Xeroaqua Dryer
GX3200D / GX5200D

■ Main Line Components / Refrigeration Air Dryer

CONTENTS

Refrigeration Air Dryer
Xeroaqua Dryer

GX Series

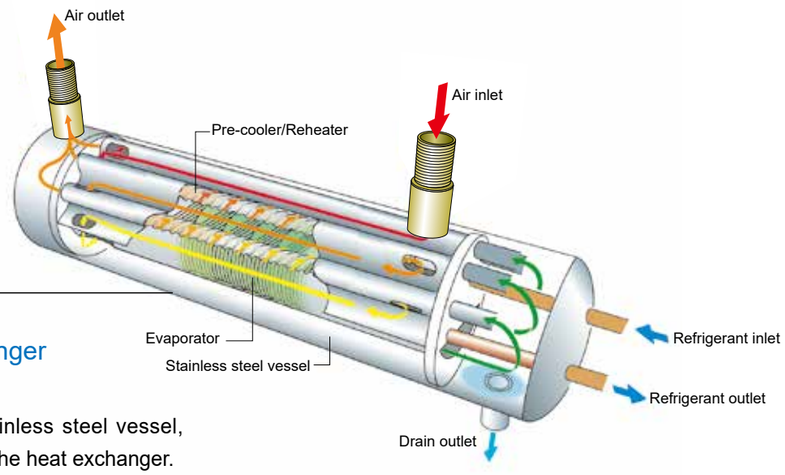
Standard inlet air **GX3200D Series / up to 55 kW**

High-temperature inlet air **GX5200D Series / up to 75 kW**

High reliability, energy saving, space saving.

The Xeroaqua dryer GX Series has been reinvented with even higher reliability and support for high-temperature environments, etc.

High quality and high reliability guaranteed



Stainless steel heat exchanger compatible with oil-free air

The heat exchanger uses a stainless steel vessel, preventing dust generation from the heat exchanger.

High weather resistance

The refrigerant pipes (copper pipes) within the heat exchanger are nickel plated for improved corrosion resistance.

Increased capacity for high-temperature environment support

Operable even at an ambient temperature of 45°C. (40°C for GX5255 and 5275)

Thin and Slim

Thin and compact body

Can be installed anywhere, whether in a line or mounted on equipment.

Width 180 mm (GX3203D)

Energy saving

Low air loss drain discharger adopted

No wasteful air loss, as the use of a float enables discharge every time drain is generated with the dryer.

Achieves low power consumption

Up to 15% energy savings in electricity (compared to our conventional GX3237D)

Environment-friendly refrigerant

Environment-friendly new refrigerants R-134a, R-410, and AR-407C adopted

Ozone safe.

Easy maintenance

GX3215D to 3255D,
GX5211D to 5237D

Inspection via control panel

Regular inspection can be performed by simply looking at the control panel. The refrigerant pressure gauge and operation lamp make operating status visible at a glance.

Easy error diagnostics

(GX3215D to 3255D, GX5211D to 5237D)
The causes of error-induced stoppages can be identified through the blinking pattern of the alarm lamp.

Dust filter installed as standard (excluding GX5275)

Reduces the hassle of condenser cleaning. Attachment and removal are extremely easy.

External drain discharger

Easily service the unit even while it is running.

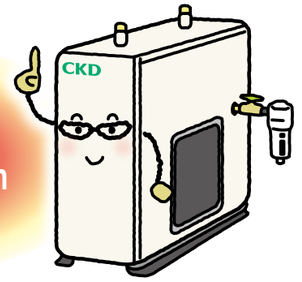
Centralized control possible

Remote control and operation/alarm signals (options) are also available.

Bypass piping set also available as an accessory (optional)

Ambient temperature Compatible up to 45°C

With error diagnostic function



GX5255D (55 kW)
GX5275D (75 kW)

Simple, reliable, space saving

Further increased reliability and ease of use. The Xeroaqua Dryer GX Series has been reborn in response to the changing needs of our customers.

Ambient temperature **48°C** Operable — High-temperature environments are supported

Installation area up to **30%** Reduced — Space saving is supported

Processing air rate up to **10%** More — Increased facility efficiency is supported

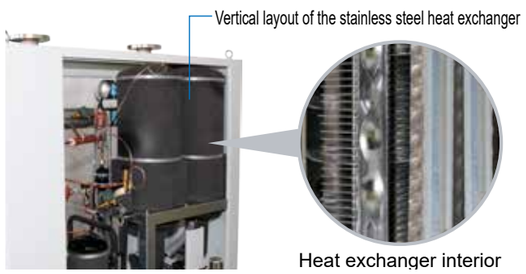
High quality, High reliability

Keeps working even at high temperatures

Operation won't stop even in hot summers. (Max. ambient temperature 48°C)

Heat exchanger with excellent climate resistance

The use of a stainless steel vessel prevents dust generation from the heat exchanger. The refrigerant pipes within the heat exchanger are nickel plated for improved corrosion resistance.



Easy maintenance

Inspection via control panel

Regular inspection can be performed by simply looking at the control panel. The refrigerant pressure gauge and operation lamp make operating status visible at a glance.

Easy error diagnostics

The causes of error-induced stoppages can be identified through the blinking pattern of the ALARM LED.

When ON	Refrigerant circuit pressure error
2 blinks	Refrigerant circuit temperature error
3 blinks	Current error

Dust filter installed as standard

Reduces the hassle of condenser cleaning. Attachment and removal are extremely easy.

Centralized control possible

Remote control, operating and alarm signal interface equipped as standard.

Space saving

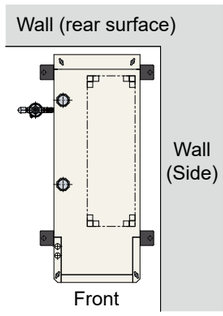
Space saving realized with top surface exhaust

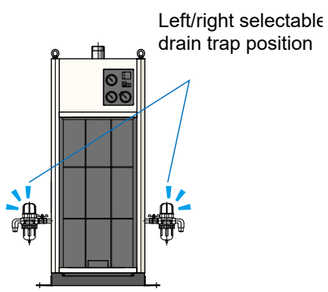
Top surface exhaust allows the unit to be mounted flush against a wall.

Flush-mounting and freely installable

Select drain trap left or right mounting: depending on the environment, installation is possible flush with the rear and either left or right walls.

*Right side mount of the drain trap is available as an option.





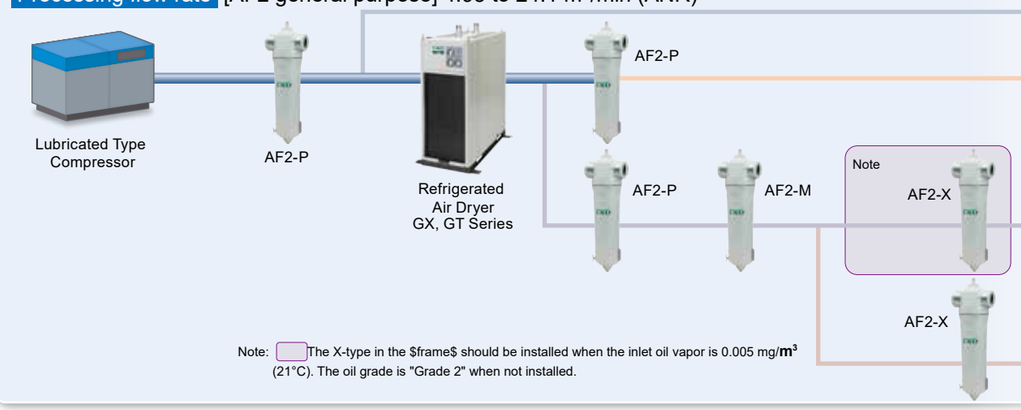
✱However, optional parts are required for right side leadout.

