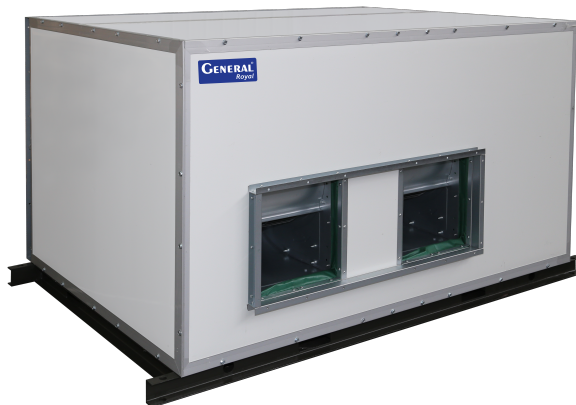


Air Handling Unit (Horizontal)

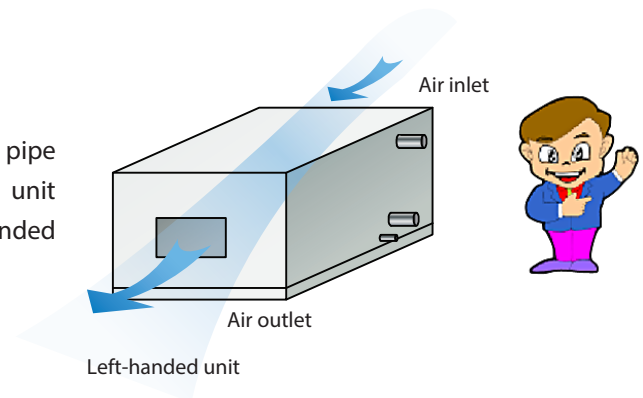


- ◆ Low air leakage rate
- ◆ High strength, high reliability
- ◆ Outstanding cold-bridge-free structure
- ◆ High performance heat exchanger

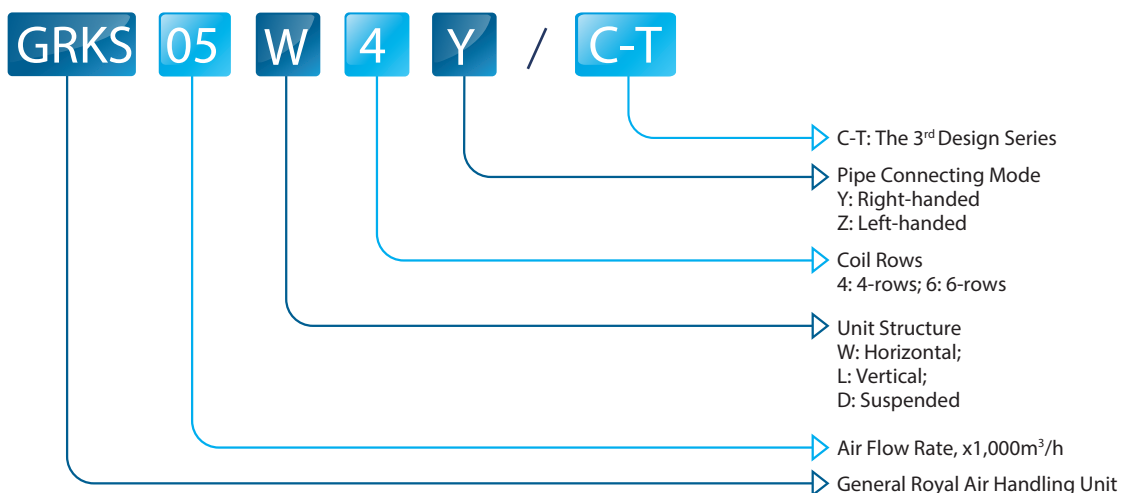
5,000m³/h ~ 35,000 m³/h
(3,000CFM ~ 21,000CFM)

Orientation

Unit handling orientation is determined by location of pipe connection while facing unit in the direction of air flow. The unit below is left-handed connection unit, otherwise is right-handed connection unit.



