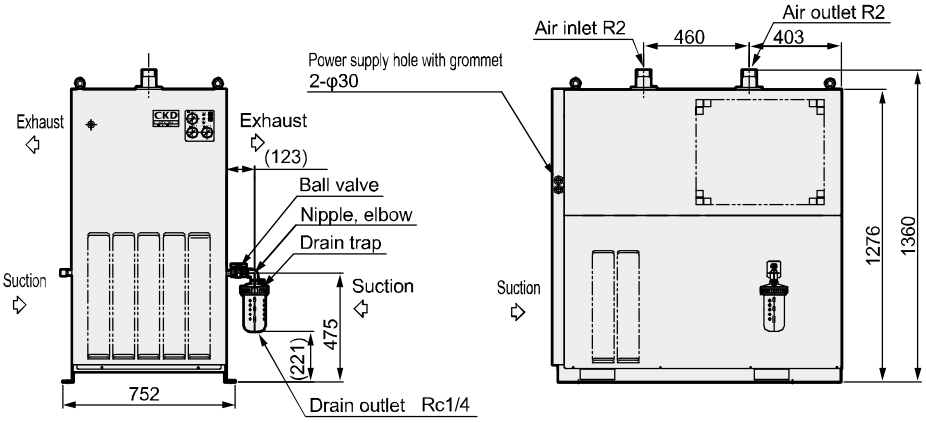
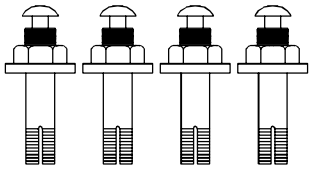




*1: Installation of the exhaust port can be selected to be on either the right or left side panel.
*2: Installation of the drain trap can be selected to be on either the right or left side panel. The installation position will be a position that is symmetrical on both the right and left side panel.
*3: The drain trap, ball valve, nipple, and elbow are attached products.

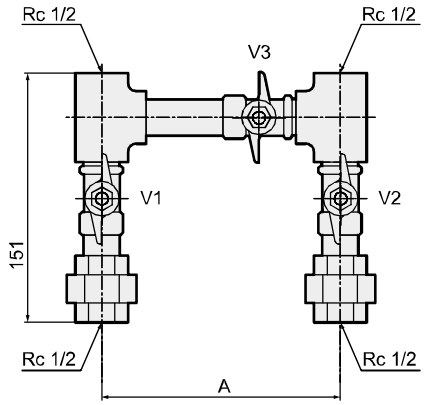
Accessory (sold separately)

Foundation bolt set (sold separately)



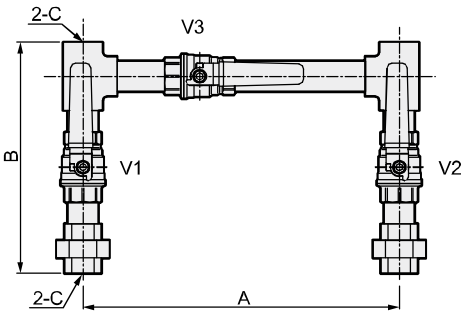
Part number	Compatible model	Size	Material	Quantity
RD-QFL-436495	GX3203D,GX3206D GX3208D,GX3211D GX3215D,GX3222D GX3237D,GX3255D GX5203D,GX5204D GX5206D,GX5208D GX5211D,GX5215D GX5222D,GX5237D GX5255	M10×100	SUS	4
RD-QFL-436465	GX5275	M16×100	SUS	4

Bypass piping set (sold separately)



No.	Compatible model	A
RD-AD3-311269	GX3203D	145
RD-AD3-311270	GX3206D,GX5203D	300

V1, V2, V3 ----- Ball valve
V1, V2 : Normally open (NO)
V3 : Normally closed (NC)



No.	Compatible model	A	B	C
RD-AD3-311271	GX3208D,GX5204D	335	208	Rc3/4
RD-AD3-311272	GX3211D	330	209	Rc3/4
RD-AD3-219888	GX3215D,GX3222D GX5211D,GX5215D	430	258	Rc1
RD-AD3-219889	GX3237D	447	314	Rc1 1/2
RD-AD3-249894	GX3255D	500	343	Rc2
RD-AD3-311273	GX5206D	416	208	Rc3/4
RD-AD3-311274	GX5208D	430	209	Rc3/4
RD-AD3-219890	GX5222D	444	258	Rc1
RD-AD3-219891	GX5237D	500	314	Rc1 1/2
RD-AD3-249895	GX5255	460	314	Rc1 1/2
RD-AD3-249896	GX5275	460	343	Rc2

V1, V2, V3 ----- Ball valve
V1, V2 : Normally open (NO)
V3 : Normally closed (NC)

Safety Precautions

Be sure to read this section before use. Refer to Intro Page 63 for general precautions.

Product-specific cautions: Xeroaqua dryer GX Series

Manufacturer's Exemption of Liability

WARNING

■ The manufacturer cannot be held liable in the following cases:

- In the case where there are serious errors in the operator's use.
- Inappropriate modifications or repairs using nonstandard parts, made by the user.

Design/selection

Applications

WARNING

■ Do not use for applications other than removing moisture from compressed air.

■ Do not use for caisson shields or medical devices such as breathing devices.
- There is a risk of personal injury.

CAUTION

■ Do not mount or use in transportation equipment such as vehicles or ships.
- The internal devices could be damaged by vibration, etc.

■ When using the product in a compressed air line subject to rapid fluctuations of pressure, install an air tank, etc., after the air dryer to ensure that the fluctuations of pressure are kept at 0.34 MPa/ min or less. Rapid fluctuations of pressure may cause failure.

■ When sudden load fluctuations can be expected to occur, select a model with a margin of capacity.

Air quality

CAUTION

■ Do not use when the inlet air contains corrosive gas, chemical solutions, organic solvents, or combustible gas. (Refer to page 1566)

Air temperature

CAUTION

■ Do not use in an environment that exceeds the max. inlet air temperature or max. working pressure.

■ When the inlet air temperature is high, install an after cooler, etc., in order to lower the temperature to the max. inlet air temperature or below for use. The drainage generated with the after cooler should be removed before the dryer.

During transport

WARNING

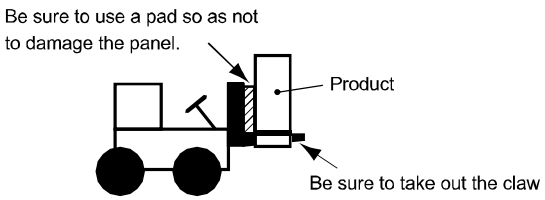
■ This product is filled with less than 12 kg of refrigerant (R-134a, R-410A, R-407C). Upon transport (land, sea, air), be sure to comply with the laws and regulations applicable to each situation.

Transportation

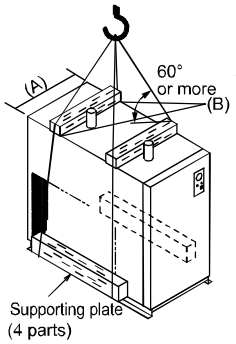
WARNING

■ Laying the product on its side or applying vibration or impact during transportation are strictly prohibited.

■ Transportation with a forklift
(Compatible models GX3237D, GX3255D, GX5222D,GX5237D, GX5255,GX5275)



■ Transportation with a crane



Supporting plate
Make sure that the supporting plate length (B) is longer than the dryer width (A) by approximately 100 mm.

Be sure to place a cushioning material between the supporting plate and the dryer to prevent scratching of the panel.

Xeroaqua dryer

GT9000

Compatible air compressors: for 75, 90, 120, 150, 190, 240, 300, 380, 450, 710, 960 kW

■ Refining and pressure adjusting components/main line unit/refrigeration air dryer

Overview

With the latest large to ultra-large refrigeration air dryers, energy conservation and environmental problems are addressed.

Features

(1) New refrigerant R-407C
New refrigerant which does not destroy the ozone layer is utilized in all GT Series models.

(2) Energy-saving operation system
A 50% reduction of power consumption has been realized with models for 300 to 450 kW by keeping unit numbers low, while a 60% reduction of power consumption has been realized with models for 710 kW and 960 kW through inverter control.

(3) SUS heat exchanger
Oil-free stainless steel vessel is used for all models.

(4) Easy maintenance
Secure design allows the operation status to be confirmed at a glance. Central control within the plant is possible with signal takeout.

(5) Universal installation in any area
Depending on the environment for installation, it is possible to install models for 75 to 190 kW right up against walls on the rear and either the right or left. Models for 250 to 450 kW have realized space saving with a top surface exhaust.

CONTENTS

Advanced energy saving, ease-of-use, and environment performance.

Refrigeration air dryer

Large model series / 75 to 960 kW

The large Xeroaqua air dryer GT Series with directly connected air compressor has been reborn into three different series with various features.

Promising high quality and high reliability

Stainless steel heat exchanger for oil free compressed air

A heat exchanger incorporating the newly developed stainless steel vessel has been incorporated. This prevents dust generation from the heat exchanger.

Outstanding weather resistance

The refrigerating piping (copper pipes) in the heat exchanger are nickel-plated to improve corrosion resistance.
Stainless steel piping specifications are also available. Contact CKD for information.

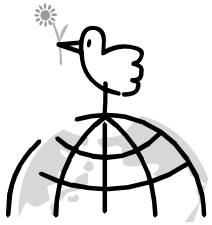
No abnormal stop under high loads (GT9000WV2 Series)

The self-protection control activated during high load operation to drop the compressor's speed. This allows operation to be continued without abnormal stopping.

Environment-friendly refrigerant

Environment-friendly refrigerant R-407C

The new refrigerant R-407C has a zero ozone depletion potential. This surpasses conventional refrigerants in terms of global warning.



Energy saving

Multi-unit control for 50% power reductions (GT9300 to 9450, GT9300W2 to 9450W)

The 2-stage selection refrigerant system automatically switches to 1-stage energy-saving operation during low loads. Power consumption can be reduced by up to 50%.

Inverter control for 60% power reductions (GT9000WV2 Series)

The compressor's inverter control realizes optimum energy-saving operation which corresponds to the load.
Power consumption can be reduced by up to 60%.

Configurable dew point (GT9000WV2 Series)

Configurable pressure dew point in the range of 10 to 18°C. Power consumption can be reduced drastically by setting above 10°C when dew condensation is unlikely to occur such as during the summer.