[Series variation]

		Applications	Rated conditions: Pressure dew point (°C)	Rated conditions: Inlet air pressure (MPa)	Rated conditions: Ambient temperature (°C)	Rated conditions: Inlet air temperature (°C)	Applicable air compressor (kW)
Standard inlet air	GX3200D	For installation	10	0.7	32	35 (GX3203D to GX3237D) 40 (GX3255D)	up to 2.2, 3.7, 5.5, 7.5, 11, 15, 22, 37, 55, 75
High-temperature inlet air	GX5200D	Air compressor directly connected	10	0.7	32	55	up to 2.2, 3.7, 5.5, 7.5, 11, 15, 22, 37, 55, 75

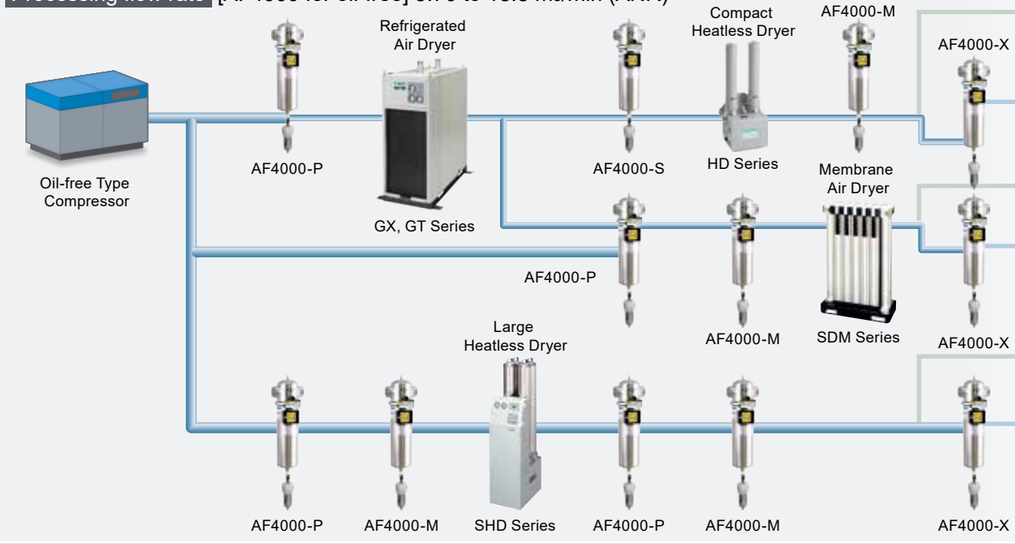
Example of system selection list

Processing flow rate [AF2 general purpose] 4.95 to 24.1 m³/min (ANR)



Note: ☐ The X-type in the $frame$ should be installed when the inlet oil vapor is 0.005 mg/**m³** (21°C). The oil grade is "Grade 2" when not installed.

Processing flow rate [AF4000 for oil-free] 3.70 to 18.8 m³/min (ANR)



Air Quality	Applications	Impurities in the Air: Individual particles	Impurities in the Air: Moisture	Impurities in the Air: Oil content	ISO 8573-1 compressed air purity grade
Dewatered Air Coarse dust removed air	Air for cleaning (dry air not required)	1 µm	–	–	2: -: -
General Dry Air	General Pneumatic Components General Pneumatic Tools Labor-Saving Components Pneumatic Jigs and Tools Air Chucks	1 µm	Pressure dew point 10°C	0.6 mg/m³	2.6.3
			Pressure dew point 7°C		2.5.3
Dry Air (oil-free)	Instrumentation Measurement Sequence control Painting	0.01 µm	Pressure dew point 10°C	0.01 mg/m³ (0.003 mg/m³)	1.6.1
			Pressure dew point 7°C		1.5.1
Dry air (odorless)	Food and Pharmaceutical Processes (Stirring, dry blowing, packaging, brewing, pressure-feeding, filling) Cosmetic Manufacturing Processes *If the product directly contacts the workpiece, it is recommended to install a bacteria-removing filter.	0.01 µm	Pressure dew point 10°C	0.003 mg/m³	1.6.1
			Pressure dew point 7°C		1.5.1
Ultra dry air (oil-free)	Ozone generator Powder transfer Drying furnace gas Drying the insulation gas of a high-voltage generator Drying computer rooms Centralized control instrumentation Liquid crystal panel manufacturing Chemical plants Painting	0.01 µm	Pressure dew point -20°C	0.01 mg/m³	1.3.1
			Pressure dew point -40°C		1.2.1
			Pressure dew point -60°C		1.2.1
Ultra-Dry Air (odorless)	Food and Pharmaceutical Processes (Stirring, dry blowing, packaging, brewing, pressure-feeding, filling) Cosmetic Manufacturing Processes *If the product directly contacts the workpiece, it is recommended to install a bacteria-removing filter.	0.01 µm	Pressure dew point -20°C	0.003 mg/m³	1.3.1
			Pressure dew point -40°C		1.2.1
			Pressure dew point -60°C		1.2.1

*1. The system No. is based on the class below. X not found in the table indicates odor removal; and "–" indicates no specification.

●For installation (GX3200D Series)

Air Compressor: Output kW	Air Compressor: Reference processing air rate m³/min (ANR)	Refrigeration Air Dryers	Main Line Filters P-type (1 µm)	Main Line Filters M-type (0.01 µm)	Main Line Filters X-type (deodorizing)
Up to 2.2	0.30/0.35	GX3203D-AC100/200V	F3000-10-W-F1	M3000-10-W-F1	M3000-10-W-X
3.7	0.44/0.50	GX3206D-AC100/200V	F4000-15-W-F1	M4000-15-W-F1	M4000-15-W-X
5.5	0.64/0.72		F4000-15-W-F1	M4000-15-W-F1	M4000-15-W-X
7.5	0.94/1.13	GX3208D-AC100/200V	F6000-20-W-F1	M6000-20-W-F1	M6000-20-W-X
11	1.65/1.82	GX3211D-AC100/200V	F8000-20-W-F1	M8000-20-W-F1	M8000-20-W-X
15	2.40/2.80	GX3215D-AC200V	AF2-05P25A	AF2-05M25A	AF2-05X25A
22	3.70/4.20	GX3222D-AC200V	AF2-08P32A	AF2-08M32A	AF2-08X32A
37	5.70/6.10	GX3237D-AC200V	AF2-08P32A	AF2-08M32A	AF2-08X32A
55	8.40/9.80	GX3255D-AC200V	AF2-13P50A	AF2-13M50A	AF2-13X50A

●For direct compressor connection (GX5200D Series)

Air Compressor: Output kW	Air Compressor: Reference processing air rate m³/min (ANR)	Refrigeration Air Dryers	Main Line Filters P-type (1 µm)	Main Line Filters M-type (0.01 µm)	Main Line Filters X-type (deodorizing)
Up to 2.2	0.30/0.35	GX5203D-AC100/200V	F3000-10-W-F1	M3000-10-W-F1	M3000-10-W-X
3.7	0.44/0.50	GX5204D-AC100/200V	F4000-15-W-F1	M4000-15-W-F1	M4000-15-W-X
5.5	0.64/0.72	GX5206D-AC100/200V	F4000-15-W-F1	M4000-15-W-F1	M4000-15-W-X
7.5	1.22/1.32	GX5208D-AC200V	F8000-20-W-F1	M8000-20-W-F1	M8000-20-W-X
11	1.65/1.82	GX5211D-AC200V	F8000-25-W-F1	M8000-25-W-F1	M8000-25-W-X
15	2.10/2.40	GX5215D-AC200V	AF2-05P25A	AF2-05M25A	AF2-05X25A
22	3.70/4.20	GX5222D-AC200V	AF2-08P32A	AF2-08M32A	AF2-08X32A
37	5.70/6.10	GX5237D-AC200V	AF2-08P32A	AF2-08M32A	AF2-08X32A
55	8.60/9.90	GX5255D-AC200V	AF2-13P50A	AF2-13M-50A	AF2-13X50A
75	11.40/12.60	GX5275D-AC200V	AF2-13P50A	AF2-13M-50A	AF2-13X50A

*1: Use anti-rust treated materials for piping (zinc plated pipe, lined pipe, stainless steel pipe). If there is a high possibility that rust or flakes are generated in the pipe due to the piping material, install an air filter in front of the dryer.