Nomenclature



Specifications

Horizontal type

Return air condition

Model		Air volume	Rated cooling capacity	Rated heating capacity	Water flow rate	Water pressure drop	Motor power	Chilled water pipe	Cooling water pipe	External static pressure	Sound level	Power supply
GRKSxxY(Z)/C-T		m³/h	kW	kW	L/s	kPa	kW	DN	DN	Pa	dB(A)	\
05W	4	5000	26.8	53.3	1.3	38.9	1.1	32	25	220	61	380V, 3N~, 60HZ
	6		33.4	61.0	1.6	30.3	1.5	32	25			
06W	4	6000	33.1	64.6	1.6	59.5	1.5	40	25	220	62	
	6		40.7	73.5	1.9	40.3	2.2	40	25			
08W	4	8000	43.6	85.3	2.1	38.5	2.2	50	25	220	64	
	6		55.3	98.0	2.6	74.7	2.2	50	25			
10W	4	10500	58.9	110.5	2.8	50.6	3.0	50	25	270	66	
	6		69.3	128.7	3.3	48.8	3.0	50	25			
15W	4	15000	82.1	161.5	3.9	49.1	4.0	65	32	270	68	
	6		103.5	183.0	4.9	38.0	5.5	65	32			
21W	4	21000	116.9	235.5	5.6	36.3	7.5	65	32	320	70	
	6		150.1	264.3	7.2	26.4	7.5	65	32			
24W	4	24000	136.2	271.8	6.5	53.4	11.0	65	32	420	71	
	6		174.4	303.4	8.3	37.7	11.0	65	32			
30W	4	30000	170.3	339.8	8.1	56.8	11.0	65	32	420	73	
	6		218.0	379.2	10.4	39.8	15.0	65	32			
35W	4	35000	202.5	398.4	9.7	85.6	15.0	80	32	520	73.5	
	6		258.4	444.4	12.3	61.6	15.0	80	32			

1.Cooling capacity is based in the following

a)Water temperature: 7 °C (inlet)/12 °C (outlet)

b)Air entering condition: 27 °C DB/19.5 °C WB

2.Heating capacity is based on the following

a)Water temperature: 60 °C (inlet) /50 °C (outlet)

b)Air entering condition: 15 °C DB

Fresh air condition

Model		Air volume	Rated cooling capacity	Rated heating capacity	Water flow rate	Water pressure drop	Motor power	Chilled water pipe	Cooling water pipe	External static pressure	Sound level	Power supply
GRKSxxY(Z)/C-T		m³/h	kW	kW	L/s	kPa	kW	DN	DN	Pa	dB(A)	\
05W	4	5000	62.7	66.8	3	64.3	1.1	50	25	220	61	380V, 3N~, 60HZ
	6		72.7	76.0	3.5	53.5	1.5	50	25			
06W	4	6000	75.2	80.2	3.6	78.3	1.5	50	25	220	62	
	6		88.7	91.2	4.2	74.9	2.2	50	25			
08W	4	8000	96.6	104.8	4.6	57.7	2.2	65	25	220	64	
	6		117.7	121.1	5.6	42.8	2.2	65	25			
10W	4	10500	132.6	140.3	6.3	88.6	3.0	65	25	270	66	
	6		154.5	159.7	7.4	60.0	3.0	65	25			
15W	4	15000	181.5	210.4	8.7	27.8	4.0	80	32	270	68	
	6		230.3	232.0	11.0	62.8	5.5	80	32			
21W	4	21000	253.6	294.6	12.1	28.1	7.5	80	32	320	70	
	6		303.7	326.2	14.5	78.3	7.5	80	32			
24W	4	24000	293.4	338.3	14.0	39.6	11.0	80	32	420	71	
	6		340.2	372.8	16.3	70.7	11.0	80	32			
30W	4	30000	366.8	394.6	17.5	43.2	11.0	80	32	420	73	
	6		425.2	464.0	20.3	75.0	15.0	80	32			
35W	4	35000	433.1	462.5	20.7	63.7	15.0	80	32	520	73.5	
	6		514.5	539	24.6	83.6	15.0	80	32			