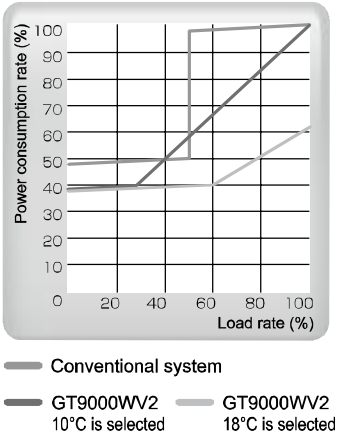
Linking dew point temperature to ambient temperature (GT9000WV2 Series)

A function to link the pressure dew point to the ambient temperature and automatically control the link is provided. The dew point temperature is automatically adjusted to a temperature at which condensation does not occur. This eliminates the need to manually change the dew point setting, and realizes ideal energy saving operation.

Same performance at 50 and 60 Hz (GT9000WV2 Series)

The compressor inverter control allows the same performance to be attained in 50 and 60 Hz districts.

Relation of GT9000WV2 Series load rate and power consumption



GT 9000 (air-cooled) 9000W (water-cooled) 9000WV2 (water-cooled inverter) Series

Xeroaqua Dryer

Easy maintenance

Easy-to-read operation status

The electronic operation panel lets you read the dryer's operation state, dew point and fault state at a glance.

Standard air pressure gauge

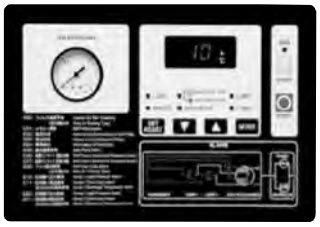
An air pressure gauge has been mounted on the operation panel of all models.

Centralized control in the factory

Realize centralized control in the factory with remote operation, and output of run and abnormal signals.

Dust filter (GT9075, GT9240 to GT9450)

A dust filter has been mounted for the condenser. Easily mount and remove the filter without tools.



GT9300(W)~9450(W)

GT9960WV

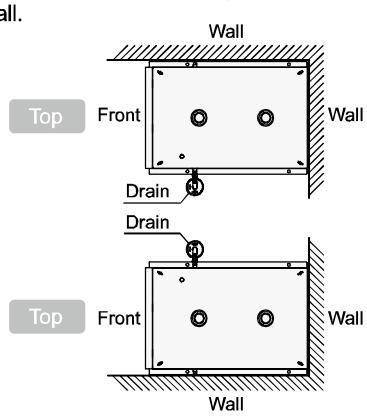
New service port (GT9120 to GT9450, GT9120W to GT9450W, GT9000WV2 Series)

A service port (with check joint) has been added on the inlet and outlet pipes. Use this port when monitoring the pressure and dew point, etc.

Freely install anywhere

Freely install against the wall (GT9075 to 9190, GT9075W to 9190W)

The drain trap and cooling water pipe can be attached to either the left or right side, allowing the unit back, left or right side to be installed flush against the wall.



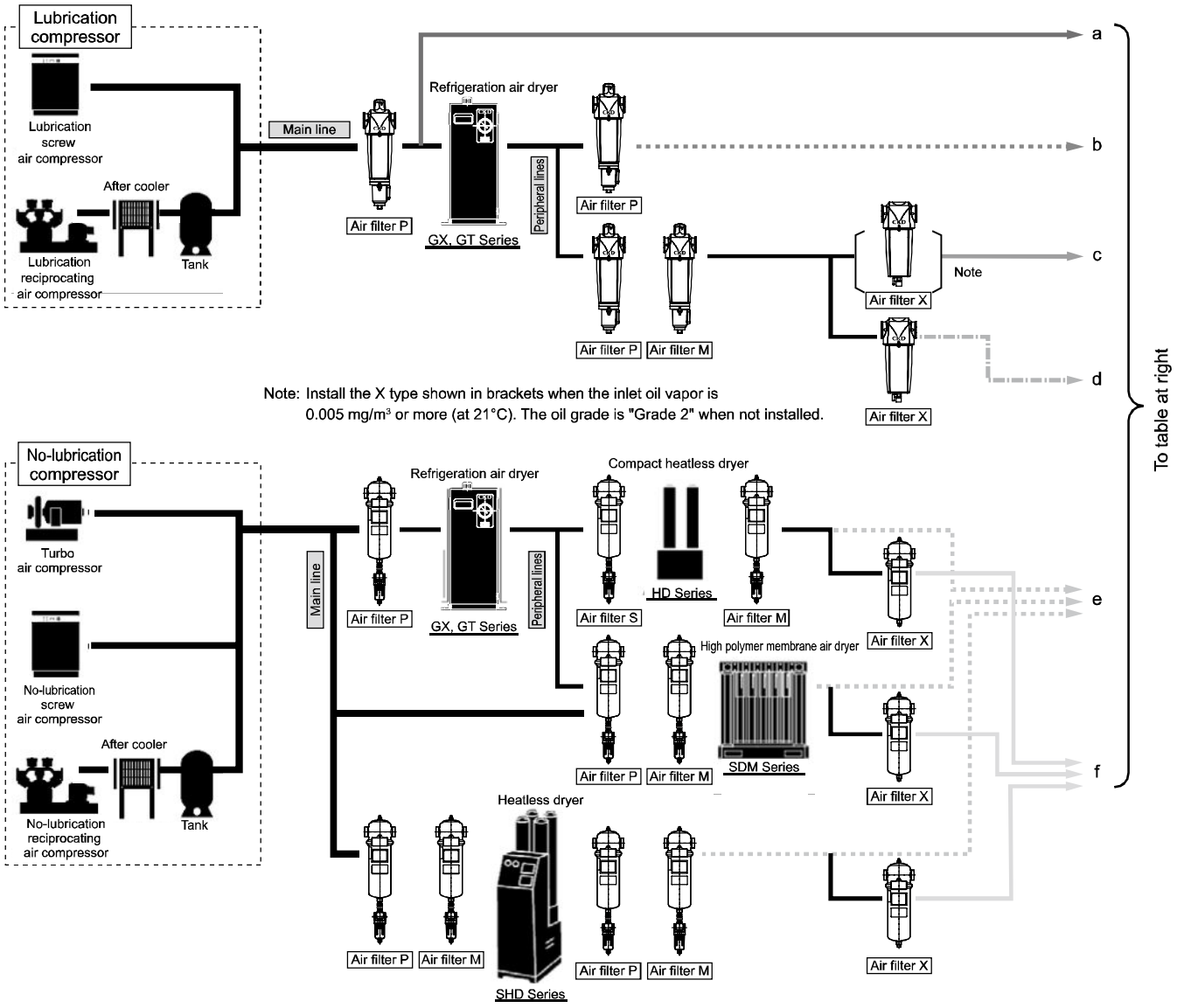
Space-saving with top face exhaust (GT9240 to 9450)

Floor space is saved as the exhaust duct is installed on the top of the wall.

Series variation

Series		Rated conditions					Applicable air compressor (kW)										
		Pressure dew point (°C)	Inlet air pressure (MPa)	Ambient temperature (°C)	Inlet air temperature (°C)	Cooling water inlet temperature (°C)	75	90	120	150	190	240	300	380	450	710	960
Air-cooled	GT9000	10	0.7	32	40	—	●	●	●	●	●	●	●	●	●	—	—
Water-cooled	GT9000W	10	0.7	32	40	32	●	●	●	●	●	●	●	●	●	—	—
	GT9000WV2	10	0.7	32	40	32	—	—	—	—	—	—	—	—	—	●	●
					Performance control		1/1 operation						Multi-unit control (Automatic 1/2 operation)			Inverter control	

■Typical working circuit



JIS B 8392-1:2012 Compressed air purity grade

Grade	Solid particles				Humidity and moisture		Oil
	Max. number of particles per 1 m³ for particle diameter d (μm)			Mass concentration Cp	Pressure dew point	Water concentration Cw	Total oil concentration
	0.1 < d ≤ 0.5	0.5 < d ≤ 1.0	1.0 < d ≤ 5.0	mg/m³	°C	g/m³	mg/m³
0	Conditions stricter than Grade 1 to be specified by user or supplier.						
1	≤ 20,000	≤ 400	≤ 10	-	≤ -70	-	≤ 0.01
2	≤ 400,000	≤ 6,000	≤ 100	-	≤ -40	-	≤ 0.1
3	-	≤ 90,000	≤ 1,000	-	≤ -20	-	≤ 1
4	-	-	≤ 10,000	-	≤ +3	-	≤ 5
5	-	-	≤ 100,000	-	≤ +7	-	-
6	-	-	-	0 < Cp ≤ 5	≤ +10	-	-
7	-	-	-	5 < Cp ≤ 10	-	Cw ≤ 0.5	-
8	-	-	-	-	-	0.5 < Cw ≤ 5	-
9	-	-	-	-	-	5 < Cw ≤ 10	-
X	-	-	-	Cp > 10	-	Cw > 10	> 5

JIS B 8392-1:2003 has been revised to JIS B 8392-1:2012.

For example,
What is Grade 1:2:1?

- Solid particles 0.1 to 0.5 μm are 20,000 particles or less, 0.5 to 1.0 μm are 400 particles or less, and 1.0 to 5.0 μm are 10 particles or less
- Pressure dew point -40°C or less
- Oil concentration 0.01 mg/m³ or less.