ISO 8573-1:2010 Compressed air purity grade

Grade	Solid Particles: Max. number of particles per 1 m3 for particle diameter d (µm): 0.1 < d ≤ 0.5	0.5 < d ≤ 1.0	1.0 < d ≤ 5.0	Mass Concentration Cp mg/m³	Humidity and Water Content: Pressure dew point °C	Water Concentration Cw g/m³	Oil: Total Oil Concentration mg/m³
0	Conditions stricter than Grade 1, is to be specified by the 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

For example, "Grade 1: 2: 1" means:
●Solid particles of 0.1 to 0.5 µm are ≤20,000 particles; 0.5 to 1.0 µm are ≤400 particles; and 1.0 to 5.0 µm are ≤10 particles
●Pressure dew point −40°C or less
●Oil concentration 0.01mg/m³or less
This indicates the class.

Refrigeration Air Dryer Xeroaqua Air Cooling

GX3200D Series

Standard inlet air

Applicable air compressor: Up to 2.2, 3.7, 5.5, 7.5, 11, 15, 22, 37, 55 kW

Circuit Diagram Symbol

RoHS

Model No. Notation

GX32 | 03D | - | M | - | AC200V

- GX32: Model No.
- 03D: ❶Capacity Category
- M: ❷Option
- AC200V: ❸Voltage

*1: The instruction manual and nameplates are provided in Japanese and English.
*2: Contact CKD if a photo of the completed product is required.
*3: Contact CKD to designate the color of the body panel.

❶Capacity Category

Code	Description
03D	Up to 2.2 kW
06D	3.7, 5.5kW
08D	7.5 kW
11D	11 kW
15D	15 kW
22D	22 kW
37D	37 kW
55D	55 kW

❷Option

*1

Code	Description
Blank	Standard product
H2	Stainless steel nameplate
*2 H3	Simple export packaging
*3 M	Operation/fault signal output (Only compatible with GX3215D, 3222D, 3237D, 3255D)
*3 M3	Remote control and operation/fault signal output (Only compatible with GX3203D, 3206D, 3208D, 3211D)
N1	Copper tube rust proof coating

*1: Indicate options in alphabetical order.
*2: Option "H3" is packaged in plywoodis attached.
*3: Provision of remote control and operation/error signals are shown in the following table.

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

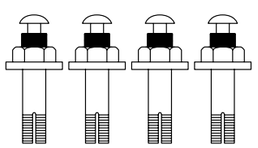
❸Voltage

Code	Description	
AC100V	100 VAC	Only compatible with GX3203D, GX3206D, GX3208D, GX3211D
AC200V	200 VAC	-

Optional accessory model No.

●Foundation bolt set

Part No.	Compatibility	Size	Material	Quantity
RD-QFL-436495	GX3203D, GX3206D GX3208D, GX3211D GX3215D, GX3222D GX3237D, GX3255D	M10×100	SUS	4



●Bypass piping set

Part No.	Compatibility
RD-AD3-311269	GX3203D
RD-AD3-311270	GX3206D
RD-AD3-311271	GX3208D
RD-AD3-311272	GX3211D
RD-AD3-219888	GX3215D, GX3222D
RD-AD3-219889	GX3237D
RD-AD3-249894	GX3255D

Note: Refer to P. 103 for details on dimensions..

Specifications

Item		GX3203D	GX3206D	GX3208D	GX3211D	GX3215D	GX3222D	GX3237D	GX3255D
Applicable air compressor kW		Up 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 to 50							
	Inlet air pressure MPa	0.15 to 1.0	0.1 to 1.0						
	Ambient temperature °C	2 to 45 (*2)				2 to 45			
Rating	Processing air rate m³/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 (Compressor intake condition) m³/min 50/60Hz (*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							40
	Inlet air pressure MPa	0.7							
	Ambient temperature °C	32							
Performance	Outlet air pressure dew point °C (*5)	10							
	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 VAC / 100, 110 VAC 50/60Hz Single-phase 200, 220 VAC / 200, 220 VAC 50/60Hz				Three-phase 200 VAC / 200, 220 VAC 50/60Hz			
Electrical Specifications (*7)	Power consumption (at 100, 110V) kW 50/60Hz	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, 220V) kW 50/60Hz	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, 110V) A 50/60Hz	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, 220V) A 50/60Hz	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 50/60Hz	7.1/7.9	11.1/12.1	16.4/17.3	26.5/24.8	-	-	-	-
	Starting current (at 200 V) A 50/60Hz	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		R1/2	R1/2	R3/4	R3/4	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: 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%.
*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 released heat are all reference values under the rated conditions, and are not guaranteed

For maintenance parts, refer to the CKD Components Product site
Refer to (https://www.ckd.co.jp/kiki/en/)→ "Model No." → Maintenance Parts

Selection Guide

As the max. processing air rate of each model is affected by the outlet air pressure dew point temperature, inlet air temperature, ambient temperature and inlet air pressure, compensation is required if it differs from the rated conditions in the usage section.

STEP 1 Confirm the working conditions and the rated values listed in the specifications.
Working Conditions: Required processing air rate, required outlet air pressure dew point temperature, inlet air temperature, ambient temperature, inlet air pressure

STEP 2 Confirm the compensation coefficient of the processing air rate according to the required outlet air pressure dew point temperature.

(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

STEP 3 Check the compensation coefficient of the processing air rate by the inlet air temperature.

(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

STEP 4 Check the compensation coefficient of the processing air rate by the ambient temperature.

(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

STEP 5 Check the compensation coefficient for processing air rate by inlet air pressure.

(4) Inlet air pressure coefficient

Inlet air pressure	Coefficient
0.1 MPa *1	0.50
0.2 MPa	0.65
0.3MPa	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

*1: GX3203D is 0.15 MPa.

STEP 6 Confirming upper limit coefficient
It is checked whether the value of the product of each coefficient ((1)×(2)×(3)×(4)) exceeds the upper limit coefficient . If not, find the max. processing air rate by the product of each coefficient ((1)×(2)×(3)×(4)). When this value is exceeded, find the maximum processing air rate by using the upper limit coefficient (5).

(5) Ceiling 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
0.3MPa	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.

STEP 7 Find the maximum processing air rate from each model rated processing air rate. Max. air processing rate = Rated processing air rate × compensation coefficient determined by STEP 6. Select the model so that the required processing air rate is less than the maximum processing air rate.