1.Cooling capacity is based in the following

a)Water temperature: 7 °C (inlet)/12 °C (outlet)

b)Air entering condition: 35 °C DB/28 °C WB

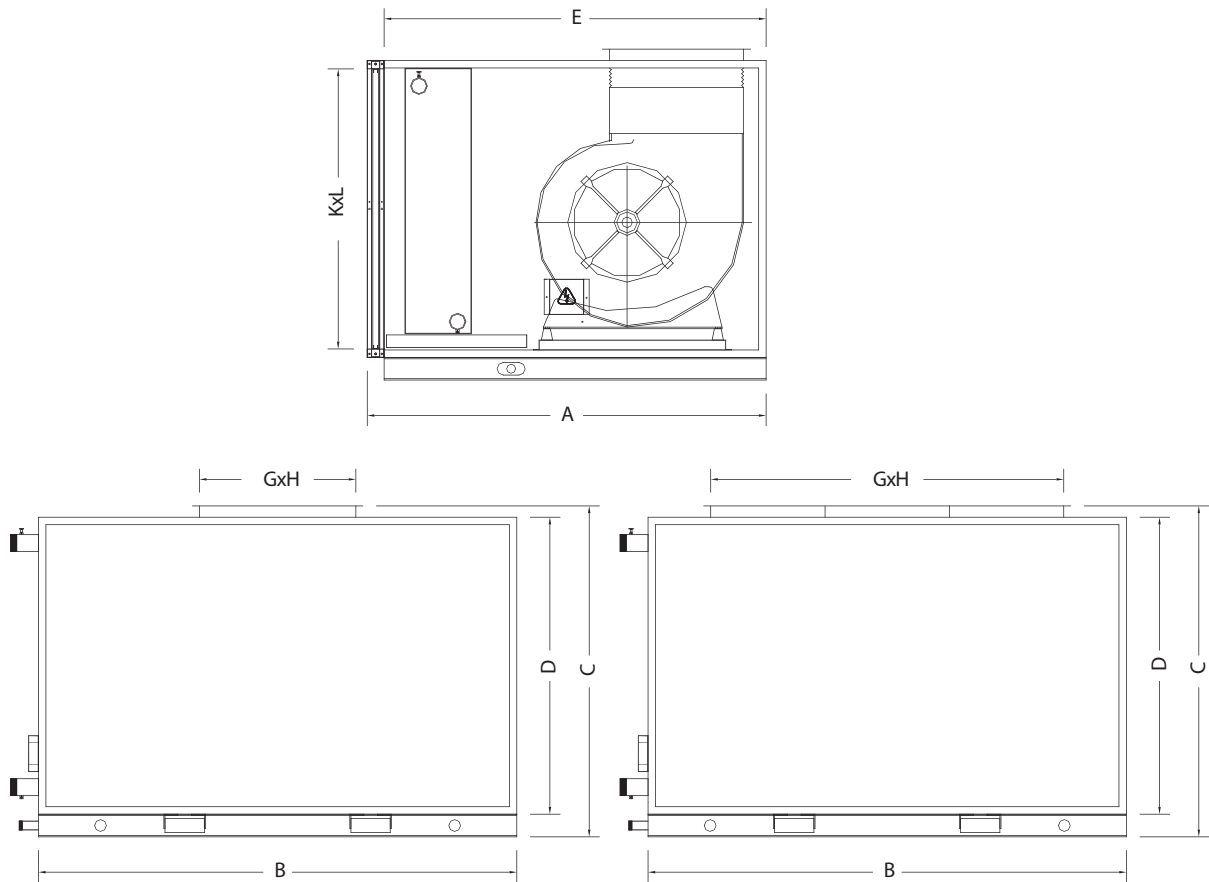
2.Heating capacity is based on the following:

a)Water temperature: 60 °C (inlet) /50 °C (outlet)

b)Air entering condition: 7 °C DB

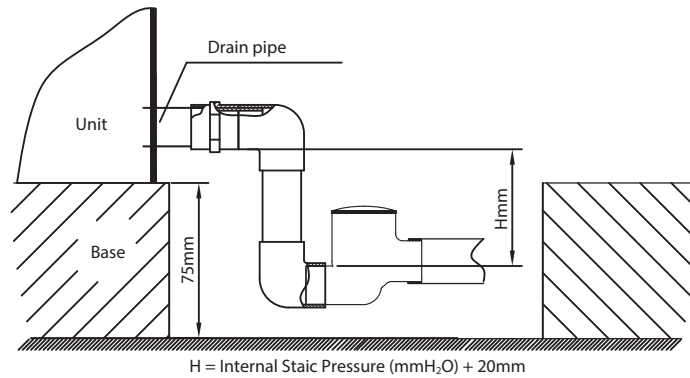
Dimensions

Horizontal type



GRKSxxY(Z)/C-T	05W	06W	08W	10W	15W	21W	24W	30W	35W	
A	1160	1160	1260	1410	1360	1510	1510	1560	1710	
B	1053	1153	1353	1553	1953	2353	2653	2653	3053	
C	920	990	1070	1170	1270	1370	1390	1640	1640	
D	800	870	950	1050	1150	1250	1250	1500	1500	
E	1100	1100	1200	1350	1300	1450	1450	1500	1650	
G	309	395	373	430	1040	1203	1572	1572	1776	
H	341	341	404	478	404	478	478	478	638	
K	993	1093	1293	1493	1893	2293	2593	2593	2993	
L	740	810	890	990	1090	1190	1190	1440	1440	
Packing dimension	1244x1270x1076	1244x1370x1146	1344x1570x1226	1494x1770x1326	1444x2170x1426	1594x2570x1526	1594x2870x1546	1644x2870x1796	1794x3270x1796	
Weight (kg)	4R	186	211	256	325	447	584	644	761	953
	6R	197	223	282	342	470	626	692	813	1022