	Air quality	Applications	Grade
a	Water drip removal air/ coarse dust removal air	For construction/civil engineering machinery Air for cleaning (dry air not required)	2.-.-
b	General dry air	Standard pneumatic components, standard pneumatic tools, labor saving components, jigs and tools for air, air chucks, air vices, air for cleaning precision components	2.6.3 2.5.3
c	Dry air (oil-free)	For instrumentation, for measurement, sequence control, high-grade paint	1.6.1 1.5.1
d	Dry air (odorless)	Food product industry (where air is not directly blown onto food), pharmaceutical industry, for stirring/transporting/drying/packaging/brewing	1.6.1 1.5.1
e	Ultra dry air (oil-free)	Ozone generator, powder transfer, drying of atmospheric gas for furnaces, drying of high-voltage generator insulation gas, drying of computer rooms, for centralized control instruments	1.3.1 1.2.1 1.2.1
f	Ultra dry air (odorless)	Food product industry (where air is not directly blown onto food), pharmaceutical industry, for stirring/transporting/drying/packaging/brewing	1.3.1 1.2.1 1.2.1

■Table of system selections

Rating (ambient temperature: 32°C, inlet temperature: 40°C, pressure dew point: 10°C)

Air compressor		Refrigeration air dryer		Main line filter P type (1 or 3 μm)	Main line filter M type (0.01 μm)	Main line filter X type (deodorizing)
Output kW	Standard processing air rate m^3/min (ANR)	Air cooling	Water cooling			
75	10.4/12.3	GT9075	GT9075W	AF2013P-50 AF4013S-50	AF2013M-50 AF4013M-50	AF2013X-50 AF4013X-50
90	14.8/17.5	GT9090	GT9090W	AF2020P-50 AF4020S-50	AF2020M-50 AF4020M-50	AF2020X-50 AF4020X-50
120	18.7/22.0	GT9120	GT9120W	AF2026P-65	AF2026M-65	AF2026X-65
150	23.8/28.0	GT9150	GT9150W	AF5032P-80	AF5032M-80	AF5032X-80
190	27.5/32.4	GT9190	GT9190W	AF5048P-100	AF5048M-100	AF5048X-100
240	36.5/43.0	GT9240	GT9240W	AF5048P-100	AF5048M-100	AF5048X-100
300	44.2/52.0	GT9300	GT9300W	AF5064P-100	AF5064M-100	AF5064X-100
380	55.2/65.0	GT9380	GT9380W	AF5080P-150	AF5080M-150	AF5080X-150
450	70.3/82.8	GT9450	GT9450W	AF5096P-150	AF5096M-150	AF5096X-150
710	139.1	—	GT9710WV2	AF5160P-200	AF5160M-200	AF5160X-200
960	184.2	—	GT9960WV2	AF5192P-200	AF5192M-200	AF5192X-200

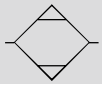
Refrigeration air dryer Xeroaqua (Air-cooling)

GT9000 Series

For direct air compressor connection, standard inlet air

● Applicable air compressor: 75, 90, 120, 150, 190, 240, 300, 380, 450 kW

JIS symbol



Specifications

1 MPa = 10 bar

Model No.			GT9075	GT9090	GT9120	GT9150	GT9190	GT9240	GT9300	GT9380	GT9450
Applicable air compressor		kW	75	90	120	150	190	240	300	380	450
Working range	Working fluid		Compressed air								
	Inlet air temperature	°C	5 (41°F) to 60 (140°F)								
	Inlet air pressure	MPa	0.1 (≈15 psi, 1 bar) to 0.98 (≈140 psi, 9.8 bar)						0.29 (≈42 psi) to 0.93 (≈130 psi)		
	Ambient temperature	°C	2 (35.6°F) to 40 (104°F)								
Rating	Processing flow rate 50/60 Hz (*2)	m^3/min (ANR)	10.4/12.3	14.8/17.5	18.7/22.0	23.8/28.0	27.5/32.4	36.5/43.0	44.2/52.0	55.2/65.0	70.3/82.8
	Processing flow rate (Compressor intake condition) 50/60Hz (*3)	m^3/min	10.9/12.9	15.5/18.4	19.6/23.1	25.0/29.4	28.9/34.0	38.3/45.2	46.4/54.6	58.0/68.3	73.8/87.0
	Inlet air temperature	°C	40 (104°F)								
	Inlet air pressure	MPa	0.7 (≈100 psi, 7 bar)								
	Ambient temperature	°C	32 (89.6°F)								
Perfm.	Outlet air pressure dew point	°C	10 (50°F) (*4)								
Power supply			Three-phase 200/200, 220 VAC 50/60 Hz								
Electrical specifications	Power consumption	kW 50/60Hz (*5)	2.2/2.6,2.7	3.0/3.7,3.7	2.9/3.8,3.6	3.7/4.8,4.7	4.8/6.0,5.8	4.6/5.7,5.6	5.9/6.8,6.8	8.6/10.1,10.0	9.3/11.2,11.9
	Operating current	A 50/60Hz (*5)	8.7/8.4,8.5	11.0/12.0,12.0	11.6/13.1,12.6	14.7/16.3,15.9	18.6/20.1,18.8	17.9/19.2,19.1	19.9/22.3,21.2	26.4/29.4,28.9	36.3/38.3,38.2
	Starting current	A 50/60Hz	43.8/39.1	83/77	83/77	98/91	135/135	135/135	83/77	98/91	135/135
Refrigerant			R-407C								
Air outlet/inlet piping bore size (*6)			Union Rc2		Flange 2 1/2B	Flange 3B		Flange 4B	Flange 5B		Flange 6B
Weight		kg	146	237	258	372	374	555	790	870	970
Released heat		kW 50/60Hz	6.9/8.2	9.8/11.6	10.8/12.8	14.1/16.5	17.8/21.0	18.8/22.1	20.8/24.5	26.7/31.3	33.0/39.0

*1: Outer panel: Quality cool white (Munsell No. 5GY7.5/0.5)
Base : Munsell No. N3.0
*2: ANR shows conditions of 20°C atmospheric pressure and relative humidity 65%.
*3: This is a value converted to the intake condition of the air compressor in an environment of 32°C with a relative humidity of 75%.
*4: Contact CKD for information on the dew point performance guarantee.
*5: The power consumption and operation current are both reference values under the rated conditions, and are not guaranteed.
*6: Flange is 10K flange.

How to order (air-cooling)

GT9 [075] - [G] - [AC380V]

Ⓐ Capacity category

Ⓑ Option *1

Ⓒ Voltage *2

Code	Content
Ⓐ Capacity category	
075	75 kW
090	90 kW
120	120 kW
150	150 kW
190	190 kW
240	240 kW
300	300 kW
380	380 kW
450	450 kW

Ⓑ Option	
Blank	Standard products
G	Different voltage compatible
H2	SUS nameplate
H3	Simple export packaging
N1	Copper tube rust proof coating

Ⓒ Voltage
200 VAC
220 VAC (60Hz only standard)
230 VAC
240 VAC
380 VAC
400 VAC
415 VAC
440 VAC
480 VAC

Precautions for model No. selection

*1: Indicate options in alphabetical order.
*2: Specify the voltage for item Ⓒ even when the model is a standard product.
Example: GT9090-AC200V
*3: Option H3 is packaged in plywood.
*4: The instruction manual and nameplates are provided in Japanese and English. However, the proof pressure certificate (GT9240 and higher) is available as Japanese text only. Contact CKD when an English version is required.
*5: Contact CKD if a photo of the completed product is required.
*6: Contact CKD to designate the color of the body panel.

Selection guide

(1) Temperature compensation coefficient

Inlet air temperature (°C)		35		40		45		50		55		60	
Pressure dew point (°C)		10	15	10	15	10	15	10	15	10	15	10	15
Ambient temperature (°C)	25	1.29	1.29	1.14	1.24	0.91	0.99	0.69	0.75	0.46	0.50	0.23	0.25
	30	1.25	1.29	1.04	1.13	0.83	0.91	0.62	0.68	0.42	0.45	0.21	0.23
	32	1.20	1.29	1.00	1.09	0.80	0.87	0.60	0.65	0.40	0.44	0.20	0.22
	35	1.13	1.23	0.94	1.02	0.75	0.82	0.56	0.61	0.38	0.41	0.19	0.20
	40	1.01	1.10	0.84	0.92	0.67	0.73	0.50	0.55	0.34	0.37	0.17	0.18

(2) Inlet air pressure coefficient

Inlet air pressure (MPa)	0.10	0.20	0.29	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.93	0.98
Coefficient	0.60	0.66	0.72	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.15	1.19

(3) Upper limit coefficient

Working cond (inlet press (MPa))	0.10	0.20	0.29	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.93	0.98
Coefficient	0.77	0.85	0.92	0.94	1.03	1.12	1.19	1.29	1.38	1.45	1.48	1.53

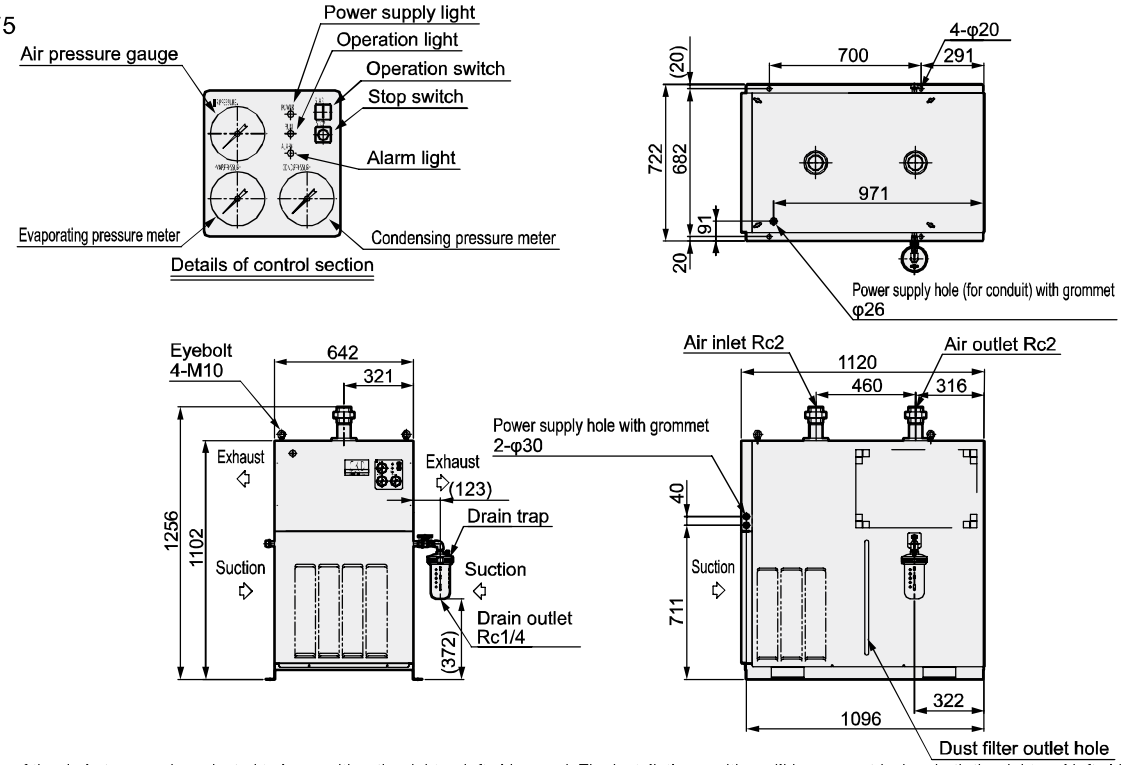
When determining the appropriate model from the standard processing air rate of each model No.
Standard processing air rate × (1) Temperature correction coefficient × (2) Inlet air pressure coefficient = Maximum processing air rate
*1: Select with conditions where the value of the product of each coefficient ((1)×(2)) does not exceed the upper limit coefficient of (3).