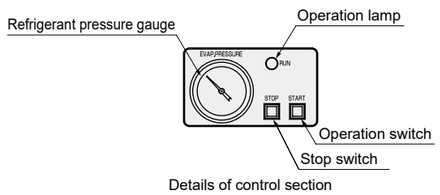
Example of calculation

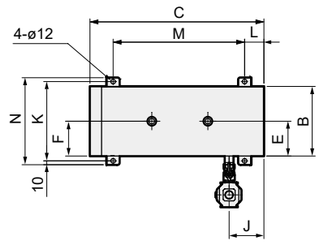
Conditions	Working Conditions	Selecting Conditions	Coefficient
Pressure dew point	Below 17°C	15°C	(1) 1.15
Inlet air temperature	20 to 23°C	25°C	(2) 1.25
Ambient temperature	20 to 23°C	25°C	(3) 1.08
Inlet air pressure	0.35 to 0.45 MPa	0.3MPa	(4) 0.75
Frequency	50Hz	50Hz	50Hz

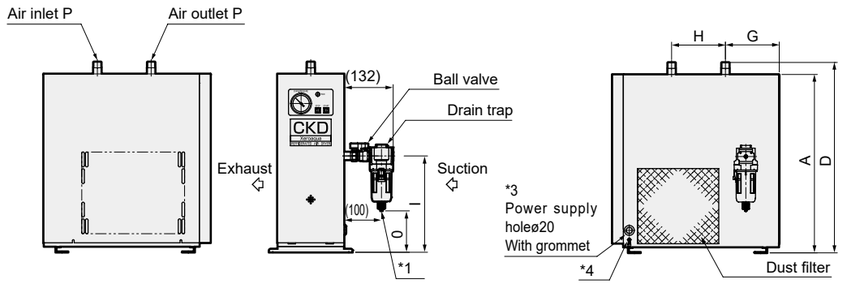
Substitute the above conditions into the equation above to obtain the max. processing air rate when using the GX3215D.
Product of each coefficient ((1)×(2)×(3)×(4)) = 1.15×1.25×1.08×0.75 = 1.16
The (5) ceiling coefficient of 0.97 at the inlet air pressure 0.3 MPa (use conditions) is exceeded.
Therefore, the max. processing air rate used is 2.40 (rated processing air rate) × 0.97 = 2.32 using the ceiling coefficient 0.97 m³/min (ANR). If the required processing flow rate is less than or equal to this value, select that model.

Dimensions

●GX3203D, GX3206D, GX3208D





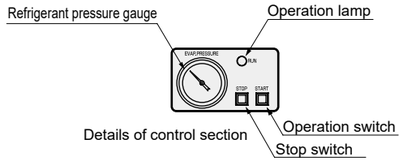


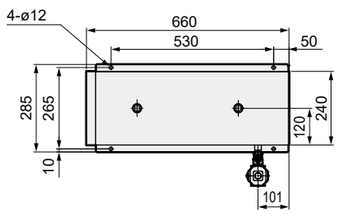
*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.
*3: A power supply cable (approx. 1.8 m) with plug is included with the 100 VAC.
*4: A grounding terminal (TMEV2-4) is attached to the panel with the 100 VAC.

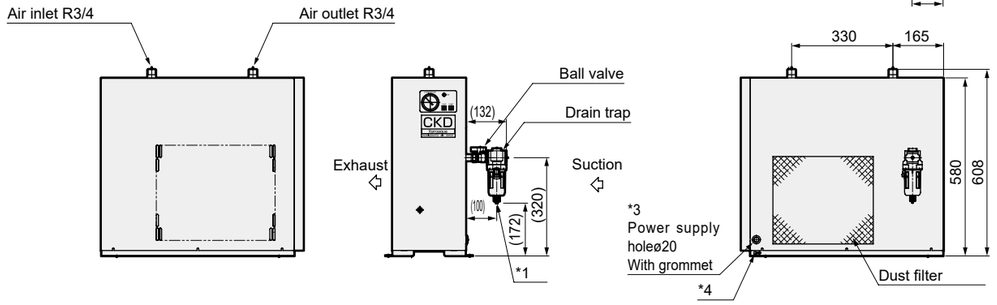
Model No.	A	B	C	D	E	F	G	H	I	J	K	L	M
GX3203D	480	180	450	513	90	90	145	145	(260)	90	205	50	340
GX3206D	510	180	540	542	113	83	120	300	(274)	96	205	60	420
GX3208D	510	240	600	537	140	140	138	335	(280)	78	265	60	480

Model No.	N	O	P
GX3203D	225	(112)	R1/2
GX3206D	225	(126)	R1/2
GX3208D	285	(132)	R3/4

●GX3211D



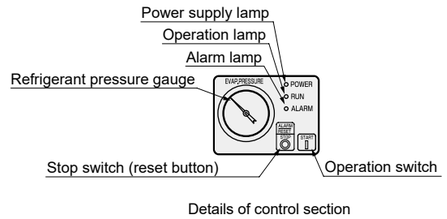


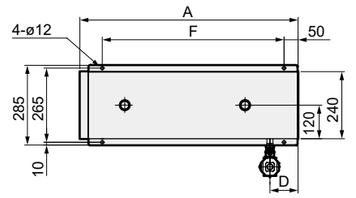


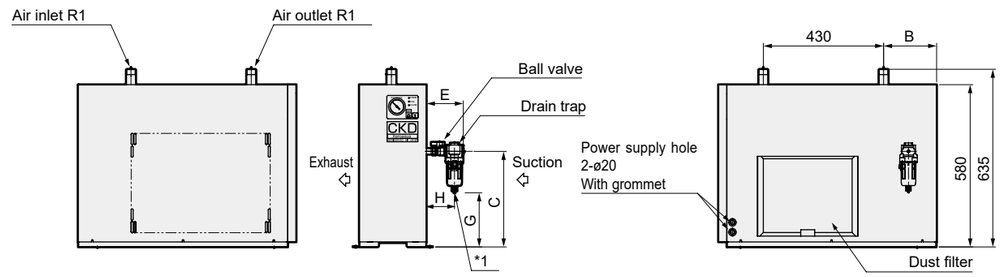
*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.
*3: A power supply cable (approx. 1.8 m) with plug is included with the 100 VAC.
*4: A grounding terminal (TMEV2-4) is attached to the panel with the 100 VAC.

Dimensions

●GX3215D, GX3222D



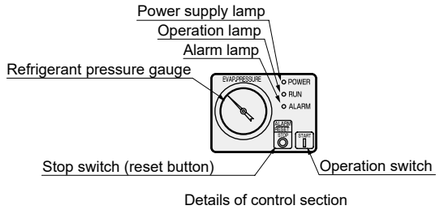


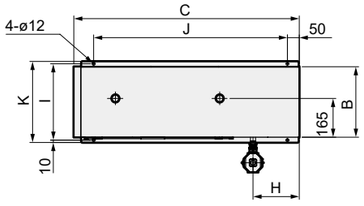


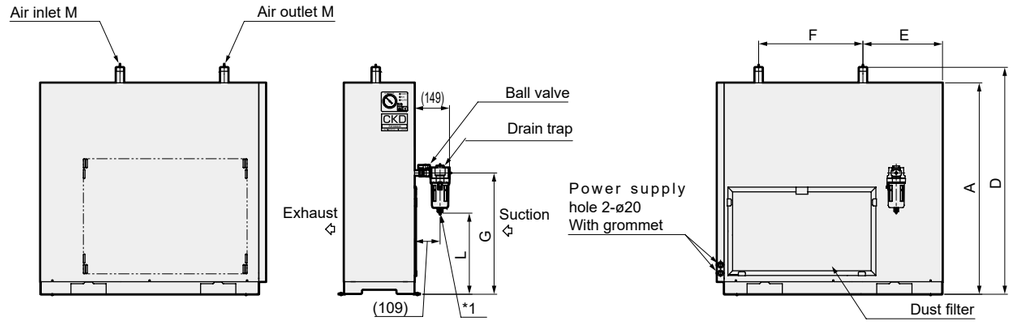
*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.