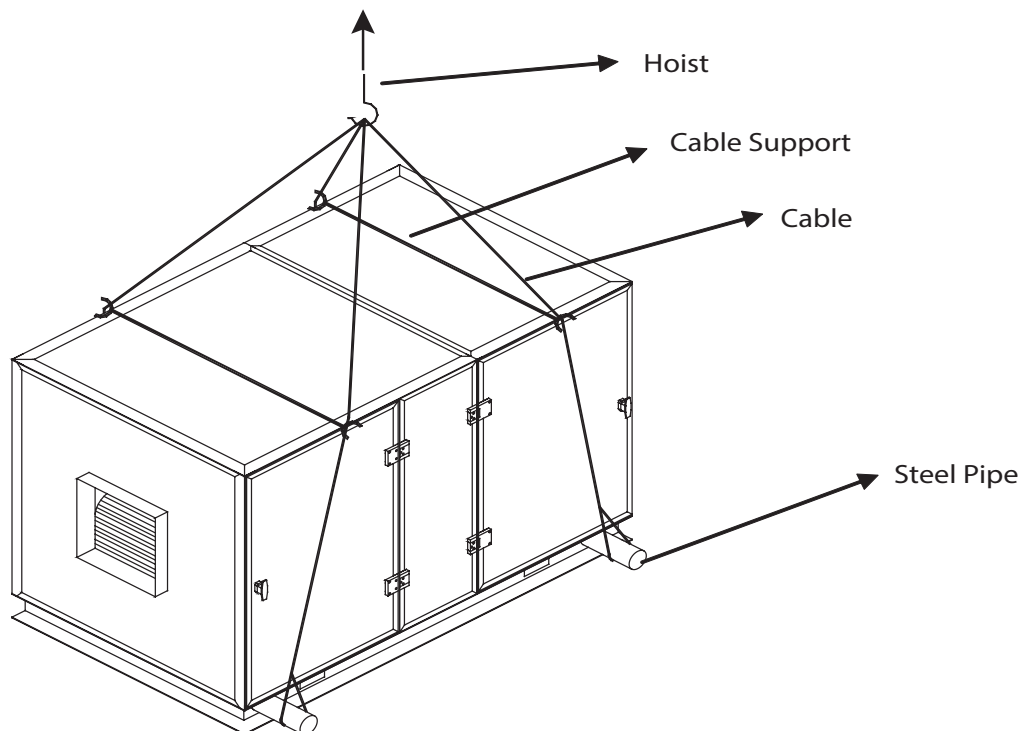
Installation



■ Water Pipe Installation

1. Keep the water pipes clean and install filter at the inlet of water pump.
2. The condensate water pipes are positioned at the bottom of the unit. The U-trap needs to be installed (refer diagram below) to ensure condensing water can be discharged freely and to prevent in-flow of odor.
3. Use torque wrench when installing the water inlet/outlet pipes. The torque should be less than 250.8N·m (21kgf·m) to prevent heat exchanger from being damaged. Install valves at water supply and return pipes outside the unit (except the condensing water discharge pipes) for modulation of water volume and to isolate the unit during maintenance. All the water pipes outside the unit should be properly insulated.
4. If hot or chilled water is the media of the heat exchanger, the water inlet pipes are positioned at the bottom and water outlet pipes are positioned at the top. If the media is steam, the air inlets are positioned at the top and water outlet pipes are at the bottom.
5. All the water pipes must be sealed and ensure no leakage.
6. The standard chilled water temperature should not be lower than 5°C. Hot water temperature should not be higher than

3



4

■ Transportation

Depending on size of the units, transportation mode may be different. Units can be shipped in full assembly if the size is small enough. Otherwise, they can be arranged to be shipped in the form of CKD (Complete Knock Down).

■ Inspection and Acceptance

Before installation, check if all sections and components are in good condition. Inform the dealer immediately if found any defect.

■ Placement of Unit

If unit needs to be placed outdoor, ensure the unit is free from dust, rain, snow and keep it away from animals to protect the exterior finishing of the unit. The unit cannot be exposed to hot sun or the insulated panels may be deformed or discolor. Do not stack units in storage.

■ Lifting of Unit

Keep the unit level while moving or lifting to avoid damage. Hoist the unit through lifting holes provided. Ensure there is proper protection procedures adopted during lifting (for example, to put chipboard/plywood to isolate the lifting cable and the unit) to protect the surface of the unit.

■ Foundation

1) Leveling of the foundation will affect the installation and operation of the unit. If the foundation is not level, the following problems could happen:

a) Difficult to install

b) Air leakage at joints of panels and sections

c) Condensate water discharge problem

d) Fan installation problem It is recommended that the difference of level to be within $\pm 3\text{mm}$.

2) The foundation can be made of concrete or welded steel. Keep the steel surface smooth while welding. The height of foundation should not be less than 150mm. The water drainage is required for discharge of condensation water and for maintenance purposes.

3) Ensure that the foundation able to withstand the total weight of unit. Add shock absorber under the foundation if necessary.

■ Unit Installation

The installation must be done by certified installer. Take note of the following:

1) Strictly comply with the installation instructions provided.

2) Leave enough space for repair and maintenance.

3) Use flexible duct for section of duct connection between the unit and external air duct to avoid vibration transmission.

4) The panels must be fitted tightly. Rubber gasket must be compressed properly to avoid air leakage.

5) Air filter should be the last item to be installed.

6) Proper cleaning must be carried out to clean the interior of the unit to remove debris of installation before commissioning.