Conditions	Working conditions	Selecting conditions	Coefficient
Inlet air temperature	30 to 38°C	40°C	(1) 0.94
Pressure dew point	10°C	10°C	
Ambient temperature	25 to 33°C	35°C	
Inlet air pressure	0.55 to 0.75 MPa	0.5 MPa	(2) 0.87
Frequency	50 Hz	50 Hz	50 Hz

Substitute the above conditions in the above formula and determine the processing air rate in cases when GT9150 is used.
Product of each coefficient
(1) × (2) = 0.94 × 087 = 0.81
As the (3) upper limit coefficient of 1.12, when the inlet air pressure of the working conditions is 0.5 MPa, is not exceeded, the max. processing air rate will be 23.8 (standard processing air rate) × 0.81 = 19.2 m^3/min(ANR).
If the used air quantity is less than or equal to this value, select that model.
*2: For compatibility with pressure dew points of less than 10°C, contact CKD separately.

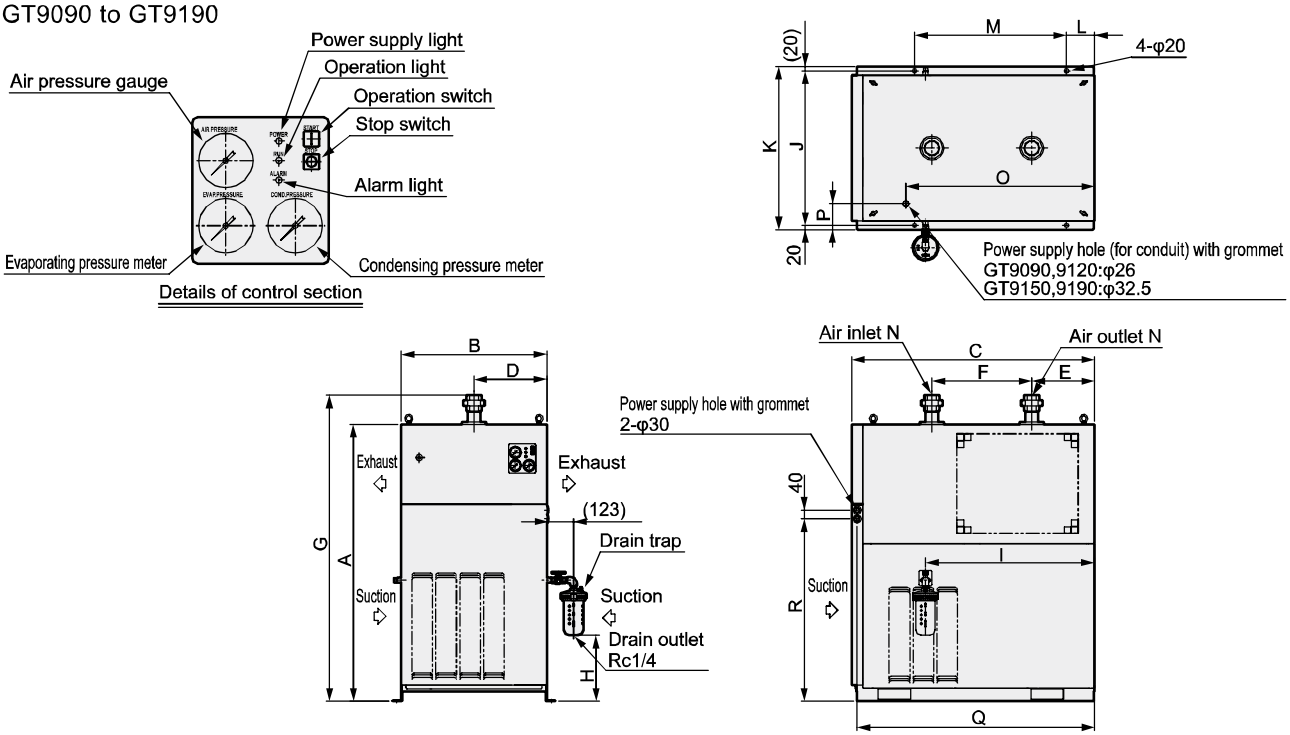
Dimensions

● GT9075



*1: Installation of the drain trap can be selected to be on either the right or left side panel. The installation position will be symmetrical on both the right and left side panels.
*2: Select either the right or left panel for installation of the exhaust port of GT9075.

● GT9090 to GT9190



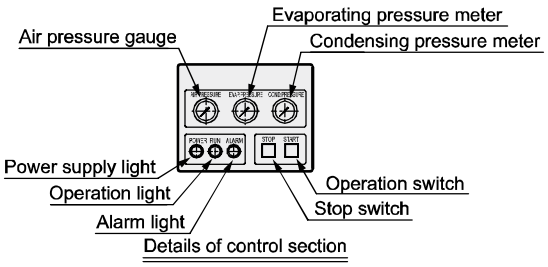
*1: Installation of the exhaust port can be selected to be on either the right or left side panel.
*2: Installation of the drain trap can be selected to be on either the right or left side panel. The installation position will be symmetrical on both the right and left side panels.
*3: It is not equipped with a dust filter.

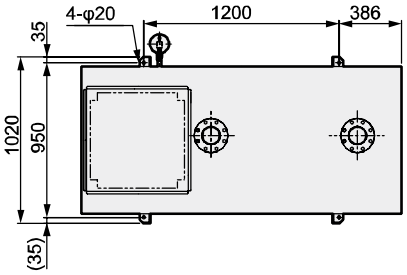
Model No.	A	B	C	D	E	F	G	H	I	J	K
GT9090	1276	672	1120	336	290	460	1411	(303)	780	712	752
GT9120	1276	672	1260	336	403	655	1375	(221)	295	712	752
GT9150	1332	950	1290	475	296	720	1432	(221)	260	990	1030
GT9190	1332	950	1290	475	226	860	1432	(221)	260	990	1030

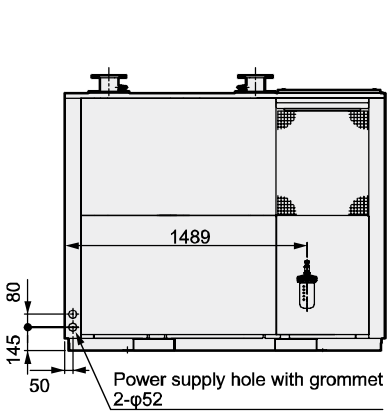
Model No.	L	M	N	O	P	Q	R
GT9090	130	700	Union Rc2	870	120	1095	840
GT9120	214	935	Flange 2 1/2B	1010	120	1235	840
GT9150	245	935	Flange 3B	990	116	1265	896
GT9190	245	935	Flange 3B	990	116	1265	896