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







*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.

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 Air Cooling

GX5200D Series

High-temperature inlet air

Applicable air compressor: Up to 2.2, 3.7, 5.5, 7.5, 11, 15, 22, 37, 55, 75 kW

Circuit Diagram Symbol

RoHS

Model No. Notation

GX52 | 03D | - | M | - | AC200V

Model No. | ❶Capacity Category | ❷Option | ❸Voltage

*1: The instruction manual and nameplates are provided in Japanese and English.
*2: Contact CKD if a photo of the completed product is required.
*3: Contact CKD to designate the color of the body panel.

❶Capacity Category

Code	Description
03D	Up 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
55D	55 kW
75D	75 kW

❷Option *1

Code	Description
Blank	Standard product
G	Supports different voltages (GX5255D, GX5275D only)
H2	Stainless steel nameplate
H3	Simple export packaging
M	Operation/fault signal output (only compatible with GX5211D, 5215D, 5222D, 5237D)
M3	Remote control and operation/fault signal output (only compatible with GX5203D, 5204D, 5206D, 5208D)
N1	Copper tube rust proof coating
Q1	Drain piping right (GX5255D, GX5275D only)

*2
*3
*3

*1: Indicate options in alphabetical order.
*2: Option "H3" is packaged in plywood.
*3: Provision of remote control and operation/error signals are shown in the following table.

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
GX5255D		Standard Equipment
GX5275D		

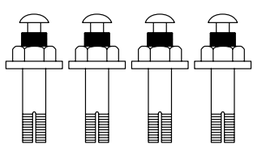
❸Voltage

Code	Description	
AC100V	100 VAC	Only compatible with GX5203D, GX5204D, GX5206D
AC200V	200 VAC	—
AC220V	220 VAC (standard only for 60Hz)	Only GX5255D, GX5275D supported
AC230V	230 VAC	
AC240V	240 VAC	
AC380V	380 VAC	
AC400V	400 VAC	
AC415V	415 VAC	
AC440V	440 VAC	
AC480V	480 VAC	

Optional accessory model No.

●Foundation bolt set

Part No.	Compatibility	Size	Material	Quantity
RD-QFL-436495	GX5203D, GX5204D GX5206D, GX5208D GX5211D, GX5215D GX5222D, GX5237D	M10 x 100	SUS	4
RD-QFL-436465	GX5255D, GX5275D	M16 x 100	SUS	4



●Bypass piping set

Part No.	Compatibility
RD-AD3-311270	GX5203D
RD-AD3-311271	GX5204D
RD-AD3-219888	GX5211D, GX5215D
RD-AD3-311273	GX5206D
RD-AD3-311274	GX5208D
RD-AD3-219890	GX5222D
RD-AD3-219891	GX5237D
RD-AD3-249896	GX5255D, GX5275D

Note: For details on DimensionsPage 103.

Specifications

Item		GX5203D	GX5204D	GX5206D	GX5208D	GX5211D	GX5215D	GX5222D	GX5237D	GX5255D	GX5275D
Applicable air compressor kW		Up 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 to 80									
	Inlet air pressure MPa	0.15 to 1.0	0.1 to 1.0								0.29 to 0.98
	Ambient temperature °C	2 to 45 (*2)				2 to 45				2 to 48	2 to 48
Rating	Processing air rate m³/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	8.60/9.90	11.4/12.6
	Processing air rate(Compressor intake condition) m³/min 50/60Hz (*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	9.10/10.5	12.1/13.4
	Inlet air temperature °C	55									
	Inlet air pressure MPa	0.7									
	Ambient temperature °C	32									
Performance	Outlet air pressure dew point °C (*5)	10									
	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	0.008/0.011	0.005/0.006
Power Supply		Single-phase 100 VAC / 100, 110 VAC 50/60Hz Single-phase 200, 220 VAC / 200, 220 VAC 50/60Hz			Single phase 200, 220 VAC/ 200, 220 VAC 50/60Hz	Three-phase 200 VAC / 200, 220 VAC 50/60Hz					
Electrical Specifications (*7)	Power consumption (at 100, 110V) kW 50/60Hz	0.26/0.27,0.30	0.32/0.34,0.41	0.34/0.37,0.40	-	-	-	-	-	-	-
	Power consumption (at 200, 220V) kW 50/60Hz	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	2.50/ 3.00, 3.00	3.00/ 3.90, 3.90
	Current consumption (at 100, 110V) A 50/60Hz	3.2/2.8, 2.8	3.9/3.4, 3.7	4.3/3.8, 3.8	-	-	-	-	-	-	-
	Current consumption (at 200, 220V) A 50/60Hz	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	9.5/9.5, 9.4	10.7/11.7, 11.5
	Starting current (at 100 V) A 50/60Hz	11.1/12.1	16.4/17.3	16.4/17.3	-	-	-	-	-	-	-
	Starting current (at 200 V) A 50/60Hz	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	110/100	110/115
Refrigerant		R-134a			R-410A						
Air inlet and outlet port size		R1/2	R3/4	R3/4	R3/4	R1	R1	R1	R1-1/2	R2	R2
Weight kg		21	26	31	37	39	42	68	84	139	190
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	10.3/11.9	13.2/14.9

*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: 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%.
*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 released heat are all reference values under the rated conditions, and are not guaranteed

For maintenance parts, refer to the CKD Components Product site
Refer to (https://www.ckd.co.jp/kiki/en/)→ "Model No." → Maintenance Parts

Selection Guide (GX5203D to GX5237D)

As the max. processing air rate of each model is affected by the outlet air pressure dew point temperature, inlet air temperature, ambient temperature and inlet air pressure, compensation is required if it differs from the rated conditions in the usage section.

STEP 1 Confirm the working conditions and the rated values listed in the specifications.
Working Conditions: Required processing air rate, required outlet air pressure dew point temperature, inlet air temperature, ambient temperature, inlet air pressure

STEP 2 Confirm the compensation coefficient of the processing air rate according to the required outlet air pressure dew point temperature.

(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

STEP 3 Check the compensation coefficient of the processing air rate by the inlet air temperature.

(2) Inlet air temperature coefficient

Inlet air temperature	Coefficient	
	GX5203D GX5204D GX5206D	GX5208D GX5211D GX5215D GX5222D GX5237D
40°C	1.12	1.30
45°C	1.08	1.20
50°C	1.04	1.10
55°C	1.00	1.00
60°C	0.84	0.84
65°C	0.72	0.72
70°C	0.60	0.60
75°C	0.45	0.45
80°C	0.30	0.30

STEP 4 Check the compensation coefficient of the processing air rate by the ambient temperature.

(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

STEP 5 Check the compensation coefficient for processing air rate by inlet air pressure.

(4) Inlet air pressure coefficient

Inlet pressure	Coefficient
0.1 MPa *1	0.50
0.2 MPa	0.65
0.3MPa	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

STEP 6 Confirming upper limit coefficient
It is checked whether the value of the product of each coefficient ((1)×(2)×(3)×(4)) exceeds the upper limit coefficient.
If not, find the max. processing air rate by the product of each coefficient ((1)×(2)×(3)×(4)).
When this value is exceeded, find the maximum processing air rate by using the upper limit coefficient (5).

(5) Ceiling coefficient

Use conditions (inlet air pressure)	Coefficient
0.1 MPa *1	0.65
0.2 MPa	0.84
0.3MPa	0.97
0.4 MPa	1.07
0.5 MPa	1.15
0.6 MPa	1.22
0.7 MPa	1.30
0.8 MPa	1.31
0.9 MPa	1.32
1.0 MPa	1.33

*1: GX5203D is 0.15 MPa.

STEP 7 Find the maximum processing air rate from each model rated processing air rate.
Max. air processing rate = compensation coefficient determined by rated processing air rate × STEP 6
Select the model so that the required processing air rate is less than the maximum processing air rate.

Example of calculation

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	0.90
Inlet air pressure	0.55 to 0.75 MPa	0.5 MPa	(4) 0.89
Frequency	50Hz	50Hz	50Hz

Substitute the above conditions into the equation above to obtain the processing air rate when using the GX5208D.
Product of each coefficient (1) × (2) × (3) × (4) = 0.58 × 0.72 × 0.90 × 0.89 = 0.33
As the (5) ceiling coefficient of 1.15 is not exceeded when the inlet air pressure of the working conditions is 0.5MPa, the max. processing air rate will be 1.22 (reference processing air rate) × 0.33 = 0.40 **m³**/min (ANR). If the used flow rate is less than or equal to this value, select that model.

Selection guide (GX5255D, GX5275D)

As the max. processing air rate of each model is affected by the outlet air pressure dew point temperature, inlet air temperature, ambient temperature and inlet air pressure, compensation is required if it differs from the rated conditions in the usage section.

STEP 1 Confirm the working conditions and the rated values listed in the specifications. Working conditions: Required processing air rate, required outlet air pressure dew point temperature, inlet air temperature, ambient temperature, inlet air pressure

STEP 2 Check the correction coefficient for the processing air rate according to the required outlet air pressure dew point temperature, inlet air temperature, and ambient temperature.

(1) Temperature Compensation Coefficient

Inlet air temperature (°C)		45				55				60			
Pressure dew point (°C)		5	7	10	15	5	7	10	15	5	7	10	15
Ambient temperature (°C)	25	0.93	1.04	1.15	1.15	0.89	1.01	1.15	1.15	0.85	0.91	1.01	1.09
	30	0.76	0.94	1.15	1.15	0.73	0.86	1.06	1.15	0.71	0.78	0.89	1.06
	32	0.75	0.93	1.15	1.15	0.68	0.81	1.00	1.15	0.65	0.73	0.84	1.05
	35	0.66	0.83	1.08	1.15	0.60	0.72	0.90	1.09	0.58	0.65	0.76	0.97
	40	0.51	0.65	0.86	1.00	0.51	0.59	0.72	0.89	0.47	0.52	0.60	0.75
	45	0.28	0.47	0.76	0.90	0.27	0.41	0.63	0.75	0.20	0.33	0.53	0.70
	48	0.23	0.40	0.65	0.72	0.21	0.34	0.54	0.68	0.15	0.27	0.45	0.63

Inlet air temperature (°C)		65				70				75				80			
Pressure dew point (°C)		5	7	10	15	5	7	10	15	5	7	10	15	5	7	10	15
Ambient temperature (°C)	25	0.80	0.82	0.86	0.89	0.77	0.80	0.84	0.90	0.74	0.75	0.76	0.83	0.70	0.69	0.67	0.76
	30	0.68	0.71	0.76	0.87	0.64	0.65	0.67	0.87	0.60	0.58	0.56	0.80	0.53	0.50	0.45	0.72
	32	0.62	0.66	0.72	0.86	0.59	0.60	0.61	0.84	0.55	0.53	0.49	0.76	0.47	0.43	0.37	0.68
	35	0.55	0.59	0.65	0.80	0.52	0.53	0.55	0.75	0.49	0.47	0.44	0.65	0.36	0.35	0.33	0.55
	40	0.43	0.47	0.52	0.61	0.41	0.42	0.44	0.55	0.39	0.37	0.35	0.46	0.33	0.31	0.27	0.36
	45	0.14	0.26	0.45	0.58	0.13	0.23	0.38	0.52	0.09	0.17	0.30	0.44	0.06	0.13	0.23	0.34
	48	0.08	0.20	0.39	0.52	0.06	0.17	0.33	0.51	0.03	0.12	0.26	0.43	0.01	0.09	0.20	0.33

STEP 3 Check the compensation coefficient for processing air rate by inlet air pressure.

(2) Inlet air pressure coefficient

GX5255D

Inlet air pressure (MPa)	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Coefficient	0.60	0.67	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.20

GX5275D

Inlet air pressure (MPa)	0.29	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.98
Coefficient	0.72	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.20

STEP 4 Confirming upper limit coefficient
It is checked whether the value of the product of each coefficient ((1)×(2)) exceeds the upper limit coefficient .
If not, find the max. processing air rate by the product of each coefficient ((1)×(2)). When this value is exceeded, find the maximum processing air rate by using the upper limit coefficient .

(3) Ceiling coefficient

Working conditions (inlet air pressure (MPa))	0.10	0.20	0.29	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.98	1.00
Coefficient	0.69	0.77	0.82	0.83	0.92	1.00	1.06	1.15	1.23	1.29	1.38	1.38

STEP 5 Find the maximum processing air rate from each model rated processing air rate.
Max. air processing rate = Rated processing air rate × Compensation coefficient determined by STEP 4
Select the model so that the required processing air rate is less than the maximum processing air rate.

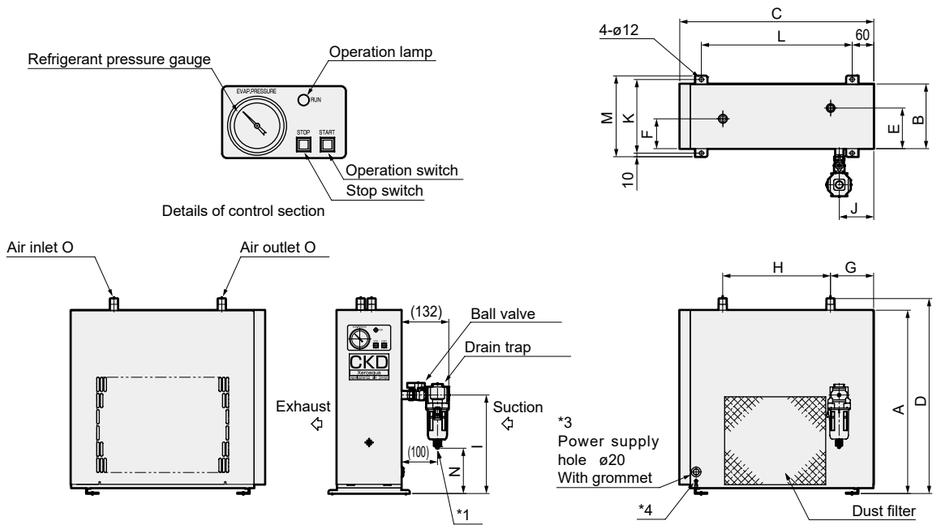
Example of calculation

Conditions	Working Conditions	Selecting Conditions	Coefficient
Inlet air temperature	55 to 63 °C	65°C	(1) 0.55
Pressure dew point	Below 7°C	5°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	50Hz	50Hz	50Hz

Substitute the above conditions into the equation above to obtain the processing air rate when using the GX5255D.
Product of each coefficient
(1) × (2) = 0.55 × 0.87 = 0.47
As the (3) ceiling coefficient of 1.00 is not exceeded when the inlet air pressure of the working conditions is 0.5 MPa, the max. processing air rate will be 8.6 (reference processing air rate) × 0.47 = 4.0**m³**/minis (ANR). If the used air quantity is less than or equal to this value, select that model.