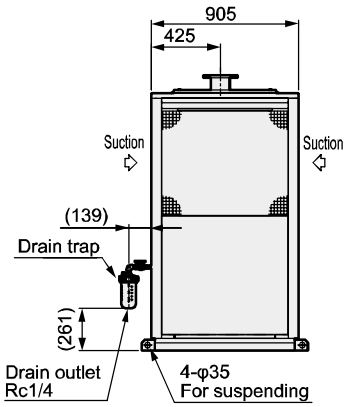
Dimensions

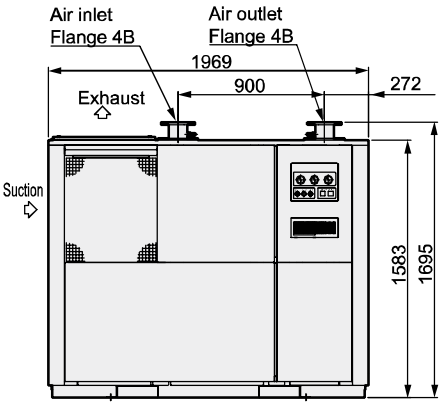
● GT9240



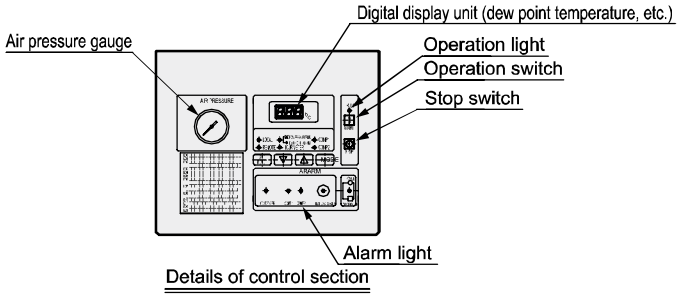


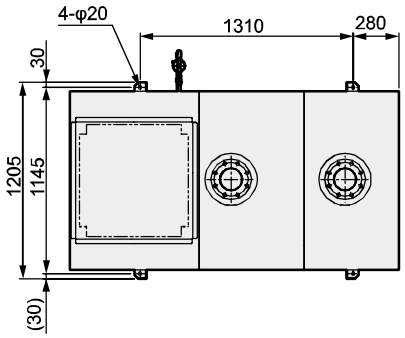


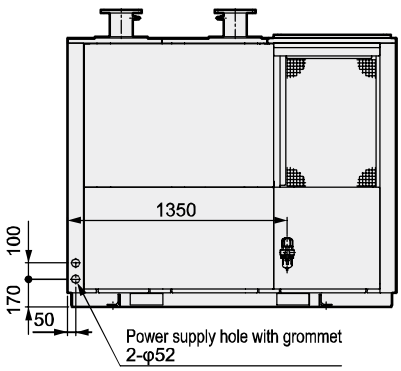


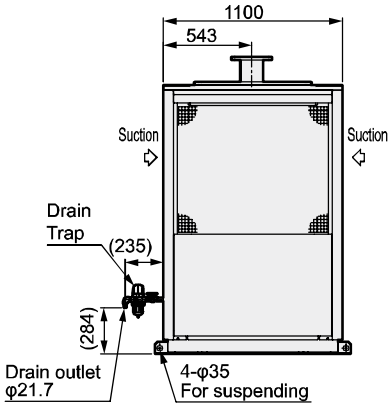


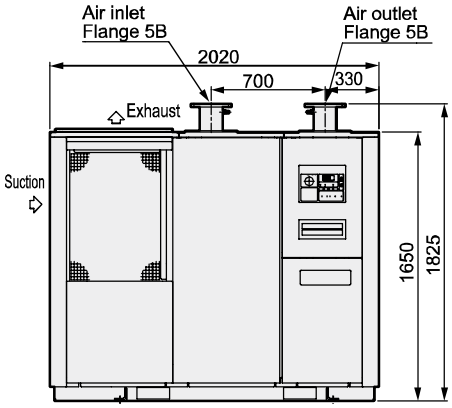
● GT9300,GT9380







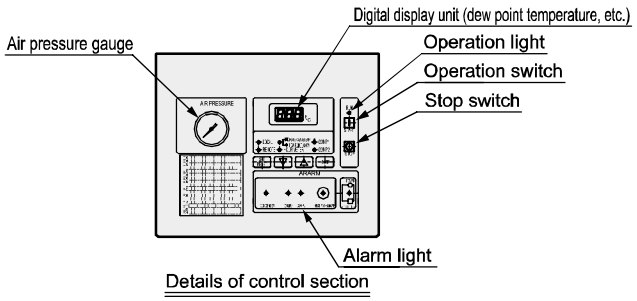


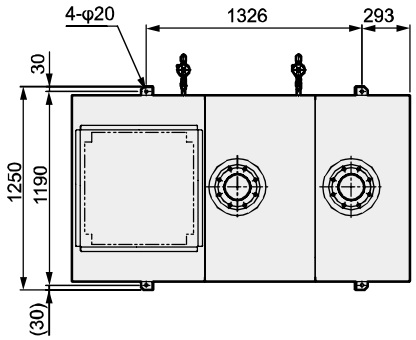


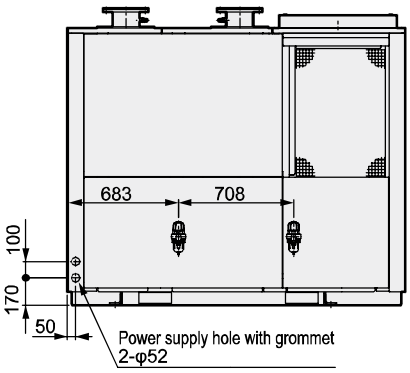
*1: The dew point display value is a guide, and is not the actual dew point.
To measure the actual dew point, measure the secondary side air with a dew point gauge.

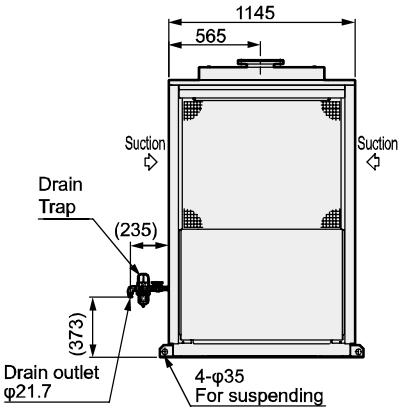
Dimensions

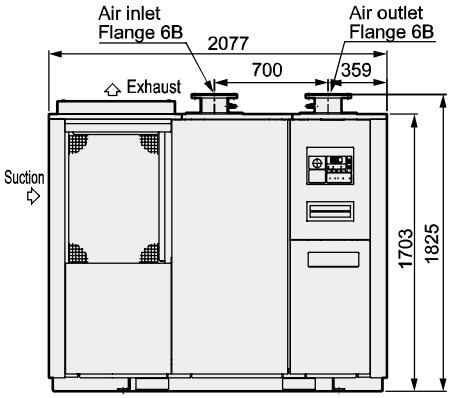
● GT9450











*1: The dew point display value is a guide, and is not the actual dew point.
To measure the actual dew point, measure the secondary side air with a dew point gauge.

MEMO

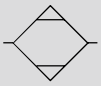
Refrigeration air dryer Xeroaqua (Water-cooling)

GT9000W Series

For direct air compressor connection, standard inlet air

● Applicable air compressor: 75, 90, 120, 150, 190, 240, 300, 380, 450 kW

JIS symbol



Specifications

1 MPa = 10 bar

Model No.		GT9075W	GT9090W	GT9120W	GT9150W	GT9190W	GT9240W	GT9300W	GT9380W	GT9450W
Applicable air compressor kW		75	90	120	150	190	240	300	380	450
Working range	Working fluid	Compressed air								
	Inlet air temperature °C	5 (41°F) to 60 (140°F)								
	Inlet air pressure MPa	0.1 (≈15 psi, 1 bar) to 0.98 (≈140 psi, 9.8 bar)						0.29 (≈42 psi) to 0.93 (≈140 psi)		
	Cooling water inlet pressure MPa	0.2 (≈29 psi, 2 bar) to 0.74 (≈110 psi, 7.4 bar)								
	Ambient temperature °C	2 (35.6°F) to 45 (113°F)								
Rating	Processing flow rate m^3/min (ANR) 50/60Hz (*2)	11.0/13.0	15.5/18.3	20.4/24.0	25.5/30.0	29.8/35.1	39.9/47.0	48.4/57.0	60.3/71.0	79.0/93.0
	Processing flow rate m^3/min (Compressor intake condition) 50/60Hz (*3)	11.5/13.6	16.3/19.2	21.4/25.2	26.8/31.5	31.3/36.9	41.9/49.4	50.8/59.9	63.3/74.6	83.0/97.7
	Inlet air temperature °C	40 (104°F)								
	Inlet air pressure MPa	0.7 (≈100 psi, 7 bar)								
	Cooling water inlet temperature °C	32 (89.6°F)								
	Cooling water volume m^3/h 50/60Hz	1.5/1.7	2.4/2.8	2.5/2.9	2.7/3.0	3.0/3.2	3.6/3.8	3.4/4.0	4.3/5.0	6.0/7.1
	Ambient temperature °C	32 (89.6°F)								
Perfm.	Outlet air pressure dew point °C	10 (50°F) (*4)								
Power supply		Three-phase 200/200, 220 VAC 50/60 Hz								
Electrical specifications	Power consumption kW 50/60Hz (*5)	1.8/2.0,2.1	2.4/2.9,2.8	2.1/2.6,2.5	3.1/3.8,3.7	4.2/5.3,5.5	3.5/4.4,4.3	5.1/5.7,5.7	6.5/7.6,7.5	8.5/9.0,8.9
	Operating current A 50/60Hz (*5)	7.9/6.9,7.0	9.0/9.6,9.1	8.6/9.4,8.9	11.9/12.8,12.1	15.8/16.8,16.5	14.8/15.0,14.9	17.6/18.9,18.4	22.5/25.0,24.5	29.6/32.0,31.4
	Starting current A 50/60Hz	43.8/39.1	83/77	83/77	98/91	135/135	135/135	83/77	98/91	135/135
Refrigerant		R-407C								
Air outlet/inlet piping bore size (*6)		Union Rc2		Flange 2 1/2B	Flange 3B		Flange 4B	Flange 5B		Flange 6B
Weight kg		148	215	238	346	346	532	790	870	940

*1: Outer panel: Quality cool white (Munsell No. 5GY7.5/0.5)
Base: Munsell No. N3.0
*2: ANR shows conditions of 20°C atmospheric pressure and relative humidity 65%.
*3: This is a value converted to the intake condition of the air compressor in an environment of 32°C with a relative humidity of 75%.
*4: Contact CKD for information on the dew point performance guarantee.
*5: The power consumption and operation current are both reference values under the rated conditions, and are not guaranteed.
*6: Flange is 10K flange.

How to order (water-cooling)

GT9 075 W - G - AC380V

Ⓐ Capacity category
Ⓑ Option *1
Ⓒ Voltage *2

Code	Content
Ⓐ Capacity category	
075	75 kW
090	90 kW
120	120 kW
150	150 kW
190	190 kW
240	240 kW
300	300 kW
380	380 kW
450	450 kW

Ⓑ Option	
Blank	Standard products
G	Different voltage compatible
H2	SUS nameplate
H3	Simple export packaging
N1	Copper tube rust proof coating

Ⓒ Voltage
200 VAC
220 VAC (60Hz only standard)
230 VAC
240 VAC
380 VAC
400 VAC
415 VAC
440 VAC
480 VAC

Precautions for model No. selection

*1: Indicate options in alphabetical order.
*2: Specify the voltage for item Ⓒ even when the model is a standard product.
Example: GT9090W-AC200V
*3: Option H3 is packaged in plywood.
*4: The instruction manual and nameplates are provided in Japanese and English. However, the proof pressure certificate (GT9240W and higher) is available as Japanese text only. Contact CKD when an English version is required.
*5: Contact CKD if a photo of the completed product is required.
*6: Contact CKD to designate the color of the body panel.

Selection guide

(1) Temperature compensation coefficient

Inlet air temperature (°C)	35		40		45	
Pressure dew point (°C)	10	15	10	15	10	15
Coefficient	1.20	1.29	1.00	1.09	0.80	0.87
Inlet air temperature (°C)	50		55		60	
Pressure dew point (°C)	10	15	10	15	10	15
Coefficient	0.60	0.65	0.40	0.44	0.20	0.22

(2) Inlet air pressure coefficient

Inlet air pressure (MPa)	0.10	0.20	0.29	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.93	0.98
Coefficient	0.60	0.66	0.72	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.15	1.19

(3) Upper limit coefficient

Working cond (inlet press (MPa))	0.10	0.20	0.29	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.93	0.98
Coefficient	0.77	0.85	0.92	0.94	1.03	1.12	1.19	1.29	1.38	1.45	1.48	1.53

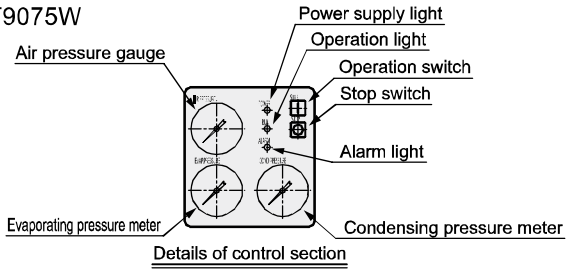
When determining the appropriate model from the standard processing air rate of each model No.
Standard processing air rate × (1) Temperature correction coefficient × (2) Inlet air pressure coefficient = Maximum processing air rate
*1: Select with conditions where the value of the product of each coefficient ((1)×(2)) does not exceed the upper limit coefficient of (3).