Dimensions

●GX5203D, GX5204D, GX5206D

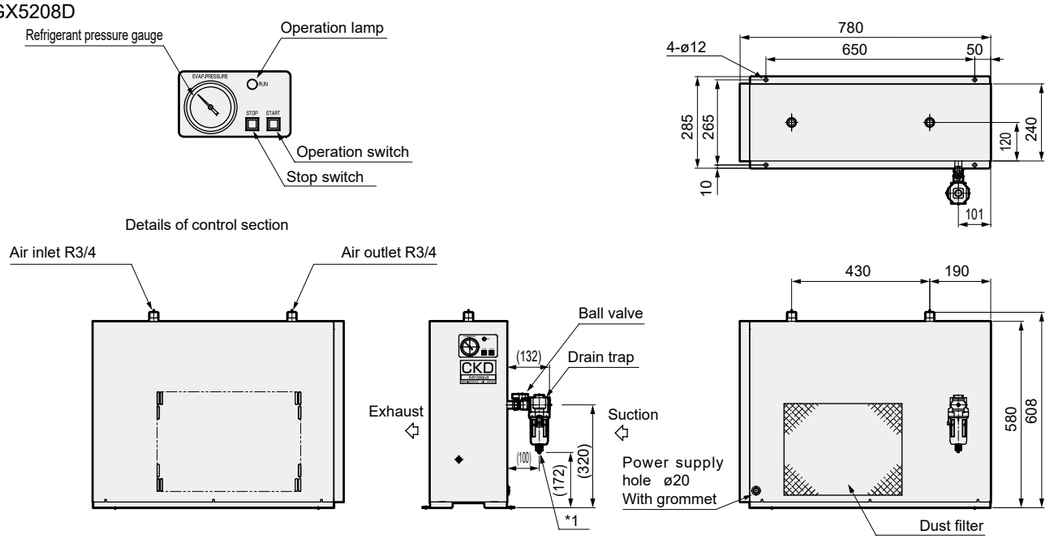


*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.
*3: A power supply cable (approx. 1.8 m) with plug is included with the 100 VAC.
*4: A grounding terminal (TMEV2-4) is attached to the panel with the 100 VAC.

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)	R1/2
GX5204D	(132)	R3/4
GX5206D	(222)	R3/4

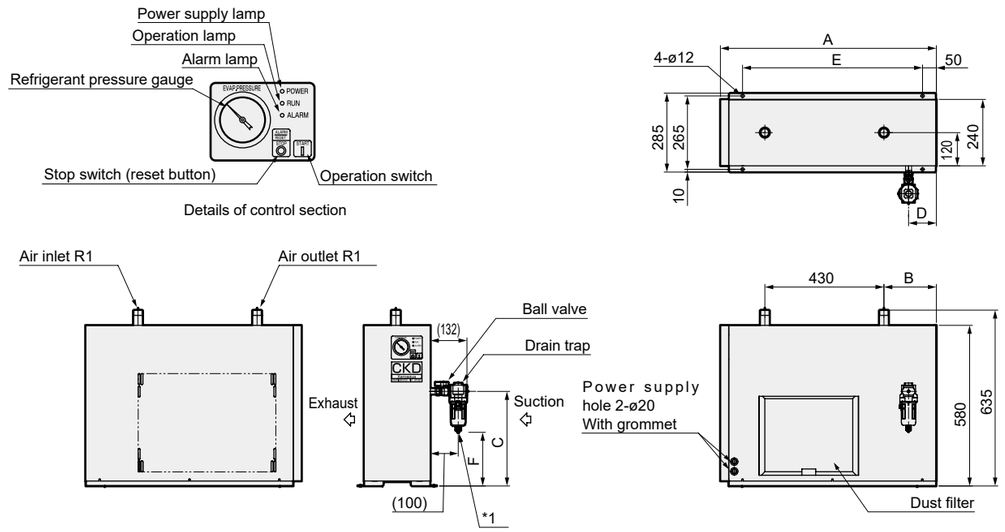
●GX5208D



*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.

Dimensions

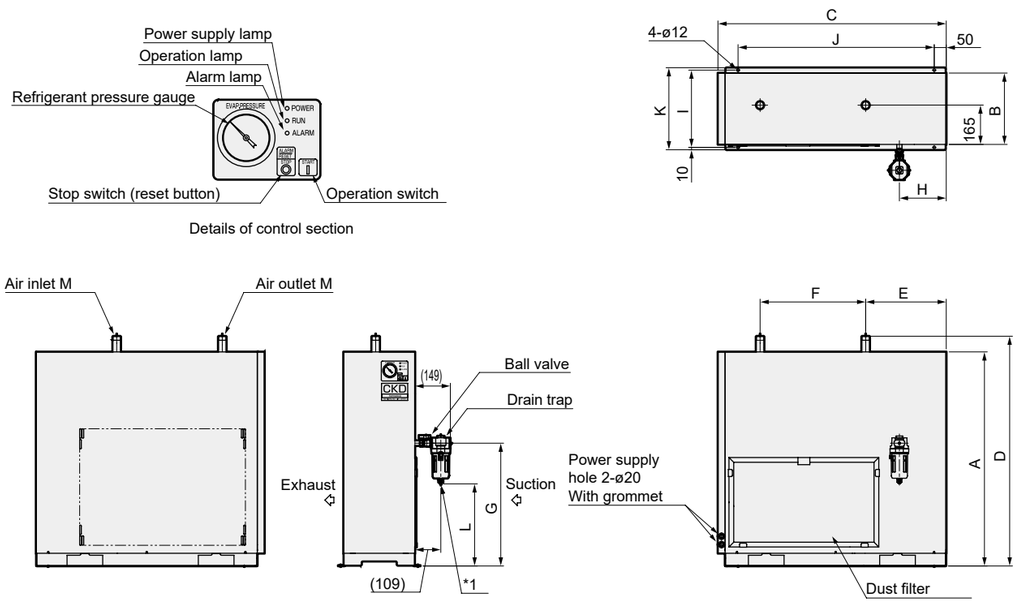
●GX5211D, GX5215D



*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.

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

●GX5222D, GX5237D

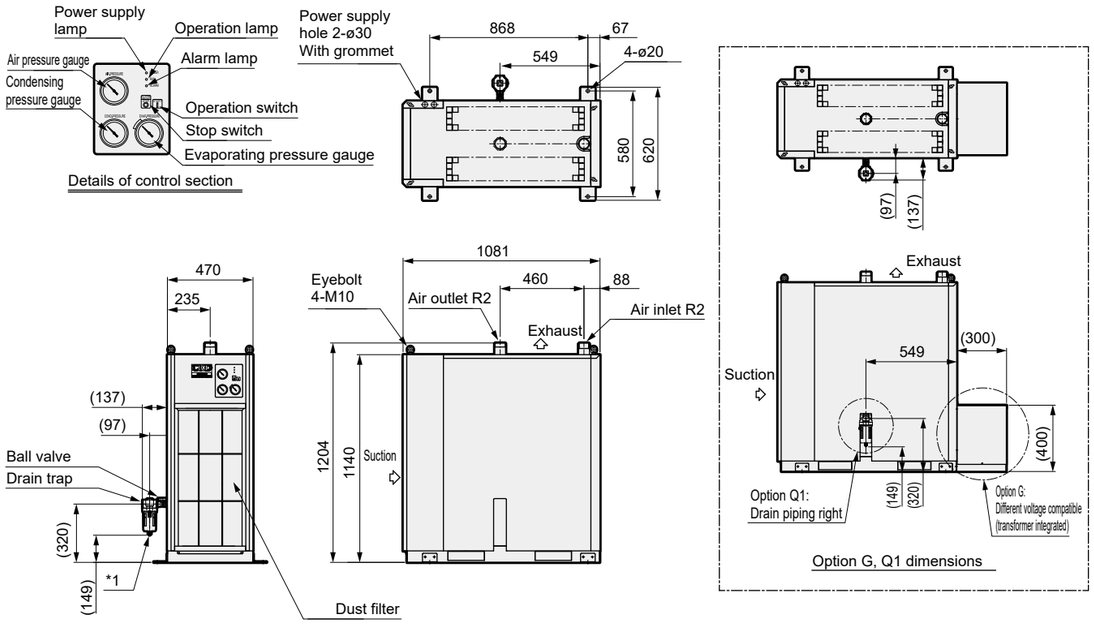


*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.

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

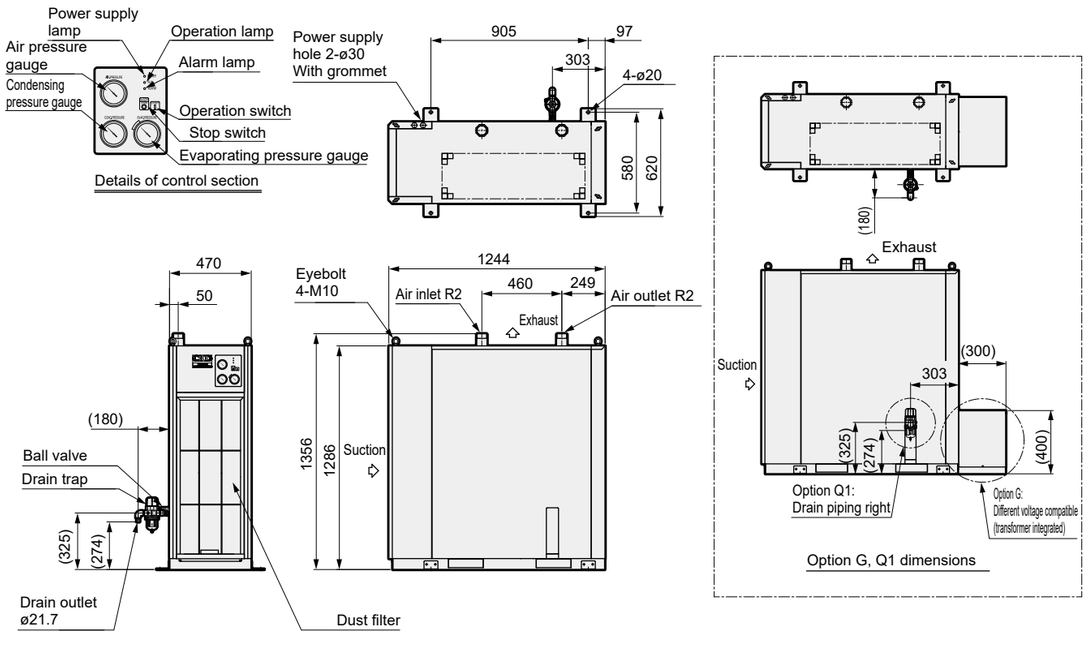
Dimensions

●GX5255D



*1: Insert a nylon tube with an inner diameter of ø5.7 to ø6.0 directly into the drain cock.
*2: The drain trap and ball valve are attachments.

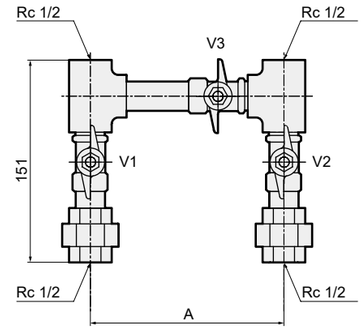
●GX5275D



*1: The drain trap and ball valve are attachments.

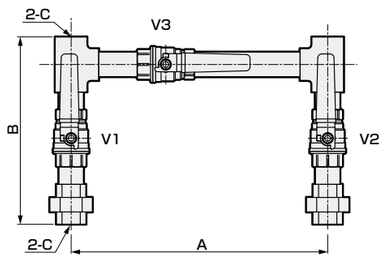
Accessory (optional)

Bypass piping set (optional)



Part No.	Compatibility	A
RD-AD3-311269	GX3203D	145
RD-AD3-311270	GX3206D, GX5203D	300

V1, V2, V3 • • • • • • Ball valve
V1, V2: Normally Open
V3: Normally Closed



Part No.	Compatibility	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-AD3-249896	GX5255D, GX5275D	460	343	Rc2

V1, V2, V3 • • • • • • Ball valve
V1, V2: Normally Open
V3: Normally Closed

Safety Precautions

Be sure to read this section before use.
For general precautions for pneumatic equipment, refer to Intro 15.

Product-specific cautions: Refrigeration air dryer GX Series

Manufacturer's Disclaimer

WARNING

■The manufacturer cannot be held liable in the following cases:
- In the case where there are serious errors in the operator's use.
- Illegal modifications or repairs using non-standard parts by 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.
Doing so may result in serious injury.

CAUTION

■Do not mount and use this device on transportation equipment such as vehicles or ships. Vibration may cause internal damage.
■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.
■Refrigeration air dryers use copper pipes (phosphorus deoxidized copper pipes) for the refrigerant gas pipes and pipes within the heat exchanger. When corrosion causes a hole in these copper pipes, the refrigerant gas will leak and make it impossible to operate the unit, or cause failure such as water leaking from the compressed air outlet side of the air dryer. In addition, copper is also used as conductive materials for the electrical wiring, etc. Corrosion thereof may cause breakdowns such as electrical leakage accidents. In particular, copper piping in heat exchangers is subject to repeated condensation and drying, and if corrosive components are present, they are likely to be concentrated on the copper piping surface and accelerate corrosion. Therefore, sufficient attention should be paid not only to the installation environment of air dryers but also to the intake air from air compressors. Failures caused by corrosion are not covered by the warranty. Plant exhaust may contain NOx (nitrogen oxides), SOx (sulfur oxides), Co_2 (carbon dioxide), and other substances that may promote corrosion, and consideration must be given to the installation location of air dryers and air compressors to ensure that they are not affected by factory exhaust. In rare cases, if chlorine-based organic solvents (trichloroethylene, etc.), aldehyde or alcohol (formaldehyde generated from building materials or methanol in the chemicals used) are absorbed by the air dryer and hydrolyzed, the copper piping could corrode (like an ant nest). Caution is required in these cases.

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.

Maintenance Space

CAUTION

■Make sure that the space is well ventilated, and secure enough space for maintenance and inspection.
- Series: GX3203D to 3255D, GX5203D to 5237D
  All 4 sides: 600 mm or more
- Applicable models: GX5255D, 5275D
  Front: 1000 mm or more, either left or right side: 600 mm or more

Other

WARNING

■This product uses Freon (HFC) and falls under the Freon Gas Emissions Act (April 1, 2015) as a Class 1 Specified components (commercial refrigeration air conditioning product). Management responsibility is imposed and penalties apply for violations. Be sure to collect the Freon gas when repairing or disposing of the product, and perform a simple inspection at least once every three months. Contact CKD for inspection and Freon gas collection.

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.

For precautions during mounting, installation, adjustment, use and maintenance, refer to the CKD Components Product Site (https://www.ckd.co.jp/kiki/en/) → "Model No. → Instruction Manual