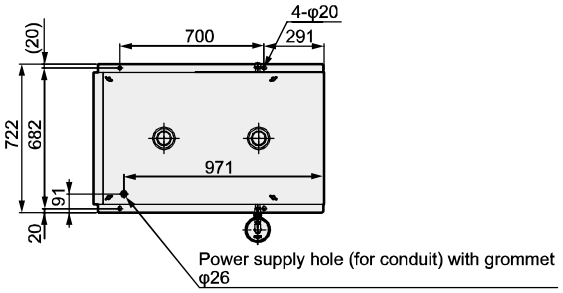
Conditions	Working conditions	Selecting conditions	Coefficient
Inlet air temperature	30 to 33°C	35°C	(1) 1.20
Pressure dew point	10°C	10°C	
Inlet air pressure	0.55 to 0.75 MPa	0.5 MPa	(2) 0.87
Frequency	50 Hz	50 Hz	50 Hz

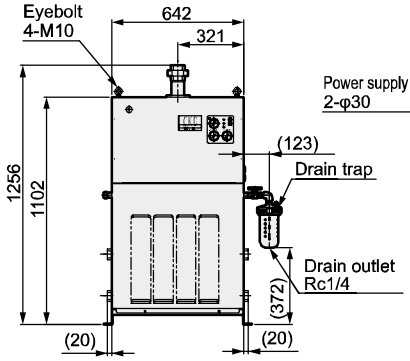
Substitute the above conditions in the above formula and determine the processing air rate in cases when GT9150W is used.
Product of each coefficient
(1) × (2) = 1.20 × 0.87 = 1.04
As the (3) upper limit coefficient of 1.12, when the inlet air pressure of the working conditions is 0.5 MPa, is not exceeded, the max. processing air rate will be 25.5 (standard processing air rate) × 1.04 = 26.5 m^3/min(ANR).
If the used air quantity is less than or equal to this value, select that model.
*2: For compatibility with pressure dew points of less than 10°C, contact CKD separately.

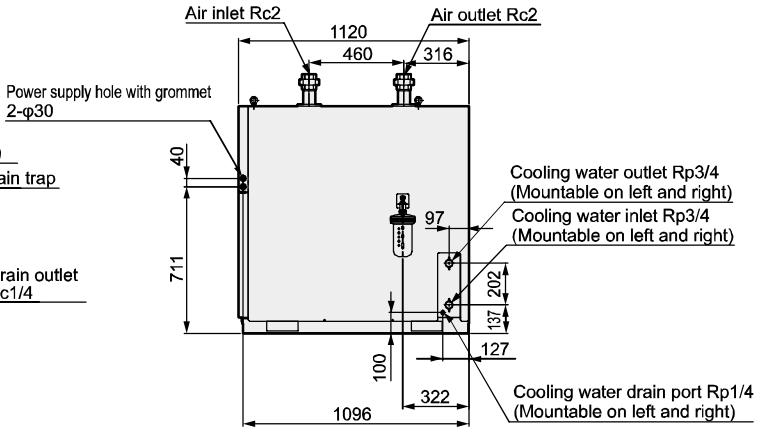
Dimensions

● GT9075W



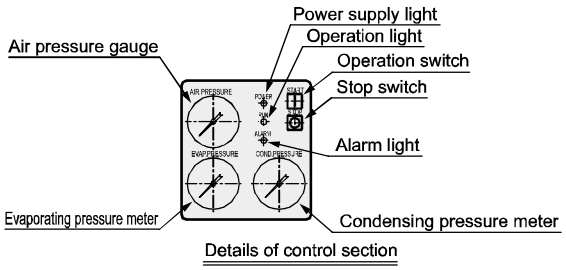


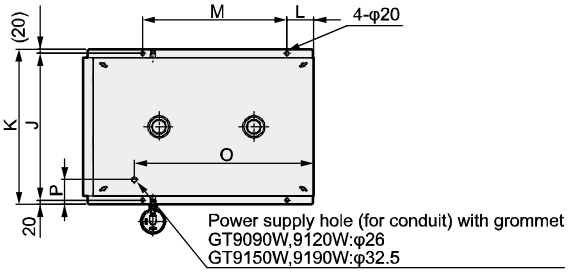


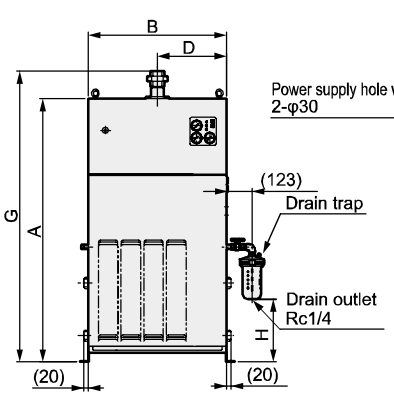


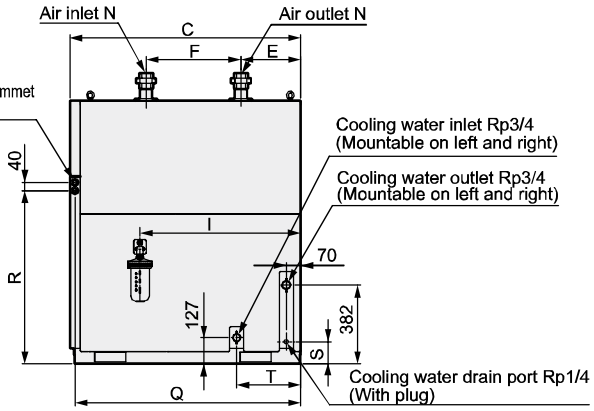
*1: Installation of the drain trap can be selected to be on either the right or left side panel. The installation position will be symmetrical on both the right and left side panels.
*2: Select either the right or left panel for installation of the cooling water piping of GT9075W. The installation position will be symmetrical on both the right and left side panels.

● GT9090W to GT9190W









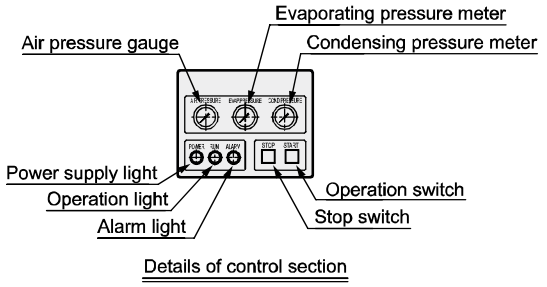
*1: Select either the right or left panel for installation of the cooling water piping.
*2: Installation of the drain trap can be selected to be on either the right or left side panel.

Model No.	A	B	C	D	E	F	G	H	I	J	K
GT9090W	1276	672	1120	336	290	460	1411	(303)	780	712	752
GT9120W	1276	672	1260	336	403	655	1375	(221)	295	712	752
GT9150W	1332	950	1290	475	296	720	1432	(221)	260	990	1030
GT9190W	1332	950	1290	475	226	860	1432	(221)	260	990	1030

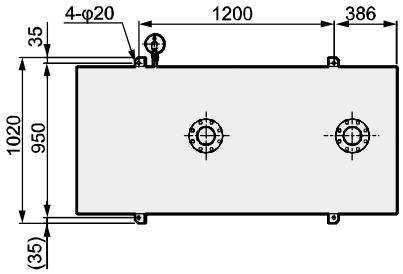
Model No.	L	M	N	O	P	Q	R	S	T
GT9090W	130	700	Union Rc2	870	120	1095	840	107	310
GT9120W	214	935	Flange 2 1/2B	1010	120	1235	840	107	445
GT9150W	245	935	Flange 3B	990	116	1265	896	95	475
GT9190W	245	935	Flange 3B	990	116	1265	896	95	475

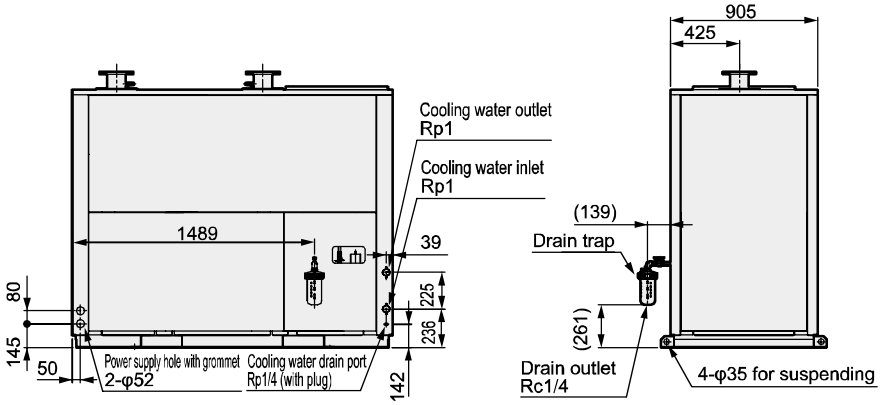
Dimensions

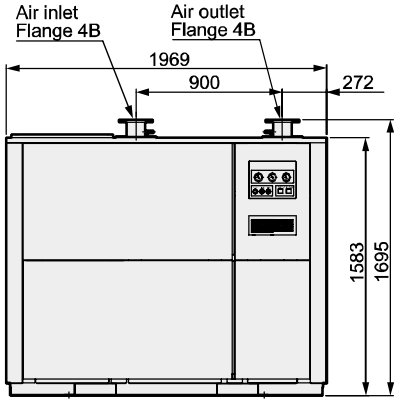
● GT9240W



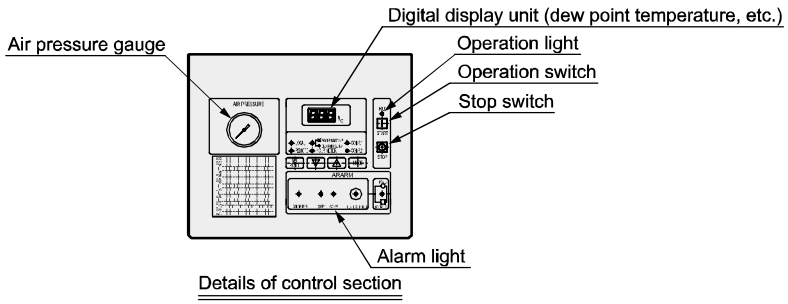
Details of control section



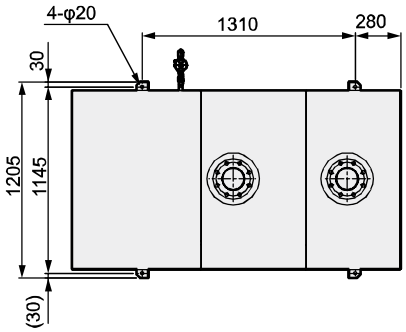


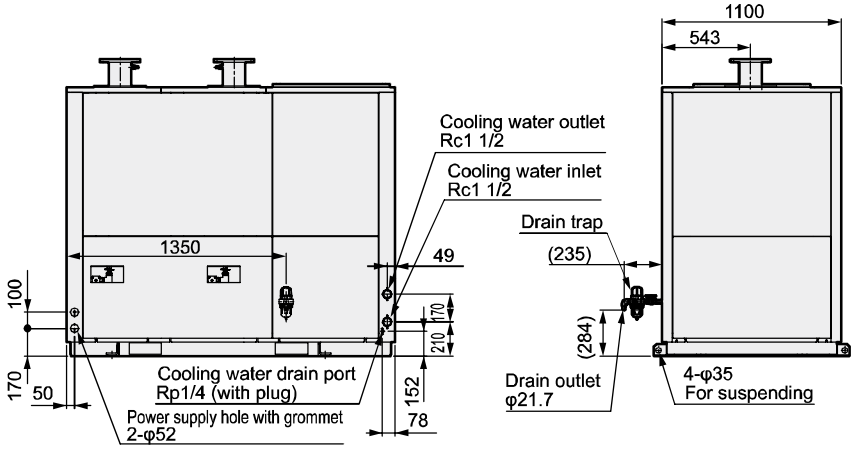


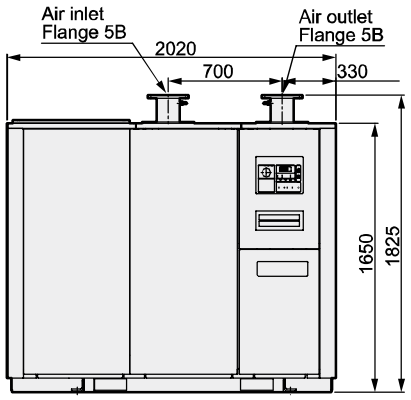
● GT9300W,GT9380W



Details of control section



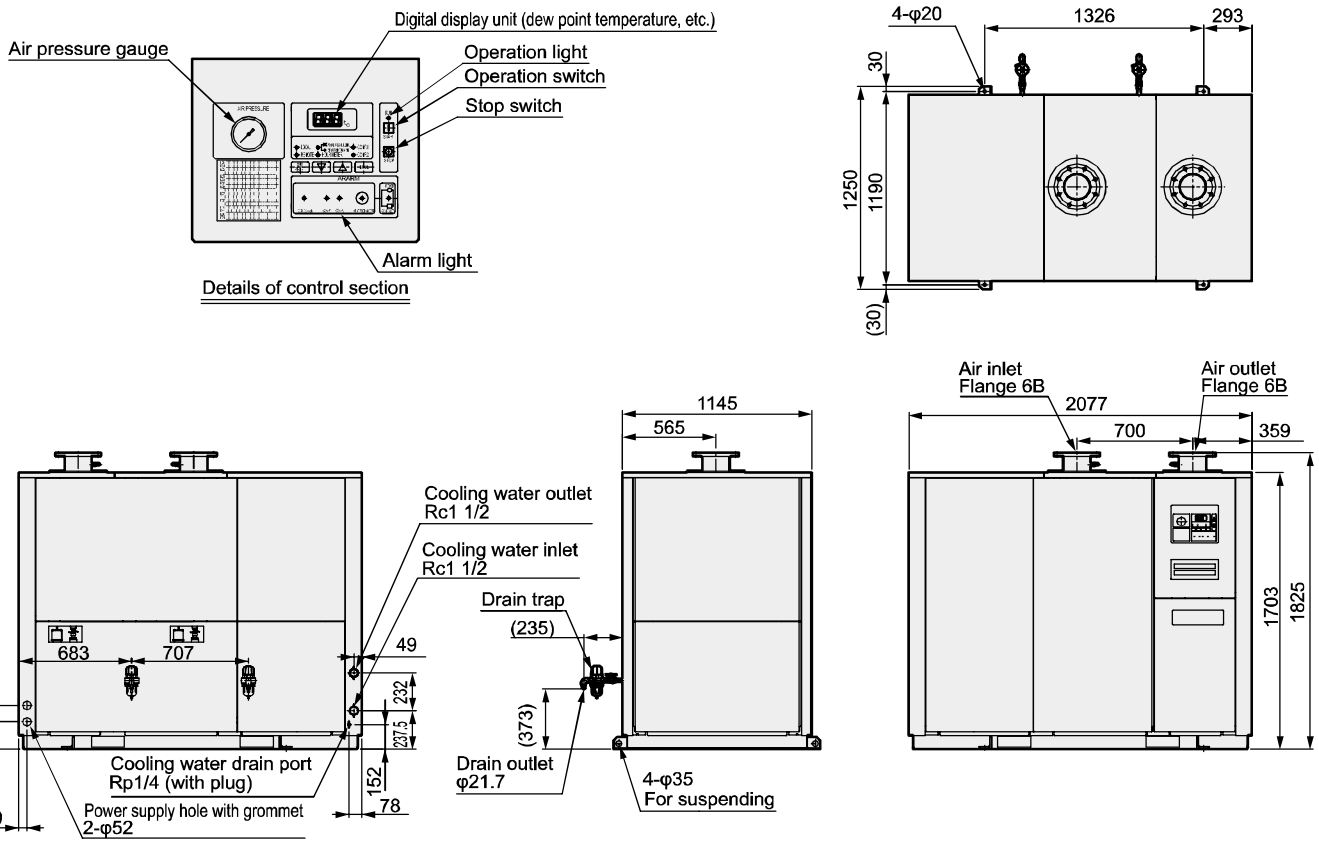




*1: The dew point display value is a guide, and is not the actual dew point.
To measure the actual dew point, measure the secondary side air with a dew point gauge.

Dimensions

● GT9450W



*1: The dew point display value is a guide, and is not the actual dew point.
To measure the actual dew point, measure the secondary side air with a dew point gauge.

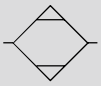
Refrigeration air dryer Xeroaqua (Inverter controlled water-cooling)

GT9000WV2 Series

For direct air compressor connection, standard inlet air

● Applicable air compressor: 710, 960 kW

JIS symbol



Specifications

Model No.			GT9710WV2	GT9960WV2
Applicable air compressor		kW	710	960
Working range	Working fluid		Compressed air	
	Inlet air temperature	°C	5 (41°F) to 60 (140°F)	
	Inlet air pressure	MPa	0.1 (≈15 psi, 1 bar) to 0.93 (≈130 psi, 9.3 bar)	
	Cooling water inlet pressure	MPa	0.2 (≈29 psi, 2 bar) to 0.74 (≈110 psi, 7.4 bar)	
	Ambient temperature	°C	2 (35.6°F) to 50 (122°F)	
Rating	Processing flow rate m^3/min (ANR) 50/60Hz (*2)		139.1	184.2
	Processing flow rate m^3/min (Compressor intake condition) 50/60Hz (*3)		146.1	193.4
	Inlet air temperature	°C	40 (104°F)	
	Inlet air pressure	MPa	0.7 (≈100 psi, 7 bar)	
	Cooling water inlet temperature	°C	32 (89.6°F)	
	Cooling water volume m^3/h 50/60Hz		10.7	14.2
	Ambient temperature	°C	32 (89.6°F)	
	Outlet air pressure dew point	°C	10 (50°F) (*4)	
Outlet air pressure dew point switching range		°C	10 (50°F) to 18 (64.4°F) (Manual setting/outside temperature linkage switching function equipped)	
Power supply			Three-phase 200/200, 220 VAC 50/60 Hz (*5)	
Elec Spec	Power consumption kW 50/60Hz (*6)		14.8	19.6
	Operating current A 50/60Hz (*6)		49.0	68.6
Refrigerant			R-407C	
Air outlet/inlet piping bore size (*7)			Flange 8B	
Weight		kg	1330	2200

*1: Outer panel : Quality cool white (Munsell No. 5GY7.5/0.5)
Base : Munsell No. N3.0
*2: ANR shows conditions of 20°C atmospheric pressure and relative humidity 65%.
*3: This is a value converted to the intake condition of the air compressor in an environment of 32°C with a relative humidity of 75%.
*4: Contact CKD for information on the dew point performance guarantee.
*5: Make sure that the imbalance between phases of the power supply voltage is within ±2%.
*6: The power consumption and operation current are both reference values under the rated conditions, and are not guaranteed.
*7: Flange is 10K flange.

How to order (inverter controlled water-cooling)

GT9 **710** WV2- **G** - **AC380V**

Ⓐ Capacity category

Ⓑ Option *1

Ⓒ Voltage *2

Code	Content
Ⓐ Capacity category	
710	710 kW
960	960 kW
Ⓑ Option	
Blank	Standard products
G	Different voltage compatible
H2	SUS nameplate
H3	Simple export packaging
N1	Copper tube rust proof coating
Ⓒ Voltage	
200 VAC	
220 VAC (60Hz only standard)	
230 VAC	
240 VAC	
380 VAC	
400 VAC	
415 VAC	
440 VAC	
480 VAC	

Precautions for model No. selection

*1: Indicate options in alphabetical order.
*2: Specify the voltage for Item Ⓒ even when the model is a standard product.
Example: GT9710WV-AC200V
*3: Option H3 is packaged in plywood.
*4: The instruction manual and nameplates are provided in Japanese and English. However, the proof pressure certificate is available as Japanese text only. Contact CKD when an English version is required.
*5: Contact CKD if a photo of the completed product is required.
*6: Contact CKD to designate the color of the body panel.

Selection guide

(1) Temperature compensation coefficient

Inlet air temperature (°C)	35		40		45	
Pressure dew point (°C)	10	18	10	18	10	18
Coefficient	1.20	1.20	1.00	1.20	0.80	0.96
Inlet air temperature (°C)	**50**		**55**		**60**	
Pressure dew point (°C)	**10**	**18**	**10**	**18**	**10**	**18**
Coefficient	0.60	0.72	0.40	0.48	0.20	0.24

(2) Inlet air pressure coefficient

Inlet air pressure (MPa)	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.93
Coefficient	0.60	0.66	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.15

(3) Upper limit coefficient

Working cond (inlet press (MPa))	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.93
Coefficient	0.72	0.79	0.87	0.96	1.04	1.11	1.20	1.28	1.35	1.38

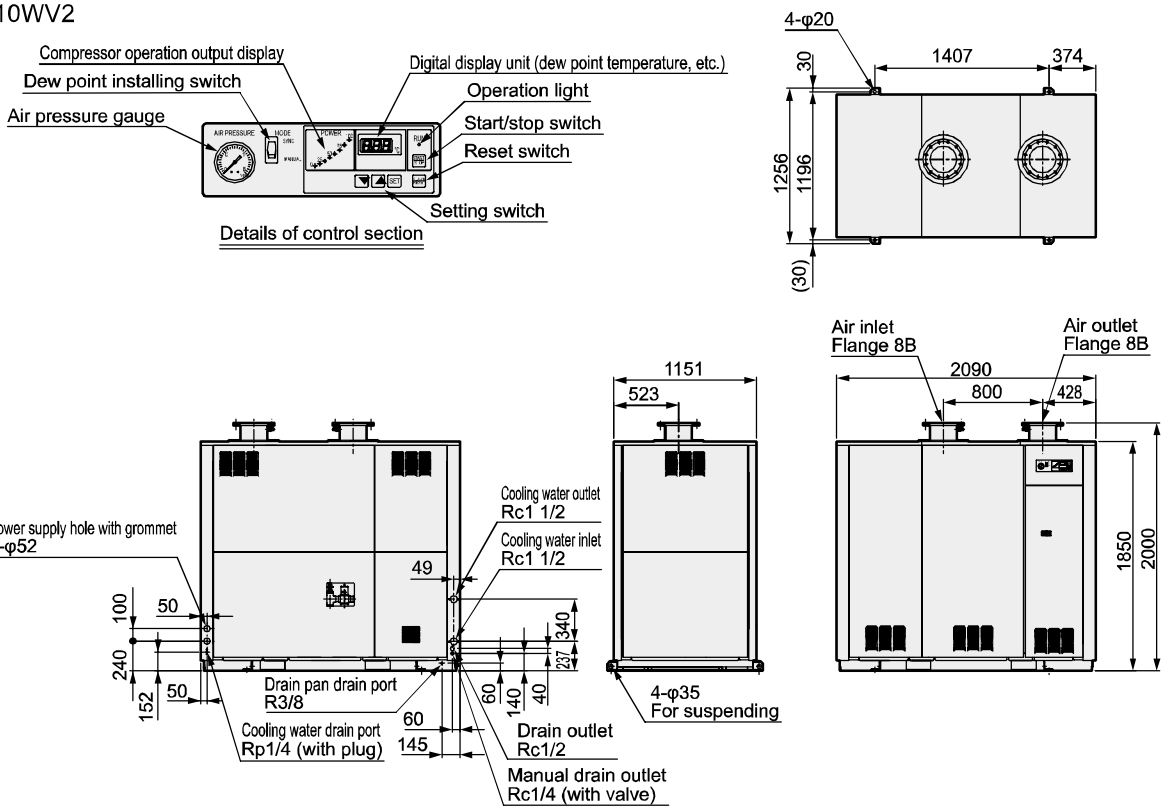
When determining the appropriate model from the standard processing air rate of each model No.
Standard processing air rate × (1) Temperature correction coefficient × (2) Inlet air pressure coefficient = Maximum processing air rate
*1: Select with conditions where the value of the product of each coefficient ((1)×(2)) does not exceed the upper limit coefficient of (3).

Conditions	Working conditions	Selecting conditions	Coefficient
Inlet air temperature	38 to 43°C	45°C	(1) 0.80
Pressure dew point	15°C	10°C	
Inlet air pressure	0.55 to 0.75 MPa	0.5 MPa	(2) 0.87
Frequency	50 Hz	50 Hz	50 Hz

Substitute the above conditions in the above formula and determine the quantity of handling air in cases when GT9710WV is used.
Product of each coefficient
(1) × (2) = 0.80 × 0.87 = 0.69
As the (3) upper limit coefficient of 1.04, when the inlet air pressure of the working conditions is 0.5 MPa, is not exceeded, the max. processing air rate will be 139.1 (standard processing air rate) × 0.69 = 95.9 m^3/min(ANR).
If the used air quantity is less than or equal to this value, select that model.

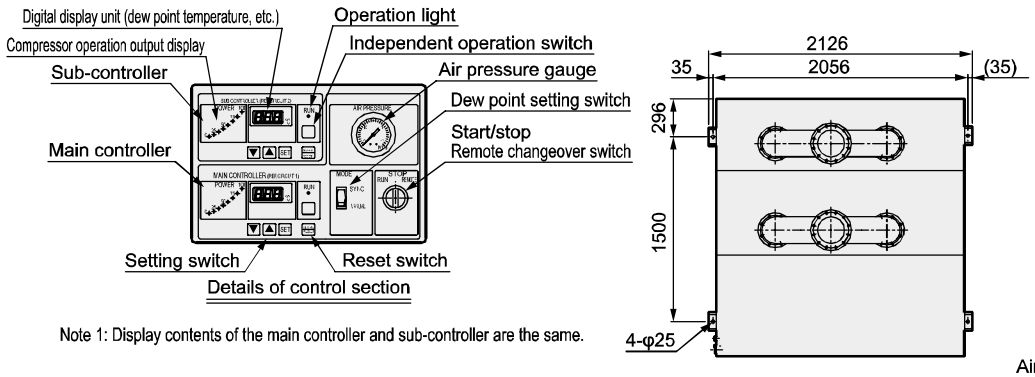
Dimensions

● GT9710WV2

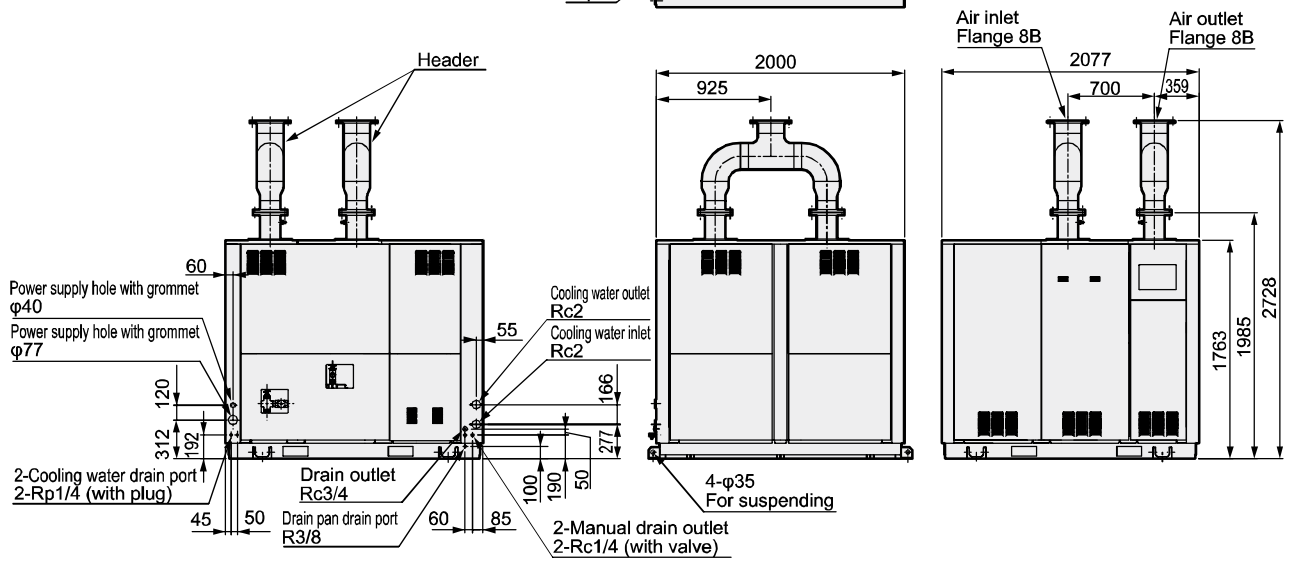


*1: The dew point display value is a guide, and is not the actual dew point.
To measure the actual dew point, measure the secondary side air with a dew point gauge.

● GT9960WV2



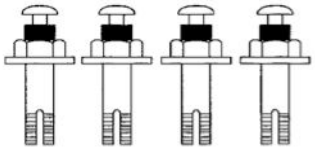
Note 1: Display contents of the main controller and sub-controller are the same.



*2: The bolts and nuts for installation of the header and gasket are attached products.
*3: The dew point display value is a guide, and is not the actual dew point.
To measure the actual dew point, measure the secondary side air with a dew point gauge.

Accessory (sold separately)

■Foundation bolt



Core rod implant foundation bolts: Set of 4, made of stainless steel

Compatible model		No. / Size	RD-QFL-436465 M16×L100	RD-QFL-436466 M20×L130
GT9075	GT9075W		○	
GT9090	GT9090W		○	
GT9120	GT9120W		○	
GT9150	GT9150W		○	
GT9190	GT9190W		○	
GT9240	GT9240W		○	
GT9300	GT9300W		○	
GT9380	GT9380W		○	
GT9450	GT9450W		○	
		GT9710WV2	○	
		GT9960WV2		○

■Companion flange

Set of insert welded flanges, hexagon head bolts, nuts, and gasket

Compatible model		No. / Size	RD-KFL-436467 Flange 2 1/2B	RD-KFL-436468 Flange 3B	RD-KFL-436469 Flange 4B	RD-KFL-436470 Flange 5B	RD-KFL-436471 Flange 6B	RD-KFL-436472 Flange 8B
GT9120	GT9120W		○					
GT9150	GT9150W			○				
GT9190	GT9190W			○				
GT9240	GT9240W				○			
GT9300	GT9300W					○		
GT9380	GT9380W					○		
GT9450	GT9450W						○	
		GT9710WV2						○
		GT9960WV2						○